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OFFICIAL GAZETTE UNITED STATES PATENT OFFICE

VOL. 194 - 195

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OFFICIAL GAZETTE

OF THE

UNITED STATES PATENT OFFICE.

VOLUME CXCIV.

SEPTEMBER,

1913.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1913.

ERRATA.

1,071,823, page 54, in heading, name of patentee, for "Elmer E. E. Sutphin" read *Elmer E. Sutphin*.

1,072,002, page 115, first claim, line 3, for the word "as" read *at*.

1,072,015, page 119, in heading, residence of patentee, for "St. Louis, Mo." read *Duluth, Minn.*

1,072,578, page 340, in heading, residence of patentee, before the word "Nord" insert *Loos-lez-Lille*.

1,072,620, page 353, second claim, line 5, for the word "forwardly" read *axially forward;* and claim 3, line 8, after the word "surface" insert the words *and the inner rim projecting forwardly beyond the adjacent outer rim*.

1,072,876, page 445, first claim, line 6, after the compound word "guide-tube," line 7, after the word "float," and claim 2, line 7, after the word "therewith" strike out the commas and insert semicolons.

1,073,224, page 605, in heading, after residence of patentee insert *assignor to The Dressel Railway Lamp Works, a Corporation of New York*.

1,073,391, page 664, fourth claim, line 2, strike out the words "and peripherally," and same line after the word "annularly," second occurrence, insert the words *and peripherally*.

1,074,019, page 901, in heading, title of invention, strike out the article "a" and for the word "Welt" read *Welts*.

1,074,069, page 917, fourth claim, line 11, after the word "escapement" strike out the semicolon.

1,074,371, pages 1046–1047, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,074,572, page 1111, in heading, serial number, for "No. 723,653" read *No. 732,653*.

1,074,581, page 1115, second claim, line 9, for the word "or" read *for*.

13,614, (Reissue,) page 520, claim 15, line 8, for the word "opening" read *opening*, and same claim, line 15, strike out the article "a."

44,696, (Design,) page 933, in heading, assignment, name of assignee, for "Waverly Company" read *Waverley Company*.

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THE OFFICIAL GAZETTE

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ISSUE OF SEPTEMBER 2, 1913.

Patents	732	No. 1,071,680 to No.	1,072,411, inclusive.
Designs	25	No. 44,601 to No.	44,625, inclusive.
Trade-Marks	65	No. 93,253 to No.	93,317, inclusive.
Labels	9	No. 17,204 to No.	17,212, inclusive.
Prints	3	No. 3,364 to No.	3,366, inclusive.
Reissues	2	No. 13,611 to No.	13,612, inclusive.
Total	836		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	.....	2
Arizona	.....	.....	North Dakota	3	.....
Arkansas	2	.....	Ohio	56	6
California	34	2	Oklahoma	8	.....
Colorado	10	.....	Oregon	7	.....
Connecticut	22	2	Pennsylvania	79	7
Delaware	1	1	Rhode Island	4	4
Florida	2	3	South Carolina	2	1
Georgia	5	.....	South Dakota	.....	.....
Idaho	2	.....	Tennessee	3	.....
Illinois	60	4	Texas	13	2
Indiana	16	3	Utah	2	.....
Iowa	13	.....	Vermont	1	.....
Kansas	13	.....	Virginia	6	.....
Kentucky	8	1	Washington	11	.....
Louisiana	4	.....	West Virginia	7	.....
Maine	2	.....	Wisconsin	14	1
Maryland	7	1	Wyoming	.....	.....
Massachusetts	38	3			
Michigan	17	1	Alaska, District of	.....	.....
Minnesota	16	.....	Canal Zone	1	.....
Mississippi	1	.....	District of Columbia	8	.....
Missouri	16	.....	Hawaii Territory	.....	.....
Montana	1	.....	Philippine Islands	.....	.....
Nebraska	8	1	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	1	.....
New Hampshire	.....	.....	U. S. Navy	1	.....
New Jersey	27	1			
New Mexico	1	.....	Total to residents of the United States	672	72
New York	106	26			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Mexico	.....	.....
Austria-Hungary	.....	.....	Netherlands	.....	.....
Azores	.....	.....	New South Wales	1	.....
Belgium	3	.....	New Zealand	1	.....
Bermuda	.....	.....	Norway	1	.....
Brazil	.....	.....	Panama	.....	.....
British West Indies	.....	.....	Queensland	.....	.....
Canada	7	.....	Roumania	.....	.....
Cape Colony	.....	.....	Russia	3	.....
Chile	.....	.....	Scotland	.....	.....
Costa Rica	.....	.....	South Australia	.....	.....
Cuba	.....	.....	Spain	.....	.....
Denmark	.....	.....	Sweden	.....	.....
Dutch East Indies	.....	.....	Switzerland	2	.....
Ecuador	.....	.....	Transvaal, South Africa	.....	.....
England	20	2	Victoria	1	.....
France	3	1	Wales	1	.....
Germany	39	2			
Ireland	2	.....	Total to residents of foreign countries	85	5
Italy	1	.....			
Japan	.....	.....			

Attorneys.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 29, 1913.

This Office is advised, under date of the 27th instant, that the departmental order of May 23, 1910, disbarring David P. Moore, of Washington, D. C., from practice has been revoked. Pursuant thereto the name of the said Moore has been restored to the list of attorneys entitled to practice before the Patent Office.

W. F. WOOLARD,
Chief Clerk.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 19, 1913.

This Office is advised, under date of the 15th instant, that the departmental order of February 6, 1909, disbarring Walter E. Burrow, of Norfolk, Va., from practice has been revoked. Pursuant thereto the name of the said Burrow has been restored to the list of attorneys entitled to practice before the Patent Office.

W. F. WOOLARD,
Chief Clerk.

Trade-Marks.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business August 30, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	June 26	June 28	772
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Apr. 22	July 11	645
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	July 31	Aug. 18	180
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	Apr. 8	June 19	716
167	5. Bookbinding; Harvesters; Jewelry; Music.	May 27	June 14	600
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	May 24	June 24	816
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Mar. 18	May 31	1095
131	8. Beds; Chairs; Furniture: Kitchen and Table Articles; Store Furniture; Supports.	Apr. 3	July 22	900
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Mar. 31	June 28	754
235	10. Carriages and Wagons	Apr. 4	June 20	1147
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	July 18	July 12	325
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 30	May 21	1517
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 23	June 19	676
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 2	Aug. 1	535
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Mar. 10	June 16	1588
109	16. Radiant Energy; Telegraphy; Telephony.	Apr. 15	May 24	522
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	July 10	July 26	322
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 27	June 27	246
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 12	June 21	623

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 15	July 14	283
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 26	May 1	771
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 26	June 30	457
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	June 7	June 14	428
144	24. Apparel; Apparel Apparatus; Sewing Machines.	June 16	July 1	584
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	July 16	July 28	258
106	26. Electricity, Generation; Motive Power.	Apr. 10	May 15	566
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	July 9	July 9	469
65	28. Internal-Combustion Engines	Mar. 5	Apr. 5	1122
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 26	May 1	663
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	May 24	July 18	346
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	May 26	May 20	509
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 7	July 2	514
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Apr. 26	May 26	395
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	May 27	June 25	607
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Apr. 21	July 14	947
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	June 10	June 4	1008
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 30	May 5	1006
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Apr. 21	June 9	897
321	39. Water Distribution	May 31	July 14	484
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 12	June 23	1214
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	June 24	July 21	477
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Mar. 19	Apr. 29	949
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	July 16	July 15	384

Oldest new case, Dec. 30; oldest amended, Apr. 5.
Total number of applications awaiting action..... 20,317

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	June 19	Aug. 6	921
	Designs	July 21	Aug. 1	157
	Labels and Prints	Aug. 22	July 29	62

PATENTS

GRANTED SEPTEMBER 2, 1913.

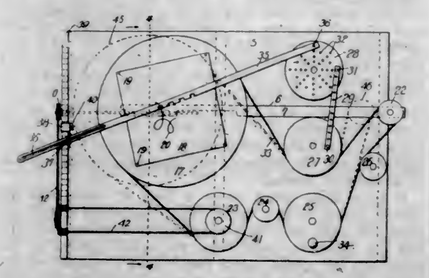
1,071,680. NOVELTY ADAPTED FOR ADVERTISING AND OTHER PURPOSES. BESSIE W. ALLEN, New York, N. Y. Filed Feb. 5, 1913. Serial No. 746,294. (Cl. 211—34.)



1. A novelty for advertising and other purposes comprising a figure a portion of which is tinted to represent certain parts, the other portions being formed by backings of various shapes, each backing being covered with material to form a portion of the garment for the figure, and a main backing on which the sections are mounted.

2. A novelty for advertising and other purposes comprising a figure a portion of which is tinted to represent certain parts, the other portions being formed by backings of various shapes, each backing being covered with a layer of cotton batting and a layer of material representing a portion of the garment covering the batting and secured at its edges to the back, and a main backing on which the sections are mounted.

1,071,681. DEVICE FOR MAKING DESIGNS. LYNN L. ALLEN, Atlanta, Ga. Filed Oct. 8, 1912. Serial No. 724,547. (Cl. 33—2.)



1. In a marking device, a member adapted to move in a straight path, a table mounted to rotate on the said member and adapted to support a sheet, a bar disposed adjacent the table, a marking member mounted on the bar for engaging the sheet, and means for rotating the table and for moving the first-mentioned member.

2. In a marking device, a guideway, a member adapted to move in the guideway, a table mounted to rotate on the member, a bar disposed adjacent the table, a marking member mounted on the bar, means for rotating the table, and means for moving the first member in the guideway.

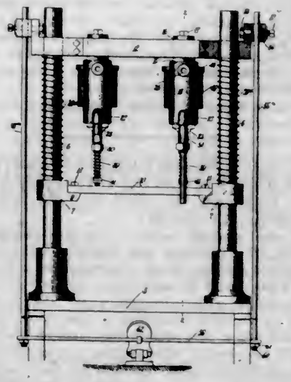
3. In a marking device, a support, a member movably mounted thereon, a table mounted to rotate on the member, a bar disposed adjacent the table, and having means for carrying a marking member, and means for rotating the member and for moving the first-mentioned member.

4. In a marking device, a support, a member movably mounted thereon, a table mounted to rotate on the member, a bar disposed adjacent the table and having means for carrying a marking member, and means for moving the first-mentioned member and for operating the bar simultaneously.

5. In a marking device, a support, a member movably mounted thereon, a table mounted to rotate on the member, a bar disposed adjacent the table and having marking means, a rotatable member to which one end of the bar is articulated, a guide for the bar, and means for rotating the table and the rotatable member, and for moving the first-mentioned member relatively to its support.

[Claims 6 to 13 not printed in the Gazette.]

1,071,682. BOTTLE-FILLING AND FLUID-MEASURING MACHINE. WILLIAM F. ARZINGER, Jersey City, N. J. Filed Dec. 29, 1911. Serial No. 668,413. (Cl. 226—18.)



1. In a filling machine, a filling member having a chamber with a port leading to and a port leading from the chamber, a stop, a valve spindle having one terminal extending into one of the ports with the other terminal disposed for striking the stop when the valve spindle is moved downwardly, two valves mounted on the valve spindle for commanding the ports, a collar secured to the valve spindle between the valves, springs mounted on the

valve spindle between the collar and the valves, and a depending nozzle secured to the filling member, with which the port leading from the chamber communicates, so that when the filling member is moved down the spindle will strike the stop, the valves will be operated, and the nozzle will be lowered to a bottle which is to be filled.

2. In a filling machine, a member having a filling chamber, with a port leading to and a port leading from the chamber, a valve spindle extending into one of the ports, two valves mounted on the valve spindle for commanding the ports, a collar secured to the valve spindle between the valves, springs mounted on the valve spindle between the collar and the valves, a nozzle secured to the member for moving with the filling member, there being a passage leading from the outlet port to the nozzle, and means for moving the member relatively to the valve spindle.

3. In a filling machine, a hollow filling member having a bearing and an inlet and an outlet, two heads with ports spaced apart in the member, a valve spindle disposed for sliding longitudinally in the bearing, and disposed through one of the ports, three collars secured to the valve spindle, a valve mounted for sliding on the valve spindle between the central collar and one of the outer collars, a second valve mounted for sliding on the valve spindle between the central collar and the other outer collar, springs disposed between the central collar and the valves, and means for moving the filling member relatively to the valve spindle.

4. In a filling machine, a hollow filling member having a bearing and an inlet and an outlet, two heads with ports spaced apart in the member, a valve spindle disposed for sliding longitudinally in the bearing, and disposed through one of the ports, three collars secured to the valve spindle, a valve mounted for sliding on the valve spindle between the central collar and one of the outer collars, a second valve mounted for sliding on the valve spindle between the central collar and the other outer collar, springs disposed between the central collar and the valves, means for moving the filling member relatively to the valve spindle, a depending nozzle secured to the filling member with which one of the ports communicates.

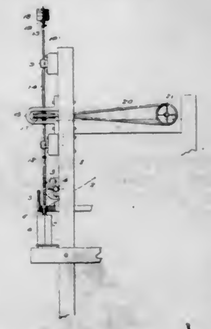
5. In a filling machine, a standard, a stop secured to the standard, a member for sliding on the standard, a hollow filling member secured to the first-mentioned member, two heads with ports secured in the filling member, a valve spindle having one terminal disposed through one of the ports, valves mounted on the valve spindle for commanding the ports, the other terminal of the valve spindle engaging the stop so that when the first-mentioned member is moved on the standard relatively to the stop, the filling member and the heads with the ports will be moved relatively to the valves.

[Claims 6 to 9 not printed in the Gazette.]

1,071,683. MACHINE FOR PACKING DYNAMITES AND OTHER HIGH EXPLOSIVES INTO SHELLS. HENRY AUCHU, Emporium, Pa. Filed July 26, 1910. Serial No. 573,993. (Cl. 86—20.)

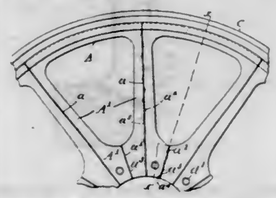
1. In a shell packing machine, the combination with a shell holder, of a rotatable and slidable shell packer having an inclined packing flange or surface and a stem adapted to fill a shell held by said holder and to retreat as the shell is filled, a wheel through which the shell packer slides and by which it is rotated, a loose spline connection between said wheel and packer, the parts of which are engaged while the shell is being packed and which is adapted to entirely disengage when the shell has been packed.

2. In a shell packing machine, the combination with a shell holder, of a rotatable and slidable shell packer having an inclined packing flange or surface and a stem adapted to fill a shell held by said holder and to retreat as the shell is filled, a wheel through which the shell packer slides and by which it is rotated, a loose spline connection between said wheel and packer, the parts of which are engaged while the shell is being packed and which is adapted to entirely disengage when the shell has been packed, and a plurality of separately removable weights carried by and movable with said stem for applying any desired pressure



to the shell packer to thereby regulate the density of the material loaded into the shell.

1,071,684. SHEET-METAL WHEEL. HERBERT AUSTIN, Bromsgrove, England. Filed Apr. 20, 1912. Serial No. 692,040. (Cl. 21—69.)

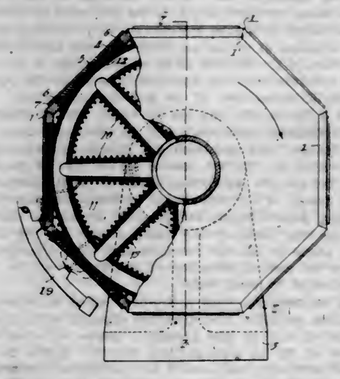


1. In a sheet metal wheel, a felly of continuous unbroken trough section which runs completely around the wheel, a nave, and hollow spokes connecting the felly and the nave, the said felly, the main portion of the nave, and the spokes, being made up of a number of segments, each of a single piece of sheet metal, and each segment comprising two hollow half spokes, the portion of the felly which connects the outer ends of such half spokes together, and the portion, divided into halves, of the nave, into which such half spokes join, and the inner ends of said divided portions of the nave and the segments themselves held together along their meeting edges by welding or brazing.

2. In a sheet metal wheel, a felly of continuous unbroken trough section which runs completely around the wheel, a nave, and hollow spokes connecting the felly and the nave, the said felly, the main portion of the nave, and the spokes, being made up of a number of segments, each of a single piece of sheet metal, and each segment comprising two hollow half spokes which have their open sides away from one another, the portion of the felly which connects the outer ends of such half spokes together, and the portion, divided into halves, of the nave, into which such half spokes join, the inner ends of the half spokes being of a shape which forms said divided portions of the nave, diaphragms in position between the segments, and the segments and diaphragms held together by welding or brazing.

3. In a sheet metal wheel, a felly of continuous unbroken trough section which runs completely around the wheel, a nave, and hollow spokes connecting the felly and the nave, the said felly, the main portion of the nave, and the spokes, being made up of a number of segments, each of a single piece of sheet metal, and each segment comprising two hollow half spokes which have their open sides away from one another, the portion of the felly which connects the outer ends of such half spokes together, and the portion, divided into halves, of the nave, into which such half spokes join, diaphragms in position between the segments, cut and bulged-out portions of the diphragms which butt against the interior surfaces of the segments, and the segments and diaphragms held together by welding or brazing.

1,071,685. APPARATUS FOR PRODUCING DUPLICATE SOUND-RECORDS. JONAS W. AYLSWORTH, East Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Original application filed Apr. 29, 1909, Serial No. 493,052. Divided and this application filed Jan. 20, 1911. Serial No. 603,677. (Cl. 18—5.5.)



1. In apparatus for forming disk sound records centrifugally, in combination, a rotatable body, means for rotating the same about a center, a disk sound record mold affixed to the body at a distance from the center and at right angles to the radius, and means for heating said mold during the rotation thereof, substantially as described.

2. In apparatus for forming disk sound records centrifugally, in combination, a rotatable body, means for rotating the same about a center, and a disk sound record mold affixed to the body at a distance from the center and at right angles to the radius, means for introducing molten or fluid material therein, and means for heating said introducing means, substantially as described.

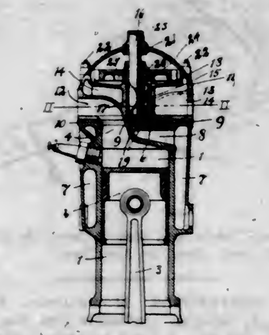
3. In apparatus for forming disk sound records centrifugally, in combination, a rotatable body, means for rotating the same about a center, a plurality of disk sound record molds affixed to the body at equal distances from the center and at right angles to the radii, means for introducing molten or fluid material therein while the body is rotating, and means for heating said introducing means, substantially as described.

4. In apparatus for forming disk sound records centrifugally, in combination, a rotatable body, means for rotating the same about a center, a plurality of disk sound record molds affixed to the body at equal distances from the center and at right angles to the radii, means for introducing molten or fluid material therein while the body is rotating, and uniformly distributing the same among the various molds, and means for heating said introducing and distributing means, substantially as described.

5. In apparatus for forming disk sound records centrifugally, in combination, a rotatable body, means for rotating the same about a center, a plurality of disk sound record molds affixed to the body at equal distances from the center and at right angles to the radii, means rotating with the body for introducing the molten or fluid material into the molds while the same are rotating, and uniformly distributing the same, and means for heating said molds during the rotation thereof, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,071,686. ROTARY VALVE MECHANISM FOR GAS-ENGINES. EUGENE P. BATZEL, Detroit, Mich., assignor of one-half to George C. Beck, Spokane, Wash. Filed May 10, 1910. Serial No. 560,528. (Cl. 123—190.)



1. An explosion engine of the compression type comprising a cylinder, a valve seat formed with an inlet and an exhaust port, a rotary valve fitting to said seat and formed with a port, and means for automatically lubricating both faces of said valve by the rotation thereof.

2. An explosion engine of the compression type comprising a cylinder, a piston, a rotary valve, said valve being surrounded by cooling spaces, inlet and exhaust ports extending through said cooling spaces, means for driving said valve, and means for automatically feeding a lubricant to both faces of the valve as the latter rotates.

3. An explosion engine of the compression type comprising a cylinder, a piston, a rotary valve, said cylinder having a channel for a lubricant leading to the valve, cooling means surrounding said valve on the opposite faces thereof, inlet and exhaust ports extending through said cooling means, a gear for driving the valve, and means whereby the gear may feed a lubricant to the channel and to said valve.

4. An explosive engine of the compression type comprising a cylinder, a piston, a rotary valve, said cylinder having a channel for a lubricant leading to the valve, cooling means surrounding said valve, inlet and exhaust ports extending through said cooling means, a gear for driving the valve, and means whereby the gear may feed a lubricant to the channel and to both faces of said valve.

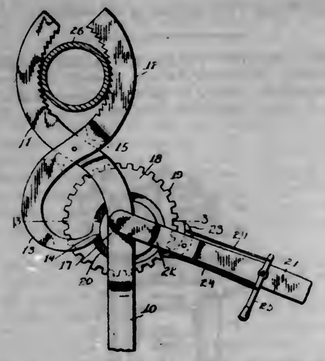
5. An explosion engine of the compression type comprising a cylinder, a piston, a rotary valve having a stem parallel to the cylinder axis and provided with a lubricating channel, means for holding a lubricant, said cylinder being provided with a bearing for the stem and a channel for a lubricant in said bearing leading to the valve, means for driving said valve, and means for feeding a lubricant to the channels through the valve rotating means.

[Claims 6 to 11 not printed in the Gazette.]

1,071,687. PIPE-WRENCH. OSCAR BECKLIN, West Duluth, Minn. Filed July 31, 1912. Serial No. 712,597. (Cl. 81—111.)

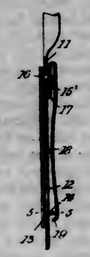
In a pipe wrench, a handle having a fixed jaw, a pivoted jaw provided with a lug, a shaft carried by the handle, a disk rotatably mounted on the shaft, and peripherally provided with ratchet teeth, an eccentric annular groove formed in one face of the disk and receiving the lug of the pivoted jaw, a bifurcated handle straddling said disk and pivotally mounted on the above mentioned shaft and

a pivoted dog centrally mounted in the lever and adapted to engage said ratchet teeth, whereby oscillation of



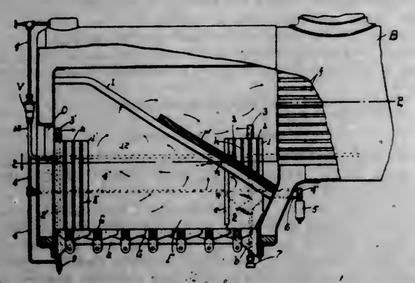
the lever will rotate said disk to move the pivoted jaw toward and away from the fixed jaw.

1,071,688. SUSPENDERS. MICHELANGELO BONO, New York, N. Y. Original application filed Jan. 31, 1913, Serial No. 745,321. Divided and this application filed Apr. 25, 1913. Serial No. 763,559. (Cl. 241—25.)



Suspenders provided with a slitted and apertured tab, a rear plate having a lower prong that engages the tab-slit and an upper headed pivot that engages the tab-aperture, and a latch having an upper bent and slotted end that removably engages the headed pivot.

1,071,689. SMOKE-CONSUMING DEVICE FOR FIRE-BOXES. WILLIAM D. BOYCE, New York, N. Y. Filed May 15, 1912. Serial No. 697,443. (Cl. 110—61.)



1. In combination with a fire-box provided with a baffle for deflecting the combustion products over the fuel charge, in a direction opposed to the direction of normal flow of said products, means permitting said deflected products to resume their normal direction of flow after deflection, means at the rear of the fire-box for admitting currents of air in substantially vertical sheets to the deflected combustion products, and means for projecting jets of steam independent of the air currents from points contiguous to the rear corners of the fire box at an oblique angle, to intersect the air currents, and in a direction opposed to the general direction of initial flow of the deflected products.

2. In combination with a fire-box provided with a baffle for deflecting the combustion products over the fuel charge in a direction opposed to the direction of normal flow of said products, means permitting said deflected products to resume their normal direction of flow after deflection, means at the rear of the sides of the fire-box for admitting currents of air across the path of travel of the combustion products, and means for projecting jets of steam independent of the air currents from the rear ends of the sides of the fire-box at an oblique angle to intersect the air currents and in a direction opposed to the general direction of initial flow of the deflected products.

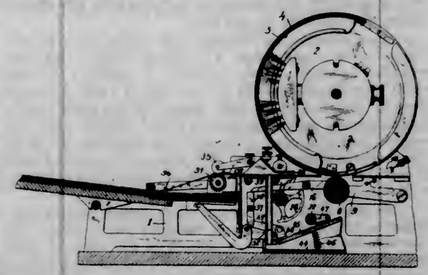
3. In a locomotive fire-box provided with a front diagonally disposed baffle engaging the sides and front wall of the fire-box, and terminating a suitable distance below the crown of the fire-box, means at the rear of the sides of the fire-box for admitting currents of air across the path of travel of the combustion products, and means for projecting jets of steam independent of the air currents from the rear ends of the sides of the fire-box at an oblique angle to the air currents and in a direction opposed to the general direction of initial flow of the deflected products by said baffle.

4. In combination with a fire-box baffled to deflect the combustion products in a direction opposed to the normal direction of flow of said products, means for conducting currents of air in substantially vertical sheets to said deflected products, and means for projecting independent jets of steam at an oblique angle to intersect the air currents, and in a direction opposed to the general direction of initial flow of said deflected products.

5. In combination with a fire-box baffled to deflect the combustion products in a direction opposed to the normal direction of flow of said products, means for conducting currents of air in substantially vertical sheets to said deflected products and in paths transverse to the initial direction of flow of said deflected products, and means for projecting independent jets of steam at an oblique angle, to intersect the air currents, and in a direction opposed to the general direction of initial flow of said deflected products.

[Claims 6 and 7 not printed in the Gazette.]

1,071,690. SHEET-FEEDING APPARATUS. ERNEST J. BRASSEUR, Chicago, Ill., assignor to A. B. Dick Company, Chicago, Ill., a Corporation of Illinois. Filed June 29, 1912. Serial No. 706,618. (Cl. 101—36.)



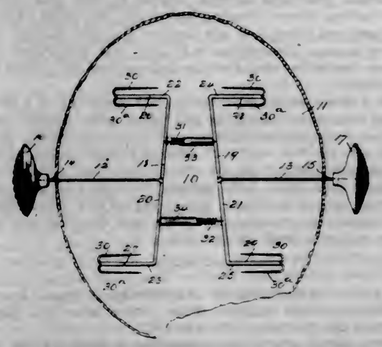
1. In a stencil-duplicating machine, the combination of a rotatable drum, a pressure-roller, means for moving the roller away from the drum to inoperative position once during each revolution of the drum, a pivoted lever which is rocked on its pivot when the roller is moved toward and away from the drum, a locking member movable into position to prevent rocking of said lever and out of such position, a bellows having a movable wall connected to said locking member for positioning the same, a support for a sheet to be fed to the drum and pressure-roller, and a tube leading from the bellows to the surface of said support, substantially as set forth.

2. In a stencil-duplicating machine, the combination of a rotatable drum, a pressure-roller movable to operative and inoperative positions as the drum is rotated, a support for a sheet to be fed between the drum and roller, a lock for holding the pressure-roller in inoperative position after it has been moved to that position, a bellows controlling said lock, and means for controlling the bellows including an air-passage terminating at said support and adapted to be closed and opened by a sheet on the support, substantially as set forth.

3. In a stencil-duplicating machine, the combination of a rotatable drum, a pressure-roller movable to operative and inoperative positions as the drum is rotated, a support, means for automatically moving a sheet over the support and between the drum and pressure-roller, a bellows having a movable wall, means for operating said wall, a lock controlled by said wall for holding the pressure roller in inoperative position when it has been moved to that position, and means for controlling the movement of said movable wall including an air-passage terminating at said support and adapted to be opened and closed by said support, substantially as set forth.

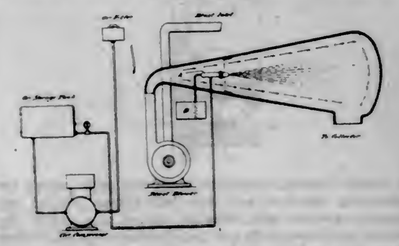
4. In a stencil-duplicating machine, the combination of a rotatable drum, a pressure-roller movable to operative and inoperative positions, a support, a feed board, sheet-feeding devices for automatically feeding sheets successively from the feed board upon the support, sheet-forwarding devices for feeding sheets from the support between the drum and roller, a bellows operated when said drum is rotated, a lock controlled by the bellows for locking the pressure-roller in inoperative position when it has been moved to that position, and an air passage leading from the bellows to said support and adapted to be closed by a sheet on the support, substantially as set forth.

1,071,691. HAT-FASTENER. ISIDOR BRAVEMAN and JOSEPH SCHMIDT, New York, N. Y. Filed Oct. 18, 1910. Serial No. 587,698. (Cl. 132—25.)



A hat fastener comprising a pair of members arranged in the crown of a hat and operating in opposition to each other, each of said members comprising a rod, and arms bent from said rod at both ends thereof, the ends of said arms being bifurcated, each prong thereof being pointed and bent outwardly and downwardly and returned beneath the plane of arms, said prongs adapted to enter the hair, coil springs each having one terminal thereof secured to one of said rods whereby the latter are normally drawn together, flexible tubes incasing said coil springs, and a pin made integral with each of said rods and projecting approximately from the central portions thereof, said pins being pointed for passage through the crown of a hat and having a thread cut thereon in proximity to the outer ends thereof whereby suitable ornamental heads may be secured thereon.

1,071,692. DESICCATING PROCESS. CHARLES H. BRIGHAM, Brooklyn, N. Y., assignor to Powdered Milk Company of America, a Corporation of New York. Filed Feb. 26, 1910. Serial No. 546,104. (Cl. 99—5.)



1. The process of obtaining the solid constituents of liquids and semi-liquids in the form of a substantially dry powder, which consists in converting the mass into a fine spray and surrounding the spray with an envelop of forcibly projected air introduced under pressure moving in the same direction with the spray.

2. The process of obtaining the solid constituents of liquids and semi-liquids in the form of a substantially dry powder, which consists in converting the mass into a fine spray and surrounding the spray with a diverging envelop of forcibly projected air introduced under pressure and moving in the same direction with the enveloped spray.

3. The process of obtaining the solid constituents of liquids and semi-liquids in the form of a substantially dry powder, which consists in converting the mass into a fine spray increasing in cross area from a point of projection and surrounding the spray with a diverging envelop of forcibly projected air introduced under pressure and moving in the same direction with the spray.

4. A process of obtaining the solid constituents of liquids and semi-liquids in the form of a substantially dry powder, which comprises converting the liquid into a spray, causing a large amount of drying agent to travel around the spray in the same direction with it in such manner as to present at each point on the path of the spray successive quantities of the drying agent.

1,071,693. ANTIFRICTION-BEARING. FRED EUGENE BRIGHT, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed June 11, 1909. Serial No. 501,531. (Cl. 64—59.)

1. A ball bearing comprising inner and outer casing elements, each provided with two ball tracks forming two raceways between said elements, and two series of balls in said raceways, one of the casing elements being formed with a filling opening situated between the ball races and leading to both of them, and the edge of said filling opening terminating at the sides and free of the lines of contact of the balls with the races; whereby the races are continuous and uninterrupted and the escape of the balls is prevented.

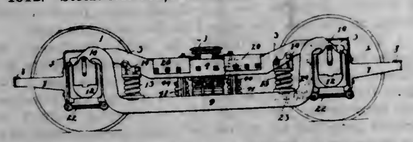
2. In a ball bearing, the combination of inner and outer casing elements formed respectively with races, and two series of interposed balls, one of the casing elements being provided with a filling opening situated between the two raceways and leading to both of them, the edge of which filling opening terminates at the sides and free of

the lines of ball contact with the races, and the said raceways being so formed and disposed that the load on the bearing will act to urge the two series of balls away from the edge of the filling opening; whereby the ball tracking surfaces are continuous and uninterrupted, and the accidental escape of the balls through the opening is prevented.



3. A ball bearing comprising inner and outer casing elements, each provided with two ball tracks forming two raceways between said elements, one of the casing elements being formed with a filling opening situated between the raceways and leading to one of them, the edges of said opening terminating at the sides and free of the lines of contact of the balls with the raceways; whereby the ball tracks are continuous and uninterrupted and the escape of the balls is prevented.

1,071,694. CAR-TRUCK. JAMES A. BROOKS, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 7, 1912. Serial No. 702,143. (Cl. 105—243.)



1. A car truck having running gear and a main frame, lateral transoms connecting side frames of the main frame brackets depending from the transoms, a lateral spring-plank or tie-bar, laterally-swinging spring-links suspended from the brackets, a pivotal connection between the said links and spring-plank, spring-seats on the spring plank bolster springs on the spring-plank, and a bolster on the bolster-springs.

2. A car truck having a frame, transoms, and running gear, a spring system comprising springs supporting the frame on and adjacent the running gear, paired and oppositely located spring-links pivotally suspended from the transoms adjacent the plane of the wheels, bolster springs supported by said paired links, a bolster supported by said bolster springs, and a pivotal and tying connection between the terminals of said links.

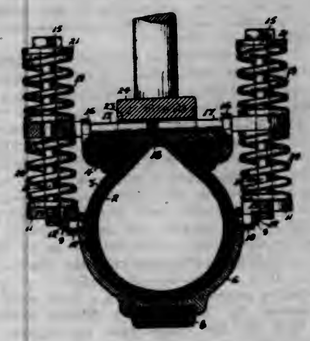
3. In a car truck, the combination with a truck frame and wheels, the truck frame being depressed intermediate of the wheels, lateral connections between the depressed portions of the truck frame, means for spring-supporting the truck frame, pairs of laterally swinging links carrying springs secured to said lateral connections and located approximately in line with the plane of the wheels, bolster springs supported by said links, and a bolster supported by said bolster springs and extending between them and located between said lateral connections.

4. In a car truck, the combination with a truck frame, transoms, pairs of laterally-swinging spring-links pendant from the transoms, bolster-springs supported upon bearings which are in turn supported by said links, a bolster supported upon said bolster-springs between the transoms, and means for tying the said bolster spring-bearings together.

5. In a car truck, the combination with a truck frame, transoms, pairs of laterally swinging spring-links pendant from the transoms, bolster-springs supported upon bearings which are in turn supported by said links, a bolster supported upon said bolster-springs between the transoms, means for tying the said bolster spring bearings together, equalising bars supported on axle boxes, and springs supporting the truck frame on said equalising bars.

[Claims 6 to 17 not printed in the Gazette.]

1,071,695. TIRE-PROTECTOR. JULIUS BROTACHNEIDER, San Francisco, Cal. Filed June 5, 1913. Serial No. 771,862. (Cl. 152—33.)



1. A protector for a pneumatic tire consisting of a sheet metal band surrounding the tire and of semi-circular cross section, a series of pins extending from each side of the protector, apertured angle plates secured to said pins, screw eyes having stems extending through apertures, in the rim, bolts passing through said screw eyes and screwed into said angle plates, and coiled springs surrounding said bolts and compressed between the screw eyes and the angle plates and bolt heads respectively.

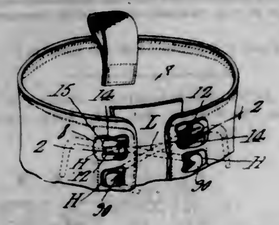
2. A protector for a pneumatic tire consisting of a sheet metal band surrounding the tire and of semi-circular cross section, a series of pins extending from each side of the protector, apertured devices pivoted to said pins, screw eyes having stems extending across the rim, bolts passing through said screw eyes and screwed into said devices, and coiled springs surrounding said bolts and compressed between the screw eyes and the devices and bolt heads respectively.

3. A protector for a pneumatic tire consisting of a sheet metal band surrounding the tire and of semi-circular cross section, and provided with a series of pins extending from each side thereof, apertured devices pivoted to said pins, stems extending across the rim of the wheel and having eyes at their ends, bolts passing through said eyes and screwed into said devices, and coiled springs surrounding said bolts and compressed between said eyes and said devices and bolt heads respectively.

1,071,696. SHOESTRING-FASTENER. FRED O. C. BROWN, Grand Rapids, Mich. Filed Mar. 14, 1911. Serial No. 614,389. (Cl. 24—117.)

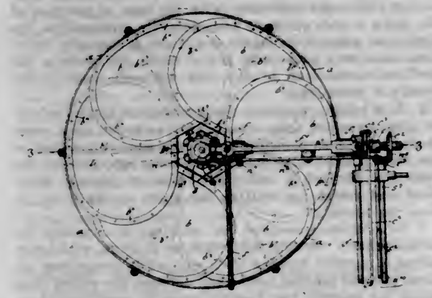
In a device of the class described, a plate having an opening and a depending tubular eyelet surrounding the opening, one end of the plate projecting beyond the eyelet to form a flange and the other end of the plate being curved to form a hook overhanging the eyelet, the extremity of the hook being disposed above the flange, the under surface of the hook being concaved directly above the eyelet, the hook being bifurcated to form arms, the adjacent edges of which are parallel and extend entirely across the mouth

of the eyelet to a point between the inner and the outer edges of the flange, the flange constituting a means for directing a projection in a string between the parallel edges



of the arms, and the parallel edges of the arms constituting means for holding the projection in the concavity and in the mouth of the eyelet.

1,071,697. LIFTING-PROPELLER FOR AEROPLANES. BRUNO VON BÜLTZINGSLÖWEN, New York, N. Y. Filed Sept. 20, 1912. Serial No. 721,450. (Cl. 170—163.)



1. A lifting propeller for aeroplanes, comprising an outer ring-shaped frame and an inner center-frame, overlapping wings or blades pivoted to said frames, radial pivot-shafts for said wings or blades supported in bearings of said frames, means for tilting said overlapping wings or blades into an inclined position relatively to the plane of the lifting propeller, and means for imparting a rotary motion to said frames and blades.

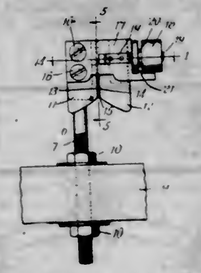
2. A lifting propeller, comprising an exterior ring-shaped frame, an inner center-frame, a plurality of overlapping wings or blades of approximately oval shape, radial pivot-shafts for said wings or blades supported in bearings of the outer and center frames, a center-shaft for the propeller, means for rotating said shaft, and means for positively setting the wings or blades into an angular position to the plane of the propeller.

3. The combination, with a lifting propeller for aeroplanes, comprising an outer ring-shaped frame, an inner center frame, and overlapping wings or blades having radial pivot-shafts turning in bearings of said frames, of means for setting said blades into an inclined position to the plane of the lifting propeller, said means consisting of pinions at the inner ends of said pivot-shafts, shiftable rack-bars guided in openings of the supporting center-frame and intermeshing with the inner pinions, a shaft keyed to the hub of the center-frame, a stationary sleeve for the center-shaft of the propeller, a shiftable collar on said sleeve, and means for imparting a shifting motion to said collar.

4. In a lifting propeller for aeroplanes, an oscillating lifting wing or blade made of an exterior double clamping frame of approximately oval shape, a web held by said frame, and means for clamping the web to the frame.

5. In a lifting propeller for aeroplanes, a lifting wing or blade made of two superposed clamping frames of approximately oval shape, means for fastening the frames together, a web held between said frames, and a central pivot-shaft extending transversely across said frames.

1,071,698. YARN-SCRAPER. WILLIAM W. BURKE, Bennington, Vt. Filed May 13, 1912. Serial No. 696,811. (Cl. 28—20.)



1. A yarn scraper having, in combination, a standard adapted to be fastened to a support, a pair of scraper blades with edges adjacent to each other adapted to engage a yarn passing therebetween, one of said blades fast to said standard, the other slidable thereon, a guide plate fast to said standard and extending laterally across the front face of said slidable blade to form a guide therefor and means to adjust said slidable blade between said guide plate and standard.

2. A yarn scraper having, in combination, a standard adapted to be fastened to a support, a pair of scraper blades with edges adjacent to each other adapted to engage a yarn passing therebetween, one of said blades fast to said standard, the other slidable thereon, a guide plate fast to said standard and extending across the front face of said slidable blade to form a guide therefor, a shank fast to said slidable blade and a nut having screw-threaded engagement with said shank and rotatable interlocking engagement with said guide plate, whereby said slidable blade may be adjusted relatively to said stationary blade.

3. A yarn scraper having, in combination, a standard adapted to be fastened to a support, a pair of scraper blades with edges adjacent to each other adapted to engage a yarn passing therebetween, one of said blades fast to said standard, the other slidable thereon, a guide plate fast to said standard and extending across the front face of said slidable blade to form a guide therefor, a shank fast to said slidable blade and projecting into a slot in said guide plate, said slot extending longitudinally of said shank and a nut having screw-threaded engagement with said shank and rotatable interlocking engagement with said guide plate, whereby said slidable blade may be adjusted relatively to said stationary blade.

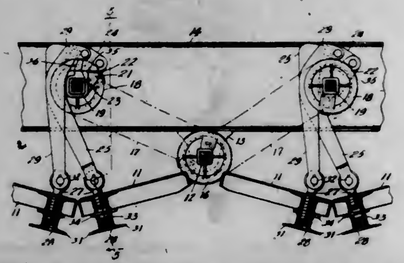
4. A yarn scraper having, in combination, a standard adapted to be fastened to a support, a pair of scraper blades with edges adjacent to each other adapted to engage a yarn passing therebetween, one of said blades fast to said standard, the other slidable thereon, a guide plate, screws extending through said guide plate one of said blades and into said standard, said guide plate extending across the front face of said slidable blade to form a guide therefor, and means to adjust said slidable blade between said guide plate and standard.

5. A yarn scraper having, in combination, a standard adapted to be fastened to a support, a pair of scraper blades with edges adjacent to each other adapted to engage a yarn passing therebetween, one of said blades fast to said standard, the other slidable thereon, a guide plate fast to said standard in contact with the blade fast thereto and extending laterally across the front face of said slidable blade to form a guide therefor, a shank fast to said slidable blade, a nut having screw-threaded engagement with said shank and rotatable interlocking engagement with said guide plate, whereby said slidable blade may be adjusted

relatively to said stationary blade and a lock-nut on said shank located within a recess formed in one end of said adjusting nut.

[Claim 6 not printed in the Gazette.]

1,071,699. HOPPER-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 20, 1912. Serial No. 737,784. (Cl. 105—185.)



1. A hopper car comprising, in combination: a car body having a pair of transversely arranged, substantially flat bottom hoppers located on the same side of the center sill, the bottoms of the hoppers being formed by hinged hopper doors; a common, transversely disposed, operating shaft located intermediate said hoppers; and devices for opening and closing the doors of said hoppers simultaneously and operated from said shaft, said devices including winding drums, connections from the doors of each hopper to the winding drums, and means between said shaft and each of the winding drums for rotating the latter, substantially as specified.

2. A hopper car comprising, in combination: a car body provided with a pair of transversely arranged hoppers located on the same side of the center sill, the bottom of each hopper being formed by a pair of oppositely swinging, hinged hopper doors which are substantially horizontal when in closed position, a common, transversely disposed operating shaft located intermediate said hoppers and below the center sill; and devices for opening and closing the doors of said hoppers simultaneously and operated from said shaft, substantially as specified.

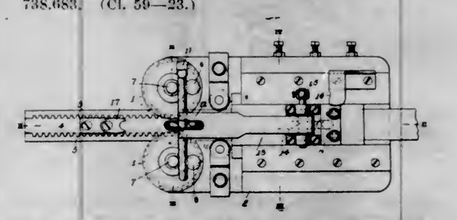
3. A hopper car comprising, in combination: a car body provided with a pair of transversely arranged, substantially flat bottom hoppers located on the same side of the center sill, the bottoms of the hoppers being formed by hinged hopper doors; a common, transversely disposed operating shaft located intermediate said hoppers and below the center sill; and devices for opening and closing the doors of said hoppers simultaneously and operated from said shaft, said devices including a pair of winding drums, one for each of said hoppers, connections from the doors of each hopper to said winding drums, and means between said shaft and each of the winding drums for rotating the latter, substantially as specified.

4. A hopper car comprising, in combination: a car body provided with a set of hoppers, said set comprising four transversely arranged hoppers, two on each side of the center sill, and each hopper being provided with a hinged hopper door; a transversely arranged operating shaft common to all the hoppers of said set; and devices for opening and closing all the doors of said hoppers simultaneously and operated from said shaft, said devices including a pair of winding drums located centrally of the car and in the line of the center sill, connections from the doors of each pair of hoppers to the winding drums, and flexible means between said shaft and said drums for rotating the latter, substantially as specified.

5. A hopper car comprising, in combination: a car body having two sets of hoppers, each set comprising four transversely arranged hoppers, two on each side of the center sill, and each hopper being provided with a hinged hopper door; mechanism for opening and closing said hopper doors, said mechanism including operating shafts, one for each set of hoppers; and a cross tie secured to the center sill and to the hoppers and located intermediate the adjacent hoppers of the two sets of hoppers, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,071,700. BENDING-MACHINE. ROBERT A. CARTER, Pittsburgh, Pa. Filed Dec. 26, 1912. Serial No. 738,683. (Cl. 59—23.)



1. In a bending machine, the combination of two rotatable disks provided with eccentrically arranged pins, studs having their axes coincident with the axes of rotation of the disks, a slide arranged to reciprocate intermediate the disks and adapted to rotate the latter in opposite directions, and jaws adapted to grip a blank intermediate the portions operated on by the pins while the ends of the blank are being bent.

2. In a bending machine, the combination of two rotatable disks provided with eccentrically arranged pins, studs having their axes coincident with the axes of rotation of the disks, a slide arranged to reciprocate intermediate the disks and adapted to rotate the latter in opposite directions, and means for shifting the studs vertically to release the blank.

3. In a bending machine, the combination of means for simultaneously bending both ends of a blank, stationary rollers, a movable forming block adapted to reciprocate between the end bending means and between the rollers, and means for shifting the forming block to move the blank from the end bending means, and force it between the rollers whereby the blank is bent around and caused to conform to the contour of the forming block.

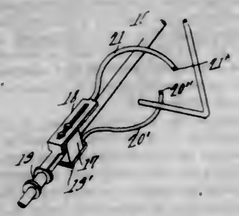
4. In a bending machine, the combination of means for bending the ends of a blank, a forming block movable intermediate the end bending means, jaws adapted to grip the blank during the end bending operation and movable by the forming block to shift the blank away from the end bending means, bending rollers arranged on opposite sides of the line of movement of the forming block, and adapted to bend the blank around the forming block and means for opening the jaws prior to the engagement of the blank with the bending rollers.

5. In a bending machine, the combination of two rotatable disks provided with eccentrically arranged pins, studs having their axes coincident with the axes of rotation of the disks, means for rotating the disks simultaneously in opposite directions, and a stop carried by one of the disks for determining the position of the blank.

1,071,701. VALVE-ACTUATING GEAR FOR STEAM TRAMPING-PRESSES. WHORNNER BROWN CHRISTOPHER, Lone Wolf, Okla. Filed Mar. 19, 1913. Serial No. 755,460. (Cl. 121—97.)

1. The combination with a cylinder and a piston reciprocatingly mounted therein, of a controlling valve, a rotatable shaft, an arm projecting from said controlling valve, wiping fingers secured to the said shaft and arranged with the paths of movement thereof intersecting the line of movement of the said valve actuating arm, said wiping fingers adapted to oscillate the said valve actuating arm for a controlling of the pressure to the said cylinder.

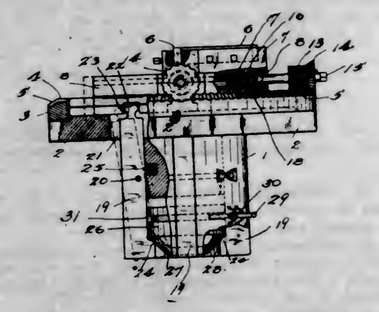
2. In a device of the class described, a cylinder, a piston reciprocatingly mounted therein, a pressure and exhaust controlling valve communicating with said cylinder and provided with a valve actuating arm extending therefrom, a rotating shaft, valve actuating fingers secured to said shaft and movable longitudinally thereof, said fingers adapted to actuate said valve arm.



3. In a device of the class described the combination with a cylinder, a piston reciprocally mounted therein, of a controlling valve, a valve arm extending therefrom, a continuously rotating shaft, valve actuating fingers mounted thereon and longitudinally slidable with respect thereto, said arms adapted to contact with said valve rod to actuate the same through a complete cycle during the rotation of 180 degrees of the said shaft.

4. The combination, of a cylinder and a piston reciprocatingly mounted therein, a controlling valve communicating with said cylinder, a valve stem extending therefrom, a valve rod secured to said valve stem, a continuously rotating shaft, wiping fingers secured thereto and longitudinally movable thereof, means for controlling the longitudinal movement of said fingers, said fingers adapted to oscillate said valve stem, said fingers adapted to complete the oscillation of said stem during 180 degrees of rotation of the continuously rotating shaft, one of said fingers adjustable with respect to the other.

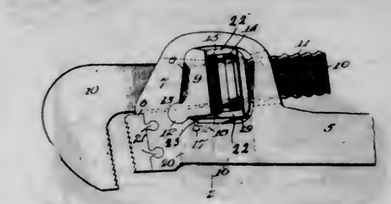
1,071,702. DIE. SUMPTER A. CLOWES, Pittsburgh, Pa. Filed Mar. 7, 1913. Serial No. 752,683. (Cl. 10—98.)



1. The combination with a supporting head having radial arms, of an open ring formed with rack teeth, a carrier block movable in each arm, a spacing block movable relative to the carrier block and a cutting tool carried by said blocks, a threaded shaft engaging the spacing block but freely revoluble in the carrier block, and a gear wheel on the shaft engaging the rack teeth.

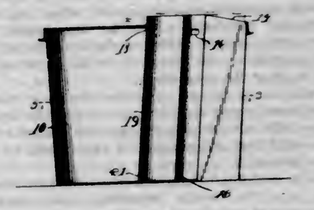
2. The combination with a supporting head having radial arms and a rack ring, of a series of carrier blocks each having a recess, a lever engaged in each recess and means for moving said levers to simultaneously retract said carrier blocks, a spacing block movable relative to each carrier block, and a cutting tool, a threaded shaft revoluble in the carrier block but operatively engaging the head block, and a gear wheel on the shaft engaging said ring.

1,071,703. WRENCH. JAMES M. COCHRAN, Chicago, Ill. Filed Aug. 29, 1912. Serial No. 717,730. (Cl. 81—104.)



A wrench comprising a handle having an extension provided with an opening and having a slot which extends through the handle and enters said opening, a block located in said opening and pivotally connected with the handle, a jaw having a shank which passes through the extension and the block, a nut located in the opening of the block and engaging said shank, and a spring located in the slot and bearing against the block, the block having at its side a web adapted to be received between the side walls of the slot.

1,071,704. ORCHARD-HEATER. ROBERT F. COLE, Ysleta, Tex. Filed Oct. 19, 1911. Serial No. 655,582. (Cl. 158—91.)

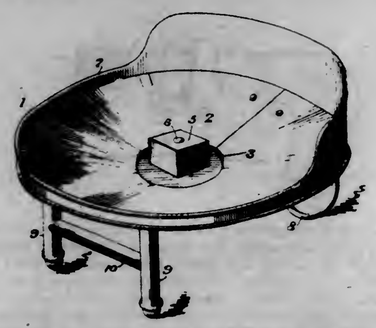


1. An orchard heater, comprising a body member open at its upper end and provided with a U shaped aperture in its bottom and with a V shaped aperture in its side, said latter aperture forming a continuation of the former, and a flue substantially U shaped in section positioned within said body member with its lower edge secured to the bottom thereof about the U shaped aperture and with its side edges secured to the edges formed by the V shaped aperture in the side of the body member, the side portions of the upper end of said flue adjacent the body member being brought together and secured to each other.

2. An orchard heater, comprising a body member open at its upper end and provided with communicating apertures in its bottom and side, and a flue positioned within said body member, said flue being formed from a single piece of sheet metal bent centrally to form converging side walls and a tubular upper end, the edges of the lower end and sides of said flue being secured to the edges of the bottom and side of the body member formed by the aperture formed therein.

3. An orchard heater, comprising a body member open at its upper end and provided with communicating openings in its side and bottom, a flue having converging side walls and a tubular upper end positioned within said body member with its side edges secured to the edges of the side of the body member formed by the opening therein, a cover for said body member provided with an aperture, and a casing secured to said cover and extending through said aperture, said casing being open at each end and provided with a longitudinally extending aperture the side edges of which are inclined to correspond with the inclined faces of the flue whereby said casing may be positioned within the body member and about the flue.

1,071,705. DISH-HANDLER. PATRICK J. COLLINS, Philadelphia, Pa. Filed Feb. 13, 1913. Serial No. 748,079. (Cl. 65—53.)



1. In a device of the character stated, a base, a flange extending upwardly therefrom, means for engaging the arm of the operator and a grasping means for the hand of the operator.

2. In a device of the character stated, a base, having downwardly inclined walls, a flange extending upwardly from the periphery thereof, means for engaging the arm of the operator, and grasping means for the hand of the operator.

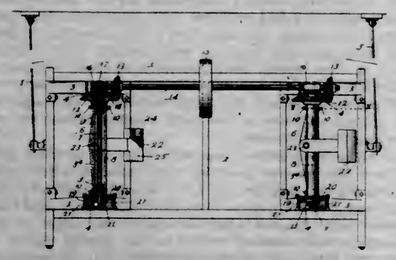
3. In a device of the character stated, a base, a flange extending upwardly therefrom and being higher at the rear than at the front, means for engagement with the arm of the operator, situated at the rear of the base, and means situated at the front of the base, for engagement by the hand of the operator.

4. In a device of the character stated, a base, a loop carried thereby and adapted to receive the arm of the operator, legs carried by said base, and a handle extending between said legs and adapted to be engaged by the hand of the operator.

5. In a device of the character stated, a support for dishes, cups, etc., means depending below said support for engagement with the arm of the user, grasping means depending below said support adapted to be grasped by the hand of the user, and means in suitable relation with respect to said loop and serving, together with said loop, as a supporting means for the carrier, when not in use.

[Claim 6 not printed in the Gazette.]

1,071,706. GYRATORY STRUCTURE. GEORGE W. COMBS, Leavenworth, Kans. Filed May 5, 1908. Serial No. 430,989. (Cl. 83—38.)



1. In combination, a gyratory structure, a drive-shaft therefor consisting of a stationary section fixed to and carried by the structure and a rotary section journaled on the stationary section and supported by the structure, and an unbalancing member connected to the rotary section of said drive-shaft.

2. In combination, a gyratory body, means for freely supporting said body, a drive-shaft therefor consisting of a stationary section fixed to and carried by the body and a rotary section journaled on the stationary section and resting on the body, and an unbalancing member connected to the rotary section of said drive-shaft.

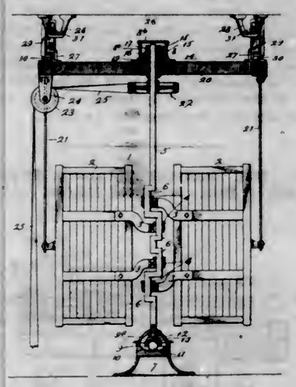
3. In combination, a gyratory structure, supporting means for said structure preventing rotation thereof, a drive-shaft therefor consisting of a stationary section fixed to and carried by the structure and a rotary section journaled on the stationary section and resting on the structure, and an unbalancing member connected to the rotary section of said drive-shaft.

4. In combination, a gyratory box, a shaft supported thereby consisting of a stationary section and a rotary section journaled on the stationary section and resting on the box, a driver for the shaft also supported by said box, and an unbalancing member connected to the shaft.

5. In combination, a suspended body, a shaft arranged therein and weighted to produce a gyratory movement, said shaft consisting of a stationary section fixed to and carried by the suspended body and a rotary section journaled on the stationary section and supported by the suspended body, and a swinging driver for said shaft.

[Claims 6 to 16 not printed in the Gazette.]

1,071,707. GYRATORY STRUCTURE. GEORGE W. COMBS, Leavenworth, Kans. Filed Sept. 28, 1908. Serial No. 455,084. (Cl. 83—38.)



1. In combination, an overhead member freely suspended for gyration, a gyratory structure suspended from said member, and a driver for said structure.

2. In combination, an overhead member gyratably-supported, a gyratory structure suspended from said member, and a vertically-positioned shaft for said structure journaled in the overhead member.

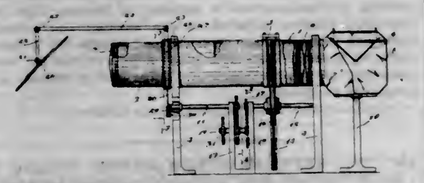
3. In combination, an overhead member freely-supported for gyration, a gyratory structure suspended from said overhead member, a centrally-disposed shaft journaled in the overhead member, and said gyratory structure, and a driver fixed to said shaft.

4. In combination, an overhead member freely supported, a gyratory sifter suspended from said member, a shaft arranged in the overhead member and said sifter and provided with cranks for imparting a gyratory movement to said sifter, and flexible power transmission devices for driving said shaft.

5. In combination, an overhead member freely-supported for gyration, a gyratory structure suspended from said member, and a shaft for the structure suspended from said overhead member.

[Claims 6 to 13 not printed in the Gazette.]

1,071,708. REFLEXAGRAPH. WILLIAM H. CONE, Minneapolis, Minn. Filed Apr. 20, 1912. Serial No. 692,051. (Cl. 88—27.)



1. In a device of the kind described, the combination with a light projecting barrel and a negative presented therein, of a reflector movably supported in line with the projected axis of said barrel, and means for moving said reflector to cause the reflected image to travel over the object against which it is projected.

2. In a device of the kind described, the combination with a light projecting barrel and a negative presented therein, of a reflector movably supported in line with the projected axis of said barrel, and means for oscillating said reflector to cause the reflected image to travel over the object against which it is projected.

3. In a device of the kind described, the combination with a light projecting barrel, of a lever mounted to oscillate on said barrel and around the axis thereof, means for automatically oscillating said lever, and a reflector supported from said lever in line with the projected axis of said barrel, substantially as described.

4. In a device of the kind described, the combination with a light projecting barrel, of a lever mounted to oscillate on said barrel and around the axis thereof, means for automatically oscillating said lever, and a reflector supported from said lever in line with the projected axis of said barrel, the said reflector being angularly adjustable in respect to the projected axis of said barrel.

5. In a device of the kind described, the combination with a light projecting barrel, of a lever mounted to oscillate on said barrel and around the axis thereof, means for automatically oscillating said lever, and a reflector supported from said lever in line with the projected axis of said barrel, the said reflector being angularly and vertically adjustable in respect to the projected axis of said barrel.

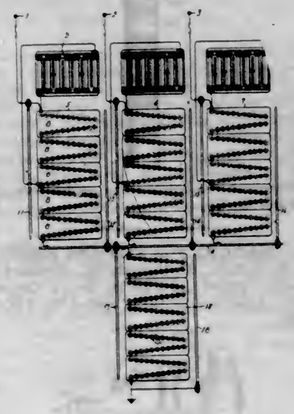
[Claim 6 not printed in the Gazette.]

1,071,709. WATER-CYCLE. CHESTER O. CRACROFT, Sewaren, N. J. Filed Oct. 5, 1912. Serial No. 724,121. (Cl. 115—26.)



In a device of the kind described, a pair of spaced pontoons, a bracket at each end of each pontoon, cross bars connecting said brackets and holding said pontoons in spaced relation, fins rising above said pontoons intermediate said brackets, other cross bars connecting said fins, longitudinal members connecting the last mentioned cross bars adjacent the center, and driving and steering mechanism supported by said cross bars and longitudinal members.

1,071,710. LIGHTNING-ARRESTER. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 22, 1906. Serial No. 349,027. (Cl. 175—30.)



1. In a protective device, the combination with a plurality of spark gaps forming a discharge path, of antennæ disposed on opposite sides of said path and adjacent thereto at intervals along the discharge path to influence the break-down potential of said path.

2. In a protective device, the combination with a plurality of conductors spaced apart to form air gaps, of a grounded antenna mounted closer to some of the groups than to the others, and a line antenna mounted closer to some of the other groups, whereby an electrostatic stress is established between said antennæ to influence the break-down potential of said device.

3. The combination with a plurality of multi-gap units disposed in series and connected to a line conductor, of antennæ on opposite sides of said units to influence the break-down potential across said gaps.

4. In a protective device, the combination with a plurality of conductors separated by air gaps and arranged to form a zig zag discharge path, of antennæ mounted close to the angles of said path on opposite sides thereof, and connections whereby an electrostatic stress is exerted between said antennæ and thereby the breakdown potential of said path is influenced.

5. The combination with a multi-gap protective device for electrical conductors, of antennæ disposed to set up an electrostatic stress across said gaps, and condensers interposed between said antennæ and other conductors of the system.

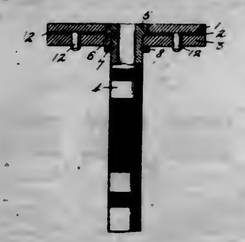
[Claims 6 to 8 not printed in the Gazette.]

1,071,711. SAFETY-RAZOR. WILLIAM H. CRICHTON-CLARKE, New York, N. Y., assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Massachusetts. Filed July 20, 1907. Serial No. 384,797. (Cl. 30—12.)

1. A razor comprising a cap having a threaded opening, a guard, and a handle rotatably swiveled on the guard and having an enlarged threaded extension at its upper end projecting above the guard and adapted to engage the threaded opening of the cap, and means for preventing axial movement of the handle relative to the guard.

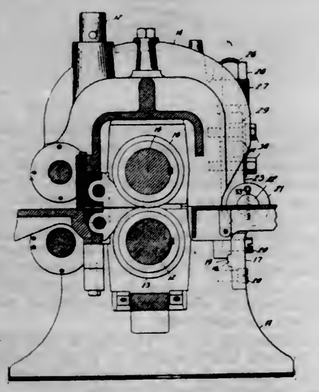
2. A razor comprising a perforated guard, a handle passing therethrough, and a swivel connection between the two, a cap having a threaded aperture, and a threaded en-

largement on the end of the handle conatructed and adapted to enter the cap aperture, and means coöperative with



such enlargement for holding the guard from movement axially of the handle.

1,071,712. MACHINE FOR SLITTING SHEET METAL. LEWIS E. CURTIS, Kenilworth, Ill., assignor to Ames Steel Lath Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 5, 1912. Serial No. 735,068. (Cl. 164—60.)



1. A slitting machine of the character described comprising, in combination: a housing; a housing cap; cooperating slitters mounted in the housing and housing cap; a hinge connection between the housing and housing cap; and means for compensating for wear on the hinge connection caused by the repeated shocks on the machine which occur when the metal sheets strike the slitters, substantially as specified.

2. A slitting machine of the character described comprising, in combination: a housing; a housing cap; cooperating slitters mounted in the housing and housing cap; a hinge connection between the housing and housing cap; and means for compensating for wear on the hinge connection including an adjustable connection between one of the elements of the hinge connection and the housing cap, substantially as specified.

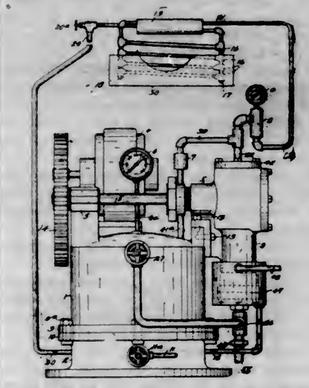
3. A slitting machine of the character described comprising, in combination: a housing; a housing cap; cooperating slitters mounted in the housing and housing cap; a hinge piece mounted on the housing; a second hinge piece mounted on the housing cap and coöperating with said first named piece; and means for adjusting one of said hinge pieces relatively to the member to which it is secured, substantially as specified.

4. A slitting machine of the character described comprising, in combination: a housing; a housing cap; cooperating slitters mounted in the housing and housing cap; a hinge piece on the housing; and a second hinge piece coöperating with the first named hinge piece and adjustably mounted on the housing cap, to thereby provide for adjustment between the housing and housing cap to compensate for wear on the hinge connection, substantially as specified.

5. A slitting machine of the character described comprising, in combination: a housing; a housing cap; cooperating slitters mounted in the housing and housing cap; two sets of hinge connections between the housing and the housing cap; and independent means for compensating for wear on each of the hinge connections, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,071,713. REFRIGERATING-MACHINE. WILLIAM F. DAVIS, Portland, Oreg., assignor to Universal Refrigerating Company, Portland, Oreg. Filed July 23, 1912. Serial No. 711,110. (Cl. 62—6.)



1. In a refrigerating machine, the combination of a condensing chamber, a coil adapted for the circulation of cold water, disposed within said chamber, compressing mechanism, a cooling jacket surrounding said compressing mechanism, a pipe connecting said coil with said cooling jacket to deliver water thereto, means for discharging water from said jacket, means to conduct compressed gas from the compressing mechanism to the condensing chamber, a pipe to deliver gas to said compressor, and an oil pipe connected with the lower part of the condensing chamber and also connected with said pipe to deliver oil thereto.

2. In a refrigerating machine, the combination of a condensing chamber, cooling means disposed therein, compressing mechanism, means to conduct compressed gas from the compressing mechanism to the condensing chamber, a pipe to deliver gas to said compressor, an oil pipe connected with the lower part of the condensing chamber, and also connected with the said pipe to deliver oil thereto, an oil filter through which the oil passes before delivery to said first-named pipe, and a strainer located within said compressing mechanism through which the admixed oil and gas pass.

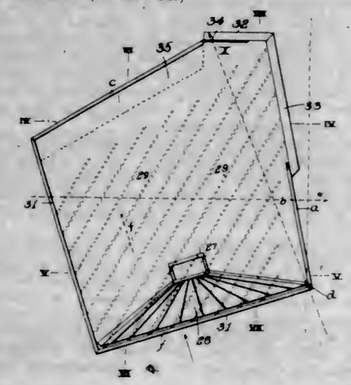
3. In a refrigerating machine, the combination with a condensing chamber, a coil pipe disposed therein and adapted to receive a cooling agent, a pipe connected with said coil to deliver such cooling agent thereto, compressing mechanism, a pipe connecting said compressing mechanism with said condensing chamber to deliver compressed gas to said chamber, a pipe to deliver gas to said compressing mechanism, means for delivering oil to the compressing mechanism, the gas pipe from the compressing mechanism to the condensing chamber being adapted to conduct oil from the compressing mechanism to the condenser under the compressing influence of the compressor, whereby volatilized oil is adapted to be delivered to the condensing chamber and condensed therein with the gas, and means for returning the condensed oil from the condenser to the compressor.

4. In a refrigerating machine, the combination of a condensing chamber, means for conducting a cooling medium through said chamber, compressing mechanism, means to conduct compressed gas from the compressing mechanism to the condensing chamber, a cooling jacket surrounding said compressing mechanism, connections between the condensing chamber and said compressing mechanism, said connections including an oil pipe connected with the lower part of the condensing chamber, an oil filter connected with said oil pipe, a pipe connecting the said oil filter with the compressing mechanism to deliver oil thereto, and a strainer associated with the compressing mechanism through which the oil and gas pass.

5. In a refrigerating machine, the combination of a condensing chamber, means for conducting a cooling medium through said chamber, compressing mechanism, a cooling jacket surrounding said compressing mechanism, a pipe connected with the said cooling means to deliver water to said jacket, means for discharging water from said jacket, a pipe connecting said compressing mechanism with said condensing chamber, a diaphragm disposed in said pipe and adapted to burst when the pressure of the gas becomes excessive, a discharge pipe connected with said first-named pipe, through which the gas is discharged when said diaphragm is bursted, a pipe to deliver gas to said compressor, and a pipe connected with the lower part of the condensing chamber and also connected with said last-named pipe to deliver oil thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,071,714. SLIME-CONCENTRATOR. WILLIAM F. DEISTER, Fort Wayne, Ind. Filed July 6, 1911. Serial No. 637,219. (Cl. 83—88.)



1. In a slime concentrator, the combination of a table having a mineral discharge edge in its front side, and inclined downwardly from its head and upwardly from its rear side, continuous or unbroken riffles, extending from the head diagonally across the table toward the front side thereof, means for feeding pulp directly into the channel intermediate the riffles, means for the direct discharge of values from the table at the termination of the riffle channels extending from the point of feed, and means for so vibrating the table that the values will move along the riffles and away from the rear side of the table.

2. In a slime concentrator, the combination of a table having a mineral discharge edge in its front side and inclined downwardly from its head and upwardly from its rear side, having a gangue discharge at its lower end continuous or unbroken riffles originating at points along the line of feed of the pulp, and extending diagonally across the table and terminating above the gangue discharge edge and adjacent to the front edge of the table, pulp feeding means extending along the head of the table and adapted to discharge the pulp into channels formed by the riffles, and means for so vibrating the table that the values will move upwardly along the riffles.

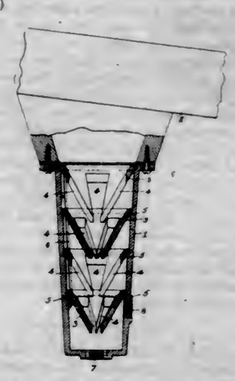
3. In a slime concentrator, the combination of an inclined table, means for vibrating the table, means for feeding pulp onto the table along its head or upper end, riffles extending continuously from the points of feed diagonally across the table toward the mineral discharge edge, said edge being in the rear of a line drawn at right angles to the direction of vibration of the table from the upper end of the mineral discharge edge to the head of the table.

4. In a slime concentrator, the combination of an inclined table having mineral and gangue discharges adjacent and at an angle to each other, means for vibrating the table, means for feeding pulp onto the table along its head or upper end, riffles extending continuously from the points of feed diagonally across the table toward the mineral discharge edge, the junction of the discharge edges coinciding with a line at right angles to the direction of vibration, of the table and intersecting the line of feed of the pulp at a point in the rear of the upper corner of the table.

5. In a slime concentrator, the combination of an inclined table having mineral and gangue discharge edges at an angle to each other, continuous or unbroken riffles extending from the head and rear edge of the table diagonally across the same toward the discharge edges, means for feeding pulp into the channels intermediate the riffles terminating above the lower end of mineral discharge edge, and means for vibrating the table.

[Claim 6 not printed in the Gazette.]

1,071,715. PROCESS AND APPARATUS FOR CLASSIFYING CRUSHED ORES. WILLIAM F. DEISTER, Fort Wayne, Ind. Filed Jan. 30, 1913. Serial No. 745,169. (Cl. 83—82.)



1. A classifier having in combination, a shell having an outlet at its lower end, a diaphragm extending across the shell, means for introducing water into the shell at a point intermediate the outlet and the diaphragm, the diaphragm having openings therethrough for the downward movement of the solid materials and the upward flow of the water, and means for gravitally directing the solid materials into said openings.

2. A classifier for crushed materials having in combination, a shell having an outlet at its lower end, a series of diaphragms having openings therethrough arranged transverse of the shell, the openings in adjacent diaphragms being out of line vertically, and means for causing an upward flow of water through the shell, the water being admitted into the shell at a point intermediate the outlet and the diaphragms.

3. A classifier for crushed materials having in combination, a shell having an outlet at its lower end, a series of conical diaphragms having intersecting slots therethrough arranged transverse of the shell, and means for causing an upward flow of water through the shell, the water being admitted into the shell at a point intermediate the outlet and the diaphragm.

4. A classifier for crushed materials having in combination, a shell having an outlet at its lower end, a series of conical diaphragms having intersecting slots therethrough arranged transverse of the shell, with their slots out of line vertically, and means for causing an upward flow of water through the shell, the water being admitted into the shell at a point intermediate the outlet and the diaphragms.

5. As an improvement in the art of classifying crushed materials, the method herein described, which consists in discharging crushed materials into an upwardly moving body of water, dividing said material into downwardly flowing streams, dispersing such streams laterally by an acceleration of the rate of movement of portions of the upwardly moving water, causing the dispersed materials to gravitally converge into other streams, and then dispersing the latter by accelerating the movement of the water.

1,071,716. STEAM AND HOT-WATER RADIATOR. CHARLES E. DICKINSON, Garden City, Kans., assignor of one-half to Samuel E. Austin, Garden City, Kans. Filed Nov. 16, 1912. Serial No. 731,900. (Cl. 237—18.)

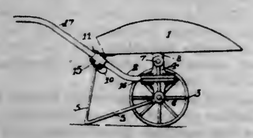


1. A radiator composed of a plurality of detachable coils, each coil of which is divided vertically into two independent chambers, and has a vertical web formed upon one side exteriorly thereof for coacting with an adjacent coil to close the space between adjacent coils and with a vertical groove upon the opposite side to the vertical web for the reception of the vertical web of an adjacent coil.

2. The combination with a partition between two rooms and having a recessed portion for the reception of a radiator, of a radiator disposed therein and divided into two longitudinal independent heating chambers, and coacting means connected to the top, bottom and ends of the radiator and the adjacent portions of the partition for forming heat deflectors and auxiliary partitions.

3. The combination with a partition between two rooms and having a recessed portion for the reception of a radiator, of a radiator disposed therein and divided into two longitudinal independent heating chambers, two curved plates connected to each of the top, bottom and ends of the radiator and the adjacent portions of the partition, the line of connection of the plates to the radiator being in line with the division of the radiator.

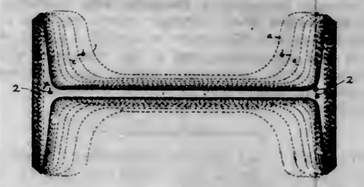
1,071,717. SELF-DUMPING WHEELBARROW. THEODOR L. DIRKSEN, Springfield, Ill., assignor of one-half to Howard W. Le Tissier, Bath, Ill., and one-half to Walter Hartter, Springfield, Ill. Filed Aug. 16, 1912. Serial No. 715,470. (Cl. 21—68.)



1. In a self dumping wheel barrow, the combination of pairs of upper and lower bearing members having abutting face portions and devices for securing said face portions together, the upper members having upwardly projecting bearings and the lower members having downwardly projecting bearings, a bed pivotally supported by said upper bearings, the face portions of each pair being grooved and handle bars disposed in said grooves and adapted to be locked by said devices, a fitting for each handle bar, a cross bar connected with said fittings, a substantially V-shaped rest for each handle bar having one terminal connected with the fitting of such bar and having its other terminal connected with the lower bearings on the corresponding side, an axle journaled in said lower bearings, a supporting wheel on said axle, and catch mechanism on said cross bar for holding said bed in a normal position, substantially as described.

2. In a self dumping wheel barrow, the combination of a frame comprising upper and lower bearing members having abutting face portions, handle bars between said face portions, devices for locking said face portions in abutting relation and securing said handle bars in place therebetween, fittings for said handle bars, rests secured to said fittings and to the lower bearing members, a cross bar secured to said fittings, a bed mounted on the upper bearing members, and a wheel mounted in the lower bearing members, substantially as described.

1,071,718. MANUFACTURE OF STRUCTURAL MATERIAL. CHARLES E. DUNCAN, Sault Ste. Marie, Ontario, Canada, and JOSEPH FAWELL, Pittsburgh Pa.; said Duncan assignor to said Fawell. Filed Mar. 10, 1911. Serial No. 613,622. (Cl. 80—66.)



1. The method herein described of manufacturing structural material, which consists in reducing in successive passes an ingot or billet in one direction, approximately to its final transverse dimension and partially reducing portions of the ingot or billet, in other directions, reducing in closed passes such partially shaped portions to final dimensions, and during such reduction permitting an increase of said transverse dimension.

2. The method herein described of manufacturing structural material, which consists in forming a blank having a depth less than that desired in the finished article, reducing such blank to the finished article and changing the depth of the blank by predetermined increments while so reducing.

3. The method herein described of manufacturing structural material, which consists in forming a blank by reducing an ingot or billet in all directions, the reduction in one direction being approximately to finished dimensions, finishing the blank by reduction within the planes of the extremities of said finished dimension and during such reduction, increasing by predetermined amounts, the dimensions of the approximately finished portion.

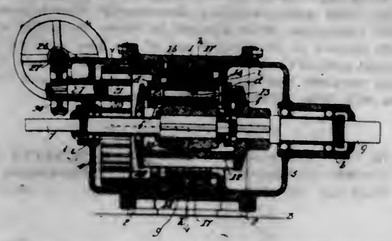
4. A plant for rolling structural material, having in combination a series of stands of rolls, each consisting of a pair of horizontal and a pair of vertical rolls, the vertical rolls of successive stands being arranged a sufficiently greater distance apart than those of the preceding stand as to permit the free entrance of the material between the vertical rolls.

5. A plant for rolling I-beams, having in combination a series of stands of rolls provided with reducing passes increasing progressively in depth or the distance between the faces of the passes operative on the outer faces of the flanges as to permit the entrance of the material into successive passes.

1,071,719. GEARING. GUSTAVE FAST, Baltimore, Md. Filed June 13, 1912. Serial No. 703,375. (Cl. 74—26.)

1. In combination with a driving, and a driven shaft, connecting motion-transmitting mechanism which comprises a system of friction rollers and an adjustable pressure-producing element which consists of a resilient coiled annulus, and means whereby the said annulus can be changed in diameter, to force together the frictional surfaces of the mechanism, substantially as specified.

2. In combination with a driving, and a driven shaft in affixed alinement, connecting motion-transmitting mechanism which includes a roller fastened to the driving shaft, a system of driven friction rollers, and an adjustable pressure-producing element which consists of a resilient coiled annulus, and means whereby the said annulus can be altered in diameter, to force together the frictional surfaces of the mechanism, substantially as specified.



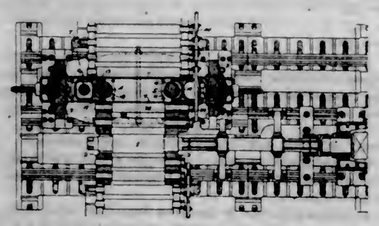
3. In combination with a driving, and a driven shaft, connecting frictional gearing which comprises as elements thereof, a roller secured to the driving shaft, surrounding rollers in frictional contact with the said roller and adapted to produce rotation of the driven shaft, a resilient coiled annulus, and means whereby the said annulus can be altered in diameter to change the radial distance of the friction rollers with respect to the central roller, and thereby apply a constrictive force upon the rollers, substantially as specified.

4. In combination with a driving, and a driven shaft, connecting friction-roller gearing which comprises as elements thereof, a central driving roller secured to the driving shaft, radially disposed frictional rollers which surround and are in contact with the central roller, a resilient coiled annulus, and means whereby the said annulus can be altered in diameter to apply constrictive force to the central and the radially disposed rollers, substantially as specified.

5. In combination with a driving, and a driven shaft, a roller fastened on the former, and a cage on the latter, rollers carried by the cage which surround and are in frictional contact with the central roller on the driving shaft, a non-rotatable resilient coiled annulus which embraces the system of rollers, and means whereby the said annulus can be diametrically reduced to apply constrictive force to the system of rollers, substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

1,071,720. ROLLING-MILL. JOSEPH FAWELL, Pittsburgh, Pa. Filed Aug. 13, 1912. Serial No. 714,871. (Cl. 80—56.)



1. In a rolling mill, the combination of vertical rolls, frames having bearings for the upper and lower journals of the rolls, housings provided with rest bars passing on opposite sides of the upper portions of the frames and forming supports for the same, and guide bars secured to the housings and passing on opposite sides of the lower portions of the frames for guiding the same.

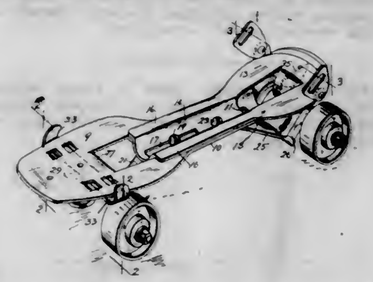
2. In a rolling mill, the combination of two vertical rolls, a transmitting shaft having a driving connection to one of said rolls, a power shaft having a driving connection with the other roll and with the transmitting shaft, movable frames, having bearings for the upper and lower journals of the rolls formed integral therewith, and bearings for said transmitting shaft integral with the frame carrying the roll operated by the transmitting shaft.

3. In a rolling mill, the combination of two vertical rolls, a power shaft, bevel gears for transmitting power from the shaft to one of the rolls, a transmitting shaft, bevel gears connecting the power and transmitting shaft and pinions forming a driving connection between the upper journal of the second roll and the transmitting shaft.

4. In a rolling mill, the combination of two vertical rolls, a power shaft, pairs of bevel gears for transmitting motion from the shaft to the rolls, one member of each pair of gears being keyed to the shaft but movable along the same, the other member being movable with the rolls and having axial sockets, blocks fitting in said sockets and having lugs adapted to engage grooves in the hubs of the gears on the power shaft, said grooves having adjustable side walls.

5. In a rolling mill, the combination of vertical rolls, a power shaft, bevel gears connecting one of said rolls to the power shaft, a transmitting shaft, bevel gears connecting said transmitting shaft to the other roll, and intermeshing pinions mounted respectively on the power and transmitting shafts.

1,071,721. ROLLER-SKATE. FOREST FINLAY, Petersham, near Sydney, New South Wales, Australia, assignor to Oliver Imray, London, England. Filed Apr. 25, 1912. Serial No. 693,037. (Cl. 46—51.)



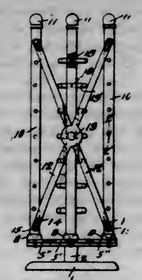
1. In extensible roller skates, in combination, a sole plate provided with a channeled shank portion, said shank portion being provided with a slot and an orifice and a heel plate provided with a channeled shank portion, said shank portion being provided with an orifice and a slot, said channeled shank portions overlapping one another, one of said channeled portions being slidingly positioned within the other and the orifice in each shank portion registering with the slot in the other shank portion.

2. In roller skates, a foot supporting plate, outer and inner brackets forming an axle bearing support, said outer bracket being formed out of the material of the plate and bent downward and outward and a downwardly extending rib extending longitudinally with respect to said plate and abutting the bend in said outer bracket.

3. In roller skates, a foot supporting plate and downwardly extending, oppositely disposed outer and inner brackets, an axle bearing support positioned between said brackets, said inner bracket being provided with inwardly extending flanges adapted to engage the sides of said support and hold it against lateral movement.

4. In extensible roller skates, in combination, a sole plate provided with a channeled shank portion, said shank portion being provided with a slot and an orifice, and a heel plate provided with a channeled shank portion, said shank portion being provided with an orifice and a slot, said shank portions overlapping one another, clamping bolts passing through said orifices and slots to hold the plates in adjusted position, and axle bearing supporting brackets secured to said plates by said clamping bolts.

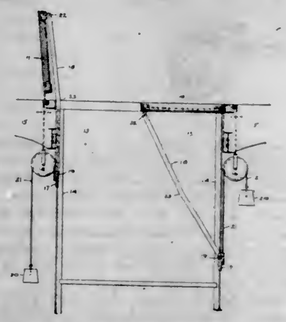
1,071,722. VEIL-DISPLAY RACK. MAE FITZPATRICK, Victoria, British Columbia, Canada. Filed Sept. 4, 1912. Serial No. 718,602. (Cl. 211—14.)



1. A veiling rack comprising a base formed of pivotally connected bars disposed to swing upon their pivot horizontally for spacing their opposite ends, and cross bars connecting the spaced ends, each cross bar being formed of a series of pivotally connected, horizontally disposed links, and veil sustaining means mounted upon said base.

2. In a veiling rack, the combination, with a collapsible bar support, pocket plates mounted on the bars of said support, pivot members connecting the pocket plates to the bars of the support and pivotally connecting the bars for sustaining the given relative positions of such bars and enabling relative collapsing movement thereof, and shelvings sustained by said pocket plates.

1,071,723. VAULT-DOOR. JOHN R. FLOOD, Spokane, Wash., assignor to Unique Specialty Company, Spokane, Wash., a Corporation. Filed Mar. 3, 1913. Serial No. 751,750. (Cl. 94—7.)



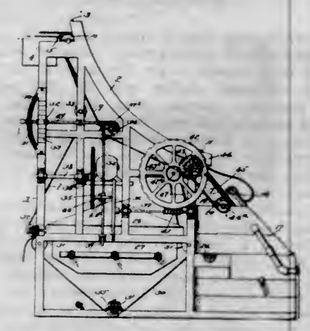
1. In vault doors, a door hinged at a permanent position, guide posts extending downwardly from a position near the hinges, pulleys suspended from a permanent position in the vicinity of the guide posts, shoes adapted to follow the guide posts, rods reaching from the tiltable end of the door and pivoted thereto reaching to and pivoted to the shoes and counter-balances attached to cables and suspended over the pulleys, the opposite ends of the cables being attached to the shoes.

2. In vault doors, a door hinged at a permanent position, guide posts extending downwardly from a position near the hinges, pulleys suspended from a permanent position in the vicinity of the guide posts, shoes adapted to follow the guide posts, rods pivoted to the tiltable end of the door and reaching downwardly to and pivoted to the shoes and bent to deflect their upper ends inwardly, together with counter balances attached to cables and suspended over the pulleys, the opposite ends of the cables being attached to the shoes.

3. In vault doors, a door hinged at a permanent position, guide posts extending downwardly from a position near the hinges, shoes adapted to follow the guide posts, rods pivoted to the tiltable end of the door and reaching to and pivoted to the shoes and bent to deflect their upper ends inwardly, together with a counterbalance attached to said shoes.

4. In vault doors, a door hinged at a permanent position, guide posts extending downwardly from a position near the hinges, shoes adapted to follow the guide posts, rods pivoted to the tiltable end of the door and reaching to and pivoted to the shoes and bent to deflect their upper ends inwardly together with means for raising and lowering said shoes along the guide posts.

1,071,724. CONTINUOUS SUN BLUE-PRINTING MACHINE. FREDERICK CHARLES FORREST, Sacramento, Cal. Filed Apr. 26, 1912. Serial No. 693,400. (Cl. 95—75.)



1. In a machine of the kind described comprising an exposure, a washing and a drying compartment, continuous belts running through all of said compartments and adapted to carry a sheet of blue print paper successively through said compartments, a tracing paper being carried through the exposure compartment and a series of rubber fingers arranged at the entrance to the washing compartment and adapted to brush the tracing paper from the blue print paper.

2. A blue printing machine comprising a curved frame, a curved glass plate in said frame, narrow belts adadpted to travel beneath the marginal portions of said frame and to carry a sheet of blue print paper and a tracing through said exposure compartment, and a continuous belt adapted to travel beneath said glass and to hold the blue print paper and the tracing paper in close contact with said glass, and a curtain slidably mounted upon the outer face of said glass.

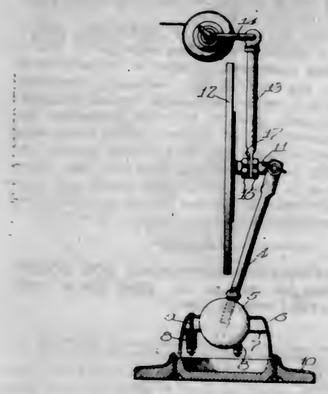
3. A printing device of the kind described comprising an exposure compartment, a washing compartment and a drying compartment, a series of continuous belts arranged in each compartment, and adapted to receive a sheet of blue print paper and support the same while passing successively through said compartments, and continuous narrow belts adapted to travel through all of the compartments and convey the blue print paper from one compartment to the other.

4. A printing device of the kind described comprising an exposure compartment, a washing compartment and a drying compartment, means for conveying a sheet of blue print paper successively through said compartments, and a fixing bath arranged between the washing and drying compartments and adapted to be moved into or out of engagement with said paper.

5. A blue print device of the kind described comprising exposure, washing and drying compartments, means for feeding a sheet of blue print paper through all of said compartments, the sensitized side of said paper being uppermost in the exposure compartment and being upon the underside in the drying compartment and means arranged in the washing compartment for spraying the sensitized side of said paper only.

[Claim 6 not printed in the Gazette.]

1,071,725. ADJUSTABLE MIRROR AND LIGHT. WILLIAM L. FRANKS, Rock Island, Ill., assignor of one-third to Edward Peters, Rock Island, Ill. Filed Jan. 22, 1912. Serial No. 672,652. (Cl. 45—100.)



1. A combined light and mirror, comprising a mirror, a support for said mirror whereby said mirror can be adjusted to any angular position, and a light mounted adjacent to said mirror and movable therewith and angularly adjustable about the same without movement of said mirror.

2. A combined light and mirror, comprising a standard which is universally adjustable, a mirror carried by said standard, and a light carried by said standard and movable with said mirror and mounted for angular adjustment about said mirror without movement of said mirror.

3. A combined light and mirror, comprising a standard which is universally adjustable, a bracket pivotally connected to the upper end of said standard, a mirror carried by said bracket, an arm rotatably mounted on said bracket, and a light carried by said arm and adjacent to the periphery of said mirror.

4. A combined light and mirror, comprising an angularly adjustable standard, a bracket pivotally connected to the upper end of said standard, a mirror carried by said bracket, and a light mounted adjacent to the periphery of said mirror and angularly adjustable about the same, said light being movable with said mirror.

1,071,726. GARTER. FRANK A. FREEMAN, Overbrook, Pa., assignor to Pioneer Suspender Company, a Corporation of Pennsylvania. Filed Sept. 2, 1910. Serial No. 580,213. (Cl. 241—6.)

1. A garter, comprising a clasp, a slotted connecting member, a leg band and a separate clasp supporting band, one end of the leg band threaded through slots of the connecting member and covering the inner side of said member to the width of said band, and the clasp supporting band threaded through other slots of said connecting member and covering the rest of the inner side thereof.

2. A garter comprising a clasp, a slotted connecting member, a leg band and a separate clasp-supporting band, said connecting member provided with substantially horizontal slots and substantially vertical slots, one end of the leg band threaded through the vertical slots and covering the upper part of the inner side of said connecting member, the clasp supporting band threaded through the horizontal slots and covering the rest of the inner side thereof.

3. A garter comprising a clasp, a slotted connecting member, a leg band and a clasp supporting band, the connecting member having parallel horizontal slots and vertical slots and a slot slightly inclined to the vertical, the clasp supporting band threaded through the horizontal slots and covering the lower part of the inner side of said connecting member, the leg band threaded through the other slots and covering the rest of the inner side of said member.

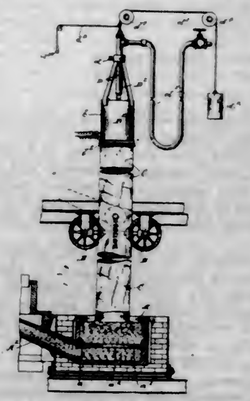


4. A garter comprising a clasp, a slotted connecting member, a leg band and a clasp supporting band, the connecting member provided with means for disengageable attachment of the free end of the leg band and bent so as to have different portions lying in different planes to accommodate the several layers of the band and secure an even surface on the inner side thereof, said bands so threaded in the connecting member as to conjointly cover the entire inner side.

5. A connecting member for a garter comprising a metallic plate provided with horizontal slots and vertical slots and a slot slightly inclined to the vertical, said slots adapted to receive the webbing, and a centrally located hook element, the various parts of the plate being bent into different planes to accommodate different thicknesses or layers of webbing to secure a smooth inner surface of the garter.

[Claim 6 not printed in the Gazette.]

1,071,727. METHOD OF AND APPARATUS FOR DRAWING GLASS. ROBERT L. FRINK, Cleveland, Ohio. Filed Aug. 3, 1908. Serial No. 446,582. (Cl. 49—17.1.)



1. The method of producing hollow glass articles which consists in drawing an uncapped open ended cylinder from a bath of molten glass and maintaining a body of air therein by a jet of pressure fluid projected toward the open end of the cylinder.

2. The method of producing hollow glass articles, which consists in drawing a cylinder from a bath of molten glass,

the end of the cylinder being open during the drawing operation, and maintaining a body of pressure fluid within the cylinder by a jet of pressure fluid projected toward the open end of the cylinder.

3. The method of producing hollow glass articles, which consists in drawing an open-ended cylinder from a bath of molten glass, and simultaneously directing a stream of air on the open end of said cylinder.

4. The method of producing hollow glass articles, which consists in drawing an open-ended cylinder from a bath of molten glass, and simultaneously directing a stream of air in the form of a jet on the open end of said cylinder.

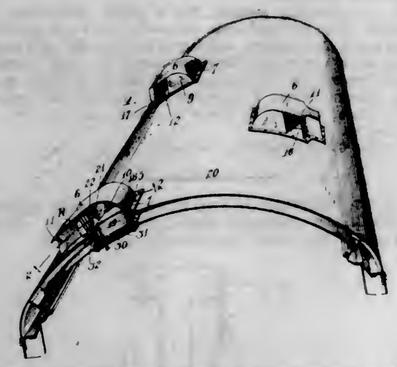
5. The method of producing hollow glass articles, which consists in drawing an open-ended cylinder from a bath of molten glass, and simultaneously directing a stream of air in the form of a hollow conical jet on the open end of said cylinder.

[Claims 6 to 28 not printed in the Gazette.]

1,071,728. COMPOSITION FOR CLEANING METAL GOODS AND PAINTWORK. ALFRED DIGGORE FROOD, East Caulfield, Victoria, Australia. Filed Oct. 17, 1912. Serial No. 726,278. (Cl. 87—5.)

The herein described composition consisting of tamarind, saponaceous matter, such as soap-nut or common soap, and water substantially as described and for the purpose specified.

1,071,729. VENTILATOR. THOMAS H. GARLAND, Chicago, Ill. Filed Aug. 28, 1912. Serial No. 717,445. (Cl. 98—22.)



1. In a ventilator for vehicles, the combination of a laterally extending housing having an opening in its base for communicating with the interior of a vehicle to be ventilated, an outlet passageway through said housing extending from said opening, and adjustable register mechanism interposed in said outlet passageway and disposed in vertical position when the ventilator is applied to a vehicle.

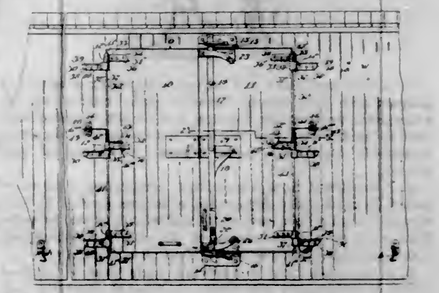
2. In a ventilator for vehicles, the combination of a housing having an opening in its base for communicating with the interior of a vehicle, said housing having a horizontal passageway leading to the exterior thereof from said opening, a vertical wall extending across said passageway and having an opening, and a register device applied in the opening of said wall for controlling the outlet area of said passageway, and a sill extending across the lower end of said ventilator for preventing entrance into the vehicle of particles deflected from said register mechanism.

3. In a ventilator for vehicles, the combination of a housing having an inlet opening in its base for communicating with the interior of a vehicle, said housing having a passageway to the exterior thereof from said inlet opening, a register device forming a structural part of the ventilator and positioned therein to control the area of said passageway, and actuating means for said register device extending through said inlet opening for control from the interior of the vehicle.

4. In a ventilator for vehicles, the combination with a housing having a laterally extending passageway and a vertically extending passageway leading to the interior of the car through the roof thereof, vertically extending louvers arranged in a row and adjustable to close said passageways against each other or to allow connection between said passageways, and lever mechanism connected with said louvers and extending through said vertical passageway into the interior of the car.

5. In a ventilator for vehicles, the combination with a housing having a laterally extending passageway and a vertically extending passageway leading to the interior of the car through the roof thereof, vertically extending louvers arranged in a row and adjustable to close said passageways against each other or to allow connection between said passageways, a sill in front of the lower ends of said louvers and having a slot, an actuating member extending from said louvers through said slot, and lever mechanism pivoted in said vertical passageway and connecting with said actuating member at one end, the other end of said lever mechanism extending into the car.

1,071,730. CONTROLLING MECHANISM FOR DOORS. THOMAS H. GARLAND, Chicago, Ill. Filed Nov. 6, 1912. Serial No. 729,726. (Cl. 20—16.)



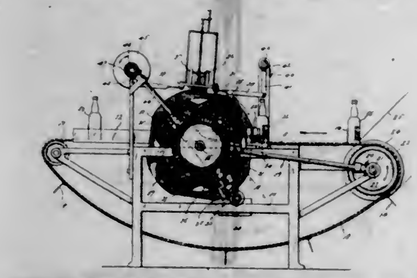
1. In combination, a supporting wall having an opening, a door for said opening, upper and lower hinges each having one member rigidly secured to said wall adjacent said opening and the other member rigidly secured to the door, the vertical pivot line of the hinge pivots being directly in front of the engaging edges of the wall and door when said door is closed, and means for adapting said pivot line to be shifted horizontally parallel to the plane of the door and away from the door opening upon opening of said door.

2. In combination, a wall having an opening, a door of less width than said opening, flexible sealing material to be interposed between the engaging edges of said door and opening, hinges each having one member rigidly secured to the wall and the other member rigidly secured to the door, one member of each hinge being slidable lengthwise on the other member thereof whereby said door may move in its plane when closing to thereby adjust itself accurately in closed position within said opening and against the sealing material.

3. In combination, a supporting wall having an opening, a door for said opening, hinges each having one member rigidly secured to the wall adjacent one edge of said opening and the other member rigidly secured to the door, the members of each hinge having hinge pin holes and a hinge pin for engaging therein, the hinge pin hole of one member of each hinge being extended in a direction parallel with said wall and at right angles to the edge adjacent which said hinges are secured.

4. In combination, a wall having an opening, a door of less width than said opening hinged at one side of said opening, flexible sealing material interposed between the free edge of said door and the opposite side of said opening, hinges each having one member rigidly secured to the wall and the other member rigidly secured to the door, the members of each hinge being relatively shiftable whereby said door may be moved in its plane and toward its hinged side when being closed or opened.

1,071,731. BOTTLE-LABELER. JOHN J. GAYNOR, Indianapolis, Ind., assignor, by mesne assignments, to Automatic Machinery Manufacturing and Sales Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 13, 1912. Serial No. 696,924. (Cl. 216—54.)



1. A bottle labeling machine comprising a pair of rotatable disks provided with a pair of label-receiving bars on their circumference, a package guide extending through between said disks, a package carrier having a bottle-feeding path of travel toward and through between said disks and along the package guide, means for driving the disks and package carrier in synchronism, and wipers for engaging the package and label as the package emerges from between the farther sides of the disks.

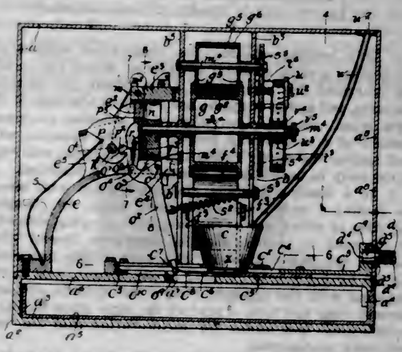
2. A bottle labeling machine comprising a pair of rotatable disks provided with a pair of label-receiving bars on their circumferences, a package guide extending through between said disks so as to permit movement of bottles toward the disks and through between them, and wipers for engaging the package and label as the package emerges from between the farther sides of the disks.

3. A bottle labeling machine comprising a pair of rotatable disks provided with a pair of label receiving bars on their circumferences, a package guide extending through between said disks, a package carrier having a bottle-feeding path of travel toward and through between said disks and along the package guide, means for driving the disks and package carrier in synchronism, wipers for engaging the package and label as the package emerges from between the farther sides of the disks, means for automatically supplying the bars with glue, and means for automatically applying labels to the glue bars.

4. A bottle labeling machine comprising a pair of rotatable disks provided with a pair of label-receiving bars on their circumferences, a package guide extending through between said disks so as to permit movement of bottles toward the disks and through between them, wipers for engaging the package and label as the package emerges from between the farther sides of the disks, means for automatically supplying the bars with glue, and means for automatically applying labels to the glued bars.

1,071,732. VENDING-MACHINE. ROSARIO GENOVESE, New York, N. Y., assignor of one-fourth to Harry Silverman, one-fourth to Morris Steinberg, and one-fourth to Peter Tascano, New York, N. Y. Filed Mar. 20, 1913. Serial No. 755,616. (Cl. 211—33.)

1. In a machine for vending stamps, tickets and the like arranged in flexible strips, a casing, a frame mounted therein, a delivery chute supported in connection with said frame, a strip feed chute adjacent to and communicating with the delivery chute, a main feed roller mounted adjacent to the strip feed chute and forming a part of a series of rollers adapted to support a flexible strip, a pivoted operating arm, a wheel mounted on one end of the shaft of the main feed roller and provided with radial arms which operate in connection with the pivoted operating arm and on one side thereof with a ratchet, a main spring controlled dog, a supplemental spring controlled dog operated by said arm and engaging said ratchet, another supplemental spring controlled dog operated by said arm and engaging the main spring controlled dog, whereby, at each operation of said arm said strip will be projected through the strip feed chute one step, and a blade also operated by said arm for cutting off a part of said strip at each movement of said arm.



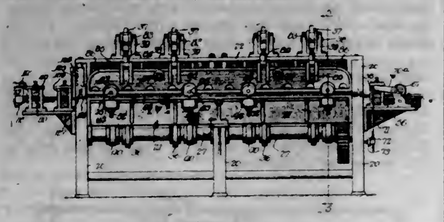
2. In a machine for vending stamps, tickets or the like, arranged in flexible strips, a casing, a frame mounted therein, a delivery chute supported in connection with said frame, a strip feed chute adjacent to and communicating with the delivery chute, a main feed roller mounted adjacent to the strip feed chute and forming a part of a series of rollers adapted to support a flexible strip, a pivoted operating arm, a wheel mounted on one end of the shaft of the main feed roller and provided with radial arms which operate in connection with the pivoted operating arm and on one side thereof with a ratchet, devices operated by said arm and adapted to engage said ratchet and turn the main feed roller one step at each operation of said arm, and a pivoted blade operated by said arm for cutting a stamp from the end of said strip at each movement of said roller.

3. In a machine for vending stamps, tickets or the like, arranged in flexible strips, a casing, a frame mounted therein, a delivery chute supported in connection with said frame, a strip feed chute adjacent to and communicating with the delivery chute, a main feed roller mounted adjacent to the strip feed chute and forming a part of a series of rollers adapted to support a flexible strip, a pivoted operating arm, a wheel mounted on one end of the shaft of the main feed roller and provided with radial arms which operate in connection with the pivoted operating arm and on one side thereof with a ratchet, devices operated by said arm and adapted to engage said ratchet and turn the main feed roller one step at each operation of said arm, a pivoted blade operated by said arm for cutting a stamp from the end of said strip at each movement of said roller, and hand operated devices also connected with said blade and adapted to operate it.

1,071,733. HOOP-MACHINE. WILLIAM GLADER, Chicago, Ill., assignor to James W. Brainard, Pittsburgh, Pa. Filed Oct. 14, 1911. Serial No. 654,761. (Cl. 153—48.)

1. In a beading machine, the combination with means for feeding a strip of metal lengthwise, means for clamping the strip, and a stop engaging with one side edge of the strip to prevent sidewise movement thereof when held by the clamping means, of means for curling one marginal side edge of the strip to form a bead extending throughout

the length thereof, said curling means including a horizontally reciprocating die having a bead forming cavity therein to engage and curl the edge of the strip in forming the bead thereon, substantially as described.



2. In a beading machine, the combination with means for feeding a strip of metal lengthwise, means for curling one marginal side edge of the strip, means for clamping the strip, and a stop engaging one marginal side edge of the strip when being clamped to prevent sidewise movement thereof, of a horizontally reciprocating die engaging with and curling the partly curled opposite marginal side edge of the strip to form a bead, substantially as described.

3. In a beading machine, the combination with means for feeding a strip metal lengthwise, means for clamping the strip of metal, means engaging one marginal side edge of the strip to prevent sidewise movement thereof when between the clamping means, of a horizontally reciprocating die having a bead forming cavity therein, said cavity engaging with the opposite edge of the strip to curl said opposite edge and form a bead on the strip when the die is reciprocated, and means for reciprocating said die, substantially as described.

4. In a beading machine, the combination with a bead forming mechanism having means for clamping the top and bottom surfaces of strips of metal, and means engaging with one side edge of metal strips held between the clamping means to curl said edge into a bead, of means for successively feeding strips of metal to said clamping means, and means for partly bending the said edge of the strips into beaded form during the forward movement thereof into position between the clamping means, substantially as described.

5. In a beading machine, the combination with feed rolls arranged to deliver strips of metal lengthwise, bending rolls arranged to curl one marginal side edge of the strip during the lengthwise movement of said strips, clamping means into which said partly beaded strips are fed by said rolls, and bending means alongside said clamping means arranged to engage with and curl the bent edge of said strips into a bead extending throughout the length of said strips; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,071,734. CABLE. THOMAS GORE, New York, N. Y. Filed May 1, 1912. Serial No. 694,465. (Cl. 28—5.)

1. A cable made up of a plurality of continuous relatively non-elastic strands, cushioning material interposed between the several strands for a portion only of the length of the cable intermediate the ends thereof, and the ends being left plain, whereby the end portions of the cable will remain substantially non-elastic and the intermediate portion of the cable will be rendered relatively elastic.

2. A cable comprising a plurality of twisted wire strands, a covering of fibrous material applied to the wire strands for a portion of their length, and a core of cushioning material inserted between the strands and extending the length of the covered portions thereof.

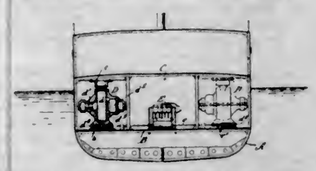
3. In combination, a plurality of metallic strands assembled into a cable, said strands at the ends of the cable being left plain and uncovered, and a covering of fibrous material applied to the strands for a portion of the length of the cable intermediate the plain ends thereof.

4. In a cable, the combination with a plurality of continuous relatively non-elastic strands, and a core about which said strands are twisted, of a cushioning medium interposed between the strands for a portion only of their length, and a core of cushioning material inserted in between the cushioned portions of the strands and of relatively greater diameter than the normal core of the cable.



5. A cable comprising a plurality of twisted relatively non-elastic strands, and a covering of cushioning material applied to the several strands for a portion only of the length of the cable intermediate the ends of the cable, the strands at the end portions of the cable being thus left bare and the cushioning material surrounding the strands being tapered off gradually to meet with the bare end portions of the cable.

1,071,735. ICE-BREAKING MARINE VESSEL. BENJAMIN T. HAAGENSON, Ashtabula, Ohio. Filed May 4, 1912. Serial No. 695,185. (Cl. 114—0.5.)



1. The combination, with a marine vessel, of controllable means operating on opposite sides of the keel or medial line for imparting a rocking or oscillating movement to said vessel, and mechanism whereby said means is caused to reverse the direction of its action upon the vessel at regular and predetermined intervals of time.

2. The combination, with a marine vessel, of a gyroscope, and means for moving its spinning axis in a substantially fixed plane with respect to the vessel and at intervals corresponding to the periodicity thereof.

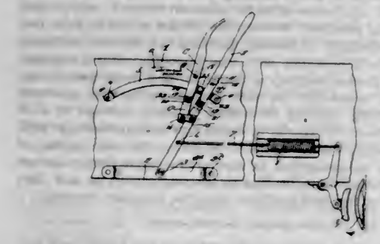
3. The combination, with a marine vessel, of a plurality of gyroscopes and means, independent of the action of the vessel, for moving their spinning axes in a substantially fixed plane with respect to the vessel and at intervals corresponding to the periodicity thereof.

4. The combination, with a marine vessel, of a gyroscope located within the hull of the vessel, a casing within which the gyroscope is capable of spinning and having trunnions extending from its sides the axis of which is at right angles to the spinning axis of the gyroscope, a bracket located on each side of the longitudinal center line of the vessel within which is journaled one of the trunnions of the gyroscope casing, and mechanism for rocking the gyroscope casing upon its trunnions.

5. The combination, with a marine vessel, of a gyroscope having its spinning axis coincident with the vertical center line of the vessel, a casing for the gyroscope having trunnions projecting from its sides at right angles to the spinning axis of the gyroscope and extending transverse the vessel and mounted within brackets, and mechanism for swinging the spinning axis of the gyroscope a varied number of degrees each side of its vertical position.

[Claim 6 not printed in the Gazette.]

1,071,736. VEHICLE BRAKE-LEVER. ALBERT M. HARRIS, Jenkinjones, W. Va. Filed Apr. 10, 1913. Serial No. 760,242. (Cl. 21—10.)



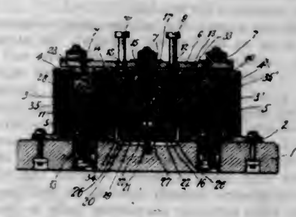
1. In combination with a tension brake rod, of a brake lever to which the tension brake rod is connected, a segment with respect to which the brake lever is concentrically pivoted, a plate rigidly fixed upon the brake lever, a supplemental lever pivoted to said plate, members carried by the brake lever and the supplemental lever for holding said levers movable adjacent the segment, and a bowed spring interposed between the brake lever and the supplemental lever, tending to throw the levers apart whereby the said members frictionally bind against the segment to hold the brake lever in adjusted positions with regard to the segment against the action of the tension rod.

2. In combination with a tension brake rod, of a brake lever to which the tension brake rod is connected, a segment with respect to which the brake lever is concentrically pivoted, a projection detachably rigidly fixed upon the brake lever, a supplemental lever pivoted to said projection, plates arching over the segment, one carried by the supplemental lever while the other is carried by the brake lever, bolts and nuts for fastening said plates to said levers, a washer on one bolt of each lever, the bolts carrying the washers being diametrically opposite one another, a wire bowed spring having an intermediate coil and provided with eyes at its ends which receive the diametrically opposite bolts between the washers and said levers, said bowed spring tending to throw the levers apart whereby said plates will frictionally bind against the segment to hold the brake lever in adjusted position with regard to the segment against the action of the tension rod.

1,071,737. SWITCH. GERALD W. HART, West Hartford, Conn., assignor to The Hart Manufacturing Company, Hartford, Conn., a Corporation of New Jersey. Filed July 7, 1910. Serial No. 570,693. (Cl. 175—281.)

1. In a switch, the combination of a stationary switch contact, a switch arm normally tending to move away from said contact, a switch closing solenoid adapted when energized to move said switch arm toward said contact, a controlling circuit for said solenoid, a detent moving with said switch arm and adapted to hold said switch arm in closed position, a detent releasing solenoid, a detent releasing armature therefor movable relatively to said detent, a spring tending to move said armature toward detent releasing position when said switch is closed, a controlling circuit for said releasing solenoid, controlling contacts in said first mentioned circuit brought into engagement by the movement of said armature under the action of said spring upon the release of said detent, and disengaged after said switch is fully closed by the action of the said first solenoid.

2. In a switch, the combination of a stationary switch contact, a switch arm normally tending to move away from said contact, a switch closing solenoid adapted when energized to move said switch arm toward said contact, a controlling circuit for said solenoid, a detent moving with said switch arm and adapted to hold said switch arm in closed position, a detent releasing solenoid, a detent releasing armature therefor movable relatively to said detent, a spring tending to move said armature toward detent releasing position when said switch is closed, a controlling circuit for said releasing solenoid, controlling contacts in said first mentioned circuit brought into engagement by the movement of said armature under the action of said spring upon the release of said detent, and disengaged after said switch is fully closed by the action of said first solenoid, and an additional circuit controller for said second circuit closed by the action of said first solenoid and opened by the action of said second solenoid as said detent is released.



3. In a switch, the combination of stationary switch contacts, a switch arm normally tending to move away from said contacts, a stationary abutment having a recess, a movable abutment having a recess, an intermediate member connected to said switch arm, a detent carried by said intermediate member and adapted to partially enter the recesses in said abutments, a spring engaging said intermediate member and said movable abutment, tending to move said movable abutment relatively to said intermediate member, and a solenoid which when energized moves said movable abutment against the action of its spring.

4. In a switch, the combination of stationary switch contacts, a switch arm normally tending to move away from said contacts, a stationary abutment having a recess, a movable abutment having a recess, an intermediate member connected to said switch arm, a detent carried by said intermediate member and adapted to partially enter the recesses in said abutments, a spring engaging said intermediate member and said movable abutment, tending to move said movable abutment relatively to said intermediate member, a solenoid, and an armature therefor movable relatively to said movable abutment and adapted to engage and move the same against the action of its spring when said solenoid is energized.

5. In a switch, the combination of stationary switch contacts, a switch arm normally tending to move away from said contacts, a stationary abutment having a recess, a movable abutment having a recess, an intermediate member connected to said switch arm, a detent carried by said intermediate member and adapted to partially enter the recesses in said abutments, a spring engaging said intermediate member and said movable abutment, tending to move said movable abutment relatively to said intermediate member, a solenoid, an armature for said solenoid movable relatively to said movable abutment and adapted to engage and move the same against the action of its spring when said solenoid is energized, contacts carried by said armature and adapted to engage stationary controlling contacts, and a spring moving said armature when said switch is open so that said engagement is made, and an energizing circuit for said solenoid controlled by said controlling contacts.

[Claims 6 to 12 not printed in the Gazette.]

1,071,738. BALL-HOLDING CAGE FOR BALL-BEARINGS. HENRY HESS, Wawa, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Jan. 21, 1909. Serial No. 473,455. (Cl. 64—59.)



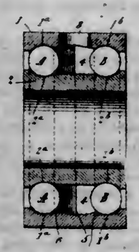
1. A ball-holding cage for ball-bearings composed of a continuous strip of deformable material, the strip being formed with loops extending between the balls and having a plurality of distinct points of contact with said balls, together with additional means between the loops to insure their contact with the balls.

2. A ball holding cage for ball-bearings composed of a continuous strip of deformable material, the strip being formed with loops extending between the balls and having a plurality of distinct points of contact with said balls, together with connected means to deform the loops and to insure their contact with the balls.

3. A ball-holding cage for ball-bearings composed of a continuous strip of deformable material, the strip being formed with loops extending between the balls and having a plurality of distinct points of contact with said balls, and bowed away from the contained balls intermediate of the contact-points, together with additional means between the loops to insure their contact with the balls.

4. A ball-holding cage for ball-bearings composed of a single continuous strip of deformable material, the strip being formed with loops extending between the balls and beyond the diameters thereof, portions of each loop being bowed away from adjacent contacting balls to present at each side of each of the contacting balls a plurality of distinct points of contact therewith and leaving between the contact-points an area of material unengaged by said contacting balls.

1,071,739. BALL-BEARING. HENRY HESS, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Feb. 21, 1911. Serial No. 610,029. (Cl. 64—36.)

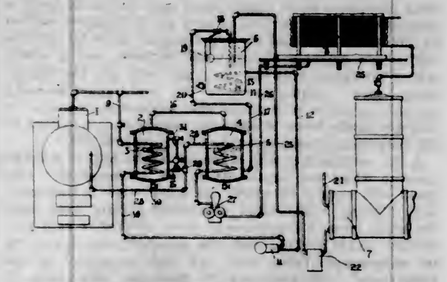


1. In a ball bearing, the combination of inner and outer rings, each formed with a continuous and uninterrupted track or way forming a raceway, and the balls mounted therein, one of said rings being provided at one side of its track or way with a circumferentially extending inclined or tapered surface forming in connection with the opposing ring, a circumferential groove for the temporary assemblage of balls preparatory to their being forced over the inclined surface into said raceway, and the said ring being provided with a filling opening extending entirely through the same in a direction transverse to the axis of the ring and leading to the said circumferential groove; whereby the balls introduced through the filling opening may be assembled on the circumferential inclined surface and then forced thereover into the raceway.

2. In a ball bearing, the combination of the inner and outer rings, each formed with a continuous and uninterrupted track or way forming a raceway, and the balls mounted therein, the outer ring being provided at one side of its track or way with a circumferentially extending inclined or tapered surface forming in connection with the inner ring, a circumferential groove for the temporary assemblage of balls preparatory to their being forced over the inclined surface into the raceway, and the said outer ring being provided with a filling opening extending entirely therethrough in a direction transverse to the axis of the ring and leading to the said circumferential groove; whereby the balls introduced through the filling opening may be assembled on the circumferential inclined surface and then forced thereover into the raceway.

3. In a ball bearing, the combination of the inner and outer rings, each formed with two continuous and uninterrupted tracks or ways forming two raceways between the rings, and two series of balls mounted therein, one of said rings being provided between its tracks or ways with two circumferentially extending inclined or tapered surfaces forming in connection with the opposing ring a circumferential groove sloping in opposite directions toward the respective raceways, the said ring being further provided with a filling opening extending entirely through it at a point between its tracks or ways and communicating with said circumferential groove; whereby the two series of balls may be assembled in succession respectively against the tapered surfaces leading to the two raceways, and then forced over the said surfaces into the adjacent raceway.

1,071,740. METHOD OF EVAPORATION AND APPARATUS THEREFOR. NICOLAI H. HILLER, Carbondale, Pa. Filed Jan. 11, 1909. Serial No. 471,652. (Cl. 203—5.)



1. The herein described method of evaporating, condensing and reboiling water, which consists in evaporating water under a pressure materially greater than atmospheric pressure, by exchange of heat from steam under pressure, and thereby condensing such heating steam, condensing under pressure greater than the atmosphere, the secondary steam produced by such evaporation, by exchange of heat with water at a temperature above ordinary atmospheric temperatures, mixing the water of condensation of the secondary steam and the water produced by condensation of the heating steam, and reducing the pressure on such water and thereby causing reboiling thereof.

2. The herein described method of evaporating, condensing and reboiling water, which consists in evaporating water under a pressure materially greater than atmospheric pressure, by exchange of heat from steam under pressure, and thereby condensing such heating steam, condensing, under pressure greater than that of the atmosphere, the secondary steam produced by such evaporation, by exchange of heat with water at a temperature above ordinary atmospheric temperatures, mixing the water of condensation of such secondary steam and the water produced by condensation of the heating steam, reducing the pressure on such water and thereby causing reboiling thereof, and delivering water heated by such condensation into proximity to the heating steam so as to cause evaporation of such water.

3. Evaporating and condensing apparatus comprising in combination an evaporator and a condenser connected together and both adapted to be operated under pressure greater than that of the atmosphere, and a reboiler arranged to receive water from said condenser, said evaporator provided with a steam conduit, and a trap arranged to receive water of condensation from such steam conduit, and arranged to deliver the water so condensed to said reboiler.

4. The combination with the rectifier of an absorption refrigeration apparatus, of water evaporating and condensing apparatus comprising an evaporator and a condenser connected together and adapted to be operated under pressure greater than that of the atmosphere, said condenser having a cooling conduit connected to the rectifier to receive therefrom the heated cooling water thereof.

5. The combination with the rectifier of an absorption refrigeration apparatus, of evaporating and condensing means comprising a boiler, an evaporator and a condenser connected together and both arranged to be operated under pressure greater than that of the atmosphere, said evaporator having a heating conduit to which steam is supplied by said boiler, said condenser having a cooling conduit connected to the rectifier to receive therefrom the heated cooling water thereof, such cooling conduit arranged to discharge the water heated in it to the boiler as boiler feed water.

1,071,741. TIRE-ARMOR. GEORGE EDWARD HINSON, Atlanta, Ga. Filed Nov. 6, 1912. Serial No. 729,801. (Cl. 152—16.)



1. A tire armor of the character described, comprising a plurality of transverse pairs of tread plates formed curved in cross-section and provided upon their outermost longitudinal edges with outwardly extending flanges to prevent skidding, said tread plates being provided near their ends with outwardly extending interfitting knuckles which serve as means for preventing the wheel from rotary slipping, and curved eye-bolts having their heads pivotally connected and the body portions thereof extending through the interfitting knuckles.

2. A tire armor of the character described, comprising a plurality of transverse pairs of tread plates formed curved in cross-section to conform to the curvature of the tire, the tread plates in each pair being free from connection at their outer adjacent ends, pivot elements connected with the ends of the tread plates, and pairs of bolts having their heads pivotally connected and their body portions extending through the pivot elements to connect the same, said pairs of bolts also serving to flexibly connect the tread plates in each pair.

1,071,742. MUSHROOM-BULLET. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 28, 1913. Serial No. 764,051. (Cl. 102—28.)



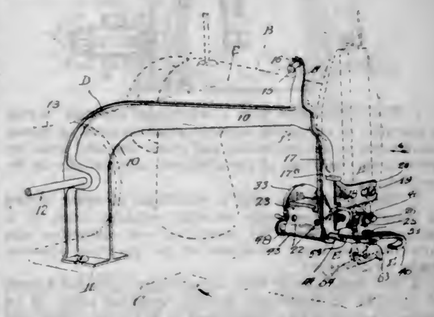
1. A bullet of the character described comprising a full jacket having openings backwardly cut from near the point leaving a tip, bridge pieces narrow at their inner ends which connect the tip with the body of the jacket and forwardly projecting edges at the outer sides of the openings, and a relatively soft core swaged into the jacket and filling the openings.

2. A bullet of the character described, comprising a full jacket having openings V-shape in section backwardly cut from near the point leaving a tip, bridge pieces narrow at their inner ends which connect the tip with the body of the jacket and forwardly projecting edges at the outer sides of the openings, and a relatively soft core swaged into the jacket and filling the openings.

3. A bullet of the character described, comprising a full jacket having openings backwardly cut from near the point leaving a tip, bridge pieces connecting the tip with the body of the jacket and forwardly projecting edges at the outer sides of the openings, and a relatively soft core swaged into the jacket and filling the openings.

4. A bullet of the character described, comprising a full jacket having openings backwardly cut from near the point leaving a tip and bridge pieces narrow at their inner ends which connect the tip with the body of the jacket, said bridge pieces serving as wedges to split the body of the jacket when the tip strikes an objective, and a relatively soft core swaged into the jacket and filling the openings.

1,071,743. GARMENT-STAYING DEVICE. MORRIS J. HOFFMAN, Chicago, Ill. Filed Mar. 16, 1912. Serial No. 684,324. (Cl. 112—9.)



1. In a device of the class described, the combination of tape-spool supporting means, located in the rear of a sewing machine arm and above a work support, a tension device, a tape guiding scroll, means for supporting the upper end of said scroll at a predetermined height above the bed plate of a sewing machine, said scroll being bent in spiral form to extend forwardly, downwardly, laterally and thence rearwardly with its lower end substantially in the vertical plane of a sewing machine presser foot while extending toward said foot, means for pivotally supporting said scroll upon an axis at right angles to the direction of movement of the sewing machine feed and means for laterally adjusting said scroll.

2. In a device of the class described, the combination of tape-spool supporting means, a tape-guiding scroll for guiding the tape downwardly, laterally and rearwardly to a presser-foot, said scroll being attached to an arm extending forwardly from a rock-bar arranged substantially at right angles to the path of the work and means for moving said rock-bar longitudinally.

3. In a device of the class described, the combination of tape-spool supporting means, tension controlling means, a tape guide-scroll for guiding the tape downwardly, laterally and rearwardly to a presser-foot, a rock-bar arranged substantially at right angles to the path of the tape after leaving said guide-scroll, an arm fointedly connected to said rock-bar and having its forward end rigidly attached to said guide-scroll and means for yieldingly holding said arm in a normal position with respect to said rock-bar.

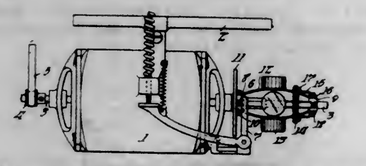
4. In a device of the class described, the combination of tape-spool supporting means, a tape guiding scroll for guiding the tape downwardly, laterally and rearwardly to a presser-foot, said scroll being attached to an arm extending forwardly from a predetermined point at the rear

of the sewing-machine head, the rear end of said arm being supported upon a horizontal axis.

5. In a device of the class described, the combination of tape-spool supporting means, a tape-guiding scroll for guiding the tape downwardly, laterally and rearwardly to a presser-foot, said scroll being supported upon an arm extending forwardly from a predetermined point at the rear of the sewing-machine head, the rear end of said arm being supported upon a horizontally disposed rock-bar to which it is jointedly connected and yielding means for holding it at a predetermined angle to the axis of the bar.

[Claims 6 to 17 not printed in the Gazette.]

1,071,744. ANTIVIBRATION DEVICE FOR CENTRIFUGAL GOVERNORS. NEWMAN H. HOLLAND, West Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 17, 1912. Serial No. 715,546. (Cl. 121—112.)



1. The combination with a centrifugal governor having a plurality of outwardly movable weighted arms, of means unattached to but embracing and contacting said arms for preventing vibrations of the governor, substantially as described.

2. The combination with a centrifugal governor having a plurality of outwardly movable weighted arms, of a spring unattached to but embracing and contacting said arms for preventing vibrations of the governor, substantially as described.

3. The combination with a centrifugal governor having a plurality of outwardly movable weighted arms, of an endless helical spring unattached to but surrounding and contacting said arms for preventing vibrations of the governor, substantially as described.

4. The combination with a centrifugal governor having a plurality of outwardly movable weighted arms, of an endless helical spring unattached to but surrounding and contacting said arms, and means for maintaining the spring in position on said arms, substantially as described.

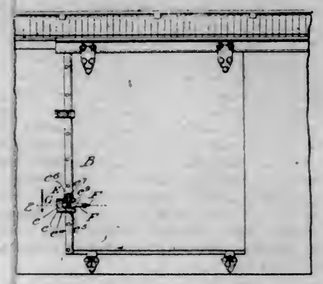
5. The combination with a centrifugal governor having a plurality of outwardly movable weighted spring arms, of an endless helical spring unattached to but surrounding and contacting said spring arms for preventing vibrations of the governor, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,071,745. SLIDING-DOOR FASTENER. JAMES M. HOPKINS, Chicago, Ill. Filed Oct. 28, 1912. Serial No. 728,193. (Cl. 70—102.)

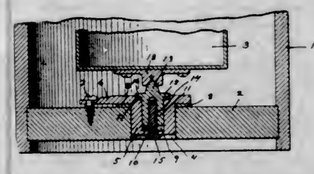
1. In a railway car, the combination with the post at the front edge of the door opening, of a door stop comprising an angle bar extending lengthwise of said post and having a base flange abutting against and secured thereto and an outstanding flange against which the front edge of the door abuts, and a separate brace abutting against and secured to the side of the car and having a portion abutting against the outstanding flange of said angle bar, said brace having a ledge adapted to carry one end of the lock mechanism and having a portion overlapping the outstanding flange of the stop bar and adapted to resist the outward movement of the door.

2. In a railway car, the combination with a post at the front edge of the door opening, of a door stop comprising an angle bar extending lengthwise of said post and having a base flange abutting against and secured thereto and an outstanding flange against which the forward edge of the door abuts, and a separate cast metal brace for said door stop having a base portion abutting against and secured to the side of the car and extending over the base flange of said angle bar, said brace having a portion abutting against the outstanding flange of said angle bar and a ledge formed integral therewith and provided with a staple to engage the hasp of the door.



3. In a railway car, the combination with the post at the front edge of the door opening, of a stop comprising an angle bar extending lengthwise of the door and having a base flange abutting against and secured to the post and an outstanding flange against which the front edge of the door abuts, and a separate cast metal bracing shoe for said angle bar having a base portion abutting against and secured to the side of the car and extending over the base flange of said angle bar, said bracing shoe having an outstanding portion abutting against the outstanding flange of said angle bar and provided with a flange overlapping the outer edge of said angle bar and arranged to engage the forward edge of the door, and said bracing shoe having a ledge and an offset formed integral therewith, and a bolt mounted on said offset, said ledge having an eye for receiving said bolt.

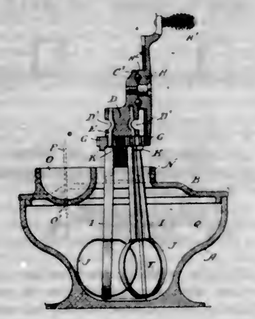
1,071,746. ADJUSTABLE PIVOT-BEARING. JOHN A. HUBER, Lancaster, Pa. Filed Mar. 29, 1911. Serial No. 617,586. (Cl. 64—25.)



In an adjustable pivot bearing, the combination with a bearing member, of a socket member having a counterbored seat thereon and radial attaching arms provided with attaching means, a pivot post having a screw-threaded bore mounted in said socket member, said pivot post member having a flanged head and a cone-shaped pivot, a screw adjustably securing said socket member and pivot post together and a washer interposed in the counterbored seat between the flanged head and socket member.

1,071,747. BEATER FOR MAYONNAISE DRESSING AND THE LIKE. JOB HUTCHINSON, New York, N. Y., assignor to National Indicator Company, a Corporation of New York. Filed Aug. 22, 1911, Serial No. 645,454. Renewed Nov. 30, 1912. Serial No. 734,426. (Cl. 117—38.)

1. The combination with a beater receptacle having in its bottom a relatively small central depression with curved lateral walls continuous with the annular surrounding portion of the bottom for containing the material to be beaten, of a cover for the receptacle, and a beating device depending from the cover and rotating in close proximity to said walls.



2. The combination with an upwardly open beater receptacle having its walls carried rapidly outward at some distance above its lowest central point to form an annular, shelf for supporting beaten material, of a cover for the receptacle, and a central rotary beater borne by the cover, extending approximately to said point, and operating within and below the material supported by said shelf.

3. The combination with an incorrodible bowl and a cover for the bowl, of a rigidly attached frame projecting upwardly from the cover, a rod bent to U-shape, extending through the cover to the bottom of the bowl, and having the upper ends of its branches fixed in said frame, mutually engaging pinions revolubly mounted upon the upper portions of said branches, respectively, means for rotating the pinions, and beater devices revolubly mounted upon said branches, respectively, and each engaging and rotating with the corresponding pinion.

4. The combination with a bowl and its cover, of a frame mounted upon the upper side of the cover, a rod bent to U-shape and extending through an opening in the cover into the bowl and having the upper ends of its branches fixed in said frame, hoops revolubly mounted upon the lower ends of said branches, respectively, elongated loops extending through slots in the upper portions of said hoops in a plane perpendicular to the plane of the latter and bent below into similar hoops, pinions engaging the upper ends of the elongated loops to rotate them, and means for rotating the pinions.

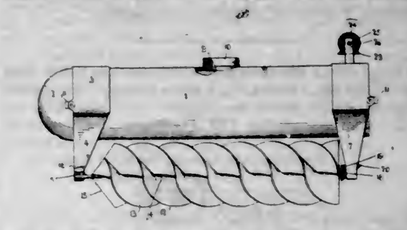
5. The combination with a transparent beater receptacle having a relatively small central depression in its bottom to receive the liquid to be beaten, of a transparent receptacle cover provided with an integral cup for discharging oil directly into the receptacle, and a rotary beating device secured to the cover and extending into said depression when the cover is in place; whereby the liquid thrown up by rapid beating strikes the cover within the line of its contact with the receptacle and the beaten material remains undisturbed by the beating in an annular mass surrounding the depression.

[Claim 6 not printed in the Gazette.]

1,071,748. CURRENT-MOTOR. JAY W. INGISON, Kenmare, N. D. Filed Sept. 26, 1912. Serial No. 722,462. (Cl. 170—103.)

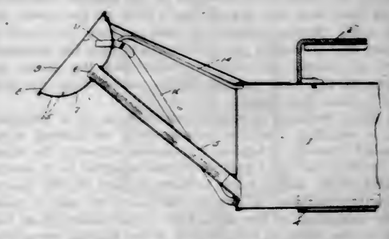
1. A current motor having an auger comprising a series of curved blades having right angular attaching flanges on their inner edges, said flanged edges being arranged in close proximity and abutting against each other and bolted together to form solid central reinforcing means and to secure the blades in operative position.

2. In a current motor, a float, auger supporting plates secured to and projecting below the ends of said float, journal boxes secured in the ends of said plates, said boxes being disposed below the freezing point of the water, an auger comprising a series of curved or twisted blades having on their inner edges right angular attaching flanges adapted to be bolted together to secure the blades in operative position, said blades having their forward ends beveled, auger journals having right angular disposed slits adapted to be engaged with the blades at



the ends of the auger whereby said journals are secured in position to revolubly support the auger in said journal boxes, and a power transmitting mechanism geared to the auger.

1,071,749. HYDROCARBON-IGNITER. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Feb. 28, 1912. Serial No. 679,525. (Cl. 158—10.)



1. In a device of the character described, the combination of a reservoir, a wick tube communicating with the reservoir and projecting upwardly therefrom, a wick in said tube, a hood into which the upper end of said tube projects, and a tube communicating with the lower part of the reservoir and also projecting into said hood at a point adjacent to the wick tube.

2. In a device of the character described, the combination of a reservoir, a wick tube communicating with the reservoir, a hood into which the upper end of the wick tube projects, a tube communicating with the lower portion of the reservoir and projecting into the hood at a point adjacent to the wick tube, and a plate partially inclosing the front of the hood and having an opening for the escape of flame.

3. In a device of the character described, the combination of a reservoir, a wick tube communicating with the reservoir, a burner hood or casing into which the upper end of the wick tube projects, and a tube communicating with the lower portion of the reservoir and projecting into the burner hood or casing at a point adjacent to the wick tube, the burner hood or casing having an opening in the front thereof for the escape of flame.

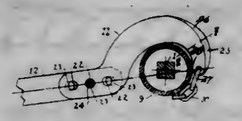
4. In a device of the character described, the combination of a reservoir, a wick tube projecting upwardly from the reservoir, a burner hood or casing into which said tube projects, a tube communicating with the lower portion of the reservoir and having branches extending into the burner hood or casing adjacent to the end of the wick tube, said burner hood or casing having a substantially diamond-shaped opening, one of the corners or angles of the opening being located below the branches and the end of the wick tube.

5. In a device of the character described, the combination of a reservoir, a wick tube projecting upwardly from the reservoir, a hood into which the upper end of the wick tube projects, a tube communicating with the lower portion of the reservoir and having a pair of branches pro-

jecting into the hood adjacent to the end of the wick tube, a plate attached to the front of said hood and having an angular opening therein, and means for venting the reservoir.

[Claims 6 to 12 not printed in the Gazette.]

1,071,750. DOOR-OPERATING MECHANISM FOR DUMP-CARS. BYERS W. KADEL, Roanoke, Va. Filed Dec. 23, 1912. Serial No. 738,216. (Cl. 105—186.)



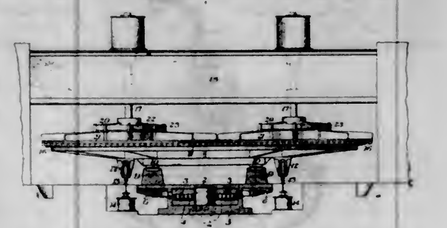
1. In a dumping car, the combination of a swinging door, a winding shaft, a substantially cylindrical drum mounted thereon, a flexible connection between the drum and the door having a portion thereof adapted to be wound on said shaft, and a hook forming a part of the flexible connection adapted to engage the drum at such a point on the periphery of the same that a line drawn from this point to the point of attachment of the flexible connection to the door will fall beyond the center of the drum, the hook being further adapted to rest against the drum at a point approximately ninety degrees behind the aforesaid point of contact between the hook and the drum, the portion of the hook between these points being cut back so as to clear the drum.

2. In a dumping car, the combination of a swinging door, a winding shaft, a substantially cylindrical drum mounted thereon, a flexible connection between the drum and the door having a portion thereof adapted to be wound on said shaft, and a hook forming a part of the flexible connection adapted to engage the drum at such a point on the periphery of the same that a line drawn from this point to the point of attachment of the flexible connection to the door will fall beyond the center of the drum, the hook being further adapted to rest against the drum at a point approximately ninety degrees behind the aforesaid point of contact between the hook and the drum, the portion of the hook between these points being cut back so as to clear the drum, the forward edge of the hook as it is drawn toward the drum being chamfered.

3. In a dumping car, the combination of a swinging door, a winding shaft, a substantially cylindrical drum mounted thereon, a flexible connection between the drum and the door having a portion thereof adapted to be wound on said shaft, and a hook forming a part of the flexible connection adapted to engage the drum at such a point on the periphery of the same that a line drawn from this point to the point of attachment of the flexible connection to the door will fall beyond the center of the drum, the hook being further adapted to rest against the drum at a point approximately ninety degrees behind the aforesaid point of contact between the hook and the drum, the portion of the hook between these point being cut back so as to clear the drum, the contact between the hook and the drum being substantially a line longitudinally of the drum.

4. In a dumping car, the combination of a swinging door, a link pivotally connected thereto at one end, the other end being provided with a series of holes longitudinally of the link, a winding shaft, a substantially cylindrical drum mounted thereon, a flexible connection between the drum and the link having a portion thereof adapted to be wound on said shaft, and a hook, forming a part of the flexible connection with its inner end adapted to engage the drum at such a point on the periphery of the same that a line drawn from this point to the pivot point of the link on the door will fall beyond the center of the drum, the outer end of the hook being provided with a series of holes of slightly greater or less spacing than those in the aforesaid link, and a pin adapted to connect the inner end of the link to the outer end of the hook.

1,071,751. GLASS GRINDING OR POLISHING MACHINE. WILLIAM L. KANN, Pittsburgh, Pa. Filed July 17, 1911. Serial No. 638,906. (Cl. 51—11.)



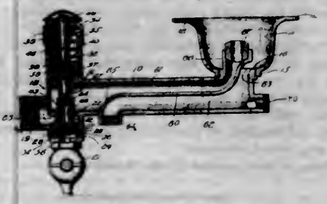
A glass grinding or polishing machine, having a stationary base provided with an annular row or rows of anti-friction bearings, a rotary base carried on said bearings, a removable glass carrying table having wheels arranged to allow its being moved on and off the rotary base, the rotary base and supporting base being within the wheel base of the table, and supports on the rotary base for the table within the table wheel base, substantially as described.

1,071,752. BOTTLE-SEAL. ADOLPH G. KAUFMAN, New York, N. Y. Filed Apr. 25, 1910. Serial No. 557,413. (Cl. 215—10.)



A bottle seal comprising a cap and an integral pendant portion, a slit arranged in the line of juncture between said cap and pendant portion and extending inwardly from the marginal edge of the cap, parts of the pendant portion intermediate the opened end of the slit and the free end of the pendant portion being weakened.

1,071,753. VALVE FOR BUBBLING FOUNTAINS. EDWARD L. KELLAN, Chicago, Ill. Filed Aug. 11, 1911. Serial No. 645,289. (Cl. 137—4.)



1. A valve comprising, in combination with a hollow outlet member adapted for communication at its inlet end with a source supplying fluid under pressure, said member being provided at its inlet end with an opening surrounded by a body seat, a hollow valve piece slidable in said opening and provided with a seat member to engage said body seat and above said seat member with vertically separated inlet and outlet ports communicating with the hollow interior of the valve piece, said valve piece being provided with a hollow stem, a bonnet connected with the hollow member through which said stem extends, a cap slidable on the outer end of the bonnet and connected to said stem and a spring within the bonnet and acting on said cap to normally hold the valve piece seat member engaged with the body seat and to maintain the inlet port of the valve piece above said body seat.

2. A valve comprising, in combination with a hollow outlet member adapted for communication at its inlet end with a source supplying fluid under pressure, said member being provided at its inlet end with an opening surrounded by a body seat, a hollow valve piece slidable in said opening and provided with a seat member to engage said body seat and above said seat member with vertically separated inlet and outlet ports communicating with the hollow interior of the valve piece, said valve piece being provided with a hollow stem, a bonnet connected with the hollow member through which said stem extends, a cap slidable on the outer end of the bonnet and connected to said stem and a spring within the bonnet and acting on said cap to normally hold the valve piece seat member engaged with the body seat and to maintain the inlet port of the valve piece above said body seat, and a rod contained within said hollow stem and screw-threaded thereto and extending at its lower end to the outlet port of the valve piece and adapted by rotative movement of the rod to cut off more or less of said outlet port, said rod being exposed at its upper end through the upper end of the hollow valve stem.

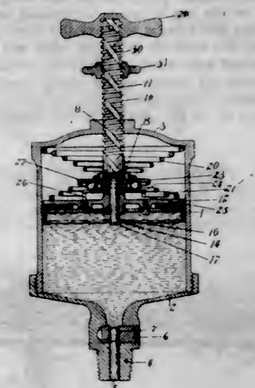
3. A valve comprising, in combination with a hollow outlet member adapted for communication at its inlet end with a source supplying fluid under pressure, said member being provided at its inlet end with an opening surrounded by a body seat, a hollow valve piece slidable in said opening and provided with a seat member to engage said body seat and above said seat member with vertically separated inlet and outlet ports communicating with the hollow interior of the valve piece, said valve piece being provided with a hollow stem, a bonnet connected with the hollow member through which said stem extends, a cap slidable on the outer end of the bonnet and connected to said stem, a spring within the bonnet and acting on said cap to normally hold the valve piece seat member engaged with the body seat and to maintain the inlet port of the valve seat above said body seat, a rod contained within said hollow stem and screw-threaded thereto and extending at its lower end to the outlet port of the valve piece and adapted by rotative movement of the rod to cut off more or less of said outlet port, said rod being exposed at its upper end through the upper end of the hollow valve stem, and said rod being provided with an annular recess and a packing in said recess closely fitting said hollow stem.

4. A valve comprising, in combination with a hollow outlet member adapted for communication at its inlet end with a source supplying fluid under pressure, said member being provided at its inlet end with an opening surrounded by a body seat, a hollow valve piece slidable in said opening and provided with a seat member to engage said body seat and above said seat member with vertically separated inlet and outlet ports communicating with the hollow interior of the valve piece, said valve piece being provided with a hollow stem, a bonnet connected with the hollow member through which said stem extends, a cap slidable on the outer end of the bonnet and connected to said stem and a spring within the bonnet and acting on said cap to normally hold the valve piece seat member engaged with the body seat and to maintain the inlet port of the valve piece above said body seat, a rod contained within said hollow stem and screw-threaded thereto and extending at its lower end to the outlet port of the valve piece and adapted by rotative movement of the rod to cut off more or less of said outlet port, said rod being exposed at its upper end through the upper end of the hollow valve stem, and a member secured to the upper open end of said stem for closing the upper end of said rod.

5. A valve comprising, in combination with a hollow outlet member adapted for communication at its inlet end with a source supplying fluid under pressure, said member being provided at its inlet end with an opening surrounded at one side by a body seat, a hollow valve piece having a hollow stem and slidable in said opening and provided with a seat member to engage said body seat, and provided above said seat member with vertically separated inlet and outlet ports communicating with the hollow interior of the valve piece, a bonnet connected to the hollow member through which said hollow stem extends, a cap screw-threaded to the outer end of the hollow stem and slidable on the outer end of the bonnet, a spring acting on the cap to normally hold the valve piece seat member engaged with the body seat and to maintain the inlet port of the valve piece above said body seat, a rod movable endwise in said hollow stem and adapted to extend to, and by its endwise movement restrict the flow of liquid through, said outlet port, said rod being exposed at its upper end through the upper end of the hollow stem, and a knob screw-threaded to the upper end of the stem to close the same and to constitute a lock nut to hold said cap to the stem.

[Claims 6 to 8 not printed in the Gazette.]

1,071,754. LUBRICATOR. GEORGE RUSSELL KENNEDY, Pittsburgh, Pa., assignor of one-half to Grant McCargo, Pittsburgh, Pa. Filed Apr. 18, 1911. Serial No. 621,898. (Cl. 184—45.)



1. In a lubricator, the combination of a cup, a piston or plunger within said cup, a solid externally threaded rod or shaft having an endwise projecting stud for supporting the piston, a spring interposed between said threaded rod and piston for moving the latter with reference to the rod, a nut fixedly connected to the cup and engaging said threaded rod, a spring interposed between the cup and the threaded rod and arranged to move the same longitudinally and thereby rotate the same in said nut, and a nut engaging the threads on said rod outside of said cup.

2. In a lubricator, the combination of a cup, a piston or plunger, a solid externally threaded rod or shaft having a projecting stud at one end thereof, a piston rotatable on said stud, a collar on said stud to confine the piston thereon, a spring interposed between the threaded rod and piston, a nut fixedly connected to the cup and engaging said threaded rod, a spring interposed between the cup and the rod and serving to move the latter longitudinally and rotate the same in said nut, escapement mechanism connecting the piston and rod and arranged to control the action of the last named spring, and a nut on said threaded rod outside of said cup and adapted to contact the same and limit the motion of said rod.

3. In a lubricator, the combination of a cup, a solid rod or shaft extending through the top thereof and interengaging the same by quick pitch threads, a piston or plunger rotatably and longitudinally movable on said rod or shaft, a feeding spring arranged to constantly exert endwise force on said rod or shaft, a pressure spring between the piston and a part moving with the rod or shaft under the action of the feeding spring, escapement mechanism between said rod or shaft and the piston for controlling the action of the feeding spring, said mechanism comprising

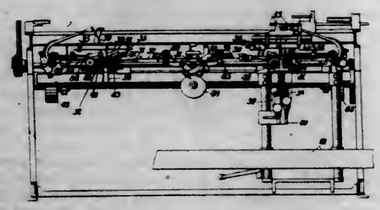
an annular toothed member non-rotatably connected to said shaft, and a single interlocking tooth or pawl carried by said piston and adapted to coöperate with said annular toothed member.

4. In a lubricator, the combination of a cup, a threaded rod or shaft extending through the top thereof and interengaging the same by quick pitch threads, a piston or plunger rotatably and longitudinally movable on said rod or shaft, a feeding or shifting spring arranged to constantly exert endwise force on said rod or shaft, a pressure spring between the piston and a part moving with the rod or shaft under the action of the shifting spring, escapement mechanism between said rod or shaft and the piston and comprising an annular toothed member and an interengaging tooth or pawl, said rod or shaft being also provided with slow pitch threads, and a nut thereon provided with corresponding slow pitch threads.

5. In a lubricator, the combination of a cup, a piston or plunger therein, a rod or shaft, a spring interposed between said rod or shaft and the piston, a nut engaging said rod or shaft by quick pitch threads and being non-rotatably supported on the cup, a spring interposed between the cup and said rod and serving to move the latter longitudinally and rotate the same in said nut, said rod or shaft also being provided with a set of slow pitch threads, and a nut engaging said rod outside of the cup by corresponding slow pitch threads.

[Claims 6 to 10 not printed in the Gazette.]

1,071,755. FOLDING-MACHINE. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Oct. 27, 1911. Serial No. 657,034. (Cl. 101—152.)



1. In a sheet folding machine, the combination of means for folding each sheet and then cutting it into a plurality of sections, means for delivering pairs of said sections so that one section of a pair shall superimpose another, one section of each of said pairs of sections being delivered directly from the cutting means into a different plane than that of the other section of the pair, and means for striking the sections of each pair together one inserting the other in a final fold.

2. In a sheet folding machine, the combination of means for folding each sheet and then cutting it into a plurality of pairs of sections, means for delivering adjacent sections of each pair, as they are being severed, into different planes, and means for then moving one section of each pair, in a direction transverse that of its first movement, until one section of each pair superimposes the other.

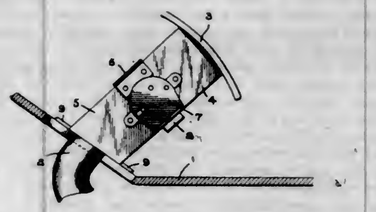
3. In a sheet folding machine, the combination of means for folding each sheet and then cutting it into four sections, means for folding said sections into four signatures of sixteen pages each, or into two signatures of thirty-two pages each, said means comprising two pairs of slotted members, one member of each pair superimposing the other, means for bringing pairs of the sections into registering position, but one in time subsequent to the other, striking blades and arbitrary means for timing said striking blades to strike each section separately or a pair of sections together.

4. In a folding machine, the combination of means whereby a sheet is folded and separated into a plurality of sections, said sections delivered from the separating means onto carrying tapes traveling in the same direction but in different planes, drop and feed rollers adapted to operate upon the sheets in one plane to cause their transverse movement to register with the sheets lying in another plane, and final folding rollers and a striking blade for folding said registered sheet sections one insetted within another.

5. In a sheet folding machine, the combination of means for folding each sheet and then cutting it into four sections, means for carrying the sections forward in pairs, one of each pair in a different plane from the other of said pair, means for moving one of each pair transversely of its first movement, so that the sections of each pair shall register with each other, one reaching its position in time subsequent to the other, striking blades and means for controlling the movements thereof, either to strike each pair together in the final fold, or to strike each section of each pair independently of the other.

[Claims 6 to 19 not printed in the Gazette.]

1,071,756. AUTOMOBILE-LOCK. PHILIP KOVSKY and JOHN F. HICKS, Philadelphia, Pa. Filed May 3, 1913. Serial No. 765,198. (Cl. 70—90.)



1. A device of the character described, comprising a lever engaging device consisting of two members movable relative to each other, whereby the length of the device may be varied, and means for locking said device around a lever, substantially as described.

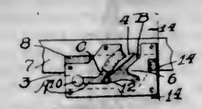
2. A device of the character described, comprising a casing adapted to be positioned around a lever, a door closing said casing, and a channel bar adjustable longitudinally in the casing, substantially as described.

3. A device of the character described, comprising a rectangular casing open at one side, a door hinged to the open side of the casing, a lock on the door, a keeper on the casing to receive the bolt of said lock, and a channel bar adjustable longitudinally in the casing, substantially as described.

4. A device of the character described, comprising a casing adapted to be positioned around a lever, a door closing said casing, a channel bar adjustable longitudinally in the casing, said channel bar conforming in shape and fitting within the casing and having a longitudinal series of openings therein, and a stud in said casing adapted to enter in said openings, substantially as described.

1,071,757. DAVENPORT-DIVAN. JULIUS KRAMER and ROYAL R. MILLER, Chicago, Ill.; said Miller assignor to Adolph Karpen, Chicago, Ill. Filed Apr. 8, 1912. Serial No. 689,415. (Cl. 5—50.)

1. In a folding davenport bed the davenport frame, the seat, a grooved cam plate secured on said frame centrally of each end thereof, an inwardly projecting, upwardly opening hooked detent at the forward end of the cam plate, a pivot plate secured on each end of the seat, a pivot pin projecting therefrom near the middle of the seat end, a roller journaled thereon and fitting in one of the grooves of the cam plate, and a locking roller journaled on the pivot plate at a distance from said pivot pin and adapted to positively engage beneath a part of the cam plate at each of the adjusted positions of the seat, a sectional mattress frame pivotally engaged by one of its sections on the rear of the seat, an inwardly hooked spring detent projecting downwardly from the seat near the pivot pin, projections on the outer of the mattress frame sections when folded, adapted for engagement by said detents whereby the bed is wholly supported upon the seat, and a foot rail pivoted on the end section of said frame adapted to retain the bedding thereon.



2. In a revolving seat davenport the davenport frame and the seat frame, a mattress frame mounted on said seat frame, a foot rail thereon, a cam plate centrally secured on each end of the seat frame, a pivot plate complementally secured on the davenport frame to coact therewith, a pivot roller and a locking roller journaled on the pivot plate, the one for the pivot roller and others for the locking roller, a rib or projection on the cam plate between the grooves for the locking roller and affording a stop for said roller to lock the seat in normal upright position and when inverted, an upwardly hooked detent integral with one of said plates near the extremity thereof, and receiving a curved end and edge of the other plate therein to afford a guide, and a shoulder beyond said curved portion of said plate adapted for engagement in the detent when the seat is at normal.

3. In a revolving seat davenport the davenport frame and the seat frame, a cam plate centrally secured on each end of one of the same, a pivot plate complementally secured on the other to coact therewith, a pivot roller and a locking roller journaled on the pivot plate, the one for the pivot roller and others for the locking roller, a rib or projection on the cam plate between the grooves for the locking roller and affording a stop for said roller to lock the seat in normal upright position and when inverted, an upwardly hooked detent integral with one of said plates near the extremity thereof and receiving a curved end and edge of the other plate therein to afford a guide, a shoulder beyond said curved portion of said plate adapted for engagement in the detent when the seat is at normal, a mattress frame comprising five articulated sections connected with the rear side of the seat frame at its second section, a plate having an inclined groove therein secured on, and projecting downwardly from each end of the seat frame, a roller journaled centrally on each side member of the first mattress frame section and engaging in said inclined groove, and acting to elevate said section thereon when the bed is extended, automatically acting legs on the outer sections, said mattress frame being articulated to roll upwardly and inwardly upon the inverted seat, a foot rail pivoted on said outer sections adapted to fold over the mattress to retain the same and an inwardly hooked spring detent engaged on the under side of the seat frame and adapted to engage the outermost mattress frame section when closed, and to support the same when the seat is at normal.

4. In a device of the class described the davenport frame, the rotatable seat therein, a bracket at each rear corner of said seat projecting downwardly and rearwardly therefrom, a mattress frame comprising articulated alternate long and short mattress frame sections, a foot rail movably mounted on the end sections thereof to retain the mattress thereon, a downwardly projecting lug secured on the first short frame section at each end thereof and pivotally engaged on the extremity of said brackets, a guide plate having a forwardly and downwardly inclined slot therein communicating with the horizontal slot at the lower end of the same, said guide plates secured centrally at each end the seat frame, and a roller journaled centrally on each end member of the first mattress frame section and projecting into said inclined slot whereby as the mattress frame is extended outwardly or unfolded, the thrust of the first short mattress frame section on the first long section acts to force the same upwardly into a common plane with the mattress frame as a whole.

5. In a device of the class described the davenport frame, a rotatable seat mounted therein, means permitting rotation thereof, locking means holding said seat in its adjusted position both at normal and when inverted, a mattress frame comprising a plurality of long and short articulated frame sections, a pivoted foot rail on the outer long section standards on the rear edge of the seat frame, projecting lugs on the under side the ends of the first short section, a journal on said standards, inwardly hooked spring detents secured one at each end of the seat frame, and a latch hingedly connected with the second long frame section at each end thereof and adapted for engagement with said detent when closed, together with said standards, to wholly support the folded mattress frame on the seat.

[Claim 6 not printed in the Gazette.]

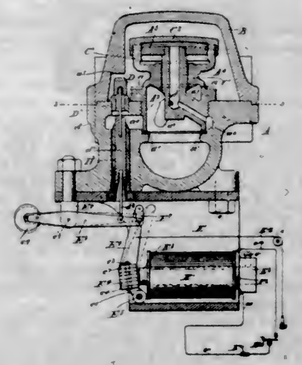
1,071,758. PLASTERING-TOOL. WILFRID LABELLE, Montreal, Quebec, Canada. Filed May 5, 1913. Serial No. 765,437. (Cl. 72—136.)



1. In a device of the character described, a flat rectangular blade provided with a plurality of tapering grooves extending and tapering from the outer edge of said blade to its proximate longitudinal center, and a smooth portion.

2. In a device of the character described, a flat rectangular blade provided with a plurality of tapering grooves extending and tapering from the outer edge thereof to the proximate longitudinal center thereof, a smooth portion extending from the ends of said grooves to the edge of the said blade, handles secured to said blades by bolts having their inner ends countersunk and level with the face of said blade, and a raised rib slanting from its center toward its ends extending lengthwise of the back of the blade, being integral therewith and bracing the same.

1,071,759. VALVE. FRANK F. LANDIS, Waynesboro, Pa. Filed Sept. 5, 1906. Serial No. 333,320. (Cl. 137—4.)



1. In a valve structure, the combination of the valve body formed with inlet and outlet ports, a valve seat, formed on a suitable bushing secured between said inlet and outlet ports, a main valve mounted on said valve seat, being held in position by a central standard supported by radial arms from said bushing, said arms and standard

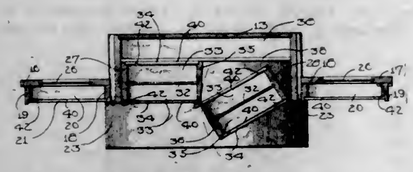
being formed with passage ways or ports communicating with a port surrounding said bushing, a small valve for closing a port or passage leading from the chamber surrounding said main valve into said ports, and means for raising said auxiliary valve at desired intervals, substantially as set forth.

2. In a valve structure, the combination of the valve body, comprising inlet and outlet ports separated by a main valve contained in a chamber communicating with the inlet port, an auxiliary port leading from said chamber to beneath a part of the main valve structure of larger area than the valve seat, an auxiliary valve for controlling said port, and means for operating said auxiliary valve comprising a lever connected therewith and pivoted to an arm of an armature of an electromagnet, said electromagnet mounted in an electric circuit adapted to be opened and closed, and means for opening and closing said circuit, substantially as set forth.

3. In a valve structure, the combination of the valve body, the main valve, the auxiliary valve for controlling a port leading to beneath a part of the main valve, means for operating said auxiliary valve comprising a lever connected by a link with an arm mounted on a swinging armature of an electromagnet, the pivots connecting the opposite ends of said link with said lever and arm being normally substantially in line with the axis of the pivot or shaft on which said armature is mounted, said electromagnet mounted in an electric circuit, and means for opening and closing said circuit, substantially as set forth.

4. In a valve, the combination, of a body provided with an inlet and an outlet, a main valve between them, an auxiliary valve controlling a port leading from one side of said main valve to the other, means for operating said auxiliary valve comprising an electromagnet, the armature thereof mounted on a rock-shaft and having an arm connected to a lever for lifting said auxiliary valve, the connection consisting of a link pivoted at one end to said arm and at the other end to said lever, the pivots being arranged so that the angle between the link and arm will increase as the armature moves toward the magnets, substantially as set forth.

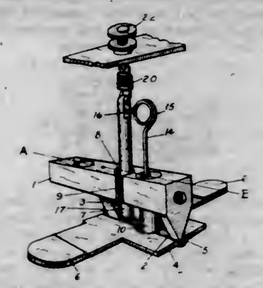
1,071,760. MEDICINE-CABINET. JOHN B. LANOUE, Troy, N. Y., assignor of one-half to Clarence H. White, Cohoes, N. Y. Filed July 25, 1912. Serial No. 711,549. (Cl. 211—7.)



1. A cabinet comprising a body portion, inner receptacles pivotally mounted between the side walls of said body portion, the inner walls of said receptacles being thickened to form oppositely inclined wedge shape walls to cause one of said receptacles to prevent the opening of the other of said receptacles when said receptacles are in a closed position, the wall of said first mentioned receptacle being curved to permit the receptacle to be swung open, means for holding said first mentioned receptacle in a closed position, and doors for said cabinet closing in upon said inner receptacles.

2. A cabinet comprising a body portion, receptacles pivotally mounted in said body portion, pivot pins at the upper and lower ends of said receptacles and provided with reduced free end portions passing through bearings carried by the top and bottom of said cabinet, the inner end walls of said receptacles being thickened and wedge shape in cross section whereby one of said receptacles will hold the other of said receptacles in a closed position, and doors for said cabinet engaging said receptacles when in a closed position to hold the receptacles stationary.

1,071,761. SUPPORT FOR OSCILLATABLE MEMBERS. RICHARD C. LEAKE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Sept. 5, 1911. Serial No. 647,729. (Cl. 73—152.)



1. A knife edge bearing, an oscillatable member and means to resiliently support the oscillatable member against the knife edge bearing, said means oscillatable with the oscillatable member about a line through the extremity of the knife edge.

2. A knife edge bearing, an oscillatable member, and means to cause a normal bias in the oscillatable member and to support tha same against the knife edge bearing, said means oscillatable with the oscillatable member about the same axis.

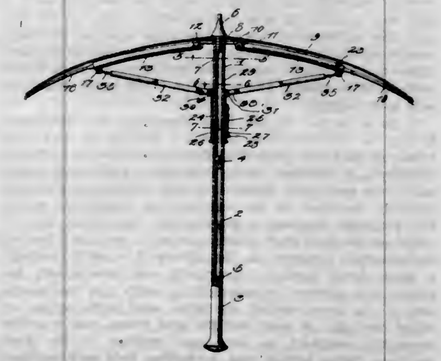
3. A knife edge bearing, an oscillatable member, means to adjustably resiliently support the oscillatable member against the knife edge bearing, said means oscillatable with the oscillatable member about the same axis.

4. A knife edge bearing, an oscillatable member, a spring member, one end of said spring member connected to said oscillatable member, a member adjustably connected to said bearing formed with an eccentric cone shaped cavity therein, the other end of said spring member resting in said cavity.

5. A knife edge bearing, an oscillatable member, a spring member, one end of said spring member connected to said oscillatable member, a member adjustably connected to said bearing formed with an eccentric cone shaped cavity therein, the other end of said spring member resting in said cavity and means for securing said adjustably connected member in adjusted position.

[Claims 6 to 10 not printed in the Gazette.]

1,071,762. FOLDING UMBRELLA. IRA H. LONG, Peru, Ind. Filed Dec. 5, 1912. Serial No. 735,131. (Cl. 135—26.)

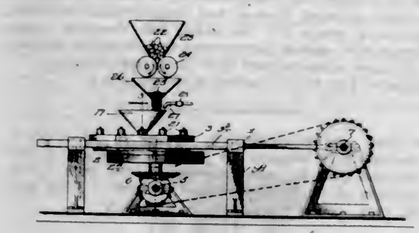


1. In a folding umbrella, the combination with a collapsible staff having a notch, a runner, and the braces pivotally connected at their inner ends with said runner; of telescopic ribs each composed of a tubular inner member and an outer member, the former pivoted at its inner end to said notch and at its outer end to one of said braces and having a longitudinal slot in its wall tapering toward its outer end, and the outer member having a head movably mounted in said inner member and provided with a lug projecting through said slot.

2. A telescopic umbrella rib comprising an inner member having a substantially tubular body with a longitudinal slot growing narrower toward its outer end and there provided with a notch in one side, and an outer member slidably mounted within said inner member and having a laterally projecting lug of a width to fit the wider portion of said slot and to spread apart the walls of the same as it is drawn outward.

3. The herein described telescopic umbrella rib comprising an inner substantially tubular member having a longitudinal slot growing narrower toward its outer end and there provided with a lateral notch so that the width at the outer end of the slot and notch is the same as the width of the inner end of the slot; and an outer member having an enlarged and rounded head at its inner end slidably fitting within said inner member and provided with a lateral lug of the same width as the inner end of said slot, and a head at the outer end of said lug.

1,071,763. ORE-TREATING PROCESS. THOMAS J. LOVETT, Chicago, Ill., assignor to Copper Process Company, Chicago, Ill., a Corporation of South Dakota. Filed Nov. 14, 1912. Serial No. 731,454. (Cl. 83—84.)



1. The gradual reduction method of treating ore containing ductile metal in fine particles, which consists in subjecting ore-lumps holding the fine particles of metal mainly in unfreed condition to a prolonged rub-rolling action under pressure, to simultaneously disintegrate the gangue and roll the ductile metal particles into pellets or slugs.

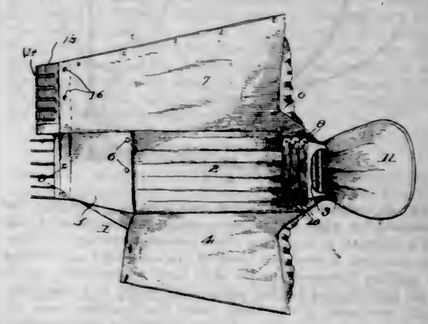
2. The gradual reduction method of treating ore containing ductile metal in fine particles, which consists in subjecting ore-lumps holding the fine particles of metal mainly in unfreed condition to a prolonged rub-rolling action, in changing directions, under pressure, to simultaneously disintegrate the gangue and roll the ductile metal particles into readily concentratable pellet or slug form.

3. The gradual reduction method of preparing a concentrate, which consists in subjecting ore-lumps holding the metal values in the matrix to a prolonged rub-rolling action, in changing direction, under pressure, and in the presence of flowing water, said operation being continued until the gangue is reduced to finely pulverulent condition and the metal values rolled into readily concentratable slug or pellet form.

4. The method of treating ore which consists in rub-rolling ore for a prolonged period and under progressively increasing pressure until the mineral values are rolled into readily concentratable slug or pellet form.

5. The gradual reduction method of treating ore, which consists in subjecting ore-lumps holding the mineral values in unfreed condition to a prolonged rub-rolling action under progressively increasing pressure until the mineral values are freed from the matrix in readily concentratable form.

1,071,764. SLEEPING-HAMMOCK. JAMES M. LOWRIMORE, Thomasville, Ga. Filed Dec. 18, 1912. Serial No. 737,535. (Cl. 5—10.)



1. A sleeping hammock, comprising a body portion, a foot piece secured to one end of said body portion upon the upper side thereof and forming a pocket, a relatively short under flap secured to one of the longitudinal edges of the body portion, an outer flap secured to the other longitudinal edge of the body portion and adapted to overlap said first mentioned flap and foot piece, a protecting flap secured transversely of the outer flap and overlapping the foot of the hammock, means for securing said flaps in position, and a head flap.

2. A sleeping hammock, comprising a flexible body portion rectangular in shape, reinforcing means extending transversely thereof, a foot piece forming an inwardly opening pocket, an inner flap adapted to be folded over the body portion and secured to said foot piece, an outer flap somewhat longer than said first mentioned flap and adapted to overlie the same, a protecting flap carried upon said outer flap, said protecting flap being transversely slitted to permit of the passage of flexible supporting members, and a head flap, substantially as described.

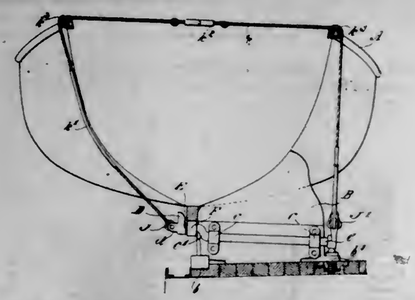
1,071,765. DEVICE FOR SECURING AND RELEASING LIFE-BOATS. ANDREAS P. LUNDIN, New York, N. Y., assignor, by mesne assignments, to Astor Trust Company, trustee, a Corporation of New York. Filed Nov. 9, 1908. Serial No. 461,631. (Cl. 9—22.)

1. A device for securing and releasing life boats, comprising a cradle at the inboard side of the life boat, a chocking block at its outward side movable laterally relatively to said cradle, a rocking shaft adapted to be operated from the inboard side of the life boat for moving said chocking block to its securing and releasing poistions respectively, a roller carried by said shaft intermediate the chocking block and the cradle, and means for rocking said shaft to move the roller into engagement with the keel of the life boat.

2. In devices for securing and releasing life boats, the combination with a cradle for the inboard side of such boat, a chocking block for the outboard side movable relatively to said cradle, a grip chain secured to said chocking block and adapted to be released by the movement thereof, and means for moving said chocking block.

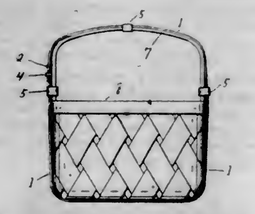
3. In a device for securing and releasing life-boats, the combination with a stationary cradle for the inboard side of a life-boat, of a rocking shaft mounted contiguous thereto, carrying a chocking block at its outer end and having a portion intermediate its ends bent eccentrically to its axis and adapted to abut against the cradle to prevent fur-

ther movement of the shaft when the chocking block assumes a vertical position.



4. In a device for securing and releasing lifeboats, the combination with a stationary cradle for the inboard side of a lifeboat, of a rocking shaft mounted contiguous thereto, carrying a chocking block at its outer end and having a portion intermediate its ends bent eccentrically to its axis and adapted to abut against the cradle to prevent further movement of the shaft when tLe chocking block assumes a vertical position, a hook carried by said chocking block, another hook associated with the inboard side of said rocking shaft, a roller mounted on the eccentric portion of said rocking shaft adapted to frictionally engage the keel of the boat and means for rocking said rocking shaft.

1,071,766. REINFORCEMENT FOR BASKETS. ADOLPH MARCUS, Louisville, Ky. Filed Aug. 24, 1912. Serial No. 716,801. (Cl. 217—125.)

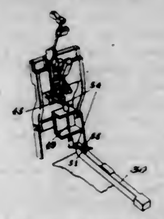


1. In combination with a basket and the handle thereof, a band encircling said basket and handle, means for connecting the ends of the band and clips extending laterally from the band to engage with said handle to prevent lateral movement of the band thereon.

2. In combination with a basket, a handle attached thereto and extending thereabove, a flexible metallic band adapted to be encircled about said basket and over said handle, said band having a protuberance near one end thereof and being provided with a perforation near the other end adapted to be engaged over said protuberance, a slide on said band adapted to engage over the superimposed end of the band and retain said perforation in engagement with the protuberance, lugs depending from the edges of that portion of the band that overlies said handle, said lugs being adapted to bear against each side of the handle and prevent lateral movement of the band thereon.

1,071,767. PIANO WITH TRANSPOSING-KEYBOARD. ANTONINO MAURO, FILIPPO MAURO, and BENEDETTO MAURO, New York, N. Y. Filed Feb. 20, 1912. Serial No. 678,971. (Cl. 84—41.)

1. In a piano the combination of a longitudinally shiftable keyboard, means for securing the same in its normal position, and means for mounting the same adapted to cause the automatic lowering of its rear end upon the said securing means being released.



2. In a piano the combination of a longitudinally shiftable keyboard, means for securing the same in its normal position, and means for pivotally mounting the same, adapted to cause the weight of its rear part to automatically lower the same upon the said securing means being released.

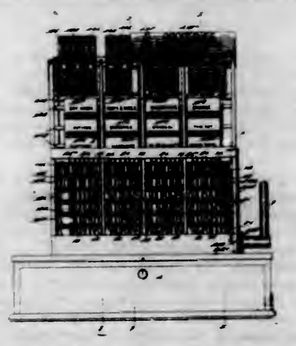
3. In a piano the combination of a longitudinally shiftable keyboard, and means for clamping the same in and for releasing the same from its normal position, said means being adapted to be used by the operator to perform the shifting of said keyboard.

4. In a piano the combination of a longitudinally shiftable keyboard, means for clamping the same in and for releasing the same from its normal position, said means being adapted to be used by the operator to also perform the shifting of the same, and means for mounting the same adapted to cause the automatic lowering of its rear end upon the said clamping means being released.

5. In a piano the combination of a frame, a keyboard pivotally mounted thereon and longitudinally shiftable, positioning means for the same, and clamping means adapted to be used by the operator to perform the shifting of the same when released from its normal position.

[Claims 6 to 16 not printed in the Gazette.]

1,071,768. CASH-REGISTER. JOHN H. MCCORMICK, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio. (Incorporated in 1906.) Filed Mar. 26, 1901. Serial No. 52,915. (Cl. 235—6.)



1. In a cash register the combination with a register operating mechanism, of a series of independent counters and connections, spring means for bringing the counters and the operating mechanism together, a series of keys for setting any particular counter connection for operation by the spring means, and means independent of the keys for putting the spring means under tension.

2. In a cash register the combination with a register operating mechanism, of a series of independent counters and connections, a totalizing counter, spring means for bringing the counters and connections and the operating mechanism together, a series of keys arranged when operated to set the independent counter connections and totalizing counter connections for operation by the spring means, and devices independent of the keys for putting the spring devices under tension.

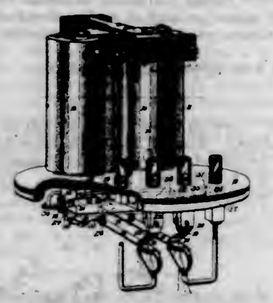
3. In a cash register the combination with a register operating mechanism, of a series of independent counters and connections, a spring operating means for bringing the counters and the operating mechanism together, a series of keys for setting the counter connections for operation in connection with the spring means, a member common to and released by all the keys and adapted to release the spring means, and devices independent of the keys for returning the common member to put the spring means under tension.

4. In a cash register the combination with a register operating mechanism, of a series of independent counters, a totalizing counter, spring devices for moving the respective counters into coöperative relation with the operating mechanism and means for controlling the throwing devices whereby the totalizing counter will be thrown into operative position only with certain of the special counters.

5. In a cash register the combination with a register operating mechanism, of a series of independent counters and connections, a totalizing counter, spring devices for throwing the respective counters into coöperative relation with the operating mechanism, a series of keys arranged when operated to set the counter connections for operation in connection with the spring throwing devices, a movable member for putting the spring devices under tension, and a cash drawer and an operating handle arranged to operate the movable member.

[Claims 6 to 89 not printed in the Gazette.]

1,071,769. CIRCUIT-CONTROLLER. HAROLD MCCREADY, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1911. Serial No. 617,749. (Cl. 175—281.)

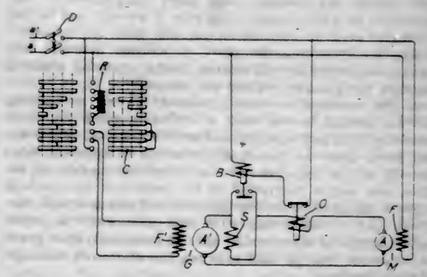


1. In a circuit controller, an electro-magnet, an armature controlled thereby, two contact fingers, one of which is rigidly secured to the armature and the other of which is pivoted to have movements relatively to the armature, a stud secured to the armature and having a body portion and an enlarged head portion, and a hole in the pivoted contact finger which will pass freely over the body portion of the stud but which will not pass over the head portion.

2. A circuit controller comprising a movable contact operating member, a fusible contact and a non-fusible contact, each contact comprising a stationary member and a movable member, the movable member of the non-fusible contact being connected with the operating member to be positively moved thereby during movement of the operating member in both directions, and means interposed between the operating member and the movable member of the fusible contact for closing the latter when the operating member moves in such direction as to close the non-fusible contact and for permitting return movement of the operating member to open the non-fusible contact independently of the movable member of the fusible contact in case the latter should become fused while closed.

3. A circuit controller comprising a movable operating member, a non-fusible contact connected with the operating member to be positively moved thereby during movements of the latter in both directions, a fusible contact, and means interposed between the operating member and the fusible contact for closing the latter when the operating member moves in such direction as to close the non-fusible contact and for permitting return movement of the operating member to open the non-fusible contact independently of the fusible contact in case the latter should become fused while closed.

1,071,770. MOTOR-CONTROL SYSTEM. ROBERT H. MCLAIN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 25, 1912. Serial No. 733,275. (Cl. 172—236.)



1. The combination with a separately excited motor, and a generator for supplying current to the armature of said motor, means for varying the voltage of the generator to vary the speed of the motor, a series field for said generator, and an overload relay for controlling said series field.

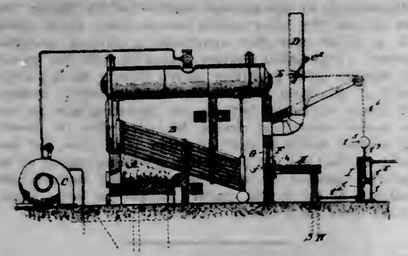
2. The combination with a separately excited motor and a generator having a shunt field for supplying current to the armature of said motor, means for varying the strength of said shunt field to vary the speed of the motor, a series field for said generator, and an overload relay for controlling said series field.

3. The combination with a separately excited motor and a generator having a shunt field for supplying current to the armature of said motor, means for varying the strength of said shunt field to vary the speed of the motor, a series field for said generator wound differentially with respect to the shunt field, and an overload relay for controlling said series field.

4. The combination with a separately excited motor and a generator having a shunt field winding for supplying current to the armature of said motor, means for varying the strength of said shunt field to vary the speed of the motor, a series field for the generator short circuited during normal operation and differentially wound with respect to the shunt field winding, and an overload relay for opening said short circuit to insert the series winding when the motor current rises above a predetermined value.

5. The combination with a separately excited motor and a generator having a shunt field winding for supplying current to the armature of said motor, means for accelerating and retarding said motor by varying the strength of said shunt field, a series field for the generator short circuited during normal operation and differentially wound with respect to the shunt field winding, and an overload relay responsive to variations in current due to the effect of said series field upon the voltage for continuously opening and closing said short circuit during the accelerating and retarding of the motor.

1,071,771. PRESSURE-REGULATING APPARATUS. EMBURY MCLEAN, Brooklyn, N. Y. Filed July 10, 1907. Serial No. 383,062. (Cl. 110—54.)



1. The combination of a chamber having an opening therein, of a regulating plate located at said opening, said plate being operated upon on one side by the pressure within the chamber and at the opposite side by the pressure outside the chamber, such plate being pivotally supported on an axis through its center of gravity and having a greater area on one side of its axis than on the other, means for returning the plate to neutral position, and means controlled by the motion of the swinging plate to regulate the pressure within the chamber.

2. The combination with a chamber having an opening therein having a side wall, a swinging plate regulator located within said opening and movable through the same, and acted upon by the fluid pressures on opposite sides thereof, means for resisting the deflecting motion of the plate, and means controlled by the motion of the plate to regulate the pressure at the opening, and means at the edge of the plate coöperating with said side wall the opening forming and maintaining an elongated restricted space to resist the flow of fluid between the plate and the edge of said opening.

3. The combination with a chamber having a passageway therein, of a swinging plate supported on an axis through its center of gravity and adapted to be acted upon by the pressure inside the chamber, the pivot for said plate being located adjacent the base of said opening, and the part of the plate subjected to the pressure extending upward from the pivot to a point adjacent the top of the opening, and means controlled by the plate for regulating the pressure within the opening.

4. The combination of a chamber having an opening therein, a swinging regulating plate located within said opening and conforming thereto and movable through the opening, and a flange in said plate coöperating with the edge of the opening during the movement of the plate to maintain a restricted space when the plate swings on its fulcrum.

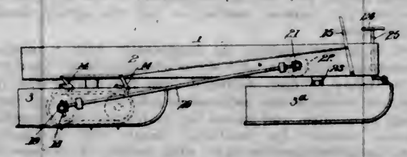
5. The combination of a chamber having an opening therein, a swinging regulating plate located at said opening and conforming thereto, and oppositely extending flanges on said plate at right-angles to the plane of the latter and arranged to coöperate with the edge of the opening to maintain a restricted space between the plate and the edge of the opening when the plate swings on its fulcrum.

[Claims 6 to 10 not printed in the Gazette.]

1,071,772. SLEIGH-PROPELLER. WILLIAM MCMEANS, West Liberty, Iowa. Filed Feb. 3, 1912. Serial No. 675,307. (Cl. 21—47.)

1. In a propeller of the character described, the combination, with a pair of endless belts, of road-engaging members pivotally suspended from said belts, wheels on which said belts are mounted, a plurality of continuous guides, and oppositely extending arms on each of said pivoted road-engaging members, each of said arms being arranged to travel on the respective guides for maintaining the road-engaging members continuously in a direction to contact with the road surface.

2. In a propeller of the character described, the combination, with endless belts, of road-engaging members pivotally suspended from said belts, wheels on which said belts are mounted, continuous guides conforming to said belts, and oppositely extending arms on each of said pivoted road-engaging members, said arms being arranged to travel on the respective guides, one of said guides being arranged in front of the belts and the other rearward thereof a distance equal to the length of said arms for the purpose specified, whereby a portion of the road-engaging members may be continuously maintained in a substantially vertical direction.



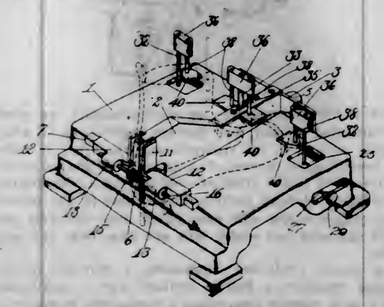
3. In a propeller of the character described, the combination with endless belts, of a series of road-engaging members mounted for pivotal movement between said belts, each of said road-engaging members being provided with a series of prongs, continuous guides on opposite sides of said belts, and oppositely extending arms on both ends of each of said road-engaging members, said arms arranged to travel on the respective guides for maintaining the prongs in depending vertical positions.

4. In a propeller of the character described, the combination, with endless belts, of road-engaging members pivotally carried by said belts, wheels over which said belts are passed, continuous guides comprising opposing rails, oppositely extending arms on said road-engaging members, and grooved roller bearings on the ends of said arms arranged to travel upon the respective guides and confined thereto by their grooves engaging said rails.

5. In a propeller of the character described, the combination with a pair of endless belts, of a train of road-engaging members pivotally carried by said belts, each of said members having a plurality of prongs integral therewith, and means on each of said road-engaging members for maintaining said prongs in a depending vertical position.

[Claim 6 not printed in the Gazette.]

1,071,773. APPARATUS FOR MEASURING BOOTS AND SHOES. JOHN H. MEACHAM, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 18, 1907. Serial No. 407,009. (Cl. 73—64.)



1. In an apparatus of the character described, yielding means to support a shoe to be measured, and a gage arranged for yielding contact with said shoe.

2. In an apparatus of the character described, yielding means to hold a pair of shoes, and mechanism to measure the lengths of toe tips on both shoes simultaneously.

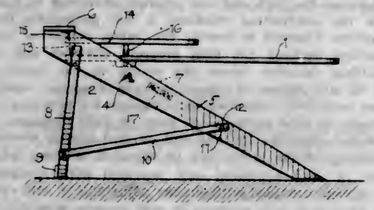
3. In an apparatus of the character described, yielding means to hold a pair of shoes, and mechanism to measure the alinement of tip seams on both shoes simultaneously.

4. In an apparatus of the character described, gages arranged for yielding contact with both shoes of a pair of shoes to be measured, adjusting means for said gages, and mechanism to cause said gages to contact simultaneously with said shoes.

5. In an apparatus of the character described, means to support a pair of shoes, movable gages to measure corresponding dimensions of both shoes, and mechanism to cause said gages to contact with both shoes at one operation.

[Claims 6 to 24 not printed in the Gazette.]

1,071,774. IRONING-TABLE. FRANCIS A. MENTGEN, Sterling, Colo. Filed Feb. 10, 1913. Serial No. 747,472. (Cl. 68—10.)



1. In an ironing table, the combination with a support comprising side rails, transverse bracing slats therefor disposed below the upper edge of said rails, a head piece secured to the upper ends of said rails, and a prop for said support to dispose the latter in an inclined position with respect to the floor; of an ironing board pivoted adjacent its one end between the side rails of said support, said board in its lowered position being adapted to rest on the upper edges of said side rails, and a hinged board carried on the under face of said head piece to retain the ironing board in a horizontal and operative position.

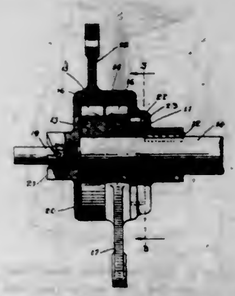
2. In an ironing table, the combination with a support comprising side rails, transverse bracing slats therefor disposed below the upper edge of said rails, a head piece secured to the upper ends of said rails, and a prop for said support to dispose the latter in an inclined position with respect to the floor; of an ironing board pivoted adjacent its one end between the side rails of said support, said board in its lowered position being adapted to rest on the upper edges of said side rails, and a hinged board carried on the under face of said head piece adapted to be disposed in engagement with the upper face of the inner end of said ironing board to retain the latter in a horizontal and operative position, said hinged board being provided with a slot, whereby a sleeve board may be engaged therewith.

1,071,775. STARTING MECHANISM FOR EXPLOSIVE-ENGINES. HUBERT MEREDITH-JONES, New York, N. Y., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn., a Corporation of New York. Filed June 24, 1912. Serial No. 705,418. (Cl. 123—185.)

1. Starting mechanism comprising a driving member having a driving lug, a driven member having lugs by which the driving member is carried after the engine has started, a spring intermediate the driving lug and the driven member and means for imparting rotary movement to the driving member.

2. Starting mechanism comprising a driving member having a driving lug and peripheral recesses with inclines, driving rings outside the driving member, rollers between the inclines and the driving rings, a driven member having lugs engaging the driving member and a spring intermediate the driving lug and the driven member which receives the blow of a backfire.

3. Starting mechanism comprising a driving member having a driving lug and peripheral recesses with inclines, driving rings outside the driving member, rollers between the inclines and the driving rings, a driven member having lugs engaging the driving member and a recess having an abutment and a spring in said recess which bears against the abutment and against which the driving lug bears.



4. Starting mechanism comprising a driving member having a driving lug and peripheral recesses with inclines, driving rings outside the driving member, rollers between the inclines and the driving rings, a driven member having lugs engaging the driving member and a recess having a shoulder and an abutment, and a spring in the recess having outwardly turned ends, one of said ends engaging the abutment and the other being engaged by the driving lug.

5. Starting mechanism comprising a driving member having a driving lug and peripheral recesses with abutments and inclines, driving rings, rollers intermediate the inclines and the rings, a driven member having lugs engaging the abutments and a spring intermediate the driving lug and the driven member, oscillation of the driving rings causing the rollers to travel up the inclines and rotate the driving member and the driving lug communicating motion to the driven member, increased motion of the driven member causing the lugs thereon to engage the abutments on the driving member and carry the latter forward leaving the rollers in the deep portions of the recesses, and a backfire causing the spring to yield and the lugs on the driven member to knock the rollers backward and disconnect the driving member from the driving rings.

[Claims 6 to 9 not printed in the Gazette.]

1,071,776. DRILLING AND KINDRED MACHINE. JAMES T. MORRISSEY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed May 6, 1910. Serial No. 559,795. (Cl. 77—5.)

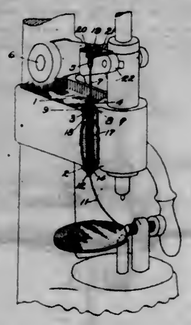
1. In a machine of the character described, a liquid retainer, a valve therefor, an operating tool, means for advancing and retracting the tool, and means adapted to temporarily engage the valve and hold the same open for a limited period during the advance of the tool, said means being constructed to release the valve before the tool is advanced into operative position.

2. In a machine of the character described, a liquid retainer, a valve in the retainer, an operating tool, means for advancing and retracting the tool, and means adapted to successively open and close the valve as the tool is advanced toward the work.

3. In a machine of the character described, a liquid retainer, a valve in the retainer, an operating tool, means for advancing and retracting the tool, means for opening the valve as the tool is advanced, and means adapted to close the valve before the tool penetrates the work.

4. In a machine of the character described, an operating tool, means for advancing and retracting the operating tool, a liquid retainer, a valve in the retainer, means on

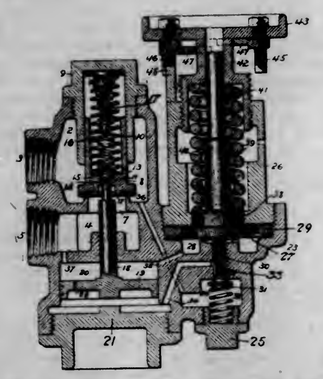
the tool operating means adapted to open the valve as the tool is advanced toward the work, and means adapted to close the valve before the tool penetrates the work.



5. In a machine of the character described, an operating tool, means for advancing and retracting the tool, a liquid retainer, a valve in the retainer, a valve stem, a contact on the tool operating means adapted to displace the valve stem and open the valve as the tool is advanced toward the work, and means to close the valve when the contact has released the valve stem.

[Claims 6 to 13 not printed in the Gazette.]

1,071,777. FLUID-PRESSURE-REDUCING VALVE. HOWARD M. P. MURPHY, Pittsburgh, Pa., assignor, by direct and mesne assignments, to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 21, 1908. Serial No. 422,583. (Cl. 50—11.)



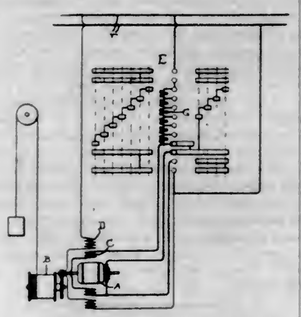
1. A fluid pressure regulator comprising a main valve subject on one side to the outlet or low pressure and on the opposite side to the pressure of a chamber having a restricted port communicating with the inlet or high pressure, a movable abutment for operating said valve, a regulating valve mechanism governed by the outlet pressure for controlling the operation of said abutment, and an auxiliary valve carried by said abutment and operated upon the preliminary movement thereof for venting fluid from said chamber.

2. A fluid pressure regulator comprising a main valve subject on one side to the outlet or low pressure and on the opposite side to the pressure of a chamber having a restricted communication with the inlet or high pressure, a stem carried by said valve having a piston fit in said chamber, a piston for operating said valve, a regulating valve mechanism governed by the outlet pressure for controlling the operation of said abutment, and an auxiliary valve mounted in said main valve and operated by said piston upon the initial movement thereof for venting fluid from said chamber to the low pressure side of the main valve.

3. In a reducing valve, the combination with a casing having a high pressure chamber and a low pressure chamber, of a main valve to control communication between said chambers, said main valve having ducts connecting said chambers, a spring-pressed relief valve for closing said ducts, a stem projecting from said relief valve and depending below the main valve, a piston, a rod projecting from said piston and terminating under the stem of the relief valve, and means for operating said piston to cause its rod to first raise the relief valve and subsequently raise the main valve.

4. In a reducing valve, the combination with a casing having a high pressure chamber, a low pressure chamber and a controlling chamber communicating with the low pressure chamber, and a valve for controlling communication between the high and low pressure chambers, of a piston in the controlling chamber, a rod projecting from said piston adapted to unseat the valve, means of communication between the high pressure chamber and the controlling chamber below the piston in the latter, a valve in said means of communication, a spring tending to open said last mentioned valve, means for opposing the resistance of said spring with reduced fluid pressure, an adjustable abutment for one end of said spring whereby the tension of the latter can be adjusted, a hand wheel carried by said abutment and provided with elongated slots, tappets provided with shanks adjustable in said slots, and a fixed stop to be engaged by said tappets, whereby the tension of said spring can be adjusted within predetermined limits.

1,071,778. SYSTEM OF MOTOR CONTROL. WILHELM NAUMANN, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed June 10, 1908. Serial No. 437,688. (Cl. 172—179.)



1. In combination, an electric motor, a resistance, and means for connecting the armature and field of said motor and said resistance in series to the source for operation in one direction and for connecting the field winding and said resistance in series to the source and the armature in shunt to said field winding and more or less of said resistance for operation in the other direction.

2. In combination, an electric motor, a resistance, the armature and field winding of the motor and resistance being permanently connected in series, a source of current, and means for connecting the armature, field winding and resistance in series to said source for operation in one direction and for connecting the field winding and said resistance in series to the source and connecting the free terminal of the armature to different points on said resistance for operation in the opposite direction.

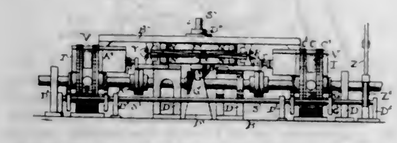
3. In combination, an electric motor, a resistance, a source of current, and means for connecting the field winding of said motor and said resistance in series to the source and the armature in shunt to said field winding and more or less of said resistance.

4. In combination, an electric motor, a resistance, the armature and field winding of the motor and the said resistance being permanently connected in series, a source of current, and means for connecting the field winding and said resistance in series to the source and connecting the free terminal of the armature to different points on said resistance.

5. In combination with an electric motor, means for connecting a field winding of the motor in series with the armature for operation in one direction, for connecting the field winding of the motor in series with a resistance and in parallel with the armature for operation in the opposite direction, and for connecting said field winding and armature in a local or dynamic braking circuit.

[Claims 6 to 24 not printed in the Gazette.]

1,071,779. ROTARY ENGINE. FRANK NEARING, New York, N. Y. Filed Apr. 21, 1913. Serial No. 762,691. (Cl. 121—69.)



1. In a rotary engine the combination of the two cylinders mounted on a rigid base and provided with intake ports taking pressure automatically through both heads of each cylinder in turn for the desired degree of revolution, and exhaust ports and movable abutments of the coupled shafts mounted in independent bearings and carrying within said cylinders drums having pistons capable of radial and longitudinal expansion, mounted thereon, substantially as shown and described.

2. A rotary engine comprising a cylinder containing a longitudinal sliding abutment and having mounted therein a horizontal shaft carrying a three part piston in combination with a vertical shaft carrying two eccentric disks and connected with said horizontal shaft by means of bevel gears, one of said disks being flattened for a smaller portion of its perimeter, while the other has a corresponding portion of increased radius and connecting means whereby the rotation of said disks causes the reciprocation of said abutment substantially as shown and described.

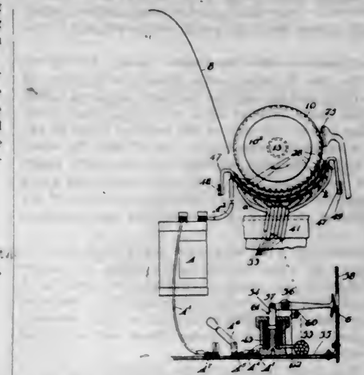
3. In a rotary engine having a cylinder containing a longitudinally moving abutment, provided with a supporting guide, a valve to prevent pressure escape and relief, grooves, the mechanism for operating said abutment consisting of the vertical shaft; the eccentric disks mounted thereon; the friction rollers bearing against said disks and mounted on cross heads moving on guides, and the rods connecting the cross heads on one side of one disk with the cross heads on the opposite side of the other disk, whereby the rollers are held constantly against the edges of said disks, substantially as shown and described.

1,071,780. TYPE-WRITING MACHINE. WILLIAM J. NEIDIG and CLINTON B. STEWART, Madison, Wis., assignors to Neidig Typewriter Co., Chicago, Ill., a Corporation of Illinois. Filed May 24, 1912. Serial No. 699,600. (Cl. 197—189.)

1. In a typewriting machine, in combination, a platen roll for advancing the sheet, a plurality of electrical circuits, paper-feelers in said circuits, and electrically actuated indicating means rendered operative under the control of said paper-feelers to indicate the position of the sheet.

2. In a typewriting machine, in combination, a platen, a plurality of paper-feelers, and a plurality of individually distinguishable indicating devices each separately controlled by a paper-feeler.

3. In a typewriting machine, in combination, a platen, a plurality of paper-feelers, a plurality of separately operated indices, and means controlled by the paper-feelers for bringing the indices into indicating prominence at the predetermined sheet positions.

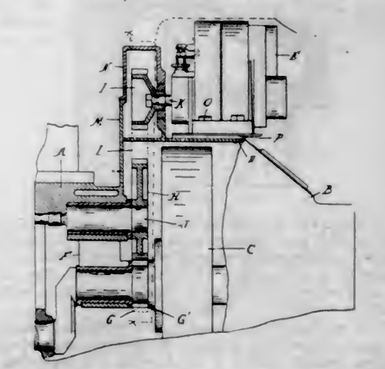


4. In a typewriting machine, in combination, a platen, a plurality of separately operated index-carriers, and means controlled by the sheet for bringing the index-carriers into indicating position.

5. In a typewriting machine, in combination, a platen, a plurality of electrical circuits, a plurality of index-carriers controlled by electrical devices in the said circuits, and controlling devices in connection with the said circuits for controlling the operation of said electrical devices.

[Claims 6 to 16 not printed in the Gazette.]

1,071,781. ENGINE AND MAGNETO ASSEMBLY. EMIL A. NELSON, Detroit, Mich., assignor to Hupp Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 14, 1912. Serial No. 677,597. (Cl. 123—195.)



1. The combination with the engine casing provided with an enlargement for the fly wheel, of a magneto mounted on said enlargement, a crank shaft having a fly wheel thereon, a bearing for said crank shaft, and a drive gearing for said magneto between said crank shaft bearing and said fly wheel.

2. The combination with an engine casing having an enlargement for the fly wheel, of a crank shaft and fly wheel within said casing, a magneto mounted upon said enlargement, a drive gearing for said magneto from said crank shaft adjacent to said fly wheel, and an extension above said fly wheel housing for housing said magneto drive connection.

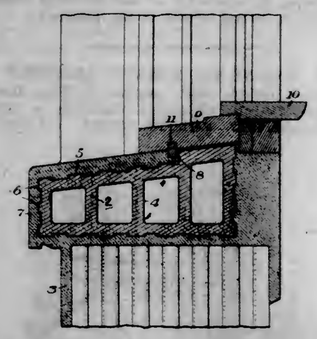
3. The combination with an engine casing having an enlargement for the fly wheel, of a crank shaft within said casing, a fly wheel mounted thereon, a valve cam shaft parallel with said crank shaft and at one side of the vertical plane thereof, a magneto mounted on said fly wheel housing above said crank shaft, and a single drive connection from said crank shaft for said valve cam shaft and magneto.

4. The combination with an engine casing having an enlargement for the fly wheel, of a crank shaft journaled within said casing and having the fly wheel mounted thereon, a valve cam shaft parallel with said crank shaft within said housing and at one side of the vertical plane of the crank shaft, a magneto mounted on top of said fly wheel housing and having its shaft parallel with the crank shaft, a drive chain connecting said crank shaft with said valve shaft and magneto shaft, and an upward extension of the fly wheel housing forming a housing for the magneto drive.

5. The combination with an engine crank case, of a fly wheel housing, a fly wheel within said housing, an engine crank shaft having an integral enlargement forming a sprocket wheel and a fly wheel attachment, a magneto mounted upon said fly wheel housing, and a chain connecting said magneto with said sprocket wheel and arranged adjacent to said fly wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,071,782. WINDOW-SILL CONSTRUCTION AND TILE THEREFOR. ELIOTT E. NICKSON, Philadelphia, Pa., assignor to National Fire Proofing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 29, 1912. Serial No. 717,716. (Cl. 72—98.)

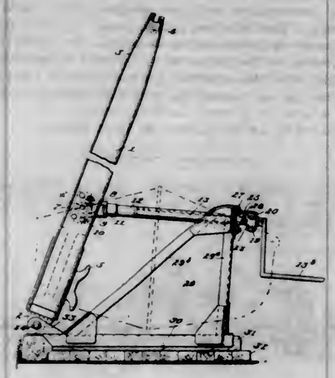


1. A window sill forming tile, having a horizontal lower side or base, and its upper surface formed with two downwardly and outwardly sloping portions at different levels united by a substantially vertical shonider or offset which is much nearer one end of the tile than the other, substantially as described.

2. A window sill construction for buildings, comprising an upper sill member having a downwardly and outwardly sloping bottom surface, a sill-forming tile etxending underneath said member, the upper surface of the tile having two downwardly and outwardly sloping portions united by a substantially vertical shoulder located beneath the upper member, a layer of plastic material covering the upper surface of the tile up to said shoulder, and a combined anchoring and weather-guard strip inset into the upper member and into the plastic covering adjacent to said shoulder, substantially as described.

3. A window sill construction, comprising a sill-forming tile, having its upper surface formed by two downwardly and outwardly sloping portions united by a substantially vertical shoulder, the lower one of said inclined portions being covered up to the said shoulder by a layer of plastic material, and an upper sill member extending over the upper portion of the tile and to a point beyond said shoulder, substantially as described.

1,071,783. BOAT-DAVIT. HAROLD FREDERICK NORTON, Newport News, Va. Filed Nov. 29, 1912. Serial No. 734,106. (Cl. 9—22.)



1. A davit supported by a pivot at its lower end, and means for oscillating said davit comprising two substantially horizontal members connected by a nut and long screw, one member being non-revoluble and directly swiveled to said davit intermediate its ends, the other member being revoluble, and a fixed deck-stool having a bearing swiveled for universal movement in which said revoluble member is thrust-journaled, its outer end extending through the bearing and provided with means for effecting rotation.

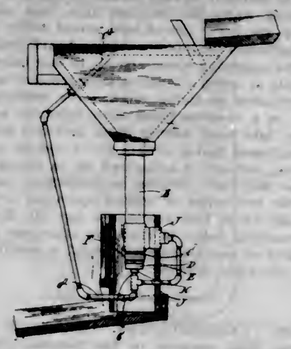
2. A davit supported by a pivot at its lower end, and means for oscillating said davit comprising two substantially horizontal members connected by a nut and long screw, one member being non-revoluble and directly swiveled for universal movement to said davit intermediate its ends, the other member being revoluble, and a fixed deck-stool having a bearing swiveled for universal movement in which said revoluble member is thrust-journaled, its outer end extending through the bearing and having means for effecting rotation.

3. A davit supported by a pivot at its lower end, and means for oscillating said davit comprising two substantially horizontal members connected by a nut and long screw, one member being non-revoluble and directly swiveled for universal movement to said davit intermediate its ends, the other member being revoluble, a fixed deck-stool provided with a swiveled bearing, said revoluble member being thrust-journaled in said swiveled bearing and extending through the bearing and provided with means for effecting rotation.

4. A davit supported by a pivot at its lower end, a fixed deck-stool, and means for oscillating said davit comprising two substantially horizontal members, one of which is revoluble and the other non-revoluble, connected to each other by a nut and long screw, said members being pivoted, one to the davit and the other to the deck-stool, the revoluble member thrust-journaled in a bearing swiveled for universal movement.

5. A davit supported by a pivot at its lower end, a fixed deck-stool, and means for oscillating said davit comprising two substantially horizontal members, one of which is revoluble and the other non-revoluble, connected to each other by a nut and long screw, said members being pivoted, one to the davit and the other to the deck-stool, the revoluble member thrust-journaled in a bearing swiveled for universal movement, and the non-revoluble member also swiveled for universal movement.

1,071,784. VALVE FOR CONTROLLING THE FLOW OF THICK PULPY MATERIAL AND THE LIKE. EDWARD HOFF NUTTER, New York, N. Y., assignor to Minerals Separation Limited, London, England. Filed Dec. 4, 1911. Serial No. 663,900. (Cl. 83—82.)



1. A valve for controlling the flow of the thick pulpy portion of a liquid through an orifice, comprising a pulp receptacle having a pulp discharge orifice, a chamber, an elastic diaphragm forming at one side a permanent closure for the chamber and adapted at its other side to close the pulp orifice at the outside thereof under the pressure of the chamber in opposition to that from the pulp orifice in the direction of the flow of pulp from the receptacle, and a conduit connecting the chamber to a head of liquid for pressing the diaphragm against the outside of the pulp orifice.

2. A valve for controlling the flow of the thick pulpy portion of a liquid through an orifice, comprising a pulp receptacle having a pulp discharge orifice, a chamber, an elastic diaphragm forming at one side a permanent closure for the chamber and adapted at its other side to close the pulp orifice at the outside thereof under the pressure of the chamber in opposition to that from the pulp orifice in the direction of the flow of pulp from the receptacle, the effective area of the diaphragm being greater on the side toward the chamber than on the side adjacent to the pulp orifice so that with both sides of the diaphragm under the same liquid head the diaphragm will be normally pressed against the outside of the pulp orifice to close it, and a conduit connecting the chamber to a head of liquid for pressing the diaphragm against the outside of the pulp orifice.

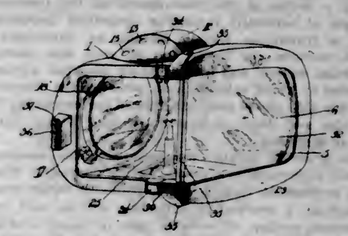
3. A valve for controlling the flow of the thick pulpy portion of a liquid through an orifice, comprising an elastic diaphragm arranged to press exteriorly against and to close the pulp orifice, a chamber for which the diaphragm at its other side forms a permanent closure, whereby the diaphragm is subjected on the side toward the chamber to the pressure of the chamber opposed to that from the pulp orifice, the chamber being arranged for adjustment to and from the pulp orifice to alter the relation of the diaphragm to the pulp orifice, the effective area of the diaphragm being greater on the side toward the chamber than on the side adjacent to the pulp orifice so that with both sides of the diaphragm under the same liquid head the diaphragm will be normally pressed against the pulp orifice to close it, and a conduit connecting the chamber to a head of liquid.

4. A valve for controlling the flow of the thick pulpy portion of a liquid through an orifice, comprising a chamber, an elastic diaphragm forming at one side a closure for the chamber and adapted at its other side to close the pulp orifice under the pressure of the chamber in opposition to that from the pulp orifice, and a conduit connecting the chamber to the head of liquid from which the pulpy portion is supplied to the pulp orifice.

5. A valve for controlling the flow of the thick pulpy portion of a liquid through an orifice, comprising a chamber, a rubber diaphragm forming at one side a closure for the chamber and adapted at its other side to close the pulp orifice under the pressure of the chamber in opposition to that from the pulp orifice, and a conduit connecting the chamber to the head of liquid from which the pulpy portion is supplied to the pulp orifice.

[Claims 6 and 7 not printed in the Gazette.]

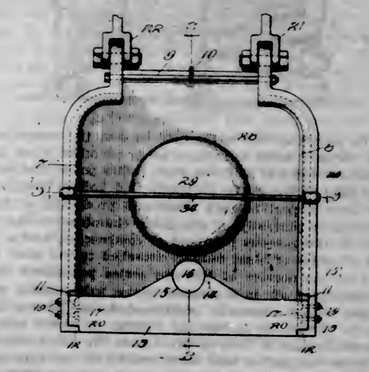
1,071,785. AUTOMOBILE-LAMP. OSCAR O'NEAL, Fremont, Mich. Filed Nov. 8, 1912. Serial No. 730,287. (Cl. 240—46.)



1. A vehicle lamp, comprising a casing, a removable side glass panel slidable in guideways opening out at the front of the casing, a door hinged to the front of the casing on a vertical axis, a glass panel slidable in guideways on said door and also removable, and a panel retaining bar on the door common to both the side and door panels when the door is closed.

2. A vehicle lamp, comprising a casing, a removable side glass panel slidable in guideways opening out at the front of the casing, a door hinged to the front of the casing on a vertical axis, a glass panel slidable in guideways on said door and also removable, and a panel retaining bar on the door common to both the side and door panels when the door is closed, the door embodying separable sections, one of which carries the panel retaining bar.

1,071,786. FURNACE-DOOR. FRANK ORTH, Indiana Harbor, Ind. Filed Dec. 4, 1911. Serial No. 663,801. (Cl. 75—132.)



1. In a furnace door, the combination of a door frame comprising opposite side frame sections, a top connecting rod therefor, a transverse frame base adjustable both vertically and laterally with respect to said side walls, and a refractory lining within the door frame adapted to withstand high heat temperature, substantially as described.

2. In a furnace door, the combination of a door frame comprising opposite side frame sections, a top connecting rod therefor, a transverse frame base adjustable both ver-

tically and laterally with respect to said side walls, and enlarged somewhat centrally for forming a protecting rim about the furnace sight hole, and a lining of refractory material provided with a sight hole within the door frame adapted to withstand high heat-temperature, substantially as described.

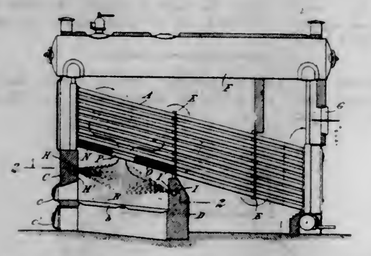
3. In a furnace door, the combination of a door frame, and a monolithic lining within the door frame formed of refractory material, provided with a protuberance centrally on the outer side of the door lining, adapted to withstand high heat temperature, substantially as described.

4. In a device of the class described, the combination of a pair of vertically extending oppositely disposed side pieces, a transverse bottom section, an adjustable connection between the lower end of each side piece and the bottom section, and a door lining mounted within and supported by all of said sections, whereby the distance between the side pieces may be adjusted corresponding to the exact size and requirements of the door lining, substantially as described.

5. In a device of the class described, the combination of a pair of vertical side pieces having oppositely disposed facing recesses in their lower portions, a transverse bottom section, a rearwardly extending ear on each end of the bottom section of suitable size to enter within the recess of the corresponding side piece, adjustable connecting means between each of said ears and the lower end of the corresponding side piece, and a door lining mounted within and supported by all of said pieces, whereby the distance between the side pieces may be adjusted corresponding to the exact size and requirements of the door lining, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,071,787. STEAM-BOILER FURNACE. ORLAND D. ORVIS, New York, N. Y. Filed Jan. 20, 1911. Serial No. 603,685. (Cl. 110—66.)



1. In a furnace for water tube boilers, the combination of the furnace walls forming a grate chamber, blast pipes in opposite walls of said chamber, baffles positioned in the upper part of the grate chamber, said baffles being separated with respect to each other and producing a throat substantially centrally of the grate chamber for the free escape of the gaseous products of combustion, and a plurality of series of blast nozzles attached to the blast pipe and with the nozzles of the two series positioned to direct steam and air in a common plane, said nozzles being provided with horizontally positioned flaring outlets operating to spread the outflowing current of steam and air horizontally and in thin sheets across the grate chamber and below the baffles, said blast nozzles of one pipe operating to direct one sheet of steam and air in one direction from one wall, and the blast nozzles of the opposite pipe operating to direct another sheet of steam and air in an opposite direction to the first named sheet, the currents flowing on diverging lines from the nozzles of each series to intersect with each other and the two oppositely projected sheets of steam and air meeting or intersecting with each other so as to result in an intimate admixture of the steam and air with the gaseous products of combustion.

2. In a furnace for water tube boilers, the combination with the furnace walls forming a grate chamber and nested water tubes extending across said chamber, of baffles positioned over the grate chamber and spaced with respect to each other to produce a throat or outlet substantially centrally of said chamber, said baffles consisting of firebrick which are imposed upon, and supported directly by, the lower tier of said nested water tubes, blast pipes positioned in opposite walls of said grate chamber, means for supplying steam and air to said blast pipes, and a plurality of series of blast nozzles attached to said pipes and positioned in facing relation for discharging steam and air in a common plane with reference to the grate chamber, said blast nozzles being provided with horizontally positioned flaring outlets which operate to direct the outflowing currents of steam and air on diverging lines so that the individual streams will intersect one with the other, the two series of nozzles operating to project the steam and air in thin sheets and opposite directions and in intersecting paths so that the aggregate area of the two sheets of steam and air is equal substantially to the area of the grate chamber.

1,071,788. CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Aug. 4, 1909. Serial No. 511,120. (Cl. 235—3.)

1. In a machine of the class described, the combination with two check chutes having adjacent ends, one of said chutes having an open side for the purpose set forth, of an ejector for moving the checks, and an element movable to cause checks to pass into either chute.

2. In a machine of the class described, the combination with two check chutes extending toward opposite sides of the machine, one of said chutes having an open side for the purpose set forth, of an ejector for moving the checks, and an element movable to direct checks into either chute as desired.

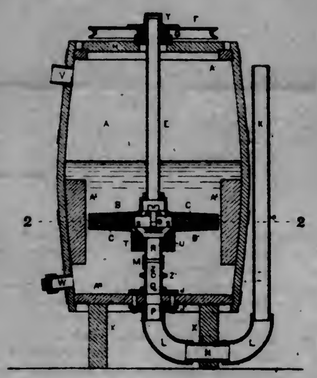
3. In a machine of the class described, the combination with two check chutes extending in different directions, one of said chutes having an open side for the purpose set forth, of an ejector for moving the checks, and a plate movable manually to direct checks into either chute.

4. In a machine of the class described, the combination with two check chutes extending in different directions but having adjacent ends, one of said chutes having an open side for the purpose set forth, of a plate positioned near said adjacent ends and movable to direct checks into either chute.

5. In a machine of the class described, the combination with two check chutes extending in different directions but having adjacent ends, one of said chutes having an open side for the purpose set forth, of a plate positioned near said adjacent ends and normally permitting checks to enter one of the chutes, but movable to direct checks into the other chute.

[Claims 6 to 19 not printed in the Gazette.]

1,071,789. HYDROTURBINE-ASPIRATOR. THOMAS O. PERRY, Oak Park, Ill. Filed Oct. 10, 1910. Serial No. 586,159. (Cl. 230—14.)



1. The combination with a receptacle containing liquid, of axially separated submerged plates having their interposed space adapted to admit the surrounding liquid without restriction around the periphery, means for rotating said plates about their common axis, partitions connecting said plates having wide circumferential openings between adapted to receive liquid inward behind each advancing partition and to expel the liquid so received outward in front of the following partition, and a suction tube for air or gas communicating centrally with the interposed space between said plates, substantially as herein set forth.

2. The combination with a receptacle containing liquid, of axially separated submerged plates having their interposed space adapted to admit the surrounding liquid without restriction around the periphery only, means for rotating said plates about their common axis, partitions connecting said plates having wide circumferential openings between adapted to receive liquid inward behind each advancing partition and to expel the liquid so received outward in front of the following partition, and a suction tube for air or gas communicating centrally with the interposed space between said plates, substantially as herein set forth.

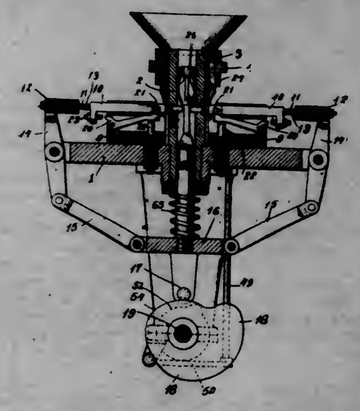
3. The combination with a receptacle containing liquid, of axially separated submerged plates having their interposed space adapted to admit the surrounding liquid without restriction around the periphery, means for rotating said plates about their common axis, partitions connecting said plates at wide circumferential intervals adapted to receive liquid inward behind each advancing partition and to expel the liquid so received outward in front of the following partition, and a suction tube for air or gas communicating interiorly with the spaces and openings between said plates and partitions, substantially as herein set forth.

4. The combination with a receptacle containing liquid, of axially separated submerged plates having their interposed space adapted to admit the surrounding liquid without restriction around the periphery only, means for rotating said plates about their common axis, partitions connecting said plates at wide circumferential intervals adapted to receive liquid inward behind each advancing partition and to expel the liquid so received outward in front of the following partition, and a suction tube for air or gas communicating interiorly with the spaces and openings between said plates and partitions, substantially as herein set forth.

5. The combination with a receptacle containing liquid, of axially separated submerged plates having interposed space whose periphery is open to the surrounding liquid, partitions dividing the periphery of said interposed space into wide compartments, means for rotating said compartments in unison with said partitions about the central axis of the plates and a suction duct for air or gas leading to the interior of said compartments, whereby air or gas may be conducted outward from between said plates to mingle with the liquid drawn inward behind each partition to be in turn expelled outward in front of each partition, substantially as herein set forth.

[Claim 6 to 13 not printed in the Gazette.]

1,071,790. MACHINE FOR MAKING LINK MESH. ALPHONSO C. PRATT, Montclair, N. J. Filed Aug. 26, 1912. Serial No. 716,958. (Cl. 140—3.)



1. A machine for making links, comprising the combination of link-forming tools, a feeder for feeding a length of wire thereto, a cutter for cutting pieces from said wire which are longer on one side than on the other, and means for operating said tools to form said pieces into links with the longer sides of the pieces forming the outer sides of the links, substantially as set forth.

2. A machine for making link-mesh, comprising the combination of a support for the mesh, link-forming tools adjacent thereto, means for moving the mesh and tools relatively step by step to present different points on the mesh to the tools, a feeder for feeding a length of wire to the tools, a cutter for cutting pieces from said wire which are longer on one side than on the other, and means for operating said tools to form said pieces into links with the longer sides of the pieces forming the outer sides of the links and simultaneously link them with the links of the mesh on said support, substantially as set forth.

3. A machine for making links, comprising the combination of link-forming tools, a feeder for feeding a length of wire thereto, a cutter for cutting pieces from said wire which are longer on one side than on the other, and means for operating said tools to grip the wire before it is cut and after the cut to form the piece into a link with the longer side of the piece forming the outer side of the link, substantially as set forth.

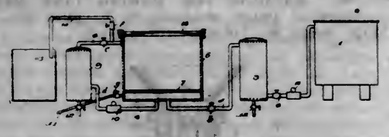
4. A machine for making link-mesh, comprising the combination of a support for the mesh, link-forming tools adjacent thereto, means for moving the mesh and tools relatively step by step to present different points on the mesh to the tools, a feeder for feeding a length of wire to the tools, a cutter for cutting pieces from said wire which are longer on one side than on the other, and means for operating said tools to grip the wire before it is cut and after it is cut to form the piece into a link with the longer side of the piece forming the outer side of the link and simultaneously link it with links of the mesh on said support, substantially as set forth.

5. A machine for making links, comprising the combination of link-forming tools, means for successively supplying to said tools pieces of wire which are longer on one

side than on the other, and means for operating said tools to form said pieces into links with the longer sides of the pieces forming the outer sides of the links, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

1,071,791. PROCESS OF TREATING ORES. FRANK W. PUGSLEY, Pittsford, N. Y. Filed Nov. 23, 1911. Serial No. 662,008. (Cl. 75—67.)



1. The process of separating metals from ores, consisting in passing minute bubbles of chlorin gas upwardly through comminuted ore suspended in a liquid not of itself capable of reacting on the ore.

2. The process of chlorinating silver ores, consisting in passing chlorin gas under pressure through comminuted ore suspended in a liquid not of itself capable of reacting on the ore, the gas itself serving to mechanically agitate the ore and contact with the particles thereof to effect chemical combinations with some of the materials therein.

3. A process of treating ores containing different metals consisting in suspending the comminuted ore in a liquid which does not of itself affect the metals and then passing through said ore and liquid minute bubbles of a gas capable of entering into chemical combination with the metals and forming with some of them compounds insoluble in the liquid and gas and with others compounds soluble therein.

4. A process of treating ores containing precious and base metals consisting in suspending the comminuted ore in a liquid which does not of itself affect the metals and then passing through said ore and liquid minute bubbles of a gas capable of entering into chemical combination with the precious metals to form compounds insoluble in the liquids and of converting the base metals into compounds soluble in the liquid.

5. A process of treating comminuted ores consisting in suspending the ore in a liquid not of itself capable of chemically reacting on the ore and in mechanically agitating and causing chemical reactions in the ore and liquid by forcing through them finely divided streams of chlorin gas.

1,071,792. COMPOSITION CONTAINING PITCH. JOHN RADCLIFFE, East Barnet, England. Filed Feb. 20, 1912. Serial No. 678,887. (Cl. 106—31.)

1. A composition of matter comprising distillation pitch and finely divided organic matter distributed throughout the mass of the pitch, said composition having a higher melting point than the original pitch but being fusible by heat.

2. A composition of matter comprising distillation pitch and finely divided organic matter distributed throughout the mass of the pitch, together with a small proportion of a softening oil, said composition having a higher melting point than the original pitch, with the same amount of oil, but being fusible by heat.

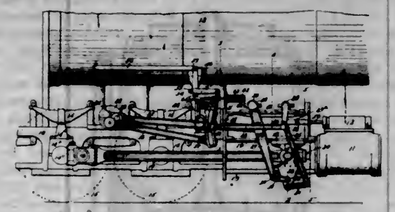
3. A composition of matter fusible by heat and comprising distillation pitch and about 5 to 30 per cent. of finely divided organic matter distributed throughout its mass.

4. A composition of matter fusible by heat and comprising distillation pitch and a small quantity of oil, with finely divided organic matter distributed throughout its mass in a proportion of about 5 to 30 per cent. of the pitch and organic matter together.

5. A composition of matter comprising distillation pitch with mill dust distributed throughout its mass in a proportion of about 5 to 30 per cent.

[Claims 6 to 11 not printed in the Gazette.]

1,071,793. VALVE-GEAR. JOHN P. RAMSEY, Springfield, Ill. Filed Oct. 28, 1912. Serial No. 728,212. (Cl. 121—98.)



1. In an engine, the combination with a valve, a crosshead, and a supporting frame, of a valve gear comprising a rotatable member mounted on said frame, driving means connecting said crosshead and said rotatable member and arranged to rotate the latter, and valve actuating means connecting said rotatable member with said valve.

2. In an engine, the combination, with a valve, a crosshead, and a supporting frame, of a valve gear comprising a valve shaft mounted on said frame, linkwork connecting said crosshead with said shaft and arranged to rotate said shaft, and valve actuating means, including a reversing device, for transmitting motion from said shaft to said valve.

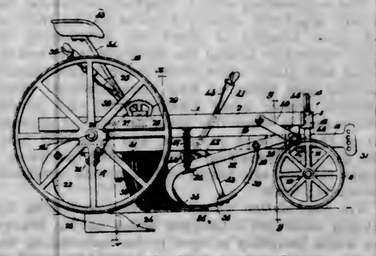
3. In an engine, the combination, with a valve, a crosshead, and a supporting frame, of a valve gear comprising a valve shaft mounted on said frame, linkwork connecting said crosshead with said shaft and arranged to rotate said shaft, valve actuating means, including a reversing device, for transmitting motion from said shaft to said valve, and further means connecting said valve actuating means with said crosshead for modifying the motion transmitted to said valve.

4. In an engine, the combination with a valve, a crosshead, and a supporting frame, of a valve gear comprising a valve shaft journaled in said frame, a driving crank and a return crank rigid with said shaft, driving members connecting said crosshead with said driving crank and arranged to revolve said shaft, an eccentric rod pivoted to said return crank and to a reversing link, a valve rod shiftably connected at one end to said reversing link and at the other through suitable connections to the stem of said valve, and linkwork connecting said stem directly to said crosshead.

5. In a locomotive engine, the combination with a suitable valve and a crosshead both carried by a frame, a valve shaft mounted on said frame and independent of the engine drivers and axles, driving means connecting said crosshead with said shaft and arranged to revolve said shaft, and means including a reversing link for transmitting motion from said shaft to said valve.

[Claims 6 to 11 not printed in the Gazette.]

1,071,794. BEET-HARVESTING MACHINE. EDWARD A. RASEY, Denver, Colo. Filed Mar. 4, 1912. Serial No. 681,566. (Cl. 55—107.)



In a harvester, a main frame mounted upon wheels, a knife carrying frame comprising a pair of bars hingedly connected at one end to said main frame and a transverse bar adjacent the opposite end, yielding supports interposed between said main frame and said transverse bar, a knife fixed to the free end of said knife carrying frame, and a shoe on said frame adjacent said knife, substantially as described.

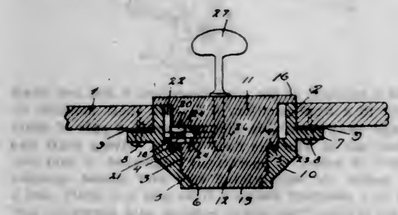
1,071,795. FERTILIZER. BRUNO REICHELT, Newark, N. J., assignor to Beta Fertilizer Co., Newark, N. J., a Corporation of New Jersey. Filed Apr. 3, 1911. Serial No. 618,668. (Cl. 17—9.)

1. A fertilizer comprising crushed talc, a nitrogenous compound, phosphate and potash salts.

2. A fertilizer comprising crushed talc, and potash salts.

3. A fertilizer comprising crushed talc, a nitrogenous compound, and potash salts.

1,071,796. BUNG-LOCK. BRUNO O. REICHARDT, New York, N. Y. Filed Dec. 17, 1912. Serial No. 737,349. (Cl. 217—106.)



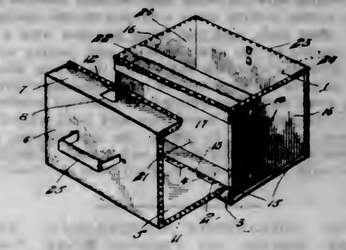
1. The combination with a container having an opening formed therein, of a cylindrical bushing positioned within said opening, the interior of the bushing being threaded for a portion of its length adjacent its inner end and provided adjacent its outer end with a plurality of longitudinal teeth, a threaded bung positioned within said bushing and provided intermediate its ends with a recess, a pawl pivoted intermediate its ends within said recess and adapted for engagement at one end with said teeth, means for holding said pawl normally against the teeth, the bung being formed with a keyhole, and a key adapted to be rotated within said keyhole for the purpose of disengaging the pawl from the teeth.

2. The combination with a container having an opening formed therein, of a bushing positioned within said opening, the bushing being internally threaded for a portion of its length and provided adjacent its outer end on its interior wall with a plurality of longitudinal teeth, a threaded bung positioned within said bushing and formed intermediate its ends with a recess, said recess opening upon the periphery of the bung, a pawl pivoted intermediate its ends within said recess, a flat metal spring secured at one end to the inner wall of the recess and bearing at its other end against said pawl whereby the latter is held in engagement with the teeth, the bung being formed within a keyhole, a key being adapted to be rotated within said keyhole to disengage the pawl from said teeth, and means whereby the bung may be rotated.

1,071,797. LUNCH-BOX. ARTHUR ROCHE, Newport, R. I. Filed June 26, 1912. Serial No. 705,953. (Cl. 220—15.)

1. A receptacle, comprising a rigid and a hinged section, a vertical divisional wall secured in the rigid section by means of integral tongues projected therefrom, said wall being bent over upon itself and thence outwardly at right angles to provide a horizontally disposed ledge and terminating in an upwardly bent wall formed with a flange for engagement with the edge of the rear wall of the rigid section, whereby a large deep receptacle or compartment, a narrow shallow compartment, and a narrow deep compartment are provided.

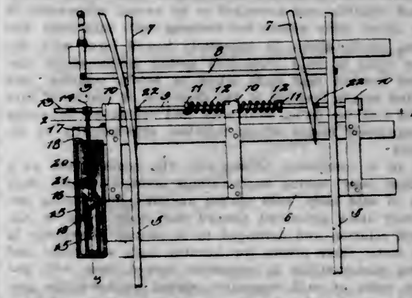
2. A lunch box, consisting of the rigid member forming the front, bottom, and rear vertical flap, the member hinged to said flap and forming the rear wall, top, and retaining flap, the keeper on the front wall engaging said flap, the end walls, and the division wall secured to the end wall and bottom and formed with a horizontal receptacle, the edge being crimped and containing a strengthening wire and the end walls and rigid member being connected by an interlocking bend along their edges.



3. A lunch box, consisting of the rigid member forming the front, bottom, and rear vertical flap, the member hinged to said flap and forming the rear wall, top, and retaining flap, the keeper on the front wall engaging said flap, the end walls, and the division wall secured to the end wall and bottom and formed with a horizontal receptacle, the hinged member being formed with a surrounding crimped edge, a wire inclosed in said crimped edge forming a strengthening medium, and a rod for hinging the cover to the flap along its upper edge, and a catch on the front flap of the cover formed by the wire and a contiguous opening to engage the keeper on the front wall.

4. A lunch box, consisting of the rigid member forming the front, bottom, and rear vertical flap, the member hinged to said flap and forming the rear wall, top, and retaining flap said flap having an opening, a keeper on the front wall engaging the opening on said flap, the end walls, the hinged member being formed with a surrounding crimped edge, a wire inclosed in said crimped edge forming a strengthening medium, and a rod for hinging the cover to the flap along the upper edge of said flap.

1,071,798. RAILROAD-SWITCH. ALEX WOODS ROLLINGS, JAMES H. SWEENEY, OSCAR TOLMAN NELSON, and THOMAS T. TRENTHAM, Montgomery, Ala. Filed July 3, 1912. Serial No. 707,596. (Cl. 104—12.)

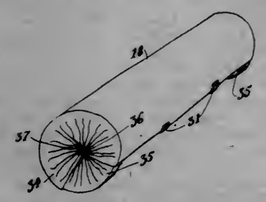


1. The combination with the movable switch points, of a transverse rotatably mounted shaft disposed beneath said switch points, lugs on said shaft adjacent to the switch points normally acting to hold said switch points against movement, a rod pivotally connected to said shaft adjacent one of its ends, resilient locking means for said rod, a spring on the rod acting to force the same into engagement with said locking means, and means to release said rod and permit of the rotation of the shaft to dispose the lugs thereon below the plane of the switch points whereby the same may be moved to their open or closed positions.

2. The combination with the movable switch points, of a transversely disposed rotatably mounted shaft arranged

beneath said switch points, said shaft having a crank on one end whereby the same may be rotated, coil springs arranged on the shaft to yieldingly hold the same against rotation, stop lugs on said shaft disposed adjacent to the switch points to prevent their movement, an arm on the shaft, a rod pivotally connected at one end to said arm, a lock casing, said rod being longitudinally movable in the casing, spring locking arms arranged in the casing and having offset ends, said rod being provided with a head to be engaged by the offset ends of said locking arms, a spring arranged upon the rod within the casing normally acting to force the head thereof into engagement with the locking arms, and a key adapted for insertion between the arms, to disengage the same from said head whereby the shaft may be rotated to dispose the lugs thereon below the plane of the switch points and permit of the movement of said switch points to their open or closed positions.

1,071,799. COLLAPSIBLE BOLSTER-ROLL. HERMAN RUMPF, Bellevue, and FREDRICK RUMPF, Newport, Ky.; said Fredrick Rumpf assignor to said Herman Rumpf. Filed Nov. 16, 1910. Serial No. 592,695. (Cl. 5—15.)



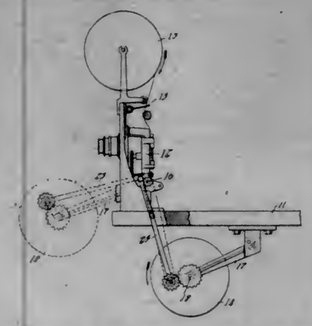
1. In a collapsible bolster-roll, the combination of a body comprising longitudinal edge-strips, a spring anchor-strip, releasably securing means between said spring anchor-strip and said body, and main and auxiliary aprons respectively secured to the ends of said body and to said anchor-strip, for forming an end rosette for said roll when in set-up relation.

2. In a collapsible bolster-roll, the combination of a resilient body, spring anchor-strips pivoted at both their ends to said body, said spring anchor-strips having one of their sides presented toward said body when in collapsed relation and arranged to be swung sidewardly in arcs about their pivots for forming both said body and spring anchor-strips in oppositely bowed form with the other sides of said respective spring anchor-strips presented toward said body when in set-up relation, and bracing means opening in the direction of length of said bolster-roll for fixing said body and spring anchor-strips in oppositely bowed set-up relation, substantially as described.

3. In a collapsible bolster-roll, the combination of a resilient body, spring anchor-strips pivoted at both their ends to said body, said spring anchor-strips having one of their sides presented toward said body when in collapsed relation and arranged to be swung sidewardly in arcs about their pivots for forming both said body and spring anchor-strips in oppositely bowed form with the other sides of said respective spring anchor-strips presented toward said body when in set-up relation, and main aprons secured to the ends of said body and auxiliary aprons secured to said spring anchor-strips, for forming end rosettes for said roll when in set-up relation, substantially as described.

1,071,800. TAKE-UP DEVICE FOR MOTION-PICTURE MACHINES. AUGUSTE L. SALTZMAN, East Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 17, 1911. Serial No. 644,682. (Cl. 88—17.)

1. In a machine of the class described, a film reel shaft mounted in a fixed position, a driving shaft movable toward and away from said film reel shaft, a pair of rotatable members one of which is fixed to said driving shaft and the other of which is operatively connected to said reel shaft, means for maintaining the last named rotatable member spaced at a constant distance from said reel shaft, and means for transmitting power between said rotatable members, substantially as described.



2. In a machine of the class described, a film reel shaft mounted in a fixed position, a driving shaft movable toward and away from said film reel shaft, a pair of chain sprockets one of which is fixed to said driving shaft and the other of which is operatively connected to said reel shaft, means for maintaining said last named sprocket spaced at a constant distance from said reel shaft, and a chain for transmitting power between said sprockets, substantially as described.

3. In a machine of the class described, a film reel shaft, mounted in a fixed position, a driving shaft adapted to be moved toward and away from said film reel shaft, means comprising a chain belt and a pair of chain sprockets adapted to transmit power from the driving shaft to the film reel shaft, and means adapted to maintain one of said sprockets at a fixed distance from the film reel shaft and to keep a uniform tension on said chain regardless of the relative positions of the driving shaft and the film reel shaft, substantially as described.

4. In a machine of the class described, a film reel shaft, a driving shaft, a bracket for supporting the film reel shaft adapted to be fastened in either of two positions to locate the film reel shaft either in front of or beneath the driving shaft, and a positive driving means adapted and arranged to transmit power from the driving shaft to the film reel shaft in either of its two positions, substantially as described.

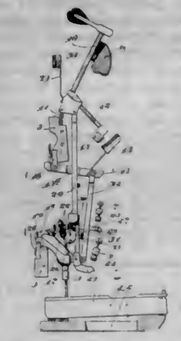
5. In a machine of the class described, a film reel shaft, a gear on said shaft, a second gear meshing with the first named gear, a bracket supporting said second gear and adapted to permit a planetary motion of said second gear around said first gear, a driving shaft, and a positive driving means between said driving shaft and said second gear, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,071,801. PIANO-ACTION. FRIDOLIN SCHIMMEL, Faribault, Minn. Filed July 11, 1912. Serial No. 708,792. (Cl. 84—26.)

1. The combination with a key, of a piano action comprising a pivoted hammer having a counter check, a pivoted upper wippen having a back check for coöperation with said counter-check, a lower wippen pivoted at one end and supported by said key, a connection between said upper wippen and said lower wippen, a repeating lever pivotally connected at one end to the pivoted end of said lower wippen, a jack pivoted to said lower wippen, stops with which said jack and repeating lever are engageable when moved, and a hammer extension bar connected at its upper end to the butt of said hammer and having its lower end normally resting on said repeating lever immediately overlying the upper end of said jack.

2. The combination with a key, of a piano action comprising a pivoted hammer having a counter-check, a pivoted upper wippen having a back check for coöperation with said counter check, a lower wippen pivoted at one end and supported by said key, a connection between said upper wippen and said lower wippen, a repeating lever pivotally connected at one end to the pivoted end of said lower wippen, a jack pivoted to the said lower wippen, a spring connected between said repeating lever and jack for yieldingly holding the latter in a normal position, stops with which said jack and repeating lever are engageable when moved, and a hammer extension bar pivotally connected at its upper end to the butt of said hammer and having its lower end normally resting on said repeating lever immediately overlying the upper end of said jack.

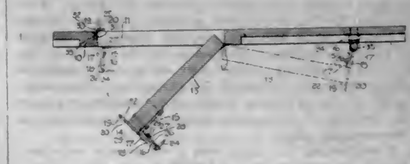


3. The combination with a key, of a piano action comprising a pivoted hammer having a counter check, a pivoted upper wippen having a back check for coöperation with said counter check, a lower wippen pivoted at one end and supported by said key, a repeating lever pivotally connected at one end to the pivoted end of said lower wippen, a stop rod connected to said lower wippen and provided with stops limiting the movements of said repeating lever in respect to said lower wippen, a jack pivoted to said lower wippen and yieldingly held in a normal position, stops with which said jack and repeating lever are engaged when moved, a link connecting the free end of said lower wippen to the free end of said upper wippen, and a hammer extension bar pivotally connected at its upper end to the butt of said hammer and having its lower end normally resting on said repeating lever immediately overlying the upper end of said jack.

4. The combination with a key, of a piano action comprising a pivoted hammer having a counter check, a pivoted upper wippen having a check for coöperation with said counter check, a lower wippen pivoted at one end and supported by said key, a repeating lever pivotally connected at one end to the pivoted end of said lower wippen and having a limited movement in respect thereto, a jack pivoted to the said lower wippen, a spring connected between said repeating lever and jack for yieldingly holding the latter in a normal position, stops with which said jack and repeating lever are engaged when moved, a link connecting the free end of said lower wippen to the free end of said upper wippen, a hammer extension bar pivotally connected at its upper end to the butt of said hammer and having its lower end normally resting on said repeating lever immediately overlying the upper end of said jack, the said link being entirely forward of said hammer extension bar, and the latter having a depending pin seated in said repeating lever.

5. The combination with a key, of a piano action comprising a pivoted hammer having a counter check, a pivoted upper wippen having a back check for coöperation with said counter check, a lower wippen pivoted at one end and supported by said key, a connection between said upper wippen and said lower wippen, a repeating lever pivotally connected at one end to the pivoted end of said lower wippen, a jack pivoted to said lower wippen, stops with which said jack and repeating lever are engaged when moved, a hammer extension bar connected at its upper end to the butt of said hammer and having its lower end normally resting on said repeating lever immediately overlying the upper end of said jack, and a spring acting on said hammer and coöperating with gravity to retract said hammer.

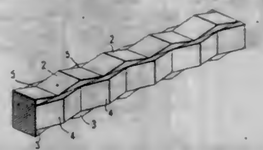
1,071,802. LATCH. OTTO SCHLATZ and AUGUST SCHLATZ, Republican City, Nebr. Filed Feb. 24, 1913. Serial No. 750,442. Cl. 70—45.)



1. In a device of the character described, the combination with a latch plate, of an arm formed thereon and extending perpendicularly thereto, a latch pivoted to said arm, said latch extending parallel to the arm and perpendicularly to the plate, a lateral finger formed upon one end of the latch and arranged to engage the upper edge of the arm, a spring secured to the latch plate, arm and finger for normally forcing the finger into engagement with the arm and retaining the latch in its normal position, the said latch being notched at its opposite ends and opposite edges to form barbs, and catches for engagement with the barbs.

2. In a device of the class described, the combination with a latch plate having a laterally extending arm thereon, disposed perpendicular thereof; of a latch pivoted intermediate of its ends to the laterally extending arm of the latch plate and projecting on both sides of the latter, an angular finger formed on one end of said latch and adapted to rest in engagement with the upper edge of said arm, at the outer end of the latter to limit the movement of said latch in one direction, and spring means in connection with said latch plate and finger to normally retain said latch in a position to dispose the angular finger thereon in engagement with the arm on the latch plate, said latch being notched at its ends to form barbs, whereby a locking means is provided thereon.

1,071,803. BAR FOR REINFORCING CONCRETE, &c. FRANK C. SCHMITZ, New York, N. Y. Filed Mar. 28, 1910. Serial No. 551,968. (Cl. 72—111.)



1. A reinforcing bar of uniform cross sectional area comprising a body portion having four series of wedge-shaped projections with intervals between the apices of the projections of each series, one series being arranged along each of the four sides of the body and the four series having their center lines substantially ninety degrees apart, and each projection being of uniform width from end to end and being slightly inclined outward from its ends toward its center, the width of each projection being substantially greater than its height and the length of each projection being substantially more than twice its height and the crowns of the projections on opposite sides being opposite each other and alongside the intervals between the apices of the projections on the intermediate sides.

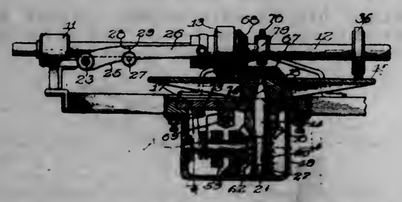
2. A reinforcing bar comprising a main body portion having projections along a plurality of sides forming zigzag outlines, each projection being the width of the body portion, the projections on opposite sides being opposite each other and the projections on the intermediate sides being adjacent the spaces between the first mentioned projections, all of said projections alternately increasing and decreasing in size gradually, the apex of each projection being in the same transverse plane as the bottom of the spaces between projections on the adjacent sides, the successive projections on each side merging into each other.

3. A reinforcing bar of uniform cross sectional area comprising a main body portion having an angular cross section and having projections arranged along all of the sides thereof, each projection having oppositely inclined outer faces of uniform width equal to the width of the body of the bar and of substantially one-half the length of the projections, the crowns of the projections along opposite sides of the bar being in the same transverse planes as the bottoms of the spaces between the projections on the intermediate sides.

4. A reinforcing bar comprising a continuous body portion square in cross section and having wedge shaped projections arranged along the four sides, each projection being the width of the body of the bar and having flat outer faces sloping from a central point, the projections along opposite sides being opposite each other and the projections on the intermediate sides being alongside the spaces between the projections on the first mentioned sides.

5. A reinforcing bar of the character described having a body of substantially uniform size throughout and provided with a series of projections on each side of the body with intervals between the apices of the projections, each projection presenting oppositely inclined surfaces or faces but slightly inclined to the body of the bar and of substantially the same width as the body of the bar and which faces are longer than the width thereof, the projections on opposite sides of the bar being arranged in pairs opposite each other and the projections on the intermediate sides of the bar being arranged adjacent the intervals between the apices of the other projections and having their ends overlapping the same substantially half the length thereof.

1,071,804. TRANSMISSION-GEARING. EUGENE H. SCHOFIELD, Atlanta, Ga.; Ray H. Schofield, Cook county, Ill., administrator of said Eugene H. Schofield, deceased. Filed Feb. 23, 1911. Serial No. 610,126. (Cl. 74—26.)



1. The combination of driving and driven shafts, positive forward driving and reversing mechanism, operatively connected with one of the shafts, a friction disk disposed to rotate in a substantially horizontal plane and operatively connected with said forward driving and reversing mechanism, a friction gear operatively connected with the other of said shafts and coöperating with the said disk, and means individual to said positive and friction mechanisms for rendering eithe rof them active or inactive at will.

2. The combination of driving and driven shafts, an intermediate shaft operatively connected with one of the first two recited shafts, friction gearing operatively connecting the other of the first two recited shafts and the intermediate shaft, positive gearing for also operatively connecting the last two recited shafts, and means whereby the said intermediate shaft may be driven through either the said friction gearing or the positive gearing.

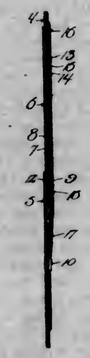
3. The combination of driving and driven shafts, an intermediate shaft operatively connected with one of the first two recited shafts, friction gearing operatively connecting the other of the first two recited shafts and the intermediate shaft, positive gearing for also operatively connecting the last two recited shafts, and means whereby the intermediate shaft may be driven through either the said friction gearing or the positive gearing, and at will.

4. The combination of driving and driven shafts, an intermediate shaft operatively connected with one of the first two recited shafts, friction gearing operatively connecting the other of the first two recited shafts and the intermediate shaft, positive gearing for also operatively connecting the last two recited shafts, and means common to both of the said friction and the positive gearing for rendering one inactive while the other remains active.

5. The combination of driving and driven shafts, an intermediate shaft, means operatively connecting said intermediate shaft with one of the first recited shafts and embodying forwardly and rearwardly driving mechanism, friction gearing operatively connecting said intermediate shaft with the other of the first two recited shafts, positive gearing for also operatively connecting the last two recited shafts, and means whereby one of said friction and the said positive gearings may be rendered inactive while the other remains active.

[Claims 6 to 11 not printed in the Gazette.]

1,071,805. TOY. EDWARD JOHN SCHOWALTER, Racine, Wis. Filed Oct. 2, 1912. Serial No. 723,464. (Cl. 46—37.)



1. A toy comprising a stationary picture member having a slit, a superimposed movable picture member having a portion thereof guided in said slit, a mover behind the stationary picture member, and means connecting the movable picture member and mover through a play opening provided in the stationary picture member.

2. A toy comprising a stationary picture member, a superimposed movable picture member, a mover, means connecting the movable picture member and mover through a play opening provided in the stationary member, and means preventing said movable picture member from being sprung away from said stationary picture member.

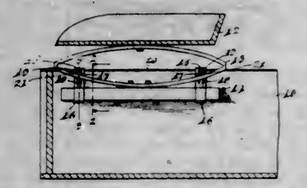
3. A toy comprising a stationary picture member having a play opening therein, a superimposed movable picture member, a mover, and a spacer in said opening connected to the movable picture member and the mover.

4. A toy comprising a stationary picture member having a play opening therein and a slit, a superimposed movable picture member having a portion thereof guided in said slit, a mover, and a spacer in said opening connected to the movable picture member and the mover.

5. A toy comprising a stationary picture member having play openings therein, a superimposed movable picture member, spacers attached to the movable picture member and engaging said openings, a mover in connection with one of the spacers, and a stay-piece in union with another of said spacers.

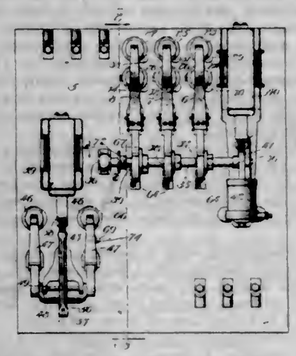
[Claim 6 not printed in the Gazette.]

1,071,806. SAFETY-HOOK. JAMES A. SCHROYER and JAY E. THORP, Ira, Iowa. Filed Oct. 23, 1912. Serial No. 727,417. (Cl. 21—41.)



In a wagon seat retainer, a doble hook member adapted for engagement over the edge of the wagon box and to support the seat, said double hook member having elongated slots, a leaf spring secured to the hook member and projecting slightly through the end of the slot, the end of the leaf spring having biting teeth for engagement with the under face of the reinforcing metal strip of the wagon box, and a thumb-piece on the spring for releasing the spring from engagement with the said strip.

1,071,807. ELECTRICAL INTERLOCKING MECHANISM. JACOB L. SCHUREMAN, Chicago, Ill., assignor, by mesne assignments, to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 21, 1908. Serial No. 449,581. (Cl. 172—288.)



1. In combination with an electrically-operated main-line switch, a series of subsidiary switches, and electrical means for operating the subsidiary switches in succession, of a mechanical interlocking device constructed and arranged to prevent the operation of said main line switch to close it while a predetermined number of said subsidiary switches are closed.

2. In combination with a main-line switch, a subsidiary switch, a rotary shaft, means on said shaft for operating said subsidiary switch, and means for rotating said shaft, of an interlocking device operated through the medium of said shaft and constructed and arranged to prevent the operation of said main line switch to close it while said subsidiary switch is closed.

3. In combination with a main-line switch, a subsidiary switch, and a movable member carrying means for engaging the subsidiary switch, when the member is moved, for closing said subsidiary switch, of an interlocking device constructed and arranged when actuated to prevent the operation of said main line switch to close it while said subsidiary switch is closed, and cam mechanism carried by said movable member and engaging with said interlocking device, for the purpose set forth.

4. In combination with a main-line switch, a subsidiary switch, and a movable member carrying means for engaging with the subsidiary switch, when said member is operated, of an interlocking device normally extending out of the path of said main-line switch and constructed and arranged to be moved into interlocking position through the medium of said movable member when said subsidiary switch is closed.

5. In combination with a main-line switch, a subsidiary switch, and a movable member carrying means for engaging the subsidiary switch to operate it when said member is moved, of an interlocking device mounted in a manner permitting it to be rocked and constructed and arranged to be operated through the medium of said movable member to prevent the operation of said main-line switch to close it when said subsidiary switch is closed.

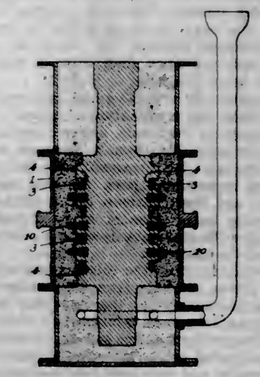
[Claims 6 to 18 not printed in the Gazette.]

1,071,808. DRESS-PAD. CHARLES H. SCOTT, Brooklyn, N. Y. Filed Jan. 26, 1909. Serial No. 474,287. (Cl. 2—87.)



A dress pad, comprising similarly shaped sides and a soft filling between said sides, each of said sides having a downwardly extending reduced portion forming a filled extension adapted for insertion within the wearer's corset or undergarment, for holding said pad in place and for producing a natural bust curve from the bottom upwardly.

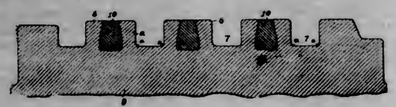
1,071,809. MANUFACTURE OF ROLLS. JOSEPH S. SEAMAN, Jr., Pittsburgh, Pa. Filed Oct. 30, 1912. Serial No. 728,707. (Cl. 22—206.)



1. As an improvement in the art of manufacturing grooved rolls, the method herein described which consists in suddenly reducing the temperature of the molten metal adjacent to the groove-forming ribs of the mold and also reducing the temperature of the molten metal intermediate such groove-forming ribs and within the periphery of the roll.

2. As an improvement in the art of manufacturing grooved rolls, the method herein described, which consists in incorporating a metal ring within the periphery of a collar of said roll.

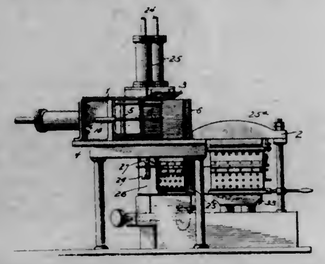
1,071,810. ROLL. JOSEPH S. SEAMAN, Jr., Pittsburgh, Pa. Filed Feb. 24, 1913. Serial No. 750,284. (Cl. 80—58.)



1. A grooved roll, having a metal ring incorporated within the periphery of the collars or portions intermediate the grooves of the roll.

2. A grooved roll, having a metal ring incorporated therein adjacent to a groove, the inner periphery of the ring being less than the periphery of the roll at the bottom of the groove.

1,071,811. APPARATUS FOR RESHAPING AND COMPRESSING PLANTATION COTTON-BALES. JOHN L. SHEPPARD, Charleston, S. C., assignor of one-fourth to C. B. Huiet, Charleston, S. C., and three-fourths to John L. Sheppard, Jr., Newark, Ohio. Filed Mar. 10, 1913. Serial No. 753,372. (Cl. 100—28.)



1. In apparatus for reshaping and compressing plantation cotton bales, the combination of a pair of jaws fulcrumed intermediate their ends, means engaging said jaws at one end for actuating them, a compress located in a plane below the jaws for compressing the bale after it has been reshaped between the jaws, and means for forcing the reshaped bales from between said jaws into the compress below the jaws.

2. In apparatus for reshaping and compressing plantation cotton bales, the combination of a pair of jaws fulcrumed intermediate their ends, means engaging said jaws at one end for actuating them, a compress located in a plane below the jaws for compressing the bale after it has been reshaped between the jaws, the said compress comprising upper and lower platens, and a plurality of connected compress boxes mounted to be moved in succession from under the reshaping jaws to a position between the platens of the compress.

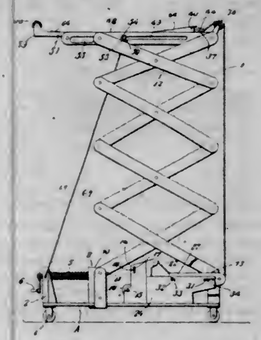
3. In a reshaping press the combination with fixed top and bottom plates, movable jaws intermediate said fixed plates and forming walls of the reshaping chamber, the said jaws being fulcrumed intermediate their ends, and means engaging the jaws at one end for actuating them.

4. In a reshaping press, the combination of fixed top and bottom plates and two jaws intermediate said plates, the jaws being fulcrumed intermediate their ends, and the free ends thereof being bent inwardly toward each other, and actuating means connected with the rear ends of the jaws for turning them on their fulcrums and for moving them rearwardly.

5. In a reshaping press, the combination of fixed top and bottom plates, two L-shaped jaws located between said plates, a fixed rear wall intermediate the two jaws, the jaws being fulcrumed intermediate their ends, and means connecting the rear ends of the jaws for actuating them.

[Claims 6 to 17 not printed in the Gazette.]

1,071,812. WALL-PAPERING MACHINE. CHRISTIAN J. SIEBENHAAR, Oramel, N. Y. Filed Sept. 20, 1912. Serial No. 721,426. (Cl. 216—5.)



1. In a wall papering machine, the combination with a platform, of an extensible frame carried thereby, means for extending and collapsing said frame, a holder for the paper and paste-applying mechanism on said platform, and devices carried by said extensible frame for pasting the paper on a wall or ceiling.

2. In a wall papering machine, the combination with a platform, of a frame, means for extending and collapsing said frame, a paper holder and paste-applying mechanism on said platform, and brushes carried by said extensible frame by pasting the paper on the wall or ceiling.

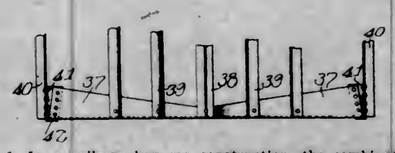
3. In a wall paper machine, the combination with a platform, a frame movable along the same, an extensible frame connected to the first-mentioned frame, means for moving the first-mentioned frame to extend and collapse the extensible frame, and paper pasting devices carried by the extensible frame.

4. In a wall paper machine, the combination of a platform, a frame carried thereby, means carried by the top of the frame capable of being extended relative to the frame, a paste brush carried by the extended means, and a device for clamping the paper arranged adjacent to the brush.

5. The combination with a platform, a frame carried thereby, a paper holding roll, a paste receptacle adjacent to the paper holding roll, paste rolls at the paste receptacle, and a wall and a ceiling brush carried by said frame.

[Claims 6 to 11 not printed in the Gazette.]

1,071,813. END CONSTRUCTION FOR RAILWAY-CARS. VINTON E. SISSON, Chicago, Ill., assignor to Walter P. Murphy, Chicago, Ill. Filed Aug. 12, 1912. Serial No. 714,701. (Cl. 105—192.)



1. In a railway box car construction, the combination of corner posts, side plates, a sheet metal end having a flange at the top which is narrow at the middle of the car and widens toward the sides, and means for securing said flange to the side plates.

2. In a railway box car construction, the combination of corner posts and side plates consisting of angle bars, a sheet metal end with a flange at the top which is narrow at the middle of the car and widens toward the sides, the vertically extending edges of said end being secured to the inner faces of said angle bars, and angular gussets securing the top flange to said side plates.

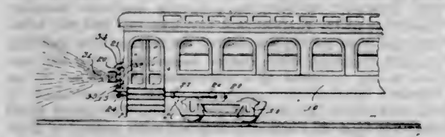
3. In a railway box car construction, the combination of corner posts and side sills consisting of angle bars, an end sill, a sheet metal end formed with an angular flange at the bottom and having its vertically extending edges secured to the inner faces of said angle bar corner posts, a plate secured to said bottom flange and resting upon and secured to the end sill, and gusset plates arranged in the corners of the car and secured to the end sill and side sills.

4. In a railway box car construction, the combination of angle bar corner posts disposed with the corners outward, side plates, side sills, and end sill, a sheet metal end provided with strengthening ribs and formed at the top and bottom with angular flanges, means for securing the top flange on the end to the side plates of the car, and means for securing the bottom flange on the end to the end sill.

5. In an end structure for railway cars comprising a rectangular sheet metal plate the upper portion of which is bent over on diagonal lines to correspond to the slope of a car roof from the ridge to the eaves and so as to provide flanges which increase in width toward the sides of the car, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,071,814. AUTOMATIC CURVE-SHOWING HEADLIGHT. PHAON W. SNYDER and PAUL S. SNYDER, Wooster, Ohio. Filed Oct. 16, 1912. Serial No. 726,112. (Cl. 240—62.)



A device of the character described comprising a supporting platform, a plate mounted upon said platform, a socket formed upon said plate and provided with an opening positioned in alinement with an opening formed in said platform, the upper edge of said socket being provided with cut-out portions forming pockets, a shaft passing through said bearing and platform, a pin extending through said shaft, and rollers mounted upon the outer end portions of said pin and positioned in said pockets whereby said shaft will be normally prevented from rotating and will be returned to a normal position after being rotated.

1,071,815. APPARATUS FOR DETERMINATION OF PERIODIC MOTION. ELMER A. SPERRY, Brooklyn, N. Y. Filed Aug. 8, 1912. Serial No. 714,025. (Cl. 88—14.)



1. As a means for determining speed of rotation and the position of an object during such rotation, a visible surface connected with such object; means, when the surface is in motion, for giving the effect of a visible line progressively moving laterally or normal to the line of motion of the said surface in combination with a device for periodically rendering the said means visible.

2. As a means for determining speed of rotation and the position of an object during such rotation, a visible surface connected with such object; means, when the surface is in motion, for giving the effect of a visible line progressively moving laterally or normal to the line of motion of the said surface, in combination with a device for periodically rendering the said line visible and mechanism for changing the frequency of the said device.

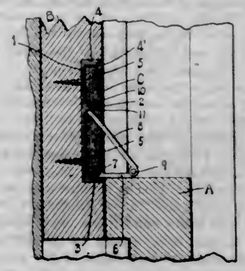
3. As a means for determining speed of rotation and the position of an object during such rotation, a visible surface connected with such object; means, when the surface is in motion, for giving the effect of a visible line progressively moving laterally or normal to the line of motion of the said surface, in combination with a device for periodically rendering the said means visible and an indicator for such period.

4. As a means for determining speed of rotation and the position of an object during such rotation, a visible means connected with such object; means, when the surface is in motion, for giving the effect of a visible line progressively moving laterally or normal to the line of motion of the said surface, in combination with a device for periodically rendering the means visible, the said means giving the effect of a visible line having a length which constitutes a substantial portion of the circumference.

5. As a means for determining speed of rotation and the position of an object during such rotation, a visible surface connected with such object; means, when the object is in motion, for giving the effect of a visible line progressively moving laterally or normal to the line of motion of the said surface, in combination with a relatively movable or portable device for periodically rendering the means visible.

[Claims 6 to 17 not printed in the Gazette.]

1,071,816. SASH-FASTENER. JOSEPH SPIEGELHALTER, Jr., St. Louis, Mo. Filed Apr. 19, 1913. Serial No. 762,371. (Cl. 16—146.)



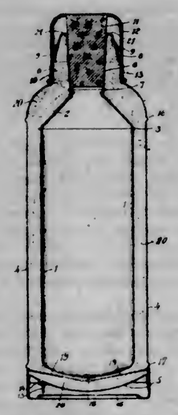
1. A sash fastener comprising a vertical support, an arm pivoted to said support, and movable outwardly therefrom, the said support being provided with an abutment located above the line in which the pivot of said arm is located, and a latch bar pivoted to said arm and movable into a backwardly and upwardly inclined position relative to said arm for engagement with the abutment on said support.

2. A sash fastener, comprising a frame, an arm pivoted to said frame and adapted to be moved outwardly therefrom, a latch bar pivoted to the outer end of said arm, and adapted to be swung inwardly to said frame; the said frame being provided with an inclined abutment to which the free end of said latch bar may be fitted to hold said arm from upward movement.

3. A sash fastener, comprising a box-like frame, an arm pivoted to the side walls of said frame movable from a vertical to a horizontal position, and a latch bar pivoted to the outer end of said arm movable into said frame to occupy an inclined position relative to said arm; the said frame being provided with an abutment that receives

the free end of said latch bar and holds it from movement whereby said arm is retained in its outwardly extending position.

1,071,817. HEAT-INSULATED RECEPTACLE. WILLIAM STANLEY, Great Barrington, Mass. Filed Aug. 5, 1912. Serial No. 713,245. (Cl. 62—28.)



1. A heat insulating barrier comprising two metallic walls suitably connected and spaced apart, the space between said walls being filled with finely divided material which will absorb gas at ordinary temperatures and reduced pressures, the said space being exhausted to such a degree as to greatly reduce the conductivity for heat between the two metallic walls.

2. A heat insulated receptacle having an inner metallic shell with a vitreous coating on its inner surface and an outer metallic shell extending about the inner shell and spaced therefrom and connected to the inner shell at the mouth of the receptacle by a metallic neck of high thermal resistance, the space between said shells being filled with finely divided material substantially incapable of giving off gas but which will absorb gas at ordinary temperatures and reduced pressures, and the said space also being exhausted to such a degree as to greatly reduce the conductivity for heat between the two shells.

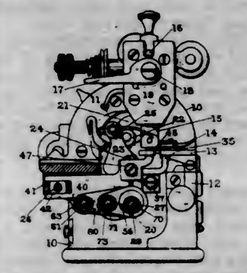
3. A heat insulating barrier comprising two walls suitably connected and spaced apart to form a vacuous space therebetween said space containing finely divided material substantially incapable of giving off gas at ordinary temperatures and reduced pressures, and the said space being exhausted to such a degree as to greatly reduce the conductivity for heat between the two walls.

4. A heat insulated receptacle having an inner metallic shell and an outer metallic shell extending about the inner shell and spaced therefrom and connected to the inner shell at the mouth of the receptacle by a metallic neck of high thermal resistance, and the space between said shells being filled with finely divided material substantially incapable of giving off gas at ordinary temperatures and reduced pressures, and the said space also being exhausted to such a degree as to greatly reduce the conductivity for heat between the two shells.

5. A heat insulated receptacle having an inner metallic shell and an outer metallic shell extending about the inner shell and spaced therefrom and connected to the inner shell at the mouth of the receptacle, the space between said shells being filled with finely divided material incapable of giving off gas at ordinary temperatures and reduced pressures, and the said space also being exhausted to such a degree as to greatly reduce the conductivity for heat between the two shells.

[Claims 6 to 15 not printed in the Gazette.]

1,071,818. FEEDING MECHANISM FOR SEWING-MACHINES. WILLIAM H. STEDMAN, Hartford, Conn., assignor to The Merrow Machine Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 21, 1909. Serial No. 473,567. (Cl. 112—8.)



1. In a sewing machine, two co-acting feeding mechanisms each including a feed dog and a feed bar, a support forming an axis common to both feed bars with reference to which axis the feed dogs have pivotal and longitudinal movements, a shaft, means on the shaft whereby said movements are imparted to the feed dogs, the said means including for each feed dog an eccentric imparting pivotal motion thereto the said eccentric being rotatively adjustable on the shaft, and an eccentric for imparting longitudinal movement to the feed dog, each of the several eccentrics being independent of the others.

2. In combination in a sewing machine, two feed bars mounted side by side on a common support upon which they are pivotally and longitudinally movable and carrying a plurality of feed dogs, two links mounted side by side parallel to and both at one side of the feed bars, the link adjacent the feed bars having one end pivotally connected to the farther feed bar, and the feed bar adjacent the links having one end of the farther link pivotally connected thereto, independent removable cylindrical collars fixedly mounted in a predetermined position on an eccentric portion of the driving shaft and embraced by the said links, the said collars having their drive shaft receiving apertures suitably disposed with respect to their peripheries to effect a definite longitudinal stroke to the links and feed bars, and means for vertically actuating the feed dogs.

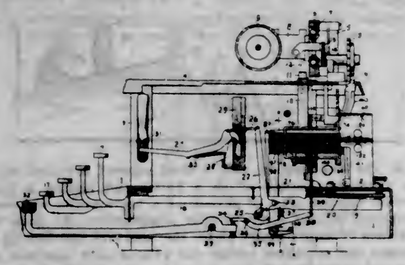
3. In a sewing machine, feeding mechanism including a feed dog supported for "four motion" movements, a feed bar, a shaft having an eccentric portion, two collars having openings to receive the eccentric portion of the shaft upon which the said collars are mounted, one collar effecting vertical movement of the feed dog, and the other collar effecting horizontal movement of the feed dog, and a link connecting the last named collar and the feed bar.

4. In a sewing machine, feeding mechanism including a feed dog supported for "four motion" movements, a feed bar, a shaft formed with an eccentric portion whereby the feed dog is actuated, two collars mounted on the said eccentric portion of the shaft the collars having openings to receive the eccentric portion of the shaft, so located as to give the desired throw to the connections between the feed bar and the collars whereby the motions of the feed dog are attained.

5. In a sewing machine, feeding mechanism including two coöperating feed dogs independently supported, a carrier for each feed dog, a shaft having an eccentric portion, four eccentrics on said eccentric portion of the shaft, each eccentric being entirely independent of the others, two of said eccentrics respectively engaging the carriers to impart vertical movements to the feed dogs and two eccentrics for imparting horizontal movements to the feed dogs, a connection between each of the last named eccentrics and one of the carriers respectively, a block for each carrier and upon which the said carriers are respectively slidably mounted, a pivotal support for the blocks and a presser foot coöperating with the feed dogs.

[Claims 6 and 7 not printed in the Gazette.]

1,071,819. COMBINED TYPE-WRITER AND TELEGRAPH-TRANSMITTER. HERBERT H. STEELE, Marcellus, N. Y., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed May 11, 1908. Serial No. 432,234. (Cl. 178—54.)



1. In an electrical transmitting machine, the combination of a character key and its associated printing element, a normally active contact, a series of normally inactive contacts, and means coöperative with the printing element to simultaneously compose a sub-group of said contacts in proper relationship to transmit the signal or signals representative of the associated character.

2. In an electrical transmitting machine, the combination of a character key, a series of normally inoperative contacts, a series of vibratory bars adapted to form a subseries of operative contacts, and a transmitting brush released by said key to transmit the relationship of the operative contacts to each other.

3. In a combined typewriting and electrical transmitting machine, the combination of printing instrumentalities including character keys, a series of normally inoperative electrical contacts, and means associated with said printing instrumentalities and with said contacts for automatically grouping certain of said contacts in proper relationship to transmit signals simultaneously with the printing of the predetermined character.

4. In a combined typewriting and electrical transmitting machine, the combination of printing instrumentalities including character keys, a series of normally inoperative electrical contacts, connections between the printing instrumentalities and the contacts adapted to select and arrange in groups at will and in proper order the particular contacts necessary to transmit the signal or signals associated with an equivalent of the character printed.

5. In a combined typewriting and transmitting machine, the combination of a series of normally inoperative electrical contacts, printing instrumentalities including character keys for controlling said contacts, and means actuated by said printing instrumentalities for selecting and arranging in operative position the necessary contacts to transmit the Morse equivalent of the actuated printing element.

[Claims 6 to 52 not printed in the Gazette.]

1,071,820. SANITARY CUSPIDOR. THOMAS ANDREW STEVENS, Caney, Kans. Filed Mar. 17, 1910. Serial No. 549,938. (Cl. 4—38.)



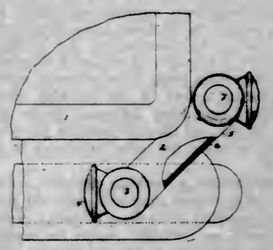
1. In combination, a lower open-ended hollow bottom shell base member having a restricted upwardly extending cylindrical portion, a hollow cylindrical glass shell fitted over the portion, and a cylindrical resilient member fitted within the glass shell down over the portion, and adapted to surround and inclose absorbent material within the cuspidor as and for the purpose specified.

2. A cuspidor, comprising a lower open ended hollow bottom shell base member having a lower annular supporting flange, and including an annular horizontal portion integral with the flange, said base member having an upper closed annular portion 3 connected integrally to and projecting from the annular horizontal portion, said portion 3 including an annular groove 6, an annular rubber ring seated in the groove, a hollow cylindrical glass shell fitted over the portion 3, and a cylindrical resilient member fitted within the glass shell down over the portion 3 and in frictional contact with the rubber ring and adapted to surround and inclose absorbent material within the cuspidor, as and for the purpose specified.

3. In combination, a lower open-ended hollow bottom shell base member having a restricted upwardly extending cylindrical portion provided with an annular groove, an annular rubber ring seated therein, a hollow cylindrical glass shell fitted over the portion, and a cylindrical resilient member fitted within the glass shell down over the portion in frictional engagement with the rubber ring, and adapted to surround and inclose absorbent material within the cuspidor, as and for the purpose specified.

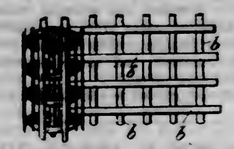
4. The combination with an outer member, of a closure for the bottom of the outer member carrying a packing ring, and a resilient lining fitted within the whole of said lower member and coöperating with the ring to form a moisture proof joint.

1,071,821. MEANS FOR DISPLAYING AUTOMOBILE-NUMBERS. ELGIN STODDARD, San Francisco, Cal. Filed June 5, 1912. Serial No. 701,742. (Cl. 40—131.)



In combination, a casing, a lamp, near one end thereof, said casing being provided with means arranged to permit the passage of rays radiating forwardly from the lamp, and having a laterally extending portion formed to support rearwardly and outwardly facing numerals in position to be directly illuminated by rearwardly radiating rays from said lamp.

1,071,822. WIRE FENCING AND THE LIKE. ANDREW WILLIAM STOREY, Newton Heath, Manchester, England, assignor to British Reinforced Concrete Engineering Company Limited, Westminster, England. Filed Oct. 19, 1912. Serial No. 726,621. (Cl. 189—92.)



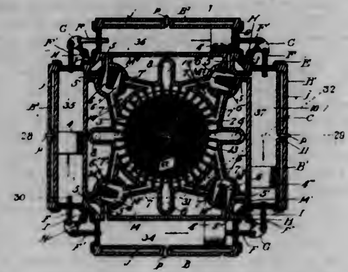
1. As a new article of manufacture a wire fencing formed of oval wires laid upon one another and secured together at the crossing places substantially as herein set forth.

2. As a new article of manufacture a wire fencing formed of oval wires laid upon one another and electri-

cally welded together at the crossing places substantially as herein set forth.

3. As a new article of manufacture a wire fencing formed of oval wires laid upon one another and secured together at the crossing places and subsequently galvanized substantially as herein set forth.

1,071,823. EXPLOSIVE-ENGINE. ELMER E. E. SUTPHIN, Davenport, Iowa. Filed July 26, 1912. Serial No. 711,699. (Cl. 60—4.)



1. An engine comprising a working chamber, a rotor therein, a plurality of explosion chambers, ports to conduct the exploded gases from the explosion chambers to the working chamber, valves controlling adjacent ports of adjacent explosion chambers and adapted to retain the gases in the explosion chambers under compression, and means for automatically opening said valves after the explosions to permit the exploded gases to actuate the rotor.

2. In a motor, the combination of a working chamber, a rotor therein, a plurality of explosion chambers, adjacent ports for conducting gases from adjacent explosion chambers to different points in the working chamber; with single valves controlling adjacent ports whereby the gases may be directed through selected ports to the working chamber to cause the rotor to revolve in either direction desired.

3. In combination, a working chamber, a rotor therein, a plurality of explosion chambers, adjacent ports for conducting the exploded gases from adjacent explosion chambers to the working chamber; means for supplying gas to said explosion chambers, means for igniting the gases, and valves for controlling adjacent ports adapted to retain the gases in the explosion chambers under compression, and means for automatically actuating said valve to permit the exploded gases to pass to the working chamber.

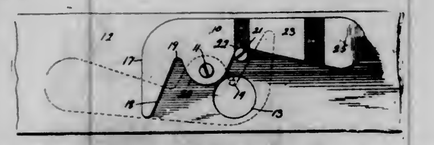
4. In a motor, the combination of a working chamber, a rotor therein, a plurality of explosion chambers, adjacent ports for conducting gases from the explosion chambers to different parts of the working chamber; means for supplying gas to said explosion chambers, means for igniting the gases, and a single valve controlling the adjacent ports whereby the gases may be directed through selected ports to the working chamber to cause the rotor to revolve in either direction desired.

5. In an engine, a working chamber, a plurality of exploding chambers adjacent the working chamber, ports for conducting exploded gases from the exploding chambers to the working chamber, valves for said ports, pistons in said working chambers, and means operated by said pistons controlling said valves.

[Claims 6 to 23 not printed in the Gazette.]

1,071,824. HALTER-LOCK. GEORGE H. TAYLOR, Richmond, Va. Filed Mar. 26, 1912. Serial No. 686,295. (Cl. 119—110.)

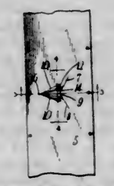
1. The combination with a fixed support provided with an aperture through which a halter end having a projection thereon may be passed, of a horizontally disposed weighted locking lever pivoted intermediate its ends to the face of said support above the aperture and having a hooked end to travel across the axis of said aperture at one end thereof and engage the halter end between the projection thereon and the face of said support to form an abutment against longitudinal movement of said halter end.



2. The combination with a fixed support provided with an aperture through which a halter end having a projection thereon may be passed, of a horizontally disposed weighted locking lever pivoted intermediate its ends to the face of said support above the aperture and having a hooked end to travel across the axis of said aperture at one end thereof, and means above said aperture for supporting the weighted portion of said hook when in released position.

3. The combination with a fixed support provided with an aperture through which a halter end having a projection thereon may be passed, of a horizontally disposed locking member having a hook at one end and a weighted opposite end and pivoted intermediate said ends to the face of said support above the aperture to permit said hook to travel across the axis of the aperture therein, and a supporting pin disposed beneath the weighted portion when released and in the path of travel of the hooked end when in engagement with said halter end.

1,071,825. FASTENER. GEORGE N. TOMPKINS, Croton on Hudson, N. Y. Filed Apr. 12, 1912. Serial No. 690,328. (Cl. 24—222.)



1. In a fastener, a metal plate in which three cuts are made radiating from a point, triangular portions of the metal plate being rolled back from one of the cuts, and longitudinally of the other cuts.

2. In a fastener, a metal plate in which three cuts are made radiating from a point, triangular portions of the metal plate being rolled back from one of the cuts, and longitudinally of the other cuts, and a pin adapted to be disposed in the opening made by the rolled portions of the metal plate, and a head on the pin for engaging the rolled portions of the plate.

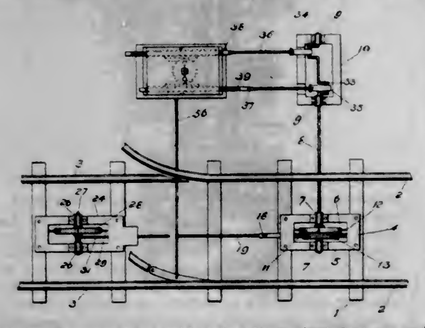
3. In a fastener, a resilient plate, in which three cuts are made, radiating from a point, the edges of the resilient plate being rolled back from a point at the outer end of one of the cuts, and longitudinally of the other cuts, to form a triangular opening having as its apex the second-mentioned point.

4. In a fastener, a resilient metal plate, in which two cuts are made radiating from a point, a triangular portion of the resilient metal plate being rolled back from one of the cuts, and longitudinally of the other cut, to form a triangular opening.

1,071,826. SWITCH-THROWING DEVICE. JOHN TOTH, Joliet, Ill. Filed Apr. 20, 1911. Serial No. 622,239. (Cl. 104—24.)

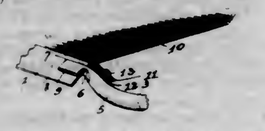
A switch throwing device comprising a main and an auxiliary actuating wheel spaced from each other and

adapted to be operated in unison, radial contact arms projecting from each of said actuating wheels, casings with basin shaped sockets therein, said wheels trunnioned upon the tops of said casings and extending within said sockets, the casing of said main wheel having alining openings therethrough communicating with said socket, said auxiliary wheel provided with a reduced side having teeth conforming to a sector-gear, a longitudinal rack engaging with said teeth and extending through said openings, a



reach rod connected to said rack, a lever pivoted at one end to said reach rod, a shaft upon which said main actuating wheel is mounted, a crank projecting from said shaft, a rod attached to said crank and to the other arm of said lever, a vertically disposed switch rod operating shaft, and an operative connection between said last mentioned shaft and said auxiliary wheel for shifting said shaft when the wheels are actuated by means carried by a traveling vehicle.

1,071,827. SPRING-MATTRESS FRAME. DON CARLOS TRAVIS, Kenosha, Wis., assignor to The Simmons Manufacturing Company, Kenosha, Wis., a Corporation of Wisconsin. Filed Feb. 15, 1912. Serial No. 677,803. (Cl. 5—64.)



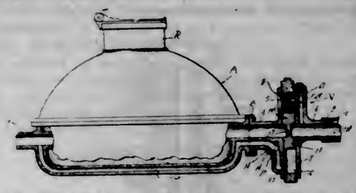
1. The combination with a pair of angle irons lying in inverted position and forming the end rails, of a metallic mattress secured to the inner flanges of said end rails, a pair of tubular metal side rails lying in a plane below the mattress and bent upwardly at either end, the extremities of said side rails being flattened and projecting through short slots in the outer flanges of the end rails and bent downwardly against the faces of the angle irons to lock said rail members together against lateral or endwise movement relative to each other.

2. In a mattress frame, the combination with a pair of angle irons forming end rails, of a pair of tubular side rails lying in a plane below the end rails and bent upwardly at either end, the extremities of said side rails being flattened and extending through short slots formed in said angle irons and bent downwardly against the faces of said angle irons to lock said rail members together against lateral or endwise movement relative to each other.

3. In a mattress frame, the combination with a pair of end rails, of a pair of side rails, the extremities of said side rails projecting through small slots formed in said end rails and then bent inwardly to lock said rail members together against lateral or endwise movement relative to each other.

4. In a mattress frame, the combination with a pair of end rails, of a pair of side rails, the ends of one pair projecting through small slots in the other pair and then bent inwardly at their extremities to lock the rails together to form the frame.

1,071,828. WATER-METER. HENRY C. TURNER and GEORGE W. HAMM, Represa, Cal. Filed Sept. 6, 1912. Serial No. 718,988. (Cl. 73—167.)



1. The combination with a water meter having a high pressure main leading thereto and a low pressure line leading therefrom, of a valve casing in the low pressure line, a piston valve movable in the casing, said casing having a passage or channel leading to one side of the piston, a by-pass leading from the high pressure main to one end of the piston valve, a pressure equalizing element on the other end of the piston valve, and a valve controlled drain port in the valve casing for the by-pass.

2. The combination with a water meter, of a high pressure main leading thereto and a low pressure line leading therefrom, of a valve casing in the low pressure line formed with a high pressure chamber and a low pressure chamber and having a passage extending between the meter and the low pressure line, a double piston valve controlling the passage and having head portions moving in the pressure chambers, a channel extending from the low pressure chamber to the passage in the valve casing, a by-pass connecting the high pressure main with the high pressure chamber, a pressure equalizing spring in the low pressure chamber, and a valve controlled drain port for relieving the pressure in the high pressure chamber.

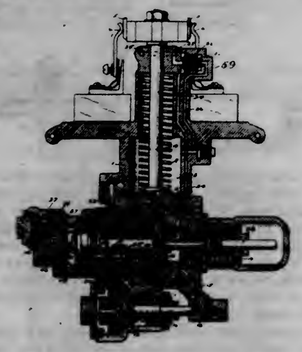
3. The combination with a water meter, of a high pressure main leading thereto, and a low pressure line leading therefrom, a valve casing in the low pressure line formed with a high pressure chamber and a low pressure chamber and a passage communicating with low pressure line and with the low pressure chamber, a double acting piston valve controlling the passage provided with a head moving in the high pressure chamber, and a head moving in the low pressure chamber, said valve casing having a channel affording communication between the passage and the low pressure chamber, a by-pass leading from the high pressure main to the high pressure chamber of the valve casing, a pressure equalizer spring in the low pressure chamber bearing against the head of the piston therein, and a two-way valve controlling a drain or relief port for the high pressure chamber.

1,071,829. PRESSURE-GOVERNOR FOR PUMPS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air-Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 20, 1908. Serial No. 463,605. (Cl. 230—24.)

1. A pressure governor for pumps comprising a pump controlling device, an actuating piston therefor, a main valve mechanism comprising a valve for controlling ports leading to the actuating piston through which fluid is admitted to and released from said piston, a movable abutment subject to the opposing pressures of the pump and a spring for moving said valve in one direction upon a predetermined decrease in the pump pressure acting on said abutment, and a regulating valve device governed by pump pressure for causing the movement of said main valve mechanism in the opposite direction upon a predetermined increase in pump pressure.

2. A pressure governor for pumps comprising a controlling device, an actuating piston therefor, a main valve for controlling the admission and release of fluid under pressure to and from said actuating piston, a movable abutment subject to pump pressure for operating said main valve, yielding means acting on said movable abutment in opposition to the pump pressure and adapted when the pump pressure diminishes to a predetermined point to shift said abutment, and a regulating valve device sub-

ject in one direction to pump pressure and in the opposite direction to the pressure of an adjustable spring for causing the movement of said abutment upon a predetermined increase in pump pressure.



3. A pressure governor for pumps comprising a controlling device, an actuating piston therefor, a main valve mechanism comprising a movable abutment subject on one side to pump pressure, a main valve controlled thereby and adapted in one position to supply air to said actuating piston and in another position to release air therefrom, a spring acting on said abutment and adapted to shift the main valve mechanism to release air from the actuating piston upon a predetermined reduction in pump pressure on said abutment, and a regulating valve device subject to pump pressure for causing the movement of the main valve mechanism to supply air to said actuating piston upon a predetermined increase in pump pressure.

4. A pressure governor for pumps comprising a controlling device, an actuating piston for said controlling device, a valve for controlling the fluid pressure on said actuating piston, a movable abutment for operating said valve subject on one side to pump pressure and having means for permitting equalization of fluid pressure on its opposite sides, means for subjecting a portion of the area of said abutment to fluid at pump pressure in one position, and means acting on said abutment for shifting same from said position when the pump pressure falls to a predetermined point.

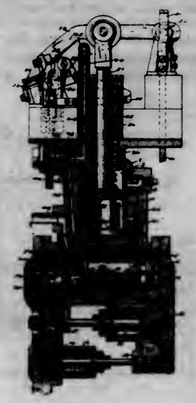
5. A pressure governor for pumps comprising a controlling device, an actuating piston for said controlling device, a valve for controlling the fluid pressure on said actuating piston, a movable abutment for operating said valve subject on one side to pump pressure and having means for permitting equalization of fluid pressure on its opposite sides, said abutment being adapted to seat in one position and thereby reduce the area on one side subject to pump pressure, and a spring device acting on said abutment and adapted to shift same from said position when the pump pressure on the abutment diminishes to a predetermined point.

[Claims 6 to 9 not printed in the Gazette.]

1,071,830. ELECTRIC PUMP-GOVERNOR. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 10, 1909. Serial No. 489,093. (Cl. 230—24.)

1. A pressure governor comprising a controlling device, an actuating piston therefor, valve means governed by the pump pressure for supplying fluid to operate said piston, and means operated by the movement of said piston in one direction, for venting fluid from one side of the piston and by the movement of said piston in the opposite direction for supplying fluid to one side of the piston.

2. A pressure governor comprising a pump controlling device, an actuating piston therefor having two pressure receiving surfaces, a valve mechanism governed by the pump pressure for varying the fluid pressure on one surface, and means operated by the movement of said piston for varying the pressure on the other surface.



3. A pressure governor comprising a pump controlling device, an actuating piston therefor having two pressure receiving surfaces, a valve mechanism governed by the pump pressure for venting fluid from one surface, and means operated by the piston for venting fluid from the other surface to cause the sudden movement of said piston.

4. A pressure governor comprising a pump controlling device, an actuating piston therefor having two pressure receiving surfaces, a valve mechanism governed by the pump pressure for supplying fluid under pressure to one surface, and means operating upon movement of the piston for venting fluid from one surface to the other to regulate the movement of said piston.

5. A pressure governor comprising a controlling switch, an actuating piston therefor, a main valve and an abutment for controlling the fluid pressure on said actuating piston, a blow-out valve means operated by fluid pressure, and an auxiliary valve having a movement relative to said main valve and operated by the preliminary movement of said abutment for venting fluid under pressure from one face of said abutment to said blow-out valve means to operate the same.

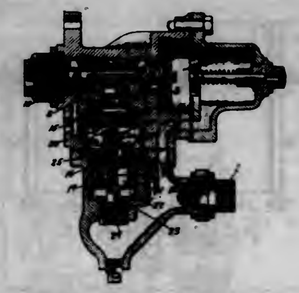
[Claims 6 to 8 not printed in the Gazette.]

1,071,831. TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 16, 1910. Serial No. 597,666. (Cl. 188—15.)

1. A triple valve device comprising a movable abutment subject to train pipe pressure, a valve operated by said abutment for supplying air from the auxiliary reservoir to the brake cylinder upon a gradual reduction in train pipe pressure to effect a service application of the brakes, and a piston operated by the flow of air from the auxiliary reservoir to the brake cylinder in a service application of the brakes to effect a local discharge of air from the train pipe.

2. A triple valve device comprising a movable abutment subject to train pipe pressure, valve means operated by said abutment for supplying air from the auxiliary reservoir to the brake cylinder upon a gradual reduction in train pipe pressure to effect a service application of the brakes, and a piston subject to the full flow of air from the auxiliary reservoir to the brake cylinder in a service application of the brakes for controlling a local venting of air from the train pipe.

3. A triple valve device comprising a movable abutment subject to train pipe pressure, valve means operated by said abutment and having a port affording the only means of communication from the auxiliary reservoir to the brake cylinder in a service applicaton of the brakes, and a piston operated by the flow of air from said port to the brake cylinder for effecting a local discharge of air from the train pipe.



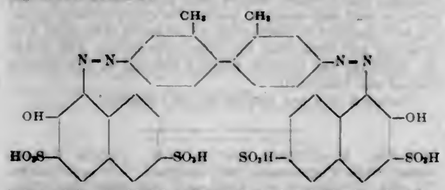
4. A triple valve device comprising a movable abutment subject to train pipe pressure, a main slide valve operated by said abutment and having a port adapted in service application position to afford the only means of communication from the auxiliary reservoir to the brake cylinder, a graduating valve for controlling said port, and an emergency piston operated by the flow of air through said port for effecting a local discharge of air from the train pipe.

5. A triple valve device comprising a movable abutment subject to train pipe pressure, valve means operated by said abutment and having a supply port adapted in a service application of the brakes to afford the only means of communication from the auxiliary reservoir to the brake cylinder, a valve for controlling a local train pipe vent port, and a piston operated by the flow of air through said supply port to the brake cylinder for actuating said valve.

[Claims 6 to 8 not printed in the Gazette.]

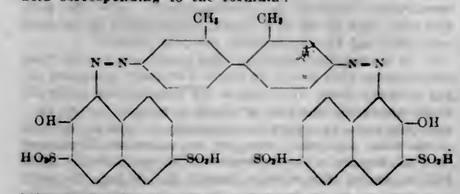
1,071,832. COLOR-LAKES. HERMANN WAGNER and JAKOB KOHLHAAS, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Dec. 4, 1912. Serial No. 734,967. (Cl. 8—1.)

1. As new products, color-lakes which are salts, insoluble in water, of the tetrazo compound of m-tolidin with two molecules of 2-naphthol-3.6-disulfonic acid corresponding to the formula:



being violet to bluish-red powders, insoluble in oil, alcohol and benzene.

2. As a new product, the color-lake which is the barium salt, insoluble in water, of the tetrazo compound of metatolidin with two molecules of 2-naphthol-3.6-disulfonic acid corresponding to the formula:

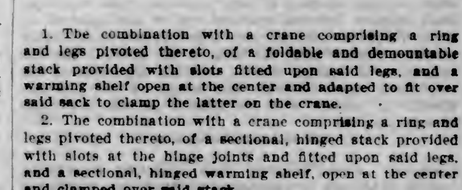


being a bluish-red powder, insoluble in oil, alcohol and benzene.

1,071,833. RED WOOL DYESTUFF AND PROCESS OF MAKING SAME. HERMANN WAGNER and JAKOB KOHLHAAS, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Dec. 4, 1912. Serial No. 734,968. (Cl. 8—1.)

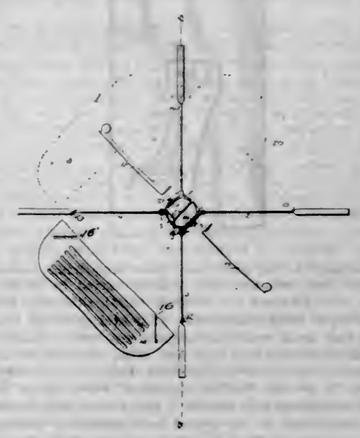
1. The process of manufacturing a red wool dyestuff fast to milling, which consists in causing the tetrazo compound of m-tolidin to act upon 2 molecular proportions of 2-naphthol-6-sulfonic acid.

2. As a new product, the dyestuff of the formula:



being a red powder, dissolving in concentrated sulfuric acid with a carmine-red color, its solution in hot water solidifying after cooling into a red gelatinous mass, and dyeing wool beautiful red tints, remarkable for their fastness to milling.

1,071,834. OUTDOOR COOKING-CRANE. ELLIS W. WALL, Medford, Oreg. Filed Sept. 26, 1912. Serial No. 722,496. (Cl. 126—30.)



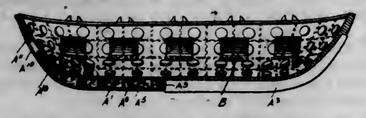
1. The combination with a crane comprising a ring and legs pivoted thereto, of a foldable and demountable stack provided with slots fitted upon said legs, and a warming shelf open at the center and adapted to fit over said sack to clamp the latter on the crane.

2. The combination with a crane comprising a ring and legs pivoted thereto, of a sectional, hinged stack provided with slots at the hinge joints and fitted upon said legs, and a sectional, hinged warming shelf, open at the center and clamped over said stack.

3. The combination with a crane comprising a ring and legs pivoted thereto, of a foldable stack provided with slots fitted upon said legs, and a series of slotted cooking grates supported on said legs below the stack.

4. The combination with a crane comprising a ring and pivoted legs, of a foldable stack, a warming shelf clamping said stack to the crane, and a series of cooking grates supported on said legs below the stack.

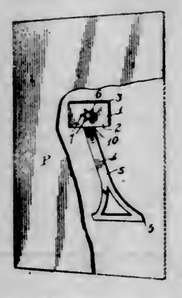
1,071,835. LIFE-BOAT. CHARLES WILLIAM WALLIS, Toronto, Ontario, Canada. Filed May 14, 1912. Serial No. 697,105. (Cl. 9—3.)



1. In a nested boat, opposing seats comprising arc-shaped brackets pivotally connected at their lower end to the inside of the boat and adapted to fold against and fit the inside of the boat, flexible seats secured at one end to the side of the boat and at the opposite end to the top of the brackets, and means for securing the opposing brackets together, as and for the purpose specified.

2. In a nested boat, seats comprising brackets pivotally connected at their lower end to the inside of the boat and adapted to fold against and fit the inside of the boat, flexible seats secured at one end to the side of the boat and at the opposite end to the top of the brackets, and means for supporting the free ends of the brackets, as and for the purpose specified.

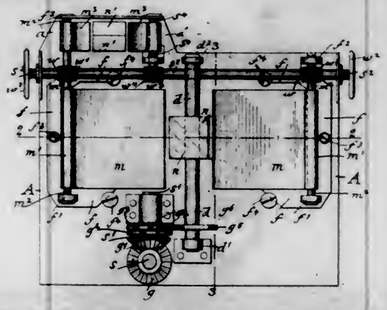
1,071,836. SUPPORT FOR CARDS, PICTURES, AND THE LIKE. JAMES MURRAY WASHBURN, Chicago, Ill. Filed Apr. 6, 1911. Serial No. 619,317. (Cl. 40—146.)



A support of the class described, comprising a piece of gummed tape adapted to be readily affixed to an article, and a stay stamped out of sheet metal, said stay having an enlarged head coextensive with said gummed tape, a broad base upon which the support may rest, a shank connecting said head and base and being adapted for ready bending to the proper supporting angle but of sufficient rigidity to prevent further movement when placed in position to support said article, a series of prongs struck up from said head at its center and projecting through a single central opening in said tape and there bent outward radially over the gummed face of said tape to securely fasten the stay and tape together, said prongs being in direct contact with the back of the article when the support is in position thereon, and the remainder of the stay being separated from said article by the tape but directly in contact with the tape to prevent said tape from peeling off.

1,071,837. ATTACHMENT FOR TAKING-CAMERAS FOR MAKING STEREOSCOPIC MOVING-PICTURE FILMS. ALOYS WAYDITCH, New York, N. Y., assignor to Stereo-Kinema Film Co., New York, N. Y., a Corporation of New York. Filed Jan. 3, 1913. Serial No. 739,949. (Cl. 88—16.6.)

1. An attachment for taking-cameras for making stereoscopic moving-picture films, comprising a front-wall having openings, side-mirrors inclined toward each other, parallel mirrors between said side-mirrors, and means for imparting intermittent rotary motion to said parallel mirrors so as to reflect the pictures to be taken by the right or left side-mirror.



2. An attachment for taking-cameras for making stereoscopic moving-picture films, comprising a front-wall having openings, side-mirrors inclined toward each other, parallel mirrors between said stationary mirrors, means for intermittently rotating said mirrors so as to reflect the pictures alternately reflected by the right or left side-mirror, and means for transmitting rotary motion from the driving shaft of the taking-camera to the intermittently-rotating means.

3. An attachment for taking-cameras for making stereoscopic moving-picture films, comprising a front-wall having openings, side-mirrors adjacent to said openings and inclined toward each other, parallel intermediary mirrors, means for intermittently rotating said intermediary mirrors, and means for adjusting the inclined side-mirrors into vertical positions.

4. An attachment for taking-cameras for making stereoscopic moving-picture films, comprising a front-wall having openings, side-mirrors adjacent to said openings and inclined toward each other, parallel intermediary mirrors, means for intermittently rotating said intermediary mirrors, a frame for supporting said side-mirrors, and means for adjusting said frame and mirrors for setting the mirrors into vertical position.

5. In an attachment for taking-cameras for making stereoscopic moving-picture films, the combination of a front-wall having openings, side-mirrors adjacent to said openings and inclined toward each other, parallel mirrors between said side-mirrors, means for intermittently rotating said parallel mirrors so as to transmit reflections first from one and then from the other side-mirror, and means for adjusting the relative angular position of the mirrors toward the front-wall.

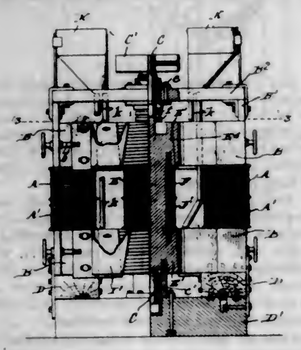
[Claims 6 to 8 not printed in the Gazette.]

1,071,838. MAGNETIC SEPARATOR. JOSEPH WEATHERBY, New Cumberland, Pa., assignor, by mesne assignments, to Electric Ore Separator Company, New Cumberland, Pa., a Corporation of Delaware. Filed Jan. 11, 1912. Serial No. 670,621. (Cl. 83—71.)

1. In a magnetic separator, the combination with fixed and rotary pole pieces having a vertically elongated air gap between them, of means for maintaining a body of comminuted material in rubbing contact with the movable pole piece at one side of and in proximity to the fixed pole piece and air gap between the pole pieces.

2. In a magnetic separator, the combination with fixed and movable pole pieces having a vertically elongated air gap between them, of a hopper for comminuted materials to be separated, one side of which is formed by the movable pole piece at a point in proximity to and at one side of the fixed pole piece, whereby the materials discharged from the hopper by the movement of the movable pole piece will be carried transversely through the air gap.

3. In a magnetic separator, the combination with a rotor forming one pole piece in a magnetic circuit, and a fixed pole piece arranged in proximity thereto and inclined to the horizon, of means for maintaining a body of comminuted materials to be separated in contact with the rotor in proximity to the upper inclined side of the fixed pole piece, whereby materials of lesser susceptibility discharged with the hopper at the top will fall under the influence of gravity without contacting with material of greater susceptibility carried by the rotor from the bottom portion of the hopper.

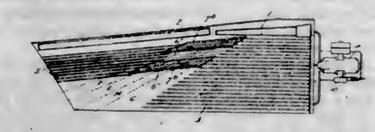


4. In a magnetic separator, the combination with a rotor mounted on a vertical axis and having a cylindrical pole piece forming one terminal of the magnetic circuit, and a fixed pole piece arranged in proximity thereto, and forming another terminal of the magnetic circuit, whereby the concentrated magnetic field is established between said pole pieces, of a hopper located at one side of the fixed pole piece, with its feed opening at one side and extending vertically, one wall of said hopper being formed by the pole piece of the rotor whereby a body of ore will be supported in rubbing contact with said pole piece and will be fed thereby laterally through the concentrated magnetic field for the separation of the ore particles having different magnetic susceptibility.

5. In a magnetic separator, the combination with a rotor mounted on a vertical axis and having a cylindrical pole piece forming one terminal of a magnetic circuit and a fixed pole piece arranged in proximity thereto and forming another terminal of the magnetic circuit, one face of said fixed pole piece being inclined to the axis of the rotor, of a hopper, one wall of which is formed by the pole piece of the rotor at a point in proximity to the inclined face of the fixed pole piece whereby the ore will be transferred by the rotor through the magnetic field between the two pole pieces, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,071,839. ORE-CONCENTRATOR. JOSEPH WEATHERBY, New Cumberland, Pa., assignor to The Electric Ore Separator Company, New Cumberland, Pa., a Corporation of Delaware. Filed Aug. 1, 1912. Serial No. 712,794. (Cl. 83—71.)



1. In an ore concentrator, the combination with a transversely inclined longitudinally differentially reciprocatory dressing table having incorporated therein longitudinal strips of magnetic metal and means for differentially reciprocating said table horizontally to effect stratification and separation of the material thereon in divergent paths due to the difference in specific gravity of the elements composing the material, of a fixed magnet mounted above the table and having a pole terminal with an extended face in proximity to and above the magnetic strips in the table, whereby elongated magnetic fields are formed in which the lines of force converge toward the ore supporting surface of the table.

2. In an ore concentrator, the combination with a transversely inclined longitudinally differentially reciprocatory dressing table having incorporated therein longitudinal strips of magnetic metal and means for differentially reciprocating said table horizontally to effect stratification and separation of the material thereon in divergent paths due to the difference in the specific gravity of the elements composing the material, of a fixed magnet mounted above the table and having a pole terminal with an extended face in proximity to and above the magnetic strips in the table, and a fixed armature located below and in proximity to the under surface of the table, whereby elongated magnetic fields are formed, with the lines of force converging toward the ore supporting surface of the table.

3. In an ore concentrator, the combination with a transversely inclined longitudinally differentially reciprocatory dressing table having its ore supporting surface provided with riffles, and means for differentially reciprocating said table horizontally and feeding the ore over said table to effect stratification and separation of the material in divergent paths, due to the difference in specific gravity of the elements composing the material, and strips of magnetic metal incorporated in and movable with the table, of a fixed magnet located above the table and having a pole terminal with an extended face in proximity to and above the magnetic strips whereby elongated magnetic fields are formed in the ore path with the lines of force in said fields converging toward the ore supporting surface of the table.

4. In an ore concentrator, the combination with a transversely inclined longitudinally differentially reciprocatory dressing table having its ore supporting surface provided throughout a portion of its area only with riffles and means for differentially reciprocating said table and feeding the ore over the same to effect stratification and separation of the material of the ore in divergent paths due to the difference in specific gravity of the elements composing the ore, of means for creating a series of elongated concentrated magnetic fields in the ore path over the unriffled portion of the table only, the lines of magnetic force in said fields converging toward the ore supporting surface, whereby the ore will be subjected to a preliminary gravity separation uninfluenced by magnetic action and final stratification and separation is effected under the combined influence of magnetic action and gravity on the plane portion of the table.

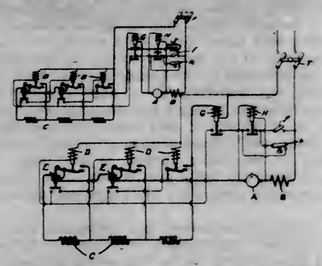
5. In an ore concentrator, the combination with a dressing table having a portion of its surface plane and a portion provided with riffles, means for imparting horizontal movements to the table and feeding the ore over the same to effect stratification and separation of the ore in divergent paths due to the difference in specific gravity of the elements composing the ore, and strips of magnetic metal incorporated in the unriffled portion of the table, of fixed magnets having pole terminals with extended faces in proximity to and above the magnetic strips in the table, whereby the ore will be preliminarily subjected to separation in the riffled portion of the table uninfluenced by magnetism and then subjected to separation on the plane portion of the table under the influence of the magnetic fields.

[Claims 6 to 11 not printed in the Gazette.]

1,071,840. MOTOR CONTROL. MAX A. WHITING, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 19, 1911. Serial No. 655,459. (Cl. 172—288.)

1. In combination with an electric motor, automatic accelerating means therefor, a magnet winding energized by a current proportional to the motor current, and means controlled by said magnet winding for rendering said accelerating means inoperative until the current in said magnet winding rises to a predetermined amount.

2. In combination with an electric motor of the commutator type, a controller for gradually accelerating said motor, a pair of magnets energized by currents proportional respectively to the motor current and to the motor armature voltage, and means for rendering said controller operative only when the currents in both magnet windings rise to predetermined amounts.



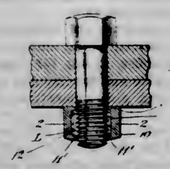
3. In combination with an electric motor of the commutator type, a starting resistance therefor, an electrically-operated controller for cutting out said resistance step-by-step, two sets of contacts coöperating to render said controller operative, and a pair of magnet windings energised by currents proportional respectively to the motor current and to the motor armature voltage and controlling said contacts to render the controller operative only when both currents rise to predetermined amounts.

4. In combination with an electric motor, an electromagnetic controller for gradually accelerating the motor, and means for energizing said controller only when both the motor current and motor speed rise to predetermined amounts.

5. In combination with an electric motor of the commutator type, a controller for gradually accelerating the motor, a pair of magnet windings energized by currents proportional respectively to the motor current and to the motor armature voltage, and means for limiting the motor speed to a comparatively low amount until the currents in both windings rise to predetermined amounts.

[Claims 6 to 9 not printed in the Gazette.]

1,071,841. EMERGENCY-NUT. FRANK WHITMAN, Ypsilanti, Mich. Filed Sept. 9, 1911. Serial No. 648,458. (Cl. 85—32.)

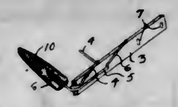


A nut comprising a body provided intermediate its ends with an annular recess having upper and lower end walls, a soft metal annulus immovable in the body and completely filling said recess and having a smooth bore slightly smaller in diameter than the outside diameter of the threads of the bolt with which it is to be engaged, whereby when said nut is screwed onto the bolt, the bolt-threads will force their way into the filler and displace the thread-engaging portions of the latter, and form a true-fitting thread therein.

1,071,842. RACK FOR SEED-CORN. GEORGE W. WHITWORTH, Cedar Falls, Iowa. Filed Sept. 21, 1912. Serial No. 721,608. (Cl. 34—26.)

1. In a rack for seed-corn, a body having a pair of horizontally spaced transverse orifices, and a rod bent into two arms connected by a cross-part, said arms being inserted in said orifices as far as said cross part and then bent upwardly and obliquely.

2. In a rack for seed-corn, a body having a pair of transverse orifices, and a rod bent into two parallel arms extending in the same direction and connected by a cross part, said arms being inserted in said orifices as far as said cross part and then bent at the places where they issue from said orifices, upwardly,



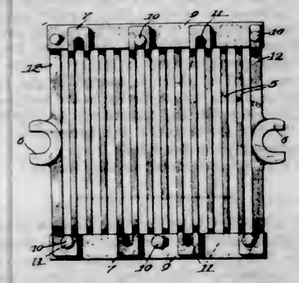
3. In a rack for seed-corn, a supporting-body having a pair of transverse slots, and a pair of holding-bodies each being a rod bent into two arms connected by a cross part, said holding-bodies having their arms passed through said slots as far as their cross parts but in opposite directions to have their arms projecting respectively from said supporting-body in opposite directions.

4. In a rack for seed-corn, a supporting-body having a pair of transverse slots, and a pair of holding-bodies each being a rod bent into two parallel arms extending in the same direction and connected by a cross part, the said holding-bodies having their arms passed through said slots as far as their cross parts in opposite directions to have their arms projecting therefrom oppositely, said arms then being bent upwardly in an inclined position.

5. In a rack for seed-corn, a supporting-frame having a plurality of pairs of transverse orifices, pairs of holding-bodies each being a rod bent into U-shaped form and each pair having its arms passed oppositely to the other respectively through the same pair of orifices to project therefrom oppositely and then bent upwardly, said arms having their cross-connecting parts in contact with opposite faces of their supporting body to prevent displacement of their members in a sidewise direction.

[Claims 6 to 9 not printed in the Gazette.]

1,071,843. RESISTANCE-GRID. HENRY J. WIEGAND, Milwaukee, Wis. Filed June 6, 1910. Serial No. 565,231. Renewed Feb. 3, 1913. Serial No. 746,041. (Cl. 219—69.)

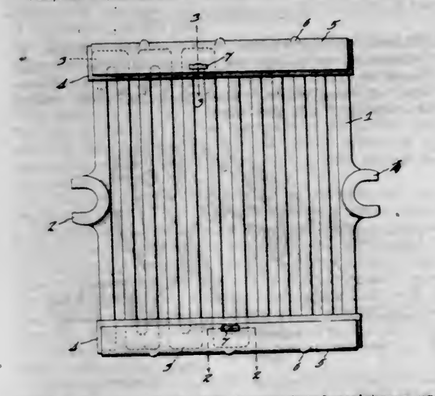


1. A resistance grid provided with an insulating reinforcing member and a device passing through portions of the grid and said reinforcing member to firmly secure said reinforcing member in place.

2. A resistance grid provided with offset portions forming shoulders, a reinforcing member abutting said shoulders and a device passing through one of the slots in said grid to hold said reinforcing member against displacement from said shoulders and against longitudinal slippage.

3. A resistance grid provided at the extremities of its convolutions with staggered offset portions providing shoulders, a reinforcing member arranged between said staggered offset portions and resting upon said shoulders and a device passing through one of the slots in said grid to hold said reinforcing member against displacement from said shoulders and against longitudinal displacement.

1,071,844. REINFORCED-GRID RESISTANCE. HENRY J. WIEGAND, Milwaukee, Wis. Filed May 25, 1911. Serial No. 629,497. Renewed Feb. 3, 1913. Serial No. 746,042. (Cl. 219—69.)

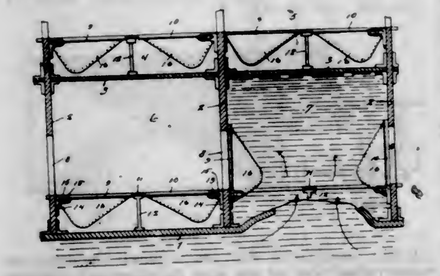


1. The combination with a convoluted resistance unit, of a reinforcing member for the ends of the convolutions thereof provided with means extending through the closed end of a convolution of said unit and secured on the opposite side of said unit to positively retain said reinforcing member on said unit.

2. The combination with a resistance grid, of a U shaped reinforcing strip fitting over an edge thereof and means for clamping said strip upon said grid, said means having a portion extending through the closed end of one of the convolutions of said grid to positively insure retention of said strip upon said grid.

3. The combination with a resistance grid, of a U shaped reinforcing strip fitting over an edge thereof and a device extending through opposite sides of said reinforcing strip and through the closed end of one of the convolutions of said grid to tightly clamp said strip upon said grid and to positively secure the same together.

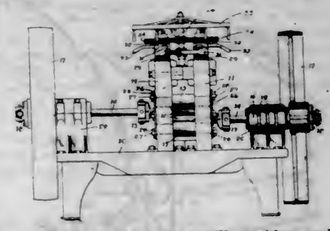
1,071,845. SELF-CLOSING COMPARTMENT-DOORS. WILLIAM P. WILBER, Providence, R. I. Filed Nov. 23, 1912. Serial No. 733,228. (Cl. 114—118.)



1. The combination with a ship divided into a number of communication compartments, of self closing doors for the same, said doors being hinged to the side walls of the compartments and forming, when in the open position, bottoms for the same, and air tanks carried by said doors, whereby an inflow of water will move the doors to a vertical position, at which time the compartment will be cut off from communication with the adjoining compartments.

2. The combination with a ship having a plurality of vertical and horizontal partitions forming compartments, said vertical partitions being formed with doorways, of self closing compartment doors, said doors being formed with trunnions, slotted brackets secured to said vertical partitions and receiving said trunnions, the doors, when in their open position, forming the bottom of the compartment, and air tanks secured to said doors, whereby an inflow of water will cause the doors of any compartment to swing about the trunnions as pivots and close the door ways formed in the sides of said compartment.

1,071,846. ROLLING-MILL. FRANK A. WILMOT, Bridgeport, Conn. Filed July 8, 1912. Serial No. 708,138. (Cl. 80—38.)



1. In a roll-adjustable rolling mill, neckless end driven work rolls capable of endwise movement, and journaled rolls above and below the work rolls which support the work rolls.

2. In a roll-adjustable rolling mill, driven work rolls capable of endwise movement, upper and lower journaled rolls which support the work rolls, and means for adjusting the work rolls obliquely in the horizontal plane.

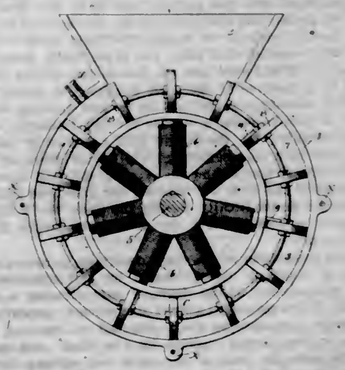
3. In a roll-adjustable rolling mill, relatively small neckless work rolls capable of endwise movement, flexible driving connections for the work rolls, and means separate from the work rolls for preventing endwise movement of said work rolls.

4. In a roll-adjustable rolling mill, work rolls capable of endwise movement, flexible end driving connections therefor, journaled supporting rolls, and means separate from the work rolls for preventing endwise movement of said rolls.

5. In a roll-adjustable rolling mill, neckless work rolls capable of endwise movement, universal joint driving connections therefor, and means separate from the work rolls for preventing endwise movement thereof.

[Claims 6 to 12 not printed in the Gazette.]

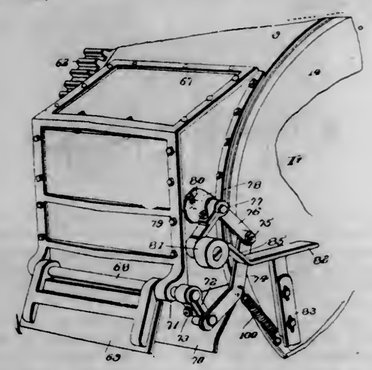
1,071,847. MAGNETICALLY-OPERATED CONVEYING AND DISCHARGING APPARATUS. WYLIE GEMMEL WILSON, Elizabeth, N. J., assignor to W. G. Wilson Company, Montclair, N. J., a Corporation of New Jersey. Filed Aug. 29, 1911. Serial No. 646,677. (Cl. 193—8.)



An annular chambered conveyer casing having an inner circumferential wall of magnetic conductivity, an endless

conveyer mounted in said annular chamber and provided with pocket-forming disks and soft iron pieces; and a rotatable magnet structure mounted in the space inclosed by the inner circumferential wall of the annular chamber.

1,071,848. CONCRETE-MIXER. WILLIAM D. WISE, Fargo, N. D. Filed Nov. 2, 1911, Serial No. 658,188. Renewed Jan. 28, 1913. Serial No. 744,787. (Cl. 83—73.)



1. In a machine of the class described, the combination of a rotary mixing drum, a discharge spout fixed to the drum and communicating with the interior of the same, a gate forming a closure for the discharge spout and moving constantly with the drum, means for opening the gate, and other means for automatically closing the gate, the drum being disposed between the means for opening the gate and the means for closing the same.

2. In a machine of the class described, the combination of a rotary mixing drum, a discharge spout communicating with the interior of the drum, a gate forming a closure for the discharge spout, means adapted to be projected into the path of the gate for opening said gate to permit the discharge of the contents of the spout, and stationary means for automatically closing the gate during the rotation of the drum, the drum being disposed between the means for opening the gate and the means for closing the same.

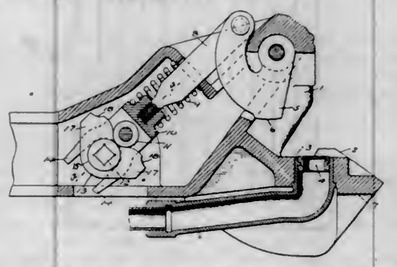
3. In a machine of the class described, the combination of a rotary mixing drum, a discharge spout carried by and communicating with the interior of the drum, a gate forming a closure for the discharge spout, a lever operatively connected with the gate, a trip device adapted to be projected into the path of the lever for opening the gate to permit the discharge of the contents of the spout, and means adapted to engage the said lever for automatically closing said gate, the drum being arranged between the trip device and the means for closing the gate.

4. In a machine of the class described, a rotary mixing drum, a discharge spout carried by and movable with the drum, a gate forming a closure for the discharge spout, a lever mounted on the spout and operatively connected with the gate, an oscillating trip device mounted at one side of the drum, means for moving the trip device into the path of the lever for opening the gate, and stationary means for automatically closing the gate, the drum being disposed between the trip device and the means for closing the gate.

5. In a machine of the class described, a rotary mixing drum, a discharge spout carried by and communicating with the interior of the drum, a gate forming a closure for the discharge spout, a lever operatively connected with the gate, a transverse shaft disposed at one end of the drum, a trip device carried by the shaft and movable thereby into the path of the lever for opening the gate, means connected with the shaft for oscillating the latter, and a track arranged on the opposite side of the machine from the trip device and disposed in the path of the lever for automatically closing the gate.

[Claims 6 to 22 not printed in the Gazette.]

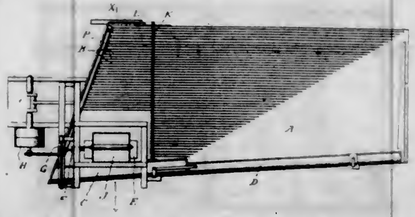
1,071,849. UNCOUPLING MECHANISM. HARRY F. WOERNLEY, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 24, 1909. Serial No. 519,323. (Cl. 213—59.)



1. In an automatic car coupling, the combination with a coupler head provided with a locking device adapted to engage a counterpart coupler head and thereby lock the heads together, of a bar pivotally connected at one end to said locking device, a rotatable member provided with projections for actuating said bar and thereby the locking device upon movement in either direction, and a yoke secured to the other end of said bar and provided with guide fingers for engaging said rotatable member.

2. In an automatic car coupling, the combination with a coupler head provided with a pivoted latch adapted to engage a counterpart coupler head and thereby lock the heads together, of an arm pivotally connected to said latch, a roller carried by the arm, and a cam device having a depression in which the roller is adapted to rest when the latch is in its locked position, the cam device being provided with cam faces on opposite sides of said depression adapted to engage said roller and thereby shift the latch from its locked position.

1,071,850. ORE-CONCENTRATOR. HENRY ELLSWORTH WOOD, Denver, Colo. Filed May 23, 1913. Serial No. 769,368. (Cl. 83—88.)



1. The combination with an inclined vibrating ore concentrating table of the kind described and provided with longitudinal riffles, of means for maintaining a stream of water transversely across the same at the feed end, means for feeding the material to be treated in a finely divided state upon the surface of the stream, a spillway adjacent the feed end of the table to permit the discharge from the table of the surface film of said stream with the particles floating thereon, and means for separately discharging the submerged concentrates and gangue from the table, as set forth.

2. The combination with an inclined vibrating ore concentrating table of the kind described, of means for maintaining a stream of water across the table, means for feeding the material to be treated in a finely divided state upon the surface of the stream, a gate adjacent the feed end of the table and opposite the feeding devices, and means for maintaining a flow of clear water over an area adjacent to the gate and transversely to the line of flow of the stream, as set forth.

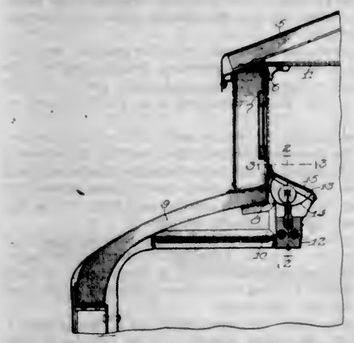
3. The combination with an inclined vibrating ore concentrating table of the kind described, of means for maintaining a stream of water across the table, means for feeding the material to be treated, in a finely divided state upon the surface of the stream, a gate adjacent the feed end of the table for the discharge of the surface film with the particles floating thereon, and a source of air under pressure for directing the surface film toward the gate, as set forth.

4. The combination with an inclined vibrating ore concentrating table of the kind described, of a water supply or feed box for maintaining a stream of water across the table, an ore feeding device adapted to deposit the ore in a finely divided state upon the surface of the stream near its source, and an outlet gate at the edge of the table opposite the feeding device, the table being constructed with an area devoid of riffles adjacent the water supply box, and with the riffles in the direct path of the stream modified to reduce disturbance of the surface conditions of the water flowing over them.

5. The combination with an inclined vibrating ore concentrating table of the kind described, of a water supply box at the higher edge adjacent the feed end of the table and adapted to deliver a thin stream of water upon the same, an ore feeding device adapted to deposit ore in a finely divided state upon the surface of the stream near its source, an outlet gate at the edge of the table opposite the feed device, and a water pipe along the feed end of the table having perforations adjacent the outlet gate and adapted to direct jets of water over the table transversely to the normal flow of the stream to the gate.

[Claims 6 and 7 not printed in the Gazette.]

1,071,851. CAR CONSTRUCTION. DANIEL WOODHEAD, Chicago, Ill., assignor to Central Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 19, 1913. Serial No. 755,393. (Cl. 240—7.)



1. In car construction, a deck sill, a deck sill plate secured thereto, a false ceiling, a series of lights mounted adjacent to said deck sill plate and carried thereby, means for directing the rays of light against said false ceiling, whereby said rays are deflected to the lower portion of said car, and means for concealing said lights from view from the lower portion of said car.

2. In car construction, a roof section, a false ceiling carried thereby, a deck plate, a deck sill plate secured thereto, a molding projecting inward from said deck sill plate, and a series of lights located between said molding and said deck sill plate, said molding concealing said lights from all points below the same.

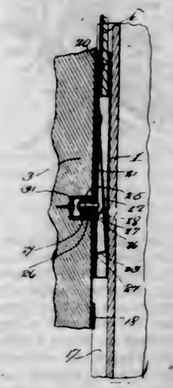
3. In car construction, a ceiling; a deck, a deck sill plate secured thereto, a molding adjacent said deck sill plate and projecting inward therefrom, a series of lights located between said deck sill plate and said molding, whereby said molding conceals said lights from all points below the same, and a reflector arranged below said lights to thereby reflect the light against the ceiling of the car from which it is deflected to the car below.

4. In car construction, a deck sill, a deck sill plate secured thereto, a molding carried by said deck sill plate and projecting inward from the same, a series of conduits between said molding and deck sill plate, and a series of lights mounted within said molding, whereby they are concealed from view from all points below said molding.

5. In car construction, a roof portion, a false ceiling carried thereby, a deck, a deck sill plate secured thereto, a molding carried by said deck sill plate and projecting inward therefrom, a series of electric lights each including a bulb and a socket located between said plate and said molding, and a curved reflector mounted immediately below said bulb and above said socket for reflecting the light against said false ceiling, said molding acting to conceal said lights from all points below the same.

[Claim 6 not printed in the Gazette.]

1,071,852. SASH-CORD FASTENER. WARREN H. WORST, Fargo, N. D. Filed Aug. 30, 1912. Serial No. 717,851. (Cl. 16—16.)

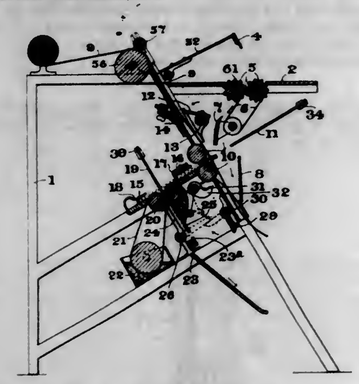


A device for detachably securing window cords to a swinging slidable window sash comprising in combination, a plate anchored transversely of a sash groove of a window frame, a U-shaped plate having cam sides embedded in the sash, a trough-shaped member connected to a sash cord and provided with a roller to engage between the cam sides of said U-shaped plate, said trough-shaped member having a pair of slots one immediately adjacent the roller, while the other is spaced a short distance below, a locking spring attached at one end in the upper portion of the trough-shaped member and provided with an angled portion at its lower end adapted to enter one of said slots to engage under said plate when the sash is swung to one side, a member loosely anchored in the slot adjacent said roller and adapted to be held against the roller when the same is between the cam sides of the U-shaped plate, said loosely anchored member having an angled end adapted to engage the locking spring to hold the angled portion from its slot.

1,071,853. MEANS FOR FOLDING AND WRAPPING NEWSPAPERS AND THE LIKE. ALBERT EDWARD YOUNG, Christchurch, New Zealand. Filed Aug. 24, 1911. Serial No. 645,751. (Cl. 101—46.)

1. A machine for the purpose indicated, comprising, in combination, a suitable framework, a first pair of folding rollers, a second pair of folding rollers, means for feeding the newspaper into a position in front of the first pair

of rollers, means for feeding the wrapper web downward into position between the newspaper and the first pair of rollers, a knife adapted to pass the newspaper and wrapper between said first pair of rollers so as to fold such newspaper upon itself for about a third of its height, and to carry the newspaper and wrapper on into a position over the second pair of rollers in readiness for further folding, so that the newspaper will lie with its short folded side uppermost within the wrapper and with the ends of such wrapper extending beyond the upper and lower edges of such newspaper, means for severing the web as said newspaper passes between said first pair of rollers, a second knife adapted to descend upon the projecting upper edges of the wrapper, pass the newspaper and wrapper between said second pair of folding rollers in such a manner as to fold the remaining third upon such newspaper, and to carry newspaper and wrapper on into a position for further treatment.

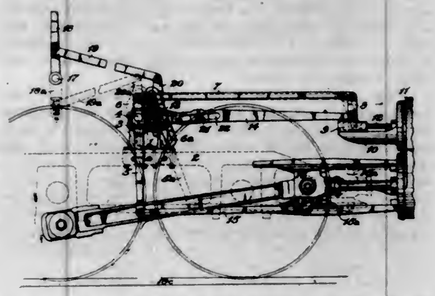


2. A machine for the purpose indicated comprising in combination a suitable framework, means for folding the newspaper, a pair of folding rollers, means for feeding the folded newspaper thereto, means for feeding the wrapper web into position, a knife adapted to pass the newspaper and wrapper between said rollers so as to fold such newspaper upon itself for about a third of its height, means for severing the wrapper as said newspaper enters said rollers, a second pair of folding rollers, a second knife adapted to descend upon said newspaper and wrapper after they have emerged from said first rollers and cause said newspaper and wrapper to pass between said second pair of rollers so as to fold the remaining third upon said newspaper while at the same time placing the portion of the wrapper which was uppermost within the last said fold, a gumming device adapted to come in contact with said wrapper so as to prepare it for sealing, a stop adapted to receive said folded newspaper upon edge as it passes from the second pair of rollers, a series of fingers adapted to bear against one side of the newspaper and turn the latter over upon its side, a hinged flap adapted to bear against the wrapper at the opposite side and to wipe the free end of the wrapper across the gummed portion thereof so as to effect the sealing when the newspaper and wrapper are turned over, and a table adapted to hold the newspaper upward against the fingers while the sealing is being performed, substantially as described and shown in the drawings.

3. A machine for the purpose indicated, comprising, in combination, means for folding an article within a wrapper with a portion of said wrapper projecting beyond the article to form a free end, means for applying gum to a portion of said wrapper, a stop for receiving said article from said means, an upwardly movable table, a shaft on which said table is mounted, a plurality of pivoted fingers adapted to press the wrapped article upon said table, a shaft on which said fingers are mounted, means for simultaneously actuating said shafts whereby said table will move upwardly at the same time that said fingers move downwardly, and a hinged flap for wiping the free end of the wrapper across the gummed portion thereof.

4. A machine for the purpose indicated, comprising, in combination, means for folding an article within a wrapper with a portion of said wrapper projecting beyond the article to form a free end, means for applying gum to a portion of said wrapper, a stop for receiving said article from said means, an upwardly movable table, a plurality of pivoted fingers adapted to press the wrapped article upon said table, a hinged flap for wiping the free end of the wrapper across the gummed portion thereof, a sliding frame, a shaft, means controlled by said sliding frame for rotating said shaft, and a cam mounted on said shaft and operatively engaging said hinged flap, whereby the latter will be actuated.

1,071,854. STEAM-ENGINE VALVE-GEAR. OTIS W. YOUNG, Schenectady, N. Y. Filed Apr. 2, 1913. Serial No. 758,351. (Cl. 121—98.)



1. In a valve gear for double cylinder engines, the combination of a rock shaft extending transversely to the cylinders, an operating lever fixed on one end thereof, a segmental link fixed on the opposite end thereof, means for actuating the operating lever by movements of the piston of one of the cylinders, and means for transmitting movement from the link to the distribution valve of the opposite cylinder.

2. In a valve gear for double cylinder engines, the combination of a rock shaft extending transversely to the cylinders, means for oscillating said shaft, and a lap and lead lever, a link, and a reversing arm, all fulcrumed on said shaft.

3. In a valve gear for double cylinder engines, the combination of two parallel rock shafts extending transversely to the cylinders, means for independently oscillating said shafts, links fulcrumed on said shafts, and means for transmitting movement from each of said links to the distribution valve of the opposite cylinder.

4. In a valve gear, the combination of a lap and lead lever oscillating about a fulcrum, a distribution valve stem, a cross head secured thereto, a fixed guide for said cross head, and a floating lever coupled to said cross head and to the lap and lead lever.

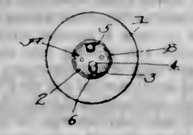
5. In a valve gear, the combination of a lifting arm, a block pivotally connected thereto, a link fulcrumed concentrically with the lifting arm, and a radius bar coupled to said link and longitudinally slotted to slide on said block.

[Claims 6 to 11 not printed in the Gazette.]

1,071,855. DETACHABLE BUTTON. JOHN F. ZAK, Chicago, Ill. Filed Nov. 12, 1912. Serial No. 730,960. (Cl. 24—104.)

1. The combination with a button having a bifurcated shank, the end portions of which are transversely grooved, of a disk having a radial notch, and a key-hole slot in alinement with said notch, and a split ring movable upon the periphery of the disk.

2. A device of the kind described comprising a button having a bifurcated shank, the end portions of which are transversely grooved, a disk having a radial notch to



receive one of said end portions, and a key-hole slot to receive the other end portion, and a split ring rotatable about said disk and adapted to close the entrance to said notch, as and for the purpose set forth.

1,071,856. TREATMENT OF METAL-BEARING SOLUTIONS. EDGAR ARTHUR ASHCROFT, Balestrand, Norway. Filed Apr. 25, 1912. Serial No. 693,233. (Cl. 23—13.)

1. The herein described process for the treatment of metal bearing solutions to obtain the zinc therefrom which consists in adding to the solution a cyanogen compound and subsequently heating the mixture, whereby the zinc is obtained in the form of an insoluble compound.

2. The herein described process for the treatment of metal bearing solutions to obtain the zinc therefrom which consists in adding to the solution a cyanogen compound and subsequently heating the mixture under pressure, whereby the zinc is obtained in the form of an insoluble compound.

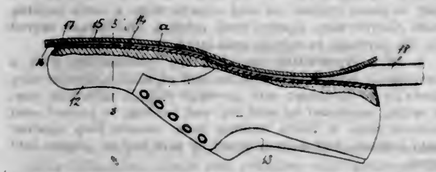
3. The herein described process for the treatment of metal bearing solutions to obtain the zinc therefrom which consists in adding to the solution a metal cyanamid and subsequently heating the mixture, whereby the zinc is obtained in the form of an insoluble compound.

4. The herein described process for the treatment of metal bearing solutions to obtain the zinc therefrom which consists in adding to the solution a metal cyanamid and subsequently heating the mixture under pressure, whereby the zinc is obtained in the form of an insoluble compound.

5. The herein described process for the treatment of metal bearing solutions to obtain the zinc therefrom which consists in adding to the solution calcium cyanamid and subsequently heating the mixture, whereby the zinc is obtained in the form of an insoluble compound.

[Claims 6 to 9 not printed in the Gazette.]

1,071,857. METHOD OF FILLING SHOE-BOTTOM CAVITIES. WINTHROP D. BAKER, Abington, Mass., assignor to Boston Blacking Company, East Cambridge, Mass., a Corporation of Maine. Filed Nov. 9, 1912. Serial No. 730,396. (Cl. 12—142.)



1. The method of supplying the cavity of a shoe bottom with plastic filling material, consisting in forcing said material into the cavity after the outer sole has been partially secured in position.

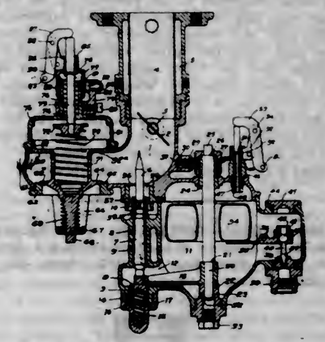
2. The method of filling a shoe bottom, consisting in forming the shoe with a pocket in its bottom, said pocket being open at one end, and then depositing plastic material in such pocket through its open end.

3. The method of filling a shoe bottom consisting in forming the shoe with a pocket in its bottom, said pocket being open at one end, and then forcing plastic filling material under pressure into said pocket through its open end.

4. The method of constructing a shoe, comprising the steps of attaching an outer sole to the welt of the shoe, leaving a portion of said outer sole unattached, and then forcing plastic filling material into the cavity between the inner and outer soles through the opening at the unattached portion.

5. The method of constructing a shoe, comprising the steps of attaching an outer sole to the welt of the shoe, leaving said outer sole unattached at the heel, and then forcing plastic filling material into the cavity between the inner and outer soles through the opening at the heel.

1,071,858. CARBURETER. FRANK H. BALL and FREDERICK O. BALL, Plainfield, N. J. Filed Jan. 11, 1912. Serial No. 670,576. (Cl. 48—155.2.)



1. In a carbureter, the combination of a carbureting chamber; devices for delivering by suction air and combustible fluid to the carbureting chamber; and means controlling the delivery of combustible fluid comprising a vertical passage, the surfaces of said passage being extended relatively to the cross sectional area of the passage to make the friction of a combustible liquid of the fluid characteristics of 60 gravity gasolene at 60° Fahrenheit with the said surfaces the dominant factor in resisting the flow of liquid through the passage and to the carbureting chamber.

2. In a carbureter, the combination of a carbureting chamber; devices for delivering by suction air and combustible fluid to the carbureting chamber; means for controlling the delivery of combustible fluid comprising a vertical passage tubular in form, the surfaces of which are extended relatively to the cross sectional area of the passage to make the friction of a combustible liquid of the fluid characteristics of 60 gravity gasolene at 60° Fahrenheit with the said surfaces the dominant factor in resisting the flow of liquid through the passage and to the carbureting chamber; a plug arranged in said passage; and means extending from the lower part of the plug and operative from the top of the carbureter for adjusting the plug.

3. In a carbureter, the combination of devices for delivering by suction air and combustible fluid to the carbureter; an air valve mechanism comprising an air valve controlling the flow of air to the carbureter; a piston connected with the air valve; and a cylinder in which the piston operates, said cylinder being closed on the side of the piston opposite the valve and adapted to confine air acting on the piston in opposition to the pressure in the carbureter and having a minute connection with the carbureter, whereby the average pressure in the carbureter is maintained in the cylinder the air valve mechanism resisting the opening of the air valve to vary the position of the air valve with variations of suction in the carbureter to control the suction.

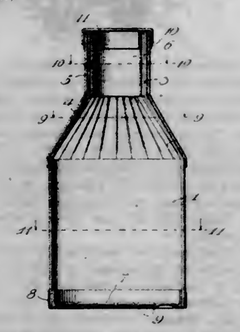
4. In a carbureter, the combination of devices for delivering by suction air and combustible fluid to the carbureter; an air valve mechanism comprising an air valve controlling the flow of air to the carbureter; a cylinder

opening to the carbureter; a piston in the cylinder; said piston being subjected to the pressure in the cylinder on one side and the pressure in the carbureter on the opposite side and a connection between the piston and the valve, said cylinder and carbureter having a minute connection whereby the average pressure in the carbureter is maintained in the cylinder, the air valve mechanism resisting the opening of the air valve to vary the position of the air valve with variations of suction in the carbureter to control the suction.

5. In a carbureter, the combination of devices for delivering by suction air and combustible fluid to the carbureter; an air valve mechanism comprising an air valve controlling the flow of air to the carbureter; a cylinder opening to the carbureter; a piston in the cylinder, said piston being subjected to the pressure in the cylinder on the one side and the pressure in the carbureter on the opposite side and being connected to the valve and of greater area than the valve; and a connection between the piston and the valve, said cylinder and carbureter having a minute connection whereby the average pressure in the carbureter is maintained in the cylinder the air valve mechanism resisting the opening of the air valve to vary the position of the air valve with variations of suction in the carbureter to control the suction.

[Claims 6 to 18 not printed in the Gazette.]

1,071,859. LIQUID-CONTAINER. JOHN BALLANCE, New York, N. Y., assignor of one-half to John A. Pressl, New York, N. Y. Filed Apr. 12, 1913. Serial No. 760,713. (Cl. 229—3.)



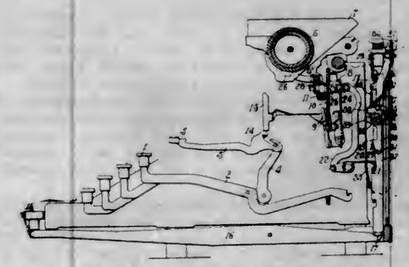
1. In a container of the character described, a body formed from a suitable fabric and having its upper end crimped to form the upper portion and neck of the container, a casing engaged with the crimped upper portion of the body of the container, a second casing engaged with the outer side of the crimped neck of the container, a lining engaged with the inner side of the crimped neck, a bottom secured to the lower end of the body, and a closure having a removable engagement with the upper end of the bottle neck.

2. In a container of the character described, a body formed from a sheet of fabric bent into tubular form and having its edges and its upper portion crimped to form the upper portion of the body and neck of the container, a casing around the neck, a lining engaged with the inner surface of the crimped neck, a binding strip arranged over the upper ends of the crimped neck and the casing and lining thereof, and a bottom.

3. A container formed from a sheet of paper having secured thereto a woven fabric covering, said sheet of paper being bent into tubular form and having its edges tapered and overlapped to form a smooth joint and having its upper end crimped and pressed into shape to form the upper portion and neck of the container, casings arranged over the crimped upper portion and neck of the body, a lining engaged with the inner surface of the neck, a bottom engaged with the lower ends of the body, and fluid proof coatings applied to the inner and outer surfaces of the container.

4. A container formed from a sheet of paper having secured thereto a woven fabric covering, said sheet of paper being bent into tubular form and having its edges tapered and overlapped to form a smooth joint and having its upper end crimped and pressed into shape to form the upper portion and neck of the container, casings arranged over the crimped upper portion and neck of the body, a lining engaged with the inner surface of the neck, a flanged bottom inserted into and secured to the lower end of the body, and means engaged with the bottom and outer sides of the lower end of the container to hold the latter in place.

1,071,860. TYPE-WRITING MACHINE. WALTER E. BARNARD, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 6, 1912. Serial No. 701,995. (Cl. 197—177.)



1. In a typewriting machine, the combination with a carriage, a rack, and a stop adjustable on said rack, of a counter stop movable to intercept said carriage stop, a spring tensioned to raise said counter-stop at the operation of a tabulator key, a latch holding said counter-stop against movement by said key, and means moved by the stop to release said latch.

2. In a typewriting machine, the combination with a power-driven carriage, releasable letter-feeding mechanism, a rack, and a stop on said rack, of a counter stop movable to intercept said carriage stop, tabulator keys, means operated by said keys for releasing said carriage and permitting it to travel, a spring tensioned by the tabulator keys to raise said counter stop, a latch holding said counter-stop against operation, and means moved by the carriage to release said latch.

3. In a typewriting machine, the combination with a carriage having a stop, of a counter-stop movable to intercept said stop, a tabulator key, a member movable by said key to place tension on said counter-stop, a latch holding said counter-stop against said tension, and means moved by the carriage to release said latch.

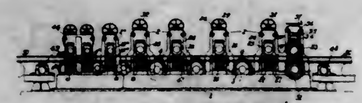
4. In a typewriting machine, the combination with a carriage, a rack, and a stop on said rack, of a counter-stop movable to intercept said carriage stop, a tabulator key, a spring tensioned by said key and tending to project said counter-stop, a latch holding said counter-stop against said tension, and means moved by said key to release said latch.

5. In a typewriting machine, the combination with a carriage, a rack and a stop adjustable on said rack, of a counter-stop movable to intercept said stop, a tabulator key, a spring tensioned by said key to set said counter-stop, a latch holding said counter-stop against said tension, and means moved by said key to release said latch.

[Claims 6 to 25 not printed in the Gazette.]

1,071,861. RAIL-STRAIGHTENING MILL. BENTON A. BASS and ROLLIN D. OSGOOD, Birmingham, Ala. Filed Dec. 30, 1912. Serial No. 739,372. (Cl. 153—56.)

1. In a rail straightening mill, a series of spaced guide rolls having alining central grooves adapted to receive the rail, a series of vertically acting straightening rolls interposed between and co-acting with adjacent pairs of guide rolls, and laterally acting straightening rolls disposed in a transverse vertical plane with each of said vertically acting straightening rolls, substantially as described.



2. In a rail straightening mill, a series of spaced guide rolls having alining grooves adapted to receive the rail, and a series of rail straightening mechanisms interposed between the guide rolls, each of said mechanisms comprising means adapted to apply to the rail in substantially the same transverse vertical plane and contemporaneously a vertical and from either direction a lateral straightening force.

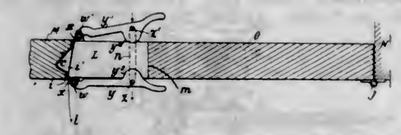
3. In a rail straightening mill, a series of spaced bottom rolls having alining grooves adapted to receive the rail head, and a series of rail straightening mechanisms interposed between the bottom rolls, each of said mechanisms comprising three rolls adapted to simultaneously apply a downward and a lateral straightening force to the rail in substantially the same transverse plane.

4. In a rail straightening mill, a series of spaced bottom rolls having alining grooves adapted to receive the rail head, a series of rail straightening mechanisms one of which is interposed between each pair of bottom rolls, each of said mechanisms comprising relatively adjustable rolls arranged in the same transverse vertical plane and adapted to simultaneously apply a downward and a lateral straightening force from either side to the rail, and means to adjust said mechanisms to take the curvature out of the rail gradually in steps as it moves through the mill.

5. In a mill for straightening rails which are curved with their heads on the shortest radius, a series of bottom rolls having alining grooves adapted to receive the rail head and which are spaced decreasing distances apart toward the delivery end of the mill, a series of top straightening rolls, one of which is spaced equi-distantly between each pair of bottom rolls, means to adjustably mount said top rolls, a series of pairs of side straightening rolls, there being one pair between each pair of bottom rolls, and means to laterally adjust the units of each pair of side rolls.

[Claims 6 to 20 not printed in the Gazette.]

1,071,862. DOOR-LATCH. FELIX BECKER, Arlon, Belgium. Filed Nov. 20, 1912. Serial No. 732,408. (Cl. 70—43.)



1. In a door latch, a spring-influenced bolt of substantially triangular shape and provided with pivots at two of its corners, about either of which pivots the bolt is adapted to oscillate, a pair of operatively connected handles, and a rod that permanently connects said handles with one of the bolt-pivots for retracting the bolt.

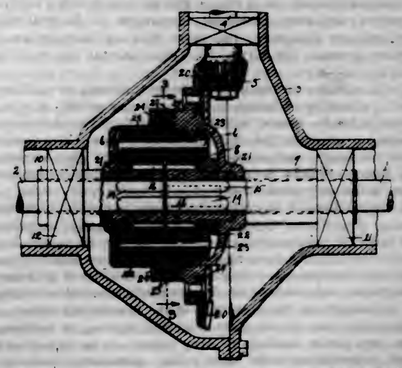
2. In a door latch, a spring-influenced bolt of substantially triangular shape and provided with pivots at two of its corners, about either of which pivots the bolt is adapted to oscillate, a fixed curved guide provided for either pivot, means for temporarily locking either pivot to the end of its guide while the other pivot moves along the other guide, a pair of operatively connected handles, and a rod that permanently connects said handles with one of the bolt-pivots for retracting the bolt.

3. In a latch, a casing having in one side a slot, a triangular latch-bolt movable in the slot of said casing and adapted to normally project with one corner from said casing, two parallel pins secured in the two other corners of said latch-bolt and having each two ends of approximately rectangular cross section, said casing having in each of two parallel sides adjoining the slotted side two guides for severally guiding one rectangular end of said two pins which guides are curved concentrically with the opposite pins and widen into cylindrical chambers for permitting the rectangular ends to severally turn around the axes of the pins, means for yieldingly pressing said latch-bolt outward, and means for moving inward one of said pins and thus turning said latch-bolt around the other pin, whereby said latch-bolt is withdrawn, said latch-bolt being constructed to be depressed into the casing from without for turning around the first of said two pins.

4. In a latch, a casing having in one side a slot and two sides adjoining this slotted side parallel to the slot, a triangular latch-bolt movable in the slot of said casing and adapted to normally project with one corner from said casing, two parallel pins secured in the two other corners of said latch-bolt and having each two ends of approximately rectangular cross section, said casing having in each of the two parallel sides two guides for severally guiding one rectangular end of said two pins which guides are curved concentrically with the opposite pins and widen into cylindrical chambers for permitting the rectangular ends to severally turn around the axes of the pins, a shaft parallel to said two pins mounted to turn in said casing, an arm fast on said shaft, a rod for connecting said arm with one of said two pins, a first spring on said rod for yieldingly pressing said latch-bolt outward, a second spring tending to turn said arm into a line with said rod, and a spindle longitudinally guided in said casing parallel to its slot and having a tooth in contact with said arm and adapted to turn the latter against the strain of said second spring, said spindle being adapted to be shifted from without in one direction for moving inward by means of said arm and said rod the pin connected with this rod, whereby said latch-bolt is turned around the other pin and thus withdrawn, and said latch-bolt being adapted to be depressed from without while turning around the first pin.

5. In a latch, a casing having a shaft, a handle of a U-shaped cross section turnable on said shaft and adapted to overlap said casing, whereby it is guided, a spindle longitudinally guided in said casing and pivotally connected with said handle, and a spring tending to move said spindle and thereby said handle into a normal position.

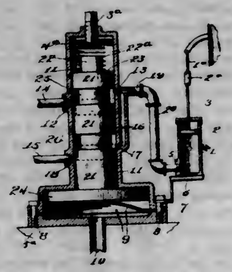
1,071,863. DIFFERENTIAL DRIVING MECHANISM. THEODORE L. BEGUHN, Detroit, Mich. Filed Apr. 27, 1911. Serial No. 623,729. (Cl. 74—7.)



A differential mechanism comprising a divided shaft, a ratchet fixed on the end of each shaft section, a cage

rotatable independently of the shaft sections embracing said ratchet, pawls pivoted in said cage adapted to effect a driving engagement with said ratchets but normally free from engagement therewith, a rotary driving case embracing said cage, said case having a recess in the inner wall thereof, an arm projecting from each of said pawls extending into said recess, a spring connected at its center to the end of each arm and having its ends fastened to said case, whereby the initial movement of said case in either direction will actuate said pawls upon their pivots, the wall of the case having curved recesses therein, and lugs upon said cage lying freely within said recesses to effect a driving connection between the cage and the case and to allow an independent movement of the latter.

1,071,864. LIQUID-OPERATED DAMPER-REGULATOR. SAMUEL P. BELT, Cherrydale, Va., and JOSEPH W. BELT, Oklahoma, Okla. Filed Dec. 2, 1911. Serial No. 663,583. Renewed Jan. 29, 1913. Serial No. 745,006. (Cl. 236—8.)



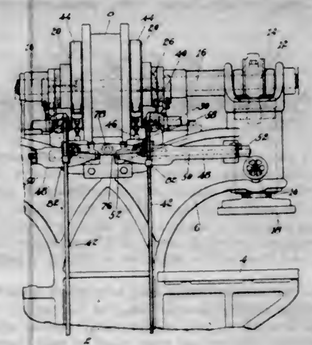
The combination with a fluid-operated damper for steam boilers, a piston connected with the damper, and a cylinder for the damper-piston, of a cylinder having a steam chest connected with the boiler, a pair of fluid-ports on opposite sides of this cylinder above the steam chest, the ports on one side being out of the horizontal plane of the ports on the other side and adapted to supply motive fluid, a fluid duct in the wall of the ported cylinder for connecting the ports on the other side, a pipe connecting said duct with the damper-cylinder, a piston having annular fluid channels coöperating with the said ports so as to be balanced by fluid pressure through the ported cylinder, a piston-head working in the steam chest and closing communication between the chest and the ported cylinder, and means for cushioning the channeled piston.

1,071,865. STARTING AND STOPPING MECHANISM. CHARLES BENNION, ARTHUR BATES, and JOSEPH GOULDBOURN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 16, 1911. Serial No. 654,993. (Cl. 192—1.)

1. A machine of the class described, having in combination, a plurality of heads, a single driving pulley, a clutch for each head coöperating with said pulley, means for preventing a plurality of clutches being thrown into action simultaneously, and means for automatically discontinuing the action of said preventing means at a predetermined time in the operation of one of said heads.

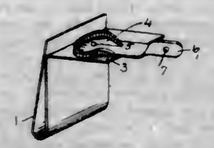
2. A machine of the class described, having in combination, a plurality of heads, a single driving pulley, a clutch for each head coöperating with said pulley, manually controlled means for operating each clutch, means for preventing simultaneous operation of a plurality of clutches, and means independent of the manually controlled means for discontinuing the operation of the preventing means.

3. A machine of the class described, having in combination, two heads, a single driving pulley, a clutch for each head coöperationg with said pulley, manually controlled means for operating each clutch, means for preventing the simultaneous operation of the heads comprising a rocking lever provided with abutments adapted to engage and limit the movement of the manually controlled means associated with one of said clutches when the manually controlled means associated with the other clutch has



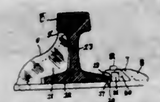
been actuated, and automatic means to disengage the abutment from one of said manually controlled means when the head actuated by the other means has reached a predetermined point in its operation.

1,071,866. SASH-FASTENER. CHARLES A. BERGMAN, Los Angeles, Cal. Filed Aug. 12, 1912. Serial No. 714,559. (Cl. 16—19.)



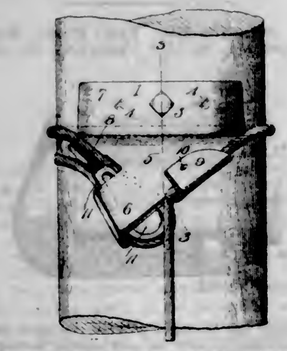
In a sash fastener, the combination of a cam plate adapted to exert pressure between the inner and outer sash of an ordinary window; a plate to which said cam plate is pivoted; and a spring wedge integrally formed on said plate to which said cam plate is pivoted, and having an upwardly projecting back edge upon which the edge of the cam plate contacts while wedging the sash apart, all as described.

1,071,867. TIE-PLATE AND RAIL-FASTENER FOR RAILWAYS. REUBEN H. BITTER and DAVID C. STEPHENSON, Toledo, Ohio. Filed Mar. 3, 1913. Serial No. 751,665. (Cl. 238—2.)



The combination with a T rail, of a tie plate adapted to support the rail on the tie, said plate having a rail brace integral with one portion adapted to engage the top of the outer side of the rail base and the under side of the rail tread, and an inwardly inclined wedge shoulder integral with and extending diagonally across the opposite end portion, a shim adapted to be shouldered against the inner edge of the rail base and having a top portion adapted to extend over and engage the top face of the inner portion of the rail base, and end lugs adapted to extend downward beside and in engagement with the side edges of the tie plate, and a wedge having one side adapted to shoulder against the outer face of the shim, and the other side beveled complementary to the inwardly inclined shoulder of the tie plate, said wedge adapted to be driven between the shoulder and the shim and press the shim against and on the inner side of the rail base, and thereby press the upper side of the outer portion of the rail base and the under side of the rail tread against the rail brace.

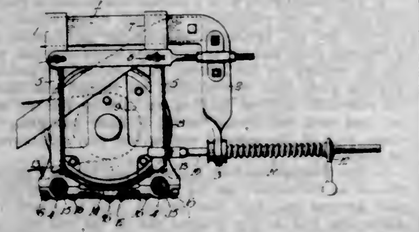
1,071,868. GUY-CLAMP. JASPER BLACKBURN, Kirkwood, Mo. Filed Dec. 18, 1911. Serial No. 666,513. (Cl. 24—136.)



1. In a guy clamp, a collar arranged to be secured to a pole and provided with teeth to hold it against movements relative to the pole, a downwardly and outwardly inclined V-shaped integral extension of said collar, an integral loop having converging walls formed on one margin of said extension, and an integral wire guide formed on the margin of the extension opposite the loop.

2. In a guy clamp, a segmental collar provided with means whereby it may be secured to a pole, an integral body portion extended downwardly and outwardly from said collar, a loop formed on the margin of said body portion and provided with converging walls, a removable wedge-shaped member for insertion in said loop, and a wire guide formed on the margin of said body portion opposite said loop, substantially as shown and for the purposes stated.

1,071,869. CONTINUOUS FOOT-CAP. WILLIAM L. BLISS, Niagara Falls, N. Y., assignor to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed Jan. 9, 1912. Serial No. 670,278. (Cl. 105—238.)



1. The combination with a car lighting generator having a pair of oppositely arranged supporting elements adapted to rest on supporting members, of a continuous foot cap secured to said generator and adapted to cooperate with said supporting members to maintain said generator supporting elements in engagement with said supporting members.

2. The combination with a car lighting generator having a plurality of supporting elements adapted to rest on supporting cross-bars, of a continuous foot cap for maintaining said supporting elements in proper engagement with said cross-bars, said continuous foot cap being secured to said generator at a plurality of points of attachment, whereby the security of such attachment is not dependent on the security of each individual attachment.

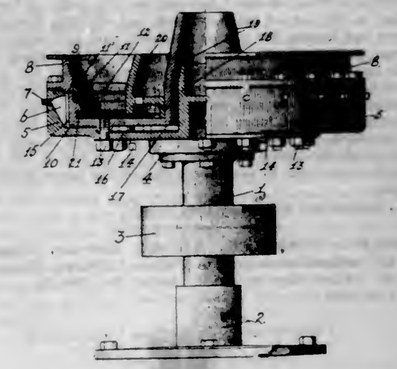
3. In combination, a car lighting generator having opposite pairs of downwardly extending supporting lugs, each pair being adapted to rest on one of a pair of substantially parallel supporting cross-bars, and a continuous foot cap for securing each of a pair of oppositely disposed lugs to said cross-bars.

4. In combination, a car lighting generator having opposite pairs of downwardly extending supporting lugs, each pair being adapted to rest on one of a pair of substantially parallel supporting cross-bars, and a continuous foot cap for securing each of a pair of oppositely disposed lugs to said cross-bars, said foot cap being bolted to said generator at a plurality of points.

5. In combination, a car lighting generator having opposite pairs of downwardly extending supporting lugs, each pair being adapted to rest on one of a pair of substantially parallel supporting cross-bars, and a continuous foot cap for securing each of a pair of oppositely disposed lugs to said cross-bars, said foot cap being bolted to each of said opposite lugs and being also bolted directly to the generator frame.

[Claims 6 to 9 not printed in the GAZETTE.]

1,071,870. CENTRIFUGAL CONCENTRATOR. MARTIN PRIOR BOSS, San Francisco, Cal. Filed MAR. 7, 1911. Serial No. 612,876. (Cl. 83—87.)



1. In a centrifugal concentrator, a revolving separating basin comprising an outer pan having peripheral discharges; an inner pan separated from the outer pan to provide a water chamber between the two pans; and a crown ring on the top of the outer pan and shelving inwardly over and beyond the rim of the inner pan, and separated from the top of said rim to provide an annular space for the outflow of the concentrates separated from the pulp fed to said inner pan, against the inflow of an excess of water supplied to the water chamber, said crown ring having a conical inner wall with a continuous outward slope from its lower to its upper edge.

2. In a centrifugal concentrator, a revolving separating basin comprising an outer pan having peripheral discharges; an inner pan separated from the outer pan to provide a water chamber between the two pans; and a crown ring on the top of the outer pan and shelving inwardly over and beyond the rim of the inner pan, and separated from the top of said rim to provide an annular space for the outflow of the concentrates separated from the pulp fed to said inner pan, against the inflow of an excess of water supplied to the water chamber, said inner pan having in the lower part of its rim an annular recess for accelerating and evenly distributing the pulp, said crown ring having a conical inner wall with a continuous outward slope from its lower to its upper edge.

3. In a centrifugal concentrator, a revolving separating basin comprising an outer pan having formed in the inner face of its rim an annular series of pockets apexed outward with an outward discharge through said rim from the apex of each pocket; an inner pan separated from the outer pan to provide a water chamber between the two pans; and a crown ring on the top of the outer pan and shelving inwardly over and beyond the rim of the inner pan, and separated from the top of said rim to provide an annular space for the outflow of the concentrates separated from the pulp fed to said inner pan, against the inflow of an excess of water supplied to the water chamber, said crown ring having a conical inner wall with a continuous outward slope from its lower to its upper edge.

4. In a centrifugal concentrator, a revolving separating basin comprising an outer pan having peripheral discharges; an inner pan separated from the outer pan to provide a water chamber between the two pans; a crown ring on the top of the outer pan annd shelving inwardly over and beyond the rim of the inner pan and separated from the top of said rim to provide an annular space for the outflow of the concentrates separated from the pulp fed to said inner pan, against the inflow of an excess of water supplied to the water chamber; and means adjustably connecting the bases of the two pans by the adjustment of which the width of the annular space for the outflow of the concentrates may be varied.

5. In a centrifugal concentrator, a revolving separating basin comprising an outer pan having peripheral discharges; an inner pan separated from the outer pan to provide a water chamber between the two pans; a crown ring on the top of the outer pan and shelving inwardly over and beyond the rim of the inner pan, and separated from the top of said rim to provide an annular space for the outflow of the concentrates separated from the pulp fed to said inner pan, against the inflow of an excess of water supplied to the water chamber, said crown ring having a conical inner wall with a continuous outward slope from its lower to its upper edge; and means for adjusting the crown ring relatively to the top of the rim of the inner pan to vary the width of the space between them.

[Claim 6 not printed in the Gazette.]

1,071,871. FUSE-PLUG. RALPH C. BRONSON, Chicago, Ill., assignor of one-half to William J. Krueger, Chicago, Ill. Filed May 9, 1912. Serial No. 696,104. (Cl. 175—277.)

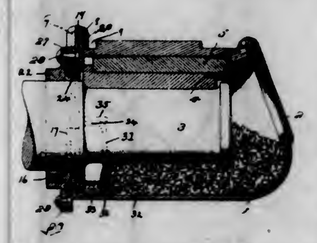


1. A fuse plug comprising a substantially cylindrical insulating member having recessed compartments in one end thereof, and separate channels running respectively from each of said compartments to the opposite end of said insulating member and to the outer side thereof, a contact plate secured to the end of said insulating member opposite said compartments, fuse wires running from said plate through some of said channels to said compartments, a contact cylinder surrounding said insulating member, and a screw extending through one of the channels leading from said compartment to the side of said insulating member to secure said cylinder in place and make connections between said cylinder and said fuses.

2. A fuse plug comprising a piece of insulating material, an end contact plate thereon, a threaded cylindrical contact member adapted to slip over the sides thereof, a screw for securing said cylinder to said insulating material at different points, and fuse wires running through said insulating material from said contact plate to the different points for the securing of said cylinder.

3. A fuse-plug comprising an insulating member having a plurality of channels extending therethrough, and a plurality of contact plates secured to one end of said member and a single contact plate secured to the opposite end, fuse-wires extending through said channels and connecting said single contact member with the contact plates first mentioned, respectively, a contact member surrounding said insulating member, and means connecting said contact member with one of the plural contact plates first mentioned, and adapted to be connected with each of the other plural contact plates.

1,071,872. JOURNAL-BOX. PERRY BROWN, Wilmington, Del. Filed Apr. 27, 1904. Serial No. 205,267. (Cl. 64—22.)



1. A journal box having a grooved end open at the top side, in combination with an end closure slidingly fitted within said grooved end and having an opening therein for the passage of the journal, and a hood formed integrally on the top of said end closure and having a grooved recess therein, and said open upper end of the journal box fitting within the walls forming the grooved recess of said hood and the walls forming said groove inclosing said open upper end on all sides of the same, substantially as described.

2. The combination with a journal box of an end-closure secured thereto and having an opening therein for the journal, and a wearing plate secured to said end-closure and also having an opening for the journal, said end-closure and said wearing plate each surrounding the journal and having complemental portions forming an opening for the journal, substantially as described.

3. The combination with a journal box having a grooved rear end, of an end-closure slidingly fitted within said grooved end and having an opening for the journal, and a wearing plate secured to said end-closure and also having an opening for the journal; said end-closure and said wearing plate each surrounding the journal and having complemental portions forming an opening for the journal, substantially as described.

4. The combination with a journal box having a grooved rear end, of an end-closure slidingly fitted within said grooved end and having an opening for the journal, and a wearing plate secured to said end-closure and also having an opening for the journal; said end-closure and said wearing plate each surrounding the journal and having complemental portions forming an opening for the journal and said end-closure having a hood protecting the upper part of the grooved end of the box, substantially as described.

5. The combination with a journal box having a grooved end, of an end-closure for the same slidingly fitted within said grooved end and also formed with a groove into which one wall of the grooved end of the box fits, said end-closure also having an integral hood fitting over the upper end of said grooved end, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,071,873. REFINING PROCESS FOR IRON AND STEEL BY MEANS OF FERROCHROMIUM ALLOY. JOSEF BÜCHEL, Wengern-Ruhr, Germany. Filed Apr. 27, 1912. Serial No. 693,748. (Cl. 75—45.)

A process for securing expeditious and uniform distribution of the chromium introduced as ferro-chromium into the bath of the metal being refined consisting in adding to the bath carbon free ferro-chromium containing a metallic reducing agent.

1,071,874. PUZZLE. LOUIS S. BURBANK, Hopedale, Mass. Filed Dec. 13, 1912. Serial No. 736,539. (Cl. 46—41.)



1. A puzzle comprising two slotted members having a central pivotal connection, one member being provided with a series of substantially straight slots radiating from the pivotal connection, and the other with a series of sinuous slots each composed of a plurality of curved portions substantially concentric with said pivotal connection, and radial portions connecting the curved portions to form a continuous sinuous slot extending from the central portion nearly to the margin of said member, and a plurality of headed slides engaged with the slots in the two members and movable progressively outward by rotative manipulation of the members to cause the intersection of different portions of the slots, the sinuous slots being differently formed.

2. A puzzle comprising two slotted members having a central pivotal connection, one member being provided with a series of substantially straight slots radiating from the pivotal connection and the other with a series of sinuous slots each composed of a plurality of curved portions substantially concentric with said pivotal connection, and radial portions connecting the curved portions to form a continuous sinuous slot extending from the central portion nearly to the margin of said member and a plurality of headed slides engaged with the slots in the two members and movable progressively outward by rotative manipulation of the members to cause the intersection of different portions of the slots, the sinuous slots being differently formed and provided with enlargements at their outer ends whereby the separation of the members is permitted.

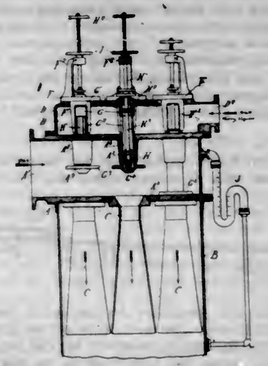
3. A puzzle comprising two slotted members connected to permit a movement of either member relatively to the other in predetermined directions, one member being provided with a series of sinuous slots each composed of substantially parallel portions and connecting portions, while the other member is provided with substantially straight slots extending across the parallel portions of the sinuous slots, and a plurality of headed slides engaged with the slots in the two members and movable progressively therein by relative movements of the members to cause the intersection of different portions of the slots, the sinuous slots being differently formed.

1,071,875. GAS-PURIFYING APPARATUS. HEINRICH BUSCHEI, Bochum, Germany. Filed Feb. 1, 1911. Serial No. 605,939. (Cl. 48—135.)

1. Apparatus for injecting tar material into gas, comprising a single gas chamber, a single tar material chamber, and a plurality of tar spraying injectors of different capacities, opening from said tar material chamber into said gas chamber.

2. Apparatus for injecting tar material into gas, comprising a gas chamber, a gas conduit connected to said chamber by outlet passages from the latter, a tar material chamber, a plurality of adjustable tar spraying injectors opening from said last mentioned chamber into said gas chamber and a manometer tube connecting said gas chamber and said conduit.

3. Apparatus for injecting tar material into gas, comprising a gas chamber, a gas conduit connected to said chamber by outlet passages from the latter, a tar material chamber, a plurality of adjustable tar spraying injectors opening from last mentioned chamber into said gas chamber, and means for indicating the difference between the pressures in said gas chamber and in said conduit.



4. In combination, a casing formed with two chambers, separated by a partition having formed in it a plurality of apertures, a plurality of spraying injectors projecting into one of said chambers from the other chamber, one through each of said apertures, and a plurality of outlet nozzles leading away from said one chamber, one in line with each of said apertures, whereby fluid forced from said other chamber through said injectors will pass into said nozzles and draw with it fluid from said one chamber.

5. In combination, a casing formed with two chambers, separated by a partition having formed in it a plurality of apertures, a plurality of spraying injectors projecting into one of said chambers from the other chamber, one through each of said apertures, and a plurality of outlet nozzles leading away from said one chamber, one in line with each of said apertures, whereby fluid forced from said other chamber through said injectors will pass into said nozzles and draw with it fluid from said one chamber, each of said injectors being axially movable and adapted, when moved, to close the corresponding nozzle and cut off the flow of fluid from said other chamber through that injector.

[Claims 6 and 7 not printed in the Gazette.]

1,071,876. PUMP FOR SPRAYING DEVICES. LAWRENCE M. CAMPAU, Oconto, Nebr. Filed Apr. 8, 1911. Serial No. 619,640. (Cl. 137—67.)

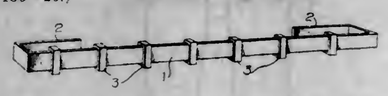


1. A pump for spraying devices comprising foot pieces adapted to be secured to the respective feet of the operator, air compressors in the form of bellows attached to the respective soles of said foot pieces, valve controlled air intake pipes communicating respectively with said compressors and having their free ends supported above said foot pieces, and an air educt pipe adapted to be connected

to a pressure tank and having a valve controlled branch leading from each of said air compressors whereby a constant pressure is created in the pressure tank.

2. A pump for spraying devices comprising foot pieces adapted to be secured to the respective feet of the operator, bellows attached to the respective soles of said foot pieces, the movable side of the said bellows hinged to the toe of the said foot pieces, heels extending substantially to the lower edge of the movable side of the said bellows, valve controlled air intake pipes communicating respectively with said bellows and having their free ends supported above said foot pieces, and an air educt pipe adapted to be connected to a pressure tank and having a valve controlled branch leading from each of said air bellows.

1,071,877. CURTAIN-POLE. ELISA CASH, Sandpoint, Idaho. Filed May 24, 1913. Serial No. 769,750. (Cl. 156—20.)



1. A curtain pole including an elongated body, rings slidably mounted upon the pole, pins pivotally mounted upon said rings, and spring members secured to the rings and adapted to engage the pins when in an operative position to hold the same in such position.

2. A curtain pole including a body having its ends arranged in spaced parallel relation with the body of the pole, rings slidably mounted upon the pole and held against rotary movement, spaced ears arranged in pairs upon one side of the ring, pins pivotally mounted between the said ears, angular flanges formed upon the inner ends of the pins, and spring members secured to the rings and having their free ends engaging the angular flanges of the pins when the same are pressed to an operative position to hold said pins in such position.

1,071,878. PNEUMATIC PUMPING APPARATUS. ADAM EDWARD CHODZKO, Los Angeles, Cal. Filed June 29, 1909. Serial No. 505,067. Renewed Jan. 28, 1913. Serial No. 744,777. (Cl. 103—84.)



1. An air lift pump comprising a plurality of cells connected in a vertically extending column, said cells being all of substantially the same height and each provided with an eduction leg and a submergence leg, said legs being connected together in a series comprising alternate downwardly extending submergence legs and upwardly extending eduction legs, said eduction legs being of greater height than the submergence legs, means at the upper end of each eduction leg for escape of air therefrom, a supply pipe for compressed air extending downwardly alongside the column of cells, a connection from said supply pipe to the lower end of each eduction leg, said connection provided with means for preventing escape of air therefrom into the eduction leg, said means being responsive to the pressure of fluid at the outlet of said connection to permit escape of air into the eduction leg when the same has become charged with water.

2. In an air lift pump, a column of cells connected in a series, the lower cell having an intake and the topmost cell having a discharge, means for independent supply of air to each cell for forcing the water therein to the next cell, means for escape of air from each cell to the outer air after it has performed the lifting operation, and valve means in the air supply connection for each cell for preventing the escape of air except when a predetermined head of water exists in the cell.

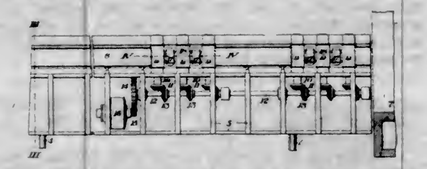
3. In an air lift pump, a plurality of cells connected in a series to form a column, an air supply pipe, independent connections from said pipe to the respective cells, an independent air escape means from each cell to the outer air, each of the supply connections to the cells including a valve provided with means for normally holding it in closed position, said valve being adapted to open under a predetermined head of water in the cell to allow escape of compressed air into the cell, for the lifting operation.

4. An air lift pump adapted to operate under different conditions of immersion comprising a plurality of cells connected in a series to form a column, means for independent supply of compressed air to the respective cells, means for independent escape of air from the respective cells to the outer air, and valve means connected in the air supply connections for the respective cells, said valve means comprising a plurality of valves located at different heights and connected in series, each valve means provided with means for holding it in closed position, and operating under a predetermined head in the cell above the valve means.

5. An air lift pump adapted to operate under different conditions of immersion comprising a plurality of cells connected in a series to form a column, means for independent supply of compressed air to the respective cells, means for independent escape of air from the respective cells, valve means connected in the supply connections for the respective cells, said valve means comprising a plurality of valves located at different heights and connected in series, each valve means provided with means for holding it in closed position, and operating under a predetermined head in the cell above the valve means, whereby the valve means will operate simultaneously or singly under varying conditions of immersion, and means acting on the respective valves for closing the same when the head exceeds a predetermined amount.

[Claims 6 to 10 not printed in the Gazette.]

1,071,879. SKELP-CHARGING BENCH. WILLIAM F. CLARK, Coraopolis, Pa. Filed Dec. 6, 1912. Serial No. 735,347. (Cl. 214—23.)



1. A skelp charging bench, having a longitudinally extending trough for receiving the skelp, and a plurality of transversely extending rollers journaled below the trough and extending above the bottom thereof, together with an electromagnet between said rollers for maintaining traction between the skelp and the rollers; substantially as described.

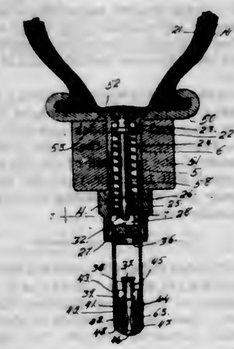
2. A skelp charging bench, having a longitudinally extending trough for receiving the skelp, a plurality of transverse rollers below the trough and extending above the bottom thereof, an electromagnet between said rollers for holding the skelp in engagement with the rollers, and means for moving the bench in a transverse direction; substantially as described.

3. A skelp charging bench, having a longitudinally extending trough for receiving the skelp, said trough having an opening between its ends, three rollers journaled below said opening, gearing for rotating said rollers, and an electromagnet having two pole-pieces which extend between adjacent rollers; substantially as described.

4. A skelp charging bench, having a frame supported on wheels, a motor connected to said wheels for moving the bench transversely, a trough supported on said bench, there being an opening in said trough, a plurality of rollers journaled on the bench frame below the trough, said rollers projecting upwardly into the opening above the bottom of the trough, a longitudinally extending shaft journaled in the frame, gears on said shaft for rotating the rolls, means for rotating the longitudinal shaft, and electromagnets having pole-pieces extending upwardly between adjacent rollers; substantially as described.

5. A skelp charging bench, having feed rollers, and traction magnets adjacent to said rollers; substantially as described.

1,071,880. COMBINED TIRE-PRESSURE INDICATOR AND SIGNAL. CHARLES C. CLEVELAND, Boulder, Colo. Filed Apr. 6, 1912. Serial No. 688,952. (Cl. 116—1.)



1. In a tire-pressure signal, the combination with a wheel-rim and tire, of a tube mounted on the rim, a tire-engaging member mounted in the tube and capable of a limited degree of movement toward the tire, a hammer also mounted in the tube, a spring interposed between the said member and said hammer, means governed by the said member for locking the hammer against movement when the tire is under normal predetermined pressure, and for releasing the hammer when the said member moves due to a reduction of tire pressure, and means located in the tube and acted on by the released hammer for producing a signal.

2. The combination with a wheel-rim and tire of a tube mounted on the rim, a member located in the tube having one extremity in engagement with the tire and capable of a limited degree of movement toward the tire when the normal pressure of the latter is reduced, a hammer also located in the tube, a spring interposed between the said hammer and the said member, a dog carried by the hammer and engaged by a part of said member for locking the hammer against movement when the said member is held against movement toward the tire by the normal tire-pressure, said dog being released and unlocking the hammer when the tire-engaging member moves toward the tire, and means located in the tube and acted on by the released hammer for producing a signal, substantially as described.

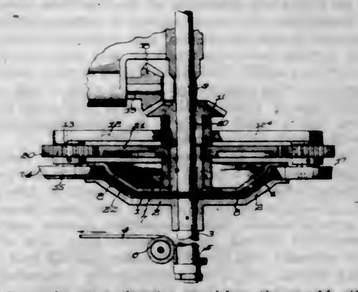
3. The combination with a wheel-rim and tire of a tube mounted on the rim and open at its extremity nearest the tire, a member carried by the tube and having one extremity in engagement with the tire, the said member having a limited degree of movement toward the tire when the normal pressure of the latter is reduced, a hammer also located in the tube, a spring interposed between the tire-engaging member and the hammer, the tension of the spring being less than the normal predetermined pressure of the tire, a dog carried by the hammer and movable to engage an opening formed in the tube whereby the hammer is locked against movement, the said dog having a recess which is engaged by one extremity of the tire-engaging member when the tire is under normal pressure, said dog being released and the hammer unlocked when the tire-engaging member moves toward the tire, a firing-pin located in the tube and an explosion cap carried by the pin and adapted to be acted on by the released hammer, substantially as described.

4. The combination with a wheel-rim and tire, of a tube mounted on the rim, a rod located in the tube and having one extremity in engagement with the tire, a hammer also located in the tube, a spring interposed between the tire-engaging rod and the hammer, means adapted to be acted upon by the extremity of the rod remote from the tire for locking the hammer against movement when the rod is held against movement toward the tire by the pressure of the latter, a firing-pin located within the tube and arranged in the path of the hammer when the latter is released, an explosive cap mounted on the said pin, said tube having an opening in its free extremity and an indicating pin mounted in the tube and adapted to protrude under the force of the cap's explosion, substantially as described.

5. The combination with a wheel-rim and tire of a tube mounted on the rim, a rod located in the tube and having one extremity in engagement with the tire, a hammer also mounted in the tube, a spring interposed between the rod and hammer, means acting in conjunction with the rod for locking the hammer against movement when the tire is at a normal predetermined pressure, and for releasing the hammer when the said rod moves toward the tire due to a reduction in the pressure of the latter, and signaling means located in the tube and arranged to be acted on by the hammer as the latter is released, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,071,881. RIMMING-MACHINE. OLIVER COLBORNE, Chicago, Ill. Filed Sept. 12, 1910. Serial No. 581,550. Renewed May 6, 1912. Serial No. 695,570. (Cl. 107—49.)



1. In a pie crust rimming machine, the combination of means for supporting a pie tin, means for forming the inner face of a pie crust on such tin, rimming means for forming the outer edge of the crust, and mechanism for rotating one of said means relative to another, said means being shaped and located so that said rotation will cause the tin and inner forming means to have a gyratory movement relative to each other.

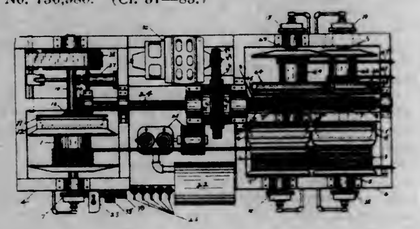
2. In a pie crust rimming machine, the combination of a support for the tin, a form mounted above said support and adapted to engage the inner face of the crust on the tin, rimming means mounted to travel around the form in a path concentric with the form and adapted to engage the edge of the tin and adapted to force it to a position

eccentric with the form, whereby the tin will be given a gyratory shifting movement with respect to the form, through the movement of said rimming means.

3. In a pie crust rimming machine, the combination of a support for the tin, a stationary form mounted above said support and adapted to engage the inner face of the crust on the tin, rimming means mounted to travel around the form in a path concentric with the form and adapted to engage the edge of the tin and adapted to force it to a position eccentric with the form, whereby the tin will be given a gyratory shifting movement with respect to the form, through the movement of said rimming means.

4. In a device of the class described, the combination of means for supporting a pie tin, inner crust forming means, and rimming means, one of said means being adapted when in engagement with the tin to hold it in a position eccentric to said inner crust forming means whereby the rotation of said one means relative to said inner crust forming means will produce a gyratory movement of the tin with respect to said inner crust forming means.

1,071,882. HAULING APPARATUS. CHRISTOPHER O. COLE, Bellingham, Wash. Filed Nov. 12, 1912. Serial No. 730,980. (Cl. 57—83.)



1. In a hauling apparatus of the character described, the combination of a prime mover, a differential gearing comprising a driving element and a pair of driven elements, driving connections between said prime mover and said driving element, two cable-hauling devices, individual driving connections between each of said driven elements and a corresponding one of said cable-hauling devices, and a cable arranged in successional operative connection with said cable-hauling devices.

2. In a hauling apparatus of the character described, the combintion of a prime mover, a differential gearing comprising a driving element and a pair of driven elements, driving connections between said prime mover and said driving element, two cable-hauling devices, individual releasable driving connections between each of said driven elements and a corresponding one of said cable-hauling devices, and a cable arranged in successional operative connection with said cable-hauling devices.

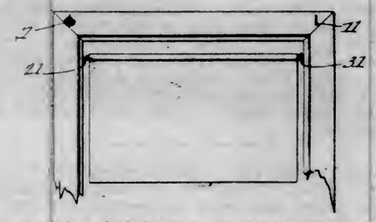
3. In a hauling apparatus of the character described, the combination of a prime mover, a differential gearing comprising a driving element and a pair of driven elements, driving connections between said prime mover and said driving element, two cable-hauling devices, individual positive fixed driving connections between each of said driven elements and a corresponding one of said cable-hauling devices, and a cable arranged in successional operative connection with said cable-hauling devices.

4. In a hauling apparatus of the character described, the combination of a prime mover, a differential gearing comprising a driving element and a pair of driven elements, a brake means for one of said driven elements, driving connections between said prime mover and said driving element, two cable-hauling devices, individual driving connections between each of said driven elements and a corresponding one of said cable-hauling devices, and a cable arranged in successional operative connection with said cable-hauling devices.

5. In a hauling apparatus of the character described, the combination of a prime mover, a differential gearing comprising a driving element and a pair of driven elements, a brake means for one of said driven elements, driving connections between said prime mover and said driving element, two cable-hauling devices, individual releasable driving connections between each of said driven elements and a corresponding one of said cable-hauling devices, and a cable arranged in successional operative connection with said cable-hauling devices.

[Claims 6 and 7 not printed in the Gazette.]

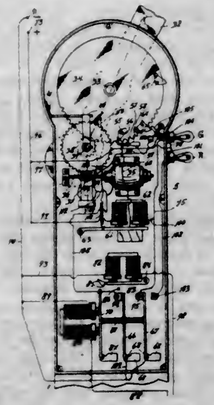
1,071,883. WINDOW-SHADE BRACKET. MARSHALL CARRICK COMBS, Lexington, Ky., assignor of one-half to James F. Skidmore, Lexington, Ky. Filed Apr. 9, 1913. Serial No. 760,065. (Cl. 156—24.)



1. A window shade bracket embodying a spiral coil having a plurality of convolutions, the inner convolution of which provides a trunnion receiving opening and is designed to yield, and the outer end of which is extended into a threaded tip.

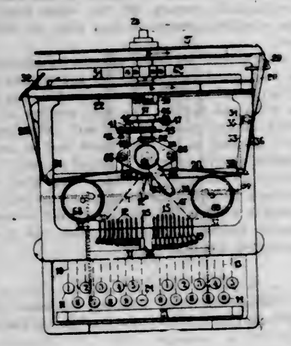
2. A window shade bracket formed from a length of wire and embodying a shank having a threaded tip at one end and having its other end bent back upwardly and provided with a notch, the wire being then bent downwardly and around the shank at the butt end of the tip and being then bent into a spiral coil in order that the free end of the coil may engage the window casing to lock the bracket against retrograde movement.

1,071,884. AUTOMATICALLY-OPERATED ELECTRIC SIGNALS FOR RAILWAYS. WILLIAM J. COOK, Denver, Colo., assignor to The Cook Railway Signaling Company, Denver, Colo., a Corporation of Colorado. Filed July 18, 1910. Serial No. 572,566. (Cl. 246—29.)



In combination with a semaphore, mechanism for operating the same including a disk arranged to rock with the semaphore, a projection upon the disk, a pivoted latch having one extremity adapted to engage said projection and being weighted upon the opposite side of the pivot to hold the latch in engagement with the projection, an electro-magnet, an armature for said electro-magnet and a flexible connection between said armature and latch, the parts being so arranged that when the electro-magnet is deënergized the latch will be withdrawn from engagement with the projection.

1,071,885. TYPE-WRITING MACHINE. JOHN JOSEPH COOPER, London, England, assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed July 23, 1909. Serial No. 509,131. (Cl. 197—1.)



1. A machine for writing upon a strip of paper for use by weavers, comprising a platen, a plurality of similar sets of types, the types in one set mounted to make impressions side by side with the types in the other set, to read across the strip, all the types in each set mounted to strike at the same point, keys, connections extending from said keys to said types, the types being mounted to print on the strip while the latter is stationary or unfed at the operation of said keys, and a key for subsequently advancing or line-feeding the strip longitudinally.

2. A machine for writing upon a strip of paper for use by weavers, comprising a platen, a plurality of similar sets of types, the types in one set mounted to make impressions side by side with the types in the other set, to read across the strip, all the types in each set mounted to strike at the same point, two sets of keys, one set for each of said types, connections extending from said keys to said types, the types being mounted to print on the strip while the latter is stationary or unfed in letter feeding direction during the operation of all of said keys, and motionless or unfed in line feeding direction during the operation of at least one set of said keys, and means for subsequently line-feeding the strip.

3. The combination with a platen and an adjacent type-guide, of a system of type bars side by side and all pivoted to swing to said guide, said system comprising two sets, the bars in each set having a common printing point, the bars in one set shorter than the bars in the other set, so that the printing center of one set is lower than the printing center of the other set.

4. The combination with a platen and an adjacent type-guide, of a system of type bars side by side and all pivoted to swing to said guide, said system comprising two sets, the bars in one set shorter than the bars in the other set, so that the printing center of one set is lower than the printing center of the other set, and types mounted crosswise on said type bars, so that an impression made by a type in one set will appear at the side of an impression made by a type in the other set.

5. The combination with a platen, of a system of radiating type bars pivoted side by side, said system comprising two sets, each set having a substantially complete series of digit types, the bars in one set shorter than the bars in the other set, so that the printing center of one set is at a different point from the printing center of the other set.

[Claims 6 to 28 not printed in the Gazette.]

1,071,886. ELECTROMAGNETIC SWITCH. ARCHIBALD S. CURTIS, Rugby, England, assignor to General Electric Company, a Corporation of New York. Original application filed May 16, 1910, Serial No. 561,682. Divided and this application filed Oct. 21, 1911. Serial No. 656,005. (Cl. 175—281.)



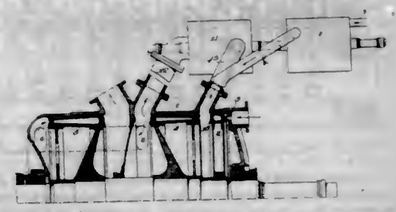
1. A relay comprising an electromagnet, a magnetic member and a non-magnetic member movable in the field of the magnet, a dash-pot connection between said members, and switch contacts carried by the non-magnetic member.

2. A relay comprising an electromagnet, a core of magnetic material movable in the field thereof, a movable shell surrounding said core, a dash-pot connection between said shell and said core, and switch contacts controlled by said shell in its movement.

3. A relay comprising an electromagnet, a core of magnetic material movable in the field thereof, a movable shell in which said core is arranged for movement, a dash-pot connection between said core and said shell whereby the movement of the one with reference to the other is retarded in one direction, and switch contacts controlled by said shell in its movement.

4. A relay comprising an electromagnet, a core of magnetic material movable in the field thereof, a movable shell loosely surrounding said core, a dash-pot cylinder connected to said shell, a piston connected to said core and movable in said cylinder, a valve in said piston, and switch contacts controlled by said shell in its movement.

1,071,887. ELASTIC-FLUID TURBINE. CHARLES G. CURTIS, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,604. (Cl. 121—58.)



1. An elastic fluid turbine having a stage of high pressure, means for admitting fluid of high pressure to such stage, a stage of lower pressure receiving the fluid discharged from such high pressure stage, means converting energy of fluid, at low pressure and large volume, discharging from such stage of lower pressure, such means being operated by fluid of high pressure and small volume, and means for admitting such high pressure fluid to such converting means, independently of the high pressure stage.

2. An elastic fluid turbine having a stage of high pressure, means for admitting fluid of high pressure to such stage, a stage of lower pressure receiving the fluid discharged from such high pressure stage, means operated by fluid at high pressure and small volume, operating upon the discharge of said stage of lower pressure, to compress said fluid said means being operated by fluid independently of the first stage.

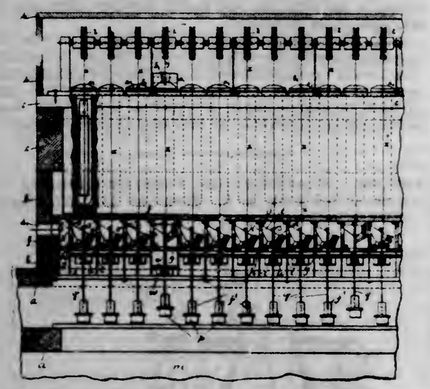
3. An elastic fluid turbine having a stage of high pressure, means for admitting fluid of high pressure to such stage, a stage of lower pressure receiving the fluid discharged from such high pressure stage, a fluid compressing device separate from the stage of lower pressure, said device being operated by fluid of high pressure and small volume, to compress fluid discharged by said stage.

4. An elastic fluid turbine having a stage of high pressure, means for admitting fluid of high pressure to such stage, a stage of lower pressure receiving the fluid discharged from such high pressure stage, a fluid compressing device coördinated with said stage of lower pressure in such a manner that fluid flows in circuit through said stage and compressor and is compressed by the latter, and expands in the former, said compressor being operated by fluid of high pressure and small volume.

5. An elastic fluid turbine having a stage of high pressure, means for admitting fluid of high pressure to such stage, a stage of lower pressure receiving the fluid discharged from such high pressure stage, and a fluid compressing device coördinated with the stage of lower pressure in such a manner that fluid of low pressure and large volume will flow in circuit through the two, means for operatively connecting fluid of high pressure and small volume with said device, whereby said device will be operated by the expansion of the high pressure fluid, and means for discharging said fluid after expansion into the stage of lower pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,071,888. ORGAN. ERNST DALLWIG, Königsberg, Germany. Filed Dec. 2, 1912. Serial No. 734,543. (Cl. 84—69.)

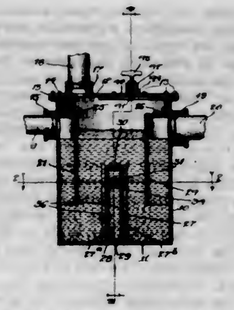


1. A solo attachment for reed organs, comprising a set of note producing devices, and a set of pneumatic motors in connection therewith adapted to control the note producing devices, a set of pivotal valves for controlling the supply of wind to said pneumatic motors, each valve having a lower face and a lateral face set at an angle to the lower face, the lower face normally closing the wind aperture of the respective pneumatic motor, a channel with partitions therein forming compartments each containing one of said valves, and with apertures in the partition walls near to the lateral faces of the valves and in such relation thereto as to be closed by said lateral faces when the valves are turned through a small angle, means for admitting wind to one end of the channel, and means for actuating the valves from the keys of the organ.

2. Solo attachment for reed organs, comprising a set of note producing devices, a set of pallets for controlling the supply of wind to each of said note-producing devices, a corresponding set of chambers and loosely fitting pistons therein, and flexible connections between said pistons and the pallets whereby the pistons are normally held up while the pallets are closed, and mechanism operated by the keys of the organ adapted to admit wind to one only of the piston chambers corresponding with one note of a chord when a chord is struck on the organ keys, while automatically cutting off the wind from all the other piston chambers corresponding with all other notes of the chord.

3. Solo attachment for reed organs, comprising a set of sub-bass reed boxes and pallets for controlling the wind supply thereto, a set of double valves and means for actuating them from the keys of the bass portion of the keyboard, a wind channel controlled by said valves and closed by the valve nearest to the left hand end in any set of valves actuated simultaneously, a set of pneumatic motors in communication with said valves and wind channel, and connections between the pneumatic motors and the pallets aforesaid whereby a pallet is opened corresponding with the valve nearest to the left hand end in any set of valves actuated simultaneously.

1,071,889. GREASE-TRAP. GEORGE J. DEHN, Chicago, Ill. Filed Nov. 9, 1910. Serial No. 591,522. (Cl. 182—12.)



1. In a grease-trap, the combination of a basin, inlet and outlet connections for the drainage, and a baffle separately formed from the basin extending transversely across the chamber in the basin and having a chamber therein, and pipe-connections leading into said baffle at the opposite ends thereof and through the basin wall, for causing liquid to circuluate through the baffle.

2. In a grease-trap, the combination of a basin, inlet and outlet connections for the drainage disposed adjacent the top of the basin, a baffle separately formed from the basin extending transversely across the bottom of the basin and having a chamber therein, pipe connections leading to and from the ends of said chamber respectively and through the wall of the basin, and means for directing the drainage downwardly from the inlet connection to the bottom of the basin at one side of said baffle.

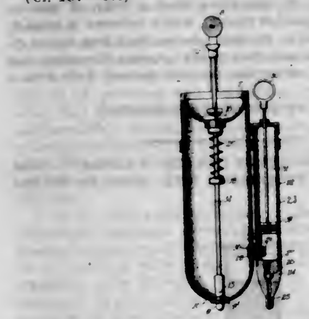
3. In a grease-trap, the combination of a basin, inlet and outlet connections for the drainage, a baffle removably held in the basin and having a chamber therein, and connections for causing liquid to circulate through said chamber.

4. In a grease trap, the combination of a basin, inlet and outlet connections for the drainage, lugs on the inside of the basin, and a baffle formed to extend across the basin and having transversely extending end walls fitting against the inside of the basin and between said lugs.

5. In a grease trap, the combination of a basin, inlet and outlet connections for the drainage, said basin having tapered seats on the inside thereof, and a baffle extending across the basin and having transversely extending end walls fitting against said tapered seats respectively.

[Claims 6 to 8 not printed in the Gazette.]

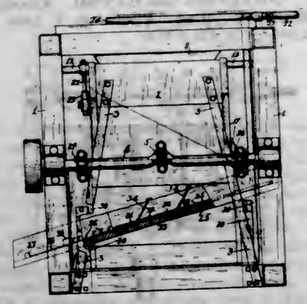
1,071,890. LIQUID-DISPENSER. JOHN DESMOND, Chicago, Ill., assignor of one-half to Harry Deam, Riverside, Ill. Filed Sept. 9, 1912. Serial No. 719,347. (Cl. 137—67.)



1. In a device of the character described, a cylindrical reservoir, a nozzle provided with a controllable outlet valve in one end of the reservoir, an air-and-liquid pump secured directly to said reservoir, a valve normally closing communication between said reservoir and pump openable toward said reservoir, a nozzle for the pump opening in substantially the same exterior plane as the reservoir nozzle, and a valve for said pump nozzle openable toward the interior of the pump.

2. In a device of the character described, a cylindrical reservoir, a nozzle provided with a controllable outlet valve in one end of the reservoir, an air-and-liquid pump having an inwardly opening valve at one end, said reservoir and pump being arranged with respect to each other to bring the nozzle of the reservoir and the valved opening of the pump in substantially the same exterior plane and to bring the handle of the reservoir and the handle of the pump at the same end of the device, said reservoir and pump being connected together at each end respectively, the means of connection at one end comprising a fitting affording communication between the reservoir and pump, and a valve in said fitting opening from pump toward the reservoir, for purposes described.

1,071,891. GOLD-SAVING MACHINE. LOYD C. DIBERT, San Francisco, Cal. Filed Aug. 12, 1912. Serial No. 714,577. (Cl. 83—88.)



1. In a gold saving machine, the combination of a horizontally disposed screen shoe inclining in the direction of its length and having a discharge chute extending from end to end with an outlet substantially midway of the ends of the shoe and to the side thereof, a gold saving table extending transversely relative to the shoe and of a width greater than the discharge outlet of the shoe and less than the length of the latter, the head of the table being directly beneath the discharge outlet and the table inclining from this point downwardly, yieldable supports for the shoe and table, a rotatable shaft arranged at a point substantially between the shoe and table and extending transversely relative to the shoe and of a width greater than the discharge outlet of the shoe and less than the length of the latter, the head of the table being directly beneath the discharge outlet and the table inclining from this point downwardly, yieldable supports for the shoe and table, a rotatable shaft arranged at a point substantially between the shoe and table and extending transversely relative to the shoe, pitman rods one for the shoe and for the table each having eccentric connections with said shaft and adapted to simultaneously impart shaking movements to the shoe and table in relative transverse directions about their yieldable supports.

2. In a gold saving machine, the combination of an elongated table inclining in the direction of its length, spring legs for supporting said table at opposite ends, said legs diverging downwardly, a rotary shaft extending longitudinally of the table, an eccentric adjacent each end of said shaft, a rod connected at one end to one of said eccentrics, and at its opposite end to the side of the table, adjacent one end thereof, and a rod connected at one end to the other eccentric and at its opposite end to the same side of the table adjacent its opposite end, one of said eccentrics being of greater throw than the other, substantially as and for the purpose described.

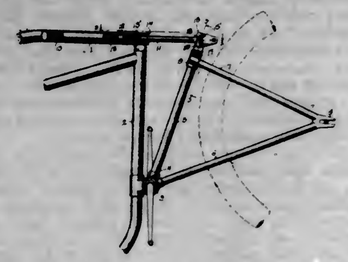
3. In a gold saving machine, the combination of an elongated table inclining in the direction of its length, spring legs for supporting said table at opposite ends, said legs diverging downwardly, a rotary shaft extending longitudinally of the table, an eccentric adjacent each end of said shaft, a rod connected at one end to one of said eccentrics, and at its opposite end to the side of the table, adjacent one end thereof, and a rod connected at one end to the other eccentric and at its opposite end to the same side of the table adjacent its opposite end, the said eccentrics being of different throws, a screen above the table, a shoe interposed between the screen and table to deliver the screened material to the latter, an auxiliary eccentric on the shaft intermediate the first mentioned eccentrics, and a rod connected at one end to the auxiliary eccentric and at its opposite end to the end of said screen.

4. In a gold saving machine the combination of a horizontally disposed screen shoe inclining in the direction of its length and having a discharge chute extending from end to end with an outlet substantially midway of the ends of the shoe and to the side thereof, a gold saving table extending transversely relative to the shoe and of a width greater than the discharge outlet of the shoe and less than the length of the latter, the head of the table being directly beneath the discharge outlet and the table inclining from this point downwardly, yieldable supports for the shoe and table, a rotatable shaft arranged at a point substantially between the shoe and table and extending transversely relative to the shoe, a pitman rod substantially midway of the ends of the shaft having an eccentric connection at one end with said shaft, and a connection at its opposite end with the shoe, and auxiliary pitman rods one adjacent each end of the shaft, the auxiliary pitman rods having an eccentric connection at one end to the shaft and a connection at the opposite end with the side of the table, one of said auxiliary pitman rods being of greater throw than the other, substantially as and for the purpose described.

5. In a gold-saving machine, a table; a zone of carpet at the receiving end of the table; hinged hanging gates resting their lower edges on the carpet; a zone of quicksilver-holding riffles secured to a table at a point succeeding the carpet zone, said riffles being concave in section facing the flow of the material and inclined with the direction of said flow from sides to center of the table; a cross-barrier projecting upwardly from the table and of a height greater than the height of said riffles succeeding the riffle zone; an amalgam plate positioned on the table at a point succeeding the cross barrier; a second cross-barrier projecting upwardly at the lower end of the plate, the said table inclining in the direction of its length, and means for imparting transverse agitation thereto, the agitation at one end of the table being greater than at the other end thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,071,892. CYCLE-FRAME. FREDERICK DIEPENHORST and ARTHUR DIEHL, Milwaukee, Wis. Filed Mar. 17, 1913. Serial No. 754,791. (Cl. 208—94.)



1. A cycle frame comprising a seat-mast having a horizontally disposed hollow open end reach-tube in connection therewith, a triangular rear fork member having one of its corners in pivotal union with the lower portion of the seat-mast, a spring-controlled reciprocative plunger incased within the reach-tube and extending through its open end, links having ends in pivotal union with the exposed end of the plunger, the opposite ends of the links being extended toward the mouth of the reach-tube, and a pivotal connection between the last mentioned ends of the links and a corner of the triangular fork member.

2. A cycle frame comprising a vertically disposed seat-mast having a horizontally disposed hollow open-ended reach-tube in connection therewith, a triangular rear fork member having one of its corners in hinge connection with the lower end of the seat-mast, a spring-controlled reciprocative plunger incased within the reach-tube and extending through its open end, guides for the plunger, a head in connection with the exposed end of the plunger provided with an end aperture, and an arc shaped slot forwardly of said end aperture, the same being described about the axis of said aperture, a bolt mounted in the plunger-head aperture, links having ends in pivotal union with the bolt, the opposite ends of the links being extended toward the mouth of the reach tube, apertured ears extending upwardly from one corner of the triangular fork, the ear apertures being alined with the arc shaped slot of the plunger-head, and a retaining bolt for connecting the ears and forward end of the links, the bolt being in engagement with the circular slot.

1,071,893. PROCESS OF REMOVING SUSPENDED MATTER FROM GASEOUS FLUIDS. HENRY L. DOHERTY, New York, N. Y. Filed Apr. 13, 1911. Serial No. 620,861. (Cl. 48—220.)



1. The process of separating from a body of gaseous fluid particles suspended therein, which consists in imparting a spiral motion to the said gaseous fluid first in one direction of rotation and then in the opposite direction.

2. The process of separating from a body of gaseous fluid particles suspended therein, which consists in causing the said gaseous fluid to traverse a spiral path from the peripheral extremity toward the point of origin of the said spiral, and thence traverse a second spiral path from the inner to the peripheral extremity of the same.

3. The process of separating from a body of gaseous fluid particles suspended therein, which consists in imparting to the said gaseous fluid, first, a gradually accelerating angular motion and then subjecting the said gaseous fluid to a gradually decelerating angular motion.

4. The process of separating from a body of gaseous fluid particles suspended therein, which consists in imparting an angular motion to the said gaseous fluid, gradually accelerating the said angular motion to a maximum, and then gradually decelerating the said angular motion to a minimum.

5. The process of separating from a body of gaseous fluid particles suspended therein, which consists in imparting a spiral motion to the said gaseous fluid first in one direction of rotation and then in the opposite direction, and at the same time contacting the said gaseous fluid with a film of liquid.

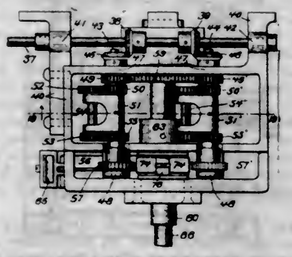
[Claims 6 to 8 not printed in the Gazette.]

1,071,894. LUBRICATING DEVICE. CHARLES C. DOSS, Jackson, Ohio. Filed May 17, 1912. Serial No. 697,994. (Cl. 184—103.)



In a lubricator, a reservoir having a filling opening in its upper end, a closure for the opening, a pipe section depending from the reservoir, a valve attached to the pipe section, an oil cup, a pipe section attached to the valve and depending within the oil cup, and a longitudinal partition fitting within the last mentioned pipe section, the lower end of the last mentioned pipe section being cut in a plane at right angles to the axis of the pipe section and being provided with an open slot at one side of the partition, the partition terminating flush with the lower end of the last mentioned pipe section.

1,071,895. GOVERNING MECHANISM. KENNEDY DOUGAN, Minneapolis, Minn. Filed July 9, 1908. Serial No. 442,790. (Cl. 121—112.)



1. In an automatic governor, a movable controlling element, means actuated by changes in the condition to be governed, power driven mechanism interposed between said element and said means, the said means and mechanism movable in the same direction, the said means controlling the mechanism and causing the mechanism to move to an extent proportionate to the movement of said means.

2. In an automatic governor, a driven mechanism, a controlling element moved by said mechanism, means actuated by changes in the condition to be governed and movable in the same direction as said controlling element, and controlling said driven mechanism, whereby said controlling element is caused to follow the movement of said means actuated by changes in the condition to be governed.

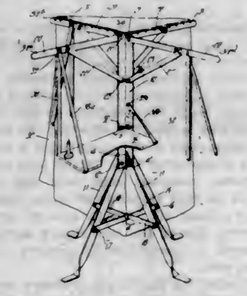
3. In an automatic governor, a driven mechanism, a controlling element actuatable in reverse directions by said mechanism, means actuated by changes in the condition to be governed and controlling said driven mechanism, said means and said controlling element movable in corresponding directions and to proportional extents, whereby the controlling element follows the movement in either direction and to the proportional extent only as said means actuated by changes in the condition to be governed.

4. In an automatic governor, a power driven shaft, differential gearings driven from said shaft, a transmission element geared with said differentials and adapted to control a valve, means, actuated by changes in the condition to be governed, for causing either of said differentials to act upon said controller element, and means, actuated by the movement of said transmission element, for limiting and stopping said movement.

5. In an automatic governor, a power driven shaft, differential gearings adapted to be oppositely driven by said shaft, a movable element geared with both said differentials, a movable starting element actuated by changes in the condition to be governed and adapted to start the movements of said first-named movable element, and automatic means for arresting each movement of said first-named element.

[Claims 6 to 16 not printed in the Gazette.]

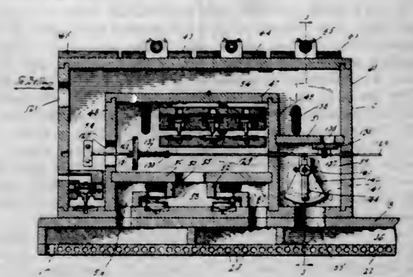
1,071,896. FOLDING BOOTH. ELIZABETH J. DOUGLAS, Los Angeles, Cal. Filed July 8, 1912. Serial No. 708,120. (Cl. 20—3.)



1. A device of the character described, comprising a single upright standard, bottom support and braces therefor, a plurality of outwardly extending arms foldingly attached to the upper end of the standard, folding braces for the arms, the arms being arranged symmetrically with relation to the vertical standard axis, a plurality of table members, one for each of said arms, each table member being supported at one corner by attachment to the upright standard and being arranged with one of its edges under and substantially parallel to its corresponding arm, a depending supporting strap attached to each arm and attached to the edge of the table member beneath, and diagonally arranged straps attached to the respective arms and to the upright support and attached to and supporting the opposite edges of the corresponding table members.

2. A device of the character described, comprising a single upright standard, bottom support and braces therefor, a plurality of outwardly extending arms foldingly attached to the upper end of the standard, folding braces for the arms, the arms being arranged symmetrically with relation to the vertical standard axis, a plurality of table members, one for each of said arms, each table member being supported at one corner by attachment to the upright standard and being arranged with one of its edges under and substantially parallel to its corresponding arm, and supporting straps attached to each arm and depending therefrom and attached to the corresponding table member to support the same.

1,071,897. SHEET-DRIVING MECHANISM FOR AUTOMATIC PLAYERS. FRANCIS W. DRAPER, Richmond, Ind., assignor to Starr Piano Company, Richmond, Ind., a Corporation of Indiana. Original application filed Aug. 24, 1910, Serial No. 578,780. Divided and this application filed Mar. 23, 1911. Serial No. 616,348. (Cl. 84—108.)



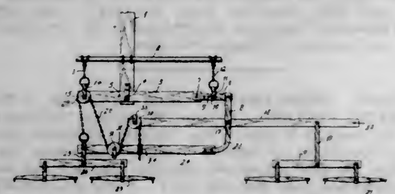
1. In a player mechanism, a bellows, a pneumatic motor, sheet-supporting mechanism, a driving train between the motor and sheet-supporting mechanism, a reversing member for reversing the connections between the motor and the sheet-supporting mechanism, a connection between the motor and bellows, a valve controlling said connection, a pneumatic action, a connection between said pneumatic action and bellows, a valve for controlling said connection, a valve stem controlling both of said valves, a spring connection between one of said valves and the valve stem whereby the stem may move independently of the spring-connected valve, and a connection between said valve stem and reversing member of the driving train, said connection having a limited play relative to the reversing member whereby the valves may be opened and closed with or without actuation of the reversing member.

2. In a player mechanism a bellows, a pneumatic motor, sheet-supporting mechanism, a driving train between the motor and sheet-supporting mechanism, a reversing member for reversing the connections between the motor and the sheet-supporting mechanism, a connection between the motor and bellows, a valve controlling said connection, a pneumatic action, a connection between said pneumatic action and bellows, a valve for controlling said connection, a valve stem controlling both of said valves, a spring connection between one of said valves and the valve stem whereby the stem may move independently of the spring-connected valve, and a connection between said valve stem and reversing member of the driving train.

1,071,898. DRAFT-EQUALIZER. THOMAS J. DUDLEY, Dallas, Tex., assignor, by direct and mesne assignments, to Eureka Manufacturing Company, Dallas, Tex., a Corporation of Texas. Filed Mar. 15, 1913. Serial No. 754,456. (Cl. 21—76.)

1. In a draft equalizer, the combination with the beam and axle of a vehicle, of a lever pivoted eccentrically, a

second lever pivoted to one end of the first lever, a connection between the opposite end of the first lever and the axle, a connection attached to the second lever intermediate its ends and also secured to the axle, a third lever having connection with the free end of the second lever and having provision at one end for attaching a horse, a fourth lever having provision for attaching a team of horses, and a connection between the free ends of the first and third levers and the fourth lever.



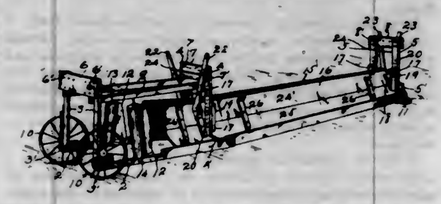
2. In a draft equalizer, the combination with the beam and axle of a vehicle, of a lever pivoted eccentrically, a second lever pivoted to one end of the first lever, a connection between the opposite end of the first lever and the axle, a connection attached to the second lever intermediate its ends and also secured to the axle, a third lever having connection with the free end of the second lever and having provision at one end for attaching a horse, a fourth lever having provision for attaching a team of horses, and a flexible connection between the free ends of the first and third levers and the fourth lever, said flexible connection having its extremities secured to the fourth lever.

3. In a draft equalizer, the combination with the beam and axle of a vehicle, of a lever pivoted on the beam eccentrically, a second lever pivoted to one end of the first lever, a connection between the opposite end of the first lever and the axle, a connection attached to the second lever intermediate its ends and also secured to the axle, a third lever having connection with the free end of the second lever and having provision at one end for attaching a horse, a fourth lever having provision for attaching a team of horses, pulleys mounted on the free ends of the first and third levers, a pulley mounted on the fourth lever relatively intermediate of the first named pulleys, and a flexible connection having its ends held and passing around all of the pulleys.

4. In a draft equalizer, the combination with the beam and axle of a vehicle, of a lever pivoted on the beam eccentrically, a second lever pivoted to one end of the first lever, a flexible connection between the opposite end of the first lever and the axle, a flexible connection attached to the second lever intermediate of its ends and also secured to the axle, a third lever having connection with the free end of the second lever and having provision at one end for attaching a horse, a fourth lever having provision for attaching a team of horses, and a flexible connection between the free ends of the first and third levers and the fourth lever.

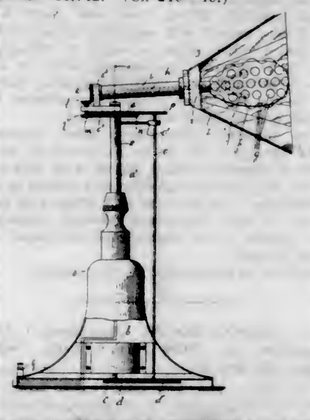
1,071,899. MACHINE FOR WRAPPING CELERY. MALCOLM W. EARL, Watertown, N. Y., assignor of one-fourth to Persis J. Earl, one-fourth to Sheridan E. Earl, and one-fourth to Ernest J. Earl, Watertown, N. Y. Filed Dec. 18, 1911. Serial No. 666,487. (Cl. 47—15.)

A machine for wrapping celery, comprising front and rear frame sections each mounted on wheels and adapted to straddle a row of the plants, rolls containing continuous strips of paper carried by the front frame section adapted to be unwound and applied to the opposite sides of the row of plants by the forward movement of the machine, a pair of floating guards supported at their opposite ends by the front and rear frame sections, said guards spaced apart for straddling the row adapted to gather and compress the plants while the strips of paper are being applied to the opposite sides of the row, and means



for independently raising and lowering the opposite ends of said guards, substantially as described.

1,071,900. ILLUMINATING DEVICE. KARL EDISON, New York, N. Y., assignor of one-half to John B. Moschenross, New York, N. Y. Filed Oct. 30, 1912. Serial No. 728,702. (Cl. 240—49.)



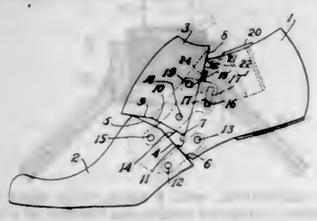
1. An illuminating device comprising a non-transparent illuminated bulb having lens shaped windows and a reflector therefor, said bulb being adapted to revolve around its longitudinal axis and around a vertical axis, and said reflector being adapted to revolve around a vertical axis synchronously with the rotation of the bulb around a vertical axis and means for affecting the said movements.

2. An illuminating device comprising a standard, a non-transparent illuminated bulb having lens shaped windows and a reflector therefor, said bulb and reflector being so supported on said standard as to be capable of revolving together around the vertical axis of the standard and means whereby during the said rotary movement the said bulb is caused to independently revolve around its own longitudinal axis.

3. An illuminating device comprising a standard, a non-transparent bulb having lens shaped windows, electric lamps projecting into said bulb, a reflector for said bulb, a support rotatively mounted on said standard and carrying said lamps and reflector, said bulb being rotatively supported in said support and means whereby during the rotation of said support around the vertical axis of said standard independent rotary motion is imparted to said bulb around its own longitudinal axis.

4. An illuminating device comprising a standard, a driven gear rotatively mounted thereon, a support fixed to said gear, a non-transparent bulb having lens shaped windows and rotatively supported in said support, electric lamps projecting into said bulb, a reflector for the latter, said electric lamps and reflector being fixed to said support, and gears whereby during the rotation of said support around the vertical axis of the standard, an independent rotary motion will be imparted to said bulb.

1,071,901. COLLAPSIBLE LAST. JAMES D. FADDEN, Auburn, Me., assignor to himself, and William J. Mahaney, Lewiston, Me. Filed Dec. 7, 1911. Serial No. 664,429. (Cl. 12—136.)

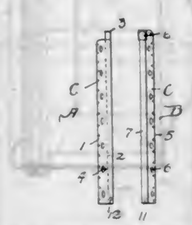


1. An interlocking divided last comprising a fore part, a heel part operatively connected thereto for vertical movement relative thereto, and an instep block slidably mounted on said heel part, a connection between the heel part and the instep block whereby a sliding movement is given to the instep block upon the vertical movement of the heel part, said instep block and said fore part having their adjacent faces formed with transverse engaging entrant and reëntrant angles disposed to interlock upon the normal positioning of the parts and to be dislodged upon the collapsing of the last.

2. An interlocking divided last comprising a fore part, a heel part operatively connected thereto for vertical movement relative thereto, and an instep block slidably mounted on said heel part, a connection between said heel part and the instep block and said fore part, whereby a sliding movement is given to the instep block relative to said heel part upon the vertical movement of the heel part, and which movement of the instep block is vertical relative to said fore part, said instep block and said fore part having their adjacent faces formed with transverse engaging entrant and reëntrant angles disposed to interlock upon the normal positioning of the parts and to be dislodged upon the collapsing of the last.

3. A sectional last comprising a toe, a heel and an instep section, a pivotal connection for said toe and heel sections and a second connection joining all of said sections, said second connection pivotally secured in said toe and instep sections and slidably secured in said heel section, whereby a sliding movement is secured for the instep section relative to the heel section.

1,071,902. FASTENER. STANLEY M. FILL, Fairmont, W. Va. Filed July 9, 1912. Serial No. 708,448. (Cl. 24—204.)



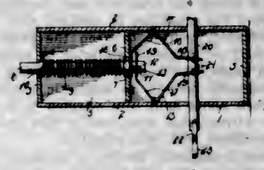
A fastener for the purpose set forth comprising flexible strips adapted to be secured to a garment and each including a body portion and a longitudinal flange, said flanges adapted to interlock with each other for connecting the strips together, the flange of one of said strips extended at one end to provide a longitudinally projecting tongue, said flange at its other end provided with an opening, means integral with one end of the body portion of the other of said strips to provide in connection therewith a socket for the reception of said tongue when the flanges are interlocked, and means carried by the body portion of the last mentioned strip, extending through said body portion and engaging with said opening to prevent longitudinal movement of said apertured flange when the tongue of the flange is mounted in said socket.

1,071,903. STRETCHING DEVICE FOR HEEL-COUNTERS. JOHN DENT FOREMAN, Searcy, Ark. Filed Aug. 22, 1912. Serial No. 716,503. (Cl. 12—132.)



In a device of the class described, the combination with a standard, of a head carried by the upper end thereof, a foot carried by the lower end of the standard, a shaft having its upper end supported by the head and its lower end by the foot, a pinion fixed to the lower end of the shaft, rack bars mounted in the foot and engaging the pinion, stretcher plates carried by the rack bars and adapted to be moved in contact with the heel counter of a shoe upon rotation of said shaft.

1,071,904. LOCK. EARL R. GASKILL, Post Falls, Idaho. Filed Oct. 14, 1912. Serial No. 725,666. (Cl. 70—42.)

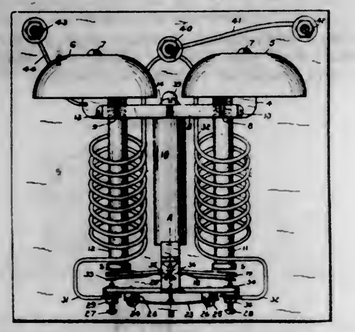


A lock comprising a casing, a plate arranged transversely of the casing, a spring pressed bolt slidably supported by the casing and plate, a shaft extending transversely through the casing, and slidably mounted therein, a pair of pins carried by the bolt, bell crank levers pivotally connected to the sides of the casing, said levers having their ends provided with fingers, pins carried by said shaft, the fingers formed upon the outer ends of the bell cranks being adapted to engage the pins carried by the bolt, the fingers formed upon the inner ends of said bell cranks being adapted to engage the pins carried by the shaft, whereby when said shaft is shifted the bell cranks will be rocked to actuate said bolt.

1,071,905. ELECTROMAGNETIC DEVICE. MAURICE F. GEER and RICHARD C. LEAKE, Rochester, N. Y., assignors to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Oct. 26, 1911. Serial No. 656,938. (Cl. 175—21.)

1. In an electro-magnetic device, a movable armature, a knife edge bearing for the armature, a pin adapted for

holding the armature against the knife edge bearing, an adjustable member between the pin and the armature, said pin terminating substantially on a line with the knife edge of the bearing, and means to support the pin.



2. In an electro-magnetic device, a movable armature, a knife edge bearing for the armature, a pin adapted for holding the armature against the knife edge bearing, an adjustable member between the pin and the armature, said pin terminating substantially on a line with the knife edge of the bearing, and adjustable means to support the pin.

3. In an electro-magnetic device, a movable armature of magnetic material, a knife edge bearing of magnetic material against which the armature is in direct magnetic contact and on which the armature may oscillate, a pointed pin adapted to support the armature in contact with the knife edge, a member between the pin and the armature formed with a conical cavity in which the pin rests, means to support the pointed pin, a body of magnetic material in magnetic contact with said knife edge bearing at one end, cores with which said magnetic body are in magnetic contact at the other end, coils about said cores adapted to convey current, and an arm moved in unison with said armature.

4. In an electro-magnetic device, a movable armature of magnetic material, a knife edge bearing of magnetic material against which the armature is in direct magnetic contact and on which the armature may oscillate, a fixed point to support the armature in contact with the knife edge, an adjustable member between the point and the armature, a body of magnetic material in magnetic contact with said knife edge bearing at one end, a core with which said magnetic body is in magnetic contact at the other end, a coil about said core adapted to convey current and thus attract said armature to said core, and an arm moved in unison with said armature.

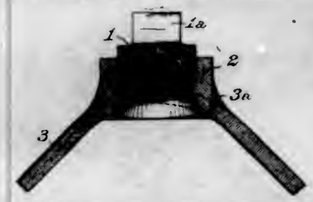
5. In an electro-magnetic device, a movable armature, a knife edge bearing for the armature, said armature formed with a cone shaped cavity therein having the apex of the cavity on a line with the knife edge, a pin bearing on the apex of the cavity and means to support the pin.

[Claims 6 to 8 not printed in the Gazette.]

1,071,906. WASHOUT-PLUG FOR STEAM-BOILERS. MARTIN A. GILMORE and WILLIAM E. WOODARD, Schenectady, N. Y. Filed May 3, 1912. Serial No. 694,832. (Cl. 137—76.)

1. The combination, with a steam boiler sheet having an independent connected reinforcing member, of a tubular seat permanently fixed in said sheet and reinforcing member and extending on the outside thereof and having a screw thread on its body, and a plug on the outside of said sheet having a screw thread engaging the thread of the seat.

2. The combination, with a steam boiler sheet, of a tubular seat which is welded to and extends through said sheet and through a reinforcing member of welding material fixed thereon, and is provided with a screw thread on its body, and a plug on the outside of said sheet having a screw thread engaging the thread of the seat.

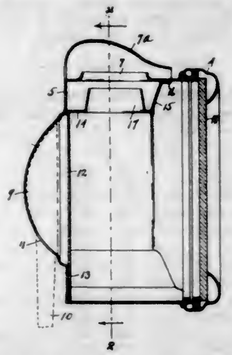


3. The combination, with a steam boiler sheet having an independent connected reinforcing member, of a tubular seat permanently fixed in said sheet and reinforcing member and extending on the outside thereof, and having a screw thread on its body, and a bore which is tapered outwardly toward the inner side of the sheet, and a plug on the outside of said sheet having a screw thread engaging the thread of the seat and a squared head on its outer end.

4. The combination, with a steam boiler sheet having an independent connected reinforcing member, of a tubular seat permanently fixed in said sheet and reinforcing member and extending on the outside thereof, and having an external screw thread and a plain surface bore tapered outwardly toward the inner side of the sheet, and a cylindrical plug on the outside of said sheet having an integral screw thread engaging the thread of the seat.

5. The combination, with a steam boiler sheet which is bent into an outwardly rounded corner, of a tubular seat which is permanently fixed in an opening in said rounded corner and in a surrounding separate reinforcing member, and is provided with a screw thread on its body, and a plug on the outside of said sheet having a screw thread engaging the thread of the seat.

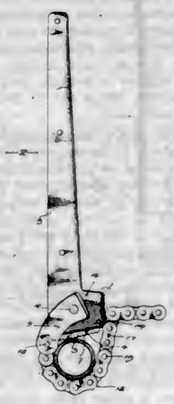
1,071,907. LAMP STRUCTURE. CHARLES E. GODLEY, Detroit, Mich., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich., a Corporation of Michigan. Filed Sept. 1, 1911. Serial No. 647,156. (Cl. 240—11.)



1. A lamp casing, comprising a cylindrical shell provided with a flaring front portion, and having formed in the wall thereof at the top and bottom integral panels to afford respectively an oil font receptacle and a hood for the body of the lamp, and a shield closing the rear end of the lamp body and carrying a tube at its upper end which communicates with said hood.

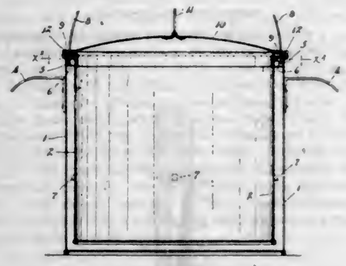
2. A lamp casing, comprising a shell having a rounded rear end forming a chamber, said rounded rear end of the lamp having an aperture to receive a supporting standard, and a shield within the lamp body closing the inner end of said chamber.

1,071,908. AUTOMATIC CHAIN TONGS. ELLIS GREEN, Los Angeles, Cal., assignor of one-half to Theodore F. Worth, Los Angeles, Cal. Filed Mar. 11, 1913. Serial No. 753,525. (Cl. 81—69.)



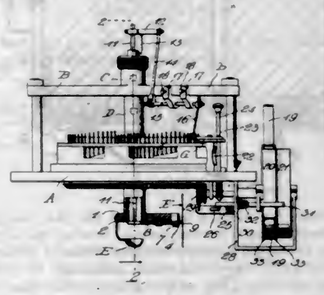
Pipe tongs comprising a head bifurcated to form a housing slot; a handle extending one way from the head, there being a slightly inclined bearing face at the opposite side of the head from the handle; a toothed gripping plate fitting against the bearing face; a supporting shank extending from the gripping plate and fitting in the housing slot; the tooth face of the gripping plate being slightly curved longitudinally; curved clevis links fitting on opposite sides of the head; a pivot connecting the links to the head, said pivots extending through the links, the head and the shank; the opening through the shank being elongated up and down so as to allow the gripping plate some looseness relative to the head; a chain connected between the ends of the curved clevis links; and a hook projecting laterally from the head.

1,071,909. COOKING UTENSIL. CHARLES K. GRIVE, Minneapolis, Minn., assignor of one-half to William Hultgren, Minneapolis, Minn. Filed July 11, 1912. Serial No. 708,750. (Cl. 53—1.)



A cooking utensil comprising an outer pot having at its upper portion a notched internal rest flange, of an inner pot having an out-turned upper edge adapted to engage said rest flange and support the inner pot slightly above the bottom of the outer pot, said inner pot having circumferentially spaced lugs located materially above its bottom, adapted to be moved upward through the notches of said rest flange and to be set upon said rest flange by a slight rotation of the said inner pot, to support the latter in a raised position, a cover having a flange adapted to be telescoped into the inner pot and having a projecting peripheral flange adapted to overlap the upper edge of the outer pot, the said peripheral flange of said cover having diametrically opposite notches, and the said inner pot having a bail adapted to project upward through said notches and to be held in an upright position thereby, and adapted also to be turned downward into engagement with said rest flange and to be covered by the peripheral flange of said cover, substantially as described.

1,071,910. STOP-MOTION FOR KNITTING-MACHINES. ROBERT C. GRUBER, Spring City, Pa. Filed June 24, 1912. Serial No. 705,603. (Cl. 66—7.)



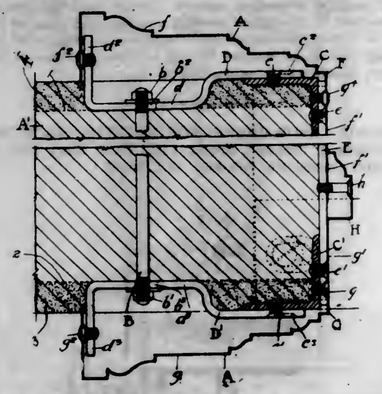
1. The combination with a knitting machine having a central stud, of a rod mounted to slide longitudinally in said stud, a pivotally mounted feeler arm carried by said stud and having one end extending transversely across said stud and adapted to swing in a horizontal plane and normally positioned to support said rod, the other end of said arm having a fabric engaging hole detecting finger, a belt shifting mechanism having a trip and means connected with said rod and operable by the downward movement thereof to engage said trip and actuate the belt shifter.

2. In a stop motion for knitting machines the combination with a belt shifting mechanism having a suitable trip, of a vertically slidable stop rod, a feeler arm pivotally engaged intermediate its ends to swing horizontally under and normally support said rod to hold it in raised position, and having a finger for engaging the fabric being knit, and means connected with said rod operable on the downward movement of said rod to actuate said trip and operate the belt shifter.

3. In a stop motion for knitting machines, the combination with belt-shifting mechanism having a suitable trip, of a vertically slidable stop rod, a feeler arm pivoted intermediately of its ends to swing horizontally one end of said arm extending normally under said rod and holding it in raised position, a hole detecting fabric engaging finger on the other end of said arm, a crank shaft connected with said rod and adapted to be turned on the downward movement of said rod, and an element adjustably mounted on said shaft positioned to engage said trip on the turning of said shaft and actuate the belt shifter.

4. A stop motion for knitting machines, comprising a plate having an aperture therein for engagement with a center stud of a knitting machine, a curved strip having longitudinal slots at its ends and midway the length thereof, fastening elements passing through said slotted strip ends and engaged with the side edges of said plate for adjustably connecting said strip to said plate and in longitudinal alinement therewith, a laterally movable feeler arm pivoted intermediately of its ends to said plate with one end overlapping the aperture in said plate and with the other end extending through the center slot of said strip, a slidable rod resting normally on the inner end of said arm, and means connected with said rod for releasing a belt shifting trip lever.

1,071,911. METAL FRAME FOR DOORS, WINDOWS, AND THE LIKE. CHARLES JAMES HALE, New York, N. Y., assignor to United States Metal Products Co., New York, N. Y., a Corporation of Massachusetts. Filed Sept. 8, 1908. Serial No. 451,972. (Cl. 189—46.)



1. A frame for doors, windows and the like, comprising a wall, sheet metal trim completely covering the edge and extending backward a predetermined distance along each side of the wall, a securing device embedded in the wall, means for connecting the same rigidly at the sides of the wall to the trim, and metallic inner frames extending around each corner of the edge of the wall and rigidly secured both to the aforesaid securing device and to the metal trim.

2. A frame for doors, windows and the like, comprising sheet metal trim, a metallic inner frame embracing the edges of the door opening, brace bars therefor, and means for securing the trim to said inner-frame and to the brace bars.

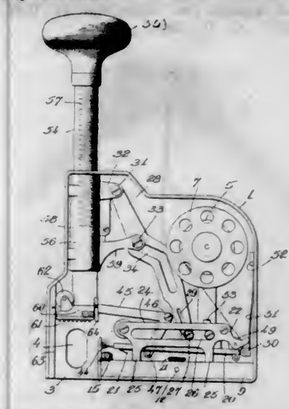
3. A frame for doors, windows and the like, comprising a wall, sheet metal trim, metallic anchor bolts embedded in the wall, an inner-frame embracing the corners formed by the junction of the sides and edge of the wall, brace bars connecting said anchor bolts and inner-frame, and means for securing the trim to the inner-frame at the edge of the doorway and to the brace-bars at the sides thereof.

4. A frame for metal doors, windows and the like, comprising a wall composed of brick and a layer of plaster on each side thereof, anchor bolts projecting at each side of the brick only, a sheet metal trim, brace bars at each side of the wall each having an inwardly-bent central portion abutting against the brick of the wall and outwardly-extending end portions extending beyond the plaster, means for connecting the central portion rigidly to the anchor bolt and wall, and means for connecting the trim to said bars at both sides of said central portion.

1,071,912. STAMP-AFFIXING DEVICE. ALFRED HALL, Los Gatos, Cal., assignor of one-third to William W. Whitten, Dorchester, Mass. Filed Feb. 26, 1912. Serial No. 679,321. (Cl. 216—23.)

1. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, devices adapted to guide the strip of stamps over the moistening device, and means acting automatically to lift the stamp strip and its coöperating guiding devices from the moistening device after the passage of each stamp thereover.

2. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, means extending beneath the stamp strip in proximity to the moistening device, and connections between said means and the said plunger whereby upon each upward movement of the plunger said means are elevated adjacent the moistening device to lift the stamp strip therefrom.



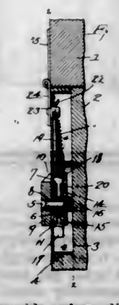
3. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table, having its forward end adjacent the moistening device to guide the strip of stamps over the moistening device, a spring plate above the guide table, a presser roll carried at the free end of the said spring plate and coöperating with the moistening device, and means automatically acting to elevate the spring plate and stamp strip to lift the stamp strip from the moistening device after the passage of each stamp thereover.

4. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table in proximity to and adapted to guide the strip of stamps over the moistening device, and means acting automatically to elevate the guide table adjacent the moistening device to lift the stamp strip from the moistening device after the passage of each stamp thereover.

5. A stamp affixing device comprising a reciprocating stamp affixing plunger, a support for a roll of stamps, a moistening device, a guide table in proximity to and adapted to guide the strip of stamps over the moistening device, and connections between the said guide table and the said plunger whereby upon each upward movement of the plunger the guide table is elevated adjacent the moistening device to lift the stamp strip therefrom.

[Claims 6 to 12 not printed in the Gazette.]

1,071,913. LOCK. HARRIS HANFLIG, Charlestown, Mass. Filed Sept. 28, 1912. Serial No. 722,894. (Cl. 70—55.)

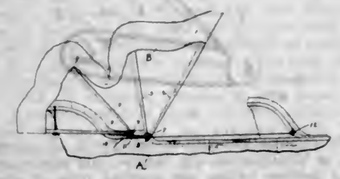


1. In a lock, a movable arbor, disks rotatably carried thereby and radially slotted, a stop adapted to normally limit sliding movement of the arbor, the said slots being adapted to register with each other and with said stop, a hasp, and means carried by the arbor adapted to normally engage said hasp.

2. A lock comprising a hinged hasp, a casing, said casing having a suitable opening and also having a slot, a slotted lug carried by the hasp adapted to work through the opening of the casing, an arbor mounted to slide in the slot of the casing, a stop carried by the casing and in alinement with said slot, rotatable disks mounted upon the arbor and radially slotted, pins carried by the adjacent faces of said disks and adapted to engage each other, and a locking bolt carried by the arbor and adapted to enter the slot of said lug.

3. In a lock a casing having a slot and an opening in alinement therewith, a hinged hasp, means carried by the hasp for entering said opening, an arbor mounted in said slot and adapted to move therein toward and away from the hasp, a locking bolt carried by the arbor adapted to engage the locking means carried by the hasp, springs adapted to hold said arbor normally in the end of the slot adjacent the hasp, rotatable disks mounted upon the arbor, a lug carried by the casing and in alinement with the slot, pins carried by adjacent faces of the disks, and means arranged upon the outside of the casing and connected to one of said disks for the purpose of rotating the same, said disks being provided with radial slots, thereby adapting them to straddle the stop lug when said slots are brought into registry with each other and also into registry with said lugs.

1,071,914. MEANS FOR RAISING AND LOWERING AUTOMOBILE-TOPS. CHESTER K. HANN, Columbus, Ohio. Filed Dec. 24, 1910. Serial No. 599,230. (Cl. 21—62.)

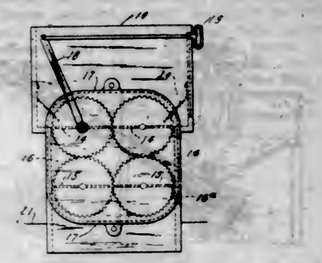


1. In combination with a multi-seated vehicle having spaced top supporting brackets on each side, a flexible cable for spanning the distance between the front and rear seats, spaced hooks carried by said cable for embracing attachment to the brackets carried upon the same side of the vehicle, and a traveling member carried by said cable between said hooks adapted to support a portion of the top during its movement between said brackets.

2. In combination with a multi-seated vehicle having spaced top supporting brackets on each side, a flexible cable for spanning the distance between the front and rear seats, a hook for embracing attachment to one of said brackets permanently carried at one end of said cable, a complemental hook for embracing attachment to the other of said brackets upon the same side of the vehicle carried by said cable and longitudinally adjustable thereon, a traveling member carried by said cable between said hooks, and means carried by said element below said cable for supporting a portion of said top during its movement between said brackets.

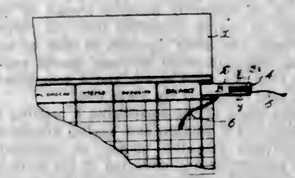
1,071,915. FIREPLACE-GRATE. JENS P. HANSEN, Evanston, Ill. Filed Apr. 9, 1913. Serial No. 759,857. (Cl. 126—164.)

A fire-place grate comprising a box-like casing having an upper fuel compartment with a grating at the front, and a lower ash compartment provided with a draft door at the front, a plurality of rocking grate bars mounted in the casing at the bottom of the fuel compartment, a plurality of rocking ash plates mounted in the ash compartment below the door thereto, and gearing between said



grate bars and ash plates, whereby the grate bars and ash plates are all operated simultaneously.

1,071,916. INDEX-TAB. WALTER E. HARROD, Harrod, Ohio. Filed Nov. 11, 1911. Serial No. 659,803. (Cl. 116—81.)



1. In combination an index tab, and a plurality of connected indicating threads having a running connection with the index tab, to admit of withdrawing one of such threads into concealed position within the tab when the other thread is drawn out into a position to be exposed.

2. In combination an index tab, a plurality of connected indicating threads of contrasting color having running connection with the tab to admit of withdrawing one of such threads into concealed position within the tab when the other thread is drawn out into a position to be exposed, and a returning thread having connection with the indicating threads to admit of simultaneously withdrawing both into a position to be concealed.

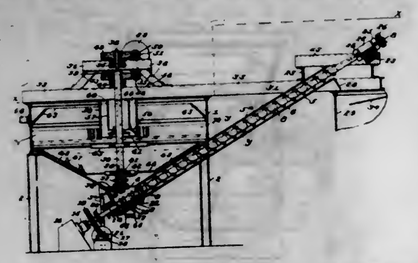
3. In combination an index tab comprising layers between which is formed a space, a fastening for connecting the layers, indicating threads arranged to operate about the said fastening in the space formed between the layers of the tab, the projecting ends of the indicating threads having knots and both of the threads being connected so that movement of one of the threads to bring it into a position to be exposed moves the other thread into a position to be concealed and a returning thread having connection with both of the indicating threads to move them into a position to be concealed.

1,071,917. DEWATERING DEVICE OR MEANS FOR SEPARATING SOLIDS AND LIQUIDS. WILBUR ALSON HENDRYX, New York, N. Y. Filed July 29, 1912. Serial No. 712,172. (Cl. 83—82.)

1. A dewatering apparatus comprising a tank having a lower converging portion, an upwardly extending undivided conduit directly connected to the bottom of said lower portion and a pair of oppositely rotating screws located in such conduit, said screws having their edges approaching each other and the sides of the conduit.

2. A dewatering apparatus comprising a settling tank having arranged near its bottom rotatable propeller blades, in combination with an upwardly-extending conveyer chute extending into the bottom of said tank, screw conveyers in said chute, said chute having an opening at

its bottom, and a gate for controlling the opening, and means for rotating said conveyers in either direction.

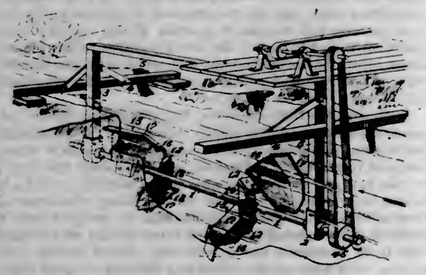


3. A dewatering apparatus comprising, in combination, a settling vessel, a pair of oppositely rotatable screws arranged in an upwardly inclined trough or casing, the said trough or casing extending into the bottom of the settling vessel, the lower portions of each of said screws comprising double-threaded sections spaced apart, and of less pitch than the main screw.

4. A dewatering apparatus comprising, in combination, a settling vessel, a pair of oppositely rotatable screws arranged in an upwardly inclined trough or casing, the said trough or casing extending into the bottom of the settling vessel, the lower portions of each of said screws comprising double-threaded sections spaced apart and of less pitch than the main screw, and a door located in the bottom of said trough at its lower end.

5. A dewatering device comprising a settling tank having a conical lower portion and having arranged near its bottom rotatable propeller blades, in combination with means for preventing accumulation of the settled material inside the conical portion of the settling vessel comprising rotatable arms, connecting means between said arms, said means being provided with plow shares.

1,071,918. CURRENT-MOTOR. STANLEY HICKS, North Yakima, Wash. Filed June 29, 1912. Serial No. 706,573. (Cl. 170—167.)

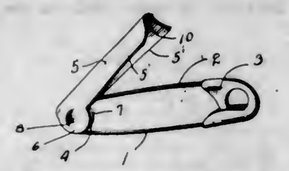


1. A water wheel having its shaft projected in the direction of the current and provided with paddles or blades arranged in oppositely disposed pairs, transversely mounted with respect to the said shaft, each pair of the said paddles or blades including a supporting member perpendicular to the said shaft and attached to the shaft, the outer ends of the said member being beveled to an obtuse angle with the flow of current, an arm attached to each end of the said member, the said arms being extended laterally outward from their respective ends of the member to which they are attached and flat blades secured to the obtusely beveled faces of their respective arms.

2. A water wheel having its shaft projected in the direction of the current and provided with paddles or blades arranged in oppositely disposed pairs, transversely mounted with respect to the said shaft, each pair of the said paddles or blades including a supporting member perpendicular to the said shaft and attached to the shaft, the outer ends of the said member being beveled to an obtuse angle with the flow of current, an arm attached to each end of the said member, the said arms being extended laterally outward from their respective ends of the member to which they are attached and flat blades secured to the obtusely beveled faces of their respective arms, the said blades including flanges at their outer edges that project forwardly approximately at right angles to the body of the blades.

3. A water wheel having its shaft projected in the direction of the current and provided with paddles or blades arranged in oppositely disposed pairs, transversely mounted with respect to the said shaft, each pair of the said paddles or blades including a supporting member perpendicular to the said shaft and attached to the shaft, the outer ends of the said member being beveled to an obtuse angle with the flow of current, an arm attached to each end of the said member, the said arms being extended laterally outward from their respective ends of the member to which they are attached and flat blades secured to the obtusely beveled faces of their respective arms, the said blades including flanges at their outer edges that project forwardly approximately at right angles to the body of the blades, the flanges of each blade including a front water penetrating portion disposed at an acute angle to the shaft and a remaining portion disposed substantially parallel to the shaft and the inner edge of the face of the blade.

1,071,919. SAFETY-PIN. PEARL HILES and JEREMIAH J. MCNERNEY, St. Louis, Mo. Filed Oct. 26, 1912. Serial No. 727,901. (Cl. 40—13.)



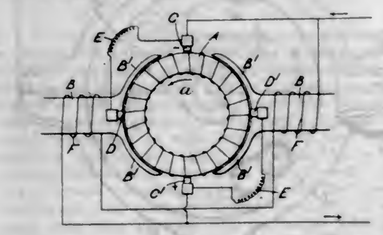
1. The combination with a safety pin, of means for holding an identification slip thereto, said means consisting of a member having side portions lying at opposite sides of the back bar of the pin and having ears at one end lying at opposite sides of the loop of the pin, said ears having their central portions stamped inwardly within the inclosure of the loop for pivotal movement of the member with respect to the pin and for the prevention of disengagement of the member bodily from the pin.

2. The combination with a safety pin, of means for holding an identification slip thereto, said means consisting of a retaining member adapted for co-action with a portion of the pin to hold the identification slip therebetween, and means co-acting with the loop of the pin for pivotally connecting the holding member thereto.

3. The combination with a safety pin, of means for holding an identification slip thereto, said means comprising a metallic blank bent longitudinally upon itself and disposed with its side portions at opposite sides of the back bar of the pin, said side portions at one end having a pair of parallel ears disposed over and at opposite sides of the loop of the safety pin, and means carried by the ears and co-acting with the top for preventing disengagement of the holding member from the pin and for permitting pivotal movement of the holding member with respect to the pin.

1,071,920. DYNAMO-ELECTRIC MACHINE. ABNER HILL, Warminster, England, assignor to Trier and Martin Limited, London, England. Filed Feb. 23, 1911. Serial No. 610,247. (Cl. 171—223.)

1. In a dynamo electric machine, the combination of field magnets, an armature capable of rotation in the magnetic field, a plurality of main brushes in the ordinary or neutral position, a plurality of auxiliary brushes corresponding in number to the main brushes, each auxiliary brush being disposed half a pole pitch in advance of a main brush and external resistances connecting each main brush with the auxiliary brush in advance of it, the arrangement being such that as the load increases and consequently the axis of the magnetic field is displaced, the currents in the resistances are reversed and at heavy loads are in such a direction that part of the main current is supplied by the auxiliary brushes.



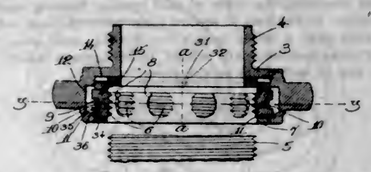
2. In a self regulating dynamo, the combination with field magnets, of an armature rotatable in the magnetic field, a plurality of main brushes situated in the neutral line, a plurality of auxiliary brushes corresponding in number to the main brushes, each auxiliary brush being permanently disposed half a pole pitch in advance of a main brush and substantially constant external resistances connecting each main brush with the auxiliary brush in advance of it, the arrangement being such that at rated voltage and open external circuit said resistances carry about one half the full load current of said dynamo and at about half-load no current will flow therethrough while at full load full speed one half the total current will flow in each resistance, substantially as described.

3. In a dynamo electric machine of the class described, the combination of suitable means for producing a magnetic field, an armature disposed in said magnetic field, said armature and field being relatively rotatable, main brushes for the armature, an auxiliary brush for each main brush, and connecting means including a resistance between each main brush and the auxiliary brush associated therewith, each main brush and the auxiliary brush connected therewith being permanently spaced apart substantially half a pole pitch, for the purpose set forth.

4. In a self regulating generator designed to supply approximately constant current over a wide range of speed, the combination of field poles and windings on said poles for producing a magnetic field, an armature rotatable in said field, current supply mains, main brushes for the armature disposed in the ordinary or neutral position and connected to said supply mains, an auxiliary brush associated with each main brush, means connecting the auxiliary brush with its associated main brush and a supply main, a substantially constant resistance in circuit with said connecting means, each auxiliary brush being disposed substantially half a pole pitch in advance of the main brush connected therewith, the arrangement being such that when the armature is rotated at a speed sufficient to generate substantially no-load current at normal voltage the current in said connecting means will flow in one direction and when the armature supplies current in excess of about half the output of the generator the flow of current in said connecting means will be reversed and part of the armature current will flow through said auxiliary brushes.

1,071,921. HOSE-COUPLING. ROLAND C. HILTON, Boston, Mass., assignor to National Coupling Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 23, 1912. Serial No. 716,635. (Cl. 137—28.)

1. In a coupling member, the combination with a body having in one end thereof a chamber provided with a recess in its exterior wall, of a ring within said chamber, said ring being of a size to permit it to be inserted axially into said chamber and being provided with radial apertures, and blocks mounted in said apertures for radial movement, said blocks having their inner faces provided with screw-threads and having a greater length in a radial direction than the thickness of the ring whereby the outer ends of the blocks project through the ring and prevent the latter from being withdrawn.



2. In a coupling member, the combination with a body having in one end thereof a chamber provided with a recess in its exterior wall, of a ring within said chamber, said ring being of a size to permit it to be inserted axially into said chamber and being provided with radial apertures, blocks mounted in said apertures for radial movement, said blocks having their inner faces provided with screw-threads and having a greater length in a radial direction than the thickness of the ring whereby the outer ends of the blocks project through the ring and prevent the latter from being withdrawn, and means associated with the ring to limit the inward movement of the blocks.

3. In a coupling member, the combination with a body having in one end thereof a chamber provided with a recess in its exterior wall, of a ring within said chamber, said ring being of a size to permit it to be inserted axially into said chamber and being provided with radial apertures, and blocks mounted in said apertures for radial movement, said blocks having their inner faces provided with screw-threads and having a greater length in a radial direction than the thickness of the ring whereby the outer ends of the blocks project through the ring and prevent the latter from being withdrawn, said ring being capable of movement relative to the body in the direction of its axis, and means for locking the ring in its forward position.

4. In a female coupling member, the combination with a body, of a ring situated within the body and provided with radial apertures, said ring being capable of movement relative to the body in the direction of its axis, blocks mounted in said apertures for radial movement and provided on their inner faces with screw-threads to engage those of a coöperating male member, and means for locking the blocks in their inward operative position when the ring is in its forward position while permitting said blocks to freely move radially when the ring is in its rearward position, said ring causing all the blocks to have a simultaneous movement in an axial direction.

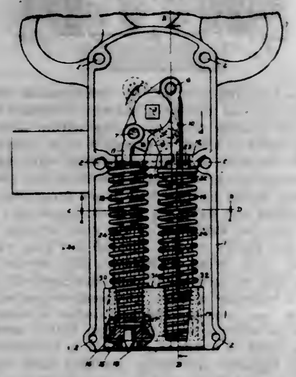
5. In a female coupling member, the combination with a body, of a ring situated within the body and capable of movement relative thereto in the direction of its axis and provided with radial apertures, blocks mounted in said apertures for radial movement and provided on their inner faces with screw-threads to engage those of a coöperating male member, means for locking the blocks in their inward operative position when the ring is in its forward position while permitting said blocks to freely move radially when the ring is in its rearward position, and means to lock the ring in its forward position.

[Claims 6 to 9 not printed in the Gazette.]

1,071,922. SIGNAL MECHANISM. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed May 11, 1911. Serial No. 626,609. (Cl. 246—13.)

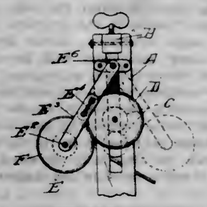
1. In a signal mechanism, a signal, a shaft upon which said signal is rigidly mounted, said shaft adapted for oscillation, a member rigid with said shaft, pins attached to said member at diametrically opposite points,

rods connected to said pins, extending from said member substantially parallel to each other, springs surrounding said rods, a rigid table through which both of said rods pass, one of said springs bearing against the side of said table remote from said member, a collar with a projecting shoulder pinned to one of said rods against which the other end of said last mentioned spring rests, a collar on the other rod in proximity to the side of said table remote from said member held by a pin and having a projecting shoulder, the other of said springs bearing against said collar at one end, a second rigid table through which said rods pass, a collar loosely surrounding said other rod and resting against said second table against which the other end of said other spring rests.



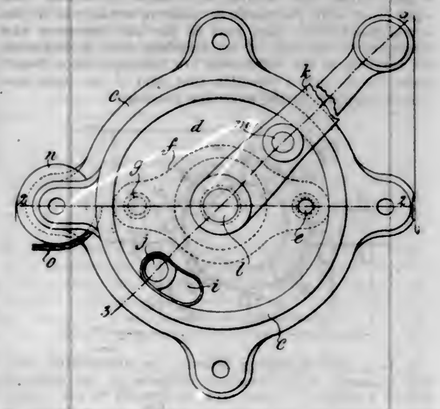
2. In a signal mechanism, a signal, a shaft upon which said signal is mounted, said shaft adapted for oscillation, a member rigid with said shaft, connecting means attached to said member on each side of the center of the shaft, rods connected to said connecting means, extending from said member substantially parallel to each other, springs surrounding said rods, a rigid table through which one of said rods passes, one of said springs bearing against the side of said table remote from said member, means attached to said rod against which the other end of said last mentioned spring rests, means attached to the other rod, the other of said springs bearing against said means, a second rigid table through which said rods pass, means loosely surrounding said other rod and resting against said second table against which the other end of said other spring rests.

1,071,923. WRINGER ATTACHMENT. FRANCIS T. JOHNSON, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,592. (Cl. 68—32.)



The combination with a wringer of hangers pivotally mounted thereon at a point above the wringer rolls, a guard and feed roll mounted in said hangers, a driving pulley on one of the wringer rolls and a driving pulley on the guard and feed roll, said pulleys being in frictional engagement one with the other, said guard roll and hangers being free to swing about the pivotal point from one side of the wringer to the other.

1,071,924. MEANS FOR TRANSMITTING ROTARY MOTION. ADRIAN DENMAN JONES, Holloway, London, England. Filed Dec. 7, 1912. Serial No. 735,479. (Cl. 74—13.)



1. In apparatus for transmitting rotary motion the combination of a member rotatably mounted in a frictional bearing, a second member rotatably mounted co-axial with the first, two crank pins 180° apart one on each member, a plate pivoted to the two pins, means for rotating one of the members and means for securing the two members together.

2. In apparatus for transmitting rotary motion the combination of a member rotatably mounted in a frictional bearing, a second member rotatably mounted co-axial with the first, two crank pins 180° apart one on each member, a plate pivoted to the two pins, means for rotating one of the members and a pin passing through a slot in one member and a hole in the other.

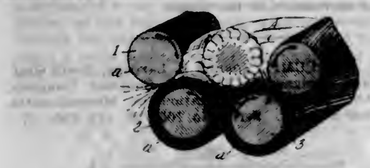
3. The combination with a rotatable member of a disk mounted in frictional bearings co-axial with the rotatable member, two crank pins 180° apart, one pin being on the rotatable member and the other on the disk, a plate pivoted to the two pins and means for actuating the rotatable member and disk.

4. The combination with a rotatable member of a disk mounted in frictional bearings co-axial with the rotatable member, two crank pins 180° apart, one pin being on the rotatable member and the other on the disk, a plate pivoted to the two pins and having in it a slot and a hole, and a driving handle having on it a pin adapted to engage the hole in the plate and also to pass through the slot in the plate and engage a hole in the rotatable member.

1,071,925. CORN-HUSKING MACHINE. ELGIN KEITH, Silver Creek, N. Y., assignor to Invincible Grain Cleaner Company, Silver Creek, N. Y. Filed Jan. 26, 1909. Serial No. 474,201. (Cl. 130—5.)

1. In a green corn husking machine, the combination of a plurality of pairs of rolls forming together a husking trough, each of said pairs consisting of an upper and a lower roll, the lower rolls of said pairs forming the bottom of said trough and the upper rolls forming portions of the side walls of said trough, and being spaced apart far enough to allow an ear of corn to swing obliquely between the same, and means for positively rotating said lower rolls upwardly and outwardly in opposite directions toward the upper rolls, and said upper rolls downwardly and inwardly toward the lower rolls, said lower rolls being provided with continuous substantially rigid green corn husking surfaces formed to move the ears of corn obliquely across the trough and against the upper rolls, and said upper rolls being provided with husk grasping surfaces formed to coöperate with the lower rolls both to grasp and

to feed the husks between the said pairs of upper and lower rolls.



2. In a green corn husking machine, the combination of a plurality of pairs of husking rolls forming together a husking trough, each of said pairs consisting of an upper and a lower roll, the lower rolls of said pairs forming the bottom of said trough and the upper rolls forming portions of the side walls of said trough and being spaced apart far enough to allow the ears of corn to swing obliquely between the same, and means for positively rotating said lower rolls upwardly and outwardly in opposite directions toward the upper rolls, and the upper rolls downwardly and inwardly toward the lower rolls, said lower rolls being provided with continuous substantially rigid green corn husking surfaces having shallow helical corrugations which wind on the rolls respectively in directions opposite to the directions of rotation of the rolls and move the ears of corn obliquely in the trough against the upper rolls and propel the ears lengthwise in the trough, and the upper rolls being provided with husk-grasping surfaces formed to coöperate with the lower rolls both to grasp and to feed the husks between said pairs of upper and lower rolls, the ears of corn being unconfined and free to shift and swing laterally in said trough between said upper rolls, substantially as set forth.

3. In a green corn husking machine the combination of two oppositely disposed pairs of husking rolls forming together a husking trough, the lower rolls of said pairs forming the bottom of said trough, and the upper rolls forming portions of the side walls of said trough, said upper rolls being of smaller diameter than said lower rolls and being spaced apart far enough to allow the ears of corn to swing obliquely between the same, and means for positively rotating said lower rolls upwardly and outwardly in opposite directions toward the upper rolls, and the upper rolls downwardly and inwardly toward the lower rolls, said lower rolls being provided with continuous substantially rigid green corn husking surfaces having shallow helical corrugations of relatively great pitch which wind on the rolls respectively in directions opposite to the directions of rotation of the rolls and move the ears of corn obliquely in the trough against the upper rolls and propel the ears lengthwise in the trough, and the upper rolls having metal surfaces with shallow corrugations which coöperate with the lower rolls both to grasp and to feed the husks between said pairs of upper and lower rolls, the ears of corn being unconfined and free to shift and swing laterally in said trough between said upper rolls, substantially as set forth.

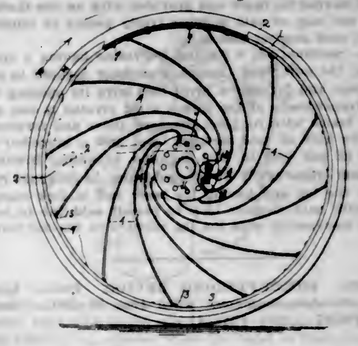
4. In a corn husking machine the combination of corn husking rolls and means for rotating said rolls in opposite directions, said rolls having helical surface corrugations which have a greater pitch on one roll than on the other, substantially as set forth.

5. In a corn husking machine, the combination of corn husking rolls, and means for rotating said rolls in opposite directions, said rolls being of different diameters and having helical surface corrugations, the corrugations on the smaller roll having a greater pitch than those on the larger roll, substantially as set forth.

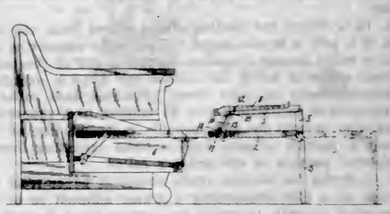
[Claim 6 not printed in the Gazette.]

1,071,926. SPRING VEHICLE-WHEEL. KARL A. KENDRICK, Detroit, Mich. Filed Aug. 21, 1911. Serial No. 645,062. (Cl. 152—50.)

A spring wheel comprising a rim, a ring having a raised central portion secured to the inner face of said rim, the raised portion of the ring having transverse slots at intervals therein and each slot having an upwardly extending marginal portion, flexible spokes whose outer terminals pass through said slots and engage said extending marginal portions, the inner ends of said spokes describing a scroll and being provided with transverse eyes, hub disks embracing the terminal eyes of the spokes, and bolts passing transversely through said disks and through said eyes.



1,071,927. LEG-BRACING MEANS FOR BED-FRAMES. ADOLPH C. KLOPPING, Toledo, Ohio, assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio, a Corporation of Ohio. Original application filed Oct. 14, 1912, Serial No. 725,620. Divided and this application filed Jan. 6, 1913. Serial No. 740,431. (Cl. 5—51.)



1. In combination, a bed-frame having side and cross-bars, a supporting leg pivoted to said bed-frame for folding movements relative thereto, and a brace member projecting from said leg in the direction of projection of the pivotal axis of the leg and having its outer end portion hinged to a cross-bar of the bed-frame to permit the leg and brace to have pivotal swinging movements together relative to the bed-frame in a direction which is transverse to the direction of projection of the brace from the leg, the axes of the leg and outer end of the brace being out of alinement.

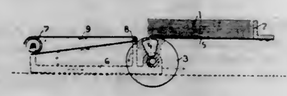
2. In combination, a bed-frame having a cross-piece at its outer end, a member fastened to said cross-piece and forming a pivot loop with its opening disposed transversely of the frame, a leg pivoted to one side of the bed-frame for swinging movements longitudinally of the frame with its swinging axis out of alinement with said pivot loop, and a brace-bar attached at one end to said leg and extending inwardly therefrom transversely to the bed-frame in diagonal relation to the leg and having its inner end in hinged connection with said loop member.

3. In combination, a folding bed-frame having a cross-piece at its outer end provided with an inwardly projecting flange, a member fastened to said flange and forming a pivot loop with its opening disposed transversely of

the frame, a supporting leg hingedly carried by the frame at one side of said member for folding movements against the frame longitudinally thereof, a brace-bar attached at one end to said leg and extending inwardly therefrom transversely of the bed-frame in diagonal relation to the leg and having its inner end provided with an eye through which the loop of said member freely passes to hingedly connect said member and bar.

4. In combination, a folding bed-frame having a cross-piece at the outer end thereof, a member secured to said cross-piece and forming a pivot loop with its opening disposed transversely of the frame, a leg pivoted to one side of said frame with its pivot disposed above and forwardly from the axis of said member loop, and a brace-bar attached at one end to said leg and extending inwardly therefrom transversely of the bed-frame in diagonal relation to the leg and having its inner end in link engagement with said member loop to permit said bar to have pivotal movements with the leg relative to the bed-frame.

1,071,928. SHEET-FEEDING DEVICE. EWALD KOERNER, Dresden, Germany. Filed June 15, 1912. Serial No. 703,871. (Cl. 101—41.)



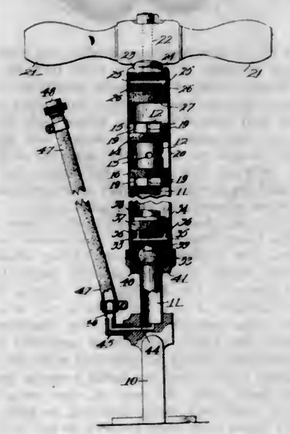
1. In a device for feeding single sheets from the bottom of a pile, a flexible band for normally supporting the pile, a delivery roller to which one end of said band is attached, a longitudinally movable frame in which said roller is journaled for oscillation, and an endless pack-supporting band also carried by and movable with and independently of the frame, a portion of said endless band extending over a peripheral portion of the delivery roller.

2. In a device for feeding single sheets from the bottom of a pile, a flexible band for normally supporting the pile, a roller having a suction mouth to one of the longitudinal edges of which one end of said band is attached, a longitudinally movable frame in which said roller is journaled for oscillation, and an endless pack-supporting band also carried by and movable independently of the frame, a portion of said endless band extending over a peripheral portion of the delivery roller.

3. A device for feeding single sheets of paper from the bottom of a pile, comprising a frame adapted to be reciprocated beneath the pile, an endless band carried by rollers mounted on said frame so as to support the pile in one position of the frame said endless band having traveling movement independent of the frame, a delivery roller also carried by the frame so as to roll against the pile when the frame is reciprocated, one of the said endless band carrying rollers being mounted above a peripheral portion of the delivery roller, a suction nozzle carried by said delivery roller so as to take away a sheet from the pile when the endless band is moved by the frame into supporting position, a band connected to the edge of the suction nozzle, so as to be wound on and off the delivery roller, and a rigid element holding the other end of said latter band so as to support the pile by means of this band when the endless band is out of contact therewith.

4. In a device for feeding single sheets from the bottom of a pack or pile, a flexible supporting band for normally supporting the pack or pile of sheets, a frame movable longitudinally beneath the pack or pile, a roller journaled in the frame and about which the said flexible band is moved during movement of the frame, a suction mouth movable with the frame for attracting and withdrawing the undermost sheet of the pack or pile, and a freely movable endless pack-supporting band carried by and movable with and independently of the frame, said endless band having its upper run located in substantially the plane of the first named band, and in advance thereof so as to constitute an additional support for the pack during the movements of the frame.

1,071,929. AIR-PUMP. JOSEPH E. LAFORCE, North Grafton, Mass., assignor to Alsten & Goulding Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 24, 1912. Serial No. 705,426. (Cl. 230—27.)



1. In an air pump, the combination of a stationary piston, a reciprocable cylinder fitting said piston, a hollow block secured to the end of the cylinder and having ports for the admission of air into the cylinder, means at the inner end of the block, whereby air can be admitted into the cylinder from said ports, but cannot be exhausted therefrom, and a stationary hollow piston rod connected with said piston and extending through the block.

2. In an air pump, the combination of a piston, a cylinder fitting said piston, a hollow plug screw-threaded into the end of the cylinder and having ports for the admission of air into the cylinder, means on the inner end of said plug whereby air can be admitted into the cylinder but cannot be exhausted therefrom, and a piston rod connected with said piston and extending through the plug.

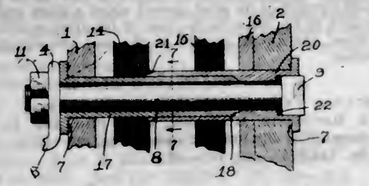
3. In an air pump, the combination of a piston, a cylinder fitting said piston, a hollow plug screw-threaded into the end of the cylinder and having ports for the admission of air into the cylinder, a flexible cup shaped check valve on the inner end of said plug, whereby air can be admitted past the check valve but cannot be exhausted therefrom, and a hollow piston rod extending through said plug, said plug being provided with a grease cup surrounding the piston rod.

4. In an air pump, the combination of a piston and piston rod with a cylinder therefor, said cylinder having a hollow plug in the end fitting the rod, said plug being provided with means for permitting the air to pass by it into the cylinder and having a hollow chamber surrounding the rod for receiving a lubricant, and a nut on the outside of the plug for closing the chamber.

1,071,930. ATTACHING MEANS FOR GRAB-IRONS. HENRY U. LA RUE, Chicago, Ill. Filed July 3, 1911. Serial No. 636,698. (Cl. 105—195.)

1. Attaching means for grab irons embracing a bolt of a length to extend through the inner and outer sheathing of a car and the eye of a grab iron, a washer applied on the bolt at its end and a flanged sleeve extended through the outer sheathing to receive said bolt and to afford a broad bearing therefor in said sheathing.

2. Attaching means for grab irons embracing a bolt of a length to extend through the inner and the outer sheathing of a car, and the eye of a grab iron, a washer applied on the bolt at its end, a flanged sleeve inserted through the outer sheathing to receive said bolt and to afford a broad bearing in said sheathing, and a washer on said bolt and against which the grab iron bears.



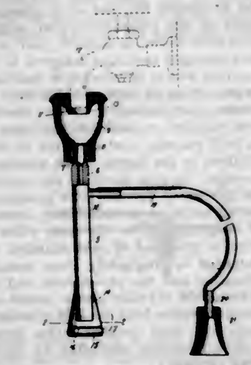
3. In a device of the class described, sleeves inserted through the inner and outer sheathing of a car, a bolt extending therethrough, washers on the bolt bearing against the sleeves, a grab iron, and a nut engaging the same in place.

4. In a device of the class described sleeves inserted through the inner and outer sheathing of a car, washers at the ends of said sleeves, a grab iron, a bolt extending through said sleeves and washers and through the eye of said grab irons and a nut engaging the grab iron in place.

5. In a device of the class described sleeve sections inserted through the inner and outer sheathing of a car, integral flanges secured at the ends of each sleeve, gripping tongues on said flanges, a grab iron, and a bolt extending through said sleeves, flanges and grab iron eye to secure the same to the car.

[Claims 6 to 12 not printed in the Gazette.]

1,071,931. VACUUM-MASSAGE. WILLIAM J. LONG, St. Louis, Mo. Filed Nov. 21, 1911. Serial No. 661,543. (Cl. 230—13.)



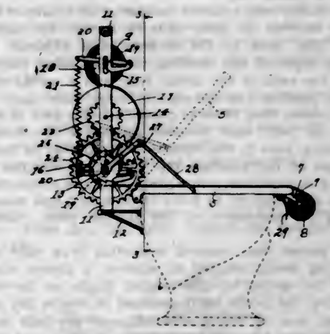
In a suction device, the combination with a suction tube having a jet nozzle at one end, of an air inlet in communication with the suction tube contiguous to the jet nozzle, an open ended head member attached to said suction tube in position to surround its opposite end, the outer edge of the head being bent to form a flange which partially closes said open end, a plate mounted interiorly of said head, intermediate the outer end thereof and the outer end of the suction tube in alinement therewith, said plate being provided with oppositely disposed discharge openings.

1,071,932. TROUSERS. JOHN A. LUDWIG and JACOB B. MOSES, Dallas, Tex. Filed Sept. 3, 1910. Serial No. 580,282. (Cl. 2—142.)

A pair of trousers having a waist band constituting an integral continuation of and of the same thickness as the body of the garment and provided with a crease to permit the band to be folded inwardly, lining sections secured to the inner portion of the trousers and to which the waist band is temporarily attached and from which it may readily be disconnected and turned outward to convert the garment from a low to a high-waist article, said waist band and lining each being provided with an opening adapted to register when the band is folded inwardly to receive a fastener, and suspender-engaging means secured to the band.



1,071,933. SANITARY CLOSET-SEAT COVER. HANS LUTHI, Kenosha, Wis. Filed Mar. 28, 1913. Serial No. 757,319. (Cl. 4—18.)



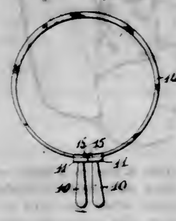
1. In combination, a closet seat; a frame mounted adjacent said closet seat and having slots therein; a shaft journaled through the central portion of said frame; a feed roller carried by said shaft; a second shaft rotatively mounted in slots in said frame; a second feed roller loosely mounted on said second shaft; meshing gears on said first and second shafts; a ratchet and pawl gearing on said second shaft and operatively connected with said closet seat; a third shaft rotatively mounted in slots in said frame; a web take-up roller on said third roller; and spring actuated levers engaging said second and third shafts binding said second feed roller and said take-up roller against said first feed roller, substantially as described.

2. In combination, a closet seat; a frame mounted adjacent said closet seat; two parallel shafts mounted in said frame; a feed roller rigidly secured on one of said shafts; a second feed roller loosely mounted on said other shaft and adapted to coöperate with said first feed roller; meshing gears on said shafts; a ratchet-and-pawl gearing on one of said shafts; and a connecting link connecting said ratchet-and-pawl gearing with said closet seat, substantially as described.

3. In combination, a closet seat; a frame supported adjacent said closet seat; two parallel shafts mounted in said frame; a feed roller rigidly secured on one of said shafts; a second feed roller loosely mounted on said other

shaft, resiliently maintained against said first feed roller and adapted to coöperate therewith; meshing gears on said shafts; a ratchet-and-pawl gearing on one of said shafts; a connecting link connecting said ratchet-and-pawl gearing with said closet seat; and a take-up roller in said frame and resiliently held against one of said feed rollers, substantially as described.

1,071,934. PISTON-RING REMOVER. WILLIAM C. MACKINNON, Newark, N. J. Filed Jan. 7, 1913. Serial No. 740,576. (Cl. 29—84.)



1. A piston ring remover comprising a pair of handles, the handles having recesses in one end so as to embrace the two ends of a piston ring, and projections in the recesses, the projection on each handle being adjacent to the edge opposite the other handle, whereby the projections and the sides of the recesses are adapted to engage the ends of a piston ring.

2. A piston ring remover consisting of a pair of handles having recesses on their ends to receive the ends of a piston ring, pins in the recesses and adjacent to the meeting edges of the handles, the pins being adapted to engage the ends of the piston ring, and a spring connecting the handles and adapted to force them apart.

3. A piston ring remover consisting of a pair of handles having on their ends recesses to receive the ends of a piston ring, pins in the recesses and adjacent to the meeting edges of the handles, the pins being adapted to engage the ends of the piston ring, a spring connecting the handles and adapted to force them apart, and means for limiting the movement of the handles away from each other.

4. A piston ring remover consisting of a split spring, the spring being adapted to encircle a piston ring, the ends of the spring being separable, blocks on the ends of the spring, the blocks being recessed to receive the ends of the ring, pins in the blocks adjacent to their meeting edges, the pins being situated in the recesses, and handles for drawing the ends of the spring together.

5. A piston ring remover consisting of a split spring, the spring being adapted to encircle a piston ring, the ends of the spring being separable, blocks on the ends of the spring, the blocks being recessed to receive the ends of the ring, pins in the blocks adjacent to their meeting edges, the pins being situated in the recesses, handles for drawing the ends of the spring together, and means for limiting the movement of the handles from each other.

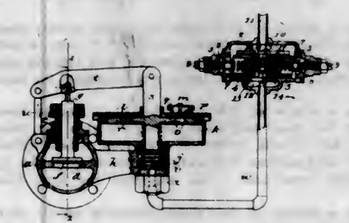
1,071,935. HAY-RACK-REMOVING APPLIANCE. EARL MARTIN, Charles City, Iowa. Filed July 18, 1912. Serial No. 710,183. (Cl. 57—79.)



1. An apparatus of the character described comprising a pair of posts mounted upon opposite sides of the driveway, a supporting beam pivoted intermediate its ends upon each post and extending parallel with the driveway, a drum mounted on each post and a cable secured to each beam forward of its pivot, wound about its drum and again secured to the beam to the rear of its pivot.

2. An apparatus of the character described comprising a pair of posts mounted upon opposite sides of the driveway, a supporting beam pivoted intermediate its ends upon each post and extending parallel with the driveway, a drum mounted on its post and a cable secured to each beam forward of its pivot, wound about a drum and again secured to the beam to the rear of its pivot, a ratchet on a drum, and a pawl pivoted on the post and engaging the ratchet.

1,071,936. AUTOMATIC VACUUM-GOVERNOR. FRANK J. MATCHETTE, Milwaukee, Wis. Filed Dec. 18, 1908, Serial No. 468,109. Renewed Jan. 22, 1913. Serial No. 743,655. (Cl. 103—87.)



1. In an automatic vacuum governor the combination of a valve adapted to control the flow of a pressure medium and to be opened by the direct pressure of such medium, a vacuum chamber having a movable part, a lever connected with said movable part and adapted to close said valve against the pressure of said medium when a certain degree of vacuum is produced in said chamber, and means adapted to automatically establish and close communication between said chamber and a source of vacuum according to variations in the degree of vacuum.

2. In an automatic vacuum governor the combination of a valve adapted to control the flow of a pressure medium and to be opened by the pressure of said medium thereon, a vacuum chamber having a movable part, a lever connected with said movable part and adapted to close said valve when a certain degree of vacuum is produced in said chamber, a spring acting on said movable part in opposition to the vacuum and tending to release the valve, and automatic means adapted to establish and close communication between said chamber and a source of vacuum according to variations in the degree of the vacuum.

3. In an automatic vacuum governor the combination of a valve adapted to control the flow of a pressure medium, a vacuum chamber having a movable part connected with said valve and adapted to close the same when a certain degree of vacuum is produced in said chamber, and automatic means adapted to alternately close communication between said chamber and the atmosphere and open communication between said chamber and a source of vacuum and to close communication between said chamber and the source of vacuum and open communication between said chamber and the atmosphere according to variations in the degree of the vacuum.

4. In an automatic vacuum governor the combination of a valve case having a bracket on one side and a stuffing box, a valve seated in said case to open with the pressure of the medium which it controls and having a stem projecting through said stuffing box, a vacuum chamber mounted on said bracket and having a movable part, a lever connected with said movable part and by a link with said case and adapted to engage with the valve stem and to close the valve against the pressure of the medium which it controls when a certain degree of vacuum is produced in said chamber, and automatic means adapted to open and close communication between said chamber and a source of vacuum.

5. In an automatic vacuum governor the combination of a valve case provided with a bracket projecting therefrom and formed with an opening, a valve seated in said case to close against the pressure which it controls and having a stem projecting through one side of the case, a vacuum chamber formed with a tubular stem which is fitted and secured in the opening in said bracket, a piston fitted in said chamber, a lever pivotally connected with the valve case and with said piston and engaging with the stem of the valve, and auxiliary valve mechanism connected with said tubular stem and adapted to automatically establish communication between said chamber and a source of vacuum or the atmosphere according to variations in the degree of vacuum.

[Claim 6 not printed in the Gazette.]

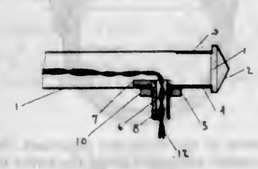
1,071,937. PROCESS FOR SURFACE-HARDENING METAL. JOHN H. MCCORMICK, Columbus, Ohio. Filed May 23, 1910. Serial No. 562,799. (Cl. 148—37.)

1. A process for surface hardening iron and steel containing a necessary per cent. of carbon, consisting first, in subjecting the surface to be hardened to the heat from the flame of gas or combined gases at a temperature of over 4000 degrees Fahrenheit, second, discontinuing the application of the heat to the metal surface before the body of metal is heated beyond the depth of metal to be hardened, and third, quickly subjecting said heated surface to a chilling process.

2. A process for surface hardening metal containing the necessary hardening ingredients consisting, first, in subjecting the surface metal to be hardened to the action of a heat sufficiently intense to rapidly bring the surface metal to a hardening temperature before the sub-surface metal has been so affected; second, discontinuing the application of heat and subjecting the heated surface metal to a rapid chilling process while at the hardening temperature.

3. A process for surface hardening metal containing the necessary hardening ingredients consisting, first, in subjecting the surface metal to be hardened to a flame of iron melting intensity, second, discontinuing the heating process as soon as the surface metal has reached the hardening temperature and before the sub-surface metal has been so affected and applying a rapid chilling process to the surface metal while at the hardening temperature.

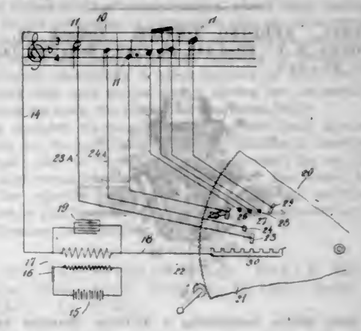
1,071,938. LIGHTING-FIXTURE. HERBERT M. MCKECHNIE, Toledo, Ohio. Filed Dec. 3, 1912. Serial No. 734,675. (Cl. 240—78.)



1. A hollow fixture arm having an open end, a closure for said open end, said closure provided with an extension overlapping a portion of said arm, said closure and arm having registering openings, a bolt provided with a head and a threaded portion remote from said head, said bolt disposed in said openings with its head abutting one side of the overlapping portions, and a nut engaging the threaded portion of the bolt protruding through the openings on the opposite side of the overlapping portions from the bolt head, to firmly lock the overlapping portions in mutually reinforcing relation.

2. An open ended fixture arm, a closure therefor entering said arm, said closure and arm having registering openings, and a bolt having a head of a configuration relatively to said openings to permit insertion of said bolt head through said openings to engage the closure and protrude through the openings, and a nut on the bolt outside of the arm to lock the closure and arm in mutually reinforcing position.

1,071,939. APPARATUS FOR SCENIC AND MUSICAL EFFECTS. ALDEN L. MCMURTRY, Sound Beach, Conn. Filed May 6, 1911. Serial No. 625,445. (Cl. 46—70.)



1. The combination with a scenic representation of a musical note, of means for causing electric sparks to jump across the face of said note.

2. The combination with a scenic representation of a plurality of musical notes, of means for causing electric sparks to jump across the face of said notes successively.

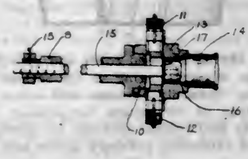
3. The combination with a scenic representation of a musical note, of means for causing electric sparks to jump across the face of said note at such frequencies as to produce a sound at the pitch of said note.

4. The combination with a scenic representation of a plurality of musical notes, of means for causing electric sparks to jump across the faces of the notes at such frequencies as to produce sounds at the respective pitches of said notes.

5. The combination with a scenic representation of a musical note, of a pair of electrodes for said note, a battery, an induction coil, electrical connections, and a circuit controller in said connections.

[Claims 6 and 7 not printed in the Gazette.]

1,071,940. CHUCK. ROBERT A. MERRILL, Cincinnati, Ohio. Filed Jan. 26, 1910. Serial No. 540,107. (Cl. 29—133.)



1. A chuck for holding pipe, consisting of a head provided with a central opening, an adjustable gage bar projecting into the opening, a stop-piece mounted on the gage bar and having a center stop for projecting into the pipe and a collar for engaging the end of the pipe, and jaws mounted on the head and coöperating with said stop-piece in locking a pipe in place.

2. A chuck for holding a pipe to be operated upon, consisting of a head provided with a central opening, a longitudinally shiftable gage bar projecting into said opening, a stop-piece removably mounted on the bar and having a center stop for pipe and a collar at the inner end of the center stop for engaging the end of the pipe, and jaws mounted on the head and coöperating with the stop-piece in locking a pipe in place.

3. A chuck for holding a pipe, consisting of a head provided with a central opening, a graduated gage bar reciprocally mounted on the head and capable of moving longitudinally through the opening in the head, a stop-piece removably secured to the gage bar and having a pipe center stop and a collar at the inner end of the center stop, jaws mounted on the head for coöperating

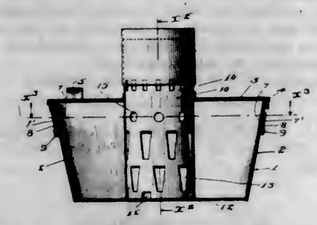
with the stop-piece to hold the pipe in place, and means for locking the gage bar in position to hold the stop-piece in place.

1,071,941. FEEDING DEVICE. GEORGE W. MIX, Batavia, N. Y. Filed Jan. 29, 1913. Serial No. 744,922. (Cl. 83—44.)



A feed device comprising a delivery chamber having two side walls, a bottom, and an outer end wall projecting above the bottom and separated by an intervening slot, a feed plunger reciprocating vertically in said slot and having an upper lifting plate, an inner cut-off plate depending from the inner edge of the lifting plate, and guide flanges arranged on the outer side of the cut-off plate and underside of the lifting plate and engaging with the inner side of said end wall, and guide flanges arranaged on said side walls and engaging with the inner side of said cut-off plate.

1,071,942. SMOKELESS ORCHARD-HEATER. SUEKICHI MOCHIDA, Upland, Cal. Filed Apr. 9, 1913. Serial No. 760,039. (Cl. 158—91.)



1. A tank having a closed cover and provided with air inlet openings, a stack resting on the bottom of the tank and extending upwardly through said cover, said stack having openings at its bottom for passage of fuel and openings above said bottom openings for passage of vapor, and deflectors extending inwardly above said last named openings.

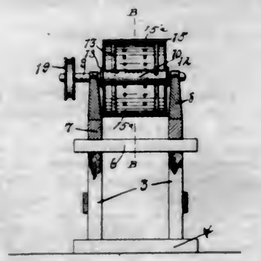
2. A tank having a closed cover and provided with air inlet openings, a stack resting on the bottom of the tank and extending upwardly through said cover, said stack having openings at its bottom for passage of fuel, and openings above said bottom openings for passage of vapor, deflectors extending inwardly above said last named openings, said stack being provided with perforations above the level of said cover and a regulating sleeve surrounding said stack and frictionally engaging the same to regulably close said perforations.

1,071,943. DRIER FOR PHOTOGRAPHIC PLATES. CHARLES M. MOGNI, New York, N. Y. Filed Apr. 27, 1910. Serial No. 557,853. (Cl. 127—3.)

1. A drier for photographic plates comprising a frame, an axle journaled thereon, means to rotate said axle, racks extending radially from said axle, a casing mounted to rotate with said axle and to inclose said racks, said casing comprising a plurality of sections hinged to each other, and means to fasten said sections together.

2. A drier for photographic plates, comprising a frame, an axle journaled thereon, means to rotate said axle, a perforated casing mounted on said axle to rotate therewith, and article support means interior of said casing.

3. A drier comprising a frame, an axle journaled thereon, means to rotate said axle, a casing comprising a plurality of sections, means to removably mount said casing on said axle, and article support means interior of said casing.

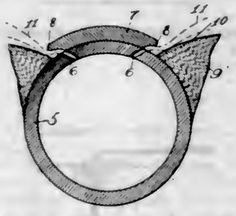


4. A drier comprising a frame, an axle journaled thereon, a casing mounted on said axle, said casing comprising a plurality of sections hinged to each other, means to position said casing on said axle, and article support means mounted on said axle and located interior of said casing.

5. A drier for photographic plates comprising a frame, an axle journaled thereon, a casing mounted on said axle to rotate therewith, rods extending downwardly from said axle, said rods having grooves therein providing means for retaining the plates, and means to rotate said axle.

[Claims 6 to 8 not printed in the Gazette.]

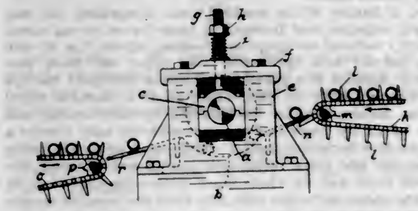
1,071,944. STREET-SPRINKLING APPARATUS. PEDER T. MOLLER, San Diego, Cal. Filed Mar. 4, 1912. Serial No. 681,433. (Cl. 137—65.)



1. In a device of the character described, the combination with a conduit extending along the street to be flushed and substantially centrally thereof, the upper face of said conduit being exposed at the surface of the street, oppositely directed discharge apertures formed in said conduit for the purpose of flushing the surface of said street, a cap overlying each pair of oppositely directed discharge apertures, said cap having downwardly curved terminal edges, and the surface of the street adjacent said discharge apertures being downwardly curved to a point on the conduit spaced from said apertures and presenting convex surfaces to said downwardly curved terminal edges of the cap.

2. In a device of the character described, the combination with a conduit extending along the street to be flushed and substantially centrally thereof, the upper face of said conduit being exposed at the surface of the street, oppositely directed discharge apertures formed in said conduit for the purpose of flushing the surface of said street, a cap overlying each pair of oppositely directed discharge apertures, said cap having downwardly curved terminal edges, and the surface of the street adjacent said discharge apertures being downwardly curved to a point on the conduit adjacent said apertures and presenting convex surfaces to said downwardly curved terminal edges of the cap.

1,071,945. PIPE-STRAIGHTENER. WESLEY J. MOON, Economy, Pa. Filed July 16, 1912. Serial No. 709,634. (Cl. 153—32.)

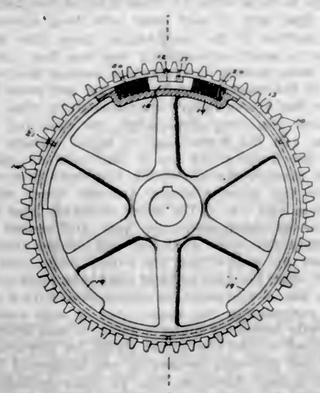


1. In a pipe straightener, the combination with a horizontally arranged roll and means to rotate the same, of bearings in which the roll rotates, means for spraying water upon the roll, a concave roll bed, arranged beneath the roll, having perforations through which the water and scale are discharged, and pedestals in which the bearings are freely movable vertically so as to permit the pipes to pass between the roll and bed under the yielding pressure of the roll.

2. In a pipe straightener, the combination with a roll, of bearings in which the roll shaft rotates, pedestals in which said bearings are vertically movable, caps secured to the pedestals, hangers extending upward through the caps, nuts threaded on the hangers, springs confined between the caps and the nuts, and a concave roll bed arranged beneath the roll.

3. In a pipe straightener, the combination with a roll, of bearings in which the roll shaft rotates, pedestals in which said bearings are vertically movable, caps secured to the pedestals, hangers extending upward through the caps, nuts threaded on the hangers, springs confined between the caps and the nuts, means for spraying water upon the roll, a concave roll bed, arranged beneath the roll, having perforations through which the water and scale are discharged, means to convey pipes to the space between the roll and bed, and means to receive and convey away the pipes discharged from between the roll and bed.

1,071,946. SPROCKET-WHEEL. FRANK L. MORSE, Trumansburg, N. Y., assignor to Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Aug. 17, 1906. Serial No. 331,021. (Cl. 74—28.)

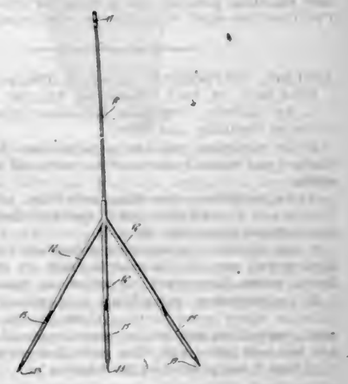


1. A sprocket wheel comprising a wheel body having a recessed periphery, a removable rim of a rigid circular form carrying sprocket teeth and having lugs projecting into said recess, and wedge means for fastening the lugs therein.

2. A sprocket wheel comprising a wheel body having a recess in its periphery, a removable rim of rigid circular form carrying sprocket teeth and mounted on the periphery of the wheel body with the capacity of relative circumferential movement, a block secured to said rim and extending into said recess, and a spring for transmitting the stress between the block and the wheel body.

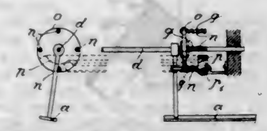
3. A sprocket wheel comprising a wheel body having a chamber in its periphery, a spring contained therein, a removable rim of rigid circular form carrying sprocket teeth and mounted on the periphery of the wheel body with the capacity of relative circumferential movement, and means rigidly secured to said rim and extending into said chamber for engaging said spring.

1,071,947. HAY OR STRAW SPEAR. EMMA B. NELSON, Vernon Center, Minn. Filed May 28, 1913. Serial No. 770,548. (Cl. 57—41.)



A hay spear, comprising a shank, a plurality of diverging arms mounted on one end of the shank, said arms being arranged in the same plane, arrow heads formed on the outer ends of the said arms, each of said arrow heads including rearwardly diverging members having inwardly directed barbed portions, all of the angles of said arrow heads being sharpened.

1,071,948. SIGNALING DEVICE. GRAF OSKAR BOPP VON OBERSTADT, Chicago, Ill. Filed Feb. 6, 1912. Serial No. 675,711. (Cl. 116—31.)



1. A signaling device embodying therein a normally inoperative signaling member, normally inoperative means adapted to actuate said signaling member, means for actuating said actuating means, and means for rendering said first named actuating means temporarily operative to move said signaling member into signaling position when said second named actuating means is in operation.

2. A signaling device embodying therein a normally inoperative signaling arm, a series of pins for moving said arm into signaling position, means whereby said pins are retained out of operative relation to said signaling arm, means whereby said pins are successively set to actuate said arm, and means whereby said pins are moved to place said arm into signaling position.

3. A signaling device embodying therein a signaling arm normally in inoperative position, a disk carrying a series of pins adapted successively to coöperate in moving said arm into signaling position, means for normally holding said pins in inoperative position, means for revolving said disk, and means in the path of said pins for rendering the same operative successively to move said arm into signaling position.

4. A signaling device embodying therein a signaling arm normally in inoperative position, a revolubly mounted disk having a series of pins slidably mounted therein, springs for normally retaining said pins in inoperative position, means for revolving said disk, and a guide whereby said pins are successively moved into operative position to move said signaling arm into signaling position.

5. A signaling device embodying therein a pair of oppositely disposed parallel shafts, a disk fixed on one shaft, said disk having a series of pins slidable therein, a signaling arm normally in inoperative position, springs for holding said pins in inoperative position, a guide adjacent said disk and having a surface thereon adapted to successively move said pins into position whereby said arm is moved into signaling position, and gearing for transmitting motion from one shaft to another to revolve said disk.

1,071,949. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Sept. 16, 1912. Serial No. 720,458. (Cl. 52—1.)

1. An explosive, comprising potassium chlorate, asphalt, crude oil distillate, and silica.

2. An explosive, comprising potassium chlorate, naphthalene and asphalt dissolved in crude oil distillate, and silica.

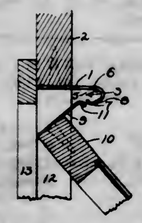
3. An explosive, comprising potassium chlorate, naphthalene and asphalt dissolved in crude oil distillate, carbon in powdered form, and silica.

4. An explosive, comprising potassium chlorate, naphthalene and asphalt dissolved in crude oil distillate, powdered carbon, ferro-cyanid of potassium, and silica.

5. An explosive, comprising approximately potassium chlorate eighty seven parts, naphthalene six and one half parts, asphalt six and one half parts, crude oil distillate one and one half parts, and silica forty four parts.

[Claim 6 not printed in the Gazette.]

1,071,950. HANGER FOR STORM-WINDOWS AND THE LIKE. ARTHUR J. PADDACK, Omaha, Nebr. Filed Nov. 4, 1912. Serial No. 729,216. (Cl. 16—48.)



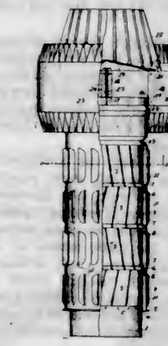
1. A hanger of the specified class, comprising a pair of mutually engaging and disengaging hinge leaves having reflexed marginal interlocking curved lips pivotally oscillable about a movable axial line common to both leaves and slidable one within the other in different directions at right angles with the axial line.

2. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly reflexed marginal interlocking curved transverse lips slidable one within the other in different directions and pivotally turning on each other about a movable transverse axial line common to both leaves.

3. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly and inwardly reflexed marginal interlocking curved lips in sliding contact with each other; the lips turning pivotally on each other about a movable transverse axial line common to both leaves; and the lip of the upper leaf forming therewith a pocket which extends across the leaf, opens backward under the leaf, and has an obliquely disposed front wall on whose inner surface the contained lip of the subjacent and sash-carrying leaf may slide upward as the leaves are closed together, and downward as they are opened apart.

4. A hanger of the specified class, comprising two mutually engaging and disengaging hinge leaves having downwardly reflexed marginal interlocking curved lips in sliding contact with each other; the upper leaf being normally fastened in a generally horizontal position; the lips turning pivotally on each other about a movable transverse horizontal axial line common to both leaves; and the lip of the upper leaf forming with the body thereof a transverse horizontal pocket which opens backward under that leaf and has a reëntrantly curved and obliquely disposed front wall on whose inner surface the contained lip of the under leaf slides obliquely when the opposite margin of that leaf is raised or lowered in a vertical plane.

1,071,951. CHIMNEY, VENTILATOR, AND THE LIKE. THOMAS PATTISON, Sunnyvale, Cal. Filed Oct. 14, 1912. Serial No. 725,640. (Cl. 98—4.)

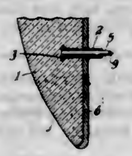


1. In a flue or ventilator, the combination of an outer tube, and a vertical series of inner tubes, each inner tube being secured near its lower edge to the outer tube, and extending inwardly and then upwardly above said lower edge to form with the outer tube an annular chamber, the upper edge of said inner tube being spaced from a lower portion of the next higher inner tube to form a passage to admit external air into the flue, the outer chamber being formed with openings leading to the lower portions of the spaces between the inner and outer tube.

2. In a flue or ventilator, the combination with a tube of an outer protector, surrounding the tube and spaced therefrom, and the lower edge of which extends a considerable depth below the top of said tube, an upwardly conveying inner protector within the outer protector of which the top projects above, and the lower edge extends below, the top of the outer protector, and an upwardly convex cover above the tube and spaced therefrom, within the inner protector, but spaced therefrom, and means for supporting the cover, inner, and outer protectors upon the tube in their above-described position.

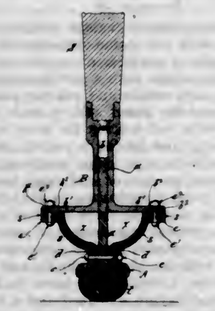
3. In a flue or ventilator, in combination with a tube, a cylinder surrounding the upper edge of said tube, vertical radially extending plates secured to said cylinder, a cover secured to and above said plates, an upwardly converging inner protector secured to and supported by said cover and spaced therefrom, and an outer protector surrounding the inner protector and spaced therefrom, and secured to the outer portion of said plates.

1,071,952. ARTIFICIAL TOOTH. LEO PERZIN, Philadelphia, Pa. Filed Oct. 19, 1912. Serial No. 726,686. (Cl. 32—9.)



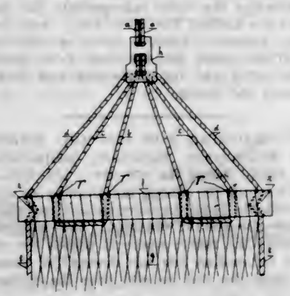
In a device of the character stated, a tooth body, a tubular pin therein, projecting beyond the surface of the tooth and a pointed temporary plug for said pin, having its point projecting beyond the pin.

1,071,953. WHEEL-TIRE. ALPHONSE A. PICARD, New York, N. Y. Filed Aug. 12, 1912. Serial No. 714,498. (Cl. 152—36.)



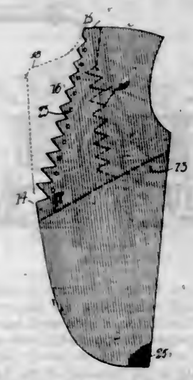
In a tire of the character stated, a base rim with lateral flanges and an annular groove, an auxiliary floating annular rim having a central flange slidable in said groove, truss struts of elastic material interposed between the said rims and having flanges disposed at right angles to each other, means passed through flanges of the struts for securing said struts to the said flange of the floating rim, and means passed through flanges of the struts for securing the struts to the flanges of the base rim, with means to prevent lateral creeping of the struts.

1,071,954. HAMMOCK. MATTI PIETILÄINEN, Helsingfors, Finland, Russia. Filed May 1, 1912. Serial No. 694,445. (Cl. 5—10.)



A hammock comprising in combination with a net and two cross-pieces adapted to hold the ends of the net extended and provided with apertures, two tension-pieces, one located at each end and provided with holes, and a single rope passed successively through the holes in said tension-pieces and the apertures in said cross-pieces, so as to extend around the entire hammock forming two marginal cords, tension cords and suspension cords, permitting the relative adjustment of the said cross-pieces and tension-pieces.

1,071,955. GARMENT. FRANK M. PRESTWICH, New York, N. Y. Filed May 16, 1912. Serial No. 697,612. (Cl. 2—63.)



1. In a coat shape retainer, the combination of a stiffening extending from the arm hole to the front edge, a second stiffening extending from the armhole to the neighborhood of the lapel turn, said second stiffening having its edge adjacent the lapel turn serrated.

2. In a coat shape retainer, the combination with a canvas extending from the arm hole of the coat forward and terminating in the neighborhood of the turn of the lapel of the coat, said canvas covering the whole front of the coat except the lapel, of a stiffening more resilient than said canvas covering the lapel.

3. In a coat shape retainer, the combination with a canvas extending from the arm hole of the coat forward and terminating in the neighborhood of the turn of the lapel of the coat, said canvas covering the whole front of the coat except the lapel, of another stiffening more resilient than said canvas extending from the arm hole across the entire upper part of the coat front so that it covers the lapel.

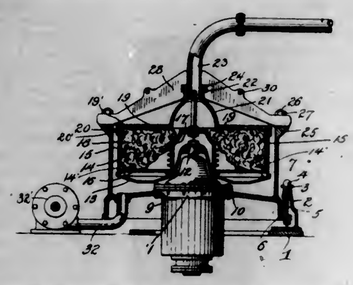
4. In a coat shape retainer, the combination with a canvas extending from the arm hole of the coat forward and terminating in the neighborhood of the turn of the lapel of the coat, said canvas covering the whole front of the coat except the lapel, of a hair cloth stiffening extending from said arm hole part way across said canvas toward said lapel turn, and another stiffening more resilient than said canvas extending forward from said hair cloth so as to cover the lapel.

5. In a coat shape retainer, the combination with a canvas extending from the arm hole of the coat forward and terminating in the neighborhood of the turn of the lapel of the coat, said canvas covering the whole front of the coat except the lapel, of a heavy hair cloth stiffening extending from said arm hole part way to the lapel turn, and a lighter hair cloth more resilient than said canvas extending forward from said heavy hair cloth so as to cover the lapel.

1,071,956. CENTRIFUGAL DRIER. JOHN T. PSARSKI, Cleveland, Ohio. Filed July 27, 1910. Serial No. 574,075. (Cl. 129—3.)

1. In a drier, a receptacle for the material having an air discharge and an air inlet, means for rotating such receptacle to cause the material to be compacted against the discharge, means for supplying a drying medium to the interior of the mass of material, an outer casing enveloping the receptacle, and means for creating a partial vacuum within the outer casing.

2. In a centrifugal drier, a casing, a motor, a basket for the material and comprising top and bottom members and an intervening side wall having main discharge openings adjacent the junction of the side wall and one of said top and bottom members only, and means for supplying hot air to the material at a point opposed to the discharge.



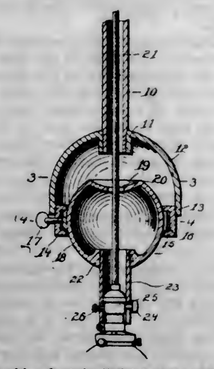
3. In a centrifugal drier, a casing, a motor, a basket for the material and comprising an imperforate bottom member driven by the motor, a side wall having main discharge openings adjacent its upper edge, and a cover having discharge openings adjacent its periphery only, and means for supplying hot air to the interior of the basket.

4. In a centrifugal drier, a casing, a motor, a basket for the material to be dried comprising an imperforate bottom member driven by the motor, a side wall having main discharge openings adjacent its upper edge, a cover having discharge openings adjacent its periphery only, a dome at the center of said cover, a hot air delivery pipe entering said dome, a cover for said casing, and means for exhausting the air from said casing.

5. In a centrifugal drier, a casing, a motor carried by said casing and having a vertically disposed driving shaft, a basket mounted upon said shaft and comprising an imperforate bottom and a perforated side wall, a cover for said basket having a centrally located dome provided with a connection including a stuffing box, a hot-air pipe entering said connection and passing through said stuffing box, a two-piece cover for said casing, means for securing the cover upon the casing, means for securing the parts of the cover together, and means for exhausting the air from said casing.

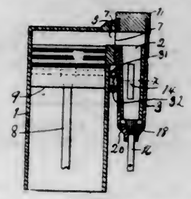
[Claims 6 to 8 not printed in the Gazette.]

1,071,957. ELECTRIC-LIGHT ADJUSTER. JUSTIN L. RAWSON, New Bedford, Mass. Filed Oct. 2, 1912. Serial No. 723,607. (Cl. 248—8.)



In an adjustable electric light bracket, a standard member, a channeled ring removably engaged in a stationary member, a resilient band mounted in the channel of the said ring, a ball mounted for rotation within the band and ring, means on the ring for forcing the band outwardly into engagement with the ball, and means carried by the ball for holding an electric light socket.

1,071,958. VALVE FOR EXPLOSIVE-ENGINES. ALBERT J. RAY, Fort Worth, Tex., assignor of one-third to A. J. Beneke and one-third to D. Wells, Fort Worth, Tex. Filed Dec. 20, 1910. Serial No. 598,463. (Cl. 123—190.)



1. A valve for explosive engines comprising a casing in communication with the engine cylinder and having intake and exhaust ports, a chambered conical valve rotating in said casing and provided with a port intermediate the ends thereof passing said intake and exhaust ports, said valve being spaced from the upper end of said casing, a stem engaging said valve and spacing the same above the lower end of said casing and having a conical seating portion, and a seat formed in said casing conforming to the contour of the seating portion of said stem, the spaces above and below said valve constituting in part the combustion chamber whereby explosive force is exerted on the ends of said valve to prevent end thrusts of said valve.

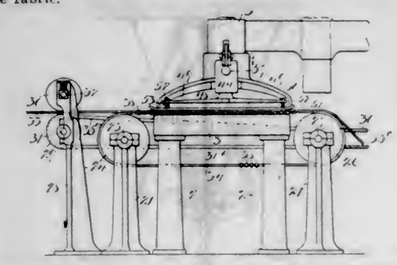
2. A valve for explosive engines comprising a casing in communication with the engine cylinder and having intake and exhaust ports, a valve stem hung in the lower end of said casing and having a T-head and a conical seating portion, a seat in the lower end of said casing conforming to the contour of said seating portion, and a chambered conical valve rotating in said casing and provided with a port passing said intake and exhaust ports and resting by gravity on said T-head, the lower edge of said valve having recesses therein to receive said T-head, whereby said valve is spaced from the lower end of said casing, and means for sparking said valve.

3. In a valve for explosive engines, a casing in communication with the engine cylinder and having intake and exhaust ports, a chambered valve open at both ends and constituting in part the combustion chamber and provided with a port adapted to pass said intake and exhaust ports, means for sparking the explosive mixture within said valve, and a stem provided with means for suspending and rotating the valve intermediate the ends of the casing and for holding the valve away from the ends of the casing whereby explosive force is exerted between the ends of the casing and the ends of the valve for balancing the valve and for preventing end thrust of the valve against the casing.

1,071,959. MACHINE FOR CUTTING EMBROIDERY. MORRIS SCHOENFELD, Rorschach, Switzerland. Filed Feb. 2, 1912. Serial No. 675,018. (Cl. 164—61.)

1. In a machine for cutting fabric along an embroidered edge, a revoluble knife arranged to cut the fabric, a bed plate, means for feeding the fabric and frictional means for smoothing the fabric where it passes the said knife, comprising an endless belt and means for operating the same to cause the belt to slip over the surface of the fabric.

2. In a machine for cutting fabric along an embroidered edge, a revoluble knife arranged to cut the fabric, means for feeding the fabric and frictional means for smoothing the fabric where it passes said knife, comprising cooperating means operating on opposite surfaces of the fabric to press the latter between them, one of said means being unmovable in the direction of travel of the fabric and the other consisting of an endless belt, and means for operating the belt to cause it to slip on the surface of the fabric.



3. In a machine for cutting fabric along an embroidered edge, a movable knife arranged to cut the fabric, means for propelling the fabric to and from the point of cutting and simultaneously stretching the fabric in the direction of its movement, embodying a movable belt, means coöperating therewith to frictionally engage the fabric, and laterally spaced wires secured to the belt and having teeth directed away from the point of cutting and adapted to prevent lateral movement of the fabric during its movement past the point of cutting and during the stretching of the fabric.

4. In a machine for cutting fabric along an embroidered edge, a movable knife arranged to cut the fabric, and means for propelling the fabric to and from the point of cutting and simultaneously stretching the fabric in the direction of its movement, embodying a movable belt and a plurality of shoes arranged stationary as to the direction of movement of the fabric and individually movable up and down, said shoes being spaced apart laterally of the belt and arranged longitudinally in the direction of the movement of the fabric and springs for causing said shoes to press the fabric into contact with said belt.

5. In a machine for cutting fabric along an embroidered edge, a movable knife arranged to cut the fabric, and means for propelling the fabric to and from the point of cutting and simultaneously stretching the fabric in the direction of its length, embodying a movable belt and a plurality of shoes arranged stationary as to the direction of movement of the fabric and individually movable up and down, said shoes being spaced apart laterally of the belt and arranged longitudinally in the direction of the movement of the fabric, springs for causing said shoes to press the fabric into contact with said belt and a supporting bed for the belt where the latter coöperates with said shoes.

[Claims 6 and 7 not printed in the Gazette.]

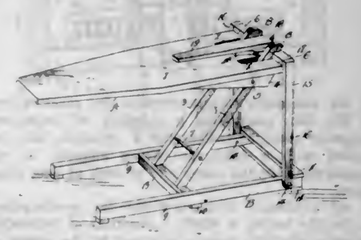
1,071,960. OVERSHOE. FLOYD D. SHOOK, Cleveland, Ohio, assignor to The Everstick Patents Co., Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 17, 1908. Serial No. 463,119. (Cl. 36—7.)



1. As an article of manufacture, an overshoe comprising a sole portion, a heel portion, an upper having a bead at the toe portion only, and tension means extending forward from the heel portion on each side of the shoe for creating a pull around the toe upon the insertion of a shoe and causing said bead to engage above the sole of the inserted shoe at the toe thereof, said tension means being flat along the sides of the sole portion.

2. As an article of manufacture, an overshoe comprising a sole portion, a shank portion, a heel portion of substantially non-elastic material, an upper having an internal bead at the toe only, and tension means extending forward from both sides of the heel portion and adapted to transmit the pull created by the insertion of a shoe and thereby cause said bead to engage the sole of the inserted shoe when the same is inserted in the overshoe, said tension means being flat on the sides of the shoe.

1,071,961. IRONING-TABLE. GEORGE E. SHORTER, Washingtonville, N. Y. Filed July 23, 1912. Serial No. 711,150. (Cl. 68—10.)



1. In a device of the class described, an ironing-board section comprising an ironing-board, prop means pivoted thereto, a support section separate from said section having a foldable support member, said prop means engageable with said support section and support member adjacent opposite ends, abutment means for said support member in upright position, and said ironing-board having a portion engaging said foldable section.

2. In a device of the class described, an ironing-board section comprising an ironing-board, prop means pivoted thereto, a foldable support section separate from said section having a pivoted frame, a transverse member thereon, abutment means to limit the pivotal movement of said frame to upright position, a second transverse member on said section, said prop means engageable with both of said transverse members, and said ironing-board having a portion engaging said first transverse member.

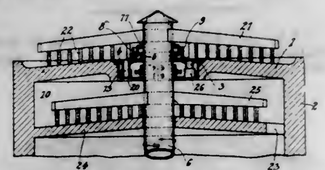
3. In a device of the class described, an ironing-board section comprising an ironing-board provided with an elongated slot, a prop movable in said elongated slot, pivot means on the ironing-board for the prop, said prop provided with a shoulder, a support section having a pivoted frame provided with a transverse member, said ironing-board section having a portion projecting beyond said pivot and engaging beneath said transverse member, said shoulder engaging said transverse member, and a transverse abutment member on said support section for said prop.

4. In a device of the class described, an ironing-board section comprising an ironing-board provided with a plurality of elongated slots, prop members movable in said elongated slots, pivot means on said ironing-board for said props, means connecting said props together, a support section having a pivoted frame provided with a transverse bar, said ironing-board having a portion projecting beyond the pivot means and engaging beneath said transverse bar, said props provided with shoulders to engage said transverse bar, a transverse abutment member for said props, and abutment means for said pivoted frame.

5. In a device of the class described, an ironing-board section comprising an ironing-board provided with an elongated slot, a prop movable in said slot, pivot means on the ironing-board for said prop, said prop provided with a shoulder, a support section having side bars, a frame having side bars pivoted to the side bars of the support section, a transverse bar connecting the side bars of the frame, a transverse bar against which the frame side bars abut, said shoulder of the prop engaging said first named transverse bar, said ironing-board extending

below and against said transverse bar, and a transverse bar connecting the side bars of the support section and against which the prop abuts.

1,071,962. AUTOMATIC CHARGING DEVICE FOR ROASTING-FURNACES AND THE LIKE. LUDWIG SINGER, Bochum, Germany. Filed Mar. 22, 1913. Serial No. 756,064. (Cl. 75—143.)



1. An automatic charging-device for roasting-furnaces and the like, comprising a plurality of bottomless exchangeable charging-vessels and a rotatable false bottom provided with a discharge-opening adapted to register successively with the lower end of each of said charging-vessels.

2. An automatic charging-device for roasting-furnaces and the like having a shaft, a plurality of bottomless exchangeable charging-vessels arranged in the crown of the furnace equidistant from the shaft, and a false bottom rotating in the top-story of said furnace in close proximity to the lower end of said charging-vessels and provided with a discharge-opening adapted to register in succession with the lower end of each of said charging-vessels.

3. An automatic charging-device for roasting-furnaces and the like, comprising a plurality of bottomless charging-vessels exchangeably arranged in the crown of the furnace, means for preventing the rise of said charging-vessels, a false bottom continually rotating in the same direction in the top-story of said charging-vessels and provided with a discharge-opening adapted to register successively with the lower end of each of said charging-vessels, and yielding means for keeping said charging-vessels in contact with said false-bottom.

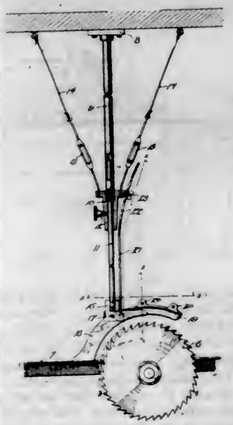
4. An automatic charging-device for roasting-furnaces and the like, comprising a cover-plate arranged in the crown of the furnace, a plurality of bottomless charging-vessels exchangeably sustained by said cover-plate, means to prevent rising of said charging-vessels, a false bottom arranged within the top-story of said furnace beneath said charging-vessels and provided with discharge-openings adapted to register successively with the lower end of each of said charging-vessels, and an extension-sleeve loosely arranged upon the lower end of each charging-vessel.

5. An automatic charging device for roasting-furnaces and the like, comprising in combination a cover-plate arranged in the crown of the furnace, a plurality of bottomless charging-vessels exchangeably seated in said cover-plate, locking means preventing the rise of said charging-vessels, a rotary shaft projecting upward through said cover-plate, a false bottom rotated by said shaft and provided with a discharge-opening adapted to register successively with the lower end of each of said charging-vessels, an extension-sleeve encircling the lower end of each charging-vessel and sustained by said false bottom, and a rake attached above said cover-plate to said shaft and adapted to sweep roasting-material from said furnace-crown into said charging-vessels.

[Claim 6 not printed in the Gazette.]

1,071,963. SAW-GUARD. ALBERT J. SIXEL and ROBERT S. CONRAD, Sheboygan, Wis. Filed July 17, 1911. Serial No. 638,913. (Cl. 143—159.)

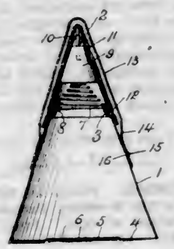
1. The combination of a splitter blade having a vertically disposed back-fin for connection with suspending means, a guard for a circular saw having a shank-end thereof astraddle of the splitter-blade, and means detachably connecting said blade and shank-end of the guard.



2. The combination of a work-table provided with a V-seat and with a slot through which a circular saw is projected, a splitter-blade having a knife-edge lower end engaging said seat, and provided with a vertically disposed back-fin for connection with suspending means, a guard for said saw having a shank-end thereof astraddle of the splitter-blade, and means detachably connecting said blade and shank-end of the guard.

3. The combination of a vertically adjustable guard for a circular saw, a dust-shield having a lower end guard-straddling notch and an upper longitudinal slot, a stationary device, and a set screw extending through the shield-slot into said stationary device.

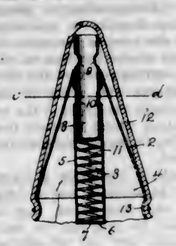
1,071,964. DAUBER. DAVID W. SMITH, Kansas City, Kans. Filed Dec. 26, 1912. Serial No. 738,692. (Cl. 15—66.)



The combination with a conical container having a delivery opening in its apex, of wicking on the exterior of the container and extending over the opening, a spring supported within the container, a conical plug adapted for impingement with the inner surface of the container to control delivery through said opening, and a pin on said plug projected through the opening into contact with the wicking.

1,071,965. DAUBER. DAVID W. SMITH, Kansas City, Kans. Filed May 5, 1913. Serial No. 765,509. (Cl. 15—66.)

1. In a dauber, a container provided with two chambers one having a delivery opening and an inlet opening communicating with the other chamber, a valve extending through and slidable in said delivery opening, yielding means for normally holding said valve in the closed position, said valve controlling said communicating opening, and wicking covering said delivery opening and in contact with said valve.



2. In a dauber, a container provided with two chambers, one having a delivery opening and an inlet opening communicating with the other chamber, a tubular valve projecting through and slidable in said delivery opening for closing said communicating opening, yielding means for normally holding said valves in the closed position, and wicking covering said delivery opening and in contact with said valve.

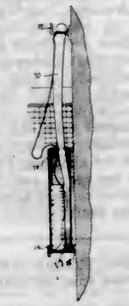
3. In a dauber, a container provided with two chambers one having a delivery opening and an inlet opening communicating with the other chamber, a tubular valve projecting through and slidable in said delivery opening and provided with a lateral discharge opening which, when the valve is in the open position, registers with said communicating opening, and when the valve is in the closed position, is outside of said container, and wicking covering said delivery opening and in contact with said valve.

4. In a dauber, a container having a conical upper end provided with a delivery opening, a tubular valve projecting through and slidable in said delivery opening and provided with a discharge opening disposed normally outside of said container and adapted, when the valve is moved inwardly, to communicate with the interior of the container, and wicking covering said delivery opening and in contact with said valve.

5. In a dauber, a container having a delivery opening, a tubular valve projecting through and slidable in said delivery opening and provided with a discharge opening disposed normally outside of said container and adapted, when the valve is moved inwardly to a predetermined position, to communicate with the interior of said container, yielding means for normally holding the valve in the outer position, and wicking covering said delivery opening and in contact with said valve.

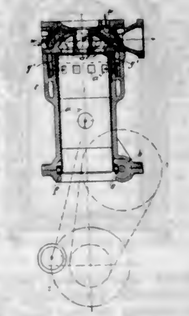
[Claims 6 to 8 not printed in the Gazette.]

1,071,966. TOOTH-BRUSH HOLDER. HERBERT W. SORENSEN, U. S. Navy. Filed Apr. 6, 1912. Serial No. 688,953. (Cl. 132—11.)



In a tooth brush holder a hollow body adapted to be used vertical and having closure mechanism at its lower end, a resilient closure plug positioned in the upper end of said body, flanges on said plug extending laterally above said body, said closure having an elastic slit through which a tooth brush handle may be passed from below, the bristled part of the brush being adapted to be within said tubular body, and means to connect said body and the handle of said brush together.

1,071,967. INTERNAL-COMBUSTION ENGINE. PAUL SPRANGER, Gera-Reuss, Germany. Filed Apr. 25, 1911. Serial No. 623,195. (Cl. 123—80.)



1. In an internal combustion engine, the combination of a cylinder having a plurality of admission ports, arranged in a circular series extending entirely about the cylinder, and a plurality of exhaust ports arranged in a circle of less diameter than and in a different transverse plane from that of the admission ports, a sleeve having formed therein two series of ports corresponding in number and relative arrangement to the admission and exhaust ports of the cylinder, and means for rotating the sleeve to open and close the cylinder ports.

2. In an internal combustion engine, the combination of a cylinder having a plurality of admission ports, arranged in a circular series extending about the cylinder, and a plurality of exhaust ports arranged in a circle in the end wall of the cylinder head, a sleeve having ports corresponding in number and relative arrangement to said admission and exhaust ports, and means for rotating the sleeve to open and close the cylinder ports.

3. In an internal combustion engine, the combination of a cylinder having a plurality of admission ports, arranged in a circular series extending entirely about the cylinder, and a plurality of exhaust ports also arranged in a circle, a rotary sleeve controlling the opening and closing of said cylinder ports, and means for intermittently rotating said sleeve whereby it is held stationary during the compression, explosion and expansion stages of operation and moved only during the period of lowest internal pressure within the cylinder.

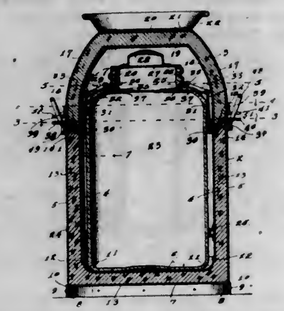
4. In an internal combustion engine, the combination of a cylinder having a plurality of admission ports, arranged in a circular series extending about the cylinder, and a plurality of exhaust ports also arranged in a circle, a sleeve provided with two series of ports corresponding in relative arrangement to the admission and exhaust ports of the cylinder, and a rotary cam arranged to cooperate with a series of outwardly extending projections on said sleeve, whereby the sleeve will be intermittently rotated to control the opening and closing of the cylinder ports.

5. In an internal combustion engine, the combination of a cylinder having a plurality of admission ports, arranged in a circular series extending about the cylinder, and a plurality of exhaust ports also arranged in a circle, a sleeve provided adjacent one end with two series of ports, corresponding in relative arrangement to the admission and exhaust ports of the cylinder, and adjacent its other end with a series of outwardly projecting

studs, and a rotary cam coöperating with said studs to intermittently rotate the sleeve to control the opening and closing of the cylinder ports.

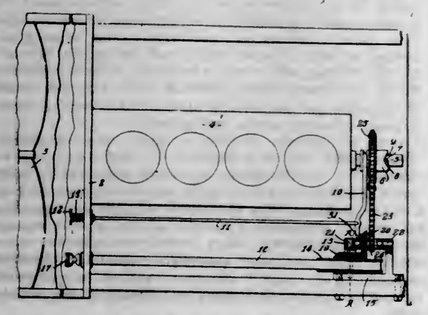
[Claims 6 to 8 not printed in the Gazette.]

1,071,968. MILK-CAN. LEONARD R. STEEL, Cleveland, Ohio. Filed Mar. 12, 1912. Serial No. 683,207. (Cl. 215—3.)



A can comprising superimposed separable sections, a liner removably mounted within said sections and supported upon the bottom of the lower section, brackets secured within the lower section and located substantially in line with the upper edge thereof, the liner having a neck, a breast connecting the neck with the main body of the liner, keepers pivotally connected in the brackets and having eye portions extending into the upper section of the jacket and disposed below the neck of the liner, a ring embracing the neck and resting against the breast of the liner, and hooks pivotally connected with the ring and adapted for detachable connection in the eyes of the keepers, whereby the ring may be removed from the liner and the keepers folded to extend away from the liner and to overlie the upper edge of the lower section of the can when it is desired to remove the liner from the can or to insert the same therein.

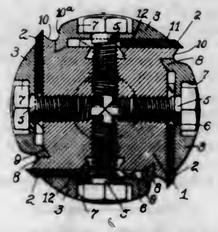
1,071,969. STARTING MEANS FOR INTERNAL-COMBUSTION ENGINES. ALBERT A. STILLMAN, Syracuse, N. Y. Filed May 23, 1910. Serial No. 562,807. (Cl. 123—185.)



1. In a motor vehicle including a frame and a dash-board, an internal combustion engine supported by the frame in front of the dash-board and having a crank shaft and mechanism for starting the engine including a member shiftable axially into and out of connection with the crank shaft, a support adapted to be attached to the frame of the vehicle at one side of the engine, a rotating member mounted in the frame and arranged with its axis at a right angle to the axis of the crank shaft, a drum mounted to rotate about the axis of said member, clutch members associated respectively with the rotating member and the drum and operating to permit the drum to actuate the rotating member in one direction, and the drum to rotate in the reverse direction independently of said member, flexible means winding on the drum and extending rearwardly within reach of the seat of the vehicle and serving to actuate the drum in one direction, a spring serving to actuate the drum in the reverse direction, and power-transmitting means between the rotating member and the starting member, substantially as and for the purpose specified.

2. In a motor vehicle including a frame, and a dash-board, an internal combustion engine supported by the frame in front of the dash-board, and having a crank shaft, and mechanism for starting the engine including a member shiftable into and out of connection with the crank shaft, a support mounted on the frame at one side of the crank shaft, and operating means for the starting member including spindles carried by the support and arranged with their axes at a right angle to each other, and one of the spindles extending parallel to the crank shaft, a drum movable about the axis of the other of said spindles, intermeshing bevel gears mounted respectively on said spindles, one being contiguous to the drum, clutch members associated respectively with the drum and the bevel gear contiguous to the drum and operating to permit the drum to drive said bevel gear in one direction, and the drum to rotate independently of the same in the reverse direction, power-transmitting means between the starting member and the bevel gear mounted on the spindle parallel to the crank shaft, a strap winding on the drum and extending rearwardly through the dash board of the vehicle, and a spring located within the drum and connected at one end to the support and at its other end to the drum, substantially as and for the purpose set forth.

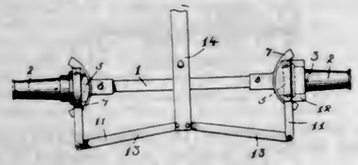
1,071,970. CIRCULAR CUTTER-HEAD. FRANK STUTZMAN, Williamsport, Pa. Filed Mar. 1, 1913. Serial No. 751,632. (Cl. 144—225.)



In combination, a rotary cutter head comprising a body or stock having a plurality of flat knife receiving surfaces with a groove at the inner end of each flat surface extending below said surface and having its forward wall inclined and with its rear wall extending vertically outward beyond the face, a plurality of clamping cap plates having curved outer faces presenting, when assembled, a cylindrical exterior, each of said cap plates being provided with an angular shaped tongue corresponding to the angular groove, a plurality of knife blades adapted to be clamped between said cap plates and the stock, means passing through the cap plates and knives and engaging the stock for clamping the knives in place, the inner edges of the cap plates and the adjacent portion of the stock being curved to form a chip breaking groove adjacent the preceding knife.

1,071,971. WAGON. ELISHA GOODELL THOMAS, Washington, D. C. Filed June 20, 1910. Serial No. 567,969. (Cl. 21—93.)

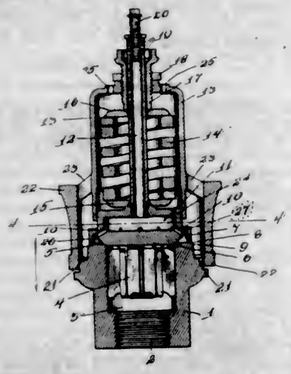
1. In a swivel spindle running gear for vehicles, comprising axles, wheel-spindles pivoted upon said axles, said wheel-spindles formed with a longitudinal orifice in the body thereof, parallel bearing lugs extending from the rear end of said wheel-spindles and integral therewith, a bearing and guide bracket formed with a box-shaped body having depending securing lugs, and curved race and guide arms integral with and extending from the rear end of said bracket and adapted to receive the lugs of said spindles, means for protecting said mechanism and means for swiveling said spindles upon the axles.



2. In a short turn vehicle gear of the class described, comprising axles, wheel-spindles formed with longitudinal tapered orifices embracing the ends of said axles and pivoted thereon, parallel bearing lugs formed with curved faces projecting from the rear of said spindles and integral therewith, bearing brackets formed with a body portion provided with lugs adapted to embrace and be secured upon said axles, supporting arms extending from the end of said brackets and integral therewith, guide races formed in said arms and adapted to receive the lugs of said spindles, circular split dust caps secured to said spindles and adapted to cover and protect said mechanism, operating levers having their ends secured to said dust caps for the purpose of swiveling said spindles, connecting-rods having one of their ends pivoted to said levers and their other ends pivoted to the reach of said gear.

3. In a vehicle gear of the class described, comprising wheel-spindles pivoted upon and near the ends of the axles, supporting brackets formed with curved guide races and secured upon said axles near the ends thereof and adjacent to said spindles, bearing lugs formed upon the rear end of said spindles, and adapted to engage and slide within said race, levers secured to and projecting from the rear end of and at right angles to said spindles, and mechanism to operate the same from the tongue of said gear for the purposes set forth.

1,071,972. AUTOMATIC SAFETY-VALVE. WILLIAM WAFER, Oak Park, Ill. Filed Dec. 6, 1912. Serial No. 735,252. (Cl. 136—9.)



1. In a safety pop valve having a valve seat, a reciprocal plunger adapted to form a closure when depressed against the valve seat, and to limit steam when raised from the said valve seat by the pressure of steam upon the plunger, there being a downwardly open annular grooved formation upon the plunger adjacent to its engagement with the valve seat, said plunger also having a chamber formed within the same above said annular groove and connected with the said grooved formation by perforations, and a vent pipe carried by the plunger and connected with the said chamber.

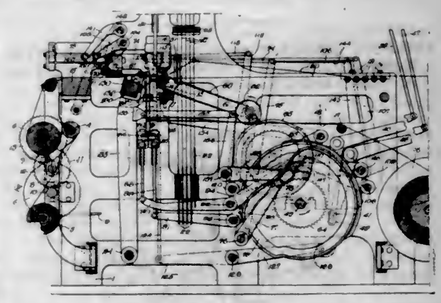
2. In a safety pop valve having a valve seat, a reciprocal plunger adapted to form a closure when depressed against the valve seat, and to limit steam when raised from the said valve seat by the pressure of steam upon the plunger, there being a downwardly open annular grooved formation upon the plunger adjacent to its engagement with the valve seat, said plunger also having a chamber within the same connected with the said grooved formation by perforations, a vent pipe carried by the plunger and connected with the said chamber, and adjustable means carried by said vent pipe for throttling the same.

3. In a safety pop valve for steam boilers having a valve seat, a reciprocable interiorly chambered plunger having an annular grooved formation adjacent to its engagement with the valve seat, and having the interior chamber connected with the said grooved formation by perforations, the said plunger having a throttled vent connected with the said interior chamber, the said grooved formation and chamber being adapted to entrap steam under pressure when the plunger is forced toward the valve seat, and a spring tending to press the plunger into engagement with the valve seat.

4. In a steam safety pop valve having a valve seat, an interiorly chambered plunger adapted to make a closure with the valve seat, there being passages adjacent to the closure for providing a rapid entrance for steam into the said interior chamber, and a passage for providing a slow leakage of steam from the said chamber.

5. In a steam safety pop valve having a valve seat, an interiorly chambered plunger adapted to make a closure with the valve seat, there being passages adjacent to the closure for providing a rapid entrance for steam into the said interior chamber, and an adjustably throttled passage for providing a slow leakage of steam from the said chamber.

1,071,973. LOOM FOR WEAVING ORIENTAL KNOTTED FABRICS. THOMAS P. WALSH, Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Filed Aug. 22, 1910. Serial No. 578,410. (Cl. 139—66.)



1. In a loom, a source of general supply of yarns from which to make selections for different patterns, selective pattern mechanism to select desired yarns from said supply, and mechanism to weave the selected pattern yarns into the woven fabric, including means operating by a single unidirectional movement lengthwise of the loom for tying the selected yarns into the fabric in oriental knots in transverse rows across the fabric, means to position the knots at the fell, and means for severing the yarns from each row before another row is tied.

2. In a loom, a source of general supply of yarns from which to make selections for different patterns, selective

pattern mechanism to select desired yarns from said supply, mechanism to weave the selected pattern yarns into the woven fabric, including means for tying the selected yarns into the fabric in oriental knots in transverse rows across the fabric, means for laying binder filling to bind the coiled yarns at the fell, means for moving the coiled yarns to the fell prior to said laying of binder filling, and means operating at the fell for severing the yarns from each row before another row is tied.

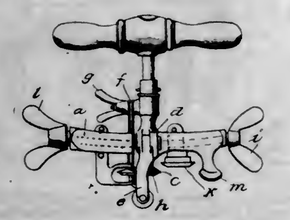
3. In a loom, a source of general supply of yarns from which to make selections for different patterns, selective pattern mechanism to select desired yarns from said supply, and mechanism to weave the selected pattern yarns into the woven fabric, including means operating by a single unidirectional movement lengthwise of the loom for simultaneously tying the selected yarns into the fabric in oriental knots in transverse rows across the fabric, means to position the knots at the fell, means for thereafter laying binder filling to bind in said knots, and means for severing the yarns from each row before another row is tied.

4. In a loom, a source of general supply of yarns from which to make selections for different patterns, selective pattern mechanism to select desired yarns from said supply, knot-weaving mechanism to automatically and simultaneously bend and coil the selected pattern yarns about the ground warp threads with one forward movement of said color yarns, said mechanism including means to coil each color yarn about a pair of ground warp threads in an oriental knot and means to move the coiled yarns tight up to the fell, and binder-filling weaving mechanism for binding said woven color yarns and ground warp threads into a woven fabric.

5. In a loom, a source of general supply of yarns from which to make selections for different patterns, selective pattern mechanism to select desired yarns from said supply, knot-weaving mechanism to automatically and simultaneously bend and coil the selected pattern yarns about the ground warp threads with one forward movement of said color yarns, said mechanism including means to coil each color yarn about a pair of ground warp threads in an oriental knot and means to move the coiled yarns tight up to the fell, binder-filling weaving mechanism for binding said woven color yarns and ground warp threads into a woven fabric, and automatic cutting mechanism for severing the knotted color yarns after the laying of a binder filling.

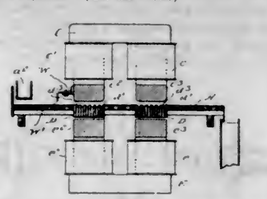
[Claims 6 to 38 not printed in the Gazette.]

1,071,974. DEVICE FOR OPENING PRESERVE-TINS. ROBERT EMIL WALTHER, Werdau, Germany. Filed Feb. 16, 1912. Serial No. 678,007. (Cl. 30—3.)



A device for opening cans comprising a body, a shaft on said body, a ribbed roller and a handle on said shaft, arms laterally adjustable on said body having slots near their inner ends, a thumb screw to hold said arms in position, adjustable projections pivoted to the lower ends of said body and to said arms, grooved wheels on said projections to engage the upper edge of the can, a cutter operatively supported on the lower part of said body and means to hold the device in operative position.

1,071,975. ORE-CONCENTRATOR. JOSEPH WEATHERBY, New Cumberland, Pa., assignor, by mesne assignments, to Electric Ore Separator Company, New Cumberland, Pa., a Corporation of Delaware. Filed Jan. 4, 1913. Serial No. 740,210. (Cl. 83—71.)



1. In an ore concentrator, the combination with a table, of means for feeding materials to be separated to said table, means for agitating said table to pass said materials gradually along the table to effect stratification and separation thereof, and means for creating a magnetic field in the path of the moving material and with the lines of force converging to lines lying in a plane coincident with the path of the body of material traveling over the table.

2. In an ore concentrator, the combination with a table, of means for feeding materials to be separated to said table, means for agitating said table to pass said materials along the table to effect stratification and separation thereof, and means for creating a magnetic field having parallel lines of concentration to which the lines of force converge located intermediate the top and bottom levels of the material flowing over the table in proximity to said lines of concentration.

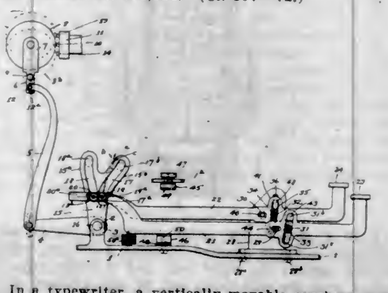
3. In an ore concentrator embodying a shaking table movable in substantially its own plane said table being provided with riffles of magnetic material and channels intermediate the riffles, and means for creating a magnetic field with the lines of force in the ore paths converging to the edges of the riffles.

4. An ore concentrator embodying a shaking table movable in substantially its own plane, said table being provided with riffles having longitudinally extending edges of magnetic material with channels between said riffles, and means for creating a magnetic field with the lines of force in the ore path converging to the edges of the riffles.

5. An ore concentrator embodying a shaking table movable in substantially its own plane, said table being provided with a riffled surface, a portion only of the riffles having longitudinally extending edges of magnetic material, and means for creating a magnetic field with the lines of force in the ore paths converging to the riffle edges of magnetic material.

[Claims 6 to 17 not printed in the Gazette.]

1,071,976. SHIFT MECHANISM FOR TYPE-WRITERS. ARTHUR W. WEEDEN, Somerville, Mass. Filed May 20, 1912. Serial No. 698,384. (Cl. 197—72.)



1. In a typewriter, a vertically movable carriage carrying a platen normally located in a mid position, a movable lever arm, means connecting the said arm with said carriage for shifting the same to a higher or lower position in response to a predetermined movement of said lever arm, a pair of cam pieces having cam grooves formed therein, a pair of key levers carrying rollers and engaging said cam grooves, said rollers being each normally positioned adjacent one end of the cam groove engaged thereby and being adapted to swing in a fixed path about a central point as its key lever is operated and to traverse said groove, each of said cam grooves being so formed in its cam piece with relation to the path of the roller engaging the same that the traverse of one roller in its cam groove will cause the cam piece carrying the same to rotate in one direction and the traverse of the other roller in its groove will cause the cam piece carrying said groove to rotate in the other direction, connections whereby the rotative movement of the cam pieces is transmitted to said lever arm, and means for independently changing the paths of said rollers.

2. In a typewriter, a vertically movable carriage carrying a platen normally located in a mid position, a movable lever arm, means connecting the said arm with said carriage for shifting the same to a higher or lower position in response to a predetermined movement of said lever arm, a pair of cam pieces having cam grooves formed therein, a pair of key levers carrying rollers and engaging said cam grooves, said rollers being each normally positioned adjacent one end of the cam groove engaged thereby and being adapted to swing in a fixed path about a central point as its key lever is operated and to traverse said groove, each of said cam grooves being so formed in its cam piece with relation to the path of the roller engaging the same that the traverse of one roller in its cam groove will cause the cam piece carrying the same to rotate in one direction and the traverse of the other roller in its groove will cause the cam piece carrying said groove to rotate in the other direction, connections whereby the rotative movement of the cam pieces is transmitted to said lever arm, and means for independently changing the point about which each roller swings.

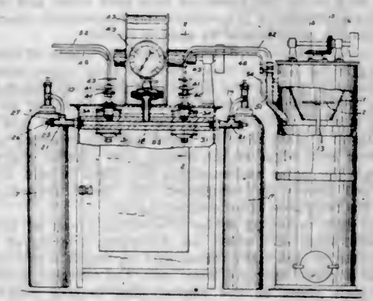
3. In a typewriter, a vertically movable carriage carrying a platen normally located in a mid position, a movable lever arm, means connecting the said arm with said carriage for shifting the same to a higher or lower position in response to a predetermined movement of said lever arm, a pair of cam pieces having cam grooves formed therein, a pair of key levers carrying rollers engaging said cam grooves, said rollers being each initially positioned adjacent one end of the cam groove engaged thereby and being adapted to swing in a fixed path about a central point as its key lever is operated and to traverse said groove, each of said cam grooves being so formed in its cam piece with relation to the path of the roller engaging the same that the traverse of one roller in its cam groove will cause the cam piece carrying the same to rotate in one direction and the traverse of the other roller in its groove will cause the cam piece carrying said groove to rotate in the other direction, each cam piece being cut away adjacent the normal position of the roller lying therein to permit the movement of one cam piece with respect to the roller engaging its cam groove when the lever carrying the other member is operated, connections whereby the rotative movement of the cam pieces is transmitted to said lever arm, and means for independently changing the direction of the paths in which said rollers swing.

4. In a typewriter, a vertically movable carriage carrying a platen normally located in a mid position, a movable lever arm, means connecting the said arm with said carriage for shifting the same to a higher or lower position in response to a predetermined movement of said lever arm, a pair of cam pieces having cam grooves formed therein, a pair of key levers carrying rollers and engaging said cam grooves, said rollers being each normally positioned adjacent one end of the cam groove engaged thereby and being adapted to swing in a fixed path about a central point as its key lever is operated and to traverse said groove, each of said cam grooves being so formed in its cam piece with relation to the path of the roller engaging the same that the traverse of one roller in its cam groove will cause the cam piece carrying the same to rotate in one direction and the traverse of the other roller in its groove will cause the cam piece carrying said groove to rotate in the other direction, each cam piece being cut away adjacent the normal position of the roller lying therein to permit the movement of one cam piece with respect to the roller engaging its cam groove when the lever carrying the other member is operated, connections whereby the rotative movement of the cam piece is transmitted to said lever arm, and means for independently changing the point about which each roller swings.

5. The combination with a key lever having a key and carrying a cam engaging member adapted to swing in an upwardly inclining path, of coöperating supports for said lever; one support being vertically fixed and controlling the height of the lever key and the other support having capacity for vertical adjustment in position and controlling the inclination of said path through change in its vertical position.

[Claims 6 to 13 not printed in the Gazette.]

1,071,977. METHOD OF IMPROVING THE CONDITION OF FLOUR. JOHN ALFONZO WESENER, Chicago, Ill. Filed Feb. 19, 1913. Serial No. 749,403. (Cl. 83—42.)



1. The method of treating flour to mature and whiten it which consists in causing a stored quantity of liquefied anhydrous chlorin to be gradually vaporized and bringing the vapor diluted with an inactive gas into contact with the flour.

2. The method of treating flour to mature and whiten it which consists in causing a stored quantity of liquefied anhydrous chlorin to be gradually vaporized and bringing the vapor diluted with an inactive gas into contact with the flour, said inactive gas being mixed with the chlorin gas at the place of application of the latter to the flour.

3. The method of treating flour to mature and whiten it, which consists in causing a stored quantity of liquefied anhydrous chlorin to be gradually vaporized and bringing the vapor diluted with an inactive gas into contact with the flour in the proportion of one pound of the chlorin to from 5000 to 10,000 pounds of the flour.

4. The method of treating flour to mature and whiten it which consists in bringing into contact therewith chlorin gas in an anhydrous state diluted with an inactive gas.

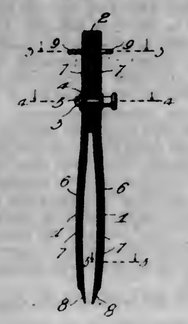
5. The method of treating flour to mature and whiten it which consists in bringing into contact therewith chlorin gas in an anhydrous state diluted with an inactive gas in the proportion of one pound of the chlorin to from 5000 to 10,000 pounds of the flour.

[Claims 6 and 7 not printed in the Gazette.]

1,071,978. DEVICE FOR REMOVING HAIRS. JOHN E. WHITE, Rochester, N. Y. Filed Apr. 11, 1912. Serial No. 690,070. (Cl. 174—89.)

1. A hair removing device comprising a pair of tweezers whose blades are insulated from each other and are insu-

lated on their outer sides to within a short distance of their free ends, and means for connecting the blades respectively with the terminals of an electric circuit.

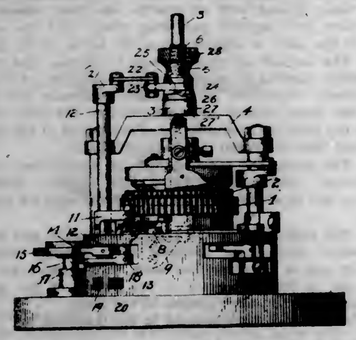


2. A hair removing device comprising a pair of tweezers whose blades are insulated from each other and are insulated on their outer sides to within a short distance of their free ends, socket members respectively connected with said blades and insulated from each other, and plugs removably fitting in the sockets and respectively connected with the terminals of an electric circuit.

3. A hair removing device comprising a pair of blades, an insulating block between them at their upper ends, a bolt passing through the blades and blocks, an insulating sleeve surrounding the bolt, an insulating covering on the outer side of each blade throughout its length and extending to a point near its lower end, the covering passing over both edges of the blades, pins passing edgewise through the latter and engaging the edges of said covering, and means for connecting the blades respectively with the terminals of an electric circuit.

4. A hair removing device comprising a pair of blades insulated from each other, an insulating covering on the outer side of each blade throughout its length and extending to a point near its lower end, the covering passing over both edges of the blades, pins passing edgewise through the latter and engaging the edges of said covering, and means for connecting the blades respectively with the terminals of an electric circuit.

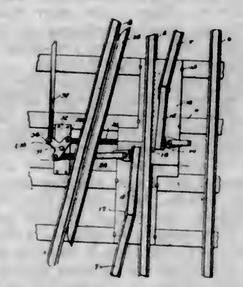
1,071,979. KNITTING-MACHINE. FRANK B. WILDMAN, Norristown, Pa. Filed Nov. 12, 1908. Serial No. 462,317. (Cl. 66—22.)



1. In combination with the dial a cylinder, the drawing-down cam, means for operating the said cam automatically for producing the loose courses and means for simultaneously adjusting the needle dial for producing said loose course, said cam operating means and dial adjusting means being interconnected substantially as described.

2. In combination in a rib knitting machine, an adjustable draw-down cam for the cylinder needles, a cam for lifting the dial post, a rock shaft connected with the said lifting cam, said rock shaft extending vertically from the cam carrier of the cylinder cam, an arm on said rock shaft for adjusting the draw-down cam of the cylinder, an arm on said rock shaft to operate the same, a disk on the frame to contact with said arm, a second rock shaft geared to the first and an arm thereon to be operated by the disk, substantially as described.

1,071,980. SWITCH. LEONARD B. WILSON, Otter Creek, Fla. Filed Mar. 5, 1912. Serial No. 681,746. (Cl. 104—118.)



The combination with main and side tracks adapted for intersection with each other, of a cross over switch comprising a pair of rail sections each being formed with a cut-away portion below the tread thereof for overlapping one of the rails of the main track, vertically disposed cylindrical shaped enlargements formed on the rail sections, clamping plates fixed to one rail of the side track and engaging the cylindrical shaped enlargement on the switch rail section, whereby the said rail sections can be swung into and out of alinement with each other, substantially L-shaped brackets fixed to the switch rail sections near the free ends thereof, depending lugs integrally formed on the said brackets, a supporting base for the said switch rail sections and having guide slots receiving the said lugs and throw rods each having double limbs pivotally connected to the lug of each bracket and adapted to straddle the said base.

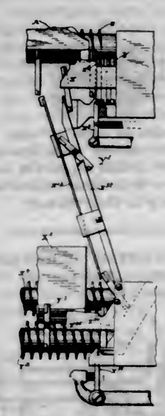
1,071,981. TYPOGRAPHICAL COMPOSING-MACHINE. RAYMOND F. BARNES, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Mar. 25, 1912. Serial No. 686,025. (Cl. 199—7.)

1. In a typographical composing machine comprising distributing mechanism, the combination of a distributer rail or bar, with a plurality of sets of type or matrices, and means for presenting all of the said type or matrices thereto at the same level, one set of type or matrices being formed with sustaining means to engage the said rail or bar, and another set of type or matrices being formed with sustaining means which do not engage therewith.

2. In a typographical composing machine comprising distributing mechanism, the combination of a grooved distributer rail or bar, with a plurality of sets of type or matrices, and means for presenting all of the type or matrices thereto, one set of type or matrices being formed with distributing tooth-combinations to engage the said rail or bar, and another set being formed with differently located tooth-combinations which do not engage therewith.

3. In a typographical composing machine comprising distributing mechanism, the combination of a grooved distributer rail or bar, with a plurality of sets of type or matrices having notches formed therein, and means for presenting all of the type or matrices thereto, one set of

type or matrices being formed with distributing tooth-combinations in their notches to engage the said rail or bar, and another set being formed with differently located tooth-combinations in their notches which do not engage therewith.

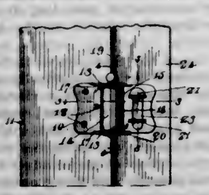


4. In a typographical composing machine comprising distributing mechanism, the combination of two distributer rails or bars, two sets of type or matrices, means for presenting all of the type or matrices to one of the bars at the same level, and means for transferring a portion of the type or matrices to the other rail or bar, one set of said type or matrices being formed with sustaining means to engage the first rail or bar, and the other set of type or matrices being formed with sustaining means to engage only the other rail or bar; whereby one set will engage and be sustained by the first rail or bar and the other set will be transported by said transferring means to the other rail or bar.

5. In a typographical composing machine comprising distributing mechanism, the combination of two grooved distributer rails or bars, two sets of type or matrices having notches therein, means for presenting all of the type or matrices to one of the rails or bars, and means for transferring a portion of the type or matrices to the other rail or bar, one set of said type or matrices being formed with distributing tooth-combinations in their notches to engage the first rail or bar, and the other set of type or matrices being formed with tooth-combinations differently located in their notches to engage the other rail or bar; whereby one set will engage and be sustained by the first rail or bar and the other set will be transferred to and sustained by the other rail or bar.

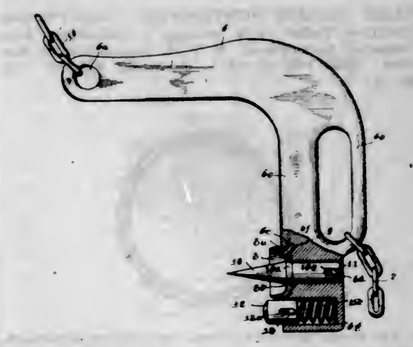
[Claim 6 not printed in the Gazette.]

1,071,982. DETACHABLE DOOR-HINGE. FLORA A. BARRETT, Columbus Grove, Ohio. Filed Aug. 13, 1912. Serial No. 714,894. (Cl. 16—106.)



A hinge of the character described comprising a pair of leaves hingedly connected together, one of said leaves being provided with parallel transverse slots, a securing member comprising a U-shaped member having its plate portion provided with means for attachment to a fixed part and its arms provided with alining openings, said arms being engaged through the slots in said leaf respectively, and a locking pin engaged through the slots in said arms to detachably lock the hinge and securing member together.

1,071,983. LOADING-HOOK. MONTGOMERY T. BYRN, Trumann, Ark. Filed Sept. 28, 1912. Serial No. 722,934. (Cl. 57—9.)

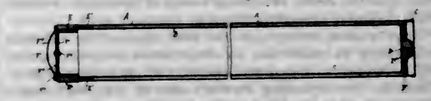


1. A loading hook comprising an angular body portion having in one leg inwardly opening sockets, a bit arranged in one of said sockets, a spur extending through said bit and into said socket and removably secured therein, a spring-pressed plunger working in the other socket, and means for operating said hook.

2. A loading hook comprising a body portion having a hand-hole, a crotch-line hook and a draft line hole therein, and inwardly disposed sockets, a cup-shaped bit applied to one of said sockets, a spur extending through said bit and into said socket and secured therein, a yielding plunger slidably engaged in the other socket, and means connected with said body portion for operating same.

3. A loading hook comprising an L shaped body portion, having upon one leg inwardly disposed sockets, a cup shaped bit removably seated in one of said sockets, a spur with beveled shoulder registering with an opening in said bit, the shank of said spur extending through said bit and into said socket, a stud passing through said guideway and shank of said spur, a plunger slidably engaged in the other socket and having tensioning means therein, a hand-hole, said body having a hand line hole, and a draft line hold therein.

1,071,984. FIREPROOF FILING-CASE. JAMES ARCHIBALD CLARK, Albany, N. Y. Filed July 19, 1912. Serial No. 710,437. (Cl. 109—2.)



1. The improved fireproof filing case, comprising concentric cylindrical shells separated by an air space, a cap closing the bottom of the outer shell, a bottom cap for the inner shell which has a circumferential flange at its lower portion that abuts the inner surface of the outer shell and an adjacent shoulder which fits into the inner shell, the lower edge of the inner shell resting on the said flange, an annular head whose reduced inner edge is fitted between the adjacent upper ends of the shells, an inverted cup-shaped cover fitting into said head, a metallic disk riveted on the head, and projecting at its edge beyond the margin of the same, and a concavo-convex cap secured to the projecting edge of said disk, as described.

2. In a fire-proof filing case, the combination with the body formed of concentric cylindrical shells, of an annular head whose inner edge is reduced and fitted between the shells, a cup-shaped cover fitted removably into said head, a metallic disk riveted flatwise to the cover, and projecting at its margin beyond the margin of the cover, and a concavo-convex cap whose outer edge is crimped over the projecting edge of the disk, as described.

1,071,985. CAISSON CONSTRUCTION. CLOUD CLIFFORD CONKLING, Buffalo, N. Y., assignor to Lackawanna Steel Company, Lackawanna, N. Y., a Corporation of New York. Filed Feb. 23, 1912. Serial No. 679,416. (Cl. 61—3.)



1. The herein described caisson for concrete structures, comprising a wall of steel sheet-piling sections, and a lining of planking for the wall, said lining being in engagement with the steel at small and separate points of contact only.

2. In a caisson for concrete foundations a series of interlocking steel sheet-piling sections forming a continuous closed wall and a continuous lining therefor comprising a series of wooden units arranged circumferentially with one vertical edge of each unit overlapping the edge of the adjacent unit and each unit being in engagement with only a small portion of its surface.

3. In a caisson for concrete foundations, a series of interlocking steel sheet piling sections arranged with their interlocking members in engagement to form the inclosure, and a continuous lining therefor comprising a series of wooden units arranged within the said wall of steel sections and in engagement therewith each unit overlapping the adjacent units and having a small portion only of its rear surface in engagement with the wall.

4. In a caisson for concrete formations, a series of interlocking steel sheet piling sections forming the caisson and a wooden lining therefor to separate the steel from the concrete, said lining consisting of a series of units each comprising two similar boards of equal length and width, secured together with one vertical edge of each board extending beyond the corresponding edge of the other, and a block secured to the back of the boards, said units being arranged to extend circumferentially around the interior of the caisson with the blocks only in engagement with the wall and the outer extending board of each unit overlapping the inner extending board of the next unit.

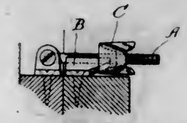
5. A wooden lining unit for steel sheet-piling caissons, comprising an inner and an outer board secured together and arranged with one vertical edge of each extending beyond the corresponding vertical edge of the other, and a block secured to the back of the boards.

[Claims 6 to 8 not printed in the Gazette.]

1,071,986. FASTENING DEVICE. WILLIAM CUPPER, Malden, Mass. Filed Dec. 23, 1912. Serial No. 738,261. (Cl. 16—146.)

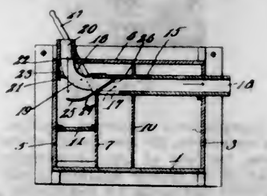
1. A threaded rod pivotally supported, or hinged, at one end, a support therefor tapered at one end and slotted to receive said rod, a nut adapted to screw onto said rod and drilled out from one end so as to slide over the tapered end of said support whereby, when said nut is screwed onto the threaded rod as it lies in the slot of said support it locks said rod into said slot.

2. A threaded rod pivotally attached, or hinged, at one end to the sash of a window, a support tapered at one end, slotted to receive said rod and attached to the other sash of the window, a nut adapted to screw onto said rod and



drilled out from one end so as to slide onto the tapered end of said support whereby when screwed onto said rod as it lies in the slot of said support it not only locks said rod into the slot but draws the window-sashes together to prevent their moving in their frames.

1,071,987. SEED-COTTON CLEANER. MICAJAH R. DAVIS, Kemp, Okla. Filed Oct. 16, 1912. Serial No. 726,183. (Cl. 130—17.)



1. In a machine of the character described, a casing having partitions therein to provide a circuitous blast passage way throughout the chamber, a blast conduit having an opening in its lower wall above the inlet and outlet of the passage way, and a valve for closing said opening to direct the blast through the conduit without entering the casing or for forming a partition across the conduit to divide the opening into an inlet and an outlet for the passage way.

2. In a machine of the character described, a casing having partitions therein to provide a circuitous blast passage way throughout the chamber, a blast conduit having an inlet and outlet exteriorly of the casing with the body portion of the conduit within the casing, the under wall of the conduit above the inlet and outlet of the passage way being open, and a valve mounted in the conduit adjacent the opening thereof to close the opening or to form a partition across the conduit and to divide the opening into an inlet and outlet for the passage way.

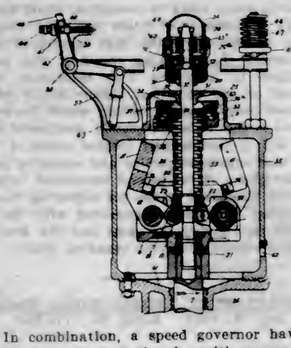
3. In a machine of the character described, a casing, a plurality of partitions disposed vertically within the casing and forming a circuitous passage way to divert the air blast, an air blast conduit disposed through the casing and provided with an opening disposed above the inlet and outlet of the passage way, and means carried by the conduit adjacent the opening thereof to divide the opening into an inlet and outlet for the passage way and to form a partition across the conduit to divert the air from the entrance of the conduit into the circuitous passage way and finally into the conduit at the opposite side of the valve.

4. In a machine of the character described, a casing, a plurality of partitions disposed vertically within the casing and dividing the casing into a circuitous air blast diverting passage way, an air blast conduit having an inlet end disposed above and at right angles to the inlet of the circuitous passage way with the outlet exteriorly of the casing, the portion of the conduit above the inlet and outlet of the passage way being open at the bottom thereof, and a valve disposed at the junction of the inlet and outlet of the circuitous passage way and within the conduit for sealing the opening of the conduit or forming a partition across the conduit to divide the opening into an inlet leading into the inlet of the circuitous passageway or an outlet leading therefrom into the conduit.

5. In a machine of the character described, a casing, a plurality of partitions disposed vertically within the casing and dividing the casing into a circuitous air blast diverting passage way, an air blast conduit having an inlet end disposed above and at right angles to the inlet of the circuitous passage way with the outlet exteriorly of the casing, a portion of the conduit above the inlet and outlet of the passage way being open at the bottom thereof, a valve disposed at the junction of the inlet and outlet of the circuitous passage way and within the conduit for sealing the opening of the conduit or forming a partition across the conduit to divide the opening into an inlet leading into the inlet of the circuitous passage way or an outlet leading therefrom into the conduit, and manually operated means accessible from the exterior of the casing for manipulating the valve.

[Claims 6 and 7 not printed in the Gazette.]

1,071,988. CENTRIFUGAL GOVERNOR. CHARLES DAY and GEORGE E. WINDELER, Stockport, England, assignors to General Electric Company, a Corporation of New York. Filed June 13, 1912. Serial No. 703,389. (Cl. 121—112.)



1. In combination, a speed governor having a spindle and a lever actuated thereby with means for transmitting motion from the spindle to the lever comprising a disk mounted on the spindle, ball bearings located above and below the disk, a tubular spacer for holding the disk on the spindle, thrust plates located above and below the ball bearings, a casing containing the plates, a space between the weights, a nut for holding the plates, and a means for uniting the casing and the lever.

2. In a speed governor, the combination of movable weights, an opposing spring, a support therefor, a governor lever which is moved by the weights and spring, a second lever, a spring means for connecting the two levers, and a fulcrum that is common to both levers.

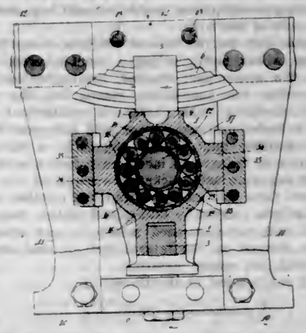
3. In a speed governor, the combination of movable weights, an opposing spring, a support therefor, a shaft for rotating the support, a governor lever which is moved by the weights and spring, a second lever, a fulcrum that is common to both levers, a spring means that unites the levers and normally causes them to move in unison, and means for moving one lever independently of the other.

4. In a speed governor, the combination of movable weights, an opposing spring, a means for supporting and driving the same, a governor lever which is provided with an arm, a second lever normally moved by the first, a block that is connected to the second lever, a spring interposed between the arm and block, and means for compressing the spring and moving the second lever independently of the first.

5. In a speed governor, the combination of movable weights and an opposing spring, a driving support therefor, a governor lever which is moved by the weights and spring, an auxiliary spring acting on the lever for changing the effective action of the weights on said lever, a second lever that normally moves in unison with the first, a means connecting the two levers, and means for moving one lever independently of the other.

[Claims 6 to 13 not printed in the Gazette.]

1,071,989. GREASE-BOX FOR THE AXLES OF VEHICLES. ARTHUR DEHU, Brussels, Belgium. Filed Nov. 28, 1911. Serial No. 662,802. (Cl. 105—113.)



1. A grease box for the axle of vehicles, comprising, in combination, a box body, having a hemi-spherical cavity formed in the upper part thereof, a hemi-spherical member projecting from the suspension means for the vehicle body, and engaging said cavity, a cylindrical socket formed in a lower prolongation of said box, guard plates fixed to a suitable part of the car body, and a cylindrical member, fixed in transverse members between said guard plates, and engaging said socket, the depth of the socket being greater than that of the cylindrical member.

2. A grease box for the axle of vehicles, comprising, in combination, a box body, having a hemi-spherical cavity formed in the upper part thereof, a hemi-spherical member projecting from the suspension means for the vehicle body, and engaging said cavity, a cylindrical socket formed in a lower prolongation of said box, guard plates fixed to a suitable part of the car body, a cylindrical member, fixed in transverse members between said guard plates, and engaging said socket, the depth of the socket being greater than that of the cylindrical member, there being cavities in said guard plates, and semi-cylindrical lugs, formed on the lateral walls of said box, and engaging said last named cavities.

3. A grease box for the axle of vehicles, comprising, in combination, a box body, having a hemi-spherical cavity formed in the upper part thereof, a hemi-spherical member projecting from the suspension means for the vehicle body, and engaging said cavity, a cylindrical socket formed in a lower prolongation of said box, guard plates fixed to a suitable part of the car body, a cylindrical member, fixed in transverse members between said guard plates, and engaging said socket, the depth of the socket being greater than that of the cylindrical member, there being cavities in said guard plates, semi-cylindrical lugs, formed on the lateral walls of said box, and engaging said last named cavities, rollers inside of said box, around the vehicle axle, axes on which said rollers are free to rotate, rings in which the ends of said axes are secured, rings arranged on each side and outside of said first named rings, and balls located in said rings, between the first named rings and the box wall.

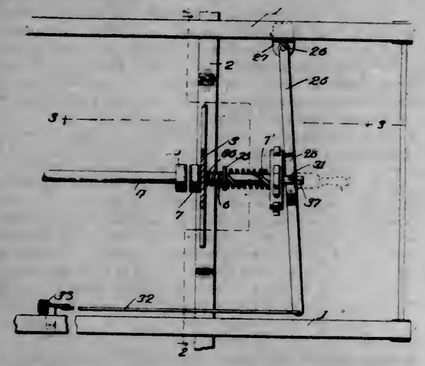
4. A grease box for the axle of vehicles, comprising in combination, a box body having a hemi-spherical cavity formed in the upper part thereof, a hemi-spherical member projecting from the suspension means for the vehicle body, and engaging said cavity, a cylindrical socket formed in a lower prolongation of said box, guard plates fixed to a suitable part of the car body, a cylindrical member, fixed in transverse members between said guard

plates, and engaging said socket, the depth of the socket being greater than that of the cylindrical member, there being cavities in said guard plates, semi-cylindrical lugs, formed on the lateral walls of said box, and engaging said last-named cavities, rollers inside of said box, around the vehicle axle, axes on which said rollers are free to rotate, rings in which the ends of said axes are secured, rings arranged on each side, outside of said first named rings, balls located in said rings, between the first named rings and the box wall, a cap for the box body and a spring-pressed piston, inside of said cap, and bearing on the end of the axle.

5. A grease box for the axle of vehicles, comprising, in combination, a box body, having a hemi-spherical cavity formed in the upper part thereof, hemi-spherical means projecting from the suspension means for the vehicle body, and engaging said cavity, a cylindrical socket formed in a lower prolongation of said box, guard plates fixed to a suitable part of the car body, a cylindrical member, fixed in transverse members between said guard plates, and engaging said socket, the depth of the socket being greater than that of the cylindrical member, spring-pressed members, located in said guard plates, there being cavities in said spring-pressed members, and semi-cylindrical lugs, formed on the lateral wall of said box, and engaging said last named cavities.

[Claim 6 not printed in the Gazette.]

1,071,990. CRANKING DEVICE. JAMES B. EASTES, Konawa, Okla. Filed June 23, 1911. Serial No. 634,984. (Cl. 123—185.)



1. The combination with an engine shaft, of a threaded cranking shaft arranged to be clutched therewith, a threaded member movable along the cranking shaft and arranged by such movement to rotate the said cranking shaft, means yieldably holding the member against rotation in one direction, and means for moving the said member along the cranking shaft.

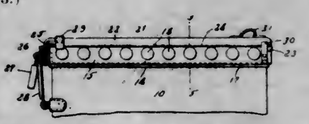
2. The combination with an engine shaft, of a threaded cranking shaft arranged to be clutched therewith, a threaded member movable along the cranking shaft and arranged by such movement to rotate the said shaft, a member fitted upon the first mentioned member and movable therewith, a pawl carried by the last mentioned member and coöperating with the first mentioned member whereby to hold the same against rotation in one direction, means yieldably holding the last mentioned member against rotation, and means for moving the threaded member along the cranking shaft.

3. The combination with an engine shaft, of a threaded cranking shaft arranged to be clutched therewith, a threaded collar upon the cranking shaft arranged for movement therealong and, by such movement to rotate the said cranking shaft, a collar fitted upon the first mentioned collar, a pawl carried by one of said collars and coöperating with the other collar whereby to hold the first mentioned collar against rotation independently of the second mentioned collar in one direction, a spring pressed pawl coöperating with the last mentioned collar and yieldably holding the same against rotation in one direction, and means for moving the said collars along the cranking shaft.

4. The combination with an engine shaft, of a threaded cranking shaft arranged to be clutched therewith, a threaded collar upon the cranking shaft movable therealong and arranged by such movement to rotate the said cranking shaft, a collar fitted upon the first mentioned collar, the first mentioned collar being rotatable independently of the second mentioned collar in one direction, means holding the first mentioned collar against rotation independently of the second mentioned collar in the opposite direction, a collar within which the second mentioned collar is rotatably fitted, yieldable means upon the last mentioned collar coöperating with the second mentioned collar to yieldably hold the second collar against rotation within the last mentioned collar, and means connected with the last mentioned collar for moving the same and the first and second mentioned collars lengthwise of the cranking shaft.

5. The combination with an engine shaft, of a threaded cranking shaft arranged to be clutched therewith, a threaded collar movable along the cranking shaft and arranged by such movement to rotate the said cranking shaft, a collar within which the first mentioned collar is rotatable, means for clutching the first and second mentioned collars to hold the first mentioned collar against rotation in one direction, independently of the second mentioned collar, a collar within which the second mentioned collar is rotatable, the second mentioned collar being formed with a peripherally located notch, a pawl carried by the last mentioned collar and engaging in the notch in the periphery of the second mentioned collar, a spring bearing on the pawl, means for adjusting the tension of the spring, and means connected with the last mentioned collar for moving the same and the first and second mentioned collars along the cranking shaft.

1,071,991. BAG-CLOSURE. HARRY EBERT, Frederick, Md. Filed Aug. 9, 1912. Serial No. 714,209. (Cl. 150—23.)



1. A bag or pouch having an open mouth, an exterior marginal welt around the mouth, a band surrounding the bag or pouch below the welt and spaced therefrom, a strip secured on the outer side of the band on each side of the bag and extending above the same close to the welt, said welt, band and strip together forming a channel nearly closed on each side of the bag, and a closure having side rims fitting said channels and slidable therein to permit the closure moving endwise over the bag or pouch.

2. A bag or pouch having an open mouth, an exterior marginal welt around the mouth, a band surrounding the bag or pouch below the welt and spaced therefrom to form a channel, a strip over the band at the sides of the bag extending above the band and close to the welt to nearly inclose said channel, reinforcing means for preventing the strip from being bent outwardly, and a closure having side rims fitting said channels and slidable therein to permit the closure moving endwise over the bag mouth.

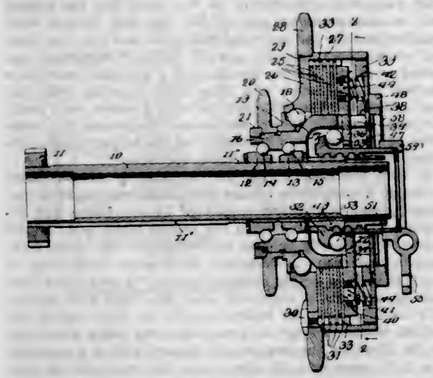
3. A bag or pouch having an open mouth, an exterior marginal welt around the mouth, a band surrounding the bag or pouch below the welt and spaced therefrom to form a channel, a strip over the band at the sides of the bag extending above the band and close to the welt to nearly inclose said channel, a plurality of reinforcing metal strips within the mouth of the bag, a plurality of rivets extending through the band to the reinforcing plates within the bag and having large heads the margins of which extend to the top of the strip on the outer side of said band, and a closure having side rims fitting said channels and slidable therein to permit the closure moving endwise over the bag mouth.

4. A bag or pouch having an open mouth, an exterior marginal welt around the mouth, a band surrounding the bag or pouch below the welt and spaced therefrom to form a channel, a strip around the band extending above the same and close to the welt to nearly inclose said channel, a space being left between the strip and the welt, reinforcing means for preventing the strip being bent outwardly, and a closure comprising a cap with side rims fitting said channels and slidable therein to permit the closure moving endwise over the bag mouth, said cap running freely through the space between the strip and the welt as the closure is moved to open and close the bag.

5. A bag or pouch having an open mouth, and an exterior marginal welt around the mouth, a band surrounding the bag or pouch below the welt and spaced therefrom to form a channel, a strip around the band extending above the same and close to the welt to nearly inclose said channel, spaced reinforcing means on the exterior of said strip for preventing the same being bent outwardly, a closure having side rims fitting said channels and slidable therein to permit the closure moving endwise over the bag mouth, and means carried by said closure for preventing its withdrawal over the bag.

[Claim 6 not printed in the Gazette.]

1,071,992. CLUTCH. FREDERICK S. ELLETT, Elmira, N. Y. Filed Apr. 15, 1912. Serial No. 690,755. (Cl. 192—10.)



1. In a clutch for motorcycles, the combination of a stationary member, a rotary member mounted on said stationary member, a wheel rotatably mounted on said rotary member, a plurality of friction disks adapted to form a driving connection between said rotary member and said wheel, a plate arranged on the outer end of said rotary member, an axially movable disk carried by said rotary member, a plurality of springs arranged between said axially movable disk and said plate and adapted to normally press said friction disks into gripping engagement, and means independent of the rotation of said rotary member and said wheel adapted to move said axially movable disk so as to release said friction disks.

2. In a clutch for motorcycles, the combination of a stationary member, a rotary member mounted on said stationary member, a wheel rotatably mounted on said rotary member, a plate adjustably arranged on the outer end of said rotary member, an axially movable disk carried by said rotary member, a plurality of springs arranged between said axially movable disk and said plate and adapted to normally press said friction disks into gripping engagement, and means independent of the rotation of said rotary member and said wheel adapted to move said axially movable disk so as to release said friction disks.

3. In a clutch for motorcycles, the combination of a stationary member, a rotary member mounted on said stationary member, a wheel rotatably mounted on said rotary member and having an axially extending flange adapted to form an annular chamber surrounding said rotary member, a plate mounted on said rotary member and adapted to form a closure for said chamber, a plurality of friction disks arranged in said chamber and adapted to form a driving connection between said wheel and said rotary member, an axially movable disk arranged between said friction disks and said plate, a spring bearing against said disk and said plate and adapted to move said friction disks into gripping engagement, a stationary cam member mounted on said stationary member, and a movable cam member engaging said stationary cam member and connected with said axially movable plate whereby the movement of said cam member is adapted to move said axially movable member toward said end plate to release said friction disks.

4. In a clutch for motorcycles, the combination of a stationary member, a rotary member mounted on said stationary member, a wheel rotatably mounted on said rotary member, a plurality of friction disks adapted to form a driving connection between said wheel and said rotary member, a plate adjustably mounted on said rotary member, an axially movable member arranged between said plate and said friction disks and provided with a plurality of recesses, said plate having an annular groove therein, a plurality of springs having one end in said recesses and the other end in said groove and adapted to move said friction disks into gripping engagement, and means independent of the rotations of said wheel and said rotary member adapted to move said axially movable member to release and engage said friction disks.

5. In a clutch for motorcycles, the combination of a stationary member, a rotary member mounted on said stationary member, a wheel rotatably mounted on said rotary member, a plurality of friction disks adapted to form a driving connection between said wheel and said rotary member, a plate carried by said rotary member, a plurality of springs for normally pressing said friction disks into gripping engagement, means independent of the rotations of said wheel and said rotary member for compressing said springs to release said friction disks, and means whereby said plate may be adjusted to simultaneously vary the tension of said springs.

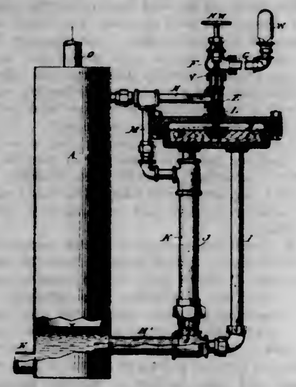
[Claims 6 to 8 not printed in the Gazette.]

1,071,993. MECHANISM FOR CONTROLLING THE OPERATION OF VALVES. MARTIN ERGENZINGER, Atlanta, Ga. Filed June 28, 1911. Serial No. 634,981. (Cl. 137—101.)

1. Valve control mechanism embracing a steam tight chamber provided at its upper end with means for receiving steam under pressure and at its lower end with means for receiving water under pressure; a two-part control chamber; a steam pipe connected to the upper end of the first-named chamber, and a water supply pipe connected to the lower end of said chamber; a control valve located in a second steam pipe, which latter pipe is connected in turn directly to the upper part of the two part control chamber; together with two pipes parallel with the steam chamber, one of said pipes being connected to the lower of the control chambers and to the water supply pipe, and the other connecting the steam supply pipe and water supply pipe; a sealing pipe extending to a point near the water supply pipe and terminating in the lower control chamber, substantially as described.

2. Valve control mechanism embracing a steam tight chamber provided at its upper end with means for receiving steam under pressure and at its lower end with means for receiving water under pressure; a valve and a valve chamber operatively connected by a pipe with the upper end of the first-named chamber; a two-part control chamber provided with a diaphragm, said diaphragm being con-

nected to the aforesaid valve; a water supply pipe located at the lower end of the steam tight chamber and two pipes one connecting the lower of the control chambers with the aforesaid water pipe and the other connecting the steam pipe and the water pipe; in combination with a sealing pipe operatively connected with the lower of the control chambers and extending to a point near the water supply pipe, substantially as described.



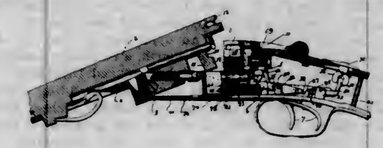
3. Valve control mechanism embracing a valve chamber; a steam supply pipe connected thereto and a valve operatively connected therewith; a diaphragm operatively connected to the valve; a two-part control chamber in which the diaphragm is located; a water supply pipe located at a lower level than the steam supply pipe; a water pipe connecting the lower control chamber with the water supply pipe; a pipe connecting the steam pipe and the water supply pipe, and a sealing pipe located inside the latter and connected at its upper end to the lower control chamber, its lower or sealing end being located above the level of the water supply pipe, substantially as described.

4. Valve control mechanism embracing two pipes located at different levels; a two-part control chamber provided with a diaphragm which separates one chamber from the other; a valve chamber located in the upper end of the first-named pipes; a valve located in said valve chamber and operatively connected with the diaphragm, a pipe connecting the lower control chamber with the lower of the before-mentioned pipes, and an additional pipe connecting the lower and the upper pipes; in combination with a sealing pipe the upper end of which is connected to the lower control chamber and the lower end of which is located at a point above the level of the lower pipe, substantially as described.

5. Valve control mechanism embracing two pipes located at different levels; an interconnecting pipe, and a two-part control chamber; together with a valve and a diaphragm connected thereto, said diaphragm being located in the control chamber and the valve in a pipe connected with the upper of the first-named pipes, which pipe is connected in turn with the upper control chamber; a pipe connecting the lower control chamber with the lower of the above-named pipes, and a sealing pipe connecting the lower control chamber with the lower of said pipes at a point above the level thereof, substantially as described.

1,071,994. SAFETY MECHANISM FOR BREAKDOWN GUNS. EMIL FLUES, Ithaca, N. Y., assignor to The Ithaca Gun Company, Ithaca, N. Y., a Corporation of New York. Original application filed Nov. 19, 1909, Serial No. 528,855. Divided and this application filed Mar. 20, 1912. Serial No. 685,086. (Cl. 42—70.)

1. In a break-down gun, the combination with a frame including a detachable trigger-plate, a barrel hinged to the frame, firing mechanism supported by the frame and including a trigger pivoted to the trigger-plate, and locking means for normally holding the frame and the barrel from relative movement; of safety mechanism comprising a longitudinally movable member having its front end supported on the pivot for the trigger, and formed with a lengthwise slot for receiving said pivot, and having its rear end slidably supported by the trigger-plate at the rear of said pivot, the front end of the longitudinally movable member detachably coacting with the locking means, and a movable hand-piece carried by the frame and detachably coacting with the rear end of the longitudinally movable member, said member being detachable from the locking means and the hand-piece by the detaching movement of the trigger-plate, substantially as and for the purpose described.



2. In a break-down gun, the combination with a frame including a detachable trigger-plate, a barrel hinged to the frame, firing mechanism supported by the frame and including a trigger pivoted to the trigger-plate, a lug rising from the trigger-plate at the rear of the pivot for the trigger and provided with an engaging pin, and locking means for normally holding the frame and the barrel from relative movement; of safety mechanism comprising a longitudinally movable member having its front and rear ends supported respectively on the pivot for the trigger and on the engaging pin of the lug, and formed with lengthwise slots for receiving said pivot and pin, the front end of the longitudinally movable member detachably coacting with the locking means, and a movable hand-piece carried by the frame and detachably coacting with the rear end of the longitudinally movable member, said member being detachable from the locking means and the hand-piece by the detaching movement of the trigger-plate, substantially as and for the purpose specified.

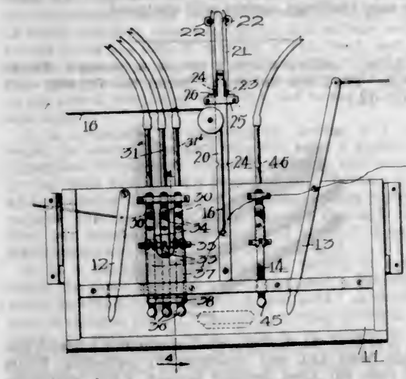
3. In a break-down gun, the combination with a frame including a detachable trigger-plate, a barrel hinged to the frame, firing mechanism supported by the frame and including a trigger pivoted to the trigger-plate, and locking means for normally holding the frame and the barrel from relative movement; of safety mechanism comprising a longitudinally movable member having its front end supported on the pivot for the trigger, and formed with a lengthwise slot for receiving said pivot, and having its rear ends terminating in upturned arms, the front arm detachably coacting with the locking means, the front end of the portion of the member between said arms being supported on the pivot for the trigger and formed with a lengthwise slot for receiving said pivot, and the rear end of said portion being slidably supported by the trigger-plate at the rear of said pivot, and a movable hand-piece carried by the frame and detachably coacting with the rear arm of the longitudinally movable member, said member being detachable from the locking means and the hand-piece by the detaching movement of the trigger-plate substantially as and for the purpose set forth.

4. In a break-down gun, the combination with a frame including a detachable trigger-plate, two pairs of lugs rising from the trigger-plate and spaced apart in a direction lengthwise thereof, the lug of each pair being united by a pin, a barrel hinged to the frame, firing mechanism supported by the frame and including a trigger pivoted on the pin uniting the front pair of lugs, and locking means for normally holding the frame and the barrel from relative movement; of safety mechanism comprising a longitudinally movable member having its front end supported on the pivot pin for the trigger and formed with a lengthwise slot for receiving said pivot pin, and having its rear end slidably supported on the pin uniting the rear pair of lugs, the front end of the longitudinally movable member detachably coacting with the locking means, and a movable hand-piece carried by the frame and detachably coacting with the rear end of the longitudinally movable member, said member being detachable from the locking means and the hand-piece by the detaching movement of the trigger-plate, substantially as and for the purpose described.

5. In a break-down gun, the combination with a frame including a detachable trigger-plate, a pair of lugs rising from the trigger-plate and united by a pin, a barrel hinged to the frame, firing mechanism supported by the frame and including a pair of triggers pivoted on said pin, and locking means for normally holding the frame and the barrel from relative movement; of safety mechanism comprising a longitudinally movable member having its front end supported on said pin between the triggers and formed with a lengthwise slot for receiving the pin, and having its rear end slidably supported by the trigger-plate at the rear of said pivot, the front end of the longitudinally movable member detachably coacting with the locking means, and a movable hand-piece carried by the frame and detachably coacting with the rear end of the longitudinally movable member, said member being detachable from the locking means and the hand-piece by the detaching movement of the trigger-plate, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,071,995. MODULATING MECHANISM FOR MUSICAL INSTRUMENTS. HORACE EDGAR FRENCH, Newcastle, Ind., assignor to Jesse French & Sons Piano Company, Newcastle, Ind., a Corporation of Indiana. Filed Dec. 24, 1910. Serial No. 599,108. (Cl. 84—160.)



1. In a music playing device, the combination with the hammers and a continuous main hammer rest rail therefor, of a plurality of auxiliary hammer rest rails normally resting above the main rest rail and movable to the rear and front thereof, and pneumatic means for operating each of the auxiliary hammer rest rails independently of the others to bring it in position to hold the hammers adjacent thereto away from the first named hammer rest rail, said means comprising a pneumatic for each of said sections, a source of exhaust, a lever for connecting each of said pneumatics with the source of exhaust independently of the others, and a push bar for operating all of said levers simultaneously in position to be undisturbed by the operation of said levers individually.

2. In a musical instrument, the combination with the key-bed, keys, source of exhaust, hammers, and hammer rest rail, of a plurality of auxiliary rest-rails normally located in alinement adjacent to the hammer rest-rail, a pneumatic connected with each of said auxiliary rest-rails, a lever for connecting each of said pneumatics with the source of exhaust independently of the others, and a push bar for operating all of said levers simultaneously in position to be undisturbed by the operation of said levers individually.

3. In a device of the character described, the combination of a plurality of air channels, a valve for each channel, a movable hammer rest-rail in sections, pneumatic means connected with each of said air channels for operating one of said sections independently of the others, a lever connected with each of said valves for operating the same, a spring for holding each lever in position to close its channel, and means resting on said levers for simultaneously operating all of them against the springs.

4. In a device of the character described, the combination of a plurality of air channels, a hammer rest rail in sections, pneumatic means connected with each of said air channels for operating one of said sections, a valve for controlling each of said air channels, a lever for operating each of said valves independently of the others, and a push bar resting on all of said levers and adapted to operate all of them simultaneously.

5. In a device of the character described, the combination of a plurality of air channels, a valve for controlling each of said air channels, a lever for operating each of said valves independently of the others, and a push bar resting on all of said levers and adapted to operate all of them simultaneously in position to be undisturbed by the operation of said levers individually.

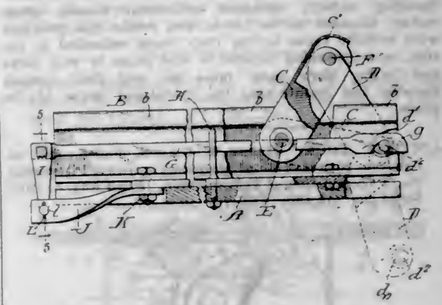
[Claim 6 not printed in the Gazette.]

1,071,996. CURTAIN-FASTENER. WILLIAM GATES, New Haven, Conn., assignor of one-half to Louis W. Gates, of West Haven, Conn. Filed Sept. 17, 1912. Serial No. 720,787. (Cl. 24—211.)



A curtain fastener comprising a post the upper part of one side cut away forming a cam surface and formed at its opposite side with a lug, a locking-piece mounted in said post and formed at its lower end with a nose projecting beyond the lower portion of the post and also formed with a finger-piece projecting above the top of the post.

1,071,997. BUNK AND LOCKING-BLOCK FOR LOGGING-CARS. CARL F. GERLINGER, Dallas, Oreg. Filed June 18, 1913. Serial No. 774,410. (Cl. 105—173.)



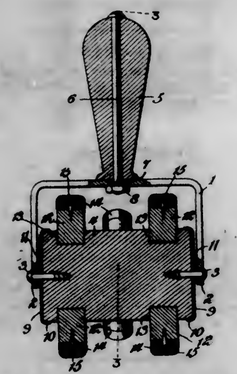
1. The combination with a logging car of a bunk consisting of a pair of rails provided with notches at one end, a chock block mounted between the rails and pivotally connected therewith, a link pivotally connected with the outer end of the chock block and provided with devices engaging the notches in the rails, a rod having a hooked end detachably connected with the link and extending to the opposite side of the car, and means for holding said rod against endwise movement.

2. The combination with a logging car of a bunk attached thereto, a chock block pivotally connected at one end with the bunk, a link pivotally connected with the opposite end of the block and provided with laterally pro-

jecting arms, a hooked rod engaging one of said arms and extending parallel with the bunk to the opposite side of the car, a downwardly extending arm attached to said rod, and a bar pivotally connected with the car and engaging said arm.

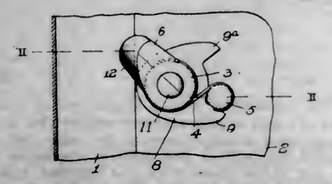
3. The combination with a logging car of a bunk, comprising two railway rails placed side by side and attached to the car, a chock block mounted between the rails and pivotally connected therewith, a link pivotally connected with the chock block and provided with laterally projecting arms engaging recesses in the rails, a rod having a hooked end engaging one of said arms on the link and extending parallel with the rails to the opposite side of the car, a downwardly extending arm attached to said rod, and a bar connected with the car and engaging said arm.

1,071,998. MASSAGE DEVICE. JAMES EDWIN GIBBS, Covington, Ky., assignor of one-half to Thomas Huston Armstrong, Covington, Ky. Filed Oct. 5, 1912. Serial No. 724,145. (Cl. 128—16.)



A device of the class described, comprising a yoke member, an operating handle connected thereto, a cylindrical roller axially journaled in said yoke member, short outstanding radially arranged cylindrical wooden plugs rigidly mounted in the roller, and rubber tips provided with metallic tacks having their heads embedded in the tips, said tips being secured to said plugs by said tacks and having their outer faces flat and their corners rounded and maintaining the cylindrical shape of the plugs.

1,071,999. LOCK. HENRY R. GILSON, Baden, Pa., assignor to National Metal Molding Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 5, 1912. Serial No. 713,480. (Cl. 70—49.)



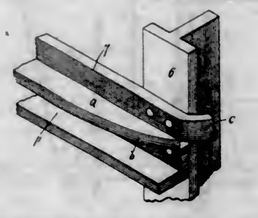
1. The combination with the casing of a structure, and a lid closing an opening therein; of a locking-member having an extending beveled tongue, a spring-receiving sleeve and a stop plate all formed into an integral structure, an abutment secured to said lid within range of engagement by said stop plate, a spring coiled around said sleeve and connected to said abutment and to said locking member, said spring adapted to hold the stop plate of said locking member yieldingly in engagement with said abutment, and means for securing said locking member to said lid.

2. The combination with the edge of a structure and a lid closing an opening therein; of a locking member having a beveled tongue a spring-receiving sleeve and a stop plate all formed into an integral structure, an abutment secured to said lid within range of engagement by said stop plate, a spring secured to said sleeve and to said abutment, and a single means for securing said locking member to said lid and for manipulating said member.

3. The combination with the straight edge of a fixed structure, and a hinged lid closing an opening in such structure, of an integrally-formed pivoted locking-member consisting of a bevel-edge tongue extending at an angle to the said edge of the structure a spring-receiving sleeve and a stop plate having projections thereon, an abutment secured to the said hinged lid and within range of operative engagement by said stop plate, a spring secured to said fixed abutment and surrounding said spring-receiving sleeve, and a screw extending loosely through the said lid and rigidly fixed to the said locking member, the said screw securing the said locking member to said lid.

4. The combination with a casing having an opening therein and a movable closure for said opening, of a locking member pivoted to said closure and consisting of an extended beveled tongue and a stop element, an abutment secured to said closure within range of engagement by said stop element, a spring secured to said locking member and to said abutment, said spring being effective to hold stop stop yieldingly against said abutment.

1,072,000. BREAD-RACK. IRVING B. GOLDEN, Toledo, Ohio. Filed Oct. 26, 1912. Serial No. 727,963. (Cl. 211—14.)

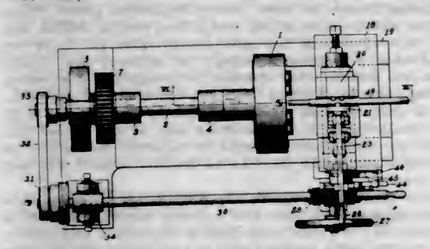


1. A rack of the class described, comprising a base frame having front and rear longitudinally extending T-bars with their flat sides disposed upward, T-bar reinforcing strips attached in inverted relation to the vertical flanges of said bars, said strips being disposed at the ends and center of said bars, cross-bars connected at their ends to said reinforcing strips and rigidly spacing the longitudinal bars of the frame, T-bars rising from the corners of said frame with their flat sides facing the opposite end of the rack, means bracing said corner T-bars against relative movements lengthwise of the frame, and a plurality of sets of bars extending horizontally from the inner side of one corner bar to the inner side of the adjacent corner bar and forming guide-ways for shelves.

2. In a rack of the class described, a plurality of upright members and a plurality of double angle-iron bar sets connecting adjacent standards, the bars of each set having their vertical flanges extending upward and their horizontal flanges extending inward to coöperate to form a shelf guiding way, with the upper horizontal flange rounded off at its forward end.

3. In a rack of the character described, corner uprights and a plurality of sets of double angle-iron bars connecting the adjacent end uprights, the bars of each set resting one upon the other with their horizontal flanges projecting inward to coöperate to form a shelf guiding-way and with the vertical flanges projecting upward, the upper horizontal flange having its forward end rounded off and the upper vertical flange having its forward end extended relative to the other flanges and curved outward.

1,072,001. MACHINE FOR REDUCING THE SECTION OF METAL BLANKS. PHILIP M. HAAS, Youngstown, Ohio. Filed Dec. 21, 1912. Serial No. 737,976. (Cl. 80—40.)



1. In a machine for reducing the section of a metal blank, the combination of a rotatable head, a plurality of freely rotatable rolls mounted in said head and about the axis of rotation thereof, the axis of rotation of said head lying in a plane exclusive of the axes of rotation of said rolls, means for permitting the adjustment of the axes of rotation of said rolls radially and angularly with relation to the axis of rotation of said head, and means for driving said head.

2. In a machine for reducing the section of a metal blank, the combination of a rotatable head, a plurality of roll-carrying casings mounted in said head, a plurality of freely rotatable rolls mounted in said casings and arranged about the axis of rotation of said head, said roll casings being mounted for two adjustments, whereby said rolls may be adjusted radially and angularly with relation to the axis of rotation of said head, and means for driving said head.

3. In a machine for reducing the section of a metal blank, the combination of a rotatable head, a plurality of cylindrical roll-carrying casings mounted in said head and having their axes radially arranged with relation to the axis of rotation of said head, said casings being adjustable radially with relation to said axis and angularly about their own axes, a freely rotatable roll mounted in each of said casings, and means for driving said head.

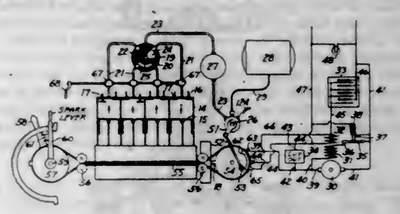
4. In a machine for reducing the section of a metal blank, the combination of a rotatable head, a plurality of freely rotatable rolls mounted in said head and about the axis of rotation thereof, a movable carriage provided with means for engaging a metal blank to be reduced by said head, means for advancing said carriage toward said head, separate means for withdrawing said carriage, and means for driving said head.

5. In a machine for reducing the section of a metal blank, the combination of a rotatable head, a plurality of freely rotatable rolls mounted in said head and about the axis of rotation thereof, a movable carriage provided with means for engaging a metal blank to be operated upon by said head, means for moving said carriage and a blank borne thereby away from said head, said carriage-moving means being adapted to be rendered ineffective after the blank borne by said carriage has been withdrawn from the bite of said rolls.

[Claims 6 and 7 not printed in the Gazette.]

1,072,002. ENGINE-STARTING APPARATUS. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to North East Electric Company, Rochester, N. Y., a Corporation of New York. Filed Nov. 6, 1911. Serial No. 658,902. (Cl. 123—181.)

1. Engine-starting apparatus for automobiles having, in combination, a transverse support adapted to be carried, as its ends, upon the side frame-members of an automobile in front of the engine thereof, a rotary member journaled at the middle of said support, in position to aline with the engine-shaft, means for coupling the engine-shaft and said member, a countershaft, journaled on said support, transverse to said rotary member and rotatively connected therewith, and an air-pump and an electric machine located on opposite sides of the rotary member and operatively connected therewith through the countershaft.



2. Engine-starting apparatus having, in combination, a motor, a pump for supplying motive-fluid to the engine to be started, gearing adapted to connect the motor with the engine and the pump to actuate them simultaneously, and a one-direction clutch interposed in said gearing and adapted to permit the engine to overrun the motor and the pump after the engine has started to operate.

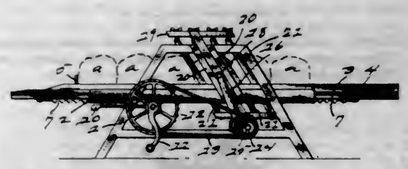
3. Engine-starting apparatus having, in combination, a motor, a pump for supplying motive-fluid to the engine to be started, reduction-gearing adapted to connect the motor with the engine and the pump to actuate them simultaneously, manually-operable means for throwing said gearing into or out of operation, and a one-direction clutch interposed between the engine and the gearing to permit the engine to overrun the gearing after the engine has started to operate.

4. Engine-starting apparatus having, in combination, a motor, an air-pump for supplying motive-fluid to the engine to be started, a fuel-valve for controlling the introduction of fuel to the air supplied by said pump to the engine, gearing for connecting the motor with the pump, and manually-operable means for simultaneously throwing said gearing into operation and opening said valve.

5. Engine-starting apparatus having, in combination, a motor, an air-pump for supplying motive-fluid to the engine to be started, means for introducing fuel into the air supplied to the engine by said pump, gearing for connecting the motor with the pump and the engine to actuate them simultaneously, and manually-operable means for throwing the motor, the gearing, and the fuel-introducing means simultaneously into operation.

[Claims 6 to 8 not printed in the Gazette.]

1,072,003. BREAD-CUTTER. WILLIAM E. HANSON and THOMAS L. GREEN, Toledo, Ohio. Filed Mar. 8, 1913. Serial No. 753,084. (Cl. 146—12.)

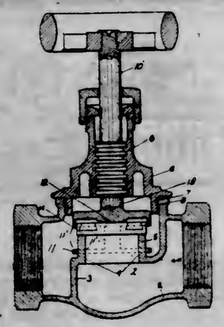


In a bread cutter, a slotted movable carrier, a gang of inclined knives arranged in V-form, having a reciprocating movement through the slots in the carrier, and connected mechanism for reciprocating the knives and simultaneously advancing the carrier.

1,072,004. VALVE-DISK. GEORGE HART, Williamsport, Pa. Filed June 13, 1912. Serial No. 703,408. (Cl. 137—4.)

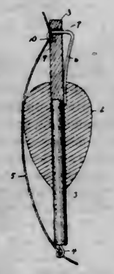
A valve disk consisting of a metal spud in the form of a disk with short radial arms, a body or bottom disk of

resilient, resistive material of substantially the same diameter, the spud being embedded in the body, forming a



valve disk with a metal top and a bottom face entirely of resistive, resilient material.

1,072,005. FISHING-FLOAT. BERNARD M. HARTLEY, West Haven, Conn., assignor of one-half to William F. Swift, West Haven, Conn. Filed Feb. 6, 1913. Serial No. 746,473. (Cl. 43—4.)



A float for fishing lines comprising a body portion, a stem projecting beyond the opposite ends of the body, said stem formed with a hole and with a notch, a spring wire secured to the body and bent to pass through the hole, and formed with a hooked end the inner edge of the hooked portion adapted to come to a bearing against the side of the stem so as to clamp a line to the stem and the point of the hook adapted to enter the said notch.

1,072,006. CALK-FASTENER. JOHN H. HERSHBERGER, Wilkes-Barre, Pa. Filed Feb. 28, 1913. Serial No. 751,335. (Cl. 168—43.)

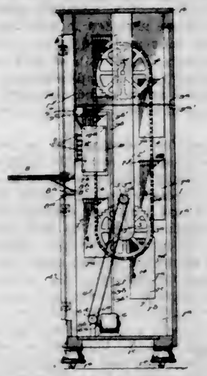


1. In a calk fastener, the combination with the shoe having across its lower face a transverse groove, one wall of the groove being undercut, and a calk whose body has both side faces beveled and one of them engaging said undercut wall when the upper end of the calk rests on the bottom of said groove; of a locking plate of less thickness than the depth of said groove in the shoe, its inner edge being beveled to correspond with the bevel of the other face of said calk and its body having a hole, means for holding the calk from lateral dislocation when engaged by the plate, and a set bolt passing through the latter and into the shoe.

2. In a calk fastener, the combination with the shoe having across its lower face a transverse groove whose rear wall is undercut and whose front wall is beveled, and a calk whose body has upwardly diverging side faces one of which is adapted to engage the undercut wall of said groove and the other of which is corrugated; of a locking plate of less thickness than the depth of said groove in the shoe, its edges converging upward and adapted to fit between the calk and the front wall of said groove and its rear edge having upright corrugations throughout its height, and means for drawing the calk upward into said groove.

3. In a calk fastener, the combination with the shoe having across its lower face a groove, one wall of which is undercut; of a calk whose body is disposed in said groove, a locking plate disposed also in the groove, one of these elements being beveled to engage said undercut wall and both elements having interengaging corrugations where they contact with each other, and means for drawing the plate upward into the groove.

1,072,007. FILING APPLIANCE. HARRY J. HICK, Alliance, Ohio, assignor to The McCaskey Register Company, Alliance, Ohio, a Corporation of Ohio. Filed Dec. 12, 1910. Serial No. 596,902. (Cl. 45—3.)



1. In a filing appliance, the combination of a support, a series of filing sections, a mechanism for supporting and moving said filing sections through an endless path, a motor for driving said mechanism, a series of keys, a normally open switch common to said keys and operated thereby for controlling said motor, and a spring actuated device normally arranged in the path of movement of one of said filing sections and arranged to be operated thereby to stop the section at a prearranged position, each of said devices being held in in-operative position by an adjacent key, but being released thereby when said key is operated.

2. In a filing appliance, the combination of a support, a series of filing sections, mechanism for moving said filing sections on the support through an endless path, a motor for driving said endless mechanism, a release device arranged to be actuated by each of said filing sections, a spring arranged to normally hold said device in the path of movement of a filing section, a key for each of said release devices arranged to hold it out of operative position, but permitting it to move into operative position when the key is operated, each of said keys being formed with a shoulder arranged to be engaged by the adjacent release device to lock the key in operated position, and a switch common to and operated by said keys for controlling the operation of the motor to stop each filing section at a predetermined position.

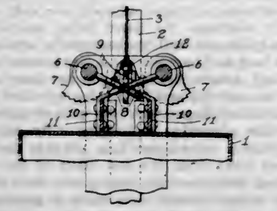
3. In a filing appliance, a series of filing sections each comprising a plurality of holders arranged to swing relative to each other, mechanism for supporting and moving said sections through an endless path, a motor for operating said mechanism, a series of keys, one for each of said sections, for controlling the starting and stopping of said mechanism, a switch common to said keys and arranged to be closed thereby, a series of spring actuated release devices one for each of said filing sections and normally arranged in the path thereof, each key operating to hold an adjacent release device in in-operative position but permitting it to move into operative position when the key is operated to close the switch, and a stop or shoulder on each key arranged to be engaged by the adjacent release device for holding the key in operated position until the release device is engaged by its corresponding filing section.

4. In a filing appliance, a series of filing sections each comprising a plurality of holders arranged to swing relative to each other, mechanism for supporting and moving said sections through an endless path, a motor for operating said mechanism, a series of keys, one for each of said sections, for controlling the starting and stopping of said mechanism, a switch common to said keys and arranged to be closed thereby, a series of spring actuated release devices one for each of said filing sections and normally arranged in the path thereof, each key operating to hold an adjacent release device in in-operative position when the key is operated to close the switch, a stop or shoulder on each key arranged to be engaged by the adjacent release device for holding the key in operated position until the release device is engaged by its corresponding filing section, and means for returning the key to normal position when the release device is operated.

5. In a filing appliance, a series of filing sections each comprising a plurality of holders arranged to swing relative to each other, mechanism for supporting and moving said sections through an endless path, a motor for operating said mechanism, a series of keys, one for each of said sections, for controlling the starting and stopping of said mechanism, whereby each of said filing sections can be brought to a predetermined position of rest, a normally open switch common to said keys and arranged to be closed thereby, a pair of coöperating elements for each filing section for controlling the opening of the switch, one element of a pair being carried by each filing section and the other element of a pair being swingably supported adjacent to one of said keys, each of the last mentioned elements being normally arranged in the path of movement of its coöperating element carried by a filing section and arranged to lock the adjacent key in operated position to close the switch, but operating when engaged by its coöperating element to release the key and permit the opening of the switch.

[Claims 6 to 11 not printed in the Gazette.]

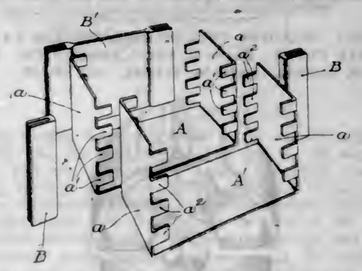
1,072,008. SAFETY-STOP FOR ELEVATORS. JOHN HOFFER, Fairmont, W. Va. Filed Aug. 8, 1912. Serial No. 714,114. (Cl. 187—87.)



1. In an elevator safety stop, the combination with an elevator car movable between guides, of a pair of rotary mounted shafts each provided with safety cams in positions to engage said guides, a sustaining cable, a pair of weighted cables, a pair of pivoted levers each connected at its inner end to said sustaining cable and at its outer end to one of said weighted cables, arms extending from said cam shafts and operatively engaged by said levers, and a pair of straps extending one over the inner end of each lever and connected to said car.

2. In an elevator safety stop, the combination with an elevator car movable between guides, of a pair of rotatably mounted shafts each provided with safety cams in position to engage said guides, and a sustaining cable for said car, a pair of weighted cables, a pair of pivoted levers, each lever being connected at its inner end to said sustaining cable and at its outer end to one of said weighted cables, said levers being slotted at their outer ends, arms extending from said cam shafts through the said lever slots, and a pair of straps extending one over the inner end of each lever and connected to said car.

1,072,009. SECTIONAL BOX. JOSEPH KEEFE, Boston, Mass., assignor to John H. Parker, Saugus, Mass. Filed Oct. 17, 1910. Serial No. 587,609. (Cl. 247—5.)



1. A sectional box comprising several sections each having a plurality of integral projections, and a member to engage a plurality of projections of one section and also a plurality of projections of an adjacent section and hold those sections together, said member being slidably mounted externally on the projections which it engages.

2. A sectional box comprising several sections each having a plurality of tongues at right angles to the side of the section and a member separate from the sections to engage a plurality of tongues of one section and also a plurality of tongues of an adjacent section and hold those sections together, said member being slidably mounted on the projections which it engages.

3. A sectional box comprising several sections each section having a projection and a member slidably mounted externally on the projections of adjacent sections to hold those sections together.

4. A sectional box comprising several sections each section having a projection at opposite sides; and a member consisting of three portions, one portion to engage adjacent projections at one side of the sections to hold that side together, another portion to engage adjacent projections at the other side of the sections and hold that side together and a third portion connecting the other two and holding one of them in engagement with the projections at one side of the sections and the other in engagement with the projections at the other side of the sections, said member being slidably mounted on the projections which it engages.

5. A sectional box comprising several sections each having a tongue, the tongues of adjacent sections being in line, said line being at a right angle to the bottom of the box; and a member to externally engage the tongues of adjacent sections and hold those sections together.

[Claims 6 to 15 not printed in the Gazette.]

1,072,010. PROCESS OF PRODUCING ALKALI-METAL HYDROXIDS DIRECTLY FROM ALKALI-METAL CHLORIDS. JULIUS KERSTEN, Delbruck, near Cologne, Germany. Filed Oct. 18, 1912. Serial No. 726,544. (Cl. 23—22.)

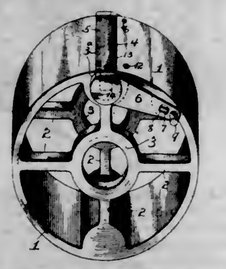
1. A process of producing alkali metal hydroxids directly from alkali metal chlorids which consists in mixing an aqueous solution of an alkali metal chlorid with hydroxid of lead, whereby an alkali metal hydroxid contain-

ing basic chlorid of lead is obtained, and in separating the chlorid of lead from the alkali metal hydroxid.

2. A process of producing alkali metal hydroxids directly from alkali metal chlorids which consists in heating an aqueous solution of an alkali metal chlorid containing hydroxid of lead, whereby an alkali metal hydroxid containing basic chlorid of lead is obtained, and in separating the chlorid of lead from the alkali metal hydroxid.

3. A process of producing alkali metal hydroxids directly from alkali metal chlorids which consists in heating an aqueous solution of an alkali metal chlorid containing hydroxid of lead, whereby an alkali metal hydroxid containing basic chlorid of lead is obtained, and in separating the chlorid of lead from the alkali metal hydroxid, in recovering the hydroxid of lead from the basic chlorid of lead, and in converting another aqueous solution of said alkali metal chlorid into an alkali metal hydroxid by means of the recovered hydroxid of lead, and so on.

1,72,011. WINDING ROLL OR FORMERS FOR PAPER-PULP TUBES. FRANK E. KEYES, Pasadena, Cal. Filed Aug. 12, 1912. Serial No. 714,643. (Cl. 92—67.)



1. A winding roll for forming paper pulp tubes, comprising a cylinder provided in its periphery with a longitudinal groove arc shaped in cross section, and a rotating cam mounted in said groove, the said cam having a portion of its surface conforming to the curvature of the periphery of the cylinder and the remaining portion adapted when turned to project beyond the periphery of the cylinder.

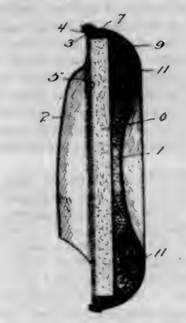
2. A winding roll for forming paper pulp tubes, comprising a cylinder provided in its periphery with a longitudinal groove arc shaped in cross section, a rotating cam mounted in said groove and extending approximately the length of the cylinder, the said cam having a portion of its surface conforming to the curvature of the periphery of the cylinder and the remaining portion in the arc of a smaller radius so that when turned will project beyond the periphery of the cylinder.

3. In a winding roll for forming paper pulp tubes, the combination of a cylinder provided in its periphery with a longitudinal arc shaped groove, a rotating cam in said groove, the said cam having a portion conforming to the curvature of the periphery of the cylinder and the remaining portion conforming to the curvature of the groove within which it is mounted, means for locking said cam within the groove and a handle for rotating the cam.

4. The combination of a cylinder having an arc shaped groove in its periphery, the said groove extending lengthwise the cylinder, a rotating cam mounted in said groove, the said cam having a portion of its surface conforming to the curvature of the periphery of the cylinder and the remaining portion adapted when turned to project beyond the periphery of the cylinder, a handle secured to said cam at one end, and means for locking the cam against endwise movement.

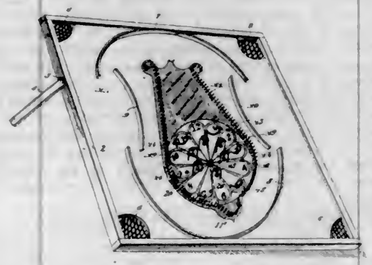
1,072,012. BASE-BALL GLOVE AND MITT. CHARLES M. KING, Washington, D. C., assignor to A. G. Spalding & Bros., New York, N. Y., a Corporation of New Jersey. Filed Aug. 8, 1912. Serial No. 714,066. (Cl. 2—195.)

1. A pad for base ball mitts or gloves, comprising a main body portion and a split-ring of padding material carried upon the face of said main body portion adjacent to the outer edge thereof, said split-ring comprising a case of flexible fabric having an opening therein and adapted to be stuffed with padding material, and means for closing said opening.



2. In a pad for base ball mitts or gloves, the combination with a blank of flexible material adapted to be removably secured to the outer edges of the cover of the glove, of a main body portion of padding material secured on said blank, a case of flexible material having an opening therein adapted to be stuffed with padding material, means for closing said opening in the case, said case being carried on the face of said main body portion of padding material conforming to the outer edge thereof, substantially as described.

1,072,013. GAME APPARATUS. FRANK W. KLOCK, Kelton, Utah. Filed Aug. 27, 1912. Serial No. 717,383. (Cl. 46—61.)

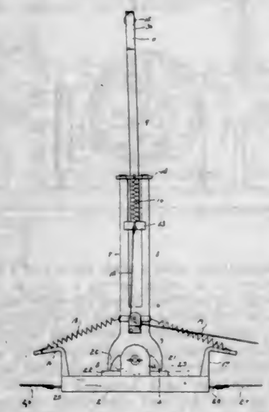


1. In a game apparatus, a flat inclined base having a continuous flange, a guide partition, said partition comprising an upper elliptical member, a lower elliptical member, and curved sides arranged adjacent the ends of the upper and lower members, the board being centrally provided with a harp-shaped wall, concentrically arranged wickets upon the base and between the lower portion of the harp-shaped wall, arbors arranged upon the base and adjacent the wickets, and the said base being provided between the sides of the harp-shaped partition with staggered members.

2. A game apparatus comprising a flanged board, said board having a curved partition, the side walls of which are spaced away from the end walls of the partition, a harp-shaped wall upon the board, said wall being formed upon its lower rounded face with a pocket, removable wickets upon the board, removable stop members arranged adjacent the wickets, and staggered pins arranged between the sides of the wall and away from the wickets and stop members.

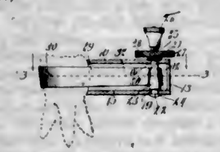
3. In a game apparatus a flat base having a continuous flange, pockets arranged at the corners of the base, a guide partition, said partition comprising an upper elliptical member, a lower elliptical member, and curved sides arranged adjacent the ends of the upper and lower members, the board being centrally provided with a harp-shaped wall, the lower rounded portion of the wall being formed with a pocket, removable arbors comprising pockets disposed upon the board and within the rounded portion provided by the wall, substantially U-shaped wickets arranged upon the board in spaced relation to the arbors, pivoted members upon the wickets, staggered members upon the board and arranged between the sides of the wall, a stop member above the staggered members, all substantially as and for the purpose set forth.

1,072,014. TROLLEY STAND AND POLE. ANTON C. KUDLA, Meriden, Conn. Filed Mar. 7, 1913. Serial No. 752,640. (Cl. 191—66.)



A trolley pole comprising a base, a main pole pivotally connected with the base and provided on opposite edges with downwardly projecting feet, longitudinally movable blocks mounted in the base and normally standing beneath said feet, and means for withdrawing said blocks.

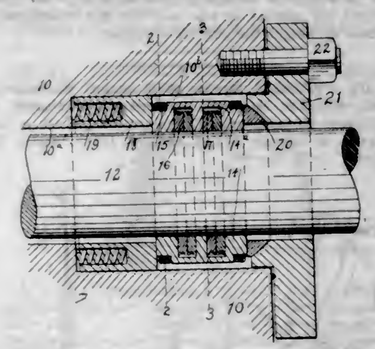
1,072,015. MATRIX DEVICE. JOHN A. MAKER, St. Louis, Mo. Filed Oct. 29, 1912. Serial No. 728,351. (Cl. 32—17.)



1. A device of the class described, comprising a casing having a slot therethrough at one end and a cutaway part at the opposite end, a spindle rotatably mounted in said cutaway part of said casing and having a tapered portion, a matrix band having a loop and having the ends passing through said slot, and wound upon said tapered portion of said spindle, and means for operating said spindle.

2. A device of the class described, comprising a casing having a slot therethrough at one end and a cutaway part at the opposite end, a spindle rotatably mounted in said cutaway part of said casing and having a tapered portion, a matrix band having a loop and having the ends passing through said slot and wound upon said tapered portion of said spindle, means for operating said spindle, said spindle having a threaded part, and a clamping nut upon said threaded part for securing said spindle in any one of a plurality of adjustments.

1,072,016. STUFFING-BOX. LOUIS H. MARTELL, Elyria, Ohio, assignor to The Metallic Packing and Manufacturing Company, Elyria, Ohio, a Corporation of Ohio. Filed May 31, 1912. Serial No. 700,690. (Cl. 121—109.)



1. In stuffing box construction for locomotive engines and the like, the combination of a box, its end cap or gland, and the reciprocating piston rod which passes loosely through said cap and the rear end of the box, with a longitudinally divided tubular case whose external diameter is less than the internal diameter of the box and which surrounds the piston rod in said box and has an internal circumferential groove, means for holding the two parts of said case together, a contractible metallic packing ring fitted in said groove and having therein only slight lateral movement and substantially no longitudinal movement, a packing ring in the front end of the box having a conical front surface which engages with the cap and having a plain rear surface which engages the front end of the case, and a spring actuated tubular follower slidably fitted in the box around the piston rod and engaging at its front end with the rear end of the case.

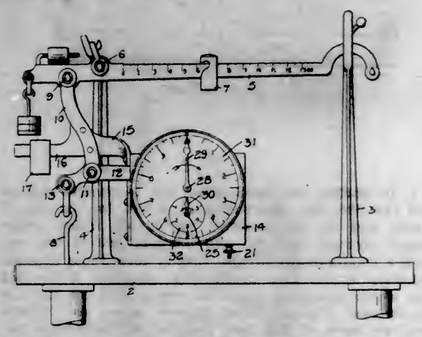
2. In stuffing box construction for locomotive engines and the like, the combination of a box, its end cap or gland, and the reciprocating piston rod which passes loosely through said cap and the rear end of the box, with a longitudinally divided tubular case which surrounds the piston rod within the box and whose external diameter is considerably less than the internal diameter of the box and whose internal diameter is very little greater than the diameter of the piston rod,—which case has an internal circumferential groove,—a contractible metallic packing ring which is fitted in said groove and has therein substantially no longitudinal movement and a very slight lateral movement, and which projects inward from said case a very slight distance beyond the inner surface thereof into engagement with the piston rod, means for holding the two parts of the case together, and a spring actuated tubular follower which surrounds the piston and is movable longitudinally only in the rear end of the box and engages with the rear end of the case and acts to force said case forward in the box against a surface supported by the end cap.

3. In stuffing box construction for locomotive engines and the like, the combination of a box, its end cap or gland, and the reciprocating piston rod which passes loosely through said cap and the rear end of the box, with a longitudinally divided tubular case which surrounds the piston rod within the box and has an internal circumferential groove, spring clamping rings holding the parts of said case together, a contractible metallic packing ring fitted in said circumferential groove in the case and having therein only slight lateral movement and substantially no longitudinal movement, and a spring actuated tubular follower which surrounds the piston and engages the rear end of the case and acts to force said case forward in the box against a surface supported by the end cap.

1,072,017. ALUMINUM ALLOY. WILLIAM A. MCADAMS, Bay Shore, N. Y. Filed Dec. 20, 1912. Serial No. 737,894. (Cl. 75—1.)

An aluminum alloy, composed of aluminum, zinc and copper in which the aluminum is substantially five times by weight the amount of zinc and the zinc substantially five times by weight the amount of copper.

1,072,018. SCALE. ROBERT MCFARLANE, Minneapolis, Minn., assignor, by direct and mesne assignments, to McFarlane Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 29, 1910. Serial No. 558,483. (Cl. 73—46.)



1. A scale comprising a scale-beam having a poise and a platform connection, a stop for the beam under load, an auxiliary beam or lever interposed in the platform connection and movable independently of said scale beam, a spring connection for said auxiliary beam, and weight indicating means operatively connected with said auxiliary beam and constructed to indicate the weight of the article or object on the platform regardless of the position of the poise on the scale beam.

2. A scale comprising a weighing beam, a sliding poise thereon, a stop for the beam under load, a hanger suspended from said beam, an auxiliary beam or lever pivoted on said hanger, a platform connection attached to said auxiliary beam at one side of its pivot, means yieldingly resisting relative movement of said hanger and auxiliary beam, and a weight indicating device operatively connected with said auxiliary beam and adapted to indicate the weight of the article being weighed regardless of the position of the poise of the beam.

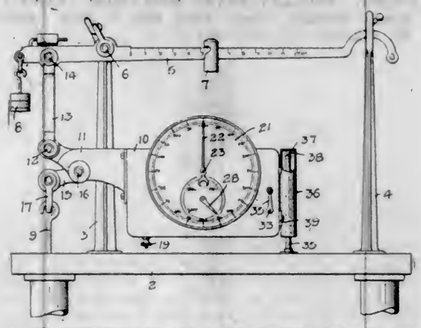
3. The combination with a scale beam having a poise, a platform connection, and a stop for said beam under load, of a hanger interposed between said scale beam and said platform connection, an auxiliary beam carried by said hanger, a spring arranged to resist relative movement of said hanger and auxiliary beam, a graduated dial and an indicator hand connected with said auxiliary beam and arranged to move over said dial, whereby the weight of an article or load on said platform is indicated on said dial regardless of the position of the poise on the scale beam and whereby said indication may be verified by balancing said beam with said poise.

4. A scale comprising a weighing beam, a stop for said beam under load, a hanger suspended from said beam, a casing carried by said hanger, a dial mounted on said casing, an indicator hand, an auxiliary beam or lever pivoted on said hanger and having a limited swinging movement in said casing, means yieldingly resisting relative movement of said auxiliary beam and said hanger, means operatively connecting said indicator hand with said auxiliary beam, and a platform connection from said auxiliary beam.

5. A scale comprising beam, a platform connection therefor, a casing inclosing a portion of said beam, a spring attached at one end to said beam and having an adjustable connection at its other end with said casing, a dial carried by said casing and having graduations representing the weight of the article on the scale platform, an indicator hand arranged to move over the graduations of said dial, and means operatively connecting said indicator hand with said beam.

[Claims 6 to 19 not printed in the Gazette.]

1,072,019. SCALE. ROBERT MCFARLANE, Minneapolis, Minn., assignor, by direct and mesne assignments, to McFarlane Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 17, 1910. Serial No. 587,547. (Cl. 73—46.)



1. The combination, with a scale beam and a scale platform connection, of a casing having a pivotal connection with said beam, an auxiliary beam pivotally supported in said casing and attached at one end to said scale platform connection, a spring connected with said auxiliary beam within said casing, a balance weight carried by said auxiliary beam within said casing, a dial mounted on said casing, and an indicator hand arranged to move over the graduations of said dial and operatively connected with said auxiliary beam.

2. A scale comprising a scale beam and platform connection, a casing having a bracket mounted thereon, a link pivotally connecting said bracket with said scale beam, an auxiliary beam projecting into said casing and pivoted on said bracket and attached to said scale platform connection, a spring arranged within said casing and attached thereto and to said auxiliary beam, a balance weight carried by said auxiliary beam, a dial mounted on said casing, an indicator hand operatively connected with said auxiliary beam and movable over the graduations of said dial, and mechanism for moving said balance weight.

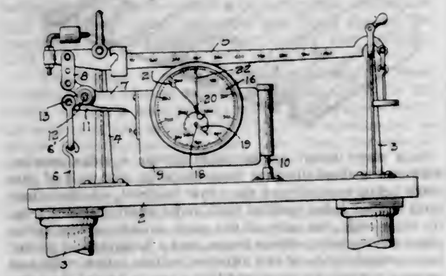
3. A scale comprising a scale beam and platform connection, a casing having a pivotal connection with said beam, an auxiliary beam projecting into said casing and pivotally supported thereon and attached at one end to said platform connection, a spring connected with said auxiliary beam, a balance weight mounted on said auxiliary beam, mechanism for adjusting said balance weight, a graduated dial, and an indicator hand operatively connected with said beam and adapted to move over the graduations of said dial.

4. A scale comprising a scale beam and platform connection, an auxiliary beam connected to said scale beam and attached at one end to said platform connection, a spring arranged to resist movement of said beam, a balance weight mounted on said auxiliary beam, a graduated dial and an indicator hand operatively connected with said auxiliary beam and adapted to move over the graduations of said dial, a secondary dial graduated to represent fractions of the graduations of the main dial, an indicator hand for said secondary dial, a finger grip, and means operatively connecting said finger grip with said secondary dial indicator hand and with said balance weight, for the purpose specified.

5. A scale comprising a scale beam and platform connection, an auxiliary beam pivotally connected to said scale beam and attached at one end to said platform connection, a spring arranged to resist movement of said auxiliary beam, a balance weight for said auxiliary beam, a main dial having an indicator hand operatively connected with said beam, a secondary dial graduated to represent fractions of the graduations of said main dial, an indicator hand for said secondary dial, a finger grip geared to said secondary dial indicator hand, and a sliding rack bar meshing with said finger grip gear and operatively connected with said balance weight, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,072,020. SCALE. ROBERT MCFARLANE, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 2, 1911, Serial No. 606,249. Renewed Dec. 16, 1912. Serial No. 737,129. (Cl. 73—23.)



1. A weighing scale comprising a scale beam, a lever pivotally supported thereby, a second lever pivotally supported on said first named lever and having means for connection with a platform or load support, a dash-pot device interposed between said levers and gradually increasing the load on the long arm of one of said levers as said lever ascends under the weight of the load on said platform, a dial and indicator hand carried by one lever and means operatively connecting said indicator hand with the other lever.

2. A weighing scale comprising a scale beam, a lever pivotally supported thereby, a second lever pivotally supported on said first named lever and having means for connection with a platform or load support, a dash-pot comprising a cup supported on one of said levers and containing a suitable liquid, a plunger attached to the other lever and movable in said cup, ascending or descending therein as its lever is operated, the ascent of said plunger increasing the load on its lever to counter balance the load on the platform.

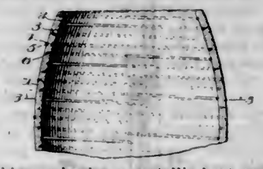
3. A weighing scale comprising a scale beam, a lever pivotally supported thereby, a second lever pivotally supported on said first named lever and having means for connection with a platform or load support, a cup carried by one of said levers and having an open top and adapted to contain a quantity of mercury, a hollow plunger also containing mercury adapted to move vertically through the opening in the top of said cup and connected with the other lever, said plunger moving up and down with the long arm of its lever and offering an increasing or decreasing resistance to the movement of said arm.

4. A scale comprising a weighing beam and a poise weight, a lever connected to the short arm of said beam, a second lever pivotally connected with said first named lever, means attached to said second lever for connection with a load support, a dash-pot device, including a cup containing a quantity of mercury, carried by one of said levers, a hollow plunger also containing a quantity of mercury adapted to move vertically in said cup and connected with the long arm of said second lever, said dash-pot device resisting relative movement of said levers, and a weight indicator operatively connected with one of said levers.

5. In a platform scale, the combination, of a beam rod in two sections, levers connected to each section and pivoted together near the corresponding adjacent ends, a variable counter-poising means including a dash-pot interposed between the long arms of said levers and resisting relative movement thereof, means interposed between said dash-pot and the pivots of said levers for indicating the movement of the levers upon each other proportionate to the load on the scale.

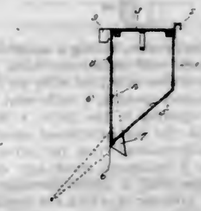
[Claims 6 to 10 not printed in the Gazette.]

1,072,021. NON-BREAKABLE SAFETY LAMP-GLASS. EDWARD OSKER MCLAUGHLIN, Masontown, Pa. Filed Dec. 20, 1912. Serial No. 737,915. (Cl. 240—94.)



A lamp chimney having a metallic heat conductor and provided with internal conducting windings exposed to the flame space of the chimney, external windings exposed to the atmosphere, and internal windings connecting the first and second named windings together and embedded in the walls of the chimney.

1,072,022. GARBAGE-CAN. WILLIAM STEWART MILLER, Lawton, Okla. Filed June 17, 1913. Serial No. 774,192. (Cl. 220—115.)

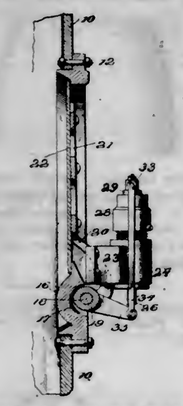


A garbage receptacle comprising a body having an open top and an automatic closure therefor and having an opening at its side, said body being provided with a bottom which inclines down toward the lower edge of the said opening, a section hingedly connected with the body at the lower edge of the inclined bottom and provided with side flanges, said flanges being adapted to lie against the sides of the body when the section is in a closed position over the side opening, a catch adapted to hold the section in a closed position, the said section being adapted to swing to a position approximately in alinement with the inclined bottom and an extension at the edge of said section adapted to impinge upon the inclined bottom and serving as a stop when the section is in an open position whereby the section is held in a line with the inclined bottom and acts as a chute to discharge the contents at a distance from the body.

1,072,023. DRAFT-REGULATOR. JOHN MILTON, Washington, D. C. Filed Nov. 23, 1912. Serial No. 733,114. (Cl. 110—158.)

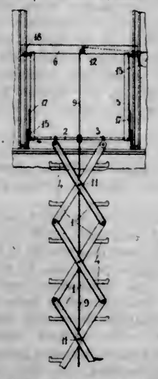
1. A steam-boiler furnace having a smoke-box into which the engine exhausts provided with an opening, a plate provided with an opening and seated in the opening in the smoke-box and having a valve seat in the periphery of its opening, a plate valve adapted to seat in the last-mentioned opening, an arm extending from the valve, a pivot for said arm, a relatively short arm extending from said pivot, fluid-pressure valve-opening means connected to said last-mentioned arm said means being provided with a spring for normally holding the valve in closed position, all of said valve-operating parts being located on the exterior of the smoke-box.

2. A steam-boiler furnace having a smoke-box into which the engine exhausts, said smoke-box being provided with an opening substantially flush with the wall of the smoke-box, a flat plate valve adapted to seat in the opening and close the same, the smoke-box being provided with a depression adjacent the opening therein, a pivot-pin mounted in said depression, an arm extending from the valve on the exterior side thereof and journaled on the pivot pin, and spring actuated means also located on the exterior of the smoke box connected to said arm, and tending to hold said valve closed.



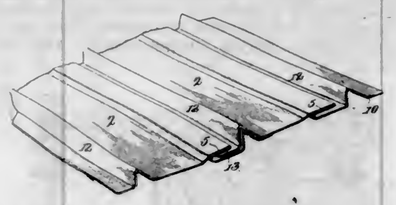
3. A steam-boiler furnace having a smoke-box into which the engine exhausts, said smoke-box being provided with an opening, a plate also provided with an opening seated in said first-mentioned opening, a valve seat formed in the periphery of the opening in the plate, a flat plate valve adapted to seat in the last-mentioned opening and close the same, an arm extending from the valve, a sleeve carried by said arm, a relatively short arm extending from said sleeve, a cross head, a piston movably connected to said cross head, a cylinder in which the piston is mounted, a spring opposing the movement of said cross head in one direction, and a pair of links connecting said cross head with the arm on the sleeve, all of the operating parts of said valve being located on the exterior of the smoke-box, substantially as described.

1,072,024. COMBINED WINDOW-RAILING AND FIRE-LADDER. DOMENICO MOMO, Saluggia, Italy. Filed Feb. 19, 1912. Serial No. 678,458. (Cl. 227—15.)



A fire escape having a frame, a trellis-work ladder and hoisting means for the ladder; said frame comprising a top rail between the jambs in the wall, a cross bar from which said ladder is suspended, a pair of vertical guides for said cross bar, horizontal pivot pins in the jambs supporting said vertical guides and a pair of links hinged in the jambs and constructed to slide on said guides, whereby said frame and ladder may be swung out from the house wall and locked in this position so that the ladder will hang free from the wall when let down by said hoisting means.

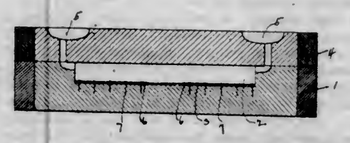
1,072,025. SHEET-METAL ROOFING-PLATE. HENRY E. MOOMAW, Chattanooga, Tenn. Filed Jan. 15, 1913. Serial No. 742,157. (Cl. 108—22.)



1. A sheet metal roofing plate having a ridge parallel with and a short distance from one edge, one wall of this ridge being vertical and the other inclined, another similarly shaped ridge parallel with and a short distance from its other edge, the part of the plate outside of this latter ridge serving as a nailing flange, and a longitudinal pocket like channel inside of and adjacent to this latter ridge and opening toward the same and being less in height than the same, the inclined wall of said first named ridge being longer than the corresponding wall of the other ridge to extend above the apex of the same when adjacent plates are overlapped with their inclined walls in engagement with each other, thereby assuring a relatively wide space between the vertical wall of said ridges.

2. A sheet metal roofing plate having a ridge parallel with and a short distance from one edge, said edge being bent to form an edge channel, one wall of this ridge being vertical and the other inclined, a second similar shaped ridge parallel with and short distance from the other edge of the plate, said other edge adapted to serve as a nailing flange, and a longitudinal pocket inside of and adjacent to this latter ridge and opening toward the same, the inclined wall of said first named ridge being longer than the corresponding inclined wall of the other ridge to extend above the apex of the same when said inclined walls are in engagement with each other to form a relatively wide space between the vertical walls of said ridges, said vertical walls of both ridges being approximately the same length to position the bottom of said edge channel above the bottom of said pocket when said inclined walls are in engagement, to form a relatively wide space beneath said edge channel and communicating with the space between the vertical walls.

1,072,026. METHOD OF MAKING RESISTANT SURFACES. ARCHIBALD D. MORRIS, New York, N. Y., assignor, by mesne assignments, to Murray and Jacobs Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Aug. 2, 1907, Serial No. 386,709. Renewed Dec. 27, 1912. Serial No. 738,967. (Cl. 22—202.)



1. The method of producing articles adapted to resist abrasion, which method consists in forming a mold for the article, coating a mold surface which is to shape a resistant surface of the article with a layer of comminuted resistant material, protecting said layer from disturbance, and introducing into the mold molten metal, said layer being protected from disturbance from the flow of the metal with a sheet of material of such character that it will unite with the liquid and form a part of the cast body.

2. The method of producing articles adapted to resist abrasion, which method consists in forming a mold for the article, coating a mold surface which is to shape a resistant surface of the article with a layer of comminuted resistant material, protecting said layer from disturbance with a sheet of metal distinct from the mold and then filling the mold with molten metal.

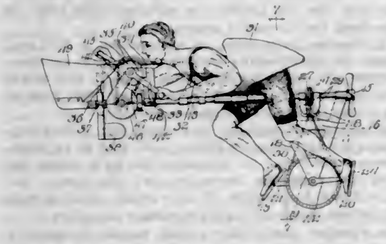
3. The method of producing articles adapted to resist abrasion, which method consists in forming a mold for the article, coating a mold surface which is to shape a resistant surface of the article with a layer of comminuted resistant material, protecting said layer from disturbance with a sheet of metal, anchoring said sheet against displacement, and then introducing molten iron into the mold.

4. The method of producing articles adapted to resist abrasion, which method consists in forming a mold for the article, coating a mold surface which is to shape a resistant surface of the article with a layer of comminuted resistant material, protecting said layer from disturbance, and introducing into the mold molten metal, said layer being protected from disturbance with a sheet of material of such character that it will temporarily protect the layer but will lose its identity in the molten metal, permitting the molten metal to enter the interstices as aforesaid.

5. The method of producing articles adapted to resist abrasion, which method consists in forming a mold for the article, coating a surface of the mold which is to shape a resistant surface of the article with a layer of comminuted resistant material, protecting said layer from disturbance with a sheet of iron, anchoring said sheet in the mold, and pouring molten iron into the mold.

[Claims 6 to 12 not printed in the Gazette.]

1,072,027. WATER-BICYCLE. DOSIER H. MOSTELLER, Chicago, Ill. Filed Apr. 27, 1912. Serial No. 693,535. (Cl. 9—18.)



1. In a water bicycle, a frame, a driving shaft carried by the frame, a propeller driven by the driving shaft, means for actuating the driving shaft for rotating the propeller, means for maintaining the proper buoyancy and balance of the bicycle, and a chin member for directing its course of travel, substantially as described.

2. In a water bicycle, a frame, a driving shaft carried by the frame, a propeller driven by the driving shaft, a driving wheel provided with foot cranks and pedals for driving said wheel, a shaft wheel above the driving wheel, a belt peripherally engaging the driving wheel and shaft wheel for imparting motion to the driving shaft for rotating the propeller, means for maintaining proper buoyancy and balance of the bicycle, and a chin control adapted to actuate a rudder by movement of the operator's chin, substantially as described.

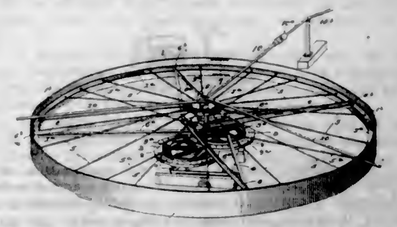
3. In a water bicycle, a bicycle frame, a driving shaft carried by the frame, a propeller driven by the driving shaft, means for rotating the driving shaft by hand power, means for rotating the driving shaft by foot power, means for maintaining proper buoyancy and balance of the bicycle, and a steering chin control for actuating a rudder by means of movement imparted from the operator's chin, substantially as described.

4. In a water bicycle, a bicycle frame, a driving shaft carried by the frame, a propeller driven by the driving shaft, a driving wheel secured to said frame, foot cranks and pedals for actuating said driving wheel, a driven shaft wheel above the driving wheel, a belt peripherally engaging said driving and driven wheels, guide rollers for transforming the position of travel of said belt, movable sustaining members secured to the frame and adapted when in use to be raised adjacent the operator's body, means for rotating the driving shaft by hand power, a body rest secured to the frame, and steering means for directing its course of travel, substantially as described.

5. In a water bicycle, a bicycle frame, a driving shaft carried by the frame, a propeller driven by the driving shaft, a driving wheel secured to said frame, foot cranks and pedals for actuating said driving wheel, a driven shaft wheel above the driving wheel, a belt peripherally engaging said driving and driven wheels, guide rollers for transforming the position of travel of said belt, movable sustaining members secured to the frame and adapted when in use to be raised adjacent the operator's body, means for rotating the driving shaft by hand power, a body rest secured to the frame, and steering means comprising a chin controlling member for actuating the rudder, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,028. HORIZONTAL POWER-TRANSMISSION WHEEL. WILBER O. PLATT, Oil City, Pa., assignor to Joseph Reid Gas Engine Company, Oil City, Pa., a Corporation of Pennsylvania. Filed Apr. 18, 1911. Serial No. 621,951. (Cl. 64—17.)

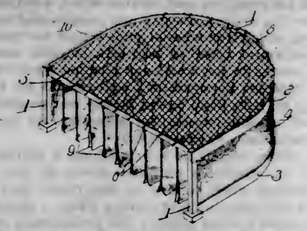


1. A power transmission apparatus having a vertical axis of rotation and comprising a power transmitting member and a relatively large belt driven member connected coaxially with said power transmitting member; said belt driven member comprising an axially elongated hub, a relatively light belt receiving rim, and suspending and driving connections between said hub and rim, trussed vertically and horizontally, respectively; the vertically trussed suspending connections comprising tension spokes extending from the hub above the plane of the rim outwardly and downwardly to the rim, and rigid compression members connecting the rim and hub in the plane of the rim; the horizontally trussed driving connections comprising the said rigid compression members of the suspending trussed connections, and being connected in pairs to the rim and to the hub and having their ends spaced apart at the hub to convert driving strains into strains of compression and tension, respectively, upon the members of each pair.

2. A power transmission apparatus having a vertical axis of rotation and comprising a power transmitting member, and a belt driven member superimposed upon said transmitting member; said belt driven member comprising an axially elongated hub having a suspending flange at its upper end and a driving flange below the suspending flange, a rim, tension rods extending from the suspending flange outwardly and downwardly to the rim, and power trans-

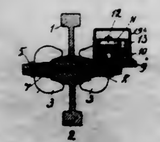
mitting members extending from the driving flange to the rim; said rim having an inwardly presented rib, and said power transmitting members comprising angle bars attached on opposite sides of said rib and of the driving flange of the hub.

1,072,029. HOVER. LESLIE W. POTTER, Rockford, Ill. Filed July 5, 1912. Serial No. 707,894. (Cl. 119—33.)



In a hover, the combination of a semicircular frame having its curved sides formed of an open framework having a fabric comprising the wall of the framework, and the side of the frame opposite the curved side being open, a cross-bar spanning said open side, cross-supports parallelly arranged and removably supported by the cross-bar and frame, depending fabric strips supported by said cross-supports, and a removable perforated member overlying the cross-supports and forming a top for the hover.

1,072,030. RAIL-CIRCUIT-CLOSING CONTACT. FRIEDRICH PROCHASKA, Charlottenburg, Germany, assignor to Siemens & Halske A. G., Berlin, Germany, a Corporation of Germany. Filed June 17, 1909. Serial No. 502,787. (Cl. 246—35.)



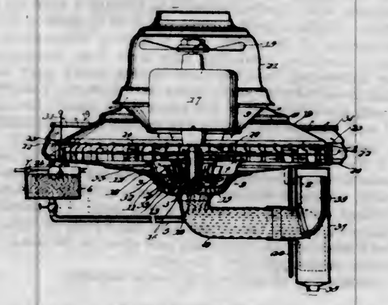
1. In a railway contact device, the combination of a pressure vessel adapted to contain mercury and disposed underneath the rail and suitably supported to remain in contact therewith, said vessel having a heavy top plate flexible only under the weight of a train and adapted to thereby exert a pressure on the mercury without counter-deflection due to the mercury, and a contact vessel containing electric contact terminals adapted to be connected by the mercury, said vessel being disposed adjacent to and connected with said pressure vessel to permit the mercury expelled from the pressure vessel to rise in said contact vessel to make the desired contact.

2. In a railway contact device, the combination of a pressure vessel adapted to contain mercury and disposed underneath the rail and suitably supported to remain in contact therewith, said vessel having a heavy recessed metal top plate flexible only under the weight of a train and adapted to thereby exert a pressure on the mercury without counter-deflection due to the mercury, and a contact vessel containing electric contact terminals adapted to be connected by the mercury, said vessel being disposed adjacent to and connected with said pressure vessel to permit the mercury expelled from the pressure vessel to rise in said contact vessel to make the desired contact.

3. In a railway contact device, the combination of a pressure vessel adapted to contain mercury and disposed underneath the rail and suitably supported to remain in contact therewith, said vessel comprising two heavy recessed plates fitting tightly together at their rims, and flexible only under the weight of a train and adapted to thereby exert a pressure on the mercury without counter-deflection due to the mercury, and a contact vessel containing electric contact terminals adapted to be connected by the mercury, said vessel being disposed adjacent to and connected with said pressure vessel to permit the mercury expelled from the pressure vessel to rise in said contact vessel to make the desired contact.

4. In a railway contact device, the combination of a pressure vessel disposed underneath the rail, adapted to contain mercury and having a heavy top plate responsive to deflection by the rail only under the train weight, a contact vessel disposed in close proximity to said pressure vessel containing electric contact terminals adapted to be connected by the mercury, said vessel having a short communication with said pressure vessel to permit the mercury expelled from the pressure vessel to rise in said contact vessel to make the desired contact.

1,072,031. ATOMIZER OR HUMIDIFIER. JAMES C. RANKINE, Pawtucket, R. I., and GEOGE H. GOLDSMITH, Biddeford, Me. Filed Sept. 1, 1910. Serial No. 580,085. (Cl. 98—41.)



1. In an atomizer, a fan, a fluid supply, means to atomize the fluid, means to support said atomizing means, a horizontal disk for feeding the fluid to the atomizing means, means to direct currents from the fan along the top and bottom faces of the disk, and means to direct a current from the fan against the atomized fluid after its issuance from the atomizing means.

2. An atomizer, comprising, in combination, a fluid supply, means for centrifugally feeding said fluid to an atomizing means, the means for atomizing the fluid, and means to direct a plurality of air currents against said fluid at various stages during its atomizing operation.

3. An atomizer, comprising, in combination, a fluid supply, means for centrifugally feeding said fluid to an atomizing means, the means for atomizing the fluid, means for adjusting the atomizing means to very the spray, and means to direct a plurality of air currents against said fluid at various stages during its atomizing operation.

4. An atomizer comprising a fluid supply chamber, a secondary circular channeled member immersed in said supply chamber, ring-like revoluble means in said secondary member to centrifugally draw on the supply in said secondary member, an element to which said ring-like means is secured, said element having a central opening, atomizing means at the periphery of said element to receive the fluid, means to direct air currents through said opening of said element against the fluid before the latter is atomized, and means to direct an air current against the atomized fluid.

5. An atomizer, comprising, in combination, a fan, a fluid supply chamber, a centrifugal feeding means formed with a central opening and having an element immersed in said fluid chamber, an atomizing means adjacent said feeding means arranged to receive fluid fed by the latter, and means to direct the currents of air from said fan along the top of the feeding means, and through said opening thereof, and along the bottom of the feeding means.

[Claims 6 to 10 not printed in the Gazette.]

1,072,032. EXPLOSIVE. FRITZ RASCHIG, Ludwigshafen-on-the-Rhine, Germany. Filed Feb. 15, 1913. Serial No. 748,619. (Cl. 52—4.)

1. An explosive comprising soda waste constituents of the soda pulp process and an oxidizing agent.

2. An explosive comprising soda waste constituents of the soda pulp process and sodium nitrate.

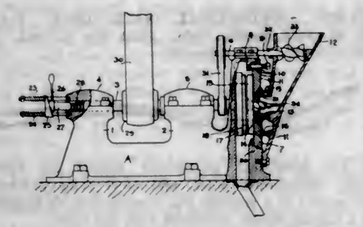
3. An explosive comprising the alkali soluble constituents of wood fiber and an oxidizing agent.

4. An explosive comprising the alkali soluble constituents of wood fiber and sodium nitrate.

5. An explosive comprising the alkali soluble lignin constituents of ligno-cellulose and an oxidizing agent.

[Claims 6 and 7 not printed in the Gazette.]

1,072,033. SELF-ADJUSTING GRINDING-DISK. ROBERT A. REYNOLDS, Port Huron, Mich. Filed Feb. 27, 1913. Serial No. 750,954. (Cl. 83—8.)



1. In a grinding machine, the combination of a rotatable disk, a stationary disk, a stationary disk support therefor provided with a part-spherical periphery, means for yieldingly thrusting the stationary disk into proximity to the rotating disk, a housing provided with a part-spherical seat in which the part-spherical periphery of the stationary disk support fits and a bearing ring provided with a part-spherical and concentric periphery upon which the surface of a complementary concavity at the center of the stationary disk support bears, substantially as described.

2. In a grinding machine, the combination of a rotatable grinding disk, a stationary grinding disk, a stationary grinding disk support provided with a part-spherical periphery, a housing provided with a part-spherical seat into which part-spherical periphery of the stationary disk support fits, a bearing ring provided with a part-spherical periphery that fits into and supports a part-spherical surface at the center of the stationary disk support, the said part-spherical surfaces being concentric and means for yieldingly thrusting the bearing ring toward the rotating disk, substantially as described.

3. In a grinding machine, the combination of a rotating disk, a stationary disk in proximity thereto, a stationary disk support provided with a part-spherical periphery and a part-spherical central hole, a feed hopper having a spout portion protruding through the central hole, a housing provided with a part-spherical seat into which the part-spherical periphery of the stationary disk support fits, a bearing ring slidable upon said feed hopper spout and provided with a part-spherical periphery that fits into the part-spherical central hole of the stationary disk support and means for yieldingly thrusting the bearing ring toward the rotating disk, substantially as described.

4. In a grinding machine, the combination of a housing provided with a part-spherical seat, a rotating grinding disk supported therein, a stationary grinding disk in proximity thereto, a stationary disk support having a part-spherical periphery that fits in the part-spherical seat of the housing, a fixed hopper provided with a spout engaging through a central opening of the stationary disk support, the said stationary disk support being provided also with a central part-spherical cavity, a bearing ring provided with a part-spherical periphery that fits into the part-spherical cavity of the stationary disk support and that is slidable upon the spout of the feed hopper, the said part-spherical surfaces having a common center, and springs spacing the feed hopper and the bearing ring, substantially as described.

5. In a grinding machine, the combination of a part-spherical member, a stationary grinding disk support provided with a part-spherical central aperture that fits over the part-spherical surface of the part-spherical member, a stationary grinding disk attached to the stationary grinding disk support, a rotatable grinding disk supported in face to face relation with the stationary grinding disk and yielding means bearing against the part-spherical member, substantially as described.

1,072,034. PROCESS FOR BLEACHING SOLID AND SEMISOLID FATS OF ALL KINDS. FELIX RICHTER, Frankfort-on-the-Main, and LUDWIG VON ORTH, Berlin, Germany. Filed Sept. 28, 1910. Serial No. 584,281. (Cl. 87—12.)

1. A process for bleaching solid and semisolid fats of all kinds, consisting in treating it in divided condition with aluminium oxid obtained from aluminium amalgam.

2. A process for bleaching solid and semisolid fats of all kinds, consisting in filtering the fat in divided condition through a layer of aluminium oxid obtained from aluminium amalgam.

3. A process for bleaching solid and semisolid fats of all kinds, consisting in filtering the fat in divided condition through a heated layer of aluminium oxid obtained from aluminium amalgam.

4. A process for bleaching solid and semisolid fats of all kinds, consisting in filtering molten fat through a layer of aluminium oxid obtained from aluminium amalgam.

1,072,035. PROCESS FOR PURIFYING AND BLEACHING WAX OF ALL KINDS. FELIX RICHTER, Frankfort-on-the-Main, and LUDWIG VON ORTH, Berlin, Germany. Filed Sept. 28, 1910. Serial No. 584,282. (Cl. 87—19.)

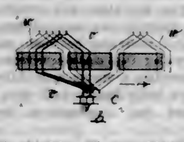
1. A process for purifying and bleaching wax of all kinds, including wax- and resin-like substances, consisting in treating the substances in divided condition with aluminium oxid obtained from aluminium amalgam.

2. A process for purifying and bleaching wax of all kinds, including wax- and resin-like substances, consisting in filtering the substances in divided condition through a layer of aluminium oxid obtained from aluminium amalgam.

3. A process for purifying and bleaching wax of all kinds, including wax- and resin-like substances, consisting in filtering the substances in divided condition through a heated layer of aluminium oxid obtained from aluminium amalgam.

4. A process for purifying and bleaching wax of all kinds, including wax- and resin-like substances, consisting in filtering the molten wax through a layer of aluminium oxid obtained from aluminium amalgam.

1,072,036. ARMATURE-WINDING FOR ELECTRICAL MACHINES WITH COMMUTATORS. RUDOLF RICHTER, Charlottenburg, Germany, assignor to Siemens-Schuckert-Werke, G. M. B. H., Berlin, Germany, a corporation of Germany. Filed Aug. 7, 1906. Serial No. 329,564. (Cl. 171—206.)

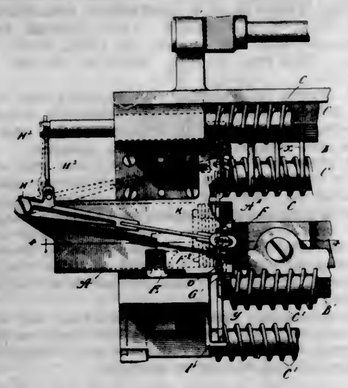


1. In an electric machine, the combination of field poles, armature coils, their respective commutator segments, and additional resistance coils of suitable pitch on said armature forming the connecting conductors between said

armature coils and their respective commutator segments, said resistance coils having their opposite sides located apart at different points of the periphery of the armature at which the two corresponding sides of two adjacent resistance coils are subject to the same strength of opposite fields of said field poles when said coils are short circuited by the brushes, whereby equal electro-motive forces are induced in the corresponding sides of said adjacent resistance coils which neutralize each other in the short circuit, whereby owing to the high resistance of these coils commutation is aided and whereby these resistance coils assist the armature coils as active conductors.

2. In an electric machine the combination of main field poles, auxiliary poles, armature coils, their respective commutator segments and additional resistance coils of suitable pitch on said armature forming the connecting conductors between said armature coils and their respective commutator segments, said resistance coils having their opposite sides located apart at different points of the periphery of the armature at which the two corresponding sides of two adjacent resistance coils are subject to the same strength of opposite fields of said main field—and auxiliary poles when said coils are short circuited by the brushes whereby equal electro-motive forces are induced in the corresponding sides of said adjacent resistance coils which neutralize each other in the short circuit, whereby owing to the high resistance of these coils commutation is aided and whereby these resistance coils assist the armature coils as active conductors.

1,072,037. LINE-CASTING MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 5, 1911. Serial No. 619,136. (Cl. 199—7.)



1. In a linotype machine, the combination of a plurality of matrix distributing mechanisms, and movable means for separating matrices from a presented group thereof, the said means comprising a single separating member to act upon the matrices individually and urge them in opposite directions toward the appropriate distributing mechanisms.

2. In a linotype machine, the combination of a plurality of matrix distributing mechanisms, means for presenting a group of matrices between them, and movable means for separating the matrices from such group, the said means comprising a single separating member to act upon the matrices individually and urge them in opposite directions toward the appropriate distributing mechanisms.

3. In a linotype machine, the combination of two matrix distributing mechanisms arranged one above the other, means for presenting a group of matrices between them, and means for separating matrices from such group, the said means comprising a vertically reciprocating member to act upon the matrices individually and urge them in different vertical directions toward the respective distributing mechanisms.

4. In a linotype machine, the combination of a plurality of matrix distributing mechanisms, means for advancing a group of matrices endwise toward the distributing mechanisms, and separating means movable back and forth across the path of movement of the matrices and adapted to engage and separate the matrices in both its backward and forward movements.

5. In a linotype machine, the combination of a plurality of matrix distributing mechanisms, means movable from one to another of said distributing mechanisms, and vice versa, and a group of matrices adapted to be presented in position to be engaged by such movable means when moving in either direction.

[Claims 6 to 12 not printed in the Gazette.]

1,072,038. OBSTETRICAL INSTRUMENT. PLUMMER D. RUSSELL, Pueblo, Colo. Filed Nov. 1, 1912. Serial No. 729,087. (Cl. 128—20.)

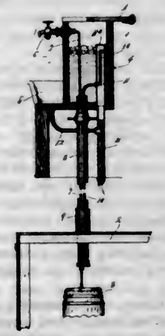


1. An obstetrical instrument having an elongated smooth imperforate bowl, said bowl being symmetrical with respect to a straight line constituting its longer axis, and a handle rigidly connected with the bowl.

2. An obstetrical instrument having an elongated imperforate bowl disposed symmetrically with respect to a straight line constituting its longer axis, said bowl being concave along two axes substantially at right angles and the curvature being deeper on the longer axis.

3. An obstetrical instrument comprising a smooth and imperforate blade-like member whose length is approximately at least three times its width and which is symmetrical with respect to a straight line constituting its longitudinal axis, one face of said blade-like member being concave both longitudinally and transversely, and its longitudinal concavity or curvature being materially greater than its transverse concavity.

1,072,039. BEER-COOLING APPARATUS. HARRY J. SANDELL, Minneapolis, Minn. Filed Feb. 6, 1913. Serial No. 746,606. (Cl. 62—2.)



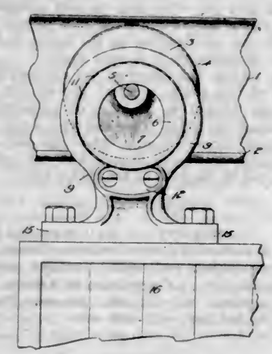
1. The combination with an ice box having a depending water stack, of a dispensing pipe extending through said water stack and ice box, an overflow pipe extending through said water stack with its lower end located near the bottom of said stack and with its upper end located within said ice box to determine the level of the water to be maintained therein, and a drain pipe extending from said ice box to a suitable point of discharge and having its upper end surrounding the upper end of said overflow pipe but extending above the same and receiving the overflow water therefrom.

2. The combination with an ice box having a depending water stack, of a dispensing pipe extending through said water stack and ice box, an overflow pipe extending through said water stack with its lower end located near the bottom of said stack and with its upper end located within said ice box to determine the level of the water to be maintained therein, a drain pipe extending from said ice box to a suitable point of discharge and having its upper end surrounding the upper end of said overflow pipe but extending above the same and receiving the overflow water therefrom, and a cap closing the upper end of said drain pipe.

3. The combination with an ice box having a depending water stack, of a dispensing pipe extending longitudinally through said stack and through said ice box, an overthrow pipe extended upward through said stack from a point near to the bottom thereof and having its upper end offset within said box and determining the level of the water to be maintained therein, and a drain pipe having a relatively large diameter as compared with said overflow pipe and having its upper end extended within said ice box and surrounding the offset upper end portion of said overflow pipe and terminating at a point above the upper end of said overflow pipe.

4. The combination with an ice box having a depending water stack, of a dispensing pipe extending longitudinally through said stack and through said ice box, an overflow pipe extended upward through said stack from a point near to the bottom thereof and having its upper end offset within said box and determining the level of the water to be maintained therein, a drain pipe having a relatively large diameter as compared with said overflow pipe and having its upper end extended within said ice box and surrounding the offset upper end portion of said overflow pipe and terminating at a point above the upper end of said overflow pipe, and a detachable cap normally closing the upper end of said drain pipe.

1,072,040. DOOR-HANGER. EMIL SCHMID, Twining City, D. C. Filed July 1, 1913. Serial No. 776,749. (Cl. 16—91.)

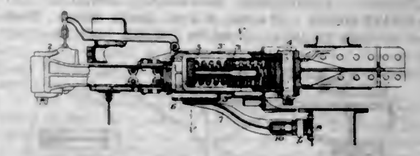


1. In a door hanger the combination with a supporting track and roller member, of a hanger-ring suspended from said roller member, a collar encircling said ring, antifriction bearings interposed between said ring and collar, and means for securing said hanger to a door.

2. In a door hanger the combination with a suitable supporting track and carrying wheels, of an axle connecting said wheels, a hanger-ring suspended from said axle, a collar encircling said ring, a series of ball-bearings located in a ball-race formed partly in said ring and partly in said collar, and means for securing said hanger to a door.

3. In a door hanger the combination with a pair of parallel tracks, of a pair of carrying wheels bearing upon said tracks, an axle connecting said wheels concentrically, a hanger-ring between said wheels suspended from said axle eccentrically, a collar encircling said ring, a series of anti-friction balls located between said ring and collar, and flanges for securing said collar member to a door.

1,072,041. RADIAL-DRAFT GEAR. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 25, 1908. Serial No. 440,288. (Cl. 213—42.)

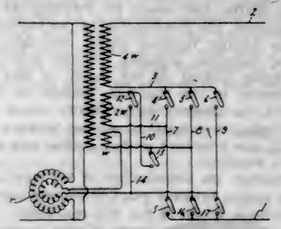


1. In a radial draft gear, the combination with a car truck, of a radially swinging draft member, and a guiding connection between the truck and draft member, said connection comprising a single, centrally located arm which is pivotally connected to the truck at the front side of the bolster and which has a sliding engagement with the draft member at its forward end, together with centralizing springs for said arm; substantially as described.

2. In a radial draft gear, a guiding arm engaging the radial draft member, said arm being pivoted to the truck on a vertical axis and projecting at right angles therefrom, and spring mechanism applied at the end portion attached to the truck to allow abnormal sidewise deflection thereof.

3. In a radial draft gear, a guiding arm engaging the radial swinging draft member pivotally mounted to the car truck and held against downward deflection by its connection to said truck, and means for normally maintaining the arm at right angles to the truck bolster.

1,072,042. TRANSFORMER CONNECTION. KARL SCHMIDT, Hermsdorf, near Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Aug. 25, 1911. Serial No. 646,007. (Cl. 171—119.)



1. In combination, groups of transformer windings, the numbers of turns of the various groups forming approximately a geometrical series, a potential regulator, and means for reversing the relation of the smallest group and the regulator to the other groups.

2. In combination, groups of transformer windings, the numbers of turns of the various groups forming approximately a geometrical series, a potential regulator, and means for short circuiting the smallest group and the regulator and for reversing their relation to the other groups.

3. In combination, two groups of transformer windings having different numbers of turns, a potential regulator,

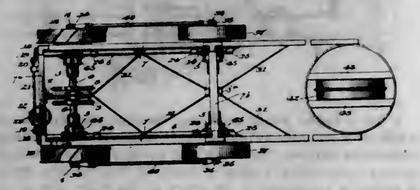
and means for reversing the relation of one group and the regulator to the other group.

4. In combination, groups of transformer windings, the numbers of turns of the various groups forming approximately a geometrical series, a potential regulator, and means for reversing the relation of the smallest group and the regulator to the other groups and for reversing another group.

5. In combination, groups of transformer windings, the numbers of turns of the various groups forming approximately a geometrical series, a potential regulator, and means for short circuiting certain of the groups and the regulator and for reversing their relation to the other groups.

[Claims 6 to 9 not printed in the Gazette.]

1,072,043. COMBINED LEVELING DEVICE AND DRIVE-GEAR. WALTER SCOTT, Snake River, Wash. Filed June 10, 1912. Serial No. 702,933. (Cl. 21—114.)



1. In a leveling device, the combination of ground wheels, stub axles on which said wheels are mounted, circular blocks supporting said axles, the axles being located off the center of the blocks and diametrically opposite each other relative to said center, bearings in which the blocks are rotatively mounted, and means for rotating the blocks.

2. In a tractor, the combination of the traction wheels, stub-axles carrying said wheels, rotatable supports for the stub-axles, said stub-axles being located off the center of the supports, means for rotating the supports, axially alined drive axle sections, driving means for the axle sections, and gearing between the axle sections and the traction wheels.

3. In a tractor, the combination of the traction wheels, said wheels having internal gears, stub-axles carrying said wheels, rotatable supports for the stub-axles, said stub-axles being located off the center of said supports, shafts journaled in the supports, pinions on the shafts in mesh with the internal gears, axially alined drive axle sections, gearing between said axle sections and the aforesaid pinion shafts, and means for rotating the supports.

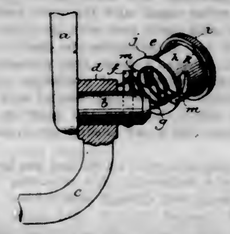
4. In a tractor, the combination of the traction wheels, said wheels having internal gears, stub-axles carrying said wheels, rotatable supports for the stub-axles, said stub-axles being located off the center of said supports, shafts journaled in the supports, pinions on the shafts in mesh with the internal gears, axially alined drive axle sections carrying the supports, gearing between said axle sections and the aforesaid pinion shafts, and means for rotating the supports.

5. In a tractor, the combination of the traction wheels, said wheels having internal gears, stub-axles carrying said wheels, rotatable supports for the stub-axles, said stub-axles being located off the center of said supports, shafts journaled in the supports, pinions on the shafts in mesh with the internal gears, axially alined drive axle sections, pinions on the axle sections, pinions on the aforesaid shaft in mesh with the last-mentioned pinions, and means for rotating the supports.

[Claim 6 not printed in the Gazette.]

1,072,044. VEHICLE TOP-FASTENING. WYNN W. SCOTT, Racine, Wis. Filed Apr. 5, 1912. Serial No. 688,771. (Cl. 21—62.)

1. In a vehicle top fastening the combination of a cap removably fitting a bow pintle and formed in its open end with an offset notch, a pin removably fitting a transverse hole in the pintle and adapted to be engaged by the notch in said cap when the latter is turned into locking position, and a spiral spring loosely connecting said pin with the cap and adapted to exert a torsional strain on the cap when it is turned on the pintle into engagement with the pin inserted therein.



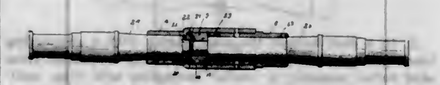
2. In a vehicle top fastening the combination of a cap removably fitted on a bow pintle and formed in its open end with an obliquely offset notch, a cotter pin removably fitted in the hole of the pintle and adapted to be engaged and held in place by the notch in the cap when the latter is set in locking position, and a spiral spring loosely connecting the cotter pin with the interior of the cap adjacent to its outer end and adapted to exert a torsional strain on the cap when it is turned on the pintle into engagement with the pin inserted therein.

3. In a vehicle top fastening the combination of a cap removably fitted on a bow pintle and formed in its open end on opposite sides thereof with oppositely offset notches, a cotter pin removably fitted in the hole of the pintle and adapted to be engaged at the ends and held in place by the notches in the cap when the latter is set in locking position, and a spiral spring loosely connecting the cotter pin with the interior of the cap adjacent to its outer end and adapted to exert a torsional strain on the cap when its offset notches are turned into engagement with the pin inserted in the pintle.

4. In a vehicle top fastening the combination of a cap having oppositely and obliquely offset notches in opposite sides of its open end, a pin fitted at the ends to enter and engage with the notches in the cap when the latter is turned into locking position, and a spiral spring loosely connecting said pin with said cap and adapted to exert a torsional strain on the cap when it is turned into engagement with the pin inserted in the pintle and to prevent accidental disengagement of said parts.

5. In a vehicle top fastening the combination of a cap composed of two parts, a barrel and an end closure, the barrel being formed in one end on opposite sides with offset notches and in the other end with a lug, a cotter pin having a hole through it adjacent to one end, and a spiral spring looped at one end around said lug and secured at the other end in the hole of the cotter pin.

1,072,045. DIFFERENTIAL RAILWAY-AXLE. BAGSTER ROADS SEABROOK, Toronto, Ontario, Canada, assignor to The Seabrook-Box Differential Railway Axle Company, Los Angeles, Cal., a Corporation of Arizona. Filed Jan. 26, 1912, Serial No. 673,561. Renewed Feb. 10, 1913. Serial No. 747,565. (Cl. 105—66.)



1. In a differential axle, the combination of a divided axle, a coupling comprising two telescoped sleeves secured together, one sleeve being secured to one part of the axle and the other forming a bearing box for the other part of the axle, a retaining ring secured upon the last mentioned part of the axle, and a separate seat fitted within the first mentioned sleeve and forming a thrust bearing for the retaining ring.

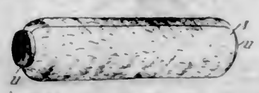
2. A coupling for a differential axle comprising a divided axle two telescoped sleeves, the outer sleeve being counterbored to form an internal shoulder, a separate annular seat fitted within said sleeve against the shoulder, one axle member being fixed to one sleeve, the other axle member being rotatable in the other sleeve, the first axle member having a reduced end fitting within said separate annular seat.

3. A coupling for a differential axle comprising a divided axle two telescoped sleeves the outer sleeve being counterbored to form an internal shoulder, a separate annular seat fitted within said sleeve against the shoulder, said seat being formed with two external diameters one of which fits within the larger bore of the sleeve and the other fits within the smaller, one axle member being fixed in one sleeve and projecting into the annular seat, the other axle member being rotatable in the other sleeve.

4. A coupling for a differential axle comprising two telescoped sleeves turned from seamless tubing, the outer sleeve being counterbored to form an internal shoulder, and an annular separate seat having two external diameters the smaller of which is fitted within said sleeve against the shoulder.

5. In a differential axle the combination of a divided axle, a coupling comprising two telescoped sleeves secured together, one sleeve being secured to one part of the axle and the other forming a bearing box for the other part of the axle; a retaining ring secured upon the last mentioned part of the axle, and a separate seat fitted within the first mentioned sleeve and forming a thrust bearing for the retaining ring, the said seat being bored out to receive the end of the first mentioned part of the axle which end is turned down to fit the opening in the seat.

1,072,046. MANICURING IMPLEMENT. HORACE A. SEYMOURE, New York, N. Y., assignor to Roller Polisher Company, New York, N. Y., a Corporation of Maine. Filed July 21, 1911. Serial No. 639,735. (Cl. 30—23.)



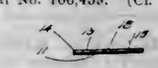
1. In a handleless manicuring implement, a buffer, comprising a tube, a padding inclosing said tube and of a length equal to the length of said tube, a covering inclosing said padding and of a length greater than the length of said padding and projecting beyond each end thereof, said projecting ends extending within said tube, and a cap at each end of said tube, said cap having a stem projecting within said tube and forcing the projecting ends of said covering into engagement with the bore of said tube, said cap also having a head bearing on the end of said padding and tube and of less diameter than the buffer, to hold between them a portion of said covering, said head having finger-retaining means thereon, whereby the implement may be held between the thumb and finger of one hand.

2. In a handleless manicuring implement, a substantially cylindrical buffer having a covering thereon, means at each end of the buffer adapted to retain said covering in place, said means consisting of caps, each cap having a concave dish-shaped outer face affording means by which the device may be held from slipping by a finger at each end.

3. In a handleless manicuring implement, an integral cylindrical hollow member having a polishing covering thereon, said covering extending beyond and within the ends of said hollow member, and means closing the ends of said member and holding said covering in position by forcing said ends against said hollow member, to stretch said covering in opposite directions on said hollow member.

4. A handleless manicuring implement, consisting of a tubular member, a covering on said member having its opposite ends extending into the adjacent ends of said member, and a cap at each end of said member, said caps having stems projecting into said member, forcing the ends of said covering into engagement with said member, each of said caps having a head bearing on an end of said member and covering, the bounding edges of said caps being positioned within the outlines of said member and covering, to prevent said caps contacting with the finger nail when the same is operated upon.

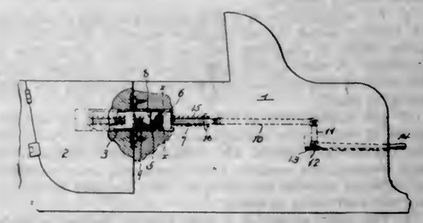
1,072,047. PROCESS OF MAKING ENAMELED ARTICLES. WALTER L. SHEPARD, Melrose, Mass. Filed June 28, 1912. Serial No. 706,459. (Cl. 41—30.)



1. The improved process of making enameled articles which consists in making a recessed base having fixed metallic partitions, dividing it into areas, filling some of the areas with enamel, firing the enamel, removing the partitions, filling the remaining areas or spaces with enamel and firing the areas last filled.

2. The improved process of making enameled articles which consists in making a recessed base having fixed partitions which divide the said base into areas, filling some of the areas with enamel, firing the enamel, removing the partitions with acid, filling the remaining areas with enamel and firing the areas last filled.

1,072,048. LATCH-OPERATING MECHANISM FOR VEHICLE-DOORS. WILLIAM M. SIMMONS, Burlington, Iowa. Filed Aug. 30, 1912. Serial No. 717,984. (Cl. 70—42.)



The combination with a vehicle body, a door therefor, and a latch carried by the door, of a tubular keeper in the wall of the vehicle body and having a beveled wall at its free end, a plunger in said tubular keeper, a stem fixed to said plunger and projecting through the inner end of said keeper, a spring on said stem normally retracting the keeper, a rock shaft adjacent to the front of the vehicle body, a crank arm projecting from said rock shaft, a rod connecting said crank arm with the stem of the plunger, and an operating lever also secured to said rock shaft.

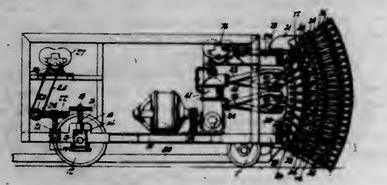
1,072,049. COLLAPSIBLE CANOPY-FRAME. WILLIAM H. SNYDER, Washington, D. C. Filed Aug. 29, 1912. Serial No. 717,667. (Cl. 5—14.)



A collapsible canopy frame, comprising a central ridge pole section 2 having blocks 3 and 4 respectively upon the

upper and under sides of its opposite ends, longitudinally slotted end sections 7 and 8 slidable upon said blocks, fastening devices for securing said central section and end sections with respect to each other, heads 15 having shanks thereon pivoted in the outer ends of the slots in said end sections, blocks 18 forming abutments for the shanks of said heads, and preventing the latter from moving upwardly, slotted arms 19 pivoted upon said heads and having shoulders 21 thereon, lugs 22 carried by said heads for causing said arms 19 to stand in inclined position, legs pivoted to said arms 19, and cross pieces 24 for retaining said legs in inclined position.

1,072,050. TUNNEL-DRIVING MACHINE. GEORGE F. SPEER, Fort Worth, Tex., assignor to The International Tunnel Machine Company, a Corporation of Colorado. Filed Dec. 24, 1910. Serial No. 599,197. (Cl. 125—14.)



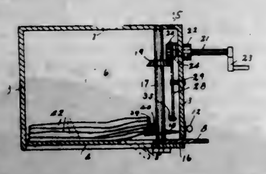
1. The combination of a drill support having rectangular recesses for the reception of rectangular drill boxes, a plurality of rectangular drill boxes with attached drills disposed in said recesses, and means for securing the drill boxes in said recesses.

2. The combination of a drill support having a plurality of vertical series of rectangular recesses, those of one series being in staggered relation to those of another, a plurality of rectangular drill boxes with attached drills disposed in said recesses and means for securing the drill boxes in place.

3. The combination of a drill support having a vertical series of rectangular recesses open at one side, a system of rectangular drill boxes with attached drills disposed in said recesses, and securing plates projecting over the edges of adjacent recesses bolted to the drill support for securing the drill boxes in place.

4. The combination of a drill support having at each side a vertical series of rectangular recesses, those of one series being in staggered relation to those of the other, a vertical series of rectangular drill boxes with attached drills disposed in each of said series of recesses, and retaining plates projecting over the edges of adjacent recesses at each side of the drill support, and bolted to the drill support for holding the drill boxes in place.

1,072,051. VENDING-MACHINE. JOHN STAZIAK, Seattle, Wash. Filed Apr. 29, 1912. Serial No. 693,937. (Cl. 211—8.)



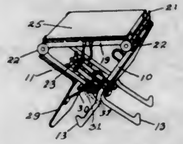
1. A paper vending machine comprising, in combination, a paper receptacle having a divided bottom, one portion of which is fixed and the other portion slidable with relation to said receptacle, a worm adapted to alternately support the edges of all the papers and allow the edge of one paper to drop below said bottom when said slidable portion is operated, means for operating said worm and means operable by said first mentioned means for operating said sliding portion, and means for locking said first named means.

2. A paper vending machine comprising, in combination, a paper receptacle having a divided bottom, one portion of which is fixed and the other portion movable with relation to said receptacle, a vertical shaft and a worm thereon adapted to alternately support the edges of all the papers and allow the edge of one paper to drop below said bottom when said slidable portion is operated, a projection on said vertical shaft coöperating with a cam face upon said slidable portion whereby the latter is operated, and a horizontal crank shaft geared to said vertical shaft.

3. A paper vending machine comprising, in combination, a paper receptacle having a divided bottom adapted to be opened and closed, means for automatically opening and closing the said bottom, a worm operable by a portion of said means, said worm adapted to alternately support the edges of all the papers and allow the edge of one paper to drop through said bottom when the same is opened.

4. A paper vending machine comprising, in combination, a paper receptacle having a divided bottom, a portion of which is movable with relation to the other portion, means for automatically operating said movable portion, a worm adapted to embrace varying thicknesses of papers and operable by a portion of said means, said worm adapted to alternately support the edges of all the papers and allow the edge of one paper to drop down between the portions of said bottom when said movable portion is operated.

1,072,052. CONVERTIBLE FIELD APPARATUS. JOHN JOSEPH STOEHR, Brooklyn, N. Y. Filed Sept. 18, 1912. Serial No. 720,987. (Cl. 21—80.)



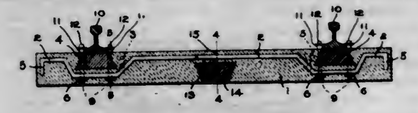
1. In an apparatus of the class described, the combination with hollow handle bars, of intermediate bars between said handle bars, hinged connections between said intermediate bars and said handle bars, means combined with said hinged connections whereby they may be rigidly clamped in angular adjustment, a covering for each section, and carrying means consisting of straps adapted to be worn by a carrier.

2. In an apparatus of the class described, the combination with hollow handle bars, of intermediate bars between said handle bars, hinged connections between said intermediate bars and said handle bars, means combined with said hinged connections whereby they may be rigidly clamped in any angular adjustment within the radius of their action, a flat covering overlying each section, a plate hinged at one edge to one of said sections, means for adjusting the inclination of said plate, and a pair of shoulder straps combined with each handle bar section.

3. In an apparatus of the class described, the combination with hollow handle bars, of intermediate bars between said handle bars, hinged connections interposed at the joints therebetween, means combined with said hinged connections whereby they may be rigidly clamped in any adjustment below the normal level plane of operation, said means permitting of complete disassociation into separate units and a carrying means comprised of shoulder straps combined with each unit.

1,072,053. RAILROAD-TIE. SAMUEL A. STONEBACK, Philadelphia, Pa. Filed Jan. 13, 1913. Serial No. 741,770. (Cl. 238—3.)

1. A tie comprising two sections, a cushioning block between the sections, and devices above the cushioning blocks elastically tying the sections together, substantially as described.



2. In combination with a concrete tie, a block inserted in the lower face of the tie between the ends of the latter and devices above the block connecting the tie sections, substantially as described.

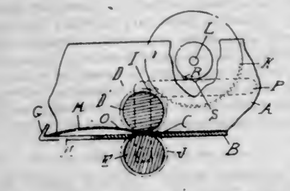
3. In combination with a concrete tie, a block inserted in the lower face of the tie between the ends of the latter, and reinforcing rods in the tie above the block, substantially as described.

4. In combination with a concrete tie, a block inserted in the lower face of the tie between the ends of the latter, reinforcing rods in the tie above the block, and said tie broken apart above said block, substantially as described.

5. In combination with a concrete tie composed of a plurality of sections, rods embedded in the ties and connecting the sections, and blocks inserted in the recesses in the tie formed at the meeting ends of said sections, said blocks located out of alinement with the rods, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,072,054. STAMP OR LABEL DELIVERY MECHANISM. BENNETT D. STRAIGHT, Detroit, Mich., assignor to Mail-Om-Eter Company, Detroit, Mich., a Corporation of Michigan. Filed July 26, 1909. Serial No. 509,693. (Cl. 211—33.)



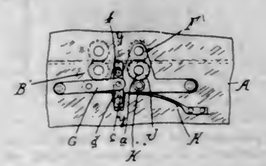
1. In a stamp or label delivery mechanism, the combination with a pair of web feeding rolls, means for operating the rolls to advance the web in lengths exceeding the sections to be severed, a stop member positioned in the path of the web and at a distance from the rolls to buckle the delivered section, means for depressing the lower roll of the feed mechanism to release the web, and means for subsequently restoring said roll to its feeding position.

2. In a stamp or label delivery mechanism, the combination with means for advancing a web of connected stamps or labels in lengths exceeding the section to be severed from the strip, of a stop acting in conjunction with the feed mechanism to arch or buckle the fed portion, releasing means for the web, and means for subsequently gripping the web to permit the severance of the delivered stamp or label.

3. In a stamp or label delivery mechanism the combination with a pair of web feeding rolls, one of said rolls being normally yieldably held in engagement with the other, a stationary stop positioned at a distance from the rolls to engage the end of the advanced web, and means for depressing the lower roll after the advanced portion of the web engages said stop for subsequently restoring said roll to its feeding position.

4. In a stamp or label delivery mechanism, the combination with a pair of web feeding rolls, one of said rolls being depressible, a driving train for operating said rolls, means for actuating said drive train, a stop positioned a predetermined distance in advance of said rolls, and mechanism operated by said means for lowering the depressible roll permitting the subsequent restoring of said roll to its feeding position.

1,072,055. STAMP OR LABEL DELIVERY MECHANISM. BENNETT D. STRAIGHT, Detroit, Mich., assignor to Mail-Om-Eter Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 9, 1909. Serial No. 521,892. (Cl. 211—37.)



1. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels formed with a series of transverse perforations between adjoining stamp sections, of means controlled by the advancing strip for engaging the series of openings, and means for severing from the held strip the section to be detached.

2. In a stamp or label delivery mechanism, the combination with a feed mechanism comprising pairs of feed and delivery rolls spaced apart, of a spring-actuated oscillating frame carrying one of the feed rolls, strip-engaging fingers mounted upon the frame intermediate the pairs of rolls, means for depressing the frame at the initial operation of the feed mechanism, and means for subsequently releasing the frame.

3. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels, said mechanism being adapted to contact with and hold said strip at spaced points along its length, of spring-pressed means positioned for engagement with the strip between the points of contact of the feed mechanism, mechanism for holding said means and strip in an inoperative relation until the two-point contact is effected, and a releasing mechanism for the said spring-pressed means.

4. In a stamp or label delivery mechanism, the combination with mechanism for advancing a strip of stamps or labels, the adjacent sections of the strip being separated by transverse lines of perforations, of fingers positioned for engagement with the perforations, means for effecting an inoperative relation between the fingers and the strip to permit the advancement of the latter, and means acting automatically upon the registration of the fingers and strip openings for effecting an interengagement between the perforations and fingers whereby further advancement of the stamp is prevented.

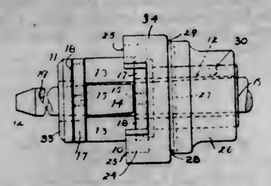
5. In a stamp or label delivery mechanism, the combination with means for advancing a perforated strip of stamps or labels, of fingers positioned for engagement with the perforations, means for effecting an inoperative relation between the fingers and strips to permit of the advancement of the latter, means for automatically projecting the fingers within the strip perforations upon registration whereby further advancement of the strip is prevented, and means for subsequently severing the stamp or label from the whole strip.

[Claims 6 and 7 not printed in the Gazette.]

1,072,056. FLUE-EXPANDER. JOHN B. STRAUSER, Altoona, Pa. Filed Oct. 10, 1911. Serial No. 653,931. (Cl. 153—82.)

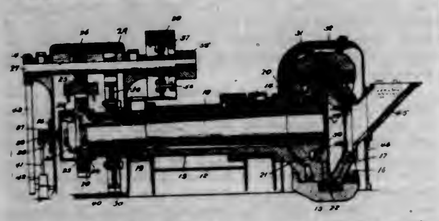
A flue expander comprising a roller carrying frame having a central bore extending throughout its length, the body of which is provided with circumferential grooves whose bottoms have notches, spaced apart segmental posts formed between said grooves and parallel to the axis of the frame, a stem portion of the frame, a collar formed at the junction of the latter with the body of the frame,

rollers located between the spaced apart posts and having journals bearing in said notches, spring retaining rings fitting in the grooves in the frame body to hold the rollers in position, a flue guard fitted over the stem portion and having a circular recess receiving the collar between the body and stem of the frame, a ferrule having



a central opening and a circular recess on its bottom face adjacent thereto, a ring of anti-friction material fitted within said recess, said ferrule being fitted over the stem and locked thereto so that the anti-friction ring abuts against the rear face of the flue guard, and a roller bar extending through the central bore of the frame for forcing the rollers outwardly.

1,072,057. CRUSHING-MILL. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed May 16, 1911. Serial No. 627,598. (Cl. 83—10.)



1. In a crushing mill, the combination with two crushing disks, of inner and outer shafts by which said disks are carried, an eccentric bearing for said inner shaft, a driving pulley, and means, including gearing, between said pulley and said bearing, for rotating the latter independently of said shafts.

2. In a crushing mill the combination with two crushing disks, of inner and outer shafts by which said disks are carried, a rotating eccentric bearing for the said inner shaft, a single driving pulley, and gear connections, driven from said pulley, for rotating said bearing and said outer shaft independently of each other.

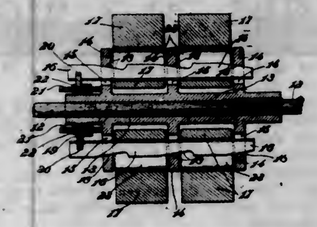
3. In a crushing mill, the combination with two crushing disks, of inner and outer shafts by which said disks are carried, a driving shaft provided with a pulley, a rotating eccentric bearing for said inner shaft, and gearing connecting said driving shaft with said outer shaft and said eccentric bearing and arranged to cause said shaft and bearing to rotate in opposite directions.

4. In a crushing mill, the combination with two rotating crushing members, of inner and outer shafts by which said members are carried, an eccentric sleeve interposed between said shafts, a thrust collar on the inner shaft and by which said eccentric sleeve is held from longitudinal movement, said eccentric sleeve having a head or flanged part opposing endwise movement of the said outer shaft.

5. In a crushing mill, the combination with two rotating crushing members, and inner and outer shafts by which said members are carried, of an eccentric bearing interposed between said shafts and provided with an annular flange which opposes endwise movement of said outer shaft, and a thrust collar screw-threaded to the end of said inner shaft and abutting against said eccentric bearing.

[Claims 6 and 7 not printed in the Gazette.]

1,072,058. CRUSHING-MILL. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed July 9, 1913. Serial No. 778,209. (Cl. 83—11.)

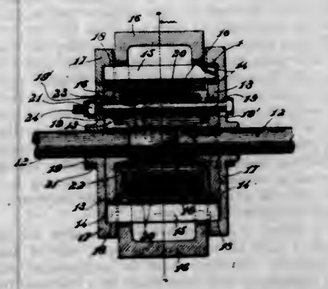


1. In a crushing mill, the combination with a rotary carrier having end flanges and an intermediate flange all provided with radial slots, of rotary beaters or hammers, longitudinally adjustable pivot-bars provided with a plurality of inclines arranged to bear against the outer walls of said slots, said pivot-bars serving to conect said beaters or hammers with said carrier, and means for adjusting said pivot-bars longitudinally to vary the radial working positions of said beaters or hammers.

2. In a crushing mill, the combination with a rotary carrier having end flanges and an intermediate flange all provided with radial slots, of rotary beaters or hammers, longitudinally adjustable pivot-bars provided with inclines arranged to bear against the outer walls of said slots, said pivot-bars serving to connect said beaters or hammers with said carrier, and one or more nuts mounted on said carrier, for adjusting said pivot-bars longitudinally to vary the radial working positions of said beaters.

3. In a crushing mill, the combination with a rotary carrier having end flanges and an intermediate flange all provided with radial slots, of rotary beaters or hammers, longitudinally adjustable pivot-bars provided with inclines arranged to bear against the outer walls of said slots, said pivot-bars serving to connect said beaters or hammers with said carriers, one or more nuts mounted on said carrier, for adjusting said pivot-bars longitudinally to vary the radial working positions of said beaters, and means for locking said nut or nuts against rotation when adjusted.

1,072,059. CRUSHING-MILL. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed July 9, 1913. Serial No. 778,211. (Cl. 83—11.)



1. In a crushing mill, the combination with a rotary shaft, of a rotary carrier comprising two sets of heads or disks one set of which is fixed to said shaft while the other set is capable of circular adjustment relative to said fixed set, one set of said fixed heads or disks being provided with open peripheral slots and the other set of said heads or disks being provided with eccentric or cam portions overlapping said open peripheral slots, pivot-bars mounted in said slots and retained in working positions by the said overlapping eccentric or cam portions, and swinging beaters carried by said pivot-bars.

2. In a crushing mill, the combination with a rotary shaft, of a rotary carrier comprising two sets of heads or disks one set of which is fixed to said shaft while the other set is capable of circular adjustment relative to said fixed set, one set of said fixed heads or disks being provided with open peripheral slots and the other set of said heads or disks being provided with eccentric or cam portions overlapping said open peripheral slots, pivot-bars mounted in said slots and retained in working positions by the said overlapping eccentric or cam portions, swinging beaters carried by said pivot-bars, an inner cylindrical member, and clamping bolts passing through portions of said member and said heads or disks.

3. In a crushing mill, the combination with a rotary shaft provided with a straight, longitudinal slot, of a rotary carrier comprising two sets of heads or disks one set of which is fixed to said shaft while the other set is capable of circular adjustment relative to said fixed set, one set of said fixed heads or disks being provided with open peripheral slots and the other set of said heads or disks being provided with eccentric or cam portions overlapping said open peripheral slots, pivot-bars mounted in said slots and retained in working positions by the said overlapping eccentric or cam portions, swinging beaters carried by said pivot-bars, an inner cylindrical member provided with curved slots, clamping bolts passing through portions of said member and said heads or disks, a cross adjusting bar movable in said straight and curved slots, and means for operating said cross adjusting bar to cause it to travel in said slots, for effecting a partial turning movement of the said adjustable heads or disks relative to said fixed heads or disks.

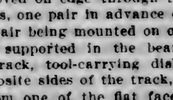
4. In a crushing mill, the combination with a rotary shaft provided with a straight, longitudinal slot, of a rotary carrier comprising two sets of heads or disks one set of which is fixed to said shaft while the other set is capable of circular adjustment relative to said fixed set, one set of said fixed heads or disks being provided with eccentric or cam portions overlapping said open peripheral slots, pivot-bars mounted in said slots and retained in working positions by the said overlapping eccentric or cam portions, swinging beaters carried by said pivot-bars, an inner cylindrical member provided with curved slots, clamping bolts passing through portions of said member and said heads or disks, a cross adjusting bar movable in said straight and curved slots, and means for operating said cross adjusting bar to cause it to travel in said slots, for effecting a partial turning movement of said adjustable heads or disks relative to said fixed heads or disks, said operating means comprising a longitudinal adjusting bar to which said cross adjusting bar is attached, and which longitudinal bar is formed partly hollow and screw-threaded internally, and a rotatable adjusting rod having a screw-threaded portion engaging the screw-threaded portion of said longitudinal adjusting bar.

5. In a crushing mill, the combination with a rotary shaft, of a rotary carrier comprising two sets of heads or disks one set of which is fixed to said shaft while the other set is capable of circular adjustment relative to said fixed set, one set of said fixed heads or disks being provided with open peripheral slots and the other set of said heads or disks being provided with eccentric or cam portions overlapping said open peripheral slots, swinging beaters, and pivots for said swinging beaters, said pivots being mounted in said slots and retained in working positions by the said overlapping eccentric or cam portions.

1,072,060. KNOCKDOWN TABLE. STACY C. THOMPSON, Manistee, Mich. Filed Oct. 25, 1912. Serial No. 727,813. (Cl. 45—116.)

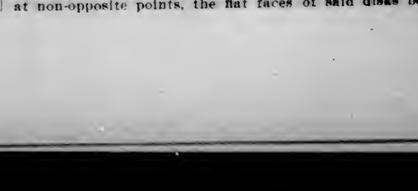
1. In a knock-down table, the combination with a pedestal having transverse slots in its upper end, and means for supporting said pedestal, of a box-like table top comprising two flanged members hinged together, the adjacent flanges of said members having notches, said adjacent flanges adapted to enter the slotted upper end of the pedestal, and a cross bar extending transversely the table top members and having a notch at its center, said cross bar adapted to enter the slotted upper end of the pedestal.

2. In a knock-down table, the combination with a pedestal having a slotted upper end, and a base for supporting said pedestal, of a box-like table top comprising two flanged



members hinged together, the flanges of adjacent table top members having aliining notches, a notched cross bar extending transversely of said table top members, said cross bar and adjacent flanges of the table top members adapted to enter the slotted upper end of the pedestal, and cleats secured in the table top members in position to prevent lateral displacement of the table top on the pedestal.

1,072,061. ROTARY BAR-SCALPER. CORNELIUS S. VOSBURGH and JOSEPH L. G. BLOUIN, Waterbury, Conn. Filed Oct. 11, 1910. Serial No. 586,474. (Cl. 29—81.)



1. In a machine of the character described, a frame, a longitudinal track therethrough on which a bar of stock travels on edge through the machine, a set of bearings arranged in alinement on opposite sides of said track, a shaft supported in said bearings, a tool-carrying disk secured to the shaft at one side of said track, metal scalping tools projecting from one of the flat faces of said disk toward the track, means for adjusting said disk to bring said tools into operative relation with one side of a piece of stock as it travels along said track, a second set of bearings located beyond the first set and arranged in alinement on opposite sides of the track, a shaft supported in said bearings, a tool-carrying disk mounted on the shaft at the opposite side of the track from the first mentioned disk, metal scalping tools projecting from one of the flat faces of said disk, means for adjusting the disk to bring said tools into operative relation with the stock as it moves on the track, means for driving said shafts, feed rolls engaging the stock to cause it to move through the machine, and abutments for the stock arranged opposite the tool-carrying disks.

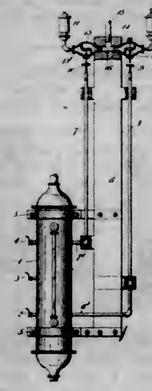
2. In a machine of the character described, a frame, a track extending across said frame and along which a bar of stock is moved on edge through the machine, pairs of alined bearings, one pair in advance of another, the members of each pair being mounted on opposite sides of said track, shafts supported in the bearings and extending across said track, tool-carrying disks mounted on said shafts on opposite sides of the track, metal scalping tools projecting from one of the flat faces of said disks and adapted to act upon the sides of the bar, means for adjusting said disks toward and away from the bar, abutments for the bar opposite each head, vertically arranged feed rolls mounted on opposite sides of the bar, the feed rolls on one side of the bar being adjustable toward and away from the track.

3. In a metal-working machine, the combination with the machine frame provided with a track for the passage of a bar of stock, of rotary tool-holding disks arranged at opposite sides of the stock but out of alinement with one another, and provided with metal scalping tools adapted to operate simultaneously on both sides of the stock at non-opposite points, the flat faces of said disks being

approximately parallel with the sides of the stock, a bearing back of each disk, shafts to which said disks are secured, supported at their rear ends in said bearings, the forward ends of said shafts projecting beyond the flat faces of said disks, and bearings for the forward end of each shaft at the opposite side of the stock from its disk.

4. In a metal-working machine, the combination with a machine frame provided with a track for the passage of a bar of stock, of non-alined rotary tool-holding disks arranged on opposite sides of the track and provided with metal scalping tools adapted to operate simultaneously on both sides of the stock at non-opposite points, shafts supporting said disks, and bearings for said shafts located at opposite sides of the cutting planes of the tools.

1,072,062. HIGH AND LOW WATER ALARM APPARATUS. GEORGE W. WALSH, Boston, Mass. Filed Aug. 30, 1911. Serial No. 646,920. (Cl. 236—12.)



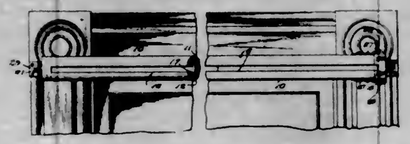
1. In a high and low water alarm apparatus for steam boilers, the combination with two expansible members adapted for connection respectively with a boiler at the low and high water levels thereof, of two alarm devices, each arranged to be operated by a different one of said expansible members, and means for adjusting the length of said members.

2. In a high and low water alarm apparatus for steam boilers, the combination with two pipes of expansible material adapted for connection respectively with a boiler at the low and high water levels thereof, of two alarm devices, each arranged to be operated by a different one of said pipes, and means for adjusting the lengths of said pipes respectively.

3. In a high and low water alarm apparatus for steam boilers, the combination with two expansible members adapted for connection respectively with a boiler at the low and high water levels thereof, of two alarm devices, two normally closed valves for controlling said alarm devices respectively, one of said valves being closed normally by the expansion of one of said members and arranged to be opened by its own weight and the pressure of the steam on the same upon the contraction of its coöperating expansible member, and the other of said valves being normally closed by its own weight and the pressure of the steam on the same and arranged to be opened by the expansion of its coöperating expansible member.

4. In a high and low water alarm apparatus for steam boilers, the combination with two expansible members adapted for connection respectively with a boiler at the low and high water levels thereof, of two alarm devices and two normally closed valves for controlling said alarm devices respectively, said valves being so arranged that when closed there is no steam pressure on their stems, but only on the heads thereof, one of said valves being normally closed by the expansion of its coöperating expansible member and the other by its own weight and the pressure of the steam on the same.

1,072,063. CURTAIN-HOLDER. FRANK P. WEST, Port Orchard, Wash. Filed Nov. 25, 1912. Serial No. 733,492. (Cl. 156—19.)



1. A curtain pole comprising an outer cylindrical member having a longitudinal slot, an inner cylindrical member having a longitudinal slot, said slots adapted to receive curtain material, means for rotating the inner cylindrical member within the outer cylindrical member, and means for locking the inner cylindrical member in its adjusted position.

2. A curtain pole comprising an outer cylindrical member having a longitudinal slot, an inner cylindrical member having a longitudinal slot, said slots adapted to receive curtain material, a cap mounted for rotation upon the outer cylindrical member, a spring connected respectively to the inner cylindrical member and to the cap, bearing studs carried respectively by said outer cylindrical member and the cap, means for locking said cap to said outer cylindrical member and brackets for supporting said bearings and adapted to be connected to a window.

3. A curtain pole comprising an outer cylindrical member having a longitudinal slot and open at one end and with a head closing the other end and provided with an inwardly directed annular shoulder, an inner cylindrical member having a longitudinal slot and rotatably engaging the annular shoulder at one end and with a head closing the other end, said head having an outwardly directed flange rotatably engaging in the outer cylindrical member and said slots adapted to receive curtain material, means for rotating the inner cylindrical member within the outer cylindrical member, and means for locking the inner cylindrical member in its adjusted position.

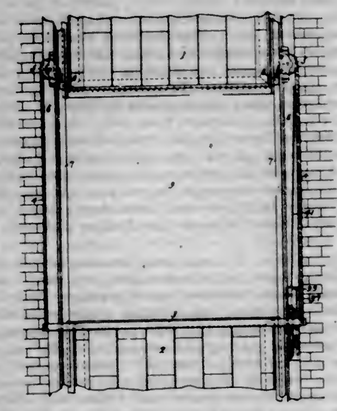
4. A curtain pole comprising an outer cylindrical member having a longitudinal slot and open at one end and with a head closing the other end and provided with an inwardly directed annular shoulder, an inner cylindrical member having a longitudinal slot and rotatably engaging the annular shoulder at one end and with a head closing the other end, said head having an outwardly directed flange rotatably engaging in the outer cylindrical member and said slots adapted to receive curtain material, a cap mounted for rotation upon the outer cylindrical member, a stud extending from the closure of the outer cylindrical member, a stud extending from the closure of the inner cylindrical member and through the cap, a spring connected respectively to said cap and inner cylindrical member and yieldably coupling the inner cylindrical member and the cap, means for locking said cap to said outer cylindrical member, and brackets adapted to be attached to supporting means and receiving said studs and holding the same from turning.

5. A curtain pole comprising an outer cylindrical member having a longitudinal slot, an inner cylindrical member having a longitudinal slot and rotatably disposed within the outer cylindrical member, a cap engaging over the outer cylindrical member, means for yieldably coupling the cap to the inner cylindrical member, and means for locking the cap to the outer cylindrical member.

[Claim 6 not printed in the Gazette.]

1,072,064. LATCH FOR ELEVATOR-DOORS. BENJAMIN WEXLER, Brooklyn, N. Y., assignor to The Peelle Co., New York, N. Y., a Corporation of New York. Filed Jan. 16, 1911. Serial No. 602,759. (Cl. 187—59.)

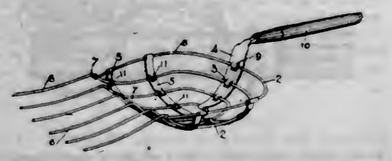
1. The combination with a manually-opened self-closing elevator-door having a carrier-bar secured thereto, of a latch supported adjacent said door and normally held out of engagement with said carrier-bar, a recoiler supported adjacent said latch and adapted to be engaged by said carrier-bar, an elevator-car, a cam fixed to the car for projecting said latch for engagement with the carrier-bar, whereby the door may be held in open position in opposition to the recoiler when the car is alined with respect thereto, and latch-releasing means including a fusible-link connection adapted to operate when the door is latched in open position.



2. The combination with a self-closing vertically slidable elevator-door, of a spring-retracted latch-lever pivotally supported adjacent said door, a yielding latch-member pivotally carried by said latch-lever and adapted to engage and hold the door in open position, a shoe adjustably secured to said latch-lever, an elevator-car, and a cam fixed to the car and adapted to engage said shoe and project the latch-lever for the engagement of the latch-member to hold the door in open position while the car is at rest at that floor of the building and to release said latch and allow the door to close when the car leaves the floor in either direction.

3. The combination with a manually-opened self-closing elevator-door, of a latch-frame fixed adjacent thereto, a latch-lever yieldingly mounted upon said frame, a latch member yieldingly mounted upon said latch-lever and normally held out of engagement with said door, an elevator-car, a cam secured to the car and adapted to project said latch member for engagement with said door, a bolt slidably mounted upon said frame and adapted to retract said latch member independently of said latch-lever, a spring normally disposed to actuate said bolt, a fusible-link secured adjacent said door, and a connection between said link and bolt whereby the latter is held out of engagement with said latch member in opposition to said spring.

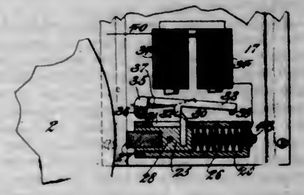
1,072,065. VEGETABLE-PICKER. ROBERT WHITE, St. Paul, Minn. Filed July 29, 1912. Serial No. 712,044. (Cl. 55—28.)



1. A vegetable picker comprising a shank, a scoop portion formed of spaced wires bent to form an inner basket, and forwardly extending tines with upwardly projecting shoulders adjacent to the basket, said shank being formed with clips supporting the wires at the rear of said basket.

2. A vegetable picker comprising a scoop portion formed of spaced wires doubled upon themselves to form an inner basket, tines extending forwardly from said basket, cross stays connecting and interlocking with the side portions of said wires, and a shank supporting the rear of said basket and holding the wires thereof in spaced relation.

1,072,066. BRAKE FOR TALKING-MACHINES. GÜNTHER PHILIP WILD, Philadelphia, Pa. Filed Feb. 1, 1912. Serial No. 674,764. (Cl. 74—46.)

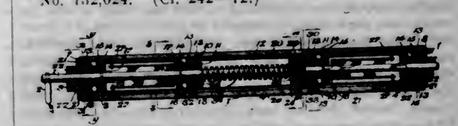


1. In a braking attaching for talking machines, a rotatable member, a spring-actuated brake-bolt adapted for engagement with said member, an electro-magnet having one terminal of its winding in constant electrical connection with said bolt, an armature formed with a detent adapted to engage and form direct electrical contact when in released position with said brake-bolt, a spring connected to move said armature away from said magnet, an electric circuit constantly connected to said armature and to the other terminal of the magnet-winding, and means for positively opening and closing said circuit.

2. In a braking attachment for talking-machines, a rotatable member, an insulated casing, a spring-actuated brake-bolt, adapted for engagement with said member, sliding within and in constant electrical contact with said casing, means for retracting said bolt, an electro-magnet having one terminal of its winding in constant contact with said casing, an armature formed with a detent projecting to engage and form direct electrical contact when in released position with the brake-bolt, a spring connected to move said armature away from said magnet, an electric circuit constantly connected to such armature and to the other terminal of the electro-magnet, and means for positively opening and closing said circuit.

3. In a brake for talking machines, a rotatable member, an electric circuit, positively actuated means for closing and opening said circuit, a brake bolt constantly connected in said circuit and having means for automatically throwing it into engagement with said member and for positively retracting it, an armature constantly connected in said circuit and having detent means for engaging when in released position the retracted brake-bolt and for thus making direct electrical contact with the same, and means for automatically moving said armature into released position.

1,072,067. EXPANSIBLE ROLLER. GÜNTHER PHILIP WILD, Philadelphia, Pa. Filed Nov. 18, 1912. Serial No. 732,024. (Cl. 242—72.)



1. An expansible roller, comprising peripheral sections forming the periphery of the roller, an axial rotatable shaft, sleeves upon said shaft and formed with axial recesses and with holes in the walls of such recesses, means for connecting said sleeves, collars secured upon the shaft within the recesses in the sleeves and formed with rounded recesses in their peripheries corresponding to the holes in the sleeves, and anti-friction balls in such

holes and interposed between the collars and the peripheral sections.

2. An expansible roller, comprising peripheral sections forming the periphery of the roller, resilient means for drawing such sections toward the axis of the roller, an axial rotatable shaft, sleeves upon said shaft and formed with axial recesses and with holes in the walls of such recesses, means for connecting said sleeves, collars secured upon the shaft within the recesses in the sleeves and formed with rounded recesses in their peripheries corresponding to the holes in the sleeves, and anti-friction balls in such holes and interposed between the collars and the peripheral sections.

3. An expansible roller, comprising peripheral sections forming the periphery of the roller, an axial rotatable shaft, a hollow cylinder within said sections, sleeves secured within said cylinder and loose upon said shaft and formed with axial recesses and with holes in the walls of said recesses, collars secured upon the shaft within the recesses in the sleeves and formed with rounded recesses in their peripheries corresponding to the holes in the sleeves, and anti-friction balls in such holes and interposed between the collars and the peripheral sections.

4. An expansible roller, comprising peripheral sections forming the periphery of the roller, resilient means for drawing such sections toward the axis of the roller, an axial rotatable shaft, a hollow cylinder within said sections, sleeves secured within said cylinder and loose upon said shaft and formed with axial recesses and with holes in the walls of said recesses, collars secured upon the shaft within the recesses in the sleeves and formed with rounded recesses in their peripheries corresponding to the holes in the sleeves, and anti-friction balls in such holes and interposed between the collars and the peripheral sections.

5. An expansible roller, comprising peripheral sections forming the periphery of the roller, resilient means for drawing such sections toward the axis of the roller, an axial rotatable shaft, a hollow cylinder within said sections, sleeves secured within said cylinder and loose upon said shaft and formed with axial recesses and with holes in the walls of said recesses, collars secured upon the shaft within the recesses in the sleeves and formed with rounded recesses in their peripheries corresponding to the holes in the sleeves, means for detachably locking said shaft and collars to said sleeves, and anti-friction balls in such holes and interposed between the collars and the peripheral sections.

[Claims 6 and 7 not printed in the Gazette.]

1,072,068. METHOD OF CONSTRUCTING SUBAQUEOUS TUNNELS. JOSEPH S. WILLIAMS, Riverton, N. J. Filed Dec. 7, 1906, Serial No. 346,775. Renewed Jan. 23, 1913. Serial No. 744,090. (Cl. 61—16.)



1. The method of constructing subaqueous tunnels which consists in establishing a working chart above the water bed, excavating a channel in such bed to the grade and dimension alinements, establishing an alineable grade, equipping such bed with grade and side alining supports and alining platforms, constructing transportable structures having bridging capacity in each unit length thereof, floating such structures beneath said platforms, lowering such structures into tunnel way alinement, establishing bridging capacity water tight unions at the meeting ends of the structures, and ballasting the united structures into union with the bed and its equipments.

2. The method of constructing tunnels which consists in establishing a working chart above the water bed, excavating a channel in the water bed in accordance with such chart, piling the excavated bed, capping such piles with ballast, equipping the channel with means for alining the tunnel structures while being placed, constructing transportable tunnel structures having bridging capacity in each unit length thereof, locating such structures in water tight bridging capacity union in exact tunnel way alinement along such ballasted bed, and ballasting the united structures into union with the ballasted bed and its equipments and embedding such united structures with ballast.

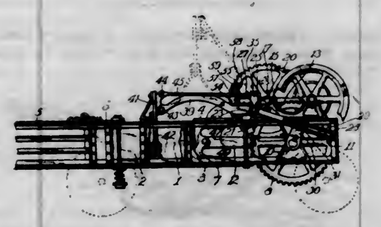
3. The method of constructing tunnels, which consists in constructing in or extending from the shore subwater line water proof chambers having passages therethrough in tunnel alinement, establishing structural resistance beds in such chambers, constructing thereon transportable tunnel sections, grading and alining the water bed, transporting the structures from said chambers into tunnel alinement, lowering the structures to placement into exact alinement on the graded and alined bed, joining the ends of meeting structures in water tight union until the last placed structures extend into the passageways of the water tight chambers, and then uniting the last placed structures into water proof union with such chambers.

4. The method of constructing tunnels, which consists in constructing in or extending from the shore subwater line water proof chambers having passages therethrough in tunnel alinement, establishing structural resistance beds in such chambers, constructing thereon transportable tunnel sections, grading and alining the water bed, transporting the structures from said chambers into tunnel alinement, lowering the structures to placement into exact alinement on the graded and alined bed, joining the ends of meeting structures in water tight union until the last placed structures extend into the passageways of the water chambers, uniting the same into water proof union with such chambers, and then ballasting the structures into union with the bed thereunder.

5. The method of constructing subaqueous tunnels, which consists in constructing in or extending from the shore subwater line water proof chambers having passages therefrom in tunnel alinement and adapted to be opened and closed, establishing structural and alineable resistance beds in such chambers, constructing thereon transportable structures consisting of any desired number of units, grading and alining the water bed and equipping the same with approximate and exact side alining piers, transporting the structures through said passages into tunnel alinement between the side alining piers, lowering the structures into exact alinement on the graded and alined bed, joining the ends of meeting structures in water tight union, and uniting the end structures into water tight union with such chambers.

[Claims 6 to 34 not printed in the Gazette.]

1,072,069. BALING-PRESS PACKER. LEWIS B. WYGANT, Vincennes, Ind. Filed Dec. 2, 1912. Serial No. 734,594. (Cl. 100—25.)



1. A packer including a rock-shaft, a rocker-arm fixed on the rock-shaft and having a cam-face on its end that is eccentric to the rock-shaft, a reach-arm pivoted to the rock-shaft, and a friction tension device movably mounted on the reach-arm in movable contact with and spring-pressed to the cam-face.

2. A packer including a rock-shaft, a rocker-arm fixed on the rock-shaft and having a cam-face on its end that is eccentric to the rock-shaft, a reach-arm pivoted to the rock-shaft, a tension device movably mounted on the reach-arm in movable contact with the cam-face, and a spring coöperating with the reach-arm and the device for yieldingly holding the device forcibly in contact with the cam-face.

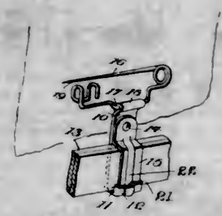
3. A packer including a rock-shaft, a rocker-arm fixed on the rock-shaft and having a depression in its end, a reach-arm pivoted to the rock-shaft, a rod pivoted to the reach-arm and having an end normally seated in the depression and movable therefrom and against the end of the rocker-arm, and a spring coöperating with the reach-arm and the rod for yieldingly holding the latter in the depression.

4. A packer including a rock-shaft, a rocker-arm fixed on the rock-shaft and having a curved cam-face on its end that is eccentric to the rock-shaft, the rocker-arm having also a depression in its end at the end of the cam-face that is the closer to the rock-shaft, and a reach-arm pivoted on the rock-shaft and provided with a slip-connection device yieldingly forced into the depression to be forced therefrom and onto the cam-face.

5. The combination with a rock-shaft, two reach-arms pivoted on the rock-shaft, a cross bar seated upon the two reach-arms, and a spring seated upon the cross-bar, of a rocker-arm fixed to the rock-shaft and having a cam-face on its end that is eccentric to the rock-shaft, the end having a concave depression therein at the end of the cam-face that is the closer to the rock-shaft, a rod pivoted at one end to the two reach-arms and having a cylindrically-shaped opposite end normally seated in the depression to be moved therefrom and into contact with the cam-face, and a bolt connected to said rod and also with said spring.

[Claims 6 and 7 not printed in the Gazette.]

1,072,070. HORSE-BLANKET HOLDER. ELIAS B. ANDERSON, Rock Falls, Ill. Filed Feb. 3, 1912. Serial No. 675,276. (Cl. 24—86.)



A blanket holder consisting of a strap provided at one end with a securing device, the other end of the strap being bent at right angles to its body portion and being bent again adjacent its terminal, whereby said terminal is disposed parallel with the body portion of the strap, said terminal being formed with a vertically disposed socket intermediate its ends, a member pivotally supported on the strap, said member being bent in a plane at right angles to the strap and provided with a tapered extension disposed parallel with the strap and the securing portion of the member, said extension being formed with a centrally disposed rib, the lower terminal of which is arranged to extend within the socket formed in the terminal of the strap.

1,072,071. WINDOW. HIRAM A. RANGER and FRANK M. RANGER, Philadelphia, Pa. Filed June 10, 1912. Serial No. 702,781. (Cl. 20—50.)

1. The combination with a window frame, of a vertical guide centrally in the frame, a block mounted to slide in said guide, and a pair of sashes connected to said block, substantially as described.



2. The combination with a window frame, of a vertical guide centrally in the frame, a block mounted to slide in said guide, and a pair of sashes hinged to said block, substantially as described.

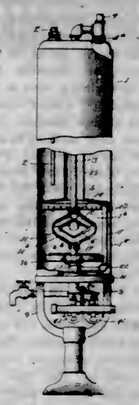
3. The combination with a window frame, of a vertical guide centrally in the frame, a block mounted to slide in said guide, a pair of sashes connected to said block, and counterbalancing means in the frame connected to said block, substantially as described.

4. The combination with a window frame, of a vertical guide centrally in the frame, a block mounted to slide in said guide, a pair of sashes hinged to said block, and counterbalancing means in the frame connected to said block, substantially as described.

5. The combination with a window frame, of a vertical guide located centrally in the frame, a member mounted to move in the guide, two sashes, and a single hinge pin connecting both sashes to said movable member, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,072. GAS WATER-HEATER. WILLIAM B. BASTIAN, Chicago, Ill., assignor to Bastian-Morley Co., Pierre, S. D., a Corporation of South Dakota. Filed Sept. 30, 1912. Serial No. 723,139. (Cl. 122—16.)



1. A water-heater having, in combination, a boiler, a spreader formed of two substantially horizontal continuous plates, arranged one above the other and spaced apart so as to leave between them a chamber of substantially saucer shape for the passage of water, a plurality of hollow branches located above said chamber and communicating at their outer ends with the outer portion of said chamber, at different distant points, a water circulating pipe, the lower end of which communicates with the inner end of said hollow branches, and the upper end of which communicates with the boiler, and a second circulating pipe communicating with the boiler and with the bottom of the spreader at the center of the saucer shaped chamber, aforesaid.

2. A water-heater having, in combination, a boiler, a spreader formed of two substantially horizontal continuous plates, arranged one above the other and spaced apart to leave between them a saucer shaped space, or chamber, for the passage of water, a plurality of hollow branches the outer ends of which communicate with the outer portion of said chamber at different distant points, whence they extend inward, a circulating pipe the lower end of which communicates with the inner ends of said hollow branches

and the upper end of which communicates with the boiler, and a second circulating pipe communicating with the boiler and with the chamber aforesaid of the spreader, the top side of the upper plate aforesaid of the spreader being concave.

3. A water-heater, having, in combination, a boiler, a spreader formed of two substantially horizontal continuous plates, arranged one above the other, the upper side of the lower plate being concave and the under side of the upper plate being convex, said plates being cast integrally, and the casting comprising them having a portion which joins their outer margins or peripheries and spaces and holds them apart so as to leave between them a saucer shaped space, or chamber, for the passage of water, a plurality of hollow branches, the outer ends of which communicate with the outer portion of said saucer shaped chamber at different distant points, whence they extend inward and upward, a circulating pipe, the lower end of which communicates with the inner ends of said hollow branches, and the upper end of which communicates with the boiler, and a second circulating pipe communicating with the boiler and with the saucer shaped chamber, aforesaid, at about its center.

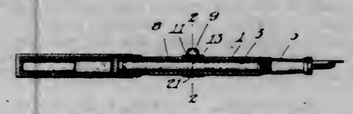
4. A water-heater having in combination a boiler, a combustion chamber located beneath the bottom of the boiler, and formed by a downward continuation of the cylindrical walls of the boiler, a ring upon which the bottom of said downward continuation rests, means for supporting said ring, a spreader located in the combustion chamber, said spreader being formed of two substantially horizontal continuous plates arranged one above the other, the upper side of the lower plate being concave and the under side of the upper plate being convex, said plates being cast integrally, and the casting comprising them having a portion which joins their outer margins or peripheries, and spaces and holds them apart, so as to leave between them a saucer shaped space, or chamber for the passage of water, said casting comprising also a plurality of hollow branches, the outer ends of which communicate with the upper portion of said saucer shaped chamber at different distant points, whence they extend inward and upward, a circulating pipe the lower end of which communicates with the inner ends of said hollow branches and the upper end of which communicates with the boiler and a second circulating pipe located within the combustion chamber and communicating at one end with the lower portion of the boiler, through an opening in the bottom thereof, and at the other end centrally with the saucer shaped chamber aforesaid at its lowermost point.

5. A water-heater having, in combination, a boiler, a combustion chamber located below the boiler, a flue communicating at its lower end with the combustion chamber, whence it extends upward through the boiler, a spreader located in the combustion chamber below and immediately opposite the lower end of the flue, a circulating pipe communicating with its lower end with the spreader, whence it extends upward through the flue, its upper end being in communication with the boiler, said spreader being made of two concavo-convex or saucer-shaped plates arranged with their concave sides uppermost, said spreader having also hollow branches communicating with the outer portion of the chamber aforesaid, whence they extend inward and communicate with the lower end of the circulating pipe first aforesaid.

[Claims 6 and 7 not printed in the Gazette.]

1,072,073. FOUNTAIN-PEN. GEORGE FRANKLIN BRANDT, Boston, Mass. Filed Aug. 19, 1912. Serial No. 715,757. (Cl. 120—46.)

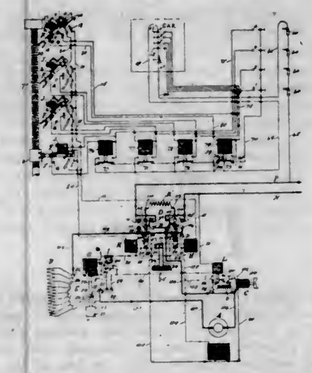
1. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel, and an imperforate press button extending through said apertures, said button having a slot in one side extending part way through it to receive the edge of the aperture in said friction band.



2. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel, and an imperforate press button extending through said apertures, said button having a slot on one side extending part way through it, the width of the slot being greater than the thickness of said friction band and one wall of said slot being arranged to lie at all times appreciably below the circumference of said barrel.

3. A fountain-pen comprising a cylindrical barrel provided with an aperture in the side thereof, a friction band concentric with said barrel, movable about the axis of said barrel and having an aperture elongated in the direction of said movement, a collapsible ink-container in said barrel, a presser-bar located between the outer wall of said container and the inner wall of said barrel and a press-button extending through said apertures, said button having a slot which is non-concentric with said barrel and extends approximately obliquely to the axis of said button.

1,072,074. PUSH-BUTTON SYSTEM. WILLIAM BAXTER, Jr., Jersey City, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 19, 1908. Serial No. 463,404. (Cl. 172—152.)



1. The combination with an electric motor, of reversing switches, operating magnets therefor, and means for effecting the energization of first one and then both of said magnets together.

2. The combination with an electric motor, of electromagnetic reversing switches controlling the supply of current to the motor, and automatic means for establishing a controlling circuit first through the magnet winding of one of said magnets, and then through the other magnet winding in parallel therewith.

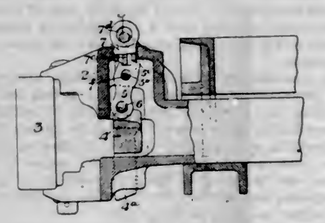
3. The combination with a motor, of relays for controlling the supply of current thereto, reversing switches, operating magnets therefor, and automatic mechanism for closing first a circuit to one of said magnets and then to both magnets in parallel.

4. The combination of a motor, relays controlling the supply of current thereto, reversing switches, operating magnets operating said switches, electro-responsive means for closing a circuit to one of the magnet windings, and means to then close a parallel circuit to the other winding.

5. The combination of an electric motor, starting resistance therefor, an accelerating electromagnet, a device operated by said electromagnet for cutting the starting resistance out of the motor circuit, a switch in circuit with the said electromagnet and operated by said device to closed and open position, respectively, when the starting resistance is in and out of circuit, a relay magnet in circuit with the accelerating magnet, and a switch operated by the relay magnet and controlling a shunt circuit around the first named switch.

[Claims 6 to 29 not printed in the Gazette.]

1,072,075. CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 3, 1908. Serial No. 441,797. (Cl. 213—14.)

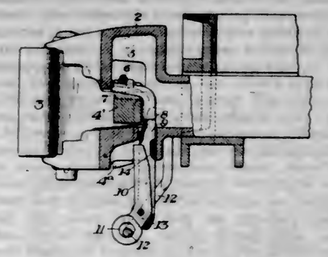


1. A coupler having a swinging knuckle, a lock engaging the knuckle tail and movable independently of the knuckle, the top of the lock being below the top wall of the coupler cavity, leaving a space between said wall and lock when the knuckle is locked, and a lock lifting device comprising a plurality of jointed members extending through the space in the upper part of the head and through a hole in the top wall of the coupler head, said members being arranged to cause the lower member to move laterally by gravity under a stop shoulder on the coupler head to prevent creeping of the lock, and the upper member having an enlargement arranged to seat against the rim of the top hole in the coupler head when the knuckle is locked, the jointed members having a slotted connection and being angled therein and the lower member being held in an inclined position to engage the stop on the coupler head, said members also having co-acting portions which limit their angular movement in both directions.

2. In a car coupler, a lifting link adapted to have a locking engagement with the upper wall of a coupler head, a clevis pivoted to said link and having a slot to receive the upper portion of the link, said slot having a stop portion, and a shoulder on the link arranged to be engaged by said stop to limit the backward movement of the upper end of the link under the upper wall of the coupler; substantially as described.

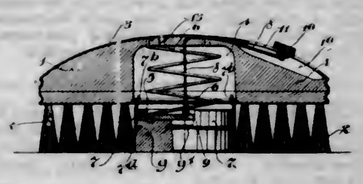
1,072,076. BOTTOM-OPENING CAR-COUPLING. ARTHUR J. BAZELEY, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed July 3, 1908, Serial No. 441,797. Divided and this application filed Mar. 5, 1910. Serial No. 547,389. (Cl. 213—14.)

A coupler having a swinging knuckle and a lock, a stop on the coupler head to prevent the lock from creeping, a lock-lifting member movable through the floor of the coupler, an anti-creeper member pivoted to the lock-lifting member in its lower portion and having an upwardly extending portion adapted to fall by gravity into the path of the stop on the coupler head, and another



portion extending at an angle to the upwardly extending portion for engagement with the actuating means.

1,072,077. SOAP-HOLDING ATTACHMENT FOR BRUSHES. GEORGE C. BECKWITH, Minneapolis, Minn. Filed Dec. 26, 1912. Serial No. 738,570. (Cl. 15—13.)



1. A soap holder comprising a disk-like head and provided with an elastic clamping ring adapted to detachably hold a bar of soap thereto.

2. A soap holding device comprising a disk-like head having a peripheral groove and an elastic clamping ring provided with a bead engageable with the groove of said head and having an inturned edge flange adapted to engage the peripheral groove of a bar of soap.

3. The combination with a body having a recess, of a follower alined with said recess, a spring in said recess, yieldingly pressing said follower outward, an elastic clamping ring applied to said follower and having an inturned flange engageable with the peripheral groove of a bar of soap, and a yielding connection between said body and follower limiting the outward movements of the latter.

4. The combination with a body having a casing detachably secured thereto, of a spring pressed follower arranged to hold a bar of soap, an adjusting cord attached to said follower and passed upward through said body, and a knob attached to the outer end of said cord and having adjustable interlocking engagement with said casing, substantially as described.

1,072,078. MECHANISM FOR AERIAL NAVIGATION. JOSEPH H. BECKWITH, St. Louis, Mo. Filed Oct. 12, 1908, Serial No. 457,335. Renewed May 21, 1913. Serial No. 769,094. (Cl. 244—15.)



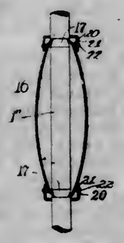
1. In a machine of the character described, the combination with a frame work, vertical hollow shafts supported by said frame work, a lifting propeller on each

of said vertical shafts, a parachute on each of said shafts above said lifting propellers, said shafts having openings above and below said propellers effectively to conduct air from above said propellers to the under side thereof, and braces holding said vertical shafts from becoming displaced, of power mechanism, of a plurality of shafts driven by said power mechanism, a driving propeller on one of said shafts, and gears entraining said last-named shafts with said vertical shafts whereby said lifting propellers and said parachutes will be driven when said driving propeller is operated, substantially as specified.

2. Mechanism of the character described comprising a frame work, power mechanism on said frame work, a number of vertical hollow shafts rotated by said power mechanism, an open parachute on each of said shafts, and a lifting propeller on each shaft below the parachute thereon, said shafts having openings above and below said propellers effectively to conduct air from above said propellers to the under sides thereof, substantially as specified.

3. A machine of the character described comprising a frame work, a number of vertical hollow rotating shafts, a permanently operable lifting propeller on each shaft, a number of permanently open parachutes above said propellers and above said frame work, said shafts having openings above and below said propellers effectively to conduct air from above said propellers to the under side thereof, a driving propeller, and power mechanism for operating said lifting propellers, said parachutes, and said driving propeller, substantially as specified.

1,072,079. **BRACE-SOCKET WRENCH.** WARREN S. BELLOWS, Worcester, Mass., assignor to Walden Manufacturing Company, Worcester, Mass., a Corporation of Massachusetts. Filed Aug. 22, 1910. Serial No. 578,360. (Cl. 81—73.)

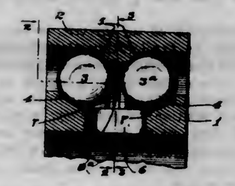


1. The combination with a round rod having two annular grooves therein, of a grip comprising two shells each having a semi-circular cross section and adapted to have their ends seat loosely in said grooves, and ferrules loosely fitting said rod and inclosing said ends, and adapted to be fastened to the latter.

2. The combination with a round rod having two annular grooves therein, of a grip comprising two shells each having a semi-circular cross-section and adapted to have their ends seat loosely in said grooves, and ferrules loosely fitting said rod and inclosing said ends, each of said ferrules having recesses within it, and said shells having projections adapted to engage said recesses and retain the ferrules in place thereon.

1,072,080. **ANTIFRICTION-BEARING.** FRED E. BRIGHT, Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company, a Corporation of Delaware. Filed May 22, 1912. Serial No. 698,934. (Cl. 64—59.)

1. In combination with an antifriction bearing comprising casing elements having two raceways and two series of interposed rolling members, one of said casing elements being provided with a filling opening between the raceways, and a guard member between the two series of rolling members in position to prevent their accidental escape through the filling opening and adapted to yield in the assemblage of the rolling members in the raceway.



2. In combination with an antifriction bearing comprising inner and outer casing elements having two raceways and two series of interposed rolling members, one of the casing elements being provided with a filling opening between the raceways, and a guard ring between the two series of rolling members in position to prevent the escape of the latter through the filling opening.

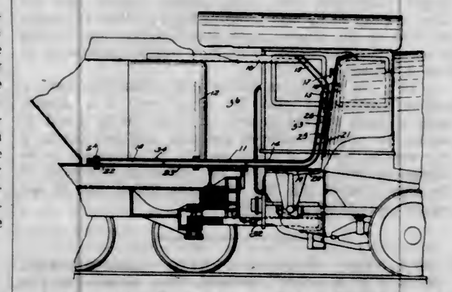
3. In combination with an antifriction bearing comprising inner and outer casing elements having two raceways and two series of rolling members, one of the casing elements being provided with a filling opening between the raceways, and a split guard ring between the series of rolling members.

4. In combination with an antifriction bearing comprising inner and outer casing elements having ball tracks constituting two raceways, and two series of rolling members traveling in said raceways, one of the casing elements being provided with a filling opening leading to the raceways, a loose guard ring between said series of rolling members, said guard ring being in position to span the filling opening and serving to prevent the accidental escape of the rolling members therethrough.

5. In combination with an antifriction bearing comprising inner and outer casing elements provided with ball tracks constituting two raceways between the casing elements, one of the casing elements being provided with a filling opening leading to the raceways, and two series of balls traveling in said raceways, and a circumferentially-movable guard ring situated between the series of rolling members in position to span the filling opening and prevent the escape of the rolling members therethrough.

[Claims 6 to 8 not printed in the Gazette.]

1,072,081. **SAFETY DEVICE FOR RAILROAD-LOCOMOTIVE TENDERS.** GEORGE E. BRYANT, Utica, N. Y. Filed Aug. 24, 1912. Serial No. 716,899. (Cl. 105—260.)



1. In a device for providing safety to firemen or other persons on locomotive tenders, in combination with the tender, a platform secured to the deck thereof and provided at or near its forward end with an upwardly projecting barrier.

2. In a device as above mentioned in combination, a locomotive tender, a platform secured thereto, said platform projecting forwardly from the tender and provided at or near its forward end with an upwardly projecting barrier.

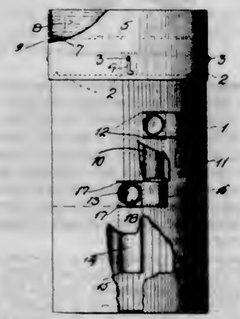
3. In a device as above mentioned in combination with a locomotive tender, a platform secured thereto and provided at or near its forward end with an upwardly projecting barrier, said barrier being provided with an opening or plurality of openings.

4. In a device as above mentioned in combination, a locomotive tender, a platform secured thereto, said platform projecting forwardly from the tender and provided at or near its forward end with an upwardly projecting barrier, said barrier being provided with an opening or a plurality of openings.

5. In a device as above mentioned in combination with a locomotive tender, a platform secured thereto and provided at or near its forward end with an upwardly projecting barrier, said barrier being secured and braced to the tender by rearwardly projecting braces.

[Claims 6 to 11 not printed in the Gazette.]

1,072,082. **ORCHARD-HEATER.** CLAYBORNE BYRON and ANDREW ARMSTRONG, Rialto, Cal. Filed Aug. 12, 1912. Serial No. 714,732. (Cl. 126—59.5.)

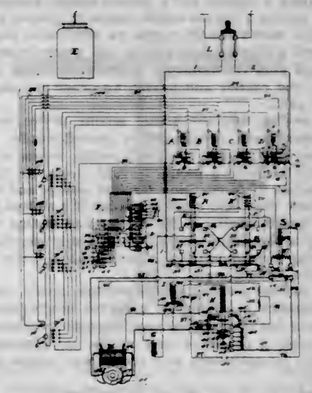


An orchard heater comprising a liquid fuel container having lateral openings in the upper part thereof, a tank cover, means to hold said cover in adjusted elevated or lowered position to open or close said openings, a vertical downwardly directed draft flue whose lower end extends to near the surface of the fuel when a full charge thereof is in the container, a vertical downwardly directed draft flue whose lower end is located on a level lower than that of said first named flue, both said flues being within said container, the upper open end of each flue being located in an opening in said container, and closures for said openings.

1,072,083. **MOTOR-CONTROLLING SYSTEM.** EUGENE R. CARICHOFF, East Orange, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 18, 1905. Serial No. 260,922. (Cl. 172—152.)

1. In combination with a motor, of a starting resistance in circuit therewith, an electro-responsive device for varying said resistance, means for closing a circuit to said device, a normally short-circuited resistance in series with the winding of said electro-responsive device, means operated by said device for opening the short-circuit around said last named resistance to reduce the current in said winding, an additional resistance in series with said starting resistance, means comprising an electro-magnet for short-circuiting said additional resistance, a shunt circuit for said electro-magnet, said shunt circuit containing resistance to reduce the current through said electro-magnet after said additional resistance has been short-circuited, and a circuit closer connected to said electro-responsive device for controlling a circuit to said electro-magnet.

2. The combination with a motor, of resistance, means for varying said resistance, an electro-responsive device for controlling said resistance-varying means, means for closing a circuit through said electro-responsive device, an additional resistance, means for establishing a circuit including the motor and said first-named resistance and for closing a local circuit including said motor and said resistances in series, and means for interrupting the first-named circuit through said electro-responsive device to control the speed of the motor.



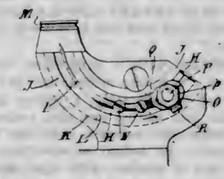
3. The combination with a motor, of motor starting resistance, additional resistance arranged to be placed in series therewith, means including an electro-magnet for controlling said additional resistance, and means for closing the circuit to said motor and for diminishing the current through said electro-magnet.

4. The combination with a motor, of resistance connected across the motor armature, means comprising an electro-magnet for varying said resistance, and means for interrupting the circuit through said electro-magnet when the motor exceeds a predetermined speed.

5. The combination with a motor and a main line circuit, of sectional resistance normally in series with the motor-armature, connecting-mechanism for said resistance, a solenoid connected across said main line, a core or plunger for the solenoid and secured to said connecting-mechanism, a second solenoid connected across the armature, a core for said second solenoid, a switch secured to said last-named core actuated by said second solenoid to interrupt the circuit to the first-named solenoid upon the motor-armature attaining excessive speed.

[Claims 6 to 14 not printed in the Gazette.]

1,072,084. **NEEDLE-SETTING DEVICE.** ARTHUR CARP, St. Louis, Mo., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed July 25, 1912. Serial No. 711,488. (Cl. 112—37.)



1. A sewing machine needle setting device comprising in combination with the needle carrier, a needle stop adjustable longitudinally of the needle and carrier, a fixed-position stop-securing device operative after adjustment of such stop for locking the stop in adjusted position, and a needle-securing device for detachably securing a needle in abutting contact with said stop.

2. A sewing machine needle setting device comprising in combination with the needle carrier, a needle stop ad-

justable longitudinally of the needle and carrier, a fixed-position screw-threaded stop-securing device arranged on the needle carrier and operative after adjustment of such stop for locking the stop in adjusted position, and a needle-securing device for detachably securing a needle in abutting contact with said stop.

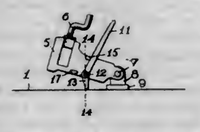
3. A sewing machine needle setting device comprising in combination a carrier for a curved needle, movable in an arc and having a curved needle recess or groove, means for securing a needle in said recess, an adjustable part adapted to form a stop for said needle, and means to secure said stop, said stop consisting of a plate arranged longitudinally of the carrier and having an offset standing in the needle's path.

4. A sewing machine needle setting device comprising in combination a carrier for a curved needle, movable in an arc and having a curved needle recess or groove, means for securing a needle in said recess, an adjustable part adapted to form a stop for said needle, and means to secure said stop, said stop consisting of a slotted plate arranged longitudinally of the carrier and having an offset standing in the needle's path, and said stop securing means comprising a fixed-position screw-threaded device engaged in the slot of said plate.

5. A sewing machine needle setting device comprising in combination a carrier for a curved needle, movable in an arc and having a curved needle recess or groove, means for securing a needle in said recess, an adjustable stop projecting laterally into said recess, and means to secure said stop.

[Claims 6 to 12 not printed in the Gazette.]

1,072,085. WIRE-DRAWING MACHINE. ELBERT H. CARROLL, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 10, 1910. Serial No. 537,186. (Cl. 205—16.)



1. In a wire drawing machine, comprising a rotating block and a gripping mechanism, a supporting table, a die holder pivotally connected to said table, means for supporting said die holder in a raised position slightly below the line of initial strain on the wire in the operation of wire drawing, said die-holder supporting means becoming automatically released when strain is applied to the wire.

2. The combination with a supporting table, a wire drawing block and a gripping mechanism, of a die holder pivotally connected to said table, a swinging lever pivoted on said die holder having a supporting arm arranged to contact with said table and support said die holder in a raised position, said lever arranged to swing by gravity and move said arm out of contact with the table when said arm is relieved of the weight of the die holder.

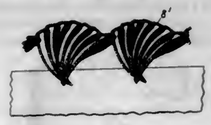
3. The combination with a supporting table, a wire drawing block and a gripping mechanism, of a die holder pivotally connected to said table, a lifting lever pivoted to said die holder and having one arm arranged to contact with the table and support said die holder in a raised position, with the weight of said lever applied to swing said arm out of contact with said table when relieved of the weight of the die holder, and a stop to limit the movement of said arm.

4. In a wire drawing machine, a table, a rotating block, a gripping mechanism, a die holder, means pivoted to said die holder for supporting said holder in a raised position slightly below the line of initial strain upon the wire in the operation of wire drawing, said die-holder supporting means becoming automatically released when strain is applied to the wire.

5. A wire drawing machine comprising a horizontal supporting table, a wire drawing block mounted on said table, a horizontal die holder for a die through which the wire is drawn, said die holder pivotally mounted on said table, a lever pivotally attached to said die holder, said lever provided with a supporting arm arranged to contact with said table and raise said die holder into an inclined position as said lever is swung on its pivot, and means for limiting the swinging movement of said lever.

[Claim 6 not printed in the Gazette.]

1,072,086. METHOD OF FORMING CROCHET-STITCH FABRIC-BORDERS. WILLIAM H. CARTER, Needham Heights, Mass., assignor to The William Carter Company, Needham Heights, Mass., a Corporation of Massachusetts. Original application filed Mar. 29, 1911, Serial No. 617,627. Divided and this application filed Mar. 27, 1913. Serial No. 757,076. (Cl. 112—34.)



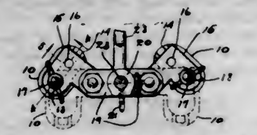
1. That method of producing a crochet stitch fabric border which consists in piercing the fabric adjacent its edge with a plurality of stitches, laying the said stitches individually in lines all having a general trend in the same direction, but which occupy positions predetermined in relation, and then, when all said stitches are laid, drawing them as a set, and without disturbing their predetermined positions relative to each other, in that direction toward which they have said general trend, thereby increasing said characteristic trend.

2. That method of producing a crochet stitch fabric border which consists in piercing the fabric adjacent its edge with a plurality of stitches, laying the said stitches individually in lines all having a general trend in the same direction, but which occupy positions predetermined in relation, supplying sufficient slack to each stitch as laid to impart thereto a fluffy or elevated characteristic, and then, when all said stitches are laid, drawing them as a set and without disturbing their predetermined positions relative to each other and their fluffy or elevated characteristic in that direction toward which they have said general trend, thereby increasing said characterictic trend.

3. That method of producing a crochet stitch fabric border which consists in piercing the fabric adjacent its edge with a plurality of stitches at substantially the same point, laying the said stitches individually in lines all having a general trend in the same direction, but which occupy positions predetermined in relation, then piercing the fabric at a closely adjacent point with a second plurality of stitches, laying the said second plurality of stitches in a line all having the same general trend, but which occupy positions predetermined in relation, and then, when all the said stitches are laid, drawing them as a set and without disturbing their predetermined relation in that direction toward which they have said general trend, thereby increasing said characteristic trend.

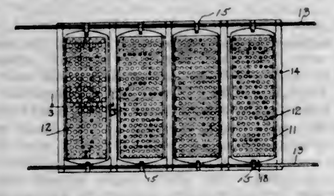
4. That method of producing a crochet stitch fabric border which consists in piercing the base or foundation adjacent its edge with a plurality of stitches at substantially the same point, drawing said stitches individually into loops arranged in a general shell or cluster formation, relatively shifting the piercing instrumentality and said base or foundation; piercing the latter at a point closely adjacent to but distinct from said first mentioned point with a plurality of stitches; drawing said second plurality of stitches individually into loops overlying and confining the basal parts of the first plurality of stitches, thereby to complete the shell or cluster formation, drawing stitches of said shell or cluster formation as a set toward the position of the shell or cluster next to be formed, and then repeating said operation to complete the fabric border.

1,072,087. BASE FOR DISPLAY-FORMS. STEPHEN F. CHEHEYL, Cleveland, Ohio. Filed Jan. 2, 1912. Serial No. 669,005. (Cl. 211—13.)



A base for garment forms comprising a central standard supporting member, plates pivotally connected to said central member at either side thereof, clamping means to hold said plates in different angular positions with respect to said clamping member, a leg connected to each of said plates, and an adjustable clamping connection between each leg and its corresponding plate comprising a guideway in the one, and a clamping member passing through the other and having a part engaging in said guideway.

1,072,088. SIGN. BENJAMIN F. CLINE and JESSE F. HENSLEY, Indianapolis, Ind. Filed June 20, 1912. Serial No. 704,933. (Cl. 40—144.)



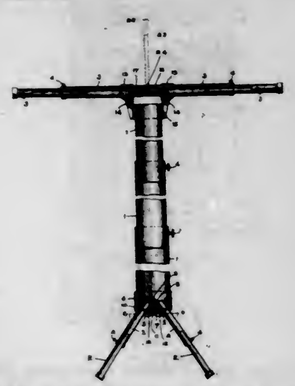
1. A sign composed of a plurality of similar sections, each section having a front plate with an opening therethrough, a clamping plate with a portion thereof cut away and in registry with said front plate opening, a perforated sheet between said front plate and said clamping plate, means for slidably securing said clamping plate to said front plate for clamping said perforated sheet, and means connecting with said supporting means for securing said sections in place in series.

2. A sign composed of a plurality of similar sections, each section having a front plate with an opening therethrough, a skeleton clamping plate adjacent thereto with an opening therethrough in registry with the opening in said front plate, the ends of said clamping plate being flattened, a perforated sheet between said front plate and said clamping plate and with the edges of said sheet bent against the lateral edges of said clamping plate, notched projections on said front plate for slidably engaging the flattened ends of said clamping plate, and means for supporting said sections in series.

3. A sign composed of a plurality of similar sections, each section having a front plate with an opening therethrough, one lateral edge of said front plate being recessed and adapted to extend behind the next one of said front plates, a skeleton clamping plate of substantially the same outline as said front plate, an open-work sheet located between said front plate and said clamping plate and having the lateral edges thereof bent against the sides of said clamping plate, recessed projections on said front plate slidably engaging the ends of said clamping plate and clamping said open-work sheet against said front plate, and a rod extending through one of said projections on each front plate for assembling said sections in series.

1,072,089. COLLAPSIBLE WARDROBE. JOSEPH M. CONNELLY, Philadelphia, Pa. Filed Mar. 8, 1913. Serial No. 752,908. (Cl. 45—118.)

1. A device of the character described, comprising a tubular standard, two collars hinged to the end of the standard and located at opposite sides thereof, said collars adapted to be positioned in alinement or be swung to a position over the tubular standard, tubular arms in said collars adapted to be positioned at right angles to the standard or be moved into the standard, and means holding said arms in alinement with each other, substantially as described.



2. A device of the character described, comprising a tubular standard, two collars hinged to the end of the standard and located at opposite sides thereof, said collars adapted to be positioned in alinement or be swung to a position over the tubular standard, tubular arms in said collars adapted to be positioned at right angles to the standard or be moved into the standard, a plug fixed in one arm and adapted to be projected into the other arm, coupling said arms and holding the collars against pivotal movement, substantially as described.

3. A device of the character described, comprising a tubular standard, two collars hinged to the end of the standard and located at opposite sides thereof, said collars adapted to be positioned in alinement or be swung to a position over the tubular standard, tubular arms in said collars adapted to be positioned at right angles to the standard or be moved into the standard, a plug fixed in one arm and adapted to be projected into the other arm, coupling said arms and holding the collars against pivotal movement, and legs supporting the lower end of said standard and adapted to be moved inside the standard, substantially as described.

4. A device of the character described, comprising a tubular standard, collars having hinged connection to the upper end of the standard at opposite sides thereof, tubular arms in said collars, and a plug secured in one arm and projected into the other, substantially as described.

5. A device of the character described, comprising a tubular standard, collars having hinged connection to the upper end of the standard at opposite sides thereof, tubular arms in said collars, a plug secured in one arm and projected into the other, said arms comprising a plurality of tubular telescoping sections adapted to be moved into the standard when the plug is withdrawn and the collars swung on their hinges to move the arms in parallelism, substantially as described.

1,072,090. WRENCH. WALTER HERBERT COOK, London, England. Filed Mar. 30, 1912. Serial No. 687,482. (Cl. 81—99.)

An improved spanner wrench having a shank provided with a fixed jaw, said jaw having a plurality of faces adapted to engage singly one side of a nut; a movable jaw pivoted upon said shank having a plurality of faces arranged in angular relation and adapted to engage other sides of said nut, the said jaws in a number of positions presenting parallel faces to engage opposite sides of the nut, and said shank having a transversely extending recess; and a foldable spring of substantially U-shape seated

in said recess having an arm to bear against the movable jaw, said spring extending substantially at right angles to the shank and being disposed substantially in the transverse plane of the pivot about which the movable jaw swings and having a second arm adapted to fulcrum



against the shank to permit the bight of the spring to fold or change its position in the recess in response to varying positions of the movable jaw whereby the tension of the spring is maintained substantially uniform in the several positions in which the movable jaw is adjusted.

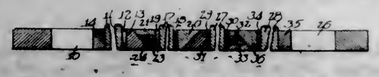
1,072,091. PROCESS FOR PROTECTING IRON SURFACES FROM CORROSION. SHERARD OSBORN COWPER-COLES, Westminster, London, England. Filed Nov. 23, 1912. Serial No. 733,097. (Cl. 204—13.)

1. A process for protecting iron and steel surfaces from corrosion, which consists in first depositing a thick protective coating of substantially pure iron upon the prepared surface and then depositing upon the protective coating, a further protective metallic coating containing zinc.

2. A process for protecting iron and steel surfaces from corrosion, which consists in first depositing a thick protective coating of substantially pure iron upon the prepared surface, then depositing upon the iron a coating of zinc alloy and then subjecting the same to a final heating or baking treatment.

3. A process for the protection of iron and steel surfaces from corrosion, which consists in subjecting the same to an electrolytic bath composed of zinc and iron salts, employing a low current density to effect the deposition thereon of iron, and then increasing the current density to effect a deposit of zinc iron alloy.

1,072,092. CHASES. PAUL F. COX, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1912. Serial No. 675,432. (Cl. 101—25.)



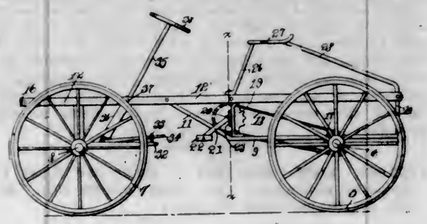
1. The combination of a plurality of chases arranged alongside of each other, two adjacent sides of said chases being beveled with one beveled side extending over the other.

2. The combination of a plurality of chases arranged side by side, the inner side of each end chase being beveled, and both sides of the intermediate chases being beveled, each beveled side corresponding substantially to the shape of the adjacent beveled side of the other chase so that one side extends over the other.

3. The combination of a plurality of chases arranged alongside of each other, portions of the outer edges of two adjacent sides of said chases being beveled with a beveled portion of one side extending over a beveled portion of the other side.

4. The combination of a plurality of chases arranged side by side in the same plane, two adjacent sides of said chases having diagonal meeting faces.

1,072,093. PROPELLING MECHANISM FOR VEHICLES. JESSE E. CRESS, Litchfield, Ill. Filed Oct. 4, 1910. Serial No. 585,266. (Cl. 208—113.)



1. A motor vehicle embodying an upper frame, a lower frame disposed in parallel relation beneath the rear part of the upper frame and having its forward portion connected to the upper frame intermediate of the ends of the latter, cross braces at the rear end of the upper frame and at a substantial central point thereof, a seat post arch connecting said braces centrally of the frame and inclined downwardly at its rear portion, a seat mounted on said post, vertical braces between the frames intermediate the ends of the upper frame, wheeled axles supporting the forward and rear ends of the frames, steering means for the forward axle and drive means supported by the vertical braces for driving the rear axle.

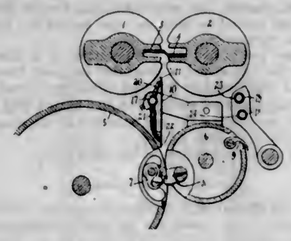
2. A motor vehicle embodying an upper frame of U-form having its bight portion forwardly disposed, a wheeled axle pivoted below the forward portion of the upper frame, means for steering said axle, a lower frame beneath the rear portion of the upper frame and having a forward bight portion directed upwardly at an angle and connected to the sides of the upper frame to form a brace intermediate the ends of the latter, the rear ends of the lower frame being bent upwardly at right angles, a cross brace connecting said upwardly bent portions and the rear extremities of the upper frame, braces connecting the side portions of the upper and lower frames near the upwardly directed portions and having an intermediate portion connected to the sides of the upper frame to form a brace therefor, bearings carried by said braces, a foot operated crank shaft rotatable in the bearings and operable beyond the sides of the frame and gear connections between the axle and the crank shaft.

1,072,094. WEB CUTTING AND FOLDING MACHINE. CONSTANT T. CUNDALL, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 30, 1910. Serial No. 594,939. (Cl. 101—48.)

1. In a machine of the character described, rotary cutters, folding cylinders, an interposed web guide and an air blast mechanism for insuring the passage of the advance edge of the web from the cutters to the guide and from the guide to the folding cylinders and for controlling the web as it passes along the guide.

2. In a machine of the character described, rotary cutters, folding cylinders, an interposed web guide plate and means for discharging blasts of air at the top of the guide plate for insuring the passage of the web from the cutters on to the guide plate and means for discharging air at the bottom of the guide plate for forcing the advance edge of the web against one of the folding cylinders for insuring its engagement thereby.

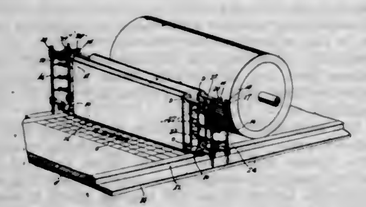
3. In a machine of the character described, rotary cutters, folding cylinders, an interposed guide plate and means for discharging blasts of air against both sides of the web at the top of the guide plate for insuring the passage of the web from the cutters on to the guide plate.



4. In a machine of the character described, rotary cutters, folding cylinders, an interposed guide plate, means for discharging blasts of air against both sides of the web at the cutters for insuring the passage of the web on to the guide plate and means for discharging a blast of air against one side of the web at the cylinders for forcing the advance edge of the web against one of the cylinders.

5. In a machine of the character described, rotary cutters, folding cylinders, an interposed guide plate, means for discharging blasts of air against both sides of the web at the cutters for insuring the passage of the web on to the guide plate, means for discharging a blast of air against one side of the web at the cylinders for forcing the advance edge of the web against one of the cylinders, and means for discharging a blast of air against the other side of the web for preventing the web from bulging as it passes along the guide plate.

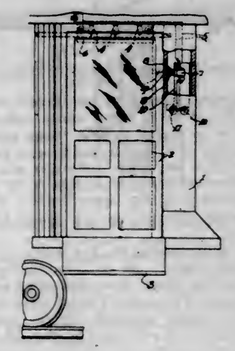
1,072,095. INKING DEVICE FOR PRINTING-PRESSES. ARTHUR B. DAVIS and ANCEL B. LEFFEL, Springfield, Ohio. Filed Dec. 19, 1911. Serial No. 666,657. (Cl. 101—78.)



1. In a printing press, the combination with the press frame; of standards arranged on opposite sides of said frame, bearing boxes extending laterally from said standards and adjustable relative to each other, an inking device including a plurality of rolls mounted in said boxes, cross bars yieldably held in said standards, and distributing rolls supported by said cross bars and mounted between said inking rolls.

2. In a printing press, the combination with the press frame; of standards arranged on opposite sides of said frame, an inking device including a plurality of rolls adjustably mounted in said standards, cross bars yieldably held in said standards, and a plurality of superimposed distributing rolls supported by said cross bars, certain of said distributing rolls being arranged obliquely to the others.

1,072,096. LIGHTING SYSTEM FOR VEHICLES. CLARK A. DEAN, Harvey, Ill. Filed June 12, 1912. Serial No. 703,222. (Cl. 240—7.)



1. The combination with a vehicle having a movable door and a step positioned at said door, of an electric circuit and lighting means arranged to illuminate said doorway and said step; means controlling said circuit whereby said lighting means will be inoperative when said door is closed and operative when said door is open; and means in said circuit for bridging said controlling means to effect continuous operation of said lighting means, substantially as described.

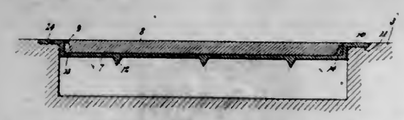
2. The combination with a vehicle having a movable door and a step positioned at said door; of an electric circuit; an electric lighting means included in said circuit and arranged in said vehicle above said door; a reflector coöperating with said lighting means for directing the light generated toward the doorway and said step, and a switch controlling said lighting means, whereby said light will be inoperative when said door is closed and operative when said door is open; and means in said circuit for bridging said switch to effect continuous operation of said lighting means, substantially as described.

3. The combination with a vehicle having a movable door, and a step positioned at said door, of an electric circuit; an electric lighting means included in said circuit and arranged in said vehicle above said door; a switch controlling the lighting means whereby said lighting means will be inoperative when the door is open; and means in said circuit for bridging said switch to effect continuous operation of said lighting means, substantially as described.

4. The combination with a vehicle having a movable door, and a step positioned at said door, of an electric circuit; an electric lighting means included in said circuit and arranged in said vehicle above said door; a reflector coöperating with said lighting means for directing the light toward the doorway and said step; a normally closed switch interposed in said circuit, means carried by said door adapted, when the latter is in closed position, to open said switch, and means in said circuit for bridging said switch to effect continuous operation of said lighting means, substantially as described.

5. The combination with a vehicle having a movable door and a step positioned at said door, of an electric circuit; an electric lighting means included in said circuit and arranged in said vehicle above said door; a reflector coöperating with said lighting means for directing the light toward the doorway and said step; a normally closed switch interposed in said circuit; means operative by said door adapted, when said door is in closed position, to open said switch; and means in said circuit for bridging said switch to effect continuous operation of said lighting means, substantially as described.

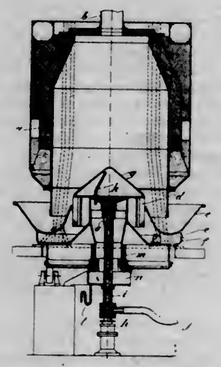
1,072,097. COOKING-RANGE. FRANK DE ANGELIS, New York, N. Y. Filed June 25, 1909. Serial No. 504,351. (Cl. 126—211.)



1. A cooking range having the top thereof provided with a recessed under or main plate, and a removable cover plate adapted to be placed in said recess and when disposed with one side up to lie practically with its under surface in contact with the upper surface of said main plate and when disposed with the other side up to have its under surface spaced from the upper surface of said main plate and thereby provide an air space between said plates.

2. A cooking range having the top thereof provided with an under or main plate, a set of upwardly inclined or tapering projections arranged upon said under plate at suitable points thereon, a detachable cover plate having corresponding points thereon provided with two sets of sockets or cavities one set being substantially the size of said projections on the under plate and the other set being smaller, whereby when the cover plate is placed with its larger sockets over said projections the two plates are substantially in contact, but when the cover plate is placed with the set of smaller sockets over the projections of the under plate the two plates are spaced from each other.

1,072,098. GAS-PRODUCER. EMILE DOR-DELATTRE, Liege, Belgium. Filed July 24, 1911. Serial No. 640,182. (Cl. 48—66.)



1. In a gas producer, the combination of a fuel chamber having an outlet for ashes at its lower end, a trough surrounding the lower end of the fuel chamber and comprising two concentric chambers both communicating with the fuel chamber, a fuel agitating device supported within the fuel chamber over the inner trough chamber and constructed to move vertically without varying the size of the passage between the fuel chamber and the outer chamber of the trough, and means for effecting vertical reciprocation of said device.

2. In a gas producer, the combination of a fuel chamber, having an aperture in its bottom, a fuel support of portion of the chamber, and having a substantially conical-shaped section adapted to be surrounded by the fuel, means for adjusting said support vertically, and means for admitting air to the fuel chamber at points beneath the fuel support and movable vertically with said support.

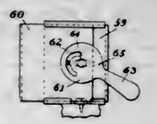
3. In a gas producer, the combination of a fuel chamber, having an aperture in its bottom, a fuel support of less diameter than the chamber having a depending grate-like member extending into the aperture in the bottom of the chamber, and means for adjusting said support vertically.

4. In a gas producer, the combination of a fuel chamber, having an aperture in its bottom, a fuel support of less diameter than the chamber having a depending grate-like member extending into the aperture in the bottom of the chamber, means for supplying air to the space inclosed by said grate-like member, and means for adjusting said support vertically.

5. In a gas producer, the combination of a fuel chamber open at the lower end, a rotatable annular trough surrounding the lower end of the fuel chamber, a fuel agitating device supported at the axis of the trough and extending into the fuel chamber, and means for effecting vertical reciprocation of said device.

[Claims 6 to 9 not printed in the Gazette.]

1,072,099. SASH-LOCK. LEWIS ELMER DE NEERGAARD, Port Chester, N. Y., assignor, by mesne assignments, to Technology Sales Co., Inc., New York, N. Y. Filed Feb. 10, 1912. Serial No. 676,916. (Cl. 16—121.)



1. In a sash lock, the combination of two plates slidably connected to each other having serrated flanges, means for operating the same, and a lug projecting from one of the said plates for movably attaching the device to the inner sash of a window; for the purposes as set forth.

2. In a sash lock, the combination of two plates slidably connected to each other having serrated flanges, means for operating the same, and an attaching lug integral with one of the said plates having an elongated slot; for the purposes as set forth.

3. In a sash lock, the combination of a bearing plate, an adjustable plate slidably connected thereto, a cam-acting member pivotally connected to said bearing plate operating said adjustable plate, and means depending from one of the said plates for adjustably securing the same to the inner sash of the window to which the device is applied.

4. In a sash lock the combination of a bearing plate, an adjustable plate slidably connected thereto, flanges integral with said plates provided with oppositely engaging serrations, a cam-acting member pivotally connected to said bearing plate operating said adjustable plate, and means depending from one of the said plates for securing the same to the inner sash of the window to which the device is applied.

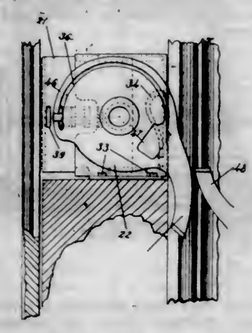
5. In a sash lock, the combination of a bearing plate, an adjustable plate mounted upon and slidably connected thereto, flanges integral with said plates provided with oppositely engaging serrations, a slotted cam-acting member pivotally connected to said bearing plate, a member projecting from the surface of said adjustable plate through said slotted cam-acting member and controlled thereby for operating said plate, and an attaching lug integral with one of the said plates, having an elongated slot; for the purposes as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,072,100. ADJUSTABLE SASH-LOCK. LEWIS ELMER DE NEERGAARD, Port Chester, N. Y., assignor, by mesne assignments, to Technology Sales Co., Inc., New York, N. Y. Filed July 19, 1912. Serial No. 710,443. (Cl. 16—121.)

1. In a sash lock, the combination of a bearing plate, an adjustable plate slidably connected thereto, a cam-acting member pivotally mounted on said bearing plate, and a member actuated thereby adapted to be fixed on said adjustable plate at different points; for the purposes as set forth.

2. In a sash lock, the combination of a bearing plate, an adjustable plate slidably connected thereto provided with a series of slots, a slotted cam-acting member pivotally mounted on said bearing plate, and an element having prongs adapted to be inserted through said slots, said element being retained between said adjustable plate and said cam-acting member, and having a part projecting through the slot of said cam-acting member; substantially as set forth.



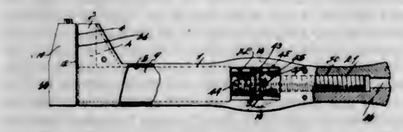
3. In a sash lock, the combination of a bearing plate, an adjustable plate slidably connected thereto provided with a series of slots, a cam-acting member pivotally mounted on said bearing plate provided with a slot and with an enlarged opening at the end of said slot, and an element adapted to be inserted through said opening, said element having prongs entering said slots and a part projecting through the slot of said cam-acting member, and being retained between said adjustable plate and said cam-acting member; substantially as described, and for the purposes as set forth.

4. In a sash lock and in combination with a bearing member adapted to be movably attached to the lower sash of a window, an adjustable member slidably connected thereto, and means for operating the same, means for automatically moving said bearing member away from its clamping position when the clamping action of said adjustable member is released by said operating means; for the purposes as set forth.

5. In a sash lock the combination of a bearing plate and an adjustable plate slidably connected to each other having serrated flanges, means for operating the same, a lug projecting from one of the said plates for movably attaching the device to the inner sash of a window and a spring attached to the said plate tending to move the same out of clamping position; substantially as set forth.

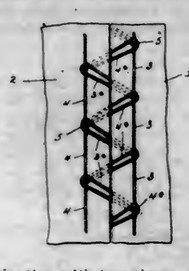
[Claims 6 to 8 not printed in the Gazette.]

1,072,101. WRENCH. KONSTANTY DOBROWOLSKI, New York, N. Y. Filed Apr. 18, 1913. Serial No. 761,866. (Cl. 81—156.)



A wrench consisting of a handle, a jaw-member carried thereby, a slidable shank carried by said handle, a jaw member carried thereby, a clamp carried by said handle adapted to engage said shank, said clamp comprising a plurality of members, a ring surrounding said members, and a leaf-spring carried by one of said clamp members, the leaf-spring carrying clamp member being provided with a recess, said leaf-spring having an inturned end adapted, when depressed, to enter said recess.

1,072,102. SEAM. JOHN H. DORAN, Schenectady, N. Y. Filed Dec. 9, 1912. Serial No. 735,717. (Cl. 112—34.)



1. The combination with two pieces of material abutting edge to edge; of two threads extending along the under side of the respective pieces near their abutting edges, each thread having loops extending through its respective piece of material from the under to the upper side thereof and extending over the edge of said piece and under the edge of the other piece and embracing said other thread on the under side of said other piece.

2. The combination with two pieces of material abutting edge to edge; of two threads extending along the under side of the respective pieces near their abutting edges, each thread having loops extending through its respective piece of material from the under to the upper side thereof and extending over the edge of said piece and under the edge of the other piece and embracing the base of a loop of the other thread on the under side of said other piece.

3. The combination with two pieces of material abutting edge to edge; of two threads extending along the under side of the respective pieces near their abutting edges, each thread having loops projecting through its respective piece of material from the under to the upper side thereof, each of said loops extending over the edge of said piece and under the edge of the other piece and embracing the base of a loop of the other thread, the bases of the loops of each thread being located opposite the respective intervals between the bases of the loops of the other thread.

4. The combination with two pieces of material abutting edge to edge; of two threads extending along the under side of the respective pieces near their abutting edges, each thread having loops extending through its respective piece of material from the under to the upper side thereof and extending over the edge of said piece and under the edge of the other piece, each of said loops having its branches extending across the under side of the respective stretches of the other thread leading from the base of a loop thereof and its end embracing the base of said loop in the other thread on the side nearer said abutting edges.

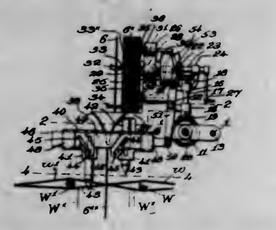
5. The combination with two pieces of material abutting edge to edge; of two threads extending along the under side of the respective pieces near their abutting edges, each thread having loops extending through its respective piece of material from the under to the upper side thereof and extending over the edge of said piece and under the edge of the other piece, each of said loops being formed with a half twist and having its branches extending across the under side of the respective stretches of the other thread leading from the base of a loop thereof, and its end embracing the base of said loop in the other thread on the side nearer said abutting edges.

[Claim 6 not printed in the Gazette.]

1,072,103. APPARATUS FOR APPLYING STOP-MOTION DETECTORS TO WARP-THREADS. JOHN F. DUSTIN, Lawrence, Mass. Filed Aug. 6, 1912. Serial No. 713,532. (Cl. 139—94.)

1. In apparatus of the class described, means to support in upright position a group of detectors above the sheet of warp; means to separate and discharge the detectors one by one from the group; a device to direct the separated and discharged detectors onto the warp threads,

each detector having a thread-receiving opening provided with an unobstructed entrance for the passage of the thread, and means to position one after another of the warp threads for the reception of a detector.



2. In apparatus of the class described, a support for a group of detectors each having a thread-receiving opening provided with an entrance for the thread, means to separate and discharge the detectors one by one from the group; a device to direct the separated and discharged detectors onto the warp threads in a sheet of warp, and means to position the warp threads one by one for the reception of a detector, the positioned thread passing through the entrance into the opening in the detector when the latter is directed onto such thread.

3. In apparatus of the class described, means to support above the warp a group of detectors placed face to face in upright position, each detector having a thread-receiving opening; means to separate the detectors from the group and discharge them one by one; a device to receive the discharged detectors and present them in upright position to the warp threads, to hang thereupon, and means to individualize successively the warp threads of a sheet of warp and position the individualized threads for coöperation with a detector directed thereto.

4. In apparatus of the class described, means to support above the warp a group of detectors placed face to face in upright position, each detector having a thread-receiving opening; means to separate the detectors from the group and discharge them one by one; an upright raceway having a flaring mouth, to receive the discharged detectors and direct them in upright position onto the warp threads, and means to coöperate with one thread after another in a sheet of warp and position the thread for the reception of a detector delivered by the raceway.

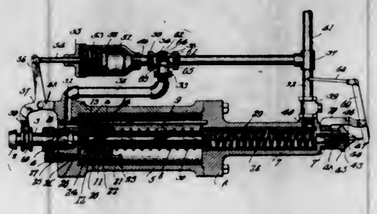
5. In apparatus of the class described, means to support above the warp a group of detectors each having a downwardly open thread-receiving slot; means to discharge the detectors one by one from the group; a device to direct a discharged detector in upright position, onto a warp thread, the thread entering the slot in the detector, and means acting upon one after another of the threads in the sheet of warp to position the threads singly for the reception of a detector.

Claims 6 to 19 not printed in the Gazette.]

1,072,104. FLUID-PRESSURE MOTOR. JAMES E. EBERSOLE, Palmyra, Pa. Filed June 27, 1912. Serial No. 706,261. (Cl. 230—37.)

1. A pressure fluid motor, having a cylinder, a shaft rotatably mounted therein and provided with a spiral groove within the cylinder, a piston mounted for sliding movement within the cylinder and about the shaft, means for admitting pressure fluid at one end of the cylinder, means for guiding the piston and preventing rotation thereof, a spiral engaging member rotatably mounted in the piston, and means carried by the piston for locking the spiral engaging member to cause the piston to be reciprocated when the shaft is rotated or the shaft rotated when the piston is reciprocated, and a spring for moving the piston in an opposite direction to the pressure fluid.

2. A pressure fluid motor having a cylinder, a shaft rotatably mounted therein and provided with a spiral groove within the cylinder, a piston mounted for sliding movement within the cylinder and about the shaft, means for admitting preasure fluid at one side of the piston, means for guiding the piston and preventing rotation thereof, a spiral engaging member rotatably mounted in the piston, means carried by the piston for locking the spiral engaging member to cause the piston to be reciprocated when the shaft is rotated or the shaft rotated when the piston is reciprocated, and a spring for returning the piston when the spiral engaging member and the pressure fluid are released.



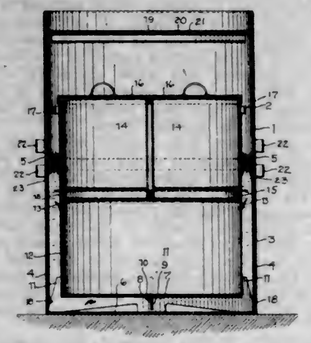
3. A pressure fluid motor including a cylinder, a piston reciprocatingly mounted within the cylinder, manually controlled means for admitting to and exhausting pressure fluid from one end of the cylinder, means engaging the piston to prevent the same from rotation, a shaft mounted concentrically within the cylinder and of the piston, the portion within the cylinder having a spiral groove, a spiral groove engaging member rotatably mounted within the piston, means for locking and releasing the spiral engaging member against rotation carried by the piston, and a spring within the cylinder for returning the piston after the pressure fluid is released.

4. A pressure fluid motor including a cylinder having two conduits connected to the respective ends thereof, a manually operable valve in one conduit to control the admission of and exhaust of the pressure fluid from the cylinder, a shaft mounted for rotation within the cylinder and provided with a spiral groove intermediate of its ends and within the cylinder, a piston reciprocatingly mounted within the cylinder, means for preventing the rotation of the piston, a spring engaging the piston to move the same in opposition to the pressure fluid, a spiral engaging member rotatably mounted within the piston, a locking and releasing member therefor, a spring closed vent valve being mounted in the other conduit, and means operably connected with the manually operated valve and the vent valve for opening the vent valve when the manually operated valve is open and pressure is flowing to the pressure side of the piston.

5. A fluid pressure motor including a cylinder, a head connected thereto provided with a concentrically disposed sleeve having a concentrically disposed vent port, a spring closed valve for controlling said port, a shaft mounted concentrically of the cylinder and provided with a spiral groove intermediate of its ends and within the cylinder, a piston slidably mounted within the cylinder and about the grooved portion of the shaft, means for holding the piston against rotation, a spring mounted in the concentric sleeve and actuating the piston to move the same in one direction, a spiral engaging member carried by and rotatably mounted in the piston, a slidably mounted block carried by the piston and disposed to lock and release the spiral engaging member, said block being placed in locked position when the piston is moved to its extreme position by the spring, the same being released when the piston is moved in the extreme position in the opposite direction, a manually controlled valve for controlling the supply and exhaust of the pressure fluid to and from the opposite end of the cylinder, and means operably connected with said valve and the vent valve for opening the vent valve when pressure fluid is admitted to the cylinder in opposition to the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,072,105. DOMESTIC BOILER. LEON ENGLUND, Pittsfield, Mass. Filed Dec. 2, 1912. Serial No. 734,606. (Cl. 53—1.)



1. A boiler comprising a casing, a cylindrical receptacle disposed within said casing, a pair of semi-cylindrical receptacles, each of said semi-cylindrical receptacles having a groove formed in its curved face at its lower extremity, the grooves in said receptacles being adapted for engagement with the upper edge of the first mentioned receptacle, as and for the purpose described.

2. A boiler of the character described comprising a sectional casing, a supporting member disposed within said casing, a cylindrical receptacle mounted on said supporting member, semi-cylindrical receptacles having arcuate grooves therein disposed upon the first mentioned receptacle, the grooves in the semi-cylindrical receptacles being adapted for engagement with the upper edge of the first mentioned receptacle, as and for the purpose described.

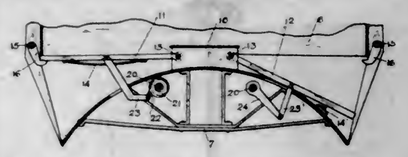
3. A boiler comprising a casing, a cylindrical receptacle disposed within said casing, semi-cylindrical receptacles mounted on the first mentioned receptacle, each of said semi-cylindrical receptacles having a groove formed in its curved face at its lower extremity, said grooves being adapted for engagement with the upper edge of the first mentioned receptacle, said semi-cylindrical receptacles when in engagement with the first mentioned receptacle being of substantially the same diameter as said first mentioned receptacle, whereby relative movement of the several receptacles is prevented.

4. In a device of the character described, a casing comprising an upper and a lower section, a receptacle disposed in said casing in spaced relation with the wall thereof, the upper section having a central opening formed therein, and a channel member extending transversely of the upper section and disposed below the opening therein, the opposite ends of said channel member terminating in vertical alinement with the space between the periphery of the receptacle and the wall of the casing, as and for the purpose described.

5. In a device of the character described, a casing comprising an upper and a lower section telescopically connected together, a receptacle disposed in the lower section in spaced relation with the wall thereof, the upper section having a central opening formed therein, and a channel member extending transversely of the upper section and disposed below the opening therein substantially as and for the purpose set forth.

1,072,106. CAR-DOOR-CLOSING MECHANISM. RICHARD W. ERICSON, Chicago, Ill. Filed May 10, 1912. Serial No. 696,344. (Cl. 105—14.)

1. A device of the kind described comprising a car; a set of emptying doors pivoted on each side of said car; a shaft extending longitudinally of said car under each of said sets of doors; means on one of said shafts connected to each of said doors in one set to close such doors simultaneously with each other; means on the other of said shafts connected to each of said doors in the other set to close such doors simultaneously with each other; a ratchet wheel on each of said shafts; a lever on each of said shafts in proximity with said ratchet wheels; a pawl pivoted on each of said levers to engage its coöperating ratchet wheel; a second pawl pivoted on said car to engage each coöperating ratchet wheel; locking shafts journaled along the outer edges of said doors on the outer sides of said car and locks on said locking-shafts locking each of said doors as soon as they are closed, substantially as described.



2. A device of the kind described comprising a car; a set of emptying doors pivoted on each side of said car; a shaft extending longitudinally of said car under each of said sets of doors; means on one of said shafts connected to each of said doors in one set to close such doors simultaneously with each other; means on the other of said shafts connected to each of said doors in the other set to close such doors simultaneously with each other; a ratchet wheel on each of said shafts; a lever on each of said shafts in proximity with said ratchet wheels; a pawl pivoted on each of said levers to engage its coöperating ratchet wheel; pawls pivoted on said car to engage each coöperating ratchet wheel; stops on said car for disengaging the pawls pivoted on said levers; and bent portions on said levers for disengaging the pawls on said car from said ratchet wheels, substantially as described.

3. A device of the kind described comprising a car; a set of emptying doors pivoted on each side of said car; a door closing shaft extending longitudinally of said car under each of said sets of doors; means on one of said shafts connected to each of said doors in one set to close such doors simultaneously with each other; means on the other of said shafts connected to each of said doors in the other set to close such doors simultaneously with each other; a locking shaft on each side of said car and extended longitudinally thereof; locks on one of said locking shafts for locking one set of doors simultaneously; locks on the other of said locking shafts to lock the other set of doors simultaneously; a lever on each of said locking shafts having a notch in its free end; arms pivoted on said car engaging said notches to lock said locks; a ratchet wheel secured on each of said door closing shafts; a lever on each of said shafts in proximity with said ratchet wheels; a pawl on each of said levers to engage said ratchets; a second pawl on said car to engage each of said ratchets to prevent backward movement of said ratchet wheels before said doors are closed; stops on said car to automatically disengage the pawls on said levers from their coöperating ratchet wheels; looped ends on said levers to disengage the pawls pivoted on said car from engagement with their coöperating ratchet wheels, substantially as described.

4. A device of the kind described comprising a car; a set of emptying doors pivoted on each side of said car; a door closing shaft extending longitudinally of said car under each of said sets of doors; means on one of said shafts connected to each of said doors in one set to close such doors simultaneously with each other; means on the other of said shafts connected to each of said doors in the other set to close the doors of such set simultaneously with each other; levers, each provided with a looped end and journaled through such loop end on one of said shafts; ratchet wheels, each secured on one of said shafts between the side portions of the looped end of one of said levers; pawls, each pivoted to one of said levers in its looped end to coöperate with one of the ratchet wheels; pawls pivoted on said car to coöperate with said ratchet wheels and adapted to engage the looped end of said

levers to move such pawls from coöperative engagement with said ratchet wheels; and stops on said car to move the pawls pivoted on said levers from coöperative engagement with said ratchet wheels, substantially as described.

1,072,107. NAIL. ALEXANDER FILSHIE, Atkinson, Ill. Filed July 15, 1912. Serial No. 709,550. (Cl. 85—28.)



1. A nail including a shank and a head, the head being of relatively soft metal and having a neck projecting from the under side thereof and surrounding the head end of the shank.

2. A nail including a shank and a head, the head being of relatively soft metal and having a neck projecting from the under side thereof and surrounding the head end of the shank, the under side of the head being formed with a concavity extending about the neck.

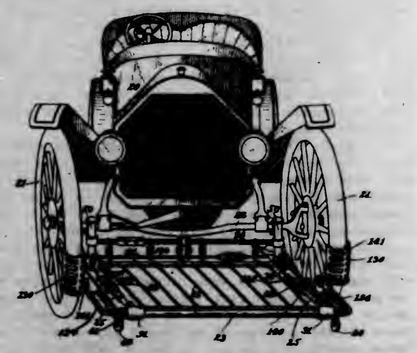
3. A nail including a shank and a head, one end of the shank being embedded in the head, the head being of relatively soft metal and being formed with a neck projecting below the plane of the under side thereof and surrounding the embedded end of the shank.

4. A nail including a shank and a head, one end of the shank being embedded in the head, the head being of relatively soft metal and being formed with a neck projecting below the plane of the under side thereof and surrounding the embedded end of the shank, the under side of the head being formed with a concavity surrounding the neck.

5. A nail including a shank and a head, the head being of relatively soft metal and being formed in its under side with a recess and at its periphery with a flange.

[Claim 6 not printed in the Gazette.]

1,072,108. FENDER FOR VEHICLES. SAMUEL FLEISCHMANN, Indianapolis, Ind., assignor of one-half to Joseph Braun, Indianapolis, Ind. Filed May 22, 1911. Serial No. 628,790. (Cl. 105—130.)



1. The combination with a vehicle and the forward wheels thereof, of a fender suspended in front of the vehicle, and means adapted to be engaged by the wheels so that the fender will be turned by the wheels in advance of the vehicle, substantially as set forth.

2. The combination with a vehicle having front wheels, of a fender having a receiving frame mounted in connection with the forward portion of said vehicle, wheel guards carried by the receiving frame in position to envelop the tire of the forward portion of the wheels, and means for mounting said wheel guards in connection with the main part of the receiving frame so that the wheel guards may have some lateral play or movement independently of the receiving frame.

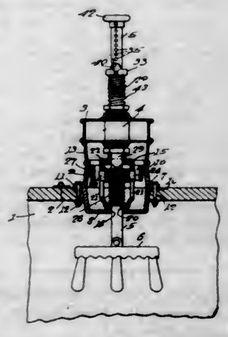
3. The combination with a vehicle and wheels adapted to be turned independently of the vehicle body for transporting the same, of a fender mounted in connection with the forward portion of the vehicle and consisting of parts pivoted together so that the forward portion of the fender is laterally movable, guards for the front portions of the front wheels, and means for mounting said guards in connection with the front portion of the fender so that they will have some movement independently of the front portion of the fender and will also move in connection with the front portion of the fender as the wheels are turned.

4. A fender for vehicles including a rear portion mounted in a horizontal position and a forward portion hinged to said rear portion about midway of the fender so that the forward portion of the fender may be dropped down to the ground, catches on one portion engaging projections on the other portion for maintaining the forward portion of the fender in its horizontal position, and means actuated by the rearward movement of a part of the fender for automatically disengaging said catches.

5. A fender for vehicles including a rear portion mounted in a horizontal position and a forward portion hinged to said rear portion about midway of the fender so that the forward portion of the fender may be dropped down to the ground, catches on one portion engaging projections on the other portion for maintaining the forward portion of the fender in its horizontal position, means actuated by the rearward movement of a part of the fender for automatically disengaging said catches and springs secured in connection with said rear portion and engaging the forward part of the forward portion to assist in supporting the same in its horizontal position.

[Claims 6 to 11 not printed in the Gazette.]

1,072,109. OPERATING MECHANISM FOR WASHING-MACHINES. WILLIAM V. FRANK, Springfield, Ohio, assignor to The F. O. Motor Washer Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 29, 1910. Serial No. 540,867. (Cl. 74—14.)



1. In a machine of the character described, a housing mounted on said machine and held against movement relatively thereto, a motor casing rigidly secured to said housing, a hollow shaft mounted in said casing, a part to be actuated, an actuating rod for said part extending through said housing and said hollow shaft, a device supported within said housing to cause said rod and said shaft to move about a longitudinal axis in unison, and other means supported within said housing to cause said rod to move longitudinally relatively to said shaft.

2. In a machine of the character described, a housing mounted on said machine, a motor supported on said housing and comprising a shaft movable about a longitudinal axis and held against longitudinal movement, a part to be actuated, and an actuating rod therefor extending into said housing, a device supported within said housing for connecting said actuating rod with said shaft to cause it to move about a longitudinal axis in unison therewith and to permit it to move longitudinally relatively thereto, a cam track mounted within said housing, and a part connected with said actuating rod and arranged to travel along said cam track.

3. In a machine of the character described, the combination, with a hollow shaft, and means for imparting rotary movement to the same, of a part to be actuated, an actuating member therefor extending through said hollow shaft, means for adjustably connecting said actuating member with said shaft, and means controlled by the movement of said shaft for imparting longitudinal movement to said actuating member relatively to said shaft.

4. In a machine of the character described, the combination, with a hollow shaft, and means for actuating the same, of a part to be actuated, an actuating member therefor extending through said hollow shaft, a connecting member extending through said hollow shaft and connected with said shaft and said actuating member, and means interposed between said shaft and said connecting member for imparting longitudinal movement to said connecting member, relatively to said shaft.

5. In a machine of the character described, the combination, with a hollow shaft, and means for actuating the same, of a part to be actuated, an actuating member therefor extending through said hollow shaft, and a connecting member extending through said hollow shaft and connected with the inner end thereof and also connected with said actuating member beyond the outer end of said shaft.

[Claims 6 to 17 not printed in the Gazette.]

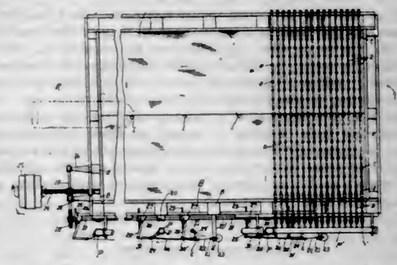
1,072,110. CUFF-FASTENER. SAMUEL FRIEDMANN, Baltimore, Md. Filed Oct. 24, 1912. Serial No. 727,503. (Cl. 24—102.)



A cuff-fastener comprising a V-shaped plate to form diverging side members the inner side of each of said side members having a stud with a cross-groove extending along one face of the stud adjacent to its inner edge said grooves being formed with angular walls and the said studs each having a central slot in its inner edge which slot intersects the cross-groove; an engaging device seated in the cross-groove at one side of the intersecting central slot, another engaging device seated in the said cross-groove at the other side of said central slot, and both engaging devices having confronting bars extending at a right angle with respect to the cross-groove, and both of the confronting bars extending through the said central slot in the edge of the stud, and a yielding plate carried on one side of each stud and closing the cross-groove at that side and said yielding plates contacting with said engaging devices.

1,072,111. FILTER. ULYSSES A. GARRED, Anaconda, Mont. Filed Mar. 10, 1913. Serial No. 753,364. (Cl. 75—86.)

1. In combination with a tank containing slimes to be filtered, a stationary filter submerged in the liquid in the tank, means for inducing a flow of the filtrate from the tank through the filter in one direction by a differential in pressure between the opposite sides of the filter, a conducting pipe for the filtrate, a valve in said pipe, a second pipe contiguous to the first pipe for conducting a cleansing current to and through the filter in the opposite direction, a valve for said pipe, a cam-shaft, and intermediate connections between said shaft and valves and between the respective valves for automatically closing the valve of the filtrate-conducting pipe and simultaneously opening the valve of the pipe conducting the cleansing current, for the purpose set forth.



2. In combination with a tank adapted to contain slime to be thickened, a filter in the tank, means for drawing the filtrate from the tank through the filter, a rotatable shaft, a cam on said shaft operating to effect a discontinuance of the filtering current during the passage of the cam through a prescribed length of arc of the circle described thereby, means for automatically directing a reverse current through the filter during the period of discontinuance of the filtering current, the arc described by the cam during the action of the reverse current being shorter than that described during the action of the filtering current, whereby the contents of the tank is gradually thickened.

3. An apparatus for dewatering slimes comprising a tank, a series of batteries of stationary filters immersed in the liquid in the tank, an exhaust pipe for drawing a filtering current through the filters in one direction, a second pipe contiguous thereto for delivering a current under pressure for washing the filters, a valve in each pipe for controlling the flow of the liquid therethrough, a rotatable cam-shaft mounted adjacent the tank, cams disposed in pairs about said shaft, and placed in coöperative relation to the respective batteries and at predetermined angular distances apart around the axis of the shaft, according to the number of batteries in the tank, controlling levers adapted to be actuated in one direction by the respective cams with the rotation of the shaft, arms leading from the valves, the valve of the exhaust pipe being set to close while that of the pressure pipe opens, links connecting the valve-arms to the corresponding controlling levers, a connecting rod connecting together the lever arms to which the links are secured, a counterweight, a sheave, a cable coupled to the weight and passing over the sheave and secured at one end to the connecting rod, the parts operating substantially as set forth.

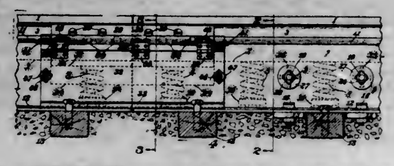
1,072,112. RAILWAY-RAIL. JOSEPH B. GRAF, St. Louis, Mo. Filed May 21, 1913. Serial No. 768,994. (Cl. 238—5.)

1. A railway rail comprising separable tread and base portions, a sound deadener intermediate said portions, resilient supporting means for the base portion, and bracing means for both portions.

2. A railway rail comprising separable tread and base portions, a sound deadener intermediate said portions, and bracing means for both portions.

3. A railway rail comprising separable tread and base portions, the base portion having a longitudinal groove in its top to receive the bottom of the web of the tread

portion, a sound deadener within the groove in the base portion, and resilient supporting means for the base portion.

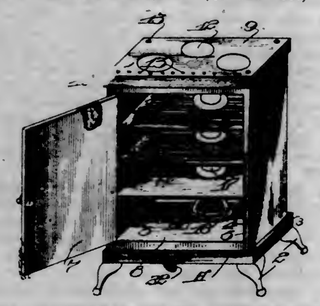


4. A railway rail comprising separable tread and base portions, the base portion having a longitudinal groove in its top to receive the bottom of the web of the tread portion, a sound deadener within the groove in the base portion, resilient supporting means for the base portion, and bracing means for both portions of the rail.

5. The combination of a railway rail having separable tread and base portions, a sound deadener intermediate said portions, and means for supporting the rail including a pair of brace rails connected in spaced parallel relation to receive said base portion therebetween, and springs on which said base portion rests.

[Claims 6 to 22 not printed in the Gazette.]

1,072,113. PORTABLE GAS-RANGE. WALLACE L. HALL and RICHARD F. GEORGE, San Francisco, Cal. Filed Sept. 12, 1911. Serial No. 648,871. (Cl. 126—39.)

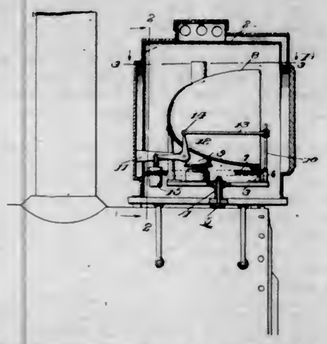


1. In a portable gas range the combination of a base having an upwardly extending flange on its outer edge, an oven resting on said base; having a separable top plate, said top plate having a series of perforations near one edge, and said oven having a perforation in the bottom, a removable hood disposed over said last perforation, a flue resting on said hood and opening to the interior of the oven near the top plate thereof, a gas burner disposed in said hood and mounted on the base, said flue having an opening adjacent its lower end for the insertion of a flame, and a damper in said flue above said opening, substantially as described.

2. In a portable gas stove, of the character described, the combination of a base, a removable oven supported on the base, said oven having its bottom plate provided with an opening near the back thereof, a downwardly flared hood removably fitted to said opening and extending into the oven chamber, and having a flange fitting said opening whereby the hood is prevented from side movement, a flue fitted to the upper end of the hood and extending to a point in the oven near the top thereof, said oven having a top plate with vents therein for the escape of products of combustion, and a gas burner in said base and entering the lower end of said hood.

3. In a portable gas stove of the character described, the combination of a base, a removable oven supported on the base, said oven having its bottom plate provided with an opening near the back thereof, a downwardly flared hood removably fitted to said opening and extending into the oven chamber, said hood having a vertical flange at its bottom fitting said opening whereby the hood is prevented from side movement, a flue fitted to the upper end of the hood and extending to a point in the oven near the top thereof, said oven having a top plate with vents therein for the escape of products of combustion, and a gas burner in said base and entering the lower end of said hood, said flue having an opening in one side, means for opening or closing said opening to prevent or allow the passage of heated air through the opening into the lower portion of the oven, and a damper in the flue above the opening for controlling the passage of heated air through the flue.

1,072,114. AUTOMATIC HEADLIGHT. CICERO T. HAMMACK, Knoxville, Tenn. Filed Mar. 22, 1912. Serial No. 685,512. (Cl. 240—62.)



1. In a head light, a lamp supported in a horizontal plane, a hollow member, freely movable weight material contained within the hollow member, means independent of the lamp for shiftably supporting the hollow member, and connections from said hollow member to the lamp whereby the latter may be rotated in one or the other direction by a depression of one or the other end of the hollow member.

2. In a head light, a pivotally mounted lamp and reflector, a transversely extending member, a weight shiftably carried thereby, pivotally supporting members connected to the opposite ends of the first named member to permit the opposite ends of the first named member to be independently depressed and raised, and means operatively connecting the opposite ends of the said transverse member to opposite sides of the lamp whereby the latter may be rotated in one or the other direction by a depression of one or the other end of the transverse member.

3. In a headlight, a lamp housing, a turntable mounted within the housing, a lamp and reflector mounted on the turntable, oppositely disposed receptacles forming counterweights, a tube connecting said receptacles, said receptacles and tube containing freely shiftable material, springs normally holding the turn table in a median position, and means operatively connecting the receptacles to the turntable whereby the latter may be rotated upon a shifting of the former.

4. In a head light, a housing, a turn table mounted within the housing, a lamp and reflector mounted on the turn table, springs connected to the turn table to hold it in a median position, brackets extending from the rear end of the housing, bell crank levers pivoted upon said brackets and each having rearwardly projecting arms and upwardly projecting arms, the upwardly projecting arms of the bell crank levers being operatively connected each to the turn table, a weight supporting member connected to the rearwardly extending ends of the bell crank levers, and a shiftable weight carried thereby and movable along the length of the transversely extending member.

5. In a headlight, a lamp housing, a turntable mounted therein, a lamp and reflector mounted on the turntable, oppositely disposed parallel springs attached at one end

to the housing and at the other to the forward end of the turntable whereby to hold the turntable in a median position, brackets projecting from the rear end of the housing, bell crank levers pivoted on said brackets and each having a rearwardly projecting arm and an upwardly projecting arm, upwardly extending posts on the forward end of the turntable, a connection between the upwardly projecting arm of each bell crank and the corresponding post, receptacles forming counterweights linked loosely to the rearwardly projecting arms of the bell crank levers, and a tube connecting said receptacles, said tube and the receptacles having therein freely shiftable liquid.

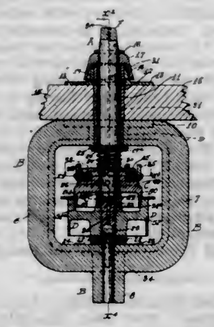
1,072,115. GAS-STOVE. WILLIAM H. HARMON, Chicago, Ill. Filed Mar. 23, 1912. Serial No. 685,778. (Cl. 126—36.)



1. The combination with a gas stove burner, of a housing positioned over the burner and arranged to confine the flame against the bottom of a cooking utensil, said housing being provided with notches at its upper edge adapted to receive the utensil supporting fingers of the stove, said notches being larger than said fingers to afford ventilation; and with notches at its lower edge adapted to admit air, substantially as described.

2. The combination with a gas stove burner, of a cylindrical housing positioned over the burner and arranged to confine the flame against the bottom of a cooking utensil, said housing being provided with notches at its upper edge adapted to receive the utensil supporting fingers of the stove and with notches at its lower edge adapted to admit air, said upper notches being larger than said fingers to afford ventilation; and a supporting flange secured to the lower edge of said housing and projecting inwardly and outwardly therefrom and resting upon said burner, substantially as described.

1,072,116. OPERATING MEANS FOR CLUTCHES. WILLIAM W. HARTMAN and HENRY S. CAHN, Los Angeles, Cal., assignors to said Henry S. Cahn. Filed Jan. 24, 1912. Serial No. 673,255. (Cl. 192—8.)



1. An operating shaft, and operating means therefor comprising a two-member clutch one of which is mounted to rotate with the shaft and the other of which is free upon the shaft, tension means acting to force the clutch members into co-engagement, and means for relatively separating the clutch members and so holding them; said last-named means comprising a first pivoted part, a second part pivotally connected with said first pivoted part and loosely connected with one of said clutch members, and cam means for swinging said first pivoted part; said cam means comprising a collar having a cam slot, and a roller upon said first pivoted part and entering said cam slot; said collar being provided with a lever arm.

2. An operating shaft, and operating means therefor comprising a two-member clutch one of which is mounted to rotate with the shaft and the other of which is free upon the shaft, tension means acting to force the clutch members into co-engagement, and means for relatively separating the clutch members and so holding them; said last named means comprising a first pivoted part, a second part pivotally connected with said first pivoted part and loosely connected with one of said clutch members, and cam means for swinging said first pivoted part; said cam means comprising a collar having a cam slot, and a roller upon said first pivoted part and entering said cam slot; said collar being provided with a lever arm; there being a shaft upon which said collar is slidably mounted, said shaft having an elongated recess receiving a portion of said roller.

3. An operating shaft, and operating means therefor comprising a two-member clutch one of which is mounted to rotate with the shaft and the other of which is free upon the shaft, tension means acting to force the clutch members into co-engagement, and means for relatively separating the clutch members and so holding them; said last-named means comprising a second shaft at right angles to said first-named shaft, a first yoke pivoted at its ends to said second shaft, a second yoke pivoted to said first yoke and loosely connected with one of said clutch members, and cam means co-acting with said first yoke; said cam means comprising a third shaft, a collar slidably and rotatably mounted upon said third shaft and provided with a cam slot, and a lever arm for actuating said collar; said first yoke being provided with a roller entering said cam slot.

4. An operating shaft, and means for operating the same comprising two clutch members one of which is loose upon the shaft and the other of which is mounted to rotate with the shaft; and means for relatively moving the clutch members comprising a first pivoted yoke, a second pivoted yoke pivotally connected with the first yoke and loosely connected with one of the clutch members, and cam means co-acting with said first yoke; said cam means comprising a rotatably and slidably mounted collar having a cam slot; said first yoke being provided with a roller entering said cam slot.

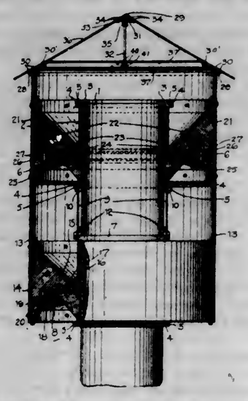
5. An operating shaft, a frame for the same provided with oppositely bowed side members and with bearing members at the points of connection of said side members, and operating means for said shaft applied to the same between said side members of the frame; said operating means comprising clutch members and means for relatively moving the same; said shaft being reduced in diameter beneath said clutch members; there being a collar applied to the shaft above one bearing member and upon which the end thrust of the shaft is received at said reduced portion thereof.

1,072,117. PROTECTING-COVER FOR FUNNELS OF WAR VESSELS. WALTER HERZFELDT, Weyauwega, Wis. Filed Feb. 10, 1913. Serial No. 747,553. (Cl. 114—187.)

1. The combination with a smoke stack, of rings clamped around the same, means for connecting said rings, flanges projecting from said rings, a cylindrical casing outwardly of said rings, rings within said casing and having grooves formed therein, the flanges of the first mentioned rings being engaged in said grooves, bearing rollers carried by the second mentioned rings and engaged with the flanges of the first mentioned rings, and a cover for said casing.

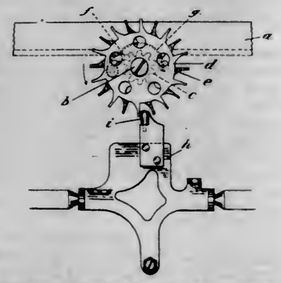
2. The combination with a smoke stack, of rings carried thereby, connections between said rings, said rings having outwardly directed flanges, a casing around the

rings, supporting means carried by the casing and having recesses to accommodate the flanges of the rings carried



by the smoke stack, anti-friction means positioned in the recesses, and a cover for said casing.

1,072,118. ESCAPEMENT MECHANISM FOR TYPE-WRITING MACHINES. EDWARD B. HESS, New York, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 28, 1910. Serial No. 558,124. (Cl. 197—82.)



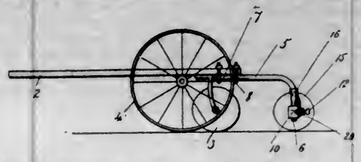
1. An escapement mechanism for writing machines comprising a toothed escapement-wheel and a movable detent having a roller with tapered sides and of greatest diameter at its outer end adjacent the escapement wheel and upon the periphery of which roller at its greatest diameter the working surfaces of the teeth of the wheel bear.

2. An escapement mechanism for writing machines comprising a toothed escapement wheel and a movable detent, having a roller of unequal diameter throughout its length and upon the periphery of such roller at its greatest diameter the working surfaces of the teeth of the wheel bear.

1,072,119. CULTIVATOR ATTACHMENT. CHARLES WESLEY HILL, Wellsville, Kans. Filed June 25, 1913. Serial No. 775,697. (Cl. 97—37.)

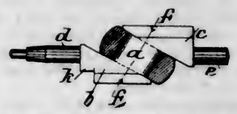
1 The combination, with a cultivator, of an adjustable auxiliary beam provided with a downwardly projecting rear end portion, means for clamping the front end portion of the beam to the cultivator after the position of its rear end portion has been adjusted, an axle block adjustable vertically and circumferentially on the rear end portion of the said beam and provided with a laterally projecting spindle, means for securing the axle block to the beam, and a cultivator disk journaled on the said spindle.

2. The combination, with an auxiliary beam adapted to be secured to a cultivator and provided with a downwardly projecting rear end portion, of an axle block adjustable vertically and circumferentially on the said rear end portion and provided with a laterally projecting



spindle, a cultivator disk journaled on the said spindle, a set-screw for securing the said block to the beam, a hook-shaped scraper extending over the said disk and having a shank provided with a half twist and a hole which slips over the set-screw, and a nut on the set-screw for clamping the scraper shank to the said bolck.

1,072,120. ARMATURE FOR MAGNETO-INDUCTION MACHINES. GOTTLOB HONOLD, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Oct. 4, 1909. Serial No. 520,931. (Cl. 171—207.)



1. A bobbin for magneto induction machines having head-pieces of magnetic material, a coil-carrying body portion connecting the head-pieces, the axis of the body-portion being angularly disposed with respect to the axis of the axle pins, and axle pins extending from the head-pieces; substantially as described.

2. A bobbin for magneto induction machines having head-pieces of magnetic material, a coil-carrying body portion connecting the head-pieces, a coil mounted on said body portion and axle pins extending from the head-pieces, the body portion having its axis so angularly disposed with respect to the axis of the axle pins that the axle pins do not interfere with the operation of winding said coil; substantially as described.

3. A bobbin for magneto induction machines comprising a coil-carrying body-portion, flanged head-pieces of magnetic material extending from the body-portion, and axle pins extending from the head-pieces, the axis of the body-portion being angularly disposed with respect to the axis of the axle pins; substantially as described.

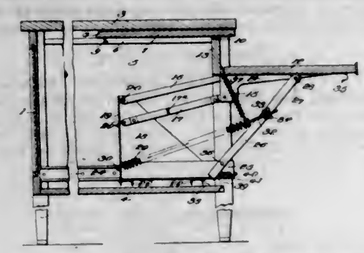
4. A bobbin for magneto induction machines having head-pieces, a coil-carrying body portion connecting the head-pieces, and axle pins extending from the head-pieces, one of said head-pieces haying a portion with flattened surfaces adapted to coöperate with blade springs; substantially as described.

5. A bobbin for magneto induction machines having head-pieces of magnetic material, a coil-carrying body portion connecting the head-pieces, a coil mounted on the body portion, and axle pins extending from the head-pieces, said head-pieces extending over said coil; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,072,121. TYPE-WRITER DESK. JAMES S. HUNTER, Somerville, Mass. Filed Mar. 24, 1911. Serial No. 616,669. (Cl. 45—52.)

1. In a desk, a horizontally disposed vertically movable shelf, a supporting lever, one end of which engages beneath the shelf, means tending to urge the supporting lever into an upward position to hold the shelf raised, and cushioning means operatively connected between the shelf and the supporting lever increasingly resisting the movement of the supporting lever and the shelf as the shelf and supporting lever near either their raised positions or their lowered positions.



2. In combination with a desk, a slide shiftably mounted therein, a horizontally disposed shelf withdrawably housed therein, a shelf supporting element pivoted to the slide, means tending to hold the shelf supporting element in its raised position or when depressed beyond a certain point to draw it to its fully lowered position, and cushioning means operatively connected between the shelf and the shelf supporting element acting to increasingly resist the upward movement of the shelf and shelf supporting element as the shelf and supporting element near their raised positions or the downward movement of the shelf and supporting element as the shelf and supporting element near their lowermost positions.

3. A desk having a compartment open at one end, a slide mounted in the lower portion of the compartment, a lever pivoted at its lower end to the slide, a vertically movable shelf beneath which the lever projects and with the under side of which it has sliding contact, pivoted links connecting the shelf with the slide, means disposed within the compartment urging the outer end of the lever upward and thereby raising the shelf, and a contractile spring operatively connected at one end to the rear end of the shelf and operatively connected at its other end to the middle portion of the lever.

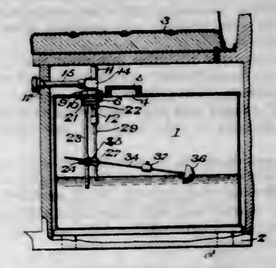
4. A desk having a compartment open at one end, a slide mounted therein, an outwardly and upwardly projecting lever pivoted at its lower end to the slide, a vertically movable shelf beneath which the lever projects and with the under side of which it has sliding contact, pivoted links connecting the shelf with the slide, means acting to draw the outer end of the lever upward and raise the shelf to its uppermost position, and a contractile spring operatively connected at one end to the rear end of the shelf and operatively connected at its other end to the middle portion of the lever and resisting the upward movement of the shelf as the shelf nears its raised position or the downward movement of the lever as the lever nears its lowermost position.

5. A desk having a compartment open at one end, a slide in the compartment, a lever pivoted at its lower end to the slide and upwardly and outwardly projected, a vertically movable shelf beneath which the lever projects and with the under side of which it has sliding contact, a contractile spring attached at its rear end to the slide and at its outer end operatively connected to the lever, and a contractile spring operatively connected at one end to the rear end of the shelf and at its other end operatively connected to the spring first mentioned.

[Claims 6 to 13 not printed in the Gazette.]

1,072,122. LIQUID-LEVEL INDICATOR. JOSEPH E. JOHNSTON, Ardmore, Pa. Filed Mar. 5, 1913. Serial No. 752,030. (Cl. 73—82.)

1. In a device of the character stated, a support adapted to be secured in an opening in the top of a tank, a supporting rod depending from said support, a fulcrum-block longitudinally adjustable upon such rod, a float-lever having a float and fulcrumed upon said block, an indicating device mounted upon the support, and an index-rod adjustably and pivotally connected to said lever and movably connected to said indicating device.



2. In a device of the character stated, a support adapted to be secured in an opening in the top of a tank, an indicating device mounted upon said support, a supporting-rod depending from said support and adapted to have its axis revolved around a fixed point of the support, a fulcrum-block upon said rod, a float-lever having a float and fulcrumed upon said block, and an index-rod having pivotal connection with said lever and movably connected to said indicating device.

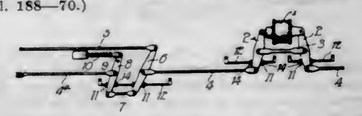
3. In a device of the character stated, a support adapted to be secured in an opening in the top of a tank, an indicating device mounted upon said support, an arm pivoted upon the under side of said support, a supporting rod depending from said arm, a fulcrum-block upon said rod, a float-lever having a float and fulcrumed upon said block, an index-rod movably connected to the indicating device, and pivotal connection-means between said rod and lever.

4. In a device of the character stated, a support adapted to be secured in an opening in the top of a tank, an indicating device mounted upon said support, an arm pivoted upon the under side of said support, means for securing said arm in adjusted position, a supporting rod depending from said arm, a fulcrum-block adjustably secured upon said rod, a float-lever having a float and fulcrumed upon said block, an index-rod movably connected to the indicating device, and pivotal connection-means between said rod and lever and adjustable upon the former.

5. In a device of the character stated, a support adapted to be secured in an opening in the top of a tank and provided with a guide, an indicator having a shaft carrying a pinion, a rack-bar guided in said guide and engaging said pinion, an arm pivoted upon the under side of said support concentric with said guide and having means for securing it in adjusted position, a supporting rod projecting downward from said arm, a float-lever having a float and fulcrumed upon said rod, and a rod having a universal joint-connection with the rack-bar and pivotal connection to said float-lever.

[Claims 6 and 7 not printed in the Gazette.]

1,072,123. BRAKE APPARATUS. WILLIAM H. JONES, Chicago, Ill. Filed June 12, 1911. Serial No. 632,624. (Cl. 188—70.)



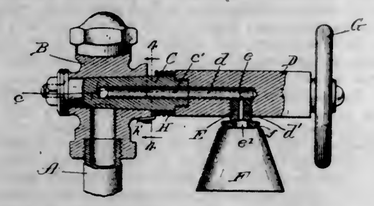
1. In apparatus of the class described and in combination with a horizontal lever, a track suspended at its ends, a carriage adapted to travel thereon and carry said lever, said carriage having depending side flanges and end walls forming a ball chamber, balls in said chamber, and means for preventing lateral displacement of the lever with respect to the carriage.

2. In apparatus of the class described and in combination with a horizontal lever, a track suspended at its ends, a carriage arranged to travel thereon and having a ball chamber divided transversely into two compartments, and a ball in each compartment, said carriage being arranged to carry said lever.

3. In apparatus of the class described and in combination with a horizontal lever, a track suspended at its ends, a carriage thereon, said carriage being equipped with upstanding end flanges and with depending side flanges and end walls forming a ball chamber, and balls in said chamber.

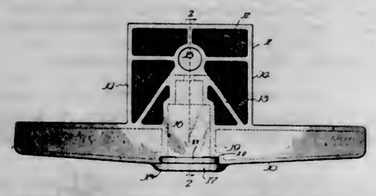
4. In apparatus of the class described and in combination with a horizontal lever, a track suspended at its ends, a carriage thereon, said carriage being equipped with upstanding end flanges and with depending side flanges and end walls forming a ball chamber and also with a depending strap, and balls in said ball chamber.

1,072,124. DRINKING-FOUNTAIN. CHARLES EDMUND KELLS, Jr., New Orleans, La. Filed Mar. 13, 1913. Serial No. 754,015. (Cl. 137—11.)



A drinking fountain, comprising a supply pipe, a valve having a discharge orifice, a shield surrounding the discharge orifice from which latter a stream of water issues and passes through the shield without coming in contact therewith, a spring for normally holding the valve closed and the shield in an inverted position, means for operating the valve to turn on the water supply and to raise the shield to an inclined position so that a stream of water may issue from the discharge orifice and pass through the shield without coming in contact therewith whereby the stream may be received directly by the mouth of the drinker or may be used for filling a drinking glass and means limiting the movement of the valve to stop its rotation when the shield has reached said inclined position.

1,072,125. PILOT-BEAM. EDMUND P. KINNE, Alliance, Ohio, assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Jan. 30, 1913. Serial No. 745,184. (Cl. 105—17.)

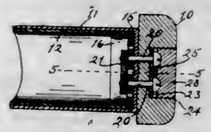


1. A locomotive pilot beam, comprising a hollow beam having a rearward projection provided with a king-bolt opening, said rearward projection and said beam having a recess the entrance to which is through the face of the beam, within which a draft gear may be accommodated, substantially as described.

2. A locomotive pilot beam, comprising a hollow beam having a rearward projection provided with a king-bolt opening, the parts all being cast integral, said structure being provided with a draft rigging recess the opening to which is through the face of the beam, substantially as described.

3. A locomotive pilot beam, comprising an end beam having a rearward projection provided with a king-bolt opening, said beam and said rearward projection having a draft rigging recess, the entrance to which is through the face of the beam, said beam having vertical key-ways near the mouth of the recess, substantially as described.

1,072,126. PNEUMATIC CARRIER. WILLIAM H. KOEHLER, New York, N. Y., assignor, by mesne assignments, to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Sept. 9, 1907, Serial No. 391,873. Renewed Mar. 6, 1911. Serial No. 612,718. (Cl. 243—39.)



1. A cash carrier including shells, a felt head on one end of the shells and centrally recessed, bolts extending through the felt head and one end of one of the shells, means within the shells into which said bolts screw, a removable locking plate in the recess in the felt head that engages the outer ends of the bolts that prevents the same from rotation, and removable means for holding said plate in locking position.

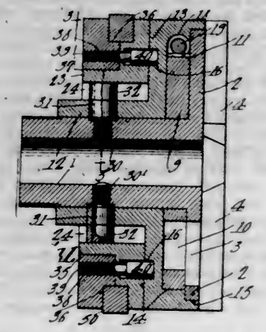
2. A cash carrier including shells, a felt head having a central recess in the end thereof, a pair of screw bolts for uniting the felt head to a shell, the heads of said bolts being in said recess and flattened on their sides, a plate fitting in said recess in the felt head provided with recesses into which the heads of the screw bolts extend and fit and which are so narrow that said plate prevents the screw bolts from turning, and a plug insertible in the recess in the felt head for holding said locking plate in place.

3. A cash carrier including shells, a felt head with a central recess in the end thereof, a pair of screw bolts for uniting the felt head to a shell, the heads of said bolts lying in said recess in the felt head and being flattened on their sides, a single duplex nut into which the inner ends of the screws are secured, a locking plate in the recess in the felt head having recesses therein for the heads of the screw bolts that are narrow enough so that said plate will prevent the turning of said screw bolts, and a plug insertible in the recess in said felt head for holding said locking plate in place.

4. A cash carrier including a pair of shells the open end of one shell insertible in the other shell, means within the closed end of the outer shell and the open end of the inner shell for holding said shells together, a felt head against the closed end of the outer shell with a central recess in the end thereof, a pair of screw bolts extending through said felt head, the closed end of the outer shell and the means for securing the two shells together, the heads of said bolts lying within the recess in the felt head and being flattened on their sides, a single duplex nut within said shells into which said bolts screw, a locking plate within said recess having recesses therein fitting about the heads of said bolts so as to prevent the turning thereof, and a plug insertible in the recess in the felt head, substantially as set forth.

1,072,127. CUTTER-HEAD. VICTOR R. KOONTZ, Waynesboro, Pa. Filed Dec. 26, 1912. Serial No. 738,698. (Cl. 10—96.)

1. A cutter head, including a spindle receiving member having a die holder carrying disk at one end, a plurality of die-holders mounted for sliding movement in the outer face of the disk, an oscillatory sleeve having an annular flange surrounding the spindle receiving member, the flange thereof being provided with a socket in one face to receive the die holder carrying disk, co-acting means carried by the flange and the die-holders, to slide the die-holders as the sleeve is oscillated independently of the spindle receiving member, and longitudinally slidable and oscillatory means for locking and releasing the flange in die holder projecting and retracting positions and for actuating the flange to retract and project the die holders.



2. A cutter head, including a spindle receiving member having a die holder carrying disk at one end, a plurality of die-holders mounted for sliding movement in the outer face of the disk, an oscillatory sleeve having an annular flange surrounding the spindle receiving member, the flange thereof being provided with a double diametered socket in one face to receive the die holder carrying disk, a disk mounted in the reduced portion of the socket and connected to the flange, coacting means carried by the socket and the die-holders to slide the die-holders as the sleeve is oscillated independently of the spindle receiving member, and longitudinally slidable and oscillatory means for locking and releasing the flange in die holder projecting and retracting positions and for actuating the flange to retract and project the die-holders.

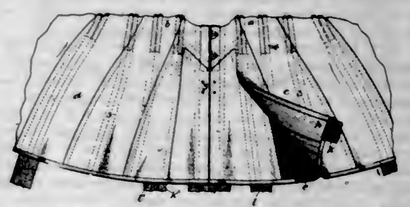
3. A cutter head, including a spindle receiving member having a die holder carrying disk at one end, a plurality of die-holders mounted for sliding movement in the outer face of the disk, an oscillatory sleeve having an annular flange surrounding the spindle receiving member, the flange thereof being provided with a socket in one face to receive the die holder carrying disk, coacting means carried by the flange and the die-holders to slide the die-holders as the sleeve is oscillated independently of the spindle receiving member, longitudinally slidable and oscillatory means for locking and releasing the flange in die holder projecting and retracting positions and for actuating the flange to retract and project the die-holders, and a manually controlled yoke for operating the last means.

4. A cutter head, including a spindle receiving member having a die holder carrying disk at one end, a plurality of die-holders mounted for sliding movement in the outer face of the disk, an oscillatory sleeve having an annular flange surrounding the spindle receiving member, the flange thereof being provided with a double diametered socket in one face to receive the die holder carrying disk, a disk mounted in the reduced portion of the socket and connected to the flange, coacting means carried by the disk and the die-holders to slide the die-holders as the sleeve is oscillated independently of the spindle receiving member, longitudinally slidable and oscillatory means for locking and releasing the flange in die holder projecting and retracting positions and for actuating the flange to retract and project the die-holders, and a manually controlled yoke for operating the last means.

5. A cutting head, including a spindle receiving sleeve having a die holder carrying disk at one end, a plurality of die-holders mounted for radial sliding movement in the disk, an oscillatory sleeve surrounding the first sleeve and having a flange upon one end provided with a socket to receive the die holder carrying disk, a disk disposed in the socket to the rear of the die holder carrying disk and connected to the oscillatory flange, coöperable means carried by the die-holders and the last disk to cause the projection and retraction of the die-holders as the oscillatory sleeve is oscillated, and a ring forming a means to oscillate the sleeve for locking and releasing the sleeve.

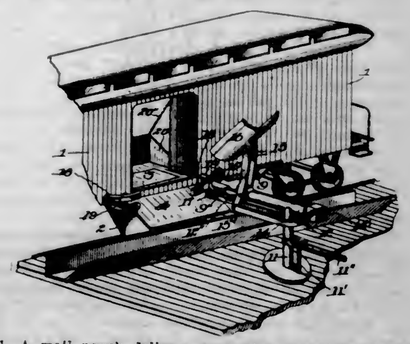
[Claims 6 and 7 not printed in the Gazette.]

1,072,128. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed July 13, 1912. Serial No. 709,133. (Cl. 2—73.)



In an apparel corset, the combination with the corset halves and the skirts thereof, of elastic fabric inserts in the said skirts, completing the continuity thereof, and extending upwardly from the lower edges to a point below the corset stiffeners, overlying auxiliary skirts completely covering the said elastic inserts, the said overlying auxiliary skirts being free along their lower and adjacent upright edges, and tension straps connected to the lower free edges of the said auxiliary skirts.

1,072,129. AUTOMATIC MAIL CATCHER AND DELIVERER. HERMAN C. KUHLMAN, Cleveland, Ohio, assignor of one-third to Fredrick Kestner and one-third to Martin Callahan, Cleveland, Ohio. Filed July 22, 1911. Serial No. 639,988. (Cl. 105—261.)



1. A mail pouch delivery apparatus comprising a stationary pouch support mounted in juxtaposition to the line of way, and adapted to be set into operation by the passing of a car, in combination with a guard device located within the car, said guard device being connected to the mechanism for operating the device for delivering the mail to the car and the device for delivering the mail from the car.

2. A mail receiving and delivering device comprising the combination of a stationary delivery support mounted in juxtaposition to the line of travel of a passing car, means mounted on said passing car for setting into operation the stationary delivery support with a receiving guard mounted in said passing car, said guard adapted when adjusted in position to set into operative position the mechanism for delivering the mail from the passing car to the station.

3. A mail delivery apparatus comprising a stationary support, a horizontal piston mounted in said support and being spring pressed, a pivotally mounted, vertically

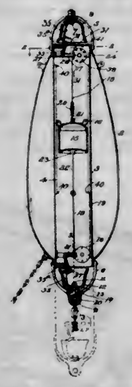
swinging projector mounted on said support and connected to said spring pressed piston, the whole being located in juxtaposition to the line of travel of a car to which mail is to be delivered by said apparatus, in combination with means carried by said car for operating said apparatus, substantially as set forth.

4. A mail receiving and delivering device comprising the combination of a stationary delivery support mounted in juxtaposition to the line of travel of a passing car, a horizontally mounted plunger located in said support, one end of said plunger being connected to rods which in turn are connected to a swinging delivery arm, the opposite end of said plunger being adapted to come into contact with means on the passing car for operating said plunger.

5. A mail receiving and delivery device comprising a stationary delivery support mounted in juxtaposition to the line of travel of a passing car, a plunger mounted horizontally in said support, one end of said plunger being connected to rods which in turn are connected to the lower end of a pivotally mounted, vertically swinging delivery arm, the opposite end of said plunger adapted to come into contact with an operating mechanism located on the passing car, said plunger also being spring pressed substantially as and for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,072,130. BELL-BUOY. ANDREW LINDSTROM, San Francisco, Cal. Filed Jan. 29, 1912. Serial No. 674,093. (Cl. 116—13.)



1. A bell buoy, including a hollow buoyant body open at opposite ends, signal bells carried at opposite ends, a float disposed within the body and vertically movable independently thereof, oppositely disposed pulleys mounted in the said body, a flexible connection passing over said pulleys, mechanism actuated by the rotation of one of said pulleys in one direction to ring the adjacent bell and mechanism actuated by the rotation of the other pulley in the opposite direction to ring the other of said bells.

2. A bell buoy, including a hollow buoyant body open at opposite ends, a tube extending through the body, signal bells carried at opposite ends of the tube, a float disposed within and guided by said tube, said float being vertically movable independently of the body, pulley wheels disposed at opposite ends of the tube and having laterally projecting pins upon their circumferential margins, and means for transmitting motion of the float to said wheels, bell hammers located at opposite ends of the hollow body, and tripping devices adapted to be actuated by the pins to release said hammers.

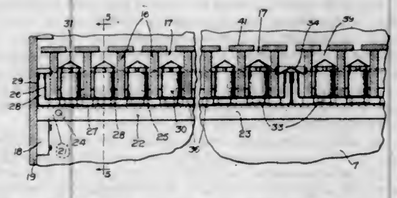
3. In a bell buoy, a shell open at both ends, a vertically movable float disposed within said shell, upper and lower wheels having projections, a flexible connection passing over said wheels and engaging said float, upper and lower bells, and upper and lower hammers operatively engaged by said wheels upon a movement of the float in either direction.

4. In a bell buoy, a shell open at both ends, a float disposed within the shell, upper and lower wheels having projections, a flexible connection passing over said wheels and attached to said float, upper and lower bells, upper and lower hammers for striking the said bells, and devices whereby a movement of the wheels in one direction will cause the projections on the wheel at one end of the buoy to operatively engage its corresponding hammer and the projection on the other wheel to pass its corresponding hammer without actuating the same, and whereby upon a downward movement of the float the hammer at the other end of the float will be actuated in a like manner.

5. In a bell buoy, a shell open at both ends, cages attached to said shell at opposite ends, a bell mounted in each cage, a vertically movable float disposed within the buoy, upper and lower wheels mounted within the buoy and having projections, a flexible connection passing over said wheels and connected to the float whereby the wheels may be rotated in one or the other direction as the float rises or falls, and hammers mounted in proximity to the bells and adapted to be operatively engaged by the projections on the wheels whereby the hammers may be actuated.

[Claim 6 not printed in the Gazette.]

1,072,131. REFRIGERATING-CAR. LEVI H. LISTER, Bay St. Louis, Miss., assignor of one-half to William H. Bouslog, Gulfport, Miss. Filed July 26, 1912. Serial No. 711,687. (Cl. 62—12.)

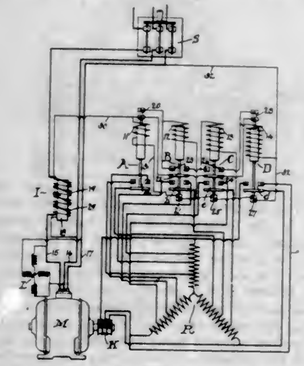


1. In a refrigerating car, the combination of a substantially horizontally extending ice partition having a plurality of longitudinally extending openings for the circulation of air, a drip pan mounted beneath said partition for the collection of water from melting ice, there being rows of perforations in the said drip pans registering with the longitudinal openings of the partition, thimbles surrounding said perforations and extending upward into the longitudinal openings of the partition, whereby the drip pan may be mounted directly beneath the ice partition with its perforation thimbles extending up into the openings of the same, a condensation pan mounted beneath the drip pan and provided with openings in registry with the openings of the drip pan, and thimbles surrounding the openings of the condensation pan and extending upwardly into the thimbles of the drip pan, whereby the condensation and drip pans may be mounted at a minimum distance from the ice partition, substantially as described.

2. In a refrigerating car, the combination of a substantially horizontally extending ice partition comprising a row of slats separated to provide longitudinal openings between them, a drip pan mounted beneath said partition for the collection of water from melting ice, there being rows of perforations in the drip pan in registry with the openings between the slats of the ice partition, thimbles surrounding said perforations and extending up into the openings between the slats of the partition, a condensation pan mounted beneath the drip pan for the collection of water of condensation therefrom, there being perforations in the condensation pan in registry with the perforations of the drip pan, and thimbles surrounding the perforations of the condensation pan and extending upwardly into the thimbles of the drip pan, substantially as described.

3. In a refrigerating car, the combination of a plurality of longitudinally extending ice supporting slats, a drip pan mounted immediately beneath said slats for the collection of water from melting ice, spacer blocks between consecutive slats and mounted with their lower edges above the drip pan for the purpose of permitting a free flow of water lengthwise of the slats, tie rods extending through the several slats and spacer blocks to tie them rigidly together, a condensation pan mounted beneath and spaced away from the drip pan and adapted to the collection of water of condensation, supporting blocks between the two pans and mounted in line with the ice supporting slats for the purpose of directly sustaining the loads coming from the ice supporting slats, and tie rods extended vertically through the slats, supporting blocks, and pans, for the purpose of tying them together, substantially as described.

1,072,132. ACCELERATING DEVICE FOR ALTERNATING-CURRENT MOTORS. WILLIAM D. LUTZ, Allendale borough, N. J., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 7, 1911. Serial No. 601,427. (Cl. 172—152.)



1. The combination with an alternating current motor, of an inductive winding in one of the motor leads, another inductive winding connected across two motor leads, receiving a potential equal to or proportional to that of the said leads, and opposing its effect to that of the first said winding, and inductive devices dependent for energization upon the difference in opposing effect.

2. The combination with an alternating current motor, of an inductive winding through which one motor lead is connected, another inductive winding connected across two motor leads and opposing its effect to the first winding, and magnets energized and successively operated by a current which flows when the opposing effect varies.

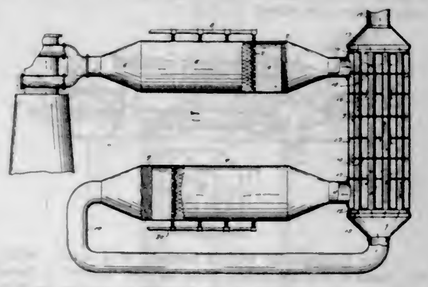
3. The combination with an alternating current motor, of an inductive winding connected to vary the inductive effect with the motor current, another inductive winding connected to the motor leads and having a substantially constant inductive effect, and means dependent for energization upon the difference in the inductive effects of the two windings.

4. The combination with an alternating current motor, of an inductive winding connected to vary the inductive effect in accordance with the current of the motor as the speed increases, another winding of substantially constant inductive effect opposed thereto, and electromagnets successively operated by current determined by the difference in inductive effect as the motor speed increases.

5. The combination with an alternating current motor of an inductive winding in one of the motor leads varying its inductive effect inversely as the speed of the motor varies, another winding connected across the motor leads with substantially constant inductive effect opposed to the first, and magnets dependent for energization upon the difference of inductive effect between the two windings.

[Claims 6 to 13 not printed in the Gazette.]

1,072,133. THERMAL INTERCHANGING PROCESS. JOEL IRVINE LYLE, Plainfield, N. J. Filed Mar. 22, 1912. Serial No. 685,426. (Cl. 62—22.)



1. The herein described process which comprises the exposure of a current of incoming air to the influence of a comparatively cool counter air current, then subjecting said incoming air current to the action of a previously refrigerated liquid, then subjecting the said air thus cooled to the influence of the current of incoming air and conducting it to the place of use.

2. The herein described process which comprises the compression of air, then exposing the said compressed air to the influence of a comparatively cool counter air current, then subjecting said compressed air to the action of a previously refrigerated liquid, then subjecting the said compressed air thus cooled to the influence of a current of incoming air and conducting it to the place of use.

3. The herein described process which comprises the subjection of an incoming air current to the action of a liquid having substantially the normal atmospheric temperature, then exposing the said incoming air current to the influence of a comparatively cool counter air current, then subjecting said incoming air current to the action of a previously refrigerated liquid, then subjecting the said air thus cooled to the influence of the current of incoming air and conducting it to the place of use.

4. The herein described process which comprises first the compression of air, then subjecting said compressed air to the action of a liquid having substantially the normal atmospheric temperature, then exposing the compressed air to the influence of a comparatively cool counter air current, then subjecting the compressed air to the action of a previously refrigerated liquid, then subjecting the compressed air thus cooled to the influence of the current of incoming air and conducting it to the place of use.

5. The herein described process which comprises the exposure of a current of incoming air to the influence of a comparatively cool counter air current, then subjecting said incoming air current to the action of a previously refrigerated liquid so that it is cooled to its dew point at the desired degree below atmospheric pressure and then subjecting the said air thus cooled to the influence of the current of incoming air and conducting it to the place of use.

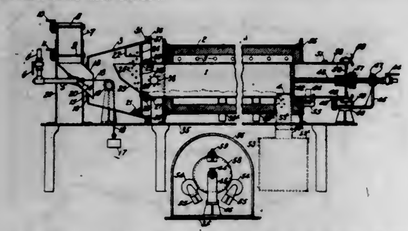
[Claims 6 to 8 not printed in the Gazette.]

1,072,134. CASE-HARDENING, &c. ADOLPH W. MACHLET, Elizabeth, N. J. Filed Aug. 17, 1908. Serial No. 448,782. (Cl. 148—26.)

1. The combination with a furnace, of a retort within the furnace and projecting from an end thereof and revolubly mounted, a drum upon the projecting end of the retort to receive the articles, and means for feeding the articles from the revolving drum into the retort.

2. The combination with a furnace, of a retort within the furnace and projecting from an end thereof and revolubly mounted, a drum upon the projecting end of the retort to receive the articles, a scoop within the drum, and a hopper also within the drum and into which said scoop discharges, said hopper communicating with the interior of said retort.

3. The combination with a furnace, of a retort within the furnace, a closed revolving drum outside of the furnace to receive the articles, said drum in communication with said retort, and means within the drum to feed the articles into the retort.

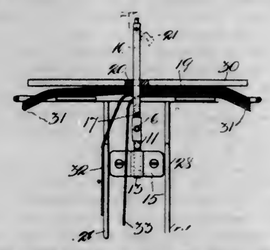


4. The combination with a furnace, of a retort within the furnace and projecting from an end thereof, a closed revolving drum outside of the furnace to receive the articles, and provided with means, inclusive of a scoop and effective upon the revolution of the drum, to feed the articles into said retort.

5. The combination with a furnace, of a retort within the furnace, a revolving drum to receive the articles and having means to feed them into the retort, and a lock closing said drum and including a series of gates.

[Claims 6 to 50 not printed in the Gazette.]

1,072,135. TOWEL-RACK. MALCOLM MACPHERSON, New York, N. Y. Filed Dec. 21, 1912. Serial No. 737,930. (Cl. 45—32.)



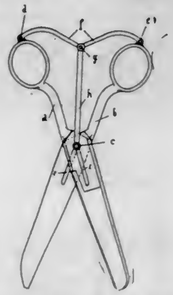
1. A device of the character described, comprising a supporting rack for holding a stack of towels in substantially horizontal position, a depending separator for retaining the towels in separated relation after their removal from the stack, the towels being movable through the said support and said separator, and means engaging the stack of towels and arranged to retain the towels while in the stack and after their separation therefrom.

2. A device of the character described, comprising a horizontally disposed supporting rack having inwardly extending supporting members for supporting a stack of towels, separated from each other near the middle of the rack to permit the towels to be individually drawn therethrough to separate them from the stack, depending separating members, extending inwardly toward each other but separated to permit the towels to be drawn therethrough after their separation from the stack, and means engaging through the towels and arranged to retain them while in the stack and after separation.

3. A device of the character described, comprising a rack for supporting a stack of towels, an upwardly extending post engaging through the towels, said rack having spaced supporting members adapted to allow the towels to be individually drawn therethrough to separate them from the stack, depending, spaced separating members, arranged below the rack and forward of the said post, and between which the towels are adapted to be drawn, for the purpose set forth.

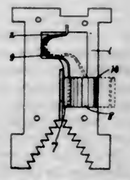
4. A device of the character described, including a horizontal rack comprising a rectangular frame, a post extending upwardly therefrom, for receiving the towels thereover, supporting members arranged on opposite sides of said post, and extending inwardly from opposite sides of said frame and spaced apart in line with the post, a sleeve slidable on said post and having a lateral arm to receive the towels, means for securing a stack of towels on said post, and depending separating members arranged on opposite sides of the post, and comprising members extending inwardly toward, but spaced from each other in line with said post.

1,072,136. SCISSORS WITH MOVABLE PIVOT. GUSTAV MANTHEI, Wismar, Germany. Filed June 27, 1910, Serial No. 569,160. Renewed May 31, 1913. Serial No. 771,114. (Cl. 30—13.)



Improved scissors comprising in combination with the blades having longitudinal slots at the center of motion, extensions at the outer end of each handle, pivots upon said extensions, curved levers pivoted at the one end to said pivots, a pushing rod, a pivot at the outer end of said pushing rod upon which the inner ends of said curved levers are pivoted and a pivot at the other end of said pushing rod located in the longitudinal slots of the blades and forming the center of motion for the same so that this center of motion adjusts itself according to the degree of opening of the scissors, substantially as described and shown and for the purpose set forth.

1,072,137. MATRIX-MOLDING DEVICE. ANDREW E. MARKWELL, Fort Worth, Tex., assignor of one-half to C. W. Stanton, Fort Worth, Tex. Filed Apr. 17, 1913. Serial No. 761,714. (Cl. 199—12.)



1. A matrix molding-device provided with a cavity therein, a rule-holder former mounted therein and having arms projecting from said cavity flush with the surface of the molding device and being movable for releasing the slugs and having angular grooves in the exterior surfaces thereof.

2. A matrix molding-device provided with a cavity therein, a rule-holder former mounted therein provided with arms projecting therefrom and a bridge spacing said arms apart, said arms having grooves in their exterior faces and said former being movable between said bridge and the bottom of said cavity.

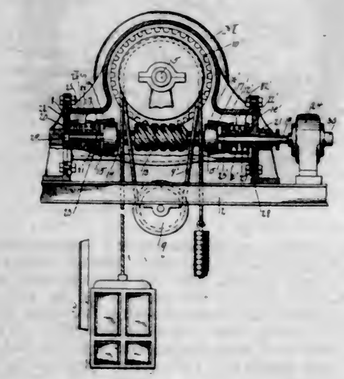
3. A matrix molding-device provided with a cavity therein, a rule-holder former mounted therein provided with arms projecting therefrom and a bridge spacing said arms apart, said arms having angular grooves in their exterior exposed surfaces.

4. A matrix molding-device having a cavity therein, a spring actuated forming device mounted in said cavity and provided with arms projecting therefrom for making rule holding members on printing slugs, said arms having grooves for forming bevel faces on the inside of the rule holding members.

5. A matrix molding-device provided with a cavity therein, a rule-holder former mounted therein and provided with spring arms projecting therefrom, said arms having grooves in their exterior faces for forming bevel faces on the inside of the rule-holding members.

[Claims 6 to 12 not printed in the Gazette.]

1,072,138. SPEED-REGULATOR FOR TRACTION-ELEVATORS. EDWIN S. MATTHEWS, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 29, 1907. Serial No. 399,734. (Cl. 187—23.)



1. In an elevator, the combination with a moving member, of two motors, means for accelerating both motors to normal speed, one motor faster than the other, a positive connection between one of said motors and said member, and a driving connection between the other motor and said member permitting said member and said last-named motor to run at a variable relative speed.

2. In an elevator, the combination of a rotatable member, a main motor for driving the same, an auxiliary motor also exerting a driving action on said member and having a connection therewith through which power from the main motor may be transmitted to the auxiliary motor, and a frictional connection between the latter and said rotatable member permitting a variation in the relative speed of said member and the auxiliary motor.

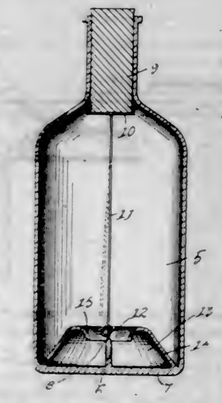
3. In an elevator, the combination with a rotatable member, of a motor therefor, a retarding device for said member geared to and operable by said motor, a second motor, and a connection between the latter motor and said retarding device for permitting a variation in the relative speeds of the retarding device and said second motor.

4. In an elevator, the combination with a shaft, of a worm wheel mounted thereon, a worm in non-locking engagement with said worm wheel, a motor connected to said shaft and operable to drive the worm, a separate motor, and a friction clutch between said separate motor and said worm.

5. In an elevator, the combination with a driving member, of a motor for operating the same, retarding mechanism for said driving member and operable by said motor, an auxiliary motor, and a frictional connection between the latter and said retarding mechanism.

[Claims 6 to 33 not printed in the Gazette.]

1,072,139. NON-RESEALABLE BOTTLE. FRANK A. McGUIRE, Iola, Kans. Filed Feb. 17, 1913. Serial No. 749,001. (Cl. 215—112.)



1. A bottle having a fragile member formed therein, a stopper, and resilient means rigidly secured to the stopper, said means having a hook formed on one end thereof which lockingly engages the fragile member when the stopper is positioned.

2. The combination with a bottle having an apertured stem formed therein, of a stopper, and an inwardly extending hooked rod for engagement with said apertured stem, the removal of the stopper and rod causing the stem to break.

3. The combination with a bottle, of an inwardly projecting stem formed on the bottom thereof, said stem being flattened at its free end and apertured, a stopper, and a spring rod rigidly secured to said stopper, the rod being bent at its free end for engagement with the apertured stem, the positioning of the stopper causing said rod to project through said aperture, and the removal of the stopper and rod causing the walls of the aperture to be broken.

4. The combination with a bottle having an apertured stem formed therein, of a stopper, an inwardly extending hooked rod carried by said stopper for engagement with said apertured stem, the removal of the stopper and rod causing the stem to be broken, and means for retaining the broken particles of the stem within the bottle.

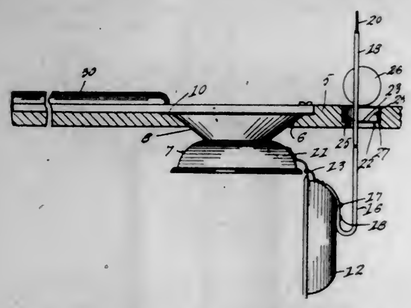
5. The combination with a bottle having an apertured stem formed therein, of a stopper, an inwardly extending hooked rod carried by said stopper for engagement with said apertured stem, the removal of the stopper and rod causing the stem to be broken, a frusto-conical wall formed upon the bottom of the bottle and surrounding said stem, and a retaining flange formed upon the inner free end of the wall, whereby the particles of broken glass are retained within the bottle.

[Claims 6 to 8 not printed in the Gazette.]

1,072,140. CUSPIDOR. FRANK A. McGUIRE, Iola, Kans. Filed Mar. 31, 1913. Serial No. 757,941. (Cl. 4—88.)

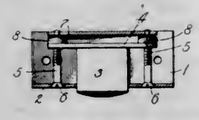
1. In combination, a horizontal supporting surface having an opening formed therein, a cuspidor supported under said surface by the walls of the opening and provided with a hinged bottom, a laterally projecting arm secured to the hinged bottom, an upwardly extending rod pivotally connected to the free end of said arm, the support being slotted and recessed to permit the passage therethrough of the arm, a receptacle fitted within said recess and having an angular slot formed in the bottom thereof, and a laterally projecting pin carried by said rod for engagement with the under side of the recep-

tacle bottom, whereby the rod is locked against upward movement.



2. In combination, a horizontal support formed with an opening extending therethrough, a cuspidor supported below said support for engagement with the walls of the opening, said cuspidor being provided with a hinged bottom section, a resilient arm extending laterally from the bottom of said section, an upwardly projecting rod pivotally connected at its lower end to the free end of said arm, the support being slotted and recessed to permit the passage therethrough of the arm, a receptacle fitted within said recess and having its bottom angularly slotted over said first mentioned slot, said bottom being also formed with an off-set portion to provide a downwardly facing recess, and a laterally projecting pin carried by said rod for engagement with the off-set portion, whereby the rod is locked against upward movement.

1,072,141. CARRIAGE-DOOR BUMPER. ARCHIBALD D. METHVEN, Detroit, Mich., assignor to Fisher Body Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 17, 1913. Serial No. 754,730. (Cl. 16—77.)



1. A bumper comprising a casing, a buffer block reciprocable through an opening in the casing, a thrust plate carrying the buffer block, and members in screw-threaded engagement with the thrust plate for securing the plate and buffer block in adjusted position.

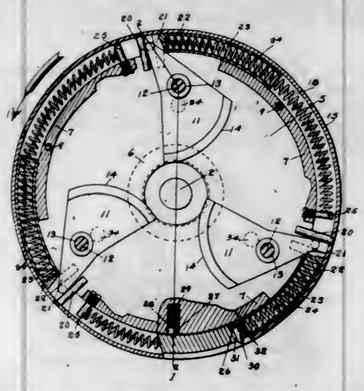
2. A bumper comprising a base, a face plate on the base, a rear flange on the base, a pair of screw members journaled in parallel relation between the face plate and flange, a thrust block in screwthreaded engagement with the members, and a buffer block extending from the thrust plate to which it is secured through a guide opening in the face plate.

3. The combination with a door and a casing therefor, of a bumper consisting of a base adapted to be secured on one of the opposing faces of the door and casing, a buffer block reciprocable through an opening in the base into the path of motion of the opposing face, screw members rotatable in the base, and a thrust plate in screw-threaded engagement with the members secured to the buffer block to shift the latter through the opening.

4. A bumper comprising a base having a face plate and a rear flange, a buffer block reciprocable in an opening through the face plate and adjusting means rotatable in the base in screwthreaded engagement with the face plate for shifting the buffer.

5. A bumper, having in combination, a base comprising a casing with a face plate having an opening therein, a buffer unit having a portion projected through said opening, said buffer unit adapted to act as a cushioning member, and means journaled to rotate in the base and in screw-threaded engagement with the buffer unit, the said means having a head projecting through the face plate of the base, whereby the buffer unit may be adjusted with respect to the base from the outside of the casing forming the base.

1,072,142. CHUCK. FRANK P. MILLER, Meadville, Pa. Filed May 21, 1912. Serial No. 698,869. (Cl. 29—140.)



1. In a chuck, the combination of a carrying plate; a movable dog carried by the plate; devices rotative relatively to said carrying plate for actuating said dog in one direction; a spring for throwing the dog in the opposite direction, said devices operating to actuate the dog against the spring when retarded relatively to the plate; and a catch for locking said devices when retarded, said catch being adapted to be operated with the parts in motion.

2. In a chuck, the combination of a carrying plate; a movable dog carried by said plate; a friction ring adapted to be grasped by the hand of an operator rotatively mounted on said plate; means on the ring for actuating the dog in one direction when retarded; a spring for operating the dog in the opposite direction; and a catch for locking said ring against the spring, said catch adapted to be operated with the ring in motion.

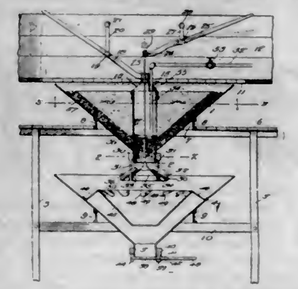
3. In a chuck, the combination of a carrying plate; a centering device at the axis of the carrying plate; movable dogs carried by said plate; means for throwing said dogs into engagement with a piece of work, said means permitting the individual action of the dogs to vary; and devices adapted to be operated with the parts in motion for releasing said dogs.

4. In a chuck, the combination of a carrying plate; a centering device at the axis of the carrying plate; a plurality of swinging dogs mounted on said plate, said dogs having cam faces; individual means for throwing said dogs into engagement with the work, said means permitting variations in the movement of said dogs; and devices adapted to be operated with the parts in motion for throwing said dogs out of engagement.

5. In a chuck, the combination of a carrying plate; a plurality of dogs mounted on said carrying plate, said dogs having cam faces; an operating ring rotatively mounted on the carrying plate; means carried by the ring engaging the dogs for moving the dogs in one direction when retarded; springs operating against the dogs and the carrying plate and moving the dogs in the opposite direction; and a catch for locking the operating ring when moved against the action of the spring, said catch being adapted to be released with the parts in motion.

[Claims 6 and 7 not printed in the Gazette.]

1,072,143. GRAVITY CONCRETE-MIXER. GEORGE W. MILLS and JAMES E. SIMPSON, Georgetown, Pa. Filed Nov. 15, 1912. Serial No. 731,469. (Cl. 83—73.)



1. In a gravity concrete mixer, a mixing device comprising a frusto conical member having a plurality of mixing plates near its large end, each of the said plates having one of its edges turned over on the plate in spaced relation, said plates being similarly arranged and in spaced relation, and means for feeding the material to be mixed axially of the frusto conical member.

2. In a gravity concrete mixer, a mixing device comprising a frusto conical member having a plurality of mixing plates near its large end, each of the said plates having one of its edges turned over on the plate in spaced relation, and means for feeding the material axially of the frusto conical member.

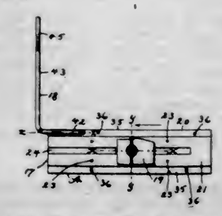
3. In a gravity concrete mixer, a mixing device comprising a frusto conical member having a plurality of mixing plates near its large end, each of the said plates having one of its edges turned over on the plate in spaced relation.

4. In a gravity concrete mixer, a baffle plate provided with a plurality of mixing plates, each plate having one of its edges turned over upon the plate in spaced relation.

5. In a gravity concrete mixer, a hopper provided at its outlet with oppositely arranged depending rods, a frusto-conical baffle plate mounted to slide on the rods and arranged with its small end upward, means within the baffle plate for raising and lowering said plate to open or close the outlet of the hopper, and a plurality of mixing devices arranged around the upper edge of the baffle plate, each plate having one of its edges bent over upon the edge of the plate in spaced relation.

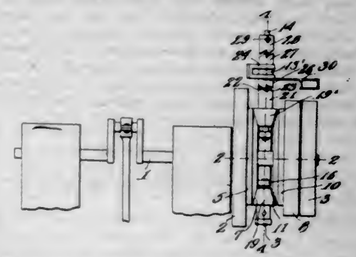
[Claims 6 and 7 not printed in the Gazette.]

1,072,144. CURTAIN-SUPPORTER. ALEX MONICH, New Britain, Conn. Filed Dec. 27, 1912. Serial No. 738,797. (Cl. 156—22.)



A curtain supporter comprising a body portion having a flange at the upper edge and serving as a supporting flange, the said flange being provided with a pair of holes that are separated laterally by an appreciable space, a curtain holder formed of a single piece of wire comprising a curtain supporting member at one end and a supporting arm at the other end, the free end of the said supporting arm being bent rearwardly suitably to engage with one of the said holes when the said arm is positioned in front of the said upper flange, and the said arm being provided with a hole that is in registration with the other of the said holes in the upper flange, and holding means engaged with the said holes that are in registration.

1,072,145. FRICTION REVERSING MECHANISM. HERMAN MOON and JAMES M. REYNOLDS, Grove City, Pa. Filed Nov. 1, 1912. Serial No. 729,103. (Cl. 74—21.)



1. The combination with a driving shaft, and a power transmission means on the free end thereof, of a friction reversing mechanism including a sleeve fast to the shaft, a friction disk carried by said sleeve, a reverse transmission means rotatably mounted upon the sleeve, a friction disk carried by said last transmission means and opposed to the first mentioned friction disk, two oppositely disposed friction cones disposed between the friction disk, and means for moving the cones toward each other and into frictional engagement with the friction disks to transmit reverse rotation from one disk to the other.

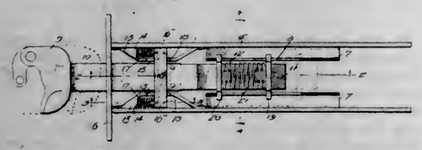
2. The combination with a driving shaft, and a power transmission means on the free end thereof, of a friction reversing mechanism including a sleeve fast to the shaft, a friction disk carried by said sleeve, a reverse transmission means rotatably mounted upon the sleeve, a friction disk carried by said last mentioned means and opposed to the first mentioned friction disk, two oppositely disposed friction cones disposed between the friction disks, two longitudinally slidable shafts connected for movement in unison and disposed transversely of and between the friction disks, two friction cones, one to each slidable shaft, rotatably and slidably mounted upon said slidable shafts and between the friction disks, and means for sliding the two shafts to effect the movement of the friction cones into engagement with the friction disks.

3. The combination with a driving shaft, and a power transmission means on the free end thereof, of a friction reversing mechanism including a sleeve fast to the shaft, a friction disk carried by said sleeve, a reverse transmission means rotatably mounted upon the sleeve, a friction disk carried by said last transmission means and opposed to the first mentioned friction disk, two oppositely disposed friction cones disposed between the friction disks, two longitudinally slidable shafts connected for simultaneous sliding movement and mounted transversely of and between the friction disks, two friction cones, one to each slidable shaft, mounted upon said slidable shafts and opposed at diametrically opposite points to the friction disks, two cone engaging means mounted upon the two slidable shafts for moving respective cones toward each other and into frictional engagement with the friction disks, and manually operated means for sliding the two shafts to operate one of said cone engaging means and for sliding the other of said cone engaging means to move the cones toward each other and into frictional engagement with the disks.

4. The combination with a driving shaft, and a power transmission means on the free end thereof, of a friction reversing mechanism including a sleeve fast to the shaft, a friction disk carried by said sleeve, a reverse transmission means rotatably mounted upon the sleeve, a friction disk carried by said last transmission means and opposed to the first mentioned friction disk, two oppositely disposed friction cones disposed between the friction disks,

a supporting frame mounted transversely of and upon opposite sides of the friction disks, two shafts journaled in said frame for sliding movement and connected for movement in unison, a friction cone mounted slidably and rotatably upon the respective shafts and disposed for engagement with the friction disks at diametrically opposite points, a cam sleeve slidably mounted upon one of the shafts and disposed for operating the cone mounted upon the same shaft, another cam sleeve keyed upon the same shaft and in spaced relation to the first cam sleeve, and two manually operated oppositely disposed cam sleeves mounted upon the shafts between the two first mentioned cam sleeves whereby the movement thereof will slide one cone into engagement with the friction disks and slide the shafts to move the other cone simultaneously in engagement with the friction disks.

1,072,146. DRAFT-RIGGING. GEORGE BENARD MORSBERGER, Baltimore, Md. Filed Oct. 15, 1912. Serial No. 725,809. (Cl. 213—42.)

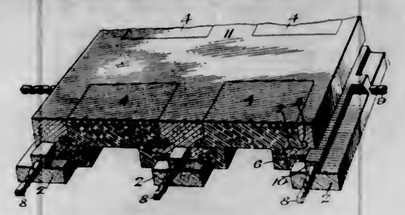


1. A draft rigging comprising a draw-frame, guide-bars connected therewith and provided with slots, a draw-bar extending into said draw frame and provided with a yoke, cross bars extending through said yoke and into said slots, said cross bars being movable within said slots, a compression spring housed within said yoke and extending from one of said cross bars to the other for the purpose of normally forcing said bars apart, a tension bar mounted within said draw-frame and movable relatively to the same, said tension bar being normally idle, means carried by said draw-bar and controllable by movement thereof in excess of a predetermined movement for engaging said tension bar in order to move the latter, and reserve springs carried by said draw-frame and engaging said tension bar for the purpose of resisting movements of said tension bar.

2. A draft rigging comprising a draw-frame, guide bars connected therewith and provided with slots, a draw-bar extending into said draw-frame and provided with a yoke, cross bars extending through said yoke and into said slots, a compression spring mounted within said yoke and extending from one of said cross bars to the other for the purpose of normally forcing said cross bars apart, a pair of brackets mounted rigidly within said draw-frame and provided with slots, springs mounted within said brackets, a tension bar extending through said slots in said brackets and engaging said springs within said brackets, said tension bar being normally idle, said draw bar being provided with a portion normally out of engagement with said tension bar and capable of engaging said tension bar when said draw bar moves beyond a predetermined limit relatively to said draw bar.

1,072,147. METHOD OF CONSTRUCTING A CONCRETE SKYLIGHT, VAULT-LIGHT, AND FLOOR-LIGHT. LOGAN WILLARD MULFORD, Narberth, Pa., assignor of one-half to Frederick J. Geiger, Philadelphia, Pa. Filed Feb. 23, 1912. Serial No. 679,464. (Cl. 94—7.)

1. The method of forming a concrete sky light, vault light or floor light, which consists in taking an apertured support, placing molds over the apertures, spacing reinforcements from the support, placing on the support molding elements to form the sides of the slab, embedding the reinforcements in concrete, allowing the concrete to set, then removing the reinforced concrete slab from the support, the molds and the molding elements, placing the slab over a vault, floor, or sky light opening, placing lenses over the openings in the slab to project above it, and then embedding said lenses in concrete.



2. The method of forming a concrete sky light, vault light or floor light, which consists in taking an apertured support, placing molds over the apertures, spacing reinforcements from the support, placing on the support molding elements to form the sides of the slab, uniting with the reinforcements bonding elements, embedding the reinforcements and a portion of the bonding elements in concrete, allowing the concrete to set, then removing the reinforced slab with lens receiving openings from the support, the molds, and molding elements, placing said slab over a vault, floor or sky light opening, placing lenses over the openings in the slab to project above it, embedding the exposed bonding elements, and surrounding the lenses flush to the top thereof with concrete, and then allowing the second layer of concrete to set.

3. The method of forming a concrete sky light, vault light or floor light, which consists in first positioning reinforcing devices, next securing to the reinforcing devices bonding elements, embedding the reinforcing devices and a portion of the bonding elements in concrete, then allowing the concrete to set to form a reinforced concrete slab with lens receiving openings and exposed bonding elements, placing said slab over a vault, floor or sky light opening, placing lenses over the opening in the slab to project above it, embedding the exposed bonding elements of the second set of reinforcing devices, and surrounding the lenses flush to the tops thereof with concrete, and then allowing the second layer of concrete to set.

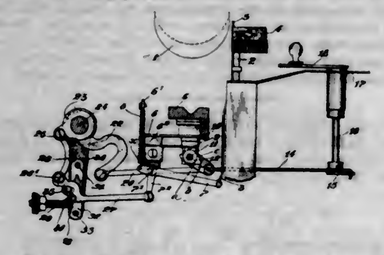
4. The method of forming a concrete sky light, vault light or floor light, which consists in first positioning reinforcing devices, securing to the reinforcing devices bonding elements, embedding the reinforcing devices and a portion of the bonding elements in concrete to form a reinforced concrete slab with lens receiving openings and exposed bonding elements, allowing the concrete to set, then securing to the exposed portion of the bonding elements a second set of reinforcing devices, placing said slab over the vault, floor or sky light opening, placing lenses over the openings in the slab to project above it, embedding said lenses flush to the tops thereof and the reinforcements in concrete, and then allowing the concrete to set.

5. The method of forming a concrete sky light, vault light or floor light, which consists in first positioning reinforcing devices, embedding them in concrete to form a reinforced concrete slab with lens receiving openings, placing lenses over said openings to project above the slab, and then embedding said lenses in concrete flush to the top thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,072,148. RIBBON MECHANISM FOR TYPE-WRITING MACHINES. LEWIS C. MYERS, New York, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed June 1, 1910. Serial No. 564,380. (Cl. 197—157.)

1. The combination with the platen of a visible writing machine, of ribbon mechanism comprising a ribbon vibrator, a vibrator operating bell crank lever turning about an axis fixed with respect to the platen and having its longer arm connected to the vibrator, an endwise movable bar connected to the shorter arm of the bell crank, means for adjusting said bar so that the vibrator will stand in low position for printing from the upper zone of a ribbon and in higher position for printing from a lower zone of the ribbon, and means for actuating said bar when in either of its adjusted positions to carry the ribbon to printing position.



2. The combination with the platen of a visible writing machine of ribbon mechanism comprising a ribbon vibrator, a lever serving to effect actuation of the vibrator for printing operations, an endwise movable bar acting to determine the position of said lever and to actuate it to effect printing operations, means whereby said endwise movable bar is adjusted endwise to set the ribbon vibrator in either upper or lower position to effect printing from an upper or lower zone of a ribbon and means for actuating the endwise movable bar to effect printing when the vibrator is in either position.

3. In ribbon mechanism for a visible writing machine, the combination of a ribbon vibrator, an elbow lever for actuating the ribbon vibrator, a pivotal support for the elbow lever having fixed relation to the platen of the machine, an endwise movable bar connected with the short arm of the elbow lever, a swinging universal bar frame having a part engaging the end of the endwise movable bar to actuate it, means for raising and lowering the end of the endwise movable bar, means whereby when the endwise movable bar is raised or lowered it is moved endwise to adjust the position of the elbow lever and means whereby when the universal bar is actuated the endwise movable bar is operated to effect a printing operation.

4. The combination with the shifting platen of a visible writing machine, of ribbon mechanism comprising a ribbon vibrator actuating lever, a pivot therefor fixed in its relation to the shifting platen of the machine, means for setting the lever to normally hold the vibrator in low position to effect printing from an upper zone of the ribbon or to normally hold it in elevated position to effect printing from a lower zone of the ribbon and means for actuating the lever from either of such positions to effect a printing operation.

5. Ribbon mechanism for a visible writing machine comprising the combination of a swinging universal bar frame having a projection 35 thereon, a ribbon vibrator actuating link 27 having at its end two surfaces 28, 29, in different planes, and a cam portion intermediate said surfaces with which surfaces and cam portion the projection 35 engages, means for raising and lowering the link whereby the link is set in one position for printing from an upper zone of a ribbon and is cammed to another position for printing from a lower zone of the ribbon.

[Claim 6 not printed in the Gazette.]

1,072,149. SPRING-BARREL MECHANISM FOR TYPE-WRITING MACHINES. LEWIS C. MYERS, New York, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed June 12, 1909, Serial No. 501,693. Renewed Jan. 29, 1913. Serial No. 745,007. (Cl. 185—45.)

1. Spring barrel mechanism for a type-writing machine, comprising a two-part shaft, one part in the form of a sleeve centrally enlarged circumferentially and having on said enlargement a means for attachment of the inner end of the spring and having a transverse notch in one reduced end, and an aperture in the other; and the other part a rod fitting within the sleeve and having a transverse projection fitting in said notch in the end of the sleeve; a collar on the other end of the sleeve and a screw passing through said collar and the aperture in one end of the sleeve.

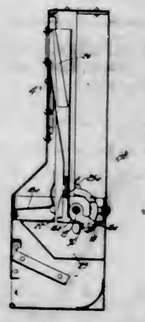


2. Spring barrel mechanism for a type-writing machine comprising a two-part shaft, one part in the form of a sleeve centrally enlarged circumferentially and having on said enlargement a means for attachment of the inner end of the spring and also having an aperture; and the other part a rod fitting within the sleeve, the sleeve and rod respectively being formed with interlocking means that unite them for rotation, a collar on the sleeve and a screw passing through the collar and into the aperture in the sleeve.

3. Spring barrel mechanism for a type-writing machine, comprising a two part shaft, one part in the form of a sleeve centrally enlarged circumferentially and having on said enlargement a means for attachment of the inner end of the spring, the reduced end portions of the sleeve serving as a support for the spring barrel and upon which it may rotate, the other part a rod fitting within the sleeve and connected thereto to turn therewith.

4. Spring barrel mechanism for a type-writing machine, comprising a two part shaft, one part in the form of a sleeve centrally enlarged circumferentially and having on said enlargement a means for attachment of the inner end of the spring, the reduced end portions of the sleeve serving as a support for the spring barrel and upon which it may rotate, the other part a rod fitting within the sleeve and connected thereto to turn therewith, the rod terminating in one end in a worm for adjusting the interlocked rod and sleeve independently of rotation of the spring barrel.

1,072,150. VENDING-MACHINE. NOAH N. NEHER, Los Angeles, Cal. Filed June 24, 1912. Serial No. 705,621. (Cl. 194—85.)



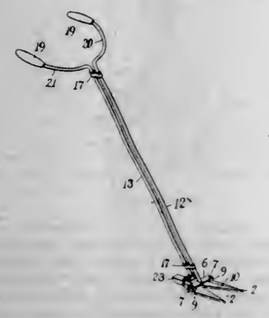
1. A coin controlled apparatus, comprising a central shaft mounted in suitable bearings and having manually operable means for rotation, a hollow shaft rotatable upon the central shaft, a coin pocket member mounted on the hollow shaft and rotatable therewith, said member having a plurality of coin pockets adapted to receive and hold a coin when above the shaft and to discharge it when below the shaft, and a coin engaging member connected with the central shaft comprising two bearing portions one tightly mounted on the central shaft and the other loosely surrounding the hollow shaft, a connecting web between the two bearing portions, and a coin engaging finger projecting from the bearing portion on the hollow shaft.

2. A coin controlled apparatus, comprising a central shaft mounted in suitable bearings and having manually

operable means for rotation, a hollow shaft rotatable upon the central shaft, a coin pocket member mounted on the hollow shaft and rotatable therewith said member having a plurality of coin pockets adapted to receive and hold a coin when above the shaft and to discharge it when below the shaft, said member comprising two plates oppositely disposed on the hollow shaft and each having lips turned toward the other plate to form said coin pockets, a coin chute leading downwardly to a point above the coin pocket member, the forward wall of the chute being cut away above the coin pocket member and the rear wall extending down between the two opposite plates of said member in front of the hollow shaft, there being an aperture in said rear wall, means to normally and yieldingly hold the coin pocket member with one pocket directly below the chute, and a coin engaging member connected with the central shaft comprising two bearing portions one tightly mounted on the central shaft and the other loosely surrounding the hollow shaft, a connecting web between the two bearing portions, and a coin engaging finger projecting from the bearing portion on the hollow shaft, and adapted to project through the aperture in the rear wall of the coin chute and engage a coin held in one of the coin pockets.

3. A coin controlled apparatus, comprising a central square shaft mounted in suitable bearings and having manually operable means for rotation, spring means to hold said shaft in a normal position, means to prevent rearward rotation from the normal position of the shaft, a hollow shaft rotatable upon the square shaft, spring means for normally holding the hollow shaft in any one of a plurality of positions, a coin pocket member rigidly attached to the hollow shaft and comprising two oppositely disposed plates affixed to said shaft and having pairs of lips oppositely disposed and turned toward each other to form coin pockets, a coin chute extending downwardly over the coin pocket member with its forward wall terminating above said member and its rear wall extending down between said plate and having an aperture therein, and a coin engaging member comprising a U-shaped portion having one leg rotatively attached to the square shaft beyond the end of the hollow shaft and having the other leg loosely surrounding the hollow shaft between the two coin pocket plates, and a curved coin engaging finger projecting from the U-shaped portion and adapted to project through the aperture in the chute rear wall.

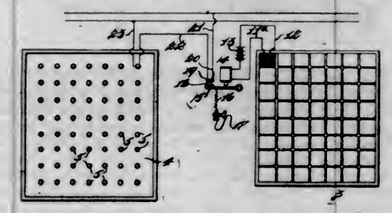
1,072,151. LAWN-TRIMMER. WILLIAM M. NORCROSS, Boston, Mass. Filed Sept. 13, 1912. Serial No. 720,200. (Cl. 56—19.)



1. The combination with two coacting cutting blades, of two parallel rods operatively connected with said blades and rising therefrom to a suitable height, said rods being relatively rotative and having their axes fixed relative to each other, the upper ends of said rods having each a single operating handle bar, the handle bar of one rod curving toward the right and the handle bar of the other curving toward the left, and both said handle bars being in the same substantially horizontal plane when said blades are in their customary operative position.

2. A lawn trimmer comprising a stationary cutting member, a movable cutting member, a rod rigidly connected with the first-named cutting member, a rod rotatively supported by the first-named rod and having lateral projections at its lower end, and operative means for said rods, the second-named cutting member having notched ears adapted to be entered by said lateral projections for the oscillation of the last-named member.

1,072,152. MEANS FOR THE SYSTEMATIC CONTROL OF ELECTRIC CIRCUITS BY LIGHT-RAYS. SIXTO OCAMPO, New York, N. Y. Filed Mar. 14, 1913. Serial No. 754,178. (Cl. 250—1.)



1. The herein described apparatus for reproducing figures from a stencil equivalent, consisting of a source of light, the stencil equivalent, the board containing a multitude of units, the resistance of which is effected by the throwing of light thereon, electrical connections from said units, and a board having a multitude of lights thereon, at least one light for each unit.

2. The herein described apparatus for reproducing figures from a stencil equivalent, consisting of a source of light, the stencil equivalent, the board containing a multitude of units, the resistance of which is effected by the throwing of light thereon, electrical connections from said units, and a board having a multitude of lights thereon, at least one light for each unit, a separate circuit for the lights of the board, and a magnetically controlled switch controlling said circuit, and a circuit for said switch controlled by said unit.

1,072,153. INTEGRATOR. LUDWIG OTT, Kempten, Germany, assignor to Hermann Ott, Ludwig Ott, and Adolf Steis, copartners constituting the partnership of A. Ott, Kempten, Bavaria, Germany. Filed Oct. 12, 1911. Serial No. 654,397. (Cl. 73—81.)



1. In an integrator for the determination of plane areas, the combination of a follower comprising a bar provided at one end with a stylus, and an integrating roller fixed laterally of but axially parallel with said bar, and at the other end with both a supporting point and coupling means, and means adapted to be engaged with said coupling means for limiting to a circular path the movement of the bar end provided with said coupling means, the bar of the follower being further provided with means for engaging slidably a fixed polar director.

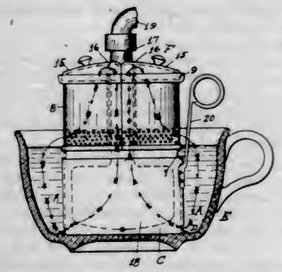
2. In an integrator for the determination of plane areas, the combination of a follower comprising a bar provided at one end with a stylus, and an integrating roller fixed laterally of but axially parallel with said bar and at the other end with both a supporting point and couping means, and means adapted to be engaged with said coupling means for limiting to a circular path the movement of the bar end provided with said coupling means, the bar of the follower being further provided with a longitudinal groove for engaging a fixed pin.

3. In an integrator for the determination of plane areas, the combination of a follower comprising a bar provided at one end with a stylus, and an integrating roller fixed laterally of but axially parallel with said bar, and a director arm, the other end of the follower bar having a supporting point and further having detachable pivotal engagement with one end of the director arm, while the other end of the director arm is provided with means for revolubly fixing it in a working surface, the bar of the follower being further provided with a longitudinal groove for engaging a fixed pin.

4. In an integrator for the determination of plane areas, the combination of a follower comprising a bar provided at one end with a stylus and an integrating roller fixed laterally of but axially parallel with said bar, and a director arm, the other end of the follower bar having a supporting point and further having detachable universal engagement with one end of the director arm, while the other end of the director arm is provided with means for revolubly fixing it in a working surface, the bar of the follower being further provided with means for engaging slidably a fixed polar director.

5. In an integrator for the determination of plane areas, a follower comprising a bar having a stylus at one end, a supporting point at the other end, and an integrating roller fixed to said bar laterally thereof but axially parallel therewith, the follower being adapted to rest upon stylus, supporting point and roller, said follower being provided at the end distant from the stylus with a universal bearing point and having further longitudinally arranged means for slidably engaging fixed guiding means.

1,072,154. CULINARY APPARATUS. EDWARD J. OVINGTON, Los Angeles, Cal., assignor, by mesne assignments, to Simplex Electric Heating Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Nov. 8, 1911. Serial No. 659,191. (Cl. 219—41.)



1. Improvements of the character described, comprising a tubular body, means for holding coffee or the like therein at a point above the bottom of the tubular body, heat supply means within the tubular body beneath said last named means, the tubular body being provided with openings for influx of water adjacent to the bottom thereof; and a cover for the whole; the tubular body constituting at its base the support for the entirety.

2. Improvements of the character described, comprising a tubular body, means for holding coffee or the like therein at a point above the bottom of the tubular body, heat supply means within the tubular body beneath said last named means, the tubular body being provided with openings for influx of water adjacent to the bottom thereof; said tubular body and the other parts being detachably connected, the tubular body constituting at its base the support for the entirety.

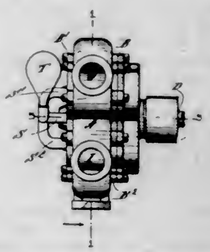
3. Improvements of the character described, comprising a tubular body provided at the bottom with a port for the influx of water, a casing detachably connected with the top of the tubular body and communicating therewith, and heat supply means removably disposed in the tubular body beneath the casing; there being openings in the casing above the tubular body, and a cover for the whole; the tubular body constituting at its base the support for the entirety.

4. Improvements of the character described, comprising a tubular body provided at the bottom with a port for the influx of water, a casing detachably connected with the top of the tubular body and communicating therewith, heat supply means removably disposed in the tubular body beneath the casing; there being openings in the casing above the tubular body, and a cover for the whole; said heat supply means comprising an electrical heater having a working portion disposed beneath the casing and a stem rising above the casing.

5. Improvements of the character described, comprising a tubular body provided at the bottom with a port for the influx of water, a casing detachably connected with the top of the tubular body and communicating therewith, heat supply means removably disposed in the tubular body beneath the casing; there being openings in the casing above the tubular body; and a cover for the whole; said heat supply means comprising an electrical heater having a working portion disposed beneath the casing and a stem rising above the casing; and a cover for the whole provided with an opening accommodating said stem.

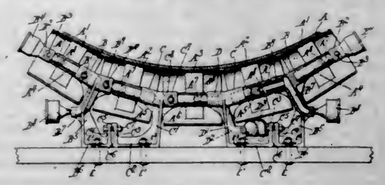
[Claims 6 to 9 not printed in the Gazette.]

1,072,155. ROTARY PUMP. WILLIAM E. PEARSON, Boston, Mass. Filed Feb. 17, 1910. Serial No. 544,492. (Cl. 103—44.)



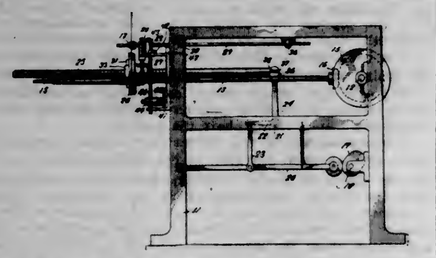
A rotary pump, comprising a casing having inlet and outlet ports, a rotating piston carrier, pistons mounted on the carrier, rotating buttresses and means for operating them, release ports located between the inlet and outlet ports, by-passes connecting said release ports to each other, and an air chamber connected to said by-passes, substantially as and for the purpose set forth.

1,072,156. STAND FOR TROUGHING-ROLLS. STAUNTON B. PECK, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed June 10, 1911. Serial No. 634,150. (Cl. 193—27.)



A support for troughing rolls comprising a two-part base, rolls supporting arms projecting upwardly from either end of said base, said base being provided with two upwardly projecting lugs, one on either part, said lugs having interlocking surfaces interlocking one with the other, these surfaces being arranged one pair at the lower extremity of the lugs the other pair at the upper extremity, and means for removably holding said interlocking members together.

1,072,157. WINDING-MACHINE. MARINUS PEPLING, Newark, N. J., assignor to Fred Moss, New York, N. Y. Filed July 18, 1910. Serial No. 572,439. (Cl. 242—31.)



1. In a winding machine, the combination of a rotary spindle adapted to wind a cop, a thread guide, a friction roller, means for supporting the roller and for causing rotation thereof to produce an advance of the thread guide, means for producing relative reciprocation between the spindle on the one hand and the thread guide and friction roller on the other hand to effect the traverse of the thread, said roller being normally spaced laterally away from said spindle and heel shaping means operative during the building of the heel of the cop for causing said friction roller to repeatedly approach said spindle, the movement toward said spindle permitting said roller to be rotated by said spindle, and said roller returning to its normal position after each approach.

2. In a winding machine, the combination of a rotary spindle for winding a cop, a thread guide, a friction roller normally spaced laterally away from said spindle, means for producing a relative reciprocation between the parts to effect the traverse of the thread, heel shaping means operative during the building of the heel of the cop for causing said friction roller to laterally approach said spindle so as to permit the roller to return to its normal position away from said spindle after each approach.

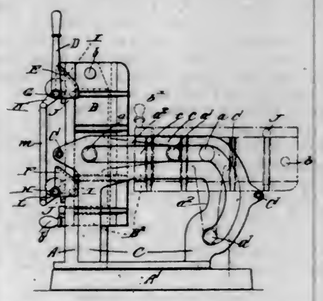
3. In a winding machine, the combination of a rotary spindle, a thread guide, a friction roller, means for supporting the roller and for causing its rotation to produce an advance of the thread guide, means for producing relative reciprocation between the spindle on the one hand and the thread guide and the friction roller on the other hand to effect the traverse of the thread, a stop for holding said roller normally in laterally spaced relation to said spindle during the building of the body of the cop, heel shaping means operative during the building of the heel of the cop for causing the friction roller to move successively toward the spindle to be rotated thereby, said means moving said roller toward said spindle while the roller is moving toward the back of the machine, and means operative after each of the successive movements of the roller toward the spindle to cause the roller to move away from said spindle until arrested by said stop.

4. In a winding machine, the combination of a rotary spindle, a thread guide, a threaded traverse bar, a friction roller mounted on the traverse bar and adapted to advance the thread guide, means for reciprocating the traverse bar and the thread guide to effect the traverse of the thread, an adjustable stop for holding said traverse bar and roller in laterally spaced relation to said spindle during the building of the body of the cop, heel shaping means operative during the building of the heel of the cop for causing said traverse bar and friction roller to move successively toward said spindle to produce the successive advances of the thread guide, and means operative after each of said successive movements of the traverse bar and roller toward the spindle to cause the same to move away from the spindle until arrested by said stop.

5. In a winding machine, the combination of a rotary spindle adapted to wind a cop, a thread guide, a friction roller, means for supporting the roller and for causing its rotation to produce an advance of the thread guide, means for producing a relative reciprocation between the spindle and the thread guide and friction roller to effect the traverse of the thread and heel shaping means operated during the building of the heel of the cop for causing the friction roller to repeatedly move diminishing distances toward said spindle during the building of the heel, said roller moving outward after each inward movement.

[Claims 6 to 37 not printed in the Gazette.]

1,072,158. PLATE-CASTING MACHINE. CHARLES HENRY PETTIGREW, Hayes, England, assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 30, 1912. Serial No. 723,233. (Cl. 22—2.)



1. In a plate casting machine, the combination of a frame, a cope mounted therein, and a drag provided with guiding means and with supporting means, said frame comprising guides with which the guiding means of said drag have sliding engagement and comprising also supports with which the supporting means of said drag have sliding engagement, said guides and said supports being continuations of each other.

2. In a machine for casting stereotype plates and the like, the combination with the cope, the movable matrix holder or drag and the trunnion rollers and guiding rollers on said drag, of surfaces for guiding and surfaces for supporting said rollers, so disposed relatively to each other that the guiding surfaces are continuations of the supporting surfaces.

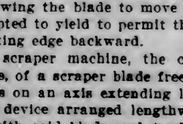
3. In a machine for casting stereotype plates and the like, the combination with the cope, the movable matrix holder or drag and the trunnion rollers and guiding rollers on said drag, of side frames having guiding and supporting surfaces for said rollers, made in the form of slots which are horizontal at their upper parts and terminate at their outward or rearward ends in downwardly curved portions so disposed relatively to each other that the guiding surfaces are continuations of the supporting surfaces.

4. In a machine for casting stereotype plates and the like, the combination with the cope, the movable matrix holder or drag aand the trunnion rollers and guiding rollers on the said drag, of side frames having continuous guiding and supporting slots for said rollers and brackets extending rearwardly from the drag for carrying the guiding rollers in a position in which their axis lies in the same horizontal plane with the axis of the trunnion rollers when the drag is in the vertical position.

1,072,159. MOUNTING FOR RIMLESS SPECTACLES AND EYEGLASSES. GEORGE S. PFEIFFER, Chicago, Ill. Filed Mar. 22, 1913. Serial No. 756,120. (Cl. 88—47.)

1. In a lens-mount, the combination of a bridge, or nose-piece, provided with a bearing strip for the inner end of the lens, and lens-embracing clips, an attaching pin on the clips extending through a perforation in the lens, and a spring between said pin and strip bearing yieldingly against the lens, for the purpose set forth.

2. In a lens-mount, the combination of a bridge, or nose-piece, provided with a stiff arcuate bearing-strip for the inner end of the lens, and lens-embracing clips, an attaching pin on the clips extending through a perforation in the lens, and a spring between said pin and strip bearing yieldingly against the lens, for the purpose set forth.



3. In a lens-mount, the combination of a bridge, or nose-piece, provided with a bearing-strip for the inner end of the lens, and perforated lens-embracing clips, a screw engaging the clips and passing through a perforation in the lens, and a spring extending into the perforation of the lens and actuated by the tightening of the screw to press the lens yieldingly against said strip.

1,072,160. ROAD-SCRAPER. EDWIN S. PHILIPS, Kennett Square, Pa., assignor to American Road Machine Company, a Corporation of Pennsylvania. Filed Dec. 18, 1912. Serial No. 737,408. (Cl. 37—7.)



1. In a road scraper machine, the combination with supporting means, of a scraper blade free to swing on the supporting means on an axis extending lengthwise of the blade, and a tension device arranged lengthwise of said axis and connected with the blade and tending to move it on its axis to throw the working edge of the blade forward but adapted to yield to permit the blade to swing in the opposite direction.

2. In a road scraper machine, the combination with a main frame and wheels upon which the frame is mounted, of scraper blade supporting means, a scraper blade arranged transversely of the frame and free to swing on its supporting means on an axis also extending transversely of the frame, a tension device also extending transversely of the frame and connected with said blade and tending to swing the blade on its axis to throw its working edge forward but adapted to yield to permit the blade to swing in the opposite direction.

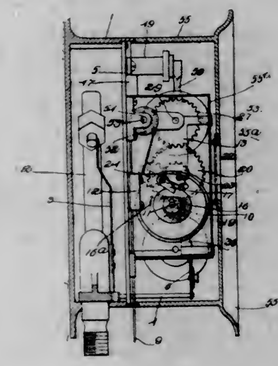
3. In a road scraper machine, the combination with supporting means, of a scraper blade free to swing on the supporting means on an axis extending lengthwise of the blade, means limiting the extent of the forward movement of the working edge of the blade, a tension device extending lengthwise of said axis, and connected with said blade and tending to swing the blade to move its working edge forward but adapted to yield to permit the blade to swing to move its working edge backward.

4. In a road scraper machine, the combination with supporting means, of a scraper blade free to swing on the supporting means on an axis extending lengthwise of the blade, a tension device arranged lengthwise of said axis and connected with said blade and tending to move the blade on its axis to throw the working edge of the blade forward but adapted to yield to permit the blade to swing in the opposite direction, and adjustable means to vary and limit the extent of the forward movement of the working edge of the blade.

5. In a road scraper machine, the combination with a main frame and wheels upon which the frame is mounted, of scraper blade supporting means, a scraper blade arranged transversely of the frame and free to swing on its supporting means on an axis also extending transversely of the frame, a tension device also arranged transversely of the frame and engaging both the supporting means and the scraper-blade at different points along the length of the blade and tending to throw the working edge of the scraper-blade forward, and an abutment adjustable to vary and limit the extent of said forward movement.

[Claims 6 to 12 not printed in the Gazette.]

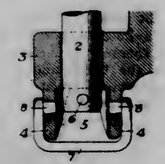
1,072,161. PRESSURE-RECORDING GAGE. ARTHUR P. PHILLIPS, Haverhill, Mass., assignor to Crosby Steam Gage and Valve Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 19, 1909. Serial No. 528,890. (Cl. 234—20.)



1. In a chart support of the character described, coacting pencil roll and pressure roll having co-acting gears; said pressure roll being journaled in spring-controlled swinging arms; with controlling spring; substantially as described.

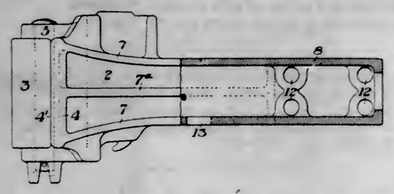
2. In a chart support of the character described, a spring-controlled tubular winding roll mounted rotatably and longitudinally movable upon a tubular shaft; said shaft being rotatably mounted and having a gear, the face of which frictionally engages one end of said tubular winding roll; with controlling spring; substantially as described.

1,072,162. PIVOT-PIN SUPPORT FOR COUPLINGS. HENRY F. POPE, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 18, 1907. Serial No. 352,880. (Cl. 213—13.)



A car coupler pivot-pin retainer comprising a stirrup having a horizontal bar and a vertical bar, a stud extending from said vertical bar on which the stirrup is adapted to turn, a downwardly extending lug on the bottom of the coupler adjacent to the pivot pin hole through said coupler and having an orifice therethrough for the reception of said stud, the horizontal bar of the stirrup being normally held by gravity across the lower end of the pivot hole to retain the pivot pin within the coupler, said stirrup being without function in the normal condition of the parts and being movable to one side against the action of gravity for the removal of the pin; substantially as described.

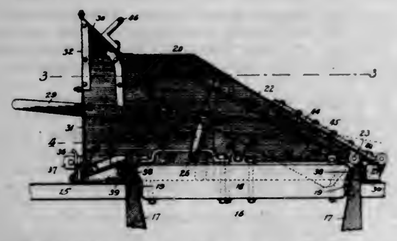
1,072,163. CAR-COUPLING. HENRY F. POPE, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 1, 1908. Serial No. 446,439. (Cl. 213—42.)



1. A car coupler for radial draft gears having vertically-extending shoulders at its sides, said shoulders being located to the rear of the coupler-head, laterally-projecting buffing flanges at each side of the head, and webs projecting laterally from said head and extending from said buffing flanges to the vertically-extending shoulders.

2. A car coupler for radial draft gear having a head, a shank and integral buffing flanges projecting laterally from the head and webs projecting rearwardly from and integral with said flanges and laterally from and integral with the head and shank at every point throughout their length and terminating in vertically disposed shoulders on the shank, the said shoulders being adapted to abut against a supporting frame.

1,072,164. HATCH-COVER AND VENTILATOR FOR REFRIGERATOR-CARS. EDWARD POSSON, Chicago, Ill. Filed Feb. 29, 1912. Serial No. 680,729. (Cl. 62—12.)



1. In a device of the class described, a car roof having a hatchway therein, a hood over said hatchway, said hood being hinged at one side thereof, a plug for the hatchway under the hood, and a link pivoted at one end to the hood close to its hinge, and at the other end to the middle of the plug.

2. In a device of the class described, a car roof having a hatchway therein, a hood over said hatchway and extending to one side thereof, a perforated screen across the extended side of the hood, and a baffle within the hood back of said perforated screen.

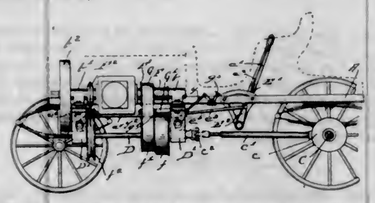
3. In a device of the class described, a car roof having a hatchway therein, a hood over said hatchway and extending to one side thereof, a perforated screen across the extended side of the hood, a baffle within the hood back of said perforated screen, and a deflector below said baffle to catch water dripping therefrom and direct it aside from the hatchway.

4. In a device of the class described, a car roof having a hatchway therein, a hood over said hatchway, said hood having a vertical wall at one side, the lower part of said wall being solid and the upper part perforated, and a baffle within the hood between said perforated portion of the side wall and the hatchway.

5. In a device of the class described, a car roof having a downwardly converging hatchway therein, a hood over said hatchway, a plug within the hatchway, mechanism for raising or lowering said plug within the hood without displacing the hood, an operating handle for said mechanism outside the hood, and pivotal means connecting said plug to the roof adjacent to the hatchway, said means comprising a pin and slot connection so as to permit lateral adjustment of the plug to fit the hatchway.

[Claims 6 to 14 not printed in the Gazette.]

1,072,165. GEARING FOR MOTOR-VEHICLES. WILLIAM C. PRICE, Chicago, Ill., assignor, by mesne assignments, to F. P. Motor Wagon Company, a Corporation of South Dakota. Filed Oct. 9, 1907, Serial No. 396,679. Renewed Mar. 8, 1913. Serial No. 753,078. (Cl. 74—26.)



1. A transmission gearing for motor vehicles and the like, comprising a frame, a driving shaft, an adjustable driven shaft, coacting members on said shafts for driving the driven shaft in one direction, coacting friction members on said shafts for reversing the driven shaft, yokes rigidly secured to the frame, an adjusting shaft journaled therein, bearing blocks slidable in said yokes and supporting the driven shaft, and eccentrics secured to the adjusting shaft adapted to adjust the blocks in the yokes.

2. A transmission gearing for motor vehicles and the like, comprising a frame, parallel drive and driven shafts, pulleys thereon, a belt trained around a corresponding pair of pulleys, coacting friction members on said shafts, an eccentric mechanism for vertically adjusting one of said shafts in a right line, and a foot operated member for shifting said belt.

3. A transmission gearing for motor vehicles and the like, comprising a frame, a driving shaft, a transmission shaft, vertically adjustable bearings for said transmission shaft, eccentric means for simultaneously adjusting the bearings and the transmission shaft in a right line vertically relatively to the driving shaft, a driving friction connection between said shafts for movement in one direction, and friction members on said shafts adapted to contact for reverse movement.

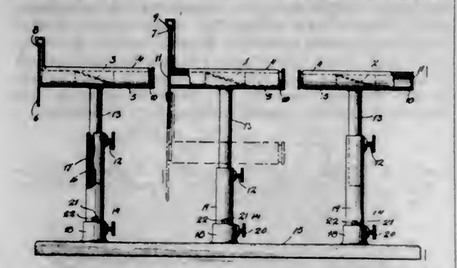
4. A transmisison gearing for motor vehicles and the like, comprising a frame, a driving shaft, a transmission shaft, pulleys on said shafts, a belt trained around said pulleys, reversing mechanism on said shafts, yokes rigidly secured to said frame, an adjusting shaft journaled in said yokes, bearing blocks slidable in said yokes and supporting the transmission shaft, eccentrics secured to said adjusting shaft and adapted to adjust said blocks in said yokes, and a lever pivoted to the frame for operating said adjusting shaft to shift the transmission shaft vertically to thereby control the belt and reversing mechanism.

1,072,166. PHOTOMETRIC DEVICE. IRWIN G. PRIEST, Washington, D. C. Filed June 20, 1913. Serial No. 774,038. (Dedicated to the public.) (Cl. 88—14.)

1. In a device of the character described, the combination of three Nicol prisms, the outer members of which are relatively stationary and the inner member of which is rotatable.

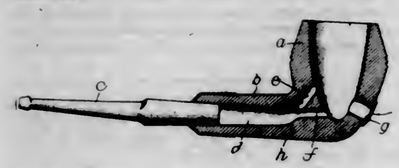
2. In a device of the character described, the combination of three Nicol prisms, the outer members of which are provided with means for indicating and adjusting the angular relation of their principal planes and the inner member of which is rotatable.

3. In a device of the character described, the combination of three Nicol prisms, the outer members of which are provided with means for securing them in any desired angular relation with respect to their principal planes and the inner member of which is rotatable and



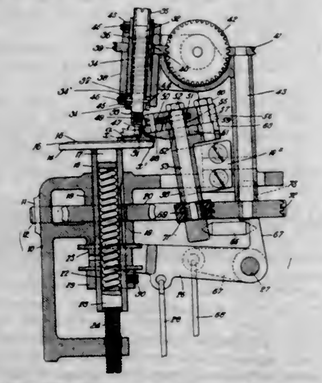
means for indicating the angular relation of the principal plane thereof with respect to one of the outer prisms.

1,072,167. TOBACCO-PIPE. GEORGE C. RICKLY, Ottawa, Ill. Filed Aug. 3, 1909. Serial No. 510,976. (Cl. 131—12.)



A pipe consisting of a bowl and stem having two simultaneously open passages leading from the bowl to the stem, the lower passage opening near the bottom of the bowl and the upper one near the center, the cross-sectional area of the passages being small enough to prevent the tobacco from being drawn thereinto, while the combined area large enough to give an ample draft, a valve-opening in the bowl at substantially the bottom thereof to permit some cool air to be drawn therethrough and mixed with the hot gaseous products of combustion, and a mouthpiece terminating short of the openings of the two passages into the stem, substantially as and for the purpose described.

1,072,168. MACHINE FOR PREPARING INSOLES. GEORGE E. ROLLINS, Brockton, Mass. Filed Mar. 8, 1913. Serial No. 752,816. (Cl. 12—20.)



1. In a machine for preparing reinforced insoles, means for bending the lip and feather of the insole away from each other to free the reinforcing material from the feather for the greater portion of the width of said feather, and means for drawing inwardly the marginal portion of the reinforcing material and forcing it into the angle of the lip and feather.

2. In a machine for preparing reinforcing insoles, means for bending the lip of the insole away from the feather to free the reinforcing material from the feather for the greater portion of the width of said feather, and means for tucking the freed material into the angle of the lip and feather.

3. In a machine for preparing reinforced insoles, means for bending the lip of the sole inwardly and for pinching the same to hold the reinforcing material securely to the lip, and means for tucking the reinforcing material inwardly into the angle of the lip and feather.

4. In a machine for preparing reinforced insoles, means for bending the lip of the sole inwardly and for pinching the same to hold the reinforcing material securely to the lip, and means for tucking the reinforcing material inwardly into the angle of the lip and feather and for pressing the reinforcing material against the flat part of the feather.

5. In a machine for preparing reinforced insoles, means for pinching the lip of the insole continuously to keep the reinforcing material in fixed relation to the lip, said means being adapted to bend the lip inwardly to pull the reinforcing material away from the feather for the greater portion of the width of said feather, and means movable toward and from the lip for tucking the reinforcing material into the angle of the lip and feather.

[Claims 6 and 7 not printed in the Gazette.]

1,072,169. PLOW. NEWELL SANDERS, Chattanooga, Tenn. Filed June 4, 1913. Serial No. 771,753. (Cl. 97—68.)



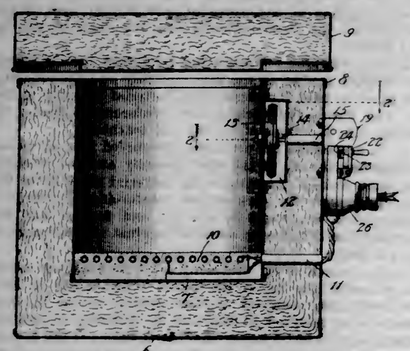
In a gang plow of the class described, a main frame member, one or more beams having two bends or angles bolted thereto, and a rear beam having an extended part lapped upon and bolted to said frame member and formed with a single bend.

1,072,170. ELECTRIC COOKING DEVICE. CHARLES E. SARGENT, Chicago, Ill. Filed May 20, 1911. Serial No. 628,442. (Cl. 219—35.)

1. In combination, insulating walls inclosing a cooking chamber, an electrical-heating element within the cooking chamber, a recess in one of the walls of the chamber, a hollow gas-containing box in said recess and exposed to the heat within the chamber and insulated from the atmosphere, an electrical-switch and connections between one wall of the box and a switch for opening the same.

2. In combination, insulating walls inclosing a cooking chamber, an electrical-heating element for supplying heat to the chamber, an electrical-switch device controlling the

flow of current through said heating element, a hollow gas-containing box having one wall fixed in position in a recess in one of the chamber-walls and exposed to the heat within the chamber and insulated from the atmosphere and connections between another wall of the hollow gas-containing box and the electrical-switch device.



3. In combination, insulating walls inclosing a cooking chamber, an electrical-heating element for supplying heat to the chamber, an electrical-switch device for controlling the flow of current through said heating element, a hollow gas-containing box having one wall fixed in position in a recess in one of the chamber-walls and exposed to the heat within the chamber and insulated from the atmosphere, and adjustable connections between another wall of the hollow gas-containing box and the electrical-switch device.

4. In combination, insulating walls inclosing a cooking chamber, an electrical-heating element for supplying heat to the chamber, a hollow gas-containing box supported in a recess in one of the walls and having a thrust-rod extending from one of its walls without the chamber, an electrical-switch device, a latch for holding this switch device normally closed, and connections between the thrust rod and the latch.

5. In combination, insulating walls inclosing a cooking chamber, an electrical-heating element for supplying heat to the chamber, a hollow gas-containing box supported in a recess in one of the walls and having a thrust-rod extending from one of its walls without the chamber, an electrical switch device, a latch for holding the switch-device normally closed, and adjustable connections between the thrust-rod and the latch.

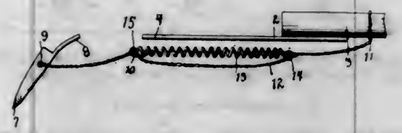
[Claim 6 not printed in the Gazette.]

1,072,171. STRAINER FOR COFFEE-POTS. EMIL SCHALK, Chicago, Ill. Filed Oct. 17, 1912. Serial No. 726,285. (Cl. 53—3.)



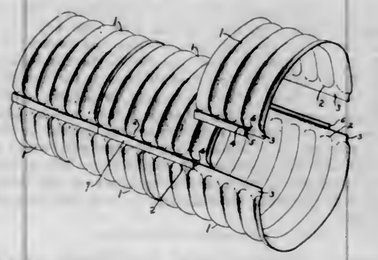
The combination with a coffee pot or the like having discharge openings in the lateral wall thereof, of a strainer arranged upon the inner side of said pot over said openings, said strainer comprising a foraminated body having a rigid edging shaped to correspond with the curvature of the lateral wall of the pot, a member having its opposite ends secured to said edging, the central portion of said body being buckled outwardly by said member to constitute a grip; and a pair of spring arms detachably secured to and projecting from said body releasably engaging one of said discharge openings for removably securing said strainer in operative position, substantially as described.

1,072,172. FISH-SPEAR. CHARLES E. SCHELL, Knights Ferry, Cal. Filed Mar. 15, 1913. Serial No. 754,429. (Cl. 43—6.)



In an implement of the class described, the combination with a pole, of a member rigidly connected therewith, a spear head detachably connected with said member, a flexible connection between the spear head and the pole, and a resilient member for taking up slack in the flexible connection.

1,072,173. CULVERT. JULIUS H. SCHLAFLY, Canton, Ohio, assignor to The Canton Culvert Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 29, 1908. Serial No. 455,243. (Cl. 61—9.)



1. The combination of two complementary culvert sections provided with plain edges and circumferential corrugations, one edge of each section folded upon itself, producing a longitudinal groove, and adapted to engage the plain edge of the complementary section.

2. A culvert composed of sections, all of which are alike, each section having a plain seam edge and circumferential corrugations extending between said edges.

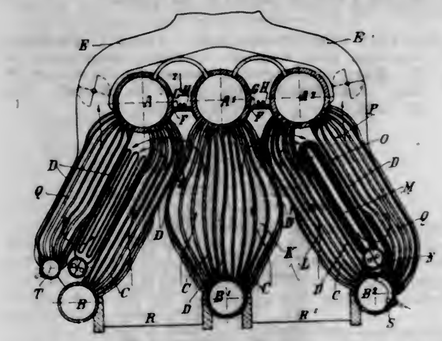
3. A culvert composed of sections all of which are alike, each section provided with circumferential corrugations, integral plain edges beyond the termination of said corrugations, one plain edge of each section provided with a longitudinal slot and the other plain edge adapted to enter a similar slot of the complementary section.

4. In a culvert of the class described, the combination of sections having plain edges, integral corrugated portions between said edges, and one of said edges of each section provided with a longitudinal groove adapted to engage the ungrooved plain edge of another section.

5. A culvert consisting of a series of sections, said sections provided with plain edges and with circumferential corrugations formed of a length less than the width of the sections, an integral grooved portion provided on one of the plain edges of each section and the said grooved portion terminating at a point short of one of the ends of said section, whereby the longitudinally adjacent sections may overlap each other at their ends.

[Claims 6 to 15 not printed in the Gazette.]

1,072,174. WATER-TUBE BOILER. WILHELM SCHMIDT, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf Gesellschaft mit beschränkter Haftung, Cassel, Germany, a Corporation of Germany. Filed Apr. 12, 1911. Serial No. 620,540. (Cl. 122—466.)



1. In a water tube boiler provided with upper and lower drums, and a plurality of heating flues extending in opposite directions arranged in series transversely to the length of the drums the flue nearest the grate being divided into two parallel flues, water tubes substantially all arranged in said parallel flues and a superheater and feed water heater in following flues, as and for the purpose described.

2. In a water tube boiler provided with upper and lower drums, and a plurality of heating flues extending in opposite directions arranged in series transversely to the length of the drums the flue nearest the grate being divided into two parallel flues opening into a single adjacent flue, water tubes substantially all arranged in said parallel flues, a superheater in the adjacent flue and a feed water heater in the following flue, as and for the purpose described.

3. In a water tube boiler provided with upper drums, a lower drum each side of the grate, and a plurality of heating flues extending in opposite directions arranged in series transversely to the length of the drums the flue nearest the grate being divided into two parallel flues, water tubes starting from said lower drum and substantially all arranged in said parallel flues, and a superheater and feed water heater in following flues, as and for the purpose described.

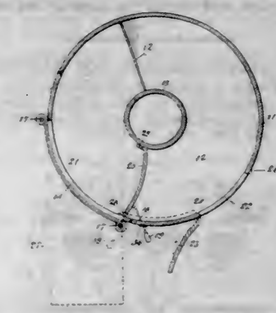
4. In a water tube boiler provided with upper and lower drums and a plurality of heating flues extending in opposite directions arranged in series transversely to the length of the drums the flue nearest the grate being divided into two parallel flues, water tubes arranged in said parallel flues, a regulator at the outlet of said parallel flue for the admission of cold air to the heating gases, and a superheater and a feed water heater in the following flue, as and for the purpose described.

5. In a water tube boiler provided with upper and lower drums and a plurality of heating flues extending in opposite directions arranged in series transversely to the length of the drums, the flue nearest the grate being divided into two parallel flues, water tubes arranged in said parallel flues, a superheater in the adjacent flue, a feed water heater in a following flue and a damper in the superheater flue, said damper serving to divide gases going to said following flue between said superheater flue and an intermediate flue in any desired proportion, as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

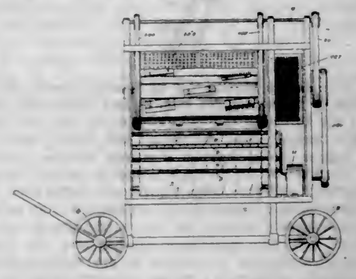
1,072,175. DEFLECTOR FOR GRAVITY-CONVEYERS. MARTIN C. SCHWAB, Chicago, Ill., assignor to Gravity Conveyor Company, a Corporation of New York. Filed July 28, 1909. Serial No. 510,059. (Cl. 57—37.)

In a gravity conveyer, the combination with a member having a conveying surface, of a casing therefor provided with a discharge opening, a door for said opening, a deflector plate hinged within the casing, means for moving



said plate into and out of operative position, and means for locking it in operative position.

1,072,176. MACHINE FOR HULLING PEAS, BEANS, AND THE LIKE. ROBERT P. SCOTT, Cadiz, Ohio. Filed May 14, 1913. Serial No. 767,556. (Cl. 130—30.)



1. In a vine hulling machine for hulling peas, beans and the like by impact, the combination of a revolving shaft, a beater provided with a series of fingers carried by the shaft and lifting ribs to elevate the peas, beans and the like and drop them into the path of the beater.

2. In a vine hulling machine for hulling peas, beans and the like by impact, the combination of a shaft, a springy beater carried thereby, said beater being provided with a series of fingers and rotary lifting ribs for elevating the peas, beans and the like and discharging them into the path of the beaters.

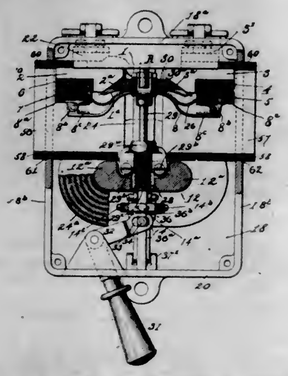
3. In a vine hulling machine for hulling peas, beans and the like by impact, the combination of a rotating cylinder having a perforated outer wall, means for hulling peas within said cylinder and means for directing a blast of air beneath said cylinder across the path of the shreds so as to divert the shreds descending through said cylinder.

4. In a vine hulling machine for hulling peas, beans and the like, the combination of a drum carrying one or more springy beaters, one or more of said beaters being provided with radially projecting fingers, a cylinder covered with perforated material for sifting the hulled products, elevating mechanism for raising the vines and dropping them into the path of the beaters and means for forcing a blast of air transversely of the path of the descending shreds which pass through the perforated cylinder.

5. In a pea and bean huller, the combination of hulling, sifting and separating devices, consisting of a drum carrying a plurality of springy beaters, each provided with radial fingers, a cylinder covered with perforated material, elevating ribs within the cylinder for elevating the products and dropping them into the path of the beaters, a separating apron arranged beneath the cylinder and a plurality of pipes extending across and above the said

apron and provided with passages so as to project blasts of air upwardly and substantially parallel to the upper flap of the apron and across the path of the descending shreds.

1,072,177. CIRCUIT-BREAKER FOR ELECTRIC CIRCUITS. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 25, 1904. Serial No. 195,206. (Cl. 175—270.)



1. In a circuit breaker for an electric circuit, the combination of the switch for opening and closing the circuit, means for throwing the switch so as to open the circuit, the anti-friction roller carried by said switch, and a pivoted trigger device having a curved surface concentric with the pivot of the device arranged to engage with said anti-friction roller to hold the circuit closed and means for releasing said trigger device, substantially as set forth.

2. In a circuit breaker for an electric circuit, the combination with the stationary brushes and the movable brushes of means for controlling the operation of the movable brushes, comprising a spring actuated rod having anti-friction rollers carried thereby and arranged on opposite sides thereof, and a trigger device adapted to engage with said rollers to hold the said brushes in contact with each other, substantially as set forth.

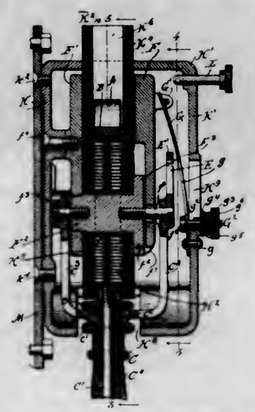
3. In a circuit breaker for an electric circuit, the combination with the stationary contacts through which the circuit is closed, of a rectilineally movable rod for controlling the movements of the movable contacts, a spring associated with said rod and adapted to exert pressure thereupon, tending to cause it to open the circuit, anti-friction rollers carried by said rod on opposite sides thereof, a trigger device having arms adapted to engage said rollers to hold the circuit through the mechanism closed, means for projecting said trigger arms into the path of travel of the said rollers and means for releasing said trigger device, substantially as set forth.

4. In a circuit breaker for electrical circuits, two contacts, means for holding said contacts in engagement with each other, an electromagnet having a stationary core, an armature arranged to form a pole piece for the magnet at one side of the contacts and arranged to swing away from the said stationary core to open or completely close an air gap between the core and the armature, the said armature being adapted to release said holding means for the contacts, substantially as set forth.

5. In a circuit breaker for an electric circuit, the combination of a switch, means for automatically opening said switch, locking devices attached to said switch, a trigger adapted to engage said locking devices and hold the switch in its closed position, said trigger being adapted to move to permit the movement of the switch from its open to its closed position, an electro-magnet, a movable armature for said magnet, a retarding device connected to said armature and adapted to prevent its rapid movement, and connections between the armature and the trigger whereby movement of the armature toward the magnet will release the trigger, said connections being adapted to permit movement of the trigger independently of the armature, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,072,178. CIRCUIT-BREAKER. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 9, 1905. Serial No. 282,047. (Cl. 175—268.)



1. In a circuit breaker, the combination of the supporting device, the magnet pole piece secured to the supporting device, the magnet core, the movable pole piece supported on the core, the insulating chamber between the pole pieces, the magnet coil in the insulating chamber, the terminal brushes in the insulating chamber, and the rotary switch segment, substantially as set forth.

2. In a circuit breaker, the combination of the magnet pole piece, the stationary support therefor, the magnet core, the movable pole piece for the magnet, the terminal brushes, the rotary switch segment between the brushes, and the rocking support for the said switch segment pivoted to the ends of the magnet core, substantially as set forth.

3. In a circuit breaker, the combination of the magnet pole piece, the stationary support therefor, the magnet core, the movable pole piece, the terminal brushes between the pole pieces, the rotary switch segment engaging with the brushes, and the yoke-like carrier for the switch segment, the legs of said yoke being pivotally supported on the longitudinal lines of the magnet core, substantially as set forth.

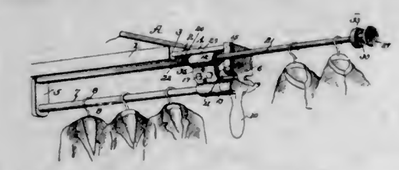
4. In a circuit breaker, the combination of stationary terminal brushes of an electric circuit, an oscillatory switch piece between said brushes, a magnet core having its axis parallel to the axis of oscillation of the switch piece, opposite magnet pole pieces arranged adjacent to and on opposite sides of the said brushes, whereby the lines of magnetic force passing between the pole pieces will operate to blow out an arc that may form between the brushes, one of the said pole pieces being movable toward or from the other, means for providing an electric circuit around the core, means for breaking such circuit, and a lock for circuit breaking means arranged to be released by the said movable pole piece, substantially as set forth.

5. In a circuit breaker, the combination of terminal brushes, a rotatable switch segment arranged to make connection between the brushes and a stationary magnet for blowing out the arcs between the brushes, the said magnet having two pole pieces, a stationary core and a coil surrounding the core, the said core, coil, switch segment and the contact faces of the brushes being arranged

in concentric relation to each other and being situated in the same transverse plane, substantially as set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,072,179. GARMENT-HANGER. JOHN A. SHEA, Wilkes-Barre, Pa. Filed July 10, 1912. Serial No. 708,716. (Cl. 211—15.)

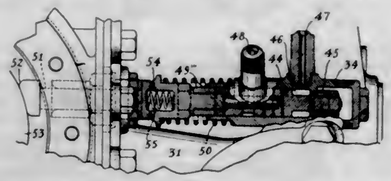


1. In a device of the class described, the combination with a slidable support including a relatively fixed hanger rod, of a bracket including a sleeve portion clamped to the said rod, means for holding the sleeve portion against turning upon the rod, and an auxiliary hanger rod slidably mounted upon the bracket.

2. In a device of the class described, the combination with a slidable support including a relatively fixed hanger rod, of a bracket including a sleeve portion clamped to the said rod, means for holding the sleeve portion against turning upon the rod, and an auxiliary hanger rod slidably mounted upon the bracket, the auxiliary rod being offset with relation to the first mentioned hanger rod.

3. In a device of the class described, the combination with a support including a relatively fixed hanger rod, of a bracket fixed to the support upon the rod and including assembled sections, each consisting of a curved plate having a sleeve portion at each of its ends, the sections being assembled with the sleeve portions matching, means securing the sections in assembled relation with the sleeve sections at one end of each plate embracing the said hanger rod, the said plates extending upwardly and outwardly from the hanger rod, and an auxiliary hanger rod slidably mounted between the other sleeve sections.

1,072,180. HEAT-ENGINE. HAROLD W. SHONNARD, East Orange, N. J. Original application filed Sept. 28, 1911, Serial No. 651,882. Divided and this application filed Feb. 5, 1912. Serial No. 675,685. (Cl. 121—115.)



1. A heat engine having a suitable packed automatic valve and external means for supplying oil under pressure to the packing of said valve, substantially as described.

2. A heat engine having an admission valve for supplying fluid thereto, a packing on said valve, external means for supplying oil to said packing and means for supplying air pressure to said oil, substantially as described.
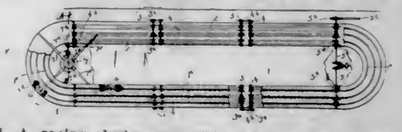
3. In a heat engine, a valve chamber and valve seat, a valve stem carrying a head and two separated packings, means for supplying fluid under pressure to the space between said head and the nearer packing, and means for supplying oil under pressure to the space between said packings, substantially as described.

4. In a heat engine, a valve chamber and a valve seat, a valve stem carrying a head and two separated packings having each a greater area than that exposed by the valve head when on its seat, means for supplying fluid under pressure to the space between said head and the nearer packing, and means for supplying oil under pressure to the space between said packings, substantially as described.

5. In a heat engine, a valve chamber and valve seat, a valve stem carrying a head and two separated packings, the nearer packing having an area superior to that exposed by the head when on its seat, and the farther packing having a still greater area, means for supplying fluid under pressure to the space between said head and the nearer packing, and means for supplying oil under pressure to the space between said packings, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,072,181. AMUSEMENT RACING DEVICE. REYNOLD SHUYLER, San Diego, Cal. Filed Feb. 3, 1913. Serial No. 745,771. (Cl. 104—111.)



1. A racing device comprising a plurality of tracks side by side, a plurality of various speed moving cables mounted below each of said tracks, a plurality of racing apparatuses adapted to be readily attached to and detached from any of said cables, and means in connection with and operated from any one of said racing apparatuses for attaching and detaching the same.

2. In a racing device, the combination of a loop shaped platform provided with a plurality of grooves therein, a plurality of variable speed cables mounted beneath each of said grooves, a racing device adapted to run on said platform over each of said grooves, a means in connection with said racing device adapted to facilitate its engagement with any one of said cables beneath said groove and means for operating said cables.

3. In a racing device, the combination of a loop shaped platform provided with a plurality of grooves therein, a plurality of variable speed cables mounted beneath each of said grooves, a racing device adapted to run on said platform over each of said grooves, a means in connection with said racing device adapted to facilitate its engagement with any one of said cables beneath said groove, means for operating said cables and a sweep means adapted to engage with said racing devices for moving said racing devices around the end of said loop.

4. In a racing device, the combination of a loop shaped platform provided with a plurality of grooves therein, a plurality of variable speed cables mounted beneath each of said grooves, a racing device adapted to run on said platform over each of said grooves, a means in connection with said racing device adapted to facilitate its engagement with any one of said cables beneath said grooves, means for revolving said cables, a sweep means adapted to engage with said racing devices for moving said racing devices around the end of said loop, and means for operating said sweep means in connection with said cables.

5. In a racing device the combination of a platform provided with a plurality of grooves therein, a plurality of shafts mounted beneath said platform, a plurality of sets of various sized sheaves mounted beneath each of said grooves on said shafts, cables mounted longitudinally along said platform on each alined set of sheaves and a racing device for each of said grooves adapted to be guided by said groove and means for facilitating its engagement with any one of said cables beneath said groove.

[Claims 6 to 10 not printed in the Gazette.]

1,072,182. BURIAL-CASKET. PETER C. SIMMONS, Forest Lake, Minn. Filed Dec. 23, 1912. Serial No. 738,397. (Cl. 27—13.)

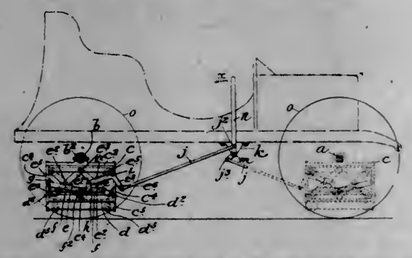
1. In combination with a burial casket, a flexible auxiliary bottom secured at one end to the bottom of the casket, and at the other end to a revoluble roller, and means for actuating said roller to properly adjust the auxiliary bottom.

2. In combination with a burial casket, a flexible auxiliary bottom secured at one end to the bottom of the



casket, a revoluble roller secured to the other end of the auxiliary bottom, a worm gear for actuating said roller for adjusting the auxiliary bottom.

1,072,183. JACK APPARATUS FOR VEHICLES. MONTAGUE SIMPSON, New York, N. Y. Filed June 19, 1912. Serial No. 704,480. (Cl. 57—15.)



1. In a jack device of the class described, a rectangular main frame composed of top, bottom and side members, a vertically movable horizontal bar mounted in the bottom portion of said frame and provided with suspended rollers, toggle lever devices mounted between the top member of the main frame and said bar and having rollers operating in connection therewith, and means for operating said toggle lever devices so as to depress the rollers suspended by said bar below the main frame and lock the same in a depressed position.

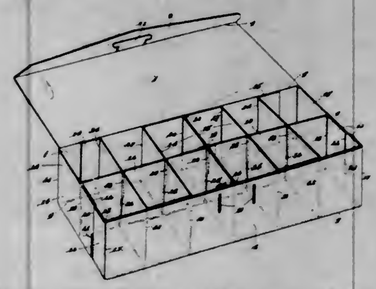
2. In a jack device of the class described, a rectangular frame composed of top, bottom, and side members, the top member being provided in the bottom thereof with a longitudinal groove, and the bottom member being composed of two parallel parts, and the side members being provided with vertical slots, a vertically movable horizontal bar mounted in said frame and the ends of which operate in said slots, said bar being provided in the top thereof with a groove and at the bottom thereof with suspended rollers, toggle lever devices mounted between the top member of the main frame and said bar and provided with rollers movable in the grooves in said member and bar, said toggle lever devices being pivotally connected, and means for operating said toggle lever devices to depress said bar, and the rollers connected therewith below the main frame.

1,072,184. STORM-WINDOW FOR LOCOMOTIVE-CABS. WILLIAM SLAUGHTER, Marinette, Wis. Filed Jan. 29, 1912. Serial No. 674,083. (Cl. 20—40.5.)



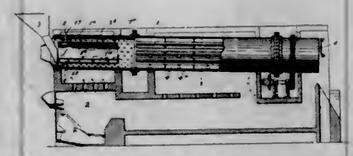
A storm window for locomotives, comprising a casing, said casing including top, bottom and side sections, said bottom section provided with a depending rib engaging a groove within the window frame of the cab, said top inclined to thereby allow said casing to be rotated about said rib to thereby allow said casing to be placed within and removed from the said cab window frame.

1,072,185. EGG-CARTON. CASSIUS C. SMILEY, Indianapolis, Ind. Filed Jan. 24, 1913. Serial No. 743,924. (Cl. 229—29.)



An egg carton comprising a single sheet of flexible material bent and forming the lid, bottom, front side and rear side of the carton; a projection on each end of said rear side, each projection forming an end of the carton, extending on the inside of said front side from one end to the center thereof, extending laterally across the carton to the rear side, secured to said rear side for the width of one egg compartment, extending laterally across the carton to the portion of said projection on the inside of said front side, secured to said portion of said projection for the width of an egg compartment, extending across said carton to the rear side thereof and having its end portion secured thereto; and projections on the ends of said front side, said projections extending across the carton approximate the ends thereof to its central portion and extending longitudinally of the carton with their ends overlapping, all of said projections being provided with slits and interlocked at each intersection thereof, substantially as described.

1,072,186. ROTARY DRIER. CECIL BASS SMITH, Cleveland, Ohio. Filed Oct. 28, 1912. Serial No. 728,208. (Cl. 34—6.)



1. In a rotary drier, an auxiliary cylinder located within the main cylinder near the feed end thereof, an annular air chamber surrounding the auxiliary cylinder, said air chamber being closed at the feed end and open at the opposite end and air connection from the exterior of the main cylinder to the air chamber.

2. In a rotary drier an auxiliary cylinder located within the main cylinder near the feed end thereof and concentric thereto, in combination with a cylindrical casing surrounding said auxiliary cylinder, an annular air chamber between said cylindrical casing and the auxiliary cylinder, said air chamber being closed at the feed end and open at the opposite end, and air connections from the exterior of the main cylinder to the annular air chamber.

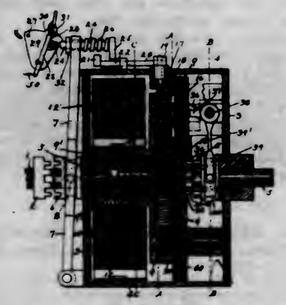
3. In a rotary drier, that portion of the feed end of the cylinder extending over the fire zone of the furnace, provided with a perforated lining, in combination with an auxiliary cylinder located within the lined portion of the main cylinder, and concentric thereto, a cylindrical casing surrounding the auxiliary cylinder, an annular air chamber between said cylindrical casing and the auxiliary cylinder, said air chamber being closed at the feed end and open at the opposite end, and air connections from the exterior of the main cylinder to the annular air chamber, whereby heated air from the furnace circulates through the auxiliary cylinder.

4. In a rotary drier, in combination with the main cylinder, an auxiliary cylinder located within the main cylinder, concentric thereto and at the feed end thereof, over the fire zone of the furnace, a hopper adapted to feed material to both the main and auxiliary cylinders, an annular air chamber surrounding the auxiliary cylinder, said air chamber being closed at the feed end and open at the opposite end, and air connections from the exterior of the main cylinder to the annular air chamber near the feed end thereof, whereby heated air from the furnace circulates through the said air chamber and the auxiliary cylinder.

5. In a rotary drier, a cylinder having a plurality of longitudinal shelves or blades therein, air chambers in the body of said blades, openings from said air chambers through the cylinder shell to the exterior thereof, and openings from the air chambers to the interior of the cylinder.

[Claims 6 to 10 not printed in the Gazette.]

1,072,187. AUTOMATIC STARTING DEVICE FOR MOTORS. JOSEPH P. SMITHERS, Brooklyn, N. Y.; Herbert Smithers and Walter Smithers, executors of said Joseph P. Smithers, deceased. Filed July 8, 1908. Serial No. 442,515. (Cl. 123—187.)

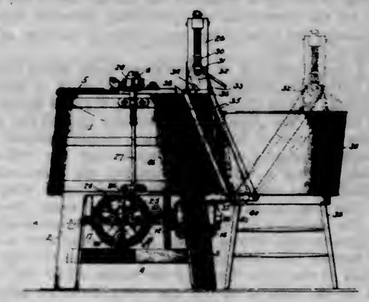


In an automatic starting device for motors, the combination of a shaft, a gear-wheel loosely mounted on said shaft, a spring normally held under tension, adapted to rotate said gear-wheel, means adapted to couple said gear wheel to said shaft when said spring is released and means actuated by the unwinding of said spring to automatically couple said gear-wheel to said shaft to cause said gear-wheel to rotate in the reverse direction to wind said spring to start said shaft.

1,072,188. GEARING MECHANISM. HOWARD F. SNYDER, Newton, Iowa, assignor to The Maytag Company, a Corporation of Iowa. Filed July 5, 1912. Serial No. 707,747. (Cl. 74—59.)

1. In a gear mechanism, the combination of a pair of roller shafts, bearing members for said shafts, supporting means to which said bearing members are pivoted, driving means mounted in said supporting means, and driving connections from said driving means to said shafts, said bearing members being movable outward equally to a new position while maintaining the driving connection to said roller shafts.

2. In a gear mechanism, the combination of a pair of roller shafts suitably geared together, bearing members for said shafts, a drive shaft, a driving connection from said drive shaft to one of said roller shafts, a support for said bearing members, and swinging arms carrying said bearing support and movable with a parallel motion to shift the position of said roller shafts while the driving connection thereto is maintained.



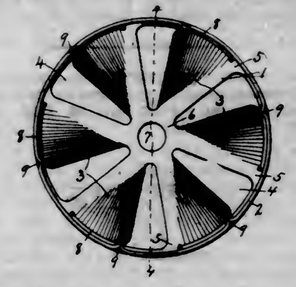
3. In a gearing mechanism, the combination of a reversible shaft, a pair of roller shafts having driving connection therewith, and supporting means for said roller shafts, said supporting means being movable with a parallel motion to shift the position of the roller shafts with respect to said reversible shaft while the driving connection therewith is maintained.

4. In a gearing mechanism, the combination of a pair of bracket supports, a counter shaft carried thereby, a sprocket on said shaft, a driving chain movable by said sprocket, a pair of roller shafts horizontally arranged and driven by said chain, and parallel links pivoted to said brackets and operatively connected to move said roller shafts outward with a parallel motion to a new position while the driving connection through said chain is maintained.

5. In a gearing mechanism, the combination of a shaft, a motor for driving said shaft, reversing mechanism interposed between said motor and said shaft to reverse the direction of rotation thereof when desired, a pair of horizontal roller shafts, and a driving connection between said roller shafts and said first named shaft, said roller shafts being movable to swing to a new operative position parallel to their initial position.

[Claims 6 to 8 not printed in the Gazette.]

1,072,189. ROTARY FAN. WILLIAM SPARKS, Jackson, Mich., assignor to The Sparks-Withington Company, Jackson, Mich., a Corporation of Michigan. Filed Oct. 17, 1911. Serial No. 655,137. (Cl. 170—168.)



1. A fan consisting of a one-piece sheet metal circular plate having its marginal edge bent laterally at substantially right angles thereto for forming a guard flange, the main body of the plate having portions thereof cut away to form a series of blades and intervening openings, the openings being of less radial length than the radius of the fan, leaving a central web uniting the inner ends of the blades, the outer ends of the blades being separated from the rim by slits extending in the same direction from

the openings at one edge to a point in proximity to the opposite edge of the blades, leaving relatively narrow webs uniting the outer ends of the blades to the rim, the portions of the outer edges of the blades which are separated by the slits from the rim being deflected laterally and means for connecting the deflected portion of the blades to the rim.

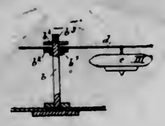
2. A fan consisting of a one-piece sheet metal circular plate having its marginal edge bent laterally at substantially right angles thereto for forming a guard flange, the main body of the plate having portions thereof cut away to form a series of blades and intervening openings, the openings being of less radial length than the radius of the fan, leaving a central web uniting the inner ends of the blades, the outer ends of the blades being separated from the rim by slits extending in the same direction from the openings at one edge to a point in proximity to the opposite edge of the blades, leaving relatively narrow webs uniting the outer ends of the blades to the rim, the portions of the outer edges of the blades which are separated by the slits from the rim being deflected laterally to points in close proximity to the opposite edge of the rim, said rim having portions thereof depressed inwardly against the points of the blades.

3. A fan comprising a sheet metal plate and a laterally extending rim therefor, a series of radially extending blades formed from said plate and a portion of each blade attached to the rim, the portion of each blade unattached to the rim being deflected laterally, and means for connecting the deflected portion of said blade to the adjacent portion of the rim.

4. A fan consisting of a one-piece, sheet metal circular plate having its marginal edge bent laterally at substantially right angles thereto for forming a guard flange, the main body of the plate cut to form a series of blades of less radial length than the radius of the fan, leaving a central web, portions of the outer ends of the blades being separated from the rim by slits of less length than the width of the blade, leaving a relatively narrow web uniting the outer ends of the blades to the rim, the portion of the blades separated from the rim by slits being deflected laterally, and means for connecting the deflected portions of the blades to the rim.

5. A fan consisting of a one-piece, sheet metal circular plate having its marginal edge bent laterally at substantially right angles thereto for forming a guard flange, the main body of the plate cut to form a series of blades of less radial length than the radius of the fan, leaving a central web, portions of the outer ends of the blades being separated from the rim by slits of less length than the width of the blade, leaving a relatively narrow web uniting the outer ends of the blades to the rim, the portion of the blades separated from the rim by slits being deflected laterally, and means in connection with the rim for supporting the deflected portions of the blades.

1,072,190. GAME APPLIANCE. JOHANNES STEIN, Dresden, Germany, assignor to Hermann Roch, Blasewitz-Dresden, Germany. Filed Nov. 16, 1910. Serial No. 592,700. (Cl. 46—63.)

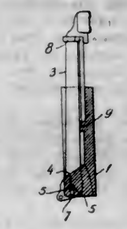


1. In combination, a map, flexible filamentous members supported above the same in lines representing routes on the map, and miniature aerial conveyances suspended from the said members.

2. In combination, a map, uprights mounted on the same, flexible filamentous members secured to the uprights and running in lines representing routes on the map, and slidable miniature aerial conveyances pendent from the said members.

3. In combination, a map, uprights mounted on the same, wires detachably secured to the uprights and running in deviating lines representing routes on the map, and slidable miniature aerial conveyances suspended from the wires.

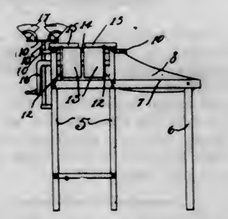
1,072,191. TYPE-WRITING MACHINE. PHILIP STERN, Hartford, Conn., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 26, 1909. Serial No. 514,673. (Cl. 197—38.)



1. An integral type bar segment having a radial web and a thickened rim formed with radial slots for type bar bearings, a segmental seat extending through the slotted part and a slot of less width than said seat extending therefrom to the exterior of the rim, a single pivot rod disposed in said seat and extending across all the slots and, therefore, locked positively against lateral strains in all directions and type bars occupying the slots and turning about said rod.

2. An integral type bar segment having a rim enlarged in a forward direction and formed with radial slots open on three sides but closed at the back, a segmental pivot rod seat extending through the slotted part of said rim and a segmental slot of less diameter than the seat extending therefrom to the exterior of the rim, a single pivot rod disposed in said seat across the slots and, therefore, locked positively against lateral strains in all directions and type bars pivoted in the slots on said rod.

1,072,192. FRUIT-GRADER. JOHN WESLEY SYLER, Hillyard, Wash. Filed Sept. 7, 1912. Serial No. 719,106. (Cl. 130—32.)



1. In a fruit grader, a support, adjustable grader plates on said support and a divided longitudinally movable conveyer movable over the plates.

2. In a grader the combination with a stand, a divided top carried by said stand, pulleys mounted beneath said divided top and at each end thereof, a conveyer carried by said pulley, said conveyer passing over said divided top and adapted to carry fruit thereon, said conveyer being divided centrally throughout its length, said division overlying the division in the divided top, means carried by the divided top for causing the fruit to take a central position upon the conveyer.

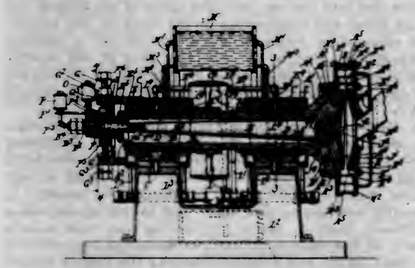
3. In a grader the combination with a stand, a divided top carried by said stand, pulleys mounted beneath said divided top and at each end thereof, a conveyer carried by said pulley, said conveyer passing over said divided top and adapted to carry fruit thereon, said conveyer being divided centrally throughout its length, said division overlying the division in the divided top, means carried by the divided top for causing the fruit to take a central position upon the conveyer, means located beneath said conveyer and upon said top for grading the fruit, said means consisting of two plates capable of movement to and from each other.

4. In a grader the combination with a stand, a frame, a flexible top carried by said frame, a divided top carried by said stand, pulleys mounted beneath said divided top and at each end thereof, said pulleys having one edge of their periphery grooved, a conveyer carried by said pulley, said conveyer passing over said divided top and adapted to carry fruit thereon, said conveyer being divided centrally throughout its length, said division overlying the division in the divided top, means carried by the divided top for causing the fruit to take a central position upon the conveyer, and means located beneath said conveyer and upon said top for grading the fruit, said means consisting of two plates capable of movement to and from each other.

5. A fruit grader comprising a support having graded openings, and a pair of bodily flexible parallel conveyers movable over the support with their adjacent edge portions disposed over the openings.

[Claim 6 not printed in the Gazette.]

1,072,193. CRUSHING-MACHINE. EDGAR B. SYMONS, Milwaukee, Wis. Filed Jan. 26, 1910. Serial No. 540,119. (Cl. 83—10.)



1. The combination of two shafts, one hollow and containing the other, with opposed crushing members mounted one on each shaft and rotating in the same direction, and a stop mounted on one shaft and bearing against the other for preventing the relative longitudinal motion of the shafts.

2. In a crushing machine the combination of two opposed crushing disk members with parts whereon they are mounted and whereby they are driven and an inclosing hood and a separate and removable ring therein and about the contiguous peripheries of the disks for the purpose of receiving the material discharged from between the disks.

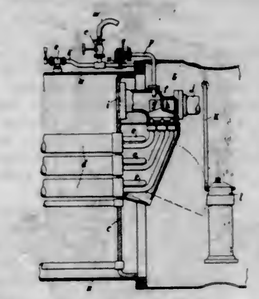
3. The combination of two shafts, one hollow and containing the other, with opposed crushing members mounted one on each shaft, and a stop for preventing the relative longitudinal motion of the shafts, said stop containing a flange on the inner shaft which overlies the end of the outer shaft.

4. The combination of two shafts, one hollow and containing the other, with opposed crushing members mounted one on each shaft, and a stop for preventing the relative longitudinal motion of the shafts, said stop containing a flange on the inner shaft which overlies the end of the outer shaft, their engaging surfaces lying in the surface of a sphere.

5. The combination of two shafts, one hollow and containing the other, with opposed crushing members mounted one on each shaft, the shafts connected near the crushing members by a ball and socket bearing, and a stop mounted on one shaft and bearing against the other for preventing the relative longitudinal motion of the shafts.

[Claims 6 to 17 not printed in the Gazette.]

1,072,194. APPARATUS FOR COOLING SUPERHEATER-PIPES. PETER THOMSEN, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf Gesellschaft m. b. H., Cassel-Wilhelmshöhe, Germany, a Corporation of Germany. Filed May 14, 1913. Serial No. 767,509. (Cl. 122—478.)



1. In a boiler provided with fire tubes, in combination, superheater tubes in some of said fire tubes adapted to have their steam supply cut off, a blower pipe connected with the boiler by a cock and provided with a nozzle, a branch pipe opening from the blower pipe between said cock and nozzle and joined to the saturated end of the superheater elements, and a check valve controlling said branch pipe.

2. In a boiler provided with fire tubes, in combination, superheater tubes in some of said fire tubes adapted to have their steam supply cut off, a blower pipe connected with the boiler by a cock and provided with a nozzle, a branch pipe opening from the blower pipe between said cock and nozzle and joined to the saturated end of the superheater elements, a check valve controlling said branch pipe, and a second branch connection from the blower pipe adapted to be joined to a pressure source other than the boiler.

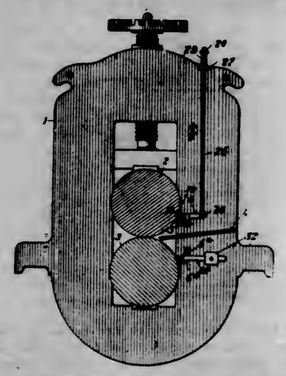
3. In a boiler provided with fire tubes, in combination, superheater tubes in some of said fire tubes adapted to have their steam supply cut off, a blower pipe connected with the boiler by a cock and provided with a nozzle, a branch pipe opening from the blower pipe between said cock and nozzle and joined to the saturated end of the superheater elements, air inlet passages in said branch pipe, and a check valve between said passages and the superheater elements for controlling the branch pipe.

1,072,195. ROLL-POLISHER. CORTEZ W. TOWNSEND, Canton, Ohio. Filed Aug. 31, 1912. Serial No. 718,025. (Cl. 80—1.)

1. For a rolling mill, means for polishing off the substance of a roll at the rolling surface thereof to uniformly counter-act the roughening abrasion of said surface produced by rolling, said means comprising, in combination with said roll, a flexible metallic polishing member adapted to flexibly conform to said surface and holding means engaging said polishing member and adapted to constantly hold said member in roll-substance-polishing contact with said surface during the operation of rolling.

2. For a rolling mill, means for polishing off the substance of a roll at the rolling surface thereof to uniformly counter-act the roughening abrasion of said surface produced by rolling, said means comprising a flexible metallic polishing member adapted to flexibly conform to said surface and to be constantly held in roll-substance-polishing contact with said surface during the operation of rolling.

3. For a rolling mill, means for polishing off the substance of a roll at the rolling surface thereof to uniformly counter-act the roughening abrasion of said surface produced by rolling, said means comprising a plurality of metallic members, each composed of a plurality of flexible sections, means for holding said members in roll-substance-polishing contact with the roll during the operation of rolling, and means for variously distributing and adjusting the pressure of said metallic members against said surface.



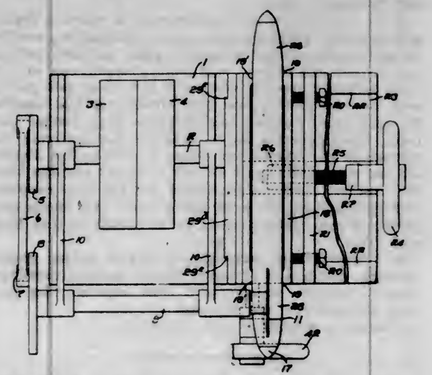
4. For a rolling mill, means for polishing off the substance of a roll at the rolling surface thereof to uniformly counter-act the roughening abrasion of said surface produced by rolling, said means comprising a flexible metallic polishing member, a polishing-member-holding means, pressure exerting means and adjusting means, said holding means connected to the housings of the mill, said polishing member held by said holding means, said pressure exerting means connected to said holding means and adapted to actuate the same to bring said polishing member into roll-substance-polishing contact with said surface, and said adjusting means connected to said holding means and adapted to engage and flex said polishing member to adjust and variously distribute the pressure of said member upon said surface.

5. For a rolling mill, means for polishing off the substance of a roll at the rolling surface thereof to uniformly counter-act the roughening abrasion of said surface produced by rolling, said means comprising brackets pivotally connected to the housings of the mill, a blade back connected to said brackets, a flexible metallic polishing blade adjustably connected to said blade back, means connected to said brackets for pivotally moving the same to throw said polishing blade into roll-substance-polishing contact with said surface and means connected to said blade back and engaging said blade for distributing the pressure of said blade back against said blade, whereby to variously adjust the polishing pressure of said blade against said surface throughout the length of said blade.

1,072,196. MECHANISM FOR FORMING THREAD-GUIDING SLOTS IN WEAVING-SHUTTLES. CHARLES B. WEBSTER, Fall River, Mass., assignor of one-half to James K. Lanning, Fall River, Mass. Filed Oct. 12, 1911. Serial No. 654,378. (Cl. 144—2.)

1. Mechanism for forming thread guiding slots in weaving shuttles comprising in combination, means for cutting a substantially straight, short, thread slot in one face of a shuttle, terminating short of both ends of the shuttle, and means for cutting a short, arcuate slot in a face of the shuttle at substantially right angles to the other face, of sufficient length to intersect said straight slot.

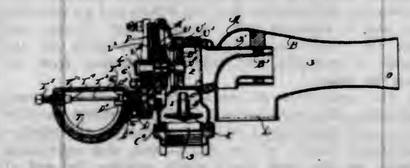
2. Mechanism for forming thread guiding slots in weaving shuttles comprising in combination, means to cut in one face of the shuttle an arcuate slot merging at one end into the cop receiving space of the shuttle and at its other end terminating in the stock of the shuttle, and means to cut a substantially straight slot in the adjoining face of the shuttle, said straight slot terminating at one end of the shuttle eye and at its opposite end intersecting the said arcuate slot.



3. Mechanism for forming thread guiding slots in weaving shuttles comprising in combination, oscillatory means to cut in one face of the shuttle an arcuate slot merging at one end into the cop receiving space of the shuttle and at its other end terminating in the stock of the shuttle, and cooperating reciprocating means to cut a substantially straight slot in the adjoining face of the shuttle, said straight slot terminating at one end at the shuttle eye and at its opposite end intersecting the said arcuate slot 3.

4. Mechanism for forming thread guiding slots in weaving shuttles comprising in combination, an oscillatory shaft, interchangeable cutters mounted thereon, one being a segmental disk cutter and the other being a segmental band cutter, means for holding a shuttle in operative relation to said shaft and to the cutters when positioned thereon, means for moving the held shuttle axially of the shaft to present the shuttle to the action of the band cutter, and means for moving the shuttle toward the shaft in a plane substantially normal thereto, to present the shuttle to the action of the disk cutter.

1,072,197. WATER-HEATER. BELVIN T. WILLISTON, Somerville, Mass., assignor to The United Injector Company, New York, N. Y., a Corporation of New York. Filed May 10, 1912. Serial No. 696,379. (Cl. 236—8.)



1. The combination in a water heater, of means adapted to impart the heat of steam to water in which such means is immersed, a reducing valve to control admission of steam to said means, comprising a relatively large piston valve and a relatively small disk valve, the latter seating over the steam-entrance to said means, a casing for said reducing valve, said casing being apertured at the rear of the reducing valve, a back pressure valve controlling said aperture, and a thermostat in control of the back pressure valve.

2. The combination in a water heater, of means adapted to impart the heat of steam to water in which such means is immersed, a reducing valve to control admission of steam to said means, comprising a relatively large piston valve and a relatively small disk valve, the latter seating over the steam-entrance to said means, a check valve between the said heating means and the source of steam supply, a casing for said reducing valve, said casing being apertured at the rear of the reducing valve, a back pressure valve controlling said aperture, and a thermostat in control of the back pressure valve.

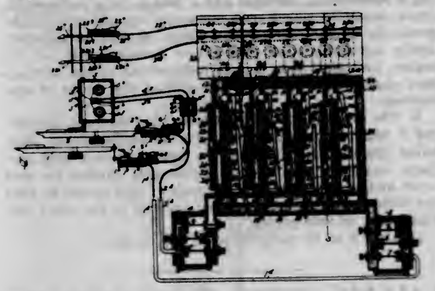
3. The combination in a water heater, of means adapted to impart the heat of steam to water in which said means is immersed, a reducing valve, to control admission of steam to said means, comprising a relatively large piston valve and a relatively small disk valve, said piston valve being provided with a small aperture, the disk valve seating over the steam entrance to said heating means, a casing for said reducing valve, apertured at the rear of said valve, a back pressure valve controlling said aperture in the casing, and a thermostat in control of the back pressure valve.

4. The combination in a water heater, of means adapted to impart the heat of steam to water in which such means is immersed, a reducing valve to control admission of steam to said means, comprising a relatively large piston valve and a relatively small disk valve, a check valve between said heating means and the source of steam supply, a casing for said reducing valve, said casing being apertured at the rear of the reducing valve, a back pressure valve controlling said aperture, and a thermostat to control the back pressure valve.

5. The combination in a water heater, of an ejector adapted to be immersed in liquid to be heated, said ejector comprising a casing which contains a steam chamber, a steam tube, a combining tube, a reducing valve in the steam chamber to control the steam tube entrance, comprising a relatively large piston valve and a relatively small disk valve, the latter seating over the steam tube, the casing being apertured at the rear of the reducing valve; a back pressure valve controlling said aperture, and a thermostat in control of the back pressure valve.

[Claims 6 to 8 not printed in the Gazette.]

1,072,198. MUSICAL INSTRUMENT. PHILIPP WIRSCHING, Salem, Ohio, assignor to The Wirsching Organ Company, Salem, Ohio, a Corporation of Ohio. Filed Apr. 6, 1910. Serial No. 553,775. (Cl. 84—246.)



1. In a musical instrument, the combination with a plurality of manuals, of a register of musical pipes, a pipe bar having a series of ducts therein, there being one duct for and communicating with each pipe of the register, a valve for each duct controlling the air communication to its respective pipe, a series of channels in said pipe bar, there being one of said channels for each manual, a pneumatic motor in each channel for each of the said valves, means connected with each of said motors for operating its respective valve, a stop box, and means controlling said box, whereby one or more of said channels may be vented to permit the motors therein to operate upon the depression of the corresponding keys in the corresponding manuals.

2. In a pipe organ the combination of a plurality of organ divisions, a wind-cheat having pipe-wind compartments, pipe bars forming the opposite walls of said compartments, an independent channel in each pipe bar for each organ division, a stop box for exhausting said channels, a pneumatic motor for each pipe in each of said channels, a valve for each pipe, and means for controlling each of said valves from either of said motors, substantially as described.

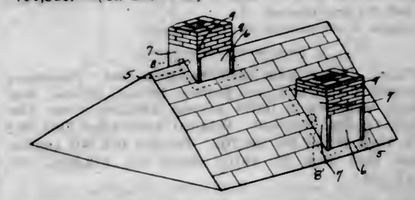
3. In a pipe organ the combination of a plurality of organ, divisions, a wind-chest having pipe-wind compartments, pipe bars forming the opposite walls of said compartments, an independent channel in each pipe bar for each organ division, a pneumatic motor for each pipe in each of said channels, a valve for each pipe, and a system of levers for controlling each of said valves from either of said motors, substantially as described.

4. In a pipe organ, the combination, with a plurality of organ divisions, of automatic player mechanism for operating any or all of these divisions, a wind chest having pipe wind compartments, pipe bars forming the opposite walls of said compartments, an independent channel in each pipe bar for each organ division, a stop box for venting said channels, a pneumatic motor for each pipe in each of said channels, a valve for each pipe, and means for controlling each of said valves from any of said motors.

5. In a pipe organ, the combination, with a plurality of manuals, of pipe bars having a plurality of channels therein, means in each channel for speaking each organ pipe of the pipe bar, and stops venting these channels whereby the corresponding manual may play the organ pipe of this pipe bar.

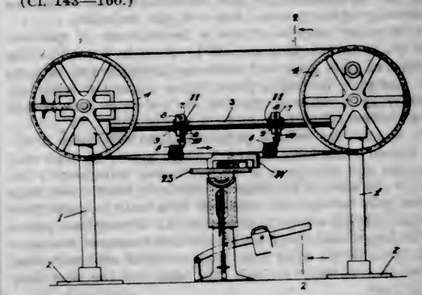
[Claims 6 and 7 not printed in the Gazette.]

1,072,199. CHIMNEY-PROTECTOR. JAMES HOMER WOOD, Chicago, Ill. Filed Feb. 25, 1913. Serial No. 750,585. (Cl. 108—26.)



A device of the kind described comprising a foot member; sides cut out and struck up from said foot member; ends secured to said side members; and ears on said foot member spacing the central portions of said ends apart, substantially as described.

1,072,200. BAND-SAW MACHINE. CHARLES E. WRIGHT, Newark, N. J. Filed June 28, 1910. Serial No. 569,279. (Cl. 143—160.)



1. In a band saw machine, the combination with the band saw, of a support extending longitudinally thereof, a clamp mounted on the support and comprising a pair of clamping members that adjustably embrace the support, one of said members having an outstanding projection provided with a transverse opening therethrough, a rod hav-

ing one end adjustably passing through the projection, and a saw guide adjustably mounted on the other end of said rod.

2. In a band saw machine, the combination with the band saw, of a support extending longitudinally thereof and disposed out of the plane of the cutting stretch of the saw, a clamp mounted on the support and having an outstanding projection that extends toward the plane of the said cutting stretch of the saw, a rod adjustably mounted at one end in the projection, and a saw guide rotatably mounted on the other end of the rod.

3. The combination with a band saw having a substantially horizontal cutting stretch, of a supporting member extending longitudinally of said stretch and disposed at one side of the plane thereof above the saw, a clamp mounted on the bar and having an outstanding projection that extends toward the plane of said cutting stretch, a rod rotatably and longitudinally adjustable in the projection, said rod extending toward the saw, and a saw guide mounted on the lower end of the rod and adjustable on angularly disposed axes that are substantially in the plane of the cutting stretch of the saw.

4. The combination with a band saw, of a saw guide engaged therewith, supporting means including a rod, and a connecting device having one end rotatably and eccentrically mounted on one end of the rod and having pivotal connection at one side with the guide, the axis of the pivot being at an angle to the axis of the eccentric mounting.

5. The combination with a band saw, of a guide engaged therewith, a supporting rod disposed longitudinally of the plane of the saw, a connecting device having a rotatable eccentric mounted on one end of the rod and disposed alongside the guide, and a pivotal connection between the connecting device and guide, said pivotal connection being located in line with the axis of the rotatable mounting and beyond the end thereof.

[Claim 6 not printed in the Gazette.]

1,072,201. SEAM FOR SEWED ARTICLES. FREDERICK BAKER, Blackheath, and LESSER JACOBS, London, England, assignors to Baker Sewing Machines Trust Limited, London, England. Original application filed May 23, 1908, Serial No. 434,702. Divided and this application filed July 25, 1910. Serial No. 573,683. (Cl. 112—34.)



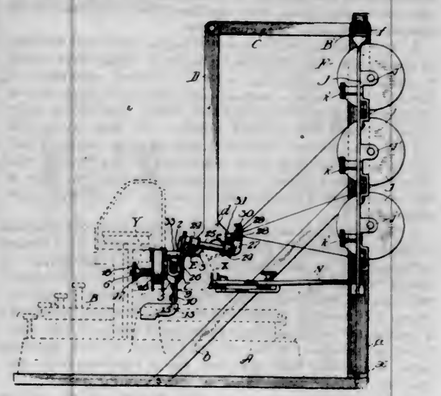
1. A seam comprising puncturable material, and a single thread bearing on one side of the material and having a series of main loops and sub-loops drawn through the material from the said thread, each main loop being of a predetermined length and bearing upon the other side of the material with its bight interlinked with the next main loop and its intermediate part embraced by and embracing a sub-loop which thereby locks it to the material.

2. A seam comprising two or more pieces of material and a line of stitching formed by a single thread having a series of main loops and sub-loops therein drawn through the material, the main loops being connected with one another by a chain-stitch, and the sub-loops each locked by a knotted stitch to one of the main loops.

3. A seam for uniting puncturable material with a single thread comprising a thread which passes through said material and extends in a relatively long main loop in the line of the seam, a plurality of relatively shorter sub-loops which pass through the relatively long main loop and then around said main loop to embrace it at intermediate points in its length and about which said sub-loops are drawn to lock them to the main loop, and a second relatively long main loop passing through the bight of the first long main loop.

1,072,202. TYPE-WRITER ATTACHMENT. ENGLAND J. BARKER, Chicago, Ill. Filed Mar. 29, 1912. Serial No. 687,161. (Cl. 197—133.)

1. The combination with a typewriting machine comprising a reciprocable carriage and a platen, of a reciprocable truck, auxiliary manifold ribbon-reels supported on said truck beyond the ends of said carriage and platen and movable simultaneously therewith, and means for intermittently winding said ribbon-reels independently of the platen.



2. The combination with a typewriting machine comprising a reciprocable carriage and platen, of a reciprocable truck, auxiliary manifold ribbon-reels supported on said truck but movable with said carriage and platen, and means for intermittently winding said ribbon-reels independently of the platen at one end of the movement of the carriage.

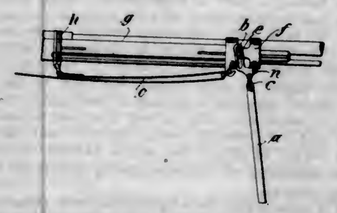
3. The combination with a typewriting machine comprising a reciprocable carriage and a platen, of a reciprocable truck, manifold ribbon-reels supported on said truck independently of said carriage and platen, devices for intermittently actuating said ribbon-reels independently of the platen, and means that engage said devices at one end of the stroke of said carriage.

4. The combination with a typewriting machine comprising a reciprocable carriage and a platen, of a reciprocable truck, manifold ribbon-reels supported on said truck independently of said carriage and platen, devices for intermittently actuating said ribbon-reels independently of the platen, and stationary means independent of the carriage that engage said devices at one end of the stroke of said carriage.

5. The combination with a typewriting machine comprising a reciprocable carriage, and a rotatable platen journaled therein, of a reciprocable truck adjacent said carriage, auxiliary manifolding ribbon-reels carried by said truck and journaled beyond the ends of said platen so that the ribbon therefrom moves from one reel to the other longitudinally of said platen.

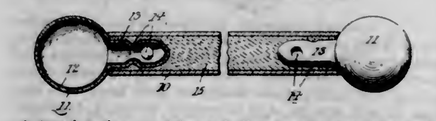
[Claims 6 to 17 not printed in the Gazette.]

1,072,203. SUPPORT FOR SMALL-ARMS. OLOF BOECKER, Wilmersdorf, near Berlin, Germany. Filed Nov. 18, 1912. Serial No. 731,993. (Cl. 42—94.)



In combination with a small arm of a support therefor, comprising a pair of parallel arms *b*, provided with longitudinal parallel slots, a curved cross connection *d* and a pair of leg members *a*, a pin passing through said slots and serving to slidably and pivotally secure the support to the arm, and a retaining device on the arm adapted to receive the ends of the leg members.

1,072,204. RACK FOR TOWELS AND SIMILAR ARTICLES. OSCAR A. BOEHM, New York, N. Y. Filed Feb. 26, 1912. Serial No. 679,901. (Cl. 45—32.)



A towel rack comprising a hollow open-ended glass rod, a petrifactive filling within the bore of said rod and constituting a reinforcing core therefor, and a pair of flanking heads having projections that extend into opposite ends of the rod and are embedded within the filling, said filling constituting likewise a binding medium for said projections.

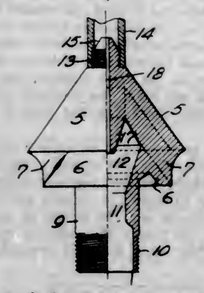
1,072,205. PRODUCTION OF LEAD OXIDS. OLIVER W. BROWN and ALPHEUS R. NEES, Bloomington, Ind. Filed Sept. 9, 1912. Serial No. 719,377. (Cl. 75—19.)

1. The improved process for the production of lead oxids possessing low specific gravity and of an amorphous nature which consists in heating the starting material at a temperature below 450° C., substantially as described.

2. The improved process for the production of red lead or orange mineral possessing low specific gravity of an amorphous nature which consists in heating the starting material at a temperature between 325° and 440° C., substantially as described.

3. The improved process for the production of red lead or orange mineral possessing low specific gravity and of an amorphous nature which consists in heating the starting material for from three to three and one-half hours at a temperature between 425° C. and 440° C., substantially as described.

1,072,206. SANDER. JAMES M. COLEMAN, Montreal, Quebec, Canada. Filed Oct. 1, 1912. Serial No. 723,334. (Cl. 105—263.)



1. A device of the character described comprising a pair of integral conical hoods spaced a short distance apart, a discharge passage through the center of one hood, and a blast nozzle attached to the other hood projecting a short distance into said passage.

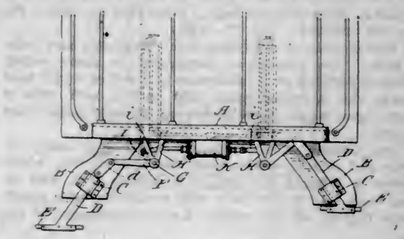
2. A device of the character described comprising a pair of conical hoods arranged one within the other and spaced apart whereby an annular passage is formed between the two hoods, a central discharge passage through the inner hood communicating with the annular passage, and a nozzle secured to the other hood and projecting a flared mouth of the discharge passage, and webs holding jet of high velocity issuing from the nozzle will create a vacuum in the discharge and annular passages.

3. A device of the character described, comprising a pair of substantially conical hoods arranged co-axially one within the other and spaced apart to form an annular passage, a neck projecting from within the inner hood having a discharge passage therethrough flared at its upper end and communicating with the annular passage, a nozzle secured within the outer hood having its lower end tapered and projecting a short distance into the flared mouth of the discharge passage, and webs holding said hoods in fixed relation to one another.

4. A device of the character described comprising a pair of substantially conical hoods arranged one within the other and spaced apart to form an annular passage, a neck secured to the inner hood having a discharge passage therethrough communicating with the annular passage, a nozzle within the outer hood projecting a short distance into the discharge passage, and a threaded nipple at the apex of the outer hood forming a continuation of the nozzle, said nipple having its end tapered whereby an annular scale pocket will be formed between the nipple and a pipe connected thereto.

5. A device of the character described, comprising a pair of hoods spaced apart, a discharge passage through one of said hoods communicating with the space between the hoods and a blast nozzle arranged to direct a fluid jet through said discharge passage.

1,072,207. EXTENSION-STEP FOR RAILWAY-CARS. ELLEN M. CONDOS, Goldfield, Nev. Filed Mar. 10, 1913. Serial No. 753,188. (Cl. 105—87.)



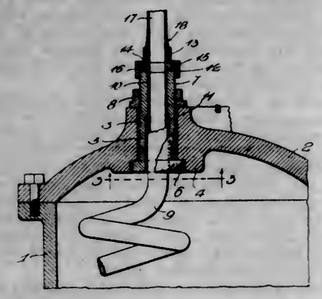
1. The combination with fixed car steps, of a movable step, bars connected therewith and guides in which they are adapted to slide, a rock-shaft journaled under the car transversely of the same, devices connecting said rock shaft with the said bars, a fluid pressure cylinder having a reciprocating piston and means connecting it with the said rock shaft, whereby the movement of the piston adjusts the movable step for use or non-use, pipes connected with the ends of said cylinder, a four-way valve applied at the junction of such pipes, and an air supply pipe also connected with the valves, as described.

2. An extensible step for vehicles, means for supporting the step for movements relatively of the main step, a fluid cylinder, a reciprocating piston mounted in the cylinder, controlling connections between the piston and the extensible step, a fluid supply pipe, and means for introducing fluid to the cylinder from the supply pipe and for normally maintaining an inoperative adjustment of the extensible step.

1,072,208. MEANS FOR CONNECTING PIPES WITH HEADS, &c. KNUT MARTIN DAHL, San Francisco, Cal., assignor to Union Iron Works Co., San Francisco, Cal., a Corporation of New Jersey. Original application filed Mar. 9, 1912, Serial No. 682,695. Divided and this application filed Mar. 29, 1913. Serial No. 757,496. (Cl. 137—98.)

In combination with a receptacle cover having an opening, a sleeve passing through the cover and having at its inner end a flange, said sleeve also having at its opposite end portions bores of different diameter, the inner bore being of greater diameter than the outer bore,

a pipe passing through the bores of the sleeve and fitting snugly in the outer smaller bore and spaced from the walls of the inner larger bore, means for fixing the pipe to the sleeve at the outer end thereof, means carried by



the cover and engageable with the flange to hold the sleeve against rotation, and means mounted upon the sleeve and engageable with the cover to draw the flange in close contact with the cover to close the opening therein.

1,072,209. PROCESS OF EXTRACTING ZINC FROM RESIDUES CONTAINING ZINC, ESPECIALLY SLAGS, IN REVERBERATORY FURNACES. ADOLPHE HENRI DESGRAZ, Hanover, Germany. Filed July 31, 1911. Serial No. 641,397. (Cl. 75—153.)

1. The process of recovering easily reducible and volatile metal from substances containing the same, which consists in forming such substances to a molten liquid bath of slag, and re-acting upon said molten bath with a suitable basic agent, thereby driving off said metal from the bath.

2. The process of recovering zinc and other easily reducible and volatile metals from slag and the like, which consists in forming the slag to a molten bath, and re-acting upon said molten bath with a suitable basic agent, thereby driving off the volatile metal constituents of the bath.

3. The process of recovering zinc and other easily reducible and volatile metals from molten liquid slag, which consists in re-acting upon said molten slag with a suitable basic agent added thereto, thereby driving off the volatile metallic values of the slag.

4. The process of recovering zinc and other easily reducible and volatile metals from slag and like substances containing the same, which consists in forming said substances to a molten liquid bath, and re-acting upon said molten bath with calcium oxid, thereby driving off the volatile metallic values of the molten bath.

5. The process of recovering zinc and like volatile metals from slag, which consists in reducing the slag to a molten liquid bath, re-acting upon said molten bath with a suitable basic agent and a suitable reducing material, thereby driving off the volatile metallic values of the molten bath.

[Claim 6 not printed in the Gazette.]

1,072,210. CASTER FOR FURNITURE. ALBERT B. DISS, Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed June 29, 1911. Serial No. 636,028. (Cl. 16—73.)

1. In a caster structure, the combination of a caster wheel, jaws, pintle, flanged rollers and an upper roller-bearing plate and a housing having openings for holding and spacing the rollers and also having an exposed flange extending in the interval between said jaws and plate for protecting said rollers, the flanges traveling in annular guideways and the rolling surfaces of the rollers being approximately beveled, at least in part, to form beveled surfaces convergent to the appropriate common center of motion.



2. In a caster structure, the combination of a caster wheel, jaws, pintle, rollers and upper roller-bearing plate, said plate and jaws having opposed corrugations and concentric grooves, said rollers running on said corrugations and having guide flanges at their inner ends running in said grooves, and a housing having a flange extending between the said plate and jaws and openings which hold and space the rollers.

3. In a caster structure, the combination of a plurality of flanged rollers, and jaws and supporting plate having annular bearing surfaces which make contact with the rollers, and a housing which receives, spaces and locates the rollers; said housing having a peripheral flange 22 which is downturned.

1,072,211. SEAM FOR SHOE-SOLES. GEORGE A. DOBYNE and STEPHEN A. DOBYNE, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 1, 1911. Serial No. 647,263. (Cl. 36—24.)



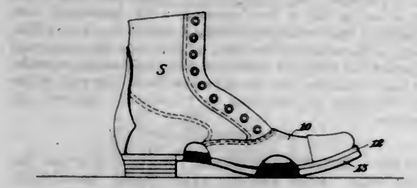
1. A shoe having an outsole and an insole, and a metallic fastener seam for attashing said outsole comprising fasteners passing through the outsole and insole and clenched back into the insole, the clenched points of said fasteners having their ends deflected toward the shanks thereof.

2. A shoe having an outsole and an insole, and a metallic fastener seam for attaching said outsole comprising fasteners passing through the outsole and insole, and clenched back into the insole in the same direction and in the direction of and along the seam, the clenched points of said fasteners having their ends deflected toward the shanks thereof.

3. A shoe having an insole and an outsole, and a metallic fastener seam for attaching said outsole comprising fasteners having well defined beveled non-clenching heads, the fasteners extending through the outsole and insole, with the heads in the outsole and the points of said fasteners clenched back into the insole, the clenched points of said fasteners having their ends deflected toward the shanks thereof.

1,072,212. METHOD OF MAKING SEAMS FOR SHOE-SOLES. STEPHEN A. DOBYNE and GEORGE A. DOBYNE, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 1, 1911. Serial No. 647,264. (Cl. 36—20.)

1. The method of attaching soles to shoes by a metallic fastener seam which comprises presenting a plurality of fasteners having abruptly deflected points to the outsole with the deflected points extending in the same direction and in the direction of the seam, inserting the fasteners so presented through the outsole and insole, and clenching the points of said fasteners back into the insole in the direction of the deflected points, whereby said outsole and insole are secured by a row of fasteners having their points clenched and extending in the same direction and in the direction of the seam.



2. The method of attaching soles to shoes by a seam consisting of metallic fasteners which comprises abruptly deflecting the points of the fasteners an amount sufficient to predetermine the direction of the clench by a clenching anvil but not sufficient to cause the nail to curl while passing through the material, inserting the fasteners through the outsole and insole, and clenching the deflected points by engagement with a clenching anvil back into the insole and in the direction of their abrupt deflection, for the purpose set forth.

3. The method of attaching soles to shoes by a metallic fastener seam which comprises cutting a fastener from a string and simultaneously deflecting the point of the succeeding fastener, severing said succeeding fastener from its successor and simultaneously deflecting the point of said successor, presenting said severed fastener to the outsole with its deflected point extending in the direction of the seam, inserting the fastener so presented through the outsole and insole, and clenching and turning the point back into the insole in the direction of its deflection, whereby said clenched point extends in the direction of the seam.

1,072,213. SHOE-NAIL. GEORGE A. DOBYNE and STEPHEN A. DOBYNE, St. Louis, Mo., assignors to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 26, 1912. Serial No. 693,386. (Cl. 85—16.)



1. A shoe-nail having its point deflected an amount sufficient to predetermine the direction of its clench by an anvil but not sufficient to cause the point to turn while passing through the material.

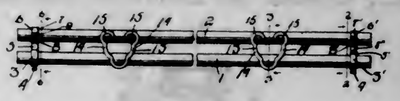
2. A shoe-nail having a laterally extending head, and having its point deflected laterally in the direction of the head an amount sufficient to predetermine the direction of its clench by an anvil but not sufficient to cause the point to turn while passing through the material.

3. A shoe-nail having one of its edges cut and having its point deflected laterally toward the cut edge an amount sufficient to predetermine the direction of its clench by an anvil but not sufficient to cause the point to turn while passing through the material.

4. A shoe nail having a comparatively blunt point deflected laterally an amount sufficient to predetermine the direction of its clench by an anvil.

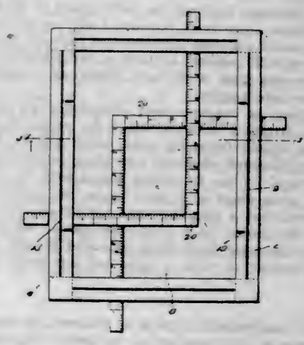
1,072,214. CURTAIN-POLE. PRISCILLA W. DOHONEY, Columbia, Ky. Filed Jan. 22, 1913. Serial No. 743,649. (Cl. 156—19.)

1. A curtain hanger comprising a main pole, sectional rings carried by the ends of the man pole, an auxiliary pole having its ends supported in the sectional rings, jaws mounted upon the opposite sides of the auxiliary pole and adapted to engage the curtain to hold the same upon the main pole.



2. A curtain hanger comprising a main pole, rings connected to the opposite ends thereof, sectional rings supported by the first named rings, an auxiliary pole having its ends supported in the sectional rings, a plurality of jaws connected upon the opposite ends of the auxiliary pole and adapted to clamp the curtain upon the main pole, one of said sectional rings being pivotally connected to one of the first named rings, as and for the purpose set forth.

1,072,215. PHOTOGRAPHIC-PRINTING FRAME. GEORGE W. DRUHE, Oakland, Cal. Filed Dec. 4, 1912. Serial No. 734,901. (Cl. 95—79.)



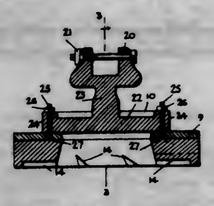
1. The combination with a printing frame, of mat strips comprising angularly related arms, and means carried by the frame for clamping the respective arms to maintain the mat strips in adjusted relation to provide mats of different sizes.

2. A printing frame including an upper and lower frame maintained in spaced relation to provide channels, the upper frame being formed with guide slots overlying the surface of the lower frame, clamp members operable in the guide slots and coöperating with the upper surface of the lower frame, and mat strips wholly free of connection with the frame and adapted to be engaged by the clamp member.

3. A printing frame including two rectangular frames maintained in spaced relation to provide intervening channels, the upper frame being formed with longitudinally disposed slots in the sides and ends thereof overlying the lower frame, clamp members including clamping plates and lifting bars slidably positioned in said slots, said plates being adapted to bear on the upper surface of the lower frame, and mat strips wholly free of connection with the frame and adapted to be engaged by said plates.

4. A printing frame including two rectangular frames maintained in spaced relation to provide intervening channels, the upper frame being formed with longitudinally disposed slots in the sides and ends thereof overlying the lower frame, clamp members including clamping plates and lifting bars slidably positioned in said slots, said plates being adapted to bear on the upper surface of the lower frame, springs for maintaining clamping coöperation between said clamp plates and frame surface, and mat strips wholly free of connection with the frame and adapted to be engaged by the plates.

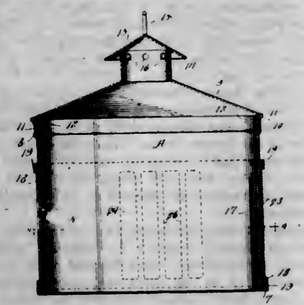
1,072,216. GRINDING-WHEEL FOR GRANITE. PATRICK DUNN, New York, N. Y. Filed May 27, 1913. Serial No. 770,141. (Cl. 51—11.)



1. A wheel as characterized, comprising an open-centered ring grinding block, said block being provided with a series of radially-disposed grooves, said grooves being closed at the outer end and open at the inner end; a wheel having an upstanding flange surrounding the open center of said ring block to form a hopper to receive grinding particles; a coupling head having upstanding brackets spaced apart to receive a rotary shaft for revolving said wheel; and a cross bar rigidly connected with and extended between the lower edges of said flange, said bar being operatively connected with said head by a relatively small and centrally-disposed pedestal, said head overhanging said pedestal to form a cap therefor and to form in conjunction with said flange an annular free opening for said hopper.

2. A wheel as characterized, comprising an open-centered ring grinding block; a wheel for supporting same; means for rigidly fastening said wheel and said block; a centrally-disposed upwardly-extending hopper mounted on said wheel; a bar extending across said hopper, said bar being maintained at a level below the upper edge of said hopper; and a coupling head rigidly connected with said bar by means of a relatively small, centrally-disposed pedestal, said head being extended beyond the side of said pedestal to form a hood-like overhang for said hopper.

1,072,217. BROODER. JAMES A. ELLIOTT, Sycamore, Ill. Filed Mar. 8, 1913. Serial No. 752,949. (Cl. 119—19.)



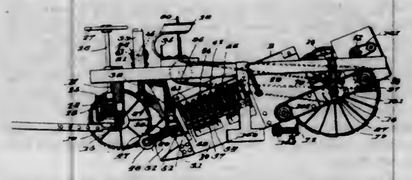
1. A brooding coop comprising a cylindrical vessel, the wall of which has a door aperture, in combination with a revoluble door structure including a hoop-shaped band having terminal lugs, and means whereby said lugs are adjustably connected together.

2. A brooding coop comprising a cylindrical vessel having a flat bottom surrounded by a bead, in combination with a cylindrical door structure supported on said bead, and means whereby said door structure may be tightened about the wall of the body structure to retain it frictionally against displacement.

3. A brooding coop comprising a cylindrical vessel constituting a body structure and having a door aperture in the wall thereof, in combination with a cylindrical door structure surrounding the wall of the body structure and having solid and apertured portions, the latter being partially obstructed, and means whereby the door structure may be tightened about the wall of the body structure to retain it frictionally against displacement.

4. A brooding coop comprising a cylindrical vessel, the wall of which has a door opening, a lid detachably connected with the vessel and having a ventilator, and a door structure surrounding the wall of the body structure and supported for rotation about its axis, and means whereby said door structure may be tightened about the wall of the body structure to maintain it frictionally against displacement.

1,072,218. BEET-HARVESTER. JOHN A. FANGER, Kalida, Ohio. Filed Aug. 27, 1912. Serial No. 717,329. (Cl. 55—9.)



1. In a beet harvester, an adjustably supported casing having side members, twin augers supported for rotation in the casing, an endless conveyer supported in the casing with its lower lead spaced above and coöperating with the augers, and resiliently supported rollers mounted between the leads of the endless conveyer and operating downwardly with respect to the lower lead of the conveyer.

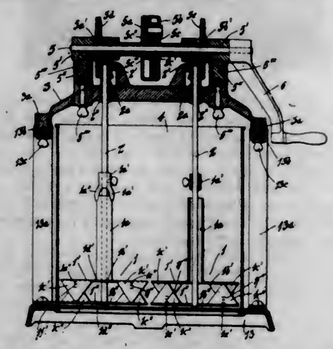
2. In a beet harvester, a pivotally and adjustably supported casing having side members, twin augers supported for rotation in the casing, diggers associated with the side members of the casing, an endless conveyer supported in the casing with its lower lead spaced above and coöperating with the augers, resiliently supported rollers mounted above the lower lead of the conveyer, a knife carrier supported for slidable movement substantially at right angles to the endless conveyer and having a cross bar positioned above the lower lead of the conveyer, and a topping knife supported by the carrier and positioned below the lower lead of the conveyer.

3. In a beet harvester, an adjustably supported casing, means including an endless conveyer for carrying beet roots lengthwise therethrough, said endless conveyer being provided at intervals with teeth to engage the tops of the beet roots, a slidably supported knife carrier having a cross bar positioned above the lower lead of the conveyer, a topping knife supported by the carrier and positioned below the lower head of the conveyer, and guide flanges on the knife carrier to support the lower lead of the conveyer with the teeth thereof spaced above the knife carrier.

4. In a beet harvester, a pivotally and adjustably supported casing, means including an endless flexible conveyer for conveying beet roots therethrough, a slidably supported spring actuated knife carrier having a cross bar positioned above and transversely across the lower lead of the endless conveyer, an apron connected hingedly with the knife carrier, and extending rearwardly beneath the lower conveyer lead, and means for supporting the apron intermediate its front and rear ends.

5. In a beet harvester, an adjustably supported casing having side members, diggers associated with the side members, arms connected pivotally with the side members and extending forwardly thereof, a spring pressed roller supported by said arms, twin augers supported adjacent to the inner faces of the side members of the casing, an endless flexible conveyer extending lengthwise through the casing and guided over the spring pressed roller, driven rotary supporting means at the rear end of the casing over which the conveyer is guided, a knife carrier slidably supported upon the casing and having a cross bar positioned between the leads of the endless carrier, a topping knife supported by the carrier above the rear ends of the twin augers, and means for driving the conveyer and the twin augers.

1,072,219. CREAM-SEPARATOR AND CHURN. ALPHEUS FAY, Louisville, Ky. Filed Dec. 26, 1911, Serial No. 667,782. Renewed Feb. 27, 1913. Serial No. 751,185. (Cl. 31—44.)



1. In a device of the character described, juxtaposed hollow agitators, each with a straight side presented at an angle to the line of rotation, and an opening from the interior of the agitator, and an air inlet to said agitator, means for adjusting the area of said straight side and of said opening, and means for rotating the agitators in opposed directions.

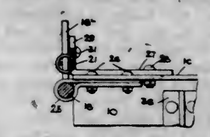
2. In a device of the character described, juxtaposed polygonal hollow agitators, each with some of its sides closed and others open, and with plane top and bottom members conforming to the planes of rotation in their respective positions, and each having an atmospheric inlet to its hollow interior, and means for rotating the agitators in opposed directions.

3. In a device of the character described, the combination of a bracket, vertical bearings therein, bosses thereon flanking the vertical bearings, each boss being hollow in its upper region to form a socket, and horizontal bearings, each having a shank leaving a shoulder where the shank joins the bearing, the tops of said bosses being adapted to receive the shoulders of the bearings and the sockets of the bosses being adapted to receive the shanks, said bosses having openings in their bottoms and said shanks having openings in their bottoms, and clamping screws taking through the openings in the bottoms of the bosses and threaded into the openings in the bottoms of the shanks, to draw said shoulders against the tops of the bosses and detachably secure said horizontal bearings to the bracket.

4. In a device of the character described, the combination of a container for liquid to be treated, juxtaposed aerating agitators mounted therein for rotation on upright axes, each of said agitators comprising a plane top plate, a plane bottom plate spaced from the top plate, the inclosed space having communication laterally with the space surrounding the agitators, an air inlet to the space between the top and bottom plates, and means permitting adjustment of one of said plates toward and from the other, and means for rotating the agitators.

1,072,220. WIRE MATTRESS. OTTO GASAU, New York, N. Y. Filed Oct. 30, 1912. Serial No. 728,693. (Cl. 5—39.)

1. A mattress, comprising a mattress bottom, transverse end rails with which the mattress bottom is connected, rigid, longitudinally ranging bars disposed at the sides of the mattress bottom and pivotally mounted on the end rails to swing in the vertical plane, said bars being provided with upturned, rigid end portions, fabric ranging longitudinally of the end bars between the up-turned end portions, and springs uniting said fabric with said up-turned end portions of the rigid longitudinal bars.



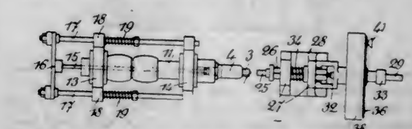
2. A mattress, comprising a mattress bottom, transverse end rails to which the mattress bottom is connected, rigid, longitudinally ranging bars disposed at the sides of the mattress bottom and independently of said bottom, said bars being pivotally mounted on the end rails to swing in the vertical plane, and longitudinal guard elements carried by said longitudinal bars independently of the mattress bottom.

3. A mattress, comprising a mattress bottom therein, side guards consisting of U-shaped rigid bars, a fabric ranging longitudinally of said U-shaped bars, and springs uniting the arms of the U-shaped bars to the fabric of the said side guards.

4. A wire mattress, comprising end rails, a mattress bottom yieldingly connected with said end rails, and side guards each unconnected with the mattress bottom including a rigid frame ranging longitudinally of the mattress between the end rails and a fabric yieldingly connected with said frame, the frames of the side guards extending to the said end rails and having support thereon.

5. A mattress, comprising end rails, a mattress bottom, anu side guards each comprising a rigid frame independent of the mattress bottom and extending between said end rails at each side of the mattress, said rigid frames of the side guards each carrying within the same a fabric ranging longitudinally of the mattress and connected with the ends of said rigid frames by springs, the respective ends of the springs having connection with the fabric and the said ends of the rigid frames.

1,072,221. MACHINE FOR THE MANUFACTURE OF BUTTONS. EMILE GAUDION, Marolles, France. Filed Feb. 6, 1912. Serial No. 675,881. (Cl. 79—16.)



1. In a machine for the manufacture of buttons, the combination of a rotary tool carrier having a chamber therein and an axial perforation, a cutting blade slipped into the said chamber and secured in a diametral position in the said chamber, and a rod slidable through the perforation of the tool carrier and having two branches which extend into the said chamber on both faces of the cutting tool at the middle portion thereof, the ends of the said branches being adapted to extend beyond the cutting edge of the blade.

2. In a machine for the manufacture of buttons, the combination of a rotary tool carrier in the form of a socket and having diametrally opposite grooves, a cutting blade the longitudinal edges of which are slipped into the said grooves, a rod slidable through the tool carrier and having a slit to receive the cutting blade, and means whereby to push such rod in such a manner that its slitted end comes a little beyond the cutting blade.

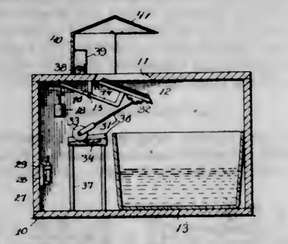
3. In a machine for the manufacture of buttons, the combination of a socket having on one side a threaded part and on the other side a diametrally slitted cylindrical part, a sleeve surrounding such slitted cylindrical part, a cutting blade of which the edges are slipped into the slits of the socket, means whereby to secure the sleeve on the socket and to secure the blade in the socket, and a slitted

rod which slides in the socket, the branches of such rod extending on both sides of the blade and beyond the latter.

4. In a machine for the manufacture of buttons, the combination of a rotary tool holder or carrier, a cutting blade secured in such tool holder in a diametral position, a slitted rod slidable in the tool carrier and having its branches extended on both sides of the blade at the middle portion thereof, means whereby to push such rod in such a manner that its slitted end extends beyond the blade, a non rotary sustaining claw located in front of the tool holder and of the cutting blade, and means for advancing such claw, toward the tool carrier and the blade and to retract the same.

5. In a machine for the manufacture of buttons, the combination of a rotary tool carrier having a chamber therein and formed with diametrically opposite grooves, and an axial perforation, a cutting blade extending into said chamber and having its longitudinal edges engaging the said grooves, the front or outer end of said blade forming a cutting edge, adapted to act on the entire surface of the button to be turned, means for securing the blade in position in the said grooves, a rod slidable through the axial perforation of the tool carrier, the said rod being slitted longitudinally at its front part to receive the said cutting blade, the two branches formed by said slit, extending on opposite sides of the blade at the middle portion thereof, the ends of said branches being adapted to extend outward beyond the cutting edge of said blade, and spring controlled means connected with said rod for normally holding the same in said outward position.

1,072,222. ELECTRIC RAT-EXTERMINATOR. HARRY A. GENTZEL, New Brighton, Pa. Filed Aug. 5, 1912. Serial No. 717,308. (Cl. 43—34.)

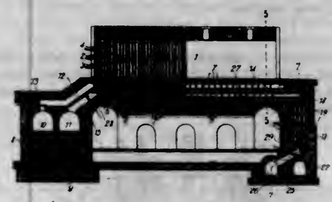


The combination of a counterbalanced trap door, bare electrical terminals on the top face thereof, an induction coil operatively connected to said terminals, a trolley arm hingedly connected to the bottom face of said trap door, a shoe contacting with said trolley arm, and a source of electrical energy connected in series with said trolley arm, said shoe and the primary of said induction coil, said trolley arm being adapted to run off of said shoe at a certain stage in the dumping movement of said trap door and break the primary circuit of said induction coil.

1,072,223. CHAMBER-OVEN. ARTHUR GOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany, a Corporation of Germany. Filed Jan. 4, 1912. Serial No. 669,489. (Cl. 202—9.)

1. An oven provided with heating flues, having inlets for air and fuel respectively and outlets for off gases, channels connected with said outlets, air-regenerators adapted for connection alternately with said channels and with the air inlets, and a fuel-recuperator having an off-gas path connected with said channels, and a fuel path connected with said air inlets.

2. An oven provided with inlets for air and fuel respectively and outlets for off gases, regenerators for preheating the air on its way to said air inlets, a recuperator for preheating the fuel on its way to the fuel inlets, and channels for directing a portion of the off gases from said outlets to the regenerators and another portion to the recuperator.



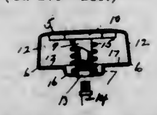
3. An oven provided with inlets for air and fuel respectively and outlets for off gases, regenerators for preheating the air on its way to said air inlets, a recuperator for preheating the fuel on its way to the fuel inlets, channels for directing a portion of the off gases from said outlets to the regenerators and another portion to the recuperator, and adjustable means for variably proportioning the amount of off gases flowing to the regenerators and to the recuperator respectively.

4. An oven provided with inlets for air and fuel respectively and outlets for off gases, a device for heating the air on its way to the said air inlets, another device for heating the fuel on its way to the fuel inlets, channels for receiving the off gases from said outlets, and connections leading from opposite ends of said channels to the devices for heating air and fuel respectively.

5. An oven provided with inlets for air and fuel respectively and outlets for off gases, a device for heating the air on its way to said air inlets, a device for heating the fuel on its way to the fuel inlets, and channels the opposite ends of which are connected with the devices for heating air and fuel respectively, the intermediate portions of said channels communicating with the off gas outlets.

[Claims 6 to 9 not printed in the Gazette.]

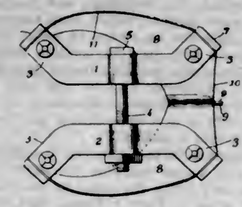
1,072,224. SWITCH-HANDLE. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 1, 1911. Serial No. 663,245. (Cl. 175—289.)



A switch handle comprising a metallic shell having wings 12 and having its side walls recessed at their lower edges, a closure diaphragm normally seated against said recesses, a threaded stem passing through said diaphragm, a head for said stem shaped substantially to the inner contour of said winged shell, in combination with a spring surrounding said stem and engaged between said head and closure diaphragm, substantially as described.

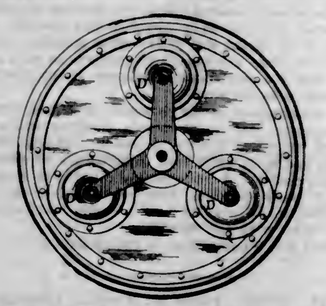
1,072,225. OVERSHOE. HENRY C. GRIMM, Pleasantville, N. J., assignor of one-half to H. J. Grimm, Pleasantville, N. J. Filed May 15, 1912. Serial No. 697,504. (Cl. 168—30.)

An overshoe for horses, comprising, companion base members each having alined intermediate portions, one of said portions having a threaded passage therein, the other portion having a passage provided with smooth walls, a bolt passing through both passages and having threaded engagement with the threaded passage whereby to permit both members to be adjusted laterally relatively and also to permit one of the members to be tilted with relation to the other member, forwardly diverging branches extending from the intermediate portions of said base members and provided with integral lugs lying against the front end of an ordinary shoe, rearwardly diverging branches carried by the intermediate portions of the base members and having terminal vertical lugs lying laterally of the first lugs, relatively springy members curved longitudinally throughout and embracing the hoof of the animal and provided with terminal depending portions secured to the lugs of the base members, and means con-



necting the embracing members with one another at their front ends only and retaining said front ends in confinement against the hoof and operable to effect sliding movements of the base members relatively and thereby cause the embracing members to be drawn laterally into clamping engagement with the hoof and upwardly and forwardly thereover.

1,072,226. WHEEL FOR MOTOR-CARS AND OTHER VEHICLES. ARTHUR FREDK. HAWKSLEY, Fairhaven, England. Filed Apr. 14, 1911. Serial No. 621,059. (Cl. 152—46.)



1. A cover for vehicle wheel cushions comprising a pair of co-axial rings, a cord looped radially backward and forward across and around said rings, and a cord laid across the radial loops of the first-named cord to prevent the cover from splitting.

2. A cover for vehicle wheel cushions comprising a pair of co-axial rings, a cord looped radially backward and forward across and around said rings, and a cord laid approximately at right angles across the radial loops of the first-named cord to prevent the cover from splitting.

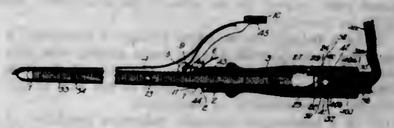
3. A cover for vehicle wheel cushions comprising a pair of co-axial rings, a cord wider in one direction than in the other looped radially backward and forward across and around said rings, said cord being laid flat on the outer ring and edgewise on the inner ring, and a cord laid across the radial loops of the first named cord to prevent the cover from splitting.

4. A cover for vehicle wheel cushions comprising a pair of co-axial rings, a cord wider in one direction than in the other looped radially backward and forward across and around said rings, said cord being laid flat on one ring and edgewise on the other ring, and a cord laid spirally across the radial loops of the first-named cord to prevent the cover from splitting.

5. A cover for vehicle wheel cushions comprising a pair of co-axial rings arranged in spaced parallel planes, one of said rings having a diameter less than that of the other ring, a cord wider in one direction than in the other looped radially backward and forward across and around said rings, said cord being laid flat on the second-named ring and edgewise on the first-named ring, and a cord laid across the radial loops of the first-named cord to prevent the cover from splitting.

[Claim 6 not printed in the Gazette.]

1,072,227. ELECTRIC HEATER. FRANK J. HOLMES, Chicago, Ill., assignor to Vulcan Electric Heating Company, Chicago, Ill., a Corporation of Illinois. Filed May 24, 1909. Serial No. 497,835. (Cl. 219—24.)



1. In a heating member for an electric heating device, a metallic core, an inherently rigid tube of refractory insulating material surrounding said core, resistance wire wound on the outside of said tube and connected to one end of said core, a layer of insulating material inclosing said resistance windings, a wrapping of coiled wire for retaining said insulating layer in position, and terminals connected to said core and said resistance windings.

2. In a heating member for an electric curling iron, a metallic core, an inherently rigid tube of refractory insulating material inclosing said core, resistance wire wound on the outside of said tube and connected to one end of said core, a terminal block on one end of said tube, and terminals supported in said block, said terminals being connected with said core and said resistance wire.

3. In a heating member for an electric heating iron, a metallic core, an inherently rigid tube of refractory insulating material, windings of resistance wire on the outside of said tube, means connecting said windings to one end of said core, an insulating ceramic terminal block on the other end of said core, said terminals supported in said block, said terminals being connected with said core and said resistance windings respectively.

4. In a heating member for an electric heating iron, a metallic core, the end of said core forming one terminal of said member, a refractory insulating tube inclosing said core, a resistance wire wound around said tube, a wire connecting said resistance wire to said core at the end opposite to said terminal, an insulating terminal block in which said terminal is inserted, a second terminal inserted in said block, insulating means for separating said terminals, a wire connecting said second terminal with said resistance wire, a layer of insulating material inclosing said resistance wire and binding wire to retain said insulating material in position.

5. In a heating member for an electric heating iron, a metallic core, a refractory insulating tube surrounding said core and projecting beyond one end, a slot in the projecting end of said tube, a wire connecting said resistance wire to said core, said resistance wire passing through said slot, and terminals connected with said core and said resistance wire respectively.

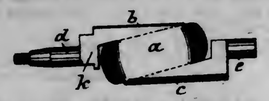
[Claims 6 to 17 not printed in the Gazette.]

1,072,228. ARMATURE FOR MAGNETO-INDUCTION MACHINES. GOTTLOB HONOLD, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Original application filed Oct. 4, 1909, Serial No. 520,931. Divided and this application filed Oct. 14, 1911. Serial No. 654,694. (Cl. 171—207.)

1. In a bobbin for magneto induction machines, a coil-carrying body portion, head pieces merging into the body portion at one end, and axle pins extending from the head pieces, whereby a previously wound coil may be slipped on to the body portion; substantially as described.

2. A bobbin for magneto induction machines having a coil-carrying body portion, head pieces merging into the

body portion at one end, and axle pins extending from the head pieces, the body portion being convexed to receive and retain a previously wound coil; substantially as described.



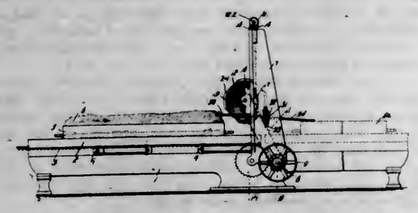
3. In a bobbin for magneto induction machines, a coil-carrying body portion, flat head pieces extending from the body portion, and axle pins extending from the head pieces, the axis of the body portion being angularly disposed with respect to the axis of the axle pins; substantially as described.

4. In a bobbin for magneto induction machines, a coil-carrying body portion having head pieces, and axle pins extending from the head pieces, the axis of the axle pins being substantially at right-angles to the axis of the body portion; substantially as described.

5. In a bobbin for magneto induction machines, a coil-carrying body portion, head pieces merging into the body portion at one end, and axle pins extending from the head pieces, the axis of the body portion being angularly disposed with respect to the axis of the axle pins; substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,229. MOLDING-MACHINE. HERBERT HARRIS HOOSE, Port Chester, N. Y. Filed Aug. 31, 1912. Serial No. 718,059. (Cl. 22—40.)



The combination of a table adapted to support a flask containing sand, a roll positioned above the flask, and a scraper comprising a rectangular element having portions positioned on opposite sides of the roll, the said portions being adapted to engage and remove some of the sand in the flask both before and after the flask passes beneath the roll.

1,072,230. CONCRETE CONSTRUCTION. FRANCIS H. HOWARD, Houston, Tex. Filed Dec. 19, 1912. Serial No. 737,626. (Cl. 72—16.)



1. A construction of the character described, consisting of up-right studding arranged at a suitable distance apart, rods extending through the studdings and having adjustable securing members thereon which abut against each studding on each side and by means of which said studdings may be adjusted and fixed in position relative to each other, and a double wall formed of slabs spaced apart, each end of each slab interlocking with the studding, and being held into position thereby.

2. A construction of the character described, consisting of studding arranged at a suitable distance apart, rods extending through the studdings and having adjustable securing members thereon which abut against each studding on each side and by means of which said studdings may be adjusted and fixed in position relative to each other, the sides of the studding facing each other, having corresponding lengthwise grooves and wall slabs whose ends are shaped to conform to the shape of said grooves, the opposite ends of said slabs fitting into the corresponding grooves of said studding.

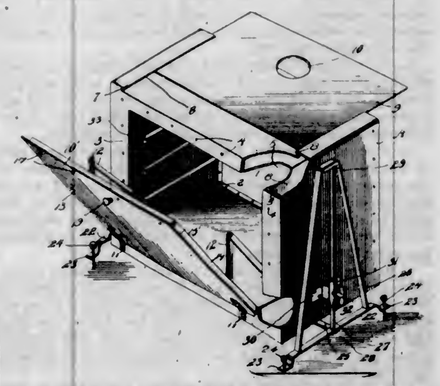
3. A construction of the character described, consisting of studding and means engaging therewith for adjusting said studding and fixing the same in position, wall slabs spaced apart so as to form a double wall, each of which interlocks with the studding so as to hold said slabs in position, and a wall slab spanning the double wall and shouldered down so as to extend a distance between said walls, said slab extending along the wall and the inner edge thereof extending beyond the inner side of said wall.

4. A construction of the character described, consisting of a concrete base, and reinforced concrete studding whose lower ends are embedded in said base, rods extending through the studdings and having adjustable securing members thereon which abut against each studding on each side and by means of which said studdings may be adjusted and fixed in position relative to each other, each side of each studding being provided with two lengthwise extending grooves spaced apart, the grooves of each studding being arranged in a corresponding position to the grooves of the facing side of the other studding, and wall slabs whose ends are shaped to conform to said grooves and fit into the corresponding grooves of the studding so as to form a double wall.

5. A construction of the character described, consisting of a concrete base and concrete studding whose lower ends are embedded therein, a means engaging with the studding and upon which said studding are adjustable, for fixing the position of the studding relative to each other, and wall slabs extending from one studding to another and spaced apart so as to form a double wall and whose ends dovetail with the studding.

[Claims 6 to 9 not printed in the Gazette.]

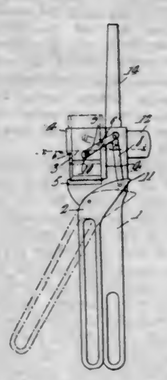
1,072,231. OVEN. HENRY G. HOWELL, Anderson, S. C. Filed Aug. 2, 1911. Serial No. 641,886. (Cl. 126—274.)



1. An oven comprising a body portion, means for adjustably supporting said oven, said means comprising a base frame, a plurality of U-shaped legs projecting upwardly from the base frame at the opposite sides of the oven, rods extending between the U-shaped legs and the base frame, brackets secured to the oven, a sleeve on each bracket designed to receive the respective rod, and means carried by the base frame for adjusting the latter relatively to the floor.

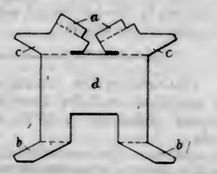
2. An oven comprising a body portion, means for adjustably suporting said oven, said means comprising a base frame, a plurality of U-shaped legs carried by the frame, rods extending between the U-shaped legs and the base frame, means carried by the oven for adjustably connecting the latter to the rods, and means carried by the base frame for adjusting the latter relatively to the floor.

1,072,232. PRUNING-SHEARS. ALBERT R. HUGHES, Thomas, Okla. Filed May 2, 1911. Serial No. 624,574. (Cl. 30—11.)



A pruning tool comprising a handle provided at its outer end with an outstanding terminal arm and provided between its ends with an outstanding intermediate arm; a blade fixed on the intermediate arm; a blade mounted for vertical movement on the terminal arm and adapted to move downwardly in a straight line parallel to the handle to engage the upper edge of a branch thereby to prevent a clamping of said blade by the branch when partially severed; an actuating lever fulcrumed intermediate its ends upon the handle and adapted at one end to move into parallelism with the handle; a second lever fulcrumed intermediate its ends on the handle and pivoted at one end loosely, directly to the movable blade; and a link forming a connection between the other ends of both levers.

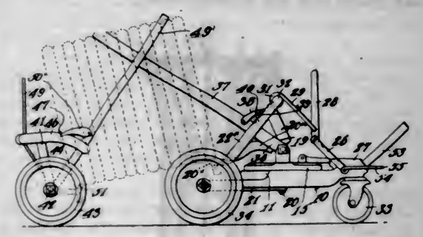
1,072,233. STEAM-TURBINE BLADE. EMIL IMLE, Dresden, Germany. Filed Nov. 7, 1912. Serial No. 730,115. (Cl. 121—57.)



1. A blade for steam turbines comprising a body portion, head flanges upon said body portion provided with flaps, and bottom flanges adapted to be secured in slots of the turbine wheel, substantially as described.

2. A blade for steam turbines comprising in combination a body portion, flanges at the top of said body portion provided with flaps adapted to be connected so as to form a crown ring and flanges at the bottom part of said body adapted to be guided through slots of the turbine wheel and inseparably connected with each other for forming a stiffening rib, substantially as described.

1,072,234. RADIATOR-TRUCK. RICHARD IRWIN, Farmington, Mo. Filed June 15, 1912. Serial No. 703,899. (Cl. 21—65.)



1. A truck for radiators comprising a frame, wheels mounted thereon, a rotatable member carried by said frame, means carried by said rotatable member for lifting and supporting a radiator, means engaging the upper portion of said radiator for holding said support in position.

2. A radiator truck consisting of two wheeled sections, means carried by each of the sections for engaging the base of a radiator, and means carried by each of the sections for extending over and bearing against the top of a radiator, to thereby hold the radiator base engaging means in a raised position.

3. A front supporting member for a radiator carrying device comprising a frame, wheels mounted thereon, and a rotatable member carried thereby, a radiator supporting member pivotally mounted upon said rotatable member, a yoke for engaging the upper surface of a radiator and holding said radiator engaging member in position by means of a ratchet and pawl.

4. In a device of the class described the combination of, a front supporting member comprising a frame, wheels supporting said frame, a rotatable member carried by said frame, a radiator supporting member pivotally connected to said rotatable member, a yoke pivotally connected to said rotatable member adapted to hold said radiator supporting member in an active position, a rear supporting member comprising a frame, two wheels connected thereto, said front and rear radiator supporting members being held in spaced relation by a radiator interposed therebetween and carried thereon, a radiator supporting member carried by said rear frame, a yoke pivotally supported thereon and adapted to hold said rear radiator supporting member in an active position.

1,072,235. PATTERN FOR RAMMING PIPE-MOLDS. ROSWELL G. JAMES, Louisville, Ky., assignor to United States Cast Iron Pipe and Foundry Company, Burlington, N. J., a Corporation of New Jersey. Filed Feb. 26, 1913. Serial No. 750,729. (Cl. 22—17.)

1. A pattern comprising a cylindrical portion of one diameter at one end, a portion of smaller diameter at the opposite end, and a tapering intermediate portion, and provided on said portion of smaller diameter with longitudinal ribs extending along substantially the entire length of said portion of small diamter the outer edges of said ribs being adapted to contact with a cylindrical surface of the same diameter as and coaxial with said cylindrical portion.

2. A pattern comprising a cylindrical bottom portion, an elongated fluted body portion adapted to contact with a cylindrical surface of the same diameter as and coaxial with said bottom portion, but of less cross sectional area by reason of its fluting than said bottom portion and an intermediate portion of the same cross section at its

lower end as said bottom portion and diminishing in cross section as the distance from said bottom portion increases.

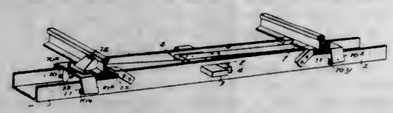
3. A pattern comprising a cylindrical portion of one diameter at one end, a portion of smaller diameter at the opposite end and a tapering intermediate portion and provided with external longitudinal ribs running along said portion of smaller diameter and along said intermediate portion, the outer edges of said ribs being adapted to contact with a cylindrical surface of the same diameter as and coaxial with said cylinder portion.



4. A pattern comprising a cylindrical portion of one diameter at one end, a portion of smaller diameter at the opposite end, and a tapering intermediate portion, and provided with longitudinal ribs detachably secured to said portion of smaller diameter and extending along substantially the entire length of said portion of small diameter, the outer edges of said ribs being adapted to contact with a cylindrical surface of the same diameter as and coaxial with said cylindrical portion.

5. Pipe molding apparatus comprising in combination, a head pattern formed with a cylindrical central passage and a body pattern adapted to extend into the mold with its outer end received in said passage during the mold filling operation and to be withdrawn from the mold through said passage during the mold compacting operation and comprising a cylindrical inner end portion of the same diameter as said passage and an adjacent portion of tapering cross section but having the major portion extending into the mold during the mold filling operation fluted and adapted to fit snugly against the wall of said passage as said body pattern is withdrawn from the mold through said passage.

1,072,236. RAIL-TIE. LINCOLN JOHNSON, Marble, Colo. Filed May 29, 1913. Serial No. 770,769. (Cl. 238—5.)



1. A rail tie comprising a metal base portion, a cushion block carried by said base portion near each end thereof, a rail chair supported upon each of said cushion blocks, abutment members carried by the base for engaging the inner edges of the rails, a brace member carried by each of said rail chairs for engaging the outer sides of the rails, means for drawing the rail chairs together, said last named means comprising an extension carried by each rail chair and directed toward the other extension, the ends of the extensions having alined openings, and wedges arranged to enter said openings for drawing the extensions inwardly.

2. A rail tie comprising a metal base portion, a cushion block carried by said base portion near each end thereof, a rail chair supported upon each of said cushion blocks, abutment members carried by the base for engaging the inner edges each of the rails, a brace member carried by each of said rail chairs for engaging the outer sides of the rails, means for drawing the rail chairs together, said last named means comprising an extension carried by each rail chair and directed toward the other extension, the ends of the extensions being bent back upon themselves to form elongated loops, and wedges having surfaces inclined in opposite directions arranged to enter said loops for drawing the extensions inwardly.

3. A rail tie comprising a metal base portion, a cushion block carried by said base portion near each end thereof, a rail chair supported upon each of said cushion blocks, abutment members carried by the base for engaging the inner edges of the rails, a brace member carried by each of said rail chairs for engaging the outer sides of the rails, means for drawing the rail chairs together, said last named means comprising an extension carried by each rail chair and directed toward the other extension, the ends of the extensions being bent back upon themselves to form elongated loops, wedges having surfaces inclined in opposite directions arranged to enter said loops for drawing the extensions inwardly, and means for locking the wedges in position.

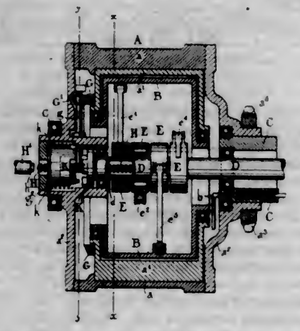
4. A rail tie comprising a base plate of U-shaped cross section, the sides of the base plate being provided with elongated slots, clips carried by the upper edges of the sides of said base plates and arranged to hold the inner edges of the base of the rail, a cushion block disposed between the sides of said base plate near each end of said plate, a rail chair carried by each of said cushion blocks, braces carried by said chairs and arranged to engage the outer side of the rails, integral flanges carried by said rail chairs and arranged to engage portions of said base plate, each of said rail chairs having an extension directed toward the other chair, the ends of the extensions being provided with openings arranged to register with the slots in the sides of the base, and wedges adapted to enter the alined slots and openings for drawing the rail chairs together.

5. A rail tie comprising a base plate of U-shaped cross section, the sides of the base plate being provided with elongated slots, clips carried by the upper edges of the sides of said base plates and arranged to hold the inner edges of the base of the rail, a cushion block disposed between the sides of said base plate near each end of said plate, a rail chair carried by each of said cushion blocks, braces carried by said chairs and arranged to engage the outer side of the rails, integral flanges carried by said rail chairs and arranged to engage portions of said base plate, each of said rail chairs having an extension directed toward the other chair, the ends of the extensions being provided with openings arranged to register with the slots in the sides of the base, wedges adapted to enter the alined slots and openings for drawing the rail chairs together, means for preventing the movement of the cushion blocks, said means comprising flanges carried by the base and arranged to bear on the inner sides of the block, and opposing flanges carried by the rail chairs and arranged to bear on the outer sides of the blocks.

1,072,237. TRANSMISSION-GEARING. PERCY LAW JOHNSON and FRANCIS JOHN STEWART KILGOUR, Hereford, England. Filed Oct. 5, 1912. Serial No. 724,186. (Cl. 74—54.)

1. In an apparatus for transmitting motion, the combination, with a hollow eccentric formed in two parts to render the throw adjustable, and an annular eccentric strap arranged internally of said eccentric, of a series of one-way clutches, rods connecting said clutches to said strap, and a shaft to which said clutches are concentrically affixed.

2. In an apparatus for transmitting motion, the combination, with a hollow eccentric comprising main and secondary parts, an annular eccentric strap arranged internally of said eccentric, and one-way clutches concentric therewith, of a bevel gear affixed to the secondary part, a spindle, a gear carried by said spindle in mesh with the first-named gear, and a sliding rack for rotating said spindle to alter the relative positions of said main and secondary parts.



3. In an apparatus for transmitting motion, the combination with a hollow two-part eccentric, an internal eccentric strap, a driven shaft, and a series of one-way clutches affixed concentrically to said shaft and connected with said strap, of means for adjusting the parts of said eccentric relatively to each other to vary the throw, and means for locking said parts to said shaft when the eccentric is at its maximum throw.

4. In an apparatus for transmitting motion, the combination, with a hollow two-part eccentric, an internal eccentric strap, a driven shaft, and a series of one-way clutches affixed concentrically to said shaft and connected with said strap; of means for adjusting the parts of said eccentric relatively to each other to vary the throw, and coöperating clutch members carried by said eccentric and said shaft which are thrown into engagement when the eccentric is at its maximum throw.

1,072,238. MANUFACTURED AND PACKED BUTTER. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Original application filed Aug. 29, 1910, Serial No. 579,538. Divided and this application filed Mar. 16, 1912. Serial No. 684,174. (Cl. 99—11.)



1. As a new product, butter, the constituents of which have been aerated at a temperature inhibitive of germinal proliferation, and that immediately after its churning has been refrigerated at a temperature sufficiently below the freezing point of water to substantially entirely inhibit bacterial growths in the butter, said butter being free from objectionable odors and flavors of germinal proliferation, said freedom being due to said aeration, said butter having a bacterial content in a non-proliferating state of inhibition.

2. As a new product, butter that has been in a state of frigidity immediately after its making, at the place of its making, during its transit to market, during storage prior to distribution to consumers, and during its distribution to consumers sufficiently below the freezing point of water to prevent proliferation of germs in the butter, said temperature being also sufficiently low to allow of same increase of heat manifestation in the butter during its transportation, storage and distribution, without the butter having attained a germ proliferating temperature, said product substantially maintaining the condition produced by said treatment, the germs in said butter being in a state of vital inhibition, said butter being substantially free from objectionable flavors and odors due to the vital activity of germs.

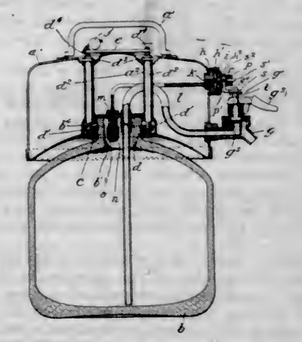
3. As a new product, a flat, thin slad of butter, such as has been herein described, and for the purpose set forth, said slab being in a state of frigidity sufficiently below the temperature securable by the process of externally icing the butter to substantially inhibit bacterial activity in the butter, said butter having continually been in said state of frigidity from a time immediately subsequent to the churning of the butter, said butter being free from odors and flavors developed by germinal activity in the butter after its making.

4. As a new product, a slab of butter of a thinness herein described and for the purpose set forth, said slab being partly divided by intersecting lines into square individual butter pat sub-divisions, said slab being in a condition of frigidity lower than a state of frigidity produced by external icing of the slab, the butter in said slab being in a condition inhibiting germinal proliferation.

5. As a new product and article of commerce, a package of butter, said package containing a plurality of flat slabs of a thinness as herein described and for the purpose set forth, said slabs being in a condition of frigidity sufficiently below the temperature securable by an external application of ice to the slabs to prevent bacterial growth in the butter, the bacteria in the slabs being in a state of inhibition as to vital activity, the slabs collectively being inclosed in a stiff protective incasement preventing deformation of the slabs, infection of and other deteriorations in the butter.

[Claims 6 to 16 not printed in the Gazette.]

1,072,239. SIPHON FOR DISPENSING LIQUIDS. ARTHUR KLEINFELDT, Hoboken, N. J. Filed May 25, 1912. Serial No. 699,811. (Cl. 225—18.)



1. The combination of a liquid receptacle, a gas container, a valve to control the delivery of liquid from the receptacle, a valve to control the delivery of gas from the container to the receptacle, a spring in axial alinement therewith to hold the same closed against the pressure of the gas in the container and in the receptacle, and to permit the valve to open automatically under excessive pressure in either vessel.

2. The combination of a liquid receptacle, a gas container, a valve to control the delivery of liquid from the receptacle, a valve to control the delivery of gas from the container to the receptacle, an operating lever to control both of said valves, means interposed between said lever and the liquid discharge valve, whereby said valve is operated, and means interposed between said lever and the gas valve whereby the gas valve is opened before the liquid valve is opened when the operating lever is moved, continued movement of the lever opening the liquid valve, and is permitted to close after the liquid valve is closed when the operating lever is returned to normal position.

3. The combination of a liquid receptacle, a gas container, an intermediate valve chamber, a gas conductor from the valve chamber to the liquid receptacle, a gas conductor from the valve chamber to the gas container, a valve disposed within said chamber to control the delivery of gas from the container to the receptacle and subject to the gas pressure in the liquid receptacle and to the gas pressure in the gas container, and a spring to hold the valve closed against the pressure of the gas in the container and in the receptacle and to permit the valve to open automatically under excessive pressure in either vessel, whereby the pressures in both vessels become equalized.

1,072,240. PEN-POINT HOLDER. JOHN H. KULOW, Buffalo, N. Y. Filed Apr. 16, 1913. Serial No. 761,458. (Cl. 120—98.)



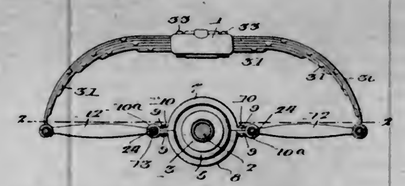
1. A pen gripping device adapted for insertion in a pen handle tube, said device being formed of a resilient metal body shaped to form a tubular bottom piece for engaging the bottom of the handle tube, two opposing sets of resilient flanges that form a pen shank receiving socket and two portions for frictionally engaging the upper part of the handle tube.

2. As an improvement in pen holders, a handle tube, a pen gripping device adapted for insertion in the said handle tube, the said device being shaped to form a tubular shaped body for engaging the bottom of the handle tube, the ends of the said body terminating in two opposing sets of resilient flanges bent upwardly from the body and upon themselves whereby to form a pen receiving socket and two portions for frictionally engaging the upper part of the handle tube, and means on the tube for holding the said device from moving out of the said tube.

3. As an improvement in pen holders, a handle tube, a pen gripping device adapted for insertion in the said handle tube, the said device being shaped to form a tubular shaped body for engaging the bottom of the handle tube, the ends of the said body terminating in two opposing sets of resilient flanges bent upwardly from the body and upon themselves whereby to form a pen receiving socket and two portions for frictionally engaging the upper part of the handle tube, and means on the tube for holding the said device from moving out of the said tube, the said means consisting of a tongue formed on the outer end of the handle tube bendable over and into the tubular shaped bottom portion of the gripping device.

1,072,241. SPRING AND CUSHIONING MEANS FOR VEHICLES. JOSEPH L. LA DRIERE, Albuquerque, N. Mex. Filed Feb. 24, 1913. Serial No. 750,409. (Cl. 21—50.)

1. In means for the purpose described, the combination of a vehicle shaft or axle, a body disposed above the same, a cushioning annulus surrounding the shaft or axle, a casing surrounding said annulus, a spring having its intermediate portion connected with the body, and vertically-swinging arms pivotally connected at their inner ends with the casing and connected at their outer ends with the end portions of the spring.

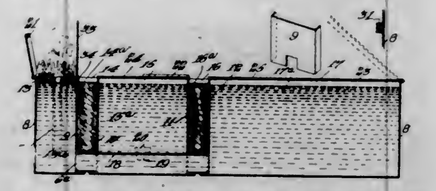


2. In means for the purpose described, the combination of a vehicle shaft or axle, a body disposed above the same, a cushioning annulus surrounding the shaft or axle, a casing surrounding said annulus, a spring having its intermediate portion connected with the body, vertically swinging arms connected at their outer ends with the end portions of the springs, and knuckle joints interposed between and connecting the casing and the inner ends of said arms and respectively comprising tubular portions, a bolt extending therethrough, and anti-friction rollers interposed between the tubular portions and the bolt.

3. In means for the purpose described, the combination of a vehicle shaft or axle, a body disposed above the same, a cushioning annulus surrounding the shaft or axle, a casing surrounding said annulus, a spring having its intermediate portion connected with the body, vertically swinging arms connected at their inner ends with the casing, and knuckle joints interposed between and connecting the end portions of the spring and the outer ends of said arms and respectively comprising tubular portions, a bolt extending therethrough, and anti-friction rollers interposed between the tubular portions and the bolt.

4. In means for the purpose described, the combination of a vehicle shaft or axle, a body disposed above the same, a cushioning annulus, of circular form in cross-section, surrounding the shaft or axle, a casing surrounding said annulus and having a lower portion that seats the annulus and an upper portion having a square interior presented to the annulus, a spring having its intermediate portion connected with the body, and vertically swinging arms interposed between and connecting the casing and the end portions of the spring.

1,072,242. ORCHARD-HEATER. HARRY T. LIBBY, Alvin, Tex. Filed Dec. 16, 1912. Serial No. 736,968. (Cl. 158—91.)



1. A device of the character described comprising a casing provided with a plurality of partitions which together form a plurality of oil storage compartments and oil burning compartments, a conduit extending through two of said partitions and establishing communication from oil storage compartment to an oil burning compartment comparatively distant therefrom, said conduit being provided with an opening which merges into one of said compartments, and a closure member for closing said opening.

2. A device of the character described comprising a casing, a plurality of partitions mounted therein and adapted to form separate oil storage compartment and oil burning compartments, and a wind shield provided with spring fingers for engaging said partitions in order to prevent wind from extinguishing the flame issuing from a compartment adjacent said wind shield.

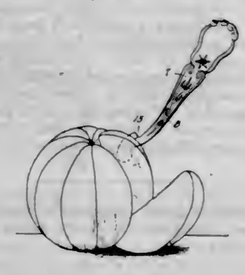
3. A device of the character described comprising a casing, a plurality of partitions mounted therein and spaced apart to form separate compartments, means for establishing communication between said compartments, and a wind shield provided with spring fingers adapted to bend in different directions for engaging one of said partitions for the purpose of supporting the same in proper position to prevent atmospheric winds from extinguishing a flame issuing from a compartment adjacent said wind shield.

4. An orchard heater comprising an oblong box provided with a plurality of partitions spaced apart and forming a number of separate compartments, a conduit extending from one compartment to another for the purpose of establishing communication therebetween, a filling in one of said compartments located between other compartments for the purpose of separating the latter, and means for causing a flame to issue from one of said compartments.

5. An orchard heater comprising an oblong box, a plurality of partitions mounted therein and spaced apart so as to form compartments, some of said partitions being provided with openings, a conduit extending from the opening in one partition to the opening in another partition for the purpose of establishing communication between two compartments located some distance apart, and a wind shield located between two of said compartments.

[Claim 6 not printed in the Gazette.]

1,072,243. FRUIT-KNIFE. ERNEST B. LYDICK, Pittsburgh, Pa. Filed Aug. 14, 1912. Serial No. 714,991. (Cl. 30—9.)



1. A fruit knife comprising a handle, a peeling blade, and a slitting blade arranged between and angularly to the handle and blade and having a sinuous cutting edge, all of the curves of said sinuous edge lying in the same plane.

2. A fruit knife comprising a handle having a curved edge, a sinuous-edged slitting blade extending as a whole at a right angle from said edge of the handle, said sinuous edge lying in the plane of the middle of the handle, and a separating blade extending from the slitting blade, said separating blade having cutting and dull portions.

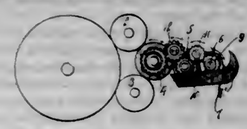
3. A fruit knife comprising a handle and a head, said head comprising a rounded separating portion, a slitting blade, and a peeling blade between the separating portion and the slitting blade, said slitting blade having one or more beads parallel to the edge of the peeling blade, each bead being formed by a pair of grooves formed directly opposite each other in the faces of the head.

4. A fruit knife comprising a peeling blade, a handle, and a slitting blade arranged between and at an angle to the peeling blade and the handle, said slitting blade consisting of a series of parallel beads having their axes lying in the same plane and each bead terminating in a cutting finger.

5. A fruit knife comprising a handle and a slitting blade arranged at an angle thereto, said blade consisting of a series of parallel beads having their axes lying in the same plane and formed by lateral opposing corrugations.

[Claim 6 not printed in the Gazette.]

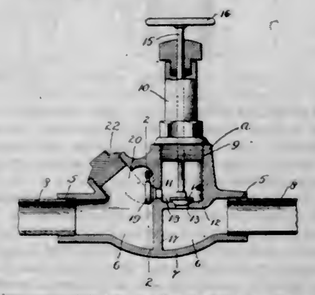
1,072,244. DEVICE FOR CLEANING PRINTING-ROLLERS. PATRICK J. LYNCH, New York, N. Y. Filed Aug. 31, 1912. Serial No. 718,094. (Cl. 101—73.)



1. In a cleaning device for printing presses, the combination with the rollers of said printing press, of a composition cleaning roller contacting with one of the rollers of said printing press, a second cleaning roller, a spiral body arranged on said second cleaning roller engaging said first mentioned cleaning roller, and means for causing all of the contact portions of all of said rollers to move in opposite directions for causing a scraping action between each roller.

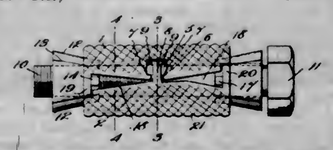
2. In a cleaning device for printing presses, the combination with the rollers of said press, of a composition cleaning roller adapted to engage one of the rollers of said press, an auxiliary cleaning roller formed with a spiral edge, and means for causing the contact portion of both of said cleaning rollers to move in opposite directions whereby said edge will scrape said composition cleaning roller.

1,072,245. COMBINATION CHECK AND STOP VALVE. MICHAEL MAKOWSKY, Passaic, N. J. Filed July 25, 1912. Serial No. 711,484. (Cl. 137—4.)



A valve comprising a casing having an inlet opening and an outlet opening, a partition located in the casing between said openings and disposed transversely thereof, a second partition extending from the first mentioned partition to the side of the casing and at one side of the inlet opening, the second mentioned partition being provided with an opening, a positively movable valve adapted to close said opening, the first mentioned partition having at a point above the second mentioned partition an opening, and a check valve pivotally mounted upon the first mentioned partition at the side opposite the side thereof adjacent which the first mentioned valve is located and adapted to normally close the opening in the first mentioned partition.

1,072,246. EXPANSION-BOLT. DANIEL MASOR, New York, N. Y. Filed Jan. 14, 1913. Serial No. 742,023. (Cl. 85—2.4.)



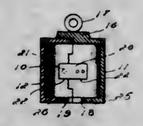
1. In an expansion bolt, the combination of opposed jaw members having overlapping end portions, a threaded bolt

passing through the jaw members, tapering nuts mounted on each end of the bolt and arranged for contacting with each end of the jaw members for expanding the same upon the turning of the bolt.

2. In an expansion bolt, the combination of opposed jaw members, one of said jaw members being also provided with medially disposed countersunk portions and the other of said jaw members being provided with projecting hook portions adapted to fit within said countersunk portions; a threaded bolt passing through the jaw members, tapering nuts mounted on each end of the bolt and arranged for contacting with each end of the jaw members for expanding the same upon the turning of the bolt.

3. In an expansion bolt the combination of opposed jaw members having shouldered and beveled inner surfaces, one of said jaw members being also provided with medially disposed countersunk portions, and the other of said jaw members being provided with projecting hook portions adapted to fit within said countersunk portions, a threaded bolt passing through the jaw members and tapering shouldered nuts mounted on each end of the bolt and arranged for contacting with the beveled and shouldered surfaces of the jaw members for expanding the same upon the turning of the bolt.

1,072,247. CHALK-HOLDER. SCOTT MCGOWAN and LESTER LINE, Dayton, Ohio. Filed June 26, 1912. Serial No. 706,956. (Cl. 46—8.)



1. A chalk holder comprising a casing consisting of a plurality of similar hingedly connected sections, a plate extended from one of the sections and adapted to overlap the other section, a ring carried by the plate, and a locking member on one of the said sections and adapted for engagement with the other section to secure the sections in relatively locked position.

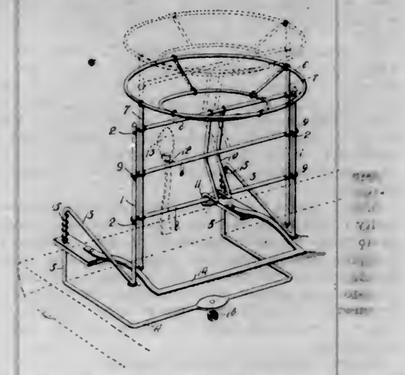
2. A chalk holder comprising a casing consisting of a plurality of similar hingedly connected sections, a plate projecting from one of the sections and adapted to overlap the other, a ring carried by the plate, and a spring-like locking member carried by one of the sections to engage the other section and secure the said sections in relatively locked position.

3. As a new article of manufacture, a casing consisting of similar hingedly connected sections, each formed of a single piece of material and providing a casing adapted to contain a piece of chalk, and locking means carried by one of the sections to engage the other section for securing the sections in locked position, the said locking means being arranged to prevent the said sections from being opened exteriorly after the said chalk has been placed within the said sections.

1,072,248. TABLE ATTACHMENT. JAMES A. MCNAUGHTON, New York, N. Y., assignor of one-half to George Pluskat, Brooklyn, N. Y. Filed Aug. 27, 1912. Serial No. 717,279. (Cl. 65—61.)

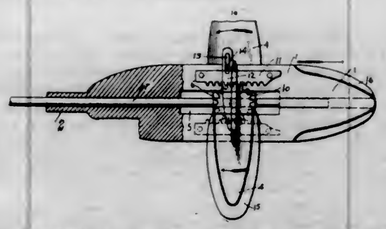
1. An article of the class described comprising spaced uprights adapted to be carried adjacent the table top, resilient means engaging the top for holding the uprights in position, a frame, posts extending from the frame, cross pieces engaging the posts and uprights, a cross piece secured to the posts, and a catch carried by the last-mentioned cross piece adapted to engage the others, whereby the frame may be held at different heights above the table.

2. A table attachment comprising spaced uprights, means whereby they may be held in position adjacent the table top, a frame adapted to hold a dish or vessel, posts carried by the frame, cross pieces engaging the posts and uprights, the parts being movable relatively one to the other, a cross piece secured to the posts, and a catch carried by the said last cross piece and adapted to engage one of the first-mentioned cross pieces, whereby the frame may be held at different elevations above the table, the said uprights being provided with spring-pressed catches whereby the uprights and frame may be moved longitudinally of the said uprights.



3. A table attachment, comprising spaced uprights adapted to be held in position adjacent the table top, a frame adapted to hold a dish or vessel, posts carried by the frame, extending downwardly therefrom and lying adjacent the said uprights, cross pieces carried by the posts and uprights, the posts and uprights being movable relatively to the cross pieces, a cross piece fixed to the posts, a catch carried by the said fixed cross piece and adapted to engage in one of the other cross pieces, whereby the position of the frame and posts relatively to the first-mentioned cross pieces may be varied, and catches carried by the uprights for engagement with the said first-mentioned cross pieces, whereby the said frame and cross pieces may occupy different positions relatively to the said uprights.

1,072,249. PROPELLER. HERBERT S. MORLEY, Newton Center, Mass. Filed Nov. 11, 1912. Serial No. 730,612. (Cl. 170—163.)



1. A reversible propeller comprising propelling blades and retarding blades, means for reversing the propelling blades, the retarding blades normally extending in the direction of travel of the boat and presenting their broadsides to the water when the propelling blades are at right angles to the direction of movement of the boat.

2. A reversible propeller comprising a hub, a block movable longitudinally of the hub, propelling blades movably carried by the block, means between the hub and the propelling blades whereby when the block is moved the blades will be reversed, and retarding blades adapted to be moved when the block is moved, the retarding blades being thereby brought from inoperative to operative position.

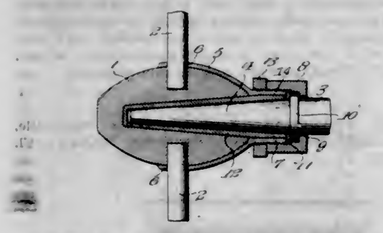
3. A reversible propeller comprising a hub, a block movable longitudinally thereof, propelling blades movably carried by the block, means whereby movement of the block reverses the said blades, and retarding blades moving with the said block and having a common center of motion with the said propelling blades.

4. A reversible propeller comprising a hub having an opening therein, the hub being provided with a sleeve whereby a turning movement may be imparted thereto, a block within the opening, a rod extending from the block whereby it may be moved, propelling blades movably carried by the block and extending laterally from the hub, arms carried by the said blades, pins carried by the hub engaging the arms, whereby when the block is moved the blades will be reversed, retarding blades moving with the said block, racks carried by the hub, and gears carried by the said retarding blades whereby they are moved simultaneously from an inoperative position through an operative position as the said propelling blades are reversed.

5. A reversible propeller comprising a hub, a member movably carried thereby, propelling blades carried by the member, retarding blades also carried by the member, and means whereby, when the said member is moved longitudinally of the hub, the retarding blades will be brought from a position on one side of the propelling blades to another position on the other side of the propelling blades, the said second position being diametrically opposite the first one.

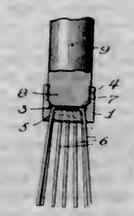
[Claims 6 to 10 not printed in the Gazette.]

1,072,250. VEHICLE HUB AND AXLE. THEODORE G. OELKE, Anadarko, Okla. Filed Mar. 30, 1912. Serial No. 687,492. (Cl. 21—30.)



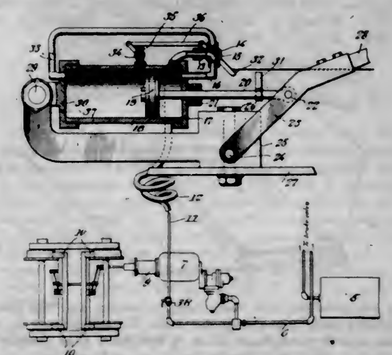
A wheel hub, comprising a one piece metal hub embracing casing formed with spoke receiving holes which register with the spoke sockets in the hub, an externally threaded tubular extension at the inner end of said casing, an axle box having a cylindrical inner end filling said extension and driven tightly into the same with a taper fit, an axle spindle having an annular shoulder, a threaded union surrounding the axle and engaging the annular shoulder thereof and also the threaded extension of the hub casing, and a lock nut on said extension bearing against the union.

1,072,251. EGG-BEATER. WILLIAM J. PARHAM, Pittsburgh, Pa. Filed May 4, 1912. Serial No. 695,149. (Cl. 107—53.)



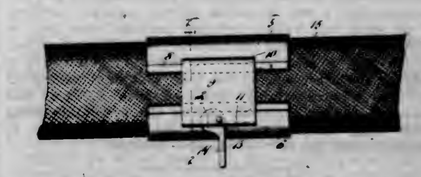
An egg whipper comprising an inverted cap having its outer face formed with plane surfaces having its inner face provided with threads, the bottom of said cap being of greater thickness than the side and formed with a circular row of downwardly and outwardly inclined openings, elongated radially disposed loop-shaped members each formed from a single piece of wire and of tapering contour, the arms of said members having portions thereof of greater inclination than the remaining portion and said portion of greater inclinations extending through and of the same length as the length of said openings, the arms of said members having their free ends bent at right angles to engage the upper face of the bottom of said cap, and a threaded handle extending in and engaging the threads of said socket and further engaging the bent ends of said members for maintaining these latter from longitudinal movement with respect to said cap.

1,072,252. TROLLEY-POLE AND BRAKE CONTROL. JOHN E. PECK, Logan, W. Va. Filed Jan. 12, 1912. Serial No. 670,876. (Cl. 191—90.)



The combination with a fluid pressure operated brake system and a vertically swinging trolley pole, of a trolley pole controller comprising an air cylinder arranged at one side of the pole, a piston reciprocatingly mounted within the cylinder, a piston rod fixed to the piston and pivotally connected to the pole, elbow pipes mounted in opposite ends of the cylinder for communication therewith and to admit fluid at opposite sides of the piston, a three-way valve casing having two of its ways connected with the elbow pipes and its remaining way connected with the fluid pressure operated brake system, a turning valve arranged within the valve casing and adapted to alternately establish communication between either of the said elbow pipes and the fluid pressure operated brake system, an exhaust nipple mounted upon the cylinder intermediate the ends, a cut-off valve rotatably mounted within the said nipple and having a crank, a trip lever fixed to the first-named valve, a link connection between the crank and the said trip lever, and an arm fixed to the piston rod and engageable with the trip lever for operating the same on the raising or lowering of the trolley pole.

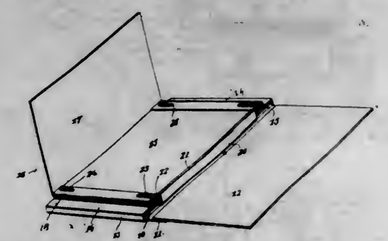
1,072,253. HOSE-MENDING DEVICE. JOHN E. PECK, Logan, W. Va. Filed Apr. 26, 1912. Serial No. 693,290. (Cl. 137—33.)



A hose patch comprising a sleeve formed from two sections and hingedly connected together, both of said sections being formed with out-turned flanges at their free longitudinal edges, a locking plate having downwardly

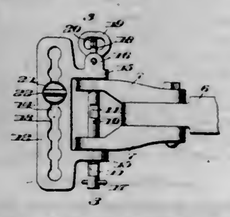
and inwardly bent flanges arranged opposite each other, the major portion of one flange being spaced from the face adjacent thereto of the plate, while the major portion of the other flange contacts with the said face adjacent thereto of the plate, the first-named flange being designed to interlock with one of the flanges of one section, while the edge of the other flange is designed to work in the path of the edge of the other flange on the other section to serve as a stop for the said flange, the under face of the plate being designed to serve as a guide for the flange acting against the stop when applying the sleeve to a hose, and a cam pivotally connected to the last named flange and adapted for interlocking engagement with the flange on the section adjacent thereto of the sleeve.

1,072,254. MANIFOLDING-BOOK. JOHN ALFRED PERCIVAL, Winnipeg, Manitoba, Canada. Filed Aug. 16, 1911. Serial No. 644,296. (Cl. 11—23.)



A manifolding book comprising a bottom and top cover, a flexible back connecting the same, a casing fixed to the inner face of the bottom cover at the inner edge thereof in alinement with the flexible back, a U-shaped wire-frame loosely engaged at its medial stretch in the said casing whereby its limbs will lie transversely of the bottom and top covers, the said limbs of the frame being doubled on themselves and providing rounded free ends thereof and a removable carbon sheet having folded and perforated ends adapted to receive the doubled limbs of the frame for the mounting of the carbon sheet thereon.

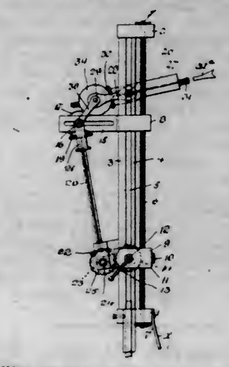
1,072,255. DRAFT ATTACHMENT FOR PLOWS. EDSON PERRY, Mulhall, Okla. Filed Apr. 8, 1913. Serial No. 759,740. (Cl. 97—4.)



A plow head comprising cheek plates having vertical slots provided at intervals with approximately circular enlargements, a bolt extending through enlarged portions of the slots and having flattened portions that may be placed in registry with the slots, a clevis member carried by the bolt, a stop member at one end of the bolt, a head at the other end of the bolt, said head having an eye, and a spring latch connected with the bolt and having a handle extending within the eye, said spring latch being adapted to engage the clevis member to thereby retain the bolt in adjusted position.

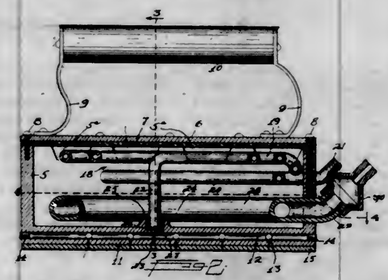
1,072,256. DRILLING-MACHINE. GIMI PICCONE and SAMUEL LIPPIS, Chandler, Colo. Filed Nov. 4, 1912. Serial No. 729,476. (Cl. 255—46.)

1. A drilling machine comprising longitudinal guide bars, supports slidably mounted upon said bars, a revoluble shaft carried by one of said supports, a drill holder movably mounted upon said bars, a drill shank rotatably mounted in said holder, means carried by said supports for transmitting power from said shaft to said drill shank, and means located adjacent to said bars for simultaneously moving said supports thereon.



2. A drilling machine comprising parallel sets of bars, supports slidably mounted upon said bars, a drill holder movably supported by said bars, a drill shank rotatably mounted in said holder, means carried by said supports and including a train of gears for rotating said drill shank, and a feed screw arranged longitudinally of said machine for simultaneously moving said supports.

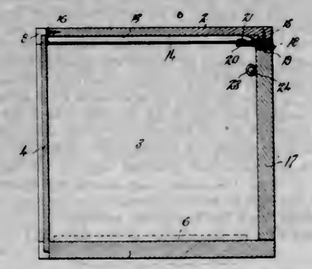
1,072,257. FLAT-IRON. SAMUEL POLLOCK, Zanesville, Ohio. Filed Feb. 17, 1913. Serial No. 748,945. (Cl. 68—26.)



In a flat iron of the character described, a body portion including a lower plate provided with communicating longitudinal and transverse steam receiving passages which discharge through steam outlet ports, a boiler mounted within the upper portion of the body portion and formed of a coiled pipe including lower intake turns and upper steam generating turns having their discharge end bent downwardly for forming a depending portion having communication with the longitudinal and transverse steam receiving passages, and an open tubular burner mounted within the body portion between the boiler and lower plate and receiving therethrough the depending portion of the boiler and provided with perforations upon its upper and lower sides.

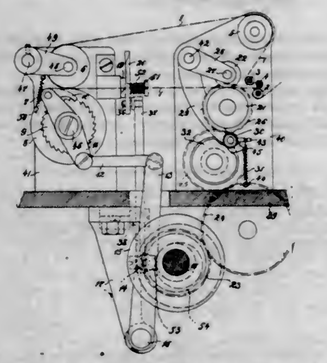
1,072,258. BOOKCASE. CHARLES G. QUACKENBUSH, Toledo, Ohio. Filed Jan. 22, 1913. Serial No. 743,564. (Cl. 45—78.)

In a structure of the class described, a wall having a transverse groove in one side closed at its front end and open at its rear end, a guiding and supporting bar arranged longitudinally of the groove, spaced from the sides thereof and secured at its ends to said wall, that portion of the said bar which is secured to the rear side of the wall being upturned and notched, a slide on the outer side of the bar having means to slidably secure



the same to the bar, said securing means extending into and being also cleared by the groove and being also cleared by the notched upturned rear portion of the supporting bar when the slide is at the rear end of the groove, and a door pivotally connected to and movable with the slide.

1,072,259. MOUTHPIECE-ROLLING MACHINE. HIRSCH RAKOWITZKY, Vilna, Russia. Filed Mar. 1, 1913. Serial No. 751,520. (Cl. 93—81.)

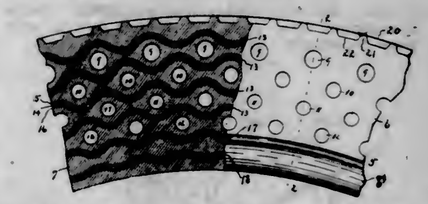


1. The combination with a mandrel, of means for passing a paper strip around said mandrel, means for gripping the paper strip after leaving said mandrel and intermittently feeding it forward, means for periodically cutting a mouthpiece-blank off the strip, and means for periodically gripping the cut blank and introducing its front end between said mandrel and the paper strip which is adapted to wind the blank on said mandrel.

2. The combination with a mandrel, of a cutting device, means for passing a paper strip around said mandrel and between said cutting device, means for intermittently feeding the paper strip, means for periodically operating said cutting device to cut a mouthpiece-blank off the strip, and means for periodically gripping the blank and introducing its front end between said mandrel and the paper strip which is adapted to wind the blank on said mandrel.

3. The combination with a main shaft constantly turning, of a first grooved cam disk on said main shaft, a first pair of pressing rollers, a mandrel, means for passing a paper strip around said mandrel and between said first pair of pressing rollers, means operated from said first grooved cam disk for intermittently rotating said first pair of pressing rollers forward, a cutting device, a second grooved cam disk on said main shaft, means operated from said second grooved cam disk for operating said cutting device whereby a blank is cut off the strip, and means operated from said main shaft for periodically gripping the cut blank and introducing its front end between said mandrel and the paper strip which is adapted to wind the blank on said mandrel.

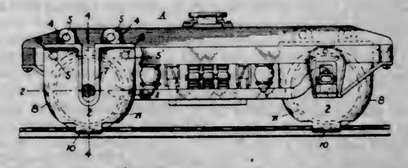
1,072,260. RESILIENT TIRE. FRANK REED, Omaha, Nebr. Filed Aug. 28, 1912. Serial No. 717,468. (Cl. 152—8.)



1. A vehicle tire comprising an elastic body portion formed with a plurality of rows of transverse openings, the openings of a row being arranged in staggered relation to the openings of an adjacent row, and a plurality of elastic metallic members of serpentine formation extending longitudinally of the body portion and embedded therein, the outwardly bowed portions of one serpentine member being opposed to the inwardly bowed portions of the adjacent serpentine member, said openings being located between the opposed concave portions of said serpentine members.

2. A vehicle tire comprising an elastic body portion formed with a plurality of rows of transverse openings the openings of a row being arranged in staggered relation to the openings of an adjacent row, and a plurality of elastic metallic members of serpentine formation extending longitudinally of the body portion and embedded therein, the outwardly bowed portions of one serpentine member being opposed to the inwardly bowed portions of the adjacent serpentine member, said openings being located between the opposed concave portions of said serpentine members, the outer of said metallic members being of more pronounced serpentine form than the inner.

1,072,261. DEVICE FOR PREVENTING THE DERAILING OF RAILWAY-CARS. HENRY RIDDLE, North Liberty, Iowa, assignor of one-third to Frank Riddle, one-third to James Riddle, and one-third to Emil Riddle, North Liberty, Iowa. Filed May 21, 1913. Serial No. 769,048. (Cl. 105—94.)



1. A safety attachment for cars, comprising relatively spaced plates lying at the opposite sides of the wheel of the truck and secured to the truck and provided with terminal portions lying below the axis of the wheel and underlying the ball of the rail.

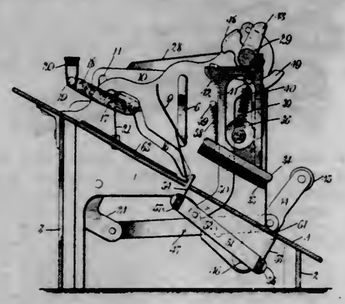
2. A safety attachment for cars comprising companion plates secured to the truck and lying against the opposite sides of the wheel, one of the plates having a vertical slot therein receiving the axle therethrough to compensate for relative vertical movement of the axle and truck respectively and flanges formed on the plates beneath the axle and underlying the ball of the rail.

3. A safety attachment for cars comprising plates secured to the truck and lying at the opposite sides of the

wheel, spacing sleeves between the plates, bolts passing through the sleeves and through the plates, and flanges formed on the plates below the axis of the wheel and underlying the ball of the rail.

4. A safety attachment for cars comprising plates secured to the truck and lying at the opposite sides of the wheel and provided with curved ends extending over the tread surfaces of the wheel and partly housing said surfaces and flanges formed on the plates and underlying the ball of the rail.

1,072,262. ENVELOP-SEALING MACHINE. FRANK RUSZKOWSKI, New York, N. Y. Filed Apr. 2, 1912. Serial No. 687,993. (Cl. 120—6.)



1. In a device of the kind described, the combination of a frame, said frame having slots formed in its ends, a trough containing moistening material mounted in said slots, an inclined plate carried by said frame and mounted to be movable toward the lower ends of said slots, a supporting plate to receive thereon the envelop to be sealed, and means for simultaneously moving said trough and said inclined plate to cause the moistening material carried by the trough to engage the gummed edge of the flap of the envelop and press the same against said inclined plate preparatory to closing the envelop.

2. In a device of the kind described, the combination of a frame having slots formed in its ends, a moistening trough having absorbent material mounted to be movable in said slots, an inclined plate carried by said frame in front of said trough and mounted to be movable toward and from the lower ends of said slots, means for connecting said trough and said plate, a supporting plate beneath said trough and said inclined plate to receive the envelops to be sealed, and means for engaging and moving said trough from one end of said slots to the other, whereby when the trough is moved, the inclined plate will be lowered and the moist absorbent material in the trough will press the gummed edge of the flap of the envelop against said inclined plate preparatory to closing the same.

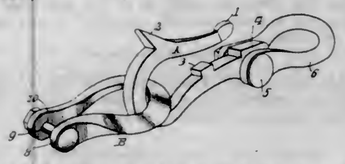
3. In a device of the kind described, the combination of a frame having slots in its ends, a moistening trough containing absorbent material mounted to be movable in said slots, an inclined plate carried by said frame in front of said trough and mounted to be movable toward and from the lower ends of said slots, means for connecting said trough and said inclined plate, a supporting plate below said trough to receive the envelops to be sealed, means for operating the trough, whereby when the same is moved, the inclined plate will be lowered and the flap of the envelop to be closed will be engaged between said plate and the trough to have the gummed edge thereof moistened preparatory to sealing the envelop, and means joined to the means connecting the inclined plate and the trough and engageable upon the further movement of the means for actuating the trough to return the trough and the inclined plate to their original position.

4. In a device of the kind described, the combination of a frame carrying a supporting blade, a movable plate arranged upon the same and parallel therewith, said last-named plate having means connected thereto for holding the same spaced from the supporting plate, and a shaft having operating arms thereon for reciprocating the second-named plate to force the moistened gummed edge of the flap of an envelop to be sealed against the body of the envelop and close the same.

5. In a device of the kind described, the combination of a frame having an inclined plate to receive and support an envelop to be sealed, a rectangular frame mounted beneath said plate, said last-named frame carrying a row of studs along one of its longitudinal edges, the supporting plate having apertures to permit the passage of said studs, means connected to said rectangular frame for oscillating the same to move the ends of said studs through said apertures to engage the edge of an envelop, means for moistening the gummed flap of the envelop when said studs are in such position; means for subsequently engaging and pressing down the moistened gummed edge of the flap of said envelop to close the same, and means for operating the means connected to said rectangular frame and the means for pressing down the flap of the envelop.

[Claims 6 to 13 not printed in the Gazette.]

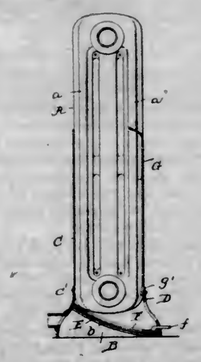
1,072,263. HOOK. CLARENCE W. SHAW, Johnstonville, Cal. Filed June 13, 1911. Serial No. 632,930. (Cl. 24—225.)



1. The combination with a hook, of a ring-like member, a flange at the front and sides of such member and extending outwardly and laterally thereof.

2. The combination with a hook, of a ring-like member, a flange around the front and down the sides of such member and projecting outwardly thereof thence extending laterally at the front of said member.

1,072,264. VENTILATING-RADIATOR. OLIVER PERRY SIMLER, Johnstown, Pa., assignor to Union Radiator Company, a Corporation of Pennsylvania. Filed Sept. 9, 1908. Serial No. 452,208. (Cl. 237—18.)

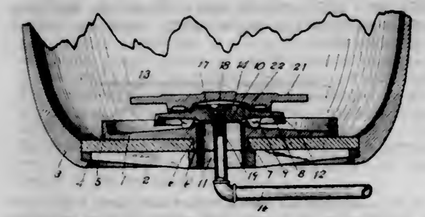


1. A radiator comprising a plurality of radiator sections, each having corrugations, an inclosure for the lower portion of the radiator, a portion of the front of said inclosure being formed of a plurality of strips alternating with the sections, and laterally extending projections on the upper ends of the strips, said projections having recesses for interlocking with the corrugations of the sections; substantially as described.

2. A radiator comprising a plurality of radiator sections having corrugations, an inclosure for the lower portion of the radiator having a back, sides and front portion, the front portion being formed of a longitudinally extending lower member and a plurality of vertically extending upper members, each of the upper members having a flange at its lower end for engagement with the longitudinal member, and an inwardly extending projection at its upper end, the projection having a plurality of recesses for interlocking with the corrugations of adjacent radiator sections; substantially as described.

3. A strip for closing the space between the sections of a radiator, said strip having a body portion, a seating portion on its lower end, and an inwardly extending member on its upper end, said member having a recess on each side for receiving and interlocking with the corrugations of the radiator sections; substantially as described.

1,072,265. OIL-BURNER. JAMES I. SLOAN, Kansas City, Mo. Filed Sept. 24, 1912. Serial No. 722,072. (Cl. 158—53.)



1. In an oil burner, a base plate having a central opening, a diaphragm supported on and spaced from the base plate and covering the opening, said diaphragm having an opening therein above the base opening, a fuel supply pipe projected through and spaced from the sides of the base opening and fitted snugly within the diaphragm opening, and a cover plate having depending notched rings supporting same on the diaphragm.

2. In an oil burner, a base plate having a central opening, a diaphragm supported on and spaced from the base plate and covering the opening, said diaphragm having an opening therein above the base opening, a fuel supply pipe projected through and spaced from the sides of the base opening and fitted snugly within the diaphragm opening, said diaphragm having a boss on its upper portion surrounding the opening and provided with notches in its outer edge, and a cover plate supported on and spaced from the diaphragm.

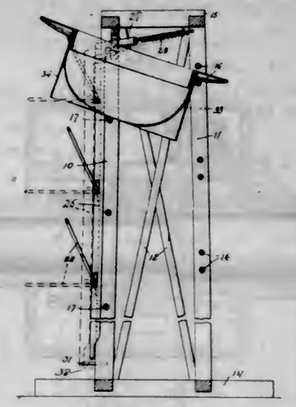
3. An oil burner comprising a base member, having an edge flange, and an inwardly and upwardly inclined upper surface, a diaphragm having a depending peripheral flange and having legs supporting same from the base plate whereby the peripheral flange is spaced from the inclined upper surface thereof, the diaphragm and base plate having central apertures of different diameter, a cover plate having concentric rings, one of which is adapted for supporting the plate on the diaphragm and both having notches through which fuel flowing over the surface of the diaphragm may pass, and a supply pipe extending into the opening in the base member into the opening in the diaphragm, whereby fuel is delivered onto the top of the diaphragm and air delivered around the supply pipe to the space between the diaphragm and base plate.

4. An oil burner comprising a base member, having a central opening, a diaphragm supported on the base member and having a central opening, a supply pipe extending through the base opening and into the diaphragm opening, and a float seated in the upper mouth of the diaphragm opening and having a loosely pendent stem suspended into the diaphragm opening.

5. An oil burner comprising a base plate, having a central opening, a diaphragm seated on and spaced from the base plate and having a central opening and notches in the upper mouth of the opening, a cover plate supported on the diaphragm, a convex float loosely seated in the upper mouth of the diaphragm opening, and having a stem depending into said opening, and a supply pipe extending through the base opening into the diaphragm opening.

[Claim 6 not printed in the Gazette.]

1,072,266. SELF-ADJUSTABLE HAT-RETAINER. HERBERT SMITH, Yonkers, N. Y. Filed Apr. 26, 1913. Serial No. 763,808. (Cl. 211—14.)



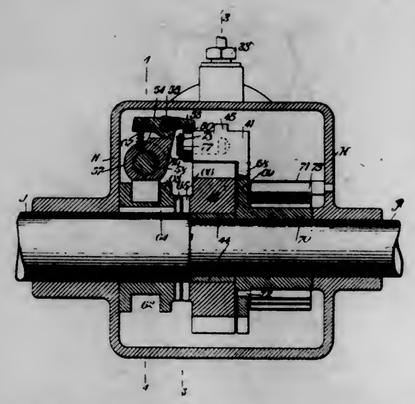
1. The combination of a hat rack embodying spaced frames, spaced pairs of rungs carried by one frame and cooperating rungs carried by the other frame for supporting the hats with the brims engaged between the pairs of rungs and the crowns supported on the other rungs, retaining sections extending longitudinally across the rack and having engaging portions and intermediate portions journaled on the frame having the coöperating rungs, crank portions formed with said retaining sections, rods connecting said crank portions, one of said rods having a grasping portion for shifting the retaining sections on their pivots, and means for guiding the rod having the grasping portion.

2. The combination of a hat rack embodying spaced frames, spaced pairs of rungs carried by one frame and cooperating rungs carried by the other frame for supporting the hats with the brims engaged between the pairs of rungs and the crowns supported on the other rungs, retaining sections extending longitudinally across the rack and having engaging portions and intermediate portions journaled on the frame having the coöperating rungs, crank portions formed with said retaining sections, rods connecting said crank portions, one of said rods having a grasping portion for shifting the retaining sections on their pivots, said rod having the grasping portion being provided with an inwardly extended end, a spring connecting the frame to said end for exerting pull on the latter to move the retaining sections to engaging positions, and means carried by the frame and engaging said inturned end for guiding the rods during their movement.

3. The combination of a hat rack embodying spaced frames, spaced pairs of rungs carried by one frame and cooperating rungs carried by the other frame for supporting the hats with the brims engaged between the pairs of rungs and the crowns supported on the other rungs, retaining sections extending longitudinally across the rack and having engaging portions and intermediate portions journaled on the frame having the coöperating rungs, crank portions formed with said retaining sections, rods connecting said crank portions, one of said rods having a grasping portion for shifting the retaining sections on their pivots, said rod having the grasping portion being provided with an inwardly extended end, a spring connecting the frame to said end for exerting pull on the latter to move the retaining sections to engaging positions, and means car-

ried by the frame and engaging said inturned end for guiding the rods during their movements, said means also forming a stop.

1,072,267. ENGINE-STARTER. GREGORY JOHN SPOHRER, Franklin, Pa., assignor to Wilson Motor Starter Company, Franklin, Pa. Filed June 29, 1911. Serial No. 635,930. (Cl. 123—179.)



1. In an engine starter, a casing, an engine shaft passing through said casing, a clutch member feathered to said shaft, a yoke pivotally supported above said clutch member and engaging the same to slide said clutch member longitudinally along said shaft, said clutch member having teeth on one side thereof, a gear wheel loosely mounted on said shaft having teeth on the side thereof adapted to engage the teeth of the clutch member, a second gear wheel loosely mounted on said shaft on the side of said first-mentioned gear wheel opposite the clutch member, a piston stem having a rack on the under side thereof, means actuating said piston stem, said rack engaging both of said gear wheels; a tumbler carried by said piston stem, said tumbler adapted to engage said yoke during the initial movement of said stem to throw the teeth of the clutch member and gear wheel into engagement, so that the further movement of said stem will rotate said shaft, and spring means attached to said second-mentioned gear, placed under tension by the movement of said stem while rotating the shaft, said spring means acting on said second-mentioned gear to return said stem to its initial position.

2. In an engine starter, a main engine shaft, a casing mounted on said shaft, a clutch member keyed to said shaft, a gear wheel loosely mounted on said shaft and adapted to engage said clutch member, a piston cylinder, a piston stem projecting from said cylinder, said stem having a rack thereon adapted to engage said gear wheel, means for admitting compressed fluid to said cylinder, to drive said piston stem in a direction to rotate said gear wheel and clutch member, a second gear wheel loosely mounted on said shaft adjacent the first-mentioned gear wheel, and a coil spring having one end connected to said last-mentioned gear wheel and the other end attached to said casing, to react on said last-mentioned gear wheel and piston stem to return the latter to its initial position.

3. In an engine starter, an engine shaft, a clutch member keyed to said shaft, a gear wheel loosely mounted on said shaft and adapted to engage said clutch member, a piston stem having a rack thereon engaging said gear wheel to rotate the same, a pivoted yoke loosely engaging said clutch member to move the same on said shaft into engagement with said gear wheel, and a tumbler carried by said stem to actuate said yoke to engage said clutch member and gear wheel.

4. In an engine starter, a shaft, a pair of gear wheels loosely mounted on said shaft, compressed fluid controlled means engaging said gear wheels to rotate the same, means whereby one of said gear wheels is connected to said shaft to rotate the same, and means connected to the other of said gear wheels to return said fluid controlled means to its initial position after it has rotated the gear wheels and shaft.

5. In an engine starter, in combination, an engine shaft, a gear wheel mounted upon and adapted to rotate said shaft, a second gear wheel having a hub loosely mounted upon said shaft, a coil spring mounted upon said hub and adapted to actuate said second-mentioned gear wheel, a reciprocating rack permanently engaging said second-mentioned gear wheel and engaging said first-mentioned gear wheel for a portion of its stroke, said rack having a blank space thereon to permit said first-mentioned gear wheel to ride idly on the engine shaft.

[Claim 6 not printed in the Gazette.]

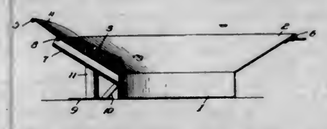
1,072,268. ROLL-MEASURER. HARRY M. SPRECHER, Ephrata, Pa. Filed Aug. 13, 1912. Serial No. 714,937. (Cl. 73—40.)



1. The combination with a roll of open mesh fabric such as wire fencing, of a graduated measuring tape extending lengthwise of the fabric and embodying two plies or strips located on opposite sides of the fabric and secured together within the mesh openings.

2. The combination with a roll of open mesh fabric such as wire fencing, of a graduated measuring tape extending lengthwise of the fabric and embodying two plies or strips located on opposite sides of the fabric and pasted together within the mesh openings.

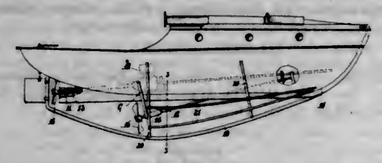
1,072,269. PORTABLE BATH-TUB. THOMAS L. STINE, Trego, Md. Filed May 14, 1913. Serial No. 767,630. (Cl. 4—27.)



1. A portable bath tub comprising a centrally arranged tub or basin, a funnel-shaped apron at the upper side thereof and extending upwardly and outwardly therefrom, a seat on one side of the apron and a fender or back projecting outwardly from the apron and connected thereto at a point in rear of the seat, the said fender also forming a reinforce for that portion of the apron on which the seat is located, and supports attached to the apron at a point at opposite sides of the seat to prevent the tub from being overturned when in use.

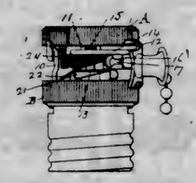
2. A portable bath tub comprising a centrally arranged tub or basin, a funnel-shaped apron at the upper side thereof and extending upwardly and outwardly therefrom, a seat on one side of the apron and a fender or back projecting outwardly from the apron and connected thereto at a point in rear of the seat, the said fender also forming a reinforce for that portion of the apron on which the seat is located, and supports attached to the apron at a point at opposite sides of the seat to prevent the tub from being overturned when in use, the tub being also provided with a discharge pipe arranged in an inclined position under the center of the seat and communicating at its inner end with the tub.

1,072,270. BOAT. SILVERIO TAGLIAMONTE, Somerville, Mass. Filed Jan. 17, 1912. Serial No. 671,657. (Cl. 115—37.)



In combination with a hull, a plurality of propeller shafts revolubly supported thereon, with the rear end of one of the shafts projecting beneath the rear end of the hull and the rear end of another shaft projecting beneath the hull near the medial portion thereof, a propeller carried by the first mentioned shaft and arranged beneath the stern of the hull, a lifting propeller carried by the second shaft and arranged adjacent the medial portion of the hull beneath the same, and a skeleton guard carried by the hull to protect the said propellers, the said skeleton guard consisting of a series of rods disposed longitudinally of and to one side of the longitudinal center of the hull, cross pieces carried by the hull and disposed to opposite sides of the transverse center thereof and spaced therefrom, with one of the said rods projecting downwardly and rearwardly and thence upwardly to connect with the stern of the hull, the latter mentioned rod being disposed in spaced relation to and beneath the longitudinal center of the bottom of the hull, throughout the entire length of the bottom of the hull.

1,072,271. ELECTRIC-LAMP SOCKET. GEORGE B. THOMAS, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 23, 1912. Serial No. 679,311. (Cl. 173—254.)



1. A switch mechanism for electric appliances, comprising a series of inclined faces and a stationary contact thereon, in combination with a rotary switch contact having contact arms to pass over said inclined faces and contact, means to intermittently rotate the movable contact, in combination with insulating material interposed between the parting edges of said stationary and rotary contacts upon the opening of the switch, together with a peripheral skirt of insulating material depending around the outer normally exposed edge of said contact arms.

2. A switch mechanism for electric appliances, comprising a series of inclined faces and a stationary contact thereon, in combination with a rotary switch contact having contact arms to pass over said inclined faces and contact, means to intermittently rotate the movable contact, in combination with a ring of insulating material overlying said contact arms and provided with downwardly inclined shoulders following the incline of said contact arms, whereby said shoulders are interposed between the parting edges of said stationary and rotary contacts upon the opening of the switch, said contact arms being offset at their upper end to permit the insulating ring to lie flush with the upper face of the rotary contact.

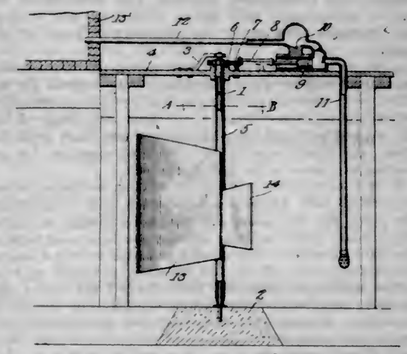
3. A switch mechanism comprising stationary insulating base, a stationary switch contact thereon, a rotary contact coöperating with the stationary contact and a rotary insulating body coöperating with the stationary insulating base to completely inclose and insulate the rotary contact from the stationary contact in the off position of the switch.

4. In an electric switch, a rotary switch member comprising a central bearing plate having outwardly extending arms and arcuate downwardly angled contact wings offset at their junction with said outwardly extending arms.

5. In an electric switch, a rotary switch member comprising a central bearing plate, outwardly extending arms forming a ratchet element and arcuate downwardly angled extensions offset from said arms to form contact wings, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,272. WAVE-MOTOR. WILLIAM H. THOMAS, Ontario, Cal. Filed Oct. 21, 1912. Serial No. 727,029. (Cl. 253—6.)



1. A wave motor including a shaft mounted for rotation about a vertical axis, blades radiating from the shaft and disposed at an angle to each other, one of said blades constituting means for holding the other blade normally obliquely to the path of movement of the waves, a pump, and means for transmitting motion to the pump from the shaft.

2. A wave motor including a shaft mounted for rotation about a vertical axis, radial blades extending from the shaft, one of said blades constituting means for holding the other blade normally in a position to receive the force of a wave upon one face thereof, thereby to rotate the shaft, a pump, and means actuated by the shaft when rotated, for actuating the pump.

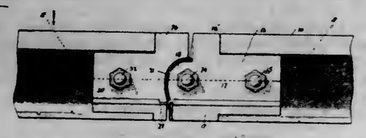
3. A wave motor including a shaft mounted on end, blades of different areas radiating from the shaft, one of said blades constituting means for normally holding the other blade in position to receive the force of waves against one face thereof to rotate the shaft in one direction, a gear revoluble with the shaft, a pump including a piston, and speed multiplying means for transmitting motion from said gear to the piston.

4. A wave motor including a shaft mounted for rotation about a vertical axis, radial blades extending from the shaft, one of said blades constituting means for holding the other blade normally in a position to receive the force of a wave upon one face thereof thereby to rotate the shaft, one of said blades being of greater area than the other blade, and power transmitting means operated by the shaft.

1,072,273. RAIL-JOINT FOR PORTABLE TRACKS. PETER JOSEPH THULL, Culebra, Canal Zone. Filed Dec. 18, 1912. Serial No. 737,404. (Cl. 239—8.)

1. In a rail joint, a pivotal connection formed between the juxtaposed ends of the rails, said ends having means whereby a predetermined displacement of said ends in a vertical and in a horizontal direction normal to the longitudinal axis of the rails can be made.

2. In a rail joint, a pair of articulated members each having means for securement to the end of a rail, said members having means whereby a predetermined maximum displacement in a vertical and in a horizontal direction normal to the longitudinal axis of the rail can be made, this displacement being followed by the rails attached to said members.



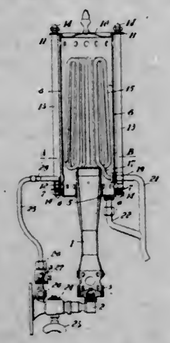
3. In a rail joint, a pair of articulated members having male and female portions engaging each other, and means associated with said male and female portions and connecting said articulating members, and constituting the axis of articulation, said means permitting both vertical and horizontal flexure at the articulation point of the joint.

4. In a rail joint, a pair of articulating members, means connecting said members and constituting a pivot for the same, said members having an upper and a lower offset corresponding to the shape of the head and flange of the rail respectively and abutting against and flush with the same, and means associated with said members for attaching the same to the end of the rail.

5. In a rail joint, a pair of articulating members, means connecting said articulating members and constituting the pivot for the same, said members having an upper and a lower offset abutting against the head and base of the rail respectively, one of said members having a tongue intermediate said offsets and centrally provided with an orifice converging from the sides toward the center and engaging said connecting means constituting the pivot, the second of said members having jaws intermediate said offsets and adapted to engage said tongue, said jaws being centrally provided with an orifice and adapted to engage said connecting means.

[Claims 6 to 9 not printed in the Gazette.]

1,072,274. WATER-HEATING DEVICE. VICTOR JOSEPH TOUCHARD, Paris, France. Filed Aug. 29, 1912. Serial No. 717,781. (Cl. 122—250.)



In an apparatus for the heating of water, the combination with a casing comprising a drum formed with air inlet and outlet openings, of a bottom on the drum, said bottom having an annular vertical wall and a horizontal flange extending from said vertical wall, the lower portion of the drum being supported on the bottom and fitting snugly against the vertical wall, a top for the drum, the top extending between the vertical plane of the drum, sleeves interposed beyond the extended portion of the top and the horizontal flange of the bottom, bolts extending through the top, the horizontal flange and the sleeves to lock the casing together, a series of vertically disposed coils in the drum, the coils being spaced apart to form a central vertical passage, water inlet and outlet pipes connected with the coils, a burner in the bottom of the casing in alinement with the central vertical passage between the coils, and means for controlling the burner.

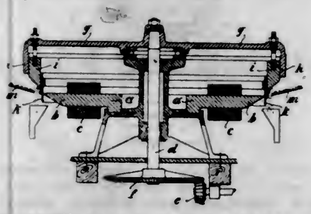
1,072,275. NUT-LOCK. EDWARD E. TREVILLION, Newellton, La. Filed Dec. 28, 1912. Serial No. 739,117. (Cl. 151—30.)



1. In a nut lock, the combination with a bolt having a threaded portion and a nut adapted to be screwed thereupon, said bolt having a groove in the threaded portion adjacent the nut and formed at right angles to the axis of said bolt, the width of the groove aforesaid being narrower than the gage of the threads on the bolt, of a locking ring member of relatively hard material and of less diameter than the bolt, secured around said bolt and having a portion seated in the groove whereby to prevent tendency of the ring member to follow the thread on unscrewing movement of the nut.

2. In a nut lock, the combination with a threaded bolt and a nut therefor, the bolt having a groove in its threaded portion adjacent the nut and at right angles to the axis of the bolt, of a locking ring of less diameter than the diameter of the bolt and formed with an attenuated portion adapted to seat in the groove aforesaid the enlarged portions of the ring at the ends of the groove forming wedges to prevent turning of the locking member.

1,072,276. MAGNETIC SEPARATOR. GEORG ULLRICH, Magdeburg, Germany. Filed Jan. 12, 1912. Serial No. 670,937. (Cl. 83—71.)



1. In a magnetic separator, a stationary magnet, a non-magnetic guard entirely covering the active part of said magnet and against which guard the material is held by the magnet, said guard rotating to remove the adhering material when beyond the action of said magnet, a counter-pole adjacent to said magnet also attracting the material, said counter pole also constructed to rotate.

2. In a magnetic separator, a stationary magnet, a non-magnetic guard in front of said magnet against which the material is held by the magnet, means for rotating said guard to remove the adhering material when beyond the action of said magnet, a ring-shaped counter-pole adjacent to said magnet also attracting the material, and gearing for said counter-pole, said gearing being actuated by said rotating means and constructed to rotate said counter-pole at different speed from that of said guard.

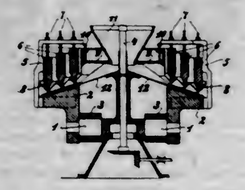
3. In a magnetic separator, a stationary magnet, a counter-pole adjacent said magnet, a guard against which the material is held by said magnet and said pole, said guard overlapping both the magnet and the counter-pole and means for rotating said guard in order to remove the adhering material when beyond magnetic action; a gearing for said counter-pole constructed to rotate the counter-pole at a different speed from said guard.

4. In a magnetic separator, a plurality of electro-magnetic stationary poles of the same polarity arranged symmetrically around a common vertical axis, the coils for said poles having their axes arranged radially in a common horizontal plane, a rotating guard, an annular rotary counter-pole of opposite polarity to said stationary poles and suitable rotary carrying means for said guard and counter-pole mounted coaxially with said stationary poles, said guard adapted to conduct the material under treatment away from said stationary poles.

5. In a magnetic separator, a plurality of magnetic stationary poles arranged symmetrically around a common axis, a rotating guard an annular counter-pole and suitable rotary carrying means for said guard and said counter-pole mounted coaxially with said first named magnetic poles; said guard located above and extending downwardly outside of said counter pole.

[Claims 6 and 7 not printed in the Gazette.]

1,072,277. APPARATUS FOR THE MANETIC SEPARATION OF ORES AND OTHER MATERIAL. GEORG ULLRICH, Magdeburg, Germany. Filed Jan. 17, 1912. Serial No. 671,570. (Cl. 83—71.)



1. In a magnetic separator, means for producing a plurality of magnetic fields in a circle about a vertical axis, in each magnetic field two stationary poles of which the upper pole comprises lamellæ adjustable vertically and independently of each other, said lamellæ being downwardly sharpened, for the purpose of providing, in each magnetic field, a plurality of single adjustable zones and an extracting body revolving between said poles, said extracting body being corrugated to conform in shape with the sharpened part of said lamellæ and means for conveying the material to be separated between the upper and the lower poles.

2. In a magnetic separator, means for producing a plurality of magnetic fields in a circle about a vertical axis, in each magnetic field two stationary poles of which the upper pole comprises lamellæ adjustable vertically and independently of each other, said lamellæ being downwardly sharpeded, for the purpose of providing, in each magnetic field, a plurality of single adjustable zones and an extracting body revolving between said poles, and means for conveying the material to be separated between the upper and the lower poles; said extracting body having an undulated radial section corresponding to the sharp pointed lamellæ.

3. In a magnetic separator, a plurality of stationary lower poles arranged in a circle about a vertical axis, a plurality of nonrevoluble upper pole rings concentrically arranged about said axis above said lower poles, a common carrying frame for said pole rings, a revoluble extracting body beneath said pole rings, said extracting body being corrugated to conform in shape with the sharpened part of said lamellæ; and means for conveying the material to be separated in between the poles; said pole rings being axially adjustable independent of each other and each being provided with a sharp downward edge.

4. In a magnetic separator, a plurality of stationary lower poles arranged in a circle about a vertical axis, a plurality of nonrevoluble upper pole rings concentrically arranged about said axis above said lower poles, a common carrying frame for said pole rings, a revoluble extracting body beneath said pole rings; and means for conveying the material to be separated in between the poles, said pole rings axially adjustable independent of each other and each being provided with a sharp downward edge, and recesses being formed on the under side of said extracting body between said rings.

5. In a magnetic separator, a plurality of stationary lower poles arranged in a circle about a vertical axis, an upper stationary pole above each of said lower poles, said upper pole comprising a plurality of magnetizable plate-like elements sharpened downwardly, said elements being vertically adjustable relative to each other and to said upper pole and being arranged one behind the other in the direction of the introduction of the material to be separated; a common carrying member for said elements conducting the magnetic forces, a common extracting body revolving beneath all of said elements and means for conveying the material to be separated beneath said extracting body, said extracting body being corrugated to conform in shape with the sharpened part of said lamellæ.

[Claims 6 to 9 not printed in the Gazette.]

1,072,278. CONNECTING DEVICE FOR BEDSTEAD-FRAME TUBES AND THE LIKE. CHARLES VALLONE, Buffalo, N. Y., assignor to Barcalo Manufacturing Company, Buffalo, N. Y. Filed July 22, 1912. Serial No. 711,004. (Cl. 5—4.)



1. The combination with two members to be secured together, one of which has a hole therein and the other of which has a stud which projects through said hole, of a wedge which is separate from said members and is adapted to be moved lengtwise between one side of said first member and a part of said stud for drawing said members firmly together, and a retaining device for preventing movement of said wedge relative to said stud, said retaining device being movably connected to said wedge and having a part which engages said stud to hold said retaining device from sliding with said wedge and having a portion adapted to be bent into holding engagement with said wedge, substantially as set forth.

2. The combination with two members to be secured together, one of which has a hole therein and the other of which has a headed stud which projects through said hole, of a wedge which is separate from said members and is adapted to be moved lengthwise between one side of said first member and the head of said stud for drawing said members firmly together, and a retaining device for said wedge having a slip connection with said wedge and having a part which engages said stud to hold said device from sliding with said wedge relative to said stud, said device being adapted to be placed in holding engagement with said wedge to prevent the releasing movement thereof, substantially as set forth.

3. The combination with two members to be secured together, one of which has a hole therein and the other of which has a headed stud which projects through said hole, of a wedge which is provided with a longitudinal slot and is adapted to be slipped endwise over said stud and forced between one side of said first member and the head of said stud for drawing said members firmly together, and a retaining strip carried by said wedge and engaging said stud and adapted to be bent to prevent movement of said wedge relative to said stud, substantially as set forth.

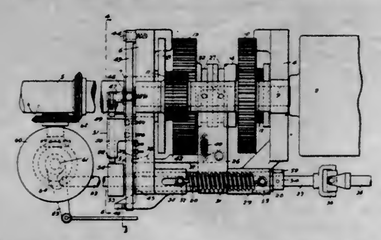
4. The combination with two members to be secured together, one of which has a hole therein and the other of which has a headed stud which projects through said hole, of a wedge which is provided with an open-ended longitudinal slot and is adapted to be slipped endwise over said stud and forced between one side of said first member and the head of said stud for drawing said members firmly

together, said wedge having an offset bridge part connecting the sides of the wedge at the open end of said slot, and a retaining device for preventing movement of said wedge relative to said stud, substantially as set forth.

5. The combination with two members to be secured together, one of which has a hole therein and the other of which has a headed stud which projects through said hole, of a wedge which is provided with raised inclined portions adapted to straddle said stud and to be forced in between one side of said first member and the head of said stud for drawing said members firmly together, the edges of said inclined portions being adapted to yield under the pressure of the head of said stud whereby said edges are caused to grip said stud, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,072,279. STARTER APPARATUS AND SYSTEM FOR AUTOVEHICLES. RICHARD VARLEY, Englewood, N. J., assignor to Varley Duplex Magnet Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 14, 1912. Serial No. 731,336. (Cl. 123—179.)



1. In starter mechanism for combustion engines, a motor, means for connecting the motor and engine whereby said motor may actuate the engine, and means for automatically disconnecting the said elements at a point of time substantially coincident with inauguration of explosion of the combustible charge in the cylinder or cylinders of the engine.

2. In starter mechanism for combustion engines, a shaft for transmitting power to the engine, a motor, a motor shaft, means for connecting the shafts together, whereby the motor may drive the first named shaft, and means for automatically disconnecting the shafts at a point of time substantially coincident with an explosion stoke of the engine.

3. In starter mechanism for combustion engines, a shaft for transmitting power to the engine, a motor, a motor shaft, means for connecting the shafts together, whereby the motor may drive the first shaft, and means for automatically disconnecting the shafts at a point of time substantially coincident with the initial explosion of a combustible charge and assumption of self-propulsion of the engine.

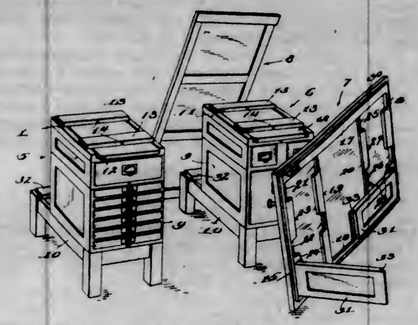
4. In starter mechanism for combustion engines, a shaft for transmitting power to the engine, a motor, a motor shaft, reducing gears, means for so connecting the shafts and gears as to cause the motor to drive the first shaft, and mechanism for so controlling the said means as to effect disconnection of the gears and shafts at a period of time substantially coincident with an explosion stroke of the engine.

5. In starter mechanism for combustion engines, a shaft for transmitting power to the engine, a motor, a motor shaft, reducing gears, means adapted to be manually set, for so connecting the gears and shafts as to cause the motor to drive the first shaft, and mechanism for automatically releasing the said connecting means at a period of time substantially coincident with an explosion stroke of the engine.

[Claims 6 to 22 not printed in the Gazette.]

1,072,280. DESK. LOUIS C. WALKER, Muskegon, Mich. Filed Feb. 28, 1912. Serial No. 680,443. (Cl. 45—93.)

1. In a desk, the combination of a pair of cabinet sections each provided upon its top with a pair of horizontal transversely-arranged spaced cleats; and a top panel removably mounted upon said sections and provided upon its under face, adjacent each side edge thereof, with a pair of rails arranged at right angles to the corresponding pair of cleats, each pair of rails being provided with opposed seats wherein the ends of the adjacent cleats are received, and with opposed projections fitting in the spaces between said cleats.

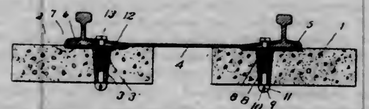


2. In a desk, the combination of a pair of spaced cabinet sections each provided upon its top with a pair of spaced horizontal cleats; and a top panel mounted upon said sections and provided upon its under face with a pair of spaced horizontal rails for coöperation with each pair of cleats, each pair of rails being formed with pairs of opposed seats wherein the ends of the corresponding cleats are designed to fit, and with a pair of opposed projections located intermediate said pairs of seats and designed to fit in the spaces between said cleats.

3. In a desk, the combination of a pair of spaced cabinet sections each comprising a stack of individual units removably assembled together, and a base on which the same is mounted, said bases projecting rearwardly beyond the corresponding stacks; a top panel resting upon said stacks and removably interlocked with the tops thereof; and a pair of depending dummy panels secured to the opposite side edges of said top panel and arranged to rest at their lower edges upon the adjacent projecting portions of the corresponding bases, said dummy panels occupying the same plane as the outer side members of the adjacent stacks.

4. In a desk, the combination of a pair of spaced cabinet sections each comprising a stack of individual units, and a base on which the same is mounted, said bases projecting rearwardly beyond the corresponding stacks and being each provided with a cleat; a top panel resting upon said stacks and removably interlocked with the tops thereof; and a pair of depending dummy panels secured to the opposite side edges of said top panel and arranged to rest at their lower edges upon the adjacent projecting portions of the corresponding bases, said dummy panels occupying the same plane as the outer side members of the adjacent stacks and having their said lower edges recessed for engagement with the corresponding cleats.

1,072,281. RAILWAY-TIE FASTENER. ISAAC B. WALLACE, Independence, Kans. Filed Sept. 10, 1912. Serial No. 719,517. (Cl. 238—6.)



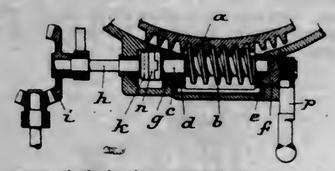
1. The combination with an apertured base, of a tie member, having studs projecting through the base, means for yieldingly anchoring said studs to the base, and means for holding rails on the tie.

2. The combination with a rigid base, having sockets in its upper face, a tie having down-set heads seated in said sockets, means for anchoring the tie to the base, chair plates, and means for attaching the chair plates to the tie.

3. The combination with a rigid base having vertical apertures, of a tie seated on said base and having a downwardly projecting hollow stud, said stud having an apertured lip at its lower end, a spring key projected through the aperture in said lip and adapted to bear against the bottom of the base, a chair plate, and a lag bolt projected through the chair plate and threaded into said stud, substantially as set forth.

4. The combination with a rigid base, having a grooved aperture therein, of a tie seated on the base and having a winged stud located within the base aperture and grooves, a key for holding the stud to the base, a chair plate, and means for holding the chair plate to the tie.

1,072,282. GEARING. CARL WANINGER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Jan. 25, 1913. Serial No. 744,103. (Cl. 74—36.)

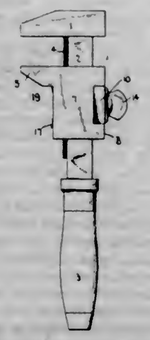


1. A worm shaft having eccentric bearings, a second shaft forming an extension of the worm shaft, and a sliding coupling between the two shafts whereby the worm shaft may be rotated about an eccentric axis without interfering with the extension shaft.

2. A worm shaft having eccentric bearings, a second shaft forming an extension of the worm shaft, and a coupling between the two shafts comprising members slidable at right angles to the axis of the extension shaft whereby the worm shaft may be rotated about an eccentrically-disposed axis without disturbing the extension shaft.

3. A worm shaft having eccentric bearings, a second shaft forming an extension of the worm shaft, and a coupling between the two shafts comprising two corresponding disks having grooves at right angles to each other and an intermediate disk having tongues fitting in said grooves, whereby the worm shaft may be rotated about an eccentrically-disposed axis without disturbing the extension shaft.

1,072,283. WRENCH. RICHARD HENRY WATERS, Rosebud, Tex. Filed Apr. 14, 1913. Serial No. 761,080. (Cl. 81—144.)



In a wrench, the combination with a shank having a fixed jaw at one end and a handle at the other, and teeth on its front edge, a movable jaw slidably mounted on said shank, and a guide block also slidably thereon and connected with said movable jaw by side plates; of a hollow locking bolt loosely mounted on said shank between the movable jaw and its guide block and having teeth on the inner face of its front wall and a threaded aperture through its rear wall and a segmental groove in the outer face of the latter concentric with said aperture, a screw mounted in the aperture and having an enlarged head, a stop pin under the head engaging said groove, lugs on the front face of the front wall, and a leaf spring held at its mid-length beneath said lugs with its lower end overlying the front end of said block, the inner side of the movable jaw having a notch in which the upper end of said spring is seated.

1,072,284. PEDAL-PROPELLED VEHICLE. PAWEL J. WIDERA, Chicago, Ill. Filed Mar. 6, 1913. Serial No. 752,359. (Cl. 208—22.)



1. A pedal propelled vehicle comprising a platform, a steering wheel at the forward end thereof, a steering post for moving said wheel, a seat carried by said platform, depending hangers carried by said platform, a rod connecting said hangers, a tube revolubly supported by said rod, drums loosely mounted upon said tube, heads mounted upon said tube and extending into said drums, a ratchet mechanism within said drums for alternately moving said heads, wheels mounted upon said tube, and actuating members pivotally supported from the bottom of said platform and adapted to impart movement to said drums.

2. A pedal propelled vehicle comprising a platform, a seat carried thereby, a steering wheel at an end of said platform, hangers carried by said platform, a rod connecting said hangers, a tube revolubly supported by said rod, drums loosely mounted upon said tube, heads carried by said tube and extending into said drums, a ratchet mechanism within said drums for imparting movement to said heads, wheels mounted upon said tube adjacent to said hangers, actuating members pivotally mounted beneath said platform for imparting movement to said drums, and treadles in connection with said actuating members.

1,072,285. HANDY HOOK. ROBERT JAMES WIGLEY, Centralia, Wash. Filed Nov. 7, 1912. Serial No. 729,975. (Cl. 57—127.)



1. A hook of the kind described comprising one continuous piece of metal wire, bent in the form of a double loop, said loops being separated by a bump.

2. A hook of the class described comprising one continuous piece of metal bent in the form of a double loop, a bump separating said loops, said metal curving from the hump, first downward in each direction, when it curves

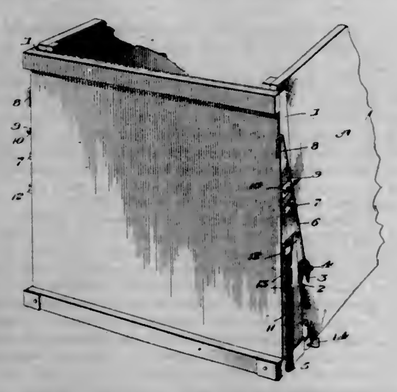
upwardly, the terminals of said wire terminating adjacent said hump, one of said terminals contacting said hump, while a space is left between the terminal of the other loop and the hump.

3. A hook and attachment of the class described comprising one continuous piece of metal bent in the form of a double loop, a hump separating said loops, said metal curving from the hump, first downward in each direction, when it curves upwardly, the terminals of said wire terminating adjacent said hump, one of said terminals contacting said hump, while a space is left between the terminal of the other loop and the hump, an attachment connected to that loop which is closed by contacting or substantially contacting the hump, said attachment being adapted to be attached to any wooden object, and means provided thereon whereby the same may be caused to firmly grip the object to which attached.

4. A hook of the class described comprising one continuous piece of metal bent in the form of a double loop, a hump separating said loops, said metal curving from the hump, first downward in each direction when it curves upwardly, the terminals of said wire terminating adjacent said hump, one of said terminals contacting said hump, while a space is left between the terminal of the other loop and the hump, the terminal of the last named loop extending to the side and below the hump.

5. A hook and attachment of the kind described comprising one continuous piece of metal wire, bent in the form of a double loop, a hump separating the loops, an attachment connected to one of the loops, said attachment being substantially rectangular in shape, and being provided with prongs and a perforation therein to enable it to be firmly secured to any wooden object desired.

1,072,286. SHOVELING-BOARD. DANIEL WILDE, Washington, Iowa. Filed July 18, 1912. Serial No. 710,155. (Cl. 21—21.)



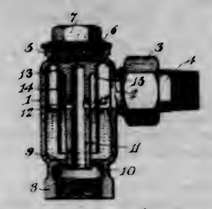
1. The combination with a wagon-box having pins projecting laterally therefrom, of an end-gate having staples projecting from the sides thereof, hangers pivotally connected at their inner ends with the lower end of the end-gate and adapted to be supported at their opposite ends on the pins, flexible rods having fixed pivotal connection with the inner ends of the hangers and slidably connected with the staples, and means carried by the end-gate comprising a plurality of teeth in position to be engaged by the flexible rods whereby the rods, staples and teeth cooperate to lock the end-gate against the end of the wagon-box.

2. The combination with a wagon-box having outwardly projecting pins on each side thereof, of an end-gate, hangers pivotally connected to the pins and to the end-gate, rods pivotally connected with the hangers and slidably hooked to the sides of the end-gate, and toothed bars pivotally connected with the end-gate and means on the wagon-box in position to be engaged by teeth on said bars, whereby to vary the pivotal point of support of the lower end of the end-gate.

3. The combination with a wagon-body and end-gate, of hangers and toothed bars pivotally connected with the end-gate at a common point on each side thereof, independent means on the wagon-box engaged by the inner ends of the hangers, and rods pivotally connected with the inner ends of the hangers and slidably connected with the end-gate.

4. The combination with a wagon-body and end-gate, of hangers and toothed bars pivotally connected with the end-gate at a common point on each side thereof, independent means on the wagon-box engaged by the inner ends of the hangers, and rods pivotally connected with the inner ends of the hangers and slidably connected with the end-gate, teeth on the end-gate adapted to be engaged by the rods when the gate is closed, and loops pivotally connected with the end gate to receive and fasten the ends of the toother bars when the latter are swung alongside the sides of the end-gate.

1,072,287. WATER-SEAL RADIATOR-TRAP. EDGAR C. WILEY, Lynchburg, Va. Filed Dec. 4, 1912. Serial No. 734,970. (Cl. 237—30.)



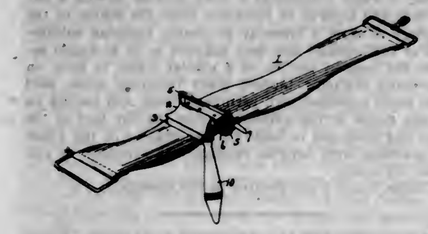
1. A water seal trap for steam radiators, comprising a casing with an inlet and an outlet, and a web with a central opening and defining the bottom of a chamber within the casing between the inlet and the outlet, and a readily removable plug introducible into the casing through the end thereof remote from the outlet and shaped to receive the plug, the latter carrying two concentric tubular members, the outer one of which is of a length to stop short of the web and the inner one of which is of a length and diameter to extend through and closely fit the opening in the web, such inner tube having a passage through its walls between the plug and web, the inner diameter of the casing about the tubular members being related to the outer diameter of the outer tubular member and the inner diameter of the outer tubular member being related to the outer diameter of the inner tubular member to provide a space between the two tubular members of less diameter than between the outer member and the casing and of less diameter than the passage through the walls of the inner tubular member.

2. A water seal trap for steam radiators comprising a casing with an inlet at one side and an outlet at one end, and a threaded opening at the end opposite the outlet, and a removable plug adapted to the threaded opening and provided with concentric tubular members in fixed relation to the plug and introducible into the casing and removable therefrom with the plug, each tubular member having a passage through its walls with the passage through the outer member at a greater height than that through the inner member, the casing having a web with a central passage therethrough near the outlet end of the casing and defining the bottom of a water chamber, and the inner tubular member being of a length and diameter to extend through and snugly fit the passage in the web, with the outer tubular member of a length to stop short of the web when the plug is seated.

3. A water seal trap for steam radiators comprising a casing with an inlet between its ends, an outlet at one end, and a readily removable plug adapted to the other end of the casing, said plug having integral therewith a central tubular member and provided with a sleeve concentric with the central member, the central tubular member having a passage through its walls at an intermediate point and the sleeve having a smaller passage therethrough at a higher point, the casing having near the outlet a web defining the bottom of a water chamber, and said web having a central passage therethrough, the outer diameter and length of the central tubular member being such as to cause the said member to project through the opening in the web in snug fitting relation thereto and the length of the sleeve being such as to stop short of the web when the plug is seated in the casing.

4. A water seal trap for steam radiators comprising a casing with an inlet between its ends, an outlet at one end and a readily removable plug adapted to the other end of the casing, said plug having integral therewith a central tubular member and provided with a sleeve concentric with the central member, the central tubular member having a passage through its walls at an intermediate point and the sleeve having a smaller passage therethrough at a higher point, the casing having near the outlet a web defining the bottom of a water chamber and said web having a central passage therethrough, the outer diameter and length of the central tubular member being such as to cause the said member to project through the opening in the web in snug fitting relation thereto and the length of the sleeve being such as to stop short of the web when the plug is seated in the casing, the spacing of the sleeve from the inner tubular member being less than the free opening of the intermediate passage through the walls of said tubular member.

1,072,288. RAZOR-STROP. MAURICE O. WILLIAMS, Detroit, Mich., assignor, by mesne assignments, to Daisy Manufacturing Company, Plymouth, Mich., a Corporation of Michigan. Filed Aug. 1, 1910. Serial No. 574,938. (Cl. 51—16.)



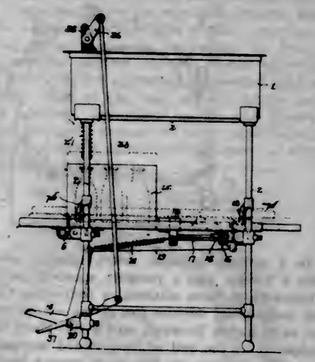
As an article of manufacture, a razor strop having in its marginal edges a series of coinciding transversely disposed reverse bends.

1,072,289. ESTERS OF POLYHALOGEN COMPOUNDS OF ALCOHOLS WITH THERAPEUTICALLY-ACTIVE ACIDS. RICHARD WOLFFENSTEIN, Berlin, Germany. Filed Mar. 1, 1913. Serial No. 751,642. (Cl. 23—24.)

1. The process for the manufacture of salicylic trichloro-butyl-ester, which consists in heating salicylic acid chlorid with tertiary trichloro-butyl-alcohol, treating the product of the reaction with dilute soda solution and petroleum spirit, and allowing it to crystallize from the solution thus formed, substantially as described.

2. As a new product, salicylic trichloro-butyl-ester, being an easily crystallizable compound melting at 81–82° C., boiling at 170° C. with slight decomposition, easily soluble in alcohol, soluble also in ether and petroleum spirit, but sparingly soluble in water, assuming a violet color with slightly reddish tint, when treated in alcoholic solution with chlorid of iron, soluble in concentrated sulfuric acid and when heated in this solution, undergoing decomposition while giving off abundant vapors of hydrochloric acid.

1,072,290. BOTTLE-FILLING MACHINE. ALFRED F. WOOD and ALFRED G. STEER, Lansdowne, Pa., assignors to The Dairymens Supply Company, Lansdowne, Pa., a Corporation of Pennsylvania. Filed May 6, 1910. Serial No. 559,787. (Cl. 226—22.)



1. The combination of a supporting frame; a case-carrying structure having links connecting it to the frame in positions to permit of its being raised and lowered thereon; bottle filling means on the frame; and a device for actuating said filling means to bring the same in operative position relatively to the bottles in a case on said structure.

2. The combination of a supporting-frame; a case-carrying structure having links connecting it to the frame to permit of its being raised or lowered thereon; bottle filling means on the frame; a device for actuating said filling means to bring the same into operative position relative to bottles in a case on said structure; with means for holding the case-carrying structure in its raised position.

3. The combination in a bottle filling machine of a frame; a series of bottle filling tubes connected to a source of liquid supply; means for supporting a bottle case designed to hold a number of series of bottles; and means for intermittently feeding such case under the filling tubes; said means including a reversible ratchet bar having a plurality of sets of differently spaced teeth to accommodate the machine to cases having different sizes of bottles; and a pawl placed to engage said ratchet bar.

4. The combination in a bottle filling machine of a frame; a tank mounted thereon; and bottle filling means consisting of a tube mounted in the tank; a valve for normally preventing flow of liquid through the tube; an operating rod for said valve extending therefrom into the tank; with operating means including a bar having a slot opening on one of its edges for detachably receiving the upper end of said rod.

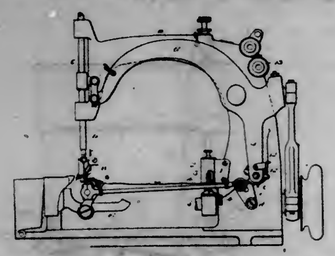
5. The combination in a bottle filling machine of a supporting structure; a tank mounted thereon; a series of filling tubes mounted in said tank; a valve for each tube; a series of operating rods respectively attached to said valves; and actuating means for said rods including a bar having slots each open at its edge for removably receiving the operating rods.

[Claims 6 and 7 not printed in the Gazette.]

1,072,291. THREAD-CONTROLLING DEVICE FOR SEWING-MACHINES. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Sewing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 9, 1903. Serial No. 151,825. (Cl. 112—26.)

1. In a sewing machine, stitch-forming mechanism including a needle and a looper coöperating therewith to form stitches, a device operating upon the looper thread and giving slack thereto as the looper moves forward, and a second device operating upon the looper thread while the looper is moving backward to take up the slack in the

looper thread and release the thread after the needle has entered the looper thread loop, said first named device operating to take up the looper thread after it has been released by said second device.



2. In a sewing machine, stitch-forming mechanism including a needle, and a variably speeded looper coöperating therewith to form stitches, a controller for the lower thread comprising devices for giving slack thread to the looper as it moves forward, and a full slack thread when the looper is at the end of its forward movement, a take-up operating to take up the slack thread while looper is moving backward and a castoff for casting said thread from the take-up after the needle has entered the looper loop, said controller operated to gradually take up the slack after the thread is cast off the take-up.

3. In a sewing machine, stitch forming mechanism including a needle, and a variably speeded looper coöperating therewith to form stitches, a controlling device for the lower thread, comprising a take up member to engage the thread and take up the slack on the backward movement of the looper, a cast off coöperating therewith and operating to give a slack thread after the needle has entered the looper loop, and devices for controlling the slack while the looper is completing its backward movement; substantially as described.

4. In a sewing machine, stitch forming mechanism, including a needle, a variably speeded looper coöperating therewith to form stitches, a controlling device for the looper thread comprising a take-up member to engage the thread and take up the slack, a cast-off coöperating therewith and operating to give slack thread to the looper after the needle has entered the looper thread loop, means for controlling the slack in the looper thread after it has been released by the cast-off, including a thread engaging device and a thread eye, and movable thread guides through which the thread passes from the supply to the slack thread controller and take-up member.

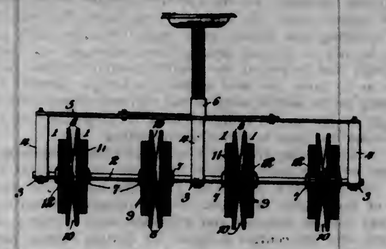
5. In a sewing machine, stitch forming mechanism including a needle, and a looper coöperating therewith to form stitches, stationary guides for the thread, take up member reciprocating in a plane between the guides and operating in one movement of the looper, a cast off plate coöperating with said take up member, a slack controlling device operating upon the thread and comprising a swinging arm over which the thread is guided to give slack as the looper moves forward and gradually take up the slack in the reverse movement, and a stationary guiding wire under which the thread is guided, and a pull off; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,072,292. HARROW. JOHN WYSS, Johnstown, Colo. Filed Mar. 10, 1913. Serial No. 753,378. (Cl. 55—77.)

1. A crust breaking harrow of the class described including wheels provided with peripheral teeth and adapted to be arranged to straddle a row of plants and provided with projecting annular rims or flanges having exterior corrugations arranged to pulverise the crust.

2. A crust breaking harrow of the class described including wheels provided with peripheral teeth and adapted to be arranged to straddle the rows of plants and provided with projecting annular rims or flanges having transverse corrugations extending entirely across the rims or flanges in substantial parallelism with the axis of the wheels.



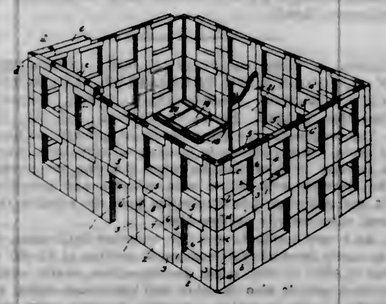
3. A crust breaking harrow of the class described including a pair of contiguous wheels having at their outer faces crust breaking means and provided at their inner faces with enlargements formed by tapering the body portions of the wheels in thickness from the center outwardly, said enlargements being arranged opposite each other and forming a relatively narrow tapering space between them to enable the wheels to straddle a row of young plants.

4. A crust breaking harrow of the class described including a wheel comprising a body portion having a flat side face and tapered in thickness from the center to the periphery to form a laterally projecting tapering enlargement at the opposite side face adapted to be arranged opposite the tapered portion of a similar wheel to form an intervening inwardly tapered plant receiving space, said wheel being provided with peripheral teeth and having an annular flange or rim extending from the flat face of the wheel and arranged to limit the penetration of the wheel.

5. A crust breaking harrow of the class described including a wheel comprising a body portion having a flat side face and tapered in thickness from the center to the periphery to form a laterally projecting tapering enlargement at the opposite side face adapted to be arranged opposite the tapered portion of a similar wheel to form an intervening inwardly tapered plant receiving space, said wheel being provided with peripheral teeth and having an annular flange or rim extending from the flat face of the wheel and arranged to limit the penetration of the wheel and provided with exterior corrugations arranged to pulverize the crust.

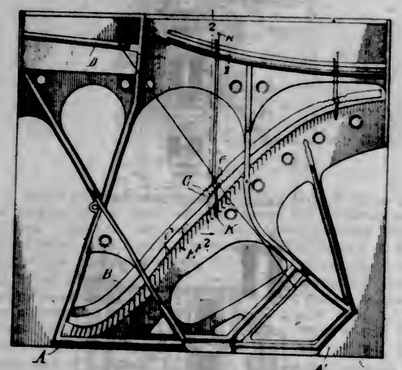
[Claims 6 and 7 not printed in the Gazette.]

1,072,293. SECTIONAL CONCRETE BUILDING. CARLO ZEIMET, New York, N. Y. Filed Apr. 25, 1912. Serial No. 693,102. (Cl. 72—1.)



The herein described building construction comprising a plurality of blocks, certain of said blocks being arranged vertically and edge to edge, said blocks having shoulders arranged on their opposite edges forming seats, a pair of lintels arranged in alinement with each other and having their adjacent ends resting upon said seats, and bonding means securing all of said parts together, the first mentioned blocks being provided with registering grooves extending to their upper ends, the ends of the alined lintels and the adjacent shouldered portions of the first mentioned blocks being provided with registering grooves extending from one lintel through both of said shoulder portions into the opposite lintel, and said bonding means including reinforcements extending throughout all of said registering grooves, substantially as set forth.

1,072,294. PIANO STRING-PLATE. JØRGEN ANDERSEN, Perth Amboy, N. J. Filed July 29, 1912. Serial No. 712,134. (Cl. 84—144.)



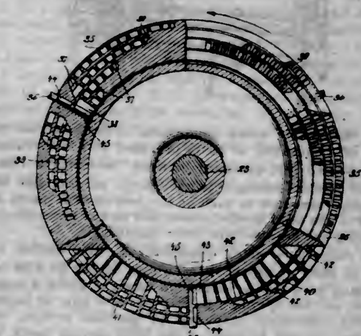
A piano string plate having a raised rib portion made up of a series of double inclined surfaces terminating in ridges which latter are arranged in stepped relation to one another, a bridge positioned adjacent to and spaced apart from said rib portion and having notches upon its opposite edges, pins projecting from said bridge adjacent to the marginal edges of the notches therein, hitch pins projecting from the plate at the lower marginal edges of the inclined surfaces upon said rib and at right angles thereto, tuning pins projecting from the plate, ribs projecting from the plate adjacent to said tuning pins, strings fastened to said hitch pins and held thereby against the inclined surfaces of the ribs and bearing against the said ridges, the strings engaging the pins upon said bridge and bearing on the ribs adjacent to the tuning pins and fastened to the latter, as set forth.

1,072,295. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to H. Stanley Todd, New York, N. Y. Filed Dec. 3, 1910. Serial No. 595,331. (Cl. 121—118.)

1. In a turbine engine, the combination with rotary and stationary elements having main buckets and coacting reaction surfaces therein, and also having supplementary buckets and coacting reaction surfaces, of reversing means, and means operated in combination with the reversing means, for admitting motive fluid to the supplementary buckets and coacting reaction surfaces at the time of the operation of the said reversing means.

2. In a turbine engine, the combination with rotary and stationary elements having main buckets and coacting reaction surfaces therein, and also having supplementary buckets and coacting reaction surfaces, of reversing means, means operated in conjuction with the reversing means for admitting motive fluid to the supplementary buckets and coacting reaction surfaces at the time of the operation of the said reversing means, governing means, and means operated thereby for cutting off admission of motive fluid to the said supplementary buckets and coacting reaction surfaces after the engine has reached a predetermined speed of rotation in the new direction of drive.

3. In a turbine engine, the combination with rotary and stationary elements having main buckets and two sets of coacting reaction surfaces therein, the one set for employment when the engine is driven in one direction and the other set for employment when the engine is driven in the opposite direction, the said rotary and stationary elements also having supplementary buckets and coacting reaction surfaces, of a reversing valve for admitting motive fluid to the one or the other of the said sets of main reaction surfaces, another valve, means for operating the first said valve to reverse the position thereof, means operated in conjunction therewith for operating the second said valve to admit motive fluid to the said supplementary buckets and reaction surfaces, governing means, and means operated thereby for again closing the latter said valve after the engine has reached a predetermined speed of rotation in the new direction of drive.

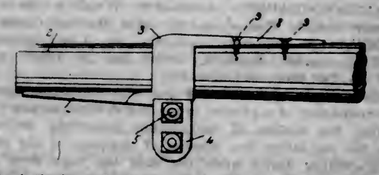


4. In a turbine engine, the combination with rotary and stationary elements having main buckets and two sets of coacting reaction surfaces therein, inclined in opposite directions, the said rotary element having also supplementary buckets, of a reversing valve for admitting motive fluid to the one or the other of the two sets of main reaction surfaces, a supplementary reversing valve having two sets of reaction surfaces therein either of which is adapted for coaction with the said supplementary buckets, and means for reversing the position of the main and supplementary reversing valves.

5. In a turbine engine, the combination with rotary and stationary elements having main buckets and two sets of coacting reaction surfaces therein, the one set for employment when the engine is driven in one direction and the other set for employment when the engine is driven in the opposite direction, the said rotary element having also supplementary buckets, of a reversing valve for admitting motive fluid to the one or the other of the two sets of main reaction surfaces, a supplementary reversing valve having two sets of reaction surfaces therein either of which is adapted for coaction with the said supplementary buckets, and connected means for simultaneously reversing the position of the said main and supplemental reversing valves.

[Claims 6 to 29 not printed in the Gazette.]

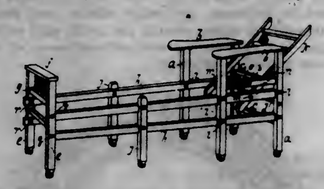
1,072,296. POLE-TIP. SAMUEL K. ANDERSON and JOHN LONG, South Auburn, Nebr. Filed Dec. 2, 1912. Serial No. 734,570. (Cl. 21—92.)



1. A tip for a draft pole, comprising a split collar adapted to be clamped on the pole and having tongues projecting longitudinally from it in opposite directions and arranged upon opposite sides of its axis.

2. A tip for a draft pole, comprising a slit collar provided with lugs and a split tongue on one side of its axis and adapted to be clamped to the pole and having a tongue on the other side of its axis, said tongues projecting longitudinally from it in opposite directions.

1,072,297. COLLAPSIBLE COUCH. CLINTON J. AYRES, Saranac Lake, N. Y. Filed June 9, 1913. Serial No. 772,542. (Cl. 5—16.)



1. A collapsible couch comprising a head section consisting of a plurality of posts provided with arm rests, a swinging head rest arranged between the posts, a removable foot section having a pair of posts, parallel side rails removably connected to each of the foot section posts, and secured to the head section posts, and means for removably connecting the head section posts together.

2. A collapsible couch comprising a head section consisting of pairs of side posts each pair having an arm rest, a swinging head rest arranged between the posts, a removable foot section having a pair of posts, a pair of parallel side rails removably connected to the foot section, each pair being secured to each of the head section posts, and means for removably securing the head section posts together.

3. A collapsible couch comprising a head section including pairs of side posts each pair having an arm rest, a pair of parallel side rails secured to each of the head section posts, a foot section having a pair of posts removably connected to the side rails, a removable head rest connected to and arranged to swing between the head section posts, and devices for removably securing the head section posts together.

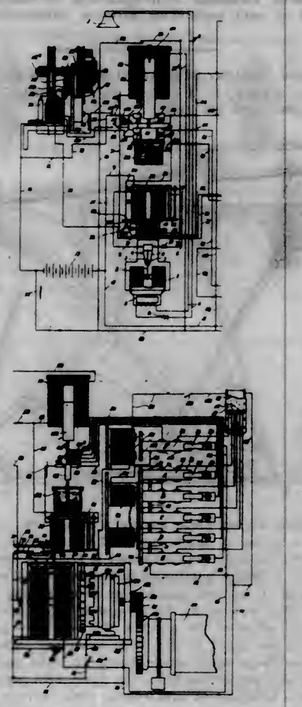
4. A collapsible couch comprising a head section including pairs of side posts each pair having an arm rest, a pair of parallel side rails secured to each of the head section posts, a foot section having a pair of posts removably connected to the side rails, a removable head rest connected to the side rails and arranged to swing between the head section posts, and a removable transverse rod for connecting the head section posts together.

5. A collapsible couch comprising a head section including pairs of side posts each pair having an arm rest, a pair of parallel side rails secured to each of the head section posts, a foot section having a pair of posts removably connected to the side rails, a removable head rest connected to the side rails and arranged to swing between the head section posts, and devices including transverse bars and a removable rod for removably connecting the head section posts together.

1,072,298. TARGET APPARATUS FOR USE WITH KINEMATOGRAPHS. BENJAMIN WILLIAM BATES, HENRY WELDON KELLY, and DOUGLAS HAYNES CORBIN, Birmingham, England, assignors to Life Targets Limited, London, England. Filed Apr. 25, 1913. Serial No. 763,560. (Cl. 88—16.)

1. In a target apparatus for use with kinematographs, the combination of a picture projecting device; means for arresting the motion of the picture projecting device; means for regulating the moment of stoppage of the picture projecting device after the shot has been fired to correspond with the supposed distance of the object which is being fired at.

2. In a tagret apparatus for use with kinematographs, the combination of a picture projecting device; a target screen onto which the picture is projected; means responsive to sound waves whereby the movement of the picture projecting device is arrested when a shot is fired; means for regulating the moment of stoppage of the picture projecting device after the shot has been fired to correspond with the supposed distance of the object which is being fired at.



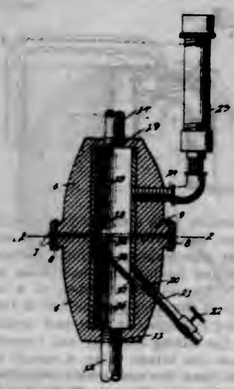
3. In a target apparatus for use with kinematographs, the combination of a picture projecting device; a target screen onto which the picture is projected; means responsive to sound waves whereby the movement of the picture projecting device is arrested when a shot is fired; contacts located at particular points on the film of the picture projecting device arranged to regulate the moment of stoppage of the picture projecting device.

4. In a target appaartus for use with kinematographs, the combination of a picture projecting device; a target screen onto which the picture is projected; means for arresting the movement of the picture projecting device when a shot is fired; a series of contact makers at suitable positions on the film according to the supposed distance at which the particular picture is away from the marksman; a series of relay devices adapted to be energized when said contact makers operate, so arranged that the moment of stoppage of the picture projecting device is delayed for an amount of time corresponding with the particular contact maker and relay which is operated.

5. In a target apparatus for use with kinematographs, the combination of a picture projecting device; a target screen onto which the picture is projected; means responsive to sound waves whereby the movement of the picture projecting device is arrested when a shot is fired; a series of relay devices adapted to be energized when said contact makers operate, so arranged that the moment of stoppage of the picture projecting device is delayed for an amount of time corresponding with the particular contact maker and relay which is operated.

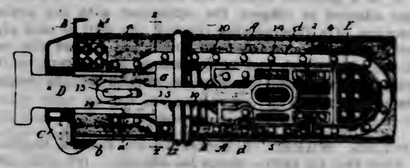
[Claim 6 not printed in the Gazette.]

1,072,299. WATER-STRAINER. WILLIAM A. BEDAL, Port Huron, Mich. Filed June 9, 1913. Serial No. 772,632. (Cl. 210—16.)



A water strainer comprising a casing formed by an upper section and a lower section, means for securing said sections together, an inlet pipe communicating with the interior of the casing through the top thereof, a discharge pipe connected to the bottom of the casing, a lining fitted within the lower section and having its upper end inclined to a horizontal plane so as to form a supporting shoulder, a gasket bearing against said shoulder, a screen supported by the gasket, a lining fitted within the upper section and projecting into the lower section, the lower end of said last mentioned lining being parallel to the upper end of the first mentioned lining and engaging the screen so as to lock it in position, the lower section being formed with a discharge passage extending upwardly and inwardly and opening upon the interior of the casing directly above the lower end of the screen, means for controlling the flow of material through the discharge passage, and an air chamber in communication with the upper end of the casing.

1,072,300. DRAFT-RIGGING AND SUPPORT THEREFOR. WILLIAM P. BETTENDORF, Davenport, Iowa; J. W. Bettendorf administrator of said William P. Bettendorf, deceased. Filed June 6, 1908. Serial No. 437,193. (Cl. 213—42.)



1. In a car the combination with end-sills and a single metal beam center-sill, the ends of which are connected to said end-sills, and which has a portion of its web between its edges cut away to form a continuous space or guide-way extending from its ends to a point beyond the rear ends of the springs, a draw-bar extending longitudinally into said guide-way, springs actuated by said draw-bar, means secured to said center-sill for retaining said draw-bar in place within said guide-way and devices including said springs for transmitting the strain of the pull of said draw-bar to the center-sill.

2. In a car the combination with end-sills and a single metal beam center-sill, the ends of which are connected to said end-sills, and which has a portion of its web between its edges cut away to form a continuous space or guide-way extending from its ends to a point beyond the rear ends of the springs, a draw-bar extending longitudinally into said guide-way, springs actuated by said draw-bar, means for retaining said draw-bar in place within said guide-way and follower abutment means connecting the upper and lower bifurcations of said sill for transmitting the strain of the pull of the draw-bar to the center-sill.

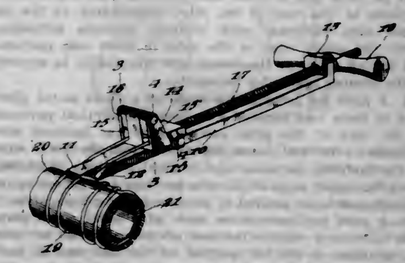
3. In a car the combination with end-sills and a single metal beam center-sill, the ends of which are connected to said end-sills, and which has a portion of its web between its edges cut away to form a continuous space or guide-way extending from its ends to a point beyond the rear ends of the springs, a draw-bar extending longitudinally into said guide-way, springs coöperating with said draw-bar, means for retaining said draw-bar in place within said guide-way and a frame surrounding said center-sill and connecting the upper and lower bifurcations thereof for transmitting the pull of the draw-bar to the center-sill.

4. In a car the combination with end-sills, and a single metal beam center-sill the ends of which are connected to said end-sills and which has a portion of its web between its edges cut away to form a continuous space or guide-way extending from its ends to a point beyond the rear ends of the springs, of a draw-bar extending into said guide-way, a buffer-block engaging the draw-bar having laterally projecting lugs, springs for pressing said buffer-block forward, and means for retaining said draw-bar in place in said guide-way and means engaged by the lugs of said buffer-block for transmitting the pull of the draw-bar to the center-sill.

5. In a car the combination with end-sills, and a single metal beam center-sill the ends of which are connected to said end-sills and which has a portion of its web between its edges cut away to form a continuous space or guide-way extending from its ends to a point beyond the rear ends of the springs the edges of which guideway are provided with lateral flanges, of a draw-bar extending into said guide-way, a buffer-block engaging the draw-bar, having laterally projecting lugs, springs for pressing said buffer-block forward, and means for retaining said draw-bar in place in said guide-way and means engaged by the lugs of said buffer-block for transmitting the strain of the pull of the draw-bar to the center-sill.

[Claims 6 to 9 not printed in the Gazette.]

1,072,301. HOSE-CLAMP APPLIER. JAMES E. BLAKE, Tacoma, Wash. Filed Jan. 26, 1912. Serial No. 673,565. (Cl. 81—9.3.)

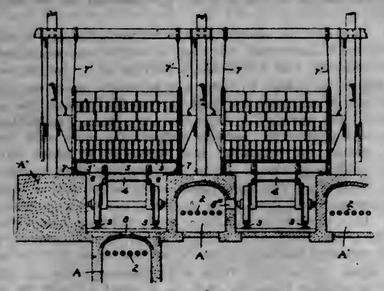


In an implement of the class described, a base member having guide-ways formed on one end thereof, a member slidably mounted on the upper side of said plate and provided with a plurality of vertical slots opening out through the upper edge thereof, said slots being disposed in horizontal alinement with the guide-ways of the base member, means secured to the under side of said member and embracing said plate for retaining the member to said plate, and clamping members mounted in said slots and adapted to swing in a direction toward the opposite end of said base member.

1,072,302. DRYING BRICKS. JOHN C. BOSS, Elkhart, Ind. Filed May 6, 1912. Serial No. 695,436. (Cl. 34—19.)

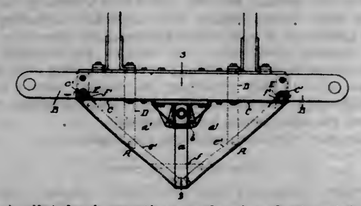
An apparatus for drying brick comprising a track and side walls forming an open-topped track channel, said

side walls having flat tops, trucks adapted to run on said track within said channel, and having permanently attached platforms with their sides overlapping and in close



proximity to the flat tops of the walls, curtains adapted to cover the vertical surfaces of the loads on the truck, and air ducts for supplying heated air to said track channels, substantially as described.

1,072,303. LOCOMOTIVE-PILOT. GEORGE D. BOWEN, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 25, 1912. Serial No. 711,499. (Cl. 105—254.)



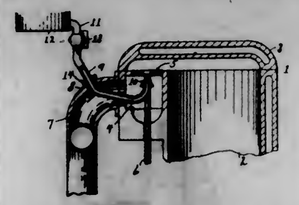
1. A pilot for locomotives made of a sheet metal plate bent to form two inclined side portions and two vertical portions at the rear of the pilot terminating at the inclined side portions, said vertical portions extending above the upper edge of the said inclined side portions and spaced apart at the center and adapted to be secured to the bumper beam of a locomotive.

2. A pilot for locomotives made of a sheet metal plate bent to form two inclined side portions, vertical portions at the rear of the pilot extending to the inclined side portions; a vertical flange depending from the lower edge of the inclined portions, the vertical portions extending above the upper ends of the side portions and spaced apart and adapted to be secured to the bumper of a locomotive.

3. A pilot for locomotives made of a sheet metal plate bent to form a central inclined portion and two inclined side portions, a vertical portion at the rear end of each side portion; said vertical portions extending above the upper end of the side portions and adapted to be secured to the bumper beam of a locomotive; and vertical inturned flanges at the outer edge of each vertical portion extending from the lower edge of the pilot and projecting under the bumper beam.

4. A pilot for locomotives made of a sheet metal plate bent to form a central inclined portion, two inclined side portions; a vertical portion at the rear end of each side portion, said vertical portions extending above the upper edge of the side portions and spaced apart; a vertical flange depending from the lower edge of the central inclined portion and inclined side portions; and an inturned flange at the rear end of the pilot projecting rearwardly from the outer edge of the rear vertical portion, said flange connecting with the vertical flange at the lower edge of the pilot.

1,072,304. PRIMER FOR GASOLENE-ENGINES. CLAUDE A. BROOKS and EVAN G. KINLEY, Topeka, Kans. Filed Apr. 5, 1912. Serial No. 688,631. (Cl. 123—180.)



1. The combination with a casing having a cylinder and a mixing chamber, an intake valve above the mixing chamber, and an inlet pipe leading from the carbureter to the mixing chamber and having an elbow close to the point of junction with the mixing chamber, of a tube passing through the wall of the inlet pipe on top of the elbow and having an inward and upward bend and terminating in a spray nozzle in the mixing chamber and immediately adjacent to and below the intake valve, a supply tank located at a higher level than the nozzle and connected with said tube, and a cock for controlling the flow through said tube.

2. In a gasolene engine, the combination with a cylinder, a mixing chamber under the intake valve, said intake valve, and an inlet pipe leading from the carbureter to the mixing chamber, of a priming tube passing through the wall of the inlet pipe and having an inward and upward bend and terminating in a spray nozzle within the mixing chamber and adjacent to and below the intake valve, a supply tank located at a higher level than said nozzle and connected with said priming tube, and a cock for controlling the flow in said tube.

3. In a gasolene engine, the combination with a cylinder, a mixing chamber, an intake valve above the bottom of the mixing chamber, and an inlet pipe leading into said mixing chamber, of a priming tube passing through the wall of the inlet pipe and passing into and terminating with an upward bend and a spray nozzle within the mixing chamber and adjacent to said valve, a source of supply for said tube, and a means for controlling said supply.

4. In a gasolene engine, the combination with a cylinder, a mixing chamber, an intake valve above the bottom of the mixing chamber, and an inlet pipe leading into the mixing chamber, of a priming tube passing into said mixing chamber and terminating in an upward bend and with a spray nozzle adjacent to said valve.

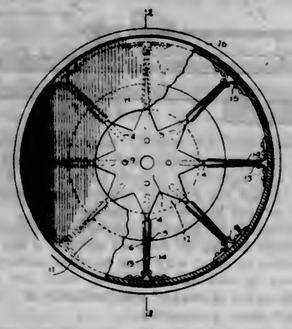
5. In a gasolene engine, the combination with an inlet pipe adapted to connect the carbureter with the mixing chamber, of a tube passing through the wall of said pipe and having an upward bend projecting beyond the end of the pipe, which end is adapted to be adjacent to the intake valve when the pipe is applied to the engine casing.

1,072,305. WHEEL. SUMMERS BROWN, London, England. Filed Dec. 12, 1910. Serial No. 596,821. (Cl. 152—28.)

1. In a resilient wheel, a star-shaped member, wedge members projecting from the points of said star-shaped member, an outer rim concentric with said star-shaped member, pairs of springs upon said outer rim engaging said wedge members, means adapted to retain said springs in engagement, and side plates extending from said outer rim telescoping said star-shaped member, thereby reinforcing the connection between said springs and said wedge members.

2. In a wheel, an inner member, an outer member in telescopic engagement with said inner member, resilient means between said members, hinged blocks arranged in pairs, between adjacent resilient means, and a spring between the blocks to hold the same in contact with said resilient means to prevent the access of dust thereto.

3. A wheel comprising a star-shaped member recessed at each of the points, a wedge member projecting from each recess, an outer rim concentrically disposed relative to said star member, and a series of pairs of inwardly-extending leaf springs spaced about the outer rim and containing between the members of each pair, one of the wedge members.

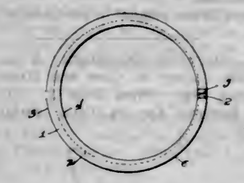


4. A wheel comprising a star-shaped member recessed at each of the points, a wedge member projecting from each recess, an outer rim concentrically disposed relative to said star member, a series of pairs of inwardly-extending leaf springs spaced about the outer rim and containing between the members of each pair, one of the wedge members, and plates disposed on opposite sides of said star member, adapted to hold the parts in place.

5. In a resilient wheel, a hub member, an outer rim, resilient connections between said hub and rim, and blocks hinged between said resilient members to prevent the infiltration of dust to the wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,072,306. PACKING-RING FOR PISTON-RODS. CLARANCE ROSS BRYANT, Fort Worth, Tex. Filed Apr. 19, 1913. Serial No. 762,317. (Cl. 121—108.)

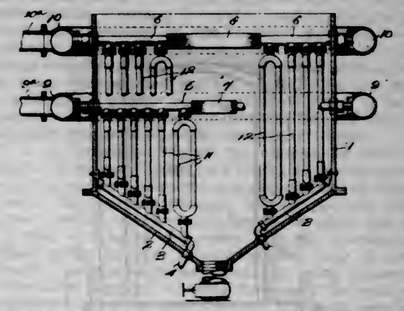


A packing ring including interrupted ring members, one of said members being formed with a channel in its outer edge having the base wall thereof eccentric with relation to the inner bearing surface of the member, the other member fitting in said channel.

1,072,307. EVAPORATING APPARATUS. DENIS P. J. BURGUIERES, CHARLES L. CORNE, and GEORGE E. MARSHALL, New Orleans, La. Filed Jan. 27, 1913. Serial No. 744,567. (Cl. 62—30.)

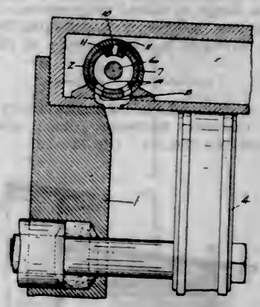
1. In an evaporating apparatus, the combination of a casing, a lower diverging series of manifolds therein, a plurality of upper diverging series of manifolds spaced at different heights above said lower series, vertical radiator sections connecting the manifolds of each upper series with those of the lower series, and means for circulating a heating medium through said manifolds and radiator sections.

2. In an evaporating apparatus, the combination of a casing, a diverging series of manifolds therein, a central open member within said casing rigidly connecting the inner ends of said diverging manifolds, vertical radiator sections extending downward from said manifolds, and means for circulating a heating medium through said manifolds and radiator sections.



3. In an evaporating apparatus, the combination of a casing, a plurality of vertically-spaced diverging series of manifolds therein, central open members rigidly connecting the inner ends of the manifolds of said several diverging series, vertical radiator sections extending downward from said manifolds, and means for circulating a heating medium through said manifolds and radiator sections.

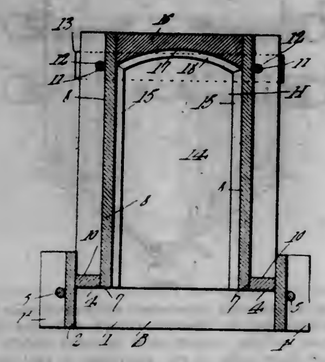
1,072,308. VALVE FOR CORLISS ENGINES AND THE LIKE. CHARLES G. BURTON, Lakewood, Ohio, assignor of one-half to Robert D. Beatty, Cleveland, Ohio. Filed Mar. 8, 1911. Serial No. 613,138. (Cl. 136—7.)



1. Valve mechanism, including a cylindrical casing having in its periphery an inlet port and an outlet port; and a hollow cylindrical valve oscillatory in the casing and having an open end adapted to afford communication between the interior of said valve and the inlet port of the casing, the valve having a discharge port adapted to establish communication between its interior and the outlet port of the casing, and having substantially opposite its discharge port, a port constantly opening from its interior against the blank wall of the casing.

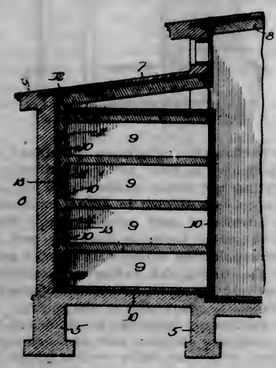
2. Valve mechanism, including a cylindrical casing having in its periphery an inlet port and two outlet ports; and a hollow cylindrical valve oscillatory in the casing and having an open end adapted to afford communication between the interior of said valve and the inlet port of the casing, the valve having two spaced discharge ports adapted to register with the outlet ports of the casing and thereby establish communication between the interior of the valve and the outlet ports of the casing, the valve also having, substantially diametrically opposite the space between the discharge ports, a port constantly opening from its interior against the blank wall of the casing, the aggregate area of the discharge ports being slightly greater than the area of the opposite port.

1,072,309. TOMBSTONE-MOLD. NEILL C. CAMERON, Detroit, Tex. Filed Oct. 17, 1911. Serial No. 655,195. (Cl. 25—121.)



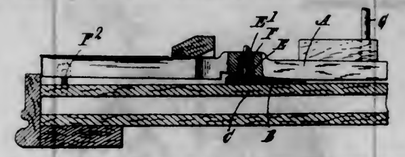
In a tombstone mold, a base matrix including side and end plates provided intermediate their upper and lower edges with coöperating inwardly extending members defining a continuous marginal flange; a head stone matrix disposed within the flange and comprising side plates and end plates; a clamping means surrounding the headstone matrix; and brace strips projecting from the end plates of the headstone matrix intermediate the edges of said end plates; the clamping means being engaged with the brace strips against depression, the lower ends of the brace strips engaging the flange to uphold the headstone matrix, and the outer edges of the brace strips engaging the end plates of the base matrix to prevent a tilting of the headstone matrix.

1,072,310. MOISTURE-PROOF CONSTRUCTION. WILLIAM R. CLAYTON, Barberton, Ohio. Filed Dec. 6, 1912. Serial No. 735,251. (Cl. 72—127.)



In a moisture-proof construction, the combination of a wall body composed of suitable material, sheets of glass arranged with their edges adjacent to each other, said sheets being cemented to the wall body, angle-shaped strips of glass disposed over adjacent edges of the glass sheets in the corners of the structure, flat strips of glass disposed over the adjacent edges of the glass sheets along the sides of the structure, and water-proof adhesive material joining said glass strips to the glass sheets to form moisture-proof joints therebetween.

1,072,311. KEYBOARD FOR MUSICAL INSTRUMENTS. FREDERICK CLUTSAM, Berlin, Germany, assignor of one-half to Ernst Jacob, Berlin, Germany. Filed Dec. 30, 1910. Serial No. 600,095. (Cl. 84—16.)



1. A keyboard for musical instrumenta comprising a key-lever, a support therefor, and co-acting surfaces on said key-lever and support in rocking engagement with one another to change the point of contact longitudinally of the key-lever as said key-lever is operated.

2. A keyboard for musical instruments comprising a key lever support having an inclined surface, a key lever having a surface to coact with said inclined surface, said surfaces being in rocking engagement with one another to change the point of contact longitudinally of the key lever as said key lever is operated.

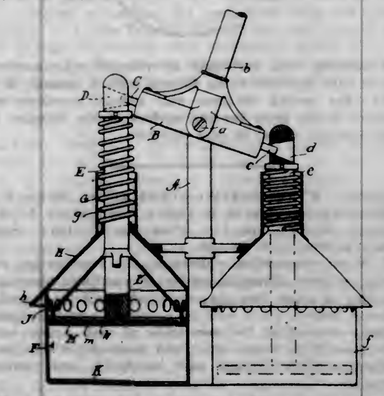
3. A keyboard for musical instruments comprising a support, and a key-lever having a longitudinally inclined curved surface arranged in contact therewith to change the point of contact longitudinally as the key-lever is operated, substantially as described.

4. A keyboard for musical instruments comprising a support, a key-lever having a longitudinally inclined curved surface in contact with the support, and means for steadying the key-lever on the support and at the same time permitting the key-lever to change its point of contact longitudinally as same is operated, substantially as described.

5. A keyboard for musical instruments comprising a support, a key-lever having a longitudinally inclined curved surface in contact with the support, and a steadying pin; said key-lever being provided with a recess for receiving the steadying pin whereby the key-lever is permitted to roll on the support and change its point of contact therewith longitudinally as it is operated, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

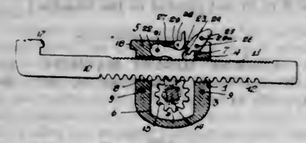
1,072,312. SUCTION-POUNDER FOR WASHING-MACHINES. ALTON E. COBB and HARRY L. PARKER, Los Angeles, Cal. Filed June 2, 1911. Serial No. 630,807. Renewed Apr. 14, 1913. Serial No. 761,048. (Cl. 68—5.)



1. In a suction pounder for washing machines, the combination with a plurality of casings closed at the bottom, the bottoms of the casings being perforated, of means constructed and arranged to connect the casings rigidly together, pistons provided with valves and arranged in the casings and having rods extending upwardly through the tops of the casings, and a handle extending upwardly and pivotally connected with the said rods and with the said casing-connecting means whereby said handle may be vibrated back and forth through its vertical position to operate said pistons.

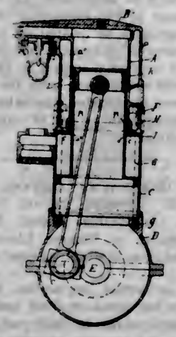
2. In a suction pounder for washing machines, the combination with a plurality of casings having conical tops and flat bottoms, said casings having circular series of holes near the top and the tops of the casings projecting downwardly and outwardly over said holes, the bottoms of the casings being perforated, of means constructed and arranged to connect the casings rigidly together, pistons provided with valves and arranged in the casings, said pistons having rods passing upwardly through the tops of the casings, and a handle extending upwardly and pivotally connected with the said rods and with the said casing-connecting means whereby said handle may be vibrated back and forth through its vertical position to operate the pistons.

1,072,313. RATCHET MECHANISM. PASQUALE C. CONTE, Freeport, Pa. Filed Aug. 19, 1912. Serial No. 715,872. (Cl. 74—16.)



The combination with a longitudinally movable toothed member, means to arrest shifting movement of said member, said means including a spring pressed pivoted toothed member capable of engaging in the teeth of the movable member to arrest shifting movement of the latter, said pivoted member provided with a lug, a pivotally mounted lever provided with a notch for the reception of the lug and capable when shifted to move the pivoted member out of engagement with the teeth of the movable member, a cam mounted in the upper portion of the casing and normally engaging the pivoted member for maintaining it in engagement with the teeth of the movable member, and said lever provided with an opening for the reception of a lock to arrest shifting movement of the lever.

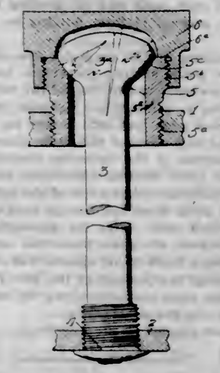
1,072,314. TWO-CYCLE EXPLOSION-MOTOR. CYRILLE CÔTE, Paris, France, assignor to Société des Etablissements Côte, Pantin, France. Filed Dec. 2, 1908. Serial No. 465,597. (Cl. 123—195.)



1. In a combustion engine, the combination with an engine cylinder having an annular aperture at its base, of a pump cylinder of larger diameter than, and in alinement with said engine cylinder, a centering flange at the upper end of the pump cylinder in engagement with said aperture, a common piston for both cylinders built on two diameters, a crank shaft case below the pump cylinder; said annular aperture, centering flange and the wall of the piston forming a packing chamber; a packing comprising annular metal sections, in said chamber, said metal sections fitting tightly around the piston, so as to prevent leakage around it; bolts for clamping together said engine and pump cylinders and said crank shaft case, whereby on tightening said bolts, said metal sections will be compressed in said chamber by said centering flange to form a tight joint between said engine and pump cylinders.

2. In a combustion engine, the combination with a plurality of engine cylinders each having an annular aperture at its base, of a plurality of pump cylinders of larger diameter than, and in alinement respectively with said engine cylinders, a centering flange at the upper end of each pump cylinder in engagement with said aperture, a common piston for each pair of cylinders built on two diameters, a crank shaft case below each pump cylinder; said annular aperture, centering flange and the wall of the piston forming a packing chamber; a packing comprising annular metal sections in said chamber, said metal sections fitting tightly around the piston, so as to prevent leakage around it; bolts for clamping together said engine and pump cylinders and said crank shaft case, whereby on tightening said bolts said metal sections will be compressed in said chamber by said centering flange to form a tight joint between said engine and pump cylinders.

1,072,315. SELF-ADJUSTING STAY-BOLT. MILLARD F. COX, Louisville, Ky. Filed Oct. 30, 1912. Serial No. 728,706. (Cl. 85—1.5.)

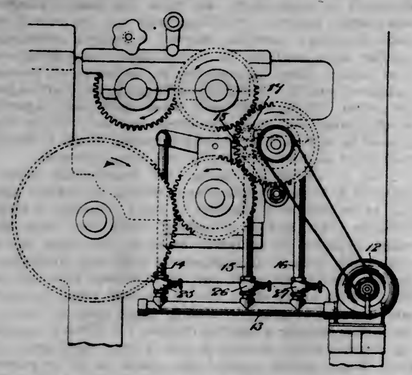


A self-adjusting stay bolt for uniting two members, comprising a body portion adapted to connect with one member, and a head adapted to coöperate to effect a ball and socket bearing upon the other member, said head being formed with an inner spherical bearing face constructed upon an arc whose radius is greater than half the greatest cross dimension of the head, whereby the wedging action of the head is reduced; said head also having its crown constructed on two different curves, to wit, a side curve, the radius of which is less than half said dimension and a top curve, the radius of which is approximately equal to said dimension.

1,072,316. WEB CUTTING AND FOLDING MACHINE. CONSTANT T. CUNDALL, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Original application filed Nov. 30, 1910, Serial No. 594,939. Divided and this application filed Jan. 5, 1911. Serial No. 600,988. (Cl. 164—66.)

1. In a machine of the character described, rotary cutters, a guide leading therefrom and air blast mechanism

for stripping the advance edge of the web from the cutters and insuring its passage to and along said guide.



2. In a machine of the character described, rotary cutters, a guide leading therefrom and air blast mechanism for stripping the advance edge of the web from the cutters and insuring its passage to said guide, and for holding the web against said guide to prevent the web from bulging as it passes along the same.

3. In a machine of the character described, rotary cutters, a guide leading therefrom, means for discharging blasts of air against both sides of the web for stripping the advance edge of the web from the cutters and insuring its passage to said guide and for holding the web against said guide to prevent it from bulging as it passes along the same.

4. In a machine of the character described, rotary cutters, a guide plate leading therefrom having its upper edge curved inwardly toward one of the cutters and means for discharging a blast of air against the back of said inwardly curved edge and said cutter for preventing the choking of the web between the guide plate and cutter.

5. In a machine of the character described, rotary cutters, a guide plate leading therefrom having its upper edge curved inwardly toward one of the cutters, means for discharging a blast of air against the back of said inwardly curved edge and said cutter for preventing the choking of the web between the guide plate and cutter, and means for discharging a blast of air against the other side of the web for insuring the passage of the web from the cutters on to the guide plate and preventing the web from bulging as it passes along the guide plate.

[Claim 6 not printed in the Gazette.]

1,072,317. TOP-ROLL SADDLE FOR SPINNING-FRAMES. JOHN V. CUNNIFF, Fall River, Mass., assignor of one-half to James K. Lanning, Boston, Mass. Filed Mar. 20, 1912. Serial No. 685,029. (Cl. 118—22.)

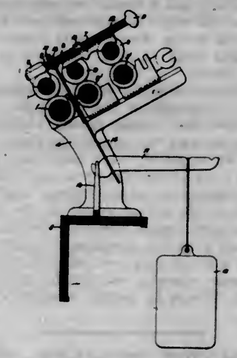
1. A top roll saddle comprising in combination a front saddle, a back saddle, a member extending from one of said saddles to and overlying the outer saddle, and a pressure varying device sleeved on and adjustable along said member.

2. A top roll saddle comprising in combination a front saddle, a back saddle, a member extending from the front saddle to and overlying the back saddle, and a pressure varying device sleeved on and adjustable along said member.

3. A top roll saddle comprising a front saddle, a back saddle, a member extending from one of said saddles to and along the other saddle, and a pressure varying device sleeved on and adjustable along said member.

4. A top roll saddle comprising in combination a front saddle, a back saddle, a threaded member extending from one of said saddles to and overlying the other saddle, and a pressure-varying nut adjustable along said member.

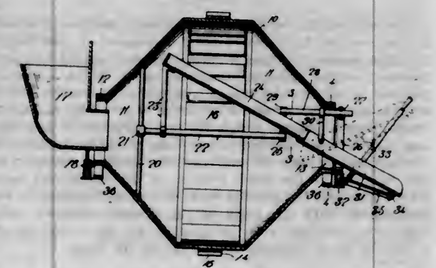
5. A top roll saddle comprising in combination a front saddle, a back saddle, a threaded member extending from



the front saddle to and overlying the back saddle, and a back saddle engaging nut adjustable along said member.

[Claims 6 to 11 not printed in the Gazette.]

1,072,318. CEMENT-MIXING MACHINE. LEWIS A. DAVIS, Everett, Wash. Filed June 26, 1912. Serial No. 706,031. (Cl. 83—73.)

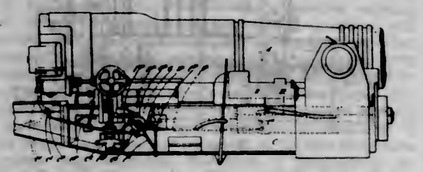


In a device of the class described, the combination with a frame, of a revoluble drum mounted thereon, a stationary chute rigidly secured within the said drum, a second chute mounted to swing on the said frame and having the inner end thereof movable into or out of engagement with the first mentioned chute, with the upward swinging movement of the inner end of the second mentioned chute adapted to be limited by the first mentioned chute, a rod secured to the under side of the second mentioned chute, and a lever mounted to swing on the frame and having slidable engagement with the said rod whereby, when the said lever is actuated, the said second mentioned chute will be swung into or out of engagement with the first mentioned chute.

1,072,319. BREECH-ACTUATING APPARATUS OF HEAVY GUNS. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Jan. 2, 1913. Serial No. 739,671. (Cl. 89—4.)

1. In breech actuating apparatus for ordnance, the combination with the pressure fluid breech actuating motor, of two rotary valves in fluid connection with each other, and means for causing relative angular movement to take place between the valves during the run out of the gun in order to admit pressure fluid to the motor to open the breech.

2. In breech actuating apparatus for ordnance, the combination with the pressure fluid breech actuating motor, of two valves one forming the seat for the other, and means for causing relative movement to take place between the valves during the run out of the gun in order to admit pressure fluid to the motor to open the breech.



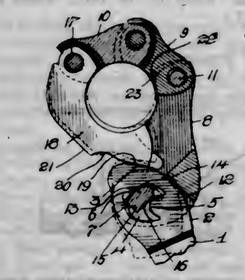
3. In breech actuating apparatus for ordnance, the combination with the pressure fluid breech actuating motor, of two valves in fluid connection with each other, and means for causing relative movement to take place between the valves during the recoil of the gun in order to admit pressure fluid to the motor to retain the breech closed and also for causing further relative movement to take place between the valves during the run out of the gun in order to admit pressure fluid to the motor to open the breech.

4. In breech actuating apparatus for ordnance, the combination with the pressure fluid breech actuating motor, of two valves one forming the seat for the other, and means for causing relative movement to take place between the valves during the recoil of the gun in order to admit pressure fluid to the motor to retain the breech closed and also for causing further relative movement to take place between the valves during the run out of the gun in order to admit pressure fluid to the motor to open the breech.

5. In breech actuating apparatus for ordnance, the combination with the pressure fluid breech actuating motor, of two valves in fluid connection with each other, means for causing relative movement to take place between the valves during the run out of the gun in order to admit pressure fluid to the motor to open the breech, and means for causing the motor to move one of the valves so that their original relative position is restored and the supply of pressure fluid to the motor cut off.

[Claims 6 to 24 not printed in the Gazette.]

1,072,320. PIPE-WRENCH. CHARLES L. DUNHAM, Sistersville, W. Va. Filed May 1, 1913. Serial No. 764,857. (Cl. 81—67.)



1. In a pipe wrench, a handle or lever having a head provided with a substantially crescent-shaped opening, link sections, and a pivot pin carried by one of said sections and extending through said opening, said pivot pin being substantially rectangular and presenting a flat gripping surface adapted to be engaged by one of the walls of said opening.

2. In a pipe wrench, a handle having a head provided with a substantially crescent-shaped opening, and a rectangular pivot pin extending through said opening and engaged by some of the walls of said opening and adapted to connect link sections to said handle.

3. In a pipe wrench, a handle, links, a pivot pin carried by one of said links and extending through an end of said handle, said pin being substantially rectangular in cross section, and a lug carried by said handle and adapted to ride upon one of the flat surfaces of said pivot pin.

4. In a pipe wrench, a handle having a head provided with a crescent-shaped opening, a lug forming one of the walls of said opening, a shoulder presented by another wall of said opening, pivoted link sections, and a pivot pin carried by one of said sections and extending through the opening of said head, said pivot pin being substantially rectangular in cross section and presenting flat gripping surfaces adapted to be engaged by said shoulder and said lug.

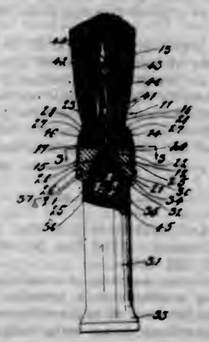
5. In a pipe wrench, a handle having a head provided with a crescent-shaped opening having walls presenting a lug and a shoulder, pivoted link sections, one of said sections having a bifurcated end to receive the head of said handle, a pivot pin carried by the bifurcated end of said section and extending through the opening of the head of said handle, said pivot pin being substantially rectangular in cross section and presenting flat gripping surfaces adapted to be engaged by said shoulder and said lug, and a grasping jaw carried by said link sections and presenting seats adapted to be engaged by the head of said handle.

1,072,321. HEAD-PROTECTOR FOR BABIES. BELLE G. FITCH, Philadelphia, Pa. Filed Dec. 30, 1908. Serial No. 469,968. (Cl. 2—192.)



A head protector for babies comprising a single pneumatic tube of soft expansible material adapted to fit upon the head horizontally, pairs of converging tubes extending upwardly from the opposite sides of the single tube and having their free ends meeting centrally above the single tube, all of said tubes having intercommunication with each other, and a valve at the meeting portions of said converging tubes.

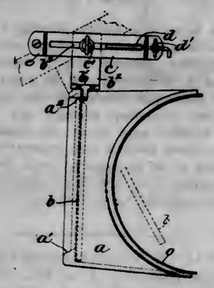
1,072,322. BRUSH. WILLIAM B. FOSTER, Norwood, and ALFRED H. DUWELIUS, Cincinnati, Ohio. Filed Apr. 29, 1912. Serial No. 693,954. (Cl. 15—50.)



In combination, in a brush, a supporting body provided with a bore and a slot in the outer end of said sup-

porting body meeting said bore and extending part way lengthwise of said supporting body, a bristle-body, a conveyer-tube in said bore and extending into said bristle-body, and a ferrule contracting toward its outer end for squeezing the outer end-portions of said supporting body at the side of said slot therein toward said conveyer-tube, and thereby rigidly securing said tube in said supporting body, and means for rigidly connecting the inner end of said ferrule with said supporting body.

1,072,323. REGULATING-DAMPER. WALTER B. FOWLER, Lawrence, Mass. Filed Dec. 6, 1912. Serial No. 735,278. (Cl. 236—2.)



1. A draft-regulating damper embracing in its construction a casing open at one side, a damper pivotally mounted to close said open side, a projecting weight-carrying arm or lever projecting from said damper, an elongated counter-balance plate extending beyond said arm transversely on either side of the pivotal axis and a clamping nut carried by the supporting lever passing through the slot in said counter-balance in order to adjustably clamp the counter-balance plate to the lever, substantially as described.

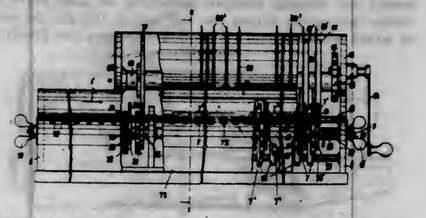
2. A draft-regulating damper embracing in its construction a casing open at one side, a swinging damper pivotally mounted to close said open side and having a projecting weight-carrying lever, a slotted counter-balance plate mounted transversely to the axis of said damper and adjustably held to said lever by a slot and screw connection, a gage member arranged to limit the adjustable movement of the counter-balance plate in relation to the supporting lever, substantially as described.

3. A draft-regulating damper embracing in its construction a casing provided with an open side, a swinging damper suspended to close said open side, a weight-carrying lever secured to said damper between the fulcral points of support, a counter-weight adjustably clamped to said lever and shiftable transversely to the axis of said damper, and a gage for limiting the shifting movement of said counter-weight at a predetermined point, substantially as described.

4. A damper regulator embracing in its construction a casing, a damper swingably mounted thereon, a weight-carrying arm, an elongated longitudinally slotted plate, means for detachably clamping said slotted plate transversely of the damper axis, an adjustable gage member for limiting the adjustment of said counter-balance at a predetermined point and means for holding said gage member in its various positions, of adjustment, substantially as described.

1,072,324. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Jan. 30, 1912. Serial No. 674,241. (Cl. 235—75.)

1. In a calculating machine, the combination of a plurality of setting mechanisms, a plurality of registering mechanisms, one for each of said setting mechanisms, the registering mechanisms being being coaxially arranged, and carrying means common to the registering mechanisms and shiftable longitudinally to bring one of said registering mechanisms into operative association with either one of said setting mechanisms without operating the remaining registering mechanism.



2. In a calculating machine, the combination of a plurality of setting mechanisms, a plurality of registering mechanisms one for each of said setting mechanisms and revolutions counting mechanism, the registering mechanisms being arranged coaxially with relation to each other, and carrying means provided between successive registering mechanisms.

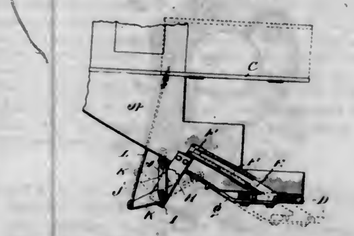
3. In a calculating machine, the combination with a plurality of setting mechanisms, and a plurality of registering mechanisms one for each of said setting mechanisms, of means to bring one of said setting mechanisms into coöperation with either one of said registering mechanisms, and carrying means provided between successive registering mechanisms.

4. In a calculating machine, the combination with a plurality of setting mechanisms, of a plurality of registering mechanisms one for each of said setting mechanisms and arranged coaxially of each other on a longitudinally shiftable common carriage adapted to be moved into position relatively to either one of said registering mechanisms in coöperation with one of said setting mechanisms, and revolutions counting mechanism having its counting members on said carriage.

5. In a calculating machine, the combination with a plurality of setting mechanisms located one beside the other and each comprising a plurality of setting disks having teeth arranged about their circumferences and means coöperating with each of said setting disks to throw the desired number of teeth into operative position, and a plurality of registering mechanisms one for each of said setting mechanisms, of means to bring one of said setting mechanisms into coöperation with either one of said registering mechanisms.

[Claims 6 to 9 not printed in the Gazette.]

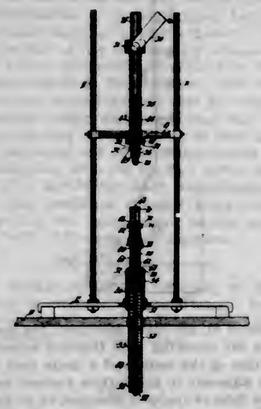
1,072,325. CAR-STEP. JOSEPH B. GARDNER, North McAlester, Okla. Filed Oct. 18, 1912. Serial No. 726,545. (Cl. 105—87.)



1. The combination of stationary steps comprising side supporting members and treads, of an extension step, supporting bars extending diagonally upward and inward therefrom, diagonally arranged guides on the side supporting members receiving said supporting bars, brackets attached to the side supporting members and extending downwardly therefrom, a horizontally arranged rod pivotally connected with said brackets, a step-operating frame comprising parallel bars attached to the extension step and a horizontally arranged bar connecting the rear ends thereof, an arm on said horizontally arranged rod provided with a slot through which said connecting bar on the step-operating frame extends, another arm projecting from said horizontally arranged rod, and a vertically arranged operating rod connected with the outer end of said last mentioned arm.

2. The combination with the side supporting members and treads of stationary steps, of an extension step parallel with the lower tread, supporting bars extending diagonally upward and inward from the extension step, guides attached to the side supporting members which receive said supporting bars, a step-actuating frame comprising parallel bars connected with the extension step and a horizontally arranged bar connecting the rear ends of said parallel bar, brackets attached to the side supporting members and depending therefrom, a horizontally arranged rod pivotally connected with said brackets, a slotted arm on said rod directly connected with the horizontally arranged bar of the step-actuating frame, another arm on said rod, a trap door, and a rod connected to the trap door near its hinged end and connecting said door with said last mentioned arm.

1,072,326. MACHINE FOR MAKING BRUSHES. EDWARD N. GAUDRON, Newark, N. J., assignor to William Dixon. Filed Dec. 11, 1911. Serial No. 664,977. (Cl. 15—7.)



1. A brush-making machine, comprising equal and opposite frame-bending dies, equal and opposite spring-actuated plungers, one for each die, within the same and projecting forwardly thereof toward the other plunger, and equal and opposite spring-actuated sleeves, one for each die, projecting forwardly thereof between the same and the plunger.

2. A brush-making machine, comprising equal and opposite frame-bending dies, equal and opposite spring-actuated plungers, one for each die, within the same and projecting forwardly thereof toward the other plunger, equal and opposite spring-actuated sleeves, one for each die, projecting forwardly thereof between the same and the plunger, said plungers being provided with center-bores, and a center-pin in the bore of one plunger and projecting forwardly thereof toward the other plunger.

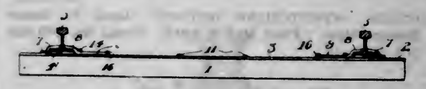
3. A brush-making machine, comprising opposed frame-bending dies, opposed yielding bunch-positioning members in advance of said dies, and opposed yielding bunch-spreading members in advance of said dies and back of said positioning-members.

4. A brush-making machine, comprising opposed frame-bending dies in line with the outer part of the frame to be bent, yielding bunch-positioning members in advance of said dies and in line with the center of the frame, and opposed yielding bunch-spreading-members in advance of the dies and back of the positioning-members, and in line with the bristles held in said frame.

5. A brush-making machine, comprising an elongated central bunch-positioning member, a bending-die movable longitudinally thereof and normally located beyond the end of a bristle-bunch thereon, said die being wider than the end of the bristle-bunch, and a spreading-member movable in advance of the die and spreading the ends of the bristles out of the latter into bending position.

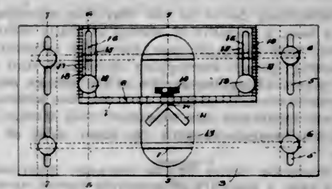
[Claims 6 and 7 not printed in the Gazette.]

1,072,327. RAIL-FASTENER. JACOB A. GEYER, McKeesport, Pa. Filed July 3, 1913. Serial No. 777,170. (Cl. 238—5.)



In a rail fastener, the combination with a tie and rails, of a tie plate arranged upon said tie and having a central reduced portion providing a neck adapted to be secured to said tie, said plate having the outer ends thereof cut and the cut material pressed to provide outer fasteners that are staggered and adapted to extend over the outer base flanges of said rails, rectangular plates arranged upon the ends of said tie plate and having stamped portions providing inner rail fasteners adapted to extend over the inner base flanges of said rails, and spikes securing said rectangular plates and said tie plate to said tie, some of said spikes being arranged to brace the inner edges of said rectangular tie plates and said plates arranged whereby the inner fasteners thereof are staggered with relation to the outer fasteners.

1,072,328. BRACE-BIT BORING-TOOL. DE WITT C. GOODRICH, National Military Home, Kans. Filed Feb. 10, 1912. Serial No. 676,714. (Cl. 73—141.)



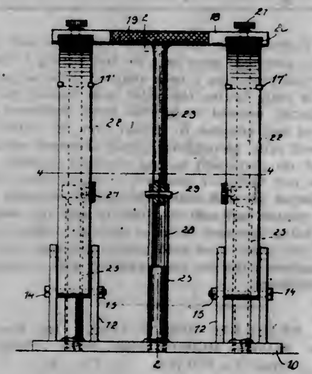
1. In a device for the purpose set forth, a base having transversely arranged ribs, a plate having its under face recessed to engage with the ribs, means for adjustably sustaining the plate upon the ribs of the base, the said plate being centrally provided with an elongated opening, a segmental member arranged upon the plate, said member being provided with rearwardly extending graduated portions, means for adjustably sustaining the segmental member upon the plate, a pivoted guide member upon the segmental member, and means for retaining the said guide member at an angular adjustment upon the segmental member.

2. In a device of the class described, a base, said base having a central opening, a plate adjustably secured upon the base, said plate having a central opening which registers with the opening in the base, a segmental member adjustably connected with the plate and arranged at a right angle thereto and transverse the openings of the plate and base, a guide member concentrically pivoted to the segmental member, and means co-acting with the guide and segmental member for sustaining the guide when swung upon its pivot upon the segmental member.

3. In a device for the purpose set forth, a substantially rectangular base, a longitudinally adjustable plate upon

the base, the said plate being centrally provided with an opening, a segmental member for the plate, said member having angularly arranged rearwardly extending portions which rest upon the plate, the said portions being provided with elongated slots, headed threaded members passing through the slots, the segmental member having a concentrically arranged opening disposed adjacents its periphery, a guide member pivotally connected to the segmental member at the axial center of the said member and disposed directly above the slot of the opening of the plate, and a headed threaded member passing through the concentric slot of the segmental member and engaging with the guide member to retain the said guide at a desired angle with relation to the segmental member and to the base.

1,072,329. STRETCHING DEVICE. JOHN F. GREEN, Boston, Mass. Filed May 3, 1913. Serial No. 765,325. (Cl. 190—19.)



1. A stretching device of the character described, including a base, a plurality of springs pivotally secured at their lower ends above the base, the upper extremities of corresponding springs overlapping each other, and a bar secured to the overlapping portion of the springs, said bar being movable toward and away from the base whereby the springs are contracted and expanded, said springs being adapted for engagement with the inner sides of a receptacle.

2. A stretching device of the character described, including a base, a plurality of standards formed upon said base, a plurality of springs pivotally connected at their lower ends to said standards, said springs being arranged in pairs and the upper extremities of the springs forming each pair being overlapped, and a bar secured to the overlapped portions of the springs forming each pair, said bar being movable toward and away from the base, whereby the springs are contracted and expanded.

3. A stretching device of the character described, including a base, a plurality of standards formed upon said base adjacent the edges thereof and arranged in pairs, an attaching member extending between each pair of standards, a flat metal spring pivotally secured at its lower end to each of the attaching members, the springs upon one side of the base being opposed to the springs upon the other side of the base, and a longitudinal bar to which the upper extremities of the springs are attached, said bar being movable toward and away from the base, whereby the springs are contracted and expanded.

4. A stretching device of the character described, including a base, uprights formed upon the base adjacent the sides thereof and arranged in pairs, said uprights being formed with a plurality of vertically alined openings, attaching members secured within certain of said openings, flat metal springs pivotally secured at their lower ends to the attaching members, the springs upon one side of the base being opposed to the springs upon the other side thereof, the upper extremities of corresponding springs overlapping and slidably connecting to one another, and a bar extending longitudinally of the base and connected to the overlapping portions of the springs, said bar being movable toward and away from the base, whereby the springs may be respectively bowed outwardly and expanded.

5. A stretching device of the character described, including a base, a plurality of flat metal springs pivotally secured at their lower ends above the base along opposite sides thereof, the springs upon one side of the base being opposed to the springs upon the other side thereof, the corresponding springs upon opposite sides of the base having the portions adjacent their upper extremities overlapped and slidably connected to one another, a longitudinal bar formed with slots through which the overlapped portions of the springs extend, means for locking the springs against movement relative to the slots, said bar being movable toward and away from the base, whereby the springs are bowed outwardly, and means for locking the bar at varying distances with respect to the base.

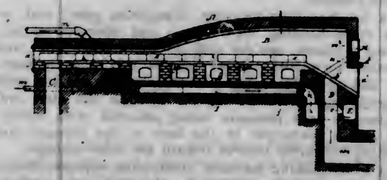
[Claims 6 and 7 not printed in the Gazette.]

1,072,330. CHEMICAL APPARATUS. JOHN O. HALVERSON, Columbia, Mo. Filed Oct. 19, 1912. Serial No. 726,788. (Cl. 73—51.)



In a test bottle of the class described, the combination with a body, a fat receiving neck therefor extending from the upper portion of the body, and a drain cock connected with the body adjacent to the bottom thereof, and having the bore of the tube of the cock disposed at an incline, the inclination being upward from the outer portion of the bore toward the body of the bottle.

1,072,331. FURNACE. JOHN W. HAMILTON, Jr., and JOHN W. JOHNSON, Coatesville, Pa. Filed Feb. 3, 1912. Serial No. 675,178. (Cl. 75—121.)



1. The combination of a furnace having a hearth and a bridge wall at one end thereof; an air chamber under the hearth and divided into two compartments; means for supplying air to the two compartments of the air chamber; a gas passage communicating with the combustion chamber beyond the bridge wall; a duct forming communication between one of the compartments of the air chamber and the gas passage at a point below the upper end of the bridge wall; and a passage forming communication between the other compartment of the air chamber and the combustion chamber above the mouth of the gas passage so that the air escaping from said passage will mingle with the gas as it enters the combustion chamber.

2. The combination of a furnace having a combustion chamber and a hearth; a casing forming an air chamber and located in the hearth so that it will receive its heat therefrom; said casing having two air chambers therein; a gas inlet passage communicating with one end of the combustion chamber; an outlet communicating with the other end of the combustion chamber; a passage leading from one air chamber to the gas passage so that the air will mix with the gas before it escapes into the combustion chamber; and an air passage communicating with the other air chamber in the casing and also communicating with the combustion chamber above the gas inlet.

3. The combination in a furnace having a combustion chamber and a hearth, and having at one end a gas flue and at the opposite end an exhaust flue; an air chamber located directly under the hearth of the furnace and having a series of vertical partitions, one of said partitions separating the chamber into two compartments, the other partitions being shorter than the length of the air chamber and so arranged as to cause the air to travel in a circuitous path; air inlet pipes communicating with one end of each compartment, the other end of one compartment communicating with the gas flue and the same end of the other compartment communicating with the combustion chamber above the gas flue, said partitions acting to support the hearth and the load carried thereby.

4. The combination in a metallurgical heating furnace, of a combustion chamber having a hearth; said furnace having a gas flue at one end and an exhaust flue at the other end; an air duct communicating with the gas flue; an air chamber made in two sections; each section being divided into two compartments; said air chambers being located directly under and supporting the hearth; air pipes communicating with one end of each of said compartments, the other end of one compartment of each section communicating with the air duct and a chamber with which the other end of the other compartments communicate; said last mentioned chamber being located at the discharge end of the furnace and having passages communicating with the combustion chamber.

1,072,332. WIRE-SPLICER. WILLIE E. HOUGAS and FERDINAND W. RAUCH, Lamoni, Iowa. Filed May 9, 1912. Serial No. 696,111. Renewed Feb. 7, 1913. Serial No. 746,926. (Cl. 140—121.)

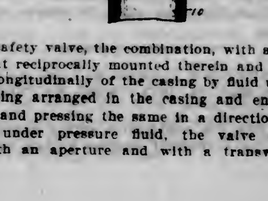


1. A wire splicer of the plier type having its jaws provided with grooves on its two sides arranged crosswise of one another and of different widths.

2. A wire splicer of the plier type having its jaws provided with two faces having grooves on each face arranged crosswise of one another and at right angles to each other, and the grooves on the two faces of the jaws of different widths.

3. A wire splicer of the plier type having the meeting edges of its jaws formed with openings to receive a line wire, the two faces of the jaws formed with grooves arranged at right angles to one another and radially of said openings, the grooves on the two sides of the jaws being of different widths and adapted to receive the end of the splicing wire.

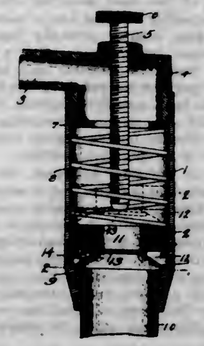
1,072,333. STOVE-MAT. HOWARD KELTY, Franktown, Colo. Filed Feb. 14, 1913. Serial No. 748,433. (Cl. 126—278.)



1. A protector for stoves or the like comprising a mat, a housing built upon the mat approximately centrally thereof and having an open end, and a drawer slidable into and out of the housing by way of the open end thereof substantially as, and for the purpose, set forth.

2. The combination with a stove, of a protector therefor comprising a mat upon which the stove is adapted to rest, a housing built upon the mat approximately centrally thereof between the upper surface of the mat and the base of the stove to form a deflector whereby the transmission of heat from the stove to the mat and floor is avoided, said casing having an open end, and a drawer slidable into and out of the casing by way of the open end thereof and of a width greater than that of the opening to the ash pit of the stove.

1,072,334. SAFETY-VALVE. MICHAEL J. KULLA, Cleveland, Ohio. Original application filed Oct. 25, 1912, Serial No. 727,756. Divided and this application filed Jan. 15, 1913. Serial No. 742,300. (Cl. 137—53.)



1. In a safety valve, the combination, with a casing, of a valve seat reciprocally mounted therein and adapted to be moved longitudinally of the casing by fluid under pressure, a spring arranged in the casing and engaging the valve seat and pressing the same in a direction opposing movement under pressure fluid, the valve seat being formed with an aperture and with a transverse notch

crossing the aperture, a check valve connected to the valve seat within the notch and adapted at times to close the aperture, and a set screw sustained by the casing and extending in line with the aperture and in position for engaging the check valve for interrupting movement thereof with the valve seat while leaving the valve seat free for further movement under the influence of fluid under pressure.

2. In a safety valve, the combination, with a casing, of a valve seat reciprocally mounted therein and adapted to be moved longitudinally of the casing by fluid under pressure, a spring arranged in the casing and engaging the valve seat and pressing the same in a direction opposing movement under pressure fluid, the valve seat being formed with an aperture and with a transverse notch crossing the aperture, a check valve connected to the valve seat within the notch and adapted at times to close the aperture, and a set screw sustained by the casing and extending in line with the aperture and in position for engaging the check valve for interrupting movement thereof with the valve seat while leaving the valve seat free for further movement under the influence of fluid under pressure, the set screw extending through and beyond the casing and being formed with means for effecting manual adjustment thereof for varying the degree of pressure requisite for shifting the check valve from its seat.

1,072,335. ATTACHMENT FOR FIREARMS. LOUIS F. KUNZ, Chicago, Ill. Filed Feb. 14, 1913. Serial No. 748,431. (Cl. 42—70.)



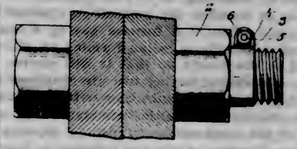
1. In a device of the class described, the combination with a firearm including a frame and a movable hammer, of a locking member pivoted to the frame for transverse swinging movement, a locking abutment depending from said member, said abutment being adapted to be disposed in the path of movement of the hammer when the said member is swung into operative position, and means carried by said member for engagement with the frame to lock the member in its operative position.

2. In a device of the class described, the combination with a firearm including a frame and a movable hammer, of a resilient locking member pivotally connected to the frame, for transverse swinging movement, a locking abutment depending from said member and adapted to be positioned in the path of movement of the hammer when the said member is in its operative position, the said frame being provided with a recess, and a retaining lug provided upon said locking member for engagement within the recess when the member is in operative position.

3. In a device of the class described, the combination with a firearm including a frame and a movable hammer, of a resilient locking member pivotally connected to the frame for transverse swinging movement, a locking abutment depending from said member and adapted to be positioned in the path of movement of the hammer when the said member is in its operative position, the said frame being provided with a recess, and a substantially V-shaped retaining lug provided upon said locking member for engagement within the recess when the member is in operative position.

1,072,336. NUT-LOCK. GEORGE W. LAING, Curwensville, Pa. Filed Mar. 18, 1913. Serial No. 755,204. (Cl. 151—30.)

In a nut lock, the combination with a nut and a bolt for the nut, of a resilient member having an inturned flange and adapted to be placed over the bolt and into contact with the outer face of the nut, and means for



compressing the said member to force its flange tightly into engagement between the threads of the bolt.

1,072,337. AUTOMATICALLY-OPERATED RAILWAY-SWITCH. JOHN E. LAING, Dubois, Pa., assignor of one-half to John F. Mitchell, Bells Landing, Pa. Filed Oct. 19, 1912. Serial No. 726,663. (Cl. 104—127.)



1. In combination with the main line of a railroad, a switch having switch points, means to hold said switch normally in position to keep the main line open, means normally tending to move the switch to connect siding rails with the main line, and means to release the holding means aforesaid to actuate the switch, including a connection for said switch points, a bar disposed longitudinally of the main line between the rails thereof, a shaft mounted for rotation on said connection, one terminal of said bar secured intermediate the ends of said shaft, and the other terminal of said bar reciprocatingly mounted above said rails.

2. In combination with the main line of a railroad, a switch comprising switch points pivotally secured, two of said switch points being in alinement with the main line and normally in position to retain said main line in an open position, a plate operatively secured to said first mentioned switch points having one of its terminals extending beyond the outer edge of one of the rails of said main line, the other of said switch points being connected with the siding, a latching means to hold the switch in position to retain the main line in its open position, means normally tending to move the switch points to connect the siding with the main line, including a weight operatively secured to the extended terminal of said plate, a bar extending longitudinally of the main line between and above the rails thereof and operatively connected with the latch, said bar being adapted to be engaged by a projection on a car moving on the main line to release the latch and permit the switch to be actuated to connect the siding with the main line.

3. In a switch actuating mechanism, in combination with main line rails, a switch comprising switch points connected with the main line and with a siding, a plate operatively secured to said switch points, a weight operatively secured to said plate and normally tending to move the switch to connect the siding and switch points with the main line, a shaft journaled on said plate, a latch arm projecting from said shaft and adapted to lock the switch against actuation by said weight to hold the main line switch points in alinement with the main line, and means adapted to be actuated by a car moving on the main line to release said latch and the plate to the influence of said weight.

4. In a switch actuating mechanism, in combination with main line rails, a switch comprising switch points connected with the main line and with a siding, a plate operatively secured to said switch points, a weight operatively secured to said plate and normally tending to move the switch to connect the siding and switch points with the main line, a shaft journaled on said plate, a latch arm projecting from said shaft and adapted to lock the switch against actuation by said weight to hold the main line switch points in alinement with the main line, a bar extended longitudinally of the main line and operatively connected with said shaft, said bar being adapted to be engaged by a projection on a car moving on the main line to lift said latch and release the plate to the influence of the weight aforesaid.

5. In a switch actuating mechanism, in combination with main line rails, a switch comprising switch points connected with the main line and with a siding, a plate operatively secured to said switch points, a weight operatively secured to said plate and normally tending to move the switch to connect the siding and switch points with the main line, a shaft journaled on said plate, a latch arm projecting from said shaft and adapted to lock the switch against actuation by said weight to hold the main line switch points in alinement with the main line, a crank arm secured to said shaft, a shaft journaled at a distance from the switch and provided with a crank arm, a bar arranged longitudinally of the main line and pivotally engaging said crank arms, said bar being adapted to be engaged by a projection on a car moving on the main line to actuate said shaft and to lift the latch and release the plate to the influence of the weight aforesaid.

1,072,338. STICK-CANDY. MAURICE M. LEHMAN, Selma, Ala. Filed Mar. 24, 1913. Serial No. 756,479. (Cl. 127—4.)



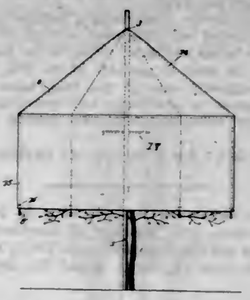
1. Stick candy consisting of a core of peanut butter having a quantity of soft candy uniformly incorporated throughout its mass to give it body, and having an exterior protective coating of pulled candy.

2. The process of making stick candy by cooking substantially fifty pounds of granulated sugar and one ounce of cream of tartar at a temperature of approximately 260° F. under a vacuum of 24 inches, working a portion of such cooked candy uniformly throughout a quantity of peanut butter, forming such worked mixture into cores, pulling another portion of such cooked candy, and spinning such pulled candy on said cores to provide a protective coating.

1,072,339. TREE-PROTECTOR. ERNEST W. LILJEGRAN, Medford, Oreg. Filed May 25, 1912. Serial No. 699,815. (Cl. 47—33.)

1. A tree protector, comprising a mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast and extending below the boom ends forming a pendant curtain, eyes of said curtain, and operating cords connected with the bottom edge of the curtain passing through the eyes of the curtain and also through eyes in the booms to the mast head and downwardly lengthwise of the mast.

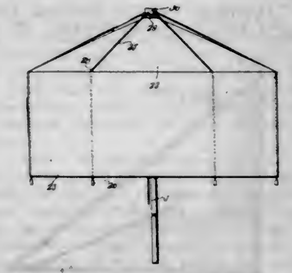
2. A tree protector, comprising a central tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, operating cords passing from the outer extremities of the booms upward to the mast head and thence downward within the mast, said cords extending downward below the booms, and being slidable through eyes at the ends of the booms and weights attached to the cords below the booms.



3. A tree protector, comprising a central tubular mast, a detachable mast head forming an extension of the mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, operating cords slidable through eyes in the outer extremities of the booms and extending upward to the mast head and thence downward within the mast and weights at the outer extremities of the cords.

4. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast and extending below the boom ends forming a pendant curtain, eyes on said curtain, and operating cords connected with the bottom edge of the curtain and passing through the eyes of the curtain and also through eyes in the booms to the mast head and downward within the mast.

1,072,340. TREE-PROTECTOR. ERNEST W. LILJEGRAN, Medford, Oreg. Filed Aug. 28, 1912. Serial No. 717,563. (Cl. 47—33.)



1. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, boom depressing springs, and operating cords for swinging the booms and cover upward toward the mast.

2. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, boom depressing springs having arms in sliding engagement with the booms, and operating cords for simultaneously swinging the booms upward toward the mast.

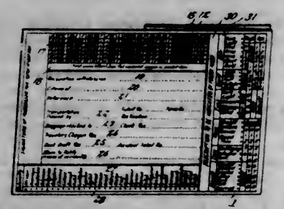
3. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, boom depressing spring arms having terminal eyes through which the booms pass, and operating cords for simultaneously swinging the booms upward toward the mast.

4. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, a frog on the mast, boom depressing springs attached to said frog, and operating cords for simultaneously swinging the booms upward toward the mast.

5. A tree protector, comprising a tubular mast, booms pivotally connected with the mast, a cover of fabric supported by the booms and mast, a frog on the mast, a sleeve threaded on the mast at one side of the frog, a clamping nut at the opposite side of the frog, boom depressing springs attached to the frog, and operating cords for simultaneously swinging the booms upward toward the mast.

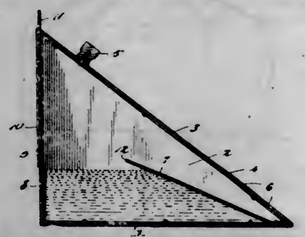
[Claims 6 and 7 not printed in the Gazette.]

1,072,341. CERTIFICATE. CHARLES B. F. LINCOLN, San Francisco, Cal., assignor of one-fourth to Alva Gentry and one-fourth to Dallas H. Platt, Los Angeles, Cal. Filed May 18, 1912. Serial No. 698,300. (Cl. 11—15.)



An identification certificate comprising a body having identifying indicia thereon, coupons foldably and detachably connected to the certificate and having similar indicia thereon adapted when folded to register with the indicia upon the body whereby identifying punch holes may be made in all the parts simultaneously, and a field bearing a plurality of alphabets to permit the purchaser's name to be punched out on the certificate.

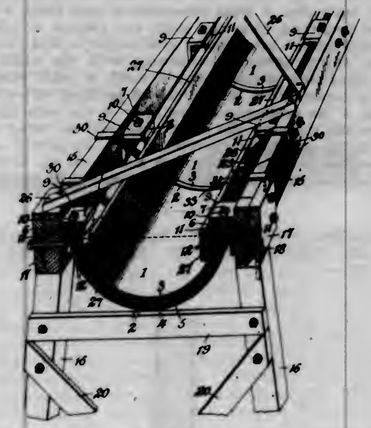
1,072,342. FLY-TRAP. SAMUEL LOUVIERE, Union, La. Filed Apr. 4, 1913. Serial No. 758,855. (Cl. 43—22.)



1. A trap of the class described comprising a hollow body having a bottom wall, opaque side walls projecting upwardly from the bottom wall, an opaque inclined wall connecting the side walls and provided with perforations adjacent its lower edge, a transparent vertical wall connecting the side walls and disposed oppositely with respect to the said inclined connecting wall, and a bait support provided within the trap body beneath the perforated opaque wall, a receptacle for fluid insecticide being provided between the bait support and the said transparent wall.

2. A trap of the class described comprising a hollow body having a bottom wall, opaque side walls projecting upwardly from the bottom wall, an opaque inclined wall connecting the side walls and provided with perforations adjacent its lower edge, a transparent vertical wall connecting the side walls and disposed oppositely with respect to the said inclined connecting wall, and a bait support provided within the trap body beneath the perforated opaque wall and in angular relation thereto, a receptacle for fluid insecticide being provided between the bait supporting wall and the transparent wall of the body.

1,072,343. EXTENSIBLE TROUGH OR FLUME. PATRICK MAGINNIS, Kimball, Nebr., assignor, by mesne assignments, to The Flume Improvement Company, a Corporation. Filed Mar. 29, 1912. Serial No. 687,231. (Cl. 61—5.)



1. In a device of the class described, the combination with two trough or flume sections having overlapped ends, of inner and outer members arranged to clamp the overlapped ends of the said sections between them, and adjusting means for the clamping members including an approximately U-shaped clamping plate having a groove or channel receiving the inner and outer members and provided with inclined or angularly related walls for forcing the said members toward each other as the same are moved into the groove or channel, and means for forcing the said members into the groove or channel of the clamping plate.

2. In a device of the class described, the combination with two trough or flume sections having overlapped ends, of inner and outer members arranged to clamp the overlapped ends of the said sections between them, a channeled clamping plate arranged at the upper edges of the sections in position to receive the terminal portions of the inner and outer clamping members and having side flanges provided with inwardly converging inner faces, and adjustable means for drawing the terminal portions of the said clamping members into the groove or channel of the clamping plate to cause the said members to clamp firmly the overlapped ends of the sections.

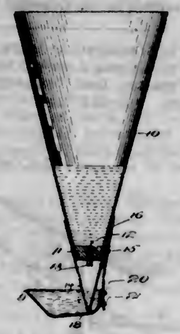
3. A device of the class described comprising a framework including side sills, L-shaped hangers having horizontal supporting portions and vertical attaching portions secured to the side faces of the sills, flume sections having overlapped ends, inner and outer members arranged to clamp the overlapped ends of the sections, channeled clamping plates arranged in the angles of the L-shaped hangers and fitted against the lower faces of the horizontal supporting portions of the same and receiving the terminal portions of the clamping members, threaded stems piercing the channeled clamping plates and the hangers and connected with the outer clamping member, and nuts arranged on the threaded stems for drawing the clamping plates upward into the grooves or channels of the clamping plates.

4. A device of the class described including a flume, and fenders arranged within the flume at opposite sides thereof and extending along the same to prevent objects floating through the flume from injuring the sides thereof.

5. A device of the class described including a flume, fenders arranged within the flume at opposite sides thereof and extending along the same to prevent objects floating through the flume from contacting with the sides thereof, and hangers detachably suspending the fenders within the flume.

[Claims 6 to 8 not printed in the Gazette.]

1,072,344. DRINKING-FOUNTAIN FOR FOWLS. JAMES M. MASON, Jr., Charlestown, W. Va. Filed May 5, 1911. Serial No. 625,305. (Cl. 119—72.)



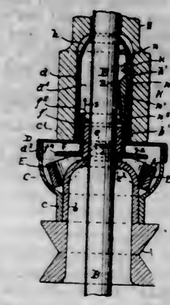
1. In a device of the character described, a main receptacle, a second receptacle arranged beneath the first receptacle, the contents of the receptacles being permanently separated by a body of air, means for detachably connecting the two receptacles and means for conveying water from the upper receptacle to the bottom of the lower receptacle, said means comprising a tubular member detachably connected with the first receptacle and serving to isolate a body of air between the two receptacles, and a device for forming a variable sinuous passage for preventing the transfer of germs from the walls of the tubular member to the interior of the upper receptacle.

2. In a device of the character described, a main receptacle for containing a supply of water, a bottom therefor having a bore, a valve within the bore, a tubular member connected with and forming substantially a continuation of the first receptacle but having its interior separated therefrom by said bottom member, a lower receptacle arranged to receive the lower end of the tubular member and means for holding the tubular member and the lower receptacle in position, said tubular member defining a permanent air chamber between the receptacles.

3. In a device of the class described, a receptacle having tapering walls, a bottom for said receptacle provided with an aperture and a valve within said aperture, a tubular member having tapering walls arranged to telescope with the walls of a lower receptacle partly inclosing the lower end of the tubular member and having a bottom in proximity to said lower end, the tubular member defining a permanent air chamber between the receptacles, projecting devices carried by the outer walls of the lower receptacle, a member secured to the walls of the upper receptacle and having apertures adapted to engaged each of the aforesaid projections, said member engaging the recess.

4. In a device of the character described, a main receptacle for containing a supply of water, a bottom therefor, a valve member in the bottom, a tubular member connected with and forming substantially a continuation of the first receptacle, a lower receptacle arranged to receive the lower end of the tubular member, means carried by the main receptacle for holding the tubular member and the lower receptacle in position, said tubular member defining a permanent air chamber between the receptacles and said lower receptacle having a broadened portion toward one projecting end with a narrower rear and bottom portion.

1,072,345. DEVICE FOR AUTOMATICALLY CLUTCHING BOBBINS TO SPINDLES OF SPINNING AND TWISTING MACHINES. RUFUS S. MATTESON, Providence, R. I. Filed May 17, 1912. Serial No. 697,944. (Cl. 118—31.)



1. In an automatic bobbin-clutching device for spindles, the combination with a revolubly supported spindle, a vertically extending head member secured to the spindle, and a plurality of independently disposed clutching-members mounted for radial movement in and revoluble bodily with said head, of an actuator member or sleeve mounted concentrically with the spindle and engageable with the clutches, and means actuated and controlled by the revoluble spindle, for moving said sleeve a limited extent longitudinally of the spindle, whereby, when in use, certain portions of the clutching members are caused to clutch the bobbin to the spindle and centralize it thereon.

2. In a bobbin-clutching device for spindles, the combination of a vertical revolubly supported spindle, an upwardly extending head member secured thereto, clutching members independently fulcrumed in said head, capable of being swung radially with respect to the spindle, each clutch member having its upper part adapted, when moved outward, to clutch the interior of a bobbin removably placed on the spindle, and having the lower portion of the clutch constructed and arranged with respect to said upper part whereby the normal tendency of the latter is to unclutch itself from the bobbin, and means coöperating with the revolving spindle and clutches for forcibly swinging the clutching portion of the latter outward to engage the bobbin.

3. In a device for automatically clutching bobbins, a revoluble spindle-blade, a driving-whirl or analogous member secured thereto, and an upwardly extending hollow casing and head member mounted to rotate in unison with the whirl, the combination therewith of a plurality of revolubly mounted clutching members, a plurality of arms mounted to swing in vertical planes on relatively stationary pivots, and a vertically slidable actuator interposed between and engageable with said clutching and arm members, whereby, when the device is in normal action, the energy or live force emanating from the revolving spindle causes said arms and actuator to move upward and deflect the clutching portion of the clutch members outward to engage and hold a bobbin positioned on the spindle.

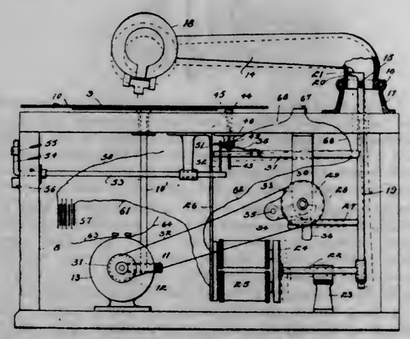
4. In bobbin-clutching means, the combination with a revolubly mounted spindle provided with a driving member and a head element fixed to the spindle at a point above the driving member, of a plurality of clutching members independently mounted for lateral swinging movement in said head, a clutch-actuator in operative engagement with said clutch, suitably supported lever members disposed in horizontal planes and revoluble bodily in unison with the spindle, the levers capable of swinging in vertical

planes from their relatively stationary fulcra or supports, and having said clutch-actuator member supported by said levers, whereby, when in use, the movements of the latter in vertical planes imparts a like movement to the clutch-actuator.

5. In a bobbin-clutching device for spindles of spinning and twisting machines, the combination with a revoluble spindle, and a sleeve or actuator device freely encircling the same, of clutching members inwardly movable through the medium of said sleeve, a chambered head having the clutching members movably mounted therein, a chambered base or casing secured to said head and revoluble with the spindle, and oppositely arranged bent levers pivotally mounted and horizontally disposed in said base and in normal operative engagement with said sleeve, substantially as hereinbefore set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,072,346. GRAMOPHONE. GUSTAVE MELING, Chicago, Ill. Filed Jan. 18, 1912. Serial No. 671,838. (Cl. 181—3.)



1. The combination with a swinging arm of a gramophone, of a reproducer carried thereby a shaft or bar connected with said arm and adapted to actuate the same, an electro-magnetic device for swinging said shaft to raise the reproducer away from the record, means coacting with said shaft for rotating the same to swing the reproducer back or toward its starting position, which means is actuated when the shaft is swung by the magnetic device, a source of electricity for said electro-magnetic device, and circuits and contacts arranged so that the current supplied to said device will be automatically stopped when the reproducer returns to initial position, but may be controlled or regulated by the operator after the reproducer has moved forward from its initial position.

2. The combination with the arm of a gramophone mounted with a universal joint having a pin forming a part thereof, of a shaft pivotally mounted on said pin, a projection on said shaft, a lug on said arm with which said projection engages, means for swinging said shaft, and means for rotating said shaft.

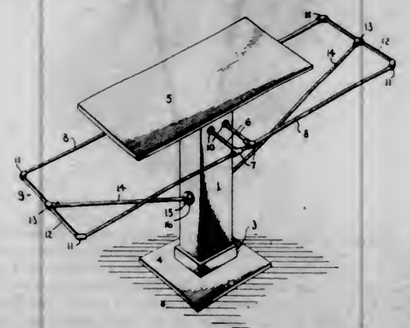
3. The combination with the swinging arm of a gramophone, of a shaft connected therewith and adapted to raise and swing said arm, a magnet for causing said shaft to swing, a driven worm, a threaded member adapted to engage at times with said worm, and a connection between said shaft and said member for swinging said shaft.

4. The combination with the movable sound reproducing member of a gramophone, of a shaft for raising and swinging said member, means connecting said shaft and said reproducing member, a magnet adapted to cause said shaft to swing, an arm on said shaft, a threaded member with which said arm engages, a driven worm with which said threaded member engages when the magnet actuates said arm, a source of electricity, an electrical contact device operated by said shaft, circuits from said source of electricity to said contact, device and magnet, the arrangement being such that when said shaft has moved a predetermined distance, said contact device will close the circuit through the magnet, and the reproducer will be returned to starting position when said contact device will again open the circuit through said magnet.

5. In a gramophone, the combination of means for turning the record, a swinging arm carrying the reproducer head, a shaft connected with said arm whereby the arm may be raised and swung, a magnet for actuating said shaft to raise the arm, means for turning said shaft for swinging said arm, a source of electricity connected with said magnet, and a contact device operated by said shaft whereby the circuit through said magnet may be closed and opened at predetermined times.

[Claim 6 not printed in the Gazette.]

1,072,347. COMBINATION DISPLAY STAND AND RACK. FRED W. MILLER, JOSEPH J. KALE, and SAMUEL D. ROBINSON, Sheldon, Iowa. Filed Apr. 14, 1913. Serial No. 761,031. (Cl. 211—14.)



1. A combination display stand and rack comprising a single supporting post, means to secure said post to a support, a table top secured to the upper end of the post, a rack comprising supporting rods arranged through the post and projecting beyond the sides thereof, side bars secured to the ends of said supporting rods, cross bars connected with the ends of said side bars, and brace bars connected with the post and with the end bars of the rack.

2. A combined display stand and rack comprising a single supporting post, right angle braces secured to and countersunk into the lower end of said post and its support, a frame engaged with the lower end of the post from said brace bars, a floor plate secured to said frame, a table top secured to the upper end of the post, rack supporting rods arranged through the post and having their ends projecting beyond the same, and a rack arranged around said table top and secured to said supporting rods.

3. A combined display stand and rack comprising a single supporting post, means to secure said post to a support, a table top secured to the upper end of the post, a rack comprising supporting rods arranged through the post and projecting beyond the sides thereof, T-couplings on the ends of said supporting bars, side bars engaged with said T-couplings, elbows arranged on the ends of said side bars, end bars connected with said elbows, T-couplings on said end bars, inclined brace bars connected at their ends with the T-couplings on said end bars, and brace attaching plates secured to the sides of the post and adapted to receive the inner ends of said brace bars.

1,072,348. VEHICLE-WHEEL. WILLIAM D. MORRIS, Youngstown, Ohio, assignor to The Republic Rubber Company, Youngstown, Ohio, a Corporation of Ohio. Filed July 17, 1912. Serial No. 709,961. (Cl. 152—7.)

1. In a vehicle wheel the combination with a supporting felly member, of an elastic tire having a relatively fixed metallic base slotted transversely and alternately from opposite sides to its longitudinal center, whereby said base may be expanded circumferentially in the operation of assembling and may be forced over the felly member to insure a snug fit.

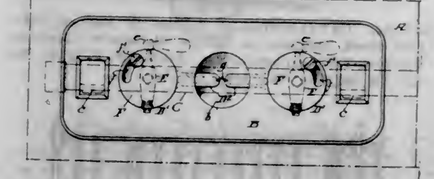


2. In a vehicle wheel an elastic tire having a relatively fixed metallic base slotted transversely and alternately from opposite sides said slots terminating with their inner ends in substantial alinement.

3. In a vehicle wheel an elastic tire having a relatively fixed metallic base slotted transversely and alternately from opposite sides said slots terminating with their inner ends in substantial alinement in the median plane of the base.

4. In a vehicle wheel an elastic tire having a relatively fixed metallic base slotted alternately from opposite sides by a double series of transverse incisions collectively crossing but individually extending only part way across said base, the sum of the lengths of any two incisions taken from opposite sides being equal to the width of the base.

1,072,349. LIGHTING DEVICE FOR GAS-BURNERS OF OVENS. ABRAM C. MOTT, Jr., Philadelphia, Pa., assignor to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 28, 1912. Serial No. 706,447. (Cl. 158—115.)



1. A burner for gas ranges having a body portion; a mixing chamber at one end; a lateral extension having an opening for the escape of a small quantity of gas; a partition separating the mixing chamber from the extension; and a baffle projecting into the burner beyond the end of the partition to direct a certain proportion of the gas mixture to the lateral extension.

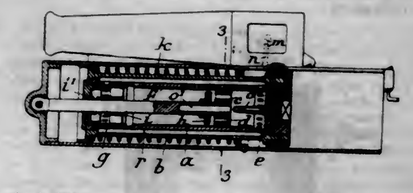
2. A gas burner for ovens having a perforated tubular body and an enlarged head at one end forming a mixing chamber and a lateral extension having a narrow slot therein, said slot terminating in close proximity to the perforations in the body of the burner; and a partition extending to a point near the narrow slot of the extension where it communicates with the perforations in the burner, so that the gas escaping through the slot must pass around the partition, preventing the ignition of the gas within the mixing chamber.

3. The combination in a gas range, of a casing having a central opening and openings at each side of the central opening, said openings being adapted to receive a burner; a plate secured to the casing, also having a central opening and side openings alining with the openings in the casing; two burners having enlarged heads adapted to the side openings and having lateral projections exposed through the central opening, each projection having a longitudinal slot at the side thereof, said burners being arranged so that the projections will be in close proximity to each other.

4. The combination in a gas range, of a casing; two burners projecting through the casing; said casing having an opening located between the two burners; means for supplying gas and air to each burner; said burners having a series of perforations and each having a lateral extension slotted throughout its length and having a transverse slot forming communication between the slot of the extension and the perforations of the burner; said extensions projecting toward each other and exposed through the central opening in the casing.

5. A burner for a gas range having a body portion; with an enlarged head at one end forming a mixing chamber and having a slotted lateral projection; the body portion of the burner having gas outlets; a partition separating the mixing chamber in the head from the slotted projection; said partition being less in length than the projection; said head having an opening in its end for a gas nozzle and having a slot for the admission of air; a slotted valve mounted on the casing; and means for securing the valve to the casing; the parts being so arranged that the gas will pass to the rear of the burner, a portion traveling back into the slotted extension.

1,072,350. DIFFERENTIAL-RECOIL GUN. EMIL MÖLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Dec. 8, 1911. Serial No. 664,584. (Cl. 89—42.)



1. A differential recoil gun having, in combination with a recoiling barrel, braking means comprising a fluid-containing cylinder having double walls forming an intermediate space, and also having openings from said space into the cylinder at the ends thereof, a piston within said cylinder, said piston and cylinder having a relative movement, said openings allowing fluid to pass from one side to the other of the piston without creating any braking action during the run out of the barrel, and means for cutting off the free communication through said openings during the recoil of the barrel.

2. A differential recoil gun having, in combination with a recoiling barrel, braking means comprising a fluid-containing cylinder having double walls forming an intermediate space, and also having openings from said space into the cylinder at the ends thereof, a piston within said cylinder, said piston and cylinder having a relative movement, said openings allowing fluid to pass from one side to the other of the piston without creating any braking action during the run-out of the barrel, and a spring pressed disk for cutting off the free communication through said openings during the recoil of the barrel.

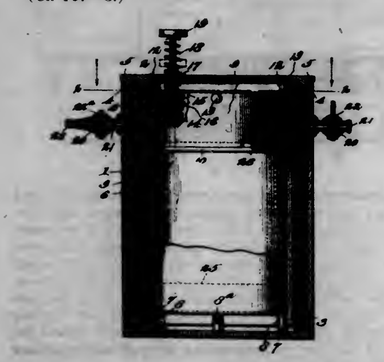
3. A differential recoil gun having, in combination with a recoil barrel, braking means comprising a fluid-containing cylinder having double walls forming an intermediate space, and also having openings from said space into the cylinder at the ends thereof, a piston within said cylinder, said piston and cylinder having a relative movement, said openings allowing fluid to pass from one side of the piston to the other without creating any braking action during the run-out of the barrel, said piston having openings therein for the passage of fluid during such run out, means for closing the openings in the piston during the recoil of the barrel, means for closing the passage through the first mentioned openings during the recoil of the gun, and restricted passages between the cylinder and the piston.

4. A differential recoil gun having, in combination with a recoiling barrel, braking means comprising a fluid-containing cylinder having double walls forming an intermediate space, and also having openings from said space into the cylinder at the ends thereof, said cylinder having channels in its inner wall, a piston within said cylinder, said piston and cylinder having a relative movement, said openings allowing fluid to pass from one side of the piston to the other without creating any braking action during the run-out of the barrel, and means for automatically cutting off the free communication through said openings during the recoil of the barrel.

5. A differential recoil gun having, in combination with a recoiling barrel, braking means comprising a fluid-containing cylinder having double walls forming an intermediate space, and also having openings from said space into the cylinder at the ends thereof, said cylinder having channels in its inner wall, a piston within said cylinder, said piston and cylinder having a relative movement, said piston having openings therein for the passage of fluid during the run-out of the barrel, means for closing the openings in the piston during the recoil, and means for closing the passage through the first mentioned openings during the recoil movement.

[Claims 6 to 9 not printed in the Gazette.]

1,072,351. APPARATUS FOR APPLYING DISINFECTANTS AND DEODORANTS. EDWARD LYMAN MUNSON, U. S. Army. Filed Aug. 17, 1912. Serial No. 715,663. (Cl. 167—3.)



1. A disinfecting and deodorizing apparatus comprising a readily collapsible and inflatable envelop; a containing vessel associated with said envelop; a mixing chamber mounted in said containing vessel and adapted to contain liquid; a dose box located above the bottom of said mixing chamber adapted to contain chemical reagents; with means adapted to be operated from the exterior of sand container envelop for dumping the contents of said dose box into said liquid; and means for conducting the gases generated in said container to the interior of said envelop, substantially as described.

2. A disinfecting and deodorizing apparatus comprising a containing vessel, a mixing chamber mounted therein and adapted to contain liquid, means for centering and supporting said mixing chamber from the bottom of said containing vessel, a dose box located above the bottom of said mixing chamber adapted to contain chemical reagents in granular form, with means operated from the exterior of said container for dumping the contents of said dose box into said liquid, comprising a spring plunger projecting through the cover of the container, and a yielding bottom mounted in said dose box and adapted to be released by said spring plunger, and means for carrying off the gases generated from said container, substantially as described.

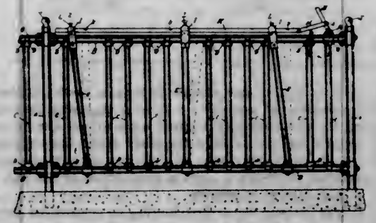
3. A disinfecting and deodorizing apparatus comprising a containing vessel, a mixing chamber mounted therein and adapted to contain liquid, means for centering and supporting said chamber above the bottom of said containing vessel, a dose box located above the bottom of said mixing chamber adapted to contain a chemical reagent, with means operated from the exterior of said container for dumping the contents of said dose box into said liquid, a detachable cover mounted on said container and provided with a downwardly projecting shell forming a gas bell, and means for carrying off the gases generated from said container, substantially as described.

4. A disinfecting and deodorizing apparatus comprising a containing vessel, a mixing chamber mounted therein and adapted to contain liquid, means for centering and supporting said chamber above the bottom of said containing vessel, a dose box located above the bottom of said mixing chamber adapted to contain chemical reagents in granular form, with means operated from the exterior of said container for dumping the contents of said dose box into said liquid, comprising a spring plunger projecting through the cover of the container, and a yielding bottom mounted in said dose box and adapted to be released by said spring plunger, a detachable cover mounted on said container and provided with a downwardly projecting shell forming a gas bell, and means for carrying off the gases generated from said container, substantially as described.

5. A disinfecting and deodorizing apparatus comprising a cylindrical containing vessel, a cylindrical mixing chamber mounted therein and adapted to contain liquid, means for centering and supporting said chamber above the bottom of said containing vessel, a dose box located above the bottom of said mixing chamber adapted to contain a chemical reagent, with means operated from the exterior of said container for dumping the contents of said dose box into said liquid, a detachable cover mounted on said container and provided with a cylindrical shell forming a gas bell projecting downwardly between said mixing chamber and said container, and means for carrying off the gases generated from said container, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,072,352. CATTLE-STALL. ALBERT H. NELLER, Fairfield, Iowa, assignor to Louden Machinery Company, Fairfield, Iowa, a Corporation. Filed Nov. 8, 1910. Serial No. 591,351. (Cl. 119—148.)



1. In cattle stalls, the combination of vertically disposed posts secured to the floor, horizontally disposed bars having their ends connected to said posts, one near the upper ends of the posts and the other near their lower ends above the floor, a series of upright bars spaced apart and adjustably secured at their upper and lower ends to said horizontal bars, a stanchion member pivoted at its lower end to the lower horizontal bar, castings having openings in their upper ends affixed to the upper ends of the stanchion member so as to straddle the upper horizontal bar and adapted to slide thereon, a horizontally movable bar having notches in its body inserted in the openings of the castings, a latch piece mounted in said casting adapted to engage the notches in the movable bar and to be disengaged therefrom, and means to move the bar and lock it in fixed position.

2. In a device of the character described, mating castings having an opening between their upper ends secured to the upper end of a stanchion member suitably pivoted at its lower end, a horizontally movable bar, having notches therein inserted in the opening between the castings, a latch piece mounted between the upper ends of the castings, adapted to engage the notches in the movable bar and to be disengaged therefrom, and means to operate the movable bar and to lock it in fixed position.

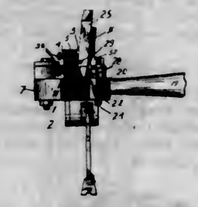
3. In a device of the character described, mating castings secured to the upper end of a stanchion member suitably pivoted at its lower end said castings having an opening therebetween, a horizontally movable bar, having notches therein, said bar being received within the opening between said castings, a latch piece mounted between the upper ends of the castings, adapted to engage the notches in the movable bar and to be disengaged therefrom, said latch piece having a T at its lower end to fit in recesses in the casting to hold it in operative position, and means to operate the movable bar and lock it in fixed position.

4. In a device of the character described, a stanchion member pivoted at its lower end and connected at its upper end with a horizontally movable bar upright bars on each side of the stanchion member, a latch piece to engage said movable bar and be releasable therefrom, and means to operate the movable bar and to lock it in position so that it may act in conjunction with the upright bar on either side.

5. A cattle stall comprising upright bars, a stanchion member located between said bars adapted to act in conjunction with said bars on either side of the member.

[Claims 6 to 12 not printed in the Gazette.]

1,072,353. COTTON-SAW GUMMER. DE WITT C. NELSON, Dallas, Tex., assignor of one-half to John H. Nichols, Dallas, Tex. Filed Feb. 7, 1913. Serial No. 746,935. (Cl. 76—30.)



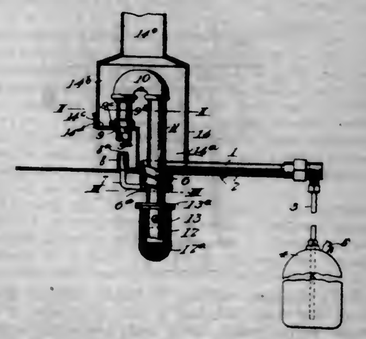
1. The combination in a saw gummer, of a base having a saw receiving slot at one end, a bar arranged to swing on the base transversely of the saw receiving slot, a cutter carried by the bar in proximity to the slot and presenting an inclined cutting edge, said cutter being pivotally sustained, adjusting devices engaging the cutter relatively above and below its pivot point, and an operating member mounted on the base and engaging the bar.

2. The combination with a circular saw, of a saw gummer comprising, a base having a slot receiving the saw, a cutter support arranged on the base to swing transversely of the slot, a cutter carried by the support presenting a cutting edge inclined to the vertical plane of the saw, and means for varying the angle of inclination of the cutting edge of the cutter.

1,072,354. INCANDESCING-MANTLE GASOLENE-LAMP. EUGENE S. NEWBOLD, Baltimore, Md., assignor to American Street Lighting Company, Baltimore, Md., a Corporation of Maryland. Filed Nov. 9, 1911. Serial No. 659,440. (Cl. 67—50.)

1. In a liquid fuel lamp, a burner, a plate above the burner, a vaporizing pipe supported on said plate and terminating in a coil extending through the plate, a gas pipe of less cross sectional area than the vaporizing pipe leading from said coil and terminating in a reduced discharge orifice, and a mixture conduit comprising an air inlet pipe immediately above the said orifice and a pipe leading upwardly from said air inlet and thence downwardly through the vaporizing coil and communicating with the burner.

2. A liquid fuel lamp, the combination of a burner, a plate above the burner, a housing extending upwardly from said plate and having a lateral offset therein providing a supporting wall, a gas tube extending upwardly through the plate outside of the housing, and a mixture conduit comprising an air intake immediately above the gas tube and receiving gas therefrom, outside of the housing, and extending thence upwardly through and supported by the wall of the housing offset and thence downwardly through the housing to the burner; said mixture conduit having a collar through which it rests upon the supporting wall and said collar being adjustable.



3. In a liquid fuel lamp, the combination of a burner, a plate above the burner, a housing extending upwardly from said plate and having a lateral offset therein providing a supporting wall, a gas tube extending upwardly through the plate outside of the housing, and a mixture conduit comprising an air intake immediately above the gas tube and receiving gas therefrom, outside of the housing and extending thence upwardly through and supported by the wall of the housing offset and thence downwardly through the housing to the burner; said mixture conduit being provided with a collar through which it receives its support on the wall of the offset and being constructed to receive and support the mantle at its lower end.

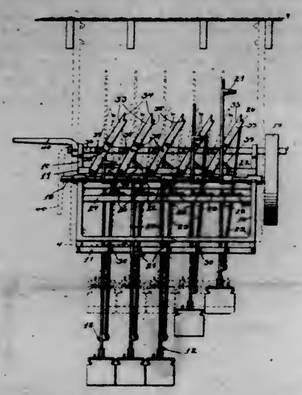
1,072,355. TAMPING-MACHINE. OLIVER NOLAN, St. Paul, Minn., assignor to Clarence R. Wilkinson, St. Paul, Minn. Filed Mar. 21, 1912. Serial No. 685,322. (Cl. 25—37.)

1. In a device of the class described, the combination of a frame, vertically movable tamping bars on the frame adapted to fall by gravity, a tappet for each bar, said tappets being pivotally attached to said bars and arranged to tilt thereon as the same rise or fall, power driven arms adapted to strike said tappets and raise said bars, and means for engaging the tappets to secure the bars in elevated inoperative positions, said means being also adapted to carry and locate the tappets in positions to be struck by said arms whereby the tappets are disengaged from the dogs to permit the fall of the tamping bars.

2. In a tamping machine, a frame, vertical tamping bars on said frame adapted to fall by gravity, a shaft revoluble on the frame, radial arms adjustable angularly and laterally on said shaft, a rod pivotally connected with each tamping bar and provided with a tappet at its upper end adapted to engage one of said radial arms, adjustable slides on said frame for directing said rods, dogs on the frame for engaging said tappets and holding said tamping bars in elevated positions and means for shifting said dogs to carry said tappets into or out of the paths of said radial arms.

3. In a tamping machine, a frame, vertical tamping bars on said frame adapted to fall by gravity, a shaft revoluble on the frame, radial arms adjustable angularly and laterally on said shaft, a rod connected with each tamping bar and provided with a tappet adapted to engage one of said radial arms, guides for each rod, dogs

on the frame for engaging said tappets and holding said bars in elevated and inoperative positions and means for shifting said dogs to carry said tappets into the paths of said radial arms and spring said rods over their guides.

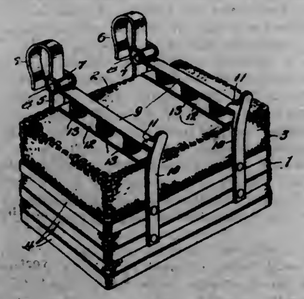


4. In a tamping machine, a frame, vertical tamping bars on said frame adapted to fall by gravity, a shaft revoluble on the frame, radial arms adjustable angularly and laterally on said shaft, a rod connected with each tamping bar and provided with a tappet adapted to engage one of said radial arms, dogs pivotally arranged on the frame for engaging said tappets and holding said bars in elevated positions, springs between said frame and dogs for tilting the latter, an operating bar slidable on the frame and connected with said dogs, and a lever on said bar for moving the same to shift and carry said tappets into or out of the paths of said radial arms.

5. In a tamping machine, a frame, vertical tamping bars on said frame adapted to fall by gravity, a shaft revoluble on the frame, radial arms on said shaft, a rod connected with each tamping bar and provided with a tappet adapted to engage one of said radial arms, adjustable slides on said frame, dogs supplied with lugs and sockets and pivoted on the frame for engaging said tappets and holding said bars in elevated positions, springs connecting said dogs and frame, said adjustable slides and lugs being adapted to guide said rods and direct said tappets into the sockets of said dogs, and means for shifting said dogs to carry said tappets into or out of the paths of said radial arms.

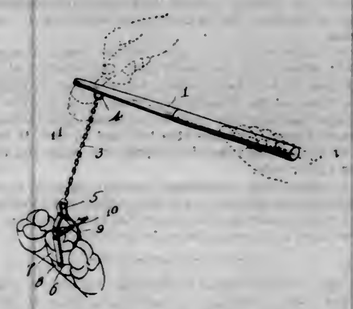
[Claims 6 to 9 not printed in the Gazette.]

1,072,356. MAIL-RECEPTACLE. JOHN W. NORMAN, Carnthersville, Mo. Filed Dec. 14, 1912. Serial No. 736,770. (Cl. 217—56.)



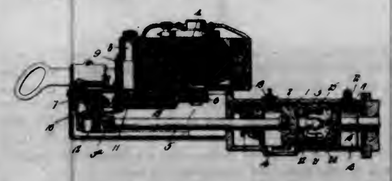
In a receptacle, a body and a removable cover therefor, straps secured to the rear wall of said body and extending upwardly beyond the cover thereof, holding levers each pivoted at one end to one of said straps and disposed in a plane above that of said cover, a wear plate secured to said cover and disposed below each holding lever, springs interposed between said levers and wear strips and adapted to be compressed by said levers to hold the cover in applied position, and spring stripe secured to the front wall of the body and each having a nose adapted to be engaged by the free end of one of said levers whereby the latter will be held in active position.

1,072,357. DENTAL DEVICE. CHARLES JENNISON PALMER, Appleton, Wis. Filed Mar. 10, 1913. Serial No. 753,454. (Cl. 32—10.)



A dental tool comprising in combination, a rigid rod adapted to be held in the hand, a member adapted to engage the object to be removed, comprising means whereby it may be adjusted to make proper engagement with the object and a flexible connection between said rod and said member.

1,072,358. FLUID-PRESSURE-DRIVEN TOOL. ALEXANDER PALMROS, Syracuse, N. Y., assignor to The Pneumelectric Machine Company, Syracuse, N. Y., a Corporation of New York. Filed Nov. 25, 1905. Serial No. 289,127. (Cl. 125—14.)



1. The combination with a suitably housed driving piston, a suitably housed driven piston, means causing the pistons to move in the same direction at one time and means storing an expansible fluid under compression upon the movement of the pistons in the same direction and admitting said compressed fluid to drive the driven piston in the other direction.

2. The combination of a suitably housed compression-driving piston and a suitably housed driven piston, means causing the driven piston to be retracted during the compression stroke of the driving piston, and means providing communication between the controlling face of the driven piston and the compression space of the driving piston, through which, a medium compressed during such retraction, is communicated to the driven piston.

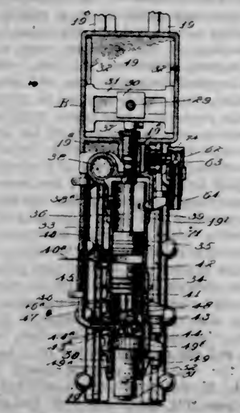
3. In a percussion implement, a suitably actuated fluid compressing piston, a fluid pressure driven piston, suitable housing for said pistons, said housing provided with means through which the fluid compressing piston displaces the fluid medium in rear of the fluid pressure driven piston and causes the latter to be retracted during the compression stroke of the fluid compressing piston, and also provided with means providing communication between the controlling face of the fluid pressure driven piston and the compression space of the fluid compressing piston through which the fluid medium compressed during such retraction, is delivered to the fluid pressure driven piston.

4. The combination with a motor actuated driving piston, of a cylinder in which the said piston operates to compress a fluid medium provided with a by-pass at one end permitting the fluid compressed by said piston to pass to the opposite side of said driving piston when it is between the ends of the by-pass, and a suitably housed independent driven piston moved by the compressed fluid passing from the by-pass.

5. The combination with suitably housed driving and driven pistons, means providing communication between one face of the driven piston and both the compression and opposite faces of the driving piston through which fluid may flow alternately between the driving and the driven piston, the communication between the driven piston and the compression face of the driving piston being controlled by said driving piston, and comprising a by-pass, uncovered by the driving piston on its compression stroke.

[Claims 6 to 70 not printed in the Gazette.]

1,072,359. ROCK-DRILL WITH WATER-FEED. ALEXANDER PALMROS, Syracuse, N. Y., assignor to The Pneumelectric Machine Company, Syracuse, N. Y., a Corporation of New York. Filed July 1, 1912. Serial No. 707,051. (Cl. 255—49.)



1. In a rock drill and a housing therefor, the combination with a reciprocating hammer in the housing, a drill steel and a chuck for said steel, of a dolly pin situated between the hammer and the drill steel, a duct in the drill steel and a corresponding duct in the dolly pin, an elastic bulb inclosing part of the dolly pin, a hollow chamber in said bulb communicating with the duct in said dolly pin and connection for supplying water under pressure to said chamber.

2. In a rock drill and a housing therefor, the combination with a cylinder in said housing, a hammer operating in said cylinder, a drill steel and a duct for said drill steel, of a dolly pin located between the hammer and the drill steel, said dolly pin communicating the blow from the hammer to the drill steel, a duct in the drill steel and registering therewith, a duct in the dolly pin, passages connecting the periphery and the duct of said dolly pin, an elastic bulb surrounding said dolly pin and forming a water chamber therewith, a connection between said bulb and a water supply wherefrom water is forced through the bulb to the ducts in the dolly pin and the drill steel.

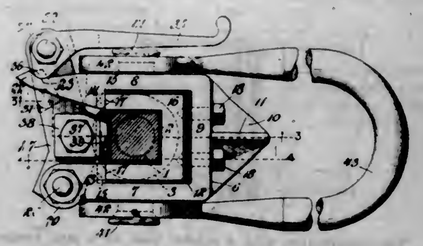
3. In a rock drill and a housing therefor, the combination with a cylinder in said housing, a hammer operating in said cylinder, a drill steel and a chuck for said drill steel; of a dolly pin located between the hammer and the drill steel, said dolly pin communicating the blow from the hammer to the drill steel, a duct in the drill steel and registering therewith, a duct in the dolly pin, passages connecting the periphery and the duct of said dolly pin, an elastic bulb surrounding said dolly pin and forming a water chamber therewith; a pump in said housing drawing water from the water supply, a hose connection between the pump and said chamber.

4. In a rock drill and a housing therefor, the combination with a cylinder in said housing, a hammer operating in said cylinder, a drill steel and a chuck for said drill steel; of a dolly pin located between the hammer and the drill steel, said dolly pin communicating the blow from the hammer to the drill steel, a duct in the drill steel and registering therewith, a duct in the dolly pin, passages connecting the periphery and the duct of said dolly pin, an elastic bulb surrounding said dolly pin and forming a water chamber therewith; a pump in said housing drawing water from a water supply, a hose connection between the pump and said water chamber, gearing for said pump adapted to operate the pump in order to deliver a quantity of water to the drill steel.

5. In a rock drill and a housing therefor, the combination with a cylinder in said housing, a hammer operating in said cylinder, a drill steel and a church for said drill steel; of a dolly pin located between the hammer and the drill steel, said dolly pin communicating the blow from the hammer to the drill steel, a duct in the drill steel and registering therewith, a duct in the dolly pin, passages connecting the periphery and the duct of said dolly pin, an elastic bulb surrounding said dolly pin and forming a water chamber therewith; a pump in said housing drawing water from a water supply and a hose connection between the pump and said water chamber; gearing for said pump adapted to operate synchronously with the strokes of the hammer and timed to deliver a quantity of water to the drill steel directly after said drill steel has received its blow.

[Claims 6 to 10 not printed in the Gazette.]

1,072,360. ELEVATOR FOR SUCKER-RODS. CLARENCE LYMAN PARKER, Los Angeles, Cal. Filed July 9, 1912. Serial No. 708,456. (Cl. 57—9.)



1. A sucker rod elevator comprising a frame or yoke open at one side and of a size to wholly contain a sucker rod moved into the yoke through the open side, the members of the yoke being in fixed relation one to the other, a gate for the open side of the yoke hinged thereto and movable to close the open side, the yoke and gate having coacting means for locking the gate in the closed position, and said gate being of less height than the yoke at the open side of the latter, and means carried by the gate in upstanding relation thereto for engaging a sucker rod lodged in the yoke to hold the gate in the locked position by the weight of the sucker rod.

2. In a sucker rod elevator, a frame or yoke open at one side to an extent to receive a sucker rod through said open side, a gate pivoted at one end to the yoke and movable into transverse relation to the open side of the yoke, a tightening lever carried by the end of the gate remote

from the pivot end, and means on the gate movable into engaging relation to a sucker rod lodged in the yoke to be engaged by said sucker rod under the action of the weight of the sucker rod, the gate and yoke being provided with coacting means for locking the gate to the yoke by the action of the weight of the sucker rod and the tightening lever and yoke being provided with coacting means for resisting spreading action of the open end of the yoke.

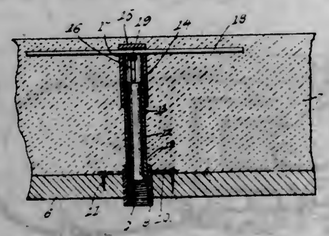
3. In an elevator for sucker rods, a yoke constituting the frame of the elevator and of a size to wholly receive a sucker rod, said yoke having one side open to an extent to receive the sucker rod and also having its members in fixed relation one to the other, and a one-piece seat for the sucker rod adapted to the yoke and provided with an open side matching that of the yoke, the yoke being formed with a sunken receptacle for the seat and said seat being removably and replaceably mounted in said receptacle in the yoke, and said yoke and seat being provided with coacting locking means for holding the seat on the yoke with the open sides matching.

4. In an elevator for sucker rods, an open sides yoke constituting the frame of the elevator, and a removable seat for the sucker rod adapted to the yoke, said seat having one side open to correspond to the open side of the yoke, the yoke being provided with a supporting ledge for the seat and with under-cut portions, and the seat being provided with beveled ends adapted to the under-cut portions, the yoke being also provided with means for holding the seat in removable locked relation to the yoke.

5. In an elevator for sucker rods, an unbroken yoke having one side open to an extent to receive a sucker rod therethrough, a gate movable into and out of traversing relation to the open side of the yoke, and means for causing the locking of the gate in the closed position by the weight of the sucker rod, said means comprising a tooth formed on the yoke in position to enter a recess formed in the gate, and said gate being provided with a tooth in position to be engaged by the sucker rod to hold the first named tooth in the said recess.

[Claims 6 and 7 not printed in the Gazette.]

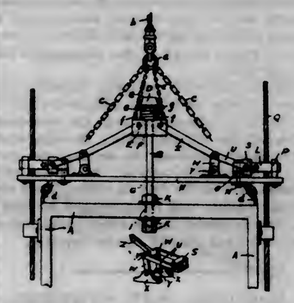
1,072,361. SUPPORT FOR PIPE-HANGERS. ULYSSES S. RICKMAN, Newton, Kans., assignor of one-half to Louis B. Swartz, Newton, Kans. Filed Feb. 6, 1913. Serial No. 746,540. (Cl. 72—104.)



The combination with a plastic base, of a pipe hanger support partly embedded therein, said support comprising a cylindrical socket internally threaded, a laterally projecting flange surrounding said socket adjacent its inner end, said flange being adapted to be secured to a false base, a threaded body member extending from the inner end of the socket, a cap mounted upon the upper end of the body member, said cap being formed with two pairs of openings, and anchoring rods extending through said openings.

1,072,362. SAFETY-CLUTCH FOR MINE-CAGES. BERETON BURGESS ROBERTS, Cimla, Neath, Wales. Filed Apr. 29, 1912. Serial No. 693,906. (Cl. 187—81.)

1. An automatic safety device for mine cages, lifts, and the like, comprising guide ropes, a movable plate, a pair of jaws mounted at each end thereof and adapted to grip the guide ropes, slidable collars adapted to cause said jaws to grip said guide ropes, a spring adapted to impel said sliding collars, said spring being normally restrained by tension of the winding rope, a connection between said movable plate and the cage consisting of a rod projecting upward from the cage, and passing loosely through the said plate, a block through which said rod also passes, rods connecting said block with the aforesaid collars, said rod having a shoulder at its upper end to retain said block, said spring actuating the aforesaid collars being mounted near the upper end of said rod, said rod having a head between which and the block, the spring is normally compressed, a ring on the winding rope, and a bridle for suspending said block from said winding rope.



2. An automatic safety device for mine cages, lifts, and the like, comprising guide ropes, a movable plate, a pair of jaws mounted at each end thereof, and adapted to grip the guide ropes, slidable collars adapted to cause said jaws to grip said guide ropes, a spring adapted to impel said sliding collars, said spring being normally restrained by tension of the winding rope, a connection between said movable plate and the cage consisting of a rod projecting upward from the cage, and passing loosely through the said plate, a block through which said rod also passes, rods connecting said block with the aforesaid collars, said rod having a shoulder at its upper end to retain said block, said spring actuating the aforesaid collars being mounted near the upper end of said rod, said rod having a head between which and the block, the spring is normally compressed, a ring on the winding rope, and a bridle for suspending said block from said winding rope.

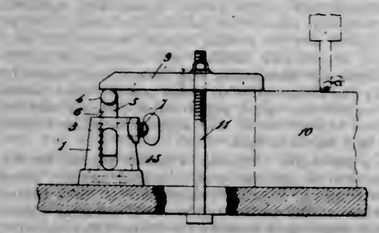
3. An automatic safety device for mine cages, lifts, and the like, comprising guide ropes, a movable plate, a pair of jaws mounted at each end thereof and adapted to grip the guide ropes, slidable collars adapted to cause said jaws to grip said guide ropes, a spring adapted to impel said sliding collars, said spring being normally restrained by tension of the winding rope, a connection between said movable plate and the cage consisting of a rod projecting upward from the cage, and passing loosely through the said plate, and a block through which said rod also passes, jointed rods connecting said block with the aforesaid collars said rod having a shoulder at its upper end to retain said block.

4. An automatic safety device for mine cages, lifts, and the like, comprising guide ropes, a movable plate, a pair of jaws mounted at each end thereof and adapted to grip the guide ropes, slidable collars adapted to cause said jaws to grip said guide ropes, a spring adapted to impel said sliding collars, said spring being normally restrained by tension of the winding rope, a connection between said movable plate and the cage consisting of a rod projecting upward from the cage and passing loosely through the said plate, a block through which said rod also passes, jointed rods connecting said block with the aforesaid collars, and rocking frames to assist said rods, said rod having a shoulder at its upper end to retain said block.

5. An automatic safety device for mine cages, lifts, and the like, comprising guide ropes, a movable plate, a pair of jaws mounted at each end thereof and adapted to grip the guide ropes, slidable collars adapted to cause said jaws to grip said guide ropes, a spring adapted to impel said sliding collars, said spring being normally restrained by tension of the winding rope, a connection between said movable plate and the cage consisting of a rod projecting upward from the cage, and passing loosely through the said plate, a block through which said rod also passes, rods connecting said block with the aforesaid collars, said rod having a shoulder at its upper end to retain said block, said jaws being provided with rifled recesses adapted to fit closely around the strands of the guide ropes.

[Claims 6 and 7 not printed in the Gazette.]

1,072,363. ADJUSTABLE WORK-SUPPORTING DEVICE. CHARLES C. ROBERTS, Ansonia, Conn. Filed July 13, 1911. Serial No. 638,349. (Cl. 90—59.)



1. A device of the class described comprising, in combination, a base having a vertical opening therein provided with an axially extending row of rack teeth, and a thrust-receiving member having a shank smaller in diameter than that of said opening in the base and provided with a vertical row of rack teeth complemental to those of the base, said shank being movable laterally within said opening to engage and disengage the teeth thereon with respect to those of the base, the thrust-sustaining surfaces of said teeth in the base and on the shank being shaped to prevent such lateral movement of the shank when a longitudinal thrust is applied to the latter.

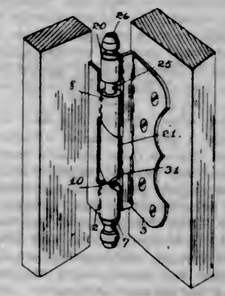
2. A work support comprising, in combination, a base having a vertical bore formed at one side with a vertical row of rack teeth, a vertically adjustable thrust-receiving head provided with a shank adjustable vertically and movable laterally in said bore of the base and provided with a vertical row of rack teeth complemental to those of the base, the thrust-sustaining surfaces of the teeth of each row being shaped to prevent such lateral movement of the shank to disengage the teeth when the shank is subjected to longitudinal thrust, and a locking device projecting inwardly through the wall of the bore in the base at a point diametrically opposite to the rack teeth of the base and coöperative with the shank to prevent lateral movement thereof to disengage the rows of rack teeth when the shank is free of a longitudinal thrust.

3. The combination of a member having a vertically adjustable head, an auxiliary member, and means for detachably coupling the bottom of the member first mentioned to the top of the auxiliary member, embodying complemental segmental flanges adapted to be engaged and disengaged by a partial relative rotation of the members.

4. The combination of a base member having a neck on its upper end formed with segmental circumferentially spaced flanges, an auxiliary member having a socket at its lower end formed with internal segmental circumferentially spaced flanges adapted to be engaged and disengaged with respect to the segmental flanges on the base member by a partial relative rotation of the members, and an adjustable head carried by the auxiliary member.

1,072,364. HINGE. MARION M. ROBERTS, Gossett, Ill. Filed July 10, 1912. Serial No. 708,727. (Cl. 16—163.)

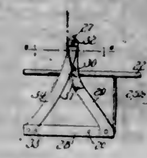
1. A hinge comprising in its construction a stationary leaf having the top of its lower knuckle provided with a middle sharp incline of about one-third its circumference rising toward the leaf, and on each side thereof flatter parallel inclines, and the bottom of its upper knuckle provided with a sharp incline of the same degree of slope as said middle sharp incline but lesser length, a movable leaf having between and engaging both knuckles of the stationary leaf a knuckle provided on its lower edge with a middle sharp incline rising from the leaf and lateral flatter parallel inclines corresponding to those of said lower knuckle, and on its upper edge with a sharp incline parallel to said middle incline and engaging the incline of the other leaf.



2. A hinge comprising in its construction, a stationary leaf having a lower knuckle provided on its upper edge with a middle upward incline rising from the leaf and joining a downward incline at a salient angle, and an upper knuckle provided on its lower edge with an upward incline rising from the leaf and extending beyond the apex of such salient angle, and a right-angular movable leaf having an intermediate knuckle provided on its lower edge with a middle upward incline rising from the leaf and joining a downward incline at a salient angle, and on its upper edge with an upward incline extending beyond the apex of the latter salient angle to provide a bracing and lapping engagement with the upward incline of the upper knuckle of the other leaf.

3. A pair of plate blanks for a hinge, comprising a leaf blank having its upper edge rectangularly cut out, and its middle portion angularly recessed between knuckles offsets having inclined angular edges marginal to said recess, and a corresponding leaf blank having an upper rectangular knuckle offset, a lower knuckle offset fitting the inclined angular edge of the lower knuckle offset of the first leaf blank and an intermediate recess corresponding to the upper knuckle offset of said first leaf blank.

1,072,365. KNITTING-MACHINE. WALTER F. ROLSTON, Rockford, Ill., assignor to Burson Manufacturing Company, Rockford, Ill., a Corporation of Illinois. Filed June 11, 1912. Serial No. 702,978. (Cl. 66—12.)



1. A yarn feed stop comprising a base bar formed with a slot, stationary members, a bar pivoted in said slot, one end of said slot limiting the downward movement of the pivotal bar, and a stop lying intermediate the stationary members and limiting the upward movement of the pivotal bar.

2. A yarn feed stop comprising side members and a pivotal member, said members being disposed V-shape, the side and pivotal members each constituting a leg of the V and the pivotal member having its free end disposed intermediate said side members at the apex of the V, the pivotal member adapted to guide a thread being drawn taut along the portion of its edge lying intermediate its pivotal support and the joining of said edge with the side members, until said thread is gripped between the adjoining

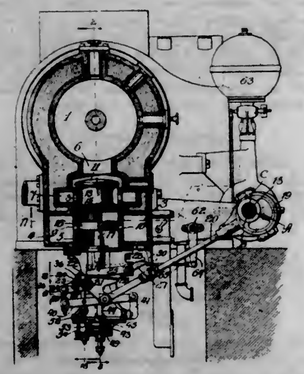
sides of said members, thereby stopping the passage of thread.

3. A yarn feed stop having two converging side members, a pivotal member having its free end located intermediate said side members at substantially the narrowest convergent portion thereof, the pivotal member adapted to guide a thread being drawn taut along its edge in the direction of convergence of said side members and to be pivoted by such action, the thread thereby being gripped between the adjoining sides of said members thus stopping the feed of the yarn, and the pivotal member adapted, when said thread is loosened, to be carried back from said pivotal position and to remove lint accumulated on said adjoining faces.

4. A yarn feed stop comprising a base-bar, stationary side members and a pivotal member attached to the bar and spaced apart thereon from said side members, the stationary members and pivotal member converging from said bar, the convergent portion thereof being to one side of the pivotal attachment of said pivoted member, the pivotal member lying intermediate the stationary side members at the convergent portion and adapted when a thread is drawn through said convergent portion, to bind the thread against the sides of said stationary members thereby stopping the passage of yarn.

5. A yarn feed stop comprising stationary side members, and a pivotal member having its free end adapted to lie intermediate the side members and adapted when in its raised position to stop the passage of thread passing between the sides of the stationary members, said pivotal member being pivoted at one side of said thread passage through the members, and adapted upon releasing the tautness of said thread to fall to its normal position, this action causing the side members to remove from said pivotal member any lint accumulated thereon by the stopping of the thread.

1,072,366. GAS-ENGINE. CHARLES E. SARGENT, Chicago, Ill. Filed Feb. 8, 1911. Serial No. 607,258. (Cl. 123—90.)



1. In a gas-engine, a cylinder, a piston movable therein, an intake-valve, a rocking member, means for oscillating said rocking member regularly once for each two reciprocations of the piston, intake-valve operating means, releasable connections between the intake-valve operating means and the rocking member whereby the oscillations of the rocking member will operate the intake-valve, means for releasing said connections, and means for returning the intake-valve to closed position upon release of the connections, an exhaust-valve, connections between the same and the rocking member whereby the oscillations of the rocking member will operate the exhaust-valve.

2. In a gas-engine, a cylinder, a piston movable therein, an intake-valve, a rocking member, means for oscillating said rocking member regularly once for each two reciprocations of the piston, intake-valve operating means, releasable connections between the intake-valve operating means and the rocking member whereby the oscillations of the rocking member will operate the intake-valve, means for disengaging said connections, a dash-pot and a piston therein and connections between the piston and the intake-valve for closing the same upon release of the connections, an exhaust-valve and connections between the same and the rocking member whereby the oscillations of the rocking member will operate the exhaust-valve.

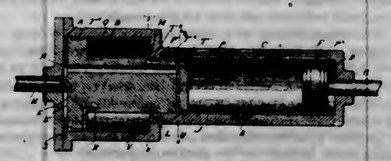
3. In a gas-engine a cylinder, a piston movable therein, an intake and an exhaust-valve, a rocking member, means for oscillating said rocking member regularly once for each two reciprocations of the piston, intake-valve operating means, releasable connections between the intake-valve operating means and the rocking member whereby the oscillations of the rocking member will operate the intake-valve, means for disengaging said connections, means for returning the intake-valve to closed position upon release of the connections, and a puppet-valve covering both the intake and exhaust-valves and adapted to be open while each of said valves is open.

4. In a gas-engine a cylinder, a piston movable therein, an intake and an exhaust-valve, a rocking member, means for oscillating said rocking member once for each two reciprocations of the piston, intake-valve operating means, releasable connections between the intake-valve operating means and the rocking member whereby the oscillations of the rocking member will operate the intake-valve, means for disengaging said conpections, a dash-pot and a piston therein, connections between the piston and the intake-valve for closing the same upon release of the connections, and a puppet-valve covering both the intake and exhaust-valves and adapted to be open while each of said valves is open.

5. In a gas-engine a cylinder, a piston movable therein, an intake-valve, a rocking member, means for oscillating said rocking member regularly once for each two reciprocations of the piston, intake-valve operating means, releasable connections between the intake-valve operating means and the rocking member whereby the oscillations of the rocking member will operate the intake-valve, means for disengaging said connections, means for returning the intake-valve to closed position upon release of the connections, an exhaust-valve, connections between the same and the rocking member whereby the oscillations of the rocking member will operate the exhaust-valve, and a puppet-valve covering both the intake and exhaust-valves and adapted to be open while each of said valves is open.

[Claims 6 to 34 not printed in the Gazette.]

1,072,367. DOUBLE-COMPRESSION RECIPROCATING IMPLEMENT. SAMUEL D. SIBLEY, Syracuse, N. Y., assignor to The Pneumelectric Machine Company, Syracuse, N. Y., a Corporation of New York. Filed May 8, 1912. Serial No. 695,902. (Cl. 125—20.)

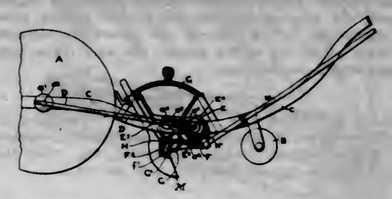


1. A double-compression reciprocating implement comprising a working cylinder having two communicating compartments of different diameter, in combination with a motor-driven piston working in both of said compartments and a tool-carrying piston working in the small compartment only, said tool-carrying piston receiving its impulse through a pressure medium actuated by said motor-driven piston, said working cylinder and said motor-driven piston being provided with means of communication for conducting the pressure medium, at successive predetermined parts of the stroke of the motor-driven piston, from the rear end of the small compartment to the rear end of the large compartment; from the forward end of the large compartment to the forward end of the small compartment; from the rear end of the large compartment to the outer side of the cylinder; from the rear end of the large compartment to the rear end of the small compartment; and from the front end of the large compartment to the outside of the cylinder, respectively, for the purpose of giving a reciprocating movement to the tool-carrying piston.

2. A double-compression reciprocating implement comprising a working cylinder having two communicating compartments of different diameter, in combination with a motor-driven piston working in both of said compartments and a tool-carrying piston working in the small compartment only, said tool-carrying piston receiving its impulse through a pressure medium actuated by said motor-driven piston, a pressure fluid conduit in said working cylinder opening with its forward end near the front wall of the small compartment and the rear end of said conduit opening near the rear end thereof; a port in said motor-driven piston connecting the rear opening of said conduit with the forward end of the large compartment at a certain part of the stroke, and another port in the same piston making similar connection at a different part of the stroke; a second pressure fluid conduit in said motor-driven piston with one opening at the rear end, another opening around its periphery near the forward end of said motor-driven piston; a port in said working cylinder connecting said forward opening of the second conduit with the rear end of the small compartment at a certain part of the stroke, and another port in the cylinder making similar connection at another part of the stroke; a third pressure fluid conduit in said working cylinder with its outer end communicating with a pressure fluid supply, and the inner end opening near the rear end of the small compartment; a port in said motor-driven piston connecting the inner opening of the third conduit with the forward end of the large compartment at one part of the stroke, and another port in the same piston connecting the inner opening of the third conduit with the rear end of the large compartment at another part of the stroke of said motor-driven piston.

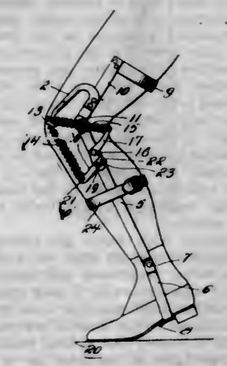
3. A double-compression reciprocating implement comprising a working cylinder having one compartment of relatively large diameter and communicating therewith, and in front thereof, a compartment of relatively small diameter; in combination with a tool-carrying piston working in and being of the same diameter as the small compartment; its piston rod extending through the wall at the forward end of the small compartment; a motor-driven piston, with its actuating piston rod extending through the wall at the rear end of the large compartment, the rear end of said motor-driven piston being of the same diameter as the large compartment and the forward end thereof being of the same diameter as the forward compartment; pressure fluid conduits and ports in the working cylinder and pressure fluid conduits and ports in the motor-driven piston distributed; one of said ports being situated at each end of said small compartment with one of said conduits connecting them, another of the ports located near the middle of the small compartment, one of said ports being situated at the rear of the forward end of said motor driven piston, a plurality of said conduits running transversely through its forward end and another of said conduits opening at the rear end of the same piston, and connecting with said transverse conduits, as well as an annular port near the rear end of the small chamber, whereby transmission of the pressure medium from one of said compartments to the other in both directions is accomplished; another of said ports at the rear end, one near the forward end of said motor driven piston, one of said conduits near the front end of said large compartment and a port near the rear end of said small compartment whereby transmission from the large compartment to the pressure fluid supply in both directions, all for the purpose of giving impulse in both directions to the tool-carrying pistons.

1,072,368. MACHINE FOR SOWING SEEDS IN DRILLS. RICHARD JAMES SMITH and DANIEL MARTIN BARRA, Dublin, Ireland. Filed Mar. 23, 1910. Serial No. 551,132. (Cl. 111—32.)



A seed drill comprising in combination, a frame, wheel and axle, a delivery tube for the seed, a spring controlled two part reciprocating valve structure controlling passage of the seed through said tube, said parts having coacting portions for adjusting the position of the valve structure, and adjustable mechanism driven by said axle for imparting a relatively extended or reduced movement to said valve structure, substantially as described.

1,072,369. KNEE AND ANKLE BRACE. EDWARD SPAHN, Los Angeles, Cal. Filed Apr. 26, 1913. Serial No. 763,821. (Cl. 128—52.)



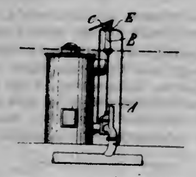
1. A leg brace comprising opposed side members, a foot stirrup pivotally connected to the lower ends of the side members and adapted to be fastened to the shoe of a wearer, a frame having rigid limbs pivotally connected to the upper ends of the members and adapted to embrace the leg above the knee joint, extensions on the said limbs of the frame, rocking levers pivoted to the side members, triggers pivoted to the levers, tension springs connected with the extensions and the levers and triggers respectively, and stop means mounted on the rocking levers and engageable by the triggers.

2. A leg brace comprising opposed side members, a foot stirrup pivotally connected to the lower ends of the side members and adapted to be fastened to the shoe of a wearer, a frame having rigid limbs pivotally connected to the upper ends of the members and adapted to embrace the leg above the knee joint, extensions on the said limbs of the frame, rocking levers pivoted to the side members, triggers pivoted to the levers, tension springs connected with the extensions and the levers and triggers respectively, stop means mounted on the rocking levers and engageable by the triggers, and means for fastening the brace to the leg of the wearer.

3. A leg brace comprising opposed side members, a foot stirrup pivotally connected to the lower ends of the side members and adapted to be fastened to the shoe of a wearer, a frame having rigid limbs pivotally connected

to the upper ends of the members and adapted to embrace the leg above the knee joint, extensions on the said limbs of the frame, rocking levers pivoted to the side members, triggers pivoted to the levers, tension springs connected with the extensions and the levers and triggers respectively, stop means mounted on the rocking levers and engageable by the triggers, and means for fastening the brace to the leg of the wearer, the said frame being formed with a bowed band.

1,072,370. WATER-GAS APPARATUS. JAMES CALDWELL STELFOX, Westminster, London, England, assignor to Arthur Graham Glasgow, Richmond, Va. Filed Dec. 15, 1911. Serial No. 665,935. (Cl. 48—87.)



1. The combination with a water gas generating apparatus, its air blast main and air blast valve of a movable device adapted in one position to effect the locking of said valve closed and in another position to leave it free to be operated, said device being oppositely subjected to the respective pressures in the generating apparatus and the blast main for the purpose set forth.

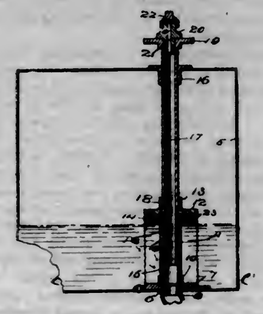
2. The combination with water gas generating apparatus, its air blast main and air blast valve of two chambers connected with the blast main and generating apparatus respectively, adjacent walls of said chambers being constituted by flexible diaphragms and locking mechanism actuated by said diaphragms in suchwise as to prevent or permit the opening of the air blast valve according to the relative pressures in the blast main and in the generating apparatus, substantially as described for the purpose specified.

3. The combination with water gas generating apparatus, its air blast main and air blast valve of two chambers connected with the blast main and generating apparatus respectively, adjacent walls of said chambers being constituted by flexible diaphragms of such relative sizes that they are balanced by any desired difference between the blast and gas pressures and locking mechanism actuated by said diaphragms in suchwise as to prevent or permit the opening of the air blast valve according to the relative pressures in the blast main and in the generating apparatus, substantially as described for the purpose specified.

4. The combination with water gas generating apparatus, its air blast main and air blast valve of two chambers connected with the blast main and generating apparatus respectively, adjacent walls of said chambers being constituted by flexible diaphragms, a slotted valve spindle, a lever adapted to engage in the slot of said spindle, a connection between said lever and said diaphragms whereby said lever is actuated by said diaphragms in suchwise as to prevent or permit the opening of the air blast valve according to the relative pressures in the blast main and in the generating apparatus, substantially as described for the purpose specified.

1,072,371. ALARM DEVICE FOR GASOLENE-TANKS. JOE C. STONE, Tipton, Ind. Filed Mar. 7, 1912. Serial No. 682,148. (Cl. 158—46.5.)

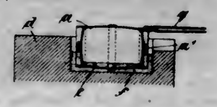
1. The combination with a tank or reservoir, of a vertically disposed tubular valve casing opening through the bottom of the reservoir, and a vertically disposed tubular valve stem threaded at its lower end within said casing, the upper end of said valve stem being rotatably disposed through the upper wall of the reservoir, said casing having upper and lower discharge ports adapted to be closed by said valve stem, the valve stem being formed with a port adapted for registration with the first mentioned discharge port, at which time the second mentinoed port is closed, an outward movement of the valve causing the first mentioned port to be closed and the second mentioned port to be opened.



2. The combination with a tank, of a vertically disposed valve casing opening through the bottom of said tank, a tubular valve stem projecting into said valve casing and open at its lower end, the valve casing being formed with an upper discharge port and a lower discharge port, the valve stem being formed with a port adapted to register with the first mentioned discharge port, at which time the lower discharge port is closed, and means for moving the valve stem outwardly, whereby the first mentioned discharge port is closed and the second mentioned discharge port opened.

3. The combination with a reservoir, of a vertical tubular casing within said reservoir, said casing projecting through an opening in the bottom thereof, a tubular valve stem threaded at its lower end within said casing and projecting through an opening in the top of the reservoir, a milled head formed upon the outer end of said valve stem, whereby the same may be rotated, said casing being formed with upper and lower discharge ports, the valve stem being formed with a port adapted to register with said upper discharge port at which time the valve stem closes the lower discharge port, an outward movement of the valve stem serving to close the upper discharge port and open the lower discharge port, and means whereby a pump may be connected to the upper end of the valve stem for forcing air through said stem.

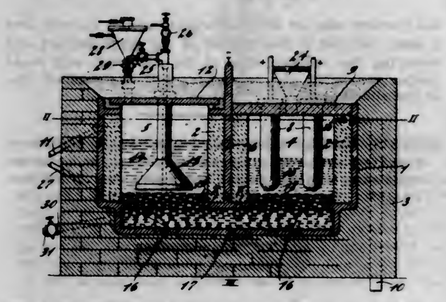
1,072,372. PROCESS OF INTERNALLY TINNING METAL VESSELS. FRIEDRICH VAN DER VELDEN, Barmen, Germany, assignor to Wickueler Kuepper Brauerei Actiengesellschaft, Elberfeld, Germany, a Corporation of Germany. Filed Aug. 17, 1911. Serial No. 644,583. (Cl. 91—70.2.)



1. The herein described process of simultaneously coating the inside and outside of vessels with different metals, said process consisting in placing one metal in the vessel to be coated; floating the vessel in a bath of molten metal having a melting point higher than the melting point of the metal placed in said vessel; and turning the vessel about in said bath, whereby the outside is covered with a layer of the metal of the bath and the inside simultaneously covered with a thin layer of the other metal.

2. The herein described process of simultaneously coating the inside and outside of vessels with different metals, said process consisting in placing tin in the vessel to be coated; floating the vessel in a bath of molten metal having a higher melting point than tin; and turning the vessel from side to side and end to end in said bath, whereby the inside is covered with a thin layer of tin and the outside simultaneously covered with a layer of the metal of the bath.

1,072,373. PROCESS OF PRODUCING CYANOGEN COMPOUNDS AND THE LIKE. CHARLES E. ACKER, Ossining, N. Y., assignor to The Nitrogen Company, a Corporation of New York. Filed Aug. 30, 1910. Serial No. 579,763. (Cl. 23—13.)



1. In a process of producing cyanogen compounds and the like, the step which consists in reacting on an impalpable amorphous carbid with a nitrogenous reagent, at a temperature above 500° C.

2. The process of producing cyanogen compounds and the like, which comprises effecting a chemical reaction between a nitrogenous reagent and a quantity of noncrystalline carbid at a temperature below the fusing point of said carbid but above 500° C.

3. The process of producing cyanogen compounds and the like, which comprises reacting with a nitrogenous reagent on a carbid held in suspension in and diffused through a fused bulk of a compound the radical forming constituents of which constitute a considerable percentage of said compound and which constituents are the same as those of the compound which is to be produced while substantially excluding oxygen from participation in the reaction.

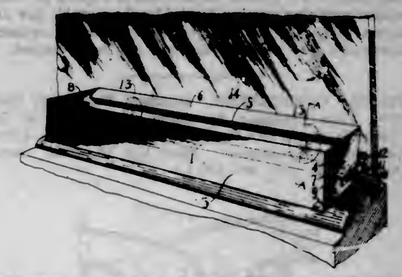
4. The process of producing cyanogen compounds and the like, which comprises reacting with a nitrogenous reagent on a carbid held in suspension in and diffused through a fluid compound the radical forming constituents of which constitute a considerable percentage of said compound and which constituents are the same as those of the compound which is to be produced, at a temperature above 500° C.

5. The process of producing cyanogen compounds and the like which comprises effecting a reaction between a nitrogenous reagent and the carbid of a "reactive-metal," the latter being in impalpable noncrystalline condition and held in suspension in and diffused through a mass of nonaqueous fluid comprising a compound the radical forming constituents of which are the same as those of the compound which is to be produced.

[Claims 6 to 18 not printed in the Gazette.]

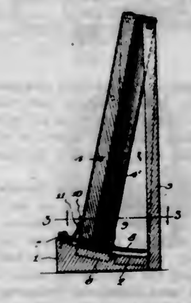
1,072,374. FLY-TRAP. LOUIS C. ACREE, Stanford University, Cal. Filed Mar. 31, 1913. Serial No. 757,921. (Cl. 43—22.)

In a fly-trap, the combination of a receptacle of any suitable size or shape adapted to hold a fly destroying substance or fly catching device, having two or more of its upper edges turned inwardly and downwardly a distance, a plurality of rubber suction disks attached to one side of



said receptacle, and an adjustable separating rod attached to each end thereof, substantially as shown and described.

1,072,375. RAT-TRAP. GEORGE R. ADAMS, Jacksonville, Fla. Filed Feb. 5, 1913. Serial No. 746,395. (Cl. 43—21.)



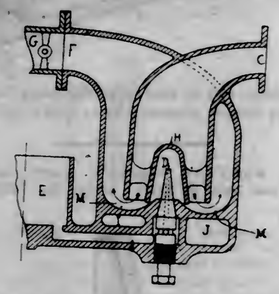
1. A trap of the class described including a base having an arcuate inclination upon its upper face, a rigid upright jaw member secured to one edge of the base, a movable jaw member pivotally secured to the upper end of the rigid jaw, a pivoted trigger carried by the base and adapted to be engaged by the lower end of the movable jaw to hold said jaw in position away from its vertical position, said trigger being adapted to be engaged at its inner end to release the movable jaw, and means for preventing outward swinging movement of the movable jaw after the same has been released.

2. A trap of the class described including a base having an arcuate inclination upon its upper face, a rigid upright jaw secured to one edge of the base, a movable jaw having a rearwardly projecting flange upon its longitudinal edges and upon the upper end, the upper end of said movable jaw being pivotally secured to the upper end of the rigid jaw, a trigger member carried by the base and adapted to engage the lower end of the movable jaw to hold the same in position away from its vertical position, said trigger being adapted to be engaged at its inner end to release the movable jaw and a retaining member pivotally mounted upon the movable jaw and adapted to engage the base to prevent outward swinging movement of said jaw after the same has been released.

3. A trap of the class described including a base, an upright rigid jaw secured to one edge thereof, a movable jaw having rearwardly projecting flanges formed upon its longitudinal edges at one end thereof, said movable jaw being pivotally secured to the upper ends of the rigid jaw, said flanges upon the longitudinal edges of the movable jaw extending downwardly beyond the upper face of the base to prevent lateral movement of the movable jaw, a trigger carried by the base and adapted to engage with the

lower end of the movable jaw to retain the same in its operative position, said trigger being adapted to be engaged at its inner end to release the movable jaw and a pivotally mounted retaining member carried by the movable jaw and adapted to engage the base to prevent lateral swinging movement of said jaw after the same has been released.

1,072,376. CARBURETER. HERBERT W. ALDEN, Hartford, Conn., assignor, by mesne assignments, to The Columbia Motor Car Company, Hartford, Conn., a Corporation of Connecticut. Filed Apr. 15, 1905. Serial No. 255,712. (Cl. 48—155.1.)



1. In a carbureter, a carbureting chamber, a fuel inlet including an orifice free to supply fuel subject solely to suction, leading to said chamber, an air inlet and mixture outlet leading to said chamber, means in said chamber to shield the oil orifice and to deflect the passing air from the oil orifice.

2. In a carbureter, a carbureting chamber, a fuel inlet free to deliver fuel subject solely to suction leading to said chamber, an air inlet and a mixture outlet leading to said chamber, a shield intermediate the air inlet and the mixture outlet, whereby the fuel inlet is protected from the influence of the moving air, said chamber having a pocket adjacent said shield for bringing the fuel supplied into contact with past-rushing air.

3. In a carbureter, a carbureting chamber, a valveless fuel-delivering nozzle projecting into said chamber, an air inlet leading to said chamber, means in said chamber for shielding said nozzle, and walls projecting into said chamber, adapted to effect a mingling of the fuel supply with the passing air.

4. In a carbureter, a carbureting chamber, a valveless fuel inlet and an air inlet, leading to said chamber, and so disposed relatively that the flow of fuel is entirely dependent upon the vacuum in the carbureter, means adjacent to said fuel inlet to screen it from the inrushing air.

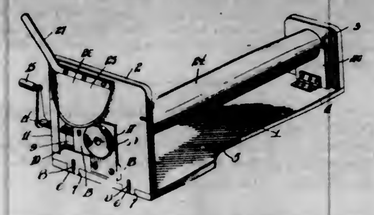
5. The combination in a carbureter, having a valveless fuel inlet and an air inlet, of a shield to prevent the air flowing directly past the fuel inlet.

[Claims 6 to 12 not printed in the Gazette.]

1,072,377. WALL-PAPER-TRIMMING MACHINE. WILLIAM CLYDE ALLEY, Kokomo, Ind. Filed Nov. 13, 1912, Serial No. 731,123. Renewed July 24, 1913. Serial No. 781,036. (Cl. 164—52.)

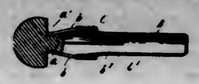
1. A wall paper trimmer including a body, front and rear supports connected to the respective ends thereof, a holding block secured to the inner surface of the rear support, a removable retaining rod mounted in said rear support, the front support being formed with a slide-way having a rounded inner edge, a clamp block movable in the slide-way and having a rounded edge to coöperate with the rounded edge of the slide-way to secure the roll, and a shear secured to the surface of the front support and overlying the rounded edge of the slide-way.

2. A wall paper trimmer including a body, front and rear supports connected to the respective ends thereof, a holding block secured to the inner surface of the rear support, a removable retaining rod mounted in said rear support, the front support being formed with a slide-way having a rounded inner edge, a clamp block movable in the slide-way and having a rounded edge to coöperate with



the rounded edge of the slide-way to secure the roll, and a shear secured to the surface of the front support and overlying the rounded edge of the slide-way, said shear having a rounded edge to register with the rounded edge of the slide-way.

1,072,378. GAGE. AUGUST BAUSCHLICHER, Sachenhausen-Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to Henry Hess, Philadelphia, Pa. Filed Nov. 12, 1910. Serial No. 591,952. (Cl. 73—147.)



1. A plug or bore gage comprising in combination a one-piece gaging element adapted to enter the bore or interior to be gaged and afford all the gaging contacts therefor, and a separate handle, said gage-piece provided with a projecting portion capable of locking with the handle, and said handle having jaws adapted to lock with said projection.

2. A plug or bore gage comprising in combination a one-piece gaging element adapted to enter the bore or interior to be gaged and afford all the gaging contacts therefor, and a separate handle, said gage-piece provided with a projecting portion capable of locking with the handle, and said handle having tapered jaws adapted to lock with said projection, and a locking ring movable over said jaws.

3. A plug or bore gage comprising in combination a one-piece gaging element adapted to enter the bore or interior to be gaged and afford all the gaging contacts therefor, and a separate handle, said gage-piece provided with a projecting portion capable of locking with the handle, and said handle having tapered and threaded jaws adapted to lock with said projection, and a threaded locking ring engaging the threads on said jaws.

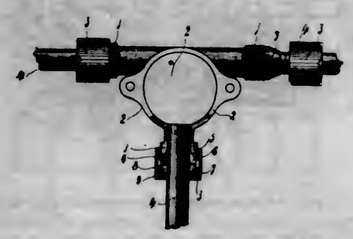
4. A gage comprising in combination a hardened steel sphere cut away to afford a diverging lug, and a handle having jaws adapted to lock with such projection.

5. A gage comprising in combination a hardened steel sphere cut away to afford a diverging lug, and a handle having jaws adapted to lock with such projection, and a locking device for said jaws.

1,072,379. PIPE UNION OR COUPLING FOR ELECTRIC-CONDUIT JUNCTION-BOXES AND OTHER PURPOSES. HENRY MALCOLM BIGWOOD and FREDERICK HERBERT TERRY, Wolverhampton, England. Filed Nov. 7, 1912. Serial No. 730,116. (Cl. 247—1.)

1. In an electric conduit junction box, the combination of a socket member externally screw-threaded and internally tapered; a nut internally screw-threaded to engage the threads of said socket and internally tapered; a pair of loose rings each longitudinally split and externally tapered, one ring fitting within the taper of the socket and the other within the taper of the nut; and means for holding the longitudinal splits of the loose rings out of register with each other for preventing the entry of moisture through the splits into the box.

2. In an electric conduit junction box, the combination of a socket member externally screw-threaded and internally tapered; a nut internally screw-threaded to engage the threads of said socket and internally tapered; a pair of loose rings each longitudinally split and externally tapered, one ring fitting within the taper of the socket and the other within the taper of the nut; and means for preventing relative rotation between the two loose rings.



3. In a pipe union or coupling for electric conduit junction boxes and other purposes, the combination of a socket member externally screw-threaded and internally tapered; a nut internally screw-threaded to engage the threads of said socket and internally tapered; a pair of loose rings each longitudinally split and externally tapered; one ring fitting within the taper of the socket and the other within the taper of the nut; and a projection on one of said rings engaging the split in the other ring.

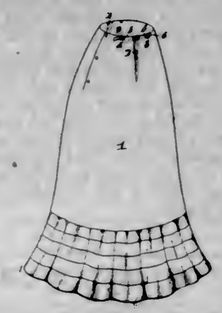
1,072,380. BORDER FOR FABRICS. WILLIAM H. CARTER, Needham Heights, Mass., assignor, by mesne assignments, to The William Carter Co., Needham Heights, Mass., a Corporation of Massachusetts. Filed Mar. 29, 1911. Serial No. 617,627. (Cl. 2—146.)



As a new article of manufacture, a stitch fabric border consisting of a base or foundation and a series of sets of stitches secured thereto, each set of stitches of said series being crocheted together in loops at their outer ends and arranged in a general shell or cluster formation, a portion of the stitches comprising each set diverging from a first or common center and a succeeding portion of the stitches comprising each set diverging from the adjacent but distinct and common center, and overlying and confining the basal parts of the stitches constituting said first portion.

1,072,381. SKIRT. JACOB GREENWALD, Philadelphia, Pa., assignor to Greenwald Brothers, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1910. Serial No. 585,568. (Cl. 2—143.)

A skirt provided with a gore; a hem coincident with the region of the gore and slotted on both sides thereof; an elastic band freely and removably contained within said hem; a fastening device permanently attached to one end of the band; a fastening device adjustably attached to the other end of the band; complementary fastening devices attached to the waist band of the skirt one on either side of the gore, and beyond the corresponding slot in the hem, whereby said band may be normally inserted within the hem coincident with the region of the gore, with its ends projecting through said slots, and anchored to produce the desired tension by means of the complementary fastening devices, but with capacity for ready de-



tachment and withdrawal for the purpose of permitting the laundrying of the skirt.

1,072,382. TIRE. CHARLES M. GRIFFIN, Indianapolis, Ind., assignor to Charles M. Griffin and Harry G. Crawford, a Copartnership. Filed Mar. 31, 1911. Serial No. 618,068. (Cl. 152—8.)



1. A resilient tire comprising an outer casing, rigid rings secured to the opposite edges of said casing, a resilient spiral comprising two or more complete turns arranged within said casing to expand the same between the rings, and an adjustable circumferentially-yielding connection between the ends of said spiral.

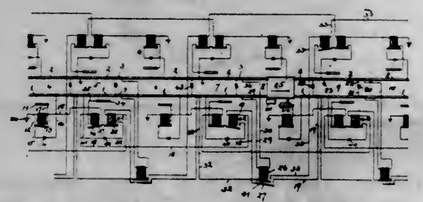
2. A resilient tire comprising an outer casing, rigid rings secured to the opposite edges of said casing, a resilient spiral comprising two or more complete turns arranged within said casing to expand the same between the rings, a member carried by the outer end of said spiral and projected through elongated slots in the adjacent convolutions, and an adjustable circumferentially-yielding connector connecting the inner end of said spiral and said inwardly projecting member.

3. A resilient tire comprising an outer casing, means for firmly holding the edges of said casing, a resilient spiral arranged within said casing to expand the same at its middle, and an adjustable connector between the ends of the spiral by which the spiral may be expanded, said adjustable connector embodying a spring opposing decrease of diameter of the spiral.

1,072,383. ELECTRIC TRAIN-CONTROLLED SYSTEM FOR RAILWAYS. FRANK T. JONES, Baltimore, Md., assignor to The Jones Safety Train Control System Company, Baltimore, Md., a Corporation of Maryland. Filed July 5, 1910. Serial No. 570,329. (Cl. 246—27.)

1. In a trackway train controlling mechanism for railways the combination with two track rails each provided at intervals with insulation to form a series of stop-train track-sections, of a constant current supply for each stop-train track-section; a short stop-rail extending par-

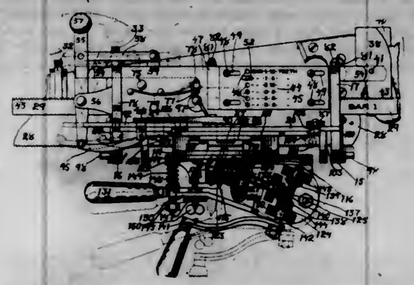
allel with and adjacent to each stop-train track-section; a local current supply for each of said short stop rails; a pair of armatures interposed between each stop rail and its local current supply; a pair of electro-magnets for each pair of armatures,—one magnet being provided for one armature and the other magnet for the other of said pair of armatures; a circuit for one magnet of each pair including the track rail and the current supply for one section ahead to energize said magnet and hold one of the said two armatures, and another circuit for the other magnet of each pair including the track rail and the current supply of a different track-section to hold the said other of the two armatures whereby the energization of both electro-magnets will attract both said armatures and maintain a connection from one side of a short stop rail and its local current supply.



2. In a trackway train controlling mechanism for railways the combination with the track rails insulated from each other at intervals to form a series of electrically independent track sections including both track rails, of a separate current supply for each of said sections; a short signal rail adjacent every other track section and extending parallel with the track rails; short stop rails adjacent those track sections that intervene between the sections to which the signal rails are adjacent,—said signal and stop rails being out of alinement with each other; a separate local current supply for each short signal rail; a separate current supply for each short stop rail; connections between each short rail and its particular current supply; an armature interposed in each of said connections between said short rails and their respective current supplies; an electro-magnet for each armature and circuits each including the two rails of a track section and their source of current supply, said circuits also including an electro-magnet that controls an armature between one stop rail and its current supply, and another electro-magnet that controls an armature between one signal rail and its current supply, to normally energize said electro-magnets and keep a short stop rail and a short signal rail in electrical connection with their respective current supplies when the track is clear.

3. In a trackway train controlling mechanism for railways the combination with the rails insulated from each other at intervals to form a series of track sections including both track rails, of an independent current supply for each track section; a short signal rail for and adjacent every other track section; a local current supply for each signal rail; connections between each signal rail and its local current supply,—said connections each including an armature; a magnet for actuating each of the same; a stop rail adjacent those track rails that intervene between those sections to which the signal rails are adjacent,—said stop and signal rails being out of alinement; a local current supply for each stop rail; connections between each stop rail and its local current supply and said latter connections each including an armature; a magnet for actuating each of the same, and connections from a current supply of a track-section ahead including an electro-magnet that actuates an armature between a signal-rail and its current supply and an electro-magnet with its armature between a stop-rail and its current supply whereby to normally energize said magnets and maintain the armature connections between said signal and stop-rails and their respective current supplies.

1,072,384. SAW-FILING MACHINE. JOHN L. KEIL, Plainview, Nebr., assignor of one-half to Solomon A. Keil, Bancroft, Nebr. Filed Feb. 15, 1913. Serial No. 748,598. (Cl. 76—76.)



1. In a saw filing machine, the combination of a saw carriage, a toothed rack on said carriage, a reciprocatable pawl to engage said rack, a shiftable detent to vary the space of engagement of the pawl with the rack, and a switch point to reseat the released pawl on the detent.

2. In a saw filing machine, the combination of a saw-carriage, a toothed rack on the carriage, a reciprocatable pawl to engage said rack, a shiftable detent to vary the length of engagement of the pawl with the rack, and a switch tongue disposed to throw and carry the pawl, during its return movement, out of engagement with the rack and detent.

3. In a saw filing machine, a saw carriage, a rack-and-pawl feed mechanism, a shiftable detent to vary the range of engagement of the pawl with the rack, and predetermined stations at which to set said detent to effect different lengths of steps in the movement of the carriage, in combination with a shiftable file-mechanism support, and predetermined stations to selectively set said support to coincide with the selected lengths of steps of the saw carriage.

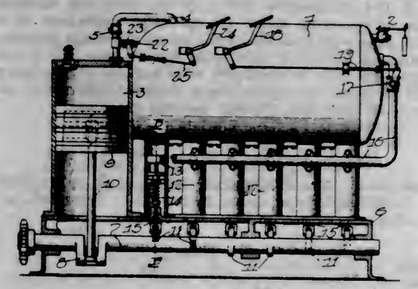
4. In a saw filing machine, the combination of suitable mechanism to carry a saw parallelly with its toothed edge in step movements and to vary the lengths of said steps, and predetermined stations to selectively gage the variations of steps to accord with different gages of saw teeth, a file-mechanism support mounted to shift parallelly with the step movements of the carried saw, a predetermined station at which to set said support for one side of saws of any gage, and predetermined stations at which to selectively set said support for the opposite sides of saws in accordance with the step movements for different gages.

5. In a saw filing machine, a carriage adapted to carry a saw longitudinally of its toothed edge, a toothed rack on said carriage, a reciprocatable pawl to engage the rack and move the carriage by steps, a shiftable detent to limit and vary the range of engagement of the pawl with the rack, predetermined stations, varied according to different gages of saw teeth, at which to set said detent, in combination with a shiftable file-mechanism support, a single station at which to set said support for the teeth of one side of saws of any gage, and stations varied in position to set said support for the teeth of the opposite sides in accordance with the varied steps of the carriage for saws of different gages.

[Claims 6 to 21 not printed in the Gazette.]

1,072,385. STARTER FOR HYDROCARBON-ENGINES. JOHN F. KELLY, Chicago, Ill. Filed Jan. 26, 1912. Serial No. 673,680. (Cl. 123—179.)

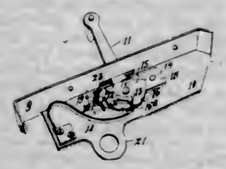
1. A starting device for internal combustion engines, comprising a storage reservoir, mechanism adapted to distribute air from said reservoir to said engine for starting the same, an air cylinder connected to said reservoir, a piston mounted in said cylinder and connected to the shaft of said engine, means for delivering air from said reservoir to said cylinder whereby said piston may be operated for shifting the engine off dead center, and means adapted to control the operation of said mechanism so as to cause the introduction of air into the cylinder of said engine as the engine is shifted off dead center.



2. A starting device for multi-cylinder internal combustion engines comprising a storage reservoir, means actuated by the engine for charging said reservoir, a feed pipe connected to said reservoir, a plurality of valves corresponding in number to the cylinders of the engine, and each connected with said feed pipe, inlet pipes connecting said valves individually with the spective cylinders of the engine, mechanism adapted to open said valves individually and in succession to correspond with the movements of the pistons of the respective cylinders of the engine, a valve controlling said feed pipe, a check valve interposed between said charging means and reservoir, and a valved by-pass around said check valve for the purpose specified.

3. A starting device for multi-cylinder internal combustion engines comprising a storage reservoir, an air compressor actuated by the engine for charging said reservoir, mechanism adapted to distribute air from said reservoir to the various cylinders of the engine for starting the same, and means for delivering air from said reservoir to said compressor whereby the latter may be operated as a motor for shifting the engine shaft off of dead center.

1,072,386. TYPE-WRITING MACHINE. ALFRED G. F. KUBOWSKI, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Aug. 13, 1910. Serial No. 577,049. (Cl. 197—121.)



1. In a typewriting machine, the combination with a platen and regular line-spacing mechanism including a notched wheel, of a fractional line-spacing mechanism comprising a lever or part movable in opposite directions from normal position, and teeth spaced apart thereon so that one or the other tooth only meshes with the notched wheel when the lever is vibrated in one direction or the other, to turn the platen forwardly or backwardly through part of a regular line space.

2. In a typewriting machine, the combination with a platen and regular line-spacing mechanism including a notched wheel, of a fractional line-space mechanism comprising a vibratory dog lever and teeth on the dog spaced apart so that one or the other only meshes with the notched wheel when the lever is vibrated in one direction or the other, to turn the platen forwardly or backwardly through part of a regular line space, and a latch to hold the platen where adjusted.

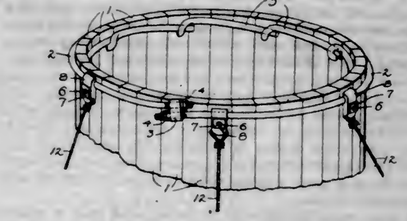
3. In a typewriting machine, the combination with a platen and regular line-spacing mechanism including a notched wheel, of a fractional line-space mechanism comprising a vibratory dog lever and teeth on the dog spaced apart so that one or the other only meshes with the notched wheel when the lever is vibrated in one direction or the other, to turn the platen forwardly or backwardly through part of a regular line space, a segment on the lever recessed to correspond with the positions assumed by the lever, and a latch to drop into any of said recesses to lock the lever and platen where adjusted.

4. In a typewriting machine, the combination with a platen and regular line-spacing mechanism having a notched wheel connected to the platen, of an additional platen-turning mechanism to rotate the platen forwardly or backwardly through part of a regular line-space, and including a lever, a rack, and a latch co-acting with the rack to hold the lever and platen where adjusted.

5. In a typewriting machine, the combination with a platen and regular line-spacing mechanism having a notched wheel connected to the platen, of an additional platen-turning mechanism to rotate the platen forwardly or backwardly through part of a regular line-space, including a pivotally mounted lever, a rack concentric to the axis of rotation of the lever, and a latch co-acting with the rack to hold the lever and platen where adjusted.

[Claims 6 to 17 not printed in the Gazette.]

1,072,387. SILO AND LIKE RECEPTACLE. CHRISTOPHER J. LAWLESS, Lincoln, Nebr. Filed Nov. 25, 1912. Serial No. 733,239. (Cl. 217—4.)



1. A receptacle of the specified class, comprising a plurality of cylindrically disposed staves, an external hoop encircling the staves, an internal hoop having separable interlocking sections separately pivoted to the wall of the receptacle, and means for clamping the staves between the external and the internal hoops.

2. A receptacle of the specified class, comprising a plurality of cylindrically grouped staves, an external hoop, adjustable in circumference, encircling the staves, an internal hoop having a plurality of separable overlapping sections slidable upon each other, and means for clamping the staves between the hoops.

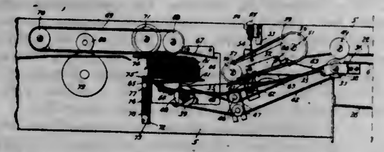
3. A receptacle of the specified class, comprising a plurality of staves arranged cylindrically, an external hoop of adjustable size encircling the staves, an internal hoop having spring sections of sharper curvature than the stave cylinder, and means for clamping the staves between the external hoop and the internal hoop sections.

4. A receptacle of the specified class, comprising a plurality of staves arranged cylindrically, an external hoop of adjustable size, encircling the staves, an internal hoop having overlapping sections of sharper curvature than the internal curvature of the stave cylinder, and means for clamping the staves between the external hoop and the several overlapping sections of the internal hoop.

5. A silo of the specified class, comprising a plurality of staves arranged cylindrically, an external wire hoop

of adjustable circumference, encircling the staves, an internal wire hoop composed of interlocking curved sections having pivot shanks journaled in the cylinder wall, clamping blocks working on the pivot shanks, and engaging the external hoop, and means for adjusting the clamping-blocks on the pivot shanks.

1,072,388. COMBINED FACING-TABLE AND POST-MARKING-MACHINE. PATRICK J. MADIGAN and JAMES REHAK, Chicago, Ill.; said Rehak assignor to said Madigan. Filed June 3, 1912. Serial No. 701,301. (Cl. 101—82.)



1. The combination with a facing table and a rotary marking die of means for advancing mail-pieces in a normal path from one to the other, a mail-piece stop arranged adjacent to the mail-piece path to temporarily arrest and hold mail-pieces and laterally yielding means forming a part of said advancing means, the latter preceding said stop for successively shifting mail-pieces out of their normal path and directing them against said stop when advanced thereto in excess of a predetermined normal rate, while successively pressing the advance pieces so arrested into said normal path to be forwarded to said die at a predetermined limited rate.

2. The combination with a facing table and a marking die of means for advancing mail-pieces in a normal path from one to the other, means adjacent to the mail-piece path for temporarily arresting and holding mail-pieces side-by-side against each other, laterally yielding means, forming a part of said advancing means for shifting mail-pieces out of said normal path and preceding said arresting means for successively directing mail pieces against said arresting means to accumulate in a bunch or pack when advanced thereto in excess of a predetermined normal rate, separating means in operative proximity to said pack and means for laterally pressing the foremost mail-piece of said pack with a yielding pressure toward said separating means.

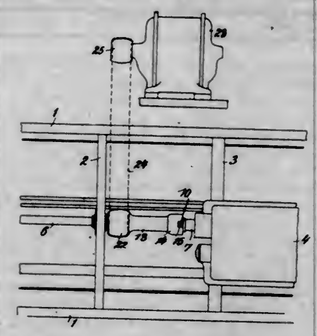
3. The combination with a facing table and a rotary marking die of conveying means having a capacity equal to the maximum capacity of the operatives at the facing table for conveying mail pieces from said facing-table toward said die, separating means, conveying means conforming substantially in speed to the speed of the marking-die for conveying mail-pieces from said separating means to said die, a laterally movable guide-way forming a part of the mail-piece path between said facing table and said separating means and means for yieldingly holding said guide-way in normal registration with said separating means with a yielding pressure to permit a direct continuous passage from the table to the die of all mail-pieces advanced at a given rate per unit of time and to temporarily withhold those which are advanced in quantities in excess of said rate.

4. The combination with a facing table and a rotary marking die of an intermediate mail-piece pathway divided into a plurality of stages or sections, conveying means for moving mail-pieces from said table to the end of the first stage, the capacity of said conveying means being sufficient to provide for the maximum mail delivery from the table thereto at all times, means for shifting the direction of the mail-piece path in the secondary stage whenever the mail pieces are advanced in excess of a given rate, to divert the excess mail-pieces from the normal path into position side-by-side in the order of succession with their forward ends against a stop, conveying means in said second section having a higher rate of speed than that of said first section, a mail-piece stop at the end of said second section extending laterally from the normal mail-path, separating means at the end of said second section, means for yieldingly holding said second section in a normal position and means for conveying mail-pieces from said second section to said die at a speed in substantial conformity to the peripheral speed of said die.

5. The combination with a facing table and marking die, of conveying means for conveying mail-pieces in a mail-piece path from one to the other, a laterally movable mail-piece guide-way forming an intermediate part of the mail-piece path between said table and die, and primary and secondary separating means arranged respectively before and after said laterally movable guide-way.

[Claims 6 to 18 not printed in the Gazette.]

1,072,389. TRANSMISSION IN MOTOR-VEHICLES. HEINRICH MAYER, Arbon, Switzerland. Filed Feb. 11, 1913. Serial No. 747,592. (Cl. 21—90.)

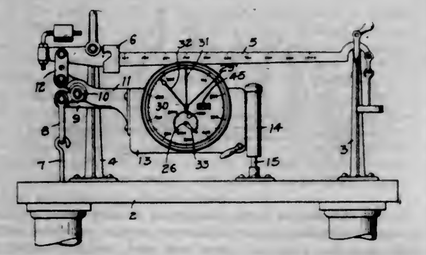


1. In a motor-vehicle, a frame, a gearing-box in said frame, a first shaft mounted in said gearing-box to turn and having an end projecting therefrom, a second shaft mounted at one end to turn in said frame, a universal joint for connecting the projecting end of said first shaft with the other end of said second shaft and comprising a member fastened on the end of the first shaft, and means connected with said member of said universal joint for transmitting the power by means of belting to any device or apparatus beside the stopping motor-vehicle.

2. In a motor-vehicle, a frame, a gearing-box in said frame, a first shaft mounted in said gearing-box to turn and having an end projecting therefrom, a second shaft mounted at one end to turn in said frame, a universal joint for connecting the projecting end of said first shaft with the other end of said second shaft and comprising a member fastened on the end of the first shaft, a bearing in said frame, a tubular shaft surrounding said second shaft, coupled at one end with said member of said universal joint and mounted to turn with the other end in said bearing, and a belt-pulley on said tubular shaft for transmitting the power to any device or apparatus beside the stopping motor-vehicle.

3. In a motor-vehicle, a frame, a gearing-box in said frame, a first shaft mounted in said gearing-box to turn and having an end projecting therefrom, a second shaft mounted at one end to turn in said frame, a universal joint for connecting the projecting end of said first shaft with the other end of said second shaft while permitting the second shaft to follow any winding or torsion of said frame, said universal joint comprising a member fastened on the end of the first shaft and having projections, a bearing in said frame, and a tubular shaft surrounding said second shaft, having at one end notches into which said projections of said universal joint engage and mounted to turn with the other end in said bearing, said tubular shaft being so shaped as to form a belt-pulley for transmitting the power to any device or apparatus beside the stopping motor-vehicle.

1,072,390. SCALE. ROBERT MCFARLANE, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 28, 1911. Serial No. 605,322. Renewed Oct. 3, 1912. Serial No. 723,815. (Cl. 73—29.)



1. In a platform scale, the combination, of a poise controlled weighing beam, a beam rod adapted for connection to the scale levers, a lever actuated scale interposed in said beam rod and having means for yieldingly resisting movement of its lever and means for locking said last named lever to prevent it from returning to its normal position when the load is removed from said scale levers.

2. In a platform scale, the combination, of a poise controlled weighing beam, a beam rod, levers interposed in said beam rod, means yieldingly resisting relative movement of said levers, a pointer actuated by said levers for indicating the load on the scale, and means for locking one of said interposed levers to prevent it and said pointer from returning to their normal position when the load is removed from said platform.

3. In a platform scale, the combination, of a poise controlled weighing beam, a beam rod, levers interposed in said rod, means yieldingly resisting relative movement of said levers, a pointer actuated by said levers for indicating the load on the scale, and clamping jaws arranged to engage and lock one of said interposed levers.

4. In a platform scale, the combination, of a poise controlled weighing beam, a beam rod, levers interposed in said rod, means yieldingly resisting relative movement of said levers, a pointer actuated by said levers for indicating the load on the scale, jaws arranged to straddle one of said levers, and means actuating said jaws to grip said lever.

5. A scale comprising a pivoted lever, a second lever pivotally supported on said first named lever and having means for connection with a load support, means yieldingly resisting relative movement of said levers, a weight indicator carried by the long arm of one lever and operatively connected with the corresponding arm of the other lever, and clamping jaws between which one of said levers is normally movable.

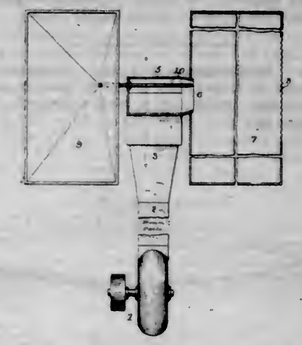
[Claims 6 to 16 not printed in the Gazette.]

1,072,391. DESICCATING APPARATUS. OLIVER EDWARD MERRELL, Syracuse, N. Y. Filed Mar. 29, 1910. Serial No. 552,223. (Cl. 99—5.)

1. The combination of a desiccating chamber having a screened outlet, an air-whirling chamber opening into said desiccating chamber through a contracted outlet, means for forcing air through said air-whirling chamber into said desiccating chamber, and a liquid supply-pipe having its outlet at the opening between said chambers and near the edge of said opening.

2. The combination of a desiccating chamber, an air-whirling chamber opening into said desiccating chamber, means for forcing air through said air-whirling chamber into said desiccating chamber, and a liquid supply-pipe having its outlet at the opening between said chambers and near the edge of said opening.

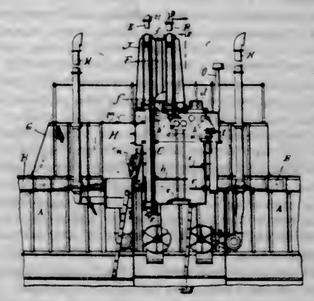
3. The combination of a desiccating chamber, an air-whirling chamber opening into said desiccating chamber through a contracted outlet, means for forcing air through said air-whirling chamber into said desiccating chamber, and a liquid supply-pipe having its outlet at the opening between said chambers.



4. The combination of a desiccating chamber, an air-whirling chamber opening into said desiccating chamber, means for forcing air through said air-whirling chamber into said desiccating chamber, and a liquid supply-pipe having its outlet at the opening between said chambers.

5. The combination of a desiccating chamber, an air-whirling chamber opening into said desiccating chamber, means for forcing air through said air-whirling chamber into said desiccating chamber, and a liquid supply-pipe discharging liquid into the whirling air.

1,072,392. CONSTRUCTION AND CONNING EQUIPMENT FOR SUBMERSIBLE BOATS. LAWRENCE Y. SPEAR and HUGO E. GRIESHABER, New London, Conn. Filed July 27, 1911. Serial No. 640,772. (Cl. 114—16.)



1. A conning tower for submersible vessels having at one end a periscope and at the other end an observation hood, a platform beneath the periscope, and two platforms arranged one above the other beneath the observation hood, the upper platform being so supported that it may be moved from above the lower platform and being at such a level that a man standing on it can make observations through the observation hood.

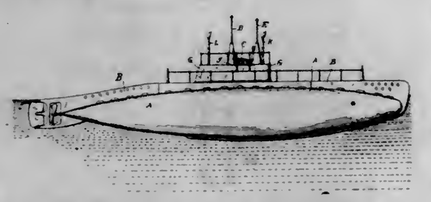
2. In a submersible vessel, a conning tower having a periscope at one end thereof, an additional periscope extending down within the hull of the vessel at the same end of the conning tower, and a fairwater on top of the conning tower about the two periscopes.

3. In a submersible vessel, the combination with a hull and conning tower thereon of a periscope tube leading from said hull, a second periscope tube leading from said conning tower and a casing inclosing and combined with said periscope tubes to form a single projecting structure above said conning tower.

4. In a submersible vessel, the combination with a hull and a conning tower thereon of a periscope tube leading

from said hull, a second periscope tube leading from said conning tower, a ventilator leading from said conning tower and a casing inclosing and combined with said periscope tubes and said ventilator to form a single projecting structure above said conning tower.

1,072,393. SUBMERSIBLE-BOAT CONSTRUCTION. LAWRENCE Y. SPEAR and HUGO E. GRIESHABER, New London, Conn. Filed Aug. 5, 1911. Serial No. 642,487. (Cl. 114—16.)



1. In a submersible vessel, the combination with a water-tight hull constructed to withstand the pressure of deep submergence, and an upstanding observation tower also constructed to withstand such pressure, of upstanding periscope tubes and ventilators outside of said tower, and a self-bailing and self-filling housing shaped to constitute a fairwater about said tower, periscopes and ventilators.

2. In a submersible vessel, the combination with a water-tight hull constructed to withstand the pressure of deep submergence, and an upstanding observation tower also constructed to withstand such pressure, of upstanding periscope tubes and ventilators outside of said tower, and a self-bailing and self-filling housing shaped to constitute a fairwater about said tower, periscopes and ventilators, said housing having a flat top constituting a navigating bridge.

3. In a submersible vessel, a strong hull constructed to withstand the pressure of deep submergence, an upstanding self-bailing and self-filling housing thereon shaped to constitute a fairwater, a navigating bridge on top of said housing, and an observation tower about which said housing is built, constructed to withstand the pressure of deep submergence and communicating with the hull.

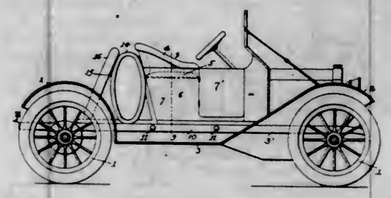
4. In a submersible vessel a strong hull constructed to withstand the pressure of deep submergence, an upstanding self-bailing and self-filling housing thereon shaped to constitute a fairwater, a navigating bridge on top of said housing, a trimming tower about which said housing is built, said tower having observation openings and being constructed to withstand the pressure of deep submergence and communicating with the interior of the hull, and a navigator's periscope extending through said housing into the interior of the vessel to a navigator's station.

5. In a submersible vessel a strong hull constructed to withstand the pressure of deep submergence, an upstanding self-bailing and self-filling housing thereon shaped to constitute a fairwater, a navigating bridge on top of said housing, a trimming tower about which said housing is built, said tower having observation openings and being constructed to withatand the pressure of deep submergence and communicating with the interior of the hull, a navigator's periscope extending through said housing into the interior of the vessel to a navigator's station, and a supplemental periscope also extending through said housing into the interior of the vessel for the use of a lookout.

[Claims 6 to 10 not printed in the Gazette.]

1,072,394. CONVERTIBLE BODY FOR VEHICLES. GEORGE C. PLUMMER, Washington, D. C., assignor of one-half to Frank E. Plummer, Washington, D. C. Filed Oct. 21, 1912. Serial No. 726,908. (Cl. 21—43.)

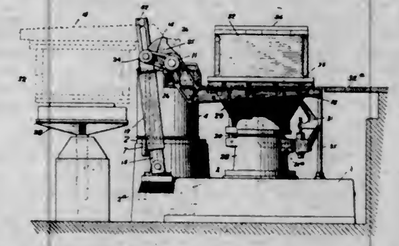
1. A convertible automobile body, comprising a fixed front section provided with a seat, and a rear section having conventional sides and doors in the sides, and a removable seat, and supported to slide on the chassis to telescope the front section, whereby the body is convertible from a roadster, into a delivery or a touring car.



2. An automobile body comprising a fixed front section and a longitudinally movable rear section provided with sides and doors in the sides, and each section having a seat for passengers, the seat of the rear section being removable and constructed to form the rear end of a delivery compartment, said rear section being slidably supported on the chassis and the body convertible from a roadster, into a delivery or a touring car.

3. A convertible automobile body comprising a fixed front section having a permanent seat, a rear section provided with conventional sides, doors in the sides and laterally extending flanges at the lower edges of the sides and slidable on the chassis, and members for securing said section to the chassis, and a removable seat for the rear section, constructed to form the rear end of said section, whereby the body is convertible from a roadster into a delivery or touring car.

1,072,395. MOLDING-MACHINE. WILFRED LEWIS and JOHN T. RAMSDEN, Philadelphia, Pa., assignors to The Tabor Manufacturing Company, Philadelphia, Pa., a Corporation of New Jersey. Filed Apr. 3, 1909. Serial No. 487,741. (Cl. 22—33.)



1. A molding machine comprising a hinge member, a piston and cylinder for moving it vertically, flask carrying arms hinged to said member and provided with rearward extensions, stops for limiting the rise of the extensions to turn the arms when the hinged member rises, and a link connected to one of said extensions and brought thereby under said member when elevated to act as a support in the event of failure of the arms to rotate, substantially as described.

2. A molding machine comprising a hinge member, a piston and cylinder for moving it vertically, arms pivotally connected with the hinge member, stops for positioning the arms at right angles with the hinge member and affording them a range of turning movement, a jarring table for the reception of the arms and having means for operating it, rearward extensions from the arms, and lost motion couplings having a limited range of elongation and connected with the extensions for affording the arms a limited range of vertical motion before turning them, substantially as described.

3. In a machine of the type recited the combination with the hinge member and means for raising and lowering it, of arms pivotally connected with the hinge member and

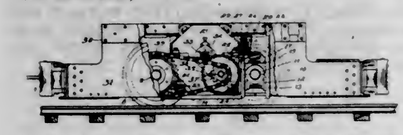
provided with rearward extensions, stops for limiting the movement of the arms, and devices connected with the extensions and adapted to afford them a limited range of vertical movement and check them to turn the arms, substantially as described.

4. The combination of flask receiving means, a jarring table and means for actuating it, a hinge member having a piston and cylinder for raising and lowering it and arranged between the jarring table and the flask receiving means, arms pivotally connected with the hinge member and having means for arresting them at right angles to the line of travel of said member, rearward extensions from the arms, and devices connected with the extensions for affording the hinge member a range of vertical motion without turning the arms and for turning the arms when the motion of the hinge member exceeds that limited range, substantially as described.

5. In a machine of the type recited the combination of a hinge member having means for raising and lowering it, flask carrying arms pivoted to said member, couplings operating to turn the arms, a pattern plate provided with keepers, rods carried by the arms, wedges having yielding connection with the rods and adapted to coöperate with the keepers, and means for shifting the rods upon the turning of the arms, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,072,396. LOCOMOTIVE. RALPH E. NOBLE, Chicago, Ill., assignor to Morgan-Gardner Electric Company, Chicago, Ill. Filed Sept. 30, 1912. Serial No. 723,198. (Cl. 105—218.)



1. In a locomotive, the combination of wheels and axles, an auxiliary motor supporting frame yieldingly mounted on said wheels and axles, a motor mounted on said auxiliary frame, springs interposed between the auxiliary frame and the motor, upon which the motor entirely rests, a main frame carried by said auxiliary frame, and means for transmitting power from the motor to the wheels and axles.

2. In a mine locomotive, the combination of wheels and axles, journaled boxes on said axles, a frame having guideways engaging with said journal boxes, springs interposed between said frame and said boxes, a motor mounted in said frame, springs between the frame and the motor upon which the motor is entirely carried, means for transmitting power from the motor to the wheels and axles, and a main frame carried by said first named frame.

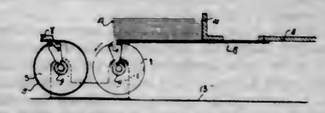
3. In a locomotive, the combination of a pair of wheels and axles, journal boxes on said axles, a motor supporting frame having vertical guideways for said boxes, springs interposed between said boxes and the frame for supporting the frame, a motor having projections engaging with guideways in said frame, springs between the frame and the motor for supporting the motor, springs between the motor and the frame for holding the motor in close engagement with its supporting springs, means for driving the wheels and axles from the motor, and a main frame carried by said motor supporting frame and inclosing said motor supporting frame, wheels, and axles and providing means for carrying the locomotive controlling and connecting devices.

4. In a locomotive, the combination of wheels and axles, journal boxes on said axles, a motor supporting frame having a depressed central portion and having upwardly extending end portions provided with guideways fitting over said journal boxes, springs interposed between said boxes and the frame for supporting the frame, a motor having projections fitting in guideways in the upwardly extending end portions of the frame, springs between said motor and the depressed portion of the frame for supporting the motor, springs between said projections and the upwardly extending portions of the frame tending to press the motor downwardly, means for transmitting power from the motor to the wheels and axles, cross pieces engaging with the upwardly extending portions of the motor supporting frame, and a main frame carried by said cross pieces.

5. In a locomotive, the combination of a motor supporting frame yieldingly mounted on wheels and axles, a motor yieldingly mounted on said motor supporting frame, and a main frame carried by said motor supporting frame, a pinion on the motor shaft, a gear with which said pinion engages, a stub shaft on the motor body for said gear, a sprocket wheel driven by said gear, a sprocket wheel on the axle, and a chain connecting said sprocket wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,072,397. SHEET-FEEDING DEVICE. EWALD KOERNER, Dresden, Germany. Original application filed June 15, 1912, Serial No. 703,871. Divided and this application filed July 16, 1913. Serial No. 779,320. (Cl. 101—41.)



1. In a device for feeding single sheets from a pile of sheets, means for supporting said pile of sheets and adapted to reciprocate beneath the same and successively pick single sheets from the bottom and alternate ends thereof.

2. In a device for feeding single sheets from a pile of sheets, means for supporting said pile of sheets and adapted to reciprocate beneath the same, and pneumatic means movable with the reciprocating supporting means for successively picking single sheets from the bottom and alternate ends of said pile.

3. In a device for feeding single sheets from a pile of sheets, means for supporting said pile of sheets and adapted to reciprocate beneath the same, and alternately operated suction means movable with said reciprocating supporting means for successively picking single sheets from the bottom and alternate ends of said pile.

4. In a device for feeding single sheets from a pile of sheets, means for supporting said pile of sheets and adapted to reciprocate beneath the same, a pneumatic suction means movable with the reciprocating supporting means for picking a sheet from the bottom of said pile at one end when traveling in one direction, and a second pneumatic suction means for picking the successive sheet from the bottom of the pile at the other end when traveling in the opposite direction.

5. In a device for feeding single sheets from the bottom of a pile of sheets, a reciprocating frame, a pair of rollers rotatably mounted in said frame, each roller having a peripheral suction mouth, two flexible bands each fastened at one end to a roller adjacent the suction mouth thereof, and at their other oppositely extending ends to a stationary element, each of said bands being alternately wound upon and unwound from its attached roller as the frame reciprocates to successively support on the unrolled band or portions thereof the pile of sheets.

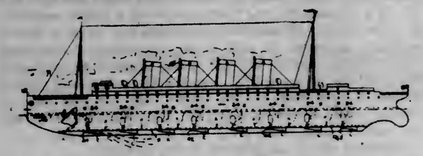
[Claims 6 and 7 not printed in the Gazette.]

1,072,398. BILGE-WATER DISCHARGER. EUGENE LANGLEY, San Antonio, Tex. Filed Sept. 16, 1912. Serial No. 720,651. (Cl. 114—185.)

1. In a device of the kind described, a check valve consisting of a cylindrical casing having a bushing at each end, rings within said casing bearing against said bushing, a nozzle carried by the upper ring, pairs of rods connecting said rings, a stop plate fixedly mounted on two of said rods, and a ball valve normally resting on the stop plate.

2. In a device of the kind described, a check valve consisting of a cylindrical casing having a bushing at each end, rings within said casing bearing against said bushing, a nozzle carred by the upper ring, pairs of rods connecting

said rings, a stop plate fixedly mounted on two of said rods, a ball valve normally resting on the stop plate, said stop plate being provided with a centrally disposed opening whereby water may strike the under surface of the ball and close the valve.

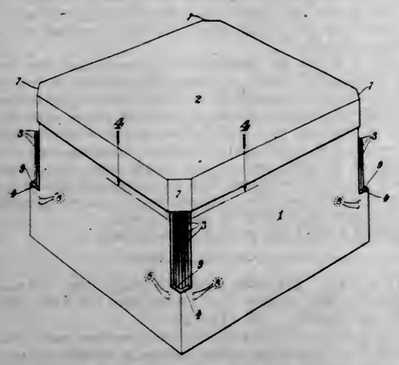


3. In a device of the kind described, the combination with a boat hull, of an outlet pipe leading therethrough, a plate on said outlet pipe within the hull, a washer between said plate and hull, a washer on the outside of said hull provided with an annular groove arranged to form a sharp outer edge, a delivery nozzle through one wall of which said pipe passes, and a nut within said nozzle to force the nozzle against the last mentioned washer and pull said plate and washers toward each other.

4. In a device of the kind described, an intake nozzle, a pipe connected therewith, a check valve connected with the pipe, a globe valve connected with said check valve in combination with a boat hull, a pipe leading through said boat hull, a semi-conical nozzle carried on the exterior of said boat hull and into which the last mentioned pipe leads, and skags extending from a point forward of said nozzle to a point aft thereof.

5. In a device of the character described, a check valve comprising a casing, a bushing at each end of said casing, rings mounted in said casing and fitting against said bushings, a nozzle in one end portion of said casing passing through an opening formed in one of said rings and having its end portion formed into a flange clamped between the ring and bushing, rods connecting said rings and holding said rings in engagement with said bushings, a supporting plate mounted in said casing beneath said nozzle and rigidly secured to certain of said rods, and a float mounted in said casing between said nozzle and plate and normally resting upon said plate and slidably connected with certain of said rods whereby said float may be guided into engagement with said nozzle.

1,072,399. SANITARY TOOTHPICK-DISPENSER. CHARLES DOWNEY LYON, St. Louis, Mo. Filed Nov. 1, 1912. Serial No. 729,005. (Cl. 206—28.)

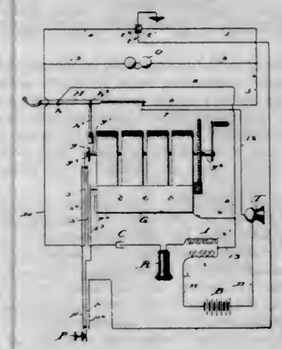


1. In a device of the type set forth, a receptacle of substantially rectangular form having a vertical opening formed at each corner thereof, said openings extending from points at a distance above the bottom of the receptacle through the upper edge of said receptacle, a pair of hooks for each opening located adjacent the sides of the opening and on the interior of the receptacle and below the lower end thereof, a rubber band engaged with each pair of hooks, and a lid for the receptacle, the corners of the lid extending obliquely to the receptacle sides to allow access to the matches and movement of the latter therepast and closing the upper ends of said openings.

2. A dispensing apparatus including a receptacle formed with a vertically disposed opening that extends from a point above the receptacle bottom and into each wall of a corner thereof through the upper edges of said walls whereby tooth picks or the like may be engaged with said walls below the said opening and on the sides of the walls adjacent the opening, in order that portions of the tooth picks will project up into said opening so as to be capable of being raised up out of the receptacle, follower means in the receptacle for engagement with the tooth picks or the like, and a lid for the receptacle which closes the upper end of the opening and which has its portion adjacent the receptacle corner arranged to extend at an angle to the said receptacle walls to allow access to the tooth picks and movement of the latter past the lid.

3. In a dispensing apparatus, a receptacle having a vertical opening which extends from a point above the receptacle bottom through the top thereof, an endless rubber band to engage tooth picks or the like, and means on each side of the opening, to support the band, said band having the opposite looped parts thereof receiving said means to allow the loops to be slipped over said means and held by the latter, whereby the unitary band presents upper and lower transverse portions which engage the tooth picks at spaced points.

1,072,400. AUTOMATIC BATTERY CUT-OUT FOR TELEPHONE-CIRCUITS. ANTON R. NELSON, Janesville, Cal. Filed May 8, 1913. Serial No. 766,298. (Cl. 179—30.)



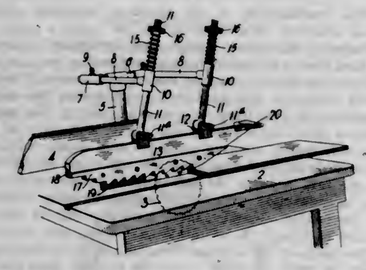
1. In a telephone substation apparatus, a transmitter, a receiver, a switch hook and a calling device, with circuit connections for each, contacts in the transmitter and in the receiver circuits controlled by the switch hook, means normally permitting the switch hook to close the receiver circuit but blocking closure of the transmitter circuit, and means becoming active in the operation of the calling device to remove said block and permit the closure of the transmitter circuit, substantially as described.

2. In a telephone substation apparatus, a transmitter in a local circuit, a receiver, ringing generator, and switch hook, contacts adapted to be successively closed by the switch hook in its movement and included in the receiver circuit and in the transmitter circuit respectively, a stop element carried by the switch hook, and a coöperating element under control of the ringing generater in its operation, adapted to normally permit closure by the switch hook of contacts in the receiver circuit only, but when the generator has been operated, adapted to be removed from the path of the blocking element of the switch hook to

complete actuation thereof in the closure of the transmitter circuit, substantially as described.

3. In a telephone substation apparatus, a switch hook H, generator G, transmitter T, battery B, and receiver R, said switch hook provided with contacts 6 and 7 closed successively in its movement, the contact 6 adapted when closed to complete the circuit of the receiver R through the switch hook, and the contact 7 when closed adapted to complete the circuit of the transmitter T through the battery B and the switch hook, said hook being further provided with a stop lever *h'* and the generator G provided with a coöperating stop *g* normally lying in the path of said stop lever and so related thereto as to permit the closure of contact 6 only, but adapted when the generator is operated to be moved out of the path of said lever *h'* and thereby to permit the further movement of the switch hook and the closure of the transmitter contact 7, all as and for the purpose intended, substantially as described.

1,072,401. SAW-GUARD. JOHN W. OFFUTT, Ellwood City, Pa. Filed Aug. 31, 1911. Serial No. 646,980. (Cl. 143—159.)



1. A saw guard comprising a saw cover arranged to swing lengthwise above the saw, swinging arms to which the cover is pivotally secured, and means on which the swinging arms are pivotally mounted, the swinging arms being independently movable vertically on said means while the saw cover is being operated.

2. A saw guard comprising a saw cover having a recess in the lower edge thereof into which the saw extends and arranged to swing lengthwise above the saw, swinging arms to which the cover is pivotally secured, and means on which the swinging arms are pivotally mounted, said arms being yieldingly held to permit independent adjustment vertically.

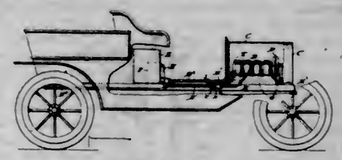
3. A saw guard comprising a saw cover having a recess in the lower ends thereof into which the saw extends and arranged to swing lengthwise, swinging arms to which the cover is pivotally secured, means on which the swinging arms are pivotally mounted, said arms being independently adjustable vertically while the saw cover is being operated, and means on the swinging arms engaging with the cover to limit the forward lengthwise movement of the cover.

4. A saw guard comprising a lengthwise swinging saw cover having a recess in the lower edge thereof into which the saw extends, swinging arms to which the cover is pivotally secured, and means on which the swinging arms are pivotally mounted, said swinging arms being independently movable vertically during the operation of the saw cover to permit raising and lowering of one end of the cover independently of the other.

5. A saw guard comprising a saw cover having a series of notches or serrations on its lower edge, a groove or recess extending lengthwise in said notched edge of the cover into which the saw extends and means supporting said cover above the saw arranged to swing the cover lengthwise, said supporting means arranged to permit rocking of the cover to raise and lower one end thereof relative to the other to bring the notches in the cover into engagement with the rear end of the materials being cut by the saw.

[Claims 6 to 8 not printed in the Gazette.]

1,072,402. GAS-GENERATOR FOR EXPLOSIVE-ENGINES. SEYMOUR W. PEREGRINE, Portland, Me. Filed Nov. 5, 1910. Serial No. 590,945. (Cl. 123—132.)



1. In a motor vehicle, the combination with an explosive engine, of an oil storage tank located in rear of the engine, a carbureting chamber positioned within said tank and extending transversely of the vehicle, means for supplying heated air from the engine to the carbureter, a valve for establishing communication between said storage tank and the carbureting chamber, an operating member for said valve, an elongated float positioned in the carbureting chamber and substantially co-extensive in length with the width of said carbureting chamber, and a pivotal connection between said float intermediate the ends thereof and said operating member, whereby the float is free to tilt in a plane transversely of the vehicle.

2. In a carbureter, a carbureting chamber, means for supplying air thereto comprising an air supply pipe provided with a plurality of oppositely disposed spaced branches, extending downwardly into the carbureting chamber, a liquid storage tank, a valve for establishing communication between said storage tank and said carbureting chamber, an operating member for said valve, an elongated float positioned in the carbureting chamber between the oppositely disposed branches of the air supply pipe, said branches serving to guide the float in its vertical movement, and a pivotal connection between the central portion of said float and said valve operating member whereby the float may tilt in the vertical plane of its major axis.

3. In a gas engine, the combination with an explosive engine, of a carbureter, means for supplying air to the carbureter, means for conducting the carbureted air from the carbureter to the engine, an exhaust pipe, and a conduit leading from the carbureting chamber to a point adjacent and in heating proximity to the exhaust and back into the carbureting chamber.

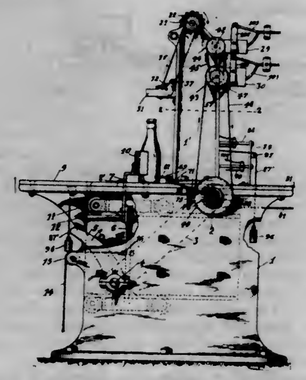
4. In a gas generator for motor vehicles, the combination with an engine, a casing for the engine, an exhaust pipe for the engine, a carbureter adapted to contain a supply of oil, a gas supply pipe leading from the carbureter to the engine, an air supply pipe leading to the carbureter below the oil level therein, a fan communicating with the inlet end of said supply pipe and adapted to draw air through the engine casing and into contact with the engine therein and force the same to the carbureter, and an air pipe surrounding the engine exhaust pipe and having its rear end connected to said air supply pipe and its front end open to the air.

1,072,403. BOTTLE-LABELING MACHINE. GEORGE LEE BENDER, San Francisco, Cal. Filed July 3, 1912. Serial No. 707,438. (Cl. 216—13.)

1. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, label pickers, devices for applying an adhesive to said label pickers, means for removing a label from said label receptacle and positioning the same on said adhesively coated label pickers, a reciprocating conveyer for the containers to be labeled, means for placing the label within the path of the propelled container, and devices for wiping the label to the container.

2. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, label pickers, devices for applying an adhesive to said label pickers, means for removing a label from said label receptacle and positioning the same on said adhesively coated label pickers, a reciprocating conveyer for the containers to be labeled, means for placing the label

within the path of the propelled container, devices for applying the label to the container, and means for holding the label to the surface of the container while being applied thereto.



3. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, label pickers, devices for applying an adhesive to said label pickers, means for removing a label from said label receptacle and positioning the same on said adhesively coated label pickers, a reciprocating conveyer for the containers to be labeled, means for placing the label within the path of the propelled container, devices for wiping the label to the container, and means for holding the label to the surface of the container while being applied thereto.

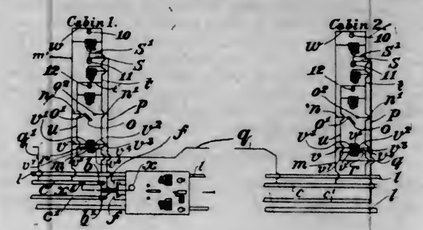
4. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, label pickers, devices for applying an adhesive to said label pickers, said devices being thrown into operation by the bottle to be labeled, means for removing a label from said label receptacle and positioning the same on said adhesively coated label pickers, a reciprocating conveyer for the containers to be labeled, means for placing the label in the path of the propelled container, and devices for applying the label to the container.

5. In an apparatus for labeling cylindrical or other shaped containers, the combination with a label holding receptacle, label pickers, devices for applying an adhesive to said label pickers, means for removing a label from said label receptacle and positioning the same on said adhesively coated label pickers, said means being thrown into operation by the container to be labeled, a reciprocating conveyer for the containers to be labeled, and means for placing the label in the path of the propelled container.

[Claims 6 to 17 not printed in the Gazette.]

1,072,404. ELECTRIC SIGNALING ON RAILWAYS. GEORGE HERBERT BROWN, Belfast, Ireland; Kathleen Margaret Brown, Herbert Brown, and George Bramato Brown executors and trustees of said George Herbert Brown, deceased. Filed Sept. 20, 1907. Serial No. 393,805. (Cl. 246—31.)

1. The combination, in an electric signaling system such as described, of a ramp rail on the track, a source of electricity on the engine, a trolley on the engine in circuit with said source of electricity and adapted to engage said ramp rail, an electric lamp on the engine, a second trolley adapted to engage the ramp rail, a contact on the engine in circuit with said lamp, a second contact on the engine connected with the source of electricity, a contact on the said second trolley adapted to bridge said engine contacts, an electric lamp in the signal cabin, electrical connections from the said lamp in the signal cabin to the ramp rail, means in connection with the said second trolley whereby when the trolley ceases engaging the ramp rail its contact is caused to bridge the aforesaid engine contacts and connect the lamp on the engine with the source of electricity in order to light the same, a second electric lamp on the engine, a third contact on the engine in circuit with said second lamp on engine, and a second contact on the said second trolley adapted to contact with said third contact on the engine when the said second trolley engages the ramp rail.



2. The combination, in an electrical signaling system such as described, of a ramp rail on the track, a source of electricity on the engine, a trolley on the engine in circuit with said source of electricity and adapted to engage said ramp rail, an electric lamp on the engine, a second trolley adapted to engage the ramp rail, a contact on the engine in circuit with said lamp, a second contact on the engine connected with the source of electricity, a contact on the said second trolley adapted to bridge said engine contacts, an electric lamp in the signal cabin, electrical connections from the said lamp in the signal cabin to the ramp rail, means in connection with the said second trolley whereby when the trolley ceases engaging the ramp rail its contact is caused to bridge the aforesaid engine contacts and connect the lamp on the engine with the source of electricity in order to light the same, a second electric lamp on the engine, a third contact on the engine in circuit with said second lamp on engine, and a second contact on the said second trolley adapted to contact with said third contact on the engine when the said second trolley engages the ramp rail.

3. The combination, in an electrical signaling system such as described, of a ramp rail on the track, a source of electricity on the engine, a trolley on the engine in circuit with said source of electricity and adapted to engage said ramp rail, an electric lamp on the engine, a second spring-depressed trolley adapted to engage the ramp rail, a contact on the engine in circuit with said lamp, a second contact on the engine connected with the source of electricity, a contact on the said second trolley adapted to bridge said engine contacts, when the trolley ceases engaging the ramp rail, to connect the lamp on the engine with the source of electricity in order to light the same, an electric lamp in the signal cabin, electrical connections from the said lamp in the signal cabin to the ramp rail, a second electric lamp on the engine and means whereby when the said second trolley engages the ramp rail the second lamp on the engine is connected with the second trolley whereby a connection is made from the source of electricity through the trolleys and ramp rail to the second lamp.

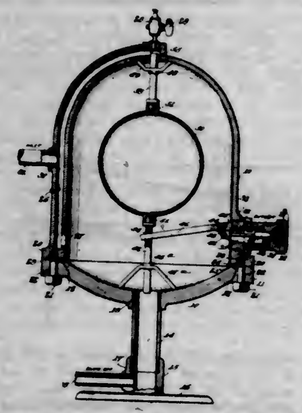
4. The combination, in an electrical signaling system such as described, of a ramp rail on the track, a source of electricity on the engine, a trolley on the engine in circuit with said source of electricity and adapted to engage said ramp rail, an electric lamp on the engine, a second trolley adapted to engage the ramp rail, a terminal contact on the engine in circuit with said lamp, a second contact on the engine connected with the source of electricity, a contact on the said second trolley adapted to bridge said engine contacts, an electric lamp in the signal cabin, electrical connection from the said lamp in the signal cabin to the ramp rail, means in connection with the said second trolley whereby when the trolley ceases engaging the ramp rail its contact is caused to bridge the aforesaid engine contacts and connect the lamp on the engine with the

source of electricity in order to light the same, a second electric lamp on the engine, a third terminal contact on the engine in circuit with said second lamp on engine, and a second contact on the said second trolley adapted to contact with said third terminal contact on engine when the second trolley engages the ramp rail.

5. The combination, in an electrical signaling system such as described, of a ramp rail on the track, a source of electricity on the engine, a trolley on the engine in circuit with said source of electricity and adapted to engage said ramp rail, an electric lamp on the engine, a second trolley adapted to engage the ramp rail, a terminal on the engine in circuit with said lamp, an insulated contact in circuit with the source of electricity on the engine, a contact on the said second trolley adapted to bridge said terminal and contact, an electrical lamp in the signal cabin, electrical connections from the said lamp in the signal cabin to the ramp rail, and means causing the contact on said second trolley to contact with the engine terminal and contact so long as said second trolley is off the ramp rail thereby maintaining an electrical connection between the source of electricity and the lamp on the engine and keeping said lamp lighted.

[Claims 6 to 21 not printed in the Gazette.]

1,072,405. STEAM-TRAP. JOHN A. BUTCHER, York, Pa., assignor of one-half to Alexander A. Thomson, Atlantic City, N. J., and one-fourth to Burrows Manufacturing Company, York, Pa., a Corporation of Pennsylvania. Filed Oct. 6, 1910. Serial No. 585,564. (Cl. 137—103.)



1. A steam trap comprising a casing consisting of a shallow cup shaped base plate having a marginal lateral flange, provided on its upper face with an annular groove, said plate having a central opening, a base provided with an internally threaded cup having a lateral opening, a hollow standard threaded at one end into the cup and at the other into the central opening of the base plate, a cover having a marginal lateral flange seated on the flange of the base plate and provided with an annular groove registering with the groove of the base plate flange, a packing ring seated in the grooves, cap screws connecting the flanges, said cover having a vertical passage in its wall extending from near the flange to the top of the cover and communicating with the interior of the casing at each end, an inlet pipe communicating with the passage at approximately its center, an outlet port at the opposite side of the casing and near the base plate, a valve controlling the said port, an elbow lever pivoted to the interior of the casing, and having one arm connected with the valve, a float in the casing, rods extending vertically from the float in opposite directions, and a guide connected with the casing for each rod, one of said rods having a transverse opening through which extends the other arm of the elbow lever, the float being at a higher level than the outlet.

2. A steam trap comprising a casing consisting of a base plate provided with a central opening, a base having a hollow cup with a lateral opening, a hollow standard seated at one end in the cup and engaging at the other the central opening of the base plate, a cover seated on the base plate and secured thereto, said cover having a vertical passage in its wall extending from near the bottom to the top of the cover and communicating with the interior of the casing at each end, said passage having an inlet near its center, the cover having an outlet port at the opposite side from the passage, a valve controlling the said port, a float in the casing, rods extending vertically from the float in opposite directions, a guide in the casing for each rod, one of the rods having a transverse opening and an elbow lever pivoted to the casing and having one end engaging the opening and the other the valve.

1,072,406. PROCESS FOR PRESERVING FOOD. FRED P. GORIN, Seattle, Wash., assignor to William H. Benninghoff, Seattle, Wash. Filed Jan. 6, 1913. Serial No. 740,310. (Cl. 99—8.)

1. The process of preserving smoked meats by incasing the same, in airtight relation, within a transparent, yielding envelop formed by assembling gelatin, glucose and water in the proportion of 25, 35 and 40 parts respectively.

2. The process of preserving cured meats by assembling in the inner chamber of a double boiler, gelatin, 25 parts, and glucose 35 parts, filling the outer chamber of said boiler with clear water and slowly raising the temperature of the water in the said outer chamber to not less than 130 degrees and not more than 150 degrees for one and one-half hours to a bulk of 200 lbs., meanwhile pouring into the said inner chamber 40 parts of clear water and afterward immersing the meat into the mixture and immediately removing the same.

3. The process of preserving cured meats by assembling in the inner chamber of a double boiler, gelatin and glucose, filling the outer chamber of the said boiler with clear water and slowly raising the temperature of the water in the said outer chamber to not less than 130 degrees and not more than 150 degrees, for 1½ hours, to a bulk of 200 pounds, meanwhile pouring into the said inner chamber clear water and afterward immersing the meat into the mixture and immediately removing the same.

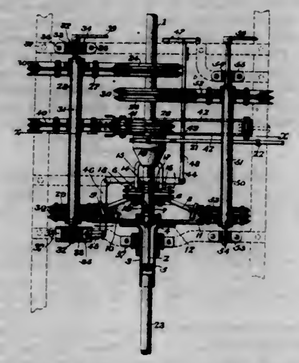
4. The process of preserving foods by assembling in the inner chamber of a double boiler, gelatin and glucose, filling the outer chamber of the said boiler with clear water and slowly raising the temperature of the water in the said outer chamber to not less than 130 degrees and not more than 150 degrees for 1½ hours, to a bulk of 200 pounds, meanwhile pouring into the said inner chamber clear water and afterward immersing the food into the mixture and immediately removing the same.

1,072,407. VARIABLE-SPEED GEARING. WILLIAM S. KINDLE and ABRAM L. PLUSH, Philadelphia, Pa., assignors, by mesne assignments, to said Plush. Filed Aug. 15, 1911. Serial No. 644,193. (Cl. 74—26.)

1. In a device of the character stated, a driving shaft, a driven shaft suitably mounted in alinement with said driving shaft, a countershaft rotatably mounted adjacent said shafts, a fixed bearing for one end of said countershaft, a movable bearing for the opposite end of said countershaft, a friction wheel fixedly secured to said driving shaft, a second friction wheel in alinement therewith and secured to said countershaft, an idler movably mounted between said friction wheels and adapted to transmit motion from one to the other, means to shift one end of said countershaft toward and away from said driven shaft and means to transmit motion from said countershaft to said driven shaft.

2. In a device of the character stated, a driving shaft, a driven shaft suitably mounted in alinement with said driving shaft, a countershaft rotatably mounted adjacent

said shafts, a fixed bearing for one end of said countershaft, a movable bearing for the other end thereof, a friction wheel fixedly secured to said driving shaft, a second friction wheel in alinement therewith and secured to said countershaft, an idler movably mounted and adapted to transmit motion from one friction wheel to the other, means to simultaneously shift said movable bearing and move said idler into engaging position, and means to transmit motion from said countershaft to said driven shaft.



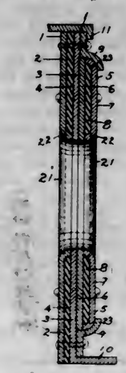
3. In a device of the character stated, a driving shaft, a driven shaft suitably mounted in alinement with said driving shaft, a clutch mechanism between said shafts and adapted to transmit motion directly from one to the other, a countershaft rotatably mounted adjacent said shafts, a fixed bearing for one end of said countershaft, a movable bearing for the other end thereof, a friction wheel fixedly secured to said driving shaft, a second friction wheel in alinement therewith and secured to said countershaft, an idler movably mounted between said friction wheels and adapted to transmit motion from one friction wheel to the other, means to shift one end of said countershaft toward and away from said driven shaft, and means to transmit motion from said countershaft to said driven shaft.

4. In a device of the character stated, the combination of a driving shaft, a driven shaft, a laterally movable countershaft arranged in parallel relation with said shafts, mechanism carried in part by said countershaft for varying the speed of said driven shaft relative to said driving shaft, and means to connect said driving and driven shafts for direct drive, said parts being so arranged that said speed mechanisms are operable independently or simultaneously.

5. In a device of the character stated, the combination of a driving shaft, a driven shaft, a plurality of countershafts arranged in parallel relation with said shafts, mechanism in part carried by each countershaft for varying the speed of said driven shaft relative to said driving shaft, independent means for controlling each speed changing mechanism, and means to connect said driving and driven shafts for direct drive, the parts being so arranged that either speed changing device may be operated independently and any two speed devices are operable simultaneously.

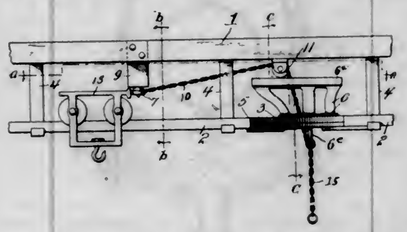
1,072,408. HEAT-REGULATOR FOR CARS. GEORGE H. WINANS, Salt Lake City, Utah. Filed Apr. 20, 1912. Serial No. 692,165. (Cl. 237—3.)

A casing for inclosing heating pipes comprising inner and outer rigid walls and an intermediate wall composed of a material of low conductivity, said casing having an opening extending through said walls, the margin of one rigid wall being bent about said intermediate wall into engagement with the remaining rigid wall throughout the margin of said opening to inclose the intermediate wall, and a cover plate slidably mounted on said casing and comprising inner and outer rigid walls and a wall intervening said inner and outer rigid walls and composed of a material of low conductivity, said cover plate having an opening extending through the walls thereof and adapted



to be brought into and out of register with the opening in said casing, the margin of the opening of one of the rigid walls of said cover plate being bent about said intervening wall and into engagement with the remaining cover wall, substantially as described.

1,072,409. SWITCH. WILLIAM D. WRIGHT and JOSEPH T. FINN, Albion, N. Y.; said Finn assignor of one-fourth of the right to Thomas J. Sweet, Albion, N. Y. Filed Sept. 4, 1912. Serial No. 718,589. (Cl. 104—180.)

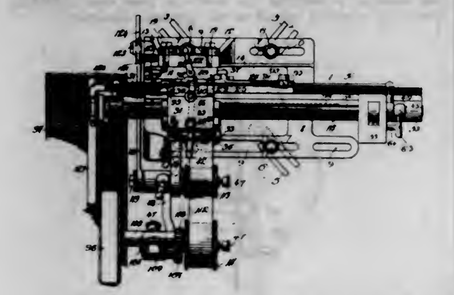


1. In combination with a main track, a side track and a switch, a car operated lever connected to the switch, pivotally mounted at a point higher than and spaced from one side of the track and yieldable means to normally hold the lever at an angle to and across and above the main track for operation by a car as the latter approaches a switch.

2. In conveying apparatus of the class described, the combination of an overheard main track and side track, a switch for alinement with either the main or side track, a car operated lever connected to the switch, pivotally mounted at a point higher than and spaced from one side of the track and a spring attached to the lever at a point eccentric to the pivot thereof and acting on the lever to normally hold the latter at an angle to and across and above the main track for operation by a car to close the switch as the car approaches the switch.

1,072,410. MACHINE FOR TRIMMING COMMUTATORS. THOMAS E. CHAPPELL, New York, N. Y., assignor to Phillips Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Sept. 14, 1910. Serial No. 582,021. (Cl. 51—4.)

1. In a machine of the class described, cover bolts securing horse-shoe bars adjacent to the journal of the dynamo electric machine, bolts with washers strung thereon extending upwardly from said horse-shoe bars and a base plate resting on said washers and secured by said bolts.



2. In a machine of the class described, horse-shoe bars and means for securing the same to the bed of an electric machine, bolts extending upwardly from said bars and insulated therefrom, washers of insulating material surrounding said bolts, a bed plate resting on said washers and secured by said bolts.

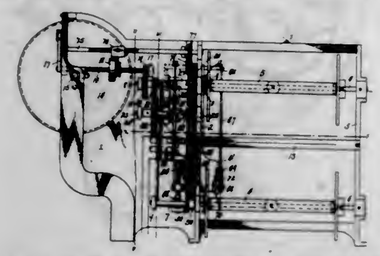
3. In a machine of the class described, a rotary abrading wheel adapted to smooth the commutator and means for rotating the same, means for feeding said abrading wheel transversely of said commutator and means substantially covering said abrading wheel and moving with the same but not interfering with the operation of the same for exhausting the abraded fragments from the commutator at all times while the same is being trued.

4. In a machine of the class described, a rotary abrading wheel and means for rotating the same, means for supporting said wheel, means for driving said wheel, means for moving said wheel transversely of a commutator, a hood with an iron bar secured thereto having horizontally and vertically disposed parts adapted to be secured to a portion of said wheel support so that the abrading wheel may move freely without interference.

5. In a machine of the class described, a base and means for mounting the same on an electric machine and adjacent to the commutator thereof, vertically disposed webs rising from said base, means for mounting a guide so that it can move vertically on one of said webs, laterally extending partitions running from said guide, a slide adapted to move to and fro in said guide, shafts on said slide adapted to pass through said partitions and means connected to said shafts and partitions for driving said slide to and fro.

[Claims 6 to 13 not printed in the Gazette.]

1,072,411. SHEET-WINDING MECHANISM. PHILLIP JACOB DREHER, Toledo, Ohio. Filed Mar. 1, 1913. Serial No. 751,485. (Cl. 84—166.)



1. In combination, a sheet-winding roll, mechanism for driving said roll, a clutch mechanism for controlling the driving action of said roll, said clutch mechanism having means which is automatically operable to disconnect said roll and driving mechanism at a predetermined point in a sheet-winding action, said means having a removable gage member for coacting with a sheet roll to adjust said control means prior to a winding of the music roll on said sheet-winding roll.

2. In combination, a pair of spools from one to the other of which a roll of sheet material is adapted to wind, drive means for one of said rolls, a clutch mechanism operable to throw said means into and out of driving engagement with the associated roll, and control means for said clutch mechanism comprising a reciprocally movable member having adjustable parts for coacting with a part of said mechanism to shift the same at predetermined points in the movements of said member, a lever movable to change the adjustment of one of said member parts to vary the point of shifting of said mechanism relative to the movements of said member, a second lever pivotally carried by said member and having connection with said first lever to communicate rocking movements from one to the other, means for securing the second lever in adjusted position, and a part removably carried by said second lever and adapted to be moved into contact with the periphery of a music roll carried by one of said spools and when so moved to communicate an adjusting movement to said first lever to change the adjustment of the coacting part of said member to effect a shifting of the clutch mechanism at a predetermined point in the winding action of the music roll.

3. In an apparatus of the class described, a spool for carrying a music roll, mechanism operable to effect an unwinding of a music sheet from such roll, and a clutch mechanism automatically operable to stop the action of said unwinding mechanism when a predetermined length of the music roll has been unwound from said spool, said control mechanism having means adjustable to adjust the point of stopping of said driving mechanism relative to the unwinding action of a music sheet and said means having a control lever for movement into contact with the periphery of a music sheet roll to change the adjustment of said means, the part of said lever which is intended to have contact with the music sheet roll being removable when the roll is being unwound, and means for securing said lever in adjusted position.

4. In combination, a sheet-winding spool, mechanism for driving said spool, a clutch mechanism automatically shiftable to disconnect said spool and driving mechanism at a predetermined point in a sheet-winding action, said clutch mechanism having a reciprocally movable control part, a worm having threaded engagement with said control part for communicating reciprocatory movements thereto when the worm is rotated, and means for communicating rotation to said worm from the driving mechanism.

5. In combination, a sheet-winding spool, mechanism for driving said spool, clutch mechanism automatically operable to stop the spool driving action of said mechanism at a predetermined point in the winding of a sheet on the spool, said clutch mechanism having a reciprocally movable control part, a worm having connection with said control part for adapting it when rotated to communicate movements to such part, a shaft driven by said driving mechanism, means for changing the speed of the driving mechanism to compensate for the increasing diameter of a sheet roll winding on said spool, said means having connection with and being driven by said shaft, and means connecting said shaft and worm for communicating rotation from one to the other thereof.

[Claim 6 not printed in the Gazette.]

REISSUES.

13,611. TOY. ALFRED E. HOLMBERG, Maple Lake, Minn. Filed July 5, 1913. Serial No. 777,585. Original No. 1,053,994, dated Feb. 25, 1913, Serial No. 667,267. (Cl. 46—40.)

1. In a doll, the combination with a body having its face provided with eye-openings, of a vibrator lever pivoted to the body and having at its upper end a plate with

eyes printed or painted thereon, a finger lever pivoted to the body, and operative connection between the finger lever and the vibrator lever; said operative connection involving an actuator bar mounted to slide up and down on the body and having connection with the finger lever whereby the latter moves it in one direction, a spring arranged to move the bar in the opposite direction; said sliding bar having a curved slot, and the vibrator lever having a stud or pin projecting into said curved slot.

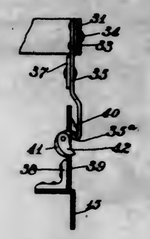


2. In a toy doll, the combination with a body having its face provided with eye-openings and a slit-shaped mouth-opening with the lower edge thereof struck partly inward beyond the upper edge, of a plate slidable in said slit and having upon its outer side printed or painted teeth and the lower lip of the mouth, a vertically slidable bar on the body and having operative connection with said tongue plate, a finger lever pivoted on the body and operatively connected with the sliding bar to move it in one direction, and a spring arranged to move it in the other direction; a vibrator lever mounted on the body and having at its upper end a plate with eyes thereon arranged to move from side to side near the eye-openings, said vibrator lever having operative connection with the slidable bar.

3. In a toy doll, the combination with a body having its face provided with eye-openings and a mouth opening, of a tongue-shaped plate slidable up and down in the mouth-opening and having teeth and the lower lip of the mouth represented upon it, the inner portion of the tongue being a narrow upward arm between the eye-openings and provided with a rearward lug, a vertically slidable bar mounted on the body and having a slot in which the lug is vertically slidable but also operable by the terminals of the slot, a spring engaging the lug to hold the tongue normally upward almost retracted into the mouth, a finger lever pivoted on the body, and a flexible element connecting it with the lug to pull the latter downward, a vibrator lever pivoted to the body and having operative connection with the slidable bar, a spring acting on the slidable bar to raise it and a finger lever adapted to lower it, a spring-supported plate slidable on the vibrator lever and having eyes represented upon it adjacent the eye-openings, and a rod connecting said slidable eye plate with the first mentioned finger lever.

13,612. SOFA OR DAVENPORT BED. WILLIAM A. PEASE, Columbus, Ohio, assignor to The E. M. Hulse Company, Columbus, Ohio, a Corporation of Ohio. Filed June 2, 1913. Serial No. 771,372. Original No. 1,057,665, dated Apr. 1, 1913, Serial No. 745,080. (Cl. 5—51.)

1. In a folding bed the combination, with folding bed sections, of a pivoted leg having a catch on one bed section, a lug for receiving said catch on another bed section toward which the first mentioned section folds, and a catch-releasing member adapted to be engaged by the catch when moved beyond said lug, said catch-releasing member permitting the catch to pass over said lug when the catch is moved in the opposite direction.



2. In a folding bed the combination with folding bed sections of a pivoted leg having a catch on one bed section, a plate 39 having a lug thereon for receiving said catch on another bed section toward which the first mentioned section folds, and a catch-releasing member adapted to be engaged by the catch when moved beyond said lug, said catch-releasing member permitting the catch to pass over said lug when the catch is moved in the opposite direction.

3. In a folding bed, the combination with two bed sections, foldable one on the other, of a catch connected with one of the bed sections, a lug for receiving said catch on the other bed section when said sections are in folded relation to each other, and a catch-releasing member adapted by movement of the first mentioned section toward the second mentioned section to cause the catch to escape the lug when the first mentioned section is then moved away from the second mentioned section.

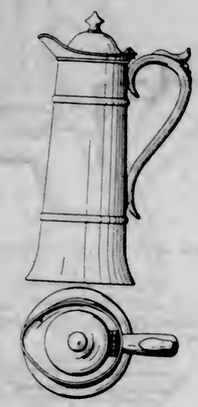
DESIGNS.

44,601. CASING FOR VACUUM-INSULATED PITCHERS. GEORGE P. ALTENBERG, Cincinnati, Ohio. Filed July 14, 1913. Serial No. 779,055. Term of patent 7 years.



The ornamental design for a casing for vacuum insulated pitchers, as shown.

44,602. CASING FOR VACUUM-INSULATED PITCHERS. GEORGE P. ALTENBERG, Cincinnati, Ohio. Filed July 22, 1913. Serial No. 780,581. Term of patent 7 years.



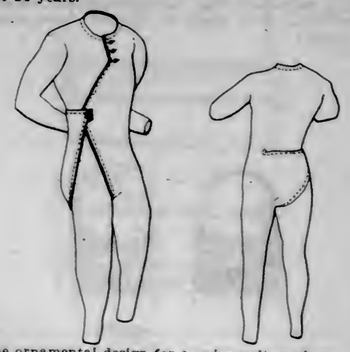
The ornamental design for a casing for vacuum insulated pitchers, as shown.

44,603. TEAPOT OR SIMILAR ARTICLE. CHARLES A. BENNETT, Taunton, Mass., assignor to The Bennett-Merwin Silver Company, New Milford, Conn., a Corporation of Connecticut. Filed May 23, 1913. Serial No. 770,286. Term of patent 7 years.



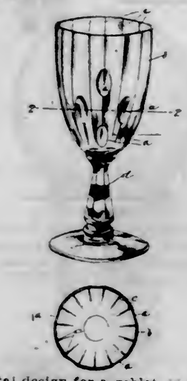
The ornamental design for a tea pot, or similar article, as shown.

44,604. UNION SUIT. WILSON R. BLAIN, Albany, Oreg. Filed July 10, 1913. Serial No. 778,388. Term of patent 14 years.



The ornamental design for a union suit as shown.

44,605. DRINKING-GOBLET. MAX L. BREDE, Chicago, Ill. Filed May 29, 1913. Serial No. 770,759. Term of patent 14 years.



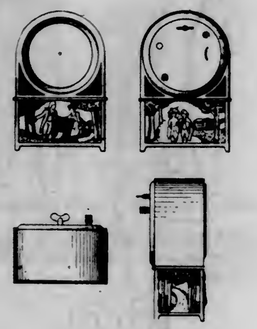
The ornamental design for a goblet, as shown.

44,606. HEADLIGHT. HERBERT M. DAWLEY, Buffalo, N. Y., assignor to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Filed May 31, 1911. Serial No. 630,490. Term of patent 14 years.



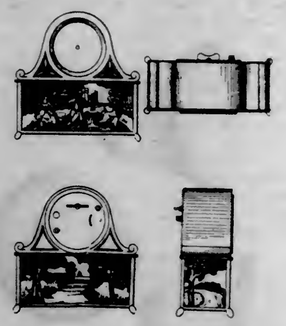
The ornamental design for a headlight, as shown and described.

44,607. CLOCK-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 2, 1913. Serial No. 777,094. Term of patent 3½ years.



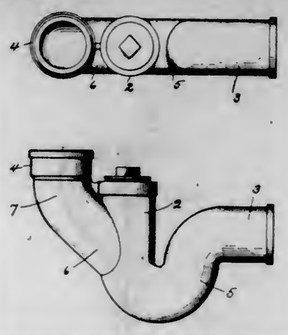
The ornamental design for a clock case as shown.

44,608. CLOCK-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 10, 1913. Serial No. 778,385. Term of patent 3½ years.



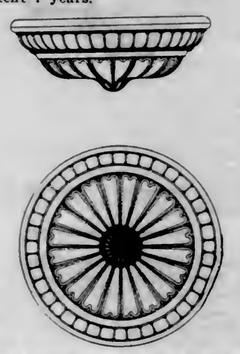
The ornamental design for a clock case as shown.

44,609. DRAIN-PIPE. JOSEPH FRIEDMAN, Philadelphia, Pa. Filed June 3, 1912. Serial No. 701,460. Term of patent 7 years.



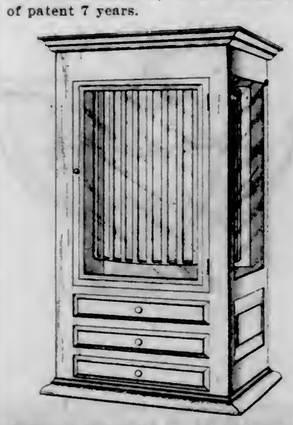
The ornamental design for a drain pipe, as shown and described.

44,610. LAMP-SHADE. WILLIAM C. LEASURE, Steubenville, Ohio. Filed June 27, 1913. Serial No. 776,160. Term of patent 7 years.



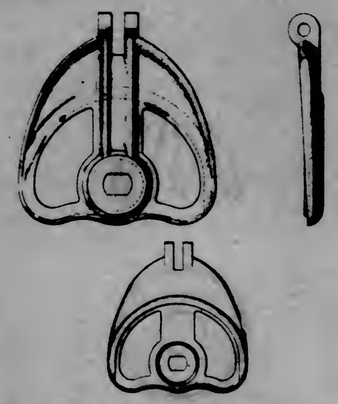
The ornamental design for a lamp shade as shown.

44,611. SPOOL-CABINET. WILLIAM A. LEONARD, Riverside, Ill. Filed June 13, 1913. Serial No. 773,557. Term of patent 7 years.



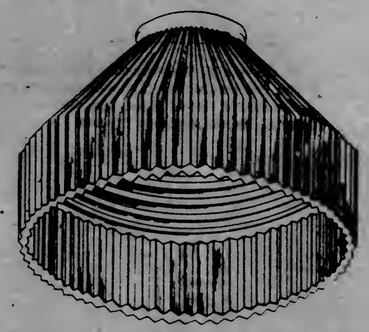
The ornamental design for a spool cabinet, as shown and described.

44,612. BLOCK SIDE. FREDERICK B. MALLORY, Portland, Oreg. Filed May 22, 1912. Serial No. 699,976. Term of patent 7 years.



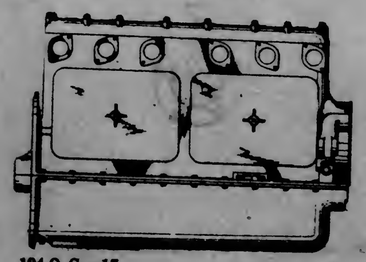
The ornamental design for a block-side as shown and described.

44,613. GLASS SHADE. OTIS A. MYGATT, New York, N. Y. Filed July 1, 1909. Serial No. 505,510. Term of patent 14 years.



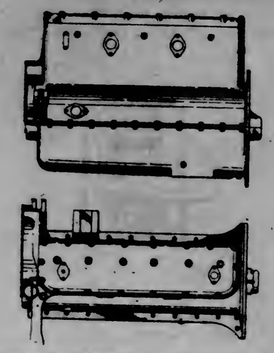
The ornamental design for a glass shade, as shown and described.

44,614. CASING FOR INTERNAL-COMBUSTION ENGINES. CARL A. NERACHER, Toledo, Ohio, assignor to The Willys-Overland Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 1, 1913. Serial No. 758,288. Term of patent 14 years.



194 O. G.—17

44,614.



The ornamental design for a casing for internal combustion engines, as shown.

44,615. VENDING-MACHINE CASE. WILLIAM J. PAUL, Pittsburgh, Pa. Filed Apr. 17, 1913. Serial No. 761,850. Term of patent 7 years.



The ornamental design for a vending machine case, as shown.

44,616. DRINKING-GLASS. HUGO PICK, Chicago, Ill. Filed Dec. 9, 1912. Serial No. 735,849. Term of patent 14 years.



The ornamental design for a drinking glass as shown.

44,617. COMBINED CUPBOARD AND FOLDING WRITING-TABLE. HIPPOLYT ROMANOFF, St. Petersburg, Russia. Filed Dec. 11, 1912. Serial No. 736,207. Term of patent 7 years.



The ornamental design for a combined cupboard and folding writing table, as shown.

44,618. CASING FOR TRAVEL-INDICATORS FOR VEHICLES. FRANK A. ROSS, Chicago, Ill., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill., a Corporation of Virginia. Filed Feb. 14, 1913. Serial No. 748,459. Term of patent 14 years.



The ornamental design for a casing for a travel indicator as shown.

44,619. SUPPORT FOR DISPLAY-RACKS. JAKOB SPIELES, New York, N. Y. Filed July 9, 1913. Serial No. 778,221. Term of patent 7 years.



The ornamental design for a support for a display rack, as shown.

44,620. REFLECTOR-SHADE. JAMES HARVEY STRONG, Steubenville, Ohio. Filed Mar. 9, 1912. Serial No. 682,789. Term of patent 7 years.





The ornamental design for a reflector shade as herein shown and described.

44,621. LAMP. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 26, 1913. Serial No. 770,079. Term of patent 7 years.



The ornamental design for a lamp, as shown.

44,622. SHEET-GLASS. JULIUS S. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Filed June 24, 1913. Serial No. 775,594. Term of patent 14 years.



The ornamental design for sheet glass, as shown.

44,623. SHEET-METAL HAME-BODY. CHARLES L. WIEDRICH, Buffalo, N. Y., assignor to U. S. Hame Company, Buffalo, N. Y. Filed July 25, 1912. Serial No. 711,569. Term of patent 14 years.



The ornamental design for a hame body, as shown and described.

44,624. CABINET FOR SOUND RECORDING AND REPRODUCING MACHINES AND THE LIKE. JACOB M. WINTROB, Philadelphia, Pa. Filed June 28, 1913. Serial No. 776,445. Term of patent 14 years.



The ornamental design for a cabinet for sound recording and reproducing machines and the like, as shown.

44,625. SAVINGS-BANK AND STAND. CHARLES DE YOOS, New York, N. Y. Filed May 26, 1913. Serial No. 770,078. Term of patent 7 years.



The ornamental design for a savings bank and stand, as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 2, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 50,562. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE R. T. FRENCH COMPANY, Rochester, N. Y. Filed June 24, 1910. Under ten-year proviso.

FRENCH'S

Particular description of goods.—Mustard, (Dry and Prepared,) Paprika, Curry-Powder, Celery-Salt, Pepper, Herbs Used for Food Products, Spices, Tapioca, Sago, Bird Food, Flavoring Extracts for Food Products, Peanut-Butter, Horse-Radish, Poultry-Seasoning, Tabasco Sauce, Jelly-Powder.

Claims use since Jan. 1, 1880.

Ser. No. 56,317. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WM. ANDERSON & CO., New York, N. Y. Filed May 12, 1911.

CENTURY

Particular description of goods.—Percale.

Claims use since about Jan. 1, 1911.

Ser. No. 58,980. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MANUEL J. NUNES, Niles, Cal. Filed Oct. 3, 1911.

VICTOR

Particular description of goods.—A Poison for Squirrels.

Claims use since Sept. 12, 1911.

Ser. No. 61,091. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FALLS MACHINE COMPANY, Sheboygan Falls, Wis. Filed Jan. 27, 1912.

Falls

Consists of the arbitrary word "Falls."

Particular description of goods.—Automobiles, Trucks, and Autotrucks.

Claims use since January, 1903.

Ser. No. 63,751. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) VACUMIT-GESELLSCHAFT M. B. H., Vienna XIV, Austria. Filed May 23, 1912.

VACUMIT

Particular description of goods.—Elastic Wheel-Tires.

Claims use since July 1, 1908.

Ser. No. 63,934. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LYON BLOOD PURIFIER COMPANY, Atlanta, Ga. Filed June 1, 1912.

Lyon

The word "Lyon" being disclaimed.

Particular description of goods.—A Blood-Purifier.

Claims use since Oct. 6, 1911.

Ser. No. 64,278. (CLASS 39. CLOTHING.) EDWARD J. SCHREMP, Utica, N. Y. Filed June 19, 1912.

FEATURE

Particular description of goods.—Drawers, Shirts, and Combination-Suits Made of Knitted Material, Hosiery, Sweaters, Toques, and Leggings.

Claims use since about December, 1911.

Ser. No. 64,724. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JESSE B. GREEN, Sadler, Tex. Filed July 15, 1912.

THE WORLD'S WONDER

Particular description of goods.—A Remedy for Dropsy.
Claims use since Nov. 6, 1911.

Ser. No. 65,259. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TOMLINSON (INC.), Syracuse, N. Y. Filed Aug. 14, 1912.

OX-TEAM

The words "Ox-Team," printed red.
Particular description of goods.—Gelatin.
Claims use since June 15, 1909.

Ser. No. 66,740. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHARLES P. CHISHOLM, Oakville, Ontario, Canada. Filed Nov. 6, 1912.

SPIROX

Particular description of goods.—Rubber-Preservatives.
Claims use since Sept. 17, 1912.

Ser. No. 67,035. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CORN PRODUCTS REFINING COMPANY, New York, N. Y. Filed Nov. 21, 1912.

GOLDENGLORY

Particular description of goods.—Fruit Jelly.
Claims use since Sept. 18, 1900.

Ser. No. 67,399. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NEW YORK & BOSTON DRUG COMPANY, New York, N. Y. Filed Dec. 14, 1912.

ENCHANTO

Particular description of goods.—Smelling-Salts, Face-Rouge, Liquid Complexion-Powder, and Complexion-Cream.
Claims use since June 1, 1911.

Ser. No. 67,928. (CLASS 39. CLOTHING.) HARRY BURSTEIN, Philadelphia, Pa. Filed Jan. 15, 1913.

Queen Quality

No claim being made to the word "Quality."
Particular description of goods.—Ladies' Coats, Cloaks, Suits, Skirts, and Dresses.
Claims use since Dec. 15, 1899.

Ser. No. 68,984. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCESCO ALBANO, New York, N. Y. Filed Mar. 13, 1913.



Particular description of goods.—Olive-Oil.
Claims use since Sept. 1, 1912.

Ser. No. 68,985. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANCESCO ALBANO, New York, N. Y. Filed Mar. 13, 1913.



Particular description of goods.—Olive-Oil.
Claims use since Sept. 1, 1912.

Ser. No. 69,507. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK HALFENBERG A. G. VORM. EUGEN DIETERICH, Halfenberg, near Dresden, Germany. Filed Apr. 1, 1913.

Sennatin

Particular description of goods.—Laxative Preparations.
Claims use since July 29, 1912.

Ser. No. 69,629. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ADAMS, TAYLOR & CO., Boston, Mass. Filed Apr. 7, 1913. Under ten-year proviso.

G.O.BLAKE'S

Particular description of goods.—Blend Whisky.
Claims use since 1872.

Ser. No. 69,800. (CLASS 5. ADHESIVES.) NATHANIEL H. MOORE, Omaha, Nebr. Filed Apr. 15, 1913.

MENZALONE

Particular description of goods.—A Liquid Preparation for Treating Pneumatic Tires.
Claims use since Feb. 23, 1913.

Ser. No. 69,906. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHANDEIN & LIND CO., Philadelphia, Pa. Filed Apr. 18, 1913. Under ten-year proviso.



Particular description of goods.—Candy.
Claims use since the year 1864.

Ser. No. 70,152. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APLLIANCES.) PERCIVAL A. GOULD, Gibsonburg, Ohio. Filed Apr. 30, 1913.

GOULDS NATURAL GUM FACING P. A. Gould DENTAL RUBBER

A facsimile of the autographic signature of the applicant, P. A. Gould, upon the longer diagonal of a rhombus, said rhombus having a border-line parallel to its exterior, along which is lettered the words "Goulds Natural Gum Facing Dental Rubber," and said signature having above and below the same a black field, showing the words "Trade" "Mark" in white. No claim is made for either of the words "Gould's Natural Gum Facing Dental Rubber," nor for the words "Trade" "Mark."
Particular description of goods.—Dental Rubber.
Claims use since about Apr. 7, 1913.

Ser. No. 70,157. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed May 1, 1913.

R B S

Particular description of goods.—Pipes, Tubes, and Casings.
Claims use since Nov. 18, 1905.

Ser. No. 70,260. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSEPH BENN & SONS, INC., Greystone, R. I., and New York, N. Y. Filed May 6, 1913.

Perlambs

The word "Perlambs."
Particular description of goods.—Imitation Astrakhans.
Claims use since Apr. 21, 1913.

Ser. No. 70,276. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT W. EIDMANN, Cando, N. D. Filed May 7, 1913.

Alsypolene

Particular description of goods.—A Remedy for Erysipelas.
Claims use since Apr. 1, 1913.

Ser. No. 70,309. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK XAVER BRAUN, Scranton, Pa. Filed May 9, 1913.

FORWARDS

Particular description of goods.—Medicine for Blood Diseases.
Claims use since May 1, 1913.

Ser. No. 70,391. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed May 13, 1913.

X

A circle inclosing the letter "X."
Particular description of goods.—Rubber Tubing, Rubber Hose, Rubber and Cotton Fire-Hose, Rubber and Cotton Mill-Hose, Belting, and Machinery Packing.
Claims use since January, 1893.

Ser. No. 70,534. (CLASS 5. ADHESIVES.) AMERICAN MANUFACTURING AND DISTRIBUTING COMPANY, Louisville, Ky. Filed May 21, 1913.

Prest-o-ceal

Particular description of goods.—A Liquid Filler for Pneumatic Tires.
Claims use since Apr. 1, 1913.

Ser. No. 70,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) Y. T. MATZOON COMPANY, Chicago, Ill. Filed May 22, 1913.

KAZOL

Particular description of goods.—Medicinal Food Consisting of Fermented Milk in Liquid and Solid Form.
Claims use since May 5, 1904.

Ser. No. 70,680. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TADAJIRO TOMAKI, Seattle, Wash. Filed May 26, 1913.



Particular description of goods.—Catsups.
Claims use since Dec. 1, 1907.

Ser. No. 70,698. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ROCK RIVER COTTON CO., Janesville, Wis. Filed May 27, 1913.

JEWEL.

Particular description of goods.—Cotton-Batting.
Claims use since Aug. 10, 1888.

Ser. No. 70,776. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JULIEN GIGUET, Lyon, France, and New York, N. Y. Filed May 31, 1913.

MADAME BUTTERFLY

Particular description of goods.—Hair-Nets.
Claims use since Jan. 1, 1912.

Ser. No. 70,841. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM R. CATHCART, New York, N. Y. Filed June 3, 1913.

NO NOTON ON

Particular description of goods.—A Chocolate-Flavored Filling in Paste Form Suitable for Sandwiches and Cake.
Claims use since May 26, 1913.

Ser. No. 70,914. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM S. SCULL COMPANY, Camden, N. J. Filed June 6, 1913.

Boscul

Which consists of the word "Boscul."
Particular description of goods.—Blended Coffee.
Claims use since May 8, 1913.

Ser. No. 70,958. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) LEWIS A. KARLSON, Minneapolis, Minn. Filed June 7, 1913.

"TENTIN"

Particular description of goods.—Ventilators.
Claims use since on or about Mar. 3, 1913.

Ser. No. 70,975. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KEMPER MILL AND ELEVATOR COMPANY, Kansas City, Mo. Filed June 9, 1913.



Particular description of goods.—Wheat-Flour.
Claims use since December, 1912.

Ser. No. 70,983. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POTTER & WRIGHTINGTON, Boston, Mass. Filed June 9, 1913.



Particular description of goods.—Wheat-Flour.
Claims use since June 23, 1912.

Ser. No. 70,995. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK AUF ACTIEN (VORM. E. SCHERING), Berlin, Germany. Filed June 10, 1913.

Synthalin

Particular description of goods.—Remedies for the Treatment of Gout and Rheumatism.
Claims use since about September, 1906

Ser. No. 71,029. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE TOURAINE CO., New Hartford, Conn., and New York, N. Y. Filed June 11, 1913.



No claim being made to the word "Touraine."
Particular description of goods.—Malines, Chiffons, and Net Goods.
Claims use since June 6, 1913.

Ser. No. 71,032. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

BIG CHIEF

Particular description of goods.—Alimentary Paste Products.
Claims use since Sept. 17, 1912.

Ser. No. 71,033. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

SUN SET

Particular description of goods.—Alimentary Paste Products.
Claims use since Sept. 17, 1912.

Ser. No. 71,035. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

DIXIE

Particular description of goods.—Alimentary Paste Products.
Claims use since Sept. 17, 1912.

Ser. No. 71,036. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

TRIANGLE

Particular description of goods.—Alimentary Paste Products.
Claims use since March, 1907.

Ser. No. 71,037. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

USONA

Particular description of goods.—Alimentary Paste Products.
Claims use since Sept. 17, 1912.

Ser. No. 71,038. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

LA VICTOIRE

Particular description of goods.—Macaroni.
Claims use since December, 1906.

Ser. No. 71,063. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE DRUG PRODUCTS CO., INC., New York, N. Y. Filed June 12, 1913.

WAFOIDS

Particular description of goods.—Acetanilid Compound, Aconite and Belladonna Compound, Ammonium and Terpin Compound, Aspirin and Aconite Compound, Bismuth and Opium Compound, Bismuth and Rhubarb Compound, Camphor Compound, Ergotin Compound, Sodium-Phosphate Compound, and Hepatophen.
Claims use since October, 1911.

Ser. No. 71,095. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY WECHSLER, Brooklyn, N. Y. Filed June 13, 1913.

ATHLETIC



Particular description of goods.—A Foot-Powder.
Claims use since May 27, 1913.

Ser. No. 71,119. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA FRUIT CANNERS ASSOCIATION, San Francisco, Cal. Filed June 16, 1913.

COLUMBUS



Particular description of goods.—Dried Fruits.
Claims use since about Oct. 1, 1907.

Ser. No. 71,149. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE B. F. GOODRICH COMPANY, New York, N. Y., and Akron, Ohio. Filed June 17, 1913.

"Titan"

Particular description of goods.—Hard-Rubber Battery-Jars.
Claims use since about 1903.

Ser. No. 71,281. CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN HEAT & POWER CO., San Francisco, Cal. Filed June 23, 1913.

SIMPLEX

Particular description of goods.—Oil-Burners and Oil-Burning Furnaces of All Kinds.
Claims use since Apr. 1, 1911.

Ser. No. 71,303. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KLAUBER WANGENHEIM CO., San Diego, Cal. Filed June 23, 1913.

PAY DAY

Particular description of goods.—Baking-Powder, Gloss-Starch, and Baking-Soda.
Claims use since June 3, 1913.

Ser. No. 71,420. (CLASS 10. FERTILIZERS.) WM. J. RYAN, Philadelphia, Pa. Filed June 28, 1913.

RADIUM

(Radio-Active)

Particular description of goods.—Fertilizers.
Claims use since about Apr. 19, 1913.

Ser. No. 71,457. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) M. GOTTESMAN & SON, New York, N. Y. Filed July 1, 1913.

"V. B."

Particular description of goods.—Wood-Pulp.
Claims use since Jan. 15, 1909.

Ser. No. 71,481. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) HANOVER VULCANITE CO., New York, N. Y. Filed July 2, 1913.

BULL MOOSE

Particular description of goods.—Hard-Rubber Combs, as Follows: Dressing, Pocket, and Fine-Tooth Combs.
Claims use since June 6, 1913.

Ser. No. 71,636. (CLASS 39. CLOTHING.) CHARLES H. HAESELER, Philadelphia, Pa. Filed July 10, 1913.

"MILADY"

Particular description of goods.—A Sanitary Napkin.
Claims use since about Mar. 1, 1913.

Ser. No. 71,664. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SIDNEY SUSPENDER COMPANY, Providence, R. I. Filed July 11, 1913.

Sidd.

Particular description of goods.—Belts for Personal Wear, Suspenders, and Garters.
Claims use since June 30, 1913.

Ser. No. 71,745. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) ELLANAM DRESS FORM CO., Brooklyn and New York, N. Y. Filed July 16, 1913.

VENUS

Particular description of goods.—Dress-Forms.
Claims use since January, 1908.

Ser. No. 71,761. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) LORRAINE MFG. CO., Pawtucket, R. I. Filed July 16, 1913.

NEBULETTE

Particular description of goods.—Cotton Piece Goods.
Claims use since Mar. 10, 1913.

Ser. No. 71,848. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) I. STERN & CO., New York, N. Y. Filed July 18, 1913.



Particular description of goods.—A Metal Alloy Composed of Platinum, Silver, Gold, Copper, Tin, in Varying Proportions, Used as a Filling for Teeth.
Claims use since the 1st day of July, 1913.

Ser. No. 71,852. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. BORGFELDT & CO., New York, N. Y. Filed July 19, 1913.

K

Particular description of goods.—Hair-Nets, Silk Chiffons, and Nettings.
Claims use since the 25th day of June, 1913.

Ser. No. 71,862. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MACHENBACH IMPORTING CO., New York, N. Y. Filed July 19, 1913.

"M"

Particular description of goods.—Laces, Shawls, and Scarfs.
Claims use since August, 1912.

Ser. No. 71,936. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CHAMPION IGNITION CO., Flint, Mich. Filed July 24, 1913.

TITAN

Particular description of goods.—Spark-Plugs.
Claims use since June 1, 1913.

Ser. No. 71,955. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) MORGAN & WRIGHT, Detroit, Mich. Filed July 24, 1913.

NOBBY

Particular description of goods.—Rubber Vehicle-Tires.
Claims use since Apr. 23, 1913.

Ser. No. 71,956. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PATTON PAINT COMPANY, Milwaukee, Wis. Filed July 24, 1913.

TECTOR

Particular description of goods.—A Primer and Filler for First Coating All Surfaces to Which Paint or Varnish is to be Applied.
Claims use since Jan. 13, 1908.

Ser. No. 71,959. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) UNIVERSAL LOCK-WASHER CO., New York, N. Y. Filed July 24, 1913.

UNIVERSAL

Particular description of goods.—Lock-Washers.
Claims use since June 1, 1913.

Ser. No. 71,979. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) A. KELLOGG SLOAN, Brooklyn, N. Y. Filed July 25, 1913.



Particular description of goods.—Electrical Connectors and Binding-Posts.
Claims use since Jan. 15, 1912.

Ser. No. 72,061. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GLOBE NAVAL STORES COMPANY, Atmore, Ala. Filed July 31, 1913.



Particular description of goods.—Turpentine.
Claims use since May 15, 1913.

Ser. No. 72,213. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. WILHELM COMPANY, Reading, Pa. Filed Aug. 7, 1913.

EMPIRE

Particular description of goods.—Ready-Mixed Paint.
Claims use since the year 1883.

Ser. No. 72,214. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. WILHELM COMPANY, Reading, Pa. Filed Aug. 7, 1913.

ROOKWOOD

Particular description of goods.—Enamel.
Claims use since the year 1898.

Ser. No. 72,215. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. WILHELM COMPANY, Reading, Pa. Filed Aug. 7, 1913. Under ten-year proviso.

DRESDEN

Particular description of goods.—Enamel.
Claims use since January, 1905.

Ser. No. 72,227. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) T. B. JONES, Athens, Tex. Filed Aug. 8, 1913.



Particular description of goods.—Batteries.
Claims use since about October, 1910.

TRADE-MARKS

REGISTERED SEPTEMBER 2, 1913.

93,253. WHISKY. AMERICAN BOTTLING CORPORATION, Providence, R. I.
Filed January 4, 1913. Serial No. 67,704. PUBLISHED JULY 1, 1913.

93,254. COFFEE. ARBUCKLE BROS., New York, N. Y.
Filed February 27, 1913. Serial No. 68,757. PUBLISHED JULY 1, 1913.

93,255. LIQUID-MEASURES. CARL H. ARWE, Brooklyn, N. Y.
Filed April 26, 1913. Serial No. 70,072. PUBLISHED JULY 1, 1913.

93,256. CERTAIN PRESSED STEEL POLE LINE HARDWARE. THE BARNES & KOBERT MANUFACTURING COMPANY, New Haven, Conn.
Filed March 29, 1913. Serial No. 69,410. PUBLISHED JULY 1, 1913.

93,257. PAPER FOR WRITING AND PRINTING PURPOSES, ENVELOPS, AND BLANK BOOKS. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed April 3, 1913. Serial No. 69,557. PUBLISHED JULY 1, 1913.

93,258. POMATUM. BERNARD L. BRUN, Baltimore, Md.
Filed October 9, 1912. Serial No. 66,219. PUBLISHED JULY 1, 1913.

93,259. COMPOUND OF RAISIN-SYRUP AND CANE-SUGAR. THE CALIFORNIA CONDENSED FRUIT & SYRUP CO., San Francisco, Cal.
Filed November 10, 1912. Serial No. 67,008. PUBLISHED JULY 1, 1913.

93,260. HAIR-RESTORER AND HEAD-SHAMPOO. CALIFORNIA QUEEN CO., Los Angeles, Cal.
Filed September 24, 1912. Serial No. 65,957. PUBLISHED JULY 1, 1913.

93,261. HORSE-NAILS. THE CAPEWELL HORSE NAIL COMPANY, Hartford, Conn.
Filed June 3, 1913. Serial No. 70,837. PUBLISHED JULY 1, 1913.

93,262. GINGER-ALE. CAPRONI BROS. CO., Providence, R. I.
Filed June 9, 1913. Serial No. 70,969. PUBLISHED JULY 1, 1913.

93,263. ORANGES AND GRAPE-FRUIT. WILLIAM H. CRESSON, City Point, Fla.
Filed January 13, 1913. Serial No. 67,868. PUBLISHED JULY 1, 1913.

93,264. CERTAIN NAMED TEXTILE FABRICS. CROMPTON COMPANY, Crompton, R. I.
Filed June 2, 1913. Serial No. 70,822. PUBLISHED JULY 1, 1913.

93,265. PIECE MATERIALS OF WOOL, WORSTED, AND HAIR. THOMAS CAMPBELL CULLAN, Bradford, England.
Filed March 18, 1913. Serial No. 69,153. PUBLISHED JULY 1, 1913.

93,266. LIQUID BOILER COMPOUND. EMAN M. DEAL, Philadelphia, Pa.
Filed February 15, 1913. Serial No. 68,558. PUBLISHED JULY 1, 1913.

93,267. CERTAIN NAMED GOODS MADE OF VULCANIZED FIBER FOR ELECTRICAL PURPOSES. DIAMOND STATE FIBRE COMPANY, Elsmere, Del.
Filed August 31, 1912. Serial No. 65,538. PUBLISHED JULY 1, 1913.

93,268. BEER. MILTON L. EPPSTEIN, Fort Worth, Tex.
Filed May 29, 1913. Serial No. 70,757. PUBLISHED JULY 8, 1913.

93,269. LAXATIVE MINERAL WATERS AND BEVERAGE COMPOSITIONS MADE THEREFROM. FREDERICK H. FOWLER, Chicago, Ill.
Filed May 5, 1913. Serial No. 70,237. PUBLISHED JULY 1, 1913.

93,270. CIGARS. FRINGS BROS. CO., Philadelphia, Pa.
Filed January 9, 1912. Serial No. 60,795. PUBLISHED OCTOBER 29, 1912.

93,271. PAPER-CLIPS. THE FRITZ-TABER MFG. CO., New Bedford, Mass.
Filed April 12, 1913. Serial No. 69,736. PUBLISHED JULY 1, 1913.

93,272. SHAMPOO PREPARATION IN CRYSTAL FORM. GERVAISE GRAHAM, Chicago, Ill.
Filed February 10, 1913. Serial No. 68,431. PUBLISHED JULY 1, 1913.

93,273. OIL COMPOUND USED IN CUTTING AND SHAPING METALS AND RUST-PREVENTIVE. E. F. HOUGHTON & COMPANY, Philadelphia, Pa.
Filed January 29, 1913. Serial No. 68,180. PUBLISHED JULY 1, 1913.

93,274. HAIR SWITCHES, HAIR BANGS, AND HAIR WIGS. HYMAN & OPPENHEIM, New York, N. Y.
Filed May 8, 1913. Serial No. 70,297. PUBLISHED JULY 1, 1913.

93,275. LUBRICATING OILS AND GREASES. INVADER OIL COMPANY, Camden, N. J., and New York, N. Y.
Filed May 28, 1913. Serial No. 70,721. PUBLISHED JULY 8, 1913.

93,276. CERTAIN NAMED BEVERAGES. GEORGE KORNAHRENS, Charleston, S. C.
Filed March 17, 1913. Serial No. 69,103. PUBLISHED JULY 1, 1913.

93,277. REMEDY FOR HOG-CHOLERA. ANDREW J. KUEBER, Mount Vernon, Ind.
Filed April 24, 1913. Serial No. 70,036. PUBLISHED JULY 1, 1913.

93,278. ORANGE-JUICE. JACOB LASHELL, Coney Island, N. Y.
Filed June 6, 1913. Serial No. 70,905. PUBLISHED JULY 1, 1913.

93,279. CHICKEN FEED. JOSEPH E. LAWTHER, Dallas, Tex.
Filed March 3, 1913. Serial No. 68,819. PUBLISHED JULY 1, 1913.

93,280. ORANGES, LEMONS, GRAPE-FRUIT, LIMES, AND TANGERINES. LEE COUNTY PACKING CO., Fort Myers, Fla.
Filed November 12, 1912. Serial No. 66,867. PUBLISHED JULY 1, 1913.

93,281. CERTAIN FOODS. PIERRE CONSTANT LEMY, Paris, France.
Filed July 2, 1912. Serial No. 64,538. PUBLISHED JULY 1, 1913.

93,282. REMEDY FOR ABORTION AND STERILITY IN DOMESTIC ANIMALS. CHARLES H. MARTIN, New York, N. Y.
Filed February 5, 1913. Serial No. 68,326. PUBLISHED JULY 1, 1913.

93,283. CERTAIN FOODS. MASON, SANBORN & RAMSDELL CO., Boston, Mass.
Filed June 22, 1911. Serial No. 57,243. PUBLISHED JULY 1, 1913.

93,284. RAZOR-STROPS. MCGINNIS-MEEHAN CO., INC., New York, N. Y.
Filed October 5, 1912. Serial No. 66,163. PUBLISHED JULY 1, 1913.

93,285. REMEDY FOR COUGHS. HAZEN MORSE, New Rochelle, N. Y.
Filed January 11, 1913. Serial No. 67,849. PUBLISHED JULY 1, 1913.

93,286. CORSETS. NEUHAUSEL BRO'S, Toledo, Ohio.
Filed June 9, 1913. Serial No. 70,982. PUBLISHED JULY 1, 1913.

93,287. ROLLED OATS AND TOASTED CORN-FLAKES. NORTHERN ILLINOIS CEREAL COMPANY, Chicago, Ill.
Filed March 31, 1913. Serial No. 69,472. PUBLISHED JULY 1, 1913.

93,288. BEER. OBERMEYER & LIEBMANN, Brooklyn, N. Y.
Filed May 20, 1913. Serial No. 70,514. PUBLISHED JULY 8, 1913.

93,289. PAPER AND PASTE BOARD AND CORRUGATED PAPER AND PASTE BOARD. PARK NOVELTY COMPANY, Philadelphia, Pa.
Filed February 7, 1913. Serial No. 68,394. PUBLISHED JULY 1, 1913.

93,290. PIANOS AND PLAYER-PIANOS. PFLUEGER PIANO CO., INC., New York, N. Y.
Filed January 6, 1913. Serial No. 67,750. PUBLISHED JULY 1, 1913.

93,291. LACQUER. PITTSBURGH-HICKSON CO., Butler, Pa.
Filed May 14, 1913. Serial No. 70,422. PUBLISHED JULY 1, 1913.

93,292. SKIRTS AND PETTICOATS. MAX REISS, New York, N. Y.
Filed May 8, 1912. Serial No. 63,411. PUBLISHED JUNE 25, 1912.

93,293. BELTING, HOSE, AND PACKING. REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass.
Filed September 9, 1912. Serial No. 65,634. PUBLISHED JULY 1, 1913.

93,294. CERTAIN NAMED METAL COOKING UTENSILS AND OTHER HOUSEHOLD ARTICLES. RHENANIA VEREINIGTE EMAILLIERWERKE ACTIEN-GESELLSCHAFT, Dusseldorf, Germany.
Filed January 3, 1912. Serial No. 60,596. PUBLISHED JULY 1, 1913.

93,295. ELECTRIC HOISTS AND CRANES. HERMAN P. ROEPER, Reading, Pa.
Filed May 24, 1913. Serial No. 70,632. PUBLISHED JULY 1, 1913.

93,296. MOTION-PICTURE FILMS AND PROJECTING APPARATUS THEREFOR. RYNO FILM COMPANY, INC., New York, N. Y.
Filed May 28, 1913. Serial No. 70,732. PUBLISHED JULY 8, 1913.

93,297. TOILET-PAPER. SAUQUOIT TOILET PAPER CO. INC., New Hartford, N. Y.
Filed April 21, 1913. Serial No. 69,968. PUBLISHED JULY 1, 1913.

93,298. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed May 21, 1913. Serial No. 70,540. PUBLISHED JULY 1, 1913.

93,299. PHARMACEUTICAL PREPARATION. EUGEN SCHÄFFER, Berlin, Germany.
Filed January 30, 1913. Serial No. 68,219. PUBLISHED JULY 1, 1913.

93,300. PAPER TOWELS, PAPER NAPKINS, AND TOILET-PAPER. SCHERMERHORN BROS. CO., Omaha, Nebr.
Filed April 24, 1913. Serial No. 70,047. PUBLISHED JULY 1, 1913.

93,301. GERMAN WINE. ALEX. D. SHAW & CO., New York, N. Y.
Filed May 15, 1912. Serial No. 63,545. PUBLISHED JULY 1, 1913.

93,302. ELECTRICAL HORNS. THE SPARKS-WITHINGTON COMPANY, Jackson, Mich.
Filed April 25, 1913. Serial No. 70,068. PUBLISHED JULY 1, 1913.

93,303. CARBON-PAPER AND TYPE-WRITER RIBBONS. S. S. STAFFORD, INC., New York, N. Y.
Filed May 10, 1913. Serial No. 70,362. PUBLISHED JULY 1, 1913.

93,304. GLUE. CHARLES J. STEVENOT, New York, N. Y.
Filed May 24, 1913. Serial No. 70,636. PUBLISHED JULY 1, 1913.

93,305. SUGAR-WAFERS. THE GEO. H. STRIETMANN'S SONS COMPANY, Cincinnati, Ohio.
Filed April 17, 1913. Serial No. 69,869. PUBLISHED JULY 1, 1913.

93,306. CANDY. THE STUTZ CANDY COMPANY, Paducah, Ky.
Filed March 27, 1913. Serial No. 69,385. PUBLISHED JULY 1, 1913.

93,307. NIGHT-SHIRTS AND PAJAMAS. TAUBER, RYTTENBERG & CO., New York, N. Y.
Filed August 23, 1912. Serial No. 65,394. PUBLISHED JULY 1, 1913.

93,308. EMBROIDERY-HOOPS. THE THOMAS-PETER COMPANY, Canton, Ohio.
Filed May 16, 1913. Serial No. 70,457. PUBLISHED JULY 1, 1913.

93,309. LUBRICATING OIL AND GREASE. TIDE WATER OIL COMPANY, New York, N. Y.
Filed May 10, 1913. Serial No. 70,363. PUBLISHED JULY 1, 1913.

93,310. CANDIED POPCORN CONFECTION. WADSWORTH AND JENKINS, Cincinnati, Ohio.
Filed April 17, 1913. Serial No. 69,879. PUBLISHED JULY 1, 1913.

93,311. DRY PASTE AND READY-MIXED PAINTS, VARNISHES, AND PAINT-OILS. WADSWORTH, HOWLAND & CO., INCORPORATED, Boston, Mass.
Filed April 11, 1913. Serial No. 69,731. PUBLISHED JULY 1, 1913.

93,312. ORANGES AND GRAPE-FRUIT. FREDERICK D. WAITE, Palmetto, Fla.
Filed March 17, 1913. Serial No. 69,136. PUBLISHED JULY 1, 1913.

93,313. CIGARS. WALTERS & CO., London, England.
Filed April 15, 1913. Serial No. 69,816. PUBLISHED JULY 1, 1913.

93,314. WHEAT-FLOUR. J. A. WALTER MILLING CO., Buffalo, N. Y.
Filed April 17, 1913. Serial No. 69,880. PUBLISHED JULY 1, 1913.

93,315. CERTAIN NAMED PHARMACEUTICAL RUBBER GOODS. WHITALL TATUM COMPANY, New York, N. Y.
Filed May 10, 1913. Serial No. 70,364. PUBLISHED JULY 1, 1913.

93,316. CANNED FRUITS AND VEGETABLES. JOHN F. WHITE COMPANY, Mount Morris, N. Y.
Filed May 26, 1913. Serial No. 70,682. PUBLISHED JULY 1, 1913.

93,317. CERTAIN NAMED PAINTS AND PAINTERS' MATERIALS. THE CHARLES WILLIAM STORES, INC., New York, N. Y.
Filed April 17, 1913. Serial No. 69,871. PUBLISHED JULY 1, 1913.

TRADE-MARKS CANCELED.

55,739. CANNED SARDINES. U. H. DUDLEY & COMPANY, New York, N. Y.
Registered August 21, 1906. Canceled August 1, 1913.

66,914. CERTAIN FOODS. ALLEN BROTHERS COMPANY, Omaha, Nebr.
Registered January 7, 1908. Canceled July 29, 1913.

79,886. SILK NETTING IN THE PIECE. BAMBERG & RISSEE, New York, N. Y.
Registered October 18, 1910. Canceled August 1, 1913.

80,506. PENHOLDERS. GEORGE W. ALEXANDER, Baltimore, Md.
Registered January 3, 1910. Canceled August 8, 1913.

83,153. CIGARS. THE GRINSFELDER COMPANY, Spokane, Wash.
Registered August 22, 1911. Canceled July 29, 1913.

LABELS

REGISTERED SEPTEMBER 2, 1913.

17,204.—*Title:* "MORNING TONIC." (For Coffee.) CLARK & HOST CO., Milwaukee, Wis. Filed July 31, 1913.

17,205.—*Title:* "HIPPOPATROL A POWDER FOR REMEDY AND RELIEF FOR WIND BROKEN HORSES." (For a Veterinary Remedy.) PETER HOFFER, New York, N. Y. Filed May 16, 1913.

17,206.—*Title:* "ALMOND CHOCOLATE." (For Almond Chocolate.) KNICKERBOCKER CHOCOLATE CO., New York, N. Y. Filed July 24, 1913.

17,207.—*Title:* "YAZOO BRAND GINGER AND GIN CORDIAL." (For Cordial.) RHEINSTROM BROS., Cincinnati, Ohio. Filed May 20, 1913.

17,208.—*Title:* "MAPLEWOOD BRAND." (For Creamery-Butter.) THE ROCHESTER PRODUCE & COMMISSION CO., New York, N. Y. Filed October 29, 1912.

17,209.—*Title:* "A C S." (For Shirts.) SALANT & SALANT, New York, N. Y. Filed August 18, 1913.

17,210.—*Title:* "SULTANA FIG CHICORY COFFEE SUBSTITUTE." (For a Fig-Chicory Coffee Substitute.) JOSEPH A. SIBRAVA, Chicago, Ill. Filed July 24, 1913.

17,211.—*Title:* "VAN CAMP'S SUGAR CORN." (For Canned Corn.) THE VAN CAMP PACKING COMPANY, Indianapolis, Ind. Filed August 15, 1913.

17,212.—*Title:* "VAN CAMP'S GOLDEN PUMPKIN." (For Canned Pumpkin.) THE VAN CAMP PACKING COMPANY, Indianapolis, Ind. Filed August 15, 1913.

PRINTS

REGISTERED SEPTEMBER 2, 1913.

3,364.—*Title:* "TASTE THE FLAVOR." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed August 14, 1913.

3,365.—*Title:* "A RUN-AWAY RACE." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed August 14, 1913.

3,366.—*Title:* "SIGN OF EFFICIENCY." (For Tires.) THE PORTAGE RUBBER CO., Barberton, Ohio. Filed July 21, 1913.

REPORT

OF THE

COMMISSIONER OF PATENTS

TO CONGRESS

FOR THE YEAR ENDED DECEMBER 31, 1912.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 14, 1913.

To the Senate and House of Representatives of the United States of America in Congress assembled:

In compliance with section 494 of the Revised Statutes I have the honor to submit the following report of the business of the Patent Office for the year ended December 31, 1912:

RECEIPTS.

Detailed statement of all moneys received for patents, for copies of records or drawings, or from any source whatever.

Applications:	
Cash received	$1,830,291.00
Cash refunded	5,804.89
Net cash	1,824,486.11
Certificates of deposit	53,507.00
Total cash and certificates	1,877,993.11
Copies:	
Cash received	187,792.96
Cash refunded	4,408.13
Net cash	183,384.83
Certificates of deposit	1,295.90
Total cash and certificates	184,680.73
Recording assignments:	
Cash received	33,735.66
Cash refunded	1,660.60
Net cash	32,075.06
Certificates of deposit	161.00
Total cash and certificates	32,236.06
Registration of prints and labels:	
Cash received	7,143.00
Cash refunded	902.00
Net cash	6,241.00
Certificates of deposit	24.00
Total cash and certificates	6,265.00
Court costs:	
Cash received	25.00
Cash refunded	.....
Net cash	25.00
Certificates of deposit	.....
Total cash and certificates	25.00
Official Gazette and other publications	16,958.40
Aggregates.	
Cash received	2,075,946.02
Cash refunded	12,775.62
Net cash	2,063,170.40
Certificates of deposit	54,987.90
Total cash and certificates	2,118,158.30

EXPENDITURES.

Amounts expended under the several appropriations from January 1 to December 31.

	1911	1912
Salaries	$1,292,716.26	$1,304,124.30
Scientific library	2,253.65	2,374.58
International Union for Protection of Industrial Property	617.60	.....
Stationery	10,075.40	9,546.00
Postage on foreign matter	935.00	614.91
Furniture, carpets, ice, telephones, washing towels, and sundries	17,484.15	21,408.80
Law library	482.38	603.83
Photolithographing:		
Paid contractor	120,128.85	114,046.14
Paid Public Printer for old specifications	16,999.99	21,791.77
Printing and binding, for Official Gazette, indexes, printing specifications, and miscellaneous work	491,976.63	547,439.93
Defending suits, etc	20.00	115.85
Total	1,953,689.91	2,022,066.11

RECEIPTS AND EXPENDITURES.

Receipts from all sources	$2,118,158.30
Expenditures	2,022,066.11
Surplus	96,092.19

Surplus earnings of the Patent Office, deposited in the Treasury of the United States.

Amount of total net surplus in Treasury, January 1, 1912	$7,063,925.76
Net surplus for the year 1912	96,092.19
Total net surplus, December 31, 1912	7,160,017.95

SUMMARY OF THE BUSINESS OF THE PATENT OFFICE.

Applications for patents for inventions	68,968
Applications for patents for designs	1,850
Applications for reissues of patents	158
Total	70,976
Applications for registration of trade-marks	7,215
Applications for registration of labels	883
Applications for registration of prints	309
Disclaimers filed	15
Appeals on the merits	1,732
Total	10,156
Patents issued, including designs	37,573
Patents reissued	158
Total	37,731
Trade-marks registered	5,020
Labels registered	633
Prints registered	243
Total	5,896
Patents expired during the year	20,883
Applications forfeited for non-payment of final fees	7,494
Applications allowed, awaiting final fees	13,303
Trade-mark applications passed for publication	5,117

PATENTS ISSUED.

Patents issued to citizens of the United States, with the ratio of population to each patent granted.

States.	Patents and designs.	One to every—	States.	Patents and designs.	One to every—
Alabama	181	11,813	North Carolina	168	13,133
Arizona	65	3,144	North Dakota	151	3,822
Arkansas	135	11,063	Ohio	2,395	1,991
California	1,658	1,434	Oklahoma	259	6,398
Colorado	467	1,711	Oregon	278	2,420
Connecticut	969	1,150	Pennsylvania	3,356	2,284
Delaware	60	3,372	Rhode Island	279	1,945
Florida	124	6,070	South Carolina	84	1,040
Georgia	238	10,963	South Dakota	149	3,919
Idaho	94	3,464	Tennessee	210	10,404
Illinois	3,441	1,939	Texas	550	7,085
Indiana	776	3,481	Utah	122	3,060
Iowa	660	3,371	Vermont	67	5,312
Kansas	458	3,692	Virginia	276	7,470
Kentucky	238	9,621	Washington	538	2,128
Louisiana	204	8,120	West Virginia	209	5,843
Maine	128	5,800	Wisconsin	801	2,914
Maryland	315	4,112	Wyoming	38	3,841
Massachusetts	2,231	1,509			
Michigan	1,054	2,666	Alaska	5	12,871
Minnesota	609	3,408	Canal Zone	14	.....
Mississippi	101	17,793	District of Columbia	271	1,229
Missouri	1,152	2,859	Hawaii	30	6,397
Montana	116	3,242	Philippine Islands	9	.....
Nebraska	304	3,922	Porto Rico	4	279,503
Nevada	36	2,274	United States Army	5	.....
New Hampshire	101	4,263	United States Navy	17	.....
New Jersey	1,683	1,508			
New York	5,103	1,786	Total	[1]33,050	
New Mexico	64	5,114			

[1] Not including 158 reissues and 34 withdrawn.

Patents granted to citizens of foreign countries.

Argentina	9	Dutch East Indies	1	Madeira Island	2	Spanish Honduras	1
Austria-Hungary	160	Egypt	3	Mexico	36	Straits Settlements	1
Azores	1	England	952	Netherlands	21	Sweden	102
Barbados	1	Fiji Islands	1	Newfoundland	3	Switzerland	123
Belgium	46	France	399	New South Wales	39	Tasmania	4
Bermuda	1	Germany	1,558	New Zealand	40	Transvaal	25
Brazil	10	Gibraltar	1	Norway	23	Tunis	1
British West Indies	3	Greece	1	Persia	1	Turkey	1
Canada	579	Guatemala	6	Peru	3	Uruguay	2
Canary Islands	1	Haiti	1	Queensland	10	Venezuela	3
Cape Colony	3	India	7	Roumania	3	Victoria	44
China	2	Ireland	14	Russia	47	West Australia	6
Colombia	1	Italy	66	Scotland	74		
Cuba	15	Jamaica	1	South Australia	3	Total	4,489
Denmark	34	Japan	14	Spain	8		

The following tables present a comparative statement of the business of the Patent Office since the enactment of the statute of 1836 and exhibit in detail the business of the office during the last calendar year:

Comparative statement of the business of the Office from 1837 to 1912, inclusive.

Year.	Applications.	Caveats filed.	Patents and reissues.	Cash received.	Cash expended.	Surplus.
1837	.....	.....	435	$29,289.08	$33,506.98	.....
1838	.....	.....	520	42,123.54	37,338.92	$4,784.62
1839	.....	.....	425	38,019.97	34,543.51	3,476.46
1840	765	228	473	38,056.51	39,020.67	.....
1841	847	312	495	40,413.01	52,666.87	.....
1842	761	291	517	36,505.63	31,241.43	5,264.20
1843	819	315	519	35,315.81	30,776.96	4,538.85
1844	1,045	380	497	42,509.26	36,344.53	6,164.73
1845	1,246	452	503	51,076.14	39,395.65	11,680.49
1846	1,272	448	638	50,264.16	46,158.71	4,105.45
1847	1,531	533	569	63,111.19	41,878.35	21,232.84
1848	1,628	607	653	67,576.69	58,905.84	8,670.85
1849	1,955	595	1,077	80,752.78	77,716.44	3,036.34
1850	2,193	902	993	86,927.05	80,100.95	6,826.10
1851	2,258	760	872	95,738.61	86,916.93	8,821.68
1852	2,639	996	1,019	112,056.34	95,916.91	16,139.43
1853	2,673	901	961	121,527.45	132,869.83	.....
1854	3,324	868	1,844	163,789.84	167,146.32	.....
1855	4,435	906	2,013	216,459.35	179,540.33	36,919.02
1856	4,960	1,024	2,505	192,588.02	190,931.02	.....
1857	4,771	1,010	2,896	196,132.01	211,582.09	.....
1858	5,364	943	3,710	203,716.16	193,193.74	10,522.42
1859	6,225	1,079	4,538	245,942.15	210,278.41	35,663.74
1860	7,653	1,064	4,819	256,352.59	252,820.80	3,531.79
1861	4,643	700	3,340	137,354.44	221,491.91	.....
1862	5,038	824	3,521	215,754.99	182,810.39	32,944.06
1863	6,014	787	4,170	195,593.29	189,414.14	6,179.15
1864	6,972	1,063	5,020	240,919.98	229,868.00	11,051.98
1865	10,664	1,932	6,616	348,791.84	274,199.34	74,592.50

Comparative statement of the business of the Office from 1837 to 1912, inclusive—Continued.

Year.	Applications.	Caveats filed.	Patents and reissues.	Cash received.	Cash expended.	Surplus.
1866	15,269	2,723	9,450	$495,665.38	$361,724.28	$133,941.10
1867	21,276	3,597	13,015	646,581.92	639,263.32	7,318.60
1868	20,445	3,705	13,378	681,565.86	628,679.77	52,886.09
1869	19,271	3,624	13,986	693,145.81	486,430.74	206,715.07
1870	19,171	3,273	13,321	699,456.76	557,147.19	112,309.57
1871	19,472	3,366	13,033	678,716.46	562,091.64	116,624.82
1872	18,246	3,090	13,590	699,726.39	665,595.00	34,131.39
1873	20,414	3,248	12,864	703,191.77	691,178.98	12,012.79
1874	21,602	3,181	13,560	738,278.17	679,288.41	58,989.76
1875	21,638	3,094	14,837	743,453.36	721,657.71	21,795.65
1876	21,425	2,697	15,595	757,987.65	652,542.60	105,445.05
1877	20,308	2,809	14,187	732,342.85	613,152.62	119,190.23
1878	20,260	2,755	13,444	725,375.55	593,082.89	132,292.66
1879	20,059	2,620	13,213	703,931.47	529,638.97	174,292.50
1880	23,012	2,490	13,947	749,685.32	538,865.17	210,820.15
1881	26,059	2,406	16,584	853,665.89	605,173.28	248,492.61
1882	31,522	2,553	19,267	1,009,219.45	683,867.67	325,351.78
1883	34,576	2,741	22,383	1,146,240.00	675,234.86	471,005.14
1884	35,600	2,582	20,413	1,075,798.80	970,579.76	105,219.04
1885	35,717	2,552	24,233	1,188,089.15	1,024,378.85	163,710.30
1886	35,968	2,513	22,508	1,154,551.40	992,503.45	162,047.95
1887	35,613	2,622	21,477	1,144,509.60	994,472.22	150,037.38
1888	35,797	2,251	20,506	1,118,516.10	973,108.78	145,407.32
1889	40,575	2,481	24,158	1,281,728.05	1,052,955.96	228,772.09
1890	41,048	2,311	26,292	1,340,372.66	1,099,297.74	241,074.92
1891	40,552	2,408	23,244	1,271,285.78	1,139,713.35	131,572.43
1892	40,753	2,290	23,559	1,286,331.88	1,110,739.24	175,592.59
1893	38,473	2,247	23,709	1,242,871.64	1,141,038.45	101,833.19
1894	38,439	2,286	20,867	1,187,439.58	1,100,047.12	87,392.46
1895	40,680	2,415	22,057	1,245,246.93	1,106,389.49	138,857.44
1896	43,982	2,271	23,373	1,324,059.83	1,113,413.71	210,646.12
1897	47,905	2,176	23,794	1,375,641.72	1,122,843.13	252,798.59
1898	35,842	1,659	22,267	1,137,734.48	1,136,196.20	1,538.28
1899	41,443	1,716	25,527	1,325,457.03	1,211,783.73	113,673.30
1900	41,980	1,731	26,499	1,350,828.53	1,260,019.62	90,808.91
1901	46,449	1,842	27,373	1,449,398.16	1,297,385.64	152,012.52
1902	49,641	1,851	27,886	1,552,859.08	1,393,345.54	159,513.54
1903	50,213	1,771	31,699	1,642,201.81	1,448,645.81	193,156.00
1904	52,143	1,808	30,934	1,657,326.53	1,476,000.38	181,326.15
1905	54,971	1,896	30,399	1,806,758.14	1,479,633.22	327,124.92
1906	56,482	1,885	31,965	1,790,921.38	1,554,891.20	236,030.18
1907	58,762	1,967	36,620	1,910,618.14	1,631,458.36	279,159.78
1908	61,475	2,110	33,682	1,896,847.67	1,712,303.42	184,544.25
1909	65,839	1,948	37,421	2,042,828.14	1,955,151.14	87,677.00
1910	64,629	970	35,930	2,025,836.69	2,005,711.94	19,824.75
1911	69,121	.....	34,084	2,019,388.03	1,953,689.91	65,698.12
1912	70,976	.....	37,731	2,118,158.30	2,022,066.11	96,092.19

Statement showing the number of the first patent, design patent, and reissued patent, and the number of the first certificate of registration of a trade-mark, label, and print issued in each calendar year since July 28, 1836, when the present series of numbers of letters patent commenced, together with the total number of each issued during the year.

[The number of patents granted prior to the commencement of this series of numbering (July 28, 1836) was 9,957.]

Calendar year.	Number of first patent and certificate issued in each calendar year.						Number of patents and certificates of registration issued during each calendar year.							
	Patents.	Designs.	Reissues.	Trade-marks.	Labels.	Prints.	Patents.	Designs.	Reissues.	Total patents.	Trade-marks.	Labels.	Prints.	Total certificates.
1836 (July 28)	1	.....	.....	.....	.....	.....	109	.....	.....	.....	.....	.....	.....	.....
1837	110	.....	.....	.....	.....	.....	436	.....	.....	.....	.....	.....	.....	.....
1838	546	.....	1	.....	.....	.....	515	.....	6	.....	.....	.....	.....	.....
1839	1,061	.....	7	.....	.....	.....	404	.....	13	.....	.....	.....	.....	.....
1840	1,465	.....	20	.....	.....	.....	458	.....	10	.....	.....	.....	.....	.....
1841	1,923	.....	30	.....	.....	.....	490	.....	6	.....	.....	.....	.....	.....
1842	2,413	.....	36	.....	.....	.....	488	.....	13	.....	.....	.....	.....	.....
1843	2,901	1	49	.....	.....	.....	494	14	11	519	.....	.....	.....	.....
1844	3,395	15	60	.....	.....	.....	478	12	7	497	.....	.....	.....	.....
1845	3,873	27	67	.....	.....	.....	475	17	11	503	.....	.....	.....	.....
1846	4,348	44	78	.....	.....	.....	566	59	13	638	.....	.....	.....	.....
1847	4,914	103	91	.....	.....	.....	495	60	14	569	.....	.....	.....	.....
1848	5,409	163	105	.....	.....	.....	584	46	23	653	.....	.....	.....	.....
1849	5,993	209	128	.....	.....	.....	985	49	30	1,067	.....	.....	.....	.....
1850	6,981	258	158	.....	.....	.....	884	83	26	993	.....	.....	.....	.....
1851	7,865	341	184	.....	.....	.....	757	90	25	872	.....	.....	.....	.....
1852	8,622	431	209	.....	.....	.....	890	109	20	1,019	.....	.....	.....	.....
1853	9,512	540	229	.....	.....	.....	846	86	29	961	.....	.....	.....	.....
1854	10,358	626	258	.....	.....	.....	1,759	57	28	1,844	.....	.....	.....	.....
1855	12,117	683	286	.....	.....	.....	1,892	70	51	2,013	.....	.....	.....	.....
1856	14,009	753	337	.....	.....	.....	2,315	107	83	2,505	.....	.....	.....	.....
1857	16,324	860	420	.....	.....	.....	2,686	113	97	2,896	.....	.....	.....	.....
1858	19,010	973	517	.....	.....	.....	3,467	102	126	3,695	.....	.....	.....	.....
1859	22,477	1,075	643	.....	.....	.....	4,165	108	231	4,504	.....	.....	.....	.....
1860	26,642	1,183	674	.....	.....	.....	4,363	183	232	4,778	.....	.....	.....	.....
1861	31,005	1,366	1,106	.....	.....	.....	3,040	142	147	3,329	.....	.....	.....	.....
1862	34,045	1,508	1,253	.....	.....	.....	3,221	195	116	3,532	.....	.....	.....	.....

Statement showing the number of the first patent, design patent, and reissue patent, etc.—Continued.

Calendar year.	Number of first patent and certificate issued in each calendar year.						Number of patents and certificates of registration issued during each calendar year.							
	Patents.	Designs.	Reissues.	Trade-marks.	Labels.	Prints.	Patents.	Designs.	Reissues.	Total patents.	Trade-marks.	Labels.	Prints.	Total certificates.
1863	37,266	1,703	1,369				3,781	176	227	4,184				
1864	41,047	1,579	1,596				4,698	139	248	5,025				
1865	45,985	2,018	1,844				6,069	221	296	6,616				
1866	51,784	2,239	2,140				8,874	294	290	9,458				
1867	60,658	2,533	2,430				12,301	325	400	13,026				
1868	72,959	2,858	2,830				12,544	446	420	13,410				
1869	85,503	3,304	3,250				12,957	506	534	13,997				
1870	98,460	3,810	3,784	1			12,157	737	439	13,333	121			121
1871	110,617	4,547	4,223	122			11,687	905	464	13,056	486			486
1872	122,304	5,452	4,687	908			12,200	884	529	13,613	491			491
1873	134,504	6,336	5,216	1,099			11,616	747	301	12,664	492			492
1874	146,120	7,083	5,717	1,591	1		12,230	886	483	13,599	559	232		791
1875	158,350	7,969	6,200	2,150	233		13,291	915	631	14,837	1,138	232		1,370
1876	171,641	8,884	6,831	3,283	465		14,172	802	621	15,595	959	472		1,431
1877	185,813	9,686	7,452	4,247	937		12,920	699	568	14,187	1,216	392		1,608
1878	198,733	10,385	8,020	5,463	1,329		12,345	590	509	13,444	1,455	492		1,947
1879	211,078	10,975	8,529	6,918	1,821		12,133	592	488	13,213	872	355		1,227
1880	223,211	11,567	9,017	7,790	2,176		12,936	515	506	13,947	349	203		552
1881	336,137	12,082	9,523	8,139	2,379		15,548	565	471	16,584	834	202		1,036
1882	251,685	12,647	9,994	8,973	2,581		18,135	861	271	19,267	947	304		1,251
1883	269,820	13,508	10,265	9,920	2,885		21,196	1,020	167	22,383	902	906		1,808
1884	291,916	14,528	10,432	10,822	3,791		19,147	1,150	116	20,413	1,021	513		1,534
1885	310,163	15,678	10,548	11,843	4,304		23,331	773	129	24,233	1,067	391		1,458
1886	333,494	16,451	10,677	12,910	4,695		21,797	595	116	22,508	1,029	378		1,407
1887	355,291	17,046	10,793	13,939	5,073		20,429	949	99	21,477	1,133	380		1,513
1888	375,720	17,995	10,892	15,072	5,453		19,585	835	86	20,506	1,059	327		1,386
1889	395,305	18,830	10,978	16,131	5,780		23,360	723	75	24,158	1,229	319		1,548
1890	418,665	19,553	11,053	17,360	6,099		25,322	886	84	26,292	1,415	304		1,719
1891	443,987	20,439	11,137	18,775	6,403		22,328	836	80	23,244	1,762	137		1,899
1892	466,315	21,275	11,217	20,537	6,540		22,661	817	81	23,559	1,737	[1]6		1,743
1893	488,976	22,066	11,268	22,274	None.	1	22,798	902	99	23,799	1,877	None.	2	1,879
1894	511,744	22,994	11,397	23,951	None.	3	19,875	928	64	20,857	1,806	None.	4	1,810
1895	531,619	23,922	11,461	25,757	None.	7	20,883	1,115	59	22,057	1,829	None.	3	1,832
1896	552,502	25,037	11,520	27,586	6,546	10	21,807	1,445	61	23,273	1,813	1	32	1,846
1897	574,369	26,482	11,581	29,399	6,547	42	22,098	1,631	65	23,794	1,671	14	16	1,701
1898	596,467	28,113	11,646	31,070	6,561	58	20,404	1,803	60	22,267	1,238	200	35	1,473
1899	616,871	29,916	11,706	32,308	6,761	93	23,296	2,139	92	25,527	1,649	511	100	2,260
1900	640,167	32,055	11,798	33,957	7,272	193	24,660	1,788	81	26,499	1,721	737	93	2,551
1901	664,827	33,813	11,879	35,678	8,009	296	25,536	1,734	81	27,373	1,928	878	159	2,965
1902	690,385	35,547	11,960	37,606	8,887	445	27,136	640	110	27,886	2,006	767	158	2,931
1903	717,521	36,187	12,070	39,612	9,654	603	31,046	536	117	31,699	2,186	990	270	3,446
1904	748,567	36,723	12,189	41,798	10,644	873	30,267	557	110	30,934	2,158	1,114	297	3,569
1905	778,834	37,280	12,299	43,956	11,758	1,170	29,784	486	129	30,399	4,490	830	359	5,679
1906	808,618	37,766	12,428	48,446	12,588	1,529	31,181	625	159	31,965	10,568	709	656	11,933
1907	839,799	38,391	12,587	59,014	13,297	1,874	35,890	589	151	36,620	7,878	667	315	8,860
1908	875,679	38,980	12,748	66,892	13,964	2,189	32,757	757	168	33,682	5,191	618	220	6,029
1909	908,436	39,737	12,906	72,083	14,582	2,409	36,574	687	160	37,421	4,184	492	148	4,824
1910	945,010	40,424	13,066	72,267	15,074	2,557	35,166	639	123	35,930	4,239	370	120	4,729
1911	980,178	41,063	13,189	80,506	15,444	2,677	32,917	1,010	157	34,084	4,205	659	248	5,112
1912	1,013,095	42,073	13,346	84,711	16,103	2,925	36,231	1,342	158	37,731	5,020	633	243	5,896

[1] Registration of labels practically suspended May 27, 1891, under decision of the United States Supreme Court in *Higgins et al. v. Keuffel et al.* (55 O. G., 1139) with the registration of No. 6,545, June 14, 1892. Resumed June 9, 1896, with the registration of No. 6,546.

First print registered Mar. 7, 1869.

Expenditures for photolithographic and photographic work since 1906-7.

Fiscal year.	Contractor.	Price per page. Current issue.	Reproduction of exhausted copies.	Library edition.	Photographic copies.	Total.
1906–1907	Norris Peters Co.	[1] $0.80 [2] .65				$140,000.00
	Norris Peters Co.		[3] $0.57 [4] .85			
	A. B. Graham Co.			[5] $1.22		
	E. L. Parker				[6] $0.08 [7] .13	
1907–1908	Norris Peters Co.	[1] .77 [2] .64				$140,000.00
	J. A. Eckert		[3] .50 [4] .67			
	Columbia Planograph Co.			[5] 1.15		
	H. A. Farnham				[8] .09 [7] .13	

Expenditures for photolithographic and photographic work since 1906-7.—Continued.

Fiscal year.	Contractor.	Price per page. Current issue.	Reproduction of exhausted copies.	Library edition.	Photographic copies.	Total.
1908–1909	Norris Peters Co.	[1] $0.71½ [2] .57½				$140,000.00
	Sackett & Wilhelms Co.		Spec. [3] $0.42½ [4] .53 Drg. [5] .43½ [4] .55			
	Columbia Planograph Co.			[9] $0.98		
	F. W. Ernst				[9] $0.12	
	C. Parker				[7] .16	
	A. B. Graham Co.	[1] .74				
	A. B. Graham Co.			[9] 1.00		
	Norris Peters Co.	[2] .61				
1909–1910	Sackett & Wilhelms Co.		[3] .44½ [4] .57			140,000.00
	F. W. Ernst				[9] .12	
	Leet Brothers				[7] .15	
	Norris Peters Co.	[1] .79				
	Webb & Bocorselski	[2] .52				
1910–1911	Sackett & Wilhelms Co.		[3] .49½ [4] .58			140,000.00
	Sackett & Wilhelms Co.			[9] .95		
	Leet Bros.				[9] .11½ [7] .11½	
1911–1912	Columbia Planograph Co.	[1] .73 [10] .50				140,000.00
	Sackett & Wilhelms Co.		[3] .50½ [4] .60			
	Sackett & Wilhelms Co.			[9] .89		
	F. W. Ernst				[9] .09½ [7] .10½	
1912–1913	Columbia Planograph Co.	[1] .63 [2] .50				[8]140,000.00
	Sackett & Wilhelms Co.		[3] .52 [4] .60			
	F. W. Ernst				[9] .09 [7] .10	

[1] For 100 thin, 2 thick, and 1 bond copies.
[2] For 50 thin, 2 thick, and 1 bond copies of trade-marks and designs.
[3] For 50 copies each, mechanical and design patents and trade-marks.
[4] For 100 copies each, mechanical and design patents and trade-marks.
[5] For 150 copies.
[6] Size, 7 x 11 in.
[7] Size, 10 x 15 in.
[8] Estimated.
[9] Size, 8 x 12½ in.
[10] Designs.

Number of patents issued by the United States and foreign countries from the earliest period to December 31, 1912.

[Foreign figures for 1912 estimated.]

Country.	To 1871, inclusive.	1871 to 1912.	Total.	Country.	To 1871, inclusive.	1871 to 1912.	Total.
Argentina	83	11,282	11,365	Luxemburg	.....	9,798	9,798
Australia	.....	12,004	12,004	Malta	.....	94	94
Austria	.....	76,143	76,143	Mauritius	113	297	410
Austria-Hungary	15,350	67,583	82,933	Mexico	22	12,322	12,344
Bahamas	.....	2	2	Netherlands	4,535	.....	4,535
Barbados	.....	150	150	Newfoundland	40	433	473
Belgium	35,044	255,115	290,159	New South Wales	236	11,740	11,976
Bolivia	42	65	107	New Zealand	109	15,078	15,187
Brazil	185	7,931	8,116	Norway	737	23,849	24,586
British Guiana	32	94	126	Paraguay	.....	95	95
British Honduras	1	19	20	Peru	.....	160	160
Canada	4,081	146,608	150,689	Portugal	245	7,693	7,938
Ceylon	58	764	822	Queensland	67	6,368	6,435
Chile	266	2,274	2,540	Russia	1,464	28,999	30,463
Colombia	.....	1,043	1,043	St. Helena	.....	4	4
Congo Free State	.....	259	259	South African Republics	.....	1,262	1,262
Costa Rica	.....	67	67	South Australia	123	6,221	6,344
Cuba	.....	1,374	1,374	Spain	.....	49,611	49,611
Denmark	464	23,760	24,224	Straits Settlements	.....	280	280
Ecuador	.....	10	10	Sweden	1,629	36,206	37,835
Fiji Islands	.....	45	45	Switzerland	.....	57,656	57,656
Finland	112	4,364	4,476	Tasmania	43	2,426	2,469
France	103,934	368,466	472,400	Transvaal	.....	3,355	3,355
Germany	9,998	262,073	272,069	Trinidad	6	236	242
Great Britain	53,408	404,735	458,143	Tunis	.....	941	941
Guatemala	.....	57	57	Turkey	.....	2,260	2,260
Hawaii	.....	148	148	Uruguay	.....	420	420
Hongkong	.....	210	210	Venezuela	.....	258	258
Hungary	.....	54,874	54,874	Victoria	822	12,462	13,285
India	445	12,262	12,707	West Australia	.....	3,524	3,524
Italy and Sardinia	4,723	111,137	115,860				
Jamaica	22	249	271	Total foreign	238,437	2,112,466	2,350,903
Japan	.....	23,210	23,210	United States	120,573	938,709	[1]1,059,282
Leeward Islands	.....	26	26				
Liberia	.....	2	2	Grand total	359,010	3,051,175	3,410,185

[1] Including 9,957 patents issued prior to July 1, 1836.

The following comparison between the receipts, expenditures, applications filed, issues of the Office, the printed copies sold, copies of records furnished, and the number of employees for the years ended, respectively, December 31, 1899, and December 31, 1912, illustrates the growth of the business of the Patent Office:

Class.	1899.	1912.	Increase.	Percentage of increase.
Receipts	$1,325,457.03	$2,118,158.30	$792,701.27	59.8
Expenditures	$1,211,783.73	$2,022,066.11	$810,282.38	66.8
Applications (including caveats in 1899)	45,990	79,385	33,395	72.6
Letters patent, design and reissue patents granted, and trade-marks, labels, and prints registered	27,787	43,627	15,840	57
Printed copies of patents sold	1,451,519	2,437,441	985,922	67.9
Price received	$50,201.11	$112,283.25	$62,082.14	123.6
Words written in copies of records furnished	13,575,650	28,355,700	14,780,050	108.8
Number of employees	663	939	276	41.6

In 1912 there were received 68,968 applications for mechanical patents, 1,850 applications for design patents, 158 applications for reissues of patents, 7,215 applications for registration of trade-marks, 885 applications for registration of labels, and 309 applications for registration of prints. There were 37,573 patents issued, including designs, 158 patents reissued, and 5,020 trade-marks, 633 labels, and 243 prints registered. The number of patents that expired was 20,883. The number of allowed applications awaiting the payment of final fees was 13,303, and the number forfeited for non-payment of the final fees 7,494. The total receipts were $2,118,158.30, the expenditures $2,022,066.11, and the surplus of receipts over expenditures $96,092.19. The total balance to the credit of the Patent Office in the Treasury of the United States on December 31, 1912, was $7,160,017.95.

In proportion to population more patents were issued to citizens of Connecticut than to those of any other State—1 to every 1,150. Next in order are the following: District of Columbia, 1 to every 1,229; California, 1 to every 1,434; New Jersey, 1 to every 1,508; Massachusetts, 1 to every 1,509; Illinois, 1 to every 1,639; Colorado, 1 to every 1,711; New York, 1 to every 1,786; Rhode Island, 1 to every 1,945; Ohio, 1 to every 1,991; Washington, 1 to every 2,123; Nevada, 1 to every 2,274; Pennsylvania, 1 to every 2,284; Oregon, 1 to every 2,420; Michigan, 1 to every 2,666; Missouri, 1 to every 2,859; Wisconsin, 1 to every 2,914; Utah, 1 to every 3,060; Arizona, 1 to every 3,144; Montana, 1 to every 3,242; Iowa, 1 to every 3,371; Delaware, 1 to every 3,372; Minnesota, 1 to every 3,408; Idaho, 1 to every 3,464; Indiana, 1 to every 3,481; Kansas, 1 to every 3,692; North Dakota, 1 to every 3,822; Wyoming, 1 to every 3,841; South Dakota, 1 to every 3,919; Nebraska, 1 to every 3,922; Maryland, 1 to every 4,112; New Hampshire, 1 to every 4,263; New Mexico, 1 to every 5,114; Vermont, 1 to every 5,312; Maine, 1 to every 5,800; West Virginia, 1 to every 5,843; Florida, 1 to every 6,070; Hawaii, 1 to every 6,397; Oklahoma, 1 to every 6,398; Texas, 1 to every 7,085; Virginia, 1 to every 7,470; Louisiana, 1 to every 8,120; Kentucky, 1 to every 9,621. The fewest patents granted in proportion to the number of inhabitants were in the following States and Territories: Porto Rico, 1 to every 279,503; South Carolina, 1 to every 18,040; Mississippi, 1 to every 17,793; North Carolina, 1 to every 13,133; Alaska, 1 to every 12,871; Alabama, 1 to every 11,813; Arkansas, 1 to every 11,663; Georgia, 1 to every 10,963, and Tennessee, 1 to every 10,404.

As to foreign patents, 1,558 were granted to citizens of Germany; 952 to those of England; 579 to those of Canada; 369 to those of France; 160 to those of Austria-Hungary; 125 to those of Switzerland; 102 to those of Sweden; 74 to those of Scotland; 66 to those of Italy; 47 to those of Russia; 46 to those of Belgium; 44 to those of Victoria; 40 to those of New Zealand; 39 to those of New South Wales; 36 to those of Mexico; 34 to those of Denmark; 25 to those of Transvaal; 23 to those of Norway; 21 to those of the Netherlands; 15 to those of Cuba; 14 each to those of Ireland and Japan; 10 each to those of Brazil and Queensland; 9 to those of Argentina; 8 to those of Spain; 7 to those of India; 6 each to those of Guatemala and West Australia; 4 to those of Tasmania; 3 each to those of British West Indies, Cape Colony, Egypt, Newfoundland, Peru, Roumania, South Australia, and Venezuela; 2 each to those of China, Madeira Island, and Uruguay; 1 each to those of the Azores, Barbados, Bermuda, Canary Islands, Colombia, Dutch East Indies, Fiji Islands, Gibraltar, Greece, Haiti, Jamaica, Persia, Spanish Honduras, Straits Settlements, Tunis, and Turkey.

Respectfully submitted.

EDWARD B. MOORE,
Commissioner of Patents.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 11, 1913.

H. W. Taylor & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of J. C. Ayer Company, of 176 Middle street, Lowell, Mass., for registration of a trade-mark and trade-mark registered August 9, 1881, No. 8,556, to H. W. Taylor & Co., New York, N. Y., and a notice of such declaration sent by registered mail to said H. W. Taylor & Co. at the said address having been returned undelivered, notice is hereby given that unless the said H. W. Taylor & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 21, 1913.

The name of J. S. Zerbe, formerly of Los Angeles, Cal., has this day been stricken from the roll of attorneys registered to practise before the Patent Office. Mr. Zerbe will not hereafter be allowed to represent applicants for patents in any matters pending in the United States Patent Office.

THOMAS EWING,
Commissioner.

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 194—No. 2. TUESDAY, SEPTEMBER 9, 1913. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF SEPTEMBER 9, 1913.

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Designs	23—No.	44,626 to No.	44,648, inclusive.
Trade-Marks	88—No.	93,318 to No.	93,405, inclusive.
Labels	None.		
Prints	None.		
Reissues	3—No.	13,613 to No.	13,615, inclusive.
Total	784		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	1	North Carolina	5	.....
Arizona	1	.....	North Dakota	1	1
Arkansas	1	.....	Ohio	39	5
California	29	2	Oklahoma	2	2
Colorado	9	.....	Oregon	3	2
Connecticut	23	.....	Pennsylvania	57	8
Delaware	.....	.....	Rhode Island	4	1
Florida	2	2	South Carolina	1	.....
Georgia	4	.....	South Dakota	2	.....
Idaho	4	1	Tennessee	3	1
Illinois	68	12	Texas	7	.....
Indiana	8	2	Utah	4	.....
Iowa	5	3	Vermont	1	.....
Kansas	9	.....	Virginia	2	1
Kentucky	8	.....	Washington	10	1
Louisiana	1	.....	West Virginia	7	.....
Maine	3	.....	Wisconsin	15	.....
Maryland	7	1	Wyoming	2	.....
Massachusetts	46	7			
Michigan	22	2	Alaska, District of	.....	.....
Minnesota	10	.....	Canal Zone	.....	.....
Mississippi	1	.....	District of Columbia	3	.....
Missouri	23	1	Hawaii Territory	.....	.....
Montana	6	.....	Philippine Islands	.....	.....
Nebraska	2	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	28	3			
New Mexico	.....	.....	Total to residents of the United States	617	81
New York	117	22			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	.....
Austria-Hungary	3	.....	Newfoundland	.....	.....
Belgium	1	.....	New South Wales	1	.....
British India	1	.....	New Zealand	1	.....
Brazil	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Portugal	.....	.....
Canada	11	.....	Queensland	.....	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	.....	.....
Costa Rica	.....	.....	Scotland	1	.....
Cuba	.....	.....	South Australia	.....	.....
Denmark	1	.....	Spain	.....	.....
Dominican Republic	.....	.....	Sweden	1	.....
England	21	2	Switzerland	2	.....
France	6	1	Transvaal, South Africa	.....	.....
Germany	20	4	Victoria	.....	.....
India	.....	.....	Western Australia	.....	.....
Ireland	1	.....			
Italy	2	.....	Total to residents of foreign countries	75	7
Japan	.....	.....			
Mexico	1	.....			

Accession of Ceylon, Trinidad, and Tobago to the Arrangement of Madrid.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 2, 1913.

The following communication from the Secretary of State is published for the information of those concerned:

THOMAS EWING,
Commissioner.

The Honorable the Secretary of the Interior.

SIR: I have the honor to inform you that this Department is advised by the Swiss Minister at this capital, in a note dated the 14th instant, that notice has been given to his Government of the accession of Ceylon and Trinidad and Tobago to the Arrangement of Madrid of 1891 as revised at Washington on June 2, 1911.

I have the honor to be, sir, your obedient servant,
For the Secretary of State:

ALVEY A. ADEE,
Second Assistant Secretary.

Correspondence by Mail.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 5, 1913.

Notice is hereby given to attorneys and others transacting business with the Patent Office that all mail-matter arriving at the Washington post-office up to the hour of closing business at the Patent Office each day will be entered as received on that day.

THOMAS EWING,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 6, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	June 30	July 2	781
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	May 2	July 28	655
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Aug. 7	Aug. 23	182
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	May 29	June 19	718
167	5. Bookbinding; Harvesters; Jewelry; Music.	May 27	June 14	621
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	May 29	July 1	787
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Mar. 18	June 4	1109
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 11	July 25	930
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Mar. 31	July 18	742
235	10. Carriages and Wagons	Apr. 8	June 20	1162
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	July 18	July 23	328
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 30	May 21	1546
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 23	June 27	699
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 2	Aug. 7	569
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Mar. 13	June 17	1607
109	16. Radiant Energy; Telegraphy; Telephony.	Apr. 15	June 5	535
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	July 11	Aug. 4	327
227	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 27	June 27	262
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 12	June 21	697

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 22	July 14	282
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 2	May 1	779
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 26	June 30	446
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	June 7	July 7	427
144	24. Apparel; Apparel Apparatus; Sewing Machines.	July 2	July 5	621
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	July 16	July 28	257
106	26. Electricity, Generation; Motive Power.	Apr. 10	May 17	580
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	July 17	July 17	466
65	28. Internal-Combustion Engines	Mar. 20	May 1	1086
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	May 1	May 1	644
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	June 18	July 18	376
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	June 2	June 2	460
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 7	July 11	511
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	May 9	May 26	409
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	June 2	June 25	641
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Apr. 21	July 21	945
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	June 10	June 4	990
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 30	May 19	1025
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Apr. 28	June 16	902
321	39. Water Distribution	May 31	July 16	509
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 24	July 1	1205
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	June 24	Aug. 1	454
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Mar. 19	May 3	976
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	July 21	July 18	358

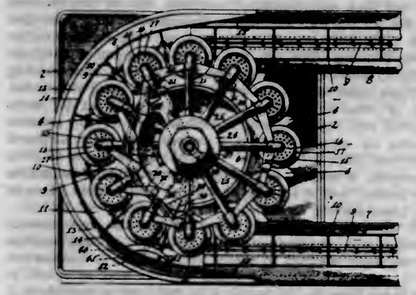
Oldest new case, Dec. 30; oldest amended, May 1.
Total number of applications awaiting action..... 29,606

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 19	Aug. 6	906
	Designs	July 21	Aug. 1	207
	Labels and Prints	Aug. 25	July 29	41

PATENTS

GRANTED SEPTEMBER 9, 1913.

1,072,412. SYRUPER. WILLIAM C. ANDERSON and ALBERT R. THOMPSON, San Jose, Cal., assignors to Anderson-Barngrover Mfg. Co., San Jose, Cal., a Corporation of California. Filed Apr. 24, 1911. Serial No. 622,898. (Cl. 226—9.)



1. In a syruper, the combination of a traveling support for the cans; means for tilting the cans as they travel; means for confining the fruit in the tilted cans while traveling; and syrup-supplying means traveling with the cans for delivering syrup to them as they travel in tilted position.

2. In a syruper, the combination of a traveling support for the cans; means for tilting the cans as they travel; perforated presser-caps adapted to cover the tops of the cans while traveling in tilted position; and syrup supplying means adapted to deliver the syrup through the presser-caps to the cans as said cans travel in tilted position.

3. In a syruper, the combination of a traveling support for the cans; means for tilting the cans as they travel; means for confining the fruit in the tilted cans while traveling; syrup-supplying means for said cans as they travel in tilted position; controlling means to control said syrup supplying means; and means called into operation by the traveling cans for automatically operating said controlling means.

4. In a syruper, the combination of a rotatable can carrier provided with seats for carrying the cans; means for tilting the cans to cause the surplus material to be discharged; and syrup supplying pipes rotating with said carrier and so disposed relatively to the cans as to deliver the syrup to them while they are traveling in a tilted position.

5. In a syruper, the combination of a rotatable can carrier provided with seats for carrying the cans; means for tilting the cans as they travel; means for confining the fruit in the cans while traveling in tilted position; and syrup supplying pipes rotating with said carrier for delivering syrup through the fruit confining means to the cans while they are traveling in a tilted position.

[Claims 6 to 21 not printed in the Gazette.]

1,072,413. REFRACTORY MATERIAL. WALTER ARTHUR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 6, 1912. Serial No. 718,824. (Cl. 204—64.)

1. A soft, coherent, refractory sublimation product, consisting largely of fine particles felty in texture, having a specific thermal resistance of about 900–1200 thermal ohms per inch cube and containing silicon, oxygen, carbon, and small amounts of metal.

2. A coherent, bluish-gray refractory material, having a low specific thermal resistance, a low thermal temperature coefficient, containing silicon, oxygen, carbon, and manganese, and having the property of hardening upon standing.

1,072,414. REFRACTORY MATERIAL. WALTER ARTHUR, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 6, 1912. Serial No. 718,825. (Cl. 204—64.)

1. The process which consists in subjecting a mixture of silica, carbon and a refractory metallic compound to the reduction temperature in an electric furnace, and condensing the resulting vapor in an inert environment.

2. The process which consists in heating a mixture of silica, carbon and titania in an electric arc, and condensing the resulting vapors in an inert environment.

3. The process which consists in heating 15 parts silica, 12 parts carbon and 20 parts titanium oxid to the temperature of the electric arc and condensing the resulting vapors in an inert environment.

4. A flabby, coherent refractory material containing silicon, carbon and oxygen, consisting very largely of a soft powder and containing interlacing fiber-like crystals.

5. A refractory soft, flabby sublimation product, grayish in color, and containing silicon, carbon, oxygen, and titanium.

[Claims 6 to 8 not printed in the Gazette.]

1,072,415. PRESSURE-GAGE. HARUTUN B. AZADIAN, Syracuse, N. Y., assignor to Akabi R. Azadian, Syracuse, N. Y. Filed May 20, 1909. Serial No. 497,291. (Cl. 73—109.)



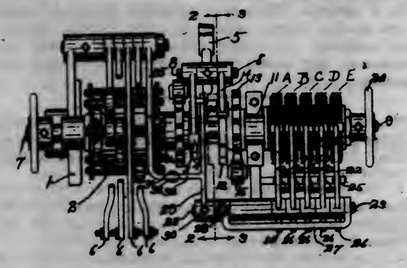
1. In a pressure-gage of the class specified, the combination with a suitably sustained disk and a dial supported in front of the disk, of a post secured to the disk near the edge thereof, a pointer pivoted to said post, an oscillating lever pivoted to the post, pressure-controlled means for actuating the lever, and means for connecting the pointer adjustably to the lever as set forth.

2. In a pressure-gage of the type specified, the combination with a suitably supported disk, and a circular-shaped flattened air-tube attached at one end to the disk, of a post secured to the disk adjacent to the attached end of the tube, two connected levers mounted on the post, a pointer pivoted at one end to the post and actuated by one lever, and means connecting the free end of the said tube to the other lever for operating the latter as set forth.

3. In a pressure-gage of the type specified, the combination with a suitably supported disk and a circular-shaped flattened air-tube rigidly attached at one end to said disk,

of a post rigidly mounted on the disk, two levers pivoted to the respective end portions of the post and connected by an integral bar disposed adjacent to and parallel with the post, a pointer attached to a plate pivoted to the outer end of the post, said plate being provided with a slot which is concentric with the pivot, a screw passing through the slot and entering the adjacent lever for clamping the pointer adjustably to said lever, and a rod pivotally connected at one end to the other lever and pivotally connected at its opposite end to the free end of the tube as set forth.

1,072,416. MECHANISM FOR CONTROLLING ACTION. WILLARD W. BARDSLEY, Providence, R. I. Filed June 19, 1911. Serial No. 634,103. (Cl. 139—79.)



1. The combination of a plurality of coöperating controlling members, coöperating controlling means in each member, means for actuating said members to move in different cycles to bring said coöperating means into operative relation at predetermined intervals, an operator in said controller mechanism adapted to be actuated when said members are in operative position, a secondary coöperating indicating mechanism, and means whereby the actuation of said operator controls the action of said secondary indicating means.

2. The combination of a plurality of coöperating controlling members, coöperating controlling means in each member, means for actuating said members to move in different cycles to bring said coöperating means into operative relation at predetermined intervals, an operating arm in said controlling mechanism adapted to be actuated when said members are in operative relation, a secondary coöperating indicating mechanism, and means attached to said operating arm whereby the movement of said arm controls the action of said secondary indicating means.

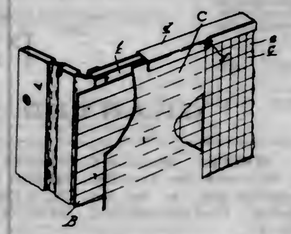
3. The combination of a plurality of sets of coöperating controlling members, coöperating controlling means in each member of each set, means for actuating the controlling means of each individual member of each set at a uniform speed to move in different cycles to bring the controlling means in the members of each set into operative relation at predetermined intervals, and means adapted to be actuated independently when each set of members are in operative relation.

4. The combination of a plurality of sets of coöperating controlling members mounted to be rotated about a common axis, coöperating controlling means in each member of each set, means for actuating the controlling means of each individual member of each set to move at uniform peripheral speeds but in different cycles to bring the controlling means in the members of each set into operative relation at predetermined intervals, and means adapted to be actuated independently when each set of members are in operative relation.

5. The combination of a plurality of sets of coöperating controlling members each member of each set being of different internal dimensions, coöperating controlling means in each member of each set, rotary driving means for said members, an operator in engagement with each set of members and each operator being adapted to be actuated when the controlling means in its respective set all arrive simultaneously in operative position.

[Claims 6 to 12 not printed in the Gazette.]

1,072,417. TRIAL OR BALANCE SHEET. JAMES BARKER, Detroit, Mich. Filed May 18, 1911. Serial No. 627,989. (Cl. 11—19.)



1. A trial or balance sheet having each of its faces divided into complementary sections, one of the sections having an erasing surface, a transparent strip arranged over the other section and having its ends secured to the sheet forming with the latter a pocket, and a card detachably slidably engaging the pocket, the corresponding sections upon opposite faces of the sheet being alternated.

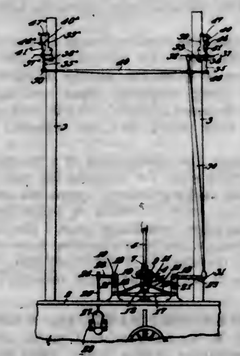
2. A trial or balance sheet having each of its faces divided into complementary sections, one of the sections having an erasing surface, a transparent strip arranged over the other section and secured to the sheet forming therewith a pocket, a card detachably slidably engaging the pocket, and a binding at the top and bottom edges of the sheet serving as a means for positioning the card.

3. A trial or balance sheet having the face thereof divided into complementary sections, an erasing surface permanently secured to one of the sections, a transparent strip arranged over the other section and attached to the sheet forming therewith a pocket, and a card detachably slidably engaging the pocket.

4. A trial or balance sheet having the face thereof divided into complementary sections, one of the sections having an erasing surface, a slip or card detachably engaging the sheet and positioned over the other section, and a covering of transparent material for the detachable slip permanently secured to the sheet.

5. A trial or balance sheet having the face thereof divided into complementary sections, one of the sections having an erasing surface; a slip or card upon which names are adapted to be written, detachably engaging the other section, and a transparent covering for the detachable strip secured to the sheet.

1,072,418. AUTOMOBILE LIGHT-SHIFTER. JOHN G. BECKER, Campbell, Mo. Filed Jan. 30, 1913. Serial No. 745,258. (Cl. 240—62.)



1. In a device of the class described, rotatable lamp holders; means for limiting the inward rotation of the holders beyond predetermined points; members rotatable upon the holders; a connection uniting the said members; interengaging elements upon the said members and on the holders; for imparting outward rotation to the holders separately; and means for actuating the connection.

2. In a device of the class described, rotatable lamp holders; means for limiting the inward rotation of the holders beyond a predetermined point, said means comprising coöperating elements, one of which is fixed and the other of which is adjustable to position the holders with respect to the line of travel; yieldable means for actuating the holders to cause said elements to coöperate; members rotatable upon the holders; a connection between the said members; interengaging elements on the said members and the holders for imparting outward rotation to the holders separately; and means for actuating the connection.

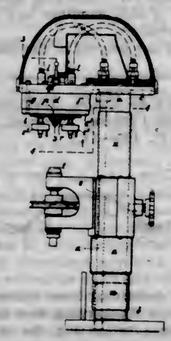
3. In a device of the class described, a bracket; a lamp support including a shaft journaled in the bracket; an arm secured to the shaft and constituting a means for upholding the saft upon the bracket; a hub mounted for rotation on the shaft, above the arm, and adapted to slide longitudinally of the shaft; interengaging shoulders upon the hub and upon the arm, adapted to swing the arm and the shaft outwardly when the hub is actuated; a screw threaded into the arm and adapted to abut against the bracket; a retractile spring connecting the arm with the bracket; and means for actuating the hub.

4. In a device of the class described, a steering shaft; intermeshing pinions, one of which is located upon the steering shaft, the other of which is supported independently of the shaft, for rotation; a rod mounted to move transversely of the steering shaft; a yieldable connection between the last specified pinion and the rod; a rotatably mounted lamp support; and means for connecting the rod with the lamp support.

5. In a device of the class described, a steering shaft; a pedal; a movably mounted member; means for operatively connecting the movably mounted member with the pedal; means for operatively connecting the movably mounted member with the steering shaft, said means including a yieldable element adapted to permit the movably mounted member to be actuated by the pedal, independently of the steering shaft; a movable lamp support; and an operative connection between the lamp support and the movably mounted member.

[Claims 6 to 9 not printed in the Gazette.]

1,072,419. APPARATUS FOR THE MANUFACTURE OF LENSES. MALCOLM BENTZON, London, England. Filed July 28, 1911. Serial No. 641,069. (Cl. 51—3.)



1. In a lens grinding and polishing machine, the combination with a vertical pillar or standard and a fixed horisontally disposed head secured to the upper end of the said standard, of a work support adjustably mounted on the said pillar or standard, a rotatable table mounted on the said support, a plurality of rotatable grinding tool operating spindles mounted in said head and means for simultaneously rotating said spindles.

2. In a lens grinding and polishing machine, the combination with a fixed horizontally disposed head, of a rotatable work support located below the same, a plurality of rotatable grinding tool operating spindles mounted in said head, driving means for rotating said spindles simultaneously, connections between said driving means and certain of said spindles for rotating them in one direction and connections between said driving means and others of said spindles for rotating them in the opposite direction.

3. In a lens grinding and polishing machine, the combination with a fixed horizontally disposed head, of a rotatable work support located below said head, a plurality of vertically disposed rotatable tool operating spindles mounted in said head, means for adjusting each of said spindles substantially radially with respect to the work support and means for driving said spindles.

4. In a lens grinding and polishing machine the combination with a fixed horizontally disposed head of a plurality of pivoted arms adapted to swing laterally in said head, a tool operating spindle carried by each of said swinging arms, means for positively operating the several spindles independently, a rotating work supporting table and means for securing the said arms and spindles uniformly around the axis of the said work support.

5. In a lens grinding and polishing machine, the combination with a fixed horizontally disposed head, of a rotatable work support located below said head, a laterally swinging arm pivotally mounted in said head, a tool operating spindle carried by said swinging arm, said head being provided with a curved slot concentric with the pivotal connection of said arm, to permit the passage of the spindle therethrough, and securing means engaging said arm for holding it in fixed relation with the work support.

[Claims 6 to 19 not printed in the Gazette.]

1,072,420. FLOAT. ERNEST N. BRODERICK, Detroit, Mich. Filed Aug. 23, 1911. Serial No. 645,539. (Cl. 137—104.)



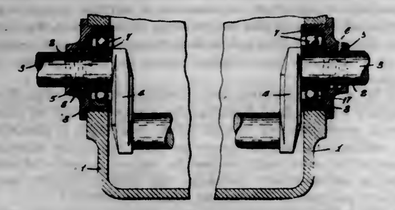
1. A carbureter float comprising a solid body of low specific gravity, supporting members thrust into the body each having a shoulder at an interval from the surface of the body and a metal coating electro-plated upon the body and the members between the shoulders and body as a retaining means for the members and an impervious sheathing for the body.

2. A carbureter float comprising a cork body, supporting members thrust into the body each having a shoulder at an interval from the surface of the body, and a metal coating electro-plated upon the body and the members and between the shoulders and body as a retaining means for the members and an impervious sheathing for the body.

1,072,421. LUBRICANT-RETAINING MEANS. ALEXANDER T. BROWN, Syracuse, N. Y., assignor to Brown-Lipe Gear Company, Syracuse, N. Y., a Corporation of New York. Filed Jan. 11, 1911. Serial No. 602,086. (Cl. 64—22.)

1. The combination with a rotating shaft, of a lubricant-retaining means having an opening for receiving the shaft, the opening being formed with a surface concentric with the shaft, and a second surface extending at an angle to the first-mentioned surface in a direction leading from the axis of the shaft, the first-mentioned surface being provided with an internal thread inclining with respect to the direction of rotation of the shaft and opening through the second-mentioned surface whereby the lubri-

cant moves along the internal thread and then along the second-mentioned surface and away from the shaft, means for receiving the lubricant passing along the second-mentioned surface and away from the shaft, and means independent of the threaded surface for supporting the shaft, substantially as described.



2. The combination with a rotating shaft, of a lubricant-retaining means having an opening for receiving the shaft, opposing surfaces of the shaft and the wall of the opening being in close proximity but out of contact with each other, said surface of the wall being provided with an internal thread inclining with respect to the direction of rotation of the shaft, one end of the thread extending through the inner end of the last-mentioned surface and the other end of the thread terminating short of the outer end of said surface, and means independent of the threaded surface for supporting the shaft, substantially as described.

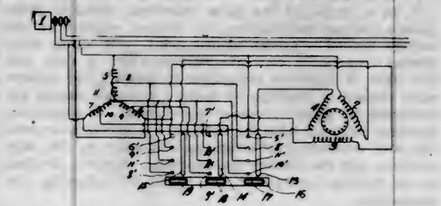
3. The combination with a rotating shaft, of a lubricant-retaining means having an opening for receiving the shaft, the opening being formed with a surface concentric with the shaft and provided with an internal thread inclining with respect to the direction of rotation of the shaft, and bearing means arranged at the inner side of said surface and supporting the shaft, said bearing means being provided with a passage spaced apart from the axis of the shaft a greater distance than said surface, the passage communicating with the thread whereby the lubricant moves along the thread and through said passage, substantially as set forth.

4. The combination with a rotating shaft, of a lubricant-retaining means having an opening for receiving the shaft, the opening being formed with a surface concentric with the shaft, and a second surface extending at an angle to the first-mentioned surface in a direction leading from the axis of the shaft, the first-mentioned surface being provided with an internal thread inclining with respect to the direction of rotation of the shaft and opening through the second-mentioned surface, and bearing means arranged at the inner side of the first-mentioned surface, a surface of the bearing means being opposed to, and spaced apart from, the second-mentioned surface, and the bearing means being provided with a passage opening from said surface of the bearing means, whereby the lubricant moves along the thread and then laterally away from the shaft and between the second-mentioned surface and the opposing surface of the bearing means and thereafter through the passage of said bearing means, substantially as described.

5. The combination with a rotating shaft, of a casing containing a body of lubricant and having one of its walls provided with an opening for receiving the shaft, opposing surfaces of the shaft and the wall of the opening being in close proximity but out of contact with each other, said surface of the wall of the opening being provided with an internal thread inclining with respect to the direction of rotation of the shaft, whereby the lubricant moves along the internal thread toward the interior of the casing, and bearing means arranged at the inner side of said surface and supporting the shaft, said bearing means being provided with a passage of greater diameter than the opposing surfaces, the passage communicating with the interior of the casing and with said thread, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,072,422. ELECTRIC CONTROLLING APPARATUS. JAMES BURKE, Erie, Pa., assignor to Burke Electric Company, a Corporation of Pennsylvania. Filed Oct. 9, 1907. Serial No. 396,564. (Cl. 172—274.)



1. The combination of a plurality of transformer windings connected in star, each of said windings being continuously connected and generating an electromotive force different in phase from each of the other of said windings, a translating device having at least one winding, and means for connecting said winding of said translating device across one of said transformer windings and a portion only of another of said transformer windings.

2. The combination of a plurality of transformer windings, having electromotive forces of different phase, a translating device and means for successively connecting said translating device first across the whole of one of said windings and then across two of said windings.

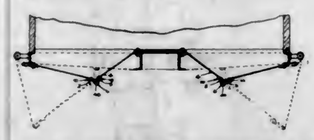
3. The combination of a plurality of transformer windings connected in star, each of said windings being continuously connected and generating an electromotive force different in phase from that of another of said windings, a translating device having at least one winding and means for successively connecting said winding of said translating device first across one of said transformer windings and then across said tranformer winding and a portion only of another of said transformer windings.

4. The combination of a plurality of transformer windings connected in star, each of said windings being continuously connected and generating an electromotive force different in phase from that of another of said windings, a translating device having a plurality of elements, and means for successively connecting said elements respectively first across one of said windings and then across a combination of said windings.

5. The combination of a plurality of transformer windings connected in star, each of said windings being continuously connected and generating an electromotive force different in phase from that of another of said windings, a translating device having a plurality of corresponding elements, and means for connecting said elements respectively across one of said windings and a portion only of another of said windings.

[Claims 6 to 13 not printed in the Gazette.]

1,072,423. DUMP-CAR DOOR. RICHARD WEBB BURNETT, Montreal, Quebec, Canada. Filed Jan. 13, 1913. Serial No. 741,837. (Cl. 105—14.)



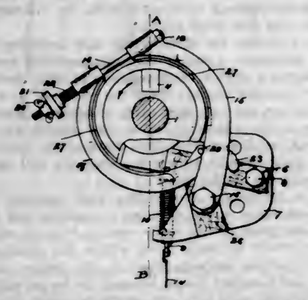
1. In a car for containing loose commodities, in combination with a grain discharging door-frame, and a door therefor, of a hinge connecting the door to the door-frame and extending continuously from end to end of the hinged edge of the door, and consisting of a pair of plate members connected respectively to the door and door-frame and each having a stiffening flange extending throughout the length thereof.

2. In a car for containing loose commodities, in combination with a grain discharging door-frame, and a door

therefor, of a hinge connecting the door to the door-frame and extending continuously from end to end of the hinged edge of the door, and consisting of a pair of plate members connected respectively to the door and door-frame, each having a stiffening flange extending throughout the length thereof, and one plate member having a plurality of tongues and the other a plurality of slots with the tongues passed therethrough.

3. In a car for containing loose commodities, in combination with a grain discharging door-frame, and a door therefor, of a hinge connecting the door to the door-frame and extending continuously from end to end of the hinged edge of the door, and consisting of a pair of plate members connected respectively to the door and door-frame, each having a stiffening flange extending throughout the length thereof, and one plate member having a plurality of tongues and the other a plurality of slots with the tongues passed therethrough, and a rod fixed upon the door and engaged by the tongues, and the slotted edge of the door being curved and clasping the said rod.

1,072,424. FRICTION-BRAKE. ZENAS P. CANDEE, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 14, 1909. Serial No. 495,947. (Cl. 74—46.)



1. The combination, with a rotary body, and a movable key adapted to engage the same; of a friction arm adapted to engage said body for terminating its rotation, said arm being provided with a hooked end; a movable clutch lever having an end thereof arranged in the path of said key for withdrawing the latter from engagement with said body; means provided upon said lever and adapted to engage said hook to force said arm against said body; and means for moving said lever in one direction to simultaneously disengage said key from and engage said arm with said body.

2. The combination, with a rotary body; and a movable key arranged to engage the same; of a pair of curved friction arms disposed upon opposite sides of said body for engagement therewith, one of said arms being pivoted at one end and having its opposite end connected to the adjacent end of the other arm; a movable clutch lever having a part disposed in the path of said key for disengaging the latter from said body when said lever is moved in one direction; a member carried by the lever and arranged to engage the opposite end of the second-named arm when said lever is moved in such direction for forcing both arms against said body simultaneously with the disengagement of said key; and means for operating said lever.

3. The combination, with a rotary body; and a movable key arranged to engage the same; of a pair of curved friction arms disposed upon opposite sides of said body for engagement therewith, one of said arms being pivoted at one end and having its opposite end connected to the adjacent end of the other arm, the opposite end of said other arm being formed with a hook; a movable clutch lever having a part disposed in the path of said key for disengaging the latter from said body when said lever is moved in one direction; a member fixed to the lever and arranged to directly engage said hook when said lever is moved in such direction for forcing both arms against said body simultaneously with the disengagement of said key; and means for operating said lever.

4. The combination with a rotary body, a movable key arranged to engage the same, and a stationary plate located adjacent the same; of a curved friction arm pivoted at one end to said plate; a second curved friction arm disposed upon the opposite side of said body from the first-named arm and having one end disposed adjacent the pivoted end of the latter and formed with a hook and its opposite end connected to that of said first-named arm; a clutch lever pivoted to said plate and having a part disposed in the path of said key for disengaging the latter from said body when said lever is swung in one direction; a member fixed to the lever and arranged to directly engage said hook when said lever is moved in such direction for forcing both arms against said body simultaneously with the disengagement of said key; and means for operating said lever.

1,072,425. CONNECTION. ZENAS P. CANDEE, Waterbury, Conn., assignor to Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 18, 1912. Serial No. 698,136. (Cl. 74—47.)



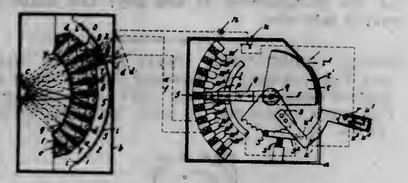
1. In a device of the character described, the combination with two independent members; of a threaded member threaded into each of and connecting said independent members; means connected with each of said independent members and having engagement with said threaded member upon opposite sides thereof, for holding said threaded member so that the side of the threads thereon that take the thrust and strain may be held tightly against the corresponding side of the threads in said independent members, said means comprising locking members threaded onto said threaded member and held against rotation with respect to one of said independent members with an open space between each locking member and the end of said independent member with which it is connected; and means connected with each of said independent members and said locking members for moving said locking members toward said independent members and said threaded member within its threaded sockets in said independent members parallel with its axis and without rotation, a sufficient distance to take up the play or lost motion within the threads.

2. In a device of the character described, the combination with two independent members; of a threaded member connecting said independent members; a locking member having engagement with said threaded member connected with the inner end of each of said independent members with an open space therebetween and held against rotation in relation thereto; and means connected with said locking members and independent members for moving the said locking members toward the said independent members and the threaded member within the said independent members parallel with its axis but without rotation, a sufficient distance to take up the play or lost motion within the threads.

3. In a device of the character described, the combination with two independent members; of a threaded mem-

ber connecting said independent members; locking members threaded onto said threaded member, each locking member having a lip and recess connection with the inner end of each of said independent members, and an open space therebetween; and a sleeve member threaded onto the inner end of each of said independent members and engaging one of said locking members so as to move the same parallel to the axis of said threaded member but without rotation, a sufficient distance to take up the play or lost motion within the threads.

1,072,426. INDICATING DEVICE. CHARLES R. B. CLAFLIN, Boston, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I., a Corporation of Rhode Island. Filed May 11, 1908. Serial No. 432,177. (Cl. 177—337.)



1. In an indicator a group of image-creating devices, comprising separate members, each with means to display upon substantially the same spot on a suitable field or background a characteristic visual signal, and relatively remote means for selectively rendering effective any one of said devices at will.

2. In an indicator the combination with a plurality of groups of image-creating devices, each group comprising separate members each with means to display upon substantially the same spot on a suitable field or background a characteristic visual signal, of means for selectively rendering effective a device of one group simultaneously with a device of another group.

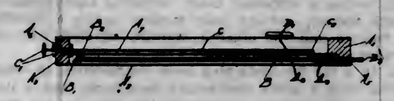
3. In an indicator the combination with a plurality of groups of image-creating devices, each group comprising separate members each with means to display upon substantially the same spot on a suitable field or background a characteristic image, the images of consecutive groups being related to one another and directed upon said field in consecutive orderly alinement, of means for selectively rendering effective a device of one group simultaneously with a selected device of another group.

4. In an indicator the combination with a plurality of groups of signaling devices, each group comprising a plurality of light-creating members, provided each with cooperating associated members to produce from the light thereof a characteristic lighting effect, means for directing the light produced by the devices of any one group upon substantially the same spot on a suitable field or background, the signals of consecutive groups being directed upon said field in consecutive orderly alinement, of means for selectively energizing individual members of the several groups, thereby to display upon the field of vision in orderly alinement selected signals of the several groups.

5. In an indicator the combination with a plurality of groups of signaling devices, each group comprising a plurality of electric lamps, each lamp being provided with a suitably constructed screen to form coöperatively therewith a characteristic image, and means for directing the images produced by the lamps of any one group upon substantially the same spot on a suitable field or background, the images of consecutive groups directed upon said field in consecutive orderly alinement, of means for selectively energizing individual lamps of the several groups, thereby to display upon the field of vision in orderly alinement the selected symbols of the several groups.

[Claims 6 to 10 not printed in the Gazette.]

1,072,427. DEVICE FOR DELIVERING MATERIAL FROM A CONTAINER. ALBERT CLEMENS, Louisville, Ky. Filed Dec. 7, 1911. Serial No. 664,510. (Cl. 132—28.)



1. In a device for distributing and applying material from a container a structure forming a reservoir chamber, a carrier normally in contact with the contents of the chamber and contained by the chamber, but [illegible] to move as a whole in its own plane so that a part thereof is exposed ontside the chamber, a stop projecting from the inner end of the said carrier and operating to prevent its entire withdrawal.

2. In a device for distributing and applying material from a container, a structure forming a reservoir chamber, a carrier normally in contact with the contents of the chamber, but adapted to slide to a position outside the chamber, and means for returning the carrier to normal position in contact with contents of reservoir chamber, the whole being so constructed that the material is loosely confined by the walls of the chamber, and that the portion of the carrier which at any time is within the chamber is at all parts exposed to contact with the contents of the chamber, and free from rolling.

3. In a device for distributing and applying material from a container, a supply chamber provided with a narrow opening, a pliable strip designed to slide therethrough without material leakage from the chamber to a position such that no part of said strip remains exposed to the contents of the supply chamber, and means whereby the strip may be drawn into the chamber in such manner that its entire length within the chamber will be exposed to the contents of the same.

4. In a device for distributing and applying material from a container, a box forming a chamber and having a slit at one part of its walls and a hole at another, a movable carrier normally lying within the chamber except where a portion projects through the before mentioned slit, the said carrier being adapted to be partially withdrawn through said slit, and means operable through the before-mentioned hole in the box by which the inner end of said carrier, together with the rest of the carrier, may be moved in a direction away from the slit, thereby tending to return said carrier into the chamber from a withdrawn position.

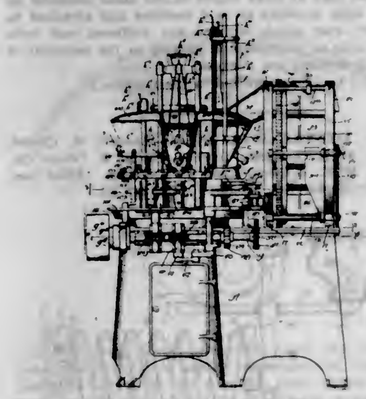
5. In a device for distributing and applying material from a container provided with a slit and adapted to serve as a reservoir of material, a strip normally within said chamber, and in contact with the contents, but with one end projecting outside through said slit, the said strip being provided with a stop-projection at its inner end, and adapted to be so completely withdrawn that no part remains within the reservoir except the end bearing the stop projection, together with means for restoring the strip to its normal position, by rectilinear displacement of the entire strip.

[Claims 6 to 11 not printed in the Gazette.]

1,072,428. FILLING-MACHINE. CLARENCE F. COLBERT, Hoopeston, Ill. Filed Jan. 3, 1911. Serial No. 600,652. (Cl. 226—9.)

1. In a filling-machine, the combination of a plurality of movably mounted receptacles, means for delivering material in bulk to the receptacles, mechanism for operating the receptacles, plungers mounted to slide in the receptacles in a plane transverse to the plane of the movement of the receptacles, means for operating the plungers to compress the material in the receptacles, means for cutting the excess material from that in the receptacles, so the excess will remain in the delivery-means, and means for operating the plungers to discharge the material from the receptacles.

2. In a filling-machine, the combination of a plurality of rotatably mounted receptacles, means for delivering material to the receptacles, mechanism for rotating the receptacles, plungers mounted in the receptacles and to slide therein in a plane transverse to the plane of rotation of the receptacles, means for operating the plungers to compress the material in the receptacles, means for severing the excess material from that in the receptacles when the material is compressed, and means for operating the plungers to discharge the material from the receptacles.



3. In a filling-machine the combination of a plurality of rotatable receptacles, means for delivering material to the receptacles, mechanism for rotating the receptacles, plungers slidable in the receptacles, means for severing the excess material from that in the receptacles, and mechanism for operating the plungers to compress the material before the severing means becomes operative upon a charge in the receptacle, and to force the material from the receptacles.

4. In a filling machine, the combination of a drum for containing a supply of material, a plurality of receptacles mounted to rotate around the drum, mechanism for rotating the receptacles, the drum having an opening therein for the passage of material to the receptacles, means for compressing the material in the receptacles, means for varying the quanity of material in said receptacles, and a knife for severing the material in the receptacles from that in the drum.

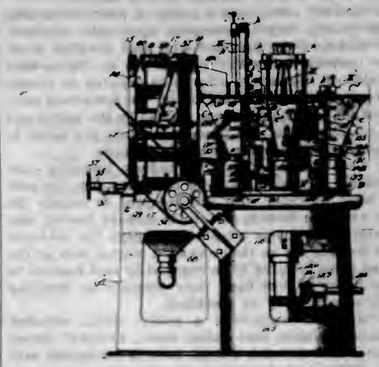
5. In a filling machine, the combination of a drum for containing a supply of material, a plurality of receptacles mounted to rotate around the drum, mechanism for rotating the receptacles, the drum having an opening therein for the passage of material to the receptacles, means for varying the quantity of material received by said receptacles from the drum, a knife for severing the material in the receptacles from that in the drum, and plungers for ejecting the material from the receptacles.

[Claims 6 to 29 not printed in the Gazette.]

1,072,429. FILLING-MACHINE. CLARENCE F. COLBERT, Hoopeston, Ill. Filed Jan. 8, 1912. Serial No. 669,989. (Cl. 226—9.)

1. In a filling-machine, the combination of a filling-device comprising a hopper and a plunger one of which is movable relatively to the other to force material from the hopper, and mechanism for shifting one element of said device relatively to the other, comprising a plurality of serially coöperating abutments and cams.

2. In a filling-machine, the combination of a filling-device comprising a hopper and a plunger one of which is movable relatively to the other, to force material from the hopper, and mechanism for shifting one element of said device relatively to the other, comprising a plurality of serially coöperating abutments and cams, for operating said movable element in one direction and a plurality of cams for operating said element in the opposite direction



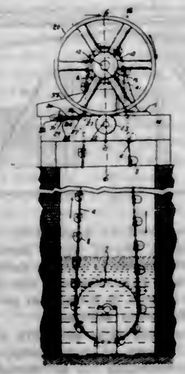
3. In a filling-machine, the combination of a filling-device comprising a hopper and a plunger movable longitudinally in the hopper to force material therefrom, and mechanism for shifting said plunger comprising a plurality of serially coöperating abutments and cams.

4. In a filling-machine, the combination of a filling-device comprising a hopper and a plunger movable longitudinally in the hopper to force material therefrom, and mechanism for shifting said plunger, comprising a plurality of serially coöperating abutments and cams for shifting the plunger in one direction and a plurality of cams for shifting the plunger in the opposite direction.

5. In a filling-machine, the combination of a plurality of filling-devices, each comprising a hopper and a plunger, movable relatively to each other to force the material therefrom, and mechanism for shifting one element of each of said devices relatively to the other, comprising a plurality of serially coöperating abutments and cams.

[Claims 6 to 44 not printed in the Gazette.]

1,072,430. WATER-ELEVATOR. HENRY COLE, Denver, Colo. Filed Sept. 5, 1911. Serial No. 647,702. (Cl. 193—6.)



1. A water-elevator, comprising a pulley shaft, pulley wheels mounted on said pulley shaft, chains passing over said pulley wheels, buckets connecting said chains, a disk arranged adjacent each of said pulley wheels on said pulley shaft, the extremities of said buckets being provided with pins adapted to engage the said chains when the buckets are on the upward moving side of said chains.

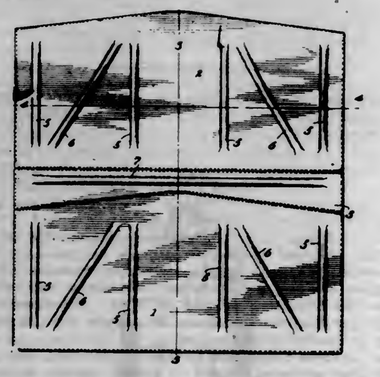
other pins with which the extremities of said buckets are provided adapted to engage the chains when the buckets are on the downward moving side of said chains.

2. An elevator, comprising a pulley, a conveyer passing over said pulley, buckets journaled upon said conveyer, the said buckets being provided with pins adapted to engage the conveyer when the buckets are on the upward moving side of the latter, other pins adapted to engage the conveyer when the buckets are on the downward moving side of the latter, and means carried by the pulley and adapted to engage the said buckets to cause the latter to turn upon their journals for dumping the same.

3. An elevator, comprising an epdless traveling conveyer, buckets journaled upon the said conveyer, the said buckets being provided with pins adapted to engage the conveyer when the buckets are on the upward moving side of the latter, other pins adapted to engage the conveyer when the buckets are on the downward moving side of the latter, and disks adapted to be engaged by said buckets to cause the latter to turn upon their journals for dumping the same, substantially as described.

4. An elevator, comprising a pulley shaft, sprocket wheels mounted upon said pulley shaft, sprocket chains passing over said sprocket wheels, buckets connecting said sprocket chains and journaled on the latter, the said buckets being provided with pins adapted to engage the sprocket chains when the buckets are on the upward moving side of the latter, other pins mounted on said buckets and adapted to engage the sprocket chains when the buckets are on the downward moving side of the latter, and disks mounted upon the said pulley shaft and adapted to be engaged by the buckets for causing the latter to turn on their journals to the dumping position.

1,072,431. RAILWAY-CAR END CONSTRUCTION. JAMES J. COOPER, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 14, 1913. Serial No. 741,998. (Cl. 105—192.)



1. A car end composed of a plurality of sections of corrugated sheet metal, two of which sections are duplicates, and a third intermediate section forming a connection between the duplicate sections the lower edge of which intermediate section is formed so as to conform to the upper edge of the lower section.

2. A car end composed of a plurality of horizontally disposed panels or sections of sheet metal, each of which is provided with a stiffening rib or corrugation, two of which sections are duplicates, and a third section arranged between and connecting the duplicate sections the upper and lower edges of which intermediate section is formed so as to conform to the corresponding edges of the upper and lower sections.

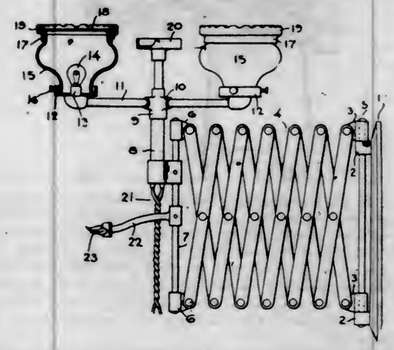
3. A car end comprising a lower section and an upper section which are duplicates, an intermediate section connecting said duplicate sections, and each of said sections being provided with a stiffening rib or corrugation.

4. A car end composed of a plurality of sections of sheet metal, two of which are duplicates, and substantially wider than the third section, the division lines between said sections being horizontally disposed and all of said sections being stiffened and reinforced by ribs or corrugations pressed in the sheet metal.

5. A car end comprising a lower section, an upper section, an intermediate section, the meeting edges of which sections are bent at right angles to the plane occupied by the main body portions of said sections and attached to each other, and which sections are stiffened and reinforced by ribs or corrugations pressed in the material of which said sections are formed.

[Claims 6 to 14 not printed in the Gazette.]

1,072,432. DENTAL APPLIANCE. ERNEST M. CRANE, Detroit, Mich., assignor to The Pelton & Crane Co., Detroit, Mich., a Corporation of Michigan. Filed Jan. 6, 1913. Serial No. 740,301. (Cl. 248—1.)



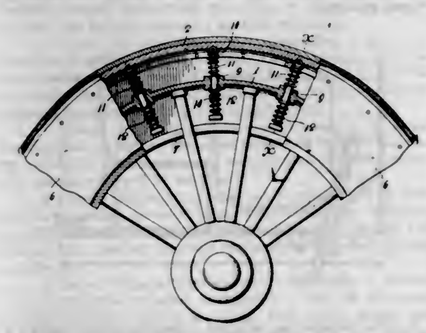
1. A dentist's instrument holder, having in combination, a plurality of arms connected together, a pivot upon which said arms may rotate, a slab supported on each arm, a member about the exterior of each slab and rising slightly above the slab to prevent things from rolling off the slab, and a heating element supported under each slab and capable of furnishing only a slight amount of heating for keeping the surface of the slab dry without unduly heating it, substantially as described.

2. In a dentist's instrument holder, the combination of an arm mounted to have a range of movability, a globe mounted on one end of the arm, a flat light-emitting supporting slab supported across the top of the globe, a ring about and protruding above the edge of the slab to prevent things supported by the slab from falling off, and an electric light in said globe for furnishing light through said slab and a moderate amount of heat for the purpose specified, substantially as described.

3. A dentist's instrument holder, having in combination, a pivot, a plurality of arms connecting together and rotatably supported on said pivot, a globe supported on the end of each arm, a flat light-emitting slab supported across the top of each globe, a ring about and protruding above the edge of each slab, and an electric light located in each globe to furnish light and a moderate amount of heat for the purpose specified, substantially as described.

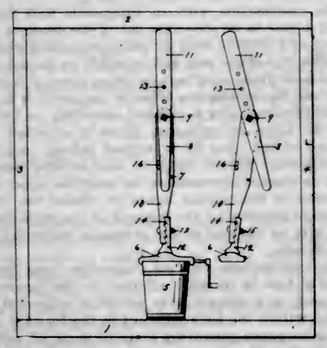
4. A dentist's instrument holder, having in combination, an arm capable of a range of movability, a globe supported on the end of the arm, a threaded ring supported on the top of the globe, a flat slab of light-emitting material resting on said ring, a threaded securing ring resting upon the edge of the slab and protruding above the slab to prevent things from falling off the slab, the said securing ring adapted to screw into the threads of the first mentioned threaded ring to secure the slab in place, and an electric light located in the globe and under the slab for furnishing light through the latter and a moderate amount of heat for the purpose specified, substantially as described.

1,072,433. SPRING-WHEEL. WILLIAM A. CRAWFORD-FROST, Baltimore, Md. Filed Oct. 27, 1911. Serial No. 657,016. (Cl. 152—37.)



A cushioning device comprising inner and outer spaced rims, the inner rim having openings and formed with bosses in line with the openings, said bosses projecting from opposite sides of the rim and having openings therein outwardly flared from a middle point in the plane of the rim, rods having pivotal connection with the outer rim and passing loosely through the openings of the said bosses, and expansible helical springs mounted upon the rods on opposite sides of the inner rim.

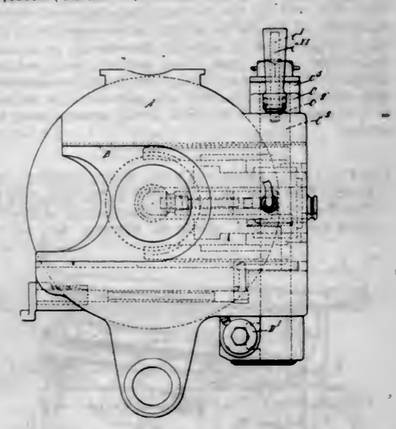
1,072,434. FREEZER-HOLDER. JOHN H. CROWELL, Vineyard Haven, Mass. Filed Mar. 25, 1912. Serial No. 686,214. (Cl. 248—41.)



1. A freezer holder comprising a supporting member for the freezer, a thrust block member located above the freezer said members being nonseparable, a toggle jointed lever operatively to contact with and adapted to exert thrust against the top of the freezer and the under side of the thrust block member above the freezer, and an operable toggle lever arm adapted to be held with the lever in one and the same vertical longitudinal plane or axis substantially as and for the purpose herein specified.

2. A freezer holder comprising a supporting member for the freezer, a thrust block member located above the freezer said members being nonseparable, an adjustable toggle jointed lever operatively to contact with and adapted to exert thrust against the top of the freezer and the under side of the thrust block member above the freezer, and an operable toggle lever arm adapted to be held with the lever in one and the same vertical longitudinal plane or axis substantially as specified.

1,072,435. BREECH-LOADING ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed July 20, 1911. Serial No. 639,489. (Cl. 89—4.)



1. In breech actuating mechanism, the combination of a toothed segment on the block actuating spindle, a toothed member engaging with said segment, a casing containing the actuating spring and the toothed member, an external hinged pawl adapted to energize the said spring, and means whereby the said casing can be swung into a position for the semi-automatic or quick firing actuation of the breech mechanism.

2. In breech actuating mechanism, the combination of a toothed segment on the block actuating spindle, a toothed member engaging with said segment, a casing containing the actuating spring and the toothed member, an external hinged pawl adapted to energize the said spring, and means for pivoting the said casing to the breech end of the gun.

3. In breech actuating mechanism, the combination of a toothed segment on the block actuating spindle, a toothed member engaging with said segment, a casing containing the actuating spring and the toothed member, an external hinged pawl adapted to energize the said spring, means for pivoting the said casing to the gun and a catch device for coöperating with the said casing.

4. In breech actuating mechanism the combination of a toothed segment on the block actuating spindle, a toothed member engaging with said segment, a casing containing the actuating spring and the toothed member and having recesses formed therein, an external hinged pawl adapted to energize the said spring, a trunnion on the said casing connected to the breech end of the gun, and a catch device for engaging with one or other of the recesses in the casing.

5. In breach actuating mechanism, the combination of a toothed segment on the block actuating spindle, a toothed member engaging with said segment, a casing containing the actuating spring and the toothed member, an external hinged pawl adapted to energize the said spring, means for pivoting the said casing to the gun, curved projections on the casing engaging in corresponding grooves in the gun, and a catch device for coöperating with the said casing.

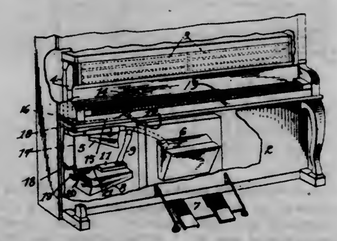
[Claims 6 to 13 not printed in the Gazette.]

1,072,456. MANUFACTURE OF METAL BARS, RAILS, &c. THOMAS A. DICKS, Wilkinsburg, Pa., assignor of one-half to Frank P. Lauffer, Irwin, Pa. Filed Aug. 1, 1912. Serial No. 712,821. (Cl. 29—148.)



The herein described method of manufacturing metal bars, rails, and the like, having a high degree of uniformity of density of the metal thereof, which consists in casting an annular ingot of rollable dimensions in a rotating centrifugal mold, and then, without any substantial change in the cross-section of the ingot, straightening it and submitting it to rolling in suitable rolls to thereby reduce and finish it to final form; substantially as described.

1,072,437. SELF-PLAYING INSTRUMENT. PETER DUFFY, New York, N. Y., assignor to The Schubert Piano Company, New York, N. Y., a Corporation of New York. Filed Aug. 12, 1911. Serial No. 643,678. (Cl. 84—168.)



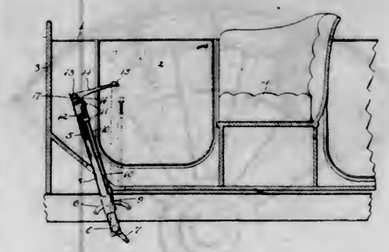
1. A self-playing instrument having in combination with the player action and the main bellows therefor connected by a conduit, an auxiliary reservoir-bellows connected with said conduit and independent of said main bellows, and means in position to be manipulated by the operator for throwing such auxiliary reservoir bellows into or out of action and comprising a valve carried by said reservoir bellows, a swinging lever and means connecting said swinging lever with said valve for controlling the same.

2. A self-playing instrument having in combination with the player action and the main bellows therefor connected therewith by a conduit, an auxiliary reservoir-bellows connected with said conduit and independent of said main bellows, and means in position to be manipulated by the operator for throwing such auxiliary reservoir bellows into or out of action and comprising a slide valve carried by said reservoir bellows, a casing therefor connected with the conduit leading to said first conduit, a swinging lever and means connecting said swinging lever with said valve for controlling the same and including a rock-shaft.

3. A self-playing instrument having in combination with the player action and main bellows, a reservoir and conduits connecting said main bellows and reservoir with the player action, an auxiliary reservoir having a conduit connection with that conduit located between the main bellows and said reservoir, a valve carried by said auxiliary reservoir, and means in position to be manipulated by the operator for controlling the movement of said valve thereby to throw said auxiliary reservoir into or out of action.

4. A self-playing instrument having in combination with the player action and main bellows, a reservoir and conduits connecting said main bellows and reservoir with the player action, an auxiliary reservoir having a conduit connection with that conduit located between the main bellows and said reservoir, a slide valve, a casing carried by said auxiliary reservoir for said slide valve, a pivoted lever, and a rock shaft connection between said lever and said slide valve for controlling the valve thereby to throw such auxiliary reservoir into or out of action.

1,072,438. CONTROL-LEVER FOR AUTOMOBILES. WILLIAM C. DURANT, Detroit, Mich., assignor to Chevrolet Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 4, 1912. Serial No. 688,445. (Cl. 21—90.)



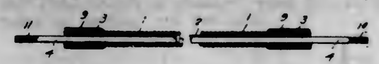
1. The combination with an automobile body having a seat and a door in its side adjacent to the forward side of said seat, of a control lever pivotally supported in front of said door adjacent to the side thereof farthest from the seat to turn upon a horizontal axis, an extension pivotally attached to the upper end of said lever to be turned to extend laterally from the lever toward the seat, and a hand grip on the end of said extension.

2. The combination with an automobile body having a seat and an entrance adjacent to the forward side of said seat, of a control lever pivotally supported near its lower end to turn upon a horizontal axis and to extend upwardly within said entrance near the side thereof farthest from the seat, means for holding the lever in the position to which it is turned, and an extension pivotally attached to the lever to be turned thereon to extend laterally therefrom toward the seat and adapted to operate said means to release the lever when so turned.

3. The combination with an automobile body having a seat and a door in its side adjacent to the forward side of said seat, of a control lever pivotally supported within the body forwardly of the seat and adjacent to the side of the door farthest from said seat to turn upon a horizontal axis, means for holding the lever in the position to which it is turned comprising a member extending to the upper end of the lever, an extension pivotally attached to the upper end of the lever to be turned thereon and extend laterally thereof toward the seat, said member being also adapted to engage intermediate its ends the upper end of the member of the holding means to release the lever by a downward pressure on the free end of the extension, and a hand grip on the end of the extension extending transversely thereto.

4. The combination with an automobile body having a seat and a door in its side, adjacent to the forward side of said seat, of a control lever pivotally supported at its lower end within the body adjacent to the forward side of said door to swing forwardly from in front of said door upon a horizontal axis, means for holding said lever in the position to which it is turned, an extension member pivotally attached to the upper end of said lever to be turned thereon to extend rearwardly therefrom toward the seat and operate the holding means to release the lever when so turned and to be turned into alinement with said lever to give free entrance through the door opening, a spring to engage and yieldingly hold said extension member in the position to which it is turned upon said lever, and a handle on the free end of said extension member extending laterally therefrom away from the inner side of the door.

1,072,439. MECHANISM FOR TRANSMITTING POWER AND MOTION. CHARLES E. DURYEA, Saginaw, Mich. Filed May 9, 1912. Serial No. 696,254. (Cl. 64—30.)



1. A flexible power-transmitting ligament comprising a flexible non-compressible member, and a non-compressible non-extensible member movable therethrough, and inextensible means connecting the ends of said first-named member for holding the same against extension.

2. A power transmitting device comprising a non-compressible normally non-extensible hollow flexible member, inextensible means secured thereto for holding it against extension, and a non-compressible, non-extensible member slidably mounted within said hollow member.

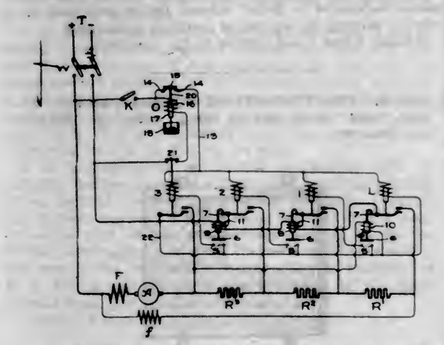
3. A power transmitting device comprising a coiled member, means within the same joining its ends to prevent its extension, and a non-compressible, non-extensible member loosely received in said coil.

4. A power transmitting element comprising a flexible non-compressible member comprising a coil, an attaching member movable within the same, and means within and joining the ends of said coil for holding said coil against extension.

5. A power transmitting element comprising a flexible non-compressible member comprising a coil, an attaching member movable within the same, and means within and joining the ends of said coil for holding said coil against extension and compression.

[Claims 6 and 7 not printed in the Gazette.]

1,072,440. MOTOR-CONTROL SYSTEM. GEORGE T. EAGAR, Ballston Spa, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 9, 1910. Serial No. 565,979. (Cl. 172—288.)



1. The combination with an electric motor, a plurality of contactors arranged to be energized successively to bring the motor to running speed and a time limit relay energized simultaneously with the closing of the motor circuit to effect the opening or said circuit if all the contactors do not close within a certain interval of time after the closing of the motor circuit.

2. The combination with an electric motor, a plurality of contactors arranged to be energized successively to bring the motor to running speed, and a time limit relay energized simultaneously with the first contactor and arranged to effect the opening of said contactor, in case all of the contactors do not close within a certain interval of time after the closing of the first contactor.

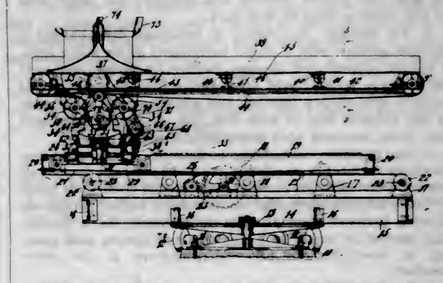
3. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, overload responsive devices coöperating with said contactors and arranged to retard the successive operation of the latter if the current in the motor circuit exceeds a certain value, and a time-limit relay energized simultaneously with the first contactor arranged to effect the opening of said contactor if all of said contactors do not close within a certain interval of time after the closing of the first contactor.

4. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, an actuating circuit for said contactors, overload responsive devices coöperating with said contactors and arranged to regulate the successive closing thereof, a time-limit relay controlling said actuating circuit, and contacts opened by the last contactor for deënergizing said relay, whereby said relay will interrupt said actuating circuit unless all of said contactors close within a certain interval of time after the closing of the first contactor.

5. A control system comprising an electric motor, automatic means for accelerating the motor step by step, means through which energy is normally supplied to actuate the accelerating means and delayed means rendered inoperative by the complete action of the accelerating means for interrupting the supply of energy thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,072,441. CAR-LOADER. JOHN ECKS, Milwaukee, Wis. Filed Dec. 21, 1911. Serial No. 667,063. (Cl. 193—19.)



1. A car loader, comprising a pivotally mounted base frame, a sliding frame thereon, a conveyer frame pivotally and slidably and tiltably mounted on the sliding frame, and a conveyer on the conveyer frame.

2. A car loader, comprising a turn table, a base frame thereon, upper and lower rollers on the base frame, a sliding frame mounted between the upper and lower rollers to move slidably with relation to the base frame, pulleys on the ends of the base frame, a cable attached to the ends of the sliding frame and passing around the pulleys, a suitably operated drum on the base frame around which the cable also passes, and a conveyer pivotally mounted on the sliding frame.

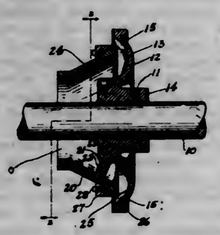
3. A car loader, comprising a pivotally mounted base frame, a sliding frame slidably mounted thereon, a turntable on the sliding frame, a support on the turntable, a swinging frame pivotally mounted on the support, and a conveyer slidably mounted on the swinging frame.

4. A car loader, comprising a pivotally mounted base frame, a sliding frame thereon, a turntable on the sliding frame, a support on the turntable, a swinging frame pivotally mounted on the support, a segmental worm gear on the swinging frame, a suitably driven worm on the support meshing with the segmental worm gear, a conveyer frame slidably mounted on the swinging frame, and a conveyer on the conveyer frame.

5. A car loader, comprising a pivotally mounted base frame, a sliding frame thereon, a turntable on the sliding frame, a support on the turntable, a swinging frame pivotally mounted on the support, a conveyer frame slidably mounted on the swinging frame, a suitably operated drum on the swinging frame, a cable connected to the ends of the conveyer frame and passing around the drum, and a conveyer on the conveyer frame.

[Claim 6 not printed in the Gazette.]

1,072,442. THROWING-WHEEL FOR GRADERS. WILLIAM J. EHRSAM, Enterprise, and LAWRENCE N. MORSCHER, Lawrence, Kans., assignors to themselves, as co-trustees, of one-half for said Morscher and one-half for the J. B. Ehrsam & Sons Manufacturing Company, Enterprise, Kans., a Corporation of Kansas. Filed June 17, 1912. Serial No. 704,246. (Cl. 83—54.)



1. An impeller comprising a rotatable disk having a concave surface with a radial component at its outer edge, a hollow cone-shaped member having its larger end near the concave face of said disk, and a flexible ring carried by said cone-shaped member and engaging the outer edge of the concave face of said disk.

2. An impeller comprising a rotatable disk having a concave surface with a radial component at its outer edge, a hollow cone-shaped member having its larger end near the concave face of said disk, and a flexible ring carried by said cone-shaped member and engaging the outer edge of the concave face of said disk, the concave face of said disk being provided with substantially radial ribs.

3. An impeller comprising a pair of rotary co-acting members forming a receiving chamber between them and having their adjacent ends slightly spaced from each other to leave a circumferential substantially-radial peripheral opening between them at their outer edges, and a flexible ring carried by one of said members and closing said opening by overlying the adjacent periphery of the other member.

4. An impeller comprising a pair of rotary co-acting members one of which has a concave surface and is slightly larger than the other, said concave surface having a radial component at its outer edge and a ring of flexible material carried by the smaller member and lying against the outer edge of the concave surface of the larger member by the action of centrifugal force.

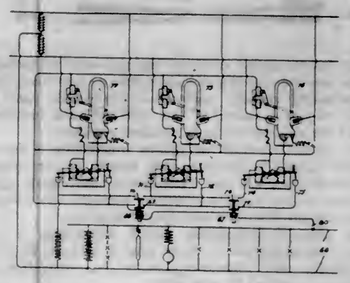
5. An impeller comprising a disk-shaped member having one face which is concave between center and periphery with a radial component at its periphery, a member co-operating with said disk and smaller in diameter to form a chamber which will feed to the outer part of such concave surface by the action of centrifugal force, and an annular member of flexible material carried by said smaller member and lying against the outer edge of said concave surface by the action of centrifugal force.

[Claims 6 to 8 not printed in the Gazette.]

1,072,443. VAPOR ELECTRIC APPARATUS. SAMUEL FERGUSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 14, 1904. Serial No. 207,954. (Cl. 171—97.)

1. The combination of an alternating current system, a plurality of rectifiers for converting alternating current into direct current, a direct current circuit, a plurality of electromagnet devices in the direct current circuit connected in series and responsive to successively varying values of the direct current, for varying the number of rectifiers in circuit and means operative when said rectifiers are in circuit to start the same.

2. The combination of an alternating current system, a plurality of vapor electric rectifying devices adapted to rectify current from said system, a load circuit supplied by said rectifiers, electrical means for varying the number of rectifiers in circuit, and means operating, when a rectifier is thrown in circuit, to produce a starting arc therein.



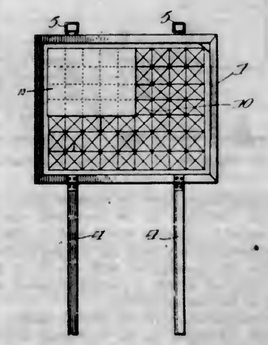
3. The combination of a plurality of vapor electric devices adapted to operate in multiple on an alternating current circuit, automatic means for varying the number of devices in circuit, and means operating when a device is thrown in circuit to produce a starting arc therein.

4. In a system of distribution, the combination of alternating current supply mains, a variable load circuit, a plurality of vapor electric rectifying devices for converting alternating current from said mains into direct current and feeding it to said load circuit, and means responsive to direct current flowing to said load circuit for varying the number of rectifiers in circuit.

5. In a system of distribution, the combination of alternating current supply mains, a variable load circuit, a plurality of vapor electric rectifying devices for converting alternating current from said mains into direct current and feeding it to said load circuit, and automatic means responsive to direct current fed to said load circuit for varying the number of rectifiers in multiple.

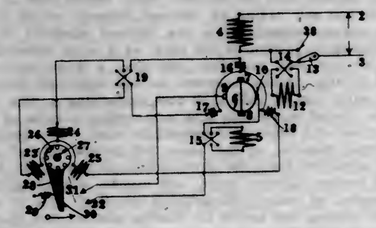
[Claims 6 and 7 not printed in the Gazette.]

1,072,444. PRINTING-FRAME. GEORGE FROENDT, Milford, Iowa. Filed May 18, 1912. Serial No. 698,242. (Cl. 95—77.)



A device of the class described comprising a rectangular frame, a plate supporting member carried therein and having a relatively small central aperture, a sheet arranged upon the supporting member and having a thin center with an aperture therein to coincide and register with the aperture in the supporting sheet, said sheet having graduations of a size corresponding with the aperture in the sheet, a back plate, and means to clamp the back plate on said sheet.

1,072,445. ALTERNATING-CURRENT-MOTOR CONTROL. VALERE ALFRED FYNN, St. Louis, Mo., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 13, 1912. Serial No. 697,049. (Cl. 172—274.)



1. The combination with a single-phase motor, of relay controlled means for reorganizing its circuits, and means for deriving a plurality of E. M. F.'s of differing phase from the motor and impressing said E. M. F.'s on the relay to produce a revolving field therein.

2. In a single-phase motor, the combination with an inducing member provided with a main inducing winding and an auxiliary winding displaced therefrom, of an induced member, a relay for reorganizing the circuits of the motor, and means for impressing on said relay a plurality of E. M. F.'s of differing phase, one of said E. M. F.'s being derived from the auxiliary winding.

3. The combination with a single-phase motor, of means dependent on the speed of said motor for generating a plurality of E. M. F.'s of differing phase, a polyphase relay, a switch controlled thereby for reorganizing the motor circuits and means for impressing the polyphase E. M. F.'s on the relay.

4. In a single-phase motor, the combination with an inducing member, of an induced member provided with two sets of brushes, one of said sets being in line with the magnetization produced by the inducing member, a switch in circuit with the other set of brushes, a polyphase relay controlling said switch, and means for deriving a plurality of E. M. F.'s of differing phase from the motor and impressing said E. M. F.'s on the relay.

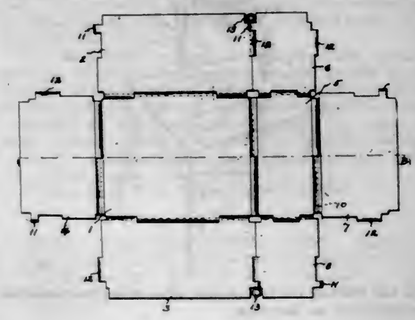
5. In a single-phase motor, the combination with an inducing member provided with a main inducing winding, of an induced member closed along one axis, a switch and connections for closing it along another axis, a relay governing said switch, an auxiliary winding on the inducing member displaced from the main inducing winding, and means for impressing on the relay a plurality of E. M. F.'s of differing phase, one of said E. M. F.'s being derived from said auxiliary winding.

[Claims 6 to 9 not printed in the Gazette.]

1,072,446. COLLAPSIBLE BATH-TUB. ELIZABETH A. M. GALLAGHER, New York, N. Y. Filed Nov. 27, 1912. Serial No. 733,837. (Cl. 4—27.)

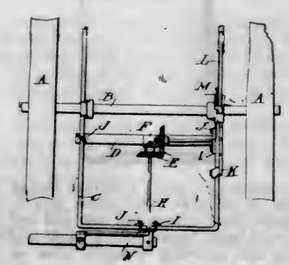
1. A bath tub, comprising a frame constructed with a base, composed of a plurality of separably hinged sections; side members hinged to the base sections, each side member composed of a plurality of separable sections; end members separably hinged to the base sections, all of the meeting edges of said sections, not hinged, having interlocking knuckles, and a fastening pin for securing said sections together when said knuckles are interlocked.

2. A bath tub, comprising a frame constructed with a base, composed of a plurality of separably hinged sections; side members hinged to the base sections, each side member having a plurality of separable sections, the arrangement and connection of said sections being such that one of the base sections and the connected side sections may be removed to shorten the tub, or similar sections added to lengthen the same; and end members hinged to the sections of the base member.



3. A bath tub, comprising the hinged base sections 1 and 5; side sections 2 and 3 hinged to the base section 1; side sections 6 and 8 hinged to the base section 5; end sections 4 that are arranged to be hinged to either of the base sections, all of said sections having interlocking knuckles 11 and 12 upon their meeting edges not hinged; and means, as pins 13 that engage said knuckles and lock all of said sections together.

1,072,447. MARKER FOR CORN-PLANTERS. ALFRED J. GREENE, Monrovia, Md. Filed July 23, 1912. Serial No. 711,114. (Cl. 111—24.)



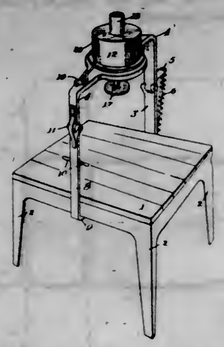
1. The combination with a swinging marker bar, of a rock shaft having a spring cushioned operative connection with the marker bar, and means for turning the rock shaft.

2. The combination with a swinging marker bar, of a rock shaft having an arm or part provided with a member loosely receiving the marker bar, yieldable means carried by the member and bearing on the marker bar, and means for turning the rock shaft.

1,072,448. POWER MOLDING-PRESS. GUSTAVE E. GRUNDSTROM, Chicago, Ill., assignor of one-half to John W. Ion, Chicago, Ill. Filed Feb. 8, 1912. Serial No. 676,435. (Cl. 100—57.)

In a device of the class described, a table, a support spanning said table and hinged to one side thereof, a

press on said support, and a spring catch on the free end of said support for engagement with said table below



the top thereof, the top of said table being unobstructed, substantially as described.

1,072,449. NON-REFILLABLE BOTTLE. PAUL HAAK, Philadelphia, Pa. Filed Aug. 15, 1912. Serial No. 715,146. (Cl. 215—61.)



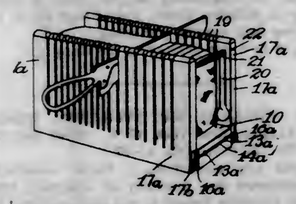
1. The combination with a bottle having its neck formed with an internal valve seated port at its inner end, of a valve adapted to engage said seat and close said port, said valve being formed with a liquid holding cavity on its inner side and with a hollow stem on its outer side, a member mounted in and insertible through the outer end of said neck and comprising a disk-like body substantially filling the said neck, but separated from the surrounding portion of the neck by a narrow annular space and formed with a tubular projection on its inner end telescopically receiving said hollow stem, a spring received within said hollow stem and tubular projection and normally holding the valve against its seat with a force exceeding the weight of the valve member when said cavity is empty, but less than the weight of the valve member when said cavity is filled with liquid, and means for holding said disk-like body against removal from the neck of the bottle.

2. The combination with a bottle having an integral neck formed with an internal valve seated port at its inner end and having an internal diameter at its outer end reduced slightly from the internal diameter of an intermediate portion of the neck, of a valve adapted to engage said seat and close said port, a valve retaining and guiding member mounted in and insertible through the outer end of said neck and comprising a disk like body located within the said intermediate portion of the neck and of a diameter substantially equal to the reduced internal diameter of the outer end portion of the neck and separated from the surrounding portion of the neck by a narrow annular space, and means for holding said disk like body against removal from the neck of the bottle.

3. The combination with a bottle having an integral neck formed with an internal valve seated port at its inner end and having an internal diameter at its outer end reduced slightly from the internal diameter of an intermediate portion of the neck, of a valve adapted to engage said seat and close said port, a valve retaining and guiding member mounted in and insertible through the outer end of said neck and comprising a disk like body located within the said intermediate portion of the neck and of a diameter substantially equal to the reduced internal diameter of the outer end portion of the neck and separated from the surrounding portion of the neck by a narrow annular space, said member also comprising a portion of reduced diameter at the inner side of said body portion, and means for holding said member against removal from the neck of the bottle comprising an elastic bushing surrounding said portion of reduced diameter and compressed between it and the surrounding portion of the bottle neck and formed with channels extending through the bushing from end to end.

4. The combination with a bottle having an integral neck formed with an internal valve seated port at its inner end and having an internal diameter at its outer end slightly reduced from the internal diameter of an intermediate portion of the neck, of a valve adapted to engage said seat and close said port, and formed with a stem on its outer side, a valve retaining and guiding member mounted in and insertible through the outer end of said neck and comprising a disk like body portion located within said intermediate neck portion and of a diameter substantially equal to the reduced internal diameter of the outer end of the neck and separated from the surrounding portion of the neck by a narrow annular space, said member also comprising a tubular portion secured to the inner side of said body portion and of less diameter than the latter, adapted to receive and guide said valve stem, and provided at its inner end with an outwardly extending rib, and means for securing said member against removal from the neck of the bottle comprising an elastic bushing surrounding the tubular portion of said member between said rib and said body portion and compressed between said tubular portion and the surrounding portion of the bottle neck and formed with channels extending through it from end to end.

1,072,450. BREAD-SLICER. FRANK H. HAMBLIN, Worcester, Mass. Filed Jan. 26, 1912. Serial No. 673,522. (Cl. 146—12.)



1. As an article of manufacture, a bread-board having vertical sides, and a pair of opposite knife guides therefor, each pivoted to the bread board at points beyond the vertical sides and below the top thereof in position to engage said vertical sides when the guides are in vertical position, whereby their inward motion is limited, and in position to engage the bread-board when swung down to horizontal position for the purpose of limiting their outer swinging motion.

2. As an article of manufacture, a bread-board having vertical sides and a pair of opposite knife guides therefor, each pivoted to the bread-board at points beyond the vertical sides and below the top thereof to swing oppositely outwardly and in position to engage said vertical sides when in vertical position, whereby their inward motion is limited, said guides each having a curved inner lower corner and a square outer lower corner, whereby when they are swung out the square corners will come in contact with said vertical sides of the board which will maintain them in horizontal position.

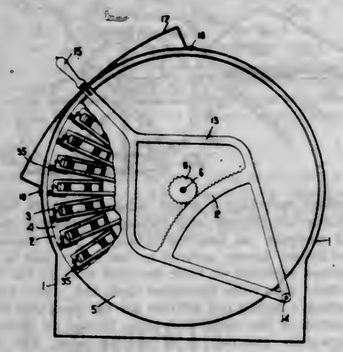
3. In a device of the character described, the combination of a bread board, a wire secured to each end thereof and projecting beyond both edges, and a knife guide pivoted to each end of the wire and adapted to swing from horizontal to vertical position, and having means thereon for limiting their downward motion to the horizontal.

4. As an article of manufacture, a bread-board having a pair of knife guides pivotally connected therewith at opposite sides thereof, and detachable resilient means at the top of said knife guides for holding them in vertical position.

5. In a device of the character described, the combination of a bread board, two knife guides pivoted to opposite edges thereof, springs attached to one of said guides at its opposite upper ends and having hooks on their ends and eyes on the other knife guide for receiving said hooks, whereby the knife guides are held yieldingly in vertical position.

[Claim 6 not printed in the Gazette.]

1,072,451. ROTARY FILE-CABINET. JAMES P. HARRINGTON and EDWARD L. BYRNE, Dorchester, Mass. Filed June 30, 1913. Serial No. 776,534. (Cl. 45—3.)



1. A file cabinet comprising a rotatable frame having a plurality of substantially radial slideways to present sector shaped spaces between the slideways and file holders each comprising a main section slidable in said slideways and a shorter auxiliary section whereby each holder substantially fills a sector shaped space.

2. A file cabinet comprising a rotatable frame having a plurality of substantially radial slideways therein to present sector shaped spaces between the slideways, and file holders each presenting a main section slidable in said slideways and an auxiliary section hinged to and foldable over upon the main section whereby each holder when folded substantially fills a sector shaped space.

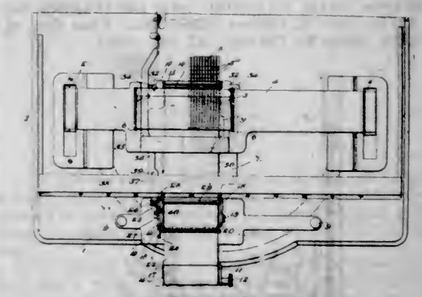
3. A file cabinet comprising a rotatable frame having a plurality of substantially radial slideways therein to present sector shaped spaces between the slideways, file holders each presenting a main section slidable in said slideways and an auxiliary section hinged to and foldable over upon the main section whereby each holder when folded substantially fills a sector shaped space and means on said frame at each space to prevent the unfolding of the contained file holder when in place.

4. A file cabinet comprising a rotatable frame having a plurality of substantially radial slideways therein to present sector shaped spaces between the slideways, file holders each presenting a main section slidable in said slideways and an auxiliary section hinged to and foldable over upon the main section whereby each holder when folded substantially fills a sector shaped space, and means pivotally mounted on said frame adjacent the front of each space to prevent the contained holder from sliding out and when swung aside to allow the contained holder to be removed from its space.

5. A file cabinet comprising a rotatable frame having a plurality of substantially radial slideways therein to present sector shaped spaces between the slideways and file holders each comprising a main section slidable in said slideways, an auxiliary section foldable over upon the main section whereby each holder when folded substantially fills a sector shaped space and a retaining spring for holding papers in each section.

[Claims 6 and 7 not printed in the Gazette.]

1,072,452. TALLY-ROLL ATTACHMENT. JOSEPH C. HARVEY, Chicago, Ill., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 5, 1912. Serial No. 688,752. (Cl. 197—132.)



1. In combination with a billing machine having a platen, separate sets of printing type, and an inked ribbon positioned between said platen and said type and adapted to be struck by type of one of said sets, a tally strip positioned between the other of said sets of type and said ribbon.

2. In combination with printing mechanism having printing type, an inked ribbon, a tally strip and means for guiding said tally strip rearwardly over said type and forwardly under said ribbon.

3. In combination with a platen and type, a continuous tally strip, means for feeding a portion of said tally strip between said type and said platen and an integral portion of said strip between said first mentioned portion and said platen.

4. A tally roll attachment comprising a plate, a supply roll at one end of said plate, a guide roll at the other end of said plate, and a receiving roll intermediate said rolls.

5. In a tally roll attachment, a plate, a supply roll at one end of said plate, a guide roll at the other end of said plate, and feeding mechanism intermediate said rolls.

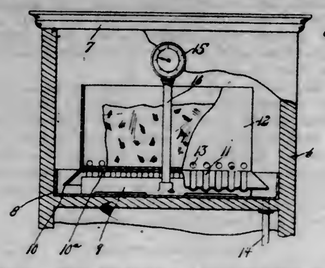
[Claims 6 to 10 not printed in the Gazette.]

1,072,453. REFRIGERATOR. WILLIAM HAUSNER and ALBERT SCHWEIGERT, Cleveland, Ohio. Filed May 5, 1913. Serial No. 765,653. (Cl. 73—121.)

1. The combination with the ice compartment of a refrigerator, of a drip pan in the bottom thereof, a weighing scale in said pan having a platform plate with downwardly inclined flanges at the edge projecting beside the scale frame, and an ice box mounted on said plate having drip openings discharging onto said flange, and a weight indicator operated by the scale.

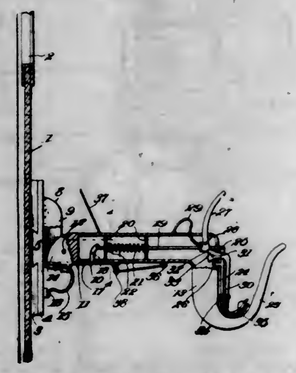
2. The combination with the ice compartment of a refrigerator, of a drip pan in the bottom thereof, a weighing

scale in said pan having a platform plate with flanges at the outer edge thereof projecting downwardly and outwardly between the scale and the sides of the pan, an ice box with sides, mounted on said plate and having drip



openings in the sides, an indicator at the front of the refrigerator operated by the weighing scale, and a tubular connection between the scale casing and the indicator casing.

1,072,454. MAIL CATCHING AND DELIVERING DEVICE. GUY R. HELTON, Elmer, Mo. Filed Oct. 29, 1912. Serial No. 728,453. (Cl. 105—230.)



1. In a device of the class described, a bracket, a mail bag receiving member pivoted to said bracket, spring means connected to said member, a keeper on said bracket, a latch rod engaging said keeper, spring means to maintain said rod in engagement with said keeper, a lever pivoted to said rod and to said receiving member, operable through engagement with a mail bag.

2. In a device of the class described, a bracket, a mail bag receiving member pivoted to said bracket, spring means connected to said member, said member having a hollow portion, a keeper on said bracket projecting into said hollow portion, a latch rod engaging said keeper, guide plates in said hollow portion for said latch rod, a spring for said rod mounted intermediate said plates, a lever pivoted to said rod, said lever also pivoted to said receiving member, spring means to maintain said rod in engagement with the keeper, said lever operable through engagement with a mail bag.

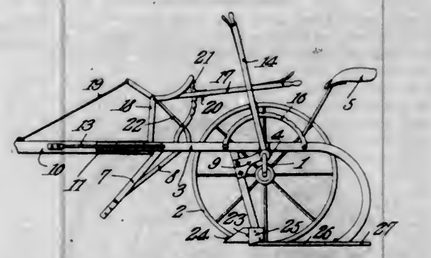
3. In a device of the class described, a mail bag receiving member, a closing member, a pivoted member maintaining said closing member open, spring means for said closing member, latch means, an actuating lever for said latch means, said operating lever having a portion projecting beyond the said pivoted member, and both of said latter members operable through engagement with a mail bag.

4. In a device of the character described, a pivotally supported hook shaped mail bag receiving member, spring means for retaining said member in operative position, a locking arm pivotally secured to the said receiving member, spring means to throw the said arm into locking position, a pivoted hook shaped member disposed for engagement with said arm, the said hook shaped member adapted to be actuated through engagement with a mail bag for releasing the locking arm and fastening the mail bag over the said receiving member.

5. A device of the character described including a base plate, a plate member detachably secured to the said base plate, a bracket formed integrally with the said plate member, the said bracket having an extension projecting outwardly from the face thereof, a hook shaped mail bag receiving member pivotally secured to the said bracket, spring means carried by the said plate member adapted to engage the said receiving member for retaining the latter in projected operative position, the movement of the said receiving member being limited in one direction by engagement with the said bracket extension, a locking arm, spring means to throw said arm into locking position, and a pivoted member to maintain said arm in open position, the said member being actuated through movement of a mail bag.

[Claims 6 and 7 not printed in the Gazette.]

1,072,455. GRUBBER. THOMAS B. HENDRICKS, Twin Falls, Idaho. Filed May 31, 1910. Serial No. 564,185. (Cl. 55—60.)



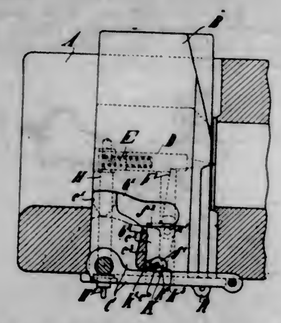
A grubber including a wheel supported crank axle, a frame supported thereby and having downwardly curved rear end portions, an inverted U-shaped beam depending from the frame, braces secured to the frame and to said beam, plates attached at their forward ends to the beam and at their rear ends journaled upon the crank axle, a blade having a forked end portion for the reception of the lower portion of the beam, said blade having an upwardly and rearwardly inclined front cutting edge, and rearwardly diverging cutting blades extending from the lower end of the beam and secured, adjacent their rear ends, to the downwardly extending rear end portions of the frame.

1,072,456. WEDGE-BLOCK BREECH MECHANISM. MAX HERMSDORF, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 2, 1911. Serial No. 663,575. (Cl. 89—27.)

1. In a wedge block mechanism for guns, the combination with an operating lever and a firing lock; of a cocking arm for said firing lock; a cocking bolt revolved by the opening of the mechanism and actuating said cocking arm; a hand lever, rotatably mounted on said cocking bolt and adapted to coöperate with said arm for cocking the firing lock.

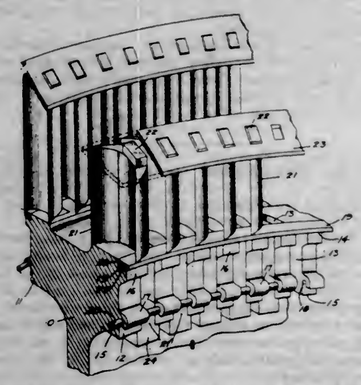
2. In a wedge block mechanism for guns, the combination with an operating lever and a firing lock; of a cocking arm for said firing lock; a cocking bolt revolved by the opening of the mechanism and actuating said cocking arm; a detachable seat, locked in position by means of said cocking bolt; a pivot pin on said seat; said cocking arm being mounted to oscillate around said pivot pin.

3. In a wedge block mechanism for guns, the combination with an operating lever and a firing lock; of a cocking arm for said firing lock; a cocking bolt revolved by the opening of the mechanism and actuating said cocking arm; a hand lever, rotatably mounted on said cocking bolt and adapted to coöperate with said arm for cocking the firing lock; means for holding said hand lever and said cocking arm in their normal positions comprising a toe on said hand lever, a finger on said cocking arm, a spring and a spring plunger.



4. In a wedge block mechanism for guns, the combination with an operating lever and a firing lock; of a cocking arm for said firing lock; a cocking bolt revolved by the opening of the mechanism and actuating said cocking arm; a hand lever, rotatably mounted on said cocking bolt and adapted to coöperate with said arm for cocking the firing lock, means for holding said hand lever and said cocking arm in their normal positions comprising a toe on said hand lever, a finger on said cocking arm, a spring and a spring plunger; a detachable seat, locked in position by means of said cocking bolt; a pivot pin on said seat, said cocking arm being mounted to oscillate around said pivot pin.

1,072,457. BLADE-MOUNTING. HERBERT T. HERR, Pittsburgh, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Jan. 30, 1912. Serial No. 674,293. (Cl. 121—57.)



1. A blade-holding element provided with slots, blades in said slots, and blade-securing means comprising a member bridging said slots and flush with the outer edge of the blade-holding element, and means on the blade-holding element for engaging said means.

2. A blade-holding element provided with slots, blades in said slots, and blade-securing means comprising removable members spaced apart and bridging said slots, and bendable fingers cast on the side of the blade-holding element and bendable in opposite directions to engage said removable members.

3. A blade-holding element comprising a wheel provided with slots, blades in the slots, and blade-securing means comprising a member bridging the said slots and flush with the periphery of the wheel, and means on the wheel for engaging said means.

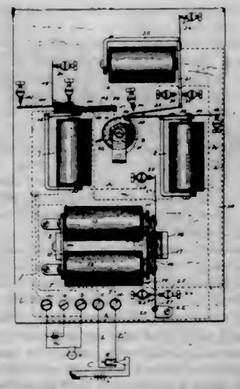
1,072,458. TUFT-CLEANING BRUSH. JAMES HENRY HILL, Fort Smith, Ark. Filed Sept. 4, 1912. Serial No. 718,592. (Cl. 15—37.)



1. In a brush, a stem having one end hooked and having a longitudinal slot extending into the hook, and bristles engaged in the slot, to provide a continuous series of tufts along the opposite sides, and around the said end of the stem.

2. In a brush, a strip forming a stem, having one end bent into a hook and having a plurality of longitudinal contiguous slots extending into and terminating short of the tip of the hook, and bristles fitting in the slots, to provide a plurality of continuous series of tufts extending along the sides of, and around the said end of the stem, the free ends of the tufts being expanded.

1,072,459. SUBSTATION SELECTIVE APPARATUS. OSCAR B. HJORTH, Sandwich, Ill. Filed July 18, 1912. Serial No. 710,147. (Cl. 177—343.)



1. In sub-station selective apparatus, the combination of a movable contact member, electro-magnet mechanism

associated with said contact member and adapted to effect step by step set-up movement thereof, an electro-magnet having an armature structure provided with a contact adapted upon attraction of said armature structure to engage with the set-up movable contact member, a signaling circuit closed by said engaging contact members, detent mechanism for holding said movable contact member in set-up position after setting up thereof by said electro-magnet mechanism, a retaining member on said armature structure moved upon attraction of said armature structure to prevent restoration of said movable contact member independently of said detent mechanism, a releasing electro-magnet for controlling said detent mechanism, and a circuit for said releasing electro-magnet closed by said armature structure during the latter part of its movement whereby said set-up contact member is locked by the retaining member before release of the detent mechanism.

2. In sub-station selective apparatus, the combination of a movable contact member, electro-magnet mechanism for effecting step by step setting up movement of said contact member, detent mechanism for preventing return of said contact member after setting up thereof, a releasing electro-magnet for said detent mechanism, a signaling electro-magnet having an armature structure provided with a contact adapted upon attraction of said armature structure to engage with the movable contact member, a signal circuit closed by said contact members, a retaining member on said armature structure moved by the attracted armature structure to retain said movable contact member against restoration independently of said detent mechanism, an energising circuit, said electro-magnets being connected with said energizing circuit in bridge of each other, and contact mechanism controlled during the latter part of movement of the signaling electro-magnet armature structure for closing the energizing branch of said releasing electro-magnet whereby said detent mechanism will not be actuated until said retaining member has become effective.

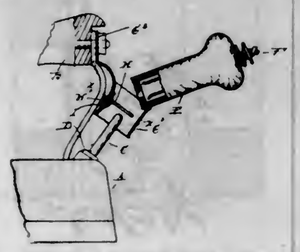
3. In sub-station selective mechanism, the combination of a step-by-step movable contact member, electro-magnet mechanism for controlling the step by step setting up movement of said contact member, detent mechanism for said setting up member, a releasing electro-magnet controlling said detent mechanism, a signaling electro-magnet having an armature structure provided with a contact adapted upon attraction of said armature structure to engage with the contact member, a sliding circuit closed by the engaged contacts, a controlling circuit for said signaling electro-magnet, contact mechanism closed during the latter part of movement of said armature structure, and a circuit for said releasing electro-magnet controlled by said contact mechanism whereby said detent mechanism will be actuated to release the movable contact member a period of time after engagement of said contact members to close the signaling circuit.

4. In sub-station selective mechanism, the combination of a main relay mechanism, a signaling circuit, a contact for said signaling circuit, a relay controlling said contact and having a circuit controlled by said main relay, a movable contact for said signaling circuit, electro-magnetic step-up mechanism for shifting said movable contact into the path of said first mentioned contact whereby upon actuation of said second mentioned relay said contacts will be brought into engagement and said signaling circuit closed, and electro-magnetic restoring mechanism for releasing said movable contact and having a circuit controlled by said second mentioned relay.

5. In sub-station selective mechanism, the combination of a polarized main relay, a signaling circuit, a controlling relay for said signaling circuit carrying a contact therefor, a step-up member carrying another contact for said signaling circuit, a step-up electro-magnet having an armature associated with said step-up member to effect movement of said step-up member to carry its contact into the path of said other contact whereby said signaling circuit may be closed upon actuation of said signaling circuit controlling relay, a releasing circuit controlled by said signal circuit controlling relay, an electro-magnet in said releasing circuit, and an armature for said releasing electro-magnet having detent engagement with said step-up member to lock said member after movement thereof by said step-up electro-magnet, said armature when attracted causing release of said step-up member from the locking detent and step-up armature.

[Claims 6 to 10 not printed in the Gazette.]

1,072,460. PLUG-SOCKET ELECTRICAL CONNECTOR. WILLIAM F. HOFFMANN, Detroit, Mich., assignor to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 30, 1912. Serial No. 728,645. (Cl. 219—21.)



1. In a socket for supporting a contact plug for an electrical connection, a resilient member secured to said plug, said resilient member adapted to engage the bottom portion of the plug to eject the said plug member after the electrical connection has been broken.

2. In a socket for supporting a contact plug for electrical connection, contact members extending within said socket, a resilient member secured to the socket, said resilient member positioned above the contact member and adapted to eject the plug member after the electrical connections have been broken.

3. In a socket member for supporting a contact plug, a spring anchored at its ends to the side of the socket and the intermediate portion of the spring member extending transversely of the socket member.

4. In a socket for supporting a contact plug for electrical connections, a spring member in said socket, said spring member secured to the socket intermediate its ends and extending transversely of the socket in its normal position and parallel with the socket when the electrical connections are coupled.

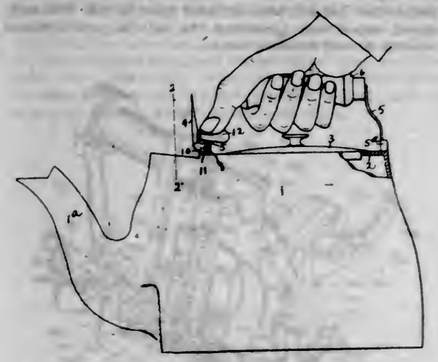
5. In a socket for supporting a contact plug for electrical connection, a spring member within said socket, said spring member adapted to eject the plug member when the contacts are uncoupled.

[Claim 6 not printed in the Gazette.]

1,072,461. TEA-KETTLE. JOHN C. HOLLANDS, Erie, Pa., assignor to The Griswold Manufacturing Company, Erie, Pa., a Corporation of Pennsylvania. Filed May 15, 1912. Serial No. 697,451. (Cl. 53—9.)

1. In a teakettle, the combination of a body having a spout and an opening back of the spout; a handle extending upwardly from the body, the front end of the handle being adjacent to the opening and at the opposite side of the opening from the spout; a cover for the opening, opening by a movement toward the handle; and means on the cover whereby the cover can be operated by an operator gripping the handle with the thumb side of the hand toward the spout.

2. In a teakettle, the combination of a body having a spout and an opening back of the spout; a handle extending upwardly from the body, the front end of the handle being adjacent to the opening and at the opposite side of the opening from the spout; a cover for the opening, opening by a movement toward the handle; and means on the cover whereby the cover can be operated by an operator gripping the handle with the thumb side of the hand toward the spout, the cover opening in a direction to deflect the steam from the opening from the operator actuating the cover.



3. In a teakettle, the combination of a body having a spout; an auxiliary opening back of the spout; a main opening back of the auxiliary opening; a handle extending upwardly from the body and across the main opening, the front end of the handle being adjacent to the auxiliary opening and at the opposite side of the auxiliary opening from the spout; a hinged cover for the auxiliary opening, said cover opening by a movement toward the handle; and means on the cover whereby the cover can be operated by an operator gripping the handle with the thumb side of the hand toward the spout.

4. In a teakettle, the combination of a body having a spout; a handle extending upwardly from the body, the front end of the handle being adjacent to the opening; a hinged cover for the opening, said cover swinging in its opening movement toward the handle; and means on the cover whereby the cover can be operated by an operator gripping the handle with the thumb side of the hand toward the spout, the cover forming a shield for the hand of the operator as it is opened.

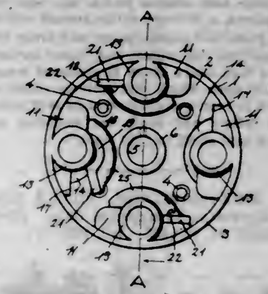
5. In a teakettle, the combination of a body having a spout and an opening back of the spout; a handle extending upwardly from the body, the front end of the handle being adjacent to the opening and at the opposite side of the opening from the spout; a hinged cover for the opening, said cover opening by a movement toward the handle; and means on the cover whereby the cover can be operated by an operator gripping the handle with the thumb side of the hand toward the spout, said cover being balanced to remain in an open position when opened.

1,072,462. OUTLET-BOX. WILLIAM H. HOPE, Newark, N. J. Filed Sept. 26, 1911. Serial No. 651,447. (Cl. 247—1.)

1. In an outlet box, a clamp comprising a fixed portion and a movable clamping member, both having opposite hollowed seats for a cable, one of said seats having a helical biting rib and the other a longitudinal biting rib, and means for adjusting said clamping member with respect to said fixed portion.

2. In an outlet box, a clamp comprising a fixed portion having a hollowed seat with a socket on one side thereof which opens also through the base of the box and a shoulder on the other side, a separable clamping member adapted to be inserted at one end into said socket and extend across said seat and shoulder, and means for adjusting the other end of said clamping member toward said shoulder.

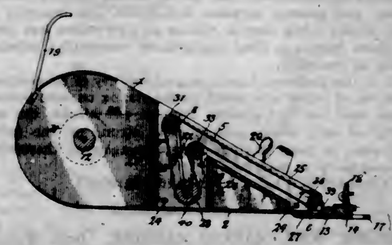
3. In an outlet box, a body portion having a bottom and a peripheral wall, a fixed clamp portion on said wall having a hollowed seat for a cable extending substantially perpendicular to the bottom of the body portion with a bushing at its end away from said bottom in axial alinement with said hollowed seat, the said bottom having an aperture extending from the said fixed clamp portion inward toward the center beyond the said bushing in plan view, a movable clamping member adapted to swing across said hollowed seat between the bushing and bottom of the box, and means for clamping said member.



4. In an outlet box, a body portion having a bottom and a peripheral wall, a fixed clamp portion on said wall having a hollowed seat for a cable extending substantially perpendicular to the bottom of the body portion with a bushing at its end away from said bottom in axial alinement with said hollowed seat, the said bottom having an aperture extending from the said fixed clamp portion inward toward the center beyond the said bushing in plan view, a movable clamping member adapted to swing across said hollowed seat between the bushing and the bottom of the box and having an outer flange parallel to the bottom and adapted to cover said aperture, and means for clamping said member.

5. In an outlet box, the combination with a chambered body having an aperture to receive a cable, of a clamp adjacent to said aperture comprising a fixed portion on the body, a movable clamping member adapted to coöperate with said fixed portion, means for clamping said member toward said fixed portion, and a knock-out disk on one of said clamp parts integrally connected thereto at a plurality of separated points of its peripheral edge.

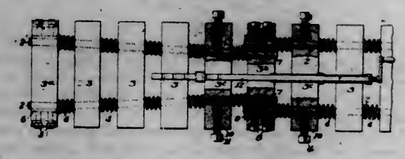
1,072,463. ADDRESSING-MACHINE. EDWARD D. HOWARD, Buffalo, N. Y. Filed Feb. 14, 1913. Serial No. 748,323. (Cl. 216—81.)



1. An addressing machine comprising a body provided with a paste reservoir in its rear part and two upwardly opening slots in the front ends of its side walls, a strip cutting device arranged at the front end of the body, a paste delivery belt extending from the paste reservoir to said cutting device, a weight roller which is arranged in the paste reservoir and around which the rear turn of the paste belt passes, a delivery roller around which the front turn of the paste belt passes, upper and lower intermediate rollers supporting the upper and lower stretches of the paste belt, a feed shaft which is arranged transversely in said slots and upon which said delivery roller is mounted, and a rack which is removably mounted in said body and upon which said rollers and shaft are mounted.

2. An addressing machine comprising a body provided with a paste reservoir in its rear part and two upwardly opening slots in the front ends of its side walls, a strip cutting device arranged at the front end of the body, a paste delivery belt extending from the paste reservoir to said cutting device, a weight roller which is arranged in the paste reservoir and around which the rear turn of the paste belt passes, a delivery roller around which the front turn of the paste belt passes, upper and lower intermediate rollers supporting the upper and lower stretches of the paste belt, a feed shaft which is arranged transversely in said slots and upon which said delivery roller is mounted, a rack which is removably mounted in said body and upon which said rollers and shaft are mounted, and catches for retaining said shaft in said slots.

1,072,464. TIRE-PROTECTOR. SILAS S. HUFFMAN and DUE A. HUFFMAN, Youngstown, Ohio. Filed MAR. 13, 1913. Serial No. 753,997. (Cl. 152—2.)



1. A tire protector comprising a plurality of flexible connections, a series of transverse tread blocks loosely strung on said connections, spacers between the blocks, and means near the ends of the protector to form clamp-engaging shoulders or abutments; substantially as described.

2. A tire protector comprising a plurality of flexible connections, a series of transverse tread blocks strung on said connections, spacers between the blocks, and means whereby two of said blocks at the ends of the connections may be provided with a pulling engagement with the connections; substantially as described.

3. A tire protector comprising a plurality of flexible connections, a series of transverse tread blocks loosely strung on said connections, and spacers between the blocks, two of the said blocks one near each end of the connections having clamping means for temporarily securing them to the connections; substantially as described.

4. A tire protector comprising a plurality of connections, a series of transverse tread blocks strung on said connections, and spacers between the blocks, the majority of said blocks being loosely strung on the cables but some of them having a fixed engagement therewith; substantially as described.

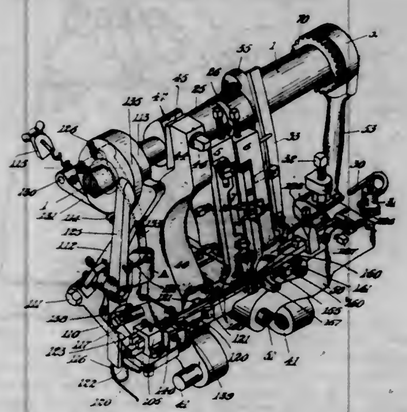
5. A tire protector comprising a plurality of connections, a series of transverse tread blocks strung on said connections, and resilient spacers between the blocks, the majority of said blocks being loosely strung on the cables but some of them having a fixed engagement therewith; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,072,465. NAIL-MAKING MACHINE. JOHN HYSLOP, Abington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 13, 1908. Serial No. 426,763. (Cl. 10—57.)

1. In a nail making machine, the combination with means for forming a nail from a nail blank, comprising a two part die and a heading punch, of means for finishing the nail so formed, arranged in predetermined relation to said forming means and comprising also a two part die, and means for grasping the shank of the nail formed in said first mentioned means and presenting said nail in predetermined relation to said finishing means.

2. In a nail making machine, the combination with means for forming a head upon a nail blank and for shaping the shank of the nail adjacent to the head, comprising a two part die and a heading punch, of means for finishing the nail head arranged in predetermined relation to said forming means, and means for grasping a portion of the shank that has not been operated upon in said first mentioned means and presenting the nail in predetermined relation to said finishing means.



3. In a nail making machine, the combination with means for forming a nail from a nail blank, comprising a die and a heading punch, of means for finishing the nail, arranged in predetermined relation to said forming means, and means for carrying a headed nail from the forming means to the finishing means and for simultaneously removing a nail from the finishing means, comprising two sets of fingers connected to move in unison and means to operate the fingers.

4. In a nail making machine, the combination with means for forming a nail from a nail blank, comprising a die and a heading punch, of means for finishing the nail, arranged in predetermined relation to said forming means, and means for carrying a headed nail from the forming means to the finishing means and for simultaneously removing a nail from the finishing means, comprising two sets of fingers connected to move in unison and means to open and close the fingers and to give the same both lateral and vertical movements.

5. In a nail making machine, the combination of a forming die and a trimming die, means to present a nail blank to the forming die, a heading punch coöperating with the forming die to form a headed nail, a trimming punch coöperating with the trimming die to trim the nail head, a pivoted lever carrying the heading punch and connected to operate the trimming punch, and a unitary means acting to carry a nail from the forming die to the trimming die and simultaneously remove a nail from the trimming die.

[Claims 6 to 15 not printed in the Gazette.]

1,072,466. LADY'S APPAREL. SALO J. JACKSON, New York, N. Y., assignor to Claire V. Watskey, Richmond, Va. Filed May 16, 1913. Serial No. 768,080. (Cl. 2—42.)

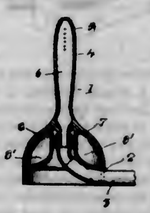
1. A nether garment for ladies' wear having back gores and front gores connected with the front edges thereof, the front and intermediate gores having edges seamed together and extending downwardly at the upper part of the front and rearwardly at an intermediate point and having their rear edges below the rearwardly extending portion seamed to the rear edges of the back gores, the back gores having their rear edges from the edges of the front gores upwardly to the waist line separably connected to form a long placket opening extending down to approximately the knee level.

2. A nether garment for ladies' wear embodying back gores formed with a long placket opening extending down to approximately the knee level, front gores connected with the front of the back gores and having their proximate edges seamed together throughout, said edges being extended downwardly from the waist line, thence rearwardly in a curve to form separate compartments for the limbs, thence downwardly on substantially the lines of the rear of the garment, said last mentioned portions of the edges below the placket being seamed to the rear gores, whereby the material between the limb compartments is supported from both its front and rear edges.



3. A nether garment for ladies' wear divided at the front, the intermediate partitions forming the limb compartments being seamed together throughout the front, rearwardly extending and downwardly extending rear edges, said downwardly extending rear edges being connected with the rear portion of the garment along a vertical substantially central line, forming a garment which is not divided at the back.

1,072,467. SYRINGE. OWEN JAMES, Fall River, Mass. Filed May 4, 1912. Serial No. 695,117. (Cl. 128—25.)



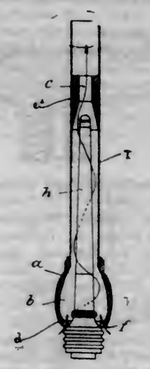
1. A syringe attachment comprising a nozzle, a bell-shaped body secured thereto and merging smoothly into the nozzle, and a nipple extending into the bell-shaped body, said bell-shaped body having a tube receiving notch in its lower edge.

2. A syringe attachment comprising a nozzle, a bell-shaped body secured thereto and merging smoothly into the nozzle, a nipple extending into the bell-shaped body, said bell-shaped body having a tube receiving notch in its lower edge and a curved partition in said body to prevent kinking of the tube.

1,072,468. MEANS FOR REMOVING YARN RESIDUES FROM BOBBINS, SPOOLS, AND THE LIKE. PAUL JEANMAIRE, Kollnau, Germany. Filed July 17, 1913. Serial No. 779,558. (Cl. 118—26.)

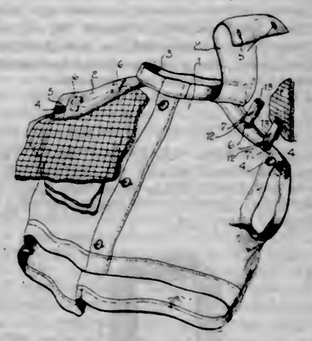
1. An appliance for the purpose set forth, comprising a hollow casing adapted to be connected to a suction device and to be placed with clearance around a bobbin or the like, said casing having an enlargement at its lower end and a constriction at its upper end into which the tip of the bobbin or the like may enter.

2. An appliance for the purpose set forth, comprising a tubular casing adapted to be connected to a suction device and to be placed with clearance around a bobbin or the like, said casing having an enlargement at its lower end provided with an inturned rim to bear on the foot of the bobbin and spaces in said rim for the entrance of air, and a constriction at its upper end into which the tip of the bobbin or the like may enter.



3. An appliance for the purpose set forth comprising a tubular casing adapted to be connected at one end to a suction device and having an enlargement on its other end formed with an axial opening for the insertion of a bobbin or the like, said opening having an inturned rim to bear on the foot of the bobbin through which rim are formed channels for the admission of air, and a cylindrical piece at its suction end provided with a central bore flared in the direction toward said enlargement through which flared portion the tip of said bobbin may enter.

1,072,469. SLEEPING-SHIRT. IRA A. JOHNSON, Glendale, Tex. Filed Feb. 17, 1913. Serial No. 748,955. (Cl. 5—3.)



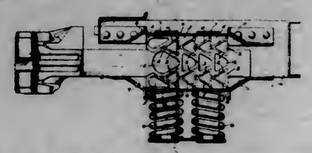
1. A device of the class described comprising a shirt having shoulder flaps, clamping members beneath the shoulder flaps, means for securing the clamping members to the shoulder portion of the shirt, and means for securing the outer ends of the flaps in position.

2. A device of the class described comprising a shirt having shoulder flaps permanently secured to the neck of the shirt at their upper ends, means for removably securing the outer ends of the flaps in position, and cover engaging means positioned beneath the flaps.

1,072,470. DRAW-GEAR AND BUFFING APPARATUS. JOSHUA J. JONES, Pittsburgh, Pa., assignor, by mesne assignments, to Union Draft Gear Company, a Corporation of Illinois. Filed Dec. 9, 1908. Serial No. 466,602. (Cl. 213—64.)

1. In a friction draw-gear and buffing apparatus, the combination with a draw-bar, of friction blocks having

oppositely inclined friction surfaces arranged one above the other and means adapted to frictionally engage either the upper or the lower inclined surfaces of the friction blocks according to the direction of movement of the draw-bar.



2. In a friction draw-gear and buffing apparatus, the combination with a draw-bar, of friction blocks having inclined friction faces arranged on opposite sides of a longitudinal plane and means for frictionally engaging the friction faces on one side of said longitudinal plane in draft movements and the friction faces on the opposite side of said plane, in buffing movements of the draw-bar.

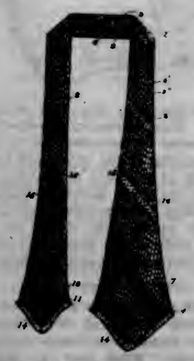
3. In a friction draw-gear and buffing apparatus, the combination with a draw-bar having inclined friction faces and friction elements having inclined friction faces, of friction blocks provided with friction faces inclined in one direction for engaging the friction faces of the draw-bar and with friction faces inclined in the opposite direction for engaging the friction faces of said friction elements.

4. In a friction draw-gear and buffing apparatus, the combination with a draw-bar having inclined friction faces and friction elements having inclined friction faces, of friction blocks provided with friction faces inclined in one direction for engaging the friction faces of the draw-bar and with friction faces inclined in the opposite direction for engaging the friction faces of said friction elements, and yielding spring means for resisting lateral movement of said friction blocks and elements.

5. In a draft gear and buffing mechanism, the combination with a draw-bar having notches on opposite sides provided with inclined friction faces, laterally movable friction blocks carried in said notches and having inclined friction faces adapted to engage the corresponding friction faces of the notches, friction elements bearing on said friction blocks, and yielding means for resisting lateral movement of said blocks and elements.

[Claims 6 and 7 not printed in the Gazette.]

1,072,471. KNITTED NECKTIE. JOSEF KELLNER, Brooklyn, and SIDNEY WORMS, New Rochelle, N. Y., assignors to Franklin Knitting Mills, New York, N. Y., a Corporation of New York. Filed Sept. 20, 1912. Serial No. 721,358. (Cl. 2—11.)



1. As an article of manufacture, a flat knitted necktie having its lateral edges suitably connected, said necktie having a colored stripe or stripes of a different or contrasting color or colors knitted therein on a substantially true bias.

2. As an article of manufacture, a flat knitted necktie having its lateral edges suitably connected, said necktie having a colored stripe or stripes of a different or contrasting color or colors knitted therein on a substantially true bias, said tie having a narrow neck portion and one or more flaring end portions.

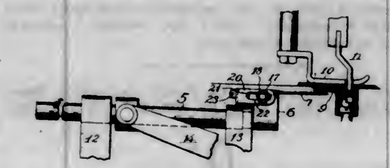
3. As an article of manufacture, a flat knitted necktie having its lateral edges suitably connected, said necktie having a colored stripe or stripes of a different or contrasting color or colors knitted therein on a substantially true bias, said stripe having substantially the same appearance on the opposite face of the material.

4. As an article of manufacture, a flat knitted necktie having its lateral edges suitably connected, said necktie having a colored stripe or stripes of a different or contrasting color or colors knitted therein on a substantially true bias, all of the stitches of said tie having substantially the same looseness or tightness.

5. A bias knitted necktie, said necktie having a colored stripe or stripes knitted therein on a bias.

[Claims 6 to 8 not printed in the Gazette.]

1,072,472. SEWING-MACHINE-NEEDLE-SETTING MEANS. JOHN KIEWICZ, Hyde Park, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Oct. 26, 1912. Serial No. 727,897. (Cl. 112—37.)



1. A sewing machine needle setting means comprising, in combination with a needle carrier of the type having an offset or enlarged head or end, a needle securing device on said head adapted to hold a needle with its butt projecting rearward therefrom and a longitudinally adjustable needle stop comprising a plate carried by said head extending rearward of said head and there flanged, and an adjusting screw for varying the stop's position, said screw having a groove engaging an aperture in said flange.

2. A sewing machine needle setting means comprising, in combination with a needle carrier of the type having an offset or enlarged head or end a needle securing screw-clamp on said head having a clamp screw, and adapted to hold a needle with its butt projecting rearward therefrom and a longitudinally adjustable needle stop comprising an apertured plate carried by said head extending rearward of said head and there flanged, and an adjusting screw for varying the stop's position; the aperture of said stop plate engaging the clamp screw of said needle securing means whereby to assist the positioning of said stop.

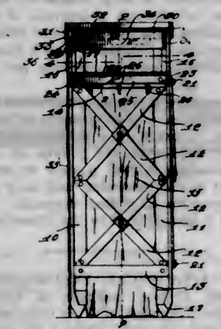
3. A sewing machine needle setting means comprising in combination with a needle carrier of the type having an offset head, a needle securing device on said head adapted to secure a needle with point and butt ends both longitudinally projecting exteriorly therefrom, and a longitudinally adjustable exterior needle stop having a stop part laterally projecting into the needle line adapted to be contacted by the needle butt for determining the needle's position.

4. A sewing machine needle setting means comprising in combination with a needle carrier of the type having an offset head, a needle securing device on said head adapted to secure a needle with point and butt ends both longitudinally projecting exteriorly therefrom, and a longitudinally arranged exterior needle stop detachably mounted on said head having a body and a stop part laterally projecting from said body into the needle line adapted to be contacted by the needle butt for determining the needle's position.

5. A sewing machine needle setting means comprising in combination with a needle carrier of the type having an offset head, a needle securing device on said head adapted to secure a needle with point and butt ends both longitudinally projecting exteriorly therefrom, and a longitudinally adjustable exterior needle stop having a plate portion secured upon said head and a stop flange laterally projecting from said plate portion into the needle line to be contacted by the needle butt for determining the needle's position, and means for securing the plate portion of said stop upon the said head in its adjusted position.

[Claims 6 to 14 not printed in the Gazette.]

1,072,473. WARDROBE. JOHN AXEL KINDBERG, Gaither, Okla. Filed Oct. 22, 1912. Serial No. 727,233. (Cl. 45—118.)



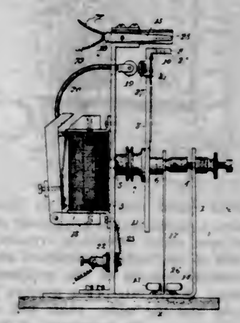
1. A wardrobe comprising end walls, each having vertical angle bars, cross bars carried by said angle bars, bracing bars connecting said end walls, a shelf resting upon said cross bars and extending between said end walls, said shelf comprising a plate provided with a cut-out portion in each corner, keys carried by said angle bars and passing through said cut-out portion, side strips carried by said plate and fitting between said end walls, cross strips secured to said plate and secured between said side strips, hooks carried by said side strips and engaging said angle bars to brace said end walls, a cover mounted upon said angle bars, and curtains carried by said cover.

2. A wardrobe comprising end walls, bracing bars connecting said end walls, a shelf carried by said end walls, article suspending hooks carried by said shelf, a cover carried by said end walls, said cover comprising a plate, side and end strips secured to said plate and extending above and below the same, inner side and end strips secured to the lower face of said plate in spaced relation to said first mentioned side and end strips to form pockets in which the upper ends of said end walls fit, curtains for said wardrobe, and means for slidably connecting said curtains with said cover.

1,072,474. AUTOMATIC ELECTRIC RECORDING DEVICE. ALBERT LAMBOT, Brussels, Belgium. Filed July 8, 1910. Serial No. 571,036. (Cl. 73—117.)

1. In an automatic electric recording device comprising a transmitter, a circuit and a receiver; a tongue coöperating in the closure of the electric circuit, mounted on the said transmitter and suitable operating means controlling said tongue and rotating it; a scale whereon indications of said recording device are readable; a loose needle adapted to close and to open the said circuit, carried around by said tongue at each of its rotations, and electro-magnetic means adapted to release said loose needle when it reaches the contact position and making it cut the circuit.

2. In an automatic electric recording device comprising a transmitter, a circuit and a receiver; a tongue coöperating in the closure of an electric circuit mounted on said transmitter and suitable operating means controlling said tongue and rotating it; a scale whereon the indications of said recording device are readable; a loose needle adapted to close and to open said circuit, carried around by said tongue at each of its rotations, and loosely mounted on said transmitter; electro-magnetic means adapted to release said needle when it reaches the contact position, and means on said receiver for closing and opening said circuit in coöperation with said needle.



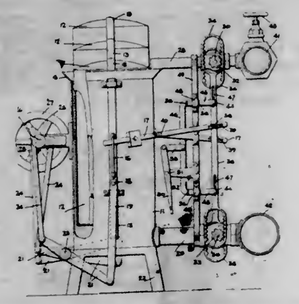
3. In an automatic electric recording device comprising a transmitter, a circuit and a receiver; a tongue coöperating in the closure of an electric circuit mounted on said transmitter and suitable operating means controlling said tongue and rotating it; a scale whereon the indications of said recording device are readable; a loose needle adapted to close and to open said circuit, carried around by said tongue at each of its rotations; an electro-magnet for said transmitter adapted to release said needle, when it reaches the contact position; a pair of electro-magnets forming resistance in the receiver, armatures for said receiver electro-magnets, and a shunt on each of said receiver electro-magnets for cutting out a part of said resistance, when the armature of said transmitter electro-magnet, having for its object the releasing of the loose needle in the transmitter, is influenced in such a way as to remove said needle from the contacts and to cut said circuit, immediately after the instantaneous working of the receiver.

4. In an automatic electric recording device, comprising a transmitter, a circuit, and a receiver; a tongue coöperating in the closure of an electric circuit, mounted on said transmitter and suitable operating means controlling said tongue; a loose needle adapted periodically to close and to open the circuit, carried around by said tongue at each of its rotations; an electro magnet for said transmitter; a pair of electro-magnets forming resistance in the receiver, armatures for said receiver electro-magnets and a shunt on each receiver electro-magnet for cutting out a part of said resistance when the armature of said transmitter electro-magnet is attracted, whereby said needle-releasing electro-magnet is influenced in such a way as to remove said loose needle from the contact, and to cut the circuit, immediately after the instantaneous working of the receiver; a selective relay with automatic polarization requiring the use of one wire and the earth for a return, the said selective relay having an electro-magnet, whereby objectionable action of all exterior currents is prevented.

1,072,475. HYDRAULIC MOTOR. CHARLES R. LAWSON, San Francisco, Cal. Filed June 25, 1912. Serial No. 705,681. (Cl. 253—12.)

1. A hydraulic motor comprising an open ended receptacle cylinder, a closed hollow cylindrical piston loosely fitted into the open ended receptacle cylinder, a yoke secured to the top of the hollow cylindrical piston and extending downwardly outside of the receptacle cylinder,

a rotatable motor shaft, interposed gearing between the ends of the yoke and the motor shaft and means for alternately introducing water at the top of the receptacle cylinder and discharging it from the bottom of said cylinder.



2. A hydraulic motor comprising an open ended receptacle cylinder, a closed hollow cylindrical piston loosely fitted into the open ended receptacle cylinder, a yoke secured to the top of the hollow cylindrical piston and extending downwardly outside of the receptacle cylinder, a rotatable motor shaft, interposed gearing between the ends of the yoke and the motor shaft and means, automatically dependent upon the movement of the cylindrical piston in the cylinder for alternately introducing water at the top of the receptacle cylinder and discharging it from the bottom of said cylinder.

3. A hydraulic motor comprising a plurality of open ended receptacle cylinders, a plurality of floating cylindrical pistons loosely fitted into the receptacle cylinders, yokes secured to the top of said floating pistons and extending downwardly on opposite sides of the receptacle cylinders and outside of said cylinders, a single rotatable motor shaft, interposed gearing between the ends of each yoke and the motor shaft comprising a plurality of cranks secured to and angularly disposed about the motor shaft and means for alternately introducing water at the top and discharging water from the bottom of each of the cylinders, said means being automatically dependent upon the rise and fall of the pistons.

4. A hydraulic motor, comprising a plurality of open-ended receptacle cylinders; a plurality of pistons mounted to be floated in said cylinders; a water-supply system for introducing and discharging water from said cylinders, embodying a plurality of valves controlling said system; means connecting each of said valves with one of said pistons, for operating said valves concordantly with said pistons; and means for timing the operation of said valves relative the movement of said pistons.

5. A hydraulic motor, comprising a plurality of open-ended receptacle cylinders; a plurality of floating pistons mounted therein; a water-supply system for said cylinders, embodying a supply main, a controlling valve for said main, a plurality of cut-off valves for each of said cylinders; and a plurality of cut-off valves for controlling the discharge from said cylinders, said cut-off valves being connected to operate in unison; a timing mechanism operatively connecting said cut-off valves and said pistons, embodying means for operating said cut-off valves, and operative by said pistons at the limit of the strokes thereof.

[Claim 6 not printed in the Gazette.]

1,072,476. PAINT COMPOSITION AND PROCESS OF MAKING THE SAME. ARCHIBALD S. B. LITTLE, Nashville, Tenn. Filed Oct. 16, 1912. Serial No. 726,051. (Cl. 134—83.)

1. In the manufacture of paint, the process of dissolving a quantity of resin in a hydrocarbon, then heating a quantity of linseed oil mixed with red lead and litharge to a consistency such that the mass solidifies on cooling, dissolving said mass while hot in a suitable quantity of turpentine, and adding the solution to the original solution of resin and hydrocarbon.

2. In the manufacture of paint, the process of dissolving a suitable quantity of rosin in its own weight of petroleum spirit, heating a mixture of linseed oil with a quantity of red lead and litharge to a point where the mass solidifies on cooling, dissolving said mass while hot in turpentine, and adding the solution to the original solution of rosin and petroleum spirit.

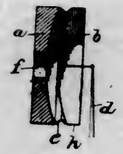
3. In the manufacture of paint, the process of dissolving fifty pounds of rosin in its own weight of benzin, heating fifty pounds of linseed oil with five pounds of red lead and five pounds of litharge to a point where the mass solidifies on cooling, dissolving said mass while hot in fifty pounds of turpentine, and adding thereto the original solution of rosin in benzin.

4. In a paint composition the combination of a vehicle composed of a solution of fifty pounds of rosin in fifty pounds of benzin, mixed with a solution of fifty pounds of linseed oil solidified with five pounds of litharge, in fifty pounds of turpentine, a pigment mixed therewith, and a metallic chromate forming about four per cent. of the entire mixture.

5. In a paint composition the combination of a vehicle composed of a solution of fifty pounds of rosin in fifty pounds of benzin, mixed with a solution of fifty pounds of linseed oil solidified with five pounds of red lead and five pounds of litharge, in fifty pounds of turpentine, an insoluble pigment mixed therewith, and four per cent. by weight of the entire mass, of zinc chromate.

[Claims 6 and 7 not printed in the Gazette.]

1,072,477. ACOUSTICAL INSTRUMENT. LOUIS LUMIÈRE, Lyon, France, assignor to Victor Talking Machine Company, Camden, N. J., a Corporation of New Jersey. Filed May 18, 1910. Serial No. 561,928. (Cl. 181—11.)



1. A sound box for acoustical instruments comprising a stationary wall, a movable wall, means for reciprocating the movable wall toward and away from the stationary wall, and flexible inelastic means uniting the two walls and completing the chamber of the sound box, but having substantially no appreciable influence on the position of the movable wall relatively to the stationary wall within the ordinary range of the movement of the movable wall.

2. A sound box for acoustical instruments comprising a stationary wall, a movable wall, means for reciprocating the movable wall, and yielding, inelastic, folding means uniting the two walls and completing the chamber of the sound box, but having substantially no appreciable influence on the positions of the movable wall relatively to the stationary wall within the ordinary range of the movement of the movable wall, and leaving the movable wall practically free to move as a whole in substantially unchanged form to any extent that may be practically required, and offering substantially no resistance to the movement of the movable wall, whatever the position of the latter may be with respect to the stationary wall within the limits of the movement of said movable wall.

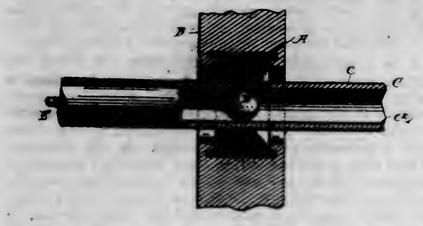
3. A sound box for acoustical instruments comprising a stationary wall, a rigid movable wall adapted to be reciprocated toward and away from the stationary wall in substantially unchanged form, and means forming a flexible, folding, inelastic joint between the two walls which allows practically free movement of the movable wall in unchanged form within the limits of the movement of said movable wall.

4. A sound box comprising a stationary wall, a movable wall and means in the form of a yielding accordion plait connecting said stationary wall to said movable wall.

5. A sound box for acoustical instruments comprising a rigid movable wall of dished form, a stationary wall, a folding, inelastic, flexible means uniting the two walls and completing the chamber of the sound box, but having substantially no appreciable influence on the position of the movable wall relatively to the stationary wall within the ordinary range of operation of the device.

[Claims 6 to 22 not printed in the Gazette.]

1,072,478. METHOD OF PROTECTING CONDUITS FOR ELECTRIC CONDUCTORS. GEORGE A. LUTZ, Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me., a Corporation of Maine. Filed Jan. 19, 1909. Serial No. 473,157. (Cl. 29—188.)



1. The method of protecting articles from oxidation consisting in applying an electro-deposit of metal upon such article, then causing such metal deposit to flow upon the surface of said article to fill spots in such deposit.

2. The method of protecting a metal pipe from oxidation consisting in applying an electrodeposit of metal upon the interior and exterior surfaces of the pipe, and then simultaneously causing said exterior and interior deposits to flow to fill open spots left in said deposits.

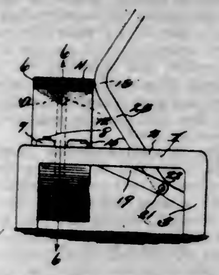
1,072,479. WRENCH. FREDERICK NEWELL MARTINDALE, Sprague ville, N. Y. Filed Dec. 21, 1912. Serial No. 738,099. (Cl. 81—121.)



A wrench handle provided with an approximately square nut opening at one end having a lug projecting inwardly from its outer edge, the side edges of the opening each having an outwardly facing step coöperating with the lug to provide supplemental four-sided nut openings.

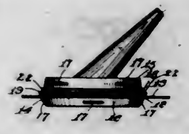
1,072,480. CASTING-MACHINE. WILLIAM WARREN MCCARTER, Quitman, Ga. Filed Oct. 26, 1912. Serial No. 727,939. (Cl. 22—153.)

In combination, a frame comprising parallel side guide bars, a stationary mold member carried by the forward portions of said side guide bars, a movable mold member having laterally extending lugs adapted to slide upon said side guide bars; said mold members having registering depressions adapted to form a casting cavity with a pouring opening; a lever pivoted to the rear bottom portion of said frame; a yoke pivotally connecting said lever and the movable mold member, whereby the movable mold member may be reciprocated longitudinally upon the guide bars; said yoke, by virtue of the lever, adapted to pull downwardly and rearwardly on the movable mold member, thereby holding the laterally extending lugs firmly and squarely in contact with the guide bars; said movable mold member, upon oscillating the lever rearwardly on its



pivot and the yoke in the same direction upon its pivot with said lever, adapted to be removed clear of the guide bars with its depression facing upwardly, whereby the casting may be easily lifted in case it adheres.

1,072,481. OIL-CAN SPOUT. JOE D. MELVIN, Sherman, Tex. Filed June 25, 1912. Serial No. 705,832. (Cl. 221—23.)



1. A receptacle having an opening formed in its cover, a discharge spout comprising a plurality of cups provided with outwardly extending flanges, a ring secured between the flanges of said cups and extending beyond the edges thereof whereby when one of said cups is inserted within said opening, said ring will be held in spaced relation to the top of said receptacle, and a discharge spout connected with one of said cups.

2. A discharge spout for the purpose described, comprising a pair of oppositely disposed cups provided with outwardly extending flanges at their inner edges, a removing ring secured between the flanges of said cups and extending beyond the edges thereof, and a spout carried by one of said cups.

1,072,482. METHOD OF FORMING HOOKED OR THROATED NEEDLES. JOSEPH M. MERROW, Hartford, Conn. Filed Aug. 11, 1911. Serial No. 643,587. (Cl. 163—5.)



1. The method herein described of forming hooked or throated needles, consisting in forming a blank with a substantially conical head, upon one end of a rod, flattening the said head into a taper with one of its flattened faces set back in a line parallel and coincident with the corresponding side of the rod or shank, and bending this blank into a hook.

2. The method of forming hooked needles which consists in forming a tapering neck and a pointed conical head on one end of a rod or hook shank, then spreading the said neck and head to form an arrow headed end with converging faces, and bending the end back to form a hooked needle.

3. The method of forming hooked needles which consists in forming on the end of a wire or rod, a conical head and a tapering neck of circular cross section and concentric with the rod on which it is formed, then flattening the head and neck to form a pointed arrow head with con-

verging faces and laterally extending shoulders on opposite edges, and finally bending this head back toward the shank in a plane perpendicular to the plane of its flat faces to form a hooked needle.

4. The method of making hooked or throated needles which consists in causing the metal in one end of a rod or hook shank to flow into a head and neck of suitable size and contour, concentric with the rod or shank and of circular cross section, then spreading the head and neck laterally by means of pressure applied to opposite sides of the said head and neck without confining the metal to limit its lateral flow, and then forming the neck and head into a hook throat or bend.

5. The process of making crochet needles with loop deflecting hooks, consisting in swaging the end of the needle rod into a conical neck with its smaller end merging into the base of a pointed conical head, then spreading the head and neck between suitable dies that will not confine the lateral flow of the metal and form faces that converge toward the point of the head, thereby forming the conical head and neck into a pointed head with converging faces and oppositely disposed loop deflecting shoulders on the edges between said faces, and finally bending the end back to form a crochet needle.

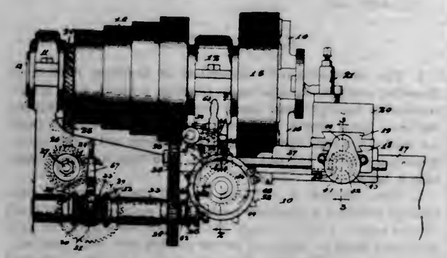
[Claim 6 not printed in the Gazette.]

1,072,483. PAPER-FASTENER. JOHN J. A. MILLER, Denver, Colo. Filed May 11, 1912. Serial No. 696,640. (Cl. 24—153.)



A paper fastener consisting of a wire bent centrally of its length to form a yoke-shaped portion of suitable length, the sides of which terminate in circular wings, which are formed by bending the length of wire out and around in opposite directions until they cross the sides of the yoke-shaped portion, whence they are bent down at right angles to the plane of the wings and terminate in pointed ends, the sides of said yoke-shaped portion and the downwardly extending portion being formed at their point of contact with semi-circular bends, which interlock.

1,072,484. AUTOMATIC CROSS-SLIDE FEED-TRIP FOR LATHES. WILLIAM L. MILLER, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed Mar. 28, 1913. Serial No. 757,386. (Cl. 82—24.)



1. In a cross-slide tripping mechanism for lathes, the combination of a cross-slide, mechanism, including a clutch, for actuating said cross-slide, means constantly urging said clutch into disengaged position, a disk geared to turn in a fixed ratio to the movement of said cross-slide, trip-blocks mounted on said disk, and means actuated by said trip-blocks controlling said clutch-disengaging means.

2. In a cross-slide tripping mechanism for lathes, the combination of a cross-slide, mechanism, including a clutch, for actuating said cross-slide, means constantly urging said clutch into disengaged position, a disk geared to turn in a fixed ratio to the movement of said cross-slide, trip-blocks mounted on said disk, a clutch-shifting lever, a movable member carrying a dog disposed in the path of said trip-blocks, and means actuated by said movable member controlling the movement of said lever in a direction to effect disengagement of said clutch.

3. In a cross-slide tripping mechanism for lathes, the combination of a cross-slide, mechanism, including a clutch, for actuating said cross-slide, means constantly urging said clutch into disengaged position, a disk geared to turn in a fixed ratio to the movement of said cross-slide, trip-blocks adjustably mounted on the periphery of said disk, a clutch-shifting lever, a movable member carrying a dog disposed in the path of said trip-blocks, said dog being mounted to yield laterally in one direction only, and means actuated by said movable member controlling the movement of said clutch-shifting lever in a direction to effect disengagement of said clutch.

4. In a cross-slide tripping mechanism for lathes, the combination of a cross-slide, mechanism, including a clutch, for actuating said cross-slide, means constantly urging said clutch into disengaged position, a disk geared to turn in a fixed ratio to the movement of said cross-slide, trip-blocks adjustably mounted on the periphery of said disk, a clutch-shifting lever, a pivoted trip-arm, a dog pivoted in the free end of said trip-arm and normally in the path of said trip-blocks, said dog yielding laterally under contact of said trip-blocks when moving in one direction but rigid under such contact when said trip-blocks are moving in the opposite direction, and means actuated by said trip-arm controlling the movement of said clutch-shifting lever in a direction to effect disengagement of said clutch.

5. In a cross-slide tripping mechanism for lathes, the combination of a cross-slide, mechanism, including a clutch, for actuating said cross-slide in both its in and out movements, means constantly urging said clutch into disengaged position, a disk geared to said cross-slide actuating mechanism to turn in a fixed ratio to the movement of said cross-slide, two sets of trip-blocks mounted on said disk, and means actuated by the trip-blocks of each of said sets controlling said clutch-disengaging means.

[Claims 6 and 7 not printed in the Gazette.]

1,072,485. MARINE PAINT. THOMAS MORAN and DAVID MOSHER, San Francisco, Cal.; said Mosher assignor, by direct and mesne assignments, of three-eighths to Matilda Deidesheimer, San Francisco, Cal., and one-eighth to Cassius E. Gillette, Philadelphia, Pa. Filed Mar. 14, 1912. Serial No. 683,874. (Cl. 134—40.)

In a marine paint composition, the combination with a paint vehicle, of a metallic oxid, a metallic arsenate, a metallic cyanid, and an arsenious acid and phenol compound substantially as described.

1,072,486. FOREHEAD-PROTECTOR. CONSTANCE M. MORRIS, Warroad, Minn. Filed June 7, 1913. Serial No. 772,399. (Cl. 2—118.)

1. As a new article of manufacture, a forehead protector comprising an elongated body constructed of suitable material and adapted to be secured at one of its longitudinal edges to a head covering, tabs formed at each end of said body and adapted to be removably secured to the body of the head covering, as and for the purpose set forth.

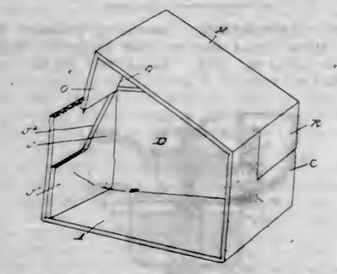
2. As a new article of manufacture, a forehead protector including an elongated body of any suitable material and secured at one of its longitudinal edges to a head covering, tabs formed at each end of the body, resilient

socket members secured to said tabs and headed catch members secured to the inner side of the head covering



and adapted to be engaged by the resilient sockets, as and for the purpose set forth.

1,072,487. EGG-CRATE OR SHIPPING-BOX. LAWRENCE D. MORTON, Sandusky, Ohio, assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed Mar. 1, 1912. Serial No. 680,928. (Cl. 229—33.)



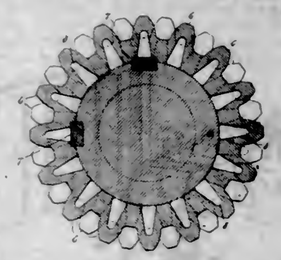
1. A paper box or package, comprising a blank of corrugated board slitted and scored to form integral sides, ends, a bottom, a cover, and flaps, said parts being arranged to provide a rigid bearing and said flaps projecting from the ends, folded at right angles thereto and having the bottom edges thereof engaging the bottom of the box whereby said flaps form braces for the ends, and a flange depending from the free end of the cover and arranged within the box, and engaging said bearing, whereby the latter forms a support for the cover.

2. In a paper box, the combination of bottom, sides, ends and a cover, formed of an integral blank of heavy corrugated board and divided from each other by slitted and scored lines, a flange integral with the end, folded inward to lie adjacent to the inner face of a side and resting on the bottom, whereby said flap forms a brace for said end, said flap being cut away to provide a bearing portion of reduced height and a beveled connecting portion, and a depending flange on the free edge of the cover, beveled to fit the beveled portion of said flap and engaging the bearing portion thereof, providing a support for the free edge.

3. A paper box or package, comprising a blank of heavy corrugated board slitted or scored to form integral sides, ends, a bottom, a cover, and flaps projecting from each side of the ends, folded at right angles thereto and having the bottom edges thereof engaging the bottom of the box to form braces for the ends, one flap of each end being partially cut away forming a bearing, and a flange depending from the free edge of the cover arranged within the box and engaging the bearings whereby said flange forms a support for said cover edge.

4. A paper box or package, comprising a blank of heavy corrugated board slitted and scored to form integral sides, ends, a bottom, a cover and flaps projecting laterally from opposite sides of the ends and free from the sides, said flaps being folded at right angles to the ends and having the bottom edges thereof engaging the bottom of the box whereby said flaps form braces for the ends, the forward flap of each end being cut away to provide a bearing portion of reduced height and a beveled connecting portion, and a flange depending from the free edge of the cover and extending substantially the entire length thereof, said flange being beveled at the ends to fit the beveled portions of the flaps and engaging the bearing portion of the flaps, providing a support for said cover edge.

1,072,488. DRIVING-PINION FOR ROLLING-MILLS. WESLEY G. NICHOLS, Chicago Heights, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Sept. 27, 1911. Serial No. 651,637. (Cl. 74—28.)

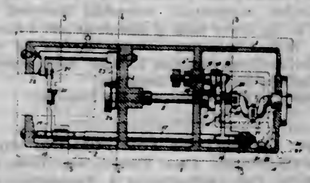


1. Driving means comprising a wrought metal shaft and an annular shell continuous throughout its circumference secured in place thereupon; said shell being formed from cast manganese steel and having a series of gear teeth upon its periphery, and having also a series of recesses extending outward from said shaft into the body of the shell and located in line with the teeth aforesaid, each of said recesses having a single opening leading thereinto.

2. An annular shell continuous throughout its circumference formed from cast manganese steel and having a series of gear teeth upon its periphery, and having also a series of recesses extending outward from its inner surface and into its cast metal body portion, said recesses having each a single opening leading thereinto and the location of said recesses being in line with the teeth aforesaid.

3. Driving means comprising a wrought metal shaft having an enlarged portion circular in cross-section and an annular shell continuous throughout its circumference secured in place upon said enlarged portion; said shell being formed from cast manganese steel and having a series of gear teeth upon its periphery, and having also a series of recesses extending outward from said enlarged portion into the body of the shell and located in line with the teeth aforesaid, each of said recesses having a single opening leading thereinto.

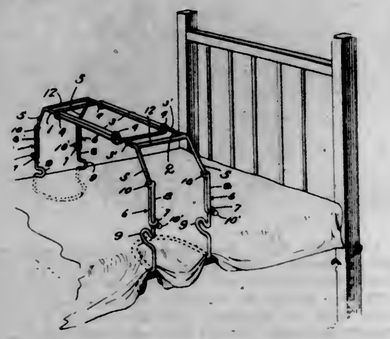
1,072,489. ATTACHMENT FOR SEWING-MACHINES. ARTHUR N. OATHOUT, Gloversville, N. Y., assignor to Edwin L. Meyers and David F. Meyer, constituting The Firm of Louis Meyers & Son, New York, N. Y. Filed Apr. 18, 1911. Serial No. 621,889. (Cl. 112—8.)



An attachment for sewing machines comprising means for controlling the fabric feeding devices, a pivoted arm operatively connected therewith, lever mechanism adjustably secured to said arm, an abutment on said arm

movable in the arc of a circle about the pivot of said arm, a fixed stop located in the path of said abutment and adapted to coöperate therewith to limit the movement of the arm in one direction, an adjustable stop located on said machine between said fixed stop and said lever mechanism and adjustable toward and away from said arm to limit the movement thereof in the opposite direction, said lever mechanism being arranged to force said arm toward said adjustable stop, a compression spring adapted to normally maintain said abutment on the arm in engagement with said fixed stop and means for adjusting the tension of said spring.

1,072,490. BED ATTACHMENT. FORREST L. OILAR, La Fayette, Ind. Filed Nov. 14, 1912. Serial No. 731,401. (Cl. 5—41.)



1. An attachment for beds comprising a pair of detachably connected sections carrying supporting members, resilient clothes clamping members above the ends of said members and adapted to receive and clamp the bed clothing.

2. An attachment for beds comprising a pair of slidable sections, the outer ends of which terminate in vertical legs, members slidably engaging said legs and terminating in a horizontal mattress engaging portion, resilient clothes engaging members spaced above said horizontal portion, as and for the purpose set forth.

3. An attachment for beds comprising a pair of slidable sections comprising spaced arms, certain ends of which are provided with loops, depressions formed in said arms and engaged by said loops to hold the sections in adjusted positions, the other ends of said arms terminating in vertical legs, supporting members adjustably connected to the legs, said members terminating in a horizontal mattress engaging portion, resilient clothes engaging members spaced above said horizontal portion, as and for the purpose set forth.

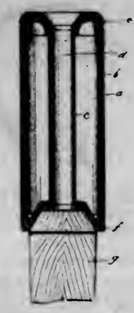
4. An attachment for beds comprising a pair of adjustably connected sections carrying supporting members, resilient clothes clamping members carried by said supporting members and adapted to receive and clamp the bed clothing.

5. A clothes clamping attachment for beds consisting of a pair of members each consisting of a pair of spaced arms, a connecting horizontally extending mattress engaging member at the lower ends of said arms and a laterally extending clothes engaging member carried by each arm above the mattress engaging member, and connections between the first named two members.

[Claims 6 to 9 not printed in the Gazette.]

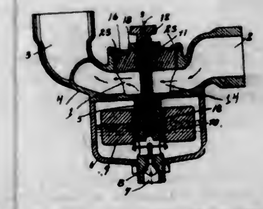
1,072,491. APPARATUS FOR FORMING CONCRETE CAPS ON PILES. LEON PIERCE, New York, N. Y., assignor to The Underpinning & Foundation Co., New York, N. Y., a Corporation of New York. Filed Apr. 15, 1912. Serial No. 691,067. (Cl. 72—81.)

A follower having a cap formed with an aperture and adapted to receive the blows of the pile-hammer; a base-end formed with an aperture and having a recess adapted to receive the top of the pile; a tubular conduit the ends of which are fitted in said apertures; and a cylindrical



body portion which connects the cap and the base-end and which is of substantially greater diameter than the pile to be driven.

1,072,492. CARBURETER. GEORGE S. PIERSON, Kalamazoo, Mich. Filed Nov. 9, 1909, Serial No. 527,062. Renewed July 28, 1913. Serial No. 781,667. (Cl. 48—155.1.)



1. In a carbureter, the combination with the body having a mixing chamber therein; a fuel feed well opening into said mixing chamber; a movable valve member; a valve for said mixing chamber carried by said member; and a fuel control valve having an air supply passage therein adapted to deliver air to said well independently of said mixing chamber, said fuel valve being threaded into said valve member.

2. In a carbureter, the combination with the body having a mixing chamber therein; a fuel feed well opening into said mixing chamber; a movable valve member; a valve for said mixing chamber carried by said member; and a fuel control valve having an air supply passage therein adapted to deliver air to said well independently of said mixing chamber, said fuel valve being adjustably mounted on said valve member.

3. In a carbureter, the combination of a mixing chamber; a fuel feed well opening into said mixing chamber; a valve for said mixing chamber; and a fuel control valve having an air supply passage therein adapted to deliver air to said well independently of said mixing chamber, the discharge of said passage in said valve being above the seat engaging portion thereof, said fuel valve being operatively connected to said mixing chamber valve.

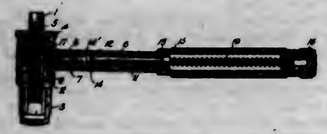
4. In a carbureter, the combination of a mixing chamber; a fuel feed well opening into said mixing chamber; a valve for said mixing chamber; and a fuel control valve having an air supply passage therein adapted to deliver air to said well independently of said mixing chamber, said fuel valve being operatively connected to said mixing chamber valve.

5. In a carbureter, the combination of a mixing chamber; a fuel feed well opening into said mixing chamber; a valve operating member; inlet and discharge valves for said mixing chamber carried by said member whereby they are simultaneously operated, the discharge valve being arranged so that the discharge of said mixing chamber

is restricted relative to its inlet; and an air delivery member having an air passage therein adapted to deliver to said feed well independently of said mixing chamber, said air delivery member being adjustably arranged in said valve operating member.

[Claims 6 to 9 not printed in the Gazette.]

1,072,493. MICROMETER-GAGE. HENRY S. PLANT, Melrose, Mass. Filed Feb. 24, 1911. Serial No. 610,563. (Cl. 73—144.)



1. A micrometer gage having a distance pin, a receiver therefor from which said pin may be projected, a laterally extending handle, means whereby the same is adjustably mounted on said receiver, a spindle within the handle, and a spring to project said spindle into engagement with the said pin, said handle having a spring-compressing shoulder and coöperating spring pressing means to engage and control the tension of the spring, whereby the spring projection of the spindle is controlled by the adjustment of the handle.

2. A micrometer gage having a distance pin, a receiver therefor and from which said pin may be projected, a handle having spring actuated means to engage the pin and also having means to transfer the spring pressure from the pin to the handle.

3. A micrometer gage having a distance pin, a receiver therefor and from which said pin may be projected, a laterally projecting handle, means whereby the handle is adjustably attached to the receiver, a spindle therein and movable longitudinally thereof and having a protruding, pin-engaging end, said spindle and said handle being respectively provided with coöperating projections normally separated when the pin is projected and which may be brought into engagement by handle adjustment, thereby to hold the spindle in non-locking position.

4. A micrometer gage having a distance pin, a receiver therefor and from which said pin may be projected, a laterally projecting handle, having means for adjustably attaching it to said receiver, a spindle within said handle thereof, interengaging projections upon the spindle and handle respectively, to lock the spindle in engagement with the pin, and interengaging projections upon the spindle and handle to hold the spindle in non-locking position.

5. A micrometer gage having a distance pin, a receiver therefor and from which said pin may be projected, a handle laterally projecting from the receiver, means for effecting longitudinal adjustment of said handle, an axial spindle carried by the handle, a spring to press said spindle into engagement with said pin and interengaging locking formations upon the spindle and handle, whereby rotation of said handle effects locking of the pin by the spindle and opposite rotation of the handle effects its release.

[Claims 6 to 10 not printed in the Gazette.]

1,072,494. EYEGLASS-GUARD. ROSS E. POULTON, Savannah, Ga., assignor to Isaac M. Schwab, Savannah, Ga. Filed Aug. 28, 1912. Serial No. 717,652. (Cl. 88—50.)

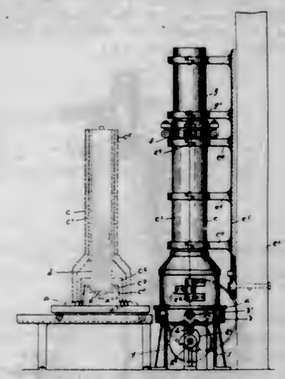
1. An eye glass guard comprising a stationary part or bar provided with a tongue at the end thereof, a movable part or pad provided with a flange having an opening larger than the cross-section of the tongue to receive the tongue and permit of a substantially universal movement of the pad on the tongue, and means integral with the bar to secure the pad against displacement from the tongue while permitting of said universal movement.

2. An eye glass guard comprising a stationary part or bar provided with a tongue at the end thereof, a movable part or pad provided with a flange having an opening larger than the cross-section of the tongue to receive the tongue and permit of a substantially universal movement of the pad on the tongue, and means integral with the bar to secure the pad against displacement from the tongue



while permitting of said universal movement, said securing means comprising a prong projecting from each side of the bar at the root of the tongue in the plane of the bar and tongue, each prong adapted to be bent back into U shape to embrace the ends of the flange and terminating adjacent to the end of the tongue.

1,072,495. APPARATUS FOR LINING PIPES. GEORGE W. PRIEST, Newton, Mass. Filed Feb. 15, 1909, Serial No. 478,014. Renewed Jan. 24, 1913. Serial No. 744,040. (Cl. 25—38.)



1. In a machine for lining pipe, the combination of means for supporting a plurality of concentrically arranged pipe-sections, a hollow core adapted to be contained in the inner pipe-section, means for supporting said core, means for filling the spaces between said pipe-sections and between the inner pipe-section and the core, and a vacuum-box in open communication with all of said spaces, substantially as described.

2. In a machine for lining pipe, the combination of means for supporting a plurality of concentrically arranged pipe-sections, a hollow perforated core adapted to be contained in the inner pipe-section, means for supporting said core, means for filling the spaces between the pipe-sections and between the inner pipe-section and the core, and a vacuum-box in open communication with all of said spaces and also with the interior of the hollow core, substantially as described.

3. In a machine for lining pipe, the combination of a horizontal supporting-plate having a central recess to receive the lower end of a core and a seat concentric to said recess to receive the lower end of an upright pipe, means engaging the upper ends of the core and pipe, means extending through the core connecting said engaging means with the horizontal supporting-plate, guiding-means for the pipe, means for filling the space between the core and pipe, and means to vibrate said supporting-plate and parts supported by it to cause the filling to become firmly compacted in said space, substantially as described.

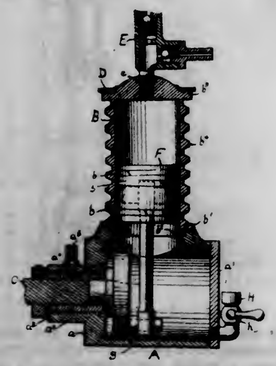
4. In a machine for lining pipe, the combination of a horizontal supporting-plate having a central recess to re-

ceive the lower end of a core and a seat concentric to said recess to receive the lower end of an upright pipe and having perforations opposite the space between said core and pipe, means engaging the upper ends of the core and pipe, means extending through the core connecting said engaging means with the horizontal supporting-plate, guiding-means for the pipe, means for filling the space between the core and pipe, and means to vibrate said supporting-plate and parts supported by it to cause the filling to become firmly compacted in said space, substantially as described.

5. In a machine for lining pipe, the combination of a horizontal supporting-plate having a central recess to receive the lower end of a core and having a plurality of concentrically arranged seats to receive the lower ends of a corresponding number of pipe sections, means to engage the upper ends of the core and pipe sections, guiding-means for the pipe sections, means for filling the spaces between the core and inner pipe section and also between the pipe sections, and means to vibrate said supporting-plate and parts supported by it to cause the filling to become firmly compacted in said spaces, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,072,496. AIR-PRESSURE PUMP. EWALD A. RAVES, Auburn, N. Y., assignor to The Auburn Ignition Manufacturing Co., Auburn, N. Y. Filed Dec. 28, 1910. Serial No. 599,777. (Cl. 230—27.)



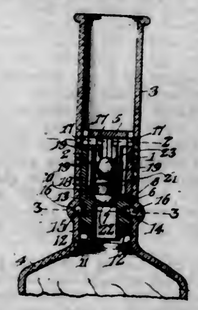
1. In an air pump, the combination with the hollow base, of a detachable cylinder mounted thereon and communicating therewith, a crank shaft provided with a crank pin within said base, a piston in said cylinder, a pitman pivotally connected to said piston and having a bearing aperture engaging said crank pin, whereby by detaching the cylinder from said base and moving it laterally said pitman may be disengaged from the crank pin.

2. In an air pump, the combination with a hollow base comprising a single casting open at one side and provided with a boss at the opposite side and a closing plate for the said open base, a driving shaft mounted in said base, a crank disk within said base connected to said shaft and provided with a crank pin, a cylinder formed in one piece closed at the top and open at the bottom detachably supported on said base and communicating therewith, a piston in said cylinder, a pitman pivotally connected to said piston and provided at its lower end with an aperture adapted to be slipped over said crank pin, and an exterior valve casing secured to the closed end of said cylinder and provided with inlet and outlet valves.

3. In an air pump, the combination with a hollow base consisting of a single casting open at one side and provided with a boss at the other side, and a closing plate for the open side of said casting, a cylinder formed in one piece, open at the lower end and closed at the upper end, supported detachably on said base and communicating therewith, a piston in said cylinder, a pitman pivotally connected to said cylinder, and provided with an aperture in its lower end, a shaft mounted in said boss, a crank disk in said base provided with a crank pin engaging said aperture in the pitman, a collar interposed between the disk and the inner end of the said boss for holding the crank pin in proper alinement with the axis of the cylinder, and a collar on said shaft at the outer end of said boss, an exterior valve casing communicating with the closed end of the cylinder, and inlet and outlet valves in said valve casing.

4. In an air pump, the combination with the base comprising a casting bored out horizontally and provided with a boss in axial alinement with the bore, said casting having an aperture in its upper face communicating with said bore, a closing plate for said casting, a cylinder formed in one piece, closed at its upper end and open at its lower end, mounted on said base casting and communicating with the top aperture therein, vertical bolts secured to said base casting, a clamping ring engaging the closed top of the cylinder and secured to said bolts, a piston in said cylinder, a pitman pivoted to said piston at its upper end and held from lateral movement with respect thereto and provided with an aperture in its lower end, a driving shaft mounted in said boss, a crank disk on said shaft within said base, and provided with a crank pin extending toward said closing plate and engaging the aperture in the lower end of the pitman, a detachable device on said pin for engaging said pitman on the side toward said closing plate and an exterior valve casing communicating with the closed end of said cylinder, and provided with inlet and outlet valves.

1,072,497. NON-REFILLABLE BOTTLE. JOSEPH G. REDDICK, Portland, Oreg. Filed Sept. 8, 1910. Serial No. 581,113. (Cl. 215—62.)



1. A device of the class described including a valve casing having a valve seat at the lower portion and provided with a closed top wall, and having an annular series of outlet openings at the top and formed by registering recesses in the periphery of the top wall and the side wall of the casing, said valve casing being also provided with an annular series of vertical guiding ribs extending from the valve seat and spaced at the top from the underside of the top wall, said ribs coinciding at their upper ends with and terminating at the bottoms of the said recesses of the side wall and projecting inwardly from the recesses to form guards thereat, and a valve fitting snugly within and guided by the annular series of longitudinal ribs and co-acting with the valve seat.

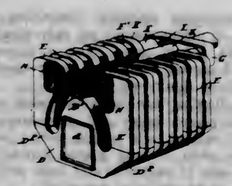
2. A device of the class described including a cylindrical valve casing having a valve seat at the lower portion and composed of two semi-cylindrical sections having interlocking portions, one of the sections being provided with an integral top wall closing the upper end of the valve casing, said valve casing having an annular series of recesses at the periphery of the top wall, and the side wall of the casing having registering recesses and provided on its inner face with an annular series of vertical guiding ribs extending from the valve seat and spaced at the top from one side of the top wall, said ribs coinciding at their upper ends with and terminating at the bottoms of the recesses of the side wall and projecting inwardly from the said recesses to form guards thereat, and a valve fitting snugly within and guided by the annular series of longitudinal ribs and co-acting with the valve seat.

1,072,498. BUCKLE. JOHN EDWARD REDMOND, Souris, Manitoba, Canada, assignor of one-half to James Washington Breakey and James Henry Bartlett, Souris, Canada. Filed May 25, 1912. Serial No. 699,730. (Cl. 24—206.)



A buckle, comprising frame and tongue members, the tongue embodying a series of cross bars and openings between the same, the frame embodying guide flanges between which the tongue slides, a catch pivotally supported by and between said guide flanges, and a bowed spring fastened to the under side of the catch adapting it to ride over the cross bars of the tongue and press the point of the catch into the spaces between said cross bars.

1,072,499. HOT-AIR FURNACE. DWIGHT S. RICHARDSON, New York, N. Y. Filed Oct. 12, 1912. Serial No. 725,450. (Cl. 126—104.)



1. In an air heating furnace, a longitudinal combustion chamber with extending arms on opposite sides thereof in the lower portion, said arms disposed throughout the length of said combustion chamber, radiators supported on said arms and communicating therewith, the said radiators being spaced from the combustion chamber and overhanging the same and spaced from each other at the top, and each of said radiators being formed with a plurality of flues spaced from one another forming between them passageways for air to pass over their surfaces.

2. In a hot air furnace, a longitudinal combustion chamber with spaced exit openings in rows on opposite sides and at the lower portion thereof, radiators having spaced sections forming flues overhanging the combustion chamber at their upper ends but spaced therefrom and from each other leaving a central clear air space over the combustion chamber and at their lower ends in communication with the said exit openings, a direct discharge flue leading from the top of the combustion chamber and a discharge flue from the rear of each of the radiators.

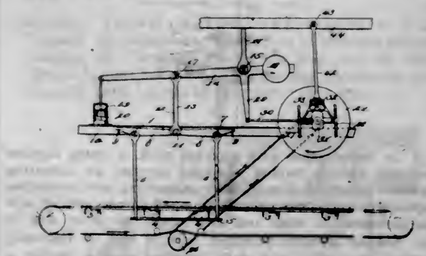
3. In a hot air furnace, an elongated combustion chamber having a substantially semi-cylindrical top and having spaced exit openings in rows on opposite sides and at the lower portion thereof, separate radiators spaced from each other at the top and each having vertical, connected, spaced sections forming flues overhanging the combustion chamber with their inner edges conforming to, but spaced from the top of the combustion chamber and at their lower ends in communication with the said exit openings, and discharge ducts for the radiators.

4. In a hot air furnace an elongated combustion chamber having spaced lateral extensions in rows on opposite sides and at the lower portion thereof forming exit openings, separate radiators spaced from each other at the top and each having vertical sections forming flues overhanging the combustion chamber at their upper ends and connected together in their overhanging portions, the lower ends of the sections being supported by and in communication with the lateral extensions and discharge ducts for the radiators.

5. In a hot air furnace, an integral cast metal combustion chamber having an upwardly curved top and lateral extensions in rows on opposite sides at the lower portion thereof, forming exit openings and radiators one on each side spaced from each other at the top to leave a clear air space centrally over the combustion chamber and each an integral casting having spaced sections forming flues seating at the bottom on the lateral extensions of the combustion chamber and connecting parts between the sections at the top forming communicating openings between the sections, and an exit opening in line with the communicating openings.

[Claims 6 and 7 not printed in the Gazette.]

1,072,500. AUTOMATIC TRAVELING-LOAD SCALE. HENRY RICHARDSON, New York, N. Y. Filed Mar. 24, 1910. Serial No. 551,347. (Cl. 235—91.)



1. Integrating mechanism for traveling load scales embodying a member having means for driving it at a speed proportionate to one of the factors to be integrated, a pair of integrating wheels coöperative with said member and having means controlled to vary their relation with said member in accordance with the other factor to be integrated, and a totalizing device having means for actuating it from said integrating wheels at a rate proportionate to the difference in speed of revolution of said wheels.

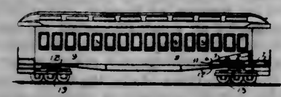
2. Integrating mechanism for traveling load scales embodying a revoluble member having means for driving it at a speed proportionate to one of the factors to be integrated, a pair of integrating wheels coöperative with said member and having means controlled to vary their relation with respect to said member in accordance with the other factor to be integrated, a differential connection between said wheels, and a totalizing device actuated by said differential connection.

3. Integrating mechanism for traveling load scales embodying a revoluble disk having means for driving it at a speed which is constantly proportionate to one of the quantities to be integrated, a pair of integrating wheels coöperative with said disk at opposite sides of its axis of rotation and having means for shifting their position with respect to said axis of rotation, a differential gear operatively associated with said integrating wheels, and a counter actuated by said differential gear.

4. Integrating mechanism embodying a revoluble disk having means for driving it at a speed which is a factor of the quantity to be integrated, a pair of integrating wheels of equal diameter frictionally engaging the face of said disk at opposite sides of its axis of rotation, means controlled by another factor of the quantity to be integrated for bodily shifting said integrating wheels with respect to

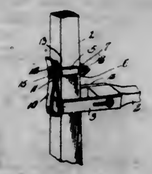
the axis of the disk, a differential gear operatively connecting said wheels, a counter, and an actuating shaft for the counter connected to be driven by said differential gear at a rate proportionate to the difference in speed of revolution of such integrating wheels.

1,072,501. CAR. HERMAN RICHTER, Tacoma, Wash. Filed Jan. 27, 1910. Serial No. 540,299. (Cl. 105—201.)



A car comprising a frame work having exerior covering and being mounted on trucks and having end platforms, and thick metal reinforcing plates extending under the car platforms and secured to and covering the bottom of the car.

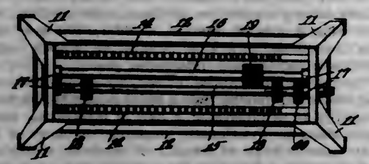
1,072,502. DRIVING CONNECTION FOR PICKER-STICKS OF WEAVING-LOOMS. VICTOR RIEL, Manchester, N. H. Filed July 10, 1912. Serial No. 708,690. (Cl. 139—48.)



1. In combination with a picker stick, a clamp member fastened thereto having a clamp portion, an actuating member, a flexible loop member supporting said actuating member, said flexible member clamped at one side of said portion between same and said stick, the other side of the flexible member provided with a slot, a fastening member projecting from said clamping portion having a head thereon, said flexible member being detachably fastened to the fastening member through the engagement of said strap at the slot with said fastening member on the head thereof.

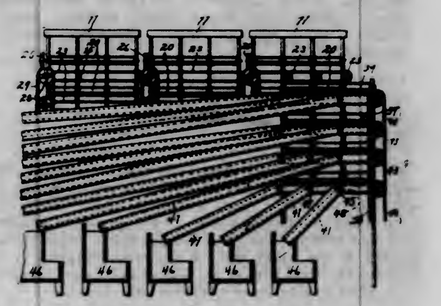
2. In combination with a picker stick, a clamping member having side arms and a connecting arm, said side arms terminating in screw-threaded shanks, a clamp bar engaging said shanks, nuts on said shanks beyond said bar, an actuating member, a flexible loop member supporting said actuating member, said flexible member clamped at one side by and between said connecting arm and said stick, the other side of said flexible member provided with a slot, a set-screw fastened to and projecting from said connecting arm having a head thereon, said flexible member being detachably fastened to one side of the fastening member through the engagement of said strap at the slot with said fastening member beyond the head thereof.

1,072,503. THREAD-CUTTING MACHINE. EDWARD RILEY, Spokane, Wash. Filed Aug. 31, 1912. Serial No. 718,153. (Cl. 10—92.)



A thread cutter including a plurality of rotary cutters, a drive shaft and a driven shaft disposed in parallel relation, pinions splined on the drive shaft, a pinion splined on the driven shaft, a gear carried by each of the cutters, the pinion of the drive shaft when in engagement with said gears driving the same in one direction, the pinion of the driven shaft being disposed to mesh with either of the other pinions, and the gear of an adjacent cutter to reverse the movement of the same.

1,072,504. MAIL-DISTRIBUTING MACHINE. WILLIS E. ROBINSON, Chicago, Ill. Filed Dec. 19, 1912. Serial No. 737,679. (Cl. 211—36.)



1. A distributing machine comprising a case having a plurality of pigeon holes and a conveyer belt forming the floor of each of said pigeon holes; and a conveyer leading from each of said conveyer belts, substantially as described.

2. A distributing machine comprising a case having a plurality of pigeon holes; an individual repository for each of said pigeon holes; and a conveyer connecting each of said pigeon holes with its respective repository, substantially as described.

3. A distributing machine comprising a case having a plurality of pigeon holes and a conveyer belt forming the floor of each of said pigeon holes; an individual repository for each of said pigeon holes; and conveyers connecting each of said conveyer belts with its respective repository, substantially as described.

4. A distributing machine comprising a case having a plurality of vertical tiers of pigeon holes; a conveyer belt forming the floor of each of said pigeon holes, all of said conveyer belts in each of said tiers being substantially of equal lengths and of different lengths from those in said other tiers; and a conveyer leading from each of said conveyer belts, substantially as described.

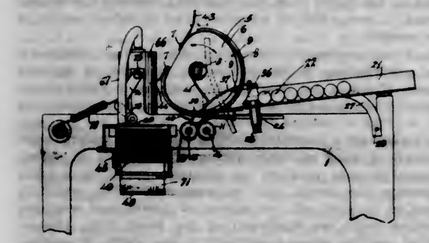
5. A distributing machine comprising a case having a plurality of vertical tiers of pigeon holes; a conveyer belt forming the floor of each of said pigeon holes, all of said conveyer belts in each of said tiers being substantially of equal lengths and of different lengths from those in said other tiers; and a cross conveyer belt mounted adjacent the end of each of the conveyer belts which form the floors of said pigeon holes and communicating therewith, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,072,505. MACHINE FOR WRAPPING CANDY. ARTHUR J. ROEDEL, Cincinnati, Ohio. Filed May 13, 1912. Serial No. 696,852. (Cl. 93—5.)

1. In a machine of the character specified, a pair of rollers in close proximity to each other, with means for rotating the same in the same direction, means for delivering separate pieces of material one at a time to said rollers, and means for feeding a sheet of wrapping paper to be engaged by the rotating material, and means for holding the paper at the ends from rotating during the rotation of the material, while permitting the retraction of the paper.

2. In a machine of the character specified, a pair of rollers in close proximity to each other, with means for rotating the same in the same direction, means for delivering separate pieces of material one at a time to said rollers, and means for feeding a sheet of wrapping paper to be engaged by the rotating material, grippers to grasp and hold the paper at the ends, and means for advancing the grippers toward the material to be wrapped during the rotation thereof.



3. In a device of the character specified, a feeding trough for holding the sticks of candy, a power-driven shaft carrying cam disks and fingers for advancing the material, movable stops to hold the material in the trough and to allow one stick to be advanced at a time, a pair of rollers to which the sticks are fed, with gearing coupling same to the main shaft to rotate the rollers in the same direction, means for supporting a package of sheets of wrapping paper, with means for feeding one sheet at a time to the rollers, with connecting mechanism intermediate the paper feeding devices and the main shaft, for actuating the parts in timed relation with each other.

4. In a device of the character specified, a feeding trough for holding the sticks of candy, a power-driven shaft carrying cam disks and fingers for advancing the material, movable stops to hold the material in the trough and to allow one stick to be advanced at a time, a pair of rollers to which the sticks are fed, with gearing coupling same to the main shaft to rotate the rollers in the same direction, means for supporting a package of sheets of wrapping paper, with means for feeding one sheet at a time to the rollers, a pair of grippers at each end of the rollers adapted to be shifted laterally, and connecting mechanism intermediate the paper feeding devices, each pair of grippers and the main frame whereby the parts may be actuated in timed relation with each other.

1,072,506. SAFETY-RAZOR. EDWARD ERNEST ROGERS, Highfield, Four Oaks, England. Filed Mar. 29, 1912. Serial No. 687,126. (Cl. 30—12.)

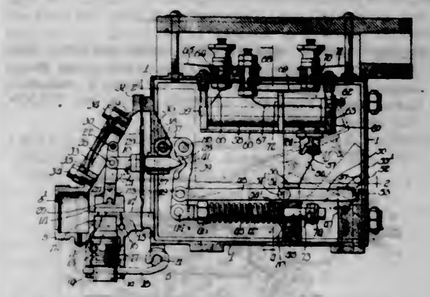


1. In a safety razor, a frame including a pair of arms provided with opposed slots, a blade holder provided with a shaft rotatably and slidably mounted in said slots, a guard extending from said frame and provided with hook teeth adapted to engage over the edge of a blade held in said holder when the shaft is in one position in said slots, and means to move the shaft to a second position in said slots and release said blade.

2. In a safety razor, a hollow handle, a frame mounted on said hollow handle and having an opening therein registering with the opening in the handle, said frame including a pair of arms provided with opposed slots, a plunger extending through the opening in the frame into said handle, a hinge member carried by said plunger, a shaft passing through said hinge member and having its ends held in said slots, a blade holder mounted on said shaft, a guard extending from said frame and provided with means to engage and hold a blade edge when in the holder with the plunger drawn into the handle, and means to move said plunger in said handle.

3. In a safety razor, a hollow handle, a frame mounted on said hollow handle and having an opening therein registering with the opening in the handle, said frame including a pair of arms provided with opposed slots, a plunger extending through the opening in the frame into said handle, a hinge member carried by said plunger, a shaft passing through said hinge member and having its ends held in said slots, a blade holder mounted on said shaft, a guard extending from said frame and provided with means to engage and hold a blade edge when in the holder with the plunger drawn into the handle, and means to move said plunger in said handle, comprising a member slidable in the handle and projecting from the lower end thereof, a stem connecting said plunger and last mentioned member, and a spring surrounding the stem and bearing at one end against the frame and at the other end against the member.

1,072,507. VALVE OR THE LIKE. OSCAR A. ROSS, Chicago, Ill., assignor of one-half to C. Vallette Kasson, Chicago, Ill. Original application filed July 19, 1907, Serial No. 384,547. Divided and this application filed June 15, 1910. Serial No. 566,900. (Cl. 188—4.)



1. In a fluid pressure system, a valve, electrically controlled means independent of the system for normally maintaining said valve in operative position and means controlled by the pressure in the system for operating said valve or restoring the same to operative position.

2. In a fluid pressure system, a valve, means controlled by the pressure in the system for operating said valve or restoring the same after the operation and electrically controlled means independent of the pressure system for normally preventing the operation or complete restoration of said valve.

3. In a device of the kind described, a casing provided with an outlet, means for attaching said casing to a fluid pressure system, a normally closed valve for controlling said outlet, means controlled by the pressure in said system for operating said valve, in combination with means for rigidly maintaining said valve in its normal position and independently controlled means arranged when operated to release said valve.

4. In a device of the kind described, a casing provided with an outlet, means for attaching said casing to a fluid pressure system, a normally closed valve for controlling said outlet, means controlled by the pressure in said system for operating said valve, and auxiliary independently controlled means for controlling the discharge of fluid through said outlet, in combination with means for

rigidly maintaining said valve in its normal position and independently controlled means arranged when operated to release said valve.

5. In a device of the kind described, a casing provided with an outlet, means for attaching said casing to a fluid pressure system, a normally closed valve for controlling said outlet, means controlled by the pressure in said system for operating said valve, and auxiliary adjustable means operable in conjunction with said valve for controlling the discharge of fluid through said outlet, in combination with means for rigidly maintaining said valve in its normal position and independently controlled means arranged when operated to release sad valve.

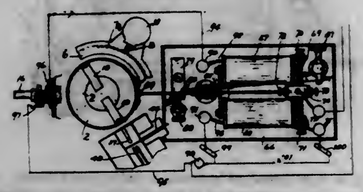
[Claims 6 to 25 not printed in the Gazette.]

1,072,508. SHEET-METAL ROOFING. KARL ROTH, Terre Haute, Ind. Filed July 18, 1912. Serial No. 710,314. (Cl. 108—18.)



A sheet metal roofing consisting of a plurality of metal sheets with overlapping edges, each sheet provided along one edge with two inverted V-shape corrugations; the opposite edge of each sheet having a single corrugation with two sides and a top to embrace both corrugations of the sheet below, the inner side and top of said single corrugation being joined by an arch forming an externally appearing bead, and the apex of the nearest underlying corrugation being approximately at the junction of the bead and top of said single corrugation.

1,072,509. STOP MECHANISM FOR MOVING MACHINERY. ARCHIBALD THOMAS SAMPSON, Lynn, Mass., assignor, by mesne assignments, to Mary S. Sampson, Lynn, Mass. Filed Mar. 17, 1913. Serial No. 754,824. (Cl. 140—3.)



1. In an automatic mechanism for moving machinery, the combination of an automatic machine, a suitable source of power for driving the machine, a feeler actuated to assume a potential position to detect a defect in the product of said machine during the process of manufacture of said product, an electromagnetic means for actuating the feeler, and suitable mechanism which is actuated to shut off the source of power and stop the machine upon the movement of the feeler from the potential position above mentioned to one which it assumes when a defect occurs in the product.

2. In an automatic mechanism for moving machinery, the combination of an automatic machine, a suitable source of power for driving the machine, a timing device, a feeler intermittently actuated by the timing device to synchronise with the motions of certain fundamental parts of the machine in order to assume a potential position to detect a defect in the product of the machine during the manufacture of said product, a means for actuating the feeler controlled by the timing device, and suitable mechanism which is actuated to shut off the source of power and stop the machine upon the movement of the feeler from the potential position hereinbefore mentioned to one which it assumes when a defect occurs in the product.

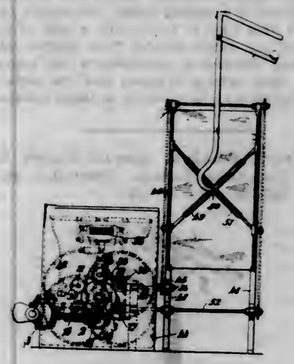
3. In an automatic mechanism for moving machinery, the combination of an automatic machine, a suitable source of power for driving the machine, a feeler intermittently electromagnetically actuated to assume a potential position to detect a defect in the product of said machine during the process of manufacture of said product, an electromagnetic means for actuating the feeler, and suitable mechanism which is actuated to shut off the source of power and stop the machine upon the movement of the feeler from the potential position above-mentioned to one which it assumes when a defect occurs in the product.

4. In an automatic mechanism for moving machinery, the combination of an automatic machine, a suitable source of power for driving the machine, a feeler intermittently electromagnetically actuated to synchronize with the motions of certain fundamental parts of the machine and to assume a potential position to detect a defect in the product of said machine during the process of manufacture of said product, an electromagnetic means for actuating the feeler, and suitable mechanism which is actuated to shut off the source of power and stop the machine upon the movement of the feeler from the potential position above-mentioned to one which it assumes when a defect occurs in the product.

5. In an automatic mechanism for moving machinery, the combination of an automatic machine, a suitable source of power for driving the machine, a feeler intermittently actuated to synchronize with the motions of certain fundamental parts of the machine and to assume a potential position to detect a defect in the product of said machine during the process of manufacture of said product, an electromagnetic means for actuating the feeler, and suitable mechanism which is actuated to shut off the source of power and stop the machine upon the movement of the feeler from the potential position above mentioned to one which it assumes when a defect occurs in the product.

[Claims 6 to 20 not printed in the Gazette.]

1,072,510. AUTOMATIC EMBROIDERING-MACHINE. HIPPOLYT SAURER, Arbon, Switzerland. Filed June 19, 1911. Serial No. 633,961. (Cl. 112—7.)



1. In mechanism for imparting movement to the frames of automatic embroidering machines, the combination with a shaft, a plurality of different sized gear wheels thereon and means to impart intermittent rotation to said shaft and wheels; of more than two shafts parallel to the aforesaid shaft, a plurality of gear wheels slidable but not rotatable on each of the parallel shafts and arranged to gear with the gear wheels on the first shaft, mechanism to cause the selective engagement of one or more gear wheels on the parallel shafts with gear wheels on the first shaft, and differential mechanism in operative relation to said parallel shafts whereby their movements are combined, an actuating element to which the combined movement of the parallel shafts is imparted from which the embroidery frame is actuated.

2. In mechanism for imparting movement to the frames of automatic embroidering machines, the combination with a shaft, a plurality of different sized gear wheels thereon and means to actuate said shaft and wheels; of more than two shafts parallel to the aforesaid shaft, a plurality of gear wheels slidable but not rotatable relative to each of the parallel shafts and arranged to gear with the gear wheels on the first shaft, mechanism to cause the selective engagement of one or more gear wheels on the parallel shafts with gear wheels on the first shaft, and differential mechanism in operative relation to said parallel shafts whereby their movement are combined, and an actuating element to which the combined movement of the parallel shafts is imparted and from which the embroidery frame is moved.

3. In mechanism for imparting movement to the frames of automatic embroidering machines, the combination with a shaft, a plurality of different sized gear-wheels thereon and means to intermittently actuate said shaft and wheels; of more than two shafts parallel to the aforesaid shaft, a plurality of gear wheels slidable but not rotatable relative to each of the parallel shafts and arranged to gear with the gear wheels on the first shaft, mechanism to cause the selective engagement of one or more gear wheels on the parallel shafts with gear wheels on the first shaft, and differential mechanism in operative relation to said parallel shafts whereby their movements are combined, and an actuating element to which the combined movement of the parallel shafts is imparted and from which the embroidery frame is moved.

4. In combination, two shafts, reversing mechanism between them, different sized gear wheels on each shaft, a plurality of shafts, gear wheels thereon arranged to gear with the gear wheels on the two shafts, mechanism for selectively causing the engagement of said gear wheels, an element and differential mechanism between said parallel shafts whereby their movement may be algebraically combined to impart movement to said element and from which the embroidery frame is moved.

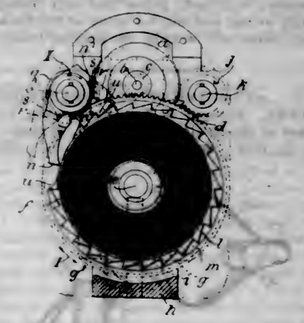
5. In combination, a pair of alined shafts, a reversing mechanism between them, a plurality of gear wheels of different sizes on each shaft (the sizes of the gear wheels on one shaft corresponding to those on the other shaft) a plurality of shafts parallel to said alined shafts, gear wheels thereon arranged to selectively gear with the gear wheels on the alined shafts, differential mechanisms connecting said plurality of shafts, a driving shaft to which the algebraic sum of the movements of said parallel shafts is imparted in varying ratios through said differential mechanisms, a second set of parallel shafts, gear wheels thereon arranged to selectively gear with gear wheels on the alined shafts, differential mechanisms connecting said second set of shafts, a second driving shaft to which the algebraic sum of the movements of the second set of shafts is imparted, and means to rotate one of the alined shafts step-by-step, whereby both sets of parallel shafts will be driven from said alined shafts, said driving shafts imparting their movements to an embroidery frame to be moved.

1,072,511. DYNAMO-ELECTRIC APPARATUS FOR FIRING MINES. KONRAD SCHAFFLER, rekte GLÖSSL, Vienna, Austria-Hungary. Filed Feb. 4, 1913. Serial No. 746,200. (Cl. 171—76.)

1. In a dynamo-electric firing apparatus, a spring for rotating the armature of the apparatus, means to put the spring under tension, and means to prevent the release of the tensioning means before the spring is under full tension.

2. In a dynamo-electric firing apparatus, a spring for rotating the armature of the apparatus, a ratchet wheel adapted to put the spring under tension, a pawl to engage the ratchet wheel, a pawl actuating member, and means to prevent the operating of the latter during the winding and unwinding of the spring.

3. In a dynamo-electric firing apparatus, a spring for rotating the armature of the apparatus, a ratchet wheel to tension the spring, a pawl to engage the ratchet, means to move the pawl out of engagement with the ratchet, and means to prevent the operation of said moving means during the unwinding of the spring.

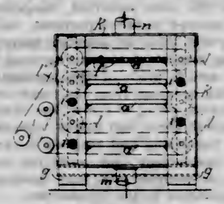


4. In a dynamo-electric firing apparatus, a spring for rotating the armature of the apparatus, a ratchet connected with the spring, a barrel to rotate the ratchet to put the spring under tension, a pawl adapted to engage the ratchet, means to move the pawl out of such engagement, and means on the barrel to lock the pawl moving means during the winding and unwinding of the spring.

5. In a dynamo-electric firing apparatus, a spring for rotating the armature of the apparatus, a barrel inclosing the spring, a ratchet on the barrel, a pawl adapted to engage the ratchet, a rotatable member adapted to engage the pawl and move the latter away from the ratchet, and a ring on the spring barrel adapted to lock the rotatable member in engagement with the pawl during the unwinding of the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,072,512. DRYING PLANT FOR TEXTILE FABRICS. SILVIO SCHEWCZIK, San Remo, Italy. Filed July 3, 1906. Serial No. 324,606. (Cl. 34—48.)

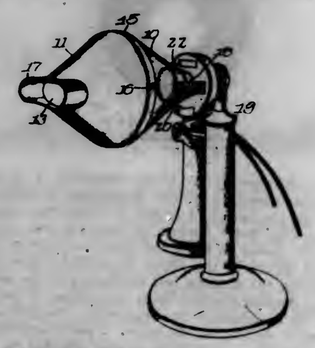


1. A drier for textile fabrics comprising a frame, metallic plates secured on opposite sides of said frame forming therewith a steam tight chamber, means for supplying steam for said chamber, said metallic plates having oppositely disposed apertures, and tubular connections between said apertures forming air passages through the steam chamber, baffle plates between said metallic plates, dividing said chamber into a plurality of compartments each having a row of said tubular connections, passage-ways between said baffle plates and said frame arranged alternately at one end and the other of the frame, whereby a zig-zag course will be given the passing steam.

2. A drying apparatus for textile fabrics having a housing, a plurality of rollers, an endless band passing around said rollers for carrying the textile fabrics, and means for moving said band, a plurality of horizontal shelves in the housing and a plurality of driers supported by said shelves; said driers each comprising a frame, metallic plates secured on opposite sides of said frame forming therewith a steam tight chamber, means for supplying steam for said chamber, said metallic plates having oppo-

sitely disposed apertures, and tubular connections between said apertures forming air passages through the steam chamber, baffle plates between said metallic plates, dividing said chamber into a plurality of compartments each having a row of said tubular connections, passageways between said baffle plates and said frame, arranged alternately at one end and the other of the frame whereby a zig-zag course will be given the passing steam.

1,072,513. ATTACHMENT FOR TELEPHONE-TRANSMITTERS. EDMUND M. SCHOLLENBERGER, Chicago, Ill., assignor of one-half to Lee A. Stahl, Chicago, Ill. Filed Sept. 12, 1912. Serial No. 719,958. (Cl. 179—188.)



1. A device of the class described, comprising a hollow casing having opposed reduced portions, each of which portions is provided with an opening therethrough, and said casing being formed in sections secured together for separation, the mouth piece of the transmitter passing through one of the openings from the inside of the casing, the last said opening being of a size less than the receiving end of the transmitter whereby the transmitter will fit snugly into the opening for supporting the casing, and a shield encompassing the other opening outside of and projecting a short distance beyond the casing.

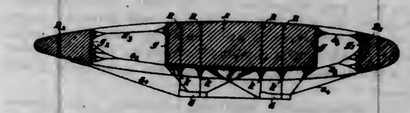
2. A device of the class described, comprising a hollow casing having opposed reduced portions, each of which portions is provided with an opening therethrough and said casing being formed of sections secured together for separation, the mouth piece of the transmitter passing through one of the openings from the inside of the casing, the last said opening being of a size less than the receiving end of the mouth piece, and means connected with and projecting from the casing and adapted to contact with a portion of the instrument and operating to cause the mouth piece to be wedged into said opening, when the mouth piece is fastened to the transmitter.

3. The combination of a hollow body comprising separable sections having openings therethrough, a transmitter mouth piece passing through one of the openings from the inside of the section and with the receiving end of the mouth piece inside the section, means engaging the said body and a portion of the instrument and coöperating with the said mouth piece for holding the body in position, and an annular flange surrounding the other opening.

4. The combination of a hollow body comprising separable sections having openings therethrough, a transmitter mouth piece passing through one of the openings from the inside of the section and with the receiving end of the mouth piece inside the section, means engaging the said body and a portion of the instrument and coöperating with the said mouth piece for holding the body in position, an annular flange surrounding the other opening, and additional means for holding the attachment in place.

5. The combiation of a hollow body comprising separable sections having openings therethrough, a transmitter mouth piece passing through one of the openings from the inside of the section and with the receiving end of the mouth piece inside the section, means engaging the said body and a portion of the instrument and coöperating with the said mouth piece for holding the body in position, an annular flange surrounding the other opening, and a fastening screw for assisting in holding the parts in position.

1,072,514. DIRIGIBLE BALLOON. JOHANN SCHÜTTE, Danzig, Germany. Filed May 1, 1912. Serial No. 694,544. (Cl. 244—6.)



1. A dirigible balloon comprising in combination, a gas holder, a framework, a saddle arranged thereover, and cap members arranged at each end of the framework and connected with the saddle.

2. A dirigible balloon comprising in combination, a gas holder, a framework, a saddle disposed thereover, a plurality of suspended cars, and a cap member arranged at each end of the framework and connected with the saddle and with said cars.

3. A dirigible balloon comprising in combination, a gas holder, a framework, a saddle of strong material arranged thereover, and cap members inclosing the ends of the framework and connected with the saddle, the said saddle and caps serving to hold the individual elements of the framework together, and reinforcing means for the frame elements.

4. A dirigible balloon comprising in combination, a gas holder, a frame comprising longitudinally and transversely arranged bearers, a saddle member disposed thereover, prow and stern caps inclosing the ends of the longitudinal bearers and connected by cables with the saddle, cars suspended from the saddle and the end caps, the connection and suspension of the said cars being such that the load and all shocks and tilting movements are spread over the system as a whole.

5. A dirigible balloon comprising a gas holder, a framework, a saddle arranged thereon, caps arranged at the ends of the frame and connected with the saddle, and cars suspended from the framework, the saddle and the caps, each suspension element comprising a series of cable members which are in connection one with another by means of a plurality of plates, provided with rollers over which the cable members pass.

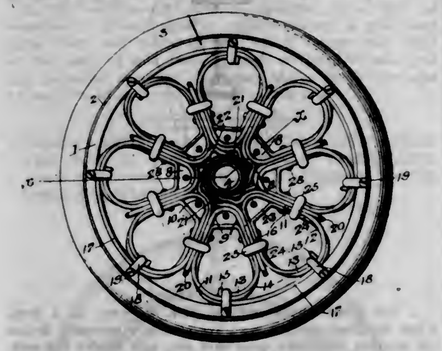
[Claims 6 to 12 not printed in the Gazette.]

1,072,515. VEHICLE-WHEEL. CHARLES L. SCHWARZ, Philadelphia, Pa. Filed Oct. 5, 1912. Serial No. 724,070. (Cl. 152—28.)

1. In a spring wheel, a hub, a plurality of spoke members suitably connected therewith, and formed with their free ends overlapping and correspondingly curved and having sliding movement with respect to each other, a spring arm secured to adjacent spoke members and bearing on said hub, a rim, means for attaching said spoke members with respect to said rim to permit sliding movement between said rim and said spoke members, and a stop on each of said spoke members abutting said attaching means.

2. In a spring wheel, a hub, a plurality of spoke members suitably connected therewith, a spring arm secured to adjacent spoke members and bearing on said hub, a rim, means for attaching said spoke members with respect to said rim, supplemental springs, one of which is connected with each spoke member and means each serving to connect a spring arm with its adjacent spoke members, and also serving to connect one member of a supplemental spring with its respective spoke member.

3. In a spring wheel, a hub, a rim, a plurality of spoke members movably connected with respect to said rim, each spoke member comprising a spring band having sides oppositely diverging from the hub, said sides terminating in oppositely located curved members overlapping each other and each movable with respect to each other; spring means between said spoke members and said hub, and an auxiliary spring interposed between said rim and pairs of spoke members and closely embracing the latter at all times while permitting sliding movement therebetween.

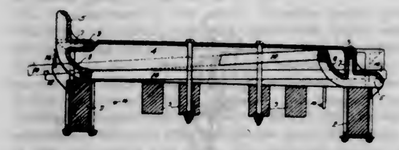


4. In a spring wheel, a hub, a plurality of spoke members connected therewith, a spring arm secured to adjacent spoke members and bearing on said hub, a rim, means for attaching said spoke members with respect to said rim and auxiliary springs closely embracing at all times pairs of adjacent spoke members and permitting relative sliding movement therebetween.

5. In a spring wheel, a hub, a plurality of spoke members connected therewith, a spring arm having a curved end adapted to conform to the curvature of the hub and having a bend intermediate the arm and curved end thereof, said arm being secured to adjacent spoke members, a rim, means for attaching said spoke members with respect to said rim to permit relative movement between said rim and said spoke members, and an auxiliary spring between each pair of spoke members and said rim.

[Claim 6 not printed in the Gazette.]

1,072,516. CAR-STAKE. EDWARD B. SHIELDS, Tacoma, Wash., assignor, by direct and mesne assignments, to Turtle-Back Log Bunk & Car Stake Company, a Corporation. Filed Mar. 25, 1912. Serial No. 686,006. (Cl. 105—173.)



1. In a device of the class described, the combination of a bunk extending across the car and having an arched top adapted to support the logs, and an open bottom whereby no dirt is retained therein; a stake adapted to extend above the bunk when in its operative position and to be withdrawn into the bunk when in its inoperative position; an arm extending inward from and forming part of said stake and pivoted to the bunk adjacent the upper surface thereof; and a bar pivotally secured to the lower end of the stake and passing therefrom across the car within the bunk and releasably engaging the end wall of the bunk whereby the bar is held from movement and the stake is maintained in operative position.

2. In a device of the class described, the combination of a bunk extending across the car; stake guides formed on the end of said bunk; a stake lying between said guides and adapted to extend above the bunk when in its operative position and to be withdrawn into the bunk when in its inoperative position; an arm extending inward from and forming part of said stake and pivoted to the upper part of the bunk adjacent said stake guides; and a bar pivotally secured to the lower end of the stake and passing therefrom across the car and releasably held from movement whereby the stake is maintained in operative position.

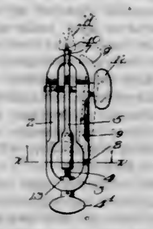
3. In a device of the class described, the combination of a bunk mounted across the car, and formed of a substantially inverted U-shaped hollow body terminating in stake guides at its ends; of a stake, formed of an arm the free end of which is pivoted to the bunk adjacent the upper surface thereof, a vertical part extending at substantially right angles to said arm and adapted to extend above the bunk to form the stake when in operative position and to be withdrawn into the bunk when in its inoperative position, and a curved part in continuation of said vertical part and extending rearward under the arm; and a bar pivotally secured to the end of said curved part and passing therefrom across the car within the bunk and passing out from the end of said bunk and having a notch in its under surface adapted to engage the end wall of the bunk whereby the bar is held from movement and said stake is maintained in position.

4. In a device of the class described, the combination of a hollow bunk mounted across the car; of a stake pivoted to one end of said bunk and extending upward therefrom when in its operative position, but withdrawn into said bunk when in its inoperative position; a bar within said bunk and engaging at one end the lower end of said stake and extending to the other end of said bunk; and means for holding the other end of said bar whereby said stake is held in operative or inoperative positions.

5. In a device of the class described, the combination of a hollow bunk mounted across the car; of a stake pivoted to one end of said bunk and extending upward therefrom when in its operative position, but withdrawn into said bunk when in its inoperative position; and a bar within said bunk and engaging at one end the lower end of said stake and extending to the other end of said bunk, and having notches in the lower edge at its other end, said notches being adapted to engage the outer wall of the bunk whereby said stake is held in operative or inoperative positions.

[Claims 6 to 8 not printed in the Gazette.]

1,072,517. CROWN-PIN EXTRACTOR. FRANK H. SKINNER, Chicago, Ill. Filed Sept. 2, 1908. Serial No. 451,304. (Cl. 32—10.)



In combination with the jaws, of a base common to both said jaws, said base being an integral portion of one of said jaws and having a pivotal connection with the other jaw, a screw for moving said jaws, a post having a part engaging said screw and having another part adapted to rest upon the root of a tooth, and a post-actuating screw mounted in said base between said jaws.

1,072,518. DENTAL INSTRUMENT. FRANK H. SKINNER, Chicago, Ill. Filed Sept. 2, 1908. Serial No. 451,305. (Cl. 32—10.)

1. The combination with a pair of movable jaws, of beaks projecting laterally from said jaws, a post coöperat-

ing with said beaks, and means for advancing said post at an angle to said jaws.



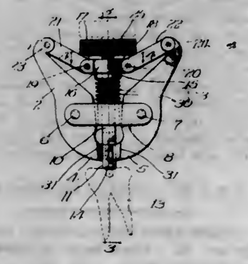
2. The combination with a pair of movable jaws, of a post, means for moving same at an angle to said jaws, beaks coöperating with said post, and means for actuating said jaws and beaks.

3. The combination with a pair of movable jaws having laterally projecting beaks, of a part movable between said beaks and adapted to rest upon the root of a tooth, and means movable parallel to said jaws for moving said part.

4. The combination with relatively movable jaws, of beaks therefor, and a post having a part or parts adapted to rest upon the root of a tooth, said post mounted to move at an angle to said jaws.

5. The combination with a pair of forceps having side-gripping nibs or beaks, of a post mounted to move along said beaks, a screw and cam arranged to move substantially at right angles to said post's direction of movement, and means for clamping said beaks upon a crown pin and the like.

1,072,519. DENTAL APPLIANCE. FRANK H. SKINNER, Chicago, Ill. Filed May 17, 1909. Serial No. 496,619. (Cl. 32—10.)



1. In a crown-pin extractor, the combination with a pair of jaws movable relative to each other and a post movable relative to said jaws, said post having a part adapted to rest against the root of a tooth and to move longitudinally between said jaws, of means actuating said jaws and post simultaneously.

2. In a crown-pin extractor, the combination of a pair of jaws movable relative to each other, of a post movable longitudinally, a connection between said jaws, and a screw having threaded engagement with said connection for moving said post and jaws.

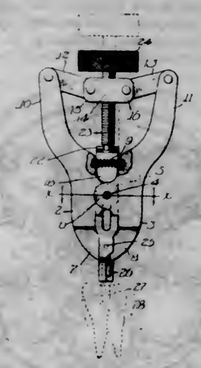
3. In a crown-pin extractor, the combination with a pair of jaws having their fulcrums linked together, links between the power-ends of said jaws, a longitudinally movable post, and a nut and screw for actuating said links, jaws and post.

4. The combination with a pair of jaws, of a post, a screw, a link connection for fulcrum pivots for said jaws, said connection supporting said screw laterally in one plane, means guiding said screw laterally in a plane at right angles to said first mentioned plane, and means moving both jaws and post with the aid of said screw.

5. The combination with a pair of jaws linked together intermediate of their ends, a pair of links pivoted to the power ends of said jaws, a threaded nut connecting said last mentioned links, a post, and a screw having operative connection with said nut and post.

[Claim 6 not printed in the Gazette.]

1,072,520. DOUBLE-ACTING PIN-PULLER. FRANK H. SKINNER, Chicago, Ill. Filed May 26, 1909. Serial No. 498,515. (Cl. 32—10.)



1. The combination with a pair of jaws, of a post, a pin upon which said jaws are pivotally movable, means for guiding said post upon said pin, and means for moving said jaws and post.

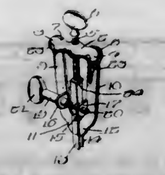
2. The combination with a pair of jaws, of a slotted post, a pin upon which said jaws are pivotally movable and upon which said post is longitudinally movable, and means for moving said jaws and post.

3. The combination with a pair of jaws, of a forked and slotted post embracing the sides of said jaws, a fulcrum-pin upon which said jaws are pivotally mounted and upon which said post is slidably mounted, and a means for moving said post which imparts a gripping movement to said jaws.

4. The combination with a pair of jaws having a disk-joint therebetween, of a pivot-pin for said joint, a forked post embracing said joint, and means for actuating said jaws and post simultaneously.

5. The combination with a pair of jaws pivoted together between their ends, of a post, a toggle joint for moving said jaws, and a screw having threaded connection with said joint and swiveled connection with said post, whereby both jaws and post are movable simultaneously.

1,072,521. PIN-PULLER. FRANK H. SKINNER, Chicago, Ill. Filed Feb. 3, 1912. Serial No. 675,299. (Cl. 32—10.)



1. In a pin puller, the combination with a cross-bar, of a pair of jaws pivotally mounted in said cross-bar, a post coöperating with said jaws, a screw having threaded engagement with said cross-bar and swiveled to said post, and a screw actuating said jaws.

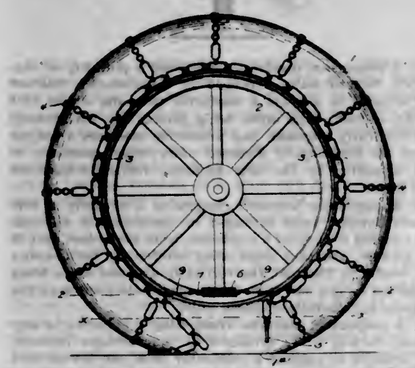
2. In a pin puller, the combination with a cross-bar of a pair of jaws pivoted to the ends of said cross-bar, a screw having threaded engagement with said cross-bar intermediate of said jaws, a post movable by said screw, and means operable laterally of the plane of movement of said jaws for actuating said jaws.

3. The combination with a cross-bar, of a pair of jaws, each of said jaws hinged to said cross-bar, a post movable longitudinally between said jaws, a screw for actuating said post, and a screw for actuating said jaws.

4. The combination with a cross-bar, of stamped-out sheet metal jaws pivoted to said cross-bar, said jaws having integral bent out portions forming ears to be engaged by a screw, a screw having threaded engagement with one of said ears and having a shoulder bearing against the other of said ears, a longitudinally movable post, and a screw swiveled to said post and having threaded engagement with said cross-bar.

5. The combination with a cross-bar, of a pair of sheet-metal jaws hinged to said cross-bar, a post bent upon itself and having prongs which engage both sides of the beaks of said jaws, a screw swiveled to said post and threaded into said cross-bar, and a screw arranged at one side of said jaws for actuating same.

1,072,522. TEMPORARY CONNECTING AND APPLYING DEVICE FOR AUTOMOBILE TIRE-CHAINS. JOHN A. STAPLES, Newburgh, N. Y. Filed Oct. 5, 1912. Serial No. 724,086. (Cl. 152—14.)



1. In combination with a tire gripping device provided with circumferential members, transverse tread engaging members, and permanent securing devices for connecting the ends of said circumferential members, means independent of said circumferential members and the permanent securing devices therefor for temporarily connecting portions adjacent to the ends of said circumferential members, on the inner and outer faces of the tire, across and above the flattened portion of the tire in engagement with the road bed, to facilitate the application of the gripping device to the tire.

2. In combination with a tire gripping device provided with circumferential members, transverse tread engaging members, and permanent securing devices for connecting the ends of said circumferential members, means independent of said circumferential members and the permanent securing devices therefor for temporarily and yieldingly connecting portions adjacent to the ends of said circumferential members on the inner and outer faces of the tire across and above the flattened portion of the tire in engagement with the road bed, to facilitate the application of the gripping device to the tire.

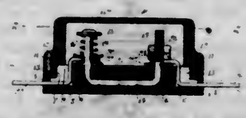
3. In combination with a tire gripping device provided with circumferential members, transverse tread engaging members, and permanent securing devices for connecting the ends of said circumferential members, means for temporarily and yieldingly connecting portions adjacent to the ends of said circumferential members on the inner and outer faces of the tire across and above the flattened portion of the tire in engagement with the road bed to facilitate the application of the gripping device to the tire, and means for limiting the extent of yield of said yielding temporary connecting means.

4. In combination with a tire gripping device provided with circumferential members, transverse tread engaging members, and permanent securing devices for connecting the ends of said circumferential members, temporary connections for said circumferential members on the inner and onter faces of the tire provided at each end with detachable securing devices for engaging said members adjacent to their ends, adjacent to each end of the flattened portion of the tire in engagement with the road bed for facilitating the application of the gripping device to the tire, at least one of said temporary connections being provided with a yielding elastic member located between its said detachable securing devices.

5. In combination with a tire gripping device provided with circumferential members, transverse tread engaging members, and permanent securing devices for connecting the ends of said circumferential members, expansible temporary connecting devices for the circumferential members on the inner and outer faces of the tire each provided with detachable securing devices for engaging the circumferential members adjacent to their ends, adjacent to opposite ends of the flattened portion of the tire in engagement with the road bed and means for positively limiting the expansion of the said temporary connecting devices.

[Claims 6 to 8 not printed in the Gazette.]

1,072,523. INSULATOR. LOUIS STEINBERGER, Brooklyn, N. Y. Filed May 18, 1910. Serial No. 561,964. (Cl. 178—318.)



1. An insulator, comprising a base of insulating material, a plurality of substantially U-shaped members of conducting material partially embedded therein, each of said U-shaped members having a smooth portion and a threaded portion extending from said base, the threaded portion of one of said U-shaped members being adjacent to the smooth portion of another of said U-shaped members, and mechanism co-acting with said smooth portion and with said threaded portion for facilitating the connection of conductors therewith.

2. In a device of the class described, the combination with a base member carrying a binding post comprising a quick release means for retaining a terminal, of a cover for said base member detachably connected therewith inclosing said binding post and adapted to coöperate with means formed in said base member so as to provide an auxiliary retainer for the terminal whereby to facilitate removal of said terminal from said quick release binding post upon detachment of said cover.

3. An insulator comprising a base member of molded fragile insulating material, an integrally formed U-shaped rod of conducting material having its intermediate portion molded within the fragile material of the base member and having its opposite end portions projecting from the base member, the embedded portion of the rod being of such shape as to present no sharp corners which would tend to fracture the fragile material in which it is molded and said embedded portion serving to hold the opposite projecting end portions rigid in the base member, and said opposite projecting end portions being provided with adjustable means adapting them to serve as binding posts to which conductor wires may be attached.

4. In a device of the class described, the combination with a base member carrying a binding post for retaining a terminal, of a cover for said base member detachably connected therewith inclosing said binding post and adapted to coöperate with means formed in said base member so as to provide an auxiliary retainer for the terminal, whereby to facilitate removal of the terminal from said binding post upon detachment of said cover.

5. In a device of the class described, the combination comprising a base, a binding post projecting from the upper surface of said base; a flange formed upon said

base projecting laterally therefrom at a point spaced somewhat below the upper surface thereof for forming, with the side of said base, an angular recess on said base; a cover for said base having an angular portion adapted to be received in said angular recess and to engage the walls thereof; and the walls of said recess being formed with a groove extending transversely thereof and opening throughout its length into said recess and being closed by the angular portion of said cover, a portion of said cover extending below the upper surface of said base and said groove comprising a tortuous passage directly beneath the lower part of said cover and to the upper surface of said base adapted to receive a bent wire for attaching to said binding post and adapted to hold said wire against accidental withdrawal only so long as said cover is applied, and said binding post comprising quick release means for the end of the wire; all whereby the wire is instantly removable from connection with binding post and laterally out of said groove upon detachment of said cover.

[Claims 6 and 7 not printed in the Gazette.]

1,072,524. INSULATOR. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Sept. 21, 1910. Serial No. 583,025. (Cl. 173—318.)



1. Insulating means, comprising a support, a bail suspended therefrom, a rain shield mounted between the legs of said bail, and an insulator mounted within said rain shield.

2. Insulating means, comprising a bail provided with spring portions, a rod extending from one part of said bail to another part thereof, and a rod type insulator connected with said spring portions.

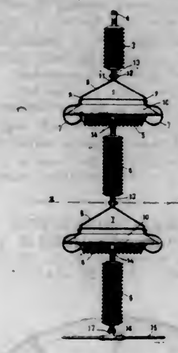
3. Insulating means, comprising a bail provided with eyes and with spring portions, said spring portions having eyes, a rain shield provided with a tubular portion disposed between said eyes of said bail, and an insulator supported by aid of said eyes of said spring portions, said last mentioned insulator being sheltered by said rain shield.

4. Insulating means, comprising a rain shield provided with a tubular portion integral therewith, a rod extending through said tubular portion, a bail provided with portions connected with the ends of said rod, means for supporting said bail, and an insulator mounted within said rain shield.

5. Insulating means, comprising a rain shield provided with a tubular portion integral therewith, a rod extending through said tubular portion, a bail provided with portions connected with the ends of said rod for supporting said rod, and an insulator flexibly supported below said rain shield.

[Claims 6 to 33 not printed in the Gazette.]

1,072,525. SUSPENSION-INSULATOR. LOUIS STEINBERGER, Brooklyn, N. Y. Filed Sept. 21, 1912. Serial No. 721,694. (Cl. 173—318.)



1. A suspension insulator comprising a plurality of separately formed units arranged in concatenated relation and adapted to support a conductor from the lowest unit in the column, said units being alternately horizontally and vertically disposed, and protective members arranged above the horizontally disposed units being connected to and supported by the next adjacent vertically disposed unit above.

2. A suspension insulator comprising a plurality of separately formed units arranged in concatenated relation, and adapted to support a conductor from the lowest unit in the column, and said units being alternately horizontally and vertically disposed, the vertically disposed units being supported by one end from the intermediate portion of the adjacent horizontally disposed units.

3. A suspension insulator comprising a plurality of separately formed units arranged in concatenated relation, and adapted to support a conductor from the lowest unit in the column, and said units being alternately horizontally and vertically disposed, means extending from the ends of the horizontally disposed units for supporting said horizontally disposed units from the lower end of adjacent vertically disposed units, and a protective member carried by said supporting means adapted to protect the adjacent horizontally disposed unit, and also to protect the vertically disposed unit next therebeneath.

4. A suspension insulator comprising a plurality of separately formed units arranged in concatenated relation, and adapted to support a conductor from the lowest unit in the column, and said units being alternately horizontally and vertically disposed, the units of one disposition being supported by their opposite end portions from the end portions of adjacent units of the other disposition.

1,072,526. SHOCK-ABSORBER FOR TYPE-WRITERS. NOEL RAY STILES, London, England. Filed June 27, 1912. Serial No. 706,139. (Cl. 248—30.)

1. In a shock absorber for typewriters, in combination, a longitudinally extensible member, a vertical spring bend at each end of said member, a second spring bend at a right angle to the first and disposed beneath the body of the extensible member, and having a bearing surface adapted to rest upon the table or surface which supports the device, a bearing for said extensible member on the second spring bend and means upon said member for the attachment of the typewriter.

2. In a shock absorber for typewriters, in combination, an extensible member formed in two parts, a clamp adjustably connecting the two parts, a vertical spring bend at the outer end of each part, a second spring bend at a right angle to the first and disposed beneath the outer ends of the parts, a bearing for said extensible member upon the second spring bend, slots at each end of the member, screws passing through said slots and cups attached to said screws, inclined slots in said cups, a body engaging the legs of the typewriter, projections on said body engaging said slots, and means for rotating said body.

3. In a shock absorber for typewriters, in combination, an extensible member formed in two parts, a clamp adjustably connecting the two parts, a vertical spring bend at the outer end of each part, a second spring bend at a right angle to the first and disposed beneath the outer ends of the parts, a bearing for said extensible member upon the second spring bend, slots at each end of the member, screws passing through said slots and cups attached to said screws, inclined slots in said cups, a body engaging the legs of the typewriter, projections on said body engaging said slots, and means for rotating said body.

4. In a shock absorber for typewriters, in combination, an extensible member formed in two parts, a clamp adjustably connecting the two parts, a vertical spring bend at the outer end of each part, a second spring bend at a right angle to the first and disposed beneath the outer ends of the parts, a bearing for said extensible member upon the second spring bend, slots at each end of the member, screws passing through said slots and cups attached to said screws, inclined slots in said cups, a second cup, projections on said cups, a rubber plug on said cup, means for rotating said cups, a screw passing through the top of said cups, a rubber body upon said screw and a conical nut engaging said screw in said rubber body.

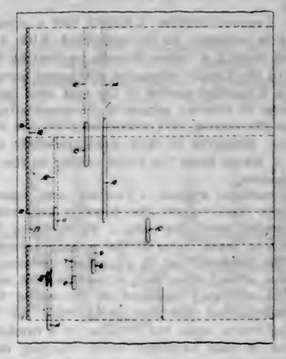
5. In a shock absorber for typewriters, in combination, an extensible member formed in two parts, a clamp adjustably connecting the two parts, a vertical spring bend at the outer end of each part, a second spring bend at a right angle to the first and disposed beneath the outer ends of the parts, a bearing for said extensible member upon the second spring bend, slots at each end of the member, screws passing through said slots and cups attached to said screws, inclined slots in said cups, a second cup, projection on said cups, a rubber plug on said cup, means for rotating said cups, a screw passing through the top of said cups, a rubber body upon said screw and a conical nut engaging said screw in said rubber body, means for reinforcing the vertical spring bends.

[Claims 6 and 7 not printed in the Gazette.]

1,072,527. NOTE-SHEET FOR MUSICAL INSTRUMENTS. CHARLES F. STODDARD, Boston, Mass. Filed Oct. 18, 1911. Serial No. 655,256. (Cl. 84—162.)

1. A note sheet for automatic musical instruments comprising note perforations having lengths selected arbitrarily, substantially without regard for the intended durations of their notes or the tempo of the composition to be played; and a supplemental perforation for continuing the sounding of a plurality of said notes to desired durations, after the said note perforations have ceased to act.

2. A note sheet for automatic musical instruments having some of the note perforations thereof curtailed and of insufficient length to sustain their notes for their respective durations in the composition to be played; and a supplemental sustaining perforation to sustain collectively the notes of said curtailed perforations to the desired duration.



3. A note sheet for automatic musical instruments having some of the note perforations thereof of only substantially the length necessary to sound the notes initially, regardless of the intended duration thereof; and a supplemental sustaining perforation, common to a plurality of said note perforations, contributing to sustain the notes thereof to their desired durations.

4. A note sheet for automatic musical instruments comprising note perforations of substantially similar lengths for playing notes intended to have substantially different durations; and separate sustaining perforations for determining the different durations of the notes played by said note perforations.

1,072,528. TUMBLER-WASHER. THEODORE G. STRATER, Jr., West Tisbury, Mass., assignor to Herman Strater & Sons, Boston, Mass., a Firm. Filed July 1, 1912. Serial No. 706,888. (Cl. 141—3.)



1. In a tumbler washer, a valve casing adapted to be connected with a water supply and provided with a plurality of lateral outlets, a valve in and to control the entrance of water to the casing, a tumbler rest and an attached nozzle to deliver water to the interior of a tumbler on the rest, a collar revoluble on the casing and apertured to register with the lateral outlets thereof, a perforated pipe located above the tumbler rest, to discharge water on the exterior of a tumbler thereon, upturned tubular supports connected with said pipe and collar and communicating with the apertures of the latter, to supply water to the pipe when the valve is opened, angular adjustment of the collar varying the effective area of the outlets of said casing, and means to retain the collar in angularly adjusted position.

2. In a tumbler washer, a valve casing adapted to be connected with a water supply and having therein a valve seat and a plurality of lateral outlets above the seat, a valve vertically movable in the casing and having an attached apertured nozzle extended through the top of the casing, a tumbler rest mounted on the nozzle above the casing, a perforated pipe located above the tumbler rest to discharge water on the exterior of a tumbler thereon, tubular supports fixedly attached to the pipe and at their lower ends revolubly connected with the casing adjacent and communicating with the lateral outlets thereof, and means to retain said supports in fixed position on the casing, bodily rotative movement of the supports relative

to the casing varying the effective area of the outlets thereof to thereby regulate the supply of water passing through the outlets to the tubular supports when the valve is opened.

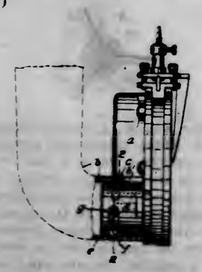
3. In a tumbler washer, a nozzle and a tumbler rest, a valve casing adapted to be connected with a supply of water and having a valve therein to control the passage of water to the nozzle, means to discharge water upon the exterior of a tumbler seated on the rest, said means including a series of tubular supports communicating with the interior of the casing, and means between the valve casing and tubular supports to vary simultaneously and equally the flow of water from the valve casing to the several tubular supports.

4. In a tumbler washer, a tumbler rest, separate means to discharge water upon the interior and exterior of a tumbler seated upon the rest, a valve-casing having lateral outlets, a main valve in the casing, opened by movement of the tumbler rest to abnormal position, to permit the passage of water to both of said means, and an auxiliary valve revolubly mounted on the casing around said lateral outlets and communicating with the means for discharging water upon the exterior of a tumbler, angular adjustment of said auxiliary valve varying the effective area of the said outlets.

5. In a tumbler washer, a nozzle and an attached tumbler rest, a valve casing having a valve seat therein and lateral outlets above it, an external annular shoulder on the casing below the outlets, a valve having an apertured stem slidably in the top of the casing and carrying the nozzle, said valve regulating the supply of water from the casing to said nozzle and outlets, a collar revolubly mounted on the casing and seated on the shoulder thereof, said collar having apertures adapted to register with the lateral outlets, means communicating with the apertures to discharge water upon the exterior of a tumbler on the rest, and a nut to engage the collar and clamp it in angularly adjusted position on the casing, such adjustment of the collar varying the effective area of the casing outlets.

[Claims 6 to 9 not printed in the Gazette.]

1,072,529. TALKING-MACHINE. GUSTAV THIEL, Berlin, Germany. Filed Jan. 5, 1911. Serial No. 600,865. (Cl. 181—11.)

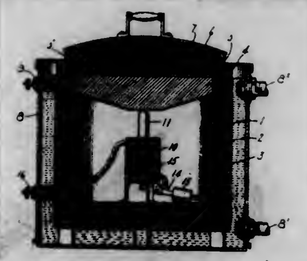


1. In a talking machine, the combination of a sound arm, an eccentrically positioned sound box thereon having a neck, and a sleeve non-rotatably engaging said arm and rotatably engaging said neck.

2. In a talking machine, the combination of a sound box with an eccentrically disposed neck thereon provided with a sleeve engaging member, a sleeve freely rotatable on said neck and provided with a slot to receive said member, a sound arm engaging member on said sleeve and a sound arm slotted to receive said last named member and sleeve non-rotatably therein.

1,072,530. ELECTRIC HEATER. ELIHU THOMSON, Swampscott, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 16, 1912. Serial No. 678,121. (Cl. 219—20.)

1. An electric heater comprising a heat storage mass, means for producing an electric arc for heating the same, and means for confining the heat generated by the arc to the storage mass.



2. An electric heater comprising a heat storage mass having good heat conductivity and constituting a wall of a heating chamber, heat insulating means constituting the remaining walls of the said chamber, and means for producing an electric arc within the said chamber for heating the said storage mass.

3. An electric heater comprising a heat storage mass constituting one wall of a heating chamber, heat insulating means constituting the remaining walls of the said chamber, and an electrode so disposed that an arc may be drawn in the said chamber between the electrode and the aforesaid heat storage mass for heating the latter.

4. An electric heater comprising a heat storage mass, means for producing an electric arc for heating the same, and means for automatically controlling the supply of energy to the arc according to the temperature of the storage mass.

5. A heater comprising a heat storage mass, an electrode adjacent thereto, means for producing an electric arc between the said electrode and the said heat storage mass, and means controlled by the temperature of the storage mass for regulating the amount of energy supplied to the arc.

[Claims 6 to 10 not printed in the Gazette.]

1,072,531. ELECTRICAL MEASURING INSTRUMENT. RAY L. TRIPLETT, Bluffton, Ohio, assignor, by mesne assignments, to The Diller Manufacturing Company, Bluffton, Ohio, a Corporation of Ohio. Filed Nov. 28, 1910. Serial No. 594,459. (Cl. 171—95.)



1. In an electrical measuring instrument, the combination, with a plurality of active parts, of a single supporting member, and connecting devices formed integral with said supporting member to engage the respective active parts and support the same in predetermined positions relatively one to the other.

2. In an electrical measuring instrument, the combination, with a plurality of magnets, and an indicating device controlled by said magnets, of a single supporting member, connecting devices formed integral with said supporting member to engage said magnets and support the same in predetermined positions thereon.

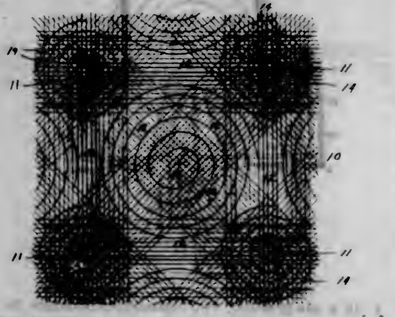
3. In an electrical measuring instrument, the combination, with a plurality of magnets, and an indicating device controlled by said magnets, of a single supporting member, and connecting devices formed integral with said supporting member and adapted to engage the respective magnets and said indicating device to secure the same in predetermined positions on said supporting member.

4. In an electrical measuring instrument, the combination, with a plurality of magnets, and an indicating device controlled by said magnets, of a single supporting member, and connecting devices formed integral with said supporting member to secure said magnets in predetermined positions thereon.

5. In an electrical measuring instrument, the combination, with a plurality of magnets, and an indicating device controlled by said magnets, of a supporting plate of sheet metal having lugs struck therefrom forming connecting devices to engage the respective magnets and secure the same in predetermined positions thereon.

[Claims 6 to 16 not printed in the Gazette.]

1,072,532. REINFORCED CONCRETE CONSTRUCTION. CLAUDE A. P. TURNER, Minneapolis, Minn. Continuation of application Serial No. 603,562, filed Jan. 19, 1911. This application filed Apr. 17, 1912. Serial No. 691,278. (Cl. 72—15.)



1. An arrangement of reinforcement for a column-supported flat plate floor of concrete, comprising floor slab reinforcement, slab-supporting columns, and cantaliver heads comprising each a spiral rod situated wholly between the planes of the top and bottom of the slab above the column, and extending into the slab beyond the column, the slab reinforcement also extending above the column so that the slab at the column has embedded in it the spiral rod forming the cantaliver head and the slab reinforcement.

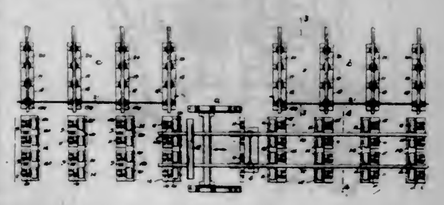
2. An arrangement of reinforcement for a column-supported flat plate floor of concrete, comprising floor slab reinforcement, slab-supporting columns, and cantaliver heads comprising each a spiral rod situated wholly between the planes of the top and bottom of the slab above the column, and extending into the slab beyond the column, the slab reinforcement consisting of belts of rods that extend from column to column and across each other and cross said cantaliver heads where the said belts cross each other.

3. In reinforced concrete construction, the combination of a floor slab, a slab reinforcement therefor, slab supporting columns, and a supporting head for each of said columns that supports the slab reinforcement consisting of a spiral rod whose coils are in substantially the same horizontal plane.

4. In reinforced concrete construction, the combination of a floor slab, a slab reinforcement therefor, slab supporting columns, and a column head, consisting of a spiral whose coils are in substantially the same horizontal plane crossed by said slab reinforcement.

5. In reinforced concrete construction, the combination of a floor slab, slab supporting columns, a column head consisting of a spiral rod whose coils are in substantially the same horizontal plane, crossed by said slab reinforcement, the latter consisting of groups of rods running in multiple directions crosswise of the column heads.

1,072,533. LOADING AND UNLOADING APPARATUS. LARS H. VOLD, Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 16, 1913. Serial No. 761,552. (Cl. 193—1.)



1. In apparatus of the character described, the combination with a machine for operating upon the work, of a work-carrier comprising means to support and guide the work and move it through the machine, a transfer table arranged at one side of the path of the work, said table comprising transversely extending work-supporting bars, means to move the transfer bars back and forth across the path of the work, and lifting jacks in the path of the work adapted to engage the work and transfer it from the transfer bars to the work-supporting means, or vice versa.

2. In an apparatus of the character described, the combination with a machine for operating upon the work, of a work-table comprising supporting rollers and means to convey the work through the machine, a transfer device comprising transversely extending bars and means to move them in the direction of their length into and out of the path of the work, and lifting jacks adapted to engage the work and transfer it from the transfer bars to the supporting rollers, or vice versa.

3. In an apparatus of the character described, the combination with a machine for operating upon the work, of a work-carrier comprising means to support and guide the work and move it through the machine, a loading table and an unloading table arranged respectively at the rear and at the front of the machine at one side of the path of the work, each table comprising transversely extending work-supporting transfer bars, means to move the transfer bars back and forth across the path of the work, and lifting jacks in the path of the work adapted to engage the work and transfer it from the transfer bars to the work-supporting means, or vice versa.

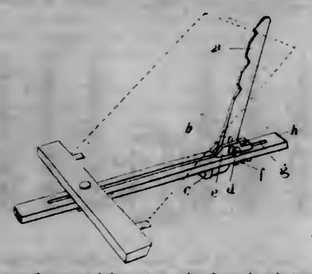
4. In an apparatus of the character described, the combination with a machine for operating upon the work, of a work-table comprising supporting rollers arranged at the rear and at the front of the work and means to convey the work through the machine, a loading device and an unloading device each comprising transversely extending transfer bars and means to move them in the direction of their length into and out of the path of the work, and lifting jacks at the rear of the machine adapted to engage the work and transfer it from the loading transfer bars to the supporting rollers, and lifting jacks in front of the machine adapted to engage the work and transfer it from the supporting rollers to the unloading transfer bars.

5. In an apparatus of the character described, the combination with a machine for operating upon the work, of work-conveying bars extending from rear to front through the machine, a number of sets of supporting and guiding rollers rotatable on transverse axes, a number of sets of rollers rotatable on longitudinal axes, a number of sets of lifting jacks, said rollers and jacks arranged behind the machine, a number of transversely extending loading transfer bars adapted to be moved in the direction of their length onto the second-named sets of rollers to convey the work over the lifting jacks, whereby the latter may be

lifted and lowered to remove the work from the loading transfer bars and deposit it on the supporting rollers, and means to traverse the loading transfer bars.

[Claims 6 to 10 not printed in the Gazette.]

1,072,534. ARTIST'S EASEL. SYDNEY CURNOW VOSPER, Peterafield, England. Filed Sept. 12, 1912. Serial No. 720,052. (Cl. 45—129.)

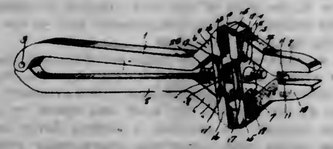


1. An easel comprising a main bar having a longitudinal slot, a cross bar adjustable on said main bar, a notched support on said main bar, one end of said support extending through said longitudinal slot, means for adjusting the support, a stop on one end of the support, said stop having curved edges, the curved edges of said stop adapted to engage the under side of the main bar and restrict the movement of said support.

2. An easel comprising a main bar having a longitudinal slot, a notched support on the main bar, means on the bar for adjustably supporting the notched support, said notched support having an offset portion, an enlargement on one end of the notched support, said enlargement adapted to engage the under side of the main bar for limiting the movement of the support.

3. An easel comprising a main bar having a longitudinal slot, a notched support operating in the slot, an adjustable bracket supporting the notched support, said bracket comprising side members, means for holding the bracket in various positions of adjustment, and means for forcing the side members together for clamping the notched support.

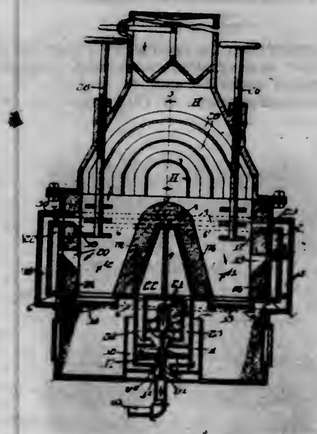
1,072,535. WRENCH. FREDERICK WALDNER, Alexandria, S. D. Filed Apr. 22, 1913. Serial No. 762,811. (Cl. 81—113.)



1. In combination, two members pivoted together and provided with correspondingly shaped angular portions comprising inclined parts, cross heads interposed between and coöperating with said inclined parts, whereby the members may be separated, U-shaped straps arching the inclined parts and pivoted to the cross heads to coöperate with the inclined parts to bring the members together, a screw device comprising a disk member disposed between the cross heads and provided with oppositely extending right and left threaded pins threaded into the cross heads, whereby the cross heads may be moved toward and from one another, said members immediately beyond the angular portions terminating in opposing jaws.

2. In combination, two members pivoted together and provided with correspondingly shaped angular portions comprising inclined parts, cross heads interposed between and coöperating with said inclined parts, whereby the members may be separated, U-shaped straps arching the inclined parts and pivoted to the cross heads to coöperate with the inclined parts to bring the members together, a screw device comprising a disk member disposed between the cross heads and provided with oppositely extending right and left threaded pins threaded into the cross heads, whereby the cross heads may be moved toward and from one another, said members immediately beyond the angular portions terminating in opposing jaws, means for yieldably holding the straps in place, and anti-frictional rollers carried by the cross heads to engage the inclined parts.

1,072,536. GAS-PRODUCER. HENNING FRIEDRICH WALLMANN, Chicago, Ill. Filed July 21, 1906, Serial No. 327,229. Renewed Jan. 3, 1911. Serial No. 600,642 (Cl. 48—82.)



1. In a gas-producer, two combustion-chambers for consuming residue of previous distillation, a distillation-chamber for distilling fuel and for supplying residue of distillation to the said two combustion-chambers, and canals in communication with the said two combustion-chambers and in conjunction with means for alternately and periodically transporting gaseous products of combustion from one and from the other of the said two combustion-chambers for the purpose of supplying latent heat to fuel under distillation within the said distillation-chamber.

2. In a gas-producer, a fire-proof-lined combustion chamber for consuming residue of previous distillation, a distillation chamber with metal walls for distilling fuel and for supplying residue of distillation to the said combustion-chamber, and two conduits with walls partly integral with the metal walls of the said distillation-chamber and in communication with this chamber and in conjunction with means for transporting a heat carrying fluid containing substantially no free oxygen into immediate contact with fuel in the said distillation chamber and for transporting distillates into incandescent residue of distillation.

3. In a gas producer, two producer shafts for secondarily distilling residue of primary distillation and for gasifying residue of secondary distillation and each provided with an upper and a lower air inlet and with an intermediate gas outlet and with an inlet for distillates, a distillation chamber for primarily distilling fuel and for supplying residue of distillation to one of the said producer shafts, and a canal in communication with the said distillation chamber and with the said inlet for distillates of each of the said two producer shafts and in conjunction with means for discharging distillates from the said distillation chamber alternately into one and into the other of the said two producer shafts.

4. In a gas producer, a producer shaft for secondarily distilling residue of primary distillation and for gasifying residue of secondary distillation and provided with a lower and an upper air inlet and with an intermediate gas outlet, a distillation chamber for primarily distilling fuel and for supplying residue of distillation to the said producer shaft, a plurality of canals in proximity to fuel within the said distillation chamber and in communication with the said producer shaft for transferring heat from residue of distillation within the said producer shaft to fuel within the said distillation chamber, and means for discharging distillates from the said distillation chamber.

5. In a gas producer, a fire-proof lined producer shaft for secondarily distilling residue of primary distillation and for gasifying residue of secondary distillation and provided with a lower and an upper air inlet and with an intermediate gas outlet, a distillation chamber with metal walls above the said producer shaft for primarily distilling fuel and for supplying residue of distillation to the said producer shaft, and a plurality of canals with walls partly integral with the metal walls of the said distillation chamber and in communication with the said producer shaft for transferring heat from the latter to fuel within the said distillation chamber.

[Claims 6 to 15 not printed in the Gazette.]

1,072,537. INDIVIDUAL TELEPHONE-MOUTHPIECE. CLARENCE S. WARREN, Milford, Ohio. Filed Apr. 13, 1912. Serial No. 690,511. (Cl. 179—185.)



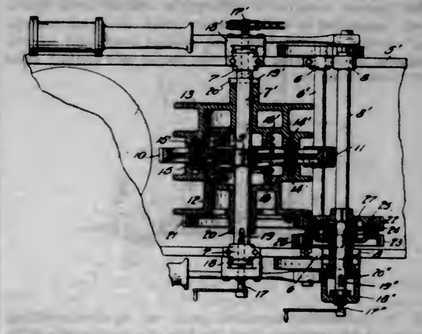
1. A connector comprising a band adapted to be placed around a telephone transmitter, and a series of individual telephone mouth pieces each having an arm pivotally connected to the connector, so that each individual mouth piece may be applied to and removed from the telephone mouth piece.

2. A connector comprising a band adapted to be arranged around a transmitting telephone, and a series of individual mouth pieces each having an arm on one side, the said arm being arranged radially of and pivotally connected to the connector.

3. A connector for attachment to a telephone transmitter and an individual mouth piece pivotally connected to and carried by the connector and adapted to be applied to and removed from the telephone mouth piece, the said individual mouth piece being provided with means to detachably secure it to the telephone mouth piece.

1,072,538. GEARING. SERN P. WATT, Seattle, Wash., assignor to Washington Iron Works Company, Seattle, Wash., a Corporation of Washington. Filed May 29, 1911. Serial No. 630,252. (Cl. 74—59.)

In a hoisting machine, the combination of a power shaft, a toothed pinion thereon intermediate the ends of the shaft, a second pinion on said shaft adjacent one end thereof, a driven shaft, a spur gear fixedly mounted on said driven shaft and in mesh with the first-named pinion, a clutch member carried by said spur gear, an element rotatably-mounted on the driven shaft and adapted to be engaged with said clutch member, an intermediate shaft, two gears upon said intermediate shaft near one end which mesh respectively with the second-named pinion and the rotating element, and means whereby the gears of the intermediate shaft may be coupled for driving the rotating element in a direction contrary to that afforded



by the first-named pinion and the spur gear which is in mesh therewith.

1,072,539. DRAFTING INSTRUMENT. HARRY ALLEN WEBSTER, Lancaster, Pa. Filed Feb. 27, 1913. Serial No. 751,180. (Cl. 33—22.)



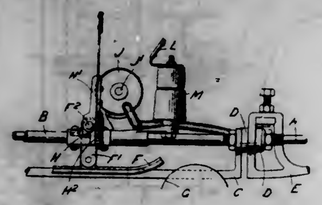
1. A drafting instrument, having a crayon holder and adjusting device, including a friction clip for the crayon, a screw carried by the clip and disposed parallel to the crayon when in the clip, and a disk threaded upon the screw and projecting to engage the upper end of the crayon in the clip to feed the crayon through the clip in one direction and to hold the crayon against retraction in the opposite direction.

2. A drafting instrument, having a crayon holder and adjusting device, including a friction clip for normally retaining the crayon against longitudinal movement, a screw carried by the clip, and a disk threaded upon the screw and projecting to engage the upper end of the crayon while in the clip to feed the crayon through the clip in one direction and to hold the crayon against retraction in the opposite direction.

1,072,540. CONTACT DEVICE. JOHANNES JACOBUS HENDRIKUS WILHELMUS WEENEN, Amsterdam, Netherlands, assignor of one-third to Karel Willem Gerard Johan Stoffels and one-third to Jan Berkelbach Van Der Sprenkel, Amsterdam, Netherlands. Filed Nov. 23, 1912. Serial No. 733,184. (Cl. 246—54.)

1. In electrically operated point- or signal-controlling apparatus for tramways and the like the combination of a member adapted to be moved by the trolley-wheel or other current collector, a plurality of contact arms operatively connected to such member, point- or signal-controlling circuits controlled by said contact arms and electromagnetic means acting to determine which of said contact arms shall complete its circuit.

2. In electrically operated point- or signal-controlling apparatus for tramways and the like the combination of a member adapted to be moved by the trolley-wheel or other current collector, a plurality of contact arms operatively connected to such member, point- or signal-controlling circuits controlled by said contact arms and electromagnetic means acting to prevent one of said contact arms from completing its circuit.



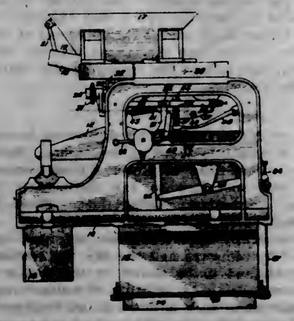
3. In electrically operated point- or signal-controlling apparatus for tramways and the like the combination with point- or signal-controlling circuits of two contact arms controlling said circuits, and a solenoid or electro-magnet having a core which projects into the path of motion of one or other of the contact arms for the purpose set forth.

4. In electrically operated point- or signal-controlling apparatus for tramways and the like the combination of a solenoid, a core for such solenoid adapted to project at one end or the other of the solenoid according to whether the solenoid is energized or not and two contact arms movable across the path of motion of the core and each comprising two parts pivoted and spring-controlled so that they move together if the path is not obstructed by the core but can move relatively if the core obstructs the motion of one part.

5. In electrically operated point- or signal-controlling apparatus for tramways and the like the combination of an overhead conductor, a member suspended by links and adapted to be moved by the trolley-wheel or other current collector, two contact arms operatively connected to the member each contact arm comprising two parts normally spring-controlled and moving together, adjustable means for preventing simultaneous movement of both contact arms, and a solenoid controlling the position of said means relative to the contact arms.

[Claims 6 to 8 not printed in the Gazette.]

1,072,541. AUTOMATIC WEIGHING-MACHINE. HENRY W. WELSH, North Milwaukee, Wis., assignor to Avery Scale Company, North Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 23, 1911. Serial No. 610,148. (Cl. 73—177.)



1. An automatic weighing machine, comprising a scale beam having a weight at one end and a scale hopper at the other end provided with a discharging door, a chute hopper located above the plane of the scale hopper, a gate pivotally linked to and suspended beneath the chute hopper and having a slidable connection at its lower end with a part of the scale, and means for vibrating the gate, said means controlled by the weight of material fed into the scale hopper and the descent of the hopper and the movement of the hopper door.

2. An automatic weighing machine, comprising a scale beam having a weight at one end and a scale hopper at the other end provided with a discharging door, a chute hopper located above the plane of the scale hopper, a gate suspended beneath the chute hopper and having a pivotal connection at one end and a sliding connection at its other end, means for vibrating the gate to charge the scale hopper, and a connection between the scale hopper and the vibrating means for stopping the vibration of the gate while the scale hopper is descending to a discharging position.

3. An automatic weighing machine, comprising a frame a scale beam pivotally mounted thereon and having a weight at one end and a scale hopper at the other end provided with a discharging door, a chute hopper located above the plane of the scale hopper, a gate positioned beneath the chute hopper and suspended from links at one end and having a sliding engagement with the frame at its other end, means for vibrating the gate to charge the scale hopper, and a connection between the vibrating means and the scale hopper for stopping the vibration of the gate while the scale hopper is descending to a discharging position.

4. An automatic weighing machine, comprising a frame a scale beam pivotally mounted thereon and having a weight at one end and a scale hopper at the other end provided with a discharging door, a chute hopper located above the plane of the scale hopper, an inclined gate positioned beneath the chute hopper and suspended from links at one end and having a sliding engagement with the frame at its other end, a crank shaft journaled on the frame, a connection between the crank of the shaft and the gate, means for rotating the shaft, and a connection between the rotating means and the scale hopper for stopping the rotation of the crank shaft while the scale hopper is descending to a discharging position.

5. An automatic weighing machine, comprising a main frame, a scale beam pivotally mounted thereon and having a weight at one end and a scale hopper at the other end provided with a discharging door, a chute hopper mounted on the frame and having an open bottom portion and an end discharge opening, a gate covering the bottom opening of the chute hopper and extending beyond each end thereof and having a pivotal and slidable connection with the frame, one end of the gate positioned above the scale hopper, a shaft journaled on the frame and provided with a cranked portion having a linked connection with the gate, means for rotating said shaft, a clutch mechanism for connecting said shaft rotating means to the shaft, a lever for operating the clutch mechanism, an arm pivotally connected to the frame for operating the clutch mechanism, and means connected to the scale hopper for moving the arm to cause the rotation of the shaft when the scale hopper is in charging position and to move the arm to stop the rotation of the shaft when the scale hopper is in discharging position.

[Claims 6 and 7 not printed in the Gazette.]

1,072,542. HOSE OR GARMENT SUPPORTER. DANIEL WERTZ, Toledo, Ohio. Filed Apr. 4, 1912. Serial No. 688,520. (Cl. 24—248.)

1. A garment supporter comprising a U-shaped wire body member having its legs coiled to form axially registering pintle bearings in advance of the plane of said legs, means connecting the free ends of the legs without such bearings, a looped wire lever having the ends of its legs bent laterally to form pintles for fitting into the bearings of the body member, the lever legs being coiled intermediate their ends to form axially registering pintle bearings which, when the lever is in clamped position, are projected through the body to the rear of the lever fulcrum, and a tongue pivoted at its inner end to the lever bearings and adapted to project through the body member and to the rear of its lower end when the lever is in clamped position, substantially as described.



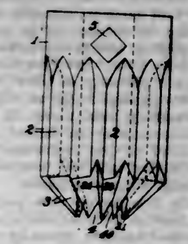
2. A garment supporter, comprising a U-shaped wire body member the legs of which are coiled to form bearings between the ends thereof, a bar connecting the free ends of the legs without said bearings, a U-shaped wire lever having its legs looped between their ends to form opposing bearings and then extending at an angle with relation to the outer looped end portion of the lever and having their free ends bent laterally and journaled in the body member bearings, a looped wire tongue having its legs bent laterally and journaled in the bearings of said lever legs, the outer looped end of said tongue being adapted to be projected through and beyond the looped end of the body member in the general direction of projection thereof to cooperate therewith in clamping an article, and said lever having its outer end of a length to bear against the outer side of the looped end of the body member in opposition to the tongue when the parts are in clamped position, the inner angled ends of the lever legs causing the tongue-bearings thereof to be projected to the rear of the member bearings when the tongue is in clamped position whereby an end thrust on the tongue will tend to tighten it against the body loop.

3. A garment supporter, comprising a U-shaped wire body member having its legs coiled to provide opposing bearings, a U-shaped wire lever member having the free ends of its legs bent laterally and journaled in said bearings, said lever being adapted to bear at its looped end against the side of the looped end of the body member when the parts are in clamped position, the legs of said lever being provided between their ends with bearings, and a looped wire tongue the free ends of the legs of which are bent laterally and journaled in the bearings of said lever, said tongue being adapted to have its free end projected through and to the rear of the looped end of the body member in opposition to the outer end of the lever when the parts are in clamped position, said lever being angled to project the tongue bearings thereof through the body member when the parts are in clamped position to dispose the body member bearings in advanve of the line of longitudinal thrust of the tongue.

4. A garment supporter comprising a looped body member having its legs coiled to provide opposing bearings, a looped lever member having the free ends of its legs provided with laterally projecting journals which are sprung outward into the body member bearings, and having opposing bearings provided on its legs, a looped tongue member having the free ends of its legs provided with laterally projecting journals and sprung outward into the lever bearings, and means connecting the free ends of the legs of the body member for preventing an outward springing of such legs.

5. A garment supporter comprising a looped wire body member having its legs coiled to provide opposing bearings, a bar connecting the outer ends of said legs, a looped wire lever member having the ends of its legs bent outward and sprung into said body member bearings and provided between their ends with bearings, and a looped wire tongue having the free ends of its legs bent outward and sprung into the lever bearings and having its legs laterally abutting between the end portions thereof at a point removed from the bent ends to resist an inward springing of the legs, said tongue and lever being adapted to cooperate with the body member to hold an engaged article.

1,072,543. COUNTERSINK ATTACHMENT FOR BITS. JOHN WHYTE, Everett, Wash. Filed Aug. 1, 1910. Serial No. 575,005. (Cl. 145—126.)

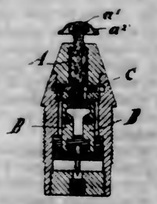


1. A countersink for wood having a coned end provided with teeth having their advancing face at a relatively greater angle to the face of the countersink than their other face, the section of the countersink next above said coned end being toothed with the outer points of the teeth matching with the points of the cutting teeth of the coned end, the two faces of these upper teeth being of substantially like angle, the bottom angles of the teeth upon said coned end extending into one face of the teeth above to form a shoulder.

2. A countersink for wood having its cutting end coned and provided with teeth disposed in two sections those in the section next the end being formed with their advancing or cutting face making a relatively sharp angle with the surface of the countersink, the teeth upon the section adjoining having their advancing face at a relatively flatter angle with the surface of the countersink, the surfaces of the teeth in both sections continuing as planes to intersections forming shoulders.

3. A countersink attachment for bits having its end formed as two frustums of cones, the end frustum having a greater angle with the axis than the section inward therefrom, both sections being provided with teeth having coincident outer edges, the teeth upon the end frustum having their advancing face at a relatively sharper angle than those upon the inner frustum, and with the inner end of this face extending up into a side of a tooth of the section above.

1,072,544. PERCUSSION-FUSE FOR PROJECTILES. KARL WIESER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Oct. 10, 1910. Serial No. 586,272. (Cl. 102—39.)



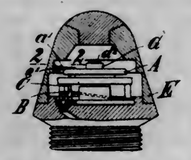
1. A percussion fuse for projectiles comprising a substantially easily movable part protruding beyond the outer limiting surface of the fuse body and adapted to effect ignition, and a safety-device preventing movement of said part by the action of the inertia on firing, said device being adapted to be automatically released when the projectile commences its flight, and a contacting domed cap on the outer end of said movable part, the profile of said dome being such as to transmit a practically axial thrust to said part on impact between any portion of the dome's surface with the target, said dome being provided with a plurality of apertures situated entirely inside the cir-

cumference of said cap to permit of free passage of air during the flight of the projectile.

2. In a percussion fuse for air ship projectiles having a spring actuated ignition hammer, the combination with checking levers for said hammer, normally restraining the hammer from hitting the primer; of an axially movable member normally holding said levers locked to the hammer; an external dome shaped head portion on said movable member having a plurality of holes therein for the purpose of giving free passage to the air during flight and to produce a substantially axial thrust on said shaft on impact, said movable member on impact releasing said levers, which actuated by the centrifugal force release the hammer by swinging out, the hammer actuated by its spring subsequently firing the primer.

3. In a percussion fuse for air ship projectiles having a spring actuated ignition hammer, the combination with checking levers for said hammer, normally restraining the hammer from hitting the primer; of an axially movable shaft normally holding said levers locked to the hammer and protruding beyond the front portion of the fuse body; an external mushroom shaped head on said shaft adapted to produce a substantially axial thrust on said shaft on impact at any angle; perforations in said head allowing free passage of air during flight; said levers actuated by the centrifugal force during flight frictionally holding said shaft in its forward position; said shaft on impact releasing said levers which again actuated by the centrifugal force, swing out to release the hammer, the primer being subsequently fired by the hammer actuated by its spring.

1,072,545. MECHANICAL TIME-FUSE. KARL WIESER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed May 22, 1911. Serial No. 628,847. (Cl. 102—37.)



1. In a mechanical time fuse comprising a fuse setting means, a spindle and a driving gear for said spindle; a member mounted on said spindle, said member being adapted to turn independently of the spindle in setting the fuse and to be locked to the spindle by the shock from the firing of the projectile.

2. In a mechanical time fuse comprising a fuse setting dome, a driving spindle; a member in engagement with said dome during the setting of the fuse, said member being mounted on said spindle and adapted to turn with the dome for setting the fuse, independently of the spindle; said member being brought into engagement with the spindle by the shock from the firing of the projectile; this shock causing the disconnection between said dome and said member, simultaneously with the interlocking of said member and said spindle.

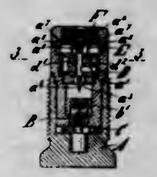
3. In a mechanical time fuse comprising a fuse setting dome, a driving spindle; a member in engagement with said dome during the setting of the fuse, said member mounted on said spindle and adapted to turn with the dome for setting the fuse independently of the spindle; said member being brought into engagement with said spindle by the shock from the firing of the projectile; this shock causing an axial displacement of said member, thereby disconnecting the member from said dome, simultaneously with the interlocking of said member and said spindle.

4. In a mechanical time fuse comprising a fuse setting dome, a driving spindle; a locking plate mounted on said spindle and adapted to turn independently thereof in setting the fuse; a coupling between said plate and said dome comprising two parts engaging each other and firmly attached respectively to said plate and said dome; said locking plate actuated by the shock from the firing of the projectile, receiving a limited axial movement, thereby severing its coupling with said dome and simultaneously interlocking firmly with the spindle, causing the plate to revolve with the spindle.

5. In a mechanical time fuse, having a fuse setting dome, a driving spindle; a locking plate mounted on said spindle and adapted to turn independently thereof in setting the fuse; a coupling between said locking plate and said spindle comprising a flat part on the spindle under said locking plate, a pressure block mounted on said spindle over the locking plate, a core of soft material in said pressure block, a cup-spring mounted against a shoulder on said spindle, supporting said locking plate, and a nut threaded on the end of the spindle for holding said cup-spring, locking plate, pressure block and core pressed against said shoulder on the spindle; said locking plate and pressure block with core, actuated by the shock from the firing of the projectile, being axially displaced, thereby locking them firmly to the spindle, simultaneously severing the connection of said plate and said dome.

[Claims 6 and 7 not printed in the Gazette.]

1,072,546. IMPACT-FUSE. KARL WIESER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 31, 1912. Serial No. 739,561. (Cl. 102—39.)



1. An impact fuse having a detonating charge and a fulminate a hammer inserted between the two, a direct passage and a circuitous passage in said hammer, and means for closing said direct passage actuated by the impact of the projectile with a target of great resistance.

2. An impact fuse having a detonating charge and a fulminate, a hammer inserted between the two, a direct passage and a circuitous passage in said hammer, a collapsible member retaining said hammer in its original position, and a cone adapted to close said direct passage on the impact of the projectile with a target of great resistance, whereby a flame from the fulminate is compelled to follow the circuitout passage to the detonating charge.

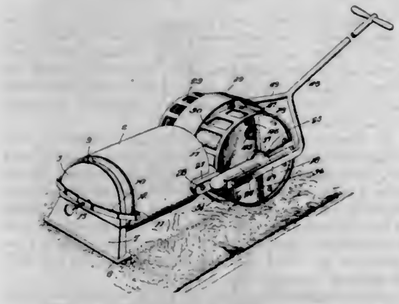
3. An impact fuse comprising a housing with two chambers divided by a partition, a hammer in one of said chambers, normally situated at the rear of said chamber, and a member for retaining said hammer in said position on impact with a target of slight resistance; said member being distorted by the inertia of said hammer on impact against a target of great resistance; a detonating charge inclosed in a hollow part of the housing adjacent the forward end of the first chamber, a fulminate in the second chamber and means for igniting the fulminate on impact, passages through said partition, said hammer, said member and the wall of said housing, permitting a direct course from the second chamber to said detonating charge for the flame generated in said second chamber on a slight impact of the projectile.

4. In an impact fuse, having an automatically selected delayed action device, comprising a housing with two chambers divided by a partition, a fulminate and means for igniting said fulminate on impact in the first chamber, a hammer in the second chamber, a detonating charge inclosed in a hollow part of said housing, a collapsible member normally and on slight impact retaining said hammer at the rear of said second chamber, said member collapsing from the inertia of said hammer on impact against a target of great resistance; a direct passage in said hammer from said first chamber to said detonating charge; a circuitous duct in said hammer and a port registering therewith leading to said detonating charge, a valve cone constructed to close said passage on the collapse of said member, whereby the flame from the fulminate will be compelled to take a longer course to reach the detonating charge and delayed action will follow.

5. An impact fuse comprising a housing with two chambers situated one behind the other and divided by a partition, a hammer in the forward chamber, normally situated at the rear of said chamber, and a member for retaining said hammer in said position on impact with a target of slight resistance, said member being distorted by the inertia of said hammer on impact against a target of great resistance; a detonating charge inclosed in a hollow part of the housing adjacent the forward end of the forward chamber, a fulminate in the second chamber and means for igniting the fulminate on impact, passages through said partitions, said hammer, said member and the wall of said housing, permitting a direct course from the second chamber to said detonating charge for the flame generated in said second chamber on a slight impact of the projectile.

[Claims 6 to 9 not printed in the Gazette.]

1,072,547. VACUUM-CLEANER PUMP. CALVIN C. WILLIAMS, Philadelphia, Pa., assignor to Victor Vacuum Cleaning Company, Philadelphia, Pa. Filed Apr. 30, 1912. Serial No. 694,110. (Cl. 230—27.)



1. A device of the character described including an annular traction member, a double acting pump disposed within the traction member and including a barrel extending longitudinally of the traction member and having openings at its ends coinciding with the axis of the traction member, a reciprocating piston within the barrel, means actuated by the traction member for reciprocating said piston parallel to the axis of the barrel and traction member, and a chamber operatively connected through the axis of the traction member with both ends of the pump barrel.

2. A device of the character described including in its organization an annular traction member, a double acting pump disposed within the traction member and extending transversely, and means actuated by the traction member for actuating said pump.

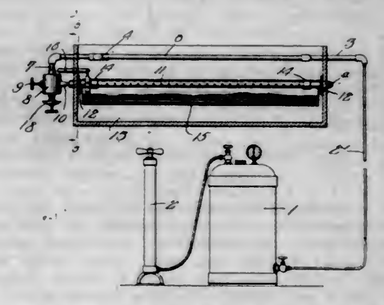
3. A device of the character described including in its organization an annular traction member, oppositely disposed cams carried by and disposed within the traction member, and a double acting pump having opposed pistons and a barrel disposed transversely of and within the said cams, and a member operatively engaging said pistons and said cams to reciprocate the former upon a rotation of the latter.

4. A device of the character described including in its organization an annular traction member, oppositely disposed cams carried by the traction member and having cam faces spaced from each other, a pump barrel disposed within the cams and having an inlet and an outlet opening in each of its end walls, valves controlling the passage of fluid through said openings, connections extending from the inlet openings of the pump to the interior of the chamber, a double piston within the pump connected by a spindle, a transverse spindle engaging the first named spindle, the extremities of said last named spindle being engaged by the cam faces of the cams.

5. A device of the character described including in its organization a chamber carried thereby, a traction member, a pump including a pump barrel mounted within the traction member extending transversely of the said chamber and rearward of the same, ducts extending rearward from the said chamber and having tubular bearings entering the ends of the pump barrel whereby the chamber is pivotally connected to the pump barrel, and means operatively connected to the traction member for actuating said pump.

[Claims 6 to 8 not printed in the Gazette.]

1,072,548. FLUID-HYDROCARBON BURNER. CHARLES F. WILLIAMS and IRA C. WILLIAMS, Coldwater, Mich. Filed Oct. 17, 1912. Serial No. 726,334. (Cl. 158—63.)



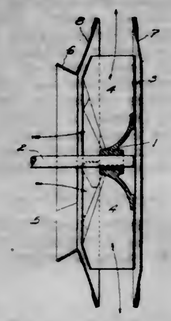
1. In a fluid hydrocarbon burner, a supporting casing, a gasifying coil disposed therein, a burner tube disposed in said casing below the gasifying coil, a longitudinally disposed reflector plate mounted within the casing upon the burner tube for swinging movement, and manually controlled means connected to the reflector plate and operable exteriorly of the casing for rotating the plate relatively to the burner tube.

2. In a fluid hydrocarbon burning apparatus, a supporting casing, a plurality of gasifying conduits located therein, a gas directing nozzle in communication with the conduits, a burner tube mounted in the casing below the conduits and having its inlet end adjacent to the nozzle, a plurality of brackets rotatably mounted upon the burner tube within the casing, a reflector plate carried by said brackets, and manually operated means connected to the plate and disposed exteriorly of the casing for positioning the plate relatively to the burner tube.

3. In a fluid hydrocarbon burning apparatus, a supporting casing, a plurality of gasifying conduits located therein, a valve casing having a gas directing nozzle connected to receive the gas from the gasifying conduits, a longitudinally disposed burner tube mounted in the casing and having an open inlet end disposed exteriorly of the casing with the nozzle concentrically thereof and in spaced relation thereto, a pair of brackets rotatably mounted upon the tube, a curved reflector plate carried by said brackets, and means connected to the plate and operable exteriorly of the casing for rotating the plate relatively to the burner tube.

4. In a fluid hydrocarbon burning apparatus, a plurality of gasifying conduits, a valve controlled gas supplying nozzle connected thereto, a longitudinally disposed burner tube disposed to receive the gas from the nozzle and in heating relation to the gasifying conduits, a plurality of brackets rotatably mounted upon the burner tube within the casing, a curved plate carried by said brackets and in reflecting relation to the burner tube, and a handle for operating said plate connected to the plate and projecting exteriorly of the casing.

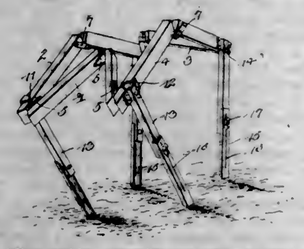
1,072,549. CENTRIFUGAL FAN. EUGENE B. WILLIAMS, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 6, 1909. Serial No. 531,488. (Cl. 230—11.)



1. A centrifugal fan comprising a front plate having a frusto-conical eye and an inwardly converging outer rim portion, a rear plate having an inwardly converging rim, a fan wheel between said plates and provided with radial blades having rearwardly inclined onter front edges, a circular plate on the rear of said blades, and a ring mounted on the inclined front edges of said blades and inclined in parallelism with the inwardly converging portion of the front plate, substantially as set forth.

2. A centrifugal fan comprising front and rear plates having inwardly converging rim portions, the front plate provided with a frusto-conical eye, a fan wheel between said plates, provided with radial blades having rearwardly inclined outer front edges, a circular plate on the rear of said blades, and a ring mounted on the inclined front edges of said blades and connecting said blades together and forming contracted throats at the discharge ends of each fan section adapted to discharge the air in line with the converging inner surface of the front plate, substantially as set forth.

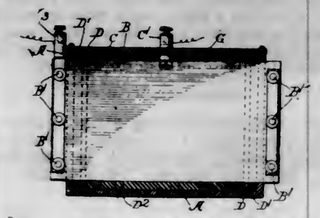
1,072,550. FOLDING TABLE. CLIFTON C. WILSON, Eureka, Cal. Filed Sept. 28, 1912. Serial No. 722,910. (Cl. 45—11.)



1. A folding table comprising a frame composed of upwardly folding side bars and inwardly folding end bars, said side and end bars being hinged one to the other at their ends and said side bars being provided with sockets adjacent the hinged ends, said sockets having the side walls thereof tapered inwardly toward one another from their outer to their inner edges, supporting legs adapted to be received in said sockets, portions of said legs being tapered coincident to the inclination of the walls of said sockets, means to adjustably secure said legs in the sockets of said side bars, and a top for the frame.

2. A folding table comprising a frame formed of upwardly folding side bars and inwardly folding end bars, said side and end bars being hinged one to the other at their ends and said side bars being provided with sockets in the outer faces thereof, said sockets having the side walls of the same tapered inwardly toward one another from their forward to their rear edges, supporting legs adapted to be received in said sockets, portions of said sockets being beveled coincident to the inclination of the walls of said sockets, bolts extending through the rear walls of said sockets and through said supporting legs, thumb nuts engaged with said bolts to removably secure the supporting legs in the sockets of said side bars, means to retain the end bars in their outspread position, and a top for the frame.

1,072,551. ELECTRIC BATTERY. DAVID H. WILSON, Chicago, Ill. Filed Sept. 18, 1905. Serial No. 278,847. (Cl. 204—41.)

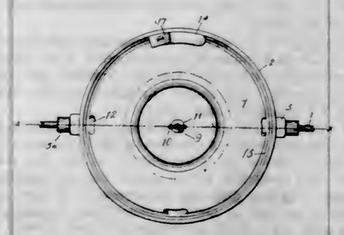


1. An electric battery comprising a receptacle a positive electrode therein, two carbon electrodes therein, both ends of each of said electrodes projecting through the receptacle, the associated projecting ends electrically connected together, the separated ends of each electrode electrically connected together by an electrical conductor separate from the electrode.

2. An electric battery comprising a receptacle a positive electrode therein, two carbon electrodes therein, both ends of each of said electrodes projecting through the receptacle, a separate conductor by which the associated projecting ends are electrically connected together, the separated ends of each electrode connected together by an electrical conductor, and a layer of projecting material on the inside of the receptacle at the points where the electrodes project therethrough.

3. An electric battery comprising a receptacle, two carbon electrodes therein, said receptacle provided with openings, the ends of both of said electrodes projecting through said openings, bolts at the ends of said electrodes and outside of said receptacle, said bolts connecting said ends together.

1,072,552. PEANUT-PLANTER. WILLIAM A. WILSON, Dallas, Tex. Filed Feb. 8, 1913. Serial No. 747,073. (Cl. 111—6.)

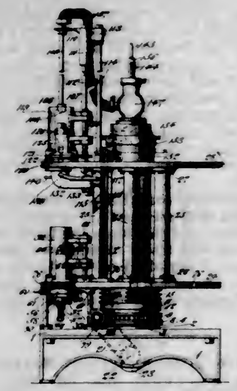


1. In a device of the character described, the combination with a seed can, of a feed-wheel mounted in the bottom thereof, means for communicating rotation to the feed-wheel, a housing overhanging the periphery of the feed-wheel and having a rigid relation to the seed can, the bottom of the can being apertured beneath said housing, and a blade at one end of said housing, disposed just above the feed-wheel, and adapted to sever any peanut standing on end in a cell of the wheel.

2. In a device of the character described, the combination with a seed can, of a feed-wheel mounted in the bottom thereof means for communicating rotation to the feed wheel, a housing overhanging the periphery of the feed-wheel and having a rigid relation to the seed can, the bottom of the can being apertured beneath said housing, a spring pressed ejector within the housing adapted to force the peanuts from the cells of the feed-wheel as said cells pass through said housing, and a blade at one end of said housing disposed just above the feed-wheel and adapted to sever any peanut standing on end in a cell of the wheel.

3. In a peanut planter, a seed can having a dished bottom provided with a discharge opening at one side, a ring fitting on the bottom of the seed can and having an opening over the opening of the can bottom, a housing carried by the ring over its opening, a cutter blade mounted at one end of the housing in advance of the ring opening, a dish-shaped rotatable plate mounted over the bottom of the seed can and having its marginal portion overhanging the ring, the plate having peripheral seed pockets adapted to pass under the housing in close proximity to the cutter blade, and a spring pressed ejector arm bearing on the plate in the path of the pockets.

1,072,553. AUTOMATIC BOTTLE-BLOWING MACHINE. SAMUEL E. WINDER, Waltham, Mass., assignor to Appleton P. Williams, West Upton, Mass. Filed Mar. 16, 1912. Serial No. 684,120. (Cl. 49—9.)



1. In an apparatus for forming hollow glass articles, a base, a bearing member rotatably mounted thereon, means for continuously actuating said member, a plurality of tables suitably supported by said bearing member and adapted to rotate therewith, means to intermittently release said tables from actuation by said bearing member, a press mold carried by one table, means to produce a vacuum in said press mold to draw a gather of glass therein, a cutting device, means to form a preliminary opening in the glass blank formed in said press mold, a blow mold, a carrier for delivering said blank to said blow mold, and means to blow said blank into a completed article.

2. In an apparatus for forming hollow glass articles, a plurality of tables mounted for rotary movement, means to rotate said tables, a mechanism for intermittently locking said tables, a press mold carried by one of said tables, means to seat a gather of glass in said press mold, a bottom former automatically actuated to engage said glass, a blowing mechanism for forcing said glass into engagement with said bottom former, a blow mold carried by the other table, and means for delivering said glass to said blow mold in inverted position.

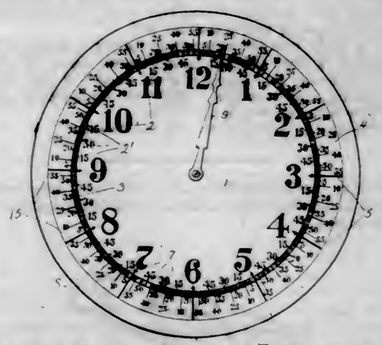
3. In an apparatus for forming hollow glass articles, a plurality of tables suitably supported for rotary movement, a press mold carried by one of said tables, means for sucking glass into said mold, a bottom former automatically actuated to engage said glass at a predetermined time, a plunger adapted to form a preliminary opening in said glass, blowing mechanism for forming said glass in said press mold and forcing the same into engagement with said bottom former, a suction device connected to said bottom former, a blow mold operatively mounted on the other table, means to operate said bottom former to deliver said glass to said blow mold, and means to admit pressure fluid to said blow mold.

4. In an apparatus for forming hollow glass articles, a plurality of tables suitably mounted for rotary movement, means to rotate said tables, a press mold carried by one of said tables, a locking mechanism adapted to automatically bring said tables to rest at predetermined intervals, a glass cutting device mounted adjacent thereto, and means to simultaneously operate said cutting device and said locking mechanism.

5. In an apparatus for forming hollow glass articles, a plurality of tables suitably mounted for rotary movement, means to intermittently actuate said tables, a cylinder positioned adjacent said tables, a piston in said cylinder, a bottom former slidingly mounted with respect to said tables, connections between said bottom former and said cylinder, a press mold carried by one of said tables, a blow mold carried by the second table, means controlling a pressure fluid to said cylinder whereby said bottom former is reciprocated, and means to produce a vacuum in said bottom former.

[Claims 6 to 15 not printed in the Gazette.]

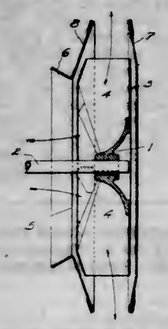
1,072,554. CLOCK-DIAL. FREDERICK E. WINDSOR, Los Angeles, Cal. Filed Oct. 17, 1911, Serial No. 655,216. Renewed Jan. 30, 1913. Serial No. 745,307. (Cl. 58—127.)



1. A clock dial, comprising a disk having twelve hour divisions thereon, defined by hour marks and figures of larger size, quarter hour numbers between said hour numbers, a double circle on the outside of said hour divisions provided with minute divisions, and an outer ring on the outside of said double circle, said outer ring being provided with division lines of different lengths and having the numbers designating said division lines placed at different distances from said inner circle.

2. A clock dial comprising a disk having a double circle provided with divisions indicating minutes, a circle outside of said double circle forming a ring, hour marks extending across said ring and within said double circle, hour numbers of large size opposite the hour marks within the double circle, marks extending through the double circle indicating the quarters of each hour, such quarters being indicated by figures of a different color also within said double circle giving the quarters in minutes, and the minutes between the quarter marks being indicated by marks in groups of five and figures in two rows upon said ring outside of said double circle.

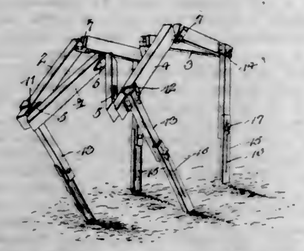
1,072,549. CENTRIFUGAL FAN. EUGENE B. WILLIAMS, Boston, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 6, 1909. Serial No. 531,488. (Cl. 230—11.)



1. A centrifugal fan comprising a front plate having a frusto-conical eye and an inwardly converging outer rim portion, a rear plate having an inwardly converging rim, a fan wheel between said plates and provided with radial blades having rearwardly inclined outer front edges, a circular plate on the rear of said blades, and a ring mounted on the inclined front edges of said blades and inclined in parallelism with the inwardly converging portion of the front plate, substantially as set forth.

2. A centrifugal fan comprising front and rear plates having inwardly converging rim portions, the front plate provided with a frusto-conical eye, a fan wheel between said plates, provided with radial blades having rearwardly inclined outer front edges, a circular plate on the rear of said blades, and a ring mounted on the inclined front edges of said blades and connecting said blades together and forming contracted throats at the discharge ends of each fan section adapted to discharge the air in line with the converging inner surface of the front plate, substantially as set forth.

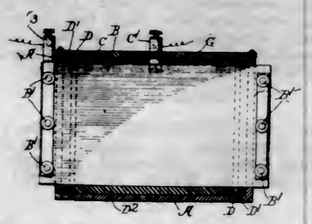
1,072,550. FOLDING TABLE. CLIFTON C. WILSON, Eureka, Cal. Filed Sept. 28, 1912. Serial No. 722,910. (Cl. 45—11.)



1. A folding table comprising a frame composed of upwardly folding side bars and inwardly folding end bars, said side and end bars being hinged one to the other at their ends and said side bars being provided with sockets adjacent the hinged ends, said sockets having the side walls thereof tapered inwardly toward one another from their outer to their inner edges, supporting legs adapted to be received in said sockets, portions of said legs being tapered coincident to the inclination of the walls of said sockets, means to adjustably secure said legs in the sockets of said side bars, and a top for the frame.

2. A folding table comprising a frame formed of upwardly folding side bars and inwardly folding end bars, said side and end bars being hinged one to the other at their ends and said side bars being provided with sockets in the outer faces thereof, said sockets having the side walls of the same tapered inwardly toward one another from their forward to their rear edges, supporting legs adapted to be received in said sockets, portions of said sockets being beveled coincident to the inclination of the walls of said sockets, bolts extending through the rear walls of said sockets and through said supporting legs, thumb nuts engaged with said bolts to removably secure the supporting legs in the sockets of said side bars, means to retain the end bars in their outspread position, and a top for the frame.

1,072,551. ELECTRIC BATTERY. DAVID H. WILSON, Chicago, Ill. Filed Sept. 18, 1905. Serial No. 278,847. (Cl. 204—41.)

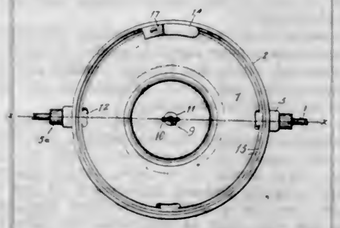


1. An electric battery comprising a receptacle a positive electrode therein, two carbon electrodes therein, both ends of each of said electrodes projecting through the receptacle, the associated projecting ends electrically connected together, the separated ends of each electrode electrically connected together by an electrical conductor separate from the electrode.

2. An electric battery comprising a receptacle a positive electrode therein, two carbon electrodes therein, both ends of each of said electrodes projecting through the receptacle, a separate conductor by which the associated projecting ends are electrically connected together, the separated ends of each electrode connected together by an electrical conductor, and a layer of projecting material on the inside of the receptacle at the points where the electrodes project therethrough.

3. An electric battery comprising a receptacle, two carbon electrodes therein, said receptacle provided with openings, the ends of both of said electrodes projecting through said openings, bolts at the ends of said electrodes and outside of said receptacle, said bolts connecting said ends together.

1,072,552. PEANUT-PLANTER. WILLIAM A. WILSON, Dallas, Tex. Filed Feb. 8, 1913. Serial No. 747,073. (Cl. 111—6.)

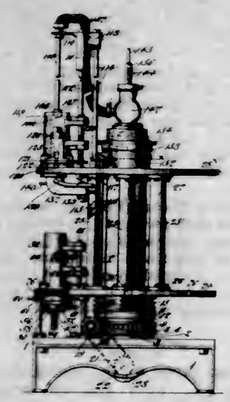


1. In a device of the character described, the combination with a seed can, of a feed-wheel mounted in the bottom thereof, means for communicating rotation to the feed-wheel, a housing overhanging the periphery of the feed-wheel and having a rigid relation to the seed can, the bottom of the can being apertured beneath said housing, and a blade at one end of said housing, disposed just above the feed-wheel, and adapted to sever any peanut standing on end in a cell of the wheel.

2. In a device of the character described, the combination with a seed can, of a feed-wheel mounted in the bottom thereof means for communicating rotation to the feed wheel, a housing overhanging the periphery of the feed-wheel and having a rigid relation to the seed can, the bottom of the can being apertured beneath said housing, a spring pressed ejector within the housing adapted to force the peanuts from the cells of the feed-wheel as said cells pass through said housing, and a blade at one end of said housing disposed just above the feed-wheel and adapted to sever any peanut standing on end in a cell of the wheel.

3. In a peanut planter, a seed can having a dished bottom provided with a discharge opening at one side, a ring fitting on the bottom of the seed can and having an opening over the opening of the can bottom, a housing carried by the ring over its opening, a cutter blade mounted at one end of the housing in advance of the ring opening, a dish-shaped rotatable plate mounted over the bottom of the seed can and having its marginal portion overhanging the ring, the plate having peripheral seed pockets adapted to pass under the housing in close proximity to the cutter blade, and a spring pressed ejector arm bearing on the plate in the path of the pockets.

1,072,553. AUTOMATIC BOTTLE-BLOWING MACHINE. SAMUEL E. WINDER, Waltham, Mass., assignor to Appleton P. Williams, West Upton, Mass. Filed Mar. 16, 1912. Serial No. 684,120. (Cl. 49—9.)



1. In an apparatus for forming hollow glass articles, a base, a bearing member rotatably mounted thereon, means for continuously actuating said member, a plurality of tables suitably supported by said bearing member and adapted to rotate therewith, means to intermittently release said tables from actuation by said bearing member, a press mold carried by one table, means to produce a vacuum in said press mold to draw a gather of glass therein, a cutting device, means to form a preliminary opening in the glass blank formed in said press mold, a blow mold, a carrier for delivering said blank to said blow mold, and means to blow said blank into a completed article.

2. In an apparatus for forming hollow glass articles, a plurality of tables mounted for rotary movement, means to rotate said tables, a mechanism for intermittently locking said tables, a press mold carried by one of said tables, means to seat a gather of glass in said press mold, a bottom former automatically actuated to engage said glass, a blowing mechanism for forcing said glass into engagement with said bottom former, a blow mold carried by the other table, and means for delivering said glass to said blow mold in inverted position.

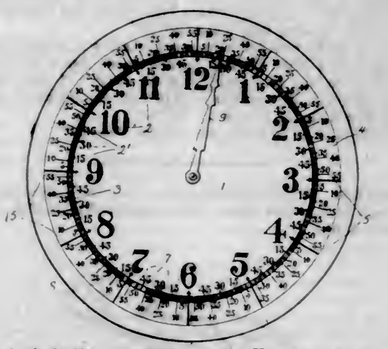
3. In an apparatus for forming hollow glass articles, a plurality of tables suitably supported for rotary movement, a press mold carried by one of said tables, means for sucking glass into said mold, a bottom former automatically actuated to engage said glass at a predetermined time, a plunger adapted to form a preliminary opening in said glass, blowing mechanism for forming said glass in said press mold and forcing the same into engagement with said bottom former, a suction device connected to said bottom former, a blow mold operatively mounted on the other table, means to operate said bottom former to deliver said glass to said blow mold, and means to admit pressure fluid to said blow mold.

4. In an apparatus for forming hollow glass articles, a plurality of tables suitably mounted for rotary movement, means to rotate said tables, a press mold carried by one of said tables, a locking mechanism adapted to automatically bring said tables to rest at predetermined intervals, a glass cutting device mounted adjacent thereto, and means to simultaneously operate said cutting device and said locking mechanism.

5. In an apparatus for forming hollow glass articles, a plurality of tables suitably mounted for rotary movement, means to intermittently actuate said tables, a cylinder positioned adjacent said tables, a piston in said cylinder, a bottom former slidingly mounted with respect to said tables, connections between said bottom former and said cylinder, a press mold carried by one of said tables, a blow mold carried by the second table, means controlling a pressure fluid to said cylinder whereby said bottom former is reciprocated, and means to produce a vacuum in said bottom former.

[Claims 6 to 15 not printed in the Gazette.]

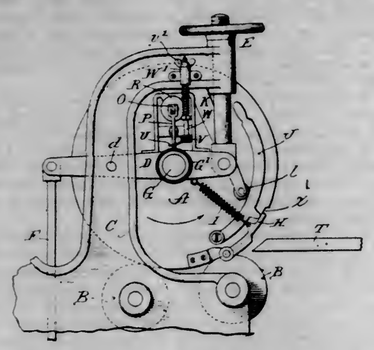
1,072,554. CLOCK-DIAL. FREDERICK E. WINDSOR, Los Angeles, Cal. Filed Oct. 17, 1911, Serial No. 655,216. Renewed Jan. 30, 1913. Serial No. 745,307. (Cl. 58—127.)



1. A clock dial, comprising a disk having twelve hour divisions thereon, defined by hour marks and figures of larger size, quarter hour numbers between said hour numbers, a double circle on the outside of said hour divisions provided with minute divisions, and an outer ring on the outside of said double circle, said outer ring being provided with division lines of different lengths and having the numbers designating said division lines placed at different distances from said inner circle.

2. A clock dial comprising a disk having a double circle provided with divisions indicating minutes, a circle outside of said double circle forming a ring, hour marks extending across said ring and within said double circle, hour numbers of large size opposite the hour marks within the double circle, marks extending through the double circle indicating the quarters of each hour, such quarters being indicated by figures of a different color also within said double circle giving the quarters in minutes, and the minutes between the quarter marks being indicated by marks in groups of five and figures in two rows upon said ring outside of said double circle.

1,072,555. MACHINE FOR MAKING SHEETS OF PAPER-PULP. GEORGE S. WITHAM, Sr., Hudson Falls, N. Y. Filed Apr. 26, 1912, Serial No. 693,437. Renewed Jan. 27, 1913. Serial No. 744,592. (Cl. 92—67.)



1. A press roll for pulp sheets formed with a hinged severing plate and provided with means for actuating said plate.

2. A press roll for pulp sheets formed on its periphery with a segmental recess and provided with a hinged severing plate.

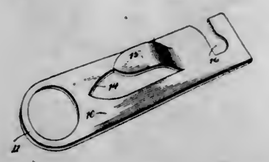
3. A press roll for pulp sheets provided with a hinged severing plate and a groove in line with the free edge of said plate.

4. A press roll for pulp sheets formed with a segmental recess in its periphery and provided with a segmental severing plate partially fitting said recess, and hinged connections between said plate and roll.

5. A press roll for pulp sheets having a recess in its periphery, a plate disposed in said recess, means for pivotally connecting said plate with the press roll and means for moving said plate about its pivotal connection to sever the pulp cylinder formed on the roll.

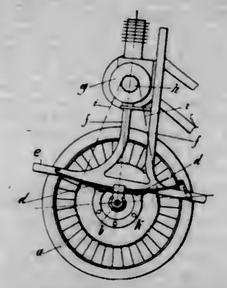
[Claims 6 to 10 not printed in the Gazette.]

1,072,556. ROPE-FASTENER. EARL D. WOOD, Irvington, N. J. Filed Aug. 5, 1912. Serial No. 713,413. (Cl. 24—130.)



A rope fastener comprising a single blank of metal, a cord secured at one end to said blank, a transverse slot formed in the opposite end of said blank to receive the free end of said cord, and an integral longitudinal tongue struck from said blank near the inner end of said slot and having the free end turned away from said slot, said tongue being offset from said blank in a reverse curve having its lower portion concave above and convex below to provide a jamming portion of gradually decreasing taper, the free end of said tongue being parallel with said blank, the free end of said cord being adapted to be passed from said slot around said offset root of the tongue thence directed back and passed underneath that portion of the cord extending between said slot and said root with a resultant clamping between said portion and said blank when the cord is drawn taut about an article to be bound.

1,072,557. MOTOR-VEHICLE. HIERONYMUS ZIELINSKI, Berlin, Germany. Filed Dec. 17, 1910. Serial No. 597,748. (Cl. 21—90.)

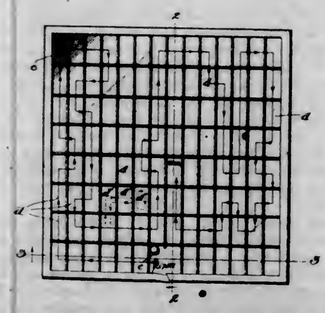


1. In a motor vehicle the combination of a vehicle frame member, a driven wheel mounted on said frame, a driving wheel, an axle secured thereto, springs carried by said axle and having bearings thereon, said frame and driven wheel suspended by said springs substantially concentrically about and at a distance from said axle, permitting free play thereof relative to said frame at all times and a plurality of driving wheel propelling springs radially disposed on and connecting said driven and driving wheels.

2. A motor vehicle comprising in combination a driving wheel, a disk thereon secured thereto, an axle secured thereto, a spring mounted on said axle, a vehicle frame provided with an axle receiving ring, said ring carried and positioned by said spring substantially centrally about and removed from said axle and permitting free play thereof within said ring in any direction at will, a driven wheel rotatably mounted on said ring, a plurality of springs connected respectively with said driven and driving wheels, and a motor on said frame connected with said driven wheel.

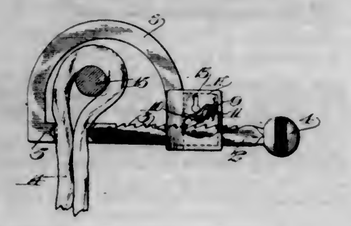
3. A motor-vehicle comprising, in combination, a forked frame provided with a curved axle bearing receiving area, an axle, a wheel fixed thereto, a cushioned bearing for the axle carried by said frame in said area permitting gyratory movement of the wheel relative to the vehicle frame, and a driven wheel mounted to rotate about said area, and resilient driving means between said driven wheel and axle.

1,072,558. TOY PUZZLE. CHARLES EDWARD ASHBURNER, Lynchburg, Va. Filed Apr. 12, 1913. Serial No. 760,779. (Cl. 46—41.)



A toy puzzle consisting of a base plate having marginal upright flanges and a plurality of intersecting partitions within the box-like receptacle thus formed, these partitions forming a plurality of cells or compartments and said cells being put into communication with each other by means of notches in the lower edges of the partitions, said notches being alike in appearance but differing as to width, and a ball resting on the base plate and adapted to pass through the larger of the notches, substantially as set forth.

1,072,559. ROBE-LOCK. THOMAS P. BACON, Oakland, Cal. Filed May 14, 1912. Serial No. 697,150. (Cl. 70—17.)



A robe lock comprising a U-shaped member, a lock casing attached to one end of said U-shaped member, tumblers carried by said lock casing, a holding jaw formed upon the other end of said U-shaped member, a bolt passing entirely through said lock casing, a holding face formed upon the end of said bolt, said face being adapted to coöperate with said holding jaw, a hand hold formed upon the other end of said bolt, and ratchet teeth upon said bolt.

1,072,560. GLOVE. EDWIN T. BASKIN, Independence, Mo. Filed July 29, 1912. Serial No. 712,152. (Cl. 2—9.)



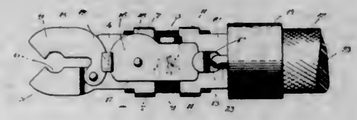
1. In a glove, a blank doubled longitudinally and bent intermediate its ends to form both sides of the index finger and thumb pockets, the sections of the thumb pocket having extensions projecting toward the wrist.

2. In a glove, a blank having oppositely projecting index finger and thumb sections separated by cuts, the thumb sections having extensions, the blank being doubled longitudinally and being bent between the said sections to form both sides of the index finger and thumb pockets, the said extensions projecting toward the wrist.

3. In a glove, palm sections, integral index finger and thumb pockets formed from a blank doubled on its median line and bent intermediate its ends to provide both sides of the said pockets, certain edges of the said blank being sewed together to define the pockets, and the other edges being sewed to the palm sections.

4. In a glove, integral thumb and index finger pockets formed from a blank symmetrical at the sides of its median line and having oppositely projecting index finger and thumb sections along the median line, separated by cuts terminating short of the median line, the blank being doubled on the median line and being bent between the index finger and thumb sections to provide the quirk, the edges of the blank being secured to the remainder of the glove.

1,072,561. TERMINAL CONNECTOR FOR SPARK-PLUGS. CHARLES W. BECK, Rockville Center, N. Y., assignor, by mesne assignments, to Michigan Motor Specialties Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 15, 1910. Serial No. 587,151. (Cl. 175—183.)



1. A terminal connector comprising a block of insulating material, two contact parts secured thereto and insulated from each other, means carried by one of said parts for connecting it to a terminal wire, a pivoted clamping jaw carried by the other part and adapted to connect it to a post terminal of a spark plug, a pivoted switch lever carried by one of said parts and adapted to bridge the space between the contact parts to electrically connect said parts, and means whereby the switch lever will lock the pivoted clamping jaw in position.

2. A terminal connector comprising a block of insulating material, two contact parts secured thereto and separated from each other, a sparking point carried by one of said parts and projecting toward the other part, means for securing a terminal wire to one of said parts, a switch lever carried by one of said parts and arranged to bridge the gap between said parts, a movable locking means to lock the connector to a spark plug terminal, the switch lever being adapted to bridge the gap between the contact parts, and secure the locking means in its locked position.

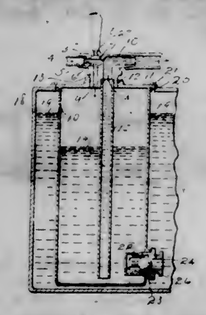
3. A terminal connector comprising a contact part adapted to be connected to a terminal wire, a contact part adapted to be connected to a spark plug, means for insulating these two parts from each other, means carried by one of said contact parts for attaching the connector to a spark plug terminal, and movable means for bridging the gap between the two contact parts, said means serving to lock the attaching means to a spark plug when it is in position to bridge the gap between the two contact parts.

4. A terminal connector comprising a block of insulating material, a contact yoke connected to one end of said block, a socket connected to said contact yoke, a terminal wire connected to said socket and to said yoke, a contact part connected to the other end of said insulating block and provided with a forwardly extending rigid jaw, said contact parts being separated to form a spark gap, a pivoted jaw carried by said contact part, a switch lever pivoted on said contact part and adapted to bridge the gap between the two contact parts and to lock the connector to the spark plug when in its bridging position, said switch lever in one transverse position uncovering the gap between the contact parts and locking the clamping jaws in clamping position, and in the reverse position releasing said clamping jaws.

5. A terminal connector comprising a block of insulation, a pair of contact parts connected thereto and separated a suitable distance from each other, one of said parts being formed with a sparking point projecting toward the other part, means for connecting a terminal wire to one of said parts, a switch lever carried by the other part and adapted to bridge the gap between the two contact parts, a clamping lip carried by one of said parts and adapted to engage the end of the switch lever in its bridging position, a swinging clamping jaw carried by the contact part to which the lever is pivoted, a clamping lip formed on the lever and adapted to overlie the swinging clamping jaw, said lever being formed with a cam surface adapted to engage said clamping jaw and hold it in its locked position.

[Claims 6 to 10 not printed in the Gazette.]

1,072,562. HYDROPNEUMATIC VALVE. LOUIS DE L. BERG, Watertown, N. Y. Filed Mar. 13, 1913. Serial No. 753,961. (Cl. 103—8.)



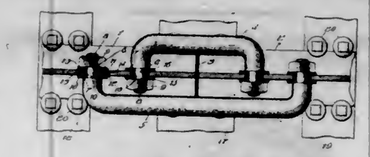
1. A hydro-pneumatic valve, comprising a body having a valve-chamber therein, and having a pressure-inlet and a pressure outlet port communicating with said chamber, said body having a liquid-discharge passage, one portion of said passage disposed parallel to the pressure-outlet port, the other portion of said passage comprising the bore of a nozzle, a rotatable three-way valve-plug disposed in said chamber adapted to control the admission, as well as, the exhaust of the pressure, and a handle for operating said valve-plug.

2. The combination with a tank for containing liquid, said tank having a threaded opening in its top, of a valve connecting with the opening of the tank, said valve comprising a body having a pressure inlet port leading to a valve-chamber, and a port leading from said chamber to the tank, said body having a liquid discharge port, one end of said port communicating with said tank, the other end of said port comprising the bore of a nozzle, a three-way valve-plug in said chamber adapted to control the passage of the pressure to and from the said tank, a handle for operating said plug, and a pipe connected with the liquid discharge port adapted for drawing liquid from the bottom of said tank.

3. In combination, a tank for containing liquid, said tank having a threaded opening in its top and a liquid inlet port near its bottom, a valve, said valve connecting with the opening in the tank, said valve comprising a body having a pressure inlet port leading to a valve chamber and a port leading from said chamber to said tank, said body having a normally open liquid discharge port, one end of said discharge port communicating with the interior of the said tank, the other end of said discharge port passing through a nozzle, a valve-plug in said chamber adapted to control the inflow and the outflow of the pressure to and from said tank, and a handle for operating said valve-plug.

4. In a device of the class described, the combination with a liquid tank having a threaded opening in its top, of a valve-body having a depending neck adapted to be screwed into said opening, said body having a valve-chamber connecting with the interior of the tank by means of a port, said body having an air-inlet-port connecting with said chamber, said body having a liquid-discharge passage in the said depending neck parallel to the first port and communicating with the interior of the tank, said body having a nozzle connecting with said liquid-discharge passage, a pipe connecting with said discharge-passage adapted to draw the liquid from the bottom of the tank, and a three-way-valve in said chamber, said valve adapted for admitting air pressure to the said tank for forcing the liquid through said pipe and said nozzle, said valve capable of being operated for exhausting the air pressure from said tank and for stopping the discharge of the liquid through said nozzle, and means for manually operating said valve.

1,072,563. INSULATED RAIL-JOINT. JOHN A. BOSKIN, New York, N. Y. Filed Apr. 3, 1911. Serial No. 618,575. (Cl. 289—5.)



1. In a rail joint, the combination with the meeting rail ends, of two splice bars each having its ends connected to said rail ends and having its intermediate portion clear of the rails.

2. In a rail joint, the combination with the meeting rail ends, of two splice bars each having integral projections at its ends for securing the bars to the rails, the intermediate portions of each bar being clear of the rails.

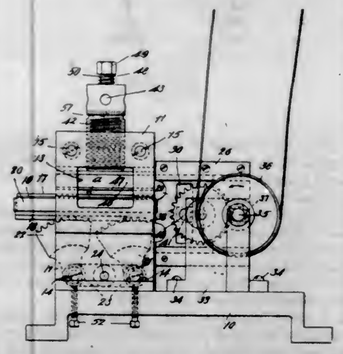
3. A pair of coöperating splice bars comprising two U-shaped bolts differing from each other in the distance between their arms.

4. In a rail joint, in combination with the meeting rail ends, of U-shaped bolts arranged on opposite sides of the rails and each having its arms secured to the two rail ends, one of said bolts having a shorter yoke than the other.

5. In a rail joint, in combination with the meeting rail ends, of U-shaped bolts arranged on opposite sides of the rails and each having its arms secured to the two rail ends, one of said bolts having a shorter yoke than the other, and both of said bolts being arranged symmetrically with respect to the plane of juncture between the rail ends.

[Claims 6 to 9 not printed in the Gazette.]

1,072,564. MACHINE FOR MAKING GRINDING-LAPS. GEORGE W. BOWERS, Somerville, Mass. Filed Dec. 2, 1912. Serial No. 734,451. (Cl. 51—4.)



1. A machine of the character described, comprising two flat, hard-surfaced members, means for holding the upper member stationary, means for reciprocating the lower member in a plane parallel to the surface of the upper member, and adjusting devices for varying the space between the two hard-surfaced members.

2. A machine of the character described, comprising two flat, hard-surfaced members, means for holding the upper member stationary, means for reciprocating the lower member in a plane parallel to the surface of the upper member, and means for adjusting both of said hard-surfaced members relatively to each other.

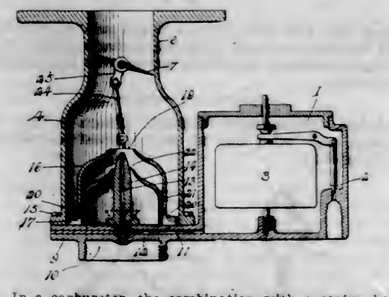
3. A machine of the character described, comprising two flat, hard-surfaced members, means for holding the upper member stationary, means for reciprocating the lower member in a plane parallel to the surface of the upper member, and independent adjusting devices for different portions of the lower reciprocating member.

4. A machine of the character described, comprising a hard-surfaced bed having a toothed lower surface, a pair of oscillating segments meshing with said toothed surface, said segments being supported one in advance of the other longitudinally of the machine but meshing with different lateral portions of said toothed surface, means for reciprocating the bed, and an adjustable hard-surfaced presser above said bed.

5. A machine of the character described, comprising a hard-surfaced bed having a toothed lower surface, a pair of oscillating segments meshing with said toothed surface, means for vertically adjusting said segments, means for reciprocating the bed, and an adjustable hard-surfaced presser above said bed.

[Claims 6 to 8 not printed in the Gazette.]

1,072,565. CARBURETER. JOSEF BRÄUTIGAM, Detroit, Mich., assignor, by mesne assignments, of one-half to Frank A. Rolf, Detroit, Mich. Filed July 5, 1912. Serial No. 707,731. (Cl. 48—155.1.)



1. In a carbureter, the combination with a casing having an air inlet, of concentric tubular members for controlling the air inlet having contracted adjacent ends each formed with an axial opening, a fuel supply member extending into the casing in the axis of said tubular members with its discharge end projecting through the axial opening in the inner of said tubular members and extending adjacent to the opening in the outer of said members, and means for moving one of said tubular members relatively to the other.

2. In a carbureter, the combination of a casing having an air inlet opening a fuel supply nozzle, a tubular controlling member surrounding the nozzle and adapted to seat at one end upon the casing around the air inlet opening and to be lifted from its seat to admit air to the casing beneath its lower end, said member being formed with a contracted upper end having an axial opening through which the nozzle discharges, and means for lifting said controlling member from its seat on the casing.

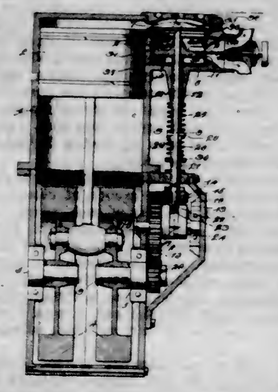
3. In a carbureter, the combination of a casing having an air inlet at its lower end and an axial discharge outlet at its upper end, a fuel supply nozzle extending upward in the casing at the axis of the lower end thereof, a tubular controlling member seating upon the bottom of the casing around said air inlet and formed with a contracted upper end having an axial opening of greater diameter than the diameter of the adjacent portion of the nozzle which projects therethrough, a member in the casing forming a vertical guide for the controlling member, and means for lifting the controlling member from its seat.

4. In a carbureter, the combination of a casing having an air inlet opening, a fuel supply nozzle extending into the casing at the axis thereof, a fixed tubular member in the casing around the air inlet opening and provided with openings near the end of the casing, a controlling member adapted to seat upon the casing around the air inlet and movable within the fixed member to open and close the said openings therein, said controlling member having a contracted end provided with an axial opening through which the nozzle projects, and means for moving the controlling member within the fixed member.

5. In a carbureter, the combination of a casing having an air inlet opening at its lower end, a dome within the casing surrounding the air inlet and provided with side openings and an axial outlet opening, a tubular controlling member movable within the dome to control the flow of air through the side openings in the dome, a nozzle in the axis of the dome with its discharge end adjacent to said axial opening, and means for actuating the controlling member.

[Claims 6 to 8 not printed in the Gazette.]

1,072,566. VALVE-OPERATING MECHANISM FOR ENGINES. HERBERT BENJAMIN BRIGGS, Tacoma, Wash. Filed Oct. 28, 1911. Serial No. 657,201. (Cl. 123—79.)



1. In an engine, the combination of a cylinder, a working piston therein, a valve chamber formed integral with said cylinder and having a port communicating therewith, said valve chamber having an explosive inlet port and an exhaust port, a valve arranged in said chamber to control communication between the inlet and exhaust port and the chamber, a second valve arranged in said chamber and controlling communication between the chamber and the cylinder, a hollow stem formed on said first valve, a solid stem formed on the second valve and disposed in said hollow stem, coil springs mounted on said hollow stem, a cotter pin carried by the solid stem and disposed between said springs, said hollow stem having a slot in which said pin is adapted to operate, a nut threaded on said hollow stem and adapted to adjust the tension of said springs, rotating cams adapted to engage the lower end of said stems, and means in the reciprocation of said piston, for rotating said cams, and opening and closing said valves.

2. In an engine, the combination of a cylinder, a working piston therein, a valve chamber formed integral with said cylinder and having a port communicating therewith, said valve chamber having an explosive inlet port and an exhaust port, a valve arranged in said chamber to control communication between the inlet port and exhaust port and the chamber, a second valve arranged in said chamber and controlling communication between the chamber and the cylinder, a hollow stem formed on said first valve, a solid stem formed on the second valve and

disposed in said hollow stem, a housing secured to the cylinder below the valve chamber, a nut threaded on the lower end of said hollow stem, and disposed within said housing, said nut having recesses formed in the lower face thereof, ball bearings mounted in said recesses, said solid stem having a recess formed in its lower end, a ball bearing mounted in said recess, rotating cams mounted within said housing and adapted to engage the ball bearings in the lower end of said stems, and means in the reciprocation of said piston for rotating said cams and opening and closing said valves.

1,072,567. ELECTRIC SIGNALING ON RAILWAYS. HERBERT BROWN, Belfast, Ireland. Filed Dec. 29, 1911. Serial No. 668,430. (Cl. 246—25.)



1. In an electrical cab signaling system a plurality of contact devices on the cab, together with groups of signal controlling bars along the track, the bars of each group co-acting simultaneously with corresponding contact devices, said groups differing in accordance with the type of signal desired to be displayed, substantially as described.

2. In an electrical cab signaling system, a plurality of contact devices on the cab, groups of signal controlling bars along the track, the bars of each group co-acting simultaneously with corresponding contact devices, said groups differing in accordance with the type of signal desired to be displayed, means for giving signals automatically on contact of said devices and bars, together with means to control said bars for giving desired signals at will, substantially as described.

3. In an electric cab signaling system, a plurality of contact devices in the cab, groups of signal controlling bars along the track, the bars of each group co-acting simultaneously with corresponding contact devices, said groups differing in accordance with the type of signal desired to be displayed, circuits interconnecting said signal controlling bars, switches controlling said circuits, together with means for displaying a certain signal in the open position of said switches and a certain other signal in the closed position of said switches, substantially as described.

4. In an electric cab signaling system, a plurality of contact devices on the cab, groups of signal controlling bars along the track, the bars of each group co-acting simultaneously with corresponding contact devices, said groups differing in accordance with the type of signal to be displayed, together with means for maintaining the displayed signals between successive groups of bars, substantially as described.

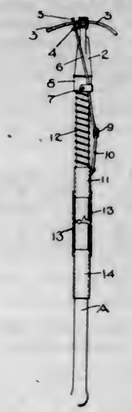
5. In an electrical cab signaling system, a plurality of contact devices on the cab, groups of signal controlling bars along the track, the bars of each group co-acting simultaneously with corresponding contact devices, said groups differing in accordance with the type of signal to be displayed, a plurality of signals in the locomotive cab, solenoids movable into an operative position to actuate same on contact of said devices and said bars, together with a single solenoid for retaining any of said signals' solenoids in the operative position between successive groups of bars, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,072,568. HAND-RAKE. ALBERT W. BUELL, St. Paul, Minn., assignor to Melville H. O. Fisher, St. Paul, Minn. Filed June 15, 1912. Serial No. 703,913. (Cl. 65—146.)

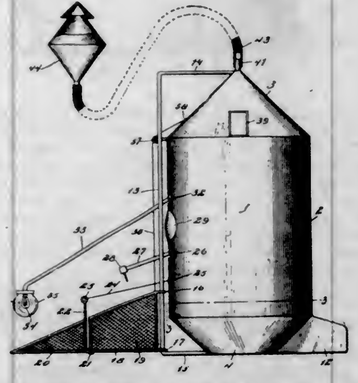
1. The combination with a rake handle and supported teeth, a cleaning comb arranged in coöperation with said teeth, a supporting member for said comb fulcrumed upon the handle, a sleeve slidable upon the handle, a hinged member connecting said sleeve and supporting member, and a spring supported between said supporting member and sleeve.

2. In combination with a rake handle and supported teeth, a cleaning comb arranged in coöperation therewith, a sleeve secured upon the handle, a supporting member for said comb fulcrumed upon said sleeve, a slidable sleeve



spaced from said fixed sleeve, a hinged member connecting said slidable sleeve and comb supporting member, and a spring surrounding said handle between said fixed and slidable sleeves.

1,072,569. SUBMARINE VESSEL. HENRY G. CADY, St. Louis, Mo. Filed May 23, 1911. Serial No. 628,970. (Cl. 61—7.)



1. A sub-marine vessel comprising a cylindrical body having a cone-shaped top, and a frusto-conical bottom, the bottom being provided with a ballast, a chamber arranged above the ballast and spaced therefrom, the frusto-conical bottom of the vessel being provided with openings between the ballast and chamber, the said chamber having its bottom provided with openings, plug valves for each of the openings, a stem for each of the valves and projecting through the chamber, means arranged within the chamber and co-acting with the stems for operating the plug valves, a flexible tube connected with the cone-shaped top, a hollow buoy connected with the tube and adapted to ride upon the surface of the water, and a normally closed outlet opening arranged upon the top of the vessel.

2. A sub-marine vessel comprising a cylindrical body having a cone-shaped top and a frusto-conical bottom, a ballast for the bottom, and a chamber arranged above the ballast, the frusto-conical bottom being provided with

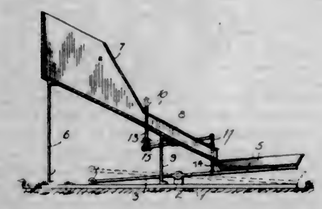
water inlet openings between the chamber and the ballast, the said chamber being divided into a plurality of compartments, each having its lower wall provided with an opening, plug valves for each of the openings, stems for each of the valves and projecting within the vessel, each of the stems being provided with a toothed face, a pivoted toothed wheel co-acting with each of the toothed portions of the stems, an operating handle for each of the toothed wheels, and an air inlet for the vessel.

3. A sub-marine vessel comprising a cylindrical body having a cone-shaped top and a frusto-conical bottom, a ballast for the bottom, a chamber for the bottom above the ballast, the bottom being provided with openings between the ballast and the chamber, the said chamber having its lower wall provided with openings, valves for normally closing the openings, means for operating the valves, a force pump communicating with the chamber, means for operating the pump, a reticulated basket slidably connected with the vessel and raking instruments operatable from the interior of the vessel and arranged adjacent the basket.

4. A sub-marine vessel comprising a cylindrical body having its lower portion provided with a water chamber, valves for regulating the admission of water to the chamber, means for operating the valves to permit of an inflow of water to the chamber to submerge the vessel, means for permitting the entrance of air to the vessel, means for ejecting the water from the chamber, to permit of the raising of the vessel, vertical rods positioned adjacent one of the sides of the vessel and connected with the vessel at the top and bottom thereof, a vertically movable reticulated basket slidably mounted upon the rods, means for raising the basket upon the rods, said basket comprising a pair of hinged sections, means arranged upon the outer section and communicating with the interior of the vessel for swinging the outer section of the basket upon the inner section of the basket, and a flexible element connected with the basket and entering the vessel at the top thereof, substantially as and for the purpose set forth.

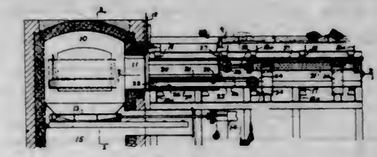
5. In a diving vessel, for the purpose set forth, means for permitting an inlet of water to lower the vessel below the surface of the water, means for ejecting the water to render the vessel buoyant and to permit its rising to the surface of the water, an air inlet for the vessel, a basket connected with the vessel, means for raising the basket from the bottom to the top of the vessel, and raking members operative from the interior of the vessel, and disposed above the basket when the said basket is in its lowered position, all substantially as and for the purposes set forth.

1,072,570. FEED-BOX. HARLEY W. CALLAHAN, Roundup, Mont., assignor of one-third to Brit Steen, Roundup, Mont. Filed Nov. 27, 1912. Serial No. 733,863. (Cl. 119—54.)



In a feed box, the combination with a base, of a hopper mounted thereon, a spout extending from the hopper, valves disposed at the ends of the spout and vertically movable therein, links depending from the valves, a tilting frame, a trough secured to said frame and normally engaging the lower side of the spout, a weight secured to one end of the frame for forcing the trough into engagement with the spout, links extending from the valves, certain of said links being connected to the frame, and rocker arms pivotally connecting certain of the links.

1,072,571. FURNACE-CHARGING APPARATUS. PERCY D. CANHAM, New York, N. Y., assignor to Power Specialty Company, New York, N. Y., a Corporation of New York. Filed Feb. 16, 1911. Serial No. 609,065. (Cl. 110—111.)



1. In a furnace-charging apparatus, in combination, a charging receptacle movable horizontally into and out of the furnace, said receptacle having a horizontal flexible traveling bottom, and means operable as the receptacle moves inward for causing the said bottom to travel horizontally and discharge the contents of the receptacle.

2. In a furnace charging apparatus, in combination, a charging receptacle adapted to be advanced and retracted into and out of the furnace, and having a flexible traveling bottom, and means operable as the receptacle moves inward for causing the flexible bottom to pass over and under the forward edge of the receptacle, to discharge the contents of the latter.

3. In a furnace charging apparatus, in combination, a charging receptacle having a horizontal flexible traveling bottom, means for advancing and retracting the receptacle into and out of the furnace, and means operable in the advancing movement of the receptacle for causing the bottom of the receptacle to travel longitudinally with respect to the receptacle to discharge the contents thereof.

4. In a furnace charging apparatus, in combination, a charging receptacle having a flexible bottom, supporting means for said bottom at the forward edge of the receptacle, a pinion associated with the receptacle, means connecting the pinion and the bottom whereby rotation of the pinion will cause the bottom to pass forwardly over and rearwardly under the said supporting means, means for advancing and retracting the receptacle and a rack arranged to mesh with and rotate the pinion and said second mentioned means as the receptacle moves into and out of the furnace.

5. In a furnace charging apparatus, in combination, a charging receptacle, a flexible bottom therefor, supporting idlers for the bottom at the forward edge of the receptacle, a pinion associated with the receptacle in rear thereof, means connecting the flexible bottom and the pinion whereby rotation of the pinion will cause the bottom to travel over and under the idlers, means for advancing and retracting the receptacle, and a stationary rack adjacent to the rearward position of the receptacle and adapted to mesh with the pinion to rotate the flexible bottom in opposite directions as the receptacle moves into and out of the furnace.

[Claims 6 to 12 not printed in the Gazette.]

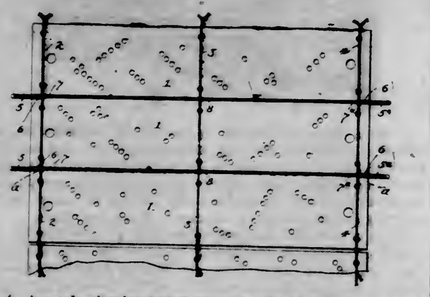
1,072,572. JACQUARD-CARD WIRE. LOUIS S. CANNON, Rosemary, N. C. Filed May 24, 1913. Serial No. 769,776. (Cl. 139—42.)

1. A card-wire having opposite end loops opening toward each other, and a central loop, the component members of said loops all lying in a common plane.

2. A card-wire formed of a single piece of wire bent to shape, each end thereof being bent back upon itself and producing a flattened portion, a twisted portion adjacent thereto and a free member which, with the body of the wire, forms a loop; and an intermediate loop formed by bending the wire back upon itself into S-shape, one portion of the S being flattened.

3. A card-wire formed of a single piece of wire bent to shape, each end thereof being bent back upon itself and twisted, the projecting end of the completed wire being composed of two sections which lie in close contact with

each other; a twisted portion adjacent thereto; a loop formed by the original end of the wire and the adjacent body of the wire; and an intermediate loop formed by bending the wire back and forth upon itself, the parts of the loop lying in a common plane, which plane stands at right angles to the plane which passes through the members of the outwardly-extending ends of the completed wire.



4. A card wire having flattened ends, and lacing-engaging loops.

5. A card wire having flattened ends, and lacing engaging loops adjacent thereto, the loops opening in opposite directions.

[Claims 6 to 8 not printed in the Gazette.]

1,072,573. SPINNING-SPINDLE. CHARLES H. CHAPMAN, Winchester, Mass., assignor to Chapman Gravity Spindle Company, Winchester, Mass., a Corporation of Maine. Filed Dec. 13, 1910. Serial No. 597,096. (Cl. 118—26.)



1. A spindle, a bolster having a ball bearing at its top and a ball bearing adjustable step at its bottom to receive said spindle, said bolster having a beveled bottom provided with notches, and a locking clip automatically engaged by said notches, whereby the adjustment of the step is prevented from changing and the bolster from rotating with the spindle.

2. A spindle, a bolster therefor having a transversely notched bottom, a bolster-supporting sleeve having its bottom transversely notched, and a locking clip fixedly secured in the transverse notches in the bottom of the sleeve and adapted to be found and engaged by the notched bolster.

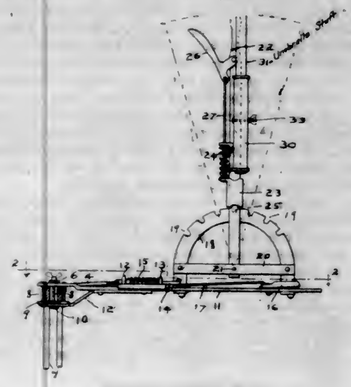
3. A spindle, a bolster having a ball bearing at its top, a ball bearing step at its bottom, and a beveled and transversely notched bottom, a bolster-case, a sleeve supported in said bolster-case and itself supporting the bolster, and a locking clip fixed in the bottom of the sleeve adapted to be engaged automatically by the notched and beveled bottom of the bolster.

4. A spindle, a bolster therefor having a notched V-shaped bottom, a supporting sleeve for said bolster, and a locking clip fixed in the bottom of said sleeve and adapted to be automatically found and engaged by the bottom of the bolster.

5. A spindle, a bolster therefor having opposite notches in its bottom and having said bottom constructed with V-shaped portions located between the notches with their inclined sides converging toward the notches, a bolster-supporting sleeve having its bottom transversely notched, and a locking clip fixedly secured in the transverse notches in the bottom of the sleeve and adapted to be found and engaged by the V-shaped and notched bottom of the bolster.

[Claim 6 not printed in the Gazette.]

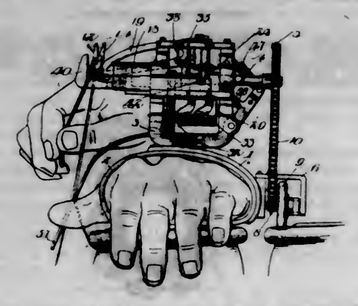
1,072,574. UMBRELLA-HOLDER FOR CORN-PLOWS. DILLARD COBB and CLETHIE H. SHAW, Nineveh, Ind., assignors to Sunshine Specialty Manufacturing Company, a Corporation of Indiana. Filed Feb. 9, 1911, Serial No. 607,685. Renewed Feb. 6, 1913. Serial No. 746,666. (Cl. 135—13.)



In an umbrella holder, a horizontal semi-circular rack-bar notched in its outer edge, a bar extending diametrically of the rack-bar and secured to the ends of the latter, a horizontal hand lever passing under the rack-bar and bent upwardly to a level with the under side of said diametrical bar, a brace-bar secured to said hand lever and extended downwardly and rearwardly to embrace a support between it and the said lever, a pivot passing through the diametrical bar lever and brace, a pawl carried by said lever, a vertical semi-circular rack secured to the horizontal lever and having a diametrical bar, said rack having notches in its outer edge, a second lever pivoted to said last bar, a pawl carried by the second lever, the pawls of the two levers adapted to enter notches of their respective segments to hold a given adjustment of said levers, a sleeve carried by the second lever to receive the staff of an umbrella and means for securing the staff in said sleeve.

1,072,575. KNOTTER. HOWARD D. COLMAN, Rockford, Ill., assignor, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed July 29, 1907. Serial No. 385,956. (Cl. 28—33.)

1. A knot-tying mechanism comprising a rotatable tying bill, means for opening and closing said tying bill, and means for moving the threads into the path of the open tying bill.



2. A knot-tying mechanism comprising a rotatable tying bill, means for rotating said bill through three revolutions, and means for moving the threads into the path of the tying bill after the completion of one revolution.

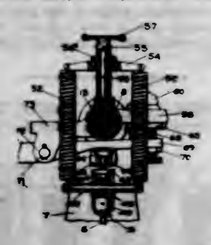
3. A knot-tying mechanism comprising a rotatable tying bill arranged to be opened and closed, and means for supporting threads in position for action thereon by the closed bill, a portion of said supporting means being movable to place the threads in position for action thereon by the open bill.

4. A knot-tying mechanism comprising a rotatable tying bill arranged to be opened and closed, a stationary thread guide at one side of said bill, a thread guide at the opposite side of said bill, said guides being arranged to support threads in position for action thereon by the closed bill, and means for moving the second mentioned guide transversely of the plane of rotation of the tying bill to place the threads in position for action thereon by the open bill.

5. A knot-tying mechanism comprising a tying bill, means for rotating said tying bill, a thread clamp comprising a clamp arm, a thread guide, and means for simultaneously moving said clamp arm and said thread guide.

[Claims 6 to 17 not printed in the Gazette.]

1,072,576. CONTROLLING DEVICE FOR COMPRESSORS. RUDOLPH CONRADER, Erie, Pa. Filed Oct. 26, 1910. Serial No. 589,228. (Cl. 230—24.)



1. In a controlling device for compressors, the combination of a speed controlling device, controlling the motive fluid; a relief device for the compressor; a fluid actuated controlling motor acting on said controlling device; a fluid actuated relief motor acting on the relief device; and means actuated by the controlling motor for controlling the relief motor.

2. In a controlling device for compressors, the combination of a speed controlling device controlling the flow of motive fluid; a valve for the compressor; a relief device for acting on the valve of the compressor; a fluid actuated controlling motor acting on said controlling device; a fluid actuated relief motor acting on the relief device; and means actuated by the controlling motor for controlling the relief motor.

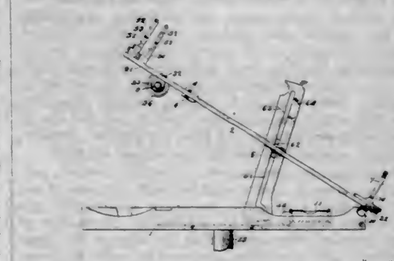
3. In a controlling device for compressors, the combination of a speed controlling device controlling the flow of motive fluid; a relief device for acting on the intake of the compressor; a fluid actuated controlling motor acting on said controlling device; a fluid actuated relief motor acting on the relief device; and means actuated by the controlling motor for controlling the relief motor.

4. In a controlling device for compressors, the combination of a valve controlling the flow of motive fluid; a centrifugal governor acting on the valve; a controlling motor acting on the valve; a relief device for the compressors; a relief motor for actuating the relief device; and means actuated by the controlling motor for controlling the relief motor.

5. In a controlling device for compressors, the combination of a valve controlling the flow of motive fluid; a centrifugal governor acting on the valve; a controlling motor acting on the valve independent of the centrifugal governor; a relief device for the compressors; a relief motor for actuating the relief device; and means actuated by the controlling motor for controlling the relief motor.

[Claims 6 to 16 not printed in the Gazette.]

1,072,577. INSTRUMENT FOR MEASURING STANDING TIMBER. LUDLOW G. COOK, Everett, Wash. Filed July 29, 1912. Serial No. 711,972. (Cl. 88—5.)



1. A device for use in measuring standing timber comprising a sighting bar, means for determining the elevation of said sighting bar, separable direction sights carried by said sighting bar, and means for indicating the degree of separation of said direction sights.

2. A device for use in measuring standing timber, comprising a frame member, a near sight carried upon said frame member, a pair of distant direction sights carried by said frame member, means for adjusting said direction sights toward and from each other, a scale and a pointer therefor, one associated with one of said direction sights and the other associated with the other direction sight, and means for determining the elevation of the line of sight.

3. A device for use in measuring standing timber comprising a base and means for leveling the same, a sighting frame pivoted to the base to swing vertically, and having thereon a near sight, a distant elevation sight and a pair of distant direction sights adjustable toward and from each other, a scale and pointer associated, each with its respective direction sight, and an elevation adjusting means connecting said base and sighting frame and provided with an indicating device.

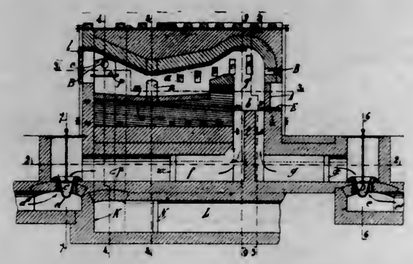
4. A device for use in measuring standing timber, comprising a base, a sighting bar or frame pivoted to said base to swing vertically, an elevating mechanism connecting base and sighting bar and containing an elevation scale, and means carried by said sighting bar to determine the diameter of the trunk of the tree on the line of sight.

5. A device for use in measuring standing timber, comprising a base, means for leveling the base, a sighting bar pivoted to the base to swing vertically, an adjusting bar connecting base and sighting bar and carrying elevation indications, a near sight and a distant elevation sight carried by the sighting bar, a pair of distant direction sights carried by the sighting bar, and means for adjusting said

direction sights toward and from each other and separation indicating members movable in conformity with said direction sights.

[Claims 6 and 7 not printed in the Gazette.]

1,072,578. GAS-FURNACE. PAUL ACHILLE JOSEPH COUSIN, Nord, France. Filed Jan. 7, 1913. Serial No. 740,669. (Cl. 75—94.)



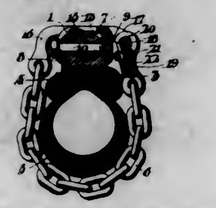
1. In a furnace, in combination, a heating chamber, two parallel vertical flues, means for leading a combustible gas to the vertical flue adjacent the heating chamber, means for leading air to the other vertical flue, a vertical wall separating the flues from each other, said wall terminating on a level substantially lower than the bottom of the heating chamber so as to form a vertical expansion chamber into which the said flues open at one end and in communication at its upper end with the heating chamber, substantially as described and for the purpose set forth.

2. In a furnace in combination: a heating chamber, parallel vertical flues in communication with one end of the heating chamber, means for leading a combustible gas to one of said flues, means for leading air to another of said flues, vertical flues arranged at the sides of the heating chamber, said flues being arranged in pairs in transverse planes, a horizontal flue connecting both flues in each pair at the upper end and opening into the heating chamber and means for supplying air to one of the flues in each pair and a combustible gas to the other flue, substantially as described and for the purpose set forth.

3. In a furnace, in combination: a heating chamber, parallel vertical flues located at one end of the heating chamber, means for leading a combustible gas to one of said flues, means for leading air to another of said flues, an expansion chamber into which the said flues open at one end and in communication at the other end with the heating chamber, vertical flues arranged at the side of the heating chamber, said flues being arranged in pairs in transverse planes, a horizontal flue connecting both flues in each pair at the upper end and opening into the heating chamber and means for supplying air to one of the flues in each pair and a combustible gas to the other flue, substantially as described and for the purpose set forth.

4. In a furnace in combination: a heating chamber, two parallel vertical flues located at one end of the heating chamber one of said flues being immediately adjacent said chamber, means for leading a combustible gas to the vertical flue adjacent the heating chamber, means for leading air to the other vertical flue, an expansion chamber into which the said flues open at one end and in communication at the other end with the heating chamber, vertical flues arranged at the sides of the heating chamber, said flues being arranged in pairs in transverse planes, a horizontal flue connecting both flues, in each pair at the upper end and opening into the heating chamber, means for supplying air to one of the flues in each pair and a combustible gas to the other flue, smoke openings in the side walls of the heating chamber at the end remote from the first named vertical flues, side flues connected to said openings, a longitudinal exhaust flue connected to said side flues and a vertical longitudinal partition in said longitudinal flue at the point of junction with the side flues, substantially as described and for the purpose set forth.

1,072,579. ANTISKIDDING DEVICE FOR VEHICLE-TIRES. CHARLES W. CRAMER, Scranton, Pa. Filed May 11, 1911. Serial No. 626,426. (Cl. 152—14.)

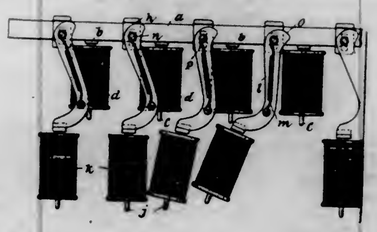


1. An anti-skidding device for tires, comprising a bracket, means for securing the bracket to the felly of the wheel, a securing bar attached to the bracket, a chain, a securing member attached to the chain having a head formed thereon, said bracket having a recess formed therein, a slot leading from the recess for engaging the head on the chain, a hook carried by the other end of said chain adapted to engage said securing bar, said hook having its free end extending in a direction substantially at right angles to the body thereof, and a sliding keeper for locking the hook on the bar.

2. An anti-skidding device for tires, comprising a bracket; means for securing the bracket to the felly of the wheel; said bracket having a recess formed therein, and a slot leading from said recess and having an under-cut wall; a chain; a hook carried at one end of the chain, and having an enlarged tapered head, adapted to engage said recess, and to be moved into locking engagement with the under-cut wall of said slot; a securing bar carried by the bracket; and a hook carried by the other end of the chain and adapted to engage said securing bar.

3. An anti-skidding device for tires comprising a bracket; means for securing the bracket to the felly of the wheel, said bracket having a recess formed therein, and a slot leading from said recess, the walls of said slot being undercut; a chain; a hook carried by one end of said chain and having a head with a tapered shoulder adapted to be inserted in said recess and be moved into locking engagement with the undercut walls of the slot; a securing bar carried at the other side of said bracket; and a hook carried by the other end of said chain and adapted to engage said securing bar.

1,072,580. CREEL. JOHN P. CRONIN, Paterson, N. J. Filed Jan. 9, 1913. Serial No. 740,913. (Cl. 242—131.)

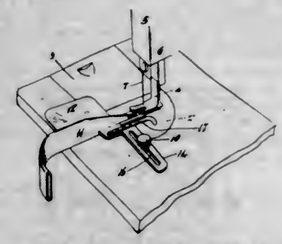


1. In a creel, the combination of the frame, parallel oblique rows of bobbin pins secured thereto and projecting therefrom, oblique supports attached to the frame, and rows of other bobbin pins projecting outwardly from the respective supports, said supports having their free end portions bent off laterally and said other pins being carried by said free end portions of said supports and arranged in plan in alternation with the first-named pins, substantially as described.

2. In a creel, the combination of the frame, parallel oblique rows of bobbin-pins secured thereto and projecting therefrom, oblique supports attached to the frame in alternation with the rows of pins, and rows of other bobbin-pins projecting outwardly from the respective supports, said supports projecting in plan from the frame obliquely toward one side and having their pin-carrying portions bent off laterally toward the other side, substantially as described.

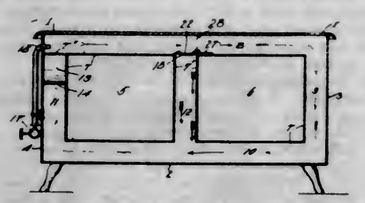
3. The combination of the frame having an abutment member and a bobbin-pin-supporting member having a swinging movement in the frame and having a curved cam face impinging against said abutment member, one of said members being movable toward and from and spring-pressed toward the other member and said cam face and the surface of the abutment member engaged thereby having serrations.

1,072,581. HOLDING MEANS FOR ATTACHMENTS FOR SEWING-MACHINES. BENJAMIN F. CURTIS, Covington, Ky. Filed Dec. 30, 1910. Serial No. 600,133. (Cl. 112—35.)



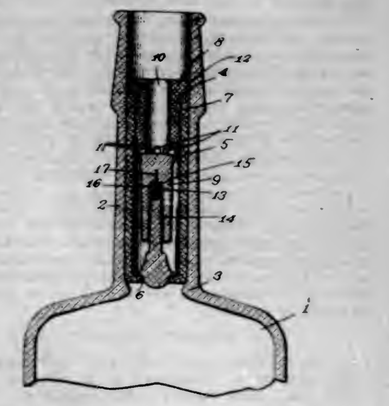
In a seam-binder attachment for sewing machines having a slotted arm thereon provided with a set-screw extending through said slotted arm and adapted to clamp said arm to the bed-plate of a sewing machine, a rigid arm riveted on said seam binder attachment at right angles to said slotted arm, and a turned down portion at the end of said rigid arm adapted to enter a hole in the bed plate of a sewing machine and prevent movement of said attachment, substantially as set forth and for the purposes specified.

1,072,582. GAS-RANGE. WYTHE DENBY, Chicago, Ill. Filed Sept. 12, 1911. Serial No. 648,967. (Cl. 126—39.)



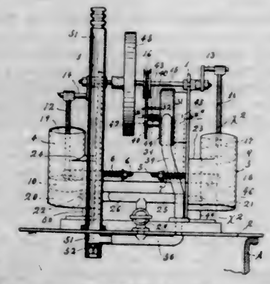
In a range, the combination of a casing, two ovens spaced from the casing and from each other forming horizontal flues above and below the ovens and vertical flues between the casing and the ovens and between the ovens, the range being provided at one end with a source of heat communicating with one of the horizontal flues and with a discharge passageway in communication with the adjacent vertical flue, a pivotally mounted damper frame and a damper carried thereby, said damper frame and said damper each being adjustable and arranged to cause all of the heating agent to pass around one or both of said ovens or to cause a portion of said agent to pass around both of said oven, the remainder passing around one only thereof.

1,072,583. NON-REFILLABLE BOTTLE. SYDNEY L. DIGNON and MICHAEL L. DEBROSSE, Jr., New York, N. Y. Filed Dec. 14, 1912. Serial No. 736,671. (Cl. 215—69.)



In combination, a bottle provided with a shoulder in its neck portion adjacent the lower end thereof and with a groove intermediate its ends, a shell fitting within the neck of the bottle and resting on said shoulder, said shell having an opening in its lower end, the upper end of said shell being open and being provided with an interior thread, a plug provided with threads engaging the threads in said shell and with a flange adapted to register with the upper edge of the wall of said shell, a washer interposed between said upper edge of the shell and said flange and provided with a portion overlying the outer surface of said flange whereby it will be interposed between said flange and the neck of the bottle, said overlying portion of said washer extending into said groove to lock said plug and said casing against movement, said plug being provided with an opening communicating with the interior of said shell, and a valve member within said shell coöperating with the opening in the lower end thereof to open and close the same.

1,072,584. MILKING APPARATUS. LAURITS DINESEN, Velle, Denmark. Filed Aug. 30, 1909. Serial No. 515,265. (Cl. 31—101.)

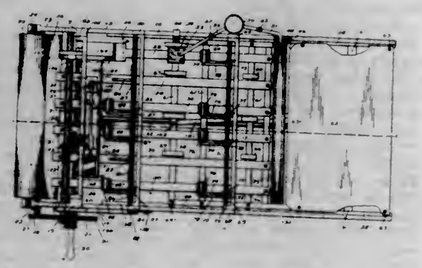


1. The combination with a milk receptacle and a suction tube extending therefrom, a flexible cup provided with a surrounding air chamber, a milk conduit extending from said cup to said milk receptacle, a pressure regulating tube extending from said section tube to the surrounding chamber of said teat cup, a rotary pressure controlling valve mechanism for intermittently connecting said pressure regulating tube to the atmosphere and to said suction tube, and means for rotating said valve mechanism comprising a crank shaft, an oscillatory cylinder

and piston motor connected to said crank shaft, and means operative under oscillatory movement of said motors to intermittently and alternately connect said cylinder to the atmosphere and to said suction tube, substantially as described.

2. The combination with a closed milk receptacle and a suction tube extending therefrom and provided with a check valve for preventing air from entering said milk receptacle, a flexible teat cup provided with a surrounding air chamber having a non-collapsible outer wall, a milk conduit extending from said teat cup to said milk receptacle, a pressure regulating tube extending from said suction tube to the surrounding chamber of said teat cup, a rotary pressure controlling valve mechanism for intermittently connecting said pressure regulating tube to the atmosphere and to said suction tube, and means for rotating said valve mechanism comprising a shaft with cranks set one ahead of the other, a pair of oscillatory cylinder and piston motors connected to said crank shafts, and means operative under oscillatory movements of said motors to intermittently and alternately connect said cylinders to the atmosphere and to said suction tube, substantially as described.

1,072,585. STAMP-AFFIXING AND ENVELOP-SEALING MACHINE. FREDERICK R. S. DITMARS, Kansas City, Mo. Filed June 5, 1912. Serial No. 701,759. (Cl. 216—3.)



1. In a stamp affixing machine for envelops, the combination with a suitable support upon said machine of a rotary shaft, a stamp affixing device actuated thereby, a cam on said shaft, an arm on said stamp affixing device having a U shaped portion pivotally connected with the said support within which the said cam is adapted to rotate.

2. In a stamp affixing machine for envelops, the combination with the frame of the machine, a transverse vertically positioned supporting plate, connected at its ends with the respective sides of said frame, having a vertical transverse opening therein, a rotary power shaft journaled at its respective ends in the sides of said frame adjacent to the forward surface of said supporting plate, means for imparting rotation to said shaft, and a stamp affixing plate adjacent to the rear surface of said vertical supporting plate, a bracket on the forward surface of said plate adjacent the vertical opening therein, an arm connected with the said stamp affixing plate, extending in an upwardly inclined plane through said vertical opening, and having a U shaped terminal portion upon its upper end pivotally connected with said bracket, and a heart shaped cam on the said rotary shaft within the U shaped terminal portion of the said arm.

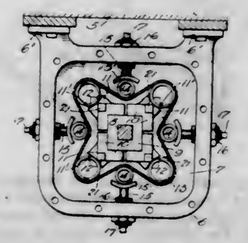
3. In a stamp affixing machine for envelops the combination with the stamp separating and affixing device, of a stamp feeder, a reciprocating feeder operating bar, a crank shaft, an arm on said shaft, and a crank pin operating the said bar and controlling means on said reciprocating bar at one end of the said bar acting to control the movement of the crank pin in said slot.

4. In a stamp affixing machine the combination with the frame of the machine, and with the vertically operable stamp separating and affixing devices, of a transverse vertically positioned plate connected at its ends with the sides of said frame, a horizontal stamp supporting guiding plate for the strip of stamp paper connected with the side of said vertically positioned plate, and extending to a point adjacent the path of movement of the stamp separating and affixing devices, a rotary crank shaft extending through said vertically positioned plate, an arm on said shaft, means for operating said shaft, and a bar connected at its inner end with said arm an outwardly extended fulcrum plate on the vertically positioned plate supporting said bar, a reciprocating stamp feed plate, movable upon the stamp supporting and guiding plate, connected with the forward end of said bar, and an elastic pad on the lower surface of said stamp feed plate.

5. In a stamp affixing machine the combination with the main frame, a rotary crank shaft mounted upon said frame, a crank on said shaft, a reciprocating feeder plate, a bar pivotally connected with said plate and actuated by said crank and controlling means acting upon the feeder plate to prevent a rocking movement of the said feeder plate.

[Claims 6 to 11 not printed in the Gazette.]

1,072,586. VEHICLE SPRING DEVICE. ROBERT W. L. DONLAN, Seattle, Wash. Filed Mar. 7, 1912. Serial No. 682,182. (Cl. 21—50.)



1. The combination of an axle, a casing, saddle members engageable with the axle and the casing, a belt inclosing the saddle members, and spring pressed devices connected to the casing and serving to cause the belt to become operative with respect to said saddle members.

2. The combination of the casing, an axle extending therethrough, a collar provided on the axle within said casing, a plurality of saddle members, a stud on each of the saddle members, means provided in the casing for engaging said studs, a belt surrounding said members, a plurality of posts supported by the casing, springs tending to push said posts against the belt, and means for regulating the springs, substantially as described.

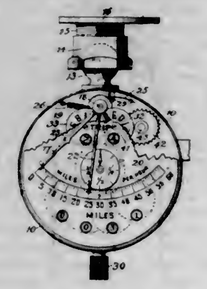
3. The combination of the casing, an axle extending therethrough, a collar provided on the axle within said casing, a plurality of saddle members, a stud on each of the saddle members, means provided in the casing for engaging said studs, a belt surrounding said members, rollers interposed between the belt and the respective members, a plurality of posts supported by the casing, springs tending to push said posts against the belt, rollers interposed between the belt and the respective posts, and means for regulating the springs, substantially as described.

4. In appliances of the class described, an axle provided with a collar, saddle members, a belt inclosing the saddle members, and spring pressed devices positioned at opposite sides of the axle and acting against the belt for yieldingly holding said saddle members against said collar.

5. In appliances of the class described, an axle provided with a collar, saddle members, a belt inclosing the saddle members, spring pressed devices positioned at opposite sides of the axle and acting against the belt for yieldingly holding said saddle members against said collar, and means for adjusting said devices.

[Claims 6 to 9 not printed in the Gazette.]

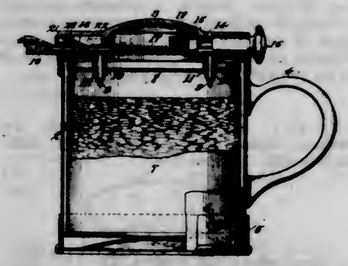
1,072,587. SPEEDOMETER. WALLACE R. DUDLEY and LOUIS A. GREENLEAF, Danville, Pa., assignors to Star Speedometer Company, a Corporation of Pennsylvania. Filed May 1, 1909, Serial No. 493,390. Renewed July 2, 1913. Serial No. 777,098. (Cl. 235—144.)



1. The combination of a casing, registering mechanism comprising a rotatable indicator, an arbor to which said indicator is fixed, a driving wheel loose on the arbor, means for rotating the driving wheel in a forward direction, means for clutching the driving wheel and the arbor to cause them to rotate together in a forward direction while permitting independent movement of the rotatable indicator for zero setting, and normally inactive means independent of the driving wheel moving means for moving the indicator in the direction to set the same to zero, including an operating knob accessible on the exterior of the casing.

2. The combination of a casing, a dial wheel, an arbor to which the same is fixed, said arbor being hollow, a stud in the arbor, a driving wheel loose on the arbor, means consisting of a pawl on the wheel and a ratchet wheel fixed to the arbor for clutching the driving wheel and the arbor to cause them to rotate together in one direction, while permitting independent movement of the dial wheel, a pinion on said arbor, a gear wheel, and means for moving said gear wheel into and out of mesh with the pinion, consisting of a longitudinally movable shaft having a knob on the outside of the casing.

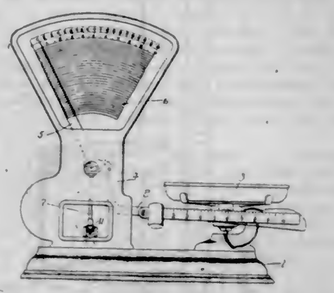
1,072,588. MILK-CAN CONTAINER AND MILK-SERVER. WILLIAM T. DUNCAN, San Francisco, Cal. Filed Aug. 14, 1912. Serial No. 715,009. (Cl. 221—23.)



1. A device for perforating milk cans or the like and serving the contents thereof, comprising a suitable shell having an open end, a removable bottom therefor, a closure for the opposite end of the shell having inlet and discharge chambers, a plurality of hollow punches rigidly secured to the closure and projecting downwardly therefrom and adapted for forming apertures in a can top, means cooperating with said removable bottom to cause said hollow punches to puncture the can top, an automatically closable valve mounted in the closure having a portion for closing the vent and simultaneously closing the discharge orifice, and means for cleaning said discharge orifice when the same is being closed.

2. A device for perforating milk cans or the like and serving the contents thereof, comprising a suitable shell having an open end, a removable bottom therefor, a closure for the opposite end of the shell having inlet and discharge chambers, a plurality of hollow punches rigidly secured to the closure and projecting downwardly therefrom and adapted for forming apertures in a can top, an automatically closable valve mounted in the closure having a portion for closing the vent and simultaneously closing the discharge orifice, and means for exuding surplus substance from the discharge orifice.

1,072,589. WEIGHING-SCALE. MAXIM A. DUQUETTE, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed May 18, 1906. Serial No. 317,490. (Cl. 73—104.)



1. In weighing scales, the combination of a pendulum having a permanent weight, and a removable weight adapted to engage said permanent weight with the centers of mass of the two weights substantially coinciding.

2. In weighing scales, the combination of a pendulum having a permanent weight, with an opening in one edge thereof, and a removable weight adapted to seat in said opening.

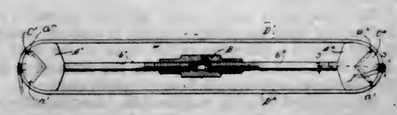
3. In weighing scales, the combination of a pendulum having a permanent weight, with a radial opening embracing its center, and a removable weight adapted to seat in said opening.

4. In weighing scales, the combination of a pendulum having a permanent weight, with an inclined radial opening and a removable weight adapted to seat in said opening.

5. In weighing scales, the combination of a pendulum having a permanent weight, with an inclined radial opening embracing its center, and a removable weight adapted to seat in said opening.

[Claims 6 to 16 not printed in the Gazette.]

1,072,590. RAZOR-STROP. PERCY M. ELLIOTT, Chicago, Ill. Filed Oct. 10, 1912. Serial No. 725,028. (Cl. 51—16.)

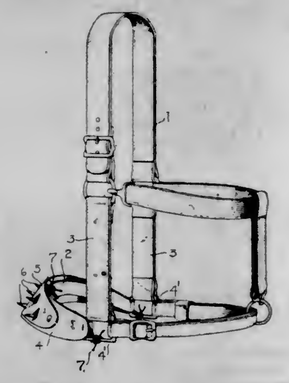


1. In a razor strop, the combination with a pair of heads having recesses in their outer surfaces, of means for adjustably connecting said heads, blocks removably engaging within said recesses, and strops secured to said blocks.

2. In a razor strop, the combination with a pair of heads having recesses in their outer surfaces, of means for adjustably connecting said heads, beads along the outer edges of said recesses, blocks removably fitting within said recesses and having grooves engaging said beads, and strops secured to said blocks.

3. In a razor strop, the combination with a pair of heads having recesses in their outer surfaces, of means for adjustably connecting said heads, beads along the outer edges of said recesses, blocks removably fitting within said recesses and having grooves engaging said beads, a flange formed at one side of each of said recesses against which the block seated therein engages, and strops secured to said blocks.

1,072,591. COLT-WEANER. WALTER P. ELLISON, Lyons, Kans. Filed Mar. 3, 1913. Serial No. 751,857. (Cl. 119—130.)



1. A colt or calf weaner comprising a flexible nose band tapering from its center toward its ends, a plate applied to the outer face thereof and bent arcuately to retain the band in rigid arcuate position, the ends of said plate terminating in advance of the ends of the band to permit flexibility at the latter points, said plate also tapering from its center to its ends and having the upper and lower edges thereof spaced from the upper and lower edges of the band, prongs formed on said plate, and means to attach said band to a halter.

2. A colt or calf weaner comprising a flexible nose band, a plate secured to the outer face thereof and bent arcuately to retain said band in rigid arcuate position for application to the nose of an animal, the ends of said plate terminating in advance of the ends of the band to permit flexibility at the latter points, prongs struck up from said plate, and flexible connecting means engaged with the ends and the upper central portion of said band to secure the same to the nose band of a halter.

1,072,592. ATTACHMENT FOR PITCHFORKS. OSCAR C. ENGEBRETSON, Garretson, S. D. Filed Nov. 3, 1911. Serial No. 658,416. (Cl. 55—2.)

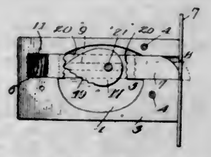
1. The combination with a pitch fork, of a plurality of sleeves located upon the prongs thereof, extensions formed upon said sleeves conforming to the shape of the head of the pitch fork, and a means engaging the extensions for preventing their displacement from the pitch fork.

2. The combination with a pitch fork, of a plurality of sleeves located upon the prongs thereof, spring extensions formed upon the sleeves and conforming in shape to the head of the pitch fork, said extensions being provided with registering grooves and locking means engaging said registering grooves.

3. The combination with a handle, and a head carried thereby and provided with a plurality of prongs, of a tubular member engaging each prong, and means connecting said members at their upper ends and holding the same in operative position on the prongs.

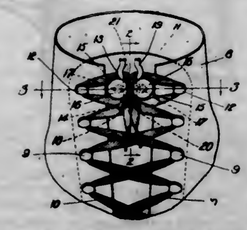


1,072,593. WINDOW-LATCH. GEORGE ERZ, Lynden, Wash. Filed Apr. 21, 1911. Serial No. 622,612. (Cl. 16—119.)



In a device of the class described, a casing; a latch mounted in the casing for right-line movement, the latch having a recess and there being teeth formed in the latch in the forward and rear walls of the recess; spring means for advancing the latch; a shaft journaled in the casing; and a cam secured to the shaft, the cam being movable in the recess, the cam having a curved surface adapted to engage the rear wall of the recess, to retract the latch against the action of the spring means, the cam having a point adapted to engage detachably in the teeth of the rear wall to hold the latch retracted, and to engage the teeth of the forward wall detachably, thereby to prevent rearward movement of the latch; the cam having teeth in one of its edges, adapted to coöperate detachably with the lowermost tooth of the forward wall to prevent a retraction of the latch when the same cannot be advanced sufficiently to permit the point of the cam to coöperate with the teeth of the forward wall.

1,072,594. SHOESTRING-FASTENER. FRANCESCO FERRARA, Boston, Mass. Filed Feb. 17, 1913. Serial No. 748,804. (Cl. 24—118.)



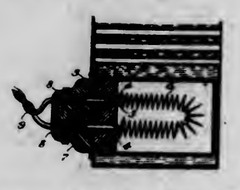
1. As an article of manufacture, a shoestring fastener comprising a base, a pair of parallelly disposed studs, heads therefor, necks connecting said heads with said base with said heads in close proximity to each other, and a guide arranged substantially intermediate said studs adapted to receive both of the ends of a shoestring and guide said ends toward their respective studs.

2. As an article of manufacture, a shoestring fastener comprising a base, a pair of parallelly disposed studs, heads therefor, necks connecting said heads to said base with said heads in close proximity to each other, a shoestring having opposite ends thereof coiled about the necks of said studs respectively, and means located intermediate said studs adapted to pinch the coils of said shoestrings against the heads of said studs.

3. As an article of manufacture, a shoestring fastener comprising a base, a pair of parallelly disposed studs, heads for said studs, and necks connecting said heads with said base, in combination with a shoestring having opposite ends thereof coiled about the necks of said studs respectively, a guide arranged substantially intermediate said studs adapted to receive both of the ends of said shoestring and direct said ends to their respective studs, and means formed between said studs from the material constituting said base adapted to pinch the coils of said shoestring against said heads.

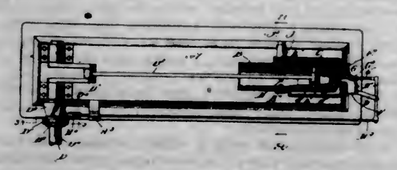
4. As an article of manufacture, a shoestring fastener comprising a base, a pair of parallelly disposed studs, heads for said studs, and necks connecting said heads with said base, in combination with a shoestring having opposite ends thereof coiled about the necks of said studs respectively, a guide arranged substantially intermediate said studs adapted to receive both of the ends of said shoestring and direct said ends to their respective studs, and means arranged between said studs adapted to pinch the coils of said shoestrings against the under faces of said heads.

1,072,595. HEATER FOR AUTOMOBILE-RADIATORS. WILLIAM GALLAHER, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,045. (Cl. 219—38.)



In an automobile, a radiator having a fluid containing compartment, a heat generating element disposed in the lower portion of said fluid containing compartment and adapted to deliver heat to the fluid about the same whereby to create a circulation of the fluid in the radiator, and detachable means adapted to transmit electrical current to said heat generating element from a source of electrical supply.

1,072,596. EXPLOSIVE-ENGINE. LEVI S. GARDNER, New Orleans, La. Filed June 19, 1906, Serial No. 322,379. Renewed Jan. 5, 1912. Serial No. 669,722. (Cl. 123—77.)



1. In an explosive engine the combination with the cylinder, the piston, the ignition means, and the exhaust valve, of a fresh gas admission valve adapted to admit fresh gas before the completion of the stroke of the piston due to the explosion, and means for opening said exhaust valve in advance of the completion of said stroke of the piston whereby the amount of fresh gas admitted is regulated.

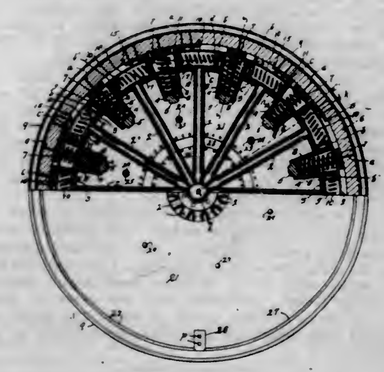
2. In an explosive engine the combination with the cylinder, the piston, the ignition means, and the exhaust valve, of a fresh gas admission valve of the suction type adapted to admit fresh gas before the completion of the stroke of the piston due to the explosion, and adjustable means for opening said exhaust valve in advance of the completion of said stroke of the piston whereby the amount of fresh gas admitted is regulated.

3. In an explosive engine the combination with a cylinder, the piston, and the ignition means of an extension on the cylinder, a hollow extension on the piston, a port or ports through said hollow extension adjacent to the main piston head, one or more fresh gas admission ports governed by valves adjacent to the main cylinder head and an exhaust valve adjacent to the outer end of the cylinder extension.

4. In an explosive engine the combination with the cylinder, the piston and the ignition means of an extension on the cylinder, a hollow extension on the piston adapted to travel in said extension on said cylinder, one or more ports in said hollow extension adjacent to the main piston head, one or more fresh gas admission valves located adjacent to the main cylinder head and an exhaust valve located adjacent to the outer end of the extension cylinder.

5. In an internal combustion engine, a combination with a cylinder and igniting means, of a piston movable within said cylinder and having a stroke sufficient to permit the ignited charge to expand in the cylinder and below atmospheric pressure before the completion of the working stroke, means for admitting a combustible charge into the cylinder along the face of the piston when the piston reaches approximately the point in its working stroke where the pressure in the cylinder becomes approximately that of the atmosphere, and a mechanically-actuated exhaust valve in the end of the cylinder in which the piston lies at the beginning of the working stroke.

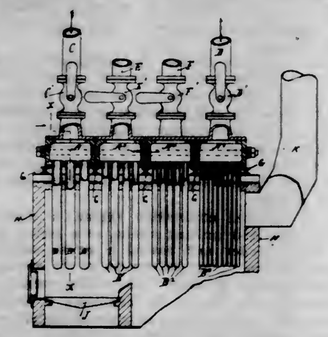
1,072,597. VEHICLE-WHEEL. GLOSTER J. GARRETT and HERBERT C. GARRETT, Richmond, Ind. Filed July 25, 1912. Serial No. 711,411. (Cl. 152—38.)



A vehicle wheel comprising an outer rim for carrying a tire, an inner rim which is movable with relation to the outer rim but is normally concentric therewith, a central hub, spokes rigidly connecting the hub and the inner rim, a plurality of tapering major and minor sockets projecting centerward from the inner rim and formed integral therewith, a removable plug for closing the inner end of each socket, a plate located opposite each of said

plugs and secured to the inner periphery of the outer rim, a pair of helical springs located in each of said sockets, one spring of the pair being located within the other and coiled opposite thereto, both springs of each pair being seated at their inner ends on one of said plugs and the other ends thereof being seated on one of said plates, a cross spring located between each two pairs of the first named springs and adapted to counterbalance each other and retain the pairs of springs central of their sockets, and means for inclosing the interior of the wheel, all substantially as shown and described.

1,072,598. APPARATUS FOR SUPERHEATING STEAM. EDWARD A. GROGHEGAN, Erie, Pa. Filed Apr. 25, 1911. Serial No. 623,228. (Cl. 122—485.)



1. In a device of the class described, the combination of a heating chamber, a furnace for supplying hot gases of combustion to said chamber, and a series of steam conveying tubes in said chamber, which tubes increase in number and decrease in diameter in the direction of the flow of steam therethrough, substantially as set forth.

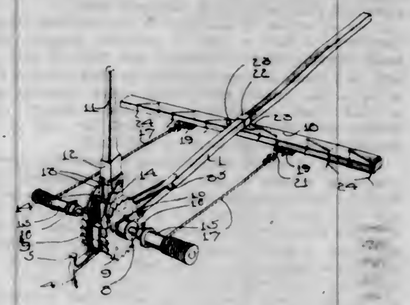
2. In a device of the class described, the combination of a heating chamber, a furnace for supplying hot gases of combustion to said chamber, and a series of groups of steam conveying tubes in said chamber, the tubes of each successive group increasing in number and decreasing in diameter in the direction of the flow of steam therethrough, substantially as set forth.

3. In a steam superheating apparatus, a series of heating tubes arranged in groups, each group of said tubes containing a greater number of tubes than the preceding group, a series of headers with which said groups of tubes communicate adapted to conduct steam discharged from one group of tubes into the next succeeding group of tubes, and means for applying heat to said tubes, substantially as set forth.

4. In a steam superheating apparatus, a series of heating tubes arranged in groups, each group of tubes containing a greater number of tubes of lesser diameter than the group immediately preceding, a series of headers with which said groups of tubes communicate adapted to conduct steam discharged from one group of tubes into the next succeeding group of tubes, and means for applying heat to said heating tubes, substantially as set forth.

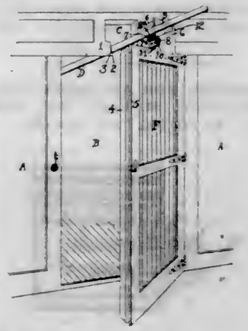
1,072,599. CARPET-STRETCHER. THOMAS J. GIBBONS, Farmington, Ill. Filed Nov. 18, 1912. Serial No. 732,056. (Cl. 45—89.)

A carpet stretcher comprising a stationary central guide bar having an anchor at one end, a supporting block attached to the bar adjacent the anchor, a shaft journaled in the block, drums carried by the ends of the shaft, ratchets mounted on the shaft on each side of the block, a lever pivotally mounted on the shaft and carrying pawls for engaging the ratchet, a pawl carried by the guide bar for engaging both ratchets to prevent reverse movement



of the shaft, a stretcher bar slidably mounted on the guide bar, and cable connections between the drums and the stretcher bar.

1,072,600. TRACK-DOOR. ALAN K. GILLESPIE, Kenosha, Wis., assignor to Frances K. Gillespie, Kenosha, Wis. Filed Sept. 10, 1912. Serial No. 719,534. (Cl. 20—16.)



1. In combination with a storage compartment provided with a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, a track-rail extending into said compartment and its side contacting with the end of said projection, and a swing door adapted to close said doorway and having an integral extension adapted to close said opening.

2. In combination with a storage compartment having a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, said projection being provided with a ledge, a track-rail extending into said compartment resting on said ledge and its side contacting with the end of said projection, a swing door adapted to close said doorway and having an integral extension adapted to close said opening, said door being provided with an overlap which abuts against the upper and lower outer face of said projection.

3. In combination with a storage compartment having a main doorway and an annular opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, said projection having a downwardly and outwardly inclined top surface, a

track-rail, its side contacting with the end of said projection, the top of said track-rail being below said inclined surface and a door for said main doorway having an integral extension adapted to close said opening, the overlap of said door being adapted to abut against the face of said projection above the level of said track-rail.

4. In combination with a storage compartment having a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, said projection having a downwardly and outwardly inclined top surface, a track-rail, its side contacting with the end of said projection, said rail being below said inclined surface and above the bottom of said projection, and a door provided with an overlap and adapted to close said main doorway and having an integral extension adapted to close said opening, the overlap of said door abutting against said projection above and below said track-rail.

5. In combination with a storage compartment provided with a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, a track-rail extending into said compartment and its side contacting with the end of said projection, a door provided with an overlap adapted to close said main doorway and having an integral extension adapted to close said opening, said overlap extending at an incline above said track-rail when said door is closed to provide clearance in opening and shutting the door.

[Claims 6 and 7 not printed in the Gazette.]

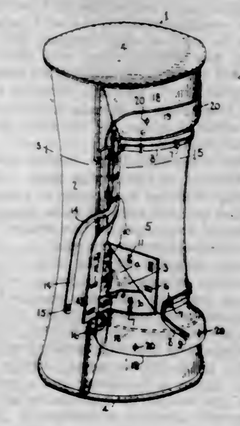
1,072,601. THREADER FOR SEWING-MACHINES. JOHN H. GIRARD, Lowell, Mass. Filed Apr. 24, 1913. Serial No. 763,337. (Cl. 112—18.)



In a needle threader for sewing machines, the combination with a needle, a needle carrier, and a head, of a carrier plate having two slots together with a stud and a pin, two attaching screws which pass through the slots into the head, a swinging arm which is pivoted to the carrier plate and has at one end a tail adapted to strike the pin thereon, and a conical thread guide carried at the other end of the swinging arm in operative relation with the needle eye and having a longitudinal slot which is vertical when the guide is in the threading position, together with a spring hooked around the stud and bent around one of the adjusting screws which support the carrier plate and in engagement with the tail, as described.

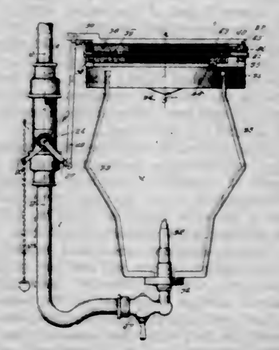
1,072,602. SADDLE-BAG. HANSFORD F. GIVEN, Upperglade, W. Va. Filed Nov. 18, 1912. Serial No. 732,086. (Cl. 224—43.)

A saddle bag comprising a main body consisting of a continuous strip forming one side of the bag and a sectionalized strip formed of two sections comprising the opposite side of the bag, said strips being secured together along their side edges for a suitable distance from each end of the bag, bottoms secured to the ends of the strips to form pouches, fastening devices for securing the meeting ends of said sections, a covering member having one of its longitudinal edges secured to one edge of the bag between the pouches, the ends of said covering member being detachably secured to the adjacent ends of the sections comprising the sectionalized strip, a narrow flap secured to the opposite



detached longitudinal edge of the continuous strip, the latter being detached along the length of the flap and having its edges covered thereby, means for securing the flap over the covering members, and pockets secured to the ends of the bag thus constructed and provided with overlapping flap closures.

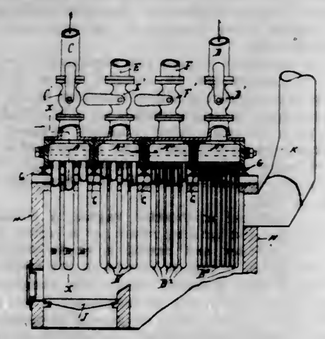
1,072,603. AUTOMATIC GAS-SHUT-OFF VALVE. IGNAZ GLANSCHNIG, Chicago, Ill., assignor of one-half to Wilhelm Hatzfeld, Chicago, Ill. Filed June 6, 1913. Serial No. 772,071. (Cl. 67—117.)



1. Automatic gas shut-off means comprising in combination a valve casing interposed in the service pipe, a valve and a valve-seat therein, the valve member having a portion projecting beyond the said seat; a pair of rotatable members housed by said casing and both adapted to engage the said projecting portion to open the valve, one of said members manually actuable; a thermally expansible member, and connections between the latter and the other of the said valve-opening members for actuating the latter in response to the expansion and contraction of the said expansible member.

plugs and secured to the inner periphery of the outer rim, a pair of helical springs located in each of said sockets, one spring of the pair being located within the other and coiled opposite thereto, both springs of each pair being seated at their inner ends on one of said plugs and the other ends thereof being seated on one of said plates, a cross spring located between each two pairs of the first named springs and adapted to counterbalance each other and retain the pairs of springs central of their sockets, and means for inclosing the interior of the wheel, all substantially as shown and described.

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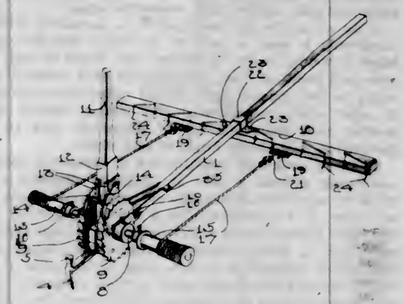
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3. In a steam superheating apparatus, a series of heating tubes arranged in groups, each group of said tubes containing a greater number of tubes than the preceding group, a series of headers with which said groups of tubes communicate adapted to conduct steam discharged from one group of tubes into the next succeeding group of tubes, and means for applying heat to said tubes, substantially as set forth.

4. In a steam superheating apparatus, a series of heating tubes arranged in groups, each group of tubes containing a greater number of tubes of lesser diameter than the group immediately preceding, a series of headers with which said groups of tubes communicate adapted to conduct steam discharged from one group of tubes into the next succeeding group of tubes, and means for applying heat to said heating tubes, substantially as set forth.

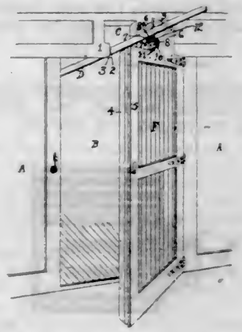
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of the shaft, a stretcher bar slidably mounted on the guide bar, and cable connections between the drums and the stretcher bar.

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1. In combination with a storage compartment provided with a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, a track-rail extending into said compartment and its side contacting with the end of said projection, and a swing door adapted to close said doorway and having an integral extension adapted to close said opening.

2. In combination with a storage compartment having a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, said projection being provided with a ledge, a track-rail extending into said compartment resting on said ledge and its side contacting with the end of said projection, a swing door adapted to close said doorway and having an integral extension adapted to close said opening, said door being provided with an overlap which abuts against the upper and lower outer face of said projection.

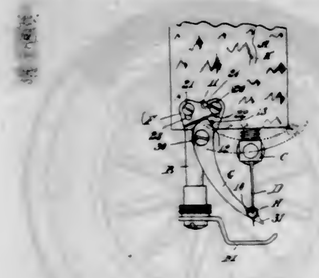
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4. In combination with a storage compartment having a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, said projection having a downwardly and outwardly inclined top surface, a track-rail, its side contacting with the end of said projection, said rail being below said inclined surface and above the bottom of said projection, and a door provided with an overlap and adapted to close said main doorway and having an integral extension adapted to close said opening, the overlap of said door abutting against said projection above and below said track-rail.

5. In combination with a storage compartment provided with a main doorway and an opening for the passage of the wheeled hanger communicating therewith, a projection of the wall of said compartment partially separating said doorway from said opening, a track-rail extending into said compartment and its side contacting with the end of said projection, a door provided with an overlap adapted to close said main doorway and having an integral extension adapted to close said opening, said overlap extending at an incline above said track-rail when said door is closed to provide clearance in opening and shutting the door.

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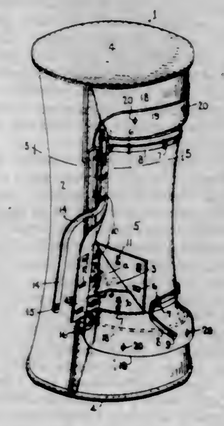
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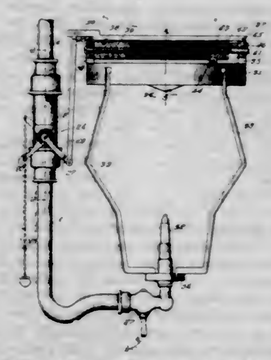
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A saddle bag comprising a main body consisting of a continuous strip forming one side of the bag and a sectionalized strip formed of two sections comprising the opposite side of the bag, said strips being secured together along their side edges for a suitable distance from each end of the bag, bottoms secured to the ends of the strips to form pouches, fastening devices for securing the meeting ends of said sections, a covering member having one of its longitudinal edges secured to one edge of the bag between the pouches, the ends of said covering member being detachably secured to the adjacent ends of the sections comprising the sectionalized strip, a narrow flap secured to the opposite



detached longitudinal edge of the continuous strip, the latter being detached along the length of the flap and having its edges covered thereby, means for securing the flap over the covering members, and pockets secured to the ends of the bag thus constructed and provided with overlapping flap closures.

1,072,603. AUTOMATIC GAS-SHUT-OFF VALVE. IGNAZ GLANSCHNIG, Chicago, Ill., assignor of one-half to Wilhelm Hatzfeld, Chicago, Ill. Filed June 6, 1913. Serial No. 772,071. (Cl. 67—117.)



1. Automatic gas shut-off means comprising in combination a valve casing interposed in the service pipe, a valve and a valve-seat therein, the valve member having a portion projecting beyond the said seat; a pair of rotatable members housed by said casing and both adapted to engage the said projecting portion to open the valve, one of said members manually actuable; a thermally expansible member, and connections between the latter and the other of the said valve-opening members for actuating the latter in response to the expansion and contraction of the said expansible member.

2. Automatic gas shut-off means comprising in combination a valve casing interposed in the service pipe, a seat therein, a valve member slidably mounted within said casing, a spring tending to force the said valve against the said seat; a pair of rotatable members mounted upon separate and concentric shafts within the said casing, each thereof adapted to engage a portion of the said valve member to raise the latter from its seat; there being coacting formations upon one of the said rotating members and the valve member whereby the said rotating member is retained in its valve-opening position, the said rotating member being manually operated and spring retracted; the other of said rotatable members being adapted to move the valve member for a sufficient distance to enable the said coacting formations to release each other; and thermostatically actuated means for operating the last-named valve-actuating member.

3. Thermally controlled valve closing means comprising a valve disposed in the service pipe, a thermally expansible member disposed contiguous to the point of consumption of the gas and adapted to be heated thereby; a rotatably mounted valve-opening cam disposed in the service pipe, connections between the said cam and said thermally expansible member whereby said cam will be rotated into position to open said valve as said member becomes hot; an auxiliary manually operated and spring-retracted cam rotatably mounted in the service pipe and adapted to primarily open the said valve, there being coacting formations upon the said cam and valve for retaining the former in its valve-opening position when it has been manually moved to the same; and a spring engaging the said valve and holding the same in its said coacting relation with the said manually actuable cam, the said spring also tending to close the valve; the said thermally actuated cam adapted to open the said valve to a greater extent than the said manually actuated cam, thereby throwing the latter out of engaging relation to the said valve.

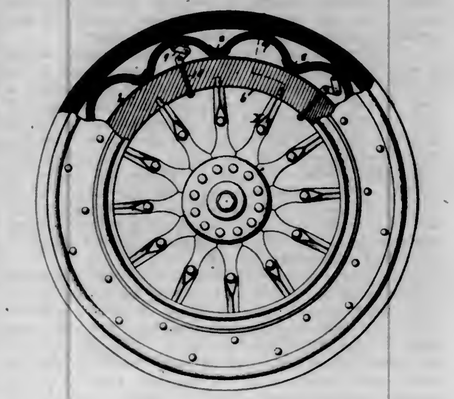
4. In an automatic gas shut-off device, the combination with a valve casing interposed in the service pipe and a valve therein, of thermostatically actuated means for operating the said valve; the said means comprising a ring and a rod of materials having different coefficients of expansion, the said rod being mounted diametrically of the said ring and rigidly secured at one of its ends to the ring, the other end of the said rod being slidable with respect to the portion of the ring diametrically opposite to that to which the aforesaid end of the rod is secured; transmission mechanism connecting the said ring, rod and valve for causing the relative motion of the said slidable end of the rod with respect to the adjacent portion of the said ring to operate the said valve; and a heat deflector positioned between the point of consumption of the gas and the said rod, the said heat deflector operating to deflect the heated air toward the said ring.

5. Thermally controlled valve-operating means for a gas service pipe, comprising a valve disposed in the service pipe; a pair of expansible members disposed near the point of consumption of the gas; one of the said members having one of its ends rigidly secured to, and the other of its ends slidable with respect to, the other of the said members; a heat deflector positioned between the said point of consumption of the gas and one of the said expansible members, the said deflector operating to deflect the heated air toward the other of the said expansible members; and mechanism connecting the two expansible members and the said valve for operating the said valve by the difference in expansion or contraction of the said expansible members.

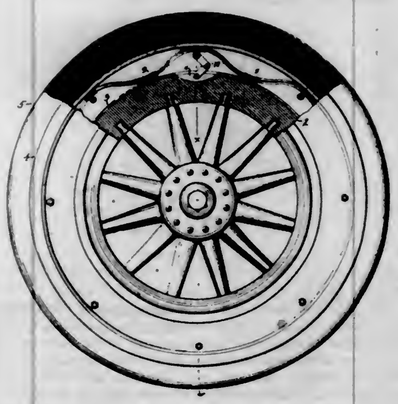
[Claim 6 not printed in the Gazette.]

1,072,604. RESILIENT VEHICLE-WHEEL. HENRY S. GRACE, San Francisco, Cal. Filed July 29, 1912. Serial No. 712,194. (Cl. 152—38.)

In a resilient wheel, the combination with inner and outer concentric rims, of a plurality of sets of springs having curved central portions for sustaining the pressure of the outer rim, each of said sets comprising a plurality of alternately arranged superimposed long and short leaves, the long leaves having curved end portions overlapping the end portions of the long springs of the next adjoining set.

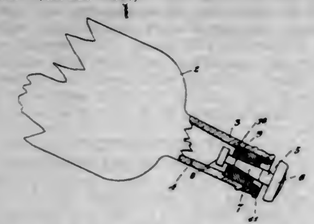


1,072,605. RESILIENT VEHICLE-WHEEL. HENRY S. GRACE, San Francisco, Cal. Filed Feb. 5, 1913. Serial No. 746,363. (Cl. 152—38.)



In a resilient wheel, the combination of an inner felly formed with pockets at intervals throughout its circumference, an outer channel rim spaced therefrom and concentric therewith, side plates forming a chamber, a multiple of overlapping springs interlaced, said springs forming an even means of resilient resistance between the channel rim and the felly, flexible connections securing the channel rim to said felly, assembled within the arches of said springs and comprising inner and outer transverse rods, two levers pivotally carried on the respective rods and having a toggle joint connection with each other, said outer rods having their ends permanently secured in said side plates, said inner rods being secured within side pockets, and a circumferential band secured to the outer periphery of the felly provided with slots registering with said pockets, substantially as described.

1,072,606. BOTTLE. HORATIO F. GRISWOLD, Connellsville, Pa., assignor of one-half to Francis M. Richey, Jr., Connellsville, Pa. Filed Feb. 21, 1912. Serial No. 679,161. (Cl. 215—15.)

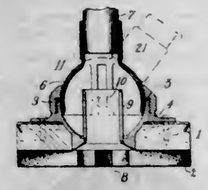


1. In a bottle, the combination with the neck of a bottle of a cylindrical member fixedly mounted therein and having a conical bore tapering inwardly from top to bottom, a device for preventing the removal of the cylindrical member from the neck, and a stopper extending through the bore and tapering in the same direction as said conical bore and having a projection on the lower portion thereof to limit the movement of the stopper.

2. In a bottle, the combination with a bottle neck, of a conical stopper mounted therein and having a head portion adapted to normally close the mouth of the neck, a cylindrical member mounted within the neck of the bottle and having a central conical bore to receive the conical stopper, said stopper having a lower head portion adapted to limit the movement of the first-named head from the mouth of the neck.

3. In a bottle, the combination with a bottle neck, a cylindrical member mounted therein and having a conical bore forming a stopper seat, a superposed ring member secured to the neck of the bottle and in abutment with and adapted to hold against removal the cylindrical member, a conical stopper having a stem portion mounted to reciprocate within the cylindrical member and having a head adapted to normally close the mouth of the neck and a second head for limiting the movement of the first-named head from the mouth of the neck.

1,072,607. PNEUMATIC CLEANING IMPLEMENT. SEYMOUR L. GUTHORN, New York, N. Y., assignor to Vacuum Engineering Company, New York, N. Y., a Corporation of New York. Filed July 26, 1911. Serial No. 640,587. (Cl. 15—60.)

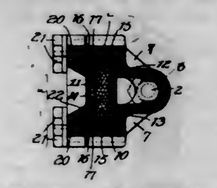


1. The combination in a device of the kind described, of a suction head and a hollow handle connected therewith by a ball-and-socket universal joint, substantially as described.

2. The combination, in a device of the kind described, of a suction head and a handle connected therewith by a ball-and-socket universal joint, and means for preventing said handle from being rotated about its axis with respect to said head, substantially as described.

1,072,608. WATER-GAGE. GEORGE J. HATZ, Omaha, Nebr., assignor of one-half to Charles E. Fuller, Omaha, Nebr. Filed Apr. 9, 1913. Serial No. 760,069. (Cl. 73—54.)

1. A water gage comprising a casing having a chamber to receive a sight glass and having an outwardly projecting wall offset from and surrounding said chamber, a sight glass within said chamber having an outwardly projecting portion forming with said surrounding wall a stuffing box, a cover having a gland extending within said stuffing box and suitable packing within said stuffing box.



2. A water gage comprising a casing having a chamber to receive a sight glass and having an outwardly projecting wall offset from and surrounding said chamber, a sight glass within said chamber having an outwardly projecting portion forming with said surrounding wall a stuffing box, a cover having a gland extending within said stuffing box and suitable packing within said stuffing box, said gland and packing extending across the abutting walls of the chamber and sight glass.

3. A water gage comprising a casing having a sight glass chamber provided with a shoulder extending around the water space and having an outwardly projecting wall offset from and surrounding said chamber, a sight glass within said chamber having an outwardly projecting portion forming with said surrounding wall a stuffing box, a gasket arranged between the sight glass and said shoulder, a cover having a gland extending within said stuffing box and suitable packing within said stuffing box.

4. A water gage comprising a casing having a chamber to receive a sight glass and having an outwardly projecting wall offset from and surrounding said chamber, a sight glass within said chamber having an outwardly projecting portion forming with said surrounding wall a stuffing box and having side walls at substantially right angles to the plane of said glass, the outer face of the side portions of said glasses being substantially parallel with the mouth of said chamber, a cover having a gland extending within said stuffing box and suitable packing within said stuffing box and extending across the abutting walls of the chamber and sight glass.

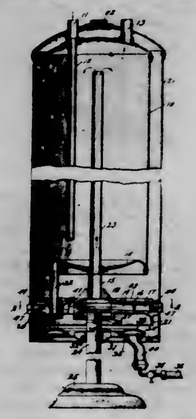
5. A water gage comprising a casing having a chamber to receive a sight glass and having an outwardly projecting wall offset from and surrounding said chamber, a sight glass substantially filling said chamber and having an outwardly projecting portion forming with said surrounding wall a stuffing box, a cover having an opening larger that the projecting portion of said sight glass so as to leave a space between said projecting portion of the sight glass and the cover, said cover having a gland extending within said stuffing box and suitable packing within said stuffing box.

1,072,609. WATER-HEATING APPARATUS. WILLIAM HAWKS, Duluth, Minn., assignor of one-half to Charles W. Andrews, Duluth, Minn. Filed Nov. 25, 1908. Serial No. 464,406. (Cl. 122—18.)

1. A water heater comprising a body having an annular water chamber and an outlet chamber encompassed by the annular chamber, the bottom of the second recited chamber being located in a plane above the bottom of the annular chamber, an inlet passage for the inner chamber leading from the annular chamber and inclining upwardly therefrom, an outlet for the inner chamber leading through the top thereof and an inlet opening for the annular chamber, the bottom of the latter chamber adjacent the inlet opening being depressed.

2. A water heater comprising a body having an annular water chamber and an outlet chamber encompassed by the annular chamber, the bottom of the second recited chamber being located in a plane above the bottom of the annular chamber, an inlet passage for the inner chamber leading from the annular chamber and inclining upwardly

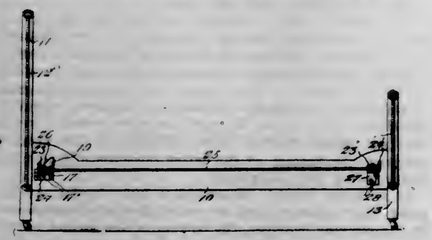
therefrom, an outlet for the inner chamber leading through the top thereof and an inlet opening for the annular chamber, the bottom of the latter chamber adjacent the inlet opening being depressed, said chambers being spaced from each other to form a heat-passage therebetween.



3. A water heater comprising a body having an annular water chamber and an outlet chamber encompassed by the annular chamber, the bottom of the second recited chamber being located in a plane above the bottom of the annular chamber, an inlet passage for the inner chamber leading from the annular chamber and inclining upwardly therefrom, an outlet for the inner chamber leading through the top thereof and an inlet opening for the annular chamber, the bottom of the latter chamber adjacent the inlet opening being depressed, said chambers being spaced from each other to form a heat passage therebetween, and said heater being provided with integral wall at the top thereof to form an upwardly opening receptacle for the water of condensation.

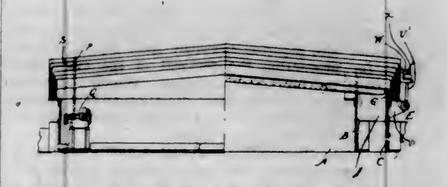
4. A water heater comprising a body having an annular water chamber and an outlet chamber encompassed by the annular chamber, the bottom of the second recited chamber being located in a plane above the bottom of the annular chamber, an inlet passage for the inner chamber leading from the annular chamber and inclining upwardly therefrom, an outlet for the inner chamber leading through the top thereof and an inlet opening for the annular chamber, the bottom of the latter chamber adjacent the inlet opening being depressed, said chambers being spaced from each other to form a heat passage therebetween, the outer chamber being provided with an integral depending annular flange encompassing the inlet to the said heat passage.

1,072,610. BED. CHRISTIAN E. HAY, Cataldo, Idaho. Filed Mar. 6, 1913. Serial No. 752,454. (Cl. 5—64.)



The combination in a bedstead of two side rails, a foot cross bar having its ends secured to said side rails near one end, bed springs secured at one end to said cross bar, a head cross bar having a bolt opening near each end secured to the bedstead opposite end of said bed springs, a clamping bar securing said springs to said last mentioned cross bar having an outstanding ear and a bolt opening near each end, a bracket secured near the remaining end of each side rail having a bolt opening and provided with an upstanding beak hook, said ears arranged to slide over and below said hooks and bolts passing through said bolt openings to secure said cross bar and head bar to said brackets, as and in the manner set forth.

1,072,611. WATER-TIGHT HATCH FOR BOATS. WILLISON H. HAYES, Toledo, Ohio. Filed July 2, 1912. Serial No. 707,145. (Cl. 114—201.)



1. A hatch cover comprising a series of collapsible sections adapted to be extended to cover hatch opening, and drainage means for the joints between adjacent sections permitting of the collapsing of same.

2. A hatch cover comprising collapsible sections, a water arresting means for the joints between sections when in extended position, and means for draining the seepage through said joints to exclude same from the hatchway.

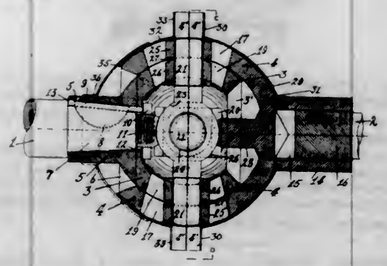
3. The combination with a hatchway of a hollow coaming surrounding said hatchway and open at the top, a collapsible hatch cover engaging the outer wall of the coaming and drainage means for the space within the coaming.

4. The combination with a hatchway of a hollow coaming surrounding said hatchway and open at the top, a collapsible jointed hatch cover engaging the outer wall of said coaming, means adjacent to the joints of said hatchway for draining the seepage therethrough into the chamber within said coaming, and drainage means for said chamber.

5. The combination with a hatchway of a hatch cover therefor, comprising a series of telescoping, overlapping plates, coöperating means upon said plates for producing a break joint therebetween in extended position of the cover, and drainage means for seepage through said joints.

[Claims 6 to 12 not printed in the Gazette.]

1,072,612. UNIVERSAL JOINT. EMANUEL HERMANN, San Francisco, Cal. Filed Dec. 11, 1912. Serial No. 736,089. (Cl. 74—19.)



1. A universal joint for shafting comprising a ball on the driving shaft; a ball on the driven shaft, the two balls interfitting for universal movement; a pair of cross pins at right angles having at their crossing a rocking bearing; and bearings between each ball and the pins adapted for

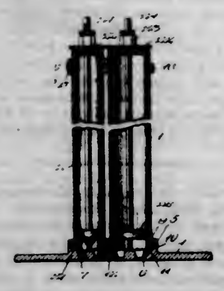
locking the balls for rotative movement about their axes while permitting relative angular movement.

2. A universal joint for shafting comprising a ball on the driving shaft; a ball on the driven shaft, the two balls interfitting for universal movement, said balls having at equidistant intervals in a circumferential series whose plane is perpendicular to the axes of rotation four corresponding slots elongated in the line of said axis; a pair of cross pins at right angles, having at their crossing a rocking bearing; and bearings on the ends of the pins fitting and having play in the length of the slots of the balls to provide for angular relative movement of said balls, said bearings fitting closely the width of said slots to provide for locking the balls together for rotative movement.

3. A universal joint for shafting comprising a ball on the driving shaft; a ball on the driven shaft, the two balls interfitting for universal movement, said balls having at equidistant intervals in a circumferential series whose plane is perpendicular to the axis of rotation four corresponding slots elongated in the line of said axis; a pair of cross pins at right angles having at their crossing a rocking bearing, the ends of said pins passing into the corresponding slots of both balls; and independent trunnion-blocks fitted to each end of each pin, one block lying in the slot of one ball and another in the slot of the other ball, said blocks having play in the length of the slots to provide for angular relative movement of the balls, and fitting closely the width of the slots to lock the balls together for rotative movement.

4. A universal joint for shafting consisting of a driving shaft; a driven shaft; an inner ball secured to the end of the driving shaft; an outer ball secured to the end of the driven shaft, the two shaft balls interfitting for universal movement, and said balls having at equidistant intervals in a circumferential series perpendicular to the plane of the axis of rotation four corresponding slots elongated in the line of said axis; a pair of cross pins at right angles having at their crossing a rocking bearing, the ends of said pins passing into the corresponding slots of both balls; means for steadying said crossing bearing of the pins comprising an inwardly projecting end of the drive shaft in contact with said crossing bearing on one side, and an inwardly projecting flange of the outer ball in contact with said crossing bearing on the other side; and independent trunnion-blocks fitted to each end of each pin, one block lying in the slot of one ball and another in the slot of the other ball, said blocks having play in the length of the slots to provide for angular relative movement of the balls, and fitting closely the width of the slots to lock the balls together for rotative movement.

1,072,613. PUMP. CHARLES D. HILL, Rochester, N. Y., assignor to Judd & Leland Mfg. Co., Clifton Springs, N. Y., a Corporation of New York. Filed Jan. 4, 1912. Serial No. 669,318. (Cl. 230—27.)



1. In a pump, the combination with a pair of cylinders each provided with a port, of a member surrounding the cylinders and having annular grooves communicating with the ports and with each other.

2. In an air pump, the combination with a base and a pair of cylinders attachable thereto by a rotary movement, said cylinders being provided with ports near their upper ends, of oppositely-acting pistons in said cylinders connected together for simultaneous movement, and a tie piece about the cylinders at the ports, said tie piece having internal grooves communicating with the ports and with each other.

3. In an air pump, the combination with a base having three sockets, two of which communicate with each other and a discharge nipple communicating with the other socket through said base, of three cylinders of different diameters having screw threaded engagement with the inner walls of the sockets, all of said cylinders having ports near their upper ends, a tie piece having separate openings each receiving one of said cylinders, the walls of two of the openings being provided with grooves which communicate with each other and with the ports in the two cylinders, the port of the other cylinder being open to the atmosphere, cup shaped pistons operating in the cylinders, one of said pistons acting in a direction opposite to the others, and a handle common to all of the pistons.

4. In an air pump, the combination with a base having sockets therein, the inner walls of said sockets being provided with screw threads near their outer ends, and grooves below the screw threads, the lower wall of each groove being inclined downwardly and projected inwardly beyond the screw threads, of cylinders engaging the screw threads and the inclined walls, pistons operating in the cylinders, and common operating means for the pistons.

5. In a pump, the combination with a base having a socket internally threaded near its outer end and provided with a groove below the socket, the lower wall of the groove being inclined downwardly and projecting inwardly beyond the screw threads, of an externally threaded cylinder engaging the threads of the socket and having its end abutting the lower wall of the groove, and a piston operating in the cylinder.

[Claim 6 not printed in the Gazette.]

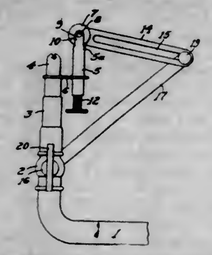
1,072,614. METHOD OF ELECTRICALLY WELDING CHAIN-LINKS. WILLIAM H. HODGES, Lynn, Mass., assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed June 9, 1908. Serial No. 437,594. (Cl. 219—5.)



1. The herein described method of making chain links consisting in butting the free ends of the link together, passing an electric current through the abutted ends for the purpose of bringing them to a state of plasticity, delaying the heating to cause a considerable length of metal to become slowly heated, and adjusting the heating and pressure to produce a smooth and well-defined extended oval swelling around the joint, and force a great amount of metal into the welded area, as well as additional metal to be forced into the heated part of the link back of the weld, the said swelling being formed at the same time that the weld is made.

2. The herein described method of manufacturing chain links consisting in butting the free ends of the link together, passing a heating electric current through the abutted ends and contiguous metal to cause the ends to become plastic, and delaying the heating and applying a graduated endwise pressure at the same time to effect the weld, and continuing the heating at a lower degree as well as the pressure so that the metal will become softened back from the weld and form an extended and well-defined oval swelling of the metal, thus reinforcing the welded portion and the metal immediately back from the welded portion.

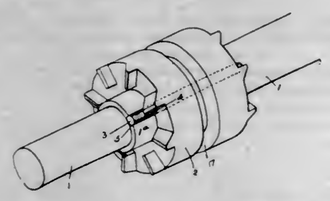
1,072,615. GAS-BURNER VALVE AND LIGHTER. JOHN HOLTZMAN, New York, N. Y., assignor of one-half to Joseph Lisken, New York, N. Y. Filed Apr. 1, 1913. Serial No. 758,095. (Cl. 67—20.)



1. The combination with a gas burner, and a valve therefor, of a gas lighting device adjacent said burner, said device including a spark producing abrading wheel, a slotted arm fixed to said wheel adaptable to rotate it for lighting the gas, a lever fixed to said valve engaging said arm, and said lever and arm being actuated to light the gas when turned on by said valve.

2. The combination with a gas jet, and a valve therefor, of a tube adjacent said jet, an abrading wheel mounted on said tube, a spring-pressed sparking compound within said tube bearing against said wheel, a slotted arm fixed to said wheel, and a lever fulcrumed on said valve engaging the slot in said arm, said valve actuating said lever and arm to rotate said wheel for lighting the gas and to impart a snap movement thereto when opened and closed.

1,072,616. DRIVING DEVICE. BYRON D. JACKSON, Erie, Pa., assignor to Modern Tool Company, Erie, Pa., a Corporation of Pennsylvania. Filed Nov. 7, 1912. Serial No. 730,097. (Cl. 74—59.)



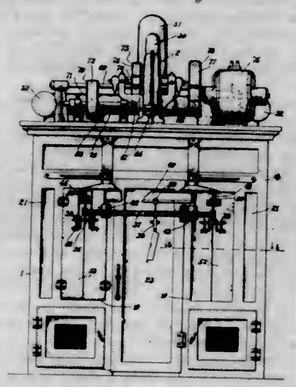
1. The combination of a driving element and a driven element, one slidingly mounted upon the other and having keyways forming a cylindrical opening; a cylindrical key in said opening; and means for imparting intermittent movement to the driving element.

2. The combination of a driving element and a driven element, one slidingly mounted upon the other and having keyways forming a cylindrical opening; a cylindrical key in said opening; and means for imparting an intermittent and reversing movement to the driving element.

1,072,617. LAUNDRY MACHINERY. LOUIS JUDELSON, New York, N. Y. Filed May 22, 1912. Serial No. 698,951. (Cl. 34—12.)

1. A machine of the character herein described, embodying therein a cabinet, inwardly opening self-closing doors and outwardly opening self-closing doors arranged at one end of said cabinet, means heating air within said cabinet, a blower and pipe connections therefrom leading to the interior of the cabinet for maintaining a circulation of air therein, a conveyer adapted to have movement within said cabinet, and hangers carried by said conveyer adapted to support articles to be dried.

2. A machine of the character herein described embodying therein a cabinet, inwardly opening self-closing doors and outwardly opening self-closing doors arranged at one end of said cabinet, means adapted to heat air within said cabinet, a blower and pipe connections therefrom leading to the interior of the cabinet for maintaining a circulation of air therein, a conveyer having the receiving and delivery points thereof exposed exteriorly of said cabinet and adapted to move through said cabinet, and hangers carried by said conveyer adapted to support articles to be dried.



3. A machine of the character herein described embodying therein a cabinet, inwardly opening self-closing doors and outwardly opening self-closing doors arranged at one end of said cabinet, means heating air within said cabinet, a blower and pipe connections therefrom leading to the interior of the cabinet for maintaining a circulation of air therein, a conveyer adapted to have movement within said cabinet, hangers carried by said conveyer adapted to support articles to be dried, and means imparting continuous traverse to said conveyer.

4. A machine of the character herein described embodying therein a cabinet, inwardly opening self-closing doors and outwardly opening self-closing doors arranged at one end of said cabinet, means adapted to heat air within said cabinet, a blower and pipe connections therefrom leading to the interior of the cabinet for maintaining a circulation of air therein, a conveyer having the receiving and delivery points thereof exposed exteriorly of said cabinet and adapted to move through said cabinet, hangers carried by said conveyer adapted to support articles to be dried, and means imparting continuous traverse to said conveyer.

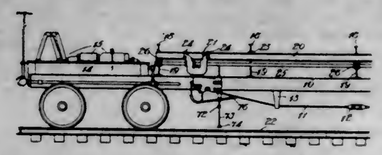
5. A machine of the character herein described embodying therein a cabinet, inwardly opening self-closing doors and outwardly opening self-closing doors arranged at one end of said cabinet, means heating air within said cabinet, a blower and pipe connections therefrom leading to the interior of the cabinet for maintaining a circulation of air therein, a conveyer adapted to have movement within said cabinet, guides for said conveyer divergently arranged within said cabinet whereby the conveyer is caused to traverse a tortuous course, and hangers carried by said conveyer adapted to support articles to be dried.

[Claims 6 to 30 not printed in the Gazette.]

1,072,618. TOOL-CAR. JOHN W. KENDRICK, Chicago, Ill. Filed Aug. 10, 1909. Serial No. 512,246. (Cl. 144—3.)

1. In a railway car, a center sill, laterally extending supports mounted thereon, guide rails carried by the ends of said supports, a series of spike-driving tool carriages movably mounted on said guide rails, a motor, and mechanical driving connections from the motor to said tool carriages.

2. In a railway car, a center sill, transverse members fixed thereon, guide rails fixed on the ends of said transverse members, carriages movably supported on said guide rails, and tool-carrying arms mounted to swing in horizontal planes on said carriages.



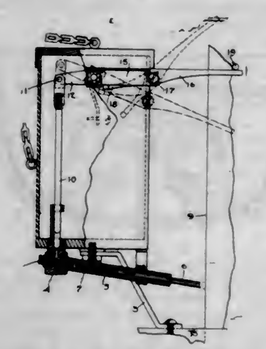
3. In a railway car, trucks at the ends thereof, a center sill supported by said trucks, an I-beam guide rail at one side of the center sill and supported therefrom, a carriage having rollers bearing on the lower flanges of said guide rail to support the carriage and having other rollers bearing against the upper flanges of said rail to prevent oscillation of said carriage, and a tool-carrying arm pivoted to said carriage.

4. In a railway car, a pair of trucks at the ends of the car, a center sill supported thereby, transverse members mounted on said center sill, a guide rail fixed to said transverse members, a carriage movably supported on said guide rail, a tool-carrying arm pivoted to said carriage and adapted to swing under said guide rail, and a spike-driving spindle carried by said arm.

5. In a device of the class described, a spike driving mechanism comprising a center sill, uprights fixed to the center sill, transverse members fixed to said uprights, a guide rail fixed to said transverse members, a carriage movably supported on said guide rail, a swinging arm pivoted to said carriage and adapted to swing under said said guide rail, a spike driving tool carried by said swinging arm, and means for driving said tool independently of the movements of the said carriage and said swinging arm.

[Claims 6 to 10 not printed in the Gazette.]

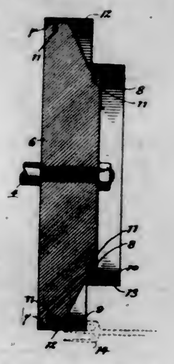
1,072,619. LUBRICATING DEVICE. AUGUST F. KIRSCHBAUM, St. Paul, Minn. Filed Feb. 13, 1912. Serial No. 677,299. (Cl. 184—21.)



1. Lubricating means of the class described comprising a reservoir formed with a discharge opening, a valve within said reservoir normally closing said opening, a lever arm pivotally supported in said reservoir and at its inner end pivotally supporting said valve, an extension arm fulcrumed upon said first mentioned arm, means for holding said extension arm against turning in one direction while allowing it to turn upon its fulcrum in the opposite direction, and means for engaging said extension arm and turning it with said first mentioned arm to open said valve for the purpose set forth.

2. In combination with a traveling element, an oil reservoir supported thereby, said reservoir being formed with a laterally extending discharge conduit, a spring pressed oil delivery piston slidably and loosely supported in said conduit, a valve normally closing the inner end of said conduit, a fulcrumed arm supported by said reservoir and at its inner end pivotally supporting said valve, an extension arm fulcrumed upon said first mentioned arm, means holding said extension arm against being turned upon its fulcrum in one direction but allowing it to be turned in the opposite direction, and a stop arranged in the path of said extension arm for the purpose set forth.

1,072,620. POLISHING-MACHINE. LEWIS F. KLAY, Niagara Falls, N. Y. Filed Apr. 16, 1913. Serial No. 761,454. (Cl. 51—6.)



1. A polishing machine comprising a rotatable wheel, and a plurality of annular rims or flanges arranged on said wheel and each provided with a polishing surface and arranged transversely out of line with the companion rim.

2. A polishing machine comprising a rotatable wheel, and a plurality of annular rims or flanges of different diameters arranged concentrically on the same side of the wheel and each provided with a polishing surface and the inner rim projecting forwardly beyond the adjacent outer rim.

3. A polishing machine comprising a rotatable wheel having two peripheral sections of different diameters arranged side by side in a direction lengthwise of the axis of the wheel, and rims of different diameters secured to said peripheral sections and projecting therefrom in the same direction lengthwise of the axis of the wheel and each rim being provided on its outer side with a polishing surface.

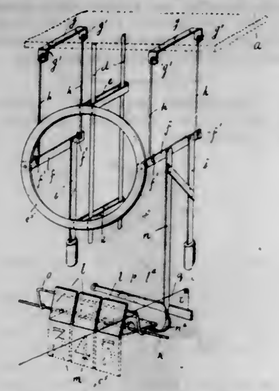
1,072,621. SELF-INDICATING TARGET. OTTO KLEIN, Paterson, N. J. Filed June 8, 1912. Serial No. 702,463. (Cl. 124—15.)

1. A target composed of individual concentric and independently movable sections, a swinging counter-balanced parallel motion mechanism for each of said sections and with which each section is suspended and means coöperating with said movable sections and adapted to indicate the section struck.

2. A target composed of individual, concentric and independently movable sections, a swinging counter-balanced parallel motion mechanism for each of said sections and with which each section is suspended, stationary guide members common for all said sections, guideways on each section coöperating with said stationary guide members and means coöperating with said sections and adapted to indicate the section struck.

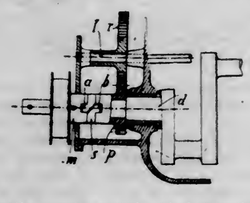
3. In a target, a target disk composed of individual, concentric and independently movable sections, a swinging counter-balanced parallel motion mechanism for each of said sections and with which each section is suspended, a tiltable indicator for each section, and a member connected to each parallel motion mechanism and coöperating with the corresponding indicator so as to release the latter when the corresponding section is struck.

4. In a target, a target disk composed of individual, concentric and independently movable sections, a swinging counterbalanced parallel motion mechanism for each of said sections and with which each section is suspended,



a tiltable and gravity operated indicator for each section, a member connected to each parallel motion mechanism and normally supporting the corresponding indicator and a manually operated mechanism common for all indicators to return the tilted indicator into normal position.

1,072,622. ELASTIC COUPLING FOR MOTOR-GEARING. ISAAC KOECHLIN, Levallois-Perret, France, assignor to Société Anonyme des Automobiles et Cycles Peugeot, Paris, France. Filed Dec. 29, 1911. Serial No. 668,426. (Cl. 74—29.)

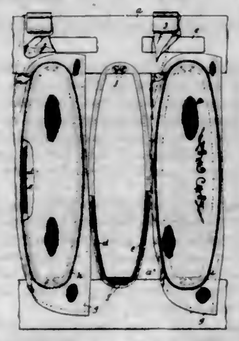


1. An elastic coupling of the kind described comprising in combination a cylindrical split ring provided with lugs arranged opposite one another and extending laterally and circumferentially of the ring, a shaft, a driving pinion loosely mounted thereon and provided with a recess in which engages one of the lugs of the split ring, and a sleeve keyed on the shaft and provided with a recess in which engages the other lug of the split ring, substantially as described and for the purpose set forth.

2. An elastic coupling for motor gearing comprising in combination a cylindrical split ring provided with lugs arranged opposite one another and extending laterally, and circumferentially of the ring, the slit in said ring being formed obliquely and extending from the edge of one lug to the opposite edge of the other lug, a shaft, a pinion loosely mounted thereon and provided with a recess in which engages one of the lugs of the split ring, and a sleeve keyed on the shaft and provided with a recess in which engages the other lug of the split ring, substantially as described and for the purpose set forth.

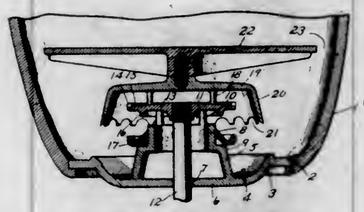
1,072,623. FABRIC-FRAME FOR EMBROIDERY-MACHINES. CHARLES KOEHLER, Passaic, N. J. Filed Dec. 11, 1912. Serial No. 736,100. (Cl. 112—7.)

1. A fabric holding frame for an embroidery machine comprising parallel spaced substantially sheet-like strips, rigid flat open fabric holders arranged side by side and spaced from each other and each rigidly secured against corresponding broad faces of both strips, and a continuous constricting band embracing each holder, the fabric being adapted to be placed over each holder and there held stretched over the same by thereupon fitting the corresponding band to the holder over and around the fabric, substantially as described.



2. A fabric holding frame for an embroidery machine comprising parallel spaced substantially sheet-like strips, rigid flat endless fabric holders arranged side by side and spaced from each other and each rigidly secured against corresponding broad faces of both strips, each holder being peripherally grooved, and a continuous constricting band embracing each holder and continuously occupying the groove thereof, the fabric being adapted to be placed over each holder and there held stretched over the same by thereupon fitting the corresponding band to the holder over and around the fabric, substantially as described.

1,072,624. OIL-BURNER. WILLIAM J. LARIMER, Kansas City, Kans. Filed Nov. 26, 1912. Serial No. 733,658. (Cl. 158—91.)



1. In an oil burner, a base comprising a hollow drum having an inset collar forming a shoulder, and having spaced standards rising from the upper edge of the collar, a distributer supported on the standards, a trough located below the distributer, and a hood covering and spaced laterally from the distributer, for the purpose set forth.

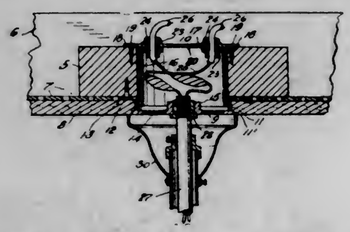
2. In an oil burner, a hollow base comprising an annular cup and having spaced standards on its upper edge, a distributer supported on the standards, an annular trough supported by the base and adapted for receiving drippings from the distributer, and a hood supported on the distributer and spaced thereabove, the lower edge of the hood being recessed, substantially as set forth.

3. In an oil burner, the combination with a hollow base having laterally opening ports at its upper edge, a distributer mounted above the base, means for supplying oil to the top of the distributer, a trough surrounding the base adapted for receiving drippings from the distributer, a hood supported above the distributer, and a spreader carried by the hood.

4. An oil burner comprising a hollow base, having ports in its upper portion, a trough surrounding said base, a distributer, having an inclined upper surface and slotted edge flange and having a ring on its under face overhanging said trough, and a hood inclosing said distributer.

5. The combination with a fire bowl having a grate opening, of a base member supported by the fire bowl and covering the grate opening, said base member comprising a hollow center drum having an apertured web and having an inset collar at its upper portion provided with spaced standards, a supply pipe extending through the aperture in said web, a distributer threaded onto said supply pipe above the collar standards, an annular trough on said base collar below the distributer, a lower trough on said base, a hood supported by the distributer and overhanging said lower trough, and a spreader supported on the hood and extending into proximity to the fire bowl, substantially as set forth.

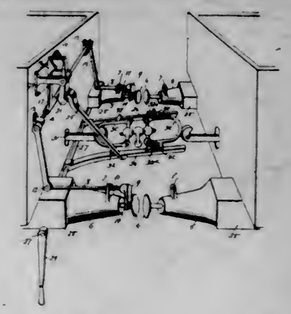
1,072,625. ATTACHMENT FOR ELECTRIC CHANDELIERS. HENRY LEIK, Seattle, Wash. Filed Dec. 2, 1912. Serial No. 734,496. (Cl. 240—85.)



Means for attaching electric-light chandeliers to ceilings comprising an outlet box formed of a relatively short and a long section, said shorter section to lie flush with the ceiling, a header-block provided with an opening centrally therethrough, the short section extending through the ceiling to a point at the base of said header-block, lugs carried by the outer end thereof and engaging the bottom face of said header-block constituting means for securing the same thereto, the longer section adapted to be inserted in the opening in said header-block and extend completely therethrough and into the shorter section, lugs carried by the outer end of said longer section and engaging the upper surface of said header-block constituting means for securing the same thereto, each section provided with openings therein to receive the wires and support an electroller.

1,072,626. AUTOMATIC COUPLING. SYLVESTER FRANCIS LESLIE, West Maitland, New South Wales, Australia. Filed Sept. 16, 1912. Serial No. 720,556. (Cl. 213—44.)

In the hereinbefore described coupling for railroad rolling stock comprising a coupling link secured to the end of one car and adapted to engage a hook on another car, a rock shaft journaled transversely to the end of the vehicle and provided with handles, and a pair of parallel bars fixedly connected to said rock shaft, one of which has a hook-shaped extension, said bars engaging said coupling link to lower and raise it respectively into its coupling and uncoupling positions, in combination with a detent catch rockably connected to the vehicle and engageable with said hook-shaped extension to uphold said bars and maintain said link in its uncoupled position, a rock shaft, and an offset connected therewith, a spring attached to said detent catch and offset, an arm connected to each end of said second rock shaft, a spring-pressed rod pivotally connected to the free end of each of said arms, and a buffer engageable with each spring-pressed rod to turn said second rock shaft and release the detent catch from said hook-shaped extension for



the movement of said arms and link to the coupling position.

1,072,627. TICKET FOR STREET-CARS AND SIMILAR USES. LOUIS P. LIPPS, Cleveland, Ohio, assignor to himself, as trustee, of one-half for himself, one-fourth for Willis L. Westcott, and one-fourth for George C. Wing, Cleveland, Ohio. Filed Jan. 25, 1913. Serial No. 744,159. (Cl. 11—15.)



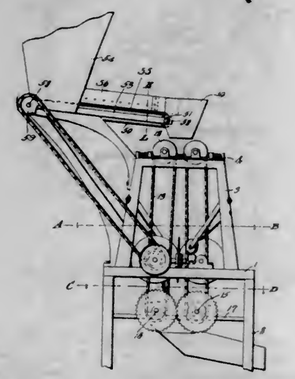
1. As an article of manufacture, a series of detachably connected tickets and coupons bearing indicia representing denominational values thereon, the values on the tickets being severally divisible by the values on the coupons in each case, and, the number of members of said series being equal to the number of times the indicative value on a coupon is contained in the indicative value on the ticket to which such coupon is attached, or in a multiple of said last named value, substantially as shown and described.

2. A sheet of detachably connected tickets and coupons bearing indicia thereon, representing denominational values, which are evenly divisible one by the other, the number of said tickets and coupons in a sheet, corresponding with the number of times the indicative value on the one is contained in the indicative value of the other or in a multiple of the latter value, substantially as shown and described.

1,072,628. MACHINE FOR SLICING PICKLES AND THE LIKE. SYLVESTER G. LIPSCOMB, Louisville, Ky., assignor of one-half to Jacob M. Jones, Elizabethtown, Ky. Filed Apr. 24, 1912. Serial No. 692,977. (Cl. 146—11.)

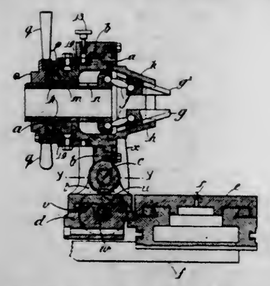
1. A machine for slicing elongated articles, including cutting members mounted to rotate in intersecting planes, and longitudinally extended conveying means extending between and past the cutting members and adapted to engage articles longitudinally thereof while being fed past the cutting members.

2. A machine for slicing elongated articles, including revoluble cutting members, and longitudinally extended conveying belts facing toward and on opposite sides of the revoluble cutting members for engaging an article longitudinally thereof while being cut.



3. A machine for slicing elongated articles, including diverging revoluble cutting members, and a plurality of endless conveying belts between the sides of the cutting members and facing said members.

1,072,629. TOOL-HOLDER FOR TOOL-GRINDING MACHINES. THOMAS LUMSDEN, Gateshead, England. Filed Oct. 18, 1912. Serial No. 726,497. (Cl. 51—7.)



1. In tool holders for tool grinding machines the combination of a turn-table, an annular carrier or frame pivoted on said turn-table and angularly adjustable about its pivot, a block mounted in said annular carrier or frame and angularly adjustable therein, means for clamping the tool to be ground in said block, and means for rectilinearly adjusting said tool relatively to the center of said turn-table and transversely or at right angles to the length of the tool after it has been clamped.

2. In tool holders for tool grinding machines the combination of a turn-table, an annular carrier or frame pivoted on said turn-table in the horizontal plane and angularly adjustable in the vertical plane, a block mounted in said annular carrier or frame and angularly adjustable therein, means for clamping the tool to be ground in said block, and means for rectilinearly adjusting said annular carrier or frame relatively to the center of said turn-table and parallel to the axis of its pivot.

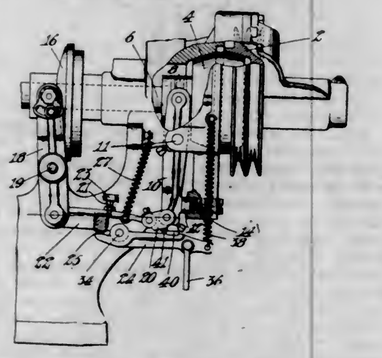
3. In tool holders for tool grinding machines the combination of a turn-table, a lug on said turn-table, a slide rectilinearly adjustable on said turn-table, a lug on said slide, a pivot mounted in said lugs, an annular carrier or frame mounted on said pivot, an adjusting screw for adjusting said slide parallel to the axis of said pivot, a block mounted in said annular carrier or frame and angularly adjustable therein, and means for clamping the tool to be ground in said block.

4. In tool holders for tool grinding machines the combination of a turn-table, an annular carrier or frame pivoted on said turn-table and angularly adjustable about its pivot, a block mounted in said annular carrier or frame and angularly adjustable therein, means for rectilinearly adjusting said annular carrier or frame relatively to the center of said turn-table and transversely or at right angles to its axis, and a chuck for clamping the tool to be ground in said block, said chuck comprising three dogs two of which are arranged at a considerably lesser angle to each other than to the third dog.

5. In tool holders for tool grinding machines the combination of a turn-table, an annular carrier or frame pivoted on said turn-table and angularly adjustable about its pivot, a block mounted in said annular carrier or frame and angularly adjustable therein, a tool-support on said block, means for clamping the tool to be ground in said support, and means for rectilinearly adjusting said tool support relatively to the center of said turn-table and transversely or at right angles to said block.

[Claim 6 not printed in the Gazette.]

1,072,630. STARTING AND STOPPING MECHANISM. FRED L. MACKENZIE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 2, 1911. Serial No. 630,818. (Cl. 192—8.)



1. Starting and stopping mechanism having, in combination, a clutch, means for engaging the clutch, an automatically acting clutch-thrower, transmission devices having a hinged connection, and locking means connected permanently to the transmission devices at one side of said hinged connection and arranged to be brought into engagement with said devices temporarily at the other side of the hinged connection for automatically locking the transmission devices in position to communicate the action of the clutch-thrower to the clutch.

2. Starting and stopping mechanism having, in combination, a clutch, means for engaging the clutch, a clutch-thrower, articulated transmission devices, locking means mounted on one of said devices for engaging the other device and locking the transmission devices in position to communicate the action of the clutch-thrower to the clutch; and a controller arranged to act on said transmission devices.

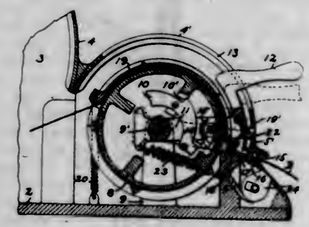
3. Starting and stopping mechanism having, in combination, a clutch, clutch-engaging means, a clutch-thrower, transmission means including a toggle, and a latch on one toggle link arranged to be detachably connected with the other toggle link for locking said toggle in a broken condition to transmit the action of the clutch-thrower to the clutch.

4. Starting and stopping mechanism having, in combination, a clutch, a clutch-thrower, transmission means between said clutch-thrower and clutch including toggle links, and a latch on one link arranged to be detachably connected to the other link for holding said toggle links in a broken condition to transmit the action of the clutch-thrower to the clutch.

5. Starting and stopping mechanism having, in combination, a clutch, a clutch-thrower, relatively movable transmission pieces between said clutch and clutch-thrower, a latch for engaging the transmission pieces at separate points to hold them so that they may be moved bodily endwise in an unalined condition to transmit the action of the clutch-thrower to the clutch.

[Claims 6 to 10 not printed in the Gazette.]

1,072,631. TICKET-DISPENSING MACHINE. FRANK MAGIDSON, New York, N. Y. Filed May 17, 1912. Serial No. 697,987. (Cl. 211—33.)

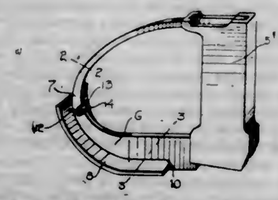


1. In a ticket dispensing machine, the combination of a ticket delivering wheel, an oscillating device adapted when moving in one direction to connect with and propel the wheel, means for disengaging the device from the wheel before said device completes its travel in the direction in which it moves when propelling the wheel, and means carried by said device and actuated thereby after disengaging the wheel for severing the delivered ticket.

2. In a ticket dispensing machine, the combination of a ticket delivering wheel, a frame adapted to oscillate concentrically with the wheel, a cutter carried by the frame, ratchet mechanism connecting the frame and wheel for rotating the latter, means for disengaging the ratchet connection, and fixed means with which the cutter cooperates after the ratchet connection with the wheel is released for severing the ticket.

3. In a ticket dispensing machine, the combination of a ticket delivering wheel, a ratchet wheel movable therewith, an oscillating frame, a spring-pressed dog on the frame adapted normally to engage one or another of the ratchet wheel teeth, a fixed device in the path of the dog for disengaging the latter from the ratchet wheel, a cutter carried by the frame, and a fixed means with which the cutter coöperates after the dog has been disengaged from the ratchet wheel.

1,072,632. ATTACHMENT FOR SEED-PLANTERS. SAMUEL MILBURN, Kennett, Mo. Filed June 16, 1913. Serial No. 773,977. (Cl. 111—6.)



1. The combination with the furrow opener of a seed planter, of a gage shoe consisting of a longitudinally curved plate of uniform width throughout its length adapted for engagement upon said furrow opener and extending upon opposite sides thereof, and means for clamping said shoe to the furrow opener.

2. The combination with the furrow opener of a seed planter, of a gage shoe comprising a longitudinally curved plate adapted for arrangement upon the forward lower edge of said furrow opener and to extend upon opposite sides thereof, said plate being provided with a longitudinal slot in one end to receive the furrow opener, and means for adjustably clamping the plate at its other end to the furrow opener.

3. The combination with the furrow opener of a seed planter, of a gage shoe consisting of a longitudinally curved plate of uniform width throughout its length, said plate being adapted for arrangement upon the forward lower edge of the furrow opener and to extend upon each side thereof and provided with a central longitudinal slot in one of its ends, the open end of said slot being flared and adapted to receive the furrow opener, a pair of bolts loosely mounted in the opposite end of said plate and extending upon each side of the furrow opener, a clamping plate loosely engaged upon said bolts, and nuts threaded upon the bolts to clamp said plate against the furrow opener.

1,072,633. LOOSE-LEAF BINDER. HENRY C. MILLER, Milwaukee, Wis. Filed Aug. 6, 1910. Serial No. 575,986. (Cl. 129—24.)

1. In a loose-leaf binder, a spring-plate, a pair of hook-carrying plates in rocking engagement with the spring-plate, and angular stiff tie-strips engaging registering transverse play kerfs provided in the hook-carrying plates.

2. In a loose-leaf binder, the combination of a sheet-metal back having loops struck up therefrom at intervals longitudinally thereof, a spring-plate having slots therein through which the back-loops extend, a key slidable on the plate and detachably engaging a plurality of the loops, another key also slidable on said plate in engagement with but one of said loops, a lever fulcrumed on the spring-plate clear of said keys, and opposing hook-carrying plates in rocking engagement with said spring plate over the inner end of the lever, the outer end of said lever being exposed at an end of the binder.

3. In a loose-leaf binder, the combination of a sheet-metal back having loops struck up therefrom at intervals longitudinally thereof, a spring-plate having slots through which the back-loops extend, a key slidable on the plate and detachably engaging the loops, a lever fulcrumed on the spring-plate clear of the key, and opposing hook-carrying plates in rocking engagement with said spring plate over the inner end of the lever, the outer end of said lever being exposed at an end of the binder.

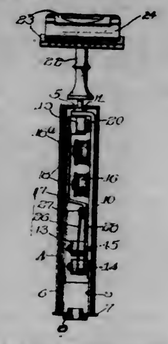
1,072,634. ELECTRIC SAFETY-RAZOR. SAMPSON W. MOON, Chicago, Ill. Filed Oct. 4, 1909. Serial No. 520,835. (Cl. 30—12.)

1. An electric safety razor comprising a handle, a razor frame, a blade mounted thereon, and electrical means for vibrating said razor frame and blade, said means comprising an electro-magnet, an armature adapted to vibrate independently of said razor frame, and means for imparting said vibrations to the razor frame and blade.

2. An electric safety razor, comprising a casing, a razor frame, a razor blade mounted thereon, an electro-magnet, an armature, a striker mounted on said armature, means for vibrating said armature, and means for transmitting the vibrations of said armature striker to said razor frame and blade.

3. An electric safety razor, comprising a casing, a razor frame, a razor blade mounted thereon, an electro-magnet,

an armature, a striker mounted on said armature, an interrupter in the circuit of said electro-magnet to vary the energization of said magnet to thereby vibrate said armature, and a bar adapted to be struck by said striker for transmitting the vibrations of said armature striker to said razor frame and blade.

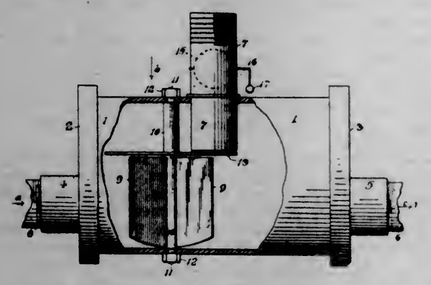


4. An electric safety razor comprising a casing, a supporting bar, a razor frame, a razor blade mounted thereon, an electro-magnet and armature seated on said bar, a striker mounted on said armature, an electric circuit breaker arranged to operate said armature whereby said striker engages said bar to thereby transmit the vibrations of said armature striker to said razor frame and blade.

5. An electric safety razor, comprising a supporting bar, a razor frame and an electro-magnet rigid with said bar, a spring mounted armature adapted to vibrate independently of said bar, and means for imparting the vibrations of the armature to the supporting bar and razor frame.

[Claim 6 not printed in the Gazette.]

1,072,635. AUTOMOBILE HEATING DEVICE. FREDERICK J. MOORE, Brooklyn, N. Y., assignor of one-half to Philip Howard Reid, Sheepshead Bay, N. Y. Filed Mar. 20, 1913. Serial No. 755,731. (Cl. 237—4.)

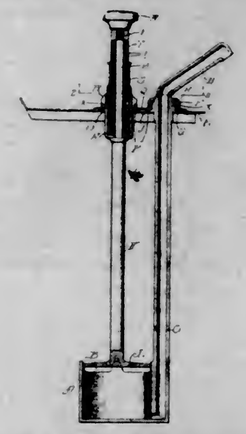


1. A device of the character described, comprising a shell having inlet and outlet ports located at one side of its axis and adapted to register with the exhaust pipe of an internal combustion engine, rotatable blades located within the shell and in line with the ports thereof, a radiator pipe projecting into the shell, and a valve carried by the blades having a port adapted to register with the mouth of the radiator pipe at each rotation of the blades.

2. A device of the character described, comprising a shell having closed ends with a gas inlet port in one of said ends and a gas outlet port in the opposite end, said ports located at one side of the axis of the shell and adapted to register with the exhaust pipe of an internal combustion engine, rotatable blades located within the shell and in line with the ports in the ends thereof, a radiator pipe projecting into the shell, and a valve carried by the blades and having a port adapted to register with the mouth of said pipe at each rotation of the blades.

3. A device of the character described, comprising a shell having closed ends with ports therein adapted to register with the exhaust pipe of an internal combustion engine and located at one side of the axis of the shell, a radiator pipe projecting into the shell, a sleeve, a transversely located shaft on which the shell is journaled, blades radiating from the sleeve and integral therewith, and in line with the ports in the ends of the shell, and a valve disk integral with the sleeve having a port adapted to register with the mouth of the radiator pipe at each rotation of the blades.

1,072,636. LIQUID-DISPENSING PUMP. RUDOLPH MUELLER, Chicago, Ill. Filed Feb. 23, 1912. Serial No. 679,281. (Cl. 225—35.)



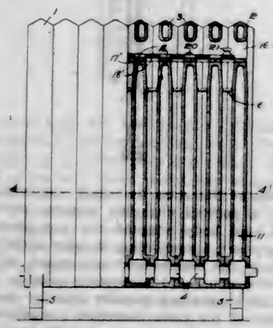
1. In a dispensing device, the combination with a receptacle cover, of a discharge pipe for liquid passing through said cover, and having an angularly disposed discharge nozzle rigid therewith, an annularly enlarged threaded collar on said pipe having an annular flange, a nut on said collar between which and said flange said cover is engaged, a projection on said cover engaging in a recess in said flange for preventing relative rotation of said cover and said discharge pipe, a dump barrel integral with and communicating at its discharge end with said pipe and supported upon said cover solely by the latter, a piston for said pump, a piston-rod for said piston passing through said cover and reciprocably movable relatively to the latter, and a spring operatively engaged with said piston rod for maintaining the same normally at the upper limit of its movement.

2. In a syrup pump, a pump barrel, a discharge pipe and an angular discharge spout integral with each other, a collar between the ends of the discharge pipe having an annular flange and exteriorly threaded above said flange, a receptacle cover having an opening to receive said collar, a nut for said collar between which and said flange, said cover is engaged, a piston rod reciprocably mounted in said cover, a piston thereon reciprocably movable in said pump barrel, and coacting interengaging means on said cover and said discharge pipe for positively maintaining said pump barrel axially alined with said piston.

3. In a dispensing device, the combination with the cover of a receptalce for liquid to be dispensed, of a pump-barrel having a discharge pipe integral therewith and passing through said cover and rigidly secured thereto for supporting said pump-barrel thereon, a piston and piston rod for said pump barrel, a cup member passing through an opening in said cover and rigidly secured thereto, said cup member internally threaded, an externally threaded extension member for said cup member adjustable therein, said piston rod passing through said cup member and said extension member, a knob on said piston rod having a tubular extension member, a stop on said piston rod adapted to engage the lower end of said cup member for limiting its upward movement, and a helical compression spring interposed between said knob and the bottom of said cup member for normally maintaining said piston rod at the upper limit of its movement, said first named extension member disposed in the path of said knob and constituting an adjustable stop for limiting the downward movement of said piston rod.

4. In a syrup pump, a pump barrel, a discharge pipe and an angular discharge spout integral with each other, a collar between the ends of the discharge pipe having an annular flange and exteriorly threaded above said flange, a receptacle cover having an opening to receive said collar, a nut for said collar between which and said flange, said cover is engaged, a piston rod reciprocably mounted in said cover, a piston thereon reciprocably movable in said pump barrel, coacting interengaging means on said cover and said discharge pipe for positively maintaining said pump barrel axially alined with said piston, a screw-threaded cup member projecting through an opening in said cover and provided with a flange, a nut on said threaded portion between which and said flange said cover is engaged, coacting interengaging means on said cover and said cup member for preventing relative rotation thereof, said piston rod passing through said cup member and carrying a knob at its upper end, a spring in said cup member bearing on said knob to maintain said piston rod at the upper limit of its movement, a stop on said rod engaging the lower end of said cup member for limiting the upward movement of said rod, an extension sleeve having threaded engagement with the interior of said cup member and adjustable therein and constituting a stop adapted to be engaged by said knob to limit the downward movement of said piston rod, and a depending sleeve on said knob fitting telescopically in said extension sleeve.

1,072,637. RADIATOR. ERNEST A. NEWMAN, Woburn, Mass. Filed Jan. 13, 1913. Serial No. 741,690. (Cl. 237—18.)



1. A steam radiator composed of a series of communicating sections having outer, exposed side walls and top radiating walls between which latter the heated air may be discharged, the adjoining side walls of said sections being in continuous contact and the end sections having closed end walls, said sections having inner radiating walls and means for admitting air thereto at the lower portion thereof, and a damper adjacent the top of the radiator but below the top radiating walls thereof, and adapted when closed wholly to prevent the egress of air from said radiator.

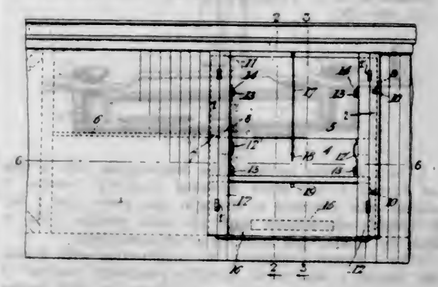
2. A steam radiator composed of a series of communicating sections having outer, exposed side walls in continuous contact, and inner radiating walls, the end sections of said series having closed end walls, means for admitting air to the lower portion of the radiator, a damper below but adjacent the top of said sections and adapted, when closed, wholly to prevent the egress of air from said radiator, and means above said damper to direct air issuing therethrough into contact with the portions of said sections thereabove.

3. A steam radiator composed of a series of communicating sections having outer, exposed side walls in continuous contact, and inner radiating walls, the end sections of said series having closed end walls, means for admitting air to the lower portion of the radiator, a damper below but adjacent the top of said sections and adapted, when closed, wholly to prevent the egress of air from said radiator, and means extending transversely of the radiator above said damper to direct air issuing through the latter into contact with the portions of said sections above the damper.

4. A steam radiator composed of a plurality of sections each having a plurality of spaced, upright steam passages providing upright air passages therebetween, the walls of the outer steam passages of said sections being in continuous contact and constituting closed side radiator walls, and the end sections of the radiator having closed end walls, the radiator being provided with an air ingress opening at its lower portion and the sections having transverse air-deflecting, connecting portions at their top between which the air is discharged, and a damper adjacent the top of the radiator but below said connecting portions, and adapted, when closed, wholly to prevent the egress of air from the radiator.

5. A steam radiator composed of a series of communicating sections having outer, exposed side walls and top radiating walls between which latter the heated air may be discharged, the adjoining side walls of said sections being in continuous contact and the end sections having closed end walls, means for admitting air to the lower portion of the radiator and a damper adjacent the top of the radiator but below the top radiating walls, and adapted when closed, wholly to prevent the egress of air from the radiator.

1,072,638. BOX-CAR DOOR. CHARLES NORTH, Colorado Springs, Colo. Filed June 24, 1912. Serial No. 705,608. (Cl. 20—31.)



1. In a grain car door, the combination with the car wall having an opening surrounded by a frame, a casing at one side of the opening, a horizontal track fixed between said wall and casing and beveled at its inner end, upright wings hinged to the side bars of said frame, a stop pin carried by one of said wings, and bolts on the inner edges of the wings; of the door made in upper and lower members whereof the lowermost has a relief opening and the uppermost is movably disposed upon the lowermost and has a beveled corner adapted to ride over the beveled end of said track, the width of said members being such that they are engaged by said wings when the latter are swung inward, said wings having recesses in their inner edges, a relief door movably mounted in said recesses over the outer face of the lower main door member, and keepers on both door members adapted to be engaged by said bolts, for the purpose set forth.

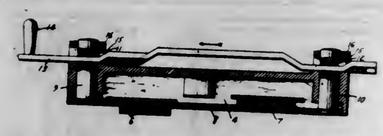
2. In a grain car door, the combination with the car

wall having an opening surrounded by a frame, the casing at one side of the opening, a horizontal track fixed between said wall and casing, upright wings hinged to the side bars of said frame, and bolts on the inner edges of the wings; of the door made in upper and lower members whereof the lowermost has a relief opening and the uppermost is movably disposed upon the lowermost and adapted to ride over said track, the width of said members being such that they are engaged by said wings when the latter are swung inward, said wings having recesses in their inner edges, a relief door movably mounted in said recesses over the outer face of the lower main door member, and keepers on both door members adapted to be engaged by said bolts, for the purpose set forth.

3. In a grain car door, the combination with the car wall having an opening surrounded by a frame, the casing at one side of the opening, a horizontal track fixed between said wall and casing and beveled at its inner end, upright wings hinged to the side bars of said frame, a stop pin carried by one of said wings, and bolts on the inner edges of the wings; of the door made in upper and lower members whereof the uppermost is movably disposed upon the lowermost and has a beveled corner adapted to ride over the beveled end of said track, the width of said members being such that they are engaged by said wings when the latter are swung inward, and keepers on both door members adapted to be engaged by said bolts, for the purpose set forth.

4. In a grain car door, the combination with the car wall having an opening surrounded by a frame, the casing at one side of the opening, a horizontal track fixed between said wall and casing and beveled at its inner end, upright wings hinged to the side bars of said frame, and bolts on the inner edges of the wings; of the door made in upper and lower members whereof the uppermost is movably disposed upon the lowermost and adapted to ride over said track, the width of said members being such that they are engaged by said wings when the latter are swung inward, and keepers on both door members adapted to be engaged by said bolts, for the purpose set forth.

1,072,639. KNITTING-MACHINE. MAX NYDEGGER, Elizabeth, N. J. Filed May 2, 1912. Serial No. 694,630. (Cl. 66—29.)



1. In a knitting machine, the combination with a cam box having a cam plate movable relatively thereto, of plunger rods attached to the said cam plate, and a bar in slidable engagement with the said plunger rods to effect the raising and lowering of the cam plate.

2. In a knitting machine, the combination with a cam box having a cam plate movable relatively thereto, of plunger rods attached to the said cam plate and having slots in the sides, and a bar having inclined faces adapted to slide in the said slots.

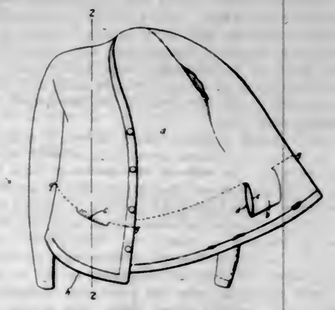
3. In a straight knitting machine, the combination with a cam box, of a cam plate adapted to be moved vertically in the cam box, and means to effect the said vertical movement and secure the cam plate in operative position.

4. In a knitting machine, the combination with a cam box, of a cam plate adapted to be moved vertically in the cam box, plungers mounted upon the cam plate, and a bar adapted to engage the said plungers and to secure them in operative position.

5. In a knitting machine, the combination with a cam box, of a cam plate adapted to be moved vertically in the cam box, plungers mounted upon the lock plate and having slots in their sides, and a bar having alternating horizontal and inclined portions adapted to slide in the said slots.

[Claim 6 not printed in the Gazette.]

1,072,640. KNITTED GARMENT. MAX NYDEGGER, Elizabeth, N. J. Filed May 2, 1912. Serial No. 694,631. (Cl. 66—4.)



In a knitted body garment, an interior pocket comprising a looped strip knitted at each end continuously with the garment, the side edges of said strip being joined together.

1,072,641. BELT-REPLACER. HENRY OPGENORTH, Sheboygan, Wis. Filed Jan. 29, 1913. Serial No. 744,940. (Cl. 64—51.)



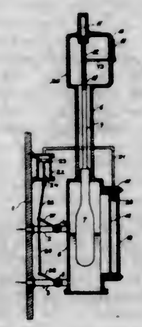
1. A device of the class described comprising an elongated body, a pointed engaging member provided upon one end of said body adapted for engagement with a stationary support, a supporting member slidably mounted upon said body for longitudinal movement, belt engaging means provided upon said supporting member, and means by which said supporting member may be operated.

2. A device of the class described comprising an elongated body, an engaging member provided upon one end of said body, a supporting member slidably mounted upon said body for longitudinal movement, belt engaging means carried by said supporting member, an operating member movably mounted upon said body and operatively associated with the supporting member, said operating member adapted to be manually operated to impart movement to the supporting member, means for locking said operating member after the initial operation thereof, and means connected with the supporting member for causing additional movement thereof as the belt passes onto the pulley.

3. A device of the class described comprising an elongated body, an engaging member provided upon one end of said body, a supporting member slidably mounted upon said body for longitudinal movement, belt engaging means carried by said supporting member, an operating member movably mounted upon said body and operatively associated with the supporting member, said operating member adapted to be manually operated to impart movement to the supporting member, means for locking said operating member after the initial operation thereof, and resilient means for causing additional operation of the supporting member as the belt climbs onto the pulley.

4. A device of the class described comprising an elongated body, an engaging member on one end of the said body, a grooved pulley wheel rotatably mounted adjacent each end thereof, a supporting member slidably mounted upon said body for longitudinal movement, belt engaging means carried by said member, an operating member slidably mounted upon said body in spaced relation to the supporting member, means by which said operating member may be locked in adjusted positions upon said body, a handle provided upon said locking means, and helical extensile springs having their adjacent ends attached to the opposite ends of the supporting member, and a pair of flexible cords connecting the opposite ends of said springs with the opposite ends of the operating member, said cords passing around the said pulleys.

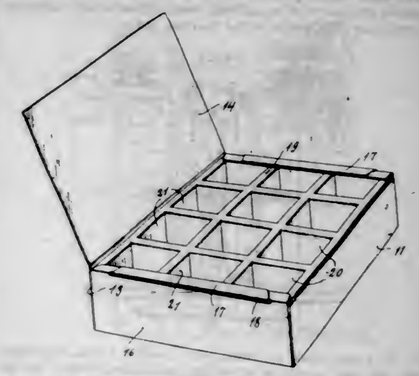
1,072,642. AUTOMATIC-SHUT-OFF WATER-GAGE. KÁROLY PAP, Kolozsvár, Austria-Hungary. Filed Aug. 1, 1912. Serial No. 712,683. (Cl. 73—82.)



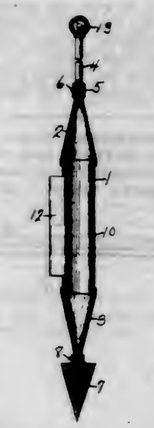
In a water-gage for boilers, the combination with a closed receptacle communicating with the steam and water spaces of a boiler provided with a window closed by two transparent panes which are arranged at a distance from each other, of a hollow float in said receptacle, a graduated dial, a hand oscillatably mounted upon said receptacle pointing to the graduations of the said dial, coöperating means upon said float and said hand for actuating the latter upon the rising and falling of the float in said receptacle, valves controlling the communications between the boiler and said closed receptacle, a steam cylinder, a piston therein, a connection between said piston and said valves, and a steam pipe leading from the space between said two window-panes to said cylinder.

1,072,643. FOLDABLE BOX. ANNA L. PECK, Minneapolis, Minn. Filed Oct. 7, 1912. Serial No. 724,364. (Cl. 229—28.)

A foldable box comprising a bottom, side walls, a perforated top, and a lid foldable over said top, said parts being formed out of a single blank, and the ends of the bottom having integral flaps provided with slits adjacent to their free ends, said flaps being bendable upward to form the end walls of the box, and the slits coinciding with the aforesaid perforated top when the flaps are thus bent, the ends of said top having tongues passing through the slits and projecting therefrom, said projecting portions of the tongues and the material of the flaps above the slits being foldable over on the top of the box, and the lid of the box being foldable over the last-mentioned folded parts.



1,072,644. SAMPLER. FRANK H. PECK, Jamesville, N. Y. Filed May 13, 1913. Serial No. 767,247. (Cl. 83—15.)



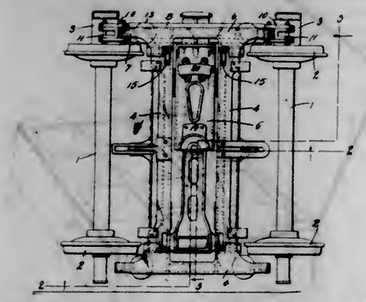
In a sampler, a substantially cylindrical sleeve having an opening through a wall thereof, a flange projecting from the sleeve adjacent said opening, an outer section inclosing said sleeve and forming a chamber extending above and below the same and having an opening through a wall thereof and through which the flange upon the sleeve is adapted to extend, said outer section having a point at its lower end, and means in connection with said section adapted to extend above the material to be sampled for rotating said section.

1,072,645. CAR-TRUCK. HARRY M. PFLAGER, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 12, 1912. Serial No. 714,594. (Cl. 105—248.)

1. In a car truck, the combination with equalizer bars between the journal boxes, of a truck frame, the end portions of which bear against the inner side faces of the journal boxes between the adjacent portions of the equalizer bars.

2. In a car truck, the combination with pairs of equalizer bars arranged between the journal boxes, of a

truck frame cast in a single piece and comprising transoms, and wheel pieces, the ends of which are located between the pairs of equalizing bars immediately adjacent to the inner side walls of the journal boxes.



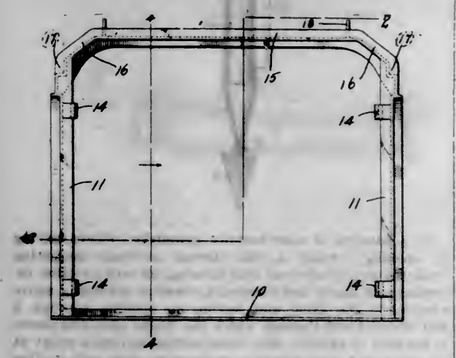
3. In a car truck provided with journal boxes, equalizer bars, the end portions of which are substantially of inverted L-shape and engage said journal boxes and a truck frame, the wheel pieces of which lie wholly between the journal boxes.

4. In a car truck, the combination with equalizer bars between the journal boxes, of a truck frame, cast in a single piece and comprising transoms, and wheel pieces, which latter lie wholly between the journal boxes.

5. In a car truck, the combination with journal boxes, of equalizer bars positioned between and fixed to said journal boxes, and a truck frame, the wheel pieces of which lie wholly between the journal boxes.

[Claims 6 to 14 not printed in the Gazette.]

1,072,646. CAR END FRAME. HARRY M. PFLAGER, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,221. (Cl. 105—192.)



1. The combination with a car body, of a one-piece cast metal end frame having a door opening that is substantially equal in width to the width of the space within the car body and which frame comprises a pair of uprights adapted to serve as corner posts for the car body, a base member connecting the lower ends of said uprights, and a top rail connecting the upper ends of said uprights.

2. As a new article of manufacture, an end frame for car bodies comprising a pair of uprights adapted to serve as corner posts for a car body, a base member connecting the lower ends of said uprights and a top rail connecting the upper portions of said uprights, all of which parts are cast integral and the entire space between said uprights, base member and top rail being open and unobstructed.

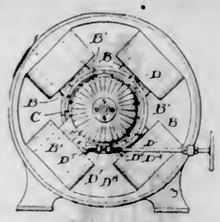
3. The hereindescribed end frame for car bodies comprising a pair of door posts, brackets on the lower ends of said door posts, which brackets are adapted to engage the underframe of the car on which the end frame is positioned, a base member connecting the lower ends of the uprights, and a top rail connecting the upper portions of said uprights, all of which parts are cast integral.

4. As a new article of manufacture a one-piece end frame comprising a base member, a pair of uprights integral with said base member, rearwardly projecting brackets at the lower ends of said uprights which uprights constitute corner posts for the car body, and a top rail integral with the upper portions of said uprights and the entire space between said uprights, base member and top rail being open and unobstructed.

5. The combination with a car body, of a one-piece end frame comprising a base member, a pair of uprights integral with said base member, which uprights constitute corner posts for the car body, hinge lugs integral with said uprights, and a top rail integral with the upper portions of said uprights.

[Claims 6 to 10 not printed in the Gazette.]

1,072,647. DYNAMO-ELECTRIC MACHINE. ALVIN A. PIFER, Cleveland, Ohio, assignor to Cleveland Armature Works, Cleveland, Ohio, a partnership composed of Alvin A. Pifer and James L. Mauldin. Filed Oct. 14, 1908. Serial No. 457,656. (Cl. 171—227.)



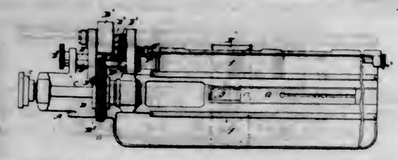
1. In combination in a dynamo electric machine having an armature and a plurality of sets of field poles, a regulator comprising a pair of pole shoe sections at the inner end of each pole, each of the poles having guideways which support the shoes independently of the shoes on the other poles, and permit movement of the shoes toward or away from each other and at the same time toward or from the armature and means operatively connected to the shoes for simultaneously shifting all the shoes.

2. In combination in a dynamo electric machine, an armature, a field member having a plurality of poles, a pair of pole shoe sections supported by each pole and having a sliding connection therewith for movement toward and away from each other along the line parallel with the tangent to the armature at the point cut by the extended axis of the core, and means for simultaneously shifting the pole shoe sections comprising one shifting means having operative connections with alternating sections, and another shifting means having operative connections with the remaining alternating sections.

3. In a dynamo electric machine, an armature, a field member having a plurality of inwardly projecting poles, each supporting at its inner end a pair of pole shoe sections having sliding connections with the pole so that they may be moved toward or away from each other along a line parallel to the line tangent to the armature at the intersection of the armature and pole axis, and means for shifting the pole shoe sections of the different poles toward or away from each other comprising a pair of shifter members each loosely connected with alternating sections.

4. In a dynamo electric machine, an armature, a field member having a plurality of inwardly projecting poles each supporting at its inner end a pair of pole shoe sections, said pole shoe sections having sliding connections with the pole on opposite sides of the latter so that they may be moved toward and away from each other on a line parallel with a line tangent to the armature at the intersection of the armature and pole axis, and means for simultaneously shifting the pole shoe sections of the different poles toward or away from each other comprising a pair of rings, each loosely connected with alternating sections.

1,072,648. AUTOMATIC TURRET-LATHE. JAMES CHARLES POTTER, Pawtucket, R. I., assignor to Potter and Johnston Machine Co., Pawtucket, R. I., a Corporation of Rhode Island. Filed Jan. 21, 1908. Serial No. 411,994. (Cl. 29—44.)



1. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a drum having cams arranged to act in succession to move the tool holder during one part of its traverse for the performance of work by the tool, separate means arranged to be effective upon said tool holder to move it during another part of its traverse, at a different speed, gearing for revolving the drum at working speed, other gearing for revolving the drum at a different speed, and means to drive the drum through one of said gearing or the other.

2. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, mechanism for moving the tool holder during one part of its traverse for the performance of work by the tool, separate mechanism arranged to be effective upon said tool holder to move it during another part of its traverse, and means to vary the speed at which the tool holder is moved by said separate mechanism to cause it to move at different speeds during different portions of its travel.

3. In a feed mechanism for feeding a tool, the combination of a turret slide, a cam drum for moving the slide while work is being done, a separate mechanism for imparting movement of the slide at other times, and automatic means for slowing down the movement of the slide by said separate mechanism at the end of its travel from the work.

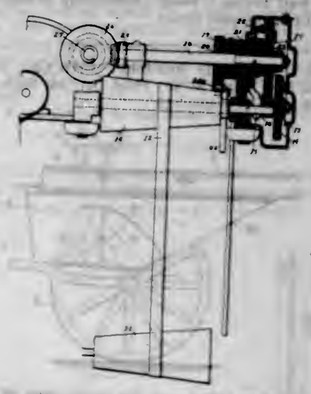
4. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a cam drum to move the tool holder during one part of its travel, separate means to move said tool holder during another part of its travel, gearing for revolving the drum for the performance of work, other gearing for revolving the drum at a higher rate of speed, automatic means to change the gear connections for revolving the drum so that said higher rate of speed is imparted to the drum when the tool holder is moved by said separate means.

5. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a cam drum to move the tool holder during one part of its travel, separate means to move said tool holder during another part of its travel, gearing for revolving the drum for performing work, other gearing for revolving the drum at a higher rate of speed, connected with said separate tool holder moving means, and means for changing the connection between said other gearing and the drum so that the drum will revolve at the higher speed when said separate means is acting on the tool holder.

[Claims 6 to 8 not printed in the Gazette.]

1,072,649. EVENER FOR COTTON-OPENING MACHINES, &c. JAMES CHARLES POTTER, Pawtucket, R. I. Filed Apr. 19, 1912. Serial No. 691,941. (Cl. 19—20.)

1. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and means independent of shifting the belt for varying the speed of the roll relative to the driven cone.

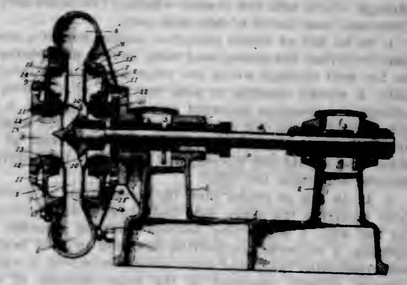


2. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and a change gear connection between said feed roll and the driven cone.

3. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, a differential gear connection between the feed roll and the driven cone having a pawl and ratchet, and means to operate the pawl of the differential gear to control the running of the feed roll.

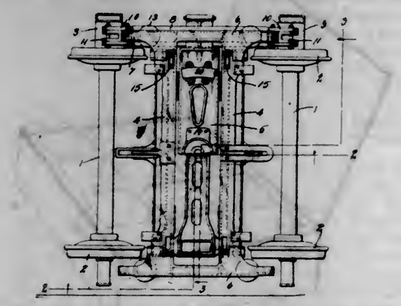
4. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and a change gear connection between said feed roll and the driven cone, compriaing a train of gears that includes a removable pinion on the cone shaft and a shiftable intermediate gear meshing with the pinion.

1,072,650. CENTRIFUGAL PUMP. GOMER W. PRICE, San Francisco, Cal. Filed Oct. 20, 1908, Serial No. 528,672. Renewed Feb. 24, 1913. Serial No. 750,417. (Cl. 103—43.)



In a centrifugal pump, the combination of a shell having a peripheral collection chamber with an annular throat opening into said shell, said throat having annular recesses in its side walls, and detachable relatively flat annular plates fitting into said recessed walls and having flared edges projecting inwardly beyond the walls of the throat, means for removably securing said plates in position, an impeller in the shell having the walls of its peripheral delivery extended to run against the peripheral surfaces of the side plate projections to form a joint tending to prevent leakage between them, the outer wall of

truck frame cast in a single piece and comprising transoms, and wheel pieces, the ends of which are located between the pairs of equalizing bars immediately adjacent to the inner side walls of the journal boxes.



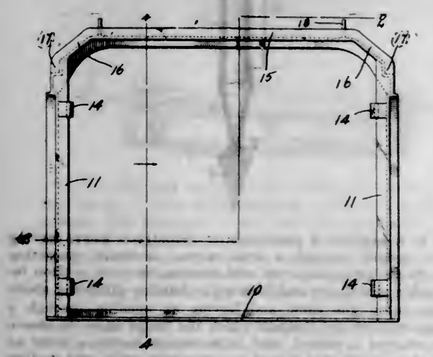
3. In a car truck provided with journal boxes, equalizer bars, the end portions of which are substantially of inverted L-shape and engage said journal boxes and a truck frame, the wheel pieces of which lie wholly between the journal boxes.

4. In a car truck, the combination with equalizer bars between the journal boxes, of a truck frame, cast in a single piece and comprising transoms, and wheel pieces, which latter lie wholly between the journal boxes.

5. In a car truck, the combination with journal boxes, of equalizer bars positioned between and fixed to said journal boxes, and a truck frame, the wheel pieces of which lie wholly between the journal boxes.

[Claims 6 to 14 not printed in the Gazette.]

1,072,646. CAR END FRAME. HARRY M. PFLAGER, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,221. (Cl. 105—192.)



1. The combination with a car body, of a one-piece cast metal end frame having a door opening that is substantially equal in width to the width of the space within the car body and which frame comprises a pair of uprights adapted to serve as corner posts for the car body, a base member connecting the lower ends of said uprights, and a top rail connecting the upper ends of said uprights.

2. As a new article of manufacture, an end frame for car bodies comprising a pair of uprights adapted to serve as corner posts for a car body, a base member connecting the lower ends of said uprights and a top rail connecting the upper portions of said uprights, all of which parts are cast integral and the entire space between said uprights, base member and top rail being open and unobstructed.

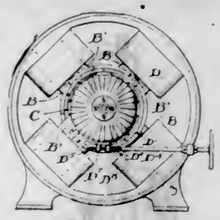
3. The hereindescribed end frame for car bodies comprising a pair of door posts, brackets on the lower ends of said door posts, which brackets are adapted to engage the underframe of the car on which the end frame is positioned, a base member connecting the lower ends of the uprights, and a top rail connecting the upper portions of said uprights, all of which parts are cast integral.

4. As a new article of manufacture a one-piece end frame comprising a base member, a pair of uprights integral with said base member, rearwardly projecting brackets at the lower ends of said uprights which uprights constitute corner posts for the car body, and a top rail integral with the upper portions of said uprights and the entire space between said uprights, base member and top rail being open and unobstructed.

5. The combination with a car body, of a one-piece end frame comprising a base member, a pair of uprights integral with said base member, which uprights constitute corner posts for the car body, hinge lugs integral with said uprights, and a top rail integral with the upper portions of said uprights.

[Claims 6 to 10 not printed in the Gazette.]

1,072,647. DYNAMO-ELECTRIC MACHINE. ALVIN A. PIFER, Cleveland, Ohio, assignor to Cleveland Armature Works, Cleveland, Ohio, a partnership composed of Alvin A. Pifer and James L. Mauldin. Filed Oct. 14, 1908. Serial No. 457,656. (Cl. 171—227.)



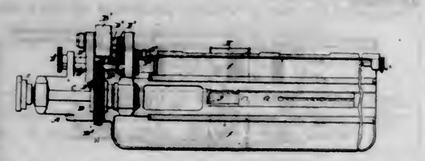
1. In combination in a dynamo electric machine having an armature and a plurality of sets of field poles, a regulator comprising a pair of pole shoe sections at the inner end of each pole, each of the poles having guideways which support the shoes independently of the shoes on the other poles, and permit movement of the shoes toward or away from each other and at the same time toward or from the armature and means operatively connected to the shoes for simultaneously shifting all the shoes.

2. In combination in a dynamo electric machine, an armature, a field member having a plurality of poles, a pair of pole shoe sections supported by each pole and having a sliding connection therewith for movement toward and away from each other along the line parallel with the tangent to the armature at the point cut by the extended axis of the core, and means for simultaneously shifting the pole shoe sections comprising one shifting means having operative connections with alternating sections, and another shifting means having operative connections with the remaining alternating sections.

3. In a dynamo electric machine, an armature, a field member having a plurality of inwardly projecting poles, each supporting at its inner end a pair of pole shoe sections having sliding connections with the pole so that they may be moved toward or away from each other along a line parallel to the line tangent to the armature at the intersection of the armature and pole axis, and means for shifting the pole shoe sections of the different poles toward or away from each other comprising a pair of shifter members each loosely connected with alternating sections.

4. In a dynamo electric machine, an armature, a field member having a plurality of inwardly projecting poles each supporting at its inner end a pair of pole shoe sections, said pole shoe sections having sliding connections with the pole on opposite sides of the latter so that they may be moved toward and away from each other on a line parallel with a line tangent to the armature at the intersection of the armature and pole axis, and means for simultaneously shifting the pole shoe sections of the different poles toward or away from each other comprising a pair of rings, each loosely connected with alternating sections.

1,072,648. AUTOMATIC TURRET-LATHE. JAMES CHARLES POTTER, Pawtucket, R. I., assignor to Potter and Johnston Machine Co., Pawtucket, R. I., a Corporation of Rhode Island. Filed Jan. 21, 1908. Serial No. 411,994. (Cl. 29—44.)



1. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a drum having cams arranged to act in succession to move the tool holder during one part of its traverse for the performance of work by the tool, separate means arranged to be effective upon said tool holder to move it during another part of its traverse, at a different speed, gearing for revolving the drum at working speed, other gearing for revolving the drum at a different speed, and means to drive the drum through one of said gearing or the other.

2. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, mechanism for moving the tool holder during one part of its traverse for the performance of work by the tool, separate mechanism arranged to be effective upon said tool holder to move it during another part of its traverse, and means to vary the speed at which the tool holder is moved by said separate mechanism to cause it to move at different speeds during different portions of its travel.

3. In a feed mechanism for feeding a tool, the combination of a turret slide, a cam drum for moving the slide while work is being done, a separate mechanism for imparting movement of the slide at other times, and automatic means for slowing down the movement of the slide by said separate mechanism at the end of its travel from the work.

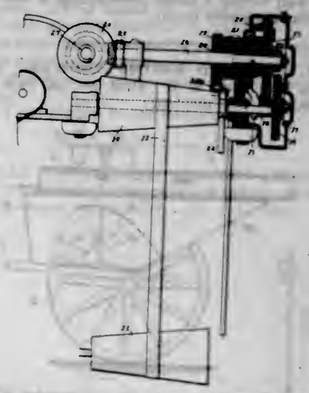
4. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a cam drum to move the tool holder during one part of its travel, separate means to move said tool holder during another part of its travel, gearing for revolving the drum for the performance of work, other gearing for revolving the drum at a higher rate of speed, automatic means to change the gear connections for revolving the drum so that said higher rate of speed is imparted to the drum when the tool holder is moved by said separate means.

5. In a feed mechanism for feeding a tool, the combination of a traversable tool holder, a cam drum to move the tool holder during one part of its travel, separate means to move said tool holder during another part of its travel, gearing for revolving the drum for performing work, other gearing for revolving the drum at a higher rate of speed, connected with said separate tool holder moving means, and means for changing the connection between said other gearing and the drum so that the drum will revolve at the higher speed when said separate means is acting on the tool holder.

[Claims 6 to 8 not printed in the Gazette.]

1,072,649. EVENER FOR COTTON-OPENING MACHINES, &c. JAMES CHARLES POTTER, Pawtucket, R. I. Filed Apr. 19, 1912. Serial No. 691,941. (Cl. 19—20.)

1. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and means independent of shifting the belt for varying the speed of the roll relative to the driven cone.

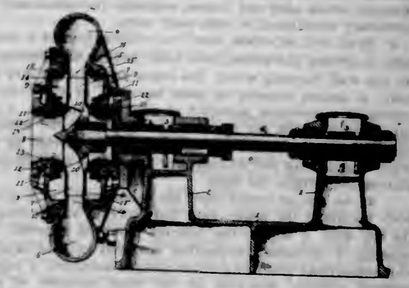


2. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and a change gear connection between said feed roll and the driven cone.

3. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, a differential gear connection between the feed roll and the driven cone having a pawl and ratchet, and means to operate the pawl of the differential gear to control the running of the feed roll.

4. In an evener mechanism for cotton openers, etc., the combination of the feed roll thereof, a belt and cone gearing, the belt being automatically shiftable along the cones, and a change gear connection between said feed roll and the driven cone, comprising a train of gears that includes a removable pinion on the cone shaft and a shiftable intermediate gear meshing with the pinion.

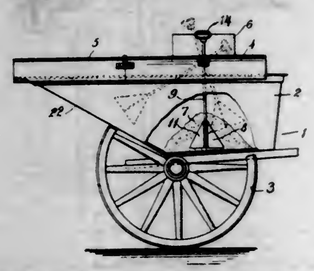
1,072,650. CENTRIFUGAL PUMP. GOMER W. PRICE, San Francisco, Cal. Filed Oct. 20, 1909, Serial No. 523,672. Renewed Feb. 24, 1913. Serial No. 750,417. (Cl. 103—43.)



In a centrifugal pump, the combination of a shell having a peripheral collection chamber with an annular throat opening into said shell, said throat having annular recesses in its side walls, and detachable relatively flat annular plates fitting into said recessed walls and having flared edges projecting inwardly beyond the walls of the throat, means for removably securing said plates in position, an impeller in the shell having the walls of its peripheral delivery extended to run against the peripheral surfaces of the side plate projections to form a joint tending to prevent leakage between them, the outer wall of

said shell being removable whereby to obtain access to the interior of the shell and collection chamber, and said detachable wall having a flange constituting in effect a part of one wall of the said throat.

1,072,651. **ASH AND REFUSE VEHICLE.** CHARLES PUTZEL, New York, N. Y. Filed Oct. 26, 1910. Serial No. 589,124. (Cl. 193—19.)



1. In an ash or refuse cart, the combination of a closed body receiving the ashes, the top of said body having a normally closed hopper through which the ashes are emptied into the body, a second opening in the top of said body, an ash distributer within the body, and a handle member connected to and operating the same and extending through said last opening and movable longitudinally and laterally of the body, whereby the ashes may be uniformly distributed within said body.

2. In an ash or refuse cart, the combination of a closed body receiving the ashes, said body having an opening in its top through which the ashes are emptied into the body, a second opening in said top, a rod extending through said last opening and a pronged ash distributer carried at the end of said rod, said rod being free to move in the opening toward and away from the body, a universal movement at the opening, through which movement the rod extends, whereby the ashes may be uniformly distributed within the body.

3. In an ash or refuse cart, the combination of a closed body receiving the ashes, said body having an opening therein through which the ashes are emptied into the body, a second opening in said body, a rod projecting through said last opening and carrying an ash distributer at its inner end, said distributer having lateral and longitudinal motion, and a flexible cover closing said opening and through which said rod passes, whereby the ashes may be uniformly distributed within said body.

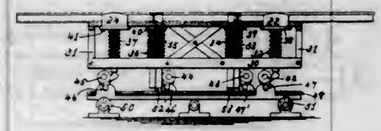
4. In an ash or refuse cart, the combination of a closed body receiving the ashes, said body having an opening in its top wall through which the ashes are emptied into the body, a second opening in said top wall of the body, a universal connection mounted at said last opening, a rod extending through the opening and engaging one member of said connection, and an ash distributer carried at the lower end of said rod whereby the ashes may be uniformly distributed within the body.

5. In an ash or refuse cart, the combination of a closed body receiving the ashes, said body having an opening in its top wall, a supporting bracket mounted adjacent the opening, a universal connection mounted in said bracket and comprising inner and outer pivoted members, a handle member slidably mounted in the inner member of said connection, and an ash distributer carried at the lower end of said handle within said body, whereby the ashes may be uniformly distributed within said body.

[Claims 6 and 7 not printed in the Gazette.]

1,072,652. **NOISELESS RAILWAY-CROSSING.** CHARLES J. RINGEL, Los Angeles, Cal. Filed Jan. 18, 1913. Serial No. 745,507. (Cl. 104—116.)

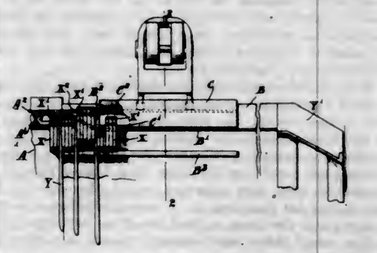
1. In a noiseless railway crossing, crossing rails, holes in the bottom of the cuts in the rails, plugs in said holes, adapted to move vertically, hangers under the rails, holes in the hangers engaging the plugs, tripping plugs alongside the rails beyond the crossing tracks the lower ends of the plugs engaging holes in the said hangers, springs on all the plugs adapted to hold them normally in alinement with the tread of the rails, bell crank levers in engagement with the tripping plugs, a sliding bar on roller bearings below each hanger, lugs on the bar and in engagement with a bell crank lever, and lugs on the bar adapted to engage and hold or release one or the other set of plugs in the rail cuts, to produce a continuous rail in one direction and passable cuts in the rails in the cross direction.



2. In a noiseless railway crossing, crossing rails, holes in the bottom of the cuts in the rails, plugs in said holes, adapted to move vertically, hangers under the rails, holes in the hangers engaging the plugs alongside the rails beyond the crossing tracks, the lower ends of the plugs engaging holes in said hangers, springs on all the plugs adapted to hold them normally in alinement with tread of the rails, bell crank levers in engagement with the tripping plugs, a sliding bar on roller bearings below said hangers, lugs on the bar and in engagement with a bell crank lever, lugs on the bar adapted to hold or release one or the other set of plugs in the rail cuts, in combination with automatic means operable by an approaching car, by which the rails of the track on which the car is passing are made temporarily contiguous, and the cuts in the track are made temporarily passable for the wheel flanges.

3. In a noiseless railway crossing, the combination of crossing rails, cuts in the rails at the intersections, holes in the bottom of said cuts, plugs in said holes, springs on said plugs, supporting means arranged under the track for said plugs, bell crank levers adapted to engage the lower end of said plugs, lugs on said bell crank levers, a sliding bar, with slots adapted to engage said lugs, rollers under said sliding bar and means for producing a continuous rail in the direction of a passing car.

1,072,653. **TYPOGRAPHICAL COMPOSING-MACHINE.** JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 27, 1912. Serial No. 673,886. (Cl. 199—7.)



1. In a typographical machine, the combination of distributing mechanism and the elevator to transport the type or matrices thereto, the said elevator being provided with means to receive and sustain them at different vertical levels.

2. In a typographical machine, the combination of distributing mechanism, means for presenting type or matrices thereto at different levels, and means for bringing the type or matrices to a common level before their distribution.
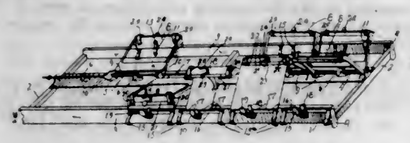
3. In a typographical machine, the combination of the distributing bar, an elevator for sustaining the type or matrices at different levels, and means for bringing the type or matrices to a common level in their passage from the elevator to the distributing bar.

4. In a typographical machine, the combination of the distributer box, an elevator for sustaining the type or matrices at different levels, and means for bringing the type or matrices to a common level in their passage from the elevator to the distributer box.

5. In a typographical machine, the combination of distributing mechanism and the second elevator C to transport the type or matrices thereto, the said elevator being formed with the sustaining ledges C–1 and C–2 to sustain the type or matrices at different levels therein.

[Claims 6 to 8 not printed in the Gazette.]

1,072,654. **RACK FOR DRYING PHOTOGRAPHIC FILMS.** DAVID J. ROBABECK, Ryegate, Mont. Filed May 5, 1913. Serial No. 765,656. (Cl. 34—26.)



1. A film drying rack comprising a main frame, a plurality of auxiliary frames hingedly mounted thereon, means in connection with said auxiliary frames to normally force the outer ends of the same in raised position with respect to the main frame, and clamping members in connection with the outer ends of said auxiliary frames and portions of said main frame adapted to coöperate with one another.

2. A rack of the class described comprising a main frame, a plurality of auxiliary frames hingedly mounted thereon, means in connection with said auxiliary frames to normally force the same in raised position with respect to the main frame, means for locking said auxiliary frames in their lowered positions in engagement with said main frame, and clamping members on said main and auxiliary frames adapted to coöperate with one another.

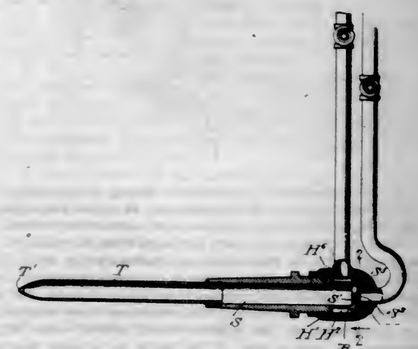
3. A rack of the class described comprising a main frame of substantially rectangular design, a plurality of auxiliary frames hinged centrally on said main frame, the free ends of said auxiliary frames being adapted to rest upon the side bars of said main frame, means in connection with said auxiliary frames to normally force the same to their raised positions, means for locking said auxiliary frames in their lowered positions in contact with the side bars of said main frame, and clamping members carried on the outer ends of said auxiliary frames and on the side bars of said main frame adapted to coöperate with one another.

4. A rack of the class described comprising a main frame of substantially rectangular design, a central longitudinal strip mounted thereon, a plurality of auxiliary frames hinged at their inner ends on said strip and adapted to have their outer ends rest on the side bars of said main frame, spring means in connection with said strip and auxiliary frames to normally force the latter to their raised positions, means to limit the upward swinging movement of said auxiliary frames, means for locking said auxiliary frames in their lowered positions in contact with the side bars of the main frame, and clamping members on the outer ends of said auxiliary frames and on the side bars of said main frame adapted to coöperate with one another.

5. A rack of the class described comprising a main frame of substantially rectangular design, a central longitudinal strip mounted thereon, a plurality of auxiliary frames hinged at their inner ends on said strip and adapted to have their outer ends raised in contact with the side bars of the main frame, spring means in connection with the hinged ends of said auxiliary frames to normally force the same to their raised positions, means to limit the upward swinging movement of said auxiliary frames, spring locking means for retaining said auxiliary frames in their lowered positions in contact with the side bars of the main frame, and spring clamping members carried on the outer ends of said auxiliary frames and on the side bars of said main frame adapted to coöperate with one another.

[Claim 6 not printed in the Gazette.]

1,072,655. **ACETYLENE WELDING APPARATUS.** GEORGE C. SCHEMMEL, Wapakoneta, Ohio. Filed July 29, 1912. Serial No. 712,131. (Cl. 158—109.)



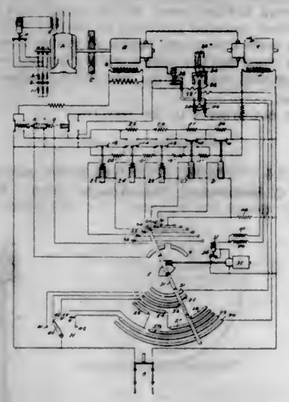
An oxy-acetylene welding blow pipe comprising a mixing chamber having interiorly formed threads in the end thereof, a shell, threaded upon its inner surface and provided with apertures, one leading through the end of the shell and the other the circumference thereof, pipes fitted in said apertures and adapted to convey oxygen and acetylene gas to said mixing chamber, the circumference of said mixing chamber having an annular groove, the wall of which is apertured, the inner end of said mixing chamber being spaced apart a slight distance from the inner end of the shell and provided with radially disposed grooves with an opening at the point of intersection of said grooves extending into the mixing chamber, a slight space intervening between the inner end of the mixing chamber and the surrounding wall of the chambered portion of said shell, a nozzle fitted to the interiorly formed threads in the end of said mixing chamber, as set forth.

1,072,656. **MOTOR-CONTROL SYSTEM.** GEORGE B. SCHLEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed July 22, 1911, Serial No. 639,976. Renewed Feb. 5, 1913. Serial No. 746,672. (Cl. 172—239.)

1. In combination, a generator, means for varying and reversing the voltage thereof, a motor connected to said generator, and means responsive to the current in the motor circuit for preventing said controlling means from varying the voltage of said generator to increase the current in said circuit when said current exceeds a predetermined value, and for causing the automatic variation of the voltage of said generator to decrease such current when the latter exceeds a higher predetermined value.

2. In combination, a generator, a motor connected to said generator, means for varying the voltage of said generator, and means responsive to the current in the motor circuit for preventing the voltage of the generator from being varied to increase the current in the motor circuit beyond a predetermined value, and for causing the automatic variation of the voltage of said generator to decrease

such current when the latter exceeds a higher predetermined value.



3. In combination, a generator having a separately excited field circuit, a field resistance, switches for connecting said field circuit to a source of current for either direction of current flow and for regulating the amount of said resistance in said circuit, a master switch controlling the operation of said switches, a motor connected to said generator, and means responsive to the current in the motor circuit for preventing said switches from responding to movements of the master switch during retardation, reversal, or acceleration of the motor to increase the current in the motor circuit beyond a predetermined value, and for causing the automatic operation of said switches during retardation, reversal, or acceleration of the motor to decrease the current in the motor circuit if such current exceeds a higher predetermined value.

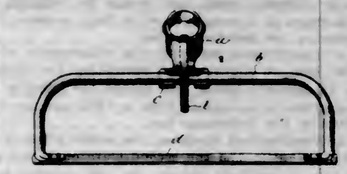
4. In combination, a generator having a separately excited field circuit, a field resistance, switches for connecting said field circuit to a source of current and for regulating the amount of said resistance in said circuit, a motor connected to said generator, and means responsive to the current in the motor circuit and coöperating with said switches for preventing the operation of said switches to increase the current in the motor circuit beyond a predetermined value, and for causing the automatic operation of said switches to decrease the current in the motor circuit if such current exceeds a higher predetermined value.

5. In combination, a generator having a separately excited field circuit, a field resistance, switches for connecting said field circuit to a source of current for either direction of current flow and for regulating the amount of said resistance in said circuit, a motor connected to said generator, and means responsive to the current in the motor circuit and coöperating with said switches for preventing such resistance from being inserted, the connection of the field circuit with the source reversed, or the resistance cut out if such action would increase the current in the motor circuit beyond a predetermined value, and for automatically causing some or all of such actions if they would decrease such current and the latter exceeds a higher predetermined value.

[Claims 6 to 88 not printed in the Gazette.]

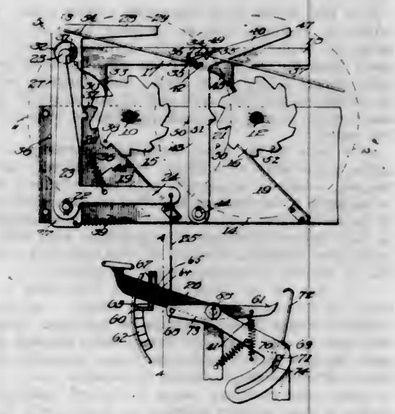
1,072,657. HOE. WILHELM SCHULTZ, Stendal, Germany. Filed June 14, 1911. Serial No. 633,203. (Cl. 55—40.)

1. An improved hoe comprising in combination a socket for the handle having a threaded opening serving as a nut, arms on said socket curved at their front ends, a rod mounted in said curved ends of said arms, a yoke fixed to said rod and having a slot in its enlarged end, a regulating screw mounted in said opening of the socket and passing through said slot of the yoke, and a hoe blade fixed to the ends of the supporting rod, substantially as described and shown and for the purpose set forth.



2. An improved hoe comprising in combination a socket for the handle having a threaded opening serving as a nut, arms on said socket curved at their front ends, a rod mounted in said curved ends of said arms, a yoke fixed to said rod and having a slot in its enlarged end, a regulating screw mounted in said opening of the socket and passing through said slot of the yoke, several hoe blades, shafts on said hoe blades, sleeves at the upper end of said shafts adjustably mounted on the supporting rod and clamping screws for securing the sleeves in position substantially as described and shown and for the purpose set forth.

1,072,658. REGISTERING-MACHINE. GEORGE E. SCHUMAN and ALEXANDER C. SCHUMAN, Louisville, Ky. Filed Dec. 16, 1912. Serial No. 736,998. (Cl. 235—135.)



1. In a register, registering wheels of different orders, ratchet-wheels for operating said registering wheels, said ratchet-wheels having a deep notch, pawls for operating the ratchet-wheels, swinging supports carrying the pawls, an actuating member engageable with the pawl of the lowest order, said pawl having means to actuate the pawl of the next highest order when said first-mentioned pawl engages the deep notch of its ratchet wheel, a connection between the supports of the pawls for returning the support of the pawl of the higher order to its normal position when the support of the pawl of the lower order returns to normal position, and means for effecting such return of the last-mentioned support.

2. In a register, registering wheels of different orders, ratchet-wheels for operating said registering wheels, said ratchet-wheels having a deep notch, pawls for operating the ratchet-wheels, swinging supports carrying the pawls, an angle-lever having one of its arms engageable with the pawl of the lowest order to actuate the same, operating means connected to the other arm of the lever, the pawl of the lowest order having means to actuate the pawl of the next higher order when said first-mentioned pawl engages the deep notch of its ratchet-wheel, a connection between the supports of the pawls for returning the support of the pawl of the higher order to its normal position when the support of the pawl of the lower order returns to normal position, and means for effecting such return of the last-mentioned support.

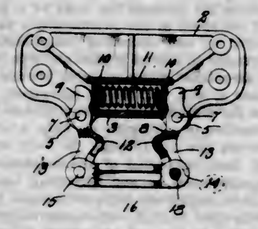
3. In a register, registering wheels of different orders, ratchet-wheels for operating said registering wheels, said ratchet-wheels having a deep notch, pivoted pawls for operating the ratchet-wheels, swinging supports carrying the pawls, an angle-lever having one of its arms engageable with the pawl of the lowest order to swing the support thereof and actuate said pawl, and operating means connected to the other arm of said lever, the pawl of the lowest order having means to actuate the pawl of the next higher order when said first-mentioned pawl engages the deep notch of its ratchet-wheel.

4. The combination of a ratchet-wheel, a swinging support, a pivoted pawl carried by the support for operating the ratchet-wheel, said pawl being actuated when its support is swung, and an actuating member engageable with the pawl to swing the support thereof and actuate said pawl, said member engaging the pawl at a point to press the same into engagement with the ratchet-wheel.

5. The combination of a ratchet-wheel, a pawl for operating the ratchet-wheel, a swinging support carrying the pawl, a lever engageable with the pawl to swing the support thereof and actuate said pawl, an abutment projecting from the ratchet-wheel, and an abutment on the pawl-support adapted to come into the path of the abutment of the pawl.

[Claim 6 not printed in the Gazette.]

1,072,659. DRAW-BAR CARRIER. CHARLES S. SHALLENBERGER, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Aug. 26, 1912. Serial No. 717,048. (Cl. 213—42.)



1. In a draw-bar carrier, the combination with a support, of a pair of laterally swinging hangers, a draw-bar carry iron arranged between the lower portions of said hangers, and a single yielding pressure element between the upper portions of said hangers.

2. In a draw-bar carrier, the combination with a support, of a pair of hangers pivotally mounted on said support, a draw-bar carry iron carried by the lower portions of said hangers, and a single yielding pressure element arranged between the hangers above their points of pivotal connection with the support.

3. In a draw-bar carrier, the combination with a support, of a pair of hangers pivotally connected to and depending from the support, a draw-bar carry iron carried by the lower portions of said hangers, and yielding pressure means interposed between the upper ends of the hangers for yieldingly resisting transverse swinging movement thereof.

4. In a draw-bar carrier, the combination with a pair of pivotally supported hangers, of yielding pressure means between said hangers above the points of their pivotal support, and a reversible carry iron removably connected to the lower portions of said hangers.

5. The combination with a support, of a pair of hangers pivotally connected to said support, heads on the upper ends of said hangers, a yielding pressure element interposed between said heads, and a carry iron removably connected to the lower portions of said hangers.

[Claim 6 not printed in the Gazette.]

1,072,660. CASE-HARDENING OF STEEL. ALBERT F. SHORE, New York, N. Y. Filed May 17, 1911. Serial No. 627,747. (Cl. 148—40.)



1. In a process of case-hardening steel, subjecting to direct shallow carburization inward through the face thereof portions of the surface of the steel to be treated, and subjecting to deep carburization the remainder of said surface.

2. In a process of case-hardening steel, subjecting to direct shallow carburization inward through the face thereof a multiplicity of relatively small areas of the surface of the steel to be treated, and subjecting to deep carburization the remainder of said surface.

3. In a process of case-hardening steel, subjecting to direct shallow carburization inward through the face thereof a multiplicity of relatively small areas of the surface of the steel to be treated, subjecting to deep carburization the remainder of said surface, and then hardening the carburized layer so formed.

4. In a process of case-hardening steel, subjecting the surface and layer to be carburized to carburization in two different stages in one of which portions of the surface to be carburized are protected from, and in the other of which they are exposed to, direct carburization.

5. In a process of case-hardening steel, subjecting the surface and layer to be carburized to two different carburizing actions during one of which portions of the surface to be carburized are covered with carbon-resisting material and during the other of which said portions are not so covered.

[Claims 6 and 7 not printed in the Gazette.]

1,072,661. CASE-HARDENED STEEL. ALBERT F. SHORE, New York, N. Y. Filed Apr. 5, 1913. Serial No. 759,009. (Cl. 148—40.)



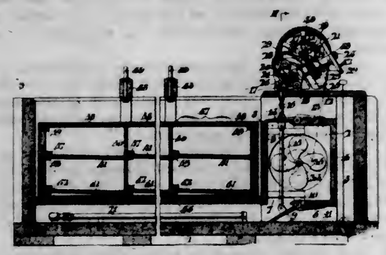
As a new article of manufacture, a unitary steel plate consisting of a single integral piece of material comprising a body portion and a face portion, said face portion being of greater hardness and less thickness than the said body portion, both of said portions of the single piece of material having regularly formed interlocking spaced portions extending into each other.

1,072,662. CIRCULATING DYEING-MACHINE. WALTER W. SIBSON and THOMAS ALLSOP, Philadelphia, Pa., assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 18, 1911. Serial No. 603,229. (Cl. 8—19.)

1. A dyeing machine including in combination, a vat; means for circulating a dye liquor through said vat; and a cage for the material being dyed, said cage having a vertical partition forming separated vertical compartments, a horizontal partition forming horizontal compartments, said partitions being formed with screens, whereby the free flow of the dye liquor may be had from one compartment to another, and hinged doors having screens therein for closing the top and bottom compartments; and movable securing means extending across the free edge of each bottom door for holding the same in closed position.

2. A dyeing machine including in combination, a vat; means for circulating a dye liquor through said vat; and a cage for the material being dyed, said cage comprising a rectangular frame having vertical partitions therein which are formed with screens; a horizontal partition located in-

termediate the top and bottom of the frame and hinged at one side so that the same may be readily opened; means for holding said partition in closed position; a hinged door at the top of the frame for each compartment; and a hinged door at the bottom of the frame for each compartment; swinging cleats extending across each door for holding the same in closed position, arms carried by the cleats, and latches coöperating with said arms for locking the cleats to hold the doors closed, said doors and said partitions having screens formed therein whereby a free flow of the dye liquor may be had through said compartments.



3. A dyeing machine including in combination, a vat; spaced partitions extending across said vat which terminate short of the bottom and top of the vat, whereby a propeller chamber is formed with passages extending around the same; means for closing the top and the bottom of the propeller chamber and for forming a discharge opening at the top and at the bottom of said chamber; swinging valves for controlling said discharge openings; means whereby said valves may be alternately held in open position, said valves when in open position serving to deflect the dye liquor and thereby aid in causing an even circulation thereof; intakes adjacent to each end of said propeller chamber leading to the passage in the rear thereof; and propellers located within said chamber and adjacent said intake, said propellers being opposed to each other.

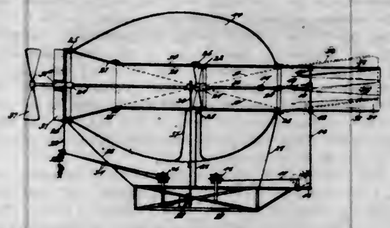
4. A dyeing machine including in combination, a vat; spaced partitions extending across said vat which terminate short of the bottom and top of the vat, whereby a propeller chamber is formed with passages extending around the same; means for closing the top and the bottom of the propeller chamber and for forming a discharge opening at the top and at the bottom of said chamber; swinging valves for controlling said discharge openings; means whereby said valves may be alternately held in open position, said valves when in open position serving to deflect the dye liquor and thereby aid in causing an even circulation thereof; intakes adjacent to each end of said propeller chamber leading to the passage in the rear thereof, propellers located within said chamber and adjacent said intake, said propellers being opposed to each other; and a horizontal shaft on which said propellers are rigidly mounted, said horizontal shaft extending through one wall of the vat whereby the operating mechanism therefor may be located outside of said vat.

5. A dyeing machine including in combination, a vat; spaced partitions extending across said vat and forming a propeller chamber; means for closing the top and bottom of said propeller chamber and for forming discharge openings at the top and bottom of said chamber; valves for controlling said openings; propellers located within said chamber; intakes leading to said chamber adjacent to said propellers, one of said partitions being hinged whereby the same may be swung so that access may be had to the chamber for cleaning or clearing the same.

[Claims 6 to 8 not printed in the Gazette.]

1,072,663. AIRSHIP. ANTHONY R. SILVERSTON, Milwaukee, Wis., assignor of one-half to William Woods Plankinton, Milwaukee, Wis. Filed Mar. 4, 1907. Serial No. 360,379. (Cl. 244—10.)

1. In combination in a dirigible air ship, a support, a pair of aeroplanes supported by and extending longitudinally of the support, each arranged to extend beyond one side of the support, said pair of aeroplanes being movable toward and away from each other at will, and means operatively related to the aeroplanes for maintaining the equilibrium thereof.



2. In combination in a dirigible air ship, a support, a pair of aeroplanes supported by and extending longitudinally of the support, each arranged to extend beyond one side of the body, said pair of aeroplanes being movable toward and away from each other at will, and means operatively related to the aeroplanes for maintaining the equilibrium thereof, the said aeroplanes being located above the diametric center of the support.

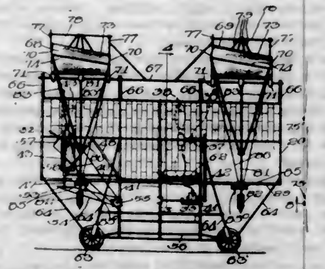
3. In combination in a dirigible air ship, a support, a pair of aeroplanes supported by and extending longitudinally of the body, each arranged to extend laterally beyond the support, said pair of aeroplanes being movable toward and away from each other at will, and means operatively related to the aeroplanes for maintaining the equilibrium thereof, said aeroplanes being located above the diametric center of the support.

4. In combination in a dirigible air ship, a tubular body, means for forcing air through the body at a greater rate of speed than the speed of the outside air, a pair of aeroplanes supported by and extending longitudinally of the body, each arranged to extend beyond one side of the body, said pair of aeroplanes being movable toward and away from each other at will, and means operatively related to the aeroplanes for maintaining the equilibrium thereof.

5. In combination in a dirigible air ship, a tubular body, means for forcing the air through the body at a greater rate of speed than the speed of the outside air, a pair of aeroplanes supported by and extending longitudinally of the body, said aeroplanes being adjustable toward and away from each other at will, and counterbalancing means operatively related to the said aeroplanes for maintaining the equilibrium thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,072,664. AIRSHIP. ANTHONY R. SILVERSTON, Milwaukee, Wis. Filed Aug. 22, 1908. Serial No. 449,810. (Cl. 244—18.)



1. A dirigible air ship including a tubular casing, a propeller in said casing for suspending and propelling the machine, a horizontally disposed rudder, said rudder comprising a plurality of sections, one of the said sections extending transversely across the inlet end of the casing, one of the remaining sections of the rudder projecting laterally beyond each side of the casing, and an upright rudder also disposed across the inlet end of the casing.

2. A dirigible air ship including a horizontally disposed tubular casing, a propeller within the casing for suspending and propelling the machine, an upright rudder disposed across one end of the casing, a horizontal rudder disposed across the same end of the casing, and comprising a plurality of sections, one of the sections extending across the end of the casing, and the remaining sections projecting laterally beyond the sides of the casing, means for independently controlling the rudders, a transverse aeroplane pivotally supported by the casing and projecting laterally beyond the casing, and means for maintaining the equilibrium of the said aeroplane.

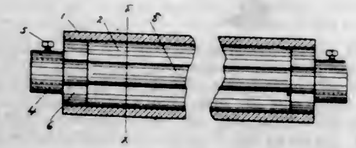
3. A dirigible air ship including a horizontally disposed tubular casing, a propeller within the casing for suspending and propelling the machine, an upright rudder disposed across one end of the casing, a horizontal rudder disposed transversely across the same end of the casing, and within the plane of the wall of the casing, additional horizontal rudders at the same end of the casing located outside of the casing and movable with the horizontal rudder, means for independently controlling the upright and horizontal rudders, an aeroplane pivotally supported by the casing on an axis extending lengthwise of the casing, and means for counterbalancing the aeroplane.

4. An air ship including a tubular propeller casing, a rigid hood or canopy integral with and projecting beyond one end of the casing to form a continuation of the upper part of the casing, said hood conforming with the contour of the casing, an upright rudder, and a horizontal rudder, said rudders being disposed across the other end of the casing.

5. An air ship including a tubular propeller casing, a rigid hood or canopy integral with and projecting beyond one end of the casing to form a continuation of the upper part of the casing, said hood conforming with the contour of the casing, an upright rudder, a horizontal rudder, said rudders being disposed across the other end of the casing, and means for independently controlling said rudders.

[Claims 6 to 18 not printed in the Gazette.]

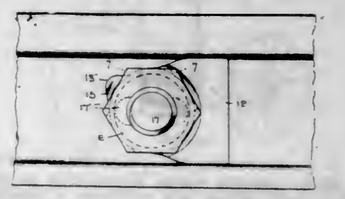
1,072,665. ROLL FOR BEAN-PICKING MACHINES. CHARLES E. SMITH, Saginaw, Mich., assignor of one-fourth to Gustave R. Meyer, Saginaw, Mich. Filed Nov. 1, 1912. Serial No. 729,124. (Cl. 130—18.)



1. In a roll of the class described, the combination with a shaft, of an outer shell of relatively hard resilient material, a plurality of longitudinally disposed ribs of softer material, each of said ribs extending lengthwise the shaft and having a thickened outer edge formed to merge into the material of the shell, said ribs extending radially inward from said shell and formed integral therewith, the inner ends of adjacent ribs being unconnected and spaced apart and adapted to slidingly engage said shaft on their inner ends, for the purposes set forth.

2. In a roll of the class described, the combination with a shaft, of an outer shell of relatively hard resilient material, a plurality of longitudinally disposed ribs of softer material, said ribs formed with thickened outer edges and shaped to merge into the material of the shell, said ribs extending radially inward from said shell and formed integral therewith, the inner ends of said ribs being spaced apart and adapted to slidingly receive said shaft, together with a pair of end members, each comprising a collar received on said shaft, lugs projecting from said collar and received in the spaces between said ribs, and means for removably securing said collar to said shaft.

1,072,666. NUT-LOCK. FRANK SMITH, Quick, W. Va. Filed Aug. 7, 1912: Serial No. 713,812. (Cl. 151—89.)



1. In a nut lock adapted for securing railway rails, a plate comprising an anchor member adapted to be fitted snugly between the head and flange of a rail and having a washer formed integrally therewith and an arcuate groove concentric with the washer and a resilient tongue extending from the washer, a polygonal nut having its minor external diameter substantially equal to that of the washer and its apexes extending over the said groove and over the said tongue where the body of the nut is seated on the washer, said nut having a dog extending from each apex of the nut and parallel to the bolt opening in the nut, said groove being of sufficient depth to receive said dogs, so that the said dogs may travel in said groove and said tongue may engage with one of the said dogs for locking the nut.

2. In a nut lock, a plate comprising a washer and an anchoring element and having an arcuate groove concentric with the washer, a resilient tongue extending from the washer, a nut adapted to be firmly seated on the washer, concentric therewith and having a plurality of dogs formed thereon and extending into said arcuate groove and adapted to travel in said groove without interference, each of said dogs having an inclined surface, and having a shoulder at an acute angle to the inclined surface, said shoulder being adapted to depress said resilient tongue, and said resilient tongue being adapted to engage with said shoulder for locking the nut in fixed position on the plate.

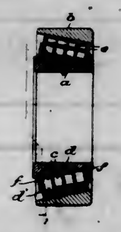
3. In combination with a nut having a plurality of dogs extending parallel to the bolt-opening in the nut, a plate consisting of an anchoring member and a washer and having a groove between the anchoring member and the washer and a resilient tongue extending outwardly from the washer, said nut having its body firmly seated on the washer and having its dogs extending into the groove and adapted to travel uninterruptedly therein when the nut is turned, each of said dogs having an inclined surface for depressing the resilient tongue and having a shoulder for locking engagement with said tongue.

1,072,667. ROLLER-BEARING. REUBEN S. SMITH, Milwaukee, Wis. Filed Apr. 28, 1913. Serial No. 764,026. (Cl. 64—62.)

1. In a roller bearing, the combination of coaxial members having opposing conical bearing faces at the same angle to their common axis and a number of independently rotatable rings each carrying a series of independently rotatable rollers, said rings and rollers being interposed between said members, and the carrying ring of one series of rollers abutting the sides of the rollers of the adjoining ring.

2. In a roller bearing, the combination of coaxial members having opposite conical bearing faces at the same angle to their common axis, and a number of independently rotatable coned rings each carrying a series of independently rotatable rollers, said rings and rollers being interposed between said members, and each ring abutting

the sides of the rollers of the adjoining ring and having projections on one side for spacing its individual rollers from one another.

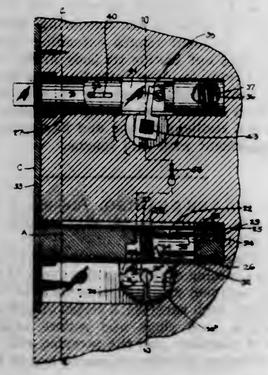


3. In a roller bearing, the combination of coaxial members having opposite conical bearing faces at the same angle to their common axis, a number of independently rotatable rings each carrying a series of independently rotatable rollers, said rings and rollers being interposed between said members, the carrying ring of one series of rollers abutting the side faces of the rollers of the adjoining ring, and a plain washer to hold the rollers at one of the outer rings in place against said ring.

4. In a roller bearing, the combination with a member having a conical bearing face, a number of independently rotatable rings each carrying a series of independently rotatable rollers and mounted on said member, the carrying ring of one series of rollers abutting the side faces of the rollers of an adjoining ring, a plain washer to hold the rollers at one of the outer rings in place against said ring, and split rings fitting in grooves formed in the conical faced member to hold the series of rings and rollers thereto.

5. In a roller bearing, the combination with a supporting member, of a number of independently rotatable rings mounted upon said member and each carrying a series of independently rotatable rollers, each ring having projections on one side for spacing its individual rollers from one another, and the carrying ring of one series of rollers abutting the side faces of the rollers of the adjoining ring.

1,072,668. TUBULAR DOOR-LOCK. WILLIAM T. SMITH, Bellefontaine, Ohio, assignor of one-half to George W. Smith, Bellefontaine, Ohio. Filed Sept. 5, 1912. Serial No. 718,692. (Cl. 70—29.)



1. A tubular door lock having a housing with a tubular extension, a key-plate suspended from said tubular extension, a plurality of wards in said key plate.

2. A tubular door lock having a cylindrical locking member; a housing comprising a face plate and tubular inward extension thereon, forming a bearing for said member and having a central key plate suspended from said extension; and a plurality of wards in said key plate.

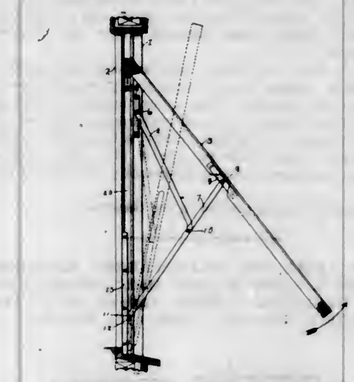
3. A tubular door lock having a housing with tubular extensions, one of said tubular extensions being provided with a central longitudinal slot on its under side, a key plate suspended from said tubular extension bridging said longitudinal slot.

4. A tubular door lock having a housing with tubular extensions, one of said tubular extensions being provided with a central longitudinal slot on its under side, a key plate suspended from said tubular extension bridging said longitudinal slot, and a plurality of wards in said key plate.

5. A tubular door-lock having a housing, a tubular extension in said housing, a key plate suspended from said tubular extension, a cylindrical dead bolt mounted to slide in said tubular extension, a central longitudinal slot in said bolt and a tumbler operating with one end in said slot and with its other end rigidly secured in said housing, said tumbler being constructed to hold the bolt in different positions and normally impinging with said key plate.

[Claims 6 and 7 not printed in the Gazette.]

1,072,669. WINDOW. ARTHUR C. SOULE, San Francisco, Cal., assignor, by mesne assignments, to The Simplex Window Company, San Francisco, Cal., a Corporation of California. Filed Aug. 21, 1912. Serial No. 716,197. (Cl. 20—42.)



1. A window comprising a frame, a sash slidably pivoted in said frame, adjuster arms, one end of which being fixedly pivoted at points slightly above the middle of the sash stiles, and the other end slidably pivoted in the frame, and carrier arms one end of which is fixedly pivoted in the frame and the other end fixedly pivoted to the corresponding adjuster arm.

2. A window comprising a frame longitudinally grooved in both jambs, shoes slidable in said grooves, a sash pivoted at its upper edge to said shoes, sliding fixtures in said grooves, adjuster arms fixedly pivoted at one end to said sash at points slightly above the middle points of the stiles of said sash and at the other end pivoted to said sliding fixtures; and carrier arms fixedly pivoted at one end to the frame and at the other end fixedly pivoted to the corresponding adjuster arm.

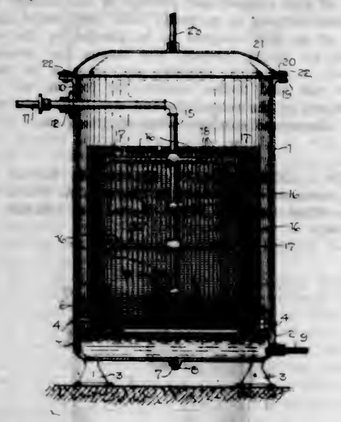
3. A window comprising a frame longitudinally grooved in both jambs, shoes slidable in said grooves, a sash pivoted at its upper edge to said shoes, sliding fixtures in said grooves, adjuster arms fixedly pivoted at one end to said sash at points slightly above the middle points of the stiles of said sash and at the other end pivoted to said sliding fixtures; adjustable wearing plates on said frame, and carrier arms fixedly pivoted at one end to said adjustable plates and at the other end fixedly pivoted to the corresponding adjuster arm.

4. A window comprising a frame, a sash in said frame, an adjuster arm pivotally secured at one end to said frame and at the other end to said sash and a carrier arm pivotally secured at one end to said frame and at the other end to said adjuster arm.

5. A window comprising a frame, a sash in said frame, an adjuster arm slidably pivoted in the frame and fixedly pivoted in the sash and a carrier arm fixedly pivoted in the frame and to said adjuster arm.

[Claims 6 to 8 not printed in the Gazette.]

1,072,670. DE-AERATOR. FRANK S. STRITE, Dallas, Tex. Filed Jan. 10, 1913. Serial No. 741,288. (Cl. 210—1.)



1. A device of the class described comprising a supply pipe having radially directed arms, said arms being closed at their free ends and having perforations extending longitudinally thereof, a perforated cylinder surrounding the arms, a tank inclosing the arms and cylinder, means for forcing water through the pipe and out of the perforations of the arms under pressure to cause air and gases to separate from the water, a water chamber at the bottom of the tank, and means for withdrawing the air and gases from the upper end of the tank.

2. A device of the class described comprising a tank, a water chamber secured to the lower end thereof and having an inwardly directed flange, a perforated cylinder resting upon the flange, a supply pipe projecting into the tank above the cylinder, the inner end of the pipe being directed downwardly, radially extending arms carried by the inner end of the pipe within the cylinder, said arms being provided along their sides with small perforations, means for closing the outer ends of the arms, means for forcing water containing air and gases through the supply pipe and out of the perforations of the arms of said pipe to cause the air and gases to separate from the water, and means for withdrawing the air and gases from the tank.

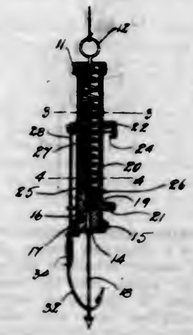
3. A device of the class described, comprising a tank, a cylinder within the tank, the lower end of the tank being removable and forming a water chamber, means carried by the removable lower end of the tank for supporting the cylinder, a supply pipe depending within the cylinder, the upper end of the cylinder being spaced from the upper end of the tank, the supply pipe entering the chamber above the cylinder, rearwardly extending arms carried by the lower end of the pipe and provided with perforations in opposite sides, means for forcing water through the pipe and within the perforations in the arms and against the cylinder to cause air and gases to separate from the water, the latter finding its way to the water chamber, an outlet pipe projecting from the water chamber, and means removably connected with the upper end of the tank for withdrawing the separated air and gases.

1,072,671. SAFETY HORSE-HITCHING DEVICE. CLARK E. SULLIVAN, Evansville, Ind. Filed JAN. 24, 1913. Serial No. 748,988. (Cl. 21—136.)



A safety horse hitching device comprising a circular band with flanges about the edges thereof, the circumference of the band tapering slightly and provided with teeth intermediate said flanges, a ratchet ring of larger diameter than said flanged band and provided with a series of internal ratchet teeth for engagement with the teeth upon the band and held upon the band by the flanges thereof, a laterally projecting arm having an eye at one end to be attached to a bridle and normally holding a tooth upon the ratchet ring in engagement with a tooth upon the upper portion of a band, and a laterally projecting handle upon the ring opposite said arm, as set forth.

1,072,672. COMBINED FISH-HOOK AND ANIMAL-TRAP. WELCOME F. SWEET, St. Louis, Mo., assignor to Eddleman's Never Fail Fish Hook and Animal Trap Company, Mineral Wells, Tex., a Corporation of Texas. Filed Nov. 4, 1912. Serial No. 729,419. (Cl. 43—31.)

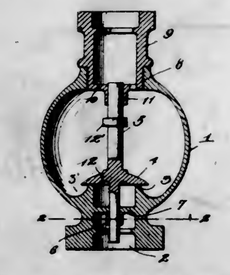


The combination with a tubular body having a spring pressed spear carrying block and a latch for holding said block retracted, of a rod connected to said latch, the forward end of which rod projects beyond the end of the tubular body and is bent to form a loop and a hook, said loop and hook being spaced apart, a fish hook having its shank inclosed by the loop on the rod with the eye of said fish hook engaged by the hook on the rod, and a fastening means encircling the shank of the fish hook and the parts of the rod between the loop and the hook.

1,072,673. CHECK-VALVE. JACOB J. THELEN, Schenectady, N. Y., assignor of one-half to Harry C. Hogan, Schenectady, N. Y. Filed Mar. 2, 1912. Serial No. 681,027. (Cl. 137—32.)

The herein described check valve comprising a casing having inlet and outlet ports and a valve seat projecting into the casing around said inlet port and providing an

annular trough surrounding said seat, a valve member comprising a stem having a valve disk integrally formed thereon intermediate of its ends, said disk being of greater diameter than the valve seat to overhang said annular trough when engaged upon said seat, the under



surface of said valve disk being flat and provided with an annular groove contiguous to the valve stem and of less diameter than the valve seat, the upper surface of said valve disk being convex, and means arranged in the inlet and outlet ports for guiding the valve stem in its movement.

1,072,674. MEANS FOR PROTECTING THE CONTENTS OF RECEPTACLES. LOUIS J. TINT, Chicago, Ill. Filed June 3, 1912. Serial No. 701,308. (Cl. 215—59.)

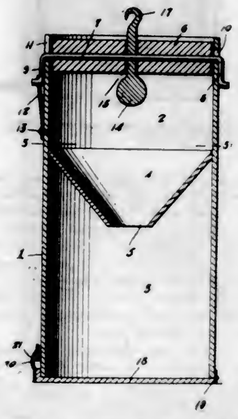


1. The combination with a receptacle having a discharge opening, of a removable stopper closing said opening, an air inlet conduit extending through said stopper through which air passes into the receptacle to place discharged portions of the liquid contents thereof, a chamber communicating with said conduit containing sterilizing material through which the air passes to the interior of the receptacle, and a liquid discharge conduit supported at its upper end within a recess in the inner surface of said stopper, the portion of the stopper above said recess serving to normally close said outlet against ingress of air and adapted to be pierced by the needle point of a syringe for withdrawing a portion of the liquid contents of the receptacle.

2. The combination with a receptacle having an opening, of a removable stopper closing said opening, an air inlet conduit extending through and adjustable relatively to said stopper, the lower end of said opening being closed, and an opening formed therethrough adjacent the inner surface of said stopper through which air passes into the receptacle to replace discharged portions of the contents thereof, said conduit being removable upwardly through said stopper to close said hole and seal the receptacle when no contents are to be withdrawn therefrom, a chamber formed in said conduit containing sterilizing material through which air passes to the interior of the receptacle, a liquid discharge conduit supported at its upper end within a recess within the lower surface of said stopper, the portion of the stopper above said recess serving to normally close said outlet against the ingress of air and adapted to be pierced by the needle point of a syringe for withdrawing a portion of the liquid contents of the receptacle.

3. The combination with a receptacle having a discharge opening, of a removable stopper closing said opening, an air inlet conduit extending through said stopper through which air passes into the receptacle to replace discharged portions of the liquid contents thereof, a chamber communicating with said conduit containing sterilizing material through which air passes to the interior of the receptacle, a liquid discharge conduit supported at its upper end within a recess in the inner surface of said stopper, the portion of the stopper above said recess serving to normally close said outlet against ingress of air and adapted to be pierced by the needle point of an outlet conduit, and means for creating a difference in pressure between the interior of the receptacle and said outlet conduit for forcing the liquid contents out of the receptacle and simultaneously replacing the discharged contents with sterilized air.

1,072,675. ANIMAL-TRAP. HARVEY L. TRULL, Mart, Tex., assignor of one-half to Clarence A. Trull, Waco, Tex. Filed Dec. 14, 1912. Serial No. 736,829. (Cl. 43—24.)

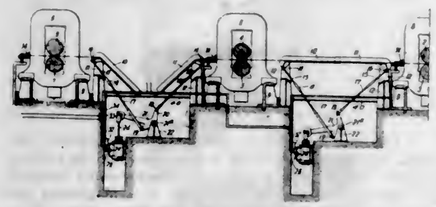


An animal trap comprising a cylindrical body having open ends with a bearing slot and a notch oppositely positioned at its upper end, a tilting platform positioned in the upper end of the cylindrical body, a crank positioned transversely through the platform and extending through the slot and notch with its extremities turned downwardly and outwardly to form crank portions, a shank extending vertically through the center of the platform and secured upon the crank, the shank having a weight upon its lower end and a bait hook upon its upper end, means carried by the cylindrical body for engagement with one extremity of the crank to hold the same stationary, a centrally apertured partition dividing the cylindrical body into upper and lower compartments, and means for closing the lower end of the lower compartment.

1,072,676. LOOPING DEVICE FOR ROLLING-MILLS. FRED W. WATERMAN, Elyria, Ohio, assignor to National Tube Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Oct. 18, 1911. Serial No. 655,389. (Cl. 80—51.)

1. In a continuous rolling mill, a looping device comprising a delivery trough divided transversely into sections

located between successive stands of rolls and arranged to deliver materials being rolled from one stand into a succeeding stand of rolls, means on which the trough sections are pivotally mounted, and means for moving said trough sections to lift the adjoining ends thereof into substantially the same horizontal plane between successive rolling operations.



2. In a continuous rolling mill, a looping device comprising a delivery trough divided transversely into sections located between successive stands of rolls and arranged to deliver materials being rolled from one stand into a succeeding stand of rolls, means on which the trough sections are pivotally mounted, means for moving said trough sections to lift the adjoining ends thereof into substantially the same horizontal plane between successive rolling operations and means for holding the trough sections in adjusted position.

3. In a continuous rolling mill, a looping device comprising a delivery trough divided transversely into sections located between successive stands of rolls and arranged to deliver materials being rolled from one stand into a successive stand of rolls, means on which the trough sections are pivotally mounted and means for moving said trough sections to lift the adjoining ends thereof into overlapping engagement between successive rolling operations.

4. In a continuous rolling mill, a looping device comprising a delivery trough located between successive stands of rolls and arranged to deliver materials being rolled from one stand to another of adjacent sets of rolls, said trough being divided transversely into sections, the adjoining ends of the trough sections being vertically adjustable to vary the height of the adjoining ends of the trough sections relatively to the opposite ends thereof, and means for maintaining the trough sections in adjusted position.

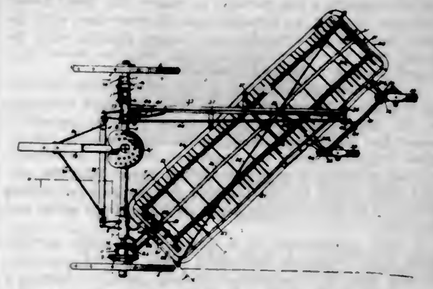
5. In a continuous rolling mill, a looping device comprising swinging trough sections located between adjacent sets of rolls and movable into and out of horizontal alinement, mechanism for moving said trough sections and means operated by contact with metal emerging from said rolls for causing the actuation of said trough moving mechanism.

[Claims 6 to 12 not printed in the Gazette.]

1,072,677. HAY RAKE AND TEDDER. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 11, 1911. Serial No. 620,420. (Cl. 56—3.)

1. In a combined hay rake and tedder, the combination of supporting wheels, an axle supported by the wheels, one end of a frame supported by the axle, supports for the rear portion of the frame, a shaft supported by the frame, a rake mounted on said shaft, a gear connected to the shaft, two gears connected to the axle, and means for moving the frame along the axle whereby the gear on the shaft may be brought into or out of engagement with either of the gears on the axle.

2. In a combined hay rake and tedder, the combination of supporting wheels, an axle supported by the wheels, one end of a frame supported by the axle, supports for the rear portion of the frame, a shaft supported by the frame, a rake mounted on said shaft, a gear connected to the shaft, two gears connected to the axle, and a hand lever having a connection with said frame adapted to move the frame along the axle whereby the gear on the shaft may be brought into or out of engagement with either of the gears on the axle.



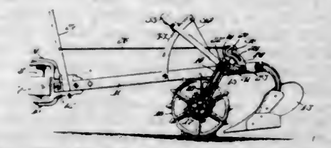
3. In a combined hay rake and tedder, the combination of supporting wheels, an axle supported by the wheels, a frame supported by the axle and slidable longitudinally thereon, a shaft carried by the frame, a rake mounted on the shaft, a gear carried by the shaft, two gears fixedly secured to said axle, and means for sliding the frame longitudinally upon said axle whereby the gear on the shaft may be brought into and out of engagement with either of the gears on the axle.

4. In a combined hay rake and tedder, the combination of supporting wheels, an axle supported by the wheels, the forward end of a frame supported by the axle, suitable wheel supports for the rear portion of the frame, a shaft supported by the frame, and rotatable by the supporting wheels, a casing connected to the shaft, elliptical and eccentric spur gears supported by the casing, a central gear, a gear connection between the elliptical eccentric gear and the central gear, a support connected to one of the elliptical eccentric gears, and teeth carried by the support.

5. In a combined hay rake and tedder, the combination of supporting wheels, an axle supported by the wheels, the forward end of a frame supported by the axle, suitable wheel supports for the rear portion of the frame, a shaft supported by the frame and rotated by the supporting wheels, a casing connected to the shaft, a central gear, a combined spur gear and elliptical eccentric gear, this spur gear meshing with the central gear, an elliptical eccentric gear meshing with the elliptical eccentric gear of the combined gear, a support connected to the single elliptical eccentric gear, and teeth carried by the support.

[Claims 6 to 10 not printed in the Gazette.]

1,072,678. POWER-LIFT PLOW. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Original application filed May 27, 1912, Serial No. 700,042. Divided and this application filed Apr. 19, 1913. Serial No. 762,384. (Cl. 97—70.)



1. The combination of a frame, a plow beam connected to the frame and capable of a vertical movement, a support pivoted to the plow beam, a wheel mounted on the support and having a clutch wheel rotatable therewith, a dog movable longitudinally on the support to engage the clutch wheel fixedly with the support, and operable means carried by the beam for moving the dog in said movement and for holding the dog locked out of said engageable position thereof, when the support has been moved to its raised position.

2. The combination of a plow beam, a support connected to the beam and movable relative thereto to move the beam to a raised and lowered position, a wheel rotatable on the support, a dog movable to engage the wheel fixedly with the support, an actuable cam in connection with the plow beam to hold the dog in a locked position with the wheel free to rotate, and to hold the plow beam in a raised position locked with the said support.

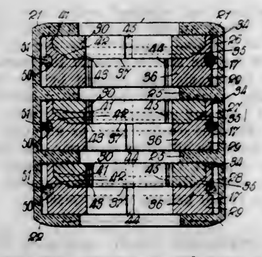
3. The combination of a frame, a vertically movable plow beam connected thereto, a wheel support connected to the beam and movable vertically relative thereto, a wheel for the support, and raising and lowering mechanism coöperable with the beam and support, including a member movable to engage the wheel fixedly with the support, and means for moving said member and for locking same out of the said engageable position of the wheel and support.

4. The combination of a frame, a vertically movable plow beam connected thereto, a wheel support connected to the beam and movable vertically relative thereto, a wheel for the support, and raising and lowering mechanism coöperating with the beam and support, including a member movable to engage the wheel fixedly with the support, and means for locking said member out of said engageable position and for locking the beam, when the beam is raised, with the support.

5. The combination with a plow beam and a movable wheel support connected thereto, of a wheel for the support, and means coöperating with the beam and support for moving the beam to a raised and lowered position, including, a dog movable to engage the wheel fixedly with the support, and means for actuating said dog and for holding the dog locked out of its position to engage the wheel and support.

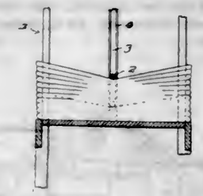
[Claims 6 to 15 not printed in the Gazette.]

1,072,679. ROD-PACKING. ALBERT K. WAYCOTT, New York, N. Y. Filed June 11, 1910. Serial No. 566,397. (Cl. 121—109.)



In a rod packing, the combination with a stuffing box having a cylindrical chamber therein, and having an annular flange upon the outer peripheral surface thereof, and means for securing an interfitting gland within the said stuffing box and said flange, of a segmental retaining case having a plurality of annular chambers therein, each adapted to receive a segmental packing ring, means for retaining the segments of said retaining case in position and annular flanges for separating the retaining case into compartments and engage the piston rod, means for introducing a gasket in the ends of the stuffing box adjacent to said retaining case, a segmental packing ring in each of said chambers in the retaining case, said packing being composed of three, or more parts having spaced openings between the ends thereof, and a smaller segmental ring composed of three or more parts disposed within the outer ring, and having spaced openings between the ends, said openings alternating between the openings of the outer ring, said outer segmental ring being of a diameter whereby a space is provided between the outer peripheral surface thereof and the inner peripheral surface of the chamber of said gland, said segmental outer ring having a groove in the outer peripheral surface thereof, and a spiral spring seated in said groove circumferentially of said ring, substantially as and for the purposes set forth.

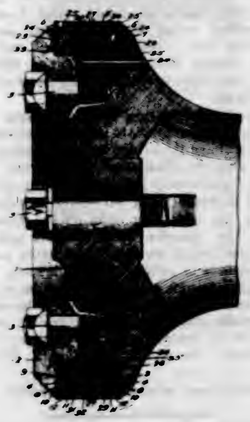
1,072,680. ARTICLE-HOLDING DEVICE. CHARLES E. WHITE and GEORGE ELLIOTT, Washington, D. C. Filed June 23, 1913. Serial No. 775,210. (Cl. 211—14.)



1. A device for holding papers and like articles, consisting of a supporting stand having a rest for the articles, uprights having grooves and a gravitating roller mounted for rotation and vertical movement in said grooves and means for holding said roller against displacement therefrom.

2. A device for holding papers and the like, comprising a supporting stand having a rest for the articles, uprights having grooves, and a gravitating roller having its ends revoluble in said grooves and adapted to rest upon the uppermost paper and to be revolved by removal of such paper.

1,072,681. PISTON-VALVE. JOHN T. WILSON, Jersey Shore, Pa. Filed Nov. 15, 1912. Serial No. 731,585. (Cl. 121—108.)



1. A piston valve having a packing comprising a resilient expansible packing ring, means for admitting steam beneath the packing ring to expand the same, and means for positively limiting the degree of expansion of the said packing ring.

2. A piston valve having a packing comprising two resilient expansible packing rings, and means for positively limiting the expansions of said rings to degrees corresponding to the desired wear of the exterior surfaces of said rings.

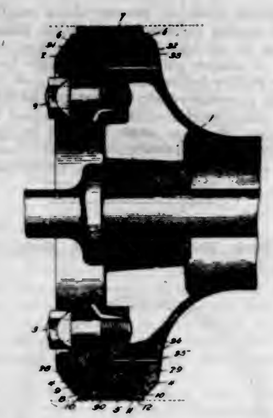
3. A piston valve having a packing comprising two expansible packing rings, means for admitting steam beneath the rings to expand them, and means for positively limiting the degrees of expansion of the said rings.

4. A piston valve having a packing comprising two expansible packing rings, a ring between said packing rings, and means for limiting the degrees of expansion of the packing rings.

5. A piston valve having a packing comprising two expansible packing rings each with a circumferential groove in its side surface, an expansible ring with tongues at its side edges seated within the grooves in the sides of the packing rings, and means for limiting the degrees of expansion of the packing rings.

[Claims 6 to 18 not printed in the Gazette.]

1,072,682. PISTON-VALVE. JOHN T. WILSON, Jersey Shore, Pa. Filed Nov. 15, 1912. Serial No. 731,536. (Cl. 121—108.)



1. A piston valve having a packing comprising an expansible packing ring, and means for positively limiting the expansion of said ring to a degree corresponding to the permissible wear of the exterior surface of said ring and for holding the ends of the ring in line, said means consisting of a joint plate rigidly secured to one end of the said ring and said plate movably united to the opposite end of the ring by a slot and pin or lug connection, the pin or lug being located a distance from the end of the slot corresponding to the permissible wear of the exterior surface of the packing ring.

2. A piston valve having a packing comprising an expansible packing ring, means for admitting steam beneath the under surface of the packing ring to expand the same, and means for positively limiting the degree of expansion of the said packing ring and holding the ends of the ring in line, said means consisting of a projection on one end of the ring located and movable within a slot of the other end of the ring.

3. A piston valve having a packing comprising an expansible packing ring, one end of said ring being provided with a joint plate rigidly secured thereto and having a side slot therein, and the other end having a side projection located and movable within the said slot, the projection being so located within the slot that its distance from the outer end of the same will correspond to the predetermined amount of wear of the exterior surface of the packing ring.

4. A piston valve having a packing comprising two expansible packing rings, means for simultaneously admitting steam beneath the under surfaces of the rings to expand them, and means for positively limiting the degrees of expansion of the said rings and holding the ends of each ring in line, said means consisting of joint plates with slotted flanges and projecting lugs or pins.

5. A piston valve having a packing comprising two expansible packing rings each with a circumferential groove in its side surface, and an expansible ring with tongues at its side edges seated within the grooves in the sides of the packing rings; each of said packing rings being provided at its free ends with a slot and lug connection whereby the ends of a ring are held in line so neither end can expand into a port.

[Claims 6 to 14 not printed in the Gazette.]

1,072,683. PACKING FOR PISTON-VALVES. JOHN T. WILSON, Jersey Shore, Pa. Filed Nov. 15, 1912. Serial No. 731,537. (Cl. 121—108.)



1. A piston valve having a packing ring provided with a circumferential groove in its exterior surface and near one of its edges, one surface defining the groove being a beveled surface.

2. A piston valve having a packing ring provided with a circumferential groove defined by a vertical surface and a surface at an angle to the first mentioned surface.

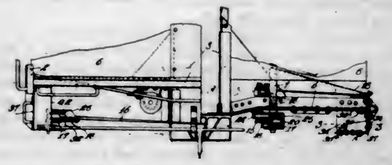
3. A piston valve packing comprising two expansible rings and an intermediate ring, each of said expansible rings having a rectangular outer edge to present a sharp steam line and a circumferential groove in the exterior surface thereof located adjacent to its said rectangular outer edge.

4. A piston valve packing comprising two expansible rings and an intermediate ring, each of said expansible rings having a circumferential groove in the exterior surface thereof located adjacent to its outer edge and one of the surfaces defining the groove being a beveled surface.

5. A piston valve having two expansible rings, the exterior inner edge of each being beveled, for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,072,684. DUMP-CAR. WINFIELD HANCOCK YOST, Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 16, 1911. Serial No. 660,703. (Cl. 105—14.)



1. A dump car having dump member operating mechanism located outside the body of the car, and an inclosing structure for such mechanism secured to the body of the car and having an opening to permit of lateral movement of the dump member operating mechanism, such opening being accessible from the exterior of the car.

2. In a dump car, an end sill, laterally movable dump member operating mechanism located at the outer side of such end sill, and a protecting structure secured to the car and extending longitudinally thereof and adapted to inclose the said operating mechanism such structure having one side open to permit of lateral movement of the said operating mechanism.

3. A dump car having an end sill comprising an integral member extending from a point adjacent the center of the car transversely to the car side, laterally movable operating mechanism located at the outer side of such end sill, and an inclosing structure separate from and braced by such end sill and projecting longitudinally therebeyond to inclose the said operating gear.

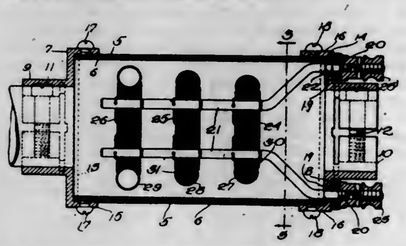
4. In a dump car, the combination with the end sill thereof, of a vertically disposed channel plate with inwardly projecting flanges having one flange secured to the end sill, such plate extending longitudinally of the car beyond the end sill, and top and bottom bracing members ex-

tending between the other flange of the channel plate and the end sill.

5. In a dump car, the combination with the end sill thereof, of a vertically disposed channel plate with inwardly projecting flanges having one flange secured to the end sill, such plate extending longitudinally of the car beyond the end sill, and top and bottom bracing members extending between the other flange of the channel plate and the end sill, the lower bracing member being inclined, the top bracing member being of lesser transverse width than the second mentioned flange to cause the latter to project inwardly therebeyond, the bottom member being of a transverse width substantially the same as that of the said second mentioned flange.

[Claims 6 to 15 not printed in the Gazette.]

1,072,685. VAPORIZER. GEORGE A. ARNOLD, Middletown, Conn., assignor to Arnold Electric Company, a Corporation of Massachusetts. Filed Mar. 24, 1913. Serial No. 756,376. (Cl. 219—19.)



1. A vaporizer of the nature described comprising a cylindrical chamber, a pair of clamping collars having members removably mounted on said chamber and forming the ends thereof, a pair of electric conductors carried by a member of one of said collars and forming supporting members within said chamber, a series of deflectors of electric insulating material mounted on said conductors, and a series of electric resistance coils carried by said deflectors, whereby said clamping collar, conductors and deflectors form a removable unit.

2. A vaporizer of the nature described comprising a cylindrical chamber, a head secured to said chamber, a pair of electric terminals extending through said head, a series of deflectors mounted on said terminals and increasing progressively in diameter, and electric resistance coils embracing said deflectors and in electrical connection with said terminals, one of said coils having its convolutions packed with heat resisting material and another of said coils being open for the circulation of fluid therebetween.

3. The combination with a cylindrical chamber, a head secured to such chamber and having an inlet opening and a clamping collar, a pair of electric terminals extending through said head, a deflector mounted on said terminals and in line with said inlet, an electrical heating coil of comparatively high intensity mounted on said deflector and electrically connected with said terminals, and a pair of deflectors spaced apart on said terminals at a distance from said first deflector and having electrical heating coils of progressively decreasing intensity in electric connection with said terminals substantially as described.

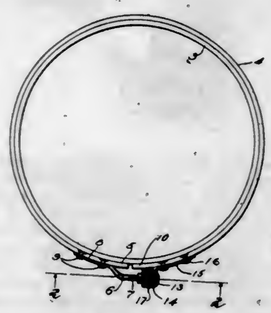
1,072,686. PROCESS OF OBTAINING POTASH SALTS FROM FELDSPAR. HARRY P. BASSETT, Baltimore, Md., assignor to The Spar Chemical Company, Baltimore, Md., a Corporation of Maryland. Filed June 22, 1911. Serial No. 634,779. (Cl. 23—22.)

1. The herein described process which consists in adding sodium chlorid to feldspar or similar potassium containing rock, heating the mixture in the presence of air without the addition thereto of lime or other calcium containing compound to a reacting temperature to render the potassium salts present soluble in water and dissolving out the potassium salts with water.

2. The herein described process which consists in adding sodium chlorid to feldspar or similar potassium containing rock in the proportions of approximately one part by weight of sodium chlorid to two parts by weight of feldspar or similar potassium containing rock, heating the mixture in the presence of air without the addition thereto of lime or other calcium containing compound to a reacting temperature to render the potassium salts soluble in water and dissolving out the potassium salts with water.

3. The herein described process which consists in adding sodium chlorid to feldspar or similar potassium containing rock in the approximate proportions of one part by weight of sodium chlorid to two parts by weight of feldspar or similar potassium containing rock, heating the mass in the presence of air without the addition thereto of lime or other calcium containing compound to a yellow heat, bringing the mass while still hot in contact with water, leaching said mass with water, and recovering the potassium salts from the leachings, substantially as described.

1,072,687. EMBROIDERY-HOOP. VICTOR BEAUREGARD, Boston, Mass. Filed Feb. 13, 1913. Serial No. 748,075. (Cl. 45—24.)

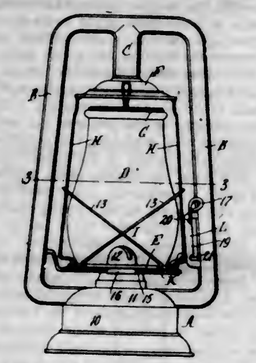


1. An embroidery hoop comprising an inner closed hoop and an outer divided hoop provided with means for compressing it upon the inner hoops; said means consisting of a screw-member secured on one end of said divided hoop, a collar fastened to the other end of said hoop and a screw-head having a flange at one end integral therewith and a finger piece; said screw-head being rotatably mounted in said collar and held in place therein by said flange on one side and said finger piece on the other side of said collar.

2. An embroidery hoop comprising an inner closed hoop and an outer divided hoop provided with means for compressing it upon the inner hoop; said means consisting of a screw member fastened to one end and a collar secured to the other end of said divided hoop, a screw-head having a central threaded bore to receive the said screw member and having at its opposite end a flange integral therewith and a finger piece forced upon the body of said screw-head; said screw-head being rotatably mounted in said collar and held in place thereon by said flange on one side and said finger piece on the other side of said collar.

1,072,688. TUBULAR LANTERN. CHARLES BERGENER, Rochester, N. Y., assignor, by direct and mesne assignments, of one-half to C. T. Ham Manufacturing Company, Rochester, N. Y., and one-half to R. E. Dietz Company, New York, N. Y., a Corporation. Filed Mar. 30, 1909. Serial No. 486,806. (Cl. 240—32.)

1. The combination with a lantern frame and a globe-holding frame movable up and down therein and comprising a bottom member upon which the globe rests and upright side members, of a guard secured to said bottom member and having flattened side portions which bear against said side members between the ends thereof, substantially as set forth.



2. The combination with a lantern frame and a globe-holding frame movable up and down therein and comprising a top member, side members secured thereto and a bottom member having a tilting connection with the side members, of a guard secured to said bottom member and having flattened side portions which bear against said side members between the ends thereof, substantially as set forth.

3. The combination with a lantern frame and a globe-holding frame movable up and down therein and comprising a bell, side wires secured thereto and a globe plate movably connected with the side wires, of a guard secured to the globe plate and having flattened side portions which bear against the side wires above the lower ends thereof, substantially as set forth.

4. The combination with a lantern frame and a globe-holding frame movable up and down therein and comprising a top member, side members secured thereto and a bottom member having a tilting connection with the side members, of a guard secured to said bottom member and having depressed side portions which bear against the side members above the lower ends thereof, substantially as set forth.

5. The combination with a tubular lantern frame and a globe support movable up and down therein, of a flexible transverse lifter shaft connected with said globe support and provided with a lifting lever which is arranged on the inner side of one of the side tubes, and a catch plate secured to said tube on the inner side thereof and having an outwardly turned locking face against which said lever bears with an inward pressure, substantially as set forth.

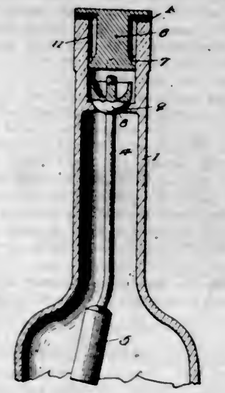
[Claims 6 to 14 not printed in the Gazette.]

1,072,689. NON-REFILLABLE BOTTLE. FRANK F. C. BLAKE and ALBERT C. BLAKE, Buffalo, N. Y. Filed June 10, 1912. Serial No. 702,830. (Cl. 215—63.)

1. In a nonrefillable bottle having a valve seat in its neck and a valve upon the seat, a guard for the valve arranged within the neck and comprising a body having a circumscribing channel and passageways communicating with the channel at both sides thereof and relatively displaced, the said body being provided with a flange resting against the edge of the bottle neck and the said flange being formed with notches communicating with the upper ones of the said channels.

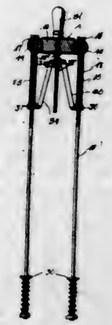
2. In a nonrefillable bottle having its neck provided interiorly with a valve seat, and a valve upon the seat, a guard for the valve comprising a body fitted within the neck and formed with relatively displaced channels, and with a circumscribing groove in communication with said channels, the body being formed with a circumscribing flange resting upon the edge of the neck of the bottle and formed with a notch registering with the upper one of the said channels.

3. In a non-refillable bottle having its neck provided interiorly with a valve-seat, and a valve upon the seat, a guard for the valve comprising a body fitted within the neck and formed with relatively displaced channels and with a circumscribing groove in communication with said channels, the body being formed at its upper end with a



circumscribing flange resting upon the upper edge of the neck of the bottle and formed at diametrically opposite points with notches registering with the upper ones of the said channels, the walls of the notches forming in conjunction with the upper edge of the bottle neck, discharge passages.

1,072,690. GARMENT-STRETCHER. FRANK W. BOGNAR, Williamsport, Pa. Filed Sept. 23, 1910. Serial No. 583,468. (Cl. 223—19.)



1. A garment stretcher comprising a head provided with a rotatable handle, a rotatable member carried by said head at each end, a rod supported by each rotatable member for movement therewith, a threaded extension on said handle disposed between said rods, a threaded collar mounted on said extension, a toggle lever connecting said collar with each of said rods whereby the rotation of the handle will move said rods toward and away from each other, and a pair of stretcher bars connected to each of said rods on opposite sides thereof respectively and adapted for movement toward and away from the rods.

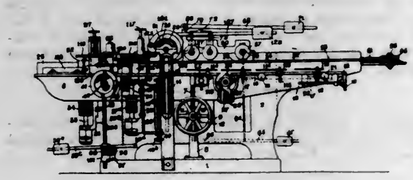
2. A garment stretcher comprising a head provided with a handle, a pair of rods supported by said head, means for moving said rods toward and away from each other, a collar fixed to each of said rods at their upper ends, a sleeve slidably mounted upon each of said rods below said collar, a stretcher bar disposed on opposite sides of each

rod, and toggle levers connecting each of said bars to said collar and to said sleeve.

3. A garment stretcher comprising a head provided with a handle, a pair of rods supported by said head, each of said rods comprising a tubular upper member, a tubular lower member telescoping within said upper member and having the upper end of its bore threaded, a threaded stem extending through the upper tubular member and engaging the threaded upper end of the lower tubular member whereby the rotation of said stem will move the lower tubular member into and out of the upper tubular member, a stretcher bar mounted on opposite sides of each of said rods, and toggle levers connecting said bars to the upper and lower tubular members of said rods respectively.

4. A garment stretcher comprising a head provided with a handle, a pair of rods supported by said head, means for moving said rods toward and away from each other, a collar fixed to each of said rods at their upper ends, a sleeve slidably mounted upon each of said rods below said collar, a stretcher bar disposed on opposite sides of each rod, toggle levers connecting each of said stretcher bars to said collar and to said sleeve, a flange on the lower end of each rod, and a spring encircling each rod at the lower end and having one end in engagement with said flange and its other end adapted to be engaged by said sleeve.

1,072,691. WOOD-PLANING MACHINE. CHARLES W. BORO, Moline, Ill. Original application filed Sept. 7, 1906, Serial No. 333,707. Divided and this application filed Jan. 23, 1907. Serial No. 353,663. (Cl. 144—1.)



1. In a wood-working machine, the combination of an initial horizontal feed table, a cutter adapted to be adjusted to have its cutting plane above the said feed table, a horizontal plane table in the rear of the cutter, means for adjusting the cutter to have its cutting plane exactly in the plane of the said plane table or above said plane table as desired, a series of feed-rolls above said tables, some of the rolls of said series contacting with the blank before said blank reaches the cutter, others of the rolls of said series contacting with the blank after it has passed the cutter, mechanism which holds the first rolls of the series in contact with the blank with comparatively light pressure and which holds the other rolls of the series in contact with the blank with comparatively heavy pressure.

2. In a wood-working machine, the combination of a main frame, a horizontal plane table adjustably mounted thereon, a horizontal cutter arranged with its cutting plane exactly in the plane of said table and mounted on the said table, an initial feed table adjustable to a plane below the cutting plane of the said cutter, means for holding the blank flatly and firmly in contact with the said plane table, a vertical plane receiving guide mounted on said main frame in the rear of the said first cutter and capable of transverse adjustment, means for holding the blank firmly against the said plane receiving guide, a vertical cutter arranged with its cutting plane exactly in the plane of said vertical receiving guide, a vertical feeding guide arranged to coöperate with the said vertical cutter and adjustably mounted on said horizontal plane table arranged with its blank contacting surface farther removed from the longitudinal axis of the blank than is the said vertical cutter, and means for holding the blank firmly and flatly against the said vertical plane receiving guide.

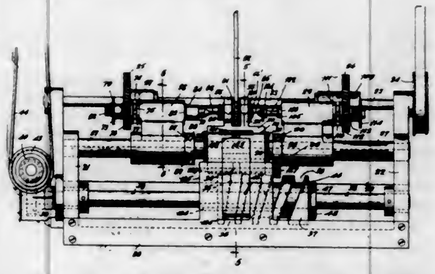
3. In a wood-working machine, the combination of an initial horizontal feed table, a horizontal cutter in the rear thereof and with its cutting plane adjustable above the said feed table, a horizontal plane table in the rear of the said cutter and exactly in the cutting plane of the said cutter, means for holding the blank flatly and firmly against the said plane table irrespective of all other holding devices, and a feed chain passing the said cutter, the said feed chain being adapted to contact with the blank at a part perpendicular to the plane of the feed table.

4. In a wood-working machine, the combination of an initial horizontal feed table, a horizontal cutter in the rear thereof and with its cutting plane adjustable above the said feed table, a horizontal plane table in the rear of the said cutter and exactly in the cutting plane of the said cutter, means for holding the blank flatly and firmly against the said plane table irrespective of all other holding devices, a feed chain passing the said cutter, all parts of said feed chain lying in a horizontal plane a vertical feed guide, a vertical cutter arranged with its cutting plane nearer the longitudinal axis of the blank than is the vertical feed guide, a vertical plane receiving guide arranged in the cutting plane of the said vertical cutter, and means for holding the blank flatly and firmly against the vertical plane table.

5. In a wood-working machine, the combination of an initial horizontal feed table, a horizontal cutter in the rear thereof and with its cutting plane adjustable above the said feed table, a horizontal plane table in the rear of the said cutter and exactly in the cutting plane of the said cutter, means for holding the blank flatly and firmly against the said plane table irrespective of all other holding devices, and a feed chain passing the said cutter and mounted to travel with all parts in a plane parallel to the said horizontal plane table.

[Claims 6 to 8 not printed in the Gazette.]

1,072,692. GRINDING-MACHINE. GEORGE W. BOWERS, Somerville, Mass. Filed Dec. 2, 1912. Serial No. 734,450. (Cl. 51—4.)



1. A grinding machine having a rotary work holder, means for rotatively supporting and driving both ends of a grinding element extending through the work carried by said holder, and means for relatively adjusting the holder and grinding element laterally.

2. A grinding machine having a pivotally mounted rotary work holder, means for rotatively supporting and driving both ends of a grinding element extending through the work carried by said holder, and means for laterally adjusting the work holder, on its pivot.

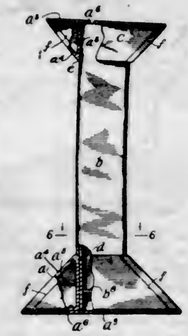
3. A grinding machine having two rotatable spindles and means for rotating them in unison, said spindles having means for grasping opposite ends of a grinding element and a work holder intermediate said spindles, said work holder having means for rotating it in a direction opposite to the direction of rotation of the spindles.

4. A grinding machine having a rotary work holder, means for rotatably supporting and driving both ends of a grinding element extending through the work carried by said holder, and means for traversing said work holder in the direction of the axis of the grinding element.

5. A grinding machine having means for rotatably supporting both ends of a grinding element, a carriage having a rotary work holder, and means for imparting a variable amount of traverse of said carriage in the direction of the axis of the grinding element.

[Claims 6 to 14 not printed in the Gazette.]

1,072,693. DISPLAY-STAND. ARTHUR BRACKLEY, Jersey City, N. J. Filed Dec. 27, 1912. Serial No. 738,826. (Cl. 211—24.)



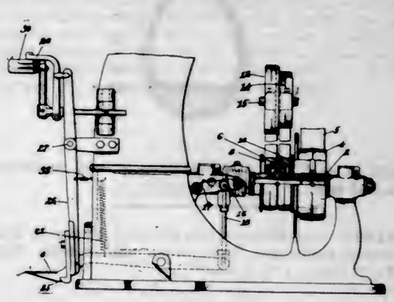
1. A display stand comprising a base, stem and table, said base being of the form of a truncated pyramid, and the table being of the form of an inverted truncated pyramid, said base and table being formed from blanks of the same shape, and being provided with central openings to receive the opposite ends of the stem, and the stem being composed of separate telescopic members formed from blanks, the opening in the base member being adapted to receive one end of the inner stem member, and the opening in the table being adapted to receive the opposite end of the outer stem member.

2. A display stand comprising a base, stem and table, said base being of the form of a truncated pyramid, and the table being of the form of an inverted truncated pyramid, said base and table being formed from blanks of the same shape, and being provided with central openings to receive the opposite ends of the stem, and the stem being composed of separate telescopic members formed from blanks, the opening in the base member being adapted to receive one end of the inner stem member, and the opening in the table being adapted to receive the opposite end of the outer stem member, and the top of the stem being provided with means whereby the table may be supported in different positions thereon.

3. A display stand comprising a base, stem and table, said base being of the form of a truncated pyramid, and the table being of the form of an inverted truncated pyramid, said base and table being formed from blanks of the same shape, and being provided with central openings to receive the opposite ends of the stem, and the stem being composed of separate telescopic members formed from blanks, the opening in the base member being adapted to receive one end of the inner stem member, and the opening in the table being adapted to receive the opposite end of the outer stem member, said base, stem and table being all rectangular in form in horizontal section.

4. A display stand composed of a base, a stem and a table, the stem being composed of separate telescopic parts one of which is longer than the other, and the base and table being provided with central openings into which the separate parts of the stem are inserted, the opening in the base being adapted to receive the lower end of the inner part of the stem and the opening in the table to receive the upper end of the outer part of the stem, said outer part of the stem being adapted to rest on the base.

1,072,694. LASTING-MACHINE SPEED-CONTROLLING MECHANISM. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 3, 1912. Serial No. 713,132. (Cl. 74—59.)



1. In mechanism of the class described, a driver and driven devices adapted to be operated at different speeds from the driver and speed controlling mechanism including a treadle to control the speed by its position, means adapted to be rendered operative or inoperative by the limb, substantially as described, of the operator that manipulates the treadle to provide a firm support for the treadle in a mid position of the treadle.

2. In mechanism of the class described, a driver and driven devices adapted to be operated at different speeds from the driver and speed controlling mechanism including a treadle to control the speed by its position, a treadle stop adapted to be controlled by the treadle depressing limb of the operator to present a rigid abutment against complete depression of the treadle.

3. In mechanism of the class described, a driver and driven devices adapted to be operated at different speeds from the driver and speed controlling mechanism including a treadle to control the speed by its position, a treadle stop normally held automatically in an inoperative position and adapted to be moved manually into position to cause the treadle to present a firm rest for the operator's foot while the treadle is in less than its fully depressed position.

4. In mechanism of the class described, a driver and driven devices adapted to be operated at different speeds from the driver and speed controlling mechanism including a treadle to control the speed by its position, a pivoted treadle stop adapted to be swung into position to cause the treadle to afford a rigid support for the operator's foot while the treadle is partially depressed.

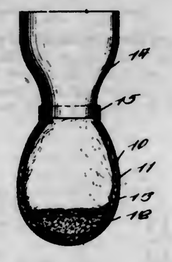
5. In mechanism of the class described, a driver and driven devices adapted to be operated at different speeds from the driver and speed controlling mechanism including a treadle to control the speed by its position, a treadle stop pivoted to the treadle and adapted to be turned by the operator's foot into position to form a rigid abutment between the treadle and the floor for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,072,695. POCKET-CUSPIDOR. WILFRED A. BROTHERTON, Rochester, Mich. Filed Nov. 5, 1912. Serial No. 729,681. (Cl. 4—38.)

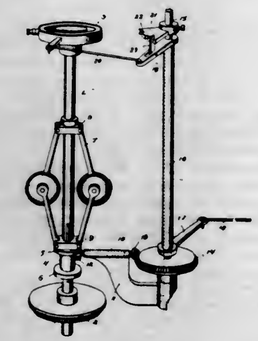
The combination with a flexible sack and a flexible mouth-piece in the throat of said sack, of a metallic pliable collar exteriorly encircling the mouth of said sack

and normally holding open said sack, said collar being adapted to be rolled or folded upon itself to seal the



mouth of said sack after insertion of said mouth-piece into said sack.

1,072,696. GAS-ENGINE GOVERNOR. FRANK G. BURGHOFFER, Bellingham, Wash. Filed Aug. 28, 1912. Serial No. 717,557. (Cl. 123—117.)



1. In a governor mechanism for internal combustion engines, the combination of concentric shafts, one of said shafts being adapted to have connection with the timer and the throttle of the engine, connecting means between the two shafts to admit of one being moved independently of the other or both being connected at any relative adjustment for simultaneous movement, a shaft adapted to be operated from a moving part of the engine, governor arms secured at one end to said shaft, a sleeve splined to the shaft and having the opposite ends of the governor arms connected thereto, a shaft geared to one of the concentric shafts, and a wheel secured to the last mentioned shaft and arranged to operate between the disks of the before mentioned sleeve.

2. A governor mechanism for internal combustion engines comprising a power operated shaft adapted to be driven from a moving part of the engine, a timer loose on said shaft, a sleeve splined to the shaft, governor arms connecting said sleeve and shaft, concentric shafts parallel with the power driven shaft, an intermediate shaft geared to one of the concentric shafts, a wheel secured to the intermediate shaft and arranged to operate between projecting portions of the before mentioned sleeve, connecting means between the other one of the concentric shafts and the timer and throttle of the engine, and connecting means between the said concentric shafts to admit of connecting them in any relative adjusted position or to admit of said shafts having independent movement.

1,072,697. BALL-PLAYER'S GLOVE. JOHN S. CAMMON, Boston, Mass., assignor to Walter T. Stall and Charles H. Dean, copartners doing business as Stall & Dean Manufacturing Company, at Brockton, Mass. Filed July 18, 1912. Serial No. 710,139. (Cl. 2—195.)

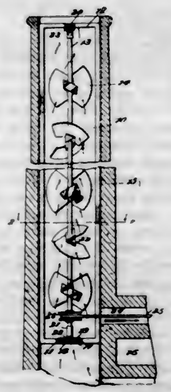


1. A ball-player's hand protector having a portion arranged to receive the impact of a flying ball, finger pockets connected to said portion, and metallic pieces of appreciable weight secured within the ends of certain of such pockets.

2. A ball-player's hand protector having finger pockets, and metallic pieces of appreciable weight secured within the ends of certain of such pockets only at the front thereof said pieces being concave on the rear sides to fit the tips of the wearer's fingers.

3. A ball-player's hand protector comprising a hand covering and a lining therefor, a leather sack secured to the lining, and a weight inclosed in said sack, the location of the sack being such that the weight lies near the tip of a finger on the hand on which the glove is worn.

1,072,698. FAN ATTACHMENT FOR SMOKE-STACKS. CHARLES K. CHATTERTON, Long Prairie, Minn., assignor of one-fourth to Perry Knapp, Long Prairie, Minn. Filed June 29, 1912. Serial No. 706,761. (Cl. 253—2.)

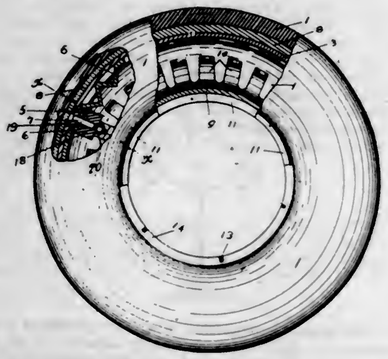


1. A motor including a rotor shaft, and a plurality of propeller blades secured to said shaft and extending radially therefrom, the inner and outer edges of said blades being arcs of concentric circles of which the end edges

are radii, said blades being arcuately curved longitudinally in planes at right angles to the planes of their outer edges by bending them uniformly from end to end.

2. A motor including a vertical rotor shaft, a plurality of propeller blades arranged in oppositely disposed pairs, and means for securing said blades to the shaft, said means including blade holders provided centrally with bores through which the shaft extends, said bores being so formed as to incline the holders at an acute angle to the shaft, the end portions of said holders being beveled to form wedge-shaped blade receiving members which are slotted axially to seat the blades, said wedge-shaped members being oppositely formed to incline the blades carried by each holder in reverse direction, the inclination of the blade holders with respect to the shaft positioning one blade of each pair above the other blade and both blades at an angle to the shaft.

1,072,699. RESILIENT VEHICLE-TIRE. JOHN T. CLARK, Provo, Utah. Filed Nov. 8, 1911. Serial No. 659,161. (Cl. 152—8.)

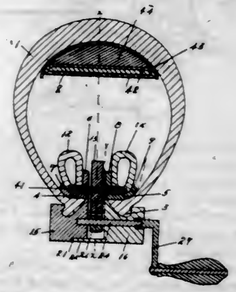


1. A vehicle tire consisting of a strip of spring metal having a V-shaped transverse crimp in one end portion and a plurality of similar crimps in the other end portion; a washer formed to fit within said crimps and one to fit over said crimps; means to hold said washers in gripping contact with said metal strip to form it into a spring band; a flexible guard band contiguously placed on the peripheral face of said spring band; a floating metal band of less diameter than said spring band concentrically placed therein; supporting spring members integrally formed on and outwardly extended from the edges of said metal band; and means to inclose said guard band and said spring band and said metal band and tending to draw said spring band radially inward and said metal band radially outward, said means consisting of an outer flexible casing and tensioning devices to draw the edges of said casing toward each other within said metal band.

2. A vehicle tire consisting of a metal spring having holes and V-shaped crimps in each end portion thereof; a washer formed to fit within and one to fit without said crimps; and means to draw said washers in gripping contact with said metal spring when the end portions have been placed adjoining each other to form a spring band, said means consisting of a bolt and nut secured thereon, a floating metal band of less diameter and concentrically placed within said spring band; a flexible outer casing; and means to draw the edges of said casing toward each other within said metal band.

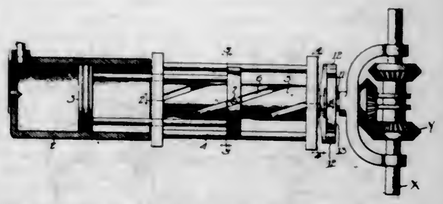
1,072,700. RESILIENT VEHICLE-TIRE. JOHN T. CLARK, Provo, Utah. Filed Nov. 18, 1912. Serial No. 732,178. (Cl. 152—8.)

1. A resilient tire for vehicles consisting of an outer tubular casing; a spring band within said casing; two channel bands adjustably spaced apart and held concentrically within said spring band by said casing, and provided in their adjacent faces with alined square openings; internally threaded sleeve-nuts in said openings, the sleeve-nuts in one band having right, and those in the other band having left hand threads; turn-buckles threaded to engage said sleeve-nuts and adapted when rotated to adjust the space between said channel bands; a spur gear carried on each turn-buckle; and means to hold the edges of said outer casing in a fixed relation to each other, said means consisting of two annular bands; and means to rotate said turn-buckles and thereby to adjust the space between said channel bands; said means consisting of shafts mounted in said annular bands; a pinion on each of said shafts, the teeth of which mesh with the teeth of the spur gear; and means to rotate said shaft.



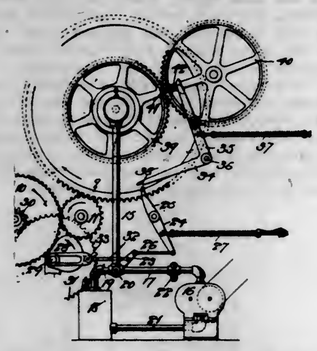
2. A resilient tire for vehicles consisting of a tubular casing; a spring band within said casing; two channel bands adjustably spaced apart and concentrically held within said spring band by said casing and provided in their adjacent faces with alined square openings; internally threaded sleeves in said openings, the sleeves in one band having right, and those in the other band having left hand threads; tubular buffer bands concentrically held within said channel bands by engagement with said sleeves; turn buckles threaded to engage said sleeves and adapted when rotated to adjust the space between said channel bands; and means to adjust and hold the edges of said casing in fixed relation to said spring band.

1,072,701. ENGINE. CARL ALFRED COLLINS, Brockton, Mass. Filed Feb. 14, 1910, Serial No. 543,657. Renewed Feb. 24, 1913. Serial No. 750,412. (Cl. 121—45.)



The combination of, a member 2, a reciprocating member having its exterior head hollow working in said member 2, a shoe carried in said hollow head, a guide 4 in alinement with the aforesaid member 2 adapted to surround and embrace the hollow head, a hollow spirally grooved shaft having its cavity enlarged at one extremity running longitudinally of said guide and adapted to engage said shoe, an inner shaft keyed to said hollow shaft, a disk keyed to said inner shaft, a clutch 12 engaged thereby and a spiral spring within the before-mentioned enlarged cavity of the hollow shaft having one extremity secured to the inner shaft while the opposite is secured to the guide.

1,072,702. PRINTING-MACHINE. EDGAR H. COTTRELL, New York, N. Y., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed May 22, 1911. Serial No. 628,772. Cl. 101—112.)



1. In combination, a cylinder, a shifting tympan thereon and a common means for subjecting the tympan to one pressure while fixed and to another pressure when shifting.

2. In combination, a cylinder, a plurality of shifting tympans thereon and a common means for subjecting the tympans to one pressure while fixed and to another pressure when shifting.

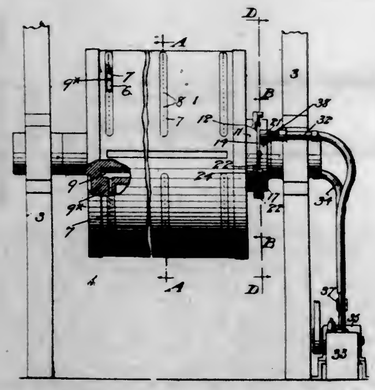
3. In combination, a cylinder, a shifting tympan thereon and a common means for subjecting the tympan to suction while fixed and for removing the suction when shifting.

4. In combination, a cylinder, a plurality of shifting tympans thereon and a common means for subjecting the tympans to suction while fixed and for removing the suction when shifting.

5. In combination, a cylinder, a shifting tympan thereon, and a common means for holding the tympan against the cylinder by suction and for blowing the tympan away from the cylinder during the shifting operation.

[Claim 6 not printed in the Gazette.]

1,072,703. PRINTING-MACHINE. EDGAR H. COTTRELL, New York, N. Y., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed June 21, 1912. Serial No. 705,068. (Cl. 101—112.)



1. In combination, a cylinder, a plurality of tympans thereon, and a common means for holding the tympans against the cylinder by suction.

2. In combination, a cylinder, a plurality of shifting tympans thereon and a common means for holding the tympans against said cylinder by suction.

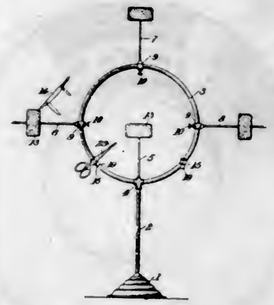
3. In combination, a cylinder, a plurality of tympans thereon and a common tympan holding device comprising an exhaust pump and means for automatically bringing the exhaust pump into and out of operative relation with respect to the tympans.

4. In combination, a cylinder, a plurality of shifting tympans thereon, and a common tympan holding device comprising an exhaust pump and means for automatically bringing the exhaust pump into and out of operative relation with respect to the tympans.

5. In combination, a cylinder, a shifting tympan thereon and means for subjecting the tympan to one pressure while fixed and to another pressure when shifting.

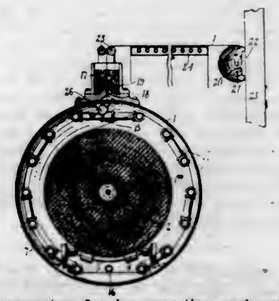
[Claims 6 to 36 not printed in the Gazette.]

1,072,704. DISPLAY-STAND. PERCY LIONEL DAVIS, San Francisco, Cal. Filed Dec. 21, 1912. Serial No. 738,059. (Cl. 211—24.)



A display stand comprising a base and standard rising therefrom, a closed hoop detachably secured to the top of said standard and disposed in a vertical plane, a supporting arm extending upwardly from said standard and in line therewith, and lying in the plane of the hoop, said arm being adapted to support articles inside the hoop, and a plurality of arms carried by said hoop and adjustable circumferentially thereon, said arms when in operative position extending radially outward from said hoop but being rotatably mounted thereon, whereby they may be turned so as to extend radially inward.

1,072,705. APPARATUS FOR IMPREGNATING AND COATING MATERIALS. LOUIS P. DESTRIBATS, Trenton, N. J. Filed July 26, 1910. Serial No. 573,832. (Cl. 91—46.)



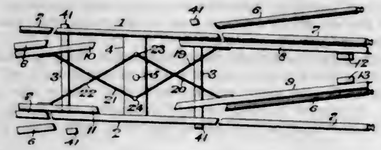
1. An apparatus for impregnating and coating materials, comprising a hollow vessel for receiving the material, means for exhausting the air therefrom, a liquid container having a slot in open communication with the interior of said vessel and means for guiding the material from the interior of the vessel through said slot and liquid container before the material reaches external atmosphere.

2. An apparatus for impregnating and coating materials, comprising a hollow vessel for receiving the material, means for exhausting the air therefrom, means for heating the interior of the vessel, a liquid container having a slot in open communication with the interior of said vessel, and means for guiding the material around said heating means and from thence through said slot and liquid container before the material reaches external atmosphere.

3. An apparatus for impregnating and coating materials, comprising a hollow vessel for receiving the material, means for exhausting the air therefrom, a liquid container having a slot in open communication with the interior of said vessel, means for guiding the material from the interior of the vessel through said slot, and liquid container, before the material reaches external atmosphere, and flaps located adjacent to said slot in position to engage the said material.

4. An apparatus for impregnating and coating materials, comprising a hollow vessel for receiving the material, means for exhausting the air therefrom, means for heating the interior of the vessel, a liquid container having a slot in open communication with the interior of said vessel, means for guiding the material around said heating means, and from thence through said slot and liquid container, before the material reaches external atmosphere, and flaps located adjacent to said slot in position to engage said material.

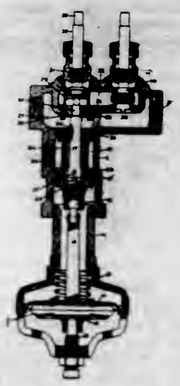
1,072,706. RAILWAY DIAMOND AND OTHER CROSSINGS. CHARLES ALLAN DICKSON, Kodarma, Bengal, and NOEL LINDSAY BURTON-JONES, Taraghatty, Bengal, British India. Filed July 1, 1910. Serial No. 569,879. (Cl. 104—116.)



1. A railway switch, comprising rails of a main track and siding rails, a central portion pivoted to swing in a horizontal plane, rails upon such portion and adapted to be brought into alinement with said rails, rails arranged vertically movable adjacent a rail of each track to be engaged by a wheel of a vehicle traveling over the same, horizontally movable actuating rods pivotally connected to the central portion at one end and formed each with a vertical slot at the other end, cranks pivoted at fixed points adjacent to said vertically movable rails and movably connected to the same, and studs connected to said movable rails and cranks and vertically movable in the slots of the actuating rods.

2. A railway switch, comprising rails of a main track and siding rails, a central portion pivoted to swing in a horizontal plane, rails upon such portion and adapted to be brought into alinement with said rails, rails arranged vertically movable adjacent a rail of each track to be engaged by a wheel of a vehicle traveling over the same and formed with horizontal slots, horizontally movable actuating rods pivotally connected to the central portion at one end and formed each with a vertical slot at the other end, cranks pivoted at fixed points adjacent to said vertically movable rails, and studs in the movable ends of said cranks and slidable in the horizontal slots of the movable rails and the vertical slots of the actuating rods.

1,072,707. THERMOSTATIC CONTROLLING APPARATUS FOR HEATING SYSTEMS. THOMAS FARMER, Jr., Albany, N. Y., assignor to Consolidated Car-Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed Apr. 21, 1909. Serial No. 491,335. (Cl. 237—12.)



1. A controlling device for heating systems comprising a casing provided with a steam supply passage and a return passage, a hand valve controlling said steam supply passage and provided with passages therethrough, a normally stationary valve seat with which said valve cooperates, and a thermostatically operated member provided with valves for respectively controlling the flow through said return passage and the supply through the passages in said hand valve.

2. A controlling device for heating systems comprising a casing provided with a steam supply passage and a return passage, an adjustable valve seat, a valve coöperating with said seat and controlling the steam supply passage and provided with passages therethrough, and a thermostatically controlled member provided with valves for respectively controlling the flow through said return passage and regulating the flow through the passages in said valve.

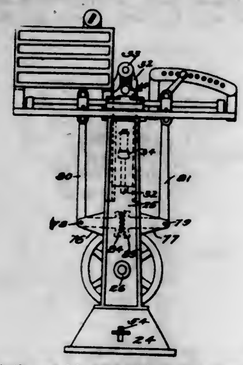
3. A controlling device for heating systems comprising a casing provided with a steam supply passage and a return passage, a hand valve controlling said steam supply passage and provided with passages therethrough, a normally stationary valve seat coöperating with said valve, a second valve member adapted to control the flow through said valve passages, a valve for controlling the flow through said return passage, and a thermostat for operating the two last mentioned valves.

4. A controlling device for heating systems comprising a casing provided with a steam supply passage and a return passage, a hand valve controlling said steam supply passage and provided with a movable member having a passage therethrough, a normally stationary valve seat provided with a cylindrical wall surrounding said movable member, and a thermostatically controlled member provided with valves for respectively controlling the flow through said return passage and also regulating the flow through the passage of said movable member.

5. A controlling device for heating systems comprising a casing provided with a steam supply passage and return passage, a hand valve controlling said steam supply passage and provided with a movable member having a passage therethrough, a normally stationary valve seat provided with a cylindrical wall surrounding said movable member, a second movable member adapted to control the flow through the passage of said first mentioned movable member, a valve controlling the flow through said return passage, and a thermostat operatively connected with said second member and the last mentioned valve.

[Claims 6 to 9 not printed in the Gazette.]

1,072,706. CLOTH-MARKING MACHINE. JOSEPH A. FIRSCHING, Utica, N. Y. Filed Dec. 18, 1909. Serial No. 533,944. (Cl. 101—83.)



1. In a cloth marking machine, the combination of a reciprocating head, a slidably mounted member, a connection between said head and member, a yoke carried by said member, a cam revoluble in said yoke, guides for said yoke, a shaft for mounting said cam, a collar slidingly mounted on said shaft, a connection carried by said collar, a driving wheel revolving on said shaft, means for operating the cam at will, and a plunger for preventing said cam from rotating in one direction.

2. In a device of the character described, the combination of a vertically reciprocating head, a slidably mounted spring actuated yoke, a connection between said head and yoke, a cam operable within said yoke, said cam adapted to intermittently contact with said yoke, a shaft for mounting said cam, a collar slidingly mounted on said shaft, a connection carried by said collar, a driving wheel revoluble on said shaft, means to revolve said cam at will, and a plunger for preventing said cam from rotating in one direction.

3. In a cloth marking device of the character described, the combination of a vertically reciprocating marker-head, a slidingly mounted spring actuated yoke, a connection between said head and said yoke, a cam revoluble within said yoke, said cam adapted to intermittently contact with said yoke, a shaft for mounting said cam, a collar slidingly mounted on said shaft, a driving wheel revolving on said shaft, means for revolving said cam at will, and a plunger for preventing said cam from rotating in one direction.

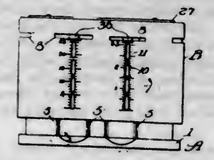
4. In a cloth marking machine, the combination of a vertically reciprocated marker-head, a marker carried thereby, a shaft, a fly wheel loosely mounted on said shaft, a yoke mounted for vertical reciprocation, said yoke having a portion adapted to engage with a cam, differently formed faces on said cam, whereby to reciprocate said yoke, a plunger for preventing said cam from rotating in one direction, and means for forming an operative connection between said cam and said fly wheel.

5. In a cloth marking machine, the combination of a vertically movable slide, a marker-head having a heater carried by said slide, a shaft, a fly wheel mounted on said shaft, a yoke mounted for vertical reciprocating movement, a compound cam operating within said yoke, said cam adapted to reciprocate said yoke, means for turning said cam continually in one direction, and means associated with said cam for forming an operative connection between said cam and said fly wheel.

[Claims 6 to 11 not printed in the Gazette.]

1,072,709. SAVINGS-BANK. CHARLES FISHER, Chicago, Ill., assignor to The Automatic Recording Safe Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 11, 1912. Serial No. 683,178. (Cl. 232—4.)

1. In a savings-bank, the combination with a casing having a cam-slot therein, of a wall provided with a T-slot located near said coin-slot, said wall cut away on a plane intercepting the slot, and a plunger entered in said T-slot, said plunger having its outer extremity guarding said coin-slot and having flanges above its lower portion engaging the lateral grooves of said T-slot.



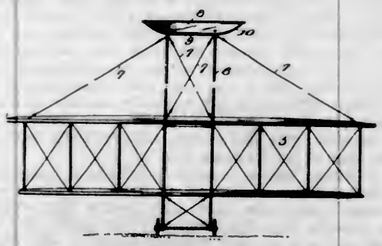
2. A savings-bank, comprising a casing having coin-slots in its peripheral wall, said casing equipped with guides at its upper wall, said guides having their lower walls cut away and having lateral slots, and plunger-form coin-slot guards having their outer ends located adjacent the coin-slots, said guards having lateral flanges movable in said lateral slots and having also portions projecting below said flanges.

3. In a savings-bank, the combination of a body provided with coin-receptacles, a casing having a vertical wall provided in its upper portion with coin-slots corresponding with said coin-receptacles, a plate carried by the top wall of said casing and provided with inclined guides having cut-away lower walls, and T-form plungers movable in said guides and having their outer ends projecting beneath said plate and serving as guards for said coin-slots.

4. In a savings-bank, the combination of a body provided with coin-receptacles, a casing adapted to receive said body and having a vertical wall provided in its upper portion with coin-slots corresponding with said coin-receptacles, a cast metal plate within said casing and secured to the top-wall thereof, said plate having inclined lugs carried by its peripheral portion and having inclined T-shaped slots therein, the lower walls of said lugs being cut away, and spring-projected T-form plungers in said slots provided with beveled outer ends engaging the inner surface of the vertical wall of the casing and guarding said coin-slots.

5. In a savings-bank, the combination with a casing having a coin-slot therein, of a wall provided with an inclined guide-slot open at its lower side, and a plunger-form slot-guard working in said guide-slot and having a portion normally projecting through said open lower side.

1,072,710. STABILIZER FOR AEROPLANES. HENRY C. FISK, Stafford, Conn. Filed Feb. 3, 1913. Serial No. 745,984. (Cl. 244—12.)



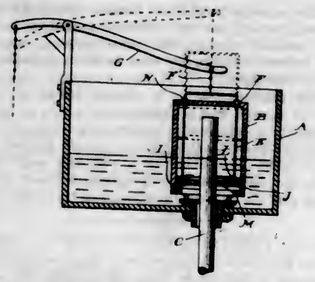
1. The combination with the supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane having a central portion surrounded by an upwardly and outwardly extending portion.

2. The combination with the supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said means comprising a plurality of uprights, guys extending from the uprights to the supporting plane, said stabilizing plane comprising a central portion surrounded by an upwardly and outwardly extending portion.

3. The combination with the supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane being of circular form and comprising a central portion, and an upwardly and outwardly extending portion surrounding the central portion.

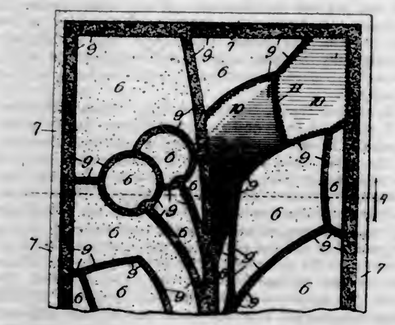
4. The combination with the supporting plane of an aeroplane, of a stabilizing plane, means for supporting the stabilizing plane above the supporting plane, said stabilizing plane comprising a flat central portion surrounded by an upwardly and outwardly extending curved portion.

1,072,711. SIPHON FLUSHING APPARATUS. EDWARD H. GOVE, Biddeford, Me. Filed Feb. 23, 1912. Serial No. 679,261. (Cl. 4—5.)



In a siphon flushing apparatus, a tank, a siphon comprising a short leg and a long leg, a plunger mounted in the short leg comprising two disks, one above the other, the two disks, when in contact, substantially closing the short leg, said disks being provided with non registering openings, the two disks being mounted upon plunger rods, the lower disk rigidly secured thereto and the upper disk freely slidable thereon, and means for raising the lower disk to a point spaced apart below the intake of the long leg, the upper disk being free to rise above said intake.

1,072,712. METHOD OF MAKING ORNAMENTAL STRUCTURES. ALBERT FOURNIER, Chicago, Ill. Filed Oct. 19, 1911. Serial No. 655,591. (Cl. 18—59.)

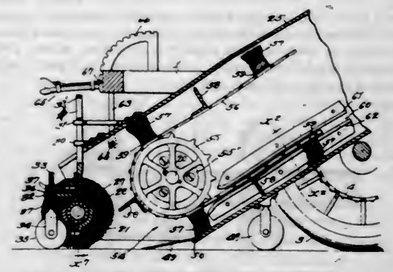


1. The method of securing in place sections of material to produce an ornamental design, which includes grooving a mold surface to produce grooves conforming to the skeleton of the design, applying to said surface sections of ornamental material to conform to said skeleton, with opposing edges of said sections spaced apart at the grooves and opposite edges thereof extending part way over the grooves, and introducing into said spaces and therethrough into the grooves material susceptible of hardening for permanently securing said sections in their design-forming relation and forming on the obverse surface ribs following the outline of the design.

2. The method of securing in place sections of material to produce an ornamental design, which includes grooving a mold surface to produce grooves conforming to the skeleton of the design and to the marginal surfaces thereof, applying to said surface sections of ornamental material to conform to said skeleton, with opposing edges of said sections spaced apart at the grooves and opposite edges thereof extending part way over the grooves, and applying to the marginal surfaces of said sections, and introducing into said spaces and therethrough into the grooves, material susceptible of hardening for permanently securing said sections in their design-forming relation and forming on the obverse surface ribs following the outline of the design.

3. The method of securing in place sections of material to produce an ornamental design, which includes grooving a mold surface to produce grooves conforming to the skeleton of the design, applying to said surface sections of ornamental material to conform to said skeleton, with opposing edges of said sections spaced apart at the grooves and opposite edges thereof extending part way over the grooves, and applying to the rear sides of said sections to completely cover the same, and introducing into said spaces and therethrough into the grooves, material susceptible of hardening for permanently securing said sections in their design-forming relation and forming on the obverse surface ribs following the outline of the design.

1,072,713. AUTOMOBILE STREET-CLEANER. DAVID GAUL, Los Angeles, Cal. Filed Mar. 11, 1912. Serial No. 683,111. (Cl. 15—17.)



1. In a street cleaner, the combination with the frame, of a conveyer chute pivotally mounted at its front end on the frame, rotary brushes journaled on the rear end of and in slidable relation to the conveyer chute, a wheel to adjustably support the inner ends of the brushes, and means to support the rear end of the chute.

2. In a street cleaner, the combination with the frame, of a chute mounted on the frame, shafts adjustably journaled at their outer ends on the frame, a journal box at the inner ends of the shafts and having a sliding connection with the chute, a bracket connected to said journal box, a wheel adjustably mounted on the bracket, and brushes mounted on the shafts for the purpose set forth.

3. In a street cleaner, the combination with the frame, of a chute mounted on the frame, shafts adjustably journaled at their outer ends on the frame and having convex inner ends, a journal box at the inner ends of the shafts and having a sliding connection with the chute, a bracket connected to said journal box, a wheel adjustably mounted on the bracket, and brushes mounted on the shafts for the purpose set forth.

1,072,714. SLIDING-TONGUE BOX-BUCKLE. ABRAHAM H. GREENEBAUM, Baltimore, Md., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Mar. 26, 1913. Serial No. 757,030. (Cl. 24—194.)

1. A sliding tongue box-buckle, having a wedge in its bottom, and a tongue provided with a central opening and

straddling the wedge and having an inner end sliding upon said wedge to engage and release the strap end.



2. A sliding tongue box-buckle, provided with a strap attaching medium, and having a bottom provided with a wedge rising therefrom, and a tongue straddling said wedge and provided with an upright to engage the adjustable end of the strap.

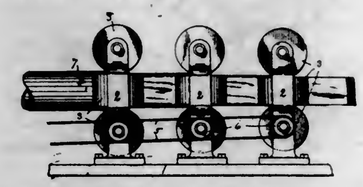
3. A sliding tongue box-buckle, having a bottom provided with a wedge rising therefrom, and a tongue straddling said wedge and provided with an upright to engage the strap end and also having operating projections extending outside of the buckle.

4. A sliding tongue box-buckle, having a bottom provided with a wedge rising therefrom, and a tongue straddling said wedge and provided with an upright to engage the strap end and also having operating projections extending outside of the buckle and engaging the buckle so as to retain the tongue in the buckle.

5. A sliding tongue box-buckle, comprising a base plate having strap attaching means, a wedge rising forwardly on said base plate, a loop or box-like cover applied to said base plate over the wedge, and a sliding tongue provided with a central opening to fit over said wedge and having a strap-engaging upright adapted to be rendered effective to engage and release such strap by moving up and down said wedge.

[Claim 6 not printed in the Gazette.]

1,072,715. PROCESS FOR FORMING TUBES. JERVIS R. HARBECK, Detroit, Mich., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Mar. 5, 1908. Serial No. 419,277. (Cl. 93—82.)



1. The process of making tubes of fibrous material of any desired cross section, which consists in winding moist, plastic, non-resilient tubes of such cross section as may be easily produced, then subjecting the hollow tubes to external pressure on all sides of the center and changing the cross section by means of successive sets of rolls to that desired while the tubes are still plastic and non-resilient, and then permitting the tubes to dry out and harden.

2. The process of forming tubes, which consists in winding soft, cement-coated fibrous material into approximately cylindrical tubes, then subjecting the hollow tubes to external pressure on all sides of the center and changing the cross section of the tubes before the material becomes dry and non-plastic, and then permitting the tube to harden.

3. The process of making tubes of fibrous material of any desired cross section, which consists of re-forming cement-coated plastic, non-resilient tubes subjecting the hollow tubes to external pressure on all sides of the center to change the cross section of the tubes and then permitting them to harden.

4. The process of making tubes of fibrous material of any desired cross section which consists of winding cement-coated fibrous material into plastic, non-resilient tubes subjecting the hollow tubes to external pressure on all sides of the center to change the cross section of such tubes while still non-resilient and then permitting them to harden.

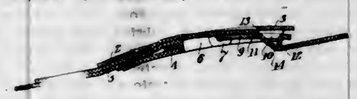
1,072,716. WHEEL-MOUNT FOR VEHICLES. WILLIAM HART, Tarrytown, N. Y. Filed May 5, 1911. Serial No. 625,209. (Cl. 21—187.)



1. The combination of a vehicle wheel, an axle-skein journaled therein, an axle slidably supported by the axle-skein, resilient means for said support, and resilient means for maintaining the axle in the axle-skein, substantially as described.

2. The combination of a vehicle wheel, an axle-skein journaled therein and provided with a slot at an angle to the vertical, a coil spring maintained in the slot, an axle slidably mounted in the slot supported by the spring, a spring-pressed plate attached to the axle maintaining the axle in the slot, and a coil spring between the top of the axle and the axle-skein, substantially as described.

1,072,717. PIVOTED-TONGUE BUCKLE. EMIL HARTMANN, Baltimore, Md., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md., a Corporation of Maryland. Filed Aug. 26, 1912. Serial No. 717,143. (Cl. 24—170.)

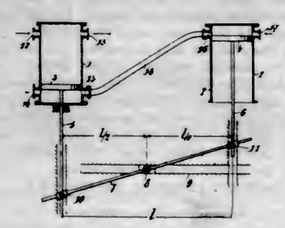


1. A pivoted tongue buckle, having a frame with sides, side flanges, and end bars, pivot bearings extending backwardly from the inner edge of the sides and adjacent to one end bar, and a tongue arranged at the back of the frame and whose greatest width is less than the distance between the side flanges and whose leading end lies within the adjacent end bar, and having pivots mounted in said pivot bearings and provided with a transverse opening in its end nearest the adjacent end bar of the frame for the passage of the strap to be fastened, the edge on the tongue forming the inner boundary of said opening cooperating with the inner edge of said adjacent end bar to grip the strap between the tongue and said inner edge of said end bar.

2. A pivoted tongue buckle, having a frame with sides, side flanges, end bars, and a depressed cross bar to which the strap is secured, pivot bearings extending backwardly from the inner edges of the sides and adjacent to one end bar and of no greater length than the depth of the side flanges, and a tongue arranged at the back of the frame and of such dimensions as to fit when in use wholly between the side flanges and adjacent end bar and having pivots mounted in said pivot bearings and provided with an opening in its end nearest the adjacent end bar of the frame for the passage of the strap to be fastened, the edge on the tongue forming the inner boundary of said opening cooperating with the inner edge of said adjacent end bar to grip the strap between the tongue and said inner edge of said end bar.

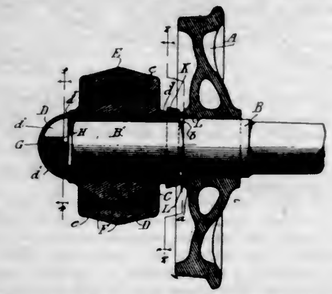
1,072,718. HYDRAULIC-POWER TRANSFORMER. RICHARD HEINDL, Vienna, Austria-Hungary. Filed Feb. 4, 1913. Serial No. 746,122. (Cl. 103—67.)

Hydraulic apparatus comprising a power cylinder, a piston in said cylinder, said cylinder having on one side of said piston an inlet port and on the other side of said piston a delivery port and a second inlet-port; an auxiliary cylinder having an inlet port and a delivery port; a piston in said auxiliary cylinder; a conduit connecting the second inlet port of the power cylinder to the delivery



port of the auxiliary cylinder; and a variable lever system operatively connecting the piston in the power cylinder to the piston in the auxiliary cylinder, whereby a delivery stroke variable by adjustment of said lever system can be imparted to the last-mentioned piston simultaneously with the delivery stroke of the piston in the power cylinder.

1,072,719. CAR-AXLE JOURNAL-BOX. HERBERT H. HEWITT, Buffalo, N. Y. Filed July 8, 1910. Serial No. 571,071. (Cl. 64—10.)

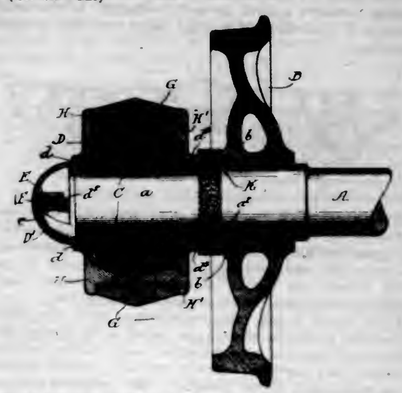


1. The combination with a car axle having a wheel fixed thereto, and a projecting end journal, a car axle journal box having a cylindrical chamber therein to receive said journal, a bearing for said journal within said cylindrical chamber, a support wherein said car axle journal box is rotatably mounted, said journal box being provided at its outer end with a projecting, semi-spherical portion extending over the end of said chamber, said portion being hollow to form a lubricant receptacle, smaller in diameter than said chamber, and having an axial opening therein and an outwardly spring pressed device for closing said opening, substantially as described.

2. A car axle journal box chambered to receive a journal and its bearing and provided at its outer end with a hollow projecting portion extending over the end of said chamber and having an axial opening for the admission of lubricant, a sheet metal cap for closing said opening having integral, forwardly extending and laterally projecting fingers for engaging the edges or said opening, and a spring for pressing said cap outwardly.

3. A car axle journal box chambered to receive a journal and its bearing and provided at its outer end with a hollow projecting portion forming a lubricant chamber, said portion having internal transverse webs and an opening for the admission of lubricant, a sheet metal cap for closing said opening, said cap being arranged within said lubricant chamber and guided by said webs, and a spring for pressing said cap outwardly, said sheet metal cap having laterally projecting fingers engaging the edges of said opening for limiting the outward movement of the cap, substantially as described.

1,072,720. CAR-AXLE BOX. HERBERT H. HEWITT, Buffalo, N. Y. Filed Jan. 21, 1911. Serial No. 603,789. (Cl. 64—22.)



1. A guard of the character described comprising a short, cylindrical, thick spring formed of a broad, flat plate coiled upon itself and having its outer coil closed to form an integral ring provided with a plane bearing end surface at right angles to the axis of the spring.

2. A guard of the character described, comprising a short, cylindrical, thick spring formed of a broad, flat plate coiled upon itself and having its outer end tapered and united to the outer coil of the spring to form an integral closed ring having a plane bearing surface substantially at right angles to the axis of the spring.

3. The combination with a car axle having a wheel fixed thereto and a projecting journal, of a journal box having a cylindrical chamber, a bearing sleeve for the axle journal in said chamber, said sleeve and box having coincident, annular, plane surfaces at their inner ends, and a guard on said axle between said wheel and journal box and comprising a spring formed of a broad flat plate coiled upon itself and having a closed ring at its outer end bearing upon the coincident end faces of said box and said bearing sleeve.

4. The combination with a car axle having a wheel fixed thereto and a projecting journal, of a chambered journal box provided with a bearing for the axle journal, and a combined guard and indicator located in an exposed position between the journal box and the car wheel and comprising an outer annular plate and a coiled spring encircling the axle, said outer plate being free to move radially with respect to said journal box to indicate the extent of wear of said bearing.

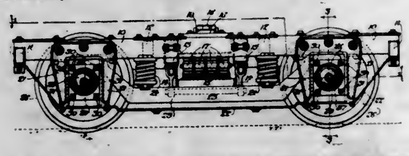
5. The combination with a car axle having a wheel fixed thereto and a projecting journal, of a chambered journal box having an integral shoulder at its outer end, a journal bearing in said box abutting against said shoulder, said box and bearing having coincident inner end faces, and an annular, axial resilient, combined guard and keeper between said wheel and journal box and fitted on said journal to rotate therewith, said guard having a bearing face engaging the end faces of said box and bearing to hold the latter in position.

[Claims 6 and 7 not printed in the Gazette.]

1,072,721. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed Sept. 5, 1911. Serial No. 647,562. (Cl. 105—243.)

1. In a car truck, the combination with the truck frame and pedestals, wheels and wheel axles, of journal boxes, bearings mounted in said boxes for the journals of said wheel axles, and retaining members guided to shift vertically in the truck pedestals and held against lateral movement and wherein said journal boxes are movably mounted in a manner permitting the free transverse rocking movement of said wheel axles.

2. In a car truck, the combination with the truck frame and wheel axles, of closed journal boxes, bearings mounted in said boxes for the journals of said wheel axles, and retaining members guided to shift vertically in the truck frame and wherein said journal boxes are free to shift universally.



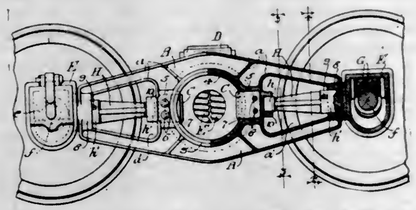
3. In a car truck, the combination with the truck frame and wheel axles, of journal boxes for said wheel axles having spherical body portions, and retaining members vertically guided and held against lateral movement on the truck frame and having correspondingly shaped seats wherein said journal boxes are movably mounted.

4. In a car truck, the combination with the truck frame and pedestals, wheels and wheel axles having projecting end journals, closed journal boxes having annular spherical body portions, bearings for said journals mounted in said boxes, blocks guided in said pedestals and retaining members or keepers for said journal boxes removably mounted in said blocks and having correspondingly shaped concave seats wherein said journal boxes are movably mounted.

5. In a car truck, the combination with the truck frame, equalizer bars and springs, wheels and wheel axles, of boxes for receiving the journals of said axles, and supporting members for said equalizer bars vertically guided and held against lateral movement on said truck frame and wherein said journal boxes are movably mounted to permit the free transverse rocking movement of said wheel axles.

[Claims 6 to 17 not printed in the Gazette.]

1,072,722. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed Dec. 8, 1911. Serial No. 664,634. (Cl. 105—243.)



1. In a car truck, the combination of parallel side frames, a transverse connecting member whereon said side frames are centrally mounted to rock independently in vertical planes, journal boxes at the ends of said side frames, and studs or journals at the sides of said journal boxes for connecting the same to said side frames in manner permitting the free rocking movement of said journal boxes in transverse vertical planes at right angles to said side frames.

2. In a car truck the combination of a side frame, and journal boxes at the ends of said side frame, the inner sides of said journal boxes being pivoted to the outer ends of said side frame in manner permitting said boxes to rock at right angles to said frame.

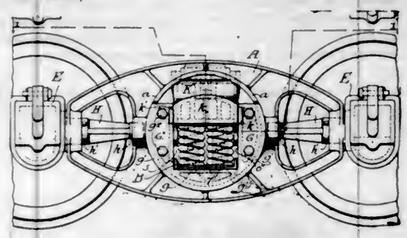
3. In a car truck, the combination with a side frame, journal boxes at the ends of said side frame, studs or journals fixed to said journal boxes and projecting inwardly toward the center of the side frame and bearings at the ends of the side frame wherein said studs or journals are mounted in manner permitting said boxes to rock in vertical planes and transversely of the side frame.

4. In a car truck, the combination of a side frame, journal boxes for receiving the car axles and studs or journals projecting from said journal boxes lengthwise of the side frame and serving to connect said boxes to the side frame and to hold the same against relative vertical movement while permitting the boxes to rock at right angles to said frame.

5. In a car truck, the combination of parallel side frames, a transverse connecting member having means for supporting the car body, said side frames being centrally journaled on the ends of said transverse connecting member to rock in parallel vertical planes, journal boxes at the ends of said side frames, pivotal connections between the sides of said journal boxes and said side frames permitting the free transverse rocking movement of said journal boxes in vertical planes at right angles to said side frames, said journal boxes being held against rocking movement in the planes of said side frames.

[Claims 6 to 26 not printed in the Gazette.]

1,072,723. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed Jan. 17, 1912. Serial No. 671,607. (Cl. 105—243.)



1. A car truck comprising side frames, transverse connecting means extending between said side frames and separate supports or carriers for said transverse connecting means rotatably united to said side frames, said transverse means being connected at its ends to said supports or carriers.

2. A car truck comprising side frames provided with circular openings, transverse means extending between said side frames and separate supports or carriers detachably secured to the ends of said transverse means and rotatably mounted in said openings of the side frames.

3. A car truck comprising side frames provided with circular openings, transverse means extending between said side frames, and supports or carriers detachably secured to the ends of said transverse means and rotatably mounted in said openings of the side frames, said supports or carriers being flanged to engage the side frames.

4. A car truck comprising side frames provided with circular openings, transverse means extending between said side frames, and supports or carriers secured to the ends of said transverse means and rotatably mounted in said openings of the side frames, said supports or carriers being formed of separate sections united together.

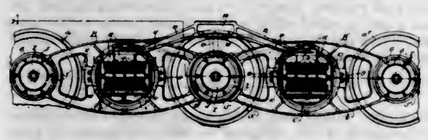
5. A car truck comprising side frames provided with circular openings, transverse means extending between said side frames, and supports or carriers secured to the ends of said transverse means and rotatably mounted in said openings of the side frames, said supports or carriers being formed of separate sections united together and provided with flanges to engage the opposite sides of the side frames.

[Claims 6 to 16 not printed in the Gazette.]

1,072,724. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed Jan. 18, 1912. Serial No. 671,806. (Cl. 105—244.)

1. A car truck comprising three or more wheel axles, sectional side frames, means separate from said wheel axles for flexibly connecting the adjacent ends of said side frames, and members extending across the truck and flexibly connected to the opposite side frame sections to permit the rocking movement of said sections.

2. A car truck comprising three or more wheel axles, sectional side frames, means separate from said wheel axles for pivotally connecting the adjacent ends of said side frame sections, members extending across the truck and pivotally connected to the opposite side frame sections to permit the rocking movement of the latter, and journal boxes for the wheel axles mounted at the ends of said side frame sections.



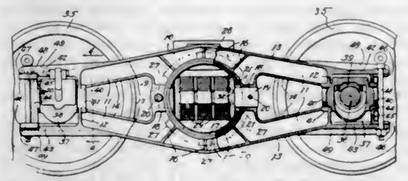
3. A car truck comprising sectional side frames, three or more wheel axles journaled at the ends of the sections of said side frames, pivotal connections between the adjacent ends of said sections, said pivotal connections being separate from, but coaxial with the journals of the intermediate axle or axles and transverse members flexibly connecting said side frame members.

4. A car truck having three or more wheel axles and comprising side frame sections, and journal boxes for said wheel axles mounted at the ends of said side frame sections, said side frame sections having overlapping, pivotally connected inner ends extending about the journal boxes of the intermediate axle or axles.

5. A car truck having three or more wheel axles and comprising sectional side frames, means separate from the intermediate axle or axles for flexibly connecting the adjacent ends of said side frame sections, members extending across the truck and flexibly connected to the central portions of said side frame sections, and journal boxes for said wheel axles mounted at the ends of said side frame sections.

[Claims 6 to 25 not printed in the Gazette.]

1,072,725. CAR-TRUCK. HERBERT H. HEWITT, Buffalo, N. Y. Filed May 8, 1912. Serial No. 696,024. (Cl. 105—243.)



1. In a car truck, the combination with a side frame, of journal boxes at the ends of said side frame, two trunnions arranged at opposite sides of each of said journal boxes for constantly holding the same against relative vertical movement upon the side frame, but permitting the transverse rocking movement of said journal boxes.

2. In a car truck, the combination with a side frame, and a journal box having laterally projecting trunnions integral with its opposite side walls, said side frame having members having circular bearings wherein said trunnions are journaled to constantly hold said box against relative vertical movement, but permitting the transverse rocking movement thereof.

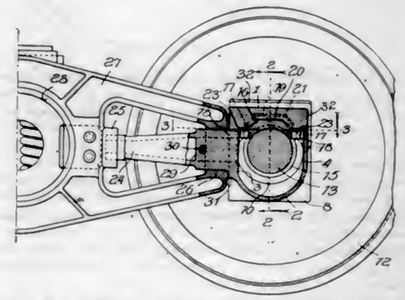
3. In a car truck, the combination with a side frame provided with transverse openings at its ends having connected, vertical side walls, journal boxes arranged in said openings, and trunnions interposed between the side walls of said openings and of said journal boxes to constantly hold the latter against relative vertical movement, but permitting the transverse rocking movement thereof.

4. In a car truck, the combination with a side frame provided with transverse openings at its ends having connected side walls, journal boxes arranged in said openings and trunnions interposed between the side walls of said openings and of said boxes, the trunnions being fixed against vertical movement to one of said parts and the other of said parts having journal bearings for said trunnions, one of the side walls of each of said openings being removably secured in position to permit the removal of said journal boxes in longitudinal direction.

5. In a car truck, the combination with a side frame provided with transverse openings at its ends having top, bottom and opposite side walls, journal boxes arranged in said openings and trunnions having horizontal axes pivotally connecting the opposite side walls of said boxes to the side walls of said openings, the outer side walls of said openings being removably secured in position to permit the removal of said journal boxes in longitudinal direction.

[Claims 6 to 16 not printed in the Gazette.]

1,072,726. RAILWAY-CAR JOURNAL-BOX. HERBERT H. HEWITT, Buffalo, N. Y. Filed May 8, 1912. Serial No. 696,025. (Cl. 105—243.)



1. A railway car journal box having integral top, bottom and side walls, one at least of said side walls having a laterally projecting integral journal for pivotally connecting the journal box to the truck side frames, said side walls having inwardly projecting guides engaging the edge flanges and stop lugs of the journal bearing and said top wall being thickened or reinforced and having an angular seat on its lower face arranged to directly engage the upper angular surface of the journal bearing, and said top wall having a relatively deeper recess at the inner end of said seat for receiving the upstanding flange at the inner end of the journal bearing, substantially as described.

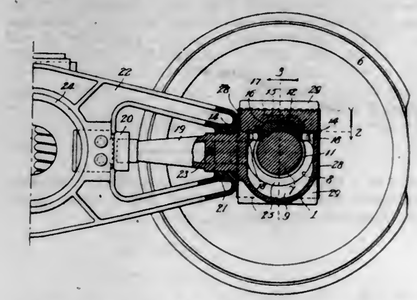
2. The combination with a truck member, of a journal box mounted thereon to rock in a transverse vertical plane and having inwardly projecting guides for engaging the stop lugs of the journal bearing and a thickened or reinforced top wall provided with an angular seat for the bearing on its lower face and with a recess at the inner end of the seat for receiving the upstanding end flange of the bearing, substantially as described.

3. The combination with a car truck side frame and wheel axle, of a journal box receiving the journal of said axle and mounted on said frame to rock transversely thereof, and a journal bearing having edge flanges and stop lugs and an upstanding flange at its inner end, said journal box having inwardly projecting guides for engaging the edge flanges and stop-lugs of said bearing and having a thickened top wall provided with an angular seat for directly engaging said bearing and a recess at the inner end of said seat for receiving the upstanding end flange thereof, substantially as described.

4. The combination with a car truck side frame, of a journal box pivoted upon said side frame to rock transversely thereof, said journal box having integral top, bottom and side walls, and inwardly projecting, bearing guides integral with said side walls, said top wall being

thickened and having an angular bearing seat on its lower face and a recess at the inner end of the seat for receiving the upstanding end flange of the bearing, substantially as described.

1,072,727. RAILWAY-CAR JOURNAL-BOX. HERBERT H. HEWITT, Buffalo, N. Y. Filed June 5, 1912. Serial No. 701,908. (Cl. 105—243.)



1. The combination with a car axle having a wheel thereon and a projecting end journal, of a journal box having a bearing for said journal, a guard plate on said axle engaging the inner end face of said box and closing the opening therein, a spring coiled about said axle and interposed between said wheel and said guard plate, and a supporting member to which said journal box is pivoted on an axis transverse to said axle, whereby said box and guard plate are free to rock transversely with said axle to maintain their abutting faces in close contact, said plate being free to shift vertically over the inner end face of the box as said bearing wears, substantially as described.

2. The combination with a car axle having a wheel thereon and a projecting end journal, of a journal box having a bearing for said journal, a guard plate on said axle engaging the inner end face of said box and closing the opening therein, a spring coiled about said axle and interposed between said wheel and said guard plate, and a supporting member to which said journal box is connected in a manner permitting the transverse rocking movement thereof with said axle to thereby maintain said guard plate in close contact with its inner end face, said plate and box having engaging parts for holding said plate against rotation and said plate being free to shift vertically over the inner end face of said box as said bearing wears, substantially as described.

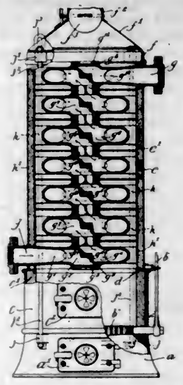
3. The combination with a car axle having a wheel thereon and a projecting end journal, of a journal box having a bearing for said journal, a guard plate on said axle engaging the inner end face of said box and closing the opening therein, a spring coiled about said axle and interposed between said wheel and said guard plate, and a vertically movable truck member to which said box is pivoted on an axis at right angles to said axle to permit the transverse rocking movement of said box and guard plate with said axle, whereby said plate is, at all times, maintained by said spring in close contact with the inner end face of said box, substantially as described.

4. The combination with a car axle having a wheel thereon and a projecting end journal, of a journal box having a bearing for said journal, a guard plate on said axle engaging the inner end face of said box and closing the opening therein, a spring coiled about said axle and interposed between said wheel and said guard plate, and a supporting member to which said journal box is connected in a manner permitting the transverse rocking movement thereof with said axle to thereby maintain said guard plate in close contact with its inner end face, said plate having vertical flanges overlapping the side edges of the inner end face of said box and being free to shift vertically over said face as said bearing wears, substantially as described.

5. The combination with a car axle having a wheel thereon and a projecting end journal, of a journal box having a bearing for said journal and mounted to rock transversely with said axle, a sheet metal guard plate on said axle and bearing against the inner end face of said box, said plate having an annular flange about said axle and vertical flanges at its side edges engaging said box, and a spring coiled about said axle and interposed between said wheel and said guard plate, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,728. HEATING DEVICE. FRED D. HOLDSWORTH, Claremont, N. H., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of Maine. Filed Apr. 30, 1906. Serial No. 314,468. (Cl. 126—110.)



1. A compressed air reheater comprising a base, a combustion chamber upon said base, a cylindrical casing surmounting said combustion chamber, a smoke bonnet and flue above said casing, a plurality of heating and conducting sections between the fire box and the smoke bonnet and within the casing, said sections comprising duplicate top and bottom members reversely arranged relative to one another and respectively provided with outlet and inlet openings, and intermediate duplicate sections mounted one above the other, each intermediate section having a circuitous conduct portion with an inlet from the preceding section and an exit to the succeeding one and means for separately and removably securing each section to the one or ones adjacent thereto.

2. An air reheater comprising a casing, a combustion chamber adjacent the lower end thereof, a plurality of substantially annular heating and conducting sections supported one above another and above the combustion chamber, said sections having each an inlet connection with the preceding section and an outlet connection with the succeeding one from bottom to top, said section including end sections, a cylindrical shell united to each annular section but of greater diameter than the latter, and a non-conducting lining between the casing and the outer walls of said several shells.

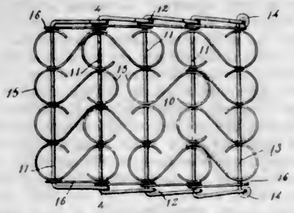
3. A heating device having an upright casing provided with a combustion chamber adjacent the lower end thereof, a smoke bonnet, a plurality of separate heating conduit sections having an air inlet and an air outlet and supported one upon another within said casing and above said combustion chamber, means for separately and removably securing said sections together and tie-rods binding together said smoke bonnet and said combustion chamber.

4. A section for a sectional heater comprising a main conduit portion provided with an inlet and an outlet passage adapted when the said section is in position for presentation to the next preceding and succeeding sections respectively, said conduit section presenting a circuitous passage between the said inlet and outlet openings, and a shell surrounding said main conduit portion united thereto at intervals.

5. A section for a sectional heater comprising a substantially annular conduit portion and a surrounding cylindrical shell united thereto at intervals.

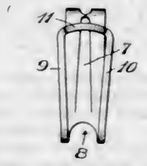
[Claims 6 to 20 not printed in the Gazette.]

1,072,729. FLOOR-MAT. WILLIAM H. HOPKINS and WALTER R. WILSON, Oakland, Cal. Filed Nov. 19, 1912. Serial No. 732,390. (Cl. 15—63.)



In a mat, the combination with a series of U-shaped frames, with one frame connected to the next adjacent frame, of S-shaped members carried by the said frames and arranged in adjacent rows, the said S-shaped members in each row being movable on the said frames to superimpose one row of S-shaped members upon another when the said frames are relatively folded, with the ends of the S-shaped members in one row frictionally engaging ends of the S-shaped members in an adjacent row to exert a lateral pressure on the said U-shaped frames at their points of connection and frictionally retain the said U-shaped frames in open position.

1,072,730. PEN AND PENCIL HOLDER. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed June 2, 1913. Serial No. 771,215. (Cl. 24—11.)

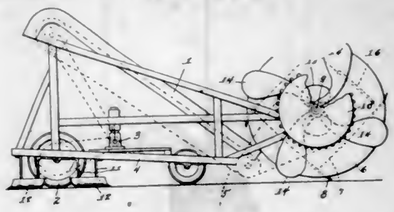


1. A device of the character described embodying a sheet metal U-shaped clip arranged to engage a suitable support between its arms, integral spaced spring arms extending outwardly from the end of one of said clip arms and thence backwardly in a plane substantially parallel with said clip arm, said arm being recessed at its end and intermediate the junction therewith of said spring arms to provide a clearance space, and said spring arms being united at their ends by an integral offset spanning bar arranged to engage and yieldingly clamp a pencil against said clip arm, said spaced spring arms being arranged to guide the sides of a pencil therebetween.

2. A device of the character described, embodying a sheet metal U-shaped clip having one arm slotted and having an alined spring tongue extending from its other arm and toward said slot, said clip being arranged to engage a suitable support between its arms, integral spaced spring arms extending outwardly from the end of one of said clip arms and thence backwardly in a plane substantially parallel with said clip arm, said spring arms being united at their ends by an integral offset spanning bar arranged to engage and yieldingly clamp a pencil against said clip arm, said spaced spring arms being arranged to guide the sides of a pencil therebetween.

3. A device of the character described, embodying a sheet metal U-shaped clip having one arm slotted and having an alined spring tongue struck from its other arm and extending toward said slot, said clip being arranged to engage a suitable support between its arms, integral spaced spring arms extending outwardly from the end of one of said clip arms and thence backwardly in a plane substantially parallel with said clip arm, said arm being recessed at its end and intermediate the junction therewith of said spring arms to provide a clearance space, and said spring arms being united at their ends by an integral offset spanning bar arranged to engage and yieldingly clamp a pencil against said clip arm, said spaced spring arms being arranged to guide the sides of a pencil therebetween.

1,072,731. COKE-LOADER. PERRY R. JORDAN and WILLIAM WRIGHT, Adamsville, Ala. Filed Aug. 22, 1912. Serial No. 716,527. (Cl. 37—29.)



1. In a machine of the class described, a shaft, a receptacle having a side head, said shaft rotatably mounting said receptacle, means to rotate said shaft, a door for said receptacle, said side head provided with an opening communicating with the interior of the receptacle adjacent the shaft, and a scoop fixed to said side head delivering material to said receptacle.

2. In a machine of the class described, a scraper arranged diagonally operating upon the path traversed by the machine, a rotary device having scoop means to engage the scraped material, and a receptacle in said rotary device to which said gathered material is delivered.

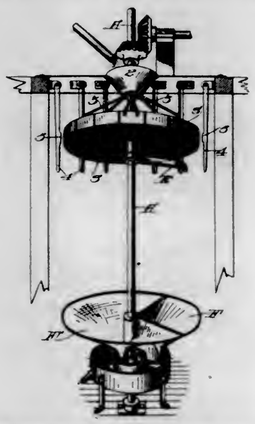
3. In a machine of the class described, a scraper operating upon the path traversed by the machine, a rotary device having an end plate provided with a series of scoops thereon to engage the scraped material, said plate provided with an opening through which the material is delivered, a receptacle in said rotary device to which said opening leads, said receptacle provided with an opening through which the material may be removed, and means to cover said opening.

4. In a machine of the class described, a scraper arranged diagonally to engage the path traversed by the machine, a rotary coke feeder device comprising a receptacle, an end plate for said receptacle, said receptacle provided with an opening leading to said receptacle, and scoops fixed on said end plate delivering scooped material to the receptacle, said receptacle provided with an opening through which the scooped material may be removed, and a door covering said latter opening.

1,072,732. ORE AND LIKE SEPARATING MEANS. PIERRE JUBIEN, San Francisco, Cal., assignor of one-half to P. A. Brangier, Agnew, Cal. Filed Apr. 5, 1912. Serial No. 688,609. (Cl. 83—54.)

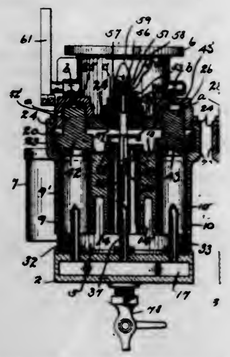
1. In a device of the class described in combination, an annular series of adjoining independently agitable screens for feeding sized material, a rotatable sub-divided receptacle directly beneath the annular series of screens but placed a substantial distance below the same, means for agitating each of said screens in succession, means for rotating the receptacle to bring its compartments successively beneath each screen, and means synchronizing the period of successive agitation of each screen with the rotation of said receptacle.

2. In a device of the class described in combination, a plurality of independently agitable screens for feeding sized material, a sub-divided receptacle movably mounted directly beneath the said screens, but placed a substantial distance below the same, means for independently agitating each screen, means for moving said receptacle to bring its compartments successively under each screen, and means for synchronizing the period of agitation of said screens with the movement of said receptacle.



3. In a device of the class described, an annular series of independently agitable screens for feeding sized material, a rotatable sub-divided receptacle directly beneath the annular series of screens but placed a substantial distance below the same, a plurality of agitators comprising vertically suspended rods, one being suspended adjacent each screen, a vertical shaft for rotating said receptacle, and agitator arms for said agitators mounted on said shaft and adapted to operate said agitators in synchronism with said receptacle as the said shaft is rotated.

1,072,733. CARBURETER. ROBERT W. KALTENBACH, Cleveland, Ohio, assignor of one-half to Ernest J. Kaltenbach, Brooklyn, N. Y. Filed May 31, 1912. Serial No. 700,581. (Cl. 48—155.1.)



1. In a carbureter, the combination of a reservoir for holding the gasolene, a mixing chamber arranged above said reservoir and separated therefrom, a series of carbureting chambers communicating at their upper ends with said mixing chamber and at their lower ends with the outside air, nozzles mounted on said reservoir and extending up into said carbureting chambers, the top wall of said mixing chamber being provided with openings in line with the openings from the mixing chamber into the carbureting chambers, chambered nuts arranged to close said openings in the top wall of the mixing chamber, a series of valves of varying weights arranged in said mixing chamber so as to close the openings between the mixing chamber and the carbureting chambers, each of said valves being provided with a valve stem which extends up into the chamber in the adjacent nut and means for supplying gasolene to the reservoir.

2. In a carbureter, the combination of a reservoir for holding the gasolene, a mixing chamber arranged above said reservoir and separated therefrom, a series of carbureting chambers arranged in open communication at their upper end with said mixing chamber and at their lower ends with the outside air, the top wall of said mixing chamber being provided with screw-threaded openings in line with the openings from the mixing chamber into the carbureting chambers, chambered nuts arranged to close said openings in the top wall of the mixing chamber, said nuts being provided with small openings in the walls thereof, valve seats arranged in the openings from the mixing chamber into the carbureting chambers, flat valves of varying weight arranged to rest on said valve seats, each of said valves being provided with a stem which extends up into the chamber in the adjacent nut and a series of nozzles mounted on said reservoir and extending up into the said carbureting chambers, the openings in said nozzles being arranged under said valves, the arrangement being such that the fluid drawn from the said nozzles when said valves are raised will impinge against the under surface of said valves.

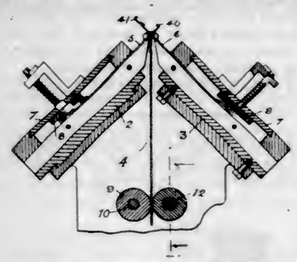
3. In a carbureter, the combination of a reservoir for holding the gasolene, a mixing chamber arranged above said reservoir and separated therefrom, a series of carbureting chambers communicating at their upper ends with said mixing chamber and at their lower ends with the outside air, nozzles mounted on said reservoir and extending up into said carbureting chambers, a valve casing arranged at the side of said carbureting chambers, passageways extending from said valve casing to the carbureting chambers, a tubular valve arranged in said valve chamber, said valve having an opening communicating with the outer air and having a series of circumferentially arranged slots of varying length arranged to register with the said passageways from the valve casing to the carbureting chambers as the said valve is rotated, for the purpose set forth.

4. In a carbureter, the combination of a reservoir for holding gasolene, a mixing chamber arranged above said reservoir and separated therefrom, a carbureting chamber communicating at its upper end with the bottom of the mixing chamber and at its lower end with the outside air, a nozzle mounted on said reservoir and extending up into said carbureting chamber, an apertured valve arranged to close the opening from the mixing chamber into the carbureting chamber, said valve having a tubular stem extending down therefrom adapted to receive the upper end of the said nozzle, a rod extending down into the said tubular stem but not completely closing said stem and provided with a member arranged to be brought in contact with said valve so as to hold said valve upon its seat and means for raising and lowering said rod.

5. In a carbureter, the combination of a reservoir for holding gasolene, a mixing chamber arranged above said reservoir and separated therefrom, a carbureting chamber communicating at its upper end with the bottom of the mixing chamber and at its lower end with the outside air, a nozzle mounted on said reservoir and extending up into said carbureting chamber, a disk valve arranged to close the opening from the mixing chamber into said carbureting chamber, said valve being provided with a central opening, a tubular stem extending down from said valve, said stem being adapted to inclose the upper end of said nozzle, an opening formed in the top of the mixing chamber, a sleeve adjustably mounted in said opening, a rod extending down through said sleeve and having its upper end resting on top of said sleeve, the lower end of said rod being arranged to extend into the tubular valve stem and leave a clearance between the said rod and the inner wall of the said stem, a lever secured to said valve stem and adapted to raise and lower said stem and a member secured on said stem within the mixing chamber and adapted to be brought in contact with the said disk valve when the said rod is lowered so as to hold said disk valve on its seat.

[Claim 6 not printed in the Gazette.]

1,072,734. PROCESS OF KNITTING BIAS-LACE KNITTED NECKTIES. JOSEF KELLNER, Brooklyn, and SIDNEY WORMS, New Rochelle, N. Y., assignors to Franklin Knitting Mills, a Corporation of New York. Filed Mar. 11, 1913. Serial No. 753,650. (Cl. 66—4.)



1. The process of knitting which consists during the knitting of the fabric in causing the thread loops or stitches of one set of needles to be racked or shogged relatively to the thread loops or stitches of another set of needles and during the knitting placing the work under a differential tension, thereby providing a knitted fabric having the thread loops thereof located on a true or substantially true bias and then during the knitting of an ornamental portion of such fabric racking or shogging one set of needles in a different manner.

2. The process of knitting which consists during the knitting of the fabric in causing the thread loops or stitches of one set of needles to be racked or shogged relatively to the thread loops or stitches or another set of needles and during the knitting placing the work under a differential tension, thereby providing a knitted fabric having the thread loops thereof located on a true or substantially true bias, and during the knitting feeding into the work at a predetermined time a thread or threads of a contrasting color to form knitted ornamental open mesh bias work, and for the purpose of knitting such ornamental open mesh bias work, racking or shogging one set of needles in a different manner.

3. The process of knitting which consists in causing the thread loops or stitches of one set of needles to be racked or shogged to one side, and then to the other side of the thread loops or stitches of another set of needles to form the body of the work, and then at a certain interval feeding into the work a thread or threads to form a bias strip, and during such feeding causing the thread loops or stitches of one set of needles to be racked step by step to one side, and then step by step to the other side of the thread loops or stitches of another set of needles, and during the knitting placing the work under a differential tension.

4. The process of knitting which consists in causing the thread loops or stitches of one set of needles to be racked first to one side, and then to the other side of the thread loops or stitches of another set of needles, then during such knitting feeding into the work at a predetermined time a thread or threads of a contrasting color or colors to form a bias stripe, and then feeding into the work at a predetermined time a thread or threads to form a bias stripe of a different formation, and during such last feeding racking the thread loops or stitches of one set of needles step by step to one side and then to the other side of the thread loops or stitches of another set of needles, and during the knitting placing the work under differential tension.

5. The process of knitting neckties and scarfs having substantially true bias stripes therein of different formation, which consists during the knitting of a portion of the tie in causing the thread loops or stitches of one set of needles to be racked or shifted alternately in opposite directions to the sides of thread loops of another set of needles; then during the knitting of another portion of the tie causing the thread loops or stitches of one set of needles to be racked a plurality of steps alternately in opposite directions to the side of the thread loops or stitches of another set of needles; then during the knitting of the tie feeding into the work a thread or threads of the bias stripe to be made, and during the knitting of the tie placing the same under a differential tension.

[Claims 6 to 9 not printed in the Gazette.]

1,072,735. MUFFLER. JOSEF KELLNER, Brooklyn, and SIDNEY WORMS, New Rochelle, N. Y., assignors to Franklin Knitting Mills, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1913. Serial No. 757,284. (Cl. 2—59.)



As an article of manufacture, a muffler or chest protector knitted flat with a short stocky neck portion sufficiently wide to protect the neck of the wearer above the collar, but relatively narrow as compared with the ends of such muffler, said neck portion merging into a pair of substantially similarly formed flaring ends whereby they are interchangeable, each of comparatively great width at its widest portion and of sufficient width between its point of juncture with the neck portion and its end to, when overlapping its companion end, protect the chest of the wearer, each of said ends terminating in a shaped end, said muffler being knitted with substantially the same form of stitches from end to end and having lengthwise extending ribs or wales which may alternately be of different colors on one or both sides thereof to provide an accordion effect, the juxtaposed rear edges of such muffler being united on the rear side thereof.

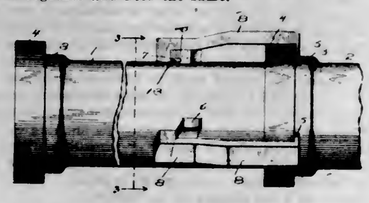
1,072,736. PIPE-COUPLING. EUGENE J. KELLY, Washington, D. C. Filed Apr. 15, 1913. Serial No. 761,219. (Cl. 137—28.)

1. The combination with sections of a pipe, one section formed with pivotal recesses and the other section with inclined lugs, of clamps to engage the recesses and be swung over the lugs to draw the sections together and secure them in position.

2. The combination with sections of a pipe, one section formed with pivotal recesses and the other section with inclined lugs, of clamps to engage the recesses and be swung over the lugs to draw the sections together, and a tongue on the clamps to engage the inclined lugs and be struck down and lock the sections together.

3. A pipe coupling, comprising a section formed with pivotal recesses, a second section formed with inclined

and undercut lugs, and clamps adapted to engage the recesses and be swung over the lugs, so as to draw said sections together and hold the same.

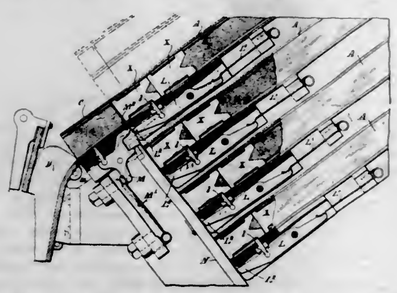


4. The combination with the sections of a pipe, one section formed with pivotal recesses undercut at their bases and the other section with inclined lugs undercut at their bases, of clamps having lugs formed with flanges to engage the undercut portion of the recesses and be swung over the lugs and engage the undercut recess of the same so that the sections of pipe may be drawn together and secured in position.

5. The combination with the sections of a pipe, one section formed with pivotal recesses undercut at their bases and the other section with inclined lugs undercut at their bases, of adjustable clamps having lugs formed with flanges to engage the undercut portion of the recesses and be swung over the lugs and engage the undercut recesses of the same, and a gasket between the pipe sections, so that the sections may be drawn together and secured in position.

[Claim 6 not printed in the Gazette.]

1,072,737. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 14, 1912. Serial No. 731,236. (Cl. 199—7.)



1. In a typographical machine having a magazine for the type or matrices, an escapement comprising two separate portions each provided with a single engaging member for the type or matrices, one portion being connected to the magazine and the other portion being mounted exterior thereto.

2. In a typographical machine, the combination of a magazine for the type or matrices and assembling devices, the said parts being arranged so as to be relatively movable, with an escapement comprising two separate portions each provided with a single engaging member for the type or matrices, one portion being connected to the magazine and the other to the assembling devices.

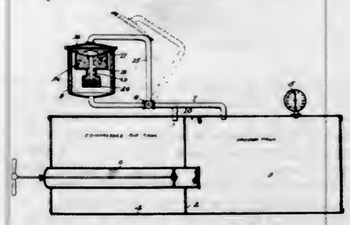
3. In a typographical machine having a magazine for the type or matrices, an escapement comprising two separate portions each provided with a single engaging member for the type or matrices, one portion being connected to the magazine and the other portion being mounted exterior thereto, and one being controlled in its operation by the other.

4. In a typographical machine, the combination of a plurality of magazines for the type or matrices and assembling devices, so arranged that any selected magazine may be brought into operative relation to the other parts, and each of the magazines being provided with a series of escapement elements, each comprising a single engaging member for the type or matrices, with a single series of escapement elements located exterior to the magazine and each comprising a single engaging member for the type or matrices, the said latter series being adapted to be brought into operative relation to the series of escapement elements of the selected magazine.

5. In a typographical machine, the combination of a magazine provided with a series of escapement elements, each comprising a single engaging member for the type or matrices, with a corresponding series of escapement elements located exterior to the magazine and each provided with a single engaging member for the type or matrices, the respective series being so arranged that the actuation of the exterior elements effects the actuation of the corresponding magazine escapement elements.

[Claims 6 to 12 not printed in the Gazette.]

1,072,738. APPARATUS FOR CASTING METAL. ALONZO A. KING, Paonia, Colo. Filed June 20, 1912. Serial No. 704,911. (Cl. 22—73.)



1. In an apparatus for the purpose set forth, the combination of a vacuum chamber, a reservoir, means for withdrawing fluid from the vacuum chamber into the reservoir, a cup, a mold removably supported within the cup, a pipe leading from the vacuum chamber to the bottom of the cup, a valve in said pipe, a cover for the cup, a continuous pipe leading from the reservoir and having a movable member forming a conduit and carrying the said cover, a valve in said pipe connected directly with said movable member, and a connection between the first-mentioned valve and the said movable member whereby both valves will be opened or closed as the cover is moved to or from the cup.

2. The combination of a vacuum chamber, a reservoir, pipes communicating with the vacuum chamber and the reservoir respectively, valves in said pipes, a coupling connecting said valves whereby they will operate in unison, a mold-containing cup communicating with one of said pipes, a cover for said cup, and a swinging pipe extending from and communicating with the coupling between the valves and opening through said cover.

3. The combination of a vacuum chamber, a reservoir, continuous pipes communicating with the vacuum chamber and reservoir respectively, valves in said pipes, a rotary valve coupling extending between said valves, a pipe secured to and communicating with said coupling and extending therefrom, a mold-containing cup supported by and communicating with the pipe leading to the vacuum chamber, and a cover for said cup carried by the pipe extending from the valve coupling.

4. The combination of a vacuum chamber, a reservoir, pipes leading to the vacuum chamber and from the reservoir respectively, a mold-retaining cup supported by and communicating with the end of the pipe leading to the vacuum chamber, a rotary valve interposed in said pipe, a rotary valve in the end of the pipe leading from the reservoir and axially alined with the first-mentioned valve, a connection between said valves comprising a rod engaging the valve in the pipe leading to the vacuum chamber, a tube engaging the valve in the pipe leading from the reservoir and communicating with the port thereof, and a T-joint connecting said rod and said tube, a pipe rising from said T-joint and open thereto, and a cover for the mold-containing cup carried by said pipe.

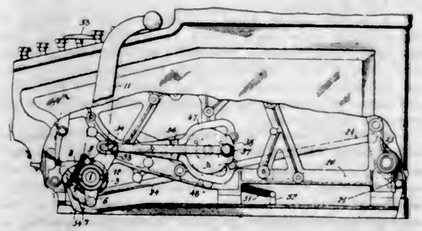
1,072,739. SHADE-BRACKET. EDWARD LEE KING, Charleston, Ill. Filed Nov. 23, 1912. Serial No. 733,150. (Cl. 156—25.)



1. A shade roller support comprising a pair of brackets each formed with a base, a circular shaped housing supported by the base, caps closing opposite sides of each housing, an arbor rotatably journaled in one of the caps, means for tensioning each of the arbors, and means connected with one of the arbors and engageable with one of the caps for locking the said arbor in adjusted position against the tension of the tension means acting thereon.

2. A shade roller support comprising a pair of brackets each formed with a base, a circular shaped housing supported by the base, caps closing opposite sides of each housing, an arbor rotatably journaled in one of the caps, means for tensioning each of the arbors, means connected with one of the arbors and engageable with one of the caps for locking the said arbor in adjusted position against the tension of the tension means acting thereon, and bearings formed in the housing and supporting the innermost end portions of the arbors.

1,072,740. CALCULATING-MACHINE. AUGUST KNISTROM, Binghamton, N. Y. Filed Dec. 17, 1910. Serial No. 597,739. (Cl. 235—62.)



1. In an adding machine, in combination, of driving mechanism comprising a power shaft, an operating shaft, and means connecting the power shaft with the operating shaft, said means adapted to rotate the operating shaft by an oscillation of the power shaft.

2. In a calculating machine, the combination of a power shaft, an auxiliary shaft operated by said power shaft, means for oscillating said auxiliary shaft, an operating shaft, and means operated by the oscillation of the auxiliary shaft to impart rotary motion to the operating shaft.

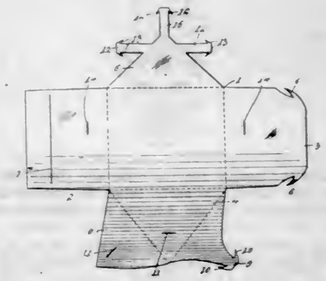
3. In a machine of the character described, the combination of a power shaft, an auxiliary shaft operated by said power shaft, a third or driven shaft, and means connecting the power shaft auxiliary shaft and driven shaft to operate the latter, said connecting means adapted to rotate said third mentioned shaft upon imparting an oscillatory motion to the first mentioned shaft.

4. In a machine of the class described, a power shaft, means for manually or automatically operating the power shaft, an auxiliary shaft; means connecting said power shaft to the said auxiliary shaft to operate the latter, a driven shaft and means extending from the auxiliary shaft back to the power shaft for operating the said driven shaft.

5. In a machine of the class described, a power shaft, a sleeve pinned to said power shaft said sleeve having a disk thereon, a ring having a disk, carried by said sleeve, an arm mounted on said disk, an auxiliary shaft, and means carried by said arm for operating the auxiliary shaft.

[Claims 6 to 55 not printed in the Gazette.]

1,072,741. ENVELOP. ALBERT G. KOLOSA, Newberry, Mich. Filed Nov. 30, 1912. Serial No. 734,368. (Cl. 229—82.)



1. In a device of the character described, the combination of a body provided with end flaps, means carried by the ends of said flaps for engagement to prevent the opening of said flaps without detection, a bottom flap of substantially rectangular form having one of its free corners bent inwardly and provided with a slit, the other free corner being bent away to form a tongue having angular tabs formed on the opposite sides thereof and adapted to engage the ends of the slit to prevent the removal of the tongue when inserted therein, a top flap and means carried by the top flap for engagement with the other flaps to prevent fraudulent access to the interior of the envelop.

2. In a device of the character described, the combination of a body provided with end flaps, one of said end flaps having a transverse slit, the other of said end flaps being provided upon its opposite edges with recesses forming angular tabs adapted to engage the ends of said slit when the second flap is inserted therein, a bottom flap of substantially rectangular form having one of its free corners bent inwardly and provided with a slit, the other free corner being cut away to form a tongue having angular tabs formed upon the opposite sides thereof and adapted to engage the other corner at the ends of the slit to prevent the removal of the tongue when inserted therein, a top flap of substantially triangular form, oppositely disposed tongues formed upon the side edges thereof and arranged adjacent the apex, angularly disposed tabs formed upon the outer ends thereof, a third tongue projecting outwardly from the apex of the top flap, angularly disposed tabs formed at the outer end of the third tongue and said end flaps and the bottom flap being provided with slits to receive the tongues upon the top flap, the tabs upon said tongues preventing the removal of the tongues without severing the same from the body.

1,072,742. TOOL FOR ATTACHING AERIAL CABLE-HANGERS TO THEIR SUPPORTING-WIRES. JOHN C. KORTICK, San Francisco, Cal. Filed Nov. 25, 1912. Serial No. 733,364. (Cl. 81—15.)

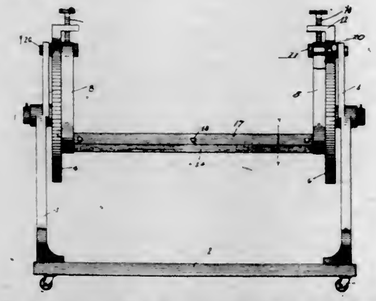
In a tool of the class described, the combination with a pair of handles formed with enlarged pivotally connected heads and adjacent stop shoulders, a pair of

clamping arms pivoted at their inner ends to the outer sides of said heads, and a bridge plate pivotally connecting said arms adjacent to their upper ends, said arms formed at their upper ends with T-heads provided on their opposing faces with semi-cylindrical grooves adapted



to receive the hanger and the cable and clamp the hanger around the cable, the parts being so related that the closing movement of the T-heads is checked by the contacting of the stop shoulders on the handles, to provide an opening between the opposing faces of the T-heads through which the end of the hanger may extend.

1,072,743. ENGINE-SUPPORTING FRAME. LELAND S. LAUFENBURG and SYLVESTER G. PEARSON, Stockton, Cal. Filed Sept. 5, 1912. Serial No. 718,644. (Cl. 29—89.)

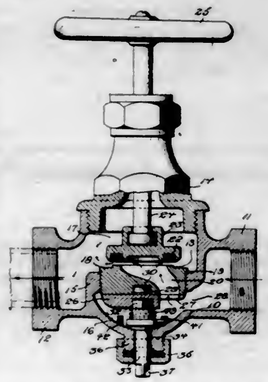


1. A device of the character described comprising the combination of a supporting frame, a pair of disks pivotally mounted on said supporting frame, independent frame members adjustably mounted on said disk, and supporting beams adjustably disposed on said independent frame members, as described.

2. A device of the character described comprising a supporting frame, a pair of disks pivotally mounted on said frame in spaced relation, bolts disposed in said disks and provided with nuts, independent frame members provided with slots mounted over said bolts, and supporting beams disposed in said independent frame members, as described.

3. A device of the character described comprising a supporting frame, a pair of disks pivotally mounted on said frame in spaced relation, independent frame members mounted between said disks and being capable of sliding adjustment thereon, projecting arms on said disks, set screws disposed in said arms and engaging said independent frame members and supporting beams mounted on said independent frame members, as described.

1,072,744. GLOBE-VALVE. ALBAN O. LEVICK, Peabody, Mass., assignor of one-third to Harry W. Hussey, Peabody, Mass. Filed June 7, 1912. Serial No. 702,322. (Cl. 137—4.)



1. A double cut-off valve including a valve casing, a double faced valve seat provided with a water passage and with a cylindrical socket in its lower face, a cut-off valve co-acting with the upper face of said valve seat, a rotary cut-off valve co-acting with the lower face of the valve seat and having a centrally formed stud seating in the socket of the valve seat and also provided with a squared socket in its lower face, a valve stem extending through the valve casing and having a squared inner end engaging in the squared socket of the second mentioned valve, a shoulder formed upon the valve stem and bearing against the inner face of the valve casing, a spring bearing between said shoulder and the valve, a lug extending from said shoulder, and means carried by the valve casing and co-acting with said lug to limit the turning of the valve stem and its valve.

2. A double cut-off valve including a valve casing, a double faced valve seat having an irregular water passage therethrough and a concentric annular groove in its lower face, a valve co-acting with the upper face of said seat and a valve co-acting with the lower face of said seat, said latter valve having an annular shoulder seating in the groove of the valve seat.

3. A double cut-off valve including a valve casing, a double faced valve seat provided with a water passage and with a cylindrical socket in its lower face, a cut-off valve co-acting with the upper face of said valve seat, a rotary cut-off valve co-acting with the lower face of the valve seat and having a centrally formed stud seating in the socket thereof, a valve stem detachably engaging said second valve, and means carried by the valve stem for holding said second valve in engagement with its valve seat.

4. A double cut-off valve including a valve casing, a double faced valve seat provided with a water passage and with a cylindrical socket in its lower face, a cut-off valve co-acting with the upper face of said valve seat, a rotary cut-off valve co-acting with the lower face of said valve seat and having a centrally formed stud seating in the socket of the valve seat and a centrally formed squared socket in its lower face, and a valve stem for said latter valve having a squared terminal seated in the squared socket of the valve.
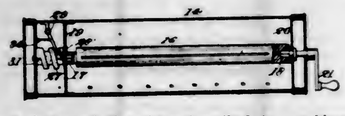
5. A double cut-off valve including a valve casing, a double faced valve seat provided with a water passage and with a cylindrical socket in its lower face, a cut-off valve co-acting with the upper face of said valve seat, a rotary cut-off valve coacting with the lower face of the valve seat and having a centrally formed stud seating in the socket of the valve seat and also provided with a squared socket in its lower face, a valve stem extending through the valve casing and having a squared inner end engaging in the squared socket of the second mentioned valve, a shoulder formed upon the valve stem and bearing against the inner face of the valve casing, and a spring bearing between said shoulder and the valve.

1,072,745. PHARMACEUTICAL COMPOUND. GRÄFIN MARIA VON LINDEN, Bonn, ERNST MEISSEN, Hohenhonnef, near Bonn, and ARTUR STRAUSS, Barmen, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 11, 1913. Serial No. 747,714. (Cl. 23—24.)

1. The new complex copper compounds of lecithin compounds, which are greenish products, soluble in ether and in chloroform, insoluble in alcohol, containing about from 5 to 6 per cent. of copper; and being valuable remedies against infectious diseases, substantially as described.

2. The new complex copper compound of lecithin, being a brownish-green product soluble in ether and olive oil with a light green coloration, containing about 6 per cent. of copper and 3 per cent. of phosphorus; being a valuable remedy against infectious diseases, substantially as described.

1,072,746. SANITARY TOWEL. ARTHUR P. LINVILLE, Richmond, Cal., assignor of one-third to C. E. Linville, Richmond, Cal., and one-third to S. L. Kampschmidt, Stockton, Cal. Filed June 10, 1912. Serial No. 702,701. (Cl. 45—32.)



In a device of the class described in combination, a towel wound on a roller, a drum around which the towel passes, a releasable stop for said drum, said drum and stop coöperating with the towel to limit the amount of the latter that can be withdrawn at one operation, a roller upon which the used portion of the towel is adapted to be wound, and means connected with said roller to allow a definite number of reverse rotations thereof, said means comprising a worm provided with a stop, and a pawl adapted to engage said stop after a limited number of reverse rotations of said roller.

1,072,747. STATION-INDICATOR. BENJAMIN F. MACMINN, Philadelphia, Pa. Filed May 3, 1913. Serial No. 765,189. (Cl. 40—93.)



1. A station indicator, comprising a casing, vertical rolls in the casing, a tape connecting the rolls and comprising two strips secured together at their upper edges, and a vertical partition in the casing over which the tape moves with its strips at opposite sides of the partition, substantially as described.

2. A station indicator, comprising a casing, vertical rolls in the casing, a tape connecting the rolls and comprising two strips secured together at their upper edges, a vertical partition in the casing over which the tape moves with its strips at opposite sides of the partition, and two pairs of rolls between which the tape moves, said pairs of rollers located in proximity to the ends of said partition, substantially as described.

3. A station indicator, comprising a casing, vertical rolls in the casing, a tape connecting the rolls and comprising two strips secured together at their upper edges, a vertical partition in the casing over which the tape moves with its strips at opposite sides of the partition, and two pairs of rolls between which the tape moves, said pairs of rollers located in proximity to the ends of said partition, substantially as described.

4. A station indicator, comprising a casing, vertical rolls in the casing, a tape connecting the rolls and comprising two strips secured together at their upper edges, a vertical partition in the casing over which the tape moves with its strips at opposite sides of the partition, said casing at the upper and lower edges of the tape having grooves confining the edges of said tape, and two pairs of rollers between which the tape moves, said pairs of rollers located in proximity to the ends of said partition, substantially as described.

5. A station indicator comprising two vertical rolls, a vertical partition between the rolls, and a tape wound at its ends on said rolls, said tape comprising two strips located at opposite sides of the partition, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,072,748. ELECTRICALLY-HEATED BOILER. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car Heating Company, a Corporation of West Virginia. Filed Sept. 16, 1908. Serial No. 453,250. (Cl. 219—38.)

1. In an electrically heated boiler the combination with an air flue of a tubular metallic heating element therein extending through the flue and included in an electric circuit.

2. In an electrically heated boiler the combination with a plurality of air flues open at both ends to permit convection currents of air, of an air chamber at one end into which said flues open and heating elements in its several flues separated by an air space from the walls of the flue.

3. In an electrically heated boiler the combination with an air flue open at both ends to permit longitudinal convection currents of air of a metallic electrical heating element in the flue insulated from the interior wall thereof and included in an electric circuit.

4. In an electrically heated boiler the combination with an air flue open at both ends to permit convection currents of air of a tubular metallic heating element therein included in an electric circuit.

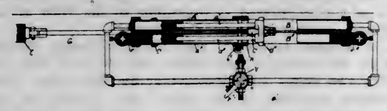
5. In an electrically heated boiler the combination with an air flue, of a tubular electric heating element therein open to permit internal convection currents of air within the element and separated by an air space from the interior wall of the flue.

[Claims 6 to 16 not printed in the Gazette.]

1,072,749. PRESSURE-MOTOR. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car Heating Company, a Corporation of West Virginia. Filed Nov. 8, 1910. Serial No. 591,310. (Cl. 121—45.)

1. In a pressure motor, the combination with two parallel, opposed cylinders, of a piston in each, a rod for each piston, a crosshead for each rod traveling on the opposite cylinder, and means for rigidly connecting said crossheads.

2. In a pressure motor, the combination with two parallel, opposed cylinders, one offset with respect to the other, of a piston in each, a rod for each piston, a crosshead for each rod traveling on the opposite cylinder, and means for connecting said crossheads.



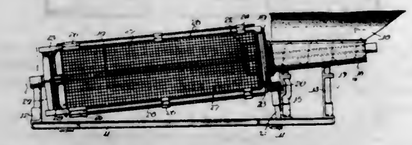
3. In a pressure motor, the combination with two parallel, opposed cylinders, of a piston in each, a rod for each piston, a crosshead for each rod traveling on the opposite cylinder, and a connection between the two crossheads movable therewith.

4. In a pressure motor, the combination with two parallel, opposed cylinders open at their adjacent ends, of a piston in each, a rod for each piston, a crosshead for each rod traveling on the opposite cylinder, and a rod connection between said crossheads.

5. In a pressure motor, the combination with two parallel, opposed cylinders open at their adjacent ends, of a piston in each, a rod for each piston, a crosshead for each rod traveling on the opposite cylinder, a rod connecting the crossheads, and a control valve for alternately admitting pressure to the closed end of one cylinder while exhausting the closed end of the other.

[Claims 6 to 14 not printed in the Gazette.]

1,072,750. ROTARY SCREEN. JOHN C. MCINTYRE, Hoopeston, Ill., assignor to Sprague Canning Machinery Company, Chicago, Ill., a Corporation of Illinois. Original application filed Mar. 7, 1913, Serial No. 752,550. Divided and this application filed June 18, 1913. Serial No. 774,368. (Cl. 130—16.)



1. In a machine of the class described, a trommel including a frame and screens slidable longitudinally with reference to the frame, and common means to retain the screens in position comprising a member adapted to be swung from a position in the path of the slidable screens to a position out of said path, substantially as described.

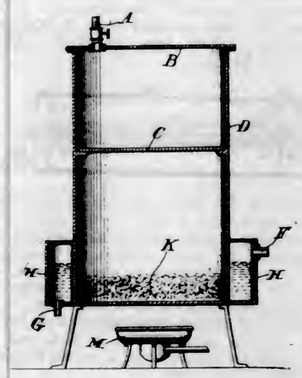
2. In a machine of the class described, a trommel including a frame with overlying spaced clips, and screens slidable longitudinally of the frame within the clips, a retaining spider rotatably mounted with reference to the trommel axis from a position with its arms engaging the screens to a position out of engagement therewith, and means to lock the retaining spider in engaging position, substantially as described.

3. In a machine of the class described, a trommel comprising a frame including end members, connecting bars and clips, and screens slidable longitudinally of the frame within the clips, a retaining spider rotatably mounted with reference to the trommel axis from a position with its arms in the path of the screen ends to a position out of the path thereof, and a spring catch to lock the retaining spider in engaging position, substantially as described.

4. In a machine of the class described, an inclined trommel comprising a frame including an upper end plate, a lower end spider, connecting bars, clips overlying the bars, screens slidable longitudinally of the frame within the clips, a retaining spider mounted to rotate with reference to the trommel axis from a position with its arms in the path of the screen ends to a position out of the path thereof, a stop carried by one of the spiders and adapted to position the retaining spider in engaging relation to the screens, and a spring catch carried by one of the spiders and adapted to engage the other to lock the retaining spider in engaging position, substantially as described.

5. In a machine of the class described, an inclined trommel comprising a frame including an upper end plate, a lower end spider, and connecting bars, clips carried by the bars in spaced relation thereto, screens slidable longitudinally of the frame within the clips, a retaining spider mounted to rotate upon the shaft adjacent the end spider from a position with its arms in the path of and engaging the screen ends to a position out of the path thereof, a stop carried by one of the spiders and adapted to abut against the other in the engaging position of the retaining spider, and a spring catch mounted on one of the spiders and adapted to engage the other to lock the retaining spider in engaging position, substantially as described.

1,072,751. PROCESS OF TREATING ORGANIC AND INORGANIC MATERIALS. JAMES A. MCLARTY, Toronto, Ontario, Canada. Filed Nov. 20, 1912. Serial No. 732,567. (Cl. 148—21.)



1. A process of treating materials of the classes set forth, which comprises subjecting said materials in a closed vessel to the action of the gases and vapors evolved by heating a mixture including a carbohydrate and an oil, said mixture being out of contact with said materials.

2. A process of treating materials of the classes set forth, which comprises subjecting said materials in a closed vessel to the action of the gases and vapors evolved by heating a mixture including cellulosic material and mineral oil, said mixture being out of contact with said materials.

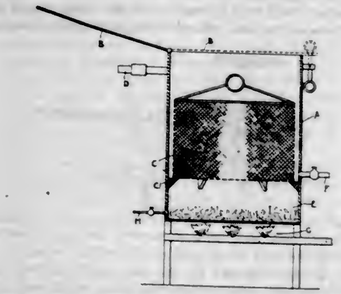
3. A process of treating materials of the classes set forth, which comprises subjecting said materials in a closed vessel to the action of the gases and vapors evolved by heating a mixture including saw dust and crude petroleum, said mixture being out of contact with said materials.

4. A process of treating materials of the classes set forth, which comprises subjecting said materials in a closed vessel to the action of the gases and vapors evolved by heating a mixture including a carbohydrate and an oil, said materials being out of direct contact with said mixture, and also out of contact with air.

5. A process of treating metals, to harden the same, and to prevent corrosion thereof, which comprises subjecting said metals to the action of the gases and vapors evolved by heating a mixture including a carbohydrate and crude petroleum, said mixture being out of contact with said metals.

[Claims 6 to 8 not printed in the Gazette.]

1,072,752. PROCESS FOR TREATING ORES. JAMES AINSLEIGH MCLARTY, Toronto, Ontario, Canada. Filed Apr. 14, 1913. Serial No. 760,913. (Cl. 75—17.)



1. The process of reducing and treating ores, and substances containing metal, which comprises exposing the same to the gases and vapors produced by heating a mixture including a hydrocarbon and a carbohydrate, said exposure being made out of contact with free oxygen.

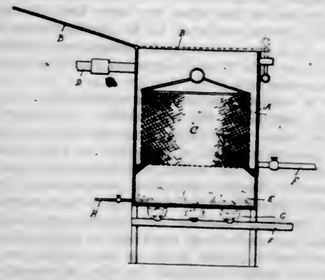
2. The process of reducing and treating ores, and substances containing metal which comprises exposing the same to the gases and vapors produced by heating a mixture including a hydrocarbon and a carbohydrate, said exposure being made out of contact with free oxygen and at a temperature not above a red heat.

3. The process of reducing and treating ores which comprises heating a mixture containing a hydrocarbon and a carbohydrate, to a temperature materially below a red heat, to generate gases and vapors, and treating the ore with the gases and vapors so produced, while in a compartment separate from said carbohydrate and hydrocarbon.

4. The process of reducing and treating ores, which comprises heating a mixture comprising a carbohydrate and a hydrocarbon, and exposing the ore to the gases and vapors thereby produced, out of contact with air, in a sealed container.

5. The process of reducing and treating ores which comprises heating a mixture containing a hydrocarbon and a carbohydrate, to a temperature materially below a red heat, to generate gases and vapors, and treating the ore with the gases and vapors so produced, while in a compartment separate from said carbohydrate and hydrocarbon, and at a temperature below a red heat.

1,072,753. PROCESS FOR TREATING ORES. JAMES AINSLEIGH MCLARTY, Toronto, Ontario, Canada. Filed Apr. 18, 1913. Serial No. 761,940. (Cl. 75—75.)



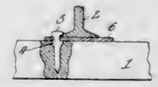
1. A process of treating and reducing ores which comprises heating a mixture containing a carbohydrate and a hydrocarbon to a temperatume materially below a red heat, igniting the gases and vapors thereby produced and treating the ore with said ignited gases and vapors.

2. A process of treating and reducing ores which comprises heating a mixture containing a carbohydrate and a hydrocarbon to a temperature of about 100° C., igniting the gases and vapors thereby produced and treating the ore with said ignited gases and vapors.

3. A process of treating and reducing ores which comprises heating a mixture containing a carbohydrate and a hydrocarbon to a temperature materially below a red heat, igniting the gases and vapors thereby produced and treating the ore with said ignited gases and vapors, while in a compartment separate from said mixture.

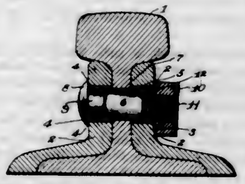
4. A process of treating and reducing ores which comprises heating a mixture containing a carbohydrate and a hydrocarbon to a temperature materially below a red heat, igniting the gases and vapors thereby produced and treating the ore with said ignited gases and vapors, while said ore is at a temperature materially below a red heat.

1,072,754. RAIL-FASTENER. RORY MCNEIL, Cape Breton, Nova Scotia, Canada. Filed Jan. 25, 1912. Serial No. 673,349. (Cl. 238—4.)



In a rail-fastening means, a rail, spikes adapted to be driven into a tie and each having a head engaging the top of the rail flange and a front shoulder below the head and projecting beneath the rail flange and adapted to lie flush with the upper face of the tie, said front shoulder and projecting head forming a front plate receiving recess, each spike also having a rearwardly projecting head and shoulder forming a rearward plate receiving portion, and a rail supporting plate disposed on said tie and extending beneath the rail and to opposite sides thereof and having oppositely disposed slots or recessed portions adapted to fit the plate receiving portions of said spikes and rest upon the lower shoulders thereof, and means for anchoring the plate to the tie, substantially as described.

1,072,755. LOCK-NUT. SAMUEL G. MEEKER, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,881. (Cl. 151—21.)



1. In a device of the class described the combination with a bolt having a screw-threaded end of a member having an opening through which said bolt passes, the said opening at the end corresponding to the screw-threaded end of the bolt having its sides so shaped as to be at different distances from said bolt, means for preventing the turning of said bolt, a screw-threaded nut fitting said bolt, and a projection on the working face of said nut at one side of said opening therein adapted to enter said opening through which the bolt passes and to make contact with the sides thereof at certain points when turned so as to lock said nut against accidental turning.

2. In a device of the class described, the combination with a bolt having a screw-threaded end, of a member having an opening through which said bolt passes, the said opening at the end corresponding to the screw-threaded end of the bolt being oblong, a screw-threaded nut fitting said bolt and a projection on the working face of said nut at one side of the opening therein adapted to enter said oblong opening and to make such contact with

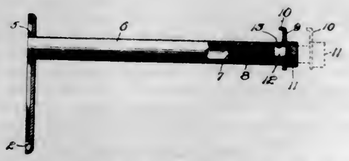
the sides of said oblong opening at its shorter diameter as to tip said bolt out of normal position as the nut is turned thus locking the nut.

3. In a device of the class described, the combination with a bolt having a screw threaded end, of a member having an oblong opening therein through which said screw threaded end passes, means for preventing the rotation of said bolt, a screw threaded nut fitting the screw threaded end of the bolt, and a flexible projection on the working face of the nut adjacent the opening therein adapted to engage with the side walls of the oblong opening.

4. The combination with a bolt having its shank adjacent to its head, designed to engage with a fish plate and to prevent turning in either direction in said fish plate, of a nut adapted to engage with the bolt and provided on its back or working face with a single projection so shaped as to enter a hole in a fish plate having its sides so shaped as to be at different distances from said bolt and to make contact with the sides of said hole at certain points as said nut is turned.

5. The combination with a bolt having its shank adjacent to its head, designed to engage with a fish plate and to prevent its turning in either direction in said fish plate, of a nut adapted to engage with the bolt and provided on its back or working face with a single projection so shaped as to enter an oblong hole in a fish plate having its sides so shaped as to be at different distances from said bolt and to make contact with the sides of said hole at certain points as said nut is turned.

1,072,756. ADJUSTABLE BRACKET. GEORGE R. MEYERCORD, Chicago, Ill. Filed May 23, 1912. Serial No. 699,098. (Cl. 248—22.)



1. In a bracket, a plate, an arm projecting outwardly from one face of the plate at right angles thereto, a member screw-threaded within the end of said arm, and a clamping piece loose on said member and adapted to cooperate with said plate to hold a shelf or the like on the bracket.

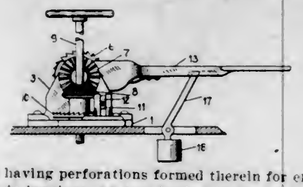
2. In a bracket, a plate, a tube secured at one end to the plate and extending at right angles thereto, an elongated stud screwed into the free end of the tube, and a clamping piece loose on the stud and adapted to coöperate with said plate to hold a shelf or the like on the bracket.

3. In a bracket, a sheet metal plate having a portion along the edges bent back to form a flange and having a portion in the body thereof bent back to form a nipple, a tube having one end fixed within the nipple and extending at right angles to the plate, an elongated stud screwed into the outer end of the tube, and means on the stud adapted to coöperate with said plate to hold a shelf or the like on the bracket.

1,072,757. BRAKE FOR RAILWAY-CARS. ADAM L. MILLER and WILLIAM W. BURDETTE, Handley, W. Va. Filed Dec. 5, 1912. Serial No. 735,140. (Cl. 188—54.)

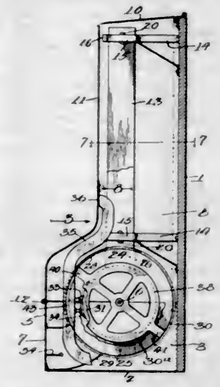
1. A brake of the class described comprising in combination a plate, brackets carried by the plate, eccentric bearings formed upon the brackets, a shaft journaled in the bearings, a ratchet wheel fixed to the shaft, a brake shaft, beveled gears connecting said shafts, a lever having one end supported by the eccentric bearings, a pawl carried by the lever for engaging the ratchet wheel, a weighted arm engaging said lever, as and for the purpose set forth.

2. A brake of the class described comprising a plate, brackets mounted on the plate, eccentric bearings formed upon the opposing faces of the brackets, a shaft rotatably mounted in the bearings, a ratchet wheel fixed to the shaft and between the brackets, a beveled gearing fixed to one end of the shaft, a brake shaft, a similar gear fixed to the brake shaft and in mesh with the first named gear, a foot lever having one end provided with furcations, said



furcations having perforations formed therein for engaging the eccentric bearings, an arm having its upper end bearing against the foot lever, and its lower end provided with a weight, a pawl carried by the lever and adapted to engage the ratchet wheel when the lever is forced downwardly, said arm being adapted to force the lever upwardly when pressure is relieved thereon.

1,072,758. VENDING-MACHINE. GEORGE W. MILLER, Los Angeles, Cal. Filed Jan. 22, 1912. Serial No. 672,557. (Cl. 211—8.)



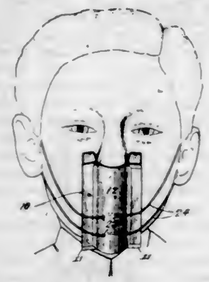
1. In a vending machine, a casing, a shaft journaled in said casing, a delivery drum mounted upon said shaft and having adjustable delivery pockets therein, a plurality of removable magazines mounted in said casing, angular flanges extending around said delivery drum and adapted to inclose the lower ends of said magazines, and outwardly extending lips upon the lower ends of said magazines to prevent material to be vended from dropping through, into the operating mechanism, and locking pawls mounted upon the frame to prevent rotation of the drum between operations.

2. In a vending machine, the combination of a casing, a shaft journaled in the casing, a delivery drum mounted upon said shaft, and having adjustable delivery pockets therein, a plurality of removable magazines mounted in the casing in alinement with said pockets, annular flanges extending around said drum and adapted to close the sides of said magazines, outwardly extending lips upon the lower ends of said magazines, guards extending upwardly from the front of said casing to said lips and covering said drum, so that when the drum is rotated to deliver material to the purchaser, it will be held in said pockets upon continued rotation of the delivery drum.

3. In a vending machine, a bottom; a back wall extending upwardly from the bottom the height of the machine; rigid sides extending upwardly a short distance; a rigid front extending upwardly the height of the rigid sides; a swinging front, sides and top fixed together and hinged to the rigid front so as to fit the back and form a casing; a shaft mounted at the parting line between the rigid sides and the swinging sides; a cylindrical drum mounted upon the shaft; and a removable magazine mounted above the drum, there being a delivery pocket in the drum adapted to register with the magazine; and a guard extending from the lower edge of the front wall of the magazine to the delivery opening, said delivery opening being in the rigid front, so as to hold the material in the pocket as it is carried from the bottom of the magazine to the delivery opening.

4. In a vending machine, a bottom; a back wall extending upwardly from the bottom the height of the machine; rigid sides extending upwardly a short distance; a rigid front extending upwardly the height of the rigid sides; a swinging front, sides and top fixed together and hinged to the rigid front so as to fit the back and form a casing; a shaft mounted at the parting line between the rigid sides and the swinging sides; a cylindrical drum mounted upon the shaft; a removable magazine mounted above the drum, there being a delivery pocket in the drum adapted to register with the magazine; a guard extending from the lower edge of the front wall of the magazine to the delivery opening, said delivery opening being in the rigid front; a guide plate extending from under the periphery of the drum to the lower side of the delivery opening; and partitions extending from the guard to the guide plate.

1,072,759. INHALER. JOHN B. MILLER, Chicago, Ill. Filed Feb. 27, 1913. Serial No. 750,970. (Cl. 128—13.)



1. An inhaler of the class described, comprising a receptacle holder, and a pair of spaced, medicament receiving receptacles carried by said holder and having a nose receiving space therebetween, each receptacle having an open side facing the other open side, for exposing its contents.

2. An inhaler of the class described, comprising a receptacle holder, and a pair of medicament receiving receptacles, removably secured to said holder, and extending in approximately parallel relation to each other, said receptacles being spaced apart to leave a nose receiving space therebetween, each receptacle having an open side facing the open side of its companion receptacle.

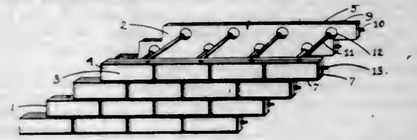
3. An inhaler of the class described, comprising a receptacle holder, consisting of a flexible back piece and a pair of receptacle supports secured thereto, and a pair of medicament receiving receptacles carried by said supports in approximately parallel relation to each other, each receptacle having an open side, facing the open side of the companion receptacle, for exposing its contents.

4. An inhaler of the class described, comprising a receptacle holder having a pair of companion pockets, formed with openings facing each other, and a pair of medicament receiving receptacles removably secured in said pockets and having open sides registering with the openings in the pockets, each pocket and the receptacle therein being spaced from the other pocket and its receptacle to leave a nose receiving space therebetween.

5. An inhaler of the class described, comprising a receptacle holder having a pair of companion pockets formed with open sides that face each other, and a pair of medicament receiving receptacles slidably and removably secured in said pockets and having open sides registering with the openings in the pockets.

[Claims 6 to 12 not printed in the Gazette.]

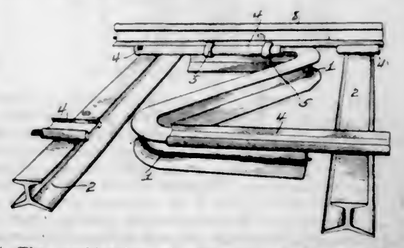
1,072,760. ORNAMENTAL REINFORCED-CONCRETE VENEER. JOHN JOSHUA MILLER, San Diego, Cal. Filed May 24, 1912, Serial No. 699,548. Renewed July 24, 1913. Serial No. 781,037. (Cl. 72—30.)



1. A concrete veneer for concrete structures, comprising similar and opposed sections formed in plates; reinforcing rods disposed in said plates, transverse bars extending between said plates and tied to said reinforcing rods, concrete reinforcements for said transverse bars at their points of entrance to said plates, stepped ends on said sections, projections formed by said reinforcing rods extending from one of said stepped ends and adapted to engage with corresponding recesses in the opposite stepped end, and beveled horizontal edges at the top and bottom of each section, said beveled edges interlocking with the corresponding edges of the adjoining sections, and said projections interlocking with recesses in the adjoining sections, substantially as set forth.

2. In a concrete veneer for concrete structures, an outer section comprising two layers formed together and into a plate, the outer layer of the outer section having an ornamental surface design, an inner section comprising two layers formed together and into a plate, the outer layer of the inner section having parallel ribs to cause the adherence of plaster or finishing material thereto, vertical and horizontal reinforcing rods disposed in each section between the layers and embedded therein, transverse bars connecting the opposed sections and tied to said reinforcing rods at their points of intersection, wire bond members arranged in and connecting the two layers of each section, and means for maintaining said sections in alinement and in a rigid set up position comprising stepped ends which are adapted to overlap with the corresponding stepped edges of the adjoining section, and projections on one of said stepped ends which engage with corresponding recesses in the adjoining section, substantially as set forth.

1,072,761. RAILROAD-TRACK CONSTRUCTION. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Jan. 31, 1913. Serial No. 745,396. (Cl. 238—5.)



1. The combination of alternately arranged Z-shape and straight metal ties, rail supporting chairs extending from one tie to the other, the said chairs having downwardly projecting flanges to overhang parts of two ties and

upwardly projecting flanges to engage the side edges of the base flanges of the rail, and means for securing the chairs and rails to the ties.

2. The combination of alternately arranged Z-shape and straight metal ties each having seats projecting above the top faces of the ties, rail supporting chairs extending from one tie to the other and resting on seats on both ties, the said chairs having downwardly projecting flanges to overhang the seats on the ties, and upwardly projecting flanges to engage the side edges of the base flanges of the rails, and means for securing the parts together.

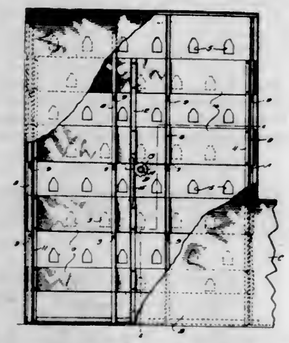
3. The combination of alternately arranged Z-shape and straight metal ties, rail supporting chairs extending from one tie to the other, the said chairs having downwardly projecting flanges to overhang parts of two ties and upwardly projecting flanges to engage the side edges of the base flanges of the rails, and spring clamps for securing the chairs and rails to the ties.

4. The combination of alternately arranged Z-shape and straight metal ties each having seats projecting above the top faces of the ties, rail supporting chairs extending from one tie to the other and resting on seats on both ties, the said chairs having downwardly projecting flanges to overhang the seats on the ties, and upwardly projecting flanges to engage the side edges of the base flanges of the rails, and flexible means for fastening the chairs and rails to said seats.

5. The combination of alternately arranged Z-shape and straight metal ties, cushion seats secured to the top surfaces of both sets of ties, rail supporting chairs each resting on the seats on one rail supporting member of a Z-shape tie and on the seat on the next adjacent straight tie, the said chair having downwardly projecting flanges to engage the sides of the seats, and upwardly projecting flanges to engage the side edges of the base flanges of the rails, and means for securing the chairs and rails to the seats.

[Claim 6 not printed in the Gazette.]

1,072,762. DUCT-CONTROL MECHANISM FOR GRAIN-DRIERS. FULTON R. MORRIS, Milwaukee, Wis., assignor to Morris Grain Drier Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 19, 1912. Serial No. 732,357. (Cl. 34—34.)



1. The combination with a drier including a chamber having oppositely disposed walls and ducts, pervious to fluid, passing transversely through the chamber and open at the outer faces of the said walls, of a shutter structure at the outer face of each of the said walls and adapted to cover the openings of certain of said ducts, the shutter structure at one wall being arranged relative to the shutter structure at the other wall, so that each duct has but one opening throttled by such shutter structures, a shaft extending transversely of the said walls of said chamber, and mechanism operable from said shaft and operatively connected with said shutter structures to simultaneously actuate the same to throttle openings of said ducts previously unthrottled, and to unthrottle the said openings of said ducts previously throttled.

2. The combination with a drier including a chamber having oppositely disposed walls and ducts, pervious to fluid, passing transversely through the chamber and open at the outer faces of the said walls, of a shutter structure at the outer face of each of the said walls and adapted to cover the openings of certain of the said ducts, the shutter structure at one wall being arranged relative to the shutter structure at the other wall, so that each duct has but one opening throttled by such shutter structures, a shaft extending transversely through said chamber substantially midway between the end margins of said shutter structures, and mechanism operable from said shaft and operatively connected with said shutter structures to simultaneously actuate the same to throttle the openings of said ducts previously unthrottled, and to unthrottle the said openings of said ducts previously throttled.

3. The combination with a drier including a chamber having oppositely disposed walls and ducts, pervious to fluid, passing transversely through the chamber and open at the outer faces of the said walls, of a shutter structure at the outer face of each of the said walls and adapted to cover the openings of certain of the said ducts, the shutter structure at one wall being arranged relative to the shutter structure at the other wall, so that each duct has but one opening throttled by such shutter structure, a shaft extending transversely through said chamber, and mechanism operable from said shaft and operatively connected with said shutter structures to simultaneously actuate the same in counter directions, substantially as and for the purpose set forth.

4. The combination with a drier including a chamber having oppositely disposed walls and ducts, pervious to fluid, passing transversely through the chamber and open at the outer faces of the said walls, of symmetrical shutter structures at the outer faces of each of said walls and adapted to cover the openings of certain of the said ducts, the shutter structure at one wall being arranged relative to the shutter structure at the other wall, so that each duct has but one opening throttled by such shutter structures, and mechanism operatively connected with said shutter structures adjacent the axes of symmetry thereof, to simultaneously actuate the same to throttle the openings of said ducts previously unthrottled, and to unthrottle the said openings of said ducts previously throttled.

5. The combination with a drier including a chamber having oppositely disposed walls and ducts, pervious to fluid, passing transversely through the chamber and open at the outer faces of the said walls, of symmetrical shutter structures at the outer faces of each of said walls and adapted to cover the openings of certain of the said ducts, the shutter structure at one wall being arranged relative to the shutter structure at the other wall, so that each duct has but one opening throttled by such shutter structure, and mechanism operatively connected with said shutter structures adjacent the axes of symmetry thereof, to simultaneously actuate the same in counter directions, substantially as and for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

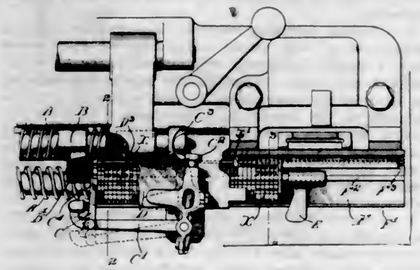
1,072,763. TYPOGRAPHICAL MACHINE. LUTHER E. MORRISON, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 28, 1912. Serial No. 680,411. (Cl. 199—7.)

1. In a typographical machine comprising type or matrices adapted to stand at different levels, distributing devices comprising separating means to act upon said type or matrices at any of such levels and bring them to a common level.

2. In a typographical machine comprising type or matrices, the combination of distributing devices comprising separating means, and means for presenting the type or matrices to the separating means at different levels, the said separating means acting to bring them to a common level.

3. In a typographical machine, the combination with means for supporting type or matrices at one level and

other means for supporting them at a different level, of separating devices to act upon said type or matrices at either level.



4. In a typographical machine, the distributer box D provided with a plurality of supporting means to sustain the type or matrices at different levels therein, in combination with distributing devices to act on the type or matrices irrespective of their level.

5. In a typographical machine, the combination with means for sustaining type or matrices at different levels, of distributing devices comprising a lifting finger to elevate individually the type or matrices while standing at such levels.

[Claims 6 to 12 not printed in the Gazette.]

1,072,764. PARACHUTE ATTACHMENT FOR AIR-SHIPS. WILLIAM A. NAGEL, Harrison, Ohio. Filed Aug. 13, 1912. Serial No. 714,931. (Cl. 244—21.)

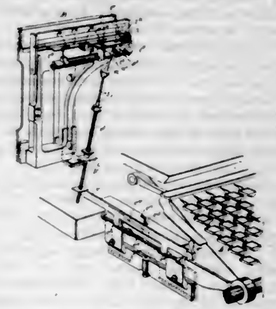


1. The combination of a parachute, a sectional tube adapted to fit around the parachute when the same is closed, means within the parachute to open the same and separate the sections of the tube, a container for said tube and parachute, and means for ejecting the tube and parachute from the container.

2. The combination of a container, a sectional tube adapted to fit therein, a parachute adapted to fold within said tube, means for ejecting the parachute and said tube from the container, means for normally holding the ejecting means inactive retaining the parachute and the tube within the container, means for releasing said retaining means whereby the parachute and the tube will be ejected, and means within the parachute to open the same and separate the sections of the tube.

3. The combination of a container, a sectional tube adapted to fit therein, a parachute adapted to fit within the sectional tube, a detachable top adapted to extend over the upper end of said tube, a bottom plate connected with the parachute and adapted to engage the lower end of the collapsible tube, and means for ejecting said tube and the parachute from the container.

1,072,765. LINE-CASTING MACHINE. FREDERICK WILLIAM NEUMAYER, Baltimore, Md., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 21, 1909. Serial No. 508,766. (Cl. 199—7.)



1. In combination, the assembler, the swinging blade f^{11}, the sliding blade f^{10}, and a common operating means for the two blades.

2. In combination, the assembler, the matrix arresting blade, the matrix sustaining blade, a common device for adjusting the two blades, the sliding and rocking plate e, and connections from said plate to the blade adjusting device.

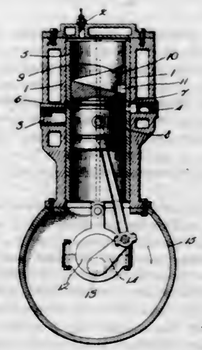
3. In combination, the assembler to receive matrices, a blade, f^{10}, to sustain matrices above the normal level and provided with a curved end, and a sector-shaped, pivoted plate to arrest the matrices at said upper level, said pivoted blade fitting in the curved end of the blade f^{10}.

4. In combination, the assembler, the matrix sustaining blade f^{10}, and the pivoted blade f^{11} having the lip f^{12} to engage and hold the matrices and pivotally movable about a center in the plane of the blade f^{10}.

5. In combination, the assembler, the matrix sustaining blade f^{10} formed with angularly inclined slots, and the pins passing through said slots, with means to move the blade endwise, whereby it is simultaneously compelled to move edgewise.

[Claims 6 to 11 not printed in the Gazette.]

1,072,766. TWO-CYCLE EXPLOSIVE-ENGINE. HORATIO H. NEWMAN, Sandersville, Ga. Filed Aug. 12, 1912. Serial No. 714,673. (Cl. 123—65.)



1. In a two-cycle explosive engine, the combination of a power cylinder, a sleeve slidably mounted in said cylinder, said sleeve and cylinder being provided with cooperating admission and exhaust ports, a power piston reciprocatingly mounted within said sleeve and provided with a port coöperating with the exhaust port of said

sleeve, and means for reciprocating said sleeve to coöperate with said power piston for temporarily opening the exhaust after completion of the power portion of the out stroke of said piston, for closing the exhaust and opening the admission upon further outward travel of said piston, and for maintaining the admission and exhaust closed during the entire in stroke of said piston.

2. In a two-cycle explosive engine, the combination of a power cylinder, a sleeve slidably mounted therein, said cylinder and sleeve being provided with coöperating inlet and exhaust ports, a power piston reciprocatingly mounted within said sleeve and provided with a port coöperating with the exhaust port of said sleeve and with an inclined edge coöperating with the inlet and exhaust ports of said sleeve, and means for reciprocating said sleeve.

3. In a two-cycle explosive engine, the combination of a power cylinder, a sleeve slidably mounted therein, said cylinder and sleeve being provided with coöperating inlet and exhaust ports, a power piston reciprocatingly mounted in said sleeve and having an end flange provided with a port coöperating with the exhaust port of said sleeve, said flange having an inclined edge coöperating with the inlet and exhaust ports of said sleeve, and an eccentric on the engine shaft for actuating said sleeve.

1,072,767. WRENCH. OSCAR A. NORDLUND, Lindsborg, Kans., assignor of two-thirds to N. P. Nelson, Lindsborg, Kans., and Frank O. Johnson, McPherson, Kans. Filed July 31, 1912. Serial No. 712,598. (Cl. 81—85.)



1. A wrench including jaw carrying shanks, one of which is movable upon the other, said movable shank being provided at its jaw carrying end with a sleeve engaging about the other shank and upon its outer face with a plurality of spaced teeth, a handle pivoted to the other shank and having extended portions bearing over the sides of the sleeve carrying shank and forming a second sleeve, and a worm gear journaled in blocks carried by the free ends of said extensions and engaging the teeth of the shank.

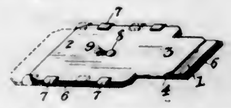
2. A wrench including relatively movable jaw carrying shanks, one of which is provided with spaced teeth, a handle member pivotally secured to the other of said shanks and having laterally directed extensions bearing against opposite faces of the shank having teeth and projecting beyond the same, a worm gear journaled between the projecting portions of said extensions and meshing with the teeth of the shank, and a spring carried by the handle carrying shank and normally maintaining said handle at an angle to the shank and the gear at an angle to its shank.

3. A wrench including relatively movable jaw carrying shanks, one of said shanks being provided with spaced teeth, a handle swingingly mounted upon the untoothed shank, a worm gear carried by said handle and engaging the teeth of the other shank in such a manner that the swinging of the handle upon its shank will cause the toothed shank to move relatively to the handle carrying shank, and means carried by said handle and coacting with the teeth of the shank for locking the shanks against movement.

4. A wrench including relatively movable jaw carrying shanks, one of said shanks being provided with spaced teeth, a handle swingingly mounted upon the untoothed shank, a worm gear carried by said handle and engaging the teeth of the other shank in such a manner that the swinging of the handle upon its shank will cause the toothed shank to move relatively to the handle carrying shank, and means carried by said handle for locking the shanks against movement, said means including a spring pressed lever carrying a pin movable into and out of engagement with the teeth of the shank.

5. A wrench including a shank provided at one end with an integral jaw and at its other end with a fixed handle, the intermediate portion of the shank having teeth formed on one face, a second shank movable along the opposite face of the first and terminating at one end in an integral jaw and at its other end in a pivoted handle, the pivoted end of the handle having an integral housing extending over and beyond the first shank, and a worm gear rotatably mounted in the housing for rocking engagement with the teeth of the first shank.

1,072,768. PENCIL-SHARPENER. JEREMIAH O'MEARA, New York, N. Y. Filed Nov. 24, 1911. Serial No. 662,152. (Cl. 120—90.)



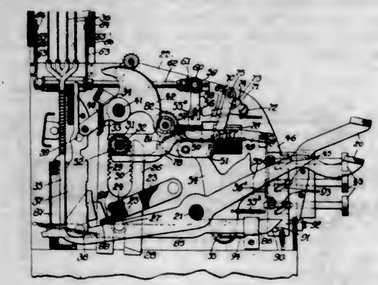
1. A pencil sharpener, comprising a cutting blade, a blade holder constructed of thin flat sheet metal and having turned over portions on one end forming pockets to receive and frictionally hold the blade, and provided with stops to retain the blade in position, a shield constructed of thin flat sheet metal mounted upon one side of the blade holder and lying over the blade and its receiving pockets, and integral clips connecting the blade holder and shield to permit the shield to be moved lengthwise of the holder to cover and uncover the cutting edge of the blade.

2. A pencil sharpener, having a cutting blade, a blade holder constructed of thin flat sheet metal provided at one end with turned over portions forming pockets to receive and frictionally hold the blade, and stops to position the blade in said holder, and a shield constructed of thin flat sheet metal substantially coterminous with the blade and blade holder and fitted upon one side of the blade holder over the blade and its receiving pockets, and integral clips movably connecting the blade holder and shield whereby the shield may be slid upon the blade holder to cover and uncover the cutting edge of the blade.

1,072,769. CASH-REGISTER. CHARLES PALMER, Catford, England, by Robert Briden, London, England, receiver in lunacy of said Palmer, assignor to George William Marsh and Charles Rundle Thomas, London, England. Filed Sept. 26, 1910. Serial No. 583,923. (Cl. 235—15.)

1. In a cash register, the combination with vertically adjustable amount indicators and keys for setting the same, of a laterally shiftable indicating mechanism having a plurality of indicating positions, a series of clerks' keys, and means differentially controlled by said clerks' keys for shifting said indicator to its various indicating positions.

2. In a cash register, the combination with a main operating mechanism, of a laterally shiftable indicating mechanism having a plurality of indicating positions, a series of keys, means differentially controlled by said keys for shifting said indicator to its various indicating positions, and means for locking said operating mechanism until one of said keys has been operated.



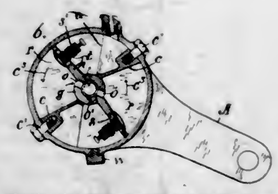
3. In a cash register, the combination with a main operating mechanism, of a laterally shiftable indicating mechanism having a plurality of indicating positions, a series of keys, means differentially controlled by said keys for shifting said indicator to its various indicating positions, a locking device for normally locking said operating means, means operated upon an operation of one of said keys for simultaneously disabling said locking device and unlocking the unoperated keys, and means compelling the complete operation of any key.

4. In a machine of the class described, the combination with a series of amount keys, of vertically movable indicators actuated thereby, a series of depressible special keys, a laterally movable indicator differentially adjusted under the control of said special keys, devices for latching the special indicator in its adjusted position, means normally locking the amount keys from operation, mechanism actuated by the special keys for disabling said locking means, a detent for latching the special keys in depressed positions, and means actuated by the amount keys for operating the latching devices for the special indicator and the latching detent for the special keys.

5. In a cash register, the combination with a plurality of amount keys, of a key coupler actuated thereby, a series of special keys and locking means controlled by the depression of one of said special keys for normally locking said key coupler against movement, said locking means comprising a sliding plate having a locking notch normally engaging said coupler, and a cam plate actuated by the depression of any one of said special keys for moving the sliding plate to disengage said notch from the coupler.

[Claims 6 to 8 not printed in the Gazette.]

1,072,770. SHOCK-ABSORBER. ADOLPH PETELER, New York, N. Y. Filed Feb. 20, 1912. Serial No. 678,813. (Cl. 21—105.)

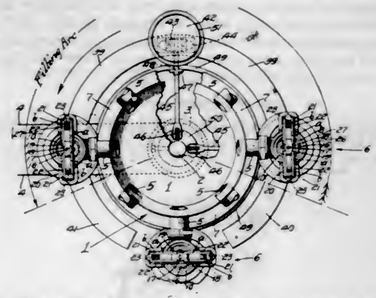


1. In a shock absorber having a cylindrical box with abutments therein and a spindle rotatable in the box with radial wings movable between the abutments and having each a valve-opening therethrough, the combination, with each of such wings, of the yoke *s'* projected from one side of the wing centrally over the valve-openings, the valve *r* fitted to seat upon the opposite side of the wing and having stem *r'* fitted movably to the yoke, and a spiral spring *p* fitted to the valve within the yoke and operating to hold the valve normally from its seat, the access of fluid to the valve and opening beneath the same being thus unobstructed by the yoke.

2. In a shock absorber having jointed arms, the combination, with one of the arms, of a cylindrical box with abutments therein, a spindle rotatable in the box and attached to the other arm and having rotary wings movable between the abutments, liquid filling the interspaces in the box, the supply-chamber *u* in open communication with the liquid within the box and having a supply of liquid therein, and a piston *v* with a spring *v'* applied to the outer side of the liquid in the supply-chamber and operating to press the liquid continually into the box and to yield when required to relieve expansion of the liquid in the box.

3. In a shock absorber having jointed arms, the combination, with one of the arms, of a spindle having wings attached thereto, a cylindrical box fitted to the spindle and wings and attached to the other arm, and having between the wings the abutments *c* secured removably in the box by screws *c'*, and provided each with flanges *c²* next the heads of the box pressed against the shell of the box to resist the strain imposed by the movement of the wings.

1,072,771. SYRUP-FILLER FOR FRUIT-CANS. STEFANO PITTALUGA, Los Angeles, Cal. Filed Aug. 5, 1912. Serial No. 713,472. (Cl. 226—9.)



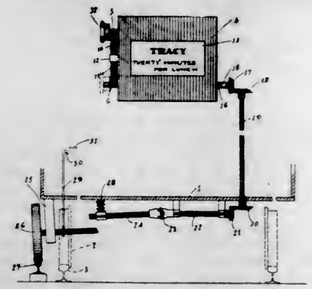
1. In a syrup filler for cans, the combination of a relatively stationary charger equipped with a valve seat at its lower end and having a syrup discharge opening through said valve seat, a relatively movable sleeve surrounding said charger and guided by same, said sleeve being adapted to slide upward and downward on said charger and said sleeve having an annular gasket on its lower face adapted to form a can-closure, a relatively movable valve rod extending down through said charger, the lower end of said valve rod carrying a valve adapted to coöperate with said valve seat in the charger, a syrup spreader below said opening through said valve seat, and link means connecting said sleeve with the upper end of said valve rod so that said valve may be raised off said seat when said sleeve is raised.

2. In a syrup filler for cans, a relatively stationary cylindrical charger having a smaller cylindrical portion at its lower end, a valve seat on the lower end of said charger and a syrup discharge opening through said valve seat, a relatively movable sleeve surrounding said charger and guided by same, said sleeve surrounding said charger adjacent the smaller cylindrical portion of same and adapted to form a closed annular chamber around said smaller cylindrical portion, resilient means in said chamber and adapted to normally urge said sleeve downward, said sleeve also carrying an annular gasket on its lower end, said gasket being adapted to form a can-closure, a relatively movable valve rod extending through said charger, said valve rod carrying a valve on its lower end adapted to coöperate with said valve seat of the charger, and link means connecting said sleeve with the upper end of said valve rod so that said valve is raised off said seat when said sleeve is raised.

3. In a syrup filler for cans, a relatively stationary charger having a valve seat near its lower end and a syrup discharge opening passing through said valve seat, a relatively movable sleeve surrounding said charger and guided by same, said sleeve carrying an annular gasket on its lower end, said gasket being adapted to form a can-closure, a relatively movable valve rod extending down through said charger, said valve rod carrying a valve near its lower end, said valve being adapted to coöperate with said valve seat, said valve rod at its upper end being pivotally connected with arms, which arms are also connected by pins to said stationary charger, and rods connecting said movable sleeve with said arms so that said valve may be raised off said valve seat on the charger when said sleeve is raised.

4. In a syrup filler for cans, a relatively stationary charging vessel formed with a valve seat near its lower end and with a threaded portion projecting down beneath said valve seat, said charger having a syrup discharge opening passing through said valve seat, a relatively movable sleeve carrying an annular gasket on its lower end, said gasket being of substantial annular width so as to serve as a can-closure for cans of various sizes, a valve coöperating with the valve seat on the charger, said valve being operable when said can-closure is moved, and removable displacing means separate from and independent of the foregoing elements, said displacing means having a screw connection with the screw threaded projection of said charger so that different sized displacing means may be mounted onto said projection for the different sized cans which said syrup filler is adapted to fill, said discharge opening through said valve seat being directed down toward said displacing means so that the latter also serves as a spreader for the charging syrup.

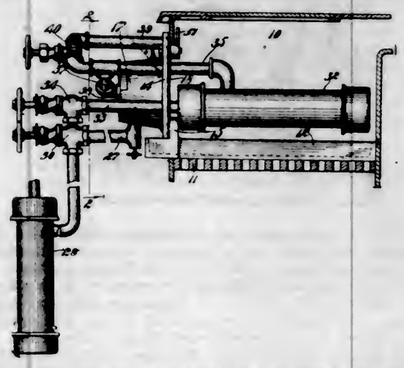
1,072,772. AUTOMATIC STATION-INDICATOR. JOHN W. RAMIGE, Ontario, Cal. Filed Sept. 23, 1912. Serial No. 721,739. (Cl. 40—42.)



A device of the character described comprising the combination with a railway car mounted on rails, of a rail section disposed independently of the rails upon which said car is mounted, a shaft swung under said car and capable of moving vertically thereunder, a wheel on one end of said shaft adapted to ride on said independent rail section, a spring interposed between the bottom of said car and said shaft to hold said wheel in engagement with said independent rail section, a rod on said shaft projecting into said car, a catch on said car adapted to be engaged by said rod to hold said wheel out of engagement with said rail section, and a station indicating mechanism flexibly connected with said shaft, as described.

1,072,773. OIL-BURNER. ITHAMER N. F. RANDOLPH, Iola, Kans. Filed Apr. 1, 1912. Serial No. 687,737. (Cl. 158—75.)

1. An oil burner comprising a pan, a plate supported by said pan, said pan being formed with lugs, said plate being bolted to said lugs, a frusto-conical hood supported by said plate, said hood being formed with an interiorly disposed support, a steam passage disposed longitudinally of said support, an oil passage disposed transversely of said support, said oil passage communicating with the said steam passage intermediate its ends, a steam generator supported by said plate and disposed above said pan and a connection between said generator and said steam passage.

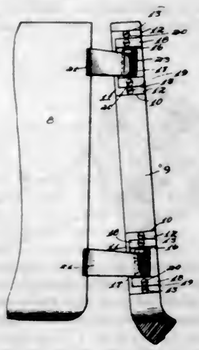


2. An oil burner comprising a pan, a plate extending at right angles from said pan, a frusto-conical hood supported by said plate, said hood being formed with an interiorly disposed support, said support being formed with intersecting steam and oil passages, and a plurality of plates slidably disposed upon said first mentioned plate.

3. An oil burner comprising a pan, a plate extending at right angles from said pan, a frusto-conical hood supported by said plate said hood being formed with an interiorly disposed support, said support being formed with intersecting steam and oil passages, plates slidably disposed upon said first mentioned plate and pivoted locking means co-acting with said plates to hold the same within the stove.

4. An oil burner comprising a pan, a plate extending at right angles from said pan, a frusto-conical hood supported by said plate said hood being formed with an interiorly disposed support, said support being formed with intersecting steam and oil passages, plates slidably disposed upon said first mentioned plate, and a plurality of locking members for said slidable plates.

1,072,774. CONCEALED HINGE. FRANK P. REIDHAAR, Connersville, Ind. Filed Apr. 22, 1913. Serial No. 762,756. (Cl. 16—5.)



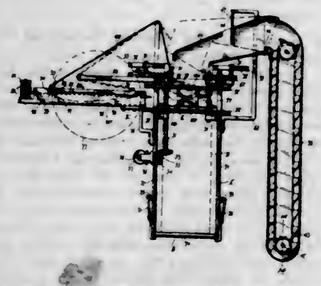
1. In a hinge of the character described, the combination with a casing to be mounted upon a door jamb which is inclined from the vertical, of an arm to be connected with a door, means pivotally connecting the arm with the casing and adapted to automatically swing the arm upwardly while the same is being swung horizontally toward its open position, and means concealing the several parts of the hinge from an exterior view.

2. In a hinge of the character described, the combination with a casing to be mounted upon a door jamb which is inclined from the vertical, of an arm to be connected with a horizontally swinging door, and means pivotally connecting one end of the arm with the casing so that the arm will have its upstanding axis parallel with the upstanding axis of the door jamb when the door is closed and its upstanding axis inclined from the vertical and arranged at an angle to the upstanding axis of the door jamb when the door is moved to the open position.

3. In a hinge of the character described, the combination with a casing having one side closed and its opposite side open, of a pin mounted within the casing and rigidly connected therewith and having its longitudinal axis parallel with the upstanding axis of the casing, said pin being provided with a conical portion which increases in diameter downwardly and is eccentrically arranged with relation to the longitudinal axis of the pin, and an approximately U-shaped arm to be attached to a door and carrying a head having a conical opening to receive the conical portion of the pin.

4. In a hinge of the character described, the combination with a pin provided with a conical portion which is eccentrically arranged with relation to the longitudinal axis of the pin, means rigidly connecting the pin with a door jamb of an automobile body so that the longitudinal axis of the pin is parallel with the longitudinal axis of the door jamb and the conical portion of said pin extends outwardly and transversely of the door jamb, and an arm to be connected with a door and carrying a head provided with a conical opening for receiving the conical portion of the pin.

1,072,775. BAG FILLING AND TYING APPARATUS. SAMUEL J. RICE, Loma, N. D. Filed Feb. 8, 1912. Serial No. 676,246. (Cl. 83—26.)



1. In a device of the character described, the combination of a bag tying mechanism, a bag carrier, means for delivering material to a given bag secured to the carrier, and means operated by the weight of a filled bag for actuating said bag tying mechanism and simultaneously operating said bag carrier to place another bag in position to receive material from the material delivering means.

2. In a device of the character described, the combination of a bag tying mechanism, a bag carrier, means for delivering material to a given bag secured to the carrier, means operated by the weight of a filled bag for actuating said bag tying mechanism and simultaneously operating said bag carrier to place another bag in position to receive material from the material delivering means, and means actuated at the termination of said operation of the bag carrier for disconnecting the filled bag therefrom.

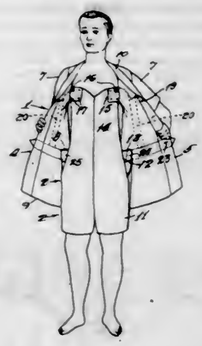
3. In a device of the character described, the combination of a bag tying mechanism, a bag carrier, means for delivering material to a given bag secured to the carrier, means for intermittently operating the bag tying mechanism and simultaneously and intermittently operating said bag carrier to remove and dispose successive bags from and into receiving position with respect to the material delivering means, and means operated by the movements of said bag tying mechanism for rendering the material delivering means inactive during the movement of an empty bag to receiving position with the respect to the material delivering means.

4. In a device of the character described, the combination of a bag tying mechanism, a bag carrier, means for delivering material to a given bag secured to the carrier, a movable support for the bag being filled, locking means for holding said support against movement until a predetermined weight of material has been delivered to the bag supported thereby, operating means for simultaneously actuating the bag tying mechanism and the bag carrier, and means operated by the movement of said support for rendering the operating means of the bag tying mechanism and bag carrier active.

5. In a device of the character described, the combination of a bag tying mechanism, a bag carrier, operating means for the bag tying mechanism and bar carrier, means for delivering material to a given bag secured to the carrier, a movable support for the bag being filled, locking means for holding said support against movement until a predetermined weight of material has been delivered to the bag supported thereby, a continuously driven element, and means operated by the movement of said support under the influence of the weight of a bag supported thereby for connecting the operating means of the bag tying mechanism and bag carrier with said continuously driven element.

[Claims 6 and 7 not printed in the Gazette.]

1,072,776. ONE-PIECE GARMENT. HERBERT C. ROUTERY, Los Angeles, Cal. Filed Aug. 8, 1911. Serial No. 643,043. (Cl. 2—144.)



1. A garment comprising a coat portion having a tail and laps and a trousers portion having a front bib, the back of the trousers portion being fastened to the back of the coat portion at the waist line, and fastening means by which the bib may be fastened to the laps at the breast line.

2. A garment comprising a coat portion having laps at the front, a trousers portion fastened at the back to the coat portion and provided at the front with a bib extending from side to side of the garment, means to fasten the bib to the coat portion at the breast line and means to fasten the laps over the bib.

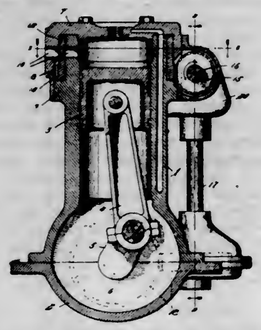
3. A garment comprising a coat portion and a trousers portion fastened together at the back, a bib extending from side to side of the garment at the front of the trousers portion and means to fasten the bib to the coat portion at the breast line, said coat portion being provided with laps to cover the bib.

4. A garment comprising a coat portion having laps in front, tabs at the breast line on the inside of the laps; a trousers portion fastened at the back to the back of the coat and provided at the front with a bib extending to the breast line and means for detachably fastening the bib and the tabs together.

5. A coat provided with tabs on its inner side, said tabs being provided with button holes spaced apart to allow adjustment of size, and trousers fastened to the coat and provided with a front bib and buttons on the bib to engage said button holes.

[Claims 6 and 7 not printed in the Gazette.]

1,072,777. INTERNAL-COMBUSTION ENGINE. WHITMAN RUSSELL, Greenfield, Mass. Filed Dec. 14, 1911. Serial No. 665,672. (Cl. 123—190.)



In an internal combustion engine, the combination of a water-cooled cylinder having an exterior annular shoulder provided with a cylindrical peripheral wall, a cylindrical head having a cylindrical flange adapted to fit slidably over said peripheral wall to provide a closed annular chamber about said water-cooled cylinder, means for clamping said head firmly against the end of said cylinder, and a cylindrical valve within such chamber rotatably mounted on the outer wall of said water-cooled cylinder.

1,072,778. WATER-GAP GATE. ADOLPH SATTLER, Lange, Tex. Filed Oct. 7, 1812. Serial No. 724,403. (Cl. 39—4.)



1. The combination with a gate, of means to anchor the same, a pivoted frame having arms extending at an angle to each other and at opposite sides of its fulcrum, one of said arms being connected to one end of the gate and normally arranged in a lowered position, and the other arm being weighted and normally arranged in a raised position, whereby the gate will be automatically raised when released from its anchorage and means for securing the other end of the gate adapted to be automatically disconnected when the gate is raised.

2. The combination with a gate, of means to anchor the same, a pivoted frame having arms extending substantially at right angles to each other and at opposite sides of its fulcrum, one of said arms being connected to the gate and the other arm being weighted, and means to normally support the arm which is attached to the gate in a lowered but slightly inclined position, whereby the weighted arm is inclined to the vertical and is adapted to automatically raise the gate when released from its anchorage.

3. The combination with a water gap gate consisting of a plurality of posts and a series of wires strung between them, of means for detachably anchoring one of the posts down in the bed of the gap, and means for fastening the end posts up on the banks of the gap, whereby the anchored post may rise to the level of the end posts when the former is released from its anchorage.

4. The combination with a gate, of means to anchor the same, a pivoted frame having arms extending at an angle to each other and at opposite sides of its fulcrum, one of said arms being connected to one end of the gate and the other arm being weighted, means to normally support the arm which is attached to the gate in a lowered but slightly inclined position, whereby the weighted arm is inclined to the vertical and is adapted to automatically raise the gate when released from its anchorage, and means for securing the other end of the gate adapted to be automatically disconnected when the gate is raised.

5. The combination with a gate, of means to anchor the same, and a pivoted frame having arms extending substantially at right angles to each other and at opposite sides of its fulcrum, one of said arms being connected to the gate, and the other arm being weighted, whereby said gate will be automatically raised when released from its anchorage, said frame also having a brace connecting its arms, the latter and the brace comprising pairs of bars spaced apart for the purpose specified, the bars of said brace and of the arm which is connected to the gate converging toward their juncture.

[Claims 6 to 20 not printed in the Gazette.]

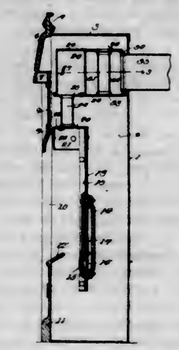
1,072,779. NECKTIE-CLASP. MAURICE J. SCHLESS, New York, N. Y., assignor to Schless, Brod & Co., Newark, N. J., a firm composed of Maurice J. Schless, Albert Brod, and Oscar J. Brod. Filed Nov. 12, 1912. Serial No. 730,869. (Cl. 24—253.)



A clasp of the character specified, embodying therein a pair of jaws each having a peripheral flange turned substantially at a right angle to the plane of the jaw, perforated ears formed on each jaw, a pintle upon which said jaws are pivoted, said pintle comprising a tube having a wire passing therethrough with the ends of the wire projecting beyond the tube and passing through the perforations in the ears, and a spring having a normal tendency to force the forward ends of the jaws into engagement with each other, said spring comprising an integral strand of wire formed into a continuous curved portion engaging one of the jaws adjacent the flange thereof, two intermediate spaced coils encircling the pintle near its opposite ends, and curved arms engaging the other jaw member, each of said arms consisting of a strand extending from the inner end of one of the coils, each of said strands extending along the inner face of the jaw near its central line and being curved to extend in the opposite direction adjacent to the flange of said jaw and terminating immediately adjacent the other end of the coil.

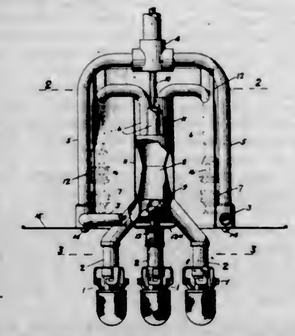
1,072,780. GAS-HEATER. GEORGE E. SHARPE, Steubenville, Ohio. Filed Mar. 13, 1912. Serial No. 683,572. (Cl. 126—129.)

1. In a heater of the class described, a casing, a deflector plate, a burner at the front of said plate, a hot-air chamber above said plate, a collector for the products of combustion carried by said plate above the burner, a series of products of combustion flues rising from the collector to said chamber, a series of air flues extending vertically through the said chamber, the product of combustion flues and the air flues being arranged in parallel vertical planes, a baffle plate extending between the two series of flues and terminating short of the ends of each of said series, and an exit products of combustion flue leading from the hot-air chamber in rear of the air flues.



2. In a heater of the class described, a casing having an opening in its front wall, a deflector plate arranged transversely within the casing and opposite the opening in the said forward wall of the same and spaced from the rear wall thereof, a forwardly projecting collector for the products of combustion at the top of the deflector plate, a chamber located above the collector and spaced from the top, back and sides of the casing, a baffle plate extending transversely within the chamber and having its ends spaced from the end walls thereof, a series of flues for products of combustion establishing communication between the top of the collector and the bottom of said chamber, a series of hot-air flues located within the chamber and opening through the top and bottom of the same and communicating with the space between the deflector plate and the rear wall of the casing, said flues being arranged in vertical parallel planes with the baffle plate, the latter extending between the two series of flues, an exit flue for products of combustion leading from the chamber in rear of the hot-air flues, and a burner located at the lower end of the deflector plate.

1,072,781. INVERTED INCANDESCENT GAS-BURNER. VICTOR H. SLINACK, Philadelphia, Pa., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 19, 1912. Serial No. 704,482. (Cl. 67—94.)



1. An inverted incandescent gas burner comprising the combination of a group of incandescent gas burners having burner tubes, a gas supply ring, a gas supply yoke from the arms of which the ring is suspended, a group of inverted U-shaped Bunsen tubes rising from the ring, and a mixing and supply chamber common to all the Bunsen tubes and to all the burner tubes, substantially as described.

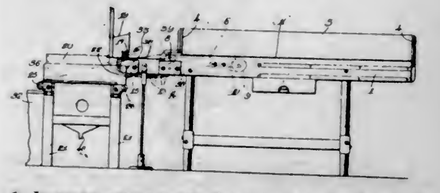
2. An inverted incandescent gas burner comprising the combination of a group of incandescent gas burners having burner tubes, a gas supply ring, a gas supply yoke from the arms of which the ring is suspended, a group of inverted U-shaped Bunsen tubes rising from the ring, a mixing and supply chamber common to all the Bunsen tubes and to all the burner tubes, and an ignition gas flooding tube by-passing the Bunsen tubes and communicating with the mixing and supply chamber, substantially as described.

3. An inverted incandescent gas burner comprising the combination of a group of incandescent gas burners having burner tubes, a gas supply ring, a gas supply yoke from the arms of which the ring is suspended, a group of inverted U-shaped Bunsen tubes rising from the ring, a mixing and supply chamber common to all the Bunsen tubes and to all the burner tubes, an inner shell inclosing the bottom and side walls of the mixing chamber and the descending parts of the Bunsen tubes, and an outer shell excluding the rising parts of the Bunsen tubes and the arms of the yoke, substantially as described.

4. An inverted incandescent gas burner comprising the combination of a group of incandescent gas burners having burner tubes, a gas supply ring, a gas supply yoke from the arms of which the ring is suspended, a group of inverted U-shaped Bunsen tubes rising from the ring, a mixing and supply chamber common to all the Bunsen tubes and to all the burner tubes, an inner shell inclosing the bottom and side walls of the mixing chamber and the descending parts of the Bunsen tubes, an outer shell excluding the rising parts of the Bunsen tubes and the arms of the yoke, and a deflector extending outwardly from the base of the outer shell, substantially as described.

5. An inverted incandescent gas burner comprising the combination of a gas supply yoke, a gas supply ring carried by the arms of the yoke, inverted U-shaped Bunsen tubes rising from the ring and depending inward toward the center thereof, a mixing and supply chamber depending from the descending ends of the Bunsen tubes, and burner tubes communicating with the base of the chamber and carried thereby, substantially as described.

1,072,782. APPARATUS FOR SORTING AND CONDITIONING BOBBINS. FRED SPENCE, Sanford, Me., assignor of one-half to Goodall Worsted Company, Sanford, Me., a Corporation of Maine. Filed Sept. 13, 1911. Serial No. 649,054. (Cl. 28—7.)



1. In an apparatus for sorting bobbins and conditioning the yarn thereon, the combination with a sorting table having a horizontal top surface on which bobbins may be sorted and which is provided with a movable bobbin-delivery portion situated in the plane of the table top and by which bobbins placed thereon are delivered from the table, of a conditioning apparatus adapted to condition the yarn on the bobbins placed therein, and means to convey the bobbins from the delivery portion of the table to said conditioning apparatus and through the latter.

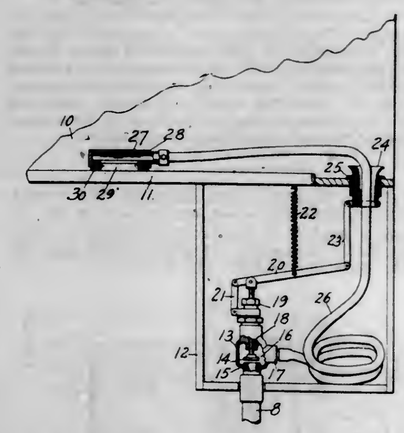
2. In an apparatus for sorting bobbins and conditioning the yarn thereon, the combination with a sorting table on which bobbins may be sorted and provided with an opening, of an endless belt carrier arranged within said opening at substantially the level of the table top and adapted to receive sorted bobbins therefrom, a bobbin-positioning member associated with the table and adapted

to position bobbins to be received by said carrier, a casing, an atomizer jet within the casing, an endless belt conveyer extending through the casing and adapted to carry bobbins therethrough, and means to deliver bobbins from the carrier to said conveyer.

3. In an apparatus for sorting bobbins and conditioning the yarn thereon, the combination with a sorting table on which bobbins may be spread out for sorting, of an endless-belt bobbin deliverer associated with the table, having one of its runs situated in the plane of the table top and adapted to deliver bobbins therefrom, and a positioning member adapted to position bobbins in line with said deliverer.

4. In an apparatus for sorting bobbins and conditioning the yarn thereon, the combination with a sorting table on which bobbins may be spread out for sorting, of an endless-belt bobbin-deliverer associated with the table, having one of its runs situated in the plane of the table top and adapted to deliver bobbins therefrom, a positioning member adapted to engage the ends of the bobbins placed transversely of but in line with said bobbin-deliverer and thereby position bobbins to be received by said deliverer, and a yarn-conditioning device comprising a housing having a steam chamber therein provided with a perforated top, an endless-belt conveyer to convey bobbins through the housing above said perforated top, and means to deliver bobbins from said deliverer to said conveyer.

1,072,783. CLEANING APPARATUS. IRA H. SPENCER, West Hartford, Conn., assignor to The Spencer Turbine Cleaner Company, Hartford, Conn., a Corporation of Connecticut. Filed Nov. 3, 1908. Serial No. 460,932. (Cl. 15—60.)



1. A valve to control the flow of a fluid, a flexible tubular conductor for flow of fluid past said valve, a tool connected with said conductor and having an inlet for said fluid, a movably mounted tool receiver arranged to move under the influence of the weight of said tool, and an unbroken connection between said receiver and valve to operate the latter.

2. A valve to control the flow of a fluid, a flexible tubular conductor for flow of fluid past said valve, a tool having an inlet for said fluid and connected with said conductor, a vertically movable receiver for the tool actuated by the weight of the latter, and connections between said receiver and valve to operate the latter.

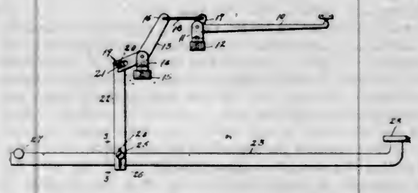
3. An apparatus for creating a current of fluid, a tool having an opening for the flow of said fluid, a conduit for said fluid between said tool and current creating means and including a flexible conductor, a valve in said conduit between said current creating means and flexible conductor to control the flow of fluid, means to support the tool and that end of the conductor secured thereto when said parts are not in use, and an operative connection between said supporting means and the valve to operate the latter upon the removal of said tool, said connection being arranged to permit lengthwise movement of the flexible conductor within said support in the operation of the tool.

4. An apparatus for creating a current of fluid, a tool having an opening for flow of said fluid, means including a flexible conductor connected to said tool for conducting said flow, a valve to control said flow, said valve being located between the flexible conductor and the current creating means, a housing for said flexible conductor, a tubular receiver movably located in an opening in the wall of the housing, a connection between said receiver and valve to operate the latter, and a tool secured to the flexible conductor and arranged to be held by said receiver.

5. An apparatus for creating flow of a fluid, a tool having an opening for the passage of fluid, a connection between said tool and said current creating means and including a flexible conductor, a valve located to control the flow of fluid through said conductor, a tubular receiver arranged to receive said tool and through which receiver said flexible connection extends and a connection between said receiver and valve to operate the latter.

[Claims 6 and 7 not printed in the Gazette.]

1,072,784. TYPE-BAR ACTION. CHARLES SPIRO, New York, N. Y. Filed Feb. 12, 1913. Serial No. 748,030. (Cl. 197—28.)



1. In a typebar action, a typebar, a sub-lever, a connection between said typebar and sub-lever, a key-lever, and a connection from said key lever engaging said sub-lever and mounted to traverse an arc opposite to the arc traversed by the connected end of the sub-lever and adapted to travel toward the pivot of the latter throughout the movement of the typebar toward the printing point.

2. In a typebar action, a typebar, a sub-lever, a connection between said typebar and sub-lever, a key lever, and a connection from said key lever engaging said sub-lever and mounted to traverse an arc opposite to the arc traversed by the connected end of the sub-lever, said arcs being in closest relation when the typebar is at the printing point.

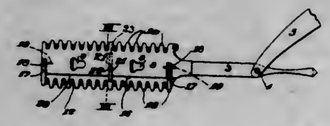
3. In a typebar action, a typebar, a sub-lever, a connection between said typebar and sub-lever, a key lever, and a connection from said key lever engaging said sub-lever and mounted to traverse an arc opposite to the arc traversed by the connected end of the sub-lever, said arcs continuously approaching each other throughout the movement of the typebar toward the printing point.

4. In a typebar action, a typebar, a sub-lever, a connection between said typebar and sub-lever, a key-lever, a connection between said key-lever and sub-lever adapted to produce an initial accelerated movement of said typebar and a subsequent travel under pressure to the printing point, and means for regulating the degree of such acceleration.

5. In a typebar action, a typebar, a sub-lever, a connection between said typebar and sub-lever, a key-lever, and a fixed rocker extending at an angle therefrom and having a movable connection with said sub-lever arranged to travel toward the pivot of the latter during the movement of the typebar toward the printing point.

[Claims 6 to 15 not printed in the Gazette.]

1,072,785. SAFETY-RAZOR. CHARLES L. SPRINGER, Uniontown, Pa. Filed Mar. 25, 1913. Serial No. 756,693. (Cl. 30—12.)



1. In a safety razor, the combination with a holding shank having transverse openings therethrough and an apertured blade, of a main guard member having securing lips extending through the openings in the shank and blade and an integral protecting serrated edge at one side, an adjustable protecting serrated guard portion pivoted at its ends to the main guard member and a holding latch pivoted to the main guard member adapted to hold the adjustable guard member in position, substantially as set forth.

2. In a safety razor, the combination with an apertured holding shank and blade, of a guard member consisting of a main body portion having L-shaped holding extensions extending through and fastening together the shank and blade and a series of protecting projections at one side, and an adjustable guard member pivoted to said body portion in longitudinal alinement with the center of the holding shank and blade and having similar protecting projections, substantially as set forth.

3. In a safety razor, the combination with an apertured holding shank and blade, of a guard member consisting of a main body portion having L-shaped holding extensions for extending through and fastening together the shank and blade and a series of protecting projections at one side, an adjustable guard member pivoted to said body portion in longitudinal alinement with the center of the holding shank and blade and having similar protecting projections, and means for holding the adjustable guard member in extended position, substantially as set forth.

4. In a safety razor, the combination with an apertured holding shank and blade, of a composite guard member consisting of pivotally connected sections each having a serrated protecting edge portion for the razor blade, one of said sections having L-shaped portions extending through the blade and shank for attaching and connecting the guard member to the said parts and the other section being pivotally connected to said section midway of the maximum width of the entire guard member, substantially as set forth.

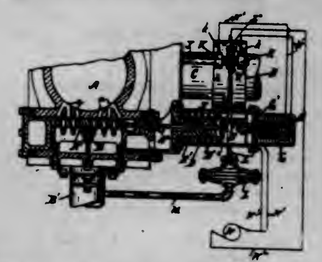
5. In a safety razor, the combination with an apertured holding shank and blade, of a composite guard member consisting of pivotally connected sections each having a serrated protecting edge portion for the razor blade, one of said sections having L-shaped portions extending through the blade and shank for attaching and connecting the guard member to the said parts, the other section being pivotally connected to said section midway of the maximum width of the entire guard member, and a locking device for the other section, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,072,786. ENGINE VALVE-GEAR. ROBERT C. STEVENS, Erie, Pa. Filed Jan. 25, 1913. Serial No. 744,203. (Cl. 121—97.)

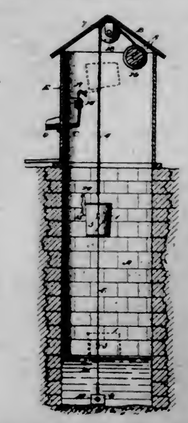
1. The combination in an engine valve-gear, of an exhaust valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, an electro-magnetic device connected to said valve-stem, an engine shaft, a commutator adapted to rotate in unison with said shaft, brushes adapted to contact with said commutator, an electric generator, an electric circuit leading from said generator to said electro-magnetic device, and to said brushes and a pneumatic mechanism communicating with the exhaust of the engine adapted to be actuated by vacuum to make and break said electric circuit, substantially as and for the purpose set forth.

2. The combination in an engine valve-gear, of an exhause valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, an electro-magnetic device connected to said valve-stem, an engine-shaft, a commutator adapted to rotate in unison with said shaft, a continuous electric conductor on said commutator, lateral extensions on said conductor, brushes adapted to contact with said commutator, an electric generator, an electric circuit leading from said generator to said electro-magnetic device, and to said brushes, and a pneumatic mechanism communicating with the exhaust of the engine adapted to be actuated by vacuum to operate said brushes to make and break said electric circuit, substantially as and for the purpose set forth.



3. The combination in an engine valve-gear, of an exhaust valve, a stem secured thereto, a spring adapted to maintain said valve in a normally closed position, a solenoid coil, a core within said coil attached to said valve-stem, an engine shaft, a commutator on said shaft, an electric conductor on said commutator, a brush-holder support, an oscillatory brush-holder on said support, a brush secured in said holder adapted to contact with said commutator, a stationary brush-holder on said support, a brush secured therein adapted to contact with said commutator, a generator, an electric circuit between said generator through said brushes and commutator to said solenoid, a pneumatic diaphragm mechanism in communication with the exhaust of the engine, and rod and lever mechanism adapted to operate said oscillatory brush-holder to raise the brush secured therein out of contact with said commutator, substantially as and for the purpose set forth.

1,072,787. WATER-ELEVATING APPARATUS. LARKIN STOWE, Pleasant View, Ky. Filed Nov. 17, 1911. Serial No. 660,825. (Cl. 103—35.)



1. In an apparatus of the nature described, the combination with a supporting structure, of two upright guide members, a bucket having a bail, a yoke engaging said bail and slidably engaging said guide members, a suspension

member engaging said bail above said yoke, and a rotary member in operative relation with said suspension member, substantially as described.

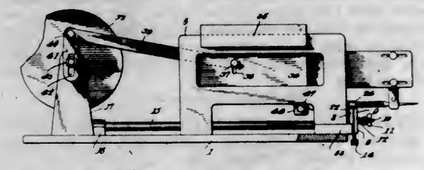
2. In an apparatus of the nature described, the combination with a supporting structure, of two upright guide members, a bucket having a bail, a yoke having a slot receiving said bail and slidably engaging said guide members, a suspension member engaging said bail above said yoke, and a rotary member in operative relation with said suspension member, substantially as described.

3. In an apparatus of the nature described, the combination with a housing, of two upright guide members, a bucket, guide members swiveled to the outer ends of the bucket bail and slidably engaging said upright guide members, a suspension member secured to the bail, and a rotary member in operative relation with said suspension member, substantially as described.

4. In an apparatus of the nature described, the combination with a supporting structure, of two upright guide members, a bucket, ears on said bucket, a bail having its ends projecting outward through said ears, members swiveled to said bail ends outside of said ears and slidably engaging said upright guide members, a suspension member secured to said bail, and a rotary member in operative relation with said suspension member, substantially as described.

5. In an apparatus of the nature described, the combination with a supporting structure, of two upright guide members suspended from said structure, a weight applied to the lower end of each such guide member, means located between said weights for spacing the latter, a bucket in operative relation with said guide members, a suspension member secured to said bucket, a rotary member in operative relation with said suspension member, and means for engaging and tilting said bucket, substantially as described.

1,072,788. SAW-FILING MACHINE. FREDRICK B. SWIGERT, Galesburg, Ill. Filed Feb. 8, 1913. Serial No. 747,189. (Cl. 76—35.)



1. In a saw filing machine, a guide; a carriage mounted to slide upon the guide; a file holder fulcrumed upon the carriage; a pitman pivoted to the carriage; means for actuating the pitman; and interengaging elements upon the holder and upon the pitman for tilting the holder.

2. In a saw filing machine, a guide; a carriage mounted to slide upon the guide; a file holder fulcrumed intermediate its ends upon the carriage and provided adjacent one end with a shoulder; a pitman pivoted to the carriage and adapted to engage the shoulder; means for actuating the pitman; and means for moving the saw transversely of the line of movement of the carriage.

3. In a saw filing machine, a guide; a carriage mounted to slide upon the guide; a file holder fulcrumed on the carriage; a pitman pivoted to the carriage; means for actuating the pitman; interengaging elements upon the holder and upon the pitman for tilting the holder; and a pair of file supports mounted upon the file holder, one of which supports is adjustable longitudinally of the file holder.

4. In a saw filing machine, a guide; a carriage mounted to slide on the guide; a file holder; means for pivotally connecting the file holder with the carriage adjustably for movement transversely of the carriage to permit a leveling of the file holder; means for actuating the carriage; and interengaging elements upon said means and upon the file holder for imparting a swinging movement to the file holder.

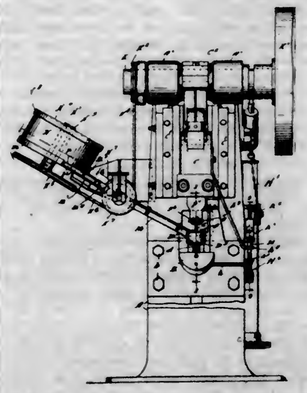
5. In a saw filing machine, a guide; a carriage mounted to slide on the guide; a pitman; a file holder; a common connection between the pitman, carriage and the holder, permitting a pivotal movement of the pitman and the holder with respect to the carriage, the connection being adjustable transversely of the carriage to effect a leveling of the file holder; and interengaging elements upon the pitman and upon the file holder for imparting swinging movement to the file holder.

[Claims 6 to 10 not printed in the Gazette.]

1,072,789. SARDINE-CAN. WILLIAM E. TAYLOR, Eastport, Me., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 1, 1910. Serial No. 584,787. (Cl. 220—58.)

In a can, in combination, a drawn sheet metal body having an integral, outstanding, horizontal seam flange at its extreme upper edge adapted to receive a coating of solder, said body being adapted to receive and retain the entire contents of the can before the cover is applied thereto, an inverted, shallow, countersunk cover having an upright narrow opener wall, and a horizontal, outwardly projecting integral seam flange provided at its outermost portion with a single fold embracing the outstanding seam flange of the body, said flanges being soldered together and the solder being located between the two horizontal portions of the flanges, said folded seam flanges serving as a guide and fulcrum for the fulcrum shoulder of a can opener in opening the can, and the upright opener wall of the inverted countersunk cover serving to enable the can to be opened with a single-blade can opener without the blade coming into contact with the contents of the can or disturbing the same, and whereby the entire contents are retained by the body portion after the cover is cut off by the can opener.

1,072,790. MACHINE FOR ATTACHING BAIL-EARS TO SHEET-METAL PAILS OR VESSELS. SWAN TEVANDER, Maywood, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 18, 1907, Serial No. 402,623. Renewed Mar. 15, 1913. Serial No. 754,646. (Cl. 118—1.)



1. In a bail ear attaching machine, the combination with upper and lower seaming devices, of a horn, a reciprocating feed slide on said horn for the bail ears, a feed chute for the bail ears and a rotating feed hopper for the bail ears, furnished with bail ear openings in its peripheral wall at the lower edge thereof, substantially as specified.

2. In a bail ear attaching machine, the combination with a horn and upper and lower bail ear clenching dies, the latter being mounted on the horn and a feed chute, of a rotating feed hopper furnished with bail ear openings in its peripheral wall at its lower edge, and a feed slide on said horn for pushing the bail ears one by one from the feed chute into position between said dies, substantially as specified.

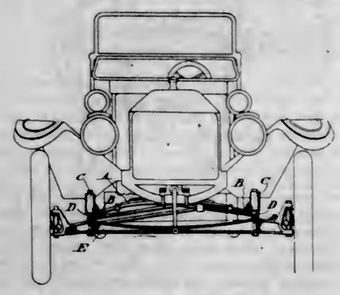
3. In a bail ear attaching machine, the combination with a horn and upper and lower bail ear clenching dies, the latter being mounted on the horn and an inclined feed chute, of an inclined rotating feed hopper having bail ear openings in its peripheral wall at its lower edge, and a feed slide on said horn for pushing the bail ears one by one from the feed chute into position between said dies, substantially as specified.

4. In a bail ear attaching machine, the combination with a horn and upper and lower bail ear clenching dies, the latter being mounted on the horn and an inclined feed chute, of an inclined rotating feed hopper having bail ear openings in its peripheral wall at its lower edge, said feed chute having a segmental curved bail ear receiving pocket at its upper edge and a feed slide on said horn for pushing the bail ears one by one from the feed chute into position between said dies, substantially as specified.

5. In a bail ear attaching machine, the combination with a horn and upper and lower bail ear clenching dies, the latter being mounted on the horn and an inclined feed chute, of an inclined rotating feed hopper having bail ear openings in its peripheral wall at its lower edge, said feed chute having a segmental curved bail ear receiving pocket at its upper end furnished with a yielding cover, substantially as specified.

[Claims 6 to 18 not printed in the Gazette.]

1,072,791. AUTOMOBILE. RALPH P. THOMPSON and WILLIAM S. THOMPSON, Leipsic, Ohio, assignors of one-third to Oliver P. Edwards, Leipsic, Ohio. Filed Oct. 10, 1912. Serial No. 724,979. (Cl. 21—50.)



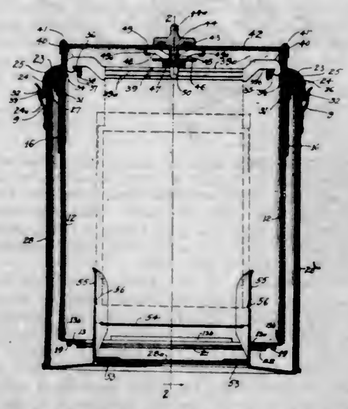
1. In automobile construction, the combination of a non-rotating axle for the ground wheels, of pins or slides attached to and upwardly projecting from said axle, sliding members for said upwardly projecting pins or slides, and a coiled spring interposed between the axle and the sliding member, leaf springs arranged transversely of the car and above the axle and attached at their middle portion to the chassis frame and linked at their outer ends to the sliding members.

2. In automobile construction, the combination with the axle of the ground wheels, of stems attached thereto and upwardly projecting therefrom, the said stems acting as guides for the vertical movement of enlarged sleeves fitted through an opening in their top to said stems, coiled springs surrounding said stems, said coiled springs being inclosed within said sleeves and adapted to support their downward thrust, shoulders on said stems upon which said coiled springs rest, and leaf springs supporting the chassis frame in their mid-length with their outer ends attached to said sleeves, all as substantially shown and described.

3. In automobile construction, wherein coiled springs are used auxiliary to leaf springs for absorbing shock to the road wheels, the combination of upright stanchions with the axle of the ground wheels, said stanchions being attached to the outer ends of said axle, leaf springs extending above the axle and between the stanchions, and supporting the chassis frame, the said stanchions being adapted to limit the end motion of the leaf springs and thereby prevent side sway of the chassis frame, hangers for the outer ends of said leaf springs, said hangers having a vertical movement and being guided therein by said stanchions, and coiled springs interposed between said leaf spring hangers and said axle of the ground wheels.

4. In an automobile, the combination with a leaf spring, a stationary guide on the axle flange adjacent to the rear brake drum and a sliding hanger adapted to slide on the said stationary guide, a coiled spring adapted to yieldably support said hanger, the said hanger being adapted to carry the end of the leaf spring. —

1,072,792. PHOTOGRAPHIC DEVELOPING APPARATUS. HERMANN B. TOBIAS, New York, N. Y. Filed Mar. 19, 1909. Serial No. 484,455. (Cl. 95—90.)



1. In a developing apparatus, the combination of a stationary tank, means connected with said tank for holding within the same a package of films and its stand, a collar mounted upon said tank and provided with means for excluding light from the latter, a receptacle encircled by said collar and removable therewith from said tank, a shutter carried by said receptacle, means controllable by the moving of said receptacle for opening and closing said shutter, and means connected with said receptatcle for holding the films in position and curving them for development.

2. In a developing apparatus the combination of a tank with means for holding the pack in position, flanged edges at its open end engaging corresponding grooves in a collar, said collar holding within it a band of resilient material that encircles and frictionally engages the sides of a movable receptacle with suitable means for holding and curving film-plates for development.

3. In a developing apparatus, a movable receptacle, with means for holding and curving films for development, telescopically entering a stationary tank, with means for holding a package in position, through a collar with resilient means for eliminating light from the stationary tank.

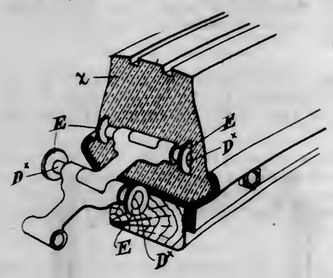
4. In a developing apparatus, a movable receptacle,

with means for holding film plates, telescopically entering through a light proof collar, a stationary tank, having a pack stand removable upon its bottom, said pack stand having a bottom plate hinged to walls for the reception of film packs and hooks in said walls for engaging the sides of the package and tongues integral with said walls entering the recesses on the bottom of the tank.

5. In a developing apparatus, a movable receptacle with means for holding and curving film plates and with an automatic shutter upon its bottom, telescopically entering a stationary tank, with means for holding a film pack in position, through a cover of the tank provided with a resilient section between its plates adapted to engage the sides of the receptacle and eliminate light therefrom.

[Claims 6 to 12 not printed in the Gazette.]

1,072,793. TIRE FOR THE WHEELS OF ROAD-VEHICLES. ALFRED WILLIAM TORKINGTON, London, England. Filed Aug. 26, 1910. Serial No. 579,083. (Cl. 152—1.)



1. The combination with an elastic tire, of an endless articulated band every part of which is entirely embedded within said tire, said articulated band formed of a series of links and pivot pins pivotally connecting adjacent links, such pivot pins and links having laterally-extended coacted bearing surfaces whereby material twisting of the articulated band is prevented.

2. The combination of an elastic tire and an endless articulated band every part of which is entirely embedded within said tire and comprising links and laterally-extending pivot pins pivotally connecting said links, said articulated band provided with members of large area, approximately perpendicular to the tread surface of the tire and embedded within the elastic material of such tire, whereby the area of the surface engagement of the band with the tire, effective to prevent lateral distortion of the tire, is increased.

3. The combination with an elastic tire of an endless articulated band every part of which is entirely embedded within the tire and comprising a series of links and pivot pins pivotally connecting adjacent links, said pins provided at their ends with enlarged heads located approximately perpendicular to the tread surface of the tire, whereby the area of the surface engagement of the band with the tire, effective to prevent lateral distortion of the tire, is increased.

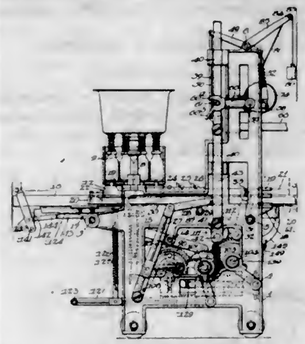
1,072,794. SPIKE FOR BASE-BALL SHOES. DANIEL A. TRADESCO, Priceburg, Pa. Filed Apr. 12, 1912. Serial No. 690,225. (Cl. 36—59.)

1. A device of the character described including a base plate, said base plate arranged for attachment to a shoe and formed with an interiorly threaded flange, a spike member provided with a plurality of curved circularly arranged flanges engaged with the interior screw threads of the base plate, a concavo-convex disk mounted within the circle of said flanges, the convex face of said disk normally projecting beyond the plane of the edges of said flanges, and a spring within the spike member back of the disk and bearing against the concave face thereof, as and for the purpose described.



2. A device of the character described including a spike member provided with a plurality of curved circularly arranged flanges, a support for said spike member whereby the same may be secured to a shoe, a curved disk mounted within the circle of said flanges, the central portion of said curved disk normally extending beyond the plane of the edges of said flanges, and a spring arranged within the spike member back of said disk and bearing against the same, as and for the purpose described.

1,072,795. BOTTLE FILLER AND CAPPER. THEODORE L. VALERIUS, Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1909. Serial No. 470,563. (Cl. 226—67.)



1. In a cased-bottle filler, in combination, filling means; case-moving means; and means controlled by said case-moving means for inaugurating the filling operation.

2. A unitary cased-bottle filler and capper comprising means for simultaneously filling the bottles in a case containing rows of bottles, and means for successively capping rows of bottles in the case.

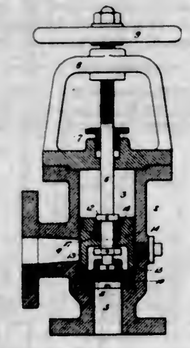
3. A unitary cased-bottle filler and capper comprising a filling means, a capping mechanism, a mechanism arranged to actuate the capping mechanism a predetermined number of times, and a mechanism arranged to impart single actuations to the filling means, said actuating mechanisms being operatively connected together.

4. A bottle filling and capping machine comprising a filling means, a capping means, a bottle-moving means, means for actuating the filling means, means for actuating the capping means, and means for actuating the bottle-moving means, the means for actuating the bottle-moving means being arranged to operate the filler actuating means, and the latter being arranged to operate the capper actuating means.

5. In a cased-bottle filler, in combination, filling means; a case support; means for raising and lowering one of said instrumentalities; a clutch for throwing out said raising and lowering means upon the completion of every ascent or descent; and means for operating said clutch.

[Claims 6 to 19 not printed in the Gazette.]

1,072,796. BLOW-OFF VALVE. CHARLES E. VANCE, Pittsburgh, Pa. Filed Feb. 15, 1912. Serial No. 677,783. (Cl. 137—4.)



1. The combination with a valve chamber having a circulation opening therethrough and a valve seat, of an adjusting stem having abutments and provided with a primary valve, and a relatively movable secondary valve mounted directly on said stem between said abutments, substantially as set forth.

2. The combination with a valve chamber having a circulation opening therethrough and a valve seat, of an adjusting stem having abutments and provided with a primary valve, and a relatively movable spring-controlled valve mounted directly on said stem between said abutments, substantially as set forth.

3. The combination with a valve chamber having a circulation opening therethrough and a valve seat, of an adjusting stem having abutments and provided with a primary valve, and a relatively movable secondary valve mounted directly on said stem between said abutments, each of said valves being independently operative by said stem and adapted to engage said valve seat, substantially as set forth.

4. A valve casing having a cylindrical chamber, a supply port, a delivery port, a bushing encircling the delivery port, an adjusting stem having abutments and provided with a primary valve, and a longitudinally movable spring-pressed secondary valve mounted directly on said stem between said abutments surrounding said primary valve and operable with said valve to engage the bushing, substantially as set forth.

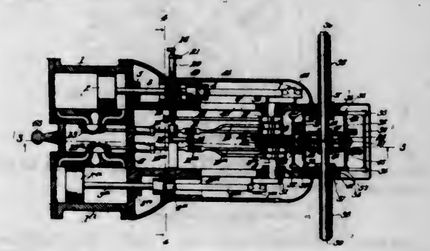
5. The combination with the valve seat bushing surrounding the outlet opening, of an adjusting stem having a terminal valve, collars secured to the stem above said valve, a secondary valve engaging the stem between said collars, and a spring between one of said collars and said secondary valve, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,072,797. DRIVING-GEAR FOR MOTOR-VEHICLES. EARL VERNON VARCOE, Honesdale, Pa. Filed Dec. 27, 1910. Serial No. 599,614. (Cl. 21—90.)

1. In a motor vehicle, the combination with the usual divided axle, of a sleeve inclosing the same, a disk secured to said sleeve at each side of the point of division of said axle, a cylindrical, differential drum extending between and rotatably supported by said disks, change speed gears mounted on said drum, a driving shaft, and corresponding gears carried by said driving shaft and adapted to mesh with said first mentioned gears.

2. In a motor vehicle, the combination with the driving axle, a differential drum arranged concentric therewith, an engine shaft parallel with the axis of said drum, a set of change speed gears secured to said engine shaft at a point opposite the middle of said differential drum, and a corresponding set of gears slidably mounted on said drum and movable into and out of mesh with said first mentioned set, the arrangement being such that the active gear of said second set is always located at a point substantially midway the length of the drum, whereby the driving strains are equalized.



3. In a motor vehicle, the combination with the driving axle, of a differential drum associated therewith a gear wheel carried by said drum, an engine shaft, a second gear wheel carried by said engine shaft and adapted to mesh with the first mentioned wheel, engine cylinders and a closed casing rigidly secured to said cylinders and extending therefrom to and around the axle adjacent said differential drum, and a frame formed integral with such casing and constituting the sole support for the engine shaft and associated parts.

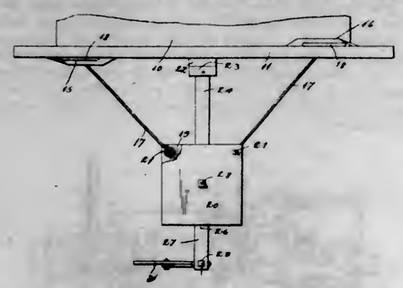
4. In a motor vehicle, the combination with the driving axle, of a fixed sleeve inclosing the same, a differential drum rotatably supported by said sleeve, a gear wheel carried by said drum, an engine having a shaft, a second gear wheel carried by said engine shaft, and adapted to mesh with said first mentioned gear, a casing wholly inclosing said gearing and forming the sole support for the engine shaft, said casing comprising main and auxiliary sections united on a line passing through the engine shaft, said main section being rigid with the cylinder heads of the engine, and said auxiliary section being rotatably supported by said fixed sleeve, whereby said engine and casing may swing about said sleeve as a center.

5. In a motor vehicle, the combination with the usual divided axle, of a differential drum mounted thereon, a set of change speed gears mounted on said drum, an engine comprising a pair of cylinders spaced apart, pistons in said cylinders, an engine shaft disposed parallel with said divided axle, a pair of spaced bearings in which said shaft is journaled, a crank carried by each end of said shaft outside of said bearings, and connected with one of said pistons, said axle, shaft, and cylinders all lying in substantially the same horizontal plane, a second set of change speed gears mounted on said shaft, means for shifting the gears of one of said sets into and out of mesh with the gears of the other, the two active gears always lying in a vertical plane passing substantially midway between the engine cylinders and between the said pair of bearings, whereby the driving strains are equalized.

1,072,798. SOD-LINER. ROBERT M. VARDAMAN and ALBERT T. VARDAMAN, Ironaton, Ala. Filed Mar. 8, 1912. Serial No. 682,512. (Cl. 111—24.)

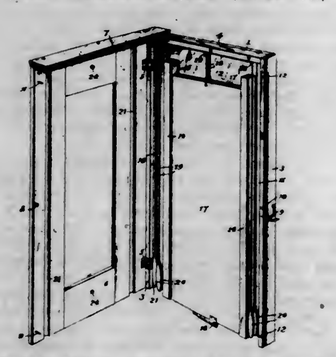
The combination with a car body, of a block having a passage therethrough disposed at right angles to the car body, links having one end connected to the car body and their other ends connected to the block and supporting the latter at one side of the car body, an arm comprising inner and outer sections, the inner end of the inner section being supported by the car body and the outer and inner ends of said sections being disposed in overlapped relation within the passage of said block and provided with perforations adapted to be brought into successive registra-

tion by relative longitudinal movement of said sections, a bolt carried by the block and engaged through register-



ing openings of the sections, and a marker carried at the outer end of the outer section.

1,072,799. DISPLAY-CABINET FOR EYE-TESTING CARDS. WILLIAM L. WALL, Philadelphia, Pa. Filed Dec. 17, 1907. Serial No. 406,949. (Cl. 40—65.)

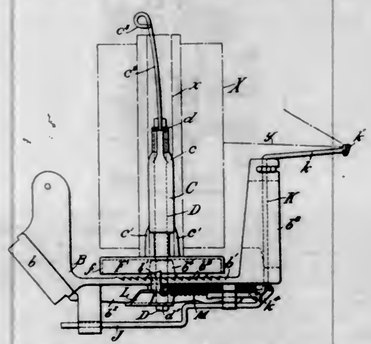


1. A display cabinet of the character described, comprising a casing, a series of cards arranged therein and movable independently of each other, a series of counterbalances for said cards, flexible connections between said cards and said counterbalances, a set of guides located in said casing intermediate the sides of the latter to direct the flexible connections to the respective cards, said guides being arranged in parallel rows, the guides of one row being opposite the spaces between the guides of the opposing row, whereby each of said guides is substantially in vertical alinement with one of the cards to enable free movement of the flexible connections, and a set of guides also arranged adjacent each side of the casing for distributing the counterbalances in relation to each other, the guides of the last mentioned sets being disposed in different vertical planes.

2. A display cabinet of the character described, comprising a casing having its lower end open, a pair of vertically-extending guides arranged within said casing, one of said guides being located adjacent to each side edge of the casing but spaced therefrom to provide a channel, the upper ends of said guides terminating at points removed from the top of the casing, whereby to provide a space between the upper ends of said guides and the top of the casing, limiting stops arranged in the upper ends of said guides and closing the latter, a series of cards located in grouped relation in said guides and vertically movable therein and through the open end of the casing for individual display at the exterior of the casing, the inward movement of said cards being limited by said stops, counterbalances arranged in the channels between said guides and the sides of the casing to be separated from said cards, flexible connections between said cards and said counterbalances, guide eyes arranged in the space between the upper ends of said guides and the top of the casing and providing guiding means for said flexible connections in said space, and a back to which said casing is hingedly connected and providing a support for the latter.

3. A display cabinet of the character described, comprising a casing, a back for said casing to which the latter is hingedly connected, a series of guides arranged in said casing, a series of cards slidably mounted within said guides, counterbalances arranged at the sides of said guides whereby to be separated from said cards, and connections between said counterbalances and said cards.

1,072,800. SUPPLY-CARRIER FOR BRAIDING-MACHINES. SIMON W. WARDWELL, Providence, R. I. Filed Dec. 29, 1910. Serial No. 599,843. (Cl. 28—24.)



1. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle mounted in the bracket, said spindle formed with a peripheral groove, and means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and to cross said axis to engage said groove to detachably secure the spindle in place.

2. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle extending through the bracket, and means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and to cross said axis to engage the spindle to secure it in position.

3. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle mounted in said bracket, means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle to engage the latter on opposite sides to secure it in position, and a spring to normally hold said means in engagement with the spindle.

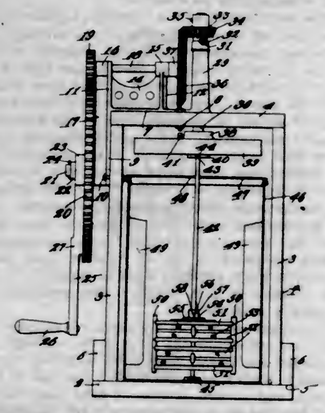
4. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle extending through said bracket, a lever pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and formed with a slot to engage the spindle on opposite sides, and means to normally hold said lever in engagement with the spindle to secure the latter in position on the bracket.

5. In a supply-carrier for braiding machines, the combination with a bracket formed with a hub, of a spindle extending through said hub and formed with a peripheral groove, and a lever pivoted on the bracket and having a slot adapted to engage said groove in the spindle to secure the latter against longitudinal displacement.

[Claims 6 to 14 not printed in the Gazette.]

1,072,801. CHURN. ALBERT C. WILLIS, Columbus, Ohio. Filed Mar. 7, 1913. Serial No. 752,792. (Cl. 31—42.)

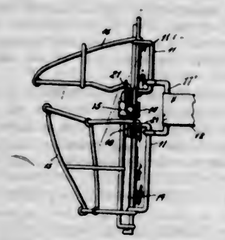
1. A churn dasher comprising side plates; converging end plates located between the side plates and disposed transversely of the side plates; intermediate plates located between the side plates and disposed transversely of the side plates, the intermediate plates diverging in the direction of convergence of the end plates; a shaft extended through all of the plates; the plates being provided with two lines of openings the lines of openings being located upon opposite sides of the shaft, the lines converging toward the top of the dasher.



2. A dasher having a fixed axis of rotation and comprising a plurality of plates disposed at right angles to the axis of rotation and in vertically alined horizontally zigzagged relation, the plates being provided with openings disposed in lines converged toward the top of the dasher.

3. A dasher comprising a shaft; and plates disposed transversely of the shaft; the plates being provided with two lines only of openings, the lines lying on opposite sides of the shaft and converging toward one end of the shaft.

1,072,802. CATCHER'S MASK. OSCAR A. YOUNGGREN, Kewanee, Ill. Filed Aug. 26, 1912. Serial No. 717,105. (Cl. 2—193.)

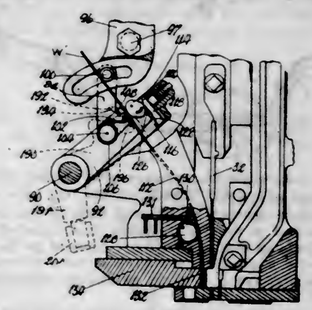


1. In a base ball catcher's mask, a frame an upper movable section and a lower rigid section, and manually operated means for releasing the upper section to permit the same to drop over the lower section.

2. In a base ball catcher's mask, a frame upper and lower openwork sections on the frame, the lower section being slightly smaller than the upper section, the upper section being pivoted to the frame, springs connected to the upper section and to the frame and having a tendency to move the upper section from normal position, and means on the frame for releasing the upper section, whereby the upper section of the mask will be permitted to drop over the lower section.

3. A base ball catcher's mask having a movable upper section, means for holding the movable section in elevated position, means for releasing the holding means to permit the section to fall, and means for imparting an initial movement to the said section.

1,072,803. WIRE-FEEDING MECHANISM. GEORGE A. AMELEN, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 26, 1906, Serial No. 340,707. Divided and this application filed Oct. 12, 1911. Serial No. 654,236. (Cl. 140—130.)



1. In a machine of the class described, a reciprocatory feeding arm carrying a wire gripper and a normally inoperative wire presser arranged to act upon the opposite side of the wire, and means arranged to travel with said arm and movable relatively thereto for engaging said presser at the top of the stroke of the feeding arm to render the gripper operative to feed wire and means for positively effecting the relative movement of said arm and said engaging means.

2. In a machine of the class described, a pivoted arm, means for oscillating said arm about its pivot, a wire gripper and a normally inoperative wire presser carried by said arm, a second arm mounted on said pivot having a surface eccentric therewith, and means for oscillating said second arm to bring said eccentric surface into engagement with said presser at the top of the stroke of the first-named arm to render the gripper operative to feed wire.

3. In a machine of the class described, a plurality of reciprocatory arms each provided with a wire-gripping pawl for feeding wire and arranged to be operated simultaneously with another arm to feed the wire, and movable means constantly engaging one of said pawls constructed to lock said pawl out of action when in one position and to allow it to freely perform its function when in another position whereby the number of wires fed at a single operation may be varied.

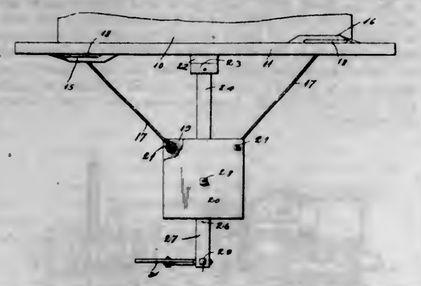
4. In a machine of the class described, a plurality of reciprocatory arms each provided with a wire gripping pawl for feeding wire and arranged to be operated simultaneously with another arm to feed the wire, and movable means under control of the operator constantly engaging one of said pawls and constructed to lock said pawl out of action when in one position and to allow it to freely perform its function when in another position whereby the number of wires fed at a single operation may be varied.

5. In a machine of the class described, a plurality of pivoted arms each provided with a wire gripping pawl for feeding wire, means for oscillating said arms, a movable member mounted on said pivot adjacent to one of said arms constantly engaging one of said pawls with one of two surfaces thereon each concentric to said pivot but of different radii, whereby said pawl may be rendered operative or inoperative to feed wire.

1,072,804. TRUSS. HARRISON V. APPLEY, Binghamton, N. Y. Filed July 1, 1912. Serial No. 706,990. (Cl. 128—26.)

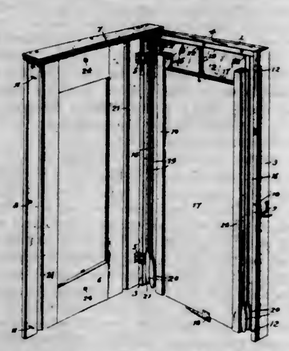
1. A truss comprising curved side members, an adjustable flexible connection between the rear ends of said members, links pivoted to the forward ends of said curved members, each having portions extending diagonally for-

tion by relative longitudinal movement of said sections, a bolt carried by the block and engaged through register-



ing openings of the sections, and a marker carried at the outer end of the outer section.

1,072,799. DISPLAY-CABINET FOR EYE-TESTING CARDS. WILLIAM L. WALL, Philadelphia, Pa. Filed Dec. 17, 1907. Serial No. 406,949. (Cl. 40—65.)

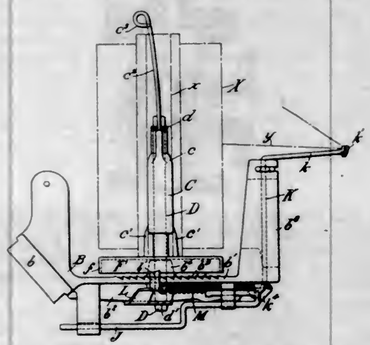


1. A display cabinet of the character described, comprising a casing, a series of cards arranged therein and movable independently of each other, a series of counterbalances for said cards, flexible connections between said cards and said counterbalances, a set of guides located in said casing intermediate the sides of the latter to direct the flexible connections to the respective cards, said guides being arranged in parallel rows, the guides of one row being opposite the spaces between the guides of the opposing row, whereby each of said guides is substantially in vertical alinement with one of the cards to enable free movement of the flexible connections, and a set of guides also arranged adjacent each side of the casing for distributing the counterbalances in relation to each other, the guides of the last mentioned sets being disposed in different vertical planes.

2. A display cabinet of the character described, comprising a casing having its lower end open, a pair of vertically-extending guides arranged within said casing, one of said guides being located adjacent to each side edge of the casing but spaced therefrom to provide a channel, the upper ends of said guides terminating at points removed from the top of the casing, whereby to provide a space between the upper ends of said guides and the top of the casing, limiting stops arranged in the upper ends of said guides and closing the latter, a series of cards located in grouped relation in said guides and vertically movable therein and through the open end of the casing for individual display at the exterior of the casing, the inward movement of said cards being limited by said stops, counterbalances arranged in the channels between said guides and the sides of the casing to be separated from said cards, flexible connections between said cards and said counterbalances, guide eyes arranged in the space between the upper ends of said guides and the top of the casing and providing guiding means for said flexible connections in said space, and a back to which said casing is hingedly connected and providing a support for the latter.

3. A display cabinet of the character described, comprising a casing, a back for said casing to which the latter is hingedly connected, a series of guides arranged in said casing, a series of cards slidably mounted within said guides, counterbalances arranged at the sides of said guides whereby to be separated from said cards, and connections between said counterbalances and said cards.

1,072,800. SUPPLY-CARRIER FOR BRAIDING-MACHINES. SIMON W. WARDWELL, Providence, R. I. Filed Dec. 29, 1910. Serial No. 599,843. (Cl. 28—24.)



1. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle mounted in the bracket, said spindle formed with a peripheral groove, and means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and to cross said axis to engage said groove to detachably secure the spindle in place.

2. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle extending through the bracket, and means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and to cross said axis to engage the spindle to secure it in position.

3. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle mounted in said bracket, means pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle to engage the latter on opposite sides to secure it in position, and a spring to normally hold said means in engagement with the spindle.

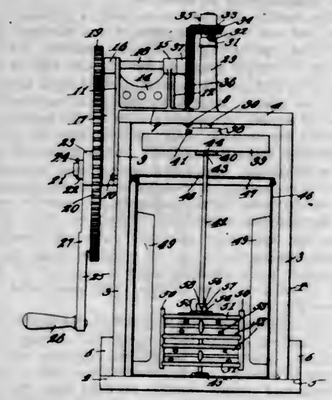
4. In a supply-carrier for braiding machines, the combination with a bracket, of a spindle extending through said bracket, a lever pivoted on the bracket to swing in a plane at right-angles to the axis of the spindle and formed with a slot to engage the spindle on opposite sides, and means to normally hold said lever in engagement with the spindle to secure the latter in position on the bracket.

5. In a supply-carrier for braiding machines, the combination with a bracket formed with a hub, of a spindle extending through said hub and formed with a peripheral groove, and a lever pivoted on the bracket and having a slot adapted to engage said groove in the spindle to secure the latter against longitudinal displacement.

[Claims 6 to 14 not printed in the Gazette.]

1,072,801. CHURN. ALBERT C. WILLIS, Columbus, Ohio. Filed Mar. 7, 1913. Serial No. 752,792. (Cl. 31—42.)

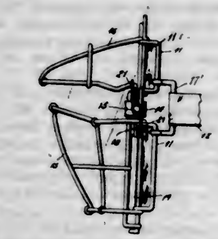
1. A churn dasher comprising side plates; converging end plates located between the side plates and disposed transversely of the side plates; intermediate plates located between the side plates and disposed transversely of the side plates, the intermediate plates diverging in the direction of convergence of the end plates; a shaft extended through all of the plates; the plates being provided with two lines of openings the lines of openings being located upon opposite sides of the shaft, the lines converging toward the top of the dasher.



2. A dasher having a fixed axis of rotation and comprising a plurality of plates disposed at right angles to the axis of rotation and in vertically alined horizontally zigzagged relation, the plates being provided with openings disposed in lines converged toward the top of the dasher.

3. A dasher comprising a shaft; and plates disposed transversely of the shaft; the plates being provided with two lines only of openings, the lines lying on opposite sides of the shaft and converging toward one end of the shaft.

1,072,802. CATCHER'S MASK. OSCAR A. YOUNGGREN, Kewanee, Ill. Filed Aug. 26, 1912. Serial No. 717,105. (Cl. 2—193.)

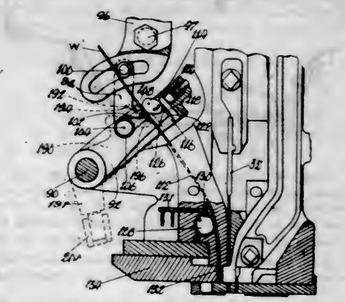


1. In a base ball catcher's mask, a frame an upper movable section and a lower rigid section, and manually operated means for releasing the upper section to permit the same to drop over the lower section.

2. In a base ball catcher's mask, a frame upper and lower openwork sections on the frame, the lower section being slightly smaller than the upper section, the upper section being pivoted to the frame, springs connected to the upper section and to the frame and having a tendency to move the upper section from normal position, and means on the frame for releasing the upper section, whereby the upper section of the mask will be permitted to drop over the lower section.

3. A base ball catcher's mask having a movable upper section, means for holding the movable section in elevated position, means for releasing the holding means to permit the section to fall, and means for imparting an initial movement to the said section.

1,072,803. WIRE-FEEDING MECHANISM. GEORGE A. AMBLER, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 26, 1906, Serial No. 340,707. Divided and this application filed Oct. 12, 1911. Serial No. 654,236. (Cl. 140—130.)



1. In a machine of the class described, a reciprocatory feeding arm carrying a wire gripper and a normally inoperative wire presser arranged to act upon the opposite side of the wire, and means arranged to travel with said arm and movable relatively thereto for engaging said presser at the top of the stroke of the feeding arm to render the gripper operative to feed wire and means for positively effecting the relative movement of said arm and said engaging means.

2. In a machine of the class described, a pivoted arm, means for oscillating said arm about its pivot, a wire gripper and a normally inoperative wire presser carried by said arm, a second arm mounted on said pivot having a surface eccentric therewith, and means for oscillating said second arm to bring said eccentric surface into engagement with said presser at the top of the stroke of the first-named arm to render the gripper operative to feed wire.

3. In a machine of the class described, a plurality of reciprocatory arms each provided with a wire-gripping pawl for feeding wire and arranged to be operated simultaneously with another arm to feed the wire, and movable means constantly engaging one of said pawls constructed to lock said pawl out of action when in one position and to allow it to freely perform its function when in another position whereby the number of wires fed at a single operation may be varied.

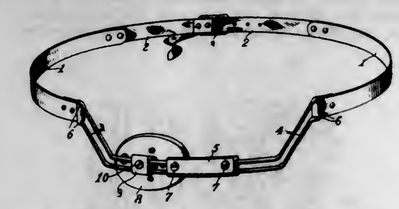
4. In a machine of the class described, a plurality of reciprocatory arms each provided with a wire gripping pawl for feeding wire and arranged to be operated simultaneously with another arm to feed the wire, and movable means under control of the operator constantly engaging one of said pawls and constructed to lock said pawl out of action when in one position and to allow it to freely perform its function when in another position whereby the number of wires fed at a single operation may be varied.

5. In a machine of the class described, a plurality of pivoted arms each provided with a wire gripping pawl for feeding wire, means for oscillating said arms, a movable member mounted on said pivot adjacent to one of said arms constantly engaging one of said pawls with one of two surfaces thereon each concentric to said pivot but of different radii, whereby said pawl may be rendered operative or inoperative to feed wire.

1,072,804. TRUSS. HARRISON V. APPLEY, Binghamton, N. Y. Filed July 1, 1912. Serial No. 706,990. (Cl. 128—26.)

1. A truss comprising curved side members, an adjustable flexible connection between the rear ends of said members, links pivoted to the forward ends of said curved members, each having portions extending diagonally for-

ward and downward and thence horizontally each of said links embodying spaced parellel members, and a coupling connecting the outer ends of the links.



2. A truss comprising comparatively narrow side members, means adjustably connecting the rear ends of said side members together, the forward ends of said members being notched to provide shoulders, links pivoted to the forward ends of said members and engaged by the shoulders on said members to limit the outward movement of said members, and a coupling adjustably connecting the links.

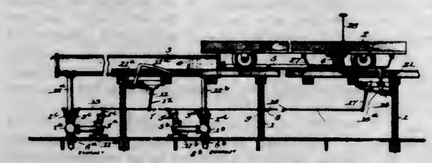
3. A truss comprising side members, means connecting the rear ends of said members, links pivoted to the forward ends of the said members, each including spaced members, and a coupling embracing the said links and including means to wedge between the spaced members of the links to couple the links together.

4. A truss, comprising a link, a member surrounding the link and adjustable thereon, a screw extending through said member and the link; and having a truncated conical portion within the links to wedge the same apart and clamp the same within the member.

5. A truss, comprising a tubular coupling, links adjustable in the coupling and a screw in the coupling having a truncated conical portion within the link and acting to clamp the link within the coupling.

[Claim 6 not printed in the Gazette.]

1,072,805. SAWMILL-CARRIAGE FEED. CHARLES FOSTER ASHLEY, Bolton, N. C. Filed Apr. 25, 1913. Serial No. 763,555. (Cl. 121—45.)



1. The combination with a carriage, a cylinder, a piston therein and rod connecting it with the carriage, of a valve mechanism for controlling the supply of pressure fluid to the cylinder, another valve mechanism intermediate of the first mentioned valve mechanism and piston cylinder for closing communication between the cylinder and first mentioned valve mechanism, a third valve mechanism for admission of fluid pressure to the cylinder when the second valve mechanism cuts off the supply of fluid pressure, and conduits for the pressure fluid in which the valve mechanisms are contained, substantially as described.

2. The combination with a carriage, a cylinder, a piston therein and rod connecting it with the carriage, of valve mechanism intermediate of the source of pressure fluid supply and said cylinder for controlling the pressure fluid supply and comprising an exhaust port and valve for controlling said port and passage of the fluid pressure, a second valve mechanism between the first mentioned valve mechanism and said cylinder for controlling the supply of pressure fluid to the cylinder and comprising an exhaust port and valve for controlling said port and in communication with said first mentioned valve mechanism and the cylinder, said valve mechanisms operating to permit passage of pressure fluid to the cylinder when both are closed to their exhausts and to permit exhaust of fluid from the cylinder through the exhaust of one valve mechanism when the exhaust is open and the exhaust of the other valve mechanism is closed, and conduits for the pressure fluid in which the valve mechanisms are contained, substantially as described.

3. The combination with a carriage, a cylinder, a piston therein and rod connecting it with the carriage, of valve mechanisms operatively connected together for manual operation to supply pressure fluid to one side of the cylinder piston and permit exhaust of fluid from the opposite side of the piston, in alternation, valve mechanisms for cutting off supply of pressure fluid to the manually operated valve mechanisms, valve mechanisms for cutting off exhaust fluid from the cylinder to the manually operated valve mechanisms, and valve mechanisms located in by-passes for the supply of pressure fluid to the cylinder, said valve mechanisms being operatively connected with the valve mechanisms which cut off exhaust from the cylinder to the manually operated valve mechanisms and operative therewith to cut off exhaust from the end of the cylinder when pressure fluid is supplied to that end of the cylinder by way of the valve controlled by-pass, substantially as described.

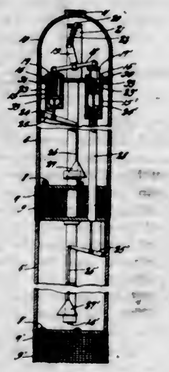
4. The combination with a carriage, a cylinder, a piston therein and rod connecting it with the carriage, of valve mechanisms operatively connected together for manual operation to supply pressure fluid to one side of the cylinder piston and permit exhaust of fluid from the opposite side of the piston, in alternation, valve mechanisms for cutting off supply of pressure fluid to the manually operated valve mechanisms, valve mechanisms for cutting off exhaust fluid from the cylinder to the manually operated valve mechanisms, valve mechanisms located in by-passes for the supply of pressure fluid to the cylinder, said valve mechanisms being operatively connected with the valve mechanisms which cut off exhaust from the cylinder to the manually operated valve mechanisms and operative therewith to cut off exhaust from the end of the cylinder when pressure fluid is supplied to that end of the cylinder by way of the valve controlled by-pass, and mechanism operatively connecting one of the valve mechanisms which cut off supply pressure fluid to the manually operated valve mechanism in one of the by-passes and adjacent valve mechanism which cuts off exhaust from the cylinder whereby said valve mechanisms will coöperate to cut off supply pressure fluid to one end of the cylinder while pressure fluid is admitted to the other end through the by-pass and exhaust from the same end is cut off, substantially as described.

5. The combination with a carriage, a cylinder, a piston therein and a rod connecting it with the carriage, of a fluid pressure conduit and a by-pass therefrom provided for each end of the piston cylinder, manually operated valves provided for each conduit and connected one to the other for controlling the supply of pressure fluid to and exhaust from the cylinder at opposite sides of the piston in alternation, separatively operative valves in the supply pressure fluid conduit of each end of the cylinder, connected valves positioned one in the by-pass and the other in adjacent supply pressure fluid conduit of each end of the cylinder, and trip mechanism connecting the separately operated valve in the supply pressure fluid conduit at one end of the cylinder with the connected valves of the by-pass and supply pressure conduit at the other end of the cylinder, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,806. PNEUMATIC PUMP. WILLIAM HORACE AUNKST, Milton, Pa. Filed Feb. 14, 1913. Serial No. 748,429. (Cl. 103—8.)

1. A device of the character described including upper and lower compartments having check-valved inlets, an eduction conduit having check-valved inlets communicating with the respective compartments, an air chamber above the upper compartment, the upper compartment having a pair of openings leading to the air chamber, a pipe connected to one of the openings and passing through the upper compartment to the lower one, valves for closing the respective openings, and float controlled means within the respective compartments connected to the respective valves for alternately seating them, the float controlled means within the lower compartment being connected to the respective valve through the aforesaid pipe.



2. A device of the character described including upper and lower compartments having check-valved inlets, an eduction conduit having check-valved inlets communicating with the respective compartments, an air chamber, an air passage extending from the lower compartment through the upper one to the air chamber, an air passage leading from the upper compartment to the air chamber, valves for the respective passages, float controlled means in the respective compartments and connected to the respective valves through the respective passages for alternately seating the valves, air outlet passages terminating within the respective aforesaid passages, and supplemental valves carried by the aforesaid valves for opening and closing the respective last mentioned passages as the respective aforementioned valves are seated and unseated.

3. A device of the character described including a pair of compartments having check-valved inlets, an eduction conduit having check-valved inlets communicating with the respective compartments, an air chamber, air passages leading from the air chamber to the respective compartments, valves for the respective passages, float controlled means within the respective compartments operatively connected with the respective valves through the passages for alternately seating the valves, air outlet passages terminating within the respective aforesaid passages, and supplemental valves movable with the respective aforesaid valves to open and close the respective last mentioned passages as the respective aforesaid valves are seated and unseated.

4. A device of the character described including upper and lower compartments having check-valved inlets, an eduction conduit having check-valved inlets communicating with the respective compartments, an air chamber mounted on the upper compartment, the upper compartment having a pair of sleeves communicating with the air chamber, a pipe connected to one sleeve and passing through the upper compartment to the lower one, valves seatable on the respective sleeves and having spiders working therein, float controlled means within the respective compartments operatively connected to the respective spiders for alternately seating the valves, the float controlled means within the lower compartment being connected to the respective spider through the said pipe, air outlet passages terminating within the said sleeves, and supplemental valves carried by the spiders, to open and close the respective passages as the respective aforesaid valves are seated and unseated.

5. A device of the character described including a water compartment having a check-valved inlet, an eduction conduit having a check-valved inlet communicating with the said compartment, an air chamber, an air passage leading from the compartment to the air chamber, a valve for the said passage, float controlled means in the said compartment and connected to the said valve through the said passage for seating the valve, an air outlet passage terminating within the aforesaid passage, and a supplemental valve carried by the aforesaid valve for opening and closing the last mentioned passage as the aforesaid valve is seated and unseated.

[Claim 6 not printed in the Gazette.]

1,072,807. RATCHET DRIVING MECHANISM. FREDERICK H. AYER, Chicago Heights, Ill. Filed June 10, 1912. Serial No. 702,732. (Cl. 74—16.)



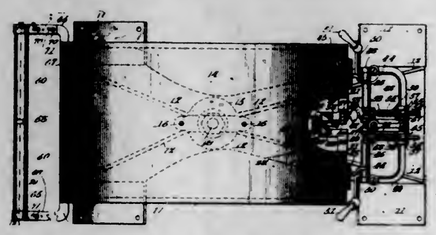
1. In a ratchet driving mechanism, the combination of a shank member provided with an internal series of ratchet ribs and intervening grooves, a driving member within the shank member, a groove parti-circular in cross section formed in the side of the driving member and extending lengthwise of the latter, a dogging pawl substantially crescent-shaped in cross section fitting within said groove and adapted to engage at either edge with the ribs and grooves of the internal ratchet, a pair of bearing faces formed upon said pawl, each bearing definite and similar relation to a corresponding acting edge of the pawl, an oscillatory reversing member movably mounted upon the exterior of the shank, and a spring-pressed reversing stud mounted in said reversing member and adapted to act upon either of said bearing faces.

2. In ratchet driving mechanism the combination of a tubular shank member adapted at one end to positively engage and actuate a part to be rotated and provided internally with a series of ratchet ribs and intervening grooves extending lengthwise of the shank, a driving head having a part fitted and telescoping within said internal ratchet portion of the shank, a groove having parti-cylindric walls formed in one side of said driving head and externally parallel with the axis of the latter, a dogging pawl substantially crescent-shaped in cross section fitted within the groove of the driving head, the maximum cross sectional diameter of said dogging pawl being approximately equal to the maximum width of the groove, an extension formed upon one end of said dogging pawl provided with two symmetrically related bearing surfaces, each bearing definite relation to a corresponding acting edge of the pawl, a reversing collar surrounding that part of the driving head within which said pawl extension lies, and a spring-pressed reversing stud mounted to move radially within said reversing collar and impinging at its inner end against the extension of the pawl.

3. In ratchet driving mechanism, the combination of a shank member provided with an internal series of ratchet ribs and intervening grooves, a driving member within the shank member having a longitudinally ex-

tending groove parti-circular in cross section in one side thereof, a dogging pawl substantially crescent shaped in cross section fitting within said groove and adapted to engage at either edge with the ribs and grooves of the internal ratchet, and a setting ring encircling said shank, said setting ring having an axial passageway and said shank having a circumferentially extending slot, a setting pin radially movable in said passageway and slot, a spring carried by said shank member and engaging with said pin to exert radial inward pull on said pin, said pin being adapted upon shifting of said setting ring to engage with either edge of said ratchet pawl to shift one edge inwardly away from the ratchet ribs and the other edge outwardly for operative association with said ribs.

1,072,808. BOSOM-BOARD. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed June 15, 1910. Serial No. 567,026. (Cl. 68—1.)



1. In an ironing board, a bosom board provided with a segmental neck portion, clothing disposed upon said bosom board, a pivoted yoke disposed within said neck portion to retain said clothing in position, and an independent neck band clamp.

2. In an ironing board, a bosom board provided with a segmental neck portion, clothing disposed upon said bosom board, a pivoted yoke disposed within said neck portion to retain said clothing in position, an independent neck band clamp and a support extended from the bosom board to engage said yoke.

3. In an ironing board, a bosom board provided with a segmental neck portion, clothing disposed upon said bosom board, a pivoted yoke disposed within said neck portion to retain said clothing in position, an independent neck band clamp, and a supporting pin secured to said bosom board to engage a spring on said yoke in the downward movement thereof.

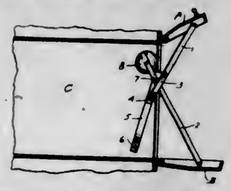
4. In an ironing board, a bosom board provided with a segmental neck portion, clothing disposed upon said bosom board, a pivoted yoke disposed within said neck portion to retain said clothing in position, and a neck band clamp mounted upon the frame of said yoke to travel therewith and for sliding movement thereon.

5. In an ironing board, a bosom board provided with a segmental neck portion, clothing disposed upon said bosom board, a pivoted yoke disposed within said neck portion to retain said clothing in position, a neck band clamp slidingly mounted upon the frame of said yoke to engage the inner face thereof, means upon said yoke for actuating said clamp, shoulder clamps disposed at opposite sides of said yoke, and stretching means carried by said bosom board at its end opposite said yoke.

[Claims 6 to 26 not printed in the Gazette.]

1,072,809. STOVE-DOOR. BERRY A. BAXTER, Mansfield, Ohio. Filed Dec. 6, 1912. Serial No. 735,290. (Cl. 126—91.)

1. In combination with a pair of stove-doors, a link pivoted to each door, a weight on the inner end of one link, and a bar pivoted at its lower end to the stove and adjacent to the free end of the first named link, the inner end of the other link being pivoted to the bar at a point between the bar ends.

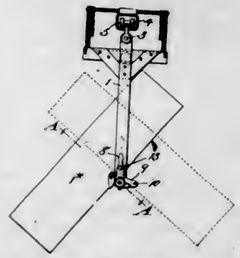


2. In combination with a pair of stove-doors, a link for each door pivoted thereto, a weight on the inner end of one link, and a connection between said links and the stove whereby when the doors are open upward pressure will be exerted upon one link and downward pressure will be exerted upon the other link, and when the doors are closed downward pressure will be exerted upon both links to thereby exert inward pressure upon both doors.

3. In combination with the two doors of a stove, a system of levers connected to the doors and a weight included in said system for exerting inward pressure upon both doors when the latter are closed and for exerting downward pressure upon one door and upward pressure upon the other door when the latter are open.

4. In combination, with an upper and a lower oven door, a link pivoted at its outer end to the lower door and having a weight on its inner end, a bar pivoted at its lower end to the stove and also pivoted at its upper end to said link adjacent the weight thereof, and a link pivoted at its outer end to the upper door and having its lower end pivoted to said bar at a point beyond the center thereof.

1,072,810. ARTICLE-HOLDER FOR LIQUID-COATING MACHINES. REME A. BEAUSEJOUR, New York, N. Y., assignor to Standard Varnish Works, New York, N. Y., a Corporation of New York. Filed Dec. 27, 1909. Serial No. 534,968. (Cl. 91—60.)



1. An article holder for liquid coating machines comprising mechanism for supporting the articles being coated, and a clamp carried by said mechanism for holding the articles thereon, said clamp being rotatably adjustable on said mechanism.

2. An article holder for liquid coating machines comprising mechanism for supporting the articles being coated, and a plurality of clamps carried by said mechanism for holding the articles thereon, said clamps being rotatably adjustable on said mechanism.

3. An article holder for liquid coating machines comprising mechanism for supporting the articles being coated, a clamp carried by said mechanism for holding the articles thereon, said clamp being longitudinally and rotatably movable on said mechanism, and means for securing said clamp in different longitudinal and angular positions on said mechanism.

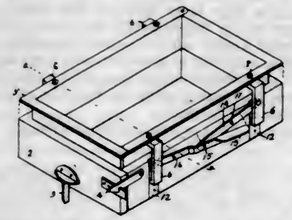
4. An article holder for liquid coating machines comprising mechanism for supporting the articles being

coated, a plurality of clamps carried by said mechanism for holding the articles thereon, said clamps being longitudinally and rotatably movable on said mechanism, and means for securing said clamps in different longitudinal and angular positions on said mechanism.

5. An article holder for liquid coating machines comprising mechanism for supporting the articles being coated, a clamp carried by said mechanism for holding the articles thereon, said clamp being longitudinally and rotatably movable on said mechanism, and means for securing said clamp in any different longitudinal and angular positions on said mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,072,811. MOLDER'S FLASK. FRANK J. BECKER, Hamilton, Ohio. Filed Aug. 24, 1912. Serial No. 716,889. (Cl. 22—96.)



1. A molder's flask comprising two frames extensibly and frictionally connected together, and parallel lever connections for moving them in predetermined extensible relation.

2. In a molder's flask, the combination of a frame, a vertically extensible member frictionally engaging therewith, and adjustable parallel lever connections for moving said member in relation to the frame.

3. In a molder's flask, a drag frame, an auxiliary frame telescoped therein, parallel lever connections fulcrumed on the drag frame and adjustably connected to the auxiliary frame for moving it different predetermined distances and in parallel relation to the drag frame and frictional connections between the frames for maintaining them in relative adjusted positions.

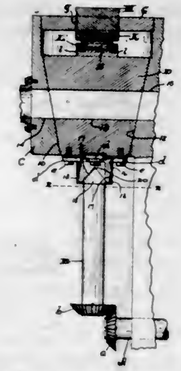
4. A molder's flask comprising a frame consisting of telescoping members, frictionally connected together and parallel lever movements adjustably connected thereto for relatively moving the frames through different ranges of adjustments.

1,072,812. VALVE-OPERATING MECHANISM. MILTON E. BERTRAM, Cleveland, Ohio. Filed Mar. 4, 1912. Serial No. 681,432. (Cl. 136—7.)

1. The combination, with a shaft provided at one end with laterally projecting members which are spaced circumferentially of the shaft; a normally seated valve arranged at said end and coincidently with the axis of the shaft and provided with a member which extends circumferentially of the shaft and is provided with recesses which are spaced circumferentially of the shaft and have their side walls diverging toward the opposite end of the shaft, said recesses being engaged by the aforesaid members of the shaft and arranged to permit movement of the valve from and toward its seat when the shaft is at rest and during the rotation of the shaft.

2. The combination, with a shaft provided at one end with laterally projecting members which are spaced circumferentially of the shaft and have their sides converging toward said end of the shaft; a normally seated valve arranged at said end and coincidently with the axis of the shaft and provided with a member which extends circumferentially of the shaft and is provided with recesses engaged by the aforesaid members of the shaft and arranged to permit movement of the valve from and toward its seat when the shaft is at rest and during the rotation of the shaft.

3. The combination, with an upright shaft provided at its upper end with laterally projecting members which are spaced circumferentially of the shaft and have upwardly converging sides; a normally seated downwardly tapering valve arranged at said end and coincidently with the axis of the shaft and provided at its lower end with a member which extends circumferentially of the shaft and is provided with recesses extending upwardly from the lower extremity of said member of the valve, which recesses have their side walls diverging downwardly and are engaged by the aforesaid projecting members of the shaft.

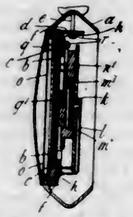


4. The combination, with an upright shaft provided at its upper end with laterally projecting members which are spaced circumferentially of the shaft and have upwardly converging sides; a normally seated downwardly tapering valve arranged at said end and coincidently with the axis of the shaft and provided at its lower end with a member which extends circumferentially of the shaft and is provided with recesses which have their side walls diverging downwardly and are engaged by the aforesaid projecting members of the shaft, said recesses extending upwardly beyond said members of the shaft and being arranged to permit upward movement of the valve independently of the shaft when the shaft is at rest and during the rotation of the shaft.

5. The combination, with a downwardly tapering rotary valve provided at its lower end with a member which extends circumferentially of and is concentric relative to the axis of the valve and has recesses spaced circumferentially of said axis, which recesses extend substantially vertically upwardly from the lower extremity of said member of the valve and have downwardly diverging walls, and a seat for the valve, of an upright shaft arranged at the lower end and coincidently with the axis of the valve, which shaft is provided with members which are spaced circumferentially of the shaft and project laterally of the shaft into the aforesaid recesses.

[Claims 6 to 10 not printed in the Gazette.]

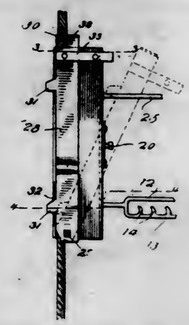
1,072,813. APPARATUS FOR TESTING THE EYESIGHT. HUGH MILNER BLACK, Brighton, England. Filed June 30, 1911. Serial No. 636,225. (Cl. 88—20.)



An apparatus for testing eyesight comprising in combination, a casing, a circular support rotatively mounted in said casing and provided with a circular iris dia-

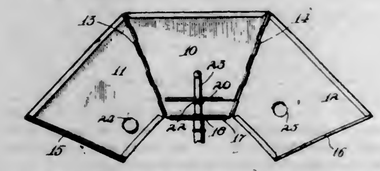
phragm, means for rotating said diaphragm and its support, said diaphragm comprising white blades and a black background disposed behind said blades and having a white center, mechanism adapted for operation by said means for opening or closing said blades to vary the size of the black background to be disclosed, said diaphragm having a radial interruption, and means for varying the size of such interruption, substantially as described.

1,072,814. FIRE-ESCAPE. THOMAS BOOTH, Boise, Idaho. Filed Apr. 23, 1912. Serial No. 692,680. (Cl. 227—25.)



A fire escape comprising a casing, one of the end walls of which extends beyond the adjacent side wall, the side wall being spaced from the more extensive end wall thereby providing an opening through which a cable may be inserted, a plate pivotally supported adjacent the edge of the side wall, said plate being formed with lugs disposed to enter apertures in the end wall, means for locking said plate against movement, and cable engaging means arranged within the casing.

1,072,815. COLLAPSIBLE SHADE. MICHAEL E. BRADY, Chicago, Ill. Filed Oct. 10, 1912. Serial No. 725,016. (Cl. 240—108.)



1. In a collapsible shade, the combination with a main plate, of a plurality of side plates hinged to the side edges of the main plate, means for securing together the free edges of said side plates, and a base plate hinged at one edge to one of said plates and provided with an aperture to engage with a lighting fixture and thereby support said shade.

2. In a collapsible shade, the combination with a main plate, of a plurality of side plates hinged to the side edges of the main plate, means for securing together the free edges of said side plates, and two parallel base plates each hinged at one edge to one of said plates, said base plates being provided with alining apertures and adapted to engage a lighting fixture and thereby support said shade in distended condition around the light.

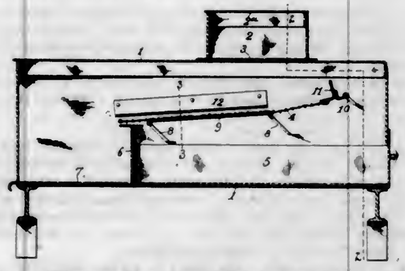
3. A polygonal collapsible shade comprising a trpezoidal main plate with a plurality of trapezoidal side plates hinged to the non-parallel edges of the main plate and adapted to have the free edges of the side plates swung into engaging contact to form a hollow polygonal sided frustum of a pyramid, and a base plate hinged at one edge to the main plate and provided with a substantially centrally located aperture for engagement with and to permit said base plate to be supported by the desired lighting fixture.

4. A three-sided collapsible shade comprising a trapezoidal main plate with two trapezoidal side plates, one hinged to each of the non-parallel edges of the main plate and adapted to be swung into position so that their free edges are in engaging contact so that the whole forms a hollow three-sided frustum of a pyramid, and a triangular base piece hinged to the main plate, and provided with a centrally located aperture by which it may be engaged with the desired lighting fixture, substantially as described.

5. A three-sided collapsible shade comprising a trapezoidal main plate with two trapezoidal side plates, one hinged to each of the non-parallel lateral edges of the main plate and adapted to be swung into position so that their free edges are in engaging contact to form a hollow three-sided frustum of a pyramid, a triangular base plate hinged to the main plate and provided with a centrally located aperture by which it may be engaged with the desired lighting fixture, and a second triangular plate provided with a centrally located aperture arranged in alinement with the aperture of the base plate so that both apertured plates may engage with the desired lighting fixtures, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,072,816. SIFTING-MACHINE. HARVEY H. BROWN, Grand Rapids, Mich. Filed Sept. 28, 1912. Serial No. 722,816. (Cl. 83—60.)



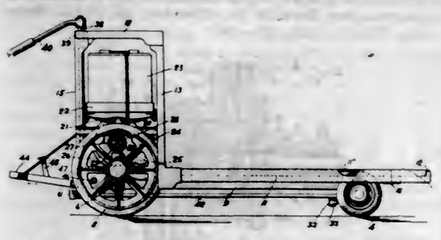
1. A sifting machine, comprising a closed case, a hopper above the case and communicating therewith, a screen in the case below the hopper inflexibly supported throughout a portion of its length and flexible at one end, means for movably supporting the screen, a rotating crank shaft, and means for directly connecting the flexible end of the screen and the crank portion of the aforesaid shaft, and means for manually rotating said shaft.

2. A sifting machine, comprising a case, a hopper above the case, a slide to control the flow from the hopper to the case, an inclined and movably supported screen beneath the hopper having a flexible projecting end, oscillating crank shafts supporting the screen, a manually rotated crank shaft, and an arm rigidly connecting the crank portion of the shaft and the flexible end of the screen.

3. A sifting machine, comprising a closed case, a hopper above the case, means for controlling the flow from the hopper to the case, an inclined frame below the hopper, a screen attached to the frame and having a flexible end projecting from one end of the frame, oscillating rock shafts supporting the frame, an angle bar fixed on the upper end of the screen, a manually rotated crank shaft near the angle bar, and means for directly connecting the said crank shaft and the angle bar whereby the angle bar and end of the screen follow the movement of the crank.

1,072,817. BAGGAGE-TRUCK. TRACY V. BUCKWALTER, Altoona, Pa. Filed July 6, 1910. Serial No. 570,554. (Cl. 21—90.)

1. A tapering drop frame having an elevated part, in combination with wheels of different diameters and different treads within its sides at its opposite ends, the wheels of greater diameter and greater tread being under said elevated part.

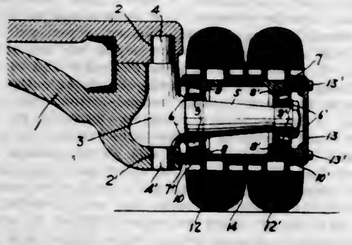


2. A tapering drop frame elevated at its wider end and rounded at the corners of its narrower end, wheels within the sides of the wider end of said frame, wheels of smaller diameter and narrower tread within the sides of the narrower end of said frame, and means comprising knuckles whereby said wheels support said frame.

3. A tapering drop frame, wheels within the sides of the wider end of said frame, wheels of narrower tread within the sides of the narrower end of said frame, means comprising knuckles whereby said wheels support said frame, and means for shifting said wheels so that they described approximately concentric circles.

4. A tapering drop frame elevated at its wider end and having rounded corners at its narrower end, a pair of wheels at the wider and elevated end of said frame, a pair of wheels of smaller diameter and narrower tread at the narrower end of said frame, means whereby said wheels support said frame and means for simultaneously shifting said wheels so that they describe approximately concentric circles.

1,072,818. TRACTION-WHEEL. TRACY V. BUCKWALTER, Altoona, Pa. Filed Jan. 4, 1912. Serial No. 669,327. (Cl. 21—69.)



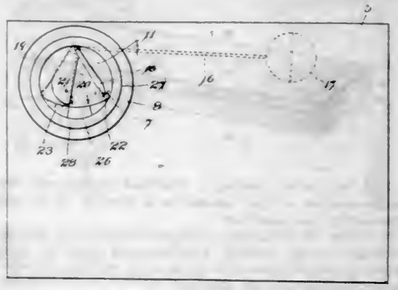
1. A traction wheel comprising, in combination with a spindle, a bearing revolnble on said spindle, and a plurality of treads revolnble independently on said bearing.

2. A traction wheel comprising, in combination with a spindle, a drum revoluble on said spindle, a plurality of rims revolnble on said drum and tires on the respective rims specified.

3. A traction wheel comprising, in combination with a knuckle having a spindle, a drum, anti-friction bearing means whereby said drum is revolnbly mounted on said spindle, a plurality of rims revoluble independently on said drum, tires on the respective rims, and means for holding said rims in position on said drum.

4. A traction wheel comprising, in combination with a spindle having roller bearing rings thereon, a drum having roller bearing rings therein, rollers disposed between the respective rings on said spindle and in said drum, rims independently revolnble on said drum, tires on the respective rims aforesaid, a separator on said drum between said rims, and a detachable plate fixed on the outer end of said drum to hold said rims in position, said drum having a flange on the inner end thereof for holding said rims in position.

1,072,819. GAGE FOR GASOLENE-TANKS. PHILIP M. BUSH, Hartford, Conn., assignor to The Bush Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 5, 1911. Serial No. 664,030. (Cl. 73—82.)



1. A tank having an opening therethrough, a casing secured to and covering said opening, a spindle having one end projecting within the casing, a pivotal support for said spindle, a float and float rod supported by the spindle, an indicating hand secured to the spindle, a shield pivotally mounted on the spindle and arranged to be engaged and moved by the indicating hand at a predetermined time, and a sector of distinguishing character covered by said shield.

2. A tank having an opening through the wall thereof, a casing covering said opening, a spindle supported by said casing and with one end projecting thereinto, a float and float rod supported by said spindle, an indicating hand secured to the spindle, a shield pivotally mounted on the spindle, a stop to limit the downward movement of the shield, a pin mounted to impart movement of the pointer to the shield, and a sector of distinguishing character underlying said shield.

3. A tank having an opening through its wall, a casing secured to the outer surface of the tank about said opening and having a shoulder facing inward, a supporting base snugly fitting within said casing against said shoulder, a sleeve rigidly secured to and projecting from said base, a spindle supported in said sleeve, a float arm secured to one end of the spindle and bearing a float, and a pointer secured to the opposite end of the spindle.

4. A tank having an opening through its wall, a casing secured to the outer surface of the tank about said opening and having an inward facing shoulder and a reduced outer end forming a shoulder, a supporting base snugly fitted within the casing against said inward facing shoulder, a spindle pivotally supported in said base, a float arm secured to one end of the spindle and bearing a float, a pointer secured to the opposite end of the spindle, and a cap fitted upon the reduced outer end of the casing and resting against the shoulder on the outer surface thereof.

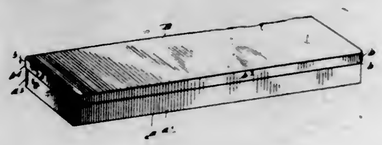
5. A tank having an opening through its wall, a casing secured to the outer surface of the tank and covering said opening and having a shoulder on its inner surface, a supporting base snugly fitted within the casing and resting against said shoulder, a lip formed at the outer end of the casing, a glass resting against said lip forming a chamber between said glass and supporting base, a packing for the joint around said glass, means for holding the glass front against its seat, a pointer in said chamber, a spindle bearing said pointer and mounted in the supporting base, and a float arm secured to said spindle and bearing a float within said tank.

[Claim 6 not printed in the Gazette.]

1,072,820. SHEET-METAL BOX. EDWARD W. CARNES, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 26, 1910. Serial No. 551,623. (Cl. 220—9.)

1. A sheet metal box comprising a body portion and a cover having a flange, said body portion being provided

with horizontal beads for the flange of the cover to shut down against, said cover flange comprising combined, folded and drawn portions and being notched at the corners, the drawn portions of the cover being above the notched portions.

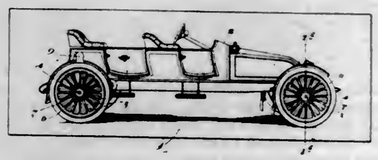


2. A box cover having a combined folded and drawn flange notched at the corners to a portion of its depth, substantially as specified.

3. A box cover having a flange notched to a portion of its depth at the corners, and provided with an integral drawn portion above the notches at the corners of the cover, substantially as specified.

4. A box cover having a flange notched to a portion of its depth at the corners, and provided with an integral drawn portion above the notches at the corners of the cover, said drawn corner portions of the cover flange being rounded, and the portions between the corner portions being flat, substantially as specified.

1,072,821. COMBINED VENTILATOR AND ADVERTISING DEVICE. ROBERT E. CARSWELL, Minneapolis, Minn. Filed Nov. 18, 1912. Serial No. 732,092. (Cl. 46—37.)



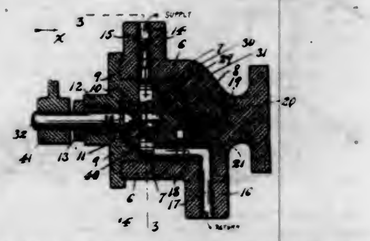
1. A device of the kind described, comprising a board having thereon a representation of a wheeled vehicle and provided with air passages alined with the wheels thereof, and the wheels of the said vehicle being rotatable, and having in their spoke zones propelling blades adapting the wheels to be rotated by a draft of air moving through the air passages of said board.

2. A device of the kind described, comprsing a board having thereon a representation of a wheeled vehicle and provided with air passages alined with the wheels thereof, the wheels of the said vehicle being rotatable and having in their spoke zones propelling blades adapting the wheels to be rotated by a draft of air moving through the air passages of said board, and gates movable to open and close the said air passages.

3. A device of the kind described comprising a board having thereon a representation of an automobile and having air passages alined with the wheels thereof and having fixed spindles at the axes of the wheels, the wheels of the dummy automobile being stamped from sheet metal and formed with propelling blades in their spoke zones and being rotatably mounted on the said spindles.

4. A device of the kind described comprising a board having thereon a representation of an automobile and having air passages alined with the wheels thereof and having fixed spindles at the axes of the wheels, the wheels of the dummy automobile being stamped from sheet metal and formed with propelling blades in their spoke zones and being rotatably mounted on the said spindles, and gates provided with notches adapting them to straddle the said wheel spindles, and the said gates being movable to open and close the air passages of said board.

1,072,822. VALVE MECHANISM. JAMES CEVASCO and NICHOLAS J. CAVAGNARO, Brooklyn, and CONRAD AMBAETTE, New York, N. Y. Filed Dec. 17, 1912. Serial No. 737,251. (Cl. 138—16.)



1. In a valve machanism, a valve casing providing a cylindrical interior chamber, said valve-casing having an inlet passage leading to said chamber, a rear-wall connected with said valve-casing for closing one end of said chamber, a rear-wall connected with said valve-casing for closing one end of said chamber, a cap-plate for closing the other end of said valve-casing, said rear-wall having a pair of outlet passages and a return passage communicating with said chamber, a valve-member rotatably mounted in said chamber and registering against said rear-wall so as to cover said outlet passages and said return passage, said valve-member having a pair of valve-ports adapted to register upon a proper movement of said valve-member respectively and alternately with said pair of outlet passages and a direct return valve port adapted to register upon a proper movement of said valve-member with said return passage, said valve-member being further provided in its registering or abutting face with a by-pass depression adapted to interconnect one of said outlet passages with said return passage when a valve-port is registered with the other outlet passage to provide for a return circulation through said valve mechanism, and means for rotating said valve-member.

2. In a valve mechanism, a valve casing providing a cylindrical interior chamber, said valve-casing having an inlet passage leading to said chamber, a rear-wall connected with said valve-casing for closing one end of said chamber, a cap-plate for closing the other end of said valve-casing, said rear-wall having a pair of outlet passages and a return passage communicating with said chamber, a valve-member rotatably mounted in said chamber and registering against said rear-wall so as to cover said outlet passages and said return passage, said valve-member having a pair of valve ports adapted to register upon a proper movement of said valve-member respectively and alternately with said pair of outlet passages and a direct return valve-port adapted to register upon a proper movement of said valve-member with said return passage, said valve-member being further provided in its registering or abutting face with a by-pass depression adapted to interconnect one of said outlet passages with said return passage, when a valve-port is registered with the other outlet passage to provide for a return circulation through said valve mechanism, and means for rotating said valve-member comprising a spindle rotatably mounted in said cap-plate, means for connecting the inner end of said spindle with said valve-member, and means connected with the outer end of said spindle for manipulating the same.

3. In a valve mechanism, a valve casing providing a cylindrical interior chamber, said valve-casing having an inlet passage leading to said chamber, a rear wall connected with said valve-casing for closing one end of said chamber, a cap-plate for closing the other end of said valve-casing, said rear-wall having a pair of outlet passages and a return passage communicating with said chamber, a valve-member rotatably mounted in said chamber and registering against said rear-wall so as to cover said outlet passages and said return passage, said valve-member having a pair of valve ports adapted to register upon a proper movement of said valve member respectively

and alternately with said pair of outlet passages and a direct return valve-port adapted to register upon a proper movement of said valve-member with said return passage, said valve-member being further provided in its registering or abutting face with a by-pass depression adapted to interconnect one of said outlet passages with said return passage when a valve-port is registered with the other outlet passage to provide for a return circulation through said valve-mechanism, and means for rotating said valve-member comprising a spindle rotatably mounted in said cap-plate, means for connecting the inner end of said spindle with said valve-member, means connected with the outer end of said spindle for manipulating the same, and means for holding said valve-member in its abutting relation to said rear-wall of said valve-casing.

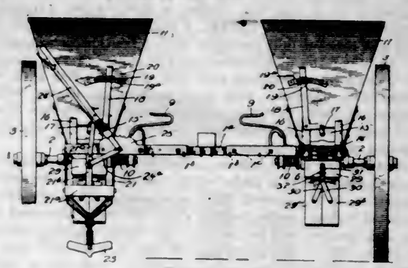
4. In a valve mechanism, a valve-casing providing a cylindrical interior chamber, said valve-casing having an inlet passage leading to said chamber, a rear-wall connected with said valve-casing for closing one end of said chamber, a cap-plate for closing the other end of said valve-casing, said rear-wall having a pair of outlet passages and a return passage communicating with said chamber, a valve-member rotatably mounted in said chamber and registering against said rear-wall so as to cover said outlet passages and said return passage, said valve member having a pair of valve ports adapted to register upon a proper movement of said valve member respectively and alternately with said pair of outlet passages and a direct return valve-port adapted to register upon a proper movement of said valve-member with said return passage, said valve-member being further provided in its registering or abutting face with a by-pass depression adapted to interconnect one of said outlet passages with said return passage when a valve-port is registered with the other outlet passage to provide for a return circulation through said valve mechanism, means for rotating said valve-member, comprising a spindle rotatably mounted in said cap-plate, means for connecting the inner end of said spindle with said valve-member, means connected with the outer end of said spindle for manipulatthg the same, and means for holding said valve-member in its abuttlng relation to said rear-wall of said valve-casing, comprising the provision of a cylindrical receiving socket in the inner face of said cap-plate, a holding collar slidably mounted on said spindle and fitting slidably within said receiving-socket, and the provision in said cap-pate of a duct for conveying fluid from said interior chamber into said receiving socket and in back of said holding collar.

5. In a valve-mechanism, a valve-casing providing a cylindrical interior chamber, a cap-plate for closing one end of said chamber, a rear-wall conected with said valve-casing closing the other end of said chamber, said vave-casing having an inlet passage, said rear wall having a series of outlet passages, a rotary valve member having ports, said valve-member abutting said rear-wall and being adapted to open and close said outlet passages, a spindle rotatably mounted in said cap-plate, means for connecting said spindle with said valve-member, and means for holding said valve member in its abutting relation to said rear wall comprising the provision in said cap-plate of a cylindrical receiving socket, a holding collar slidably fitted within said receiving-socket one end of said holding collar bearing against said valve-member, and the provision in said cap-plate of a duct for conveying fluid from said chamber into said receiving socket and in back of said holding collar.

[Claims 6 to 9 not printed in the Gazette.]

1,072,823. FERTILIZER-DISTRIBUTER. FELIX FURTEE CHERRY, Aurora, N. C. Filed Sept. 6, 1912. Serial No. 718,941. (Cl. 111—34.)

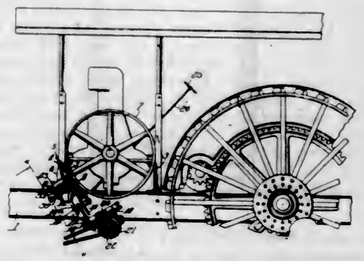
1. In a machine of the class described, the combination with a main frame, a hopper mounted upon said frame, means for discharging a fertilizing material from said hopper, a pivoted chute into which said material is adapted to fall, and two troughs pivotally connected to said chute, the lower ends of said troughs being adjustable to permit the material to be discharged in a single line or in two more or less separated lines.



2. In a machine of the class described, the combination with a main frame, a hopper mounted upon said frame, means for discharging a fertilizing material from said hopper, a chute pivotally connected to said frame and adapted to swing longitudinally of said machine, and troughs pivotally connected to said chute, the lower ends of said troughs being adjustable laterally to permit the material to be discharged in a single line or two more or less separated lines.

3. In a machine of the class described, the combination with a main frame, of a hopper mounted upon said frame, means for discharging a fertilizing material from said hopper, a chute pivotally connected to said frame and adapted to receive the discharged material, said chute being pivoted transversely of said machine, and troughs pivotally connected to said chute longitudinally of said machine, the lower ends of said troughs being adjustable laterally to permit the material to be discharged in a single line or in two more or less separated lines.

1,072,824. POWER STEERING-GEAR FOR TRACTION-ENGINES. HARRY C. CLAY, Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 26, 1912. Serial No. 738,736. (Cl. 21—114.)



1. A power steering-gear attachment for traction engines consisting of a main bracket adapted to be suitably connected to a traction engine, a disk-bracket pivotally mounted on the main bracket, a friction-disk journaled in said disk-bracket and provided with a friction face, a plunger carried by the disk-bracket and adapted to be brought into frictional contact with said disk, and a driving connection between said disk and the steering means of a traction engine.

2. A power steering-gear attachment for traction engines consisting of a main bracket adapted to be suitably connected to a traction engine, a disk-bracket pivotally mounted on the main bracket, a friction-disk journaled in said disk-bracket and provided with a friction face, means for swinging the disk-bracket on the main bracket, means for frictionally contacting said disk when the disk is in an operative position, and a driving connection between said disk and the steering means of a traction engine.

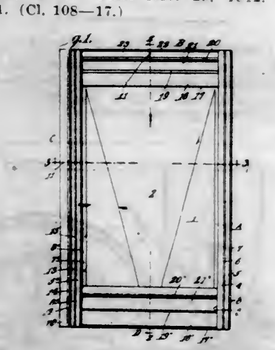
3. A power steering-gear attachment for traction engines consisting of a main bracket adapted to be suitably connected to a traction engine, a disk-bracket pivotally mounted on the main bracket, a friction-disk journaled in said disk-bracket and provided with a friction face, means for swinging the disk-bracket on the main bracket, means for frictionally contacting said disk when the disk is in an inoperative position, said last mentioned means being adapted to hold the disk-bracket in an inoperative position, and a driving connection between said disk and the steering means of a traction engine.

4. A power steering-gear attachment for traction engines consisting of a main bracket adapted to be suitably connected to a traction engine, a disk-bracket pivotally mounted on the main bracket, a friction-disk journaled in the disk-bracket and adapted to contact the engine pulley on either side of the pivot axis of said disk-bracket, and a plunger carried by the disk-bracket and adapted to frictionally contact said disk when the disk is not in frictional contact with the engine pulley.

5. A power steering-gear for traction engines comprising a friction-disk, means for supporting said disk adjacent the face of an engine-pulley with its axis substantially radial to said pulley, a plunger adapted to rest in frictional contact with said disk, means for swinging said disk in a plane substantially radial to the engine-pulley whereby the plunger will be withdrawn from contact with the disk and the disk will be brought into frictional contact with the face of the engine-pulley on either side of the axis of swing of the disk to rotate said disk in either direction, and a driving connection between the disk and steering mechanism of a traction engine.

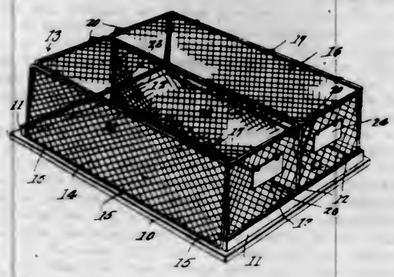
[Claims 6 to 9 not printed in the Gazette.]

1,072,825. METAL SHINGLE. HOWARD M. CLEMMER, Gastonia, N. C. Filed Nov. 25, 1912. Serial No. 733,491. (Cl. 108—17.)



A metallic shingle comprising an upper edge formed with an upturned end, a nailing flange connected thereto, a U-shaped bead connected to said nailing flange, a wide shallow bead spaced from said U-shaped bead with one wall thereof inclined, the lower edge of said shingle adapted to coact with the upper edge of a sub-adjacent shingle and comprises a wide shallow bead with an inclined wall, and a second bead of arcuated contour adapted to engage one side of the U-shaped bead and to receive therein the up turned end of the upper edge of the sub-adjacent shingle, and with a side edge comprising a flat nail receiving flange, a U-shaped bead spaced a distance therefrom and provided with an inwardly extending side wall, a polygonal bead with a reëntrant angle spaced a distance from said U-shaped bead, the other edge of said shingle provided with an inwardly turned end adapted to enter the reëntrant angle and coact with the side edge of the horizontally adjacent shingle, and an upstanding groove adapted to house therein the said U-shaped bead and polygonal bead, said groove provided with an inclined inner wall adapted to contact with the inclined side wall of the U-shaped bead, the said shingle adapted to be nailed to the roof sheathing along the upper and one side edge thereof and adapted to interlock with an adjacent shingle along a remote side edge.

1,072,826. KNOCKDOWN CRATE. TRUMAN COOKE, Louisville, Ky. Filed Nov. 25, 1912. Serial No. 733,432. (Cl. 217—47.)



1. A knockdown crate comprising a rectangular base, side walls hinged horizontally to the base along two opposite edges thereof, hinged top sections carried by said walls and forming the top of the crate, ledges on the base along the opposite edges thereof, and side walls hinged horizontally to the ledges beyond the ends of the first-mentioned side walls, each of the first-mentioned side walls and its hinged top section being foldable upon themselves and on the base, and the second-mentioned side walls being foldable upon said first-mentioned folded side walls and top sections, and a removable partition wall section which can be temporarily hinged to the free edge of one of the top sections by wire loops substantially as shown and described.

2. A knockdown crate comprising a rectangular base, side walls hinged horizontally to the base along two opposite edges thereof, hinged top sections carried by said walls and forming the top of the crate, ledges on the base along the other opposite edges thereof, and side walls hinged horizontally to the ledges beyond the ends of the first-mentioned side walls, each of the first-mentioned side walls being adjustable to extend at an acute angle to the base, and the top sections being adjustable to extend down from said walls to the base, to form separate compartments, and the second-mentioned side walls being adjustable to extend across the ends of the compartments to close the same.

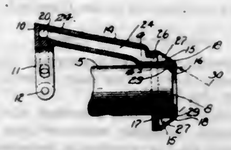
1,072,827. COMPOUND FOR IGNITING BLAST-FUSES. JAMES M. CORDRAY, Los Angeles, Cal. Filed Jan. 24, 1912. Serial No. 673,251. (Cl. 44—8.)

1. A fuse igniting compound including potassium nitrate, gum camphor, and kerosene.

2. A fuse igniting compound consisting of gum camphor, potassium nitrate, oil of sassafras, oil of eucalyptus, and kerosene.

3. A fuse igniting compound including a mixture of potassium nitrate, gum camphor, and a liquid hydrocarbon.

1,072,828. AIR-VEIL FOR GUN-SIGHTS. HENRY H. CUMMINGS, Newton, Mass. Filed Apr. 9, 1908. Serial No. 425,989. (Cl. 88—32.)



1. The combination of means to assist in sighting a gun, with means to direct an air current across said gun sighting means to inclose the same by an air veil.

2. The combination of a telescope with a frame associated therewith having conduits leading to a frusto-conical air passage, constructed on the dimensions of a cone having its apex in front of the objective end of the telescope.

3. The combination of a telescope with provision for conduits and an air passage constructed to deliver a current of air at the objective end of the telescope, and means to enlarge and restrict said passage.

4. The combination with a piece of ordnance, of a sighting telescope therefor, and means constructed to inclose the objective end of the telescope by a wind veil.

5. The combination with a piece of ordnance of a sighting telescope therefor, means to provide a conical wind veil inclosing the objective end of the telescope.

[Claim 6 not printed in the Gazette.]

1,072,829. WEB-CUTTING MACHINE. ARTHUR JAMES CUMNOCK, Rye, N. Y. Filed July 27, 1906. Serial No. 328,128. (Cl. 164—28.)



1. A web cutting machine comprising continuously operating means for feeding forward a tubular web, for folding the web to bring its selvages on the faces thereof and for cutting the web.

2. A web cutting machine comprising continuously operating means for feeding forward a tubular web, for folding the web to superpose its selvages and for cutting the web.

3. A web cutting machine comprising continuously operating means for feeding forward a tubular web, for folding the web to bring its selvages on the faces thereof and for cutting both plies of the web simultaneously.

4. A web cutting machine comprising continuously operating means for feeding forward a tubular web, for folding the web to superpose its selvages and for cutting both plies of the web simultaneously.

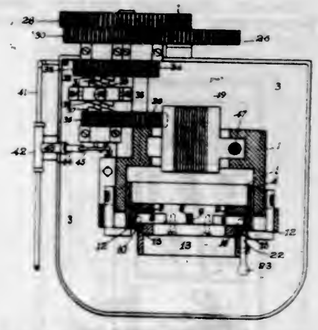
5. A web cutting machine comprising continuously operating means for feeding forward a tubular web, for folding the web to bring its selvages on the faces thereof, for maintaining lateral tension on the folded web, and for cutting the web.

[Claims 6 to 42 not printed in the Gazette.]

1,072,830. PIPE-THREADING MACHINE. LEWIS B. CURTIS, Bridgeport, Conn. Filed May 29, 1912. Serial No. 700,384. (Cl. 10—96.)

1. In a pipe threading machine, a die holder, a support within which said holder is movable rotatably and axially, means for providing such movements, a cam ring extending within the planes of the holder, and an annular chip shedder secured to the holder and movable therewith, said shedder having an annular shoulder adapted to overhang and retain said cam ring in position.

2. In a pipe threading machine, a die holder, a support within which said holder is movable rotatably and axially, means for providing such movements, a cam ring extending within the planes of the holder, and an annular chip shedder having an annular shoulder adapted to overhang and retain said cam ring in position, said shedder having an axial length to project from said support throughout the movements of the holder.

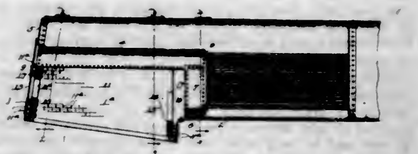


3. In a pipe threading machine, a die holder, a support within which said holder is movable rotatably and axially, means for providing such movements, a cam ring extending within the planes of the holder, and an annular chip shedder secured to the holder and movable therewith, said shedder having an annular shoulder adapted to overhang and retain said cam ring in position, said holder having an annular flange forming a wall encircling the periphery of the cam ring.

4. In a pipe threading machine, a die holder, a support within which said holder is movable rotatably and axially, means for providing such movements, a cam ring extending within the planes of the holder, and an annular chip shedder secured to the holder and movable therewith, said shedder having an annular shoulder adapted to overhang and retain said cam ring in position, the shedder annulus having a cam member pivoted to its periphery and adapted to coöperate with the exposed portion of the cam ring face to clamp the ring in adjusted position.

5. In a pipe threading machine, a die holder, a support within which said holder is movable rotatably and axially, means for providing such movements, a cam ring extending within the planes of the holder, and an annular chip shedder secured to the holder and movable therewith, said shedder having an annular shoulder adapted to overhang and retain said cam ring in position, the shedder annulus having a cam member pivoted to its periphery and adapted to coöperate with the exposed portion of the cam ring face to clamp the ring in adjusted position, said cam member having its pivot extending in a direction transverse to the axis of the cam ring.

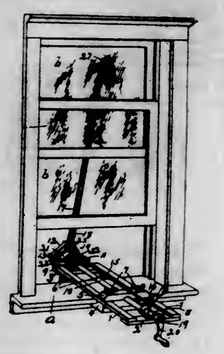
1,072,831. STEAM-BOILER. JAMES R. CUSHING, deceased, Columbus, Ohio, by Mary K. Cushing, administratrix, Columbus, Ohio. Filed Nov. 8, 1912. Serial No. 730,251. (Cl. 122—58.)



1. A boiler comprising a casing, a crown sheet secured thereto, a tube sheet connected to the crown sheet, a waist, and an auxiliary sheet extending rearwardly of the tube sheet and connected thereto and to the waist.

2. A boiler comprising a casing, a crown sheet secured therein, a tube sheet connected to the crown sheet, a waist, and an auxiliary piece riveted to the crown sheet and to the tube sheet and connected to the waist, said auxiliary sheet forming a continuation of the crown sheet at the point of juncture with the tube sheet.

1,072,832. WINDOW-CLEANING DEVICE. EDWIN U. DAINES, Detroit, Mich. Filed May 5, 1913. Serial No. 765,450. (Cl. 15—59.)

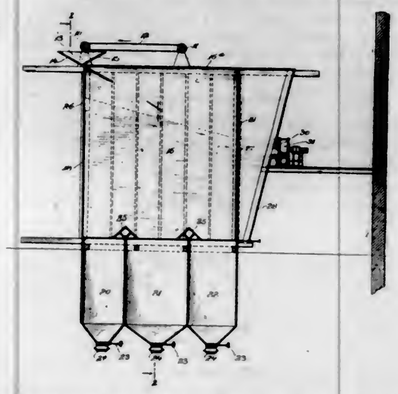


1. A device for cleaning windows, comprising a supporting frame, means for detachably securing said frame to the window sill, a sleeve journaled in bearings on said frame, a cross-head pivotally mounted on said sleeve and having a parallel way formed therein, a staff movably carried in said way, a lever pivoted to said sleeve, a rod pivotally connecting said lever to said cross-head, a shaft journaled in said sleeve, a pulley journaled on said cross-head and having a flexible connection with said shaft, means for connecting said pulley with said staff, and means for rotating said shaft to impart a reciprocating motion to said staff.

2. A device for cleaning windows comprising a supporting frame, clamping members for detachably securing said frame to a window sill, a sleeve journaled in bearings on said frame, a yoke carried on said sleeve, a cross-head pivoted to said yoke and having a parallel way formed diametrically therein, a staff mounted to slide in said way, a lever pivoted to said sleeve, a connecting rod pivotally attached at one end to said lever and at its opposite end to said cross-head, a shaft journaled in said sleeve, a pulley journaled in said cross-head and having a flexible connection with said shaft, a cable rove about said pulley and having its opposite ends attached to opposite ends of said staff, a crank attached to said shaft for rotating said shaft and pulley to raise and lower said staff, a cleaning member detachably mounted on said staff.

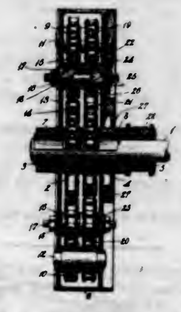
3. A device for cleaning windows consisting of a rectangular supporting frame composed of parallel side members and having cross members attached to the ends thereof, depending brackets attached to the ends of said side members, clamping cleats engaging the opposite faces of said side members, means for drawing said cleats into fixed contact with said members, journal bearings mounted on said frame, a sleeve journaled in said bearings, a yoke carried on one end of said sleeve, a cross-head pivoted to said yoke and having a parallel way formed diametrically therein, a staff slidingly mounted in said way, a lever pivoted to said sleeve, a connecting rod pivotally attached at one end to said lever and at its opposite end to said cross-head, a shaft journaled in and extending through said sleeve, a pulley journaled in said cross-head, a universal coupling connecting said pulley with said shaft, a cable rove about said pulley and passing through guideways in said cross-head, the opposite ends of said cable being attached to opposite ends of said staff, a crank attached to said shaft for rotating said shaft and pulley to impart a reciprocating motion to said staff, and a cleaning member flexibly and detachably mounted on said staff.

1,072,833. APPARATUS FOR SEPARATING FINE COAL AND THE WASTE MATERIALS THEREOF. GEORGE BERNHARDT DAMON, Glenside, Pa., assignor, by mesne assignments, to Lehigh Coal & Navigation Co. Filed Aug. 8, 1908. Serial No. 447,630. (Cl. 83—54.)



An apparatus for separating fine coal and the waste materials thereof, including the combination of a closed chamber having substantially parallel side walls, said chamber being longer than its width, means for causing the materials to fall in a substantially uniform stream near one of the end walls of such chamber, said wall having an opening therein near the top of said stream, the opposite end wall having a larger opening at a lower level, means for exhausting air through said last mentioned opening, and bins forming the bottom of said chamber, said bins being separated by walls transverse to the length of said chamber.

1,072,834. TRANSMISSION MECHANISM. HENRY DEVLIN, Bay City, Mich., assignor to The M. Garland Company, Bay City, Mich., a Corporation of Michigan. Filed Sept. 25, 1912. Serial No. 722,219. (Cl. 74—34.)



1. In speed reduction mechanism, a bearing, a shaft journaled therein, a main sprocket wheel secured on the shaft, a sprocket wheel journaled on the shaft and held by the bearing from rotating, a cylindrical casing journaled on the shaft as a housing for the wheels, a pair of planetary sprocket wheels journaled in the casing in diametrically opposite relation and each provided with a pair of members each in the plane of rotation of a sprocket, endless chains each passing around the corresponding members of the planetary pinions and engaging a sprocket and diametrically opposite idlers on the casing for holding the chains in operative relation to the sprockets.

2. In speed reduction mechanism, a bearing, a shaft journaled therein, a main sprocket wheel secured on the shaft, a sprocket wheel journaled on the shaft adjacent the main sprocket wheel and held by the bearing from rotating, a cylindrical casing rotatably secured on the shaft as a housing for the sprocket wheels, a pair of planetary sprocket wheels journaled in the casing in diametrically opposite relation and each provided with a pair of members each lying in the plane of rotation of a sprocket wheel, endless chains each passing around corresponding members of the planetary sprockets, and engaging the companion sprocket wheel, diametrically opposite idler sprockets journaled on the casing, and means for shifting the idlers into engagement with the chains.

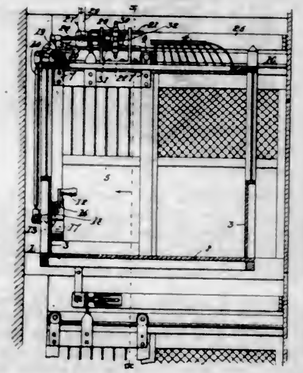
3. In speed reduction mechanism, a bearing, a shaft journaled therein, a main sprocket wheel secured on the shaft, a sprocket wheel journaled on the shaft adjacent the main wheel and held by the bearing from rotating, the wheels provided with outwardly extending hubs, a cylindrical casing journaled on the hubs as a housing for the wheels, a pair of planetary sprocket wheels journaled in the casing in diametrically opposite relation and each provided with a pair of members each lying in a plane of rotation of a sprocket wheel, endless sprocket chains each passing around corresponding members of the planetary wheels and engaging the companion sprocket wheel and a pair of diametrically opposite idlers for each chain adjustably mounted on the casing for holding the chains in engagement with the companion sprocket wheels.

4. In speed reduction mechanism, a bearing, a shaft journaled therein, a main sprocket wheel secured on the shaft, a sprocket wheel journaled on the shaft adjacent the main wheel and held by the bearing from rotation, the wheels provided with outwardly extending hubs, a cylindrical casing journaled on the hubs as a housing for the wheels, a pair of planetary sprocket wheels journaled in the casing in diametrically opposite relation and each provided with a pair of members each lying in a plane of rotation of a sprocket wheel, endless sprocket chains each passing around corresponding members of the planetary wheels and engaging the companion sprocket wheel, a pair a bearing studs eccentrically adjustable in the casing in diametrically opposite relation, a pair of idlers journaled on the studs and engaging one of the chains, a pair of bearing studs eccentrically adjustable in the casing in axial alinement with the other studs, steady pins holding the adjacent studs in axial alinement, and idlers on the latter studs engaging and holding the companion chain in operative relation to the companion sprocket wheel.

1,072,835. SAFETY APPLIANCE FOR ELEVATORS. EDMUND DIDIER, Baltimore, Md., assignor to The Universal Safety Elevator Locking Device Co., a Corporation of Maryland. Filed Jan. 29, 1913. Serial No. 744,803. (Cl. 187—49.)

1. An elevator shaft having a sliding door provided with a projecting locking bar, a horizontally extending plate situated above the door, hinged at one end to the side wall of the elevator shaft, and having an inclined surface thereon over which the locking bar is adapted to slide as the door is opened, and an interfering spring-held tumbler normally in the path of the locking bar, combined with a cage, a controller in the cage, and a tripper which receives its motion from the controller, adapted to coöperate with the tumbler whereby when the cage comes to a stand, the sliding door can be opened, and at the same time the controller is locked and rendered inoperative until the sliding door is closed.

2. An elevator shaft having a sliding door provided with a projecting locking bar, a horizontally extending plate situated above the door, hinged at one end to the side wall of the elevator shaft, and having an inclined surface thereon over which the locking bar is adapted to slide as the door is opened, and a spring-held tumbler, combined with a cage, a controller in the cage, and a tripper on the cage which receives its motion from the controller and is adapted to coöperate with the tumbler whereby when the cage comes to a stand, the sliding door can be opened, and at the same time the controller is locked.



3. An elevator shaft having a sliding door provided with a projecting locking bar, a vibratory plate which extends transversely of the shaft, situated in a position above the door and hinged at one end to the side wall of the elevator shaft, the said plate having an inclined surface over which the said locking bar is adapted to slide and thereby move the plate in the opening of the door, and locking devices to engage the said bar and so prevent its movement longitudinally of the inclined surface of the plate, combined with a cage, a controller in the cage, and mechanism operated by the controller when the cage is brought to a stand to coöperate with the locking device to release the sliding door, and at the same time lock the controller until the sliding door is again closed.

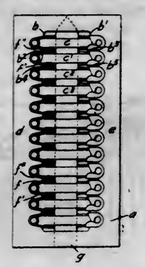
4. An elevator shaft having a sliding door provided with a projecting locking bar, and a vibratory plate situated transversely of the shaft and above the door, the said plate having an apertured surface which is inclined with respect to the plate, a slotted bracket carried by the plate, and a spring held tumbler pivoted within the bracket with one end thereof protruding through the aperture in the inclined surface of the plate and normally in contact with the locking bar, and the other end opposite the slots in the bracket, combined with a cage containing a controller, a tripper situated on the roof of the cage, having a sliding movement derived from the controller, adapted when the controller is in an inoperative position to enter the slots in the bracket and coöperate with the tumbler to release the door as the vibratory plate is moved toward the cage, and at the same time lock the controller.

1,072,836. CARDING ARTICLES OF MERCHANDISE. NATHAN M. DOEN, Swampscott, Mass. Filed Oct. 26, 1912. Serial No. 727,938. (Cl. 211—34.)

1. A mount for safety pins having parallel straight slits, the slits being spaced apart a distance to permit the pins to lie flat therein for storing, and a slidable locking member between the mount and the part of the pins projecting through the slits for holding the pins in the slits, whereby the pins can be removed from the card.

2. A mount for safety pins having parallel straight slits through which the shanks of the pins are inserted, and a locking member of severable material between the

mount and the part of the pins projecting through the slits for holding the pins in the slits, whereby a pin may be removed by tearing the locking member.

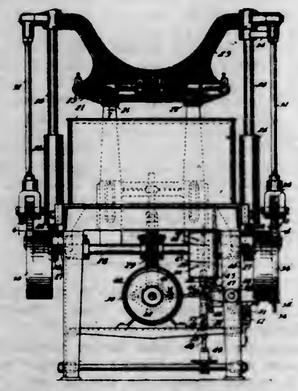


3. A mount for safety pins having parallel straight slits, closed safety pins arranged on the mount with adjacent members of adjacent pins in the same slit, and a locking member engaging between the back of the mount and the members of all the pins projecting through the slit.

4. The method of carding safety pins or similar devices in closed loop form consisting in the following steps; closing the pins to form a loop, inserting the shanks in a slitted flexible card or support, bowing the card to provide an arched open space between the shanks and card, and threading a locking strip through the arched space.

5. The method of carding safety pins or similar devices in closed loop form consisting in the following steps: closing the pins to form a loop, inserting their shanks in a slitted flexible card or support, mounting the card in a suitable holder in such manner as to bow the card to provide an arched open space between the shanks and card, threading a locking strip through the arched space thus provided, and lastly removing the card from the holder in order to cause said card to lie flat and lock the pins thereto.

1,072,837. ELECTRICALLY-DRIVEN CAN-TESTER. CHARLES DOWNING, Chicago, Ill., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 29, 1911. Serial No. 617,568. (Cl. 73—51.)



1. In a can tester, in combination, a tank adapted to hold a liquid, a can carriage movable into and out of the tank, electrically controlled devices for operating said can carriage, said devices having included therein a reversing switch having three positions, namely, forward, neutral and reverse, and means for operating said switch governed by the position of the can carriage.

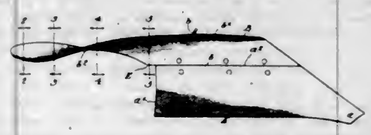
2. In a can tester, in combination, a tank adapted to contain a liquid, a can carriage movable into and out of said tank, an electric motor adapted to move the can carriage, said motor being provided with electrical circuits having included therein a switch provided with three positions, whereby the motor may be made to rotate forwardly, remain stationary or be reversed, said switch being in the form of a balanced stem having two contact members thereon adapted to contact with two sets of oppositely connected terminals.

3. The can tester comprising an up and down moving can-carrier combined with an electric motor and a three position electric switch, a lever connected to the switch by a slotted connection for setting the switch in the down position and an automatic trip device on the moving carrier for reversing the position of the switch at the finish of the downward movement, substantially as specified.

4. The can tester comprising an up and down moving can-carrier combined with an electric motor and a three position electric switch, a lever connected to the switch by a slotted connection for setting the switch in the down position and an automatic trip device on the moving carrier for reversing the position of the switch at the finish of the downward movement, and a second trip device on said carrier for throwing the switch to the neutral position at the finish of the upward movement, substantially as specified.

5. A can tester including, in combination, a tank; a movable can carrier for immersing the cans in a liquid contained in said tank; a pivotally mounted lever having a counterbalance weight on one end thereof; a pitman pivotally connected to the opposite end of said lever and to said carriage; and worm and worm gear mechanism for operating said lever and carrier, substantially as specified.

1,072,838. PLOW. FRANK J. DOWNING, Rock Island, Ill., assignor to Rock Island Plow Company, Rock Island, Ill., a Corporation of Illinois. Filed Dec. 18, 1909, Serial No. 533,883. Renewed Feb. 5, 1913. Serial No. 746,422. (Cl. 97—18.)



1. In a plow, a mold board and a share adapted to be attached thereto, said mold board at the forward part of its lower free edge extending downwardly and rearwardly and then upwardly, said lower portion being concave on the face to prevent loose soil from falling back into the furrow and a twist back of said lower curved portion at the rear of the mold board whereby the rear portion of the mold board faces downward to turn the soil over and break it up.

2. In a plow, a mold board and a share adapted to be attached thereto, said mold board at the forward part of its lower free edge extending rearwardly at substantially the same inclination as its line of attachment to the share, and then upwardly and inwardly toward the land side, said lower portion being concave on the face to prevent loose soil from falling back into the furrow, and a twist back of said lower curved portion at the rear of the mold board, whereby the rear portion of the mold board faces downward to turn the soil over and break it up.

3. In a plow, a mold board and a share adapted to be attached thereto, said mold board at the forward part of its lower free edge extending rearwardly at substantially the same inclination as its line of attachment to the share and then upwardly and inwardly toward the land side, said lower portion being concave on the face to prevent loose soil from falling back into the furrow.

1,072,839. SASH-FASTENER. BENJAMIN G. DUNBAR, Sandoval, Ill. Filed May 21, 1913. Serial No. 768,989. (Cl. 16—19.)



In combination with a window-frame and sash therefor, a pocket being formed in the sash opposite the frame, a serrated cam or dog mounted pivotally in said pocket and oscillatable toward the frame to cause the teeth thereof to grip the surface of the frame, a spring mounted between the dog and inner wall of the pocket and provided with arms respectively engaging the inner wall of the dog and the opposite wall of the pocket, a link having one end pivotally secured to the dog at a point removed from the hinge axis of the latter, a cover plate for the pocket provided with a slot terminating in a lateral recess at the end farthest from the window-frame, an outwardly bent terminal being formed on the link at the opposite end thereof for engaging said recess and for traversing the slot, the parts operating substantially as set forth.

1,072,840. PRODUCTION OF AMMONIUM SULFATE. THOMAS HILL EASTERFIELD, Wellington, New Zealand. Filed Jan. 2, 1913. Serial No. 739,836. (Cl. 23—21.)

1. The herein described process of obtaining ammonia from gases which comprise reacting upon ammoniacal liquor containing ammonium carbonate with calcium sulfate; separating the precipitated calcium carbonate from the solution of ammonium sulfate formed, and thereafter washing gases containing ammonia and carbon dioxid with said solution of ammonium sulfate.

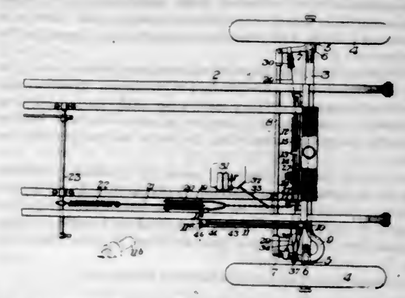
2. The herein described process of making ammonium sulfate which comprises reacting upon ammoniacal liquor containing ammonium carbonate with calcium sulfate; separating the precipitated calcium carbonate from the solution of ammonium sulfate formed, and thereafter washing gases containing ammonia and carbon dioxid with said solution of ammonium sulfate, and thereafter alternately treating said liquor with calcium sulfate and with gases containing ammonia and carbon dioxid, and separating ammonium sulfate from the liquor after the step of treating the same with calcium sulfate.

3. In the process of obtaining solutions of ammonium sulfate from gases containing ammonia and carbon dioxid, the improvement which comprises treating the same body of liquor alternately with calcium sulfate and said gases.

1,072,841. AUTOMATIC SAFETY-BRAKE FOR AUTOMOBILES. LEE G. EGGERS, Mount Lebanon, Pa., assignor to Zeffie M. Eggers, Mount Lebanon, Pa. Filed Aug. 26, 1912. Serial No. 717,030. (Cl. 21—9.)

1. In a brake device for automobiles having steering gear, comprising brake setting mechanism, a retainer for said mechanism, a fracturable member connected to the retainer and the steering gear, and means for actuating the brake setting mechanism when the fracturable member breaks; substantially as described.

2. An automobile brake device for automobiles or the like having steering gear, comprising brake setting mechanism, means for actuating the brake setting mechanism, a retainer for the brake setting mechanism, and means for releasing said retainer by the breaking of the steering gear; substantially as described.



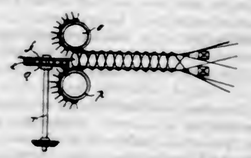
3. An automatic brake device for automobiles or the like having steering gear, comprising brake setting mechanism normally under tension, and means for releasing said mechanism when the steering gear becomes disarranged; substantially as described.

4. An automatic brake device for automobiles or the like having steering gear, comprising brake setting mechanism, a spring for setting said mechanism, a retainer for the brake setting mechanism, means for actuating said retainer to release the brake setting mechanism, means connected to the retainer and steering gear for holding the retainer in its set position, said holding means being arranged to release the retainer when the steering gear becomes disarranged; substantially as described.

5. An automatic brake applying device for automobiles having steering gear, said device being normally under tension, and connections between said device and the steering gear for releasing the brake applying device to permit it to apply the brake; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,072,842. MECHANISM FOR CUTTING PILE LOOPS IN THE MANUFACTURE OF COARSE PILE FABRICS. ERNEST JAMES ENTWISLE, London, England. Filed Oct. 17, 1912. Serial No. 726,218. (Cl. 139—28.)



1. Mechanism for cutting the pile loops of coarse pile fabrics; comprising in combination a chain adapted to be traversed adjacent to and in the direction of a row of pile loops to be cut, a series of knives carried by said chain, traversing means operative on said chain and means operative on said chain and adapted to intermittently move the chain toward and away from the pile loops substantially as set forth.

2. Mechanism for cutting the pile loops of coarse pile fabrics; comprising in combination a chain adapted to be traversed adjacent to and in the direction of a row of pile loops to be cut, a series of knives carried by said chain, a sprocket wheel supporting said chain at one end of the traverse, a second sprocket wheel supporting said chain at the other end of the traverse and mechanism for moving one of said sprocket wheels toward and away from the pile loops to be cut substantially as set forth.

3. Mechanism for cutting the pile loops of coarse pile fabrics; comprising in combination a chain adapted to be traversed adjacent to and in the direction of a row of pile loops to be cut, a sprocket wheel supporting said chain at

one end of the traverse, a second sprocket wheel supporting said chain at the other end of said traverse, an eccentric support for the axle of one of said sprockets and mechanism operatively connected with said eccentric to effect the oscillation of said eccentric for causing said chain to be advanced toward and retracted from the pile loops for the purpose set forth.

4. Cutter for pile loops of coarse pile fabrics; comprising in combination an endless chain, knives fixed to said chain at intervals, driving means for said chain, and a reciprocatory mechanism operative to move the said endless chain in the plane containing the same for the purpose set forth.

5. Cutter for pile loops of coarse pile fabrics; comprising in combination an endless chain, knives fixed to said chain at intervals, driving means for said chain, a bar arranged to support one of the flights of said endless chain, and mechanism operative upon said bar to rock the latter for the purpose set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,072,843. CUSHION-CLEANING MACHINE. JOHN A. FRITSCH, Pittsburgh, Pa. Filed Jan. 11, 1913. Serial No. 741,484. (Cl. 15—8.)



1. A cleaning machine comprising a supporting frame, a plurality of rotatable brushes mounted thereon having driving mechanism, a series of supporting rollers adapted to support the article being treated as it is passed over said brushes, a vertically adjustable supporting frame for said rollers, and a supplemental rotatable brush adjustably mounted above and between said brushes, substantially as set forth.

2. The combination of a supporting frame, rotatable brushes mounted transversely thereof, supporting rollers arranged substantially in alinement with the upper portion of said brushes for longitudinal and swinging movement, a supplemental rotatable brush adjustably mounted above and between said brushes, and means for driving all of said brushes, substantially as set forth.

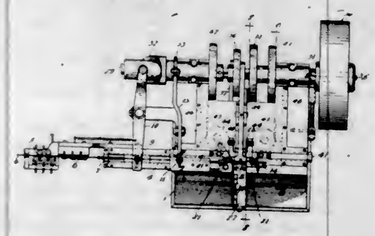
3. The combination of a main supporting frame, rotatable brushes mounted transversely thereof, supporting rollers, an adjustable supporting frame therefor, a pivoted frame carrying a rotatable brush, and means for actuating the brushes, substantially as set forth.

4. The combination of a main supporting frame, rotatable brushes mounted transversely thereof, supporting rollers, an adjustable supporting frame therefor, means for actuating the brushes, and a supplemental rotatable brush mounted transversely across the upper part of the machine and having a hinged supporting bracket, substantially as set forth.

5. The combination of a main supporting frame work, rotatable brushes mounted transversely thereof, supporting rollers arranged transversely of the machine and in substantial alinement with the upper portion of said brushes, a longitudinally movable adjustable rotatable brush having a bearing hinged to said frame, and means for driving all of said brushes, substantially as set forth.

1,072,844. PIPE-BAND WIRE-LOOPING MACHINE. CHARLES P. FUHRMANN, Erie, Pa., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 20, 1911. Serial No. 609,561. (Cl. 140—71.)

1. In a machine for forming and attaching wire loops to sheet metal pipe band-strips, the combination of a wire feeder, with a band-strip supporting and wire-loop forming horn, cutters for severing the wire, a movable wire-loop former coöperating with said horn, wire-loop folders to fold the end portions of the wireloop around the horn and clamp the band-strip against the horn, a movable band-strip bender to turn the projecting end of the band-strip at an angle, and a band-strip folding and closing die to fold and close the bent end of the band-strip flat against the band-strip and the portion of the wire loop embraced thereby, substantially as specified.



2. In a machine of the class described, in combination, a supporting and forming horn adapted to support a wire-band, means for feeding the wire to a position adjacent the horn, wire cutters, a wire-loop former coöperating with said horn, folders for completing the wire-loop, a band strip bender, and a folder for completing the bend of the band strip.

3. In a machine of the class described, in combination: mechanism for bending a wire to form the same into a loop; movable folders adjacent said bending mechanism adapted to complete the formation of the wire loop and operating after said bending mechanism; a band-strip bender adjacent said bending mechanism and operating to bend the end of a band around a portion of the wire loop after the latter is formed; and a folder for completing the bend of the band-strip, substantially as specified.

4. In a machine of the class described, in combination, a wire-loop former, mechanism coöperating with said former for bending said wire to form a loop therein, folders coöperating with said former for completing the wire-loop, a band-strip bender, a folder for completing the bend of the band-strip and operating after the bender, and wire cutters adapted to cut the wire into lengths, substantially as specified.

5. In a machine of the class described, in combination, wire feeding means, wire cutting means, a wire-loop forming device, movable folders coöperating with said device for completing the wire-loop after the same has been partially formed, a band-strip bender operating to bend the end of a band around a portion of the wire loop and a folder operating after the bender for completing the bend of the band-strip, substantially as specified.

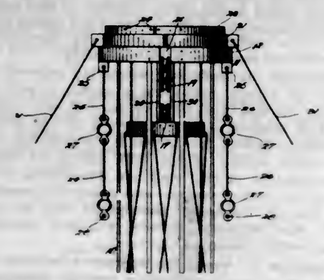
[Claims 6 to 9 not printed in the Gazette.]

1,072,845. SPAR-CAP. EDWIN A. GASKILL and JOSEPH FRANKLIN GASKILL, Laneville, W. Va. Original application filed Mar. 25, 1912, Serial No. 686,183. Divided and this application filed June 13, 1912. Serial No. 703,506. (Cl. 57—129.)

1. A spar cap for tubular spars comprising a top plate provided with a depending centrally disposed forked portion and an upwardly extending guy ring receiving element, a guy ring and a sheave journaled within said depending forked portion said sheave being adapted to be contained wholly within the tubular spar.

2. A spar cap comprising an inverted generally dish-shaped plate, centrally disposed spaced plates depending from the first mentioned plate and a sheave journaled between said spaced plates.

3. A spar cap comprising an inverted generally dish-shaped plate, centrally disposed spaced plates arranged in parallelism depending from the first mentioned plate each of said spaced plates terminating in a horizontally disposed foot portion and a sheave journaled between said spaced plates.

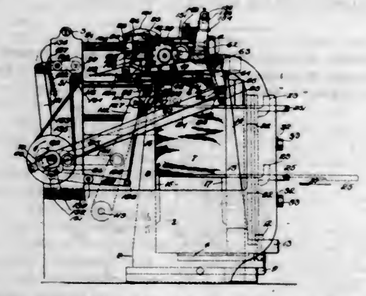


4. A spar cap comprising an inverted generally dish-shaped plate provided with a guy ring receiving ledge, a guy ring, a split ring for retaining said guy ring in position upon said ledge, centrally disposed spaced plates arranged in parallelism depending from the first mentioned plate each spaced plate terminating in a horizontally disposed foot portion having a curved outer face and a sheave journaled between said spaced plates.

5. A spar cap the top portion of which has depending therefrom a series of short chain sections, ropes or the like, ring-like mediums being present between adjacent sections of chains, ropes or the like.

[Claims 6 to 8 not printed in the Gazette.]

1,072,846. SHEET-FEEDING MECHANISM. JAMES F. GOODRIDGE, New York, N. Y. Filed Oct. 21, 1905. Serial No. 283,739. (Cl. 101—39.)



1. A sheet-feeding mechanism, comprising means for supporting a stack of sheets, and feeding mechanism supported at one side of and overhanging said stack, the machine affording a free and unobstructed space at the rear and side of said overhanging feeding mechanism for permitting free feeding movement of sheets of varying sizes, said feeding mechanism including a comber for offsetting the outer end sheets, clamping means for engaging and picking up the outermost sheet, and a feed plate provided with means for engaging and positively feeding forward said picked-up sheet.

2. A sheet-feeding mechanism, comprising means for supporting a stack of sheets, and feeding mechanism supported at one side of and overhanging said stack, including a comber for offsetting the outer end sheets, clamping means for engaging and picking up the outermost sheet, a feed plate provided with means for engaging and positively feeding forward said picked-up sheet, and a tapper for restoring the stack to normal position after the feeding operation.

3. A sheet-feeding mechanism, comprising means for supporting a stack of sheets, an automatic comber for offsetting the end sheet, means for picking up and separating the outermost sheet, means for removing said outermost sheet, and means for restoring the remaining offset sheets to normal position after each separating movement.

4. In a sheet-feeding mechanism, a stationary overhanging support, supported at one side of a stack of sheets in position to overhang said stack, feeding mechanism carried by said overhanging support in position to leave an unrestricted space on all but the one supported side, for said stack of sheets to extend horizontally freely, substantially without limit in three directions, said feeding mechanism including a projecting presser arm extending from the overhanging portion of said support to engage the top side of a sheet, and coöperating means to engage the under side of the sheet in opposition to said presser arm.

5. In a sheet-feeding mechanism, means for supporting a stack of sheets, a yielding pick-up finger for engaging and lifting the front edge of the end sheet, means coöperating with said finger for grasping said sheet immovably, means for entering beneath said sheet and engaging the same, and means for releasing said pick-up finger from said sheet when so engaged.

[Claims 6 to 11 not printed in the Gazette.]

1,072,847. BUFFER. DAVID D. GORDON, Chicago, Ill., assignor of one-half to Reliable Electric Company, Chicago, Ill., a Corporation of Illinois. Filed June 28, 1910. Serial No. 569,264. (Cl. 172—36.)



1. A portable device of the character described comprising a motor having a laminated field structure and an armature, bolts to lock the laminations together, end plates forming part of a motor casing carried by said bolts, bearings in said end plates to support said armature, side walls to complete said casing carried by said end plates, a handle mounted upon one end plate aforesaid, an insulating bridge-carried by said end plate, brushes carried by said bridge, terminals carried by said bridge, and flexible connections for said terminals leading out through said handle.

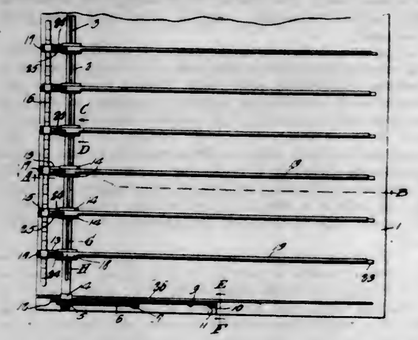
2. A portable device of the character described comprising a motor having a laminated field structure and an armature, bolts to lock the laminations together, end plates forming part of a motor casing carried by said bolts, bearings in said end plates to support said armature, side walls to complete said casing carried by said end plates, a handle mounted upon one end plate aforesaid, an insulating bridge carried by said end plate, brushes carried by said bridge, means carried by said bridge adapted to thrust said brushes longitudinally of said handle, terminals carried by said bridge, and flexible connections for said terminals leading out through said handle.

1,072,848. CANDY-CUTTING MACHINE. WESLEY H. HALL and FRED A. DUPEA, Tacoma, Wash. Filed Dec. 20, 1912. Serial No. 737,910. (Cl. 107—21.)

1. A plurality of units each including a stationary knife and a movable knife, an actuating element for moving all of the movable knives in unison, a gage, and means carried by all of the units for adjustably engaging said gage.

2. A plurality of units each including a bracket, a stationary knife extending from the bracket, a movable knife carried by the bracket and coöperating with the stationary knife, yielding means for holding the movable knife nor-

mally spaced from the stationary knife, means common to all of the units for actuating the movable knives in unison toward the stationary knives, and graduated means for adjustably connecting the units.

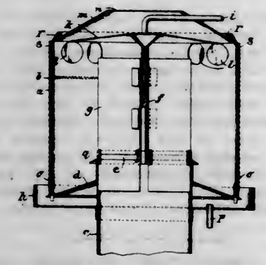


3. The combination with a table, an actuating shaft, and a gage rod parallel with the shaft, of brackets supported on the table and connected to and separately adjustable longitudinally of the gage rod, said shaft being journaled within the brackets, stationary knives extending from the brackets and bearing on the table, and movable knives feathered on the shaft and adjustable with the brackets.

4. The combination with a table, a revoluble shaft, and a gage rod, of brackets slidable upon the shaft and gage rod, means coöperating with the gage rod for holding the brackets against movement relative to each other, stationary blades extending from the brackets and bearing on the table, and movable blades feathered on the shaft and adjustable with the brackets.

5. The combination with a shaft and a gage rod, of brackets separately adjustable along the shaft and gage rod, means coöperating with the gage rod for holding the brackets against relative movement, a stationary blade extending from each bracket, and a movable blade extending from each bracket and feathered upon the shaft.

1,072,849. APPARATUS FOR PRODUCING INTERACTION BETWEEN LIQUIDS AND GASES OR VAPORS. JOHN ALSTON HART, Blackburn, England. Filed Dec. 4, 1911. Serial No. 663,915. (Cl. 62—22.)



1. Apparatus for producing interaction between liquids and gases or vapors, comprising a casing, a wall curved in general contour and forming part of said casing, a plurality of comparatively small ports in said wall, said ports being directed approximately tangentially to the concave inner surface of the wall, means for feeding liquid to the region adjacent to said wall, and means for causing gas to flow through the casing entering by way of the tangentially directed ports, whereby whirling currents are produced inside the casing.

2. Apparatus for producing interaction between liquids and gases or vapors comprising a circular casing, a plurality of comparatively small ports in the curved wall of said casing, said ports being directed approximately tangentially to the concave inner surface of the wall, means for feeding liquid to the region adjacent to said wall, and means for causing gas to flow through the casing entering by way of the tangentially directed ports, whereby whirling currents are produced inside the casing.

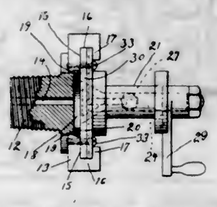
3. Apparatus for producing interaction between liquids and gases or vapors, comprising a casing, a wall curved in general contour and forming part of said casing, a plurality of comparatively small ports in said wall, said ports being directed approximately tangentially to the concave inner surface of the wall, means for supplying liquid to one end of said wall and distributing it therefrom over the curved surface, and means for causing gas to flow through the casing entering by way of the tangentially directed ports, whereby whirling currents are produced inside the casing.

4. Apparatus for producing interaction between liquids and gases or vapors comprising a circular casing, a plurality of comparatively small ports in the curved wall of said casing, said ports being directed approximately tangentially to the concave inner surface of the wall, means for supplying liquid to one end of said wall and distributing it therefrom over the curved surface, and means for causing gas to flow through the casing entering by way of the tangentially directed ports, whereby whirling currents are produced inside the casing.

5. Apparatus for producing interaction between liquids and gases or vapors, comprising a casing, a wall curved in general contour and forming part of said casing, a plurality of comparatively small ports in said wall, said ports being directed approximately tangentially to the concave inner surface of the wall, means for feeding liquid to the region adjacent to said wall, means for causing gas to flow into the casing by way of the tangentially directed ports, whereby whirling currents are produced inside the casing, and means for withdrawing the gas from the casing at a part remote from the curved wall.

[Claims 6 to 50 not printed in the Gazette.]

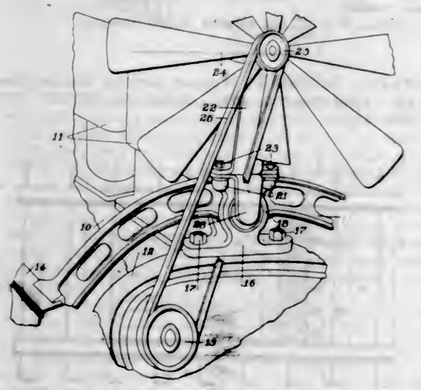
1,072,850. STEAM-BOILER GAGE-COCK. HERBERT W. HOOVER, Bayonne, N. J. Filed Dec. 31, 1912. Serial No. 739,448. (Cl. 136—3.)



1. A device of the class described comprising a base member adapted to be engaged in a boiler or the like and having a channel thereacross having inwardly projecting flanges at the sides, a circular recess centrally of the channel and spaced from the ends of the base, a seat surface around the recess finished to an accurate plane surface, a steam passage opening from the recess through the base for communication with the interior of a boiler, and a cock member including a base portion adapted to fit snugly in the channel and under the flanges, the ends of the base portion being shaped for interlocking engagement with the ends of a similarly formed member.

2. A device of the class described comprising a base member adapted to be engaged in a boiler, having a transversely channeled portion adapted to set without the boiler, the channeled portion having overhanging sides, in combination with a cock base having sides adapted for snug engagement slidably in the channeled base, the channeled base and cock base having opposed seat portions adapted to make a steam-tight joint, the end edges of the cock base having transversely formed grooves and projections adapted for interlocking engagement with the ends of a similar member for sliding movement of the two members in the channeled base in interlocked relation, a steam passage being formed through the cock base, and valve means for closing and opening the passage.

1,072,851. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 23, 1912. Serial No. 733,127. (Cl. 21—90.)



1. The combination with a motor, of a cross supporting beam, a bracket secured to the motor, a pivot bolt connecting said bracket to said cross beam, a fan mounted on said bracket, and means for driving the fan from the motor.

2. The combination with a motor, of a cross supporting beam, a bracket secured to the motor, a pivot bolt connecting said bracket to said cross beam, a fan mounted on said bracket, and means at one side of the motor for driving said fan.

3. The combination with a motor, of a cross supporting beam, a bracket secured to the motor, a pivot bolt connecting said bracket to said cross beam, a fan mounted on said bracket above the cross beam, and a flexible driving mechanism for driving said fan from one side of said motor.

4. The combination with a motor, of a supporting cross beam, a bracket secured to the motor and having upwardly extending lugs, a pivot bolt extending through said lugs and said cross beam, and a fan bracket supported on said lugs.

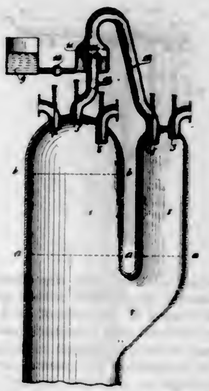
5. The combination with a motor, of a supporting cross beam, a bracket secured to the motor and having upwardly extending lugs, a pivot bolt extending through said lugs and said cross beam, a fan bracket supported on said lugs, and a lock for said bolt secured between the fan bracket and said lugs.

[Claims 6 and 7 not printed in the Gazette.]

1,072,852. METHOD OF RAISING OR FORCING LIQUIDS. HERBERT ALFRED HUMPHREY, London, England, assignor to Humphrey Gas Pump Company, a Corporation of New York. Filed Mar. 15, 1911. Serial No. 614,554. (Cl. 160—3.)

1. The method which consists in reciprocating liquid, the initial movement of the outstroke due to a preliminary expansible charge, utilizing energy derived from said outstroke to introduce a supplemental expansible charge to coöperate with the preliminary charge.

2. The method which consists in reciprocating liquid, the initial movement of the outstroke due to a preliminary expansible charge, utilizing energy derived from said outstroke to force air under pressure, mingled with a combustible into the heat zone of the preliminary expansible charge.



3. The method which consists in reciprocating liquid, the initial movement of the outstroke due to a preliminary expansible charge, utilizing energy derived from said outstroke to force liquid to compress an elastic fluid so that the same shall be mingled with a combustible fluid, then introducing the combustible mixture under pressure and expanding the same to supplement the preliminary expansible charge.

4. The method which consists in reciprocating liquid, the initial movement of the outstroke due to a preliminary expansible charge, utilizing energy derived from said outstroke to force liquid to compress an elastic fluid so that the same shall be mingled with a combustible fluid, then introducing the combustible mixture under pressure as a supplemental charge into the heat zone of the preliminary charge.

5. The method which consists in reciprocating liquid, the initial movement of the outstroke due to a preliminary expansible charge, utilizing energy derived from said outstroke to force liquid to compress an elastic fluid so that the same shall be mingled with a combustible fluid, then introducing the combustible mixture under pressure as a supplemental charge to be ignited by the heat resulting from the ignited preliminary charge.

[Claims 6 and 7 not printed in the Gazette.]

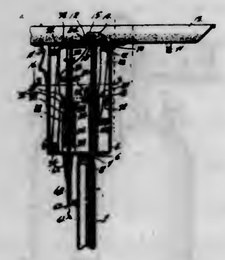
1,072,853. FLASH-LIGHT APPARATUS. JOHN W. JACKSON, Denver, Colo. Filed Mar. 6, 1913. Serial No. 752,298. (Cl. 67—29.)

1. In a device for firing flash powder and for operating the shutter of a camera, a spring impelled hammer, a trigger for retaining said hammer in the retracted position, a spring impelled element adapted to be connected to the shutter of a camera, a trigger for retaining said element in the retracted position, a cam surface upon said last named trigger, means for retracting the first named trigger, and a projection upon the hammer adapted to engage said cam surface to operate the second named trigger.

2. In a device of the class described, a spring impelled hammer, spring impelled mechanism connected with the shutter of a camera, a thumb piece attached to said hammer for convenience in retracting the latter and a projection upon the hammer for engagement with a portion of said mechanism whereby retraction of the hammer will cause a corresponding retraction of the aforesaid portion of said mechanism.

3. In a device of the class described, a spring impelled hammer, an element connected to the shuter of the camera, a spring impelled plate for moving said element, a thumb piece attached to said hammer for convenience in retracting the latter and a projection upon the hammer for en-

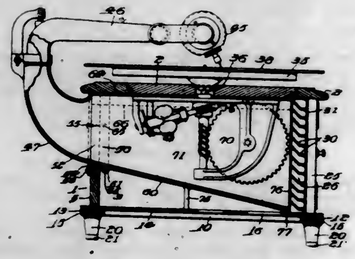
gagement with the said plate whereby retraction of the hammer will cause retraction of the plate.



4. In a device of the class described, a rectangular receptacle, hammer mechanism within said receptacle, a powder trough hinged to one side of said receptacle adjacent its upper surface, said receptacle and trough having openings alining when the trough is folded onto the top surface of the receptacle and means for releasably retaining said trough in position against the top or side surfaces of the receptacle.

5. In a device of the class described, two spiral springs arranged parallel to each other, a hammer mounted to be acted upon by one of said springs, a shutter operating element adapted to be acted upon by the other of said springs, a trigger for retaining said element in its retracted position and means adapted to be operated by the throwing of said hammer for pulling said trigger.

1,072,854. TALKING-MACHINE. ELDRIDGE R. JOHNSON, Merion Station, Pa., and JOHN C. ENGLISH, Camden, N. J., assignors to Victor Talking Machine Company, a Corporation of New Jersey. Filed Mar. 24, 1911. Serial No. 616,678. (Cl. 181—3.)



1. In a talking machine, the combination with a cabinet providing a compartment having a sounding-board forming an exterior wall thereof, of hollow sound amplifying means projecting freely within said compartment, a rotary record support, and actuating means for said support arranged within said compartment and within said amplifying means.

2. In a talking machine, the combination with a cabinet providing a compartment having a sounding-board provided with spaced apertures and forming an exterior wall of said compartment, of sound amplifying means, including a sounding-board projecting freely within said compartment, and a bridge connecting said sounding-boards and contacting with said first mentioned sounding-board at a point between said apertures.

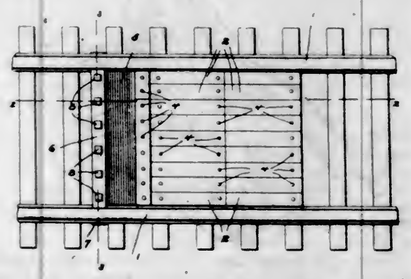
3. In a talking machine, the combination with a cabinet providing a compartment having a sounding board provided with spaced apertures, of sound amplifying means, including a sounding board projecting within said compartment, and a bridge connecting said sounding boards and contacting with said first mentioned sounding board at the point between said apertures.

4. In a talking machine, the combination with sound reproducing means, of vibratory sound amplifying means communicating therewith, a sounding board provided with spaced apertures, and means connecting said amplifying means to the portion of said sounding board between said apertures.

5. A talking machine comprising a casing including a sounding board forming a part of the bottom thereof, and a sounding board within said casing and forming one wall of a sound conduit, having a delivery end projecting freely in said casing, a bridge connecting said sounding boards, and actuating means for said machine located in said conduit.

[Claims 6 to 17 not printed in the Gazette.]

1,072,855. CROSSING. WILLIAM KEFFER, Philadelphia, Pa. Filed May 15, 1913. Serial No. 767,810. (Cl. 104—14.)



1. A crossing comprising timbers positioned between the rails, a plate secured at one edge upon the said timbers, and a strip secured to said plate and at its ends projected under the rails, substantially as described.

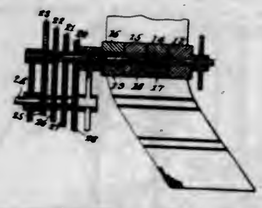
2. A crossing comprising a plurality of timbers secured to the ties between the rails, a metal plate having one edge positioned upon and secured to the end of the timbers in the direction of the train's approach, and strips secured to the plate at its other edge and engaging respectively above and below the base flanges of the rails, substantially as described.

3. A crossing comprising a plurality of timbers secured to the ties between the rails, a metal plate having one edge positioned upon and secured to the end of the timbers in the direction of the train's approach, strips secured to the plate at its other edge and engaging respectively above and below the base flanges of the rails, said strips and said plates having registering openings, bolts in said openings, and nuts secured to said bolt and clamping the strips and plate together, substantially as described.

4. A crossing comprising a plurality of timbers secured to the ties between the rails, a metal plate having one edge positioned upon and secured to the end of the timbers in the direction of the train's approach, strips secured to the plate at its other edge and engaging respectively above and below the base flanges of the rails, and said timbers comprising a plurality of sections having tongue and groove engagement at their ends, substantially as described.

1,072,856. PROCESS OF KNITTING NECKTIES AND SCARFS. JOSEF KELLNER, Brooklyn, and SIDNEY WORMS, New Rochelle, N. Y., assignors to Franklin Knitting Mills, New York, N. Y., a Corporation of New York. Filed Sept. 21, 1912. Serial No. 721,600. (Cl. 66—4.)

1. The process of knitting neckties and scarfs of one or more colors having substantially true bias stripes therein, which consists, during the knitting of the tie, in causing the threads loops or stitches of one set of needles to be racked or shifted alternately in opposite directions to the sides of the thread loops or stitches of another set of needles, then during the knitting of the tie feeding into the work the thread or threads of the bias stripe to be made, and during the knitting of the tie placing the same under a differential tension.



2. The process of knitting neckties and scarfs of one or more colors having substantially true bias stripes therein, which consists, during the knitting of the tie, in causing the thread loops or stitches of one set of needles to be racked or shifted alternately in opposite directions to the sides of the thread loops or stitches of another set of needles, then during the knitting of the tie feeding into the work the thread or threads of the bias stripe to be made, and during the knitting of the tie placing the same under a tension greater along one side thereof than along the other according to the direction in which the said bias stripes run.

3. The process of knitting neckties and scarfs of one or more colors having substantially true bias stripes therein of a different color or colors, which consists in first knitting a wide portion of the tie and gradually withdrawing certain needles thereby to taper the tie to the neck portion thereof, then knitting the same with its edges in substantial parallelism, then during the knitting of the tie causing the thread loops or stitches of one set of needles to be racked or shifted alternately in opposite directions to the sides of the thread loops or stitches of another set of needles, then during such knitting feeding into the work the thread or threads of the different colored stripes to be made, and during the knitting of the tie placing the same under a differential tension.

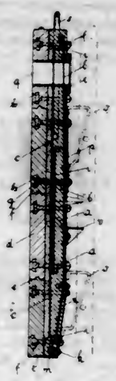
4. The process of knitting neckties and scarfs of one or more colors having substantially true bias stripes therein of a different color or colors, which consists in first knitting a wide portion of the tie and gradually withdrawing certain needles thereby to taper the tie to the neck portion thereof, then knitting the same with its edges in substantial parallelism and then gradually throwing into operation certain needles to gradually widen the tie at its opposite end, then during the knitting of the tie causing the thread loops or stitches of one set of needles to be racked or shifted alternately in opposite directions to the sides of the thread loops or stitches of another set of needles, then during such knitting feeding into the work the thread or threads of the different colored stripes to be made, and during the knitting of the tie placing the same under a tension greater along one side than along the other.

5. The process of knitting which consists in causing the thread loops or stitches of one set of needles to be racked or shifted first to one side, and then to the other side of the thread loops or stitches of another set of needles, then during such knitting feeding into the work at a predetermined time the thread or threads to form a colored bias stripe, and during the knitting placing the work under a differential tension.

[Claims 6 to 10 not printed in the Gazette.]

1,072,857. COKE-OVEN DOOR. HERMANN KICKERT, Herringen, near Hamm, Westphalia, Germany. Filed Dec. 21, 1912. Serial No. 738,003. (Cl. 202—6.)

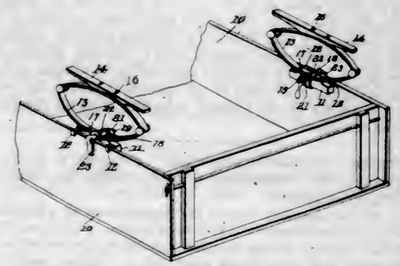
1. In a coke oven or furnace door, the combination of an outer concrete wall, an inner wall of shaped blocks of highly heat-refractory material, and an intermediate layer of heat-insulating material located between said outer concrete wall and said inner wall of shaped blocks.



2. In a coke oven or furnace door, the combination of an outer concrete wall, an inner wall of shaped blocks of highly heat-refractory material, and an intermediate layer of heat-insulating material located between said outer concrete wall and said inner wall of shaped blocks with strips of reticulated fabric embedded in said intermediate layer of heat-insulating material.

3. In a coke oven or furnace door, the combination of an outer concrete wall, an inner wall of shaped blocks of highly heat-refractory material, and an intermediate layer of heat-insulating material located between said outer concrete wall and said inner wall of shaped blocks, said intermediate layer being provided with air passages opening at top and bottom on the outer side of the door.

1,072,858 WAGON-SEAT CLAMP. JOHN KIEFER, Bozeman, Mont. Filed Oct. 7, 1912. Serial No 724,417. (Cl. 21—41.)



1. A wagon seat clamp comprising a clip device including compressible sides and adapted to receive a wagon seat support, a shaft extending through said compressible sides and with a down-turned terminal adapted to engage a wagon body, and means for applying strain longitudinally of said shaft.

2. A wagon seat clamp comprising a clip device including compressible sides and adapted to receive a wagon seat support, a shaft extending through said compressible sides and with a down-turned terminal adapted to engage a wagon body, a sleeve rotatable upon said shaft between the side members of the clip, and means for applying strain longitudinally of said shaft.

3. The combination with a wagon seat support including base members, means for supporting said base members upon a wagon body, a clamp device comprising a clip including spaced sides bearing against opposite sides

of said base, a shaft extending through said sides and with a down-turned terminal adapted to engage a wagon body, and means for applying strain longitudinally of said shaft.

1,072,859. HOLDER FOR ADHESIVE BINDERS. LEE KINGSLEY, Syracuse, N. Y. Filed Nov. 28, 1911. Serial No. 662,895. (Cl. 211—8.)



1. A holder for folded binders comprising a case having two of its opposite side walls spaced apart a considerably less distance than the length of the binder when flattened out for engaging the ends of said binders and holding them in a partially folded position with their apexes uppermost, and a follower within the receptacle and spring pressed upwardly and having its upper face V-shape to conform to and engage with the fold of the lowermost binder.

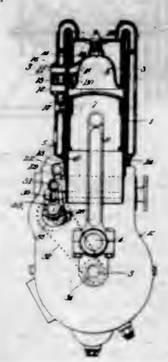
2. A holder for folded binders comprising a case having two of its opposite side walls spaced apart a considerably less distance than the length of the binder when flattened out for engaging the ends of said binders and holding them in a partially folded position with their apexes uppermost, and a cap fitted with a frictional sliding fit upon the upper end of the case and provided with opposite inwardly projecting flanges extending beyond the adjacent sides of the case and spaced some distance apart to form a lengthwise opening of substantially the same width as the binders and a follower within the case spring pressed upwardly and having a V-shape upper face engaging in the fold of the lowermost binder for forcing the apexes of the uppermost binders through and above the opening in the cap.

3. A holder for adhesive binders comprising a case having two of its opposite upright sides parallel and spaced apart a distance less than the length of the binders, said binders being folded midway between their ends and stacked within the case with their ends abutting against said parallel sides so as to force the apexes of the binders upwardly, the upper end of the case being provided with an opening and stop shoulders for engaging the opposite ends of the uppermost binders, and a follower within the case spring pressed upwardly and having a V-shape upper face engaging in the fold of the lowermost binder for forcing the apexes of the binders upwardly through the open top of the case.

1,072,860. EXPLOSION-ENGINE. CHARLES Y. KNIGHT, Chicago, Ill. Filed Feb. 4, 1910. Serial No. 542,100. (Cl. 123—188.)

1. In an explosion engine the combination of a cylinder casing, a head projecting into said casing, a reciprocating cylinder having intake and exhaust ports telescoped with said head and coöperating therewith to control communication with the said cylinder, the wall of the casing being fixed against movement with said cylinder and the outer face of the cylinder being disposed immediately adjacent thereto and guided thereby, a slide valve movable longitudinally of said cylinder and coöperating with the casing to control communication with the cylinder through said exhaust port, a piston reciprocating in said cylinder with relation thereto, means connecting the piston with said cylinder and slide valve whereby the said intake port is uncovered during an outward piston stroke and is closed and maintained closed during the next three piston strokes, and the said exhaust port is opened at approximately the conclusion of the third one of the aforesaid piston strokes and is closed at the conclusion of the fourth one of said strokes.

2. In an explosion engine the combination of a cylinder casing, a head projecting into said casing, a reciprocating cylinder telescoped with said head and coöperating therewith to control communication with the cylinder, a slide valve movable longitudinally of the cylinder and disposed with its inner face directly adjacent the outer face of the cylinder and coöperating on its outer face with the casing for controlling communication with said cylinder, a piston reciprocating in the cylinder with relation thereto, and means connecting the cylinder and slide valve with the piston for reciprocating them with relation to one another and to the piston.



3. In an explosion engine the combination of a cylinder casing, a head projecting into said casing, a reciprocating cylinder telescoped with said head and coöperating therewith to control communication with the cylinder, the wall of the casing being fixed against movement with the cylinder and the outer face of the cylinder being immediately adjacent thereto and guided thereby, a slide valve movable longitudinally of the cylinder and coöperating with the casing to control communication with the cylinder, a piston reciprocating in said cylinder with relation thereto, a crank shaft connected with the piston, and means connecting the crank shaft with the said cylinder and slide valve for reciprocating them relatively to one another and to the said cylinder and piston.

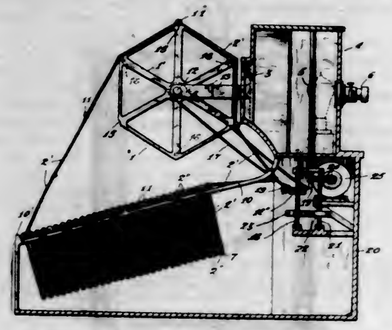
4. In an explosion engine the combination of a cylinder casing, a head therein, a reciprocating cylinder telescoped on said head and coöperating therewith to control communication with the cylinder at one period, a slide valve coöperating with the casing for controlling communication with the cylinder at another period, the wall of the casing being exposed to direct contact by said cylinder and fixed against longitudinal movement therewith on one side, a piston reciprocating in the cylinder relatively thereto, a crank shaft operated by the piston, and means connecting the cylinder and slide valve with the piston for moving them relatively to one another and to the head and piston.

5. In an explosion engine the combination of a cylinder casing, a head therein fixed against axial movement, a reciprocating cylinder telescoped on said head and coöperating with the casing for controlling communication with the cylinder at one period, a slide valve arranged between said casing and cylinder for controlling communication with the cylinder at another period, the wall of said casing being exposed to direct contact by said cylinder and fixed against longitudinal movement therewith, a piston reciprocating in said cylinder relatively thereto, a crank shaft operated by the piston, and means connecting said cylinder and slide valve with the piston for moving them relatively to one another and to the head and piston.

[Claims 6 to 17 not printed in the Gazette.]

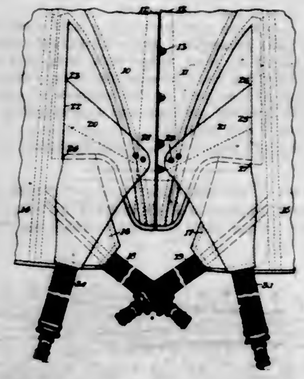
1,072,861. PROJECTING APPARATUS. KIHEI KOIKE, Seattle, Wash. Filed Nov. 29, 1911. Serial No. 663,154. (Cl. 88—28.)

In apparatus of the character described, a plurality of slide frames each hinged at its opposite edges to the adjacent frames on either side thereof, the pintles of alternate hinge connections being longer than the others, rotatable means for moving said slide frames past said projection device and between said rails, said means comprising spaced rotary members provided with alternating seats and cross bearing members, the said seats being adapted to receive the projecting end portions of said long pintles, and said bearing members being spaced with respect to



said seats to support the opposite end portions of said slide frames, spaced rails lying in the path of the projecting end portions of said long pintles, said rails being below and projecting on opposite sides of said rotatable means and inclined downwardly and beyond the upwardly moving side thereof, a projecting device at the downwardly moving side of said rotatable means, and means for rotating said rotatable means.

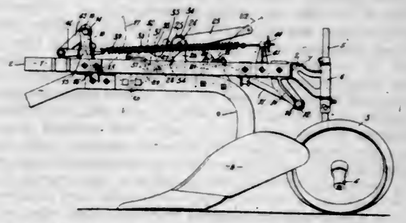
1,072,862. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed Dec. 6, 1912. Serial No. 735,182. (Cl. 2—73.)



1. In an apparel corset, a corset body half having a depending skirt, a portion of which extends toward the front steel of the corset body half and terminates in an unattached end, a member overlying the said portion and extending away from the front steel of the corset body half, and hose supporter devices connected to and extending from the said portion and overlying member and adapted respectively to be attached to the inner side portion and the outer side portion of the hose on the corresponding limb of the wearer.

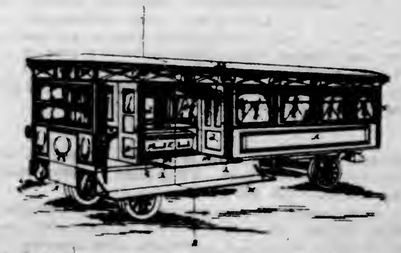
2. In an apparel corset, a corset body half, a skirt depending therefrom, a portion of the said skirt below the front steel and boning extending toward the front steel and terminating in a free end at a point below the lower extremity of the front steel, a hose supporter connected to and extending from the free end of the said skirt portion and adapted to be connected to the hose on the corresponding limb of the wearer at the inner side portion thereof, a flap secured to the corset body half and extending away from the front steel thereof and overlying the said skirt portion, and a hose supporter attached to and extending from the lower end of the said flap and adapted to be connected to the hose on the same limb of the wearer and at the outer side portion thereof.

1,072,863. MEANS FOR RAISING AND LOWERING THE EARTH-TURNING ELEMENT OF WHEELED PLOWS. WILLIAM H. LEE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed Sept. 29, 1910. Serial No. 584,387. (Cl. 97—36.)



In a wheeled plow, a frame, an earth turning element having a beam, means for raising and lowering the earth turning element comprising front and rear bails, the front bail extending downwardly and being pivoted at its upper end to the frame, and at its lower end to the beam, the rear bail extending upwardly and forwardly and being pivoted at its rear end to the frame and at its front end to the beam, the front bail being shorter than the rear bail and moving during the raising of the beam from a nearly vertical depending position to a nearly horizontal position through approximately a quarter of a circle, and the longer or rear bail being inclined out of and above the horizontal plane passing through its axis and moving through an arc considerably less than a quarter of a circle, whereby during the movements of the bails, the pivotal connections thereof with the beam move in different directions, that of the front bail moving rearwardly during the initial movement thereof and that of the rear bail moving upwardly so that the rear end of the beam is first raised faster than the front end and the front end is first lowered to the ground in advance of the rear end, substantially as and for the purpose described.

1,072,864. FUNERAL-CAR. IDA SCHMIDT MARVIN, Detroit, Mich. Filed July 27, 1910. Serial No. 574,061. (Cl. 21—26.)



1. In a funeral car, the combination of a horizontally fixed platform, said platform being substantially narrower than the width of said car, ways fixed thereto at either end thereof at right angles to the axis of said plat-

form, a second platform adapted to engage said first named platform at its side and having thereon ways to correspond with and continue the ways on said fixed platform, means whereby said second platform may be elevated from a horizontal to a vertical position and form a part of the side of the car when in such vertical position, and adapted to return said second platform to a horizontal position whereby the ways register with the ways upon the fixed platform, and the lower edge of said second platform is brought into the interior of the car, the upper edge thereof is extended without the car, the dropping of said platform to this position simultaneously forming an opening in the side of the car, substantially as described.

2. In a funeral car, the combination of a horizontally fixed rectangular platform, the longer axis corresponding with the axis of the car, ways fixed thereto at either end thereof at right angles to the axis of said platform, a second platform adapted to engage said first named platform at its side and having thereon ways to correspond and continue with the ways on said fixed platform, said second platform being adapted to be raised and form a part of the side of the car when in a vertical position and when lowered in a horizontal position to afford ways continued to the outer wall of said car and simultaneously forming an opening in the side of said car, a traveling platform having ways on its under side adapted to engage the ways hereinbefore described whereby said last named platform and its load may be transferred from the first named platform to the second and out through the side of the car, a turntable carried by said third platform, and a fourth platform adapted to fit and turn upon said turntable, and means for elevating and lowering the first named platform whereby said platform may be raised above the level of the floor and lowered to said level, substantially as described.

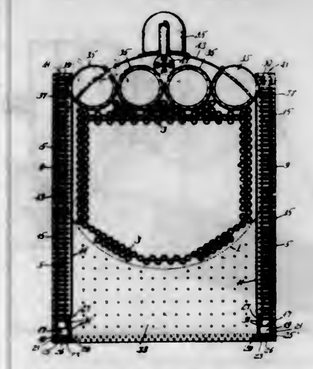
3. In a funeral car, the combination comprising a compartment adapted to receive a casket, said compartment being readily accessible from the outside of the car, and the bottom of said compartment being provided with parallel ways, a movable platform also provided with parallel ways adapted to register with the aforesaid parallel ways when said movable platform is in a horizontal position, said movable platform being adapted for elevation into a vertical position to constitute a part of the outside walls of the car, and a casket carrier provided with means adapted to engage said parallel ways and adapted to travel thereon, whereby said casket when positioned on said carrier may be removed from within the car and out through the sides thereof when said side walls are dropped to a horizontal position and the ways thereon are in register with the ways on the bottom of said casket compartment.

4. In a funeral car, the combination comprising a compartment adapted to receive a casket, said casket being readily accessible from outside of the car, a passenger compartment adjacent said casket compartment, partition means for separating said passenger compartment from said casket compartment, whereby observation of said casket when in said casket compartment from the passenger compartment may be prevented, movable closure means in the wall of said casket compartment for admitting said casket therethrough when in an open position and adapted when closed to form a part of the side walls of the car, and means independent of said closure means for permitting of independent access to said passenger compartment.

1,072,865. FIRE-BOX FOR BOILERS. JAMES M. MCCLELLON, Everett, Mass. Filed June 7, 1909. Serial No. 500,562. (Cl. 122—58.)

1. In a fire-box the combination of a wall comprising flanged sections, the flanges whereof at their lower ends have portions removed, a connecting plate crossing the lower ends of said sections and secured to the unflanged faces thereof, and a mud-ring to which the lower edge of said plate is secured.

2. In a fire-box the combination of outer and inner wall portions comprising outer and inner connected flanged sections, the flanges of the inner sections at their lower ends having portions removed, a connecting plate crossing the lower ends of said inner sections and secured to the unflanged faces thereof, and a mud-ring secured to and between said plate and the lower ends of said outer sections.



3. In a fire-box the combination of a wall comprising flanged sections extending transversely to the length of the fire-box, the flanges whereof at their lower ends have portions removed, a connecting plate crossing the lower ends of said sections and secured to the unflanged faces thereof, and a mud-ring to which the lower edge of said plate is secured.

4. In a fire-box the combination of a wall comprising a plurality of communicating compartments formed of flanged sections, the flanges whereof at their lower ends have portions removed, a connecting plate crossing the lower ends of said sections and secured to the unflanged faces thereof, and a mud-ring to which said faces and the lower edge of said plate are secured.

5. In a fire-box the combination of a wall comprising a row of sectional connected compartments, the connecting portions whereof at their lower ends have portions removed, a connecting plate crossing the lower ends of said compartments and secured to the portions of the latter adjacent said removed portions, and a mud-ring to which the said plate is also secured.

[Claims 6 to 19 not printed in the Gazette.]

1,072,866. REVERSIBLE HARD-CENTER FROG. TIMOTHY F. MCEVOY and CHARLES J. LEPPERD, Pottstown, Pa. Filed May 5, 1913. Serial No. 765,565. (Cl. 104—5.)



1. A railroad frog comprising a hard center, shaped alike on its upper and lower faces, and rails secured to the opposite sides of the center, said rails throughout a portion of their length recessed to receive the center therein, substantially as described.

2. A railroad frog comprising a hard center, shaped alike on its upper and lower faces, rails secured to opposite sides of the center, said rails shaped alike at top and bottom, and said rails throughout a portion of their length recessed to receive the center therein, substantially as described.

3. A railroad frog comprising a hard center, shaped alike on its upper and lower faces, and rails secured to the opposite sides of the center, said rails throughout a portion of their length recessed to receive the center therein, said center having an extension at one end, and rails secured to said extension, substantially as described.

4. A railroad frog comprising a hard center, shaped alike on its upper and lower faces, rails secured to opposite sides of the center, said rails shaped alike at top and bottom, said rails throughout a portion of their length recessed to receive the center therein, said center having an extension at one end, and rails secured to said extension, substantially as described.

5. A railroad frog comprising a hard center, shaped alike on its upper and lower faces, rails shaped alike on their upper and lower faces and recessed to receive the frog, an extension on one end of said frog, rails at opposite sides of said extension, blocks between the diverging ends of the first-mentioned rails and the last-mentioned rails, and bolts projected through the first-mentioned rails and the center and through the first-mentioned rails, the last-mentioned rails and the extension, and nuts on said bolts, substantially as described.

[Claim 6 not printed in the Gazette.]

1,072,867. POST FOR LOOSE-LEAF BINDERS. HENRY C. MILLER, Milwaukee, Wis. Filed Aug. 26, 1912. Serial No. 717,214. (Cl. 129—24.)

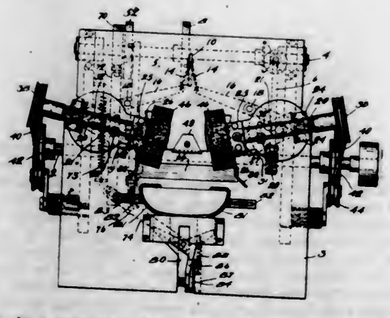


1. A binder-post comprising a series of links pivoted together, each of said links being curved to correspond with the curvature of the post as a whole in the closed position of the book.

2. A binder-post comprising a series of pivotally connected links, the two end links being each in the form of a central bar perforated to receive a pintle-rod and two side-portions at right-angles thereto and perforated at their ends; and an intermediate link being also perforated at its ends and united by joint-pins to the end-links.

3. In combination with a binder, a binder-post comprising a series of links pivoted together, the ends of the series being connected to the binder-back; each of the abutting ends of each two of the links being provided with a lug and each pair of abutting lugs interlocking and being connected by a transverse pintle passing through them, whereby the links have a pivotal movement on each other in a plane perpendicular to the binder-back and the leaves are excluded from getting between said abutting ends.

1,072,868. COUNTER-BUFFING MACHINE. NAPOLEON A. MONFILS, Haverhill, Mass. Filed Mar. 1, 1913. Serial No. 751,413. (Cl. 51—17.)



1. In a counter buffing machine, a counter support arranged to hold a counter approximately flat, a pair of buffing-wheels, means to rotate said wheels and means simultaneously to move said wheels bodily across the end portions of a counter held on said support in position to form a scarfed surface extending from each end of the counter, substantially as described.

2. In a counter buffing machine, a counter support, a pair of buffing wheels, oppositely disposed shafts on which said wheels are mounted, means to rotate said wheels, and means simultaneously to oscillate said shafts to carry said wheels into operative engagement with the surface of the end portions of a counter held on said support, substantially as described.

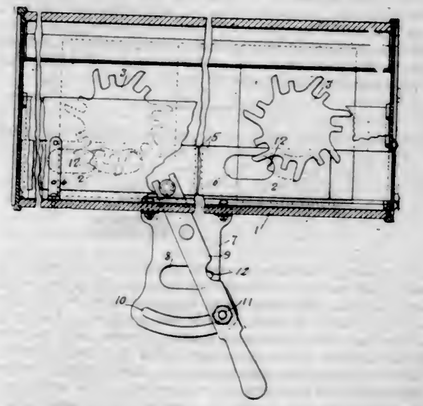
3. In a counter buffing machine, a counter support, a pair of shafts mounted to oscillate in a plane approximately parallel to the surface of a counter held on said support, a buffing wheel mounted on each shaft, means to swing said shafts from initial positions at each side of said support, to carry said wheels into engagement with, and across the end portions of a counter held on said support, means constantly to rotate each wheel so that its work-engaging surface, at the point of engagement with the counter, moves in the opposite direction to that in which its shaft is swung, as it is moved from its initial position, and means to return said shafts to their initial positions, substantially as described.

4. In a counter buffing machine, a counter support for holding a counter approximately flat and having upwardly inclined supporting portions for the end portions of the counter, a pair of buffing-wheels, and means simultaneously to rotate said wheels and to move them bodily over said inclined supporting portions in engagement with the portions of a counter supported thereby, substantially as described.

5. In a counter buffing machine, a counter support for holding a counter approximately flat and having upwardly inclined supporting portions for the end portions of the counter, means to vary the inclination of said supporting portions, a pair of buffing-wheels, and means simultaneously to rotate said wheels and to move them bodily over said inclined supporting portions in engagement with the portions of a counter supported thereby, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,072,869. DRILL. CHARLES H. PELTON, Springfield, Ohio, assignor to The Thomas Manufacturing Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 22, 1913. Serial No. 743,454. (Cl. 111—34.)



1. The combination, with a hopper having a discharge opening, a device to feed the material through said opening, a plate movably mounted in said hopper and arranged to open and close said opening, a gage outside of said hopper corresponding substantially in size and shape to said discharge opening, a member mounted to move over said gage, and an operative connection between said member and said movable plate, whereby the position of said

member with relation to said gage will indicate the position of said movable plate with relation to said discharge opening.

2. The combination, with a hopper having a discharge opening, a device to feed the material to said opening, a plate slidably mounted in said hopper and having an opening adapted to be moved into partial or complete registration with said discharge opening, a gage outside of said hopper corresponding substantially in size and shape to said discharge opening, a member mounted to move over said gage, and an operative connection between said member and said slidable plate, whereby the position of said member with relation to said gage will indicate the extent to which the opening in said slidable plate registers with said discharge opening.

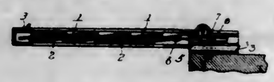
3. The combination, with a hopper having a discharge opening, a device to feed material to said opening, a plate slidably mounted in said hopper and having an opening adapted to be moved into partial or complete registration with said discharge opening, a bracket mounted outside of said hopper and having an opening corresponding substantially to said discharge opening, a lever arranged to move over said opening in said bracket and connected with said slidable plate, whereby the position of said lever with relation to the opening in said bracket will indicate the extent to which the opening in said slidable plate registers with said discharge opening.

4. In a machine of the character described, a hopper, a discharge opening in said hopper comprising a main portion and having a reduced extension at one end thereof, a plate slidably mounted above said opening and having an opening therein of substantially the size of the main portion of said discharge opening and adapted to be moved into and out of registration with said main portion of said discharge opening, the openings in said plate and said discharge opening being so arranged that said plate may be moved into position to close all of said discharge opening except said extension thereto.

5. In a machine of the character described, a hopper, a discharge opening in said hopper having a reduced extension at one end thereof, a plate slidably mounted above said opening and having an opening therein adapted to be moved into and out of registration with said discharge opening, the opening in said plate and said discharge opening being so arranged that said plate may be moved into position to close all of said discharge opening except said extension thereto, a bracket mounted outside of said hopper and having an opening therein corresponding substantially in size and shape to said discharge opening and the extension therein, a member adapted to move over the opening in said bracket, and an operative connection between said member and the plate in said hopper.

[Claims 6 and 7 not printed in the Gazette.]

1,072,870. SIGN. WALTHER RASTER, Chicago, Ill. Filed Apr. 28, 1913. Serial No. 764,066. (Cl. 40—60.)



1. A sign comprising a pair of slidably interfitting members each having a plurality of tongues extending in the same general direction, there being adjacent to the base of each tongue an offset bend in the portions of the member at each side of the said tongue, whereby each member is bent into a series of portions lying in parallel planes; each of said portions comprising in a single plane a tongue narrower than the width of the member, a full width portion to which the tongue is attached at its base, and a pair of edge portions lateral of the next successive tongue.

2. A sign comprising a pair of slidably interfitted members made of materials of substantially equal thickness, each having punched therefrom a plurality of tongues extending in parallel planes in the same general direction, there being adjacent to the base of each tongue an offset bend in the portions of the member at each side of the said tongue, the height of each of said bends being greater than double the thickness of the material from which each of the members is formed, whereby the said bends afford slits of greater width than the thickness of the said tongues.

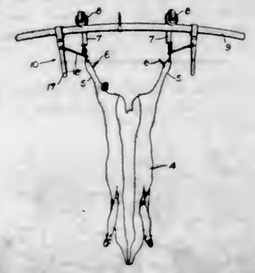
3. A sign comprising a pair of members each having punched therefrom a plurality of tongues extending in the same general direction, there being an offset bend in each member laterally of each tongue whereby the consecutive tongues are positioned in parallel planes, the space between the tip of each tongue and the material from which this tip was punched forming a slit, the tongues of each member projecting respectively through the slits of the other member, the said members relatively reciprocable in the direction in which their tongues extend, whereby each tongue is adapted to expose and conceal one side of the adjacent tongues of the other member upon relative reciprocation of the members.

4. A sign comprising a pair of members each having a plurality of tongues extending in the same general direction and having adjacent to the base of each tongue an offset bend in the portions of the member at each side of the said tongue, whereby each member is bent into a series of portions lying in parallel planes, and whereby the said bends afford slits in each member through which the tongues of the opposite member may be slidably inserted; there being ridges upon the lateral portions of one of the said members, the said ridges adapted to bear against lateral portions of the companion member.

5. A sign comprising a pair of members each having a plurality of tongues, the said members movable from one to another of two relative positions; the tongues of one member lapped over and concealing portions of the companion member, or lapped under and concealed by other portions of the companion member, according as the members are in one or the other of their said relative positions; the portions of each member on opposite sides of each tongue being shortened longitudinally, whereby the tip of each tongue projects longitudinally beyond a portion of the material from which the said tip was severed, the excess in length of the tongues serving as a guard to prevent disengaging of the tongues from their said lapped positions.

[Claims 6 to 8 not printed in the Gazette.]

1,072,871. LOCKING DEVICE FOR CARCASS-HANGERS. CHARLES A. RICHARDS, Bellows Falls, Vt. Filed Aug. 5, 1912. Serial No. 713,361. (Cl. 17—30.)



1. In combination with a single continuous supporting rail and hanger movable thereupon, a device of the class described comprising an arm having one end thereof bent in the form of a hook to engage the upper side of said rail, a jaw adjustably positioned upon said arm adapted to engage the under side of said rail, an edge each of said hook end and jaw being adapted to impinge upon the rail at any point thereupon when the device is tilted in either direction longitudinally of the rail whereby it becomes locked thereupon, and means connecting the free end of said arm with the said movable hanger adapted upon tension to tilt the device, substantially as described.

2. In combination with a single continuous supporting rail and hanger movable thereupon, a device of the class

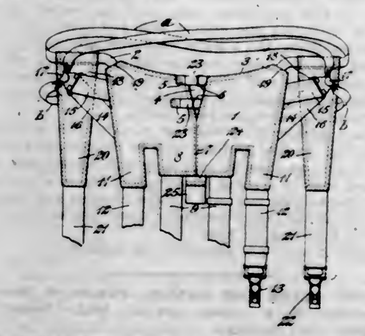
described comprising an arm having one end thereof bent in the form of a hook to engage the upper side of said rail, a jaw adjustably positioned upon said arm adapted to engage the under side of said rail, an edge each of said hook end and jaw being adapted to impinge upon the rail at any point thereupon when the device is tilted in either direction longitudinally of the rail whereby it becomes locked thereupon, and means connecting the free end of said arm with the said movable hanger adapted upon tension to tilt the device substantially as described.

3. In combination with a single continuous supporting rail and hanger movable thereupon, a device of the class described comprising an arm having one end thereof bent in the form of a hook to engage the upper side of said rail, a jaw positioned upon said arm adapted to engage the under side of said rail, an edge each of said hook end and jaw being adapted to impinge upon the rail when the device is tilted in either direction longitudinally of the rail whereby it becomes locked thereupon, and means connecting the free end of said arm with the said movable hanger adapted upon tension to tilt the device, substantially as described.

4. In combination with a single continuous supporting rail and hanger movable thereupon, a device of the class described comprising an arm having one end thereof bent in the form of a hook to engage the upper side of said rail, a jaw positioned upon said arm adapted to engage the under side of said rail, an edge each of said hook end and jaw being adapted to impinge upon the rail at any point thereupon when the device is tilted in either direction longitudinally of the rail whereby it becomes locked thereupon, and a hook-like member secured to the free end of said arm for engaging the said movable hanger adapted upon tension to tilt the device, substantially as described.

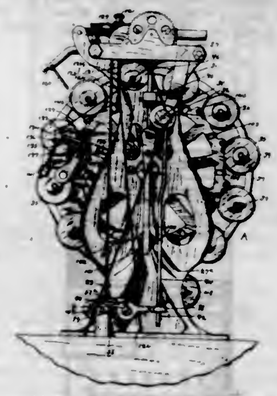
5. In combination with a single continuous supporting rail and hanger movable thereupon, a device of the class described, comprising an arm having one end thereof bent in the form of a hook to engage the upper side of said rail, a jaw adjustably positioned upon said arm adapted to engage the under side of said rail, an edge each of said hook end and jaw being adapted to impinge upon the rail at any point thereupon when the device is tilted in either direction longitudinally of the rail whereby it becomes locked thereupon, teeth formed upon one side of said jaw, and teeth adapted to register therewith formed upon the side of said arm in engagement therewith to prevent rotary movement of said jaw with respect to said arm, and means connecting the free end of said arm with the said movable hanger adapted upon tension to tilt the device, substantially as described.

1,072,872. HOSE-SUPPORTER. ABRAHAM ROCKOWITZ, New York, N. Y. Filed Mar. 9, 1911. Serial No. 613,408. (Cl. 2—189.)



A device of the character described having a body portion adapted to be extended across the abdomen, loops carried by the sides of the body portion, hooks held by the loops and a waist band secured to each side of the body portion, each of said bands being adapted to engage the hook of the loop at the side portion of the body opposite to the side portion to which it is secured and of such a length as to permit tying to the other of said bands after engagement with the hook.

1,072,873. MULTIPLE PHONOGRAPH. JULIUS ROEVER, New York, N. Y. Filed Apr. 1, 1912. Serial No. 687,849. (Cl. 181—4.)



1. The combination with a rotatable record wheel having holes in the rim, of a spring pressed locking pin or arm slidable in a support and adapted to enter the holes to lock the wheel while a record is in playing position, the reproducer carriage, a tilting lever actuated by the movement of the carriage, and pressing against the aforesaid locking pin, means controlled by the lever for stopping and starting the motor, means for restraining the locking pin against the action of the aforesaid lever, and an operative connection between the carriage and the means for restraining the movement of the locking pin, whereby the locking pin is released at a certain point during the movement of the carriage.

2. The combination with the rotatable record wheel, of a spring pressed pin or arm adapted to engage and lock the wheel while a record is in playing position, the reproducer carriage, a movable member adapted to extend into the path of the aforesaid locking pin, means controlled by the carriage to move the said member and release the pin or arm, and means also controlled by the movement of the carriage for withdrawing the aforesaid pin or arm.

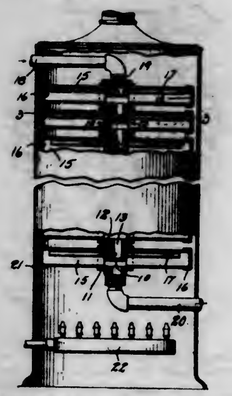
3. The combination with the rotatable record wheel, of a sliding pin or arm adapted to engage and lock the wheel while a record is in playing position, the reproducer carriage, a movable member arranged to engage the locking pin or arm and prevent its movement into locked position with the record wheel, means controlled by the movement of the carriage for releasing the said locking pin or arm, and means also controlled by the movement of the carriage for withdrawing the said pin or arm from engagement with the record wheel.

4. In a machine of the kind described, the combination of the motor, the brake strap connected with the motor and provided with a projecting end, the reproducer carriage, the rotatable record wheel, means for locking the record wheel when a record is in playing position, a tilting lever actuated by the movement of the carriage, a swinging foot piece to engage the strap end and stop the motor, an operative connection between the lever and the aforesaid foot piece by which the movement of the lever actuates the foot piece, and means also operated by the aforesaid lever for actuating the record wheel locking mechanism.

5. The combination with the record wheel having abutments thereon, and the reproducer carriage, of a swinging arm, a pawl carried by the arm and adapted to engage the abutments on the record wheel to turn the latter, a cable connected with the reproducer carriage, and a cushioned or yielding connection between the cable and the aforesaid swinging arm.

[Claims 6 to 11 not printed in the Gazette.]

1,072,874. COMBINED WATER-HEATER AND STEAM-GENERATOR. JAMES J. ROHAN, St. Louis, Mo., assignor to Missouri Gas Heater and Appliance Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 4, 1913. Serial No. 740,161. (Cl. 122—216.)



1. In a combined heater and steam generator a vertically disposed sectional column formed by a series of hollow joint members, a portion of each of which extends into and is screw-seated in an adjacent joint member, a series of heating pipes connected to each section of the column, and a series of circulating pipes connected to each section of the column.

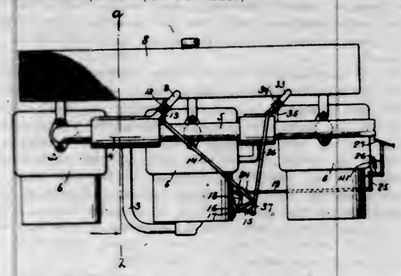
2. In a combined heater and steam generator a vertically disposed sectional column formed by a series of hollow joint members, a portion of each of which extends into and is screw-seated in an adjacent joint member, a series of heating pipes connected to each section of the column, and a series of circulating pipes connected to each section of the column, which circulating pipes are located within the heating pipes.

3. In an apparatus of the class described, a combined heating and circulating element, comprising a hollow joint member, a tubular extension thereon which occupies a position within the body of the next adjacent joint member when two of said joint members are properly assembled, a series of heating pipes connected to the joint member, and a series of circulating pipes connected to the hollow extension.

4. In a combined heater and steam generator, a vertically disposed sectional column formed of a series of hollow joint members, a portion of each of which extends into and is screw-seated in an adjacent joint member, a series of heating pipes connected to each section of the column, a series of circulating pipes connected to each section, means for delivering water to the joint member at one end of the device, and means for withdrawing water or steam from the joint member at the opposite end of the device.

5. In a combined heater and steam generator, a vertically disposed sectional column formed of a seies of hollow joint members, a portion of each of which extends into and is screw-seated in an adjacent joint member, a series of heating pipes connected to each section of the column, a series of circulating pipes connected to each section, means for delivering water to the joint member at one end of the device, means for withdrawing water or steam from the joint member at the opposite end of the device, and a housing inclosing the sectional column and the heat and circulating pipes.

1,072,875. CARBURETER MECHANISM. MILTON L. SAMMONS, Kansas City, Mo. Filed May 29, 1913. Serial No. 770,680. (Cl. 48—148.)



1. In a carbureter mechanism, a carbureter having a carbureting chamber provided with an air inlet, an exhaust pipe, means by which the heat from the exhaust pipe converts water into vapor, means by which the heat from the exhaust pipe converts water into steam, means by which the steam so produced is employed to heat the carbureting chamber of the carbureter, and means by which the vapor produced from the water is mixed with air and the mixture carried to and discharged through said inlet into the carbureting chamber.

2. In a carbureter mechanism, a carbureter having a carbureting chamber provided with an air inlet, an annular chamber encircling the carbureting chamber and provided with an outlet, an exhaust pipe, a water tank, two annular chambers encircling the exhaust pipe, one of said annular chambers having an inlet for air, two conductors respectively connecting the annular chambers which encircle the exhaust pipe with said air inlet and the annular chamber which encircles the carbureting chamber.

3. In a carbureter mechanism, a carbureter having a carbureting chamber having an air inlet and provided with an outlet, a valve controlling said outlet, a chamber having an inlet for air, means for heating the last named chamber by exhaust from the engine, a water conductor discharging into said last named chamber and arranged so that the heat of the exhaust gases converts the water discharged from said conductor into vapor which mixes with the air in said last named chamber, a valve controlling said conductor, a conductor connecting said last named chamber with said air inlet of said carbureting chamber, and means for simultaneously operating said valves.

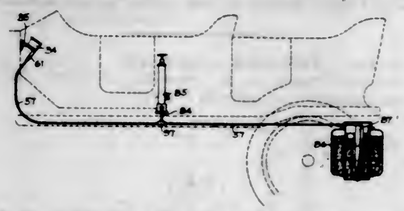
4. In a carbureter mechanism, a carbureter having a carbureting chamber provided with an air inlet and an outlet, a valve controlling said outlet, an exhaust pipe, a chamber encircling said exhaust pipe and having an opening for admitting air, a water conductor discharging into the last named chamber and against said exhaust pipe, a valve controlling said conductor, a conductor connecting said inst named chamber with said air inlet, and means for simultaneously operating said valves.

5. In a carbureter mechanism, a carbureter having a carbureting chamber provided with an air inlet, an exhaust pipe, an annular chamber encircling said exhaust pipe and provided with an opening for admitting air, a water conductor discharging into said annular chamber and against said exhaust pipe, and a conductor connecting said annular chamber with said air inlet.

[Claims 6 to 12 not printed in the Gazette.]

1,072,876. GAGE FOR TANKS. EDWARD S. SAVAGE, Rochester, N. Y. Filed July 31, 1912. Serial No. 712,535. (Cl. 73—82.)

1. In combination with a tank for holding liquid, a gage comprising a tube extending upwardly from, and fixed at, the bottom of the tank; a guide-tube surrounding the fixed tube; a shaft journaled in the fixed tube and connected, at its upper end, with the guide-tube; a float surrounding the guide-tube, stationary means for preventing free rotation of the float, connections between the float and the guide-tube for rotating the latter as the float rises and falls; an indicator located at a point external to the tank; and means for connecting the indicator with the shaft below the bottom of the tank; the fixed tube extending upwardly, in the tank, above the highest level of the liquid therein, whereby liquid is prevented from escaping around the shaft.



2. In combination with a tank for holding liquid, a gage comprising a vertical rotatable cylindrical member provided with a longitudinal flange and mounted in the tank; a float surrounding said member and provided with rollers engaging said flange closely on opposite sides and other rollers engaging opposite portions of the cylindrical member to hold the float concentric therewith, a second flange adjacent the periphery of the float; means, on the float, engaging said second flange; and a visual indicator connected with and actuated by the rotatable member, one of said flanges being helical in form, whereby said rotatable member is caused to turn as the float rises and falls.

3. A gage for tanks comprising a float adapted to rise and fall in a tank; a visual indicator adapted to be located at a distance from the tank; connections between the float and the indicator, for actuating the latter, including a flexible wire acting positively to move the indicator in both directions, by alternative tension and compression; and a guide-tube closely but loosely inclosing the wire, so as to restrict it to longitudinal movement, the guide-tube and the wire being sufficiently flexible to be bent into a curved form without interfering with the operation of the wire.

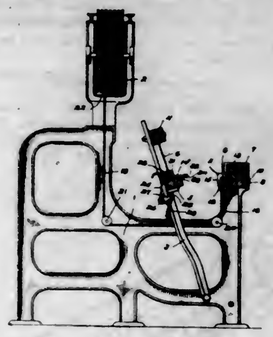
4. A gage for a tank comprising a float adapted to rise and fall in the tank; a visual indicator located at a distance from the tank; connections between the float and the indicator, for actuating the latter, including a flexible wire having a solid core and a winding of wire thereon, said core being sufficiently stiff to operate in one direction by longitudinal compression; and a fixed guide-tube closely but loosely inclosing the flexible wire.

5. In combination with an air-tight tank for holding liquid under pressure, a float adapted to rise and fall in the tank, a visual indicator located at a distance from the tank, mechanical connections between the indicator and the float, for actuating the indicator, including a flexible wire, an air-tight sheath inclosing and guiding the wire, and an air-pump for supplying compressed air to the tank, the pump being connected with said sheath, whereby the sheath acts also as an air-duct to conduct air from the pump to the tank.

[Claims 6 to .. not printed in the Gazette.]

1,072,877. LOOM. ROBERT W. SCHREY, Philadelphia, Pa., assignor of one-half to Albert S. Fairchild, Philadelphia, Pa. Filed Mar. 26, 1913. Serial No. 756,854. (Cl. 139—77.)

1. The combination with the lay of a loom, a reed on said lay, fingers pivotally connected to the reed and having shoulders thereon normally engaging the lay and holding the reed against independent movement, said fingers at their extreme outer ends having beveled lower faces, and movable blocks adapted to be engaged by said beveled faces to lift the fingers out of locked position and cause the reed to be moved rearwardly.



2. The combination with a lay of a loom and a reed thereon, of fingers pivotally secured to the reed and adapted to lock the reed against movement, and means for moving the fingers out of locked position and moving the reed through the medium of said fingers, substantially as described.

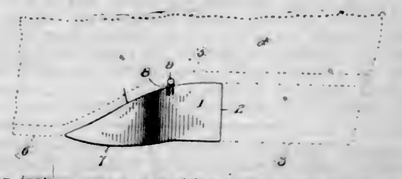
3. The combination with the lay of a loom, and a reed thereon, of fingers pivotally connected to the reed, and normally engaging the lay to hold the reed against rearward movement, and means adapted to be moved into position to be engaged by the fingers to first move the fingers out of locked engagement with the lay and then move the reed on the lay, substantially as described.

4. The combination with the lay of a loom, and a reed mounted thereon, said reed having a lower bar movable transversely on a fixed bar of the lay and having slots therein, of fingers positioned in the slots in the reed bar and pivotally connected at one end to said bar, shoulders on said fingers adapted to engage against the outer face of the lay bar and hold the reed bar against rearward movement, and means for first elevating the fingers out of locked engagement with the lay bar and then moving the reed rearwardly, substantially as described.

5. The combination with the lay of a loom, and a reed mounted thereon, said reed having a lower bar movable transversely on a fixed bar of the lay and having slots therein, of fingers positioned in the slots in the reed bar and pivotally connected at one end to said bar, shoulders on said fingers adapted to engage against the outer face of the lay bar and hold the reed bar against rearward movement, said fingers at their extreme outer ends having beveled lower faces, and shoulders at the inner ends of said beveled faces, and movable blocks adapted to be engaged by said beveled faces to first lift the pivoted fingers out of locked engagement with the lay, and then engaged by said last-mentioned shoulders to move the reed rearwardly, substantially as described.

[Claim 6 not printed in the Gazette.]

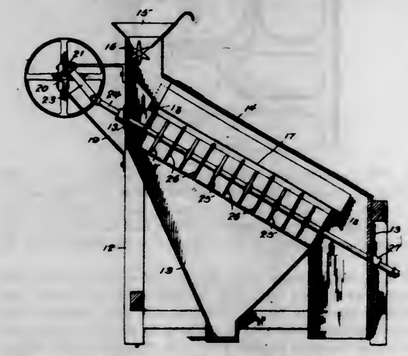
1,072,878. INSTEP-SUPPORT. ETTIE L. SHANE, Carnegie, Pa. Filed June 28, 1912. Serial No. 706,420. (Cl. 36—76.)



An instep support comprising a block having the rear portion squared and its forward portion tapering, the upper and lower faces of said tapering portion being reversely curved with respect to each other, said block adapt-

ed to engage the arched portion of a shoe sole, said curved lower face projecting beyond the plane of the lower surface of the heel and sole and staples carried by the sides and projecting above the block and providing passages for the entrance of holdfast devices into the shoe sole for connecting the block therewith.

1,072,879. SCREEN OR SEPARATOR. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed Jan. 6, 1913. Serial No. 740,415. (Cl. 83—56.)



1. In a separator, the combination with a fixed or stationary screen, of an air-stirring device comprising air-stirring members arranged adjacent to but separated from said screen, and means for causing said air-stirring members to travel in a plane approximately parallel to that in which the said screen is disposed in performing their air-stirring movements.

2. In a separator, the combination with a screen, of a reciprocating air-stirring device comprising air-stirring members arranged adjacent to but separated from said screen, and means for causing said air-stirring members to travel in a plane approximately parallel to that in which the said screen is disposed in performing their air-stirring movements.

3. In a separator, the combination with a fixed or stationary screen, of an air-stirring device comprising air-stirring members arranged beneath and adjacent to but separated from said screen, and means for causing said air-stirring members to travel in a plane approximately parallel to that in which the said screen is disposed in performing their air-stirring movements.

4. In a separator, the combination with an inclined screen, of an air-stirring device comprising air-stirring members arranged adjacent to but separated from said screen, and means for causing said air-stirring members to travel in a plane approximately parallel to that in which the said screen is disposed in performing their air-stirring movements.

5. In a separator, the combination with an inclined screen, of an air-stirring device comprising air-stirring members arranged beneath and adjacent to but separated from said screen, and means for causing said air-stirring members to travel in a plane approximately parallel to that in which the said screen is disposed in performing their air-stirring movements for the production of pulsating air currents which pass reversely or alternately through the screen clothing.

[Claims 6 to 11 not printed in the Gazette.]

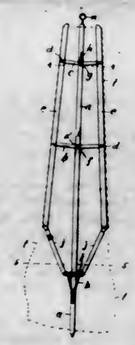
1,072,880. BULLET. WILLIAM A. TEWES, Jersey City, N. J., assignor to Peters Cartridge Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 669,080. (Cl. 102—28.)

In a jacketed bullet of the "Spitzer" or sharp-pointed type, the combination of a core having a comparatively sharp point, a body portion of substantially uniform diameter throughout and having a conical cavity in the rear end to form a flexible peripheral rear flange increasing



gradually in thickness toward the pointed end of the core, and a casing fitting over said pointed end and body portion and secured thereto by having its edge crimped into the said cavity against the rear conical surface thereof.

1,072,881. TROUSERS-STRETCHER. GARRIT VAN ROOIJEN, Chester, N. J. Filed Dec. 19, 1912. Serial No. 737,612. (Cl. 223—19.)



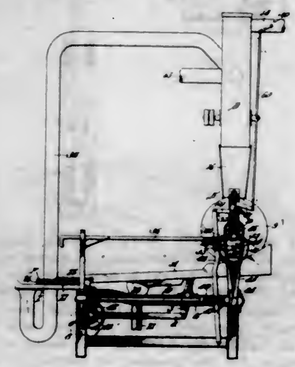
In a trousers' stretcher, the combination, with a central fulcrum-bar and the side-bars *e* connected thereto by the links *b* and *c*, of the slider *i* fitted upon the fulcrum-bar and having arms *v* projected at opposite sides of the same, and links *j* connecting the ends of the arms with the ends of the side-bars *e*, and the lock-piece *k* jointed upon both the said arms and having the hook *k'*, and the bar *a* having the series of holes *l* to admit the hook and lock the stretcher when adjusted in the trousers.

1,072,882. MATCH-SPLINT CLEANING AND ASSEMBLING MACHINE. BERNARD G. VAUGHAN, Joliet, Ill., assignor to National Match Company, Joliet, Ill., a Corporation of Illinois. Filed Mar. 19, 1912. Serial No. 684,669. (Cl. 144—50.)

1. A match-splint assembling machine comprising a reciprocating table provided with channels, means for supplying match-splints to said table, the table having openings through which the dust, dirt and short splints can escape from said channels, a stationary support arranged adjacent the discharge end of the table, a removable member mounted on said support, means for causing said member to reciprocate with the table, and a plurality of removable receptacles in said member for receiving the splints that are discharged from said table, said receptacles being adapted to be removed from said member and emptied into the hopper of a match-making machine.

2. A match-splint leveling machine, comprising a grooved or channeled table, means for reciprocating said table, a rotatable screen arranged in proximity to said table for delivering match-splints onto same, pneumatic means for drawing splints from a source of supply and delivering them to said screen, means for causing said screen to come to rest automatically after it has made a certain number of revolutions, and means for automatically cutting off the supply of splints to the screen when it comes to rest.

3. A match-splint assembling machine comprising a reciprocating table provided with channels, means for supplying match-splints to said table, the table having openings through which the dust, dirt and short splints can escape from said channels, a stationary support arranged adjacent the discharge end of the table, a removable member mounted on said support, means for causing said member to reciprocate with the table, a plurality of relatively long and narrow receptacles arranged in said member at approximately right angles to the channels on the table for receiving the splints that are discharged from the table, and a removable means detachably connected to said member for dividing each of said receptacles into a plurality of compartments.



4. A machine for the purpose described, comprising a reciprocating table provided with longitudinally extending channels, means for supplying match-splints to said table, a frame detachably connected to one end of said table, a plurality of substantially trough-shaped receptacles arranged in said frame for receiving the match-splints that travel down the channels in said table, said receptacles extending transversely across all of the channels in the table, and a removable partition member carried by said frame and detachably connected to same for dividing each receptacle into a number of compartments.

5. A match-splint-receiving apparatus comprising a frame, a plurality of trough-like receptacles arranged in said frame, a yielding device which tends to hold said receptacles in the frame, a removable partition member that divides each receptacle into a plurality of compartments, a pivotally mounted device on said frame that cooperates with a device on said partition member so as to lock it in the frame, and means for holding said pivotally mounted device in adjusted position.

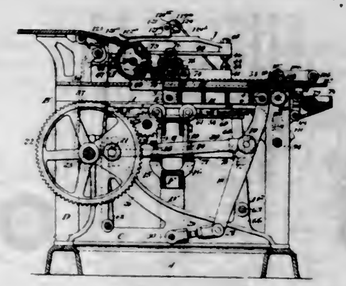
[Claims 6 and 7 not printed in the Gazette.]

1,072,883. PRINTING-PRESS. MATTHEW VIEBENGEL, New York, N. Y., assignor, by mesne assignments, to The Autopress Company, New York, N. Y. Filed Oct. 24, 1905, Serial No. 284,222. Renewed Dec. 14, 1907, Serial No. 406,484. (Cl. 101—11.)

1. A printing press including a form-bed, a laterally reciprocating impression cylinder, a guide frame for the latter, springs to hold said frame in raised position, and cam-operated mechanism to lower said frame in opposition to said springs at predetermined times.

2. The combination, with the impression cylinder and the guide frame in which the same is laterally guided, of springs upon which said frame rests, and means acting on said frame at the corners thereof to pull the same in downward direction in opposition to said springs.

3. The combination, with the impression cylinder, of the guide frame therefor and comprising side frames having spaced upper and lower members, springs interposed between the lower members of said side frames and the frame of the press, rods passing through the members of said side frames, and means acting on said rods to pull the same downwardly at predetermined times.

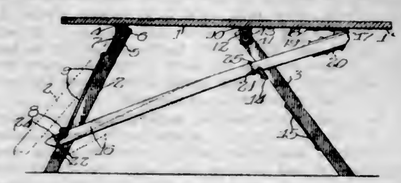


4. The combination, with the impression cylinder and the guide frame in which the same is laterally guided, of springs upon which said frame rests, a plurality of rods secured to said frame and extending downwardly into the frame of the press, and means for simultaneously pulling all of said rods in downward direction during the printing movement.

5. The combination, with the impression cylinder and the guide frame in which the same is laterally guided, of springs upon which said frame rests, a plurality of rods secured to said frame and extending downwardly into the frame of the press, a cam to pull down each rod, and an operative connection between said cams.

[Claims 6 to 20 not printed in the Gazette.]

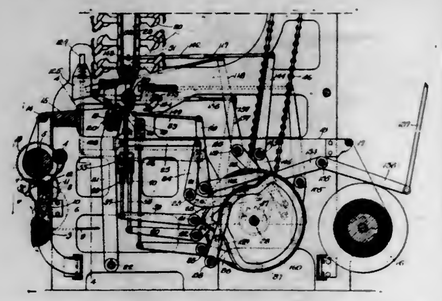
1,072,884. IRONING-TABLE. HENRY M. WALKER, Chicago, Ill. Filed Jan. 8, 1912. Serial No. 670,028. (Cl. 68—10.)



1. In a device of the kind described and in combination, a suitable top, a pair of legs hinged to said top near one end thereof, and provided with a connecting bar proximate their free ends, a pair of legs hinged to the top intermediate the ends thereof and provided with a connecting bar proximate the hinged ends thereof, and a resilient locking bar hinged to the top proximate the other end thereof, said bar provided with notches therein and arranged to engage the upper edge of one of said connecting bars and the lower edge of the other connecting bar.

2. In a device of the kind described, the combination of a suitable top, a pair of legs hinged thereto at one end thereof and provided with a connecting bar proximate the free ends, a resilient brace bar hinged proximate the other end of said top, a pair of legs hinged to said top at a point between the points of pivotal connection of said first mentioned pair of legs and said brace bar, said last mentioned legs provided with a connecting bar proximate their hinged ends, said brace bar provided with a notch in the lower edge thereof for engagement with the upper edge of said last mentioned connecting bar, and with a notch proximate the free end in the upper edge thereof for engagement with the lower edge of the connecting bar of said first mentioned pair of legs.

1,072,885. LOOM FOR WEAVING ORIENTAL KNOTTED FABRICS. THOMAS P. WALSH, Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Filed Aug. 18, 1910. Serial No. 577,838. (Cl. 139—66.)



1. In a loom, mechanism for supporting the ground warp threads for weaving, means for delivering color yarns with their free ends always in position to be moved between the warp threads, and coöperating knot-forming mechanism for moving each free end between a pair of warp threads and coiling the color yarn about said pair of warp threads to form an oriental knot, the aforesaid mechanism including means for forming the knot-bends in the body of said color yarn independent of the ends of said color yarn, and means coöperating with said delivering means for positively holding the yarn gripped at each side of the knot-constituting part of the body during the entire bending operation.

2. In a loom, mechanism for supporting the ground warp threads for weaving, and coöperating knot-forming mechanism for coiling a color yarn about the ground warp threads to form a Persian knot, said two mechanisms including means for forming the knot-bends entirely in and with the body of said color yarn independent of the ends of said color yarn, said loom having means for positively engaging and holding said color yarn on both sides of said body portion next to the knot while the knot is being formed between the parts of the color yarn thus held, and means for laying binder thread while the color yarn is so held at both sides of the knot.

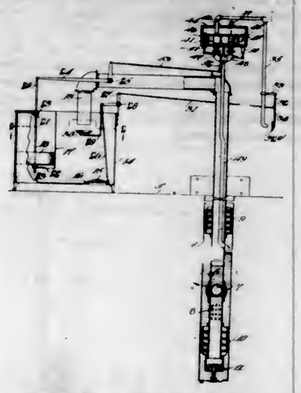
3. In a loom, mechanism for supporting pairs of ground warp threads approximately parallel to each other, means for delivering unattached color yarns and laying them lengthwise of and between the warp threads at each knotting operation, mechanism coöperating with the aforesaid mechanism and means to move each color yarn to the fell and thereby and simultaneously coil the same about the adjacent two ground warp threads in oriental-knot formation, and means for thereafter severing the knotted color yarns at the fell.

4. In a loom, knot-weaving bending and coiling mechanism to automatically and simultaneously perform all the knot-forming bending and coiling movements of a series of unattached color yarns about the ground warp threads with one forward movement of said color yarns, said mechanism including means to coil each color yarn about a pair of ground warp threads in an oriental knot, and binder-filling weaving mechanism for binding said woven color yarns and ground warp threads into a woven fabric.

5. In a loom, knot-weaving mechanism to automatically and simultaneously bend and coil a series of unattached color yarns about the ground warp threads with one forward movement of said color yarns, said mechanism including means to coil each color yarn about a pair of ground warp threads in an oriental knot, binder-filling weaving mechanism for binding said woven color yarns and ground warp threads into a woven fabric, and automatic cutting mechanism for severing and gripping the knotted color yarns while being bound.

[Claims 6 to 67 not printed in the Gazette.]

1,072,886. PNEUMATICALLY-OPERATED PUMP. ERNEST NOBLE WARD and FREDERICK JASPER WARD, Baxter Springs, Kans., assignors of one-third to Samuel M. West, Baxter Springs, Kans. Filed Nov. 26, 1912. Serial No. 733,618. (Cl. 103—8.)



1. In a pneumatically operated pump, comprising a casing pipe, a discharge pipe mounted within said casing pipe, packings connected with said discharge pipe and said casing pipe and located some distance apart, means for admitting water into said casing pipe, means for admitting water from said casing pipe into said discharge pipe, air mechanism for directing compressed air between said packings for the purpose of forcing a supply of water from between said packings and out through said discharge pipe, a receptacle for receiving said supply of water thus discharged from said discharge pipe, a float mounted in said receptacle and means controllable by the rising of said float for shutting off said air supply.

2. A pneumatically operated pump comprising a discharge pipe for extending down into the well, means for applying air pressure to a liquid in said well in order to discharge said liquid through said discharge pipe, a receptacle for receiving said liquid thus discharged, a pan located within said receptacle and partially within the path of the liquid thus discharged, a valve for automatically preventing egress of water from said receptacle, means controllable by the discharge of water into said receptacle for maintaining said valve closed and mechanism controllable by the discharge of air after the issue of said air for raising the water for opening said valve.

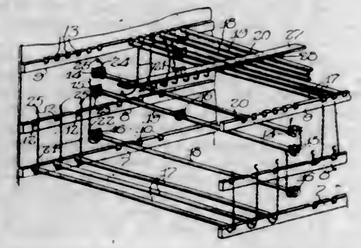
3. A pneumatically operated pump, comprising a casing pipe, a discharge pipe extending into said casing pipe, packings engaging said discharge pipe and said casing, means for admitting water between said packings, means for admitting water from said casing into said discharge pipe, valve mechanism for directing the supply of compressed air between said packings in order to force a supply of water upwardly through said discharge pipe shifting mechanism for actuating said valve mechanism, a float connected with said shifting mechanism, a receptacle for holding a supply of water, said float being located within said receptacle and adapted to be raised as the depth of water within said receptacle increases, and means controllable by movements of said float for actuating said shifting mechanism.

4. A pneumatically operated pump, comprising a discharge pipe, means for applying air pressure to a liquid in a well in order to force said liquid through said discharge pipe, a receptacle for receiving the liquid thus discharged, a float mounted within said receptacle, a guide rod extending through said float and controllable by movement of the latter, a bell crank lever connected with said guide rod, a pitman connected with said bell crank lever, a T lever connected with said pitman and adapted to rock a mechanism connected with said T lever and controllable thereby for turning on and shutting off the supply of air.

5. A pneumatically operated pump comprising a discharge pipe for extending into the well, an air pipe extending through said discharge pipe and communicating with the well outside of said discharge pipe, means for admitting the liquid from the well into said discharge pipe and for preventing retrogression of said liquid into said well, valve mechanism connected with said air pipe for the purpose of directing air under pressure thereinto, a receptacle for receiving a liquid forced out through said discharge pipe, a float mounted within said receptacle, a mechanism connected with said float and with said valve mechanism for enabling movements of said float to actuate said valve mechanism.

[Claim 6 not printed in the Gazette.]

1,072,887. FREIGHT-CAR OR THE LIKE. LUDO J. WARNER, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,885. (Cl. 105—15.)



1. In a car, a plurality of vertically spaced longitudinally extending bars on each side of the car, the bars on each side having a plurality of engaging parts in alinement with similar parts on the coöperating bar at the opposite side of the car, a plurality of transversely extending rods adapted to be supported at the ends by said engaging parts and to be shifted from one pair of bars to another, an auxiliary connection between the rods and the car, said last mentioned connection being movable to permit of said adjustment of the rods, and bracket supports on the sides of the car for the ends of the rods arranged intermediate said longitudinally extending bars.

2. In a car, the combination of a plurality of rods extending horizontally from one wall of the car to an opposite wall thereof, a supporting member for one end of the rods having a connection with the rods adjacent one end and with the adjacent wall of the car, relative fixed supports on opposite walls of the car for opposite ends of said rods, said first mentioned supporting member being movable whereby to permit the rods to be moved into and out of engagement with the relatively fixed supports.

3. In a car, the combination of a plurality of tubular rods arranged transversely the car, movable means for attaching said rods to one side of the car, and means for supporting the ends of said rods in adjusted positions.

4. In a car, a plurality of vertically spaced longitudinally extending bars on each side of the car, the bars on each side having a plurality of engaging parts in alinement with similar parts on the coöperating bar at the opposite side of the car, a plurality of transversely extending rods adapted to be supported at the ends by said engaging parts and to be shifted from one pair of bars to another, a relatively fixed flexible connection between the rods and the car, and bracket supports on the sides of the car for the ends of the rods arranged intermediate said longitudinally extending bars.

5. In a car, the combination of a bar arranged along each side of the car and having separated engaging parts, a plurality of rods removably supported by said engaging parts, and a flexible member connected to the bar and to the side of the car for preventing the removal of the rods from the car.

[Claims 6 to 11 not printed in the Gazette.]

1,072,888. MULTIPLE CENTRIFUGAL GOVERNOR. HERMAN A. WEIDENBACH, Buffalo, N. Y. Filed May 24, 1911. Serial No. 629,248. (Cl. 121—112.)



1. A governor comprising a shaft, a two part casing centrally pivoted on said shaft, weights arranged on the periphery of said casing parts, a spindle longitudinally movable within said casing and said shaft, levers connecting said spindle with said casing parts and means for pivotally mounting different levers having different leverages at different points between said spindle and the outside walls of said casing parts, whereby the multiplying effect of the leverage action on said spindle may be altered as desired.

2. A governor comprising a shaft, a two part casing centrally pivoted on said shaft, weights arranged on the periphery of said casing parts, a spindle longitudinally movable within said casing and said shaft, adjustably arranged spring means connecting the parts of said casing, levers connecting said spindle with said casing parts, and means for pivotally mounting different levers having different leverages at different points between said spindle and the outside walls of said casing parts whereby the multiplying effect of the leverage action on said spindle may be altered as desired.

3. In a governor of the combination of a shaft, a two part casing centrally pivoted on said shaft, weights arranged on the periphery of said casing parts, a spindle provided with racks longitudinally movable within said casing and said shaft, adjustable arranged spring means connecting the parts of said casing, and lever means connecting said spindle with said casing parts comprising, segmental gears arranged to mesh with the racks on said spindle and pivotally mounted on said shaft within the periphery of said casing parts, and outwardly extending arms secured to said segmental gears and engageable with said casing parts.

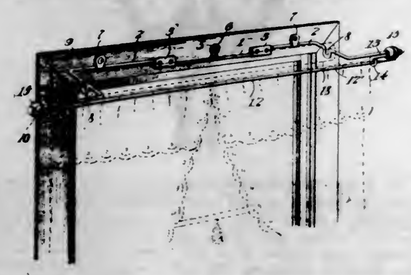
4. In a governor of the combination of a shaft, a two part casing centrally pivoted on said shaft, weights arranged on the periphery of said casing parts, a spindle provided with racks longitudinally movable within said casing and said shaft, adjustably arranged spring means connecting the parts of said casing, and lever means connecting said spindle with said casing parts comprising, segmental gears arranged to mesh with the racks on said spindle and pivotally mounted on said shaft at a greater distance from said spindle than from the periphery of said casing parts, and outwardly extending arms secured to said segmental gears and engageable with said casing, whereby the longitudinal movement of said spindle is multiplied by the movement of said weights.

5. In a governor of the combination of a shaft, oppositely arranged pivot pins carried by said shaft, a two

part casing centrally pivoted on said pivot pins, weights arranged on the periphery of said casing parts, a spindle provided with racks and longitudinally movable within said casing and said shaft, ears on said shaft each provided with a slot, segmental gears pivotally carried by said ears in said slots and arranged to mesh with the racks on said spindle, and outwardly extending arms secured to said segmental gears, engageable with said casing parts, said segmental gears being pivoted at a greater distance from said spindle than from the periphery of said casing, whereby the longitudinal movement of said spindle is multiplied by the movement of said weights.

[Claim 6 not printed in the Gazette.]

1,072,889. WINDOW SHADE AND CURTAIN HANGER. SAMUEL DAVIS WELTON, Craigsville, Pa. Filed May 28, 1913. Serial No. 770,479. (Cl. 156—23.)



1. A fixture comprising a bracket having relatively adjustable portions, said adjustable portions having shade sustaining means, and a curtain rod connected to one of the portions of the bracket and adapted to engage the other, the said rod being adjustable relative to the adjustment of the portions of the bracket.

2. In a fixture, an intermediate portion, end portions adjustable longitudinally of the intermediate portion, clamping sleeves connecting the end portions with the intermediate portion, each end portion having an outstanding projection adapted to sustain a shade, and a longitudinally adjustable curtain rod engaging and adapted to be sustained by said outstanding projections.

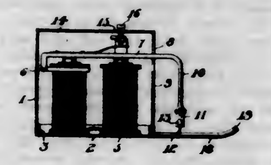
3. In a fixture, spaced rods, an intermediate rod having a portion lapping the spaced rods, a sleeve at each end portion of the intermediate rod surrounding the respective end portions and the corresponding adjacent portion of the first mentioned rods, means for clamping the sleeves about said rod, each of the spaced rods being formed with shade roller sustaining means and curtain rod sustaining means projecting laterally therefrom, and a curtain rod connected with one of the spaced rods and extending to and being adapted to be sustained by the other.

4. A fixture comprising an intermediate rod section, spaced rod sections extending adjacent the end portions of the intermediate rod section, means telescopically connecting the end rod section with the intermediate rod section, each of said end rod sections being formed with curtain roller sustaining means and extending beyond the same, the extension of one of the end rod sections being bent back upon itself and formed into a hook and the other being bent back upon itself and formed into a curtain rod extending to and being adapted to lie within the hook.

5. A fixture comprising a longitudinally adjustable body adapted to be connected with a window frame, said body having outstanding curtain roller sustaining projections and an extension beyond each of said projections disposed parallel to the extended planes of the body portion, and a longitudinally adjustable curtain rod carried by said extensions.

[Claims 6 and 7 not printed in the Gazette.]

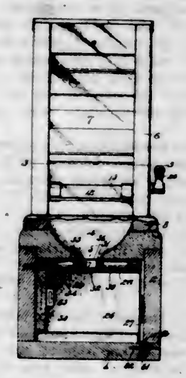
1,072,890. PERFORATION DEVICE FOR WALL-PAPER. SAMUEL E. WHISNER, Verona, Pa. Filed Mar. 1, 1913. Serial No. 751,458. (Cl. 101—133.)



1. An electrical perforating device comprising a casing having one end provided with an opening, a pair of magnets arranged within said casing, an armature projecting through said opening and having each of its ends bent in angular manner, said inner angular end projecting toward one of said magnets, a pin for pivotally connecting said inner angular end to that magnet toward which it projects, a short needle connected to the outer angular end of the armature, and a pair of spaced guide rods secured to that end of the casing provided with the opening at the bottom of said end.

2. An electrical perforating device comprising a casing having one provided with an opening, a pair of magnets arranged within said casing, an armature projecting through said opening and having each of its ends bent in an angular manner, said inner angular end projecting toward one of said magnets, a pin for pivotally connecting said inner angular end to that magnet toward which it projects, a short needle connected to the outer angular end of the armature, and a pair of spaced guide rods secured to that end of the casing provided with the opening at the bottom of said end, the free ends of said rods curving upwardly.

1,072,891. STREET-CAR FARE-BOX. VANCE WHITAKER, St. Louis, Mo. Filed Sept. 13, 1912. Serial No. 720,139. (Cl. 232—15.)



1. In a street car fare-box, in combination with a casing having a closable opening, a cash-box insertible in said casing and having a movable closure in its rear side and provided in its top with an opening, a slide-plate having an opening designed to register in one position of the plate with said opening, a stop in the casing adapted to engage said plate and to remove it to and hold it in the latter position when the cash-box is in the casing, means for moving said plate to cover the opening in the top of the cash-box when the latter is withdrawn from the casing, automatic mechanism acting to lock said plate in the latter position, mechanism operable by the closure of the cash-box, on opening the same, to release the locking mechanism, said plate being adapted to be moved by the stop on the casing to uncover the opening in the top of the cash-box upon its reinsertion in the casing after being opened, and means adapted to be engaged by said plate in its latter movement to re-set the locking mechanism.

2. In a street car fare-box, in combination with a casing having a closable opening, a cash-box insertible in said casing and having a movable closure in its rear side and being provided with an opening in its top, a spring-pressed slide-plate mounted on the top of the cash-box and provided with an aperture adapted to aline with the aperture in the cash-box, a stop in the casing adapted to engage said plate and to move it from its normal to the alining position described, said plate being movable by its spring to cover the aperture in the cash-box when the latter is drawn out of the casing, automatic mechanism acting to lock the plate in the latter position, mechanism operable by the closure of the cash-box, on opening the same, to release the locking mechanism, said plate being adapted to be engaged by the stop on the casing upon inserting the cash-box in the casing after opening the cash-box and to be moved to bring the said apertures in registry, and means adapted to be engaged by the plate in its latter movement for re-setting the locking mechanism.

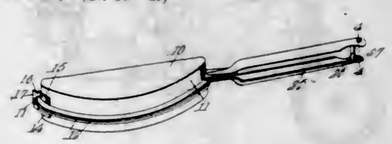
3. In a street car fare-box, in combination with a casing having a closable opening and provided on its interior with a fixed pin, a cash-box insertible in said casing and having a movable closure and being provided in its top with an opening, the top of the casing being located below the plane of the upper edges of its side walls, the rear wall of the cash-box above its top being provided with an aperture for receiving said pin, a spring-pressed slide-plate mounted on the top of the cash-box and having an upstanding flange at one end and adapted to be engaged by the pin of the casing, said plate having an aperture adapted to be brought into alinement with the aperture in the top of the cash-box by engagement of the flange of the plate with said pin after the cash-box is inserted in the casing, and being moved by its spring to cover the aperture in the top of the cash-box and to have its flange cover the opening in the rear wall thereof upon withdrawal of the cash-box from the casing, automatic mechanism operating to lock the plate in the latter position, mechanism operable by the closure of the cash-box on opening the same to release the locking mechanism, and means adapted to be engaged by the plate when pressed back by said pin for re-setting the locking mechanism.

4. In a street car fare-box, in combination with a casing having a closable opening, a cash-box insertible in said casing and having a movable closure and being provided with an opening in its top, a spring-pressed plate slidably mounted on said top and having an opening adapted to register with that in the top, a fixed pin in the casing adapted to engage said plate and to move it to the latter position as the cash-box is inserted in the casing, a spring-pressed bail having a downward projection normally resting on the top of said plate, the top of the cash-box being provided with an aperture immediately under said projection, a pivoted trip lever, a second arm on said bail adapted to be engaged by said trip lever to raise the same, a rod secured at one end to the closure of the cash-box and operably connected with said trip lever, whereby, upon opening the door of the cash-box, the said trip lever will be turned to raise said bail, said plate, upon its movement to the registering position stated, being adapted to engage the trip lever to release said bail whereby, when the plate is pressed inward by its spring by removal of the cash-box from its casing, its end will pass from under the projection on the bail and allow the same to spring into the aperture of the casing whereby to lock the plate against further movement until the door of the cash-box has been opened.

5. In a street car fare-box, in combination with a casing containing a cash receptacle and above the same being provided with a movable support for temporarily holding the deposited fares, a door on said casing, and means operated by the door on opening the same for actuating said movable support to discharge the fares thereon into the cash-box.

[Claim 6 not printed in the Gazette.]

1,072,892. COOKING UTENSIL. JOHN H. WILSON, New Kensington, Pa. Filed Sept. 24, 1912. Serial No. 722,133. (Cl. 53—3.)



A skillet comprising a pair of receptacles each having a straight edge and having a curved edge surrounded by a marginal flange; inner and outer hinges connecting the receptacles and located at the ends of the straight edges, the hinges being located outside of the pan to avoid an accumulation of the contents of the pan upon the hinges when one receptacle is inverted upon the other, the flanges having openings receiving the hinges, thereby permitting the hinges to be located close to the receptacle, thus effecting a shortening of the hinges and lessening the tendency of the hinges to spring and effect a spacing of the flanges; handles secured to the receptacles adjacent the inner hinge and offset from the said hinge; one handle being provided adjacent its free end with a stop adapted to engage the other handle, the stop constituting means for preventing the handles and the receptacles from acting as levers of the first order, with the inner hinge as a fulcrum, and thus spacing portions of the flanges, when the receptacles are superposed and when the handles are grasped simultaneously.

1,072,893. WINDOW-OPERATING MECHANISM. WILLIAM VON WOLFFRADT, Cleveland, Ohio. Filed Nov. 27, 1912. Serial No. 733,789. (Cl. 16—24.)

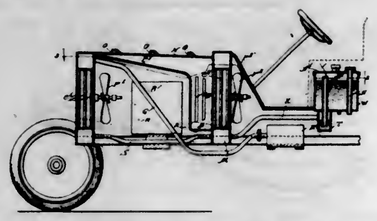


1. The combination with a window hinged along one side, a brace secured upon said window upon the side opposite to that which is hinged, said brace extending diagonally from the window, an operating rod extending parallel with the window, the said brace having an articulated connection with the rod, said brace receiving the direct thrust and pull in the opening and closing of the window, auxiliary braces extending from points between the ends of the said brace to the window, and means for moving said rod.

2. The combination with a window hinged along one side, an operating rod extending parallel to the window, a brace secured upon said window upon the side opposite to that which is hinged, said brace extending diagonally and having an articulated connection with the rod, an auxiliary brace secured to said brace between the ends thereof, and extending to the hinge side of the window, and a second auxiliary brace connected with the brace between the ends thereof and extending to and secured at one end of the window, and means for moving said rod.

3. The combination with a plurality of windows hinged along one side, a movable rod extending parallel with said windows, a brace secured upon each window and extending therefrom at an angle, an auxiliary brace securing the first mentioned brace with the hinged side of the window, and a second auxiliary brace connecting the first mentioned brace with one end of the window, sleeves secured upon the aforesaid rod, said sleeves being hingedly connected with the first mentioned brace, and a flexible cord secured to the said movable rod for operating the same.

1,072,894. CONDENSING APPARATUS FOR STEAM MOTOR-CARRIAGES. CHARLES C. WORTHINGTON, Dunnfield, N. J. Filed Jan. 27, 1909. Serial No. 474,582. (Cl. 21—90.)



1. In combination, a motor vehicle, having a hood member, a condenser located at each end of said hood member, and means coöperating with said hood member whereby separate currents of air will be directed against each of the condensers and over the surfaces of only the respective condensers by advancing the vehicle.

2. In combination, a motor vehicle, a plurality of condensers mounted thereon and arranged one in advance of the other, a fan arranged adjacent each condenser for inducing a current of air against each of the condensers, and means for preventing the heated air passing from one of the condensers from being directed against another condenser.

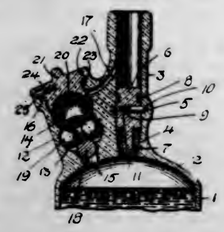
3. In combination, a motor vehicle, a plurality of condensers mounted thereon and arranged in tandem, means for directing air against and over the outside of said condensers, and a partition disposed between said condensers to prevent the heated air from passing from one condenser and against another condenser.

4. In combination, a motor vehicle, two condensers mounted thereon, and a hood covering the space between the condensers for directing a current of air against one condenser and conveying the heated air away from the other condenser.

5. In combination, a motor vehicle, two condensers mounted thereon, a hood covering the space between the condensers, and a partition dividing said space into two sections whereby the heated air will be directed away from one condenser and unheated air will be directed to the other condenser.

[Claims 6 to 29 not printed in the Gazette.]

1,072,895. ANTIREFILLABLE BOTTLE. VINCZENZ ZSUZSITS, Aurora, Ill. Filed Nov. 11, 1912. Serial No. 730,677. (Cl. 215—69.)



In an anti-refillable bottle, a main bottle neck, a closure arranged in the lower portion thereof and locked thereto, an auxiliary bottle neck formed integral with the breast of the bottle and with one side of the bottle neck, said auxiliary bottle neck formed with communicating recesses and further having a tapering port for establishing communication between one of said recesses and the interior of the bottle, said bottle necks formed with a curved port for establishing communication between the other of said recesses and the interior of the main bottle neck, a spherical valve normally closing said port, shiftable spherical bodies arranged in said recesses and engaging said valve for normally maintaining it seated, and a closure arranged within the outer end of the auxiliary neck and locked thereto for confining the movement of said spherical bodies, said auxiliary bottle neck being of greater diameter than said main bottle neck and said spherical bodies of greater diameter than said valve.

1,072,896. HOSE-CLAMP. FRANK H. ALBEE, Boston, Mass. Filed Apr. 2, 1913. Serial No. 758,303. (Cl. 137—28.)



1. The herein described means for attaching hose to a coupling-nipple consisting of a nipple having a plurality of annular beads with relatively wide spaces therebetween, two pairs of semi-circular bars which are narrower than said spaces and separated to an extent greater than the width of the beads, the bars of each pair being arranged in parallel relation for engagement with the hose opposite the spaces between the beads, means arranged remote from the hose and free from engagement therewith which join said bars together, and means to draw said pairs of bars toward each other to firmly grip the hose opposite said spaces and substantially compress it in said spaces.

2. The herein described means for attaching hose to a coupling-nipple consisting of a nipple having a plurality of annular beads with relatively wide spaces therebetween, two pairs of semi-circular bars which are narrower than said spaces and separated to an extent greater than the width of the beads, the bars of each pair being arranged in parallel relation for engagement with the hose opposite said spaces between the beads, bridges arranged remote from the hose and free from engagement therewith connecting said bars together, and means to draw said pairs of bars toward each other to firmly grip the hose and compress it in said spaces.

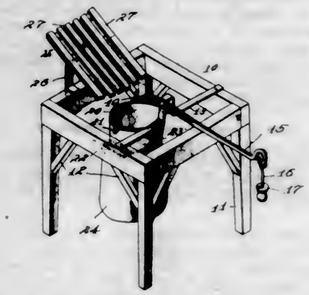
3. The herein described means for attaching hose to a coupling-nipple consisting of a nipple having a plurality of annular beads with spaces therebetween, two pairs of semi-circular bars, the bars of each pair being arranged in parallel relation for engagement with the hose opposite said spaces, bridges arranged at both ends of each pair of bars to join said bars together, said bridges being arched substantially the width of the spaces between said bars, so as to be free from engagement with the hose, ears projecting outwardly from said bridges, a curved lip arranged at one end of each pair of bars which is made substantially as wide as the space between said bars, admitting of the bars engaging the hose throughout their entire length opposite said spaces between the beads, said lips crossing the meeting points of the ears, and means to draw said pairs of bars toward each other.

4. The herein described means for attaching hose to a coupling-nipple consisting of a nipple having a plurality of annular beads with spaces therebetween, two pairs of semi-circular bars, the bars of each pair being arranged in parallel relation for engagement with the hose opposite said spaces, bridges arranged intermediate the length of each pair of bars and also at both ends of each pair of bars to join said bars together, said bridges being arched substantially the width of the spaces between said bars, so as to be free from engagement with the hose, ears projecting outwardly from said bridges, a curved lip arranged at one end of each pair of bars which is made substantially as wide as the space between said bars, admitting of the bars engaging the hose throughout their entire length opposite said spaces between the beads, said lips crossing the meeting points of the ears, and means to draw said pairs of bars toward each other.

5. The herein described means for attaching hose to a coupling-nipple consisting of a nipple having a plurality of annular beads with relatively wide spaces therebetween, means to engage a jacketed portion of the hose opposite the spaces between the beads which do not engage the hose over the beads, and two rings which are narrower than the spaces between the beads and separated to an extent greater than the width of the beads and arranged in parallel relation for engaging an unjacketed portion of the hose opposite the said spaces, means arranged remote from the unjacketed portion of the hose and free from engagement therewith for joining said rings together, and means free from engagement with the unjacketed portion of the hose for drawing said rings to cause them to firmly engage said unjacketed portion of the hose and substantially compress it in said spaces, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,072,897. BAG-MEASURING APPARATUS. JAKE AMACHER, Cullom, Ill. Filed Nov. 16, 1912. Serial No. 731,804. (Cl. 73—38.)

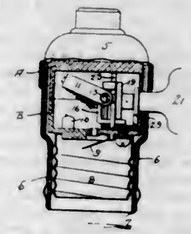


In a measuring apparatus of the type described, an open rectangular frame comprising side and end bars and having supporting legs, a yoke member spanning the frame being supported on the side bars adjacent one end of the frame, a scale beam mounted in said yoke member and lying above the frame with its measure-supporting end positioned substantially centrally over the center of the frame and its weight-receiving end extending outside the frame beyond one end of the latter, a measuring hopper removably supported on the inner end of said beam, and a chute supported on the opposite end of the frame, said chute disposed above the end bar of the frame on which it is supported and disposed at an incline to discharge into said hopper.

1,072,898. ELECTRIC SWITCH. ERIC ANDERSON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 21, 1913. Serial No. 762,661. (Cl. 173—346.)

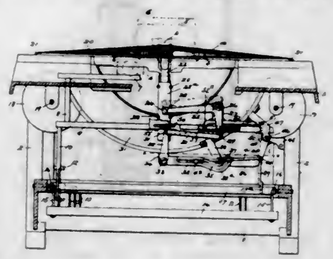
1. An electric switch mechanism comprising a pivoted oscillating switch piece, a spring suitably connected at one end to said switch piece for operating the latter and a movable abutment for the other end of said spring, a manually operated member and means in connection therewith for shifting said abutment in one direction past the axis of oscillation of said switch piece, and spring means operatively engaging said abutment to shift the latter in opposite direction past the axis of oscillaion of said switch piece.

2. An elecric switch mechanism comprising a pivoted oscillating switch piece, a spring suitably connected to the free end of said switch piece for operating the latter, a slide abutment for the other end of said spring, a manually operated cam operatively engaging said slide abutment to shift the abutting end of said switch spring past the center of oscillation of said switch piece, and a spring operatively engaging said slide to shift said spring end in the opposite direction past the center of oscillation of the switch piece, substantially as described.



3. An electric switch mechanism comprising a pivoted oscillating switch piece, a spring suitably connected to the free end of said switch piece for operating the latter, a slide abutment for the other end of said spring, a manually operated cam operatively engaging said slide abutment to shift the abutting end of said switch spring past the center of oscillation of said switch piece, and a spring operatively engaging said slide to shift said spring end in the opposite direction past the center of oscillation of the switch piece, said slide operating spring being placed under operating tension by the movement of the slide under the influence of said cam, substantially as described.

1,072,899. TYPE-WRITING MACHINE. JOHN H. BARR, New York, N. Y., assignor to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed May 9, 1913. Serial No. 766,499. (Cl. 197—157.)



1. In a typewriting machine, the combination of a ribbon vibrator and ribbon vibrating mechanism comprising two slotted levers, a connecting pin extending from one slot to the other, and means for setting said pin at predetermined points along said slots to vary the action of one lever on the other, one of said levers being straight and fulcrumed between its ends, the slots in both said levers being curved so that said pin may move around said fulcrum from one side to the other.

2. In a typewriting machine, the combination of a ribbon vibrator, a bell crank directly connected thereto, a slotted bell crank, a link connecting the two bell cranks, a slotted lever arranged side by side with said slotted bell crank, a hand controlled connecting pin extending from the slot in said slotted bell crank to the slot in said lever, and key controlled connections to said slotted lever.

3. In a typewriting machine, the combination of a shiftable platen, a platen shifting frame, a ribbon vibrator, a bell crank fulcrumed on said frame and directly connected to said vibrator, a slotted bell crank having a fixed fulcrum, a link connecting the two bell cranks, a slotted lever having a fixed fulcrum, a hand controlled

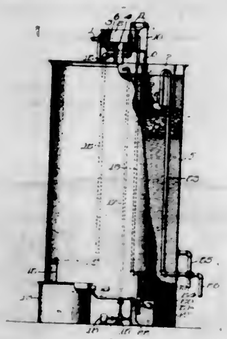
variably settable connecting device connecting the slots in said bell crank and said lever, and key controlled connections to said slotted lever.

4. In a typewriting machine, the combination of a shiftable platen, a platen shifting frame, a ribbon vibrator, a bell crank fulcrumed on said frame and directly connected to said vibrator, a slotted bell crank having a fixed fulcrum, a link connecting the two bell cranks, a slotted lever having a fixed fulcrum and arranged side by side with said slotted bell crank, a hand controlled variably settable connecting pin extending from the slot in said slotted bell crank to the slot in said lever, and key controlled connections to said slotted lever.

5. In a typewriting machine, the combination of a shiftable platen, a platen shifting frame, a ribbon vibrator, a bell crank fulcrumed on said frame and directly connected to said vibrator, a slotted bell crank having a fixed fulcrum, a link connecting the two bell cranks, a slotted lever having a fixed fulcrum and arranged side by side with said slotted bell crank, a connecting pin extending from the slot in said slotted bell crank to the slot in said lever, key controlled connections to said slotted lever, and hand actuated devices connected to said pin and comprising an arm supporting said pin, a rock shaft, and a crank arm fixed to said rock shaft and pivotally connected to said first named arm.

[Claims 6 to 18 not printed in the Gazette.]

1,072,900. LIQUID-TREATING APPARATUS. KENT W. BARTLETT, Chicago, Ill. Filed Oct. 23, 1911. Serial No. 656,109. (Cl. 210—1.)



1. A liquid treating apparatus including a tank for receiving liquid furnished for treatment; a chemical tank; means for proportioning chemical to the liquid to be treated thereby; a pump for forcing chemical, discharged from the chemical tank and after it has been proportioned to the liquid to be treated thereby, to the liquid receiving tank; means for supplying a portion of the liquid, after its treatment by the chemical, to the proportioned chemical being admitted to the pump; and means for discharging the liquid that is to be treated into the tank for receiving the same independently of the pump.

2. A liquid treating apparatus including a tank for receiving the liquid furnished for treatment; a chemical tank from which chemical may be discharged in changing quantity; a pump for forcing chemical discharged from the chemical tank to the liquid receiving tank; and means for supplying additional liquid to the chemical being admitted to the pump from the chemical tank, said means including mechanism for altering the quantity of added liquid to render the aggregate quantity of chemical and added liquid whose passage is forced by the pump substantially constant.

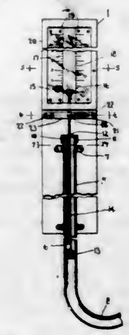
3. A liquid treating apparatus including a tank for receiving the liquid furnished for treatment; a chemical tank from which chemical may be discharged in changing quantity; a pump for forcing chemical discharged from the chemical tank to the liquid receiving tank; and means for supplying a portion of the liquid that has been treated to the chemical being admitted to the pump from the chemical tank, said means including mechanism for altering the quantity of added liquid to render the aggregate quantity of chemical and added liquid whose passage is forced by the pump substantially constant.

4. A liquid treating apparatus including a tank for receiving the liquid furnished for treatment; a chemical tank from which chemical may be discharged in changing quantity; a pump for forcing chemical discharged from the chemical tank to the liquid receiving tank; and means for supplying a portion of the liquid that has been treated to the chemical being admitted to the pump from the chemical tank, said means including mechanism governed by the aggregate volume of chemical and added liquid automatically to control the amount of added liquid to render the volume of chemical and added liquid forced by the pump substantially constant.

5. A liquid treating apparatus including a tank for receiving the liquid furnished for treatment; a chemical tank from which chemical may be discharged in changing quantity; a pump for forcing chemical discharged from the chemical tank to the liquid receiving tank; and means for supplying a portion of the liquid that has been treated to the chemical being admitted to the pump from the chemical tank, said means including mechanism governed by the aggregate volume of chemical and added liquid automatically to control the amount of added liquid to render the volume of chemical and added liquid forced by the pump substantially constant.

[Claims 6 to 10 not printed in the Gazette.]

1,072,901. AUTOMATIC WEIR-GAGE. GEORGE BARZEE and CHARLES J. WAHLQUIST, Heber, Utah. Filed Aug. 29, 1912. Serial No. 717,775. (Cl. 73—82.)

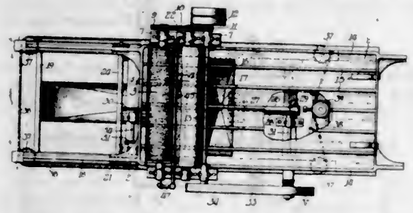


1. In a device of the class described, the combination with an upright post having a graduated plate secured to its upper portion and a groove in its face at its lower portion, an upright pipe seated in said groove, a float movable in said pipe, and a stem rising from said float and passing slidably through said pipe; of a guide between said pipe and the graduated plate, a screw in the face of the support behind said stem, a set screw through the guide forward of the stem, and an index at the upper end of the stem moving over said graduated plate.

2. In a device of the class described, the combination with an upright stem having a float; of a support having a graduated plate, an index on the stem moving over said graduation, and a guide consisting of a metallic member whose extremities are secured to the face of said support and whose intermediate portion is arched over said stem, a screw seated in the face of said support behind the stem and having a dished head, a set screw threaded through said arched portion, and a block swiveled on the inner end of the set screw and having a dished face next said stem.

3. In a device of the class described, the combination with an upright post having a graduated plate secured to its upper portion and a groove in its face at its lower portion, an upright pipe seated in said groove, clips for holding said pipe in place, a float movable in said pipe, and a stem rising from said float and passing slidably through said pipe; of an index at the upper end of the stem moving over said graduated plate, and a door hinged to the post and having a glass panel covering said plate.

1,072,902. ELECTROTYPE PLATE OR CAST CLEANER OR THE LIKE. GEORGE H. BENEDICT, Chicago, Ill. Filed May 16, 1910. Serial No. 561,600. (Cl. 101—52.)



1. In a device of the kind described and in combination, a reciprocating carriage, means for adjustably supporting the same, means continuously reciprocating said carriage, a plurality of brushes rotatably mounted above said carriage and arranged to brush a plate carried thereby, means for rotating said brushes in opposite directions to scrub the plate carried by said carriage and means operatively connected with said last mentioned means for conducting a cleansing fluid between said brushes at a point thereabove.

2. In a device of the kind described and in combination, a frame, a movable plate carriage, supporting rolls therefor, a plurality of tracks for said rolls, supporting members for said tracks adjustably carried by said frame, means common to said supporting members for operating the same, means for reciprocating said carriage, scrubbing means carried by said frame and means for conducting a cleansing fluid to said carriage.

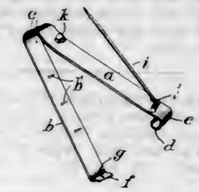
3. A device of the kind described, comprising a frame, a pair of tracks, adjustable means carried by said frame for supporting said tracks, a plurality of flanged rolls mounted upon said tracks, a pan shaped carriage mounted upon said rolls, means for maintaining the carriage thereupon, means for reciprocating said carriage, a pair of rotatable brushes arranged above said carriage and supported by said frame, means for rotating said brushes in opposite directions with the lower faces approaching each other, a pipe positioned above said carriage and arranged to discharge a cleansing fluid thereon, and means for conducting the fluid from said carriage and returning the same to said discharge pipe.

4. In a device of the kind described and in combination, a frame, a movable plate carriage, supporting rolls therefor, a plurality of tracks for said rolls, supporting members for said tracks adjacent opposite ends thereof adjustably carried by said frame, means common to said supporting members for adjusting the same, and scrubbing means arranged above said carriage.

5. In a device of the kind described and in combination, a pan shaped carriage having an outlet, automatic means for continuously reciprocating the carriage, a receptacle in the path of the outlet, a movable brush arranged above the carriage, and means for introducing cleansing fluid from said receptacle to a point above the carriage adjacent said brush.

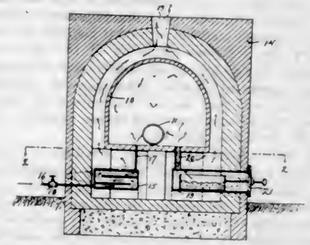
[Claims 6 to 13 not printed in the Gazette.]

1,072,903. FLOWER-HOLDER FOR THE DRESS. ACHILL BIPPART, Newark, N. J. Filed Apr. 5, 1913. Serial No. 759,072. (Cl. 24—6.)



In a flower-holder, the combination, with two elastic leaves, *a* and *b*, made in one piece, with a loop *c* at one end, of a coil *d* upon the end of one of the leaves with a hole *e* in its outer side, and an ear *f* upon the end of the opposite leaf with a pin *g* to engage the said hole, pins projected within at least one of the leaves to hold the flower-stalks therein, and means for attaching the holder to the dress of the wearer.

1,072,904. RUST-PROOFING IRON, STEEL, OR THE LIKE. AUGUSTO BONTEMPI, New York, N. Y., assignor to Bontempi Rust Proofing Company, a Corporation of New York. Filed Aug. 11, 1911, Serial No. 643,531. Renewed May 16, 1913. Serial No. 768,158. (Cl. 91—68.1.)



1. The method of protecting iron or steel which comprises the step of subjecting the same to the action of the fumes of a fused, non-corrodible metalliferous substance in a closed chamber, the temperature of the article during the treatment thereof with said fumes being maintained above the fusing and below the fuming temperature of said substance whereby a non-corrodible deposit is formed in a liquid state upon said article during treatment, substantially as described.

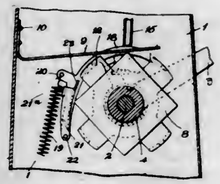
2. The method of protecting iron or steel which comprises the step of subjecting the same to the action of the fumes of a fused, non-corrodible metalliferous substance, comprising zinc, in a closed chamber, the temperature of the article during the treatment thereof with said fumes being maintained above the fusing and below the fuming temperature of said substance whereby a non-corrodible deposit is formed in a liquid state upon said article during treatment, substantially as described.

3. The method of protecting iron or steel which consists in subjecting the same to the action of steam and then subjecting the same to the action of the fumes of a fused, non-corrodible metalliferous substance in a closed chamber, the temperature of the article during the treatment thereof with said fumes being maintained above the fusing and below the fuming temperature of said substance whereby a non-corrodible deposit is formed in a liquid state upon said article during treatment, substantially as described.

4. The method of protecting iron or steel which consists in subjecting the same to the action of steam and then subjecting the same to the action of the fumes of a fused,

non-corrodible metalliferous substance, comprising zinc, in a closed chamber, the temperature of the article during the treatment thereof with said fumes being maintained above the fusing and below the fuming temperature of said substance whereby a non-corrodible deposit is formed in a liquid state upon said article during treatment, substantially as described.

1,072,905. COIN-CONTROLLED VENDING-MACHINE. FRANK A. BOWERS, New Britain, Conn., assignor to Autosales Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1912. Serial No. 735,986. (Cl. 194—85.)



1. In a coin-controlled vending machine, a hand-operated member, a second member normally disconnected from said first member, but adapted to be operatively connected therewith through the medium of the deposited coin, centering means for said second member to complete the final movement thereof, at each operation of the machine, and a device connected with said hand-operated member to actuate said second member into final position in the event that during the previous operation of the machine, said centering means was left in an inoperative position by an incomplete movement of said hand-operated member, said device having no effect on the movement of the second member as long as said centering means actuates said second member into final position.

2. In a coin-controlled vending machine, a hand-operated member, a second member normally disconnected from said first member, but adapted to be operatively connected therewith through the medium of the deposited coin, centering means for said second member to complete the final movement thereof at each operation of the machine, and a pivoted latch carried by said hand-operated member to actuate said second member into final position in the event that during the previous operation of the machine, said centering means was left in an inoperative position by the incomplete movement of said hand-operated member, said latch having no effect on the movement of said second member, as long as said centering means operates said second member into final position.

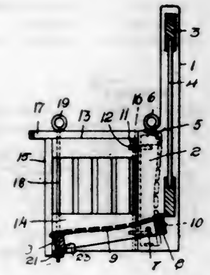
3. In a coin-controlled vending machine, a hand-operated member, a second member normally disconnected from said first member but adapted to be operatively connected therewith through the medium of the deposited coin, and a device adapted to automatically connect said hand-operated member with said second member for completing the movement of the latter in the event that during the previous operation of the machine said hand-operated member was not actuated sufficiently to cause complete movement of said second member, said device having no effect on the movements of said second member as long as the latter is actuated into final position.

4. In a coin-controlled vending machine, a hand-operated member, a second member normally disconnected from said first member but adapted to be operatively connected therewith through the medium of the deposited coin, and a pivoted latch carried by said hand-operated member to automatically connect the same with said second member for completing the movement of the latter in the event that during the previous operation of the machine said hand-operated member was not actuated sufficiently to cause complete movement of said second member, said latch having no effect on the movements of said second member as long as the latter is actuated into final position.

5. In a coin-controlled vending machine, a pair of normally disconnected member adapted to be connected together through the medium of the deposited coin, and means for operatively connecting said members independently of the coin when the previous operation of said members was incomplete, said connecting means remaining inoperative as long as said members receive full actuation.

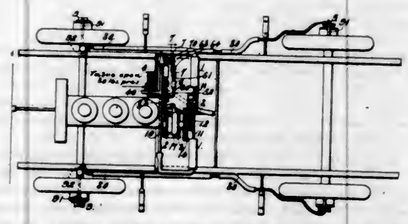
[Claims 6 to 13 not printed in the Gazette.]

1,072,906. FOLDABLE SWING-SEAT. ADAM K. BOWMAN and CHARLES J. MCKNIGHT, Greensburg, Pa. Filed Nov. 4, 1912. Serial No. 729,409. (Cl. 155—35.)



A foldable swing seat comprising a back, a seat frame pivotally connected at its rear therewith and capable of being swung to a position parallel with said back, said seat frame having its rear edge provided with a pair of sockets, arms pivotally connected at their rear to the back and capable of being folded to a position parallel with respect to the back, brackets secured to the bottoms of said arms at their forward ends, said brackets projecting inwardly with respect to the inner sides of said arms and provided at their inner longitudinal edge with vertically disposed resilient keepers of a width less than the length of the brackets receiving the forward end of said seat frame when the latter is lowered thereby supporting said frame, said keepers engaging and maintaining said frame stationary upon the brackets, and said keepers further capable of engaging into said sockets for locking said arms when folded parallel with respect to said back.

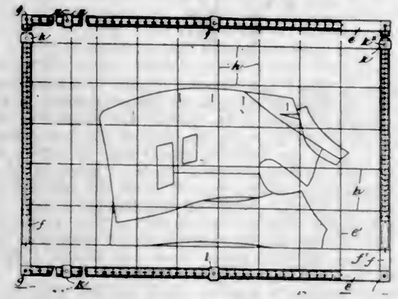
1,072,907. AUTOMOBILE TIRE-INFLATING MECHANISM. LESTER L. BROOKS, Falls City, Oreg. Filed July 26, 1911. Serial No. 640,661. (Cl. 230—24.)



1. In a tire inflating means, an air pump, a power plant, a main air duct, a supplemental air duct, a controlling valve connection between the main and supplemental air ducts closed under an initial fall of the pressure in the main air duct and thereby holding the normal air pressure in the supplemental air duct, a stopping cylinder in communication with the supplemental air duct, a stopping piston in the stopping cylinder spring held against the air pressure thereon, a starting cylinder in communication with the main air duct, a spring held starting piston in the starting cylinder, a blow-off valve in the supplemental air duct connected to the starting cylinder and movable to its open position by the spring tension thereon to reduce the pressure in the supplemental air duct when the pressure in the main air duct goes below a predetermined reduction whereby to allow the controlling valve for the supplemental air duct to shift to again open up communication between the main and the supplemental air ducts.

2. A power plant, said plant including a driving belt and a shifter for the said belt, a pumping engine cooperatively connected with the driving belt, a belt shifting means that includes a shifting cylinder and a piston, a main air duct, a supplemental duct connecting the said main air duct with the shifting cylinder, a back check valve and a blow-off valve in the said supplemental air duct, and an air pressure controlled device connected with the said blow-off valve for opening and closing the same, the said last named device including a second cylinder in communication with the main air duct, a piston operating in the said second cylinder and connected with the said blow-off valve.

1,072,908. METHOD AND APPARATUS FOR MAKING PATTERNS. PASQUALE BUDA, New York, N. Y. Filed Sept. 5, 1912. Serial No. 718,636. (Cl. 73—48.)



1. An apparatus for making patterns comprising a frame, a series of intersecting members supported movably thereby, said members forming a plurality of rectangles, elastic means connecting the corresponding ends of adjacent members, and means coöperating with said elastic means for adjusting said members to form said rectangles of predetermined dimensions.

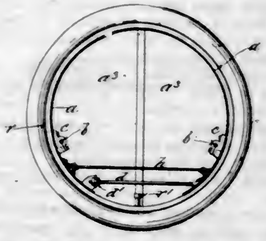
2. An apparatus for making patterns comprising a rectangular frame, intersecting wires supported by the sides of said frame and forming small rectangular spaces, two of said intersecting wires being immovable, means for removing the remaining of said wires to adjust the dimensions of said rectangular spaces, said means including elastic means connecting the corresponding ends of adjacent wires.

3. An apparatus for making patterns comprising a rectangular frame having its sides graduated into units, wires extending between opposite sides of said frame and intersecting to form a series of small rectangular spaces, two of said intersecting wires being immovable, the remaining wires being movable to vary the dimensions of the rectangular spaces, elastic members connecting the corresponding ends of adjacent wires and means mounted slidably on each of the four sides of the frame and attached to the ends of certain of said movable wires whereby the same may be made to coincide with any desired scale unit.

4. An apparatus for making patterns comprising a rectangular frame having its side and end members graduated into units, wires extending longitudinally of the frame between the end members, wires extending transversely to the frame between the side members, said wires forming a series of small rectangular spaces of equal area, the first of said transverse wires commencing with the zero of the scale on the side members and being immovable, the first of said longitudinal wires being immovable, the remaining of said wires being movable, to vary the dimensions of said rectangular spaces, elastic members connecting the corresponding ends of adjacent wires and means mounted slidably on the side and end members of the frame and attached to the ends of the last transverse wire and the last longitudinal wire respectively whereby all of said wires may be moved to coincide with predetermined scale units.

5. An apparatus for making patterns comprising a rectangular frame having its side and end members graduated into units of one inch and five-eighths inch respectively, wires extending transversely to the frame between the side members, wires extending longitudinally of the frame between the end members, said wires forming a series of small rectangular spaces of equal area, the first of said transverse wires coinciding with the zero of the scale and being immovable, the first of said longitudinal wires being immovable, the remaining wires being movable to vary the dimensions of said rectangular spaces, rings slidably mounted in said frame and to which the ends of said wires are attached, elastic members connecting adjacent rings, means mounted slidably on said side frame members and attached to the ends of the last of the series of transverse wires whereby all of the last named wires may be moved to coincide with predetermined scale units and means mounted slidably on said end frame members and attached to the ends of the last of the series of longitudinal wires whereby said last named wires may be moved, the number of longitudinal wires being such that the distance between the first and last of said longitudinal wires will be divided into a number of spaces of any predetermined convenient length when the last of said wires coincides with a predetermined scale unit.

1,072,909. TIRE-SUPPORT. LOUIS E. CADWELL, New York, N. Y. Filed Mar. 3, 1913. Serial No. 751,859. (Cl. 224—29.)



1. A support for demountable rim tires comprising a drum plate, the free ends of which are united by means by which the drum may be expanded to bind against the inner surface of the detachable rim, or contracted to release the said rim.

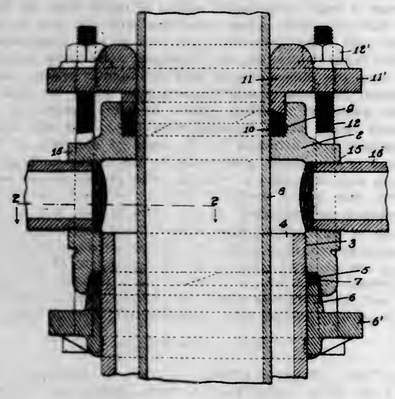
2. A support for demountable rim tires consisting of an approximately annular drum plate, and means for expanding and contracting the same to bind or release the rim positioned thereon.

3. A support for demountable rim tires comprising an expandable and contractable drum plate, means for expanding and contracting the same, back plates attached to said drum plate and formed with overlapping and contacting edges, front plates attached to said drum plate, and doors slidable between said front plates, for the purpose described.

4. A support for demountable rim tires comprising an expandable and contractable drum plate, means for expanding and contracting the same, back plates attached to said drum plate and formed with overlapping and contacting edges, front plates attached to said drum plate, and doors slidable between said front plates, and a shelf rigidly attached to one side of the drum plate and slidably attached to the other side of said drum plate, for the purpose described.

5. A support for demountable rim tires consisting of an approximately annular drum plate and means for expanding and contracting the same to bind or release the rim positioned thereon, comprising a threaded coupling link attached to one side of the drum plate and engaging with a swivel nut mounted on the other side of the drum plate, and including said swivel nut, for the purpose described.

1,072,910. CASING-HEAD FOR OIL AND GAS WELLS. JAMES T. CALLANAN, Parkersburg, W. Va. Filed Feb. 21, 1913. Serial No. 749,866. (Cl. 166—14.)



1. A casing head threaded at its lower end to unite with casing, a gland adapted to embrace the casing beneath the head, a packing adapted to be compressed by the gland for sealing the joint between the head and casing, and gland adjusting means.

2. A casing head threaded at its lower end to unite with casing, a gland adapted to embrace the casing beneath the head, a packing adapted to be compressed by the gland for sealing the joint between the head and casing, and gland adjusting means extending to and actuated at the upper end of the casing head.

3. A casing head threaded at its lower end to unite with casing, the head beneath the threaded portion recessed to form a stuffing box, a gland adapted to embrace the casing, packing adapted to be compressed in the stuffing box for sealing the joint between the head and casing, and gland adjusting means.

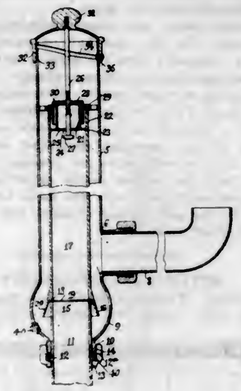
4. A casing head open at its lower end to connect with casing and open at its upper end to pass tubing, casing packing means at the lower end of the head, and tubing packing means at the upper end of the head.

5. A casing head open at its lower end to connect with casing and open at its upper end to pass tubing, the upper and lower ends of the casing head each provided with a stuffing box, packing for each box, glands—one for each stuffing box, and gland adjusting means.

[Claims 6 to 10 not printed in the Gazette.]

1,072,911. WASTE AND OVERFLOW FIXTURE. WILLIAM CANTLON, Paris, Ill. Filed July 18, 1912. Serial No. 710,135. (Cl. 4—24.)

1. In a waste and overflow fixture, a hollow body having a soil pipe extending upwardly in the hollow body, means on the hollow body connecting the side of the soil pipe with the side of the hollow body, the top of the soil pipe being spaced from the side of the hollow body, a tubular member having a diverging flange for extending down between the top of the soil pipe and the said means on the hollow body, thereby forming a trap, concentric flanges disposed one within the other at the top of the tubular member, with a bottom connecting one flange with the other flange, a bell trap member disposed between the concentric flanges, and means for raising the bell trap member and the tubular member.



2. In a waste and overflow fixture, a hollow body having an inlet, a soil pipe extending upwardly in the hollow body, means on the hollow body connecting the side of the soil pipe with the side of the hollow body, the top of the soil pipe being spaced from the side of the hollow body, a tubular member having a diverging flange extending down between the top of the soil pipe and the said means on the hollow body and forming a trap, concentric flanges disposed one within the other at the top of the tubular member with a bottom connecting one flange with the other flange, a bell trap member disposed down between the concentric flanges, a collar on the tubular member, a stem to which the bell trap is secured, and having a terminal disposed down through the collar, and a flange on the stem below the collar for engaging with the collar.

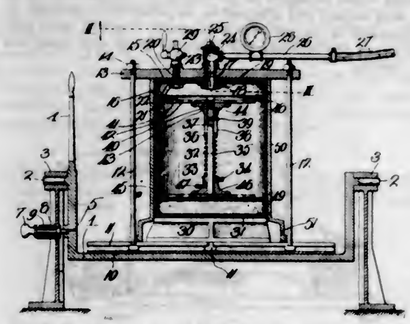
3. In a waste and overflow fixture, a hollow body, having a water seal trap member, a tubular member disposed in the hollow body and having a trap member for cooperating with the first-mentioned trap member, and a water seal trap member spaced therefrom, a trap member for coöperating with the third-mentioned trap member, means for raising the fourth-mentioned trap member, and means connected with the first-mentioned trap member for raising the tubular member when the fourth-mentioned trap member has been raised a predetermined distance relatively to the third-mentioned trap member.

4. In a waste and overflow fixture, a hollow body having a trap member, a tubular member disposed in the hollow body and having a trap member for coöperating with the first-mentioned trap member, and an additional trap member spaced thereabove, a trap member for cooperating with the third-mentioned trap member, a collar on the tubular member, a stem to which the fourth-mentioned trap member is secured, the stem having a terminal disposed through the collar, and a flange on the stem for engaging the collar.

5. In a waste and overflow fixture, an outlet, a hollow body having a water seal trap member, a tubular member disposed in the hollow body and having a trap member for coöperating with the first-mentioned trap member, and a water seal trap member spaced thereabove, and disposed around the tubular member, the tubular member serving as a direct communication between the third-mentioned trap member and the outlet, a trap member for coöperating with the third-mentioned trap member, means for raising the fourth-mentioned trap member, and means for raising the tubular member.

[Claims 6 to 8 not printed in the Gazette.]

1,072,912. HYDROSTATIC PIPE-TESTING MACHINE. JOSEPH L. CAUSEY, Kansas City, Mo. Filed Jan. 6, 1913. Serial No. 740,520. (Cl. 73—51.)



1. In a hydrostatic pipe testing machine, a table for supporting a pipe standing on end, a pair of compressible cup-shaped packings secured within the pipe, a pair of rings in the pipe, and means for effecting movement whereby the rings enter and expand the packings.

2. In a hydrostatic pipe testing machine, a table for supporting a pipe standing on end, a pair of compressible cup-shaped packings secured within the pipe, a pair of rings in the pipe, and means whereby rings are forced into the packings and under such force are bowed and expand the said packings and cause the same to engage the pipe with a liquid-tight relation.

3. In a hydrostatic pipe testing machine, a table for supporting a pipe standing on end, a pair of compressible cup-shaped packings secured within the pipe, a pair of rings in the pipe, and a spring for forcing the rings into and exanding the said packings and causing the same to engage the pipe with a liquid-tight relation.

4. In a hydrostatic pipe testing machine, a table for supporting a pipe standing on end, a pair of compressible cup-shaped packings secured within the pipe, and an appliance for spreading said packings, located in the pipe, comprising a rod, a perforated plate fixed to the same at one end, a similar plate slidable on the rod at its opposite end, a spring for forcing said plates apart and toward the adjacent cup-shaped packings, and flexible rings secured to said plates and adapted as the latter are actuated by the spring, to engage and expand said packings against the interior surface of the pipe.

5. In a hydrostatic pipe testing machine, a table for supporting a pipe standing on end, a pair of compressible cup-shaped packings secured within the pipe, a pair of rings in the pipe, means for effecting movement whereby the packings receive and are expanded by the rings, and means for introducing water under pressure into the pipe to test the same for strength and defects.

[Claims 6 to 12 not printed in the Gazette.]

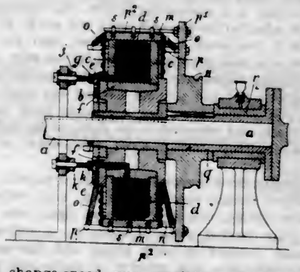
1,072,913. CHANGE-SPEED GEAR. ARTHUR THOMAS COLLIER, St. Albans, England. Filed Feb. 18, 1913. Serial No. 749,236. (Cl. 172—284.)

1. A change-speed gear consisting of a magnetic clutch comprising an attracting and an attracted member, a carrier for said attracted member and elastically yielding means connecting said attracted member with said carrier.

2. A change-speed gear consisting of a magnetic clutch comprising an attracting and an attracted member, a carrier for said attracted member and a plurality of springs connecting said attracted member and said carrier.

3. A change-speed gear consisting of a magnetic clutch comprising an electromagnet having annular polar surfaces, a plurality of armatures, a carrier and a plurality of springs connecting said armatures and said carrier.

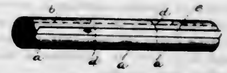
4. A change-speed gear consisting of a magnetic clutch comprising an attracting and an attracted member, a carrier for said attracted member, elastically yielding means connecting said attracted member with said carrier, an electric circuit including the energizing coil of said attracting member, a source of electric energy and means for reversing the direction of the current flowing in said circuit.



5. A change-speed gear consisting of a magnetic clutch comprising an electromagnet having polar surfaces arranged on a surface of revolution, a plurality of armatures adapted to fit against said polar surfaces, a carrier, springs connecting said armatures and said carrier, an electric circuit including the energizing coil of said attracting member, a source of electric energy and means for reversing the direction of the current flowing in said circuit.

[Claims 6 to 18 not printed in the Gazette.]

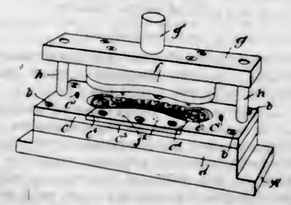
1,072,914. CARTRIDGE OR LIKE CHARGE OF TOBACCO. WILLIAM RIGHTER COMINGS, Wimbledon, England. Filed Jan. 17, 1911, Serial No. 603,173. Renewed Feb. 10, 1913. Serial No. 747,530. (Cl. 131—52.)



1. A cartridge formed of a tube charged with tobacco, said tube having one edge projected into an integral flap forming a loose longitudinal edge, and having a single longitudinal line of perforations in proximity to said flap.

2. A cartridge formed of a tube charged with tobacco, said tube having one edge projected into an integral flap forming a loose longitudinal edge, and having a single longitudinal line of perforations in proximity to said flap, said tube being perforated transversely and circumferentially to facilitate its separation into sections.

1,072,915. CUTTING AND EMBOSSING DEVICE. FRANK H. COOK and CARLTON C. STANNARD, Leominster, Mass.; said Stannard assignor to said Cook. Filed May 16, 1910. Serial No. 561,729. (Cl. 18—44.)



1. In a cutting and embossing device, a die block having a plunger-receiving recess in its top face, a punch, a spring-sustained plunger in said die block having pro-

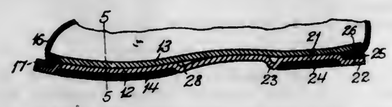
jections extending beyond its operative face, and adjusting means accessible from the top of said block and engaging said projections.

2. In a cutting and embossing device, a punch, a two part die block having a plunger-receiving recess in its top face, a spring-sustained plunger located in said recess and depressible therein, said plunger having projections, and adjusting devices supported by the upper part of said block and engaging said projections.

3. In a cutting and embossing device, the combination with a punch adapted to descend upon the work, of a die block on which the work may be placed, said die block having in its top face a recess, a plunger in said recess, cushioning means below the plunger for forcing it upward, projections on said plunger beyond the area of its upper face, and adjustable stops accessible from the top of said die block and adapted to be engaged by said projections for limiting the upward movement of said plunger.

4. In a cutting and embossing device, a punch, a die block having a plunger-receiving recess, and comprising two separable plates, one superimposed upon the other, the lower plate having slots or grooves, a spring sustained plunger located in said recess and having projections extending into said grooves or slots, and adjusting screws passed downwardly through the upper plate of said die block to engage said projections.

1,072,916. SHOE AND TREAD MEMBER THEREOF. HARVEY F. CRAWFORD, Brockton, Mass. Filed Feb. 20, 1913. Serial No. 749,612. (Cl. 36—25.)



1. A shoe provided with a sole having an upwardly projecting boss forming a raised seat and a tap-receiving recess, and a marginal portion forming a depressed seat.

2. A shoe provided with a sole having an upwardly projecting boss forming a raised seat and a tap-receiving recess, a marginal portion forming a depressed seat and a tap secured in said recess.

3. A shoe provided with a sole having at its heel part an upwardly projecting boss forming a raised seat and a tap-receiving recess, a marginal portion forming a depressed seat, and a U-shaped rand bearing on said depressed seat, the upper surfaces of the boss and rand being substantially flush.

4. A shoe provided with a sole having at its heal part an upwardly projecting boss forming a raised seat and a tap-receiving recess, a marginal portion forming a depressed seat, a U-shaped rand bearing on said depressed seat, the upper surfaces of the boss and rand being substantially flush, and a tap secured in said recess.

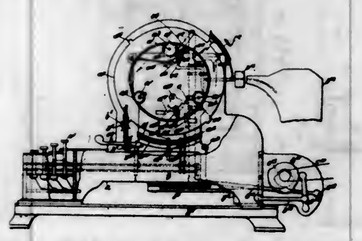
5. A shoe provided with a tread member, comprising a body having an upwardly projecting boss forming a raised seat and a tap-receiving recess, and a marginal portion forming a depressed seat, a tap secured in said recess, and a rand bearing on said depressed seat.

[Claims 6 to 8 not printed in the Gazette.]

1,072,917. TYPE-CASTING AND SIMILAR MACHINE. CHARLES CRISP, London, England. Filed Mar. 18, 1911. Serial No. 615,204. (Cl. 199—11.)

1. A line casting machine comprising in combination, a plurality of wheels, matrices on the peripheries of said wheels, a kicking member for imparting a rotating movement to said wheels in either direction, stops for retaining said wheels in the displaced position, a mold box, and means for bringing the matrices up to said mold box for casting.

2. A line casting machine comprising in combination, a plurality of wheels, matrices, and stops on the peripheries of said wheels, a kicking member for imparting a rotating movement to said wheels in either direction, weights on the wheels for assisting said movement, retaining stops arranged in proximity to the peripheries of the said wheels and adapted to be raised to a position to be engaged by one of said first-named stops, a mold box, and means for bringing the matrices up to said mold box for casting.



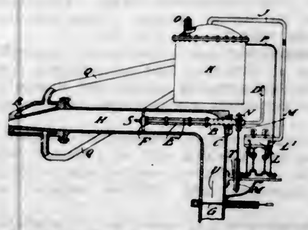
3. A line casting machine comprising in combination, a plurality of wheels, matrices and stops on the peripheries of said wheels, a kicking member for imparting a rotating movement to the wheels in either direction, weights on the wheels for assisting said movement, means adapted to retain the same in the displaced position, a mold box, and means for bringing the matrices up to said mold box for casting.

4. A line casting machine comprising in combination, a plurality of wheels, matrices and stops on said wheels, a kicking member for imparting a rotating movement to the wheels in either direction, retaining stops arranged in proximity to the peripheries of the said wheels and adapted to be raised to a position to be engaged by one of said first-named stops, a mold box, means for bringing the matrices up to said mold box for casting, and a collecting frame adapted to engage with the interior of the wheels and rotate the same to their normal position after the casting operation has been effected.

5. A line casting machine comprising in combination, a plurality of wheels, matrices and stops on said wheels, projections on the inner edges of said wheels, a kicking member for imparting a rotating movement to the wheels in either direction, weights on the wheels for assisting said movement, a quadrant device arranged in proximity to the peripheries of said wheels, retaining stops arranged in said quadrant device, a grid device whereby the retaining stops are lowered to their normal position, a mold box, means for bringing the matrices up to said mold box for casting, and a collecting frame adapted to engage with the projections on the inner edge of said wheels and rotate the same to their normal position after the casting operation has been effected.

[Claims 6 to 10 not printed in the Gazette.]

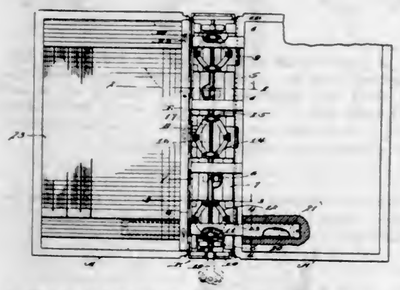
1,072,918. LIQUID-FUEL BURNER. SYDNEY CROSBIE, Hertford, England. Filed Jan. 6, 1913. Serial No. 740,529. (Cl. 158—77.)



1. In a spray burner for liquid fuel furnaces having a carbureting chamber and a fuel atomizing fan therein, the combination of a steam generator comprising a part integral with the burner nozzle disposed within the furnace end, means adapted to operate said fan and to feed the generator with water and connections operatively connecting the generator and said means.

2. In a spray burner for liquid fuel furnaces having a carbureting chamber and a fuel atomizing fan therein, the combination of a steam generator comprising a water jacket formed in the wall of the burner nozzle, a reservoir and ducts communicating with the jacket and reservoir, a pump adapted to feed the jacket with water, an engine operatively connected with the fan and the pump, and a pipe connecting the reservoir and the engine.

1,072,919. LOOSE-LEAF BINDER. HARRY C. CROZIER, Phoenix, Ariz. Filed Oct. 25, 1912. Serial No. 727,812. (Cl. 129—41.)



1. In a loose-leaf binder, the combination, with connected back and cover elements; of a plurality of transversely-arranged spring metal strips connected at opposite ends to said covers for holding the same in substantially flat position when the binder is opened.

2. In a loose-leaf binder, the combination, with connected back and cover elements; of a plurality of transversely-arranged spring metal strips detachably connected at opposite ends to said covers for holding the same in substantially flat position when the binder is opened.

3. In a loose-leaf binder, the combination, with connected back and cover elements, each cover having a transversely-arranged sheath embedded in it; of a plurality of spring metal strips having their opposite ends removably fitted in said sheaths, for holding said covers in substantially flat position when the binder is opened.

4. In a loose-leaf binder, the combination, with connected back and cover elements; of a plurality of transversely-arranged spring metal strips connected at opposite ends to said covers for holding the same in substantially flat position when the binder is opened; and a plurality of holders detachably connected to said strips, each of said holders being adapted to receive the binding edges of an individual group of leaves.

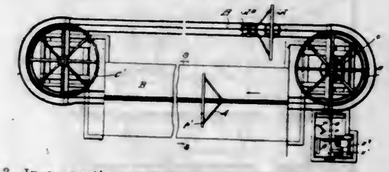
5. In a loose-leaf binder, the combination, with the back and covers, and devices connecting said covers; of a series of holders each adapted to contain an individual group of leaves removably connected to said devices and comprising each, connected body and attaching members and a locking member associated with the latter member.

[Claims 6 to 20 not printed in the Gazette.]

1,072,920. ROASTING-FURNACE. FRANCIS ALBERT CURNOW, Pittsburg, Kans. Filed Mar. 18, 1913. Serial No. 755,077. (Cl. 75—141.)

1. In a roasting furnace or the like, the combination, with the furnace, a raking apparatus arranged to stir and rake ore from the furnace, and means for driving the same, of means arranged to be actuated by the raking apparatus for automatically stopping the latter, and means set into operation upon the stopping of the raking apparatus for automatically starting the raking apparatus after a predetermined interval.

2. In a roasting furnace or the like, the combination, with the furnace, a raking apparatus arranged to rake ore from the furnace and a source of power of operating said raking apparatus, of means for transmitting power from said source to the raking apparatus to actuate the latter, means arranged to be actuated by the raking apparatus for disconnecting said transmitting means from the source of power, and means operating after a predetermined time interval to connect said transmitting means with the source of power, whereby the raking apparatus is again put in action.



3. In a roasting apparatus or the like, the combination, with the furnace, a raking apparatus arranged to rake ore from the furnace, and a source of power for operating said raking apparatus, of delay-action means for automatically connecting said source of power to the raking apparatus to actuate the same, and means operated by the raking apparatus on its arrival at a predetermined position for disconnecting said raking apparatus from the source of power and setting into action the said delay-action connecting means.

4. In a roasting apparatus or the like, the combination, with the furnace, a raking apparatus comprising a rake arranged to rake ore from the furnace, a source of power, and a transmission device connected to said raking apparatus, of a longitudinally movable rod, means connected to said rod for coupling said transmission device to and uncoupling it from the source of power, means in the path of the rake for shifting said rod in one direction, and a timing device coupled to the rod and arranged to shift it in the other direction.

5. In a roasting apparatus or the like, the combination, with the furnace, a raking apparatus comprising a rake arranged to rake ore from the furnace, a source of power, and a transmission device connected to said raking apparatus, of a longitudinally movable rod, means connected to said rod for coupling said transmission device to and uncoupling it from said source of power, a rotatable winding device, means connected to said rod for coupling said winding device to and uncoupling it from said source of power, a draft device arranged to be wound up by said winding device, stop devices carried by the said rod, a sleeve device movable along the rod between said stop devices and connected to said draft device, and means arranged in the path of the rake for shifting said rod longitudinally.

1,072,921. METAL-SHANK BUTTON. HENRY LEWIS DAVIS, London, England. Filed Sept. 17, 1908. Serial No. 453,546. (Cl. 24—90.)

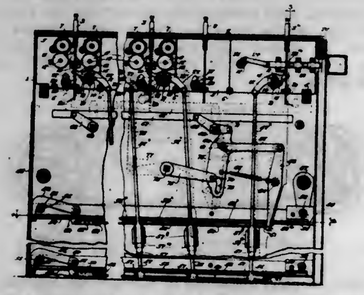


A button having a hollow metal shank in which thread holes are formed by turning inwardly the metal cut away from the shank wall at the widest portion of such holes, so as to form a protecting edge extending the full width of the hole at that part adapted to be engaged by the button securing thread, substantially as set forth.

1,072,922. VOTING-MACHINE. JAMES H. DEAN, Chicago, Ill., assignor, by mesne assignments, to Empire Voting Machine Company, a Corporation of New York. Filed June 17, 1907. Serial No. 379,474. (Cl. 235—54.)

1. In a voting machine, the combination with a series of voting devices and controlling keys therefor arranged in

line, a rock shaft common to all of said keys having a party indicator or key operatively connected thereto, rock arms loosely mounted on said shaft and engaging said individual keys and a set of adjustable sleeves on said shaft having lugs for engaging said rock arms.



2. In a voting machine, the combination with a series of voting devices and controlling keys therefor arranged in line, a member common to said series of keys having a party key operatively connected thereto and lugs on said member having a one-way connection with said series of keys, said lugs being adjustable out of operative position, whereby said party member may be operated without operating all of said keys.

3. In a voting machine, the combination with a series of voting devices and a series of controlling keys therefor arranged in line, of a rock shaft common to said series of keys, rock arms loosely mounted on said shaft engaging said keys, adjustable lugs on said shaft having a one-way connection with said rock arms, and a party indicator or key connected to said shaft.

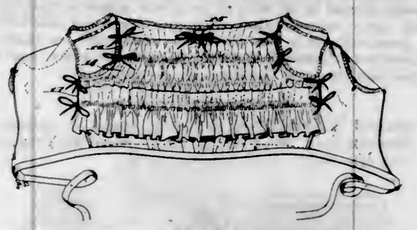
4. In a voting machine, the combination with a series of voting devices and controlling keys therefor, of a universal member common to all of said keys, a party key and locking and restoring mechanism operatively connected to said universal member, said member having lost motion connections with said keys for shifting them to voted position or restoring them to initial position, said connections being adjustable on said member to prevent the shift of one or more of said keys to voted position by means of said party key.

5. In a voting machine, the combination with a series of voting devices and a series of controlling keys therefor arranged in line, of a universal member common to said keys, a party key connected to said member for shifting the same in one direction, locking and restoring mechanism for shifting said member in the opposite direction, said member having a set of lugs engaging said keys for restoring them to initial position and a second set of adjustable lugs for selectively connecting said keys thereto so as to be shiftable by said party key to voted position.

[Claims 6 to 26 not printed in the Gazette.]

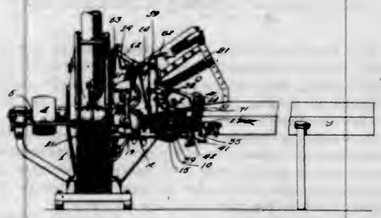
1,072,923. DRESS-FORM. CHARLES R. DE BEVOISE, Newark, N. J. Filed Mar. 3, 1911. Serial No. 612,128. (Cl. 2—87.)

In a dress form, the combination, with a body garment having a tape fixed centrally to its upper edge, and a pair of tapes fixed one above the other to the edge of each arm hole; of a ruffle associated with the body garment and adapted to extend in transverse relation across the front thereof, said ruffle comprising an upper strip folded horizontally upon itself and having its folded portions connected by upper and lower horizontal rows of stitching which are relatively distant from each other and are so selected as to give to the folded portion which is adjacent the body garment a certain fullness, a lower strip constructed similarly to the upper strip and connected adjacent its fold line to the lower portion of the other folded portion of said upper strip by a horizontal row of stitching, the several rows of stitching being of such nature as to produce horizontal pockets and the pockets being provided, each, with a central opening, and a pair of draw strings fitted in each pocket and having their mutually adjacent inner ends passed through the central opening in the pocket and their outer ends passed through the ends of the pocket, the inner ends of the uppermost



pair of draw strings being tied to the ends of the first-named tape and the corresponding ends of each remaining pair being tied together, the outer ends of all of said pairs being tied to the adjacent ends of the second-named tapes, to detachably fasten the ruffle to the body garment, both of said strips being vertically puffed.

1,072,924. FODDER-CUTTER. JOSEPH DICK, Canton, Ohio. Filed July 17, 1912. Serial No. 709,975. (Cl. 146—26.)



1. In a fodder cutter, the combination of a cutting mechanism, a feed mechanism having an oscillating element, an intervening reversible and releasable transmission gearing, a controlling gearing for reversing the transmission gearing, and a trip mechanism for the controlling gearing actuated by the oscillating element at a predetermined point in its oscillation.

2. In a fodder cutter, the combination of a cutting mechanism, a feed mechanism having an oscillating element, an intervening reversible and releasable transmission gearing, a controlling gearing for reversing and releasing the transmission gearing, and a trip mechanism for the controlling gearing actuated by the oscillating element at predetermined points in its oscillation.

3. In a fodder cutter, the combination of a cutting mechanism, a feed mechanism, an intervening transmission gearing, a controlling gearing for the transmission gearing including a crank operatively connected with the transmission gearing and having a normally-idle gear connection with the cutting mechanism, a spring clutch opertively connected with the cutting mechanism for engaging the idle gear, means actuated by the idle gear for releasing the clutch, an oscillating element in the path of the fodder, and means actuated by the oscillating element for tripping the releasing means.

4. In a fodder cutter, the combination of a cutting mechanism, a feed mechanism, an intervening transmission gearing, a controlling gearing for the transmission gearing including a crank having a pitman connection with the transmission gearing and a normally-idle gear connection with the cutting mechanism, a spring clutch operatively connected with the cutting mechanism for engaging the idle gear, means actuated by the idle gear for releasing the clutch, an oscillating element in the path of the fodder, and means actuated by the oscillating element for tripping the releasing means.

5 In a fodder cutter, the combination of a cutting mechanism, a feed mechanism, an intervening transmission gearing, and a controlling gearing having a yielding pitman connection with the transmission gearing.

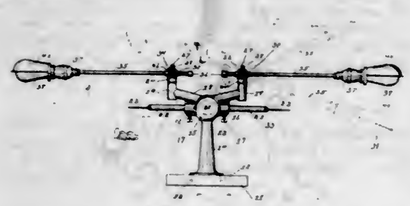
[Claims 6 to 14 not printed in the Gazette.]

1,072,925. TIRE. ORA DIMMITT, Green Castle, Mo. Filed Feb. 5, 1912. Serial No. 675,680. (Cl. 152—8.)



A tire of the character described, comprising a continuous annular plate, said plate being concavo-convex in cross section, the edges of said plate being bent inwardly and slotted, a plurality of outwardly arched rods having their ends extended through said slots, means for securing said rods in position, a plurality of lenticular spiral springs surrounding said rods and bearing at their ends on the inturned edges of the plate, and a casing inclosing the beforementioned parts, the arched rods yielding under pressure and coöperating with said springs to produce a resilient tire.

1,072,926. ELECTRIC-LAMP FIXTURE. GARRY J. DORMANDY, Troy, N. Y., assignor of one-half to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed June 7, 1913. Serial No. 772,296. (Cl. 240—52.)



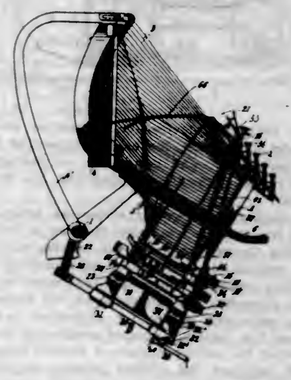
1. An electric lamp fixture including a standard; a box on said standard; means for supporting an end of a conduit tube in communication with said box; a tubular lamp carrying arm; and hollow swiveled connections between said box and said arm constructed and fitted to permit the pivotal movement of said arm in any direction; said box, connections and arm being also constructed and fitted to inclose a conducting wire passing therethrough for its entire length.

2. An electric lamp fixture including a standard; a box on said standard; means for supporting an end of a conduit tube in communication with said box; a slotted, tubular lamp carrying arm; and hollow swiveled connections between said box and said arm constructed and fitted to permit a limited longitudinal movement of said arm and its pivotal movement in any direction; said box, connections and arm being also constructed and fitted to inclose a conducting wire passing therethrough for its entire length.

3. An electric lamp fixture including a standard; a box on said standard; means for supporting an end of a conduit tube in communication with said box; and hollow swiveled connections communicating with said box and adapted to support a lamp carrying arm and to permit the pivotal movement of such arm in any direction; said box and connections being constructed and fitted to completely inclose a conducting wire passing therethrough.

4. An electric lamp fixture including an integral casting comprising a standard, a box, a socket for receiving an end of a conduit tube in communication with said box and a hollow part of a swivel connection; also communicating with said box.

1,072,927. TYPOGRAPH COMPOSING-MACHINE. JULIUS DORNETH, Berlin, Germany, assignor to Typograph G. M. B. H., Berlin, Germany. Filed July 26, 1907. Serial No. 385,672. (Cl. 199—8.)



1. In a composing machine, a series of matrix-bars and guiding wires for the same, in combination with means for assembling the matrix-bars in line, and means for adjusting the line of matrix-bars horizontally, and also for adjusting the said matrix-bars vertically and transversely after assembling them in line, and before causing them to engage the mold.

2. In a composing machine, the combination of a frame and matrix-bars, each having a plurality of matrices, means for assembling matrix-bars in line thereon, with means on said frame for adjusting said line of matrix-bars horizontally, and for adjusting the said matrix-bars vertically and transversely after assembling them in line, and before causing them to engage the mold.

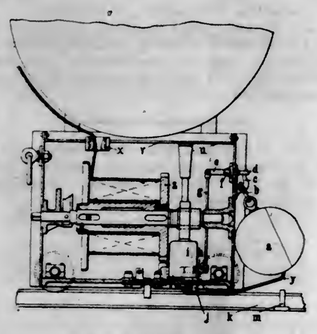
3. In a composing machine of the type described, the combination of a frame, means for assembling matrix-bars in a line thereon, each of said matrix-bars having an incision on its front longitudinal edge and a notch on its rear longitudinal edge, a strip fixed on said frame, and means on said frame adapted to engage said matrix-bars in said incisions and adjust the same horizontally and transversely to the line of composition against said strip, whereby said strip and said notches interlap.

4. In a composing machine, a series of matrix-bars and guide-wires for the same, in combination with means for assembling the matrix-bars in line, means for adjusting the line of matrix-bars horizontally, means for shifting the said line of matrix-bars transversely to the line of composition, and for adjusting the matrix-bars vertically, and before causing them to engage the mold.

5. In a composing machine of the type described, the combination of a frame and matrix-bars each having a plurality of matrices, means for assembling the matrix-bars in a line thereon, means for positively shifting said line of matrix-bars transversely to the line of composition, and for adjusting the matrix-bars vertically and before causing them to engage the mold.

[Claims 6 to 30 not printed in the Gazette.]

1,072,928. AUTOMATIC ANCHORING DEVICE FOR SUBMARINE MINES. GIOVANNI EMANUELE ELIA, Paris, France, assignor to Vickers Limited, Westminster, England. Filed Feb. 27, 1913. Serial No. 751,025. (Cl. 102—3.)



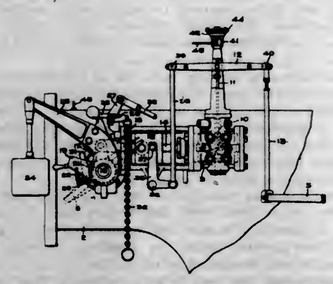
1. In an anchoring device for submarine mines, an anchor, a lead line carrier, means for supporting the carrier from the anchor, and means for automatically releasing the carrier immediately preceding the launching of the anchor.

2. In an anchoring device for submarine mines, an anchor, a lead line carrier, a movable member on the anchor for supporting the carrier, means for locking the movable member in position, and means for automatically operating the locking means to release the said movable member immediately preceding the launching of the anchor.

3. In an anchoring device for submarine mines, an anchor, a lead line carrier, a pivoted member on the anchor with which the carrier engages, a pivoted lever on the anchor and engaging the pivoted member to hold it in poisition to support the carrier, a pivoted tappet on the anchor and connected with the lever, and a stop in the path of the anchor for operating said tappet.

4. In an anchoring device for submarine mines, an anchor, a rail upon which the anchor travels, a lead line carrier formed with a ring, a pivoted hook on the anchor and with which the ring of the carrier engages, a pivoted lever on the anchor and having at its outer end a ring engaging the hook, a pivoted tappet having an angular arm, a rod connecting the arm of the tappet with the inner end of the said lever, and a stop at the outer end of the rail and in the path of the tappet.

1,072,929. GOVERNING MECHANISM FOR TURBINES. WILLIAM L. R. EMMET, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 5, 1909, Serial No. 511,280. Renewed Feb. 16, 1912. Serial No. 677,963. (Cl. 121—118.)



1. A governing mechanism for a turbine including a regulator and a speed governor for controlling the action of the regulator, with a means responsive to the pressure of the source of supply of the turbine which when said pressure falls below a certain value overpowers the governor and causes the regulator to close.

2. In a turbine governing mechanism, the combination of a regulator, a governor means for varying the position of the regulator in accordance with load changes on the turbine, a second governor means for disconnecting the first from the regulator and closing the latter suddenly under conditions of excess speed, and a pressure responsive device which under certain conditions assumes control of the regulator to the exclusion of the first governor means.

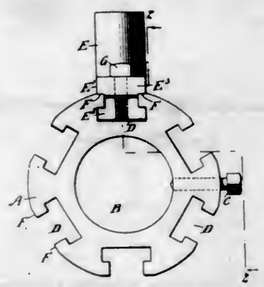
3. In a governing mechanism, the combination of a regulator, a motor for actuating it, a controller for the motor, a speed governor that actuates the controller, and a pressure responsive means which under certain conditions overpowers the governor and acting on the controller causes the motor to move the regulator.

4. In a governing mechanism, the combination of a regulator, a means including a speed governor for actuating the regulator in response to load changes, and a means subjected to the pressure of the source of supply on one side and to a predetermined pressure on the other, which under certain pressure conditions overpowers the governor and moves the regulator.

5. In a governing mechanism, the combination of a regulator, a means including a speed governor for actuating the regulator in response to load changes, a diaphragm subjected on one side to atmospheric pressure and on the other side to that of the source of supply of the apparatus being governed, and a means for transmitting the motion of the diaphragm to and overpowering the governor.

[Claims 6 to 11 not printed in the Gazette.]

1,072,930. CUTTER-HEAD. GEORGE A. ENSIGN, Defiance, Ohio, assignor to Defiance Machine Works, Defiance, Ohio. Filed May 10, 1913. Serial No. 766,785. (Cl. 144—224.)

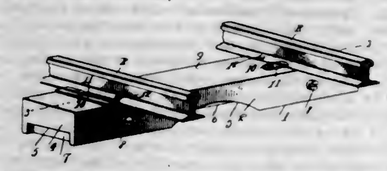


1. A cutter head, comprising a hub provided on its peripheral face with a series of guideways extending parallel with the axis of the hub, bit holders having bases, each base having an inner clamping member and an outer clamping member, of which the inner clamping member fits into the guideway and the outer clamping member engages the peripheral face of the hub at the sides of the guideway, the said base having a split intermediate the said clamping members, and the latter being integral at the base and a screw engaging the said clamping members to draw the same toward each other, and in engagement with the sides of the guideway and the face of the hub.

2. A cutter head, comprising a hub provided on its peripheral face with an undercut groove, a bit holder having a base provided with integral clamping members and a split extending between the clamping members from one end of the base to within a distance of the other end of the base, one of the clamping members fitting into the said undercut groove and the other clamping member engaging the peripheral face of the hub adjacent the sides of the said groove, and a screw engaging the said clamping members at the split.

3. A cutter head, comprising a hub provided on its peripheral face with an undercut groove extending parallel to the axis of the hub, the peripheral face of the hub adjacent the sides of the said groove being provided with bearing surfaces, a bit holder having a base provided with integral members of which one fits into the said undercut groove and the other engages the said bearing surfaces, the said base being provided with a split extending between the said members and from one end of the base to within a distance of the other end of the base, and a screw engaging the said members at the split.

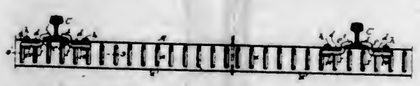
1,072,931. RAILWAY-TIE. PETER ERICKSON, Grand Junction, Colo. Filed May 23, 1913. Serial No. 769,488. (Cl. 238—5.)



1. A metallic tie comprising a rectangular shell, the sides of the tie being centrally recessed to provide curved edges, the top of the tie between the said upwardly curved portions having a central longitudinally extending rib which is of a width equaling the width of the sides of the tie, removable cushion members arranged within the tie between the ends of the tie, the ends of the rib and the sides of the tie, said tie having its face provided with orifices for the reception of rail-securing elements which enter the cushion members.

2. In a rail tie, a metallic shell having its sides centrally recessed, its ends terminating above the lower edges of its sides, its top integrally formed with a centrally disposed longitudinally extending rib arranged opposite the depressed sides, and removable cushion filler blocks arranged within the tie from the bottom thereof and disposed between the ends of the tie and the ends of the rib, all substantially as and for the purpose set forth.

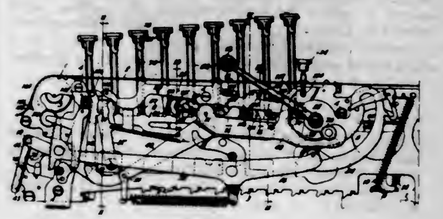
1,072,932. RAILWAY-TIE. CHARLES B. FAIRWEATHER, Coatesville, Pa., assignor to John S. Worth and William P. Worth, Coatesville, Pa. Filed Nov. 20, 1911. Serial No. 661,284. (Cl. 238—5.)



1. A railroad tie formed of a sheet metal plate bent substantially into quadrangular form in cross section and having the free edges of the plate disposed at the under side of the tie and spaced apart, said free edges being unconfined and free to move vertically and laterally, said tie having a series of vertical ribs in each side wall serving to stiffen the same, said ribs stopping short of the top and bottom of the tie, said top of the tie being a substantially continuous web except for apertures receiving rail holding means, and means carried by the top of the tie for holding rails in place.

2. A railroad tie formed of a sheet metal plate bent substantially into quadrangular form in cross section and having the free edges of the plate disposed at the under side of the tie, the under portions of the tie being downwardly inclined and spaced apart, said free edged portions being unconfined and free to move vertically and laterally, said tie having a series of outstanding vertical ribs in each side wall serving to stiffen the same, said ribs stopping short of the top and bottom of the tie, said top of the tie being a substantially continuous web except for apertures receiving the rail holding means, and anchoring means carried by the top of the tie and disposed on both sides of the same for holding rails in place, said top having depressed portions forming fulcrums on the under side for the anchoring means.

1,072,933. CALCULATING-MACHINE. DORR E. FELT, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,191. (Cl. 235—82.)



1. In a multiple-order key-driven calculating machine, in combination: adding mechanism including numeral wheels and carrying mechanism adapted to permit prime actuations of the adding mechanism in a plurality of orders simultaneously; denominational series of keys for actuating the several orders of the said adding mechanism; and two reverse locking mechanisms guarding such keys against mis-manipulation during its first movement and during its return movement, respectively, the locking being operable by a plurality of keys manipulated simultaneously in separate orders, and being ordinarily controlled by a single key in each of said orders; substantially as specified.

2. In a multiple-order key-driven calculating machine, in combination: adding mechanism including numeral wheels and carrying mechanism adapted to permit prime actuations of the adding mechanism in a plurality of orders simultaneously; denominational series of keys for actuating the several orders of the said adding mechanism; two reverse locking mechanisms guarding such keys against mis-manipulation, during its first movement and during its return movement, respectively, the locking being operable by a plurality of keys manipulated simultaneously in separate orders, and being ordinarily controlled by a single key in each of said orders; and a normal locking mechanism acting directly on the keys to prevent the simultaneous operation of the mechanisms in different columns by a single finger, the unlocking of said normal locking mechanism acting to position the parts for the operations of the said reverse locking mechanism during the further movements of the keys; substantially as specified.

3. In a multiple-order key-driven calculating machine, in combination: adding mechanism including numeral wheels and carrying mechanism adapted to permit prime actuations of the adding mechanism in a plurality of orders simultaneously; denominational series of keys for actuating the said adding mechanism; and locking mechanism adapted to lock a key, after its adding movement, against a further adding movement until the key has been restored to normal position, the locking being operable by a plurality of keys manipulated simultaneously in separate orders, and being ordinarily controlled by a single key in each of said orders; substantially as specified.

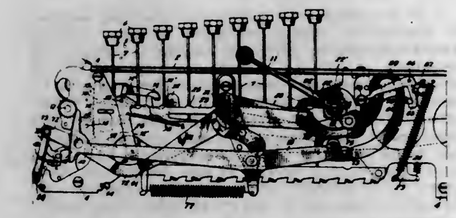
4. In a multiple-order key-driven calculating machine, in combination: adding mechanism including numeral wheels and carrying mechanism adapted to permit prime actuations of the adding mechanism in a plurality of orders simultaneously; denominational series of keys for actuating the said adding mechanism; and locking mechanism which is adapted to lock a key, after a complete adding movement thereof, against a further adding move-

ment, which lock is released upon the return of the key to normal position, the locking being operable by a plurality of keys manipulated simultaneously in separate orders, and being ordinarily controlled by a single key in each of said orders; substantially as specified.

5. In a multiple-order key-driven calculating machine, in combination: adding mechanism including numeral wheels and carrying mechanism adapted to permit prime actuations of the adding mechanism in a plurality of orders simultaneously; denominational series of keys for actuating the said adding mechanism; and ordinal locking mechanism adapted to lock a key subsequent to its complete depression and during its rising movement, against a reverse adding movement, the locking being operable by a plurality of keys manipulated simultaneously in separate orders, and being ordinally controlled by a single key in each of said orders; substantially as specified.

[Claims 6 to 49 not printed in the Gazette.]

1,072,934. CALCULATING-MACHINE. DORR E. FELT and JOSEPH A. V. TURCK, Chicago, Ill., assignors to Felt & Tarrant Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1913. Serial No. 759,193. (Cl. 235—144.)



1. In a calculating machine, in combination: multiple-order accumulator mechanisms and locking devices therefor; a series of column actuators; automatic carrying mechanisms; a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate the said canceling device and effect a column-actuator adding movement and a carrying-mechanism adding movement; canceling stops for stopping the said accumulator mechanisms at the predetermined limit; and connections whereby the cancellation controlling means withdraws the canceling stops of the accumulator mechanisms and defers such withdrawal until other action of the canceling handle has been so far completed that the numeral wheels can be controlled by normal stopping action of the accumulator mechanism locking devices; substantially as specified.

2. In a calculating machine, in combination: multiple-order accumulator mechanisms and locking devices therefor; a series of column actuators; automatic carrying mechanisms; a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate the said canceling device and effect a column-actuator adding movement and a carrying-mechanism adding movement; canceling stops for stopping the said accumulator mechanisms at the predetermined limit; and connections whereby the cancellation controlling means withdraws the canceling stops of the accumulator mechanisms and defers such withdrawal until other action of the canceling handle has been so far completed that the numeral wheels can be controlled by normal stopping action of the accumulator mechanism locking devices; substantially as specified.

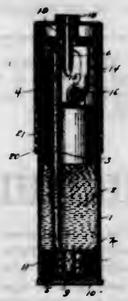
3. In a calculating machine, in combination: multiple-order accumulator mechanisms and locking devices therefor; a series of column actuators; automatic carrying mechanisms; a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate the said canceling device and effect a column-actuator adding movement and a carrying-mechanism adding movement; canceling stops for stopping the said accumulator mechanisms at the predetermined limit; and connections whereby the cancellation controlling means withdraws the canceling stops of the accumulator mechanisms and defers such withdrawal until other action of the canceling handle has been so far completed that the numeral wheels can be controlled by normal stopping action of the accumulator mechanism locking devices; substantially as specified.

4. In a calculating machine, in combination: multiple-order accumulator mechanisms and locking devices therefor; a series of column actuators; automatic carrying mechanisms comprising motor springs; a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate the said canceling device and effect a column-actuator adding movement and a carrying-mechanism adding movement; canceling stops for stopping the said accumulator mechanisms at the predetermined limit; and connections whereby the cancellation controlling means withdraws the canceling stops of the accumulator mechanisms and defers such withdrawal until other action of the canceling handle has been so far completed that the numeral wheels can be controlled by normal stopping action of the accumulator mechanism locking devices; substantially as specified.

5. In a calculating machine, in combination: multiple-order accumulator mechanisms and locking devices therefor; a series of column actuators; automatic carrying mechanisms comprising motor springs; a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate the said canceling device and effect a column-actuator adding movement and a carrying-mechanism adding movement; canceling stops for stopping the said accumulator mechanisms at the predetermined limit; and connections whereby the cancellation controlling means withdraws the canceling stops of the accumulator mechanisms and operates to cause a dwell between the final positioning of the accumulator mechanisms at said predetermined limit and the withdrawal of the said canceling stops; substantially as set forth.

[Claims 6 to 27 not printed in the Gazette.]

1,072,935. LIGHTER. ROBERT FISCHER, New York, N. Y. Filed Mar. 22, 1913. Serial No. 756,207. (Cl. 67—8.)



1. In a device of the character described, a receptacle for containing a liquid fuel, a wick having one end in said receptacle and the other end projecting therefrom, a pivotally mounted spring-pressed holder arranged on top of said receptacle, a scraping tool arranged in said holder, said holder being adapted to position said scraping tool adjacent said wick when in an operative position, a cap fitting over said receptacle, and a pencil of pyrophoric material connected with said cap and adapted to be moved substantially transversely of said scraping tool when the cap is removed, whereby a spark is created adjacent the upper end of said wick for igniting the same, said spring causing said scraping tool to press against said pencil and causing a movement of said scraping tool from adjacent said wick after a spark has been completed.

2. In a device of the character described, a body adapted to contain a fuel, a wick extending from said body, a pivotally mounted member arranged on top of said body, a spring acting against said member for normally holding the same in a predetermined position, said spring being brought under tension when said member is moved to a position adjacent the outer end of said wick, an abrading tool supported by said member, a pyrophoric pencil adapted to be abraded by the abrading tool for creating a spark adjacent said wick, and means for holding said pencil adjacent said wick for substantially its entire movement past said abrading tool, said spring being adapted to move said abrading tool from adjacent said wick when said pencil has disengaged said abrading tool.

3. In a device of the character described, a fuel container, a wick arranged in said fuel container with one end projecting therefrom, a ring-shaped abrading tool having the abrading or cutting edge arranged interiorly, spring pressed means for normally holding said abrading ring in a predetermined position, a pyrophoric pencil for holding said abrading ring adjacent said wick during the movement of the pencil across the abrading edge of said ring, and means for supporting said pyrophoric pencil.

4. In a device of the character described, a body adapted to contain a fuel, a wick arranged in said body and projected therefrom, means for holding the upper end of said wick in a predetermined position, and an abrading ring adapted to be held adjacent the upper end of said wick, means for supporting said ring, a spring pressing against said means for tending to continually move the ring away from said wick, a pencil adapted to be abraded by said abrading rings for producing a spark, said pencil holding said abrading ring adjacent said wick during the movement of the pencil, and a cap structure guided by said body adapted to support said pencil.

5. In a device of the character described, a body adapted to contain a fuel, a wick contained in said body with one end projecting therefrom, a pivotally mounted abrading member adapted to be positioned adjacent said wick, a spring acting on said abrading member for continually tending to move the same away from said wick, a pencil adapted to be abraded by said abrading member for creating a spark, and a cap slidingly fitting over said body, said cap supporting said pencil and guiding the pencil in its movement, the cap being formed with a plurality of apertures in the part which overlaps said body whereby air is admitted to the interior of the cap for supporting combustion as the abrading of the pencil is begun.

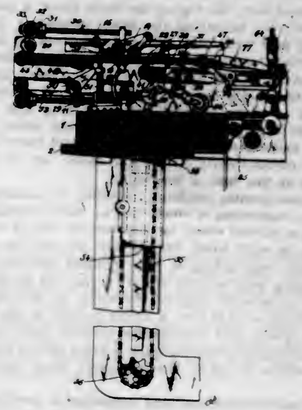
1,072,936. SHEET-SEPARATOR. RUFUS A. FREEMAN, Flushing, N. Y., assignor to The Autopress Company, a Corporation of New York. Filed Oct. 1, 1907. Serial No. 395,388. (Cl. 101—39.)

1. A sheet-feeding machine including in combination, means for supporting a sheet stack, separating means constructed and arranged to exert intermittently a series of progressive separating actions directly upon each of a plurality of sheets during each of a plurality of successive operations of the said means, and means for operating said separating means.

2. A sheet-feeding machine including in combination, means for supporting a sheet stack, separating means constructed and arranged to exert intermittently a series of separating actions directly on each of a plurality of the sheets nearest the top of the stack during each of a plurality of successive operations of the said means, said separating actions being exerted in the direction of feeding off, and means for operating said separating means.

3. A sheet-feeding machine including in combination, means for supporting a sheet stack, separating means constructed and arranged to exert a series of progressive separating actions of varying intensity directly upon each of a plurality of sheets during each of a plurality of successive operations of the said means, and means for operating said separating means.

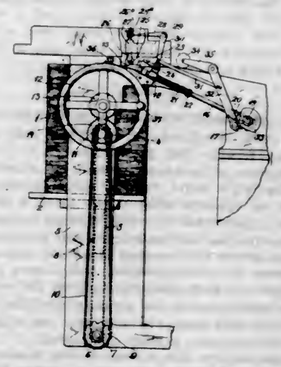
4. A sheet-feeding machine including in combination, means for supporting a sheet stack, separating means constructed and arranged to exert intermittently a series of progressive separating actions directly upon the rear ends of each of a plurality of sheets during each of a plurality of successive operations of the said means, said actions being exerted in the direction of feeding off, and means for operating the said separating means.



5. A sheet-feeding machine including in combination, means for supporting a sheet stack, separating means comprising a reciprocating combing device constructed and arranged to exert during each reciprocation a series of separating actions directly on each of a plurality of sheets nearest the top of the stack in the direction of feeding off, means for rendering said device inoperative when moving in the opposite direction, and means for reciprocating the said combing device.

[Claims 6 to 29 not printed in the Gazette.]

1,072,937. SHEET-FEEDING MACHINE. RUFUS A. FREEMAN, Flushing, N. Y., assignor to The Autopress Company, a Corporation of New York. Filed Apr. 20, 1908. Serial No. 428,259. (Cl. 101—36.)



1. A sheet-feeding machine including in combination, a table for supporting a sheet stack, a pawl and ratchet mechanism for raising the table, said pawl and ratchet being located near the top of the sheet stack, a reciprocating member for actuating the pawl, means for positively advancing said reciprocating member to feed up the table, means acting to retract said reciprocating member, a dog

for preventing said retracting means from acting, a feeler acting on the face of said sheet stack, a rock shaft connected to said feeler, and a relatively long arm on said rock shaft directly engaging a relatively short arm on said dog.

2. A sheet-feeding machine including in combination, a table for supporting a sheet stack, a pawl and ratchet mechanism for raising the table, said pawl and ratchet being located near the top of the sheet stack, a reciprocating member for actuating the pawl, means for positively advancing said reciprocating member to feed up the table, means acting to retract said reciprocating member, a dog for preventing said retracting means from acting, a feeler acting on the face of said sheet stack, a rock shaft connected to said feeler, a relatively long arm on said rock shaft directly engaging a relatively short arm on said dog, and means acting directly on said feeler-actuated arm for intermittently lifting the feeler out of pressure contact with the face of the stack.

3. A sheet-feeding machine including in combination, a table for supporting a sheet stack, table raising means including a ratchet wheel located near the top of the stack, a handle on said wheel for quickly moving the stack, a reciprocable rod having a pawl pivoted directly thereon for engaging said ratchet wheel, means for reciprocating said rod, a movable dog for allowing or preventing the reciprocation of said rod, a feeler acting on the face of the sheet stack, and connections between said feeler and dog for moving the rod engaging portion of the dog with a motion which is many times greater than that of the feeler.

4. A sheet-forming machine including in combination, a table for supporting a sheet stack, table raising means including a ratchet wheel located near the top of the stack, a longitudinally reciprocable rod having a pawl pivoted directly thereon for engaging said ratchet wheel, means for positively advancing said reciprocating rod to feed up the table, a dog for preventing said reciprocating means from acting, a feeler acting on the face of the sheet stack, a rock shaft connected to said feeler, and a relatively long arm on said rock shaft directly engaging a relatively short arm on the dog to cause the feeler to move the dog positively with a greatly multiplied motion.

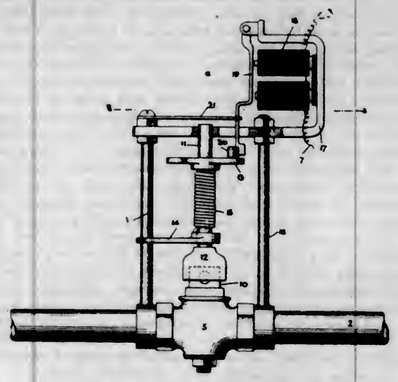
5. A sheet-feeding machine including in combination, a table for supporting a sheet stack, table raising means including a ratchet wheel, a rod reciprocable longitudinally and having a pawl pivoted directly thereon for engaging said ratchet wheel, a cam for reciprocating said rod, a spring for holding said rod to its cam, a movable dog for controlling the action of said spring on the rod, a feeler acting on the face of the sheet stack, and a rock shaft having an arm connected to the feeler and a relatively long arm connected to a relatively short arm on the dog.

[Claims 6 to 8 not printed in the Gazette.]

1,072,938. SHUT-OFF SYSTEM FOR CONDUITS. ISABELLA GILLEN, Woodmere, N. Y. Filed Aug. 24, 1912. Serial No. 716,842. (Cl. 137—92.)

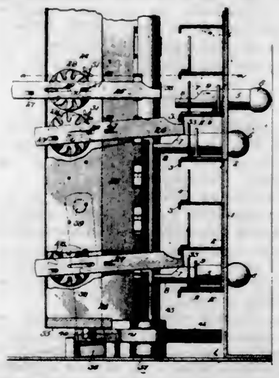
1. In a system of the kind described, the combination of a conduit having a valve therein, uprights supported by the conduit on opposite sides of the valve, a bridge connecting the upper ends of said uprights together, said bridge supporting an electro-magnet and a pivoted armature thereon, means for engaging said valve and tending to turn the same to closed position, said means being normally engaged by said armature to hold the valve open, and means susceptible to the action of heat for closing a circuit through said magnet to withdraw the armature and allow the valve to move to close the conduit.

2. The combination of a conduit having a valve therein, uprights supported by the conduit on either side of the valve, a bridge connecting the upper ends of the uprights together, the said bridge having a U-shaped end, a magnet and a movable armature carried by said U-shaped end, means for engaging said valve and moving the same to closed position, said means being normally engaged by the armature to hold the valve open, and means susceptible to the action of heat for closing the circuit through said magnet to withdraw the armature and allow the valve to be moved to close the conduit.



3. In a system of the kind described, the combination of a conduit having a valve therein, uprights supported by the conduit on either side of the valve, a bridge connecting the upper ends of said uprights together, said bridge having a U-shaped end, a magnet and a movable armature carried by said U-shaped end, means for engaging the valve and turning the same, said means being normally engaged by the armature to hold the valve open, a plate having a notched end carried on the end of one of the uprights to engage the armature and prevent lateral movement thereof, and means susceptible to the action of heat for closing the circuit through said magnet to withdraw the armature and allow the valve to move to close the circuit.

1,072,939. VOTING-MACHINE. ALFRED J. GILLESPIE, Rochester, N. Y., assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y., a Corporation of New York. Filed May 7, 1900. Serial No. 15,772. (Cl. 235—54.)



1. In a voting-machine, the combination with a register support, a register thereon having a movable actuator, of a support, a movable ballot indicator thereon cooperating with the actuator to attach it to the indicator support, said supports being relatively movable and operating to cause the operation of the register and to reset the indicator to normal position during the complete cycle of their relative movements.

2. In a voting-machine, the combination with a register support, a register thereon having a movable actuator, of a support, a movable ballot indicator thereon cooperating with the actuator to attach it to the indicator support, said supports being relatively movable to cause the operation of the register and said register support engaging the indicator to return it to normal position during a complete cycle of operation.

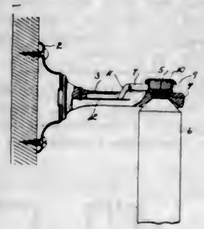
3. In a voting-machine, the combination with a register support, a register thereon provided with an actuator cooperating positively with the register to actuate it one step when moved relatively thereto in two directions, of a support, a ballot indicator movable thereon and operating when moved to connect the register-actuator to the support, said indicator and register supports being relatively movable in two directions to actuate the register and in a different direction to reset the indicator.

4. In a voting-machine, the combination with a register support, a register thereon, and a register-actuator, of a support, a movable indicator on the support for detachably connecting the actuator thereto, said register and indicator supports being movable relatively toward and from and laterally of each other and thereby cause a complete operation of the register and reset the indicator during a complete cycle of movement.

5. In a voting-machine, the combination with a register-support, a plurality of registers thereon, of a support, a plurality of ballot indicators thereon corresponding in number with the registers and coöperating with the latter when moved to voted position, interlocking mechanism between the indicators, said register and indicator-supports being relatively movable to cause the actuation of the registers whose indicators are moved to voted position, and said register-support coöperating directly with the indicators that have been moved to return them to normal position, whereby the registers are actuated and the indicators reset during a complete cycle of the relative movement of the two supports.

[Claims 6 to 37 not printed in the Gazette.]

1,072,940. HOLDER FOR COLLAPSIBLE TUBES. FREDERICK A. GOPPELT, Jr., Waterbury, Conn., assignor to The Holder Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 28, 1912. Serial No. 728,260. (Cl. 248—20.)

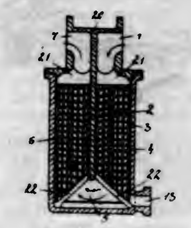


A holder for collapsible tubes comprising a base, an arm swiveled thereon and projecting outward therefrom, said arm provided at its outer end with a threaded opening to receive the threaded neck of a collapsible tube, a lever pivoted to said arm and provided at its outer end with a cap adapted to set over said opening.

1,072,941. APPARATUS FOR SEPARATING OUT LIQUIDS FROM VAPORS AND GASES. PAUL GRAEFE, Mallmitz, Germany. Filed July 15, 1912. Serial No. 709,605. (Cl. 83—90.)

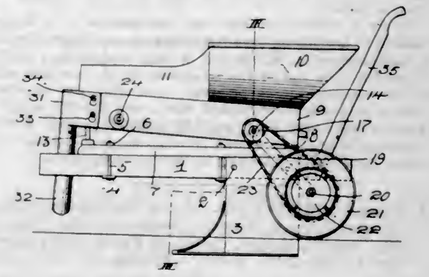
1. An apparatus for separating out liquids from vapors and gases, comprising a receptacle, plain and slotted plates arranged alternately in said receptacle, tongues stamped out from the slots of said slotted plates and set off so as to abut against said plain plates, said tongues being arranged in rows in a staggered position so as to baffle the fluid or medium and clear the same of moisture which is led through the slots and along the plain plates to the bottom of the receptatcle, substantially as set forth.

2. An apparatus for separating out liquids from vapors and gases, comprising an upright receptacle closed by a head having inlet and outlet ports, a central partition arranged on said head and between the inlet and outlet ports and adapted to lead the fluid or medium first down and then up through said receptacle, plain and slotted plates arranged alternately behind said head, tongues



stamped out from the slots of said slotted plates and set off so as to abut against said plain plates, said tongues being arranged in rows in a staggered position, inclined bars at the bottom of the receptacle for supporting said plates, and cross-bars arranged between said head and the upper edges of the plates for holding the latter in position and connecting them with said head to a removable whole, substantially as set forth.

1,072,942. PLANTER. JOE GYULAY, Kansas City, Mo. Filed Apr. 12, 1913. Serial No. 760,844. (Cl. 111—15.)



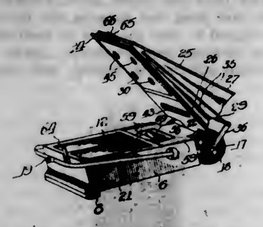
1. A planter comprising a beam, a plowshare, an adjustable inclined trough supported by said beam, a hopper in communication with said trough, a reciprocatory feeding member arranged longitudinally of said trough, and means engaging the ground and including crank shafts for impartidg a reciprocatory movement to said member.

2. A planter comprising a beam, a plowshare carried thereby, an adjustable trough arranged longitudinally of said beam, a hopper in communication with said trough, a spout at the forward end of said trough, a reciprocatory feeding member arranged longitudinally of said trough, crank shafts arranged transversely of said trough for imparting movement to said member, and means including a trailer wheel for imparting movement to said shafts.

3. A planter comprising a beam, a trough adjustable upon said beam, a hopper in communication with said trough, a reciprocatory member movable longitudinally of said trough, and means including a trailer wheel for imparting movement to said member.

4. A planter comprising a beam, a plowshare carried thereby, a trough adjustably supported by said beam, a hopper in communication with said trough, a detachable spout at the forward end of said trough, a movable feeding member arranged in said trough, and means including a trailer wheel and crank shafts for imparting movement to said member.

1,072,943. SUCTION DEVICE. WILLIAM H. HALL, Cicero, Ill. Filed Aug. 15, 1912. Serial No. 715,144. (Cl. 230—2.)



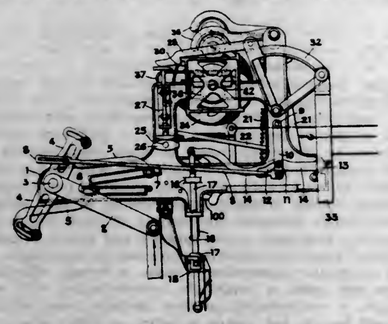
1. In a vacuum cleaner, the combination of a suitable frame work forming the side walls and bottom of an air chamber and provided with an air inlet, a shaft at one end of said frame work, supporting wheels mounted thereon, and a pump hinged on said shaft and adapted to close down over said chamber to form an air-tight connection with the walls thereof.

2. In a vacuum cleaner, the combination of a suitable frame forming the side walls and bottom of an air chamber, a shaft carried by said frame, a pump swingingly mounted on said shaft to close down over said air chamber, driving connections between said shaft and pump, and means for maintaining an air-tight connection between the pump base and said air chamber walls.

3. In a vacuum cleaner, the combination of a body formed to provide an open top receptacle, a driving shaft mounted thereon, and a suction device mounted to swing about said shaft and having a base to fit the top of said receptacle, said body and base being adapted when closed upon each other to provide an air chamber beneath the suction device.

4. In a vacuum cleaner, the combination of a frame formed to provide an open top receptacle, a bellows having a base adapted to fit the top of said receptacle, a shaft carried by one end of the receptacle at the movable end of the bellows, means pivotally connecting the movable end of the bellows with said shaft, and driving connections between said shaft and the movable portion of the bellows whereby said bellows may be swung back about the shaft without disconnecting the driving connections.

1,072,944. RIBBON-LOOM. JAKOB HÄUSERMANN, Stetten, near Lörrach, Germany, assignor to The Firm of Gebr. Stäuble, Horgen, Canton of Zurich, Switzerland. Filed Feb. 20, 1912. Serial No. 678,962. (Cl. 139—19.)



1. In dobby apparatus for ribbon looms, the combination with heddle operating members of a normally inoperative shedding cam gear capable of being brought into an operative condition with regard to said heddle operating members for the operation thereof, a driving mechanism for said shedding cam gear and an automatic, card controlled engaging and disengaging device for said driving mechanism, substantially as described.

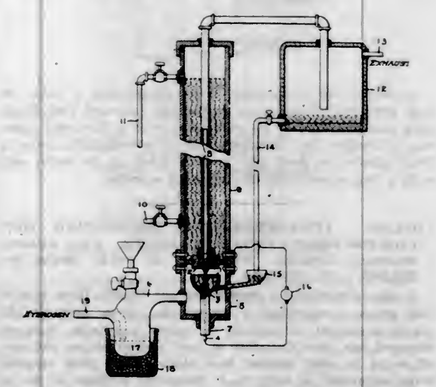
2. In dobby apparatus for ribbon looms, the combination with heddle operating members of a normally inoperative shedding cam gear capable of being brought into an operative condition with regard to said heddle operating members for the operation thereof, a pawl and ratchet mechanism for driving said shedding cam gear and an automatic, card controlling engaging and disengaging device for said driving mechanism, substantially as described.

3. In dobby apparatus for ribbon looms, the combination with heddle operating members of a normally inoperative shedding cam gear capable of being brought into an operative condition with regard to said heddle operating members for the operation thereof, a pawl and ratchet mechanism for driving said shedding cam gear, a controlling member for the pawl of said mechanism to disengage it when being lifted and to allow of its engagement with the ratchet when being lowered, a rotary cam for lifting and lowering said controlling member, and card controlled means for causing intermittent rotation of said rotary cam under the control of said card, substantially as described.

4. In dobby apparatus for ribbon looms, the combination with heddle operating treadles of hooks connected thereto, reciprocating blades for operating said hooks, card controlled selecting means for selecting the hooks to be operated, a shedding cam gear normally in inoperative condition, but capable of being brought into an operative condition with regard to said treadles when they are to be operated without hook control, a pawl and ratchet mechanism for driving said shedding cam gear, a controlling member for the pawl of said mechanism to disengage it when being lifted and to allow of its engagement with the ratchet when being lowered, a rotary cam for lifting and lowering said controlling member, and card controlled means for causing intermittent rotation of said rotary cam under the control of said card, substantially as described.

5. In ribbon looms, a dobby having heddle operating levers, an auxiliary rotary shaft mounted in the frame of said dobby, a shedding cam gear slidably mounted on said shaft, being normally in inoperative position, but capable of being shifted into operative position with regard to said heddle operating levers, a drive mechanism for driving said shedding cam gear shaft independently of the dobby control, and an automatic card controlled device for temporarily engaging and disengaging said drive mechanism, substantially as described.

1,072,945. ELECTROCHEMICAL PROCESS. JOSEPH L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 11, 1910. Serial No. 543,261. (Cl. 204—31.)



1. The process which consists in producing a chemical change in gases which consists in passing said gases through a low temperature arc.

2. The process which consists in producing a chemical change in a gaseous mixture which consists in passing said mixture through a mercury arc.

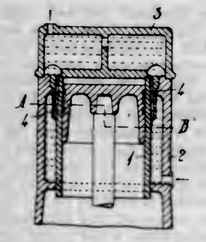
3. The process which consists in producing a chemical change in a gaseous mixture which consists in passing said mixture at low pressure through a low temperature arc.

4. The process which consists in producing a chemical change in a gaseous mixture which consists in passing said mixture through a short low temperature, low voltage arc.

5. The combination of an easily vaporizable cathode, a coöperating anode, means for producing an arc between said electrodes, and means for passing a gaseous reaction mixture through said arc.

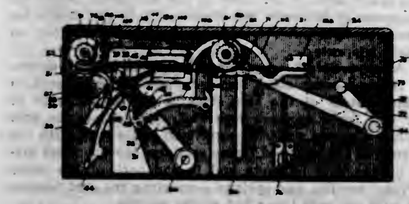
[Claim 6 not printed in the Gazette.]

1,072,946. WATER-COOLED INTERNAL-COMBUSTION ENGINE. KNUT JONAS ELIAS HESSELMAN, Stockholm, Sweden. Filed Mar. 8, 1912. Serial No. 682,400. (Cl. 123—173.)



An internal combustion engine cylinder having a water chamber in its head, and inner and outer walls forming between them a water jacket, and also having on the outer side of the portion of the inner wall adjacent the water chamber an increased thickness that extends into the water jacket and is there separated by an intervening space from the inner side of the outer jacket wall, and further having in said portion of increased thickness and extending throughout the length thereof a series of passages arranged intermediate of and in communication with the chamber in the head and water jacket between the inner and outer walls; the said series of passages surrounding the interior of the cylinder.

1,072,947. VENDING-MACHINE. OMAR J. HOTALING, Carlstadt, N. J. Filed May 1, 1912. Serial No. 694,340. (Cl. 211—8.)



1. In a machine of the class described, a casing having an outlet, means for dispensing articles from the machine, through said outlet, operating mechanism for said means, a closure for said outlet, normally operative to obstruct the same, and means controlled by the article-dispensing means and independent of said operating mechanism, for displacing said closure from its operative position.

2. In a machine of the class described, a casing having an outlet, an article-support therein, means for dispensing the articles from said support, through said outlet, one at a time, said means including a roll for moving the article through the outlet, a normally operative closure for obstructing said outlet, and means operable by said roll, for displacing said closure.

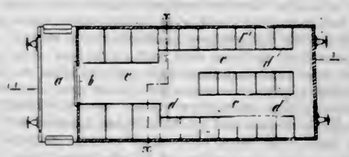
3. In a machine of the class described, a casing having an outlet, an article-support within said casing, means for advancing articles from said support to said outlet and through the same, one at a time, said means including two rolls between which the article dispensed passes, one of said rolls being bodily movable, a normally operative closure for said outlet, and means operatively connecting said roll and said closure, whereby said closure is inoperatively disposed by the engagement of the article dispensed with said bodily movable roll.

4. In a machine of the class described, a casing having an outlet, means for dispensing articles from said casing, through said outlet, said means including a rotatable and bodily movable roll, a normally operative closure for said outlet, and an operative connection between said roll and said closure, whereby the bodily movement of said roll when the same engages the article dispensed, is multiplied and translated to said closure to displace the same from its operative position.

5. In a machine of the class described, a casing having an outlet, means for dispensing articles from said casing, through said outlet, said means including a rotatable and bodily movable roll, a normally operative closure for said outlet, a lever having a fixed fulcrum and operatively connected with said roll, and an operative connection between said lever and said closure.

[Claims 6 to 28 not printed in the Gazette.]

1,072,948. VEHICLE WITH CELLULAR PARTITIONS, BOXES, OR DRAWERS WHICH ARE LET SEPARATELY FOR THE CONVEYANCE OF GOODS. CARLO ISIDOR, Rome, Italy. Filed Jan. 7, 1913. Serial No. 740,652. (Cl. 105—15.)



A vehicle for the direct transmission of goods from sender to receiver, having a compartment, a plurality of boxes or cells formed within the compartment of the vehicle, and each of which is provided with a lock whereby it may be controlled only both by the sender and the receiver of the articles which it contains, to the exclusion of the conductor or operator of the vehicle.

1,072,949. ROTARY VALVE. MAX JAEGER, Mount Vernon, N. Y., assignor to Jaeger Rotary Valve Motor Co., Mount Vernon, N. Y., a Corporation of New York. Filed Apr. 1, 1912. Serial No. 687,566. (Cl. 123—190.)



1. In a rotary valve for explosive engines, an outer casing, a stationary inner casing arranged in the outer casing and spaced therefrom, said inner casing being provided with an inlet passageway extending for a part of the full length thereof and merging into branches for more easily distributing the explosive mixture, an outlet passageway

extending for substantially the full length of the inner casing, a port from each of said passageways for each cylinder of said engine, and a substantially centrally arranged cooling chamber, and a rotary valve sleeve arranged in the space between said stationary inner casing and said outer casing, said sleeve being formed with ports registering at predetermined times with the ports in the inner casing for causing a proper intake and exhaust from said cylinders.

2. In a rotary valve for explosive engines, an outer casing formed with a water jacket in communication with the water jacket in said engine, a stationary inner casing adjacent said outer casing and spaced therefrom, said inner casing being formed with a water-cooling chamber, means for connecting the bottom part of said water-cooling chamber with the water jacket of said outer casing, means for connecting the upper part of said water-cooling chamber with the upper part of said water jacket of said outer casing, whereby the cooling water may circulate in a general upward direction through the water jacket of said outer casing and through the water cooling chamber of said inner casing, and a rotary valve structure arranged in the space between said outer casing and said inner casing.

3. In a rotary valve for explosive engines, an outer casing formed with a longitudinal oil groove, means for supplying said oil groove with oil, a rotating sleeve arranged in said outer casing adjacent said oil groove whereby oil is distributed to the outer surface of said sleeve, said sleeve being formed with a plurality of ports, an inner casing surrounded by said sleeve formed with a plurality of ports adapted to register at predetermined times with the ports of said sleeve, said inner casing being formed with a longitudinal oil groove designed to receive oil through said ports from said first mentioned oil groove, whereby said sleeve is protected by an inner and outer film of oil, and means for rotating said sleeve.

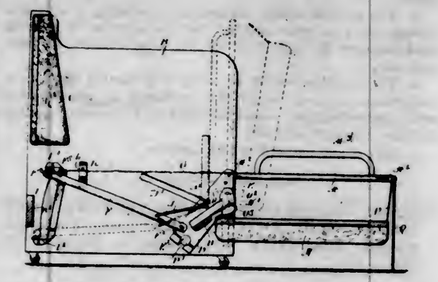
4. In a rotary valve for explosive engines, an outer casing, an inner casing formed with intake and exhaust ports and with intake and exhaust passageways, a rotary valve sleeve positioned between said casings formed with ports arranged to at predetermined times register with the ports in said inner casing, a removable head associated with said outer casing, means for rigidly securing said head to said inner casing, and an identifying member for connecting said head with said outer casing whereby the head may be always positioned in the same place upon each removal and replacing.

5. In a rotary valve for explosive engines, an outer casing, a stationary inner casing, a rotary valve sleeve arranged between said casings, means for rotating said valve sleeve, a removable head associated with said outer casing, means for rigidly securing said head to said inner casing, selective registering means for connecting said head and said outer casing whereby the head is always positioned correctly, and a locking structure adapted to at times engage the means for rotating said sleeve for locking the same to said head, whereby the sleeve, the head, and the inner casing are rigidly connected together, said locking means comprising a reciprocating pin adapted to engage the depression in said means for rotating said sleeve, a spring for normally tending to move said pin toward said depression, and a stop connected with said pin for normally preventing movement of said pin, said head being formed with a slot for accommodating said stop when it is desired that the pin shall engage said depression.

[Claims 6 to 11 not printed in the Gazette.]

1,072,950. CONVERTIBLE DAVENPORT AND BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed Apr. 17, 1911. Serial No. 621,582. (Cl. 5—49.)

1. A convertible davenport and bed, comprising a davenport frame having sides, a bed frame having an outer and an inner section, the sections being fulcrumed on the sides of the davenport frame, a mattress attached at its ends to the free ends of the said bed frame sections to stretch the mattress when the said bed frame sections are in an extended position and to double up the mattress between the said bed frame sections when the latter are in folded position, a seat, a front for the davenport frame and pivoted on the sides thereof, the said seat being pivoted on the said front, and a flexible connection between the other end of the seat and the free end of the outer bed frame section.



2. A convertible davenport and bed, comprising a supporting frame having sides, a bed frame having an outer and an inner section, the sections being fulcrumed on the sides of the supporting frame, a mattress attached at its ends to the free ends of the said bed frame sections to stretch the mattress when the said bed frame sections are in an extended position and to double up the mattress between the said bed frame sections when the latter are in folded position, supporting lugs on the sides of the supporting frame for engagement by the said outer bed frame section, and retaining means on the said lugs for holding the outer bed frame section in position on the lugs.

3. A convertible davenport and bed, comprising a supporting frame having sides, a bed frame having an outer and an inner section, the sections being fulcrumed on the sides of the supporting frame, a mattress attached at its ends to the free ends of the said bed frame sections to stretch the mattress when the said bed frame sections are in an extended position and to double up the mattress between the said bed frame sections when the latter are in folded position, a spring connected at one end with the said innermost bed frame section, and a tension arm mounted to swing on the side of the supporting frame and connected with the other end of the said spring, the said tension arm being in the path of the outermost bed frame section to be actuated by the latter.

4. A convertible davenport and bed, comprising a davenport frame having sides, brackets removably secured to the inner faces of the said sides, a bed frame made in outer and inner sections separately pivoted on the said brackets, a spring mattress connected at its ends with the free ends of the said bed frame sections, supports secured to the inner faces of the sides of the davenport frame for engagement by the outer bed frame section, and means for holding the said outer bed frame section in position on the said supports.

5. A convertible davenport and bed, comprising a davenport frame having sides, brackets removably secured to the inner faces of the said sides, a bed frame made in outer and inner sections separately pivoted on the said brackets, a spring mattress connected at its ends with the free ends of the said bed frame sections, tension arms pivoted on the said brackets and in the path of the outer bed frame section, and springs connecting the said tension arms with the said inner bed spring section.

[Claims 6 to 9 not printed in the Gazette.]

1,072,951. FIRE-HOSE NOZZLE. DAVID S. JOHNSTON, Knoxville, Tenn. Filed Oct. 14, 1911. Serial No. 654,666. (Cl. 137—17.)

1. A fire hose nozzle having a break in its continuity at an intermediate point, the parts being adjustable one relative to the other in the direction of the longitudinal axis to increase or decrease the space between the adjacent ends, or to bring them into contact at will, and a directing member formed of two portions spaced apart and located on opposite sides of the break in the continuity of the nozzle and movable bodily lengthwise of the nozzle to direct a gill stream issuing through the break in the nozzle toward one end or the other of said nozzle.



2. A fire hose nozzle having a break in its continuity at an intermediate point with radially disposed walls, the parts being adjustable one relative to the other in the direction of the longitudinal axis of the nozzle to increase or decrease the space between the radial walls or to bring them into contact at will, and a directing member on the nozzle exterior to the portion where the break occurs and including two portions spaced apart and movable together longitudinally of the nozzle to direct a gill stream issuing through the break toward one end or the other of the nozzle, at will.

3. A fire hose nozzle having a portion of substantially constant internal diameter and another portion tapering therefrom to the discharge end of the nozzle, the nozzle being separated into two members within the range of the portion of constant diameter, and means exterior to and accessible on the first named portion for the adjustment of the portion carrying the tapered part toward and from the other portion of the nozzle in the direction of the longitudinal axis of the nozzle.

4. A fire hose nozzle having a break in its continuity at an intermediate point for the production of a gill stream, and means for directing the gill stream toward either end of the nozzle at will comprising a two part interiorly expanded member surrounding the nozzle at the point of break in its continuity and on opposite sides thereof, the two parts being in spaced relation one to the other and connected together for bodily movement in the direction of the longitudinal axis of the nozzle.

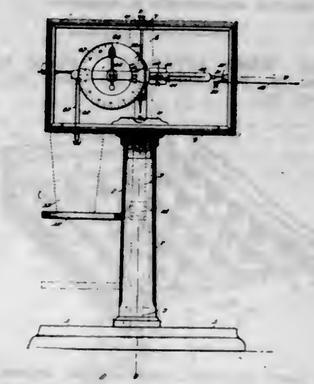
5. A fire hose nozzle comprising two alined members, one member being movable toward and from the other member in the direction of the longitudinal axis of the nozzle, screw shafts carried by one member and carrying and engaging the other member, pinions on the screw shafts at the ends thereof on the member carrying said shafts, a circular gear in engagement with the pinions and provided with manipulating means, and a support for the gear on the carrying member of the nozzle for holding the gear in engagement with the pinions and permitting rotative movement of the gear.

[Claims 6 to 11 not printed in the Gazette.]

1,072,952. SPECIFIC-GRAVITY BALANCE. BENJAMIN RUSH JOLLY, Raleigh, N. C. Filed Jan. 22, 1910. Serial No. 539,511. (Cl. 73—3.)

1. In a balance, a casing, a beam, pivotally mounted within said casing, weights carried by said beam at one end, compensating means carried by said beam at the other end, said compensating means including a pair of rack bars, means arranged to project through said casing for moving one of said rack bars, a pinion for communicating the movement of one rack bar to the other rack bar, a pointer secured to the shaft of the pinion and a dial for indicating the movement of the pointer.

2. In a balance, a casing, a beam pivotally mounted within said casing, a series of adjustable weights carried by the beam on one end thereof, compensating means carried by the other end of the beam, said compensating means including a pair of rack bars, suspending means carried by one of said bars, a nut slidably supported by said casing and arranged to engage one of said bars, a threaded rod arranged to extend through said casing for moving said nut, a pinion for communicating the motion of one rack bar to the other, a pointer secured to the shaft, and a dial for indicating the movement of the pointer.



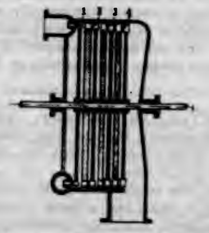
3. In a balance, a casing, a beam pivotally suspended within said casing and provided with adjustable weights on one end, compensating means slidably secured to the opposite end of the beam, said compensating means including a pair of racks, a pinion for communicating the movement of one rack to the other, and a spring for holding said racks into engagement with said pinion, suspending means carried by one of said racks, a rod secured to said casing, a nut slidably mounted thereon and provided with arms, a pin carried by one of said racks and arranged to be engaged by the arms of said nut, and a rod rotatably mounted in the wall of said casing and having a threaded end arranged to engage the threads of said nut.

4. In a balance, a pivoted beam provided with slidable weights on one end and having compensating means slidably mounted on the opposite end, suspending means carried by said compensating means, a screw for moving said compensating means longitudinally of the beam, a dial fixed with respect to said beam, and a rotary pointer mounted at the center of the dial and actuated by said compensating means for indicating the amount of movement of the suspending means.

5. In a balance, a base, an adjustable standard carried by said base, a casing pivotally mounted on said adjustable standard and adapted to be adjusted with respect to said standard, means for retaining the casing in its adjusted position, a beam, a support therefor provided with upper and lower knife edges, and a pair of pivoted bearings arranged to receive the knife edges.

[Claims 6 and 7 not printed in the Gazette.]

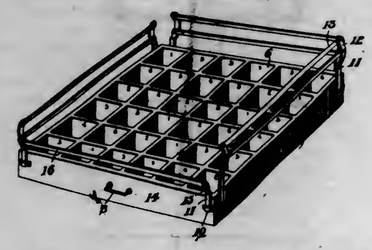
1,072,953. TURBINE. EMIL JOSSE, Charlottenburg, Germany. Filed Apr. 24, 1912. Serial No. 692,831. (Cl. 121—58.)



A turbine of the character described, comprising in combination a casing, divided into a selected number of stages,

and a rotor of proportionate dimensions selected in such a manner that the relative entrance velocity of the fluid into the buckets of said rotor is equal to the so-called critical velocity, substantially as described.

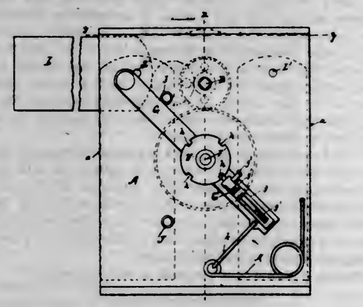
1,072,954. GAME APPARATUS. FRANK B. JUNN, Sharon, Pa. Filed Mar. 29, 1913. Serial No. 757,529. (Cl. 46—60.)



1. A game apparatus comprising an inclined bottom plate, a trough at the lower edge thereof, a frame hinged at one edge of said bottom plate and resting normally thereon, longitudinal transverse partitions arranged in said frame and dividing said frame into compartments adapted to receive bodies, and deflectors carried by the upper edges of the walls of said frame.

2. A game apparatus comprising an inclined bottom plate, and having compartments formed therein adapted to receive bodies, and means carried by the walls of said frame for deflecting bodies into the compartments thereof.

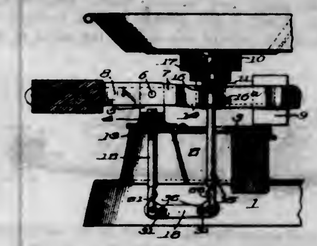
1,072,955. STATION-INDICATOR. HENRY L. KEDLER, Lundys Lane, Pa. Filed June 5, 1912. Serial No. 701,872. (Cl. 40—67.)



In a station indicator the combination of a frame a non-rotatable screw secured in said frame, a nut rotatable on said screw, a series of station cards suspended upon a common pivot at each side of said screw, an arm on said nut adapted to contact successively with the station cards on each side of said screw when said nut is rotated on the screw, and mechanism adapted to cause said nut to rotate on said screw, substantially as set forth.

1,072,956. SCALE-PAN SUPPORT. PETER KEIL and ERNEST A. STEPHENS, Elkhart, Ind., assignors to Joseph E. Cochran, Elkhart, Ind. Filed Oct. 12, 1910. Serial No. 586,807. (Cl. 73—3.)

1. In a scale, the combination with a pivotally mounted scale beam, of a scale pan support swingingly mounted on said scale beam, a rigidly mounted post, a rod depending from and adjustably connected to said scale pan support, a link pivotally connected at its ends with said post and depending rod respectively, and an adjustable abutment for said depending rod.



2. In a scale, the combination with a base member, of a post depending therefrom, a scale beam pivotally mounted on said base member, a scale pan support pivotally mounted on said scale beam, a depending rod adjustably connected to said scale pan support, means for rigidly locking said rod in any position to which it may be adjusted, an abutment for said rod, said abutment being adjustably mounted in said scale pan support, means for locking said abutment in any adjusted position, and a link pivotally connected at its ends to said depending post and rod respectively.

3. In a scale, the combination of a base member provided with a hollow upright stand, said stand being provided with a perforated cover plate, a post extending through the perforation in said cover plate and depending therefrom, a bracket support mounted on said cover plate and provided with a hole into which the end of the post projects, means projecting through said bracket support and engaging said post for maintaining it in position, a scale beam pivotally mounted on said bracket support, a scale pan support pivotally mounted on said scale beam and provided with a depending rod, and a link pivotally connected at its ends with said post and rod respectively.

4. In a scale, the combination with a base member, of a scale beam pivotally mounted thereon, a scale pan support pivotally mounted on said scale beam and provided with a depending rod, a post depending from said base member, said post and rod being provided at their lower ends with reduced portions, a bearing bracket mounted on each reduced portion, a bearing pin in each bearing bracket, said bearing pins being provided with ball bearing races formed therein, and a link provided at each end with a circular aperture whereby said link is adapted to fit over the balls around said pins.

5. In a scale, the combination with a base member, of a scale beam pivotally mounted thereon, a scale pan support pivotally mounted on said scale beam and provided with a depending rod, a post depending from said base member, said post and rod being provided at their lower ends with reduced portions, a bearing bracket mounted on each reduced portion, a bearing pin in each bearing bracket, said bearing pins being provided with ball bearing races formed therein, bearing balls, a link provided at each end with a circular aperture whereby said link is adapted to fit over the balls around said pins, and a pair of straps on opposite sides of said link, said straps being rigidly secured to said link.

1,072,957. GATE-HINGE. OSMAN B. KEMPTON, Lander, Wyo. Filed June 28, 1912. Serial No. 706,527. (Cl. 16—40.)



1. In combination with a swinging gate of plates adjustable horizontally upon the hinge post of the gate, a supporting post having plates provided with pintles adjustable toward and away from each other and operatively associated with the plates of the hinge post of the gate so as to furnish a fulcrum for the latter, and means hingedly connecting the upper end of the hinge post of the gate with said supporting post.

2. A hinge member comprising relatively adjustable sections, hinge pintles carried by the sections, and means by which the sections may be secured in adjustable position and secured to a support.

1,072,958. QUICKLY-ADJUSTABLE STIRRUP-LEATHER. JOHN W. KERR, Orlando, Fla. Filed Aug. 6, 1913. Serial No. 783,365. (Cl. 54—46.)



1. A quickly adjustable buckleless leather for stirrups and the like, including end members, an intermediate friction member, a looped strap threaded through the end members and the friction member so as to frictionally engage the same, one end of the strap being connected to one of the end members while the opposite end thereof is connected to the friction member, and a keeper applied to the looped strap to hold the various thicknesses thereof together.

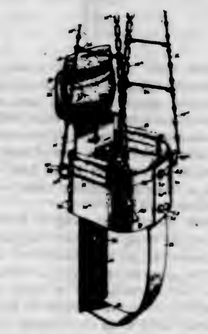
2. A quickly adjustable buckleless leather for stirrups and the like, including end members, a friction ring, a looped strap threaded through the end members and friction ring so as to frictionally engage the same, one end of the strap being connected to one of the end members while the opposite end thereof is connected to the friction ring, and a keeper applied to the looped strap to hold the various thicknesses thereof together.

3. A quickly adjustable buckleless leather for stirrups and the like, including end attaching eyes, an intermediate friction ring, and a flat strap threaded through the end attaching eyes and the friction ring so as to frictionally engage the same, one end of the strap being connected to one of the end attaching eyes while the opposite end of the strap is attached to the friction ring, the end of the strap which is attached to the rear end attaching eye fitting under and frictionally engaging the looped portion of the strap which is threaded through the said end attaching eye.

4. A quickly adjustable buckleless leather for stirrups and the like including end attaching eyes, a friction ring, a looped strap having one end thereof secured to the friction ring, the said strap being then carried to one of the end attaching eyes, threaded through the same and carried to the opposite end attaching eye, threaded through the second end attaching eye and carried to the friction ring, threaded through the friction ring and carried to the second end attaching eye to which it is secured, whereby two thicknesses of strap are provided between the friction ring and the first end attaching eye, and three thicknesses of strap between the friction ring and second end attaching eye, and a keeper surrounding the looped strap to hold the different thicknesses thereof together.

5. A quickly adjustable buckleless leather for stirrups and the like, including end attaching members, an intermediate friction ring, and a flat strap, one end of the strap being secured to the friction ring and the strap being then carried toward one of the end attaching members and threaded through the same, carried to the opposite end attaching member and threaded through the same, carried to the friction ring and threaded through the same, and then carried to the second mentioned end attatching member and secured thereto, the looped portion of the strap which is threaded through the said second mentioned end attaching member being arranged to produce sufficient friction by contact with the attaching member to prevent slipping.

1,072,959. BABY-WALKER. EDWIN SCOTT KINCANNON, Spokane, Wash. Filed Nov. 29, 1912. Serial No. 734,011. (Cl. 155—45.)



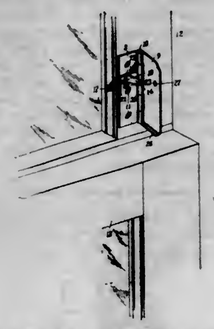
A baby walker comprising a body portion formed of separate sections of stiff material overlapping at the front and rear, each section being provided at one end with a pair of keyhole slots spaced vertically, at the opposite end with spaced horizontal series of keyhole slots, a vertical series of keyhole slots adjacent to the horizontal series, an inclined series of keyhole slots between said vertical series and the first mentioned pair of keyhole slots, and with additional keyhole slots between the mentioned horizontal series of slots; a depending strip comprising a back member having a vertical series of keyhole slots and overlapping the body portion, a seat member projecting forwardly from the said back member, and a front member formed with a vertical series of keyhole slots at its upper end and overlapping the body portion, fastening means engaging in the mentioned pairs of slots in the respective body sections and in slots of the front member, additional fastening members engaging in alining slots of the horizontal series in the respective body sections, and an additional fastening device engaging a slot of the mentioned back member and in alining slots in the body sections between the mentioned horizontal series of slots.

1,072,960. WINDOW-SASH LOCK. HENRY KRAHE, New York, N. Y. Filed June 16, 1913. Serial No. 778,933. (Cl. 16—18.)

1. A window sash lock, comprising a stationary wing member and a movable wing member pivotally connected and having interleaved hinge knuckles, two of said knuckles having elongated slots formed therein, said slots registering when said wings are disposed in perpendicular relation; and a manually-operated latch having an end adapted to move from one to the other of said slots to alternately release and lock said wings.

2. A window sash lock, comprising a stationary wing member and a movable wing member pivotally connected and having interleaved hinge knuckles, two of said knuc-

kles having elongated slots formed therein, said slots registering when said wings are disposed in perpendicular relation; and a latch pivotally mounted on one of said wings, having an end adapted to alternately move into one or other of said slots.



3. A window sash lock, comprising a stationary wing member and a movable wing member pivotally connected and having interleaved hinge knuckles, two of said knuckles having elongated slots formed therein, said slots registering when said wings are disposed in perpendicular relation; a latch pivotally mounted on one of said wings, having an end adapted to alternately move into one or other of said slots; and a spring engaging said latch to move the same into locking position.

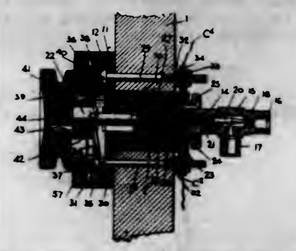
4. A window sash lock, comprising a stationary wing member and a movable wing member hingedly connected and having interleaved hinge knuckles, two of said knuckles being slotted lengthwise to register when said members are in perpendicular relation; two hinge pins connecting said wing members, the inner ends of said pins being spaced apart adjacent said slots; a rocking latch mounted on one of said members to extend within the slots and to hold the wing members in perpendicular relation when the slots in said knuckles register, said latch having an elongated pivot slot; a pivot pin mounted in said pivot slot to permit lengthwise movement of said latch thereon; and means for manually manipulating said latch to dispose the same in one or both of the slots formed in said hinge knuckles.

5. A window sash lock, comprising a stationary wing member and a movable wing member hingedly connected and having interleaved hinge knuckles, two of said knuckles being slotted lengthwise to register when said members are in perpendicular relation; two hinge pins connecting said wing members, the inner ends of said pins being spaced apart adjacent said slots; a rocking latch mounted on one of said members to extend within the slots and to hold said wing members in perpendicular relation when the slots in said knuckles register, said latch having an elongated pivot slot and being provided with a shoulder adapted to enter said registering slots in company with the locking end of said latch; a pivot pin mounted in said pivot slot to permit lengthwise movement of said latch thereon; and means for manually manipulating said latch to dispose the same in one or both of the slots formed in said hinge knuckles.

[Claim 6 not printed in the Gazette.]

1,072,961. IGNITER. GERARD BARNES LAMBERT, New York, N. Y. Filed June 12, 1912. Serial No. 703,221. (Cl. 175—115.)

1. The combination with an electric igniting system, a lamp, and a gas supply therefor, of a valve for said gas supply, an operating member mounted to turn and to move bodily and having an operative connection with said valve, whereby when said member is turned it serves to open or close said valve, and whereby said member can move bodily without affecting said valve, a normally inoperative contact member controlling said igniting system and adapted to be operated by a bodily movement of said operating member, and adjustable means for limiting the turning of said operating member so that said valve can be opened to any desirable predetermined extent only.



2. The combination with an electric igniting system, a lamp, and a gas supply therefor, of a valve for said gas supply, an operating member mounted to turn and to move bodily, and a contact member controlling said igniting system and adapted to be operated by said operating member, one of said members being of annular form, and the second of said members having a part adapted at all times to engage said annular member.

3. The combination with an electric igniting system, a lamp, and a gas supply therefor, of a valve for said gas supply, an operating member mounted to turn and to move bodily, and a contact member controlling said igniting system and adapted to be operated by said operating member, said operating member having an annular surface, said contact member having a projection adapted to be engaged by said annular surface when said operating member is moved bodily and in all positions of said operating member.

4. An igniter comprising a valve adapted to control a fuel supply and having a rotatable stem, an operating member mounted to turn and to move in the direction of its turning axis, and having an operative connection with said stem, a pivoted annular contact member adapted to control an electric ignition system and to be operated by said operating member, a spring normally holding said operating member out of engagement with said contact member, and a spring holding said contact member in a normal position.

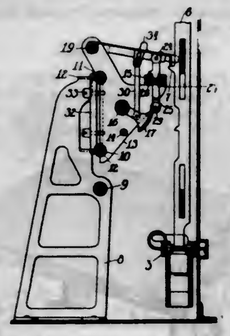
5. An igniter comprising a body, a valve adapted to control a fuel supply and having a rotatable valve stem projecting into said body, said stem having a head, an operating member mounted to turn, and axially with said stem, having a recess receiving said head, and having a connection therewith such that said stem is constrained to turn with said member while said member is free to move axially without affecting said stem, and a normally inoperative contact member adapted to control an ignition system and to be operated by an axial movement of said operative member.

[Claims 6 to 13 not printed in the Gazette.]

1,072,962. CUMULATIVE-VOTING MECHANISM FOR VOTING-MACHINES. WILLIAM J. LAUSTERER, Jamestown, N. Y., assignor to Empire Voting Machine Company, Rochester and Jamestown, N. Y., a Corporation of New York. Filed Aug. 13, 1908. Serial No. 448,432. (Cl. 235—54.)

1. The combination in a voting machine of a group of keys arranged in three or more sub-groups, an interlock between the sub-groups to prevent the operation of keys in more than one of said sub-groups, said interlock comprising a series of pivoted wings arranged end to end in line with each other, interlocking devices controlling the operation of said wings, each of said wings engaging with one of the sub-groups of voting devices, an interlock in each sub-group to limit the number of keys operable therein.

2. The combination in a voting machine of a plurality of keys arranged in a series of parallel office line, an interlocking mechanism dividing said keys into sub-groups and limiting the number of keys that can be operated in each sub-group, a series of pivoted plates suitably interlocked, one for each sub-group of keys and in engagement therewith, whereby the operation of the first key in any sub-group will move the plate of said sub-group to its interlocked position, said plate serving to lock against operation the other plates and the keys controlled thereby, said plates being mounted on a single shaft and being movable therewith longitudinally to engage different sets of voting devices.



3. The combination in a voting machine of interlocking straps each having a lug thereon, said straps being divided into groups, a series of pivoted plates engaging with said lugs, one for each group, and each plate being supported so as to be lifted when any interlocking strap in its group is operated, and means to prevent the lifting of the remaining plates when any one of them has been lifted.

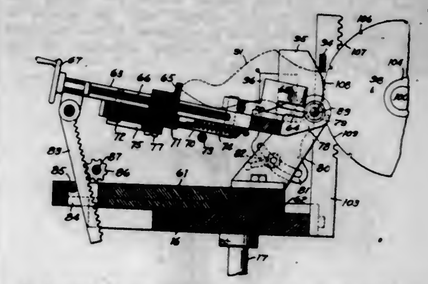
4. The combination in a voting machine of interlocking straps, each strap having a lug thereon, said straps being divided into groups, a shaft extending parallel to said groups of straps, plates pivotally mounted on said shaft one for each group of straps, each plate engaging with the lugs on the straps of its particular group, so as to be lifted thereby when any strap in its group is operated, means to prevent the lifting of the remaining plates when any one of them has been lifted.

5. The combination in a voting machine of keys interlocked in a plurality of groups, means for interlocking each of said groups against all the remaining groups, so as to permit the voting of keys in any one of said groups and prevent the voting of keys in the remaining groups, said means being movably mounted to engage with groups of keys formed in any part of the machine.

[Claims 6 to 25 not printed in the Gazette.]

1,072,963. MACHINE FOR TRIMMING LAST-HEELS. HENRY F. LOEWER, Rochester, N. Y. Filed Aug. 21, 1912. Serial No. 716,314. (Cl. 144—145.)

1. A machine for trimming last-heels having, in combination, a rotary trimming-cutter, a jack for holding a last with its heel in engagement with the trimming-cutter, and means for moving the jack in a general direction tangential to the cutter, said means comprising a slide on which the jack is mounted, reversible gearing for actuating the slide in opposite directions, a manually-operable member for throwing the gearing into one operative position to move the slide in one direction, a detent for holding the gearing in said position, a trip carried by the slide and adapted to engage the detent and release the gearing from said position when the slide has completed its movement in said direction, resilient means for moving the gearing, when so released, to its opposite operative position, to impart a return movement to the slide, and means, actuated by the slide at the end of such return movement, to restore the gearing to neutral inoperative position.



2. A machine for trimming last-heels having, in combination, a rotary trimming-cutter, a jack for holding a last with its heel in engagement with the trimming-cutter, the jack comprising means for clamping the last laterally in place therein and being movable toward and from the cutter, means for positively arresting the movement of the jack toward the cutter, a manually-operable member connected with said clamping-means and operable, when moved in one direction, to cause the clamping-means to engage and clamp the last and the jack to move toward the cutter; and when moved in the opposite direction, to cause the jack to move away from the cutter and the clamping-means to release the last, and means for imparting a feeding movement to the jack in a general direction tangential to the cutter.

3. A machine for trimming last-heels having, in combination, a rotary trimming-cutter, a jack for holding a last with its heel in engagement with the trimming-cutter, the jack comprising clamping-means for engaging the last laterally to clamp it in place therein and being movable as a whole toward and from the cutter, means for positively arresting the movement of the jack toward the trimming-cutter, a hand-lever pivoted on the jack and movable thereon toward and from the cutter, and connections between the hand-lever and the clamping-means for causing the latter to close laterally upon the last when the hand-lever is pushed toward the cutter.

4. A machine for trimming last-heels having, in combination, a rotary trimming-cutter, a jack for holding a last with its heel in engagement with the trimming cutter, means for supporting the jack and for moving it in a general direction tangential with respect to the cutter, the jack being adjustable upon said means to vary the inclination at which the last is held in the plane of rotation of the cutter, and means for fixing the jack in adjustable position on said means.

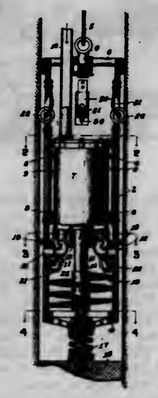
5. A machine for trimming last-heels having, in combination, a rotary trimming-cutter, a jack for holding a last with its heel in engagement with the trimming-cutter, the jack being movable toward the cutter to bring the last into operative engagement therewith, and a heel-gage adapted to be engaged by the lower angle of the heel of the last in locating the last in the jack, the heel-gage being mounted movably upon the jack so that it may be removed, after use, from the path of operation of the cutter.

[Claims 6 to 13 not printed in the Gazette.]

1,072,964. WELL-DRILLING APPARATUS. JAMES MAHER, MICHAEL M. MAHER, and THOMAS TERRY, East Liverpool, Ohio. Filed Jan. 6, 1913. Serial No. 740,409. (Cl. 255—4.)

1. In well drilling apparatus, the combination of a casing adapted to be lowered in a hole being drilled, a tool operating spindle extending downwardly from the casing, and spindle rotating means within the casing and slidable vertically therein together with the spindle to compensate for obstructions encountered by the tool.

2. In well drilling apparatus, the combination of a casing adapted to be lowered in a hole being drilled, a tool operating spindle extending downwardly from the casing, spindle rotating means within the casing and slidable vertically therein together with the spindle to compensate for obstructions encountered by the tool, and spring means for opposing upward movement of the spindle and its rotating means.



3. In well drilling apparatus, the combination of a casing adapted to be lowered in a hole being drilled, a tool actuating spindle rotatable in the casing, fluid driven tool rotating means, means for conducting fluid to the rotating means and from the latter to the drilling zone, the casing being open at its lower and upper ends with space between the casing and the spindle-rotating means for the passage of fluid and drillings, and means for inducing a flow of spent fluid and drillings upwardly through the casing.

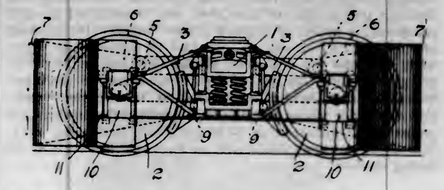
4. In well drilling apparatus, the combination of a casing adapted to be lowered in a hole being drilled, a tool actuating spindle rotatable in the casing, tool rotating means within the casing, means for conducting fluid under pressure to the tool actuating means and from the latter into the drilling zone, sealing means at the exterior of the casing above the fluid discharge adapted to engage the hole wall for preventing flow of fluid upwardly around the exterior of the casing, the casing being open at its lower and upper ends and provided with space for the flow of spent fluid and drillings upwardly therethrough.

5. In well drilling apparatus, the combination of a casing adapted to be lowered in a hole being drilled, a tool actuating spindle rotatable in the casing and extending downwardly through the lower end thereof, fluid actuated mechanism within the casing for rotating the spindle, a fluid inlet for said mechanism and a flexible fluid outlet for the same for conducting spent fluid to the exterior of the casing, the casing being open at its lower and upper ends for the flow of spent fluid and drillings upwardly therethrough, the casing provided with space for such upward flow.

[Claims 6 to 10 not printed in the Gazette.]

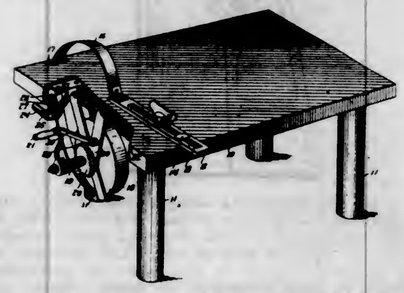
1,072,965. SHIELD FOR TRUCKS. AMOS MANTEAU, Dillonvale, Ohio. Filed Jan. 22, 1913. Serial No. 743,463. (Cl. 105—131.)

A truck shield comprising a bracket adapted to be secured to one end of the truck and having a bifurcated end, a shield member substantially U-shaped in plan and having one of its arms of greater length than the other, said elongated arm being cut away to provide a short and an elongated extension, and means for pivotally connecting said short extension to the bifurcated end of said bracket, said elongated extension being provided with a flange and adapted to be secured to the truck below said bracket and the short arm of said shield member being



bifurcated to provide a clearance for the straddling of a journal box by said arm.

1,072,966. MEAT-CLAMP. AMOS HENRY MATTHEW, Colville, Wash., assignor of one-third to David Meikel and one-third to Thomas W. Crandall, Colville, Wash. Filed Apr. 30, 1913. Serial No. 764,550. (Cl. 17—14.)

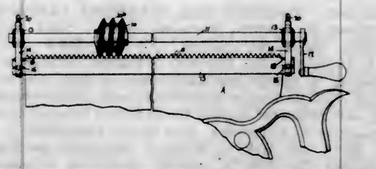


1. A meat clamp, comprising a resilient flat band, means for securing one end of the band to a table, means for exerting a pull lengthwise on the band to give the same a clamping action, and means for torsionally adjusting the band.

2. The combination with a resilient clamp band, of means for securing one end of the band to a table, a winding drum to which the opposite end of the band is connected, and means for tilting the winding drum.

3. In a meat clamp, the combination of a spring band, a bar having means to slidably secure it to a table, a drum connected with the opposite end of the band, a rock shaft, a hanger secured to the rock shaft, a winding shaft on the drum having bearings in said hanger, means for holding the drum against turning, and means for holding the rock shaft in adjusted position.

1,072,967. SAW-SHARPENER. RUSSELL RICHARD MAXWELL, Mansfield, Ohio. Filed Dec. 10, 1912. Serial No. 735,933. (Cl. 76—38.)

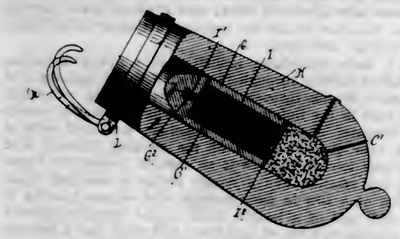


1. The combination of supporting means adapted for lateral adjustment, a shaft carried thereby, and a sharpener head mounted to rotate with the shaft and to travel thereon and provided with a spiral sharpening member.

2. In a saw sharpener, the combination with a clamp adapted to hold the sharpener to a saw, of end frames adjustably engaging said clamp to tilt laterally, a shaft mounted to revolve in said frames, and a sharpener head mounted on said shaft, to rotate therewith and to travel thereon.

3. In a saw sharpener, the combination of clamp plates adapted to receive a saw blade therebetween, and provided with lateral ears, end frames formed with opposite series of recesses adapted to receive the said ears to position the end frames in different angular relation to the clamp, a shaft mounted to revolve in said frames, and a sharpener head mounted on the shaft to rotate therewith and to travel thereon, said head being formed with a spiral sharpening rib.

1,072,968. MEANS FOR CARRYING LIFE-LINES. BENJAMIN F. MCCREARY, New York, N. Y. Filed Sept. 21, 1912. Serial No. 721,641. (Cl. 102—34.)



1. In means for carrying life lines, a projectile having a recess leading out through its base, and a life line coiled in the recess of the projectile and having one end secured in the bottom of the recess, and its other end terminating in a ring of greater diameter than the projectile and lying against the base of the projectile.

2. A means for carrying life lines, comprising a gun, a recessed projectile, a line within the recess of the projectile and having one end secured to said projectile, and means carried by the gun for catching the free end of the line on the projectile leaving the gun.

3. A means for carrying life lines, comprising a projectile provided with a recess open at the base of the projectile, a life line coiled within the said recess and having one end anchored in the bottom of the recess, a ring in which terminates the other end of the said life line, and a firing gun for the said projectile and provided with a catching means for catching the said ring on the projectile leaving the firing gun.

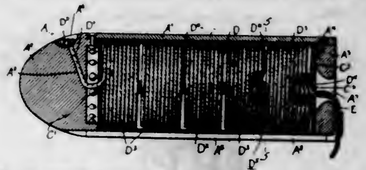
4. A means for carrying life lines, comprising a projectile provided with a recess open at the base of the projectile, a life line coiled within the said recess and having one end anchored in the bottom of the recess, a ring on which terminates the other end of the said life line, a firing gun for the said projectile, and hooks in front of the muzzle of the gun and adapted to catch the said ring on the projectile leaving the gun.

5. A means for carrying life lines, comprising a projectile provided with a recess open at the base of the projectile, a life line coiled within the said recess and having one end anchored in the bottom of the recess, a ring on which terminates the other end of the said life line, a firing gun for the said projectile, hooks in front of the muzzle of the gun and adapted to catch the said ring on the projectile leaving the gun, and a band encircling the gun at the muzzle and carrying the said hooks.

1,072,969. MEANS FOR CARRYING LIFE-LINES. BENJAMIN F. MCCREARY, New York, N. Y. Filed Apr. 25, 1913. Serial No. 763,558. (Cl. 102—34.)

1. In means for carrying life lines, a projectile, a life line coiled within the projectile and formed of a series of coils one in front of the other, the terminal of the outer convolution of one coil being connected with the beginning end of the inner convolution of the next following coil, the projectile having an apertured base for the passage of the life line, and a cap fitting loosely in the aperture in the base and having a groove at its inner face for engagement by the life line.

2. In means for carrying life lines, a projectile having a tubular body, a casing fitting into the said tubular body, a life line coiled within the said casing and having its forward end anchored to the projectile, an apertured base plate for the rear end of the casing, and an apertured base plug removably secured to the rear end of the tubular body and engaging the base plate of the casing, the rear end of said life line extending through the apertures in said base plate and base plug.



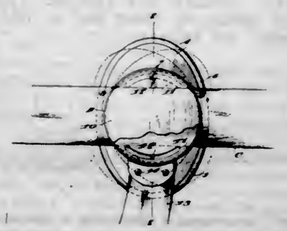
3. In means for carrying life lines, a projectile having a recess leading out through its base, a casing fitting into the said recess, a life line coiled within the said casing and having its forward end attached to the projectile, the said life line being formed of a series of coils one in front of the other, the terminal of the outer convolution of one coil being connected with the beginning end of the inner convolution of the next following coil, an apertured plate for closing the base end of the casing, and an apertured base plug removably secured to the base of the projectile, the life line extending through the said apertures in said plate and plug.

4. In means for carrying life lines, a projectile having a centrally apertured removable base, and a life line coiled within the projectile and having its forward end anchored to the projectile and having its rear end extending through the apertured base of the projectile, the life line being formed of a series of coils arranged one alongside the other, the terminal of the outer convolution of one coil being connected with the beginning end of the inner convolution of the next following coil, a wire cord connected with the beginning end of the coil in the base end of the projectile, and a closure for the aperture in the base of the projectile, and having a groove for the passage of the wire cord.

5. In means for carrying life lines, a projectile, and a life line coiled within the projectile and having its forward end anchored to the projectile, a wire cord connected with the rear end of the life line in the base end of the projectile, the base of the projectile having an opening through which the wire cord extends, the said projectile having a lengthwise extending groove in its peripheral face, the said wire cord extending along the said groove and having its outer end secured to a fixed support, and a cap for closing the opening in the base of the projectile, the cap fitting loosely in said opening and having a groove at its inner face for the passage of the said wire cord.

[Claims 6 and 7 not printed in the Gazette.]

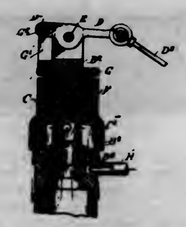
1,072,970. TRUSS-PAD. FRANK L. MCWETHY, Marshall, Mich. Filed Jan. 22, 1912. Serial No. 672,706. (Cl. 128—26.)



A truss-pad comprising a base, a pad received upon the face of said base, a turning-member received upon

the rear, said turning member cored out so that the belt has free movement therethrough, and provided with curved slots, a plate received upon the turning-member, and screws passing through the plate and slots for clamping the plate against the turning-member and holding the pad in its adjusted position on the belt.

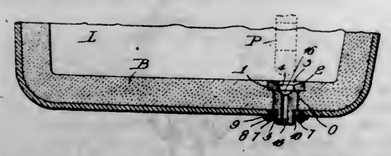
1,072,971. SUPPLY-VALVE. JOHN J. MEYER, Yonkers, N. Y. Filed Feb. 27, 1913. Serial No. 750,999. (Cl. 137—104.)



1. A supply valve of the class described, comprising a supply pipe terminating at its upper end in a fixed stem, the lower portion of which is hollow and provided with lateral ports leading to the peripheral face of the stem, a lever pivoted on the upper end of the said stem, a valve mounted to slide up and down on the said stem and provided with an interior annular packing surrounding the said stem and adapted to cover the said ports at the time the valve is in lowermost position, a stuffing box surrounding the said stem and on which screws the said valve to tighten the packing on the stem and to present other faces of the packing to the said ports on screwing up the valve, and an arm fixed on the said stuffing box and pivotally connected with the said lever to move the valve up or down on imparting a swinging movement to the said lever.

2. A supply valve of the class described, comprising a supply pipe terminating at its upper end in a fixed stem, the lower portion of which is hollow and provided with lateral ports leading to the peripheral face of the stem, a lever pivoted on the upper end of the said stem, a valve mounted to slide up and down on the said stem and provided with an interior annular packing surrounding the said stem and adapted to cover the said ports at the time the valve is in lowermost position, the said valve having a depending bell and the said stem forming with the said supply pipe an annular shoulder over which is adapted to pass the said bell to direct the water downward along the outer surface of the said supply pipe, a stuffing box surrounding the said stem and on which screws the said valve to tighten the packing on the stem and to present other faces of the packing to the said ports on screwing up the valve, and an arm fixed on the said stuffing box and pivotally connected with the said lever to move the valve up or down on imparting a swinging movement to the said lever.

1,072,972. NOZZLE FOR LADLES. CHARLES E. MICHAELS, Wilson, Pa. Filed July 24, 1913. Serial No. 781,026. (Cl. 22—84.)



1. A ladle comprising a shell with a fire-brick lining, the latter having through it a round outlet opening and the shell having through it a square opening concentric with that in the lining and whose longest diameter equals the diameter of said round opening; combined with a nozzle having a squared upper portion adapted to be passed through said square opening and a round lower portion whose diameter corresponds with the smallest diameter of said square opening.

2. A ladle comprising a shell with a fire-brick lining, the latter having through it a round outlet opening and the shell having through it a square opening concentric with that in the lining and whose longest diameter equals the diameter of said round opening; combined with a block over the inner end of the opening through said brick and having through it an opening concentric therewith but smaller, and a nozzle having a squared upper portion of a size to pass through the square opening in the shell and of a length corresponding with the distance between said shell and block, and a round lower portion whose diameter equals the smallest diameter of the opening through the shell.

3. A ladle comprising a shell with a fire-brick lining, the latter having through it a round outlet opening and the shell having through it a square opening concentric with that in the lining and whose longest diameter equals the diameter of said round opening; combined with a block over the inner end of the opening through said brick and having through it an opening concentric therewith but smaller, and a nozzle having a squared upper portion of a size to pass through said square opening in the shell and of a length equal to the distance between the contiguous faces of said block and shell, and a reduced lower portion projecting through said shell when the square portion is in place.

4. A ladle comprising a shell with a fire-brick lining, the latter having through it a round outlet opening and the shell having through it a square opening concentric with that in the lining and whose longest diameter equals the diameter of said round opening; combined with a block over the inner end of the opening through said brick and having through it an opening concentric therewith but smaller, the upper face of the block converging from its periphery to the edges of its opening, and a nozzle having a squared upper portion of a size to pass through said square opening in the shell and of a length equal to the distance between the contiguous faces of said block and shell, the nozzle having a bore throughout its length enlarged at its upper end to a size corresponding with that of the opening through said block.

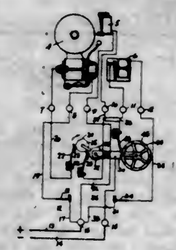
5. The comoination with a ladle having a round outlet opening through its wall recessed at its inner end, a block seated in said recess and having through it an opening concentric with but smaller than that in said wall, and a shell surrounding said wall and having through it an opening concentric with but smaller than that through said wall; of a nozzle whose upper end is of a size and shape to be passed through the opening in the shell and to be turned within the opening in said wall when its inner end contacts with the block, and means for holding said nozzle in place while it is being packed.

[Claims 6 to 8 not printed in the Gazette.]

1,072,973. TIMER. WILLIAM F. MINOR, New York, N. Y. Filed Nov. 7, 1912. Serial No. 729,993. (Cl. 161—17.)

1. In a device of the character described, a pair of electrically operated signal devices, a clock mechanism, a circuit for each of said signal devices, and means operated by said clock mechanism for opening and closing said circuits, said means including a contact member for each of the circuits, and a wheel for each of said contact members, said wheels being operated by said clock mechanism at a predetermined speed and each of the wheels being formed with spaced projections, the projections of one of said wheels being arranged in advance of the projection on the other wheel whereby said signal devices are caused to operate in succession and at certain spaced intervals of time.

2. In a device of the character described, a main signal, a preliminary signal, a circuit for each of said signals, a switch interposed in each of said circuits, each of said switches comprising a stationary contact member and a rotating contact member, the rotating contact members of said switches having projections designed to be moved into engagement with said stationary contact members, said projections being set so as to engage said stationary contact members at different times whereby said preliminary signal will be operated at one time and said main signal at another time, a clock mechanism, and means connecting said clock mechanism with said rotating contact members whereby the projections on said rotating contact members will engage said stationary contact members at certain intervals of time and will remain in engagement with said contact members for part of their revolution for causing the signals to operate a predetermined length of time and for causing a predetermined length of time to elapse between each operation of said signal devices.



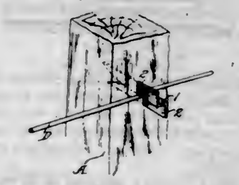
3. In a device of the character described, a principal signal device, an auxiliary signal device, a circuit for each of said signal devices, a switch interposed in each of said circuits, each of said switches comprising a substantially stationary contact member and a rotatable contact member, said rotatable contact member being formed with a rotating shaft and a pair of disks having a plurality of spaced projections extending therefrom adapted to engage said stationary contacts during the rotation of said shaft whereby said circuits are closed for a predetermined length of time upon the engagement of said projections with said stationary contacts and said circuits will be open for a predetermined length of time according to the distance between said projections and the speed of rotation of said shaft, a clock mechanism, and means for connecting said shaft with said clock mechanism so as to rotate the same at a certain speed.

4. In a device of the character described, a principal signal device, a preliminary signal device, and a counting signal device, an electrical circuit for each of said signal devices, a switch interposed in the circuit of said principal signal device and said preliminary signal device, a clockwork, means for connecting said clockwork with said switches for causing the same to open and close the circuits of said principal signal device and said preliminary signal device at certain intervals, a switch arranged in the circuit of said counting signal device, said last mentioned switch comprising a stationary member, a rotating wheel arranged adjacent said stationary member formed with spaced projections adapted to engage said stationary member at certain intervals as the wheel rotates, means for driving said wheel, and means for regulating the speed at which said wheel is rotated whereby the circuit of said counting signal device is regularly opened and closed at certain stated intervals, and manually operated means for locking said wheel against rotation.

5. In a device of the character described, an electrically operated counting signal, a circuit for said counting signal, a switch interposed in said circuit comprising a flexible fixed member, a rotatable wheel and a plurality of spaced pins mounted on said wheel and arranged so as to strike against said flexible fixed member whereby the circuit of said counting signal is closed at spaced intervals according to the speed of said wheel, a train of gearing connected with said wheel, power means connected with said train of gearing for operating the same and a brake mechanism connected with said train of gearing for regulating the speed of said wheel whereby said projections will engage said flexible fixed member at certain stated intervals, and a pivotally mounted manually operated stop adapted to engage one of the gears of said train of gearing for locking the train of gearing against movement.

[Claim 6 not printed in the Gazette.]

1,072,974. STAPLE. JOHN N. MOORE, Great Falls, Mont. Filed Apr. 3, 1913. Serial No. 758,727. (Cl. 85—49.)



1. A staple comprising a head consisting of a central web having at its longitudinal edges off-standing sides projecting in opposite directions from the web, the said sides being formed with longitudinal extensions forming legs for the staple arranged in parallel spaced planes.

2. A staple comprising a head consisting of a central web having at its longitudinal edges off-standing sides projecting in opposite directions from the web, the said sides being formed with longitudinal extensions forming legs for the staple arranged in parallel spaced planes, the adjacent edges of the legs curving outwardly to their free terminal points.

3. As a new article of manufacture, a fence wire staple consisting of a piece of sheet metal bent at an intermediate portion to form a central web, and off-standing sides projecting in opposite directions from said web, each side having an extention projecting some distance from the web and forming a leg.

4. As a new article of manufacture, a fence wire staple of integral structure consisting of a plate bent at an intermediate portion to provide a head composed of a central web, and side portions extending practically at a right angle from the opposite edges of said web and in opposite directions, said sides being formed with integral extensions constituting legs for the staple.

5. As a new article of manufacture, a fence wire staple of integral structure consisting of a plate bent at an intermediate portion to provide a head composed of a central web, and side portions extending practically at a right angle from the opposite edges of said web and in opposite directions, the said sides being formed with longitudinal extensions terminating some distance from the web and forming legs, the outermost edges of said legs being parallel, while their inner edges diverge toward the free terminals of the legs.

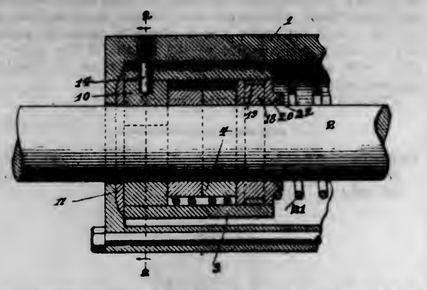
1,072,975. PISTON-ROD PACKING. ALEXANDER NAECKEL, Davenport, Iowa. Filed Apr. 7, 1913. Serial No. 759,458. (Cl. 121—109.)

1. A packing comprising a casing freely movable under any deflection of a piston rod, packing elements inclosed in the casing, and means at the opposite ends of the latter for preventing steam or other pressure from reaching the packing.

2. A packing comprising a casing freely movable under any deflection of a piston rod, packing elements inclosed in the casing, collars designed to fit on a piston rod and closing the ends of the casing, and means for compensating for wear carried by one of the collars.

3. In combination with a gland and a piston rod, a casing freely-movable in reference to said gland and through

which the piston rod is designed to extend, packing on the piston rod inclosed wholly within the casing, and collars for closing the ends of said casing.

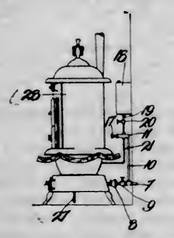


4. In combination with a gland, a vibratable ring seated against said gland, and a piston rod, a casing bearing against said ring and freely movable with the piston rod in reference to said gland, packing on the piston rod inclosed wholly within the casing, and collars for closing the ends of said casing.

5. In a packing, a collar designed to fit on a piston rod and having its opening formed with oppositely-disposed recesses, and self-adjusting segments fitted in said recesses and pivoted at their upper end.

[Claims 6 to 8 not printed in the Gazette.]

1,072,976. COMBINED GAS AND OIL BURNER. OLIVER NICHOLS, Mound Valley, Kans. Filed Sept. 26, 1912. Serial No. 722,494. (Cl. 158—11.)



1. A burner, comprising a part provided with an annular oil containing channel in its upper side and a drain pipe passing through the space inclosed by said channel to carry off excess liquid therefrom, a two-armed generator over the channel, and a burner pipe interposed between the bottom of the channel and the generator and communicating with the latter and provided with orifices to discharge flame upwardly against the same.

2. In a burner, a feed pipe branching into two semicircular generator sections each leading into a semicircular return section within and slightly spaced from the first sections, and said return sections each leading into a semicircular burner section, each burner section being located directly beneath the space between said generator and return sections.

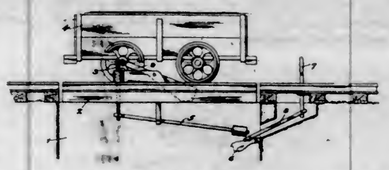
3. The combination with an oil burner, of an oil supply pipe, a spring-pressed valve in said supply pipe, said valve being normally open to permit the flow of oil through said pipe, and means for supplying to said valve gas under pressure tending to close the same and shut off the oil supply.

4. In a combined oil and gas burner, an oil supply pipe and a gas supply pipe, both pipes communicating with the burner, a valve in the oil supply pipe, a spring acting upon said valve and tending to force it in a direction to open it to permit oil to flow through the oil pipe, and a branch pipe from said valve to the gas supply pipe whereby pressure is applied to the valve tending to force it in a direction to close it and shut off the flow of oil in the oil pipe.

5. In a burner, a gas receptacle comprising a pan portion and a cap, the latter being provided in its upper side with an annular channel and with burner orifices in the side walls of said channel, and with a shallow channel extending below the plane of the said orifices, and across that portion of the cap surrounded by the said annular channel.

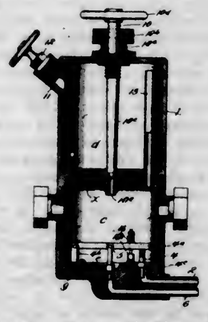
[Claim 6 not printed in the Gazette.]

1,072,977. STOP FOR MINING-CARS. JAMES A. NOLAN, Bowerston, Ohio. Filed Aug. 7, 1912. Serial No. 713,938. (Cl. 214—12.)



In combination a vertically movable platform, a stop mounted upon the platform and adapted to arrest the movement of a carrier, a trip mounted upon the approach to the platform and located in the path of the carrier, a cam mounted independently of the platform, connecting means between the cam and trip, and a lever mounted upon the platform and movable therewith and having one end arranged to operate the said stop and having its opposite end adapted to be engaged by the said cam whereby movement of the trip effects a depression of the stop.

1,072,978. AUTOMATIC SIGHT-FEED LUBRICATOR. THOMAS OLSON and CHRISTIAN HAMMERSBERG, La Crosse, Wis. Filed Apr. 15, 1911. Serial No. 621,291. (Cl. 184—55.)

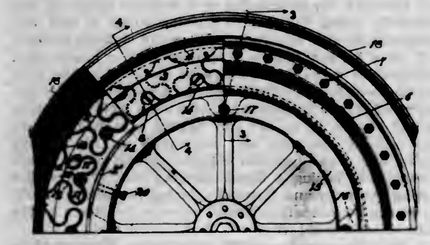


1. In a lubricator, the combination with a source of fluctuating pressure, of a lubricant container, a connection between said source of pressure and lubricant container whereby the lubricant may be placed under pressure, a conduit for the lubricant leading from the container to said source, and means normally holding said connection and conduit closed and operable from the pressure of said source to open said connection and conduit simultaneously.

2. The combination with a pump having an air chamber therein, of a lubricator comprising a body portion divided into a plurality of chambers, an air conduit leading from the pump to the lowermost of said chambers, a lubricant conduit leading from said chamber back to the pump, a valve for each of said conduits, and a connection between said valves whereby the latter are simultaneously operated by the pressure of air within the air conduit.

3. The combination with a pump having an air chamber formed therein, a piston moving within said chamber, of a lubricator comprising a body portion divided into an upper and a lower chamber communicating one with the other, a valve for controlling the communication between the chambers, an air conduit leading from the air cylinder of the pump to the lower chamber of the lubricator, a check valve controlling the passage of air from said air cylinder to the air conduit, and a second valve within the lower chamber of the lubricator and controlling the passage of air to said chamber, a conduit for the lubricant leading from the lower chamber of the lubricator to the pump, a check valve within said conduit, a second valve controlling a port within the lower chamber of the lubricator, which port communicates with the lubricant conduit, and a connection between the valves within said lower chamber whereby said valves are simultaneously operated to permit the automatic delivery of lubricant to the pump.

1,072,979. VEHICLE-WHEEL. FRANK O'NEILL, Toledo, Ohio. Filed Oct. 24, 1911. Serial No. 656,479. (Cl. 152—37.)



1. In a wheel, the combination of inner and outer rim-like parts one fitting within the other and with said parts movable relatively to each other radially of the wheel, transverse supports carried by the inner rim part and spaced outwardly from the base of said part toward the outer rim part, and a spring for each of said supports, each spring consisting of a piece of metal having its extremities bearing against the outer rim part and at its center curved to embrace the portion of the support facing the outer rim part and at the opposite sides of its center bent in loop form toward the base of the inner rim part with said loops extending outwardly toward the extremities of the spring which engage the outer rim part.

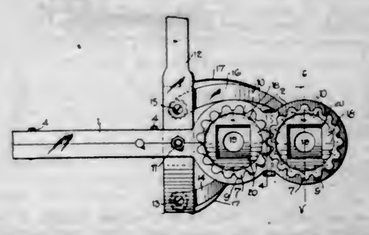
2. In a wheel, the combination of inner and outer rim-like parts one fitting within the other and with said parts movable relatively to each other radially of the wheel, opposite outwardly extending flanges on the inner rim part, transverse studs spaced outwardly from the base of the inner rim part and secured to said flanges, and springs supported by said studs with the extremities of each spring bearing against the outer rim part, the center of each spring being curved toward the outer rim part to embrace its supporting stud with the portions of the spring at opposite sides of the stud looped toward the base of the inner rim part and with said opposite loops merging into the extremity portions which engage the outer rim part.

3. In a wheel, the combination of inner and outer rim-forming members movable relatively to each other radially of the wheel, means holding the relatively movable members in assembled relation with spring inserting openings in the base of the inner member, spring retaining devices within and secured to the inner member inwardly from said openings, springs held in engagement with the outer rim member by said retaining devices, and a wheel body over which the inner channel member fits with said body closing the spring inserting openings.

4. In a wheel, the combination of inner and outer rim-forming channels one fitting within the other with the channels movable relatively to each other radially of the wheel, a wheel body to which the inner channel is secured and with openings in the base of the inner channel which are covered by the body, springs in the channel-inclosed space adapted to be entered through the openings in the base of the inner channel, supports bridging the inner channel, and springs within the channel-inclosed space, each spring bent to embrace one of the supports with the springs engaging the outer channel and opposing inward movement thereof.

5. In a wheel, the combination of inner and outer rim-forming channels one fitting within the other and with the channels movable relatively to each other radially of the wheel, the outer channel adapted to support a tread and formed with a removable side for placing the outer channel over the inner channel, springs inclosed by the channels and opposing inward movement of the outer channel, studs bridging the inner channel and with each spring bent to embrace one of the studs, the base of the inner channel formed with openings through which the springs are adapted to be inserted, and a wheel body fitting within the channel and to which the latter is secured and closing the base openings therein.

1,072,980. DOUBLE-ACTING WRENCH. ROBERT OWEN, Jr., Shawnee, Ohio. Filed Feb. 3, 1913. Serial No. 746,080. (Cl. 81—61.)



1. A wrench comprising a handle consisting of two sections, the outer ends of said sections being curved in opposite directions to form circular bearings, heads rotatably mounted in said bearings, said heads being formed with central annular grooves for engagement with the curved portions of said sections, and means connected to said handle to rotate said heads in opposite directions, as and for the purpose described.

2. A wrench comprising a handle, heads rotatably mounted in said handle at the outer end thereof, a lever pivotally connected intermediate of its ends to said handle inwardly of said heads, the opposite ends of said lever extending at right angles from said handle, and means connected to said lever on either side of said handle for engagement with said heads, as and for the purpose described.

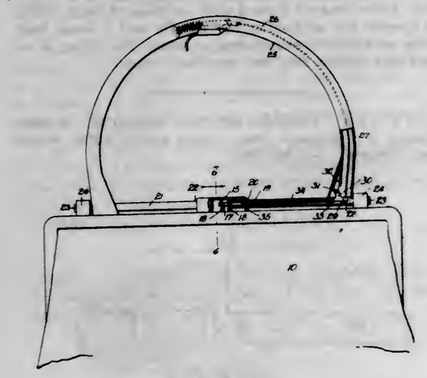
3. A device of the character described comprising a handle, heads rotatably mounted in said handle at the outer end thereof, a lever pivotally connected intermediate of its ends to said handle inwardly of said heads, the opposite ends of said lever extending at right angles from said handle, each of said heads being formed with an annular series of ratchet teeth, and pawls pivotally connected to said lever on either side of said handle and adapted to engage said ratchet teeth, as and for the purpose described.

4. A wrench of the character described comprising a handle, heads rotatably mounted in said handle at its outer end, intermeshing cogs formed on said heads, ratchet teeth formed on said heads, a lever pivotally connected intermediate of its ends to said handle inwardly of said heads, the opposite ends of said lever extending at right angles from said handle, and pawls of relatively different lengths pivotally connected to said lever on either side of said handle, for engagement with said ratchet teeth, as and for the purpose described.

5. A wrench comprising a handle consisting of two sections, the outer ends of said sections being curved outwardly to form circular bearings, heads rotatably mounted in said bearings, said heads having central annular grooves for engagement with the curved portions of said sections, intermeshing cogs formed on said heads one side of said grooves, ratchet teeth formed on said heads to the other side of said grooves, a lever pivotally connected to said handle, and pawls pivotally connected to said lever and adapted to engage said ratchet teeth, as and for the purpose described.

[Claim 6 not printed in the Gazette.]

1,072,981. LOCK FOR HAND-BAGS. JOHAN PARTMANN, New York, N. Y. Filed Mar. 11, 1913. Serial No. 753,590. (Cl. 190—55.)



1. A bag having a lock, and a hollow handle, a lever fulcrumed adjacent the connection of the hollow handle with the body of the bag, a member in the handle engaging one arm of the lever, and means by which the other arm of the lever is adapted for operating the lock.

2. A bag having a lock and a hollow handle, a lever fulcrumed adjacent the connection of the hollow handle with the body of the bag, a member in the handle engaging one arm of the lever, means by which the other arm of the lever is adapted for operating the lock, and resilient means for holding the member yieldingly in a predetermined position.

3. A bag having a lock and a hollow handle with an opening, a member in the handle, means by which the member is adapted for operating the lock, a trigger extending through the opening in the handle and having a curved arm, means with a pin secured to the member and with the pin engaged by the curved arm, and a spring in the handle for engaging the second means.

4. A bag having a lock and a hollow handle, there being an opening from the interior of the handle through its outer surface, a member in the handle, means by which the member is adapted for operating the lock, a trigger member articulated to the first member and extending through the opening, the trigger member having sides for engaging the outer side of the handle, and a spring in the handle for engaging the first member to hold the first member in a predetermined position relatively to the handle.

5. A bag having a lock member, two rods mounted for turning on the lock member, one of the rods being hollow, a bolt for the lock member, a hollow handle secured to the rods for rotating therewith, a member in the hollow handle, means by which the member is adapted for operating the bolt, means for operating the last-mentioned member, and another member on the bag for engagement by the bolt.

[Claims 6 and 7 not printed in the Gazette.]

1,072,982. FIREARM. JOHN D. PEDERSEN, Jackson, Wyo. Filed Nov. 11, 1912. Serial No. 730,557. (Cl. 42—17.)



1. In a fire-arm, the combination, with a breech-block arranged for forward and rearward movements, and with a block-operating magazine action-bar also arranged for forward and rearward movements, of a main elevator-member carried on the action-bar and having a cartridge-lifting face movable upwardly on its working stroke, and a supplemental elevator carried on the main elevator and having a flange-engaging face movable upwardly and forwardly during the upward working stroke of said supplemental elevator relatively to the main elevator-member.

2. In a fire-arm, the combination, with a breech-block arranged for forward and rearward movements, and with a block-operating magazine action-bar also arranged for forward and rearward movements, of a main elevator-member carried on the action-bar and having a cartridge-lifting face movable upwardly and rearwardly on its working stroke, and a supplemental elevator carried on the main elevator and having a flange-engaging face arranged for moving upwardly and forwardly during the upward working stroke of said supplemental elevator relatively to the main elevator-member.

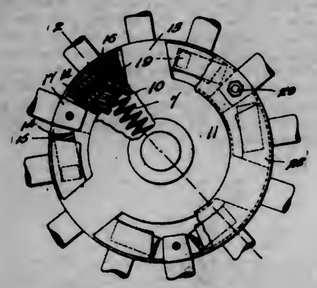
3. In a fire-arm, the combination, with a breech-block arranged for forward and rearward movements, and with a block-operating magazine action-bar also arranged for forward and rearward movements, of a main elevator-member carried on the action-bar and having a cartridge-lifting face movable upwardly and rearwardly on its working stroke, and a supplemental elevator pivotally-supported near its forward end on the main elevator and having at its rearward end a flange-engaging face movable upwardly and forwardly during the upward working stroke of said supplemental elevator relatively to said main elevator-member.

4. In a fire-arm, the combination, with a breech-block arranged for forward and rearward movements, and with a block-operating magazine action-bar also arranged for forward and rearward movements, of a main elevator-member pivotally supported in the action-bar and having a cartridge-lifting-face movable upwardly and rearwardly on its working stroke, and a supplemental elevator pivotally-supported near its forward end on the main elevator, and having at its rearward end a flange-engaging face movable upwardly and forwardly during the upward working stroke of said supplemental elevator relatively to said main elevator-member, whereby said flange-engaging face may first move upwardly and forwardly and afterward upwardly and rearwardly, substantially as described.

5. In a fire-arm, the combination, with a frame having a loading chamber therein, and with a breech-block slidable in said chamber, of a slidable block-operating action-bar having a magazine-tube and provided with a fixed cartridge-head guide located substantially in alinement with the front end of the breech-block when this block is being operated forwardly by the action-bar, a main elevator device carried by the action-bar and located for transferring the cartridge from the magazine into the loading-chamber, and a spring-actuated elevator device carried on and supplemental to the main elevator device and depressible by the rearwardly moving cartridge and located for partially elevating the leading cartridge when this is freed from point-pressure, into engagement with the fixed head-guide of the action-bar.

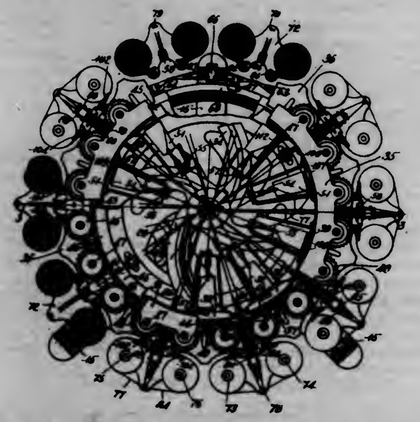
[Claims 6 to 54 not printed in the Gazette.]

1,072,983. WHEEL-HUB. EDGAR W. PERRY, Georgetown, S. C. Filed Nov. 16, 1912. Serial No. 731,759. (Cl. 152—45.)



A wheel hub comprising a sleeve, a circular member surrounding the sleeve, springs interposed between the circular member and sleeve and having lateral sockets, guide members screwed onto the opposite end portions of the sleeve and having radial arms bearing on the sides of the circular member, springs arranged in the lateral sockets of the circular member, plates having portions bearing on one end of the springs and arranged so as to have their adjacent ends in spaced relation and their remote ends bearing on adjacent sides of the arms of the guide members, stop blocks interposed between the adjacent ends of said plates, and rings secured to the spokes of the wheel and arranged for preventing displacement of said plates.

1,072,984. MACHINE FOR MAKING TUBULAR FABRIC. ANKER PETERSEN, Boston, Mass., assignor to Boston Machinery Company, Boston, Mass., a Corporation of Massachusetts. Filed May 11, 1910. Serial No. 560,613. (Cl. 139—7.)



1. A machine for making tubular fabric having, in combination, a series of spool carriers arranged about an axis, two series of thread guides arranged about said axis in sets, the guides of each set being located adjacent to each other, means to reciprocate one of the guides of one of said sets simultaneously with one of the guides of the succeeding set in opposite directions longitudinally of said axis, and means to progress said spool carriers relatively to said thread guides.

2. A machine for making tubular fabric having, in combination, a series of spool carriers arranged about an axis, a plurality of series of radiating levers constituting thread guides alternating with each other about said axis, a plurality of cam levers pivoted substantially midway of their lengths, means connecting opposite ends of each of said cam levers with one of the levers constituting said thread guides, respectively, cams to rock said cam levers upon their pivots simultaneously in the same direction to reciprocate said thread guides connected at opposite ends thereof in opposite directions longitudinally of said axis, and means to progress said spool carriers relatively to said thread guides about said axis.

3. A machine for making tubular fabric having, in combination, a series of spool carriers arranged about an axis, a plurality of series of radiating levers constituting thread guides alternating with each other about said axis, a plurality of cam levers pivoted substantially midway of their lengths, means connecting opposite ends of each of said cam levers with one of the levers constituting said thread guides, respectively, cams to rock said cam levers upon their pivots simultaneously in the same direction to reciprocate said thread guides connected at opposite ends thereof in opposite directions longitudinally of said axis, and means to progress said spool carriers relatively to said thread guides about said axis.

4. A machine for making tubular fabric having, in combination, a series of spool carriers arranged about an axis, a plurality of series of thread guides alternating with each other about said axis, two sinuous cams, a set of cam levers pivoted substantially midway of their lengths for each of said cams, the cam levers for one of said cams alternating with the cam levers for the other of said cams, operative connections between one end of each of said cam levers and one of the thread guides of one of said series respectively, and between the opposite ends of each of said levers and one of the thread guides of the other of said series respectively, and means to relatively revolve said cams and said thread guides thereby to reciprocate said thread guides of each of said series longitudinally of said axis in a direction opposite that of the other.

5. A machine for making tubular fabric having, in combination, a series of spool carriers arranged about an axis, two series of levers constituting thread guides alternating with each other about said axis and arranged in sets, the guides of each set being located adjacent to each other, two series of cam levers alternating with each other about said axis, two sinuous cams each adapted to actuate the levers on one of said series of cam levers respectively, operative means connecting one end of each of said cam levers with one of the levers constituting the thread guides of one of said sets, operative means connecting the opposite ends of said cam levers with the adjacent levers constituting the thread guides of the succeeding sets of levers, means to relatively revolve said cams and said thread guides thereby to reciprocate the thread guides of each of said series longitudinally of said axis in a direction opposite to that of the other.

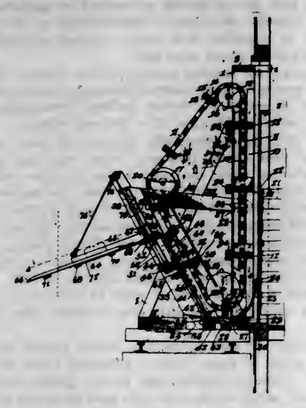
[Claim 6 not printed in the Gazette.]

1,072,985. CONVEYER FOR HANDLING ICE, &c. BYRON B. PHILLIPS, Gouldsboro, Pa. Filed Oct. 30, 1912. Serial No. 728,613. (Cl. 193—8.)

1. A conveyer of the class described including a supporting frame, an endless carrier having an inner downwardly moving vertical loading flight adapted to receive a load at any elevation throughout any length of the flight, and an outer upwardly moving inclined discharging flight adapted to elevate the load, and a chute arranged in advance of the discharging flight in position to receive the contents thereof, said endless carrier being operable by gravity when the loading point is above the point of discharge.

2. A conveyer of the class described including a main frame, an endless carrier having a downwardly moving vertical loading flight adapted to receive the material at different elevations, and an upwardly moving outer inclined flight for elevating the material, said endless carrier being provided with carrier bars or members arranged in a horizontal position while moving downward in the vertical flight and set at an inclination during their travel up the inclined flight and adapted to discharge their contents automatically, and means for retaining the material on the carrier bars or members of the inclined flight until it reaches a predetermined elevation.

3. A conveyer of the class described including a main frame, an endless carrier having a downwardly moving vertical loading flight adapted to receive the material at different elevations, and an upwardly moving outer inclined flight for elevating the material, said endless carrier being provided with carrier bars or members arranged in a horizontal position while moving downward in the vertical flight and set at an inclination during their travel up the inclined flight and adapted to discharge their contents automatically, means for retaining the material on the carrier bars or members of the inclined flight until it reaches a predetermined elevation, and an inclined chute arranged to receive the material as the same is discharged from the endless carrier.



4. A conveyer of the class described including a main frame, an endless carrier having a downwardly moving vertical loading flight adapted to receive the material at different elevations, and an upwardly moving outer inclined flight for elevating the material, said endless carrier being provided with carrier bars or members arranged in a horizontal position while moving downward in the vertical flight and set at an inclination during their travel up the inclined flight and adapted to discharge their contents automatically, extensible means for maintaining the material on the carrier bars or members of the inclined flight, and a chute connected with and carried by the said extensible means and arranged to receive the material discharged by the endless carrier.

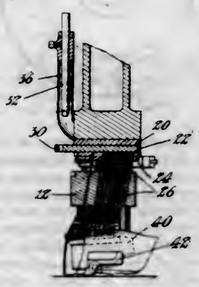
5. A conveyer of the class described including a frame, an endless carrier comprising an inner downwardly moving loading flight, and an outer upwardly moving inclined elevating and discharging flight, a basket arranged at the bottom of the endless carrier in position to receive the material from the downwardly moving flight and adapted to hold the material in position for causing the same to be carried upwardly by the inclined elevating and discharging flight, and a chute arranged to receive the material as it is discharged from the outer inclined flight.

[Claims 6 to 21 not printed in the Gazette.]

1,072,986. NAILING-MACHINE. JOSEPH H. POPE, Hamilton, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed Jan. 12, 1911. Serial No. 602,207. (Cl. 1—36.)

1. A heeling machine having, in combination, a plate provided with a heel engaging face and a plurality of guiding passages extending at an inclination to said face, a full gang of tools for operating on a heel movable into and out of said passages, means for guiding said tools in a path inclined with respect to the guiding passages to cause them to enter said guiding passages, said means being constructed and arranged to permit said tools to move out of operative relation thereto on entering the guiding passages so that the passages may control the path of the tools.

2. A heeling machine having, in combination, a plate provided with a heel engaging face and a plurality of guiding passages extending at an inclination to said face, a full gang of tools for operating on a heel mounted obliquely and parallel with the guiding passages in said plate, said tools being movable into and out of said passages, and means for guiding said tools for movement in a vertical path while out of said passages, said means being constructed and arranged to permit the tools to move out of operative relation thereto on entering the guiding passages, whereby they may be guided in an oblique path by the guiding passages.



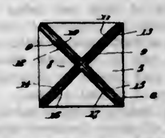
3. A machine of the class described having, in combination, a multiple die block having inclined driver passages arranged to form several sizes of horse shoe shaped nailings, a driver block carrying drivers correspondingly arranged and disposed at similar inclinations, actuating means for moving the drivers out of said passages to permit the insertion of nails and into said passages to drive the same, and guiding means arranged for controlling the drivers while out of said driver passages, said means being so constructed as to release said drivers when they enter said passages, the drivers being thereafter guided in an inclined path by the driver passages alone.

4. A machine of the class described having, in combination, a cross head mounted for vertical reciprocation, a driver block carried thereby and movable transversely thereon, a plurality of drivers arranged in the form of a horse shoe on said driver block and all disposed at an inclination to the path of the cross head, a die block having inclined driver passages, a guiding device for said drivers terminating at a distance from said die block approximately equal to the length of the drivers whereby the drivers are freely permitted to follow the passages after they have entered the same.

5. A machine of the class described, having, in combination, reciprocating side rods and a cross head carried thereby, a driver block and inclined drivers movable transversely on said cross head, a die block having inclined passages, a bracket extending between said side rods having a socket therein, and a guide pin projecting vertically from said socket and having a sliding connection with said driver block, said pin terminating a distance from the die block approximately equal to the length of the drivers.

[Claims 6 to 13 not printed in the Gazette.]

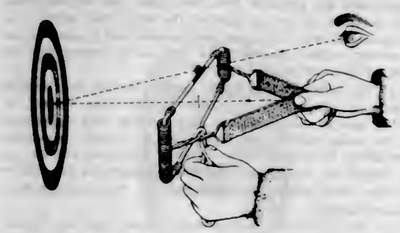
1,072,987. BOTTLE. ALVIN G. PORTER, Auburn, Wash. Filed July 1, 1911. Serial No. 636,437. (Cl. 229—45.)



A seal for paper receptacles comprising an endless wall formed of the material at one end of the receptacle and

angularly related to the main surface of said end and of approximately double star shape, and a wire loop member engaging the outer surface of the wall along the entire contour thereof and confining the immediately adjacent and corresponding sections of the wall into non-leaking contact.

1,072,988. TOY CATAPULT. FRANK W. PRATT, Ambridge, and BRUCE JOHN DICKINSON, Fair Oaks, Pa. Filed Oct. 30, 1912. Serial No. 728,751. (Cl. 124—2.)



1. A toy catapult comprising a frame provided at one side with a handle and at its opposite side with a sight, a pair of spring controlled arms carried by the ends of said frame and adapted to be pulled rearwardly through the frame prior to the projecting of the missile, a flexible actuating band for the missile having its ends connected to the free ends of said arms, and each of said arms having its end provided with a loop for the reception of a bar to maintain said arms parallel with the sides of said frame.

2. A toy catapult comprising a rectangular frame having one side thereof provided with a handle, a coiled spring mounted upon each end of said frame, and extended intermediate its ends of and providing an arm normally projecting at right angles with respect to said end, the said springs working in opposite directions with respect to each other and said arms capable of being pulled rearwardly through the frame prior to the projecting of a missile, and a flexible missile projecting strip connecting said arms together.

3. A toy catapult comprising a rectangular frame having one side thereof provided with a handle, a coiled spring mounted upon each end of said frame and extended intermediate its ends of and providing an arm normally projecting at right angles with respect to said end, the said springs working in opposite directions with respect to each other and said arms capable of being pulled rearwardly through the frame prior to the projecting of a missile, and a flexible missile projecting strip connecting said arms together, said frame having the other side thereof provided centrally with a sight.

4. In a toy catapult comprising a rectangular frame having one side thereof provided with a handle, a coiled spring mounted upon each end of said frame and extended intermediate its ends of and providing an arm pivotally projecting at right angles with respect to said end, the said springs working in opposite directions with respect to each other and said arms capable of being pulled rearwardly through the frame prior to the projecting of a missile, a flexible missile projecting strip connecting said arms together, and each of said arms having its free end provided with a loop, said loops adapted to receive a bar for maintaining the arms parallel with the sides of the frame.

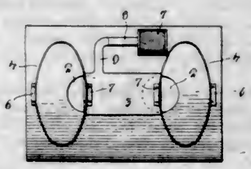
5. A toy catapult comprising a rectangular frame having one side thereof provided with a handle, a coiled spring mounted upon each end of said frame and extended intermediate its ends of and providing an arm normally projecting at right angles with respect to said end, the said springs working in opposite directions with respect to each other and said arms capable of being pulled rearwardly through the frame prior to the projecting of a missile, a flexible missile projecting strip connecting said arms together, said frame having the other side thereof provided centrally with a sight, and each of said arms having its free end provided with a loop, said loops adapted to receive a bar for maintaining the arms parallel with the sides of the frame.

1,072,989. ALBUMIN-IRON-PHOSPHORUS COMPOUNDS AND A PROCESS OF MAKING SAME. ERNST PREISWERK, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed June 20, 1912. Serial No. 704,800. (Cl. 23—24.)

1. A process for the manufacture of easily resorbed iron salts of the assimilable phosphorus compound (inositephosphoric acid) contained in plants, such iron salts being absorbed in albumin, which process consists in causing iron salts to act on the said phosphorus compound in presence of albumin.

2. As new products easily resorbed iron salts of inositephosphoric acid absorbed in albumin, which products constitute in a dry state yellowish-white powders, are insoluble in water and indifferent organic solvents, furnish on gentle heating with a sodium carbonate solution of 1 per cent. a nearly clear red-brown solution, which contains the iron salt dissolved in colloidal form capable of being recognized by means of a solution of haematoxylin.

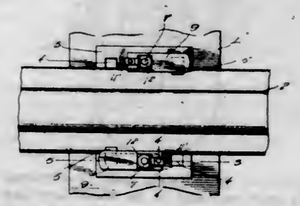
1,072,990. STEREOSCOPIC DEVICE. JOSEPH R. PURVIS, Norwood Grove, Manitoba, Canada. Filed Feb. 14, 1912. Serial No. 677,641. (Cl. 88—16.)



1. The combination with a base provided with openings spaced apart, of a reciprocating shutter adapted to open and close such openings alternately, and means for supporting and actuating said shutter to alternately open and close the openings, said means including a device whereby impulses will be given to said shutter periodically.

2. The combination with a base provided with openings, of a reciprocating shutter adapted to open and close such openings alternately, and means including elliptical springs for supporting and actuating said shutter to alternately open and close the openings, and a solenoid for giving impulses to said shutter periodically.

1,072,991. COMBINED TIE-PLATE AND SPIKE-RETAINER. CHARLES W. QUIN, Centralia, Wash. Filed Feb. 19, 1913. Serial No. 749,498. (Cl. 238—2.)

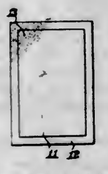


1. A tie plate for railway rails comprising a flat rectangular member having spike openings at its corners adapted for the reception of spikes whose heads overlie the base flanges of the rail which rests upon the plate, a plate arranged upon the ends centrally of the spikes and adapted

to overlie and engage one of the spikes securing means for the plate, and a spring catch carried by the plate and coacting with one of the elements of the securing means to retain the said element against movement.

2. A tie plate for railway rails having spike openings for the reception of spikes whose heads engage with the base flanges of the rails, a headed threaded member arranged upon the plate at its ends and intermediate its spike openings, a member having an angular perimeter arranged upon the plate and engaged by the threaded member, a plate having flanges arranged upon the threaded member and disposed over the head of the spike and contacting therewith, a binding element for the plate, and a catch member carried by the plate and engaging the binding element.

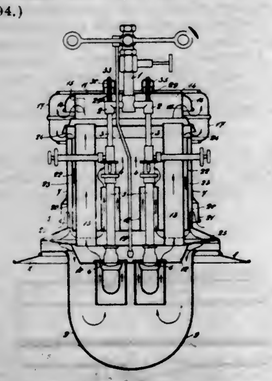
1,072,992. METHOD OF FORMING MOUNTINGS FOR METAL LEAF. FRED W. RAUSKOLB, Medford, Mass. Filed Sept. 3, 1912. Serial No. 718,400. (Cl. 154—2.)



1. The process of applying gold leaf consisting of supporting the gold leaf upon a sheet having a non-adhesive coating to receive said gold leaf; protecting the outer face of said gold leaf with a coating of adhesive sizing sprayed thereon, and subjecting said gold leaf and said supporting sheet to a heated tool applied with pressure to the rear face of said supporting sheet against the work to receive the gold leaf.

2. The process of applying gold leaf consisting of affixing the gold leaf to be applied to a waxed supporting sheet, protecting the outer face of said gold leaf from abrasion with the work to receive said gold leaf by coating said gold leaf with a fine coat of adhesive sizing, and applying said gold leaf to the work by subjecting said sheet and said gold leaf to a stamping operation.

1,072,993. INCANDESCENT LAMP. CARL REISS, Berlin, Germany. Filed Oct. 13, 1911. Serial No. 654,528. (Cl. 67—94.)



1. An inverted incandescent lamp, comprising a casing having air inlet openings in its lower part and separate air and hot gas outlet openings in its upper part, a vertical burner tube in said casing, carrying the burner at its lower end and connected at its upper end to the gas supply, a mixing chamber at the upper end of said burner tube, and an open primary air tube concentric with and surrounding said burner tube and to which air is supplied from said air inlet openings, entering said mixing chamber while the remainder escapes through said air outlet openings in the upper part of the lamp casing.

2. In an inverted incandescent lamp having burner tubes vertically depending from unions connected to the service pipe, open tubes surrounding the burner tubes, an air chamber below said open tubes and into which the latter open and having apertures in the lamp casing for the admission of air, a hot gas chamber below said air chamber and into which the hot gases from the burners pass, vertical hot gas flues leading from said hot gas chamber through said air chamber into the upper part of the lamp, and a chamber in the top part of the lamp into which said flues open and which incloses said unions, said upper chamber having outlet apertures in the lamp casing for the escape of the hot gases.

3. In an incandescent lamp having means for heating the primary air by the hot gases in the lamp casing, insulating means comprising a wall within and concentric with the lamp casing, and having an outwardly projecting upper flange to form a space between said lamp casing and wall closed at its upper end but communicating below with the outer atmosphere through air inlet openings in the lamp casing.

4. In an inverted incandescent lamp having burner tubes vertically depending from unions connected to the service pipe, open tubes surrounding the burner tubes, an air chamber below said open tubes and into which the latter open and having apertures in the lamp casing for the admission of air, a hot gas chamber below said air chamber and into which the hot gases from the burners pass, vertical hot gas flues leading from said hot gas chamber through said air chamber into the upper part of the lamp, a chamber in the top part of the lamp into which said flues open and which incloses said unions, said upper chamber having outlet apertures in the lamp casing for the escape of the hot gases, and a cylindrical wall concentric with and within the lamp casing and turned in at its upper end somewhat below said upper chamber, so as to inclose a space between said wall and lamp casing, which space communicates below with said air chamber.

5. In an inverted incandescent lamp having burner tubes vertically depending from unions connected to the service pipe, open tubes surrounding the burner tubes, an air chamber below said open tubes and into which the latter open and having apertures in the lamp casing for the admission of air, a hot gas chamber below said air chamber and into which the hot gases from the burners pass, vertical hot gas flues leading from said hot gas chamber through said air chamber into the upper part of the lamp, a chamber in the top part of the lamp into which said flues open and which incloses said unions, said upper chamber having outlet apertures in the lamp casing for the escape of the hot gases and a cylindrical wall concentric with and within the lamp casing and turned in at its upper end somewhat below said upper chamber, so as to inclose a space between said wall and lamp casing, which space communicates below with said air chamber, and said lamp casing having apertures intermediate said space and said upper chamber for the escape of excess heated air.

[Claims 6 and 7 not printed in the Gazette.]

1,072,994. SANITARY SHAVING-MUG. JOHN BERNHARDT RUDOLPH, Jersey City, N. J. Filed Feb. 4, 1911. Serial No. 606,519. (Cl. 132—15.)

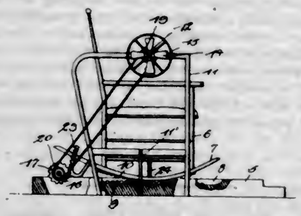
1. A shaving mug having a centrally-disposed vertical partition to form a water-receiving compartment and a soap-receiving compartment, the bottom of said soap-receiving compartment being positioned above the bottom of said water-receiving compartment, whereby water will readily drain from the soap-receiving compartment to the water-receiving compartment, said partition being recessed from its upper edge convergently downward to permit access to said soap-receiving compartment, the side of said water-receiving compartment being recessed in line with the recess in said partition, whereby access may be obtained to said soap-receiving compartment from the side of the mug.

2. A shaving mug having a flat bottom and a vertically disposed partition therein forming a water-containing and a soap-containing compartment, said soap-containing compartment having a solid bottom extending above the bottom of said water-containing compartment to render the mug stable, the rear wall of said soap-containing compartment increasing in cross section from the top to said solid bottom, said rear wall and solid bottom having a pair of spaced apart vertically disposed recesses uniting to form a handle within the circumscribing outline of said mug, said rear wall reinforcing the portion of the mug weakened by said recesses.



3. A shaving mug having a partition therein to form a water-containing and a soap-containing compartment, said soap-containing compartment having a substantially U-shaped bottom surface and a downwardly and inwardly-inclined back surface, said partition having a centrally disposed recess therein extending from the top thereof to the bottom of said soap-containing compartment affording access thereto and forming spaced apart projections to retain the soap in the soap-containing compartment, said bottom and back surfaces maintaining the soap in a vertical position irrespective of its size.

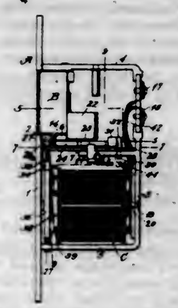
1,072,995. ATTACHMENT FOR ROCKING-CHAIRS. JOHN C. RYAN, Crosby, Tex. Filed Aug. 31, 1912. Serial No. 718,166. (Cl. 230—7.)



In a device of the character described, the combination of a platform, a rocking chair mounted thereon, a support arranged on the platform adjacent to the chair, a shaft journaled upon said support, a fan secured to said shaft, operating means for said shaft mounted upon the platform, said means including a gear and a power transmitting connection between said operating means and the fan shaft, and a curved rack bar fixed at one of its ends to the rear end of one of the chair rockers and extending below the same to coact with said gear and actuate the operating means in the rocking movement of the chair in one direction.

1,072,996. ELECTRIC LOCK-STRIKE. FRANK F. SCHNEIDER, Ridgefield, Conn. Filed May 27, 1913. Serial No. 770,130. (Cl. 70—52.)

1. In a device of the class described, the combination of a spring-returned latch-engaging element, a pivoted member adjacent thereto, a slot and pin connection between the element and member, a pivoted latch member having lugs between which the free end of the said pivoted member engages, and an electro-magnet having an armature with which the latch member normally engages to normally prevent movement of the said members and latch-engaging element.



2. In a device of the class described, the combination of a latch-engaging element, a member pivoted at one end and operatively connected at a point between its ends with the element, a latch member pivoted at one end and having at its pivoted end spaced lugs between which the free end of the first-mentioned member engages, and electrically operated means normally holding the latch member against movement.

3. In a device of the class described, the combination of a spring-returned latch-engaging element, an electro-magnet including an armature and means between the element and armature for normally holding the element against movement, said means including a pivoted member a slot and pin connection between the member and element, a fixed stop for limiting the movement of the member, a pivoted latch adapted to releasably engage the armature, operative connections between the said members, whereby the latch member moves with the first-mentioned member, and a fixed stop with which the latch member engages for limiting the return movement of the members and said element.

4. A device of the class described comprising a casing having a partition formed of two sections disposed out of alinement and united by a connecting portion, a latch-engaging element mounted in the casing, a member pivotally connected with one section of the partition and having its free end extending over the other section of the partition, the movement of the member in one direction being limited by the connecting portions between the sections of the partition, a slot and pin connection between the member and element, an electro-magnet in the casing and including an armature, and a latch member mounted in the casing to engage the armature and operatively related with the member to prevent movement thereof while the armature is in normal position and adapted to be restored to engaging position with the armature by the said first mentioned member.

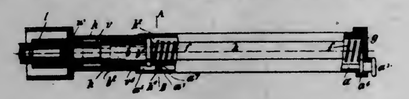
5. In a device of the class described, the combination of a casing, a partition therein, a latch member mounted on the partition, a second member mounted on the partition, stops on the partition for the respective members, an electro-magnet having an armature disposed to normally hold the latch against movement, lugs on one of the members for engagement with the free end of the other member, a door latch engaging element having a pivotal movement on an axis eccentric to the pivotal center of the second-mentioned member, and a slot and pin connection between the said element and second-mentioned member.

[Claim 6 not printed in the Gazette.]

1,072,997. BREECH MECHANISM FOR MACHINE-GUNS. ANDREAS WILHELM SCHWARZLOSE, Charlottenburg, Germany. Filed Feb. 6, 1912. Serial No. 675,820. (Cl. 89—8.)

1. In a breech mechanism the combination with a breech casing of a breech block, a firing pin, a sear, this sear

carrying a releasing member having a rear incline and a releasing member, having a rear straight surface, both releasing members being adapted to engage and release said firing pin, the releasing member with the incline being adapted to release the pin at every closing of the mechanism and produces continuous firing, while the said straight surface again positively engages the firing pin only when the sear has been released after the shot or that separate firing is obtained substantially as set forth.

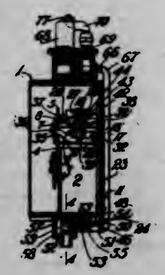


2. In a breech mechanism for machine guns the combination with the breech casing of a firing pin, a sear adapted to be rotated toward the left and the right, means for holding the said firing pin in the cocked position, two diametrically opposed releasing studs provided on said sear so as to be under the said firing pin when the latter is cocked, each of these studs being adapted on rotation of the sear to release the firing pin, one of said studs having an inclined rear part and the other a straight rear surface, substantially as and for the purpose set forth.

3. In a breech mechanism for machine guns the combination with the breech casing of a firing pin, means for cocking the firing pin, a sear adapted to be rotated toward the left and the right, a notch in said casing, and yielding means for automatically causing the said sear to engage said notch when in its position of rest, so that any rotation of the sear is prevented and that the firing pin cannot be disengaged, substantially as and for the purpose set forth.

4. In a breech mechanism for machine guns the combination with the breech casing of a firing pin, means for cocking the firing pin, a sear, a safety stud on said sear, means for continuously pushing the sear backward, the said safety stud being adapted, when the sear is released and pushed back to engage from the front the firing pin thus preventing the latter from spontaneously leaving the cocked position, substantially as and for the purpose set forth.

1,072,998. AUTOMATIC GAS LIGHTING AND EXTINGUISHING MECHANISM. AI B. SHAW, West Medford, Mass., assignor to Automatic Gas Lighting Equipment Co., Boston, Mass., a Corporation of Massachusetts. Filed Apr. 8, 1911. Serial No. 619,861. (Cl. 161—9.)



1. In an automatic gas lighting and extinguishing device, a time mechanism, a rotary shaft operated by the time mechanism, disks carried by and rotated with said shaft, crank pins carried by said disks, a weighted lever having a rigidly attached projection provided with an upwardly inclined surface at its outer end, a movable lever pivoted on said weighted lever and provided with an upwardly inclined surface at its outer end, said inclined surfaces engaged by said crank pins during their rotations to intermittingly raise said weighted lever and allow it to drop, and gas controlling means operated by the movements of said lever.

2. In an automatic gas lighting and extinguishing device, a time mechanism, a weighted lever, intermediate mechanism between the time mechanism and weighted lever whereby the lever is raised and allowed to fall at predetermined times, a rotary shaft, a rod operated by said shaft, a source of gas supply below said time mechanism, main and pilot gas pipes, a V-shaped valve beneath said time mechanism controlling the supply of gas and means between said valve and rod whereby the upward and downward movement of the rod operates said valve.

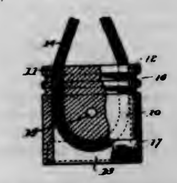
3. In an automatic gas lighting and extinguishing device, a main and a pilot gas pipe, a time mechanism, a rod, intermediate mechanism between the time mechanism and rod whereby the rod is raised and allowed to fall at predetermined times, a V-shaped valve beneath the time mechanism operated by the movements of the rod whereby the gas is allowed to flow into the main and the pilot gas pipes in a manner to allow the main burner to be lighted by the pilot burner before the supply of gas to the pilot burner is shut entirely off and vice versa.

4. A gas-supply pipe, a standard attached to the top of the pipe, main and pilot gas piping extending upward from the top of the standard, a pair of supplemental pipes without the standard connecting the gas-supply pipe and the piping, a V-shaped valve at the mouth of the gas-supply pipe controlling the passage of gas to the supplemental pipes, time mechanism within the standard, and means connecting this mechanism with the valve whereby the times of engagement and disengagement of the V-shaped valve with each supplemental pipe is automatically varied by the mechanism within the standard to compensate for changes in the lengths of the days and nights.

5. In an automatic gas lighting and extinguishing device, a casing, a time mechanism, a weighted lever, intermediate mechanism between the time mechanism and weighted lever whereby the lever is raised and allowed to fall at predetermined times, a rotary shaft extending without the casing, a rod without the casing, a bracket coupling attached to the underside of the casing and provided with a downwardly extending stem adapted to couple to a gas riser, a shaft carried by the bracket coupling, a valve within the bracket coupling on the inner end of said shaft, a supplemental pipe extending from one end of the bracket coupling to carry gas to the main gas pipe, a supplemental pipe extending from the opposite end of the bracket coupling for carrying gas to the pilot gas pipe and a member operated by said rod to turn said shaft and shut off the gas from one of the supplemental pipes and allow the gas to pass to the other supplemental pipes.

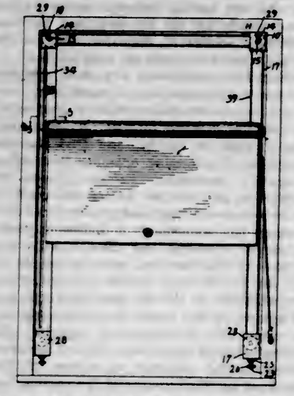
[Claims 6 to 8 not printed in the Gazette.]

1,072,999. TUBULAR INSULATOR. GEORGE SIMCOE, Trenton, N. J. Filed Oct. 1, 1912. Serial No. 723,278. (Cl. 137—366.)



In a device of the character set forth, an insulator body of tubular formation having a pair of holes extending therethrough longitudinally and having an opening arranged at a right angle to the aforesaid holes, and connectors disposed respectively in said holes and said opening and extending from the body in opposite directions, said body being formed adjacent one end with a plurality of corrugations and at the other end with a circumferential groove 24, substantially as set forth.

1,073,000. SHADE-SUPPORT. ALVA BERNARD SMITH, Memphis, Tenn., assignor to Simplicity Shade Adjuster Co., Inc., Memphis, Tenn. Filed Aug. 28, 1912. Serial No. 717,487. (Cl. 156—27.)



1. In a shade support, two casings spaced apart, each casing having a front wall with a slot, and a side wall at an angle thereto, and provided with a slot, bracket carriers concealed behind the casings and each having a bracket extending through the slot in the front wall for supporting a shade roller, a transverse member secured to the bracket carriers, and extending through the slots in the side walls, and means for adjusting and supporting the bracket carriers.

2. In a shade support, a casing having a front wall, with a slot, and a side wall at an angle thereto, a bracket carrier concealed behind the casing and having a bracket extending through the slot in the front wall of the casing for supporting a shade roller, a member secured to the bracket carrier and extending through the slot in the side wall, means in connection with the member for assisting in holding the shade roller in position, and means for adjusting and supporting the bracket carrier.

3. In a shade support, a bracket with vertical channels and an opening at its bottom, a stud disposed across the bracket for traveling in the channels, the stud being bent downward and having a threaded terminal disposed through the opening, a nut meshing with the thread on the terminal, and a pulley mounted on the stud adapted to be engaged by a cord.

4. In a shade support, a bracket with two sides having openings, the sides of the openings converging in one direction, and a stud adapted to fit into the openings at their widest ends, and being provided with grooves which fit the sides of the openings when the studs are moved toward the other end of the openings.

5. In a shade support, a bracket having two vertical channels, and an opening at its bottom, a stud disposed across the opening for traveling in the channels, the stud being bent downwardly and having a threaded terminal disposed through the opening, a nut meshing with the thread on the terminal, and a pulley mounted on the stud.

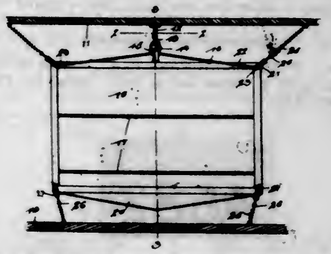
[Claims 6 to 8 not printed in the Gazette.]

1,073,001. NECKTIE-SLIDE AND COLLAR-BUTTON. THOMAS H. STOKES, Lincoln, Ill. Filed Oct. 4, 1912. Serial No. 723,965. (Cl. 24—61.)



As an article of manufacture, a device of the class described comprising a flat strip bent to provide a straight medial portion and outwardly converging limbs terminating spaced from each other, a rounded button head formed on the end of one of the limbs and overlapping the end of the other limb to overlie the space between the ends of the latter, the said button head being offset with respect to the ends of the limb.

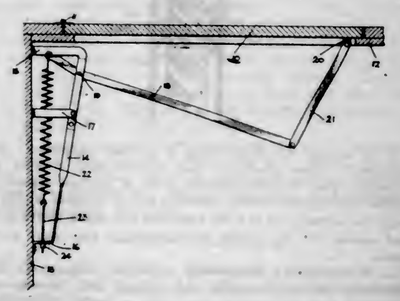
1,073,002. BERTH. VICTOR A. TREADWELL, Detroit, Mich. Filed Apr. 18, 1913. Serial No. 761,985. (Cl. 114—192.)



1. In a berth, the combination with a floor and ceiling, of a strap secured to the ceiling, a ring carried by the strap, a second ring interlocked with the first ring and lying at right angles thereto, a strap carried by the second ring, a casing having the lower end of the strap secured thereto to suspend the said casing between the ceiling and the floor, plates secured to the corners of the casing, braces secured to the plates and to the casing at the four corners of the casing, the said braces having connection with the second strap, springs having connection with the floor and ceiling and with the said plates, and means for adjusting the said springs to increase or decrease the tension thereof relatively to the said casing.

2. In a berth, the combination with a floor, and ceiling, of a strap secured to the ceiling, a ring carried by the strap, a second ring interlocked with the first ring and lying at right angles thereto, a strap carried by the second ring, a casing having the lower end of the second strap secured thereto to suspend the said casing between the ceiling and the floor, plates secured to the corners of the casing, braces secured to the plates and to the casing at the top corners of the casing, the said braces having connection with the second mentioned strap, springs having connection with the floor and ceiling and with the said plates, means for adjusting the said springs to increase or decrease the tension thereof relatively to the said casing, and a weight pan carried on the under side of the said casing and in spaced relation to the said floor.

1,073,003. TRAP-DOOR LIFTER. FRANK TROYER, Nampa, Idaho. Filed Oct. 8, 1912. Serial No. 724,559. (Cl. 39—96.)



The herein described trap door apparatus comprising the combination with a horizontal trap door having a horizon-

tal hinge at one end, of a substantially vertical frame secured below the door hinge, said frame including a pair of horizontal securing feet at its upper and lower ends, a lever of the first class pivoted to the frame adjacent the uppermost foot, means pivotally connecting one end of the lever to the edge of the door opposite the hinge, a spring connected to the opposite end of the lever at one end and at the other end to the lowermost frame foot, said spring being arranged substantially vertically and housed within the frame, and a bracket extending diagonally from the intermediate portion of the frame and constituting a brace for the frame and a guard for the spring.

1,073,004. VEHICLE LICENSE-TAX. ABRAM WAKEMAN, New York, N. Y. Filed Oct. 4, 1912. Serial No. 723,921. (Cl. 40—125.)



1. In a license tag, the combination with a body having a particular color, of a number on the body, the color of the body indicating units of one thousand or more, and the number indicating units of nine hundred and ninety-nine or less, and which added to the units indicated by the color on the body denote the number on the tag.

2. In a license tag, the combination with a body having a particular color, of a number on the body, the color on the body indicating units of one thousand or more, a character upon the tag indicating the group within which the units indicated by the color are included, and the number indicating units of nine hundred and ninety nine or less, and which added to the units indicated by the color and the sum indicated by the character denote the number of the tag.

1,073,005. BORING-BIT. SAMUEL J. WATKINS, Avondale, Colo. Filed May 11, 1912. Serial No. 696,703. (Cl. 145—120.)



1. A boring bit comprising a hollow cylindrical body externally screw threaded and formed with scoring and chiseling lips, in combination with a hollow cylindrical holder for the bit having internal screw threads which engage the threads of the bit and feed the same to its work, and means on the holder for anchoring the same to the work.

2. A boring bit comprising a hollow cylindrical body externally screw threaded and formed with scoring and chiseling lips, in combination with a hollow cylindrical holder for the bit having internal screw threads which engage the threads on the bit and feed the same to its work, anchoring screws at opposite sides of the holder, and detachable ratchet heads on said screws.

3. A boring bit comprising a hollow cylindrical body externally screw threaded and formed with scoring and chiseling lips, in combination with a hollow cylindrical holder for the bit having internal screw threads which engage the threads on the bit and feed the same to its work, anchoring screws at opposite sides of the holder, and detachable ratchet heads on said screws.

4. A boring bit comprising a hollow cylindrical body externally screw threaded and formed with scoring and chiseling lips, in combination with a hollow cylindrical holder for the bit having internal screw threads which engage the threads on the bit and feed the same to its work, consisting of screws at opposite sides of the holder having squared shoulders, ratchet heads detachably mounted thereon, and ratchet levers removably journaled on said screws and rotatable independently of the heads.

5. A boring bit comprising a hollow cylindrical body externally screw threaded and formed with scoring and chiseling lips, in combination with a hollow cylindrical holder for the bit having internal screw threads which engage the threads of the bit and feed the same to its work, and means on the holder for anchoring the same to the work, consisting of screws at opposite sides of the holder having squared shoulders and end journals, ratchet heads fitted on the squared shoulders of the screws, sleeves mounted on the journals of the screws, and ratchet levers pivotally connected to said sleeves.

[Claim 6 not printed in the Gazette.]

1,073,006. ATTACHMENT FOR FLAT-CARS. ELIS WHITE, Hoquiam, Wash. Filed Mar. 26, 1912, Serial No. 686,297. Renewed July 26, 1913. Serial No. 781,451. (Cl. 105—173.)



1. A car comprising a body portion, plates mounted upon said body portion and having seats cut therein, a stake pivotally mounted adjacent each of said plates and adapted to fit in one of said seats, a latch pivotally connected with each of said plates, and adapted to overlap said stake with its free end fitting in the remaining one of said seats, to hold said stake in position, a pin passing through said plate and latch to hold said latch in a locked position, a shaft rotatably mounted upon said body portion and connected with the pins upon one side of said body portion, a shaft passing through said body portion and adapted to rotate said first mentioned shaft, and means for rotating said second mentioned shaft.

2. A device of the character described comprising a body portion, plates mounted upon the side of said body portion, stakes mounted adjacent said plates, latches carried by said plates for holding said stakes in a locked position, pins carried by said plate and engaging said latches to hold said latches in a locked position, a shaft mounted upon said body portion, gears carried by said shafts and meshing with teeth at the lower ends of said pins, a shaft extending transversely through said body portion, gears carried by said shafts and meshing whereby the rotation of said transverse shaft will rotate said first-mentioned shaft, and means for rotating said transverse shaft.

3. A car, shafts mounted upon the sides of said car, plates mounted upon the sides of said cars, stakes mounted adjacent said plates, locking means for said stakes carried by said plates and operated by said shafts, shafts passing through said car and engaging said first-mentioned shafts to operate said first-mentioned shafts, and means for operating said second-mentioned shafts.

4. A car, a plate mounted adjacent the end of each side of said car, lugs extending from the upper portion of said plate in spaced relation, a lug extending from the lower portion of said plate and positioned in alinement with one of said upper lugs, said upper and lower lugs being provided with alined openings, a plate secured beneath the first mentioned plate and provided with a thickened central portion having an opening formed in alinement with the openings in said lugs, a stake carried by said lower plate and adapted to fit between the upper lugs of said upper plate, a latch pivotally connected with said upper plate and provided with an enlarged end adapted to fit between the upper and lower lugs of said upper plate and provided with an opening registering with the openings in said lugs, a pin passing through said alined openings to hold said latch in position, a shaft rotatably mounted upon the side of said car and engaging said pin whereby the rotation of said shaft will raise and lower said pins, and means for rotating said shaft.

5. A platform, plates mounted upon the side of said platform and provided with spaced lugs forming seats, certain of said lugs being in vertical alinement and provided with alined openings, a stake fitting in each of said seats, a securing latch for each of said stakes having its free end mounted in the space between the vertically alined lugs and provided with an opening registering with said alined openings, a pin passing through said alined openings and provided with a toothed lower portion, a shaft mounted upon said platform, gears carried by said shaft and meshing with the teeth of said pins, and means for rotating said shaft to raise and lower said pins.

[Claim 6 not printed in the Gazette.]

1,073,007. HOLDING AND EXPELLING DEVICE FOR COLLAPSIBLE TUBES. SARAH E. WILLIAMS, Brooklyn, and THOMAS A. CAMPBELL, New York, N. Y. Filed Aug. 5, 1912. Serial No. 713,497. (Cl. 221—60.)



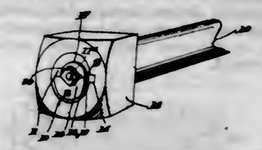
In a holding and expelling device for collapsible tubes, the combination with a frame formed of a single piece to provide a base, bearing members and a supporting collar, with the said tube carried by the supporting collar, of a key carried on the said bearings and revoluble thereon, with an end of the tube having connection with the key for collapsing the tube when the key is revolved on the said bearings.

1,073,008. WALL-PLASTERING. GEORGE WITTY, Scranton, Pa., assignor of one-half to Stephen S. Spruks, Scranton, Pa. Filed June 7, 1912. Serial No. 702,281. (Cl. 106—24.)

A wall plaster or coating which consists of hydrate of lime 50%, burnt clay 30% and silicate of aluminum 20%.

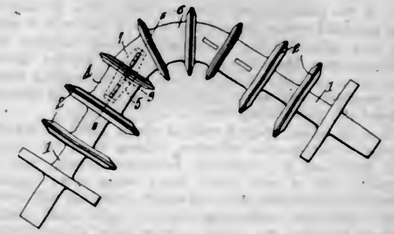
1,073,009. LOCK-NUT. RALPH WOLF, Franktown, Colo., assignor of one-fourth to James P. McInroy, Larkspur, Colo. Filed Apr. 1, 1911. Serial No. 618,293. (Cl. 151—5.)

In a nut lock, the combination with a shank provided with a groove, of a nut for threaded connection with the said shank and provided with a groove adapted to register with the groove in the shank, a locking member mounted to slide in the groove of the shank and extending into the groove of the nut, a cam carried by the said shank and having a cut away portion forming a cam edge on the cam, a lug projecting laterally from the said locking member to engage the cam edge of the cam, a handle projecting laterally from the outer face of the cam for turning the



same on the said shank, and a retaining nut for threaded connection with the shank to retain the cam in position thereon.

1,073,010. DEVICE FOR CONNECTING CORE-ARBORS. EDWARD M. WRIGHT, Madison Heights, Va. Filed Oct. 26, 1912. Serial No. 727,964. (Cl. 22—172.)



1. In combination with a plurality of core arbor sections, tapered sockets formed in the ends of the sections, the ends of the sections having slots passing therethrough transverse to the tapered sockets, wedges each end of which is tapered and adapted to enter the sockets, the wedges each having a longitudinal opening therein alining with the slots in the section ends, and keys passing through the slots and openings in the wedges.

2. In combination with a plurality of core arbor sections, tapered sockets formed in the ends of the sections, the end of the sections having slots passing therethrough transverse to the tapered sockets, wedges each end of which is tapered and adapted to enter the sockets, the wedges each having a longitudinal opening therein alining with the slots in the section ends, keys located in the slots and openings in the wedges, and horizontally extending lugs formed integral with each key.

3. In combination, a pair of core arbor ends each provided with a wedge shaped opening therein, a wedge provided with a slot adapted to be received by the said openings, when the arbor ends abut, wedge pins passing through transverse openings in the arbor ends and through the slot, and removing lugs integral with the wedge pins and extending outwardly over the transverse openings.

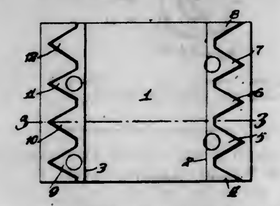
4. In combination, a pair of abutting core arbor ends provided with wedge shaped openings, a wedge located within the openings and slotted along the long axis, the ends of the core arbors being provided with slots passing therethrough and registering with the slotted portion of the wedge, and wedge pins passing through the slots and wedge and adapted to engage the wedge and arbor ends to force the said ends together the wedges practically filling the slots in the core arbor ends.

5. In a core arbor section joining device, a plurality of sections, wedging means engaging the ends of the sections, keys passing through the sections and wedging means for holding the sections together, and removing means formed by the keys.

1,073,011. TIE-PLATE. EDWARD L. ADREON, JR., St. Louis, Mo. Filed June 6, 1910. Serial No. 565,319. (Cl. 238—2.)

1. A tie plate, pressed from a single piece of material, having a shoulder and a projection, and a spike opening

formed through said projection, the outer walls of said projection converging and meeting each other at an angle, and projecting rearwardly beyond the opening so that when a spike is driven through the opening in said projection the head of the spike will extend over at least a portion of the outer walls of said projection, for the purposes stated.



2. A tie plate pressed from a single piece of material and provided on its top surface on each end with a shoulder and spike bracing projections formed integral with said shoulder, there being spike openings formed through said plate on one end, away from the rail-bearing line of the shoulder, and on the opposite end projecting inwardly beyond the rail-bearing line.

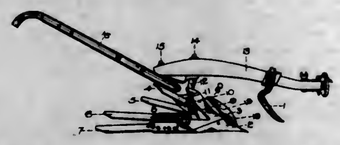
3. A tie plate pressed from a single piece of material having a rail-bearing shoulder arising from one end of said plate and a rail-bearing projection arising from the opposite end of said plate, there being spike openings formed through said plate outwardly from the rail-bearing line of the first mentioned shoulder, and spike openings formed through the other end of said plate inwardly beyond the rail-bearing line of said last mentioned shoulder, whereby said plate may be reversed and the position of the shoulder reversed relative to the inside and outside edge of the base of the rail.

4. A tie plate pressed from a single piece of material and provided with a series of projections at each end, said projections being staggered relative to each other, and a shoulder formed integral with each row of projections, said plate being provided with a number of spike openings disposed in different positions laterally relative to the rail-bearing line in order to accommodate rail bases of different widths.

5. A tie plate provided on its top surface with two oppositely formed shoulders, a series of projections formed integral with said shoulders, there being spike openings formed through said plate operating from the rail-bearing line of one of said shoulders, and spike openings formed through said plate inwardly beyond the rail-bearing line of one of said shoulders, whereby said plate may be reversed and reapplied to the tie by using the original openings and fastenings.

[Claim 6 not printed in the Gazette.]

1,073,012. POTATO-DIGGER. SAMUEL L. ALLEN, Moorestown, N. J. Filed Feb. 21, 1912. Serial No. 679,168. (Cl. 55—139.)



1. In a digger a combination with a plow of means of breaking up and disintegrating the earth turned up by the plow, said means consisting of a plurality of supplementary plow-shares adjustably attached to the standard of the plow, and extending laterally from one side, and a projection having a free extension from the other side.

2. The combination with a plow of a mold-board a plow-share, adapted to cut a vertical wall and provided with means to gouge said vertical wall and direct the earth into the path of the mold-board and supplementary plow-shares adjustably attached to the standard of the plow.

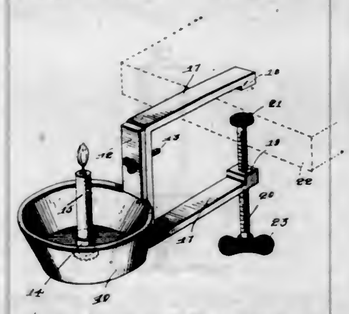
3. The combination with a plow of a V shaped mold-board having its oppositely directed arms substantially of uniform width throughout their extent and supplementary plow-shares adjustably attached to the standard of the plow.

4. The combination with a plow of a mold-board having differently directed arms of substantially uniform width and broad supplementary plow-shares arranged in a position in the rear of the said mold-board, said supplementary plow-shares being pitched and raking outwardly, upwardly and rearwardly from the standard of the plow, and substantially filling the space between the path of the arms of said mold-board and said supplementary plow-shares being adjustably attached to the standard of the plow.

5. The combination with a plow of a V shaped mold-board and supplementary plow-shares arranged in a position in the rear of the said V shaped mold-board, said supplementary plow-shares being pitched and raking outwardly, upwardly and rearwardly from the standard of the plow, and said supplementary plow-shares being adjustably attached to the standard of the plow, said adjustment being oscillatory.

[Claims 6 to 18 not printed in the Gazette.]

1,073,013. MECHANIC'S CANDLE-HOLDER. CHARLES MATHEUW ANDRES, Albany, N. Y., assignor of one-half to Joseph Houseweller, Albany, N. Y. Filed Apr. 29, 1913. Serial No. 764,453. (Cl. 67—23.)



A candle holder comprising a pan having its rear portion thickened to form a shoulder, an arm extending above said shoulder with its outer face forming a continuation of the outer face of said shoulder, a securing bracket having a bridge of substantially the same length as the combined lengths of said shoulder and arm, securing means passing through said arm and bridge for removably securing said arm to said bridge, and means carried by said bracket for removably connecting the same with a support.

1,073,014. HAIR-WAVER. ELISE ANDREWS and HERBERT P. ANDREWS, Portland, Oreg. Filed May 15, 1912. Serial No. 697,473. (Cl. 132—19.)

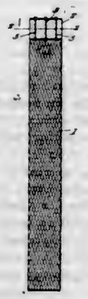
1. In a hair waver, in combination, companion members having opposed pressing surfaces adapted to fit together and to receive hair therebetween and provided in their adjacent faces with registering transversely extending slots or guideways, and a series of combs slidably mounted in said slots or guideways for moving portions of hair placed therebetween in opposite directions.

2. A hair waver comprising in combination two companion pressing members having interfitting corrugated faces adapted to receive hair therebetween and provided with oppositely disposed transversely extending slots or guideways extending longitudinally of the corrugations in said meeting faces, a series of combs slidingly mounted in said slots or guideways, and means within said members for heating the same.



3. A hair waver comprising in combination, companion members, each the counterpart of the other, and having corrugated molding or pressing faces adapted to receive hair therebetween, said members being provided longitudinally of said corrugations with oppositely disposed slots or guideways, a series of combs slidingly mounted in said slots or guideways, heating coils within said members for heating the faces thereof, substantially as described.

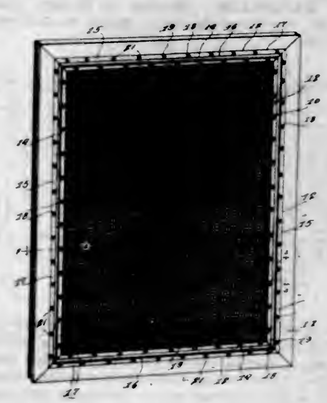
1,073,015. LAMP-WICK. WILLIAM R. ARNOLD, Geneva, Nebr. Filed Aug. 11, 1911. Serial No. 643,611. (Cl. 67—69.)



The combination with a flat textile wick, of two flat end reinforcements made of sheet asbestos the wick end being compressed so that the thickness of the wick at the reinforced end is no greater than the body of the wick, said reinforcement leaving the top and edges of the wick exposed, and a plurality of wire members forced through the wick adjacent to the ends of said reinforcements and forced under pressure into said asbestos reinforcements the ends of the wires being clenched, as and for the purpose set forth.

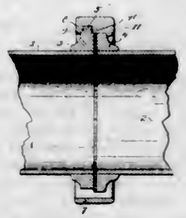
1,073,016. SCREEN. ULYSSES S. AVERY, Ashland, Kans., assignor of one-half to Jerome W. Berryman, Ashland, Kans. Filed Feb. 7, 1913. Serial No. 746,893. (Cl. 156—14.)

In a screen the combination with a screen frame adapted to receive and support the screen wire of mold strips for securing the screen wire on the frame, each of the said mold strips consisting of a single body having a medial longitudinally extending bulging portion and parallel strip members provided with openings adapted to receive fastening members therethrough to secure the mold strips on



the said screen frame and retain the screen wire thereon, and serrations formed on the under sides of the strip members and adapted to project through the screen wire and into the said screen frame and further secure the screen wire on the frame.

1,073,017. PIPE-COUPLING. DE WITT C. BAILEY, Nichols, Fla. Filed Apr. 27, 1912. Serial No. 693,677. (Cl. 137—28.)

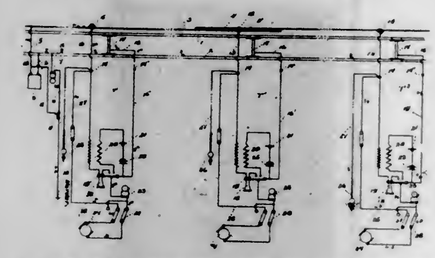


1. In a pipe coupling, the combination with the abutting flanged ends of a pair of pipe sections, inclined lugs carried by one of the flanged ends, a ring having inclined lugs formed interiorly thereof, projections carried by the interior of the ring and having shoulders formed throughout their length, said shoulders being adapted to engage one of the flanged ends of one of the sections to prevent removal of the ring therefrom in one direction, said projections being spaced from the lugs carried by the ring, the first named lugs being adapted to engage in the space between the lugs and projections to limit the turning movement of the ring in relation to the pipe sections, and means passable through the ring to engage the pipe sections to prevent independent rotation of the pipe sections and ring.

2. In a pipe coupling, the combination with the abutting flanged ends of a pair of pipe sections, inclined lugs carried by one of the flanged ends, a ring having inclined lugs formed interiorly thereof, projections carried by the interior of the ring and having shoulders formed throughout their length, said shoulders being adapted to engage one of the flanged ends of one of the sections to prevent removal of the ring therefrom in one direction, said projections being spaced from the lugs carried by the ring,

the first named lugs being adapted to engage in the space between the lugs and projections to limit the turning movement of the ring in relation to the pipe sections.

1,073,018. SIGNALING AND TELEPHONE SYSTEM FOR RAILROADS. WARDER J. BAILEY, Cedarville, W. Va. Filed Dec. 18, 1912. Serial No. 737,469. (Cl. 179—29.)



1. In a railway signaling system, the combination with the track rails and a main conductor, of a station telephone set, a partial circuit therefor including said main conductor and one of the track rails, a station signal independent of the telephone set, a circuit for such signal including one of the track rails and a ground connection, a train carried telephone set, a partial circuit therefor forming with the first-mentioned partial circuit a complete circuit for both telephone sets when the train is within a predetermined distance of the station, and means for establishing a complete circuit between the train carried telephone set and the station signal independently of the station telephone set.

2. In a railway signaling system, the combination with the track rails and a main conductor, of a station telephone set, a partial circuit therefor including said main conductor and one of the track rails, a station signal independent of the telephone set, a circuit for such signal including one of the track rails and a ground connection, a train carried telephone set, a partial circuit therefor forming with the first-mentioned partial circuit a complete circuit for both telephone sets when the train is within a predetermined distance of the station, means for establishing a ground connection for the train carried telephone set to energize said station signal, and means for establishing a complete circuit composed of said partial circuit independently of said main conductor and when the train is beyond the prescribed distance from the station.

3. In a railway signaling system, the combination with the track rails and a main conductor, of a station telephone set, a partial circuit therefor including a main conductor and one of the track rails, a station signal independent of the telephone set, a circuit for such signal including one of the track rails and a ground connection, a train carried telephone set, a partial circuit therefor forming with the first-mentioned partial circuit a complete circuit for both telephone sets when the train is within a predetermined distance of the station, means for establishing a ground connection for the train carried telephone set to energize said station signal, and means for establishing a complete circuit composed of said partial circuit independently of said main conductor and for cutting out said station signal.

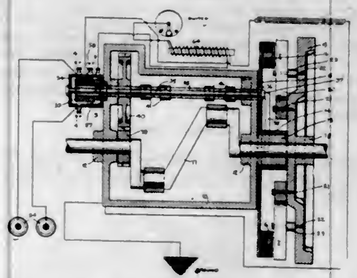
1,073,019. WRENCH. PAL BALKO, Milwaukee, Wis., assignor of one-half to John J. Vlach, Milwaukee, Wis. Filed Apr. 4, 1913. Serial No. 758,882. (Cl. 81—169.)

In a wrench, a jaw having a shank the extremity of which is annular and threaded, a sliding jaw upon the wrench having its bore enlarged at its inner end, a handle having a reduced cylindrical outer end and a shoulder to contact with the end of the sliding jaw, a ring secured within the enlarged bore of the sliding jaw and movably fitting the reduced cylindrical portion of the handle, a second ring secured to the outer end of the handle and



engaging the enlarged bore of the sliding jaw outward of the first described ring and in contact therewith.

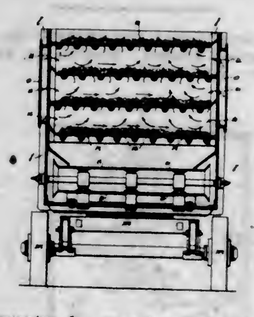
1,073,020. MAGNETO. PERRY BECK, Alexandria, Ind. Filed June 24, 1912, Serial No. 705,627. Renewed July 26, 1913. Serial No. 781,450. (Cl. 123—149.)



1. In a device of the kind described, a rotatable plate, a series of armature coils connected each to each and supported on said plate, an arcuate contact member carried by said plate, a brush engaging said member, a connection between said armature coils and said arcuate contact, a timer including a rotatable contact member, a casing, contacts carried on said casing, said casing being rotatable to move said contacts, a wheel, a shaft supporting said wheel, permanent magnets carried on said wheel and passing over said armature coils, a hollow shaft passing into said casing and carrying a rotatable contact member, a rod secured to said casing and passing through said hollow shaft, said plate having a slot wherethrough said rod passes, an arm fixed upon said rod and extending over the face of said plate, a link connecting said arm and plate, and an operative connection between the hollow shaft and the shaft supporting the wheel.

2. In a device of the kind described, a rotatable plate, a series of armature coils connected each to each and supported on said plate, an arcuate contact member carried by said plate, a brush engaging said member, a connection between said armature coils and said arcuate contact, a timer including a rotatable contact member, a casing, contacts carried on said casing, said casing being rotatable to move said contacts, a wheel, a shaft supporting said wheel, permanent magnets carried on said wheel and passing over said armature coils, a hollow shaft passing into said casing and carrying a rotatable contact member, a rod secured to said casing and passing through said hollow shaft, said plate having a slot wherethrough said rod passes, an arm fixed upon said rod and extending over the face of said plate, a link connecting said arm and plate, and an operative connection between the hollow shaft and the shaft supporting the wheel, a second contact device in said casing, and a cam carried on the hollow shaft for actuating said second contact device.

1,073,021. ROAD-PREPARING MECHANISM. HENRY FRANK BERRY, Westminster, London, England. Filed Mar. 11, 1912. Serial No. 683,030. (Cl. 34—15.)



1. An apparatus for preparing road making material of the character set forth comprising in combination, a casing having heating means delivering hot gases of combustion thereto, an air retort in and closed with respect to said casing and having an inlet and an outlet, a container for the road making material connected with the outlet of said retort, and means connected with the inlet of said retort for forcing air through said retort into frictional contact with the material in said container, substantially as described.

2. An apparatus for preparing road making material of the character set forth comprising in combination, a vehicle, a casing thereon having heating means delivering hot gases of combustion thereto, a retort in and closed with respect to said casing, and having an inlet and an outlet, a second vehicle, a container for road making material mounted on said second vehicle, a jointed connection connecting the outlet of said retort with the container, and means connected with the inlet of said retort and mounted on said first named vehicle for forcing air under pressure through said retort into frictional contact with the material in said container, substantially as described.

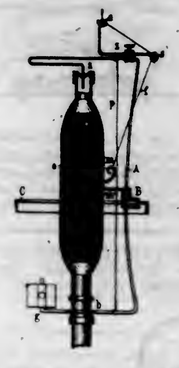
3. An apparatus of the class described comprising in combination, a container for the material and an air chamber having perforations opening to said container, means for supplying air to said chamber under pressure, plugs fitted in said perforations and having openings therethrough.

4. An apparatus for preparing road making material of the class described comprising in combination, a vehicle provided with hot-air supply mechanism, a socket-like discharge for the air from said mechanism, a second vehicle having a container for the material provided with a socket-like intake for the air, and a rigid pipe connection having ball-like ends fitting said socket and forming a communicating connection between said air supply mechanism and said container, substantially as described.

5. An apparatus for use in the manufacture of macadam in which bitumen or similar material is used as a binding agent, comprising a suitable running or supporting frame, an engine on said frame, a pump or blower driven by said engine, an air heating retort arranged on the pressure side of said pump in combination with a container for the stone or like material, said container being provided with floors composed of plates that may be tilted to dump the material from floor to floor, a discharging conveyer, said conveyer being arranged beneath the last tiltable floor.

[Claims 6 to 9 not printed in the Gazette.]

1,073,022. YARN SPINNING OR TWISTING APPARATUS. GIANNI BETTINI, Paris, France. Filed Aug. 31, 1910. Serial No. 579,921. (Cl. 118—27.)



1. In a spinning machine, the combination with a bobbin, of a traveler and a traveler carrier revoluble with the bobbin, the traveler moving loosely along the carrier parallel to the bobbin and having an extension which rests upon the surface of the bobbin during winding, and an eye through which the yarn passes directly to the bobbin and which is held by the extension in constant relation to the surface of the bobbin.

2. In a spinning machine, the combination with a bobbin, a traveler revoluble with the bobbin, and a device for actuating the traveler, of a guide which is offset with relation to the bobbin and which is provided with angularly disposed eyes through which the yarn passes before its arrival at the traveler, and a ring to control the rise and fall of the traveler.

3. In a spinning machine, the combination with a bobbin, a traveler revoluble with the bobbin, and a carrier for the traveler, of a guide mounted on the carrier and through which the yarn passes before its arrival at the traveler, the guide being adjustable toward and away from the axis of rotation of the bobbin, and a ring to control the rise and fall of the traveler.

4. In a spinning machine, a bobbin driven by a spindle, an independent traveler carrier, frictionally driven from the spindle and carrying a traveler capable of independent motion and a thread-guide mounted on said traveler carrier carrying an eye and capable of independent adjustment with reference to the position of the eye of the traveler, substantially as described, and a ring to control the rise and fall of the traveler.

5. In a spinning machine, the combination with a spindle or bobbin and a traveler, of a traveler carrier actuating the traveler and rotating with relation to the spindle or bobbin, the carrier consisting of a rod which is concavely bent throughout its efficient length, the traveler moving loosely along the carrier parallel to the bobbin and having an extension which rests upon the surface of the bobbin during winding, and an eye through which the yarn passes directly to the bobbin and which is held by the extension in constant relation to the surface of the bobbin, and a ring to control the rise and fall of the traveler.

1,073,023. ELECTRIC SWITCH. JAMES MELVIN BLAIN, Spring City, Utah. Filed July 20, 1911. Serial No. 639,476. (Cl. 175—283.)

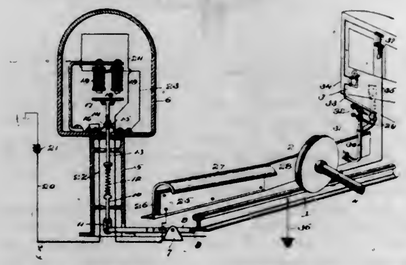
A switch of the class described comprising a base, a pair of contact plates secured to said base at diametrically opposite points and spaced apart, another contact plate secured to said base and disposed in a plane intersecting that of the first-mentioned plates and having one end thereof disposed intermediate said first plates, a mov-

able contact plate having a slot formed therein and resting upon said second-named plate and adapted to bridge one or the other of the first-mentioned plates and the second-named plate and both of said first-mentioned plates and the second-named plate simultaneously, a set screw



passed through the slot in said second-named plate to hold the latter in applied position, a yoke secured to said last-mentioned plate and extending upwardly therefrom, and a manipulating head carried by said yoke whereby the movable contact plate may be manipulated.

1,073,024. ELECTRICAL SIGNALING DEVICE. CLINTON L. BOPP, Waterloo, Iowa. Filed Sept. 8, 1911. Serial No. 648,269. (Cl. 246—25.)



1. In a signaling device, a housing, an electric circuit leading into the housing, a plunger mounted to reciprocate within the housing and provided with an insulating section, contacts engaging upon opposite sides of the insulating section and in connection with the circuit, a rail located adjacent the housing, a lever extending from the rail into the housing and adapted to raise the plunger with the deflection of the rail to bring the contacta into engagement with the conductor portion of such plunger, and means to hold the plunger in raised position until the circuit is broken.

2. In a signaling device, a housing, a plunger mounted to reciprocate vertically within the housing and provided with insulating and conducting sections, contacts bearing against the opposite sides of the plunger and normally engaging the insulating section, an electromagnet positioned and energized to hold the plunger in raised position, a rail adjacent the housing, a lever extending from the rail and adapted to raise the plunger when the rail is deflected, and an electric circuit including the contacts and the electromagnet closed by the engagement of the contacts with the conductor section of the plunger.

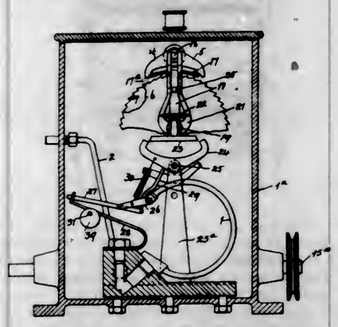
3. In a signaling device, a housing, an electric circuit leading into the housing, a switch located within the housing, a rail disposed adjacent to the housing, a lever connected with and actuated by the rail, and flexibly connected with the switch, said switch being closed by the lever as the rail deflects, and a third rail adjacent to the rail connected with the switch in the housing.

4. In a signaling device, a housing, an electric circuit leading into the housing, a switch located within the housing, a rail disposed adjacent to the housing, a lever connected with and actuated by the rail and flexibly connected with the switch, said switch being closed by the lever as the rail is depressed means for holding the switch in its closed position as the rail rises, and a third rail adjacent to the rail connected with the switch in the housing.

5. In a signal device a housing, an electric circuit leading into the housing, a lever entering said housing, a two part plunger connected to said lever, a contact carried by one part of said plunger, a rail engaging said lever and adapted to raise said plunger as the rail deflects, means carried by said housing for closing the circuit through said contact as the plunger rises, a third rail adjacent said housing, and electro-magnetic means associated with said third rail, said contact, and said electric circuit for retaining the contact closed as the other part of said plunger descends.

[Claims 6 and 7 not printed in the Gazette.]

1,073,025. REGULATING APPARATUS. HERBERT BULLOCK, Bradford, England. Filed May 4, 1912. Serial No. 695,109. (Cl. 121—114.)



1. In a relay apparatus for the purposes described, a mechanism to be operated, a controlling device, a ratchet wheel connected to the mechanism to be operated, a pawl device over said ratchet wheel, means for oscillating said pawl device about said ratchet wheel, a shield between said pawl device and the ratchet wheel, means for normally oscillating said shield synchronously with said pawl device to hold said pawl device out of engagement with said ratchet wheel; and means connected to said controlling device for at certain times arresting the said shield in its oscillation with said pawl device substantially as described.

2. In a relay apparatus for the purposes described, a mechanism to be operated, a controlling device, a ratchet and pawl device connected to said mechanism to be operated, a shield connected to and synchronously operable with the pawl devices adapted to normally hold said pawl devices in inoperative position; and an escapement device connected to said ratchet and pawl device and adapted to effect the release of said shield, the escapement being controlled by said controlling device.

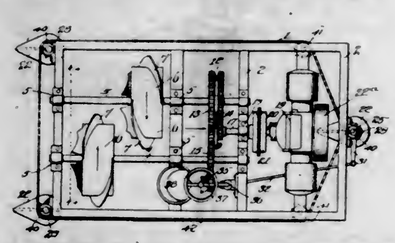
3. In a relay apparatus for the purposes described, a mechanism to be operated, a controlling device, a constantly rotated shaft, an arm oscillated from said constantly rotated shaft, a toothed wheel connected to said mechanism to be operated, means for engaging with said toothed wheel mounted on said oscillating arm, a shield mounted between said toothed wheel and said engaging means and normally synchronously operable with said engaging means, means for normally oscillating said shield with said engaging means, means connected to said controlling device for at times arresting the oscillation of the shield substantially as described.

4. In a relay apparatus for the purposes described, a mechanism to be operated, a controlling device, a ratchet and pawl device connected to said mechanism to be operated, means for oscillating and normally holding the engaging means of said ratchet and pawl device in an inoperative position said holding means normally oscillating with said engaging means, an escapement device connected to said holding means said escapement being connected to the controlling device.

5. In a relay apparatus for the purposes described, a mechanism to be operated, a controlling device, a ratchet and pawl device connected to said mechanism to be operated, a shield located between the engaging means and ratchet and pawl device, means for oscillating the engaging means of said ratchet and pawls device, means for normally oscillating said shield with the engaging means of said ratchet and pawl device, means for at times arresting the said shield in its oscillation, said arresting means being connected to said controlling device.

[Claims 6 to 19 not printed in the Gazette.]

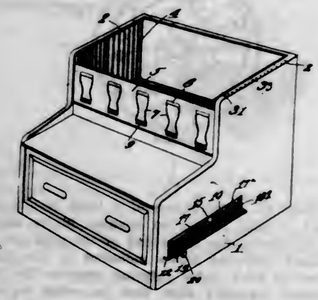
1,073,026. MOTOR-HARROW. THOMAS CAMP, Atlanta, Ga. Filed Apr. 26, 1911. Serial No. 623,342. (Cl. 97—65.)



1. In a device of the character specified, a plow comprising a cylinder or drum, cutting blades arranged spirally of the periphery of the cylinder or drum, said blades being oppositely arranged and each extending over approximately one-half the circumference of the drum, and a point connected with each blade, said points being at diametrically opposite points on the cylinder.

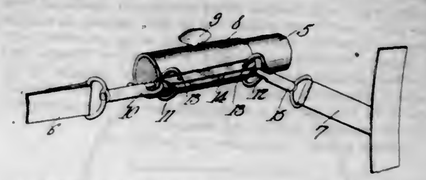
2. In a device of the character specified, a plow comprising a cylinder or drum, cutting blades arranged on the periphery of the cylinder or drum and spirally with respect to the axis thereof, said blades being oppositely arranged and each extending over approximately one-half the circumference of the said cylinder or drum.

1,073,027. REGISTER FOR FILING ACCOUNTS. THEODORE C. CHRISTENSEN, Menominee, Mich. Filed Feb. 4, 1913. Serial No. 746,158. (Cl. 45—2.)



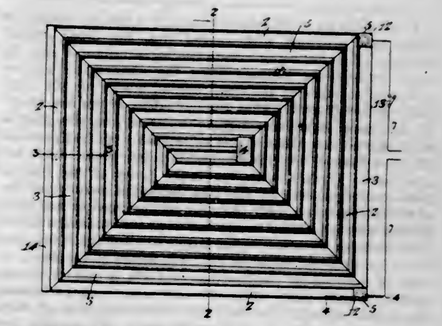
In a device of the class described, a case; a plurality of individually movable leaves in the case; a support upheld by the case; a lever mounted on the support to slide thereon, thereby to position the inner end of the lever in operative relation to any leaf, the lever being mounted to swing with the support as a center; a latch movably mounted on the outer end of the lever; and means for receiving the latch to hold the lever against both sliding and swinging movement, the latch, when disengaged from said means, constituting means for sliding and swinging the lever.

1,073,028. HOLDBACK. JOY CLAYTON, Stotts City, Mo. Filed Apr. 25, 1910. Serial No. 557,484. (Cl. 21—27.)



A harness attachment comprising a metallic sleeve, means adapted to hold said sleeve in rigid position upon a vehicle thill, a flange formed integral with said sleeve and extending radially therefrom, said flange provided with apertures adjacent the ends thereof, rings loosely mounted within said flange apertures, said rings adapted to be connected to the harness holdback, and with a girth branch strap to thereby provide a holdback and to hold the vehicle thills in spaced relation with respect to the draft animals.

1,073,029. INSECT-EXTERMINATOR. FRANK DONEY, Colfax, Wash., assignor of one-half to William T. Smith, Colfax, Wash. Filed Dec. 18, 1912. Serial No. 737,444. (Cl. 43—34.)



1. An electric insect destroying device comprising a receptacle having closed adjacent open channels for containing a liquid, and means for connecting liquid within the channels to a source of electric energy for charging said liquid.

2. A device for destroying insects by an electric current comprising a liquid holder having distinct open channels separated by relatively thin walls rising above the liquid level in the channels, and means for connecting liquid when in the channels with a source of electric current to produce a difference of electric potential in the channels on opposite sides of a division or separating wall.

3. A device for destroying insects comprising a plate of insulating material having produced in one face a pair of closely adjacent channels in interwound relation with a relatively narrow division wall between the channels, means for establishing a predetermined level of liquid within the channels, and means for charging liquid when within the channels with electric potential whereby the liquid in one channel is of a different potential from that in the next adjacent channel.

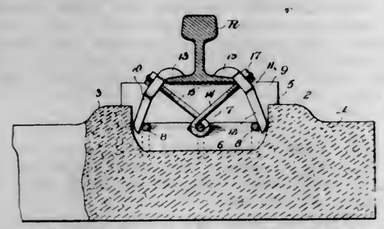
4. A device for destroying insects comprising a plate of insulating material having a pair of channels formed in one piece in interwound relation with a narrow separating wall, each channel being electrically insulated from the other, and a cup at one end of each channel having an electric terminal therein, each cup being provided with a passage communicating with a respective channel and another passage constituting an overflow passage to determine the depth of a liquid introduced into the channel.

5. A device for destroying insects comprising a plate

of insulating material having a pair of channels formed in one face in interwound relation with a narrow separating wall, each channel being electrically insulated from the other, and a cup at one end of each channel having an electric terminal therein, each cup being provided with a passage communicating with a respective channel and another passage constituting an overflow passage to determine the depth of a liquid introduced into the channel, and each cup having a cover member for protecting the electric terminal within the channel.

[Claims 6 and 7 not printed in the Gazette.]

1,073,030. RAILWAY-TIE. JOSEPH R. DOOLEY, Mobile, Ala. Filed Mar. 15, 1913. Serial No. 754,413. (Cl. 238—4.)



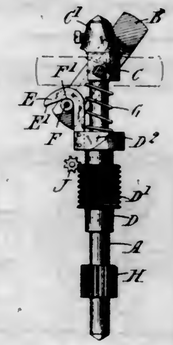
1. In a device of the class described, a rail tie having its upper face provided with spaced ribs, the inner central portions of which being substantially rectangular and the inner walls being inclined from the rectangular portion to the outer edges of the ribs, cushion blocks for the rails, said cushion blocks having angular edges which are adapted to engage with the angular walls of the ribs and to abut against the sides of the rectangular central portions of the ribs, rail clamps having inclined jaws which are adapted to contact with the inner faces of the central rectangular portions of the ribs, members loosely and removably connected with the tie and arranged at an angle thereto and adjustably connected with the clamps, and the said inclined members being disposed directly below the lower longitudinal edges of the base flange of the tie.

2. In a device for the purpose set forth, a rail tie having spaced ribs, the inner walls of which being inclined toward the center of said ribs, and the central portion of each of the ribs embodying a rectangular projecting member, the tie between the rectangular members being depressed, a central rod straddling the depression and secured within the tie, a staple arranged within the tie and disposed adjacent each of the central rectangular portions of the ribs, cushion members, rail supporting members having inclined sides engaging with the inclined walls of the ribs and abutting with the central rectangular portion of the ribs, clamp members having their body portions disposed between the rods adjacent the central portions of the ribs and the said central portions of the ribs, said clamps having angular rail engaging lips, hook bolts engaging the central bar of the tie and disposed at opposite angles to the tie and passing through openings in the oppositely arranged clamps, bolt members for the hooks, and the said hooks adapted to lie directly below the longitudinal edges of the base flanges of the rail.

1,073,031. CENTRIFUGAL GOVERNOR AND SPEED-INDICATOR. PRIMUS OTTO DOREE, Lee, England, assignor to S. Smith & Son, Limited, Westminster, England. Filed Sept. 7, 1912. Serial No. 719,220. (Cl. 121—112.)

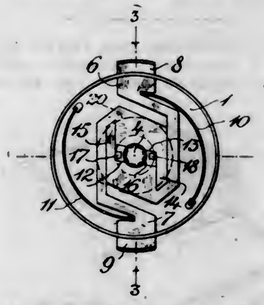
1. In a centrifugal governor, the combination of a rotatable shaft; a ring surrounding and pivotally mounted on the shaft; a sleeve slidably mounted on the shaft; a hook carried by the sleeve and engaging with said ring and adapted to be moved thereby; and a spring mounted on the shaft engaging with and holding said sleeve under tension, substantially as described.

2. In a centrifugal governor, the combination of a rotatable shaft; a ring surrounding and pivotally mounted on the shaft; a roller journaled on said ring; a sleeve slidably mounted on the shaft; a hook carried by said sleeve and having an inclined portion engaging with said roller, said ring adapted to move the sleeve through said roller and hook engagement; and a spring mounted on the shaft engaging with and holding said sleeve under tension, substantially as described.



3. In a centrifugal governor, the combination of a rotatable shaft; a sleeve fixedly mounted on said shaft; a ring surrounding and pivotally mounted on said sleeve; a sleeve slidably mounted on the shaft; a hook carried by said sleeve and having an inclined portion engaging with said ring, said ring adapted to move the slidable sleeve through said hook engagement; and a spring mounted on the shaft and having its respective ends engaging with said fixed and movable sleeves and adapted to hold the latter under tension, substantially as described.

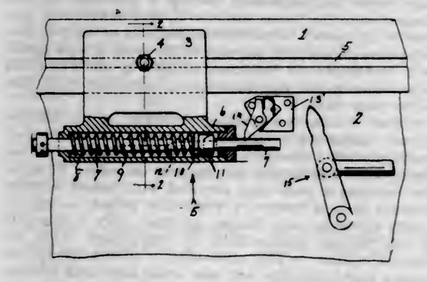
1,073,032. STUD. EUGEN FILIPEK, Pforzheim, Germany. Filed Feb. 26, 1913. Serial No. 750,866. (Cl. 24—110.)



In a stud, the combination of a head, a pin carrying such head, a base having an opening in its upper side adapted to receive the lower end of the said pin, a pair of U-shaped clamping slides mounted in the base, one leg of each of such slides entering between the two legs of the other clamping slide and the other leg of each clamping slide projecting radially from the base, guide pins secured in the base on opposite sides of the said opening and on the inner sides of the first named legs of the clamping slides, means for guiding such clamping slides in one plane in the base and springs mounted in the base and engaging with the said clamping slides whereby the latter are moved toward each other.

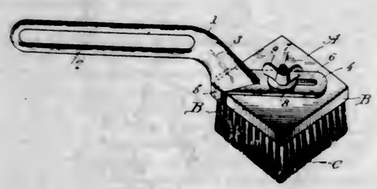
1,073,033. AUTOMATIC REVERSE FOR PLANERS AND THE LIKE. ALFRED E. FISHER, Inglewood, Cal. Filed Nov. 5, 1912. Serial No. 729,608. (Cl. 90—48.)

1. The combination with a planer bed or the like, of a frame adjustably mounted upon the bed, a plunger barrel upon the frame, and having a cam slot, a reversing plunger mounted in the plunger barrel, a spring for operating the plunger one way, a compressing arm extending from the plunger through the cam slot, a trip pivot rigidly mounted, a spring actuated tripping dog upon the trip pivot in position to engage the compressing arm, so that when the frame moves one way the tripping dog will compress the spring until the cam action moves the compressing arm out of engagement with the tripping dog and allows the spring to shoot the plunger.



2. The combination with a planer bed or the like, of a frame adjustably mounted upon the bed, a plunger barrel upon the frame and having a cam slot, a reversing plunger mounted in the plunger barrel, a spring for operating the plunger one way, a compressing arm extending from the plunger through the cam slot, a trip pivot rigidly mounted, a spring actuated tripping dog upon the trip pivot in position to engage the compressing arm one way and slip over the other way and adapted to be thrown into and out of action, so that when the frame moves one way the tripping dog will compress the spring until the cam action moves the compressing arm out of engagement with the tripping dog and allows the spring to shoot the plunger.

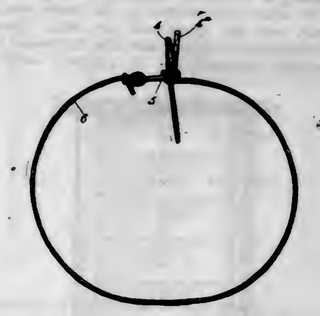
1,073,034. BRUSH-HANDLE. JOHN L. FORD, Camden, N. J. Filed Mar. 21, 1913. Serial No. 755,971. (Cl. 15—24.)



A brush handle provided with angularly disposed flanges for engagement with the sides of a brush back and a slotted extension for engagement with the top of the brush back, the slot being adapted for the reception of clamping means so as to hold the handle in applied position on the brush back.

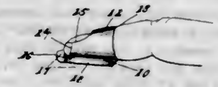
1,073,035. SHOCK-TIER. CHARLES G. FRAVEL, Plain township, Franklin county, Ohio, assignor of one-half to Algernon E. Bennett, Westerville, Ohio. Filed July 8, 1909. Serial No. 506,477. (Cl. 24—131.)

A device for tying shocks or bundles, said device formed of a single piece of wire and comprising, in combination, a coil portion 4 the strand of which terminates at one side of the coil in a tangential portion 4^a to permit insertion of a cord between the members of the coil, and at the other in a shank 5 extending from the coil in a right line and at right angles to the plane of the coil, said shank provided at its free extremity with an eye, 5^a, to receive a cord, and said shank and coil at their junction forming a corner around which the free end of



the cord may be passed for insertion between the members of the coil, substantially as described.

1,073,036. IDENTIFICATION DEVICE. ERNESTO FUCHS, Guadalajara, Mexico. Filed May 20, 1912. Serial No. 698,551. (Cl. 101—59.)



1. A device of the class described comprising a base plate having an opening therein for exposing a portion of the end of a finger, and a pad hingedly connected to said plate and adapted for direct contact with said portion of the finger.

2. A device of the class described comprising a base plate having an opening therein for exposing a portion of the end of a finger, a pad hingedly connected to said plate and adapted for direct contact with said portion of the finger, and a casing for said pad.

3. A device of the class described comprising a base plate having an opening therein for exposing a portion of the end of a finger, means carried by said base plate for engaging the finger of an operator for retaining the same in engagement with said plate, means carried by the forward portion of said plate for limiting the forward movement of the finger relative thereto, and a pad hingedly connected to the last named means.

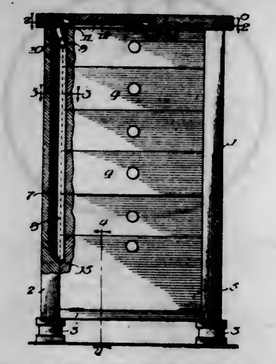
4. A device of the class described comprising a base plate having an opening therein for exposing a portion of the end of a finger, means carried by said base plate for engaging the finger of an operator for retaining the same in engagement with said plate, means carried by the forward portion of said plate for limiting the forward movement of the finger relative thereto, a pad hingedly connected to the last named means, and a casing for said pad.

5. A device of the class described comprising a base plate having an opening therein for exposing a portion of the end of a finger, means carried by said base plate for engaging the finger of an operator for retaining the same in engagement with said plate, means carried by the forward portion of said plate for limiting the movement of the finger relative thereto, a pad hingedly connected to the last named means, and means engaging said pad and said plate for retaining the former out of engagement with the finger of the operator.

1,073,037. FILING-CABINET. GEORGE C. GERATY, Chicago, Ill. Filed Feb. 27, 1911. Serial No. 611,199. (Cl. 45—94.)

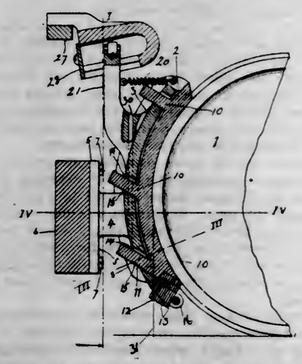
A device of the class specified comprising a series of drawers, a frame for the same having side and top members, one of the side members having a vertical channel

and the top member having a horizontal channel, a bell crank pivoted in said vertical channel, near the upper end thereof, a vertically disposed locking bar or rod having its upper end pivoted to the lower end of said bell crank, said bell crank and bar being arranged to lock said drawers when said bar is in its lowest position, a horizontally disposed rod 12 pivotally connected to



the upper end of said bell crank and arranged in said horizontal channel, a hand lever 13 pivoted to the under side of said top member in the rear of said rod 12 and projecting forwardly and forward of said rod 12, the forward end of said rod 13 being adapted to be grasped by the hand, said rod 12 being pivotally connected to the rod 13, and a catch 14 secured to said top member and adapted to engage the lever 13 when said lever is swung to one side, so as to lift said locking bar.

1,073,038. SELF-ADJUSTING BRAKE-SHOE. ALVA L. GOODKNIGHT, Heavener, Okla. Filed Mar. 8, 1913. Serial No. 752,921. (Cl. 188—25.)



1. A self-adjusting brake-shoe, comprising a brake-head having a plurality of notched recesses in its opposing sides, a brake-shoe proper having a plurality of ribs provided with ratchet-teeth in engagement with the notches in said brake-head, and having a metal-brush integral with its lower terminal extreme adapted to wastingly engage the car-wheel to provide re-adjustment of the said brake-shoe, and means for yieldingly suspending the brake-head from the car-truck.

2. The combination with a car-truck, of an inclined bracket suspended from said car-truck, a brake-head provided with a plurality of notched recesses in its opposing sides and having an upwardly-extending T-shaped arm carrying a cross-head provided with rollers movably mounted in said bracket, a brake-shoe proper having upwardly-extending side flanges provided with a plurality of ribs having ratchet-teeth in engagement with the notched recesses in said brake-head, a tension-spring connecting said brake-shoe and said brake-head, and a brush having a plurality of leaves in parallelism wastingly engaged by the car-wheel and formed integral with the brake-shoe adapted for adjusting the brake-shoe in the brake-head.

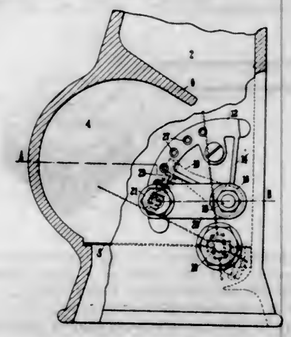
3. In a self-adjusting brake-shoe, a shoe proper provided with upwardly-extending opposing side flanges in engagement with the brake-head having a plurality of ribs integral with the inside-surfaces of said flanges and provided with ratchet-teeth slidingly engaged by notches provided in a plurality of recesses in the sides of said brake-head, and means for yieldingly suspending the brake-head from the car-truck, and means for locking the brake-shoe in the brake-head.

4. The combination with a car-truck, of an inclined bracket suspended from said car-truck, a brake-head provided with a plurality of notched recesses in its opposing sides and having an upwardly-extending T-shaped arm carrying a cross-head provided with rollers movably mounted in said bracket, a brake-shoe proper having upwardly-extending side flanges provided with a plurality of ribs having ratchet-teeth in engagement with the notched recesses in said brake-head, a tension-spring connecting said brake-shoe and said brake-head, and a brush having a plurality of leaves in parallelism wastingly engaged by the car-wheel and formed integral with the brake-shoe adapted for self-adjustment of the brake-shoe in the brake-head.

5. In a self-adjusting brake-shoe, a brake-head provided with means adapted for the self-adjustment of the brake-shoe on said brake-head, said means comprising ratchet teeth rigid with the brake-shoe adapted to limit backward movement of the brake-shoe, and a metal brush integral with the brake-shoe having a plurality of leaves in parallelism wastingly engaged by the car-wheel.

[Claims 6 to 11 not printed in the Gazette.]

1,073,039. BOILER-FURNACE. GUSTAV DE GRAHL, Zehlendorf, near Berlin, Germany. Filed Nov. 20, 1911. Serial No. 661,352. (Cl. 110—175.)

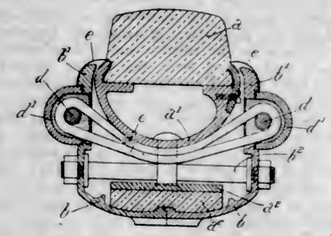


1. Apparatus for automatically controlling the admission of overgrate blast into the fire box of the furnace, comprising in combination, a suction conduit for the overgrate blast open at one end to the outer atmosphere and at the other end to the fire box said conduit being provided with an internal rib extending through the suction and being immovable in the same, thus narrowing the said conduit, and a valve in said conduit opening toward the fire box adapted to approach said rib and restrict the passage for the overgrate blast, and an adjustable stop for said valve.

2. Apparatus for automatically controlling the admission of overgrate blast into the fire box of the furnace, comprising in combination, a suction conduit for the overgrate blast open at one end to the outer atmosphere and at the other end to the fire box said conduit being provided with an internal rib extending through the suction conduit and being immovable in the same, thus narrowing the said conduit, and a valve in said conduit opening toward the fire box adapted to approach said rib and restrict the passage for the overgrate blast, and an adjustable resilient stop for said valve.

3. Apparatus for automatically controlling the admission of overgrate blast into the fire box of a furnace, comprising in combination, a suction conduit for the overgrate blast open at one end to the outer atmosphere and at the other end to the fire box, said conduit being provided with an inwardly projecting rib, a chamber between said rib and the atmosphere, a pivoted valve mounted in said conduit on the atmosphere side of said chamber, said valve being adapted to close said conduit when no air is passing therethrough and to swing through said chamber toward said rib under the influence of an increasing suction whereby said conduit is first opened and then restricted as the valve moves toward said rib, and an adjustable stop for limiting the movement of said valve toward said rib.

1,073,040. VEHICLE-WHEEL. JORGE GUERRERO, Paris, France. Filed Dec. 26, 1911. Serial No. 667,892. (Cl. 152—1.)



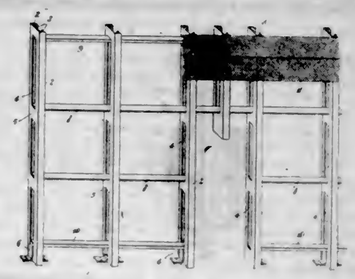
1. In a vehicle wheel, the combination, with a trough-shaped rim, and a tire disposed between the cheek-pieces thereof; of a supplemental rim wherein said tire is directly fitted disposed between said cheek-pieces; a series of transversely arranged yielding devices connected at opposite ends to said cheek-pieces; said supplemental rim resting directly upon said devices; a supplemental cushion encircling the bottom wall of the first-named rim; and a series of members connected to said supplemental rim and resting upon said cushion.

2. In a vehicle wheel, the combination, of a trough-shaped rim, and a tire disposed between the cheek-pieces thereof; of a supplemental rim wherein said tire is directly fitted disposed between said cheek-pieces; and a series of transversely arranged elastic loops connected at opposite ends to said cheek-pieces, said supplemental rim resting directly upon said loops.

3. In a vehicle wheel, the combination, with a trough-shaped rim having its cheek-pieces provided with removable bosses, said bosses having pins mounted therein; of a series of transversely arranged elastic loops having their opposite ends engaged with said pins for drawing said bosses toward each other and holding them in place; a supplemental rim disposed between said cheek-pieces and resting directly upon said loops; and a tire fitted in the supplemental rim.

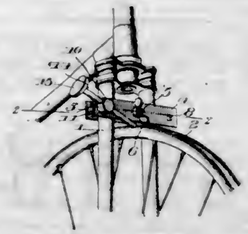
4. In a vehicle wheel, the combination, with a trough-shaped rim having its cheek-pieces provided with outwardly extending projections and with pins mounted in said projections; of a series of elastic devices connected at opposite ends with said pins; a supplemental rim disposed between said cheek-pieces and supported directly upon said devices; a tire fitted in the supplemental rim; an annular cushion encircling the bottom of the first-named rim; and a series of feet connected to said supplemental rim and resting upon said cushion.

1,073,041. HOLLOW PARTITION. ROBERT O. HAGERMAN, Butte, Mont. Filed Dec. 3, 1912. Serial No. 734,746. (Cl. 72—46.)



A partition of the character specified comprising studs each consisting of a metal strip having its edge portions bent in the same direction at a right angle and having edge portions of the bent parts rebent and facing inwardly, the body portion of the stud having oblong openings in its length of a width equal to the distance between the rebent edge portions of the metal strip, and connecting and bracing strips extending through the oblong openings of the studs and of a width to have their edge portions touch the edges of the strips bordering upon the oblong openings and the edges of the rebent edge portions of such strips.

1,073,042. WHEEL-TRUING DEVICE. WILLIAM HELLER, Westphalia, Kans. Filed Oct. 11, 1912. Serial No. 725,259. (Cl. 73—149.)



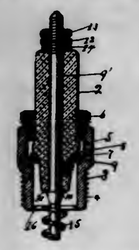
In a wheel truing device, two plates, adjustable means for sustaining the plates in spaced relation with each other, each of the plates having round openings arranged adjacent its opposite ends, a member comprising a head and a threaded shank which is adapted to pass through one of the openings, a wing nut engaging the shank and pressing the head of the member against the plate, the head of said member being provided with a transversely arranged threaded opening, and a headed screw engaging the opening co-acting with the threaded opening of said headed member and whereby the screw is correlatively associated with the said headed member.

1,073,043. SPARK-PLUG. EDWIN C. HENN, Cleveland, Ohio. Filed Jan. 4, 1912. Serial No. 669,417. (Cl. 123—169.)

1. A spark plug having an insulating body, a casing, and a pair of electrodes, one projecting beyond said body and the other spirally located around and throughout the length of such projecting portion of the first electrode and having open spaces between the spirals.

2. A spark plug comprising an insulating body, a casing, and a pair of electrodes, one projecting beyond said body

and the other consisting of a series of spaced coils located around and throughout the length of the projecting portion of the first electrode and both having their sparking surfaces within the plane of the inner walls of said casing.



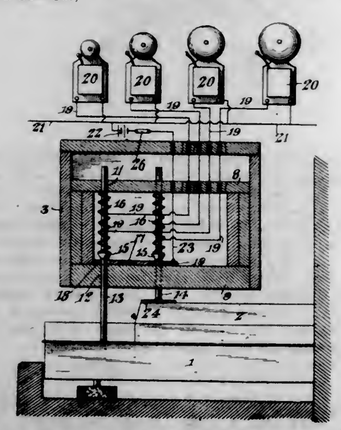
3. A spark plug comprising an insulating body, a casing, and a pair of electrodes, one projecting beyond said body and the casing and the other comprising a continuous spirally wound member carried by said casing and consisting of spaced coils encircling the first electrode from the casing to the end of such first electrode.

4. A spark plug comprising an insulating body, a casing, an electrode carried by said body and having a projecting part, and a spirally formed wire electrode having a part inserted into and engaging said casing and having a series of spaced coils located around said first electrode and spaced therefrom and located within the plane of the walls of the casing.

5. A spark plug comprising a chambered casing, an electrode extending therethrough and insulated therefrom, and a spirally formed electrode comprising a series of coils located around said first electrode and spaced therefrom and having an enlarged ring-formed base inserted within and engaging the walls of the chamber of said casing.

[Claims 6 to 11 not printed in the Gazette.]

1,073,044. ELECTRIC ATTACHMENT FOR KEYBOARDS OF AUTOPLAYERS. OSCAR HERRMANN, New York, N. Y. Filed May 13, 1912. Serial No. 696,961. (Cl. 84—81.)

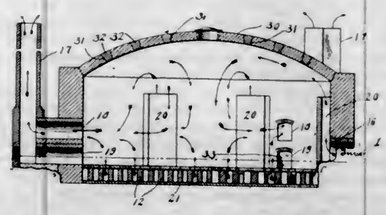


1. An attachment for the keyboards of keyed musical instruments comprising a suitable number of electrically responsive sound-producing means tuned to correspond to tones represented by respective keys of the instrument, a casing, a conducting strip therein provided with passages through it, pins traversing the passages through the strip and projecting below the casing and each of a length to engage a respective key of the keyboard, each pin being provided with an enlargement adapted to the passage in the conducting strip through which the pin extends to make contact with said strip, and means for electrically connecting the strip to all the electrically responsive sound producing means, and each pin to a respective one of said sound producing means.

2. An attachment for keyboards of autoplayers comprising a suitable number of electrically responsive sound-producing means tuned to correspond to tones represented by respective keys of the instrument, a casing provided with means for supporting it above the keyboard, said casing having a bottom member and a longitudinal partition above and spaced from the bottom member, with matching holes through the bottom member and partition, an electrically conducting plate on the bottom member having passages therethrough of greater size than and matching the holes through the bottom member, pins extending through the matching holes in the bottom member and partition and each of a length to reach a respective key of the keyboard, an enlargement on each pin shaped to engage in a respective passage in the conducting plate and make electrical contact therewith, a spring around each pin between the enlargement and the partition, and electric conductors connecting the conducting plate to all the sound producing means and each pin to a respective sound producing means.

3. An attachment for keyboards of autoplayers comprising a suitable number of electrically responsive sound producing means tuned to correspond to tones represented by respective keys of the instrument, a casing provided with means for supporting it above the keyboard, said casing having a bottom member and a longitudinal partition above and spaced from the bottom member, with matching holes through the bottom member and partition, an electrically conducting plate on the bottom member having passages therethrough of greater size than and matching the holes through the bottom member, pins extending through the matching holes in the bottom member and partition and each of a length to reach a respective key of the keyboard, an enlargement on each pin shaped to engage in a respective passage in the conducting plate and make electrical contact therewith, a spring around each pin between the enlargement and the partition, and electric conductors connecting the conducting plate to all the sound-producing means and each pin to a respective sound-producing means, the pins in the casing being arranged in two rows at respectively different distances from the front of the casing, the pins of one row being of greater length than those of the other to cause the pins to engage the white and black keys of an instrument provided with such a keyboard.

1,073,045. KILN. CURNEALUS HOOK, Vigo, Ohio. Filed July 2, 1912. Serial No. 707,309. (Cl. 25—140.)



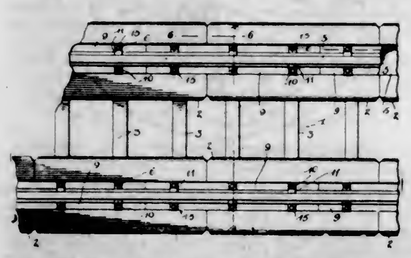
1. In a kiln, an outer wall, a floor, furnace arches situated in the wall beneath the floor, a base beneath the floor, solid walls having straight portions built on the base and forming heat leaders arranged in pairs, one pair communicating with and extending from each furnace, and solid walls built on the base intermediate the first mentioned walls and substantially at right angles to the straight portions of said first mentioned walls and cooperating therewith to form heat passages; the floor being supported upon the walls and having solid portions superposed over the heat leaders extending from and communicating with the furnaces, and cracks or apertures communicating with the heat passages diverging from the heat leaders.

2. In a kiln, an outer wall, a floor, furnaces situated in the outer wall below the floor level, heat leaders extending from the furnaces beneath the floor and obstructed by solid portions of the floor, heat passages diverging from the leader beneath the floor and communicating with the interior of the kiln through apertures in the floor, furnaces situated at intervals in the wall of the kiln above the floor level, vertical heat leaders within the kiln communicating with the last mentioned furnaces, stacks arranged at intervals exterior of the kiln wall, and archways extending through the kiln wall and establishing communication between the interior of the kiln and the stacks.

3. In a kiln, an outer wall, a floor, furnaces situated in the outer wall below the floor level, heat leaders extending from the furnaces beneath the floor and obstructed by solid portions of the floor, heat passages diverging from the leader beneath the floor and communicating with the interior of the kiln through apertures in the floor, furnaces situated at intervals in the wall of the kiln above the floor level, vertical heat leaders within the kiln communicating with the last mentioned furnaces, stacks arranged at intervals exterior of the kiln wall, and archways extending through the kiln wall and establishing communication between the interior of the kiln and the stacks; there being two archways connecting each stack with the interior of the kiln, both of said archways being arranged above the floor level and one superposed above the other.

4. In a kiln, an outer wall, a floor, furnaces situated in the outer wall below the floor level, heat leaders extending from the furnaces beneath the floor and obstructed by solid portions of the floor, heat passages diverging from the leader beneath the floor and communicating with the interior of the kiln through apertures in the floor, furnaces situated at intervals in the wall of the kiln above the floor level, vertical heat leaders within the kiln communicating with the last mentioned furnaces, stacks arranged at intervals exterior of the kiln wall, and archways extending through the kiln wall and establishing communication between the interior of the kiln and the stacks; there being two archways connecting each stack with the interior of the kiln, both of said archways being arranged above the floor level and one superposed above the other; and a crown having apertures and removable closures for the same.

1,073,046. RAILWAY ROAD-BED. WALTER A. HOUGH, Lyons, N. Y. Filed May 21, 1913. Serial No. 769,065. (Cl. 238—3.)



1. A roadbed for railway rails constructed of reinforced plastic material, the said roadbed comprising a plurality of jointed similar units or sections, each of said units comprising substantially rectangular side members and spaced connecting members, each of said side members having its upper face formed throughout its entire length with a centrally arranged longitudinally extending channel, certain of the metallic reinforcing elements of the bed including threaded members which project through the channel, rail-receiving cushion members adapted to be arranged within the channels, said cushion members being provided with openings for the reception of the threaded reinforcing members and adapted to overlap the ends of the units, and nuts for the projecting threaded reinforcing members.

2. A bed for railway rails constructed of reinforced plastic material and made up of a plurality of similar co-acting sections or units, each of the units comprising elongated rectangular side members having reinforced plastic connecting and spacing members, means arranged upon the ends of the sides of each of the units for interlocking the said unit with the co-acting unit, each of the sides having centrally arranged channels extending longitudinally the entire length of said units, threaded members projecting through the lower walls of the channel, cushion members adapted to fill the channels, said cushion members arranged to straddle the joints of the units of the roadbed and having openings for the passage of the threaded members, plates having rail-engaging lips connected with the threaded members, rail clips connected with the threaded member arranged adjacent the lip of the plate, and nuts for the threaded members.

3. A roadbed for railway rails made up of a plurality of companion-shaped members each comprising sides and connected members for the sides, dowels upon the ends of the sides of one of the units and adapted to enter openings in the ends of the companion units, the sides being channeled longitudinally, cushion members arranged within the channels and adapted to break the joints of the units of the roadbed, means for securing the cushion members together, means for securing the rails upon the cushion members, and the roadbed units adjacent their channels being projected to provide rail guards.

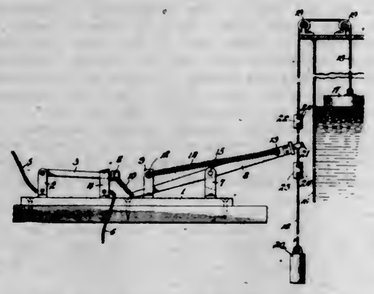
4. A roadbed for railway rails made up of a plurality of companion-shaped members each comprising sides and connecting members for the sides, dowels upon the ends of the sides of one of the units and adapted to enter openings in the ends of the companion units, the sides being channeled longitudinally, cushion members arranged within the channels and adapted to protect the joints of the units of the roadbed, means for securing the cushion members together, and means for securing the rails upon the cushion members.

5. A roadbed for railway rails made up of a plurality of companion shaped members comprising sides and connecting members for the sides, dowels upon the ends of the sides of one of the units and adapted to enter openings in the ends of the companion units, the sides being channeled longitudinally, cushion members arranged within the channels and adapted to protect the joints of the units of the roadbeds, dowels upon the ends of one of the cushion members and adapted to enter openings in the end of the companion cushion members, means for securing the cushion members upon the roadbed, and said means adapted to also retain the rail engaging members upon the cushion members and upon the roadbed.

1,073,047. ELECTRIC SWITCH. MAX LOUIS HUBBAMANN, Los Angeles, Cal. Filed Mar. 30, 1912. Serial No. 687,475. (Cl. 175—287.)

1. In an electric circuit controller, a suitable base, an electric switch having a switch arm pivotally mounted on the base, a rock arm, a mounting on the base for the rock arm in which mounting the rock arm is pivoted at a point intermediate of its length, a fixed member on the base between the pivot mounting for the rock arm and the switch arm, a spring connection from the fixed member to the rock arm on the side of the pivot of the latter remote from the fixed member, the pivot mountings for the switch and rock arms and the spring connections to the fixed member being substantially in line and the end of the rock arm to which the spring connection is connected having a range of movement with said end of the spring connection to each side of said line, and a flexible connection between the end of the rock arm adjacent to the fixed member and the corresponding end of the switch

arm of the electric switch, said flexible connection being of a length to provide a slack when the rock arm is in a neutral position, which slack is less than the range of movement of the rock arm to one side of the neutral position.

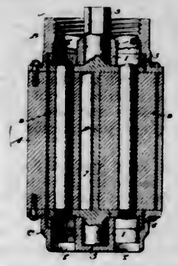


2. In an electric circuit breaker, an electric switch including a pivoted switch arm, a rock arm having a pivot support at a point between its ends, a relatively fixed part located between the pivot support of the rock arm and the switch, springs connected at one end to the relatively fixed part and at the other end to that end of the rock arm remote from the awitch, the point of connection of the springs to the relatively fixed part, the pivot support for the rock arm and the pivot support for the switch arm being all in substantially one plane, and the end of the rock arm to which the springs are connected having a range of movement with said ends of the springs to each side of said plane, and a chain connection between the switch arm and that end of the rock arm adjacent to the switch arm, said chain connection being of a length to provide a slack less than the extent of movement of that end of the rock arm to which the chain is connected to one side of a neutral position with respect to the springs.

3. In an electric circuit breaker, an electric switch including a pivoted switch arm, a rock arm having a pivot support at a point between its ends, a relatively fixed part located between the pivot support of the rock arm and the switch, springs connected at one end to the relatively fixed part and at the other end to that end of the rock arm remote from the switch, the point of connection of the springs to the relatively fixed part, the pivot support for the rock arm and the pivot support for the switch arm being all in substantially one plane and the end of the rock arm to which the springs are connected having a range of movement with said ends of the springs to each side of said plane, and a chain connection between the switch arm and that end of the rock arm adjacent to the switch arm, said chain connection being of a length to provide a slack less than the extent of movement of that end of the rock arm to which the chain is connected to one side of a neutral position with respect to the springs, means being also provided at that end of the rock arm remote from the chain for moving said end of the rock arm from either extremity of its travel to the neutral position against the action of the springs and for then releasing the rock arm to movement to the other extremity of its travel under the action of said springs.

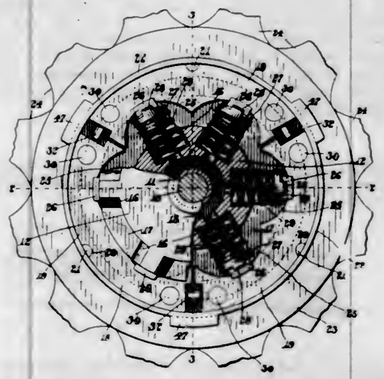
1,073,048. ROTARY PUMP. IRA BOYD HUMPHREYS, Denver, Colo. Filed June 6, 1910. Serial No. 565,227. (Cl. 103—44.)

1. In a rotary pump, the combination with a stationary gear casing, having heads connected at the ends thereof, said heads having openings formed therein, hubs supported within the heads, of a runner rotatably mounted in said hubs and supported thereby, said runner having the sides thereof made concave, spur gears journaled between the ends of the runner and received in the concaved sides, the teeth of the spur gears meshing with the teeth of the gear casing, said gears adapted to be rotated upon the rotation of the runner, due to their engagement with the casing, whereby the gears will cause a constant suction of water into the casing and discharge the water continuously through the casing.



2. In a rotary pump, the combination with a stationary casing, having gear teeth thereon, of heads connected to the casing having open ends, of hubs supported in the heads, a runner journaled and supported in the hubs and provided with suction and discharge openings in the ends thereof, spur gears journaled between the ends of the abutment, having teeth which are adapted to mesh with the teeth of the casing, whereby, upon the rotation of the abutment the spur gears will be revolved, causing the water to be sucked through one of the heads and through the abutment, and discharged through the opposite end of the abutment and throogh the casing.

1,073,049. VEHICLE-WHEEL. CLAES G. JOHANSON, Dorchester, Mass., assignor to Jennie W. Gooding, Providence, R. I. Filed May 9, 1912. Serial No. 696,259. (Cl. 152—44.)



1. In a vehicle wheel, the combination with inner and outer hub members, the latter loosely surrounding the former, having attached spokes, and lugs extending inwardly from its inner circumferential wall; of an annular member positioned in the central chamber of said outer hub by said lugs and having concavities on its inner edge; a plurality of cylinders mounted on the inner hub member each cylinder being opposite one of said concavities; and spring controlled plungers mounted in said cylinders and held in yielding engagement with said annular member.

2. In a vehicle wheel, the combination with inner and outer hub members, the latter loosely surrounding the

former, having attached spokes, and lugs extending inwardly from its inner circumferential wall; of an annular member positioned in the central chamber of said outer hub by said lugs and having concavities on its inner edge; a plurality of cylinders mounted on the inner hub member, each cylinder being opposite one of said concavities; spring controlled plungers mounted in said cylinders and held in yielding engagement with said annular member; a forked rocker member seated in the end of each plunger and slidable transversely thereof; and means on said plunger for retaining said rocker member in engagement therewith while permitting said slidable movement relative thereto.

3. In a vehicle wheel, the combination with inner and outer hub members, the latter loosely surrounding the former, having attached spokes, and lugs extending inwardly from its inner circumferential wall; of an annular member positioned in the central chamber of said outer hub by said lugs and having concavities on its inner edge; a plurality of cylinders mounted on the inner hub member, each cylinder being opposite one of said concavities; spring controlled plungers mounted in said cylinders and held in yielding engagement with said annular member; and a forked rocker member seated in the end of each plunger and slidable transversely thereof, said rocker member and plunger being provided with communicating oil holes terminating at the edge of said annular member.

4. In a vehicle wheel, the combination with inner and outer hub members, the latter loosely surrounding the former, having attached spokes, and lugs extending inwardly from its inner circumferential wall; of an annular member positioned in the central chamber of said outer hub by said lugs and having concavities on its inner edge; a plurality of cylinders mounted on the inner hub member, each cylinder being opposite one of said concavities; spring controlled plungers mounted in said cylinders and held in yielding engagement with said annular member; a cover plate provided with an annular flange extending into the central chamber of said outer hub member with the end of said flange in contact with the side face of said annular member; and means for locking said cover plate to said outer hub member.

5. In a vehicle wheel, the combination with inner and outer hub members, the latter loosely surrounding the former and having rim supporting spokes secured thereto; an annular member positioned in a groove in said outer hub member the entire inner edge of which is provided with a plurality of connecting concavities; means for locking said member in said groove; a plurality of cylinders mounted on the inner hub member each cylinder being opposite one of said concavities; spring controlled plungers mounted in said cylinders and held in yielding engagement with said annular member; each plunger being provided with a curved depression in its outer end and a rocker member having a curved surface seated in the depression of each of said plungers and provided with flanges on each side of said annular member, said rocker member having a sliding movement relative to and transversely of said plunger.

[Claim 6 not printed in the Gazette.]

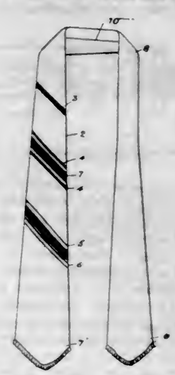
1,073,050. BIAS-LACE KNITTED NECKTIE. JOSEF KELLNER, Brooklyn, and SIDNEY WORMS, New Rochelle, N. Y., assignors to Franklin Knitting Mills, New York, N. Y., a Corporation of New York. Filed Mar. 24, 1913. Serial No. 756,450. (Cl. 2—11.)

1. As an article of manufacture, a bias knitted necktie having therein knitted on a bias, a lace formed stripe.

2. As an article of manufacture, a flat knitted necktie having knitted therein a lace formed stripe located on a substantially true bias.

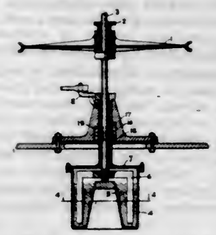
3. As an article of manufacture, a bias knitted necktie having knitted therein on a substantially true bias, a plurality of stripes, one of a different structure from another.

4. As an article of manufacture, a necktie knitted flat, with its thread loops on a bias from end to end of the tie, and having a narrow neck portion merging into a gradually widened flaring portion or portions, each terminating in a shaped end or ends; said tie having its rear lateral edges suitably connected, and also having knitted



therein a plurality of true bias stripes, one or more of a contrasting color or colors, and one or more of open mesh work.

1,073,051. CONTROLLING DEVICE FOR INTERNAL-COMBUSTION ENGINES. EDWARD DWIGHT KENDALL, Elizabeth, N. J., assignor of one-fourth to Frank M. Ashley, Brooklyn, N. Y., and one-fourth to Dickson Q. Brown, New York, N. Y. Filed Nov. 23, 1912. Serial No. 733,032. (Cl. 123—119.)



1. In a device of the character described, a continuously movable actuating member, a regulating element, and thermally controlled means for controlling the operative connection between the actuating member and the regulating element.

2. In a device of the character described, an actuating member, a regulating element, and a yielding connection and a separate thermally controlled connection between the actuating member and the regulating element.

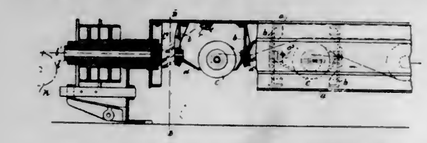
3. In a device of the character described, an actuating member, a regulating element, and a yielding connection and a separate thermally controlled connection between the actuating member and the regulating element, and means for moving the regulating element relative to the actuating element.

4. In a device of the character described, an actuating member, a regulating element, a thermally controlled coupling and a yieldable connection between the actuating member and the regulating element, and stops for limiting the movement of the regulating element.

5. In combination, a regulating element, an actuating member, a receptacle, a fusible metallic substance in the receptacle, and means connected to said actuating member extending within the receptacle into the fusible substance, the physical state of the latter controlling the operative connection between the actuating member and the regulating element.

[Claims 6 to 17 not printed in the Gazette.]

1,073,052. WIRE-STRANDING MACHINE. WILLIAM OLIVER LAKMUTH, Salford, England. Filed Oct. 15, 1910. Serial No. 587,158. (Cl. 28—21.)



1. The combination in a standing machine of a supporting frame; a rigid tube rotatably mounted therein and having openings in its body; a series of cradles rotatably mounted within said tube; a strand supplying bobbin in each cradle; and means for causing strands from the bobbins to be twisted together.

2. The combination in a stranding machine of a supporting frame; an integral cylindrical structure having in its body openings equally spaced circumferentially; a series of cradles rotatably mounted within said structure; a strand supplying bobbin in each cradle; and means for causing strands from the bobbins to be twisted together.

3. The combination in a stranding machine of a supporting frame; an integral supporting tubular structure rotatably mounted therein and having openings in its body; inwardly extending radial brackets fixed to the walls of said tubular structure and having bearings; cradles journaled in said bearings; bobbins respectively mounted in the cradles; and means for causing strands from the bobbins to be twisted together.

4. The combination in a stranding machine of a supporting structure; an elongated pipe rotatably carried by said structure and having a number of series of openings in its walls, the openings of each series being of the same size and equally spaced circumferentially of said pipe; cradles rotatably mounted in the pipe; and strand supplying bobbins respectively carried by cradles, with means for causing stranda from the bobbins to be twisted together.

5. The combination in a stranding or spinning machine, of a rotatable tube; a series of cradles pivoted within the tube and each having its axis coincident with the axis of the tube; a strand-supply bobbin in each cradle and each having its axis at right angles and below the axis of the tube; a member having perforations and covering the end of the tube; means for drawing the strands from the bobbins and through the respective perforations; and means for conveying the several strands to receive a twist.

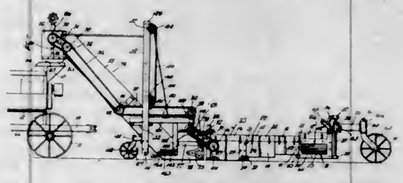
[Claims 6 to 8 not printed in the Gazette.]

1,073,053. COMBINATION PENCIL-CLIP. OLOF F. LAWSON and CHARLES DUNGAN, New Sharon, Iowa. Filed Dec. 6, 1912. Serial No. 735,298. (Cl. 24—3.)



A device of the class described comprising a clip body adapted to embrace a pencil for longitudinal sliding movement thereon, an inclined spring tongue formed on the said clip body, and a spring retracted tape-measure including a casing having a bracket thereon engageable with the said spring tongue.

1,073,054. PORTABLE CONVEYER. JOSEPH LEGRIS and EDGAR S. LEGRIS, Bourbonnais, Ill. Filed Oct. 14, 1911. Serial No. 654,742. (Cl. 193—4.)

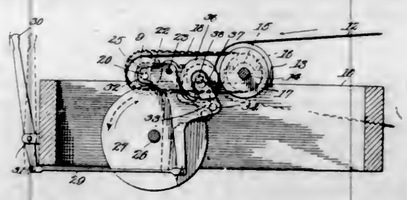


1. In a conveyer, a horizontal crib section, including a plurality of extensible sections, means locking the sections in extended relation to each other, means for vertically adjusting one end of said horizontal crib section, an endless conveyer apron mounted for travel in said crib section, means for tightening the said apron, means on one of the sections of the crib section for receiving the apron on retracting the said sections, and means for locking the sections in retracted relation to each other.

2. In a conveyer, a horizontal crib section including a plurality of extensible sections, means locking the sections in extended relation to each other, means for vertically adjusting one end of said horizontal crib section, an endless conveyer apron mounted for travel in said crib section, means for tightening the said apron, means on one of the sections of the crib section for receiving the apron on retracting the said sections, means for locking the sections in retracted relation to each other, and means for raising the other end of the horizontal crib section.

3. In a conveyer, a horizontal crib section including a plurality of extensible sections, means locking the sections in extended relation to each other, means for vertically adjusting one end of said horizontal crib section, an endless conveyer apron mounted for travel in said crib section, means for tightening the said apron, means on one of the sections of the crib section for receiving the apron on retracting the said sections, means for locking the sections in retracted relation to each other, means for raising the other end of the horizontal crib section, and ground wheels journaled in the said vertically adjustable means and also journaled in the last-named means.

1,073,055. GEARING. WILLIAM A. MAYHALL, Gloster, Miss. Filed Dec. 16, 1912. Serial No. 737,155. (Cl. 74—26.)

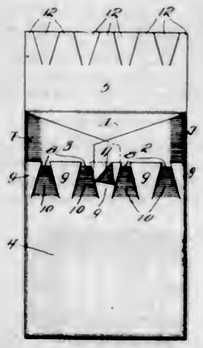


1. In a saw mill carriage feed mechanism the combination of a driving shaft, means for supplying power to said driving shaft, rocker arms, a mandrel mounted thereupon, a belt actuated by the driving shaft and adapted to actuate said mandrel, a friction wheel mounted upon and actuated by said mandrel, a friction wheel secured to said driving shaft, a saw mill carriage operating shaft, a friction wheel secured thereto, an intermediate friction wheel adapted to engage the driving shaft friction wheel and the friction wheel secured to the carriage operating shaft, said intermediate friction wheel carried by a frame pivoted to said rocker arm, means for shifting said rocker arm to thereby bring into engagement and disengagement the intermediate friction wheel and the mandrel friction wheel.

2. In a saw mill carriage feed mechanism, the combination of a driving shaft, a carriage operating shaft, a mandrel driven by said driving shaft, a friction wheel secured to said mandrel, a friction wheel secured to said carriage operating shaft adapted to be driven by said mandrel friction wheel, a friction wheel secured to said driving shaft, an intermediate friction wheel adapted to engage said driving shaft friction wheel, and said carriage operating shaft friction wheel, a rocker shaft and arms, said mandrel supported by said rocker arms, a frame pivotally connected to one of said rocker arms and carrying said intermediate friction wheel, means for shifting said rocker arm.

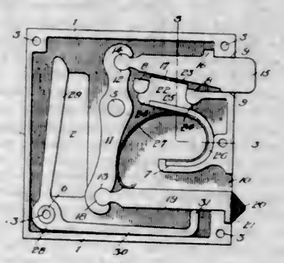
3. In a saw mill feeding mechanism, a belt driven driving shaft, a friction wheel secured thereon, a carriage operating shaft, a friction wheel secured thereon, an intermediate friction wheel adapted to be lowered into engagement with said friction wheel, a mandrel, a friction wheel secured thereon, said mandrel being belt driven by said driving shaft, rocker arms supporting said mandrel, a fork frame pivotally connected to one rocker arm and supporting said friction wheel, a rocker shaft, said rocker arm connected at its upper end thereto, said rocker arm provided with a horizontal lug at the upper end thereof for supporting said mandrel, and provided with a second horizontal lug for supporting said fork frame, a rod connected to the lower end of said rocker arm and a manually operated lever connected to said rod.

1,073,056. ENVELOP. HENRY H. MCFARLANE, Extension, British Columbia, Canada. Filed Apr. 23, 1913. Serial No. 763,109. (Cl. 229—82.)



An envelop including a body, flaps at the sides of the body, one of said flaps being gummed at its outer longitudinal margin, and both of the flaps being gummed along their inner margins and also transversely gummed between their transverse centers and upper edges, an end flap gummed to the marginal surfaces of the side flaps and having at its free edge two sets of tongues secured to the transverse gummed surfaces of the side flaps, one set of tongues being gummed on the inner faces thereof and the other set of tongues being gummed on the inner and outer faces thereof and a sealing flap adapted to be secured to the marginal surfaces of the side flaps and having its free edge provided with tongues adapted to be secured to the transverse surfaces of the side flaps and outer gummed faces of the first-named set of tongues and to be overlapped by and gummed to the inner gummed faces of the other set of tongues, the said inner and outer gummed tongues of the end flap being alternately arranged so as to be gummed to the inner and outer surfaces of the tongues of the sealing flap.

1,073,057. SLIDING-DOOR FASTENER AND BUFFER. EMIL SCHMID, Twining City, D. C. Filed July 1, 1913. Serial No. 776,750. (Cl. 70—102.)



1. In a door lock the combination with a casing, a latch, and a reciprocating buffer; of means for resisting the reciprocation of said buffer in both directions.

2. In a door lock the combination with a casing, a latch, and a reciprocating buffer; of a friction block for resisting the reciprocation of said buffer in both directions.

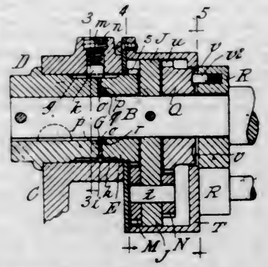
3. In a door lock the combination with a casing, a latch, and a reciprocating buffer; of a spring-pressed friction block for resisting the reciprocation of said buffer in both directions.

4. In a door lock the combination with a casing, a reciprocating latch, and a reciprocating buffer; of a friction block for resisting the reciprocation of said buffer, and a rock-lever pivotally connecting the inner ends of said latch and buffer.

5. In a door lock the combination with a casing, a latch, and a reciprocating buffer having an inclined friction surface; of a friction block bearing upon said inclined friction surface for resisting the reciprocation of said buffer in both directions.

[Claim 6 not printed in the Gazette.]

1,073,058. SAFETY CRANKING DEVICE FOR EXPLOSIVE-ENGINES. JOHN O. STANLEY, Holyoke, Mass. Filed Sept. 28, 1912. Serial No. 722,869. (Cl. 123—185.)



1. In a safety starting device for explosive engines, in combination the starting shaft having as a part thereof a cylindrical portion which is provided with a plurality of peripheral grooves, a gear-tooth-provided sleeve surrounding the shaft adjacent said cylindrical peripherally grooved portion of the latter and having a series of peripheral grooves in arrangement corresponding to and adapted to aline with those of such cylindrical portion, another sleeve loosely encircling the shaft having gear teeth and having ratchet teeth, and a fixture provided with a pawl for engagement in the latter teeth, an arm unitary and

revoluble with the shaft and carrying axle-united gear wheels which are in mesh with the gear teeth of both said sleeves, and a starting crank having a pawl adapted for engagement in the alined grooves of the first named sleeve and of the said cylindrical shaft portion.

2. In a safety starting device for explosive engines, in combination the starting shaft having a cylindrical portion which is provided with a plurality of peripheral grooves, a gear-tooth-provided sleeve surrounding the shaft adjacent said cylindrical peripherally grooved portion of the latter and having a series of peripheral grooves in arrangement corresponding to and adapted to aline with those of such cylindrical portion, a circular centrally apertured disk of slightly greater diameter than the said sleeve and cylindrical shaft portion, and having peripheral grooves in arrangement corresponding to those in such parts, having its location between such parts, having a lost motion engagement with the end of the sleeve and having a spring for rotatively moving it relatively to the aforenamed sleeve, another sleeve loosely encircling the shaft having gear teeth and having ratchet teeth, and a fixture provided with a pawl for engagement in the latter teeth, an arm unitary and revoluble with the shaft and carrying axle-united gear wheels which are in mesh with the gear teeth of both said sleeves, and a starting crank having a pawl adapted for engagement in the alined grooves of the first named sleeve and of the said cylindrical shaft portion.

3. In a safety starting device for explosive engines, the combination with the starting shaft having a cylindrical flange-like portion having a series of grooves therein, and a sleeve loose on the shaft adjacent said groove provided shaft flange and having a corresponding series of peripheral grooves adapted to aline with those of said flange, the crank having a hub surrounding said grooved shaft flange and sleeve, and having a pawl adapted to engage in alined grooves of said parts, and means operable by a reversed rotation of the starting shaft to cause a rotative movement of the sleeve relatively to the grooved shaft flange to force the pawl out of engagement with both of said grooved parts.

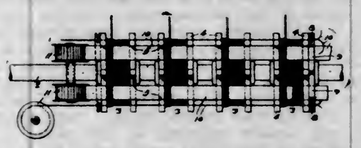
4. In a safety starting device for explosive engines, the combination with the starting shaft having a cylindrical flange-like portion having a series of grooves therein, and a sleeve loose on the shaft adjacent said groove provided shaft flange, and having a corresponding series of peripheral grooves adapted to aline with those of said flange, the crank having a hub surrounding said grooved shaft flange and sleeve, and having a pawl adapted to engage in alined grooves of said parts, a disk surrounding the shaft, between the end of the sleeve and the flange, of greater diameter than said parts, edgewise grooved corresponding to the aforesaid sets of grooves, having a lost motion engagement with the sleeve, and having a spring operative thereon to rotatively move it relatively to the sleeve, and means operable by a reversed rotation of the starting shaft to cause a rotative movement of the sleeve relatively to the grooved shaft flange to force the pawl out of engagement with both of said grooved parts.

5. In a starting device for explosive engines, in combination, the starting shaft having a flange thereon provided with a series of peripheral grooves, a sleeve loose about the shaft having a like series of peripheral grooves, the crank having a hollow hub loosely encircling the shaft flange and sleeve and having a pawl for engagement in alined grooves of the shaft flange and sleeve, and differential gearing actuated by the shaft on its reversed rotation to move the groove sleeve rotatively relatively to the shaft flange.

[Claims 6 to 9 not printed in the Gazette.]

1,073,059. METHOD OF MAKING COILS. RICHARD VARLEY, Englewood, N. J., assignor to Varley Duplex Magnet Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 14, 1911. Serial No. 654,752. (Cl. 175—21.)

1. A method of making electric coils which comprises winding a plurality of conductors into coils on a plurality of coil-formers, feeding a continuous binding element to the coil-formers and into contact with the conductors in the progress of winding, and adjusting the portions of the binding element between the coil-formers in such manner as to permit the necessary take-up or creep of said binding element on the coil-formers to occur without rupture of the binding element in the body of a coil.

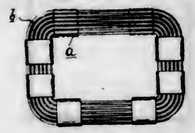


2. A method of making electric coils which comprises winding a plurality of conductors into coils on a plurality of coil-formers in substantially axial alinement, feeding a continuous binding element to the coil-formers and into contact with the conductors in the progress of winding and in a direction approximately parallel to the common axis of the coil-formers, and adjusting the portions of the binding element between the coil-formers in such manner as to permit the necessary take-up or creep of said binding element on the coil-formers to occur without rupture of the binding element in the body of the coil.

3. A method of making electric coils which comprises winding a plurality of conductors into coils on a plurality of coil-formers, feeding a continuous binding element to the coil-formers and into contact with the conductors in the process of winding, and providing reserve portions of said binding element between the coil-formers in order to permit the necessary take-up or creep of said binding element on the coil-formers to occur without rupture of the binding element in the body of a coil.

4. A method of making electric coils which comprises winding turns of a conductor on a suitable mandrel to form a layer, placing a binding element in contact with such layer, and holding the same in position with yielding tension so adjusted as always to be less than the breaking strength of said binding element, and winding another layer of conductor turns on the binding element thus held, whereby the creep of the binding element caused by the application of the second layer may occur without rupture of the binding element between the layers.

1,073,060. ELECTRIC COIL. RICHARD VARLEY, Englewood, N. J., assignor to Varley Duplex Magnet Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 14, 1911. Serial No. 654,754. (Cl. 175—21.)



1. An electric coil having a substantially angular opening forming corners in the body thereof, and comprising superposed layers of winding having a plurality of turns each, the turns of one layer lying in an alternate or staggered relationship with adjoining turns of another layer and the turns crossing one another at points intermediate the corners of the coil, and strips of binding element lying between different layers of winding at points intermediate the corners and the points of crossing of the turns of winding.

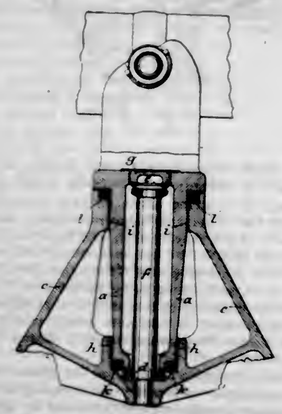
2. An electric coil having a substantially angular opening forming corners in the body thereof, and comprising superposed layers of winding having a plurality of turns each, the turns of one layer lying in an alternate or staggered relationship with adjoining turns of another layer, and crossing at points intermediate the corners of the coil, and a plurality of narrow superposed binding strips spaced from one another by intervening layers of winding and incorporated therein at points intermediate corners and the points of crossing of the turns of winding.

3. An electric coil having a substantially angular opening forming corners in the body thereof, and comprising superposed layers of winding having a plurality of turns each, the turns of one layer lying in an alternate or staggered relationship with adjoining turns of another layer and crossing at points intermediate the corners of the coil, a plurality of narrow strips of binding element spaced from one another by intervening layers of winding and incorporated in the coil at points intermediate corners and points of crossing of the turns of winding and a second binding element surrounding the coil and directly associated with the first named strips.

4. An electric coil having a substantially angular opening forming corners in the body thereof, and comprising superposed layers of winding having a plurality of turns each, the turns of one layer lying in an alternate or staggered relationship with adjoining turns of another layer and crossing one another at points intermediate the corners of the coil, narrow binding strips incorporated in the coil at points intermediate corners and the points of crossing of the turns of winding and having end portions extending beyond the end faces of the coil, and means surrounding the coil and binding the extending ends against the end turns of winding.

5. An electric coil having a substantially angular opening forming corners in the body thereof, and comprising superposed layers of winding having a plurality of turns each, the turns of one layer lying in an alternate or staggered relationship with adjoining turns of another layer and crossing one another at points intermediate corners of the coil, strips of binding element incorporated in the coil at points intermediate the corners and points of crossing of the turns of winding and having end portions extending beyond the end faces of the coil and overlapping one another, and means binding the overlapping ends against the end turns of winding.

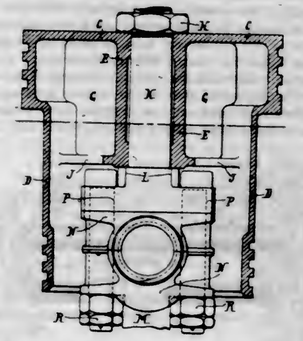
1,073,061. SUPPORT OF PIVOTED GUNS. KARL VÖLLER and CARL WANINGER, Dusseldorf, Germany. Filed Mar. 6, 1912. Serial No. 681,993. (Cl. 89—37.)



1. In a pivoted gun having a depending centrally-arranged pivot member, a frame therefor, bearings for said member, side bearings for said member, and springs for said side bearings, permitting a relative side movement between said frame and pivot member.

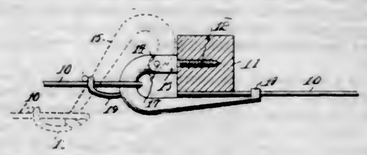
2. In a pivoted gun having a depending pivot pin, a frame for said pin, a pillar extending upwardly in said pin and supported by said frame, said pin having bearings on said pillar, and side bearings for said pin comprising ball bearings and springs surrounding said ball bearings.

1,073,062. TRUNK-PISTON. STEPHEN EVANS ALLEY, Glasgow, Scotland, and ROBERT MCGREGOR, London, England. Filed May 13, 1913. Serial No. 767,430. (Cl. 121—104.)



In a stepped trunk-piston of the type described, a closed head end, an axial sleeve integral therewith and extending therefrom into a portion of the piston of different diameter, radial webs connecting said sleeve with the shell of the piston, a threaded rod passing completely through the length of said sleeve and a nut thereon engaging the outer face of the closed end of the piston for securing the latter in position.

1,073,063. FENCE-GAP FASTENER. GEORGE M. ALTMAN, Parkers Landing, Pa. Filed Aug. 22, 1912. Serial No. 716,495. (Cl. 39—43.)



The combination of a post, a fence wire fixed to said post, a fence wire terminating in an eye, a pin anchored in said post, a J-shaped lever pivoted at one end to said pin and passed through said eye, said eye encircling the bight of said lever, said lever having the shank bearing upon the side of said post and being adapted to swing in a horizontal plane on said pin, and an upstanding downwardly opening hook on the free end of said lever straddling the first named fence wire, and engaging said fixed fence wire on the opposite side of said post from said pin.

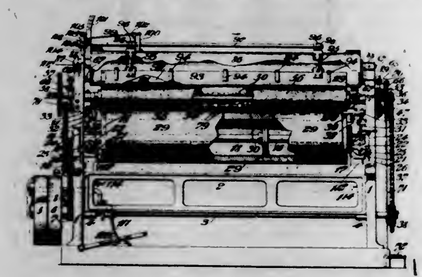
1,073,064. MACHINE FOR TREATING LEATHER. GEORGE V. ANDERSON, Philadelphia, Pa. Filed Nov. 4, 1911. Serial No. 658,480. (Cl. 91—39.)

1. In a machine of the character stated, a traveling bolster, a series of parallel rotatable brushes arranged to act against said bolster, means for revolving said brushes at progressively increasing speeds to feed in the direction of the travel of the bolster, a brush rotatably mounted at the discharge side of the machine and parallel to said former brushes, and means for revolving said latter brush in a direction opposite to that of said former brushes.

2. In a machine of the character stated, a traveling bolster, a series of parallel rotatable brushes arranged to act against said bolster, means for revolving said brushes at progressively increasing speeds to feed in the direction of the travel of the bolster, a brush rotatably mounted at the discharge side of the machine and parallel to said former brushes, means for revolving said latter brush in a direc-

tion opposite to that of said former brushes, and means for moving said latter brush toward and from the bolster.

3. In a machine of the character stated, a pair of parallel drums, an endless bolster carried around said drums, means for rotating said drums, a table arranged between said drums to have said bolster travel over it, a series of parallel rotatable brushes acting against said bolster and table, means for revolving said brushes at progressively increasing speed, a brush rotatably mounted at the discharge side of the machine, means for revolving said brush in a direction opposite that of the former brushes, pressure rollers journaled between the brushes to act against the bolster and table, and means for revolving said rollers.



4. In a machine of the character stated, a pair of parallel drums, an endless bolster carried around said drums, means for rotating said drums, a table arranged between said drums to have said bolster travel over it, means for adjusting the level of said table, a series of parallel rotatable brushes acting against said bolster and table, means for revolving said brushes at progressively increasing speed, a brush rotatably mounted at the discharge side of the machine, means for revolving said brush in a direction opposite that of the former brushes, pressure rollers journaled between the brushes to act against the bolster and table, and means for revolving said rollers.

5. In a machine of the character stated, a pair of parallel drums, an endless bolster carried around said drums, means for rotating said drums, a table arranged between said drums to have said bolster travel over it, a series of parallel rotatable brushes acting against said bolster and table, means for revolving said brushes at progressively increasing speed, a brush rotatably mounted at the discharge side of the machine, means for revolving said brush in a direction opposite that of the former brushes, means for moving said brush toward and from said bolster and table, pressure rollers journaled between the brushes to act against the bolster and table, and means for revolving said rollers.

[Claims 6 to 13 not printed in the Gazette.]

1,073,065. CALORIC ENGINE. LARS ANDERSON and EDWIN F. ENGEL, Chicago, Ill., assignors of one-half to George W. Stahl, Chicago, Ill. Filed July 3, 1911. Serial No. 636,712. (Cl. 60—17.)

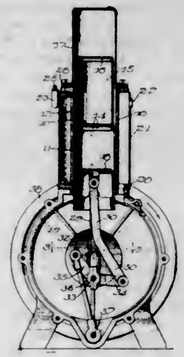
1. In an engine of the class described, the combination of a cylinder, a plunger movable therein, and means movable simultaneously therewith to vary the expansive space in the cylinder.

2. In an engine of the class described, the combination of a cylinder, a plunger movable therein, and a piston movable simultaneously with the plunger and at a different speed.

3. In an engine of the class described, the combination of a cylinder, a plunger movable therein, and a piston movable in the said plunger at the same time and at a different speed.

4. In an engine of the class described, the combination of a cylinder, a plunger movable therein, and a piston movable in the plunger at the same time in the same direction and at a different speed.

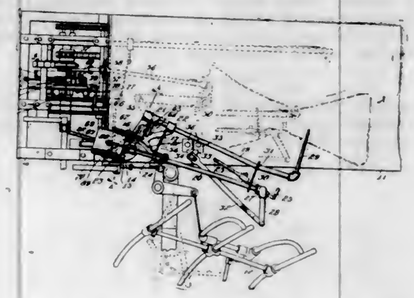
5. In an engine of the class described, the combination of a cylinder, a plunger movable therein, a piston movable



within the said plunger at the bottom thereof, and means to vary the pressure within the cylinder more rapidly than the movement of the plunger varies.

[Claims 6 to 28 not printed in the Gazette.]

1,073,066. BUNDLE-TRANSFER FOR GRAIN-BINDERS. LOUIS ANDERSON, Chicago, Ill. Filed Mar. 27, 1911. Serial No. 617,303. (Cl. 56—121.)



1. In a bundle transfer for grain binders in combination, a pair of substantially parallel arms of unequal length mounted to swing about an axis perpendicular to their length, the longer arm being rotatable, a fork mounted on the end of the shorter arm, said fork being rotatable about an axis parallel to the axis about which the arms swing, a finger projecting at a right angle from the end of the longer arm, said finger being movable by the turning of the arm on which it is mounted to a position in front of the fork parallel to the axis about which the fork turns, and means for turning the fork during the swinging of the arms.

2. A bundle reversing mechanism for grain binders and the like, comprising, in combination, a rotatable abutment bodily movable through a quadrant about an axis parallel to the axis of rotation of the abutment, a prong movable to a position wherein it is parallel to the axis of rotation of the abutment and thereafter movable with the abutment but upon a different radius, and means for rotating the abutment during the said movement.

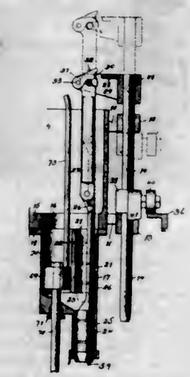
3. A bundle turning mechanism for grain binders and the like, comprising, in combination, a fork rotatable through a quadrant, and a prong movable to a position in front of the fork and parallel to the axis about which the fork rotates.

4. A bundle reversing mechanism for grain binders and the like comprising, in combination, a fork rotatable through a quadrant and bodily movable through a quadrant about an axis parallel to the axis about which the fork rotates and a prong movable with relation to the fork to a position in front of the fork and parallel with the said axis about which the fork rotates and movable with the fork through the said quadrant but on a different radius.

5. In a bundle transfer for grain binders and the like, in combination, a pair of arms transversely mounted upon a support, bundle grasping means carried by the said arms at one side of the support, a counterweight movably mounted upon one of the arms at the other side of the support and means for simultaneously operating the said bundle grasping means and shifting the counterweight.

[Claim 6 not printed in the Gazette.]

1,073,067. CAN-FILLING MACHINE. CHARLES H. AYARS, Salem, N. J., assignor to Ayars Machine Company, Salem, N. J., a Corporation of New Jersey. Filed Apr. 24, 1912. Serial No. 692,765. (Cl. 226—17.)



1. In a can-filling machine, the combination with a tank having a plurality of outlets, of a measuring shell at each tank outlet and each shell having two chambers with a communication between said chambers; a plunger in each chamber of each shell; means for moving the tank, shells and plungers in a circular path; means for carrying cans in a circular path with the tank and shells; means for moving one plunger in each shell to admit material from the tank; means for moving the other plunger in each shell to cut-off material between the tank and shell and to allow the material admitted to the shell to escape.

2. In a can-filling machine, the combination with a tank having a series of outlets arranged in a circular row, of a measuring shell at each outlet of the circular row of outlets and each shell having two chambers with a communication between said chambers; a plunger in each chamber of each shell; means for sustaining a series of cans with one can adjacent to each shell; means for moving the tank, shells and can-sustaining means in unison in a circular path and means for successively actuating the plungers in the shells during their circular movement to admit material from the tank then cut-off communication between the tank and shell chambers and discharge the material from the shells in succession.

3. In a can-filling machine, the combination with a circular tank having a plurality of bottom outlets, of a measuring shell adjacent to each tank outlet and each shell having two chambers,—said chambers being in communication; a plunger movable in one chamber of each shell at one side only of said point of communication; a plunger movable in the other chamber of each shell and crossing said point of communication between the chambers; means for sustaining a can beneath each shell; means for moving the tank, shells, the plungers in the latter and the can-sustaining means all in a circular path, and means during the circular movement of the tank and cans for actuating the plungers in each shell to admit material into one chamber of the shell from the tank and to then cut off communication between the other chamber and the tank while the material is discharged from the first-named chamber.

4. In a can-filling machine, the combination with a circular tank having a plurality of bottom outlets, of a measuring shell adjacent to each tank outlet and each shell having two chambers,—one chamber being longer than the other and communicating with same; a plunger in the shorter chamber; a plunger in the longer chamber; means for actuating the plunger in said longer chamber to throw the two chambers into communication with the tank; a can-sustaining means; means for moving the tank, shells and can-sustaining means in a circular path; means for actuating the plunger in the shorter chamber to admit material therein from the longer chamber, and means for actuating the plunger in the longer chamber to allow the material in the shorter chamber to escape.

5. In a can-filling machine, the combination with a rotatable tank having a plurality of outlets, of a measuring shell secured to the tank adjacent to each outlet of the latter and each shell having two chambers; two plungers in each measuring shell one plunger being in each chamber thereof; means extending up through the tank for raising and lowering one of said plungers as the tank revolves; means below the tank for raising and lowering the other of said two plungers as the said tank revolves whereby to admit material from the tank into the shells and discharge said material from the shells in succession and a can-carrying means movable with the shells and tank and sustaining a can adjacent to each shell.

[Claim 6 not printed in the Gazette.]

1,073,068. TYPE-WRITING MACHINE. WALTER E. BARNARD, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 21, 1912. Serial No. 704,975. (Cl. 197—177.)



1. The combination with a carriage, of a series of column stops carried by said carriage, a series of counter stops, any one of which can be brought into engagement with any of said column stops to position said carriage in any decimal place in a given column, and means for bringing a certain one of said counter stops into engagement with any one of said column stops, to position said carriage for any one of a number of columns.

2. The combination with a carriage, of a series of column stops, a series of counter stops coöperating with said column stops to determine the position of said carriage, a key, means operated thereby to hold one set of said stops in ineffective position, and a trip device operated by the counter stops to release a stop of said set and permit it to move to effective position.

3. The combination with a carriage, of a series of column stops, a series of counter stops coöperating with said

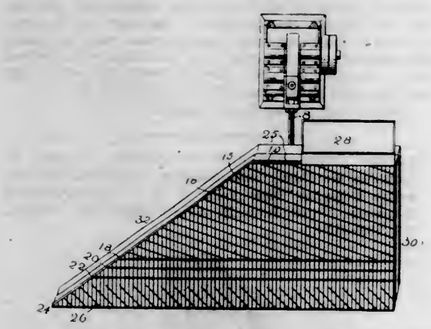
column stops to determine the position of said carriage, means for rendering one set of said stops ineffective while the other set remains effective, and selective means to enable one of the ineffective stops to oppose any selected stop of the effective series.

4. The combination with a carriage, of a series of column stops, a series of counter stops coöperating with said column stops to determine the position of said carriage, means for rendering one set of said stops ineffective while the other set remains effective, a spring tending to return one of said ineffective stops to interrupt one of said effective stops, and means for determining which of said effective stops shall be interrupted.

5. The combination with a carriage, of a series of column stops, a series of counter stops coöperating with said column stops to determine the position of said carriage, means for rendering one set of stops ineffective while the other set remains effective, a spring tending to return one of said ineffective stops to an effective position, a latch for preventing the return of said last-mentioned stop, and a trip for releasing said latch.

[Claims 6 to 20 not printed in the Gazette.]

1,073,069. DRY-ORE SEPARATOR. WILLIAM W. BONSON, Dubuque, Iowa, assignor to Bonson Dry Concentrator Company, Dubuque, Iowa, a Corporation of Arizona. Filed Mar. 25, 1911. Serial No. 616,972. (Cl. 83—54.)



1. In a dry ore separator, a table, a mesh on the table, means for forcing a current of air through the mesh, means for imparting motion to the table, riffles upon the mesh set substantially in a line with the throw of the table, and deflectors upon the riffles at an angle to the riffles.

2. In a dry ore separator, a table, a mesh on the table, means for forcing a current of air through the mesh, means for imparting motion to the table, riffles secured on the mesh in substantially a line with the throw of the table, deflectors secured on the riffles at an angle thereto, and means for setting the table with the riffles thereon at an angle to a horizontal plane.

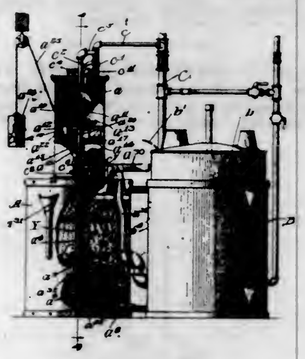
3. In a dry ore separator, a table, a mesh upon the table, means for forcing a current of air through the mesh, riffles secured on the mesh, deflectors upon the riffles at an angle thereto, means for imparting motion to the table in a line with the riffles and at an angle to the length of the deflectors, and means for setting the table at an incline both longitudinally and laterally.

4. In a dry ore separator a table, a mesh on the table, means for forcing a current of air through the mesh, means for imparting a throw to the table, riffles on the mesh set parallel to the throw of the table, deflectors on the riffles at an angle to the riffles, means for dividing the table longitudinally and means for forming an ore concentrating bed on one division of the table at right angles to the ends of the ore riffles.

5. In a dry ore separator, a table, a mesh on the table, means for forcing a current of air through the mesh, means for imparting motion to the table, riffles on the mesh set in a line with the throw of the table, deflectors on the riffles at an angle to the riffles, means for dividing the table, and means for forming an ore concentrating bed on one division of the table.

[Claims 6 to 8 not printed in the Gazette.]

1,073,070. ACETYLENE-GAS GENERATOR. MORTON G. BUNNELL, Chicago, Ill., assignor to The Mulloy Acetylene Gas Plant and Engineering Company, Limited, Chicago, Ill., a Corporation of South Dakota. Filed Mar. 24, 1905. Serial No. 251,740. (Cl. 48—36.)



1. An acetylene generator comprising a carbid receptacle, means for automatically feeding the carbid into the water, means for venting the entire gas space of the generator to the atmosphere, an opening for replenishing the carbid, a closure for sealing said opening, and connection between the closure and the venting means for insuring the operation of the latter and the venting of the entire generator before the closure is removed, together with means independent of said venting means, for carrying off the gas for use, said venting means being connected directly with the space above the carbid.

2. An acetylene generator comprising a carbid receptacle, means for automatically feeding the carbid into the water, means including a blow-off pipe for necessarily venting the entire gas space to the atmosphere before opening the generator to recharge with carbid, together with means independent of said venting means, for carrying off the gas for use, said venting means being connected directly with the space above the carbid.

3. An acetylene generator comprising a passage for equalizing the gas-pressure above and below the carbid, and means for necessarily venting the entire gas space to the atmosphere before opening the generator to recharge with carbid, together with a feed passage for feeding the carbid into the water.

4. An acetylene generator comprising a passage for equalizing the gas pressure above and below the carbid, means for insuring a venting of the entire generator to the atmosphere before opening the same for charging with carbid, means independent of said passage, for carrying off the gas for use, and a feed passage for feeding the carbid into the water, open to the gas at its lower end.

5. An acetylene generator comprising a vent leading from the top of the generating chamber, a sealed opening for recharging the machine with carbid, and means for necessarily opening said vent before unsealing said opening to introduce the fresh supply of carbid, together with means independent of said opening means, for necessarily venting the generator chamber when the water is drawn off, the space above the water being directly connected with the space above the carbid, whereby the pressure is equalized above and below the carbid.

[Claims 6 to 19 not printed in the Gazette.]

1,073,071. MILK-BOTTLE SEAL. WILLIAM D. HALL, Philadelphia, Pa., assignor, by direct and mesne assignments, to The Hall Milk Bottle Cap Company, a Corporation of New Jersey. Filed Aug. 21, 1912. Serial No. 716,251. (Cl. 215—14.)



1. A seal for receptacles comprising a pair of superposed disks, the upper disk having an opening and a flap adapted to lie therein, and a reinforcing element between the disks having a portion partially separated therefrom and connected to and movable with said flap.

2. A seal for receptacles comprising a pair of superposed disks, the upper disk having an opening and a flap adapted to lie therein, and a reinforcing body of woven material between the disks and having a portion partially separated therefrom and connected to and movable with said flap.

3. A seal for receptacles comprising a pair of superposed disks, the upper disk having a keystone-shaped opening and a correspondingly shaped flap adapted to fold therein, and a reinforcing disk of woven material between the aforesaid disks having a portion partially separated therefrom in line with said opening and connected to and movable with the flap.

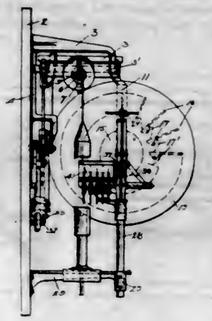
4. A seal for receptacles comprising a pair of superposed disks and intermediate layer of woven material, the upper disk being provided with an opening therein and forming a flap partially separated therefrom, and the said intermediate layer having a corresponding portion partially separated therefrom and united to said flap and serving as a reinforcing hinge on which the flap is adapted to be opened and closed.

5. As a new and improved article of manufacture, a seal for receptacles comprising a disk formed of a pair of superposed paper layers and an intermediate reinforcing layer of woven material suitably united together, the upper paper layer being slitted to provide a finger tab adapted to be bent upwardly therefrom and downwardly into the plane thereof, and said intermediate layer being correspondingly slitted to provide a free portion secured to said tab and reinforcing the same and also serving as a hinging member, whereby said tab may be continually bent without separation from the disk along its line of bend.

1,073,072. SCALE. FRANK S. HERDEN, Peoria, Ill. Filed Jan. 2, 1912. Serial No. 669,046. (Cl. 73—3.)

1. In a scale, in combination, a supporting frame, a scale beam thereon, a trough associated with one end of the scale beam, counterbalancing means at the other end thereof, counterweight means connected with the scale beam, the force of said counterweight being adapted to vary with the displacement, a disk upon the trough means for turning the disk driven by the flow of material through the trough, a tally box, a member stationary upon the frame driven from said disk and connected with the tally box.

2. In a scale, in combination, a supporting frame, a scale beam, a trough suspended from one end of the scale beam disposed at an angle to a horizontal plane, counterbalancing means at the other end of the beam, counterweight means connected with the scale beam, the force of said counterweight being adapted to vary with the displacement, a paddle wheel supported in connection with the trough and driven by the flow of grain therethrough, a disk driven from the paddle wheel, a tally box, a driven part mounted for rotation upon the supporting frame having bearing contact with the disk, and a driving connection with the tally box.



3. In a scale, in combination, a supporting frame, a scale beam thereon, a trough suspended from one end of the beam and disposed at an angle to a horizontal plane, counterbalancing means at the other end of the beam, counterweight means connected with the scale beam, the force of said counterweight being adapted to vary with the displacement, a paddle wheel supported in connection with the trough, and driven by the flow of grain therethrough, a disk driven from the paddle wheel, a tally box, a driven part stationary upon the supporting frame having a yielding bearing contact with the disk, and a driving connection with the tally box.

4. In a scale, in combination, a supporting frame, a scale beam, a frame supporting a trough connected with one end of the scale beam, counterbalancing means on the other end of the scale beam, counterweight means connected with the beam, the force of said counterweight being adapted to vary with the displacement, a disk connected with the trough and driven by the flow of material therethrough, a tally box, a driven part stationary upon the supporting frame having a bearing contact with the disk, and means connecting said driven part with the tally box adapted to operate the latter.

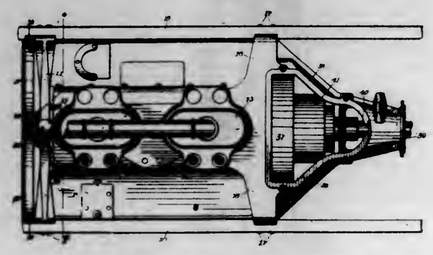
5. In a scale, in combination, a supporting frame, a scale beam, a frame suspended from one end of the scale beam, a trough supported in said frame, counterbalancing means on the other end of the scale beam, counterweight means connected with the scale beam, the force of said counterweight being adapted to vary with the displacement, a disk connected with the trough and driven by the flow of material therethrough, a tally box, a driven part stationary upon the supporting frame having a bearing contact with the face of the disk, and means intermittently connecting said driven part with the tally box, whereby the latter is driven from the former or may be disconnected therefrom.

[Claims 6 to 15 not printed in the Gazette.]

1,073,073. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 18, 1910. Serial No. 593,036. (Cl. 21—90.)

1. In a motor vehicle, the combination with the side frame members, of a crank case and motor base comprising a support for the motor cylinders and a pair of integral arms adjacent the rear end thereof resting on said frame members, a beam resting on said frame members adjacent the front end of said support, a longitudinal pivotal connection between said support and said beam, and means at the forward end of said support to support the same from said frame in case of failure of said pivotal connection.

2. In a motor vehicle, the combination with the frame comprising side members and a cross beam, of a motor support having a pivotal connection at its forward end with said cross beam and having arms at its rear end resting on said side members, and means adjacent the forward end of said support for supporting the latter from the frame when the pivotal connection is withdrawn or fails.



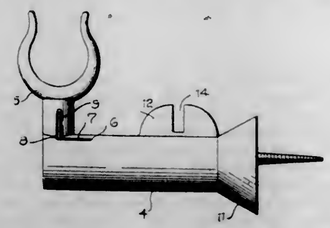
3. In a motor vehicle, the combination with the frame comprising side members and a cross beam, of a motor support having a pivotal connection at its forward end with said cross beam and having arms at its rear end resting on said side members, and a pair of arms at the forward end of said support adapted to rest upon said side members when the pivotal connection is withdrawn or fails.

4. In a motor vehicle, the combination with the side frame members, of a crank case and motor base comprising a support for the motor cylinders, a pair of arms at one end of said support resting on said frame members, a fly wheel for the motor located beyond said arms, rearward extensions on said arms around said fly wheel and provided with a bearing, a clutch supported in said bearing and in said fly wheel, a beam resting on said frame members adjacent the other end of said support, and a pivotal connection between said beam and said support.

5. In a motor vehicle, the combination with the side frame members, of a crank case and motor base comprising a support for the motor cylinders, a pair of arms at one end of said support resting on said frame members, a fly wheel for the motor located beyond said arms, rearward extensions on said arms around said fly wheel and provided with a bearing, a clutch supported in said bearing and in said fly wheel, a beam resting on said frame members adjacent the other end of said support, and a pivot pin connecting said support to said beam at the middle of the latter.

[Claims 6 and 7 not printed in the Gazette.]

1,073,074. CURTAIN AND SHADE SUPPORT. WILLIAM J. JONES, Minneapolis, Minn. Filed Feb. 14, 1913. Serial No. 748,484. (Cl. 156—22.)

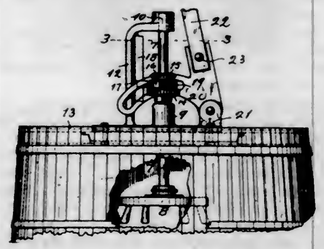


1. In a device of the character described, the combination of a cylindrical body having an enlarged portion at one end, a screw formed integral with said enlarged portion, a casing mounted upon the body and having one end engaging said enlarged portion, means for preventing rotary movement of the casing, and means carried by the casing for supporting the ends of a curtain pole and shade roller.

2. In a device of the character described, the combination of a cylindrical body having a cone shaped enlarged portion at one end, a screw formed integral with said enlarged portion, a casing mounted upon the body and having a cone shaped mouth coincident with the enlarged portion, means carried by the body for preventing rotary movement of the casing, and means carried by the casing for supporting a curtain pole and shade roller.

3. A device of the class described including a cylindrical body having a transverse opening at one end, a cone shaped enlarged portion at the other end, a casing mounted upon the body and having one end engaging the enlarged portion, said casing having a slot in the other end, a supporting member formed on the outer end of the casing and having an opening communicating with said slot, and a pin arranged within the slot in the casing and the opening in the body and adapted to be disposed in the opening in the supporting member to prevent rotary movement of the casing.

1,073,075. MECHANICAL MOVEMENT. CHRISTIAN KECK, Crescent Springs, Ky., assignor to C. Keck Manufacturing Co., Cincinnati, Ohio, a firm consisting of Christian Keck and Harry H. Hyams. Filed June 24, 1912. Serial No. 705,405. (Cl. 74—50.)



1. In a mechanical movement, the combination of a shaft, bearings to which it is fitted for rotary as well as for linear movement, a pinion rigidly mounted on it, and means to alternately rotate this pinion in opposite directions and to simultaneously move the same and the connected shaft back and forth in axial directions.

2. In a mechanical movement, the combination of a shaft, bearings to which it is fitted for rotary as well as for linear movement, an actuating device and complementary means in part on said device and on said shaft and whereby both are operatively connected to each other and in a manner that manipulation of the actuating device causes interaction of the complementary means so as to reciprocate the shaft simultaneously in axial, as well as in rotary direction.

3. In a mechanical movement, the combination of a shaft, bearings to which it is fitted for rotary as well as for linear movement, a pinion rigidly mounted on it, and operating means comprising a rack which is in mesh with this pinion and which serve to reciprocate the shaft in rotary as well as in axial direction.

4. In a mechanical movement, the combination of a shaft, bearings to which it is fitted for rotary as well as for linear movement, a pinion rigidly mounted on it, and an oscillating arm in operative engagement with the shaft to reciprocate the same in axial direction and provided with a rack which is in constant engagement with the pinion.

5. In a mechanical movement, the combination of a shaft, bearings to which it is fitted for rotary as well as for linear movement, a pinion rigidly mounted on it, an oscillating arm provided with a rack which meshes with the pinion, a connecting member moving with the shaft whereby this latter is connected to the arm to be moved thereby reciprocally in axial direction and means to hold this connecting member to a movement which is parallel to the movement of the shaft.

1,073,076. METHOD OF TREATING METALS. JAMES A. MCLARTY, Toronto, Ontario, Canada. Filed Mar. 21, 1913. Serial No. 756,032. (Cl. 148—23.)

1. The process of treating metals which comprises exposing metal articles to vapors produced from materials comprising water, an oily carbon compound and a carbohydrate material, the temperature of such articles being maintained at a point below a red heat.

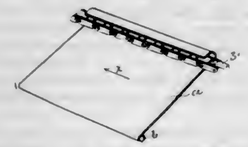
2. The process of treating metals which comprises placing metal articles in a container and exposing them therein to vapors generated by heat from material comprising water, an oily carbon compound and a carbohydrate material, the temperature of such articles being maintained at a point below a red heat.

3. The process of treating metals which comprises exposing metal articles to vapors produced from material comprising water, an oily carbon compound and a carbohydrate material, and after a period of exposure to such vapors igniting the vapors while still in contact with said metal articles.

4. The process of treating metals which comprises placing metal articles in a container and exposing them therein to vapors generated by heat from material comprising water, an oily carbon compound and a carbohydrate material, and after a period of exposure to such vapors igniting the vapors while still in contact with said metal articles.

5. A process of treating or preserving metals which comprises exposing a metal in a suitable container capable of being closed to vapors produced from a carbohydrate and an oily carbon compound, igniting such vapors and allowing contact of such metal for a suitable time with the gaseous products of such ignited vapors.

1,073,077. APPARATUS FOR BENDING WIRED SHEET METAL. CHARLES H. STEPHENSON and GEORGE R. PEARE, Lynn, Mass.; Sarah Slade Peare administratrix of said George Richard Peare, deceased. Filed June 24, 1910. Serial No. 568,746. (Cl. 153—59.)



1. The combination with a sheet metal bending machine having a rotary member provided with a groove for the passage of a bent edge of a sheet, of a flexible mandrel to prevent closing in of the lip of the bent edge during curving of the sheet.

2. The combination with a sheet metal bending machine having feeding rolls, and a loosely mounted member in axial alinement with one of said rolls, said member having a peripheral groove for the passage of a bent edge of a sheet, of a flexible mandrel to prevent closing in of the lip of the bent edge during curving of the sheet.

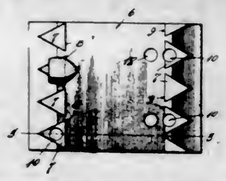
3. A sheet metal bending machine having oppositely driven rolls with elongated parallel peripheral portions, a lower roll having a loosely mounted peripherally grooved portion at one end, the opposite end of an upper roll having a loosely mounted peripherally grooved portion whereby the machine will bend a sheet having a wired edge projecting in one direction and having its other edge curved in the other direction.

4. A sheet metal bending machine having positively driven feeding rolls with elongated parallel peripheral portions, and peripherally grooved loosely mounted members in axial alinement with said rolls, said loosely mounted members being free to move axially relatively to said rolls.

5. In a sheet metal curving machine, a pair of feeding rolls with elongated parallel peripheral portions, a loosely mounted sleeve having a plurality of peripheral grooves and in axial alinement with one end of one of the feeding rolls, the other feeding roll having at the opposite end of the machine a loosely mounted sleeve having a wide peripheral groove.

[Claims 6 to 8 not printed in the Gazette.]

1,073,078. TIE-PLATE. EDWARD L. ADREON, Jr., St. Louis, Mo. Original application filed June 6, 1910, Serial No. 565,319. Divided and this application filed May 27, 1912. Serial No. 700,096. (Cl. 238—2.)



1. A tie plate, pressed from a single piece of material and provided with a series of separate projections, the inner walls of which are in alinement and form a maximum base for the edge of the rail, there being a spike opening formed through one of said projections, and an auxiliary opening formed through the rail-bearing surface of the plate whereby said tie plates may be used on rails of different widths.

2. As a new article of manufacture, a tie plate having a rail-bearing surface and adjacent the side margins of the rail-bearing surface a plurality of spaced-apart upward projections, there being spike openings formed through said projections and through the rail-bearing surface.

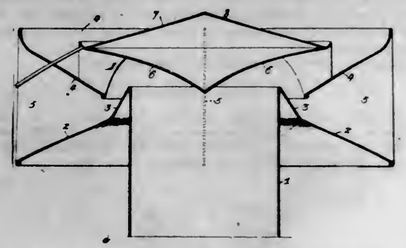
3. As a new article of manufacture, a tie plate having a rail-bearing surface and integral rows of spaced-apart projections on the upper surface of the tie plate contiguous to the side margins of the rail-bearing surface, there being spike openings formed through certain of the projections laterally removed from the line of the rail base, and there being spike openings formed through certain other of the projections and through the rail-bearing surface in line with the line of the rail base.

4. As a new article of manufacture, a tie plate constructed of a single piece of material having a rail-bearing surface and having upward projections which are spaced apart and located in alinement with each other and adjacent each side margin of the rail-bearing surface, each of said projections being substantially triangular-shaped in plan and their upper surfaces inclining downwardly and inwardly, there being spike openings formed through certain of said projections and the body of the plate wholly within the margins of said projections, there being spike openings formed through certain other of the projections and the body of the plate and located adjacent the inside margins of said projections, and there being spike openings formed through the rail-bearing surface removed from said projections, substantially as shown and for the purposes stated.

1,073,079. VENTILATOR. JAMES CHRISTIE, Philadelphia, Pa.; Alexander J. Christie and Elizabeth R. Christie executors of said James Christie, deceased. Filed May 29, 1911. Serial No. 629,988. (Cl. 98—4.)

A ventilator consisting of a central conduit; two annular deflectors surrounding said conduit; one of said deflectors consisting of two conical parts connected to each other and so arranged that the lines of the surface of the first part are at angle of approximately 30° to the line of the conduit while the lines of the surface of the second part are at an angle of approximately 60° to said line of the conduit; the lines of the surface of the second de-

flector being at an angle of approximately 60° to the lines of the surface of the second part of the first deflector; and the inner edge of the second deflector being spaced away from and below the top of the first deflector to provide an annular opening adjacent the middle of the first



part of the first deflector; with a cap in the form of two substantially conical structures joined base to base mounted over and projecting beyond the sides of the central conduit, the under part of said cap coacting with the second annular deflector to form an annular upwardly inclined passage.

1,073,080. METHOD FOR MAKING COLLARS. ARTHUR J. CUMNOCK, New York, N. Y. Continuation of application Serial No. 357,850, filed Feb. 18, 1907. This application filed Feb. 5, 1912. Serial No. 675,614. (Cl. 139—72.)

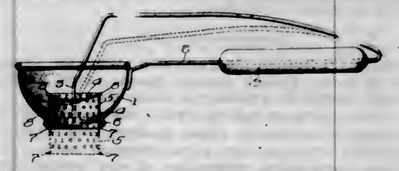


1. The method of forming collars, from a fabric by first weaving the fabric with rows of interwoven portions, the interwoven portions consisting of upper and lower layers of fabric woven together and strips of fabric arranged between the rows of interwoven fabric projecting beyond the interwoven portions in each direction, the width of said strips between the interwoven portions being sufficient to comprise the upper fold of one collar and the lower fold of a second collar and thereafter cutting the strip of fabric between the interwoven portions whereby there will be simultaneously formed the upper fold of one collar and the lower fold of another collar, substantially as specified.

2. The method of forming a collar from a tubular fabric by first interweaving together portions of the upper and lower layers of said fabric and arranging sufficient material between the interwoven portions to comprehend both an upper and lower fold of a collar and thereafter forming the collar by simultaneously cutting the upper fold of one collar and the lower fold of another collar from the material between the interwoven portions by cutting along a line beyond the interwoven portions and intermediate two interwoven portions, substantially as specified.

1,073,081. STRAINER. PETER G. JACOBSON, Chicago, Ill. Filed Apr. 3, 1913. Serial No. 758,680. (Cl. 210—16.)

1. A strainer having a substantially imperforate cupped wall portion provided with an opening at its bottom; a cylindrical wall portion reciprocable through said opening and provided with holes to constitute it a straining element and which cylindrical wall portion has a perforated cap; and a handle including a spring loop in its formation, one side of the loop being secured to the first aforesaid wall portion and the other side of the loop to the cylindrical wall portion, the handle normally operating to hold the straining element within the cupped wall portion.



2. A strainer having a cupped wall portion provided with an opening at its bottom; a space inclosing wall portion reciprocable through said opening and provided with holes to constitute it a straining element; and a handle including a spring loop in its formation, one side of the loop being secured to the first aforesaid wall portion and the other side of the loop to the second aforesaid wall portion, the handle normally operating to hold the straining element within the cupped wall portion.

3. A strainer having a substantially imperforate cupped wall portion provided with an opening at its bottom; a cylindrical wall portion reciprocable through said opening and provided with holes to constitute it a straining element and which cylindrical wall portion has a perforated cap; and means for effecting relative reciprocal movement between said wall portions.

4. A strainer having a cupped wall portion provided with an opening at its bottom; a space inclosing wall portion reciprocable through said opening and provided with holes to constitute it a straining element; and a spring device normally projecting the strainer within the cup space.

5. A strainer having a substantially imperforate cupped wall portion provided with an opening at its bottom; and a cylindrical wall portion reciprocable through said opening and provided with holes to constitute it a straining element and which cylindrical wall portion has a perforated cap.

[Claim 6 not printed in the Gazette.]

REISSUES.

13,613. PROCESS FOR RECLAIMING VULCANIZED RUBBER WASTE. CHARLES S. HELLER, Barberton, Ohio, assignor to The Moore Architectural and Engineering Company, Akron, Ohio, a Corporation of Ohio. Filed Sept. 29, 1911. Serial No, 652,010. Original No. 978,584, dated Dec. 13, 1910, Serial No. 545,960. (Cl. 18—52.)

1. The improved process for reclaiming vulcanized rubber waste, comprising subjecting the vulcanized rubber waste to the action of a reclaiming solution in the presence of heat and simultaneously subjecting the same to an electrolytic action of a current of electricity, followed by subjecting the rubber to a thorough cleansing operation to subsequently remove from the rubber waste all traces of the reclaiming solution.

2. The improved process for reclaiming vulcanized rubber waste, comprising the subjecting of the vulcanized rubber waste to the action of a reclaiming solution comprising caustic alkali in the presence of heat and simultaneously subjecting the same to the electrolytic action of a current of electricity of a predetermined degree of intensity and quality passed through the reclaiming solution and followed by subjecting the rubber to a thorough cleansing operation.

3. The improved process of reclaiming vulcanized rubber waste, comprising the subjecting of the vulcanized rubber waste to the action of a reclaiming solution consisting of caustic alkali and a metal salt in the presence of heat, and simultaneously subjecting the same to the electrolytic action of a current of electricity of a predetermined degree of intensity and quality passed through the reclaiming solution, followed by subjecting the rubber to a thorough cleansing operation to remove from the rubber waste all traces of the reclaiming solution.

4. The herein described process of reclaiming vulcanized rubber waste, which consists in treating the vulcanized rubber waste with an electric current while subjecting it to the action of a reclaiming solution, and removing the reclaiming solution from the reclaimed rubber.

5. The herein described process of reclaiming vulcanized rubber waste, which consists in treating the vulcanized rubber waste with an electric current while subjecting it to the action of caustic alkali, and removing the reclaiming solution from the reclaimed rubber.

6. The herein described process of reclaiming vulcanized rubber waste, which consists in treating the vulcanized rubber waste with an electric current while subjecting it to the action of caustic alkali and a metal salt, and removing the reclaiming solution from the reclaimed rubber.

7. The herein described process of reclaiming rubber waste, which consists in treating the rubber waste with an electric current while subjecting it to the action of caustic alkali and an iron salt, and removing the reclaiming solution from the reclaimed rubber.

8. That improvement in the art of reclaiming rubber which consists in subjecting the vulcanized rubber waste to the action of a solution made up from a caustic alkali and ferric sulfate in the presence of heat and under pressure and subjecting said waste simultaneously to agitation and the action of an electric current and afterward washing said waste to remove the reclaiming agent therefrom.

9. That improvement in the art of reclaiming rubber which consists in subjecting vulcanized rubber waste in a comminuted condition to the action of a solution made up from a caustic alkali and ferric sulfate, continuously heating said solution and subjecting the same to pressure and agitation and simultaneously to the action of an electric current, and afterward thoroughly washing said waste to remove all trace of the reclaiming agents therefrom.

10. That improvement in the art of reclaiming rubber, which consists in commingling vulcanized rubber waste in a comminuted condition with a solution made up from a caustic alkali and ferric sulfate, forcing said commingled waste and solution continuously through a heated receptacle to maintain said solution and waste at a proper temperature to cause the separation of the vulcanizing agents therefrom and simultaneously subjecting said waste to the action of an electric current and afterward withdrawing said solution and rubber waste from said receptacle and washing said waste to remove the reclaiming agents therefrom.

11. That improvement in the art of reclaiming rubber, which consists in commingling vulcanized rubber waste in a comminuted condition with a solution made up as follows for each one hundred (100) pounds of rubber waste twenty-one (21) pounds of caustic alkali, six hundred (600) pounds of water and one (1) pound of ferric sulfate, maintaining said solution in a heated condition and under pressure and subject to agitation during the reclaiming process, and simultaneously passing an electric current through said rubber waste while contained in said solution and afterward washing said waste to remove the reclaiming agents therefrom.

13,614. ROCK-DRILLING ENGINE. JOHN GEORGE LEYNER, Denver, Colo., assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed May 26, 1913. Serial No. 769,817. Original No. 651,487, dated June 12, 1900, Serial No. 751,037. (Cl. 121—20.)

1. In a rock-drilling engine, the combination with the cylinder and the piston, of a front cylinder-head comprising an integral cylindrical member adapted to be threaded to the end of said cylinder, an axial bore through said head, a counterbore at its inner end, a chuck-bearing ring rotatably seated in said bore, and a drill-holding chuck rotatably mounted in said chuck-ring, substantially as described.

2. In a rock-drilling engine, the combination with the cylinder, the piston and the cylinder-head, of a rotatable chuck-ring, axially supported in said cylinder-head, and a drill-holding chuck supported by said chuck-ring, with a rock-cutting drill-bit loosely supported in said chuck, and having the shank extending into said chuck and adapted to be impinged by the reciprocative movement of the piston, substantially as described.



3. In a rock-drilling engine the combination with the cylinder, the piston, and the front cylinder-head having an axial bore, a larger counterbore adjacent to its cylinder end, a cruck-ring in the counterbore of said cylinder-head, a second counterbore intermediate of said axial bore and said first-named counterbore, a steel ring bearing against the outer end of said chuck ring, a spring in said second counterbore between said steel ring and a shoulder formed in said cylinder-head, a drill-holding chuck rotatably mounted in said chuck-ring; a drill-bit adapted to be held loosely by said chuck, and a chuck-sleeve rotatable in said axial bore of said cylinder-head and adapted to be manually turned to lock said drill-bit loosely and removably to said chuck, substantially as described.

4. In a rock-drilling engine the combination with the cylinder and the piston, of the front cylinder-head, the chuck-ring therein, the chuck supported by said chuck-ring; the chuck-sleeve surrounding the chuck and extending beyond the end of said cylinder-head far enough to be turned by the hand of an operator, the spring and the spring-ring, substantially as described.

5. In a rock-drilling engine the combination with the cylinder and the piston, of the front cylinder-head, the chuck therein, the chuck-ring for supporting the same; a fluted nut in the end of said chuck, a hammer-bar forming an extension of said piston and having a fluted end fitting the fluted nut in said chuck; a drill-bit loosely supported by said chuck and extending into the reciprocating path of said piston and means for manually locking and for unlocking said drill-bit to and from said chuck, substantially as described.

6. In a rock-drilling engine the combination with the cylinder and the piston, of the front cylinder-head, a drill-holding chuck rotatably supported axially therein, a drill-bit operatively supported by said chuck, means for manually locking said drill-bit to and for unlocking it from said chuck and means connected with the said piston for rotating or turning said chuck and drill-bit step by step, substantially as described.

7. In a rock-drilling engine the combination with a cylinder, a piston, a valve-chest and valve and a front cylinder-head, of a rock-cutting drill-bit having an axial hole through it from end to end; a water-conveying tube extending into said drill-bit and arranged and adapted to deliver a supply of water under pressure; a supply of air flowing from said valve-chest to said drill-bit and mingling with and flowing with said water to the bottoms of holes in rock while drilling them, and an automatically opening and closing valve arranged and adapted to be opened and closed by the pressure of the air and to allow only a suitable amount of air to flow to the drill-bit, to eject, when combined with said water, the rock-cuttings from the hole being drilled, substantially as described.

8. The combination in a rock-drilling engine of the cylinder, the piston, the front cylinder-head and the drill-holding chuck and chuck-sleeve with a drill-bit adapted to be operatively supported by said chuck and chuck-sleeve and having a shank and two oppositely-arranged

projections formed on said shank near its end and an axial perforation through said drill-bit and means connected with said chuck and chuck-sleeve for rotating said drill-bit step by step, substantially as described.

9. In a rock-drilling engine the combination of the cylinder, the piston, the cylinder-head, the chuck-ring mounted in said cylinder-head, and the chuck and chuck-sleeve, with a drill-bit of any form of cross-section, having a striking end adapted to fit freely in said chuck and arranged to be operatively impinged by and intermittently rotated by said piston, a projection at substantially diametrically-opposite points, adjacent to said drill-point's striking end, adapted to loosely lock said drill-bit rotatably to said chuck and against longitudinal displacement from said chuck and chuck-sleeve, and a passage or conduit from the striking end of said drill-bit to its cutting-point adapted to convey a portion of the piston's actuating fluid from said cylinder to the cutting-point of said drill-bit and to the bottom of the hole being drilled, substantially as described.

10. In a rock-drilling engine, a piston having an extension bar, a rock-drill bit having a drill shank of any merchantable form of cross-section and having a cutting-point of any desired form, a shank end adapted to be struck by the extension bar of said piston, a lug or shoulder adjacent to said end and a closed passage arranged to form part of said drill-bit extending from its striking end to its cutting-point, the front wall of the piston chamber through which the extension bar reciprocates, the cylinder head, the chuck and chuck sleeve therein cooperating with said lug or shoulder, said extension bar having a splined connection with said chuck.

11. In a rock-drilling engine a rock-cutting drill loosely positioned and supported in the drilling-engine and arranged to be impinged upon one end by a reciprocal movement of the piston, an axial hole through said rock-cutting drill from end to end arranged and adapted to convey a portion of the piston's actuating fluid directly from the cylinder to its cutting-point to blow out from the hole being drilled the rock-cuttings, and means for mingling a supply of water with said actuating fluid in said rock-cutting drill, substantially as described.

12. In a rock-drilling engine for expelling rock-cuttings from holes while drilling them, consisting of an operative drilling-engine having a rock-cutting drill arranged and adapted to extend into the cylinder of the drilling-engine and to be struck and actuated to cut rock by the reciprocative movements of the piston impinging against its inner end and in which the cutting drill has an axial hole from end to end, and the piston's actuating fluid is controllably supplied automatically to the axial hole in said rock-cutting drill, and means for leading a supply of water under pressure into the axial hole in said drill-bit and for mingling the air and water together and for discharging them in the bottom of holes in rock while drilling them, substantially as described.

13. In a rock-drilling engine a rock-cutting drill arranged to be struck by the reciprocal movements of the piston, and provided with a projection, adjacent to its striking end, adapted to form a locking, securing and positive means for holding and rotating said drill-bit, and a passage axially through said cutting drill arranged to conduct a portion of the piston's actuating fluid from the cylinder to the cutting-point of said rock-cutting drill, and a valve for controlling the supply of actuating fluid flowing to the drill-bit, substantially as described.

14. In a rock-drilling engine, a drill-bit arranged to project into the cylinder-head of the drilling-engine and arranged to be operatively struck upon its end by the reciprocal movement of the engine's piston and containing a passage in communication with said engine's cylinder and leading to said drill-bit's cutting-point, and a water passage or tube through said drilling-engine to said passage in said drill-bit, means to provide a suitable water supply for said passage and said drill-bit, whereby a commingled supply of the cylinder's actuating fluid and water is conveyed from said drilling-engine through said drill-bit to its cutting-point and to the bottom of holes in rock while drilling them, substantially as described, the piston extension, a wall separating the piston chamber from the drill-bit and through which said extension reciprocates.

15. In a rock-drilling engine, a suitable cylinder, a reciprocative piston, a suitable controlling-valve and a suitable feeding mechanism, a drill-bit arranged to project into said cylinder into the reciprocal path of said piston, and arranged and adapted to be struck directly on its cylinder-invading end by the reciprocal movements of said piston, and containing a passage or conduit for the actuating fluid of said rock-drilling engine, opening into or communicating with said engine's cylinder and extending through said drill-bit to or adjacent to its cutting-point, a water conveying tube or conduit connecting with the said passage or conduit in said drill-bit, means to provide a suitable water supply and to mingle with it a portion of the cylinder's actuating fluid, substantially as described, the piston extension, and a packing wall forming the outer head for the piston chamber and through which said piston extension reciprocates.

16. In a rock-drilling engine, the combination of the cylinder, the piston, the cylinder-heads, the chuck-sleeve, the chuck and the hollow drill, with a liquid or water conveying tube through said piston connected with said hollow drill and a valve-controlled passage from said cylinder adapted to allow a suitable supply of the cylinder's actuating fluid to flow into said hollow drill, whereby a combined stream of liquid and actuating fluid is caused to flow through said drill-bit to the bottom of holes while drilling them, and means, including a valve, for controlling the volume and pressure of said liquid and actuating-fluid stream, substantially as described.

17. In a rock-drilling engine the combination with the cylinder, of a piston having an extension hammer-bar, the front cylinder-head, the chuck-sleeve, the chuck, the chuck-ring and the cupped washers and rings surrounding said hammer-bar, with a hollow drill-bit held loosely by said chuck-sleeve and chuck, and arrange to be instantly withdrawn from or inserted in said chuck-sleeve and chuck, and provided with means for defining its operative position in said chuck-sleeve and chuck and to said cylinder and piston and with a fixed tube projecting from the rear end of said cylinder freely through said piston and extending into said drill-bit, substantially as described.

18. In a rock-drilling engine the combination with the cylinder and the piston, of a hollow drill-bit projecting into said cylinder into the reciprocating path of the piston and arranged to convey a portion of the piston's actuating fluid to the bottom of holes while drilling them, with a water-tube projecting into said drill-bit for supplying water under pressure and mingling it with the actuating fluid of said drill-bit and discharging into the bottom of holes while drilling them a combined stream of actuating fluid and water, and means for preventing the water from entering said cylinder, substantially as described.

19. In a rock-drilling engine the combination with the piston, the cylinder and the valve and chest of the drill-bit, the supplementary cylinder-head, the rifle-bar and the rear cylinder-head having a water-inlet tube secured thereto and projecting therefrom loosely through the axial center of said rifle bar and said piston into the striking end of said drill-bit, and an actuating-fluid passage leading from the valve-chest and cylinder to said drill-bit, substantially as described.

20. In a rock-drilling engine, the combination with the drill-bit, the cylinder, the valve-chest and valve, the piston and the rifle-bar, axial holes through said rifle-bar and piston, a water-inlet tube projecting loosely through said axial holes into said drill-bit adapted to conduct a stream of water under pressure through said tubes and drill-bit, a valve for controlling the flow of said water, and a valve-controlled actuating fluid passage leading from said valve-chest and cylinder into said drill-bit and means for preventing a harmful flow of water into said cylinder, substantially as described.

21. In a rock-drilling engine, the combination of a piston having a rifle-bar, a drill-bit having an axial hole through it, a cylinder having a water-conveying tube projecting through said rifle-bar and piston into said drill-bit, a water passage to said tube, a valve

adjacent to said tube for controlling said passage, means for mingling said water with a portion of the engine's actuating fluid, means for conducting said actuating fluid and water in a combined stream to the bottom of holes in rock while drilling them, and means for preventing a harmful flow of water into said cylinder, substantially as described.

22. In a rock-drilling engine the combination with the hollow drill-bit, of the chuck-sleeve, the chuck, the cylinder; the piston having a hammer-bar extension; the rifle-bar and the rear cylinder-head having a water-inlet tube projecting through said rifle-bar and piston into said drill-bit, a passage around said tube from said cylinder into said drill-bit, and means, including cupped washers arranged to surround the piston's hammer-bar for preventing a harmful flow of water into said cylinder, substantially as described.

23. In a rock-drilling engine, the combination with the cylinder and the piston, of a hollow drill-bit mounted to be turned step by step by said piston, a water-inlet tube projecting into said drill-bit and a valve-controlled actuating-fluid passage from said cylinder into said drill-bit, substantially as described.

24. In a rock-drilling engine, the combination with the cylinder, the piston, the cylinder-head and the sleeve, of a hollow drill-bit projecting into said cylinder means for conveying a portion of the cylinder's actuating fluid to its cutting point, of a conduit adapted to convey a stream of water under pressure to said drill-point, a rear cylinder-head, a passage in said cylinder-head for said water, a valve adapted to control the admission and volume of said water, and a water-inlet coupling adapted to connect with a source of water-supply on either side of said cylinder, substantially as described, a wall separating the piston chamber from the drill-bit, said means for conveying a portion of the cylinder's actuating fluid consisting of a conduit passing around said wall.

25. In a rock-drilling engine the combination with the piston having an axial hole, the drill-bit, the rifle-bar having an axial hole and the back cylinder-head carrying a water-inlet tube projecting through the axial bores of said rifle-bar and piston, with a water-inlet coupling rotatably mounted on said cylinder-head, a passage from said coupling to said tube and means, including a nut and thread for packing said coupling against leakage, substantially as described, said piston being provided with a hollow extension extending the said axial hole beyond the piston chamber.

26. In a rock-drilling engine, the combination of the hollow drill-bit, the piston, the rifle-bar, and the back cylinder-head, with a tube projecting loosely through bores in said rifle bar and piston, and with a water inlet coupling having a hose or pipe connecting nipple, and a passage from said coupling to said tube, substantially as described, said piston being provided with a hollow extension the bore of which communicates with the piston bore and extends beyond the piston chamber.

27. In a rock-drilling engine, the combination of the hollow drill-bit, the piston, the rifle-bar, and the back cylinder-head, with a tube projecting loosely through bores in said rifle-bar and piston, and with a water-inlet coupling having a hose or pipe connecting nipple, and a passage from said coupling to said tube, substantially as described, said piston being provided with a hollow hammer-bar extension the bore of which communicates with the piston bore and extends beyond the piston chamber.

28. In a rock-drilling engine, the combination of the supplementary cylinder-head, the rear cylinder-head secured thereto, the water-inlet tube, the rifle-bar revoluble on said tube, the piston arranged to reciprocate and turn on said tube, and the hollow drill-bit surrounding the discharging end of said tube, substantially as described, said piston being provided with a hollow extension inclosing said tube and extending beyond the piston chamber.

29. In a rock-drilling engine, the combination with the back cylinder-head of the water-inlet coupling rotatively mounted thereon, the washer at its sides and the tightening-nut, substantially as described, a rifle-bar, piston, and piston extension containing a hollow from the rear end of the rifle-bar to the forward end of the piston extension and a water-pipe extending into said hollow.

30. In a rock-drilling engine, the combination with the cylinder of the piston, the hollow drill-bit, the rifle-bar and the water-inlet tube projecting through said rifle-bar and piston into said drill-bit, with the back cylinder-head, the water-inlet passage therein, the water-inlet coupling and the valve for controlling said water-inlet passage, substantially as described, said piston having a hollow extension bar reciprocating through the front cylinder wall, and said water-inlet tube extending into said piston extension.

31. In a rock-drilling engine, the combination of the cylinder, the piston, the rifle-bar and the pawls, with the supplementary cylinder-head and back cylinder-head, the pawl trunnion-supporting ring, a water-inlet tube, a threaded hole in said cylinder and into said supplementary cylinder-head; a cap-screw in said threaded hole and an oil-hole leading from said cap-screw hole to said pawls and rifle-bar, substantially as described, said piston having an extension projecting through the front cylinder wall, and said water-inlet tube extending into the piston and piston extension to a point beyond the front cylinder wall.

32. In a rock-drilling engine, the combination of the cylinder and the piston, with the front cylinder-head having a drill-holding chuck rotatably mounted therein, and arranged to be turned step by step by said piston, a drill-bit operatively supported by said chuck and arranged to conduct a portion of the cylinder's actuating fluid and a stream of water from the engine's cylinder to its cutting-point, a chuck-sleeve surrounding said chuck, a collar on said chuck-sleeve, a ring mounted on said collar, a spring between said ring and an abutment in said cylinder-head, and means whereby the ring may be moved by the collar of said chuck-sleeve to compress said spring, substantially as described.

33. In a rock-drilling engine, the combination of the cylinder, the piston and the front cylinder-head, a rock-cutting drill-bit having projections near the end of its shank, a drill-bit-supporting mechanism consisting of a chuck comprising a cylindrical tube containing two oppositely-arranged slots in its forward end, a fluted axial hole in its opposite end, a hammer-bar extension to said piston, a fluted portion at its end fitting loosely in said fluted end of said chuck, projections on said chuck, means for rotatably supporting said chuck in said cylinder-head, a chuck-sleeve surrounding freely said chuck; stops on said chuck-sleeve arranged to engage said projections of said chuck, an end flange extending over the end of said chuck, and an oblong hole axially through the flanged end of said chuck sleeve, adapted to fit loosely said drill-shank and lugs, substantially as described.

34. In a rock-drilling engine, the combination of the cylinder, the piston, the front and rear cylinder-heads, the rifle-bar-rotating mechanism and the feed mechanism, with a water-conveying tube projecting from the rear cylinder-head through said rifle-bar and piston, a drill-holding chuck and chuck-sleeve, revolubly mounted in said cylinder-head; an axial bore through said sleeve and chuck, a drill-bit operatively supported by said sleeve and chuck, and arranged to be operatively rotated step by step by said piston and chuck, and provided with a conduit or passage communicating with said cylinder and with the discharge end of said water-conveying tube and arranged and adapted to convey a combined and commingled stream of water and actuating fluid to the cutting-point of said drill-bit, and having said drill-bit project into the reciprocal path of said piston and arranged to be impinged by said piston, a collet loosely mounted on said chuck-sleeve, a ring mounted on said collet, a spring arranged between said ring and an abutment in said cylinder-head, substantially as described.

35. In a rock-drilling engine, the combination of the cylinder, and the front cylinder-head, of a piston in said cylinder having an extended bar adapted to strike on the shank end of a rock-cutting drill-bit and a series of flutes

cut around said bar, a drill-holding chuck mounted loosely on the fluted portion of said bar, a rock-cutting drill-bit, means for removably securing said drill-bit to said chuck, and means for rotating said piston and chuck and rock-cutting drill-bit, substantially as described.

36. In a rock-drilling engine, the combination of the cylinder and the front cylinder-head, with a rock-cutting drill-bit, a drill-holding chuck, arranged to hold the drill loosely and in such a manner that it can be instantly inserted or removed from said chuck, manually, a piston in said cylinder having a hammer-bar extension adapted to strike the shank end of said drill-bit, means for rotating said piston step by step and means for rotating said drill-bit step by step from said piston, substantially as described.

37. In a rock-drilling engine, the combination of the cylinder and the cylinder-head, with the manually-operating drill-bit-holding chuck, a piston having a hammer-bar extension; cupped washers mounted on said hammer-bar, a ring between said cupped washers, a ring on the outside of each cupped washer, a rubber buffer-ring at the side of one ring and means for compressing the cupped washers around said hammer-bar, substantially as described.

38. In a rock-drilling engine the combination of the cylinder and the drill-bit manually-operating chuck, the piston arranged to strike said drill-bit; means for rotating said piston and drill-bit and means including a spring for cushioning the blow of the piston on the drill-bit when the drill-bit is out of cutting relation to rock, substantially as described.

39. In a rock-drilling engine the combination with the cylinder, the piston and the front cylinder-head, of the hollow drill-bit and the drill-chuck and sleeve, means including a rifle-bar for rotating said drill-bit step by step, means including a hand-operating device for securing said drill-bit instantly to or for removing it instantly from said drill-holding chuck, means including a spring for cushioning the spent blow of the piston against said drill-bit, means including a water-conveying tube and a water-supply system under pressure for delivering a supply of water into said drill-bit, means including air-passages for delivering a suitable supply of actuating fluid into the water and in said drill-bit, means including packing-rings for keeping the water out of said cylinder and means for operating and oiling the moving parts of said drilling-engine, substantially as described.

40. In a rock-drilling engine, the combination with the cylinder, the piston and its extending hammer-bar, of the rifle-bar and pawls, and valved water-conveying tube, the water-inlet coupling, the cylinder-head and the drill-holding chuck members arranged to be rotated by said piston, the hollow drill-bit supported by said chuck mechanism, the valve-controlled actuating-fluid passages leading to said hollow drill-bit, the buffer-ring and the cupped washers and their supporting-rings surrounding said hammer-bar, substantially as described.

41. In a rock-drilling engine the combination with the cylinder and the piston, of the front cylinder-head, the drill-holding chuck and chuck-sleeve, the drill-bit having the projecting lugs, the slots in the chuck in which said lugs are confined, and the end flange on the chuck-sleeve for confining the lugs to the slots of the chuck, substantially as described.

42. In a rock-drilling engine the combination of an operative cylinder, an operative valve mechanism, a piston arranged to rotate step by step as it reciprocates in said cylinder and a suitable feed mechanism, with a drill-bit loosely and unclampably supported operatively by said drilling engine and arranged to be impinged against by said piston, and adapted to be rotated step by step by said piston, and containing a passage throughout its length, passages controlled by an automatically-operating valve, arranged to convey a portion of the piston's actuating fluid into said drill-bit, a valved water-conveying tube extending through said piston, means for providing a supply of water under pressure to said tube, and communicating with the passage in said drill-bit and means for excluding the water from said cylinder, substantially as described.

43. In a rock-drilling engine the combination with the valve-chests, the valve and the cylinder, of the piston having a circumferential groove centrally of its length, actuating-fluid ports leading from said valve-chest to the ends of said cylinder, open passages leading from the main air-inlet port of said valve to its opposite ends, ports or passages leading from the opposite ends of said valve-chest to a position in the cylinder where they will register with the said annular groove in said piston during its reciprocative movements, and having the port contain independent passages placed at a short distance apart and means for closing the passage nearest the center of the cylinder, and ports leading from the path of travel of the central part of said piston to the atmosphere, substantially as described.

44. In a rock-drilling engine the combination with the valve-chest and valve and the cylinder of ports arranged to cooperate with the reciprocal movements of the piston and with a circumferential port therein to automatically operate and cushion the piston and means comprising two separated outlets leading into said cylinder, from the front port of said cylinder, a pin for closing the port nearest the center of the cylinder and a hole in the cylinder in which to keep the pin when in disuse, whereby the opening of the valve in the forward or striking-blow end of the piston is retarded and a harder blow is struck, substantially as described.

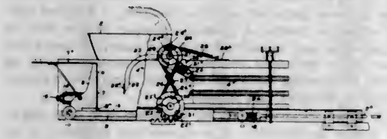
45. In a rock-drilling engine the combination of the valve-chest, the valve, the cylinder and the piston, of a circumferential groove around the piston slightly near its forward or drill-striking end, ports leading from said valve-chest into said cylinder and from said cylinder to the atmosphere, and arranged to automatically operate the valve and piston, and means comprising two independent and separate outlets for the port leading into the front end of the cylinder, and means at the control of the operator for closing the outlet of these two outlets of this port that is positioned nearest to the center of the cylinder, whereby two different strengths of blows may be struck by the piston at the will of the operator, substantially as described.

46. In a rock-drilling engine, the combination with the cylinder, the cylinder-head and the piston, of a drill-bit arranged to be struck by said piston and having lugs, shoulders or projections adjacent to its shank end, a drill-holding chuck containing an axial bore adapted to receive the shank of said drill-bit and lateral recesses radiating from said bore adapted to receive the lugs of said drill-bit; a sleeve rotatably mounted on said chuck and extending beyond the end of said cylinder-head far enough to be grasped by the hand of an operator, and containing a flanged end extending down over the end of said chuck; an oblong aperture in the end of said chuck-sleeve arranged to admit the shank and lugs of said drill-shank to pass through said flange into said chuck, when said chuck-sleeve is manually turned to bring its drill-shank-receiving aperture in line with the chuck's drill-shank-receiving aperture and having said chuck-sleeve arranged to be partially rotated manually on said chuck after the drill-shank is admitted to the chuck to a position in which its drill-shank-receiving aperture will stand crosswise or at substantially right angles to the drill-shank-receiving aperture of the chuck, and means including stops or abutting surfaces for locking said chuck-sleeve's drill-shank-receiving aperture in its crossed or right-angled position relative to the drill-receiving aperture of said chuck, substantially as described.

13,615. BALING-PRESS. MOSES C. NIXON, Peru, Ind. Filed Aug. 5, 1913. Serial No. 783,041. Original No. 1,043,345, dated Nov. 5, 1912, Serial No. 608,974. (Cl. 100—25.)

1. A baling-press comprising a baling-chamber, a plunger having a base frame movably supported below the chamber, said base frame carrying a bottom extending transversely approximately the width of the chamber and adapted to pass beneath the stationary part of the bottom of said chamber.

2. A baling-press comprising a baling-chamber provided with a fixed bottom, a reciprocating plunger therein having a base frame carried on rollers and supporting a bottom extending transversely approximately the width of the chamber and adapted to reciprocate beneath said fixed bottom.



3. A baling-press comprising a baling-chamber, a plunger adapted to reciprocate within the chamber, a portion of the bottom which extends transversely approximately the width of the chamber being movably supported by and adapted to reciprocate with the plunger.

4. A baling-press comprising a baling-case and a baling-chamber formed thereby and provided with a transversely continuous bottom extending across the width of the case, a plunger arranged to reciprocate within the chamber and carrying a movable section of the bottom of the chamber.

5. A baling-press comprising a reciprocating plunger, and a baling-chamber provided with a bottom a portion of which is stationary and portion adapted to reciprocate with the plunger.

6. A baling-press comprising a baling-chamber, and a plunger adapted to reciprocate therein and carrying a transverse section of the bottom of the chamber.

7. A baling-press comprising a baling-chamber, supports projecting beneath the chamber, a plunger arranged to reciprocate within the chamber, having a transverse section of the bottom of the chamber secured thereto and carrying laterally mounted antifriction rollers which are arranged to roll against the supports.

8. A baling-press comprising a baling-chamber, a plunger adapted to reciprocate within the chamber, and consisting of a base frame, a vertically arranged compression front secured thereto, and a movable section of the chamber bottom secured to the base frame and extending forwardly from the compression front and transversely approximately the width of the baling-chamber, said base frame and bottom being adapted to reciprocate beneath the bottom of said chamber.

9. A baling-press comprising a baling-chamber, a plunger having a vertical compression front and a base frame, a recess between it and the vertical compression front, said base frame also carrying a bottom which extends transversely approximately the width of the baling-chamber and is arranged to pass beneath the stationary part of said chamber.

10. A baling-press comprising a baling-chamber provided with a fixed bottom, a reciprocating plunger therein having a base frame supporting a bottom extending transversely approximately the width of the chamber and adapted to reciprocate with the plunger.

11. A baling-press comprising a baling-chamber, a plunger arranged to reciprocate within the chamber and carrying a section of the bottom of the chamber, and means to operate in conjunction with the plunger to neutralize the shock of the retracting movement of the plunger.

12. A baling-press comprising a baling-chamber provided with a bottom extending transversely the width of the chamber, a plunger arranged to reciprocate within the chamber, said plunger supporting a section of the bottom of the chamber and carrying a pneumatic means to counteract the shock incident to the retracting movement of the plunger.

13. A baling-press comprising a baling-chamber, a reciprocating plunger within the chamber and carrying a section of the bottom of the chamber, pneumatic means carried by the plunger, and means arranged to co-act with said pneumatic means to receive the shock as the plunger is retracted.

14. A baling-press comprising a baling-chamber, a reciprocating plunger within the chamber, a tucker pivotally secured at a point in front of and lower than its contact with the plunger or material being baled whereby its lower edge will be carried upwardly and forwardly in a circle about its pivots permitting the plunger and material to pass beneath it, and a torsion spring to force the tucker rearwardly and downwardly to its normal position when the plunger is retracted.

15. A baling-press comprising a baling-chamber, a reciprocating plunger within the chamber, a tucker pivotally secured at a point in front of and lower than its contact with the plunger or material being baled whereby its lower edge will be carried upwardly and forwardly in a circle about its pivots permitting the plunger and material to pass beneath it, a torsion spring opposing the tucker in its upward and forward movement and adapted to restore the same to its normal position when the plunger is retracted, and means to regulate the tension of said spring.

16. A baling-press comprising a baling-chamber, a reciprocating plunger within the chamber, a tucker pivotally secured at a point in front of and lower than its contact with the plunger or material being baled whereby its lower edge will be carried upwardly and forwardly in a circle about its pivots permitting the plunger and material to pass beneath it, and means to force said tucker rearwardly and downwardly to its normal position when the plunger is retracted.

17. In a baling-press having a baling-chamber, a reciprocating plunger within the chamber, and a tucker comprising a pivot, a bracket movably supported on the pivot and carrying a transversely arranged blade, and adjustable means on the pivot to oppose the rotation of the bracket on the pivot.

18. In a baling-press having a baling-chamber, a reciprocating plunger within the chamber, and a tucker comprising a pivot secured at a point in front of and lower than the contact of the tucker with the plunger or material being baled, a bracket movably supported on the pivot and carrying a transversely arranged blade, a housing on the pivot, and a torsion spring connected to the housing and the bracket.

19. In a baling-press having a baling-chamber, a reciprocating plunger within the chamber, and a tucker comprising a pivot, a bracket movably supported on the pivot and carrying a transversely arranged blade, a housing on the pivot, a torsion spring connected to the housing and the bracket and means to adjust the tension of the spring.

20. In a baling-press having a baling-chamber, a reciprocating plunger within the chamber, and a tucker comprising a pivot, a bracket movably supported on the pivot and carrying a transversely arranged blade, said pivot being secured at a point in front of and lower than the blade of the tucker so that the contact of the plunger or material between it and the tucker will cause the latter to move upwardly and forwardly out of the way of the plunger, and means on the pivot to oppose the rotation of the bracket on the pivot.

21. A baling-press comprising a baling-chamber, a power mechanism, a feeder adapted to force material into the chamber, and a pivoted member placed between said power and feeder and made of a plurality of parts and arranged whereby the position of the feeder may be adjusted.

22. A baling-press comprising a baling-chamber, a power mechanism, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, means beneath the chamber forming a connection between the power mechanism and said member and arranged to transmit motion from the former to the latter whereby the feeder is lowered and raised, and adjustable means whereby the position of the feeder may be regulated.

23. A baling-press comprising a baling-chamber, a power mechanism, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, means beneath the chamber arranged to form an operating connection between the power mechanism and member whereby the feeder is lowered and raised, and a safety

device arranged to relieve the stress when the feeder is under abnormal strain.

24. A baling-press comprising a baling-chamber, a power mechanism, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, means extending from the power mechanism beneath the chamber and suitably connected with said member whereby the feeder is lowered and raised by the action of the power, and a safety device interposed between the power mechanism and feeder to relieve the strain when the feeder meets abnormal resistance.

25. A baling-press comprising a baling-chamber, a feeder adapted to force material into the chamber, a segment gear pivotally secured and connected with the feeder, and means to rock said gear whereby the feeder is lowered and raised.

26. A baling-press comprising a baling-chamber, a feeder adapted to force material into the chamber, a segment gear pivotally secured and connected with the feeder, and a rack arranged to reciprocate below the chamber and adapted to rock said gear whereby the feeder is lowered and raised.

27. A baling-press comprising a baling-chamber, a plunger having a base frame adapted to reciprocate beneath the chamber, a feeder adapted to force material into the chamber, a segment gear pivotally secured and connected with the feeder, a rack carried by said base frame and adapted to rock said gear whereby the feeder is lowered and raised.

28. A baling-press comprising a baling-chamber, a feeder adapted to force material into the chamber, a sheave pivotally secured and connected with the feeder, and means adapted to actuate said sheave whereby the feeder is lowered and raised.

29. A baling-press comprising a baling-case and chamber, a power mechanism, a reciprocating plunger, a reciprocating part beneath the chamber adapted to form an operating connection between the power mechanism and plunger, a feeder shaft, a feeder secured to said shaft and adapted to force material into the chamber, a member also secured to the feeder shaft, a pivoted member connected with said reciprocating part to be actuated thereby, and means alongside the baling-case adapted to form an operative connection between said members whereby the feeder is lowered and raised.

30. A baling-press comprising a baling-case and chamber, a power transmitting mechanism, a plunger arranged to move toward said mechanism while pressing the charge, a feeder shaft, a feeder carried by said shaft and adapted to force material into the chamber, a member secured to the feeder shaft and having an actuating connection with the feeder, a pivoted member, means alongside the baling-case adapted to form an operative connection between said members, and means connecting the power transmitting mechanism with the pivoted member whereby the feeder is lowered as the plunger moves from said mechanism and raised as the plunger advances toward the same.

31. A baling-press comprising a baling-case and chamber, a power mechanism, a reciprocating plunger, a reciprocating part beneath the chamber arranged to form an operating connection between the power mechanism and plunger, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, and means at the side of the baling-case connected with said reciprocating part to be actuated thereby and having an actuating connection with said member whereby the feeder is lowered and raised.

32. A baling-press comprising a baling-case and chamber, a power mechanism, a reciprocating part beneath the chamber arranged to be actuated by the power mechanism, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, and means at the side of the baling-case connected with said reciprocating part to be actuated thereby and having an actuating connection with said member whereby the feeder is lowered and raised.

33. A baling-press comprising a baling-case and chamber, a power mechanism, means beneath the chamber arranged to be actuated by said mechanism, a feeder adapted to force material into the chamber, a pivoted member connected with the feeder, and means forming a connection outside the chamber with the means beneath the chamber and said member whereby the feeder is lowered and raised.

34. A baling-press comprising a baling-case and chamber, a power mechanism, means beneath the chamber arranged to be operated by the power mechanism, a feeder adapted to force material into the chamber, a member connected with the feeder, a pivoted member at the side of the baling-case and connected with the means beneath the chamber to be actuated thereby, and means forming an operative connection between the two members whereby the feeder is lowered and raised.

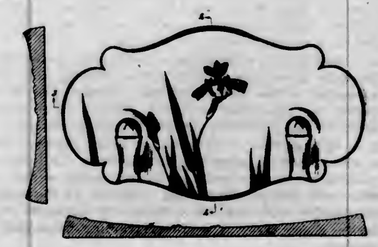
35. A baling-press comprising a baling-case and chamber, a power mechanism, a reciprocating plunger, a reciprocating part beneath the chamber arranged to form an operating connection between the power mechanism and plunger, a feeder adapted to force material into the chamber, a member carried by the feeder shaft and connected with the feeder, a pivoted member at the side of the baling-case connected with said reciprocating part to be actuated thereby, and an operative connection between the two members whereby the feeder is lowered and raised.

36. A baling-press comprising a baling-chamber, a power transmitting mechanism, a plunger arranged to move toward said mechanism while pressing the charge, a feeder adapted to force material into the chamber, a member carried by the feeder shaft and connected with the feeder, a pivoted member at the side of the baling-case and connected with the other member, and means connecting the power transmitting mechanism with the pivoted member whereby the feeder is lowered as the plunger nears position farthest from said mechanism and raised when the plunger advances toward the same.

37. A baling-press comprising a baling-case and chamber, a power transmitting mechanism, a plunger arranged to move toward said mechanism while pressing the charge, a feeder adapted to force material into the chamber, a pivoted member at the side of the baling-case and connected with the feeder, and means connecting the power transmitting mechanism with said member whereby the feeder is lowered as the plunger is moved from said mechanism and raised as the plunger advances toward the same.

DESIGNS.

44,626. PLATE FOR BURIAL-CASKETS. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed July 14, 1913. Serial No. 779,056. Term of patent 14 years.



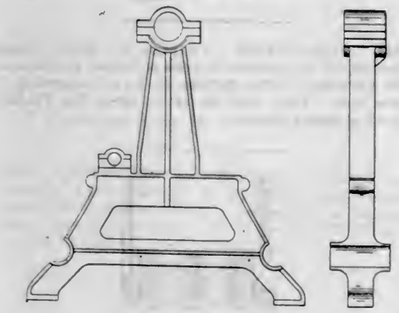
The ornamental design for a plate for burial-caskets, as shown.

44,627. TEMPERATURE-INDICATOR. HARRISON HURLBERT BOYCE, Forest Hills, N. Y. Filed July 23, 1913 Serial No. 780,799. Term of patent 14 years.



The ornamental design for a temperature indicator as shown.

44,628. CHURN-FRAME. EDWIN A. BYE, Owatonna, Minn., assignor to L. A. Disbrow Churn Company, Owatonna, Minn., a Copartnership consisting of Carl K. Bennett and Guy B. Bennett. Filed June 25, 1913. Serial No. 775,806. Term of patent 7 years.



The ornamental design for a churn frame, as shown.

44,629. PRESSED-GLASS VESSEL. IRA M. CLARKE, Pittsburgh, Pa., assignor to John B. Higbee Glass Company, Bridgeville, Pa., a Corporation of Pennsylvania. Filed June 4, 1913. Serial No. 771,770. Term of patent 3½ years.



44,629.



The ornamental design for pressed glass vessel, as shown.

44,630. BADGE. CHARLES J. DIEGES, New York, N. Y. Filed July 7, 1913. Serial No. 777,780. Term of patent 7 years.



The ornamental design for a badge, as shown.

44,631. TUMBLER-HOLDER. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Aug. 24, 1911. Serial No. 645,847. Term of patent 7 years.



The ornamental design for a tumbler holder, as shown.

44,632. JEWEL-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 2, 1913. Serial No. 777,095. Term of patent 3½ years.



The ornamental design for a jewel case as shown.

44,633. JEWEL-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 10, 1913. Serial No. 778,386. Term of patent 3½ years.



The ornamental design for a jewel case as shown.

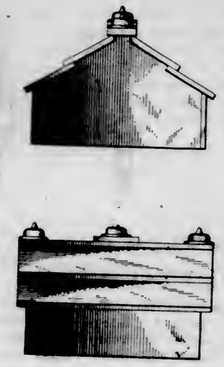
44,634. [WITHDRAWN.]

44,635. SPIRAL HAIR-PIN. JACOB A. FLEISCHMANN, Philadelphia, Pa. Filed July 2, 1913. Serial No. 777,092. Term of patent 14 years.



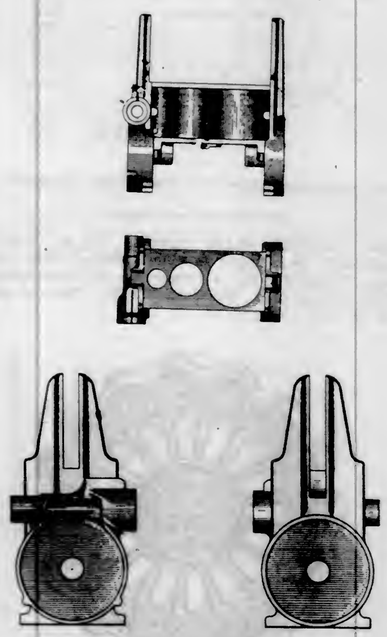
The ornamental design for a spiral hair pin, as shown.

44,636. BURIAL-VAULT. GEORGE A. GLENDENING, Bowlby, W. Va. Filed Mar. 22, 1913. Serial No. 756,225. Term of patent 14 years.



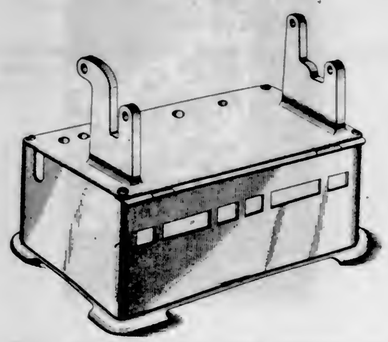
The ornamental design for a burial vault, as shown.

44,637. PUMP-CASING. CHARLES D. HILL, Clifton Springs, N. Y., assignor to Judd & Leland Manufacturing Company, Clifton Springs, N. Y., a Corporation of New York. Filed June 25, 1913. Serial No. 775,808. Term of patent 7 years.



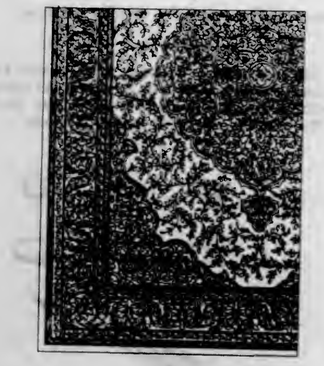
The ornamental design for a pump casing, as shown.

44,638. CABINET. NEWMAN H. HOLLAND, West Orange, N. J., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed June 30, 1913. Serial No. 776,700. Term of patent 14 years.



The ornamental design for a cabinet as shown.

44,639. CARPET OR RUG. HERBERT A. HOWE, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed July 19, 1913. Serial No. 780,072. Term of patent 3½ years.



The ornamental design for a carpet or rug as shown.

44,640. TIRE. JOHN ELLWOOD LEE, Conshohocken, Pa. Filed Apr. 5, 1913. Serial No. 759,219. Term of patent 14 years.



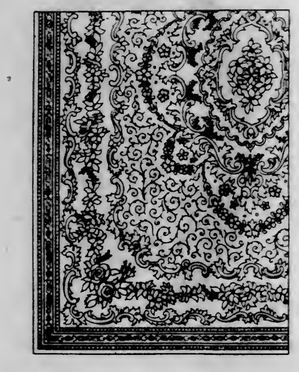
The ornamental design for a tire as shown.

44,641. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed July 19, 1913. Serial No. 780,073. Term of patent 3½ years.



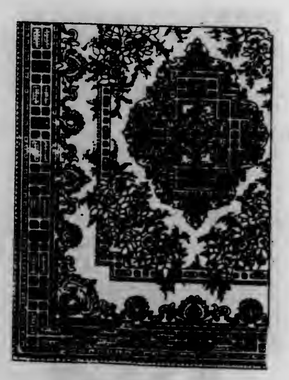
The ornamental design for a carpet or rug as shown.

44,642. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed July 19, 1913. Serial No. 780,074. Term of patent 3½ years.



The ornamental design for a carpet or rug as shown.

44,643. CARPET OR RUG. JULIUS G. PEGEL, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed July 19, 1913. Serial No. 780,075. Term of patent 3½ years.



The ornamental design for a carpet or rug as shown.

44,644. CARPET OR RUG. WILLIAM EDWARD SAYERS, Thompsonville, Conn., assignor to Hartford Carpet Corporation, Thompsonville, Conn., a Corporation of Connecticut. Filed July 19, 1913. Serial No. 780,071. Term of patent 3½ years.



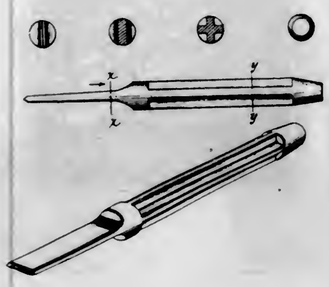
The ornamental design for a carpet or rug as shown.

44,645. FLY-TRAP. GEORGE SHIKAKU, Los Angeles, Cal. Filed June 2, 1913. Serial No. 771,320. Term of patent 14 years.



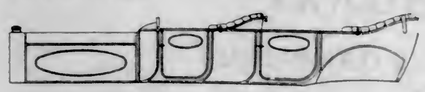
The ornamental design for a fly trap as shown.

44,646. COLD-CHISEL. WILLIAM S. THOMSON, Plantsville, Conn., assignor to The H. D. Smith and Company, Plantsville, Conn., a Corporation. Filed May 29, 1911. Serial No. 630,238. Term of patent 14 years.



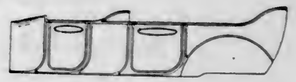
The ornamental design for a cold chisel as shown.

44,647. AUTOMOBILE BODY AND HOOD. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 1, 1912. Serial No. 729,157. Term of patent 7 years.



The ornamental design for an automobile body and hood as shown.

44,648. AUTOMOBILE-BODY. GEORGE R. WADSWORTH, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 31, 1913. Serial No. 758,046. Term of patent 7 years.



The ornamental design for an automobile body, as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 9, 1913

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 50,145. (CLASS 53. GLASSWARE.) HOLOPHANE GLASS COMPANY, New York, N. Y. Filed June 6, 1910.

MAZDA

Particular description of goods.—Glass Reflectors and Shades.
Claims use since Apr. 20, 1910.

Ser. No. 57,575. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LINDENBERGER PACKING CO., INC., Seattle, Wash. Filed July 11, 1911.

EVERYBODY'S

Particular description of goods.—Canned Salmon.
Claims use since Mar. 1, 1911.

Ser. No. 58,685. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE PIERCE-ARROW MOTOR CAR COMPANY, Buffalo, N. Y. Filed Sept. 15, 1911.

ARROW

Particular description of goods.—Automobiles.
Claims use since Dec. 30, 1902.

Ser. No. 58,736. (CLASS 37. PAPER AND STATIONERY.) MT. HOLYOKE TISSUE MILLS, Holyoke, Mass. Filed Sept. 20, 1911.

ROYAL



Particular description of goods.—Toilet-Paper.
Claims use since on or about July 1, 1910.

Ser. No. 63,128. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HAIGASUN BARSAM MANISSADJIAN, Basel, Switzerland; Marguerite Mathilde Manissadjian, Inheritress of said Haigasun Barsam Manissadjian, deceased, assignor to Society of Chemical Industry in Basle, Basel, Switzerland, a Corporation of Switzerland. Filed Apr. 25, 1912.

Zellotyl

Particular description of goods.—Photographic Plates and Films and Kinematograph-Films Made of Acetyl Cellulose.
Claims use since Dec. 6, 1909.

Ser. No. 63,364. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill. Filed May 6, 1912. Under ten-year proviso.

COPPER

HARDENED

Particular description of goods.—Babbitt and Antifriction Metals.
Claims use since and prior to Feb. 20, 1895.

Ser. No. 64,712. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) C. GIACONA & Co., New Orleans, La. Filed July 10, 1912.



Particular description of goods.—Olive-Oil.
Claims use since June 3, 1912.

Ser. No. 65,321. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) WRIGHT MANUFACTURING COMPANY, Newark, N. J. Filed Aug. 17, 1912.



The picture being fanciful. No claim is made to the words "Wright Lighter."
Particular description of goods.—Igniters of the Friction or Abrasive Type and Accessories.
Claims use since Aug. 3, 1912.

Ser. No. 65,985. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL WARREN, San Francisco, Cal. Filed Sept. 26, 1912.



Particular description of goods.—Baking-Powder.
Claims use since about the 1st of August, 1912.

Ser. No. 67,057. (CLASS 37. PAPER AND STATIONERY.) ASAHEL U. MORSE, Kansas City, Mo. Filed Nov. 22, 1912.



Particular description of goods.—Toilet-Paper.
Claims use since Mar. 9, 1905.

Ser. No. 67,158. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HENRY KAHN & Co., San Francisco, Cal. Filed Nov. 27, 1912.

OCULARIUM

Particular description of goods.—Spectacles, Eyeglasses, Lenses, Opera-Glasses, Field-Glasses, Marine Glasses, Thermometers, Magnifying-Glasses, Barometers, Photographic Cameras.
Claims use since Nov. 2, 1901.

Ser. No. 68,182. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEBANON CO-OPERATIVE MEDICINE Co., Lebanon, Tenn. Filed Jan. 29, 1913.



The portrait and signature being those of L. K. Grigsby, secretary, treasurer, and manager of the proprietor corporation.
Particular description of goods.—A Remedy for All Stomach Troubles, Such as Habitual Constipation, Dyspepsia, Sick Headache, Sour Stomach, and All Kidney, Liver, and Bladder Troubles.
Claims use since the 1st of September, 1912.

Ser. No. 68,283. (CLASS 37. PAPER AND STATIONERY.) SOUTHWESTERN SUNDRIES COMPANY, Dallas, Tex. Filed Feb. 3, 1913.

CARDINAL

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since July 1, 1911.

Ser. No. 68,528. (CLASS 37. PAPER AND STATIONERY.) CHICAGO SHIPPING & RECEIPT BOOK Co., Chicago, Ill. Filed Feb. 12, 1913.

Pubrico

Particular description of goods.—Index-Tabs, Loose-Leaf Binders, Record-Books, and Dockets.
Claims use since November, 1910.

Ser. No. 68,586. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) STAUFFER, ESHLEMAN & Co., LTD., New Orleans, La. Filed Feb. 17, 1913. Under ten-year proviso.

SAVILLE

Particular description of goods.—Food-Choppers, Meat-Choppers, Bush-Hooks, Shears, Vises, Wrenches, Axes, Bits, Screw-Drivers, Braces, Chisels, Files, Handles, Hammers, Hatchets, Corn-Knives, Mattocks, Railroad-Picks, Planes, Pliers, Nail-Pullers, Punchers, Saws, Nail-Sets, Grass-Hooks, Cotton and Corn Planters, Shovels, Spades, Push-Plates, Pocket-Knives, Scissors, Razors, Butcher-Knives, Steel Table-Knives, Hunting-Knives, Carvers, Stationary Gasolene-Engines, and Fire-Extinguishers.
Claims use since at least as early as Jan. 1, 1895.

Ser. No. 68,618. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EHRICH & GRAETZ, Berlin, Germany. Filed Feb. 19, 1913.

Matador

Particular description of goods.—Electric Lamps, Arc-Lamps, Electrodes for Arc-Lamps, Holders and Regulators for Electrodes, Metal Filaments for Electric Glow-Lamps, Switches, Fuses, Cut-Outs, Resistances, Plugs, Conductors, Protecting Metal Tubes for Conductors, and Gas-Lighters.
Claims use since Sept. 25, 1895.

Ser. No. 68,619. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) EHRICH & GRAETZ, Berlin, Germany. Filed Feb. 19, 1913.



Particular description of goods.—Electric Lamps, Arc-Lamps, Electrodes for Arc-Lamps, Holders and Regulators for Electrodes, Metal Filaments for Electric Glow-Lamps, Switches, Fuses, Cut-Outs, Resistances, Plugs, Conductors, Protecting Metal Tubes for Conductors, and Gas-Lighters.
Claims use since the 1st of March, 1886.

Ser. No. 69,044. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ANIMOIL MANUFACTURING COMPANY, Philadelphia, Pa. Filed Mar. 15, 1913.

ANIMOIL

Particular description of goods.—Belt-Dressings.
Claims use since Nov. 15, 1912.

Ser. No. 69,148. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AEOLIAN COMPANY, Meriden, Conn.; Garwood, N. J., and New York, N. Y. Filed Mar. 18, 1913.

VOCALION

Particular description of goods.—Organs, Reed-Organs, Combined Reed Musical Instruments and Phonographs, Special Perforated Music-Sheets and Synchronized Perforated Music-Sheets for Use in Connection with Said Combined Reed Musical Instruments and Phonographs.
Claims use since April, 1882, on organs; since 1885 on reed-organs, and since the 27th of February, 1913, on combined reed musical instruments and phonographs and on special perforated music-sheets and synchronized perforated music-sheets for such combined reed musical instruments and phonographs.

Ser. No. 69,203. (CLASS 2. RECEPTACLES.) CHARLES W. FERGUSON, Houston, Tex. Filed Mar. 20, 1913.

DAISY

Particular description of goods.—Crates.
Claims use since Jan. 1, 1906.

Ser. No. 69,677. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ARTHUR S. HOYT Co., New York, N. Y. Filed Apr. 9, 1913.

SHEAF

The trade-mark comprising the word-symbol "Sheaf."
Particular description of goods.—Alimentary Paste Products in Macaroni, Spaghetti, Vermicelli, and Noodles.
Claims use since Apr. 8, 1913.

Ser. No. 69,684. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. V. SVENSONS MOTORFABRIK, Augustendal, Stockholm, Sweden. Filed Apr. 9, 1913.

AVANCE

Particular description of goods.—Motor-Plows.
Claims use since about Sept. 11, 1900.

Ser. No. 69,693. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) HENRY DREYFUS, Basel, Switzerland. Filed Apr. 10, 1913.

CELLONIT

Particular description of goods.—Cellulosic Ethers.
Claims use since Jan. 1, 1913.

Ser. No. 69,710. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) PRICE, PRYSE & COMPANY LIMITED, Westminster, London, England. Filed Apr. 10, 1913.



The letters "P P" forming no part of the trade-mark.
Particular description of goods.—Metal Tools for Inserting and Withdrawing Detonators for Shot-Firing Purposes in Mines and Quarries.
Claims use since about Mar. 20, 1913.

Ser. No. 69,767. (CLASS 32. FURNITURE AND UPHOLSTERY.) COLUMBIA SCHOOL SUPPLY CO., Indianapolis, Ind. Filed Apr. 14, 1913.

SaniSteel

Particular description of goods.—School-Desks, Office-Desks, Type-Writer Desks, Revolving-Desk Stands, Filing-Cases, Bookcases, Window-Shade Adjusters, Manual-Training Benches, and Domestic-Science Tables and Cabinets.
Claims use since Nov. 1, 1911.

Ser. No. 69,852. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN FRANK, Jacksonville, Ill. Filed Apr. 17, 1913.

U. R. M.

Particular description of goods.—Wheat-Flour.
Claims use since August, 1912.

Ser. No. 69,905. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SCHANDEIN & LIND CO., Philadelphia, Pa. Filed Apr. 18, 1913. Under ten-year proviso.

GARWOOD

Particular description of goods.—Candy.
Claims use since January, 1895.

Ser. No. 69,996. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) SOCIETE NOUVELLE DES STERILISATEURS CARTAULT, Paris, France. Filed Apr. 22, 1913.



The name "P. Cartault" is a facsimile of the signature of a member of the applicant association.
Particular description of goods.—Water-Sterilizing Apparatus.
Claims use since the 14th of February, 1913.

Ser. No. 70,015. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) KRIEG TANNING COMPANY, San Francisco, Cal. Filed Apr. 23, 1913.



Particular description of goods.—Sole-Leather, Cut Sole-Leather, Harness-Leather, and Skirting-Leather.
Claims use since Mar. 1, 1913.

Ser. No. 70,106. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) U. S. INDUSTRIAL ALCOHOL CO., New York, N. Y. Filed Apr. 28, 1913.

PYRO

Particular description of goods.—Carbon-Remover, Engine-Cleanser, and Solvent.
Claims use since Jan. 1, 1907.

Ser. No. 70,283. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING COMPANY, Eastport, Me. Filed May 7, 1913.

BIG SMOKE

Particular description of goods.—Canned Sardines.
Claims use since Feb. 1, 1913.

Ser. No. 70,323. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) NAVE-MCCORD MERCANTILE CO., St. Joseph, Mo. Filed May 9, 1913.

FRONTIER

Particular description of goods.—Toothpicks.
Claims use since Feb. 1, 1905.

Ser. No. 70,378. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JAMES V. LANE, Los Angeles, Cal. Filed May 12, 1913.



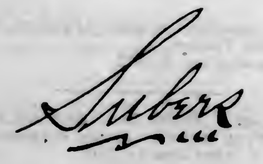
No claim being made for the words "Floor Cleaner and Restorer, Prepared Floor Wax, Liquid Floor Wax, and Auto and Piano Polish."
Particular description of goods.—Polishing Materials, Liquid and Paste Furniture-Polishes, and Floor-Dressings.
Claims use since Mar. 1, 1913.

Ser. No. 70,447. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) GRAPHITES MASKAR SOCIÉTÉ ANONYME, Paris, France. Filed May 16, 1913.

MASKAR

Particular description of goods.—Plumbago for Foundry Purposes and for the Manufacture of Crucibles.
Claims use since about the commencement of November, 1912.

Ser. No. 70,497. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) LAWRENCE A. SUBERS, Cleveland, Ohio. Filed May 19, 1913.



Consisting of a facsimile of my signature.
Particular description of goods.—Fire and Railway-Brake Hose Pipes and Analogous Tubing, Automobile-Tires, and Inner Casings, Inner Tubes, Belting, Composed of The Subers Laminated Cohesive Interwound Rubbered Fabrics.
Claims use since Mar. 3, 1913.

Ser. No. 70,540. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed May 21, 1913.



Particular description of goods.—Toilet-Paper.
Claims use since Dec. 31, 1910.

Ser. No. 70,548. (CLASS 47. WINES.) SYNDICAT DES GRANDS CRUS CLASSÉS DU MÉDOC, Bordeaux, France. Filed May 21, 1913.



Disclaiming the name of applicant and the words "Marque de Garantie."
Particular description of goods.—Clarets and Bordeaux Wines.
Claims use since January, 1913.

Ser. No. 70,557. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) U. H. DUDLEY & CO., New York, N. Y. Filed May 22, 1913.

CARAVAN

Particular description of goods.—Dates.
Claims use since July 10, 1912.

Ser. No. 70,563. (CLASS 17. TOBACCO PRODUCTS.) THE SURBRUG COMPANY, Hoboken, N. J. Filed May 22, 1913.

GOLDEN SCEPTRE

Particular description of goods.—Smoking-Tobacco.
Claims use since 1859.

Ser. No. 70,635. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARLES J. STEVENOT, New York, N. Y. Filed May 24, 1913.

"STEVNO"

Particular description of goods.—Gelatin, Ice-Cream Powder, Cocoa-Powder, and Flavoring Extracts for Foods.
Claims use since 1911.

Ser. No. 70,710. (CLASS 17. TOBACCO PRODUCTS.) BLUE PETER CIGARETTE CO., INC., New York, N. Y. Filed May 28, 1913.



BLUE PETER

The flag being blue with a white field.
Particular description of goods.—Cigarettes.
Claims use since Apr. 3, 1913.

Ser. No. 70,713. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DYER PACKING CO., Vincennes, Ind. Filed May 28, 1913.

DADDYS DINNER

Particular description of goods.—Hominy and Beans.
Claims use since Apr. 20, 1913.

Ser. No. 70,722. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWTON, JORDAN & CO., Macon, Ga. Filed May 28, 1913.

SNOWDRIFT SATIN

Particular description of goods.—Evaporated Milk.
Claims use since March, 1905.

Ser. No. 70,736. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUCHARD, S. A., Serrieres, Switzerland. Filed May 28, 1913.

Milka

Particular description of goods.—Milk-Chocolate.
Claims use since Jan. 1, 1912.

Ser. No. 70,800. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) E. A. POTTER COMPANY, Providence, R. I. Filed May 31, 1913.



Particular description of goods.—Precious-Metal Cuff-Pins, Bar-Pins, Veil-Pins, Hair-Barrettes, Scarf-Pins, Tie-Clasps, Link-Buttons, and Bracelets.
Claims use since Apr. 17, 1912.

Ser. No. 70,857. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HALL & RUCKEL, New York, N. Y. Filed June 4, 1913.

SOZOMINTS

Particular description of goods.—An After-Dinner Confection.
Claims use since May 6, 1912.

Ser. No. 70,876. (CLASS 38. PRINTS AND PUBLICATIONS.) THE EDITOR & PUBLISHER CO., New York, N. Y. Filed June 5, 1913.



Particular description of goods.—Newspapers.
Claims use since about November, 1912.

Ser. No. 70,889. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ALBERT ARMSTRONG, Watertown, N. Y. Filed June 6, 1913.

Day Bright

Particular description of goods.—Furniture, Brass, Silver, and Stove Polishes.
Claims use since Dec. 1, 1912.

Ser. No. 71,025. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) JOSEPH ROSENBLATT, Providence, R. I. Filed June 11, 1913.

Goldtex

Particular description of goods.—Jewelry for Personal Wear.
Claims use since May 31, 1913.

Ser. No. 71,026. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE SEISS MANUFACTURING COMPANY, Toledo, Ohio. Filed June 11, 1913.



Particular description of goods.—Goggles.
Claims use since May 19, 1913.

Ser. No. 71,060. (CLASS 39. CLOTHING.) J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed June 12, 1913.



The word "Brand" being disclaimed.
Particular description of goods.—Oiled Clothing.
Claims use since June, 1874.

Ser. No. 71,061. (CLASS 39. CLOTHING.) J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed June 12, 1913.



The word "Brand" being disclaimed.
Particular description of goods.—Oiled Clothing.
Claims use since July 1, 1883.

Ser. No. 71,079. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. D. TAYLOR & CO., Bessemer, Ala. Filed June 12, 1913.

Vega-Cal

Particular description of goods.—A Laxative and Liver Tonic and for Disorders Arising from a Disordered Liver.
Claims use since Mar. 14, 1912.

Ser. No. 71,154. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STONE, TIMLOW & COMPANY, INCORPORATED, Boston, Mass. Filed June 17, 1913.

STONE'S XXX DEPILATORY

The words "Stone's" and "Depilatory" are disclaimed.
Particular description of goods.—Depilatories.
Claims use since December, 1895.

Ser. No. 71,160. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BOLE DRUG COMPANY, Winnipeg, Canada. Filed June 18, 1913.

GINO

Particular description of goods.—Kidney-Pills.
Claims use since Mar. 14, 1913.

Ser. No. 71,207. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COCHRANE MANUFACTURING CO., Dedham and East Dedham, Mass. Filed June 20, 1913. Under ten-year proviso.

WINDSOR BRUSSELS.

Particular description of goods.—Carpets.
Claims use since on or about July 1, 1894.

Ser. No. 71,208. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COCHRANE MANUFACTURING CO., Dedham and East Dedham, Mass. Filed June 20, 1913. Under ten-year proviso.

CORDOVA BRUSSELS.

Particular description of goods.—Carpets.
Claims use since on or about July 1, 1894.

Ser. No. 71,209. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COCHRANE MANUFACTURING CO., Dedham and East Dedham, Mass. Filed June 20, 1913. Under ten-year proviso.

LAKESIDE BRUSSELS.

Particular description of goods.—Carpets.
Claims use since on or about July 1, 1894.

Ser. No. 71,212. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUSTIS, PENNOCK & Co., Boston, Mass. Filed June 20, 1913.

MONARCH

Particular description of goods.—Starch for Textile-Mill Usage.
Claims use since 1899.

Ser. No. 71,213. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUSTIS, PENNOCK & Co., Boston, Mass. Filed June 20, 1913.

SILK-COIN

Particular description of goods.—Starch for Textile-Mill Usage.
Claims use since 1912.

Ser. No. 71,214. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EUSTIS, PENNOCK & Co., Boston, Mass. Filed June 20, 1913.

ROYAL PALM

Particular description of goods.—Starch for Textile-Mill Usage.
Claims use since 1899.

Ser. No. 71,342. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) MONTGOMERY-WASHBURN COMPANY, Saugerties, N. Y. Filed June 24, 1913.



Particular description of goods.—Waterproof Horse-Covers, Nose-Bags, Breast-Aprons for Horses, Burlap Stable-Blankets, White-Duck Stable-Blankets, Brown-Duck Stable-Blankets, Blanket-Lined Waterproof Horse-Covers, White-Sail-Duck Rain-Covers for Horses.
Claims use since 1907.

Ser. No. 71,372. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE VIBRAKO COMPANY, Portland, Me., and Boston, Mass. Filed June 25, 1913.

Vibrako

Particular description of goods.—Massage-Vibrators.
Claims use since June 1, 1913.

Ser. No. 71,382. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913.

PANXPO

Particular description of goods.—Toilet Waters and Perfumes.
Claims use since June 14, 1913.

Ser. No. 71,383. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913.

KLOVERA

Particular description of goods.—Toilet Waters and Perfumes.
Claims use since June 14, 1913.

Ser. No. 71,384. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MELBA MANUFACTURING COMPANY, Chicago, Ill. Filed June 26, 1913.

ADORÉE

Particular description of goods.—Toilet Waters and Perfumes.
Claims use since June 14, 1913.

Ser. No. 71,413. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL RIEGER & Co., San Francisco, Cal. Filed June 27, 1913.

ARISTOCRACY

Particular description of goods.—Perfumes, Toilet Waters, Face-Powders, Sachet-Powders, Talcum Powder, Tooth-Powders, Face-Creams, Dental Cream, Tooth-Wash, Hair-Tonic, Cold-Cream, Massage-Cream, Brilliantine, Pomades, Nail-Polish, Nail-Enamel, Shampoo-Mixtures, Bath-Powder, Florida Water, Bay-Rum, Smelling-Salts, Rice-Powder, Cologne, Bath-Powder, Toilet Powders, Rouge, Face-Enamel, Hair-Oil, and Almond-Meal.
Claims use since Apr. 2, 1909.

Ser. No. 71,420. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) AMERICAN FELT COMPANY, Boston, Mass. Filed June 28, 1913.



Particular description of goods.—Felt in the Piece.
Claims use since June 5, 1913.

Ser. No. 71,509. (CLASS 39. CLOTHING.) J. F. CARTER COMPANY, Portland, Me., and Beverly, Mass. Filed July 3, 1913.

ECLIPSE BRAND

The word "Brand" being disclaimed.
Particular description of goods.—Oiled Clothing.
Claims use since January, 1887.

Ser. No. 71,520. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) TAYLOR, LOWENSTEIN & Co., Mobile, Ala. Filed July 3, 1913.

TALOCO

Particular description of goods.—Turpentine.
Claims use since May 3, 1913.

Ser. No. 71,532. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE DART MANUFACTURING COMPANY, Waterloo, Del. Filed July 5, 1913.



Consists of the representation of a dart.
Particular description of goods.—Motor-Trucks.
Claims use since on or about Jan. 1, 1893.

Ser. No. 71,544. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SCHWENGER & WEED, Schenectady, N. Y. Filed July 5, 1913.

Twentieth Century

5

Particular description of goods.—Insecticides.
Claims use since Nov. 1, 1912.

Ser. No. 71,562. (CLASS 2. RECEPTACLES.) EDWARD ELLIS, Minneapolis, Minn. Filed July 7, 1913.

"WAUTO"

Particular description of goods.—Pails and Buckets Formed of Canvas or other Textile Waterproof Fabric.
Claims use since July, 1911.

Ser. No. 71,572. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed July 7, 1913.



Particular description of goods.—Toilet-Paper.
Claims use since Dec. 29, 1910.

Ser. No. 71,591. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WHIZZ MANUFACTURING CO., Chicago, Ill. Filed July 7, 1913.

WHIZZ

Particular description of goods.—Hair-Removers and Depilatory Preparations.
Claims use since June 15, 1913.

Ser. No. 71,594. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed July 8, 1913.

DUMOL

Particular description of goods.—Rubber, Cotton, and Linen Hose; Rubber, Cotton, and Canvas Belting; Rubber Packing, and Rubber Jar-Rings.
Claims use since June 20, 1913.

Ser. No. 71,696. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed July 14, 1913.

PEARL

Particular description of goods.—Rubber Bands.
Claims use since May 15, 1913.

Ser. No. 71,701. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM CHAMBERS & SON, Buffalo, N. Y. Filed July 15, 1913.

TUXTON

Particular description of goods.—Liquid Polish for Pianos, Furniture, and Automobiles, Polishing-Oil for Cleaning and Polishing, and Polishing-Wax for Polishing Furniture, Pianos, and Woodwork.
Claims use since June 1, 1913.

Ser. No. 71,703. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE H. B. CLAFLIN COMPANY, New York, N. Y. Filed July 15, 1913.

KONIGSKINDER

Particular description of goods.—Dolls and Toys.
Claims use since May 20, 1913.

Ser. No. 71,704. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) J. C. DOWD & CO., New York, N. Y. Filed July 15, 1913.



Particular description of goods.—Manicure-Files, Cuticle-Knives, Corn-Knives, Manicure-Buffers, Cuticle-Scissors, and Nail-Scissors.
Claims use since October, 1907.

Ser. No. 71,710. (CLASS 11. INKS AND INKING MATERIALS.) EGON HASSINGER, Paris, France. Filed July 15, 1913.

PLUTO

Particular description of goods.—Carbon-Paper for Duplicating Purposes.
Claims use since about September, 1912.

Ser. No. 71,739. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) DETROIT SANITARY SUPPLY COMPANY, Detroit, Mich. Filed July 16, 1913.

DESANCO

DESANCO

Particular description of goods.—Bath-Tub, Basin, and Closet Fittings, Bath-Tub and Basin Supply-Pipes, and Metallic Valves.
Claims use since Sept. 1, 1910.

Ser. No. 71,764. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE MARIETTA PAINT & COLOR CO., Marietta, Ohio. Filed July 16, 1913.

§ PARTANA

Particular description of goods.—A Varnish-Stain.
Claims use since Jan. 1, 1913.

Ser. No. 71,783. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) D. & L. SLADE COMPANY, Boston and Revere, Mass. Filed July 16, 1913.

CONGRESS



Particular description of goods.—Baking-Powder.
Claims use since 1853.

Ser. No. 71,789. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUGUST H. VORDICK, St. Louis, Mo. Filed July 16, 1913. Under ten-year proviso.



Particular description of goods.—Healing-Salve, Liver-Pills, and a Remedy for Ague.
Claims use since Aug. 14, 1877.

Ser. No. 71,888. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) J. S. NICHOLAS & SON POLISH CO., Oakland, Cal. Filed July 22, 1913.

NIKS

Particular description of goods.—A Preparation of Oils and Greases for Renewal of Varnish-Surfaces After They Have Become Dull or Scratched.
Claims use since Mar. 1, 1913.

Ser. No. 71,975. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) FRANCIS T. MACKEDON, Brockton, Mass. Filed July 25, 1913.



The "Mary" Swing

The portrait of the child is that of applicant's daughter. No claim is made to the word "Swing" or to the representation of a swing.
Particular description of goods.—A Child's Swing.
Claims use since July 1, 1909.

Ser. No. 72,075. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Coal-Washing Machines, Crushers, Pulverizers, Hammers, Saws, Chisels, Hatchets, Levels, Wrenches, Tool-Handles, Shovels, Picks, Laboratory Coal-Separators, Assay-Sieves, and Ore-Samplers.
Claims use since May 15, 1913.

Ser. No. 72,088. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed July 31, 1913.

AERO SPIRIT



No claim is made to the use of the words "Aero Spirit."
Particular description of goods.—Naphtha.
Claims use since July 24, 1913.

Ser. No. 72,092. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. C. ATKINS & COMPANY, Indianapolis, Ind. Filed Aug. 1, 1913.



Particular description of goods.—Wood-Saws, Metal-Saws, Cone and Corn Knives, and Trowels.
Claims use since June 1, 1913.

Ser. No. 72,094. (CLASS 11. INKS AND INKING MATERIALS.) ACID PROOF INK CO., INC., New York, N. Y. Filed Aug. 1, 1913.

APICO

Particular description of goods.—Writing Fluids.
Claims use since May 1, 1912.

Ser. No. 72,112. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN KLEMAK, Fairchild, Wis. Filed Aug. 1, 1913.



Which is a portrait of myself.
Particular description of goods.—A Liniment.
Claims use since June, 1909.

Ser. No. 72,115. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Aug. 1, 1913.

Dauntless Durham of the U. S. A.



Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Jan. 22, 1913.

Ser. No. 72,116. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Aug. 1, 1913.

The Dingbat Family



Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since June 20, 1910.

Ser. No. 72,117. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Aug. 1, 1913.

Polly and Her Pals



Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Jan. 13, 1913.

Ser. No. 72,125. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) BENNETT & WHITE INC., Newark, N. J. Filed Aug. 2, 1913.

Artempo

Particular description of goods.—Perforated Music-Sheets for Self-Playing Instruments.
Claims use since July 22, 1911.

Ser. No. 72,148. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE J. & G. BUTLER CO., Columbus, Ohio. Filed Aug. 4, 1913.

GAS-AWAY

Particular description of goods.—Straight Whisky.
Claims use since the year 1902.

Ser. No. 72,151. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WILLIAM A. DE SCHAUM, Detroit, Mich. Filed Aug. 4, 1913.

TIGER

Particular description of goods.—Automobiles.
Claims use since Feb. 1, 1913.

Ser. No. 72,164. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PAUL WERNICKE, Ellenburg, Germany. Filed Aug. 4, 1913.

VERNO

Particular description of goods.—Artificial-Stone Presses and Parts Thereof.
Claims use since Feb. 19, 1913.

Ser. No. 72,236. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MARGARET ANGELA WALSH, El Paso, Tex. Filed Aug. 8, 1913.

No-No

Particular description of goods.—A Floor-Wax and Floor-Polishing Material.
Claims use since Aug. 1, 1913.

Ser. No. 72,263. (CLASS 15. OILS AND GREASES.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Axle-Grease, Bicycle-Oil, and Machine-Oil.
Claims use since June 1, 1913.

Ser. No. 72,264. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Apple-Juice; Cider; Soda-Water; Extract Root-Beer; Mineral Waters; Root-Beer.
Claims use since June 1, 1913.

Ser. No. 72,274. (CLASS 5. ADHESIVES.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Glue and Mucilage.
Claims use since June 1, 1913.

Ser. No. 72,295. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) FRANK S. CHANCE, Indianapolis, Ind. Filed Aug. 11, 1913.

Medilator

Particular description of goods.—A Device for the Treatment of Piles.
Claims use since Dec. 20, 1912.

Ser. No. 72,327. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE AMERICAN BRASS COMPANY, Waterbury, Conn. Filed Aug. 14, 1913.

HITENSO

Consisting of the word "Hitenso."
Particular description of goods.—Copper Wire.
Claims use since July 10, 1913.

Ser. No. 72,368. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) VVE. ROGÉE & MONNET, Cognac, France. Filed Aug. 15, 1913.

MERCURE

Particular description of goods.—Brandy.
Claims use since the beginning of the year 1885.

TRADE-MARKS

REGISTERED SEPTEMBER 9, 1913.

93,318. CERTAIN VEHICLES, NOT INCLUDING ENGINES. AMERICAN ASBESTOS COMPANY, Norristown, Pa.
Filed October 7, 1912. Serial No. 66,178. PUBLISHED JULY 8, 1913.

93,319. ROPE MADE OF VEGETABLE FIBER. AMERICAN MANUFACTURING COMPANY, Boston, Mass.
Filed April 21, 1913. Serial No. 69,937. PUBLISHED JULY 8, 1913.

93,320. INTERNAL-COMBUSTION ENGINES USED FOR PROPELLING HAND-CARS ON RAILWAYS. ASSOCIATED MANUFACTURERS COMPANY, Waterloo, Iowa.
Filed May 8, 1913. Serial No. 70,290. PUBLISHED JULY 8, 1913.

93,321. PREPARATION FOR VENEREAL DISEASES. ROBERT ALEXANDER BACHMANN, Newport, R. I.
Filed April 9, 1913. Serial No. 69,673. PUBLISHED JULY 8, 1913.

93,322. WOMEN'S HOUSE-DRESSES. BALDWIN GARMENT COMPANY, Holyoke, Mass.
Filed May 27, 1913. Serial No. 70,689. PUBLISHED JULY 8, 1913.

93,323. MONTHLY MAGAZINE. ELLWOOD E. BARLEY, Exeter, Cal.
Filed May 12, 1913. Serial No. 70,365. PUBLISHED JULY 1, 1913.

93,324. DEODORIZERS. M. J. BARNARD & COMPANY, Portland, Oreg.
Filed April 17, 1913. Serial No. 69,841. PUBLISHED JULY 8, 1913.

93,325. CERTAIN PREPARED ROOFINGS. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed May 22, 1913. Serial No. 70,554. PUBLISHED JULY 8, 1913.

93,326. CERTAIN PRINTS AND PUBLICATIONS. BARSE & HOPKINS, New York, N. Y.
Filed August 2, 1912. Serial No. 65,067. PUBLISHED JULY 15, 1913.

93,327. SUBSTITUTE FOR LINSEED-OIL. BERRY BROTHERS LTD., Detroit, Mich.
Filed May 18, 1911. Serial No. 56,447. PUBLISHED JULY 8, 1913.

93,328. GLOVES. BEST & COMPANY, New York, N. Y.
Filed May 9, 1913. Serial No. 70,308. PUBLISHED JULY 8, 1913.

93,329. HOSIERY AND UNDERWEAR. BEST & COMPANY, New York, N. Y.
Filed May 23, 1913. Serial No. 70,578. PUBLISHED JULY 8, 1913.

93,330. TRACTION-ENGINES, HARVESTERS, HEADERS, AND SEPARATORS. THE BEST MANUFACTURING COMPANY, INC., San Leandro, Cal.
Filed January 29, 1913. Serial No. 68,175. PUBLISHED JULY 8, 1913.

93,331. CERTAIN CUTLERY, MACHINERY, TOOLS, AND PARTS THEREOF. BIDDLE HARDWARE COMPANY, Philadelphia, Pa.
Filed March 30, 1912. Serial No. 62,546. PUBLISHED JULY 8, 1913.

93,332. IMITATION FUR. PHILIP BROUS COMPANY, New York, N. Y.
Filed March 18, 1913. Serial No. 69,149. PUBLISHED JULY 8, 1913.

93,333. BRAKE-LININGS. THE PHILIP CAREY MANUFACTURING CO., Lockland, Ohio.
Filed March 24, 1913. Serial No. 69,279. PUBLISHED JULY 8, 1913.

93,334. MONTHLY PERIODICAL. CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA, Washington, D. C.
Filed May 23, 1913. Serial No. 70,601. PUBLISHED JULY 15, 1913.

93,335. REMEDY FOR CERTAIN NAMED DISEASES. SIMMONS L. CHEEK, Ensley, Ala.
Filed March 22, 1913. Serial No. 69,248. PUBLISHED JULY 8, 1913.

93,336. HOSIERY. COMMON SENSE SUSPENDER CO., Morristown, N. J.
Filed May 13, 1913. Serial No. 70,400. PUBLISHED JULY 8, 1913.

93,337. CERTAIN CONSTRUCTION MATERIALS. CONCRETE FINISHING COMPANY, INC., New York, N. Y.
Filed May 3, 1913. Serial No. 70,200. PUBLISHED JULY 15, 1913.

93,338. PUMP-BOWS, BUST-RUFFLES, BOSOM-FORMS, AND HOSE-SUPPORTERS. EDGAR E. CLYMER, Philadelphia, Pa.
Filed April 15, 1913. Serial No. 69,795. PUBLISHED JULY 8, 1913.

93,339. BOOKS. REUBEN S. CLYMER, Allentown, Pa.
Filed September 21, 1912. Serial No. 65,911. PUBLISHED JULY 1, 1913.

93,340. WIRE ROPES. WILLIAM COOKE & CO. LIMD., Sheffield, England.
Filed May 10, 1913. Serial No. 70,343. PUBLISHED JULY 8, 1913.

93,341. BIOGRAPHICAL SECTION OF A PERIODICAL PUBLICATION. THE CURTIS PUBLISHING COMPANY, Philadelphia, Pa.
Filed April 30, 1913. Serial No. 70,125. PUBLISHED JULY 8, 1913.

93,342. METAL PLATES, METAL STRIPS, AND UNINSULATED METAL WIRE. DRIVER-HARRIS WIRE CO., Harrison, N. J.
Filed January 5, 1911. Serial No. 53,691. PUBLISHED JULY 8, 1913.

93,343. WOVEN TAPE. EARNSHAW KNITTING COMPANY, Chicago, Ill.
Filed May 7, 1913. Serial No. 70,277. PUBLISHED JULY 8, 1913.

93,344. FLOORING, WAINSCOTING, STAIRS, AND NEWELS. FLEXOTILE FLOOR COMPANY, Rockford, Ill.
Filed January 27, 1913. Serial No. 68,140. PUBLISHED JULY 8, 1913.

93,345. RECEPTACLES MADE OF CERTAIN NAMED MATERIALS. HENRY E. FRANKENBERG COMPANY, New York, N. Y.
Filed June 6, 1912. Serial No. 64,018. PUBLISHED MAY 6, 1913.

93,346. VEHICLE TIRES, WHEELS, AXLES, SHAFTS, AND SPRINGS. FRIED. KRUPP AKTIENGESELLSCHAFT, Essen, Germany.
Filed May 3, 1913. Serial No. 70,209. PUBLISHED JULY 8, 1913.

93,347. BUILDING-BLOCKS, BRICKS, PILLARS, AND TILES. THE GENERAL CERAMIC MANUFACTURING COMPANY, Revere and Boston, Mass.
Filed March 1, 1913. Serial No. 68,799. PUBLISHED JULY 8, 1913.

93,348. METAL LATHING, METAL FORMS OR REINFORCING ELEMENTS, AND WALL-TIES. THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio.
Filed June 6, 1913. Serial No. 70,895. PUBLISHED JULY 8, 1913.

93,349. WOOLEN PIECE GOODS. HAAS BROTHERS, New York, N. Y.
Filed May 10, 1913. Serial No. 70,350. PUBLISHED JULY 8, 1913.

93,350. PREPARATION FOR THE TREATMENT OF THE HAIR AND SCALP. JOSEPH HAIGH, Muskogee, Okla.
Filed March 25, 1913. Serial No. 69,323. PUBLISHED JULY 8, 1913.

93,351. TOOTH-BRUSHES. HALL & RUCKEL, New York, N. Y.
Filed April 25, 1913. Serial No. 70,056. PUBLISHED JULY 1, 1913.

93,352. REMEDY FOR PILES. HOVNAN A. HAMPOIAN, Lynn, Mass.
Filed April 21, 1913. Serial No. 69,949. PUBLISHED JULY 8, 1913.

93,353. TROCHES. HANCE BROTHERS & WHITE, Philadelphia, Pa.
Filed March 26, 1913. Serial No. 69,355. PUBLISHED JULY 8, 1913.

93,354. CERTAIN PHARMACEUTICAL PREPARATIONS. ERNST D. HIRSCHY, Kewanee, Ill.
Filed April 4, 1913. Serial No. 69,593. PUBLISHED JULY 8, 1913.

93,355. SHEETS, PILLOW-CASES, RUGS, BLANKETS, SHAWLS, SCARF, AND VEILS. WILLIAM HOLLINS & COMPANY, LIMITED, London, England.
Filed April 10, 1913. Serial No. 69,700. PUBLISHED JULY 8, 1913.

93,356. PEROXID OF HYDROGEN. HYDROX CHEMICAL CO., New York, N. Y.
Filed January 7, 1910. Serial No. 46,951. PUBLISHED DECEMBER 5, 1911.

93,357. CERTAIN CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. INDEPENDENT CHEMICAL COMPANY, New York, N. Y.
Filed November 4, 1912. Serial No. 66,668. PUBLISHED JUNE 17, 1913.

93,358. CERTAIN MACHINERY, TOOLS, AND PARTS THEREOF. INTERNATIONAL HARVESTER CORPORATION, Chicago, Ill.
Filed April 21, 1913. Serial No. 69,952. PUBLISHED JULY 8, 1913.

93,359. HOSIERY. INTERWOVEN STOCKING COMPANY, New Brunswick, N. J.
Filed May 12, 1913. Serial No. 70,374. PUBLISHED JULY 8, 1913.

93,360. CERTAIN CHEMICALS AND PHARMACEUTICAL PREPARATIONS. JAPSTICK COMPANY INC., Cambridge, Mass.
Filed June 5, 1912. Serial No. 64,002. PUBLISHED JULY 8, 1913.

93,361. DETERGENT POLISH FOR FURNITURE, WOODWORK, CARRIAGES, AND SIMILAR SURFACES. GERHARD T. JARDEN, Brooklyn, N. Y.
Filed April 16, 1913. Serial No. 69,827. PUBLISHED JUNE 24, 1913.

93,362. CORDS, TWINES, ROPES, AND LINES. HENRY C. KELLEY COMPANY, New York, N. Y.
Filed April 4, 1913. Serial No. 69,596. PUBLISHED JULY 1, 1913.

93,363. WASH, HOUSE, AND STREET DRESSES AND NEGLIGÉE AND FLANNEL SHIRTS. BENJAMIN KRONTHAL, Michigan City, Ind.
Filed May 26, 1913. Serial No. 70,666. PUBLISHED JULY 8, 1913.

93,364. VACUUM-CLEANERS. LOUIS J. KUCKI, Chicago, Ill.
Filed May 19, 1913. Serial No. 70,491. PUBLISHED JULY 8, 1913.

93,365. OVERCOATS, COATS, VESTS, AND TROUSERS. B. KUPPENHEIMER & COMPANY, Chicago, Ill.
Filed May 14, 1913. Serial No. 70,419. PUBLISHED JULY 8, 1913.

93,366. TRUNKS, TRAVELING-BAGS, SUITCASES, PORTFOLIOS, POCKET-BOOKS, AND TRAVELING-CASES. HENRY LIKLY & COMPANY, Rochester, N. Y.
Filed July 12, 1911. Serial No. 57,602. PUBLISHED SEPTEMBER 24, 1912.

93,367. CHAIR-SEATS. "LUTERMA" G. M. B. H., Lubeck, Germany.
Filed March 1, 1913. Serial No. 68,804. PUBLISHED JULY 1, 1913.

93,368. PREPARED SKINS FOR RACKING BEER. WM. MAEGERLEIN, Chicago, Ill.
Filed July 1, 1912. Serial No. 64,514. PUBLISHED JULY 8, 1913.

93,369. CORSETS. MME. MARIETTE, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,672. PUBLISHED JULY 8, 1913.

93,370. READY-MIXED PAINTS AND VARNISHES. THE MARTIN-SENOUR COMPANY, Chicago, Ill.
Filed April 28, 1913. Serial No. 70,102. PUBLISHED JULY 8, 1913.

93,371. FLY AND INSECT KILLER. THOMAS W. MASON, Fife Lake, Mich.
Filed May 14, 1913. Serial No. 70,420. PUBLISHED JULY 8, 1913.

93,372. CHEMICAL PREPARATION FOR EXTERMINATING RODENTS AND VERMIN. MOUSE-O-CIDE CHEMICAL COMPANY, Boise, Idaho.
Filed March 7, 1913. Serial No. 68,902. PUBLISHED JULY 8, 1913.

93,373. CERTAIN NAMED PHARMACEUTICAL PREPARATIONS. OWL DRUG COMPANY, Chicago, Ill.
Filed April 9, 1913. Serial No. 69,680. PUBLISHED JULY 8, 1913.

93,374. MANUFACTURED LIME IN ITS VARIOUS FORMS. PACIFIC LIME & GYPSUM COMPANY, Gypsum, Oreg.
Filed March 20, 1913. Serial No. 69,210. PUBLISHED JULY 1, 1913.

93,375. MONTHLY TRADE MAGAZINE. PARIS-NEW YORK FASHION CO., New York, N. Y.
Filed May 23, 1913. Serial No. 70,589. PUBLISHED JULY 1, 1913.

93,376. DOLLS. THE PARSONS-JACKSON CO., Cleveland, Ohio.
Filed May 26, 1913. Serial No. 70,817. PUBLISHED JULY 8, 1913.

93,377. DOLLS. THE PARSONS-JACKSON CO., Cleveland, Ohio.
Filed May 26, 1913. Serial No. 70,818. PUBLISHED JULY 8, 1913.

93,378. GAMES. THE PASTIME NOVELTY CO., INC., New York, N. Y.
Filed May 8, 1913. Serial No. 70,301. PUBLISHED JULY 8, 1913.

93,379. REMEDY FOR GENITO-URINARY DISEASES. REESE CHEMICAL COMPANY, Cleveland, Ohio.
Filed February 20, 1912. Serial No. 61,624. PUBLISHED JULY 8, 1913.

93,380. REMEDY FOR RHEUMATISM AND KIDNEY AILMENTS. P. E. SANDLIE, Grand Forks, N. D.
Filed April 10, 1913. Serial No. 69,711. PUBLISHED JULY 8, 1913.

93,381. CERTAIN HARDWARE, PLUMBING, AND STEAM-FITTING SUPPLIES. SANITAS M'F'G. CO., Boston, Mass.
Filed April 28, 1910. Serial No. 49,351. PUBLISHED JANUARY 16, 1912.

93,382. TWINE AND CORDAGE. SCHERMERHORN BROS. CO., Chicago, Ill.
Filed May 23, 1913. Serial No. 70,594. PUBLISHED JULY 8, 1913.

93,383. ANTISYPHILITICUM. CARL SCHINDLER, Schöneberg, Germany.
Filed September 11, 1912. Serial No. 65,695. PUBLISHED JULY 8, 1913.

93,384. MATTRESSES AND PILLOWS. SCHMITT & HENRY MANUFACTURING COMPANY, Des Moines, Iowa.
Filed April 1, 1912. Serial No. 62,573. PUBLISHED JULY 8, 1913.

93,385. METAL AND PAPER CARTONS. SINGLE SERVICE PACKAGE CORPORATION OF AMERICA, New York, N. Y.
Filed February 16, 1912. Serial No. 61,554. PUBLISHED JULY 8, 1913.

93,386. TALCUM POWDER. SMITH, KLINE & FRENCH COMPANY, Philadelphia, Pa.
Filed March 18, 1913. Serial No. 69,173. PUBLISHED JULY 8, 1913.

93,387. BUILDING MATERIALS, AND PARTICULARLY AERIFEROUS BRICKS, PANELS, AND TILES. SOCIETE FRANCAISE DE L'ONDULIUM, Vitry-sur-Seine, France.
Filed May 8, 1912. Serial No. 63,410. PUBLISHED JULY 1, 1913.

93,388. PAINT-OIL. THE SOUTHERN STATES REFINING COMPANY, Jacksonville, Fla.
Filed May 15, 1913. Serial No. 70,436. PUBLISHED JULY 8, 1913.

93,389. CHAIRS. THE STANDARD MANUFACTURING COMPANY, Cambridge City, Ind.
Filed March 14, 1913. Serial No. 69,040. PUBLISHED JULY 8, 1913.

93,390. CONCRETE COATINGS. STANDARD VARNISH WORKS, New York, N. Y.
Filed May 7, 1913. Serial No. 70,284. PUBLISHED JULY 8, 1913.

93,391. WORSTED AND WOOLEN PIECE GOODS. STRATHMORE WORSTED MILLS, Boston, Mass.
Filed May 27, 1912. Serial No. 63,815. PUBLISHED JULY 8, 1913.

93,392. SEMIMONTHLY PERIODICAL. S. W. STRAUS & CO., Chicago, Ill., and New York, N. Y.
Filed February 20, 1913. Serial No. 68,641. PUBLISHED JULY 15, 1913.

93,393. PASTE FOR TIGHTENING PIPE-JOINTS. THREAD TIGHT CO., New York, N. Y.
Filed March 31, 1913. Serial No. 69,496. PUBLISHED JULY 1, 1913.

93,394. HORSE AND MULE SHOES. THE TREDEGAR COMPANY, Richmond, Va.
Filed May 2, 1913. Serial No. 70,191. PUBLISHED JULY 8, 1913.

93,395. FERTILIZERS. J. E. TYGERT COMPANY, Philadelphia, Pa.
Filed March 17, 1913. Serial No. 69,130. PUBLISHED JULY 8, 1913.

93,396. REMEDY FOR CERTAIN NAMED AILMENTS. UNITED GROCERY CO., Jacksonville, Fla.
Filed October 18, 1912. Serial No. 66,349. PUBLISHED JULY 8, 1913.

93,397. SUPPLEMENTARY SPRINGS AND SHOCK-ABSORBERS IN CONNECTION WITH AUTOMOBILES. UNIVERSAL SHOCK ELIMINATOR, INC., New York, N. Y.
Filed April 18, 1913. Serial No. 69,908. PUBLISHED JULY 1, 1913.

93,398. WALL-BOARD. THE UPSON COMPANY, Lockport, N. Y.
Filed May 3, 1913. Serial No. 70,224. PUBLISHED JULY 8, 1913.

93,399. LIQUID COMPOUND FOR SPECIAL USE. VULKO-FIBERENE CO., Oklahoma, Okla.
Filed October 2, 1912. Serial No. 66,101. PUBLISHED JULY 8, 1913.

93,400. GAME. FRANCIS C. WALLACE, Drummond, Md.
Filed May 28, 1913. Serial No. 70,740. PUBLISHED JULY 8, 1913.

93,401. CERTAIN CONSTRUCTION MATERIALS. THE WEST CONSTRUCTION COMPANY, Chattanooga, Tenn.
Filed August 2, 1912. Serial No. 65,075. PUBLISHED JULY 8, 1913.

93,402. SILOS. WESTERN SILO COMPANY, Des Moines, Iowa.
Filed May 23, 1912. Serial No. 63,736. PUBLISHED JULY 8, 1913.

93,403. GAME OF CARDS. LUCY D. WHEELOCK, Weedsport, N. Y.
Filed May 16, 1913. Serial No. 70,458. PUBLISHED JULY 8, 1913.

93,404. FURNITURE CLEANING AND POLISHING LIQUID COMPOUND. MAMIE E. WRAY, St. Louis, Mo.
Filed November 8, 1912. Serial No. 66,755. PUBLISHED JULY 8, 1913.

93,405. MATCHES, FIRE-IGNITING SURFACES, FIRE-IGNITERS, AND FIRE-KINDLERS. EUGEN ZIMMERMANN & CO. G. M. B. H., Berlin, Germany.
Filed March 10, 1913. Serial No. 68,956. PUBLISHED JULY 1, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE P. H. HANES KNITTING COMPANY.

Decided July 16, 1913.

TRADE-MARKS — SURNAME — NOT DISTINCTIVELY DISPLAYED—NOT REGISTRABLE.

A mark consisting of the name "Hanes" upon an alleged "peculiarly shaped red shield" *Held* properly refused registration, since the name is not distinctively displayed.

ON APPEAL.

TRADE-MARK FOR KNITTED FABRICS.

Mr. Arthur S. Browne for the applicant.

MOORE, *Commissioner:*

This is an appeal from the action of the Examiner of Trade-Marks refusing to register the name "Hanes," displayed upon what the applicant calls a "peculiarly shaped red shield," as a trade-mark for knitted underwear.

The refusal of the Examiner is upon the ground that the mark is a surname not distinctively displayed within the meaning of the trade-mark law. With this holding I agree. As was said in the case of *Engelhard & Sons Co.*, (1904, C. D., 122:)

> If accessories are to save the mere name from the inhibition of the statute, they must rise into such relative importance and must so dwarf the mere name as to render this latter of minor importance in the whole effect produced upon the mind of the observer and to prevent such result of infringement as just mentioned. In fact, it seems to me that a due regard to the spirit of the statute requires the reduction of the name element in the mark to be carried so far that the name becomes a negligible or non-essential factor in the whole effect produced, so that if the rest of the mark should remain and the name should be changed it would not present a substantially different appearance.

In the present case the name "Hanes" is by far the most conspicuous feature of the mark. As shown by the labels submitted, the mark is applied in the form of a woven label, and in labels of this character it is so common to have a background of some form of a contrasting color that the so-called "peculiarly-shaped red shield" does not impress itself on the mind of the observer. In fact, viewed in any light, the name is distinctly the striking feature.

The decision of the Examiner of Trade-Marks is affirmed.

EX PARTE FULDA.

Decided August 14, 1913.

DESIGNS — SUPERFICIAL ORNAMENTATION — PARTICULAR ARTICLE OF MANUFACTURE NEED NOT BE DISCLOSED.

Where a design is for the form or configuration or involves the relative proportions of parts of an article of manufacture, such article must necessarily be disclosed in the application, but where the design is for an ornament adapted to be applied to any article of manufacture it is not necessary that applicant disclose the design as applied to some particular article of manufacture.

APPEAL from Examiners-in-Chief.

DESIGN FOR AN ARTICLE OF MANUFACTURE.

Mr. William A. Megrath for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Examiner of Trade-Marks and Designs refusing to allow the application because the drawing does not show the design applied to any complete and definite article of manufacture.

The preamble of the specification states that the invention is—

> a new, original and ornamental design for an article of manufacture.

Concerning the manner in which the design is applied to an article of manufacture the specification states:

> My design may be stamped, printed, imprinted, embossed or worked on or in or cut upon or in any suitable paper, cloth, or any other fabric, or upon any metal or any other suitable material, and may be produced on or in or attached to any desired article of manufacture.

The single claim reads:

> I claim the ornamental design for an article of manufacture as shown and described.

The sole ground for refusing to allow the application stated by the lower tribunals is because of the failure of applicant to illustrate the design upon or applied to some particular, complete, and definite article of manufacture. This alleged error in the holding of the Examiners-in-Chief forms the sole specific ground of appeal.

It is contended by appellant that he has not produced an article of manufacture, but an ornamental design for an article, and said article may be any article of manufacture.

The Examiner of Trade-Marks and Designs concedes that the disclosure of the configuration in the drawing was a completion of the inventive act for the reason that the effect on the eye could be ascertained from mere inspection, and that this effect would be identical with that obtained from this configuration if it were applied to any article of manufacture whatever, but the Examiner holds that it does not follow that his requirement for a disclosure of some specific article of manufacture is improper. The Examiner holds that—

> the statute limits the subject-matter of a design patent to an article of manufacture—

and that—

> the language "ornamental design for an article of manufacture" of section 4929 Revised Statutes has for a long

time and uniformly been interpreted by this Office to require an applicant to disclose the structure to which the ornamentation has been applied.

An examination of the statutes shows that section 4929, Revised Statutes, as amended May 9, 1902, reads:

Any person who has invented any new, original, and ornamental design for an article of manufacture, not known or used by others, etc.

Section 4929, Revised Statutes, prior to its amendment on May 9, 1902, instead of the words "design for an article of manufacture" stated a large number of specific subjects patentable as designs and read as follows:

Sec. 4929. Any person who, by his own industry, genius, efforts, and expense, has invented and produced any new and original design for a manufacture, bust, statue, alto-rilievo, or bas-relief; any new and original design for the printing of woolen, silk, cotton, or other fabrics; any new and original impression, ornament, patent, print, or picture to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture; or any new, useful, and original shape or configuration of any article of manufacture, the same not having been known or used by others before his invention or production thereof, or patented or described in any printed publication, may, upon payment of the fee prescribed, and other due proceedings had the same as in cases of inventions or discoveries, obtain a patent therefor.

Congress did not, in amending the act in 1902, intend to omit as proper subjects for a design patent—

any new and original impression, ornament, patent, print, or picture to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture.

Former Commissioner Allen drafted the section of this statute as it now appears primarily for the purpose of substituting the word "ornamental" in place of the word "useful" in the former statute. That it was not the intention in using the term "article of manufacture" in place of the specification of particular matters in the prior statute to omit any of them clearly appears from the following extract from a memorandum submitted by Commissioner Allen to the committees of Congress having the bill in charge:

Section 4929, as it stands at the present time, contains the specific statement of a number of different subjects to which designs may be applied. The proposed statute removes all this specific statement, for the reason that as the statute stands it does not include all the subjects which ought to be included, and from the inclusion of a portion it suggests the non-inclusion of those not mentioned. It is to be noticed, however, that in spite of this enumeration of subjects of designs, the act of February 4, 1887, which furnishes a remedy for infringement of design patents, gives this remedy against those who, without the consent of the owner, apply the design secured to "any article of manufacture," or to those who sell or expose for sale "any article of manufacture to which such design" shall be applied. Therefore, if the remedy is in terms applicable to any article of manufacture, the enabling act means nothing more by the enumeration of a lot of different subjects, and they have been on this account removed from the proposed statute.

In his specification applicant states that he has produced an ornamental design for an article of manufacture, and states how it may be applied to said article of manufacture almost in the words of section 4929, Revised Statutes, prior to its amendment of 1902.

That a patentable design may consist of surface ornamentation adapted to be applied to an article of manufacture without reference to the general form or configuration of said article is set forth by Robinson in his work on patents in paragraphs 204 and 206, as follows:

Par. 204. Design may consist in configuration or ornamentation or both.

A design may consist in the simple configuration of a substance or the form given to it as a whole, or in the ornamentation imposed upon it without reference to its general form, or in such configuration and ornamentation both. Thus the essential characteristics of the appearance imparted to a substance may reside in its exterior outlines only, or in the decorations formed by lines or images imposed upon its surface, or in the union of certain outlines and decorations to produce the given design. The same substance, therefore, may exhibit two entirely different designs, one in its outline, the other in its ornament; or one design alone, into which both its form and decoration enter as essential elements.

Par. 206. Essential attributes of a design.

The essence of a design resides in the idea of that configuration or ornamentation which constitutes the new appearance given to the substance. If this idea embraces outline only, no change in decoration will disturb its identity unless the apparent configuration of the substance be also changed. If it relates to the adornment of a substance of some known external form, the form may be indefinitely varied and yet the design of ornament remain the same. Where both configuration and adornment, being new, enter into the same design, a change in the necessary attributes of either changes the essence of the whole design; but when though new they are distinct designs, each stands upon a separate foundation and can be affected only by a variation in its own essential elements. Moreover, the identity of a design is not destroyed by its imposition upon different substances unless the inherent qualities of the substance cause the outline or the ornament to assume a different appearance; and hence the impartation of an old appearance to a new material is not alone sufficient to create a new design.

Former Commissioner Butterworth in *ex parte Traitel* (25 O. G., 783) set forth as a general rule, to which there may be rare exceptions, that a design is independent of the material of which the article of manufacture is composed and that a design is capable of being described or delineated on paper without reference to the material used in the construction of the article.

Where a design is for the form or configuration or involves the relative proportions of parts of an article of manufacture, said article of manufacture must necessarily be disclosed in the application. Where, however, as in the present case, the design is for an ornament adapted to be applied to any article of manufacture, I fail to find in the statute any requirement that the applicant shall disclose his design as applied to some particular definite article of manufacture, as required by the Examiner.

Furthermore, I fail to find any instance where the courts have held a design patent invalid where the design consisted of surface ornamentation, but without showing it applied to a specific article of manufacture. On the contrary, in *Graff, Washbourne & Dunn* v. *Webster et al.*, (189 Fed. Rep., 902,) affirmed by the court of appeals for the second circuit in 195 Fed. Rep., 522, Design Patent No. 40,009, granted May 25, 1909, to Graff, was held valid, though showing merely a border-section. The specification of this patent states that the invention is for a "new, original and ornamental design for border sections," and the claim reads "the ornamental design for a border section as shown and described." No specific mention is made of any article of manufacture to which the border-section may be applied, nor is any shown in the drawing.

In the case of *ex parte Gerard* (43 O. G., 1235) Commissioner Hall held:

An applicant may seek to patent a design for a stove in which is included the form or shape of the stove, with the surface ornamentation for its sides and top. In such case he can not secure a claim for the design as to ornamentation as applied to the sides and top of *any* stove, regardless of its form and configuration. If he wishes to secure a design for a side or panel of a (any) stove, he must take out a separate patent for that.

The Examiner of Designs points out that it has for a long time been the practice where the design is for surface ornamentation to require the applicant to show it applied to some article of manufacture. Such article of manufacture has been commonly illustrated merely in conventional form, however.

In their decision the Examiners-in-Chief state that it is inconceivable that any court would give a design patent a limited scope merely because the design was shown upon a particular article of manufacture. Where the claim, however, reads for the ornamental design for a given article of manufacture, as shown, the claim has usually been interpreted as including in the design all that is shown in the drawing. In the case of *Ashley* v. *Tatum* (186 Fed. Rep., 339) the patent was given a limited construction and held not to cover the defendant's device, although the case there turned rather upon the absence of any descriptive matter or claim indicating the scope of the patent.

Although the fact, as stated by the Examiner, that the present system of classification is dependent upon a disclosure by the applicant of the article of manufacture upon which the design is affixed is entitled to due weight, the question of granting an applicant a patent affording him all the protection to which he is entitled under the statute is paramount to the question of classification. Moreover, in the case of surface ornamentation, the Examiner's search is not limited to the class embracing the article upon which the ornamentation is shown.

While it is possible that applicant might obtain protection for his design under the Copyright Act, it is believed that he is clearly entitled to the protection afforded by a design patent. In the case of *Lewis De Jonge & Co.* v. *Breuker & Kessler Co.* (182 Fed. Rep., 150) the court held that a painting in water-colors intended as a design for fancy paper to cover boxes and other articles for the holiday season was proper subject-matter for a design patent under section 4929, Revised Statutes, or for copyright protection, but that the owner should not have protection under both statutes.

The decision of the Examiners-in-Chief is reversed.

KIDD *v.* ANDREW REITER & COMPANY.

Decided March 6, 1911.

TRADE-MARKS — GOODS OF SAME DESCRIPTIVE PROPERTIES—PICKLES AND CANNED FRUITS AND VEGETABLES.

Pickles and canned fruits and vegetables *Held* to constitute goods of the same descriptive properties.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR CANNED VEGETABLES AND CANNED FRUITS.

Mr. Arthur P. Greeley for Kidd.

Messrs. Mason, Fenwick & Lawrence and *Messrs. Mann & Co.*, for Andrew Reiter & Company.

TENNANT, *Assistant Commissioner:*

This is an appeal by Andrew Reiter & Company from the decision of the Examiner of Interferences awarding priority of adoption and use to Kidd and adjudging that she is entitled to register the mark for which she has made application.

The mark in issue is the expression "Pin Money," as applied to canned fruits and vegetables or fruit preserves and vegetable preserves.

The facts established by the testimony of the respective parties, as found by the Examiner of Interferences, are as follows: The party Kidd adopted the words "Pin Money" about the year 1888 and applied them as a trade-mark to several food products put up in bottles and jars. Pickles were among the articles to which the mark was so applied, and on them it has been used continuously up to the present time. It is not shown that she has used the mark on the other food products since about 1893. Andrew Reiter & Company has shown continuous use of the mark on canned fruits or vegetables since about 1901.

It is not understood that this statement of the facts is questioned by either party. The only questions raised on this appeal are whether pickles and canned fruits and vegetables are goods of the same descriptive properties and whether Kidd can be held to have abandoned the mark as applied to preserved fruits and preserved vegetables.

Judgment cannot be rendered in favor of Andrew Reiter & Company in this proceeding if it is found that the goods to which it has applied the mark are so similar in character to pickles, upon which Kidd has used the mark since 1888, that its contemporaneous use upon both would tend to cause confusion in the mind of the purchasing public.

It has been urged on behalf of Andrew Reiter & Company that canned fruits and vegetables are preserved in a different way from pickles and are customarily put up in tin rather than glass or earthen jars and that these classes of goods would not, therefore, be confused with each other. It is well known, however, that they are commonly sold by the same class of merchants and are usually displayed together upon the same shelves. It seems probable that the ordinary customer in the habit of buying "Pin Money" pickles would conclude, upon being offered "Pin Money" canned fruit or vegetables, that they were put up by the same manufacturer who supplied the pickles. It is such confusion as this that the trade-mark statute seeks to avoid, and in view of the interpretation put upon the law by the Court of Appeals of the District of Columbia in the cases of *Walter Baker & Co., Ltd.*, v. *Harrison* (138 O. G., 770; 32 App. D. C., 272) and *Phoenix Paint & Varnish Co.* v. *John T. Lewis & Bro.* (139 O. G., 990; 32 App. D. C., 285) it is thought the Examiner of Interferences was right in holding that the two classes of goods mentioned are so similar in character that the same trade-mark cannot properly be registered by separate parties for use in goods in these respective classes. Kidd being the first to adopt the mark for such goods is therefore entitled to the registration now sought.

It is also contended on behalf of Kidd that no abandonment of the mark as applied to preserved fruits and preserved vegetables can be charged to her because of her failure to use the mark thereon since 1893. It is urged that such abandonment cannot be presumed and must be affirmatively shown, under the holding of the Supreme Court of the United States in the case of *Saxlehner* v. *Eisner and Mendelson Company*, (179 U. S., 19,) wherein it was said:

To establish the defense of abandonment it is necessary to show not only acts indicating a practical abandonment,

but an actual intent to abandon. Acts which unexplained would be sufficient to establish an abandonment may be answered by showing that there never was an intention to give up and relinquish the right claimed.

Under the circumstances of the present case I incline to the belief that the applicant's contention on this point is sound; but in view of the conclusion reached herein as to the similarity of the goods upon which the mark has actually been used by the respective parties it is unnecessary to expressly decide this question.

For the reasons above given the decision of the Examiner of Interferences is affirmed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Lemp patent, No. 564,331, for an electrical transformer, *Held* not infringed. *Thomson Electric Welding Co.* v. *North & Judd Mfg. Co.*, 205 Fed. Rep., 764.

(U. S. D. C.) The Rietzel patent, No. 649,179, for an electrical transformer, *Held* not infringed. *Thomson Electric Welding Co.* v. *North & Judd Mfg. Co.*, 205 Fed. Rep., 764.

(U. S. D. C.) The Hopewell patent, No. 854,215, for a tire-case, *Held* valid and infringed. *Hopewell* v. *Linscott Supply Co.*, 205 Fed. Rep., 757.

(U. S. D. C.) The Kinder patent, No. 881,411, for a tire-case, *Held* valid and infringed. *Hopewell* v. *Linscott Supply Co.*, 205 Fed. Rep., 757.

(U. S. D. C.) The Green patent, No. 894,733, for a shoe and process of making the same, *Held* valid and infringed. *Daniel Green Felt Shoe Co.* v. *Dolgeville Felt Shoe Co.*, 205 Fed. Rep., 745.

(U. S. C. C. A.) The Strain reissue patent, No. 12,297, (original No. 730,412,) for a fruit-grader, *Held* valid and infringed. *Stebler* v. *Riverside Heights Orange Growers' Ass'n*, 205 Fed. Rep., 735.

(U. S. D. C.) The Hazeltine reissue patent, No. 13,421, (original No. 918,049,) for a machine for reseating valves, *Held* invalid because of the absence of statutory ground for a reissue and also because of delay in applying therefor. *Specialty Mach. Co.* v. *Ashcroft Mfg. Co.*, 205 Fed. Rep., 760.

Photographic Copies.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 28, 1913.

A photographic apparatus has been installed in the Patent Office for the purpose of avoiding the withdrawal from the examining divisions of foreign patents which are used as references and from the Scientific Library of bound volumes which are used by attorneys in making validity searches.

White-line photographic copies of the specifications and drawings of foreign patents only or of any page of any printed publication which may be in the possession of the Patent Office will be furnished upon payment of the prescribed fees. Copies on paper 7x11½ inches, comprising a single page only, will be furnished for 15¢ per print, and copies on paper 11½x14 inches, comprising single or double pages, as the case may be, for 25¢ per print. Coupons to the amount required, when properly filled in, will be accepted in payment for these prints.

The Office will not accept white-line photographic copies of original drawings for filing in connection with pending applications. Therefore prints of this class of drawings will not be furnished.

In ordering photographic copies of specifications or drawings of foreign patents applicants must state the country in which the patent was granted, the number of the patent, the date, including the year, and the name of the patentee.

For photographic copies to be made from other printed publications in possession of the Office the title and date of the publication and the page or part of page of which copy is desired must be given.

Failure to give complete identification as indicated above will cause delay and unnecessary correspondence.

In addition to the foregoing the Office will continue to furnish black-line photographic copies of drawings of pending, patented, forfeited, or abandoned cases, as heretofore, in two sizes, 8x12½ inches at 15¢ per print and 10x15 inches at 25¢ per print. Applicants and attorneys are strongly urged to file a set of black-line copies, small size, or order them to be made by the Office at the time of filing an application. Such procedure will save delay later if correction of the drawing is desired or required.

The Patent Office has no printed copies of foreign patents for sale.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Reed, Walsh & Lange, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Alaska-Portland Packers Association, of Portland, Oreg., for registration of a trade-mark and trade-mark No. 28,485, registered June 30, 1896, to Reed, Walsh & Lange, of 65 and 67 South Water street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Reed, Walsh & Lange at the said address having been returned undeliverable, notice is hereby given that unless said Reed, Walsh & Lange, their assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

French & Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the California Cracker Co., Park avenue and Watts street, Oakland, Cal., for registration of a trade-mark and trade-mark registered January 2, 1906, No. 48,456, to French & Company, of Factoryville, Pa., and a notice of such declaration sent by registered mail to said French & Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless French & Company, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Chase, Merritt & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Beacon Falls Rubber Shoe Company, of Beacon Falls, Conn., for registration of a trade-mark and trade-mark registration No. 27,728, registered February 4, 1896, to Chase, Merritt & Co., of 32 High street, Boston, Mass., and a notice of such declaration sent by registered mail to said Chase, Merritt & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Chase, Merritt & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Joseph Giering and Anna Giering, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Haarer & Sons, of Ann Arbor, Mich., for registration of a trade-mark and trade-mark registration No. 15,334, registered April 3, 1888, to Joseph Giering and Anna Giering, of No. 28 South High street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Joseph Giering and Anna Giering at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Joseph Giering and Anna Giering, their assigns or legal representatives, shall within thirty days from date of the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF SEPTEMBER 16, 1913.

Patents	502—No.	1,073,082 to No.	1,073,583, inclusive.
Designs	26—No.	44,649 to No.	44,674, inclusive.
Trade-Marks	105—No.	93,406 to No.	93,510, inclusive.
Labels	10—No.	17,213 to No.	17,222, inclusive.
Prints	7—No.	3,367 to No.	3,373, inclusive.
Reissues	2—No.	13,616 to No.	13,617, inclusive.
Total	652		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	8	.....
Arizona	.....	.....	North Dakota	1	.....
Arkansas	1	.....	Ohio	25	2
California	16	4	Oklahoma	7	.....
Colorado	4	.....	Oregon	.....	1
Connecticut	9	3	Pennsylvania	42	9
Delaware	.....	1	Rhode Island	5	4
Florida	3	1	South Carolina	1	.....
Georgia	.....	.....	South Dakota	.....	.....
Idaho	1	.....	Tennessee	3	1
Illinois	47	18	Texas	8	1
Indiana	14	5	Utah	1	.....
Iowa	14	3	Vermont	.....	1
Kansas	6	.....	Virginia	8	1
Kentucky	2	.....	Washington	9	3
Louisiana	2	.....	West Virginia	4	.....
Maine	4	1	Wisconsin	8	3
Maryland	6	2	Wyoming	1	.....
Massachusetts	15	6			
Michigan	21	1	Alaska, District of	.....	.....
Minnesota	7	1	Canal Zone	.....	.....
Mississippi	3	.....	District of Columbia	3	2
Missouri	19	4	Hawaii Territory	.....	.....
Montana	2	.....	Philippine Islands	.....	.....
Nebraska	7	.....	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	1	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	24	6			
New Mexico	.....	.....	Total to residents of the United States	442	110
New York	74	26			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Mexico	.....	.....
Austria-Hungary	8	1	Netherlands	.....	.....
Azores	.....	.....	New South Wales	2	.....
Belgium	.....	.....	New Zealand	.....	.....
Bermuda	.....	.....	Norway	1	.....
Brazil	2	.....	Panama	.....	.....
British West Indies	.....	.....	Queensland	.....	.....
Canada	8	.....	Russia	1	.....
Cape Colony	.....	.....	Scotland	1	.....
Chile	.....	.....	South Australia	.....	.....
Costa Rica	.....	.....	Spain	1	.....
Cuba	.....	.....	Sweden	1	.....
Denmark	.....	.....	Switzerland	4	.....
Dutch East Indies	.....	.....	Transvaal, South Africa	.....	.....
Ecuador	.....	.....	Victoria	.....	.....
England	27	4	Wales	1	.....
France	8	2	Western Australia	1	.....
Germany	19	5			
Ireland	.....	.....			
Italy	.....	.....	Total to residents of foreign countries	86	12
Japan	.....	.....			

Correspondence by Mail.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 5, 1913.

Notice is hereby given to attorneys and others transacting business with the Patent Office that all mail-matter arriving at the Washington post-office up to the hour of closing business at the Patent Office each day will be entered as received on that day.

THOMAS EWING,
Commissioner.

Foreign Patents.

RULE 29. The receipt of Letters Patent from a foreign government will not prevent the inventor from obtaining a patent in the United States, unless *the application on which the foreign patent was granted was filed more than twelve months prior to the filing of the application in this country, in which case no patent shall be granted in this country.*

Examiners' Letters and Amendments.

Examiners are directed to recite in each letter in an application the date of the action by the applicant to which it is a reply, and applicants are requested to indicate in their actions on an application the date of the last Office letter.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 15, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 5	July 10	776
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	May 2	July 28	688
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Aug. 14	Sept. 2	186
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 3	July 12	755
167	5. Bookbinding; Harvesters; Jewelry; Music.	June 5	June 17	625
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 5	July 7	821
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Mar. 25	June 13	1105
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 17	Aug. 5	448
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Mar. 31	July 28	733
235	10. Carriages and Wagons	Apr. 22	June 20	1225
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	July 26	July 31	354
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements	May 2	June 2	1610
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 13	June 27	733
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 5	Aug. 14	581
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Mar. 17	June 19	1613
109	16. Radiant Energy; Telegraphy; Telephony.	Apr. 15	June 5	551
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	July 11	Aug. 13	346
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 27	July 10	255
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 12	July 5	670

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 22	July 14	288
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 2	May 1	775
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 13	June 30	475
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	June 16	July 7	439
144	24. Apparel; Apparel Apparatus; Sewing Machines.	July 2	July 10	621
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	July 17	Aug. 12	251
106	26. Electricity, Generation; Motive Power.	Apr. 12	May 17	606
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	July 19	July 19	505
65	28. Internal-Combustion Engines	Apr. 9	May 8	1059
147	29. Coopering; Fire-Escapes; Ladders; Rools; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	May 14	May 1	679
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	June 25	July 24	334
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	June 7	June 16	458
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 7	July 18	484
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	May 24	July 14	407
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	June 10	July 8	689
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Apr. 21	Aug. 1	861
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	June 10	June 14	1000
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Dec. 30	May 22	1049
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Apr. 28	June 23	915
321	39. Water Distribution	June 3	July 16	531
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 28	July 7	1151
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	July 2	Aug. 1	478
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 2	May 8	986
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	July 31	Aug. 2	312

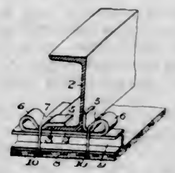
Oldest new case, Dec. 30; oldest amended, May 1.
Total number of applications awaiting action..... 29,952

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	June 28	Aug. 6	985
	Designs	July 21	Aug. 20	213
	Labels and Prints	Aug. 30	July 29	40

PATENTS

GRANTED SEPTEMBER 16, 1913.

1,073,082. METALLIC CLIP-FASTENING. GEORGE H. BARBOUR, Pittsburgh, Pa. Filed Sept. 28, 1910. Serial No. 584,269. (Cl. 72—118.)

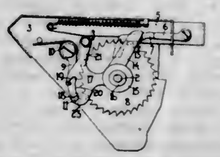


1. A spring clip of the character described, comprising a body portion having an end extension bent upon itself, said end extension and the body portion forming a clamp for engaging a structural element, there being tie-receiving depressions in the clip between the bends and the clamping members, and means on the other end for engaging the opposite side of the structural element; substantially as described.

2. A spring clip of the character described, comprising a body portion having end extensions bent upon the body portion, said end extensions and the body portion forming clamps between the ends of the clip for engaging the flanges of a structural element, there being tie receiving depressions in the clip between the bends and the clamping members; substantially as described.

3. A spring clip of the character described, comprising a body portion having end extensions bent upon the body portion, said end extensions and the body portion forming clamps between the ends of the clip for engaging the flanges of a structural element, there being tie receiving depressions in the clip between the bends and the clamping members, and ties seated in said depressions and engaging the article to be supported thereby; substantially as described.

1,073,083. TYPE-WRITING MACHINE. WALTER E. BARNARD, Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 17, 1910. Serial No. 582,443. (Cl. 197—114.)



1. In a typewriting machine, the combination with a platen ratchet, a pawl, and a detent normally engaging the ratchet, of a cam to press the detent into a notch in the ratchet, and an arm struck by the pawl to operate the cam.

2. In a typewriting machine, the combination with a platen and line-space mechanism therefor including a platen ratchet and a pawl, of a detent seating in a notch in the ratchet, and a member operatively engaging the detent and intermittently engaged by the pawl of the line-spacing mechanism to press the detent into its notch.

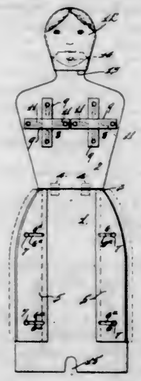
3. In a typewriting machine, the combination with a platen ratchet wheel, of a detent to engage said ratchet wheel, a lever pivoted upon the axis of the ratchet wheel and including an arm to press said detent into the notches of the wheel, and a pawl to drive said wheel for line-spacing, said lever also including an arm to be operated by said driving pawl.

4. In a typewriting machine, the combination with a platen ratchet wheel and a spring pressed detent therefor, of a line-spacing pawl to engage said ratchet wheel, a lever having an arm engaged by said pawl, and another arm engaging said detent to force the same into the notches of the ratchet wheel.

5. In a typewriting machine, the combination with a line-spacing wheel, of a spring detent for the wheel, a device movable to release said detent and hold it released, a pawl for said line-spacing wheel, and means to enable sad pawl to return said releasing device.

[Claims 6 to 10 not printed in the Gazette.]

1,073,084. GARMENT HOLDER AND SHAPE RETAINER. ISAAC BERNSTEIN, New York, N. Y. Filed Dec. 7, 1912. Serial No. 735,396. (Cl. 211—13.)



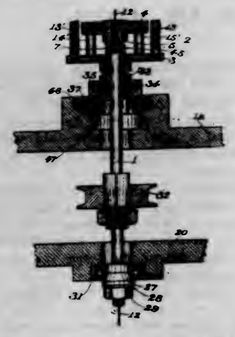
1. A garment-holder comprising a flat bust-portion, having a neck piece, and a flat removable head piece upon said neck piece, the head piece being in the form of an envelop adapted to slip over the neck piece.

2. A garment holder comprising a flat garment holding section, supplemental members slidably connected to said section, the outer edges of the members corresponding to the similar edges of the section and respectively registering at their upper ends, the outer edges of the members maintaining parallelism with the section edges throughout all possible movement of the members.

3. A garment holder comprising a flat garment holding section, supplemental members slidably connected to said section, the outer edges of the members corresponding to the similar edges of the section and respectively registering at their upper ends, the outer edges of the members maintaining parallelism with the section edges throughout all possible movement of the members, the connection

of the members to the section permitting the disposition of the members wholly within the edge outline of the section.

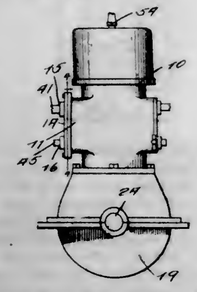
1,073,085. COVERING-MACHINE. ALBERT BEUTLER, Chicago, Ill., assignor to Belden Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 20, 1906. Serial No. 326,996. (Cl. 28—6.)



1. In a covering machine, the combination of a hollow shaft; a covering head mounted on said shaft; a rigidly mounted ball-bearing journal having one of its elements rigidly attached to the lower end of said shaft; a second ball-bearing journal for said shaft, a resilient ring flexibly supporting said second ball-bearing journal from said rigid frame; and means for preventing the ball race of said second ball-bearing journal from revolving within said resilient ring, substantially as described.
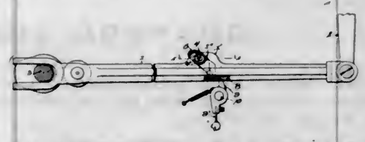
2. In a covering machine, the combination of a hollow shaft; a covering head mounted on said shaft; a rigidly mounted journal having one of its elements rigidly attached to the lower end of said shaft; a second journal for said shaft mounted for lateral movement in a rigid frame; a resilient ring supporting the non-rotating member of said second journal from said rigid frame; and means for preventing said non-rotating member of said journal from turning in said frame, substantially as described.

1,073,086. TWO-CYCLE GAS-ENGINE. CHARLES S. BLOSE, Palmerton, Pa. Filed Nov. 5, 1912. Serial No. 729,639. (Cl. 123—73.)



In a gas engine, a cylinder, a crank case, a hollow piston having a port in one side, a bypass in said cylinder, said piston port being adapted to momentarily register with the lower end of said bypass, a float controlled fuel supply device, a fuel discharge pipe communicating with said device and with the upper end of said bypass, a combined pressure and vacuum conducting pipe connected to said device and entering the lower end of said bypass, and operating on said float to control the flow of fuel through said discharge pipe, an exhaust port in said cylinder, and an air intake port in said cylinder alternately exposed and sealed by said piston to admit air to said crank case.

1,073,087. MAKE-AND-BREAK IGNITER. HARRY W. BOLENS, Port Washington, Wis. Filed June 28, 1912. Serial No. 706,451. (Cl. 123—157.)



1. In an igniter mechanism; the combination of an igniter trip-latch, a rod, a double-walled housing detachably secured thereto, the housing walls being connected by a web, a trip-pawl fulcrumed between the housing walls, the free end of said trip-pawl being adapted to rest upon the housing web.

2. In an igniter mechanism; the combination of an igniter trip-latch, a reciprocative rod, a housing, a trip-pawl fitted within the housing, a retaining bolt for securing the trip-pawl, housing and rod together, the trip-pawl being loosely mounted upon said bolt, and a support carried by the housing for the free end of said trip-pawl.

3. In an igniter mechanism; the combination of an igniter trip-latch, a reciprocative rod provided with an elongated slot, an apertured housing, an apertured pawl nested therein, a securing bolt in engagement with the housing aperture, pawl aperture and rod slot, and a rest for the unsecured end of the housing in connection with said rod.

4. In an igniter mechanism; the combination of an igniter trip-latch, a reciprocative rod provided with an elongated slot, a double-walled skeleton housing having an aperture at its shank, an apertured shank pawl fitted between the housing walls, a retaining bolt engageable with the housing wall, pawl shank aperture and rod aperture, whereby the parts are held, and a stop extending from the said rod for engagement with the unsecured end of the housing.

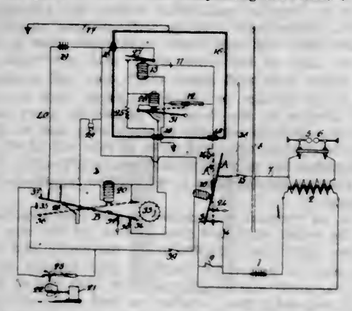
5. In an igniter mechanism; the combination of a reciprocative rod having an elongated aperture, a skeleton housing comprising spaced side-walls having shank and end webs connecting the same, the side walls being apertured adjacent to the shank web, a trip-pawl nested between the housing walls having an apertured shank, a retaining bolt fitted through the housing walls, pawl and elongated aperture of the rod whereby the members are secured together, and a rest for the outer free end of the housing in connection with said rod.

[Claim 6 not printed in the Gazette.]

1,073,088. WIRELESS APPARATUS FOR PREVENTING COLLISIONS. JOSEPH BONHOMME, Nice, France. Filed July 14, 1910. Serial No. 572,002. (Cl. 250—2.)

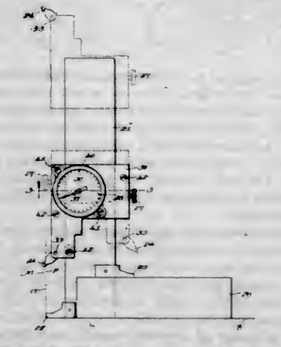
1. In a wireless apparatus for the prevention of collisions, a series of stations each comprising the combination of a transmitter, a receiver, an antenna, a circuit comprising a battery, an electro-magnet and a switch, means actuated by the said electro-magnet to place said transmitter and receiver alternately in communication with the antenna, means mechanically actuated to open and close said switch continuously at predetermined intervals, a shunt on a part of the circuit which comprises the said switch, a swinging member, a relay controlled by the receiver in the field of influence of another station and actuating said swinging member to alternately cut out and close said shunt and part of the said circuit, whereby the alternations of emission and reception are controlled by the action of the said means mechanically actuated as long as the stations are outside the field of influence, and by the oscillations of swinging member when the stations are within said field of influence.

2. In a wireless apparatus to prevent collisions, a series of stations each comprising the combination of a transmitter, a receiver, an antenna, a circuit comprising a battery, and electro-magnet and a switch, means actuated by the said electro-magnet to put the transmitter and receiver alternately in communication with the antenna, means mechanically actuated to open and close the said switch continuously at predetermined intervals, a shunt on a part of the said circuit which comprises the said switch, a swinging member adapted to cut out and close alternately the said shunt, and the said part of the said circuit, a relay controlled by the said receiver in the field of influence of another station and actuating the said swinging member, and retarding means adapted to make the oscillation of the said swing member last a determined amount of time in the direction in which it returns to close the part of the circuit comprising the switch.



3. A wireless apparatus for preventing collisions consisting of a series of stations each comprising an antenna, an emitter, a receiver, and means for alternately connecting the antenna with said emitter and receiver; combined with a circuit controlling said means and including a source of electricity, an alternately moving switch, a distributing relay, and a signal device; and a second circuit controlling said relay and itself controlled by the waves received from a companion station.

1,073,089. SQUARE. GEORGE W. BOWERS, Somerville, Mass. Filed May 28, 1912. Serial No. 700,203. (Cl. 73—116.)



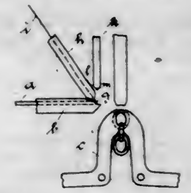
1. A square for determining the accuracy of angles between plane surfaces, comprising a beam and a blade the blade being at one end of the beam and the two at right angles to each other, the beam having a plane surface to contact with one of the two surfaces the angle between which is to be tested, a stop to contact with a portion of the other of said two surfaces, a bearing point supported on the blade to contact with another portion of the surface which receives the contact of said stop, and an indicator operatively connected with said bearing point.

2. An instrument for determining the accuracy of angles between plane surfaces, said instrument comprising two relatively rigid members at an angle to each other, two projections extending beyond the edge of one of said members, to contact with one of the two surfaces the angle between which is to be tested, one of said projections being movable toward and from said edge and the other projection having its tip at a fixed distance from said edge, and an indicator operatively connected with said movable projection.

3. An instrument for determining the accuracy of angles between plane surfaces, said instrument comprising two relatively rigid members at an angle to each other, two projections extending beyond the edge of one of said members, to contact with one of the two surfaces the angle between which is to be tested, one of said projections being movable toward and from said edge and the other projection having its tip at a fixed distance from said edge, and an indicator operatively connected with said movable projection, and means slidably mounted on the blade and carrying said movable projection and indicator.

4. An intrument for determining the accuracy of angles between plane surfaces, said instrument comprising two relatively rigid members at an angle to each other, two projections extending beyond the edge of one of said members, to contact with one of the two surfaces the angle between which is to be tested, a slide mounted on one of the members of the instrument and carrying one of said projections, the projection carried by said slide being movable toward and from said edge and the other projection having its tip at a fixed distance from said edge, and an indicator carried by said slide and operatively connected with the movable projection.

1,073,090. PROCESS FOR THE MANUFACTURE OF SOLDERED CHAINS AND WIRE TISSUES FROM WIRE OF SOLID CROSS-SECTION. THEODOR BÜRCK, Pforzheim, Germany. Filed Mar. 27, 1913. Serial No. 757,265. (Cl. 113—112.)

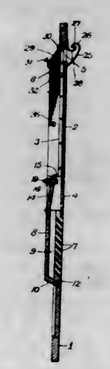


The method of manufacturing solder chains and wire tissues from wire of solid cross section consisting in producing a bur in the end of the cut off wire designed to form the chain link, in pushing the strip of solder behind said bur, in cutting off from said strip of solder a piece of required length, and in simultaneously bending the bur over so that it presses the piece of solder upon the end of the wire, substantially as described and for the purpose set forth.

1,073,091. MEANS TO PREVENT CONDENSATION OF WATER ON GLASS WINDOWS. THOMAS CARENCE, Kansas City, Mo. Filed May 15, 1912. Serial No. 697,590. (Cl. 98—32.)

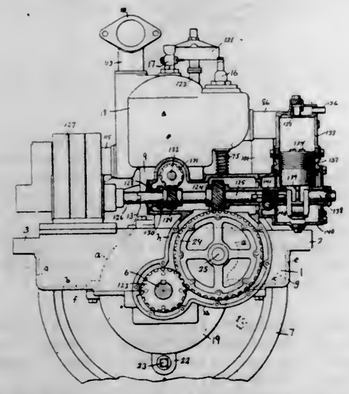
1. In combination with a window and its frame, an air casing communicating with and located below the window in spaced relation thereto, a valve hingedly connected to the upper end of the air casing and having its free end for engagement with the window, and a vertical strip at each side of the frame, each strip having its outer side hinged to the adjacent side of the frame and having its free inner side extending inwardly toward the center of the window in inclined relation to the latter to deflect the air toward the center of the window.

2. In combination with a window and its frame, the frame having an opening located below the window, a vertical strip at each side of the frame, each strip having its outer side connected to the adjacent side of the frame and having its free or inner side extending inwardly toward the center of the window in inclined relation to the latter to deflect the air toward the center of the window.



3. In combination with a window and its frame, the frame having an opening located above the window, a vertical strip at each side of the frame, each strip having its outer side connected to the adjacent side of the frame and having its free or inner side extending inwardly toward the center of the window in inclined relation to the latter to deflect the air toward the center of the window, and a closure for said opening, said closure when in open position seating on the upper ends of said strips and being held by the latter in open position.

1,073,092. INTERNAL-COMBUSTION ENGINE. NIELS A. CHRISTENSEN, Milwaukee, Wis. Filed May 18, 1910. Serial No. 561,939. (Cl. 123—195.)



1. In an internal combustion engine, the combination with the parallel, longitudinal crank and cam shafts having intermeshing herringbone gears thereon, of a shaft extending transversely with respect to said crank and cam shafts and provided with a spiral gear thereon meshing with teeth of the herringbone gear on the cam shaft.

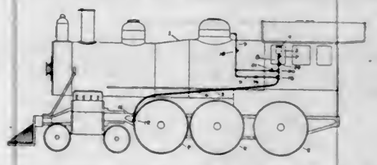
2. In an internal combustion engine, the combination with the parallel, longitudinal crank and cam shafts having intermeshing herringbone gears thereon, of a shaft extending transversely with respect to said crank and cam shafts and provided with two spiral gears thereon, one of which meshes with teeth of the herringbone gear on the cam shaft, and a longitudinal fan shaft having a spiral gear thereon which meshes with the other spiral gear on the transversely extending shaft.

3. In an internal combustion engine, the combination with the crank shaft and herringbone gear thereon, of the cam shaft and cam shaft herringbone gear adapted to be driven by said crank shaft herringbone gear, the teeth of said cam shaft herringbone gear which diverge in one direction being longer than the other teeth of said gear, a transverse shaft and a spiral gear thereon adapted to mesh with and be driven by the longer teeth of said cam shaft herringbone gear.

4. In an internal combustion engine, the combination with the crank shaft and herringbone gear thereon, of the cam shaft and cam shaft herringbone gear in mesh with the gear on the crank shaft, said cam shaft gear being wider than said crank shaft gear and having its teeth which diverge to the rear longer than its teeth which diverge to the front, a transverse shaft and a spiral gear thereon adapted to mesh with and be driven by the rearwardly diverging teeth of said cam shaft gear, and bearings for supporting said cam shaft while at the same time permitting it to be withdrawn lengthwise from the engine.

5. In an internal combustion engine, the combination with the crank shaft and gear thereon, of the cam shaft and cam shaft gear adapted to be driven by said crank shaft gear, a transverse shaft, a gear secured to said transverse shaft and adapted to mesh with and be driven by said cam shaft gear, a casing for said transverse shaft, and a member adapted to be secured to said casing, said member being provided with an elongated bearing adapted to extend into said casing and support an end of said transverse shaft.

1,073,093. FLANGE-LUBRICATOR. HARRY W. CODDINGTON, Roanoke, Va. Filed Sept. 21, 1912. Serial No. 721,562. (Cl. 184—3.)



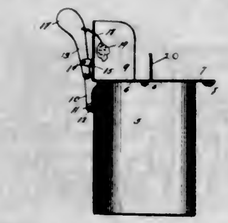
1. In a lubricator for the flanges of the wheels of railway vehicles the combination of an oil reservoir, an oil pipe leading therefrom, a steam pipe surrounding said oil pipe, an oil ejector consisting of a series of internal nozzles with a surrounding shell adapted to receive the said oil and steam pipes at separate points, and an additional steam pipe leading to said oil pipe, adapted to deliver steam through the oil pipe for blowing out same, substantially as described.

2. In a lubricator for the flanges of the wheels of railway vehicles the combination of a reservoir for oil at atmospheric pressure, an oil pipe leading from the bottom thereof, a steam pipe surrounding said oil pipe for the major portion of its length, said steam and oil pipes terminating separately in an oil ejector consisting of an outer shell with a series of internal nozzles and being adapted to deliver the oil and steam against the flange to be lubricated, and means for forcing steam through the oil pipe for cleaning, substantially as described.

3. In a lubricator for the flanges of the wheels of railway vehicles, the combination of a reservoir for oil at atmospheric pressure, an oil pipe leading from the bottom thereof, a steam pipe surrounding said oil pipe for the major portion of its length, said steam and oil pipes terminating in an oil ejector consisting of an outer shell with a series of internal nozzles and being adapted to deliver the oil and steam against the flange to be lubricated, and means for forcing steam through the oil pipe for cleaning, substantially as described.

4. In a lubricator for the flanges of the wheels of railway vehicles the combination of a reservoir for oil at atmospheric pressure, an oil pipe leading from the bottom thereof, a needle valve and a sight feed glass in said oil pipe, a steam pipe surrounding said oil pipe for the major portion of its length, means for separating the said oil and steam pipes, an oil ejector comprising an outer shell and two internal nozzles adapted to deliver the oil and steam against the flange to be lubricated, and means for connecting said oil and steam pipes to the ejector body, substantially as described.

1,073,094. ANIMAL-TRAP. HENRY F. COLEMAN, Sneedsville, Tenn. Filed Jan. 18, 1913. Serial No. 742,959. (Cl. 43—24.)



1. In a device of the character described, the combination with a receptacle, of a pivoted trap door forming a closure for said receptacle, a counterweight carried by said trap door, a trigger normally holding said trap door in its closed position and adapted to engage and lock said trap door when said trap door is returned to a closed position by the action of said weight, and a bail arranged to serve the double function of providing a carrying element for the receptacle and of limiting the movement of said trap door.

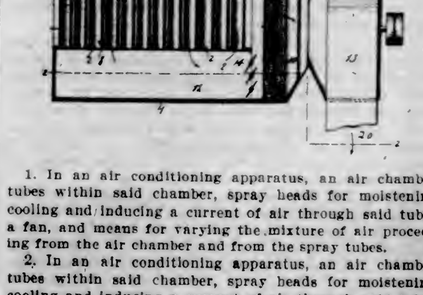
2. In a device of the character described, the combination with a receptacle, of a pivoted counterweighted trap door forming a closure for said receptacle, an upstanding hood extending partly around said receptacle, a trigger adapted to engage said trap door, said trigger being pivoted to said receptacle, a lever pivoted intermediate its ends to said hood, means for pivotally connecting said lever to said trigger to form a toggle, and a bail engaged with the sides of and extending across said receptacle in front of said hood in such position as to serve the double function of providing a carrying element for said receptacle and limiting the opening movement of said trap door.

3. In a device of the character described, the combination with a receptacle, of a pivoted trap door forming a closure for said receptacle and arranged to have its rear edge tilt downwardly within the body of the receptacle, the forward edge of said trap door being provided with an extension overhanging the front wall of the receptacle, a counterweight carried by said overhanging portion, and an arched bail engaged with the side walls of the receptacle and extending transversely thereacross, a portion of said bail lying in front of the pivot of the trap door and a portion of said bail lying in the rear thereof, said bail serving the double function of providing a carrying element for the receptacle and preventing opening movement of said trap door beyond the center.

1,073,095. AIR-CONDITIONING APPARATUS. STUART W. CRAMER, Charlotte, N. C. Filed Apr. 15, 1909. Serial No. 490,079. (Cl. 98—43.)

1. In an air conditioning apparatus, means for producing a current of air, means for cooling said current of air, said means being exposed to an auxiliary current of air cooled by the evaporation of moisture, and means for commingling or separating the two currents of air.

2. In an air conditioning apparatus, a fan, an air chamber, a spray chamber, a plurality of exits for the moistened air in the spray chamber, a commingling chamber to mix the air from the air chamber and the moistened air in the spray chamber, and means for controlling the rate of mixture.



3. In an air conditioning apparatus, a spray chamber, spray heads within said chamber, a cooling chamber containing tubes over which pass the air from the spray chamber, a fan having connection with said chambers, a commingling chamber for mixing the air from said air and spray chambers, and means for controlling the moistened air issuing from the spray chamber.

4. In an air conditioning apparatus, a spray chamber, spray heads within said chamber, a cooling chamber containing tubes, over which pass air from the spray chamber, fans for supplying air to said chambers, a commingling chamber for mixing the air from said air and spray chambers, and means for controlling the moistened air issuing from the spray chamber.

5. In an air conditioning apparatus, means for producing a current of air, an air chamber, a spray chamber, a cooling chamber containing tubes, an exit from the spray chamber provided with controlling means, a separate exit from the spray chamber through the cooling chamber and around said tubes, and a chamber in which the air from the spray chamber and the cooling chamber are commingled.

[Claims 6 to 8 not printed in the Gazette.]

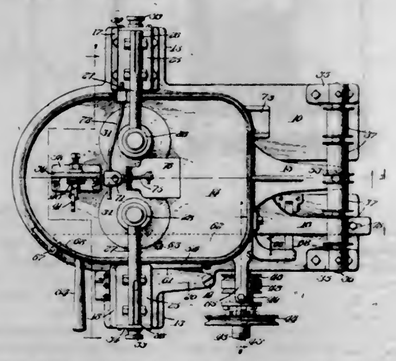
1,073,096. AIR-CONDITIONING APPARATUS. STUART W. CRAMER, Charlotte, N. C. Original application filed Apr. 15, 1909, Serial No. 490,079. Divided and this application filed Jan. 11, 1910. Serial No. 537,567. (Cl. 98—43.)

1. In an air conditioning apparatus, an air chamber, tubes within said chamber, spray heads for moistening, cooling and inducing a current of air through said tubes, a fan, and means for varying the mixture of air proceeding from the air chamber and from the spray tubes.

2. In an air conditioning apparatus, an air chamber, tubes within said chamber, spray heads for moistening, cooling and inducing a current of air through said tubes, a fan, and means for separating the air proceeding from the air chamber and the moistened air from the tubes.

3. In an air conditioning apparatus, an air chamber, a plurality of spray chambers within said air chamber, a plurality of spray heads for moistening, cooling and inducing a current of air through said spray chambers, a fan, and means for separating the air proceeding from the air chamber and the moistened air from the spray chamber.

1,073,097. GRINDING-MACHINE. JAY ELLIS CRANDALL, Cherry Valley, Ill. Filed Apr. 10, 1913. Serial No. 760,163. (Cl. 51—15.)



1. In a grinding machine, the combination with a reciprocable work holding carriage, of a grinding wheel support movable toward and away from work carried by said carriage, a grinding wheel for the support, a grinding pattern for governing the movements of said wheel support, and mechanism for moving said wheel support toward said work simultaneously with the reciprocation of the carriage in one direction, the support guided by said pattern, and for moving the support retracing said pattern, away from said work and simultaneously with the return reciprocatory movement of said carriage.

2. In a grinding machine, the combination of two grinding wheels positioned with their grinding faces located one opposite the other, a reciprocable work holding carriage adapted to carry an article intermediate said grinding faces, and mechanism for moving one of said wheels toward and away from the other to operate upon said article simultaneously with the reciprocation of said carriage, said mechanism moving one of said grinding wheels toward the other in a predetermined movement during the reciprocation of the carriage in one direction, and away from said other wheel corresponding to said predetermined movement and simultaneously with the return of the carriage from its said movement, whereby said article will be ground to a form corresponding to the predetermined movement of the one grinding wheel toward the other and reground to said form with said movement of the grinding wheel away from the other.

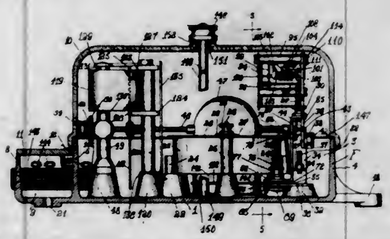
3. In a grinding machine, the combination with two grinding wheels mounted with their grinding faces located one opposite the other, of means for carrying an elongated article intermediate said grinding faces and for moving the article between said faces in the direction of its elongation, and antivibrator means located adjacent the said grinding faces at one side of the article and adapted to contact the article when the article vibrates during its said movement between the grinding faces.

4. In a grinding machine, the combination of two grinding wheels mounted with their grinding faces positioned one opposite the other, a work holding carriage adapted to carry an elongated article of a substantially uniform thickness intermediate said grinding faces, means for moving the carriage and drawing the article between said faces, means for simultaneously and positively feeding said grinding wheels toward each other to grind a portion of the article to a gradual taper in the direction of its elongation, and discontinue said taper at a predetermined point to leave said end substantially with its uniform thickness.

5. In a grinding machine, the combination of a work holding carriage adapted to carry an elongated article of substantially a uniform thickness, a grinding wheel adapted to operate upon a face of said article, and means for positively feeding said grinding wheel in its operation upon the article to grind a gradual taper thereon toward one end of the article.

[Claims 6 to 16 not printed in the Gazette.]

1,073,098. ELECTRICAL MEASURING INSTRUMENT. CHARLES M. CROOK, Chicago, Ill., assignor to The Willis Electric Meter Co., Chicago, Ill., a Corporation of Illinois. Filed Nov. 27, 1908. Serial No. 464,545. (Cl. 171—265.)



1. In an electricity meter, the combination of an armature, torque producing means for said armature, a retarding disk adapted to rotate upon rotation of the armature, a retarding magnet spanning said disk, supporting posts adjacent the disk and parallel thereto, a stationary clamping member on said posts, a movable clamping member on said posts, and a clamping screw engaging said clamping members, said magnet being secured between said clamping members.

2. In an electricity meter, the combination of an armature, torque producing means for the armature, a retarding disk for the armature, a retarding magnet spanning said disk, a supporting frame, two posts extending outwardly from said supporting frame, a clamping plate secured to the end of said posts, a movable clamping plate slidable on said posts, and a clamping screw engaging the clamping members between said posts, said magnet being clamped between said clamping plates.

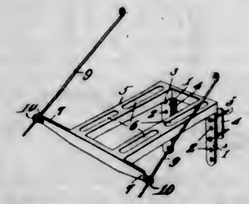
3. In an electricity meter, the combination of a supporting frame, an armature pivoted on said frame, torque producing means for the armature, a speed regulating disk for the armature, a damping magnet for said disk, posts extending from said frame and rigidly secured thereto by being driven into openings in said frame, a stationary clamping member on said posts, a slidable clamping member on said posts, and means for causing said clamping members to clamp the damping magnet to hold it in rigid position with reference to the disk.

4. In an electricity meter, the combination of a supporting frame, an armature pivoted on said frame, torque producing means for said armature, a speed regulating disk for the armature, a damping magnet having a part parallel with said disk, supporting posts extending from said frame, a clamping member secured to said posts, a second clamping member slidable on said posts, and means for drawing said members together to clamp the parallel part of said damping magnet, sliding of said damping magnet between the clamping members upon loosening of said members causing adjustment of said magnet with respect to the disk.

5. In an electricity meter, the combination of a supporting frame, an armature pivoted on said frame, a field coil for the armature, a speed regulating disk for the armature, a retarding magnet for said disk, supporting posts for said magnet extending from said frame, and a magnetic shield between the magnet and said field coil, said shield being secured to the frame by the engagement of the posts with said frame.

[Claims 6 to 18 not printed in the Gazette.]

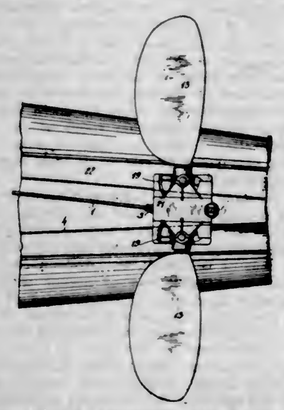
1,073,099. MOTOR-SUPPORTING BRACKET FOR HARVESTING-MACHINES. EVERETT B. CUSHMAN, Lincoln, Nebr., assignor to Cushman Motor Works, Lincoln, Nebr. Filed Dec. 26, 1912. Serial No. 738,689. (Cl. 248—30.)



1. A motor supporting attachment for harvesting machines including a platform having longitudinal slots for the reception of motor fastening means, apertured arms extending from one end of the platform, means adjustably engaging the arms for clamping them upon a portion of a harvester structure, and supporting rods connected to that end of the platform remote from the arms.

2. A motor supporting attachment for harvesting machines including a platform having longitudinal slots for the reception of motor fastening means, apertured arms extending from one end of the platform, means adjustably engaging the arms for clamping them upon a portion of a harvester structure, lateral extensions upon that end of the platform remote from the arms, and supporting rods adjustable longitudinally within the extensions.

1,073,100. FOLDING HYDROPLANE FOR SUBMERSIBLE BOATS. GREGORY CALDWELL DAVISON, Quincy, Mass. Filed Nov. 12, 1910. Serial No. 592,002. (Cl. 114—16.)



1. A submarine or submersible boat having a pair of hydroplanes, and bearing members in which the hydroplanes are mounted for rotation on horizontal axes, said bearing members being swiveled in the sides of the boat on vertical axes, and mechanism for turning the hydroplanes on the vertical and horizontal axes to move them in a lateral sweep from an extended position in which their surfaces are substantially horizontal into a retracted position in which their surfaces lie against the sides of the boat.

2. A submarine or submersible boat having a pair of hydroplanes swiveled thereon on vertical axes, whereby they may be turned in a lateral sweep, from an extended position of wide spread to a shipped position lengthwise of the boat, and mechanical connections between the hydroplanes whereby their simultaneous movement is assured, in combination with mechanism for adjusting the hydroplanes on their horizontal axes for steering.

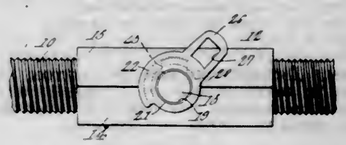
3. A submarine or submersible boat, having hydroplanes swiveled thereon on vertical axes, whereby they may be turned in a lateral sweep from an extended position of wide spread to a shipped position lengthwise of the boat, in combination with mechanism for adjusting the hydroplanes on their horizontal axes for steering.

4. A submarine or submersible boat, having a pair of hydroplanes swiveled thereon on vertical axes, and mechanism for turning the hydroplanes on their swivels to project and retract them simultaneously in a lateral sweep, said mechanism including means for automatically locking the hydroplanes in any position to which they have been turned.

5. A submarine or submersible boat, having a pair of hydroplanes swiveled thereon, mechanism for turning the hydroplanes on their swivels to project and retract them, said mechanism including means for turning the hydroplanes on their horizontal axes.

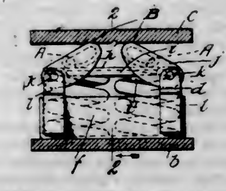
[Claims 6 to 17 not printed in the Gazette.]

1,073,101. FASTENER FOR FEED-HEADS. CHARLES I. DODSON, Pittsburg, Kans., assignor to Funk Brothers, Chicago Heights, Ill. Filed Jan. 4, 1912. Serial No. 669,520. (Cl. 24—248.)



A fastener for a drilling machine feed head, composed of two hinged members, one member of which is provided with a cylindrical boss with exterior screw threads, and the other member of which is provided with an offset lug disposed to, when the members are together, rest without the screw threads and adjacent the point of junction of the boss with the first member, and a lug engaging member rotatably mounted upon the threaded boss and having a projecting segmental grooved rim to receive the lug to lock the sections together.

1,073,102. CAR-SPRING. GEORGE BINET DOREY, Montreal, Quebec, Canada, assignor to Frank Hartwell Hopkins, Montreal, Canada. Filed Oct. 5, 1912. Serial No. 724,176. (Cl. 105—24.)



1. The combination with a spring and a part adapted to be cushioned by the spring, of a friction plate, and means between the part to be cushioned and the friction plate, adapted to decrease the travel of the spring in relation to the travel of the cushioned part.

2. The combination with a plurality of coiled springs, a stationary part supporting the springs and a movable part adapted to be cushioned by the springs, of a pair of

levers each fulcrumed to the stationary part at one side of the springs, the combined length of such levers being less than the distance between their fulcrums, the said levers being adapted to decrease the travel of the springs in relation to the travel of the parts to be cushioned.

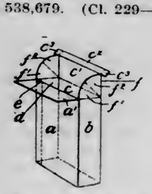
3. The combination with a coiled spring, a stationary part supporting the spring and a movable part adapted to be cushioned by the spring, of a lever pivoted to the stationary part at one end, the opposite end of such lever being formed on its underside with a cam face bearing between the movable part and the spring, and engaging with the latter at a point between the fulcrum of the lever and the point of engagement of the same with the part to be cushioned.

4. The combination with a plurality of coiled springs, a stationary part supporting the springs and a movable part adapted to be cushioned by the springs, of a pair of levers each pivoted to the stationary part at one side of the springs and extending inwardly toward each other where they are each formed upon the underside thereof with a cam face, such levers being adapted to slide toward each other when the movable part presses thereon.

5. The combination with a stationary part and a movable part, a plurality of springs supported upon the stationary part, standards extending upwardly from such stationary part at the sides of the springs and carrying pins at their upper ends and a plate upon the top of the springs, of a pair of U-form levers each including legs extending inwardly toward the other lever, straddling the plate and springs and presenting slots adapted to receive the said pins carried by the standards and a body portion connecting the inner ends of the legs of each lever, the said body portion bearing between the movable part and the said plate and being transversely curved to present a convex cam face adjacent to the said plate.

[Claims 6 to 11 not printed in the Gazette.]

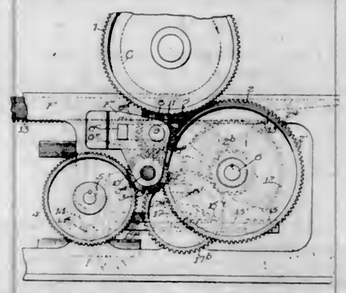
1,073,103. ANTISIFTING BOX OR CARTON. ALEXANDER H. DREUX, Newark, N. J., assignor to Scoop Folding Box Company, New York, N. Y. Filed Jan. 18, 1910. Serial No. 538,679. (Cl. 229—17.)



1. In a paper box, an end closure, consisting of two end panels forming respectiveiy continuations of two opposite sides of the box, and flaps connecting the edges of the two intermediate sides of the box with the side edges of one of said end panels and foldable inwardly on top of the end panel to which they are connected to form therewith a folding spout, said flaps being free to swing outwardly beyond the plane of the sides to which they are connected and being disconnected from the edges of the other end panel which serves as a sealing flap for the folded spout, the end panel forming a part of the spout being provided with an anti-sifting extension overlapping the lower margin of the opposite end panel and having lateral projections limiting the inward swing of the said panel; substantially as described.

2. In a paper box, an end closure, consisting of two end panels forming respectively continuations of two opposite sides of the box, and flaps connecting the edges of the two intermediate sides of the box with the side edges of one of said end panels and foldable inwardly on top of the said panel to which they are connected to form therewith a folding spout, said flaps being free to swing outwardly beyond the plane of the sides to which they are connected and being disconnected from the edges of the other end panel which serves as a sealing flap for the folded spout, the end panel forming a part of the spout being provided with an anti-sifting extension overlapping the lower margin of the opposite end panel and having lateral projections limiting the inward swing of the end panel, said lateral projections being of sufficient length to form flaps pasted to the outer surface of the box; substantially as described.

1,073,104. MEANS FOR CONVERTING ROTARY INTO RECIPROCATING MOTION. MICHAEL ANDREW DROITCOUR, Chicago, Ill. Filed June 7, 1911. Serial No. 631,697. (Cl. 101—158.)



1. In a machine for the purpose described, the combination of a reciprocatory bed; bed driving mechanism for driving the bed throughout a portion of its stroke; bed reversing mechanism for reversing the movement of the bed at the ends of its stroke, embodying a constant speed element having a speed exceeding the maximum speed of the bed; and means for converting such constant speed into a variable speed, increasing from a point of rest to a speed equal to the speed of said constant speed element, and means for imparting said variable speed to the bed when it commences to be less than the speed of such constant speed element and continuing to impart it thereto until it again commences to be greater than the speed of such constant speed element.

2. In a machine for the purpose described, the combination of a reciprocatory bed; bed driving mechanism for driving the bed throughout a portion of its stroke; bed reversing mechanism for reversing the movement of the bed at the ends of its stroke, embodying a variable speed element whose speed decreases from a speed greater than the maximum speed of the bed to a point of rest, and increases from such point of rest to a speed greater than the maximum speed of the bed, and means for connecting said element with the bed when its speed decreases to a speed equal to the maximum speed of the bed, and again disconnecting it from the bed when its speed increases from said point of rest to a speed equal to the maximum speed of the bed.

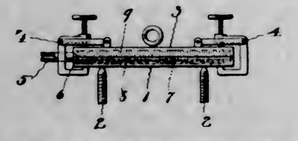
3. In a machine for the purpose described, the combination of a reciprocatory bed; bed driving mechanism for driving the bed throughout a portion of its stroke; bed reversing mechanism for reversing the movement of the bed at the ends of its stroke, embodying a revolving element having a uniform rate of arcual travel, whose speed is greater than the maximum speed of the bed; means for converting the uniform movement of said element into a variable movement, increasing from a point of rest to a speed equal to the speed of arcual travel of said element, and means for imparting said variable movement to the bed during the period said variable movement is equal to and less than the maximum speed imparted to the bed by said bed driving mechanism.

4. In a machine for the purpose described, the combination of a reciprocatory bed; bed driving mechanism for driving the bed uniformly throughout a portion of its stroke; bed reversing mechanism for reversing the movement of the bed at the ends of its stroke, embodying a revolving element moving at a uniform speed greater than the speed imparted to the bed by said bed driving mechanism, a Scotch yoke engaged by said revolving element for converting the movement of the latter into a rectilinear movement, and means for imparting the movement of said Scotch yoke to the bed when the speed of said rectilinear movement becomes equal to the speed imparted to the bed by said bed driving mechanism.

5. In a machine for the purpose described, the combination of a reciprocatory bed; bed driving mechanism for driving the bed uniformly throughout a portion of its stroke; bed reversing mechanism for reversing the movement of the bed at the ends of its stroke, embodying a revolving crank having an arcual speed of travel greater than the speed imparted to the bed by said bed driving mechanism, a Scotch yoke engaged by said crank for converting the movement of the crank into a reciprocatory movement, varying in speed from a point of rest to a speed greater than the speed imparted to the bed by said driving mechanism, and means for imparting the movement of said yoke to the bed when its speed decreases to a speed equal to the speed imparted to the bed by said driving mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,073,105. METHOD OF BACKING UP ELECTROTYPE-SHELLS IN THE MANUFACTURE OF ELECTROTYPE-PLATES. GEORGE E. DUNTON, New York, N. Y. Filed June 24, 1911. Serial No. 635,195. (Cl. 22—204.)



1. The method of forming a composite body, consisting in taking two metals one of which is in the shape of a printing shell and melts at a high temperature and the other to form the backing for the shell and melting at a low temperature, applying a binder to the shell, placing the shell in a receptacle, forming a closure by applying a cover to the receptacle, mantaining a substantially constant air tight closure while the cover is in place, heating the closure and the shell therein until the binder melts, introducing molten metal into the closure and causing it to fill the closure and the interstices in the shell and breaking the substantially air tight closure by removing the cover, substantially as described.

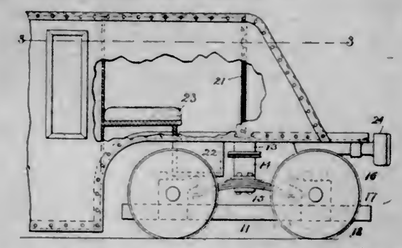
2. The method of forming a composite body, consisting in taking two metals one of which is in the shape of a printing shell and melts at a high temperature and the other to form the backing for the shell and melting at a low temperature, applying a binder to the shell, placing the shell in a receptacle, forming a closure by applying an air tight cover to the receptacle, maintaining a substantially air tight closure while the cover is in place, heating the closure and the shell therein until the binder melts, introducing molten metal into the closure and causing it to fill the closure and the interstices in the shell and breaking the substantially air tight closure by removing the cover, substantially as described.

1,073,106. CAR ADAPTED FOR SUBWAY USE. ANTOINE B. DU PONT, Cleveland, Ohio. Filed Oct. 3, 1910. Serial No. 584,978. (Cl. 105—19.)

1. A railway car comprising a pair of trucks, a car body supported by and extending downward between the trucks, and a motorman's compartment at the end of the car body and extending downward between the wheels of the truck.

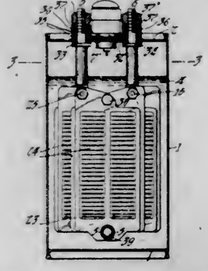
2. A railway car comprising a pair of trucks, a car body located wholly between the trucks, and extending downward in proximity to the track, said car body having at its ends supporting extensions which are connected to the trucks, and a motorman's compartment formed in one of said extensions, said compartment projecting downwardly between the wheels of the truck.

3. A railway car comprising a pair of trucks, a car body supported wholly between the trucks and provided at its ends with supporting extensions connected to the trucks, and a motorman's compartment at the end of the car body, said compartment comprising a portion extending downwardly between the wheels of the truck, and a seat located above the wheels of the truck.



4. A railway car comprising a pair of trucks, a car body supported wholly between the trucks and projecting downwardly in proximity to the track, said car body having at its ends supporting extensions which are connected to the trucks, a motorman's compartment formed in one of said extensions, the sides and roof of the car body being prolonged so as to form the sides and roof of the compartment, said compartment having a portion extending downwardly between the wheels of a truck, and having a seat arranged rearwardly of said downward extension above the wheels of the truck.

1,073,107. STORAGE BATTERY. THOMAS A. EDISON, Llewellyn Park, West Orange, N. J., assignor to Edison Storage Battery Company, West Orange, N. J., a Corporation of New Jersey. Filed Jan. 11, 1912. Serial No. 670,553. (Cl. 204—29.)

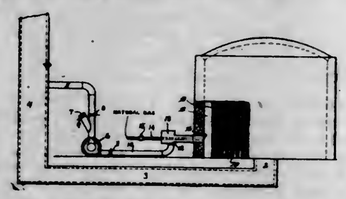


1. In a storage battery, a cylindrical metallic container and a unitary structure suspended from the container cover comprising positive and negative plates, and means for rigidly connecting together all of said plates, said means comprising conducting means for connecting the positive plates together, conducting means for connecting the negative plates together, and means for connecting all of said plates together, the last mentioned means including a rod extending through all of the plates and insulated therefrom, the length of the rod being approximately equal to the internal diameter of the cylindrical container, and said rod being adapted to keep the plate structure out of contact with the container, substantially as described.

2. In a storage battery, a container, positive plates and negative plates alternately arranged within the container, a pair of vertically disposed terminals having their upper ends extended through the container cover and supported therefrom, a rod extended through the upper portions of said positive plates and through the lower end of one of said terminals to connect the same

mechanically and electrically, a rod extending through the upper ends of said negative plates and through the lower end of the other of said terminals to connect the same mechanically and electrically, the lower ends of said terminals being located substantially half way between the ends of said rods, and additional means for connecting mechanically and spacing apart all of said plates, said plates being supported from the container cover by said terminals and rods, substantially as described.

1,073,108. PROCESS OF BURNING NATURAL AND OTHER GASES. BYRON E. ELDRED, Bronxville, N. Y., assignor to Combustion Utilities Company, New York, N. Y., a Corporation of New York. Filed Apr. 8, 1905. Serial No. 254,475. (Cl. 158—117.5.)



1. The process of producing a diffused heating with rich combustible gases of high calorific value which consists in mixing such gas with a predetermined proportion of a neutral gaseous diluent and of a regulated amount of air, producing a slow-burning flame from such diluted gas, and accelerating and completing its combustion by heat radiated from a hot-walled region of refractory material and in direct contact with such material.

2. The process of producing a diffused heating with rich combustible gases of high calorific value which consists in mixing such gas with a predetermined proportion of the products of substantially complete combustion and of air, producing a slow-burning flame from such diluted gas, and accelerating and completing its combustion by heat radiated from a hot-walled region of refractory material and in direct contact with such material.

3. The process of producing a diffused heating with rich combustible gases of high calorific value which consists in mixing such gas with a predetermined proportion of hot products of substantially complete combustion and of air, producing a slow-burning flame from such diluted gas, and accelerating and completing its combustion by heat radiated from a hot-walled region of refractory material and in direct contact with such material.

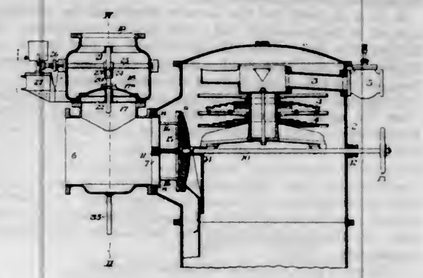
4. The process of producing a diffused heating with rich combustible gases of high calorific value which consists in diluting such gas with a predetermined proportion of products of substantially complete combustion and of air, producing a slow-burning flame from such diluted gas, and accelerating and completing its combustion in a hot-walled region of refractory material in contact with such material.

5. The process of producing a diffused heating in a brick kiln which consists in diluting a rich combustible gas of high calorific value with a predetermined proportion of products of substantially complete combustion and of air, producing a slow-burning flame from such diluted gas, and accelerating and completing its combustion in the hot-walled regions offered by the spaces between the bricks in a brick kiln and in contact with such bricks.

[Claims 6 to 11 not printed in the Gazette.]

1,073,109. HEATER. WILLIAM S. ELLIOTT, Pittsburgh, Pa. Filed May 27, 1912. Serial No. 699,882. (Cl. 62—31.)

1. A heater having an inlet connection forming a structural part thereof, a combined valve and oil separating plate controlling the passage of steam from the connection to the heater, the connection having a relief port, a relief valve for controlling the relief port, and means for causing said valve to open at a predetermined pressure; substantially as described.



2. A feed water heater having an inlet connection, a combined valve and oil separating plate controlling the communication between the inlet connection and the heater, the inlet connection having a relief valve, and means for causing said valve to automatically open upon a predetermined pressure within the heater; substantially as described.

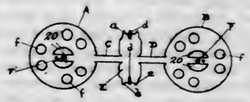
3. A feed water heater having an inlet connection, a combined valve and oil separating plate controlling the communication between the inlet connection and the heater, the inlet connection having a relief valve, and an adjustable counterweight connected to said valve; substantially as described.

4. A feed water heater having an inlet connection, a combined valve and oil separating plate controlling the communication between the inlet connection and the heater, the inlet connection having a relief valve, and an adjustable counterweight and dash pot device connected to said valve; substantially as described.

5. A heater having a steam inlet opening, a combined valve and separator plate within the heater for controlling said opening, a shaft for actuating said plate, and means independent of the shaft for supporting the plate; substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,073,110. SPOOL. WILLIAM FAIRCHILD, Albany, N. Y. Filed Dec. 18, 1911. Serial No. 666,858. (Cl. 242—123.)

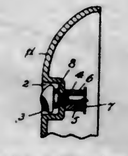


1. A spool formed from a single piece of material; the enlarged ends connected by a narrow band with a centrally disposed enlarged portion; bands and ends bent so that the bands will lie against the ends and the centrally disposed portion bent to form a shank and locked together between the ends, substantially as described.

2. A spool formed from a single piece of material, having at each end and midway between the ends enlarged portions with narrow bands connecting the central with each of the end portions; a means for locking the ends of the central portions together when they are bent, so that its ends unite; the enlarged ends of the spool bent in such a position that they will be parallel to each other and in contact with the sides of said centrally disposed portion.

3. A spool blank formed out of one piece of material provided with circular flanges at each end with an enlarged center member; narrow bands connecting said central member to each circular flange, substantially as described.

1,073,111. TOY. EUGEN J. FRAENKELL, New York, N. Y. Filed May 23, 1912. Serial No. 699,090. (Cl. 46—40.)



1. A toy having a face with holes through it at the eyes, rotatable eye-balls, and elastic means connected with the eye-balls through said holes in the face and having the rear portions secured against being pulled through the holes.

2. A toy having a face with holes through it at the eyes, rotatable eye-balls, elastic means located in said holes in the face having ends connected with said eye-balls and having rear portions secured against being pulled through the holes.

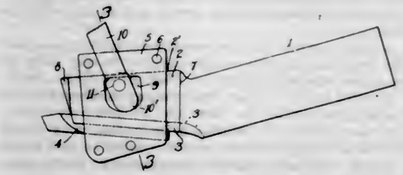
3. A toy having a face with holes through it at the eyes, rotatable eye-balls, elastic means located in said holes in the face and having front ends connected with said eye-balls and having rear portions secured against being pulled through the holes, and sleeves on the elastic members between their rear ends and the back of the face.

4. A toy having a face with holes through it at the eyes, rotatable eye-balls, and elastic means connecting the eye-balls through said holes in the face.

5. A toy having a face provided with inset eye sockets and openings in rear thereof, eyes in the sockets, and yielding means secured to the eyes and passing through the socket-holes, said means yieldingly maintaining the eyes in the sockets and permitting the same being moved.

[Claim 6 not printed in the Gazette.]

1,073,112. SINGLE-SERVICE TOOL-HOLDER. SILAS S. FULLER, Auburn, Me. Filed Oct. 23, 1912. Serial No. 727,303. (Cl. 29—96.)



1. A tool holder comprising a fixed shank, a head on said shank and having a converging upper and lower bearing surface, a block having a longitudinal opening receiving said head and slidably mounted thereon, said block having converging upper and lower walls, the lower wall of the block opening and the lower bearing face of the head constituting a tool clamp.

2. A tool holder comprising a shank, a head on said shank and having converging upper and lower bearing surfaces, a block having a longitudinal opening, having converging upper and lower walls, the lower wall of said block opening, and said head having a transverse hole therethrough and said block having an opening on each side to receive the pivot stud and cam end respectively of a setting up tool substantially as shown and described.

3. A tool holder comprising a shank, a head on said shank and having converging upper and lower bearing surfaces, a block having a longitudinal opening, having converging upper and lower walls, the lower wall of said block opening, and said head having a transverse hole therethrough and said block having an opening on each side and a setting up tool comprising a handle having a cam shaped end and a pivot stud laterally projecting therefrom adjacent to said end.

4. In a tool holder of the class described a head having a pair of opposite converging faces, a block slidably mounted on said head and having corresponding faces and a pair of stops spaced apart on said head to limit the sliding motion of said block.

5. In a tool holder of the class described, a pair of longitudinal, slidably mounted members having a pair of opposite clamping faces, a wedge element for causing said clamping faces to approach upon said sliding of said members and means for initially wedging said members.

[Claims 6 to 9 not printed in the Gazette.]

1,073,113. INCANDESCENT-LAMP LOCK. JOHN HENRY A. GARDINER, Downers Grove, Ill. Filed July 11, 1912. Serial No. 708,787. (Cl. 173—356.)



The combination with an incandescent electric lamp and its socket, of means engaged with both said parts for preventing separation thereof, said means comprising an annular flexible member circumferentially expansible, projections at the meeting ends of said member, set-screws engaged therewith for circumferentially contracting the said member, a split ring of a non-conducting material circumferentially expansible and contractible independently of said flexible member, and means engaging the latter with said flexible member for preventing relative movement of said parts in the direction of the axis of said flexible member, but permitting relative circumferential expansion and contraction of said split ring adapted to permit the lamp base or socket to be passed therethrough and to be contracted by contraction of said split member to engage said lamp base and its bulb around the juncture of said parts.

1,073,114. PLANT-SUPPORTER. SIMON GUDGEON, New Bedford, Mass. Filed Dec. 28, 1911. Serial No. 668,238. (Cl. 47—12.)

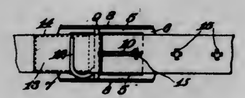


1. A plant supporter formed from a single length of material bent intermediate its length to form a substantially U-shaped bracing member extending in a vertical plane, the arms of said bracing member being bent intermediate their length whereby the outer end portion of said bracing member will extend at substantially right angles to the inner end portion, the arms being twisted together at the inner end of said bracing member and the end portions of said arms being bent vertically in opposite directions, and the end portion of the upper arm being bent to form an engaging device, said plant supporter be-

ing adapted to be embedded in the ground to such a point that the bracing member will be positioned beneath the surface of the ground.

2. A bracing member comprising a standard adapted to be partially embedded in the ground, a bracing arm extending from said standard in the same plane as said standard and having its outer end portion bent at substantially right angles to its inner end portion, whereby said standard will be braced against strain in all directions, and engaging means at the upper end of said standard, said standard being adapted to be embedded in the ground a sufficient distance to cause said bracing means to be embedded in the ground.

1,073,115. BELT-BUCKLE. JOSEPH HALLER, Chicago, Ill. Filed Sept. 11, 1912. Serial No. 719,774. (Cl. 241—9.)



1. A buckle comprising side-bars and cross-bars connecting the same, a transverse pin carried by the side-bars, a penetrating tongue projecting from one side of the pin, toward one of the cross-bars, and a hook projecting from the opposite side of the pin and having its bill extending transversely of the buckle and lying above the other cross-bar, the extremity of the bill being spaced from the pin, the tongue and hook being fixed to the transverse pin.

2. A buckle comprising side bars and cross-bars connecting the same, a transverse pin journaled in the side bars, an integral penetrating tongue projecting from one side of the pin toward one of the cross-bars, and an integral hook projecting from the opposite side of the pin and having its bill extending transversely of the buckle and lying above the other cross-bar.

1,073,116. CAOUTCHOUC SUBSTANCE AND PROCESS OF MAKING SAME. CARL HARRIES, Kiel, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 24, 1913. Serial No. 750,235. (Cl. 23—24.)

1. The process of producing a caoutchouc substance which comprises subjecting isoprene to the action of an alkali-forming metal, substantially as described.

2. The process of producing a caoutchouc substance which comprises subjecting isoprene to the action of an alkali metal, substantially as described.

3. The process of producing a caoutchouc substance which comprises subjecting isoprene to the action of sodium, substantially as described.

4. New caoutchouc substance obtained by polymerization of isoprene which is characterized by being a whitish substance soluble in benzene, being free from protein substances and forming a mixture of a mono-ozonid and a diozonid being a thick oil, which detonates when heated, and brom addition products, and in the vulcanized form is a whitish substance which is not adhesive, and the ozonids of which on decomposition with water do not show the pyrrol test or show it only very weakly, substantially as described.

1,073,117. FOLDER OR CONTAINER FOR GOODS. WILLIAM H. HART, Jr., Philadelphia, Pa. Filed May 6, 1910. Serial No. 559,749. (Cl. 229—32.)

A knock-down folder, consisting of one piece of material comprising a bottom, side-flaps at the edges of said bottom, inner end-flaps continuous of said side-flaps and adapted to overlap, outer end-flaps continuous of the bottom and adapted to be folded on the outer sides of the inner end-flaps, and securing flaps upon the outer edges of said outer end-flaps and adapted to be folded inward over the edges of said inner end-flaps, the ends of the side-flaps being formed with folds extending from the ends of the lower edges of the side-flaps to the upper edges of the latter to form each the hypotenuse of a triangle formed by



folding the side-flap to bring its end-edge to register with its bottom-edge, whereby the end-flaps may be folded down on the bottom and the side-flaps folded over the same to form a flat, rectangular knocked-down package.

1,073,118. TIRE-PROTECTOR. RALPH V. HASTINGS, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,322. (Cl. 152—16.)

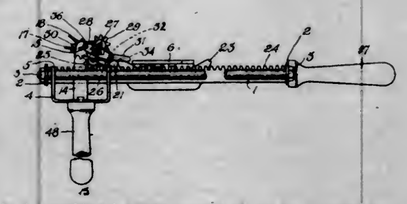


1. A tread member for tire protectors comprising a body provided with hooks for securing it in position; and a reinforcing member having projections extending within said hooks and adapted to engage members engaging said hooks and relieve said body from strain, substantially as described.

2. A tread member for tire protectors comprising a socket member open at both its inner and outer sides and provided with securing hooks; a tread block removably inserted in said socket from the inside; and a reinforcing plate closing the inner end of said socket member and provided with projections extending within said hooks and adapted to engage members engaging said hooks and relieve said socket member from strain, substantially as described.

3. A tread member for tire protectors comprising an outwardly tapering metallic socket member having securing hooks at its ends and sides; a rubber tread block removably inserted in said socket from the inside thereof; a reinforcing plate closing the inner end of said socket member and provided with projections extending within said hooks and adapted to engage members engaging said hooks and relieve said socket member from strain; and a tire-bearing plate inserted between said hooks and removably secured to said reinforcing plate, substantially as described.

1,073,119. HONER AND STROPPER. ARTHUR C. HAYDEN, Brockton, Mass. Filed Oct. 26, 1911. Serial No. 656,874. (Cl. 51—16.)



1. A combination stropper and honer, comprising a frame, a carriage slidable thereon, operative elements consisting in a blade holder and sharpening device, one mounted on said frame and the other on said carriage, and geared connections between the frame and one of said operative elements for causing a blade in said blade holder to be pressed against the sharpening device at each reciprocation, said geared connections having permanently associated therewith a reversible portion formed to be shiftable while remaining assembled with the device for causing the blade to be pressed against the sharpening element for either drawing or thrusting strokes at will.

2. A combination stropper and honer, comprising a frame, a carriage slidable thereon, operative elements consisting in a blade holder and a sharpening device, one mounted on the frame and the other on the carriage, and the blade holder having shifting movement to present a blade carried thereby to the sharpening device on successive strokes, and geared connections between the frame and the blade holder for shifting the blade holder and causing it to be pressed against the sharpening element, said connections having permanently associated therewith a shifting portion formed to be shiftable while remaining assembled with the device to cause the blade holder to be pressed against the sharpening device for either drawing or thrusting strokes at will.

3. A combination stropper and honer, comprising a frame, a carriage slidable thereon, operative elements consisting in a sharpening device and a blade holder, one mounted on the frame and the other on the carriage, said blade holder being mounted for oscillation to present a blade carried thereby to the sharpening device, and geared connections between the frame and the blade holder permanently associated therewith for causing the blade to be oscillated and pressed against the sharpening device, said connections having a direction changing element formed to be shiftable while remaining assembled with the device and a friction slip element coöperative to cause a blade in said holder to be yieldingly pressed against the sharpening device for either drawing or thrusting strokes at will.

4. A combination stropper and honer, comprising a frame, a carriage slidable thereon, operative elements consisting in a blade holder and a sharpening device, one mounted on the carriage and the other on the frame, the blade holder being mounted for shifting to present a blade therein to the sharpening device on movement in both directions and geared connections between the frame and the blade holder permanently associated therewith including gears formed to be shiftable while remaining assembled with the device adapted to transmit impulse to cause the blade holder to press a blade therein against the sharpening device for either drawing or thrusting strokes at will, and said connections including a friction slip adapted to cause a definite yielding pressure of the blade against the sharpening device.

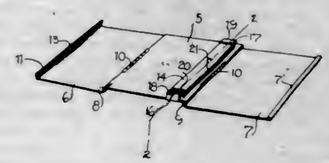
5. A combination stropper and honer, comprising a frame, a carriage slidable thereon, operative elements consisting in a blade holder and a sharpening device, one mounted on the frame and the other on the carriage, the blade holder being mounted for oscillation, a rack fixed to the frame, and gears carried by the carriage in connection with said rack, said gears having a friction slip connection with the blade holder and being shiftable while remaining in permanently assembled relation to the device to transmit impulse thereto in either direction for causing the blade in the holder to be pressed against the sharpening device for either drawing or thrusting strokes at will.

[Claims 6 to 9 not printed in the Gazette.]

1,073,120. BILL-FOLD. JOHN A. HELLWIG, Albany, N. Y. Filed Mar. 19, 1913. Serial No. 755,490. (Cl. 150—38.)

1. A bill fold comprising a plurality of hingedly connected plates, a clamping bar hingedly mounted at one of its ends upon one of said plates and extending in parallel relation to one of the longitudinal edges of the plate and contiguous thereto, said bar having a flange over which the bills are adapted to be folded, and means to engage the free end of the clamping bar and retain the same in its clamping position.

2. A bill fold comprising a plurality of hingedly connected plates, a clamping bar hingedly mounted at one of its ends upon one of the intermediate plates and contiguous to one of the longitudinal edges thereof, the body of said bar when in its clamping position being disposed in spaced parallel relation to the plate, said bar having a flange formed upon one of its longitudinal edges for engagement with the bills and over which the same are adapted to be folded, one of said plates being provided with means for engagement with one of the hinges whereby the plates are retained in their folded positions.

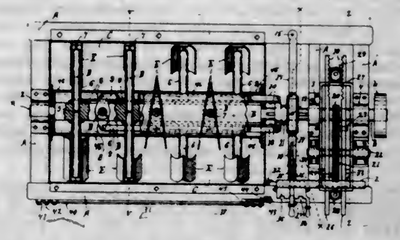


3. A bill fold comprising a plurality of hingedly connected metal plates, a clamping bar pivotally mounted at one of its ends upon one of said plates, a yieldable latch tongue carried by said plate for engagement with the free end of said bar to hold the same in clamping engagement with the bills, the other plates being movable into superposed relation to said first named plate to fold the bills upon and between said plates, and means on one of the latter plates engageable with one of the connecting hinges to retain the plates in their folded position.

4. A bill fold comprising a series of plates hingedly connected at their opposed longitudinal edges, tongues formed upon opposite ends of the intermediate plate adjacent one of its longitudinal edges, a clamping bar hingedly mounted at one of its ends upon one of said tongues, the other of said tongues being provided with a flange for engagement with the free end of the bar to hold the same in clamping engagement with the bills, the other of said plates being movable into superposed relation to said first named plate whereby the bills are folded between said plates, and means for detachably locking the plates together.

5. A bill fold comprising a series of hingedly connected plates, clamping means on the intermediate plate to clamp the ends of the bills thereto, the other of said plates being movable into superposed relation to the intermediate plate whereby the bills are folded between the plates, one of said latter plates being provided with a flange having a longitudinal groove formed therein to receive one of the connecting hinges and retain the plates in their folded position.

1,073,121. MECHANICAL MOVEMENT. JAMES T. HELMS, Lockland, Ohio. Filed May 17, 1912. Serial No. 697,911. (Cl. 83—73.)



1. A mechanical movement comprising a rotatable shaft having a rigid cross bar, tubular members provided with crank arms and rotatably mounted upon said cross bar on opposite sides of said shaft, shifting rods rotatable with said shaft and substantially parallel therewith and connected to said crank arms, and means operable while said shaft is rotating to adjust said tubular members.

2. A mechanical movement comprising a rotatable shaft having a cross bar, a plurality of tubular members rotatably mounted upon said cross bar on opposite sides of said shaft, shifting rods carried by and rotatable with said shaft and engaging said tubular members to rotatively adjust them relative to said cross bar, and means operable while said shaft is rotating to adjust said tubular members through said shifting rods.

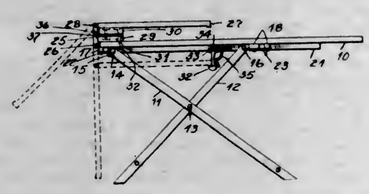
3. A mechanical movement comprising a rotatable shaft having a rigid cross bar, a plurality of tubular members rotatably mounted upon said cross bar on opposite sides of said shaft, mechanism rotatable with said shaft to rotatably adjust said tubular members relative to said cross bar while said shaft is rotating, and means to lock said mechanism in its adjusted position.

4. A mechanical movement comprising a rotatable shaft having a plurality of rigid cross bars, a plurality of angularly adjustable members rotatably mounted upon said cross bars, and capable by changing their adjustment of forming either right or left hand spirals about said shaft, mechanism rotatable with said shaft to rotatably adjust said angularly adjustable members relative to said cross bars, and means to lock said adjusting mechanism to its adjuated positions.

5. A mechanical movement comprising a rotatable shaft having a plurality of rigid cross bars, a plurality of angularly adjustable members rotatably mounted upon said cross bars and adjustable thereon to form either a right or left hand spiral about said shaft, and mechanism controlled by the movementa of said shaft to adjust said angularly adjustable members relative to said cross bars to alternately form said members into right and left hand spirals about said shaft.

[Claims 6 to 12 not printed in the Gazette.]

1,073,122. IRONING-TABLE. GEORGE C. HENNE, New Columbia, Ill. Filed Dec. 23, 1912. Serial No. 738,310. (Cl. 68—10.)

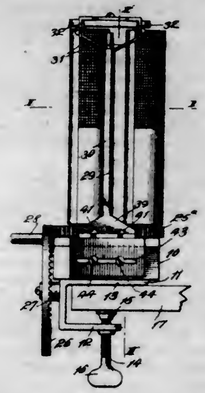


An ironing table including an ironing board, pairs of crossed legs pivotally connected together at their crossing, a rung connecting the crossing of said legs, one pair of legs being pivotally connected at the upper end to said board and being foldable longitudinally upon the bottom face of said board, the other pair of legs being adapted to terminally engage the intermediate portion of said bottom face and being foldable along the first named pair of legs, a sleeve board having a link connection with said ironing board and adapted to be rocked longitudinally of the legs when folded and to extend terminally across said rung, and locking means between said board and said sleeve board adapted to lock said sleeve board in folded position whereby said board serves to clamp said legs against said bottom in folded position.

1,073,123. MACHINE FOR SHARPENING SAFETY-RAZOR BLADES. HARRIS HERMELIN, New York, N. Y. Filed Sept. 5, 1912. Serial No. 718,669. (Cl. 51—16.)

1. In a machine of the character described, the combination of a plurality of rolls, each of said rolls provided with different sharpening material on different parts thereof, means for rotating the rolls, a clamping member having a U-shaped body portion provided with laterally extended arms at the upper portion thereof and a foot at the lower portion thereof and two adjustable plates to which the clamping member is adjustably held.

2. In a machine of the character described, the combination of a plurality of rolls having means for sharpening razor blades, means for rotating the rolls, a clamping member having a substantially U-shaped body portion and provided with laterally extending arms at the upper portion thereof and a foot at the lower portion thereof, and two adjustable plates to which the clamping member is adjustably held.



3. In a machine of the character described, the combination of a plurality of rolls having means for sharpening razor blades, means for rotating the rolls, a clamping member having a U-shaped body portion and provided with laterally extending arms at the upper portion thereof and a foot at the lower portion thereof, and two adjustable plates to which the clamping member is adjustably held and itself adjustable with relation to the rolls.

4. In a machine of the character described, the combination of a plurality of rolls having means for sharpening razor blades, means for rotating the rolls, a clamping member having a substantially U-shaped body portion, a blade holder, a plate having means for adjustment relative to the rolls and with respect to the clamping member, and a second plate to which the clamping member is adjustably held and itself adjustable with relation to the rolls.

5. In a machine of the character described, the combination of a plurality of rolls having means for sharpening razor blades, means for rotating the rolls, a clamping member having a body portion and provided with laterally extending arms at the upper portion thereof and a foot at the lower portion thereof, a blade holder arranged in said clamping member, and two supporting plates to which said clamping member is adjustably secured.

1,073,124. GAS-PRODUCER. JAMES A. HERRICK, New York, N. Y. Filed Feb. 4, 1911. Serial No. 606,548. (Cl. 48—86.)

1. The combination in a gas producer, of a casing having an apertured cover portion, a fuel hopper carried by the cover portion above the aperture thereof, said hopper being provided with a plurality of openings in its bottom wall which lead into the producer, a shaft extending through said hopper in the central portion thereof, and a blade carried by said shaft adjacent the upper surface of the bottom wall of said hopper, said blade being adapted to break up any coal lodged in the openings leading from the hopper into the producer.

2. The combination in a gas producer, of a cover portion provided with a centrally located aperture, a fuel hopper mounted upon said cover portion above said aperture, the bottom wall of said hopper being provided with a plurality of openings through which fuel may be discharged into the interior of the producer, coöperating means carried by said hopper and said shaft for breaking up the fuel within the hopper, and a blade carried by said shaft revolving in engagement with the bottom wall of said hopper and adapted to break up any fuel which may tend to clog said openings and thereby preventing the free discharge of fuel into the producer.



3. The combination in a gas producer, of a casing provided with a cover portion and a hopper, said hopper being fixed and having a bottom portion provided with an opening, a vertical shaft extending through said hopper into the interior of said casing, a fuel carrying and distributing member fixed on said shaft, means for driving said shaft, and a movable member arranged at the lower end of the hopper above the distributing member and adapted during the driving of said shaft to be fixed in different positions to regulate the size of said opening.

4. The combination in a gas producer, of a casing provided with a cover portion and a hopper, said hopper being fixed and having a bottom portion provided with an opening, a vertical shaft extending through said hopper into the interior of the casing, a fuel carrying and distributing member fixed on said shaft, means for driving said shaft, a manually movable member disposed above said distributing member and adjacent said opening, said last-mentioned member being provided with an opening adapted in different positions of said member to wholly and partly in different degrees register with the opening in the bottom portion of the hopper, and means for manually adjusting the aforesaid degree of registration between said openings irrespective of the driving of said shaft.

5. The combination in a gas producer, of a casing provided with a cover portion and a hopper, said hopper being fixed against rotation and being provided with a plurality of openings leading into the casing, a vertical shaft extending centrally of said hopper and said openings into the interior of the casing, means for driving said shaft, and a fuel distributing member mounted on said shaft, said member being provided with a vertical opening adapted to be successively presented beneath a hopper opening and being provided with a deflector portion adapted simultaneously to be successively presented beneath a plurality of hopper openings, whereby a smaller amount of fuel may be centrally distributed within the casing than is distributed away from the center.

[Claims 6 to 16 not printed in the Gazette.]

1,073,125. VENTILATOR. DE KERNIA J. T. HIETT, Chicago, Ill., assignor to John H. Coulter, Chicago, Ill. Filed July 14, 1911. Serial No. 638,455. (Cl. 98—4.)

1. In a ventilator, the combination of a trunk member, a head on said trunk member of greater mean cross-sectional area than said trunk, bottom and side walls extending from the base of said head member and all terminating in the plane of the outer edge of said head member, said bottom and side walls forming air passageways from the sides of said head to the plane of its outer edge, the space between said walls being in communication with said trunk member.



2. In a ventilator, the combination of a trunk member, a head on said trunk member of greater mean cross-sectional area than said trunk, bottom and side walls extending from the base of said head member and all terminating in the plane of the outer edge of said head member, said bottom and side walls forming air passageways from the sides of said head to the plane of its outer edge, the space between said walls being in communication with said trunk member, and a baffle member arranged opposite to but spaced away from the ends of said head member and bottom and side passageway walls.

3. In a ventilator, the combination of a trunk member, a head on said trunk member of greater mean cross-sectional area than said trunk, bottom and side walls extending from the base of said head member and all terminating in the plane of the outer edge of said head member, said bottom and side walls forming air passageways from the sides of said head to the plane of its outer edge, the space between said bottom and side walls communicating partly with the interior of said trunk member and partly with atmosphere at their lower ends.

4. In a ventilator, the combination of a trunk member, a head on said trunk member of greater mean cross-sectional area than said trunk, bottom and side walls extending from the base of said head member and all terminating in the plane of the outer edge of said head member, said bottom and side walls forming air passageways from the sides of said head to the plane of its outer edge, the space between said bottom and side walls communicating partly with the interior of said trunk member and partly with atmosphere at their lower ends, and a baffle plate spaced a short distance away from the outlets of said passageways.

5. In a ventilator, the combination of a trunk member, a head on said trunk member of greater mean cross-sectional area than said trunk, bottom and side walls extending from the base of said head member and all terminating in the plane of the outer edge of said head member, said bottom and side walls forming air passageways from the sides of said head to the plane of its outer edge, the space between said walls being in communication with said trunk member, and a baffle member arranged opposite to but spaced away from the ends of said head member and bottom and side passageway walls said baffle member having perforations in register with the passageway outlets.

1,073,126. BAKING DEVICE. MINOR L. HITCHCOCK, Los Angeles, Cal. Filed Jan. 23, 1912. Serial No. 672,840. (Cl. 107—57.)

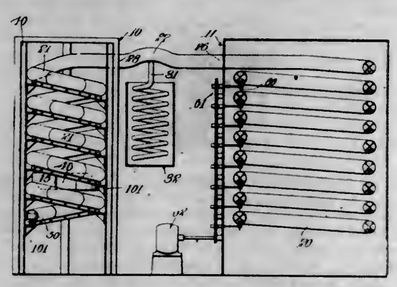
1. The combination with an oven, of an endless baking tube extending through the oven and having a portion communicating therewith and constituting a proofing tube.

2. The combination with an oven, of an endless baking tube extending through said oven, a portion of said tube being located externally of said oven and constituting a proofing tube, said baking tube and said proofing tube having a common single entrance and exit.

3. The combination with an oven of a proofing tube communicating with the oven and adapted to conduct heat therefrom.

4. The combination with an oven, of a spiral baking tube in the oven and a spiral proofing tube exteriorly of the oven and communicating with the baking tube and having a greater number of turns than the turns of the

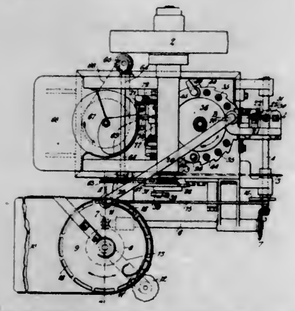
baking tube, the spiral baking tube and the spiral proofing tube having a horizontal connection at their lower portions provided with a single opening.



5. In combination, an imperforate baking tube arranged in a spiral, a proofing tube connected with the baking tube and adapted to form a feed intake for the baking tube, a continuous carrier movable through the proofing tube and the baking tube, and a vapor condenser communicating with the tubes at the point of their union.

[Claims 6 to 8 not printed in the Gazette.]

1,073,127. CARTRIDGE-MAKING MACHINE. HOWARD DOUGLAS HODGE, Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Filed Jan. 21, 1913. Serial No. 743,391. (Cl. 86—46.)



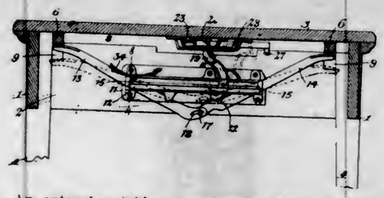
1. In a cartridge making machine, the combination of an arched pipe having two vertical portions, a catch at the bottom of one portion adapted to retain shells pushed past it into the pipe, a die at the bottom of the second portion, a pusher adapted to push the shells through the die and means for moving the pusher up and down the second portion.

2. In a cartridge making machine, the combination of an arched pipe having two vertical portions, a catch at the bottom of one portion adapted to retain shells pushed past it into the pipe, a device in the second portion adapted to release the shells one by one as they fall down the second portion, a die at the bottom of the second portion, a pusher adapted to push the shells through the die and means for moving the pusher up and down the second portion.

3. In a cartridge making machine, the combination of an arched pipe having two vertical portions, a catch at the bottom of one portion adapted to retain shells pushed past it into the pipe, a die at the bottom of the other portion, a step by step rotating table, pins on the table, and means for pushing the shells through the die onto the pins.

4. In a cartridge making machine, the combination of an arched pipe having two vertical portions, a catch at the bottom of one portion adapted to retain shells pushed past it into the pipe, a die at the bottom of the second portion and a spring actuated bar protruding into the second portion and adapted to push the shells through the die.

1,073,128. EXTENSION-TABLE. JOHN HOFMAYR, Buffalo, N. Y. Filed Sept. 11, 1912. Serial No. 719,742. (Cl. 45—113.)



1. An extension table comprising a frame, a fixed top section arranged on the frame, a movable top section or shelf slidable lengthwise under the fixed top section and movable vertically at the outer end of the same, and a lever mechanism for raising and lowering said shelf comprising a lifting lever pivoted on the frame and operating to raise or lower the shelf, a vertically swinging shifting lever pivotally mounted on said frame and operating to turn said lifting lever, and a horizontally swinging operating lever pivotally mounted on said shelf and adapted to be coupled and uncoupled with said shifting lever.

2. An extension table comprising a frame, a fixed top section arranged on the frame, a movable top section or shelf slidable lengthwise under the fixed top section and movable vertically at the outer end of the same, and a lever mechanism for raising and lowering said shelf comprising a lifting lever pivoted on the frame and operating to raise or lower the shelf, a vertically swinging shifting lever pivotally mounted on said frame and operating to turn said lifting lever, and a horizontally swinging operating lever pivotally mounted on said shelf and provided with a hook which is adapted to be engaged with and disengaged from said shifting lever upon moving the shelf outwardly and inwardly.

3. An extension table comprising a frame, a fixed top section arranged on the frame, a movable top section or shelf slidable lengthwise under the fixed top section and movable vertically at the outer end of the same, and a lever mechanism for raising and lowering said shelf comprising a lifting lever pivoted on the frame and operating to raise or lower the shelf, a vertically swinging shifting lever pivotally mounted on said frame and operating to turn said lifting lever, a horizontally swinging operating lever pivotally mounted on said shelf and adapted to be coupled and uncoupled with said shifting lever, and means for guiding and holding said operating lever comprising a bracket secured to the shelf and provided with a slot which receives said operating lever and with a stop block on one side of said slot forming stop shoulders at opposite ends of the block which are adapted to be engaged by the operating lever upon being moved into one or the other of its extreme positions.

4. An extension table comprising a frame, a fixed top section mounted on the frame, a movable top section or shelf, sliding bars supporting said shelf and guided on the fixed parts of the table, and means for raising and lowering said shelf and bars comprising two oppositely disposed lifting levers pivoted to swing vertically on the frame and having their inner ends operatively connected while their outer ends are adapted to engage with the undersides of said bars, a shifting lever pivoted to swing vertically on said frame and provided with a cam engaging one of the lifting levers, and an operating lever pivoted to swing horizontally on said shelf and adapted to be coupled with or uncoupled from said shifting lever.

5. An extension table comprising a frame, a fixed top section mounted on the frame, a movable top section or shelf, sliding bars supporting said shelf and guided on the fixed parts of the table, and means for raising and lowering said shelf and bars comprising two oppositely disposed lifting levers pivoted to swing vertically on the frame and having their inner ends operatively connected by means of a hook arranged on one of these levers and engaging with a slot in the other lever while their outer ends are adapted to engage with the undersides of said bars, a shifting lever pivoted to swing vertically on said frame and provided with a cam engaging one of the lifting levers, and an operating lever pivoted to swing horizontally on said shelf and adapted to be coupled with or uncoupled from said shifting lever.

1,073,129. TRANSPARENT WATERPROOFING. AARON C. HORN, New York, N. Y. Filed Apr. 8, 1912. Serial No. 689,364. (Cl. 106—43.)

1. A shaped mass of concrete or other masonry a portion at least of whose surfaces is superficially impregnated with a transparent waterproofing medium comprising aluminum stearate; such concrete or other masonry being characterized by having its surfaces substantially identical in appearance, color, texture, light refracting properties and porosity to normal concrete or other masonry, but being water-repellent to a high degree so that the porous surface although seemingly of a capillary nature exerts no capillary action on water.

2. A shaped mass of concrete or other masonry a portion at least of whose surfaces is superficially impregnated without discoloration with deposited aluminum stearate and aluminum tungate; such concrete or other masonry being characterized by having its surfaces substantially identical in appearance, color, texture, light refracting properties and porosity to normal concrete or other masonry, but being water-repellent to a high degree so that the porous surface although seemingly of a capillary nature exerts no capillary action on water.

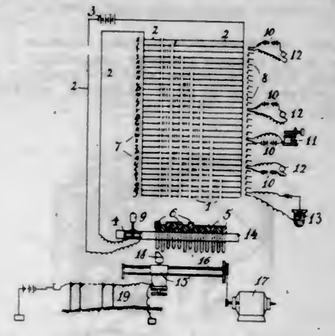
3. A shaped mass of concrete or other masonry a portion at least of whose surfaces is superficially impregnated without discoloration with deposited aluminum stearate and modicum of aluminum tungate; said coating being characterized by a high degree of transparency; such concrete or other masonry being characterized by having its surfaces substantially identical in appearance, color, texture, light refracting properties and porosity to normal concrete or other masonry, but being weter-repellent to a high degree so that the porous surface although seemingly of a capillary nature exerts no capillary action on water.

4. A shaped mass of concrete a portion at least of whose surfaces is superficially impregnated without discoloration with a continuous layer of deposited aluminum stearate and a modicum of aluminum tungate; said coating being characterized by a high degree of transparency; such concrete or other masonry being characterized by having its surfaces substantially identical in appearance, color, texture, light refracting properties, and porosity to normal concrete or other masonry, but being water-repellent to a high degree so that the porous surface although seemingly of a capillary nature exerts no capillary action on water.

1,073,130. SIGNAL SYSTEM. ABRAHAM NILSEN HOVLAND, Melsomvik, near Stakke, Norway. Filed Jan. 27, 1909. Serial No. 474,490. (Cl. 178—142.)

1. In a signal receiving system, a series of incomplete electric circuits, each of which has an arrangement of openings therein differing from the others, an electromagnet, a set of contact pieces, means controlled by said magnet for selectively actuating said contact pieces, and means to produce relative movement and contact between said contact pieces and circuits whereby the selected pieces will close the corresponding incomplete circuit and apparatus actuated by the closing of said circuit.

2. In a signal receiving system, a circuit to be acted upon by electro-magnetic waves, a relay in said circuit, a local electric circuit controlled by the said relay, an electromagnet in said local electric circuit, metal pieces, means actuated by said magnet to selectively position said pieces, rows of insulated contacts each of which rows forms part of a second local circuit, means for moving the selected metal pieces relatively to and in contact with the rows of contacts, and an electrically operated device inserted in the electric circuit comprising a row of contacts.



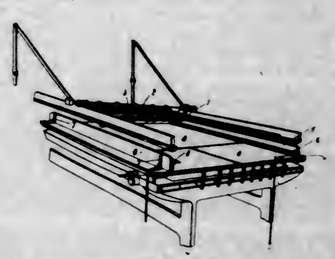
3. In a signal receiving system, an electro-magnet, a series of metal pieces, means actuated by said magnet to selectively position said pieces, and rows of insulated metal pieces, each of which rows forms part of an electric circuit, means to effect the electrical connection of the row of metal pieces corresponding to the selection of the metal pieces in the series, and an electrically operated device in each circuit.

4. In a signal system, rows of insulated contacts, each row comprising a different arrangement of contacts, said rows forming parts of electric circuits, a plurality of electric circuits including different electrically controlled apparatus, a circuit breaker in each of the several circuits the members of which are to be acted upon by the closing of one of the rows of insulated contacts.

5. In a system of reproducing signals, the combination with a number of metal pieces arranged in a row, means to selectively position said pieces in operative position, said positioning means operated by current impulses, a normally open local circuit containing as many parallel branches as there are selective combinations to be produced by said metal pieces and each branch having different combinations of gaps in order to control the branches, and means to move the branches over the metal pieces until all the gaps of that branch are closed which correspond to the metal pieces selected, thereby closing the local circuit, and means in said circuit for producing a signal.

[Claim 6 not printed in the Gazette.]

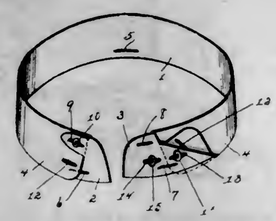
1,073,131. TRAY-SLIDE ATTACHMENT FOR PRINTING-PRESSES. WILLIAM G. HUMPHREY, Toronto, Ontario, Canada. Filed Jan. 11, 1913. Serial No. 741,441. (Cl. 101—29.)



In a fly-board for printing presses or the like having orifices therethrough arranged in pairs of laterally extending series adjacent each side thereof, a pair of side boards, angle irons longitudinally secured to the inner

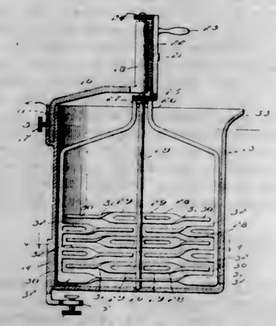
face of said side boards, brackets secured to said side boards and adjustably secured in said orifices and a plurality of interchangeable tray slides resting upon said fly board and said angle irons between said side boards.

1,073,132. SOFT FOLD-COLLAR. HUBBARD F. HURD, Troy, N. Y., assignor, by mesne assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y., a Corporation of New York. Filed Aug. 2, 1912. Serial No. 712,871. (Cl. 2—69.)



A soft fold-collar having a band and a folded-over top, said top being provided in each of its ends with a buttonhole, said band having a long end provided with two buttonholes and having buttons attached adjacent to the respective buttonholes adapted to be projected therethrough from one side to the other of the band and to engage the respective buttonholes in the top in whichever form the collar may be folded.

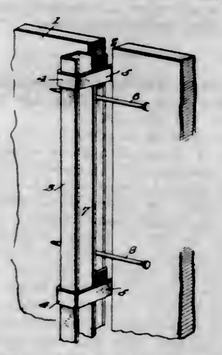
1,073,133. BEATER AND MIXER. NANCY GOODE JENNINGS, Appomattox, Va. Filed July 2, 1912. Serial No. 707,343. (Cl. 107—36.)



1. In a device of the class described, the combination with a container, of a supporting frame mounted thereon, means for securing the supporting frame on the said container, a rod journaled on the supporting frame and depending in the container, a beater frame journaled on the said rod and depending in the container, means mounted on the said supporting frame for operating the said rod and for rotating the rod in one direction and the beater frame in the opposite direction, and similar blades projecting from the lower ends of the said rod and said beater frame, the said blades being twisted at their medial portions with the blades on the rod spaced equidistantly apart to receive the blades on the beater frame therebetween.

2. In a device of the class described, the combination with a supporting frame, of a rod journaled thereon, a U-shaped beater frame, means for rotating the said rod in one direction and the said beater frame in the opposite direction, and blades projecting horizontally from the said rod and the said beater frame, the said blades being twisted at their medial portions so that one-half of each blade will lie in a vertical plane and the other half of each blade will lie in a horizontal plane.

1,073,134. WALL CONSTRUCTION. MARVIN H. JESTER, Denver, Colo., assignor to The M. H. Jester Investment Company, a Corporation of Colorado. Filed May 25, 1911. Serial No. 629,389. (Cl. 72—46.)



1. A construction of the character specified, comprising sheets of plaster board arranged in a common plane and with their adjacent edges spaced apart, a channel bar adjacent to each of the said spaces between the sheets and arranged laterally with respect to the plane of the sheets and with the channel of the bar facing in a direction parallel with the plane of the plaster boards, a plurality of clips for connecting each channel bar to the sheets of plaster board, a pin arranged transversely of the channel bar adjacent to each clip between the channel bar and the sheets and extending across the space between the adjacent edges of the sheets, and a filling of plastic material on both faces of the sheets.

2. In a wall or partition, including a suitable sheeting, the combination with a bar or stud, of a U-shaped fastening member straddling the said bar and having wings extending laterally therefrom, the adjacent edges of the sheeting joints engaging the body of the fastening member which separates said edges, the sheeting sections having portions near their edges arranged between the wings of the fastening member and the plane of the adjacent surface of the stud, and a key passed between the sheeting and the stud, said key bridging the space between the edges of the sheeting sections.

1,073,135. MANUFACTURE OF A SALUTARY DRINK FROM DAIRY RESIDUES. ADOLF JOLLES, Vienna, Austria-Hungary. Filed Apr. 19, 1913. Serial No. 762,286. (Cl. 99—11.)

1. The process of manufacturing a durable salutary drink from whey or other milk residue, which comprises adding without heating an acid capable of sterilizing the same and treating the sterilized product with charcoal to remove the odor and color.

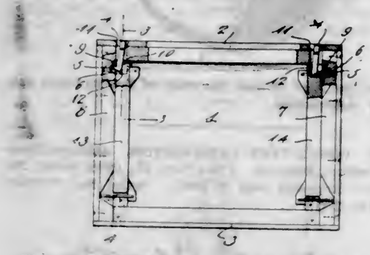
2. The process of manufacturing a durable salutary drink from whey or other milk residue, which comprises adding without heating an acid capable of sterilizing the same and treating the sterilized product with charcoal and bone black to remove the odor and color.

3. The process of manufacturing a durable salutary drink from whey or other milk residue, which comprises adding without heating an acid capable of sterilizing the same and treating the sterilized product with charcoal to remove the odor and color, and then filtering the deodorized product.

4. The process of manufacturing a durable salutary drink from whey or other milk residue, which comprises adding without heating an acid capable of sterilizing the same, treating the sterilized product with charcoal to remove the odor and color, filtering the deodorized product and adding carbonate of soda to the clear filtrate.

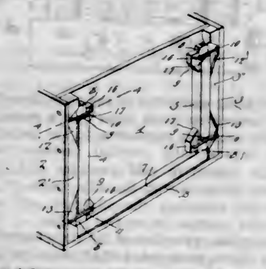
5. The process of manufacturing a durable salutary drink from whey, which consists in sterilizing the whey by adding thereto without heating pure hydrochloric acid, treating the sterilized whey with wood charcoal and bone black to remove the odor and color, filtering the treated product and adding to the clear filtrate carbonate of soda.

1,073,136. COVER-FASTENER. EUGENE F. JONES, Richmond, Va., assignor of one-half to F. A. Spence, Richmond, Va. Filed Oct. 14, 1912. Serial No. 725,699. (Cl. 70—3.)



The combination with a receptacle having a recess in the upper edge of one wall with a notch extending laterally from said recess and provided with an upwardly inclined upper wall, of a cover having a latch pivotally mounted thereon and provided at its lower end with an upwardly inclined hook adapted to engage the inclined wall of the notch in said receptacle.

1,073,137. KNOCKDOWN BOX. EUGENE F. JONES, Richmond, Va., assignor of one-half to F. A. Spence, Richmond, Va. Filed Oct. 14, 1912. Serial No. 725,700. (Cl. 217—12.)

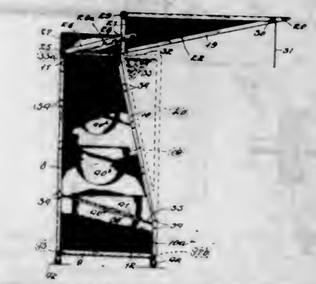


1. A knockdown receptacle comprising end and side members having cleats secured on their inner and outer faces respectively, the cleats of one member being engaged with those of the other when the parts are assembled, and loops carried by the cleats of one member and adapted to swing over the cleats of the other member, and means for locking said loops in operative position.

2. A knockdown box comprising separable end and side members, one of which has cleats arranged on its inner face at its opposite ends and the other having cleats arranged on its outer face at points spaced from its opposite ends a distance equal to the width of the cleats on the other member, and loops pivotally mounted on the cleats of one member and adapted to swing over the cleats of the other member and having locking blocks pivotally mounted on the free ends.

3. A knockdown box comprising separable end and side members, one of which has cleats arranged on its inner face at its opposite ends, and the other having cleats arranged on its outer face at points spaced from its opposite ends a distance equal to the width of the cleats on the other member, and locking loops pivotally mounted on the cleats of the other member and having pivotally mounted locking blocks at their free ends, the cleats of both members having alined stops for limiting the inward movement of said loops.

1,073,138. COMBINATION DISPLAY-STAND AND COUNTER. WILSON P. JONES, Birmingham, Ala. Filed Apr. 25, 1913. Serial No. 763,482. (Cl. 211—9.)



1. In a device for displaying fruits, vegetables, and the like, a framework of angle-iron strips filled by wire fabric, means for supporting receptacles in said framework, an outwardly and upwardly swinging door horizontally hinged to said framework, means for securing said door in its open position, a roller journaled on said door, a curtain adapted to be rolled upon said roller, and, when extended, to cover the front surface of said door.

2. In a device for displaying fruits, vegetables, and the like, a framework having sides of wire fabric, means for supporting receptacles within said framework, receptacles adapted to be adjustably supported by said supporting means, an outwardly and upwardly swinging door hinged to said framework, means for supporting said door in its open position, a roller journaled in the upper portion of said door, a curtain adapted to be rolled upon said roller, and when extended to cover the front surface of said door, a rod extending between the outer ends of said door, said curtain also adapted to extend over and below said rod when extended, and doors hinged on lower portion of said frame and below said door.

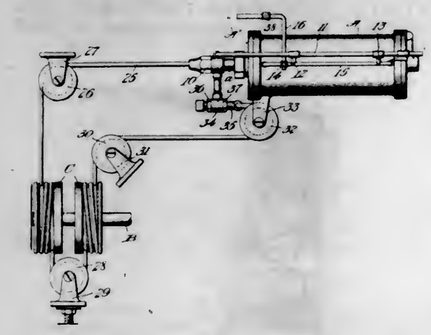
3. In a device for displaying vegetable and fruit products, a framework having sides of wire fabric, hemispherically shaped baskets, rings rigidly secured to said baskets at an angle to the rims thereof, and means secured within said frame adapted to engage said basket-rings whereby the baskets will be supported in horizontal or inclined positions.

1,073,139. STARTER FOR EXPLOSIVE-ENGINES. GEORGE HARTWELL KELLEY, Gainesville, Fla., assignor to The Kelley Self-Starter Company, Gainesville, Fla., a Corporation of Florida. Filed Aug. 17, 1912. Serial No. 715,668. (Cl. 123—179.)

1. An engine starter comprising a compressed air storage cylinder, a reciprocating piston driven thereby, means for controlling the operation thereof, an engine shaft, a pair of clutches mounted on said engine shaft, a piston rod carried by said piston, and an endless cable connected to the piston rod at one end and passing around one of said clutches then over an idler sheave then around the other clutch and then back around another idler sheave behind the point of the inward stroke of the piston then connected to a part carried by said piston rod, substantially as set forth.

2. An engine starter comprising a reciprocating auxiliary engine, means for operating the same, a main engine shaft, a pair of spools mounted on said main engine shaft to run free in one direction, means for coupling them to

said engine shaft when operated in the reverse direction, and an endless cable both ends of which are attached to a reciprocating part of said auxiliary engine and the intermediate part of which runs around both of said spools and over intermediate sheaves, whereby said main engine shaft is driven by both strokes of said auxiliary engine, substantially as set forth.



3. An engine starter comprising an auxiliary reciprocating engine, means for driving the same, a main engine shaft, a pair of spools loosely mounted on said engine shaft, clutch mechanism for coupling said spools to said engine shaft when driven in one direction, and an endless cable passing around said spools and over intermediate sheaves and connected at its opposite ends with a reciprocatory part of said auxiliary engine, substantially as set forth.

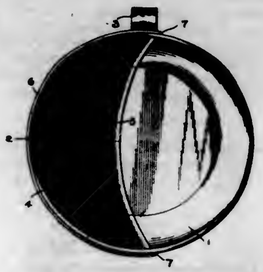
1,073,140. SEWING-NEEDLE. WITMER J. KENDIG, Lancaster, Pa. Filed Oct. 14, 1912. Serial No. 725,555. (Cl. 112—11.)



A hollow sewing machine needle, whose cross-section is uniformly circular, one end of which is reduced in diameter and formed with a spiral slot terminating in an eye, a thread guard adjoining the eye, and a thread engaging ear at the opposite end of the slot.

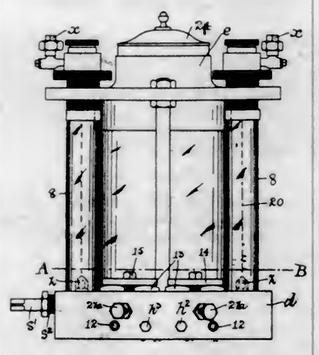
1,073,141. STRAINER MEASURING-CUP. LILLIE F. KERLINGER, Philadelphia, Pa. Filed May 5, 1913. Serial No. 765,559. (Cl. 31—14.)

As a new article of manufacture, a cup having a curved outwardly projecting groove forming bead adjacent its upper edge, and a crescent shaped strainer sprung into said outwardly projecting bead and of a length conforming to that of the bead, whereby the end walls of the groove



formed by the bead confine the ends of the strainer, substantially as described.

1,073,142. FORCE-FEED LUBRICATOR. ARTHUR KIRKHAM, Bolton, England. Filed Nov. 27, 1908, Serial No. 464,595. Renewed July 8, 1913. Serial No. 777,961. (Cl. 184—27.)



1. In lubricating apparatus of the class described, a central holder comprising glass sides and a metal base, the latter having openings extending to its outer wall and having also substantially vertical passages intersecting said openings, valves in said passages and plungers in said openings, plugs closing the outer ends of said openings, means for actuating the plungers, and a series of sight feed tubes around the central holder.

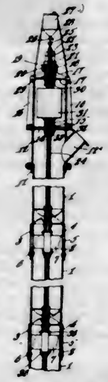
2. In lubricating apparatus of the class described, a base piece having valved passages, a shaft mounted in the base piece, arms on said shaft, plungers mounted in said passages and operatively engaged by opposite sides of said arms, and springs for actuating said plungers in opposition to said arms.

3. A lubricator of the character described, comprising a base having a central chamber, a shaft extending transversely of said central chamber and having arms, an oil reservoir mounted on the base above said chamber, a series of tubes mounted on the base around said reservoir, said base having valved passages connecting its central chamber with said tubes and having also barrels communicating with said passages, plungers mounted in said barrels, and springs for holding the plungers in contact with the arms of the shaft.

4. A lubricator of the character described, comprising a base having a central chamber, an oil reservoir mounted on the base above said chamber, a series of tubes mounted on the base around said reservoir, said base having valved passages connecting its central chamber with said tubes and having also barrels communicating with said passages, controllable by-pass connections between said passages and central chamber to enable the quantity of feed for each set of passages to be regulated, plungers mounted in said barrels, and means located in the said central chamber for actuating said plungers.

5. A lubricator of the character described, comprising a base having a central chamber, an oil reservoir mounted on the base above said chamber, a series of tubes mounted on the base around said reservoir, said base having valved passages connecting its central chamber with said tubes and having also barrels communicating with said passages, plungers mounted in said barrels, removable plugs at the ends of the valved portions of said passages, said removable plugs being arranged in pairs, a single bar bearing on the two plugs of each pair, a screw for holding the said bar against the plugs to hold them in place, and means located in the said central chamber for actuating said plungers.

1,073,143. WELL-PUMP. RAINER H. KNIPPING, Franklin, La. Filed July 13, 1912. Serial No. 709,281. (Cl. 103—43.)



1. In a pump, a casing having a bearing; an inclined blade in the casing adjacent the bearing; a shaft journaled in the bearing; pumping means operable by the shaft; a stuffing box threaded upon the bearing about the shaft; and a blade projecting from the stuffing box, said blade being inclined at an angle to the blade which is adjacent the bearing.

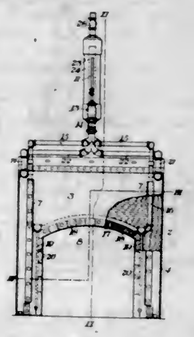
2. In a pump, a casing having a bearing; a shaft journaled in the bearing; an inclined bucket upon the shaft; a stuffing box threaded upon the bearing about the shaft; and a blade projecting from the stuffing box, the blade being inclined in the same direction as the bucket.

3. In a pump, a casing having a bearing; an inclined blade in the casing adjacent the bearing; a shaft journaled in the bearing; an inclined bucket upon the shaft; stuffing boxes right and left hand threaded upon the ends of the bearing and surrounding the shaft; and a blade projecting from each stuffing box, said blades being inclined in the same direction as the bucket and being inclined at an angle to the blade which is adjacent the bearing.

4. In a pump, a casing; a bearing therein; a shaft journaled in the bearing; means upon the shaft for advancing a liquid along the casing and for imparting a rotary motion to the liquid, a stuffing box threaded upon the bearing and surrounding the shaft, the stuffing box being responsive to the rotary motion of the liquid.

5. In a pump, a casing; a bearing therein; a blade in the casing adjacent the bearing, the blade being inclined to impart a rotary motion to the liquid when the liquid is advanced along the casing; means upon the shaft for advancing the liquid along the casing; and a stuffing box threaded upon the bearing and surrounding the shaft, the stuffing box being responsive to the rotary motion of the liquid.

1,073,144. WATER-COOLED FURNACE-DOOR FRAME. LUTHER L. KNOX, Niles, Ohio, assignor to The Knox Pressed & Welded Steel Company, Niles, Ohio, a Corporation of Ohio. Filed Aug. 4, 1911. Serial No. 642,339. (Cl. 75—132.)



1. A furnace door frame whose body portion is formed of two sheet metal plates, each of said plates having its edges bent forwardly at substantially right angles to the flat portions of the plates, the flanges on the rear plate being deeper than those on the front plate, and the front plate sitting between said deeper flanges with its own flanges parallel with and secured to the deeper flanges, and the leg portions of the frame at the sides of the door opening being formed by extensions of said plates, the said extensions of the two plates being united to each other by continuations of the said flanges, and also by joints at the corners of the legs diagonally opposite the said flanges; substantially as described.

2. In a furnace, the combination with a hollow water cooled door frame having a water inlet pipe and a water discharge pipe, of means for mixing the water delivered by the discharge pipe with the incoming water of the supply pipe and returning the same to the said door frame, substantially as described.

3. In a furnace, a hollow water cooled door frame having a supply pipe and a discharge pipe, a chamber into which the discharge pipe extends, a chamber into which the supply pipe extends, and a connection between the said chambers; substantially as described.

4. In a furnace, a water cooled door frame having a supply pipe and a discharge pipe, the supply pipe having a jet nozzle, a chamber into which the jet nozzle discharges, an inlet pipe leading from said chamber to the water cooled door frame, a chamber into which the outlet pipe discharges, and a connection between the two chambers; substantially as described.

5. In a furnace, a water cooled door frame having a supply pipe and a discharge pipe, the supply pipe having a jet nozzle, a chamber into which the jet nozzle discharges, an inlet pipe leading from said chamber to the water cooled door frame, a chamber into which the outlet pipe discharges, and a connection between the two chambers, the last named chamber having venting and overflow means; substantially as described.

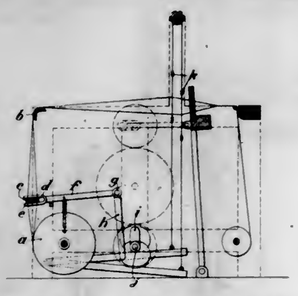
[Claims 6 and 7 not printed in the Gazette.]

1,073,145. LOOM FOR WEAVING. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor to Spinnerei & Weberei Steinen A. G., Steinen, Germany. Filed Jan. 18, 1913. Serial No. 742,889. (Cl. 139—75.)

1. In looms for weaving, a warp-dividing device comprising a plurality of freely rotatable dividing rollers in the warp, arranged in contact with each other, and automatic means for causing said dividing rollers to roll frictionless one upon another as well as on the stretched warp threads.

2. In looms for weaving, a warp-dividing device comprising two freely rotatable dividing rollers in the warp.

arranged in contact with one another, and automatic means for causing said dividing rollers to roll frictionless one on the other in opposite directions as well as on the stretched warp threads.

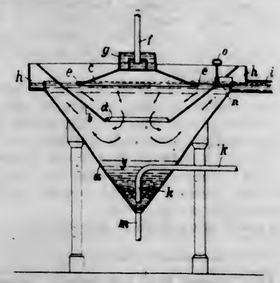


3. In looms for weaving, a warp-dividing device comprising two freely rotatable dividing rollers in the warp, arranged side by side in contact with one another, an automatic periodically operating means for causing said dividing rollers to roll frictionless one on the other and on the stretched warp threads.

4. In looms for weaving, a warp-dividing device comprising two freely rotatable dividing rollers arranged in the warp between the warp beam and the back-bearer, lateral bearing guides for the said rollers arranged so as to allow the same to move transversely to the warp direction, and automatic means connected with said guides for causing the rollers to move along the wrap so as to roll frictionless one upon another and on the stretched warp threads, substantially as described.

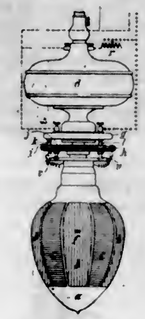
5. In looms for weaving, a warp-dividing device comprising two freely rotatable dividing rollers, ball bearings for the same, movable carrying members for said ball bearings and automatic means connected with said carrying members for positively causing the rollers to move along the warp so as to roll frictionless one upon the other and on the stretched warp threads, substantially as described.

1,073,146. APPARATUS FOR DECANTING OR SETTLING LIQUIDS. RUDOLF KÖRNER, Niederlössnitz, near Dresden, Germany. Filed June 20, 1912. Serial No. 704,822. (Cl. 210—5.)



In apparatus for decanting or settling liquids, a vertical frame, a funnel mounted on said frame, an escape pipe at the lower end of said funnel, an inverted frusto-conical member *b*, mounted centrally in said funnel and extending above it, an upwardly and inwardly inclined lip on said member *b*, a roof-shaped member *c*, in the upper part of member *b* having an upwardly and outwardly inclined lip, a supply pipe, a shallow receiver into which said pipe discharges, a receiver wider and higher about said first mentioned receiver, an exterior overflow channel, around the upper edge of said funnel and extending below it, an escape pipe *i*, and a chute *n*, connecting the interior of said funnel with said escape pipe, as herein set forth.

1,073,147. ILLUMINATING DEVICE. JOACHIM LAFITTE, Biarritz, France. Filed May 13, 1912. Serial No. 696,948. (Cl. 240—49.)

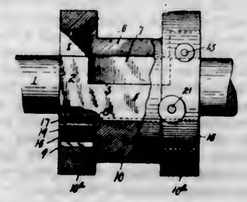


1. An illuminating device comprising a source of light, a casing having an odd number of reflecting strips alternating with transparent strips, means for rotating the casing and the source of light synchronously around the axis of said source, and an automatic brake for regulating the speed of rotation.

2. An illuminating device comprising an electrical source of light constituted by the incandescent wires of an incandescent electric lamp, a casing having an odd number of reflecting strips alternating with transparent strips, means for rotating the casing and the source of light synchronously around the axis of said source, for keeping the groups of wires in accordance with the reflecting strips and the transparent strips diametrically opposite and an automatic brake for regulating the speed of rotation.

3. An illuminating device comprising an electrical source of light constituted by an electric lamp with transparent globe, a casing surrounding the said lamp, having an odd number of reflecting strips alternating with transparent strips, means for rotating the casing and the electric incandescent or arc lamps synchronously, around the axis of said lamp for keeping the luminous source in agreement with the reflecting strips and the transparent strips diametrically opposite and an automatic brake for regulating the speed of rotation.

1,073,148. ADJUSTABLE ECCENTRIC. WILLIAM H. LANNING, Jr., Toledo, Ohio. Filed Mar. 4, 1912. Serial No. 681,599. (Cl. 74—1.)



1. In combination, a shaft having an eccentric portion, a journal member carried by said portion and adjustable transversely thereof in the plane of its projection, key members slidingly carried by said eccentric for movements longitudinally thereof, and means carried by the journal member and operable to move the key members into position to lock the journal member in one position of adjustment relative to the eccentric or to move them into neutral position.

2. In combination, a shaft having an eccentric portion, a sleeve carried by said portion for adjustment transversely thereof to adjust its throw, plungers carried by the sleeve for engagement with the eccentric to secure the sleeve in one position of adjustment, said plungers being operable from without the sleeve to release it from such position of adjustment, and means slidingly associated with the sleeve for coacting with it and the eccentric to secure the sleeve in another position of adjustment relative to the eccentric.

3. In combination, a shaft having a portion which is of polygonal form in cross-section with a side recessed, a sleeve having an eccentric opening therethrough complemental to said shaft portion for fitting thereover and having the end portions of said opening transversely broadened in the plane of throw of the eccentric to permit an intermediate portion of the sleeve to work within the recesses of said shaft portion upon an adjustment of the sleeve to lengthen the eccentric throw thereof, means having parts working within portons of said opening enlargements to coact with parts of the shaft portion to retain the sleeve in one position of its adjustment, and key-blocks carried by said shaft portion for movements longitudinally thereof and operable to move within the sleeve to lock the sleeve in another position of adjustment relative to the shaft and being also movable into neutral positions in registering ones of said opening enlargements.

1,073,149. SAND-BLAST APPARATUS. GEORGE R. LAWRENCE, Cleveland, Ohio, assignor to The W. W. Sly Manufacturing Company. Filed Jan. 17, 1912. Serial No. 671,766. (Cl. 51—12.)



1. In a sand blast apparatus, the combination of a receptacle, a conduit for sand having a pipe section extending into said receptacle above the bottom and provided with a downwardly directed port, a sleeve surrounding the said pipe section and adjustable thereon to vary the effective area of said port, a fluid pressure supply conduit surrounding the discharge end of the sand conduit, and means for regulating the flow of air through the latter conduit.

2. In a sand blast apparatus, the combination of a sand receptacle, a sand conduit comprising a pipe section extending through the opposite walls of said receptacle above the bottom thereof and provided with a port in its lower surface, a sleeve adjustably mounted on the end of said pipe section and projecting into the receptacle and arranged to control the effective area of said port, a fluid pressure supply conduit arranged to discharge past the discharge end of the former conduit to create a suction therein, and means for controlling the flow of the fluid through its conduit.

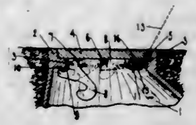
3. In a sand blast apparatus, the combination of a receptacle, a pipe section extending across the receptacle and having a port in its lower surface above the bottom of such receptacle, a plug for the end of said section, a sleeve adjustably mounted on said plug and surrounding said conduit section and adapted to overlap the port thereof, a nozzle section with which the sand conduit communicates, and a fluid pressure supply pipe communicating with said nozzle section and arranged to create a suction around the discharge end of the sand conduit.

4. In a sand-blast apparatus, the combination of a receptacle for sand, a conduit connecting therewith and comprising a flexible pipe having at its discharge end a nozzle section provided with an annular seat surrounding its mouth, a pressure fluid conduit having a nozzle section surrounding the former nozzle section and provided with an interiorly cylindrical elongated discharge passageway common to both conduits, said last mentioned section being substantially coaxial with said first mentioned nozzle section and being adjustably mounted with respect thereto, the diameter of said discharge passageway being not materially less than that of said first nozzle section and said second nozzle section having a seat surrounding said passageway and adapted to coöperate with said first seating portion whereby the flow of pressure fluid may be regulated.

5. In a sand blast apparatus, the combination of a fluid pressure supply conduit having at its discharge end a sleeve provided with an apertured spider, said sleeve having an internally threaded bore, a discharge nozzle section threaded into said bore and having at its inner end a valve seat, and a sand conduit having a nozzle section threaded into said spider and having a valve coöperating with said seat.

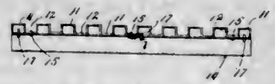
[Claims 6 to 8 not printed in the Gazette.]

1,073,150. SEWER-CLEAN-OUT COVER. BENJAMIN B. LINSKIE, Dallas, Tex. Filed Mar. 15, 1912. Serial No. 684,052. (Cl. 94—7.)



The combination with a sewer clean out casing having a key receiving recess, of a circular cover fitting in the casing, a pair of spaced guide projections on the undersides of the cover in position adjacent the recess of the casing to receive a key inserted through the recess, a flanged projection on the wall of the casing positioned diametrically opposite the guide projections, and a hook pivoted on the underside of the cover diametrically opposite to the guide projections and normally engaging the flanged projection of the casing, said hook having a depending key receiving portion.

1,073,151. DRIER. WILLIAM H. MATTHEW, Zanesville, Ohio. Filed Sept. 10, 1912. Serial No. 719,684. (Cl. 34—17.)

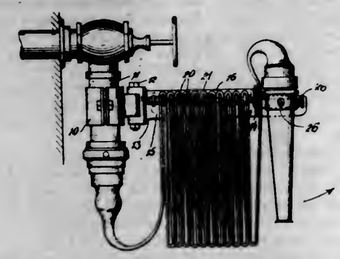


1. A device of the class described comprising a floor having a transverse ribs and channels and formed of foraminous material, longitudinal supporting bars secured to the under face of the floor at the opposite edges thereof, and means for bracing the floor.

2. A device of the class described comprising a foraminous floor constructed to form longitudinal ribs and channels, channel bars secured to the under face of the floor, said channel bars having their opposite edges bent outwardly and secured to said floor, longitudinal and transverse brace bars secured against the under face of the floor, and means for preventing longitudinal movement of said brace bars.

3. A device of the class described comprising a floor member formed of a continuous piece and including alternate ribs and channels, each rib and channel being provided with a plurality of spaced elongated openings extending longitudinally thereof, means for supporting the floor in raised position, and longitudinal and transverse crossed brace bars bearing against the under face of the floor, the transverse brace bars having their opposite ends bent around the supporting means to prevent longitudinal movement of said bars.

1,073,152. FIRE-HOSE RACK. WILLIAM MCCLINTOCK, New York, N. Y. Filed Oct. 16, 1911. Serial No. 654,984. (Cl. 137—31.)



1. A hose rack comprising a plurality of holding members arranged in two parallel sets and adapted to engage a flattened hose at the edges thereof, supports for said holding members, each member adapted for independent movement on said support in one direction and means for permitting a simultaneous movement of all of said members in the opposite direction.

2. A hose rack comprising a frame, a pair of parallel arms pivotally supported by the frame, a plurality of holding members supported by each of said arms for supporting a plurality of hose loops at the opposite edges thereof, a latch mechanism arranged to be moved to permit rotation of said arms to allow the hose loops to drop, and a manually movable locking member for preventing said releasing movement of the latch mechanism.

3. A hose rack comprising a frame, a pair of parallel arms pivotally supported by the frame, a plurality of holding members supported by each of said arms for supporting a plurality of hose loops at the opposite edges thereof, slidable latches arranged to be moved to permit rotation of said arms to allow the hose loops to drop, said latches being arranged to support the hose nozzle, and means for preventing the removal of the nozzle from said latches without imparting said release movement to the latches.

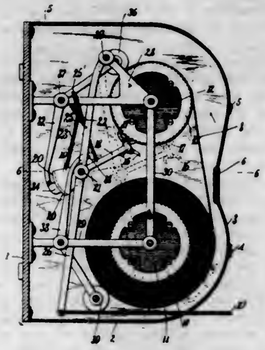
4. A hose rack comprising a pair of parallel rods mounted so that they may be swung about parallel axes, a plurality of holding members on said rods, each of said members being independently rotatable on its rod in one direction, and removable means for preventing said rods with said members from swinging in the opposite direction.

5. A hose rack comprising a pair of parallel rods mounted so that they may be swung about parallel axes, a plurality of holding members on said rods, each of said members being longitudinally slidable and independently rotatable on its rod in one direction, and removable means for preventing said rods with said members from swinging in the opposite direction.

[Claims 6 to 12 not printed in the Gazette.]

1,073,153. STATION-INDICATOR. AUSTIN MCINNIS, Richmond, Prince Edward Island, Canada. Filed Mar. 21, 1912. Serial No. 685,207. (Cl. 40—87.)

1. In a station indicator, a housing, a traveling tape formed with names thereon, a pair of rollers designed to receive the opposite ends of said tape and to have said tape alternatively wound thereon, a ratchet wheel rigidly connected with each of said rollers, a pivotally mounted pawl mechanism arranged to alternatively engage said ratchet wheels for moving the same, an operating lever for giving said pawl mechanism a back and forth movement, a pair of pivotally mounted arms arranged to alternatively engage said pawl mechanism, and means connected with said arms and bearing against the tape on said rollers for controlling the rearward movement of said arms for causing the pawl mechanism to engage said ratchet wheel for a less distance back upon each movement of the operating lever whereby said rollers are moved for a shorter distance upon each operation as the tape is wound thereon for causing the tape to move the same distance upon each operation of the operating lever.

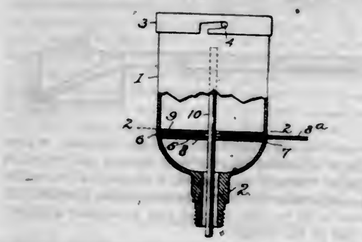


2. In a station indicator, a housing formed with a window, a tape formed with names thereon spaced equal distances apart designed to move past said window for successively bringing to view said names, a roller connected to each end of said tape and adapted to have said tape alternately wound thereon, a ratchet wheel rigidly connected with each of said rollers, a pivotally mounted substantially reciprocating bar, a pair of pivotally mounted pawls arranged on said bar adapted to engage said ratchet wheels, a shaft for pivotally supporting said reciprocating bar, a pivotally mounted lever carrying said shaft, said pivotally mounted lever being adapted to reciprocate said reciprocating bar, a pair of springs connected to said reciprocating bar on the opposite sides of said shaft, a bifurcated member having one of said springs connected with each of its arms, a shaft for supporting said bifurcated member, an operating crank member for rocking said shaft and bringing said springs under tension successively, a pair of pivotally mounted arms designed to have one end engage the rear end of said bar and the opposite end to engage one of said rollers and the tape wound on the rollers, the ends of said arms engaging said reciprocating bar acting as stops for limiting the rearward movement of the reciprocating bar and consequently limiting the amount of feed whereby said ratchet wheels are moved a shorter distance as the tape is wound thereon for causing the tape to move the same distance each time past said window regardless of which roller is having the tape wound thereon and regardless of the amount of tape wound on the rollers.

3. In a station indicator and the like, a pair of rollers, a tape with information arranged thereon adapted to be wound on said rollers, a ratchet wheel rigidly secured to each of said rollers, pivotally mounted pawls adapted to engage the respective ratchet wheels, a supporting bar for supporting said pawls, a pivotally mounted lever, means for pivotally mounting said supporting bar on said pivotally mounted lever whereby the supporting bar is given a substantially longitudinal movement, a pair of springs for causing said pawls to engage at different times said ratchet wheels, and means bearing against one end of said supporting bar and against the tape on said rollers for regulating the amount of back and forth movement which may be given to said supporting bar and said pawls whereby the ratchet wheels and rollers carried thereby are moved less and less as the tape is wound thereon in order to give an equal movement of said tape upon each operation of said pivotally mounted lever.

4. In a station indicator, a tape, a roller for said tape adapted to have said tape wound thereon, said roller being formed with a groove extending longitudinally thereof, the walls of said groove being arranged substantially parallel and at an angle to a radiating line extending from the axis of the roller, and a wedge formed substantially of the same shape as the groove adapted to be moved pivotally into the groove, said wedge being formed with a slot diagonally therethrough, said slot receiving the end of said tape whereby a pull on said tape will give a tendency to move pivotally said wedge.

1,073,154. GREASE-CUP. SAMUEL W. MCKILLOP, Cleveland, Ohio, assignor to The Thatcher-Rueter Manufacturing Company, a Corporation of Ohio. Filed Dec. 13, 1912. Serial No. 736,471. (Cl. 184—98.)



1. In a grease cup, the combination with a container having an outlet, a heat conducting rod extending through the outlet and into the container, and a valve mechanism in the container, surrounding the rod and adapted to close against the rod.

2. In a grease cup, the combination with a container having an outlet, a heat conducting rod extending through the said outlet into the container, a valve mechanism within the said cup, said valve mechanism being provided with a stationary portion and a movable portion, movement of the movable portion causing the rod to ultimately be engaged on all sides by the valve mechanism.

3. In a grease cup, the combination with a container having an outlet, a heat conducting rod extending through the said outlet into the container, a valve mechanism within the cup, provided with an opening through which the heating rod extends, said valve mechanism also being provided with a movable member which in its movement varies the opening in the valve mechanism through which the rod extends and eventually engages the rod on all sides.

4. In a grease cup, the combination with a container having an outlet, a valve mechanism within the said container, said valve mechanism comprising a disk member having a portion removed, and a movable member which is adapted to be guided in the opening in the first mentioned disk member, there being an opening through the said movable member, a rod extending through the said opening, substantially as described.

5. In a grease cup, the combination with a container having an outlet, a heat conducting rod extending through the said outlet into the container, a valve mechanism within the cup, said valve mechanism comprising a supporting means, a disk held by said supporting means, a portion of said disk being removed, a movable member being formed to fit the portion of the disk removed, the disk serving to guide the movable member as it is moved, an opening through the said movable member, and through the support, through which the aforesaid rod extends, the movement of the movable member of the valve serving to vary the size of the opening in the valve mechanism through which the rod extends.

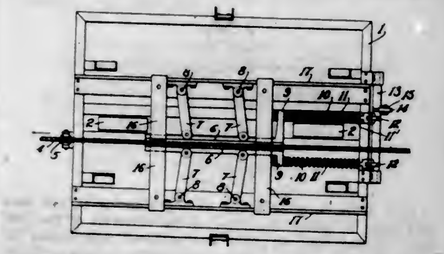
[Claims 6 and 7 not printed in the Gazette.]

1,073,155. ALCOHOL OR POWDER APPLIANCE. SARAH ANN MILLER, New York, N. Y. Filed Jan. 23, 1913. Serial No. 743,710. (Cl. 132—28.)



In a device for applying powder or alcohol, the combination, with a box having a handle projected from one side, of interchangeable perforated caps with means for locking them removably upon the box, and a porous fabric secured upon each of the said caps, one of such fabrics having holes to coincide with the holes in its cap.

1,073,156. GRIPPING DEVICE. WILLIAM E. MILLER, Providence, R. I. Filed Aug. 12, 1912. Serial No. 714,512. (Cl. 104—87.)



1. In an apparatus of the class described a gripping device comprising a pair of longitudinal cable engaging jaws, a plurality of links pivoted to a car at one end and pivotally supporting each of said jaws at the other end, said links being of greater length than the distance between said pivot on said car and said cable, spring surrounded longitudinally disposed members connected to said jaws for thrusting said jaws longitudinally to hold them closed and means for positively opening said jaws.

2. In an apparatus of the class described a gripping device comprising a pair of longitudinal jaws, a plurality of links pivoted to a car at one end and pivotally supporting each of said jaws at the other end, said links being of greater length than the distance between said pivot on said car and said cable, yielding means for thrusting said jaws longitudinally to hold them closed and means for positively opening said jaws, and a rock shaft journaled transversely of the car body and operatively connected with said jaws, an arm on said rock shaft, a roller on said arm and supported adjacent to said trackway, and adapted to engage a stop for rocking said arm to part said jaws.

3. In an amusement apparatus a trackway, a car adapted to be impelled along said trackway, a traction cable operatively supported adjacent to said trackway, a gripping device on said car and comprising a pair of cable engaging jaws, a plurality of links pivoted to said car at one end and pivotally supporting said jaws at the other end, said links being of greater length than the distance between said pivot on said car and said cable, resilient means for thrusting said jaws longitudinally to hold them closed, a rock shaft journaled transversely of the car body and operatively connected with said jaws, an arm on said rock shaft, a roller on said arm and supported adjacent to said trackway, and a stop on said trackway for engaging said roller and rocking said arm to disengage said jaws and free said cable.

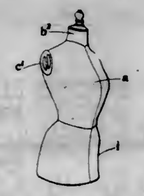
4. In an amusement apparatus a trackway, a car adapted to be impelled along said trackway, a traction cable operatively supported adjacent to said trackway, a gripping device on said car and comprising a pair of cable engaging jaws, a plurality of links pivoted to said car at one end and pivotally supporting said jaws at the other end, said links being of greater length than the distance between said pivot on said car and said cable, a coiled spring for holding said jaws closed, a rock shaft journaled transversely of the car body and operatively connected with said jaws, an arm on said rock shaft, a roller on said arm and supported adjacent to said trackway, and a stop on said trackway for engaging said and rocking said arm to disengage said jaws and free said cable.

5. In an apparatus of the class described having an endless cable a car adapted to be drawn by said cable a pair of parallel jaws pivoted to said car, means for parting said jaws upon the rearward movement thereof, spring actuated longitudinally disposed members connected to said jaws

for normally pressing said jaws forward to cause their approach to each other, and means for positively moving said jaws rearwardly to cause their opening.

[Claims 6 and 7 not printed in the Gazette.]

1,073,157. DRESS FORM OR STAND. FRANCIS ALOYSIUS MONAHAN, London, England. Filed June 9, 1911. Serial No. 632,223. (Cl. 223—18.)



1. A dress form or stand having recesses at the neck and arms in which the edges of the material of the garment on the form or stand are gathered, and blocks fitting into said recesses and corresponding in shape thereto and retaining the edges of the said material therein.

2. A dress form or stand having recesses at the neck and arms in which the edges of the material of the garment on the form or stand are gathered, blocks fitting into said recesses and members on which other parts of the garment are formed, said members being adapted to fit on said blocks.

3. A dress form or stand having recesses at the arms in which the edges of the material of the garment on the form or stand adjacent the arms are gathered, and blocks fitting into said recesses and of a shape corresponding thereto, by which the edges of the material of the garment adjacent the arms may be retained within the recesses by the blocks aforesaid.

4. A dress form or stand having recesses at the arms in which the edges of the material of the garment on the form or stand adjacent the arms are gathered, blocks fitting into said recesses, pegs upon the blocks for entry within corresponding holes at the bottom of the recesses and for mounting the said blocks in proper position within the said recesses.

5. A dress form or stand having recesses at the arms in which the edges of the material of the garment on the form or stand adjacent the arms are gathered, blocks fitting into said recesses and corresponding in shape thereto, and blocks on which the sleeve parts of the garment are formed, and means for mounting the said blocks last referred to in proper position on the said dress form or stand.

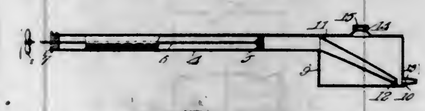
[Claims 6 and 7 not printed in the Gazette.]

1,073,158. POLE-CLIMBING DEVICE. WILLIAM S. MORRIS, St. Louis, Mo., assignor of forty one-hundredths to John Caesar, St. Louis, Mo. Filed July 29, 1912. Serial No. 712,173. (Cl. 228—2.)



A combination with a pole or column presenting a groove bounded by divergent walls and having holes through the line of juncture of said wall, the step having a body portion insertible through the hole and an angular end to engage one end of the hole and a step portion widened to engage both of the divergent walls to prevent turning of the body portion in the hole.

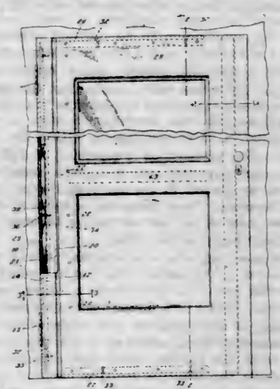
1,073,159. POWDER-SPRAYER. LEE AARON NAUSS and RAY JOHN NAUSS, Greenville, Ohio. Filed Oct. 5, 1912. Serial No. 724,204. (Cl. 43—14.)



1. A powder sprayer embodying an air cylinder, a powder receptacle attached thereto and having an outlet, a nozzle slidable through the outlet, a piston in the cylinder, and an extension for the cylinder passing through the receptacle so as to project toward and terminate adjacent the inner end of the nozzle.

2. A powder sprayer embodying an air cylinder, a cylindrical powder receptacle of larger diameter attached to one corner thereto, and having an outlet in the diagonally opposite corner, a piston in the cylinder, and an extension for the cylinder passing diagonally through the receptacle and terminating adjacent the outlet, and a nozzle adjustable through the outlet to and from the free end of the extension.

1,073,160. DOOR. ALFRED H. NEWPHER, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Apr. 3, 1911. Serial No. 618,753. (Cl. 189—46.)



1. In a door, in combination, top and bottom rails having longitudinal channels, a side rail comprising a plurality of sheet metal sections U-shaped in cross-section, the side plates of one section fitting between and slidingly engaging the side plates of the other section, rigid bars slidingly engaging the channels of the top and bottom rails, each bar having a lateral extension fitting within the outer section of the side rail, and means for adjustably securing the two sections of the side rail together.

2. In a door, in combination, top and bottom rails having longitudinal channels, a side rail comprising a plurality of sheet metal sections U-shaped in cross-section, the side plates of one section fitting between and slidingly engaging the side plates of the other section, a rigid bar fitted within and extending throughout the length of the outer section of the side rail and having laterally extending arms slidingly engaging the channels in the top and bottom rails of the door, and means for adjustably securing the two sections of the side rail together.

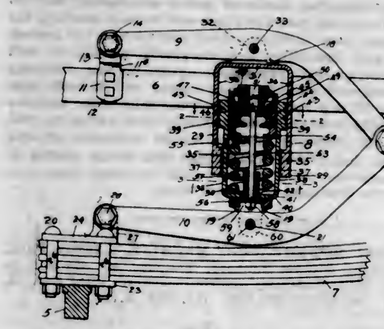
3. In a door, in combination, a sectional stile formed of sheet metal and comprising a shell open at its outer edge, a tenon secured within the shell and extending beyond the outer edge thereof, a stile section U-shaped in cross-section and telescopically receiving the tenon, and means for adjustably securing the stile section to the tenon.

4. In a door, in combination, a sectional stile formed of sheet metal and comprising a shell open at its outer edge, a tenon secured within the shell and extending beyond the outer edge thereof, a stile section U-shaped in cross-section and telescopically receiving the tenon, and means for adjustably securing the stile section to the tenon, the inner edges of the side plates of the stile section fitting between the side plates of the shell and the tenon.

5. In a door, in combination, a sectional stile formed of sheet metal and comprising a shell open at its outer edge, a tenon secured within the shell and extending beyond the outer edge thereof, a stile section U-shaped in cross-section and telescopically receiving the tenon, and screw-bolts setting loosely through the edge face of the stile section and being in threaded engagement with the tenon.

[Claims 6 and 7 not printed in the Gazette.]

1,073,161. SHOCK-ABSORBING DEVICE FOR VEHICLES. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Dec. 6, 1911. Serial No. 664,184. (Cl. 21—105.)



1. A shock absorber comprising an outer shell incasing a friction shell reciprocating therein, and friction shoes, a wedge and spring within the friction shell, a connecting rod fastened through the friction shell and engaging the wedge at one end, and securing means at its other end, the outer shell having an internal annular flange, and the friction shell an external annular flange being adapted to engage each other on extreme outward movement of the friction shell.

2. A shock absorber for vehicles comprising a friction shell having annularly disposed flanges thereon, friction members within said shell, and an outer casing inclosing said friction shell said outer casing being provided with flanges adapted to engage the flanges of the friction shell, and limit the separating movement of the outer casing and friction shell.

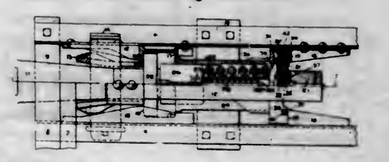
3. A shock absorber for vehicles comprising an outer shell having internal annularly arranged flanges, a friction shell therein having external annularly arranged flanges, and a wedge, friction shoes and spring within said friction shell the flanges of the outer shell being adapted to engage the flanges of the friction shell to limit the separating movement of said shells.

4. A shock absorber for vehicles comprising an outer shell having internal annularly arranged flanges, a friction shell therein having external annularly arranged flanges, and friction members within said friction shell the flanges of one shell being adapted to engage the flanges of the other shell to prevent the separation of the shell.

5. A shock absorber for vehicles comprising a lever, an outer shell pivoted thereto, a second lever, a friction shell pivoted to said second lever, friction members within said friction shell, said friction shell being within said outer shell, and the two levers being pivoted together.

[Claims 6 to 9 not printed in the Gazette.]

1,073,162. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 10, 1913. Serial No. 753,220. (Cl. 213—64.)



1. In a draft rigging, in combination, a draw bar, a draft yoke, stop members, a shell, compression resisting parts within the shell, a preliminary spring comprising flexible plates, a preliminary spring holder, the said shell being rearwardly provided with a box like recess to receive the preliminary spring, further recesses at either side of said box-like recess to receive the ends of the preliminary spring, and hold said ends in a fixed position, a preliminary spring holder engaging the preliminary spring within said recess, said preliminary spring holder being in engagement with the draft yoke.

2. In a draft rigging for railway cars, in combination, a draft yoke and a draft gear, the draft gear having a shell, compression resisting parts within the shell, the said shell being rearwardly provided with a box-like opening, flat springs within said opening, and means of securing said flat springs at either end, a preliminary spring holder, a slot in the same through which the said flat springs are passed, the said preliminary spring holder engaging with the draft yoke on forward movement of said yoke.

3. In combination, a draft yoke and a draft gear, the draft gear comprising a shell, compression resisting members within the shell, a box-like member at one end of said shell, slots within said box-like member, a preliminary spring engaging within said slots, a preliminary spring holder in engagement with said springs, said preliminary spring holder comprising a box like member provided with a slot to receive said preliminary spring, said preliminary spring holder being in engagement with the draft yoke in forward movement thereof.

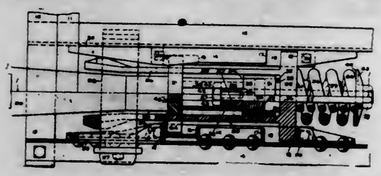
4. In a draft gear, a shell, compression resisting parts within the shell, a preliminary spring and a preliminary spring holder, the shell being provided at one end with a box-like member, means within said member of engaging the preliminary spring at either end, a preliminary spring holder, a slot through said holder adapted to receive the preliminary spring therethrough, the rear face of said slot being curved to permit the flexing of said spring therein, the said spring holder being adapted to engage with the draft yoke.

1,073,163. DRAFT-RIGGING FOR RAILWAY-CARS. JOHN F. O'CONNOR, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,857. (Cl. 213—64.)

1. In a draft rigging for railway cars, in combination, a draw-bar, front and rear followers, a housing, a wedge, friction blocks and a spring, the spring being forwardly seated against the rear follower, the friction blocks engaging the rear follower, the housing and the wedge, the rear follower being operatively connected to the draw bar, and the said housing and springs being moved forwardly into compression resisting action on both forward and rearward movement of the draw-bar.

2. In a draft rigging for railway cars, the combination with draft members, of parts mounted between the draft

members comprising a draw-bar, followers, means connecting the rear follower to the draw bar, a housing, a wedge and transversely movable friction blocks associated with said housing, a spring back of the rear follower and connected to the housing, the wedge spreading the friction blocks, and the friction blocks on spreading moving the housing forwardly from its normal position, and the housing forwardly compressing the springs on both forward and rearward movement of the draw bar.



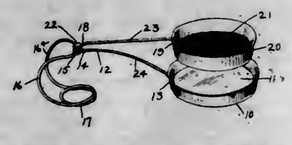
3. In a draft rigging for railway cars, in combination, a draw-bar, a yoke connected thereto, friction members within the yoke, a spring and spring bolt, said friction members including a bifurcated wedge, a hollow housing to receive said wedge, said housing having a bar straddled by said wedge, the friction blocks engaging the housing and wedge, and the spring bolt connecting the transverse bar of the housing with the spring to compress the same on friction movement of the blocks.

4. In a draft rigging for railway cars, in combination, a draw-bar, a yoke connected thereto, friction members within the yoke, a spring, a spring bolt, said friction members including a wedge, a hollow housing to receive said wedge, said wedge having a central slot, said housing having a transverse bar slidingly operating within said slot, the friction blocks engaging the housing and wedge, and the spring bolt connecting the transverse bar of the housing with the spring to compress the same on movement of the friction blocks.

5. In a draft rigging for railway cars, in combination, a draw-bar, stop members, front and rear followers, a wedge, a housing therefor, friction blocks, a spring bolt and a spring, the said housing having a transverse bar, and the wedge having a pair of limbs straddling said bar and engaging the front follower, the friction blocks being in sliding frictional engagement with the housing, wedge and rear follower, the rear follower having means connecting it to the draw-bar, and the spring being seated against the rear follower, and the spring bolt connecting said spring to the bar of the housing.

[Claims 6 to 14 not printed in the Gazette.]

1,073,164. TEA AND COFFEE STRAINER. WINFRED T. PARKIN, Providence, R. I. Filed Feb. 1, 1913. Serial No. 745,542. (Cl. 210—16.)



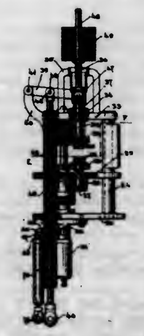
1. A tea and coffee strainer comprising a drip cup having a supporting base, a strainer located in spaced relation in a plane above said cup, a laterally extending handle of resilient material having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back adjacent said raised portion, said parts then separating and extending downward and around into a spring coil beneath said raised portion to form a rest, whereby when said portions are pressed toward each other they will produce a relative lateral movement of said cup and strainer.

2. A tea and coffee strainer comprising a drip cup having a supporting base, a strainer located in spaced relation in a plane above said cup, a handle of spring wire extending laterally from said cup having a portion raised and then bent downward substantially to the plane of the base of said cup and provided with a spring coil forming a rest, the wire then returning to the plane of the raised portion and then forward to engage and support said strainer, said parts being pivoted together at the raised portion, the downwardly extending portions being separated whereby when pressed toward each other they swing on said pivot to produce relative lateral movement of said cup and strainer.

3. A tea and coffee strainer comprising a drip cup member having a supporting base, a strainer member located in spaced relation in a plane above said cup, a laterally extending handle of spring wire having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back and being pivoted on said raised portion, said parts then separating and extending downward and around into a spring coil beneath said pivot to form a rest, whereby when said latter portions are pressed toward each other they will swing on said pivot and produce a relative lateral movement of said members.

4. A tea and coffee strainer comprising a drip cup member having a supporting base, a strainer member located in spaced relation in a plane above said cup, a laterally extending handle of spring wire having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back and being pivoted on said raised portion, said parts then separating and extending downward and around into a spring coil beneath said pivot to form a rest, whereby when said latter portions are pressed toward each other they will swing on said pivot and produce a relative lateral movement of said members, and a stop for limiting the return motion of the supporting parts of the handle to bring them normally into alinement with each other.

1,073,165. NUT-SHELLING MACHINE. ANTON PAUL, Budapest, Austria-Hungary, assignor of one-half to Adolf Beck, Budapest, Austria-Hungary. Filed Dec. 15, 1911. Serial No. 666,032. (Cl. 146—3.)



1. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, substantially as described and shown and for the purpose set forth.

2. An apparatus for taking the kernel out of the nuts and other fruits with hard pericarp comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft and a device for uncoupling said toothed gear of the clamping jaws from said vertical shaft consisting of a vertical shaft for said toothed wheel gearing, a sleeve fixed to the frame of the support and inclosing the lower end of said shaft of toothed wheel gearing, a sleeve fixed to the frame being open at both ends, a vertical rod in said sleeve a friction roller at the lower end of said rod, a two armed lever connecting the upper end of said rod with said shaft of the toothed gearing for uncoupling said shaft of the toothed gearing from the vertical shaft when the friction roller of the push rod is being lifted substantially as described and shown and for the purpose set forth.

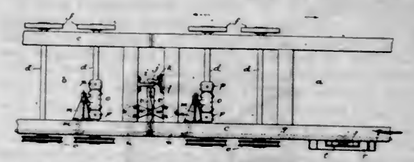
3. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a vertical shaft of said toothed gearing for the upper clamping jaw, a sleeve fixed upon the lower end of said shaft, a female part of a friction coupling in the lower end of said sleeve, a tubular casing fixed to the lower surface of the working table, a lower vertical shaft revolubly mounted in said casing, a male part of the friction coupling fixed at the upper end of said lower vertical shaft adapted to be coupled with said shaft for the toothed wheel gear of the clamping jaws, means for revolving said lower shaft from said main vertical shaft and means for lifting or lowering said lower vertical shaft to couple or uncouple said lower clamping jaw with said main vertical shaft, substantially as described and shown and for the purpose set forth.

4. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a friction roller at the lower end of said vertical shaft adapted to be lifted or lowered from the main driving shaft, a lateral fixed arm of said frame, the vertical shaft of said upper clamping jaw, a lever hinged with one end to said arm and pivotally mounted in the upper end of said vertical shaft and hinged with the other end to said vertical shaft of the upper clamping jaw, substantially as described and shown and for the purpose set forth.

5. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a vertical rod connected with the shaft of the lower clamping jaw, a piston roller at the lower end of said rod, a piston roller at the lower end of said vertical driving shaft, means for connecting the upper end of said vertical driving shaft with the shaft of said upper clamping jaw, a segment shaped supporting plate for the lower end of said vertical driving shaft and of said vertical rod, cams upon said supporting plate for lifting and lowering the piston rollers and with the same the said rod and driving shaft so that the lower and upper clamping jaws are lowered and lifted respectively, substantially as described and shown and for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,073,166. SAWMILL-CARRIAGE OFFSET. GEORGE M. PELTON, Milwaukee, Wis., assignor to The Filer and Stowell Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 1, 1911. Serial No. 657,954. (Cl. 143—109.)



1. The combination of two carriages provided with means for coupling them together end to end and with offsetting mechanism, and coupling levers mounted on said carriages and connected with the offsetting mechanism thereof, said levers being arranged to be brought together and to operate in unison when the carriages are connected end to end.

2. The combination of two carriages each having a frame or log support movable on its trucks transversely to the saw plane and provided with offsetting mechanism comprising a member movable longitudinally thereof, coupling means for connecting said carriages end to end, and transverse coupling levers fulcrumed on the proximate ends of the carriages and adapted to be brought into and held in contact with each other on opposite sides of their fulcrums and to operate in unison when the carriages are coupled together, each of said levers being connected with the longitudinally movable member on the same carriage.

3. The combination with carriages having coupling means for connecting them end to end and each provided with offsetting mechanism, of coupling levers fulcrumed on the carriages and connected with the offsetting mechanism thereof, said levers being offset to permit their fulcrums to be brought into alinement and their opposite ends into engagement with each other when the carriages are connected end to end.

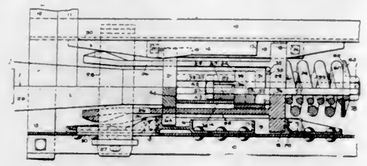
4. The combination with carriages having coupling means for connecting them end to end and each provided with offsetting mechanism comprising a member movable lengthwise of the carriage, of transverse coupling levers vertically fulcrumed at different levels on said carriages and offset vertically to engage with each other laterally on opposite sides of their fulcrums when the carriages are coupled end to end and the lever fulcrums are in vertical alinement, each coupling lever being connected with the longitudinally movable member of the offsetting mechanism on the same carriage.

5. The combination with saw mill carriages having automatic coupling means adapted to connect them when they are brought together end to end, and each provided with offsetting mechanism comprising a member movable lengthwise of the carriage, of brackets attached to the ends of the carriages, transverse coupling levers vertically fulcrumed between their ends at different levels on said brackets and vertically offset to engage with each other laterally at their ends when the carriages are brought together and the lever fulcrums into vertical alinement, and links connecting said levers with the longitudinally movable members of the offsetting mechanism.

1,073,167. SANITARY CUSPIDOR. MARTIN PLOCHER and ELIJAH A. SCOTT, St. Louis, Mo. Filed Apr. 3, 1913. Serial No. 758,645. (Cl. 4—40.)

1. In a cuspidor, a suitable container, a cover therefor provided with a discharge opening, a piston pump, pipes leading from the pump-cylinder having basal portions contiguous to the container bottom and vertical portions discharging onto the cover, and thereby flushing the latter, a detachable strainer disposed on one side of the pump-cylinder and dividing the container into two compartments in one of which the pump is located, the bottom of the strainer being notched to pass over the basal por-

members comprising a draw-bar, followers, means connecting the rear follower to the draw bar, a housing, a wedge and transversely movable friction blocks associated with said housing, a spring back of the rear follower and connected to the housing, the wedge spreading the friction blocks, and the friction blocks on spreading moving the housing forwardly from its normal position, and the housing forwardly compressing the springs on both forward and rearward movement of the draw bar.



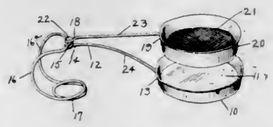
3. In a draft rigging for railway cars, in combination, a draw-bar, a yoke connected thereto, friction members within the yoke, a spring and spring bolt, said friction members including a bifurcated wedge, a hollow housing to receive said wedge, said housing having a bar straddled by said wedge, the friction blocks engaging the housing and wedge, and the spring bolt connecting the transverse bar of the housing with the spring to compress the same on friction movement of the blocks.

4. In a draft rigging for railway cars, in combination, a draw-bar, a yoke connected thereto, friction members within the yoke, a spring, a spring bolt, said friction members including a wedge, a hollow housing to receive said wedge, said wedge having a central slot, said housing having a transverse bar slidingly operating within said slot, the friction blocks engaging the housing and wedge, and the spring bolt connecting the transverse bar of the housing with the spring to compress the same on movement of the friction blocks.

5. In a draft rigging for railway cars, in combination, a draw-bar, stop members, front and rear followers, a wedge, a housing therefor, friction blocks, a spring bolt and a spring, the said housing having a transverse bar, and the wedge having a pair of limbs straddling said bar and engaging the front follower, the friction blocks being in sliding frictional engagement with the housing, wedge and rear follower, the rear follower having means connecting it to the draw-bar, and the spring being seated against the rear follower, and the spring bolt connecting said spring to the bar of the housing.

[Claims 6 to 14 not printed in the Gazette.]

1,073,164. TEA AND COFFEE STRAINER. WINFRED T. PARKIN, Providence, R. I. Filed Feb. 1, 1913. Serial No. 745,542. (Cl. 210—16.)



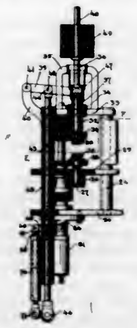
1. A tea and coffee strainer comprising a drip cup having a supporting base, a strainer located in spaced relation in a plane above said cup, a laterally extending handle of resilient material having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back adjacent said raised portion, said parts then separating and extending downward and around into a spring coil beneath said raised portion to form a rest, whereby when said portions are pressed toward each other they will produce a relative lateral movement of said cup and strainer.

2. A tea and coffee strainer comprising a drip cup having a supporting base, a strainer located in spaced relation in a plane above said cup, a handle of spring wire extending laterally from said cup having a portion raised and then bent downward substantially to the plane of the base of said cup and provided with a spring coil forming a rest, the wire then returning to the plane of the raised portion and then forward to engage and support said strainer, said parts being pivoted together at the raised portion, the downwardly extending portions being separated whereby when pressed toward each other they swing on said pivot to produce relative lateral movement of said cup and strainer.

3. A tea and coffee strainer comprising a drip cup member having a supporting base, a strainer member located in spaced relation in a plane above said cup, a laterally extending handle of spring wire having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back and being pivoted on said raised portion, said parts then separating and extending downward and around into a spring coil beneath said pivot to form a rest, whereby when said latter portions are pressed toward each other they will swing on said pivot and produce a relative lateral movement of said members.

4. A tea and coffee strainer comprising a drip cup member having a supporting base, a strainer member located in spaced relation in a plane above said cup, a laterally extending handle of spring wire having one end fixed to said cup and the other end to said strainer, the first-named part having a raised portion and the second-named part extending back and being pivoted on said raised portion, said parts then separating and extending downward and around into a spring coil beneath said pivot to form a rest, whereby when said latter portions are pressed toward each other they will swing on said pivot and produce a relative lateral movement of said members, and a stop for limiting the return motion of the supporting parts of the handle to bring them normally into alinement with each other.

1,073,165. NUT-SHELLING MACHINE. ANTON PAUL, Budapest, Austria-Hungary, assignor of one-half to Adolf Beck, Budapest, Austria-Hungary. Filed Dec. 15, 1911. Serial No. 666,032. (Cl. 146—3.)



1. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, substantially as described and shown and for the purpose set forth.

2. An apparatus for taking the kernel out of the nuts and other fruits with hard pericarp comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft and a device for uncoupling said toothed gear of the clamping jaws from said vertical shaft consisting of a vertical shaft for said toothed wheel gearing, a sleeve fixed to the frame of the support and inclosing the lower end of said shaft of toothed wheel gearing, a sleeve fixed to the frame being open at both ends, a vertical rod in said sleeve a friction roller at the lower end of said rod, a two armed lever connecting the upper end of said rod with said shaft of the toothed gearing for uncoupling said shaft of the toothed gearing from the vertical shaft when the friction roller of the push rod is being lifted substantially as described and shown and for the purpose set forth.

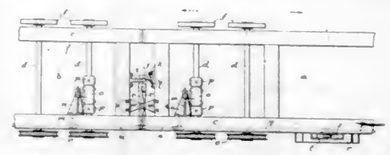
3. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a vertical shaft of said toothed gearing for the upper clamping jaw, a sleeve fixed upon the lower end of said shaft, a female part of a friction coupling in the lower end of said sleeve, a tubular casing fixed to the lower surface of the working table, a lower vertical shaft revolubly mounted in said casing, a male part of the friction coupling fixed at the upper end of said lower vertical shaft adapted to be coupled with said shaft for the toothed wheel gear of the clamping jaws, means for revolving said lower shaft from said main vertical shaft and means for lifting or lowering said lower vertical shaft to couple or uncouple said lower clamping jaw with said main vertical shaft, substantially as described and shown and for the purpose set forth.

4. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a friction roller at the lower end of said vertical shaft adapted to be lifted or lowered from the main driving shaft, a lateral fixed arm of said frame, the vertical shaft of said upper clamping jaw, a lever hinged with one end to said arm and pivotally mounted in the upper end of said vertical shaft and hinged with the other end to said vertical shaft of the upper clamping jaw, substantially as described and shown and for the purpose set forth.

5. An apparatus for taking the kernel out of nuts and other fruits with hard pericarp, comprising in combination a saw blade for sawing the nut shell, a support in which said saw blade is fixed, a frame of said support, a vertical shaft mounted in said frame, an upper clamping jaw for the nut and a lower clamping jaw for the nut, a toothed wheel gearing between said vertical shaft and said clamping jaws for operating said jaws from said shaft, a vertical rod connected with the shaft of the lower clamping jaw, a piston roller at the lower end of said rod, a piston roller at the lower end of said vertical driving shaft, means for connecting the upper end of said vertical driving shaft with the shaft of said upper clamping jaw, a segment shaped supporting plate for the lower end of said vertical driving shaft and of said vertical rod, cams upon said supporting plate for lifting and lowering the piston rollers and with the same the said rod and driving shaft so that the lower and upper clamping jaws are lowered and lifted respectively, substantially as described and shown and for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,073,166. SAWMILL-CARRIAGE OFFSET. GEORGE M. PELTON, Milwaukee, Wis., assignor to The Filer and Stowell Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 1, 1911. Serial No. 657,954. (Cl. 143—109.)



1. The combination of two carriages provided with means for coupling them together end to end and with offsetting mechanism, and coupling levers mounted on said carriages and connected with the offsetting mechanism thereof, said levers being arranged to be brought together and to operate in unison when the carriages are connected end to end.

2. The combination of two carriages each having a frame or log support movable on its trucks transversely to the saw plane and provided with offsetting mechanism comprising a member movable longitudinally thereof, coupling means for connecting said carriages end to end, and transverse coupling levers fulcrumed on the proximate ends of the carriages and adapted to be brought into and held in contact with each other on opposite sides of their fulcrums and to operate in unison when the carriages are coupled together, each of said levers being connected with the longitudinally movable member on the same carriage.

3. The combination with carriages having coupling means for connecting them end to end and each provided with offsetting mechanism, of coupling levers fulcrumed on the carriages and connected with the offsetting mechanism thereof, said levers being offset to permit their fulcrums to be brought into alinement and their opposite ends into engagement with each other when the carriages are connected end to end.

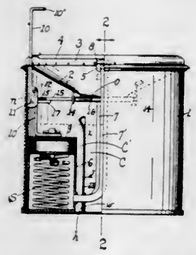
4. The combination with carriages having coupling means for connecting them end to end and each provided with offsetting mechanism comprising a member movable lengthwise of the carriage, of transverse coupling levers vertically fulcrumed at different levels on said carriages and offset vertically to engage with each other laterally on opposite sides of their fulcrums when the carriages are coupled end to end and the lever fulcrums are in vertical alinement, each coupling lever being connected with the longitudinally movable member of the offsetting mechanism on the same carriage.

5. The combination with saw mill carriages having automatic coupling means adapted to connect them when they are brought together end to end, and each provided with offsetting mechanism comprising a member movable lengthwise of the carriage, of brackets attached to the ends of the carriages, transverse coupling levers vertically fulcrumed between their ends at different levels on said brackets and vertically offset to engage with each other laterally at their ends when the carriages are brought together and the lever fulcrums into vertical alinement, and links connecting said levers with the longitudinally movable members of the offsetting mechanism.

1,073,167. SANITARY CUSPIDOR. MARTIN PLOCHER and ELIJAH A. SCOTT, St. Louis, Mo. Filed Apr. 3, 1913. Serial No. 758,645. (Cl. 4—40.)

1. In a cuspidor, a suitable container, a cover therefor provided with a discharge opening, a piston pump, pipes leading from the pump-cylinder having basal portions contiguous to the container bottom and vertical portions discharging onto the cover, and thereby flushing the latter, a detachable strainer disposed on one side of the pump-cylinder and dividing the container into two compartments in one of which the pump is located, the bottom of the strainer being notched to pass over the basal por-

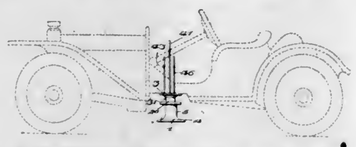
tions of the pipes aforesaid, and the upper edge of the strainer being provided with a bent portion overhanging the pump-cylinder, the discharges from the cover being received in the compartment contiguous to that in which the pump is located, the parts operating substantially as, and for the purpose set forth.



2. In a cuspidor, a suitable container, a piston-pump in said container, a piston-rod leading from the piston and disposed along the inner face of the wall of the container, a cover draining the spittle into the container and provided with a central opening, a hinged gate carried by the cover and closing across the opening aforesaid for a raised position of the piston, and means interposed between the piston-rod and gate for supporting the gate in its closed position, the gate dropping to open position with a depression of the piston.

3. In a cuspidor, a suitable container, a cover having an opening communicating with the container chamber, a piston pump in the container, a stem leading from the piston along the inner wall of the container and provided with an offset at an intermediate point, a guide roller mounted across the stem and positioned to arrest the upward movement of the piston-stem, and pipes leading from the pump-cylinder to points above the cover for discharging flush water over the same.

1,073,168. AUTOMOBILE JACK AND REVERSING-STAND. HENRY C. ROBERTS, Murphysboro, Ill. Filed Sept. 17, 1912. Serial No. 720,853. (Cl. 57—15.)



1. In combination, an automobile, a hollow pivot member secured thereunder to the frame thereof at a point concentric with the center of gravity of the automobile, a lifter member comprising a combined thrust bearing and valved plunger and piston cylinder, said lifter member supporting said hollow pivot member concentrically therewith, a base adapted to rest upon the ground and having a cylinder extending upward therefrom, the plunger of the lifter member being operatively mounted in the cylinder of said base, means connecting said plunger with said base for normally holding the latter out of contact with the ground, a pump piston operatively mounted in the first said cylinder, a piston rod secured to said piston and extending upward therefrom into said hollow pivot member, means extending into said hollow pivot member and being operatively connected with the automobile motive power for operating said piston and thereby lifting the automobile by its own motive power, and means whereby the piston may be manually operated independently of said motive power.

2. In combination, an automobile, a hollow pivot member secured thereunder to the frame thereof at a point concentric with the center of gravity of the automobile, a lifter member comprising a combined thrust bearing and valved plunger and piston cylinder, said lifter member supporting said hollow pivot member concentrically therewith, a base adapted to rest upon the ground and having a cylinder extending upward therefrom, the plunger of the lifter member being operatively mounted in the cylinder of said base, means connecting said plunger with said base for normally holding the latter out of contact with the ground, a valved pump piston operatively mounted in the first said cylinder, a piston rod secured to said piston and extending upward therefrom into said hollow pivot member, and means extending into said hollow pivot member and being operatively connected with the automobile motive power for operating said piston and thereby raising the plunger and lifting the automobile by its own motive power.

3. In combination, an automobile, a hollow pivot member secured thereunder to the frame thereof at a point concentric with the center of gravity of the automobile, a lifter member comprising a combined thrust bearing and valved plunger and piston cylinder, said lifter member supporting said hollow pivot member concentrically therewith, a base adapted to rest upon the ground and having a cylinder extending upward therefrom, the plunger of the lifter member being operatively mounted in the cylinder of said base, means connecting said plunger with said base for normally holding the latter out of contact with the ground, a valved pump piston operatively mounted in the first said cylinder, a piston rod secured to said piston and extending upward therefrom into said hollow pivot member, and means whereby the piston may be manually operated.

4. In combination, an automobile, a pivot member secured thereunder to the frame thereof at a point concentric with the center of gravity of the automobile, a lifter member comprising a combined thrust bearing and valved plunger and piston cylinder, said lifter member supporting said pivot member concentrically therewith, a base adapted to rest upon the ground and having a cylinder extending upward therefrom, the plunger of the lifter member being operatively mounted in the cylinder of said base, means connecting said plunger with said base for normally holding the latter out of contact with the ground, a valved pump piston operatively mounted in the first said cylinder, a piston rod secured to said piston and extending upward therefrom into said hollow pivot member, and means extending into said hollow pivot member and being operatively connected with the automobile motive power for operating said piston and thereby raising the plunger and lifting the automobile into such relation that it may be easily turned to a horizontal plane on said pivot member.

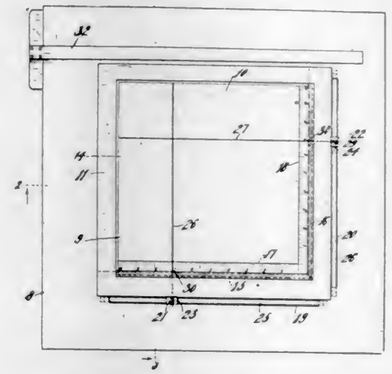
1,073,169. NEGATIVE-OUTLINE-INDICATING DEVICE. URIAH ROBERTS, Columbus, Wis. Filed Jan. 19, 1912. Serial No. 672,125. (Cl. 95—1.)

1. A negative outline indicating device, comprising a frame formed in part of transparent material and adapted to have a negative placed thereabove, and a movable line indicating means discernible through the transparent material and the negative for indicating in connection with the inner corner edges of the frame a rectangular outline on the negative.

2. A negative outline indicating device, comprising a frame adapted to have a negative placed thereabove, and a pair of movable indicating members discernible through the frame and the negative, said members extending in lines at right angles with relation to each other.

3. A negative outline indicating device, comprising a frame adapted to have a negative placed thereabove, and a pair of movable indicating members discernible through the frame and the negative, said members extending in lines at right angles with relation to each other and forming in connection with the inner corner edges of the frame a rectangular outline.

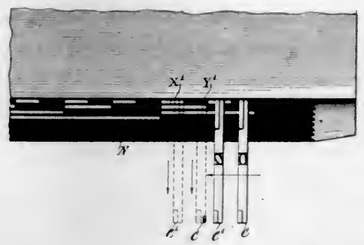
4. A negative outline indicating device, comprising a frame adapted to have a negative placed thereabove, dimension scales forming part of the frame and extending in lines at right angles with relation to each other, and a pair of movable indicating members discernible through the negative and extending at right angles with relation to each other, said members in connection with the dimension scales forming an adjustable rectangular outline.



5. A negative outline indicating device, comprising a frame adapted to have a negative placed thereabove, dimension scales forming part of the frame and extending in lines at right angles with relation to each other, guide rods connected to the frame, and slidable members mounted on the rods and having indicating rods discernible through the negative and extending at right angles with relation to each other, said indicating rods in connection with the dimension scales forming an adjustable rectangular outline.

[Claim 6 not printed in the Gazette.]

1,073,170. TYPOGRAPHICAL MACHINE. JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 9, 1911. Serial No. 659,283. (Cl. 199—7.)

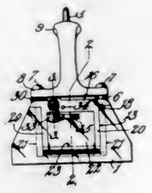


1. In a typographical machine, a plurality of magazines containing matrices, each matrix having a single toothed notch, the throats or entrances of the several magazines being brought into a common bank and alternately disposed, in combination with a distributing mechanism having a grooved rail to engage the matrix teeth and arranged in operative relation to the said bank, the said teeth and grooves being permuted to free the matrices from the rail at the same point according to letter and at different points according to font.

2. In a typographical machine, a plurality of magazines containing matrices, each having a single distributing notch, the throats or entrances of the several magazines being brought into a common bank and alternately disposed, in combination with a distributing mechanism having a rail arranged in operative relation to the said bank, and the said rail and the matrix-notches being each formed with channel-combinations and also with magazine-combinations; whereby the matrices of the different magazines are freed from their channel-combinations at the same point and from their magazine-combinations at different points, so as to enter respectively the alternately disposed throats or entrances.

3. In a typographical machine, two magazines containing matrices, each having a single distributing notch, the throats or entrances of corresponding channels in the two magazines being alternately disposed in pairs in a common bank, in combination with a distributing mechanism having a rail arranged in operative relation to the said bank, and the said rail and matrix-notches being each formed with channel-combinations and also with magazine-combinations; whereby the matrices are freed from their channel-combinations at the same point and from their magazine-combinations at different points, so that matrices of one magazine will enter the first entrance of each pair and matrices of the other magazine will enter the second entrance of the pair.

1,073,171. SAD-IRON. LOUIS ROSENBAUM, New York, N. Y. Filed Feb. 2, 1912. Serial No. 674,898. (Cl. 68—26.)



1. A sad-iron comprising a hollow body-portion open at one end, a door-frame removably fitting in said body-portion at its open end, a door hingedly mounted in said frame adapted to close the open end of said body-portion, a screw adapted to engage with said frame and with said body-portion to removably secure said frame with its said door in proper operative position in said body-portion, and a latch swingable on said screw adapted to releasably engage with said door to hold the same in closed position; substantially as described.

2. In a sad-iron, a hollow body-portion open at one end, an open substantially rectangular frame fitting in, and having its outer face substantially flush with the outer end face, of said body-portion, a door fitting in said frame and adapted to close the open end of said body-portion, the outer face of said door being also, when said door is in closed position, substantially flush with the outer face of said frame and end face of said body-portion, and a pivot-bolt for hingedly supporting said door in said frame, said pivot-bolt extending longitudinally through the body of said door and engaging the side members of said frames; substantially as described.

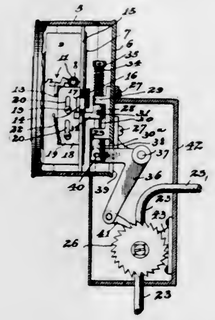
3. In a sad-iron, a hollow body-portion open at one end, a door-frame fitting in said body-portion at its open end, a door removably fitting in said frame and adapted to close the open end of said body-portion, and a pivot-bolt for removably hingedly supporting said door in said frame, said pivot-bolt extending longitudinally through said door and engaging the side members of said frame and being held in operative position by the side wall of said body-portion; substantially as described.

4. A door-frame and door for sad-irons comprising a rectangular open frame having top and bottom cross members and side-connecting members, a door fitting within the area of said frame, the outer face of said door, when said door is in closed position, being substantially flush with the outer face of said frame, and a pivot-bolt extending through said door and into the side-members of said frame, said pivot-bolt being adapted to hingedly support said door in said frame and said side-members being provided with inwardly-projecting shouldered portions

against which said door is adapted to rest when in closed position; substantially as described.

5. A sad-iron comprising a hollow body-portion provided with an opening at one end and a vertically-disposed slideway in its interior in proximity to said opening, the top wall of said body-portion being cutaway above said slideway, a door-frame slidably fitting in said slide-way, a door fitting in said frame, and a pivot-bolt adapted to hingedly support said door in said frame, said pivot-bolt removably engaging with said frame and said door and being held in position by the wall of said body-portion; substantially as described.

1,073,172. COMBINED TIME-RECORDING AND VALVE-CONTROLLING MECHANISM. JOHN F. ROSS, Chicago, Ill. Filed Nov. 1, 1909. Serial No. 525,673. (Cl. 234—1.)



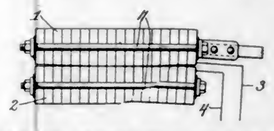
1. In a mechanism of the character described, the combination with a time-recording mechanism having a movable key-actuated member, of a valve-actuating mechanism directly engaged and actuated in one direction of movement by said movable key-actuated member, and a spring operating to actuate said valve-actuating mechanism in the reverse direction of movement, substantially as described.

2. In a mechanism of the character described, the combination with a time-recording mechanism having a movable key-actuated member, of a valve-actuating mechanism adapted to impart to a valve successive opening and closing movements, said valve-actuating mechanism being directly engaged and actuated in one direction of movement by said movable key-actuated member, and a spring operating to actuate said valve-actuating mechanism in the reverse direction of movement, substantially as described.

3. In a mechanism of the character described, the combination with a time-recording mechanism having a movable key-actuated member, of a valve-actuating mechanism adapted to impart to a valve successive movements in the same direction, said valve-actuating mechanism being directly engaged and actuated on its working stroke by said movable key-actuated member, and a spring operating to actuate said valve-actuating mechanism on its idle or return stroke, substantially as described.

4. In a mechanism of the character described, the combination with an oil-pipe having a rotary ported valve, of a time-recording mechanism having a movable key-actuated member, and a valve-actuating mechanism adapted to impart to said valve successive movements in the same direction whereby to move said valve alternately to open and blanked positions, said valve-actuating mechanism being engaged and actuated in one direction of movement by said movable key-actuated member, and a spring operating to actuate said valve-actuating mechanism in the reverse direction of movement, substantially as described.

1,073,173. RHEOSTAT. DURL P. RUGER, Chicago, Ill., assignor to Thomas Marshall, Chicago, Ill. Filed July 22, 1910. Serial No. 573,167. (Cl. 219—54.)



1. A resistance varying device comprising an element having a series of conducting pieces in proximity to each other so as to provide contact resistance to the passage of an electric current from one to the other at the surface of contact, and a coöperating element coöperating with said first element, the two elements having non-parallel faces when in contact arranged so that the position of the area of contact between the two elements is varied so as to vary the number of said conducting pieces in circuit to vary the resistance.

2. A resistance varying device comprising a resistance element provided with a series of conducting pieces fixed with relation to each other and making contact resistance with each other, and means for varying the number of said conducting pieces in circuit.

3. A resistance varying device comprising an element having a series of conducting pieces arranged in rows, the conducting pieces of each row making contact resistance with each other, a similar coöperating element having conducting pieces with resistance contact arranged in rows, said rows opposed to the said rows of the first element, and means for rolling the two elements to vary the number of conducting pieces in circuit.

4. A resistance varying device comprising an element provided with a series of carbon strips placed upon end and arranged in rows, the carbon strips in each row making resistance contact with each other, the several rows connected in an electric circuit, a coöperating element adapted to make contact with a portion of said carbon strips, and means for varying the position of the area of contact between the two elements so as to vary the number of carbon strips in circuit.

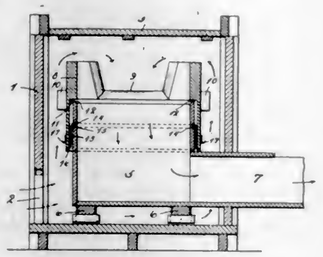
5. A resistance varying device comprising an element having a series of carbon strips arranged in separate rows, the carbon strips in each row making electrical contact with each other, the several rows insulated from each other but connected in an electric circuit in series, a coöperating element connected in an electrical circuit, the two elements having a small area of contact, and means for moving the position of the area of contact between the two elements back and forth across the face of said element so as to vary the resistance in the circuit.

[Claims 6 to 13 not printed in the Gazette.]

1,073,174. AUTOMATIC WEIR. CHARLES T. SACKET, Livingston, Mont. Filed Mar. 10, 1911. Serial No. 613,566. Renewed Feb. 20, 1913. Serial No. 749,726. (Cl. 61—46.)

1. In a weir of the character described, a receptacle having its upper end formed open and its lower end closed, a discharge conduit connected with one side of said receptacle near the lower end thereof, a float structure surrounding the upper portion of said receptacle to extend above the same and having openings formed therein so that the upper end of said float structure always remains above the water, and a section of flexible material attached to said receptacle and float structure to prevent the passage of the water between the same in an upward direction.

2. In a weir of the character described, a receptacle having its upper end formed open and its lower end closed and provided upon one side thereof near said lower end with discharge means, a float structure surrounding the upper portion of said receptacle to extend thereabove, said float structure having the lower portion thereof cut out internally to provide a shoulder adapted for engagement with the upper end of said receptacle, and means to prevent the passage of water between the lower portion of the float structure and said receptacle in an upward direction.



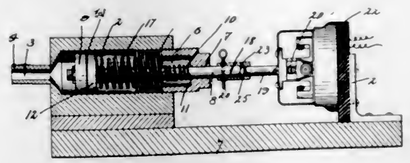
3. In a weir of the character described, an inclosing box-structure, a stationary box-structure disposed therein, a float-box vertically movably mounted about the upper end of the stationary box-structure to extend upwardly beyond the same, said float-box being provided with openings formed therethrough, and discharge means connected with said stationary box-structure and extending through the inclosing box-structure.

4. In a weir of the character described, an inclosing box-structure, a stationary box-structure disposed therein, a float-box vertically movably mounted about the upper end of the stationary box-structure and extending upwardly beyond the same, and discharge means connected with the lower portions of the stationary box-structure.

5. In a weir of the character described, an inclosing box-structure, a stationary box-structure disposed therein, and provided with discharge means extending through said inclosing box-structure, a float-box surrounding the upper end of the stationary box-structure, and a section of flexible material having connections with the float-box and stationary box-structure to prevent the passage of the water in an upward direction between the same.

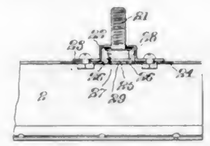
[Claims 6 and 7 not printed in the Gazette.]

1,073,175. FLUID-PRESSURE SWITCH. JOHN ALBERT SCHADEL, Pittsburgh, Pa. Filed Feb. 14, 1911. Serial No. 608,544. Renewed May 3, 1913. Serial No. 765,394. (Cl. 175—308.)



A compressed air actuated electric circuit maker and breaker consisting of a piston chamber, an air inlet in one end thereof, a plug screw threaded in the other end thereof, said plug having a bore in its inner end and an opening through its outer end, a cylinder engaging piston in said cylinder, a rod connected to said piston and extending through said opening, a long spring of weak tension and a short spring of strong tension mounted on said rod and directly abutting said piston, said long spring constantly abutting the inner end wall of said plug, said wall being removable from engagement with said short spring, a coupling on the outer end of said rod and an electrical contact adapted to be engaged and operated by said coupling.

1,073,176. NUT-LOCK. JOHN SCHLUTTER, Baltimore, Md. Filed Apr. 11, 1912. Serial No. 690,066. (Cl. 151—9.)



In combination, a depending screw having a slotted head and a lock therefor consisting of an S-shaped member having its central portion straight and fitting in the slot and a stationary plate apertured to receive the screw-driver and having slots adjacent the aperture, the S-shaped member having depending extremities fitting in the slots.

1,073,177. PNEUMATIC WHEEL. S WALTER SCOTT, Troy, N. Y. Filed Oct. 17, 1912. Serial No. 726,305. (Cl. 152—10.)



A wheel, comprising a hub, metal side plates secured to the hub and converging toward their outer edges, said outer edges being deflected inwardly forming stop flanges, a concavo-convex rim connecting the side plates at a distance from the outer edges thereof and provided along one edge with an inwardly extending flange fastened to the inner side of the outer margin of one of the side plates, said one of the side plates embodying a detachable annular outer section forming a complemental part of the inner section and overlapping said inner section upon the outside opposite the junction of said inner section with the inwardly extending rim flange and secured thereto, a resilient tube seated in said rim between one side plate and the detachable section of the other side plate, a solid tire encircling and supported by said tube, and metal shoes secured directly to the opposite sides of the tire upon the outside only thereof and moving in contact with said stop flanges, said flanges and shoes having a tongue and groove sliding engagement in a radial direction.

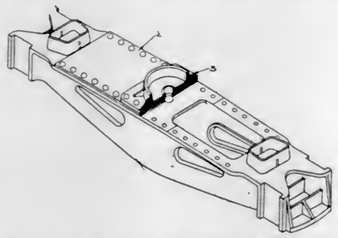
1,073,178. RAILWAY-CAR-TRUCK BOLSTER. ABRAM E. SMITH, Brooklyn, N. Y. Filed Aug. 14, 1908. Serial No. 448,625. (Cl. 105—104.)

1. A car truck bolster made of a hollow casting in combination with a rolled plate which performs the function of a compression member and ties the sides of the bolster together.

2. A cast car truck bolster with side bearings and center plate support cast integral with the bolster proper and a rolled plate and center plate applied to top of casting.

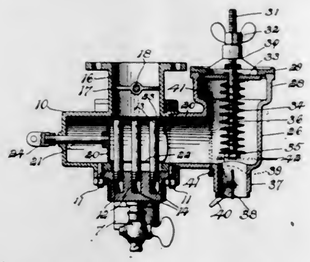
3. A car truck bolster, composed of a hollow casting with, first, parallel upright sides of uniform thickness interconnecting the top and bottom of the bolster; sec-

ond, a top of like uniform thickness cut away over the larger part of the spaces which extend longitudinally between the center bearing and the side bearings and transversely between the sides of the bolster; third, flanges



forming part of the top of the bolster which project beyond the sides of the bolster and are adapted for the attachment thereto of a top plate, and, fourth, a bottom of greater thickness than said sides and top.

1,073,179. CARBURETER. EDMUND SPRUNG, Detroit, Mich., assignor of one-half to William D. Healy, Detroit, Mich. Filed Mar. 24, 1913. Serial No. 756,330. (Cl. 48—155.2.)



1. In a carbureter the combination of a horizontally disposed tubular casing open at one end and having a discharge passage leading laterally therefrom intermediate its ends, a series of jet nozzles arranged in a row longitudinally of the tubular casing and extending across the same with their discharge ends opposite the discharge passage, a tubular shutter fitting within the casing to slide therein and provided with an open end and a slot in one side to receive the nozzles, the opposite side of the shutter being closed to extend over the discharge ends of the nozzles and across the outlet passage of the casing, a rod having a bearing in the end of the casing and secured to the closed end of the shutter, a throttle valve in the outlet passage of the casing, an arm for operating the throttle valve and a rod connecting the arm and the outer end of the rod attached to the shutter for simultaneously operating the throttle valve and shutter.

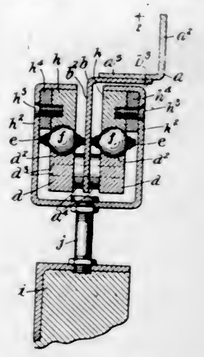
2. In a carbureter, the combination of a casing forming a float chamber and having a hollow lateral extension formed with a series of vertical bores opening through the upper side thereof, a tubular casing secured upon said extension in horizontal position and formed with an outlet passage at one side and a slot in its lower side, said casing being open at one end and closed at its opposite end, a series of jet nozzles secured in the bores of the lateral extension of the float chamber casing and extending upward through the opening in the bottom of the tubular casing with their discharge ends adjacent to the upper side of the casing and opposite the outlet passage, a tubular shutter slidable within the tubular casing and formed with an open end and a slot in one side to receive the row of nozzles, the opposite side of said shutter being closed and provided with a notch in the open end of the shutter, said closed side of the shutter being adapted to project across the outlet passage of the casing over the open discharge ends of the nozzles when the shutter is moved in the casing, a rod secured to the closed end of the shutter and having a bearing in the ends of the casing, a throttle valve turnable within the outlet passage, an arm for operating the throttle valve, a rod connecting said arm and the outer end of the rod which is secured to the shutter, and a tubular air inlet casing forming an extension of the tubular casing, and provided with a main and an auxiliary air inlet.

3. In a carbureter, the combination of a tubular casing open at one end and closed at its opposite end, formed with an outlet passage intermediate its ends, a series of jet nozzles extending across the casing and arranged in a longitudinal row with their discharge ends opposite the outlet passage of the casing, a shutter slidable longitudinally within the tubular casing across the outlet passage and over the ends of the nozzles, means for moving the shutter, an air inlet casing forming a continuation of the tubular casing and detachably attached thereto, said casing being formed with a main air inlet at one side and an auxiliary air inlet at its opposite side, a valve to control the auxiliary air inlet adapted to be opened by suction through the carbureter and a spring within the casing for yieldingly holding the valve closed.

4. In a carbureter, the combination of a casing having an outlet passage and opened at one end, means for supplying fuel to the interior of said casing, an air inlet casing detachably secured to the open end of said casing and formed wit.. a main air inlet opening at one side and an auxiliary air inlet opening at the opposite side, a valve for closing each of the air inlet openings and means for actuating one of the valves to closed position and holding the other of said valves in closed position.

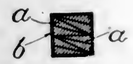
5. In a carbureter, the combination of a main casing having an open end and a lateral discharge passage, means for supplying fuel to said casing, a tubular air inlet casing forming a continuation of the main casing and adjustably secured thereto, said air inlet casing being formed with a main air inlet opening at one side and an auxiliary air inlet opening at the opposite side, a valve for closing the auxiliary opening, a spring to normally hold said valve closed, a valve to close the main air inlet opening, means for operating said valve in the main air inlet opening, and means operated by the actuation of said valve for holding the valve controlling the auxiliary air inlet in closed position.

1,073,180. SLIDING-DOOR HANGER. JOSEPH STOLZ, New York, N. Y. Filed Mar. 31, 1913. Serial No. 757,736. (Cl. 16—91.)



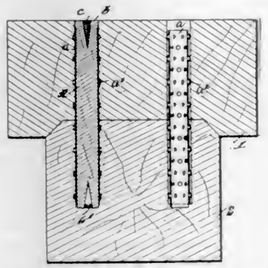
A door hanger comprising a suitable horizontal support provided with a dependening vertically arranged and longitudinal plate member, parallel tracks placed on the opposite sides of and supported by said plate member, a horizontally movable ball carrying member composed of two parts resting on said tracks and on the opposite sides of said plate member and provided with balls which are rotatably mounted thereon and which rest on said tracks, the separate parts of said member being connected by yoke-shaped keepers secured thereto and inclosing said tracks and the bottom of said plate member and movable longitudinally thereon, and another horizontally movable member mounted on the ball carrying member and comprising two parallel parts which rest on said balls on the opposite sides of said plate member and which are connected by depending yoke-shaped keepers secured thereto and inclosing the tracks and movable longitudinally thereon.

1,073,181. LEATHER PACKING. HARRY TALENT, Prestwich, England. Filed Feb. 15, 1913. Serial No. 748,599. (Cl. 121—107.)



A rectangular packing formed of strips of solid leather arranged in pairs, each strip being triangular in cross-section and being relatively thin in proportion to its width, and means for retaining the strips in position and permitting them to slide on each other to a limited extent.

1,073,182. DOWEL. TEÓFILO TISSIER, Buenos Aires, Argentina. Filed Nov. 27, 1908. Serial No. 464,806. (Cl. 20—92.)



1. A dowel for securing two parts of a wooden structure together, comprising an expansible metal sleeve having teeth or projections on its periphery, and a dowel body in the sleeve and of a slightly greater diameter than the sleeve, whereby when the dowel is applied the sleeve will be expanded and its teeth or projections forced into the parts connected by said dowel.

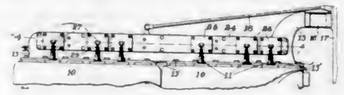
2. A dowel for securing two parts of a wooden structure together, comprising an expansible sleeve provided with teeth or projections on its periphery, and a dowel body in said sleeve, said dowel body consisting of three sections.

1,073,183. HYDROCARBON-MOTOR. FRANK H. TERGO, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 14, 1912. Serial No. 736,751. (Cl. 123—143.)

1. In a hydrocarbon motor, the combination with the cylinders thereof, of a water conduit secured to the cylinders, said conduit being formed with a housing for the motor ignition wires.

2. In a hydrocarbon motor, the combination with the cylinders thereof, of a cover for the water chambers of said cylinders forming a water conduit, and means formed integral with said cover for housing said ignition wires.

3. In a hydrocarbon motor, the combination with the cylinders thereof, of a cover for the water chambers of said cylinders forming a water conduit, a housing formed integral with said cover and arranged above the conduit, and ignition wires for the motor within said housing.

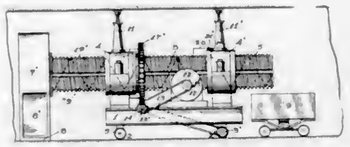


4. In a hydrocarbon motor, the combination with the cylinders thereof, of a housing for the ignition wires mounted on said cylinders, said housing having one of its walls detachable, and wire supports mounted on said detachable wall.

5. In a hydrocarbon motor, the combination with the cylinders thereof, of a housing for the ignition wires mounted on said cylinders and having one side open, a cover for said open side, insulating blocks mounted on said cover, ignition wires supported in said blocks, and means for detachably securing said cover in place with the blocks and wires inside the housing.

[Claims 6 to 13 not printed in the Gazette.]

1,073,184. MUCKING APPARATUS. WALTER E. TRENT, Reno, Nev. Filed Mar. 2, 1912. Serial No. 681,152. (Cl. 61—44.)



1. In an apparatus for the described purpose, the combination with a supporting structure, of drive mechanism for imparting longitudinal travel thereto, a rotatable tube mounted within bearings on the supporting structure, an elevating scoop secured to the forward end portion of said tube for raising material and discharging the same therein, devices actuated by the drive mechanism for imparting rotation to the rotatable tube and the scoop carried thereby, and independently operated means for imparting longitudinal movement to the said tube during the rotary motion thereof.

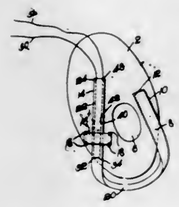
2. In an apparatus for the described purpose, the combination with a longitudinally disposed rotatable tube, provided for its full length with external screw threads, of a scoop carried at the forward end thereof and rotatable therewith, of mechanism for imparting longitudinal movement to the rotatable tube, means for receiving and removing the material discharged from the said tube, and a feed nut for engaging with the external threads of the tube for controlling the longitudinal movement of the said tube during the rotation thereof.

3. In an apparatus for the described purpose, the combination with a supporting structure provided with bearing pillars, of drive mechanism for imparting longitudinal movement thereto, a longitudinally disposed rotatable tube working within the said bearing blocks, said tube being provided with an internal helical rib and being externally screw-threaded, a worm ring feathered to said tube, a scoop carried at the outer end portion of said tube for receiving material and discharging the same into the tube, a worm for engaging the worm ring of the tube, devices for locking said worm to the drive mechanism for actuating the worm ring for imparting rotation to the tube, and a feed nut for engaging the external threads of the tube for imparting longitudinal movement to the said tube during the rotary movement thereof.

4. In an apparatus for the described purpose, the combination with a supporting structure, of drive mechanism

for imparting longitudinal travel thereto, a longitudinally movable and rotatable tube mounted in bearings of the supporting structure, said tube being provided with an internal helical rib extended throughout the length thereof, of means actuated from the drive mechanism for imparting rotation to the tube, a spiral scoop carried at the outer end portion of the tube and rotatable therewith for elevating material to be removed and discharging the same into the said tube, of devices controlling the longitudinal movement of the tube, and means for receiving the material discharged from the said tube.

1,073,185. BUNION SHIELD OR PROTECTOR. ROBERT EDWARD TURNER, Boston, Mass. Filed Mar. 29, 1912. Serial No. 687,086. (Cl. 128—28.)



1. A bunion shield or protector including a pad; a band to secure said pad in position upon the foot; means relatively to adjust the band and pad and coacting means to secure the band in adjusted position.

2. A bunion shield or protector including a pad; a band forming a loop having one end portion secured to said pad; means relatively to adjust the other end portion of said loop and pad and coacting means to secure them in adjusted position.

3. A bunion shield or protector including a pad; a band forming a loop having one end portion secured to said pad; a guide for said band; and means relatively to adjust said pad and the other end portion of said loop and to secure them to each other in adjusted position.

4. A bunion shield or protector including a pad; a flexible band forming a loop having one end attached to said pad; means relatively to adjust the free end portion of said loop and pad and coacting means to secure said free end portion of the loop to said pad, said pad, band, adjusting and securing means all being of intrinsically yielding or soft material.

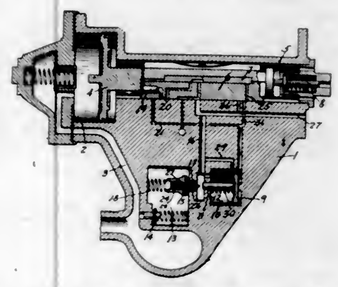
5. A bunion shield or protector including a pad of relatively soft material, a flexible band having one end portion secured to said pad and a thread threaded through the other end portion of said band and through the material of said pad adjustably to secure said free end portion of the band to the pad.

[Claims 6 to 10 not printed in the Gazette.]

1,073,186. TRIPLE-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 19, 1911. Serial No. 603,560. (Cl. 188—15.)

1. A triple valve device for fluid pressure brakes, comprising a piston, a main slide valve operated thereby and having a graduating port adapted to communicate with a brake cylinder port in service application position, an auxiliary valve movable with the piston for controlling said graduating port, and a second auxiliary valve operated by said piston and adapted in service application position to effect the opening of a local train pipe discharge port.

2. A triple valve device for fluid pressure brakes, comprising a piston, a main slide valve operated thereby, a graduating slide valve mounted on said main slide valve and operated by the piston for controlling a brake cylinder service port, and an auxiliary puppet valve operated by said piston and adapted in service application position to effect the opening of a local train pipe discharge port.



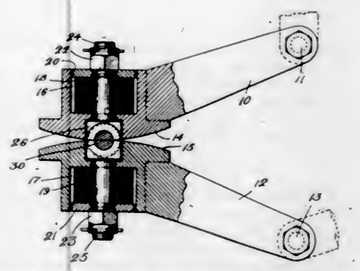
3. A triple valve device for fluid pressure brakes, comprising a piston, a main slide valve operated thereby, a graduating slide valve mounted on said main slide valve and operated by the piston for controlling a brake cylinder service port, and an auxiliary valve mounted in the main slide valve and operated by said piston for effecting the opening of a local train pipe discharge port.

4. A triple valve device for fluid pressure brakes, comprising a piston, a main slide valve operated thereby, a graduating slide valve mounted on said main slide valve and operated by the piston for controlling a brake cylinder service port, means for controlling a local train pipe discharge port, and an auxiliary valve carried by the main slide valve and operated in a service application of the brakes by said piston for supplying air to actuate said means.

5. A triple valve device for fluid pressure brakes, comprising a piston, a main slide valve operated thereby and having a brake cylinder service port adapted in service application position to register with a brake cylinder port, a graduating slide valve for controlling said service port, means operated by flow of air from the auxiliary reservoir to the brake cylinder for controlling a local train pipe discharge port, and an auxiliary valve carried by the main slide valve and operated by said piston in a service application of the brakes for supplying air from the auxiliary reservoir to operate said means.

[Claims 6 to 8 not printed in the Gazette.]

1,073,187. SHOCK-ABSORBER. HENRY A. TUTTLE, Taunton, Mass. Filed Oct. 2, 1912. Serial No. 723,459 (Cl. 21—105.)



1. A shock-absorber consisting of a pair of diverging arms adapted for connection respectively with a frame and axle of an automobile and having engaging faces for engagement with each other which permit of a rocking movement of the arms, a spring supported by one of the arms above said engaging-faces, arranged for compression upon rocking movements of the arms in both directions, a bolt extended through said spring and arm, having a head arranged in a recess in the engaging-face of the arm, said head having a perforated ear and a pivot-pin extended transversely through means connected with the other arm and through the perforation in said ear, said pivot-pin intersecting the normal point of contact of the engaging-faces of the arms, thereby to maintain its position as the arms rock, substantially as described.

2. A shock-absorber consisting of a pair of diverging arms adapted for connection respectively with a frame and axle of an automobile and having engaging-faces for engagement with each other which permit of a rocking movement of the arms, a spring supported by one of the arms above said engaging-faces adapted to be compressed upon rocking movements of the arms in both directions, a bolt extended through said spring and arm, having a head arranged in a recess in the engaging-face of the arm, said head having a perforated ear and a pivot-pin extended transversely through means connected with the other arm and through the perforation in said ear, having enlarged end portions which extend over the outer sides of both arms at the sides of the engaging-faces, substantially as described.

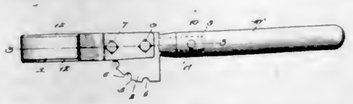
3. A shock-absorber consisting of a pair of diverging arms adapted for connection respectively with the frame and axle of an automobile and having engaging-faces for engagement with each other which permit a rocking movement of the arms, a recess formed in the inner end of one of said arms opposite its engaging-face, a spring arranged in said recess, a plate arranged at the outer end of said spring, a bolt extended through said plate, spring and arm, and pivotally connected with the other arm, substantially as described.

4. A shock-absorber consisting of a pair of diverging arms adapted for connection respectively with the frame and axle of an automobile and having curved engaging-faces for engagement with each other to permit of a rocking movement of the arms, means to hold said arms against longitudinal and transverse relative movements and permit a rocking movement, and springs supported by the arms respectively above and below their engaging-faces, both springs being arranged for compression upon rocking movements of the arms in both directions, substantially as described.

5. A shock-absorber consisting of a pair of diverging arms adapted for connection respectively with the frame and axle of an automobile and having curved engaging-faces for engagement with each other to permit a rocking movement of the arms, springs supported by said arms respectively above and below their engaging-faces, and means engaging said springs which also connect said arms together and holds them against longitudinal and transverse movement with respect to each other but permits a rocking movement, substantially as described.

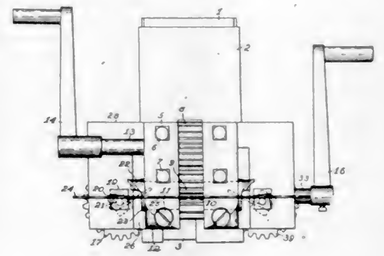
[Claims 6 to 10 not printed in the Gazette.]

1,073,188. WEEDING IMPLEMENT. FRED E. VAN HOUTEN, Denver, Colo. Filed Aug. 21, 1912. Serial No. 716,312. (Cl. 55—45.)



In a device of the character described, the combination of a handle, having a longitudinal opening formed in one end thereof, a sector plate provided with a plurality of semicircular recesses, a shank formed integral with said plate and arranged within the opening in the handle, a blade comprising a ribbon of metal having its ends arranged upon each side of the plate, a rivet arranged transversely in the ends of the blade and adapted to be disposed within the recesses in the plate, and a bolt passing through the ends of the blade and through the plate to securely hold the blade in various adjusted positions.

1,073,189. MACHINE FOR FORMING LOOPS IN WIRES. WALTER K. VOORHEES and JOHN H. OSGOOD, Cedar Falls, Iowa. Filed Oct. 31, 1912. Serial No. 728,827. (Cl. 140—73.)



1. A device of the class described, comprising in combination, a rotatable body having an axial projection and an eccentric projection spaced apart therefrom to receive a wire end therebetween, another body rotatable on an axis inclined toward the axis of the first-mentioned body and having a diminished eccentric curved projection extending longitudinally toward the latter, and said second-mentioned body having an axial seat adapted to hold the body of said wire removably.

2. A device of the class described, comprising in combination, a rotatable body having an axial projection and also an eccentric projection spaced apart therefrom to receive a wire end therebetween, said eccentric projection having a notch across its inner advancing angle adapted to detachably grip said wire end in certain positions of said body, another body rotatably mounted and having its axis set at a right angle to the axis of the first-mentioned body and having an eccentric projection directed toward the other body, and also provided with a longitudinal axial seat adapted to seat the body of said wire removably.

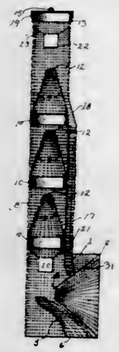
3. A device of the class described, comprising in combination, a rotatable body having an axial projection and an eccentric projection spaced apart therefrom to receive a wire end therebetween, another body rotatable on an axis set at an angle to the axis of said first-mentioned body and having an eccentric projection extending toward the latter, said second-mentioned body having an axial opening adapted to seat the wire body removably, and having on the contact-face of its said eccentric projection a transverse notch adapted to grip the wire end when bent around into the path of its rotation to twist said end around the body of the wire.

4. A device of the class described, comprising in combination, a rotatable body having an axial projection and an eccentric projection spaced apart therefrom to receive a wire end therebetween, another rotatable body having its axis at an angle to said first-mentioned body and having a notched eccentric longitudinal projection on its end extending toward the latter, said second-mentioned body having a longitudinal groove extending past its axis and serving to receive the body of said wire detachably.

5. A device of the class described, comprising in combination, a rotatable body having an axial projection and an eccentric projection spaced apart therefrom to receive a wire end therebetween, one end angle of said body being excised to leave a wire-receiving rabbet therealong, another rotatable body having its axis at an angle to said first-mentioned body and having an eccentric projection extending longitudinally toward the latter, said second-mentioned body having a gear-wheel secured thereto coaxially, said gear-wheel and attached body having a longitudinal groove extending through them past the axis thereof and adapted to receive the body of said wire axially and removably, a pinion in mesh with said gear-wheel, and means for rotating said pinion.

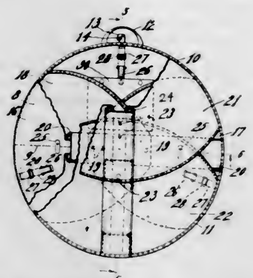
[Claims 6 to 8 not printed in the Gazette.]

1,073,190. FLY-TRAP. WILLIAM I. WAGGONER, Burlington, Ind. Filed Oct. 17, 1912. Serial No. 726,340. (Cl. 43—22.)



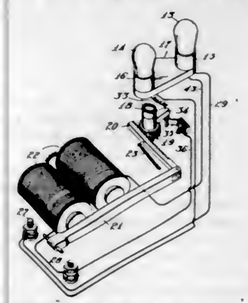
An attachment for a screen door or window having an opening therein, consisting of a fly trap comprising a chamber having an opening therein, the walls of said opening being adapted to be removably secured in the screen door or window, a conical entrance extending inwardly of the opening in the chamber aforesaid and having reduced orifices extending into said chamber, said chamber being provided with another opening in its lower portion, a conical entrance extending inwardly of the chamber from said opening and having a reduced orifice communicating with the interior of the chamber, a cylindrical chamber extending upwardly from the first mentioned chamber, conical shaped passageways arranged in series in said cylindrical chamber, and having reduced orifices extending upwardly thereof, a tubular member mounted on one side of said cylindrical chamber and communicating therewith above the upper of the said conical passageways, the lower extremity of the said tubular member extending into the first mentioned chamber, a bait receptacle suspended in the first mentioned chamber, a bait receptacle suspended in the upper portion of said cylindrical chamber, and a removable cap mounted on the upper extremity of the cylindrical chamber.

1,073,191. LADY'S HAT-CASE. NELLIE H. WARD, Milwaukee, Wis. Filed Nov. 23, 1911. Serial No. 661,953. (Cl. 206—8.)



A hat case, comprising a back portion formed of a non-flexible material, provided with a handle, flexible side flaps connected at their outer side edges to the side edges of the back portion and having their inner edges overlapping each other, a flexible lower flap connected at its lower edge to the lower edge of the back portion and having its upper portion overlapping the side flaps, a flexible upper flap connected to the upper edge of the back portion and having its lower portion overlapping the side and lower flaps, said flaps provided with plaited portions to give a fullness thereto, and means for adjustably connecting some of the inner portions of the flaps together.

1,073,192. ELECTRIC SIGNALING DEVICE. WALTER J. WARDER, Jr., Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Nov. 6, 1911. Serial No. 658,790. (Cl. 175—279.)



1. In an electric signaling device, in combination, a plurality of incandescent bulbs movable alternately to a given position, and electro-magnetic means in series with one of such bulbs for controlling the movement of the bulbs.

2. In an electric signaling device, in combination, a plurality of incandescent bulbs, a shiftable support for the bulbs movable to two positions and normally occupying one of such positions, and electro-magnetic means in series with one of the bulbs for shifting the support to the other of such positions.

3. In an electric signaling device, in combination, an electric circuit, an oscillatable support normally occupying one of its extreme positions, an incandescent bulb mounted on the support, a switch connecting the bulb with the circuit when the support is in its normal position, a second incandescent bulb mounted on the support and connected with the circuit, an electro-magnet in series with the second named bulb, and connection between the support and the armature of the electro-magnet for moving the support from its normal position when the electro-magnet is energized.

4. In an electric signaling device, in combination, an electric circuit, an oscillatable support normally occupying one of its extreme positions, an incandescent bulb mounted on the support, a switch connecting the bulb with the circuit when the support is in its normal position, a second incandescent bulb mounted on the support and connected with the circuit, an electro-magnet in series with the second-named bulb, a spring urging the support to its normal position, a gear mounted with the support, and a rack-bar connected with the armature of the electro-magnet and coöperating with the gear to move the support in opposition to the spring when the electro-magnet is energized.

1,073,193. FEED-REGULATOR. WARREN WATTS, Hayes township, Clay county, Kans. Filed July 16, 1912. Serial No. 709,721. (Cl. 83—44.)



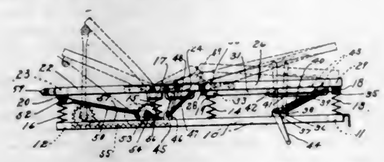
1. In a device for feeding granular material, the combination with a hopper having an inclined bottom, of a flexible apron secured at one side to the lower edge of said bottom, an adjustable gage strip supporting the other side of said apron, a feed roller mounted above said apron, and means for raising and lowering said gage strip to vary the distance between said roller and apron.

2. In a device for feeding granular material, the combination with a hopper having an inclined bottom, of a feed roller mounted adjacent the lower edge of said bottom, and spaced therefrom to provide a discharge opening, an adjustable gage strip for regulating the size of said opening, a pivoted arm by which such gage strip is supported, and a nut and screw device for shifting said arm and strip.

3. In a device for feeding granular material, a hopper having a bottom sloping downwardly on each side of the center, a feed roller mounted in the hopper at each side thereof adjacent such sloping bottom, and spaced therefrom to provide a discharge opening, a gage strip coöperating with each roller to vary the size of such discharge opening, a screw shaft mounted on said hopper, a nut working on said screw shaft, and a connection between said nut and each of said gage strips, whereby, when said shaft is rotated, said strips are moved as desired.

4. In a device for feeding granular material, a hopper having a bottom sloping downwardly on each side of the center, a feed roller mounted at each side of the hopper above such bottom, means coöperating with each roller to vary the size of the discharge opening between such roller and said bottom, a screw shaft mounted on said hopper, a nut on said screw shaft, links pivoted to said nut, and pivoted arms connecting said links with said discharge varying means.

1,073,194. BED-SUPPORT FOR HOSPITALS OR SICK-ROOMS. HENRY WEIMER, Winona, Minn. Filed Apr. 24, 1913. Serial No. 763,464. (Cl. 5—12.)



1. A bed spring comprising a base frame, a series of independent spring-supported members upon said frame, a body support held upon said members, said body support comprising head, central and leg sections, and means for independently adjusting the relative angularity of said several sections while all or part of the same are supported upon the springs.

2. A bed spring comprising a base frame, a series of independent spring-supported members upon said frame, a body support held upon said members, said body support comprising head, central and leg sections, said leg section being longitudinally divided so as to provide an independently movable portion for each leg, and means for independently adjusting the relative angularity of the head and central sections and of the independent leg sections, said adjusting means permitting support of at least part of said sections upon the spring-supported members.

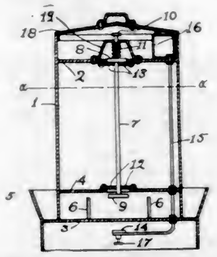
3. A bed spring comprising a base frame adapted to rest upon the usual spring supports of a bed, a series of sets of spiral springs secured to and extending vertically from the sides of said base frame, transverse bars connecting the respective sets of springs, a body support normally resting upon said bars, said body support comprising head, central and leg sections, and means for independently adjusting the relative angularity of said several sections while all or part of the same are supported upon the bars.

4. A bed spring comprising a base frame adapted to rest upon the usual spring supports of a bed, a series of sets of spiral springs secured to and extending vertically from the sides of said base frame, transverse bars connecting the respective sets of springs, a body support normally resting upon said bars, said body support comprising head, central and leg sections, the adjacent ends of said sections being hinged together and at least one of said sections being hinged to a transverse bar, and means for independently moving the sections upon said hinges.

5. A bed spring comprising a base frame, a series of independent spring-supported members extending transversely across said frame, a body support normally resting upon said members, said body support comprising head, central and leg sections, the adjacent ends of which are hinged together, at least one of said sections being hinged to a transverse member, and means for independently moving said sections about their hinges to adjust the relative angularity thereof.

[Claim 6 not printed in the Gazette.]

1,073,195. STOCK-WATERING TANK. THOMAS BURNACE WELLER, Vinita, Okla. Filed Oct. 2, 1911. Serial No. 652,399. (Cl. 119—73.)



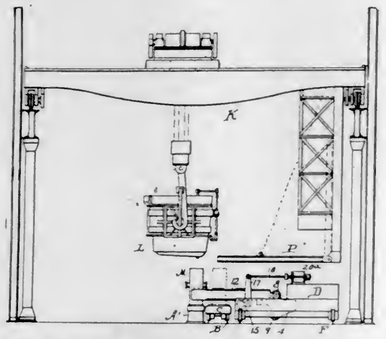
1. In a stock watering tank the combination with a vertical round shell containing a reservoir a storage chamber below said reservoir and a supply chamber below said storage chamber of a watering trough surrounding said shell, a hole or holes in the side of said shell communicating from said supply chamber of said watering trough, holes communicating from said reservoir to said supply chamber, holes communicating from said storage chamber to said supply chamber, and a vertically operative valve normally closing communication between said reservoir and said storage chamber allowing free communication between said storage chamber and said reservoir, said valve closing communication between said storage chamber and said supply chamber and establishing communication between said reservoir and said storage chamber when vertically lifted.

2. In a stock watering tank the combination of a round vertical shell containing a reservoir a storage chamber and a supply chamber, a watering trough surrounding said shell, holes communicating from said reservoir to said storage chamber, holes communicating from said storage chamber to said supply chamber, holes communicating from said supply chamber to said watering trough, and a vertically operative valve normally closing the holes between said reservoir and said storage chamber said valve when vertically lifted opening the holes between said reservoir and said storage chamber and closing the holes between said storage chamber and said supply chamber.

1,073,196. APPARATUS FOR HANDLING INGOT-MOLDS. SAMUEL T. WELLMAN and HORACE W. LASH, Cleveland, Ohio, assignors to The Liquid Forged Steel Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 19, 1912. Serial No. 737,593. (Cl. 22—64.)

1. In an apparatus for handling ingot molds, the combination of a row of jarring machines adapted for the support of ingot molds, a track alongside of and parallel with said molds, cars on said track adapted to support ingot molds, another adjacent parallel track, a mold handling machine running on the latter track, and mecha-

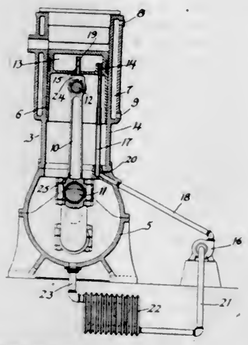
nism carried by said machine adapted to move molds from the jarring machines to the cars and from the cars to the jarring machines.



2. In an apparatus for handling ingot molds, the combination of a row of jarring machines adapted for the support of ingot molds, a track alongside of and parallel with said molds, cars on said track adapted to support ingot molds, another adjacent parallel track, a mold handling machine running on the latter track, mechanism carried by said machine adapted to move molds from the jarring machines to the cars and from the cars to the jarring machines, and another parallel guideway, a support movable thereon, and a metal ladle carried by said support.

3. In an apparatus for handling ingot molds, the combination of a row of jarring machines adapted for the support of ingot molds, a track alongside of and parallel with said molds, cars on said track adapted to support ingot molds, another adjacent parallel track, a mold handling machine running on the latter track, mechanism carried by said machine adapted to move molds from the jarring machines to the cars and from the cars to the jarring machines, another parallel guideway, a support movable thereon, a metal ladle carried by said support, and a pouring platform suspended from said movable support.

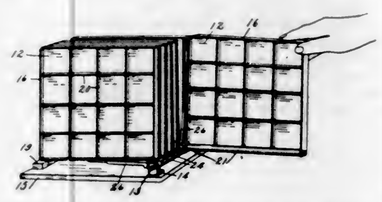
1,073,197. COOLING MEANS FOR INTERNAL-COMBUSTION ENGINES. GEORGE WESTINGHOUSE, Pittsburgh, Pa. Filed Apr. 18, 1908. Serial No. 427,932. (Cl. 123—196.)



1. In combination in a vertical gas engine, a lubricating system, a cooling chamber provided in the piston of said engine and included in the lubricating system, a pump for circulating lubricant through said system and means for cooling the lubricant delivered from said cooling chamber.

2. In combination in a vertical gas engine, a lubricating system, a cooling chamber provided in the piston of said engine and included in the lubricating system, a pump for circulating lubricant through said system, means for cooling the lubricant delivered from said cooling chamber, and a crank case for said engine serving as a conveyer for the lubricant from the lubricating system to said cooling means.

1,073,198. FILING-CASE. MARCELLUS L. WHITCOMB, Seattle, Wash. Filed May 29, 1912. Serial No. 700,410. (Cl. 129—34.)



1. In a filing-case of the class described, the combination with a plurality of holding plates each of which plates is provided with strips of sheet metal which are secured to the surfaces of said plate to project edgewise therefrom, some of which strips are disposed vertically while others are disposed horizontally thereon to form a plurality of compartments for papers, and further provided with a spring clip disposed in each of said compartments whereby papers may be secured therein, of a pivot shaft associated with and common to all of said holding plates and whereon each of said holding plates independently may be turned in an edgewise direction, said pivot shaft being adapted to be extended in length by uniting with it another like structure.

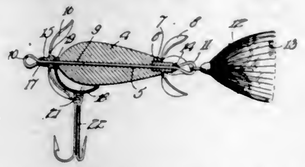
2. In a filing-case of the class described, the combination with a plurality of holding-plates, of a plurality of shafts upon each of which is mounted freely one of said holding-plates whereby such holding-plate may swing freely sidewise on and about said shaft, detent means associated with each of said shafts and the holding-plate thereon whereby such holding-plate may be sustained at one circumferential position on such shaft, a hinge member associated with one end of each of said shafts and with said detent means and a suitably supported shaft upon which all of said hinged members may be mounted freely to swing thereon whereby each holding-plate may, independently, be caused to swing edgewise and sidewise.

3. In a filing case of the class described, the combination with a holding-plate, of a shaft upon which said holding-plate is hinged freely to be turned sidewise, another suitably supported shaft with which one end of said first named shaft is articulated to swing in a plane that is at right angles to the axis of said second shaft, and detent means associated with said first named shaft and adapted to engage with said holding-plate releasably to sustain said holding-plate with its plane in a position at right angles to said second named shaft.

1,073,199. MINNOW. CLINTON WILT, Springfield, Mo. Filed Aug. 26, 1911, Serial No. 646,148. Renewed Feb. 6, 1913. Serial No. 746,663. (Cl. 43—30.)

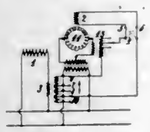
1. An artificial bait comprising a shaft, a body rotatably mounted thereon, means for rotating said body, a spinner mounted upon the forward end of said shaft, a substantially crescent-shaped weight securely mounted on said shaft, the inner surface of said weight conforming to the contour of the forward end of said body, and a hook depending from said weight.

2. An artificial bait comprising a fixed shaft, a body rotatably mounted thereon, a hook carried by the rear end of said shaft, means for rotating said body, a spinner carried by the forward portion of said shaft, means for preventing longitudinal movement of said spinner in one direction, a weight secured to said shaft intermediate said body and said spinner, said weight being provided at one end with a transverse opening for engagement with said shaft, and a hook extending from said weight.



3. An artificial bait comprising a shaft, a body rotatable thereon, means for rotating said body, and a crescent-shaped weight on the forward portion of said shaft, said weight conforming to the contour of the forward end of said body.

1,073,200. CONTROLLING SYSTEM FOR ALTERNATING-CURRENT MACHINES. GABRIEL WINTER, Vienna, Austria-Hungary, and FRIEDRICH EICHBERG, Berlin, Germany, assignors to General Electric Company, a Corporation of New York. Filed Mar. 7, 1903. Serial No. 146,692. (Cl. 172—276.)



1. In an alternating current motor, a primary winding adapted to be connected to a source of current, a secondary winding provided with a commutator and brushes in inductive relation thereto, a transformer having its primary connected in series with one of said windings, a magnetizing winding connected to the secondary of said transformer, and means for varying the ratio of transformation of said transformer.

2. In an alternating current motor, a primary winding adapted to be connected to a source of current, a secondary winding provided with a commutator and brushes in inductive relation thereto, a transformer having its primary connected in series with one of said windings, means for producing with the current in the secondary of said transformer a magnetization of the motor at an angle to the magnetization produced by said windings, and means for varying the ratio of transformation of said transformer.

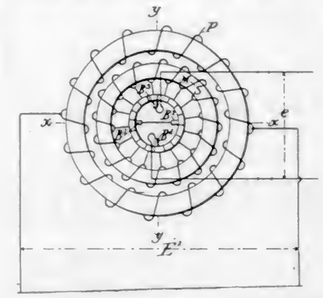
3. In an alternating current motor, a primary winding adapted to be connected to a source of current, a secondary winding provided with a commutator and brushes arranged on the line of magnetization of said primary winding, a transformer having its primary connected in series with one of said windings, means for producing with the current in the secondary of said transformer a magnetization of the motor at an angle to the magnetization produced by said windings, and means for varying the ratio of transformation of said transformer.

4. In an alternating current motor, a primary winding adapted to be connected to a source of current, a secondary winding in inductive relation thereto, a transformer having its primary connected in series with one of said windings, a magnetizing winding connected to the secondary of said transformer, and means for varying the ratio of transformation of said transformer.

5. In an alternating current motor, a primary winding adapted to be connected to a source of current, a secondary winding provided with a commutator and brushes in inductive relation thereto, a transformer having its primary connected in series with one of said windings, a magnetizing winding adapted to produce a magnetization of the motor at an angle to the magnetization of the first mentioned windings and connected to the secondary of said transformer, and means for varying the ratio of transformation of said transformer.

[Claims 6 to 17 not printed in the Gazette.]

1,073,201. DYNAMO-ELECTRIC MACHINE. GABRIEL WINTER, deceased, by Otto Wolfrum, administrator, Vienna, Austria-Hungary, and FRIEDRICH EICHBERG, Berlin, Germany; said Winter and said Eichberg assignors to General Electric Company, a Corporation of New York. Original application filed June 11, 1902, Serial No. 111,180. Divided and this application filed Jan. 9, 1912. Serial No. 670,161. (Cl. 172—276.)



1. An alternating current machine of the commutator type having brushes coöperating to form for each pair of primary poles, first a short-circuiting path along approximately the line of the primary field for the working currents in the armature, and second, means for generating at all speeds a torque-producing field by feeding an appropriate magnetizing current from outside to the armature.

2. An alternating current machine of the commutator type having brushes and connections therefor coöperating to form for each pair of primary poles, first a short-circuiting path along approximately the line of the primary field for the working currents in the armature, and second, means for feeding a magnetizing current from outside to the armature, the connections for feeding said magnetizing current being arranged to supply at all speeds current substantially in phase with the working currents.

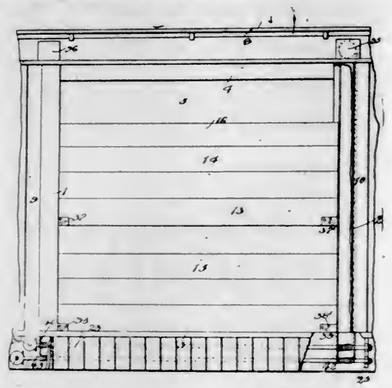
3. An alternating current machine of the commutator type having two systems of brushes and connections therefor coöperating to form for each pair of primary poles, first a short-circuiting path along approximately the line of the primary field for the working currents in the armature, and second, means for generating at all speeds a torque-producing field by feeding an appropriate magnetizing current from outside to the armature.

4. An alternating current machine of the commutator type having two systems of brushes and connections therefor coöperating to form for each pair of primary poles, first, a short-circuiting path along approximately the line of the primary field, for the working currents in the armature, and second, means for feeding a magnetizing current from outside to the armature, the connections for feeding the said magnetizing current being arranged to supply at all speeds current substantially in phase with the working currents.

1,073,202. GRAIN-DOOR. JOSEPH WOODS, Herbert, Saskatchewan, Canada. Filed June 15, 1911. Serial No. 633,404. (Cl. 20—32.)

1. The combination with the door posts, lintel, floor and roof beams, and roof of a car, said door posts being provided with vertically directed channels, of flexible door

sections passing between the posts and having their ends received within the channels, means connected to the lower edges of the door sections for raising and lowering the same, pairs of switch bars pivotally secured to the roof beams and adapted to pass the sections, the one beneath the other, when raised, and direct them beneath the car roof, and supporting bars secured to the roof beams for receiving the doors after they are passed over the switch bars, as and for the purpose specified.



2. The combination with the posts, lintel, floor and roof beams, and roof of a car, said door posts being rabbeted away at their inner corners, and said lintel presenting in angularly disposed face, of plates secured permanently to the inner sides of the posts and forming with rabbeted away portions thereof, vertically directed channels, said plates having portions of their upper ends cut away to form shoulders and allowing of escape from the channels, independent flexible door sections passing between the posts and operating within the channels, independent raising means secured to the lower corners of the door sections, pairs of switch bars pivotally secured to the roof beams, and located one above the other, said switch bars having their lower ends resting normally on the aforesaid shoulders and more or less continuous with the inner faces of the plates, and supporting bars secured to the roof beams and passing across the central portion of the car, said roof beams being located one above the other and adapted to receive and support the door sections passed over the switch bars, as and for the purpose specified.

3. The combination with the door-post, roof and floor beams, of a car, said door-post having the inner corners rabbeted away, of plates permanently secured to the inner faces of the door-posts forming with the rabbeted away portions thereof vertical channels, said plates having their upper ends partially cut away to allow of an escape from the channels and to form shoulders, flexible door sections carried by the door-posts and operating within the channels, a pair of rotatably mounted parallel shafts carried by the floor beams, means for rotating the shafts, pairs of loose pulleys located on the roof of the car and alined with the channels, pairs of cables passing around the pairs of pulleys, one pair of cables having the ends thereof connected to one of the shafts and oppositely wound thereon and the other pair of cables having the ends thereof connected to the other of the shafts and oppositely wound thereon, both of said pairs of cables passing within the channels, means connecting one pair of the cables with one of the door sections, means connecting the other pair of cables with the other of the door sections, means for deflecting the respective door sections beneath the roof of the car when raised there being a distinct deflecting means for each section and means for receiving the doors after deflection and for supporting them beneath the roof of the car, as and for the purpose specified.

1,073,203. REGISTERING BRANDING-HAMMER. CHARLES W. WRIGHT, Blaine, Wash. Filed Sept. 30, 1912. Serial No. 723,011. (Cl. 235—91.)



1. In a branding device, the combination of a hammer having a branding face, a recess in the head, a registering device seated in said recess, means for securing the registering device in position, and a movable member in the peen adapted to actuate by its own momentum the registering device when an article is branded.

2. A branding hammer, comprising a hammer having a removable branding face, a counting mechanism, and a member loosely seated in the peen and adapted to actuate by its own momentum the counting mechanism when a blow is struck.

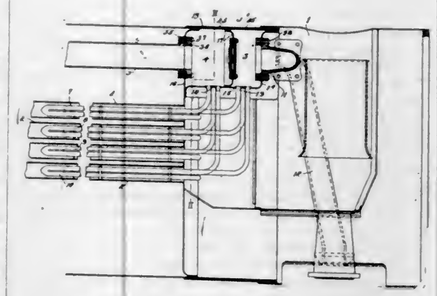
3. A branding hammer, comprising a hammer having a branding face, a registering device seated in a chamber in the head, a hollow peen, a member movable in the peen in the direction of its length and adapted to actuate the registering device when a blow is struck, and means for rendering the registering device inoperative.

4. In a branding device, the combination of a hammer provided with a branding face, a chamber for holding a registering device, a registering device seated therein and having an actuating finger projecting therefrom into a longitudinal bore in the peen, and a rod slidable endwise in said bore and adapted to move the finger to actuate the register when a blow is struck.

5. In a branding device, the combination of a hammer having a removable branding face, a counting mechanism seated in a chamber and provided with an actuating finger projecting into a longitudinal socket communicating with the chamber, means for retaining the counting mechanism in position, and a member movable endwise in said socket and adapted to actuate by its own momentum the counting mechanism when a blow is struck.

[Claims 6 to 8 not printed in the Gazette.]

1,073,204. SUPERHEATER. CHARLES D. YOUNG, Altoona, Pa. Filed Dec. 5, 1911. Serial No. 664,061. (Cl. 122—462.)



1. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet to one header; and an outlet from the other header.

2. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall; superheater tubes lying in the said fire tubes and having their front ends upturned and expanded into the said bottom wall; an inlet to one header; and an outlet from the other; the wall of the smoke box constituting the upper walls of the headers being provided with hand holes and removable closures opposite the ends of the said superheater tubes.

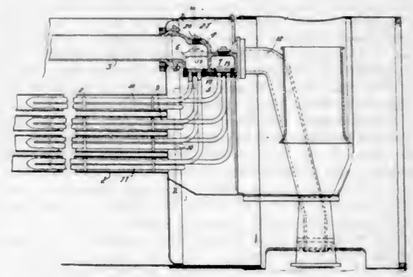
3. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall.

4. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and expanded into the said bottom wall; an inlet to one header; and an outlet from the other; the wall of the smoke box constituting the upper walls of the headers being provided with hand holes and removable closures opposite the ends of the said superheater tubes; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall and removable through such opening; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall arranged to permit the passage of the said inlet pipe upon the removal of the said casting.

5. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall and removable through such opening; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall arranged to permit the passage of the said closure means and inlet pipe upon the removal of the said casting.

[Claims 6 to 11 not printed in the Gazette.]

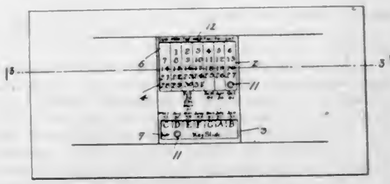
1,073,205. SUPERHEATER. CHARLES D. YOUNG, Altoona, Pa. Filed Feb. 3, 1912. Serial No. 675,371. (Cl. 122—462.)



1. The combination with a boiler provided with a plurality of sets of fire tubes and a smoke box at its front end; of a header casting having a longitudinal partition dividing the casting into two header chambers, and having in the bottom of each chamber a series of openings and in the top of each chamber another series of openings opposite the openings in the bottom; a series of closure plates each of which extends across a bottom opening in both chambers and lies opposite a set of fire tubes; superheater tubes in the said fire tubes each having one end expanded into one of said closure plates and opening into one of the said bottom openings in one header chamber and having the other end expanded into the same closure plate but opening into one of the bottom openings in the other header chamber whereby each closure plate carries both ends of the plurality of superheater tubes lying in the set of fire tubes opposite such closure plate; an inlet to one header chamber; an outlet from the other header chamber; removable closures for the said openings in the tops of the header chambers, whereby the ends of the superheater tubes in the closure plates are accessible through such openings; and a removable plate in the smoke box wall opposite the said removable closures.

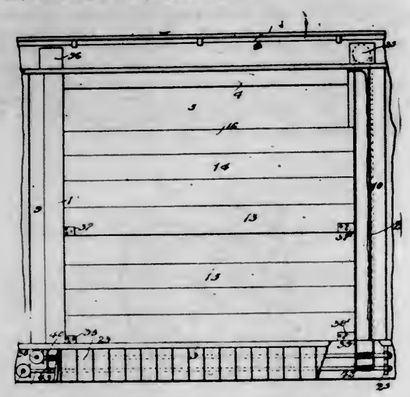
2. The combination with a boiler having a smoke box at its end and a plurality of fire tubes; of a header in the smoke box extending transversely of the ends of the fire tubes and divided into two chambers; superheater tubes in the fire tubes each having one end expanded into the bottom of one chamber and the other end expanded into the bottom of the other chamber, the said chambers having openings in their walls opposite the said expanded tube ends and the said smoke box having an opening in its wall opposite said opening in the chambers; removable closure means for the said openings in the walls of the headers; and removable closure means for the said opening in the wall of the smoke box.

1,073,206. AUTOMATIC CALENDAR. ALBERT T. ZABRISKIE, Passaic, N. J. Filed Dec. 26, 1912. Serial No. 738,524. (Cl. 40—109.)



1. A calendar including a face having a tabular arrangement of the months of the year and also a tubular arrangement of the days of the week thereon, a key slide

sections passing between the posts and having their ends received within the channels, means connected to the lower edges of the door sections for raising and lowering the same, pairs of switch bars pivotally secured to the roof beams and adapted to pass the sections, the one beneath the other, when raised, and direct them beneath the car roof, and supporting bars secured to the roof beams for receiving the doors after they are passed over the switch bars, as and for the purpose specified.



2. The combination with the posts, lintel, floor and roof beams, and roof of a car, said door posts being rabbeted away at their inner corners, and said lintel presenting in angularly disposed face, of plates secured permanently to the inner sides of the posts and forming with rabbeted away portions thereof, vertically directed channels, said plates having portions of their upper ends cut away to form shoulders and allowing of escape from the channels, independent flexible door sections passing between the posts and operating within the channels, independent raising means secured to the lower corners of the door sections, pairs of switch bars pivotally secured to the roof beams, and located one above the other, said switch bars having their lower ends resting normally on the aforesaid shoulders and more or less continuous with the inner faces of the plates, and supporting bars secured to the roof beams and passing across the central portion of the car, said roof beams being located one above the other and adapted to receive and support the door sections passed over the switch bars, as and for the purpose specified.

3. The combination with the door-post, roof and floor beams, of a car, said door-post having the inner corners rabbeted away, of plates permanently secured to the inner faces of the door-posts forming with the rabbeted away portions thereof vertical channels, said plates having their upper ends partially cut away to allow of an escape from the channels and to form shoulders, flexible door sections carried by the door-posts and operating within the channels, a pair of rotatably mounted parallel shafts carried by the floor beams, means for rotating the shafts, pairs of loose pulleys located on the roof of the car and alined with the channels, pairs of cables passing around the pairs of pulleys, one pair of cables having the ends thereof connected to one of the shafts and oppositely wound thereon and the other pair of cables having the ends thereof connected to the other of the shafts and oppositely wound thereon, both of said pairs of cables passing within the channels, means connecting one pair of the cables with one of the door sections, means connecting the other pair of cables with the other of the door sections, means for deflecting the respective door sections beneath the roof of the car when raised there being a distinct deflecting means for each section and means for receiving the doors after deflection and for supporting them beneath the roof of the car, as and for the purpose specified.

1,073,203. REGISTERING BRANDING-HAMMER. CHARLES W. WRIGHT, Blaine, Wash. Filed Sept. 30, 1912. Serial No. 723,011. (Cl. 235—91.)



1. In a branding device, the combination of a hammer having a branding face, a recess in the head, a registering device seated in said recess, means for securing the registering device in position, and a movable member in the peen adapted to actuate by its own momentum the registering device when an article is branded.

2. A branding hammer, comprising a hammer having a removable branding face, a counting mechanism, and a member loosely seated in the peen and adapted to actuate by its own momentum the counting mechanism when a blow is struck.

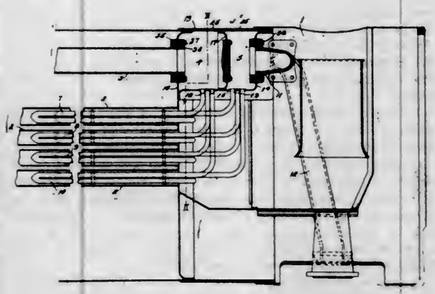
3. A branding hammer, comprising a hammer having a branding face, a registering device seated in a chamber in the head, a hollow peen, a member movable in the peen in the direction of its length and adapted to actuate the registering device when a blow is struck, and means for rendering the registering device inoperative.

4. In a branding device, the combination of a hammer provided with a branding face, a chamber for holding a registering device, a registering device seated therein and having an actuating finger projecting therefrom into a longitudinal bore in the peen, and a rod slidable endwise in said bore and adapted to move the finger to actuate the register when a blow is struck.

5. In a branding device, the combination of a hammer having a removable branding face, a counting mechanism seated in a chamber and provided with an actuating finger projecting into a longitudinal socket communicating with the chamber, means for retaining the counting mechanism in position, and a member movable endwise in said socket and adapted to actuate by its own momentum the counting mechanism when a blow is struck.

[Claims 6 to 8 not printed in the Gazette.]

1,073,204. SUPERHEATER. CHARLES D. YOUNG, Altoona, Pa. Filed Dec. 5, 1911. Serial No. 664,061. (Cl. 122—462.)



1. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet to one header; and an outlet from the other header.

2. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall; superheater tubes lying in the said fire tubes and having their front ends upturned and expanded into the said bottom wall; an inlet to one header; and an outlet from the other; the wall of the smoke box constituting the upper walls of the headers being provided with hand holes and removable closures opposite the ends of the said superheater tubes.

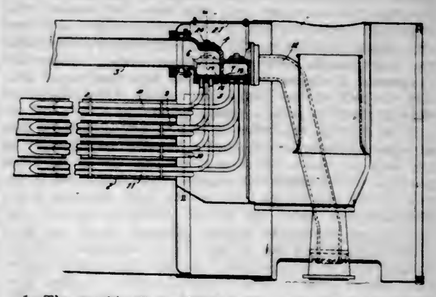
3. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall.

4. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and expanded into the said bottom wall; an inlet to one header; and an outlet from the other; the wall of the smoke box constituting the upper walls of the headers being provided with hand holes and removable closures opposite the ends of the said superheater tubes; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall and removable through such opening; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall arranged to permit the passage of the said inlet pipe upon the removal of the said casting.

5. The combination with a boiler provided with fire tubes and with a smoke box whose walls constitute an extension of the walls of the boiler; of a pair of superheater headers formed by a bottom sheet metal wall extending transversely of the smoke box above the said tubes, by an upright sheet metal wall closing the front of the space bounded by the said bottom sheet metal wall and the upper portion of the fire box wall, and by a dividing wall to the rear of the said upright wall having an opening provided with a removable closure means; superheater tubes lying in the said fire tubes and having their front ends upturned and communicating with the said headers; an inlet pipe in the steam space above the fire tubes and leading through the wall between the rear header and the said steam space with its end opposite the said opening in the dividing wall and removable through such opening; and a removable outlet casting upon the said upright wall opposite the opening in the said dividing wall arranged to permit the passage of the said closure means and inlet pipe upon the removal of the said casting.

[Claims 6 to 11 not printed in the Gazette.]

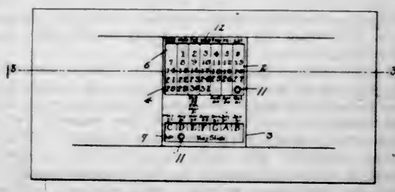
1,073,205. SUPERHEATER. CHARLES D. YOUNG, Altoona, Pa. Filed Feb. 3, 1912. Serial No. 675,871. (Cl. 122—462.)



1. The combination with a boiler provided with a plurality of sets of fire tubes and a smoke box at its front end; of a header casting having a longitudinal partition dividing the casting into two header chambers, and having in the bottom of each chamber a series of openings and in the top of each chamber another series of openings opposite the openings in the bottom; a series of closure plates each of which extends across a bottom opening in both chambers and lies opposite a set of fire tubes; superheater tubes in the said fire tubes each having one end expanded into one of said closure plates and opening into one of the said bottom openings in one header chamber and having the other end expanded into the same closure plate but opening into one of the bottom openings in the other header chamber whereby each closure plate carries both ends of the plurality of superheater tubes lying in the set of fire tubes opposite such closure plate; an inlet to one header chamber; an outlet from the other header chamber; removable closures for the said openings in the tops of the header chambers, whereby the ends of the superheater tubes in the closure plates are accessible through such openings; and a removable plate in the smoke box wall opposite the said removable closures.

2. The combination with a boiler having a smoke box at its end and a plurality of fire tubes; of a header in the smoke box extending transversely of the ends of the fire tubes and divided into two chambers; superheater tubes in the fire tubes each having one end expanded into the bottom of one chamber and the other end expanded into the bottom of the other chamber, the said chambers having openings in their walls opposite the said expanded tube ends and the said smoke box having an opening in its wall opposite said opening in the chambers; removable closure means for the said openings in the walls of the headers; and removable closure means for the said opening in the wall of the smoke box.

1,073,206. AUTOMATIC CALENDAR. ALBERT T. ZABRISKIE, Passaic, N. J. Filed Dec. 26, 1912. Serial No. 738,524. (Cl. 40—109.)



1. A calendar including a face having a tabular arrangement of the months of the year and also a tubular arrangement of the days of the week thereon, a key slide

mounted upon the face and having key characters thereon, the said key slide being adapted to be set to bring the characters thereon in a predetermined relation to the tabular arrangement of the months of the year, and a months slide mounted upon the face and formed with a marked portion which is adapted to be set in a predetermined relation to the characters of the key slide, the said months slide being formed with a tabular arrangement of numerals which then bear the proper relation to the before mentioned tabular arrangement of days of the week upon a calendar face.

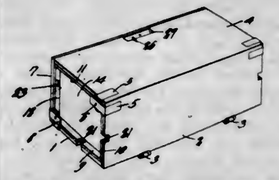
2. A calendar including a face provided with a pair of view openings and having a tabular arrangement of the days of the week at the edge of one of the view openings and a tubular arrangement of the months of the year at the edge of the other of the view openings, a key slide mounted under the second mentioned opening and having key characters thereon adapted to be set in a predetermined relation to the before mentioned tabular arrangement of the months of the year upon the calendar face, and a months slide mounted under the first mentioned view opening and adapted to be set in a predetermined relation to the key slide, the said months slide having a tabular arrangement of numerals thereon which designate the days of the month and are then arranged in a proper relation with respect to the tabular arrangement of days of the week upon the calendar face.

3. A calendar including a face having a pair of view openings therein and provided with a tabular arrangement of the days of the week at the edge of one of the view openings, and a tabular arrangement of the months of the year at the edge of the other view opening, a key slide mounted under the second view opening and provided with a series of key characters, a predetermined one of which is adapted to be brought opposite the desired month in the months column, and a months slide mounted under the first mentioned view opening and adapted to be set in a predetermined relation to the characters upon the key slide, the said months slide being provided with a tabular arrangement of numerals for designating the days of the month and the said numerals then bearing the proper relation to the tabular arrangement of the days of the week on the face of the calendar.

4. A calendar including a face provided with a pair of view openings which are arranged side by side and separated by a strip, the said strips between the view openings having a tabular arrangement of the months thereon while a tabular arrangement of the days of the week is provided at the opposite edge of one of the view openings, a key slide mounted under the opposite view opening and provided with a series of key characters, a predetermined one of which is adapted to be brought opposite the required month in the tabular arrangement of months upon the strip between the view openings, and a months slide mounted under the first mentioned view opening and having a marked portion thereof which is adapted to be brought opposite a predetermined key character upon the key slide, the said months slide being provided with a tabular arranagement of numerals corresponding to the days of the month and the said tabular arrangement of the numerals then bearing the proper relation to the tabular arrangement of the days of the week at the edge of the view opening.

1,073,207. FOLDING BOX. PETER E. BRAME, Wilderness, Va. Filed Oct. 2, 1912. Serial No. 723,596. (Cl. 217—15.)

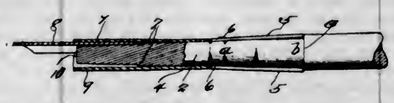
1. In a folding box, primary side walls; means for hingedly connecting the primary walls to permit the outer faces of the side walls to be brought together; end walls hinged to one primary wall and adapted to lie against the primary walls when the primary walls are folded; secondary side walls; angular hinge members secured to the outer faces of the primary and secondary walls and comprising pivotally connected end portions lying at the ends of the box and within the extended contour of the box, thereby permitting the secondary walls to be folded upon the primary walls and lie in spaced parallel relation thereto; the end walls lying between the spaced primary and secondary walls when the box is folded, thereby to give the folded box an approximately rectangular contour and to avoid a straining of said means.



2. In a folding box, hingedly connected primary side walls; secondary side walls hinged to the free edges of the primary walls; an end wall hinged to one primary wall; a hook supported for pivotal movement by one secondary wall; an eye supported by said wall and adapted to receive the hook, the end wall lying in the path of the hook and constituting means for preventing a displacement of the hook from the eye; and a second eye on the other secondary wall, in which the hook is engaged when the walls are folded into parallelism, there being openings in the edges of the primary walls receiving the hook when the hook is engaged in the second eye.

3. In a folding box, hingedly connected primary side walls; secondary side walls hinged to the free edges of the primary walls; an end wall hinged to one primary wall; a connecting device movably united with one secondary wall and adapted for detachable connection with the other secondary wall when the walls are folded into parallelism, there being openings in the edges of the primary walls receiving the connecting device when the walls are in parallelism; the first specified secondary wall having an element for receiving the connecting device to hold the same against movement; and the end wall constituting means for maintaining the connecting device engaged with said element.

1,073,208. PENHOLDER. GEORGE F. BRINKERHOFF, Cuyahoga Falls, Ohio. Filed Nov. 9, 1912. Serial No. 730,470. (Cl. 120—101.)



1. In combination, a stick having a reduced portion, a part of which at one end is of one diameter and terminating in a shoulder, while another part is of a smaller diameter at the other end, said smaller portion terminating in a shoulder, a clamping tube telescoping said reduced portion and provided with spring arms at both ends, the spring arms of one end adapted to frictionally engage the larger portion, while the spring arms of the other end are adapted to clamp a pen point to the smaller part of the reduced portion.

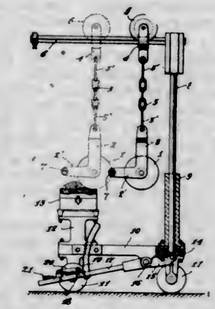
2. In combination, a stick having a reduced portion, a part of which at one end is of one diameter and terminating in a shoulder, while another part is of a smaller diameter at the other end, said smaller portion terminating in a shoulder, a clamping tube telescoping said reduced portion and provided with spring arms at both ends, the spring arms of one end adapted to frictionally engage the larger portion, while the spring arms of the other end are adapted to clamp a pen point to the smaller part of the reduced portion, the first shoulder adapted to limit the clamping tube, while the second shoulder limits the pen point.

3. In combination, a stick having a reduced portion, a part of which at one end is of one diameter and terminating in a shoulder, while another part is of a smaller diameter at the other end, said smaller portion terminating in a shoulder, a clamping reversible tube telescoping said reduced portion and provided with spring arms of different lengths and corresponding slots at both ends, the spring arms at one end being at right angles or in staggered relations to those of the opposite end, the spring arms of one end adapted to frictionally engage the larger portion, while the spring arms of the other end are adapted to clamp a pen point to the smaller part of the reduced portion, the first shoulder adapted to limit the clamping tube, while the second shoulder limits the pen point.

4. In combination, a pen holder stick having a reduced portion, a clamping tube having spring arms at both ends telescoping the reduced portion, said clamping tube being reversible, in order that the arms of either end may be adapted for clamping a pen point, the spring arms of one end being of different lengths to and arranged at right angles to the arms of the opposite end, the arms of either end being long enough to engage the reduced portion to hold the tube in place.

5. In combination, a pen holder stick having a reduced portion, a clamping tube having spring arms at both ends telescoping the reduced portion, said clamping tube being reversible, in order that the arms of either end may be adapted for clamping a pen point, the spring arms of one end being of different lengths to and arranged at right angles to the arms of the opposite end, the arms of either end being long enough to engage the reduced portion to hold the tube in place, the pen holder stick having means to limit the clamping tube in telescoping the same on the reduced portion, while the reduced portion is provided with means to limit a pen point when inserting the same between the spring arms at one end and the reduced portion.

1,073,209. MOLDING-MACHINE. JOHN H. BURPEE, Bellingham, Wash., assignor of one-half to Eugene T. Hoskins, Bellingham, Wash. Filed Sept. 28, 1912. Serial No. 722,881. (Cl. 22—40.)



1. In apparatus of the character described, means for supporting a mold, a packing roll for operation on a mold supported on said means, a frame in which said roll is journaled, an elevated track, a carrier on said track, and a connection secured to said carrier and to said frame, said connection being flexible whereby the roll can move upwardly independently of the carrier through resistance of the material being pressed during a packing operation and be suspended thereby when it is removed from the mold.

2. In apparatus of the character described, means for supporting a mold, a packing roll for operation on a mold supported on said means, an elevated track, a carrier on said track, and a flexible connecting means depending from said carrier and supporting said roll, whereby the latter is free of said carrier for relative upward movement during a pressing operation.

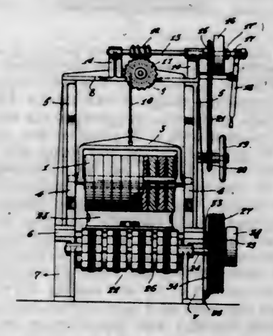
3. In apparatus of the character described, means for supporting a mold, a roll for packing the sand in said mold, a track, means supporting said roll from said track for movement across the face of the mold, and means carrying said track for vertical adjustment.

4. In apparatus of the character described, a track, means supporting said track for vertical and rotary adjustment, a carrier supported for movement on said track, a packing roll suspended from said carrier, and means for supporting a mold for operation thereon by said roll.

5. In apparatus of the character described, a truck, a horizontal track, means supporting said track for vertical and rotary adjustment, means on said truck beneath said track for supporting the mold, and a sand packing roll suspended from said track for movement over and crosswise of said last named means.

[Claims 6 to 8 not printed in the Gazette.]

1,073,210. MOLDING-MACHINE. JOHN H. BURPEE, Bellingham, Wash., assignor of one-half to Eugene T. Hoskins, Bellingham, Wash. Filed Nov. 4, 1912. Serial No. 729,187. (Cl. 22—40.)



1. In apparatus of the character described, means for supporting a mold substantially horizontally, a vertical guide means, and a sand packing roll supported for rotation and guided in said guide means for movement toward and from said first means, said roll being composed of a plurality of annular sections arranged end to end and free for relative movement toward and from said first means through resistance offered to them by the material in the mold during a packing operation.

2. In apparatus of the character described, means for supporting a mold, a shaft, means supporting said shaft at the side of said first means, and a roll on said shaft having a bore of relatively greater diameter than that of the shaft whereby it is free of the latter for independent movement in a direction away from said first means.

3. In apparatus of the character described, means for supporting a mold, a carrier guided for movement toward and from said first means, flexible means connected with said carrier for elevating the same, a shaft on said carrier, a packing roll mounted on said shaft, said roll being composed of a plurality of annular sections arranged end to end and having bores of relatively greater diameter than that of said shaft, whereby they are free of one another and said shaft for relative movement in a direction away from said first means.

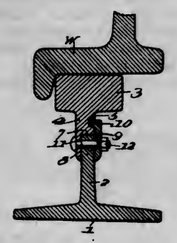
4. In apparatus of the character described, means for supporting a mold, a vertically arranged guide projecting above said means, a packing roll, a carrier for said roll slidably engaged with said guide, a drum, a flexible connection between said drum and said carrier, and means for driving said drum comprising a worm and worm wheel in mesh.

5. In apparatus of the character described, means for supporting a mold, a vertically arranged guide projecting above said means, a packing roll, a carrier for said roll slidably engaged with said guide, a drum, a flexible connection between said drum and said carrier, a worm wheel

connected to said drum, a drive shaft, a worm on said shaft in mesh with said worm wheel, and means for operating said shaft.

[Claims 6 to 12 not printed in the Gazette.]

1,073,211. COMPOUND RAIL. EDWARD P. CALDWELL, Waterloo, Iowa. Filed July 6, 1912. Serial No. 707,987. (Cl. 239—16.)



1. In a rail, a base having a web portion, a head having an enlarged depending web portion and formed with a seat that engages the upper edge of the base web portion and having a depending flange at one side of the seat that engages a side of the base web portion, the head web portion being formed with a longitudinal slot on the opposite side of the seat thereof and above the upper edge of the base web portion, a fish plate abutting the opposite side of the base web portion and the side of the head web portion that has said slot therein, said fish plate extending across the joint between the base web portion and the head web portion being formed with a flange that extends in the slot of the head web portion, and bolts passed through the flange of the head web portion, the web portion of the base and the fish plate.

2. A rail composed of a base portion having a web, a head portion having a web that seats on the upper edge of the base web portion and formed with an extension that engages a side of the base web portion, and a flanged fish plate engaging the opposite side of the base web portion and being secured to the latter and having the flange thereof received in a slot provided therefor in the web portion of the head.

3. In a rail, a base having a web portion and a head having a web portion that seats on the upper edge of the web portion of the base, means integral with one of the web portions to engage the other, and removable means secured to one of the web portions and engaging both of the web portions.

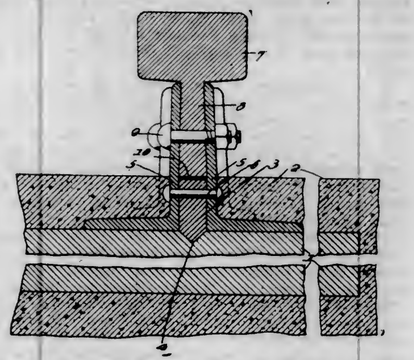
4. In a rail, a base having a web portion and a head having a web portion that seats on the upper edge of the web portion of the base, means integral with one of the web portions to engage the other, and removable means secured to one of the web portions and having a projection that extends into a slot provided therefor in the other web portion.

5. In a rail, a base and a head having contacting web portions, and a removable fish plate secured to one web portion and having inter-engagement with the other.

[Claim 6 not printed in the Gazette.]

1,073,212. COMPOUND RAIL. EDWARD P. CALDWELL, Waterloo, Iowa. Filed Sept. 11, 1912. Serial No. 719,762. (Cl. 239—16.)

1. In a compound rail, a central iron bar having a pointed lower edge to bite into the rail tie, a pair of right-angle steel bars having the lower edges of their vertical portions disposed on opposite sides of said central bar, rivets passed through said vertical portions of the angle bars and through said central bar, the upper edges of said vertical portions of the angle bars being inclined upwardly toward one another, a cushion seating on the top face of said central bar, a rail head having a wedged-shaped web portion the free edge of which seats on said cushion and the sides of which are conformably engaged by said inclined portions of the angle bars, bolts passed through said inclined portions and through said web portion, and a mass of concrete which incloses the tie, the bases of the angle bars, the bases of the vertical portions of the angle bars and said rivets.



2. In a compound rail, a base formed of right-angle bars held in spaced relation by a central bar which projects below the horizontal portions of the right-angle bars, and secured thereto by means of rivets, a head having a depending portion removably secured between the vertical portions of the right-angle bars and resting on the top face of said central bar, the right-angle bars and the central bar being embedded in concrete to a depth approximately equal to the top face of the central bar.

3. In a compound rail, in combination with a tie, a base comprising two angle-bars, a central bar permanently secured therebetween and having a pointed lower extremity projecting below the horizontal extensions of the angle-bars and engaging the tie, a cushion on the top of said central bar, and a head having an integral depending web removably secured between the vertical extensions of the angle-bars, and resting on said cushion.

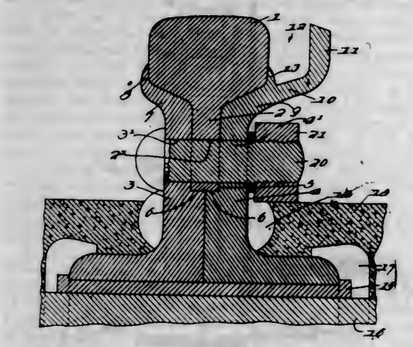
4. A compound rail comprising a plurality of right angled base members spaced apart by and rigidly secured to a central bar the lower extremity of which extends below the lowest face of each of the right angled base members, a cushion carried by the top face of the central bar, and a rail head having a depending base member secured between the two right angle base portions and having its bottom face engaging said cushion.

5. A compound rail comprising a plurality of right angle base members having their vertical walls inclined, a central bar spacing said right angle base members apart, and projecting below the bottom faces of the right angle base members, means for securing the central bar and said base members together, a cushion resting on the top face of the central bar, a rail head having a wedged shaped depending web portion resting on said cushion, and means for securing said wedge shaped web portion between the inclined vertical walls of the right angle base members.

1,073,213. COMPOUND RAIL. EDWARD P. CALDWELL, Waterloo, Iowa. Filed Oct. 1, 1912. Serial No. 723,336. (Cl. 239—16.)

1. A compound rail embodying a head, an integral extension depending therefrom, a base comprising two members each having its upper extremity cut away to form a pocket for the reception of said depending integral extension, the upper extremity of one of the base members embracing the side of the rail head, and the upper extremity of the other of the base members having its upper extremity bent and spaced from said head to form an intervening groove, and means for securing the base sections and the rail head together.

2. A compound rail embodying a rail head, an integral web depending therefrom, a base comprising two members, means for securing the depending integral web between the base members, one of the base members extending upwardly and engaging the side face of the rail head, the other base member being bent upwardly and outwardly to form a groove between its upper extremity and the rail head, and means integral with the last mentioned base member at the base of said groove for engaging the side face of the rail head.



3. A compound rail embodying a rail head having an integral depending web, a base comprising two angle members, one of said base members having its upper extremity tapered and embracing the outer face of the rail head, the other base member being of greater height than the first mentioned base member and having its upper extremity bent outwardly to form a groove between itself and the inner face of the rail, means integral with the last mentioned base member at the base of the groove for engaging the inner face of the rail head, means for securing the base members together, and means for securing the depending web between the base members.

4. A compound rail embodying a rail head, an integral web portion depending therefrom, two right angle base members each having a cut away portion to receive the integral depending web portion, means for securing the base members together, means for securing the depending web portion between the base members, and means for engaging the side faces of the rail head, said means comprising the tapered upper extremity of the base members.

5. A compound rail embodying a head, an integral extension depending therefrom, a base comprising two members each having its upper extremity cut away to form a pocket for the reception of said depending integral extension, the upper extremity of one of the base members embracing the side of the rail head, and the upper extremity of the other of the base members having its upper extremity bent and spaced to form an intervening groove, means for securing the base sections and the rail head together, and an integral extension on the last mentioned base member near its extremity for engaging the side face of the rail head.

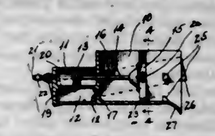
[Claims 6 and 7 not printed in the Gazette.]

1,073,214. WAVE-POWER MECHANISM. JOHN H. CARR, Alhambra, Cal., assignor to William K. Carr, Alhambra, Cal. Filed Feb. 14, 1912, Serial No. 677,621. Renewed Feb. 3, 1913. Serial No. 746,035. (Cl. 253—9.)

1. A wave motor mechanism, comprising a trough member and a pumping member therein adapted to be engaged and operated by the waves.

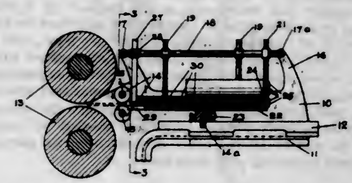
2. A wave power mechanism, comprising water receiving troughs, movable members mounted therein adapted to be reciprocated by the water, and pistons operated by the movement of said members for forcing water to a suitable height for use.

3. A wave power mechanism, comprising a plurality of troughs, pistons mounted thereon, water chambers connected with the troughs and with the pistons, valves controlling apertures in the walls thereof, platens moving in the troughs and operating the said pistons, and anti-friction means facilitating the operation of said platens.



4. A wave power mechanism, comprising a series of troughs, platens operable therein, pumps operated by said platens, buoyant members for supporting the troughs at approximately the surface of the water, piping for conducting the water from the troughs, checking means preventing the return of the water to the piping and a distributing reservoir for receiving the water and dispensing it, in a driving mechanism for performing work.

1,073,215. FEEDING MECHANISM. CAREY A. CHESHIRE, Des Moines, Iowa. Filed June 12, 1912. Serial No. 703,144. (Cl. 101—39.)

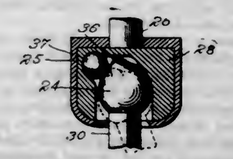


1. The combination with a plurality of coöperating pairs of feed rollers spaced apart, of a hopper; and a downwardly curved reciprocatory base plate for said hopper adapted to remove articles therefrom, said base plate being provided at its forward end with a single centrally projecting finger arranged to pass into a space between said pairs of rollers and deliver articles thereto, said finger being downwardly curved to correspond to said base plate, substantially as described.

2. The combination with feed rollers of a hopper; a downwardly curved reciprocatory base plate for said hopper provided with a forwardly and centrally extending finger, said finger being downwardly curved to correspond to said base plate; and a vertically adjustable stop bar positioned over said finger, substantially as described.

3. The combination with feed rollers, of a hopper; a downwardly curved reciprocatory base plate for said hopper provided with a single forwardly and centrally extending finger; and a stop bar positioned over said finger, substantially as described.

1,073,216. TRUSS. CHARLES CLUTHE, Glen Ridge, N. J., assignor to Charles Cluthe, Jr., Frederick W. Cluthe, Herman Cluthe, and Alfred Cluthe. Filed Nov. 18, 1910. Serial No. 593,025. (Cl. 128—26.)



1. A rupture pad pivotally attachable to its support by a ball and socket joint and having means supported by the fixed member of the ball and socket joint for forcing

the pad with increased pressure against the hernia when the pad is tilted into the critical position, but which permit said pad to press with normal pressure against the hernia when the pad is tilted into any other position.

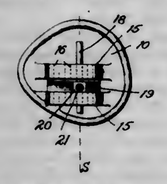
2. A rupture pad attachable to its support by a ball and socket joint, said joint having means which cause the ball to move off its seat when said pad is tilted into the critical position to cause the ball and the pad to press with increased pressure against the hernia but which permit the ball to remain seated in its normal position when the pad is tilted into any other position.

3. A rupture pad attachable to its support by a ball and socket joint, said joint having means interposed between the ball and its seat in the socket causing the ball to move off its seat when said pad is tilted into the critical position to force the pad with increased pressure against the hernia, but which permit the ball to remain seated in normal position when the pad is tilted in any other direction.

4. A rupture pad attachable to its support by a ball and socket joint, said joint having a hump provided on the ball and a suitably shaped ball seat in the socket which engages with said hump when the pad is tilted into the critical position and thereby causes the ball to leave its normal seat and to force the pad with increased pressure against the hernia but which is suitably formed to permit freedom of movement of the ball in all the other directions on its normal seat without engaging with said hump.

5. A rupture pad attachable to its support by a ball and socket joint, said joint having a hump provided on the ball laterally of the longitudinal axis of the joint, and a suitably shaped ball seat in the socket which engages with said hump when the pad is tilted into the critical position and thereby causes the ball to leave its normal seat and to force the pad with increased pressure against the hernia but which is suitably formed to permit freedom of movement of the ball in all the other directions on its normal seat without engaging with said hump.

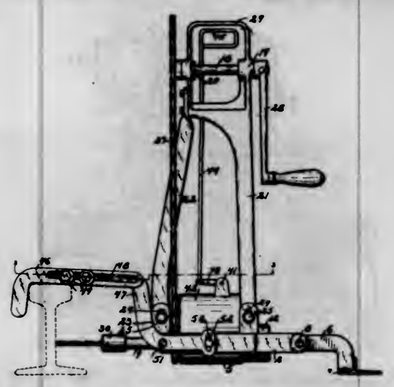
1,073,217. HOLDING-PAD FOR RUPTURE-TRUSSES. CHARLES CLUTHE, Glen Ridge, N. J., assignor to Charles Cluthe, Jr., Frederick W. Cluthe, Herman Cluthe, and Alfred Cluthe. Original application filed Nov. 18, 1910, Serial No. 593,025. Divided and this application filed Jan. 13, 1912. Serial No. 671,087. (Cl. 128—26.)



1. In a truss or the like, a supporting pad for holding the truss in place on the wearer, said pad pivotally supported on the truss and having a ridge extending substantially across its back and having a plurality of holes extending transversely to the ridge and being located different distances away from the center of the ridge on either side of the center, each hole adapted to receive the pivotal member of the truss on which it is supported to permit the shifting of the pivotal support laterally toward either end of said ridge.

2. In a truss or the like, a supporting pad for holding the truss in place on the wearer, said pad being pivotally supported on the truss to swing on an axis substantially coinciding with the central diameter of the pad, the face of said pad increasing in size on one side of said diameter and decreasing in size on the other side, the pad having a ridge on its back extending across the pad substantially from said increased portion to said decreased portion and having a plurality of holes extending transversely to the ridge and being located different distances away from the center of the ridge on either side of the center, each hole adapted to receive the pivotal member of the truss on which it is supported to permit the shifting of the pivotal support laterally toward either end of said ridge.

1,073,218. DRILLING-MACHINE. EUGENE COOK, Kalamazoo, Mich., assignor to National Standard Company, Niles, Mich., a Corporation of Michigan. Filed June 5, 1912. Serial No. 701,746. (Cl. 77—9.)



1. In a drilling machine, the combination with the frame comprising a horizontal portion and an upright portion, the horizontal portion being provided with a base at its rear end and with downwardly facing rail engaging hooks at its forward end adapted to coact with the base in supporting the frame, the upright being provided with a handhold at its upper end; a drill spindle provided with a left hand feed screw; a driving wheel having a gear thereon splined to said spindle; a feed nut having a gear thereon; a shaft arranged parallel with said spindle; a gear fixed on said shaft and meshing with said gear on said nut; a gear splined to said shaft adapted to be shifted into and out of mesh with said gear on said driving wheel; means for holding said feed nut against rotation when said gear is shifted out of mesh; a shifting lever for said gear and for said means; a shifting rod provided with a hand piece adapted to be grasped in connection with the handhold of the frame upright; a crank shaft provided with a crank at its rear end; and driving connections from said crank shaft to said driving wheel on said spindle.

2. In a drilling machine, the combination with the frame comprising a horizontal portion and an upright portion, the horizontal portion being provided with a base at its rear end and with downwardly-facing rail engaging hooks at its forward end adapted to coact with the base in supporting the frame, the upright being provided with a handhold at its upper end; a drill spindle provided with a feed screw; a driving wheel having a gear thereon splined to said spindle; a feed nut having a gear thereon; a shaft arranged parallel with said spindle; a gear fixed on said shaft and meshing with said gear on said nut; a gear splined to said shaft adapted to be shifted into and out of mesh with said gear on said driving wheel; means for holding said feed nut against rotation when said gear is shifted out of mesh; a shifting lever for said gear and for said means; a shifting rod provided with a hand piece adapted to be grasped in connection with the handhold of the frame upright; a crank shaft provided with a crank at its rear end; and driving connections from said crank shaft to said driving wheel on said spindle.

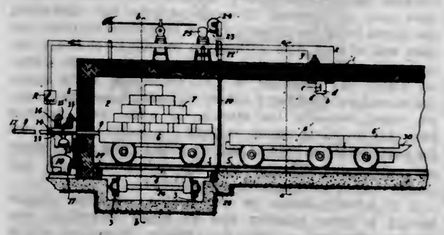
3. In a drilling machine, the combination with the frame, of a drill spindle having a left hand feed screw; a driving wheel having a gear thereon splined to said spindle; a feed nut for said feed screw having a gear thereon; a shaft arranged parallel with said spindle; a gear fixed thereon and meshing with said gear on said nut; a gear splined to said shaft and adapted to be shifted into and out of mesh with said gear on said driving wheel and provided with a sleeve having an annular groove therein; said sleeve being adapted to hold said feed nut against rotation when said gear is shifted out of mesh; and a shifting lever engaging said groove.

4. In a drilling machine, the combination with the frame comprising a horizontal portion and an upright portion, the horizontal portion being provided with a base at its rear end and with downwardly facing rail engaging hooks at its forward end adapted to coact with the base in supporting the frame, the upright being provided with a handhold at its upper end; a drill spindle provided with a left hand feed screw; a crank shaft; driving connections from said crank shaft to said spindle; a feed nut for said feed screw; driving connections for said feed nut adapted to drive the same in the same direction as the feed screw and at a speed exceeding that of the feed screw; means for connecting and disconnecting said feed nut driving connections; and means for automatically locking said feed nut against rotation when its driving connections are disconnected and also including a hand piece adapted to be grasped in connection with said handhold of the frame.

5. In a drilling machine, the combination with the frame comprising a horizontal portion and an upright portion, the horizontal portion being provided with a base at its rear end and with downwardly facing rail engaging hooks at its forward end adapted to coact with the base in supporting the frame; a drill spindle provided with a left hand feed screw; a crank shaft; driving connections for said crank shaft to said spindle; a feed nut engaging said feed screw; driving connections for said feed nut adapted to drive the same in the same direction as the feed screw and at a speed exceeding that of the feed screw; and means for connecting and disconnecting said feed nut driving connections including means for automatically locking said feed nut when its driving connections are disconnected.

[Claims 6 to 11 not printed in the Gazette.]

1,073,219. PROCESS OF AND APPARATUS FOR FEEDING CARS INTO AND THROUGH TUNNEL-FURNACES. ALFRED H. COWLES, Sewaren, N. J., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Original application filed Mar. 16, 1911, Serial No. 614,876. Divided and this application filed May 12, 1911, Serial No. 626,856. Renewed Feb. 12, 1913. Serial No. 748,016. (Cl. 25—142.)



1. A furnace of the channel type, comprising means for feeding cars carrying material to be treated into and through the furnace, in combination with mechanism actuated by variations in the furnace temperature and adapted to coördinate the speed of the feeding means to the rise and fall of the temperature of the furnace.

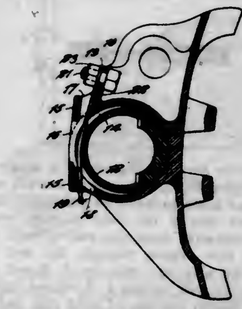
2. A furnace of the channel type, comprising a car feeding mechanism, an electric motor actuating said mechanism, a thermostatic device controlled by variations in the furnace temperature, an electric circuit connecting the thermostatic device with the motor, and a rheostat in said electric circuit, adapted to be operated by the thermostatic device and coördinate the speed of the feeding mechanism with the desired temperature of the furnace

3. The process of feeding material to be treated resting on carriers through a furnace, which consists in differentially moving said carriers at variable speeds, said variations in speed being controlled by the variations in the temperature of the furnace.

4. The process of feeding materials to be treated resting on carriers through a furnace, which consists in differentially moving said carriers at variable speeds, said variations of speeds being controlled by the variations of temperature of the furnace, and under conditions of fixed consumption of fuel to which the material shall be treated.

5. The process of feeding material to be treated resting on carriers through a furnace, which consists in differentially moving said carriers at variable speeds, said variations of speed being controlled by the variations of the temperature of the furnace, so as to effect a desired maximum temperature constant within the limits of regulation.

1,073,220. BRAKE-BEAM FOR RAILWAY-CARS. SETH A. CRONE, East Orange, N. J. Filed Jan. 20, 1913. Serial No. 743,043. (Cl. 188—28.)



1. In a brake-beam, the combination with a brake-head open at upper and lower sides of its back, a part of the beam on which said head is mounted, an independent normally substantially straight spring key in said back and bearing at an intermediate portion against said part and at one end against said back, and means for flexing the key and holding it in its flexed condition.

2. In a brake-beam, the combination with a brake-head open at upper and lower sides of its back, a grooved sleeve on said beam and on which said head is mounted, a normally substantially straight spring key in said back and at an intermediate portion being within the groove of and bearing against said sleeve and at one end bearing against said back, and means for flexing the key and holding it in its flexed condition.

3. In a brake-beam, the combination with a brake-head open at upper and lower sides of its back, a part of the beam on which said head is mounted, an independent normally substantially straight spring key in said back and bearing at an intermediate portion against said part and at one end against said back, and means for flexing the key and holding it in its flexed condition, said means comprising a bolt extended through a portion of said head and the end of said key and a nut on said bolt for forcing said end of said key toward said portion of said head.

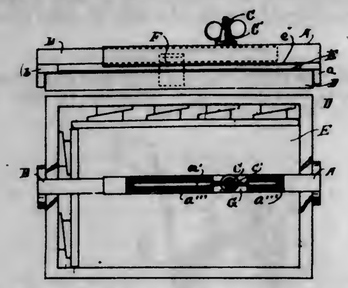
4. In a brake-beam, the combination with a brake-head having at upper and lower sides of its back transverse slots and adjacent to one of said slots an integral member extending beyond and forwardly thereof, a part of the beam on which said head is mounted, a normally substantially straight spring key in said slots and bearing at an intermediate portion against said part, and means for flexing the key and binding an end portion thereof in relation to said member.

5. In a brake-beam, the combination with a brake-head having at upper and lower sides of its back transverse slots and adjacent to one of said slots an integral mem-

ber extending beyond and forwardly thereof, a part of the beam on which said head is mounted, a normally substantially straight spring key in said slots and bearing at an intermediate portion against said part, and means for flexing the key and binding an end portion thereof in relation to said member, said means comprising a bolt extended through said member and the end of said key and a nut on said bolt for forcing said end of said key against said bearing surface.

[Claims 6 to 12 not printed in the Gazette.]

1,073,221. CLAMP FOR PRINTERS' FORMS. THOMAS DEMPSTER, Jr., Grand Rapids, Mich. Filed Nov. 27, 1912. Serial No. 733,925. (Cl. 101—52.)



1. In a form clamp for printing forms, a square tubular body having a slot through the lower surface and the upper surface, a bar made to telescope into said body and having a T shaped slot in its lower surface, clamping arms projecting downward from one end of each of said parts, a securing bolt passed through the slot in the lower surface of the body and into the T shaped slot in the bar, said securing bolt having a T shaped upper end to engage the T shaped portion of said slot and a nut engaging said bolt to lock the body and the bar firmly together.

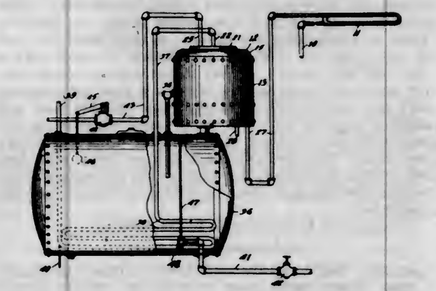
2. A clamp adapted to be used in connection with a printer's form, consisting of a tubular body having a slot through both its upper surface and its lower surface, a bar made to telescope into the body and having a T shaped slot in its lower surface, arms extending downward from one end of the body and of the bar, a T shaped supporting element fitted to slide freely in the T shaped slot in the bar and to extend downward through the slot in the body and into the form between rows of type and be there clamped to support the center of the form, and a bolt passing up through the bar and the upper slot in the body, and a nut for firmly holding the body and bar from longitudinal movement.

3. A clamp adapted to be used in connection with a printer's form, consisting of a tubular body having a slot through the upper and the lower sides, an arm projecting at right angles from one end, a bar made to telescope into the body and having a T shaped slot in the lower surface and an arm projecting at right angles from one end, a T shaped supporting element made to slide freely in the T shaped slot and project downward through said slot and the slot in the body and project far enough to be engaged between two rows of type to support the center of the form, a bolt projecting from the bar up through the upper slot in the body, serrations formed on the upper surface of the body, a washer formed to engage said serrations, and a nut for securely fastening the body and bar together by engaging the bolt.

4. A clamp adapted to be used in connection with a printer's form, consisting of a tubular body having properly arranged slots through its upper and lower walls, an arm projecting at right angles from one end of the body, a bar fitted to telescope into the body and having a T shaped slot in its under surface, an arm projecting at right angles from one end of the bar, a supporting element fitted with a T shaped end to slide freely in the T shaped slot and to pass downward into the form and be clamped between two rows of type to support the center of the form, a bolt passing upward through the bar and the slot in the upper wall of the body, a nut engaging said bolt to secure the body and the bar firmly together, and a pliable coating on the lower surface of the body.

5. In a clamp for printer's forms, a body having a slot through both the upper and the lower walls, an arm at right angles with one end of the body, a bar telescoping into the body and having a T shaped slot in one surface, an arm at right angles with one end of the bar, a supporting element having a T shaped head arranged to slide freely in the T shaped slot and project downward to be engaged in the form, a single bolt passing through the slot in the body of the bar and a nut for securing the body and bar together, serrations formed in the upper surface of the body, a washer formed to lie between the nut and said serrated upper surface, and a pliable coating on the lower surface of the body each side of the slot.

1,073,222. WATER-HEATER. JAMES A. DILLON, Chicago, Ill. Original application filed Mar. 27, 1912, Serial No. 617,247. Divided and this application filed Nov. 22, 1912. Serial No. 732,826. (Cl. 62—29.)



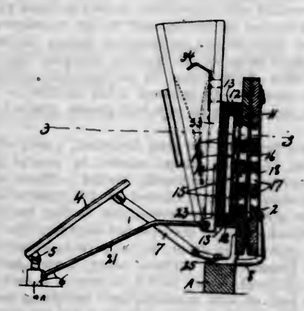
1. In a water heater, in combination: a shell having a primary and a secondary condensing chamber therein; a water-jet vessel within said secondary chamber, said vessel having a series of apertures therein through which water is adapted to be projected outwardly in radial streams into said secondary chamber; an exhaust steam inlet into the primary chamber; a pipe for conducting the steam from the primary to the secondary chamber, the open end of said pipe within the secondary chamber terminating adjacent to some of said apertures in the water-jet vessel and arranged to give the steam as it enters the secondary chamber a rotary motion around the water-jet vessel, whereby the streams of water are projected into the incoming steam radially; a water supply pipe for said water-jet vessel; and an outlet from said secondary condensing chamber for the condensed steam and heated water, substantially as specified.

2. In a water heater, in combination: an outer cylinder having a lower primary and an upper secondary condensing chamber; a water-jet cylinder depending within said secondary chamber, said water-jet cylinder having a plurality of peripheral apertures therein through which water is adapted to be projected outwardly in radial streams; an exhaust steam inlet into said primary chamber; a water supply pipe for said water-jet cylinder; an outlet pipe from said secondary chamber for the condensed steam and heated water; and means for conducting the steam from the primary to the secondary chamber, said means including a plurality of pipes having their upper inlet ends within the secondary chamber arranged to project the steam horizontally thereinto, said horizontal ends of the pipes being located adjacent the apertures, in the water-jet cylinder whereby the steam as it enters said secondary chamber is given a rotary motion around the water-jet cylinder and the water is projected therefrom in radial streams, substantially as specified.

3. A water heater of the character described comprising, in combination: a main heater having a condensing chamber; a water-jet cylinder located within said chamber; means for spraying water into steam as it enters said chamber; a combined subsidiary heater and hot water storage tank, said tank having a heating coil therein; a pipe for conducting the heated water and condensed steam from said condensing chamber to the combined heater and storage tank; a pipe connected to one end of said heating coil and opening into the interior of said condensing chamber; and means for admitting exhaust steam to said condensing chamber, substantially as specified.

4. In a water heater, in combination: a main condenser having upper and lower separated condensing chambers therein; a water-jet cylinder disposed within the upper chamber and provided with means for projecting water into the upper chamber in radial streams; a water supply pipe for said water-jet cylinder; pipes for conducting steam from the lower to the upper chamber, said pipes having two separated terminals in the upper chamber arranged to give the steam a rotary motion around the water-jet cylinder and having only a single terminal within the lower chamber; an exhaust steam inlet into the lower chamber; a subsidiary condenser and storage tank having a bank of pipe therein, one end of said bank of pipe being in communication with said upper chamber of the main condenser; and a pipe for conducting the condensed steam and heated water from said upper chamber to the combined subsidiary condenser and storage tank, substantially as specified.

1,073,223. WIND-INDUCING DEVICE FOR SELF-PLAYING MUSICAL INSTRUMENTS. LEWIS B. DOMAN, Elbridge, N. Y. Original application filed Aug. 8, 1906, Serial No. 329,692. Divided and this application filed Nov. 20, 1906. Serial No. 344,214. (Cl. 84—167.)

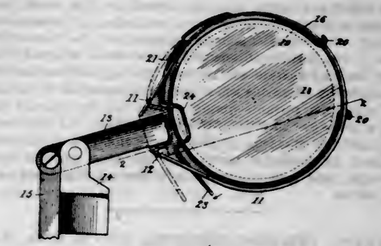


1. A wind inducing device for self-playing musical instruments comprising a bellows having its movable member provided with an arm projecting forwardly under the lower edge thereof, means for supporting the bellows wholly from the lower edge of its stationary side, a wind chest supported wholly by the stationary side of the bellows and communicating therewith, a pedal, a link having one end pivoted to the toe end of the bellows and its other end pivoted to the forward end of said arm, a bar pivotally connected to the heel end of the pedal, and a separate bar having its front end rigidly connected to the first named bar and its rear end pivotally connected to the wind chest.

2. A wind inducing device for self-playing musical instruments comprising a bellows having its movable member provided with an arm projecting forwardly under the lower edge thereof, means for supporting the bellows wholly from the lower edge of its stationary side, a wind chest supported wholly by the stationary side of the bellows some distance above said arm, an equalizer supported wholly by the wind chest, a pedal, a link pivotally connected to the toe end of the pedal and to the front end of said arm to swing upwardly and rearwardly, a bar pivotally connected to the heel end of the pedal, and a separate bar of greater length than the link having its forward end rigidly connected to the first named bar and its rear end pivotally connected to the wind chest near the lower edge thereof, and yielding means for engaging the first named bar and holding it in its inoperative position.

3. A wind-inducing device for self-playing musical instruments comprising a wind-chest, a bellows, and an equalizer, all of such parts being secured together, feet secured to the fixed side of the bellows and constituting the only means of support for the entire wind-inducing device, and a folding bellows-operating means connected to and supported wholly by portions of the first named parts.

1,073,224. SIGNAL-GLASS HOLDER. FREDERICK W. DRESSEL, New York N. Y. Continuation of application Serial No. 452,305, filed Sept. 9, 1908. This application filed Feb. 24, 1911. Serial No. 610,493. (Cl. 240—23.)



1. A signal glass holder comprising a frame, a signal glass therein, a hinged member having its end pivotally secured in said frame above said signal glass, and a spring locking device having one end secured to said frame, and its other end free and extending over said frame and provided with an offset portion intermediate its ends adapted to engage said hinged member for securing said signal glass in position within said frame, substantially as specified.

2. A signal glass holder comprising a frame, a signal glass therein, a hinged member consisting of a single piece of wire having its ends pivotally secured within said frame above the signal glass therein, and a spring locking device formed of a single piece of wire having one end secured to said frame, and its other end free and extending over said frame, and an offset portion intermediate its ends adapted to engage said hinged member at a point opposite to its hinged ends for securing said signal glass in position within said frame, substantially as specified.

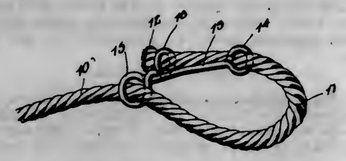
1,073,225. BLINKER-STAY. JARED F. FAUST, Basin, Wyo. Filed Apr. 27, 1912. Serial No. 693,761. (Cl. 54—10.)



In a bridle, the combination of a pair of blinkers each consisting of a plate having a key hole slot formed therein, inner and outer coverings for said plate, a bracing stay for said blinkers comprising a U-shape member having its

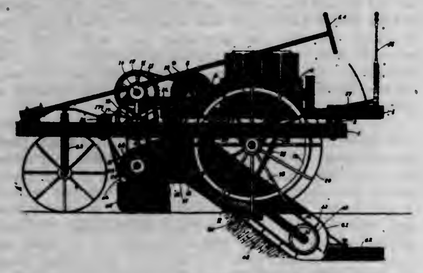
ends terminating in enlarged heads positioned in the key hole openings of said blinkers, and a covering for said U-shape member having its ends extending beyond the ends of said U-shape member, said blinker stay passing between said plate and one of said coverings with the end of the covering for said U-shape member extending beneath the key hole openings to prevent the ends of said U-shape member from working out of said key hole openings.

1,073,226. HALTER-ROPE CLIP. AUGUST FREEMAN, Newhall, Iowa. Filed Apr. 18, 1912. Serial No. 691,766. (Cl. 54—34.)



A clip for a halter rope, for forming a slip noose, comprising a single piece of wire, consisting of a shank arranged to be disposed longitudinally on the end of the rope, a loop formed on one end of the shank adapted to engage the end portion of the rope, the opposite end of said shank being formed with a loop and arranged to embrace the rope at a suitable distance from the first-named loop, and a guide eye formed in the wire between the last-named loop and the engaging portion of the shank, said eye being adapted to receive a portion of the rope slidably therethrough, said eyes all lying in planes at right angles to the shank.

1,073,227. DITCHING-MACHINE. JOHN E. FUNK, Moorland, Cal., assignor to Progressive Manufacturing Company, Stockton, Cal., a Corporation. Filed Apr. 1, 1912. Serial No. 687,907. (Cl. 37—24.)



1. A device of the character described comprising a wheel mounted frame, a motive power on said frame, a box suspended from said frame, a shaft projecting through the upper end of said box, means for driving said shaft with said motive power, a sprocket wheel disposed on said shaft within said box, a frame adjustable along the side of said box and projecting below the lower end of said box, a sprocket wheel mounted in the lower end of said frame, a chain connecting said sprocket wheels, a cutting means mounted on said chain, and a conveyer upon which said cutting means discharges, as described.

2. A device of the character described comprising the combination of a wheel mounted frame, a motive means carried by said frame, a box flexibly mounted on said frame and carrying a conveyer, means for driving said conveyer with said motive means and a shoe disposed on each side of said box, such box being adapted to ride along the surface of the ground and said shoes being adapted to cut into the earth's surface below the line of said box, as described.

3. A device of the character described comprising a wheel mounted frame, a cutting means mounted on said frame, a conveyer upon which said cutting means discharges, such conveyer discharging directly in front of the wheels of said frame and runners disposed on each side of each wheel to form a trough into which said conveyer discharges, as described.

1,073,228. CLAMP FOR WIRE FENCES. HENRY W. GAINES, Bowling Green, Ky. Filed Sept. 14, 1912. Serial No. 720,369. (Cl. 39—53.)

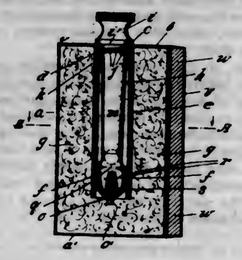


1. In a device of the kind described, a pair of clamping members, U-shaped straps carried by one of said members, provided with outwardly turned inclined extremities, other U-shaped straps carried by the remaining member provided with lateral extremities having inclined faces, the inclined faces of one member engaging the outwardly turned ends of the other, an inclined bolt carried by one of said members, an inclined plate carried by the other member through which said bolt passes, and a nut on said bolt.

2. In a device of the kind described, a pair of clamping members, U-shaped straps carried by one of said members provided with outwardly turned inclined extremities, other U-shaped straps carried by the remaining member provided with lateral extremities having inclined faces, the inclined faces of one member engaging the outwardly turned ends of the other, an inclined bolt carried by one of said members, an inclined plate carried by the other member through which said bolt passes, a foot plate carried by one of said members and extending beneath the other and provided with an opening adjacent its end, and an inclined plate carried by the other member having an extremity arranged to pass through said opening.

3. In a device of the kind described, a pair of clamping members, U-shaped straps carried by one of said members provided with outwardly turned inclined extremities, other U-shaped straps carried by the remaining member provided with lateral extremities having inclined faces, the inclined faces of one member engaging the outwardly turned ends of the other, an inclined bolt carried by one of said members, a nut positioned upon one of said members, an inclined plate carried by the other member through which said bolt passes, a foot plate carried by one of said members and extending beneath the other and provided with an opening adjacent its end, an inclined plate carried by the other member having an extremity arranged to pass through said opening, lateral extensions on said nut, a plate having an opening therein to receive said nut and having said lateral extensions secured thereto, and upturned handles on said plate.

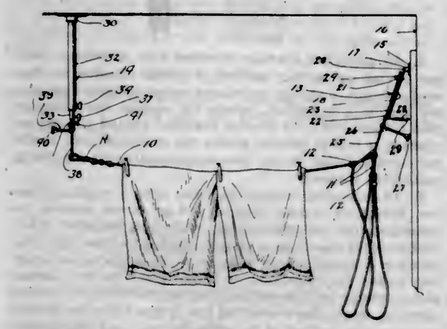
1,073,229. LIGHTER. CHARLES GANS, New York, N. Y., assignor to Treibacher Chemische Werke Gesellschaft mit beschrankter Haftung, Treibach, Austria-Hungary, a Corporation of Austria-Hungary. Original application filed Nov. 13, 1912, Serial No. 731,045. Divided and this application filed Aug. 6, 1913. Serial No. 783,240. (Cl. 67—8.)



1. A lighter comprising a can formed with an opening; a carrier-pin provided with an absorbent wad and adapted to enter the can through said opening; said can and carrier-pin being provided with spark-producing elements adapted to co-act with each other; a guide-tube mounted in said can in line with said opening and formed with holes at its inner end and in close proximity to said absorbent wad, when said carrier-pin is in position within the can; and absorbent material arranged in the space between said guide-tube and the walls of the can and adapted to retain a volatile substance the vapor of which passes through said holes and impregnates said wad.

2. A lighter comprising a can formed with an opening the wall of which is threaded; and a carrier-pin provided with a spark-producing element and formed with a plurality of separate threads, whereby only a partial turn is required to engage fully said can and carrier-pin.

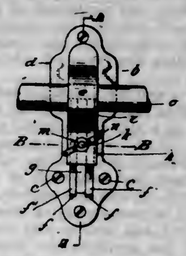
1,073,230. CLOTHES-LINE HANGER. JOHN J. GOULD, Woodstock, Ill. Filed Jan. 31, 1913. Serial No. 745,472. (Cl. 68—3.)



1. A hanger of the class described comprising a plurality of telescopic sections, means to secure said sections in adjusted relation, a loop on one of said sections, and a buffer extending laterally from said loop.

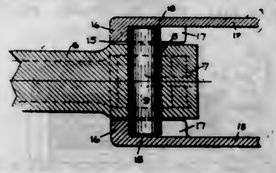
2. A hanger of the class described including a bar having an out-turned ear at its lower end, a guide on said bar in alinement with said ear, a rod passing through said guide and ear and bent below the ear to form a loop, the end of said rod below the ear being bent to extend laterally of the loop and constituting a buffer arm, hinge means to support said hanger, and other means to secure the rod in adjusted position relative to the bar.

1,073,231. RAILWAY-POST-OFFICE-CAR CONSTRUCTION. CHARLES R. HARRISON, deceased, Fond du Lac, Wis., by Laughlin F. McLean, administrator de bonis non, Fond du Lac, Wis. Filed Apr. 29, 1912. Serial No. 693,802. (Cl. 248—18.)



A railway post-office car having a mail-bag-supporting rail; a device for attaching the latter to the side of the car; said device being formed with a stationary jaw and with guide-walls having inwardly extending flanges separated from each other by a slot and being provided with a slide mounted on said guide-walls and formed with a jaw; and mechanism coöperating with said guide-walls for fastening said slide in its adjusted position; said rail passing between and being held by said jaws and being readily releasable therefrom through the displacement of said slide.

1,073,232. DRAFT-YOKE FOR RAILWAY-CAR DRAFT-RIGGING. STACY B. HASELTINE, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,715. (Cl. 213—42.)



1. In a draft rigging for railway cars, in combination, a draw bar, projections on opposite sides thereof, a yoke, slots on the inner faces of said yoke, the said projections on the draw bar slidingly engaging within said slots and being rotatable therein.

2. In a draft rigging for railway cars, in combination, a draw bar, a yoke and a key, the yoke having slots on its inner faces, the key extending from the draw bar and engaging within said slots, and being rotatable therein to permit lateral movement of the draw bar.

3. In a draft rigging for railway cars, in combination, a draw bar, a draft yoke and a key, the draft yoke having a hollow head to receive the draw bar, grooves in opposed inner faces of said head, the key engaging the draw bar and being rotatably received within said grooves.

1,073,233. PROCESS FOR OBTAINING A CHARGE LIQUID PARTICULARLY ADAPTED FOR EXPLOSION-MOTORS FROM LIQUID HYDROCARBONS. RUDOLF HENSE, Charlottenburg, Germany. Filed June 20, 1908. Serial No. 439,493. (Cl. 44—8.)

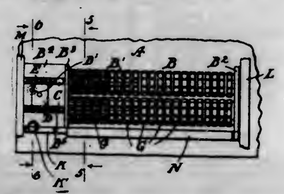
1. Process for obtaining a combustible of high value, consisting in adding light hydrocarbon to heavy hydrocarbon distilling at a high temperature, mixing this product with caustic potash, settling this mixture, taking off the sediment, adding to the resulting mixture rosin substances as colophony and compounds of the nitro (NO_2) group as picric-acid, settling this mixture, drawing off the liquid and purifying and clearing this hydrocarbon by fractional distillation.

2. Process for obtaining a combustible of high value, consisting in adding light hydrocarbon to heavy hydrocarbon distilling at a high temperature, mixing this product with caustic potash, settling this mixture, taking off the sediment, adding to the resulting mixture rosin substances as colophony and compounds of the nitro (NO_2) group as picric-acid, settling this mixture, drawing off the clear part of said mixture and obtaining said combustible by distilling the drawn-off mixture at temperatures up to 250° C.

3. Process for obtaining a combustible of high value, consisting in adding light hydrocarbon to heavy hydrocarbon distilling at a high temperature, mixing this product with caustic potash, settling this mixture, taking off the sediment, adding to the resulting mixture rosin substances as colophony and compounds of the nitro (NO_2) group as picric-acid, settling this mixture, drawing off the clear part of said mixture, purifying this hydrocarbon by adding sulfuric-acid and Glauber salt and decanting the formed sediment and purifying the liquid by fractional distillation at temperatures up to 250° C.

4. Process for obtaining a combustible of high value and a substitute for turpentine, consisting in adding light hydrocarbon to heavy hydrocarbon distilling at a high temperature, mixing this product with caustic potash, settling this mixture, taking off the sediment, adding to the resulting mixture rosin substances as colophony and compounds of the nitro (NO_2) group as picric-acid, settling this mixture, drawing off the clear part of said mixture, distilling the liquid at temperatures up to 250° C., gathering the distillate, distilling and condensing same at temperatures up to 300° C. and mixing 25% of the first obtained distillate with the latter.

1,073,234. SETTABLE-TYPE DEVICE. GEORGE S. HICE, New York, N. Y., and JOHN BARNES, Philadelphia, Pa. Filed May 10, 1911. Serial No. 626,160. (Cl. 101—169.)



1. A device of the character described comprising a frame, wheels bearing type characters rotatably mounted in a plurality of parallel rows, means for retaining each wheel against accidental rotation at positions corresponding with the characters thereon, said frame having recesses corresponding in number to the rows of wheels and adjacent to the same, slugs or slides bearing type adapted to be placed in said recesses, a latch mounted on said frame adjacent to one of said recesses adapted to project over the same when in one position and means for holding the said latch in that position.

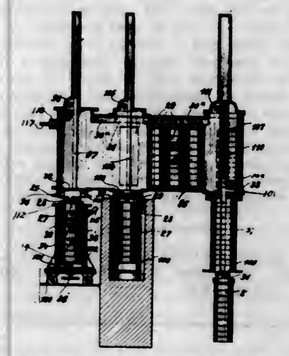
2. A device of the character described comprising a frame, wheels bearing type characters rotatably mounted in a plurality of parallel rows, means for retaining each wheel against accidental rotation at positions corresponding with the characters thereon, said frame having recesses corresponding in number to the rows of wheels and adjacent to the same, slugs or slides bearing type adapted to be placed in said recesses, and a latch mounted on said frame adjacent to a plurality of the said recesses and adapted to project over the same when in one position.

3. A device of the character described comprising a frame, wheels bearing type characters rotatably mounted in a plurality of parallel rows, means for retaining each wheel against accidental rotation at positions corresponding with the characters thereon, said frame having recesses corresponding in number to the rows of wheels and adjacent to the same, slugs or slides bearing type adapted to be placed in said recesses and provided with a longitudinal groove, and means for engaging in said groove.

4. A device of the character described comprising a frame, wheels bearing type characters rotatably mounted in a plurality of parallel rows, means for retaining each wheel against accidental rotation at positions corresponding with the characters thereon, a slug bearing type adapted to be positioned adjacent to one of said rows and parallel therewith, and means for detachably holding the same in position, comprising a spring-pressed tooth adapted to engage the slug.

5. A device of the character described comprising a frame, wheels bearing type characters rotatably mounted in a plurality of parallel rows, means for retaining each wheel against accidental rotation at positions corresponding with the characters thereon, a slug bearing type adapted to be positioned adjacent to one of said rows and parallel therewith, and means for detachably holding the same in position comprising a spring-pressed tooth of metal harder than the metal of the slug adapted to engage and make an indentation in the same.

1,073,235. ANNEALING APPARATUS. HERMANN HILLEBRAND, Jr., Werdohl, Germany. Original application filed June 19, 1912, Serial No. 704,495. Divided and this application filed May 13, 1913. Serial No. 767,268. (Cl. 148—16.)



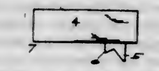
1. An annealing furnace provided with a cooling chamber having an ingress opening, a piston adapted to close said opening, a charge sustaining support depending from the piston, a container, means for raising the container into contact with the cooling chamber around the ingress opening, a charge carrier within the container, and means for elevating said carrier into engagement with the charge sustaining support.

2. An annealing furnace provided with a cooling chamber, having an ingress opening and an egress opening, an annealing pot communicating with the chamber intermediate said openings, a piston adapted to close the inlet opening, a second piston adapted to close the egress opening, means for suspending a charge from the first named piston, means for suspending the charge within the cooling chamber, means for conveying the charge from the cooling chamber into and out of the annealing pot, and means movable independently of the second named piston for delivering the charge from the egress opening.

3. An annealing furnace provided with an ingress opening and an egress opening, a piston adapted to close the ingress opening, a second piston adapted to close the egress opening, said second piston being provided with an upwardly extending tube, an independently movable rod encompassed by the tube, and a charge sustaining support depending from said rod.

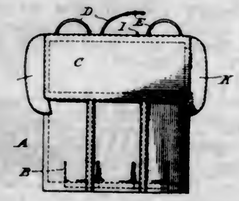
4. An annealing furnace provided with a cooling chamber having an ingress opening and an egress opening, an annealing pot communicating with said chamber intermediate said openings, a first piston adapted to close the ingress opening, a second piston adapted to close the mouth of the annealing pot, a third piston adapted to close the egress opening, charge sustaining supports on the first and second named pistons, overhead charge sustaining supports within the cooling chamber, a tube extending upwardly from the third named piston, an independently movable rod encompassed by said tube, and a charge sustaining support depending from said rod.

1,073,236. HORSESHOE-CALK. JAQUELIN S. HOLLIDAY, Indianapolis, Ind. Filed Feb. 11, 1913. Serial No. 747,679. (Cl. 59—69.)



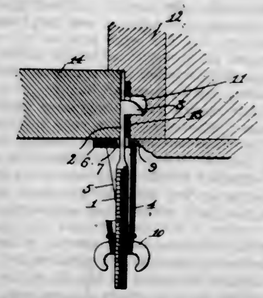
A horseshoe calk comprising a body having a lug on one face, said lug having outside edges substantially perpendicular to the face of the calk and a pair of points formed by a single V-shaped indent between the inside edges of the points, one of which points is longer than the other.

1,073,237. LAP-ROBE FOR AUTOMOBILES, &c. LUZERNE W. HOUSE, Gloversville, N. Y. Filed Jan. 11, 1913. Serial No. 741,549. (Cl. 2—80.)



A lap robe having pockets upon one face thereof near its lower end, an apron fastened the entire length of its inner longitudinal edge to said robe, flaps fastened to the end of said apron, a portion of each flap extending beyond the inner edge of the apron and secured to the robe, and neck straps fastened to the free edge of the apron, as set forth.

1,073,238. DOOR-SECURER. GEORGE M. HUSTON, New York, N. Y. Filed May 22, 1913. Serial No. 769,251. (Cl. 16—8.)

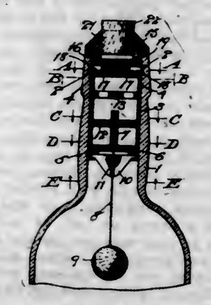


1. A door securer, comprising a hook member adapted to be engaged with the door frame, an abutment member, means for adjusting said members to force said abutment members against the side of the door when closed to lock the same in closed position, and an incline on one of said members adapted to contact with the door frame to force the hook member closely against the door as the parts are adjusted to locking position.

2. A door securer, comprising a hook member adapted to be engaged with the door frame, a sleeve on said hook member forming an abutment member, a nut on the threaded end of said hook member for forcing said sleeve into contact with the door when the latter is closed, and an incline on the inner end of said sleeve co-acting with the door frame to force the hook member against the edge of the door when the parts are adjusted to locking position.

3. A door securer, comprising a hook member adapted to be engaged with the door frame and having a shank flattened for a portion of its length and rounded for a portion thereof, a sleeve on said shank having an aperture in its head to receive the rounded portion of said shank, said aperture being slotted to receive the flattened portion thereof but to retain the parts against rotation, said sleeve forming an abutment member for engaging the door when closed to lock the same in closed position, and means for adjusting said sleeve on said hook member shank to locking position.

1,073,239. NON-REFILLABLE BOTTLE. JOHN F. JENSEN, Union Hill, N. J., assignor to Robert Jensen, Union Hill, N. J. Filed June 11, 1912. Serial No. 702,998. (Cl. 215—63.)



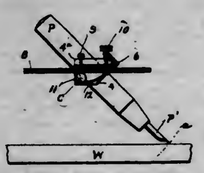
A device of the character described comprising a cage, a valve seat fitted in one end thereof, a puppet valve arranged to rest on said seat and adapted to move inwardly therefrom, a perforate cork seat fitted in the other end of the cage, a perforate guard, having its perforations out of vertical alinement with the perforations in said cork seat, fitted in said cage below said cork seat, a perforate guide for the stem of said puppet valve having its perforations out of vertical alinement with the perforations in said guard and fitted into said cage between said guard and said valve, mechanism consisting of a weight flexibly secured to said valve and depending into the vessel, said mechanism being adapted to hold the valve on its seat when the cage is held above a horizontal with the valve seat downward, and means to secure the device in a bottle neck.

1,073,240. PEN-CLAMP FOR MULTIPLE-WRITING MACHINES. FRANK AMOS JOHNSON, Dunellen, N. J., assignor to Signature Company, New York, N. Y., a Corporation of New York. Filed Sept. 5, 1912. Serial No. 718,642. (Cl. 33—6.)

1. In a machine of the class referred to, a pen-bar; a plurality of pen-clamps mounted thereon—said pen-clamps being each adapted to hold a writing member—one end of each of said pen-clamps having a pivotal axis on said pen-bar; in combination with means for adjusting the opposite or free end of said pen-clamps in a vertical direction to and from said pen-bar.

2. In a machine of the class referred to, a pen-bar; a plurality of pen-clamps mounted thereon—one end of each of said pen-clamps engaging said pen-bar on its upper and

under side to form a horizontal axis for said pen-clamps; in combination with means for adjusting the other or free end of said pen clamps in a vertical direction to and from said pen-bar.



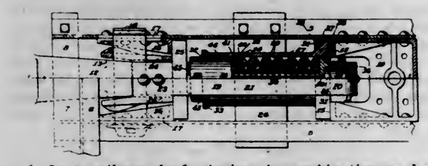
3. In a machine of the class referred to, a pen-bar; a plurality of pen-clamps mounted thereon—one end of each of said pen-clamps having a horizontal pivotal axis on said pen-bar; in combination with a spring attached to each of said pen-clamps and adapted to draw the outer or free ends of said pen clamps downward toward said pen-bar and adjusting screws in the outer or free ends of said pen-clamps for adjusting said free ends to and from said pen-bar.

4. In a machine of the class referred to, a pen-bar having a longitudinal slot; a plurality of pen-clamps mounted on said pen-bar—one end of each of said pen-clamps being provided with a projection on one side of said pen-bar and a set screw on the opposite side of said pen-bar—said set screw being adapted to enter the slot in said pen-bar—said projections and said set screws engaging said pen-bar to form horizontal pivotal axes for said pen clamps; in combination with a spring on each of said pen-clamps which springs are adapted to draw the free end of said pen-clamps toward said pen-bar and an adjusting screw in the free ends of said pen clamps which screws are adapted to enter the longitudinal slot of said pen-bar.

5. In a machine of the class referred to, a pen-bar; a plurality of pen-clamps mounted thereon, each adapted to be rocked on a horizontal axis with relation to said pen-bar and to be moved longitudinally on said pen-bar; in combination with a spring on each of said pen-clamps which is adapted to rock said pen clamps with relation to said pen-bar and means for rocking said pen-clamps against the tension of said springs—said springs serving the additional office of holding said pen-clamps in their longitudinal position on said pen-bar.

[Claim 6 not printed in the Gazette.]

1,073,241. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Dec. 26, 1912. Serial No. 738,536. (Cl. 213—64.)



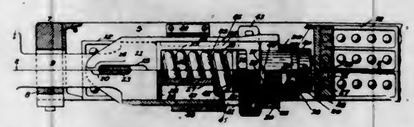
1. In a railway draft rigging, in combination, a draw bar, a front follower, a shell, springs and friction elements within the shell, a rear follower rigidly secured to the shell, a draft yoke, a draw bar and a thrust member, front and rear stop members, the rear follower being in engagement with the rear stop member, the shell having an opening for the passage of the thrust member, the said thrust member engaging the draft yoke at its one end and the springs at its other end.

2. In a draft rigging for railway cars, the combination of a draw bar, stop members, draft yoke and followers, with a shell, friction elements and springs within the shell, with a thrust member, the shell being provided with an opening to receive said thrust member, the said thrust member engaging the yoke at its one end and the springs within the shell at its other end, the rear follower being rigidly secured to the shell, and engaging the rear stop members on both forward and rearward movement of the draw bar, the springs being compressed between the thrust member and friction elements on forward movement of the draw bar without bringing the friction elements into frictional action.

3. In a draft rigging for railway cars, in combination, a draw bar, front and rear stop members, a front follower, a shell, a rear follower rigidly secured to said shell, friction elements and springs within the shell, a thrust member and a draft yoke, the shell having an opening at either end, the thrust member passing through the rear opening in the shell and engaging the draft yoke back of the rear stop members, the friction members engaging the front follower, the said spring being seated between the friction members and the thrust member.

4. In a draft rigging for railway cars, in combination, a draft yoke, a draw bar connected to said yoke, a front follower, front and rear stop members, a friction shell within the yoke, a rear follower rigidly secured to said shell, friction elements and spring elements within the shell, and a thrust member, the shell being stationary and the rear follower in engagement with the rear stop members, the thrust member extending rearwardly of the rear follower and engaging the yoke at its rear end, and the springs within the shell at its forward end, the friction elements being disposed between the front follower and the said spring.

1,073,242. DRAFT-RIGGING FOR RAILWAY-CARS. GEORGE A. JOHNSON, Chicago, Ill., assignor to William H. Miner, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,701. (Cl. 213—64.)



1. In a draft rigging for railway cars, draft members, stop members, a draw bar, and a yoke in combination with a shell, friction elements and spring elements within the shell, a follower between said elements, and connected to the draw bar, and adapted to compress the spring elements against the shell on forward movement of the draw bar, and to operatively connect the spring and friction elements on rearward movement of the draw bar.

2. In a draft rigging for railway cars, draft members, stop members, a draw bar, and a yoke member in combination with a compression resisting member comprising a shell, friction elements and spring elements within the shell, a follower between said elements, a key connecting said follower to the yoke member, the spring elements being seated between said follower and the forward end of the shell, and the follower being adapted to compress the spring elements on forward movement of the draw bar, and to engage both friction and spring elements in rearward movement of the draw bar.

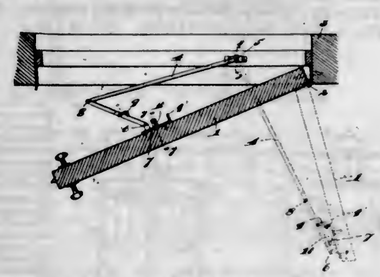
3. In a draft rigging for railway cars, draft members, stop members, a draw bar, and a yoke member in combination with a compression resisting member comprising a spring cage adapted to engage the forward stop members, and spring elements within said cage, and a friction case connected to the spring cage, friction shoes and a wedge within said case, said wedge being adapted to engage the rear stop member, a follower between the friction shoes and the spring elements, and connected to the yoke, the said follower being adapted to compress the spring elements on forward movement of the draw bar, and to engage the friction shoes in rearward movement of the draw bar.

4. In a draft rigging for railway cars, draft members, stop members, a yoke member and a draw bar, in combination with a shell, springs and friction elements within the shell, a follower disposed between the friction elements and the springs, said follower being connected to the yoke member and adapted to compress the springs against the shell on forward movement of the draw bar, and to engage the springs and friction elements in their compression resisting action on rearward movement of the draw bar.

5. In a draft rigging for railway cars, draft members, stop members, a yoke member and a draw bar, in combination with a shell, springs and friction elements within the shell, a follower disposed between the friction elements and the springs, said follower being connected to the yoke member and adapted to compress the springs against the shell on forward movement of the draw bar, and to engage the springs and friction elements in their compression resisting action on rearward movement of the draw bar, said follower comprising a plate having a rearwardly extending boss adapted to engage the friction elements.

[Claims 6 to 10 not printed in the Gazette.]

1,073,243. DOOR HOLDER AND STOP. MICHAEL JOSEPH KENNY, Chicago, Ill., assignor of one-half to Robert C. Ross, Wilmette, Ill. Filed Dec. 23, 1912. Serial No. 738,194. (Cl. 16—6.)



1. In a device of the class described, the combination with a door frame and a door swingingly mounted therein, of a bar having a pivotal joint intermediate its ends, one end of said bar being pivotally secured to said door, the opposite end of said bar being pivotally secured to the door frame; means for maintaining said bar in extended position to hold said door open; and means on said door for causing said joint to break outwardly when said bar is released, substantially as described.

2. In a device of the class described, the combination with a door frame and a door swingingly mounted therein, of a bar having a pivotal joint intermediate its ends, one end of said bar being pivotally secured to said door, the opposite ends of said bar being pivotally secured to the door frame; means for maintaining said bar in extended position to hold said door open; and spring compressed means on said door for causing said joint to break outwardly when said bar is released, substantially as described.

3. In a device of the class described, the combination with a door frame and a door swingingly mounted therein, of a bar having a pivotal joint intermediate its ends, one end of said bar being pivotally secured to said door, the opposite ends of said bar being pivotally secured to the door frame; means for maintaining said bar in extended position to hold said door open; and a spring compressed bumper on said door adapted to contact with said bar when in extended position and cause said joint to break outwardly when said bar is released, substantially as described.

4. In a device of the class described the combination with a door frame and a door swingingly mounted therein, of a bar having a pivotal joint intermediate its ends, one end of said bar being pivotally secured to said door, the opposite end of said bar being pivotally secured to the door frame; a hook on said bar adapted for engagement with an eye on said door for maintaining said bar in extended position to hold said door open; and a spring pressed bumper on said door adapted to contact with said bar when in extended position and cause said joint to break outwardly when said bar is released, substantially as described.

5. In a device of the class described the combination with a door frame and a door swingingly mounted therein, of a bar having a pivotal joint intermediate its ends, one end of said bar being pivotally secured to said door, the opposite end of said bar being pivotally secured to the door frame; a hook on said bar adapted for engagement with an eye on said door for maintaining said bar in extended position to hold said door open; a housing on said door adjacent the point of connection therewith of said bar; a spring compressed member in said housing, the upper end of said housing being slotted for receiving the adjacent portion of said bar when in extended position, said bar, when in extended position, causing depression of said spring compressed member and so that when said door is released said joint will be caused to break outwardly, substantially as described.

1,073,244. BUTTONHOLE-STITCHING MACHINE. JOHN KIEWICZ, Hyde Park, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed July 13, 1912. Serial No. 709,140. (Cl. 112—4.)



1. In a button hole sewing machine an under sewing mechanism comprising in combination a stock, a swinging arm pivoted upon said stock, an oscillating needle carrier pivoted to said arm, a stud on said carrier engaging a slot on said stock, and means to cause said carrier's movements.

2. In a button hole sewing machine an under sewing mechanism comprising in combination a stock, a needle carrying link, a swinging arm pivoted to one part of said link and pivoted upon said stock, and a cam and stud for guiding another part of said link.

3. In a button hole sewing machine an under sewing mechanism comprising in combination a stock, a needle carrying link, a swinging arm pivoted to one part of said link and pivoted upon said stock, and means for guiding another part of said link, said guiding means comprising a stud on said link engaging an eccentric slot in said stock.

4. In a button hole sewing machine an under sewing mechanism comprising in combination a stock, a needle carrying link, a swinging arm pivoted to one part of said link and pivoted upon said stock, and means for guiding another part of said link, said guiding means comprising a stud on said link engaging an eccentric slot in a stationary extension of said stock.

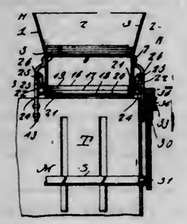
5. In a sewing machine of the type having coöperating upper and under needles, an under sewing mechanism including in combination, a stock shiftable during the sewing operations, an under needle carrier, and fittings for rendering said carrier reciprocable upon said stock to carry an under needle from below to above the level of the work and return in a curved path about an imaginary center located substantially at the work level, said fittings comprising two distinct devices fitted at two separated points upon said carrier both below such center of reciprocation.

[Claims 6 to 12 not printed in the Gazette.]

1,073,245. GRAVEL-HOPPER. FREDERICK E. KLUNKER, Canon City, Colo. Filed Jan. 27, 1913. Serial No. 744,495. (Cl. 83—44.)

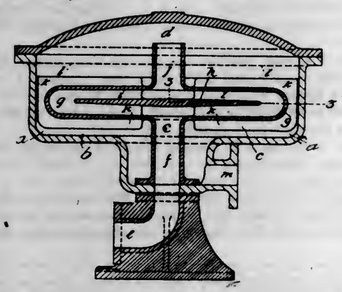
In a feed regulator, the combination with a receptacle, a hopper whose body has an open bottom and a discharge

opening through its front wall, the side walls of the hopper being extended beyond its front wall and having horizontal slots, and a gate for adjusting the size of said opening, of a bottom made in steps descending toward and extending through said opening and having upright sides and outturned flanges projecting through said slots, brackets secured to the side walls of said hopper and



supporting it above said receptacle, rollers journaled in said brackets beneath said flanges and holding the latter out of contact with the edges of said slots, guide rods connecting said brackets at points above the flanges, perforated ears rising from the latter and slidably mounted on said rods, a bracket depending from one of said flanges, and means connected with this bracket for reciprocating said bottom.

1,073,246. APPARATUS FOR THE PURIFICATION OF ELECTROLYTIC GASES. ALBERT EDGAR KNOWLES, Wolverhampton, England. Original application filed Oct. 19, 1911, Serial No. 655,647. Divided and this application filed Feb. 27, 1913. Serial No. 751,065. (Cl. 23—10.)



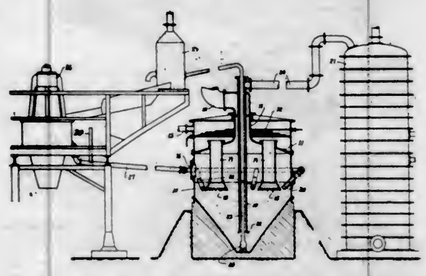
1. In apparatus for the purification of electrolytic gases, a heater having a gas inlet and a gas outlet, an enlarged chambered part within said heater connected to said inlet, a passage for the gases issuing from the top of the chambered part around said part to the gas outlet and contact material arranged on the exterior of said chambered part.

2. In apparatus for the purification of gases a heater having a gas inlet and a gas outlet, said gas inlet having its orifice in said heater, an enlarged chambered part on said inlet, conducting webs formed on the exterior thereof, and contact material arranged on said webs so that gas issuing from the orifice of said inlet passes through said contact material and after combination impinges on said conducting webs, heating same and said webs conduct the heat to the chambered part of said gas inlet, substantially as and for the purpose set forth.

3. In apparatus for the purification of gases a purifier with an inner chamber, said chamber communicating with a gas inlet, an orifice on said gas inlet arranged above said chamber, webs on the exterior of said chamber, said webs supporting grids on which contact material is supported and a gas outlet from said purifier arranged below said chamber so that gas when issuing from the orifice of said gas inlet must pass the webs on said chamber on its way to said gas outlet.

4. In apparatus for the purification of gases a purifier with an inner chamber, said chamber communicating with a gas inlet, an orifice from said gas inlet, said orifice being above said chamber, webs on the exterior of said chamber serving to support grids on which contact material is supported, webs on the interior of said chamber and deflecting means causing the incoming gas to pass said webs, a gas outlet from said purifier arranged below said chamber so that the gas issuing from said orifice of said gas inlet must pass the webs on the exterior of said chamber after passing the contact material, said webs thus being heated and they conduct the heat to the internal webs in said chamber from which it is taken up by the incoming gas, substantially as described.

1,073,247. PROCESS OF PRODUCING SULFATE OF AMMONIA FROM AMMONIACAL GASES OR VAPORS. HEINRICH KOPPERS, Essen-on-the-Ruhr, Germany. Filed Feb. 4, 1913. Serial No. 746,099. (Cl. 23—21.)



1. The process of producing sulfate of ammonia, consisting in introducing a part of the ammoniacal gas or vapor into a zone of a saturation bath in which an excess of acid is obtained by the admission of the fresh acid, and separately introducing the remainder of the vapor or gas at another part of the bath where it produces a neutral zone from which the salt is continuously removed.

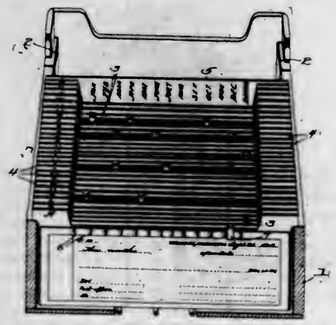
2. The process of producing sulfate of ammonia, consisting in introducing a part of the ammoniacal gas or vapor near the surface of a saturation bath, where the fresh acid is also added and separately introducing the remainder of the vapor or gas into the saturation bath in proximity to the bottom thereof, where it produces a neutral zone, from which the prepared salt is removed.

3. The process of producing sulfate of ammonia, consisting in introducing cooled ammoniacal gas free from tar in proximity to the surface of a saturation bath, where the fresh acid is also added, the ammoniacal liquor separated by the cooling being treated in a distilling column, and the vapors produced therefrom being introduced into the saturation bath in proximity to the bottom thereof, where the salt is removed.

1,073,248. BANKER'S NOTE-CASE. ANTON V. KOUBA, Verdigre, Nebr. Filed Nov. 8, 1912. Serial No. 730,261. (Cl. 129—16.)

1. A device of the kind described comprising a casing adapted to receive notes arranged in alphabetical order, means arranged at the rear of said notes having the names of the months designated thereupon, and tabs adapted to be secured upon said notes, said tabs indicating the day of the month in which a note falls due, and alining with the designations first mentioned.

2. A device of the kind described comprising a casing adapted to receive notes in alphabetical order, means for spacing said notes apart, said means having characters of the alphabet thereupon, and a plate projecting above said notes and having characters thereupon indicative of the various months of the year and tabs adapted to be secured to and project above the notes and adapted to aline with the characters upon the plate representing the months in which said notes fall due.



3. A device of the kind described comprising a casing adapted to receive notes, means for holding said notes in alphabetical order, tabs carried by said notes and extending above the notes and indicating the day of the month in which the note falls due and means arranged to the rear of the note carrying imprinted matter designating the months of the year, said tabs alining with the designations at the back of the notes.

4. A device of the kind described comprising a casing, follower plates adapted to fit in said casing, said follower plates having their upper center portions cut away leaving ears, said follower plates having the characters of the alphabet thereupon and adapted to space notes in alphabetical order, notes adapted to fit in said casing and having along their upper margins characters designating the various months of the year, tabs adapted to be secured to said margins and projecting above the notes, the projecting portions of said tabs having the days of the month indicated thereupon, and a back plate having the months designated thereupon in alinement with the designations on the margins of the notes and with the tabs thereon.

5. A system of filing notes comprising a note having the names of the months printed upon its upper marginal portion, a tab adapted to be secured to said note and to project above the note, said tab being arranged upon or adjacent the designation of the month in which the note falls due and having upon its upwardly extending portion a designation of the day of the month, a casing adapted to receive said note in its alphabetical order, and means arranged in said casing to the rear of said note, said means displaying designations of the months of the year in line with those printed upon the margins of the notes.

[Claim 6 not printed in the Gazette.]

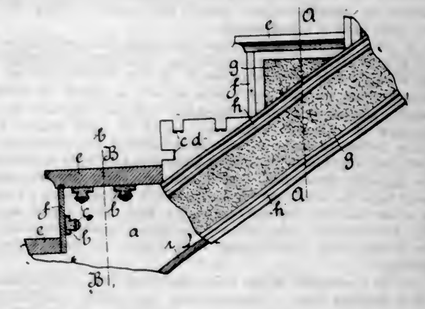
1,073,249. VAGINAL SYRINGE. ISAAC W. KURTZ and JOSEPH W. RANKIN, Peru, Ind. Filed July 17, 1912. Serial No. 709,963. (Cl. 128—45.)

In a device of the character described, a hollow body, a sleeve adjustable lengthwise on said body and having its upper portion enlarged and spaced from said body, a ring loose in said space, a threaded projection on the inner end of said body, radial outwardly curved projections extending along the upper part of said body and having cross apertures therein connecting with the bore of said body, normally straight outwardly curvable springs having their inner ends secured on said projections and their outer ends secured to said ring in the annular space



of said sleeve, and a cap threaded on the projection at the inner end of said body, as specified.

1,073,250. IRON STAIRCASE WITH FLAGSTONE STAIRS. JOSEPH LANG, Mannheim, Germany. Filed May 17, 1913. Serial No. 768,375. (Cl. 189—43.)

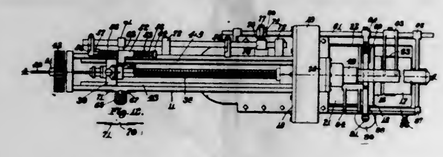


1. In an iron stair-case the combination of two iron strings, a number of iron transverse rails connecting together said strings, a number of treads consisting of flag stones and placed upon said rails, the latter being formed as gutters and filled with an artificial stone mass which when hardening clings to said treads.

2. In an iron stair-case the combination of two iron strings provided with a number of brackets, cheeks stamped from said brackets, a number of iron transverse rails fixed at both ends to said cheeks and thus connecting together said strings, a number of treads consisting of flag stones and placed upon said rails, the latter being formed as gutters and filled with an artificial stone mass which when hardening clings to said treads.

3. In an iron stair-case the combination of two iron strings, a number of iron transverse rails connecting together said strings, a number of treads consisting of flag stones and placed upon said rails, two rails being provided for each of said treads, a number of iron risers, the front supporting rail of one tread and the rear supporting rail of the next lower tread being constructed in one part with the intermediate riser, and said rails being formed as gutters and filled with an artificial stone mass which when hardening clings to said treads.

1,073,251. KEY-SEAT-BROACHING MACHINE. FRANCIS J. LAPOINTE, Hudson, Mass., assignor to The J. N. Lapointe Co., New London, Conn., a Corporation of Maine. Filed June 10, 1912. Serial No. 703,094. (Cl. 90—33.)



1. In a machine of the class described, the combination of a working tool; a reciprocating tool holder consisting in part of a nonrevoluble screw; a nut thereon; a revoluble shaft parallel with said screw; a pinion on said shaft; a gear on said nut meshing with said pinion; fast and loose pulleys on said shaft; and means coöperating with said pulleys for driving said shaft alternately in opposite directions.

2. In a machine of the class described, the combination of a working tool; a reciprocating tool holder consisting in part of a nonrevoluble screw; a nut thereon; a revoluble shaft parallel with said screw; a pinion on said shaft; a gear on said nut meshing with said pinion; two pulleys of different diameters keyed to said shaft; a loose pulley adjacent to each keyed pulley and having a periphery equal in width to the length of movement of said belts in either direction from their normal positions said loose pulleys being adapted to be driven in opposite directions by two belts normally positioned thereon; and means for simultaneously moving said belts to bring one of them upon a keyed pulley.

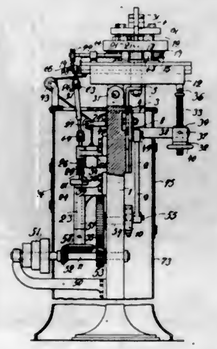
3. In a machine of the class described, the combination of a working tool; a reciprocating tool holder consisting in part of a nonrevoluble screw; a nut thereon; a revoluble shaft parallel with said screw; a pinion on said shaft; a gear on said nut meshing with said pinion; two pulleys of different diameters keyed to said shaft; a loose pulleys having normally positioned thereon two belts movable in opposite directions; means for simultaneously moving said belts to bring one of them upon a keyed pulley; and a brake member normally engaging said large keyed pulley and movable from contact therefrom when either belt is moved into engagement with either of said keyed pulleys.

4. In a machine of the class described, the combination of a working tool; a reciprocating tool holder consisting in part of a nonrevoluble screw; a nut thereon; a revoluble shaft parallel with said screw; a pinion on said shaft; a gear on said nut meshing with said pinion; two pulleys of different diameters keyed to said shaft; a loose pulley adjacent to each keyed pulley said loose pulleys having normally positioned thereon two belts movable in opposite directions; devices for simultaneously shifting said belts to bring one of them upon a keyed pulley; a member movable with the belt shifting devices; a shoe carried thereby; and a weight for normally retaining said shoe in contact with the large keyed pulley.

5. In a machine of the class described, the combination of a working tool; a reciprocating tool holder consisting in part of a nonrevoluble screw; a nut thereon; a revoluble shaft parallel with said screw; a pinion on said shaft; a gear on said nut meshing with said pinion; two pulleys of different diameters keyed to said shaft; a loose pulley adjacent to each keyed pulley said loose pulleys having normally positioned thereon two belts movable in opposite directions; means for simultaneously moving said belts to bring one of them upon a keyed pulley; a member movable with the belt shifting devices; a shoe carried thereby; a weight for normally retaining said shoe in contact with the larger keyed pulley; and a fixed rod parallel with said shaft extending through an opening in said movable member and having a cam depression therein opposite said larger fixed pulley.

[Claims 6 to 24 not printed in the Gazette.]

1,073,252. NON-CIRCULAR-HOLE-SHAPING MACHINE. EUGEN LAUTERJUNG, Solingen, Germany. Filed Nov. 30, 1912. Serial No. 734,327. (Cl. 90—43.)

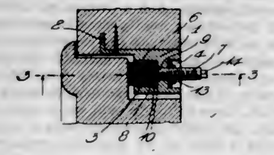


1. In a machine of the class described, a tool adapted to be vertically guided and having for a part a longitudinal cutting edge and for another part a guiding face parallel to the cutting edge, a support adapted to hold a work-piece and a superposed pattern and having a central opening for leaving space to said tool, means for intermittently turning said support, and means for yieldingly pressing said support in one direction so as to press the walls of a hole preliminarily made in the work-piece against the guiding edge of said tool.

2. In a machine of the class described, a tool adapted to be vertically guided and having for a part a longitudinal cutting edge and for another part a guiding face parallel to the cutting edge, a support adapted to hold a work piece and a superposed pattern and having a central opening, said tool being adapted to pass through the central opening of said support and through a noncircular hole in the pattern and through a hole bored in the work-piece, means for intermittently turning said support around said tool, means for so adjusting the stroke of said tool that its cutting point remains for one extreme position in the hole of the pattern without the work-piece and for the other extreme position projects from the work-piece, and means for yieldingly pressing the walls of the hole in the work-piece against the guiding face of said tool.

3. In a machine of the class described, a frame, a table turnable on said frame around a horizontal axis and having a central opening, means for inclining said table, a slide longitudinally guided in said table and having a central opening, means for yieldingly pressing said slide in one longitudinal direction, a support turnable around an axis at right angles to said slide and having a central opening, said support being adapted to hold a work-piece and a superposed pattern, a second slide vertically movable in said frame, a chuck on said second slide, a vertical tool adapted to be secured in said chuck and to pass upward through the central openings of said table, said slide and said support, means for intermittently turning said support on said slide around said tool, said tool being substantially cylindrical and having pieces cut away so as to form for a part a longitudinal cutting edge and for another part a guiding face parallel to the cutting edge, said tool being adapted to pass through a noncircular hole in the pattern and through a hole bored in the work-piece, and means for so adjusting the stroke of said second slide that for one extreme position the cutting point of said tool remains in the hole of the pattern without the work-piece and for the other extreme position projects from the work-piece.

1,073,253. BUFFER FOR DOORS. THOMAS M. LAVELLE, Pottsville, Pa. Filed Jan. 23, 1913. Serial No. 743,794. (Cl. 16—77.)



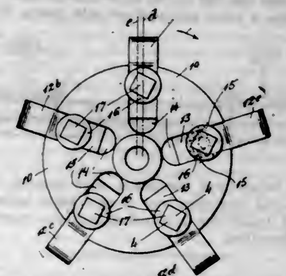
1. A buffer for doors comprising a casing adapted to be secured in the frame of the door and having therein a block receiving recess, and a threaded passage communicating with said recess, a buffer block having a sliding engagement with the block receiving recess of the casing and a block adjusting stud having a threaded engagement with the passage in said casing, and a swiveled connection with said buffer block whereby the latter is adjusted to project the outer end thereof from the casing.

2. A buffer for doors comprising a casing adapted to be secured in the door jamb and having therein block and nut receiving recesses, and a threaded passage connecting said recesses, a buffer block slidably and adjustably engaged with said block receiving recess, an adjusting bolt having a threaded engagement with the passage in said casing, and a detachable swiveled connection with said block, and a jam nut adapted to be screwed onto said bolt and into engagement with the inner wall of said nut receiving recess whereby the bolt is locked for holding the buffer block in its adjusted position.

3. A buffer for doors comprising a casing adapted to be secured in the door jamb and having therein a block receiving recess and a threaded passage communicating therewith, a resilient buffer block having in its inner side a circular recess and in its ends transverse notches, an adjusting bolt adapted to be screwed into said threaded passage and having its end engaged with the circular recess in the buffer block and provided with an annular recess, bolt and block attaching plates having bifurcated inner ends adapted to be overlapped and engaged with the annular recess in the end of said bolt, right angular gripping lugs on the outer ends of said plates to engage the transverse notches in the ends of the buffer block whereby the latter is fastened to the bolt and the bolt swiveled to the block to permit the latter to be projected when said bolt is screwed inwardly in the threaded passage of the casing.

4. A buffer for doors comprising a casing adapted to be secured in the door jamb and having therein a block receiving recess and a threaded passage communicating therewith, a resilient buffer block having in its inner side a circular recess and in its ends transverse notches, an adjusting bolt adapted to be screwed into said threaded passage and having its end engaged with the circular recess in the buffer block and provided with an annular recess, bolt and block attaching plates having bifurcated inner ends adapted to be overlapped and engaged with the annular recess in the end of said bolt, right angular gripping lugs on the outer ends of said plates to engage the transverse notches in the ends of the buffer block whereby the latter is fastened to the bolt and the bolt swiveled to the block to permit the latter to be projected when said bolt is screwed inwardly in the threaded passage of the casing, and springs arranged in the casing and engaged with the bolt attaching plates and inner end of the buffer block whereby the latter is forced outwardly when the adjusting bolt thereof is turned in the proper direction.

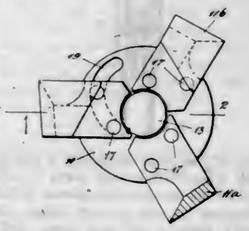
1,073,254. CUTTER. EMIL LAWRENZ, Detroit, Mich. Filed May 31, 1912. Serial No. 700,575. (Cl. 144—235.)



1. The combination with a head having a substantially radial groove, of a knife blade having a shank of less depth than the groove, a washer sidewise overlapping the shank and in locked engagement with said shank and intersecting a side wall of said groove, and means for drawing said washer and the knife blade into firm contact with the head.

2. The combination with a head having a substantially radial groove, of a knife having a shank fitted for longitudinal movement in said groove and having a thickness less than the depth of said groove, a series of indentations in the outer face of said shank, a washer having in its under side a projection adapted to enter any one of said indentations, said washer also intersecting the sides of and seated in said groove, and means for drawing said washer and shank into tight engagement with the head.

1,073,255. CUTTER. EMIL LAWRENZ, Detroit, Mich. Filed July 5, 1912. Serial No. 707,684. (Cl. 144—232.)



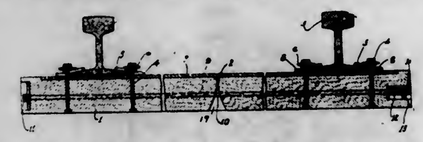
1. The combination with a cutter-head having sets of apertures and an arcuate slot eccentrically disposed relatively to the rotation axis of the head, of a knife having a shank fitting against the head, dowel pins carried by the shank and fitted for movement in said slot and adapted to enter either set of apertures, and a single device for holding said shank against the head.

2. The combination with a head having sets of apertures and an oblique slot, of a series of knives each having a shank, dowel pins carried by each shank and adapted to enter either set of apertures or the slot, and means for holding said knives in contact with the head.

1,073,256. CONCRETE RAILWAY-TIE. CHARLES E. LEASE, Galt, Cal., assignor of one-half to Charl Jacobson, Galt, Cal. Filed Feb. 10, 1913. Serial No. 747,343. (Cl. 238—3.)

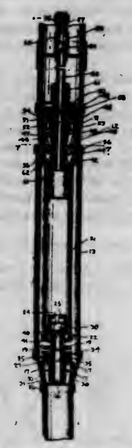
1. A device of the character described comprising a concrete tie consisting of two parts, the adjacent ends of said parts being curved, a plate securing said parts, one of said parts being capable of a slight movement longitudinally of said plate, bolts projecting through said parts and resilient means on said bolts, as described.

2. A device of the character described consisting of two parts, bolts projecting through said parts, springs interposed between the end of one of said parts and the heads of said bolts, a plate mounted on said parts, one end of



said plate being fixed stationary with respect to one of said parts and the other end of said plate being capable of a slight longitudinal movement on the other of said parts, as described.

1,073,257. WELL-CYLINDER. ARTHUR LEE LIGON, Pecos, Tex. Filed June 4, 1912. Serial No. 701,588. (Cl. 103—71.)



1. In a pump of the class described, a casing including a pair of seats, plugs fitting said seats, a barrel carried by said plugs, a hollow reciprocable piston mounted in said barrel, dogs carried by one of said plugs, ribs on said casing releasably engaged by said dogs, and means to release said dogs, said means including a hollow piston rod connected to said piston, a cam block on said rod to engage said dogs, each of said plugs being provided with a centrally disposed passage and a series of annularly disposed ports surrounding said passages, said rod passing through the passage of one of said plugs and carrying a valve cage above said plug, a valve cage on the lower plug, valves in said cages, and ring valves covering said ports.

2. In a pump of the class described, a casing including plug seats in spaced relation, plugs fitting said seats, said plugs being of graduated size and all but one arranged to pass through the first seat, a pump barrel carried by said plugs, a hollow piston reciprocably mounted in said barrel, dogs carried by one of said plugs, ribs on said casing releasably engaged by said dogs, and means to release said dogs, said means including a hollow piston rod connected to said piston, a cam block on said rod to engage said dogs, each of said plugs being provided with a centrally disposed passage and a series of annularly disposed ports surrounding said passages, said rod passing through one of said passages and carrying a valve cage above the upper plug, a valve cage on the lower plug, valves in said cages, and ring valves covering said ports.

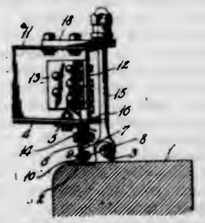
3. In a pump of the class described, a casing including plug seats in spaced relation, plugs fitting said seats, said plugs being of graduated size and each being of dimensions to permit its passage outward from said seats through the remainder of the seats, a barrel carried by said plugs, a hollow piston reciprocably mounted in said barrel, dogs carried by one of said plugs, ribs on said casing releasably engaged by said dogs, and means to release said dogs, said means including a hollow piston rod connected to said piston, a cam block on said rod to engage said dogs, each of said plugs being provided with a centrally disposed passage and a series of annularly disposed ports surrounding said passages, said rod passing through one of said passages and carrying a valve cage above the upper plug, a valve cage on the lower plug, valves in said cages, and ring valves covering said ports.

4. In a pump of the class described, a casing including a pair of seats, plugs fitting in said seats, a barrel carried by said plugs, the lower plug comprising a tubular body portion having a head at its upper end with which said barrel is connected, a flange formed adjacent said head, the lower end of said body portion being reduced to form an abutment intermediate the length of said body portion, conical rings mounted upon the lower end portion of said body portion and provided with alined openings, a valve disk mounted upon said body portion above said conical rings for closing the openings formed therein, said flange limiting the upward movement of said valve disk, a valve housing carried by said body portion within said barrel, a valve in said housing, a piston mounted in said valve, and a piston rod entering said valve for operating said piston.

5. In a pump of the class described, a casing including a pair of seats, plugs fitting in said seats, a barrel carried by said plugs, the upper plug comprising a tubular body portion, a flange adjacent the upper end of said body portion, a conical ring rigidly mounted upon the lower end portion of said body portion and provided with lateral ports terminating in openings passing through the upper face of said ring, said ports communicating with the space between said casing and valve, locking pawls pivotally mounted in said ports and normally held in engagement with the upper seat, a ring mounted upon said body portion above said conical ring and provided with openings positioned in alinement with the openings leading from said ports, a valve disk slidably mounted upon said body portion for normally closing the openings of said second ring, said flange limiting the upward movement of said valve disk, a hollow piston slidably mounted in said valve, a hollow piston rod passing through said body portion and connected with said piston, means carried by said piston rod for moving said pawls out of engagement with said upper seat, and a valve carried by said piston rod above said upper plug.

[Claim 6 not printed in the Gazette.]

1,073,258. CLOSURE FOR GAS-PURIFIERS. ERNEST F. LLOYD, Detroit, Mich. Filed Dec. 6, 1912. Serial No. 735,202. (Cl. 48—137.)

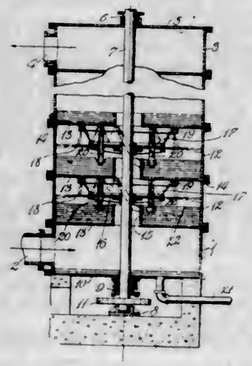


1. The combination with a receptacle having anchor bolts, of a closure therefor having a crowned deck, depending side and end plates, a gasket projecting below the margin of the side and end plates, and supporting the closure on the tank, clamping beams secured around the closure at an interval from the deck, and holding members on the beams engaged by the bolts.

2. The combination with a receptacle having a curb and anchor bolts, of a closure having a crowned deck, depending side and end plates forming a continuous flange for the deck, transverse beams on the deck, clamping beams secured on the ends of the beams, spacing plates secured to the inside of the clamping beams and the outside of the side plates whereby the clamping beams are at an interval from the deck, a gasket projecting below the margins of the side and end plates and resting on the curb, and holding plates engaged by the anchor bolts.

3. The combination with the curb of a gas purifier, of a closure therefor consisting of a crowned deck, having side and end plates that form an unbroken flange around the deck, a yielding gasket on the flange supporting the closure on the curb, stiffening members across the deck, clamping means around the deck, spacers securing the latter to the deck flange to form scupper spaces, holding plates on the closure, and anchor bolts on the curb engaging the holding plates.

1,073,259. GAS-SCRUBBING APPARATUS. ERNEST F. LLOYD, Detroit, Mich. Filed Jan. 20, 1913. Serial No. 743,060. (Cl. 48—135.)



1. A gas scrubber comprising an upright cylindrical casing with gas inlet at its lower end and gas outlet at its upper end, divided by a series of annular reservoirs, a rotatable shaft concentric in the casing extending through the reservoir openings and having plates between each pair of reservoirs, means on each plate adapted when the shaft is rotated to throw the contents of the adjacent lower reservoir toward the under side of the adjacent upper reservoir, and means on the plate adapted to divert liquor from the upper face thereof against the under side of the upper reservoir and the wall of the surrounding casing when the shaft is rotated.

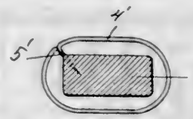
2. A gas scrubber comprising an upright casing divided by transverse diaphragms having a central flanged opening and constituting annular liquor reservoirs, a rotatable shaft extending through the openings, plates on the shaft above each reservoir provided with scoops adapted to dip into the reservoir contents and project it against the adjacent upper diaphragms when the shaft is rotated, means on each plate adapted to deflect liquor thrown therefrom by centrifugal force against the face of the adjacent upper diaphragm, and means for returning the liquor on to the plate outside the deflecting means.

3. A gas scrubber comprising an upright cylindrical casing having a gas inlet at its lower end and a gas outlet at its upper end, transverse diaphragms having central flanged openings and constituting annular liquor reservoirs in the casing, a rotatable shaft extending through the diaphragm openings, plates on the shaft between the reservoirs each having a central imperforate body and an apertured marginal portion, scoops extending through the imperforate body of each diaphragm adapted to dip into the contents of the adjacent lower diaphragm and to discharge against the under side of the upper diaphragm when the shaft is rotated, a flange on the upper face of each plate surrounding the imperforate body that is adapted to project liquid thrown off the imperforate body by centrifugal force against the under side of the adjacent upper diaphragm, and a deflecting rib on the under side of each diaphragm adapted to direct liquor projected against it on to the apertured portion of the plate.

4. A gas scrubber comprising an upright cylindrical base section having a gas inlet, a corresponding top section having a gas outlet, intermediate cylindrical sections supported on the base, a diaphragm secured between each pair of sections and provided with a central opening, an annular flange surrounding each diaphragm opening, a rotatable shaft extending through the openings of the diaphragm, a plate on each shaft between each pair of diaphragms, an annular flange on the upper face of each plate concentric with the shaft, scoops obliquely disposed on the plate within the annular flange whose lower ends extend below the plane of the upper margin of the adjacent central flange of the diaphragm and whose upper ends are adjacent to the upper diaphragm, an annular rib on the under face of each diaphragm concentric with and between the outer edge of the adjacent plate and the annular flange thereof, and a drain pipe from the base section.

5. A gas scruober comprising an upright cylindrical base provided with a gas inlet, intermediate cylindrical sections secured on the base as extensions thereof, a top section resting on the intermediate sections and having a gas outlet, diaphragms each having a central opening surrounded by an upright flange, each secured between a pair of sections, a shaft concentrically journaled in the casing extending through the central openings of the diaphragms, stuffing boxes in the base and top sections, a circular plate secured on the shaft between each pair of diaphragms having a central imperforate body surrounded by an annular flange, and an outer apertured marginal portion, scoops secured to the imperforate portion whose lower ends extend below the upper margin of the central flange of the adjacent lower diaphragm, and whose upper ends are adjacent the under side of the adjacent upper diaphragm, and a depending rib on the under side of each diaphragm concentric with and within the outer margin of the adjacent plate.

1,073,260. FISHING-ROD. CHARLES E. LONG, Lancaster, Pa. Filed Nov. 13, 1911. Serial No. 659,897. (Cl. 43—16.)

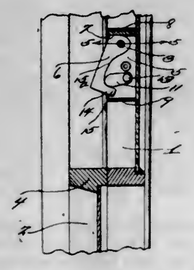


In a fishing rod of the class described, in combination with a rod having in cross section radii of different lengths, of line guides, each of said guides being formed of a single piece of wire encircling said rod, and having a staple formed on one end thereof and adapted to be inserted in the rod to hold the guides, whereby the rod may be turned to give a flexible or stiff rod, and the line will follow the lower surface of said rod, for a purpose that has been hereinbefore described.

1,073,261. SASH-STOP. ELLERY C. MANSFIELD, Meredith, N. H. Filed Feb. 18, 1913. Serial No. 749,119. (Cl. 16—18.)

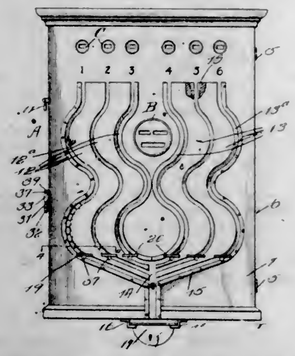
1. In a sash lock and stop adapted to be secured to one of the side rails of an upper sash offset above the lower rail thereof, an L-shaped inverted plate, a suspended dog pivoted to said plate and constructed and arranged to contact with the L-portion of the plate to limit the dog in its

outward movement, said dog terminating at its lower end in a lateral projection extending rearwardly and provided with a crotch between the projection and the body of the dog, a tongue pivoted to said plate rearwardly of said dog and adapted to be thrown outwardly and downwardly slightly below the center of its pivot to enter the crotch to hold the dog outwardly in the path of the lower sash, thereby constituting means for limiting either the upper or lower sash in its movement, the projection acting as means to limit the tongue in position, said dog being so constructed substantially midway between its pivot and the projection as to necessitate forcing the tongue in its action to snap into the crotch.



2. In a sash lock and stop adapted to be secured to one of the side rails of an upper sash adjacent the glass and offset above the lower rail thereof, an inverted L-shaped plate, a suspended dog pivoted to said plate and constructed and arranged to contact with the L-portion of the plate to limit the dog in its outward movement, said dog having a crotch adjacent its lower end, a tongue pivoted to the plate and adapted to be thrown to enter the crotch to hold the dog in its outward position in the path of the lower sash, thereby constituting a stop to limit either the lower sash or the upper sash independently in its movements, said dog adapted to return to its normal position from the path of the lower sash by gravitation when the tongue is withdrawn from the crotch.

1,073,262. GAME-REGISTER. DAVID L. MARTIN and EDGAR L. FLOWERS, Hickory, N. C., assignors of one-fifth to J. L. Riddle, one-fifth to J. W. Blackwelder, and one-fifth to A. G. Bohannon, Hickory, N. C. Filed Feb. 6, 1913. Serial No. 746,617. (Cl. 46—6.)



1. In a game register, the combination with a rack including a runway, of a gate slidably mounted transversely of the runway for controlling the passage of objects thereabong, said gate having a T-shaped slot extending inwardly from the inner end thereof, a gravity locking pin slidably mounted in said slot and normally having interlocking engagement with said gate, said pin having opposed recesses formed in its lower portion, and means for raising the pin to register the recesses thereof with the slot of the gate.

2. In a game register, the combination with a rack including a runway, of a gate slidably mounted transversely of the runway for controlling the passage of objects thereabong, said gate having a T-shaped slot extending inwardly from the inner end thereof, a guide element supported by the rack and disposed below the slot of the gate when said gate is in its closed position, a gravity locking pin slidably mounted in the guide element and extending through the slot of the gate, said pin having opposed recesses formed in its lower portion, and means for raising the pin to register the recesses thereof with the slot of the gate.

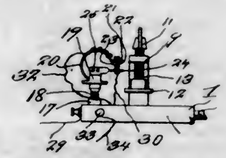
3. In a game register, the combination with a rack including a runway, of a gate slidably mounted transversely of the runway for controlling the passage of objects thereabong, said gate having a T-shaped slot extending inwardly from the inner end thereof, a gravity locking pin slidably mounted in said slot and normally having interlocking engagement with said gate, said pin having opposed recesses formed in its lower portion, means for raising the pin to register the recesses thereof with the slot of the gate, and means for automatically returning the gate to its closed position.

4. In a game register, the combination with a rack including a runway, of a gate for controlling the passage of objects along the runway, a register, a gravity locking pin normally having interlocking engagement with the gate, means for raising the pin out of said interlocking engagement with said gate, a connection between the gate and the register for actuating the latter upon opening the former, and means for automatically returning said raising means to its initial position.

5. In a game register, the combination with a rack including a runway, of a gate for controlling the passage of objects along the runway, a register, a gravity locking pin normally having interlocking engagement with the gate, means for raising the pin out of said interlocking engagement with said gate, a rotary shaft disposed above the gate, and a flexible connection between the pin and shaft for raising said pin and disengaging the same from the gate upon rotation of said shaft.

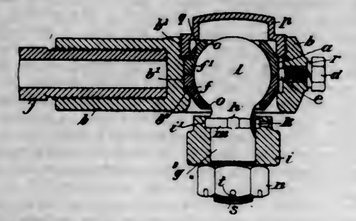
[Claims 6 to 25 not printed in the Gazette.]

1,073,263. ELECTRIC VULCANIZER. FREDERICK MARTIN, Pomona, Cal. Filed July 25, 1912. Serial No. 711,461. (Cl. 219—19.)



In an electric vulcanizer comprising a base provided with an overhanging member, of an adjustable device including a revolving plate between which and the base an automobile tire is adapted to be clamped for vulcanizing, a series of resistance plates adapted to be heated from any suitable source of current supply and arranged in said base, a pipe designed to contain water to be heated by the resistance plates and fixed in said casing and provided with an elbow at one end, a member adjustably connected to said elbow and provided with an expansible tube terminating in a plate provided with a point constituting a movable contact, a second plate carried by said member and having a point constituting a stationary contact, said stationary and movable contacts being in circuit with the resistance plates, said resistance plates adapted to heat the base and the pipe, and as the heat varies the tube correspondingly expands or contracts so as to open and close the circuit.

1,073,264. BALL-AND-SOCKET JOINT. HEINRICH MAYER and GUSTAV SCHLATTER, Arbon, Switzerland. Filed May 25, 1912. Serial No. 699,820. (Cl. 74—17.)



1. In a ball-and-socket joint, the combination with a machine part, of a globular pivot fastened on said machine part and having a collar, a second machine part, two similar interchangeable bearing pieces engaging said globular pivot and being in close contact with each other in said second machine part, each of said two bearing pieces being provided with a central opening the diameter of which is equal to or slightly larger than the diameter of said collar, and means for securing said two bearing pieces in said second machine part in either of two positions set at an angle of 90° from each other.

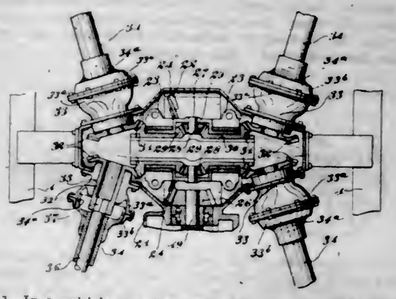
2. In a ball-and-socket joint, the combination with a machine part, of a globular pivot therein provided with a collar, means for securing said globular pivot on said machine part in either of two positions set at an angle of 90° from each other, a second machine part, two similar interchangeable bearing pieces engaging said globular pivot and being in close contact with each other in said second machine part, each of said two bearing pieces being provided with a central opening the diameter of which is equal to or slightly larger than the diameter of said collar, and means for securing said two bearing pieces in said second machine part in either of two positions set at an angle of 90° from each other.

3. In a ball-and-socket joint, the combination with a machine part, of a globular pivot on said machine part having a collar with two notches set at an angle of 90° from each other, a pin in said machine part adapted to engage in either of the two notches in the collar of said globular pivot, a second machine part, two similar interchangeable bearing pieces engaging said globular pivot and being in close contact with each other in said second machine part, each of said two bearing pieces being provided with a central opening the diameter of which is equal to or slightly larger than the diameter of said collar, and means for securing said two bearing pieces in said second machine part.

4. In a ball-and-socket joint, the combination with a machine part, of a globular pivot on said machine part having a collar with two notches set at an angle of 90° from each other, a pin in said machine part adapted to engage in either of the two notches in the collar of said globular pivot, a second machine part, two similar interchangeable bearing pieces adjustably mounted in said second machine part and engaging said globular pivot and being in close contact with each other and each having on the outside two notches set at an angle of 90° from each other, each of said two bearing pieces being provided with a central opening the diameter of which is equal to or slightly larger than the diameter of said collar, and a pin in said second machine part adapted to engage in either of the two notches of said two bearing pieces.

5. In a ball-and-socket joint, the combination with a machine part, of a globular pivot on said machine part having a collar with two notches set at an angle of 90° from each other, a pin in said machine part adapted to engage in either of the two notches in the collar of said globular pivot, a second machine part having a round hole with a shoulder on one side and an internal screw-thread of larger diameter on the other side, two similar interchangeable bearing pieces engaging on the one hand the round hole of said second machine part and on the other hand said globular pivot and being in close contact with each other and each having on the outside two notches set at an angle of 90° from each other, each of said two bearing pieces being provided with a central opening the diameter of which is equal to or slightly larger than the diameter of said collar, a screw-threaded cover fitting the internal thread of said second machine part and adapted to press said two bearing pieces against the shoulder of said second machine part, and a pin in said second machine part adapted to engage in either of the two notches of said two bearing pieces.

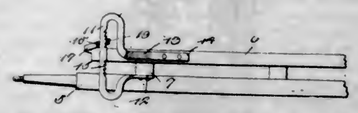
1,073,265. VEHICLE RUNNING-GEAR. LOUIS MAYER, Mankato, Minn. Filed May 5, 1910. Serial No. 559,543. (Cl. 21—90.)



1. In a vehicle running gear, the combination with four wheels, of a motor carried by the vehicle, a differential gear mechanism having a sectional driving shaft driven from said motor and provided, at its ends, with bevel gears, a casing for said differential gear mechanism, flexibly jointed shaft casings carried by the casing for said differential gear mechanism, and flexibly jointed shafts mounted in said shaft casings and having, at their inner ends, bevel gears meshing with the bevel gears of said differential gear mechanism and having, at their outer ends, gear connections to the wheels of said vehicle, substantially as described.

2. In a vehicle running gear, the combination with four wheels, of a motor carried by the vehicle, and a differential gear mechanism having a sleeve, a beveled gear driven from said motor and rigidly secured to the intermediate portion of said sleeve and axially alined therewith, and which sleeve has its ends reduced and mounted in bearings, a two part shaft journaled in the reduced ends of said sleeve and provided at its ends with beveled gears, beveled pinions mounted in the intermediate portion of said sleeve and meshing with the beveled gears on the inner ends of said two part shaft, driving shafts extending forwardly and rearwardly at an angle to each other and provided at their inner ends with beveled gears meshing with the beveled gears of said differential gear mechanism, said shafts at their outer ends having gear connections to the wheels of the vehicle, substantially as described.
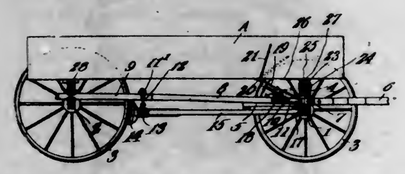
1,073,266. VEHICLE-BRAKE. WILLIAM J. MCDOUGAL, Rising Sun, Md. Filed Mar. 18, 1912. Serial No. 684,594. (Cl. 21—10.)



In combination with the axle of a vehicle, a transverse bolster arranged above and spaced from said axle and hounds having their ends arranged between said axle and bolster, of a transverse rod arranged in spaced relation with the bolster, a brake actuating lever secured to one end of said rod, said lever having adjacent its end a rectangular loop to receive the end of the bolster, and a

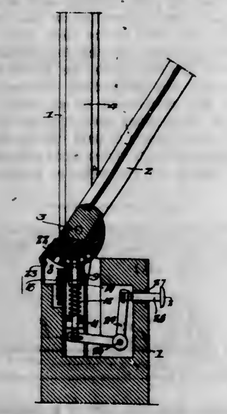
metal bar bent to provide an elongated loop, having one end secured to the bolster and the other end secured to the end of one of the bounds, the intermediate portion of said loop being provided upon its inner edge and adjacent the ends thereof with teeth, said brake lever being movable in said loop and having a tooth for engagement with the teeth on the loop, and a leaf spring fixed at one of its ends to said lever, the free end of said spring being movable upon the outer untoothed edge of the loop and normally exerting pressure against the same to hold the tooth on the lever into engagement with the teeth on the loop.

1,073,267. WAGON-BRAKE. HUGH R. MCKISSICK, Okemah, Okla., assignor of one-half to John S. Stone, Okemah, Okla.; Susie McKissick administrator of said Hugh R. McKissick, deceased. Filed Nov. 20, 1911. Serial No. 661,274. (Cl. 21—9.)



The combination with front and rear wheel supported axles and a reach connecting the axles, of a plate secured to the rear face of the front axle in the center thereof and having outstanding upper and lower ears, a tongue pivotally mounted between the ears and extending rearwardly from the plate, said tongue being adapted to swing laterally, a flexible connection between the rear portion of the tongue and the reach, said tongue being extended under the reach, brake shoes connected to the tongue for engaging the rear wheels, said reach being adapted to slide longitudinally relative to the front axle, and means carried by the reach for preventing such sliding movement.

1,073,268. LOCK FOR PIVOTED WINDOWS. FRANK MCLAUGHLIN, Philadelphia, Pa., assignor, by mesne assignments, to International Window Manufacturing Company, Dover, Del., a Corporation of Delaware. Filed Jan. 3, 1912. Serial No. 669,170. (Cl. 16—28.)



1. The combination of a window frame; a sash including slides and a body pivoted thereto; a flanged element mounted on one of the two members comprised by the frame and the sash, and a slotted element for the reception of said flanged element mounted on the other of said members; with a device for locking the flanged element in any of a number of positions in engagement with the slotted element.

2. The combination of a window frame; a sash mounted in the frame and consisting of slides with a body pivoted thereto; a slotted member mounted in the window frame adjacent to the lower portion of the sash; a flanged member carried by the sash and capable of entering the slotted member when the sash body is turned on its pivots; with a locking pin mounted in the slotted member for holding the sash in any of a number of inclined positions.

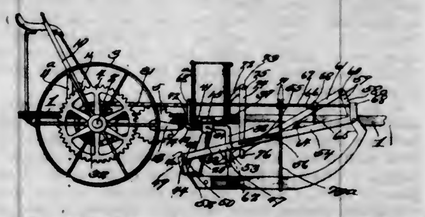
3. The combination of a window frame; a window sash mounted in the frame and consisting of slides with a body pivotally connected thereto; a vertically slidable slotted structure mounted in the frame adjacent one end of the sash; a spring normally holding said structure in a retracted position; a spring-actuated locking-pin carried by said structure; and a flanged member mounted on the window sash in position to enter the slot of the structure on the window frame and having a series of openings for the reception of the locking pin.

4. The combination of a window frame; a window sash mounted in the frame and consisting of slides with a body pivotally connected thereto; a vertically slidable slotted structure mounted in the frame adjacent one end of the sash; a spring normally holding said structure in a retracted position; a spring-actuated locking-pin carried by said structure; a flanged member mounted on the window sash in position to enter the slot of the structure on the window frame and having a series of openings for the reception of the locking pin; with a hand-operated device for withdrawing the pin from engagement with the flanged member.

5. The combination of a window frame having a slotted member mounted in a recess below the top surface of its sill; a sash slidably mounted in the frame and consisting of a pair of slides with a body pivoted thereto; a flanged member mounted on the lower portion of the sash and projecting into the recess in the sill when said sash is in its closed position; a cover for a portion of the recess, mounted to be moved by the sash when the latter is swung on its pivots; and means for holding the sash in any position inclined to the vertical.

[Claim 6 not printed in the Gazette.]

1,073,269. AUTOMATIC DEVICE FOR CORN-PLANTERS. DAVID W. MCPROUD, Farmland, Ind. Filed Aug. 10, 1912. Serial No. 714,465. (Cl. 111—6.)



1. In combination with a corn planter including a feed mechanism and grain boots, cut-offs in the boots, yieldably supported markers, and means adapted to simultaneously actuate the markers and open the cut-offs at intervals during the actuation of the feeding mechanism, the yieldably supported markers constituting means to return the first means to its normal position to close the cut-offs, and a mechanism for throwing the markers out of operation.

2. In combination with a corn planter including a feed mechanism and grain boots, cut-offs in the grain boots, yieldably supported marker bars having shovels to gouge the soil, members adapted to be actuated to open the cut-offs at intervals during the feed, connections between the marker bars and the members whereby the marker bars are actuated simultaneously with the opening of the cut-offs, the yieldably supported marker bars and their connections with the members constituting means to return said members to their normal positions to close the cut-offs, and a mechanism adapted to be actuated to disconnect the connection from the members to throw the marker bars out of operation.

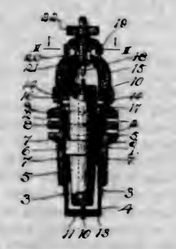
3. In combination with a corn planter including a feed mechanism and grain boots, cut-offs in the grain boots, yieldably supported marker bars having shovels to gouge the soil, members adapted to be actuated to open the cut-offs at intervals during the action of the feed mechanism, connections between the marker bars and the members whereby the marker bars are actuated simultaneously with the opening of the cut-offs, the yieldably supported marker bars and their connections with the members constituting means to return said members to their normal positions to close the cut-offs, and fingers adapted to engage said connections, thereby constituting disengaging means for the markers.

4. In combination with a corn planter including a feed mechanism and grain boots, cut-offs in the grain boots, pivoted marker bars having shovels to gouge the soil, yielding means to support the marker bars, members, one of which is provided with an extension arm, and adapted to be actuated to open the cut-offs at intervals during the actuation of the feed mechanism, each marker bar having a connection with a member whereby the marker bars may be actuated simultaneously with the opening of the cut-offs, the yielding means and the connections combined constituting means for returning the members to their normal positions to close the cut-offs.

5. In combination with a corn planter including a feed mechanism and grain boots, cut-offs in the grain boots, pivoted sectional adjustable marker bars having yielding means to support the marker bars in upper positions, a rockable device having members provided with slotted arms, said members adapted to be actuated to open the cut-offs at intervals during the actuation of the feed mechanism, connections between the marker bars and the slotted arms whereby the marker bars may be actuated simultaneously with the opening of the cut-offs, the yielding means and the connection constituting means to return the members to their normal positions to close the cut-off.

[Claims 6 and 7 not printed in the Gazette.]

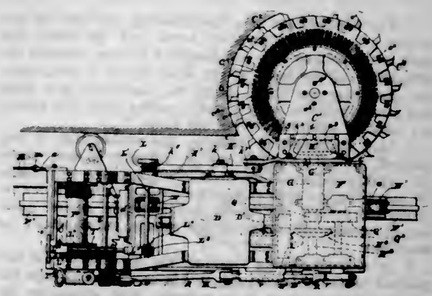
1,073,270. SPARK-PLUG. JOHN W. MEAKER, Detroit, Mich. Filed Mar. 25, 1912. Serial No. 685,934. (Cl. 123—169.)



1. In a spark plug, the combination of a bushing having an axial screwthreaded bore of uniform diameter extending through the bushing, an insulating plug in the bushing formed with an annular rib, externally screwthreaded tubular members within the bushing surrounding the upper and lower ends of the insulating plug and forming shoulders at their inner ends to oppose the shoulders formed by the rib on the plug, an electrode carried by the insulating plug and extending longitudinally therethrough, a tubular extension on the bushing provided with air openings and formed with a seat, a transparent head having open ends and seated within said seat, an electrode extending through the upper open end of the head, and means for adjustably securing the electrode in place upon the head with its inner end spaced from the electrode carried by the insulating plug to form a spark gap within the head, the sleeves and plugs being together longitudinally adjustable in the bushing, and an electrode on the lower sleeve in operative relation to the plug electrode.

2. In a spark plug, the combination of a bushing formed with an axial screwthreaded bore of uniform diameter extending therethrough and provided with a hexagonal head having peripheral slots cut therein to increase the radiating surface of said head, an insulating plug having an enlargement intermediate its ends forming an upper and a lower shoulder thereon, an electrode in the longitudinal axis of said plug with its ends projecting beyond the ends of the plug, a sleeve having screw threads at its upper end to engage the screwthreaded bore and formed with a plain lower end, the screw thread of the bore being stopped at a distance from the lower end of the bore to form a stop for the sleeve, and an externally screwthreaded member screwed into the bore above the enlargement on the insulating plug, the sleeves and plugs being together longitudinally adjustable in the bushing, and an electrode on the lower sleeve in operative relation to the plug electrode.

1,073,271. MINING-MACHINE. EDWIN REUEL MERRILL, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Nov. 30, 1897. Serial No. 660,267. (Cl. 125—14.)



1. In a side cut or long wall mining machine, the combination of a carriage, a cutter wheel projecting laterally from the carriage, a carrier for the wheel adjustable relatively to the carriage on a transverse horizontal axis, and a train of devices for adjusting said carrier, the said train having a flexible spring controlled connection between two elements thereof through which power for operating the carrier is applied, substantially as set forth.

2. In a side cut or long wall mining machine, the combination of a carriage, a cutter wheel projecting laterally from the carriage, a carrier for the wheel adjustable relatively to the carriage about a transverse horizontal axis, a lever rigidly connected to the wheel carrier, a supplemental lever flexibly connected to the rigid lever for adjusting the wheel carrier, and means for controlling said supplemental lever, substantially as set forth.

3. In a side cut or long wall mining machine, the combination of a carriage, a wheel projecting laterally from the carriage, a carrier for the wheel adjustable around a transverse horizontal axis, a lever flexibly connected to the wheel carrier, and power devices accessible at the front end of the machine for operating said lever and adjusting the wheel carrier, substantially as set forth.

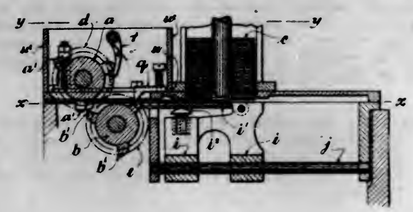
4. In a side cut or long wall mining machine, the combination of a carriage, a cutter wheel projecting laterally from the carriage, a wheel carrier adjustable around a horizontal axis, a lever flexibly connected to the wheel carrier, a rack and pinion connected to said lever for operating it, and means for operating said rack and pinion, substantially as set forth.

5. In a side cut or long wall mining machine, the combination of a carriage, a cutter wheel projecting laterally from the carriage, a cutter wheel carrier adjustable around

a horizontal axis, an electric motor on the carriage in front of the cutter wheel, a lever connected to the cutter wheel carrier and mounted at points adjacent to the motor, supports for said machine arranged on a longitudinal line between the longitudinal median lines of the motor and of the cutter wheel, and means in front of the motor comprising a worm for actuating said lever to adjust the cutter wheel carrier, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,073,272. CHECK-ISSUING MACHINE. EDWARD THOMAS MIDDLEMISS, Manchester, England. Filed Sept. 16, 1912. Serial No. 720,490. (Cl. 211—8.)



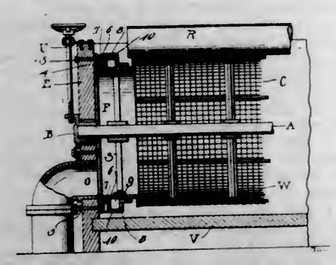
1. The combination in a check-issuing machine of two rollers one having bifurcated teeth and the other flat teeth with inclined edge and designed to pass through the bifurcation of the teeth of the other roller, a reciprocating check-carrying slide, means for operating said slide and means whereby with a check on the slide, the rollers are rotated, substantially as set forth.

2. In a check-issuing machine, the combination of two toothed rollers arranged one in advance of and above the other a reciprocating check carrying slide and means for operating the slide and with a check on the slide for rotating the rollers, the checks each having a central opening to engage the teeth of the rollers, substantially as described.

3. In a check-issuing machine, the combination of two toothed rollers arranged one in advance of and above the other, a reciprocating check carrying slide means for operating said slide to push a check from below a column of checks and means for preventing the returning of the checks, substantially as herein described.

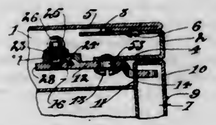
4. In a check-issuing machine, the combination of two toothed rollers, a reciprocating check carrying slide having an upper hinged part resting on a spring-controlled plunger, a link connected to said slide, a crank connected to said link and a shaft and winch handle for operating said crank, substantially as described.

1,073,273. FLUID STUFFING-BOX. GEORGE ERNEST MILLER, Madison, Me. Filed May 23, 1912. Serial No. 699,225. (Cl. 92—43.)



In a paper making machine, the combination with a cylinder having a concentric flange extending beyond its end and in communication therewith, of a vertical support located adjacent to the open flanged end of the cylinder, a bearing movably located within an opening formed in said support and adapted to be adjusted vertically, an axle passing through the cylinder with its end projecting beyond the flanged portion thereof and revolubly received by said bearing, an outlet passing through the support and communicating with the cylinder, a stuffing box surrounding the flanged end of the cylinder and including a body made of sections bolted together, said box being larger in circumference than the flanged portion of the cylinder, and means secured to the support for adjusting the bearing, whereby the flanged portion of the cylinder is accurately adjusted in respect to the stuffing box.

1,073,274. LOCKING MECHANISM FOR SUPERPOSED DRAWERS. PAUL S. MILLICE, Hamilton, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y., a Corporation of New York. Filed Dec. 28, 1910. Serial No. 599,651. (Cl. 45—77.)



1. In a metal filing cabinet, the combination of a framework having superposed drawer-openings and comprising side uprights at the front of said framework formed up out of sheet-metal with inner rearwardly extending flanges which form the side walls of said superposed drawer-openings, superposed drawers in said drawer-openings, locking dogs pivoted in superposed relation to one of said inner rearwardly extending flanges, and coacting means at the front ends of said drawers for said locking dogs.

2. In a metal filing cabinet, the combination of a framework having superposed drawer-openings and comprising side uprights at the front of said framework formed up out of sheet-metal with inner rearwardly extending flanges which form the side walls of said superposed drawer-openings, superposed drawers in said drawer-openings, locking dogs pivoted in superposed relation to one of said inner rearwardly extending flanges, coacting means at the front ends of said drawers for said locking dogs, means for normally urging said dogs into locking positions, and connecting means between said dogs for causing their simultaneous operation.

3. In a metal filing cabinet, the combination of a framework having superposed drawer-openings and drawer-spaces and comprising side uprights at the front of said framework formed up out of sheet-metal with inner rearwardly extending flanges which form the side walls of said superposed drawer-openings, superposed drawers in said drawer-openings, locking dogs pivoted in superposed relation to one of said inner rearwardly extending flanges, coacting means at the front ends of said drawers for said locking dogs, means for normally urging said dogs into locking positions, connecting means between said dogs for causing their simultaneous operation, and separating shelves between said drawer-spaces past which said connecting means extend, said locking dogs being distanced from the horizontal planes in which said shelves are located.

4. In a metal filing cabinet, the combination of a framework having superposed drawer-openings, superposed drawers in said drawer-openings, and superposed locking dogs pivoted to the inner front ends of said framework, said drawers respectively comprising hollow sheet-metal fronts formed with a sheet-metal front wall and a sheet-metal rear wall, said sheet-metal rear walls having openings therein the walls whereof form keepers for said dogs, and said dogs received in said hollows of said sheet-metal fronts.

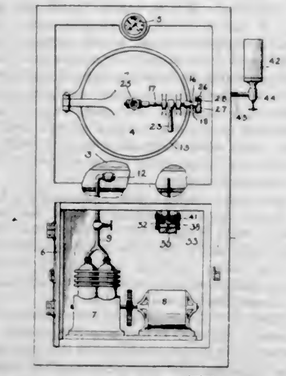
1,073,275. DRAW-BAR AND YOKE CONNECTION FOR RAILWAY DRAFT-RIGGING. WILLIAM H. MINER, Chicago, Ill. Filed Dec. 30, 1910. Serial No. 600,170. (Cl. 213—42.)



1. A draw-bar and yoke connection comprising, in combination: a draw-bar provided with an upright slot therethrough of a width equal to the diameter of a standard rivet and having semi-circular curved front and rear walls, the centers of curvature of said front and rear walls of the draw-bar slot being spaced apart a distance equal to the distance between centers of a pair of standardly spaced connecting rivets; a draft yoke, the arms of which are provided with perforations in alinement with the slot of the draw bar; means for connecting said draw-bar and draft-yoke, said means including a pair of connecting rivets extending through the draw-bar and yoke and a filler block; and coöperating means on the draw-bar and filler block for anchoring the latter in position, substantially as specified.

2. The combination with a draw-bar and draft yoke both provided with upright, longitudinally extending slots having semi-circular front and rear walls spaced apart a distance corresponding to the distance between a pair of standardly spaced connecting rivets, a filler block having concavely curved front and rear walls, fitting in said slots of the draw-bar and yoke, and a pair of connecting rivets extending through the draw-bar and yoke and engaging the curved front and rear walls of said slots and the concavely curved front and rear walls of said filler block, said filler block having anchoring lugs on its upright sides and the draw-bar having recesses to receive said anchoring lugs, substantially as specified.

1,073,276. PRESERVING APPARATUS. OTTO H. MOHR, San Francisco, Cal. Filed Dec. 5, 1911. Serial No. 664,063. (Cl. 99—2.)



1. In a preserving apparatus, a chamber, a door to said chamber, an exhausting means and means operable by the locking of said door to throw the exhausting means into operation.

2. In a preserving apparatus, an air tight chamber provided with a door opening, a door closing said opening, a suction pump connected to said chamber, means for driving said suction pump and means adjacent said door for throwing the pump into operation as the door is locked, said means being actuated from the locking means.

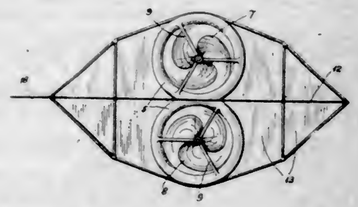
3. In a preserving apparatus, an air tight chamber provided with a door opening, a door engaging said opening, means for locking said door in the closed position, means for exhausting the air from said chamber and means operable by the unlocking of the door, for throwing the exhausting means out of operation.

4. In a preserving apparatus, an air tight chamber provided with a door opening, a door adapted to close said opening, means for locking said door in the closed position, a suction pump for exhausting the air from said chamber, means adjacent said locking means for throwing the suction pump out of operation and means on the locking means adapted to engage said controlling means for throwing the pump out of operation as the door is unlocked.

5. In a preserving apparatus an air tight chamber provided with a door opening, a door adapted to close said opening, means for locking said door in the closed position means for varying the pressure within said chamber and means operated by the unlocking of the door for establishing communication between the chamber and the atmosphere.

[Claims 6 to 10 not printed in the Gazette.]

1,073,277. FLYING-MACHINE. HENRY G. MORRIS, Philadelphia, Pa. Filed Aug. 20, 1908. Serial No. 449,513. (Cl. 244—15.)



1. A device for aerial navigation comprising a horizontal tubular frame constituting a rotary fan support, a fan revolubly mounted on said frame, a vertical keel above said frame, a horizontal plane connected with said frame, a motor suspended from the frame and having a rotor constituting a gyroscope, connections between the fan and motor, and a support for the operator suspended from the frame, substantially as described.

2. A device for aerial navigation comprising an 8-shaped horizontal frame provided with an upwardly extending keel or partition and a horizontally extending plane, rotary fans mounted in the openings in the frame, a motor connected with the frame and having a rotor adapted to operate as a gyroscope, driving connections between the motor and fans, and a support for the operator suspended from the side and front and rear portions of the frame, substantially as described.

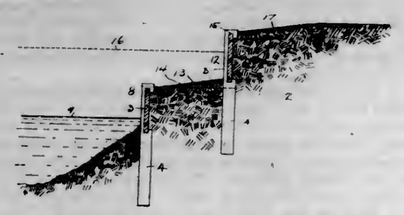
3. A heavier than air device for aerial navigation comprising the combination of a tubular ring-like frame having a fan opening through it, a rotary fan arranged at said opening, a vertical keel above the frame, an aeroplane flush with the frame and having a fan opening, a motor suspended from the frame, connections between the fan and motor, and a support for the operator.

1,073,278. LEVEE. JAMES W. MOSHER, Berkeley, Cal. Filed Mar. 12, 1913. Serial No. 753,737. (Cl. 61—30.)

1. In a levee, a water side composed of steps, the flat portions thereof consisting of oil treated surfaces.

2. A levee comprising an earth fill, a concrete wall on the water side of said levee of less height than the height of the levee, and an inclined oil treated surface extending from the upper edge of said wall.

3. A levee comprising an earth fill, a concrete wall on the water side thereof of less height than the levee and extending below the surface of the water, and an inclined oil treated surface extending from the upper edge of said wall.



4. A levee comprising an earth fill, substantially vertical concrete walls arranged on the water side thereof, said walls being arranged successively behind and above each other, and an inclined oil treated surface extending from the top of one wall to a plane adjacent the bottom of the next wall.

5. In a levee, a plurality of concrete walls arranged on the water side thereof, said walls being arranged behind and above each other successively, said walls extending from a plane below the low water level to a plane above the high water level, and waterproofed surfaces extending from the top of one wall to a plane adjacent the lower edge of the next wall.

[Claims 6 to 11 not printed in the Gazette.]

1,073,279. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Nov. 13, 1912. Serial No. 731,088. (Cl. 52—3.)

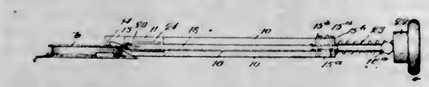
1. An explosive, comprising potassium chlorate, sodium nitrate, liquid binitrotoluene and finely divided woody matter.

2. An explosive, comprising potassium chlorate, sodium nitrate, liquid binitrotoluene and sawdust.

3. An explosive, consisting of potassium chlorate, sodium nitrate, liquid binitrotoluene and sawdust intimately mixed together.

4. An explosive, consisting of potassium chlorate and sodium nitrate together about sixty parts, liquid binitrotoluene about fifteen parts, and sawdust about twenty-five parts.

1,073,280. TOOL FOR APPLYING TRAVELERS TO RINGS. HERBERT W. OWEN, Dover, N. H. Filed Mar. 22, 1912. Serial No. 685,533. (Cl. 29—84.)



1. An implement for applying travelers to spinning rings, comprising a body having a tip recessed to engage the flange of a ring, a carrier to supply travelers one by one adjacent the recess of the tip, the delivering end of the carrier being yieldable away from said tip, and a pusher movable between said delivering end and the recessed tip to spring the traveler adjacent the tip over the top of the ring.

2. An implement for applying travelers to spinning rings, comprising a recessed member to engage the flange of a ring, a pusher movable alongside said member, and a carrier for supplying ring travelers one by one in front of said pusher, said carrier comprising a round rod having a flattened side.

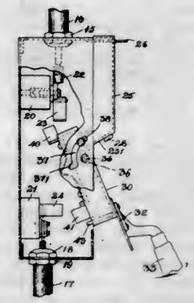
3. An implement for applying travelers to spinning rings, comprising a body having a tip recessed to engage the flange of a ring, a carrier to supply travelers one by one adjacent the recess of the tip, said carrier comprising a round rod cut away to receive the in-turned points of the travelers and having a web, the implement having a clamp to hold said web, and a pusher for springing the tip over the top of the ring.

4. An implement for applying travelers to spinning rings, comprising a body having a tip recessed to engage the flange of a ring, a carrier having a beveled end adjacent the side of the recessed tip, and a pusher movable between the said beveled end and the side of the tip.

5. A tool of the character described, comprising a recessed member to engage the flange of a ring, a pusher movable alongside said member, and a magazine carrier having a beveled tip in proximity to said recessed member, and having a groove in its front face adapted to engage the flange of the ring.

[Claims 6 and 7 not printed in the Gazette.]

1,073,281. SERVICE-SWITCH MECHANISM. GRANVILLE E. PALMER, Brookline, Mass., assignor to The Palmer Electric & Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Dec. 16, 1912. Serial No. 736,960. (Cl. 175—282.)



1. A service switch mechanism, comprising a box, separated stationary contacts therein, a door carrying a switch member arranged to engage the stationary contacts when the door is fully closed, and means for mounting said door to cause the opening of the switch and the interposition of said door between said stationary contacts when said door is opened.

2. A service switch mechanism, comprising a box, separated stationary contacts therein, a door pivoted between its ends to the box and adapted to be opened to expose the interior of the box and a switch member carried by said door and arranged to engage said contacts when said door is closed, and to be exposed when the door is opened.

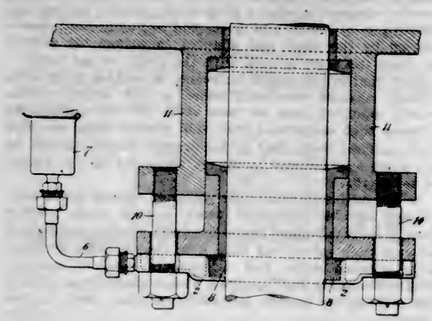
3. A service switch mechanism, comprising a box, separated main and feeder stationary contacts therein, a sealable cover for covering the main contact, a hinged door for covering the feeder contact, switch members carried by said door, and adapted to engage said contacts, and means by which the door when opened interposes a barrier to the main contact.

4. A service switch mechanism, comprising a box, main stationary contacts, feeder contacts, said contacts being disposed in opposite portions of the box, a sealable cover for concealing the main contacts, a hinged door normally concealing the feeder contacts and means whereby said door when opened interposes a barrier to said main contacts and exposes the feeder contacts.

5. A service switch mechanism, comprising a box, a main stationary contact, a feeder contact, said contacts being disposed in opposite portions of the box, a sealable cover for concealing the main contact, a hinged door normally concealing the feeder contact, means whereby when the door is opened it interposes a barrier to said main contact and exposes the feeder contact, and a switch member movable concurrently with the door and engaging said contacts only when the door is closed.

[Claims 6 to 19 not printed in the Gazette.]

1,073,282. LUBRICATOR FOR PISTON-RODS. CANDIDO PALOMO Y GOITIANDIA, Deusto, Bilbao, Spain. Filed July 18, 1912. Serial No. 710,221. (Cl. 184—25.)



1. A lubricator for engine piston rods comprising in combination an annular plate split along a diameter, open upon the side facing the engine stuffing box, and formed to pass over the bolts of the latter, means for securing the two halves together, strengthening ribs upstanding from said plate, means for pressing said plate against the cover of the engine stuffing box, and a lubricating pad adapted to be continuously supplied with lubricant and held in contact with the engine piston rod by means of said annular plate.

2. A lubricator for engine piston rods comprising in combination an annular plate split along a diameter, open upon the side facing the engine stuffing box, and formed to pass over the bolts of the latter, means for securing the two halves together, strengthening ribs upstanding from said plate, means for pressing said plate against the cover of the engine stuffing box, and a lubricating pad adapted to be continuously supplied with lubricant and held in contact with the engine piston rod by means of said annular plate, and a duct formed in said annular plate itself to supply lubricant to said pad.

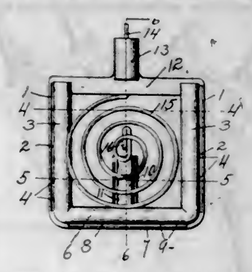
3. A lubricator for engine piston rods comprising in combination an annular plate split along a diameter, open upon the side facing the engine stuffing box, and formed to pass over the bolts of the latter, means for securing the two halves together, strengthening ribs upstanding from said plate, means for pressing said plate against the cover of the engine stuffing box, and a lubricating pad adapted to be continuously supplied with lubricant and held in contact with the engine piston rod by means of said annular plate, a lubricant container carried by said annular plate, and a duct formed in the annular plate itself to connect said container to said pad.

4. A lubricator for engine piston rods comprising in combination a thin plate surrounding the piston rod, and formed with two circular concentric walls upstanding from its surface, the inner wall being spaced from the piston rod and said plate being formed in a circular channel outside said inner wall and in communication with the space inside said wall, and a pad between said inner wall of the piston rod.

5. A lubricator for engine piston rods comprising in combination an annular plate surrounding the piston rod formed in two halves meeting along a diameter, each half having concentric semi-circular walls upstanding from their surfaces, forming when placed together two circular concentric walls, the inner wall being spaced from the piston rod, and each half being formed with a semi-circular channel outside the inner walls and in communication with the space inside said inner wall, and a pad between said inner wall and the piston rod.

[Claims 6 to 24 not printed in the Gazette.]

1,073,283. CRUDE-OIL BURNER. URIAH B. PATRICK and JOSEPH S. PATRICK, Oklahoma, Okla. Filed Nov. 21, 1912. Serial No. 732,702. (Cl. 158—65.)



1. An oil burner comprising air tubes, one air tube in communication with the outer ends of the remaining air tubes, semi-circular casings mounted upon the air tubes, said casings having perforations formed therein, a gas receiving tube connected to said casings, a feed pipe terminating in a coil which when heated generates gas, said gas being directed into the receiving tube and from thence to the casings to be ignited when passing through the perforations in the casings, and means for admitting air into the air tubes.

2. An oil burner of the class described comprising three air tubes having slots formed therein, one of said tubes connecting the outer ends of the other two tubes, semi-circular casings mounted upon the tubes, said casings having gas outlets formed therein and adjacent the slots of the air tubes, a gas receiving tube having communication centrally of the casings, extensions connected to the inner ends of the said other two air tubes, a sleeve in communication with the inner ends of the extensions to direct air through the extensions to the air tubes, and a feed pipe passing through the sleeve and terminating in a coil, the terminal of the innermost coil being provided with a nozzle spaced from the open end of the gas receiving tube, whereby when said coils are heated the oil will be vaporized and the gas generated thus will be ejected through the nozzle into the gas receiving tube.

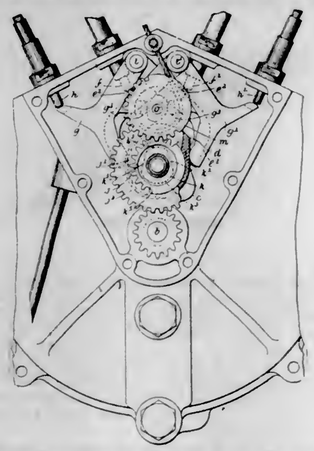
1,073,284. VALVE-GEAR FOR INTERNAL-COMBUSTION ENGINES. JOHN ALFRED PRESTWICH, Tottenham, London, England. Filed Dec. 31, 1912. Serial No. 739,480. (Cl. 123—91.)

1. The improved valve operating gear for the valves of two engine cylinders disposed radially, comprising a single cam shaft carrying one exhaust and one inlet cam, and adapted to operate the valves or valve spindles through the medium of pivotally mounted tappets or intermediate levers arranged in pairs, each pair of intermediate levers consisting of the inlet valve of one cylinder and the exhaust valve lever of the adjacent cylinder, said levers engaging the cams on approximately diametrically opposite sides of the cam shaft at different radial positions according to the angular positions of the valve spindles or cylinders.

2. The improved valve operating gear consisting of the combination with two engine cylinders arranged in V form of a single cam shaft carrying one inlet cam and one exhaust cam and pairs of valve tappet levers pivotally mounted in pairs consisting of the inlet valve lever of one cylinder and the exhaust valve lever of the other cylinder, said pair of levers engaging the cam shaft on approximately diametrically opposite sides.

3. The improved valve gear comprising the combination with the valve spindles of two cylinders arranged V fashion of a single cam shaft carrying one exhaust and one inlet cam, two inlet valve levers pivoted on adjacent centers within the angle between the axes of the cylinders, said levers crossing one over the other to engage the cams on opposite sides of the cam shaft, two exhaust levers

pivoted on the same centers as the inlet levers, said exhaust levers being of T shape, the arm of the T engaging the cam at one end and the valve spindle at the other.

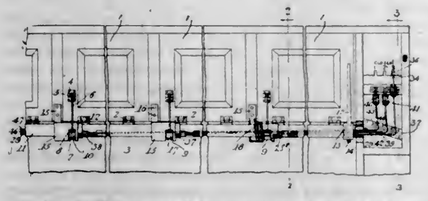


4. The improved valve operating gear for the valves of two engine cylinders disposed radially, comprising a single cam shaft carrying one exhaust and one inlet cam, and adapted to operate the valves or valve spindles through the medium of pivotally mounted tappets or intermediate levers arranged in pairs, each pair of intermediate levers consisting of the inlet valve of one cylinder and the exhaust valve lever of the adjacent cylinder, said levers engaging the cams on approximately diametrically opposite sides of the cam shaft at different radial positions according to the angular positions of the valve spindles or cylinders, an adjustable cam device rotating coaxially with the cam shaft and adapted to be protruded into the path of the exhaust levers during the compression stroke for the purpose set forth.

5. The improved valve operating gear consisting of the combination with two engine cylinders arranged in V form of a single cam shaft carrying one inlet cam and one exhaust cam and pairs of valve tappet levers pivotally mounted in pairs consisting of the inlet valve lever of one cylinder and the exhaust valve lever of the other cylinder, said pair of levers engaging the cam shaft on approximately diametrically opposite sides, an adjustable cam device rotating coaxially with the cam shaft and adapted to be protruded into the path of the exhaust levers during the compression stroke for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,073,285. VENTILATOR-CONTROL APPARATUS. JOSEPH PRONOVOST and ROLLA E. DUNCAN, Helena, Mont. Filed Apr. 17, 1913. Serial No. 761,707. (Cl. 16—28.)



1. A ventilating means for rooms of various kinds comprising movable ventilator doors, a rock shaft, sleeves loosely mounted upon the rock shaft, pivotal connections between each sleeve and door, and means carried by the shaft and adapted to engage the sleeves to cause the same to rock with the shaft, as set forth.

2. A ventilating means for rooms of various kinds comprising movable ventilator doors, a rock shaft, sleeves loosely mounted upon the rock shaft, pivotal connections between each sleeve and door, and spring-pressed means carried by the shaft and adapted to engage the sleeves to cause the same to rock with the shaft, as set forth.

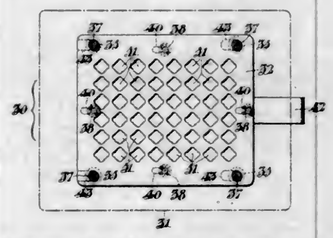
3. A ventilating means for rooms of various kinds comprising movable ventilator doors, a rock shaft, sleeves loosely mounted upon the rock shaft, pivotal connections between each sleeve and door, said sleeves being provided with notched ends, and spring-pressed means carried by the shaft and adapted to engage the notch in the sleeve, as set forth.

4. A ventilating means for rooms of various kinds comprising movable ventilator doors, a rock shaft, sleeves loosely mounted upon the rock shaft, pivotal connections between each sleeve and door, said sleeves being provided with notched ends, and a movable member mounted within the shaft and provided with a laterally projecting lug adapted to engage the notch in the sleeve, as set forth.

5. A ventilating means for rooms of various kinds comprising movable ventilator doors, a rock shaft, sleeves loosely mounted upon the rock shaft, pivotal connections between each sleeve and door, said sleeves being provided with notched ends, and a movable, spring-actuated member mounted within the shaft and having a laterally projecting lug designed to engage a notch in the sleeve, as set forth.

[Claims 6 to 9 not printed in the Gazette.]

1,073,286. CAPSULE-FILLING MECHANISM. JOSEPH PERCY REMINGTON, Philadelphia, Pa. Filed Sept. 23, 1908. Serial No. 454,415. (Cl. 128—32.)



1. In a capsule filling mechanism, means for handling the cap which comprises a plate perforated with a series of shouldered apertures; a parallel and similarly perforated locking plate; and means for shifting the locking plate laterally into position where the ribs between the apertures lock the caps in their seat on the shoulders of the apertures of the first mentioned plate.

2. In a capsule filling mechanism, means for handling the cap which comprises three parallel plates, each provided with a similar series of apertures, the lowermost plate having its apertures shouldered to seat the rims of caps, and the remaining plate being laterally shiftable to lock the cap in place on its seat.

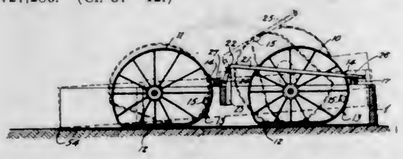
3. In a capsule filling mechanism, a grip plate provided with a seat-forming aperture, the inner wall of which is provided with spaced projecting engaging surfaces for compressing and frictionally gripping the closed end of the capsule member whereby it is retained in the grip plate.

4. In a capsule filling mechanism, a grip plate provided with a seat-forming aperture, the inner wall of which is provided with spaced projecting engaging surfaces for compressing and frictionally gripping the closed end of the capsule member, whereby it is retained in the grip plate, and means for inserting the closed end of said capsule member in said seat-forming aperture.

5. In a capsule filling machine, a grip plate provided with a seat-forming aperture, the inner wall of said aperture being constructed with certain sections thereof nearer the center of the aperture than others, whereby the end of the capsule member may be distorted and frictionally gripped and retained in said gripping plate.

[Claims 6 to 11 not printed in the Gazette.]

1,073,287. LAND-LEVELER. JESSE MARTIN ROBERTS, Los Angeles, Cal. Filed Oct. 23, 1912. Serial No. 727,286. (Cl. 37—42.)



1. In a machine of the class described, the combination with the framework, earth treating devices carried thereby, and longitudinal beams along each side of said framework; of two wheels mounted tandem alongside each beam, and each wheel having one flat side, means for locking the wheels with their flat sides downward, and manually controlled means for tripping the locking means.

2. In a machine of the class described, the combination with the framework, earth treating devices carried thereby and longitudinal beams along each side of said framework; of two wheels mounted tandem alongside each beam and each wheel having one flat side, means for locking the wheels with their flat sides downward, manually controlled means for tripping the locking means of the front pair of wheels and tripping mechanism for the locking mechanism of the rear pair of wheels controlled by the action of the forward tripping mechanism.

3. In a machine of the class described, the combination with the framework, earth treating devices carried thereby, and longitudinal beams along each side of said framework; of two wheels mounted tandem alongside each beam and each wheel having one flat side, independent locking mechanisms for holding the front pair of wheels with their flat sides downward and the rear pair of wheels with their flat sides downward, manually controlled means for tripping the front locking mechanism, hooks on the front wheels, and pivoted trip levers connected with said rear locking mechanism and adapted to be actuated by the rise of said hooks as the forward wheels rotate.

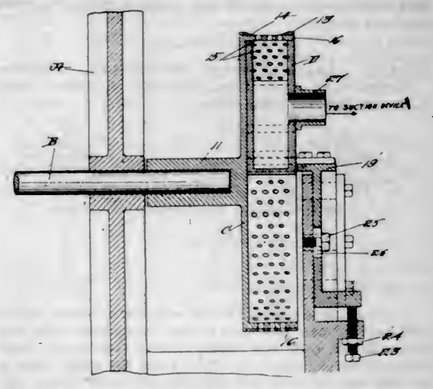
4. In a land leveler the combination with the framework having longitudinally spaced beams along its sides, runners carried by the outer beams and front and rear scrapers carried by said framework; of two wheels mounted tandem between the beams along each side, and each wheel having one flattened side with a spur projecting from its periphery forward of said side and a stop yet forward of said spur, locks extending across the beams forward of the wheels and adapted to engage said stops when the flattened sides of the wheels are beneath, and means for tripping said locks.

5. In a land leveler, the combination with the framework having longitudinal runners along its sides, and front and rear scrapers carried by said framework; of two wheels mounted tandem between the pair of beams along each side and each wheel having one flattened side with a stop projecting from its periphery forward of said side, locks extending across the runners forward of the wheels and adapted to engage said stops when the flattened sides of the wheels are beneath, and means for tripping said locks.

[Claims 6 to 14 not printed in the Gazette.]

1,073,288. BUFFING-MACHINE FOR PARTS OF BOOTS AND SHOES. DAVID N. ROBERTSON, Lynn, Mass., assignor of one-half to Percy F. Munsey, Swampscott, Mass. Filed Apr. 8, 1911. Serial No. 619,666. (Cl. 51—17.)

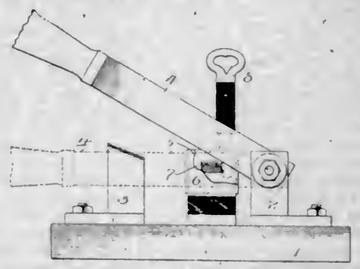
1. In a machine of the character described, the combination with a tool of a stationary suction box having a periphery which is an arc of a circle, and a cylindrical matrix with a work receiving depression formed in its periphery, said matrix being caused to rotate and to bring the work receiving depression periodically over the suction box.



2. In a machine of the character described, the combination with an operating tool of a rotating perforated matrix having a cavity in the surface thereof to receive the work, said matrix having an unobstructed interior, a stationary segmental suction box open on its periphery and coöperating with the perforated periphery of the matrix and means for adjusting the said suction box vertically to cause it to contact with the interior periphery of the said matrix.

3. In a machine of the character described, the combination with an operating tool of a perforated matrix provided with a removable perforated facing of soft metal having a suitable cavity formed therein to receive the work, and a suction box coöperating with said matrix to cause a piece of work in the said cavity to be held therein by air pressure.

1,073,289. ELECTRIC SWITCH. FREDERICK JAMES ROBINSON, Lackawanna, N. Y. Filed June 17, 1912. Serial No. 704,041. (Cl. 175—282.)

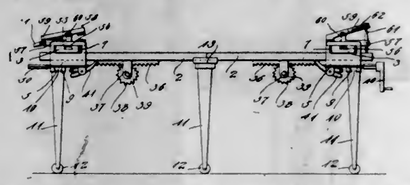


1. The combination with an electric switch comprising a base-board, a terminal post and contact plates mounted on said base-board, and a switch-blade pivoted to said post and adapted to be moved into closure with said contact plates; of a lock and a plate extending in parallel relation with the front end of said lock, said lock and plate being mounted on said base-board in such position that said plate and the front end of the lock form a guideway for said switch-blade, said lock having a bolt which in its normal position extends into said guideway.

2. The combination with an electric switch comprising a base-board, a terminal post and contact plates mounted on said base-board, and a switch-blade pivoted to said post and adapted to be moved into closure with said contact plates; of a lock mounted at one side of the plane of move-

ment of the switch blade with the upper surface of the lock approximately flush with the edge of said switch-blade when the latter is in its closed position, and a guide plate mounted upon the opposite side of said switch-blade, said lock and plate forming a guideway for said switch-blade, said lock having a bolt which, when projected, extends into said guideway.

1,073,290. LACE-CURTAIN STRETCHER. ANTHONY ROGALSKI, St. Louis, Mo. Filed Feb. 6, 1913. Serial No. 746,590. (Cl. 45—24.)

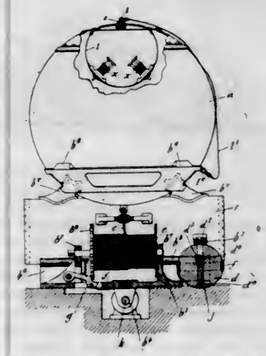


1. A curtain stretching frame comprising corner blocks, side and end bars having a sliding engagement with said corner blocks, rack bars connected with said corner blocks and adapted to project therefrom along the under sides of the side and end bars, rack engaging pinions revolubly supported on the under side of said side and end bars and having an operative engagement with said rack bars whereby said side and end bars are adjusted in said corner blocks, wrench engaging heads arranged on the shafts of said pinions whereby said pinions are operatively engaged with said racks, a series of rack teeth on the under side of said side and end bars, and spring projected pawls adapted to be engaged with said teeth whereby the side and end bars are held in their adjusted positions.

2. A curtain stretching frame comprising corner blocks, side and end bars having a sliding adjustable engagement with said corner blocks, said side bars being formed in separable sections, a block secured to one of the sections of one of said side bars, said block having therein a dove tail shaped recess, a dove tail shaped projection on the adjoining end of the companion section of said side piece whereby said sections are detachably secured together, a lug arranged on and projecting inwardly from said block, a block arranged beneath the sections of the opposite side bar, pivot bolts arranged in the ends of said sections and adapted to engage with said block whereby said sections are pivotally connected together and to the block, said block having therein, a transversely disposed passage, a central bracing and adjusting bar secured at one end to the lug on the connecting block of one of said side bars, and having a sliding engagement with the passage in the connecting block of the other side bar, a rack bar secured at one end to said block and projecting outwardly beneath the free end of said bracing and adjusting bar, a pinion carried by said end of the bar and having an operative engagement with said rack bar whereby the bracing bar is adjusted, a series of rack teeth arranged in the lower side of said bracing and adjusting bar, a spring projected pawl carried by said block and adapted to engage said teeth whereby said bracing bar is fastened in its adjusted positions, and means whereby the end and side bars are adjusted in said corner blocks to increase and diminish the size of the frame and to stretch the curtain fastened therein.

3. A curtain stretching frame comprising adjustably connected side and end bars having in their upper sides longitudinally disposed dove tail shaped grooves, curtain fastening devices comprising lower members having on their outer ends lower curtain gripping jaws, dove tail shaped lugs arranged on said lower members and having a sliding engagement with the dove tail shaped grooves in the side and end bars of the frame, an upper gripping member pivotally connected with said lower member and having on its outer end an upper gripping jaw to grip the edges of the curtain arranged in the frame, operating levers pivotally connected in the outer ends of the lower gripping members and adapted to be swung upwardly into engagement with the outer ends of the upper gripping members whereby the latter are actuated to bring the jaws thereon into coöperative engagement with the jaws on the lower members for gripping the edges of the curtain.

1,073,291. SUBMARINE MINE. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Feb. 14, 1913. Serial No. 748,414. (Cl. 102—3.)



1. A submarine mine adapted to be launched from a submarine vessel and comprising a float, an anchor and a regulating weight normally superimposed in the order named for launching, cables connecting said parts, said float and anchor each provided with a ballast reservoir having a valved closure, and connections between said valves and the anchor and float respectively and adapted to uncover said parts when said parts separate on launching.

2. In a submarine mine adapted to be launched from a vessel under water, the combination of a buoyant torpedo and an anchor, each having a ballast chamber provided with a sealed closure, a cable connecting said parts and flexible connections between said seals and said anchor and float respectively and retarding means on the operation of which said parts separate and cause said connections to break the seals.

3. In a submarine mine, the combination of a buoyant torpedo having a ballast chamber provided with a sealed closure, a separable anchor for said torpedo and means for breaking said seal operable by the separation of said anchor from said torpedo.

4. In a submarine mine, the combination of a buoyant torpedo provided with a ballast chamber having a port normally closed by a solder sealed plug, a separable anchor for said torpedo and connections between said plug and anchor for breaking said seal on the separation of said torpedo and anchor.

5. In a submarine mine, the combination of a buoyant torpedo and an anchor, each of said elements being provided with a ballast chamber having a port normally closed by a solder sealed plug, a cable for connecting said torpedo and anchor, a regulating weight on the release of which said anchor separates from said torpedo, and means successively operating to release said plugs.

1,073,292. ROPE-FITTING. EMILE R. SHNABLE, Chicago, Ill., assignor to Shnable & Quinn, Chicago, Ill., a Copartnership composed of Emile R. Shnable and John B. Quinn. Filed Mar. 9, 1910. Serial No. 548,296. (Cl. 114—115.)

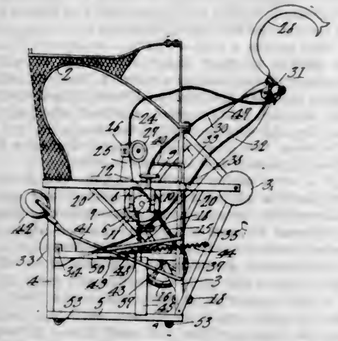
1. A rope fitting comprising a spatulate thimble having a continuous groove, and a shackle integral with the sides of said thimble, the legs of said shackle outstanding from the respective sides of said thimble, said legs having a tapering form and extending substantially across the respective faces of said thimble, substantially as described.

2. A rope fitting comprising a spatulate thimble having a continuous groove, and a shackle integral with the sides of said thimble, the legs of said shackle outstanding from the respective sides of said thimble, said legs having a tapering form and extending substantially across the respective faces of said thimble, the free ends of said legs having alined apertures, substantially as described.



3. A rope fitting comprising a spatulate thimble having a continuous groove, and a shackle integral with the sides of said thimble, the legs of said shackle outstanding from the respective sides of said thimble, said legs having a tapering form and extending substantially across the respective faces of said thimble, the free ends of said legs having alined apertures, and a pin in said apertures, substantially as described.

1,073,293. FIRE-ESCAPE. REUBEN SIDEMAN, San Francisco, Cal. Filed Feb. 12, 1913. Serial No. 748,031. (Cl. 227—22.)



1. In a device of the class described, a carrier; a frame mounted upon the carrier movably and adapted to project in front of the carrier; means for projecting the frame; and mechanism engaging the frame to actuate the frame initially and to render the frame responsive to said means, said mechanism including a fixed, overhead support.

2. In a device of the class described, a carrier; a frame hinged to the carrier and adapted to swing to a position in front of the carrier; means for swinging the frame into position in front of the carrier; and mechanism engaging the frame to impart initial movement to the frame and to render the frame responsive to said means, said mechanism including a part adapted for connection with an overhead support; and locking means for holding the frame in outstanding position in front of the carrier.

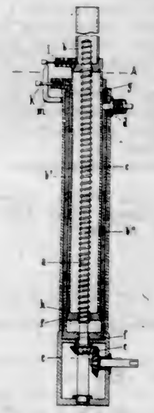
3. In a device of the class described, a carrier; a frame pivoted to the carrier; a movable member coöperating with the carrier and with the frame to swing the frame away from the carrier; and means for connecting said member with an overhead support.

4. In a device of the class described, a carrier; a frame pivoted to the carrier; a movable member coöperating with the carrier and with the frame to swing the frame away from the carrier; means for connecting said member with an overhead support; and locking mechanism for holding the frame in advanced position.

5. In a device of the class described, a carrier; a frame hinged to the carrier; a wedge interposed between the frame and the carrier; and means for connecting the wedge with an overhead support.

[Claims 6 to 14 not printed in the Gazette.]

1,073,294. EXTENSION AND RETRACTION DEVICE. ALEXANDER SIEWERT, Berlin, Germany. Filed Apr. 6, 1911. Serial No. 619,361. (Cl. 248—3.)

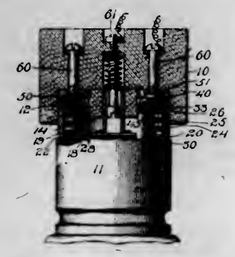


A device of the kind described comprising in combination an outer casing, a number of telescopic parts in said casing, a screw spindle placed in the interior of said telescopic parts, means for rotating said screw-spindle, a female screw at the bottom-end of each of said telescopic parts and adapted to engage the screw-threaded portion of said screw-spindle, a spring-governed bolt at the upper end of each of said telescopic parts adapted to engage a hole in the adjacent inner telescopic part before the latter leaves the top of said screw-spindle, means for disengaging said spring-governed bolts when said telescopic parts are retracted, and a spring governed bolt connected with said casing and adapted to project through all said telescopic parts with the exception of the innermost and to be pressed outward by the rising telescopic part to the extent of the thickness of one of said telescopic parts, substantially as set forth.

1,073,295. COMBINATION-LOCK FOR PLUG-AND-SOCKET FIXTURES. GUSTAF I. SILBERT, Chicago, Ill., assignor, by mesne assignments, to Chi-Ill Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 20, 1911. Serial No. 609,657. (Cl. 173—356.)

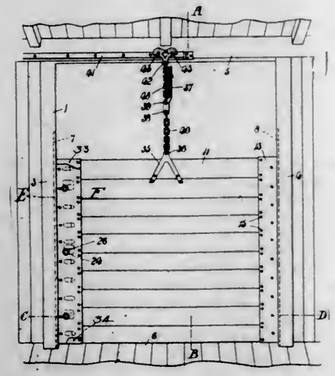
1. In an electric plug and socket fixture, a socket, a fixed cup shaped member therein provided at its annular wall with angularly spaced locking projections, a spring controlled member extending through the end wall of the cup shaped member, a plug adapted to enter said cup shaped member and provided with tumblers to engage

said projections, and a ring carried by said plug and provided at its inner end with an arc shaped smooth portion and with an arc shaped notched portion connecting the ends of said arc shaped smooth portion, said smooth and notched portions being adapted to be engaged by said spring controlled member in the rotation of the plug.



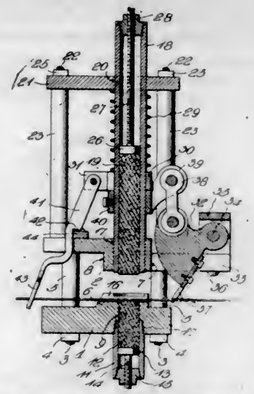
2. In an electric plug and socket fixture, a socket, a fixed cup shaped member therein provided at its angular wall with angularly spaced locking projections, a spring attached to the end wall of said cup shaped member and having a terminal which extends inwardly beyond said end wall and a plug adapted to enter and to be locked to the angularly spaced projections of said cup shaped member and provided with a circular ring member having a smooth and a notched portion for engagement with the terminal of said spring.

1,073,296. GRAIN-CAR DOOR. THOMAS SILLS, Westmount, Quebec, Canada. Filed Apr. 2, 1912. Serial No. 687,949. (Cl. 20—30.)



In a grain car door, the combination with the car body having a door opening in the side thereof and vertical recesses in the frame of said door opening, of a door having a permanent piece extending into one of said vertical recesses at one side and at the other side a vertical slot registering with the other vertical recess in door frame, inner and outer face plates having a plurality of journal orifices communicating with said slot, a locking plate slidable laterally in its said slot and having a plurality of substantially rectangular openings therethrough registering with the aforesaid journal orifices, a plurality of cam levers having a journal end bearing in said journal orifices, a squared key recess from their outer sides and a cam extension adapted to engage the vertical walls of said openings in the locking plate and adapted to operate said laterally sliding plate.

1,073,297. WIRE-WIPING MACHINE. ALBERT S. SMELSER, Anderson, Ind. Filed June 17, 1912. Serial No. 704,161. (Cl. 91—59.4.)



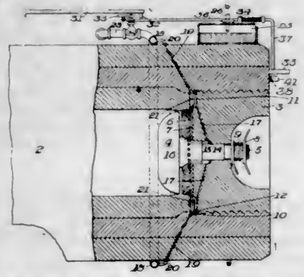
1. In a wire wiping machine, the combination with upper and lower supporting plates, lower magazines secured to said lower plate, upper magazines slidably mounted in said upper plate, a guiding plate spaced above said upper supporting plate, collars secured to said upper magazines, springs between said collars and upper guiding plate, and wiping material in said magazines; of a series of pivotally supported levers, links connecting them with the collars on said magazines, forked tripping plates on said levers and adapted to be engaged by obstructions in the wires, a series of other levers each pivoted to one of said collars and having a notch in its body and a finger in its lower end for the purpose set forth, and a supporting bar carried by the lower plate over which said notch rests.

2. In a wire wiping machine, the combination with upright guides, a lower magazine seated in the lower guide, an upper magazine movably mounted in the upper guide, wiping material within said magazines, and means for feeding it toward the wire being treated; of a framework carrying said guides, a supporting bar across the framework, levers pivoted at their upper extremities to said upper magazines and each having a notch in its body adapted to rest over said bar, its lower end being forked and passing astride the wire being treated, a forked trip finger standing astride said wire forward of the magazine, and connections between this finger and the upper magazine whereby the latter is raised by a knot in the wire.

3. In a wire wiping machine, upper and lower magazine supporting plates, means to connect and space said plates a suitable distance apart, lower wiper holding magazines secured to said lower plate, upper wiper holding magazines slidably mounted in said upper plate, a magazine guiding plate spaced above and secured to said upper magazine supporting plate to receive and guide the upper ends of said upper magazines, upper and lower collars secured to said upper magazines, springs arranged between said upper collars and said upper guiding plate whereby the upper magazines are yieldingly held in operative position, wiping material arranged in said magazines and held thereby in position to engage the wires drawn through the machine, an upper magazine lifting mechanism comprising a series of pivotally supported levers connected at one end with the lower collars on said magazines, forked tripping plates secured to the opposite ends of said levers and adapted to be engaged by obstructions in the wires whereby the levers are rocked and said upper magazines thereby raised, means to support said magazines in a raised position while the obstructions are passing the magazines, and means whereby said supporting means is tripped by the obstructions in the wires to permit the magazines to lower.

4. In a wire wiping machine, a lower magazine supporting plate, and an upper magazine supporting plate having therein a series of notches, a series of lower wiper holding magazines fixed in said lower supporting plate, a series of upper wiper holding magazines slidably mounted in said upper plate, wire wiping material arranged in said magazines, upper and lower collars secured to said upper magazines, springs to hold the latter in operative position, an upper magazine lifting mechanism comprising a series of supporting blocks secured to said upper supporting plate, lifting levers pivoted in said blocks and adapted to engage the notches in said plate, links to connect one end of said levers to the upper collars of the magazines, forked tripping plates secured to the opposite ends of said levers to receive the wires, whereby obstructions in the latter will engage said plates and trip said levers, thereby raising the upper magazines, magazine supporting levers pivotally secured to said upper collars and having therein notches, supporting bars on said upper magazine supporting plate adapted to be engaged by the notches in said levers whereby the magazines are supported in an elevated position when raised by said lifting mechanism, and bifurcated trip fingers on said supporting levers adapted to be engaged by the obstructions in the wire whereby said levers are tripped to permit the springs on said magazines to lower the latter.

1,073,298. ORDNANCE. WILLIAM D. SMITH, Washington, D. C., assignor to W. D. Smith Ordnance Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Mar. 12, 1910. Serial No. 548,974. (Cl. 89—1.)



1. In a gun, a mushroom head having a spindle, a fluid inlet port arranged to be opened and closed by the movement of the mushroom head, means to supply fluid pressure to said port, and means actuated by the fluid pressure to advance the mushroom head to open the port to flush the gun; substantially as described.

2. In a gun, a breech block, a valve having a spindle, a pressure chamber within the breech block, there being a fluid inlet port arranged to be opened and closed by the movement of the valve, means to supply fluid pressure to said chamber, and a piston in said chamber arranged to be actuated by the fluid pressure to shift the valve to open the port to flush the gun; substantially as described.

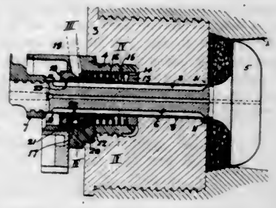
3. In a gun, a mushroom head having a spindle, a fluid inlet port arranged to be opened and closed by the movement of a mushroom head, a piston connected to the spindle of the mushroom head, and means to admit fluid pressure back of said piston to advance the mushroom head to open the port to flush the gun; substantially as described.

4. In a gun, a breech block, a chamber in the breech of the gun, a portion of its walls being formed by the breech block when the breech block is seated in the breech of the gun, a packing ring arranged to seal the opening between the breech block and the wall of the opening in which the breech block is seated, means to supply fluid pressure to said chamber, a gas check, the breech block being arranged to be moved rearwardly to permit the gas check to move rearwardly to allow the fluid pressure to pass over the gas check to cool the gun before the seal formed by the packing ring is broken, substantially as described.

5. In a gun, a breech block, a chamber in the breech of the gun, a portion of its walls being formed by the breech block, when the breech block is seated in the breech of the gun, a packing ring in said chamber arranged to follow the breech block when it is rotated to seal the opening between the breech block and the wall of the opening in the gun in which the block is seated, a mushroom head, means to supply fluid pressure to said chamber, a gas check between the mushroom head and the breech block, the mushroom head being arranged to withdraw the gas check when the breech block is drawn rearwardly to allow the fluid pressure to pass over the periphery of the gas check into the bore of the gun; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,073,299. ORDNANCE. WILLIAM D. SMITH, Washington, D. C., assignor to W. D. Smith Ordnance Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Dec. 2, 1910, Serial No. 595,320. Renewed Feb. 7, 1913. Serial No. 746,925. (Cl. 89—1.)



1. In a gun flushing device, a mushroom head having a spindle provided with a fluid duct, there being an inlet and outlet port communicating with the duct, a pressure chamber, means for moving the mushroom head and the spindle, and means to supply fluid pressure to said chamber, the ports being so arranged that pressure will not be admitted to the inlet port until after the mushroom head has been advanced a predetermined distance; substantially as described.

2. In a gun flushing device, a mushroom head having a spindle provided with fluid ducts, there being an inlet and an outlet port communicating with each duct, a pressure chamber, means to supply fluid pressure to said chamber, and means to advance the mushroom head, the ports being so arranged that the inlet port will be open to the atmosphere until after the mushroom head has been advanced a predetermined distance, substantially as described.

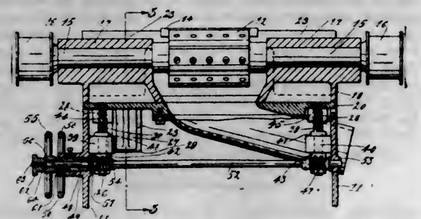
3. In a gun flushing device, a mushroom head having a spindle provided with fluid ducts, there being an inlet and an outlet port communicating with each duct, a pressure chamber, means to supply fluid pressure to said chamber, anad a piston arranged to be acted upon by the pressure in said chamber to advance the mushroom head, the ports being so arranged that the inlet port will be open to the atmosphere until after the mushroom head has been advanced a predetermined distance, substantially as described.

4. In a gun flushing device, a mushroom head having a spindle, said spindle having a plurality of fluid ducts along its periphery, and a sleeve mounted on said spindle arranged to form a portion of the wall of each duct, there being an inlet and an outlet port through the sleeve for each duct, substantially as described.

5. In a gun flushing device, a mushroom head having a spindle extending into a chamber, a piston on said spindle within the chamber, a spring ring keyed to said spindle, a groove in the wall of said chamber, a projection on said ring having an engagement with the groove in wall of the chamber, a packing ring on the piston, and a projection on the ring within the groove, said packing ring being arranged to form a tight joint between the piston and the walls of the chamber, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,073,300. PLANING-MACHINE. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Filed May 29, 1913. Serial No. 770,715. (Cl. 144—130.)



1. In a wood planing machine, the combination, with a frame and a cutter-head arranged for operating on the under side of the material, of a pluri-part support for said cutter-head, the parts of said pluri-part support being superposed and having guiding means therebetween for shifting of an upper one of said parts on a lower one of said parts parallel to the axis of said cutter-head, adjusting means having adjusting connection with a lower one of said parts for adjusting said plurality of parts up and down, and means between said frame and an upper one of said parts for clamping said last-named part rigidly to said frame.

2. In a wood planing machine, the combination, with a cutter-head arranged for operating on the under side of the material, of a support for said cutter-head, and means at each end of said support for adjusting said respective ends to elevation, and operating means for each of said last-named means arranged for independently adjusting each of said ends to elevation, and means for clamping said operating means together for simultaneously adjusting both said adjusting means by operation of either of said operating means.

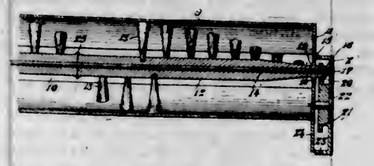
3. In a wood planing machine, the combination, with a cutter-head arranged for operating on the under side of the material, of a cutter-head support therefor, adjusting means at each end of said support for adjusting said respective ends to elevation, a hollow shaft having operative connection with one of said adjusting means, an operating shaft in said hollow shaft having operative connection with the other of said adjusting means, an operating part for operating each of said shafts independently, and means for clamping said shafts together for causing simultaneous operation of both said adjusting means.

4. In a wood planing machine, the combination with a cutter-head arranged for operating on the under side of the material, of a support for the same, an adjusting means for each end of said support, and operating means for said respective adjusting means comprising a hollow shaft having operative connection with one of said adjusting means for operating the same, a shaft in the bore of said hollow shaft having operative connection with the other of said adjusting means for operating the same, a hand-wheel on each of said shafts, a friction clutch between one of said hand-wheels and one of said shafts, and means on said last-named shaft acting to move said last-named hand-wheel endwise for engaging said clutch and thereby clamping said shafts together.

5. In a wood planing machine, the combination, with a cutter-head arranged for operating on the under side of the material, of a frame, a support for said cutter-head, said frame and support having vertical guide-faces therebetween parallel to the axis of rotation of said cutter-head, means at each end of said support for independently adjusting said respective ends to elevation on said guide-faces, and pin and slot guide connection extending vertically between said frame and support across the guide-faces between said frame and support for guiding said support up and down in said frame and for tilting thereof in said frame and positioning said support in said frame in directions parallel to the axis of rotation of said cutter-head.

[Claims 6 to 10 not printed in the Gazette.]

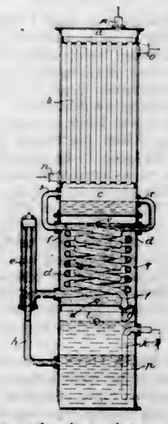
1,073,301. SUCTION CARPET-SWEEPER. JAMES M. SPANGLER, Canton, Ohio, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio, a Corporation of Ohio. Filed July 24, 1911. Serial No. 640,260. (Cl. 15—60.)



1. In a suction carpet sweeper of the character described, a hollow brush cylinder, end plates closing the ends of said cylinder and provided with spindle apertures, bearing portions connected to and outwardly spaced from said end plates, a fixed shaft extending through said cylinder and apertures and connected at its ends to said bearing portions, a brush within said casing and provided with a spindle portion rotatably mounted upon said fixed shaft, driving wheels rotatably mounted on the outer side of said end plates and means between said bearing portions and said end plates operatively connecting said driving wheels and spindle.

2. In a suction carpet sweeper of the character described, a brush cylinder, an end plate therefor provided with an aperture axially disposed with reference to said cylinder, a brush spindle rotatably mounted in said cylinder and having its outer end extending through said aperture, said spindle provided with an annular flange in a plane with said end plate, and closely but freely rotatably fitting within said aperture, said spindle also provided with an annular concave surface immediately on the inner side of said annular flange, and driving means on the outer side of said end plate, operatively connected to the portion of said spindle projecting outwardly from said plate and adapted to rotate said spindle.

1,073,302. COOLER FOR CONDENSING MIXTURES OF HYDROCARBON AND STEAM. CARL STILL, Recklinghausen, Germany. Filed Sept. 28, 1911. Serial No. 651,748. (Cl. 196—5.)



1. In coolers for condensing mixtures of hydrocarbon and steam, the combination of a vertical cylinder having transverse partitions thereof forming a lower chamber, a worm chamber, an upper chamber, a tube chamber and a distributing space; tubes in the tube chamber and connecting the distributing space with the upper chamber; a pair of worms in the worm chamber and connecting the upper and lower parts respectively of the upper chamber with the corresponding parts of the lower chamber; means for conducting cooling fluid to the tube chamber; means for conducting cooling fluid to the worm chamber; and discharge means for the upper and lower parts respectively of the lower chamber.

2. In coolers for condensing mixtures of hydrocarbon and steam, the combination of a vertical cylinder having transverse partitions thereof forming a lower chamber, a worm chamber, an upper chamber, a tube chamber and a distributing space, tubes in the tube chamber and connecting the distributing space with the upper chamber; a pair of worms in the worm chamber and connecting the upper and lower parts respectively of the upper chamber with the corresponding parts of the lower chamber; means for conducting cooling fluid to the tube chamber; means for conducting cooling fluid to the worm chamber; and discharge means for the upper and lower parts respectively of the lower chamber, said worm connecting the lower part of the chambers extending outside of said cylinder and forming a passage extending from the lower part of the worm chamber on the outside of the cylinder to a point near the upper part thereof.

3. In a cooler for condensing mixtures of hydrocarbon and steam, the combination of a vertical cylinder; a series of vertical vapor condensing tubes therein; means for feeding the vapors into the said tubes; means for passing a cooling oil around said tubes; a chamber beneath said tubes for receiving the vapors and liquid therefrom; a worm communicating with the upper part of the chamber for the vapors and another worm communicating with the lower part of the chamber for the liquid emerging therefrom, both worms extending lower than said chamber; means for cooling the two worms, and another chamber receiving the vapor worm at its upper part and the liquid worm at its lower part for finally separating the lighter and heavier liquids and means for discharging the liquids from the last named chamber.

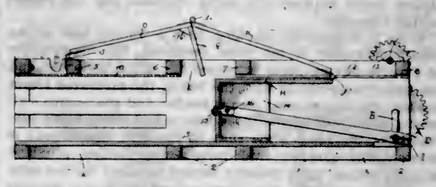
4. In a cooler for condensing mixtures of hydrocarbon and steam, the combination of a vertical cylinder; a series of vertical vapor condensing tubes therein, means for feeding the vapors into the said tubes, means for passing a cooling oil around the tubes; a chamber adapted to receive the vapors and liquid from the tubes; a worm for the vapors and another worm for the liquid emerging from the said chamber and communicating with the upper and lower parts of the chamber respectively and extending beneath the chamber; another means for passing a cooling fluid around the active part of the worms for cooling the worms; another chamber for finally separating the lighter and heavier liquids and having its upper and lower parts communicating with the worm for the vapors and the worm for the liquid respectively; said worm for the liquids being formed on the outside of the apparatus so as to extend from below its active part to a point above its active part; and means for discharging the liquids into last named chamber.

1,073,303. TROLLEY-GUARD. MIKOLAJ SZWARGULSKI, St. Louis, Mo. Filed Jan. 27, 1913. Serial No. 744,571. (Cl. 191—78.)



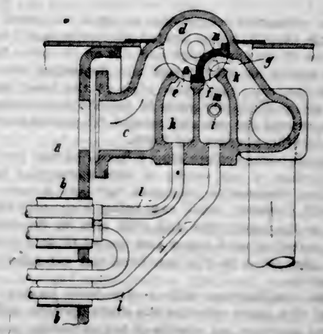
In a trolley guard, a trolley pole having on its upper end bearing plates, a cross bar connecting the lower portion of said plates, a trolley wheel revolubly mounted in the upper portion thereof, a guard operating weight pivotally mounted between the lower portion of said plates and adapted to swing between the end of the trolley pole and the cross bar connecting the plates, a bar engaging lug formed on said weight, spring contact arms secured to the sides of the weight and projecting upwardly above the trolley wheel, pairs of inwardly extending bearing lugs on the upper ends of said arms, contact rollers revolubly mounted between said lugs said rollers being held in operative engagement by the spring action of said arms whereby the trolley wheel is prevented from being casually disengaged from the trolley wire and whereby when said rollers are brought into engagement with the parts of a trolley wire switch or crossing member, said guard will be swung to an inclined position wherein the contact rollers will engage the parts of the switch or crossing member in rear of the point thereon engaged by the trolley wheel, thus preventing the breaking of the electric circuit when the trolley wheel passes from one part of the switch or crossing member to another part thereof.

1,073,304. HAY-PRESS. EDWARD L. TATUM, Shop Spring, Tenn. Filed Jan. 11, 1912. Serial No. 670,668. (Cl. 100—25.)



In a baling press, the combination with an open-ended housing having a discharge end and a central hopper opening within its top, of a lever having one end pivotally secured near the discharge end of said housing with its other end terminating above said hopper opening, a plunger slidably held within said housing, said housing having an access opening within its top above said plunger, an operating bar pivotally secured at one end to said lever and at its other end to the top of said plunger and passing through said access opening, and a tamping bar secured to the end of said lever arranged at times to pass through said hopper opening.

1,073,305. SMOKE-TUBE SUPERHEATER. PETER THOMSEN and EGMONT DOETTLOFF, Cassel, Germany, assignors to Schmidt'sche Heissdampf-Gesellschaft mit beschränkter Haftung, Cassel, Germany, a Corporation of Germany. Filed Oct. 29, 1912. Serial No. 728,394. (Cl. 122—462.)



1. In a locomotive provided with a blower and smoke tube superheater of the class described, the combination

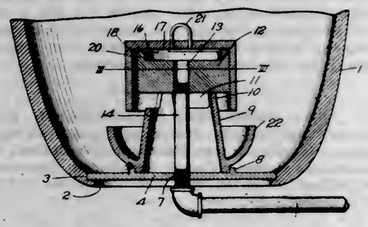
of a superheated steam header having steam connection with the engine cylinders, a valve for closing off said steam connection, and an outlet from said header between the valve and the superheater elements connected to the blower.

2. In a locomotive provided with a blower and smoke tube superheater of the class described, the combination of a saturated steam header having steam connection with the boiler, a superheated steam header having steam connection with the engine cylinders, a direct connection between the boiler and the cylinders, a valve controlling said three connections and adapted to simultaneously close the connection between superheated header and engine cylinders and the direct connection between boiler and engine cylinders, and an outlet from the superheated header between the valve and the superheater elements connected to the blower.

3. In a locomotive provided with a blower and smoke tube superheater of the class described, the combination of a valve having ports connected respectively with the boiler, the saturated steam header, the superheated steam header and the engine cylinders and provided with a valve member arranged to simultaneously close the ports of the superheated header and of the engine cylinders, with the superheated header said header being provided with a blower outlet between the valve chamber and the superheater elements.

4. In a locomotive provided with a blower and smoke tube superheater of the class described, the combination of a valve having ports arranged one after the other and connected respectively with the boiler, the saturated steam header, the superheated steam header and the engine cylinders, the width of the three last named ports being substantially the same while that of the first named port is substantially greater, said valve being further provided with an arched valve member having terminal flanges wide enough to close the three last named ports but not the first named port, with the superheated header, said header being provided with a blower outlet between the valve chamber and the superheater elements.

1,073,306. OIL-BURNER. LUKE TOZER, Iola, Kans. Filed Jan. 13, 1913. Serial No. 741,798. (Cl. 158—53.)



1. An oil burner comprising an open top barrel having side ports therein, a cap located above the barrel and having bosses on its upper edge and ribs on its outer face, and a hood seated on said bosses and depending around the body of the cap, the lower edge of the hood being extended below the barrel ports to provide an annular chamber and around the cap and around the ported part of the barrel, for the purpose set forth.

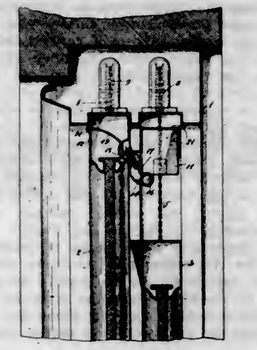
2. An oil burner comprising a barrel having ports in its upper portion, a cap seated on said barrel and having a generating chamber in its upper face and a bore opening into said chamber, said cap being also provided with bosses on its upper edge and with ribs on its outer face, a hood seated on said bosses and spaced by said ribs, and a supply pipe fixed in the cap bore and extended through said barrel.

3. The combination with a fire bowl having a grate opening, of a plate covering the grate opening and having a central aperture, an apertured bar extending across said central aperture, a barrel supported on said plate and covering the aperture therein and having ports in its upper end, a cap supported on said barrel and having a generating chamber in its upper portion and a bore opening into said generating chamber, a hood covering the cap and depending around the upper portion of the barrel, and a supply pipe fixed in said bore and extending through the barrel and through the aperture in the plate bar.

4. An oil burner comprising a barrel having legs on its upper edge and having side ports, a cap seated on said legs and having a generating chamber in its upper face and a bore opening into said generating chamber, said cap being provided with bosses on its upper edge and with ribs on its side face, a hood having a base supported on said bosses and spaced upwardly from the body of the cap and a side flange depending over the body of the cap and below the side ports in the barrel and spaced by said ribs from the cap and barrel to provide an annular passage, and a supply pipe fixed in the cap bore and extending through the interior of said barrel.

5. The combination with a fire bowl having a grate opening, of a plate supported on the bowl and covering the grate opening and having a central aperture, a bar integral with the plate and extending through said aperture and having an aperture therein, a barrel seated on said plate and covering the plate aperture and having ports in its upper portion, a cap seated on said barrel and having a generating chamber in its upper portion and having a bore opening into the generating chamber, a pipe fixed in said bore and connected with said plate whereby the barrel is clamped between the cap and plate, and a hood supported on the cap and depending around the ported portion of said barrel.

1,073,307. AUTOMATIC SELF-CLOSING ATTACHMENT FOR WINDOWS. EZEKIEL VAN NOORDEN, Boston, Mass. Filed Nov. 29, 1912. Serial No. 733,927. (Cl. 189—74.)



1. In a window, the combination of upper and lower sliding sashes and fixtures supporting said sashes, of a releasable weight carried by the upper sash and loosely cooperating with the fixture supporting said lower sash, whereby it may become attached thereto upon a release thereof from said upper sash, and means for securing said weight to said upper sash, whereby it may automatically become released therefrom in case of fire.

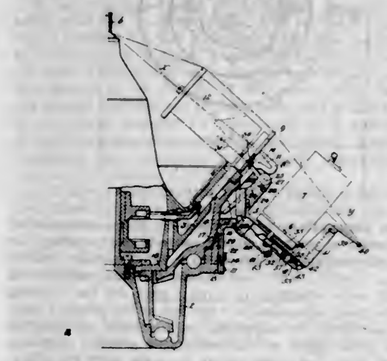
2. In a window, the combination with a balanced lower sliding sash and fixture supporting the same, of an upper sash, a releasable weight carried by said upper sash with an opening therein through which said fixture extends, and means for releasably securing said weight to said upper sash.

3. In a window, the combination with a balanced lower sliding sash and fixture supporting the same, of an upper sash, a releasable weight having an opening therein carried by said upper sash and arranged whereby said fixture may extend through the opening in the weight, and means for releasably securing said weight to said upper sash, whereby it may turn when released and form a bight in said fixture for attaching itself thereto.

4. In a window, the combination with upper and lower sliding sashes, of a fixture supporting said lower sash and balancing weight carried by it, a fixture supporting said upper sash, an overbalancing weight carried by it, a counterbalancing weight carried by said upper sash and loosely coöperating with the fixture supporting said lower sash, whereby it may become attached thereto upon a release thereof from said upper sash, and means for securing said weight to said upper sash, whereby it may automatically become released therefrom in case of fire.

5. In a window, the combination with a balanced lower sliding sash and fixture supporting the same, of an upper sash, a weight having an opening in it carried by said upper sash and arranged whereby said fixture may extend through the opening in the weight, a fixture bearing said weight pivotally secured to said upper sash, and means connecting with said upper sash for maintaining said pivoted fixture supporting said weight in an operative position, said means comprising in part a fusible connection.

1,073,308. BRAIDING-MACHINE. SIMON W. WARDWELL, Providence, R. I. Filed Jan. 19, 1911. Serial No. 603,530. (Cl. 28—4.)



1. In a braiding machine, the combination with a rotating turret, of supply-carriers revolved by said turret about the axis of the machine, stopping-mechanism to arrest the rotation of the turret, feeler-devices carried by the turret and adapted to be moved into position to cause the operation of the stopping-mechanism, tension-devices to control the delivery of the yarn from the supply-carriers, and means coöperating with said tension-devices to cause the operation of the feeler-devices under abnormal tension on the yarn.

2. In a braiding machine, the combination with the rotating turrets, of supply-carriers revolved by said turrets about the axis of the machine, stopping-mechanism to arrest the rotation of the turrets, feeler-devices for causing the operation of the stopping-mechanism, tension-devices on the carriers for controlling the delivery of the yarn, and means coöperating therewith to actuate the feeler-devices upon relief or excess of tension on the yarn.

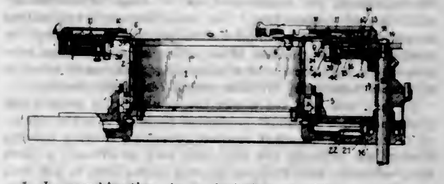
3. In a braiding machine, the combination with a plurality of supply-carriers for carrying the supply-cops of yarn, of means to revolve the supply-carriers about the axis of the machine, stopping-mechanism to arrest the movement of the supply-carriers, means to actuate the stopping-mechanism, feeler-devices carried by said supply-carriers and adapted to be thrown into position to cause the operation of the stopping-mechanism through their movement with the carriers, means to control the delivery of the yarn from the supply-carriers, and devices coöperating therewith to actuate the feeler-devices when the delivery of the yarn is impeded.

4. In a braiding machine, the combination with a plurality of supply-carriers for carrying the supply-cops of yarn, of means to revolve the supply-carriers about the axis of the machine, stopping-mechanism to arrest the movement of the supply-carriers, feeler-devices to cause the operation of the stopping-mechanism, tension-devices carried by the supply-carriers to control the delivery of the yarn therefrom, and means whereby said tension-devices act in one direction upon relief of tension and in the opposite direction upon excess of tension to move the feeler-devices to cause the operation of the stopping-mechanism.

5. In a braiding machine, the combination with a plurality of supply-carriers for carrying the supply-cops of yarn, of means to revolve the supply-carriers about the axis of the machine, stopping-mechanism to arrest the movement of the supply-carriers, feeler-devices to cause the operation of the stopping-mechanism, a rock-shaft on the supply-carrier, an arm on said shaft adapted to be moved from variations in tension on the yarn, a lever operated from said arm through the rock-shaft, a spring to control the movement of the arm and lever, and means intermediate the lever and feeler-device to cause the operation of the latter when the arm is moved against the action of the spring under abnormal tension on the yarn.

[Claims 6 to 16 not printed in the Gazette.]

1,073,309. KNITTING-MACHINE. FRANK WILCOMB, Norristown, Pa., assignor to Wilcomb Machine Company, Norristown, Pa. Filed Feb. 16, 1909. Serial No. 478,180. (Cl. 66—26.)



1. In combination in a knitting machine, needles, a needle bed, yarn sinking means, web holders having work ends and upper nibs, and cam means for operating them to present their nibs for evening the loops across the tops prior to drawing the loops into the fabric, said web holders being arranged in a plane below the sinkers, substantially as described.

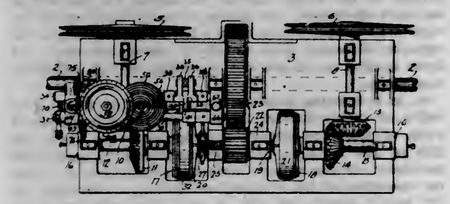
2. In combination in a knitting machine, needles, a bed therefor, yarn sinking means, sliding web holders having work ends and upper nibs, and operating means therefor to present their nibs for evening the loops across their tops prior to drawing the loops into the fabric, substantially as described.

3. In combination in a knitting machine, needles, a needle bed, independently operated sinkers, web holders having work ends and upper nibs, and cam means for operating the web holders to present their nibs for evening the loops across their tops, said web holders operating in a plane below that of the sinkers substantially as described.

4. In combination in a knitting machine, needles, a needle bed, sliding sinkers and sliding web holders, said web holders having work ends and upper nibs and cam means for operating the web holders to present their nibs for evening the loops across their tops, said sinkers and web holders operating in different horizontal planes substantially as described.

5. In combination in a knitting machine, needles, a needle bed, sliding web holders, a web holder bed having radial guiding grooves of equal width throughout their length, a web holder cam with a space adjacent the same for the passage of the web holders, said web holders having thin noses and reinforced or thickened lower portions to fit in the grooves of the web holder bed at their nose end, said web holders being removable forwardly through the space adjacent the web holder cam and through the guiding grooves at the nose end, substantially as described.

1,073,310. SAWMILL SET-WORKS. CHARLES WILLIAM WILLETTE, Tacoma, Wash. Filed Feb. 23, 1909. Serial No. 479,312. (Cl. 143—120.)



1. In a saw mill set works the combination with a bed plate having a set shaft journaled therein; an axially movable central shaft journaled in the bed plate and geared to said set shaft; two oppositely rotating end shafts journaled in the bed plate and prevented from axial motion by thrust bearings at their ends, said shafts being co-axial with said central shaft and at each end thereof; friction couples mounted on adjacent ends of said end and central shafts; friction-couple-controlling means whereby the central shaft is moved axially to bring one of said friction couples into operation whereby the central shaft and set shaft are rotated; a brake drum mounted on the central shaft; a brake band surrounding said brake drum; brake-band-controlling means whereby the tension of the brake band on the drum is controlled; and means connecting the friction-couple-controlling means with the brake-band-controlling means whereby the brake band is slackened after either of the friction couples are in operation, and whereby the brake band is again tightened before the friction couple ceases to operate.

2. In a saw mill set works the combination with a bed plate having a set shaft journaled therein; a brake adapted to hold the set shaft against rotation; friction driving mechanism whereby the set shaft may be driven; a hand lever whereby said friction driving mechanism is put into operative position to drive the set shaft and whereby the brake is released after the driving mechanism is in action; and automatic means actuated by the rotation of the set shaft whereby the brake is again applied and whereby the friction driving mechanism is released after the brake has been applied.

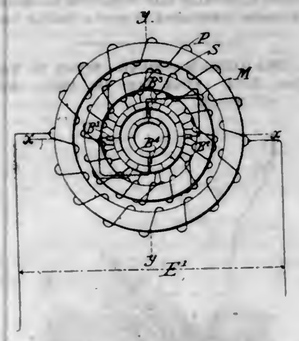
3. In a saw mill set works the combination with a bed plate having a set shaft journaled therein; a friction driving mechanism whereby the set shaft may be driven; a hand lever whereby the driving mechanism is put into operative position to drive the set shaft; a vertical shaft; spiral gears mounted on the set shaft and vertical shaft whereby the vertical shaft is rotated by the set shaft without back-lash; and means actuated by the vertical shaft whereby the friction driving mechanism is released.

4. In a saw mill set works the combination with a bed plate having a set shaft journaled therein; a friction driving mechanism whereby the set shaft may be driven; a hand lever whereby the driving mechanism is put into operative position to drive the set shaft; a vertical shaft; spiral gears mounted on the set shaft and vertical shaft whereby the vertical shaft is rotated by the set shaft without back-lash; a lug connected to said vertical shaft and being rotatively adjustable thereon; and means engaged and actuated by said lug whereby the friction driving mechanism is released.

5. In a saw mill set works controlling mechanism, the combination with a set shaft and vertical shaft driven thereby; of a disk secured to the vertical shaft and having angular teeth formed on its upper face; a hand wheel loosely mounted on the vertical shaft and having a screw threaded hub extending downward therefrom; a second disk mounted on said screw threaded hub and having teeth in its lower face adapted to engage and fit the teeth in the first disk; a brake shoe engaging said second disk to resist its rotation; limiting lugs secured to the hand wheel and second disk whereby the relative motion thereof is limited and whereby the second disk is turned with the hand wheel when its teeth are free from the teeth of the first disk; means adapted to stop the rotation of the set shaft; and means mounted on the second disk and adapted to engage and actuate said stopping means.

[Claims 6 and 7 not printed in the Gazette.]

1,073,311. DYNAMO-ELECTRIC MACHINE. GABRIEL WINTER, deceased, by Otto Wolfrum, administrator, Vienna, Austria-Hungary, and FRIEDRICH EICHBERG, Berlin, Germany; said Winter and said Eichberg assignors to General Electric Company, a Corporation of New York. Original application filed June 11, 1902, Serial No. 111,180. Divided and application filed Aug. 3, 1906, Serial No. 329,022. Divided and this application filed Jan. 9, 1912. Serial No. 670,162. (Cl. 172—277.)



1. An alternating current machine of the commutator type having a rotor, a stator entirely surrounding the rotor and separated therefrom by a substantially uniform air gap, brushes and connections therefor coöperating with the rotor windings to form a path for the working currents along approximately the line of the primary field, and connections for supplying to the rotor an exciting current at an angle to the line of the primary field and in series with and consequently in phase with the working currents.

2. An alternating current machine of the commutator type having a rotor, a stator surrounding the rotor and separated therefrom by a substantially uniform air gap, brushes and connections therefor coöperating with the rotor windings to form a path for the working currents along approximately the line of the primary field, separate brushes at an angle to the first, and connections for feeding to the separate brushes an exciting current in series with and consequently in phase with the working currents.

3. An alternating current machine of the commutator type having a rotor, a stator entirely surrounding the rotor and separated therefrom by a substantially uniform air gap, brushes and connections therefor coöperating with the rotor windings to form a path for the working currents along approximately the line of the primary field, separate brushes displaced substantially ninety electrical degrees from the first set of brushes, and connections for feeding to the separate brushes an exciting current in series with and consequently in phase with the working currents.

1,073,312. PISTOL. LEONARD WOODS, St. Louis, Mo. Filed Nov. 4, 1912. Serial No. 729,401. (Cl. 42—1.)

1. An improved article of manufacture consisting of a pistol having a stock provided with a barrel hidden therein and provided with screw threads at its outer end, a lining for said barrel chambered to receive a cartridge at its inner end having matching screw threads near its outer end, and a milled head to effect screw engagement and disengagement, whereby a contained cartridge is firmly held at the inner end of said barrel and its lining, and actuating trigger and hammer mechanism for exploding said cartridge.

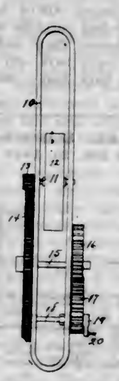


2. An improved pistol comprising a round edged, disk-like stock having only a short stem-like barrel projecting from the stock, a trigger rod slidingly mounted with its outer end directly adjacent to the muzzle of said barrel with its end turned up to facilitate operating it by the forefinger while the thumb and other fingers embrace the edge of the stock substantially as indicated, and operating mechanism adapted to be actuated by said trigger rod when pushed in by the forefinger, which is thereby brought safely back to the muzzle.

3. An improved pistol comprising a flattened, round edged disk-like stock provided with a short projecting barrel bearing the same relative proportion to the stock as the stem and casing of a watch respectively, and without other projection than a trigger rod slidingly mounted in a groove in the outside of said barrel with the finger end of said rod adjacent to the muzzle, and a loop adjacent to the muzzle adapted for attachment to a watch chain, to facilitate carrying safely in the pocket, removing it therefrom, and operating said trigger, substantially as and for the purpose described.

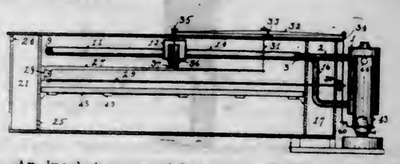
4. A pistol comprising a stock, a barrel, a spring-actuated hammer, and a slidable spring-controlled rod mounted in guides, and provided with a down-turned end normally engaging the front of said hammer in operative position, but capable of partial rotation substantially as and for the purpose described.

1,073,313. GEARING. FRANK C. YOUNGERMAN, Grimes, Iowa. Filed Aug. 29, 1912. Serial No. 717,704. (Cl. 74—7.)



In a gearing, a support including two spaced parallel portions, a power shaft journaled in said portions, a pulley for driving the shaft mounted on the latter and located in the space between said portions of the support, a spur gear on the shaft located on the outer face of one of the portions, a countershaft and a third shaft journaled in the support, intermeshing gears eccentrically mounted on the counter and third shafts, and a large gear on the countershaft directly meshing with said spur gear on the power shaft, all of the three shafts being in vertical alinement.

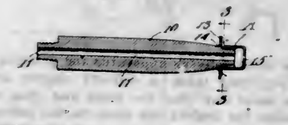
1,073,314. INCUBATOR. EDWIN W. ANDREWS, Buffalo, N. Y., assignor to John Jepson and Emma U. Andrews, trustees, Buffalo, N. Y. Filed Oct. 21, 1911. Serial No. 655,885. (Cl. 119—35.)



1. An incubator comprising an incubating chamber, a hot water heating system having a conduit arranged in the incubating chamber and provided in the upper part of its vapor space with a vent adapted to place the interior of said conduit in communication with the interior of the incubating chamber, a movable cover for said vent, a thermostat arranged in the incubating chamber, and means operatively connecting the thermostat with said cover so as to open the vent as the temperature rises and to close the vent as the temperature drops.

2. An incubator comprising an incubating chamber, a hot water circulation system having a tray and a vent in said tray for emitting moisture into said chamber, a cover for said vent, a thermostat comprising a bell-crank lever pivoted on one part of said chamber, an expansible rod pivoted to one arm of said lever and adjustably mounted on another part of said chamber, a bar pivoted on the upper part of said chamber, a rod connecting said bar with the other arm of said bell-crank lever, a heating device, means for controlling said heating device comprising a rod connecting with said bar, and a rod connecting said cover with said thermostat for opening and closing said vent.

1,073,315. MOUTHPIECE FOR SMOKERS' ARTICLES. JOHN AUSTIN, Geneva, Ohio. Filed Oct. 4, 1912. Serial No. 723,944. (Cl. 131—10.)



1. A mouth piece for smokers' articles having its inner end tapered and having a series of short longitudinal grooves in its periphery at its inner end, and a cap fitting over the inner end of the mouth piece.

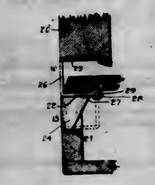
2. A mouth piece for smokers' articles having its inuer end tapered and having a series of short longitudinal grooves in its periphery at its inner end, a baffle ring on the mouth piece at the outer ends of the grooves, and a cap fitting over the inner end of the mouth piece.

3. A mouth piece for smokers' articles having a short outer groove in its inner end, a baffle ring slipped over the mouth piece and engaged thereto at the outer end of the groove to project from the mouthpiece, and a cap having its edge slipped over the inner end of the mouth piece to bind thereon.

1,073,316. CONCEALED HINGE. ELI N. BALDWIN, Jr., Stratford, Conn. Filed Aug. 12, 1912. Serial No. 714,551. (Cl. 16—5.)

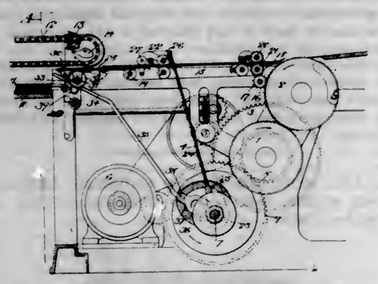
1. A concealed hinge formed from sheet metal and consisting of a jamb member comprising a stop plate in the vertical plane, attaching flanges in the vertical plane and at right angles to the stop plate and side plates in the horizontal plane which connect the attaching flanges to the stop plate, and a door member comprising an attaching plate and an angle plate one arm of which is connected to the attaching plate, the other arm extending at a right angle and parallel with the attaching plate,

said stop plate and second mentioned arm being provided with hinge eyes.



2. A concealed hinge formed from sheet metal and consisting of a jamb member comprising a stop plate and side plates at an angle thereto, said stop plate being provided with hinge eyes and said side plates with attaching flanges, and a door member comprising an attaching plate and an angle plate having an arm lying parallel with the attaching plate and provided with hinge eyes.

1,073,317. SHEET-DELIVERY APPARATUS FOR PRINTING-MACHINES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 16, 1911. Serial No. 609,011. (Cl. 101—31.)



1. In a sheet delivery apparatus for printing machines, a sheet receiving table, a delivery carrier arranged to draw the sheet out over the table and then release the sheet, means for feeding the sheet to the delivery carrier and a bodily reciprocating sheet support arranged to travel part way out over the table with the sheet and to be withdrawn from beneath the rear portion of the sheet as it is released by the delivery carrier, for permitting the sheet to fall freely onto the receiving table.
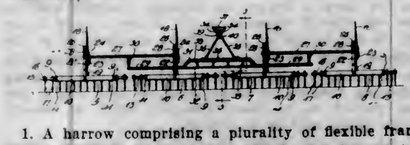
2. In a sheet delivery apparatus for printing machines, a sheet receiving table, an endless delivery carrier having the grippers arranged to engage the advance edge of the sheet and draw the sheet out over the table and then release the sheet, means for feeding the sheet to the delivery carrier grippers and a bodily reciprocating sheet support arranged to travel part way out over the table with the sheet and to be withdrawn from beneath the rear portion of the sheet as it is released by the delivery carrier grippers, for permitting the sheet to fall freely onto the receiving table.

3. In a sheet delivery apparatus for printing machines, a sheet receiving table, a relatively fixed endless delivery carrier, a relatively fixed endless tape carrier for feeding sheets thereto, a bodily reciprocating sheet support interposed between the delivery carrier and tape carrier and means for moving the sheet support partway out over the table with the sheet and for withdrawing the sheet support from beneath the rear portion of the sheet to permit it to be delivered onto the table.

4. In a sheet delivery apparatus for printing machines, a sheet receiving table, a relatively fixed endless delivery carrier, a relatively fixed endless tape carrier for feeding sheets thereto, a bodily reciprocating sheet support interposed between the delivery carrier and tape carrier, and means for moving the sheet support with the sheet out over the receiving table at a certain speed and for withdrawing the sheet support at a higher speed.

5. In a sheet delivery apparatus for printing machines, a sheet receiving table, a sheet delivery device, means for feeding sheets thereto and a reciprocating sheet support interposed between the delivery device and the sheet feeding means, comprising a plurality of horizontally arranged racks, gears meshing with said racks, a pinion fixed to rotate with said gears and a cam operated bar having a rack meshing with said pinion.

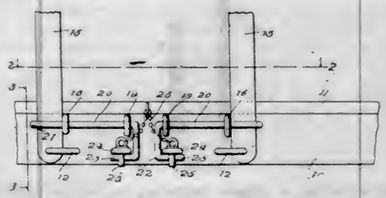
1,073,318. HARROW. THERIDES V. BARNARD, Schaller, Iowa. Filed Dec. 11, 1912. Serial No. 736,239. (Cl. 55—84.)



1. A harrow comprising a plurality of flexible frames, harrow tooth bars mounted in said frames, harrow teeth carried by said bars, seat supporting frames arranged on said harrow frames, auxiliary seat supporting bars loosely connected with and suspended from said frames, main seat supporting bars loosely connected with and suspended from said auxiliary bars, a seat supporting track secured to said main seat supporting bars, and a seat adjustably secured to said track.

2. A harrow comprising a plurality of flexibly connected harrow frames, tooth bars mounted therein, harrow teeth carried by said bars, arched seat supporting frames secured to said harrow frames, auxiliary seat supporting bars arranged below and between the arched frames of the front and rear sets of harrow frames on each side of the harrow, links to loosely connect the ends of said auxiliary seat supporting bars with said arched frames, front and rear main seat supporting bars arranged below the front and rear auxiliary seat supporting bars, links to loosely connect and suspend the ends of said main bars with said auxiliary bars, said main seat supporting bars having their central portions arched and trussed, a seat supporting track arranged above and having its ends connected with the arched portions of said main supporting bars midway between their ends, a connecting bar arranged below said track bars and also connecting said main seat supporting bars, and a seat adjustably secured to said track bar.

1,073,319. CAR-STAKE. LAAREN L. BARTLETT, Sturgeon Lake, Minn. Filed Feb. 20, 1913. Serial No. 749,749. (Cl. 105—174.)



1. The combination with a vehicle including a platform, of stakes mounted to swing upon said platform, a stop to each stake to limit the movement in one direction, and holding means movable through said stops and engaging said stakes and limiting the movement thereof in the opposite direction.

2. The combination with a vehicle including a platform, of stakes mounted to swing upon said platform, a stop to each stake to limit the movement in one direction, holding means movable through said stops and engaging said stakes and limiting the movement thereof in the opposite direction, and locking means applied to said holding means.

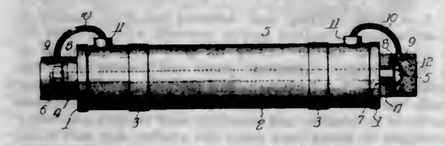
3. The combination with a vehicle including a platform, of stakes mounted to swing upon said platform, a stop to each stake to limit the movement in one direction, movable holding means engaging said stakes and limiting the movement in the opposite direction, and locking means applied to said holding means.

4. A stake adapted to swing upon a vehicle platform, a stop for said stake adapted to be connected to a platform and operating to limit the movement of the stake in one direction, movable holding means engaging said stake and limiting the movement thereof in the opposite direction, and locking means applied to said holding means.

5. A stake adapted to swing upon a vehicle platform, a stop for said stake adapted to be connected to a platform and operating to limit the movement of the stake in one direction, holding means movable through said stop and limiting the movement in the opposite direction, and locking means applied to said holding means.

[Claims 6 to 8 not printed in the Gazette.]

1,073,320. RESISTANCE UNIT. WILLIAM L. BLISS, Niagara Falls, N. Y., assignor to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed Jan. 6, 1911. Serial No. 601,084. (Cl. 219—63.)



1. A resistance unit comprising a resistance element, a surrounding casing, terminal members adjacent each end of said casing, and means electrically insulated from said terminal members mechanically securing said parts together to form a unitary structure.

2. A resistance unit comprising a resistance element, a support therefor, cup-shaped terminal members for said resistance, a bolt passing through said members and said support for securing said members thereto, and means insulating said bolt from said terminal members.

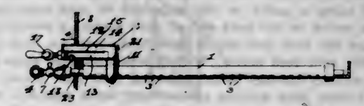
3. A resistance unit comprising a resistance element, a support therefor, cup-shaped contact ferrules electrically connected to said resistance unit, and means passing through said ferrules and said support for securing said ferrules to said support, said means being insulated from said ferrules.

4. In combination, a resistance element, an insulating support therefor having projections thereon, electrical connections for said resistance element passing through openings in said projections, contact terminal members to which said electrical connections are secured, said contact members comprising conducting cup-shaped members secured to said support by a bolt, and an insulating bushing and insulating washer between said bolt and each of said contact members.

5. In combination, a body of insulating material, a resistance wire carried thereby, alined terminal members on opposite ends of said body, each member consisting of a cup-shaped conductor having a central hole in the base and a radial aperture in the cylindrical wall, a bolt passing through the central hole in each terminal member, an insulating bushing surrounding the bolt at each of said holes and insulating washers secured against the bottom of each of said cup-shaped members by said bolt whereby the various parts are maintained in assembled relation, each end of said resistance wire passing through one of said radial apertures and soldered within to the corresponding terminal member.

[Claims 6 and 7 not printed in the Gazette.]

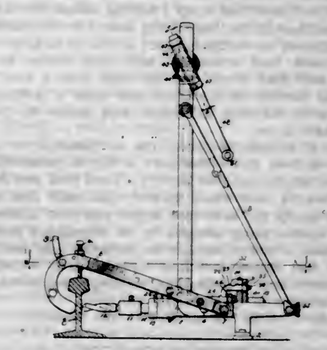
1,073,321. PILOT-LIGHTER. PETER M. BOECK, South Bend, Ind., assignor to The Malleable Steel Range Manufacturing Co., South Bend, Ind., a Corporation of Indiana. Filed Sept. 20, 1912. Serial No. 721,399. (Cl. 158—115.)



1. A pilot lighter comprising a main inlet conduit, a baffle plate dividing said conduit into a mixing chamber and an ignition chamber, said former chamber having an air inlet and said latter chamber being longitudinally slotted at its upper end, and a pair of diverging arms connected to the inner end of said main conduit, each arm being provided with a plurality of ports at its inner face and having a flange overhanging said ports.

2. A pilot lighter comprising a main inlet conduit, a pair of diverging arms connected to the end of said main conduit, a baffle plate extending from the entrance end of said main conduit to within a short distance of said arms for dividing said main conduit into a mixing chamber and an ignition chamber, an air inlet for the mixing chamber, the upper wall of said main conduit having an ignition outlet from said ignition chamber and said arms having each ignition outlets through their inner walls, and a flange on each arm overhanging the ignition outlets therethrough.

1,073,322. DRILLING-MACHINE. ERNEST C. BOWERS and EUGENE COOK, Kalamazoo, Mich., assignors, by direct and mesne assignments, to National Standard Company, Niles, Mich., a Corporation of Michigan. Filed Oct. 8, 1912. Serial No. 724,515. (Cl. 77—9.)



1. In a drilling machine, the combination of a tool holder; a feed screw therefor having a longitudinal bore therein into which the rear end of the tool holder projects, there being a transverse curved notch in the rear end of said tool holder and a transverse notch in the rear end of said screw; a swivel connection for said tool holder and feed screw; a fixed feed nut for said feed screw; a feed wheel splined upon said feed screw; driving connections for said feed wheel and tool holder, said driving connections being adapted to be disengaged from said feed wheel; a clutch member for securing said feed screw to said tool holder arranged within said feed screw and provided with a rounded tool holder engaging portion at its inner end and with a head at its outer end having a driving tang thereon adapted to engage said notch in the rear end of said screw; and a spring arranged within said screw for yieldingly supporting said clutch member in its engaging position, said clutch member being held out of its engaging position by turning the tang thereof

transversely of the said notch in the rear end of the screw.

2. In a drilling machine, the combination of a tool holder; a feed screw therefor having a longitudinal bore therein into which the rear end of the tool holder projects, there being a notch in the rear end of said tool holder and a notch in the rear end of said screw; a swivel connection for said tool holder and feed screw; a fixed feed nut for said feed screw; a feed wheel splined upon said feed screw; driving connections for said feed wheel and tool holder, said driving connections being adapted to be disengaged from said feed wheel; and a clutch member for securing said feed screw to said tool holder arranged within said feed screw and provided with a tool holder engaging portion at its inner end and with a driving tang adapted to engage said notch in the rear end of said screw.

3. In a drilling machine, the combination of a tool holder; a feed screw therefor, there being a transverse curved notch in the rear end of said tool holder and a transverse notch in the rear end of said screw; a swivel connection for said tool holder and feed screw; driving means for said feed screw and tool holder, the driving means for the feed screw being adapted to be disengaged; a clutch member for securing said feed screw to said tool holder arranged within said feed screw and provided with a rounded tool holder engaging portion at its inner end with a driving tang at its outer adapted to engage said notch in the rear end of said screw; and a spring arranged within said screw for yieldingly supporting said clutch member in its engaging position, said clutch member being held out of its engaging position by turning the driving tang thereof transversely of the said notch in the rear end of the screw.

4. In a drilling machine, the combination of a tool holder; a feed screw therefor, there being a transverse notch in the rear end of said tool holder and a transverse notch in the rear end of said screw; a swivel connection for said tool and feed screw; driving means for said feed screw and tool holder the driving means for the feed screw being adapted to be disengaged; a clutch member for securing said feed screw to said tool holder arranged within said feed screw and provided with a tool holder engaging portion at its inner end with a driving tang at its outer adapted to engage said notch in the rear end of said screw.

5. In a drilling machine, the combination of a tool holder; a feed screw therefor; a swivel connection for said tool holder and feed screw; a fixed feed nut for said feed screw; a feed wheel splined upon said feed screw; driving means for said feed wheel and tool holder, said driving means being adapted to be disengaged from said feed wheel; a clutch member for securing said feed screw to said tool holder arranged longitudinally within said feed screw; and a spring for yieldingly supporting said clutch member in its engaging position.

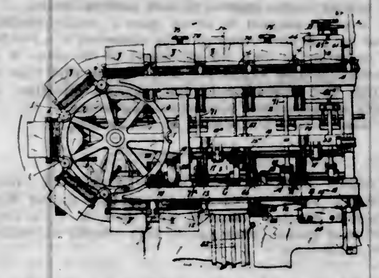
[Claims 6 to 11 not printed in the Gazette.]

1,073,323. WINDOW-SHADE ADJUSTER. WIRT B. BOYCE, Chicago, Ill. Filed May 17, 1909. Serial No. 496,641. (Cl. 156—27.)



In a window shade adjuster, stationary channel-shaped guides secured to the window casing and provided with outwardly turned flanged edges, brackets slidable on said guides restrainingly engaging said sides, each bracket comprising an apertured plate having its ends provided with inwardly turned lips receiving the outwardly turned edges of the guide therein, said plate having side projections extending beyond the guides and constituting means to guide the shade in the winding and unwinding thereof on its roller, an inwardly-extending stop at each end of each bracket projecting into the channel of the guide, and supporting means in the form of cords attached to the lugs of said brackets.

1,073,324. BOOKBINDING AND COVERING MACHINE. ALFRED BREDENBERG, Champlain, N. Y., assignor of one-half to The Sheridan Iron Works, a Corporation of New York, and one-half to T. W. & C. B. Sheridan Company, a Corporation of New York. Filed Dec. 19, 1905. Serial No. 292,407. (Cl. 11—33.)



1. A book binding and covering machine having in combination an endless carrier provided with a holder for a book, said carrier having its path of travel lying in a substantially horizontal plane and having right-line stretches, and mechanisms for performing, respectively, upon the book carried by the carrier various operations involved in binding and covering, said mechanisms being arranged in series part along one stretch and part along another.

2. A book binding and covering machine having in combination an endless carrier provided with a holder for a book, said carrier being arranged so that its path of travel lies in a substantially horizontal plane, and having substantially parallel stretches arranged to move in straight lines, and mechanisms for performing, respectively, upon the book carried by the carrier various operations involved in binding and covering, said mechanisms being arranged in opposite series along the said stretches.

3. A book binding and covering machine having in combination an endless carrier provided with a series of holders for books, said carrier being arranged so that its path of travel lies in a substantially horizontal plane, and being disposed so as to include comparatively long stretches each extending in a right line, receiving and delivery means constructed and arranged to coact with the holders on said carrier, clamping and trimming mechanism, roughing mechanism, brushing mechanism, adhesive-applying mechanism, cover-attaching mechanism, and cover-breaking mechanism, part of said mechanisms being arranged along one of said right-line stretches of the carrier and part along another of said right-line stretches, means for intermittently moving the carrier step-by-step to convey the books from one mechanism to the next, and means for operating said mechanisms.

4. A book binding and covering machine having in combination an endless carrier provided with a holder for a book, said carrier being arranged so that its path of travel lies in a substantially horizontal plane and having substantially parallel stretches arranged in straight lines, a receiving mechanism, a clamping and trimming mechanism, a roughing mechanism, and a brushing mechanism arranged in the order indicated along the path of the carrier on one of said stretches and in a position suitable for operating upon a book conveyed by the carrier, an adhesive-applying mechanism, a cover-attaching mechanism, and a cover-breaking mechanism arranged in the order indicated along the opposite stretch of the carrier and in a suitable position for operating upon a book conveyed by the carrier, and a delivery device contiguous to the receiving device.

5. A book binding and covering machine having in combination a series of mechanisms for performing upon books various operations involved in binding and covering, an endless chain comprising a series of link members, a series of clamp parts each clamp part wholly supported by one of said link members and coöperating therewith to hold a book, means for actuating said chain for carrying the books to the various mechanisms successively, and supports and guides for said chain, said supports and guides being arranged to cause the chain to move in a horizontal orbit, and said clamp parts being located outside of their respective link members whereby said parts and members are adapted to carry the books in substantially vertical planes outside of the planes of said supports and guides for the chain.

[Claims 6 to 21 not printed in the Gazette.]

1,073,325. ORCHARD-CULTIVATOR. EUGENE BROWN, Colfax, Wash., assignor to Colfax Manufacturing Company, Inc., Colfax, Wash., a Corporation of Washington. Filed Aug. 6, 1912. Serial No. 713,693. (Cl. 97—34.)



1. A cultivator of the class described including an adjustable tree clamp provided with means for engaging the trunks of trees of different diameters, a bearing carried by the clamp, a cultivator frame rotatably connected with the said bearing and having cultivating devices and adapted to be rotated around the tree for cultivating the soil adjacent to the same.

2. A cultivator of the class described including a bearing, an adjustable clamp for securing the same to the trunk of a tree at different elevations, a rotary member supported by the said bearing, and a cultivator frame having cultivating devices and connected with the rotary member and adapted to be rotated around the tree.

3. A cultivator of the class described including a bearing, means for securing the same to the trunk of a tree at a point above the surface of the ground, a rotary member supported by the said bearing, a cultivator frame having cultivating devices and connected at its inner portion with the rotary member, and means for connecting a draft animal or animals with the onter portion of the cultivator frame.

4. A cultivator of the class described including a relatively stationary bearing, a circular sectional clamp having adjusting means and adapted to engage the trunks of trees of different diameters and adjustably connected with the said bearing, a rotary ring or member mounted in the bearing, and a cultivator frame having cultivating devices and connected with the rotary ring or member.

5. A cultivator of the class described including a circular bearing, a tree clamp provided with arms supporting the circular bearing and adjustably connected with the same, a rotary member mounted in the said bearing, and a cultivator frame having cultivating devices and connected with the rotary member.

[Claims 6 to 23 not printed in the Gazette.]

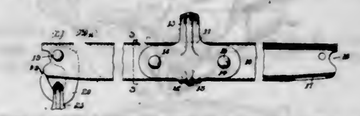
1,073,326. BURNER FOR PETROLEUM AND OTHER HYDROCARBONS. AUGUSTE BRUNETTE, Montreal, Quebec, Canada. Filed Feb. 7, 1913. Serial No. 746,957. (Cl. 158—53.)

1. A device of the character described comprising, a combustion tube, a feed pipe extending longitudinally along one side of the outer wall thereof, a burner tube section extending longitudinally along the opposite side of the outer wall thereof, and conduits extending diagonally downwardly about the outer wall of said combustion tube and communicating at their opposite ends with said feed tube and said burner tube respectively.



2. A device of the character described comprising a single casting consisting of, a combustion tube, a feed pipe extending longitudinally along one side of the outer wall thereof, a burner tube section extending longitudinally along the opposite side of the outer wall thereof, and conduits extending diagonally downwardly about the outer wall of said combustion tube and communicating at their opposite ends with said feed tube and said burner tube respectively.

1,073,327. DRAFT APPLIANCE. JOHN A. BUCHANAN, Pittsburgh, Pa. Filed Mar. 8, 1912. Serial No. 682,466. (Cl. 21—79.)



1. In a draft appliance, a body portion formed hollow and open ended and cut away on its forward face to provide a front recess, and a hook pivoted interiorly of the body portion and projecting through the front recess when in draft position, the point of the hook in such position being toward the open end of the body portion, said body portion also having alined top and bottom recesses to receive an eye, the body-portion joining a wall of the top and bottom recess on a cross-section of the body-portion intersecting these recesses, the hook being movable from its normal draft position to receive the eye after the latter has been positioned in said recesses.

2. In a draft appliance, a body portion in the form of a hollow tubular open-ended bar flattened on its upper and lower sides to provide, in cross-section, major and minor axes, said bar being cut away on its forward face to provide a front recess at and extending inwardly from the open end, and also having alined top and bottom recesses spaced from the front recess, and a hook pivoted interiorly of the bar and adapted to swing to close the end of the member against the entrance of an attaching member, said hook projecting through the front recess when in draft position, the end of the rear face of the bar projecting beyond a cross-sectional plane of the body-portion intersecting the hook pivot and forming a stop to limit the swinging movement of the hook.

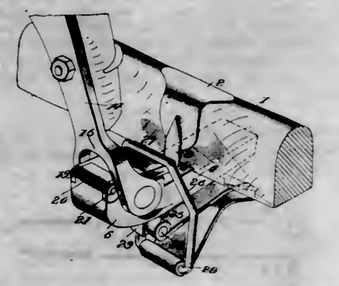
3. In a draft appliance, a body portion in the form of a hollow tubular open-ended bar flattened on its upper and lower sides to provide, in cross-section, major and minor axes, said bar being cut away on its forward face to provide a front recess at and extending inwardly from the open end, and a hook pivoted interiorly of the bar and projecting through the front recess when in draft position, the end of the rear face projecting beyond a cross-sectional plane of the body-portion intersecting the hook pivot, said hook being pivoted to cause its free end to abut against said end to limit the swinging movement of the hook.

4. In a draft appliance, a body portion in the form of a hollow-tubular open-ended bar cut away on its forward face to provide a front recess, and a hook-like member pivoted interiorly of the bar and projecting through said recess when in draft position, said hook having a face adapted to contact with the inner face of the rear of the bar to prevent excess swinging movement of the member in a direction to provide pressure on the inner end of such recess.

5. In a draft appliance, a body portion in the form of a hollow-tubular open-ended bar cut away on its forward face to provide a front recess, and a hook-like member pivoted interiorly of the bar and projecting through said recess when in draft position, said hook having a face adapted to contact with the inner face of the rear of the bar to prevent excess swinging movement of the member in a direction to provide pressure on the inner end of such recess, the end of the rear face and the free end of the hook member complementally acting to limit the swinging movement of the member in the opposite direction.

[Claims 6 to 9 not printed in the Gazette.]

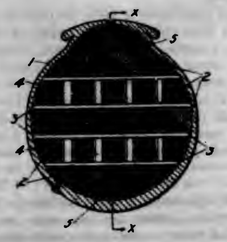
1,073,328. THILL-COUPLING. WILLIAM A. BUCHANAN, Asheville, N. C. Filed Jan. 10, 1913. Serial No. 741,358. (Cl. 21—57.)



1. In a thill coupling of that type including a socketed body-member and a cap-member supported thereby in position to close the socket, a head having a stem adjustably threaded into the body-member, a bowed leaf-spring having pivotal connection with the head at one end, and a yoke connected at the other end of the spring and engaged with the cap-member, adjustment of the head serving to adjust the tension of the spring whereby to cause the yoke to bear more or less firmly upon the cap-member.

2. In a thill coupling of that type including a socketed body member and a cap member supported thereby in position to close the socket, a head having a stem adjustably threaded into the body member and provided with oppositely projecting studs, a bowed leaf-spring bifurcated at one end and having its furcations pivotally fitted about the said studs and straddling the head, and a yoke connected at the other end of the spring and engaged with the cap member, the head being adapted to be rotated upon rotation of the spring whereby to adjust the tension of the spring and cause the yoke to bear more or less firmly upon the cap member.

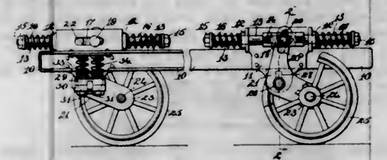
1,073,329. TIRE OR TUBE FOR WHEELED VEHICLES. OWEN T. BUGG, Hoboken, N. J. Filed Jan. 16, 1913. Serial No. 742,331. (Cl. 152—5.)



1. A tire for wheeled vehicles comprising superimposed concentric layers of soft rubber, the alternate layers of which are provided with radially extending perforations, and the intermediate layers secured to the adjacent faces of the first-mentioned layers and adapted to seal the open ends of said perforations.

2. A tire for wheeled vehicles comprising superimposed concentric layers of soft rubber, the alternate layers of which are provided with radially extending perforations; and the intermediate layers secured to the adjacent faces of the first-mentioned layers and adapted to seal the open ends of said perforations; the perforations in the alternate layers being staggered with relation to each other.

1,073,330. VEHICLE. LUDGER E. BUSHBY, Newark, N. J. Filed Mar. 25, 1913. Serial No. 756,670. (Cl. 21—101.)

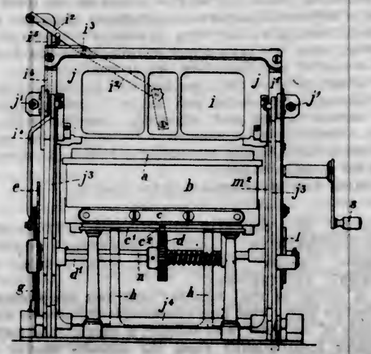


1. In a vehicle, a frame, axles, bell-cranks, each bell-crank having one end attached to an axle, a cushioning device engaging the bell-crank at its other end, a pivot for the bell-crank, the pivot being secured to the frame to permit the pivot having a limited vertical movement in the frame, and springs bearing on the frame and on the pivot for yieldingly resisting upward movement of the pivot.

2. In a vehicle, a frame, an axle, the frame having a vertically arranged slot, a pivotal pin in the slot, blocks on the pin, springs bearing on the frame and on the blocks for supporting the frame on the blocks, a bell-crank arranged to swing on the pivot, the lower end of the bell-crank being supported by the axle, and cushioning devices engaging the top end of the bell-crank to yieldingly resist its movement.

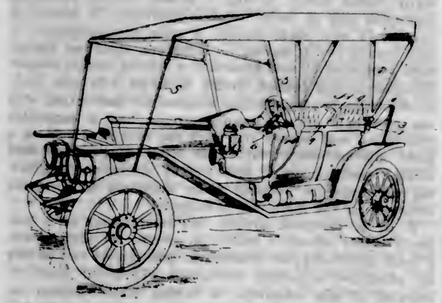
3. In a vehicle, a frame, an axle, the frame having a vertically arranged slot, a pivotal pin in the slot, blocks on the pin, springs bearing on the frame and on the blocks for supporting the frame on the blocks, a bell-crank arranged to swing on the pivot, the lower end of the bell-crank being supported by the axle, separated bearings on the frame, a rod sliding in the bearings and projecting beyond the bearings, adjusting means at the ends of the rods, springs bearing on the adjusting means and on the bearings, the upper end of the bell-crank being slotted, and a pin secured to the rod and projecting through the slotted end of the bell-crank.

1,073,331. DISPLAY DEVICE. LOUIS JOSEPH EMMANUEL COLARDEAU and JULES RICHARD, Paris, France. Filed July 27, 1911. Serial No. 640,911. (Cl. 40—79.)



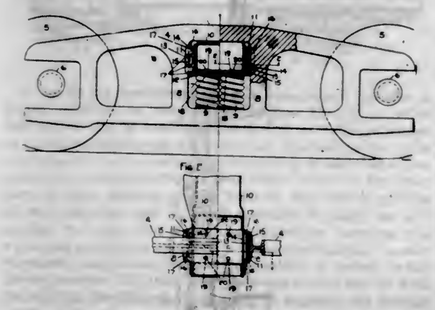
In a classifying and distributing apparatus for photographic views, a box in which the views are arranged, a horizontally movable carriage carrying said box, a vertically movable frame for lifting successively each view, eye pieces, a horizontally movable frame for bringing said view near the eye-pieces, a connecting rod and crank plate device for each frame, pinions respectively connected with the crank plates, a system of two toothed wheels connected together and provided with teeth on one half of their periphery said pinions engaging with said first mentioned pinions, an operating crank and a pinion for simultaneously actuating the two toothed wheels.

1,073,332. DEVICE FOR RAISING AND LOWERING AUTOMOBILE-TOPS. OTIS COOK, Talladega, Ala. Filed May 22, 1912. Serial No. 699,081. (Cl. 21—62.)



In a device of the class described, a supporting rod having one end bent back upon itself to form a hook engageable with one of the brackets for the bows of a vehicle top, a sleeve slidable longitudinally upon the rod and provided at one side with a finger projecting at right angles therefrom and thence at right angles toward the first mentioned end of the rod, a set-screw threaded through the other side of the sleeve and arranged to bear against the rod, whereby to hold the sleeve at adjustment thereon, the said finger being adapted to be engaged with another one of the brackets for the said bows, a handle fixed at the other end of the rod, and a sleeve freely slidable upon the rod between the first mentioned end thereof and the first mentioned sleeve and provided with an eye.

1,073,333. BOLSTER-GUIDE PLATE FOR RAILWAY-CAR TRUCKS. ALFRED COPONY, Verdun, Quebec, Canada. Filed June 6, 1913. Serial No. 772,021. (Cl. 105—105.)



1. In a railway car, the combination of a truck side frame having truck columns with a bolster mounted between said columns, the bolster being provided with guide plates adapted to engage said columns, each of said guide plates having a curved friction face.

2. In a railway car, in combination, a truck side frame having truck columns, a truck bolster disposed between said columns and bolster guide plates connected to the truck bolster, the said guide plates having outward curved bearing faces to engage the inner faces of the columns, and flanges at either end of said face to engage the sides of said column.

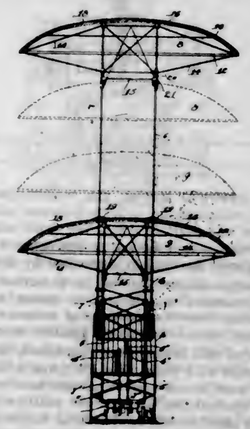
3. In a railway car, in combination, a side truck frame, truck columns therein, truck springs and truck bolster between said columns, the truck bolster being provided at either side with bolster guide plates, each of said guide plates having an outward curved friction face.

4. A bolster guide plate comprising a member having an outward curved friction face and an angular member connected thereto, in combination with a truck bolster, the said angular member being provided with means for connecting the same to the truck bolster.

5. In a railway car, in combination, a side truck frame, truck columns therein, a bolster and truck springs between said column, the bolster being provided at either side with a bolster guide plate, each of said guide plates having a curved friction surface for engagement with the adjacent truck column, and each having an inturned angular flange, said flange being disposed between the truck bolster and the truck springs.

[Claim 6 not printed in the Gazette.]

1,073,334. FLYING-MACHINE. GEORGE E. DICKSON, New Lenox, Ill. Filed Dec. 11, 1908. Serial No. 467,049. (Cl. 244—11.)



1. A flying machine comprising a body part or car in combination with the motor in said car, two or more parachutes arranged one above the other above said car, stems or frames connecting said parachutes with said motor, for operation thereby, said parachutes being longitudinally elongated and transversely curved, and means for independently inclining said parachutes, substantially as described.

2. In a flying machine, a car in combination with the motor in said car, vertically reciprocatable frames suitably guided in the car structure, reciprocating means operatively interposed between said frames for reciprocating said frames in opposite directions, longitudinally elongated and transversely curved parachutes arranged one above the other and connected with the respective frames and means for independently inclining said parachutes with respect to their frames, substantially as described.

3. A flying machine comprising a car in combination with reciprocating frames vertically disposed and slidable in the structure of said car, a motor secured to the car structure and connected with said frames to reciprocate

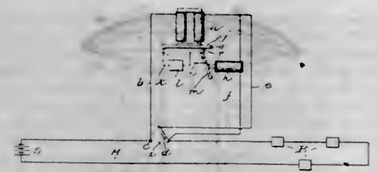
the same in opposite directions, longitudinally straight, transversely curved parachutes wherefrom the respective frames are suspended, gates or flanges in the ends of said parachutes and means for inclining said parachutes with respect to their frames and for opening and closing said gates, substantially as described.

4. A flying machine comprising a car in combination with reciprocating frames vertically disposed and slidable in the structure of said car, a motor secured to the car structure and connected with said frames to reciprocate the same in opposite directions, longitudinally straight, transversely curved parachutes wherefrom the respective frames are suspended, gates or flanges in the ends of said parachutes and automatic means for opening said gates as the parachutes are inclined and closing the same as the parachutes are restored to perpendicular relation to said frames.

5. A flying machine comprising the car in combination with vertically reciprocative frames, a motor fixed in said car, reciprocating means connecting said motor with said frames, parachutes connected with the respective frames, gates or flanges provided in the ends of said parachutes and means for opening and closing said gates, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,073,335. SIGNALING SYSTEM. HERMAN W. DOUGHTY, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed Apr. 9, 1912. Serial No. 689,578. (Cl. 178—50.)



1. In an electrical system, the combination of a normally closed main circuit, a branch circuit extending to a remote point and serially connected with said main circuit, an electro-magnet device in said branch circuit having an armature, mechanism controlled by said armature, a locking electro-magnet having an armature and having its winding included in said branch circuit, the armature of said locking electro-magnet being adapted to lock the electro-magnet device armature against retraction upon energization of said locking electro-magnet, switch mechanism associated with the main circuit, and a conductor connected with said switch mechanism and said branch circuit, said switch mechanism when in one position causing said conductor to short-circuit said locking electro-magnet, and when in another position disconnecting said conductor from circuit so that current may flow through both said electro-magnet device and the locking electro-magnet, and said switch mechanism when in a third position causing said conductor to short-circuit said electro-magnet device.

2. In an electrical system, the combination of a normally closed serial circuit comprising a main loop and a branch loop extending to a remote point, a source of current for said closed circuit, a main electro-magnet having its winding included in said branch loop and having an armature, mechanism controlled upon retraction of said armature, a locking electro-magnet having an armature adapted when attracted to prevent retraction of the main electro-magnet armature, the winding of said locking electro-magnet being adapted for serial inclusion in said branch loop, a conductor normally short-circuiting said locking electro-magnet, and switch mechanism for disconnecting said conductor from said locking electro-magnet to allow energization thereof and to bridge said conductor about said main electro-magnet to cause de-energization thereof.

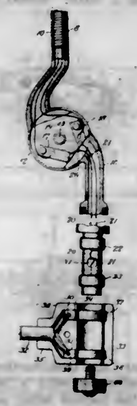
3. In an electrical system, the combination of a normally closed circuit having a loop extending therefrom to a remote point, a source of current for said closed circuit, a main electro-magnet in said loop circuit having an armature, signaling mechanism controlled upon retraction of said armature, a locking electro-magnet included in said loop circuit and having an armature adapted when attracted to prevent retraction of the main electro-magnet armature, and switch mechanism connected with said loop circuit and adapted when in one position to cause short-circuiting of said locking electro-magnet, and when in another position to cause inclusion of both electro-magnets in circuit, and when moved to a third position to cause short-circuiting of the main electro-magnet.

4. In an electrical system, the combination of a normally closed circuit having a branch circuit extending therefrom and in serial relation therewith, a source of current in said main circuit, a main electro-magnet in said branch circuit having an armature, signaling mechanism controlled by said armature, a locking electro-magnet included in said branch circuit in series with said main electro-magnet, a switch arm adapted for connecting with the terminals of said branch circuit, and a conductor connecting said switch arm with the branch circuit at a point intermediate of said main electro-magnet and said locking electro-magnet, said locking electro-magnet having an armature adapted when attracted to lock the armature of the main electro-magnet.

5. In an electrical system, the combination of a normally closed circuit, a source of current for said circuit, a main electro-magnet included in said circuit and having an armature, signaling mechanism controlled upon retraction of said armature, a locking electro-magnet included in said circuit and having an armature adapted when attracted to coöperate with the main electro-magnet armature to prevent retraction thereof, an auxiliary conductor, and switch mechanism adapted when in one position to connect said auxiliary conductor in bridge of the locking electro-magnet to prevent energization thereof, said switch mechanism when in another position causing dis-connection of said conductor from circuit whereby both electro-magnets may be energized, and said switch mechanism when in another position causing connection of said conductor in bridge of the main electro-magnet to cause de-energization thereof.

[Claims 6 to 16 not printed in the Gazette.]

1,073,336. ELECTRICALLY-HEATED CURLING-IRON. FREDERICK A. ENGLISH, Chicago, Ill., assignor to Birtman Electric Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 14, 1913. Serial No. 761,085. (Cl. 219—24.)

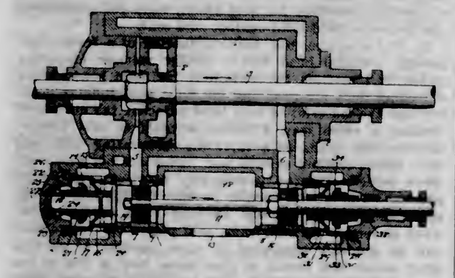


1. In an electrically-heated curling iron, the combination of a hollow leg provided with a hollow insulating handle having a reduced end-portion surrounded by a pair of metal rings, a heating-element in the leg having its terminals connected with said rings, a ferrule of insulating material loosely surrounding said reduced handle-portion, formed of a pair of semi-cylindrical sections each having a flange-extension and a nipple-section thereon and bolted together through the flange-extensions, with metal rings confined in the cylindrical portion of the ferrule to contact, respectively, with said rings on the handle, and conducting-wires connected with said rings in the ferrule, for the purpose set forth.

2. In an electrically-heated curling iron, the combination of a pair of hollow jaws terminating in cups having handles extending from them and at which they are pivotally connected together, heating-elements in the jaws, insulated contact-strips in one cup, with which the terminals of the corresponding element are connected, insulated contact-strips in the other cup, with which the terminals of the corresponding element are connected, spring-shields connected with and extending over the contact-strips in the last-named cup, and current-supplying conducting-wires leading to said strips, for the purpose set forth.

3. In an electrically-heated curling iron, the combination of a pair of hollow jaws terminating in cups having handles extending from them and at which they are pivotally connected together, heating-elements in the jaws, insulated contact-strips in one cup, with which the terminals of the corresponding element are connected, insulated contact-strips in the other cup, with which the terminals of the corresponding element are connected and having wires leading from them along the handle on that cup, spring-shields connected with and extending over the contact-strips in the first-named cup, current-supplying wires, and means for connecting the current-supplying wires with said first-named wires, for the purpose set forth.

1,073,337. VALVE MECHANISM FOR AIR-COMPRESSORS. WILLIAM S. FAIRHURST, New York, N. Y. Filed Nov. 16, 1911. Serial No. 660,690. (Cl. 230—24.)

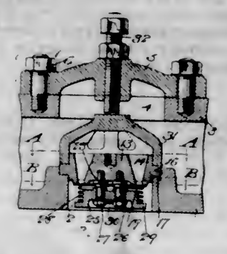


1. In an air compressor, a main compressor cylinder, a piston cylinder in coöperative relation thereto, a valve box at the end of the piston cylinder, an outlet chamber in communication with the valve box, the end of the valve box adjacent to the piston cylinder being of skeleton structure and provided with annular valve seats on its inner face, a valve guiding spindle fixed in the central portion of said skeleton end, a valve mounted to slide on said spindle to open and close communication between the valve box and outlet chamber, a valve stop having a screw-threaded engagement with said spindle, a spring interposed between the valve and stop and a lock nut to hold the stop in the desired adjustment to regulate the tension of the spring.

2. In an air compressor, a main compressor cylinder, a piston cylinder in coöperative relation thereto, a valve box at the end of the piston cylinder, an outlet chamber in communication with the valve box, the end of the valve box adjacent to the piston cylinder being of skeleton structure and provided with valve seats on its inner face, a cap for the opposite end of the valve box provided with a socket in its inner face, a valve guiding spindle fixed in the said skeleton end of the valve box with its free end entering the socket in the opposite end of the valve box, a valve mounted to slide on said spindle, a spring for operating the valve and a nut having a screw-threaded engagement with the spindle within the said socket for holding the spindle against vibration.

3. In an air compressor, a main compressor cylinder, a piston cylinder in coöperative relation thereto, a valve box at the end of the piston cylinder, an outlet chamber in communication with the valve box, one end of the valve box being of skeleton structure and the opposite end provided with a cap having a socket in its inner face, a valve guiding spindle fixed in the skeleton end of the box and projecting into the socket in the opposite end, an elastic disk located between the end of the spindle and the bottom of the said socket, a nut having a screw-threaded engagement with the end of the spindle within the socket and adapted to bear against the disk to prevent leakage and hold the spindle against vibration, a valve mounted to slide on the spindle and a spring for actuating the valve.

1,073,338. VALVE. WILLIAM S. FAIRHURST, New York, N. Y. Filed Nov. 26, 1912. Serial No. 733,603. (Cl. 103—66.)



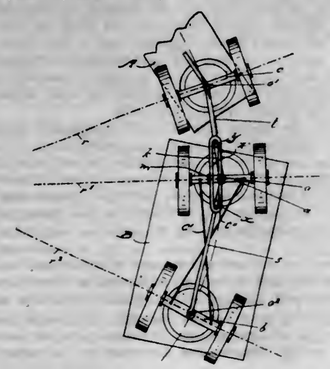
1. A sheet metal valve comprising an annular portion provided with two inwardly and oppositely projecting arms each leading from one side of the annular portion to a point adjacent to the other side thereof, the heads of said arms having holes for the reception of guide pins.

2. A valve comprising a valve seat, a valve guide plate, pins connecting the plate with the seat, and a valve proper comprising an annular portion provided with two inwardly and oppositely projecting arms, each leading from one side of the annular portion to a point adjacent to the other side thereof, said arms having holes in their free ends engaging said pins.

3. A valve comprising a valve seat, a valve guide plate, pins connecting the plate with the seat and a valve proper comprising an annular portion provided with two inwardly and oppositely projecting arms, each leading from one side of the annular portion to a point adjacent to the other side thereof, said arms having holes in their free ends engaging said pins, said valve proper having a limited bodily movement on said pins and a self-yielding movement.

4. A valve comprising a reversible valve seat provided with a peripheral flange intermediate its top and bottom faces, a valve guide plate, pins connecting the plate with the seat and a valve proper having a limited bodily movement and a self-yielding movement between the valve seat and valve guide plate, said valve proper comprising an annular portion provided with two inwardly and oppositely projecting arms, each arm leading from one side of the annular portion to a point adjacent to the other side thereof, said arms having holes in their free ends engaging said pins.

1,073,339. VEHICLE-COUPLING. WALTER FORTHMANN, Potsdam, Germany. Filed Mar. 28, 1911. Serial No. 617,461. (Cl. 21—137.)



In vehicle couplers of the character described the combination with a leading and a following vehicle, of a slotted link secured to a bearing on the front axle of the following vehicle at substantially a right angle thereto, bars *t*, *s* connecting the rear axle of the leading vehicle with the front axle of the following vehicle and both axles of the following vehicle respectively, pins *x*, *y* upon said bars at predetermined points thereof entering the slot of said link for positively guiding the axles of a train of cars in a circular path over the road.

1,073,340. STAMPING MECHANISM. CLIFFORD G. FUSMAN, Binghamton, N. Y., assignor to George O. Knapp, New York, N. Y. Filed June 4, 1912. Serial No. 701,514. (Cl. 101—74.)



1. In a stamping bar, the combination of a stamping head, an ink reservoir, a tubular member connecting said head and reservoir, said head having a feed duct communicating with said tubular member, a piston head movable within said tubular member to close and to open the inlet of said duct, there being passageway between said piston head and the walls of said tubular member for the passage of ink, said piston head being weighted, whereby upon sudden downward movement of said stamp bar the inertia of the weighted piston will cause said piston to lag to thus create vacuum or suction between said piston head and duct inlet so that ink thereupon drawn into the space between said piston and said duct inlet will be forced into and through said duct when the piston head again moves toward the duct.

2. In a stamping bar, the combination of a frame comprising a reservoir and a head and a tubular member connecting said reservoir and head, said head having a duct for receiving ink from said tubular member, said head adjacent the inlet of said duct forming a valve seat, a piston head movable within said tubular member and acting as a valve for coöperating with said seat, there being restricted passageway between said piston head and the walls of said tubular member for the passage of ink, said piston head being weighted whereby upon sudden vertical movement of said stamping bar frame the inertia of said piston head will cause it to act as a pump to force ink from said tubular member into said duct.

3. In a stamping bar, the combination of a frame comprising a reservoir and a stamping head and a tubular member connecting said reservoir and head, said head having a duct and the material of said head adjacent the inlet of said duct forming a valve seat, a piston head movable within said tubular member and acting as a valve for coöperating with said seat, there being restricted passageway between said piston head and the walls of said tubular member, said piston head normally engaging said seat to prevent flow of ink from said tubular member to said duct, said piston head being sufficiently weighted so that upon sudden downward movement of said frame, said seat and piston head will be suddenly separated to cause vacuum or suction effect below said piston head to thereby cause flow of ink into a space between said piston head and seat, said piston head then acting to force the accumulated ink through said duct.

4. In a stamping bar, the combination of a frame comprising a reservoir and a stamping head and a tubular member connecting said reservoir and head, said head having a duct and the material of said head adjacent the inlet of said duct forming a valve seat, a piston head movable within said tubular member and acting as a valve for coöperating with said seat, there being restricted passageway between said piston and the walls of said tubular member, said piston head normally engaging said seat to prevent flow of ink from said tubular member to said duct, said piston head being sufficiently weighted so that upon sudden downward movement of said frame said seat and piston head will be suddenly separated to cause vacuum or suction effect below said piston head to thereby cause flow of ink into the space between said piston head and seat, said piston head then acting to force the accumulated ink through said duct, and a facing of yielding material for said piston head for cushioning the impact of said head against said seat.

5. In a stamping bar, the combination of a frame comprising a stamp head and a tubular member extending upwardly therefrom for containing ink, said head having a feeding duct for receiving ink from said tubular member and the material of said head adjacent the duct inlet forming a valve seat, a piston movable in said tubular member and acting as a valve for coöperating with said seat, means tending to hold said piston against said seat, there being restricted passageway between said piston and the walls of said tubular member for the flow of ink, said piston being weighted whereby upon sudden downward movement of said frame said piston and valve seat will be suddenly separated to cause vacuum or suction effect below said piston to thus cause flow of ink to the space between said piston and seat, and whereby when said piston moves to engage with the seat upon stopping of the frame, the accumulated ink will be forced through said duct.

[Claims 6 to 11 not printed in the Gazette.]

1,073,341. CURTAIN-STRETCHER. SAMUEL GLEAVES, Salt Lake City, Utah. Filed Oct. 11, 1912. Serial No. 725,301. (Cl. 45—24.)

1. A curtain stretcher comprising a frame having corner members including longitudinal and lateral arms pivoted at their meeting ends and provided with longitudinally extending guideways, intermediate side sections telescopically mounted within the guideways of the adjacent longitudinal arms of the corner members, intermediate end sections telescopically mounted within the guideways of the lateral arms thereof, the said intermediate end sections consisting of centrally pivoted portions adapted to swing inwardly as the lateral arms of the corner members are swung inwardly in collapsed position, and a plurality of engaging hooks formed on the inner edges of the said intermediate sections and the arms of the corner members.



2. A curtain stretcher comprising corner members having angularly-extending arms provided with longitudinal guideways opening at the inner edges thereof, intermediate sections slidably mounted within the guideways of the adjacent arms of the said corner members, a plurality of engaging hooks provided on the inner edge of each arm of the corner members, a plurality of resilient fingers formed on the said intermediate sections, an engaging hook formed on each of said fingers and adapted to aline with the hooks carried by the arms of the corner members when in operative position between the adjacent ends of the said arms, the said fingers being adapted to be slidably mounted within the guideways of the said arms and to spring outwardly upon being freed therefrom to bring the hooks provided thereon into alinement with the said arm-carried hooks.

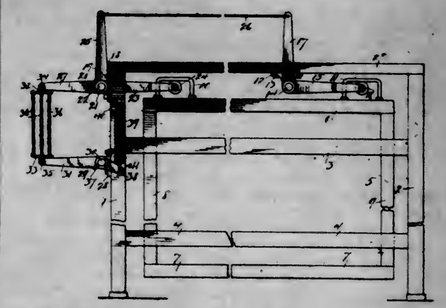
3. In a device of the class described, a pair of alining arms, each arm being formed from sheet metal so as to provide a longitudinal guide slot opening through the inner side and end thereof, a plurality of engaging hooks provided upon each of said arms at one side edge of its slot, an intermediate section connecting said arms and telescopically mounted within the guide slots thereof, and a plurality of yieldable hooks provided on said intermediate section for slidable movement within the arm slots, said hooks being adapted individually to spring outwardly into alinement with the arm-carried hooks upon being freed from the ends of the arm slots.

4. A device of the class described comprising a frame including corner members having pivoted arms, the meeting ends of the corresponding arms of adjacent corner members being pivotally connected, one arm of each corner member being provided adjacent its point of pivotal connection with the companion members with openings angularly spaced with respect thereto, the companion arm being provided with an opening, and means adapted to be mounted movably in the latter opening for engagement within any one of said openings to secure the said arm in different angularly adjusted positions.

1,073,342. COUNTERBALANCING MECHANISM FOR EMBROIDERING-MACHINES. JOSEPH A. GROEBLI, New York, N. Y. Filed Oct. 14, 1911. Serial No. 654,602. (Cl. 112—7.)

1. An embroidering machine having a movable tambour frame, and means for counterbalancing the tambour frame, embodying a plurality of springs arranged to counterbalance the tambour frame and means whereby the weight of the tambour frame will be successively borne by said springs and whereby one of said springs will have a greater amplitude of movement than the other during the movements of the tambour frame.

2. An embroidering machine having a movable tambour frame, and means for counterbalancing the tambour frame, embodying a plurality of springs arranged to counterbalance the tambour frame and means whereby the weight of the tambour frame will be borne by said springs in successive order and whereby at least one of said springs will have a greater amplitude of movement than one upon which the tambour frame weight is subsequently borne, during the movements of the tambour frame.



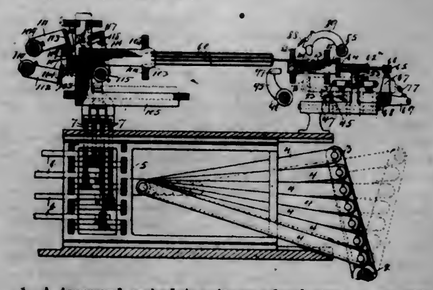
3. An embroidering machine having a movable tambour frame and means for counterbalancing the tambour frame, embodying a group of springs arranged to support the tambour frame, a spring of greater power than said first springs, and a lever arranged between the first and second springs whereby the second spring will support the tambour frame through said first springs, said lever being arranged to equalize the action of said first and second springs.

4. An embroidering machine having a movable tambour frame and means for counterbalancing the tambour frame, embodying a group of springs arranged to support the tambour frame, a spring of greater power than said first springs, and a lever arranged between the first and second springs whereby the second spring will support the tambour frame through said first springs, said lever being arranged to equalize the action of said first and second springs, and a stationary support to which said springs are connected.

5. An embroidering machine having a movable tambour frame and means for counterbalancing the same embodying a plurality of springs arranged to counterbalance the tambour frame, a spring of greater power than said first springs, and a lever interposed between said first and second springs adapted to cause said second spring to have a lesser amplitude of movement than said first springs and to equalize the effect of said springs.

[Claims 6 to 12 not printed in the Gazette.]

1,073,343. JACQUARD MECHANISM. JOSEPH A. GROEBLI, New York, N. Y. Filed Nov. 25, 1911. Serial No. 662,277. (Cl. 112—7.)



1. A jacquard embodying jacquard selectors, a movable selecting device adapted to select jacquard selectors for operation according to the movements of the selecting device, and members for determining the extent of movement of the selecting device and thereby the selection of the different jacquard selectors.

2. A jacquard embodying jacquard selectors, a movable selecting device adapted to select jacquard selectors for operation according to the movements of the selecting device, and members for determining the extent of movement of the selecting device and thereby the selection of the different jacquard selectors, and jacquard card mechanism operating said members which determine the movement of the selecting device.

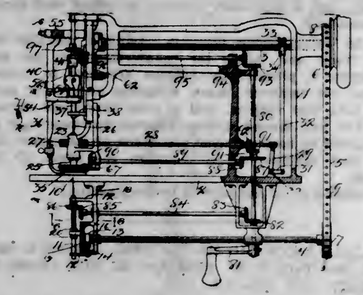
3. A jacquard embodying movement controlling jacquard selectors, a movable selecting device adapted to select jacquard selectors for operation according to the movement of the selecting device, members for opposing the movement of the selecting device to cause different jacquard selectors to be selected according to the particular opposing member or members operated, and jacquard card mechanism operating the said opposing members.

4. A jacquard embodying movement controlling jacquard selectors, a movable and resistible selecting device for selecting the jacquard selectors for operation, and a plurality of members for opposing the movement of the selecting device, adapted to be operated singly or collectively and to cause different movements in the selecting device according to which opposing member or members are operated, and jacquard card mechanism operating said opposing members.

5. A jacquard embodying movement controlling jacquard selectors, movable and resistible selecting means adapted to select individual jacquard selectors for operation, a plurality of members for opposing the movement of the selecting device to determine the selection of the jacquard selectors and jacquard card mechanism controlling said opposing members.

[Claims 6 to 26 not printed in the Gazette.]

1,073,344. BEAD-SEWING MACHINE. JOSEPH A. GROEBLI, New York, N. Y. Filed Oct. 5, 1912. Serial No. 724,025. (Cl. 112—7.)



1. In a bead sewing machine a looper arranged to cast loops, a hooked needle coöperating therewith to stitch the fabric, a bead separator with which said looper coöperates to cause the separation or feeding of beads on the sewing thread whereby the beads will be fed in regular order relatively to the stitching operations of the looper and needle, and means for moving the said bead separator whereby the same may be positioned to correspond with the feeding of the fabric in different directions during the stitching operation.

2. In a bead sewing machine a looper arranged to cast loops, a hooked needle coöperating therewith to stitch the fabric, a bead separator with which said looper coöperates to cause the separation or feeding of beads on the sewing thread and means for moving the said looped and bead separator whereby they may be positioned to correspond with the feeding of the fabric in different directions during the stitching operation.

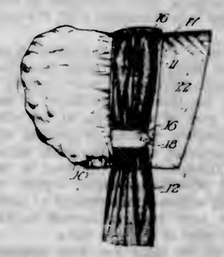
3. In a bead sewing machine a looper arranged to cast loops, a hooked needle coöperating therewith to stitch the fabric, a bead separator for separating or feeding beads which are strung on the sewing thread, a fabric feeder, and means for operating the fabric feeder to feed the fabric in different directions during the stitching operation and for operating the looper and bead separator to cause movement corresponding with the direction of the feed of the fabric by said fabric feeder.

4. In a bead sewing machine a looper arranged to cast loops, a hooked needle coöperating therewith to stitch the fabric, a bead separator for separating or feeding beads on the sewing thread, a fabric feeder, and means for operating the fabric feeder, looper and bead separator in synchronism, whereby the fabric may be fed in different directions during the stitching operation and whereby the looper and bead separator may be simultaneously positioned according to the direction of feed of the fabric.

5. In a bead sewing machine a looper arranged to cast loops, a hooked needle arranged to operate from the opposite side of the fabric from said looper and adapted to pierce the fabric and coöperate with the looper to stitch the fabric, a bead separator arranged between the looper and fabric, adapted to separate or feed beads on the sewing thread, said looper coöperating with the bead separator to cause the separation or feeding of the beads, and a fabric feeder, including an annular member arranged between the said separator and the fabric, through which the needle and thread are adapted to pass.

[Claims 6 and 7 not printed in the Gazette.]

1,073,345. AUTOMOBILE-BONNET. MARY FRANCES HARRIS, Carthage, Ill., assignor of one-half to William Dabney Lewis, Carthage, Ill. Filed Sept. 5, 1912. Serial No. 718,626. (Cl. 2—118.)



1. An automobile bonnet comprising a hood, an extensible vizor secured thereto, a veil disposed over the said vizor, and means for detachably securing the veil to the vizor when the said vizor is in both contracted and extended positions.

2. An automobile bonnet comprising a hood, a vizor secured to the said hood and folded upon itself and adapted to be unfolded to provide a sunshade, and means for retaining the vizor in folded position.

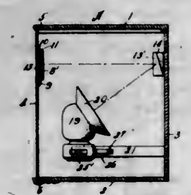
3. An automobile bonnet comprising a hood, a vizor secured to the said hood and folded upon itself and adapted to be unfolded to provide a sunshade, a veil disposed over the vizor and having depending ends adapted to be tied together to secure the bonnet in position upon the head of the wearer, and means for retaining the veil in position upon the vizor when the latter is in both extended and folded positions.

4. An automobile bonnet comprising a hood, a vizor folded upon itself secured to the said hood and adapted to be unfolded to provide a sunshade, and a plurality of tabs secured adjacent the inner edge of the said vizor adapted to extend over the folded-over portion of the vizor to retain the same in folded position.

5. An automobile bonnet comprising a hood, a vizor secured to the said bonnet, a tab on opposite sides of the bonnet secured to one edge of the vizor and adapted to be detachably engaged to the other edge, a veil disposed over the vizor and detachably held in place by means of the tabs, and a tab secured to the bonnet and to an edge of the vizor intermediate its ends and adapted to be detachably secured to the other edge to retain the veil within the edge of the vizor or to permit it to be disposed before the face of the wearer as may be desired.

[Claims 6 to 9 not printed in the Gazette.]

1,078,346. SIGN-ILLUMINATOR. WILLIAM HARRIS, Newark, N. J. Filed Mar. 30, 1912. Serial No. 687,480. (Cl. 40—132.)



1. A device of the character described comprising a plurality of interchangeable characters, means for supporting said characters in alinement, a plurality of mirrors arranged in alinement, means for vertically supporting said mirrors on a level with said characters, said mirrors being disposed in staggered relation with respect to said characters, each mirror comprising two inclined surfaces diverging toward said characters, said surface being also downwardly and rearwardly inclined and a single source of light below the level of said characters and mirrors projecting its rays only in the direction of and against said mirrors.

2. A device of the kind described comprising spaced apart parallel members, translucent sign portions mounted upon one of said members, a series of mirrors secured at their rear surfaces in contact with the other member on a level with said sign portions, each mirror having its intermediate portion of gradually decreasing thickness from top to bottom said intermediate portion formed with faces at an angle to each other, and means below the level of said characters and mirrors for projecting light upon the said mirrors.

3. A mirror consisting of a block having inclined front edges, the front of said block formed with mirror faces converging inwardly from its inclined edges to a substantial median line inclined in the same direction as the front edges of said block, whereby downwardly inclined reflectors are formed disposed at an angle to each other.

1,073,347. STATION-INDICATOR. PAUL VON HEISSIG, Vienna, Austria-Hungary, assignor to Frederick Duncan, Vienna, Austria-Hungary. Filed Aug. 24, 1912. Serial No. 716,884. (Cl. 40—103.)



1. In combination, a suitable support, a plurality of parallel bow-shaped guides each arranged with one extremity thereof above the other and inclined upwardly toward its free end, a floor inclined substantially in the same direction as and arranged below the upper extremities of said guides, a pack of plates standing edgewise on said floor and arranged transversely of and on said upper extremities of the guides and movable downwardly on the latter onto their lower extremities, means for releasably holding the plates on said floor and the upper extremities of the guides, and means for resetting the plates within the hold of the first-named means including a normally pendent frame pivoted on said support on an axis parallel with the plates and relatively back of the same and a plate suspended from said frame and pivoted thereto on an axis also parallel with the plates, substantially as described.

2. In combination, a suitable support, a plurality of parallel bow-shaped guides each arranged with one extremity thereof above the other and inclined upwardly toward its free end, a floor inclined substantially in the same direction as and arranged below the upper extremities of said guides, a pack of plates standing edgewise on said floor and arranged transversely of and on said upper extremities of the guides and movable downwardly on the latter onto their lower extremities, means for releasably holding the plates on said floor and the upper extremities of the guides, and means for resetting the plates within the hold of the first-named means including a normally pendent frame pivoted on said support on an axis parallel with the plates and relatively back of the same and a plate suspended from said frame and pivoted thereto on an axis also parallel with the plates and having a projection on the side thereof relatively forward in the pendent position of said plate, said projection being adapted to bear against the pack of plates, substantially as described.

3. In combination, a plurality of parallel bow-shaped guides each arranged with one extremity thereof above the other and inclined upwardly toward its free end, a pack of plates arranged transversely of and on the upper extremities of the guides and movable downwardly thereon independently of each other, holding devices each movable back and forth into and out of holding engagement with the side of the pack facing the direction of downward movement of the plates and a pair of counterpart cams revoluble on an axis parallel with said plates, respectively operatively engaging said devices and disposed in rotatively staggered relation to each other, substantially as described.

1,073,348. TUBULAR CARRIER. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 22, 1913. Serial No. 762,907. (Cl. 42—87.)



A carrier of the character described comprising a tubular body having an inwardly inclined stop wall formed by making a transverse cut in the body and springing the material of the body inward on one side of the cut, one end of the stop wall remaining attached to the body and the free end of the stop wall extending

inward past the center of the body so that when cartridges are impelled forcibly against the upper side of the stop wall said wall cannot be sprung backward into alinement with the wall of the body.

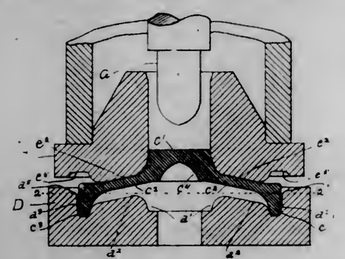
1,073,349. MUSHROOM-BULLET. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 3, 1913. Serial No. 777,368. (Cl. 102—28.)



1. A bullet of the character described comprising a full jacket and a relatively soft core, the bullet being weakened near the point by drilling through the jacket and through the core so that when the tip is checked in firing the metal of the core will be forced out through the holes and the weakened jacket will crumple.

2. A bullet of the character described comprising a full jacket and a relatively soft core, the bullet being weakened near the point by drilling a hole straight through both sides of the jacket and through the core so that when the tip is checked in firing the metal of the core will be forced out through the holes and the weakened jacket will crumple.

1,073,350. PROCESS OF MANUFACTURING CAR-WHEELS. HERBERT R. KEITHLEY, Kansas City, Mo. Filed Apr. 26, 1909, Serial No. 492,323. Renewed Feb. 21, 1913. Serial No. 750,039. (Cl. 22—201.)



1. The method of producing a compound steel car wheel blank which consists in successively casting molten hard steel and molten soft steel so as to produce a member in the form of an inverted cup having sides of hard steel and a soft steel bottom overlapping the lower edges of the sides.

2. The method of producing a compound steel car wheel blank, which consists in casting a ring of molten hard steel and before the ring cools casting on top thereof and in contact therewith a layer of molten soft steel to form the center of the blank and to increase the width of the ring in the axial direction by superposing soft steel upon the hard steel.

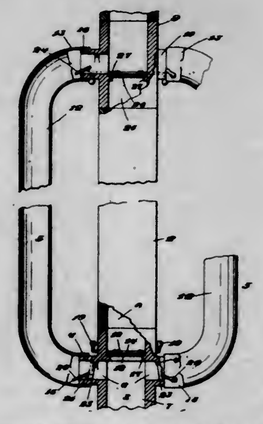
3. The method of producing a compound steel car wheel blank which consists in casting a partial rim of molten hard steel and then while the hard steel is still partially fluid casting upon and in contact with the same a layer of molten soft steel having a vertical column rising from the center thereof, thereby forming a blank having a soft steel center and a rim composed of hard steel and soft steel joined along a plane transverse to the axis of the blank.

4. The method of producing a compound steel car wheel blank which consists in casting a ring of molten hard steel and then while the hard steel is still partially fluid casting above and in contact with the same a layer of molten soft steel having a column rising therefrom at the center of the ring, so as to form a compound ring of hard and soft steel joined along a plane transverse to the axis of the ring and a central portion of soft steel.

5. The method of producing a compound steel car wheel blank which consists in casting a ring of molten hard steel and then while the hard steel is still partially fluid casting above and in contact with the same a layer of molten soft steel with a column rising therefrom at the center of the ring and with thickened portions extending from said ring to said column at various angularly-separated points.

[Claims 6 to 9 not printed in the Gazette.]

1,073,351. HEATING-FLUE. WILLIAM J. KENELY, Elizabeth, N. J. Filed Oct. 10, 1912. Serial No. 724,900. (Cl. 126—185.)



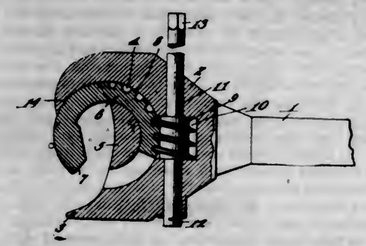
1. The combination with a chimney having upper and lower sections, each providing a lateral tubular connection, dampers in the main passages of said sections, and dampers in the said tubular connections of a heat-flue extending between said tubular connections outside the chimney.

2. The combination in a chimney having an interior longitudinal passage, of upper and lower sections each having a lateral projection, a damper in each of said projections, a damper in the interior longitudinal passage of the upper section immediately below the opening of the lateral projection thereof into said longitudinal passage, and a damper in the interior longitudinal passage of said lower section immediately above the opening of its lateral projection into said longitudinal passage, whereby gases ascending through the longitudinal passage may be deflected into the lateral openings as desired.

3. The combination in a chimney having an interior longitudinal passage, of upper and lower sections each having a lateral projection, a flue detachably affixed at its opposite ends to said projections, a damper in each of said projections, a damper in the interior longitudinal passage of the upper section immediately below the opening of the projection thereof into said longitudinal passage, and a damper in the interior longitudinal passage of said lower section immediately above the opening of its lateral projection into said longitudinal passage, whereby gases ascending through the longitudinal passage may be deflected into the lateral openings as desired and carried through the said flue to the upper section.

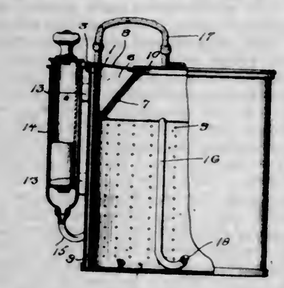
1,073,352. CAR-COUPLING. JOSEPH KOVACS, Kalpmont, Pa. Filed Jan. 31, 1913. Serial No. 745,515. (Cl. 213—10.)

A coupler of the class described comprising a head having a chamber, the head being provided with a connection extended across the chamber, the rear face of the connection and the forward face of the chamber being disposed in the arcs of concentric circles and being extended across the draft line; a segmental coupling member mounted to move in the chamber between said faces,



the coupling member having a rack, one end of the segmental member engaging the connection, in the draft line, when the other end of the segmental member is in projected position; and a worm in the head, with which worm the rack meshes, the connection constituting means for holding the rack engaged with the worm.

1,073,353. ATTACHMENT FOR MINNOW-BUCKETS. CHARLES F. KRANING, North Manchester, Ind. Filed July 8, 1912. Serial No. 708,294. (Cl. 43—28.)



A bait bucket comprising an imperforate carrier, a bait receptacle fitting within the carrier and supported by the upper edge thereof, said receptacle having a foraminous lower portion and having a float at its upper end, an air tube disposed within the bait receptacle against one side thereof and having its upper end extending through the float and projecting above the receptacle and its lower end extending inwardly over the bottom thereof, an air pump secured externally upon the carrier, an air tube leading from said pump and having its end projecting above the top of the carrier, and a flexible tube connecting and detachably fitted upon the upper ends of the two air tubes.

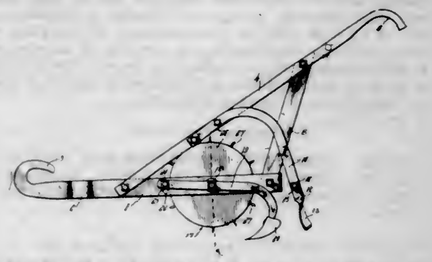
1,073,354. AUTOMATIC AIR-ESCAPE VALVE. CHRISTOPHER LAUTERBACH, Baltimore, Md. Filed Apr. 15, 1912. Serial No. 691,023. (Cl. 237—19.)

An air escape valve providing a hollow cylindrical shell, a bottom hollow casting secured thereon, a diaphragm in said casting and provided with ports to admit air into said shell, a supporting post on said diaphragm, a hollow bell float adapted to normally rest on said post, a conical tip on the upper end of said float, a top casting secured on said shell having a valve seat in the upper end thereof, a diaphragm in said top casting, a hollow plug threaded in said diaphragm for adjustment, valve seats being formed at each end of said plug, the lower valve seat adapted to co-act with the conical tip on the float, an adjusting cap secured on the upper end of said top casting, a disk between said cap and top casting, said disk having conical faces one adapted to co-act with the upper valve seat of said plug, and the other to co-act with the valve seat in



said top casting, and a centering screw secured in said cap adapted to adjust said disk.

1,073,355. COTTON-CHOPPER. SOLOMAN HIRAM LILES and RANSOM JOSHUA BAUCOM, Raeford, N. C. Filed June 13, 1911. Serial No. 632,874. (Cl. 97—49.)

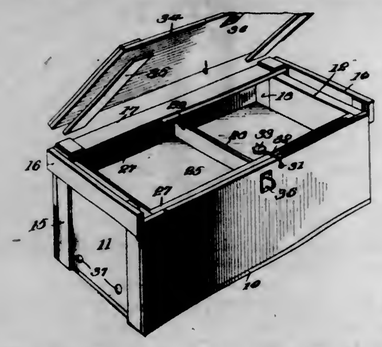


A cotton chopper providing a substantially rectangular frame, handles secured to the side members of said frame, and braced thereon, spring metal strips secured at one end to the outer faces of said handles, said spring strips being curved rearwardly and downwardly and twisted adjacent their lower ends to form cultivator teeth, and a tie bolt passing through said strips near the lower ends thereof, said bolt provided with nuts whereby said teeth may be braced and adjusted in spaced relation to each other.

1,073,356. CRAB-CRATE. CHARLES A. LOOCKERMAN, Crisfield, Md. Filed Apr. 9, 1912. Serial No. 689,529. (Cl. 62—10.)

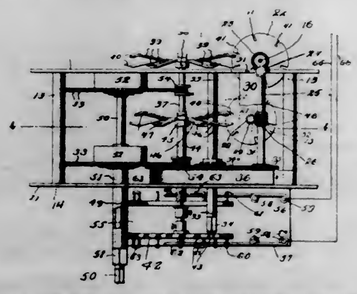
1. A shipping box including a body member having a bottom, front and rear walls, and end walls, vertical braces secured to the inner faces of the front and rear walls at both ends thereof and extending throughout the height of the body, transversely extending braces secured to the bottom of the body member, a top member partially closing the top of the body member, a plurality of trays positioned in superimposed relation in the body member, the lowermost of said trays being supported in spaced relation above the bottom by the transverse braces, the end portions of all of said trays bearing against the vertical braces and being spaced from the end walls of the body member, thereby to provide ice receiving chambers, an inner closure seating upon the uppermost tray and with its rear portion extended beneath the top member and held in place thereby, said tray being provided with upwardly directed retaining walls at its front and rear edges and terminating at its ends flush with the ends of the crates to establish communication with the ice chambers, and an outer closure coacting with the top member to close the body member.

2. A shipping box including a body member, a plurality of trays equal in width to the inner width of the body member and superimposed therein, means carried by the body member for maintaining the trays with their ends spaced from the ends of the body member to provide ice chambers, the uppermost tray being below the level of the top of the body member, an imperforate inner closure



seating upon the uppermost tray and having front and rear walls providing an upper ice chamber in communication at its ends with the first mentioned ice chambers, a brace extending transversely and centrally of the closure to divide said upper ice chamber to prevent the shifting of ice from one end of the body member to the other, and an outer closure for said body member.

1,073,357. OPERATING MECHANISM FOR ANNUNCIATING SYSTEMS. FRED MICHAELIS, Bartlesville, Okla. Filed Feb. 11, 1911. Serial No. 608,073. (Cl. 161—4.)



1. The combination with a time registering mechanism, of a rotatable operating shaft connected thereto, a supporting means, shafts journaled within the supporting means, means for intermittently rotating the said shafts, disk supporting shafts journaled in the supporting means, disks carried by the disk supporting shafts, pins projecting from the disks, offset extensions provided upon the pins, contacts secured to the supporting means and engaging the pins and their offsets, and bells electrically connected to the contacts.

2. The combination with a time registering mechanism, of an operating shaft connected thereto, a supporting means, shafts journaled within the supporting means, means for rotating several of the said shafts, slotted disks keyed to several of the shafts, arms projecting radially from several of the shafts and resting upon the said disks, means for rotating the shafts carrying the arms, disks keyed to the shafts carrying the arms, said disks adapted to be rotated upon the rotation of the slotted disks, pins projecting from the disks carried by the arm-supporting shafts, offset extensions provided upon the pins, contacts secured to the supporting means and engaging the pins and their offsets, and bells electrically connected to the contacts.

3. The combination with a time registering mechanism, of a rotatable operating shaft connected thereto, a supporting means, shafts rotatably mounted within the supporting means, slotted disks keyed to several of the said shafts, arms carried by several of the said shafts and adapted to rest upon the slotted disks, disks keyed to the arm-supporting disks, springs engaging the arm-supporting shafts and adapted to force the arms into engagement with the disks for the purpose of permitting said arm-supporting shafts to be rotated when the disks are rotated through the time registering mechanism, pins extending from the disks mounted upon the arm-supporting shafts, a plate mounted beneath said disks, spring contacts secured to said plates and engaging the pins, a series of bells, conductors connecting the bells with the contacts, and a battery engaging one of said contacts for the purpose of ringing the bells upon engagement of both contacts with one of the pins carried by each disk.

4. In a device of the character described, the combination with a casing of a clock located therein, a pair of plates within said casing, a shaft rotatably connected with the said clock, a pinion keyed to this shaft, a disk keyed to this shaft, a shaft rotatably mounted between the said plates, a pinion carried by this shaft for engagement with the pinion carried by the clock-operated shaft, a worm secured to this shaft, a worm wheel engaging this worm, said worm wheel being located upon the shaft which is journaled in brackets carried by one of the plates, a disk secured to this last-mentioned shaft, another shaft journaled between said plates, a sleeve mounted thereon, wheels carried by this last-mentioned shaft and sleeves located thereon, said wheels being provided with radially extending arms adapted to engage the faces of this said disks, and upon the rotation of the same intermittently rotate the shafts to which they are connected, springs mounted on shafts adjacent this shaft and sleeve which is located thereon, means connecting the said shafts for the purpose of assisting in the rotation of the shaft and sleeve which is located thereon, disks keyed to the shaft and the sleeve which is rotatable thereon, pins extending from the opposite faces of the said disks, springs secured to a platform carried by one of the said plates, the said springs lying in the path of the said pins, a bell or bells electrically connected to said springs and adapted when the springs engage the pins to audibly indicate the time of the clock by the completion of the electrical current through the pins, disks and shafts upon which said disks are journaled, substantially as and for the purposes hereinbefore described.

1,073,358. LAMP-BURNER. VIRGIL H. MILLS, Hubbard, Tex. Filed Dec. 19, 1912. Serial No. 737,732. (Cl. 67—72.)



1. A lamp burner having a perforated base plate, a wick tube extending therethrough, and draft tubes extending through the base plates at opposite sides of the wick tube with their upper ends immediately adjacent the upper end of the wick tube to feed air directly to and laterally upon the upper end of the wick.

2. In a lamp burner, the combination of a base, a wick tube extending therethrough, a gage tube slidably fitted within the wick tube, and a lifter attached to the said gage tube and projecting above the base.

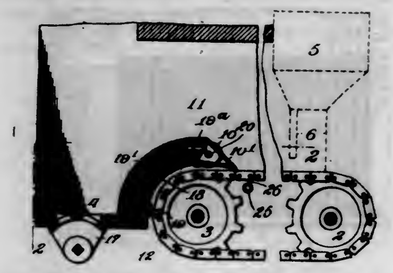
3. In a lamp burner, the combination of a base, a wick tube extending upwardly therefrom, and a gage tube slidably fitted within the wick tube and having its upper end shaped to guide the trimming of the wick.

4. In a lamp burner, the combination of a base having a wick tube rising therefrom, a wick raiser co-acting with said tube, a gage tube slidably fitted within the wick tube and constructed to accommodate the wick raiser, and means for raising and lowering the said gage tube.

5. In a lamp burner, the combination of a base having a wick tube rising therefrom, a gage tube fitted within the wick tube and longitudinally slotted, means for raising and lowering the said gage tube, and a wick raiser working through the slots in said tube to engage the wick.

[Claim 6 not printed in the Gazette.]

1,073,359. TRAVELING-GRATE FURNACE. SAMPSON JOHN MISENER, Woodside, Dartmouth, Nova Scotia, Canada. Filed Mar. 29, 1912. Serial No. 687,244. (Cl. 110—40.)



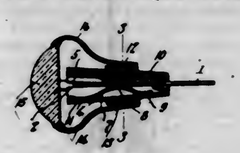
1. In a traveling grate furnace, in combination, a traveling grate, a device located adjacent the rear end of the grate and adapted to have the ashes discharged thereover and comprising a metallic member wedge shaped in cross section with the apex of the wedge toward the front of the grate and in close proximity to the latter, means for causing water to circulate through said metallic member, an arch curving downwardly and rearwardly from said metallic member and having an inner metallic plate and an outer covering of firebrick.

2. In a traveling grate furnace, in combination, a traveling grate, a device located adjacent the rear end of the grate and adapted to have the ashes discharged thereover and comprising a pipe bent to wedge shape in cross section with the apex of the wedge toward the front of the grate, means for causing water to circulate through said pipe, an arch curving backwardly and downwardly from the said pipe and consisting of an inner metallic plate secured at its forward end to the said pipe, a heat insulating lining placed over such plate, and a covering of firebrick placed over the said lining.

3. In a traveling grate furnace, in combination, a traveling grate, a device located adjacent the rear end of the grate and adapted to have the ashes discharged thereover and comprising a pipe having its ends of circular cross section and supported in the side walls of the furnace, the portion of the pipe between such side walls being bent to wedge shape in cross section with the apex of the wedge toward the front of the grate, a water cooled pipe extending through such wedge shaped pipe and terminating short of one end thereof, an arch curving backwardly and downwardly from the said pipe and consisting of an inner metallic plate having its forward end projecting under and secured to the wedge shaped portion of the pipe, a heat insulating lining placed over such plate, a covering of firebrick placed over such lining, and a means comprising a series of pins projecting rigidly from the said pipe and embedded in the said fire brick for securing the latter in position.

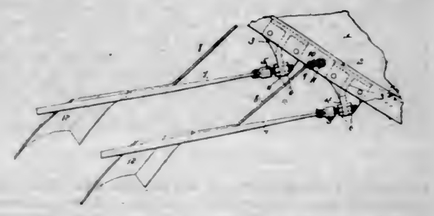
1,073,360. HAT-PIN. LILLY MAY MORGAN, Hillsboro, Ohio. Filed Apr. 28, 1911. Serial No. 623,885. (Cl. 24—155.)

A hat pin protector comprising a tapered sleeve having intermediate threaded portions, the said sleeve being split longitudinally to points through and slightly beyond said threaded portion, whereby the major part of the sleeve is rendered yieldable, an elastic element located in the sleeve and comprising oppositely-disposed springs, each having end portions yieldably engaged against the inner walls of the sleeve and intermediate portions extended away from said inner walls of the sleeve and disposed in



axial alinement with the sleeve, and an actuating device interiorly threaded to receive the threaded portion of the sleeve and adjustable on said portion whereby the walls of the sleeve will be compressed radially to regulate the contacting pressure of the intermediate portions of the springs.

1,073,361. ENGINE GANG-PLOW. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Original application filed June 11, 1910, Serial No. 566,417. Divided and this application filed Dec. 31, 1910. Serial No. 600,354. (Cl. 97—60.)



1. In a plow, the combination with a draft frame, of a trailing plow and a connection between said plow and said frame comprising a substantially horizontal axis, adjustable means for tilting said axis and means adjustable parallel to the line of draft for angling said axis horizontally.

2. In a plow, the combination with a draft frame, of a trailing plow and a connection between said plow and said frame comprising a substantially horizontal axis, adjustable means for moving one end of said axis vertically, and adjustable means for moving one end of said axis substantially parallel to the line of draft.

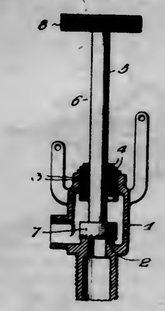
3. In a plow structure of the character described, the combination with a traveling member and a plurality of plows, of connecting devices to which said plows are pivotally attached, and means affording adjustment of said connecting devices parallel to the axes of the plows and also in a direction at right angles to the axes of the plows.

4. In a plow structure of the character described, the combination with a traveling member and a plurality of plows, of two connecting devices with which each plow is pivotally connected, means adjustable parallel with the axes of the plows connecting one of said connecting devices with the traveling member, and means adjustable vertically at right angles to the axes of the plows connecting the other of said connecting devices with said traveling member.

5. In a plow structure of the character described, the combination with a traveling member and a plow beam, of two knuckles to which said plow beam is pivotally attached, means adjustable parallel to the axis of the beam connecting one of said knuckles with said traveling member, and means adjustable vertically at right angles to the axis of the plow beam connecting the other knuckle with said traveling member.

[Claims 6 and 7 not printed in the Gazette.]

1,073,362. BALL-COCK-SEAT DRESSER-GUIDE. GEORGE W. REDEKER, Wheeling, W. Va. Filed June 10, 1912. Serial No. 702,848. (Cl. 90—12.5.)



A ball cock seat dresser guide comprising a plurality of similarly constructed cylindrical tubes of uniform thickness throughout their entire length, graduated in size and telescopically connected, said tubes having smooth inner and outer surfaces arranged to slide freely within each other, radially projecting annular flanges formed on the outer ends of said tubes, whereby they are supported on each other and one or more may be readily removed to adjust the device to the proper size for engagement with a ball cock, the lower edge of the outer or larger tube projecting beyond the inner surface of the valve casing, a dresser stem slidably and revolubly arranged in the smaller tube, and a dressing bit detachably secured to the lower end of the stem and adapted to be brought in contact with the lower projecting edge of the larger tube when it is desired to remove the tool from the valve casing.

1,073,363. DEPOSITION OF METALLIC SALTS FROM SOLUTIONS CONTAINING THEM. HENRY JAMES REES, Llansamlet, Glamorgan, Wales. Filed Sept. 19, 1912. Serial No. 721,314. (Cl. 23—13.)

1. The hereindescribed process for depositing metallic salts from solutions which consists in treating the solution first for the removal of one or more salts, thereafter splitting off a portion of the treated solution and returning the remainder to be mixed with a fresh quantity of the original solution and submitting the split-off portion to a further treatment for the removal of the remaining salts.

2. The hereindescribed process for depositing metallic salts from solutions which consists in treating the solution first for the removal of one or more salts thereafter splitting off a portion of the treated solution and returning the remainder to be mixed with a fresh quantity of the original solution and submitting the split-off portion to the action of heat for the recovery of the remaining salts therefrom by evaporation and crystallization.

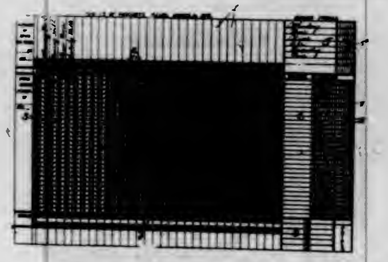
3. The hereindescribed process for depositing metallic salts from solutions which consists in treating the solution first for the removal of one or more salts thereafter splitting off a portion of the treated solution and returning the remainder to be mixed with a fresh quantity of the original solution and submitting the split-off portion in a thin film to the action of heat for the removal of the remaining salts by evaporation and crystallization.

4. The hereindescribed process for depositing monosulfite and sulfate of a metal from solutions containing bisulfite and sulfate of the metal which consists in forming a continuously moving thin film of the solution and passing it over a heated surface for the removal of the monosulfite and some sulfate, splitting off a portion of the thus treated solution, returning the remainder to be mixed with a fresh quantity of the original solution, and submitting the split-off portion to a further treatment for the removal of the remaining sulfate.

5. The hereindescribed process for depositing monosulfite and sulfate of a metal from solutions containing bisulfite and sulfate of the metal which consists in forming a continuously moving thin film of the solution and passing it over a number of heated surfaces in cascade, for the removal of the monosulfite and some sulfate, splitting off a portion of the thus treated solution, returning the remainder to be mixed with a fresh quantity of the original solution, and submitting the split-off portion to a further treatment for the removal of the remaining sulfate.

[Claims 6 to 12 not printed in the Gazette.]

1,073,364. SALOON-STOCK-RECORDING CHART. CHAIS CALVIN RUSH, Hot Springs, Ark. Filed Sept. 30, 1912. Serial No. 723,182. (Cl. 11—19.)



1. A chart of the character described bearing matter dividing it into a plurality of main vertical columns and a plurality of horizontally disposed rows of varying colors which intersect said main vertical columns adjacent the lower portion of the chart and bearing matter sub-dividing said main vertical columns into a plurality of narrower, vertical columns which are colored to correspond with the coloring of the aforesaid horizontal rows, said narrower, vertical columns terminating short of said horizontal rows, the intersection of said main vertical columns with said horizontal rows forming a plurality of totals spaces equal in number to the number of the horizontal rows and equal in length to the width of the main vertical columns, said narrower, vertical columns being intersected by a plurality of lines dividing the chart into a plurality of horizontally disposed rows bearing matter indicative of the days of the month.

2. A chart of the character described, divided into a plurality of vertical columns intersected adjacent the upper portion of the chart by a plurality of horizontally disposed rows of varying colors and intersected adjacent the lower portion of the chart by a plurality of additional horizontally disposed rows correspondingly colored, each of said vertical columns between said horizontal rows being sub-divided into a plurality of smaller vertical columns of varying colors corresponding to the coloring of said horizontal rows.

3. A chart of the character described, divided into a plurality of vertical columns intersected adjacent the upper portion of the chart by a plurality of horizontally disposed rows of varying colors and intersected adjacent the lower portion of the chart by a plurality of additional horizontally disposed rows correspondingly colored, each of said vertical columns between said horizontal rows being sub-divided into a plurality of vertical smaller columns of varying colors corresponding to the coloring of the aforesaid horizontal rows, and each of the last named vertical columns being intersected by a plurality of horizontally disposed rows bearing matter indicative of the days of the month.

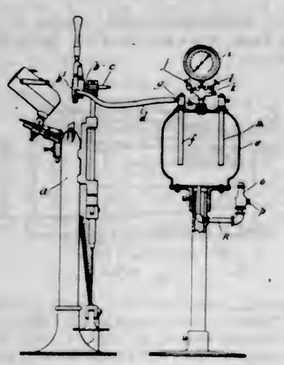
1,073,365. ARTIFICIAL TOOTH. HEDLEY RUTLAND, York, Pa. Filed Feb. 24, 1913. Serial No. 750,290. (Cl. 32—9.)

The combination with a dental plate, having an integral vertical post formed with an obliquely extending rib on each side thereof, of a complementary tooth recessed and grooved for the reception of said post and ribs, where-



by the tooth may be wedged between the oblique ribs and the plate.

1,073,366. APPARATUS FOR FILLING SIPHON-BOTTLES. JOHN A. SCHULTZ, Jr., Newark, N. J., assignor to New York Bottlers' Supplies Mfg. Co., Hoboken, N. J., a Corporation of New Jersey. Filed Aug. 20, 1910. Serial No. 578,210. (Cl. 226—23.)



1. In an apparatus for filling siphon bottles, the combination with a supplemental tank, normally charged with carbonic acid gas under low pressure, and means whereby said tank may be directly connected with a source of carbonic acid gas under pressure, of a bottle filling machine and a valve mechanism therefor having leads adapted to communicate respectively with a bottle, with a tank containing carbonated water under pressure relatively higher than the normal pressure in said supplemental tank, and with said supplemental tank intermediate the top and bottom thereof, whereby substantially pure carbonic acid gas is delivered from said tank, said valve mechanism being so set that said bottle is alternately placed in communication with said supplemental tank and with a carbonated water tank, whereby the carbonic acid gas from said tank is alternately discharged from said tank into said bottle and from said bottle back into said tank.

2. In an apparatus for filling siphon bottles, the combination with a supplemental tank, normally charged with carbonic acid gas under low pressure, said tank having a pendant tube therein opening inwardly at a point intermediate the top and bottom thereof, and means whereby said tank may be directly connected with a source of carbonic acid gas under pressure, of a bottle filling machine and a valve mechanism therefor having leads adapted to communicate respectively with a bottle, with a tank containing carbonated water under pressure relatively higher than the normal pressure in said supplemental tank, and with said supplemental tank through the top of said pendant tube, whereby substantially pure carbonic acid gas is delivered from said tank, said valve mechanism being so set that said bottle is alternately placed in communication with said supplemental tank and with a carbonated water tank, whereby the carbonic acid gas from said tank is alternately discharged from said tank into said bottle, and from said bottle back into said tank.

3. In an apparatus for filling siphon bottles, the combination with a supplemental tank, normally charged with carbonic acid gas under low pressure, means whereby said tank may be directly connected with a source of carbonic acid gas under pressure, and automatically acting means whereby the pressure in said tank is maintained uniform, of a bottle filling machine and a valve mechanism therefor having leads adapted to communicate respectively with a bottle, with a tank containing carbonated water under pressure relatively higher than the normal pressure in said supplemental tank, and with said supplemental tank intermediate the top and bottom thereof, whereby substantially pure carbonic acid gas is delivered from said tank, said valve mechanism being so set that said bottle is alternately placed in communication with said supplemental tank and with a carbonated water tank, whereby the carbonic acid gas from said tank is alternately discharged from said tank into said bottle and from said bottle back into said tank.

4. In an apparatus for filling siphon bottles, the combination with a supplemental tank, normally charged with carbonic acid gas under low pressure, means whereby said tank may be directly connected with a source of carbonic acid gas under pressure, and means whereby the upper stratum of air may be drawn off to prevent the lowering of the level of the carbonic acid gas, of a bottle filling machine and a valve mechanism therefor having leads adapted to communicate respectively with a bottle, with a tank containing carbonated water under pressure relatively higher than the normal pressure in said supplemental tank, and with said supplemental tank intermediate the top and bottom thereof, whereby substantially pure carbonic acid gas is delivered from said tank, said valve mechanism being so set that said bottle is alternately placed in communication with said supplemental tank and with a carbonated water tank, whereby the carbonic acid gas from said tank is alternately discharged from said tank into said bottle, and from said bottle back into said tank.

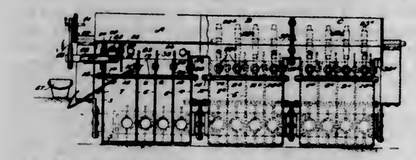
5. In an apparatus for filling siphon bottles, the combination with a supplemental tank, normally charged with carbonic acid gas under low pressure, means whereby said tank may be directly connected with a source of carbonic acid gas under pressure, automatically acting means whereby the pressure in said tank is maintained substantially uniform, and means whereby the upper stratum of air may be drawn off to prevent the lowering of the level of carbonic acid gas, of a bottle filling machine and a valve mechanism therefor having leads adapted to communicate respectively with a bottle, with a tank containing carbonated water under pressure relatively higher than the normal pressure in said supplemental tank, and with said supplemental tank intermediate the top and bottom thereof, whereby substantially pure carbonic acid gas is delivered from said tank, said valve mechanism being so set that said bottle is alternately placed in communication with said supplemental tank and with a carbonated water tank, whereby the carbonic acid gas from said tank is alternately discharged from said tank into said bottle, and from said bottle back into said tank.

[Claims 6 and 7 not printed in the Gazette.]

1,073,367. ORE-CLASSIFIER. JAMES W. SHIELDS and ALBERT C. THIELMANN, Hubbell, Mich. Filed Feb. 9, 1912. Serial No. 676,665. (Cl. 83—79.)

1. In an ore classifier, a classified section divided by partitions into a number of pockets, a box removably fitted within the section and consisting of separable sections having lap-joint connection, the said box being divided by partitions each lying within the plane of one of the first mentioned partitions, the section being provided in one wall with outlet openings and the corresponding wall of the box being provided with openings registering with the first mentioned openings, a screen disposed between the upper edges of the first mentioned partitions and the lower edges of the partitions within the box and dividing the said pockets, an overflow plate adjustable within the box, and means for creating a rise and fall of the material within the pockets of the section.

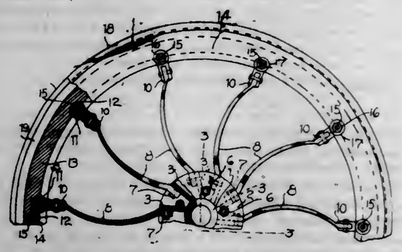
2. In an ore classifier, a classifier section divided by partitions into a number of pockets, a box removably fitted within the section and consisting of separable sections, having lap-joint connection, the said box being divided by partitions each lying within the plane of one of the first mentioned partitions, the section being provided in one wall with outlet openings and the corresponding wall of the box being provided with openings registering with the first mentioned openings, a screen disposed between the upper edges of the first mentioned partitions and the lower edges of the partitions within the box and dividing the said pockets, an overflow plate adjustable upon each of the partitions within the box, one of the sections of the box at one end being increased in height and having transversely extending walls forming a downwardly presented skimming compartment, a skimmer arranged to operate in said compartment, and means for creating a rise and fall of the material within the pockets of the section.



3. In an ore classifier, a series of independent pockets arranged to overflow one into another, a screen dividing each pocket, a trough extending at the upper ends of the pockets and having oppositely inclined walls, and means for creating a rise and fall of the level of the material in the pockets, the inclined walls of the trough extending over the series of pockets in the planes of the overflow from pocket to pocket and serving to retard the overflow from one pocket to the other upon the rise of the material in the pockets.

4. In an ore classifier, a series of independent pockets arranged to overflow one into another, a screen dividing each pocket, a trough extending at the upper ends of the pockets and having oppositely inclined walls, means for creating a rise and fall of the level of the material in the pockets, the inclined walls of the trough extending over the series of pockets in the planes of the overflow from pocket to pocket and serving to retard the overflow of the material from one pocket to another upon the rise of the material in the pockets, and means for regulating the overflow of material from one pocket into another.

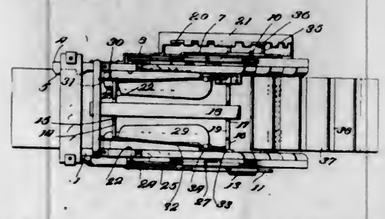
1,073,368. SPRING-WHEEL. EDGAR D. SMITH, Elizabeth, N. J. Filed Mar. 15, 1913. Serial No. 754,623. (Cl. 152—50.)



1. A spring wheel comprising a hub having a plurality of substantially radial plates formed thereon, a plurality of bowed spring spokes removably secured respectively to the plates on the hub, a plurality of yoke members secured to the outer ends of said spokes, said yoke members being each formed with a sleeve-like portion thereon adapted to be loosely received in engagement with the inner periphery of said rim, a pair of retaining bands applied to the opposite faces of said rim, and means extending through said retaining bands and through the sleeve-like portions of said yoke members to secure the latter and said retaining bands together.

2. A spring wheel comprising a hub having a plurality of substantially radial plates formed thereon, a rim therefor, a plurality of bowed spring members removably secured at their inner ends to the plates of said hub, said rim being provided on its inner periphery with a plurality of transverse notches arranged at regular intervals throughout the periphery thereof, a plurality of yoke members secured to the outer ends of said spring spokes, said yoke members being each formed with a sleeve portion thereon adapted to be loosely received in a notch of the rim, a pair of retaining bands applied to the opposite faces of said rim and receiving said yoke members therebetween, and bolts disposed through the sleeve portions of said yoke members and through said retaining bands to secure the latter and said yoke members together.

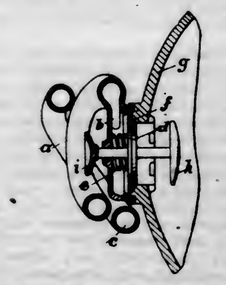
1,073,369. BREEDING-CRATE. JACOB D. SPANGLER, Sharon, Kans. Filed May 14, 1912. Serial No. 697,267. (Cl. 119—98.)



1. A breeding crate comprising a stall, a frame slidably mounted thereon, a door hinged to the frame and adapted to close the exit end of the stall, a latch bar slidably mounted upon the frame and engageable with the free edge of the door, coöperating with the frame to impart movement to the door, and a movable barrier located in the vicinity of the entrance end of the stall.

2. A crate comprising a stall, a movable barrier at the entrance end thereof, a frame adjustably mounted upon the stall, a door carried by the frame and located in the vicinity of the exit end of the stall, and a latch member for maintaining said door in closed position and disposed to coöperate with the frame to impart movement to said door.

1,073,370. DIVING APPARATUS. HERMANN STELZNER, Lubeck, Germany, assignor to The Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lubeck, Germany. Filed Aug. 22, 1912. Serial No. 716,475. (Cl. 61—7.)



1. Diving apparatus having in combination a diver's helmet, a non-return valve mounted thereon, and means for preventing the outside water from entering the valve in all positions.

2. In diving apparatus the combination with a non-return valve, of a volute shaped system of tubes which are adapted in all positions of the apparatus to accumulate air expelled through the valve and to prevent the outside water from entering the valve.

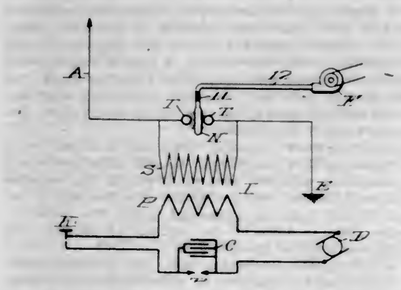
3. Safety valve for diving apparatus comprising a non-return valve and a system of passages in the form of a helix one part of the helix being distorted or bent out of its natural path.

4. In a diving apparatus the combination with a non-return valve of a cap covering the valve opening and a volute-shaped system of tubes connected to the said cap.

5. In a diving apparatus, in combination, a diver's helmet, a non-return valve mounted on the said helmet, a cap covering the said valve and a helical tube one end of which is free and the other end communicating with the said cap.

[Claims 6 and 7 not printed in the Gazette.]

1,073,371. SPARK-GAP-COOLING DEVICE. WILLIAM E. D. STOKES, Jr., New York, N. Y., and GEORGE W. DAVIS, Galilee, N. J., assignors to William E. D. Stokes, New York, N. Y. Filed Oct. 9, 1908. Serial No. 457,010. (Cl. 250—38.)

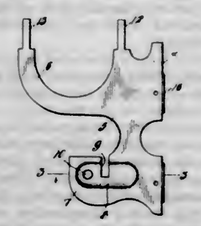


1. The combination of separated terminals forming a spark gap, and a cooling device arranged between said terminals consisting of a fixed nozzle arranged to direct a blast parallel with the spark or arc.

2. The combination of separated terminals forming a spark gap, a fixed air blast nozzle arranged between the terminals and having openings for directing a blast of air continuously on each terminal parallel with the spark or gap.

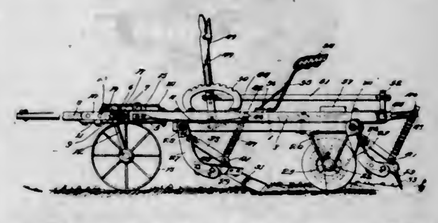
3. The combination of separated terminals forming a spark gap, a hollow perforated blast nozzle arranged permanently between the terminals and having perforations for directing blasts on each terminal parallel with the spark or arc, and a source of air pressure connected thereto.

1,073,372. COMBINATION SHADE-ROLLER AND CURTAIN-POLE BRACKET. HENRY B. THOMAS, Seattle, Wash., assignor to Thomas and Thorne Mfg. Company, Seattle, Wash. Filed Feb. 27, 1912. Serial No. 680,170. (Cl. 156—24.)



A bracket comprising a plate having a shade roller engaging wing, base ears integrally formed with the plate at its rear edge and bent at right angles thereto, the said plate being formed with notches in its uppermost edge arranged in spaced relation to each other and of varying sizes with respect to one another, and upstanding lugs integrally formed with the upper edge of the plate and disposed in alternate relation to the notches, one of the notches and one of the lugs being disposed rearwardly of a shade roller with the said wing.

1,073,373. AGRICULTURAL MACHINE. GEORGE TROMPETER, Clearwater, Kans. Filed Mar. 1, 1912. Serial No. 680,952. (Cl. 55—12.)



1. The combination with a main frame, of hangers pivoted thereto, a rock shaft mounted thereon, a ground treating implement secured to and extending between the lower ends of the hangers, links pivoted to and rising from said implement and having a sliding connection with the rock shaft, a support secured to the ground-treating implement and extending forwardly therefrom and having a yieldable connection with the frame and means for actuating the rock shaft.

2. The combination with a main frame, of hangers pivoted thereto, a ground treating implement secured to and extending between said hangers, a support secured to said implement and extending forwardly therefrom and having a yieldable connection with the frame, a rock shaft mounted upon the frame, means for actuating the rock shaft, crank arms projecting from the said rock shaft, collars pivotally attached to the ends of the crank arms, links pivoted to the ground treating implement and slidably fitting in said collars, lateral supports on the links adapted to rest upon the collars, and springs coiled around the links between stops thereon and the crank arms.

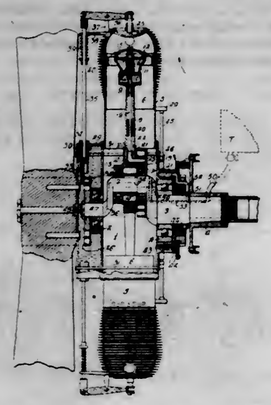
3. The combination with a main frame, of hangers pivotally attached at their upper ends to the sides of the main frame, a ground-treating implement secured to the lower ends of said hangers and extending between the same, a support secured to said implement and extending forwardly therefrom and having a yieldable pivotal connection with the frame intermediate of the points of attachment of said hangers to the frame, and means for yieldingly holding said implement in a lowered position.

4. The combination of a main frame, hangers pivoted thereto, a ground treating implement secured to and extending between the hangers, means for yieldably holding the said implement in a lowered position, a yoke at the center of said implement having a housing at its forward extremity, a bolt pivoted to the main frame and extending through the said housing, and a spring coiled around the bolt between the said housing and a stop on the bolt.

1,073,374. LUBRICATING SYSTEM FOR ROTARY ENGINES. WILLARD IRVING TWOMBLY, New York, N. Y., assignor to Twombly Motors Company, New York, N. Y., a Corporation of New York. Filed Oct. 23, 1911. Serial No. 656,317. (Cl. 121—64.)

1. A rotary engine, comprising in combination with a fixed crank shaft, and a series of cylinders and coöperating piston mechanism rotatable about said shaft, of a lubricant-containing reservoir connected to and rotatable with the cylinders, whereby as the engine rotates the lubricant in the reservoir is thrown outward through the

action of centrifugal force and caused to flow through the reservoir and cylinder connections to the inner cylinder walls to lubricate the pistons.



2. A rotary engine, comprising in combination with a rotatable crank case and cylinders with coöperating piston mechanism, of an annular lubricant-distributing reservoir in one end of the case; and conduits to connect the reservoir with the cylinders exterior thereof, whereby as the engine rotates the lubricant in the reservoir is thrown outward through the action of centrifugal force and caused to flow through the said conduits from the reservoir to the inner cylinder walls to lubricate the pistons.

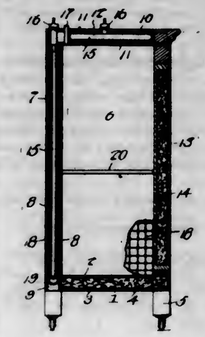
3. A rotary engine, comprising in combination with a fixed shaft, a crank case and cylinders with coöperating piston mechanism rotatable about said shaft, of an annular lubricant-distributing reservoir in one end of the case; conduits to connect the reservoir with the cylinders exterior thereof; and spring influenced check valves in said conduits to normally shut off the flow of lubricant through said conduits from the reservoir to the cylinders; the lubricant in the reservoir as the engine rotates being thrown outward through the action of centrifugal force opening said valves and causing the lubricant to flow through the conduits to the inner cylinder walls to lubricate the pistons.

4. A rotary engine, comprising in combination with a fixed shaft, a crank case and cylinders with coöperating piston mechanism rotatable about said shaft, of an annular lubricant-distributing reservoir in one end of the case; conduits to connect the reservoir with the cylinders exterior thereof; spring influenced check valves in said conduits to normally shut off the flow of lubricant through said conduits from the reservoir to the cylinders; the lubricant in the reservoir as the engine rotates being thrown outward through the action of centrifugal force opening said valves and causing the lubricant to flow through the conduits to the inner cylinder walls to lubricate the pistons; and needle valves engaging in the cylinder walls and to which the conduits are connected to regulate the flow of lubricant.

5. In a rotary engine, the combination of a fixed crank shaft having a duct; a lubricant containing tank connected to said duct; a crank case rotatable on said shaft; an annular lubricant reservoir in one end of said case communicating with the duct in the shaft whereby the lubricant is fed by gravity from the tank to said reservoir; cylinders fixed to said case; pistons for the respective cylinders; and conduits to connect the reservoir with the respective cylinders, whereby as the engine rotates the lubricant in the reservoir is thrown outward through the action of centrifugal force and caused to flow through the ducts to the inner cylinder walls to lubricate the pistons.

[Claim 6 not printed in the Gazette.]

1,073,375. EVAPORATIVE REFRIGERATOR. ABRAHAM L. VAN BUSKIRK, Idaho Falls, Idaho. Filed Nov. 30, 1912. Serial No. 734,354. (Cl. 62—10.)

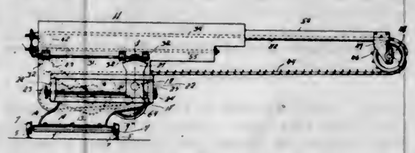


1. A refrigerator including side, top and end walls each formed of two independent sections of material spaced apart to provide a chamber, all of said chambers having communication with one another, a porous bag disposed within each chamber and containing a cooling agent, and means holding each bag suspended within the respective chamber and the sides of the bag out of contact with the adjacent walls of the chamber.

2. A refrigerator including side, top and end walls each formed with a chamber, all of said chambers having communication with one another, a porous bag disposed within each chamber and containing a cooling agent, and means holding each bag suspended within the respective chamber and the sides of the bag out of contact with the adjacent walls of the chamber.

3. A refrigerator including side, top and end walls each formed with a chamber, all of said chambers having communication with one another, a porous bag disposed within each chamber and containing a cooling agent, and a cage holding each bag suspended within the respective chamber and the sides of the bag out of contact with the adjacent walls of the chamber.

1,073,376. BOX-CAR LOADER. ALFRED J. VIVIAN, Denver, Colo., assignor of three-tenths to Robert B. McConney, Denver, Colo. Filed Apr. 8, 1912. Serial No. 689,134. (Cl. 193—3.)



1. The combination with a truck and a turn-table mounted thereon, of a frame carried by the turn-table and longitudinally adjustable thereon, and an endless traveling conveyer connected with the frame and longitudinally extensible thereon.

2. The combination with a truck and turn-table mounted thereon, of a frame tiltably mounted and longitudinally movable on the turn-table, and an endless traveling conveyer extensibly mounted on the frame.

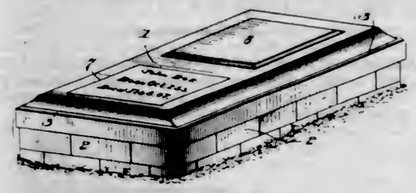
3. The combination with a supporting base of an auxiliary frame mounted thereon and comprising two sets of horizontal separated members, a block slidable in each set of said members, a main frame trunnioned in the blocks, screws journaled in the auxiliary frame-members and threaded in the blocks, an operative connection between the two screws, whereby a movement in one will cause a like movement in the other, means for rotating either screw, and a conveyer mounted on the main frame.

4. The combination with a supporting base, of an auxiliary frame mounted thereon comprising two separated members, blocks slidable in said members, a main frame trunnioned on the blocks, screws journaled in the auxiliary frame members and threaded in the blocks, an operative connection between the two screws, means for rotating either screw, a conveyer mounted on the main frame, a plate-arm secured to one of the said blocks and having a toothed upper extremity curved in an arc struck from the trunnion axis as a center, and a shaft journaled in the main frame and carrying a worm engaging the toothed extremity of the plate-arm for tilting the frame, substantially as described.

5. The combination with a main frame, of two members telescopically mounted thereon, a shaft connecting the forward extremities of the two members, wheels mounted on the said shaft, an endless traveling conveyer whose forward extremity is supported by said wheels, screws journaled in the main frame and threaded in the said members for imparting longitudinal movement thereto for the purpose of extending or retracting the forward end of the conveyer, upper and lower shafts journaled in the rear extremity of the frame and carrying wheels which are engaged by the conveyer in the rear, blocks slidably mounted on the main frame and carrying wheels which engage the conveyer intermediate the wheels of the upper and lower shafts, and screws connected with the said blocks and journaled in the main frame to impart movement to the blocks lengthwise of the frame, the two sets of screws respectively connected with the telescoping members and the two blocks being reversely threaded and connected in operative relation whereby when any screw is rotated the two sets of screws will be actuated to move the said blocks and the telescoping members in reverse directions, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,073,377. SEPULCHER-COVER. HENRY B. WEIPER, Eau Claire, Wis. Filed Aug. 17, 1907. Serial No. 389,087. (Cl. 72—7.)



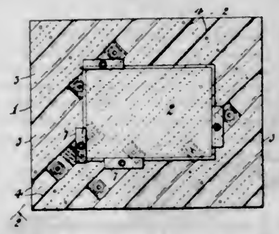
1. A grave vault cover having a window therein, a reinforcing webbing embedded in the material of the cover and extending throughout the same and across the said window for protecting the same as well as protecting the grave vault.

2. A grave vault cover having an inscription marker receiving recess formed therein and an inspection and light admitting window, a reinforcing webbing embedded in said cover, and extending throughout the same beneath said recess and across said window for strengthening the cover and protecting the grave vault and window.

1,073,378. PRINTER'S PLATE-HOLDING DEVICE. FOLKE W. WESTON, New York, N. Y. Filed May 4, 1911. Serial No. 625,056. (Cl. 101—169.)

1. A printer's plate holding device comprising, in combination, a base provided with one or more slots in one face thereof, racks projecting inwardly from the opposite side walls of said slots having smooth surface portions at their under sides, the teeth of said racks being located on adjacent faces thereof, and a hook provided with means for engaging said racks for progressive movement and also with locking means independent of the hook moving means for engaging said smooth portions beneath said racks.

2. A printer's plate holding device comprising, in combination, a base provided with one or more T-shaped slots in one face thereof, racks projecting inwardly from the opposite side walls of said slots, having smooth surface portions at their under sides, the teeth of said racks being located on adjacent faces thereof, and a hook removable from the base, said hook being provided with means for engaging said racks for progressive movement and also with movable locking means independent of the hook moving means for engaging said smooth portions beneath said racks.



3. A printer's plate holding device comprising, in combination, a base provided with one or more slots in one face thereof, racks projecting inwardly from the opposite side walls of said slots, having smooth surface portions at their under sides, the teeth of said racks being located on adjacent faces thereof, and a hook removable from the base, said hook being provided with an operating gear and a worm gear for engaging the teeth on the adjacent faces of said racks for progressive movement and also with locking means independent of the hook moving means which slide in engagement with the lower sides of said racks.

4. A printer's plate holding device comprising, in combination, a base provided with one or more slots in one face thereof, racks projecting inwardly from the opposite side walls of said slots, having smooth surface portions at their under sides, the teeth of said racks being located on adjacent faces thereof, and a hook provided with an operating gear inclosed by the body of the hook and a worm gear for engaging the teeth on the adjacent faces of said racks for progressive movement and also with locking means independent of the hook moving means and movable relative to the body of the hook for engaging said smooth portions at the under side of said racks.

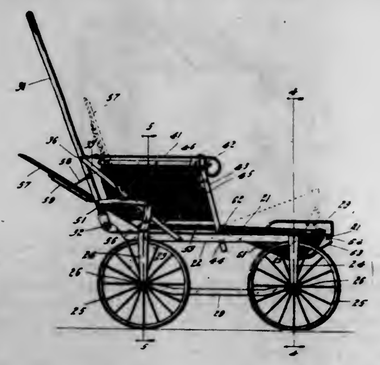
5. A printer's plate holding device comprising, in combination, a base provided with one or more slots in one face thereof, racks positioned on opposite sides of said slots, and a hook provided with means for engaging said racks for progressive movement and also with a rotative locking member adapted to engage beneath said racks.

[Claims 6 to 13 not printed in the Gazette.]

1,073,379. CHILD'S CARRIAGE. WILLIAM W. WILLIAMS, Indianapolis, Ind., assignor to William J. Garrett, Chicago, Ill. Filed Aug. 31, 1908. Serial No. 451,087. (Cl. 21—88.)

1. The combination, in a vehicle, of two pairs of supporting wheels, a seat frame, four yokes each pivotally supported upon a wheel axle, and each pivotally connected to the seat frame, connections between said yokes for producing simultaneous swinging movement thereof, a handle pivotally connected to the seat frame, arm rests pivotally connected to said handle, swinging supports each connected to an arm rest and to the main frame, swinging sides each pivotally connected to an arm rest, two links each connected at one end to a swinging side and at the other end to a swinging support for the adjacent arm rest, a brace normally holding the handle rigid relative to the main frame, and a connection between said handle and one of the wheel yokes whereby swinging movement of the handle relative to the main frame will cause simultaneous swinging movement of the four wheel yokes.

2. The combination, in a vehicle, of two pairs of supporting wheels, a seat frame, four yokes each pivotally supported upon a wheel axle and each pivotally connected to the seat frame, connections between said yokes for producing simultaneous and similar swinging movement thereof, a handle pivotally connected to the seat frame, a brace normally holding the handle rigid relative to the main frame, and a connection between said handle and one of the wheel yokes whereby swinging movement of the handle relative to the main frame will cause simultaneous swinging movement of the four wheel yokes.



3. The combination, in a vehicle, of two pairs of supporting wheels, a seat frame, four yokes each pivotally supported upon a wheel axle and each pivotally connected to the seat frame, connections between said yokes for producing simultaneous and similar swinging movement thereof, a handle pivotally connected to the seat frame, arm rests pivotally connected to said handle, swinging supports each connected to an arm rest and to the main frame, a brace normally holding the handle rigid relative to the main frame, and a connection between said handle and one of the wheel yokes whereby swinging movement of the handle relative to the main frame will cause simultaneous swinging movement of the four wheel yokes.

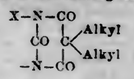
4. The combination, in a vehicle, of two pairs of supporting wheels, a seat frame, four yokes each pivotally supported upon a wheel axle and each pivotally connected to the seat frame, connections between said yokes for producing simultaneous swinging movement thereof, a handle pivotally connected to the seat frame, arm rests pivotally connected to said handle, swinging supports each connected to an arm rest and to the main frame, swinging sides each pivotally connected to an arm rest, two links each connected at one end to a swinging side and at the other end to a swinging support for the adjacent arm rest, a brace normally holding the handle rigid relative to the main frame, a connection between said handle and one of the wheel yokes whereby swinging movement of the handle relative to the main frame will cause simultaneous movement of the four wheel yokes, a back rest pivotally connected at its lower end to the seat frame, and a sliding connection between said back rest and handle.

5. The combination, in a vehicle, of two pairs of supporting wheels, a seat frame, four yokes each pivotally supported upon a wheel axle and each pivotally connected to the seat frame, connections between said yokes for producing simultaneous and similar swinging movement thereof, a handle pivotally connected to the seat frame, a brace normally holding the handle rigid relative to the main frame, a connection between said handle and one of the wheel yokes whereby swinging movement of the handle relative to the main frame will cause a simultaneous swinging movement of the four wheel yokes, a back rest pivotally connected at its lower end to the seat frame, and a sliding connection between said back rest and handle.

[Claims 6 to 10 not printed in the Gazette.]

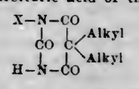
1,073,380. N-HALOGENALKYL-C. C-DIALKYLBARBITURIC ACIDS AND PREPARATION OF THE SAME. OTTO WOLFES, Darmstadt, Germany. Filed Dec. 13, 1912. Serial No. 736,628. (Cl. 23—24.)

1. As a new product of manufacture N-halogenalkyl-C. C-dialkyl-barbituric acid containing the atom group



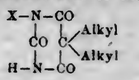
(X=halogenalkyl).

2. As a new product of manufacture mono-N-halogenalkyl-C. C-dialkyl-barbituric acid of the general formula:



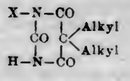
(X=halogenalkyl).

3. As a new product of manufacture mono-N-dihalogenalkyl-C. C-dialkylbarbituric acid of the general formula:



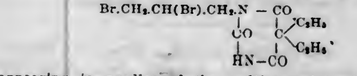
(X=dihalogenalkyl).

4. As a new product of manufacture mono-N-dibromoalkyl-C. C-dialkylbarbituric acid of the general formula:



(X=dibromoalkyl).

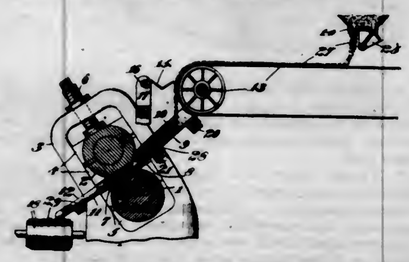
5. As a new product of manufacture mono-N-dibromopropyl-C. C-diethylbarbituric acid of the formula:



appearing in needles of the melting point of 124° C. (corr. 126° C.).

[Claims 6 to 10 not printed in the Gazette.]

1,073,381. UTILIZING FINE ORES, FLUE-DUST, AND THE LIKE. HARTLEY C. WOLLE and EDWARD F. KENNEY, Westmont borough, Pa. Filed Mar. 3, 1911. Serial No. 612,082. (Cl. 75—73.)



1. The steps in the process of utilizing fine-ores consisting of adjusting the moisture therein to make the material semi-coherent and then compacting same into flakes by rolling pressure.

2. The steps in the process of utilizing fine-ores consisting of adjusting the moisture therein to make the material semi-coherent, and rolling into a sheet of substantially uniform thickness, which after rolling separates into flakes of irregular size.

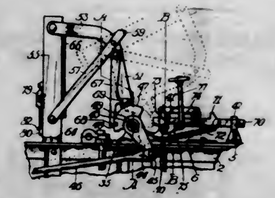
3. The steps in the process of utilizing fine-ores consisting of subjecting the same, while in a semi-coherent condition, to rolling pressure, thereby expelling the entrained air, vapor, etc., and causing the particles to interlock and cohere in the form of dense flakes.

4. The steps in the process of utilizing fine-ores consisting of first adjusting the moisture therein to make the material receptive to coherence by rolling pressure, and then rolling the same, whereby it is compressed into flakes.

5. The steps in the process of utilizing fine-ores consisting of first adjusting the moisture therein to make the material capable of coherence, then rolling a comparatively thick and regular layer of the material, whereby it is compacted into flakes.

[Claims 6 to 12 not printed in the Gazette.]

1,073,382. BLOCK-PLACER FOR BALING-PRESSES. LEWIS B. WYGANT, Vincennes, Ind. Filed Dec. 2, 1912. Serial No. 734,595. (Cl. 100—24.)



1. A block placer including a pivotally movable block holder provided with a movable lug, a curved rocking guide for guiding the lug and having a recess therein to receive the lug for moving the holder, and controllable movable means for holding the lug away from the guide.

2. A block placer including a pivotal shaft having a rocking guide thereon provided with an engagement device, a block holder mounted on the shaft to move pivotally and provided with a lug device adapted for locking connection with the engagement device to periodically move the holder, and a controllable element for controlling the connection of the lug device with the engagement device.

3. A block placer including a pivotal shaft having a curved guide thereon provided with a recess, an operating arm for rocking the guide, a block holder mounted on the shaft to move pivotally and provided with a movable lug to enter the recess for moving the holder, and a controllable element for controlling the entrance of the lug into and egress from the recess.

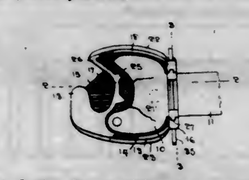
4. A block placer including a pivoted block holder, a movably supported bar, a spring normally holding the bar in projected position, a curved guide rotatably supported and having a recess therein, and a link bar pivoted to the block holder and having a lug thereon for entering the recess to move the holder, the link bar normally resting on the movably supported bar and holding the lug away from the guide.

5. A block placer including a supported pivotal shaft, a supported tumbling shaft having an arm thereon, a slide bar movably guided and operatively connected with the arm, a block holder movably mounted on the pivotal shaft and normally resting on the tumbling shaft, a supported rocking element, and means for clutching the block holder to the rocking element controlled by the slide bar.

[Claims 6 to 9 not printed in the Gazette.]

1,073,383. DEVICE FOR REPAIRING CAR-COUPLINGS. JOHN ZILIUS, Huntingdon, Pa. Filed Dec. 12, 1912. Serial No. 736,261. (Cl. 213—65.)

1. In a device for repairing car couplers, an auxiliary coupler-head comprising a housing having a forwardly disposed knuckle and having a recessed rear wall with securing lugs depending therefrom and provided with vertical grooves in the depending lugs and rear walls, said securing lugs being provided with slots communicating with the vertical grooves, and a yoke having lateral extensions adapted to be slid in the vertical grooves and seated against the under side of a draw-bar of an ordinary coupler, said yoke being provided with slots between said vertical grooves, and a wedge-key movably fitted in said slots of the yoke and the depending lugs for securing the yoke in adjusted position.

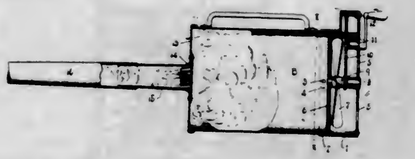


2. In a device for repairing car couplers, an auxiliary coupler-head comprising a forwardly disposed knuckle and housing and having a rear wall adapted to engage with the vertical shoulder or abutment of an ordinary car coupler, securing lugs depending from the rear wall and having slots therethrough, a yoke having slots therethrough and adapted to be inserted between said securing lugs in either upright or inverted position, a wedge-key adapted to be seated in the slots of the depending lugs and yoke in either position of the yoke for securing the yoke in adjusted position.

3. In a device for repairing car couplers, a housing having a forwardly disposed knuckle and having a rear wall with depending lugs thereon, a substantially U-shaped yoke adapted to be inserted between the depending lugs in either upright or inverted position for retaining the coupler-head in proper position relative to draw-bars of different sizes, and a wedge-key for securing the yoke in either adjusted position.

4. In a device for repairing car couplers, an auxiliary coupler-head having a rear wall and having spaced lugs depending from the rear wall for receiving therebetween coupler draw-bars of different sizes, and a substantially U-shaped yoke adapted to be fitted between the securing lugs in either of two alternative positions, so that the arms of the U-shaped yoke may embrace the draw-bars of relatively small size for securing said draw-bar in the same position relative to the auxiliary coupler-head as that of a larger sized draw-bar.

1,073,384. SMOKE-PRODUCING DEVICE FOR ROUTING WILD ANIMALS. ALBERT M. AHERN, St. Louis, Mo. Filed Oct. 25, 1912. Serial No. 727,724. (Cl. 43—5.)

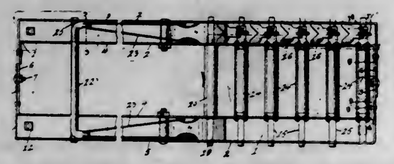


A smoke producing device comprising a smoke chamber, a fan housing having an outer wall formed with openings, an inner wall formed with an opening, and a flange detachably secured to the smoke chamber, a perforated plate having a fan-shaft bearing and secured to the inner wall of the fan housing over the opening thereof, a fan-shaft mounted in the fan-shaft bearing of the perforated plate and in the outer wall of the fan housing, a fan and a pinion fixed to the fan shaft, a power shaft mounted in the outer wall of the housing, a gear wheel fixed to the inner end of the power shaft and an operating handle secured to the outer end of the power shaft.

1,073,385. SAFETY DEVICE FOR AUTOMOBILES. OTTO NATHANIAL APPLEQUIST, Council Bluffs, Iowa. Filed Dec. 2, 1912. Serial No. 734,561. (Cl. 73—51.)

1. A device of the character described comprising a frame, a plurality of rollers mounted in the rear portion

of the frame, and means connected to one of said rollers and to the forward portion of the frame for raising said roller into the path of the rear wheels of an automobile, as and for the purpose described.



2. A device of the character described comprising a frame having arcuate slots formed therein, a plurality of rollers mounted in the rear portion of said frame, a single roller mounted in said slots, and means connected to said single roller whereby said roller will be moved in said slot, as and for the purpose described.

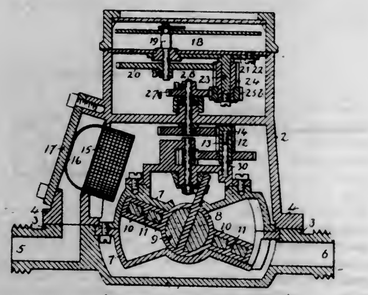
3. A device of the character described comprising a frame having arcuate slots formed therein, a plurality of rollers mounted in said frame, a single roller mounted for movement in said slots, a trip rod pivotally mounted in said frame, and means for connecting said trip rod and said single roller, as and for the purpose described.

4. A device of the character described comprising a frame having arcuate slots formed therein, a plurality of rollers mounted in said frame, a single roller mounted for movement in said frame, means for connecting said trip rod and said single roller, and means for preventing rotation in one direction of said plurality of rollers.

5. A device of the character described comprising a frame, a plurality of movable supports mounted in said frame to support the rear wheels of a vehicle, a member slidably mounted in said frame, and means adapted to be actuated by the front wheels of the vehicle to dispose said slidable member in the path of the rear wheels of the vehicle, as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,073,386. WATER-METER. GEORGE B. BASSETT, Buffalo, N. Y. Filed July 13, 1908. Serial No. 443,279. (Cl. 73—98.)



1. In a water meter, the combination with a bottom casing, a separable top casing and a strainer mounted in said top casing, of a hand hole and a removable hand hole plate in said top casing for giving access to said strainer substantially as and for the purpose described.

2. In a water meter, the combination with a bottom casing, a separable top casing, a strainer mounted in said top casing, and an indicator mounted on said top casing of a hand hole and a removable hand hole plate in said top casing for giving access to said strainer, substantially as and for the purpose described.

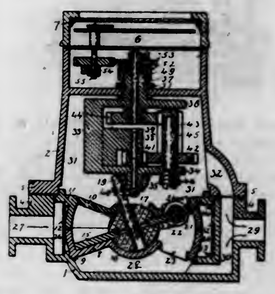
3. In a water meter, the combination with a bottom casing containing the inlet and outlet to the meter, a separable top casing mounted on top of said bottom casing and a strainer mounted in said top casing of a hand hole and a hand hole plate in said top casing for giving access to said strainer, substantially as and for the purpose described.

4. In a water meter piston, the combination with a light fire proof inner core such as asbestos of a metal exterior surface, substantially as and for the purpose described.

5. In a water meter piston, the combination with a light fire proof inner core such as asbestos and a metal exterior surface of a metal post extending through said core from one portion of said metal exterior surface to another portion of said surface, substantially as and for the purpose described.

[Claims 6 to 13 not printed in the Gazette.]

1,073,387. WATER-METER. GEORGE B. BASSETT, Buffalo, N. Y. Filed July 31, 1908. Serial No. 446,300. (Cl. 73—98.)



1. In a disk water meter, the combination of the outside casing and the inner disk chamber so arranged in relation to each other that the space between them is divided into an inlet compartment extending entirely around the spherical side wall of the disk chamber and two outlet compartments one above the upper head of the disk chamber and the other below the lower head of the disk chamber, substantially as and for the purpose described.

2. In a disk water meter, the combination of the outside casing and the inner disk chamber so arranged that the space between them forms an upper outlet compartment above the upper head or cone of said disk chamber and a lower outlet compartment below the lower head or cone of said disk chamber; a single outlet spud formed in said outside casing, both said upper and lower outlet compartments communicating with said outlet spud, substantially as and for the purpose described.

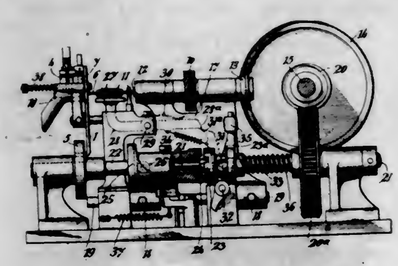
3. In a disk water meter, the combination of the outside casing and the inner disk chamber so arranged that the space between them forms an upper outlet compartment above the upper head or cone of said disk chamber and a lower outlet compartment below the lower head or cone of said disk chamber; said disk chamber having an outlet port through its upper head communicating with said upper outlet compartment and an outlet port through its lower head communicating with said lower outlet compartment; substantially as and for the purpose described.

4. In a disk water meter, the combination of the outside casing and the inner disk chamber so arranged in relation to each other that the space between them is divided into an inlet compartment extending entirely around the spherical side wall of said disk chamber, an upper outlet compartment located above the upper head of the disk chamber and a lower outlet compartment located below the lower head of the disk chamber; said disk chamber having an inlet port through its spherical side wall communicating with said inlet compartment, an outlet port through its upper head communicating with said upper outlet compartment and an outlet port through its lower head communicating with said lower outlet compartment; said outside casing having an inlet spud communicating with said inlet compartment, and a single outlet spur communicating with both said upper and said lower outlet compartments, substantially as and for the purpose described.

5. In a disk water meter, the combination with an outside casing and a disk chamber forming an inlet compartment extending entirely around the spherical side wall of the disk chamber, of a removable strainer located in said inlet compartment and extending entirely around said disk chamber, substantially as and for the purpose described.

[Claims 6 to 25 not printed in the Gazette.]

1,073,388. BOBBIN-WINDER. AUGUST BELZ, Goldach, Switzerland, assignor to The Firm of Henri Levy, Rorschach, Switzerland. Filed Mar. 2, 1912. Serial No. 681,177. (Cl. 242—19.)



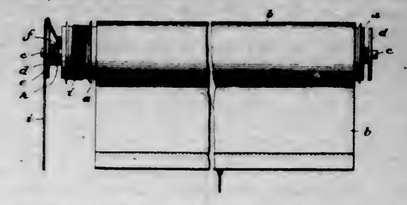
1. In bobbin winders a device for severing the connecting thread between two bobbins on the bobbin spindle, comprising a yielding part, a hook provided on the said yielding part, and means for moving the yielding part toward and from the bobbin spindle, said yielding part being formed to cause the hook when moved toward the spindle to contact with the rear end of the bobbin on the bobbin spindle end and the point of the hook to be positioned beyond the rear end of the bobbin.

2. In bobbin winders, a device for severing the connecting thread between two bobbins on the bobbin spindle, comprising a plate spring, a hook provided on said plate spring, means for moving the plate spring toward and from the bobbin spindle, said plate spring being formed and mounted to cause the hook when moved toward the spindle to contact with the rear end of the bobbin on the bobbin spindle end and the point of the hook to be positioned beyond the rear end of the bobbin.

3. In bobbin winders, a device for severing the connecting thread between two bobbins on the bobbin spindle, comprising a yielding part, means adjustably carrying the said yielding part, a hook provided on said yielding part, and means for moving the yielding part toward and from the bobbin spindle, said yielding part being formed and mounted to cause the hook when moved toward the spindle to contact with the rear end of the bobbin on the bobbin spindle end and the point of the hook to be positioned beyond the rear end of the bobbin.

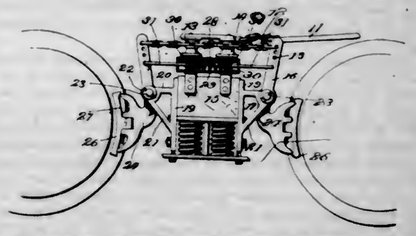
4. In bobbin winders, a device for severing the connecting thread between two bobbins on the bobbin spindle, comprising a yielding part, a comb adapted to form the binding of the bobbin connected to said yielding part, a hook provided on said yielding part, and means for moving the yielding part toward and from the bobbin spindle, said yielding part being formed and mounted to cause the hook when moved toward the spindle to contact with the rear end of the bobbin on the bobbin spindle end and the point of the hook to be positioned beyond the rear end of the bobbin.

1,073,389. SHADE-FIXTURE. CHARLES MONCURE BYERS, Fayetteville, N. C. Filed Apr. 1, 1913. Serial No. 758,153. (Cl. 156—28.)



In combination, window brackets, a shade roller journaled to rotate therein, a normally acting locking device for locking the shade roller against rotation, a cord having one end wound upon the shade roller in a direction reversed to the winding of the shade fabric thereon, and means whereby when the cord is drawn taut the locking device will be held out of action and thus free the shade roller so that the same may be rotated by the shade in one direction and by means of the cord in the opposite direction said means consisting of three eyes, one on the locking device and one at the front end of the bracket and the remaining one at the rear end of the bracket, the said cord being threaded through these eyes, for the purpose set forth.

1,073,390. CAR-BRAKE. OSCAR O. BYRD, Slater, Mo., assignor of one-fourth to Samuel F. Whittaker and one-fourth to Sallie F. Whittaker, Prescott, Ariz., and one-half to James W. Thompson, New Orleans, La. Filed June 29, 1912. Serial No. 706,805. (Cl. 188—24.)



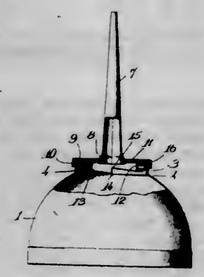
1. In a car brake, the combination of a support, brake levers fulcrumed upon the opposite sides of said support, guide rollers on the support between the upper ends of the brake levers, brake rods mounted upon the car body, means for moving said brake rods longitudinally, links pivoted to the outer ends of the brake rods and diverging therefrom, and flexible connections between the upper ends of the brake levers, said connections passing between and around the said guide rollers and loosely supported by the outer ends of the links.

2. In a car-brake, the combination of a support, brake levers fulcrumed upon the opposite sides of said support, guide rollers on the support between the upper ends of the brake levers, brake rods mounted upon the car body, means for moving said brake rods longitudinally, links pivoted to the outer ends of the brake rods and diverging therefrom, rollers carried by the outer ends of the links, and flexible connections trained around the said rollers and passing therefrom between and around the guide rollers and secured to the upper ends of the brake levers.

1,073,391. OIL-CAN. ALBERT T. BOOTH, Waterbury, Conn. Filed Nov. 9, 1912. Serial No. 730,398. (Cl. 221—56.)

1. The combination with a sheet-metal can body having an opening in its top and opposite, inturned and integral

semi-circular spiral flanges around the opening, of a spout having an attached disk provided with a depending annular lip, and integral, outturned semi-circular spiral flanges formed on the lip, to pass under and interlock with the flanges on the can body and thereby connect the spout and said body, the high point of each flange of a pair being directly above the low point of the other flange of the pair.



2. The combination with a sheet-metal can body having an opening in its top and a surrounding, continuous annular bead provided with integral inturned opposite and semi-circular spiral flanges, of a spout having an attached cap and a disk, provided with depending concentric annular lips, a gasket interposed between the lips, to seat upon the bead, and lateral, semi-circular spiral flanges on the inner lip, to coöperate and interlock with the flanges on the body and thereby compress the gasket upon the bead, the latter engaging the gasket between the outer lip and the peripheral edges of the flanges on the inner lip.

3. The combination with a sheet-metal can body having an opening in its top and a surrounding, continuous annular bead having its inner wall inturned to form a plurality of symmetrical spiral flanges integral therewith, of a spout having attached to it a cap with a depending annular lip, a disk within the cap and having a depending annular lip provided with a plurality of outturned and symmetrical spiral flanges, and a gasket held between the annular lips and exposed beyond the peripheral edges of the last-named flanges, the flanges on the disk passing under and interlocking with the flanges on the can body to compress the gasket upon the bead and connect said body and spout fluid-tight.

4. The combination with a tapered spout having an annularly and peripherally lipped cap, of an annularly lipped disk centrally apertured for the spout and seated on the cap and within it, an interrupted and outturned external spiral thread formed on the lip of the disk, a can body having an opening in its top and a continuous circular bead surrounding the opening, the inner wall of the bead having formed upon it an integral inturned interrupted spiral thread of the pitch of the thread on the lip, and a gasket held between the annular lips of the disk and cap, interlocking of the flanges by relative rotation of the spout and can body drawing the parts together and compressing the gasket upon the bead and between it and the cap, to form an oil-tight joint.

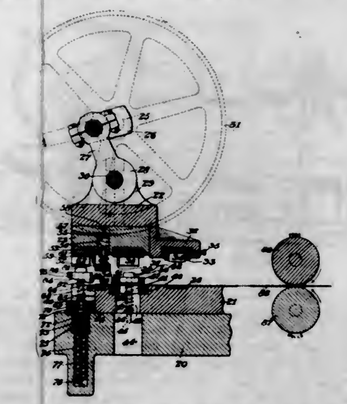
5. The combination with a sheet-metal can body having an opening in its top and a surrounding continuous and annular bead the inner wall of which is provided with a plurality of inturned symmetrical spiral flanges, of a spout having an attached disk provided with a like number of outturned and symmetrical flanges adapted to pass under and interlock with the flanges on the can body by relative rotation of said spout and body, thereby to draw the disk and bead toward each other, the high point of each spiral flange being adjacent the low point of another spiral flange of the same set.

[Claims 6 and 7 not printed in the Gazette.]

1,073,392. PRODUCTION OF SOUP OR BROTH-LIKE SUBSTANCES OR LIQUIDS. GEORG BRAUN, Munich, and HERMANN V. LUITHLEN and WALTER NEUMANN, Andernach, Germany. Filed Oct. 24, 1912. Serial No. 727,541. (Cl. 99—11.)

A process for the production of substances in fluid condition having a smell and taste similar to that of meat broth, or soup, in which material containing albumin is heated in a mixture of hydrochloric acid and sulfuric acid up to approximately the limit of complete hydrolytic decomposition, whereupon the process of decomposition is interrupted, the sulfuric acid is eliminated by the addition of compounds of earth alkalis such as barium, strontium or calcium, in the form of insoluble sulfate and the hydrochloric acid is converted into a solution of cooking salt by the addition of compounds of sodium.

1,073,393. MACHINE FOR MAKING MATCH-CARDS. CESARE CAMPUS, New York, N. Y. Filed Mar. 20, 1913. Serial No. 755,635. (Cl. 164—12.)



1. In a machine for making match cards and in combination, a die plate having series of projections and intervening recesses, series of punches adapted to coöperate with the said projections to form match splints in the match card, and means whereby in the removal of the punches from the recesses between the said projections on the die plate, the match splints are ejected and maintained in the same, and a uniform position as formed in the card by the said die plate and punches.

2. In a machine for making match cards, and in combination, a die plate having a series of projections with intervening recesses, a series of punches coöperating with the said projections to form match splints in the card, a stripper plate, and devices coacting therewith, for maintaining the match splints in a uniform position while the punches are being withdrawn from the spaces between the projections on the die plate.

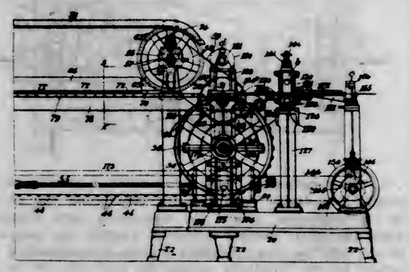
3. In a machine for making match cards, and in combination, a die plate having a series of projections with intervening recesses, the upper faces of the projections being inclined for a portion of their length, a yieldingly mounted stripper plate having a series of recesses therein corresponding and adapted to register with the recesses between the projections of the die plate, the under surface of the said stripper plate being inclined at the same angle as the inclined portions of the upper faces of the said projections, and a series of punches adapted to coöperate with the said stripper plate and the said projections of the die plate to form match splints in the card.

4. In a machine for making match cards from a strip of paper stock and in combination, means for feeding the strip of paper stock a predetermined distance at stated intervals, means for cutting the strip of paper stock transversely to cut match cards therefrom, a die plate having a series of projections thereon with intervening open ended spaces, a series of punches coacting with the said projections on the die plate to form match splints in each match card, means for actuating the series of punches to cause the same to coöperate with the said die plate, and means whereby in the removal of the punches from the die plate the match splints are ejected and maintained in the same and a uniform position as formed in the card.

5. In a machine for making match cards from a strip of paper stock, and in combination, means for feeding the strip of paper stock a predetermined distance at stated intervals, means for cutting the paper stock transversely thereof to form match cards, a die plate having spaced projections with intervening recesses, the upper surfaces of which projections are inclined for a predetermined portion of their length, a series of punches adapted to cooperate with the said projections and intervening recesses, the operating surfaces of the said punches being straight, means for actuating the said cutting means and series of punches, and means whereby in the removal of the punches from the die plate the match splints are ejected and maintained in the same and a uniform position as formed in the card.

[Claims 6 to 28 not printed in the Gazette.]

1,073,394. BOOK-MATCH MACHINE. CESARE CAMPUS, New York, N. Y. Filed May 8, 1913. Serial No. 766,284. (Cl. 93—7.)



1. In a machine for making book matches and in combination, a unitary means for receiving and conveying match book cover blanks and unattached match strips thereon, and devices co-acting with the said means while the same are conveying the said match book cover blanks and match strips for folding both ends of each blank to position over its match strip to form a cover therefor.

2. In a machine for making book matches and in combination, a unitary means for receiving and conveying match book cover blanks and unattached match strips thereon, devices co-acting with the said means while conveying the said match book cover blanks and match strips for folding both ends of each blank to position over its match strip to form a cover therefor, and means for securing each match strip within its cover.

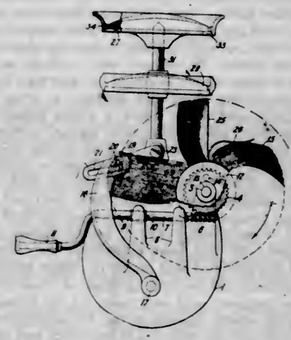
3. In a machine for making book matches and in combination, a unitary means for receiving and conveying match book cover blanks and unattached match strips thereon, devices co-acting with the said means while the same are conveying the said match book cover blanks and match strips for folding both ends of each blank to position over its match strip to form a cover therefor, means for pressing each cover to position around its match strip, and means operative while the said covers are so pressed to position for securing each match strip within its cover.

4. In a machine for making book matches and in combination, an endless conveyer, means for feeding thereto match book cover blanks, means for feeding match card strips to the said conveyer so that each match card strip is placed upon a cover blank, and means coöperating with the said endless conveyer for folding both ends of each cover blank to position over its match strip while in the conveyer and during the movement thereof.

5. In a machine for making book matches and in combination, an endless conveyer, means for feeding thereto match book cover blanks, means for feeding match card strips to the said conveyer so that each match card strip is placed upon a cover blank, means coöperating with the said endless conveyer for folding both ends of each cover blank to position over its match strip while in the conveyer and during the movement thereof, and means for securing each match strip within its cover while the parts are still in the conveyer.

[Claims 6 to 65 not printed in the Gazette.]

1,073,395. KINEMATOGRAPH APPARATUS. WALTER CHIPPERFIELD, Romford, and WILLIAM EDWARD GARFORTH, Snydale Hall, near Pontefract, England. Filed Mar. 20, 1913. Serial No. 755,592. (Cl. 88—19.)



1. In a kinematograph apparatus; the combination with a base support, a spindle projecting from said support, a reel revoluble on said spindle, flexible picture-carrying strips extending radially from said reel, and means for rotating said reel; of an arm pivoted at its lower end to said base support, said arm having a lip formed on its free end with which lip said strips are calculated to contact and flick past as said reel is revolved, and means for retaining said lip-carrying arm in said operative position and for releasing said arm and allowing it a limited retrograde movement away from said strips to permit of removal and replacement of said reels, substantially as set forth.

2. In a kinematograph apparatus; the combination with a base support, a spindle projecting from said support, a reel revoluble on said spindle, flexible picture-carrying strips extending radially from said reel, and means for rotating said reel; of an arm pivoted at its lower end to said base support, said arm having a lip formed on its free end with which lip said strips are calculated to contact and flick past as said reel is revolved, a pin projecting rearwardly from said lip-carrying arm adjacent to the free end thereof, a plate, a pivot connecting said plate to said base support about which pivot said plate can have annular motion, said plate having a slot in its free end extending mainly in the direction of the length of said plate and also extending for a short distance at about right angles to the length of said plate, into the shorter length of which slot said pin on said lip-carrying arm enters to retain the lip of said arm in operative position, and into the longer length of which slot said pin is allowed to enter to permit and limit the movement of said lip-carrying arm away from said reel, substantially as set forth.

3. In a kinematograph apparatus; the combination with a base support, a spindle projecting from said support, a reel revoluble on said spindle, means for rotating said reel, a number of strips of flexible material extending from the periphery of said reel and normally curved in the direction in which said reel is revolved, each of said strips on its concave curved surface having a picture, a spring plate standing out radially from said reel in front of the first picture strip of the series to separate said strip from the last strip of the series, said spring plate being calculated to hold the strips immediately behind it at a lesser curvature than the remainder of the strips; of an arm pivoted at its lower end to said base support, said arm having a lip formed on its free end with which lip said spring plate contacts as said reel is revolved to straighten out the first strips of the series and cause said strips to engage said lip and flick past same as said reel is revolved, and means for retaining said lip-carrying arm in said operative position and for releasing said arm and allowing it a limited retrograde movement away from said strips to permit of removal and replacement of said reels, substantially as set forth.

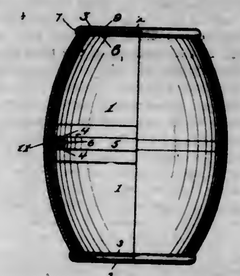
4. In a kinematograph apparatus; the combination with a base support having lugs projecting therefrom, a spindle projecting from one of said lugs of said support, a worm wheel revoluble on said spindle, a reel revoluble on said spindle, and means to connect said reel to said worm wheel, a revoluble shaft mounted in bearings in two of said lugs projecting from said support, a worm on said shaft engaging said worm wheel, a crank handle on said shaft to operate same, and flexible picture-carrying strips extending radially from said reel and having a curvature in the direction of rotation of the latter, a picture upon the normally concave surface of each of said strips, a spring plate standing out radially from said reel in front of the first picture strip of the series to hold out the first strips of said series and a second spring plate extending from said reel bent rearwardly to contact with the last of the series of said strips to retain same in their curved positions; of an arm pivoted at their lower end to said base support, said arm having a lip formed on its free end with which lip said strips are calculated to contact and flick past as said reel is revolved, and means for retaining said lip-carrying arm in said operative position and for releasing said arm and allowing it a limited retrograde movement away from said strips to permit of removal and replacement of said reels, substantially as set forth.

5. In a kinematograph apparatus, the combination with a base support, a spindle projecting from said support, a reel revoluble on said spindle, flexible picture-carrying strips extending radially from said reel, and hand-operable means for rotating said reel, an arm pivoted at its lower end to said base support, said arm having a lip formed on its free end with which lip said strips are calculated to contact and flick past as said reel is revolved, and means for retaining said lip-carrying arm in said operative position and for releasing said arm and allowing it a limited retrograde movement away from said strips to permit of removal and replacement of said reels; of a rod extending upwardly from said base support at right angles to the axis of said reel-carrying spindle, frames carried by said rod in planes at right angles to the axis thereof and located above the picture-carrying strips contacting with said lip, and magnifying lenses carried by said frames through which to inspect said pictures.

[Claim 6 not printed in the Gazette.]

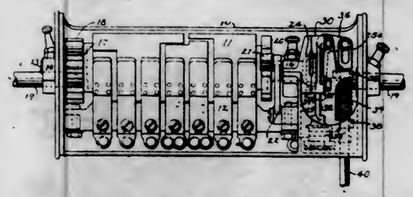
1,073,396. METALLIC BARREL. GEORGE J. CLARK and HERBERT CURTLAND, Defiance, Ohio. Filed Aug. 5, 1912. Serial No. 713,337. (Cl. 220—4.)

A metallic barrel consisting of two abutting tub-like sections, each formed in one piece with a chine and head and at its abutting end with an inturned annular flange, an annular metallic band lying within the barrel and provided with a peripheral groove in which said annular flanges lie and abut, the turning of said flanges forming a peripheral groove about the barrel and a filling of brazing material in the last named peripheral groove



which brazes said flanges and said band together and fills said groove to render the outer face of the barrel flush and smooth.

1,073,397. CONTROLLER. CLYDE E. COCHRAN, Cleveland, Ohio, assignor to The Elwell-Parker Electric Company of America, Cleveland, Ohio, a Corporation of West Virginia. Filed July 22, 1912. Serial No. 710,793. (Cl. 172—179.)



1. The combination, with a controller, a movable safety member, separable terminals for controlling the circuit of the controller, means for separating such terminals when the safety member is moved, whether the controller be at "off" or "on" position, means for preventing the return of the terminals unless the controller be in the "off" position, a movable platform, and a connection between it and the safety member.

2. The combination, with a controller, a movable support, a spring tending to raise the support, separable terminals for controlling the circuit to the controller, means for separating such terminals when the support is raised, and means for preventing the return of the terminals unless the controller be in the "off" position.

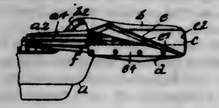
3. The combination, with a controller barrel and means for operating it, of separable terminals in the controller circuit, a movable support, connecting mechanism adapted to separate the terminals when the support is raised, and mechanism between the connecting mechanism and the controller barrel adapted to prevent the return of the terminals unless the controller be in "off" position.

4. The combination of a controller barrel, a cup movable therewith and having an opening through its wall, a device having a roller adapted to coact with the inside or outside of said wall and enter such opening, coöperating terminals, and mechanism for separating the same connected with said device, whereby the terminals may separate when the opening is opposite said device.

5. The combination of a controller barrel, a member movable therewith and having a notch, a device adapted to coact with said member and enter such notch, coöperating terminals, mechanism for separating the same connected with said device, whereby the terminals may separate when the notch is opposite the device, a movable support, and connecting mechanism between the same and said device.

[Claims 6 to 22 not printed in the Gazette.]

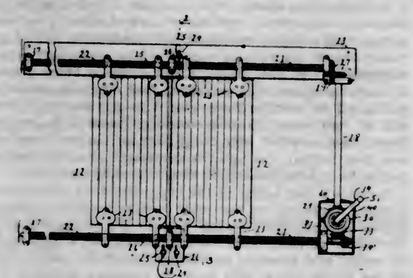
1,073,398. AUTOMOBILE-HOOD. HYMAN COHEN, Brooklyn, N. Y. Filed Feb. 4, 1911. Serial No. 606,476. (Cl. 21—62.)



1. A hood for automobile tops, comprising a top member, a back member permanently secured thereto, a bottom member in permanent connection with said back member and adapted to swing downwardly at its junction therewith, and end flaps permanently secured to said top member and adapted for detachable engagement with said bottom member for the full length of said end members.

2. A hood for automobile tops, comprising a top member, a back member in permanent connection therewith, a bottom member in permanent connection with said back member and adapted to swing at its junction with said back member, and end flaps in permanent connection with both said top and back members and means for detachably connecting the end flaps with said bottom member, for the full length of said end flaps.

1,073,399. DOOR-OPENER. FRANK CONNER, Topeka, Kans., assignor of one-third to William Davis and one-third to Charles W. Kelly, Topeka, Kans. Filed Oct. 23, 1912. Serial No. 727,403. (Cl. 39—92.)

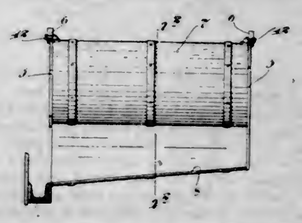


1. The combination of a frame, a pair of doors, top and bottom rods, a bearing at each end of each rod rigidly secured to the frame, each rod having a right-hand threaded portion for one door and a left-hand threaded portion for the other door, brackets secured to the respective doors and internally threaded to correspond with and engage the respective portions of said rods, driving and connecting mechanism for operating said rods in unison, a bar extending the full length of the upper rod and secured at its ends to the frame back of said upper rod, a bearing for the said upper rod at its middle secured to said bar, a bolt secured to the frame adjacent to said middle bearing, and a vertical slot in said bar through which the bolt extends with its head on the outside of the bar.

2. In a device of the kind described, the combination of a rod having right- and left-hand threaded portions, a frame, bearings at the two ends of the rod and rigidly secured to the frame, a plate having a vertical slot therein, a bearing for the middle of the rod secured to said plate, and a bolt secured to the frame and passing through the slot with its head on the outside of the plate.

3. In a device of the kind described, the combination with rotatable door-operating rods and toothed gearing for operating said rods; of a casing inclosing said gearing, a crank with an enlarged head removably attachable to, and for operating, said gearing, a locking plate movably mounted in said casing and adapted to three positions and having a hole through which said crank-head is attachable to said gearing, and also having a lug, said crank-head being insertible through said hole when the plate is in one position and not insertible therethrough when the locking plate is in either of its other positions, said plate being adapted in its second position to embrace the neck of the crank just back of the crank-head and to lock said crank in its attached position, and said plate being adapted in its third position to bring said lug into engagement with the toothed gearing, said lug being free therefrom when the plate is in the first and second positions.

1,073,400. BACK-STOP FOR BOWLING-ALLEYS. HERBERT F. COOK and CARL C. HILDRETH, Lake Mills, Iowa. Filed Oct. 31, 1912. Serial No. 728,814. (Cl. 46—66.)



1. The combination with an alley, of a back stop at the rear end thereof, having a tubular body with a ball receiving opening leading thereto and having a projecting portion which receives the initial impact and deflects the ball into the said tubular portion, the said tubular portion being constructed to cause the ball to make a complete revolution within the same.

2. The combination with an alley, of a back stop at the rear thereof having a tubular body opening at its bottom and having a depending rear portion which receives the initial impact and deflects the ball into the said tubular portion.

3. The combination with an alley, of a back stop at the rear thereof having a tubular body portion opening at its bottom and having a depending rear portion which receives the initial impact and deflects the ball into the said tubular portion, the said depending rear portion of said back stop having a flange that forms at least a part of a transversely inclined ball trough.

4. The combination with an alley, of a back stop at the rear thereof having a tubular body opening at its bottom and having a depending rear portion which receives the initial impact and deflects the ball into the said tubular portion, and which back stop is yieldingly held in normal position.

5. The combination with an alley, of a back stop at the rear thereof having a tubular body opening at its bottom and having a depending rear portion which receives the initial impact and deflects the ball into the said tubular portion, and which back stop is pivotally supported at its upper portion and gravity-held in normal position.

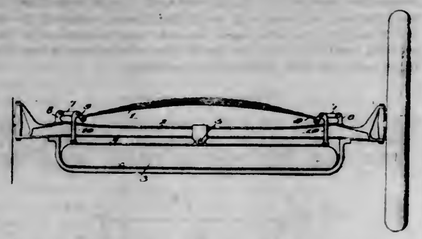
[Claims 6 and 7 not printed in the Gazette.]

1,073,401. SHOCK-ABSORBER. WALTER H. COOK, New Orleans, La. Filed Mar. 6, 1913. Serial No. 752,438. (Cl. 21—50.)

1. In a shock absorber, the combination with a vehicle axle, of a main spring arranged above the axle, pneumatic tube cushioning means arranged below the axle, shock transmitting bar means engaging the cushioning means, an element pivotally mounted at each end of the axle and pivotally connected to the adjacent end of the main spring, and a link pivoted to said element at one side of the fixed pivot of the latter and also pivoted to the adjacent end of said shock transmitting bar means.

2. In a shock absorber, the combination with a vehicle axle, of a main spring arranged above the axle, pneumatic tube cushioning means arranged below the axle, shock transmitting bar means engaging the cushioning means, a radius link pivotally mounted at each end of the axle, a

link connecting the radius link and the adjacent end of the main spring, and a second link connecting the radius link and the adjacent end of the shock transmitting bar means.



3. In a shock absorber, the combination with a vehicle axle, of a main spring arranged above the axle, pneumatic tube cushioning means arranged below the axle, shock transmitting bar means having a fixed point of support and engaging the cushioning means, an element pivotally mounted at each end of the axle and pivotally connected to the adjacent end of the main spring, and a link pivoted to said element at one side of the fixed pivot of the latter and also pivoted to the adjacent end of said shock transmitting bar means.

4. In a shock absorber, the combination with a vehicle axle, of a main spring arranged above the axle, pneumatic tube cushioning means arranged below the axle, shock transmitting bar means having a fixed point of support and engaging the cushioning means, a radius link pivotally mounted at each end of the axle, a link connecting the radius link and the adjacent end of the main spring, and a second link connecting the radius link and the adjacent end of the shock transmitting bar means.

5. In a shock absorber, the combination with a vehicle axle, of a main spring arranged above the axle, a cushioning tube arranged below the axle, a shock transmitting bar, engaging the tube and connected at a central point with the axle, an element pivotally mounted at each end of the axle and pivotally connected to the adjacent end of the main spring, and a link pivoted to said element at one side of the fixed pivot of the latter and also pivoted to the adjacent end of said shock transmitting bar.

[Claims 6 to 8 not printed in the Gazette.]

1,073,402. MAIL-BAG HOLDER. GEORGE WILLIAM CURTIS, Oakland, Cal. Filed Jan. 18, 1913. Serial No. 742,967. (Cl. 105—232.)



1. A mail bag holder of the class described comprising a primary standard, an auxiliary standard slidably mounted within the said primary standard, said auxiliary standard provided with a grooved portion in its upper end, a mail bag holder arm pivotally mounted within said groove and provided with a hood intermediate its end portions said groove being inclined, so as to constitute a means for facilitating the lowering of said arm, said auxiliary standard also provided with another mail bag holder arm means for automatically turning said auxiliary standard so as to place the arms at right angles to the track and means for raising said auxiliary standard.

2. A mail bag holder comprising a primary standard, an auxiliary standard slidably mounted within said primary standard, mail bag engaging means carried by said auxiliary standard, a plurality of slots formed in said primary standard, one of said arms extending through one of said slots, said slots provided with a communicating slot, means for raising said auxiliary standard, and said communicating slot constituting a means for turning said auxiliary standard at right angles to the track whereby the mail bag may be easily engaged by a device on a passing train.

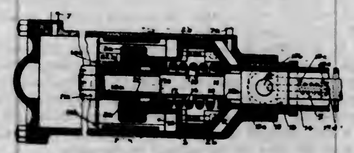
3. A mail bag holder of the class described comprising a primary standard, an auxiliary standard slidably mounted within said primary standard, a plurality of mail bag engaging means carried by said auxiliary standard, said primary standard provided with a plurality of slots, said primary standard also provided with a curved slot communicating with said slots, one of said mail bag engaging means passing through one of said slots, means for raising said auxiliary standard, said curved slot provided with a notched portion, the mail bag engaging means positioned within said slot and adapted to move upwardly to be guided by said curved slot so as to be positioned at right angles with the track, said means adapted to rest within said notched portion, and spring carried by said primary standard and bearing upon said mail bag engaging means for holding same in an operable position.

4. A mail bag holder of the class described comprising a primary standard, an auxiliary standard slidably mounted within said primary standard said primary standard provided with a plurality of vertical slots, and a curved slot communicating with said vertical slots, a finger passing through said slots and engaging said auxiliary standard, said auxiliary standard provided with a plurality of arms, one of said arms pivotally mounted to said finger, said finger also provided with a lip adapted to bear upon said arm for limiting the upward movement of said arm, and means for raising said arms to an operable position.

5. A mail bag holder of the class described comprising a primary standard, an auxiliary standard slidably mounted within said primary standard, mail bag engaging means carried by said auxiliary standard, means for automatically throwing said arms to an operable position, and at right angles to the track, said primary standard provided with a vertically extending slot upon its rear portion, a rack supported upon said primary standard, means carried by the lower portion of said rack and engaging the lower portion of said auxiliary standard and working in said slot for moving said auxiliary standard upwardly and means for operating said rack.

[Claim 6 not printed in the Gazette.]

1,073,403. STEAM-ENGINE VALVE-REVERSING GEAR. WILLIAM DALTON, Schenectady, N. Y. Filed July 1, 1913. Serial No. 776,800. (Cl. 121—98.)



1. In a valve reversing gear, the combination of a reverse shaft, a reversing motor coupled thereto, means for controlling the supply and exhaust of motive fluid to and from said motor, a clutch coupled to the reverse shaft and to the motor, and means for automatically releasing the clutch by the action of the motor, prior to the actuation of the reverse shaft by said motor.

2. In a valve reversing gear, the combination of a reverse shaft, a reversing cylinder, a piston fitted to reciprocate therein and coupled to the reverse shaft, means for controlling the supply and exhaust of motive fluid to and from the reversing cylinder, a clutch coupled to the piston, and means, interposed between the piston and clutch, for automatically releasing the clutch by the action of the piston, prior to the actuation of the reverse shaft by said piston.

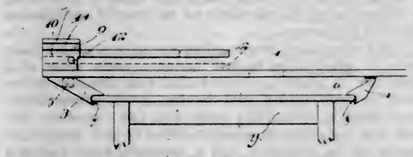
3. In a valve reversing gear, the combination of a reverse shaft, a reversing cylinder, a piston fitted to reciprocate therein and coupled to the reverse shaft, means for controlling the supply and exhaust of motive fluid to and from the reversing cylinder comprising a manually operable controlling valve working in a casing communicating with a source of fluid supply and having ports governed by said valve, conduits connecting said ports with opposite ends of the reversing cylinder, and automatically operable means coupling the piston to the controlling valve, a clutch coupled to the piston, and means, interposed between the piston and clutch, for automatically releasing the clutch by the action of the piston, prior to the actuation of the reverse shaft by said piston.

4. In a valve reversing gear, the combination of a reversing cylinder, a piston fitted to reciprocate therein, a valve gear member coupled to the piston, fluid pressure supply and exhaust conduits communicating with opposite ends of the reversing cylinder, a manually operable controlling valve governing said conduits, automatically operable means coupling the control valve to the valve gear member, a clutch fitting in the reversing cylinder and actuated by the piston thereof, and a rod secured to the clutch and coupled to the valve gear member.

5. In a valve reversing gear, the combination of a reversing cylinder, a piston fitted to reciprocate therein, a valve gear member coupled to the piston, fluid pressure supply and exhaust conduits communicating with opposite ends of the reversing cylinder, a manually operable controlling valve governing said conduits, a clutch coupled to the reverse shaft and to the piston, means for automatically releasing said clutch by the action of the piston, prior to the actuation of the valve gear member by said piston, and a spring bearing on said clutch and normally holding it in locked position.

[Claims 6 to 23 not printed in the Gazette.]

1,073,404. IRONING-BOARD. CHARLES DANIELSON, Cannon Falls, Minn. Filed Dec. 9, 1912. Serial No. 735,083. (Cl. 68—10.)



1. The combination with a table top, of an ironing board, and legs on said ironing board having notched lower ends engageable with the opposite edges of said table top, one of said legs being adjustable and set oblique.

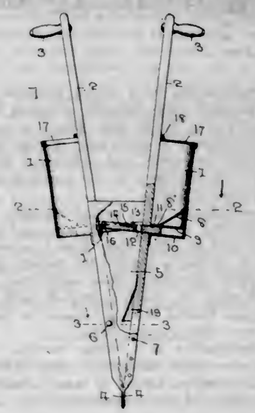
2. The combination with a table top, of an ironing board, and inwardly projecting oblique legs secured to said ironing board and having, at their lower ends, gripping surfaces arranged to engage opposite edges of said table top.

3. The combination with a table top, of an ironing board, and inwardly projecting oblique legs secured to said ironing board and having, at their lower ends, gripping surfaces arranged to engage opposite edges of said table top, one of said legs being adjustable.

4. The combination with a table top, of an ironing board, and inwardly projecting oblique legs secured to said ironing board and having, at their lower ends, gripping surfaces arranged to engage opposite edges of said table top, one of said legs being connected to said ironing board by a hinged joint.

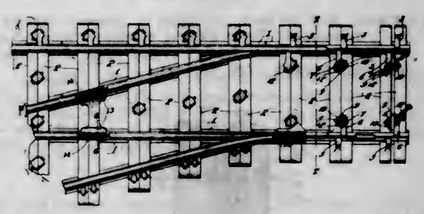
5. The combination with a table top, of an ironing board, a pair of laterally spaced legs hinged to one end of said ironing board and arranged to be folded thereon into inoperative positions transversely of said ironing board, and a third leg hinged to the other end of said ironing board and arranged to be folded thereon into an inoperative position, longitudinally of said ironing board, said legs, when in operative positions, arranged to project obliquely inward and having notched lower ends, the notches of the said legs arranged to engage opposite edges of said table top.

1,073,405. PLANTER. CHARLES ROBT. DAVIS, Marlinton, W. Va. Filed Aug. 2, 1911. Serial No. 641,994. (Cl. 111—22.)



A hand planter comprising a pair of side pieces, a hopper on the outside of each side piece each having a seed outlet into the space between the side pieces, the bottom in each hopper being downwardly inclined to its seed outlet, a pair of rigid plates extending from above the seed outlets to the bottoms of the side pieces, means securing the plates rigidly to one side piece and pivotally to the other side piece and forming a discharge conduit for the seed from both hoppers, valves to regulate the discharge of seed from the hoppers into the conduit, and an inclined plate secured to one wall of the conduit in the path of the seed discharged from one hopper to cause it to mix with the discharge from the other hopper.

1,073,406. CROSS-TIE. HARRY LEIGH DAY, Paducah, Ky., assignor of five-sixths to Liner B. Langston and one-sixth to Charles E. Stavely, Paducah, Ky. Filed Dec. 17, 1912. Serial No. 737,252. (Cl. 238—5.)



In a device for the purpose set forth, tie members having their under faces formed with teeth, rail-engaging elements integrally formed upon each of the tie members, angularly arranged vertically disposed lugs formed with openings and disposed adjacent the rail-engaging elements, one of the openings provided upon each of the lugs being threaded, and oppositely disposed bolt members having threaded shanks engaging within the openings and the threads provided in the openings.

1,073,407. VOTING-MACHINE. JAMES H. DEAN, Chicago, Ill., assignor to Empire Voting Machine Company, Jamestown, N. Y., a Corporation. Filed June 20, 1910. Serial No. 568,011. (Cl. 235—54.)



1. The combination in a voting machine of keys arranged in parallel rows, counters arranged between said rows of keys and on either side thereof, a cover plate for said counters having a single slot therein for each row of keys, means for rigidly and detachably fastening said cover plate with reference to the counters at points between said rows of keys.

2. The combination in a voting machine of keys arranged in parallel rows, counters arranged between said rows of keys and on either side thereof, a cover plate for said counters having a single slot therein for each row of keys, a plate extending across said rows of keys having loops formed on the top thereof, said cover plate having tongues formed therein capable of engaging with said loops by a sliding engagement.

3. The combination in a voting machine of a row of counters, a cover plate therefor, a plate extending across said row of counters having a loop formed in the top thereof, a tongue in said cover plate for engaging said loop.

4. The combination in a voting machine of counters arranged in rows, a cover plate for said counters, said cover plate comprising a series of narrow plates extending beyond said counters at each end, a plate extending transversely of said plates at each end to which said plates are attached.

5. The combination in a voting machine of a casing, an operating shaft mounted in said casing, a plate rigidly mounted on said shaft, a stud mounted on said casing to limit the oscillation of said shaft through said plate, a latch pivoted to said plate having a stud thereon, a bracket having a slot therein with which said stud engages and in which said stud travels back and forth with the oscillation of the shaft, a shoulder on said slot to engage with said stud and lock the shaft against operation.

[Claims 6 to 31 not printed in the Gazette.]

1,073,408. SOUND-BOX. ALBERT C. DIEHL, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Aug. 31, 1910. Serial No. 579,836. (Cl. 181—11.)



1. In a sound box comprising a casing, the combination with a diaphragm, of a mounting for said diaphragm, comprising a pliant annulus embracing the margin of said diaphragm, and having a channel for the reception of said margin, formed by opposed transversely convex rims engaging the opposite faces of said diaphragm and providing a free space around the circumferential edge of said diaphragm, and means comprising a retainer having an annular rigid region in contact with said mounting opposite the line of engagement of said mounting with said diaphragm operative to rigidly retain said mounting in said casing, without varying the line of engagement of said mounting with said diaphragm.

2. In a sound box comprising a casing, the combination with a diaphragm, of a mounting for said diaphragm, comprising a pliant annulus, loosely fitted in said casing, embracing the margin of said diaphragm, and having a channel arranged to receive said margin, formed by opposed semicircular rims, engaging the opposite faces of said diaphragm, and a wall spaced from the peripheral edge of said diaphragm, and a retaining plate having a ridge arranged to engage the lateral wall of said mounting between its inner and outer edges, substantially opposite the line of engagement of said mounting with said diaphragm.

3. In a sound box comprising a casing, the combination with a diaphragm, of a mounting for said diaphragm, comprising a pliant gasket embracing the edge of said diaphragm, and having opposed bearing rims engaging the opposite faces of said diaphragm in a line, and a retaining plate having a chamfered edge, and a groove concentric therewith, forming a ridge arranged to engage the lateral wall of said mounting substantially opposite to said line, the chamfered edge and groove providing space for the lateral distortion of the free edges of said mounting, thereby tending to prevent distortion of the portions of said rims engaging said diaphragm.

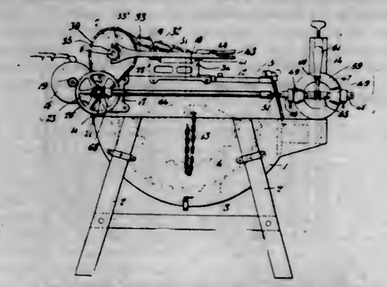
4. In a sound box, the combination with a casing, providing a seat, of a diaphragm, and a pliant mounting comprising a unitary annular gasket embracing the circumferential margin of said diaphragm, and having a groove providing an undercut channel, having its outer circumferential wall spaced from the circumferential edge of said diaphragm, and the undercut walls forming opposed shoulders, which engage the opposite sides of said diaphragm in a hair line adjacent to its edge, and a retaining plate provided with a circular ridge arranged to engage the side wall of said gasket, substantially opposite said hair line to retain the same in its seat, and providing free spaces upon opposite sides of said ridge for the distortion of the edges of the side wall of said mounting when engaged by said ridge, and tending to prevent the distortion of the shoulders at the line of engagement with said diaphragm.

5. In a sound box, the combination with a casing comprising a cylindriform socket having a plane wall, of a diaphragm, a pliant mounting for said diaphragm arranged in said socket and having substantially plane lateral walls, a cylindrical outer wall and oppositely disposed rims engaging the opposite sides of said diaphragm adjacent to its periphery, and a retaining plate provided with a ridge arranged to engage one plane face of said mounting opposite its line of contact with said diaphragm, and arranged to hold the other plane wall of said mounting against the plane wall of said socket, and to impinge the cylindrical wall of said mounting with the cylindrical wall of said socket.

[Claims 6 to 18 not printed in the Gazette.]

1,073,409. OPERATING MECHANISM. JOHN DIETZ, Cincinnati, Ohio, assignor to The John Dietz Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 13, 1911. Serial No. 614,210. Renewed June 13, 1913. Serial No. 773,558. (Cl. 74—50.)

1. In a device of the class described, a hinge support, a motor mounted thereon, a crank shaft, a chain of gears connecting said motor and crank shaft and adapted to be actuated by said motor, a telescopic shaft, a pinion actuated by said chain of gears, a pinion on said telescopic shaft, adapted to be actuated by said first mentioned pinion, an operating lever and connecting parts for throwing said crank shaft into and out of operative communication with said motor and a bracket to which said lever is pivotally connected, substantially as set forth.



2. In a machine, the combination of a motor, a pinion actuated by said motor, a gear wheel, a sprocket pinion and pinion simultaneously actuated by said gear wheel, actuating means connected to said sprocket pinion, a telescopic shaft, and a pinion fixed on said telescopic shaft and adapted to be actuated by said second mentioned pinion, substantially as set forth and for the purposes specified.

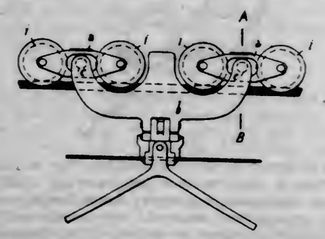
3. In a machine, a motor, a pinion actuated thereby, a gear wheel actuated by said pinion, a pinion and actuating means connected to said gear wheel adapted to be simultaneously actuated thereby, a telescopic shaft, a pinion fixed thereon and adapted to be actuated by said second mentioned pinion, substantially as set forth and for the purposes specified.

4. In a machine, a motor, a pinion actuated thereby, a gear wheel actuated by said pinion, actuating means on said gear wheel, a pinion on said gear wheel, a telescopic shaft, a pinion fixed on said telescopic shaft and adapted to be actuated by said second mentioned pinion, a second pinion on said telescopic shaft, and a gear wheel suitably mounted and adapted to be actuated by said second pinion, substantially as set forth and for the purposes specified.

5. In a machine, a motor, a pinion actuated thereby, a gear wheel actuated by said pinion, actuating means on said gear wheel, a pinion fixed on said gear wheel, a telescopic shaft, a pinion thereon actuated by said second mentioned pinion, two additional pinions on said telescopic shaft, a gear wheel suitably mounted and adapted to be alternately actuated by said last mentioned pinions, and means for throwing said last mentioned pinions, respectively, into and out of operative engagement with said gear wheel alternately to produce alternating reversible rotary movements, substantially as set forth.

[Claims 6 to 24 not printed in the Gazette.]

1,073,410. CARRIAGE FOR ROPEWAYS AND THE LIKE. FRITZ DÖHLE, Leipzig, Germany, assignor to Adolf Bleichert & Company, Leipzig-Gohlis, Germany. Filed May 10, 1912. Serial No. 696,346. (Cl. 104—146.)



1. In a double carriage for ropeways, consisting of two single carriages with two wheels each and a beam connecting these carriages and situated at the side thereof, horizontal pivots extending from the ends of the said supporting beams above and transversely to the rail, and vertical pivots near the center plane of the rail and connecting the said horizontal pivots with the respective bodies of the single carriages.

2. In a double carriage for ropeways, consisting of two single carriages with two wheels each and a beam connecting these carriages and situated at the side thereof, horizontal pivots extending from the ends of the supporting beams above and transversely to the rail and through the side shield of the carriage, and vertical pivots near the center plane of the rail and connecting the horizontal pivots with the respective bodies of the single carriages.

3. In a double carriage for ropeways consisting of two single carriages with two wheels each and a beam connecting these carriages and situated at the side thereof, horizontal pivots extending from the ends of the supporting beams above and transversely to the rail in about the same height as the axles of the wheels and through the side shield of the carriage, and vertical pivots near the center plane of the rail and connecting the horizontal pivots with the respective bodies of the single carriages.

4. In a double carriage for ropeways consisting of two single carriages with two wheels each and a beam connecting these carriages and situated at the side thereof, horizontal pivots extending from the ends of the supporting beams above and transversely to the rail and through the side shield of the carriage, and vertical pivots near the center plane of the rail and connecting the horizontal pivots with the respective bodies of the single carriages, and supporting bearings in the lower part of the carriages to transmit the load on said horizontal pivots to the carriage bodies.

1,073,411. MOVING-PICTURE FILM. CHARLES E. DRESSLER and ISAAC W. ULLMAN, New York, N. Y. Filed Sept. 10, 1908. Serial No. 452,401. (Cl. 88—19.5.)

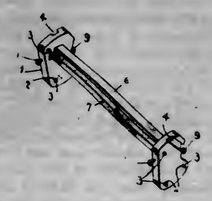


A moving-picture film having one series of pictures running lengthwise of the film, and alongside it another series of pictures also running lengthwise of the film but in the reverse direction, the pictures of the two series being upside down relatively to each other.

1,073,412. DEVICE FOR SHARPENING LAWN-MOWERS. JOHN P. EDWARDS, Kinmundy, Ill. Filed Dec. 19, 1912. Serial No. 737,724. (Cl. 51—8.)

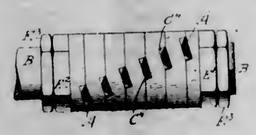
1. A lawn mower sharpening device comprising a pair of attaching plates having T-shaped recesses in their inner faces, means for securing said plates in operative position, a grinding element casing having its ends engaged with the larger portion of the recesses in said attaching plates, a grinding element carried by said casing and having its ends engaged with the reduced portions of said recesses, set screws arranged on said attaching plates and having

their inner ends engaged with the ends of said casing and said grinding element, whereby said parts are adjustably fastened in position for engaging the grinding element with the blades when the latter are revolved.



2. In a lawn mower sharpening device, a pair of attaching plates having in their outer sides obliquely disposed grooves and having in their inner sides T-shaped recesses, gripping screws having a threaded engagement with said plates and adapted to be screwed into engagement with the side plates of the mower whereby the sharpening device is rigidly secured in operative position, a grinding element casing having its ends engaged with the larger portion of the recesses in said attaching plates, a grinding element carried by said casing and having its ends engaged with the reduced portions of said recesses, set screws arranged in said attaching plates and having their inner ends engaged with the ends of said casing, and said grinding element whereby these parts are adjusted and fastened in position for engaging the grinding element with the blades when the latter are revolved.

1,073,413. PROPELLER. HERMANN FAEHRMANN, New York, N. Y. Filed Sept. 30, 1910. Serial No. 584,620. (Cl. 170—165.)



1. A structure adapted for use as a propeller or for other purposes, comprising a shaft, blades mounted thereon at an angle to the axis of rotation, and a hub structure having spacing portions which extend around the entire circumference of the shaft and separate the blades axially.

2. A structure adapted for use as a propeller or for other purposes, comprising a shaft, blades mounted thereon in spiral relation to each other and provided with segmental feet fitted to the shaft said feet extending lengthwise of the shaft and engaging adjacent blades and means for securing said blades.

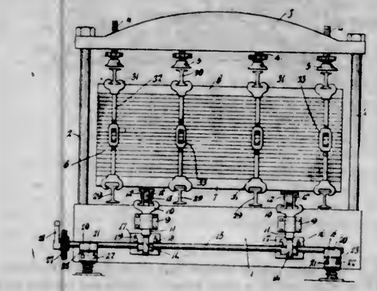
3. A structure adapted for use as a propeller or for other purposes, comprising a shaft, blades mounted thereon in spiral relation to each other, ring-shaped hubs arranged between the blades, and means for holding the blades and hubs together.

4. A structure adapted for use as a propeller or for other purposes, comprising a shaft, blades mounted thereon in spiral relation to each other, ring-shaped hubs arranged between the blades and provided at their edges with recesses to receive the blades and means for holding the blades and hubs together.

5. A structure adapted for use as a propeller or for other purposes, comprising a shaft, blades mounted thereon in spiral relation to each other and provided with inner portions normal to the shaft and with outer portions oblique thereto, ring-shaped hubs arranged between the inner portions of said blades, and means for holding the blades and hubs together.

[Claims 6 to 10 not printed in the Gazette.]

1,073,414. VENEER-PRESS FOR MANUFACTURERS OF WOODWORKING MATERIAL. CHARLES E. FRANCIS, Evanston, Ohio. Filed Apr. 17, 1912. Serial No. 691,266. (Cl. 144—281.)



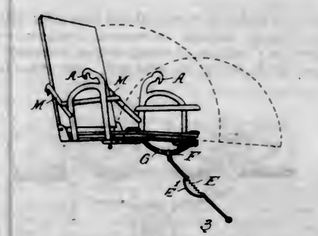
1. In a veneer press, the combination with the base of the press, of rollers with their upper surface normally above the level of the base to sustain the weight of the stock, and movable supports for the rollers at each side of the press adapted to release the rollers to allow the bundle of stock to be compressed in the press.

2. In a veneer press, the combination with the base of the press, and beams for sustaining the stock, of rollers and movable supports for the rollers at each side of the press adapted to permit a position of the rollers above and below the level of the beams.

3. In a veneer press, the combination with the base of the press, of rollers with their upper surface normally above the level of the base, movable supports for the rollers, standards for the supports and upon which they are movable, with springs for sustaining the standards of sufficient strength to carry the weight of a bundle of veneered stock, and adapted to be compressed under the power of the press.

4. In a veneer press, the combination with the base of the press, of rollers with their upper surface normally above the level of the base, movable supports for the rollers, a cam shaft with cams for raising and lowering the supports to shift the weight of the stock from the rollers to the bed of the press, with springs for supporting the cam shaft to permit the depression of the shaft and its connections under the power of the press to avoid breakage.

1,073,415. SEAT, CHAIR, BUNK, AND THE LIKE. FREDERICK JOHN GAY, Camberwell, England. Filed Nov. 2, 1912. Serial No. 729,183. (Cl. 114—191.)

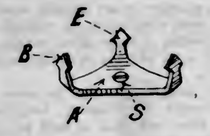


1. A device of the kind described for use on board ship comprising in combination a base carrying a pair of uprights or stanchions, a swinging frame having four more or less rectangularly disposed hooks or members thereon and adapted to engage by means of two diagonally opposite hooks or members with the said stanchions, and a chair or the like suspended from the other of said hooks or members so as to be free to remain horizontal irrespective of the inclination of the vessel.

2. A device of the kind described for use on board ship comprising in combination a base carrying a pair of uprights or stanchions pivotally connected therewith, a U shaped swinging frame having four more or less rectangularly disposed hooks or members thereon at its ends and adapted to engage by means of two diagonally opposite hooks or members with the said stanchions, and a chair or the like suspended from the other pair of said hooks or members so as to be free to remain horizontal irrespective of the inclination of the vessel.

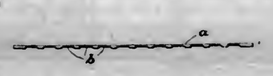
3. A device of the kind described for use on board ship comprising in combination a base carrying a pair of uprights or stanchions pivotally connected therewith, means for securing said stanchions in a vertical position, a U shaped swinging frame having four more or less rectangularly disposed hooks or members thereon at its ends and adapted to engage by means of two diagonally opposite hooks or members with the said stanchions, and a chair or the like suspended from the other pair of said hooks or members so as to be free to remain horizontal irrespective of the inclination of the vessel.

1,073,416. FASTENING FOR RUGS, MATS, CARPETS, AND THE LIKE. FRANCIS WILLIAM GILLER and DALE MARSHALL, Cheltenham, England. Filed Aug. 13, 1910. Serial No. 576,971. (Cl. 16—71.)



In a device of the character described, the combination of a plate having a hole, with a screw inserted into the hole and applied to the floor, vertically upwardly extending prongs arranged on the plate and sidewardly extending barbs of an obtuse angle arranged on the prongs.

1,073,417. TREATED WOOD FOR USE IN ELECTRIC STORAGE BATTERIES. BENJAMIN HEAP, Clifton Junction, near Manchester, England, assignor to The Electric Storage Battery Company, Philadelphia, Pa., a Corporation of New Jersey. Original application filed Oct. 27, 1908, Serial No. 459,687. Divided and this application filed July 3, 1912. Serial No. 707,627. (Cl. 204—29.)

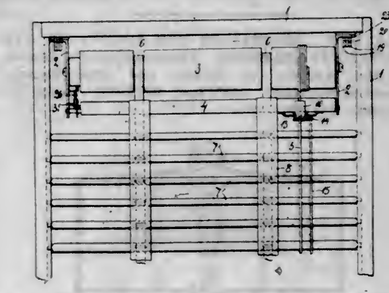


A dry, straight, sound wood separator having its cellulose and fibrous constituents and constituting an imperforate diaphragm impervious to battery sediment and primarily deprived of such of its constituents as would deleteriously attack lead when subjected to electrolytic action and retaining such of its constituents as beneficially affect a negative pole plate.

1,073,418. BLIND, ROLLER-BLIND, AND THE LIKE. JAKOB AUGUST HEDBERG, Gottenborg, Sweden. Filed Feb. 27, 1912. Serial No. 680,186. (Cl. 156—17.)

1. In a locking device for blinds, roller-blinds and the like the combination of two pivotally connected jaws, between which the operating cord or cords pass, means pivotally connecting one of the said jaws with the top lath, and an extension of the other jaw, forming a lever arm acted upon by the said cord, substantially as described and shown in the drawings.

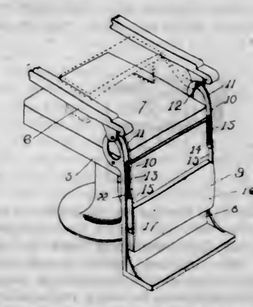
2. In a locking device for blinds, roller-blinds and the like the combination of two pivotally connected jaws, between which the operating cords pass, means pivotally connecting one of the said jaws with the top lath, an extension of the other jaw, forming a lever arm acted upon by the said cords, and a pin fixed in one of the jaws and extending through a slot in the other jaw, which pin separates the cords, substantially as described and shown in the drawings.



3. In a locking device for blinds, roller-blinds and the like the combination of two pivotally connected jaws, between which the operating cord or cords pass, means pivotally connecting one of the said jaws with the top lath, an extension of the other jaw, forming a lever arm acted upon by the said cord, and means for connecting with the locking device a cord, by means of which the locking device can be swung into inoperative or operative position, substantially as described and shown in the drawings.

4. In blinds of the class stated above the combination of a toothed segment, pivoted to one of the end bearings of the blind and coöperating with the top-lath, a hook shaped arm which is pivoted to the said toothed segment and is normally carried by a stationary support, into engagement with which it is moved, as the toothed segment is raised during the releasing operation, and thus keeps the segment in raised position, and a surface on the said arm acted upon by the top lath at the end of the releasing operation for bringing the hook-shaped arm out of engagement with the said stationary support, substantially as described and shown in the drawings.

1,073,419. BARBER'S CHAIR. THOMAS J. HOWARD, Gilman, Ill. Filed Aug. 1, 1912. Serial No. 712,673. (Cl. 155—26.)

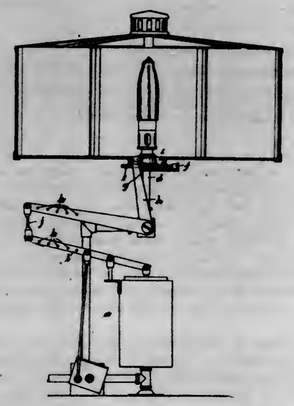


1. An attachment for barbers' chairs and the like comprising a pair of slotted arms adapted to be pivoted to the arms of the chair, a seat, said straps secured to said seat, said side straps being adjustably mounted in said slots.

2. An attachment for barbers' chairs and the like comprising a pair of arms adapted to be pivoted to the arms of the chair, a pair of side straps adjustably secured to said arms, and a seat pivotally mounted between said side straps.

3. An attachment for barbers' chairs and the like comprising a pair of arms pivotally connected at one end to the arms of the chair, said pivotal arms being slotted at the other end thereof, a seat, side straps connected to said seat and adjustable in said slots and means for supporting said seat on the seat of the chair.

1,073,420. MECHANISM FOR PRODUCING GAS-LIGHTED FLASH-SIGNS. THOMAS JACKSON, London, England, assignor to himself, and Allan Ramsay, Chesham, England. Filed Dec. 16, 1911. Serial No. 666,308. (Cl. 240—49.)



A mechanically operated gas flash light device consisting of in combination, a motive mechanism adapted to be intermittently actuated by the gas pressure of supply, a lighting burner supplied by gas from the intermittent exhaust of the said motive mechanism, a revoluble lantern adapted to carry advertising matter or the like and connecting means for transmitting the intermittent motion of the said motive mechanism to the said lantern, substantially as described.

1,073,421. ELASTIC-FLUID TURBINE. EMIL JOSSE, Berlin, and PAUL CHRISTLEIN, Charlottenburg, Germany. Filed May 20, 1912. Serial No. 698,481. (Cl. 121—57.)



1. In an elastic fluid turbine of the character described, in combination with the rotor thereof having buckets, inlet nozzles having all their walls cut back for providing a clearance at those portions which extend beyond the end of the nozzle proper and terminating on a plane perpendicularly to the direction in which the nozzle is pointing and in close proximity to the entrance portion of the bucket of the rotor, said nozzles having outlets of rectangular cross-section issuing a single undivided jet in the direction of the geometrical axis of the nozzle, substantially as described.

2. In an elastic fluid turbine of the character described in combination with the rotor thereof having buckets, inlet nozzles terminating in a plane perpendicular to the direction in which the nozzle is pointing and in close proximity to the entrance portion of the bucket of said rotor, and a plurality of inner and outer protecting rings for reducing clearance losses and the suction action, substantially as described.

3. In an elastic fluid turbine of the character described in combination with the rotor thereof having buckets, inlet nozzles of rectangular cross-section provided with walls cut back for providing clearance at the portions extending beyond the end of the nozzle proper for producing a non-dispersing jet of rectangular cross-section.

1,073,422. CIGARETTE. JASMIN KATTAR, New York, N. Y. Filed Mar. 7, 1913. Serial No. 752,636. (Cl. 131—52.)

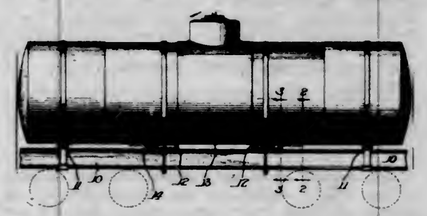


1. A cigarette comprising a wrapper, a relatively long-fibered tobacco filler protruding from both ends of said wrapper, and two slidable sleeves positioned on said wrapper and adapted to be utilized primarily to protect the protruding tobacco fiber at the ends of the wrapper and then to be utilized as holder and mouthpiece, as herein set forth.

2. A cigarette comprising a wrapper, a relatively long-fibered tobacco filler protruding from both ends of said wrapper, and two moisture proof slidable sleeves positioned on said wrapper and adapted to be utilized primarily to protect the protruding tobacco fiber at the ends of the wrapper and then to be utilized as holder and mouth-piece as herein set forth.

3. A cigarette elliptical shaped in cross section and comprising a wrapper, a relatively long-fibered tobacco filler protruding from both ends of said wrapper, and two slidable sleeves positioned on said wrapper and adapted to be utilized primarily to protect the protruding tobacco fiber at the ends of the wrapper and then to be utilized as holder and mouth-piece, as herein set forth.

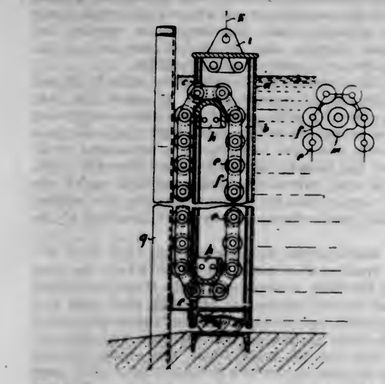
1,073,423. TANK-CAR CONSTRUCTION. CASS L. KENNICOTT, Chicago Heights, Ill., assignor to The Kennicott Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 15, 1912. Serial No. 683,950. (Cl. 105—264.)



In a tank car, the combination of underframing having end saddles and a pair of intermediate stops, said stops being positioned a substantially equal distance between said saddles and each other, a tank rested on said saddles, lugs on said tank, said lugs being positioned to cooperate with the outsides of said stops and to be in contact therewith at the normal temperature of said tank, said lugs being separated from said stops during abnormal expansion of said tank, substantially as described.

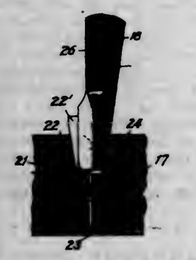
1,073,424. ROLLING GATE FOR SLUICES. JOHANN THEODOR KÖSTER, Klagenfurt, Austria-Hungary. Filed July 19, 1913. Serial No. 779,956. (Cl. 61—46.)

A rolling gate for sluices having at the end a pocket extending from top to bottom and formed of oppositely disposed flanged members having their flanges facing each other, rigid blocks in said pockets, said gate having openings for the run of the chain, and an endless roller chain disposed in said pocket and running on said blocks and



passed through said openings for contact with a sluice pillar.

1,073,425. APPARATUS FOR GRANULATING CLAY. FRANK LAMBERT, Chicago, Ill. Filed Oct. 25, 1911. Serial No. 656,579. (Cl. 83—11.)



1. In a device of the class described, a shaft having a radial socket therein, in combination with a knife having a shank fitting in said socket, said knife also having a heel in contact with the shaft at a point back of the edge of the knife, the distance of said point of contact of the heel with the shaft from the said shank being greater than the diameter of the shank, and wedging fastening means beside said shank.

2. In a device of the class described, a shaft having a radial socket therein, in combination with a knife having a shank fitting in said socket, and yielding wedging means fastening the said knife in said socket, said knife also having a heel in contact with the shaft at a point behind the socket and behind the edge of said knife.

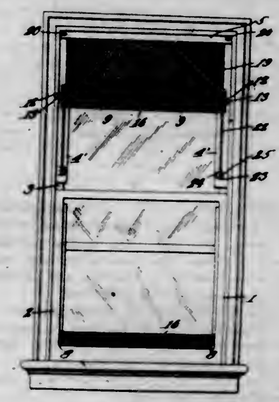
3. In a device of the class described, a shaft having a radial socket, in combination with a clay knife having a shank in said socket, means for securing said shank in said socket, said clay knife having its cutting edge approximately on a radial line through the said socket and having a backwardly projecting heel resting on the surface of the shaft back of the socket and behind the edge of said knife.

4. In a device of the class described, a rotatable shaft, a knife projecting therefrom, and detachable means fastening the knife to the shaft, said means being adapted to yield without rupture to an excessive force applied radially to said knife and said knife also having a thrust bearing with the shaft at a point opposite its cutting edge.

5. In a device of the class described, a shaft having a radial socket therein, in combination with a knife having a shank fitting in said socket, said knife also having a heel in contact with the shaft at a point on the opposite side of the socket with respect to the side to which the edge of the knife is directed, said shaft having a keyway therein beside said socket, and a key in said keyway, the face of the key away from the shank and the side of the shank opposite the key diverging outwardly from the shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,073,426. WINDOW-SCREEN. JOHN M. LANDFAIR, Black Lick, Pa. Filed Jan. 15, 1913. Serial No. 742,292. (Cl. 156—39.)



1. The combination with a window frame and a slidable sash, of a window screen including a frame detachably secured to the window frame and parallel to the sash, a plate slidably mounted upon the detachable frame, a rotatable screen carrying roller carried by said plate, a screen attached to the roller and to the detachable frame, a tape connected to the roller and also to the frame, the tape being wound upon the roller when the screen is unwound and vice versa, and means carried by the sash for detachably engaging the sliding plate to cause the winding and unwinding of the screen as the sash is closed and opened.

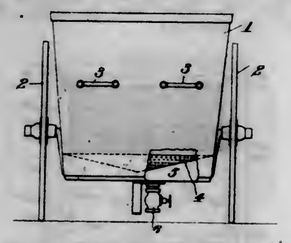
2. The combination with a window frame and slidable sash, of a window screen, including a frame detachably secured to the window frame and parallel with the sash, a plate slidably mounted transversely of the detachable frame, a rotatable screen carrying roller detachably carried by said plate, a screen attached to the roller and to the detachable frame, a tape connected to the roller and also to the frame, the tape being wound upon the roller when the screen is unwound, and vice versa, and a resilient catch carried by the sash for detachably engaging the sliding plate whereby the plate may be detached from movement with the sash and attached to cause the roller to wind and unwind the screen and tape due to the movement of the sash.

3. A rolling screen attachment for window frames and sashes including a bodily removable and attachable U-shaped frame, a sliding roll carrying member disposed adjacent one face and transversely of the terminals of the frame, a screen connected to said roller at one end and having the opposite end connected to the connecting member of the frame, and two tapes, one to each terminal, connected to the respective heads of the roller and each at a point adjacent the end of its terminal of the frame.

4. A screen roller attachment for window sashes and frames, including two parallel plates, a bridging member connected across said plates and at right angles to the respective ends thereof, a plate slidably mounted between the two parallel plates for movement to and from the con-

necting plate, a roller detachably carried by the sliding plate, a screen having one terminal connected to the roller and the opposite terminal to the connecting plate, two tapes, said tapes having one of their respective ends connected to the heads of the roller, and means for detachably clamping the opposite ends of the tapes to the extreme ends of the parallel plates.

1,073,427. SNOW-MELTING DEVICE. HOWARD G. LAPSLEY, Plainfield, N. J. Filed Apr. 22, 1911. Serial No. 622,791. (Cl. 37—35.)



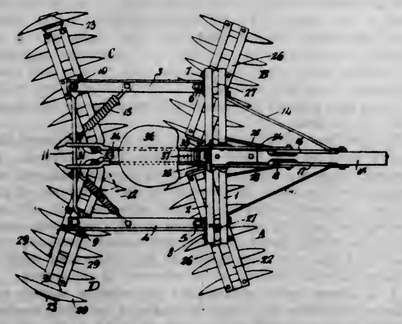
1. In a snow melting device, a transportable casing provided with drainage means near its base, a removable top for the casing provided with means for making a tight joint and a steam pipe passing through and vertically movable with relation to said top and provided with steam distributing means at its lower end.

2. In a snow melting device, a transportable casing, a false bottom spanning it near the base, a removable top therefor provided with means for making a tight joint, and a steam pipe passing through and vertically movable with relation to said top and provided with steam distributing means at its lower end.

3. In a snow melting device, a wheeled casing, a false bottom spanning said container near the base, means for removing water therebelow, a removable gasketed top carrying a gland, and a valved, vertically movable steam pipe passing through said gland and provided with a rose at its lower end.

4. In a snow melting device, a transportable casing with a false bottom near the base and means for removing water therebelow, a removable top therefor provided with means for making a tight joint and a steam pipe passing through said top and provided with steam distributing means at its lower end.

1,073,428. DISK HARROW. FRANK K. LATHROP, Dayton, Ohio, assignor to The Ohio Rake Company, Dayton, Ohio, a Corporation of Ohio. Filed May 6, 1912. Serial No. 695,427. (Cl. 55—83.)



1. In a disk harrow, the combination with front and rear gang frames, of a main frame, to which the gang frames are pivotally secured, said main frame comprising a front and a rear transverse bar, with side bars adapted to swing in a horizontal plane, with means for holding the main frame normally rigid whereby the main frame will swing laterally under side strains in turning corners without affecting the rigidity of the main frame during the forward progress of the machine.

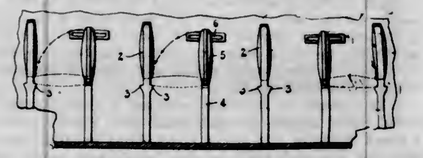
2. In a disk harrow, the combination with front and rear gang frames, of a main frame, to which the gang frames are pivotally secured, said main frame comprising a front and a rear transverse bar, with rigid side bars pivoted to the front bar to swing in a horizontal plane, with means for holding the main frame normally rigid, whereby the main frame will swing laterally under side strains in turning corners without affecting the rigidity of the main frame during the forward progress of the machine.

3. In a disk harrow, the combination with front and rear gang frames, of a main harrow to which the gang frames are pivotally secured, said main frame comprising a front and a rear transverse bar with rigid side bars adapted to swing in a horizontal plane, and springs intermediate the rear portion of the side bars and the rear cross bar, whereby the main frame will swing laterally under side strains in turning corners and at the same time the rigidity of the main frame during the forward progress of the machine will be maintained.

4. In a disk harrow, the combination with front and rear gang frames, of a main frame, to which the gang frames are pivotally secured, said main frame comprising a front and a rear transverse bar, with rigid side bars adapted to swing in a horizontal plane, loops mounted loosely on the rear cross bar and pivotal connection for said loops, with the inner ends of said rear gang frames, with adjusting levers and connecting bars to said loops whereby the rear gang frames will be held in horizontal position and at the same time angularly adjusted.

5. In a disk harrow, the combination with front and rear gang frames, of a main frame to which the gang frames are pivotally secured, said main frame comprising a framework of individual rigid members consisting of side bars, and front and rear cross bars pivotally secured together at the corners to swing laterally, with springs to maintain the rigidity of the frame under normal conditions.

1,073,429. RAILWAY-CAR. JOSEPH P. LEGGETT, Carthage, Mo. Filed Feb. 17, 1913. Serial No. 748,844. (Cl. 105—205.)



1. In a car, the combination of permanently positioned uprights spaced from each other, permanently positioned risers between said uprights, seat bottoms movably fitted to said risers, the said seat bottoms being adjustable to horizontal positions between the risers and uprights and into vertical alinement with said risers, and means for holding the seat bottoms in vertical alinement with said risers.

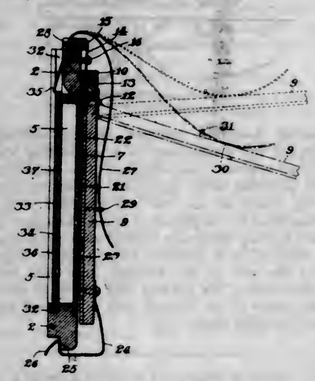
2. In a car, the combination of permanently positioned uprights spaced from each other, permanently positioned risers between said uprights, seat bottoms movably fitted to said risers and adjustable in either direction therefrom to horizontal positions between the risers and either of two uprights adjacent to the risers to which the seat bottoms are fitted, the seat bottoms being also adjustable into vertical alinement with said risers, and means for holding the seat bottoms in vertical alinement with said risers.

3. In a car, the combination of permanently positioned uprights spaced from each other, permanently positioned risers between said uprights, seat bottoms movably fitted to said risers, the said seat bottoms being adjustable to horizontal positions between the risers and uprights and the uprights being provided with means for supporting the seat bottoms when the seat bottoms are adjusted thereto, the said seat bottoms being also adjustable into vertical alinement with said risers, and means for holding the seat bottoms in vertical alinement with said risers.

4. In a car, the combination of permanently positioned uprights spaced from each other, permanently positioned risers between said uprights, seat bottoms pivoted to said risers and adjustable to horizontal positions between the risers and said uprights, the seat bottoms being also adjustable into vertical alinement with said risers, and means for holding the seat bottoms in vertical alinement with said risers.

5. In a car, the combination of permanently positioned uprights spaced from each other, permanently positioned risers between said uprights, seat bottoms pivoted to said risers and movable into horizontal positions at either side of the risers to which they are pivoted and into engagement with uprights adjacent to said risers, the said seat bottoms being also adjustable into vertical alinement with said risers, and latch devices for holding the seat bottoms in vertical alinement with said risers.

1,073,430. PHOTOGRAPH-PRINTING DEVICE. ALBERT E. LIPP, Philadelphia, Pa. Filed Dec. 13, 1912. Serial No. 736,530. (Cl. 95—77.)



1. In a photograph printing device, the combination of a frame having an opening therein, an L-shaped negative support on said frame adjacent two walls of said opening and having a negative-engaging face movable toward and from said frame, yielding means connected to one arm of said L-shaped support and pressing said face toward said frame, a contact board movable toward and from said opening and having one end hinged to the arm of said L-shaped support to which said yielding means is connected, and means for clamping the end of said board opposite to the hinged end thereof to said frame.

2. In a photograph printing device, the combination of a frame having an opening therein, a negative support on said frame adjacent said opening and having a negative-engaging face movable toward and from said frame, a spring having one part secured to said frame and another part secured to said support and pressing said face toward said frame and guiding said support when moved toward or from said frame, a contact board hinged to said support and movable toward and from said opening, and means for clamping said board to said frame.

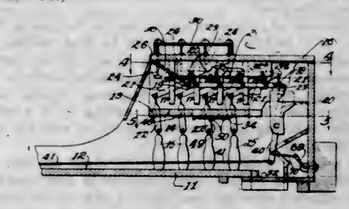
3. In a photograph printing device, the combination of a frame having an opening therein, an L-shaped negative support on said frame adjacent two walls of said opening and having a negative-engaging face movable toward and from said frame, yielding means connected to one arm of said L-shaped support and pressing said face toward said frame, means for clamping the other arm of said L-shaped support to said frame, a contact board movable toward and from said opening, and means for clamping said board to said frame.

4. In a photograph printing device, the combination of a frame having an opening therein, an L-shaped negative support on said frame adjacent two walls of said opening and having a negative-engaging face movable toward and from said frame, yielding means connected to one arm of said L-shaped support and pressing said face toward said frame, means for yieldingly clamping the other arm of said L-shaped support to said frame, a contact board movable toward and from said opening, and means for clamping said board to said frame.

5. In a photograph printing device, the combination of a frame having an opening therein, means for supporting a negative adjacent said opening, a contact board movable toward and from said opening, and a spring arm clamping said board to said frame, said arm having one end secured to said board and the other end hooked around a part of said frame.

[Claims 6 to 14 not printed in the Gazette.]

1,073,431. BOWLING OUTFIT. PAUL MAKRAY, Chicago, Ill. Filed Aug. 3, 1912. Serial No. 713,169. (Cl. 46—54.)



1. In combination with a bowling alley, a set of suitably mounted levers, each carrying at one end a bowling pin, and at the other end a counterweight adapted to lift the pin at the opposite end; means for lowering the ends of said levers carrying the pins; means for holding said pins in lowered position until disengaged by the strike of a ball thrown on the alley; and vertical rods, carrying indicators, slidably mounted above the ends of said levers carrying the pins.

2. In combination with a bowling alley, a platform above the rear end of said alley, brackets depending from said platform; levers mounted in said brackets, each carrying a pin at one end, and a counterweight at the other end; transverse oscillatable rods provided with extensions for lowering the pin-carrying ends of said levers, and having cranks; a rod connecting said cranks; means to operate said cranks from the players' end of the alley; and means to hold said pins in lowered position, ready to be disengaged by the strike of a ball thrown on the alley.

3. In combination with a bowling alley, pins, and a return-runway for the balls, a transverse chute to the rear of the pins, inclined toward a depression at the rear end of said runway; a spring-operated buffer located adjoining said rear end, adapted to propel balls from the rear end of said runway to the front end thereof; and means to work said buffer from the players' end of the alley.

4. In combination with a bowling alley, pins, and a return-runway for the balls, a transverse chute to the rear of the pins, inclined toward a depression at the rear end of said runway; a spring-operated buffer located adjoining said rear end adapted to propel balls from the rear end of said runway to the front end thereof; means to retract said buffer, operated from the players' end of the alley; means to releasably hold said buffer in retracted position; and means to release said buffer, operated by pushing a coin through a slot, located at the players' end of the alley.

5. In combination with a bowling alley and a return-runway for the balls, a transverse chute to the rear of the pins, inclined toward a depression at the rear end of said runway; a spring-operated buffer located adjoining said rear end, adapted to propel balls from the rear end of said runway to the front end thereof; means to releasably hold said buffer in retracted position; means for releasing said buffer operated from the players' end of the alley; a set of suitably mounted levers, each carrying at one end a bowling pin, and at the other end a counterweight adapted to lift the pin at the opposite end; means, operated from the players' end of the alley, for simultaneously lowering the ends of said levers carrying the pins, and retracting said buffer; and means for holding said pins in lowered position on said alley ready to be disengaged by the strike of a ball thrown on the alley.

1,073,432. PROCESS OF PREPARING ELECTROLYTES FOR USE IN THE DEPOSITION OF A METAL OR METALLIC ALLOY. PASCAL MARINO, London, England. Filed Oct. 29, 1912. Serial No. 728,400. (Cl. 204—1.)

1. The process of preparing an electrolyte for use in the deposition of a metal, which consists in first making a suitable aqueous solution containing a salt of the metal to be deposited, then adding a suitable organic reducing agent to the solution, then heating the resulting liquid, and finally, when said liquid has cooled, adding to it a suitable organic reducing agent, substantially as and for the purpose described.

2. The process of preparing an electrolyte for use in the deposition of a metal, which consists in first making a suitable aqueous solution containing a salt of the metal to be deposited, then adding magnesium-boro-citrate to said solution, then heating the resulting liquid, and finally, when said liquid has cooled, adding to it a suitable organic reducing agent, substantially as and for the purpose described.

3. The process of preparing an electrolyte for use in the deposition of a metal, which consists in first making a suitable aqueous solution containing a salt of the metal to be deposited, then adding a suitable organic reducing agent to the solution, then heating the resulting liquid, and finally, when said liquid has cooled, adding to it a suitable quantity of gluco-citric acid, substantially as and for the purpose described.

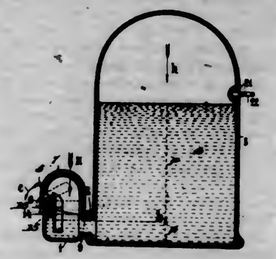
4. The process of preparing an electrolyte for use in the deposition of a metal, which consists in first making a suitable aqueous solution containing a salt of the metal to be deposited, then adding magnesium boro-citrate to said solution, then heating the resulting liquid, and finally, when said liquid has cooled, adding to it a suitable quantity of gluco-citric acid, substantially as and for the purpose described.

5. An electrolyte for use in the deposition of a metal, comprising a solution containing a salt of the metal to be deposited, said salt being dissociated to a maximum degree into ions by the treatment of a suitable aqueous solution containing said salt with a suitable organic reducing agent, then heating the resulting liquid, and finally, when said liquid has cooled, adding to it a suitable organic reducing agent, substantially as and for the purpose described.

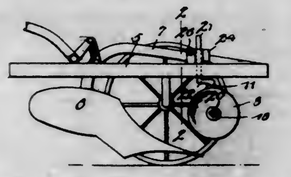
[Claim 6 not printed in the Gazette.]

1,073,433. LIQUID-DISPENSING APPARATUS. JEAN JACQUES CHARLES MEYER, Paris, France. Filed June 13, 1912. Serial No. 703,515. (Cl. 221—94.)

In a liquid dispensing apparatus, the combination of a closed supply receptacle and a discharging receptacle having their lower portions communicating, the discharging receptacle being provided with an opening at a point above the point of communication between the receptacles, whereby the liquid in said discharging receptacle is maintained by atmospheric pressure at a constant level, a portion of said opening constituting a bearing; a dispensing element arranged within said discharging element and provided with an operating member mounted in said bearing; and a cap removably fitted upon said discharging receptacle, said cap having an opening registering with the first-named opening and a recess co-operating with said bearing to hold said operating member in place therein.



1,073,434. PLOW ATTACHMENT. FRANK MUNTZ, Greenfield, Ill. Filed July 20, 1912. Serial No. 710,645. (Cl. 97—43.)

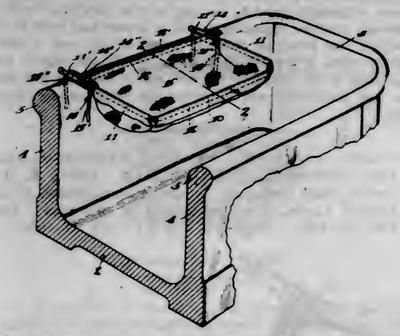


The herein described journal bearing embodying a sleeve adapted for attachment to a supporting standard, a cylindrical bearing consisting of two separable sections each provided with oppositely projecting ears, said sleeve being closed at one end and provided with a concave seating face for engagement upon the upper bearing section and having integrally formed ears projecting from opposite sides of said concave face to lie in superposed relation to the ears of the bearing, and bolts extending through the ears of the bearing and sleeve to detachably secure the sleeve to the bearing and to connect the bearing sections to each other.

1,073,435. BABY'S PORTABLE COLLAPSIBLE BATH-TUB. PAUL O. OWSLEY, Evanston, Ill., assignor to Heaton Manufacturing Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 6, 1912. Serial No. 713,645. (Cl. 4—27.)

1. In a portable collapsible baby's bath tub, a light, rigid, fabric supporting frame, comprising end portions and a side portion, the end members having end portions adapted to engage the side wall of a large bath tub in manner to support the frame within the tub, in combination with a water containing basin of collapsible material attached to the end and to the side portions of the frame, a free water discharging flap for said basin and means for supporting the water discharging flap in water-containing position.

2. In a portable collapsible baby's bath tub, a light rigid frame substantially U-shaped in form, means at the free ends of the frame adapted to engage the wall of a bath tub and to support the frame within the tub at right angles to the wall thereof, a substantially rectangular collapsible water receptacle three sides of which are secured to the frame, a separate member adapted for easy insertion into the other side of the fabric and adapted to support the same in water containing position by resting upon the end portions of the fabric supporting frame, said separable member being easily removable to release that side of the water receptacle and thereby to discharge the water.



3. In a baby's portable collapsible bath tub, the combination of a light rigid fabric supporting frame, means on said frame for supporting the same within a large standard bath tub from one side or wall thereof, a water containing basin or receptacle of collapsible fabric attached to said frame in manner to leave a free flap for discharge of water, and a separable member adapted for support on the fabric supporting frame and adapted to engage said free flap to hold the same in water retaining position and adapted easily to be released from said free flap to discharge the water, the fabric supporting frame and the fabric being removable from the large tub as an entity.

4. In a portable collapsible baby's bath tub, the combination of a U-shaped fabric supporting frame, a substantially rectangular fabric water basin having three sides attached to the U-shaped frame, a separable rod adapted to rest on the frame and to engage the other side of the fabric basin to support the same in water containing position and adapted for easy removal therefrom to discharge the water, hinge members on said fabric supporting frame adapted to engage the side wall of a standard bath tub in manner to support the portable tub within the large tub, substantially as described.

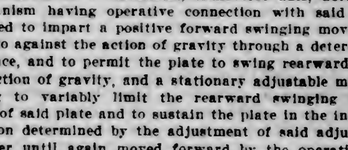
5. In a portable collapsible baby's bath tub, the combination of a fabric supporting frame comprising a side portion and end portions connected thereto, a U-shaped hinge attached to each of said end members and adapted to straddle the side wall of a large bath tub for supporting said frame at substantially tub height therewithin, a fabric water containing basin or receptacle substantially rectangular in form and co-extensive with the frame in length and less extensive in width, said receptacle being looped or hemmed upon the side and end members of the main frame and having a free flap portion adjacent the side wall of the large tub when the frame is in place thereupon, a rod adapted to enter the free flap and to support the same at substantially the frame height by resting upon the end members, said rod being easily removable to permit the free flap to lower against the side wall of the large tub to discharge the water.

[Claims 6 to 8 not printed in the Gazette.]

1,073,436. CORNEAL MICROSCOPE. CHARLES HENRY PIXLEY, Chicago, Ill., assignor to F. A. Hardy & Company, a Corporation of Illinois. Filed Aug. 19, 1912. Serial No. 715,708. (Cl. 88—20.)

1. A corneal microscope comprising a tube, an eye piece set in one end thereof, a separate objective casing rotatably mounted with relation to said tube, a projection extending laterally from said objective casing, a lamp casing carried by said projection and a condensing lens mounted in the forward end of said lamp casing.

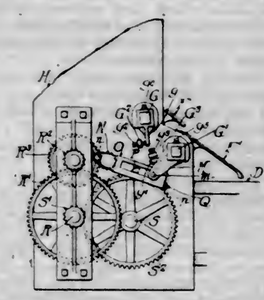
2. A corneal microscope comprising a tube, an eye piece set in one end thereof, a separate objective casing rotatably mounted with relation to said tube, a projection extending laterally from said objective casing, a lamp casing pivotally carried by said projection and a condensing lens mounted in the forward end of said lamp casing.



3. A microscope attachment comprising a separate objective casing having a cylindrical portion adapted to be rotatably mounted in a microscope tube, a projection extending laterally from said objective casing, a lamp casing carried by said projection and a condensing lens mounted in the forward end of said lamp casing.

4. A microscope attachment comprising a separate objective casing having a cylindrical portion adapted to be rotatably mounted in a microscope tube, a projection extending laterally from said objective casing, a lamp casing pivotally carried by said projection and a condensing lens mounted in the forward end of said lamp casing.

1,073,437. FURNACE. HERMAN A. POPPENHUSEN, Evanston, and JOSEPH HARRINGTON, Riverside, Ill. Filed Jan. 23, 1911. Serial No. 604,042. (Cl. 110—40.)



1. In a furnace, the combination of a traveling grate, and an inclined fuel support at the forward end of the grate, said fuel support embracing an inclined plate, and supporting means for said plate affording swinging movement thereof on a horizontal, transverse axis, actuating mechanism having operative connection with said plate adapted to impart a positive forward swinging movement thereto against the action of gravity through a determined distance, and to permit the plate to swing rearwardly, by the action of gravity, and a stationary adjustable member acting to variably limit the rearward swinging movement of said plate and to sustain the plate in the inclined position determined by the adjustment of said adjustable member until again moved forward by the operation of said actuating mechanism.

2. In a furnace, the combination of a traveling grate and an inclined fuel-supporting plate located at the forward end of the grate, means for pivotally supporting said plate affording a swinging movement thereof on a horizontal transverse axis, mechanism for imparting a swinging movement to said plate, including a rock-arm having operative connection with said plate, an endwise movable operating arm having sliding connection with said rock-arm, and a member mounted on said operating arm adapted to contact with said rock-arm in the forward movement of said operating arm, and fixed, adjustable means for limiting the rearward movement of said plate to adjust the inclination or angle thereof.

3. In a furnace, the combination of a traveling grate having a substantially horizontal fuel supporting surface

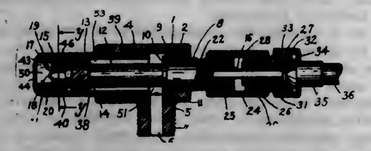
and an inclined, imperforate fuel supporting plate located at the forward end of the grate, and adapted to sustain a layer of fuel without aeration thereof during a preliminary coking operation and for the downward movement of said layer thereover by the action of gravity to the forward end of the grate, means for pivotally supporting said plate affording swinging movement of the same on a horizontal, transverse axis, actuating mechanism having operative connection with said plate for imparting a forward swinging movement thereto, including means affording lost motion in the rearward swinging movement thereof by the action of gravity thereon, an adjustable means included in said actuating mechanism for controlling the amount of forward movement of said plate, and a stationary, adjustable stop member adapted to limit the rearward movement of said plate for adjusting the inclination or angle thereof.

4. In a furnace, the combination of a traveling grate having a substantially horizontal fuel-supporting surface, and an inclined, imperforate fuel-supporting plate located at the forward end of the grate and adapted to sustain a layer of fuel without aeration thereof during a preliminary coking operation and for the downward movement of said layer thereover by the action of gravity, means for pivotally supporting said plate affording a swinging movement thereof on a horizontal transverse axis, mechanism for imparting a swinging movement to said plate, including a rock-arm having operative connection with said plate, an endwise movable operating arm or pitman having sliding connection with said rock-arm, and a member mounted on and having adjustable connection with said pitman adapted to contact with said rock-arm in the forward movement of said pitman, and fixed, adjustable means for limiting the rearward movement of said plate to adjust the inclination or angle thereof.

5. In a furnace, the combination of a traveling grate having a substantially horizontal fuel-supporting surface, an inclined fuel support at the forward end of the grate adapted to sustain a layer of fuel during a preliminary coking operation and for the downward movement of said layer thereover by the action of gravity to the forward end of the grate, said fuel-support embracing two imperforate, over-lapping fuel-supporting plates, rock-shafts, one for each plate, by which said plates are supported, each rock-shaft being provided with a rigid arm, fixed, adjustable stop members adapted for contact with said arms for limiting the rearward swinging movement of both of said plates to adjust the inclination or angle thereof, actuating mechanism having operative connection with the lowermost of said plates for imparting a positive forward swinging movement thereto, including means affording lost motion in the rearward movement of said lowermost plate, and means for adjusting the mean inclination of said lowermost plate for any amplitude of the vibration thereof.

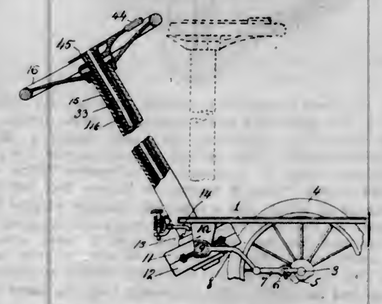
[Claims 6 to 9 not printed in the Gazette.]

1,073,438. SPRAYING-NOZZLE. JOHN W. POTTER, Cranston, R. I., assignor to Albert J. Dronsfield, Providence, R. I. Filed Feb. 19, 1913. Serial No. 749,560. (Cl. 137—80.)



In a spraying nozzle, the combination with a hollow body, of a sleeve rotatably mounted in the body and provided with an antiexpansion chamber in one end, a hollow arbor fixed in the body and extending concentrically to the sleeve and spaced from the sleeve, an annular enlargement upon the arbor engaging the sleeve and provided with inclined peripheral grooves, a liquid tube slidably mounted in the arbor and provided with a contracted end portion extending beyond the end of the arbor and concentric therewith, a nut upon the intermediate portion of the arbor, a bushing fixed to the liquid tube provided with an annular shoulder engaging a nut, a second nut fixed to the bushing and provided with a cavity in one end, a liquid supply pipe, a curved head upon the liquid supply pipe engaging in the cavity in the nut, and a coupling nut upon the last mentioned nut engaging the head of the supply pipe.

1,073,439. COMBINED VEHICLE STEERING-GEAR AND CONTROLLING MECHANISM. FRANK B. RAE, Detroit, Mich., assignor, by mesne assignments, to Rae Electric Company, a Corporation of Michigan. Filed June 18, 1907. Serial No. 379,594. (Cl. 21—90.)



1. In a vehicle steering gear, the combination with a steering wheel, of a reciprocating and rocking shaft connected thereto, an involute cam for operating said shaft, a rotary shaft carrying said cam and supported on said rocking reciprocating shaft whereby to permit angular adjustment of the rotary shaft, substantially as described.

2. In a vehicle, the combination with a hollow rotatable steering post, an involute cam operated by said post, a reciprocatory rock shaft reciprocated by said involute cam, and connections between said shaft and the wheels of the vehicle, of a controller, a shaft for operating said controller carried within said steering post, connections between said controller shaft and said controller, and means for adjusting the angular position of said steering post without affecting the operative relation of said reciprocatory rock shaft and said first named connections.

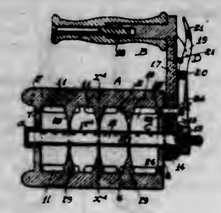
3. In a vehicle, the combination with a hollow steering post, and rotatable steering wheel connections mounted thereon, of a controller operating shaft rotatably mounted on said post, a controller, and gear connections between said controller and said shaft, means for angularly adjusting said steering post and parts mounted thereon, and means whereby the rotation of said steering post, the rotation of said controller shaft, and the angular adjustment of said steering post may be each effected without affecting the operative relation of the other.

4. In a vehicle, the combination with a hollow hand post, hand wheel, and means including a cam and reciprocatory shaft for connecting said hand wheel with the wheels of the vehicle, of a controller, a controller operating shaft within said post, and connections including a beveled gear between the said operating shaft and said controller, and means for mounting said cam, said reciprocatory shaft, and said beveled gear to permit said steering post to be angularly adjusted without affecting the operation of said controller or said connections with the vehicle wheel.

5. In a vehicle steering gear, the combination with a hand wheel, a cam operated by said wheel, a shaft reciprocated by said cam, of a casing for inclosing said cam and a portion of said shaft, and means including bearings for said shaft to permit said casing and said hand wheel to be adjusted in angular position.

[Claims 6 to 10 not printed in the Gazette.]

1,073,440. IRON. JAMES R. RICKETTS, Los Angeles, Cal. Filed May 4, 1912. Serial No. 695,184. (Cl. 158—23.1.)



1. A sad iron or the like, comprising a body having a plurality of working surfaces, means upon which the body is mounted to swing, a handle member mounted upon said last named means to swing relative to the body, the body being provided with locking openings and with an intermediate recess for the reception of means to swing the body, and means upon the handle member arranged to enter said openings and said recess respectively to lock the body relative to the handle member and to swing the body responsive to force applied in swinging the handle member.

2. A sad iron or the like, comprising a body having a plurality of working surfaces, means upon which the body is rotatably mounted, a handle member mounted to swing upon said last named means, the body being provided with locking openings and with alternately arranged oppositely tapering recesses formed to receive means for rotating the body and spaced ninety degrees apart with respect to rotation, and means upon the handle member respectively adapted to co-act with said locking openings and with said recesses to lock the body member in position resultant upon rotation and to rotate the body member responsive to force applied through the handle member.

1,073,441. COCOA DERIVATIVE AND THE PROCESS OF SEPARATING CONSTITUENTS OF THE CACAO-BEAN. ROBERT N. RIDDLE, Rahway, N. J., assignor of three-fourths to Herman A. Loeb, New York, N. Y. Filed Mar. 17, 1913. Serial No. 754,819. (Cl. 99—11.)

1. The process which comprises the treatment of a cacao bean product containing fat and alkaloids, with a solvent for said fat and alkaloids until substantially all of said fat and alkaloids have been extracted from said product and then driving off the solvent from said fat and alkaloids.

2. The process which comprises the combination of a cacao bean product containing fat and alkaloid, with a chlorinated hydrocarbon capable of extracting said fat and alkaloid, and driving off said chlorinated hydrocarbon from said fat and alkaloid.

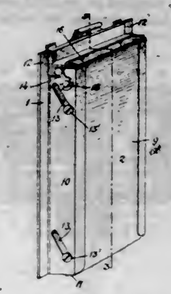
3. The process which comprises the combination of a cacao bean product containing fat and alkaloid, with chloroform so that said fat and alkaloid are dissolved and driving off said chloroform from said fat and alkaloid.

4. The process which comprises the production of a melted cacao mass, adding water thereto, molding and drying the product resulting from the combination of said water with said mass, extracting fat and alkaloids from said last named product by a solvent therefor, and driving off the solvent from the fat and alkaloids.

5. The process which comprises the combination with a roasted and ground cacao mass, of hot water, molding the product into suitable shapes for extracting, drying such shapes, and extracting the fat and alkaloids from said last named shapes by a solvent.

[Claims 6 to 12 not printed in the Gazette.]

1,073,442. FILM-PACK ADAPTER. FREDERICK SCHMID, New Rochelle, N. Y., assignor to C. P. Goers American Optical Co., New York, N. Y., a Corporation of New York. Filed Jan. 11, 1913. Serial No. 741,879. (Cl. 95—19.)



1. As an article of manufacture, a film pack adapter comprising a rectangular box of opaque material closed except at the front where there is an exposure opening and at one edge where there is an opening for film manipulating tabs, said box having two permanently connected but mutually separable sections and means for maintaining said sections parallel to one another as they are relatively moved.

2. A film pack adapter having an opening for film manipulating tabs and comprising a front section provided with an exposure opening, a rear section permanently attached thereto, means for separating and closing said sections as to one another while maintaining them parallel, and means for locking said sections together when closed.

3. As an article of manufacture, a film pack adapter comprising a rectangular box closed except at the front where there is an exposure opening and at one edge where there is an opening for film manipulating tabs, the front and back of said box having attached overlapping edge portions and being mutually separable but permanently connected, there being also means provided for maintaining said sections parallel to one another as they are relatively moved.

4. A film pack adapter comprising a front section provided with an exposure opening having bordering flanges, a rear section permanently attached to said front section, means for separating and closing said sections as to one another while maintaining them parallel and means for holding said sections together when closed said adapter being further provided with lateral and end flanges for engaging the body of the film pack and one of said flanges being narrower than the remaining flanges so as to accommodate the film manipulating tabs.

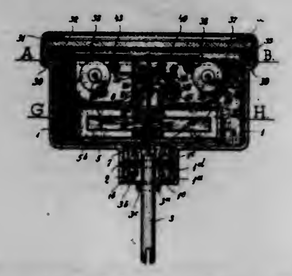
5. A film pack adapter comprising a front section provided with an exposure opening having bordering flanges, a rear section permanently attached to said front section, means for separating and closing said sections as to one another while maintaining them parallel said adapter being further provided with lateral and end flanges for engaging the body of the film pack and one of said flanges being narrower than the remaining flanges so as to accommodate the film manipulating tabs.

[Claim 6 not printed in the Gazette.]

1,073,443. SPEED-INDICATOR. WALTER SCHÜRMANN, Dusseldorf, Germany. Filed July 5, 1912. Serial No. 707,751. (Cl. 73—123.)

1. In a speed-indicator, the combination with a casing having a dial, of a driving shaft mounted to turn in said casing at right angles to said dial, a closed hollow drum fastened at the inner end of said driving shaft and provided with inner radial ribs, a small shaft coaxial with said driving shaft mounted to turn in said hollow drum and ex-

tending through said dial, an indicator on said small shaft, a fly fastened on said small shaft in said hollow drum and adapted to pass between the radial ribs of this drum, and a spiral spring connected at its inner end with said small shaft and at its outer end with said casing, said hollow drum being adapted to be filled with a medium and said spiral spring being adapted to counteract the friction of said fly in the medium,



2. In a speed-indicator, the combination with a casing having a dial, of a driving shaft mounted to turn in said casing at right angles to said dial, a hollow closed drum fastened at the inner end of said driving shaft and provided with an inner shaft coaxial with said driving shaft mounted to turn in said hollow drum relatively thereto and extending through said dial, an indicator on said small shaft, a fly fastened on said small shaft in said hollow drum and adapted to pass between the ribs of this drum, a spiral spring connected at its inner end with said small shaft and at its outer end with said casing and provided with several lugs on various places, and adjustable means for stopping the several lugs of said spiral spring one after the other on the speed to be measured increasing, whereby the active length of said spiral spring is successively shortened and consequently its tension is increased, said hollow drum being adapted to be filled with a medium and said spiral spring being adapted to counteract the friction of said fly in the medium.

3. In a speed-indicator of the class described, a fly consisting of a nave and several radial wings, the nave having radial slits for the wings and on one side an annular groove, and the wings being cut from sheet metal and flanged at the inner ends so as to compass the nave on both sides, while the flanges of the wings on one side are bent into the annular groove of the nave, whereby the wings are secured.

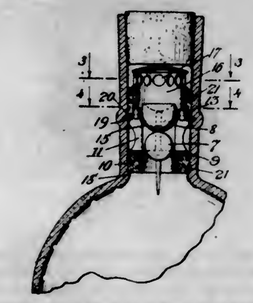
4. In a speed-indicator of the class described, the combination with a closed hollow cylindrical drum, of a single piece of sheet metal cut and bent to form an annular central disk with radial arms and U-shaped wings at right angles to the arms, the central disk with the radial arms being fastened on the inside of the bottom of the drum and the U-shaped wings forming radial ribs along the bottom, the side wall and the cover of the drum.

5. In a speed-indicator of the class described, the combination with a frame, of a shaft turnable in said frame, means tending to turn said shaft in one direction, a spiral spring connected at the inner end with said shaft and at the outer end with said frame, lugs on various places of said spiral spring, and arms on said frame engaging in the path of said lugs and adapted to be bent by hand for adjusting the places where said lugs are to be stopped one after the other on the force turning said shaft increasing.

[Claims 6 to 8 not printed in the Gazette.]

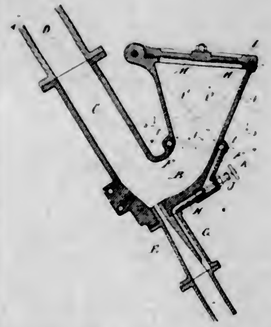
1,073,444. BOTTLE-STOPPER. FREDERICK L. SIEGEL, New York, N. Y. Filed Apr. 18, 1913. Serial No. 762,104. (Cl. 215—62.)

1. The combination with a bottle of a spherical valve controlling the outflow of the contents of the bottle, and a weighted valve controller pivoted to swing with respect to the bottle when the bottle is tilted and arranged to engage the spherical valve and hold it closed during a part of the tilting movement of the bottle, said controller having a recessed face which is presented to and receives the spherical surface of the valve when the bottle is tilted to the pouring position.



2. The combination with a bottle of a valve controlling the outflow of the contents of the bottle, and a weighted valve controller pivoted to swing with respect to the bottle when the bottle is tilted and arranged to engage the valve and hold it closed during a part of the tilting movement of the bottle, said controller having a recessed face which is presented to and receives the valve when the bottle is tilted to the pouring position.

1,073,445. ASH-EJECTOR. JOHN H. SNELLING, Newark, N. J. Filed Dec. 18, 1912. Serial No. 737,390. (Cl. 114—186.)



1. In an apparatus of the character set forth, a hopper of tapering form for the reception of material to be discharged, a discharge pipe therefrom, and a jet within said hopper adjacent the narrowest part thereof arranged to project a stream upwardly against the under surface of an arch or bridge formed by said material within said hopper.

2. In an apparatus of the character set forth, a hopper of tapering form for the reception of material to be discharged, a discharge pipe therefrom, and a plurality of jets within said hopper adjacent the narrowest part thereof arranged to project streams upwardly against the under surface of an arch or bridge formed by said material within said hopper.

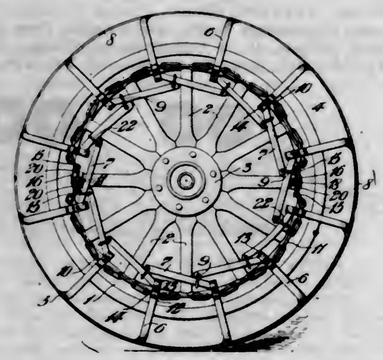
3. In an apparatus of the character set-forth, a hopper of tapering form for the reception of material to be discharged, a discharge pipe therefrom, and an inclined jet within said hopper adjacent the narrowest part thereof arranged to project a stream upwardly and angularly against the interior of said hopper on the side opposite to said jet and at an angle against the under surface of an arch or bridge formed by said material within said hopper.

4. In an apparatus of the character set forth, a hopper of tapering form for the reception of material to be discharged, a discharge pipe therefrom, and a plurality of jets within said hopper adjacent the narrowest part thereof, each arranged to project a stream upwardly and angularly against the interior of said hopper on the side opposite to its jet and at an angle against the under surface of an arch or bridge formed by said material within said hopper.

5. In an apparatus of the character set forth, a hopper of tapering form for the reception of material to be discharged, said hopper having a passage in its wall and an upwardly inclined jet-hole leading from said passage to the interior of said hopper, means for supplying fluid under pressure to said passage at the narrowest part of said hopper and jet-hole, and means for leading away the material to be discharged.

[Claims 6 to 9 not printed in the Gazette.]

1,073,446. ANTISKIDDING DEVICE FOR VEHICLE-WHEELS. WILLIAM H. SNYDER, Ashbourne, Pa., assignor of one-fourth to Louis C. Block, one-fourth to Forman Poole Hollinshead, and one-fourth to William Ross Walton, Elkins Park, Pa. Filed Oct. 28, 1912. Serial No. 728,172. (Cl. 152—14.)



1. In a device of the character stated, a series of grips having tread-portions and side-arms and lever-arms at an angle to such side-arms and adapted to encompass the tire and rim of a wheel, and links pivotally secured in said lever-arms and each engaging a lever-arm of the next adjoining grip at a point beyond the side-arms thereof in the direction of the first mentioned lever-arms.

2. In a device of the character stated, a series of grips having tread-portions and side-arms and lever-arms at an angle to such side-arms and adapted to encompass the tire and rim of a wheel, and movable connections between each lever-arm and the lever-arm of the next-adjoining grip at a point beyond the side-arms of the latter in the direction of said first mentioned lever-arms.

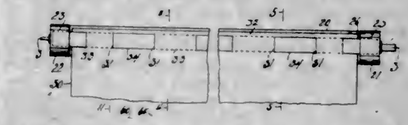
3. In a device of the character stated, a series of grips, each comprising a tread portion, side-arms and lever-arms at an angle to said side-arms, and each grip adapted to encompass the tire and rim of a wheel, chains secured to said grips at the angles of the side-arms and lever-arms, and links movably secured to the ends of said lever-arms and each having a lever-arm of the next adjoining grip inserted through it.

4. In a device of the character stated, a series of grips adapted to encompass the tire and rim of a wheel, chain-sections having a plurality of said grips secured to them, clips adapted to be secured upon spokes of a wheel and having flanges formed with holes at different distances from the spoke, and detachable fastening means upon the ends of such chain-sections and adapted to engage the holes in the flanges of said clips.

5. In a device of the character stated, a series of grips having tread portions and side-arms and lever-arms at an angle to such side-arms and adapted to encompass the tire and rim of a wheel, and links movably connected with said lever-arms and each movably connected with a lever-arm of the next adjacent grip, at a point beyond the side-arms thereof in the direction of said first mentioned lever-arms.

[Claims 6 to 10 not printed in the Gazette.]

1,073,447. TACKLESS WINDOW-SHADE. MARGUERITE L. SOBRA, New York, N. Y. Filed Oct. 17, 1912. Serial No. 726,362. (Cl. 156—25.)



1. In a device of the character described the combination of a roller, ferrules supported on the roller, a flexible sheet of material for the roller, a concavo-convex retaining strip engaged by said ferrules and connecting said sheet of material to said roller, and lips extending from the ferrules each covering one of the corners of the shade.

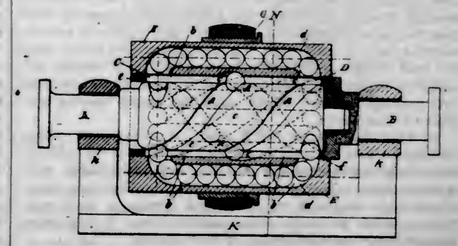
2. In a device of the character described the combination of a roller, ferrules at the ends of said roller, a flexible sheet of material having a plurality of slots for said roller, a retaining strip interlaced with said sheet of material by extending through the slots thereof and having its ends engaged by said ferrules.

3. In a device of the character described the combination of a roller, ferrules having bulged portions supported on the ends of said roller, a flexible sheet of material with one end bearing on said roller, a retaining strip interlaced with said sheet of material and its ends engaged between the inner walls of the bulged portions of said ferrules and the end portions of the roller.

4. In a device of the character described the combination of a roller, a flexible sheet of material for the roller, a concavo-convex retaining strip interlaced with said sheet of material, maintaining said sheet of material in place with said roller, and a reinforcing strip for said material.

5. In a device of the character described the combination of a roller, a flexible sheet of material for said roller, a concavo-convex retaining strip interlaced with said sheet of material to secure the latter to the roller and means to rigidly hold said strip in place with said roller.

1,073,448. REVERSING-GEARING. FEODOR PROTOPKEWITSCH SOPRUNOFF, Moscow, Russia. Filed Feb. 7, 1911. Serial No. 607,048. (Cl. 74—40.)



1. A device of the character described having two members mounted for turning movement, and a plurality of devices interposed between said members and having engagement therewith for communicating the movement of one member to the other, each of said devices being adapted to traverse the surfaces of the respective members at

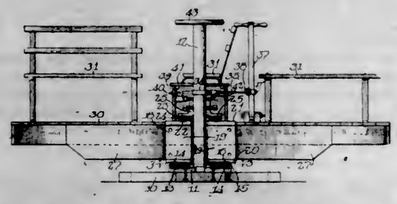
angles to each other, and means capable of operation to lock the devices against movement.

2. A device of the character described consisting of a cylindrical core having helical grooves, a hollow cylinder surrounding and inclosing said core, helical grooves being provided on the inside of said hollow cylinder and being adapted to act as ball races, balls rolling in said races and a sleeve capable of rotation surrounding said hollow cylinder, said sleeve having passage ways affording a communication with the space between said sleeve and the hollow cylinder and the said grooves in the core and hollow cylinder, and means capable of operation to close the ends of the sleeve.

3. A device of the character described consisting of a cylindrical core having helical grooves, a hollow cylinder surrounding and inclosing said core, helical grooves being provided on the inside of said hollow cylinder and being adapted to act as ball races, balls rolling in said races and a sleeve capable of rotation surrounding said hollow cylinder, said sleeve having passage ways affording a communication with the space between said sleeve and the hollow cylinder and the said grooves in the core and hollow cylinder and rings adapted to be pressed from the sides against the mouths of the sleeve and thereby close the latter.

4. A device of the character described consisting of a cylindrical core having helical grooves, a hollow cylinder surrounding and inclosing said core, helical grooves being provided on the inside of said hollow cylinder and being adapted to act as ball races, balls rolling in said races and a sleeve capable of rotation surrounding said hollow cylinder, said sleeve having passage ways affording a communication with the space between said sleeve and the hollow cylinder and the said grooves in the core and hollow cylinder, means capable of operation to close the ends of the sleeve and a brake mechanism capable of operation to engage the sleeve to arrest the rotation thereof.

1,073,449. MERRY-GO-ROUND. WILLIAM S. TOTHILL, Chicago, Ill. Original application filed Sept. 2, 1909, Serial No. 515,886. Divided and this application filed Feb. 12, 1912. Serial No. 677,007. (Cl. 46—27.)



1. The combination of a base, a post rising therefrom, and a frame comprising a plurality of radially-extending wooden beams, and means for holding said beams in fixed position relative to each other, there being a metal bearing surface on the said post against which the inner ends of said beams abut and about which said beams are adapted to revolve, said beams by themselves constituting the bearing for said frame upon the metal bearing surface on said post.

2. The combination of a base, a metal post rising therefrom, and a frame comprising a plurality of radially-extending wooden beams abutting at their inner ends against said metal post and adapted to revolve thereabout, and means for holding said beams in fixed position relative to each other, said holding means being spaced away from said post by said beams.

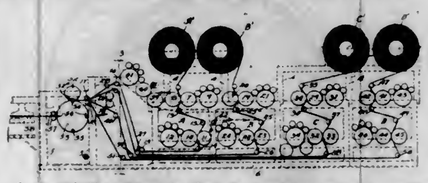
3. The combination of a base, a post rising therefrom, and a frame revolubly mounted on said post, said frame comprising a spider having a plurality of radially-extending sockets and a plurality of wooden beams secured at their inner ends in said sockets and serving to space said spider away from said post, said post being provided with a metal bearing surface against which said beams abut and about which they are adapted to revolve.

4. The combination of a base, a post rising therefrom, and a frame revolubly mounted on said post, said frame comprising a spider having a plurality of radially-extending sockets, and a plurality of wooden beams secured in said sockets with their inner ends extending slightly beyond the inner face of said spider, said beams serving to space said spider away from said post, said post being provided with a metal bearing surface against which said beams abut and about which they are adapted to revolve, said beams being comparatively thin compared with the circumference of the metal bearing surface on said post whereby each beam has a substantially square bearing on said post.

5. In a merry-go-round, the combination of a base, a platform revolubly mounted thereon, a clutch, means cooperating with said clutch for causing rotation of said platform relative to said base, said clutch normally permitting continuous rotation of said platform in only one direction, and means automatically actuated by the commencement of rotation in the reverse direction to throw said clutch out of operation whereby continuous rotation is permitted in such reverse direction.

[Claims 6 to 8 not printed in the Gazette.]

1,073,450. PRINTING-PRESS. JOSEPH J. WALSER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 10, 1912. Serial No. 676,702. (Cl. 101—124.)

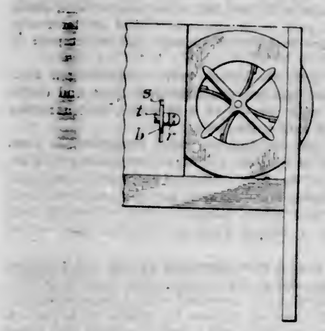


1. A printing press having, in combination, a plurality of printing mechanisms arranged one behind the other, each printing mechanism being composed of two pairs of printing couples arranged one pair above the other and adapted to print upon a web one page length in width, the form-cylinders being adapted to contain upon each semi-circumference a page form with the column rules running parallel with the axis of the cylinder, means for assembling the printed webs in registry, means for cutting said webs upon every other transverse margin, means for folding the severed sheets transversely along their central margins, means for slowing down one of said presses to run at one-half speed, cutting mechanism adapted to sever said slowed-down web upon every transverse margin, means for leading the slowed-down web to said cutting mechanism, means for associating said severed sheets in registry with the other webs, and an auxiliary printing couple between which one web may be led for printing in color in addition to the printing in black.

2. A printing press having, in combination, a plurality of printing mechanisms arranged one behind the other in the same vertical plane, each printing mechanism being composed of two pairs of printing couples arranged one pair above the other and adapted to print upon a web one page length in width, the form-cylinders being adapted to contain upon each semi-circumference a page form with the column rules running parallel with the axis of the cylinder, means for assembling the printed webs in registry, means for cutting said webs upon every other transverse margin, means for folding the severed sheets transversely along their central margins, means for slowing down one of said presses to run at one-half speed, cutting mechanism adapted to sever said slowed-down web upon every transverse margin, means for leading the slowed-down web to said cutting mechanism, means for bringing the severed sheets into registry with the other webs, and associating them therewith, and means adapted to lead one of said webs through two of said sets of printing couples for the purpose of printing a plurality of colors thereon.

3. A printing press having in combination a plurality of printing mechanisms arranged one behind the other in the same vertical plane, each printing mechanism being composed of two pairs of printing couples arranged one pair above the other and adapted to print upon a web one page length in width, the form-cylinders being adapted to contain upon each semi-circumference a page form with the column rules running parallel with the axis of the cylinder, cutting mechanism adapted to cut a web upon every transverse margin, a second cutting mechanism adapted to cut a web upon every alternate transverse margin, to either of which cutting mechanisms one of said webs may be directed, means for driving at either half-speed or full-speed the printing mechanism by which said last-named web is produced and for driving the other printing mechanisms at full speed, means for reversing the direction of driving of certain of said printing couples whereby a web may be led through two of said printing mechanisms for printing thereon in a plurality of colors, means for associating said severed sheets in registry, and means for folding said sheets together to make a complete paper.

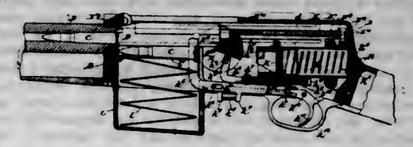
1,073,451. GRAIN-SEPARATING MACHINE. MORRIES WEAVER, Jonestown borough, Pa., assignor to John T. Buckwalter, Lancaster, Pa. Filed Jan. 20, 1911, Serial No. 603,683. Renewed Feb. 18, 1913. Serial No. 749,280. (Cl. 230—11.)



1. In a grain separator, the combination with a cylindrical blast fan having air-receiving openings at the lateral ends thereof and a transverse discharge opening extending from end to end of the fan formed in the inclosing casing thereof, of a blast regulating device comprising two plates movably pivoted to the central part of said casing adjacent said discharge opening and adapted to constrict the same, slots in the side walls of the separator through which said plates extend, and means whereby said plates may be adjusted, the one independently of the other from the outside of the separator, so that one side of said discharge opening may be restricted independently of the other.

2. In a grain separator, the combination with a cylindrical blast fan having air-receiving openings at the ends thereof and a transverse discharge opening in the cylindrical wall thereof, of a blast regulating device comprising two plates pivoted to the central portion of said wall adjacent said discharge opening and adapted to rotate independently of each other through a limited arc in a plane substantially parallel with the axis of said fan, and means for adjustably securing said plates at any point in said arc.

1,073,452. FIREARM. JOSEPH C. WHITE, Chelsea, Mass., assignor to White-Merrill Company, Boston, Mass., a Corporation of Massachusetts. Filed May 22, 1912. Serial No. 698,939. (Cl. 42—3.)



1. A firearm comprising a breech closer; a member to retard the opening of the breech closer and rotatable to strike the breech closer to aid in opening the latter, after the pressure of the gases in the barrel has fallen to the desired point.

2. A firearm comprising a breech closer; a member to retard the opening of the breech closer and rotatable to yieldingly strike the breech closer to aid in opening the latter, after the pressure of the gases in the barrel has fallen to the desired point.

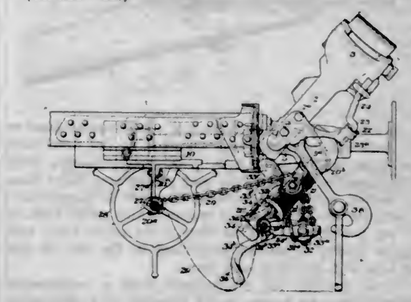
3. A firearm comprising a breech closer; an extractor operated by the breech closer but having provision for longitudinal movement with relation thereto; and a member to retard the opening of the breech closer and rotatable to strike the breech closer and thereby cause relative movement between the breech closer and extractor.

4. A firearm comprising a breech closer; a rotary member to retard the opening of the breech closer, the engagement between the breech closer and said member being near the center of rotation of the latter; and a hand-operated member movably mounted on the breech-closer and engaging said member farther from its center of rotation than the engagement first mentioned.

5. A firearm comprising an extractor having an offset backing for a primer; and a breech closer to operate the extractor and having provision for longitudinal movement with relation thereto.

[Claims 6 to 36 not printed in the Gazette.]

1,073,453. CAR-COUPLING MECHANISM. JOHN WILLISON, Derby, England, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 30, 1910. Serial No. 579,687. (Cl. 213—42.)



1. An automatic car coupler pivoted for movement into a position other than its coupling position, actuating mechanism to move the coupler in at least one direction, a lifting lever, and a member for supporting the coupler in non-coupling position and for locking it in coupling position, said actuating mechanism comprising a single chain associated with the lifting lever and with the locking and supporting member to control the movement of the coupler into two positions; substantially as described.

2. An automatic car coupler pivoted for movement into a position other than its coupling position, actuating

mechanism a portion of which is carried by the coupler to move it in at least one direction, and a member for supporting the coupler in non-coupling position and for locking it in coupling position, said actuating mechanism including a single chain associated with the other parts of the actuating mechanism and with the locking and supporting member to control the movement of the coupler head into its two positions; substantially as described.

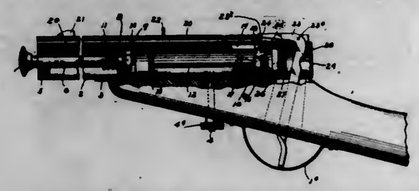
3. An automatic car coupler pivoted for movement into a position other than its coupling position, actuating mechanism including a single chain to move the coupler in at least one direction, and a member for supporting the coupler in non-coupling position and for locking it in coupling position, said chain having a coöperative relation with the locking and supporting member and with the other parts of said mechanism to first act upon the said member to release it and to then move the coupler out of its coupling position; substantially as described.

4. An automatic car coupler having a head pivoted for movement into a position other than its coupling position, actuating mechanism to move the coupler in at least one direction, a member connected to the actuating mechanism for locking the coupler in coupling position and supporting the coupler in non-coupling position, and a safety lock for the locking member arranged to lock said member when the coupler is in its non-coupling position, said actuating mechanism having a single chain associated with the safety lock for the locking member for releasing the safety lock and the locking member and to then control the movement of the coupler to its coupling position; substantially as described.

5. An automatic car coupler having a head pivoted for movement into and out of its coupling position, actuating mechanism including a chain to permit the coupler head to be moved from its non-coupling to its coupling position, and a supporting member for locking the coupler head in its non-coupling position, said chain coöperating with the supporting member and said mechanism to unlock the supporting member and to permit the coupler head to be lowered into its coupling position; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,073,454. AIR-GUN. ADOLPH WISSLER, St. Louis, Mo. Filed Aug. 14, 1911. Serial No. 644,274. (Cl. 124—8.)



1. In an air gun, a tube having a compression chamber at its rear end, a pellet tube attached to the first mentioned tube, which pellet tube is in communication with said compression chamber, the rear end of said pellet tube being slotted, a valve controlling the port of communication between the compression chamber and pellet tube, a valve pin projecting into the slot in the pellet tube, and a trigger having a portion positioned in the slot in the pellet tube and engaging said pin.

2. In an air gun, the combination with a compression chamber having an ingress valve opening, of a ball valve normally closing the ingress opening, a cup normally engaging said ball valve, a resilient tube leading into the compression chamber and carrying the cup, a headed projection on the underside of the cup, and a flat spring having one end detachably connected to said headed projection and the opposite bearing against the wall of the compression chamber.

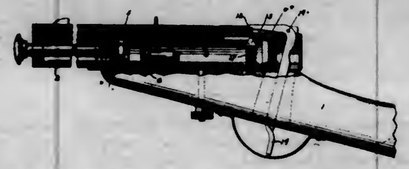
3. In an air gun, the combination of a compression chamber, a yielding tube leading thereinto and carrying a valve seat at its inner end, a valve coöperating with said seat, and a removable flat spring folded upon itself and arranged under said valve seat to force the same unwardly against said valve.

4. In an air gun, the combination of a compression chamber, a yielding valve seat arranged therein, a valve coöperating with said seat, and a flat spring coöperating with said valve seat; said spring having a key hole opening for engagement with the valve seat.

5. In an air gun, the combination of a compression chamber, a yielding valve seat arranged therein, a valve coöperating with said seat, a flat spring coöperating with said valve seat; said spring having a key hole opening for engagement with the valve seat, and a bent tongue extending into the larger portion of said key hole opening for assisting in the disengagement between said spring and said seat.

[Claims 6 to 12 not printed in the Gazette.]

1,073,455. AIR-GUN. ADOLPH WISSLER, St. Louis, Mo. Filed Aug. 14, 1911. Serial No. 644,275. (Cl. 124—8.)



1. In an air gun, the combination of a compression chamber, an ingress valve having a chamber or passage communicating with ports displaced with respect to each other, and a rubber wall over the outlet port of said chamber; said outlet port being opposite a solid wall for supporting the rubber teat forced through the outlet port by back pressure.

2. In an air gun, an ingress valve comprising a stem having an annular shallow chamber with inlet and outlet ports displaced with respect to each other, and a rubber tube surrounding said outlet ports.

3. In an air gun, an ingress valve comprising a stem whose periphery is reduced, a sleeve surrounding said reduced portion and forming a shallow chamber, inlet ports formed in the valve stem leading into said chamber and outlet ports in said sleeve displaced with respect to said inlet ports, and a rubber tube surrounding said outlet ports.

4. In an air gun, a stem threaded at one end provided with a transverse slot at its opposite end; said stem having a reduced portion and provided with a bore communicating with said reduced portion by means of a port, a thin metal sleeve covering said reduced portion and being provided with ports displaced with respect to the first mentioned port, and rubber tube surrounding said sleeve and covering the ports therein.

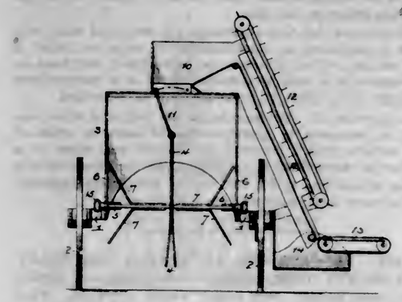
5. In an air gun of the class described, a valve having an ingress port, and an elastic sleeve on said valve, which sleeve normally closes said port.

[Claims 6 to 8 not printed in the Gazette.]

1,073,456. GRAIN-SHOCKER. ROBERT WOODS, Grand Forks, N. D. Filed May 28, 1912. Serial No. 700,193. (Cl. 56—121.)

1. In a shocker, the combination of a receptacle, a vertical partition dividing said receptacle into two compartments, trays mounted in said compartments and rotatable simultaneously about an axis perpendicular to said partition, and means for controlling the rotation of said trays.

2. In a shocker, the combination with a receptacle divided into two compartments by a vertical partition, of tilting trays mounted in said compartments, said trays being simultaneously movable about an axis perpendicular to said partition, tucker plates in front of said trays and movable toward and away from the same, and devices controlled by the movements of said trays for operating and controlling said tucker plates.



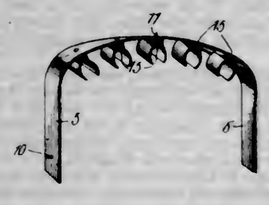
3. In a shocker, the combination with a receptacle and two simultaneously movable dumping trays rotatably mounted in said receptacle, of a partition separating said trays, said partition having flaring lower edges depending below the axes of the dumping trays to spread the parts of a divided shock discharged from said trays.

4. In a shocker, the combination with a receptacle and a vertical partition therein dividing said receptacle into two vertical compartments, of dumping trays in said compartments, and simultaneously movable about an axis perpendicular to said partition, a hopper over the receptacle, and a movable gate for directing bundles of grain from said hopper into one or the other of the compartments of the receptacle.

5. In a shocker, the combination with a receptacle and a vertical partition therein dividing said receptacle into two vertical compartments, said partition having a flaring lower edge, of dumping trays in said compartments and simultaneously movable about an axis perpendicular to the partition, a hopper over the receptacle and a hinged gate between said hopper and the upper edge of the partition for causing bundles of grain to be discharged into the compartments, one compartment at a time, whereby a divided shock is formed in said receptacle.

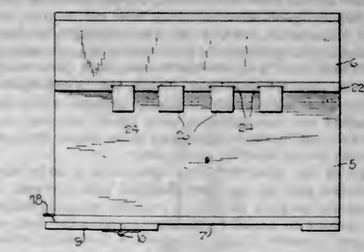
[Claims 6 and 7 not printed in the Gazette.]

1,073,457. CIGAR-HOLDER. JOHN J. ZARKER, Wiconisco, Pa. Filed May 29, 1908. Serial No. 435,782. (Cl. 131—51.)



A cigar holder for hats comprising a narrow strip of resilient material and substantially U-shape in form and of a length sufficient to extend from a point just below but closely adjacent the upper edge of a normal sweat band in a hat to a similar oppositely disposed point, spurs projecting from the outer side of the strip adjacent the ends thereof whereby said spurs may be constantly held in engagement with the material of the hat body by the resiliency of the strip, a medial spur projecting from the outside of the center of the strip and adapted to engage the center of the hat crown whereby lateral oscillation of the strip may be prevented, and clips attached to the strip on the inner side thereof.

1,073,458. BEEHIVE. HANS ANDERSON, Healdsburg, Cal. Filed Mar. 21, 1913. Serial No. 756,044. (Cl. 6—1.)



1. A bee hive comprising a body having an entrance opening in one of its walls, a block movable into and out of said opening and normally closing the same, said block being provided with an entrance slot through which the bees may enter to the interior of the hive, and a movable guard member mounted in the block to open and close said slot.

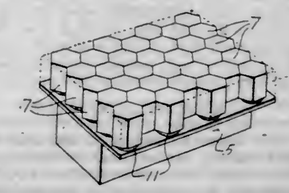
2. A bee hive comprising a body having an entrance opening in one of its walls, a block movable into and out of said opening and normally closing the same, said block being provided with an entrance slot through which the bees may enter to the interior of the hive, and a guard member slidably mounted upon said block and provided with a slot coinciding with the slot in the block, said guard member being adapted for movement to dispose the slot therein out of register with the slot in said block.

3. A bee hive comprising a body provided with an entrance opening in one of its walls, a door hingedly mounted upon said wall, a block secured to said door to fit within and close said entrance opening, a portion of said block being spaced from the door and provided with an entrance slot therein through which the bees may enter into the interior of the hive, and means movably mounted upon said block to open or close said slot.

4. A bee hive comprising a body provided with an entrance opening in its bottom wall, a spring held closure for said entrance opening, said closure having an entrance channel for the bees communicating with the interior of the hive, and means carried by said closure to close the entrance channel.

5. A bee hive comprising a body provided with an entrance opening in its bottom wall, a door hingedly mounted upon said bottom wall and extending entirely across the same, a block carried by said door normally disposed within the entrance opening and provided with a channel communicating with the interior of the hive, and means adjustably mounted in said block to open and close communication between the channel thereof and the interior of the hive.

1,073,459. HONEY-JAR. HANS ANDERSON, Geyserville, Cal. Filed Apr. 19, 1913. Serial No. 762,436. (Cl. 6—10.)



1. The combination with a bee hive having a storage compartment, of a plurality of receptacles within which the combs are built by the bees, said receptacles occupying substantially the entire space within said compart-

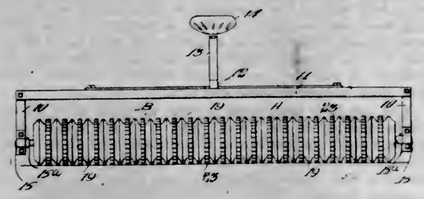
ment, each of said receptacles being provided with a reduced neck having an entrance recess, the body portions of the receptacles being closely engaged while the necks thereof are spaced from each other, substantially as and for the purpose specified.

2. The combination with a bee hive having a storage compartment, of a plurality of jars each having a reduced neck provided with an entrance recess, said jars being arranged in inverted positions within the compartment and having their body portions closely engaged while the necks thereof are spaced from each other, whereby the bees entering said compartment may gain access through said recesses to the interior of the jars.

3. A jar of the class described comprising a body having a reduced neck on one end provided with a recess, a closure cap for said jar having an annular flange provided with an opening to register with the recess in the neck of the jar and movable out of registration therewith when said cap is turned upon the jar neck to seal the same.

4. A jar of the class described comprising a body provided on one end with a reduced threaded neck having a recess, a closure cap therefor having a threaded peripheral flange for engagement with said neck, said flange having a rectangular opening therein to register with the recess in the jar neck when the closure cap is not tightly threaded thereon and movable out of registration with said recess when the cap is turned to its fully closed position, and a paraffin sheet secured to the under side of the body of the closure cap for engagement with the end edge of the jar neck, substantially as and for the purpose specified.

1,073,460. LAND-ROLLER. MADS ANDERSON, Hastings, Nebr. Filed Apr. 16, 1913. Serial No. 761,505. (Cl. 55—77.)



1. In a land roller, the combination of a frame, an axle carried thereby, a series of plain disks revolubly supported by said axle and provided with rims and a second series of disks interposed between said first mentioned disks each of said second mentioned disks being provided with lugs which loosely engage the adjacent inner surfaces of the rims of said first mentioned disks, each of said second mentioned disks being provided with peripheral teeth so that said first mentioned disks form ridges in the ground and the teeth of said second mentioned disks puncture said ridges.

2. In a land roller, the combination of an axle, a number of revoluble disks carried thereby and provided with annular rims and with surfaces for engaging the ground and a number of other disks each located between two of said first mentioned disks and provided with teeth for engaging the ground, said second mentioned disks each being further provided with bearing members loosely engaging the adjacent inner surfaces of said annular rims.

1,073,461. PROCESS FOR THE SEPARATION OF LEAD AND ZINC. JULES BASS, Honfleur, France. Filed Apr. 4, 1911. Serial No. 618,932. (Cl. 75—17.)

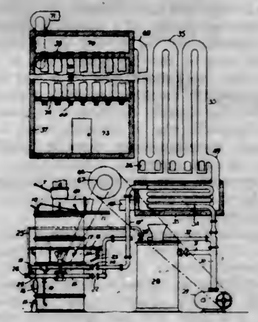
1. A process for the separation of lead and zinc contained in mixtures or combinations of salts or oxids of these metals, which consists in sulfureting the lead in the presence of a volatile reducing agent at a temperature below that at which the zinc is affected.

2. A process for the separation of lead and zinc contained in mixtures or combinations of salts or oxids of these metals, which consists in sulfureting the lead in advance of the zinc and eliminating the thus sulfureted lead with affecting the zinc.

3. A process for the separation of lead and zinc contained in mixtures or combinations of salts or oxids of these metals, which consists in sulfureting the lead in the presence of a volatile reducing agent at a temperature from 800° C. to 900° C., substantially as described.

4. A process for the separation of lead and zinc contained in mixtures or combinations of salts or oxids of these metals, which consists in heating the same to a temperature from 800° C. to 900° C. in the presence of a mixture of alkaline sulfid, and carbon powder impregnated with sulfuric acid, substantially as described.

1,073,462. PROCESS AND APPARATUS FOR TREATING SULFID ORES. ERNEST EDMUND BANES, Strathfield, near Sydney, New South Wales, Australia. Filed June 12, 1911. Serial No. 632,705. (Cl. 75—19.)



1. A process of manufacturing sublimed white lead, consisting essentially in projecting pulverized lead sulfid mixed with a subatantially oxygen-free, combustible hydrocarbon gas through a surrounding layer or stratum of oxygen-containing gas into a heated oxidizing atmosphere, and saparating the sublimate from the fume gases.

2. A process of manufacturing sublimed white lead, consisting essentially in spraying pulverized lead sulfid into the reducing core of a blowpipe flame which is directed into an oxidizing atmosphere in a furnace, maintaining a producer fire in the lower part of said furnace, injecting air blasts into the upper part thereof above the blow-pipe flame, and separating the sublimate from the fume gases.

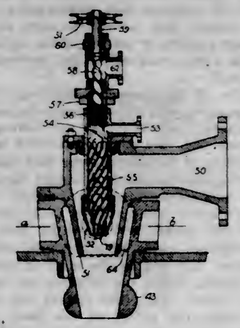
3. A process of manufacturing sublimed white lead, consisting essentially in volatilizing pulverized lead sulfid in a dispersed condition within the core of a blowpipe flame, sulfating the volatilized sulfid in a hot oxidizing atmosphere into which said flame is projected, and separating the sublimate from the fume gases.

4. A process of manufacturing sublimed white lead, consisting essentially in volatilizing pulverized lead sulfid within a blowpipe flame into the reducing core of which it is introduced in a cool condition, oxidizing the volatilized sulfid by means of a highly heated oxidizing atmosphere surrounding the blowpipe flame, and separating the sublimate from the fume gases.

5. A process of manufacturing sublimed white lead, consisting in introducing sprays of pulverized lead sulfid into the cores of impinging blowpipe flames directed into a furnace, maintaining a producer fire below said flames, introducing impinging blasts of hot air above the blowpipe flames, maintaining an oxidizing atmosphere and high temperature in the upper part of the furnace, drawing off the fume, and separating the sublimate therefrom.

[Claims 6 to 11 not printed in the Gazette.]

1,073,463. FEEDING-TWYER FOR ORE-TREATING FURNACES. ERNEST EDMUND BANES, Strathfield, near Sydney, New South Wales, Australia. Filed June 12, 1911. Serial No. 632,706. (Cl. 75—133.)



1. A metallurgical furnace fitting consisting of concentric nozzles with air and gas connections respectively, a hollow fitting concentric with said nozzles, a hollow liner within said fitting and forming with the interior of said fitting a plurality of spiral passageways, an auger screw conveyer within said liner and connections for feeding air and powdered mineral respectively to said spiral passageways and said auger screw.

2. In a metallurgical blowpipe, the combination with concentric air and gas nozzles, of a central nozzle fitted with a hollow liner spirally grooved externally and adjustable longitudinally in said central nozzle, an auger screw conveyer within said liner, and gas air and powdered mineral feed connections to said nozzles and auger screw conveyer respectively.

3. The combination of nozzles 43, 51, and 52, and feed connections thereto, externally spirally grooved liner 54 adjustable longitudinally in the nozzle 52, auger screw feeder 58 with tapered end contained within the liner 54, means for rotating said feeder, and a mineral feed neck 62 at the base of said feeder.

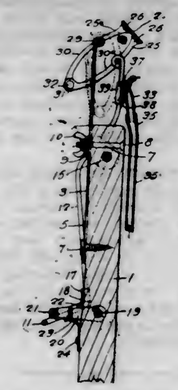
4. In a metallurgical blow pipe, the combination, with concentric air and gas nozzles, of a central axial hollow fitting having a frusto-conical tip, a hollow liner in said fitting and forming with said fitting a plurality of spiral passageways, an auger screw conveyer within said liner, connnections for conveying air to said spiral passageways and powdered mineral to said auger screw conveyer respectively, and means for adjusting the distance between said frusto-conical nozzle and liner whereby the air feed may be regulated, and the direction of its impact upon the mineral feed may be varied.

5. In a metallurgical blow pipe, the combination, with concentric air and gas nozzles, of a hollow liner concentric with all of said nozzles and projecting into the innermost of said nozzles, the end of said liner being spaced from the tip of said innermost nozzle so as to define a narrow annular discharge outlet, an auger screw conveyer within said liner, connections for feeding air and gas respectively to said first nozzles, connections for feeding powdered mineral to said conveyer, and means for delivering through said discharge outlet a whirling blast of air.

[Claim 6 not printed in the Gazette.]

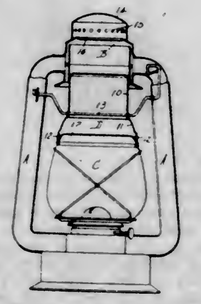
1,073,464. MOP-STICK. JOSEPH J. BEAM, Duluth, Minn., assignor of one-half to Bernard J. Toben, Duluth, Minn. Filed Apr. 3, 1913. Serial No. 758,572. (Cl. 15—56.)

1. A mop stick, comprising a mop holder and a stick, the holder comprising a pair of loops each having one of its side members provided with teeth intermeshing with the teeth of the other loop, an arm extending rearwardly and inwardly from the other side member of each loop, a pivotal connection between the arms, a plate mounted to slide on one end of the stick and engaging the other side member of one of the loops at its free end, means for securing the plate in adjusted position on the stick, a substantially U-shaped bracket comprising a body and arms, each of the said arms engaging the other side member of the other loop at its free end, a swinging connection between the arms of the bracket intermediate their ends and the stick, and means on the stick for preventing swinging movement of the said bracket.



2. A mop stick, comprising a map holder and a stick, the holder comprising a pair of loops, an arm extending rearwardly and inwardly from one side member of each loop, the other side members being adapted to engage the mop, a pivotal connection between the arms, a plate mounted to slide on the stick and connected at its outer end with the first-named side member of one loop, a bracket mounted to swing on the said end of the stick intermediate the ends of the bracket, the free end of the bracket engaging the other side member of the other loop, and means on the stick for preventing swinging movement of the bracket.

1,073,465. TUBULAR LANTERN. CHARLES L. BETTS, Brooklyn, N. Y., assignor to R. E. Dietz Company, New York, N. Y. Filed Sept. 7, 1912. Serial No. 719,183. (Cl. 240—29.)



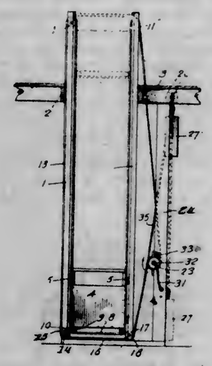
1. In a tubular lantern, the combination with an air chamber with which the upper ends of the tubes are connected, a globe, and a chimney arranged with its upper portion within said chamber and extending below the same to the globe, said chimney having an annular row of air inlets near its lower end, of a deflecting ring arranged within the lower portion of said chimney on the inner side of said inlets and having its upper edge arranged adjacent to the upper edges of said openings, substantially as set forth.

2. In a tubular lantern, the combination with an air chamber with which the upper ends of the tubes are connected, of a chimney arranged within said chamber having its upper end arranged adjacent to the mouths of the air tubes and its lower portion below said chamber provided with an annular row of air inlets, and a deflecting ring secured in said chimney at the lower end thereof and extending upwardly and inwardly approximately to the height of said inlets, substantially as set forth.

3. In a tubular lantern, the combination with an air chamber with which the upper ends of the tubes are connected, a globe, and a chimney arranged with its upper portion within said chamber and extending below the same to the globe, said chimney having an annular row of air inlets near its lower end, of an oblique deflecting ring arranged within the lower portion of said chimney on the inner side of said inlets and extending upwardly and inwardly over the upper end of the globe, substantially as set forth.

4. In a tubular lantern, the combination with an air chamber with which the upper ends of the tubes are connected, a globe, and a chimney arranged with its upper portion within said chamber and having a downwardly-flaring bottom portion which bears upon the globe and which is provided near its lower end with an annular row of air inlets, of an oblique deflecting ring arranged within said flaring lower portion of the chimney and extending upwardly and inwardly on the inner side of said inlets and terminating approximately at the level thereof, substantially as set forth.

1,073,466. DUMB-WAITER. JOSEPH M. BIRCHLER, San Jose, Cal., assignor to Samuel A. McNear, San Jose, Cal. Filed Nov. 20, 1912. Serial No. 732,512. (Cl. 187—3.)



1. In a device of the character specified, the combination with the dumb-waiter and the spaced guide bars of the shaft, of a vertically spaced pair of guides at each end of the waiter, said guides engaging the guide bars, a pulley journaled on the bottom of the waiter near each side thereof and adjacent to the guide bars, said guide bars being slotted at their tops and at their bottoms, a pulley journaled in each slot, a pair of uprights adjacent to the shaft, a weight having a pulley at its top and having means for engaging the uprights to guide the said weight vertically, a pulley near the tops of the uprights, a roller on the uprights, a cord or cable passing under the pulleys on the bottom of the waiter and upwardly along the inner sides of the adjacent guide bars and over the pulleys at the tops thereof, that end of the cord or cable adjacent to the roller passing down and winding on the roller and being secured thereto, the other end of the cord passing downwardly under the pulley at the lower end of the guide bar transversely of the shaft and under the pulley at the lower end of the opposite guide bar and upwardly and winding on the roller a plurality of turns, and thence passing upwardly over the pulley at the top of the uprights and downwardly beneath the pulley of the weight and thence upwardly and being attached to a fixed support at the top of the uprights, means for turning the roller, and means for preventing reverse movement thereof.

2. In a device of the character specified, the combination with the guide bars of the shaft and the waiter having means for engaging the bars, each bar having transverse openings at each end, and a pulley in each opening, pulleys on the bottom of the waiter near each side thereof, a pair of uprights near the shaft, a weight having a pulley at its top movable on the uprights, a roller journaled on the uprights, a cord or cable passing under the pulleys on the bottom of the waiter and upwardly along the inner sides of the adjacent guide bars and over the pulleys at the tops thereof, that end of the cord or cable adjacent to the roller passing downwardly under the pulley at the lower end of the guide bar transversely of the shaft and under the pulley at the lower end of the opposite guide bar and upwardly and winding on the roller a plurality of turns, and thence passing upwardly over the pulley at the top of the uprights and downwardly beneath the pulley of the weight and thence upwardly and being attached to a fixed support at the top of the uprights, means for turning the roller, and means for preventing reverse movement thereof.

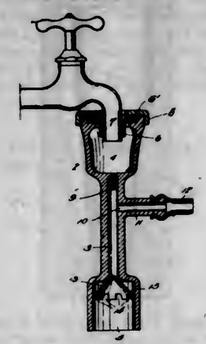
3. In a device of the character specified, the combination with the guide bars of the shaft and the waiter having means for engaging the bars, each bar having transverse openings at its ends, and a pulley in each opening, pulleys on the bottom of the waiter near each side thereof, a pair of uprights near the shaft, a weight having a pulley at its top movable on the uprights, a roller journaled on the uprights, a cord or cable passing under the pulleys on the bottom of the waiter, and upwardly over the pulleys at the tops of the guide bars, that end of the cord or cable adjacent to the roller passing downwardly and being secured to the roller to wind thereon when the roller is turned, the other end of the cord passing downwardly under the pulley at the lower end of the guied bar and under the pulley at the lower end of the opposite guide bar and upwardly and winding on the roller a plurality of turns in the same direction as the first-named end of the cord or cable, said last-named end of the cord or cable passing upwardly from the roller over the pulley at the top of the uprights and beneath the pulley of the weight to a fixed support.

4. In a device of the character specified, the combination with the shaft and the waiter, of pulleys at the top and the bottom of the shaft and at each side thereof, a pulley on the bottom of the waiter at each side thereof, a cord or cable engaging the pulleys on the bottom of the waiter, the end portions of the cord passing upwardly over the adjacent pulleys at the top of the shaft, the one end of the cord or cable passing downwardly beneath the pulleys at the bottom of the shaft, a roller supported adjacent to the shaft upon which the end portions of the cord wind in the same direction, one end portion of the cord passing over the pulleys at the bottom extending beyond the roller, and a weight movable thereon for counterbalancing the waiter.

5. The combination with the dumb-waiter and the shaft, a roller journaled adjacent to the shaft, a weight, a rope or cable having its end portions winding on the roller and its intermediate portion beneath the waiter, pulleys at the top and bottom of the shaft over which the rope or cable passes, one end portion of the rope being free from the roller and passing over a pulley above the roller to a fixed support, the weight being connected with the said end portion of the rope or cable between the fixed end portion and the pulley.

[Claim 6 not printed in the Gazette.]

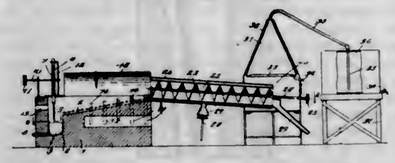
1,073,467. VACUUM-PRODUCING DEVICE. WILLIAM BIERELL and JAMES BIERELL, Seattle, Wash., assignors to Frank J. Kolman, trustee, Seattle, Wash. Filed Mar. 18, 1912. Serial No. 684,595. (Cl. 230—13.)



1. An aspirator comprising a conduit provided with a flaring mouth, a walled chamber of greater diameter than the conduit located therebelow and provided with a top substantially at right angles to its axis, a sharp pointed conical deflector serrated at its lower edge and frictionally engaging the side walls of the walled chamber to prevent displacement thereof and provide a restricted water passage and having its apex disposed within the flaring mouth.

2. An aspirator comprising a casing having a reduced medial portion provided with a lateral opening and enlarged cup-shaped ends, a sharp pointed conical deflector serrated at its lower edge adapted to be mounted in the lower end of the casing and held therein by frictional contact and having its apex extending into the lower end of the reduced medial portion.

1,073,468. FURNACE FOR SMELTING AND REFINING ORES. WILLIE MARTIN BOWLES and CHARLEY OSKER ALLEN, Shawnee, Okla. Filed July 12, 1911. Serial No. 638,475. (Cl. 204—64.)



In a device for smelting ores, a furnace, means for producing a series of arcs, means for introducing ore above said arcs, a tube leading from said furnace for condensing the metallic vapors, a screw conveyer for scraping the walls thereof and for forcing the condensed product out of said tube, an air jacket surrounding said screw conveyer, an opening into said air jacket beneath said tube, and a burner disposed at the mouth of said opening for heating the air in the air jacket.

1,073,469. WIRE-LINE-ROPE SOCKET. JOSEPH BURNS, Okmulgee, Okla. Filed Feb. 7, 1913. Serial No. 746,812. (Cl. 255—26.)

1. The combination of a well-tool rope socket formed with a laterally open swivel-head cavity and having a top opening to pass a drilling cable, a swivel head for the extremity of the cable within said cavity and of a size to pass inwardly and outwardly through the laterally open portion thereof, and means for confining the swivel head within said cavity.

2. The combination of a rope socket body adapted at its lower end to connect with well tools and at its upper extremity formed with a downwardly extending cable passage, the body formed with a cavity beneath and larger than the cable passage and open to the latter, the cavity being open through one side of the body with the upper end of the cavity spaced downwardly, a head movable vertically in the cavity, the head being smaller than the side opening and adapted to pass therethrough into and out of the cavity, the head adapted to be secured to a cable entered through the said cable passage, and means for preventing the head from lowering sufficiently within the cavity to pass through the side opening.



3. The combination of a rope socket body adapted at its lower end to connect with well tools and at its upper extremity formed with a downwardly extending cable passage, the body formed with a cavity beneath and larger than the cable passage and open to the latter, the cavity being open through one side of the body with the upper end of the side opening spaced downwardly from the upper end of the cavity, a head movable vertically in the cavity, the head being smaller than the side opening and adapted to pass therethrough into and out of the cavity, the head adapted to be secured to a cable entered through the said cable passage, and a device removably traversing the body cavity in a plane between the upper and lower ends of the side opening and constituting a bottom abutment for the head and preventing the latter from lowering sufficiently to pass outwardly through the side opening.

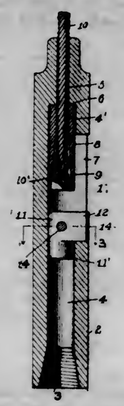
4. The combination of a rope socket body adapted at its lower end to connect with well tools and at its upper end formed with a downwardly extending cable passage, the body formed with a cylindrical cavity beneath and larger than the cable passage and open thereto with the upper portion of the cavity closed laterally and with a side opening beneath the laterally closed portion, a circular head smaller than the side opening and adapted to pass therethrough into and out of the body cavity, the head fitting and revoluble in the body cavity including the laterally closed upper portion thereof with the head secured to the extremity of a cable extended into the body through the cable passage, and removable means within the body cavity for preventing the head from lowering sufficiently to pass outwardly through the side opening.

1,073,470. WIRE-LINE-ROPE SOCKET. JOSEPH BURNS, Okmulgee, Okla. Filed Apr. 8, 1913. Serial No. 759,754. (Cl. 255—26.)

1. The combination of a rope socket adapted at its lower end to connect with well tools and at its upper end formed with a cable inlet passage, the body formed with a cavity beneath said passage with said cavity open laterally, a head within the cavity and smaller than the lateral opening and adapted to pass therethrough and be secured to a cable entered through the cable passage, and means secured within the lateral opening for obstructing outward movement of the head.

2. The combination of a rope socket body adapted at

its lower end to connect with well tools and at its upper end formed with a cavity open laterally, a head within the cavity and smaller than the lateral opening and adapted to pass therethrough, the upper portion of the body formed with a cable passage with the head adapted to be secured to a cable entered through the passage, and a device removably entered in the body cavity and extending into and partially closing the lateral opening, said device limiting the downward movement of the head and preventing outward movement thereof through the lateral opening.



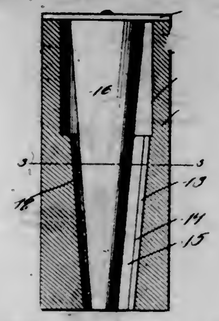
3. The combination of a rope socket body adapted at its lower end to connect with well tools, the body formed with a laterally open swivel-head cavity and also open to admit a drilling cable, a swivel head within the cavity and secured to the cable extremity, the head being smaller than the lateral opening of the cavity and adapted to pass inwardly and outwardly therethrough, an abutment device smaller than the lateral opening and adapted to pass inwardly and outwardly therethrough, said device having a plug-like portion fitting the body cavity beneath the laterally open portion thereof, the abutment device having a side extension lying within and obstructing the lateral opening, the abutment device preventing removal of the swivel head, and means for removably securing the abutment device in position.

4. The combination of a rope socket body adapted at its lower end to connect with well tools and at its upper end formed with a cavity open laterally through a face of the body, a head adapted to be entered in the cavity through the lateral opening, the upper portion of the body formed with a cable passage with the head adapted to be secured to a cable entered through the passage, an abutment-forming device within the body cavity and adapted to be engaged by the head when in lowered position, and a normally projected spring-actuated pin carried by the abutment with a wall of the body cavity formed with an opening adapted to receive the pin.

5. The combination of a rope socket adapted at its lower end to connect with well tools and at its upper end formed with a cavity open laterally through a face of the body, a head adapted to be entered in the cavity through the lateral opening, the upper portion of the body formed with a cable passage with the head adapted to be secured to a cable entered through the passage, an abutment-forming device within the body cavity and adapted to be engaged by the head when in lowered position, and a normally projected spring-actuated pin carried by the abutment-forming head, the body formed with a pin passage extending to its outer face which is adapted to receive the spring-projected pin and also adapted to form a passage for a pin-retracting device when the head is to be released.

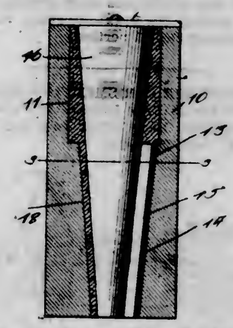
[Claim 6 not printed in the Gazette.]

1,073,471. MOLD FOR FENCE-POSTS. SPENCER L. CLARK, Hale, Mich. Filed Feb. 21, 1913. Serial No. 749,997. (Cl. 25—127.)



A mold for fence posts comprising a casing having a cylindrical bore in the upper portion and a tapering bore in the lower portion, one wall of said tapering bore being provided with a longitudinal dove-tailed slot, a removable dove-tailed strip seated within the groove and having an outwardly projecting longitudinal rib formed thereon, said rib projecting into the tapered cavity, and a conical member seated within the mold casing to form a cavity the entire length of the post, the rib of said strip forming an elongated opening vertically in the tapered portion of the post.

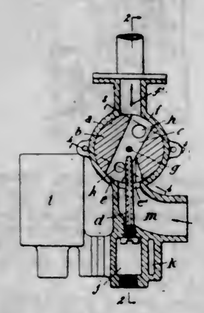
1,073,472. PROCESS OF MOLDING FENCE-POSTS. SPENCER L. CLARK, Hale, Mich. Filed Feb. 21, 1913. Serial No. 749,998. (Cl. 25—155.)



The process of forming an artificial stone post consisting of providing a mold casing, placing a conical filler member therein, placing a longitudinally ribbed member in the mold, filling the mold with plastic material, withdrawing the conical member, then filling the cavity within the molded article with sawdust and tamping the same.

1,073,473. CARBURETER. CHARLES HENRI CLAUDEL, Paris, France. Filed Apr. 20, 1907. Serial No. 369,379. (Cl. 48—155.2.)

1. The combination with a carbureter comprising a carbureting chamber having an air inlet port and an opposite mixture outlet port, and a fuel inlet or jet with its fuel exit situated inside of such carbureting chamber between the said inlet and outlet ports, to deliver fuel at a point within such chamber into the body of the fluid stream that rushes directly from said inlet port to said outlet port and at a rate depending upon the degree of vacuum created in such chamber by the pumping action of the engine; of a slide having an air inlet opening and a mixture outlet opening corresponding, respectively, to said air inlet port and to said mixture outlet port and adapted to act as a combined air and mixture slide for simultaneously closing both of said ports; said valve openings being so shaped that the ratio of corresponding air port inlet and mixture outlet decrements shall be smaller than unity in the first closing stages and then larger than unity in the later closing stages, but still sufficiently restrained to preserve a certain uncovered opening in the air inlet port when the mixture outlet port has moved to full closure.



2. The combination with a carbureter comprising a carbureting chamber having an air inlet port and an opposite mixture outlet port, and a fuel inlet or jet with its fuel exit situated inside of such carbureting chamber between the said inlet and outlet ports, to deliver fuel at a point within such chamber into the body of the fluid stream that rushes directly from said inlet port to said outlet port and at a rate depending upon the degree of vacuum created in such chamber by the pumping action of the engine; of a slide having an air inlet opening and a mixture outlet opening corresponding, respectively, to said air inlet port and to said mixture outlet port and adapted to act as a combined air and mixture slide for simultaneously closing both of said ports; said air slide opening having marginal vacant surface elements which are covered by an edge of the air port wall when the said slide is in extreme open or closed position and which are uncovered while the slide is being moved from one extreme position to the other.

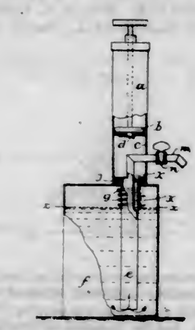
3. In a carbureter for internal combustion engines using liquid fuel, the combination of a shell or casing; a valve mounted therein, said valve being provided with an opening extending therethrough communicating at its opposite ends with a port extending to the motor and with a port opening to the atmosphere; a jet for the fuel to be vaporized extending into the opening formed in the valve; and a baffle carried by said valve, the baffle being located eccentrically to the axis of the valve whereby as the valve is rotated to open the port which communicates with the motor the baffle will be moved away from the mouth of the injector.

4. The combination with a carbureter comprising a casing having an inside chamber formed as a body of revolution with an air inlet port and an opposite mixture outlet port formed through such casing, and a jet for conveying liquid fuel to a point within such chamber at a rate dependent upon the degree of vacuum created in such chamber by the pumping action of an engine; of a plug adapted to fit and turn in such chamber and also having an internal chamber with inlet and outlet openings adapted to register with the inlet and outlet ports of the said surrounding casing; the outlet opening in said plug and the two ports in said casing being similar in outline, and the inlet opening in said plug being of different outline adapted to close the air port at a lower rate in its initial closing movements and a higher rate in its final closing movements than it would if made of the same outline as the other slide opening and ports, said final closing movements falling short of full closure of the air port when the said mixture outlet is practically closed to form a finite air inlet corresponding to a practically infinitely small mixture outlet.

5. The combination with a carbureter comprising a casing having an inside chamber formed as a body of revolution with an air inlet port and an opposite mixture outlet port formed through such casing, and a jet for conveying liquid fuel to a point within such chamber at a rate dependent upon the degree of vacuum created in such chamber by the pumping action of an engine; of a plug adapted to fit and turn in such chamber and also having an internal chamber with inlet and outlet openings adapted to register with the inlet and outlet ports of the said surrounding casing; the outlet opening in said plug and the two ports in said casing being similar in outline, and the inlet opening in said plug being of different outline adapted to close the air port at a lower rate in its initial closing movements and a higher rate in its final closing movements than it would if made of the same outline as the other slide opening and ports, said final closing movements falling short of full closure of the air port when the said mixture outlet is practically closed to form a finite air inlet correspodning to a practically infinitely small mixture outlet, such finite area being adapted to reserve a radial air port area or channel for the passage of the fuel jet.

[Claims 6 and 7 not printed in the Gazette.]

1,073,474. PNEUMATIC-OPERATED PUMP FOR LIQUIDS. HERBERT WILLIAM COPLESTONE, Bunbury, Western Australia, Australia, assignor of one-half to William Laundon Marsh, Bunbury, Australia. Filed Oct. 5, 1912. Serial No. 724,184. (Cl. 103—8.)



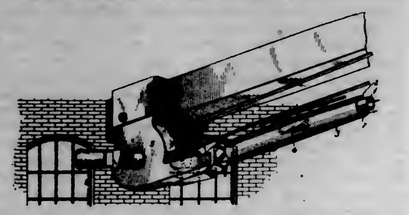
1. An appliance of the character described comprising, in combination, a sealed, liquid container; an air pump mounted on said container and having a by-pass connection therewith, for forcing air into the interior of the container above the level of the liquid therein; and an outlet pipe for the liquid connected to the bottom of said pump and extending into said container, said pipe having a discharge spout.

2. An appliance of the character described comprising, in combination, a sealed liquid container; an air pump embodying an air chamber mounted upon said container and having a by-pass connection with the interior of the same above the lever of the liquid therein, a pump chamber in communication with said air chamber, and a piston disposed within the pump chamber for forcing air therefrom into the air chamber; and an outlet pipe for the liquid extending into said container provided with a discharge spout.

1,073,475. AIR-CONDITIONING APPARATUS. STUART W. CRAMER, Charlotte, N. C. Original application filed Apr. 15, 1909, Serial No. 490,079. Divided and this application filed Jan. 11, 1910. Serial No. 537,568. (Cl. 98—48.)

1. In an air conditioning apparatus, an air chamber, a fan for producing a current of air through the air cham-

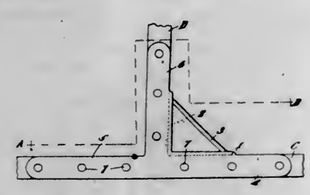
ber, a spray chamber within said air chamber, spray heads for moistening, cooling and inducing a secondary current of air through said spray chamber, and means for controlling the supply of air from said fans.



2. In an air conditioning apparatus, a spray chamber, spray heads within said spray chamber, and arranged for inducing a current of air through said spray chamber, an air cooling chamber surrounding said spray chamber, a fan for producing a current of air through the cooling chamber but closed from the spray chamber, and means for controlling the supply of air from said fan.

3. In an air conditioning apparatus, a spray chamber, spray heads within said spray chamber, a concentrically arranged air cooling chamber, a fan connected to the spray chamber, a fan connected to the air cooling chamber, and a damper to differentially control the supply of air from each chamber.

1,073,476. SHAFT-BRACE. WILLIE L. DAUGHTRY, Mulberry, Fla. Filed May 19, 1911. Serial No. 628,244. (Cl. 21—36.)



As an article of manufacture, a brace for shafts, said brace including angularly disposed integral webs, a diagonal brace integral with and connecting the free end portions of the web, flanges integral with and extending longitudinally along the upper and lower edge portions of one of the webs, rearwardly extending flanges upon the upper and lower flanges of the other web and integral with the first named flanges, and rearwardly projecting extensions integral with the first named flanges, said extensions and the upper and lower flanges being spaced apart to slide onto a thill, and said rearwardly extending flanges being spaced apart to slide onto a cross bar, said flanges and extensions having fastener receiving openings.

1,073,477. LAMP-SOCKET. FREDERICK DIETZ, New York, N. Y., assignor to R. E. Dietz Company, New York, N. Y. Filed Feb. 1, 1911. Serial No. 606,013. (Cl. 248—20.)

1. A flexible attaching socket for lamps, lanterns and other articles comprising a rounded front portion and a flat rear portion which have communicating cavities, the rounded front portion adapted to fit a round prop and the flat rear portion adapted to fit a flat prop, said socket having flat front walls which extend outwardly from the rear edges of the rounded front portion, side walls which extend rearwardly from the outer ends of said flat front walls, and separated attaching flanges which extend from the rear ends of said side walls parallel with said flat front walls, substantially as set forth.

2. An attaching socket for lamps, lanterns and other articles comprising a rounded portion and a flat portion which have communicating cavities and having its rear wall composed of separated plates which extend from the side edges of the flat portion inwardly, substantially as set forth.



3. An attaching socket for lamps, lanterns and other articles comprising a rounded portion and a flat portion which have communicating cavities and having its rear wall composed of separated plates which extend from the side edges of the flat portion inwardly, said plates being provided at their upper and lower ends with attaching lips, substantially as set forth.

4. The combination with a prop having a horizontal attaching arm at its lower end, of an attaching socket comprising a rounded front portion and a flat rear portion, said rounded portion being provided at its lower end with side portions which extend downwardly on opposite sides of the attaching arm, substantially as set forth.

5. The combination with a prop having at its lower end a horizontal attaching arm and a lug near its base above said arm, of an attaching socket provided at its lower end with side portions which extend downwardly on opposite sides of the attaching arm and between said side portions with a recess which extends upwardly into said rounded portion and into which said lug engages, substantially as set forth.

1,073,478. BABY-PROTECTOR. JACOB EVERETTE DODD, Yoakum, Tex. Filed Sept. 13, 1912. Serial No. 720,224. (Cl. 128—3.)



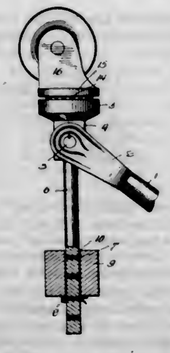
A baby protector, comprising a pair of inflexible sleeves adapted to cover the elbows and prevent excessive bending of the same, eyes at the upper extremities of said sleeves formed by rolling over portions of the top edges of the sleeves, open center links, one bar of each of which is journaled to turn in one of said sleeves, an adjustable back strap terminally looped around the opposite bars of said links and connecting said sleeves together, an eye fastened to the central part of the back strap, and a retaining device passing through said eye and adapted to suspend the back strap at a single point centrally of the back of the neck.

1,073,479. GARMENT. CLAIRE N. DUNBAR and JOSIAH W. BATCHELLER, Jr., Kansas City, Mo. Filed Aug. 9, 1912. Serial No. 714,208. (Cl. 2—61.)



A garment of the class described comprising, a body having a lower portion foldable inwardly, said portion having a plurality of fastening means disposed in vertical series lying near the edges and midway of said edges, and said body having a plurality of fastening means inwardly disposed in their vertical series intermediate top and bottom of said body and near the edges and midway of said edges, each series of said fastening means in said portion being substantially in alinement with the series of fastening means in said body, and each of said fastening means in the series of said lower portion is adapted to operate with any of the fastening means of an alining series of the body, thereby the pockets formed by said lower portion and said body may be of different depth.

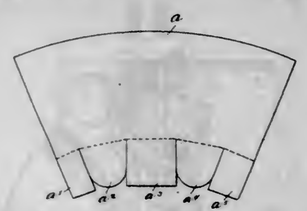
1,073,480. TROLLEY. JOSEPH R. EISAMAN, Latrobe, Pa. Filed Oct. 14, 1911. Serial No. 654,672. (Cl. 64—70.)



1. A trolley comprising the combination with a pole having a bifurcated upper end, of a counter-balanced support pivotally mounted in said bifurcated end and projecting from above, bearings mounted in and extending above said support, and a trolley wheel carrying harp mounted upon said bearings and connected to said support.

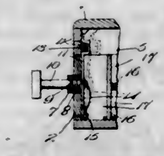
2. A trolley comprising the combination with a pole having a bifurcated upper end, of a support including a reduced lower portion and an enlarged grooved upper portion, means extending through the reduced lower portion for pivotally connecting the support in the bifurcated upper end of said pole, anti-frictioned rollers mounted in the grooved upper portion and adapted to support a harp base, and an adjustable counter-balanced member depending from the reduced portion of said support.

1,073,481. DRINKING-CUP. STERLING ELLIOTT, Newton, Mass. Filed Oct. 24, 1910. Serial No. 588,644. (Cl. 229—1.)



The drinking-cup herein described having a circular top and a square bottom, its bottom-closure consisting of three one-piece tabs and one two-piece tab, said cup, together with the tabs forming its bottom-closure being composed of a single sheet of paper comprising a body-portion having a plurality of slits at its lower edge to form a row of tabs which tabs are adapted to be turned in and overlapped to form the bottom closure, each intermediate tab of the row being made as wide as and forming one side of the bottom of the cup and each end tab being made narrower than the intermediate tabs and having its outer side edge in continuation of the side edge of the body-portion, said narrow tabs overlapping one another and being adhesively secured together when the side edges of the sheet are overlapped and adhesively secured, thus forming a single two-piece tab at the lower end of the side seam which is as wide as and forms one side of the bottom of the cup.

1,073,482. COVER-FASTENER. BENJAMIN F. FORD, U. S. Army. Filed Feb. 12, 1912. Serial No. 676,936. (Cl. 70—82.)

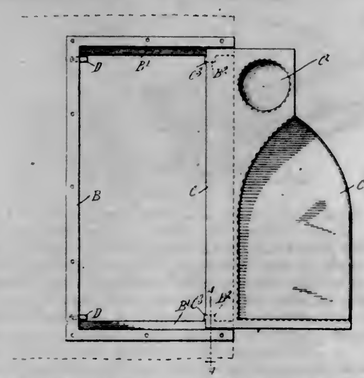


In a fastener for hinged receptacle lids, the combination of a square lug projecting from the inner face of the front wall of the lid; a coöperating latch carried by the receptacle portion and comprising a piece of resilient material having a square recess formed therein in proximity to the upper end thereof and a deflected end portion above the recess, said deflected portion adapted to be engaged by said lug and move said latch inwardly until the lug enters the recess; a relatively short bow spring for normally tending to hold the latch in engagement with the lug; a screw passing through said spring and latch in proximity to the lower ends thereof, and threaded into the front wall of the receptacle; and means for releasing said latch, said means comprising an interiorly threaded collar fitted in the front wall of the receptacle, and a headed key having a threaded end portion engaging with the threads in said collar and adapted to be screwed inwardly to engage said latch to move the same to disengage said lug.

1,073,483. SAD-IRON HOLDER. MARTHA FROST, New York, N. Y. Filed Apr. 8, 1912. Serial No. 689,153. (Cl. 68—27.)

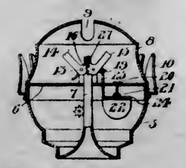
1. A sad iron holder, comprising a frame for attachment to the under side of an ironing board, the frame being provided with guideways having stops at their outer ends, a plate mounted to slide on the said guideways and provided with an integral support for a sad iron, the said plate having depending lugs and spring catches on the inner end of the said frame, the lugs being adapted to en-

gage the stops to limit the outward sliding movement of the plate and to engage the catches to hold the plate in retracted position.



2. A sad iron holder, comprising a frame for attachment to the under side of an ironing board, the frame being provided with guideways, a sad iron holder in the form of a plate mounted to slide on the said guideways and provided with a depending lug at its inner edge, a stop extending inwardly from the said frame and adapted to be engaged by the said lug to limit the outward sliding movement of the said plate, and a spring catch on the inner end of the said frame and having a lower curved portion on which the said lug is adapted to ride at the time the plate is in innermost retracted position.

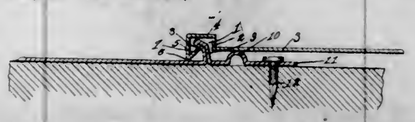
1,073,484. LAMP-EXTINGUISHER. ISIDORE GREENWALD and JOSEPH BLAUSTEIN, Pittsburgh, and MORRIS Z. WEISS and MAX SELKOVITS, McKeesport, Pa. Filed Apr. 17, 1912. Serial No. 691,526. (Cl. 67—79.)



1. A lamp extinguishing device comprising the combination with a burner body having a removable perforated top, and a wick tube extending therethrough, of a pair of shutters pivotally connected with said top and arranged at the sides of said tube and having their lower ends geared together and capable of being shifted over the wick tube to snuff or extinguish a flame, a vertically disposed arm extending through said top and pivotally connected to one of said shutters, a hanger carried by and depending from said top, a weight freely movable upon the lower end of said hanger, and an apertured disk interposed between said weight and said top and through which extends said hanger, said disk connected to and disposed at right angles with respect to the lower end of said arm and adapted to move the latter vertically when the weight shifts on the hanger.

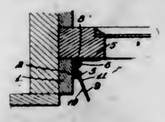
2. A lamp extinguishing device comprising the combination with a burner, of a removable perforated flanged element arranged within said burner and through which the wick tube extends, a pair of spaced vertical plates carried by said element and each arranged at one end of said tube, a pair of shutters pivotally connected to said plates reared together, arranged at the sides of the wick tube and capable of being shifted over the wick tube to snuff or extinguish the flame, an actuating member connected to one of said shutters for shifting it causing thereby the simultaneous operation of the shutters, a freely movable weight suspended from said element, said actuating member extending downwardly through said element, and an apertured disk interposed between said element and weight and connected to said member and adapted to operate the latter when the weight moves upon its suspension means, said disks disposed at right angles with respect to said actuating member.

1,073,485. METAL SHINGLE. HARRY C. HAMES, London, Ohio, assignor to The Thomas & Armstrong Company, London, Ohio. Filed Dec. 4, 1912. Serial No. 734,956. (Cl. 108—17.)



A metallic shingle having a joint lock member at one edge thereof, consisting of a raised tongue or lip formed by creasing the metal and bending the same at an angle upwardly and rearwardly, a second ridge nearer the edge of the shingle of substantially semicircular cross section, and a nailing flange extending in the same plane as the surface of the shingle, the other edge of said shingle being formed with an overlapping member formed above the surface of the shingle, said overlapping member comprising a lateral strip of metal, extending upward from the surface of the shingle at right angles, thence horizontally in plane parallel with the surface of the shingle, thence vertically downward to a point contacting with the surface of the adjoining shingle, thence upwardly and inwardly at an angle of approximately 45° terminating at a point contacting with the surface of the raised tongue of the adjoining surface, substantially as described.

1,073,486. SASH-LOCK. GEORGE HILPERT, Morgantown, W. Va. Filed Jan. 21, 1913. Serial No. 743,375. (Cl. 16—18.)

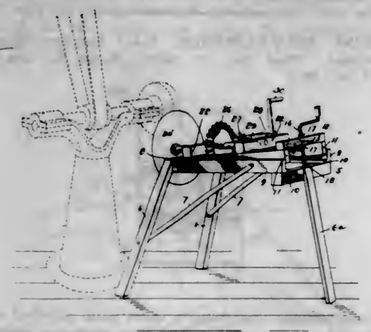


A sash fastener comprising a leaf secured to the sash, a leaf hinged to the first leaf and including a main body portion reduced in width toward its free end and provided with a curved manipulating terminal engaging against the sash whereby to hold the hinged leaf spaced from the sash when said leaf is in an inoperative position, the said hinged leaf having a circular passage therein, and a series of fixed pins carried by the window frame and operable for interchangeable projection into said passage so as to hold the hinged leaf against swinging movement beyond a limited distance and to also hold the sash against any sliding movement.

1,073,487. HOLDER FOR DISKS AND COLTERS FOR USE WHEN THEY ARE BEING SHARPENED. JAMES J. HINDS and MELBOURN R. WRIGHT, Wall Lake, Iowa. Filed Apr. 25, 1913. Serial No. 763,606. (Cl. 51—7.)

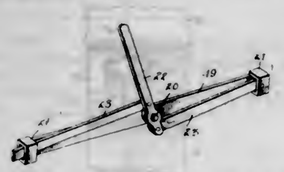
In an article of the class described, a frame having rails at its sides, a second frame normally disposed on the rails, a member with a threaded orifice secured to one of the frames, vertical bearings secured to the other frame, a shaft journaled in the bearings and having a thread meshing in the threaded orifice, a flange on the shaft en-

raging the bearings, additional bearings in the second frame, a longitudinally extending shaft journaled in the said additional bearings, means for securing a disk to the



second shaft, a third shaft extending transversely and journaled in the bearings in the second frame, and gearing connecting the third and the second shafts.

1,073,488. DOUBLE-DOOR-LOCKING DEVICE. JOHN C. HOGAN, Goodwin, Nebr. Filed Oct. 1, 1912. Serial No. 723,408. (Cl. 16—61.)



1. The combination with a wall having a door opening therein and provided with alining sockets in the opposite side walls of the door opening, of a pair of doors adapted to close said door opening, and means for locking the doors against outward swinging movement, said means comprising a supporting strip pivoted to one of the doors and adapted to normally lie in a horizontal plane, keepers at the opposite ends of said strip, a lever pivoted on said strip approximately centrally thereof, and locking bolts each having one end pivoted to said lever at the side of the pivot of the lever opposite from the other bolt, said bolts being slidably disposed within the keepers on the supporting strip and operable from said lever to be projected into and retracted from said sockets.

2. The combination with a wall having a door opening therein and provided with alining sockets in the opposite side walls of the door opening, of a pair of doors adapted to close said door opening, and means for locking the doors in the door opening against outward movement, said last means comprising a supporting strip pivotally mounted upon one of the doors, a lever pivoted upon said strip and adapted for swinging movement, locking bolts on said strip and connected to said lever and adapted to be operated therefrom whereby the free ends of the bolts may be projected into and retracted from said sockets.

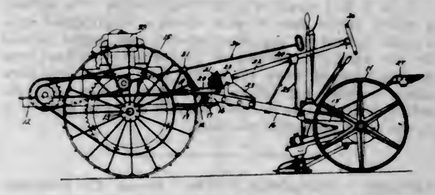
1,073,489. TAKE-UP FOR SEWING-MACHINES. RICHARD K. HOHMANN, San Diego, Cal. Filed Dec. 3, 1910. Serial No. 595,529. (Cl. 112—26.)

In a sewing machine, the combination with a rotary crank having a crank pin, of a take-up rock shaft mounted in bearings just beyond the circular path of said pin and approximately on a level with the lower limit of the movement of said pin, and an arm extending from said rock shaft having therein a slot in which said pin works, the said slot being straight in that portion next to the shaft having an upward curve or hump near its center



and a downward uniform curve from the center to the outer end.

1,073,490. TWO-WHEEL TRACTOR. JOHN I. HOKE, Frankfort, Ind. Filed Mar. 24, 1910. Serial No. 551,365. (Cl. 21—114.)



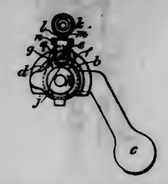
1. The combination of a device capable of being moved on the ground and turned as a unit, and having a coupling member extending forwardly therefrom, a two-wheel tractor with a coupling member extending rearwardly and having a plate at its rear end provided with a horizontally disposed segmental rack, a pin for coupling said coupling members together at a point concentric with said segmental rack, and steering means mounted on the coupling member of said device and having a bevel pinion which engages said segmental rack.

2. The combination of a device capable of being moved on the ground and turned as a unit and having a coupling member extending forwardly therefrom, a two-wheel tractor with a coupling member extending rearwardly therefrom and having a plate at its rear end provided with a horizontally disposed segmental rack, one of said coupling members being divided into upper and lower parts between which the end of the other coupling member extends and fits, whereby the frames of the two devices will be maintained in a horizontal position, a pin for coupling said coupling members together at a point concentric with said segmental rack, and a steering means mounted on the coupling member of said first-mentioned device and having a beveled pinion which engages said segmental rack.

3. The combination with a wheeled machine capable of being turned as a unit and provided with a forwardly extending coupling member, of a two-wheel tractor arranged in advance of said machine and provided with a coupling member extending rearwardly to a point where its rear end is beyond the wheels of the tractor, said coupling members being interlocked, a pin for holding said members in interlocked relation and capable of swinging movement in relation to each other, whereby the frames of the wheeled machine and the tractor are maintained in a horizontal position but capable of angular adjustment, a plate mounted upon the rear end of the

coupling member of the tractor and provided with a horizontally-disposed segmental rack, said rack being concentric with said coupling pin, a steering rod journaled upon the coupling member of the wheeled machine, and a pinion carried by said rod and meshing with said segmental rack.

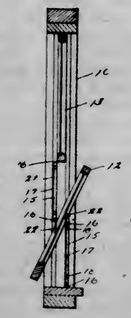
1,073,491. SIGHT FOR SMALL-ARMS. HENRY WILLIAM HOLLAND and WILLIAM MANSFIELD, London, England, assignors to Holland and Holland, Limited. Filed June 23, 1913. Serial No. 775,409. (Cl. 42—80.)



1. In a bolt small arm, the combination of a striker, a safety device free to turn about a longitudinal axis, a sight carried by the safety device, and means carried by the safety device which prevent the striker from moving forward when the safety device is in one horizontal position but allows the striker to act when the safety device is in a vertical position.

2. In a bolt small arm, the combination of a striker, a safety device free to turn about a longitudinal axis, a sight carried by the safety device, and means carried by the safety device which prevent the striker from moving forward when the safety device is in one horizontal position but allows the striker to act when the safety device is in a vertical position and also when it is in the other horizontal position.

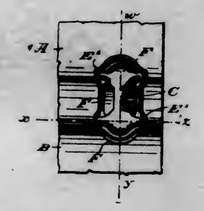
1,073,492. WINDOW-SCREEN. BELLA C. HURFORD, Cleveland, Ohio. Filed Mar. 19, 1912. Serial No. 684,838. (Cl. 156—14.)



1. In a window, the combination with a horizontally pivoted sash, of a section of screening removably located adjacent to the lower portion thereof and the interior of said window, a similar section of screening located upon the opposite side of said sash and adjacent the upper portion thereof, and inwardly curved resilient metallic plates carried by the adjacent terminals of said screen, said plates having cut-out portions on their ends adapted to allow the plate to bear against the sash.

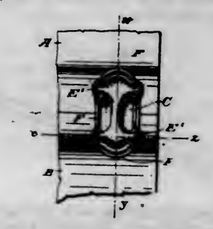
2. In a window, the combination with a horizontally pivoted sash, of a section of screening removably located adjacent to the lower portion thereof and the interior of said window, a similar section of screening located upon the opposite side of said sash and adjacent the upper portion thereof, and resilient strips carried by the terminals of said screening for closing the openings between said sash and the terminals of said screening.

1,073,493. BELT-FASTENER. ISAAC JACKSON, Glossop, England. Filed Mar. 27, 1909. Serial No. 486,227. (Cl. 24—36.)



A belt fastener comprising a metal plate provided with marginal teeth and having on its inner surface a main recess or cavity and subsidiary recesses extending from the main recess to the root of each tooth.

1,073,494. BELT-FASTENER. ISAAC JACKSON, Glossop, England. Filed Mar. 27, 1909. Serial No. 486,228. (Cl. 24—36.)



1. A belt fastener comprising a metal plate having teeth projecting from one face thereof and having a marginal wall projecting from the other face and merging into the edges of the teeth.

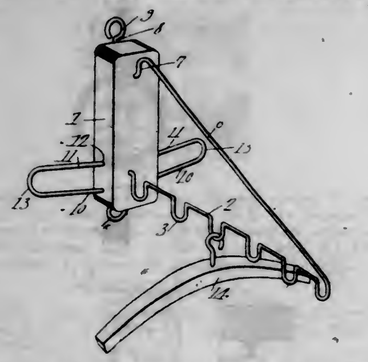
2. A belt fastener adapted to overlap and connect the ends of a belt comprising a metal plate with upturned side flanges, a pointed tooth extending transversely across said plate at the end and constituting a down-turned continuation of said plate and flanges, the said plate being provided with a concavity in its under surface in which said tooth and the material of the belt compressed thereby lies when bent down, and means at the other end of the plate for securing it to the belt.

3. A belt fastener adapted to overlap and connect the ends of a belt comprising a metal plate with upturned side flanges, a pointed tooth extending transversely across said plate at each end and constituting a down-turned continuation of said plate and flanges, the said plate being provided with upwardly bent central portions at the ends constituting concavities in which said teeth and the material of the belt compressed thereby lie when bent over, and with a strengthening corrugation joining the concavities.

1,073,495. CLOTHES-HANGER RACK. WILLIAM M. JOHNSON, Birmingham, Ala., assignor of one-half to John W. Altman, Birmingham, Ala. Filed May 28, 1913. Serial No. 770,510. (Cl. 45—13.)

A clothes hanger rack embodying an elongated block forming a back, a wire bracket including a horizontal arm and an inclined brace attached to the outer end of the arm, the upper end of the brace having an angular portion bearing against the back and then being passed through the back adjoining its upper end, the inner end of the arm

passing through the back adjoining its lower end, the arm being provided with a series of depending clothes hanger engaging loops, the innermost loop bearing against the back, and the end portions of the arm and brace passed through the back being bent beyond the respective ends



of the back and being formed into eyes, and a wire passed through the back at its lower end and having its terminals bent back and engaged with the back, the bights of the wire being bent back approximately into the plane of the rear face of the back.

1,073,496. SHOE-LACE. ELEAZER KEMPSHALL, Chevy Chase, Md., assignor, by mesne assignments, to Kempshall Fast Color Tip Company, a Corporation of New Jersey. Filed May 3, 1911. Serial No. 624,759. (Cl. 24—143.)



1. A shoe lace having its end compressed, a strip of permeable adhesive substance surrounding the compressed end, and a coating of celluloid over the adhesive substance, the celluloid and the adhesive substance being intermingled and impregnating the fibers of the compressed portion of the string whereby to form a homogeneous tip.

2. A shoe lace having its ends compressed, a temporary binder on each compressed end of the lace, and a tip composed of material which permeates the temporary binder and impregnates the compressed ends of the lace.

3. A shoe lace having its end compressed, and a tip comprising celluloid which impregnates the compressed end, the celluloid forming with the compressed end a homogeneous hard mass.

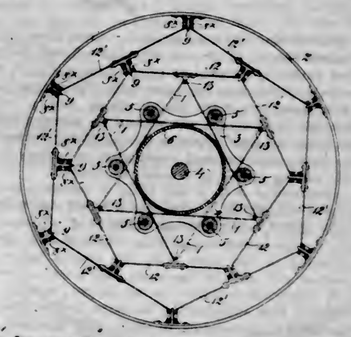
1,073,497. LOCK-NUT. KARL KESSLER, Wasseralfingen, Germany. Filed Dec. 26, 1912. Serial No. 738,731. (Cl. 151—2.)

1. In combination with a screw-threaded bolt or spindle having a recess in the end thereof, an internally screw-threaded cap adapted to be screwed thereon, an internally projecting central pin in said cap of angular cross-section, and a spring in said recess adapted to bear against the sides of said pin.



2. In combination with a screw-threaded bolt or spindle having a cylindrical recess in the end thereof, an internally screwed cap adapted to be screw-threaded thereon, an internally projecting central pin in said cap of angular cross-section, and a spring bent circularly to fit frictionally in said recess and having one end bent inwardly to bear against the sides of said pin.

1,073,498. ELASTIC WHEEL. KARL KÖSZEGI, Baja, Austria-Hungary. Filed Dec. 28, 1910. Serial No. 599,645. (Cl. 152—28.)



1. In a resilient wheel the combination of a series of flat springs in the form of polygons lying in different planes between the rim and the axle, links connecting the corners of the polygons to the wheel rim, means carried on the axle to support loosely sliding, without connection the sides of the said polygonal springs and a series of rolls supported on the axle to engage loosely sliding, without connection the outer angles formed at the points of crossing of the sides of the various polygons.

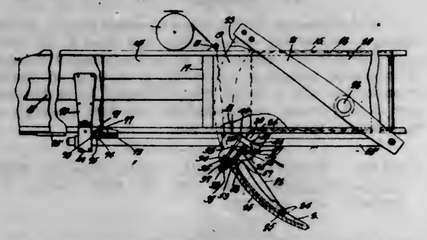
2. In a resilient wheel, the combination of a pair of triangles, the sides of which are formed of flat springs, said triangles lying in different planes and having their bases at opposite sides of the axle, a drum on the axle to engage loosely sliding, without connection the inner sides of both triangles, means for linking the points of the said triangles to the rim and a series of rolls supported on the drum to engage loosely sliding, without connection in the exterior angles formed at the point of crossing of the sides of the two triangles.

3. In a resilient wheel, the combination of a pair of triangles, the sides of which are formed of flat springs, said triangles lying in different planes, and having their bases at opposite sides of the axle, a drum on the axle to engage loosely sliding, without connection the inner sides of both triangles, a series of rolls supported on the drum to engage loosely sliding, without connection in the exterior angles formed at the points of crossing of the sides of the two triangles, and a series of spring hexagonals inserted between the triangles and the rim, the points of the triangles being hinged to the sides of the inner hexagonal and the points of the latter to the sides of the outer hexagonal and the points of the latter hinged to the rim.

4. In a resilient wheel the combination of a series of flat springs in the form of polygons lying in different planes between the rim and the axle, links connecting the corners of the polygons to the wheel rim, means car-

ried on the axle to support loosely sliding, without connection the sides of the said polygonal springs and a series of rolls supported on the axle to engage loosely sliding, without connection the angles formed at the points of crossing of the sides of the various polygons.

1,073,499. TYING DEVICE FOR HAY-BALERS. WILLIAM H. LEAVITT, Stamford, Tex. Filed Nov. 9, 1912. Serial No. 730,448. (Cl. 100—20.)



1. In combination with a hay baler, a knotting mechanism secured diagonally to one side thereof and embodying a wire cutter, a wire holder coöperating with the wire cutter, a yoke pivoted to the baler with the pivotal point disposed between the sides of the baler, and a curved needle carried by the yoke adapted to be swung through the baler from the side opposite the knotting mechanism and coöperating with the said mechanism to actuate same, the needle having means to release the holder.

2. In combination with a hay baler, a knotting mechanism secured diagonally to one side thereof and embodying a wire cutter, an actuating shaft, and a pinion on the shaft; a wire holder coöperating with the said cutter; a yoke pivoted to the baler with the pivotal point disposed between the sides of the baler, and a curved needle carried by the yoke adapted to be swung through the baler from the side opposite the knotting mechanism, the needle having a rack adapted to mesh with the said pinion, the teeth of the rack and pinion being set obliquely, and the needle having means to release the said holder.

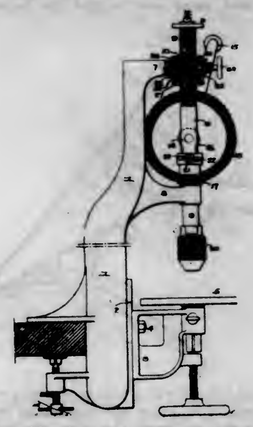
3. In a knotting mechanism for bale tie bands, a complementary pair of disks having diametrically opposite slots, means for rotating one disk, one disk having a slot and the other disk having a pin engaging in the slot for constraining the disks for limited swinging movements relative to each other to bring the slots into and out of registration, yielding frictional means between the disks tending to revolve the disks together, and a spring having a lug, the free disk having a peripheral notch engageable by the lug to restrain it from turning due to the friction of the latter means, the driven disk having a peripheral notch to consonantly receive the lug and to release the lug after the driven disk has rotated a predetermined amount relative to the free disk, and both disks having peripheral notches to receive the lug to hold the disks in wire-receiving position.

4. In a knotting mechanism for bale tie bands, a shell, a tubular shaft journaled therein, a shaft journaled through the tubular shaft, complementary knotting disks secured to the inner ends of the respective shafts, means for rotating the tubular shaft, and means for adjusting the latter shaft within the former.

5. In a knotting mechanism for bale tie bands, a shell having an abutment at its inner end, a knife secured in the abutment, a tubular shaft journaled through the shell from the abutment, a pinion mounted in the shell on the tubular shaft and constrained to turn with the shaft and slide relative thereto, a shaft journaled through the tubular shaft, complementary knotting disks secured to the inner ends of the respective shafts, means for adjusting the tubular shaft to adjust the outer disk relative to the knife, and means for adjusting the other shaft within the tubular shaft to adjust the disks relative to each other.

[Claims 6 to 17 not printed in the Gazette.]

1,073,500. BENCH-DRILL. GEORGE O. LEOPOLD, Philadelphia, Pa., assignor to North Bro's Mf'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1913. Serial No. 754,027. (Cl. 77—34.)



1. The combination in a drill, of a frame having an upper and a lower bearing; a sleeve mounted in the upper bearing and having an internal screw thread; a spindle mounted in the lower bearing and having a threaded upper portion extending through the upper bearing; mechanism for frictionally holding the sleeve to the upper bearing; a pinion mounted on the spindle and splined thereto so that the spindle will rotate with the pinion but will slide therein; and means for rotating the pinion.

2. The combination of a frame having an upper and a lower bearing; a spindle mounted in the bearings; a pinion mounted on the spindle and splined thereto, so that the spindle will turn with the pinion, but is free to slide longitudinally therein; a driving shaft at right angles to the spindle; a bearing for the driving shaft; a gear wheel on the driving shaft meshing with the pinion; and a right angled bearing resting on the pinion and through which the spindle extends and into which the end of the driving shaft extends, so that the spindle is held to its seat on the lower bearing by the driving shaft through the medium of the right angled bearing.

3. The combination of a frame having upper and lower bearings; a spindle mounted in the bearings of the frame; a pinion mounted on the spindle and splined thereto so that the spindle will turn with the pinion but will be free to slide longitudinally therein; a driving shaft at right angles to the spindle; a bearing for the driving shaft; a beveled gear wheel on the driving shaft meshing with the pinion; a right angled bearing resting on the pinion and through which the spindle extends, said bearing also forming a seat for the end of the driving shaft; a locking bolt carried by the said right angled bearing, said locking bolt being adapted to rest in the spline of the spindle; and means for moving the bolt into and out of position.

4. The combination in a drilling machine, of a spindle having a spline therein; a bearing for the spindle; a driven wheel on the spindle having a key extending into the spline; a locking bolt mounted in the bearing having an extension arranged to enter the spline and lock the spindle; a spring back of the bolt; and a bar attached to the bolt, said bearing having a slot to receive the bar when the lock engages the spindle.

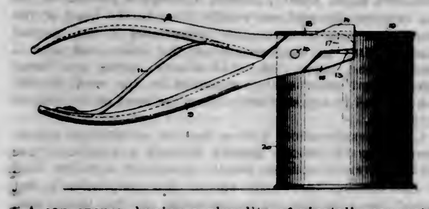
1,073,501. ROLLER-BEARING. WILBUR E. LEWIS, Dade City, Fla. Filed Sept. 6, 1911. Serial No. 647,853. (Cl. 64—62.)

A roller bearing comprising a cone having a central annular rib, a plurality of tapered rollers having central annular grooves to receive the ribs, a cup having a tapered bore fitting the rollers, rings mounted at opposite ends of the rollers within the bore and having slots and radially alined notches, separator members having diverging roller



retaining wings, and malleable tongues carried by said members and passing through the slots and engaged in the notches to connect the rings and to hold the separators between the same, said tongues coacting with the walls of the notches to prevent the separators from turning.

1,073,502. CAN-OPENER. JOAO BAPTISTE LOUREIRO, Para, Brazil. Filed Feb. 26, 1913. Serial No. 750,753. (Cl. 30—3.)



A can opener, having a plurality of pivotally connected handles; a head mounted on one of said handles, having a laterally-extending bracketed jaw partly separated from said head to form a channel therebetween, the edge of said jaw adjacent said channel forming a shearing member; and a blade laterally extended from the end of the other of said handles to enter said channel, said blade having a cutting edge to register with the shearing edge of said bracketed jaw, the cutting edge of said blade resting normally inside of said channel and above said shearing edge of said bracketed jaw.

1,073,503. COMBINED BOW REST AND LOCK. DONALD J. MACDONALD, Portland, Me. Filed Apr. 19, 1912. Serial No. 691,799. (Cl. 21—61.)



1. In a combined bow rest and lock, two members, one member provided with a depending tongue and the other member provided with a tongue receiving recess, a locking bolt mounted in the latter member, a spring tending normally to throw said bolt into engagement with said tongue, an operating lever provided with a socket, the outer end of said bolt projecting into and being concealed in said socket whereby said lever conceals both the end of the locking bolt and the locking bolt receiving opening, and means for connecting the lever to said bolt.

2. In a combined bow rest and lock, two members, one member provided with a depending tongue and the other member provided with a tongue receiving recess, a locking bolt mounted in the latter member, a spring tending to throw said bolt into engagement with said tongue, an operating lever provided with a socket adapted to receive and conceal the end of said bolt, said socket being of greater area than the area of the bolt, and means for pivotally connecting the lever to said bolt.

3. In a combined bow rest and lock, two members, one member provided with a depending tongue and the other member provided with a tongue receiving recess, a locking bolt mounted in the latter member, a spring tending to throw said bolt into engagement with said tongue, an operating lever provided with an elongated socket adapted to receive and conceal the end of said bolt, said socket being of greater area than the area of the bolt, and means for pivotally connecting the lever to said bolt.

4. In a combined bow rest and lock, two members, one member provided with a depending tongue and the other member provided with a tongue receiving recess, a longitudinally positioned locking bolt mounted in the latter member, a spring tending normally to throw said bolt into engagement with said tongue, an operating lever provided with an elongated socket in which the end of said locking bolt is pivotally mounted and a spring interposed between the bottom of the socket and the end of the locking bolt.

5. In a combined bow rest and lock, two members, one member provided with a depending tongue and the other member provided with a tongue receiving recess, a locking bolt slidably mounted in the latter member, a spring tending normally to throw said bolt into locking engagement with said tongue, an operating lever having its fulcrum end adapted, when in locking position, to conform throughout its entire extent to said bolt supporting member, a bolt receiving socket in the fulcrum end of said lever adapted to receive the end of said bolt, and means for pivotally connecting said lever to said bolt, whereby the projecting end of the bolt is entirely concealed.

1,073,504. BELT-BUCKLE. THOMAS F. MALONEY, New York, N. Y. Filed May 23, 1912. Serial No. 699,211. (Cl. 24—194.)



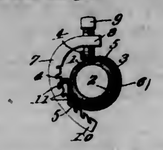
1. In a buckle of the class described, a body portion having sides normal to the same and gradually increasing in width from one end of the body to the other; a bracing portion integral with said sides at their widest end, said sides having their longitudinal edges turned toward said body and clamped against said sides, thereby forming a passageway which increases in width toward said bracing portion; and a loosely mounted clamping plate in said passageway bearing against said turned, clamped edges and adapted to reciprocate in said passageway between said sides, said plate having means overhanging said sides whereby said plate may be made to reciprocate.

2. In a buckle of the class described, a body portion having sides normal to the same and gradually increasing in width from one end of said body to the other end; a bracing portion extending transversely of said body integral with said sides at their widest end, thereby forming a loop for a belt at one end of said body, said sides having their longitudinal edges turned toward said body and clamped against said sides, thereby forming a passageway which gradually increases in width toward said bracing portion; and a slidable, loosely and removably mounted clamping plate in said passageway bearing against said turned clamping edges, and having means overhanging said sides of said body whereby said plate may be made to reciprocate in said passageway of said body.

1,073,505. PIPE-PATCH. JOHN MARMORSTEIN, Jersey City, N. J. Filed Oct. 17, 1912. Serial No. 726,314. (Cl. 137—33.)

1. In a pipe patching device, the combination with an open sleeve having outwardly extending marginal flanges

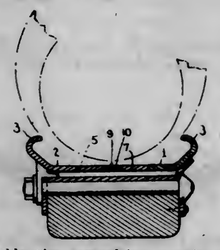
disposed along its longitudinal edges, of an arcuate clasp separate from the sleeve having notches formed in its inner face for engagement with one of said flanges, and a tensioning means carried by said clasp for engagement with the other of said flanges.



2. In a pipe patching device, the combination with an open sleeve formed from sheet metal and having its marginal, longitudinal edges turned under to form pockets, of a gasket disposed against the inner face of said sheet and having its longitudinal edges seated within said pockets, the bent-over portions of said sheet being bent to form outwardly extending longitudinal flanges, and tensioning means engageable with said flanges.

3. In a pipe patching device, a longitudinal split tube formed from sheet metal having its longitudinal edges bent outwardly and thence against the inner face to respectively form outwardly extending longitudinal flanges and gasket-receiving pockets.

1,073,506. DEMOUNTABLE RIM. ARTHUR MCPHERSON, Beaumont, Tex. Filed Nov. 25, 1912. Serial No. 733,486. (Cl. 152—12.)

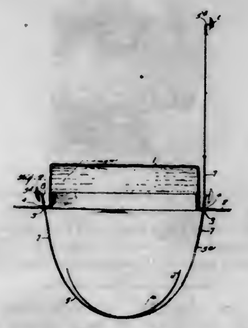


A demountable rim comprising a pair of rim sections each provided with a tire engaging member on one edge, the other edge being notched to form spaced fingers, the fingers of one section fitting in the notches of the other section, said fingers having longitudinally alined recesses on their inner faces to form an annular channel when the sections are assembled, a resilient split locking ring adapted to fit in said channel, said ring being of less diameter than the diameter of said channel, a lug formed on the inner edge of one rim section and the other rim section having a notch to receive said lug, said lug extending across the channel in the fingers and forming a stop for engagement by the ends of said locking ring, whereby said ring is held in expanded operative engagement in said channel.

1,073,507. HAT-FASTENER. EMMA T. MILLER, San Antonio, Tex. Filed Sept. 1, 1911. Serial No. 647,139. (Cl. 132—25.)

1. The combination with a hat, having a brim, of a curved elongated guide sheath passing through the brim on the side of the crown, an elastic spring pin comprising a flat curved band having an enlargement at one end and a head at the other, said spring pin passing through the sheath and adapted to automatically clasp the head of the wearer of the hat.

2. The combination wth a hat, having a brim, of a curved elongated guide sheath passing through the brim on the side of the crown downwardly and rearwardly close to the head of the wearer, an elastic spring pin comprising a flat curved band having an enlargement at one end and a head at the other, said spring pin passing through the sheath and adapted to automatically clasp the head of the wearer of the hat, and means carried by the spring pin for taking up the slack in the spring pin.



3. The combination with a hat of a slightly curved elongated guide sheath, passing through a portion of the hat downwardly and rearwardly close to the head of the wearer, an elastic spring pin comprising a flat, curved band, having an enlargement at the lower end, and a head at the upper end, said elastic spring pin being slidably and unremovably mounted in the said sheath, and adapted to automatically clasp the head of the wearer of the hat.

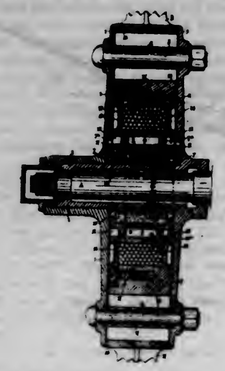
4. The combination with a hat, of a slightly curved elongated guide sheath passing through a portion of the hat downwardly and rearwardly in contact with the head of the wearer, an elastic spring pin comprising a flat curved band having an enlargement at the lower end, and a head at the other, said elastic spring pin being slidably and unremovably mounted in the said sheath, and adapted to automatically clasp the head of the wearer of the hat, and spring means carried by the elastic spring pin for taking up the slack in the elastic spring pin.

5. The combination with a hat of a slightly curved sheath, passing through a portion of the hat, an elastic spring pin comprising a flat curved band having an enlargement at the lower end, and a head at the other end, said elastic spring pin being slidably and unremovably mounted in the said sheath, and adapted to automatically clasp the head of the wearer of the hat, and a coiled spring carried by the elastic spring pin for taking up the slack in the elastic spring pin, and a slotted plate or eyelet fastened at the portion of the hat through which the pin is to pass, and adapted to removably receive the said sheathed elastic spring pin.

[Claims 6 and 7 not printed in the Gazette.]

1,073,508. SHOCK-ABSORBING WHEEL FOR VEHICLES. CHARLES EDWARD MOSER, Boulogne-sur-Seine, France. Filed Dec. 30, 1910. Serial No. 600,132. (Cl. 152—43.)

1. A shock absorbing wheel comprising in combination, a hub and a tread portion movable with respect to each other, resilient means carried by and peripherally of said hub, a collar mounted upon said resilient means and movable with said hub circumferentially but free to move toward and from the axis of said hub, a second collar spaced apart from said first mentioned collar and carried by said tread portion, a body consisting of a plurality of balls in tangential relation to each other interposed between said collars, and means for confining said body of balls within the chamber formed by such means and the said collars, the said first mentioned collars being peripherally irregular to force the said body of balls to follow substantially the rotary movement imparted to the wheel to transmit movement between the hub and tread portion of the wheel with flexibility therebetween, substantially as and for the purpose set forth.



2. A shock absorbing wheel comprising in combination, a hub and tread portion movable with respect to each other, resilient means carried by and peripherally of said hub, a collar mounted upon said resilient means and movable with said hub circumferentially but free to move toward or from the axis of said hub, a second collar spaced apart from said first mentioned collar and carried by said tread portion, a body consisting of a plurality of balls in tangential relation to each other interposed between said collars, and means for confining said body of balls within the chamber formed by said means and the said collars, the said second mentioned collar being peripherally irregular to force the said body of balls to follow substantially the rotary movement imparted to the wheels, to transmit movement between the hub and tread portions of the wheel with flexibility therebetween, substantially as and for the purpose set forth.

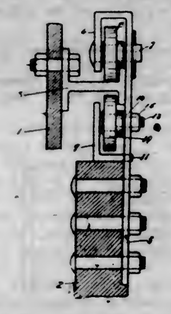
3. A shock absorbing wheel comprising in combination, a hub and a tread portion movable with respect to each other, resilient means carried by and peripherally of said hub, a collar mounted upon said resilient means and movable with said hub circumferentially but free to move toward or from the axis of said hub, a second collar spaced apart from said first mentioned collar and carried by said tread portion, a body consisting of a plurality of balls in tangential relation to each other interposed between said collars, and means for confining said body of balls within a chamber formed by said means and said collars, the said first and second mentioned collars being peripherally irregular to force the said body of balls to follow substantially the rotary movement imparted to the wheel, to transmit movement between the hub and tread portions of the wheel with flexibility therebetween, substantially as and for the purpose set forth.

4. A shock absorbing wheel comprising in combination, a hub and a tread portion movable with respect to each other, resilient means carried by and peripherally of said hub, a collar mounted upon said resilient means and movable with said hub circumferentially, but free to move toward or from the axis of said hub, a second collar spaced apart from said first mentioned collar and carried by said tread portion, a body consisting of a plurality of balls in tangential relation to each other interposed between said collars, means for confining said body of balls within the chamber formed by said means and the said collars, means for adjusting the relative tangential contact of said balls, the said first mentioned collar being peripherally irregular to force the said body of balls to follow substantially the rotary movement imparted to the wheel, to transmit movement between the hub and tread portions of the wheel with flexibility therebetween, substantially as and for the purpose set forth.

5. A shock absorbing wheel comprising in combination, a hub and a tread portion movable with respect to each other, resilient means carried by and peripherally of said hub, a collar mounted upon said resilient means and movable with said hub circumferentially, but free to move toward or from the axis of said hub, a second collar spaced apart from said first mentioned collar and carried by said tread portion, a body consisting of a plurality of balls in tangential relation to each other interposed between said collars, means for confining said body of balls within the chamber formed by said means and the said collars, and means for adjusting the relative tangential contact of the said balls, the said second mentioned collar being peripherally irregular to force the said body of balls to follow substantially the rotary movement imparted to the wheel, to transmit movement between the hub and tread portions of the wheel with flexibility therebetween, substantially as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,073,509. DOOR-HANGER. CHARLES C. NELSON, Bay City, Mich., assignor of one-half to William Mattison, Bay City, Mich. Filed Apr. 4, 1913. Serial No. 758,844. (Cl. 16—7.)



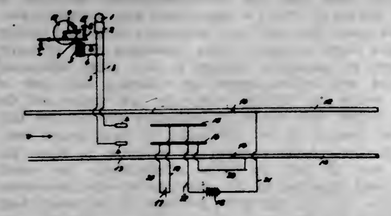
1. A door hanger comprising in combination with a track, a hanger plate having an upper wheel adapted to roll on said track, an L-shaped bracket having one flange formed with a tenon, a bolt rigidly secured to the other flange of said bracket, a wheel loosely mounted on said bolt, said bolt formed with a shoulder and having its free end threaded; said plate formed with an opening to receive said bolt and a second opening to receive the tenon of said bracket, for the purposes set forth.

2. A door hanger comprising in combination with a track, a hanger plate having an upper wheel adapted to roll on said track, an L-shaped bracket having one flange formed with a tenon, a bolt formed integral with and projecting outwardly from the other flange of said bracket, a wheel loosely mounted on said bolt, said bolt formed with a shoulder and having its free end threaded; said plate formed with an opening to receive said bolt and a second opening to receive the tenon of said bracket.

1,073,510. SAFETY AND SIGNALING DEVICE FOR RAILROADS. DIMOND C. NEWTON, Owego, N. Y., assignor of one-half to Max Lindeman, Owego, N. Y. Filed Feb. 20, 1913. Serial No. 749,570. (Cl. 246—26.)

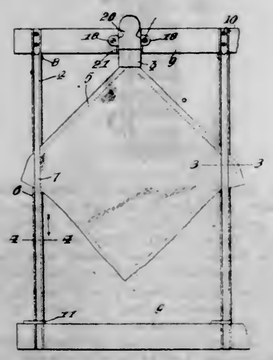
1. Railway safety and signaling apparatus for block system roads embodying track rails in each block insulated from those in adjoining blocks, a pair of stationary batteries of different power, stationary contact devices for each block, the less powerful battery being connected with the stationary contact devices alone and the more powerful battery being connected with one of the track rails of one block and also with one of the contact devices of an adjoining block, a conductor connecting the other contact device of one block with the other track rail of the adjoining block and signaling devices, automatic brake mecha-

nism and circuit closing devices carried by the engine, for the purpose set forth.



2. Railway safety and signaling devices for block system roads embodying track rails in each block insulated from those in adjoining blocks, a pair of stationary batteries of different power, stationary contact devices for each block, the less powerful battery being connected with the contact devices only, the more powerful battery being connected with one of the track rails of one block and also with one of the contact devices of an adjoining block, and a conductor connecting the other contact device of one block with the other track rail of the adjoining block, for the purpose set forth.

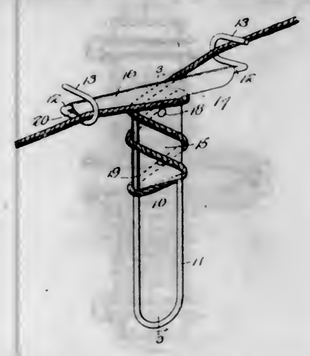
1,073,511. EMBROIDERY-FRAME. JOSEPH NITSCHMAN, Newark, N. J. Filed Sept. 12, 1911. Serial No. 648,886. (Cl. 45—24.)



In a device of the character set forth including a frame consisting of side and end members, said side members comprising inner and outer channeled clamping jaws and each being of substantial U-configuration, one of which receives the other, the said outer member having its bottom wall provided with a longitudinal bead or rib projecting between the side walls of said member and received by the channel of the said inner member, means for locking said members, said means being pivotally connected to the inner side face of one of said end members, beneath the outer side member and adapted to override the bottom of the said inner clamping jaw.

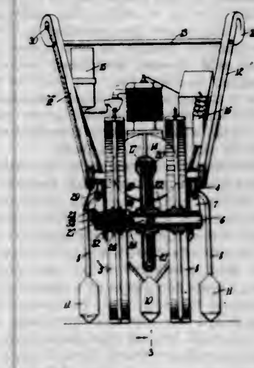
1,073,512. CLOTHES-LINE TIGHTENER. DAVID PALIN, Central Falls, R. I. Filed June 19, 1912. Serial No. 704,669. (Cl. 24—71.2.)

As a new article of manufacture, a clothes line tightener consisting of a single piece of wire bent in a U-shaped form to provide a receiving member adapted to receive the clothes line therethrough, the said wire being bent to form lateral extensions and then bent to form securing hooks extending in opposite directions from the said extensions, and a T-shaped securing member for removable attachment to the receiving member, the said securing member being formed of a single piece of material bent to provide a shank and arms, with the shank engaging



the U-shaped portion of the receiving member and the arms adapted to receive the extensions of the receiving member.

1,073,513. MOTOR-PLOW. JOSEPH NICHOLAS PARKER, Bedford City, Va. Filed Oct. 18, 1911. Serial No. 655,270. (Cl. 21—114.)



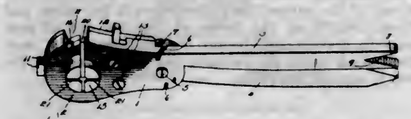
1. In a motor plow, a U-shaped frame having handles secured to its forward part and connected with the rear part thereof by braces, an axle mounted on the under side of the forward part of the frame in rear of the point of attachment of the handles, a pair of traction wheels rigidly mounted on the axle within the frame and spaced apart, a gear casing on the axle between the traction wheels, a gear wheel loosely mounted on the axle within the casing, a motor mounted in the rear part of the frame between the handles, and having its shaft extending into the said casing, a worm on the shaft and meshing with the said gear wheel, a clutch for connecting the gear wheel with the axle, and means for operating the clutch from the outer end of one of the handles.

2. In a motor plow, a frame having handles secured to its forward part and connected to the rear part thereof by braces, an axle mounted in the forward part of the frame, a pair of traction wheels fixedly mounted on the axle within the frame and spaced apart, a gear wheel loosely mounted on the axle between the traction wheels, a motor mounted in the rear part of the frame, a shaft coupled to the motor and having a worm on its forward end meshing with the gear wheel on the axle, a clutch connecting the gear wheel with the axle, and means for operating the clutch from one of the outer ends of one of the handles.

3. In a motor plow, a frame, having handles secured to its forward end and connected with the rear portion thereof by braces, an axle mounted in the forward part of the frame, a pair of spaced traction wheels fixedly mounted on the axle within the frame, a sleeve loosely mounted on the axle between the wheels, a gear wheel secured to the sleeve, a clutch for connecting the sleeve with the axle, means for operating the clutch from the outer end of one of the handles, a motor on the rear part of the frame, and means for operating the gear wheel on the axle from the motor.

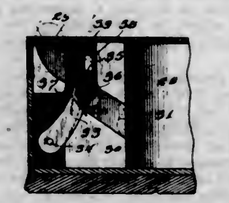
4. In a motor plow, a frame provided with handles, an axle mounted in the forward end of the frame, spaced traction wheels fixedly mounted on the axle, a gear wheel loosely mounted on the axle between the traction wheels, a clutch for connecting the wheel with the axle, means for operating the clutch from the outer end of one of the handles, a motor on the rear part of the frame, means for operating the gear wheel on the axle from the motor, and means for controlling the motor from the outer end of the other handle.

1,073,514. WIRE-SPLICER. HENRY JEFFERSON PENNINGTON, St. Marys, Ind. Filed Mar. 1, 1912. Serial No. 680,969. (Cl. 140—122.)



A device of the type described, including a body, a pawl-and-ratchet-controlled rotatable spool within said body member, said spool having a radial slot opening out through its perimeter, said spool also having a plurality of radial grooves in one end thereof, said spool also being equipped at one end with a pivoted finger, said pivoted finger having a transverse extension for its actuation and a lateral pin for its retention in operative position, said plurality of grooves providing for the separate passage of wire in engagement therewith in effecting the twisting operation.

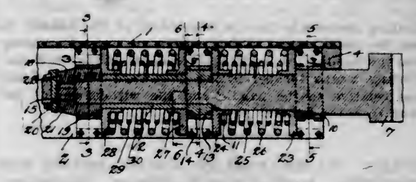
1,073,515. POSTAGE-STAMP VENDING AND AFFIXING MACHINE. WALTER H. PETERS, Steger, Ill. Filed June 14, 1911. Serial No. 633,133. (Cl. 194—57.)



1. In a machine of the character described, the combination of a plunger, a mechanism adapted to be operated by means of the plunger for effecting delivery of the article, a part having a coinway, an arm having an end portion cut away on one side and at one edge to provide a side and an edge shoulder, the reduced part of the arm extending into said coinway and arranged at one side thereof with the side shoulder at one edge of the coinway to reduce the width thereof, and a part projecting from the plunger across said coinway and limited in its movement by the edge shoulder of the arm and adapted to engage a coin to push the said arm aside to cause the before mentioned side shoulder to clear the coin to admit of full operation of the plunger to effect delivery of the article.

2. In a machine of the character described, the combination of a plunger for operating a delivery mechanism having a laterally extending projection, a part having a coinway which is enlarged at its receiving end, and a slot intersecting the coinway and receiving the projection of the plunger, and a pivoted arm having an end portion reduced and arranged at one side of the coinway and forming part of the wall thereof, said reduced part of the arm having an edge shoulder to limit the movement of the plunger by engaging the projection thereof, and a side shoulder to contract the width of the coinway to arrest the movement of the coin, the parts being arranged to admit of the projection of the plunger engaging a coin to move the edge shoulder out of the path of the plunger projection, whereby full operation of the delivery mechanism may be attained.

1,073,516. DRAFT APPLIANCE. HANS P. PETERSEN, South Tacoma, Wash. Filed Dec. 6, 1912. Serial No. 735,346. (Cl. 213—42.)



1. In draft apparatus, the combination of a draw bar having a plurality of shoulders, a draft stress transmitting element engaging one of the shoulders, a sleeve mounted on the draw bar and engaging another of the shoulders, and formed with extension means providing a shoulder, stress transmitting means engaging the last mentioned shoulder, and a sleeve detachably connected to the draw bar in position for retaining the first mentioned sleeve thereon.

2. In draft apparatus, the combination, with draft beams, of stops extending between and connecting said draft beams, a draw bar extending through said stops, said draw bar being formed with a shoulder adjacent one of the stops, a sleeve mounted on the draw bar and formed with a shouldered portion adjacent another of the stops, means for retaining the said sleeve on the draw bar, and stress transmitting means adapted to engage the shoulder of the draw bar and the shouldered portion of the sleeve.

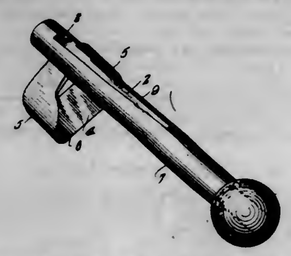
3. In draft rigging, the combination, with draft beams, of cross stops connecting the same and each comprising upper and lower cross plates and spaced connecting plates connected to said cross plates, the draw bar extending through said stops between the upper and lower and spaced plates thereof, and means for transmitting stresses from the draw bar to the stops.

4. In draft rigging, the combination, with draft beams, of cross stops connecting the same and each comprising upper and lower cross plates and spaced connecting plates connected to said cross plates, the draw bar extending through said stops between the upper and lower and spaced plates thereof, and means for transmitting stresses from the draw bar to the stops, the said spaced connecting plates being spaced a distance sufficiently greater than the cross sectional dimension of the draw bar for allowing radial swing thereof.

1,073,517. TOOL FOR INSTALLING TURPENTINE-CUPS. GEORGE C. PRINGLE, Biloxi, Miss. Filed May 17, 1911. Serial No. 627,651. (Cl. 47—40.)

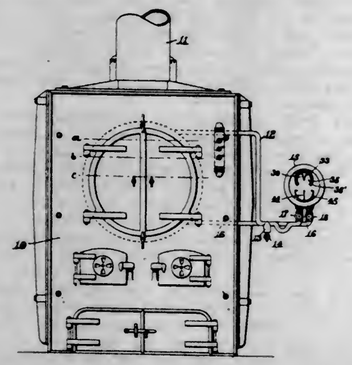
The combination with a handle, of a cutting element comprising, in a one piece structure, a shank, a cutting head thereon having a straight front face and side portions converging from the front face to the shank, said straight front face having a straight cutting edge and the side portions being formed with inclined cutting edges converging toward the shank and disposed in a plane that

approximates an angle of 45 degrees to the straight front face of the cutting head, the cutting head and shank being connected by a straight neck disposed at right angles to the shank and adapted to be removably seated in the handle, said shank constituting means for engaging one side of the handle and said diverging side portions con-



stituting abutments for the other side of the handle, to hold the head against sliding movement toward or away from the handle, the inclined lower edges of the head constituting means for permitting downward tilting of the head relative to the handle and the withdrawal of the shank from the handle.

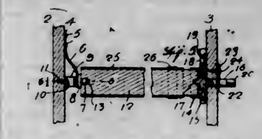
1,073,518. WATER-LEVEL-INDICATING DEVICE FOR BOILERS. MARTIN GRIFFIN QUIGLEY, Charlestown, Mass. Filed May 24, 1912. Serial No. 699,590. (Cl. 73—109.)



1. In a device of the class described, the combination with a casing member of two spring tubes therein; means connecting one of said tubes with the steam compartment of a boiler; means connecting the other tube with said boiler below the water level therein; a graduated scale; a pointer coacting therewith; a spindle therefor; a gear on said spindle; a gear segment meshing therewith; a pivoted member; links connecting the opposite ends thereof with the free ends of said tubes; and a link between said pivoted member and said segment.

2. In a device of the class described, the combination with a casing member; of two spring tubes therein; means for connecting the steam compartment of a boiler with one of said tubes; means for connecting the other tube with the boiler below the water level therein; a graduated arc; a pointer coacting therewith, a spindle to which said pointer is secured; a pinion on said spindle; a bell crank lever provided with a gear segment meshing with said pinion; a pivoted member; a link between said member and said bell crank lever; and link connections between the ends of said pivoted member and the free ends of said spring tubes.

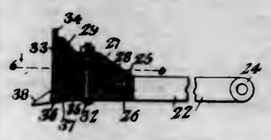
1,073,519. FABRIC HOLDER AND EXHIBITOR. FRANK A. RAABE, Stanton, Nebr. Filed Apr. 8, 1913. Serial No. 759,635. (Cl. 211—18.)



1. A device of the character specified, comprising an open supporting frame, a series of vertically spaced hangers secured to the frame at one side thereof, each hanger having a journal pin offset inwardly toward the opposite side of the frame, a roller for each hanger, each roller having an opening for the journal pin in one end, means at the opposite side of the frame for supporting the opposite end of each roller, and means in connection with the said supporting means for preventing reverse movement of the roller.

2. In a device of the character specified, comprising an open supporting frame and rollers journaled in the frame, each roller having at one end an axial opening, a resilient hanger secured at one end to the supporting frame adjacent to each roller and having at the other end a journal pin for engaging the axial opening of the adjacent roller, said end of the hanger being offset toward the roller, and a block slidable on the frame at the said end of each hanger to prevent withdrawal of the journal pin, each roller having means for engaging the opposite side of the frame to support the roller.

1,073,520. PROPELLER FOR SELF-PROPELLED SLEDS. CHARLES B. RASTELLO, Hancock, Mich. Filed Feb. 7, 1912. Serial No. 676,010. (Cl. 21—47.)



1. A stiff propeller leg provided at one end with means for connecting it to the crank element of a sled, a foot rigid with and located at the other end of the propeller leg and provided with projecting means adapted to be embedded in snow or ice, and a cushioning device mounted on the foot above the inner ends of the said projecting means to limit the penetration of the same and relieve the sled of jar.

2. A stiff propeller leg provided at one end with means for connecting it to a crank element, a foot rigid with and arranged at the other end of the propeller leg and provided with projecting teeth, and a cushion or shoe mounted on the foot above and at the inner ends of the said teeth and arranged to engage the surface to limit the penetration of the teeth and to relieve the sled of jar.

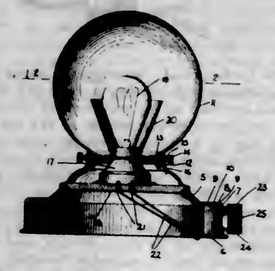
3. A propeller bar or leg provided at one end with means for connecting it to the crank element of a sled, an inwardly tapered foot secured to the other end of the leg or bar and provided with a recess and having a reversely tapered projecting portion overhanging the recess, and a cushion secured in the recess of the foot and provided with a tapered recess receiving the tapered projecting portion of said foot.

4. A stiff inclined propeller leg provided at its upper end with means for connecting it with a crank element, a transverse row of teeth rigid with and projecting outwardly from the lower end of the leg at the bottom thereof, and an elastic cushion mounted on the leg at the lower end thereof and located above and at the inner ends of the teeth and presenting a flat engaging face rising from the said row of teeth and adapted to limit the penetration of the same and cushion the sled.

5. An inclined propeller leg provided at its upper end with means for connecting it with a crank element, a foot rigid with and arranged at the lower end of the leg and provided at the bottom with a recess, a rigid plate detachably secured in the recess of the foot and provided with a transverse row of teeth projecting outwardly beyond the foot, and a removable elastic cushion mounted on the foot and located above and at the inner ends of the said teeth and having an engaging face of a width substantially coextensive with the length of the row of teeth, said cushion being adapted to limit the penetration of the teeth and cushion a sled.

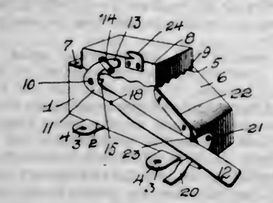
[Claims 6 and 7 not printed in the Gazette.]

1,073,521. ILLUMINATED FOUNTAIN. JAMES HYTER REICHART, La Fayette, Ind. Filed May 28, 1912. Serial No. 700,152. (Cl. 137—11.)



In an illuminated fountain, a frame having an outer annular spray member at its bottom, serving as a base for resting on a lawn, the frame extending above the spray member and having a central lamp socket disposed above the horizontal plane at the top of the spray member, so that a lamp in the socket may throw its light laterally beyond the fountain, unobstructed by the frame, a reflector disposed around the lamp socket, and diverging upwardly therefrom, and a globe disposed over the lamp socket, and the reflector, and secured to the frame, within the spray member.

1,073,522. THREAD AND TWINE CUTTING DEVICE. STEVE RONDA, Detroit, Mich. Filed June 11, 1913. Serial No. 773,097. (Cl. 30—14.)



1. A thread and twine cutting device comprising a stationary clamping member and a hinged clamping member, said members having corrugated confronting faces adapted to hold a thread or twine, a notched cutter carried by said hinged clamping member, a spring pressed lever carried by said stationary member for moving said hinged member, and means carried by said stationary member for holding said lever with said hinged member in a closed position.

2. A thread and twine cutting device comprising a stationary clamping member and a hinged clamping member, said members having corrugated confronting faces adapted to hold a thread or twine, a notched cutter carried by said hinged clamping member, a spring pressed lever carried by said stationary member for moving said hinged member, means carried by said stationary member for holding said lever with said hinged member in a closed position, and means carried by said stationary member for releasing said lever whereby said hinged member can assume an open position.

1,073,523. MANUFACTURE OF SODIUM ALLOYS. EDMUND CHARLES ROSSITER, Birmingham, England, assignor to The British Cyanides Company, Limited, London, England. Filed Feb. 21, 1913. Serial No. 749,898. (Cl. 75—183.)

1. A process for the manufacture of sodium alloys, which consists of heating together a mixture of sodium hydrate, carbon and a metal, and agitating the mixture while thus heated.

2. A process for the manufacture of sodium alloys which consists of heating sodium hydrate, pouring it together with powdered carbon into molten lead and stirring the mixture.

1,073,524. THERAPEUTIC DEVICE. WALLACE BYRNE RUSSELL, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,818. (Cl. 128—28.)



1. A therapeutic device for the purpose described comprising a frame formed in hingedly connected sections and comprising lateral spring loops, a central inwardly extending loop and parallel bars, an apertured lug on the end of one of said bars, a slotted connecting plate having a sliding engagement with said bars to hold said sections of the frame together in operative position, and a plate adjusting screw having a threaded engagement with said lug and a swiveled connection with said plate whereby the latter may be adjusted on said bars to regulate the resiliency of said spring loops and whereby the plate may be disengaged from one of said bars to permit the sections of the frame to be opened.

2. A therapeutic device of the character described comprising a frame having laterally extending spring loops, and a central inwardly extending loop, a plate adjusting screw having a threaded engagement with said inwardly extending loop and a pressure plate swiveled on said screw and adapted to be adjusted thereby for the purpose described.

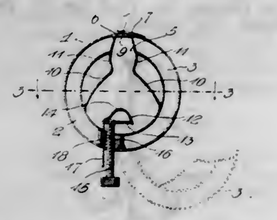
3. A therapeutic device of the character described comprising a frame having laterally extending spring loops, a central inwardly extending loop and parallel bars adjustable means to connect said bars and to regulate the resiliency of said spring loops, a pressure plate adjusting screw having a threaded engagement with said inwardly extending loop, and a pressure plate swiveled on said screw and adapted to be adjusted thereby to regulate the pressure of the frame on the organ to which the same is applied.

4. A therapeutic device for the purpose described comprising a frame formed in hingedly connected sections and comprising lateral spring loops, a central inwardly extending loop and parallel bars, means engaged with said bars to fasten said hinged sections of the frame together, a pressure plate adjusting screw having a threaded engagement with said inwardly extending loop, and a pressure plate swiveled on the inner end of said screw and adapted to be adjusted thereby to regulate the pressure of the frame on the organ to which it is applied.

5. A therapeutic device for the purpose described comprising a frame formed in hingedly connected sections

and comprising lateral spring loops, a central inwardly extending loop and parallel bars, an apertured lug on the end of one of said bars, a slotted connecting plate having a sliding engagement with said bars to hold said sections of the frame together in operative position, a plate adjusting screw having a threaded engagement with said lug and a swiveled connection with said plate whereby the latter may be adjusted on said bars to regulate the resiliency of said spring loops and whereby the plate may be disengaged from one of said bars to permit the sections of the frame to be opened, a pressure plate adjusting screw having a threaded engagement with said inwardly extending loop, and a pressure plate swiveled on the inner end of said screw and adapted to be adjusted thereby to regulate the pressure of the frame on the organ to which it is applied.

1,073,525. THERAPEUTIC DEVICE. WALLACE BYRNE RUSSELL, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,819. (Cl. 128—28.)



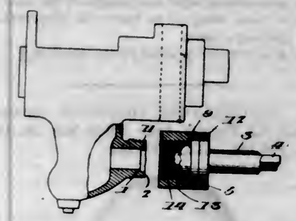
1. A therapeutic device of the character described comprising a frame formed in hingedly connected semi-circular sections, a catch to hold said sections in closed position, pressure plates fixed to the inner sides of the upper ends of said sections, an adjusting screw having a threaded engagement with the lower end of one of the sections of the frame, a plate swiveled on the inner end of said screw, and a guide bar fixed at its inner end to said plate and having a sliding engagement with one of the sections.

2. A therapeutic device of the character described comprising a frame formed in hingedly connected sections, an automatically closing catch to hold said sections in closed position, pressure plates arranged in the upper portions of said sections in position to engage and impart pressure at the proper places to the organ with which the device is engaged and an adjustable pressure applying mechanism to force the organ into engagement with said plates.

3. A therapeutic device of the character described comprising a circular frame formed in sections hingedly connected at one end, a spacing lug on the free end of one of said sections and adapted to engage the adjacent end of the opposing section whereby said ends are spaced apart, a spring catch to hold said sections in closed and operative position, pressure plates arranged in the upper portions of said sections and in position to properly engage the organ to which the device is applied, and an adjustable pressure applying mechanism to force the organ into engagement with said plates.

4. A therapeutic device of the character described comprising a frame formed in hingedly connected sections having their free ends spaced apart, an automatically engaging catch to hold said sections in closed position, pressure plates fixed to and spaced from the inner sides of the upper ends of said sections in position to properly engage the organ to which the device is applied, an adjustable pressure applying device comprising an adjusting screw having a threaded engagement with one of the sections of the frame, at the opposite ends thereof from said fixed pressure plates, an organ engaging member having a swiveled engagement with the inner end of said screw whereby said plate is adjusted to force the organ into engagement with said fixed pressure plates, and a guide bar fixed at its inner end to said organ engaging member and having a sliding engagement with one of the sections of the frame whereby said organ engaging member is guided and held against turning with said screw.

1,073,526. REFACING AND RECOUNTERBORING TOOL. ARCHIE N. RUTAN, Elmira, N. Y. Filed Aug. 29, 1912. Serial No. 717,778. (Cl. 90—12.5.)



1. A metal-working tool, comprising a shank, of circular form in cross-section, having a rear end of angular form in cross-section; an enlargement of circular form in outline, integral with the shank at the forward end thereof and having a central threaded socket and also having a circular series of cutting teeth on its forward side; a cutting member smaller in diameter than said circular series of cutting teeth, disposed in front of said enlargement and having a threaded stem disposed in the socket of the enlargement, and also having a circular series of cutting teeth on its forward side, and a central angular depression; and a revoluble coupling made up of a collar mounted on the shank back of the integral enlargement and having a reduced and threaded portion, and a tube threaded on said reduced portion and surrounding and extending forward of the cutters and having its forward portion interiorly threaded and also having a circular smooth bore in rear of said threaded portion.

2. A metal working tool, comprising a shank of circular form in cross-section, an enlargement of circular form in outline, fixed with respect to the shank at the forward end thereof and having cutting teeth on its forward side, a smaller cutting member disposed in front of and fixed with respect to said enlargement and having cutting teeth on its forward side, and a revoluble coupling having a collar mounted on the shank behind the said enlargement, and a tube fixed with respect to said collar and surrounding and extending forwardly of the cutting means and having its forward portion interiorly threaded and also having a circular smooth bore in rear of said threaded portion.

3. A metal working tool, comprising a shank of circular form in cross-section, an enlargement of circular form in outline integral with the shank at the forward end thereof and having cutting means on its forward side, and a revoluble coupling made up of a collar mounted on the shank back of the circular enlargement, and a tube fixed with respect to said collar and surrounding and extending forwardly of the circular enlargement and having its forward portion interiorly threaded and also having a circular smooth bore in rear of said threaded portion.

1,073,527. SUBSTITUTE FOR RUBBER. JOSEPH BARTON SCAMMELL, London, England, assignor to Rubber Substitute (1910) Limited, London, England. Filed Apr. 7, 1911. Serial No. 619,572. (Cl. 106—23.)

1. The herein described method of producing a substitute for rubber which consists in soaking cellulose in a fatty acid, removing excess of the acid, adding the cellulose to an oil vulcanizable by sulfur chlorid, introducing chlorid of sulfur so that the cellulose is dissolved, and neutralizing the acids formed.

2. The herein described method of producing a substitute for rubber which consists in soaking cotton in a fatty acid, removing excess of the acid, adding the cotton to an oil vulcanizable by sulfur chlorid, introducing chlorid of sulfur so that the cotton is dissolved, and neutralizing the acids formed.

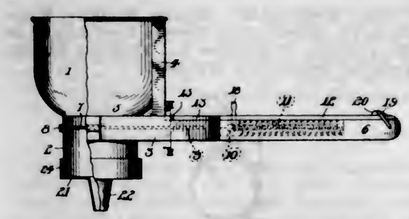
3. The herein described method of producing a substitute for rubber which consists in soaking cotton in butyric acid, removing excess of the acid, adding the cotton to an oil vulcanizable by sulfur chlorid, introducing chlorid of sulfur so that the cotton is dissolved, and neutralizing the acids formed.

4. The herein described method of producing a substitute for rubber which consists in soaking cotton in butyric acid, removing excess of butyric acid, adding the cotton to an oil vulcanizable by sulfur chlorid, introducing chlorid of sulfur so that the cotton is dissolved, neutralizing the acids formed, and adding a further quantity of chlorid of sulfur to cause the mixture to solidify.

5. The herein described method of producing a substitute for rubber which consists in soaking cellulose in a fatty acid, removing excess of the acid, adding the cellulose to an oil vulcanizable by sulfur chlorid containing a gum resin, the said gum resin being dissolved in the oil at comparatively low temperatures, introducing chlorid of sulfur so that the cellulose is dissolved, and neutralizing the acids formed.

[Claims 6 and 7 not printed in the Gazette.]

1,073,528. UTENSIL. HERMAN J. M. SCHAAB, Millvale, Pa. Filed Mar. 1, 1913. Serial No. 751,456. (Cl. 226—33.)

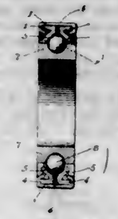


1. A utensil comprising a receptacle formed with a spout, a horizontally disposed slide casing projecting from said spout, vertical ribs connecting said casing to said receptacle, a handle projecting from said casing, a handle plate mounted upon said handle and formed with a cover closing the top of the casing, a slide valve arranged in said spout for closing the same and provided with a stem extending through the casing and into said handle, said stem having a head arranged in the handle, a spring controlled element within said handle for maintaining the valve closed, and a finger piece connected to said head and slidable upon the upper face of said plate.

2. A utensil comprising a receptacle formed with a spout, a horizontally disposed slide casing projecting from said spout, vertical ribs connecting said casing to said receptacle, a handle projecting from said casing, a handle plate mounted upon said handle and formed with a cover closing the top of the casing, a slide valve arranged in said spout for closing the same and provided with a stem extending through the casing and into said handle, said stem having a head arranged in the handle, a spring controlled element within said handle for maintaining the valve closed, a finger piece connected to said head and slidable upon the upper face of said plate, and a stem guide carried by said plate and depending in said handle.

1,073,529. ANNULAR BALL-BEARING. JOHN W. SCHATZ, Poughkeepsie, N. Y., assignor of one-third to Herman A. Schatz and one-third to Grover H. Schatz, Poughkeepsie, N. Y. Filed Sept. 7, 1912. Serial No. 719,044. (Cl. 64—36.)

1. As a new article of manufacture, a complete, self-contained and self-supporting ball bearing unit having two cup rings made of sheet metal, each having a member parallel with the axis of the bearings and another member at an angle thereto arranged side by side, a sheet metal jacket which extends across the said parallel members, its sides being crimped about the outer edges of said parallel members, the edges of said sides being turned inwardly to stiffen the jacket, an interior bearing or cone, and balls between the cup rings and the cone.



2. As a new article of manufacture, a bearing having two cup rings made of sheet metal, each having a member parallel with the axis of the bearing and another member at an angle thereto arranged side by side, a sheet metal jacket which embraces and confines the cup rings, the edges of said jacket being crimped about the edges of the parallel members of the rings and extended to and adapted to brace the angular members of said rings, an interior bearing or cone and balls between the cup rings and the cone.

3. As a new article of manufacture, a bearing having two cup rings made of sheet metal, each having a member parallel with the axis of the bearing and another member at an angle thereto arranged side by side, a parallel sided washer between the meeting edges of said rings, a sheet metal jacket which surrounds said rings, the edges of which jacket are crimped about the outer edges of the parallel members and extend to and are adapted to brace the angular members of the rings, an interior bearing or cone, and balls between the cup rings and the cone.

1,073,530. BALL-BEARING. JOHN W. SCHATZ, Poughkeepsie, N. Y., assignor of one-third to Herman A. Schatz and one-third to Grover H. Schatz, Poughkeepsie, N. Y. Filed Mar. 12, 1913. Serial No. 753,723. (Cl. 64—36.)



1. A self-contained ball bearing, comprising an exterior supporting jacket, a pair of cup rings, reinforcing pieces between the cup rings and the jacket, the edges of the latter being bent inwardly to brace the cup rings, balls and a cone.

2. A self-contained ball bearing, comprising an exterior supporting jacket, a pair of cup rings, reinforcing pieces between the cup rings and the jacket, the edges of the latter being bent inwardly to brace the cup rings, balls, a cone and a spacing ring for the balls located radially between the cup rings.

3. In a ball bearing, an exterior supporting jacket, a pair of cup rings, reinforcing pieces between the cup rings and the jacket, the edges of the jacket being turned inwardly to embrace and hold the reinforcing pieces in position, balls and a cone.

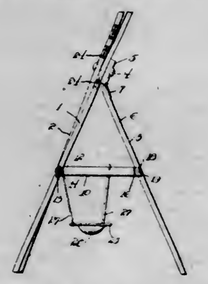
4. In a ball bearing an exterior supporting jacket, a pair of cup rings, the outer edges whereof rest upon the jacket, reinforcing pieces between the cup rings and the

jacket, the edges of the jacket being turned inwardly to inclose the reinforcing pieces and extended to act as braces for the cup rings and reinforcing pieces, balls and a cone.

5. A self-contained ball bearing, comprising an exterior supporting jacket, a pair of cup rings, reinforcing pieces between the cup rings and the jacket, the edges of the jacket being turned inwardly to act as a brace for the reinforcing pieces and the cup rings, a plate-like spacing ring having recesses in its inner edge, each adapted to receive one of the balls of the series, balls and a cone.

[Claim 6 not printed in the Gazette.]

1,073,531. COLLAPSIBLE SUPPORTING-RACK. PHILIPP SCHNEIDER, St. Charles, Mo. Filed Nov. 30, 1912. Serial No. 734,393. (Cl. 45—13.)

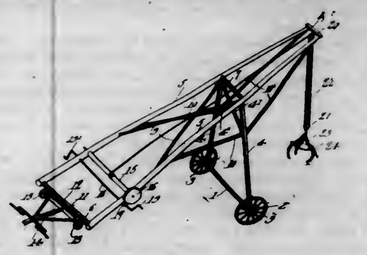


1. In a device of the class described, a pair of side leg members pivotally connected for swinging movement in parallel planes, a bracing leg member including an attaching portion pivotally connected with said side members to swing in a plane therewith, and a movable portion pivotally connected to the attaching portion to permit the last-named portion to swing in a plane disposed at right angles to the planes of movement of the side members, a spacing bar pivotally attached to one of said side members and adapted to fold against the same when the device is in collapsed position, and means by which the free end of said bar may be attached to the other side member in order to space the same in extended position, a pair of spacing bars pivotally attached to the movable portion of the bracing member and adapted to fold thereagainst, said pair of spacing bars being adapted to engage the first named bar when the device is in extended position, and means by which the free ends of said bars may be detachably secured to the first-named bar.

2. In a device of the class described, a pair of side leg members pivotally connected for swinging movement in parallel planes, a bracing leg member including an attaching portion pivotally connected with the said side members to swing in a plane parallel therewith and a movable portion pivotally connected to the attaching portion to permit the last-named portion to swing in a plane disposed at right angles to the planes of movement of the side members, a spacing bar for securing said side members in extended position, a pair of spacing bars attached to the bracing leg member, each of said bars comprising an attaching portion pivotally connected to one side face of the bracing member for swinging movement in a plane parallel thereto, and a transversely swinging portion pivotally connected to the attaching portion, and means for detachably securing the free end of each of said spacing bars to the first-named bar connecting the said members.

1,073,532. STONE-LOADING APPARATUS. IVER T. SEWALL, Lowry, Minn. Filed Sept. 3, 1912. Serial No. 718,317. (Cl. 212—142.)

A stone loading device comprising a flat, upright frame; a single pair of ground wheels mounted on the lower end of the upright frame; a flat, inclined frame composed of a pair of inclined beams supported by the top of the upright frame at a point nearer to the upper ends of the beams than to the lower ends of the beams, whereby the lower ends of the beams will rest by gravity adjacent the ground; a cross piece connected with the lower ends of the beams and independent of the upright frame; a wheel carrying tree pivoted to the cross piece; braces connected



with the beams and the upright frame, adjacent the juncture between the frames, whereby an unobstructed space is formed below the inclined frame and braces; a shaft journaled in the beams adjacent the lower ends of the beams; and a flexible element connected with the shaft and supported anti-frictionally at the upper ends of the beams.

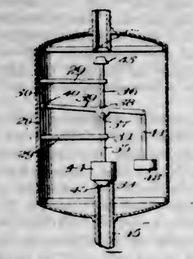
1,073,533. HOSE-CLAMP. MICHAEL W. SHIPP, Wilkes-Barre, Pa., assignor of two-thirds to Jacob Schmitt and Harry Murphy, Wilkes-Barre, Pa. Filed July 13, 1912. Serial No. 709,152. (Cl. 137—28.)

1. A hose clamp comprising a flexible clamping band having the end portions thereof overlapped, a clamping lever pivotally connected to one end of said band, an open center link through which said lever passes, a flexible link holding strap having said link pivotally connected thereto, interlocking teeth on said band and strap permitting the strap to be adjusted circumferentially of the band, and a spring tongue formed by cutting the band in substantially parallel lines and transversely between said lines and bending the portion separated by such cuts outwardly so as to lie outside of the band and exert an inward pressure on the link holding member.

2. A hose clamp comprising a flexible clamping band having the end portions thereof overlapped, a clamping lever pivotally connected to one end of said band, an open center link through which said lever passes, a flexible link holding strap having said link pivotally connected thereto, interlocking teeth on said band and strap permitting the strap to be adjusted circumferentially of the band, and a spring tongue formed by cutting the band in substantially parallel lines and transversely between said lines and bending the portion separated by such cuts outwardly so as to lie outside of the band and exert an inward pressure on the link holding member, the link holding strap being formed with a slot through which said spring tongue extends.

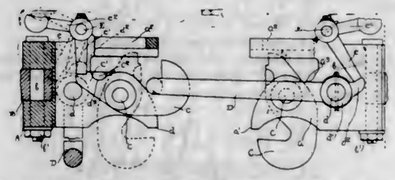
3. A hose clamp comprising a flexible clamping band having the end portions thereof overlapped, a clamping lever pivotally connected to one end of said band, an open center link through which said lever passes, a flexible link holding strap having said link pivotally connected thereto, interlocking teeth on said band and strap permitting the strap to be adjusted circumferentially of the band, the link holding strap being formed with a slot, and a spring tongue on the band passing through said slot and serving to press the stop yieldingly against the band.

1,073,534. LIQUID-FUEL HEATING APPARATUS. FRANK P. SHOEMAKER, Basic City, Va. Filed June 16, 1911. Serial No. 633,476. (Cl. 137—68.)



In a liquid fuel heating apparatus, a tank having an inlet and an outlet, a plate mounted in the said tank, arms extended laterally from the said plate, a lug integrally formed on the plate, between the said arms, a rod mounted to swing on the said lug, valve rods mounted to slidably extend through apertures in the said arms and having each one end pivotally connected to the rod mounted on the said lug, a valve secured to the upper end of one of the said valve rods and adapted to close the said inlet, a float carried by the other valve rod, a valve integrally formed on the said float and adapted to close the said outlet and a weight secured to the outer end of the rod mounted on the said lug.

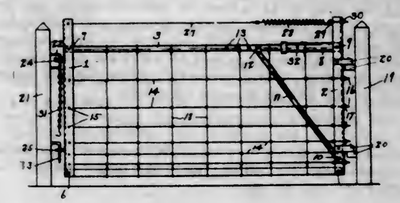
1,073,535. AUTOMATIC COUPLING FOR RAILWAY-CARRIAGES, WAGONS, AND THE LIKE. VINCENT WILLIAM JOSEPH SMITH, Edinburgh, Scotland. Filed Apr. 16, 1913. Serial No. 761,484. (Cl. 213—45.)



1. An automatic car coupling comprising a main body pivotally connected with the draw-bar of the car, said body having forwardly projecting cheeks and a similarly projecting top plate, a coupling link journaled to said cheeks a coupling hook hinged between said cheeks; an arresting bolt journaled in said body, arresting fingers on said bolt adapted to engage with said link and said hook respectively to retain them in horizontal position; a counter poised lever on said bolt tending to swing said fingers forward; said link when in horizontal position adapted to impinge with the hook in a similarly arranged coupling on another car, when said hook hangs in the vertical position, thereby throwing the hook into horizontal position and into engagement with a finger of its arresting bolt and with said coupling link.

2. An automatic car coupling comprising a main body pivotally connected with the draw-bar of the car permitting horizontal oscillation of said body, said body having forwardly projecting cheeks and a similarly projecting top plate above said cheeks, a coupling link journaled to said cheeks and provided with a rearward projection; a coupling hook hinged between said cheeks, in front of the pivot point of said link, said hook and said link adapted to swing in a vertical direction; said hook being provided with a tail piece having transversely extending lugs adapted to contact with said cheeks to limit the swinging of said hook; an arresting bolt horizontally journaled in said body, arresting fingers on said bolt adapted to engage with said link projection and said hook tail respectively, and retain the link and the hook in horizontal position; a counter poised lever on said bolt tending to swing said fingers forward, said lever, on being manually operated causing the disengagement of said fingers from said hook and link; said link when in horizontal position adapted to impinge with the tail of the hook in a similarly arranged coupling on another car, when said hook hangs in the vertical position, thereby throwing the hook into horizontal position and into engagement with a finger of its arresting bolt and with said coupling link.

1,073,536. FARM-GATE. JAMES W. SNEDEKER, Adrian, Mich. Filed Oct. 28, 1912. Serial No. 728,026. (Cl. 39—25.)



1. A gate comprising vertical end bars and upper and lower horizontal bars, the lower bar being pivoted at its ends to the lower ends of the end bars respectively, the upper bar being pivoted at one end to an end bar and having a slidable connection at the other end with the other end bar, a diagonal brace pivoted to the rear end bar and to the slidable bar, and tension means extending between and connecting the end bars.

2. A gate comprising vertical end bars and upper and lower horizontal bars, the lower bar being pivoted at its ends to the lower ends of the end bars respectively, the upper bar being pivoted at one end to an end bar and having a slidable connection at the other end with the other end bar, a diagonal brace pivoted to the rear end bar and to the slidable bar, tension means extending between and connecting the end bars, and means for placing stress upon said tension means.

3. A gate comprising vertical end bars and upper and lower horizontal bars, the lower bar being pivoted at its ends to the lower ends of the end bars respectively, the major portion of the upper bar being pivoted at one end to the upper end of an end bar and having a minor section into which said major portion is slidable, said minor section being pivoted to the upper end of the other end bar, a diagonal brace pivoted to the rear end bar and to the slidable portion of the upper bar, and tension means extending between and connecting the end bars.

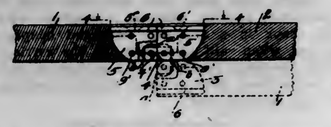
4. A gate comprising a quadrangular frame whose members are pivoted together at three corners, the upper horizontal member of the frame at the fourth corner having a slidable section and a pivotal engagement with the vertical member, a diagonal brace pivoted to the members of the frame and crossing the corner where the members of the frame are slidably engaged, a tension strand extending between and connecting the end members of the frame, and means for placing longitudinal stress upon said strand.

5. A gate comprising vertical end bars and upper and lower horizontal bars, the lower horizontal bar being pivoted at its ends to the lower ends of the vertical end bars, respectively, the other horizontal bar being pivoted at its forward end to the upper end of the front vertical bar, a support pivoted to the upper end of the rear vertical bar, the rear end of the upper horizontal bar

having a slidable engagement with said support, a diagonal brace pivoted to the rear vertical bar and to the upper horizontal bar, and tension means extending between and connecting the end bars.

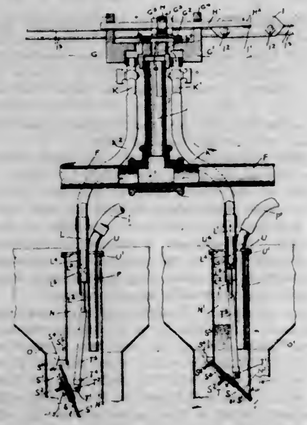
[Claims 6 and 7 not printed in the Gazette.]

1,073,537. HINGE. GEORGE STEINGRUBER, Hazlehurst, Miss. Filed Apr. 26, 1913. Serial No. 763,819. (Cl. 16—27.)



A hinge comprising a pair of attaching members each consisting of a pair of outer plates having opposing wing portions bent at angles to said plate and a plate disposed intermediate the outer plates, said last mentioned plate being cut away so as to form an internal socket, the terminals of said cut-away portion forming abutment shoulders, and a rectangular link connected to said members so as to pivotally move in said cut away portions, the terminal shoulders of said cut-away portion limiting movements of the link in opposite directions.

1,073,538. MILKING APPARATUS. AARON F. STEPHENS, Canisteo, N. Y. Filed Apr. 24, 1912. Serial No. 692,774. (Cl. 31—99.)



1. A milking apparatus, comprising a suction chamber having a movable closure for opening and closing the chamber, a connection adapted to connect with the teats and discharging into the said suction chamber, a vacuum chamber, a main suction pipe connected with said vacuum chamber, a controlling valve, a pipe connection controlled by said valve for connecting the suction chamber alternately with the main suction pipe and with the atmosphere to produce a suction in the said suction chamber for drawing in the milk and admitting air to the said suction chamber and thereby opening the said closure to discharge the milk from the chamber, and means in the said pipe connection and connected with the said movable closure, the said means being controlled by the exhaust of the air from the suction chamber to move the said closure into closed position.

2. A milking apparatus, comprising a suction chamber adapted to be connected with the teats for drawing the milk into the suction chamber, the latter having a hinged bottom adapted to open for discharging the milk into a milk receiving receptacle, suction means, and a reciprocating valve controlling the suction means for alternately producing a suction in the said chamber and teats and admitting air to the chamber to break the vacuum and to open the closure.

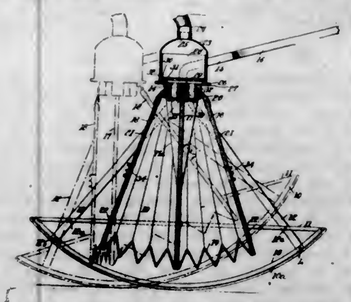
3. A milking apparatus, comprising a main suction pipe, a suction chamber having a movable outlet, a connection adapted to engage the teats of a cow's udder and discharging into the said suction chamber, a pipe connection connected with the suction chamber, a valve for connecting the said pipe connection alternately with the main suction pipe and the atmosphere, and means movable in the said pipe connection and controlled by the admission and exhaust of the air, the said means being connected with the said movable outlet for operating the same.

4. A milking apparatus, comprising a main suction pipe, a valve casing having ports of which one is adapted to lead to the atmosphere and the other connects with the said main suction pipe, a slide valve for alternately connecting the first mentioned port with the atmosphere and with the second mentioned port, means for reciprocating the said slide valve, a suction chamber having a swing bottom for discharging the milk from the said chamber, a connection adapted to connect with the teats and discharging into the said suction chamber, a cylinder having a port opening into the said suction chamber, a piston in the said cylinder controlling the said port, a pipe connecting the said cylinder with the said first mentioned port of the valve casing, and a pitman connecting the said piston with the said bottom.

5. A milking apparatus, comprising a main suction pipe, a valve casing connected with the said main suction pipe and having a port, a controlling valve for connecting said port with the atmosphere and with the suction, a suction chamber adapted to be suspended in a milk receiving receptacle and connected with the said valve casing at said said port, the said suction chamber having a pressure-controlled outlet mounted to swing into open and closed position and adapted to open at the time the said port is open to the atmosphere and to close at the time the said port is connected with the suction pipe to place the suction chamber in communication with the suction, a suction cup connected with the said vacuum chamber, and means connecting the said suction cup with the teats of the cow's udder.

[Claims 6 to 23 not printed in the Gazette.]

1,073,539. PUMPING MEANS FOR VACUUM-CLEANERS. CLARKE W. STEWART, Olean, N. Y. Filed Sept. 19, 1912. Serial No. 721,163. (Cl. 230—2.)



1. In a vacuum cleaning apparatus, the combination of a rocker frame structure adapted to rest on a floor and to be rocked thereon, a bellows supported on said frame structure, a suction chamber in communication with the bellows, and means for operating the bellows by a rocking movement of said frame structure, to produce suction in the said suction chamber.

2. In a vacuum cleaning apparatus, the combination of a frame structure provided with rockers adapted to rest on a floor, a bellows, a suction chamber in communication with the bellows, one wall of which bellows is secured fixedly to said frame, a second wall of the bellows being movable relatively to the first wall, and a handle adapted to rock the frame and cause a movement of one wall relatively to the other.

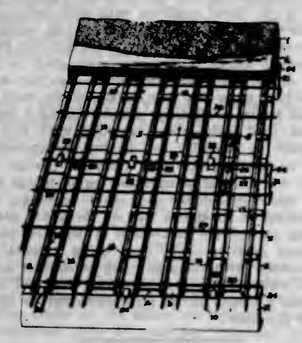
3. In a vacuum cleaner, the combination of a frame structure mounted on rockers, a suction chamber at the top of the frame structure and relatively to which the said structure may rock, a bellows below the suction chamber, said bellows comprising a fixed and a movable wall and being in communication with the suction chamber, and a handle for rocking the frame and moving one of said walls toward and from the other.

4. In a vacuum cleaner, the combination of a supporting frame structure mounted on rockers adapted to rest on a floor and to rock thereon, a head supported at the top of the frame, a suction chamber supported on said head, a double-acting bellows comprising fixed walls and a rocking wall or partition between said fixed walls, and a handle in fixed relation to the rocking wall and adapted to rock the supporting frame structure, the said head having air inlet ports establishing communication between the suction chamber and bellows at the sides of the rockable wall, and the fixed walls being provided with air egress valves.

5. In a vacuum cleaner, the combination of a frame structure provided with rockers adapted to rest on a floor and to rock thereon, a suction chamber, means for producing suction in the suction chamber by the rocking of the frame, and means for rocking said frame.

[Claims 6 to 8 not printed in the Gazette.]

1,073,540. BUILDING CONSTRUCTION. PEREZ M. STEWART, New York, N. Y., assignor, by mesne assignments, to Asbestos Protected Metal Co., a Corporation of Massachusetts. Filed Oct. 11, 1911. Serial No. 654,123. (Cl. 72—70.)



1. In a building construction, in combination, roof purlins, a plurality of corrugated sheets of asbestos protected metal supported by said purlins with abutting sheets resting on the same purlin, a corrugated joint cap covering the joint between the adjacent ends of said sheets, a purlin clip engaging the purlin supporting said abutting sheets and having a member extended up between the edges of said sheets, and through said joint cap and bent over the latter, a layer of concrete laid upon the corrugated sheets, tension rods embedded in said concrete above the valleys of the corrugated sheet, cross wires joining said tension rods, and fingers on said joint cap engaging said cross wires, substantially as described.

2. In a building construction, in combination, roof purlins, a plurality of corrugated sheets of asbestos protected metal supported by said purlins with abutting sheets resting on the same purlin, a corrugated joint cap covering the joint between the adjacent ends of said sheets, a purlin clip engaging the purlin supporting said abutting sheets and having a member extended up between the edges of said sheets and through said cap and bent over the latter, a layer of concrete laid upon the corrugated sheets, saddles in the valleys of said corrugated sheet, and tension rods embedded in said concrete layer and supported by said saddles, substantially as described.

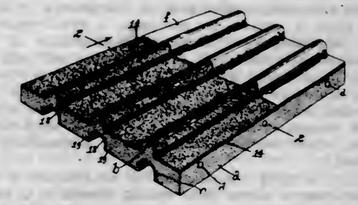
3. In a building construction, in combination, roof purlins, a plurality of corrugated metal sheets supported by said purlins with abutting sheets resting on the same purlin, a corrugated joint cap covering the edges of said abutting sheets and provided with an opening, means extended through said opening and between said abutting sheets for mechanically securing said joint cap to said purlin, and a layer of reinforced concrete laid upon said corrugated sheets, substantially as described.

4. In a building construction, in combination, roof purlins, a plurality of corrugated metal sheets supported by said purlins with abutting sheets resting on the same purlin, a corrugated joint cap covering the edges of said abutting sheets, means for mechanically securing said joint cap to said purlin, a layer of concrete laid upon said corrugated sheets, a reinforcement embedded in said concrete and means for mechanically securing the reinforcement of said concrete layer to said joint cap, substantially as described.

5. In a building construction, in combination, corrugated metal sheets, supports upon which said metal sheets rest, a layer of concrete covering said sheets, a metal reinforcement embedded in said concrete, means for mechanically attaching the metal reinforcement to the corrugated sheets, and means for mechanically attaching the corrugated sheets with the supports for the latter, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,073,541. TILE. PEREZ M. STEWART, New York, N. Y. Filed Sept. 10, 1912. Serial No. 719,604. (Cl. 108—10.)



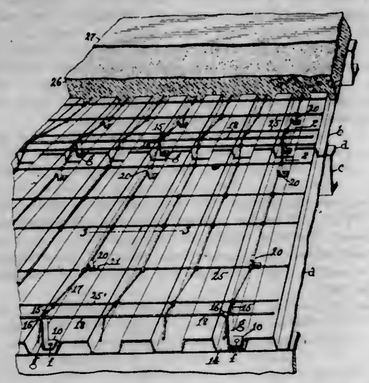
A tile of the character described, comprising a slab or body portion of concrete, and a sheet or layer of fibrous mineral fabric bonded thereto by intermingling of its fibers with the concrete, substantially as described.

1,073,542. BUILDING CONSTRUCTION. PEREZ M. STEWART, New York, N. Y., assignor, by mesne assignments, to Asbestos Protected Metal Co., a Corporation of Massachusetts. Filed Nov. 5, 1912. Serial No. 729,574. (Cl. 72—71.)

1. In a building construction, in combination, roof purlins, corrugated metal sheets supported by said purlins and having their adjacent ends overlapped above a purlin, a clip engaging said purlin and having a self penetrating rivet extended through the overlapped portions of said metal sheets, a bridge piece secured to said metal sheets by said rivet, tension rods supported by said bridge piece, a cross rod supported by said bridge piece and retained thereon by said tension rod, metal clips secured to the bottom of the valleys of the corrugated metal sheets and engaging said tension rods, and a layer of concrete laid upon said corrugated metal sheets and embedding said tension rods, bridge pieces and cross rods, substantially as described.

2. In a building construction, in combination, roof purlins, corrugated metal sheets supported by said purlins and having their adjacent ends overlapped above a purlin, a clip engaging said purlin and having a member

resting on the upper surface thereof, and a rivet extended through the said member and provided with a pointed free end extended through the overlapping sheets to enable the said sheets to be perforated on the job by said rivet and secured to said purlin, substantially as described.



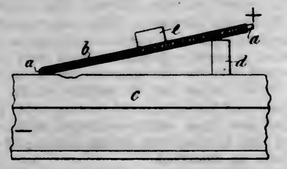
3. In a building construction, in combination, roof purlins, corrugated sheets supported by said purlins, a clip engaging said purlin, a bridge piece secured to said purlin clip, a tension rod supported by said bridge piece above the corrugated sheet and inclined downwardly toward said sheet above a valley thereof, and a retaining clip located in said valley and engaging said tension rod, substantially as described.

4. In a building construction, in combination, a corrugated sheet, a support for the same, a metal reinforcement comprising rods extended longitudinally of the corrugated sheet above the valleys thereof and rods extended transversely of said corrugated sheets, bridge pieces located in valleys of said corrugated sheet and supporting the said rods, and means located in the valleys of said corrugated sheets and engaging said longitudinal rods to retain them in fixed position, substantially as described.

5. In a building construction, in combination, a corrugated sheet, a bridge piece riveted thereto in a valley thereof and having its upper end extended above the corrugated sheet and provided with fingers, one of which is bent at an angle to the other, a reinforcing rod extended between the said fingers transversely of the corrugated sheet, and a second rod extended between the fingers longitudinally of the corrugated sheet, substantially as described.

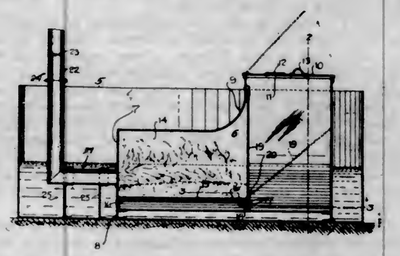
[Claims 6 to 10 not printed in the Gazette.]

1,073,543. ELECTRIC DEPOSITION OF METALS BY FUSION. ARTHUR PERCY STROHMENGER, Westminster, London, England, assignor to Slaughter and Company, Limited, London, England. Filed Jan. 14, 1913. Serial No. 741,942. (Cl. 219—12.)



A process of depositing metal by means of the electric arc, which comprises connecting the work to one pole of a source of electricity, placing above the line along which metal is to be deposited and at an angle to the work a metal electrode coated with insulating material adapted to act as a slag when fused, connecting this electrode to the other pole of the source of current, striking an arc between the work and the end of the electrode, and pressing this end of the electrode down on to the work throughout the continuance of the arc.

1,073,544. TANK-HEATER. WILLIAM H. SUHR, Oelwein, Iowa. Filed Apr. 23, 1913. Serial No. 763,126. (Cl. 126—367.)



1. A tank heater comprising a body having a feed door at one end and provided with legs whereby the body is supported in spaced relation to the base of the water tank, said body being provided with a fire box, a grate plate in said fire box having its opposed ends flanged to space the grate plate from the bottom wall of said body, one of the flanged ends of the grate plate being fixed to one of the body walls and the other flange of the grate plate being provided with a plurality of openings, a door pivotally mounted upon the latter end of the grate plate and constituting one of the end walls of the fire box when in its closed position, said door being movable to an inclined position and its upper end in contact with one of the end walls of the body, to direct the fuel into the fire box, a smoke outlet pipe connected to the opposite end of the body, and supporting legs for said pipe adapted to rest upon the base of the water tank.

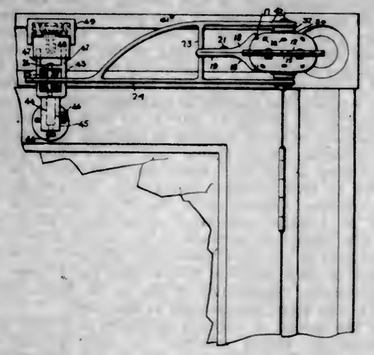
2. A tank heater comprising a body having a feed door at one end, said body being provided with a fire box, a grate plate in said fire box having its opposite ends flanged to space the grate plate from the bottom wall of said body, one of said flanges having openings therein, a sliding plate adjustable over said openings, a door pivotally mounted upon one end of the grate plate and constituting one of the end walls of the fire box when in its closed position, said door being movable to an inclined position with its upper end in contact with one of the end walls of the body to direct the fuel into the fire box, and a smoke outlet pipe connected to the opposite end of the body.

1,073,545. DOOR SPRING AND CHECK. IRA B. TAFT, Cedar Rapids, Iowa. Filed Jan. 4, 1913. Serial No. 740,131. (Cl. 16—46.)

1. A shaft, a member mounted for rotating on the shaft, a spring connecting the member and the shaft, for rotating the member in one direction relatively to the shaft, a finger carried by the member, and an arm pivoted to the shaft and engaged by the finger for pressing against a member on a door.

2. A bracket adapted to be secured to a door frame, a member pivoted to the bracket, a stud, a spring coiled around the stud with a portion pressing against the bracket, and another portion pressing against the member adjacent its pivot, and a frame adapted to be secured to a door and having a finger for engaging the member at one side of the spring.

3. A bracket adapted to be secured to a door frame, a member pivoted to the bracket, a stud, a spring coiled around the stud with a portion pressing against the bracket, and another portion pressing against the member adjacent its pivot, a frame adapted to be secured to a door and having a finger for engaging the member at one side of the spring, said frame having a member, an arm for engaging the last-mentioned member, and means for holding the arm yieldingly in a predetermined position.

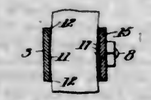


4. A shaft, a casing mounted for rotating on the shaft and having openings, a spring connecting the shaft with the casing for rotating the latter, a finger adjustable relatively to the casing, and having studs for engaging selected openings in the casing for holding the finger in adjusted position relatively to the casing, and means operable by the finger for closing the door.

5. A shaft, a casing mounted for rotating on the shaft and having a recess in its periphery, and an opening at each side, a finger having two portions each with a stud for engaging the casing at an opening when a portion of the finger is disposed in recess, resilient means for rotating the casing relatively to the shaft, and means by which the finger is adapted for operating the door.

[Claims 6 to 9 not printed in the Gazette.]

1,073,546. HORSESHOE-CALK. EDWARD H. TRUNDLE, Washington, D. C. Filed Jan. 13, 1913. Serial No. 741,840. (Cl. 168—34.)

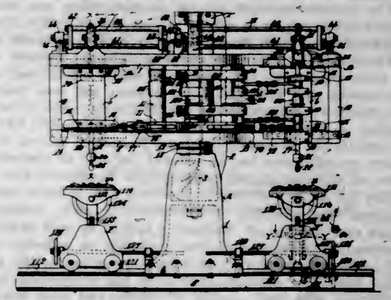


1. A removable horse shoe calk comprising a body portion, a clamping member formed on said body portion, said clamping member having a concave portion terminating in cutting edges on its inner surface, said body portion being provided with an abutting shoulder and seat, a clamping plate having a clamping member adapted to abut against said shoulder and seat and means for adjustably securing said clamping plate to the body portion as and for the purpose set forth.

2. A removable calk for horse shoes, comprising a body portion provided with an aperture and having a projection bent to form a clamping arm, said body portion having a cutaway portion forming a seat and abutting shoulder, said projection provided with a concave on its inner surface terminating in biting edges, a clamping plate provided with a clamping arm, said clamping arm having a plurality of teeth on its inner surface and means for adjustably securing the clamping plate to the body portion substantially as described.

1,073,547. CARVING-MACHINE. MANOEL FERREIRA TUNES, Rio de Janeiro, Brazil. Filed June 7, 1910. Serial No. 565,533. (Cl. 159—7.)

1. In a machine of the character described, the combination, with a support; of a frame mounted thereon and comprising a pair of spaced parallel horizontal sides, and vertical sides connecting the ends of the first-named sides; a pair of movable carriages located in said frame and arranged against opposite faces thereof; coöperating guiding and supporting devices secured to said carriages and said first-named frame sides; a working shaft mounted in one carriage and provided with a tool; a tracer carrier mounted in the other carriage; and connections between said carriages for causing the same to move in unison.



2. In a machine of the character described, the combination, with a support; of a frame rotatably mounted thereon and comprising a pair of spaced parallel horizontal sides, and vertical sides connecting the ends of the first-named sides; a pair of movable carriages located in said frame and arranged against opposite faces thereof; coöperating guiding and supporting devices secured to said carriages and said first-named frame sides; a working shaft mounted in one carriage and provided with a tool; a tracer carrier mounted in the other carriage; and connections between said carriages for causing the same to move in unison.

3. In a machine of the character described, the combination, with a support; of a frame mounted thereon and comprising a pair of spaced parallel horizontal sides, and vertical sides connecting the ends of the same; a pair of carriages slidable in said frame and arranged against opposite faces thereof; a pair of brackets secured to said horizontal sides adjacent each end thereof; a pair of brackets secured to each carriage and associated with the first-named pair of brackets at the adjacent end of the frame; a working shaft mounted in one carriage and provided with a tool; a tracer carriage mounted in the other carrage; and connections between said carriages for causing the same to move in unison.

4. In a machine of the character described, the combination, with a frame and a support therefor; of a pair of carriages movable in the frame; a working shaft mounted in one carriage and provided with an operating tool; a tracer carrier mounted in the other carriage; a two-armed lever connected to said support; and connections between the arms of said lever and said carriages for causing the latter to move in unison.

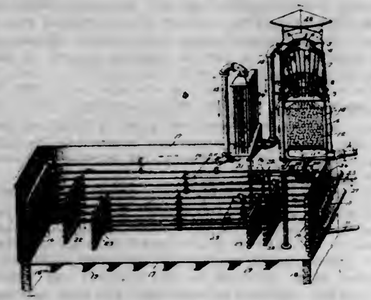
5. In a machine of the character described, the combination, with a frame and a support therefor; of a pair of rocking members mounted upon the frame; a working shaft and a tracer carrier suspended from said members for movement with the same and provided each with an operating tool; and inter-engaged gears connected to said members for synchronizing the movements thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,073,548. PROCESS OF AND APPARATUS FOR DISTILLING PETROLEUM. JOHN W. VAN DYKE and WILLIAM M. IRISH, Philadelphia, Pa., assignors to The Atlantic Refining Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 4, 1909. Serial No. 520,937. (Cl. 196—21.)

1. The process of distilling petroleum in a form which contains the defined lubricant (or lubricant and wax yielding) fraction of the crude petroleum to the extent of

forty per cent. of said fraction as a minimum, by heating such undistilled petroleum to the temperature necessary to distil component hydrocarbons, cooling the evolved vapors first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors, returning condensate from the first mentioned cooling to the oil in distillation and drawing off as distillate condensate formed by said further cooling, and so continuing until the oil in distillation has been substantially reduced in volume yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors and drawing off condensate formed by said partial condensation of vapors evolved from the so reduced oil and condensate formed by said further cooling of the residual vapors at distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate with a viscosity as high as 65 seconds at 100° F. by Saybolt's universal viscosimeter has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, substantially as described.



2. The process of distilling petroleum in a form which contains the defined lubricant (or lubricant and wax yielding) fraction of the crude petroleum to the extent of forty per cent. of said fraction as a minimum, by heating such undistilled petroleum to temperatures above 450° F., cooling the evolved vapors to temperatures above 400° F. and more than 50° F. below the contemporaneous temperatures of the oil in distillation and then to lower temperatures, returning condensate so formed above 400° F. to the oil in distillation and drawing off as distillate condensate formed by the further cooling of vapors whose temperatures are above 400° F. at the place where they pass over to be condensed as such distillate, and so continuing until the oil has been substantially reduced in volume yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors and drawing off condensate formed by said partial condensation of vapors evolved from the so reduced oil and condensate formed by said further cooling of the residual vapors as distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate with a viscosity as high as 65 seconds at 100° F. by Saybolt's universal viscosimeter has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, substantially as described.

3. The process of distilling petroleum in a form which contains the defined lubricant (or lubricant and wax yielding) fraction of the crude petroleum to the extent of forty per cent. of said fraction as a minimum, by heating such undistilled petroleum to the high temperatures necessary to distil hydrocarbons with boiling points above the defined temperature of commencement of cracking of said crude petroleum, cooling the evolved vapors first to temperatures above 400° F. and more than 50° F. below the contemporaneous temperatures of the oil in distillation and then to lower temperatures, returning condensate so formed above 400° F. to the oil in distillation and drawing off as distillate condensate formed by the further cooling of vapors whose temperatures are above 400° F. at the place where they pass over to be condensed as such distillate, and so continuing until the oil in distillation has been substantially reduced yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors and drawing off condensate formed by said partial condensation of vapors evolved from the so reduced oil and condensate formed by said further cooling of the residual vapors as distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate with a viscosity as high as 65 seconds at 100° F. by Saybolt's universal viscosimeter has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condnesed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, substantially as described.

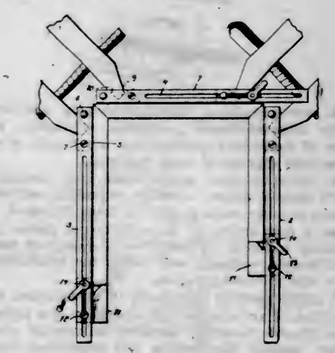
4. The process of distilling petroleum in the form of an undistilled residue of crude petroleum which contains the defined lubricant (or lubricant and wax yielding) fraction of said crude petroleum to the extent of forty per cent. of said fraction as a minimum, by heating such undistilled residue to the high temperatures necessary to distil hydrocarbons with boiling points above the defined temperature of commencement of cracking of said crude petroleum, cooling the evolved vapors first to temperatures above 400° F. and more than 50° F. below the contemporaneous temperatures of the oil in distillation and then to lower temperatures, returning condensate so formed above 400° F. to the oil in distillation and drawing off as distillate condensate formed by the further cooling of vapors whose temperatures are above 400° F. at the place where they pass over to be condensed as such distillate, and so continuing until the oil in distillation has been substantially reduced yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors and drawing off condensate formed by said partial condensation of vapors evolved from the so reduced oil and condensate formed by said further cooling of the residual vapors as distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate with a viscosity as high as 65 seconds at 100° F. by Saybolt's universal viscosimeter has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, substantially as described.

5. The process of distilling petroleum in a form which contains the defined lubricant (or lubricant and wax yielding) fraction of the crude petroleum to the extent of forty per cent. of said fraction as a minimum, by heating such undistilled petroleum to the temperature necessary to distil component hydrocarbons, cooling the evolved vapors first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors, returning condensate from the first mentioned cooling to the oil in distillation and drawing off as distillate condensate formed by said further cooling, and so continuing until the oil in distillation has been substantially reduced in volume yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures above 400° F. and more than 50° F. below the contemporaneous temperatures of the oil in distillation and then to lower temperatures and drawing off condensate formed above 400° F. and condensate formed by further cooling as distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate formed above 400° F. has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, substantially as described.

6. The process of distilling petroleum in a form which contains the defined lubricant (or lubricant and wax yielding) fraction of the crude petroleum to the extent of forty per cent. of said fraction as a minimum, by heating such undistilled petroleum to the temperature necessary to distil component hydrocarbons, cooling the evolved vapors first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors, returning condensate from the first mentioned cooling to the oil in distillation and drawing off as distillate condensate formed by said further cooling, and so continuing until the oil in distillation has been substantially reduced in volume yet not to such extent that it contains less than twenty five per cent. by volume of said lubricant (or lubricant and wax yielding) fraction of the crude petroleum, and thereupon, while the so reduced oil contains said lubricant (or lubricant and wax yielding) fraction to the extent of twenty five per cent. of said fraction of the crude petroleum as a minimum and while the distillation is carried on uninterruptedly, cooling the vapors evolved from the so reduced oil first to temperatures at which a partial condensation is effected and a residue left of uncondensed vapors and then to lower temperatures for effecting condensation of such residual vapors and drawing off condensate formed by said partial condensation of vapors evolved from the so reduced oil and condensate formed by said further cooling of the residual vapors as distinct distillates, and continuing the distillation with such cooling of vapors and such drawing off of distillates until a substantial quantity of condensate with a viscosity as high as 65 seconds at 100° F. by Saybolt's universal viscosimeter has been collected as distillate, the last mentioned distillate being formed from vapors whose average temperature at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation less than the average temperature of the vapors which form the first mentioned distillate in the earlier stage of the distillation at the place where they pass over to be condensed as such distillate differs from the average contemporaneous temperature of the oil in distillation in said earlier stage, and the cooling of the vapors to form condensate returning to the oil in distillation in the earlier stage of the distillation as well as the cooling of vapors to form condensate collected as distillate in both stages being effected by passing said vapors between closely approached heat conducting surfaces after said vapors leave the vapor space of the still, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,073,549. MULTIPLE-JOINT MITER-CLAMP. FRANK WAGNER, St. Louis, Mo. Filed Apr. 22, 1913. Serial No. 762,947. (Cl. 144—292.)



1. The combination with a plurality of parallel jaw clamps, of a plurality of clamping frame members, each of said frame members including a pair of spaced strap members extending in parallel relation to each other, a fixed terminal block mounted between said frame members and an adjustable block slidably mounted between the said strap members, said adjustable and fixed blocks, being each provided with a V-shaped laterally extending groove adapted to receive the gripping jaws of said parallel jaw clamps, and means for securing said adjustable blocks in an adjusted position.

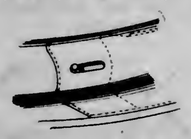
2. The combination with a plurality of parallel jaw clamps of a plurality of clamping frame members, each clamping frame member including a pair of metallic straps arranged in parallel spaced relation to each other, a fixed block mounted between the said straps and at one terminal thereof, and an adjustable block slidably mounted between the said straps, a pair of screws carried by said adjustable block and operating through a pair of longitudinally extending slots formed in said strap members, a locking bolt carried by said adjustable block for producing a gripping engagement of the said strap members with the said block, said adjustable and fixed block members being each provided with a V-shaped laterally extending groove adapted to receive the gripping jaws of the said parallel jaw clamps.

3. The combination with a plurality of parallel jaw clamps, of a clamping frame including a plurality of individual frame members, each of said frame members including a pair of strap members arranged in parallel spaced relation to each other, a fixed block secured between said straps at one terminal thereof, a block slidably mounted between said straps and adapted for longitudinal adjustment, guide lugs carried by said adjustable block and operating in longitudinally extending slots formed in said strap, said adjustable and fixed blocks being each provided with a V-shaped laterally extending groove adapted to receive the gripping jaws of the said parallel jaw clamps, and means for holding said slidable block in adjusted position.

4. The combination with a plurality of parallel jaw clamps, of a clamping frame including a plurality of separate frame members, each of said frame members including a pair of strap members, a fixed block secured termi-

nally between said straps, a slidable block mounted for longitudinal adjustment between said straps, and means for holding said block in adjusted position, said fixed block and said slidable block being each provided with substantially V-shaped laterally extending grooves adapted to receive the gripping jaws of the parallel jaw clamps.

1,073,550. HYDRAULIC PACKING-SHIELD. CHARLES H. WATTS, North Braddock, Pa. Filed Oct. 11, 1912. Serial No. 725,186. (Cl. 121—108.)



1. A piston packing shield comprising non-corrodible metallic channel-shaped telescopic expansible sections capable of supporting packing, the inner wall of each of said sections capable of being flattened.

2. A piston packing shield comprising non-corrodible metallic channel-shaped telescopic expansible sections having concave inner walls capable of being flattened.

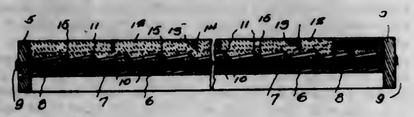
3. As a new article of manufacture, a piston packing comprising a shield formed of a plurality of telescopic channel-shaped sections, and means for interlocking the ends of said sections together.

4. A piston packing comprising in combination, a shield in the form of an annulus and consisting of a plurality of channel-shaped telescopic sections adjustably connected together, packing mounted in and projecting from said shields, and rings mounted upon said packing and abutting against the edges of said sections.

5. A piston packing comprising in combination, an adjustable shield in the form of an annulus consisting of a plurality of channel-shaped sections, the inner wall of each of said sections being concave, the inner wall of one section resting upon the inner wall of an adjacent section, said inner wall of each section capable of being flattened thereby forcing the side walls of each section toward each other.

[Claims 6 to 9 not printed in the Gazette.]

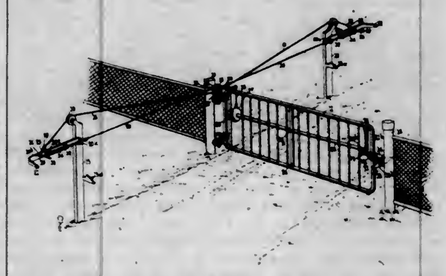
1,073,551. ROOF CONSTRUCTION. HENRY F. WINKELMANN, Nebraska City, Nebr. Filed Aug. 5, 1910. Serial No. 575,675. (Cl. 72—63.)



In combination, oppositely arranged walls, a layer of pliable material extending longitudinally between said walls, a plurality of spaced-apart tie rods extending across and above said pliable layer and engaging said walls, a woven metal net-work member extending across and resting upon said tie rods, a plastic layer surmounting said woven metal member throughout its area and completely embedding the same and said tie rods, and bearing upon said pliable layer, and staples engaging said woven-metal members, straddling said tie-rods and driven into said pliable layer of material.

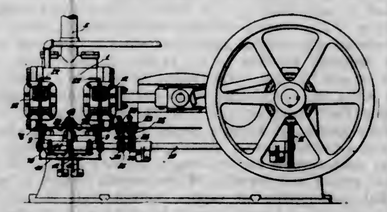
1,073,552. MEANS FOR OPERATING GATES. CHARLES W. WITSIL, East Stroudsburg, Pa., assignor of one-half to Frank O. Williams, Analomink, Pa. Filed Jan. 4, 1913. Serial No. 740,132. (Cl. 39—14.)

1. A gate-operating means comprising in combination with the gate, gate posts and road posts, idlers on the road-posts, operating ropes extending over the idlers, a lever fulcrumed on each road post, rope-connecting members to which the ropes are secured, said members being mounted on the levers between the fulcrums and the free ends, a gate latch, a latch-tripping device on the gate, a latch string connected with the latch-tripping device and having branches extending in opposite directions to the levers on the road posts, a pull-rod carried by each lever to move bodily therewith in the movement of the lever, one end of the pull rod being secured to the latch string and the opposite end having the form of a handle located sufficiently close to the end of the lever for both to be grasped by one hand, and a retractile spring for restoring the pull-rod to its original position after an operating movement.



2. The combination with a hinged gate, gate posts and road posts, of gate-operating ropes extending from the gate in opposite directions to the road posts, levers to which said ropes are secured, the levers being fulcrumed on the road posts, a latch, a latch-tripping device, a latch string connected with said tripping device and branching in opposite directions to the levers, a longitudinally sliding pull rod on each lever, each lever having guide lugs in which the pull rod has movement, a spring between said lugs and serving to return the pull rod to the original position after movement thereof, the lever and the pull rod having lateral handle members approximately parallel with each other and sufficiently close to be both grasped by the hand of the operator.

1,073,553. INTERNAL-COMBUSTION ENGINE. EDWARD T. YOUNG, Boston, Mass., assignor of one-half to Edward E. Badger, Hyde Park, Mass. Filed Dec. 13, 1906. Serial No. 347,617. (Cl. 123—27.)



1. An internal combustion engine, having, in combination, a cylinder, a piston, a combustion chamber communicating with the cylinder and maintained at a sufficiently high temperature to heat above the temperature of ignition of the fuel the air which is contained in said chamber under a compression insufficient to heat it to said temperature of ignition, and means for introducing the fuel and increasing the pressure thereon during a substantial portion of the working stroke of the piston as the piston advances whereby the initial pressure in the cylinder will be maintained.

2. An internal combustion engine, having, in combination, a cylinder, a piston, a combustion chamber communicating with the cylinder through a narrow passage and being maintained at a sufficiently high temperature to heat above the temperature of ignition of the fuel the air which is contained in said chamber under a compression insufficient to heat it to said temperature of ignition, and means for introducing fuel and increasing the pressure thereon during a substantial portion of the working stroke of the piston whereby an increasing quantity of fuel is introduced into said chamber as the piston advances

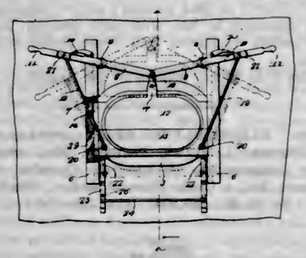
3. An internal combustion engine, having, in combination, a cylinder, a piston, means for heating above the temperature of ignition of the fuel the air which is under insufficient compression to heat it to such temperature of ignition, comprising means for exerting an increasing pressure upon the fuel during the first portion of the piston stroke whereby the fuel will be introduced into the air so heated in increasing quantities during said first portion of the working stroke of the piston.

4. An internal combustion engine, having, in combination, a cylinder, a piston, an unjacketed combustion chamber communicating with the cylinder and maintained at a sufficiently high temperature to heat above the temperature of ignition of the fuel the air which is contained in said chamber under insufficient compression to heat it to said temperature of ignition, and means for increasing the pressure on the fuel during the first portion of the working stroke of the piston whereby the initial pressure in said chamber will be maintained during said first portion of said stroke.

5. An internal combustion engine, having, in combination, a cylinder, a piston, a combustion chamber communicating with the cylinder and maintained at a sufficiently high temperature to heat above the temperature of ignition of the fuel the air which is contained in said chamber under insufficient compression to heat it to said temperature of ignition, and a hollow inward projection in the combustion chamber arranged to be heated by external heating devices, and means for introducing fuel into said chamber during a substantial portion of the working stroke of the piston, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

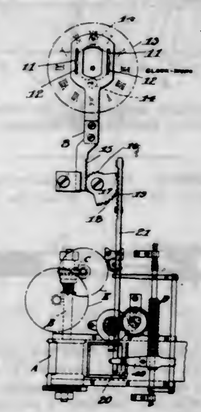
1,073,554. FIRE-DOOR. REILLY W. ZELLER, Sheppton, Pa. Filed June 26, 1912. Serial No. 706,064. (Cl. 110—178.)



1. In combination with a pair of vertical guide bars, upper and lower fire door members mounted for vertical movement between said guide bars, a pair of levers fulcrumed at points between their ends and each connected at its inner end to the upper door member, and link rods connecting the outer ends of said levers to the ends of the lower door member, said levers and link rods causing the said door members to move simultaneously in reverse directions, said levers having ratchet teeth, and pawls adapted to engage the ratchet teeth of the levers in different positions of the levers to hold the door members in adjusted position.

2. In combination with a pair of vertical guide bars, upper and lower fire door members mounted for vertical movement between said guide bars, a pair of levers fulcrumed at points between their ends and each connected at its inner end to the upper door member, and link rods connecting the outer ends of said levers to the ends of the lower door member, said levers and link rods causing the said door members to move simultaneously in reverse directions, said upper door member being heavier than the lower door member and the distance between the fulcrum of each of said levers and the point of connection of said lever with the upper door member being greater than the distance between said fulcrum and the point of connection between said lever and it coöperating link rod.

1,073,555. SPEED-RECORDER. OTTO JOHANN ABEGG, Bern, Switzerland. Filed May 7, 1907. Serial No. 372,356. (Cl. 234—30.)



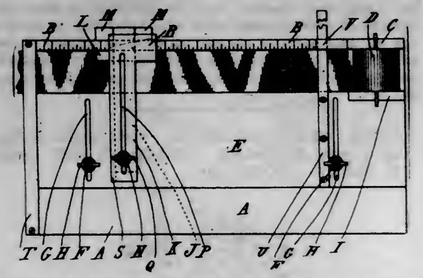
1. In a speed-recorder, a time-recording bar; a clockwork-operated shaft; a cam carried by said shaft; an actuator-arm controlled by said cam, and having an enlarged head provided with a central, longitudinally-extending slot, through which said clockwork-operated shaft projects, and with two longitudinally-extending straight slots; stationary guiding-pins projecting through said two straight slots; cam-rollers carried by said head and engaged by said cam, to move said actuator-arm; and an operative connection between said actuator-arm and said time-recording bar, whereby movement is transmitted from said actuator-arm to said time-recording bar.

2. In a speed-recorder, a time-recording bar; a clockwork-operated shaft; a cam carried by said shaft; an actuator-arm controlled by said cam, and having an enlarged head provided with a central, longitudinally-extending slot, through which said clockwork-operated shaft projects; cam-rollers carried by said head and engaged by said cam, to move said actuator-arm; and an operative connection between said actuator-arm and said time-recording bar, whereby movement is transmitted from said actuator-arm to said time recording bar.

1,073,556. APPARATUS FOR USE IN PRINTING OR STENCILING. FRANK WILLIAM ADAMS, Eastbourne, England. Filed Oct. 10, 1911. Serial No. 653,837. (Cl. 101—56.)

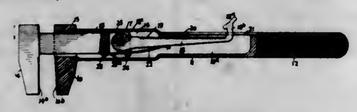
An apparatus for use in printing or stenciling consisting of a board or base having a fixed lay at one edge and a lay capable of being moved over and clamped to the board or base parallel to the fixed lay, bearings on each lay for carrying a roll of paper, a strip affixed at right angles to the fixed lay to enable the paper to be cut, a gage for determining the position and line of the printing such gage consisting of two members one being in the form of a T square and provided with two arms for embracing the fixed lay to keep the leg of the T square at right angles to the fixed lay, the other member being formed as an L piece, adjustable and affixable to the other

member to determine the printing line of the type, the two members conjointly forming a register for each piece



of type, substantially as and for the purpose described and as illustrated on the annexed drawings.

1,073,557. WRENCH. JOHN J. AESCHLIMANN, Monroe, Wis. Filed Nov. 12, 1912. Serial No. 730,858. (Cl. 81—106.)

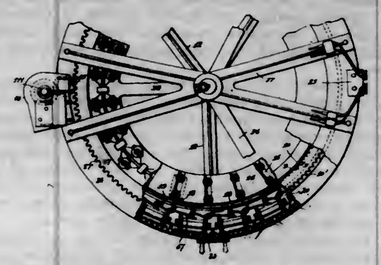


1. A wrench, comprising a fixed jaw having a handled shank formed with an interior chamber, an opening at the front and a side opening near the handle, both openings communicating with the chamber, a movable jaw having a shank loosely fitting the front opening to rock therein, and formed with an enlarged inner end snugly fitting between the walls of the chamber, a locking device pivoted to the said end of the movable jaw and extending at its rear end outwardly through the side opening in the shank of the fixed jaw, and a spring secured to the shank of the movable jaw and bearing on the back of the locking device.

2. A wrench comprising a fixed jaw having a handled shank formed with a longitudinal chamber and with an opening extending through said jaw, in communication with the chamber, a movable jaw provided with a shank sliding in said opening and chamber, an elongated locking member formed with teeth along an edge thereof, and pivoted to the shank of the movable jaw, at the inner end of the latter, and extending rearwardly from said shank within the chamber of the fixed jaw toward the handle, the shank of the fixed jaw having interior teeth to be engaged by the teeth of the locking device and being slotted longitudinally, a push member on the locking device, at the rear end, extending laterally through the slot of the fixed shank, and a spring carried by the shank of the movable jaw and bearing against the back of the locking device, said spring being of reduced width adjacent to the end of the movable shank and said movable shank being slotted presenting widened cheeks between which the reduced portion of the spring and the pivoted end of the locking device are received, the shank of the movable jaw furthermore being rockable transversely in the opening of the fixed jaw and relatively to the locking device without affecting the locking action of said device.

1,073,558. BRAIDING-MACHINE. OSCAR A. ALBRECHT, Omaha, Nebr., assignor to O. A. Albrecht Company, Omaha, Nebr., a Corporation of Nebraska. Filed June 5, 1911. Serial No. 631,485. (Cl. 28—4.)

1. A braiding machine comprising the combination with a plurality of cylindrical shuttles, and a plurality of bobbins, of means for revolving said bobbins in one direction, means for revolving said shuttles in the opposite direction, and electro-magnetic means for simultaneously lifting and lowering alternate shuttles alternately to permit the bobbin threads to pass them.



2. A braiding machine comprising the combination with a plurality of shuttles, and a plurality of bobbins, of means for revolving them in opposite directions, a plurality of electro-magnets each adjacent to one of said shuttles, and means for alternately energizing and deënergizing said electro-magnets.

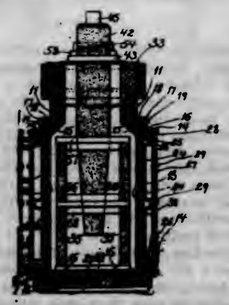
3. A braiding machine comprising the combination with a plurality of shuttles; and a plurality of bobbins; of a revoluble carrier for the bobbins; two revoluble carriers between which the shuttles are located; a plurality of electro-magnets on each of said latter carriers for holding said shuttles in contact therewith, and means for alternately energizing and deënergizing alternate electro-magnets on one of the shuttle carriers and diagonally opposite magnets of the other carrier simultaneously.

4. A braiding machine comprising the combination with a plurality of bobbins and a plurality of shuttles; of concentric annular carriers therefor; means for revolving said carriers; oppositely disposed faces on two of said carriers containing shallow radial grooves to receive said shuttles; electro-magnets mounted on said grooved carriers in line with said grooves, and means for energizing and deënergizing said electro-magnets.

5. A braiding machine comprising a pair of revoluble, annular members having oppositely disposed faces, containing shallow, radial grooves; shuttles having metallic casings received in said grooves; electro-magnets on said annular members in line with said grooves; and means for alternately energizing and deënergizing said electro-magnets.

[Claims 6 to 16 not printed in the Gazette.]

1,073,559. ELECTROLYTIC CELL. EDWARD A. ALLEN and HERBERT I. ALLEN, Portland, Me., assignors, by mesne assignments, to Electron Chemical Company, Portland, Me., a Corporation of Maine. Filed Aug. 23, 1907. Serial No. 389,824. (Cl. 204—58.)



1. In an electrolytic cell, a cell body comprising bottom, end and upper side walls, a diaphragm overlapping said walls, a cathode chamber superimposed upon the margin of said diaphragm, a cathode having its marginal edges secured to the cathode chamber to be removable therewith, and an insulating gasket interposed between the cathode chamber and the diaphragm.

2. An anode for an electrolytic cell, comprising horizontally separated plates having an open space between them, each plate being longitudinally divided into vertically separated sections for the circulation of the electrolyte, cross bars connecting said plates and sections thereof, and cathodes adjacent the outer faces of said plates.

3. An anode for an electrolytic cell, comprising separated plates having an open space between them, each plate being longitudinally divided into separate sections, means connecting said plates together and also connecting the sections of each plate, and cathodes adjacent the outer faces of said plates.

4. In an electrolyte cell, a chamber, supports in the cell chamber, and an anode in said chamber resting on said supports so as to be separated from the bottom of said chamber by a free space, said anode comprising vertically arranged substantially parallel plates extending longitudinally of said chamber and having their inner faces confronting, and whose upper edges are below the normal level of the electrolyte in the anode chamber for the circulation of the electrolyte.

5. An anode for an electrolytic cell, comprising parallel separated plates, cross bars connecting said plates, and bars or spindles introduced into apertures in said cross bars, and a cathode adjacent the outer face of each of said plates.

[Claims 6 to 13 not printed in the Gazette.]

1,073,560. SILICON ARTICLE. THOMAS B. ALLEN, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Jan. 26, 1912. Serial No. 673,520½. (Cl. 75—1.)

1. As a new article of manufacture, a cast article having silicon as its principal constituent part and being substantially free from nitrogenous and oxygenous impurities, substantially as described.

2. As a new article of manufacture, a cast article having silicon as its principal constituent part and being substantially free from nitrogenous and oxygenous impurities, and having a fine crystalline structure, substantially as described.

3. As a new article of manufacture, a cast article having silicon as its principal constituent part and being substantially free from nitrogenous and oxygenous impurities and being of substantially uniform density throughout its mass, substantially as described.

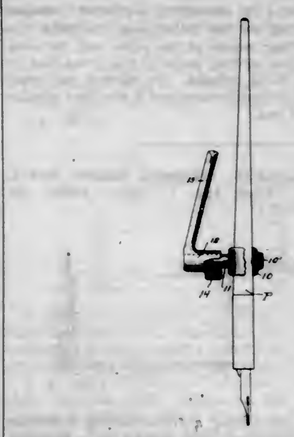
4. As a new article of manufacture, a cast article having silicon as its principal constituent part, the casting having an even crystalline structure and being substantially free from nitrogenous and oxygenous impurities, and being of substantially uniform density throughout its mass.

5. As a new article of manufacture, a cast article having silicon as its principal constituent part, the casting having a fine crystalline structure and being substantially free from silicon dioxid; substantially as described.

1,073,561. PENHOLDER OR PENCIL BRACE. CHARLES A. BEAUJON, Canaan, Conn. Filed Apr. 17, 1913. Serial No. 761,691. (Cl. 120—107.)

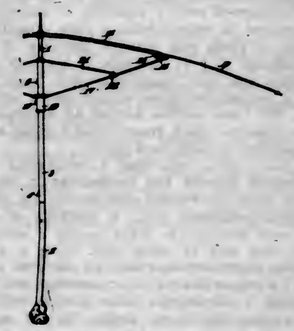
1. The combination with a pen holder, of a sleeve movable along or around the holder, means to secure the sleeve in any desired position, a shank extending from said sleeve substantially at a right angle to the axis thereof, a hollow cylindrical hub adjustable around and along said shank, means to secure the hub in position on the shank, and a finger formed integral with and extending at an angle from said hub, substantially as set forth.

2. In a device of the character set forth, the combination of a sleeve, a shank formed integral with said sleeve and extending at a right angle therefrom, a set screw carried by the sleeve, a hub adjustable along and around said shank, a set screw carried by the hub and serving to lock the same in adjusted position upon the shank,



and a finger formed integrally with said hub and extending therefrom at an oblique angle from the axis of the hub and inclined toward the axis of the sleeve, substantially as set forth.

1,073,562. FOLDING UMBRELLA. JOHN MITCHELL BEAVER, Fort Worth, Tex. Filed Mar. 25, 1913. Serial No. 756,782. (Cl. 135—26.)



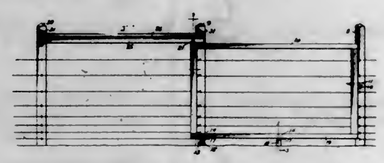
1. In an umbrella, a two part staff, a tube slidable on one part, a collapsible ribs pivoted to the said part, a runner slidable on the tube, stretchers connecting the runner and ribs, the other part of the staff being insertible into the tube, catches carried by the parts of the staff and engageable with the tube, cushions attached to the adjoining ends of the parts and adapted to abut tightly when the respective catches are engaged to the tube.

2. In an umbrella, a staff embodying a main section and a removable handle section, a tube slidable on the main section, the handle section being insertible into the tube, each of the sections of the staff having a catch engageable with the tube to lock the sections together, the tube having an intermediate elongated slot, a second catch carried by the main section of the staff and engaging through the said slot, telescopic ribs pivoted to the

main section of the staff, and a runner slidable on the tube and operatively connected to the ribs, the runner being engageable by the last mentioned catch when raised and being engageable by the catch of the handle section when lowered.

3. In an umbrella, a rib embodying a pivoted U-shaped section and a sliding section telescoping thereinto, the pivoted section having means at its outer end for completely embracing the sliding section, the inner end of the sliding section being reflexed, the reflexed end being curved to snap over the said means and a stretcher pivoted to the said reflexed end.

1,073,563. FENCE-GATE. HERBERT GEORGE BEMIS, Riceville, Iowa. Filed Apr. 1, 1913. Serial No. 758,209. (Cl. 39—7.)



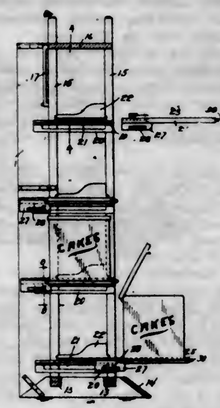
1. A fence gate, comprising a frame having a bottom hollow, longitudinally-slotted, open-ended rail; a plurality of supporting rollers mounted in bearings formed in upturned yokes, one of said rollers being disposed adjacent the side of the gate opening and the other of said rollers being disposed adjacent the center of the gate opening; a hanger wheel mounted upon the top rail of said gate; and a track mounted upon a gate post and extending away from the gate opening, said track being engaged by said wheel.

2. A fence gate, comprising a rectangular frame having a bottom tubular rail rectangular in cross section, said rail being open-ended and having an unobstructed longitudinally-disposed slot; a plurality of supporting rollers, each mounted in yokes having a stem extending through said slot to guide said gate; a plurality of supporting posts adjacent and at one side of the gate opening; a supporting top rail connecting said posts, said rail having a rectangular lower section and a tubular crown section, the lower section having an upturned flange to form an upturned track groove; and a guide wheel operatively mounted in said track groove.

3. A fence gate, comprising a rectangular frame having a bottom tubular rail rectangular in cross section, said rail being open-ended and having an unobstructed longitudinally-disposed slot; a plurality of supporting rollers, each mounted in yokes having a stem extending through said slot to guide said gate; a plurality of supporting posts adjacent and at one side of the gate opening; a supporting top rail connecting said posts, said rail having a rectangular lower section and a tubular crown section, the lower section having an upturned flange to form an upturned track groove; and a pendent side spaced apart from said upturned flange to form a passage therebetween to enfold and guide the bracket of said guide wheel.

1,073,564. DISPLAY-RACK. SAM BIASATTI, Memphis, Tenn. Filed Apr. 12, 1913. Serial No. 760,645. (Cl. 211—6.)

In a display rack, an open frame formed of a plurality of vertical members; a pair of irregular T-shaped members, disposed parallel to each other, connected to said vertical members, each of said T members having a longitudinal groove; a member above each of said T members secured to the same vertical members; a support engaged between said members and said T members, said support having an extension, said extension having a groove substantially in alinement with the groove in said T member; and a member transversely of said support engaging said grooves of said extension and of said T member for the purposes set forth.



1,073,565. COMPOUND IMPLEMENT. JOHN H. BIEHL, Philadelphia, Pa., assignor of one-half to David L. Snow, Philadelphia, Pa. Continuation of application Serial No. 528,446, filed Nov. 17, 1909. This application filed Nov. 6, 1912. Serial No. 729,755. (Cl. 55—43.)



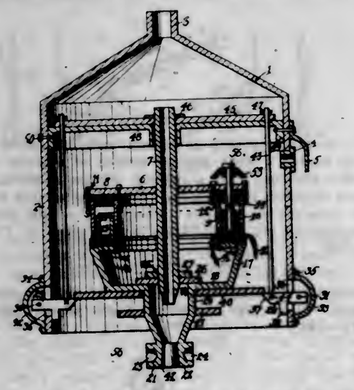
1. An implement comprising a head having a split sleeve thereon, a tool having a bearing adapted to be engaged by said sleeve, and a handle having means engaging said bearing for fixing said tool and sleeve together, said sleeve being split transversely to the direction of movement of said means.

2. An implement comprising a head having a split sleeve, a tool having a cylindrical member adapted to be engaged in said sleeve, said sleeve being split substantially parallel to the axis of said member, and a handle having a shank which is movable in said head to engage said member.

3. An implement comprising a head having a split sleeve, a tool having a bearing member within and a member exterior to said sleeve, said exterior member containing an aperture for passing said sleeve, and means for engaging said bearing member and said sleeve for securing them together.

4. An implement comprising a head having a sleeve, a tool comprising a blade having a rolled edge forming a hub disposed in said sleeve, and a member movable relatively to said head and engaging said hub.

1,073,566. SUSPENSION-COUPLING FOR ARC-LAMPS. BERNHARD BRUDERS, Rochester, N. Y. Filed June 2, 1913. Serial No. 771,249. (Cl. 240—66.)



1. A suspension coupling device for arc lamps including a dome, a fixed contact member arranged therein, a movable contact member adapted to be raised and lowered into and out of the dome, said contact members being adapted to close the circuits through the lamp when in assembled relation, and an automatically operated circuit making device mounted on the said fixed section and adapted to close the circuit simultaneously with the lowering of the said movable contact member, means for raising and lowering said movable contact member, and means for supporting said movable contact member in assembled position including a circular plate loosely mounted upon said movable contact member and latch pawls pivotally mounted within said dome.

2. A suspension coupling device for arc lamps including a dome, a fixed contact member arranged in said dome, a movable contact member, means for raising and lowering said movable contact member into and out of engagement with the said fixed contact member, supporting members for said movable contact member, and means for releasing said movable contact member from engagement with said supporting member simultaneously with the upward movement of the said fixed contact member including a vertical tube having threaded engagement with said fixed contact member, a spider connected with the upper terminal of said tube and a pair of spaced rods connected with said spider.

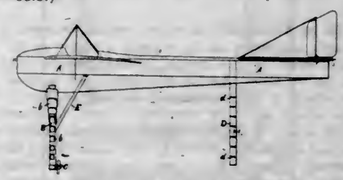
3. A suspension coupling for arc lamps including a dome, a fixed contact member, a movable contact member, a supporting plate loosely mounted on said movable contact member, pivoted latch pawls attached to the said dome and arranged to receive the said supporting plate when the said movable contact member is in engagement with the said fixed contact member, a cable secured to said movable contact member, rods pivotally attached to said latch pawls at one terminal and a spider attached to the other terminal of said rods, a tube operatively connecting the said spider and said fixed contact member, said rods being adapted to withdraw said latch pawls from supporting relation to the said supporting plate upon the upward movement of said spider.

4. In a suspension coupling device for arc lamps, a fixed contact member, a movable contact member, a neck formed centrally upon the under side of said movable contact member, said contact members adapted to be supported in engagement with each other and means for supporting said members in engagement with each other comprising an annular plate loosely mounted upon said neck and pivoted latch pawls.

5. In a suspension coupling device for arc lamps, a fixed contact member and a movable contact member, a dome incasing said contact members, a centrally apertured plate mounted within the upper part of said dome, a tube mounted vertically and loosely within said apertured plate, said tube having threaded engagement with and supporting said fixed contact member, said tube extending into said movable contact member, a spider mounted upon the upper terminal of said tube and engaging said plate and means for supporting said movable contact member operatively connected with said spider.

[Claims 6 and 7 not printed in the Gazette.]

1,073,567. AERONAUTICAL APPARATUS. CHARLES DENNISTON BURNEY, Kilmeston, Alresford, England. Filed Dec. 14, 1912. Serial No. 736,836. (Cl. 114—66.5.)



1. A hydro-aeronautical machine, comprising a watertight boat-like body, dependent and laterally diverging hydropeds directly affixed to said body and carrying water-propellers, and hydroplanes mounted on said hydropeds.

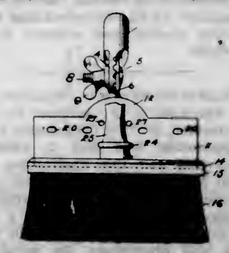
2. A hydro-aeronautical machine, comprising a watertight boat-like body, dependent and laterally diverging hydropeds directly affixed to said body and connected by cross-ties, hydroplanes carried by said hydropeds, a propeller for working in air, and water-propellers arranged in conjunction with hydroplanes to convert a portion of the longitudinal thrust exerted by said water propellers into "lift" exerted upon the apparatus.

3. A hydro-aeronautical machine, comprising a watertight boat-like body, dependent and laterally diverging hydropeds directly affixed to said body and connected by cross-ties, hyroplanes carried by said hydropeds, a propeller for working in air, and water-propellers mounted upon said hydropeds and arranged in conjunction with hydroplanes to convert a portion of the longitudinal thrust exerted by said water-propellers into "lift" exerted upon the apparatus.

4. In a hydro-aeronautical machine, a body, dependent hydropeds on said body, hydroplanes on said hydropeds, said hydropeds diverging from their point of attachment to the body, and a cross-tie between said hydropeds producing a triangular structure wherein the hydropeds afford each other mutual support.

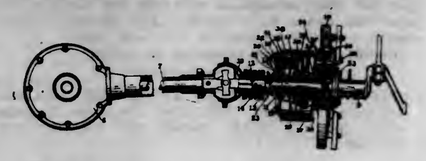
5. In a hydro-aeronautical machine, a body, aerial supporting surfaces attached to said body, dependent hydropeds attached to said body and diverging from their point of attachment, hyroplanes on said hydropeds, a cross-tie connecting said hydropeds, and under-ties connected to the hydropeds at comparatively low points.

1,073,568. BRUSH-HOLDER. HERBERT J. CONKLIN, Lowell, Mich., assignor to William Ziegenbalg, Portland, Oreg. Filed July 8, 1912, Serial No. 708,248. Renewed Aug. 12, 1913. Serial No. 784,823. (Cl. 15—54.)



A brush holder comprising a flat plate having a straight lower edge adapted to engage the head of a brush and means carried by the plate to clamp the handle of a brush thereto.

1,073,569. AUTOMOBILE TRANSMISSION. HENRY FORD, Detroit, Mich. Filed Aug. 12, 1909. Serial No. 512,503. (Cl. 21—90.)



1. In an automobile, traction bearing wheels, a frame yieldingly supported on the wheels, a motor on the frame, a main shaft in the motor, a transmission shaft journaled at its inner end on the outer end portion of the motor shaft, a clutch mounted on and supported wholly by the motor shaft for coupling it and the transmission shaft to rotate in unison, change speed mechanism mounted on and supported wholly by the motor main shaft and operatively connected to the transmission shaft, and operative connections between the traction bearing wheels and the outer end of the transmission shaft for driving the wheels.

2. In an automobile, traction bearing wheels, a frame yieldingly supported on the wheels, a motor supported on the frame, a main shaft on the motor, a fly wheel on the motor shaft, a transmission shaft rotatably-mounted and supported at one end on the portion of the main shaft which extends beyond the fly wheel, a clutch mounted on and supported by the fly wheel and the adjacent portions of the shafts for operatively connecting the main shaft and transmission shaft to turn in unison, change speed mechanism mounted on the fly wheel and adjacent portion of the main shaft and connected to the transmission shaft to drive the latter from the main shaft, and operative connections between the transmission shaft and the traction bearing wheels.

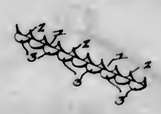
3. In an automobile, traction bearing wheels, a frame yieldingly-mounted on the wheels, a motor mounted on the frame, a main shaft on the motor having an extension, a fly wheel on the main shaft, a transmission shaft journaled at one end on the extension of the motor shaft, a clutch mounted on the fly wheel and adjacent portion of the transmission shaft for coupling the motor shaft and transmisison shaft to rotate in unison, a change speed mechanism mounted on and supported wholly by the fly wheel and extension of the main shaft for driving the transmission shaft from the main shaft, and operative connections between the transmission shaft and the traction bearing wheels.

4. In an automobile, a pair of traction bearing wheels, a frame yieldingly supported thereon, a motor mounted on the frame, a main shaft in the motor, a fly wheel on the main shaft, an extension on the main shaft beyond the fly wheel, a transmission shaft journaled at one end on and supported by the extension of the main shaft, a clutch mechanism mounted on and supported by the fly wheel for coupling the transmission shaft to the main shaft to rotate in unison, and a change speed mechanism mounted on the fly wheel and extension and supported wholly thereby and adapted to operate the transmission shaft.

1,073,570. LASTING-STRIP. WILLIAM BOTTOMLEY KEIGHLEY, Vineland, N. J., assignor to The Keighley Company, Vineland, N. J., a Corporation of New Jersey. Original application filed Dec. 2, 1909, Serial No. 530,928. Divided and this application filed May 3, 1912. Serial No. 694,838. (Cl. 12—107.)

1. A new article of manufacture consisting of a flexible lasting strip having one edge formed in a series of projections and its other edge formed with recesses complementary to said projections, the metal between the recesses being formed to constitute holding points.

2. As a new article of manufacture, a lasting strip consisting of a body portion formed of a number of connected metal scallops, and an integral holding portion consisting of a series of points extending substantially at right angles to the plane of said body portion.



3. As a new article of manufacture, a metallic lasting strip having a body portion formed of a series of connected scallops, with a holding portion consisting of a series of points of which each point is separated from the one adjacent to it by a recess, said points projecting substantially at right angles to the plane of the body portion.

1,073,571. AXLE-SET. THOMAS H. RAE, Farmington, Cal. Filed Aug. 26, 1912. Serial No. 717,061. (Cl. 73—142.)



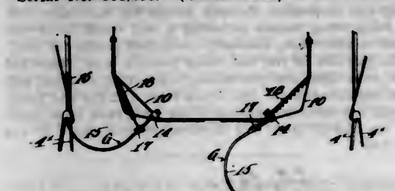
1. A device of the character described comprising a straight member, a guide frame pivotally mounted on said straight member and normally projecting longitudinally therewith, an indicator disposed transversely on said guide frame and being adjustable thereon, means for fixing said guide frame stationary with respect to said straight member, and means for fixing said indicator stationary with respect to said guide frame, as described.

2. A device of the character described comprising a straight member, a guide frame pivotally mounted on said straight member and projecting normally longitudinally therewith, means for fixing said guide frame stationary with respect to said straight member and an indicator adjustable longitudinally and transversely on said guide frame, as described.

3. A device of the character described comprising a straight member, a guide frame pivotally mounted on said straight member, an adjustable extension on said guide frame, an indicator adjustably mounted on said guide frame, means for fixing said guide frame stationary with respect to said straight member, and a pin disposed at right angles to the outer end of said extension, as described.

4. A device of the character described comprising a straight member, a guide frame pivotally mounted on said straight member, means for fixing said guide frame stationary with respect to said straight member, an indicator adjustable on said guide frame, said indicator being provided with a flange adapted to engage the side of said straight member, as described.

1,073,572. CORN-HARVESTING MACHINE. OLER P. VROOM, Linneus, Mo., assignor to The Superior Hay Stacker Mfg. Co., Linneus, Mo. Filed Dec. 28, 1911. Serial No. 668,288. (Cl. 56—108.)



1. A corn harvesting machine, having a platform to receive the stubs or butt ends of the stalks, a frame carried by said platform, a guard carried by the platform in spaced relation to the frame, a pivoted spring closed gate connected to the frame and in operable relation to the guard so as to form a resilient rest for the upper ends of the stalk during the shock forming operation, said gate comprising a member having two spaced terminals and a reduced bridging portion forming the free end, said terminals being curved to surround the stalks as they are formed into a shock, the other terminals of the arms being pivotally connected to the frame, and a spring connected to the frame and to the upper arm for normally holding the free terminal of the arm in engagement with the guard and in shock forming position.

2. A corn harvesting machine, having a platform, a stalk guide disposed at one side thereof, a frame carried intermediate of the platform and in spaced relation to the stalk guide, a pair of spaced arms pivotally connected to the frame and provided with a reduced free terminal, said terminal being disposed to engage the stalk guide at the upper end thereof and form a gate to receive the stalks as they are cut and placed upon the platform, and a spring connected to the frame and to said arms for normally holding the arms in shock forming position.

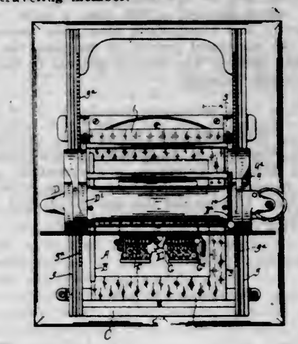
3. A corn harvesting machine, having a platform, a frame having two spaced members, at the upper portion thereof and carried by the platform, a stalk guide carried by the platform with the upper end thereof in spaced relation to the spaced members of the frame, a pair of pivoting lugs carried by the spaced members of the frame, and a spring closed top engaging gate pivotally mounted in the lugs and disposed to have the free end thereof engage the upper end of the guide to span the space between the frame and guide.

4. A corn harvesting machine, having a platform, a frame having two spaced members, at the upper portion thereof and carried by the platform, a stalk guide carried by the platform with the upper end thereof in spaced relation to the spaced members of the frame, a pair of pivoting lugs carried by the spaced members of the frame, a closure made from a single piece of wire bent to form two spaced curved terminals having hooked ends engaged in the lugs of the spaced members of the frame with a reduced end normally engaging the guide at the upper end thereof, and a spring having one end adjustably connected to the upper arm of the closure, the forward end thereof being connected to the frame to hold the closure in shock forming position.

1,073,573. TYPE-WRITER. EDWARD C. WALTER, New York, N. Y., assignor to Harry T. Ambrose, Orange, N. J. Filed Sept. 9, 1910. Serial No. 581,214. (Cl. 197—124.)

1. A typewriter including in combination, a stationary member, a traveling member adapted to have a normal spacing movement in relation to said stationary member, and means carried by said traveling member for returning it to any of a plurality of predetermined intermediate positions relatively to the stationary member.

2. In a typewriter, and in combination with a stationary member and a traveling member having a normal spacing movement and including a rotary member, means carried by and movable with said traveling member and connecting with said rotary member for returning the traveling member to any of a plurality of predetermined intermediate positions relatively to said stationary member, and reguiable means coacting with said member-returning means for predetermining the extent of return movement of said traveling member.



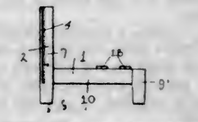
3. In a typewriter, and in combination with a traveling member adapted to have a normal spacing movement, and a stationary member, of means carried by and movable with said traveling member for returning it relatively to the other member to any of a plurality of predetermined positions, adjustable means for regulating the extent of return movement of said traveling member, and means for retaining said traveling member in its returned position.

4. A typewriter including a self-propelled carriage, a stationary member which said carriage traverses, a rotary member included in said carriage, means adapted to coact therewith to reverse its rotation, and means coacting with the stationary member to hold said carriage against movement in a direction opposite to that of its normal travel, and adapted to be operated by said member-reversing means to release said carriage.

5. A typewriter including a self-propelled carriage, a stationary member which said carriage traverses, a rotary member included in said carriage, emans adapted to coact therewith to reverse its rotation, means coacting with the stationary member to hold said carriage against movement in a direction opposite to that of its normal travel, and adapted to be operated by said member-reversing means to release said carriage, and means for controlling the extent of the reverse movement of said rotary member.

[Claims 6 to 50 not printed in the Gazette.]

1,073,574. DESK. CHARLES E. WILSON, Muskegon, Mich., assignor to The Shaw-Walker Company, Muskegon, Mich., a Corporation of Michigan. Filed Sept. 3, 1912. Serial No. 718,286. (Cl. 45—93.)



1. In a sectional desk, a base member having an upwardly-extending back portion integral therewith, cabinet sections vertically arranged on the base in front of the back portion, and a table top supported thereby.

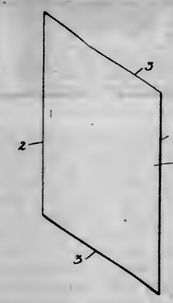
2. In a sectional desk, a base member having an upwardly-extending back portion provided with a screw nut, cabinet sections vertically arranged on the base and having interlocking cleats with alined orifices, and a screw

rod passing through such orifices and threaded into the screw nut.

3. In a sectional desk, two base members spaced apart and having upwardly-extending side back portions, a middle back portion between the side back portions, and a threaded bolt extending between the side back portions and adapted to clamp the middle back portion therebetween.

4. In a sectional desk, a base member having a horizontal portion and an upwardly-extending back portion, a cabinet section carried on the base, a table top supported thereby, and a removable filler panel between the table top, the horizontal portion of the base, the section and the back portion, and held in grooves in two of its said surrounding members.

1,073,575. COIN-PACKAGE WRAPPER. CHARLES S. BATDORF, Brooklyn, N. Y., assignor to Universal Coin-wrapping Machine Company, a Corporation of New Jersey. Original application filed Aug. 24, 1906, Serial No. 331,850. Divided and this application filed June 8, 1911. Serial No. 631,888. (Cl. 133—10.)



1. A wrapper having its opposite ends cut on substantially parallel lines diagonally of the length of the wrapper, whereby when said wrapper is rolled about the articles to be wrapped, said end edges will both be drawn snugly against said articles longitudinally of the package, said wrapper having its sides crimped over the faces of the articles to lock the wrapper thereon.

2. A coin wrapper formed from a rhomboidal shaped piece of paper rolled into a tube, the roll beginning with one acute angle and ending with the other, all the planes passing through the axis of the tubes being perpendicular to two edges of the paper.

3. A coin wrapper formed from a rhomboidal shaped piece of paper rolled into a tube and crimped at its ends, the tube being so rolled that the ends of the tube will be in parallel planes before it is crimped.

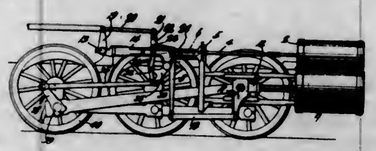
4. In a coin package, a wrapper comprising a strip formed from a web of paper having parallel sides by severance along diagonal parallel lines thereby to form a wrapper with straight parallel sides and parallel ends, each of said ends being at different angles relatively to such parallel straight sides, the severed edges of the wrapper turned inward over the faces of the coin to lock the wrapper thereon.

5. In a coin package, a wrapper comprising a strip having parallel straight sides and parallel ends, said ends being at an obtuse angle to one side and an acute angle to the other, the parallel straight edges of the strip being turned inward or crimped to lock the wrapper over the faces of the coin.

[Claim 6 not printed in the Gazette.]

1,073,576. VALVE-GEAR. OTTO A. DONATH, Sedalia, Mo. Filed June 16, 1913. Serial No. 774,033. (Cl. 121—99.)

1. The combination with a locomotive having a frame, a cross head, a drive wheel, and an eccentric pin carried by the drive wheel, of a valve gear including a valve operating rod, a slidable connecting medium connected to the rod, and coöperating means connected to the connecting medium and to the eccentric and cross-head to form a timing and movement limiting means for the valve rod, said coöperating means including a bell crank lever fulcrumed to the frame, manually controlled means for varying the position of the bell crank lever, a lever connected to the cross head and the sliding connecting medium, and means connected to the bell crank lever and the last lever, whereby the variable position of the bell crank lever regulates the speed, time and distance of movement of the valve rod.



2. A valve gear, including an open frame, a valve cross-head slidably mounted therein, a double yoked bell crank lever, detachable means for connecting the bell crank lever within the open frame, two radius rods pivotally connected to the bell crank lever within the open frame, a pin connecting the radius rods for movement in unison, said pin disposed to be placed in axial alinement to the fulcruming means of the yoked bell crank lever, an actuating lever for the valve cross-head connected to the valve cross-head and operably connected to the pin whereby the distance of movement of the last lever is controlled, and means for varying the relative position of the pin to the fulcruming point of the bell crank lever to regulate the time, speed and distance of movement of the valve cross head.

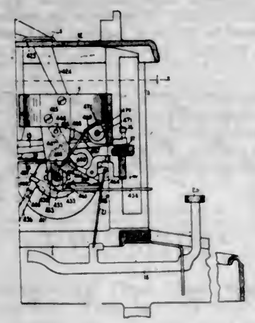
3. The combination with a locomotive having a main frame, a piston cross head, a drive wheel, and an eccentric pin carried by the drive wheel, of a valve gear including an open frame, a valve cross head slidably mounted therein, a double yoked bell crank lever, detachable means for connecting the bell crank lever within the open frame, two radius rods pivotally connected to the bell crank lever within the open frame, a pin connecting the radius rods for movement in unison, said pin disposed to be placed in axial alinement to the fulcruming means of the yoked bell crank lever, an actuating lever for the valve cross head connected to the valve cross head and operably connected to the pin whereby the distance of movement of the last lever is controlled, and means operably connected to the pin of the radius rods and the eccentric pin of the drive wheel, whereby the speed, time and distance of movement of the valve cross head is regulated by the coactive movement of the piston, cross head and the drive wheel.

4. A valve gear, including an open frame, a valve cross head slidably mounted therein, a double yoked bell crank lever, detachable means connecting the bell crank lever within the open frame, two radius rods pivotally connected to the bell crank lever within the open frame, a pin connecting the radius rods for movement in unison, said pin disposed to be placed in axial alinement to the fulcruming means of the yoked bell crank lever, an actuating lever for the valve cross head connected to the valve cross head and operably connected to the pin whereby the distance of movement of the last lever is controlled, means for varying the relative position of the pin to the fulcruming point of the bell crank lever to regulate the time, speed and distance of movement of the valve cross head, and coöperating means carried by the radius rod pin and the fulcrum of the bell crank lever for fixedly connecting the radius rod pin to the bell crank lever to hold the valve in the lead open position.

5. A valve gear, including an open frame, a valve cross head slidably mounted therein, a double yoked bell crank lever, detachable means connecting the bell crank lever within the open frame, two radius rods pivotally connected to the bell crank lever within the open frame, a pin connecting the radius rods for movement in unison, said pin disposed to be placed in axial alinement to the fulcruming means of the yoked bell crank lever, an actuating lever for the valve cross head connected to the valve cross head and operably connected to the pin whereby the distance of the movement of the last lever is controlled, the opposite ends of the radius rod pin being provided with sockets, and means for detachably connecting the fulcrum points of the bell crank lever to the open frame whereby the same may be removed and reversed to engage the sockets of the radius rod pin to hold the radius rod pin in a fixed position relative to the bell crank lever.

[Claims 6 to 15 not printed in the Gazette.]

1,073,577. TYPE-WRITING MACHINE. STEPHEN H. FARNHAM and ARTHUR W. SMITH, New York, N. Y., and JOSEPH PHELPS, Belleville, N. J., assignors to Remington Typewriter Company, Ilion, N. Y., a corporation of New York. Original application filed Jan. 18, 1913, Serial No. 742,786. Divided and this application filed May 1, 1913. Serial No. 764,782. (Cl. 197—151.)



1. In a typewriting machine, the combination of ribbon carrying spools, ribbon feeding mechanism, reversing devices for said feeding mechanism, a central ribbon guide and other guides between said central guide and said spools, said other guides being connected with certain of said reversing devices.

2. In a typewriting machine, the combination of ribbon spools arranged below the top plate, movably mounted guides for the ribbon between the top plate and the spools, stationary ribbon side guides above the top plate, and a central guide for the printing portion of the ribbon.

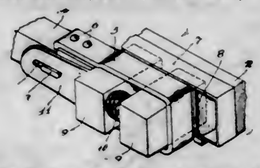
3. In a typewriting machine, the combination of ribbon spools, a power shaft, clutch devices for alternately connecting said spools with said power shaft, and a connection between said clutch devices, said connection being carried by said power shaft and constituting the sole connecting means between said power shaft and said clutch devices.

4. In a typewriting machine, the combination of ribbon spools, a power shaft, clutch devices for alternately connecting said spools with said power shaft, and a connection extending from one clutch device to the other lengthwise of said power shaft and housed within said power shaft, said connection comprising the sole means for connecting said power shaft and said clutch devices.

5. In a typewriting machine, the combination of a pair of ribbon spools, a power shaft near the ends of which said ribbon spools are mounted, ratchets associated with said ribbon spools, clutch devices slidable on said power shaft and adapted to engage said ratchets, and a rod connecting said devices, said rod extending lengthwise of said power shaft and being slidable in a groove therein and constituting the sole connecting means between said power shaft and said clutch devices.

[Claims 6 to 18 not printed in the Gazette.]

1,073,578. DRAFT-RIGGING. GEORGE H. GILMAN and HENRY M. ROBERTSON, St. Paul, Minn. Filed Dec. 21, 1911. Serial No. 667,196. (Cl. 213—42.)

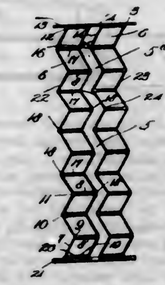


1. In a draft rigging, the combination with spring pressed followers, coöperating draft lugs and a draft bar having a yoke embracing said followers said yoke being secured to the draft bar, of slotted arms located on opposite sides of said draft bar and connected to the outer follower, and projections on said draft bar working with play within the slots of said arms, substantially as described.

2. In a railway draft rigging in combination a draw bar, a yoke secured thereto, a draft gear, a key and followers—the front follower being provided with forwardly extended arms, said arms being keyed to the draw bar and being slotted to permit forward movement of the draw bar relative to the front follower.

3. In a draft rigging—in combination, a draw bar, a yoke secured thereto, a compression resisting member, a key and followers, the front follower being provided with forwardly extended slotted arms, the key passing through said arms and loosely engaging the same to the draw bar.

1,073,579. RADIATOR-CELL SECTION. HERBERT CHAMPION HARRISON and EMIL CARL FREDERICK STREICHERT, Lockport, N. Y. Filed Nov. 1, 1912. Serial No. 729,108. (Cl. 62—28.)



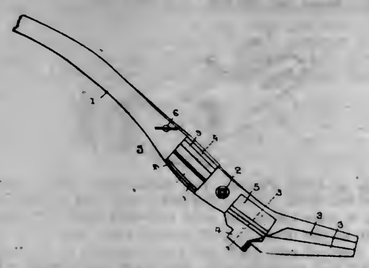
1. In a radiator the combination of a plurality of cell units each having zigzag exterior walls forming a zigzag water passage between contiguous pairs, each unit comprising walls bent upon themselves to form opposing partitions located in a staggered relation to each other, and said walls being bent outwardly from said partitions and inwardly between the same to form quadrilateral cells, substantially as described.

2. In a radiator the combination of top and bottom plates and a plurality of cell units each secured to said plates and having zigzag exterior walls forming a zigzag water passage between contiguous pairs, each unit comprising walls bent upon themselves to form opposing partitions located in a staggered relation to each other, and said walls being bent outwardly from said partitions and inwardly between the same to form quadrilateral cells, substantially as described.

1,073,580. ROOFING-TOOL. THOMAS C. HOLSCLAW, Horseshoe, N. C., assignor of one-half to O. W. Clayton and one-half to W. H. Faulkner, Bevard, N. C. Filed Feb. 7, 1912. Serial No. 676,086. (Cl. 81—15.)

1. A tool comprising pivotally united handles having coöperating clamping jaws upon one side, and bifurcated

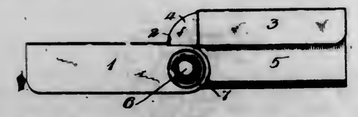
bending and crimping blocks carried by the handles for coöperation with the clamping jaws.



2. A tool comprising handles pivotally connected to one another, bending and crimping blocks carried by said handles, and clamping jaws projecting from said handles and adapted for coöperation with the bending and crimping blocks.

3. A roofing tool comprising pivoted handles having coöperating clamping jaws upon one side, bifurcated guide blocks carried by the handles for coöperation with the clamping jaws, said clamping jaws being adapted to be pressed toward one another, and means positioned between the jaws for automatically separating the latter.

1,073,581. CUTTING DEVICE. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 1, 1913. Serial No. 751,395. (Cl. 30—10.)



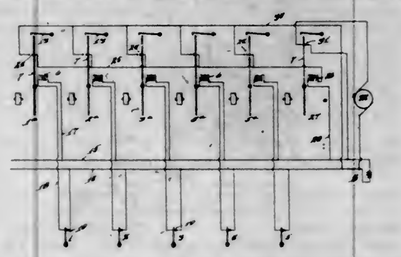
1. In a device of the character described, in combination, a clip of channel cross section having one end offset and extending at substantially a right angle, a second clip of channel cross section having one end overlapping the offset end of said first clip, one of said clip ends being recessed to receive the overlapping end of the other, means for pivotally connecting the overlapping ends of said clips and a blade seated within one of said clips with one edge extending to a point adjacent the point of pivotal interconnection of said ends whereby said edge is maintained at all times within and is guided by the overlapping end of the other clip.

2. In a device of the character described, in combination, a clip of channel cross section having one end offset and extending at substantially a right angle, a second clip of channel cross section having one end overlapping the offset end of said first clip, one of said clip ends being recessed to receive the overlapping end of the other, means for pivotally connecting the overlapping ends of said clips and a blade seated within one of said clips with one edge extending to a point adjacent the point of pivotal interconnection of said ends whereby said edge is maintained at all times within and is guided by the overlapping end of the other clip, the edge of the recessed clip adjacent its recessed end providing a bearing abutment for the adjacent edge of the other clip when the parts are moved to fully opened position.

3. In a device of the character described, in combination, a blade-holding clip of channel cross section having one end offset and extending at substantially a right angle, a second and guard clip of channel cross section having one end recessed to receive and overlap the offset end of said first section, means for pivotally connecting said overlapping ends, and a blade seated in said first clip with its cutting edge projecting therefrom to seat in said guard clip, said blade being positioned in said first clip to bring one edge adjacent the point of pivotal connection of said ends whereby said blade edge is maintained at all times within and guided by the overlapping end of said guard section..

4. In a device of the character described, in combination, a blade-holding clip of channel cross section having one end offset and extending at substantially a right angle, a second guard clip of channel cross section having one end recessed to receive and overlap the offset end of said first section, means for pivotally connecting said overlapping ends, and a blade seated in said first clip with its cutting edge projecting therefrom to seat in said guard clip, said blade being positioned in said first clip to bring one edge adjacent the point of pivotal connection of said ends whereby said blade edge is maintained at all times within and guided by the overlapping end of said guard section, and coöperating locking means on said overlapping ends for locking said clips in folded and opened positions.

1,073,582. ALARM SYSTEM. OLIVER B. KAISER, Ramona, Ohio, assignor of one-third to Walter S. Ludlow and one-third to Walter S. Ludlow, Jr., Cincinnati, Ohio. Filed Oct. 17, 1910. Serial No. 587,612. (Cl. 178—160.)



1. In an alarm system, one or more controllers of a system under supervision, independent alarm signal mechanism for each controller, means governed by the abnormal conditions of the controllers for automatically transmitting an independent signal for each controller, locking out the transmission of a signal or signals of abnormal controllers during the transmission of one of them, and means for automatically transmitting a signal upon restoration of all controllers to normal.

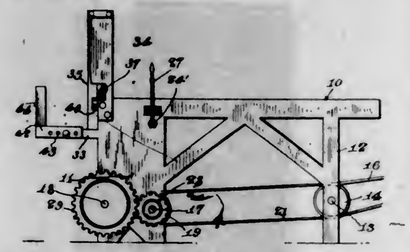
2. In an alarm system, one or more controllers of a system under supervision, alarm signal mechanism, means for setting said alarm signal mechanism into operation after one or more of said controllers become abnormal, means for automatically, serially effecting a signal transmission of independent signals for each abnormal controller, and means for automatically transmitting a signal upon restoration of all controllers to normal.

3. In an alarm system, one or more controllers of a system under supervision, an alarm circuit maintained under test condition with said controllers in normal condition thereof, and means governed by the abnormal conditions of the controllers for automatically, serially transmitting an independent signal for each abnormal controller, maintaining the alarm circuit in transmitting and under test condition during the abnormal condition of the controllers, and means for automatically transmitting a signal upon restoration of the system to normal indicative thereof.

4. In an alarm system, one or more features under supervision, means for automatically indicating or transmitting a separate and distinctive signal or alarm indicative of abnormal condition of each feature of the series under supervision and means indicating a separate and distinctive signal or alarm upon restoration of the entire system to normal.

5. In an alarm system, a series of devices responsive to prevailing condition of a system under supervision, signal devices controlled thereby indicative of distinguishable signals for each change of condition, and a signal device responsive to the condition of said signal devices indicative of a distinguishable signal of restoration to normal of all the devices.

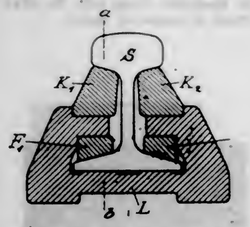
1,073,583. METAL-SHEARING MACHINE. JOHN W. BRANSON, Wallace, Va. Filed Nov. 19, 1912. Serial No. 732,398. (Cl. 164—44.)



In a sheet metal shearing machine, a table, a measuring gage stop and work support on one end of the table, a longitudinally curved knife pivotally connected at one end on to the table, a vertically reciprocating cross head mounted on the other side of the table, means for reciprocating the cross head, a curved angular guard plate, secured on the blade, and means for connecting one end of the blade to the cross head.

REISSUES.

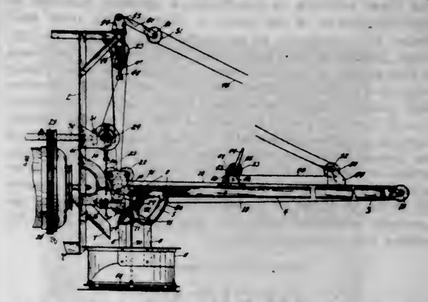
13,616. RAIL-JOINT. FRANZ HOCH, Frankfort-on-the-Main, Germany. Filed May 29, 1913. Serial No. 770,747. Original No. 1,018,494, dated Feb. 27, 1912, Serial No. 566,033. (Cl. 239—6.)



In a rail joint, the combination, with a rail, of a continuous splice-bar clasping the base thereof, a wedge at each side of the web of the rail driven between the splice-bar and the upper faces of the flange of the rail, and a wedge at each side of the web of the rail driven between the upper faces of the splice-bar and the head of the rail, each wedge being guided in the splice-bar, substantially as shown, for the purpose specified.

13,617. CONCRETE-DISTRIBUTER. PHILIP A. KOEHRING, Milwaukee, Wis., assignor to Koehring Machine Company, Milwaukee, Wis. Filed July 12, 1913. Serial No. 778,799. Original No. 1,063,268, dated June 3, 1913, Serial No. 516,451. (Cl. 214—14.)

1. In a device of the described class, the combination of a vertical frame, a boom pivotally supported near one end from said frame, manually actuated means for revolving said boom a partial revolution about its pivotal support, a track carried by the boom, a carriage mounted upon said track, a cable operating along said boom and connected with the carriage, a receptacle suspended from said carriage, means for communicating a forward and backward movement to said carriage, and means carried by the boom for raising and lowering the same.



2. In a device of the described class, the combination of a vertical frame, a plurality of drums connected with the frame, a cable passing about said drums, means for raising and lowering one of the drums, supported from the upper end of said frame, and thereby regulating the tension of the cable, a boom pivotally supported at one end from said vertical frame, manually actuated means for revolving said boom a partial revolution around its pivotal support, a track carried by said boom, a carriage mounted on said track, the aforesaid cable being connected with the boom and with the carriage, a receptacle suspended from the carriage, a drum mounted on the boom, a pulley connected with the upper end of the vertical frame, a cable connecting said last mentioned drum and pulley, and a crank for revolving said drum whereby as said drum is revolved in opposite directions, said boom is adapted to be raised and lowered, all substantially as and for the purpose specified.

3. In a device of the described class, the combination of a vertical frame, a boom pivotally supported near one end from said frame, means for revolving said boom a partial revolution about its pivotal support, a track carried by the boom, a carriage mounted upon said track, a cable extending along said boom and connected with the carriage, a receptacle suspended from said carriage, means for operating the cable and thereby communicating a forward and backward movement to said carriage, and means on the boom for causing raising and lowering movement thereof.

4. In a device of the described class, the combination of a vertical frame, a boom pivotally supported at one end from said frame, means for revolving said boom a partial revolution about its pivotal axis, a track carried by said boom, a carriage mounted on said track, and inclining downwardly and inwardly toward the axis of the boom to permit a receptacle supported by said carriage to move beneath said axis, a receptacle suspended from the carriage, means for communicating a forward and backward movement to said carriage, and means for raising and lowering the boom.

5. In a device of the described class, the combination of a vertical frame, a boom pivotally supported at one end from said frame, means for revolving said boom a partial revolution around its pivotal axis, a track carried by the boom, a carriage mounted upon said track, a cable extending along the boom, drums on the upper and lower portions of said frame about which said cable passes, a receptacle suspended from said carriage, and connected with said cable, means for operating the cable and thereby communicating a forward and backward movement to said carriage, comprising a driving member, clutch mechanisms operable to connect one of the drums with the driving member for reversely operating the said drum and said cable, and controlling means for the clutch mechanisms arranged proximate to the means for revolving the boom.

6. In a device of the described class, the combination of a vertical frame, a bracket projecting from the lower portion of the frame, a swinging boom connected at one

end with said bracket, means on the bracket adjacent to the inner end of the boom for revolving the latter a partial revolution about its axis, drums carried by the upper and lower portions of the frame, a carriage mounted to move lengthwise of the boom, a cable passing about said drums and connected at its opposite ends with the carriage, pulleys at the inner and outer ends of the boom in engagement with which said cable operates, a receptacle supported by the carriage, means for reversibly operating said cable to impart a forward and backward movement to said carriage and comprising a driving member, clutch mechanism intermediate said driving member and one of the drums aforesaid, manipulative means controlling the action of said clutch mechanism to connect the last-mentioned drum with the driving member whereby to operate the drum in either of opposite directions, and means operatively connected with the outer end of the boom for raising and lowering the same.

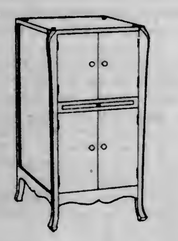
DESIGNS.

44,649. HAMMER-HEAD. PAUL ANDERSEN, Freeport, N. Y. Filed July 9, 1913. Serial No. 778,223. Term of patent 7 years.



The ornamental design for a hammer head, as shown.

44,650. CABINET. HARRY B. BERTINE, New York, N. Y. Filed Feb. 7, 1913. Serial No. 746,963. Term of patent 3½ years.



The ornamental design for cabinet as shown.

44,651. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,870. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

44,652. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,871. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

44,653. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,872. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

44,654. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,873. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

44,655. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,874. Term of patent 3½ years.



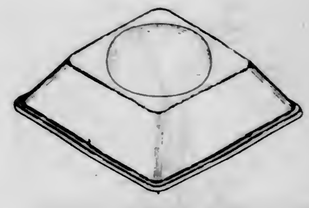
The ornamental design for Levers lace as shown.

44,656. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed July 29, 1913. Serial No. 781,875. Term of patent 3½ years.



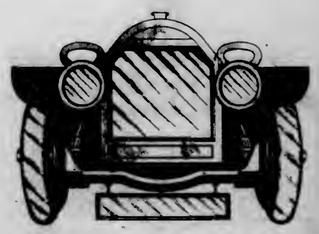
The ornamental design for Levers lace as shown.

44,657. CHANGE-TRAY. EDWARD BRUNHOFF, Cincinnati, Ohio. Filed May 29, 1911. Serial No. 630,286. Term of patent 7 years.



The ornamental design for a change tray as shown and described.

44,658. ELECTRIC SIGN. WILLIAM P. CURWEN and ALBERT M. POTTER, Plano, Ill. Filed July 5, 1912. Serial No. 707,892. Term of patent 7 years.



The ornamental design for an electric sign, as shown.

44,659. BADGE. ARTHUR A. DIX, Kansas City, Mo. Filed July 10, 1912. Serial No. 708,640½. Term of patent 3½ years.



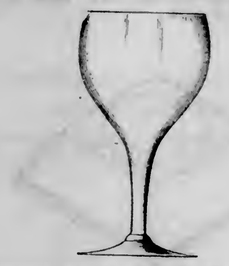
The ornamental design for a badge, as shown.

44,660. VASE. ANDREW A. GEDIG, Indianapolis, Ind. Filed July 23, 1913. Serial No. 780,795. Term of patent 3½ years.



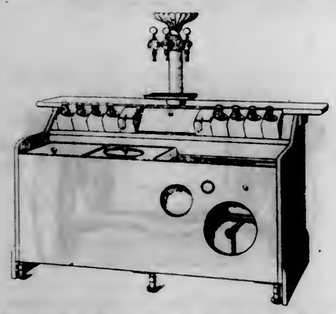
The ornamental design for a vase, as shown.

44,661. GOBLET. WILBER E. HUNTER, Morgantown, W. Va. Filed June 25, 1913. Serial No. 775,807. Term of patent 7 years.



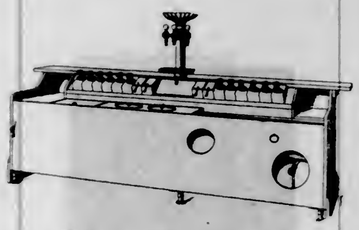
The ornamental design for a goblet as shown.

44,662. SODA-FOUNTAIN. FISHER H. LIPPINCOTT, Philadelphia, Pa., assignor to A. H. & F. H. Lippincott, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,331. Term of patent 7 years.



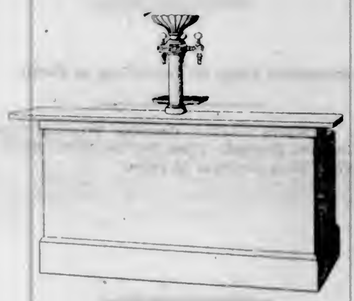
The ornamental design for a soda fountain, as shown.

44,663. SODA-FOUNTAIN. FISHER H. LIPPINCOTT, Philadelphia, Pa., assignor to A. H. & F. H. Lippincott, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,332. Term of patent 7 years.



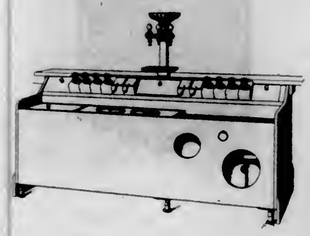
The ornamental design for a soda fountain, as shown.

44,664. SODA-FOUNTAIN. FISHER H. LIPPINCOTT, Philadelphia, Pa., assignor to A. H. & F. H. Lippincott, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,333. Term of patent 7 years.



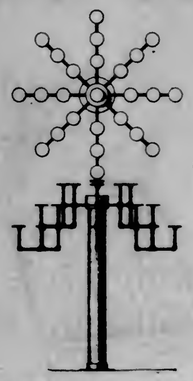
The ornamental design for a soda fountain, as shown.

44,665. SODA-FOUNTAIN. FISHER H. LIPPINCOTT, Philadelphia, Pa., assignor to A. H. & F. H. Lippincott, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 3, 1913. Serial No. 777,334. Term of patent 7 years.



The ornamental design for a soda fountain, as shown.

44,666. DISPLAY-RACK. JOSEPH MARTIN PERRY, Meridian, Miss. Filed June 9, 1913. Serial No. 772,700. Term of patent 14 years.



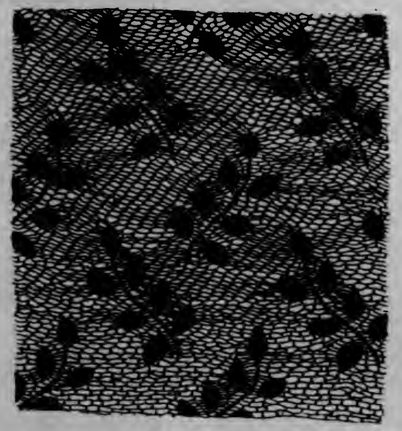
The ornamental design for a display rack, as shown.

44,667. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, co partners trading as John Bromley & Sons, Philadelphia, Pa. Filed July 28, 1913. Serial No. 781,657. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,668. NET-VEILING. ZEALIE VAN RAALTE, New York, N. Y. Filed July 17, 1913. Serial No. 779,622. Term of patent 3½ years.



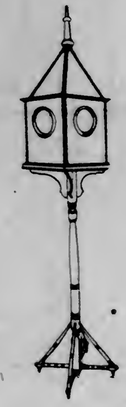
The ornamental design for a net veiling as shown herein.

44,669. LOOKING-GLASS AND RACK. JACK RAFF, Chicago, Ill. Filed June 28, 1913. Serial No. 776,442. Term of patent 7 years.



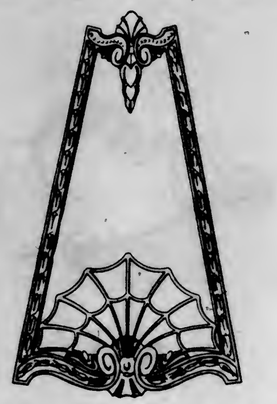
The ornamental design for a looking glass and rack as shown.

44,670. CLOCK-CASE. WILLIAM B. RIKARD, Prosperity, S. C. Filed July 5, 1913. Serial No. 777,593. Term of patent 14 years.



The ornamental design for a clock case as shown.

44,671. PANEL FOR LAMP SHADES, DOMES, AND THE LIKE. FREDERICK P. SCHOENHARDT, Meriden, Conn., assignor to Edward Miller & Company, Meriden, Conn., a Corporation of Connecticut. Filed June 21, 1913. Serial No. 775,144. Term of patent 7 years.



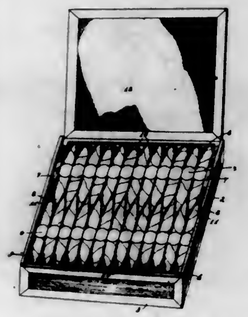
The ornamental design for a panel for a lamp shade, dome and the like, as shown.

44,672. JUG OR SIMILAR ARTICLE. EDWARD R. THIELER, Hoboken, N. J. Filed June 19, 1913. Serial No. 774,698. Term of patent 7 years.



The ornamental design for a jug or similar article as shown.

44,673. BOX OF CIGARS. NATHAN WEISS, New York, N. Y., assignor to American Cigar Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 11, 1908. Serial No. 452,672. Term of patent 3½ years.



The ornamental design for a box of cigars as shown and described.

44,674. ARTICLE OF MANUFACTURE. EDWARD FULDA, New York, N. Y. Filed Feb. 3, 1911. Serial No. 606,421. Term of patent 14 years.

The ornamental design for an article of manufacture as shown and described.

TRADE-MARKS

PUBLISHED SEPTEMBER 16, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 50,788. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) J. A. HENCKELS, Solingen, Germany. Filed July 11, 1910. Under ten-year proviso.

J.A.HENCKELS

Particular description of goods.—Knives Not Made of Precious Metal—viz., Table and Kitchen Knives, Carving-Knives, Meat-Cutters, Butcher-Knives, Cleavers, Knives for Carpenters, Pruning-Knives, Pocket-Knives, Letter-Openers, Paper-Knives, Knife Ink-Erasers, Scissors, Shears, Razors, Hair and Beard Clippers, Twine-Cutters, Sword-Blades, Dagger-Blades, Corkscrews, Drills, Bores, Scythes and Sickles, Hatchets.
Claims use since about June, 1731.

Ser. No. 53,457. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BEAR LITHIA SPRINGS COMPANY, New York, N. Y. Filed Dec. 23, 1910.

BEAR SPRING WATER

No claim is made to the word "Spring Water."
Particular description of goods.—Natural Mineral Water.
Claims use since Jan. 1, 1888.

Ser. No. 57,721. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ATLANTIC INSULATED WIRE & CABLE COMPANY, Jersey City, N. J., and Stamford, Conn. Filed July 19, 1911.

No claim being made to the word "Atlantic."
Particular description of goods.—Insulated Wire.
Claims use since May 25, 1911.

Ser. No. 61,420. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ANGELO BROTHERS LIMITED, Calcutta, India. Filed Feb. 12, 1912.

KALA

Particular description of goods.—Prepared Shellac.
Claims use since before 1900.

Ser. No. 64,321. (CLASS 48. MALT EXTRACTS AND LIQUORS.) MINNEAPOLIS BREWING COMPANY, Minneapolis, Minn. Filed June 21, 1912.

GOLDEN GRAIN BELT

Particular description of goods.—Beer and Porter.
Claims use since on or about Dec. 23, 1895.

Ser. No. 65,615. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THURMAN J. SAULS, Chicago, Ill. Filed Sept. 7, 1912.

PER MIT

Particular description of goods.—Fruit Soda-Fountain Beverages.
Claims use since Aug. 1, 1912.

Ser. No. 70,049. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE W. J. WILCOX LARD & REFINING COMPANY, New York, N. Y. Filed Apr. 24, 1913. Under ten-year proviso.

THE W. J. WILCOX LARD & REFINING CO. GLOBE BRAND PURE LARD NEW YORK, U.S.A.

Particular description of goods.—Lard.
Claims use since prior to 1874.

Ser. No. 71,024. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. MCLOUD, Rochester, N. Y. Filed June 11, 1913.

Olivlam

Particular description of goods.—Ointment.
Claims use since Apr. 12, 1913.

Ser. No. 71,660. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KALLE & CO., AKTIENGESELLSCHAFT, Biebrich-on-the-Rhine, Germany. Filed July 11, 1913.

„Azopellan"

Particular description of goods.—A Preparation for the Treatment of Wounds.
Claims use since Mar. 1, 1913.

Ser. No. 71,673. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROBERT LICH, Sutton, Nebr. Filed July 12, 1913.

LI-DENTA

Particular description of goods.—A Dentifrice.
Claims use since November, 1911.

Ser. No. 71,689. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PEARL M. RIBELIN, Los Angeles, Cal. Filed July 14, 1913.

VERJUICE

Particular description of goods.—A Toilet Preparation for Cleansing the Pores of the Skin.
Claims use since July 1, 1903.

Ser. No. 71,717. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOUTHALL BROTHERS AND BARCLAY, LIMITED, Birmingham, England. Filed July 15, 1913.



Particular description of goods.—A Medicated Tonic Food.
Claims use since April, 1911.

Ser. No. 71,782. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SPEEDWAY REMEDY CO., Shelby, Ohio. Filed July 16, 1913.

Speedway

Particular description of goods.—Liniment.
Claims use since May, 1908.

Ser. No. 71,849. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. M. TODD COMPANY, Kalamazoo, Mich. Filed July 18, 1913. Under ten-year proviso.

"CRYSTAL WHITE"

Particular description of goods.—Essential and Volatile Oils.
Claims use since December, 1875.

Ser. No. 71,866. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE MENTHOL-ICE MANUFACTURING CO., Kansas City, Kans. Filed July 18, 1913.

M MOM M

Particular description of goods.—Menthol-ice.
Claims use since May 15, 1913.

Ser. No. 71,875. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LAWRENCE O'BRIEN, San Francisco, Cal. Filed July 21, 1913.



Particular description of goods.—A Remedy for Skin Diseases.
Claims use since Feb. 13, 1913.

Ser. No. 71,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK W. SCHOONMAKER, Jr., New York, N. Y. Filed July 23, 1913.

Skeetaway

Particular description of goods.—A Remedy for the Bites and Stings of Poisonous Insects.
Claims use since March, 1910.

Ser. No. 71,931. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANK GAIUS BURKE, New York, N. Y. Filed July 24, 1913.



Particular description of goods.—Talcum Powder.
Claims use since July 18, 1913.

Ser. No. 71,937. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE COLORIFIC COMPANY, Tampa, Fla. Filed July 24, 1913.

Colorifia

Particular description of goods.—Hair-Tonic.
Claims use since Mar. 10, 1913.

Ser. No. 71,983. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNA D. ADAMS, Chicago, Ill. Filed July 26, 1913.

TAN-GO

Particular description of goods.—Perfume, Toilet Water, Face-Cream, Face-Powder, and Tooth-Powder.
Claims use since July 9, 1913.

Ser. No. 72,127. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EASTMAN KODAK COMPANY, Rochester, N. Y. Filed Aug. 2, 1913.

ROYLON

Particular description of goods.—Photographic Developer.
Claims use since Feb. 1, 1912.

TRADE-MARKS

REGISTERED SEPTEMBER 16, 1913.

93,406. SELF-RISING WHEAT-FLOUR. AKIN-ERSKINE MILLING CO., Evansville, Ind.
Filed April 17, 1913. Serial No. 69,835. PUBLISHED JULY 8, 1913.

93,407. CHEMICAL COMPOUND USED IN TREATING CERTAIN NAMED DISEASES. THE AMERICAN "RADIO-THOR "X"" COMPANY, Chicago, Ill.
Filed December 23, 1912. Serial No. 67,557. PUBLISHED JULY 15, 1913.

93,408. SYRUP FOR USE AS FOOD. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed January 7, 1913. Serial No. 67,759. PUBLISHED JULY 15, 1913.

93,409. CLOCKS. THE ANSONIA CLOCK COMPANY, New York, N. Y.
Filed May 20, 1913. Serial No. 70,501. PUBLISHED JULY 8, 1913.

93,410. CANNED FRUITS, DRIED FRUITS, AND RAISINS. THE J. K. ARMSBY CO., Chicago, Ill., and San Francisco, Cal.
Filed January 4, 1913. Serial No. 67,701. PUBLISHED JULY 15, 1913.

93,411. TOILET POWDER. THE ARTHUR CHEMICAL CO., New Haven, Conn.
Filed May 5, 1913. Serial No. 70,229. PUBLISHED JULY 15, 1913.

93,412. INTERNAL-COMBUSTION ENGINES. ASSOCIATED MANUFACTURERS' COMPANY, Waterloo, Iowa.
Filed May 8, 1913. Serial No. 70,289. PUBLISHED JULY 15, 1913.

93,413. METALS AND METAL CASTINGS AND FORGINGS. WILLIAM ATKINS & CO. LTD., Sheffield, England.
Filed May 21, 1913. Serial No. 70,525. PUBLISHED JULY 15, 1913.

93,414. CERTAIN NAMED CUTLERY AND TOOLS. WILLIAM ATKINS & CO. LTD., Sheffield, England.
Filed May 21, 1913. Serial No. 70,526. PUBLISHED JULY 15, 1913.

93,415. ENAMEL PAINT. THE ATLAS BITUMINOUS ENAMEL CO., Wilmington, Del.
Filed February 26, 1913. Serial No. 68,737. PUBLISHED JULY 15, 1913.

93,416. PLAYER-PIANOS AND PIANOS. THE AUTO-PIANO COMPANY, New York, N. Y.
Filed May 3, 1912. Serial No. 63,288. PUBLISHED JULY 15, 1913.

93,417. CERTAIN NAMED FOODS. F. H. BENNETT BISCUIT COMPANY, New York, N. Y.
Filed January 30, 1913. Serial No. 68,202. PUBLISHED JULY 15, 1913.

93,418. READY-MIXED ADHESIVE SHELLAC. CONSTANT BENOIT, New York, N. Y.
Filed March 12, 1913. Serial No. 68,968. PUBLISHED JULY 1, 1913.

93,419. REMEDY FOR CERTAIN DISEASES. FRANK BERARD, Spencer, Mass.
Filed April 14, 1913. Serial No. 69,766. PUBLISHED JULY 15, 1913.

93,420. CERTAIN NAMED PAPER AND STATIONERY. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed April 3, 1913. Serial No. 69,572. PUBLISHED JULY 15, 1913.

93,421. MONEY-CHANGERS. BRANDT CASHIER COMPANY, Chicago, Ill.
Filed May 3, 1913. Serial No. 70,197. PUBLISHED JULY 15, 1913.

93,422. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. THE E. T. BURROWES COMPANY, Portland, Me.
Filed April 2, 1913. Serial No. 69,521. PUBLISHED JULY 15, 1913.

93,423. SUBSTITUTE FOR EGGS. THE CABELL CO., Baltimore, Md.
Filed April 3, 1913. Serial No. 69,581. PUBLISHED JULY 15, 1913.

93,424. WHEAT-FLOUR. CADICK MILLING COMPANY, Grand View, Ind.
Filed September 4, 1912. Serial No. 65,582. PUBLISHED JULY 15, 1913.

93,425. LUBRICATING-OIL. CHESEBROUGH MANUFACTURING CO., (CONSOLIDATED), New York, N. Y.
Filed June 19, 1913. Serial No. 71,193. PUBLISHED JULY 15, 1913.

93,426. PERFUMES AND COLD-CREAMS. VAL. H. CHRONISTER, Decatur, Ill.
Filed May 21, 1913. Serial No. 70,529. PUBLISHED JULY 15, 1913.

93,427. RAZORS, RAZOR-BLADES, AND SHEARS. F. A. CLAUBERG & CO., New York, N. Y.
Filed June 5, 1913. Serial No. 70,872. PUBLISHED JULY 15, 1913.

93,428. TALKING-MACHINES AND TALKING-MACHINE RECORDS. COLUMBIA GRAPHOPHONE COMPANY, Washington, D. C.
Filed June 5, 1913. Serial No. 70,871. PUBLISHED JULY 8, 1913.

93,429. MEDICINES FOR BURNS, WOUNDS, ERYSIPELAS, GANGRENE, ABSCESSES, ITCHING, AND GENERAL ANTISEPTIC PURPOSES AND DISEASES OF THE SKIN. THE DECLAT MANUFACTURING CO., New York, N. Y.
Filed April 26, 1912. Serial No. 63,160. Renewal of No. 9,568, July 25, 1882. PUBLISHED JULY 15, 1913.

93,430. TOILET-BRUSHES. DEITSCH BROTHERS, New York, N. Y., assignors to United Drug Company, a Corporation of Massachusetts.
Filed November 3, 1911. Serial No. 59,525. PUBLISHED MAY 14, 1912.

93,431. OIL FOR LUBRICATING PURPOSES. ARTHUR B. EDMANDS, Pawtucket, R. I.
Filed June 16, 1913. Serial No. 71,125. PUBLISHED JULY 15, 1913.

93,432. WATCH-MOVEMENTS. ELGIN NATIONAL WATCH COMPANY, Elgin and Chicago, Ill.
Filed April 12, 1912. Serial No. 62,866. PUBLISHED JULY 15, 1913.

93,433. WATCHES. ESKA MANUFACTURING CO., Baltimore, Md.
Filed May 27, 1913. Serial No. 70,690. PUBLISHED JULY 15, 1913.

93,434. COCOA AND CHOCOLATE. FALTER TANGERMÜNDER SCHOKOLADENFABRIK GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Tangermünde, Germany.
Filed February 10, 1913. Serial No. 68,430. PUBLISHED JULY 15, 1913.

93,435. CANNED SALMON. FIDALGO ISLAND PACKING CO., Anacortes, Wash.
Filed April 11, 1913. Serial No. 69,722. PUBLISHED JULY 15, 1913.

93,436. EGG SUBSTITUTE. FIX MANUFACTURING CO., Buffalo, N. Y.
Filed April 17, 1913. Serial No. 69,851. PUBLISHED JULY 8, 1913.

93,437. WHEAT-FLOUR. W. M. GALT & CO., Washington, D. C.
Filed January 21, 1913. Serial No. 68,033. PUBLISHED JULY 15, 1913.

93,438. BOND-PAPER. GOES LITHOGRAPHING CO., Chicago, Ill.
Filed May 24, 1913. Serial No. 70,616. PUBLISHED JULY 8, 1913.

93,439. CERTAIN NAMED FOODS. HAAS-LIEBER GROCERY COMPANY, St. Louis, Mo.
Filed May 14, 1912. Serial No. 63,524. PUBLISHED JULY 15, 1913.

93,440. REMEDY FOR CERTAIN NAMED DISEASES. JOHN I. HAM, Flatwoods, Tenn.
Filed May 6, 1913. Serial No. 70,262. PUBLISHED JULY 15, 1913.

93,441. CERTAIN NAMED FOODS. HERBERT L. HANDY, Springfield, Mass.
Filed April 25, 1912. Serial No. 63,125. PUBLISHED JULY 15, 1913.

93,442. FOUNTAIN-PENS AND NIBS THEREFOR. L. & C. HARDTMUTH, Vienna and Budweis, Austria-Hungary.
Filed April 16, 1913. Serial No. 69,834. PUBLISHED JULY 15, 1913.

93,443. CAUSTIC SODA. JOHN HEINZKILL, Appleton, Wis.
Filed April 17, 1913. Serial No. 69,854. PUBLISHED JULY 15, 1913.

93,444. CERTAIN CHEMICAL PREPARATION. HUTCHISON SCOTT COMPANY, New York, N. Y.
Filed April 21, 1913. Serial No. 69,966. PUBLISHED JULY 15, 1913.

93,445. TIRE-BENDERS AND TIRE-SHRINKERS. ILLINOIS IRON & BOLT CO., Carpentersville, Ill.
Filed June 10, 1913. Serial No. 71,001. PUBLISHED JULY 15, 1913.

93,446. PHOTOGRAPHIC SENSITIZED PAPER AND PLATES. ALBERT E. JACOBSON, New York, N. Y.
Filed May 31, 1912. Serial No. 63,895. PUBLISHED JULY 15, 1913.

93,447. COFFEE. THE JOHNSON-LAYNE COFFEE CO., St. Louis, Mo.
Filed March 15, 1913. Serial No. 69,051. PUBLISHED JULY 15, 1913.

93,448. SLIDE-RULES. KEUFFEL & ESSER COMPANY, Hoboken, N. J.
Filed June 6, 1913. Serial No. 70,901. PUBLISHED JULY 15, 1913.

93,449. WHOLE AND GROUND SPICES, AND FLAVORING EXTRACTS FOR FOODS. THE KING COMPANY, Rockford, Ill.
Filed April 5, 1913. Serial No. 69,620. PUBLISHED JULY 15, 1913.

93,450. CONVEYING AND TRANSMISSION APPARATUS. THE LAMSON COMPANY, Boston, Mass.
Filed March 31, 1913. Serial No. 69,467. PUBLISHED JULY 15, 1913.

93,451. PIANOS, PIANO-PLAYERS, AND PIANO-ACTIONS. THE LYRACHORD COMPANY, New York, N. Y.
Filed June 30, 1911. Serial No. 57,395. PUBLISHED AUGUST 20, 1912.

93,452. PREPARATION FOR PRESERVING WOOD. LYSTER CHEMICAL CO., Lawrence, Mass.
Filed March 28, 1913. Serial No. 69,393. PUBLISHED JULY 15, 1913.

93,453. RHEUMATIC MEDICINES. WILLIAM F. MACCREADYE, Detroit, Mich.
Filed April 5, 1913. Serial No. 69,622. PUBLISHED JULY 15, 1913.

93,454. VIOLIN-STRINGS. ROBERT L. MATTOCH, Chicago, Ill.
Filed May 21, 1913. Serial No. 70,534. PUBLISHED JULY 8, 1913.

93,455. LETTER-PAPERS AND ENVELOPS. JOSEF MAYER, Hohenaschau, Germany.
Filed May 20, 1912. Serial No. 63,654. PUBLISHED JULY 15, 1913.

93,456. MEDICINAL PLASTER FOR TREATING CERTAIN AILMENTS. GEORGE W. MURRAY, Dublin, Ind.
Filed February 26, 1913. Serial No. 68,749. PUBLISHED JULY 8, 1913.

93,457. SALAD-DRESSING. EMILY L. NORRIE, New York, N. Y.
Filed April 14, 1913. Serial No. 69,778. PUBLISHED JULY 8, 1913.

93,458. FOUNTAIN-PENS. THE PARKER PEN COMPANY, Janesville, Wis.
Filed April 18, 1913. Serial No. 69,899. PUBLISHED JULY 15, 1913.

93,459. BLEACHING LIQUIDS. A. PEUCHOT, INC., New York, N. Y.
Filed May 12, 1913. Serial No. 70,383. PUBLISHED JULY 15, 1913.

93,460. CANNED SALMON. PILLAR BAY PACKING COMPANY, Seattle, Wash.
Filed April 17, 1913. Serial No. 69,864. PUBLISHED JULY 8, 1913.

93,461. BREAD. JOHN J. PLANETT, Yuba City, Cal.
Filed March 28, 1913. Serial No. 69,394. PUBLISHED JULY 15, 1913.

93,462. STEEL AND IRON. PRATT & INMAN, Worcester, Mass.
Filed January 27, 1913. Serial No. 68,160. PUBLISHED APRIL 8, 1913.

93,463. ALE. PROVIDENCE BREWING CO., Providence, R. I.
Filed June 18, 1913. Serial No. 71,173. PUBLISHED JULY 15, 1913.

93,464. BACON. THE RATH PACKING COMPANY, Waterloo, Iowa.
Filed May 6, 1913. Serial No. 70,268. PUBLISHED JULY 8, 1913.

93,465. SUBSTITUTE FOR COFFEE. RENNER SONS COMPANY, Cincinnati, Ohio.
Filed May 3, 1913. Serial No. 70,216. PUBLISHED JULY 15, 1913.

93,466. STEAM COOKING APPARATUS FOR EXTRACTING JUICE FROM FRUITS. REX-CONSERVENGLAS-GESELLSCHAFT LEONHARDT & KLEEMANN, Homburg, Germany.
Filed October 10, 1912. Serial No. 66,222. PUBLISHED JULY 15, 1913.

93,467. INORGANIC ACIDS, SODIUM-BISULFATE, POTASH, AND NITRATE OF SODA, AND SACCHARIN. SACCHARIN-FABRIK, AKTIEN-GESELLSCHAFT, VORM. FAHLBERG, LIST & CO., Salbke-Westerhüsen, Germany.
Filed May 17, 1911. Serial No. 56,397. PUBLISHED JULY 15, 1913.

93,468. CANNED SALMON. GEO. W. SANBORN & SON, Astoria, Oreg.
Filed April 14, 1913. Serial No. 69,783. PUBLISHED JULY 8, 1913.

93,469. SALT. SAN FRANCISCO SALT REFINERY, San Francisco, Cal.
Filed March 19, 1912. Serial No. 62,272. PUBLISHED JULY 15, 1913.

93,470. TOILET-PAPER. SAUQUOIT TOILET PAPER CO. INC., New Hartford, N. Y.
Filed May 21, 1913. Serial No. 70,547. PUBLISHED JULY 15, 1913.

93,471. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed June 9, 1913. Serial No. 70,985. PUBLISHED JULY 8, 1913.

93,472. COMPLEXION-POWDER. THOMAS M. SAYMAN, St. Louis, Mo.
Filed April 12, 1913. Serial No. 69,745. PUBLISHED JULY 15, 1913.

93,473. A PHARMACEUTICAL PREPARATION FOR CERTAIN AILMENTS. SOKOL CHEMICAL COMPANY, Philadelphia, Pa.
Filed April 8, 1913. Serial No. 69,664. PUBLISHED JULY 15, 1913.

93,474. INTERNAL-COMBUSTION ENGINES. THE F. W. SPACKE MACHINE COMPANY, Indianapolis, Ind.
Filed June 10, 1913. Serial No. 71,006. PUBLISHED JULY 15, 1913.

93,475. REFINED OIL, GASOLENE, LUBRICATING OILS AND GREASES. STANDARD OIL COMPANY, Richmond, Cal.
Filed June 21, 1913. Serial No. 71,276. PUBLISHED JULY 15, 1913.

93,476. POWER-ENGINES, IN PARTICULAR ROTARY EXPLOSION-ENGINES, AND PARTS THEREOF. STAS-MOTOR-GESELLSCHAFT M. B. H., Dusseldorf-Obercassel, Germany.
Filed June 4, 1913. Serial No. 70,864. PUBLISHED JULY 15, 1913.

93,477. SALVE. VITALINE ST. JEAN, Putnam, Conn.
Filed April 8, 1913. Serial No. 69,666. PUBLISHED JULY 15, 1913.

93,478. PAINT FOR ROOFS. ROBERT G. TAGGART, Washington, Pa.
Filed September 11, 1912. Serial No. 65,686. PUBLISHED JULY 15, 1913.

93,479. SALVE FOR EXTERNAL USE. TRICUR SALVE CO., Elizabethtown, Ind.
Filed January 24, 1913. Serial No. 68,101. PUBLISHED JULY 15, 1913.

93,480. METAL PAPER-WEIGHTS, INK-WELLS, PAPER-FILES, PEN AND PENCIL HOLDERS. TWISTED WIRE AND STEEL CO., New York, N. Y.
Filed March 14, 1913. Serial No. 69,041. PUBLISHED JULY 8, 1913.

93,481. OLIVE-OIL. JOHN VITTUCCI, Seattle, Wash.
Filed March 13, 1913. Serial No. 69,016. PUBLISHED JULY 15, 1913.

93,482. PREPARATION OF CASTOR-OIL IN THE FORM OF A CONFECTION. HARRY BURNS VOORHEES, Easton, Pa.
Filed May 3, 1913. Serial No. 70,226. PUBLISHED JULY 15, 1913.

93,483. ORANGES AND GRAPE-FRUIT. WALKER BROTHERS, Orlando, Fla.
Filed April 17, 1913. Serial No. 69,877. PUBLISHED JULY 8, 1913.

93,484. BREAD. WORCESTER BAKING COMPANY, Worcester, Mass.
Filed April 17, 1913. Serial No. 69,878. PUBLISHED JULY 8, 1913.

93,485. PICKLES. THE JOHNSON PICKLE CORPORATION, Richmond, Va., now by change of name The Rosemary Company, Incorporated, Richmond, Va.
Filed May 10, 1912. Serial No. 63,457. PUBLISHED JULY 15, 1913.

93,486. SYRUP FOR USE AS FOOD. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed January 7, 1913. Serial No. 67,760. PUBLISHED JULY 15, 1913.

93,487. SYRUP FOR USE AS FOOD. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed January 7, 1913. Serial No. 67,761. PUBLISHED JULY 15, 1913.

93,488. SYRUP FOR USE AS FOOD. THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J.
Filed January 7, 1913. Serial No. 67,762. PUBLISHED JULY 15, 1913.

93,489. RUBBER. SAMUEL C. BECK, Chicago, Ill.
Filed March 17, 1913. Serial No. 69,076. PUBLISHED MAY 13, 1913.

93,490. CERTAIN BELTING, HOSE, AND MACHINERY PACKING. J. W. BUCKLEY RUBBER CO., New York, N. Y.
Filed May 13, 1913. Serial No. 70,392. PUBLISHED JUNE 17, 1913.

93,491. METAL SIGNS. CHARLES A. DIVINE, Columbus, Ohio.
Filed April 4, 1913. Serial No. 69,592. PUBLISHED JULY 15, 1913.

93,492. CERTAIN MUCILAGINOUS PRODUCTS FOR SPECIAL USES. THE GUM TRAGASOL SUPPLY COMPANY LIMITED, county of Chester and Hooton, England.
Filed January 23, 1912. Serial No. 60,984. PUBLISHED SEPTEMBER 24, 1912.

93,493. CERTAIN TIRES, TUBES, PATCHES, CASES, AND RUBBER TUBING OF ALL DESCRIPTIONS. LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa.
Filed February 24, 1913. Serial No. 68,692. PUBLISHED JULY 15, 1913.

93,494. SWEETENED CHOCOLATE AND CANDY. DAVID D. LONG, Oswego, N. Y.
Filed February 14, 1913. Serial No. 68,548. PUBLISHED JULY 15, 1913.

93,495. HAMS, SKINNED HAMS, BACON, AND LARD. THE RATH PACKING COMPANY, Waterloo, Iowa.
Filed May 6, 1913. Serial No. 70,269. PUBLISHED JULY 15, 1913.

93,496. RUBBER MATTING AND RUBBER IN THE PIECE FOR SPECIAL USES. REVERE RUBBER COMPANY, Providence, R. I., and Chelsea, Mass.
Filed September 9, 1912. Serial No. 65,635. PUBLISHED JULY 8, 1913.

93,497. WOVEN MACHINE-BELTING. THE RUSSELL MANUFACTURING CO., Middletown, Conn.
Filed December 18, 1912. Serial No. 67,467. PUBLISHED JULY 8, 1913.

93,498. CANDIES. ANTHONY W. SENZ, Chicago, Ill.
Filed May 10, 1913. Serial No. 70,359. PUBLISHED JULY 15, 1913.

93,499. CIGARETTES. THE TABARD CIGARETTE AND TOBACCO COMPANY, LTD., London, England, and New York, N. Y.
Filed May 5, 1913. Serial No. 70,256. PUBLISHED JULY 15, 1913.

93,500. COMPOUND OIL FOR CERTAIN NAMED PURPOSES. TURPSENE MANUFACTURING COMPANY, Philadelphia, Pa.
Filed January 27, 1913. Serial No. 68,157. PUBLISHED JUNE 17, 1913.

93,501. CLEANING MATERIAL FOR WOOD, METAL, AND OTHER OBJECTS. UNITED SUPPLY COMPANY, New York, N. Y.
Filed May 13, 1913. Serial No. 70,412. PUBLISHED JULY 15, 1913.

93,502. MALT LIQUORS, SUCH AS BEER, ALE, STOUT, AND PORTER. CLAUSEN-FLANAGAN BREWERY, New York, N. Y.
Filed June 12, 1913. Serial No. 71,062. PUBLISHED JULY 15, 1913.

93,503. CLOTHES-BRUSHES AND TOILET-BRUSHES. DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Jersey City, N. J., and Detroit, Mich.
Filed May 24, 1913. Serial No. 70,611. PUBLISHED JULY 15, 1913.

93,504. MOTOR-CYCLES. HARLEY-DAVIDSON MOTOR CO., Milwaukee, Wis.
Filed July 19, 1910. Serial No. 50,908. PUBLISHED JULY 15, 1913.

93,505. WHEELS. JOHN M. KROYER, Stockton, Cal.
Filed April 19, 1913. Serial No. 69,921. PUBLISHED JULY 15, 1913.

93,506. HAIR-RESTORER. ROY LIGHTFOOT, San Antonio, Tex.
Filed April 5, 1912. Serial No. 62,662. PUBLISHED JULY 1, 1913.

93,507. SOFA-BEDS. PULLMAN COUCH COMPANY, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,875. PUBLISHED JULY 15, 1913.

93,508. CARRIAGES, WAGONS, AND AUTO-BODIES. J. M. SELZER CARRIAGE & BUSINESS WAGON MFG. CO., St. Louis, Mo.
Filed March 25, 1913. Serial No. 69,332. PUBLISHED JUNE 17, 1913.

93,509. CIGARETTE-PAPERS. SOCIETE ANONYME DES ANCIENS ETABLISSEMENTS BRAUNSTEIN FRERES, Paris, France.
Filed May 16, 1913. Serial No. 70,454. PUBLISHED JULY 15, 1913.

93,510. REMEDIES FOR CONSTIPATION, LIVER COMPLAINT, BILIOUSNESS, AND RESULTANT DISORDERS. WELLS & RICHARDSON COMPANY, Burlington, Vt.
Filed January 27, 1912. Serial No. 61,102. PUBLISHED MARCH 18, 1913.

LABELS

REGISTERED SEPTEMBER 16, 1913.

17,213.—*Title:* "HOW TO APPLY DR. CUNNINGHAM'S PLASTERS." (For Medicinal Plasters.) ANTI-TOXINE CHEMICAL CO., Chicago, Ill. Filed August 7, 1913.

17,214.—*Title:* "LILY WHITE BRAND." (For Toilet-Paper.) SAMUEL LEWIS, New York, N. Y. Filed June 20, 1913.

17,215.—*Title:* "HAND PLAYED." (For Music-Rolls for Pneumatic Pianos and Similar Musical Instruments.) NATIONAL MUSIC ROLL CO., St. Johnsville, N. Y. Filed August 21, 1913.

17,216.—*Title:* A. J. PAROUBEK'S RISTCORSET." (For Bandages or Splints for the Wrist or Hand.) ANTON JOSEPH PAROUBEK, Fishkill-on-the-Hudson, N. Y. Filed July 9, 1913.

17,217.—*Title:* "NU-TAN-FIN THE LEATHER DOCTOR." (For a Liquid Dressing for Use on Leather and Rubber.) PHELPS MANUFACTURING COMPANY, Providence, R. I. Filed August 6, 1913.

17,218.—*Title:* "BRITANNIA ENGLISH SLIP-ON SHOWER-PROOF COAT." (For Shower-Proof Coats.) SAMUEL W. PECK & CO., New York, N. Y. Filed August 6, 1913.

17,219.—*Title:* "'OWL' SELF-SHINING STOVE POLISH." (For Stove-Polish.) E. H. SCHULER & CO., Scranton, Pa. Filed August 13, 1913.

17,220.—*Title:* "VITTEL GRANDE SAUCE." (For a Mineral Water.) SOCIETE GENERALE DES EAUX MINERALES DE VITTEL, Vittel, France. Filed August 9, 1913.

17,221.—*Title:* "SWEEPO." (For Brooms.) SWEEPO BROOM COMPANY, Scranton, Pa. Filed July 7, 1913.

17,222.—*Title:* TRANSPARENTINE." (For a Chemical Preparation for Coating Glass Surfaces to Prevent Water from Adhering.) TRANSPARENTINE COMPANY, Philadelphia, Pa. Filed August 26, 1913.

PRINTS

REGISTERED SEPTEMBER 16, 1913.

3,367.—*Title:* "WHAT DE' DEBIL' YOU-ALL LAUGHIN' AT ANYHOW?" (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed August 26, 1913.

3,368.—*Title:* "PHONE FOR A CASE TO BE SENT TO YOUR PLACE." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,369.—*Title:* "FOR A HOME SURPRISE—SEND A CASE OF EDELWEISS." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,370.—*Title:* "THE BREWERY WILL SPEED IT WHEREVER YOU NEED IT." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,371.—*Title:* "HERE'S THE CASE—YOU BE THE JUDGE." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,372.—*Title:* "SOLID SERVICE SHOES." (For Shoes.) R. P. SMITH & SONS CO., Chicago, Ill. Filed August 19, 1913.

3,373.—*Title:* "DRINK WOLFE'S SCHNAPPS AND KEEP ON THE RIGHT ROAD." (For Schnapps.) UDOLPHO WOLFE COMPANY, New York, N. Y. Filed August 27, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE LATTA AND THOMPSON.

Decided February 7, 1913.

PATENTABILITY—FLEXIBLE-PLATE CAR-ROOF.

Claims for a flexible-plate car-roof *Held* to cover a patentable advance over the prior art.

APPEAL from Examiners-in-Chief.

CAR-ROOF.

Messrs. Whittemore, Hulbert & Whittemore and *Messrs. Bacon & Milans* for the applicants.

MOORE, *Commissioner:*

This is an appeal from a decision of the Examiners-in-Chief affirming the action of the Primary Examiner rejecting claims 1 to 6 and 8 to 11, inclusive, which are sufficiently illustrated by the following:

1. A flexible plate-car-roof comprising a skeleton frame, load sustaining rigid metallic roofing plates spanning open spaces of said frame, and independently freely movably supported thereon and secured thereto, and weather proofing means between adjacent plates permitting said free independent movement.

4. A flexible plate-car-roof comprising carlines, load supporting rigid metallic roofing plates, spanning the spaces between the carlines and independently freely movable therebetween, flanges on the sides of the plates arranged at an angle to the body thereof, metallic caps over the carlines and flanges, and lateral flanges on the caps parallel with the body of the plates and resting thereon.

10. A flexible plate-car-roof comprising carlines formed of metallic structural beams extending from eave to eave, load sustaining metallic roofing plates spanning open spaces between said carlines, means for forming a flexible weather proof connection between said carlines and plates, and purlins extending longitudinally of said carlines and directly supporting said plates.

The references cited are: Walter, 286,877; October 16, 1883; Helliwell, 356,393, January 18, 1887; Murphy, 414,069, October 29, 1889; Pennock, 466,624, January 5, 1892; Murphy, 489,322, January 3, 1893; Jennings, 521,087, June 5, 1894; Murphy, 554,287, February 11, 1896; Murphy, 554,288, February 11, 1896; Williamson and Pries, 584,836, June 22, 1897; Drake, 612,024, October 11, 1898; Jennings, 632,016, August 29, 1899; Link, 665,642, January 8, 1901; Pettis, 670,294, March 19, 1901; Hutchins and Herbert, 676,434, June 18, 1901; Jennings, 696,976, April 8, 1902; McCarthy, 773,667, November 1, 1904; Herbert, 790,054, May 16, 1905; Taylor, 844,056, February 12, 1907; Ross, 864,993, September 3, 1907; Queenan and Murphy, 919,461, April 27, 1909.

The nature and scope of the invention are well set forth by the Examiners-in-Chief, as follows:

The supposed invention, in its broadest aspect, is a car roof consisting of load-sustaining rigid metallic roofing plates spanning open spaces of a skeleton frame, these roofing plates being not connected or continuous but freely and movably supported on and secured to said frame and having between them weatherproofing means which admits of free and independent movement of the several plates. This structure considered as an entity is new and the Examiner does not claim that it is anticipated by any single reference.

The problems which the applicants have in this case attempted to solve—*i. e.*, the production of a practical roofing for freight-cars—present difficulties not present in the roofing of stationary structures, owing to the twisting and warping which occurs in the flimsy structure of a freight-car and the excessive wear and tear arising from the severe use to which such cars are subjected.

Of the various patents cited only those to Pennock and Jennings, No. 696,976, show metal car-roofs, and in these the roof-plates are secured firmly together, so that the shifting at the joints necessary to flexibility is prevented. The others show wooden car-roofs which are merely weatherproofed, either outside or inside, by metallic plates. In some of these provision is made for supporting the water-proofing-plates loosely at the joints to prevent buckling, due to the inevitable twisting of the wooden roof.

These applicants are admittedly the first ones to provide a designedly-flexible all-metal car-roof, and they have pointed out in their brief on this appeal that such roof involved the following changes over anything shown in the prior art:

First, dispensing entirely with the board structure before invariably used; *second*, the construction of a skeleton roof-frame, which, while possessing load-sustaining strength, was nevertheless free to weave and flex with the movement of the carframe; *third*, the provision of non-flexing roofing plates formed of heavy-gage sheet metal, such plates spanning the open spaces of the skeleton frame and constituting at once the load-sustaining and the weather-proofing covers; *fourth*, the securing or holding down of such plates upon the roof frame in such a manner and by such means that the frame is permitted to weave or flex without imparting its distortions to the plates or joints, while at the same time providing sufficient clearance between the plates and the carlines to permit this independent movement; and *fifth*, the provision of weather-proofing means between adjacent plates and such as not to interfere with their freedom of relative movement.

The advantages which they claim for the construction are:

First, the structure is simplified by entirely dispensing with the board covering used in all practical roofs in the prior art; *second*, there is a reduction in the weight (from 200 to 1000 pounds) which means decrease in the dead load of the car as a whole and increase in freight-load carrying-capacity; *third*, the thickness or depth of the entire roof structure is greatly decreased (being approximately ½ of that of former structures) thereby providing additional space within the car for the freight; *fourth*, there is increased strength both in the roof itself and in the car structure; *fifth*, the roof is not damaged by the ordinary stresses of service and the cost of repairs is therefore reduced to the minimum; and *sixth*, the roof is thor-

oughly weather-proof, not only when first installed but after a long term of service.

The basis of the rejection by the Examiner is found in the following quotation from his statement on appeal, and this position seems to have been adopted by the Examiners-in-Chief:

It has long been recognized as shown by each of the patents in the second group, that when a car is to be roofed with metal plates, provision must be made for permitting them to move freely while covering the joint. To the Examiner, it seems to be an obvious and necessary corollary that if the plates are to constitute the sole covering and are to be made thick enough for this purpose, as shown in the two patents first cited, the same provision must be made and to do so by the same means, from which this claim does not distinguish, would not involve invention. Or, viewed from another standpoint, it is not seen that it would require invention over any of the latter group of patents to omit the wooden outside roof and make the metal sheets heavy enough to be "load sustaining" as suggested by the first two patents.

It may be noted in this connection that what appears to be obvious to the Examiner as to the necessity for providing loose joints in an all-metal roof was not apparently obvious to the patentees Pennock and Jennings, (No. 696,976,) who show in their patents here cited as references tight joints for the adjacent plates. There is also evidence in the record to the effect that when the applicants first submitted their proposed construction to a railway official it was declared by him to be impractical and inoperative, and only after a long test, made at the expense of the applicants, were railway officials convinced and cars regularly equipped with this type of roof. Since then it seems it has gone into extensive use.

In view of the admitted novelty of the structure as set forth in the claims and the advantages which may be obtained thereby I am of the opinion that the appealed claims should be allowed as covering a patentable advance in the art.

The decision of the Examiners-in-Chief is reversed.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—First Circuit.

STAFFORD CO. *v.* COLDWELL-GILDARD CO. *et al.*

Decided January 30, 1913.

202 FED. REP., 744.

1. PATENTS—REISSUES—AUTHORITY TO GRANT.

To authorize a reissue patent under Revised Statutes, section 4916, (U. S. Comp. St., 1901, p. 3393,) there must be clear proof that the error which renders the original patent inoperative or invalid arose by "inadvertence, accident or mistake" and that the party asking for relief acquires no more than he was originally entitled to, and what is called for by the words "same invention" in the statute cannot be gathered from mere inferences or suggestions with reference to what the patentee might or might not have conceived.

2. SAME—VALIDITY OF REISSUE—STOP-MOTION FOR LOOMS.

The Coldwell and Gildard Reissue Patent No. 11,923, (original No. 637,234,) for a warp stop-motion for looms, in which claims 19 to 30, inclusive, are new, is void as to claim 19 and all subsequent claims which are substantially broader than claim 23 as not for the same invention disclosed in the original patent.

Mr. Wilmarth H. Thurston for the appellant.

Mr. William K. Richardson (*Mr. J. Lewis Stackpole* on the brief) for the appellees.

Before COLT, PUTNAM, and DODGE, Circuit Judges.

PUTNAM, *Cir. J.*:

This case, in our opinion, turns on the validity of a reissued patent to Coldwell and Gildard, dated July 30, 1901, No. 11,923, entitled "Warp stop-motion for looms." The reissued patent contained thirty claims, of which claims 19 to 30, each inclusive, were brought in on the reissue, and are the only claims we need especially trouble ourselves about.

The patent is for a warp stop-motion for looms. Original claims 3 to 18, each inclusive, related to a combination of a drop-bar with other elements, constituting a warp stop-motion for looms; but claims 1 and 2 related only to a peculiar form of a drop-bar. The claims introduced in the reissue relate to a subject-matter different from any of the original claims. They do not cover stop-motion combinations, and they are not all limited to a particular kind of drop-bar. They concern the location of the drop-bars in whatever form they may be, and the capability of free movement with reference to the avoiding of chafing of the threads.

In the original patent there was nothing whatever of this, unless the following expression in the specification, namely:

It will also be noticed that by the relative location of the lease-rods with the circuit-rods a warp-thread can only chafe against one of the adjacent drop-bars instead of that at each side, as would be the case if the lease-rods were located in advance of the circuit-rods.

In lieu of that, we find in the specification of the reissued patent the following:

It will also be noticed that, owing to the location of the lease-rods with reference to the drop-bars and to the shape which we give these drop-bars, each drop-bar is entirely free from contact with the warp-threads on either side of its own warp-thread, and can only come in contact with them (if at all) by jumping upward while the loom is in motion. By this arrangement we prevent the injurious chafing of the warp-threads which takes place where each thread passes by the drop-bars of the two adjacent threads, and is normally in contact with one or both of these drop-bars.

(1) It is not necessary here to go into any lengthy examination of the authorities, because the law is too manifest to need multiplication of restatements. The statute (Rev. St., sec. 4916; U. S. Comp. St., 1901, p. 3393) provides that—

whenever any patent is inoperative or invalid by reason of a defective or insufficient specification, * * * if the error has arisen by inadvertence, accident or mistake, * * * the Commissioner shall cause a new patent for the same invention to be issued.

Two leading and imperative requirements stand in the path of a reissue: first, that the error must have arisen "by inadvertence, accident or mistake;" and, second, that the new patent is to be for the "same invention." Consequently, it must appear, in some manner provided by law, that the invention for which the reissue is granted was in the contemplation of the patentee at the outset, and that he failed to acquire it by reason of "inadvertence, accident or mistake."

Starting with these propositions, the rules which govern the Commissioner and the courts are those applied by the fundamental principles of equity, that in order to relieve against "inadvertence, accident or mistake" there must be clear and positive proof that there was such "inadvertence, accident or mistake," and that the party asking for relief acquires no more than he was originally entitled to. The burden of maintaining the facts to which these requirements relate is of a character that requires clear and positive proof, in harmony with the universal rules

of equity not to disturb the existing status except by proof of that character. No mere inferences can take the place of such proof. Ordinarily, what is called for by the words "same invention" should appear in some way on the face of the original patent, and it cannot be gathered from mere inferences or suggestions with reference to what the patentee might or might not have conceived.

(2) Of course, in many respects, the ruling of the Commissioner in authorizing a reissue, like all other departmental rulings, may be of special weight and force, and sometimes quite conclusive. This applies not to questions of law appearing on the face of the record, but to questions of fact, and sometimes to mixed questions of law and fact, especially where the real issue is the application of doubtful or disputed facts to the law. Also it must be remembered that, with reference to the topic of "inadvertence, accident or mistake," equity gives great effect in neutralizing the errors of scriveners where the scrivener departs from what was clearly the intention of the parties. In the petition for the reissue, and the deposition which is a part thereof, the patentees represented to the Commissioner that they had intrusted the matter of an application for Letters Patent to their solicitor,

to whom as they supposed they had sufficiently explained all the features of the machine which they desired to patent, including the improvements for preventing the chafing of the warp-threads, which,

as they said,

formed an important part of their invention, and which they supposed he had properly described and claimed;

and that they had, however,

recently discovered that, while the specification correctly describes the manner in which the warp-threads are passed over and under the lease-rods, and while the drawings correctly show, especially in Fig. 5, the manner in which the chafing of the warp-threads is prevented, the passage in the specification which especially relates to this subject is not clearly or accurately expressed, * * * and that upon discovering this defect they at once instructed their solicitor to apply for a reissue in their behalf.

This undoubtedly, according to the practice of the Patent Office, laid the foundation for an investigation by the Commissioner of the two important questions involved, namely: first, of "inadvertence, accident or mistake;" and, second, of the question of the "same improvement." The question of the "same improvement" is not very satisfactorily answered. However, this was a matter to a certain extent within the jurisdiction of the Commissioner, and so far within his jurisdiction, that we think, upon the entire state of facts presented in this record, we should follow his ruling thereon. The other question, that of "inadvertence, accident, or mistake," was a pure question of fact, and on this record was clearly within his jurisdiction, as no evidence was anywhere offered contravening the patentees' propositions in reference thereto.

In view, therefore, of the Commissioner's decision, we find that the reissue was valid, at least to a certain extent. This, however, is far from concluding the difficulties of the case.

There are substantial differences between the various claims numbered from 19 to the end. Claim 19 is a broad claim, and one which ought not be sustained except after careful consideration. It would prohibit almost any form of arrangement of drop-bars by which chafing would be avoided; while claim 23, which we were told at bar substantially represents in detail the method of the patentees, is extremely limited. That is as follows:

23. A loom, having, in combination, means which divide the warp-threads into intersecting planes, guides located beneath the warp-threads on opposite sides of the intersection between said planes and out of vertical alinement with said dividing means, and a drop-bar for each warp-thread, said drop-bars being arranged in banks positioned respectively by said guides, and suspended respectively from said warp-threads on opposite sides of said intersection, each drop-bar terminating at its upper end below the plane of the warp-threads which is intersected by the thread from which said drop-bar is suspended, whereby each drop-bar comes in contact only with the warp-thread which supports it, and is free to move vertically.

Nevertheless, the decree went against the respondent on all the new claims *en masse*. It becomes necessary, therefore, to consider whether the reissue is valid for anything beyond claims of the character of No. 23. The petition for reissue, to which we have referred, uses the words:

While this specification correctly describes the manner in which the warp-threads are passed over and under the lease-rods; and while the drawings correctly show, especially in Fig. 5, the manner in which the chafing of the warp-threads is prevented, etc.

This *prima facie* bars the patentees from claiming any improvement beyond that specifically described in Fig. 5. Moreover, the complainants, describing the reissue, now say:

It corrected the inaccurate paragraph as to chafing, stating what was plain from the original patent, namely, that in the patentees' arrangement the drop-bar would be free from contact with the warp-threads of each of the adjacent drop-bars.

Also they say that—

a part of their invention was the subcombination in question shown in the drawings, particularly in Fig. 5.

Consequently, the whole goes back to what was thus pointed out by Fig. 5, and the broad claim of No. 19 was beyond anything the Patent Office could lawfully have found to be a part of the patentees' improvement, or consequently to have been omitted by "inadvertence, accident or mistake." Consequently, therefore, the reissue is invalid as to claim 19, and all claims substantially broader than claim 23. It is not within our province to go through all these numerous claims, and sift out the result of our conclusion. Therefore we leave it to the district court to work out the details of that character.

It must also be remembered that while with reference to all the new claims, Nos. 19 to 30, each inclusive, the question of infringement might be very simple, yet with regard to claims of the character of claim 23, the question of infringement might be of an entirely different character, and the infringement not found. This fact may require special investigation in this particular.

We say nothing herein on the question of anticipation, because with reference to a claim of the nature of claim 23 it would be almost beyond belief that anticipation could be found on this record.

The decree of the district court is reversed, and the case is remanded to that court for proceedings in accordance with our opinion passed down the 30th day of January, 1913; and the appellant recovers its costs of appeal.

Photographic Copies.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 28, 1913.

A photographic apparatus has been installed in the Patent Office for the purpose of avoiding the withdrawal from the examining divisions of foreign patents which are used as references and from the Scientific Library of bound volumes which are used by attorneys in making validity searches.

White-line photographic copies of the specifications and drawings of foreign patents only or of any page of any printed publication which may be in the possession of the Patent Office will be furnished upon payment of the prescribed fees. Copies on paper 7x11¼ inches, comprising a single page only, will be furnished for 15¢ per print, and copies on paper 11¼x14 inches, comprising single or double pages, as the case may be, for 25¢ per print. Coupons to the amount required, when properly filled in, will be accepted in payment for these prints.

The Office will not accept white-line photographic copies of original drawings for filing in connection with pending applications. Therefore prints of this class of drawings will not be furnished.

In ordering photographic copies of specifications or drawings of foreign patents applicants must state the country in which the patent was granted, the number of the patent, the date, including the year, and the name of the patentee.

For photographic copies to be made from other printed publications in possession of the Office the title and date of the publication and the page or part of page of which copy is desired must be given.

Failure to give complete identification as indicated above will cause delay and unnecessary correspondence.

In addition to the foregoing the Office will continue to furnish black-line photographic copies of drawings of pending, patented, forfeited, or abandoned cases, as heretofore, in two sizes, 8x12½ inches at 15¢ per print and 10x15 inches at 25¢ per print. Applicants and attorneys are strongly urged to file a set of black-line copies, small size, or order them to be made by the Office at the time of filing an application. Such procedure will save delay later if correction of the drawing is desired or required.

The Patent Office has no printed copies of foreign patents for sale.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Wm. H. Scott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyrene Manufacturing Co., 1358 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered August 12, 1902, No. 38,766, to Wm. H. Scott, 510 Court street, Reading, Pa., and a notice of such declaration sent by registered mail to said Wm. H. Scott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wm. H. Scott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Mortimer J. E. Hurlbut, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Drägerwerk. Heinr. & Bernh. Dräger, 53 Moislinger Allee, Lübeck, Germany, for registration of a trade-mark and trade-mark registered February 25, 1902, No. 37,870, to Mortimer J. E. Hurlbut, 212–214 Monroe street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Mortimer J. E. Hurlbut having been returned by the post-office undeliverable, notice is hereby given that unless said Mortimer J. E. Hurlbut, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Reed, Walsh & Lange, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Alaska-Portland Packers Association, of Portland, Oreg., for registration of a trade-mark and trade-mark No. 28,485, registered June 30, 1896, to Reed, Walsh & Lange, of 65 and 67 South Water street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Reed, Walsh & Lange at the said address having been returned undeliverable, notice is hereby given that unless said Reed, Walsh & Lange, their assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

French & Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the California Cracker Co., Park avenue and Watts street, Oakland, Cal., for registration of a trade-mark and trade-mark registered January 2, 1906, No. 48,456, to French & Company, of Factoryville, Pa., and a notice of such declaration sent by registered mail to said French & Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless French & Company, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Chase, Merritt & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Bencon Falls Rubber Shoe Company, of Beacon Falls, Conn., for registration of a trade-mark and trade-mark registration No. 27,728, registered February 4, 1896, to Chase, Merritt & Co., of 32 High street, Boston, Mass., and a notice of such declaration sent by registered mail to said Chase, Merritt & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Chase, Merritt & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Joseph Giering and Anna Giering, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Haarer & Sons, of Ann Arbor, Mich., for registration of a trade-mark and trade-mark registration No. 15,334, registered April 3, 1888, to Joseph Giering and Anna Giering, of No. 28 South High street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Joseph Giering and Anna Giering at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Joseph Giering and Anna Giering, their assigns or legal representatives, shall within thirty days from date of the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 194—No. 4. TUESDAY, SEPTEMBER 23, 1913. Price—$5 per year.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF SEPTEMBER 23, 1913.

Patents	514	No. 1,073,584 to No. 1,074,097	inclusive.
Designs	23	No. 44,676 to No. 44,697	inclusive.
Trade-Marks	72	No. 93,511 to No. 93,582	inclusive.
Labels	19	No. 17,223 to No. 17,241	inclusive.
Prints	3	No. 3,374 to No. 3,376	inclusive.
Reissues	2	No. 13,618 to No. 13,619	inclusive.
Total	633		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	5	.....	North Carolina	2	2
Arizona	.....	.....	North Dakota	3	.....
Arkansas	3	.....	Ohio	19	3
California	32	2	Oklahoma	6	1
Colorado	6	.....	Oregon	3	.....
Connecticut	15	.....	Pennsylvania	53	6
Delaware	.....	.....	Rhode Island	5	2
Florida	1	3	South Carolina	.....	.....
Georgia	5	1	South Dakota	3	.....
Idaho	4	.....	Tennessee	4	1
Illinois	32	4	Texas	13	1
Indiana	8	1	Utah	2	.....
Iowa	15	.....	Vermont	.....	.....
Kansas	3	.....	Virginia	5	1
Kentucky	9	1	Washington	7	3
Louisiana	2	.....	West Virginia	2	.....
Maine	2	1	Wisconsin	13	7
Maryland	2	1	Wyoming	1	.....
Massachusetts	17	2			
Michigan	10	4	Alaska, District of	.....	.....
Minnesota	9	1	Canal Zone	.....	.....
Mississippi	2	.....	District of Columbia	2	1
Missouri	13	4	Hawaii Territory	1	.....
Montana	2	.....	Philippine Islands	.....	2
Nebraska	4	.....	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	1	.....	U. S. Navy	.....	.....
New Jersey	21	5			
New Mexico	.....	.....	Total to residents of the United States	442	76
New York	73	17			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	.....
Austria-Hungary	4	1	Newfoundland	.....	.....
Belgium	2	.....	New South Wales	.....	.....
British India	.....	.....	New Zealand	1	.....
Brazil	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Portugal	.....	.....
Canada	8	.....	Queensland	.....	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	1	.....
Costa Rica	.....	.....	Scotland	2	.....
Cuba	2	.....	South Australia	.....	.....
Denmark	1	.....	Spain	.....	8
Dominican Republic	.....	.....	Sweden	4	.....
England	9	1	Switzerland	5	1
France	12	1	Transvaal, South Africa	.....	.....
Germany	36	6	Venezuela	3	.....
India	.....	.....	Western Australia	.....	.....
Ireland	.....	.....			
Italy	3	.....			
Japan	.....	.....			
Mexico	1	.....	Total to residents of foreign countries	86	18

Changes in Classification.

ORDER No. 2,069.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 11, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XXIII, class 58, Horology, abolish the following subclass with its definition:

141. Sun-dials.

The patents formerly contained in this subclass have been placed in class 23, Geometrical Instruments, subclass 62, Light-ray type, Solar, Time computing.

In class 49, Glass, after the seventh paragraph of the class definition insert the following paragraph:

Pure silica and silica modified by the addition of other materials are also included with glass when intended to be fused to and capable of manipulation in a plastic state and then solidified by cooling to a vitreous mass.

In class 92, Paper Making and Fiber Liberation, in the definition of subclass 50, Web forming, Felt and wire cleaners, add to the search note, after the first paragraph, the following paragraph:

137—WATER DISTRIBUTION appropriate subclasses, for sprinklers, sprayers, nozzles, etc.

THOMAS EWING,
Commissioner.

Trade-Marks.

Extra copies of the trade-mark portion of the GAZETTE, which will be sold separately, may be obtained single or in quantities for five cents each. Coupons will be taken in payment thereof.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 20, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 3	July 10	779
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	May 2	July 28	714
176	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Aug. 21	Sept. 8	246
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 3	July 12	773
167	5. Bookbinding; Harvesters; Jewelry; Music.	June 13	June 28	629
218	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 5	July 8	815
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Mar. 25	July 1	1089
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 1	Aug. 7	1024
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Apr. 9	July 28	719
235	10. Carriages and Wagons	May 9	June 20	1269
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Aug. 1	Aug. 11	366
223	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	May 10	June 2	1631
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 26	July 8	706
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 11	Aug. 21	583
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Mar. 27	June 24	1619
109	16. Radiant Energy; Telegraphy; Telephony.	Apr. 21	June 18	562
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	July 16	Aug. 20	360
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 27	Aug. 7	242
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 12	July 17	674

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 22	July 25	273
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 10	May 8	752
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 13	June 30	477
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	June 20	July 14	436
144	24. Apparel; Apparel Apparatus; Sewing Machines.	July 11	July 16	619
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	July 21	June 18	216
106	26. Electricity, Generation; Motive Power.	Apr. 12	May 23	617
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 1	July 31	507
65	28. Internal-Combustion Engines	Apr. 18	June 4	1039
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	May 19	May 14	691
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 8	Aug. 5	294
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	June 28	June 27	464
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 7	July 24	498
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	June 10	July 14	433
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	June 24	July 16	700
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	May 1	Aug. 12	832
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	June 10	June 17	1018
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Jan. 30	May 22	992
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Apr. 28	June 23	936
321	39. Water Distribution	June 13	July 22	506
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 3	July 15	1047
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Aug. 1	Aug. 8	440
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 2	May 10	1020
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 6	Aug. 6	316

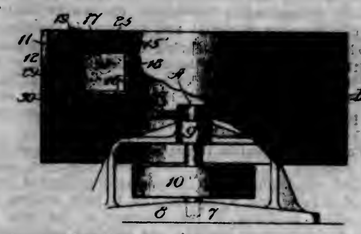
Oldest new case, Jan. 30; oldest amended, May 8.
Total number of applications awaiting action..... 29,908

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	June 28	Aug. 6	1087
	Designs	Aug. 4	Aug. 22	219
	Labels and Prints	Sept. 10	Aug. 23	72

PATENTS

GRANTED SEPTEMBER 23, 1913.

1,073,584. CENTRIFUGAL BLOCK-MACHINE. NATHANIEL P. ANNIS, Chicago, Ill. Filed June 26, 1909. Serial No. 504,568. (Cl. 25—41.)

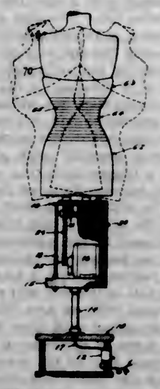


1. A centrifugal block-machine having in combination, a rotatable drum, a mold having its back hinged at its upper edge to the upper edge of the drum, and a support carried by said back, whereby the mold may be supported in an elevated position to facilitate the removal of the molded back.

2. A centrifugal block-machine having in combination, a rotatable drum having a fixed inner wall, a mold having its back hinged at its upper edge to the upper edge of the fixed inner wall, and a leg hinged to the lower edge of said back, said leg providing a support for one side of the mold when swung up in elevated position.

3. A centrifugal block-machine having in combination, a rotatable drum having a fixed inner wall, a mold having its back hinged at its upper edge to the upper edge of the fixed wall, so as to permit the mold being swung inwardly, and upwardly, and means for supporting said mold in its raised position.

1,073,585. CORSET-DISPLAY DEVICE. MARCUS MERRITT BEEMAN, Meadville, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Aug. 12, 1911. Serial No. 643,717. (Cl. 46—37.)



1. In a garment displaying and demonstrating device, the combination of a body or form having upper and lower sections, and a flexible intermediate section, and mechanism connected to the upper and lower sections and arranged to constantly vary their relative positions.

2. In a garment displaying and demonstrating device, the combination of a body or form having upper and lower sections, and an intermediate section composed of flexible flat wire springs, and mechanism connected to the upper and lower sections and arranged to constantly vary their relative positions.

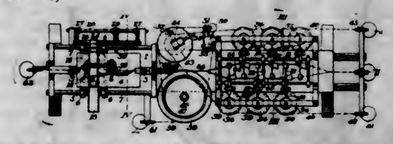
3. In a garment displaying and demonstrating device, the combination of a body or form having upper and lower sections, and an intermediate section formed of flat wire springs having the wire bent back and forth into oppositely disposed loops and being flexible in all directions, and mechanism connected to the upper and lower sections and arranged to vary their relative positions.

4. In a garment displaying and demonstrating device, the combination of a body or form having upper and lower sections, and a flexible intermediate section composed of vertical flat wire springs and a flat wire spring arranged in substantially horizontal coils on said vertical springs, and mechanism connected to the upper and lower sections and arranged to vary their relative positions.

5. In a garment displaying and demonstrating device, the combination of a base plate, a rotary turn table, thereon, a standard rising from said turn table, an oscillatory upright fulcrumed on said standard, and mechanism for oscillating said upright and rotating said turn table.

[Claims 6 to 10 not printed in the Gazette.]

1,073,586. GLASS-ETCHING MACHINE. ELMER BELL, Mount Pleasant, Pa., assignor to Bryce Brothers Company, Mount Pleasant, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1912. Serial No. 738,181. (Cl. 159—7.)



1. An etching machine having an article support rotatable about a vertical axis, a vertically movable etching needle, and a universally movable tracing carriage, together with connections between said carriage and the article support and needle whereby one set of movements of the carriage effect a vertical movement of the needle and the other set of movements of the carriage effect a rotary movement of the article support; substantially as described.

2. An etching machine having a rotary article support, and a vertically movable etching needle, said support and needle being at one end portion of the machine, a pantograph carriage mounted for movement in one direction on the machine at the opposite end portion thereof, a tracing needle mounted on said carriage and capable of an independent movement in a direction at substantially right angles to the movement of the carriage, and connections for transmitting these respective movements to the etching needle and the article support; substantially as described.

3. An etching machine comprising a plurality of rotary article supports arranged in two opposite sets, an etching

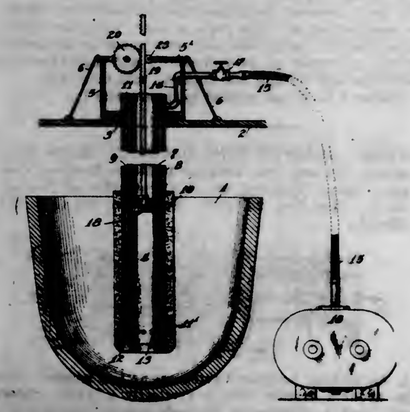
frame movable vertically between the two sets of supports and having a plurality of etching needles, a universally movable tracing point, and connections operated by the movements of said point for effecting proportional movements of the etching frame and the series of article supports; substantially as described.

4. An etching machine comprising a plurality of rotatable article supports arranged in two opposite sets, an etching frame movable vertically between two sets of supports and carrying a plurality of etching needles, a tracing point, and connections whereby the movements of said point in one direction effect proportional movements of the etching frame and needles, and other connections whereby the movements of the tracing point in another direction effect proportional movements of the article supports; substantially as described.

5. An etching machine comprising a longitudinally movable carriage, a tracing point capable of independent transverse movement on said carriage, a movable etching tool, a movable article support, and connections whereby the longitudinal and transverse movements of the carriage and tracing point effect proportional movements of the etching tool and article support, together with means for counterbalancing the movements of the carriage and tracing point, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,073,587. ART OF MAKING IRON AND STEEL. JAMES E. BILLINGS, Birmingham, Ala., assignor to Billings Process Company, Birmingham, Ala., a Corporation of West Virginia. Filed May 2, 1907, Serial No. 371,386. Renewed Jan. 21, 1910. Serial No. 539,208. (Cl. 75—27.)



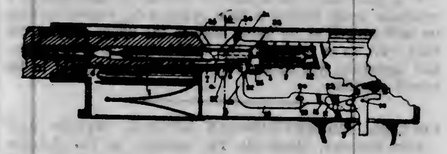
1. The improvement in the art of making iron which consists in first obtaining the metal in a molten mass, confining the mass in a suitable receptacle, then while so confined, rapidly but under regulable control, introducing and thoroughly dispersing through all parts of the mass carbon or carbonaceous fuel and simultaneously effecting the generation of carbon dioxid and heat by concurrently introducing and dispersing through the mass under regulable control oxygen under a pressure not greatly in excess of the ferrostatic pressure and in quantities limited to conform approximately to the amount necessary to effect substantially complete combustion of the carbon or fuel so introduced.

2. The improvement in the art of making iron which consists in first obtaining the metal in a molten mass, confining the mass in a suitable receptacle, then while so confined, rapidly but under regulable control, positively forcing downwardly into the molten iron against the upwardly directed ferrostatic pressure thereof a quantity of comminuted carbon and allowing regulated portions of the carbon to escape and rise freely through the molten iron, and simultaneously forcing into said batch of molten metal against the ferrostatic pressure and not greatly in excess thereof and under regulable control air in quantities conforming approximately to the amount necessary to effect substantially complete combustion of the carbon and the production of maximum quantities of carbon dioxid, and then promptly and while the mass is heavily charged with said carbon dioxid converting the iron into castings.

3. The improvement in the art of treating iron, which consists in first obtaining the iron in a molten mass and confined in mass condition in a suitable receptacle, then treating of the mass to simultaneously raise the temperature thereof and impregnate the same with carbon dioxid, by disseminating throughout the charge finely divided carbonaceous material and oxygen, in proportions to produce and maintain during the reaction of treatment quantities of carbon dioxid in the mass in excess of that which the direct chemical reaction demands, the quantities of oxygen introduced being restricted so as to avoid pronouncedly oxidizing the iron during such treatment.

4. The improvement in the art of making iron and steel, which consists in diffusing throughout the iron, under controlled conditions, with accompanying limited quantities of oxygen, and while the iron is fully molten, material which produces in the presence of the iron and oxygen an exothermic reaction and provides quantities of carbon dioxid in the mass in excess of that which the direct chemical reaction demands, and maintaining said treatment and the molten metal and carbon dioxid in intimate combining relations until the iron has been pronouncedly modified thereby.

1,073,588. FIRING MECHANISM FOR AUTOMATIC FIREARMS. KARL AUGUST BRAUNING, Herstal, Belgium. Filed July 16, 1912. Serial No. 709,811. (Cl. 42—3.)

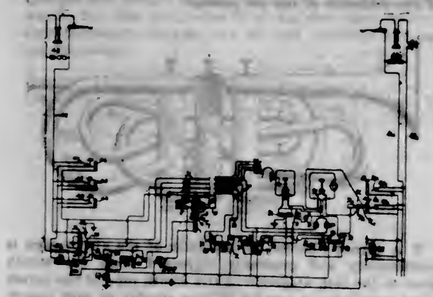


1. In a firing mechanism for automatic firearms, the combination of a percussion bolt, a pivotally mounted sear on the percussion bolt, a stop for said sear upon the breech bolt, a sliding lever provided with an arm lifting this sear when firing, a trigger actuating this lever and means for disengaging the arm of said lever from the pivotally mounted sear by the action of the trigger, at the moment at which it is released by the marksman.

2. In a firing mechanism for automatic firearms, the combination of a percussion bolt, a pivotally mounted sear on the percussion bolt adapted to engage with the breech bolt, a sliding lever provided with an arm lifting said sear when firing, a trigger actuating said lever by means of a stud engaged between forks of the lever, and means for disengaging the arm of said lever from the pivotally mounted sear by the action of the trigger at the moment at which it is released by the marksman.

3. In a firing mechanism for automatic firearms, the combination of a percussion bolt, a sear pivotally mounted on the percussion bolt, a stop for said sear upon the breech bolt, a lever provided with an arm lifting said sear when firing, a trigger actuating said lever by means of a stud engaged between forks of the lever, a nose of the trigger acting on an inclined face of the lever in such a manner that it disengages the lever arm from the sear at the moment at which said trigger is released by the marksman.

1,073,589. TELEPHONE-EXCHANGE SYSTEM. SIDNEY HAND BROWNE, Pittsburgh, Pa., assignor to American Telephone and Telegraph Company, a Corporation of New York. Filed Aug. 29, 1904. Serial No. 222,645. (Cl. 179—27.)



1. In a telephone system, the combination of a telephone line, a plurality of multiple jacks therefor, a rotary selective switch for said line, selecting contacts for said switch normally disconnected from said line, a plurality of waiting contacts adapted to be engaged by said selecting contacts, a series of trunk lines terminating in said waiting contacts and in a switchboard, other telephone lines, multiple jacks for said telephone lines located in said switchboard, switching means for connecting said trunks to said lines, means for causing said selecting switch to automatically move said selecting contacts into engagement with the waiting contacts of the first trunk line of the series that is not in use, and means for connecting said selecting contacts to said telephone line when said contacts engage the waiting contacts of said idle trunk, substantially as described.

2. In a telephone system, a group of subscribers' lines, multiple connection terminals for each of said lines, a selective switch for each of said lines, selecting contacts for each selective switch normally disconnected from the line to which the switch corresponds, waiting contacts for each switch, the corresponding waiting contacts on each switch being multiplied together throughout the group of switches, a trunk line for each set of multiplied waiting contacts, said trunk lines terminating each in its distant end in means adapted to connect that trunk line to a selected one of the telephone lines in said group, means for causing said selecting contacts to automatically select and connect with the waiting contacts of the first idle trunk, and means for connecting said selecting contacts to their substation lines when said contacts engage the waiting contacts of an idle trunk, substantially as described.

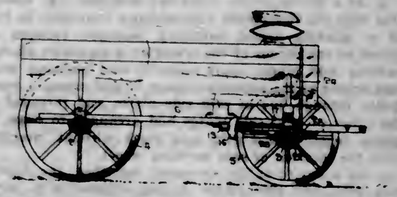
3. In a telephone system, a group of subscribers' lines, a switchboard, multiple jacks for each of said lines and located in said switchboard, a selective switch for each of said lines, selecting contacts for each selective switch, normally disconnected from said subscribers' lines, waiting contacts for each switch, the corresponding waiting contacts on each switch being multiplied together throughout the group of switches, a trunk for each set of multiplied waiting contacts and extending to said switchboard, means for starting said selecting contacts in their travel over said waiting contacts and for continuing said travel over the waiting contacts of trunks that are at the time connected to at other switches, means for arresting the travel of said selecting contacts upon the waiting contacts of the first disengaged trunk line, means for connecting said selecting contacts to said subscriber's line when the waiting contacts of said idle trunk are engaged, and means in said switchboard for connecting any trunk to a multiple jack of a selected line, substantially as described.

4. In a telephone system, a switchboard, a subscriber's telephone line, a selective switch for said line, selecting contacts for said switch normally disconnected from said line, waiting contacts for said selecting switch, trunk lines leading from said waiting contacts to said switchboard, means outside of said switch for rendering some of said trunk lines busy, means for automatically moving said selecting contacts over the waiting contacts of said busy trunks, while said selecting contacts are disconnected from said subscriber's line, other telephone lines, multiple jacks in said switchboard pertaining to said telephone line, multiple jacks in said switchboard pertaining to said other telephone lines, and connecting means in said switchboard whereby any trunk may be connected to a multiple jack of a selected line, substantially as described.

5. In a telephone system, a switchboard, a subscriber's telephone line, a selective switch for said line, selecting contacts for said switch normally disconnected from said line, waiting contacts for said selecting switch, trunk lines leading from said waiting contacts to said switchboard, means outside of said switch for rendering some of said trunk lines busy, means for automatically moving said selecting contacts over the waiting contacts of said busy trunks while said selecting contacts are disconnected from said subscriber's line, means for stopping said selecting contacts on the waiting contacts of the first idle trunk and simultaneously connecting said selecting contacts with said subscriber's line, other telephone lines, multiple jacks for said telephone line in said switchboard, multiple jacks for said other telephone lines in said switchboard, and plugs forming terminals for said trunks and adapted to connect with a multiple jack of a selected one of said telephone lines, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,073,590. FRONT-WHEEL BRAKE FOR VEHICLES. JONAH H. CAMPBELL, Hollis, Okla. Filed Dec. 12, 1911. Serial No. 665,216. (Cl. 21—8.)



In a wagon brake the combination with the running gear, of a brake beam positioned rearwardly of the front hounds and adapted to bear against the under side of the reach pole, shoes carried by said beam adapted for engagement with the periphery of the front wheels above the axis thereof, whereby an upward strain would be exerted against said beam and reach pole, means for operating said brake beam, and a block secured to the upper side of said reach pole and adapted for engagement with the wagon body, to limit the upward movement of said pole caused by the strain on said beam.

1,073,591. FODDER AND METHOD OF MAKING SAME. VALDEMAR CHRISTENSEN, Mexico, Mexico. Filed July 30, 1912. Serial No. 712,262. (Cl. 99—11.)

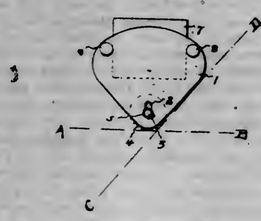
1. A conservable, complete fodder consisting of concentrated saccharine juice of the *Agave* plants, and substances rich in organic nitrogenous matter mixed together, dried and ground.

2. A conservable, complete fodder consisting of concentrated saccharine juice of the *Agave* plants, substances rich in organic nitrogenous matter, and cellulose-containing products mixed together, and ground.

3. The method of making a conservable, complete fodder which consists in extracting the saccharine juice from the *Agave* plants, evaporating the same to the point of conservation, mixing the concentrated juice with substances rich in organic nitrogenous matter, drying the mixture, and grinding the dry mass.

4. The method of making a conservable, complete fodder which consists in extracting the saccharine juice from the *Agave* plants, evaporating the same to the point of conservation, mixing the concentrated juice with substances rich in organic nitrogenous matter and with cellulose-containing products, drying the mixture, and grinding the dry mass.

1,073,592. MARKING DEVICE. FILIBERTO CONTENTI, New Haven, Conn., assignor of one-half to Pietro Torello, New Haven, Conn. Filed Oct. 5, 1912. Serial No. 724,100. (Cl. 164—123.)



1. In a device of the character described, the combination with two side plates; of a pintle connecting the same at one end; a marking wheel mounted upon said pintle between said side plates and rotatable upon said pintle; a block for holding said plates apart opposite to said pintle; and screws passing through said plates adjacent to said block arranged so as to draw said plates together and grip said block without bearing against the sides of the marking wheel and prevent its rotation.

2. In a device of the character described, the combination with the side plates, substantially triangular in form; of a marking wheel rotatably mounted between said plates at one corner of the triangle; a separable block for holding said plates apart opposite said marking wheel; and screws at the opposite corners of said triangle passing freely through one of said side plates and threaded into the other of said side plates and arranged to draw said plates together and grip said block without interfering with the rotation of said marking wheel.

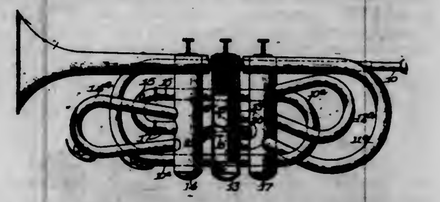
3. In a device of the character described, the combination with two side plates, having substantially parallel slots therethrough; of a pin connecting said side plates and passing through said slots; a nut threaded on said pin; a marking wheel upon said pin between said plates; and screws passing freely through one of said plates and threaded into the other of said plates, whereby each of said plates is held in such proper relation to the other that the said slots are always in register with each other.

4. In a device of the character described, the combination with companion side plates of substantially the same form and shape, having slots therethrough; of a pin connecting said side plates, the ends thereof being of reduced diameter and passing through said slots; a marking wheel upon said pin between said plates; means connected with one end of said pin to prevent the accidental disengagement thereof from the side plates but permitting its movement within the slot therein; a nut threaded upon the opposite end of said pin; and screws passing through said side plates at the end thereof opposite to said pin, whereby said plates are held in such proper relation to each other that each of said slots is always in register with the other.

1,073,593. CORNET. ERNST A. COUTURIER, Chicago, Ill. Filed Sept. 3, 1912. Serial No. 718,182. (Cl. 84—8.)

1. A cornet whereof the diameter of the air passage is continuously and gradually increased from the inlet to the outlet thereof, and having means for varying the pitch of the cornet while maintaining the continuous and gradual increase of the diameter of the air passage.

2. A cornet whereof the diameter of the air passage is continuously and gradually increased from the inlet to the outlet thereof, and having means for varying the pitch of the instrument within a range of one-quarter of a tone while maintaining the continuous and gradual increase of the diameter of the air passage.

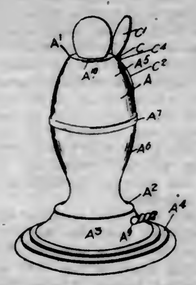


3. A cornet whereof the diameter of the air passage is continuously and gradually increased from the mouth piece to the bell, a section of the mouth pipe of the cornet being removable, a section of pipe similar to said removable section interchangeable therewith and of such a length as will cause the pitch of the instrument to be lowered one-eighth of a tone or less, and a section of pipe similar to said removable section interchangeable therewith and of such a length as to raise the pitch of the instrument one-eighth of a tone or less.

4. The combination with a cornet a section of the sounding tube of which is removable, of a set of substitute tubes interchangeable with the removable section for tuning the cornet by definite small amounts.

5. The combination with a cornet pitched in a given key and having a section of its sounding tube removable, of a set of substitute tubes interchangeable with the removable section for tuning the cornet within the given key by definite small amounts.

1,073,594. EGG-TESTER. GEORGE THOMAS CRIPPS, Toronto, Ontario, Canada. Filed Oct. 30, 1912. Serial No. 728,553. (Cl. 99—6.)



1. An egg testing device comprising a casing provided with a suitable source of artificial light in the interior thereof and having an opening at the upper end thereof in which the egg is designed to rest and an opening in the side, and a reflecting mirror pivotally mounted between said openings as and for the purpose specified.

2. An egg testing device comprising a casing provided with a suitable source or artificial light in the interior thereof and having an opening at the top, and an opening in the side in proximity to the top, and a reflecting mirror comprising two leaves set at an angle one to the other and pivoted to the casing between the opening in the top and the opening in the side at the apex of the angle formed by the two connected leaves to alternately close the openings in the same as and for the purpose specified.

3. An egg testing device comprising a casing provided with a suitable source of artificial light in the interior thereof and having an opening in the side in proximity to the top thereof, and a reflecting shield extending outwardly from the casing over such opening, as and for the purpose specified.

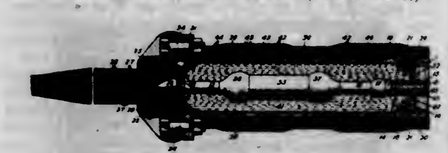
4. An egg testing device comprising a casing provided with a suitable source of artificial light in the interior thereof, and having an opening at the top, and an opening in the side in proximity to the top, and means for simultaneously covering one of said openings and opening the other.

1,073,595. WINDOW-SASH HOLDER. WILLIAM MILLER DIGHT, Grove City, Pa. Filed Apr. 28, 1913. Serial No. 764,100. (Cl. 16—18.)



The combination with a sash holder of a latch L shaped in formation having a barb at one extremity, the said barb having a rounded outer face, a finger piece for operating the latch, bosses upon said latch, a track having notches therein, reinforcements for the said notches, consisting of U shaped members, and a wedge shaped entrance to the notches.

1,073,596. ELECTRIC CABLE. HENRY C. EGERTON, Ridgewood, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Feb. 9, 1911. Serial No. 607,609. (Cl. 173—268.)



1. In combination, sections of electric cable, sheathing and armor therefor, an envelop within which said sections are united, devices for engaging said armor, and clamping means for securing said devices to said envelop, said clamping means also causing said devices to grip said armor.

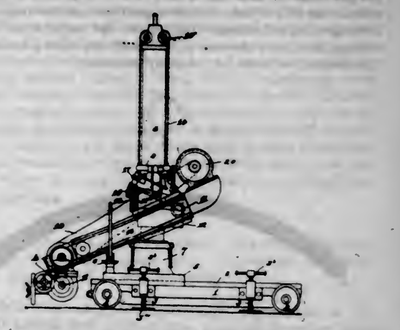
2. In combination, sections of electric cable, sheathing and armor therefor, a casing adapted to be associated with said cable, a thimble, a collar, and clamping means for securing said collar to said casing, said clamping means also causing the said collar and said thimble to grip said armor between them.

3. In combination, a junction-member, a collar secured thereto, and a thimble between said junction-member and collar, said thimble having feet which engage said junction-member, and curved surfaces between said feet.

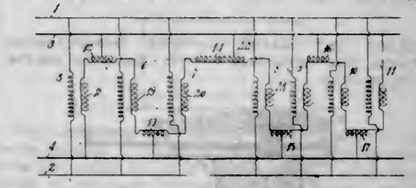
4. The combination with an electric cable and the armor thereof, of a hollow metallic member associated with said cable, a thimble surrounding said cable and its armor, said armor being doubled back over said thimble and lashed to the cable, and a collar encircling said armor and thimble, and having a restricted neck, and means for securing said collar, and thereby said thimble and armor to said member.

1,073,597. UNIVERSAL RADIAL DRILL, PORTABLE OR ON WHEELS. ARMIN ENGELHARD, Offenbach-on-the-Main, Germany. Filed Aug. 13, 1912. Serial No. 714,763. (Cl. 77—28.)

In combination a suitable carriage, a pedestal slidably supported thereby, a column rotatably supported by said pedestal, a saddle vertically adjustable on said column, a guide pivotally mounted on said saddle, an arm slidably carried by said guide, and a drill holder having a universal mounting on the end of said arm.



1,073,598. SYSTEM OF ELECTRIC-CURRENT DISTRIBUTION. CHARLES LE G. FORTESCUE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 16, 1911. Serial No. 660,692. (Cl. 171—97.)



1. A distributing system comprising unlike groups of electrical devices in multiple circuit relation, current-equalizing means interconnecting the devices of each group and current-apportioning means interposed between the groups.

2. A distributing system comprising groups of transformers, current-equalizing means interconnecting the transformers of each group and current-apportioning means between the groups, the transformers of each group being similar to each other.

3. A distributing system comprising unlike groups of similar transformers, inductive means interconnecting terminals of the transformers of each group in pairs, and an inductive current-apportioning means between groups, the middle points of the inductive means and an intermediate point, other than the middle point, of the apportioning means constituting the terminals of the system.

4. A distributing system comprising groups of similar transformers, inductive means connecting the terminals of the transformers of each group in pairs and a single-winding, auxiliary transformer connected between groups, the middle points of the inductive means and an intermediate point, other than the middle point, of the auxiliary transformer constituting the terminals of the system.

1,073,599. COAT-HANGER. ARNOLD J. GILSDORF, Toledo, Ohio. Filed June 2, 1913. Serial No. 771,131. (Cl. 211—13.)

1. In a coat hanger, a body member having its ends provided with axially-disposed sockets, a sleeve incasing said member and having its ends turned inwardly into said sockets, and means for closing the outer ends of said sockets and securing the ends of the sleeve to the ends of the body member.

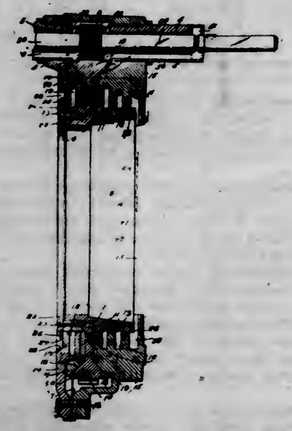
2. In a coat hanger, a body member having its ends provided with axially-disposed sockets, a sleeve incasing

said member and having its ends turned inwardly relative to the ends of the sleeve and inserted into said sockets, and tacks driven into the base portions of the sockets and having enlarged heads which close the outer ends of said sockets and hold the end portions of the sleeve securely to the respective ends of the body member.



3. A coat hanger comprising a body member, a sleeve of fabric material incasing said member and having its ends secured to the ends of said member, a hook having its shank projected through the central portion of said member and sleeve and headed at the under side thereof, and a reinforcing band encircling the sleeve adjacent to the point of attaching of the hook to the body member and having its ends attached to said member, said band passing under the headed end of the hook shank and having its top portion relative to the body member provided with an opening through which the hook shank extends.

1,073,600. CUTTING-OFF MACHINE. GEORGE GORTON, Racine, Wis. Filed May 7, 1912. Serial No. 695,794. (Cl. 29—71.)



1. A cutting-off machine head comprising an annular box forming an oil receptacle and composed of ring-like transverse sections removably secured together with their inner side faces adjoining, and a rotary hollow drum provided with and driving an internal cutter disk, said drum rotating in and carried by said box and extending longitudinally therethrough and formed with an enlarged exterior driving gear inclosed by said box and traveling through said receptacle.

2. A cutting-off machine head comprising an annular hollow box composed of transverse annular sections removably secured together side by side, and a hollow rotary cutter disk drum mounted in and extending centrally through said box and provided with exterior driven means.

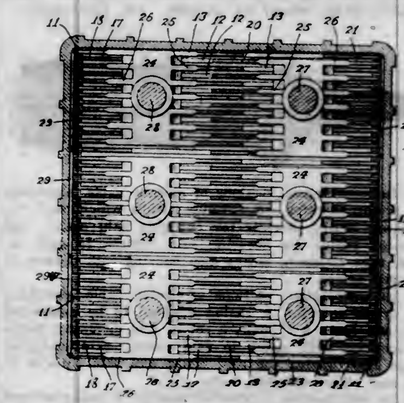
3. A cutting-off machine head comprising a hollow annular box, and a hollow rotary cutter disk drum mounted therein and having cylindrical circumferential portions and an exterior driving gear between said cylindrical portions and inclosed by said box, said box having end walls around said cylindrical portions of said drum, said box and drum providing main drum bearings of greater diameter than and removed from said cylindrical portions.

4. A cutting-off machine head comprising an annular hollow box providing main bearings for the cutter disk drum, and a hollow rotary cutter disk drum extending through and mounted in said box and provided with driving means, said drum having circumferential cylindrical end portions formed with series of annular oil collecting and slinging grooves.

5. A cutting off machine head comprising a hollow annular box, and a rotary hollow cutter-disk drum having a cutter disk secured thereto and spanning the same, said drum extending through and rotating in said box and formed intermediate its ends with an exterior driving gear, said box providing main bearings for, said drum, the opposite end portions of said drum beyond said bearings having exterior cylindrical surfaces and intervening oil collecting and slinging grooves, said box providing cylindrical edges receiving said surfaces of the drum to form oil-retaining and water-excluding running joints interposed between the main bearings and the outer end edges of the drum, said box also providing annular oil collecting chambers around said slinging grooves and interposed between said cylindrical edges.

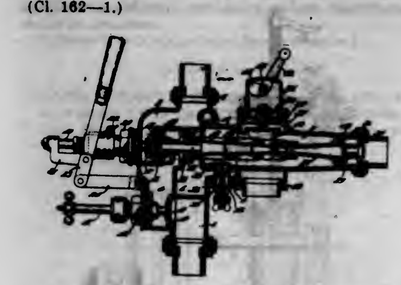
[Claims 6 to 30 not printed in the Gazette.]

1,073,601. ELECTRIC BATTERY. WILLIAM S. GOULD, New York, N. Y., assignor to Gould Storage Battery Company, a Corporation of New York. Filed Mar. 27, 1912. Serial No. 686,655. (Cl. 204—29.)



In a storage battery cell, the combination of a containing jar, a plurality of sets of negative and of positive plates within the jar, a separate non-corrosive bus bar within the jar for each set of negative plates and for each set of positive plates extending transversely of the plates of its set to which the plates of the set are burned, a cover sealed on the jar to inclose the plates and busses and provided with openings for terminals extending from the said busses, a separate terminal for each bus connected thereto and extending up through one of said openings and above the cover and adapted to receive a detachable connection at its outer end, and detachable connections above the cover for detachably connecting the respective projecting negative terminals and the respective projecting positive terminals, whereby the cover may be removed without destroying the terminals or their connections and any set of plates may be readily cut out or removed for repairs or inspection or replaced without disturbing the other sets.

1,073,602. INJECTOR. JOHN W. GRANTLAND, Cincinnati, Ohio. Filed Dec. 30, 1911. Serial No. 668,676. (Cl. 162—1.)



1. In an injector having an overflow chamber, an apertured forcing combining tube projecting through said chamber, a valve controlled opening to the atmosphere communicating with said chamber, a lifting combining tube adjacent the receiving end of the forcing combining tube, a chamber below the discharge end of said lifting combining tube communicating therewith and with said overflow chamber and at the base thereof, and an automatic valve therefor opening to the overflow chamber.

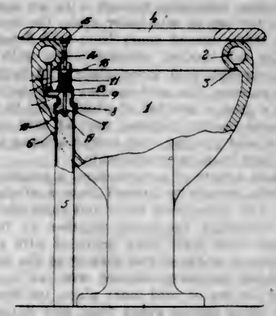
2. In an injector having an overflow chamber, a forcing combining tube within said chamber apertured to communicate therewith, a lifting combining tube adjacent the receiving end of said forcing combining tube, coaxial steam nozzles, one discharging into the lifting combining tube and the second into the forcing combining tube, a valve controlled opening in said overflow chamber open to the atmosphere, and a second opening in said chamber at a plane below said atmospheric opening communicating with the mouth of said forcing combining tube and below the axial line thereof, and an automatic valve intercepting said opening.

3. In an injector having an overflow chamber, an apertured forcing combining tube within said chamber, a lifting combining tube adjacent the receiving end of said forcing combining tube, co-axial steam lifting and forcing nozzles, one discharging into the lifting combining tube, and the second into the forcing combining tube, a valve controlled opening in said overflow chamber open to the atmosphere at a point above the apertures of the forcing combining tube, a water chamber intermediate of the lifting and forcing combining tubes communicating therewith and with the overflow chamber at a point below the aperture of the forcing combining tube to permit the discharge of water entering said chamber from said lifting combining tube to flow by gravity into said overflow chamber, a valve intercepting the opening between said water and overflow chambers automatically controlled by a preponderance of pressure upon either side thereof, and means for maintaining said valve in its closed position.

4. In an injector, a casing divided into series of chambers progressively arranged, comprising steam, water supply, intermediate water supply and overflow chambers, an apertured forcing combining tube within said overflow chamber, a lifting combining tube intervening between said supply and overflow chambers adjacent the receiving end of said forcing combining tube, a steam lifting nozzle intervening between said steam and water supply chambers adjacent said lifting combining tube, a steam forcing nozzle intervening between said steam and overflow chambers projecting axially through said lifting combining tube with its discharge beyond the same, an opening in said overflow chamber open to the atmosphere at a point above said forcing combining tube and a second opening in said overflow chamber at a plane below said forcing combining tube communicating with the lifting combining tube discharge below its axial line.

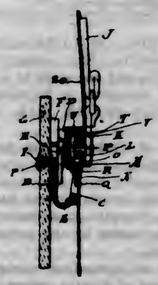
5. In an injector, a casing divided into series of chambers progressively arranged, comprising steam, water-supply, intermediate water supply and overflow chambers, an apertured forcing combining tube within said overflow chamber, a lifting combining tube intervening between said supply and overflow chambers adjacent the receiving end of said forcing combining tube, a steam lifting nozzle intervening between said steam and water supply chambers adjacent said lifting combining tube, a steam forcing nozzle intervening between said steam and overflow chambers projecting axially through said lifting combining tube with its discharge beyond the same, an opening in said overflow chamber open to the atmosphere at a point above said forcing combining tube and a second opening in said overflow chamber at a plane below said forcing combining tube discharge below its axial line, and a valve controlling said second opening.

1,073,603. FLUSH-VALVE FOR WATER-CLOSETS. HANS P. HANSEN, Hoboken, N. J. Filed Apr. 12, 1913. Serial No. 760,572. (Cl. 137—93.)



The combination with a water closet having a circular water chamber at the top, a water supply pipe extending from the outside vertically through the wall of the water closet to the inside thereof, a nipple 7 secured to said water supply pipe and forming a valve seat, an outlet section secured to said nipple, a connection between said outlet section and said water chamber above the said valve seat, a pipe section 11 secured to said outlet section, a valve for closing said valve seat from below, a valve stem carrying said valve and moving vertically in said supply pipe, a shoulder formed at the lower edge of said pipe section 11, a washer on said shoulder, a collar on said valve stem, a spring interposed between said washer and the said collar for lifting the valve stem to close said valve, a seat for said water closet, the said valve stem being adapted to be depressed by the said seat to open the said valve.

1,073,604. SUSPENDERS. WILLIAM HEINMILLER, Chesley, Ontario, Canada. Filed Jan. 16, 1913. Serial No. 742,315. (Cl. 241—25.)



1. As a new article of manufacture, a coupling element for suspenders integrally formed from a single piece of

sheet metal and comprising inner and outer plates spaced apart and integrally connected together at their lower ends, the said outer plate being provided with an opening into which opens a flared slot formed in the top of said plate, a tongue integrally formed with an upper flange formed near the top of said inner plate, the upper end of said tongue being spaced apart from said flange to form a pocket, the said pocket communicating with an opening formed through said inner plate, and behind which said tongue extends, the said opening designed to receive the head of a stud, a portion of which rests in said slot, and means bracing said plates together to hold them in relationship.

2. As a new article of manufacture, a coupling element for suspenders, integrally formed from a single piece of sheet metal and comprising inner and outer plates spaced apart and integrally connected together at their lower ends, the said outer plate being provided with an opening into which opens a flared slot formed in the top of said plate; a tongue integrally formed with an upper flange formed near the top of said inner plate, the upper end of said tongue being spaced apart from said flange to form a pocket, the said pocket communicating with an opening formed through said inner plate, and behind which said tongue extends, the said opening designed to receive the head of a stud, a portion of which rests in said slot; an offset lower portion forming part of said tongue and positioned in said opening, and means bracing said plates together to hold them in relationship.

3. As a new article of manufacture, a coupling element for suspenders, integrally formed from a single piece of sheet metal, and comprising inner and outer plates spaced apart and integrally connected together at their lower ends, the said outer plate being provided with an opening into which opens a flared slot formed in the top of said plate; a tongue integrally formed with an upper flange formed near the top of said inner plate, the upper end of said tongue being spaced apart from said flange to form a pocket, the said pocket communicating with an opening through said inner plate, and behind which said tongue extends, the said opening designed to receive the head of a stud, a portion of which rests in said slot; an offset lower portion forming part of said tongue and positioned in said opening, and a pair of ears integrally formed with said inner plate and one at each side thereof and extending backward and suitably secured to said upper plate, thereby bracing said plates together, as set forth.

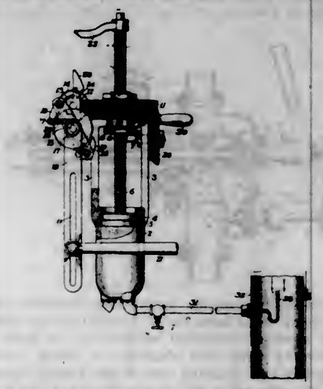
1,073,605. METHOD OF REMOVING IMPURITIES FROM COAL-GAS. GUSTAF HENRIK HULTMAN, Stockholm, Sweden. Filed June 3, 1913. Serial No. 771,411. (Cl. 48—220.)

A method for removing impurities from coal gas (*e. g.* sulfur compounds, benzol, naphthalene), characterized by the coal gas being washed in alcohol cooled to 0° C. or below, partly to prevent freezing of the moisture separated from the gas on account of the low temperature, and partly to dissolve the said substances.

1,073,606. METHOD OF LUBRICATION. SAMUEL M. JENKINS, Louisville, Ky., assignor of one-sixth to Charles C. Tennis and one-sixth to E. G. Rietman, Louisville, Ky., and one-sixth to Marshall F. Tennis, Pittsburgh, Pa. Filed July 12, 1912. Serial No. 709,101. (Cl. 184—37.)

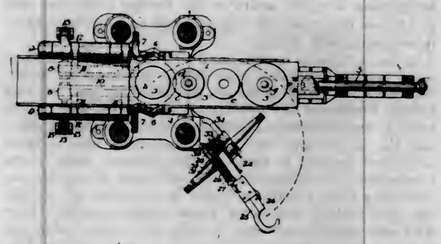
1. The method of lubricating hot fluid actuated motors, consisting in feeding a column of plastic grease carrying graphite in suspension into the stream of hot-actuating fluid, liquefying the grease by the heat of the actuating fluid to free the graphite, and conveying it to and distributing it in the motor by the actuating fluid, substantially as described.

2. The method of lubricating steam engines, consisting in feeding a column of plastic grease carrying graphite in suspension into the live steam passing to the engine, liquefying the grease by the heat of the steam to free the graphite, and conveying it to the engine and distribute it therein, substantially as described.



3. The method of lubricating steam engines, consisting in feeding a column of plastic grease carrying graphite in suspension into the live steam, passing to the engine, liquefying the grease by the heat of the steam, and feeding it in a direction against the movement of the steam to atomize the grease to free and convey the graphite to the engine, substantially as described.

1,073,607. METAL-MANIPULATOR. JULIAN KENNEDY, Pittsburgh, Pa. Filed Nov. 16, 1911. Serial No. 660,718. (Cl. 78—96.)



1. In a manipulator for presses and the like, a vertically movable gripping mechanism comprising a plurality of grippers, connections arranged to raise and lower the same in unison, and a fluid actuated device arranged to actuate the gripping mechanism, substantially as described.

2. In a manipulator for presses and the like, a gripping mechanism comprising a plurality of grippers, fluid actuated means for operating the grippers, and connections arranged to raise and lower the grippers in unison while retaining them in gripping position, substantially as described.

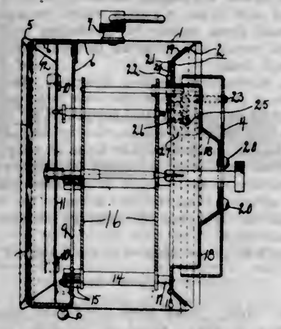
3. In a manipulator for presses and the like, pivoted levers having gripping arms, fluid actuated connections arranged to raise and lower the gripping levers in unison, and mechanism for actuating the levers arranged to hold them in gripping position during vertical movement, substantially as described.

4. In a manipulator for presses and the like, pivoted gripping levers, fluid actuated connections arranged to raise and lower the pivoted fulcrums of said levers, and actuating connections arranged to move the grippers in unison, said connections being adapted to hold the grippers in gripping position during the raising and lowering of their pivotal fulcrums, substantially as described.

5. In a manipulator for presses and the like, pivoted gripping levers secured to shafts, mechanism for simultaneously moving said shafts up and down, and connections arranged to oscillate said shafts and actuate the grippers in different vertical positions thereof, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,073,608. CLOCK. GEORGE KERN, Peru, Ill., assignor to Western Clock Co., a Corporation of Illinois. Filed June 29, 1911. Serial No. 636,116. (Cl. 58—54.)



1. In an alarm clock, a movement carrier having a movement, a dial and a bezel mounted thereon, a case back mounted on said movement, a bell fastened to said case back and a casing having an aperture in its bottom, larger than said bell but smaller than said case back, fastened to said movement carrier.

2. In an alarm clock, a movement carrier having a movement, a dial and a bezel mounted thereon, a case back having a conical portion mounted on said movement, a bell fastened to said case back and a casing having an aperture whose edge engages said conical portion fastened to said movement carrier.

3. In an alarm clock, a movement carrier having a movement, a dial, a separately formed bezel and a casing having an aperture, mounted thereon, a case back mounted on said movement between said movement and said casing, and a bell projected through said aperture and fastened to said case back.
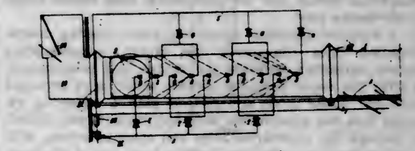
4. In an alarm clock, a movement carrier having a movement, a dial, a separately formed bezel and a casing having an aperture in its bottom, mounted thereon, a case back mounted on said movement between said movement and the bottom of said casing, and a bell fastened to said case back and projecting through said aperture.

5. In an alarm clock, a movement carrier, a movement attached thereto, a case back mounted on said movement, a bell fastened to said case back, a separately formed bezel and a casing having an aperture in its bottom larger than said bell but smaller than said case back mounted on said movement carrier, and means for fastening said bezel and said casing to said movement carrier.

[Claims 6 and 7 not printed in the Gazette.]

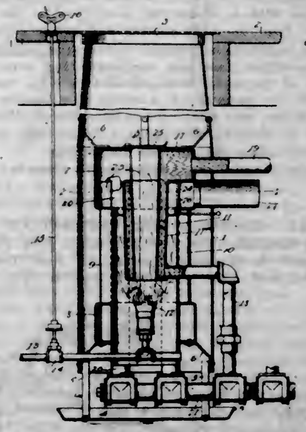
1,073,609. ARRANGEMENT FOR VENTILATING AND FOR MOISTENING THE ATMOSPHERE OF PREMISES. JEAN FREDERIC PAUL KESTNER and HENRI JEAN EMILE NEU, Lille, France. Filed Sept. 30, 1912. Serial No. 723,204. (Cl. 98—41.)

1. Ventilating and humidifying apparatus comprising a casing in communication at opposite ends thereof with the atmosphere and interior space to be ventilated and in communication with said interior space at an intermediate point, a plurality of nozzles arranged within the casing adapted to inject fluid jets in the casing and thereby cause a circulation of air therethrough, means to cause a circulation of air in the casing in the opposite direction from that caused by said nozzles, means to cut off communication between the casing and the atmosphere, and means to cut off communication between the casing and the interior space at said intermediate point whereby said interior space may be ventilated and simultaneously moistened, ventilated but not moistened, or moistened but not ventilated.



2. Ventilating and humidifying apparatus comprising a casing in communication at opposite ends thereof with the atmosphere and interior space to be ventilated and in communication with said interior space at an intermediate point, a plurality of nozzles arranged within the casing adapted to inject fluid jets in the casing and thereby cause a circulation of air therethrough, a plurality of nozzles adapted to inject fluid jets in the opposite direction from said first-named nozzles to cause a circulation of air through the casing, means to cut off communication between the casing and the atmosphere, and means to cut off communication between the casing and the interior space at said intermediate point whereby said interior space may be ventilated and simultaneously moistened, ventilated but not moistened, or moistened but not ventilated.

1,073,610. FLOOR-FURNACE. JOSEPH A. KLOER, Piqua, Ohio. Filed Apr. 9, 1912. Serial No. 689,510. (Cl. 126—101.)



1. A furnace including upper and lower heating drums, circulating flues connecting the drums, a combustion chamber extending between the drums and communicating with the upper drum, a water head mounted within the upper drum, circulation pipes leading to and from the water head, and a transverse partition dividing the upper drum into two compartments both of which communicate through the circulation flues with the lower drum and one of which communicates with the smoke pipe while the other communicates with the combustion chamber, the products of combustion after entering the upper heating drum passing downwardly through a portion of the circulation flues to the lower heating drum and then upwardly through the remaining circulation flues to the upper heating drum before entering the smoke pipe.

2. A furnace including upper and lower heating drums, circulation flues connecting the drums, a combustion

chamber extending between the drums and communicating with the upper drum, a water head in the upper drum, water pipes extending through the circulation flues and communicating with the water head, a smoke pipe communicating with one of the drums, and means for causing the products of combustion to circulate through the drums and the circulation flues before entering the smoke pipe.

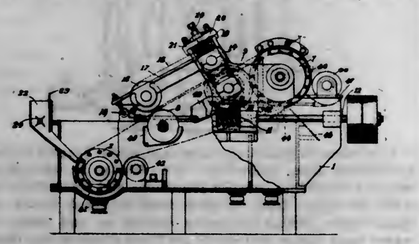
3. A furnace including upper and lower heating drums, circulation flues connecting the drums, a combustion chamber extending between the drums and communicating with the upper drum, a tubular water head arranged within the upper drum and formed with a water leg extending into the combustion chamber, water pipes extending through the circulation flues and communicating with the water head, a smoke pipe leading from one of the heating drums, and means for causing the products of combustion to circulate through the heating drums and circulation flues before entering the smoke pipe.

4. A furnace including upper and lower heating drums, circulation flues connecting the drums, a combustion chamber extending between the drums and communicating with the upper drum, a tubular water head formed with an enlarged body portion which is fitted within the upper heating drum and also with a contracted tubular leg which is pendent from the body portion and projects downwardly into the combustion chamber, circulation pipes in communication with the water head, a smoke pipe leading from one of the heating drums, and means for causing the products of combustion to circulate through the heating drums and circulation tubes before entering the smoke pipe.

5. A furnace including upper and lower heating drums, circulation flues connecting the drums, a combustion chamber extending between the drums and communicating with the upper drum, a water head formed with an enlarged body portion which is fitted within the upper drum and also with a contracted tubular water leg which is pendent from the body portion and projects downwardly into the combustion chamber, water pipes passing through the circulation flues and communicating with the body portion of the water head, circulation pipes communicating with the water head, a smoke pipe leading from one of the drums, and means for causing the products of combustion to circulate through the drums and the circulation flues before entering the smoke pipe.

[Claims 6 and 7 not printed in the Gazette.]

1,073,611. MACHINE FOR SEPARATING LIQUIDS AND SOLIDS. AUGUST LINDEMANN, New York, N. Y., assignor to Rudolph Lindemann, New York, N. Y. Filed Apr. 7, 1913. Serial No. 759,576. (Cl. 100—47.)



1. In a machine of the class described, the combination of a drum having a grooved periphery, a chamber connecting with a plurality of said grooves, a hollow head at the end of said drum, means for creating suction in said head, a valve between said head and chamber, and means for periodically opening said valve.

2. In a machine of the class described, the combination of a drum, a chamber communicating with the periphery of said drum, a passage adjacent said chamber, and a valve between said chamber and passage said valve being detachable as a unit from said passage.

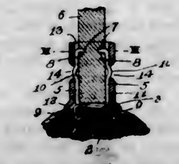
3. In a machine of the class described, the combination of a drum, a chamber communicating with the periphery of said drum, a passage adjacent said chamber, a bore between said passage and chamber, a valve controlling communication between said chamber and passage and comprising a sleeve fitting said bore, a stem in said sleeve having a valve disk seating against the end of said sleeve and means for detachably securing said sleeve in said bore.

4. In a machine of the class described, the combination of a drum, a chamber communicating with the periphery of said drum, a porous fabric engaging the surface of said drum, means for producing suction in said drum, and means for spraying the material on the surface of said drum.

5. In a machine of the class described, the combination of a drum, a tank in which the same is mounted, a chamber communicating with the periphery of said drum, a porous fabric engaging the surface of said drum, means for maintaining suction in said drum to take up the solid matter from said tank, a second drum, means for producing suction in said second drum, means for transferring the material from the first drum to the second drum and means for spraying the material on the surface of said second drum.

[Claims 6 to 10 not printed in the Gazette.]

1,073,612. MOP. JOHN MCC. LOCKHART, Coraopolis, Pa. Filed May 15, 1912. Serial No. 697,488. (Cl. 15—56.)



1. A mop head consisting of a securing clamp formed of a continuous wire having its endmost portion composed of a plurality of overlapping spirally arranged coils and bent outwardly therefrom to provide extended handle portions, an assemblage of mop strands fixedly embraced by said coils, and means holding said coils tightly together and in embracing engagement with the mop strands, substantially as set forth.

2. A mop head consisting of a series of strands and a securing clamp having a middle spirally arranged portion engaging the strands, securing clips holding the spiral portion in tight engagement with the strands, and extended securing horns, substantially as set forth.

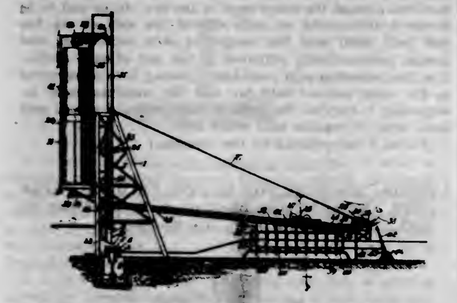
3. A securing clamp for a mop head consisting of a wire formed to provide a middle spirally arranged portion and extended attaching horns, substantially as set forth.

1,073,613. GLASS-DRAWING AND TAKE-DOWN APPARATUS. OLIVER E. MAYNARD, Kane, Pa., assignor to The Window Glass Machine Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Nov. 4, 1905. Serial No. 285,853. (Cl. 49—17.1.)

1. In glass-drawing apparatus, a glass-holding receptacle, glass-drawing mechanism arranged to be moved toward and from the receptacle to draw the glass intermittently therefrom, said mechanism having a bait, a support arranged to receive the drawn article and take-down apparatus movable toward and from the article and arranged to engage the article below the bait, said take-down apparatus being arranged to tilt the article.

2. In glass-drawing apparatus, a glass-holding receptacle, mechanism arranged to draw glass intermittently therefrom and having a removable bait, a track or support extending to a point adjacent to the drawing path, and a take-down device movable on said support and arranged to engage the glass article below the bait.

3. In glass-drawing apparatus, a glass-holding receptacle, mechanism for drawing glass therefrom, a horse or support arranged to receive the glass article, and take-down apparatus movable between the drawing apparatus and the horse.

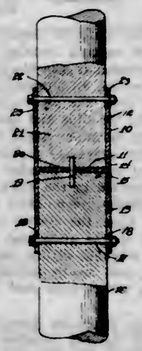


4. In glass-drawing apparatus, a glass-holding receptacle, drawing mechanism arranged to intermittently draw glass articles therefrom, a horse or support for the articles arranged to receive the same in substantially horizontal position, and take-down apparatus movable between the drawing position and the horse and arranged to tilt the glass and deposit it on the horse.

5. In glass-drawing apparatus, a glass-holding receptacle, mechanism for drawing glass therefrom, a support or horse at one side of the drawing apparatus, a track extending between the drawing apparatus and the horse, and a take-down apparatus movable with said track or support.

[Claims 6 to 22 not printed in the Gazette.]

1,073,614. PILE-SPLICE. WILLIAM A. MCDEARMID, Fernandina, Fla. Filed Dec. 3, 1912. Serial No. 734,731. (Cl. 61—43.)



In a device for splicing piles, the combination with a tubular body provided with a series of drain openings, of a pile adapted to be received in the lower end of the tubular body, a second pile adapted to be received in the upper end of the tubular body, a partition extending transversely in the medial portion of the body to space the said piles, means for bolting the piles to the body, and a pin passing through the partition with the ends of the pin passing into the said bolts.

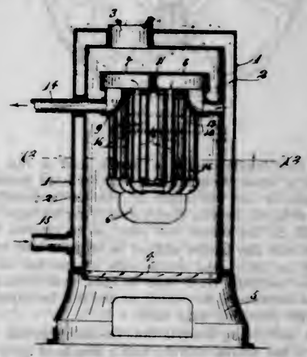
1,073,615. CIGAR-TIP CUTTER. ROBERT E. MILLER, Pecos, Tex. Filed June 12, 1912. Serial No. 703,271. (Cl. 131—38.)

The combination with a support of a cutting blade pivoted at one end thereto and having a cutting notch in one edge, a second cutting blade pivoted to the free end portion of the first named blade and having a cutting notch disposed in coöperative relation to the first named



notch, and a link pivoted to the free end of the second named blade and to the support and proportioned to permit of alinement of the blades and links with the support.

1,073,616. HOT-WATER HEATER. CLARENCE W. MOON and IRWIN MOORE, Minneapolis, Minn. Filed Feb. 3, 1913. Serial No. 745,865. (Cl. 122—172.)



1. In a hot water heater, the combination with a body shell having a water jacket, of a two-compartment water head within said shell, a connection between the water jacket of said main shell and one compartment of said water head, tubes connecting the compartments of said water head, and a hot water delivery pipe leading from the other compartment of said water head, said tubes being U-shaped form and depending from said head.

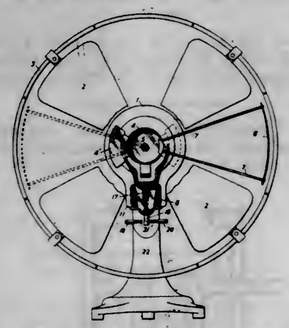
2. In a hot water heater, the combination with a body shell having a water jacket, of a two-compartment water head within said shell, a connection between the water jacket of said main shell and one compartment of said water head, tubes connecting the compartments of said water head, and a hot water delivery pipe leading from the other compartment of said water head, the said water head having smoke passages extending therethrough, and the said water tubes connecting the compartments of said water head being U-shaped form and depending from said head.

3. In a water heater, the combination with a main shell having a surrounding water jacket, of a two-compartment water head within said main shell made up of two independently formed sections, having coincident notches affording a smoke passage, of a plurality of U-shaped water tubes of varying spread connecting the compartments of said water head, one of the compartments of said water head being connected to the water jacket of said main shell, and a hot water delivery pipe extending from the other compartment of said water head.

4. In a hot water heater, the combination with a main shell having a surrounding water jacket, of a two-compartment water head within said main shell made up of two independently formed sections, having coincident notches

affording a smoke passage, of a plurality of U-shaped water tubes of varying spread connecting the compartments of said water head, one of the compartments of said water head being connected to the water jacket of said main shell, a hot water delivery pipe extending from the other compartment of said water head, and a cold water return pipe opening into the lower portion of the water jacket of said main shell.

1,073,617. OSCILLATING-FAN MOTOR. WILLIAM N. MOTTER and FREDERIC S. KOCHENDORFER, Chicago, Ill., assignors, by mesne assignments, to General Electric Company, a Corporation of New York. Filed May 7, 1909. Serial No. 494,574. (Cl. 230—1.)



1. The combination with a motor and a fan driven thereby, of a vane frictionally driven by said motor bent to substantially the curvature of the circle described by the outer ends of the fan blades and lying at right angles to the radii of the circle and adapted to revolve around the ends of the fan blades and to be stopped and released alternately on each side of the axis of the fan to cause said fan to oscillate from side to side, and means operated in the oscillatory movement of the fan for alternately stopping and releasing said vane.

2. In an oscillating electric fan, the combination with a motor and a fan driven thereby and a standard upon which said motor and fan are mounted to oscillate, of a vane frictionally driven by said motor bent to substantially the curvature of the circle described by the outer ends of the fan blades and lying at right angles to the radii of the circle mounted concentric to the axis of the fan and adapted to be revolved around the outer ends of the fan blades in the path of the air drawn into said fan, and means for automatically stopping and releasing said vane to alternately unbalance the air pressure on each side of the fan to cause said fan to oscillate from side to side.

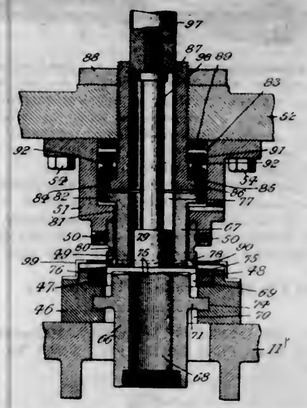
3. The combination with a standard, a motor and a fan driven thereby pivoted to oscillate on said standard, a hub, and a vane carried thereby, frictionally mounted on the motor shaft and adapted to revolve concentrically with respect to the axis of the fan, a lug carried by said hub, a pivoted bifurcated member arranged to oscillate with said motor and adapted during the oscillatory movement of said motor to interpose its arms alternately in the path of movement of said lug to alternately stop and release said vane on either side of the axis of the fan.

4. The combination with a standard, a motor and a fan driven thereby, pivoted to oscillate on said standard, of a hub and a vane carried thereby, frictionally mounted on said motor shaft and adapted to revolve in a circle concentric to the axis of the fan, a lug carried by said hub, a pivoted bifurcated member supported by said motor and adapted to interpose its arms alternately in the path of said lug to stop and release said vane alternately on each side of the axis of the fan, stops on said standard at each end of the range of movement of said fan and a yielding extension carried by said member adapted to strike said stops during the oscillatory movement of said fan to swing said member upon its pivot.

5. The combination with a fan and a standard upon which said fan is mounted to oscillate from side to side, of a vane bent to substantially the curvature of the circle described by the outer ends of the fan blades and lying at right angles to the radii of the circle and adapted to be revolved around the outer ends of the fan blades and to be arrested alternately on each side of the axis of the fan and held until said fan completes each oscillation, and means, automatically actuated at the end of each oscillation, for releasing said vane and allowing it to be revolved to the other side of said fan and for simultaneously interposing a stop in the path of said vane to arrest said vane when it reaches said other side.

[Claim 6 not printed in the Gazette.]

1,073,618. MACHINE FOR MAKING CRIMPED PAPER CUPS. HENRY MÜLLER, Brooklyn, N. Y. Filed May 15, 1913. Serial No. 767,755. (Cl. 93—60.)



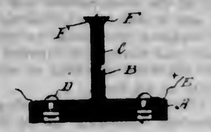
1. A machine of the character described, comprising a hollow block, a fixed cutting member and an annular grooved lower die mounted in the block, a slide, a sleeve adjustably secured thereto, an annular grooved upper die yieldingly suspended from the sleeve, a movable cutting member also secured to the slide and encompassing the upper die, and a plunger movable within the upper die.

2. A machine of the character described, comprising a hollow block, a fixed cutting member and an annular grooved lower die mounted in the block, a slide, a sleeve adjustably secured thereto, an annular grooved upper die yieldingly suspended from the sleeve, a movable cutting member also secured to the slide and encompassing the upper die, a plunger movable within the upper die, a plurality of paper reels, and means for intermittently feeding superposed paper strips from said reels between the dies.

3. A machine of the character described, comprising a hollow block, a fixed cutting member and an annular grooved lower die fitted in the block, a slide, a sleeve adjustable therein, a ring, means for yieldingly suspending the ring from the sleeve, an annular grooved upper die carried by the ring, a head also carried by the slide, an annular movable cutting member carried by the head and encompassing the upper die, a plunger movable within said upper die, a plurality of paper reels, and means for intermittently feeding superposed paper strips from said reels between the dies.

1,073,619. ELECTRIC FUSE. THOMAS E. MURRAY, Jr., New York, N. Y., assignor to Thomas E. Murray, New York, N. Y. Filed Apr. 22, 1912. Serial No. 692,258. (Cl. 175—273.)

1. A fuse strip in U-form, having a loop in each arm, circuit terminals connected to the ends of said arms, and a body of refractory insulating material extending between said terminals, disposed between the arms of said strip, bridging said loop and in contact with said strip throughout the remaining effective length thereof.

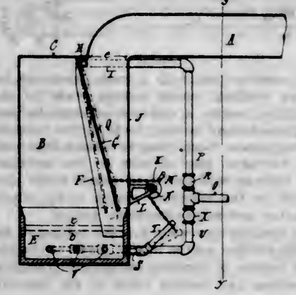


2. A base of refractory insulating material, a wall of refractory insulating material thereon, circuit terminals on said base on opposite sides of said wall, and a fuse strip provided with a loop and having its ends connected to said terminals and extending over said wall; the said wall bridging said loop and in contact with said strip throughout the remaining effective length thereof.

3. A base of refractory insulating material, a wall of refractory insulating material thereon, circuit terminals on said base on opposite sides of said wall, and a fuse strip provided with a loop in each arm, having its ends connected to said terminals and extending over said wall; the said wall bridging said loops and in contact with said strip throughout the remaining effective length thereof.

4. A fuse strip in U-form, having its blowing point localized in its cross bar, and its arms parallel and in proximity, and circuit terminals connected to the ends of said arms: whereby upon the blowing of said fuse the mutual repulsion of the fields surrounding said arms shall cause said arms to move asunder.

1,073,620. METHOD OF TRAPPING PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY and CHARLES B. GRADY, New York, N. Y.; said Grady assignor to said Murray. Filed Jan. 9, 1913. Serial No. 740,946. (Cl. 110—144.)



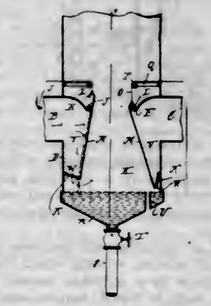
1. The method of trapping solid particles in suspension in a gas current which consists in projecting said particles in a direction normal to and upon the surface of a body of liquid and varying the velocity of said particles at their point of projection.

2. The method of trapping solid particles in suspension in a gas current which consists in projecting said particles in a direction normal to and upon the surface of a body of liquid and varying the velocity of said particles at their point of projection, and delivering a liquid current into said particles before they reach said liquid surface.

3. The method of trapping solid particles in suspension in a gas current of varying velocity which consists in projecting said particles in a direction normal to and upon the surface of a body of liquid, and varying the velocity of said particles at their point of projection correspondingly to the variations of said current.

4. The method of trapping solid particles in suspension in a gas current which consists in projecting said suspended particles in a direction normal to and upon the surface of a body of liquid, varying the velocity of discharge of said particles at their point of projection, and simultaneously varying the interval between said point of projection and said liquid surface.

1,073,621. DEVICE FOR TRAPPING PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY, New York, N. Y. Filed Feb. 4, 1913. Serial No. 746,095. (Cl. 110—144.)



1. A device for trapping particles in suspension in a gas current, comprising a flue, a tank therein, a vertical duct in said flue communicating at its upper portion with a source of gas current, terminating above said tank and having a suspended wall, a link connecting said suspended wall to the opposite fixed wall of said duct, and means for bodily raising and lowering said suspended wall.

2. A device for trapping particles in suspension in a gas current, comprising a flue, a partition therein forming with the flue walls a vertical duct having an inlet for gas current at its upper end and an outlet at its lower end, means for raising and lowering said partition and to vary the cross sectional area of the outlet of said duct, and a tank disposed in said flue below said partition.

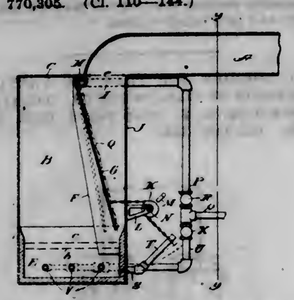
3. A device for trapping particles in suspension in a gas current, comprising a flue, a tank therein, a partition extending inwardly from a wall of said flue, said flue having a gas current inlet below said partition, a loose partition in said flue forming with the flue walls a vertical duct and terminating above said tank, means for suspending said loose partition in proximity to the inner edge of said first-named partition, and means for bodily raising and lowering said loose partition and to vary the cross sectional area of the outlet of said duct.

4. A device for trapping particles in suspension in a gas current, comprising a flue, a tank therein, a partition extending inwardly from a wall of said flue, said flue having a gas current inlet below said partition, a loose partition in said flue forming with the flue walls a vertical duct and terminating above said tank, means for suspending said loose partition in proximity to the inner edge of said first named partition, and means for bodily raising and lowering said loose partition, and a link between said loose partition and said flue wall.

5. A device for trapping particles in suspension in a gas current, comprising a flue, a tank therein, a partition extending inwardly from a wall of said flue, said flue having a gas current inlet below said partition, a loose partition in said flue forming with the flue walls a vertical duct and disposed above said tank, means for suspending said loose partition from said first-named partition, and means for bodily raising said loose partition and to vary the cross sectional area of the outlet of said duct.

[Claims 6 to 8 not printed in the Gazette.]

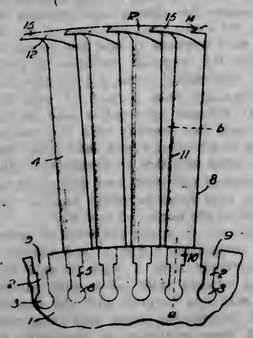
1,073,622. METHOD OF TRAPPING SOLID PARTICLES IN SUSPENSION IN GAS-CURRENTS. THOMAS E. MURRAY and CHARLES B. GRADY, New York, N. Y. Original application filed Jan. 9, 1913, Serial No. 740,946. Divided and this application filed May 28, 1913. Serial No. 770,305. (Cl. 110—144.)



1. The method of trapping solid particles in suspension in a gas current of varying velocity which consists in projecting said particles in a direction normal to and upon the surface of a body of liquid, and maintaining the velocity of said particles at their point of projection substantially constant.

2. The method of trapping solid particles in suspension in a gas current of varying velocity which consists in projecting said particles in a direction normal to and upon the surface of a body of liquid, maintaining the velocity of said particles at their point of projection substantially constant, varying the cross-sectional area of discharge at said point and simultaneously varying the interval between the surface of said liquid body and said point of projection proportionately to said area variation.

1,073,628. STEAM-TURBINE BLADE. ALDEN R. OWEN and THOMAS HALL, Ridgway, Pa., assignors to The Ridgway Dynamo and Engine Company, Ridgway, Pa. Filed July 28, 1913. Serial No. 780,630. (Cl. 121—57.)
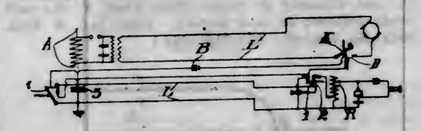


1. A turbine blade comprising, a general blade-portion having in cross-section a concave rear and a convex front, means for securing one end of said blade-portion to a blade-holder of the turbine, a head formed upon the opposite end of the blade-portion in circumferential advance of the concavity of the blade-portion, a recess formed in the rear portion of said head over the edges of the concavity of the blade-portion, and a projection extending forward from said head and engaging the recess of the head of the neighboring blade, combined substantially as set forth.

2. A turbine blade comprising, a general blade-portion having in cross-section a concave rear and a convex front, means for securing one end of said blade-portion to a blade-holder of the turbine, a head formed upon the opposite end of the blade-portion in circumferential advance of the concavity of the blade-portion, a recess formed in the rear portion of said head over the edges of the concavity of the blade-portion and having a rearward overhang, and a projection extending forward from said head and engaging the recess of the head of the neighboring blade and having its forward extremity engaging under the rearward overhang of said recess, combined substantially as set forth.

3. A turbine blade comprising, a blade-portion having a rearward concavity extending to its free extremity, means for securing one end of the blade-portion to a blade-holder of the turbine, and a head formed upon the free end of the blade-portion and extending forwardly therefrom and adapted to engage with the rear portion of the neighboring blade and over the concavity thereof, combined substantially as set forth.

4. A turbine blade comprising, a general blade-portion having in cross-section a concave rear and a convex front, means for securing one end of said blade-portion to a blade-holder of the turbine, a head formed upon the opposite end of the blade-portion in circumferential advance of the concavity of the blade-portion, a recess formed in the rear portion of said head over the edges of the concavity of the blade portion and a projection extending forward from said head and engaging the recess of the head of the neighboring blade and partially closing the end of the concavity of the succeeding blade, combined substantially as set forth.

1,073,624. BREAKING MEANS FOR RADIOTELEGRAPHY. ELMO N. PICKERILL, New York, N. Y., assignor, by mesne assignments, to Marconi Wireless Telegraph Company of America, a Corporation of New Jersey. Filed Sept. 20, 1909. Serial No. 518,580. (Cl. 250—13.)



1. The combination with a radio telegraph installation comprising sending means having leads to the sending key, receiving means, a common antenna for sending and receiving means and having leads to the receiving means, of breaking means comprising two jump-gaps and two key-operated switches, one of each in the antenna and the other of each in said receiving means leads the said gap and switch in the receiving means being relatively close to each other and to the receiving means.

2. The combination with a radio telegraph installation comprising sending means having leads to the sending key, receiving means, a common antenna for sending and receiving means and having leads to the receiving means, of breaking means comprising a switch operated by said sending key and open-circuiting said receiving means leads relatively close to the receiving means, and a jump-gap shunted across said receiving means leads near said switch.

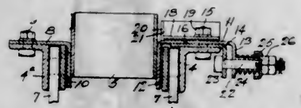
3. The combination with a radio telegraph installation comprising sending means having leads to the sending key, receiving means, a common antenna for sending and receiving means and having leads to the receiving means, of breaking means comprising a switch operated by said sending key and open-circuiting said receiving means leads relatively close to the receiving means, and a jump-gap shunting said switch.

4. The combination with a radio telegraph installation comprising sending means having leads to the sending key, receiving means, a common antenna for sending and receiving means and having leads to the receiving means, of breaking means comprising a jump-gap shunted across said receiving means leads relatively close to the receiving means, and a key-operated switch open-circuiting the antenna between the two leads to the receiving means.

5. The combination with a radio telegraph installation comprising sending means having leads to the sending key, receiving means, and a common antenna for sending and receiving means and having leads to the receiving means, of breaking means comprising two jump-gaps, one in the antenna, and one across said receiving means leads relatively close to the receiving means.

[Claims 6 to 12 not printed in the Gazette.]

1,073,625. DAMPING DEVICE FOR TRUCK-BOLSTERS. WILLIAM G. PRICE, New Castle, Pa. Filed Apr. 28, 1913. Serial No. 764,158. (Cl. 105—103.)



1. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a stationary damper plate engaging one side of said bolster, and a spring actuated laterally movable damper-plate engaging the opposite side of said bolster.

2. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a laterally movable spring actuated flat damper-plate supported by the transom, and a downwardly projecting portion on said damper-plate engaging the side of the bolster.

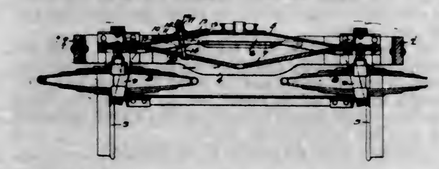
3. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a laterally movable flat damper-plate supported by the transom, a downwardly projecting portion on said damper-plate engaging the side of the bolster, and a spring engaging said plate and supported from the transom.

4. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a laterally movable damper-plate supported by the transom, a downwardly projecting portion on said damper-plate engaging the side of the bolster, a flange on said damper-plate, a bolt supported from the transom passing through said flange, and a spring interposed between said flange and stop on said bolt.

5. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a laterally movable flat damper-plate supported by the transom, a downwardly projecting portion on said damper-plate engaging the side of the bolster, a spring adapted to hold said damper-plate in contact with the bolster, and a support for said spring supported from the transom.

[Claims 6 to 13 not printed in the Gazette.]

1,073,626. DAMPING DEVICE FOR TRUCK-BOLSTERS. WILLIAM G. PRICE, New Castle, Pa. Filed Apr. 28, 1913. Serial No. 764,159. (Cl. 105—103.)



1. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a damper-plate engaging the upper face of said bolster, a plate in slidable engagement with the upper face of said damper-plate and connected to the bolster, and connections between said damper-plate and the transom.

2. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a slotted damper-plate engaging the upper face of said bolster at one end thereof, a slidable plate on said damper-plate, the bolt connecting said slidable plate to the bolster passing through said slotted damper, a spring on said bolt, and connections between said damper-plate and the transoms.

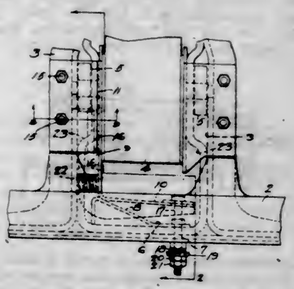
3. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a damper-plate engaging the upper face of the bolster, a slidable plate engaging said damper-plate and connected to said bolster, and a rod connected to said damper-plate and pivotally connected to the transom.

4. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a damper-plate engaging the upper face of said bolster, a slidable plate engaging said damper-plate and connected to said bolster, a downwardly projecting portion on said damper, and a rod connected to said projection and pivotally connected to said transom.

5. In a car-truck, the combination with the transoms, of a swing-bolster between the same, a damper-plate engaging the upper face of said bolster at one side of the center thereof, a slidable plate engaging said damper-plate and connected to the bolster, a downwardly projecting portion on said damper-plate, a rod connected thereto and pivotally connected to the transom beyond the center of said bolster.

[Claims 6 to 8 not printed in the Gazette.]

1,073,627. DAMPING DEVICE FOR TRUCK-BOLSTERS. WILLIAM G. PRICE, New Castle, Pa. Filed Apr. 28, 1913. Serial No. 764,160. (Cl. 105—103.)



1. In a car-truck, the combination with the frame, of a swing-bolster between the transoms of the same, a spring actuated damper-plate supported from the frame having a diagonal movement with reference to the bolster, and a portion on said damper plate engaging the side of the bolster.

2. In a car-truck, the combination with the frame, of a swing-bolster between the transoms of the same, a movable damper-plate supported from the frame, means tending to draw said damper-plate outwardly, and means carried by the frame engaged by said damper-plate to move the same laterally.

3. In a car-truck, the combination with the frame, of a swing-bolster between the transoms of the same, a spring actuated damper-plate supported from the frame and engaging the bolster, means tending to move said damper-plate longitudinally, an arm on said damper-plate, and an abutment on the frame with which said arm engages.

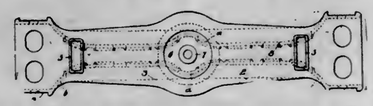
4. In a car-truck, the combination with the frame, of a swing-bolster between the transoms of the same, a spring actuated damper-plate supported from the frame and engaging the bolster, an arm on said plate, a bolt engaging said arm and connecting same to the frame, a spring on said bolt to draw said plate outwardly, and an abutment on the frame with which said arm engages, and a spring bearing against the damper-plate.

5. In a car-truck, the combination with the frame, of a swing-bolster between the transoms of the same, a movable damper-plate supported from the frame and engag-

ing the bolster, an arm on said plate, a bolt engaging said arm and connecting it to the frame, a spring on said bolt, an inclined abutment on the frame with which said arm engages, and a spring bearing against said plate.

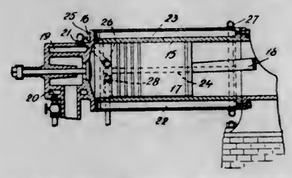
[Claims 6 to 9 not printed in the Gazette.]

1,073,628. BOLSTER. OSWALD S. PULLIAM, Pittsburgh, Pa. Filed Mar. 14, 1910. Serial No. 549,105. (Cl. 105—104.)



A bolster for cars consisting of an integral metallic structure comprising a top member formed with a circular center-bearing and side-bearings, a bottom member, an annular king-bolt wall, and two spaced web-members connecting the top and bottom members, said web-members each having a central curved portion extending under and reinforcing the center-bearing near its periphery, said curved portions being spaced away from the king-bolt wall, outer curved portions extending under the side-bearings, and straight end portions, said latter portions forming column engaging members.

1,073,629. ENGINE. EDWARD RATHBUN, Toledo, Ohio. Original application filed May 29, 1908, Serial No. 435,779. Divided and this application filed July 5, 1912. Serial No. 707,840. (Cl. 123—173.)



1. A jacketed engine cylinder having a head jacket and having also a cylinder jacket surrounding the cylinder only and divided into a plurality of compartments arranged at different levels, means for connecting the head jacket to one of said cylinder jacket compartments, and means for connecting one such cylinder jacket compartment to another cylinder jacket compartment.

2. A jacketed engine cylinder having a head jacket and having also a cylinder jacket surrounding the cylinder only and divided into a plurality of compartments arranged at different levels, means connecting the head jacket to an upper compartment of the cylinder jacket, and means connecting such compartment of the cylinder jacket to a lower compartment of such cylinder jacket.

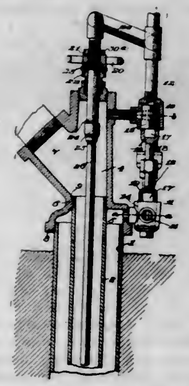
3. A jacketed engine cylinder having a head jacket and having also a cylinder jacket surrounding the cylinder only and divided into a plurality of compartments arranged at different levels, means connecting the head jacket to the lower portion of an upper compartment of the cylinder jacket, and means connecting the upper portion of such compartment of the cylinder jacket to the lower portion of a lower compartment of such cylinder jacket.

4. A substantially horizontal engine cylinder comprising a head jacket and a cylinder jacket, the latter divided horizontally into a plurality of compartments arranged at different levels, means connecting the head jacket to an upper compartment of the cylinder jacket, and means connecting such upper portion of the cylinder jacket to a lower compartment of the cylinder jacket.

5. A substantially horizontal engine cylinder comprising a head jacket and a cylinder jacket, the latter divided horizontally into a plurality of compartments arranged at different levels, means connecting said head jacket to the lower portion of an upper cylinder jacket compartment, near one end of that compartment, and means connecting the upper portion of such upper cylinder compartment at a point near the opposite end of such upper compartment, to the lower portion of a lower cylinder jacket compartment.

[Claims 6 and 7 not printed in the Gazette.]

1,073,630. LIQUID-RAISING APPARATUS. JAMES F. REDDY, Rochester, N. Y. Filed Nov. 25, 1907. Serial No. 403,580. (Cl. 103—84.)



1. The combination with a well casing and a liquid discharge tube, of an air supply, and means for connecting the air supply with the casing and with the discharge tube, having devices for effecting a surging of the liquid in the casing provided with discharges to the atmosphere.

2. The combination with a well casing and a liquid discharge tube arranged therein, of an air supply, connection between the air supply and the liquid discharge tube, connection between the air supply and the well casing and valves in said connections, having discharges to the atmosphere.

3. The combination with a well casing and a liquid discharge tube arranged therein, of an air supply, connection between the air supply and the liquid discharge tube, connection between the air supply and the well casing, and twoway valves in said connections having discharges to the atmosphere.

4. The combination with a well casing and a liquid air charge tube arranged therein, of an air supply, connection between the air supply and the liquid discharge tube, connection between the air supply and the well casing, valves in said connections having discharges to the atmosphere, and means for simultaneously operating the valves to alternately supply air to the liquid discharge tube and the well casing.

5. The combination with a well casing and a liquid discharge tube arranged therein, of an air supply, connection between the air supply and the liquid discharge tube, connection between the air supply and the well casing, rotary two way valves in said connections, and a shaft connected at each end to one of the valves.

[Claims 6 to 13 not printed in the Gazette.]

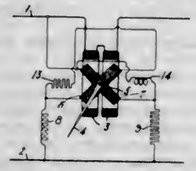
1,073,631. MEANS FOR RETAINING THE ENDS OF THE RIBS OF UMBRELLAS AND THE LIKE IN CLOSED POSITION. ANTOINE AIMÉ REVEL, Lyon, France. Filed Nov. 11, 1912. Serial No. 730,584. (Cl. 135—44.)

Means for retaining the ends of ribs of umbrellas and the like in closed position, comprising a member affixed to the umbrella stick and having overturned outwardly extended portions separated by slits to provide a resilient head, and a movable ring arranged on the stick and adapted to be held against the handle when the umbrella is open by engaging said resilient head, and to be removed



from engagement with said head and to be placed over the ends of the ribs of the frame when the umbrella is closed to retain said ribs in the closed position, substantially as described.

1,073,632. ELECTRICAL MEASURING INSTRUMENT. LEWIS T. ROBINSON, Schenectady, and OTTO HOLZ, deceased, by MATIE D. HOLZ, executrix, Schenectady, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Sept. 30, 1909. Serial No. 520,432. (Cl. 172—245.)



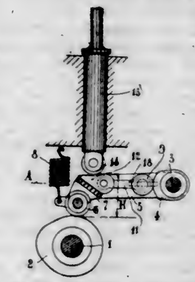
1. In an indicating instrument, the combination with two relatively movable members, means on one member for producing a magnetic field, and two angularly displaced coils on the other member, of means for connecting one of said coils in an inductive shunt circuit and a second coil in a non-inductive shunt circuit across an alternating current circuit on which the indicator is used, and means responsive to frequency for displacing the phase of the current in the second of said coils to counteract corresponding displacement in phase in the first coil by change of frequency.

2. In an indicating instrument, the combination with two relatively movable members, a coil mounted on one member, and two angularly displaced coils mounted on the other member, of means for connecting one of said coils in an inductive shunt circuit and a second in non-inductive shunt circuit across the alternating current circuit on which the indicator is used, and means differing in electric characteristics from said non-inductive circuit connected in shunt to a part of said non-inductive circuit for displacing the phase of the current in the second of said coils.

3. In an indicating instrument, the combination with fixed means for producing a magnetic field, and a movable member having two angularly displaced coils, of means for connecting one of said coils in an inductive shunt circuit and a second in a non-inductive shunt circuit across the alternating current circuit on which the indicator is used, and a reactance in shunt with a portion of said non-inductive circuit, whereby the phase of the current in the second of said coils is displaced by changes of frequency to counteract a corresponding displacement of phase in the first coil.

4. A power factor indicator comprising three coils, two of which are angularly displaced, and means coöperating with said angularly displaced coils comprising a reactance in series with and a resistance in shunt with one of said coils and a resistance in series with and a reactance in shunt with the other of said coils across the alternating circuit on which the indicator is used for producing a rotating field and for varying automatically the phase relations of the currents in said coils to an extent sufficient to render the indications independent of frequency.

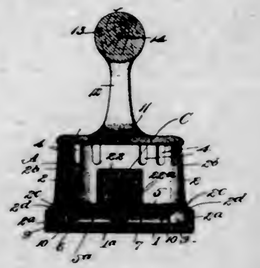
1,073,633. STARTING VALVE-GEAR FOR INTERNAL-COMBUSTION MOTORS. JEAN ROMEYN, Brussels, Belgium. Filed June 17, 1912. Serial No. 704,219. (Cl. 123—181.)



1. In starting valve gear for internal combustion motors, the combination of a fork oscillating on a working shaft, an inclined plane carried by said fork, a wedge sliding on said plane, a cam keyed on the working shaft and effecting the movement of said wedge.

2. In a starting valve gear for internal combustion motors, the combination of a fork oscillating on a working shaft, an inclined plane carried by said fork, a wedge which slides on said plane, a cam keyed on the working shaft and effecting the movement of said wedge, a lever acting upon said oscillating fork, a cam keyed on the working shaft and effecting the movement of said lever.

1,073,634. SAD-IRON. LOUIS ROSENBAUM, New York, N. Y. Filed Jan. 30, 1913. Serial No. 745,196. (Cl. 158—23.1.)



1. A gas iron base or body portion comprising a hollow casting provided interiorly with a longitudinally cut-away or divided horizontally-disposed wall above and spaced away from its bottom wall, and series of vertically-disposed separated webs lying between, and connected to, said horizontally-disposed wall portions and said bottom wall, said webs terminating at their inner faces

substantially flush with the inner edges of said wall portions and providing a central longitudinal channel in said base casting and at their outer faces being spaced inwardly from, and providing a channel around, the side wall of said base casting, the walls of said base casting being provided with openings leading into said channels; substantially as described.

2. A gas iron base or body portion comprising a hollow casting provided interiorly with a longitudinally cut-away or divided horizontally-disposed wall above and spaced away from its bottom wall, and series of vertically-disposed separated webs lying between, and connected to, said horizontally-disposed wall portions and said bottom wall, said webs terminating at their inner faces substantially flush with the inner edges of said wall portions and providing a central longitudinal channel in said base casting and at their outer faces being spaced inwardly from, and providing an outer channel around, the side wall of said base casting, the spaces between the webs of said series providing channels communicating with said longitudinal and outer channels and the walls of said base casting being provided with openings leading into said longitudinal and outer channel; substantially as described.

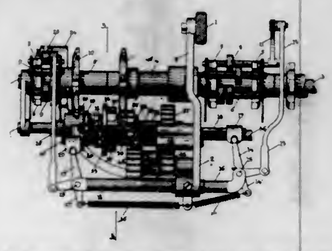
3. A gas iron base or body portion comprising a hollow casting provided interiorly with a longitudinally cut-away or divided horizontally-disposed wall above and spaced away from its bottom wall, and series of vertically-disposed separated webs lying between, and connected to, said horizontally-disposed wall portions and said bottom wall, said webs terminating at their inner faces substantially flush with the inner edges of said wall portions and providing a central longitudinal channel in said base casting and at their outer faces being spaced inwardly from, and providing an outer channel around, the side wall of said base casting, the spaces between the webs of said series providing channels communicating with said longitudinal and outer channels and the walls of said base casting being provided with a plurality of air-inlet openings leading from the exterior of the casting into said longitudinal and outer channels and above the plane of said horizontally-disposed wall with outlet openings leading to the exterior of the casting; substantially as described.

4. A gas iron base or body portion comprising a hollow casting provided interiorly with a longitudinally cut-away or divided horizontally-disposed wall above and spaced away from its bottom wall, and series of vertically-disposed separated webs lying between, and connected to, said horizontally-disposed wall portions and said bottom wall, said webs terminating at their inner faces substantially flush with the inner edges of said wall portions and providing a central longitudinal channel in said base casting and at their outer faces being spaced inwardly from, and providing an outer channel around, the side wall of said base casting, the spaces between the webs of said series providing channels communicating with said longitudinal and outer channels and the walls of said base casting being provided with a plurality of air-inlet openings leading from the exterior of the casting into said longitudinal and outer channels and above the plane of said horizontally-disposed wall with outlet openings leading to the exterior of the casting, and a burner extending longitudinally within said base casting above said longitudinal channel, said burner being provided in its under portion with a plurality of jet openings; substantially as described.

5. A gas iron comprising a hollow base casting provided interiorly with a longitudinally cut-away or divided horizontally-disposed wall above and spaced away from its bottom wall and series of vertically-disposed separated webs lying between, and connected to, said horizontally-disposed wall portions and said bottom wall, said webs terminating at their inner faces substantially flush with the inner edges of said wall portions and providing a central longitudinal channel in said base casting and at their outer faces being spaced inwardly from, and providing a channel around, the side wall of said base casting, the walls of said base casting being provided with openings leading into said longitudinal and outer channels, an upper casting having a handle-plate fitting on said base casting, and a burner extending longitudinally within said casting above said longitudinal channel, said burner being provided in its under portion with a plurality of jet openings; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,073,635. PATTERN MECHANISM FOR LOOMS. EDDA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Maine. Filed Mar. 10, 1913. Serial No. 753,166. (Cl. 139—28.)

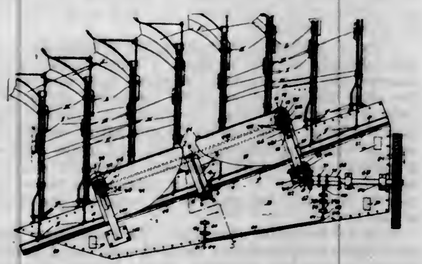


1. In a pattern mechanism for looms, pattern surfaces, a star wheel connected therewith, two pin wheels to operate said star wheel, means to rotate one of said pin wheels continuously in one direction, and means to oscillate the other pin wheel, and means to move either of said pin wheels, to operate said star wheel.

2. In a pattern mechanism for looms, pattern surfaces, a star wheel connected therewith, two pin wheels to operate said star wheel, means to rotate one of said pin wheels continuously in one direction, and means to oscillate the other pin wheel, said oscillating means including teeth on the last mentioned pin wheel, said teeth meshing with and driven by an oscillating gear, and said oscillating gear.

3. In a pattern mechanism for looms, pattern surfaces, a star wheel connected therewith, two pin wheels to operate said star wheel, means to operate one of said pin wheels continuously in one direction, and means to oscillate the other pin wheel, said means including a driven gear, a crank thereon, a connector to a second gear, to oscillate said second gear, and said second gear, meshing with and driving said oscillating pin wheel, and means to move either of said pin wheels, to operate said star wheel.

1,073,636. MECHANICAL PLOW-LIFT. FREDERICK JAMES SAVAGE, Ford, Saskatchewan, Canada, assignor of one-third to Christopher James Lutes, Tisdale, Canada. Filed Sept. 7, 1912. Serial No. 719,062. (Cl. 97—39.)



1. In a gang-plow, the combination with a suitable frame; a plurality of plow-frames hinged thereto; the plows carried by said plow-frames, and a lever associated with each plow-frame for raising and lowering the same, of a bar to which the said levers are hinged, and means under the control of the operator whereby said bar is progressively depressed, commencing at the leading or forward end thereof in order to progressively elevate said plows through the medium of said levers, and whereby said bar is permitted to progressively move upward, such upward movement commencing at the leading or forward end thereof, and progressively continuing until said bar is substantially horizontal and all the plows are engaged, as set forth.

2. In a gang-plow, the combination with a suitable frame; a plurality of plow-frames hinged thereto; the plows carried by said plow-frames, and a lever associated with each plow-frame for raising and lowering the same, of a bar to which the said levers are hinged; means under the control of the operator whereby said bar is progressively depressed, commencing at the leading or forward end thereof in order to progressively elevate said plows through the medium of said levers, and whereby said bar is permitted to progressively move upward, such upward movement commencing at the leading or forward end thereof, and progressively continuing until said bar is substantially horizontal and all the plows are engaged, and means carried by said frame for maintaining said bar in coöperative position in respect of said levers, as set forth.

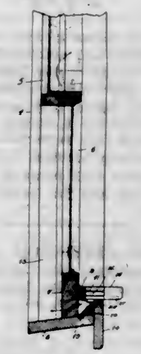
3. In a gang-plow, the combination with a suitable frame; a plurality of plow-frames hinged thereto, the plows carried by said plow-frames, and a lever associated with each plow-frame for raising and lowering the same, of a tilting-bar to which the free ends of said levers are hinged; a standard carried by said frame and supported at the desired backward angle; means carried by said tilting bar and engaging the said standard in such a manner as to permit the free tilting-movement of the said bar on said standard and its movement longitudinally thereof, and means under the control of the operator whereby the said tilting-bar is depressed, after the manner stated, to progressively elevate said plows through the medium of said levers, and which means operate to permit the said tilting-bar to operate as described to permit the said levers to progressively move upward and so progressively lower said plow-frames, for the purpose specified.

4. In a gang-plow, the combination with a suitable frame; a plurality of plow-frames hinged thereto, the plows carried by said plow-frames, and a lever associated with each plow-frame for raising and lowering the same, of a tilting-bar to which the free ends of said levers are hinged; a standard carried by said frame and supported at the desired backward angle; means carried by said tilting-bar and engaging the said standard in such a manner as to permit the free tilting-movement of the said bar on said standard and its movement longitudinally thereof; a pair of standards carried by said frame and one on each side of said first-mentioned standard, the heads of said last-mentioned standards being off-set to rest behind the same, the said standards being supported at the desired backward angle; a shaft mounted in the head of each of the said second-mentioned standards; a sector keyed to each of the said shafts and coacting with said tilting-bar as described; means whereby when one of said sectors is rotated the other sector is also rotated and in the same direction and at the same speed, and means under the control of the operator whereby said sectors are moved and brought to rest in order to coact with said tilting-bar and the levers connected therewith in order that the said plows may be raised and lowered and held in raised position, as set forth.

5. In a gang-plow, the combination with a suitable frame; a plurality of plow-frames hinged thereto; the plows carried by said plow-frames, and a lever associated with each plow-frame for raising and lowering the same, of a tilting-bar U-shaped in cross section to the rear flange of which the free ends of the said levers are hinged; a standard carried by said frame and supported at the desired backward angle, means carried by the front flange of said tilting-bar and engaging the said standard in such a manner as to permit the free tilting-movement of the said bar on said standard and its movement longitudinally thereof; a pair of standards carried by said frame and one on each side of said first-mentioned standard, the heads of said last-mentioned standards being off-set to rest behind the same, the said standards being supported at the desired backward angle; a shaft mounted in the head of each of the said second-mentioned standards; a sector keyed to each of the said shafts, and each provided with a tread concentric to its axis of rotation, the said tread of each sector coacting with the floor of said tilting-bar as described, means whereby when one of said sectors is rotated the other sector is also rotated and in the same direction and at the same speed, and means under the control of the operator whereby said sectors are moved and brought to rest in order to coact with said tilting-bar and the levers connected therewith, in order that the said plows may be raised and lowered and held in raised position, as set forth.

[Claim 6 not printed in the Gazette.]

1,073,637. WINDOW. CHARLES F. SCHNEIDER and JULIUS HAYMAN, Waukegan, Ill. Filed Mar. 27, 1912. Serial No. 686,593. (Cl. 98—31.)



1. A window frame having a chamber in the bottom thereof with openings leading to the outer air and to the inside of a room, a sash having its bottom rail adapted to close the opening to the outer air when the sash is down, and an adjustable stool fitting over the opening leading to the inside of the room and serving to open and close the same.

2. In a window, the combination of a frame, having a sill at the bottom thereof and having an apron engaging with said sill, a sash, a cross piece adjacent to the sash and slightly above the apron, a screen extending between the cross piece and the apron, and a slide mounted above the apron for closing the opening between the apron and the cross piece.
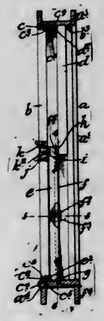
3. A window having a chamber in the bottom of the frame communicating with the outer air and with the inside of a room, the bottom rail of the lower sash of the window serving to close the outer communication when the sash is down, and means for closing the inner communication.

4. A ventilating window having a chamber in the lower part of the frame, the lower rail of the bottom sash forming one side of the chamber when closed, a strip adjacent to the sash at the top of the chamber, said chamber having an opening leading into the room, a screen across said opening and a slidable stool over said opening.

5. In a ventilating window, the combination with the lower sill and apron of a beveled cross piece having a projection dadoed into the sill, a second cross piece adjacent to the sash and above said sill, a screen between said first named cross piece and said second named cross

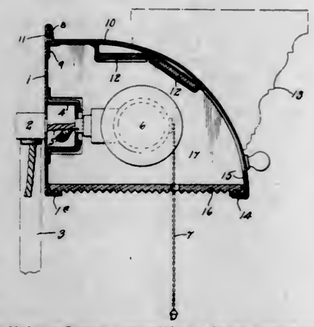
piece, and a slidable stool mounted above the apron and adapted to close the space between the apron and said second named cross piece.

1,073,638. WINDOW. THEODORE SCHULZ, Jersey City, N. J. Filed June 14, 1912. Serial No. 703,676. (Cl. 20—12.)



A window frame provided with the usual inner and outer side bead strips, and central side bead strips which extend from the bottom of the frame to the top of the bottom sash only, and which are pivoted centrally thereof to the sides of the frame, said central bead strips consisting of bars which are L-shaped in cross section and in which the bottom sash is vertically movable, and the inner bead strips being provided with means for forcing the top of the bottom sash outwardly against the bottom part of the top sash and for locking the sashes against vertical movement.

1,073,639. LIGHT-REFLECTOR. OLIVER SHIRAS and FRANK X. CHASSAING, St. Louis, Mo., assignors to Shiras Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 1, 1913. Serial No. 758,279. (Cl. 240—6.)

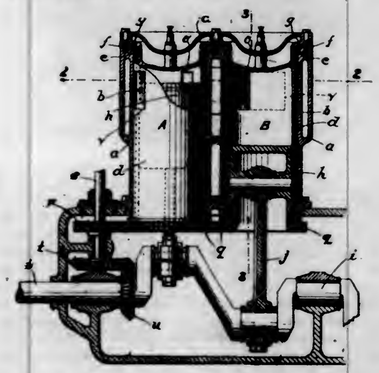


1. A light reflector comprising a lamp compartment, one wall of which has a separable hinged connection to another wall of said compartment, said detachable hinged wall having reflecting surfaces on its inner face and being provided with a locking flange at its free edge which is designed to be sprung into position to lock the detachable wall in place.

2. A light reflector comprising a lamp containing a compartment, the back wall of which is provided with a groove along its upper edge, a detachable wall having a flange fitting into said groove and forming a separable hinged connection, the opposite edge of said detachable wall being provided with a flange designed to be sprung into position to lock the detachable wall into place.

3. A light reflector comprising a back wall having a wire trough secured thereto, said back wall having an inwardly extending flange at its lower edge and a folded over portion at its upper edge, walls extending perpendicularly to said back wall for supporting an angle piece, a glass bottom plate resting upon the bottom flange of the back wall and on said angle piece, and a cover having an edge flanged to engage under the folded over portion at the upper edge of the back wall, said cover having an inwardly extending flange at its opposite edge designed to be sprung under said glass support angle.

1,073,640. INTERNAL-COMBUSTION ENGINE. PAUL S. SMITH, Newburgh, N. Y. Filed Apr. 22, 1909. Serial No. 491,514. (Cl. 123—80.)



1. In an internal combustion engine, the combination with a cylinder comprising an external casing and internal casing spaced apart, of an orificed cylindrical valve shell inserted between the two casings of the cylinder, the internal casing having supply and exhaust openings registering respectively with supply and exhaust openings in the external casing, a reciprocable piston within the internal casing, the crank-shaft, and connections between the crank-shaft and valve shell adapted to turn the same to successively connect the piston chamber with the supply and exhaust openings and seal it from both openings.

2. In an internal combustion engine, the combination with a cylinder having an external casing and an internal casing spaced apart and each provided with supply and exhaust openings, of a rotatable cylindrical valve shell between said casings and adapted to open and close said openings and to connect the openings in the external casing with the openings in the internal casing, a piston within the internal casing, and connections between the crank shaft and the piston and valve adapted to operate the same.

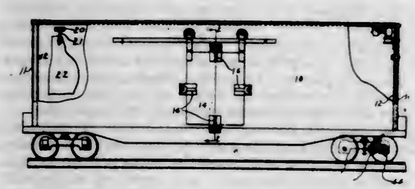
3. In an internal combustion engine, the combination with a cylinder casing having orifices communicating with the supply and exhaust, of a rotatable orificed valve shell within said casing and an orificed casing within the valve, connections between the crank-shaft and valve shell adapted to rotate the same, a piston within the last named casing, and connections between the crank shaft and piston to actuate the latter, said valve adapted in its rotation to open communication from the interior of the cylinder to the supply and exhaust through said orifices.

4. In an internal combustion engine, the combination with the cylinder having supply and exhaust orifices, of a rotatable cylindrical valve shell concentric therewith having a single orifice wider than either of the cylinder orifices and substantially equal in width to the distance between the most adjacent edges of the supply and exhaust orifices and adapted in its rotation to successively communicate therewith, a reciprocable piston within the cylinder and shell, the crank shaft, and connections between the crank-shaft and the valve shell adapted to impart one revolution to the valve shell for two revolutions of the crank shaft.

5. In an internal combustion engine, the combination with the cylinder having supply and exhaust orifices extending longitudinally of the cylinder whose most adjacent edges are approximately ninety degrees apart, of an orificed valve shell concentric and contacting with the cylinder and having an orifice extending through an arc of approximately ninety degrees and substantially wider than either of the cylinder orifices, a reciprocable piston within the cylinder and shell, the crank-shaft, and connections from the crank-shaft adapted to continuously rotate the shell at one-half the angular speed of the crank-shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,073,641. APPARATUS FOR PRESERVING ORGANIC SUBSTANCES. WESLEY LINFORD SMITH, Pittsburgh, Pa. Filed July 6, 1911. Serial No. 637,131. (Cl. 99—2.)



1. Apparatus for preserving organic products comprising in combination, a sealed chamber or receptacle, an exhauster within said chamber or receptacle arranged to exhaust air therefrom, power means outside of said chamber or receptacle, and connections between said means and said exhauster for actuating the latter.

2. Apparatus for preserving organic products comprising in combination, a sealed chamber or receptacle, an exhauster arranged to withdraw air from said chamber or receptacle, an electric motor for actuating said exhauster, and means controlled by the pressure in said chamber or receptacle for controlling said exhauster actuating means, said means comprising a diaphragm in the wall of the chamber, and a contact connected to said diaphragm and arranged to open and close the motor driving circuit.

3. Apparatus for preserving organic products comprising in combination, a sealed car, axles and wheels therefor, a pump arranged to exhaust air from the interior of said car, a motor, for driving said pump, a generator connected to said motor and connections between one of said axles and said generator for driving the latter, said connections being so arranged that the generator will be driven in the same direction by rotation of the wheels in either direction.

4. Apparatus for preserving organic products comprising in combination, a sealed car, axles and wheels therefor, a pump within said car arranged to exhaust air therefrom, means for driving said pump, and connections between one of said axles and said means for driving the latter, said connections being arranged so that said driving means will be driven in the same direction by travel of the car in either direction.

5. Apparatus for preserving organic products comprising in combination, a sealed car, axles and wheels therefor, a pump arranged to exhaust air from the interior of said car, a motor for driving said pump, a generator connected to said motor, and connections between one of said axles and said generator for driving the latter, said connections comprising a constantly driven shaft coupled to said generator, and a gearing between one of said axles and said shaft, said gearing including a slip connection.

[Claims 6 and 7 not printed in the Gazette.]

1,073,642. CULTIVATOR-TOOTH. JOHN J. STALDER, Meade, Kans. Filed Nov. 22, 1909. Serial No. 529,288. (Cl. 97—11.)



1. A cultivator tooth formed from a substantially elliptical plate having a continuous non-cutting rounded edge extending from end to end, the said plate being bent upon its long axis to form oppositely arranged rounded sides and teeth having noses formed with rounded extremities, the sides diverging toward the free edges of the plate, the said plate being concaved longitudinally presenting a crescent shape and having means at its center whereby it may be attached to a support with either nose in operative position.

2. A cultivator tooth consisting of a crescent-shaped member which is approximately of U-shape in cross-section, the side portions of said member being rounded and the edge portions of said member being rounded and inturned toward each other and the ends of said member being formed with noses having rounded extremities so that the tooth will loosen the soil around a plant without liability of cutting the plant.

3. A cultivator tooth provided with an intermediate portion that is adapted to be connected to a drag beam which carries the tooth, and crescent-shaped side portions which flare outwardly and downwardly from said intermediate portion, said side portions converging at the ends of the tooth into blunt noses having rounded extremities and the edges of said side portions being rounded so that the tooth will loosen the soil around a plant without liability of cutting the roots of the plant.

4. A cultivator tooth for cultivating alfalfa and like tap-root plants, having its working portion curved forwardly and terminating in a rounded nose, the extremity of which is rounded upon short radius curves which are adapted to come in contact with and to be deflected by the tap-root of a plant in advance of the body of said tooth coming in contact with a plant; and the sides of said tooth being curved rearwardly to present a rounded and smooth surface, and the edges bent inwardly toward each other and entirely out of line or plane of contact with such plant.

5. A cultivator tooth for cultivating alfalfa and like tap-root plants having its working part curved forwardly and terminating in a rounded nose having a rounded extremity adapted to pass beneath the crown roots and to contact with and be deflected by the tap-roots of the plants in advance of the body of the tooth.

[Claim 6 not printed in the Gazette.]

1,073,643. BRUSH-HOLDER FOR DYNAMOS. HERMANN STEINHART, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Aug. 13, 1912. Serial No. 714,770. (Cl. 171—210.)

1. In a brush holder and conductor clamp for dynamos, a member having a longitudinal bore passing therethrough

and a second bore at an angle to the longitudinal bore, a metal sleeve mounted in said second bore to receive and make electrical connection with a collector brush, a hollow cylinder of metal mounted in the longitudinal bore and electrically connected with said sleeve, and means at one end of said sleeve for holding the uninsulated end of an electrical conductor, which enters the other end of the longitudinal bore, in contact with said cylinder to electrically connect the conductor with the collector brush.



2. In a brush holder and conductor clamp for dynamos, a member having a longitudinal bore passing therethrough, and a second bore at an angle to the longitudinal bore, a metal sleeve mounted in said second bore to receive and make electrical connection with a collector brush, a hollow cylinder of metal having a flaring terminal bore and mounted in the said longitudinal bore, and a screw at one end of the longitudinal bore having a tapered end adapted to enter the flaring bore of said cylinder to hold the uninsulated end of a stranded electrical conductor, which enters the other end of the longitudinal bore, in contact with said cylinder to electrically connect the conductor with the collector brush.

3. In a brush holder and conductor clamp for dynamos, a member having a longitudinal bore passing therethrough, and a second bore at an angle to the longitudinal bore, a metal sleeve mounted in said second bore to receive and make electrical connection with a collector brush, a hollow cylinder of metal having a flaring terminal bore and mounted in the longitudinal bore, and a screw at one end of the said longitudinal bore having a tapered end adapted to enter the flaring bore of said cylinder and also having a flat bearing at the base of the tapered end to hold the uninsulated end of a stranded conductor, which enters the other end of the longitudinal bore, in contact with said cylinder to electrically connect the conductor with the collector brush.

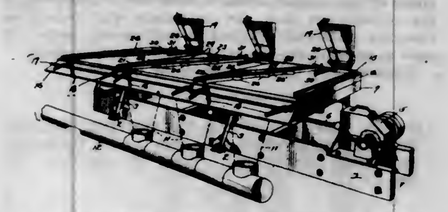
4. In a brush holder and conductor clamp for dynamos, a member having a longitudinal bore passing therethrough and screw-threaded near both ends, a hollow cylinder of metal mounted in the longitudinal bore, and a screw engaging the threads of the longitudinal bore at one end or the other and adapted to hold the uninsulated end of an electric conductor, which enters the opposite end of the longitudinal bore, in contact with said cylinder.

5. In a brush holder and conductor clamp for dynamos, an insulator having a longitudinal bore passing therethrough and screw-threaded at both ends, a hollow cylinder of metal mounted in the longitudinal bore, and having flared openings at the ends, and a screw with a tapered end and an annular bearing at the base of the tapered end, said screw engaging the screw-threads at one end or the other of the longitudinal bore and adapted to hold the uninsulated end of a stranded electric conductor which enters the opposite end of the longitudinal bore, in contact with the flared interior and the end of said cylinder.

1,073,644. SEPARATING-TABLE AND PROCESS OF SEPARATION. HENRY M. SUTTON, WALTER L. STEELE, and EDWIN G. STEELE, Dallas, Tex. Filed Aug. 17, 1911. Serial No. 644,492. (Cl. 83—54.)

1. A concentrating table having a pervious floor, means for reciprocating the table adapted to propel the material in a predetermined direction, an air chamber arranged under said floor, an obstruction arranged diagonally across the line of travel of the propelling movement of the material forming an obstruction of concentrates free from direct passage in the line of imparted movement, and having passages at an angle to the line of movement of the material.

2. A concentrating table having a pervious floor, means for reciprocating the table adapted to propel the material in a predetermined direction, said table being inclined transversely to the imparted path of travel of the material, an obstruction arranged diagonally across the line of travel of the propelling movement of the material forming an obstruction of concentrates adjacent thereto free from direct passage in the line of imparted movement, and having passages at an angle to the line of imparted movement of the material.



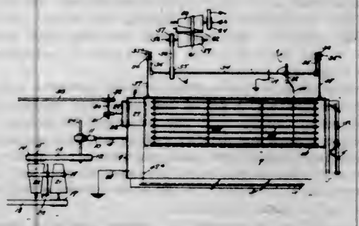
3. The process of concentrating a mass of material, parts thereof having different characteristics, consisting in supporting the material upon an inclined support and in imparting to said material a positive movement across its path of travel by gravity, and forming an obstruction of concentrates beyond the strata of material containing tailings across the imparted movement of the material.

4. The process of concentrating a mass of material, parts thereof having different characteristics, consisting in moving said material in one path, imparting to said material a positive movement in a direction across said path, obstructing the material across the imparted movement thereof until a substantially vertical stratum of concentrates is established beyond the strata of the material containing tailings.

5. The process of concentrating a mass of material, parts thereof having different characteristics, consisting in supporting the material upon a surface by a gaseous cushioning medium, feeding said material in one path, simultaneously imparting to said material a positive movement in a direction across said path, and obstructing the material in the imparted movement thereof until a substantially vertical stratum of concentrates is established beyond the strata of material containing tailings.

[Claims 6 to 27 not printed in the Gazette.]

1,073,645. PROCESS OF AND APPARATUS FOR PROGRESSIVE ELECTROSTATIC SEPARATION OF COMMINUTED MATERIALS. HENRY M. SUTTON, WALTER L. STEELE, and EDWIN G. STEELE, Dallas, Tex. Filed Oct. 25, 1912. Serial No. 727,797. (Cl. 83—49.)



1. The progressive process of separating comminuted material, consisting in intermittently subjecting such comminuted material to be separated to an unshielded field of static stress, a centrally shielded convective charge and a partially shielded convective charge, in succession.

2. In an apparatus for separating comminuted material of diverse characteristics, the combination of means for moving such material in a predetermined normal path, means reciprocating across said normal path for establishing a series of electro-static charges of varying densities, means for energizing said reciprocating means during their movement in one direction, and means for de-energizing said reciprocating means during their movement in the reverse direction.

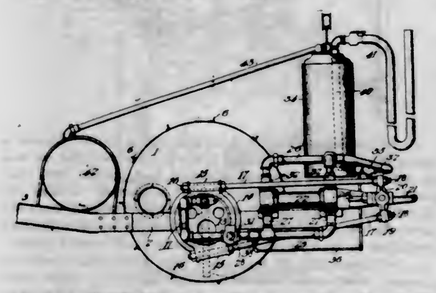
3. The progressive process of separating comminuted material consisting in supporting and imparting a movement to the material, subjecting such material alternately and intermittently to a series of electro-static fields of varying densities and of different electrical characteristics, moving in lines deviating from those of the normal movement of the material to cause the particles differentiated according to their electrical susceptibilities to deviate from the line of normal movement, and separately collecting the thus separated particles.

4. The progressive process of separating comminuted material consisting in feeding and imparting a normal movement to such material, subjecting the material to a series of electro-static fields of varying densities, partially shielding said charges, exposing the material alternately and intermittently to the action of the respective fields, moving said fields in lines deviating from the line of normal movement of the material, and separately collecting the thus separated particles.

5. The progressive process of separating comminuted material consisting in imparting an impulse in one direction to said material, alternately and intermittently subjecting said material to a series of electro-static charges of varying electro-static stress, partially shielding said charges, moving said charges in directions deviating from the direction of impluse imparted to said material, and separately collecting the thus separated particles.

[Claims 6 to 50 not printed in the Gazette.]

1,073,646. ORCHARD-SPRAYING MACHINE. FRED C. THOMPSON, Granger, Wash. Filed Mar. 28, 1911. Serial No. 617,449. (Cl. 137—63.)



1. An orchard spraying machine, comprising, in combination, a carrying frame, a rolling tank journaled in the frame at an intermediate point and constituting the main liquid reservoir, a separate working supply tank for the storage of a working supply of liquid under air pressure, said working supply tank being supported upon the frame at one side of the rolling tank, an auxiliary compression tank for air alone arranged on the frame at the other side of the rolling tank, and having a pipe connection with the working supply tank, and pumping mechanism for pumping both liquid and air into the working supply tank.

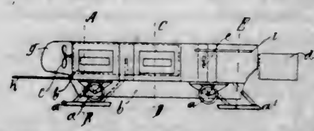
2. An orchard spraying machine comprising a carrying frame, a rolling tank journaled in the frame and constituting the main liquid reservoir, said rolling tank having stirring means, a separate working supply tank for holding liquid under air pressure and having a sprayer equipment, an auxiliary compression tank for air having a pipe connection with the working supply tank, and a pumping mechanism operated from the rolling tank and having a delivery connection with the working supply tank, the said pumping mechanism being also provided with separate valve controlled inlets respectively in communication with the rolling tank and with the outer air.

1,073,647. PAVEMENT. CHARLES P. WALTER, Harrisburg, Pa. Filed Oct. 29, 1906. Serial No. 341,196. (Cl. 94—1.)



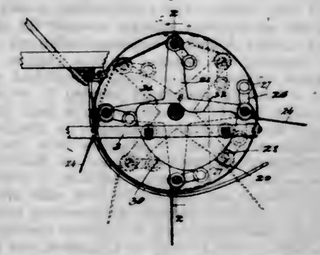
The hereindescribed process of constructing a road or pavement, said process consisting in forming an excavation, placing a layer of uncoated stone in said excavation and arranging said stone so as to form a substantially smooth upper surface, pouring a thin cement grouting over the stone prior to rolling the same, rolling the stone to force the grouting to the upper surface thereof so as to form a plastic tread surface, and finally, while the tread surface is still in a plastic state, placing thereon without the application of pressure a covering of finely crushed stone or gravel whereby the surface of the pavement is left in a slightly roughened and gritty condition, said crushed stone or gravel completely covering the plastic material.

1,073,648. AUTOPLANE. PAUL WITZEL, Berlin-Weissensee, Germany. Filed May 1, 1913. Serial No. 764,934. (Cl. 244—14.)



In an autoplane, in combination, a portable truck to carry the same on the ground, a wind-catcher and a height steering device at the front of the autoplane, a front propeller behind the latter, adjustable stabilization-planes, two rear propellers and a side steering device all arranged at the tail of the autoplane, a motor behind the front propeller having a main-shaft coupled with said propellers, four laterally arranged height-wings coupled with said shaft, a gas-reservoir to assist in carrying the autoplane in the air, and adjustable runners adapted, when lowered, to use the apparatus as a hydroplane, substantially as described and shown and for the purpose set forth.

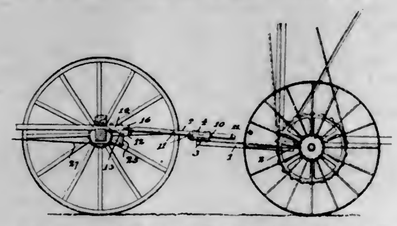
1,073,649. HAY-LOADER. SAMUEL M. WIXCEL, Sioux City, Iowa. Filed Oct. 1, 1906. Serial No. 337,001. (Cl. 56—61.)



In a raking mechanism, the combination with a wheeled main frame, of a rotary rake head comprising a supporting frame bodily rotatable about a central axis, a plurality of rake shafts mounted to oscillate each about its own axis in said supporting frame and spaced apart angularly, said shafts being spaced an equal distance from the center of the central axis, a series of teeth on each rake shaft, a stationary cam mounted to extend

substantially entirely below the horizontal axis of said supporting frame, an arm carried by each rake shaft, a wiper carried by each of said arms and adapted to engage said cam, that portion of the cam which engages the wipers in their downward travel being substantially concentric to the axis of the supporting frame, and that portion of the cam which engages the wipers in their upward movement being eccentric to the axis of said frame, said rake teeth extending radially with reference to the central axis when the cam wipers engage with the concentric part of the cam, and abutments on said supporting frame and shafts for positively limiting the oscillatory movement of said rake shafts in either direction and independently of said cam.

1,073,650. AUTOMATIC HITCHING MECHANISM FOR VEHICLES. SAMUEL M. WIXCEL, Marcus, Iowa. Filed Feb. 12, 1912. Serial No. 676,987. (Cl. 21—75.)



1. In combination with a leading vehicle and a trailer vehicle, a hitching mechanism comprising a frame having one end pivotally connected with one of the vehicles whereby the frame is free to rise and fall on a horizontal axis and is held against lateral oscillation, a socketed guide member pivotally mounted upon said frame, interlocking means upon the frame and socket member whereby the latter may be held against pivotal movement when brought to a definite position, a coupling bar slidably mounted in said socketed guide member, a latch mechanism mounted upon the other vehicle and comprising an oscillatory block, an upstanding draft-stud upon the block, a spring normally returning the block to operative position, a locking dog for holding the block positively in operative position, and a trip-cord operatively connected with said locking dog and extending to a distance therefrom.

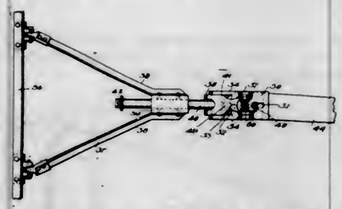
2. In a hitching mechanism, the combination of a frame member adapted to be pivotally connected at one end with one vehicle, a socket guide pivotally mounted upon the opposite end of said frame by means affording lateral swiveling movement upon the frame and limited oscillatory movement in a direction at right angles to the plane of swiveling movement, a locking rib on the meeting face of one of said members and a coöperating groove on the meeting face of the other member whereby the two may be locked against swiveling movement relatively to each other, a coupling bar mounted to slide endwise in said socket guide member and provided at one end with an eye, and a latching mechanism adapted to be mounted upon another vehicle and comprising a main frame, a draft-block movably mounted thereon, a draft-stud on said draft-block adapted to coöperate with the eye of the coupling-bar, a spring acting upon the draft-block to return it normally to operative position, a locking dog movably mounted and adapted to lock said draft-block positively in operative position, an operating arm or extension upon said locking dog, a trip-cord connected with said arm and extending thence to a distance, and a spring acting upon the locking dog to return the latter to normal locking position.

3. In combination with a vehicle, a support secured to the vehicle, a guide frame on said support and adapted for vertical and lateral oscillation thereon, a draft link supported in said guide frame, interlocking mechanism for locking said frame to said support to prevent lateral oscillation of said frame, said interlock being broken upon vertical oscillation of said frame, whereby said frame may then be oscillated laterally.

4. In combination with a vehicle, a draft frame pivoted to the front axle of said vehicle, a supporting plate secured to the free end of said draft frame, a block pivoted to said plate and adapted to oscillate vertically and laterally with reference to said plate, a draft bar supported by and extending from said block, interlocking mechanism for locking said block to said plate and against lateral oscillation when said draft bar and draft frame are substantially parallel, said interlock being broken when said draft bar and draft frame are swung relatively vertically whereby said block and supported draft bar may then be swung laterally.

5. In combination with a vehicle, a draft frame pivoted to the vehicle front axle and extending forwardly therefrom, a supporting plate secured to the free end of said draft frame, a block pivoted at its outer end to said plate to swing vertically or laterally with reference to the plate, a draft bar supported by and extending from said block, tongue and groove interlocking mechanism at the rear ends of said plate and block for locking said block to the plate against lateral swing when said block is oscillated vertically against the plate, said interlock being broken when said block is swung vertically to disconnect its rear end from said plate whereby said block and draft bar are then free to be swung laterally.

1,073,651. AUTOMATIC HITCHING MECHANISM. SAMUEL M. WIXCEL, Marcus, Iowa. Original application filed Oct. 1, 1906, Serial No. 337,001. Divided and this application filed Dec. 12, 1912. Serial No. 736,264. (Cl. 21—75.)



1. In combination with a wagon and a trailer frame, a hitch mechanism comprising a draft link mounted on one of said structure to shift endwise and guided and confined against substantial lateral movement within its mountings, a pair of coöperative latch members mounted upon the other structure, one of which in its semi-latched condition is free to oscillate laterally, and means operating automatically to lock said link and latch members against substantial lateral pivotal movement upon each other when they have been once drawn into alinement with each other.

2. In combination with a wagon and trailer frame, a hitch mechanism comprising a draft link mounted on one of said structures to shift endwise between definite limits and guided and confined against substantial lateral movement within its mountings, a socketed latch member and a coöperative keeper latch member mounted upon the other structure, said socketed latch member being in its semi-latched condition free to oscillate laterally upon its mountings, and a dogging mechanism operating automatically to lock said link and socket and keeper latch members together against substantial lateral pivotal movement upon each other when they have been once drawn into alinement.

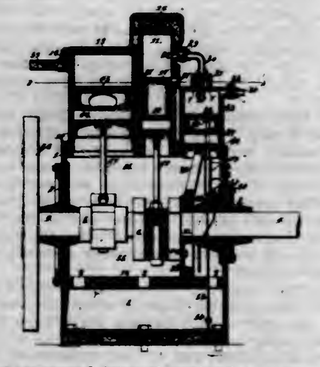
3. In combination with a wagon and a trailer frame, a hitch mechanism comprising a guide socket and a draft link extending through said socket and shiftable endwise therein, one end of said draft link being provided with a T-head, a latch member provided with a transverse open socket adapted to receive said T-head, a keeper latch pivotally mounted to overlie the T-head and confine it within the socket, and a dogging member upon which the latch members are movably mounted, said dogging member and one of the latch members having interfitting parts adapted to be brought into engagement when the hitch mechanism is drawn into normal alinement.

4. In combination with a wagon and a trailer frame, a supplemental reach pivotally connected with the running gear of the wagon near the front bolster thereof and extending backwardly to a point in rear of the rear axle of the wagon, a tongue frame mounted upon the trailer frame and provided with a socket, a draft link mounted to shift endwise within said socket and headed at each end, a socketed latch member pivotally mounted upon the rear end of the supplemental reach and adapted to receive one of the headed ends of the draft link, a keeper latch member pivotally mounted upon the socketed latch member adapted to confine the head of the draft link in engagement with the socketed latch member, and a stationary dogging device mounted upon the supplemental reach and adapted to lock said latching mechanism and draft link against lateral flexure when under draft.

5. A hitching mechanism comprising in combination with a leading vehicle and a trailer vehicle, a draft link mounted on one of said vehicles in a guide affording limited endwise movement thereof, a coöperative latch mechanism mounted on the other vehicle, and means operating automatically to lock said link and latch mechanism in rigid alinement with each other.

[Claims 6 to 9 not printed in the Gazette.]

1,073,652. INTERNAL-COMBUSTION ENGINE. WILLIAM JAMES WRIGHT, Franklin, Pa., assignor to Wright Engine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Mar. 5, 1912. Serial No. 681,789. (Cl. 123—36.)



1. In a compound internal combustion engine, a high pressure section and a low pressure section, said low pressure section including a cylinder and a piston, said high pressure section including a plurality of cylinders and pistons, a crank shaft, a connecting rod between said crank shaft and said low pressure piston, a differential connecting rod between said shaft and said high pressure pistons, piston controlled ducts between one of said high pressure cylinders and said low pressure cylinder, a common compression and ignition chamber for all of said high pressure cylinders, means for charging said high pressure cylinders with working agent, and means permitting the exhausting of said low pressure cylinder.

2. In a compound internal combustion engine, a high pressure section and a low pressure section, said low pressure section including a cylinder and a piston, said high pressure section including a plurality of cylinders and pistons, a crank shaft, a connecting rod between said crank shaft and said low pressure piston, a differential connecting rod between said shaft and said high pressure pistons, piston controlled ducts between one of said high pressure cylinders and said low pressure cylinder, a common compression and ignition chamber for all of said high pressure cylinders, means for charging said high pressure cylinders with working agent, and means for permitting the exhausting of said low pressure cylinder, and means for admitting a scavenging agent into said cylinders.

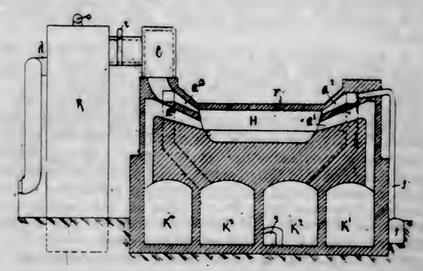
3. In an internal combustion engine, a low pressure cylinder and its piston, a high pressure cylinder and its piston, a crank shaft and connections between said crank shaft and said pistons, intercommunicating ducts between said cylinders controlled by both pistons, ducts in said high pressure cylinder controlled by said high pressure piston independent of the working chamber of said high pressure cylinder, certain of said intercommunicating ducts coöperating with said high pressure cylinder ducts to form an exhaust passage from said low pressure cylinder to atmosphere, and means for supplying working agent to the working chamber of said high pressure cylinder.

4. In an internal combustion engine, a low pressure cylinder and its piston, a high pressure cylinder and its piston, a crank shaft and connections between said crank shaft and said pistons, intercommunicating ducts between said cylinders controlled by both pistons, ducts in said high pressure cylinder controlled by said high pressure piston independent of the working chamber of said high pressure cylinder, certain of said intercommunicating ducts coöperating with said high pressure cylinder ducts to form an exhaust passage from said low pressure cylinder to atmosphere, means for admitting a scavenging agent into said high pressure cylinder, and means for admitting working agent into said high pressure cylinder.

5. In an internal combustion engine, a pair of high pressure cylinders, a high pressure piston for each cylinder, a common compression and ignition chamber for said cylinders, a crank shaft, means causing one of said pistons to pass its "dead center" in advance of the passage of the other piston past its "dead center" when the new charge has been compressed, a low pressure cylinder, and a low pressure piston operating in the same, a connection between the low pressure piston and the crank shaft, port connections between said low pressure cylinder and one of said high pressure cylinders, an air inlet port for said high pressure cylinders controlled by the piston of that cylinder having the air inlet port, said air inlet port adapted to open while said low pressure cylinder is in communication with the adjacent high pressure cylinder and said low pressure piston is still moving on its out stroke to cause air to be drawn into said high pressure cylinders and scavenge the same, and means for subsequently injecting a charge of gas into said high pressure cylinders to mix with the scavenging air and form the working charge.

[Claims 6 to 19 not printed in the Gazette.]

1,073,653. SIEMENS-MARTIN FURNACE. KURT ALBERT, Wiesbaden, Germany. Filed Dec. 16, 1912. Serial No. 737,110. (Cl. 75—94.)



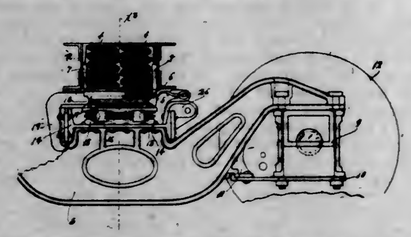
1. In an improved Siemens-Martin furnace for working up masses containing iron or ferric oxid and volatile metals, the combination with a hearth chamber, air cham-

bers and gas chambers, flues connecting the air chambers and the gas chambers with the hearth chamber; of additional independent flues leading from the hearth chamber, means for guiding the gases of combustion through said additional flues during the volatilization period of the volatile metals and a recuperator for receiving the discharged gases.

2. In an improved Siemens-Martin furnace for working up masses containing iron or ferric oxid and volatile metals, the combination with a hearth chamber, air chambers and gas chambers, flues connecting the air chambers and the gas chambers with the hearth chamber; of an easily accessible recuperator, a flue for the waste gases, an air flue connecting said recuperator with the hearth chamber, and means for guiding the gases of combustion containing the volatile metals through said recuperator.

3. In an improved Siemens-Martin furnace for working up masses containing iron or ferric oxid and volatile metals, the combination with a hearth chamber, air chambers and gas chambers, flues connecting the air chambers and the gas chambers with the hearth chamber; of additional independent chambers, flues connecting said additional chambers with the hearth chamber, and means for guiding the gases of combustion through said additional chambers during the volatilization period of the volatile metals.

1,073,654. CAR-TRUCK. JOHN C. BARBER, Chicago, Ill., assignor to Standard Car Truck Company, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 12, 1913. Serial No. 760,611. (Cl. 105—243.)



1. The combination with truck side frames and a transom rigidly connecting the same, of a body bolster, truck springs seated in the ends of said body bolster vertically over said side frames, and combined radial and lateral motion roller bearing devices vertically interposed between said springs and said side frames.

2. The combination with truck side frames of the drop girder type, and transoms rigidly secured to and seated directly on top of the intermediate portions of said side frames, of a body bolster intermediately pivoted to said transom for limited sliding movements longitudinally thereof, truck springs seated in said body bolster directly over said side frames, and combined radial and lateral motion bearing devices seated on the ends of said transoms and vertically interposed between said springs and side frames.

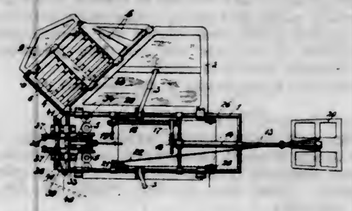
3. The combination with truck side frames of the cast drop girder type, the same having at their intermediate portions raised and laterally expanded bearing webs, of an angle iron transom seated on and rigidly secured to the raised webs of said side frames, a body bolster intermediately pivoted to said transoms for limited sliding movements longitudinally thereof, truck springs seated in the ends of said body bolster directly over the expanded webs of said side frames, and combined radial and lateral motion roller bearing devices seated on the ends of said transoms and vertically interposed between said springs and the expanded webs of said side frames.

4. The combination with truck side frames, and a transom rigidly connecting the same, of a pivot bracket mounted for limited sliding movements on the central portion of said transom, a body bolster having a hub pivoted in said sliding pivot bracket and capable of vertical movements therein, and combined radial and lateral motion bearing devices and truck springs vertically interposed between the ends of said body bolster and the intermediate portions of said truck side frames.

5. The combination with truck side frames, and a transom rigidly connecting the same, of a pivot bracket mounted for limited sliding movements on the central portion of said transoms, a body bolster having a hub pivoted in said sliding pivot bracket and capable of vertical movements therein, combined radial and lateral motion bearing devices and truck springs vertically interposed between the ends of said body bolster and the intermediate portions of said truck side frames, and a connection preventing accidental separation of the said pivot hub from the said pivot bracket.

[Claim 6 not printed in the Gazette.]

1,073,655. FLYING-MACHINE. JOSEF BÁRCZ, (now by judicial change of name JOSEF BÉRCZ,) Cologne-Ehrenfeld, Germany. Filed Dec. 16, 1911. Serial No. 666,162. (Cl. 244—17.)



1. A flying machine, comprising a frame, adjustably disposed gliding wings, flapping wings, attached to the latter movable flaps in the frame of said flapping wings and automatically turn-over surfaces at the outer side of the frame of said flapping wings said flaps of the flapping wings being closed at three sides, substantially as set forth.

2. A flying machine, comprising a frame, adjustably disposed gliding wings, flapping wings attached to the latter movable flaps in the frame of said flapping wings and automatically turn-over surfaces at the outer side of the frame of said flapping wings said articulated surfaces being turned over by means of a two-armed lever fast on the axis of said surfaces and having the ends pivotally connected with crossed rods the other ends of which rods are held in stationary positions, substantially as set forth.

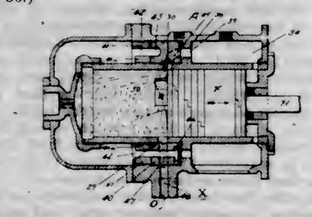
3. A flying machine, comprising a frame, adjustably disposed gliding wings, flapping wings, attached to the latter, the shaft of said flapping wings being journaled on said gliding wings and arranged at an acute angle with the longitudinal axis of said flying frame, movable flaps in the frame of said flapping wings and automatically turn-over surfaces at the outer side of the frame of said flapping wings, said flaps of the flapping wings being closed at three sides, substantially as set forth.

4. A flying machine, comprising a frame, adjustably disposed gliding wings, flapping wings, attached to the latter, the shaft of said flapping wings being journaled on said gliding wings and arranged at an acute angle with the longitudinal axis of said flying frame, movable flaps in the frame of said flapping wings and automatically turn-over surfaces at the outer side of the frame of said flapping wings, said flaps of the flapping wings being closed at three sides, a motor arranged in said frame, a crank operated by said motor, and a universal joint for connecting said crank to said shaft of said flapping wings, substantially as set forth.

5. A flying machine, comprising a frame, adjustably disposed gliding wings, flapping wings, attached to the latter, the shaft of said flapping wings being journaled on said gliding wings and arranged at an acute angle with the longitudinal axis of said flying frame, movable flaps in the frame of said flapping wings and automatically turn-over surfaces at the outer side of the frame of said flapping wings, said flaps of the flapping wings being closed at three sides and a steering shaft turnable in said frame, a rudder connected with said steering shaft and turnable on its transverse middle axis, and a lever connection for turning said rudder on its transverse middle axis, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,073,656. ENGINE OR MOTOR. JOHN P. BARKER, Orange, Cal., assignor, by mesne assignments, to Orange Auto Power Company, a Corporation of California. Filed Nov. 6, 1911. Serial No. 658,829. (Cl. 123—56.)



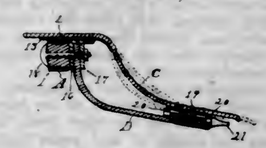
1. A motor including a cylinder, a piston mounted within the cylinder, an initial charge receiving chamber surrounding the base of the cylinder and communicating with the interior thereof at the back of the piston so that a fresh charge will be drawn into the cylinder upon the compression stroke of the piston, laterally disposed inlet and exhaust ports being provided in the cylinder which are uncovered by the piston upon the outstroke thereof, a water jacket surrounding the explosion end of the cylinder, and an annular plug between the charge receiving chamber and the water jacket, said annular plug being provided with a passage leading from the charge receiving chamber to the inlet port and also with an exhaust passage communicating with the exhaust port of the cylinder.

2. A motor including a cylinder, a piston mounted within the cylinder, an initial charge receiving chamber surrounding the base of the cylinder and communicating with the interior thereof at the back of the piston so that a fresh charge will be drawn into the cylinder upon the compression stroke of the piston, laterally disposed inlet and exhaust ports being provided in the sides of the cylinder, a water jacket surrounding the explosion end of the cylinder, an annular plug between the charge receiving chamber and the water jacket, said plug being formed with a passage leading from the charge receiving chamber to the inlet port of the cylinder and also with an exhaust passage communicating with the exhaust port of the cylinder, the said exhaust passage being surrounded by a pocket which is in communication with the water jacket.

3. A motor including a cylinder, a piston mounted within the cylinder, an initial charge receiving chamber surrounding the base of the cylinder and communicating with the interior thereof at the back of the piston so that a fresh charge will be drawn into the cylinder upon the compression stroke of the piston, the cylinder being provided at opposite sides thereof with laterally disposed inlet and exhaust ports, a water jacket surrounding the explosion end of the cylinder, an annular plug interposed between the charge receiving chamber and the water jacket, said annular plug being provided with a pair of semi-annular passages which communicate with the water jacket and being formed adjacent one of the semi-annular passages with an inlet passage leading from the initial charge receiving chamber to the inlet port and being also formed with an exhaust passage which communicates with the exhaust port of the cylinder and is adapted to be surrounded by water within the other semi-annular passage.

4. A motor including a cylinder, a piston mounted within the cylinder, a casing surrounding the base of the cylinder and providing an initial charge receiving chamber which communicates with the interior of the cylinder at the back of the piston so that a fresh charge will be drawn into the cylinder upon the compression stroke of the piston, laterally disposed inlet and exhaust ports being provided in opposite sides of the cylinder, a water jacket surrounding the explosion end of the cylinder, an annular plug fitted between the before mentioned casing and the cylinder and interposed between the charge receiving chamber and the water jacket, and retaining rings threaded upon the casing and cylinder for holding the plug in position, the said plug being formed with a passage leading from the charge receiving chamber to the inlet port of the cylinder and also with an exhaust passage which communicates with the exhaust port of the cylinder.

1,073,657. DRAFT-COLLAR FOR HORSES. HARRY S. BAUGHMAN, Albion, Mich. Filed Mar. 11, 1910. Serial No. 548,576. (Cl. 54—18.)



1. A horse collar comprising hames, neck plates secured thereto, shoulder members attached to said plates and extending rearwardly therefrom, rigid supporting arms for said shoulder members carried by said hames and projecting rearwardly at the sides of said shoulder members, rigid adjustable connections for the outer ends of said shoulder members to their said supporting arms, and trace connections on said hames independent of said shoulder members and their said supporting arms.

2. In a horse collar, the combination of the hames, plates rigidly mounted on said hames, shoulder members arranged on and extending rearwardly from said plates, rigid supports for said shoulder members mounted on said hames and extending rearwardly therefrom at the sides of said shoulder members, and rigid adjustable connections for said shoulder members to said supports whereby said shoulder members may be conformed between said connections and said plates.

3. A horse collar comprising hames, shoulder members extending rearwardly therefrom, rigid shoulder member supporting arms carried by said hames and projecting rearwardly therefrom at the sides of the shoulder members, and a rigid adjustable connection for the outer ends of said shoulder members to their said supports whereby said shoulder members may be adjusted independently of the traces.

4. A horse collar comprising hames having neck plates thereon, shoulder members attached to the respective plates, rigid shoulder member supports connecting the hames and shoulder pad members, and adjustable rigid connections for the rear extremities of the shoulder pad members and their said supports at each side.

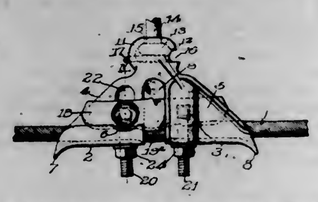
5. A horse collar comprising hames having neck plates thereon, shoulder members attached to said neck plates, rigid shoulder member supports connecting the hames and shoulder members, and an adjustable rigid connection between the shoulder members and their said supports.

[Claims 6 to 10 not printed in the Gazette.]

1,073,658. SUSPENSION-CLAMP. GLENN H. BOLUS, Mansfield, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio., a Corporation of New Jersey. Filed Aug. 20, 1910. Serial No. 578,221. (Cl. 248—31.)

1. In a suspension clamp, the combination with a pair of hooks opening in opposite directions with a space therebetween to permit the introduction of a conductor, of

means for movably suspending said hooks to adapt them to be rotated into position supporting said conductor, said hooks being rigidly connected together in a manner to adapt each to form a mousing for the other, and means adapted to clamp the conductor to said hooks.



2. In a suspension clamp, the combination with a pair of integrally connected hooks disposed with their bills in opposite directions to adapt each to form a mousing for the other and having a slot separating the hooks, of means slidably engaging said hooks for clamping a conductor thereto, and means for swingingly suspending said hooks whereby they are adapted to be rotated into supporting engagement with the conductor.

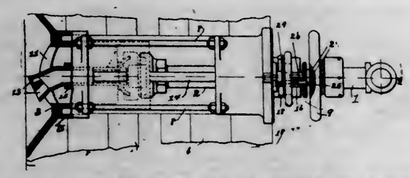
3. In a suspension clamp, the combination with two integrally formed books, the shank of one hook being in alinement with the bill of the other hook, of a clamp slidable along the shanks of said hooks upon the conductor and adapted to clamp a conductor therein.

4. In a suspension clamp, the combination with a conductor, of a pair of rigidly united hooks having their shanks disposed on opposite sides of the conductor with the bill of each hook on the same side as the shank of the other hook and with a slot between the hooks separating the shanks to a point above the end of the hooks, of a clamp interposed between and slidably engaging said shanks, and means for moving said clamp into and out of clamping engagement with the conductor, said means being adapted to retain the clamp against displacement at all times.

5. The combination with a conductor, of a suspension clamp therefor, comprising a pair of integrally formed hooks with shanks on opposite sides of the conductor to adapt each to form a mousing for the other, each of said books being provided between the shank and bill thereof with a saddle for the conductor, a clamp block movable up and down and slidable between the shanks of said hooks into and out of clamping engagement with the conductor, and means for pivotally suspending the clamp to swing about an axis transverse to said conductor, and means to force the clamp block against a conductor.

[Claims 6 to 9 not printed in the Gazette.]

1,073,659. BOILER-FLUE CLEANER. WILLIAM J. BRADLEY, Troy, N. Y., assignor to Monarch Steam Blower Company, Troy, N. Y., a Corporation. Filed Jan. 6, 1912. Serial No. 669,738. (Cl. 137—97.)



1. In a boiler-flue cleaner, and in combination, a movably mounted nozzle provided with an outlet; means for moving the outlet-end of said nozzle through a circular path about an axis at one side of said outlet; means for shifting the outlet-end of the nozzle laterally with respect to said axis; automatically intermittently operating connections between said nozzle-shifting mechanism and the means for moving the nozzle in a circular path whereby said nozzle is automatically shifted; and means for supplying fluid under pressure to said nozzle.

2. In a boiler-flue cleaner, and in combination, a rotatory nozzle-support; a nozzle mounted upon said support to rotate therewith, and laterally shiftable thereupon; a laterally movable nozzle-shifting member; a hand-wheel for rotating said support; a member intermittently automatically operated by the rotation of said hand-wheel; connections between said intermittently operated member and said nozzle-shifting member; and means for supplying fluid under pressure to said nozzle.

3. In a boiler-flue cleaner, and in combination, a rotatory nozzle-support; a nozzle mounted upon said support to rotate therewith, and laterally shiftable thereupon; a laterally movable nozzle-shifting member; a rock-shaft mounted in bearings upon said nozzle-support; a nozzle-shifting arm on said rock-shaft; a hand-wheel for rotating said support; a fixed support; a pin mounted upon the fixed support; a wheel rotatively mounted upon said nozzle-support eccentrically thereto, and adapted at each rotation thereof to engage and be intermittently operated by said pin; a pinion in fixed relation to said intermittently operated wheel; a gear-segment fixed upon said rock-shaft in engagement with said pinion; and means for supplying fluid under pressure to said nozzle.

4. In a boiler-flue cleaner, and in combination, a rotatory nozzle-support; a nozzle mounted upon said support to rotate therewith, and laterally shiftable thereupon; a laterally movable nozzle-shifting member; a hand-wheel for rotating said support; a member intermittently operated by the rotation of said hand-wheel; connections between said intermittently operated member and said nozzle-shifting member; automatically operating means for locking in fixed relation to one another said nozzle-support and said intermittently operated member between the intermittent movements thereof; automatic means for releasing said locking means during the intermittent movement of said member; and means for supplying fluid under pressure to said nozzle.

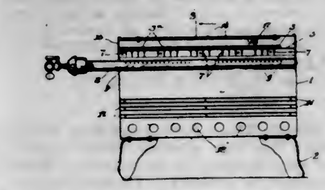
5. In a boiler-flue cleaner, and in combination, a rotatory nozzle-support; a nozzle mounted upon said support to rotate therewith, and laterally shiftable thereupon; a laterally movable nozzle-shifting member; a rock-shaft mounted in bearings upon said nozzle-support; a nozzle-shifting arm on said rock-shaft; a hand-wheel for rotating said support, provided with a plurality of bolt-receiving openings; a fixed support; a pin mounted upon the fixed support; a wheel rotatively mounted upon said nozzle-support eccentrically thereto, and adapted at each rotation thereof to engage and be intermittently operated by said pin; a pinion in fixed relation to said intermittently operated wheel; a gear-segment fixed upon said rock-shaft in engagement with said pinion; a spring-bolt mounted upon said gear-segment adapted to engage the several openings in said hand-wheel; a cam-follower connected with said spring-bolt; and a cam-disk in fixed relation to said intermittently operated wheel engageable with said cam-follower to withdraw said spring-bolt preliminary to the intermittent operation of the nozzle-shifting mechanism.

[Claim 6 not printed in the Gazette.]

1,073,660. TOASTER AND BROILER. JOHN M. BROCK, Flushing, N. Y., assignor to William M. Crane Company, a Corporation of New York. Filed Nov. 5, 1909. Serial No. 526,334. (Cl. 126—41.)

1. A gas stove including in combination, a casing having vents in the top portion thereof, a burner located within said casing and having its perforations upwardly directed, a heat-radiating member located between said burner and the top of said casing, said heat-radiating member being perforated and having an irregular under surface, and means arranged beneath said burner for supporting the food to be cooked, said casing being provided with air inlets beneath said supporting means and with vents formed therein between said heat-radiating member and the top of the casing.

2. A gas stove including in combination, a casing having vents in the top thereof, a plurality of burners arranged within said casing and extending longitudinally thereof, each of said burners having a series of upwardly directed perforations extending along opposite sides of its upper portion, a heat-radiating member located above said burners and beneath the top of said casing, said heat-radiating member being perforated and having downwardly extending projections, and means arranged beneath said burners and within said casing to support the food to be cooked, said casing being provided with air inlets beneath said supporting means and with ventilating openings in the end wall between said radiating member and the top of said casing.



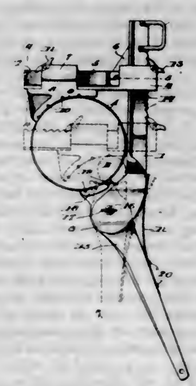
3. A gas stove including in combination, a casing having ventilating openings in the top thereof, a pair of substantially parallel burners located within said casing and extending longitudinally thereof, each of said burners having a series of upwardly directed perforations extending along opposite sides of its upper portion the central inner side of each such burner being devoid of said perforations, a heat-radiating member consisting of a plurality of rectangularly shaped parts arranged above said burners and beneath the top of and removably secured to said casing, said parts being perforated and provided with downwardly extending projections, means arranged beneath said burners for supporting the food to be cooked, and said casing being provided with air inlets beneath said supporting means and with ventilating openings in the end wall between said radiating member and the top of said casing.

4. A gas stove including in combination, a casing having vents in the top thereof, a plurality of burners arranged within said casing and extending longitudinally thereof, each of said burners having a series of upwardly directed perforations extending along opposite sides of its upper portion, a heat-radiating member located above said burners and beneath the top of said casing, said heat-radiating member being perforated and having downwardly extending projections, and means arranged beneath said burners and within said casing to support the food to be cooked, said casing being provided with air inlets beneath said supporting means and with ventilating openings formed therein between said heat-radiating member and the top of the casing.

5. A gas stove including in combination, a casing having ventilating openings in the top thereof, a pair of substantially parallel burners located within said casing and extending longitudinally thereof, each of said burners having a series of upwardly directed perforations extending along opposite sides of its upper portion the central inner side of each such burner being devoid of said perforations, a heat-radiating member consisting of a plurality of rectangularly shaped parts arranged above said burners and beneath the top of and removably secured to said casing, said parts being perforated and provided with downwardly extending projections, means arranged beneath said burners for supporting the food to be cooked, and said casing being provided with air inlets beneath said supporting means and with ventilating openings formed therein between said heat-radiating member and the top of the casing.

1,073,661. ADJUSTABLE CASING-TONGS. WILLIAM S. BRUMMETT, Coalinga, Cal. Filed Nov. 19, 1912. Serial No. 732,306. (Cl. 81—100.)

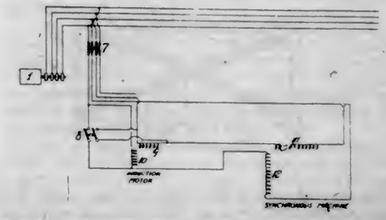
1. A casing tongs including a stock provided at one end thereof with a head, a slide mounted upon the stock and formed with a lateral arm which projects at substantially right angles to the stock, means for locking the slide in an adjusted position upon the stock, a runner slidably mounted upon the lateral arm and movable toward and away from the stock, means for locking the runner in an adjusted position, a shoe carried by the runner, and a lever pivotally mounted upon the head of the stock and provided at its inner end with a jaw adapted to coöperate with the before mentioned shoe of the runner to engage a casing.



2. A casing tongs including a stock provided at one end thereof with a laterally inclined head, a lever pivotally mounted upon the head and provided at the inner end thereof with a jaw, a spring acting upon the lever and normally tending to move the same to swing the jaw toward the stock, an adjustable slide mounted upon the stock and formed with a lateral arm, a runner adjustably mounted upon the lateral arm, and a shoe carried by the runner and adapted to coöperate with the before mentioned jaw of the lever to engage a casing.

3. A casing tongs including a stock provided at one end thereof with a laterally projecting head and having the rear edge thereof formed with teeth, a slide mounted upon the stock and formed with a laterally extending arm, the rear edge of the arm being provided with teeth, a pawl mounted upon the slide and engaging the teeth of the stock to hold the slide in an adjusted position, a runner slidably mounted upon the lateral arm, a pawl upon the runner for engaging the teeth of the lateral arm to hold the runner in an adjusted position, a shoe carried by the runner, and a member pivotally mounted upon the head of the stock and provided with a jaw adapted to coöperate with the before mentioned shoe to engage a casing.

1,073,662. MEANS FOR CONTROLLING SYNCHRONOUS MACHINES. JAMES BURKE, Erie, Pa., assignor to Burke Electric Company, a Corporation of Pennsylvania. Filed Sept. 20, 1907. Serial No. 393,785. (Cl. 172—278.)



1. The combination with a source of polyphase current, of a polyphase synchronous machine, a starting polyphase

motor, means for mechanically connecting the movable element of said motor to the movable element of said machine to drive the same at a predetermined angular speed ratio, the number of poles of said motor being less than the number of poles of said machine divided by the said speed ratio, and means for connecting the polyphase windings of said machine respectively in series with the corresponding polyphase windings of said motor between the terminals of said source.

2. The combination of a polyphase synchronous machine, a polyphase induction motor, means for mechanically connecting the movable element of said motor to the movable element of said machine to drive the latter at a certain angular speed ratio, the number of poles of said induction motor being less than the number of poles of said synchronous machine divided by the angular speed ratio, and means including a source of polyphase alternating current for energizing the polyphase windings of said machine respectively in series with the corresponding polyphase windings of said induction motor.

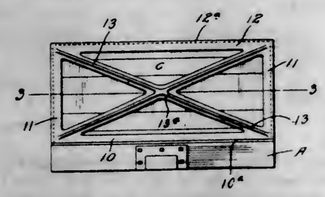
3. The combination, of a polyphase synchronous machine connected thereto, a self-starting polyphase motor having its movable element mechanically connected to the movable element of said machine to drive the latter at the same speed, and means for energizing the polyphase windings of said machine respectively in series with the corresponding polyphase windings of said motor between the terminals of said source, the sets of poles of said motor being less than the sets of poles of said machine but greater than one half of the same, whereby said motor at or near its maximum speed causes said synchronous machine to be driven at a speed at which the counter-electromotive force of the synchronous machine becomes effective against the line voltage and the machine is automatically brought into synchronism.

4. The combination of a source of alternating current, an alternating synchronous machine, an induction motor, means for mechanically driving the movable element of said machine by the movable element of said motor at a predetermined angular speed ratio, the number of poles of said motor being less than the number of poles of said synchronous machine divided by the predetermined angular speed ratio, means including a switch for connecting the winding of said motor in series with the winding of said machine between the terminals of said source, and a second switch for deënergizing the winding of said motor.

5. The combination of an alternating current synchronous machine and means for driving said synchronous machine up to synchronous speed and for automatically energizing the same at substantially full line voltage, said means comprising an asynchronous alternating motor and means for connecting the winding of said synchronous machine in series with the winding of said motor.

[Claim 6 not printed in the Gazette.]

1,073,663. CAR END FRAME. WALTER R. CAVNER, Venice, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 7, 1913. Serial No. 759,500. (Cl. 105—15.)



1. A car end reinforcing member having a pair of diagonally disposed intersecting reinforcing ribs which extend from the upper corners of the car to the lower corners thereof.

2. A car end reinforcing member comprising a rectangular frame adapted to engage the marginal edges of the car end wall, and a pair of diagonally disposed integral members extending between the corners of said frame.

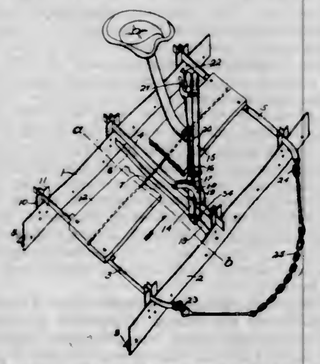
3. A reinforcing end frame for cars, comprising a base rail, a pair of upright members, a top rail, and a pair of diagonally disposed intersecting rails, all of which parts are formed integral.

4. A reinforcing member for car ends, comprising a rectangular frame, diagonally disposed intersecting rails integral with said frame, and strengthening ribs integral with said diagonally disposed rails.

5. A reinforcing end frame for cars, comprising a flanged base member, a pair of flanged upright members, a flanged top member, and a pair of flanged diagonally disposed intersecting members extending between the corners of said frame.

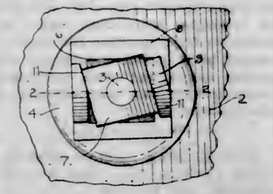
[Claims 6 to 8 not printed in the Gazette.]

1,073,664. ROAD-DRAG. JOHN H. CHERRY and LOUIS R. MELENDY, Waterloo, Iowa, assignors to The Kelly Manufacturing Company, Waterloo, Iowa. Filed Jan. 23, 1912. Serial No. 672,838. (Cl. 37—5.)



A road drag, comprising front and rear blades, spaced apart, transverse bars pivotally connected to said blades, abutting oppositely-located hand levers fulcrumed on one of said bars and closely adjacent to each other for either independent or simultaneous operation, a link pivotally connected between the lower end of one hand lever and a part of the front blade below the pivotal connection of said transverse bars to said blade, a link pivotally connected to the lower end of the other hand lever and to a part of the rear blade below the pivotal connection of the said transverse bars to said blade, and means for detachably securing independently either hand lever in an adjusted position.

1,073,665. NUT-LOCK. WILLIAM J. CLEARY, WILLIAM B. CLEARY, and JOHN C. CLEARY, Jeffersontown, Ky., assignors of one-fourth to William R. B. Hall, Mount Washington, Ky. Filed Jan. 8, 1913. Serial No. 740,876. (Cl. 151—56.)



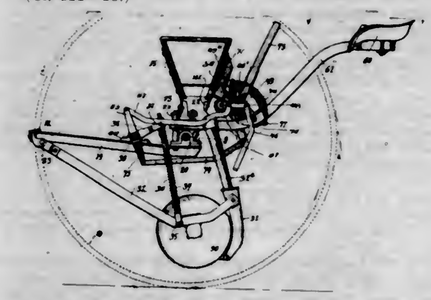
1. In a nut lock, the combination with a nut and bolt; of a washer applied to the bolt below the nut, said washer being provided with a central boss of the same design as said nut, a frame applied over said nut and boss to encircle the latter, and said frame provided with means integral therewith adapted to be distorted into engagement with the faces of said nut to secure the latter against rotation on the bolt.

2. In a nut lock, the combination with a nut and bolt; of a washer applied to the bolt below the nut, said washer being provided with a central boss of the same design as said nut, a frame applied over said nut and boss to encircle the latter, and flexible projections formed on said frame adapted to be distorted into engagement with the opposed faces of said nut to prevent the rotation of the latter on the bolt.

3. In a nut lock, the combination with a nut and bolt; of a washer applied to the bolt below the nut, said washer being provided with a central boss of the same design as said nut, a frame applied over said nut and boss to encircle the latter, and projections formed on the outer edges of said frame, said projections having portions thereof so designed as to permit said nut to be partially rotated counter-clockwise after the frame has been applied, the remaining portions of said projections being adapted for distortion against the opposite faces of said nut to secure the same against turning on the belt.

4. In a nut lock, the combination with a nut and bolt; of a washer applied to the bolt below the nut, said washer being provided with a central boss of the same design as said nut, a frame applied over said nut and boss to encircle the latter, and a pair of flange-like projections formed on the upper edges of a pair of opposed walls of said frame, portions of the inner faces of said flanges being oppositely beveled to permit the nut to be turned counter-clockwise on the bolt whereby the corners of said nut may be disposed over the upper faces of said frame to prevent the removal of the latter, the remaining portions of said projections being adapted for distortion against the faces of said nut to secure the latter against turning on the bolt.

1,073,666. SEEDING-MACHINE. FRANK E. DAVIS, La Crosse, Wis. Filed Jan. 5, 1907. Serial No. 350,882. (Cl. 111—18.)



1. In a seeding-machine, the combination of carrying-wheels, a frame, seed-delivery means, soil-openers, a rock-shaft, a yielding connection between each of the openers and said shaft, a pressure-lever connected to said shaft, a foot-lever also connected to said rock-shaft, and for operating it to shift the openers, a lock for said pressure-lever, a cross shaft for operating the locking means, operable by the foot lever and lock-releasing means operated by the latter shaft to release the lock.

2. In a seeding-machine, the combination of carrying-wheels, a frame, seed-delivery means, soil-openers, a rock-shaft to which the openers are connected, a foot-lever, a connection between said shaft and the foot-lever and operable by the lever to shift the shaft, means for locking the shaft to hold the openers at different depths in the soil, a cross shaft for operating the locking means, operable by the foot lever and lock-releasing-means operated by the latter shaft to release the lock.

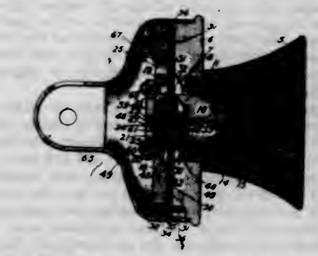
3. In a seeding-machine, the combination of carrying-wheels, a frame, seed-delivery means, soil-openers, a rock shaft to which the openers are connected, a pressure-lever operable by hand and connected to the rock-shaft, a foot-lever operatively connected to the shaft to operate the openers, means for locking the pressure-lever in different positions to hold the openers at different depths in the soil, a cross shaft operable by the foot lever and lock-controlling-means operated by the latter shaft to release the lock.

4. In a seeding-machine, the combination of carrying-wheels, a frame, seed-delivery-means, soil-openers, a rock-shaft, a yielding connection between each of the openers and said shaft, a pressure-lever operable by hand and connected to the rock-shaft, a foot-lever operatively connected to the shaft to operate the openers, a cross-shaft operable by the foot lever, means for locking the pressure-lever in different positions to hold the openers at different depths in the soil, and lock-controlling-means operated by the foot-lever to release the lock.

5. In a seeding-machine, the combination of carrying-wheels, seed-delivery-means, soil-openers, drag bars pivotally connected to the frame at their front ends and to which the soil openers are respectively connected, a rock-shaft to which the openers are connected, a foot-lever, and a lifting-connection between the shaft and the foot-lever operable by the foot-lever to raise the openers and comprising a linkage whereby the weight of the openers will be applied to cause the linkage to hold the connection in position to hold the openers in raised position.

[Claims 6 to 38 not printed in the Gazette.]

1,073,667. TELEPHONE-TRANSMITTER. HENRY C. EGERTON, Passaic, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 5, 1912, Serial No. 724,056. Renewed May 24, 1913. Serial No. 769,765. (Cl. 179—135.)



1. In a telephone transmitter, a diaphragm, frame plates between which said diaphragm is supported, a granule containing cup carried by each of said frame plates, electrodes supported by said diaphragm in said cups, and means carried by said diaphragm for sealing said cups.

2. In a telephone transmitter, a diaphragm, frame plates between which said diaphragm is supported, a granule containing cup formed integrally with each of said frame plates, electrodes supported by said diaphragm in said cups and means carried by said diaphragm for sealing said cups.

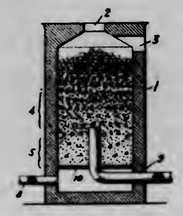
3. In a telephone transmitter, a diaphragm, frame plates between which said diaphragm is supported, a granule containing cup carried by each of said plates, electrodes mounted upon opposite sides of said diaphragm and located in said cups, and resilient insulating washers mounted upon opposite sides of said diaphragm against which the adjacent ends of said cups bear.

4. In a telephone transmitter, a diaphragm, frame plates between which said diaphragm is supported, a granule containing cup formed integrally with each of said plates, electrodes mounted upon opposite sides of said diaphragm and hard felt washers secured to the opposite faces of said diaphragm against which the adjacent ends of said cups bear.

5. In a telephone transmitter, a diaphragm, frame plates between which said diaphragm is supported, movable electrodes mounted upon opposite sides of said diaphragm, granule containing chambers formed integrally with said frame plates and inclosing said movable electrodes, and a fixed electrode removably secured in one of said granule containing cups.

[Claims 6 to 9 not printed in the Gazette.]

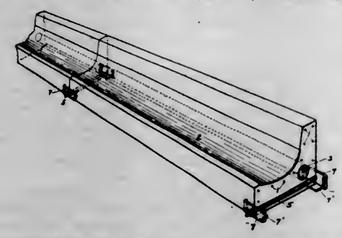
1,073,668. PROCESS OF BURNING SOLID FUEL. OWEN BROOKE EVANS, Lansdowne, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 26, 1912. Serial No. 686,294. (Cl. 110—31.)



1. In the forced combustion of a bed of fuel having a fusible ash, the improved process of preventing clinker which consists in maintaining in the bed superposed horizontal zones of relatively high and low temperatures such as would and would not melt and agglutinate the residuum of combustion by apportioning a divided blast between the zones, uniting the divided portions of the blast and conducting the same through the upper zone and superposed fuel, feeding through the upper and hotter zone sufficient fuel for insuring the presence of enough carbon mixed with residuum for preventing agglutination of the partly melted residuum, and feeding the last mentioned fuel and divided residuum to the lower and cooler zone and there burning the fuel at a temperature insufficient to agglutinate the residuum.

2. The process of preventing the formation of clinkers in the combustion of a bed of fuel having a fusible ash, which consists in maintaining in the bed superposed horizontal zones extending all the way across the bed each of uniform temperature throughout its extent and whereof one zone is of relatively high temperature and the other is of relatively low temperature, preventing the agglutination of the fused residuum in the first mentioned zone by maintaining carbon admixed with the residuum, and thereafter burning the last mentioned carbon out of the divided residuum in the last mentioned zone at a temperature insufficient for agglutinating such divided residuum.

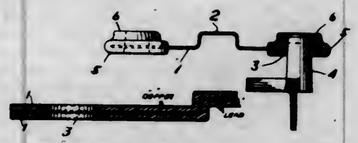
1,073,669. COMBINATION VEHICLE-TRACK AND CURBSTONE. FRANK F. FARGO, Portland, Oreg. Filed July 3, 1912. Serial No. 707,490. (Cl. 104—178.)



1. In a vehicle track, in combination, a series of angular shaped masonry blocks having concaved track surfaces and outside, upwardly projecting flange-like portions, and adapted to be connected end to end, interlocking plates having inturned ends and underlips and adapted to fit into and under the meeting ends of said blocks, and connecting bolts adapted to fit between the meeting ends of said blocks and to hold said plates in interlocking relationship with said blocks, substantially as shown and described.

2. In a vehicle track, in combination, a series of angular shaped masonry blocks having concaved track surfaces and outside, upwardly projecting flange-like portions, and having conduits formed longitudinally thereof in their corners, said blocks being adapted to be connected end to end, with said conduits in alinement with each other, interlocking plates having inturned ends and underlips and adapted to fit into and under the meeting ends of said blocks, and connecting bolts adapted to fit between the meeting ends of said blocks and to said plates in interlocking relationship with said blocks, substantially as shown and described.

1,073,670. STRAP OR CONNECTION FOR SECONDARY OR STORAGE BATTERIES. BRUCE FORD, Philadelphia, Pa. Filed Jan. 25, 1911. Serial No. 604,503. (Cl. 204—29.)



1. A connecting strap for secondary or storage batteries, comprising a flexible strip perforated at its ends and permanently provided thereat with perforated heads, said perforations being co-incident, substantially as described.

2. A connecting strap for secondary or storage batteries comprising a leaden coated copper strip perforated at its ends, and perforated massive leaden heads applied to and inclosing the ends of the strip and the rim of openings therein.

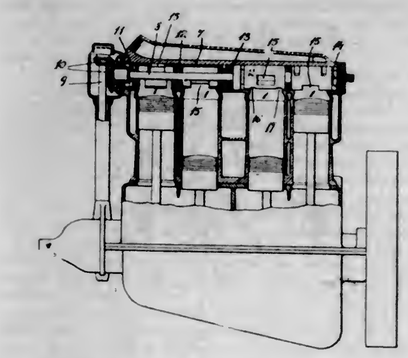
3. A connecting strap for secondary or storage batteries comprising a flexible strip having a protective coating and perforated at its ends and permanently provided thereat with massive perforated heads, said perforations being co-incident, substantially as described.

4. A connecting strap for secondary or storage batteries, comprising a flexible strip perforated at its ends and permanently provided thereat with perforated heads said perforations being co-incident, and said ends provided with tool-guide flanges surrounding the perforations, substantially as described.

1,073,671. COMBUSTION-ENGINE. GUIDO FORNACA, Turin, Italy. Filed Aug. 12, 1911. Serial No. 643,656. (Cl. 123—80.)

1. The combination in a combustion engine, with a cylinder and a piston, of a cylindrical transversely extending valve chamber formed in the cylinder head, separate inlet and exhaust passages opening into said valve chamber, a passage from said valve chamber to the interior of the cylinder, and a cylindrical rotary valve mounted in said valve chamber having a port for opening said inlet and exhaust to the valve interior and the valve interior to the cylinder at predetermined times, and another port opening the interior of the valve to the cylinder at predetermined times such that the interior of the valve is always in communication with the cylinder through one or the other of said ports.

2. The combination in a combustion engine, with a cylinder and a piston, of a transversely extending cylindrical valve chamber formed in the cylinder head, separate inlet and exhaust passages leading to said valve chamber, a passage leading therefrom to the cylinder, and a rotary hollow valve in said chamber for controlling said inlet and exhaust passages and having its interior always in communication with the interior of the cylinder, said valve comprising a cylindrical casing provided with a middle port controlling said inlet and exhaust passages, and another port at one side of said middle port, said ports at all times permitting communication between the valve interior and the cylinder through one or the other



3. In a combustion engine, a transversely extending cylindrical valve casing, circumferentially separated inlet and exhaust passages connected therewith, a transversely extending hollow cylindrical valve mounted in said chamber having a main port for controlling said passages in succession with an intervening period of closing both passages, and an auxiliary port in said valve at one side of and opposite said main port for opening the interior of the valve to the engine cylinder when communication through the main port between the cylinder and valve interior is cut off.

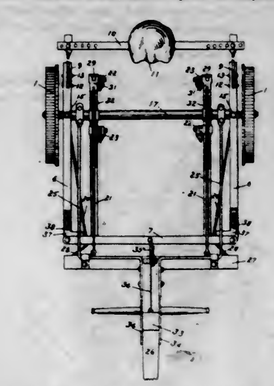
4. In a multiple cylinder combustion engine, the combination with a plurality of parallel cylinders, of cylindrical valve chambers for the respective cylinders arranged in axial alinement, a cylindrical valve body having a chamber for each cylinder journaled on said cylinders, a main port for each cylinder in said valve body, inlet and exhaust passages for each cylinder, and auxiliary ports for each cylinder in said valve body for opening the interior of each valve to the cylinder when communication through the main port is cut off.

5. In a combustion engine, a thin walled hollow rotary valve having a port in the side for admitting and exhausting gases, the thin and narrow longitudinal side edges of said port being exposed to the flame of the explosion on both sides, the interior of the valve being always in communication with the interior of the cylinder, and the ends being closed.

1,073,672. CULTIVATOR. JOHN H. FOSTER, Cuthbert, Tex. Filed Dec. 11, 1911. Serial No. 665,168. (Cl. 97—35.)

1. A cultivator comprising a pair of transporting wheels, a pair of standards upon the lower extremities of which the transporting wheels are rotatably mounted, a pair of parallel bars having their rear extremities pivotally mounted upon the upper ends of said standards, a cross bar pivotally connecting the forward extremities of said bars, an arch bar attached to said cross bar, a pair of cultivator beams extending rearwardly from the lower extremities of the arch bar, and a pair of adjustable right-angled brackets mounted on said parallel bars and bearing against said cross bar.

2. A cultivator comprising a pair of transporting wheels, a pair of standards upon the lower extremities of which the transporting wheels are rotatably mounted, a pair of parallel bars having their rear extremities pivotally mounted upon the upper ends of said standards, a cross bar pivotally connecting the forward extremities of said bars, an arch bar attached to said cross bar, a pair of cultivator beams extending rearwardly from the lower extremities of the arch bar, and a pair of adjustably slotted



brackets mounted on said parallel bars and arranged to bear against said cross bar.

1,073,673. PIANO OR OTHER STRING INSTRUMENT. FRIDOLF FRANKEL, Stockholm, Sweden. Filed June 22, 1912. Serial No. 705,161. (Cl. 84—25.)



1. In pianos or other string instruments the combination of a sounding board, a bridge thereon, a string arranged to press against the said bridge, an adjustable means applied at and acting exclusively on the end of the string lying nearest to said bridge for adjusting the distance between said end and the sounding board.

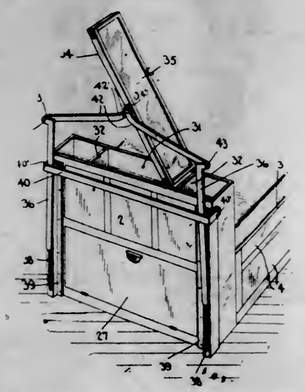
2. In pianos or other string instruments the combination of a sounding board, a bridge thereon, a string arranged to press against the bridge, means applied at one end of the string for stretching the string, and an adjustable means applied at the other end of the string for adjusting the distance between the sounding board and the end of the string.

3. In pianos or other string instruments the combination of a sounding board, a bridge thereon, a string plate, a tuning pin secured therein, an adjustable hitch pin arranged to be screwed to a variable depth into the string plate, and a string attached with one end to the tuning pin and strung across the bridge and having the other end attached to the adjustable hitch pin so as to be adjustable to and from the sounding board.

4. In pianos and other string instruments, the combination of a sounding board, a bridge thereon, a string plate, a tuning pin secured therein, an adjustable hitch-pin arranged to be screwed to a variable depth into the string

plate, and a string attached with one end to the tuning pin and strung across the bridge and having the other end attached to the adjustable hitch pin, said hitch pin being provided with a groove engaged by the end of the string.

1,073,674. CABINET-BED. ANTHONY GIORDANO, San Antonio, Tex. Filed Apr. 25, 1912. Serial No. 693,111. (Cl. 45—5.)



1. The combination of an upright box-like structure forming one end of a bed or the like and having upper and lower compartments; of a cover above the upper end of the same and adapted to close the uppermost compartment therein, upright tubular guides mounted exteriorly upon said structure, a pair of bars slidably mounted in said guides, and links pivotally connected at their outer extremities with the upper ends of said bars and pivotally connected at their inner extremities with said cover, for the purpose set forth.

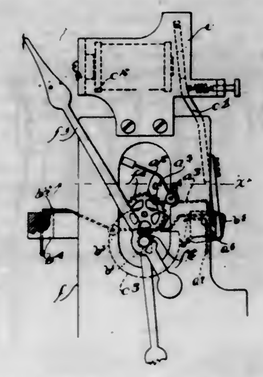
2. The combination of an upright box-like structure forming one end of a bed or the like and having upper and lower compartments; of a cover above the upper end of the same and adapted to close the uppermost compartment therein, upright tubular guides mounted exteriorly upon said structure, a pair of bars slidably mounted in said guides, a brace carried by said box-like structure to hold said bars in position, disks secured to said bars and having a sliding engagement with the guides, and a pair of links connected at their outer extremities with the upper ends of said bars and having their inner extremities overlapping each other and pivoted to each other and to said cover, for the purpose set forth.

1,073,675. MEANS FOR REGULATING RECEPTOR-CLOCKS. GEORGE A. GOODSON, Minneapolis, Minn. Filed Oct. 17, 1910. Serial No. 587,431. (Cl. 58—24.)

1. The combination with a clock, of clock setting mechanism sensitive to Hertzian waves, operative at predetermined intervals to set the clock during a predetermined period of said interval, and means also sensitive to Hertzian waves operative to throw the normal clock setting mechanism out of action and thus cause setting of the clock to be skipped during the next setting interval.

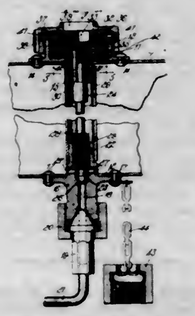
2. The combination with a clock, of clock setting mechanism sensitive to Hertzian waves, operative at predetermined intervals to set the clock during a predetermined period of said interval, means also sensitive to Hertzian waves operative to throw the normal clock setting mechanism out of action and thus cause setting of the clock to be skipped during the next setting interval, and clock actuated means for restoring the said clock setting mechanism to operative condition, thereby rendering the same operative during a second following clock setting interval.

3. The combination with a clock, of clock setting mechanism sensitive to Hertzian waves, normally operative at predetermined intervals to set the clock during a predetermined period of said interval, means also sensitive to Hertzian waves operative during an interval which



includes but is longer than the clock setting period, for throwing the said clock setting mechanism out of action during the next following clock setting interval, and clock actuated means for restoring said clock setting mechanism to operative condition for action during a second following clock setting interval.

1,073,676. GASOLENE-TANK. LELAND F. GOODSPEED, Milwaukee, Wis., assignor to Milwaukee Locomotive Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 17, 1912. Serial No. 678,321. (Cl. 158—46.)



1. In a fuel tank, a casing having an opening in the top thereof, a cupped bushing set in said opening, an alining outlet in the bottom of said casing, a valve controlling said outlet, a stem for said valve mounted in said bushing, a washer in said bushing, a hood fitting down upon said washer and being mechanically connected with said stem, and means for clamping said hood down upon said washer, there being openings in the base of said bushing.

2. In a fuel tank, a casing having an opening in the top thereof, a cupped bushing set in said opening, an alining outlet in the bottom of said casing, a valve controlling said outlet, a stem for said valve mounted in said bushing, a washer in said bushing, a hood fitting down upon said washer and being mechanically connected with said stem, and a cap threading on the outside of said bushing and engaging the top of said hood to clamp it down upon the washer, there being communication between the inside of the hood and the inside of the casing.

3. In a fuel tank, a casing having an opening in the top thereof, a cupped bushing set in said opening, an alining outlet in the bottom of said casing, a valve controlling said outlet, a stem for said valve mounted in said bushing, a washer in said bushing, a hood fitting down upon said washer and being mechanically connected with said stem, a spring disposed between the underside of said hood and the base of said bushing, and means for clamping said hood down upon said washer, there being openings in the base of said bushing.

4. In a fuel tank, a casing having an opening in the top thereof, a cupped bushing set in said opening, an alining outlet in the bottom of said casing, a valve controlling said outlet, a stem for said valve mounted in said bushing, a washer in said bushing, a hood fitting down upon said washer and being mechanically connected with said stem, means for clamping said hood down upon said washer, there being openings in the base of said bushing, and a squared recess in the top of said hood and a larger coaxial squared opening in said clamping means.

5. In a fuel tank, a cupped fitting at the top thereof, a fitting in alinement therewith at the bottom, said last named fitting having an outlet opening, a valve stem mounted in said fittings and threaded in one of them, a hood in the upper fitting mechanically connected with said stem, a cap for clamping said hood down upon said upper fitting, and a valve on said stem for controlling said opening.

[Claims 6 to 8 not printed in the Gazette.]

1,073,677. PRIMARY-BATTERY CELL. JULIUS H. GUGLER and GEORGE W. COLLES, Milwaukee, Wis.; said Colles assignor to said Gugler. Filed July 22, 1910. Serial No. 573,184. (Cl. 204—34.)



1. In combination with an electric battery cell having a depolarizer consisting of a solution of a chlorate, an extra supply of undissolved chlorate supported at a variable elevation in the solution.

2. In combination with an electric battery cell having a depolarizer consisting of a solution of a chlorate, a support above the bottom of said solution, a quantity of fragmental material resting on said support, and a quantity of undissolved chlorate resting on said fragmental material.

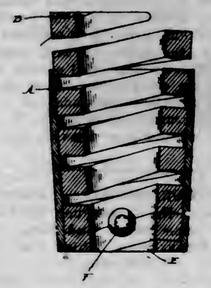
3. In combination with an electric battery cell having a depolarizing liquid containing a chlorate in solution, a carrier of sheet-material having a perforated bottom supported in said solution above the bottom thereof, a quantity of fragmental material resting on said carrier, and a quantity of undissolved chlorate resting on said fragmental material.

4. In combination with an electric battery cell having a depolarizing liquid containing a chlorate in solution, a carrier of sheet-material having a perforated bottom supported in said solution at or near the top thereof, a quantity of fragmental material resting on said carrier, and a quantity of undissolved chlorate resting on said fragmental material.

5. In combination with an electric battery cell having a depolarizing solution containing a chlorate in solution, a support in said solution, means for raising and lowering said support, and a quantity of undissolved chlorate resting on said support.

[Claims 6 to 10 not printed in the Gazette.]

1,073,678. FRICTION-SPRING. GEORGE LYON HARVEY, Chicago, Ill. Filed Nov. 19, 1906. Serial No. 344,151. (Cl. 213—64.)



1. A spring comprising a tubular tapering split member, and a tapering helical spring fitting therein.

2. A spring comprising a tubular tapering split member, and a tapering helical spring fitting therein, said spring having a plane outer face.

3. A spring comprising a tubular split member, a helical spring fitting therein, and means for locking the one end of the spring and one end of the split member together.

4. A spring comprising a multiple of tapering split members and a tapering helical spring fitting therein.

5. A spring comprising a multiple of a tubular split tapering resilient member in frictional engagement with an endwise compressible spring member.

[Claims 6 to 10 not printed in the Gazette.]

1,073,679. TOOL-HOLDER. HERMAN HAUSSMAN, North Chicago, Ill. Filed July 1, 1912. Serial No. 706,997. (Cl. 24—254.)



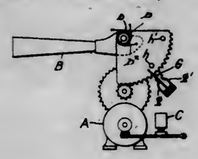
1. An article holder comprising a casing, a pair of gripping members pivotally mounted in said casing, said gripping members being curved intermediate of their ends and the free ends thereof being bent outwardly, one of said members being formed with an elongated slot, the other of said members extending through said slot, the first mentioned member being formed with another elongated slot near the outer end thereof, the bent portion of the second mentioned member being adapted to normally rest within the second mentioned slot and the extremity of the second member extending outwardly from said second slot, thereby crossing the extremities of said members so that they may be readily spread, as and for the purpose described.

2. An article holder comprising a casing, a pair of gripping members pivotally mounted in said casing, the intermediate portions of said members being curved and the extremities thereof being bent outwardly, one of said members being provided with a pair of elongated slots, one of said slots being formed in said member near the

inner end thereof, and the other slot being formed in the bent portion of said member, the other of said members extending through the slot in the inner end of the first mentioned member, the bent portion of the second mentioned member being adapted to rest within the other slot and the extremity of the second member extending outwardly from said second slot, as and for the purpose set forth.

3. An article holder comprising a casing, a pair of gripping members pivotally mounted in said casing, said gripping members being provided with a short arm and a long arm, one of the said long arms being provided with a pair of elongated slots, the other of said arms extending through one of said slots, the medial portion of said arms being curved and the extremities thereof diverging outwardly, the second mentioned arm adapted to rest within the other slot, and means connecting the short arms for normally holding the said long arms in their closed position.

1,073,680. SEMAPHORE-SIGNAL. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Apr. 6, 1910. Serial No. 553,812. (Cl. 246—30.)



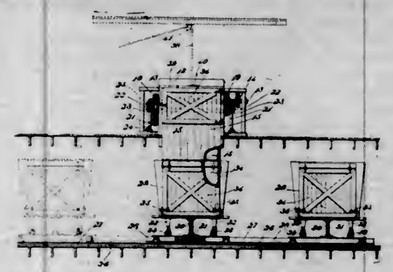
1. In combination with a three-position semaphore arm biased to stop position, an electric motor for driving said arm to caution and clear positions, gearing permanently connecting the motor to the arm, whereby the motor is driven backward when the arm moves toward stop position by gravity, means for holding the arm at caution and clear positions, normally open contacts connected to the motor terminals, and means actuated by the arm for momentarily closing said contacts just before reaching caution position when moving from clear to caution and again just before reaching stop position when moving from caution to stop.

2. In combination with a three-position semaphore arm biased to stop position, an electric motor for driving said arm to caution and clear positions, a source of current for the motor, gearing permanently connecting said motor to said arm, whereby said motor is driven backward when said arm moves toward stop position by gravity, means for holding said arm at caution and clear positions, normally open contacts connected to the motor terminals, normally closed contacts included in the connection from the motor to its source of current, and means actuated by the semaphore arm for momentarily closing the first mentioned contacts and opening the last mentioned contacts just before the arm reaches caution and stop positions in moving toward stop position.

3. In combination, a railway signal biased to danger position, an electric motor for moving it to caution and clear positions and operatively connected with the signal to move therewith while the latter is returning toward danger position, electrically controlled braking means for checking said return movement of the signal, and a circuit controller mechanically actuated by the signal for throwing said braking means into operation during a portion of said return movement from clear position to caution position, and again during a portion of said return movement from caution position to danger position.

1,073,681. BAT-FORMING APPARATUS. DANIEL HAYNES and RICHARD H. HAYNES, Sealy, Tex. Filed Feb. 21, 1913. Serial No. 749,817. (Cl. 19—10.)

1. In a bat-forming apparatus, the combination with a disintegrating machine, of a distributing chamber, a flue leading from said machine to the central upper part of said chamber where it is provided with a downturned end, a rocking distributer or baffle-plate mounted in said chamber closely adjacent to said downturned end and comprising a curved surface onto which the disintegrated material is discharged, and a bat-forming box or mold into which the disintegrated material is showered from said distributing chamber.

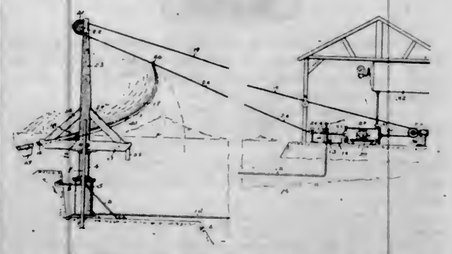


2. In a bat-forming apparatus, the combination with a distributing chamber and means for conveying disintegrated material thereto, of a bat-forming box or mold located below said distributing chamber and pivotally mounted so that it may be turned end for end when desired.

3. In a bat-forming apparatus, the combination with a distributing chamber and means for conveying disintegrated material thereto, of a rocking distributer in said chamber, and a bat-forming box or mold located below said distributing chamber and pivotally mounted so that it may be turned end for end when desired.

4. In a bat-forming apparatus, the combination with a disintegrating machine, of a distributing chamber, a flue leading from said machine to the central upper part of said chamber where it is provided with a downturned end, a rocking distributer or baffle-plate in said chamber and onto which the disintegrated material is discharged, and a pivotally mounted bat-forming box or mold into which the disintegrated material is showered from said distributing chamber.

1,073,682. WAVE-MOTOR. JOHN H. HENDERSON, East Oakland, Cal. Filed Dec. 27, 1912. Serial No. 738,846. (Cl. 253—6.)



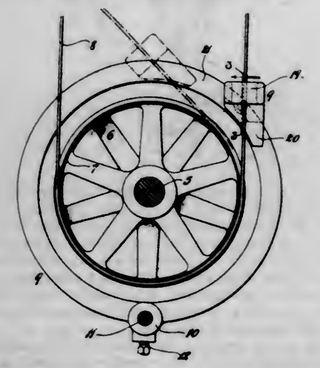
1. A wave motor comprising a platform, means for raising and lowering said platform, a curved plane pivoted on said platform, a sheave mounted on said platform above the pivot of said plane, a resiliently mounted pulley, a cylinder, a piston in said cylinder, and a cable attached to the end of said plane and extending around said sheave and pulley and attached to the opposite sides of said piston.

2. A wave motor comprising a platform, means for raising and lowering said platform, a frame pivoted on said platform, a curved plane on said frame at one side of said pivotal point, counterbalancing means attached to said frame at the opposite side of said pivotal point, a sheave

mounted on said platform above said pivotal point, a pulley mounted at a distance from said sheave, a cable attached to said tipping frame and extending around said sheave and pulley, a pump cylinder, and a piston in said cylinder to the opposite sides of which the ends of said cable are connected.

3. A wave motor comprising a vertically adjustable platform mounted in the surf, means for raising and lowering said platform from the beach, a tipping plane pivoted on said platform, a sheave mounted on said platform above the pivot of said plane, a pulley mounted on the beach, a cable attached to the end of said plane, extending around said sheave and pulley, a pump cylinder, and a piston in said cylinder to the opposite sides of which the ends of said cable are connected.

1,073,683. BELT-SHIFTER. ROBERT G. HENRY, West Hartford, and WILLIAM J. BAYREE, Hartford, Conn., assignors to The Henry & Wright Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 14, 1911. Serial No. 643,965. (Cl. 64—4.)



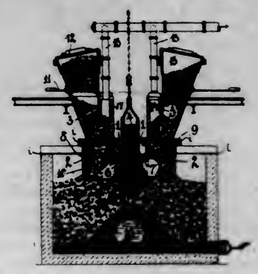
1. A belt shifter comprising a circular supporting body provided with a circumferential flange extending outward therefrom at approximately right angles thereto, a block slidably engaged with said flange and provided with belt engaging means, means for clamping said block to said flange, and means for moving said supporting body sidewise.

2. A belt shifter comprising a circular supporting body provided with a circumferential flange extending outward at an angle thereto, a block straddling and slidable on said flange, provided with belt engaging means, a set screw on the block for engaging said flange to hold the block in an adjusted position, and means for moving said supporting body sidewise.

1,073,684. ELECTRIC FURNACE. JOHANNES HESS, Vienna, Austria-Hungary, assignor to The Firm of Bosnische Electricitats-Actiengesellschaft, Vienna, Austria-Hungary. Filed Nov. 20, 1911. Serial No. 661,345. (Cl. 204—64.)

1. In an electric furnace with vertical unipolar electrodes, a charging shaft surrounding said electrodes and having an outward extension, gas discharge means connected to the upper part of said shaft extension, the lower end of said shaft touching the top of the charge in the fusion and reaction zone proper and having a sectional area smaller than that of the furnace.

2. In an electric furnace with vertical unipolar electrodes, a charging shaft surrounding said electrodes and having an outward extension, gas discharge means connected to the upper part of said shaft extension, the lower end of said shaft touching the top of the charge in the fusion and reaction zone proper and having a sectional area smaller than that of the furnace and corresponding to that of the re-action hearth to be produced.



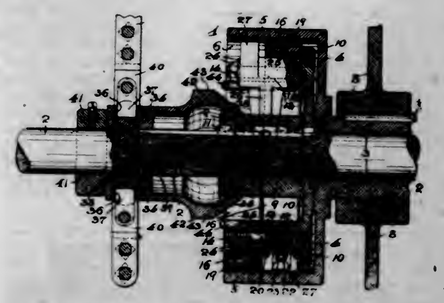
3. In an electric furnace with vertical unipolar electrodes, a charging shaft surrounding said electrodes and having an outward extension, gas discharge means connected to the upper part of said shaft extension, the lower end of said shaft touching the top of the charge in the fusion and reaction zone proper and having a sectional area smaller than that of the furnace, the said shaft having walls insulated from the walls of the furnace.

4. In an electric furnace with vertical unipolar electrodes, a charging shaft surrounding said electrodes and having an outward extension, gas discharge means connected to the upper part of said shaft extension, the lower end of said shaft extending in the top of the charge in the fusion and reaction zone proper and having a sectional area smaller than that of the furnace.

5. In an electric furnace with vertical unipolar electrodes, a charging shaft surrounding said electrodes and having an outward extension, gas discharge means connected to the upper part of said shaft extension, the lower end of said shaft touching the top of the charge in the fusion and reaction zone proper and having a sectional area smaller than that of the furnace, and an inside hopper within said shaft adapted to hold the charge and gas apart from the upper part of the electrode.

[Claims 6 to 9 not printed in the Gazette.]

1,073,685. FRICTION-CLUTCH. CONRAD HOERL, Newark, N. J. Filed Aug. 9, 1912. Serial No. 714,146. (Cl. 192—13.)



1. In a device of the kind described, a shaft, a drum-member rotatably mounted on said shaft, a carrying-disk rigidly connected upon said shaft, an expanding-ring provided with an eccentric pivoting arm for pivotally connecting one end of said expanding-ring with said carrying-disk, a plurality of friction blocks carried upon the outer surface of said expanding-ring, an operating-lever pivotally mounted in connection with said carrying-disk and provided with a cam-portion adapted to engage the free end of said expanding-ring to move the same into

frictional engagement with said drum-member, positioning and guiding pins mounted upon said carrying-disk and adapted to be engaged by the inner surface of said expanding-ring, and means for moving said operating-lever to operate said expanding-rang.

2. In a device of the kind described, a shaft, a drum-member rotatably mounted on said shaft, a carrying-disk rigidly connected upon said shaft, an expanding-ring provided with an eccentric pivoting arm for pivotally connecting one end of said expanding ring with said carrying-disk, a plurality of friction blocks carried upon the outer surface of said expanding-ring, an operating-lever pivotally mounted in connection with said carrying-disk and provided with a cam-portion adapted to engage the free end of said expanding-ring to move the same into frictional engagement with said drum-member, positioning and guiding pins mounted upon said carrying-disk and adapted to be engaged by the inner surface of said expanding-ring, and means for moving said operating-lever to operate said expanding-ring, comprising a wedge-cone slidably mounted upon said shaft, and means for moving said wedge-cone into and out of contact with said operating lever.

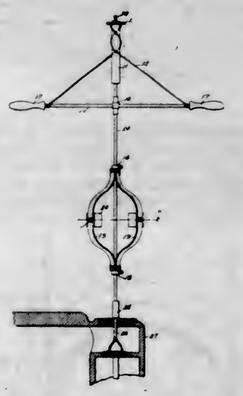
3. In a device of the kind described, a shaft, a drum-member provided with an annular flange rotatably mounted on said shaft, a carrying-disk rigidly connected upon said shaft, outwardly projecting posts connected with said carrying-disk, a spring-like expanding-ring having a circumference greater than a semi-circle, an eccentric pivoting arm connected with one end of said expanding-ring pivotally mounted upon one of said posts, a plurality of friction-blocks carried upon the outer surface of said extending ring, an operating-lever pivoted upon another of said posts, a cam-portion connected with said operating-lever adapted to engage the free end of said expanding-ring to move the same into frictional engagement with the annular flange of said drum-member, means for guiding and positioning said expanding-ring, an adjustable rider-stud in the end of said operating-lever, a wedge-cone slidably mounted upon said shaft, and means for moving said wedge-cone into and out of contact with the rider-stud of said operating-lever, substantially as and for the purposes set forth.

4. In a device of the kind described, a shaft, a drum-member provided with an annular flange rotatably mounted on said shaft, a carrying-disk rigidly connected upon said shaft, outwardly projecting posts connected with said carrying-disk, an expanding-ring, an eccentric pivoting arm connected with one end of said expanding-ring pivotally mounted upon one of said posts, a plurality of friction-blocks carried upon the outer surface of said expanding-ring, an adjustable butt-post connected with the free-end of said expanding-ring, an operating-lever pivoted upon another of said posts, a cam-portion connected with said operating-lever adapted to engage the said butt-post at the free end of said expanding-ring to move the same into frictional engagement with the annular flange of said drum-member, an adjustable rider-stud in the end of said operating-lever, a wedge-cone slidably mounted upon said shaft, and means for moving said wedge-cone into and out of contact with the rider-stud of said operating-lever, substantially as and for the purposes set forth.

5. In a device of the kind described, a shaft, a drum-member provided with an annular flange rotatably mounted on said shaft, a carrying-disk rigidly connected upon said shaft, outwardly projecting posts connected with said carrying-disk, an expanding-ring, an eccentric pivoting arm connected with one end of said expanding-ring pivotally mounted upon one of said posts, a plurality of friction-blocks carried upon the outer surface of said expanding-ring, an adjustable butt-post connected with the free end of said expanding-ring, positioning and guiding pins mounted upon said carrying-disk and adapted to be engaged by the inner surface of said expanding-ring, an operating-lever pivoted upon another of said posts, a cam-portion connected with said operating-lever adapted to engage the said butt-post at the free end of said expanding-ring to move the latter into frictional engagement with the annular flange of said drum-member, and means for moving said operating-lever to operate said expanding-ring.

[Claims 6 to 16 not printed in the Gazette.]

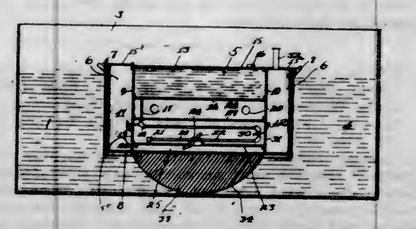
1,073,686. VALVE-GRINDING TOOL. HERMAN HORN, BERNARD HORN, and PETER HORN, Washita county, Okla. Filed Mar. 10, 1913. Serial No. 753,387. (Cl. 51—4.)



1. In a valve grinding tool and in combination, a spindle, operating means for rotating the spindle, a fly wheel on the spindle for increasing the momentum thereof, a valve engaging part, and connecting means between said part and the spindle, said connecting means comprising a stop on one side of the spindle and a stop on one side of the valve engaging part, said spindle being adapted to rotate through a predetermined part of a revolution prior to the abutting of said stops.

2. In a valve grinding tool, and in combination, a spindle, means carried by the spindle for imparting a reciprocating rotary motion to the same and being movable in the direction of the length of the spindle, a fly-wheel on the spindle adapted for adjustment to increase and decrease the momentum of the fly-wheel, a valve engaging part, and a lost-motion connection between said valve engaging part and the spindle whereby the tool may be started to gain momentum prior to turning said part.

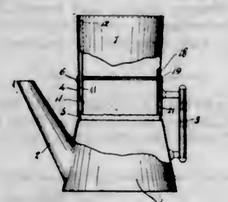
1,073,687. WATER-HEATER. IRVING JENSEN, West Branch, Iowa. Filed Apr. 3, 1913. Serial No. 758,627. (Cl. 126—360.)



1. In apparatus of the character described, a main shell, heat generating means mounted therein, and a weight formed of a section of a sphere and attached to the lower end of the main shell and having its engaging surface smooth and regular whereby the weight will serve as a pivot upon which the apparatus may turn in all directions and as means for preventing the accidental tilting of the apparatus.

2. In apparatus of the character described, a main shell adapted to be submerged in water while occupying a horizontal position; of means forming vertical inlet and outlet passages at the opposite ends of the main shell; means for dividing the main shell into an upper fuel holding chamber, and intermediate water circulating chamber, and a lower heating chamber, all of which are arranged horizontally and extend for the entire distance between the inlet and outlet passages; a burner mounted within the lower heating chamber; and a conduit connecting the burner with the upper fuel holding chamber.

1,073,688. COFFEE-POT. HERBERT L. JOHNSTON, Troy, Ohio. Filed Dec. 21, 1911. Serial No. 667,147. (Cl. 53—3.)



1. In a coffee pot, the combination with a pouring vessel, of a container for the coffee and water adapted to be inverted over and fitted within the pouring vessel, and a strainer for the inverted container, the container provided with an air inlet for the passage of air from a point inside of said container, at or near the closed end of said container, to a point outside of said container, at or near the open end of said container, the container provided with a recess outside thereof connecting with said air inlet and forming a passageway with the wall of the pouring vessel.

2. In a coffee pot, the combination with a pouring vessel, of a container for the coffee and water adapted to be inverted over and fitted within the pouring vessel, and a strainer for the inverted container, the container provided with an air inlet for the passage of air from a point inside of said container, at or near the closed end of said container, to a point outside of said container, at or near the open end of said container, the container provided with a recess outside thereof connecting with said air inlet and forming a passageway with the wall of the pouring vessel, and an air inlet for the container connecting said passageway with the outside of the assembled pot at a point above the edge of the pouring vessel.

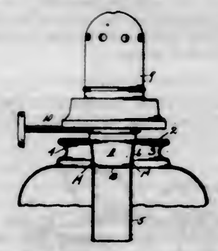
3. In a coffee pot, the combination with a pouring vessel, of a container for the coffee and water adapted to be inverted over and fitted within the pouring vessel, and a strainer for the inverted container, the container provided with a recess around the outside thereof forming a passageway with the wall of the pouring vessel, and an air inlet tube for the container opening through the wall thereof at each end and extending from said passageway to a point above the edge of the pouring vessel when the container is inverted thereon, with a second air tube for the container opening into the passageway at one end and at the other end extending to and opening into the upper end of said container when inverted.

4. In a coffee pot, the combination with a pouring vessel, of a container for the coffee and water adapted to be inverted over and fitted within the pouring vessel, and a strainer for the inverted container with the inverted end of the container of less diameter than the pouring vessel to form a passageway with the wall of the pouring vessel, an outside air inlet for the container opening through the wall thereof at each end, and extending from the passageway to a point above the edge of the pouring vessel when the container is inverted thereon, with a second air tube for the container opening into the passageway at one end and extending to and opening into the upper end of said container when inverted.

5. In a coffee pot, the combination with a pouring vessel, of a container for the coffee and water adapted to be inverted over and fitted within the pouring vessel, and a strainer for the inverted container, the container provided with an air inlet tube for the passage of air from a point inside of said container, at or near the closed end of said container, to a point outside of said container, at or near the open end of said container, said air inlet tube provided with walls forming a gradually decreasing angle with each other from top to bottom to cause said tube to drain readily.

[Claims 6 to 8 not printed in the Gazette.]

1,073,689. OIL-BURNER FASTENER AND SPLASH-PREVENTER. WILLIAM T. JONES, Detroit, Mich., assignor to Edmunds & Jones Mfg. Co., Detroit, Mich., a Corporation of Michigan. Filed Dec. 27, 1909. Serial No. 534,949. (Cl. 67—83.)



1. A burner fastener and oil splash preventer comprising a disk secured in the top of an oil font having a tube extending centrally therefrom into said font, the upper portion of said tube being tapering to form a receiving socket for the burner base, a burner having a tapered base to enter and fill said socket in a manner to effect a tight closure between said parts, and interlocking members upon said base and socket for detachably connecting said parts together.

2. A burner fastener and splash preventer comprising a disk secured in the top of the burner font and having a tube depending centrally therefrom, the metal of the font at the top lying upon the upper surface of said disk and a rib in the wall of the font supporting said disk below, a tube depending from said disk having slots in the wall thereof near its upper end, a burner having a base portion adapted to enter said tube, said base portion having projecting parts which engage in said slots to lock the base of the burner within said tube.

3. A burner fastener, comprising a socket tube depending within the font and supported by the top thereof, the wall of said tube having an angular slot therein, a burner having a base adapted to enter said tube to seat therein, said base having at its lower end a plate provided with a projecting lug adapted to engage in said angular slot to lock the base of the burner within said tube.

1,073,690. FLEXIBLE SHAFT-COUPLING. CHARLES V. KERR, Wellsville, N. Y. Filed Oct. 12, 1910. Serial No. 586,629. (Cl. 64—13.)

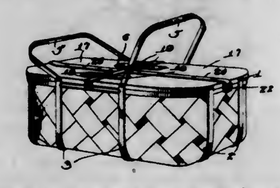


1. A flexible shaft coupling comprising a body portion or casing having a central bore and a pair of interna.

slots or key ways diametrically opposite each other at each end of the body portion, the slots or key ways at one end being at right angles to those of the other end, a key sliding in each pair of slots and having slight lateral motion, an independent shaft section loosely fitting in each end and slightly smaller than the bore of the body portion and connected with the key at the same end and separated from and having movement independent of the other shaft section, and caps attached to the ends of the body portion to retain the keys and shaft sections in said body portion.

2. A flexible shaft coupling comprising a body portion having a central bore and a pair of internal slots or keyways diametrically opposite each other at each end of said body portion, said pairs of slots being at right angles to each other; a shaft inserted in each end of the body portion, the central bore being slightly larger in diameter than the shaft; a through key secured in the end of each shaft and the ends of each key inserted in a pair of said slots; and caps attached to the ends of the body portion to form a reservoir for lubricant and to limit the endwise movement of said shafts.

1,073,691. DETACHABLE BASKET-FRAME. JOHN P. H. LANE, Harriman, Tenn. Filed Jan. 13, 1913. Serial No. 741,781. (Cl. 217—122.)



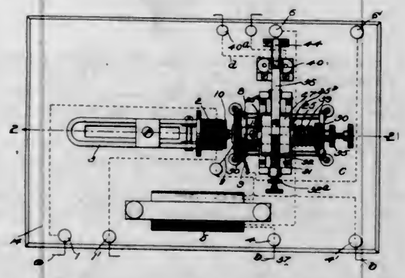
1. A detachable basket frame of the class described comprising a rectangular rim, longitudinally extending strips secured to said rim at their end portions, transversely extending strips carried by said rim in the end portions thereof, and pivotally mounted handles carried by said rim, a bridge member carried by the central portion of said rim and extending transversely thereof, securer members carried by the depending portions of said bridge, one of said securer members provided with a plurality of fingers adapted to rest behind said transversely extending strips and provided with a plurality of lips adapted to rest upon the outside of said transversely extending strips for holding the same in its correct position, the other of said securer members provided with a hook portion adapted to rest behind said transversely extending strips and provided with a plurality of bent portions adapted to rest upon the outside of said strips, the upper portion of said securer members resting upon the edge portions of said rim whereby the bridge will be held securely in position, said bridge provided with a plurality of longitudinally extending slots, a plurality of lids provided with hinged members terminating in curved portions adapted to rest within said longitudinally extending slots for hingedly securing said lids to said bridge, said lid adapted to form a closure for the upper portion of said frame for entirely inclosing the basket carried therein, and means carried by said lid for holding the same in a locked position.

2. A detachable basket frame comprising a rectangular rim, strips carried by said rim adapted to hold a basket, a bridge extending transversely across said rim, securers carried by said bridge, one of said securers provided with a plurality of fingers, a plurality of lips formed adjacent said fingers, the other of said securers provided with a plurality of hooks, bent portions formed adjacent said hooks, said fingers and said hooks fitting behind said strips and said lips and bent portions fitting upon the outer portions of said strips, whereby said bridge is detachably held upon said frame, whereby said rim will be braced, and lids detachably secured to said bridge.

3. A detachable basket frame comprising a rectangular rim, retaining strips secured upon the outer portion of said rim, a bridge extending across said rim and provided with downwardly bent ends, one of said bent ends provided with a fixedly held securer, the other bent end provided with a pivotally held securer, said bridge adapted to fit snugly upon said rim for bracing the same, said securers adapted to fit upon the lower edges of said rim and behind said strips for holding said bridges in position, said pivotally mounted securer adapted to facilitate the placing of said bridge upon said rim, and lids detachably carried by said bridge.

4. A detachable basket frame comprising a rim, retaining strips carried by said rim, a bridge extending transversely across said rim, means for detachably holding said bridge upon said rim, said bridge provided with longitudinal slots, a plurality of lids, said lids provided with a plurality of elongated bodies terminating in curved hooks thereby forming hinges, said hooks adapted to fit within the slots formed in said bridge for holding said lids in pivotal and detachable engagement with said bridge.

1,073,692. CURRENT-TRANSMITTING INSTRUMENT. CHARLES D. LANNING, Boston, Mass. Filed June 5, 1907. Serial No. 377,313. (Cl. 179—170.)



1. A current transmitting instrument having a receiving circuit, a receiving magnet therein, a transmitting circuit, a granular microphone in said transmitting circuit having a vibratory electrode operatively related to and actuated by said receiving magnet, and means for periodically rotating said microphone to maintain the granules in loose condition.

2. A current transmitting instrument having a receiving circuit, a receiving magnet therein, a transmitting circuit, a granular microphone in said transmitting circuit having a vibratory electrode operatively related to and operated by said receiving magnet, and means for periodically disturbing said microphone to maintain the granules in loose condition.

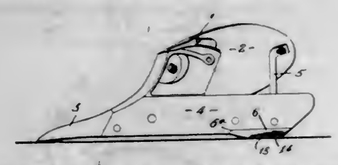
3. In a telephone system, a main line circuit provided with terminal stations, a current transmitting instrument therefor comprising a revoluble microphone provided with a vibratory electrode, a fixed electrode and an intermediate body of granular carbon and means for intermittently producing rotary movement of said microphone to maintain the said carbon granules in unpacked condition, and means controlled by the establishment of through connections between talking stations of said main line circuit for preventing operation of said rotating means.

4. A telephone repeating instrument comprising a main line circuit, an electromagnet serially related thereto, a current varying microphone actuated thereby and also serially related to said line and provided with a fixed electrode, a vibratory electrode and a body of granular carbon intermediate said electrodes, means for revolubly mounting said microphone to maintain its vibratory electrode in magnetic operative relation to said magnet, means for intermittently rotating said microphone to maintain the said granules in unpacked condition, and means under the control of an operator for rendering said intermittent means inoperative.

5. A telephone system having a relay provided with a receiving magnet, a microphone actuated thereby provided with a variable resistance medium, such as carbon granules, means for intermittently restoring said granules to their normally loose condition to prevent packing thereof, and means rendered operative by the establishment of through connections between stations of said system for rendering said restoring means inoperative while the instrument is in use.

[Claims 6 to 21 not printed in the Gazette.]

1,073,693. DETACHABLE SHOE FOR LANDSIDES OF PLOWS. WILLIAM H. LEE, Syracuse, N. Y., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y., a Corporation of New York. Filed Dec. 20, 1909. Serial No. 533,997. (Cl. 97—17.)



1. In a plow, a point, a landside, and a shoe detachably secured to the landside near the rear end thereof and having its advance end spaced apart from the point of the plow in a direction lengthwise of the landside, said shoe having a lower supporting face arranged directly beneath the lower edge of the overlying portion of the landside and extending on opposite sides of the vertical plane of the outer face of the landside, a portion of the lower edge of the landside between the point of the plow and the advance end of the shoe being normally disposed above the plane of a portion of said lower supporting face of the shoe, substantially as and for the purpose described.

2. In a plow, a mold-board, a landside, a shoe for the landside, said shoe being provided with an upwardly extending lug contiguous to the inner face of the landside, and a brace having one end fixed to the inner face of the mold-board and its other end interposed between opposing faces of the landside and the lug, and fixed to said landside and lug, substantially as and for the purpose specified.

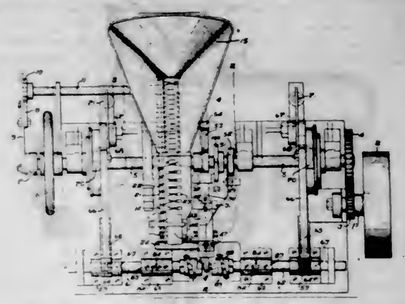
3. In a plow, a point, a mold-board, a landside, a shoe provided with a ledge arranged directly beneath and supporting the lower edge of the rear portion of the landside, the shoe being also provided with lugs spaced apart from each other in a direction lengthwise of the landside and extending upwardly above the ledge and engaging the inner face of the landside, the surface of the rear lug contiguous to the landside being formed with a channel, said shoe having its advance end spaced apart from the point in a direction lengthwise of the landside, and a portion of the lower edge of the landside between the point of the plow and the advance end of the shoe being disposed above the plane of lower supporting faces of said point and shoe, a brace having one end fixed to the inner face of the mold-board, and its other end arranged in said channel, means for securing the front lug to the landside, and a fastening member for securing the rear lug and the contiguous end of the brace to the landside, substantially as and for the purpose set forth.

4. In a plow, a landside, and a shoe for the landside, the shoe having on its outer side a lengthwise laterally extending flange of greater length than width for cutting under the unplowed land, the front edge of said flange converging forwardly toward the vertical plane of the landside from a point about midway the length of the flange, substantially as and for the purpose described.

5. In a plow, a landside, and a shoe for the landside the shoe having on its outer side a lengthwise laterally extending flange for cutting under the unplowed land, the front edge of said flange converging forwardly toward the vertical plane of the landside, and an upper surface of said flange converging upwardly toward said plane of the landside from substantially the outer side edge of the flange, substantially as and for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,073,694. MECHANISM FOR CRACKING NUTS. MATTHEW LOVE, Worcester, Mass., assignor to Harry W. Knights, Boston, Mass. Filed Nov. 27, 1911. Serial No. 662,550. (Cl. 146—3.)



1. Nut cracking mechanism comprising in combination a pair of shaft-like devices each having loosely mounted thereon a nut cracking jaw or element and also having a rigid abutment, a member positioned between each jaw or element and the corresponding abutment, means cooperating with each of said members and the corresponding abutments, to cause said jaws or elements unyieldingly to grasp the nut, and means acting upon said shafts to cause said jaws or elements to crack the nut while the latter is grasped unyieldingly by said jaws or elements.

2. Nut cracking mechanism comprising in combination a pair of nut cracking jaws or elements, means yieldingly to support said jaws or elements for the reception of the nut, means mounted concentrically with and rotatable about the axis of said jaws or elements to cause the latter unyieldingly to grasp the nut, and means to crack the nut while grasped unyieldingly.

3. Nut cracking mechanism comprising in combination nut cracking jaws or elements, means yieldingly to support one at least of said jaws or elements for the reception of the nut, means mounted concentrically with said jaws or elements, and rotatable about the axis of said jaws or elements to cause the latter unyieldingly to grasp the nut, and means to crack the nut while grasped unyieldingly.

4. Nut cracking mechanism comprising in combination, a pair of nut cracking jaws or elements, yielding supports therefor, supporting means for said jaws or elements and said yielding supports, and cam devices positioned between said latter supports and said jaws or elements to cause the latter to grip the nut unyieldingly prior to the nut cracking operation.

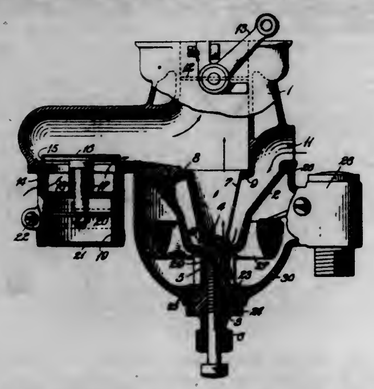
5. Nut cracking mechanism comprising in combination nut cracking jaws having supporting sleeves, longitudinally movable supports for said jaws and said sleeves, and cam operating devices between said jaws and said sleeves adapted to move said jaws or elements to grasp the nut unyieldingly prior to the nut cracking operation.

[Claims 6 to 34 not printed in the Gazette.]

1,073,695. CARBURETER. WALTER L. MARR, Flint, Mich. Filed Mar. 15, 1913. Serial No. 754,544. (Cl. 48—155.)

1. A carbureter comprising a casing having a depending hollow portion terminating in a jet opening nipple, a vaporizing tube seated in the casing with its lower end portion concentric with the nipple, the casing having an air inlet in communication with the space between the casing wall and the tube, a needle valve controlling the jet opening, a throttle valve controlling an outlet in the casing substantially in alinement with the nipple and tube, an auxiliary air valve casing secured in an opening in the main casing and provided with an annular valve seat at the entrance to the casing and a dash pot cylinder alined therewith, a closure for the annular valve seat, a disk reciprocable in the cylinder, a stem connecting the closure and disk, the dash pot forming a stop for limiting the

downward movement of the closure, and a float chamber removably secured on the jet opening nipple and casing.

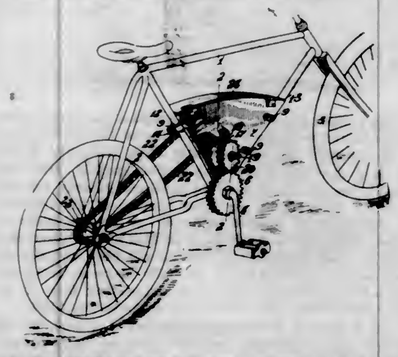


2. A carbureter comprising a casing having a depending hollow portion terminating in a jet opening nipple, a needle valve closure in the nipple controlling the jet opening, an upwardly flared vaporizing tube secured in an opening in the casing in alinement with the jet opening, the lower end portion of the tube being concentric with the nipple, and the casing having an air inlet opening in communication with the space formed between the wall of the depending hollow portion and the flared tube, a throttle valve controlling an outlet opening in the casing substantially in axial alinement with the tube, an auxiliary air valve casing removably secured in an opening in the main casing and provided with an annular valve seat, a dash pot cylinder longitudinally adjustable in the auxiliary casing, a boss on the cylinder having a guide opening, a closure for the annular valve seat, a stem on the closure reciprocable through the boss, a disk reciprocable in the dash pot cylinder secured to the stem, the boss forming an adjustable stop for limiting the downward movement of the closure, and a float feed chamber sealed against the lower portion of the casing and secured to the depending nipple thereof.

3. A carbureter comprising a main casing having a depending tapered hollow portion terminating in a nipple with a jet opening, a needle closure in the nipple controlling the jet opening, a flared vaporizing tube seated in an opening in the casing opposite the jet opening of the nipple with its lower end portion concentric with the opening of the nipple, the casing having an air inlet opening in communication with the space between the wall of the tapered hollow portion and the vaporizing tube, a throttle valve controlling an outlet in the casing substantially in alinement with the vaporizing tube, an auxiliary air valve casing removably secured in an opening in the wall of the casing, a dash pot cylinder adjustably secured in the lower portion of the air valve casing, a cap closing the outer end of the cylinder, a guide boss on the upper end of the cylinder, a valve stem reciprocable therethrough, a disk reciprocable in the cylinder secured to the stem, a valve closure on the upper end of the stem adapted to seal an annular valve seat on the upper end of the auxiliary valve casing, the boss forming an adjustable stop for limiting the movement of the closure, and a float feed chamber secured to the casing on the nipple and around the depending hollow portion.

4. A carbureter comprising a main casing having an integrally formed depending tapered hollow portion, a nipple integrally formed on the lower end thereof, and provided with a jet opening, a needle valve closure controlling the jet opening, a flared vaporizing tube removably secured at its upper end in an opening in the casing with its lower end portion concentric with the jet opening of the nipple, the casing having an air inlet opening in communication with the space between the wall of the hollow depending portion and the vaporizing tube, a throttle valve controlling an air outlet in the main casing opposite the vaporizing tube, an auxiliary air valve casing removably secured in an opening in the main casing, a dash pot cylinder longitudinally adjustable in the lower end portion of the auxiliary casing, a guiding boss on the upper end portion of the cylinder, a cap closing the lower end of the cylinder, a stem longitudinally reciprocable through a guide opening in the boss, a disk reciprocable in the cylinder secured to the stem, a closure secured to the stem for an annular valve seat on the upper end of the auxiliary casing, the boss forming a stop for limiting the movement of the closure, and a float chamber secured at its lower end to the depending nipple of the main casing with its upper marginal portion abutting the main casing.

1,073,696. PROPELLING MECHANISM FOR BICYCLES. WILHELM MESCHKAT, Houston, Tex. Filed Jan. 22, 1913. Serial No. 743,575. (Cl. 208—23.)

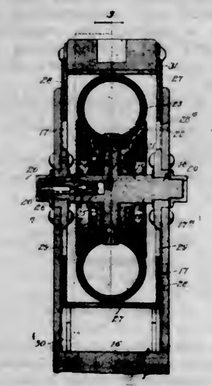


1. An attachment for bicycles, comprising a hollow casing having means for attaching it in the crotch or crank bearing end of a bicycle frame; said casing having shaft bearings in its opposite sides, cross shafts for engaging the said bearings, transmission gears mounted in the casing and adapted to receive their respective cross shafts insertible through and journaled in the bearings in the opposite side of the casing, one of the shafts carrying a gear for meshing with the crank axle gear of the bicycle, and another of the said shafts carrying a transmission gear to receive a driving chain coupled with the bicycle driving wheel.

2. A high speed gearing attachment for bicycles that comprises in combination with the crank axle gear, and the driving wheel axle gear; an open top casing shaped to seat in the crotch crank axle bearing end of a bicycle frame, said casing having means for fixedly attaching it to the said bicycle frame, the said casing having opposing sets of shaft bearings, transmission gears insertible into the top of the casing, shafts for the gears, insertible through the bearings in the casing sides and through their corresponding gears, the lowermost shaft being provided with a gear for meshing with the said crank axle gear, the uppermost one of the shafts having an end extended from the opposite side of the casing, a drive sprocket on the said extended end and a chain connecting the said drive sprocket and the driving wheel axle gear.

3. As an improvement in bicycles, the combination with the bicycle frame, the rear or driven wheel having a sprocket gear at one side, the crank axle, said axle having a gear at the side opposite the rear axle gear, an open top hollow casing shaped to fit the crotch or crank bearing end of the bicycle frame, said casing having its edges shaped to seat around the frame bars with which they engage, the said edges having means for interlockably engaging the said bars, the said casing also having a series of bearing apertures on its opposite sides arranged in opposing pairs, speed accumulating gears insertible through the top of the casing and held to intermesh, shafts insertible through the bearings in the casing and through their respective gears, to turn with the gears, the lowermost shaft being extended over the crank axle gear and having a gear that meshes with the said crank axle gear, the uppermost one of the shafts having a sprocket wheel and a chain for connecting the sprocket wheel and the gear on the rear wheel axle.

1,073,697. VEHICLE-WHEEL. JOHN F. MITCHELL, Topeka, Kans. Filed Sept. 26, 1907. Serial No. 394,704. (Cl. 152—28.)



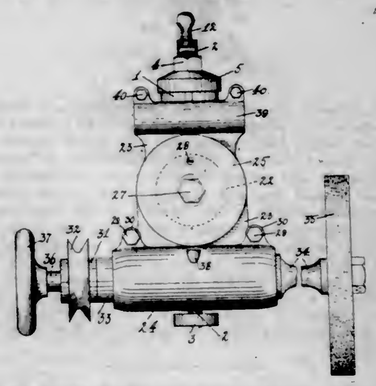
1. A vehicle wheel comprising a wheel hub with annular shoulders at the ends thereof, two circular sheet metal plates having holes at their centers fitting upon said annular shoulders and bolted to the said hub, a circumferential series of cross shafts having shoulders at their ends abutting against the edges of corresponding holes in said plates, nuts on the ends of said shafts clamping the plates against the shoulders thereon, seats for pneumatic cushions surrounding and borne by the respective shafts, annular pneumatic cushions in said seats, a wheel rim, plates extending therefrom between the first-mentioned plates and respectively adjacent thereto, and cylindrical shells surrounding the said pneumatic cushions and having their ends supported by said wheel rim plates, said wheel rim plates being cut away around the respective shafts so as to permit relative movement between the pairs of plates.

2. A vehicle wheel comprising a hub, a pair of circular spaced plates mounted centrally on the hub, a circumferential series of cross shafts having their ends supported by said plates, each cross shaft having a flange integral therewith extending all around it at an intermediate point, two plates with diverging rims bolted to the respective sides of said flange, the rims forming a seat for a pneumatic cushion, pneumatic cushions in the said seats formed around the respective cross shafts, a wheel rim, a pair of annular plates projecting inwardly from said wheel rim between the first-mentioned plates and respectively adjacent thereto, and cylindrical shells having their ends supported by the wheel rim plates and surrounding the said pneumatic cushions, the said wheel rim plates being cut away around the said shafts.

1,073,698. TRAVERSE GRINDING, MILLING, AND DRILLING MACHINE FOR LATHES. EDWARD N. MOOR, Oakland, Cal. Filed Jan. 29, 1913. Serial No. 744,884. (Cl. 51—7.)

1. A traverse machine for lathes, comprising a column-stock with means for securing it to the lathe-member; a sleeve encircling and feathered on said column-stock for lineal movement, said sleeve having means for fixing it on the column stock in adjusted position; means carried by the stock for lineally moving the sleeve; a spindle carrier carried by said sleeve; a tool-operating spindle in said carrier; and driving means carried by the spindle.

2. A traverse machine for lathes, comprising a column-stock with means for securing it to the lathe-member; a sleeve encircling and feathered on said column-stock for lineal movement, said sleeve having a nut and having also means for fixing its position on the column-stock; a screw carried by the stock and engaging the sleeve nut for lineally moving the sleeve; a spindle-carrier carried by said sleeve; a tool-operating spindle in said carrier; and driving means carried by the spindle.



3. A traverse machine for lathes, comprising a column-stock, having a cap-plate; a bolt passing through said cap plate and longitudinally through the stock and having a foot-flange adapted to engage the lathe-member, said bolt having a nut for tightening the stock to said member; a split sleeve encircling and feathered on said stock for lineal movement, said sleeve having a clamping bolt for fixing it on the stock and having also a nut; a screw carried by the cap of the column stock and provided with clamping nuts, said screw engaging the sleeve nut for lineally moving the sleeve; and a spindle-carrier carried by said sleeve.

4. A traverse machine for lathes, comprising a column-stock with means for securing it to the lathe-member; a sleeve encircling said stock and feathered thereon for lineal movement; means for lineally moving the sleeve and means for fixing it where adjusted; a pointer carried by the sleeve coacting with graduations on the stock for indicating the lineal adjustment of said sleeve; a spindle-carrier carried by said sleeve; a tool-operating spindle in said carrier; and driving means carried by the spindle.

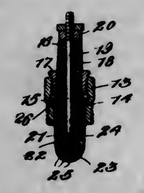
5. A traverse machine for lathes, comprising a column-stock with means for securing it to the lathe-member; a sleeve encircling said stock and feathered thereon for lineal movement; means for lineally moving the sleeve and means for fixing it where adjusted; a pointer carried by the sleeve coacting with graduations on the stock for indicating the lineal adjustment of said sleeve; said pointer being mounted for independent lineal adjustment; and a spindle-carrier carried by said sleeve.

[Claims 6 to 10 not printed in the Gazette.]

1,073,699. SPARK-PLUG. JAMES W. NANCE, Twin Falls, Idaho, assignor of one-fourth to Hubert W. Wilson, Twin Falls, Idaho. Filed June 5, 1911. Serial No. 631,210. Renewed Feb. 17, 1913. Serial No. 749,081. (Cl. 123—169.)

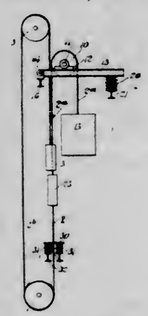
1. A spark plug comprising in combination a shell, an insulated core extending therethrough and provided with a hole therein and a groove on the end portion thereof, a conductor disposed in said groove and consisting of a plurality of segments spaced apart so as to give a series of spark-gaps in the conductor, one end portion of said conductor being connected to said shell, another conductor disposed in said hole and having one end portion adapted for holding a conducting wire thereto, a member

secured to the end portion of the last mentioned conductor so as to bring the same into sparking distance with said segments.



2. A spark plug comprising in combination a shell, an insulated core extending therethrough, and provided with a hole therein and provided with a groove on the end portion thereof, the core being provided with an aperture connecting said groove and said hole, a conductor disposed in said hole and having one of its end portions terminated therein, a nut provided on the other end of said conductor for securing a conducting wire or the like thereto, another conductor secured to said shell at one end, and having its central portion disposed in said groove and said aperture, the portion in said groove consisting of a plurality of segments spaced apart so as to give a series of spark gaps in the conductor, the end of said conductor being secured to the first mentioned conductor.

1,073,700. ROPE ELEVATOR. MICHAEL E. NEENAN, New York, N. Y., assignor to Neenan Elevator Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 28, 1910, Serial No. 551,914. Renewed Feb. 20, 1913. Serial No. 749,727. (Cl. 187—27.)



1. In an elevator system, the combination of an elevator car, a suspension sheave therefor, suitable hoisting means, a rope extending from said car over said sheave to said hoisting means, a buffer mounted adjacent to the course of said rope, and means carried by said rope adapted to engage said buffer and limit the movement of the rope toward the hoisting means.

2. In an elevator system, the combination of an elevator car, a suspension sheave therefor, suitable hoisting means, a rope extending from said car over said sheave to said hoisting means, a car counterweight connected with said rope between said car and said hoisting means, and a buffer mounted in the path of said counterweight to limit its downward travel.

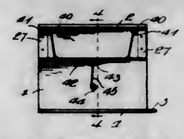
3. In an elevator system, the combination of a car suspension sheave, an elevator car, a car supporting rope extending over said sheave to said car, a car counterweight connected with said supporting rope, suitable hoisting means, a hoisting rope extending from said hoisting means and connected with said car counterweight, and a buffer mounted in the path of said counterweight to limit its downward travel.

4. In an elevator system, the combination of hoisting means, a car suspension sheave, an elevator car, a yielding support for said suspension sheave, a supporting rope extending over said sheave to said car, a car counterweight suitably connected with said car, and a buffer in the path of said counterweight for limiting its downward travel.

5. In an elevator system, the combination of a car suspension sheave, a yielding support for said suspension sheave, an elevator car, a supporting rope connected with said car and passing over said sheave, a car counterweight connected with said supporting rope, suitable hoisting means, a hoisting rope connecting said car counterweight with said hoisting means, and a buffer mounted in the path of said counterweight to limit its downward travel.

[Claims 6 to 16 not printed in the Gazette.]

1,073,701. BEEHIVE. CHARLES M. OSBORNE, Brainerd, Minn. Filed Jan. 16, 1913. Serial No. 742,506. (Cl. 6—1.)



1. The herein described knock-down bee hive, the same comprising a body, a super, a top extending over said super, long U-shaped bails whose arms have their extremities loosely connected with the edges of said top and whose centers make gentle bends and are resilient; and hooks having their lower ends loosely connected with said body and their bills detachably engaging said centers, for the purpose set forth.

2. The herein described bee hive made in members whereof each comprises end pieces, side pieces having upright grooves in their inner faces removably receiving the extremities of said end pieces, and means for detachably connecting the projecting ends of the side pieces outside the end pieces.

3. The herein described bee hive made in members whereof each comprises end pieces, side pieces having upright grooves in their inner faces removably receiving the extremities of said end pieces, and resilient connecting means between the projecting portions of said side pieces and outside said end pieces.

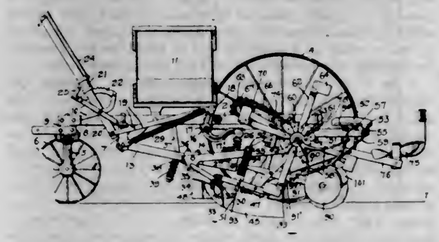
4. The herein described bee hive made in members whereof each comprises end pieces, side pieces having upright grooves in their inner faces removably receiving the extremities of said end pieces, eyes in the inner faces of the projecting portions of the side pieces, two bails whereof each has eyes at its extremities interengaging the eyes on one of said side pieces, and double-hooks connecting the centers of said bails.

5. The herein described bee hive made in members whereof each comprises end pieces, side pieces having upright grooves in their inner faces removably receiving the extremities of said end pieces, eyes in the inner faces of the projecting portions of the side pieces, two bails whereof each has eyes at its extremities interengaging the eyes on one of said side pieces and their centers detachably connected with each other, and other hook-and-eye connections between said pieces.

[Claims 6 and 7 not printed in the Gazette.]

1,073,702. MACHINE FOR TRANSPLANTING PLANTS. RICHARD L. OWENS, Minneapolis, Minn., assignor to J. L. Owens Manufacturing Company, Minneapolis, Minn. Filed Nov. 19, 1910. Serial No. 593,280. (Cl. 55—121.)

1. In a machine of the class described, the combination, with a truck frame and its supporting wheels, of a main carrying frame pivotally supported upon said truck frame, means for raising and lowering said main carrying frame, an auxiliary carrying frame supported upon the main carrying frame, means connecting said auxiliary carrying frame with said main carrying frame and causing the auxiliary frame to maintain a position substantially parallel with the surface of the ground as said frames are raised or lowered, and plant setting means mounted upon said auxiliary carrying frame, substantially as described.



2. In a machine of the class described, the combination, with a truck frame and its supporting wheels, of a main carrying frame pivotally supported at its forward end upon said truck frame, means for raising and lowering said main carrying frame, an auxiliary carrying frame, means connecting said auxiliary frame with the main carrying frame and means for holding the auxiliary frame in a position substantially parallel with the surface of the ground as said frames are raised or lowered, and plant setting means mounted upon said auxiliary carrying frame, substantially as described.

3. In a machine of the class described, the combination, with a truck frame and its supporting wheels, of a main carrying frame pivotally supported upon said truck frame, means for raising and lowering the said main carrying frame, an auxiliary carrying frame, a double crank shaft connecting the forward end of the auxiliary frame to the main carrying frame, and a slotted connection between the rear ends of said frames, substantially as described.

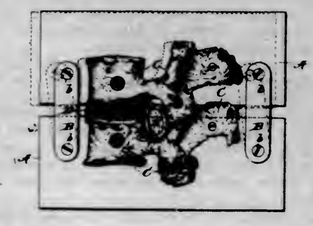
4. In a machine of the class described, the combination, with a truck frame and its supporting wheels, of a main carrying frame pivotally supported at its forward end upon said truck frame, means for raising and lowering said main carrying frame, an auxiliary carrying frame supported at its forward end upon the main carrying frame by a crank connection, a slotted connection between the rear end of the auxiliary frame and the main carrying frame, and plant setting means mounted upon said auxiliary carrying frame, substantially as described.

5. In a machine of the class described, the combination, with a truck frame and its supporting wheels, of a main carrying frame pivotally supported upon said truck frame, means for raising and lowering said main carrying frame, an auxiliary carrying frame supported upon the main carrying frame, means connecting said auxiliary carrying frame with said main carrying frame and causing the auxiliary frame to maintain a position substantially parallel with the surface of the ground as said frames are raised or lowered, and a furrow-opener, a plant-setter, and a furrow-covering mechanism, mounted upon said auxiliary carrying frame, substantially as described.

1,073,703. MOUNTING FOR BONES. BARTLETT J. PALMER, Davenport, Iowa. Filed Nov. 29, 1912. Serial No. 734,142. (Cl. 35—16.)

1. A mounting for bones of the character described comprising a pair of adjacent supporting members, a pair of superposed vertebral sections, one of which is rigidly secured to each of said supporting members, and means for connecting the supporting members whereby one of said members may be moved laterally relatively to the other of said members.

2. A mounting for bones of the character described comprising a pair of supporting members, a pair of superposed vertebral sections, one of said sections being rigidly secured to each of said supporting members, pads between the adjacent bodies of said vertebral sections, and means for connecting the supporting members whereby one of said members may be moved laterally relatively to the other of said members.



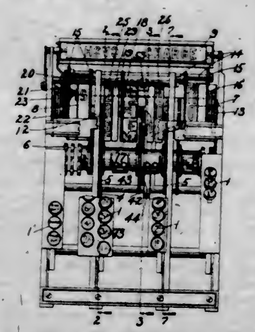
3. A mounting for bones of the character described comprising a pair of supporting members, a pair of superposed vertebral sections, one of which is rigidly secured to each of said supporting members, an elastic tubular member positioned in the orifice formed between the vertebral sections, and connections between said supporting members whereby one of said supporting members may be moved laterally relatively to the other of said supporting members.

4. A mounting for bones of the character described comprising a pair of supporting members, a pair of superposed vertebral sections one of which is rigidly secured to each of said supporting members, a pad between the adjacent portions of the bodies of said vertebral sections, an elastic tubular member positioned in the orifice formed between the vertebral sections, and means for connecting the supporting members whereby one of said members may be moved laterally relatively to the other of said members.

5. A mounting for bones of the character described comprising a pair of supporting members, a pair of superposed vertebral sections, one of which is rigidly secured to each of said supporting members, and a pair of parallel links having their ends pivotally connected to said supporting members whereby one of said members may be moved laterally relatively to the other of said members.

[Claims 6 to 8 not printed in the Gazette.]

1,073,704. CASH-REGISTER. EDWARD J. VON PEIN, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Sept. 16, 1910. Serial No. 582,312. (Cl. 235—3.)



1. In a machine of the class described, the combination with indicators of higher and lower value, of means for

differentially positioning said lower value indicator, a device normally latching the higher value indicator and controlled by the lower value indicator, and means for moving the higher value indicator and extent determined by said latching device.

2. In a machine of the class described, the combination with indicators of higher and lower value, of key controlled means for differentially positioning said lower value indicator, an arm controlled by said lower value indicator and normally latching said higher value indicator, and means for moving said higher value indicator when said latching arm is withdrawn.

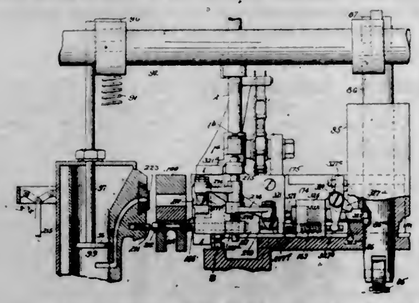
3. In a machine of the class described, the combination with indicators of higher and lower value, and key controlled connections for differentially positioning said lower value indicator, of an arm normally latching said higher value indicator, connections whereby said latching arm may be released by a movement of predetermined extent of said lower value indicator, and means for moving said higher value indicator when the same has been released.

4. In a machine of the class described, the combination with indicators of higher and lower value, and means for differentially positioning said lower value indicator, of an element rotatable with said lower value indicator and having portions of differing radii, an arm normally latching said higher value indicator, and positioned to rest on said rotatable element, and a spring for moving said higher value element when the latching arm has released the same.

5. In a machine of the class described, the combination with indicators for units and tens, of a bank of keys therein, means controlled by said keys for differentially positioning said units indicator, an element movable with said positioning means and having portions of differing magnitude, a device normally latching said tens indicator and positioned to engage both portions of said element, and a spring for moving said tens indicator when the same is released from said latching device.

[Claims 6 to 23 not printed in the Gazette.]

1,073,705. SQUIRT-PREVENTER MECHANISM FOR LINOTYPE-MACHINES. DAVID PETRI-PALMEDO, Providence, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 23, 1911. Serial No. 667,451. (Cl. 199—15.)



1. In squirt preventer mechanism for linotype machines, the combination with a metal-pump piston, a spring for moving it in the working direction, a cam, and a train of mechanism intermediate of the cam and piston through which the cam restrains the spring-induced working stroke of said piston, a squirt preventer which normally engages a member of the train of mechanism intermediate of said cam and piston and prevents the spring induced movement of said member, and consequently of the other members of the train of mechanism and the piston, and means which are caused to operate when the parts concerned in the casting of a line of type are moved into proper casting positions for causing the withdrawal of said squirt preventer and the consequent freeing of the pump piston from the restraining influence thereof.

2. In a squirt preventer mechanism for linotype machines, the combination of a metal pump piston, a rock shaft having two arms of which one is operatively connected with the pump piston, a plunger with which the other arm engages, a spring for rocking said rock shaft, and a cam against which said plunger bears to restrain the spring-induced rocking of said rock shaft, of a movable squirt preventer which engages with said plunger to prevent the spring induced movement thereof, and means, which become operative only when the parts concerned in the casting of a linotype are in their proper position, for causing the withdrawal of said squirt preventer.

3. In a squirt preventer mechanism for linotype machines, the combination of a metal-pump piston, a rock shaft having two arms of which one is operatively connected with said pump piston, a plunger with which the other arm engages, a spring for rocking said rock shaft in one direction, and a cam against which said plunger bears to restrain the spring induced rocking movement of said rock shaft, of a movable squirt preventer which engages with said plunger to prevent the spring induced movement thereof, a pawl which engages said squirt preventer to prevent its withdrawal, and means, which become operative only when the parts concerned in the casting of a linotype are in their proper position, for causing the withdrawal of said pawl, a spring adapted to withdraw said squirt preventer, and a slide resisting the spring induced movement of said squirt preventer.

4. In squirt preventer mechanism for linotype machines, the combination with the mold, pot nozzle, a metal-pump piston, a spring for moving it in the working direction, a cam, and mechanism whereby the cam restrains the spring induced working stroke of said pump piston, of a supplemental device for restraining the spring-induced working stroke of said pump, a push rod made up of at least two normally disalined pieces, which push rod controls the withdrawal of the supplemental restraining device, one part of said push rod being carried by the mold whereby it will become alined with the other part of the push rod only when the mold is in the casting position, and means carried by the melting pot for engaging the push rod section which the mold carries, whereby the push rod is moved in the direction to cause the withdrawal of the supplemental restraining device.

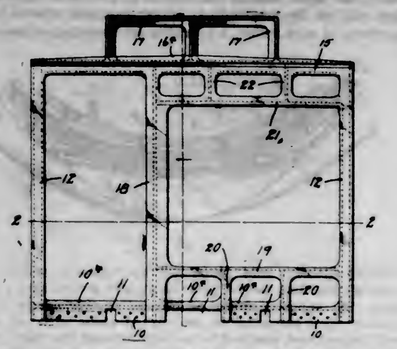
5. In squirt preventer mechanism for linotype machines, the combination of a spring actuated metal-pump piston a principal device for restraining the working stroke of said piston, a movable device which is supplemental to the principal device for restraining the working stroke of the metal-pump piston, a movable mold, a melting pot which is movable toward and from the mold, a slide carried by the mold and adapted to be engaged and moved by the pot nozzle when the mold is in the casting position, and means rendered operative by said slide for withdrawing the supplemental device which restrains the working stroke of the pump piston.

[Claims 6 to 16 not printed in the Gazette.]

1,073,706. CAR END FRAME. HARRY M. PFLAGER, St. Louis, Mo., assignor to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 8, 1912. Serial No. 730,219. (Cl. 105—201.)

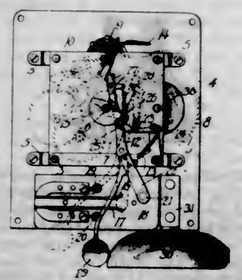
1. The hereindescribed car end frame comprising a skeleton one-piece structure composed of a base, a pair of uprights, a top rail, a post extending from the base to the top rail between the pair of upright members, which post divides the space within the frame into a door opening and a window opening, and rails between said post and one of the uprights, which rails constitute a lintel and a window sill.

2. The hereindescribed end frame comprising a base, a pair of corner posts, the lower portions of which are extended rearwardly to form brace brackets which engage the car underframe when the end frame is applied thereto, a top rail, a continuous flange thereon for the attachment of the hood frame and hood sheet, a post extending from the base to the top rail between the corner posts, a rail extending between the intermediate post and one of the side posts, which rail constitutes a



lintel and a rail between the intermediate post and one of the corner posts, which last mentioned rail constitutes a window sill, all of which parts are formed integral.

1,073,707. TIME-SWITCH. SEBRING I. PHELPS, Buchanan, Mich. Filed Dec. 21, 1910. Serial No. 598,655. (Cl. 161—27.)



1. In a device of the class described, the combination of a rotary member, a motor connected to rotate said member in one direction, a detent normally urged into position to hold said motor inactive, means for manually rotating said member in said one direction, means adapted through such manual rotation of said member to retract said detent to permit said motor to continue the rotation of said member, and a switch adapted to be closed and opened by said member at certain respective positions of said member during the rotation thereof.

2. In a device of the class described, the combination of a rotary member, a motor connected to rotate said member in one direction, a detent normally urged into position to hold said motor inactive, means for manually rotating said member in said one direction, means adapted through such manual rotation of said member to retract said detent to permit said motor to continue the rotation of said member, a switch, and means carried by said member and adapted to close said switch when said member is rotated manually to release said detent and adapted to automatically open said switch when said member has completed a predetermined angular movement continued in said one direction.

3. In a device of the class described, the combination of a rotary member adapted to have a certain complete angular movement in one direction, a motor connected to rotate said member, a detent normally urged into position to hold said motor inactive, means for manually rotating said member through a certain portion of said angular movement, means adapted through such manual rotation of said member to retract said detent to permit said motor to continue the rotation of said member, a switch, and mechanism controlled by said member for opening said switch when said member has completed said angular movement.

4. In a device of the class described, the combination of a rotary member, a motor connected to rotate said member, a lever normally urged into position to hold said motor inactive, a shoulder on said lever, a detent normally urged into a position to engage said shoulder, a cam carried by said rotary member and adapted to normally hold said detent in a retracted position and adapted, when said member is given a certain angular movement, to release said detent to permit it to engage said shoulder, resilient means acting between said lever and cam and adapted to yield during that part of the angular movement of said cam during which said detent is in engagement with said lug, and being adapted to shift said lever to its retracterd position to release said motor when said detent is released, and a switch adapted to be closed by said lever when shifted to said retracted position.

5. In a device of the class described, the combination of a rotary member, a motor connected to rotate said member, a lever normally urged into position to hold said motor inactive, a shoulder on said lever, a detent normally urged into a position to engage said shoulder, a cam carried by said rotary member and adapted to normally hold said detent in a retracted position and adapted, when said member is given a certain angular movement, to release said detent to permit it to engage said shoulder, a relatively movable part carried by said lever and adapted to be engaged by said cam for urging said lever toward a retracted position to release said motor, yielding means acting between said part and said lever and adapted to urge said part toward a normal position relative to said lever, said part being adapted to yield when engaged by said cam and when said detent is in engagement with said shoulder, and being adapted to shift said lever to release said motor when said detent is retracted, and a switch adapted to be closed when said lever is shifted to said retracted position.

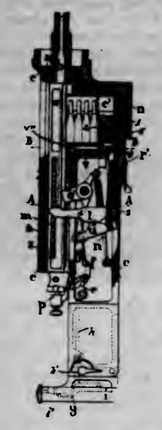
[Claim 6 not printed in the Gazette.]

1,073,708. RECEIVER-HOLDER FOR TELEPHONES. HUGO C. RAIBER, Pittsburgh, Pa. Filed Oct. 19, 1912. Serial No. 726,773. (Cl. 179—149.)



In a receiver holder, a clamp adapted to be secured to the pedestal of a telephone and provided with oppositely disposed trunnions, a pair of vertically disposed parallel arms pivotally mounted at their lower ends upon said trunnions and each having its upper ends terminating in an outwardly curved receiver holder, a strap integral with said arms for maintaining them in parallel relation, and one of said arms having its inner edge provided with a notch formed with beveled walls, said notch permitting its respective arm to be placed in engagement with the switch arm of a telephone for maintaining it in a lowered position.

1,073,709. AUTOMATIC GUN. BETHEL ABIEL REVELLI, Rome, Italy. Filed Sept. 14, 1908. Serial No. 452,944. (Cl. 89—3.)



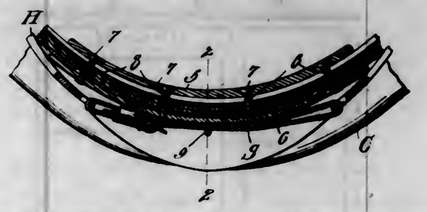
1. In an automatic gun, the combination of a barrel, a barrel extension with a slot, a body or frame, a closing mechanism consisting of a lever turning upon a pivot fixed to the frame part or body, which lever passes through the said slot of the barrel extension, and a breech block having a notch for said lever and sliding in the barrel extension and containing the striking pin and a spring adapted for the double use of percussion and restoring the breech block to normal position after recoil.

2. In an automatic gun, the combination of a barrel, a barrel extension with a slot, a body or frame, a closing mechanism consisting of a lever turning upon a pivot fixed to the frame part or body, which lever passes through the said slot of the barrel extension, and a breech block having a notch for said lever and sliding in the barrel extension and containing the striking pin with a spring adapted for the double use of percussion and restoring the breech block to normal position after recoil, a metal charging device for renewing the ammunition consisting of a parallelepiped-shaped box, means dividing said box into vertical compartments, a spring in each compartment, an elevator in each compartment having a projection or extension which slides in a slot in the vertical back wall of the compartments, a rack on the base of the charging device, and a plate to support the charging device when advancing.

3. In an automatic gun, the combination of a barrel and breech closing mechanism comprising a pivoted lever, a barrel extension containing a slot, an arm on said lever adapted to pass through said slot, a breech-block having a notch to engage wedge-like with the arm of said lever whereby the barrel recoils with the closing mechanism at the moment of firing, and after a short recoil movement alone, a charging device for renewing the ammunition consisting of a parellelepiped-shaped box, means dividing said box into vertical compartments, a spring and elevator in each of said compartments, an elevator extension adapted to project beyond the slot in the vertical back wall of the compartment and a plate to support the charging device, and means for advancing the charging device.

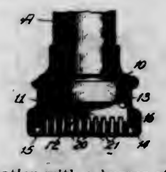
1,073,710. COLLAR ATTACHMENT. HENRY ROEDER, Longmont, Colo. Filed Apr. 12, 1911. Serial No. 620,582. (Cl. 54—19.)

An attachment for horse collars comprising a longitudinally curved plate to be engaged with the under side of the throat portion of the collar and having oppositely extending concavo-convex portions forming an intermediate longitudinal groove, a loop bar secured at its ends to the oppositely extending portions of said plate and arranged transversely of the plate and bridging said intermediate groove, a transversely flat rigid metal plate to be engaged upon the upper side of the throat of the collar and resting only at its longitudinal edges upon the spaced body portions of said collar, a plurality of fastening screws ex-



tending through said plate and through the collar and through the first named plate to rigidly secure said plates upon the opposite faces of the collar, and strap irons formed upon one edge of the curved plate adjacent each end thereof and adapted to be bent around the front edge of the collar to reduce the frictional engagement between the second plate and the heads of the fastening screws.

1,073,711. BURNER. FRANK W. ROSENGREN, Chicago, Ill., assignor to Enterprise Tool and Metal Works, Chicago, Ill., a Corporation of Illinois. Filed Sept. 15, 1911. Serial No. 649,479. (Cl. 67—94.)



1. The combination with a burner of a screen formed of a block of metal having a series of continuous grooves cut in each of two of its opposite faces, the grooves being cut to leave ribs or bars on each of said faces, the grooves in one face communicating with and being cut transversely to those in the other face, the bars or ribs on one face being transverse to those on the other.

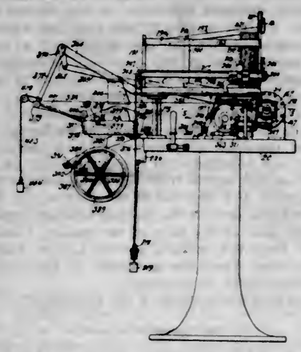
2. The combination with a burner of a screen formed of a block of metal having a series of continuous grooves cut in each of two of its opposite faces, the grooves being cut to leave ribs or bars on each of said faces, the grooves in one face being cut of sufficient depth to intersect and extend beyond those in the other face and crosswise thereof, the bars or ribs on one face being transverse of those on the other.

3. The combination with a burner of a screen formed of a block of metal and having a plurality of series of straight grooves cut therein leaving ribs or bars between the grooves, the ribs or bars of one series extending transversely to the bars and grooves of the other series.

1,073,712. NECK-MAKING MACHINE. BERNARD ROUS, Brooklyn, N. Y., assignor to Louis Hefter, New York, N. Y. Filed Dec. 4, 1911. Serial No. 663,824. (Cl. 93—40.)

1. In a neck making machine the combination of a former for a strip of material, means to turn said former, means to reciprocate the former, an inner box around the former, an outer guide box around the inner box, means extending from the inner box to guide the strip, means on the said former to clamp the strip in place and means to fasten a paper band to the strip as the latter is turning and being converted into a frame or neck.

2. In a neck making machine the combination of a former, means to turn said former, means to lock said former in operative position after each revolution thereof, means to locate a strip of material against one of the sides of said former while it is at rest, a buffer in the machine opposite the strip of material, means to move the buffer to fasten or glue a band against said strip, and an element pressing the band against said strip during the turning of said former.



3. In a neck making machine the combination of a reciprocating carriage, means in the machine to support a reel of paper band, a glue box in the machine, a glue wheel in said box for said band, a bracket in the machine, an arm pinned to said bracket, means to move said arm, a second arm pinned to the bracket, a roller journaled in the end of the second arm engaging said band, a pin on the second arm in the path of the first arm, a band fastened to the end of the second arm, a weight supported by the band and a roller for the latter band.

4. In a neck making machine the combination of a sleeve journaled in the machine, means to intermittently rotate said sleeve, a tubular sleeve slidably connected to said sleeve, means to reciprocate said tubular sleeve, an intermediate sleeve slidably located within the tubular sleeve, means to reciprocate the intermediate sleeve, a third sleeve slidably located within the intermediate sleeve, means to reciprocate the third sleeve, a rod slidably supported in the third sleeve, means to reciprocate said rod, an outer guide box connected to one end of the tubular sleeve, a second and inner guide box within the outer guide box and connected to the intermediate sleeve, a former within the inner guide box and secured to the third sleeve and a finishing plunger carried on the said rod.

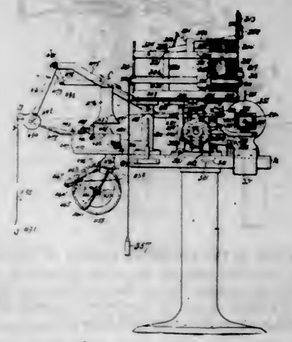
5. In a neck making machine the combination of a former for a strip of material, means to turn the said former, means to reciprocate the former, an inner box around the former, an outer guide box around the inner box, a finger extending from the inner box to guide the strip, means on the said former to clamp the strip in place, means to fasten a paper band to the strip as the latter is turning and being converted into a frame or neck, means to cut the said band, a closer coacting with the said former to bend the said band over the outer surface of the neck, a finishing plunger coacting with the outer guide box and means to force the plunger against the bent band to force it against and fasten it to the inner faces of the neck.

[Claims 6 to 13 not printed in the Gazette.]

1,073,713. NECK-MAKING MACHINE. BERNARD ROUS, Brooklyn, N. Y., assignor to Louis Hefter, New York, N. Y. Filed Feb. 7, 1912. Serial No. 676,083. (Cl. 93—40.)

1. In a neck making machine the combination of a forming block for a strip of material, means to turn the block, means to reciprocate the block, a guide box for said block, fingers on the box to guide and support said strip and means on the block to clamp the strip of material in place.

2. In a neck making machine the combination of a forming block for a strip of material, a guide box slidably connected to the block, means to turn the block and box, a pair of fingers extending from the box, a catch located in a cavity in the block and normally extending through one of the sides thereof, a swinging heel hinged to the box and means to swing it parallel to one of the sides of the block to clamp strips of material thereto.



3. In a neck making machine the combination of a disk, means to rotate the disk, means to lock the disk in operative position, a disk toe located to lock with said disk, a guide box with its longitudinal axis coincident with the longitudinal axis of said disk, a forming block slidably supported in the box, a toe hinged on the box to clamp a strip of material against said block, a plunger carried on the box in the path of said disk toe, an arm for the toe that is hinged to the box and a lever connecting said arm and said plunger.

4. In a neck making machine the combination of a journal bracket, a sleeve journaled therein, a pinion fastened to one end of the sleeve and a disk fastened to the other end thereof, an outer sleeve journaled in said sleeve, means to reciprocate the latter sleeve, a disk toe normally locked with said disk, means to lock the disk in operative position, a second sleeve slidably supported in the said outer sleeve, means to reciprocate the second sleeve, a guide box connected to the second sleeve, a connection between the disk and box to rotate the latter, a third sleeve within the second sleeve, a forming block fastened to the third sleeve and means to reciprocate the third sleeve.

5. In a neck making machine the combination of a journal bracket, a sleeve journaled therein, a pinion fastened to one end of the sleeve and a disk fastened to the other end thereof, an outer sleeve journaled in said sleeve, means to reciprocate the latter sleeve, a toe normally locked with said disk, means to lock the disk in operative position, a second sleeve slidably supported in the said outer sleeve, means to reciprocate the second sleeve, a guide box connected to the second sleeve, a connection between the disk and box to rotate the latter, a third sleeve within the second sleeve, a forming block fastened to the third sleeve, means to reciprocate the third sleeve, a connection between the forming block and said disk, a plunger rod within the third sleeve, means to reciprocate the rod and a carrier connected to said rod.

[Claims 6 to 11 not printed in the Gazette.]

1,073,714. CLASP. WILLIAM JOHN SHORTEN, Nashville, Tenn. Filed Sept. 6, 1912. Serial No. 719,019. (Cl. 24—206.)

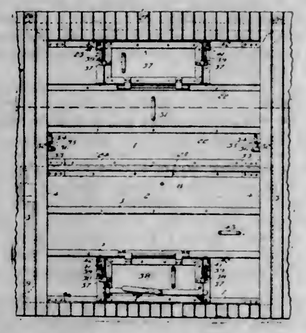
A clasp, composed of two members for interlocking engagement, one member being a relatively rigid curved plate having a plurality of transversely disposed teeth upon one face and a projecting portion upon the opposite face extending from one end to a point near the center of the plate, said projecting portion being provided with

a relatively narrow slot disposed parallel to the adjacent face of the plate; and the other member having two resilient tongues disposed in spaced relation with a normal tension toward each other, one tongue being narrower at its free end than the other tongue for insertion



within the slot of the projecting portion of the first member, while the free end of the other tongue is provided with a tooth to engage one of the teeth of the first member when the plate of the first member is disposed between the resilient tongue of the second member.

1,073,715. CAR-DOOR. CHARLES E. SIEVERT, Council Bluffs, Iowa. Filed Aug. 7, 1911. Serial No. 642,635. (Cl. 20—29.)



1. A vertically tiltable door having a swinging gravity detent, and a member supported independently of the door and provided with a toothed convexed portion struck from the pivotal support of the door as its center, said toothed portion lying in the path of the free end of the detent for engagement thereby to support the door in tilted position, the toothed portion terminating at each end short of the path of movement of the door to permit the detent to swing clear of the teeth at the opposite limits of movement of the door, substantially as described.

2. A vertically tiltable door pivotally supported at one of its lower corners and having a swinging gravity detent, a member supported independently of the door and provided with a toothed convexed portion struck from the pivotal support of the door as a center, said toothed portion lying in the path of the free end of the detent for engagement thereby to support the door in tilted positions, and a slide carried by the door and engaging the toothed member as a guide, substantially as described.

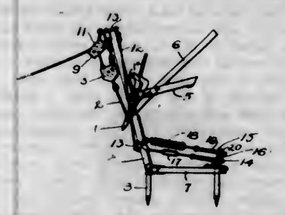
3. A vertically tiltable door pivotally supported adjacent one of its lower corners and provided with a swinging gravity detent, an arcuate guide member supported independently of the door and disposed in an arc struck from the pivotal support of the door as a center, the convexed edge of the guide being toothed and said toothed portion terminating short of the ends of the guide and lying in the path of the free end of the detent, and a slide carried by the door and embracing the concaved edge of the guide, substantially as described.

4. A door including a vertically tiltable door member pivotally supported at one of its lower corners, an arcuate guide member disposed concentric to the pivotal support of the door, a slide carried by the door and coöperating with the concaved side of the guide, and a swinging gravity detent carried by the door and coöperating with the convexed side of the guide to hold the door in different tilted positions, substantially as described.

5. A vertically tiltable door provided with a pivotal support adjacent one lower corner, a swinging gravity detent upon the door, a member supported independently of the door and provided with a convexed toothed portion disposed in an arc struck from the pivotal support of the door as a center and disposed in the path of the free end of the detent, the ends of the toothed member terminating short of the ends of the path of the detent, whereby the latter will clear the toothed portion and be free to reengage the same when the movement of the door is reversed, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,073,716. MANURE-LOADER. WILLIAM SKAKEL, Avon, S. D. Filed Dec. 4, 1912. Serial No. 734,840. (Cl. 214—3.)



1. A loader of the specified class, comprising a stationary base, a frame pivoted to the base and carrying an inclined track, a scraper movable both on the ground and also on the track, an operating cable engaging the scraper and the pivoted frame, a dog for engaging the cable, and adjustable automatic means for tripping the dog.

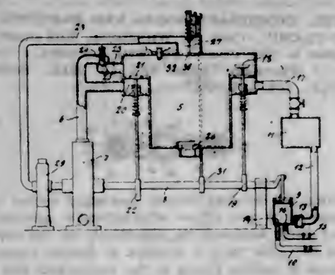
2. A loader of the specified class, comprising a scraper movable over the ground, a pivoted frame adapted to raise the scraper above the ground, a cable actuating the scraper and the frame, and means for automatically holding and releasing the cable.

3. A loader of the specified class, comprising a scraper, a bail secured to the front of the scraper, a sheave secured to the bail, a frame on which the scraper is adapted to be raised above a wagon, means for pivoting the frame at the side of a wagon, a sheave secured to the frame, an operating cable secured to the frame and running in the sheaves, a dog for stopping and releasing the cable, and means for controlling the action of the dog by the position of the frame.

4. A loader of the specified class, comprising a scraper, a pivoted frame adapted to raise the scraper from the ground, a cable actuating the frame and the scraper, a dog to engage the cable, means for tripping the dog, and a spring acting upon the frame against the pull of the cable.

5. A manure loader of the specified class, comprising a scraper, a bail secured to the scraper, a sheave secured to the bail, a pivoted frame adapted to be raised above a wagon, legs or an inclined track supporting one end of the frame above the ground, means for securing the other end of the frame at the side of a wagon, a sheave secured to the raised end of the frame, a cable running in the sheaves, means for controlling the running of the cable, and means for retracting the raised frame when the cable is released.

1,073,717. GAS-TURBINE. ARTHUR E. STACHEL, Chicago, Ill. Filed Dec. 28, 1912. Serial No. 739,046. (Cl. 60—4.)



1. The combination of a motor, a pressure-generating chamber having a fuel inlet, and an outlet connected to the motor, a valve controlling the outlet, means for periodically opening said valve, means for periodically admitting a charge of fuel to the chamber, means for igniting the charge in the chamber, an exhaust outlet from the chamber, a suction fan connected to said exhaust outlet, a valve controlling the exhaust outlet, means for periodically opening the exhaust outlet valve, and a valve for admitting air to the chamber when the exhaust outlet valve is open.

2. The combination of a motor, a pressure-generating chamber having an outlet connected to the motor, a valve controlling the outlet, a fuel inlet to the chamber, a valve controlling the fuel outlet, means for igniting the fuel in the chamber, an exhaust outlet from the chamber, a suction fan connected to said exhaust outlet, a valve controlling the exhaust outlet, means for opening the inlet, outlet and exhaust outlet valves in the order named, and a valve for admitting air to the chamber when the exhaust outlet valve is open.

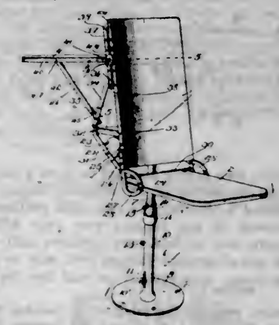
3. The combination of a motor, a pressure-generating chamber having a fuel inlet, and an outlet connected by a conduit to the motor, a valve controlling the outlet, means for periodically opening said valve, an outlet conduit from the chamber to the first-mentioned conduit, a relief valve in said outlet conduit, means for periodically admitting a charge of fuel to the chamber, means for igniting the charge in the chamber, an exhaust outlet from the chamber, a suction fan connected to said exhaust outlet, a valve controlling the exhaust outlet, means for periodically opening the exhaust outlet valve, and a valve for admitting air to the chamber when the exhaust outlet valve is open.

4. The combination of a motor, a pressure-generating chamber having a fuel inlet, and an outlet connected to the motor, a valve controlling the outlet, means for periodically opening said valve, means for periodically admitting a charge of fuel to the chamber, means for igniting the charge in the chamber, an exhaust outlet from the chamber, a suction fan connected to said exhaust outlet, a valve controlling the exhaust outlet, means for periodically opening the exhaust outlet valve, a valve for admitting air to the chamber when the exhaust outlet valve is open, a fuel reservoir connected to the inlet of the chamber, and a pump for charging said reservoir.

5. The combination of a motor, a pressure-generating chamber having a fuel inlet, and an outlet connected by a conduit to the motor, a valve controlling the outlet, means for periodically opening said valve, an outlet conduit from the chamber to the first-mentioned conduit, a relief valve in said outlet conduit, means for periodically admitting a charge of fuel to the chamber, means for igniting the charge in the chamber, and a valve for admitting air to the chamber before the admission of the fuel charge.

[Claim 6 not printed in the Gazette.]

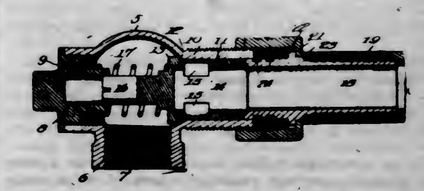
1,073,718. SCHOOL SEAT AND DESK. JOHN M. STUBBLEFIELD, Pawhuska, Okla. Filed Dec. 15, 1911. Serial No. 666,014. (Cl. 155—34.)



1. In a device of the type described, the combination with a seat and its back, of supporting means therefor including an upright having at its upper end a transverse member provided at its ends with flanges, a member having pivotal supporting connection with said seat and fixed connection with said back, means effecting adjustable connection between said flanges and said seat-pivotal-supporting member, and means effecting adjustable connection between said flanges and said back.

2. In a device of the type described, the combination with a seat and its back, of supporting means therefor including an upright having at its upper end a transverse member provided at its ends with flanges having slots therein, a member having pivotal supporting connection with said seat and fixed connection with said back, and adjusting screws engaging said slots of the flanges, effecting adjustable connection between said pivotal supporting members and said flanges, and adjustable connection between said back and said flanges, respectively.

1,073,719. VALVED COUPLING. JOHN N. TIMMER, Uniontown, Pa. Continuation of application Serial No. 569,516, filed June 29, 1910. Renewed Dec. 27, 1911, Serial No. 668,097. This application filed Dec. 26, 1912. Serial No. 738,616. (Cl. 137—30.)

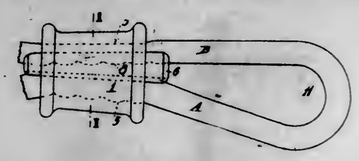


In a valved coupling, a casing having inlet and outlet openings, the latter having a valve-seat, a cylinder slidably mounted in the outlet opening, and having side ports, a cap closing one end of the cylinder, said cap being loose thereon, the other end of the cylinder being open, and the cap having an annular flange which encircles the cylinder and is shaped to engage the aforesaid seat, and resilient means for holding the cap seated on the cylinder and the flange thereof in engagement with the valve-seat.

1,073,720. METALLIC ROPE-FITTING. BENJAMIN HOSKING TREWHELLA, Birmingham, England. Filed Nov. 1, 1912. Serial No. 729,060. (Cl. 21—136.)

1. A metallic rope fitting adapted to receive two rope portions consisting of an interiorly tapered casing or band formed in one tapered face only with spiral grooves

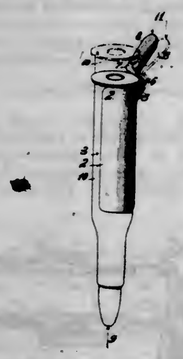
to grip one rope portion and a wedge formed with spiral grooves on one side only to grip the other rope portion, substantially as and for the purpose specified.



2. A metallic rope fitting adapted to form a loop on the end of a rope, consisting of an interiorly tapered casing or band adapted to receive the two rope portions of the loop and formed in one tapered face only with spiral grooves to grip one of said rope portions and a wedge formed with spiral grooves on one side only to grip the other rope portion, substantially as and for the purpose specified.

3. A metallic rope fitting adapted to receive two rope portions, comprising a hollow metallic casing having a longitudinal passage elongated or approximately elliptical in cross section, said passage having two opposite rounded tapering interior faces and two approximately parallel faces, one rounded face being spirally grooved and the other smooth, and a wedge concave on two oppostie sides and approximately parallel on the other sides, one of said concave sides being spirally grooved, and the other smooth, the smooth face being arranged in the casing opposite the spiral face of the latter.

1,073,721. CARTRIDGE-HOLDER. WILLIAM W. UREN, Savona, British Columbia, Canada. Filed Jan. 8, 1913. Serial No. 740,797. (Cl. 224—24.)



1. As a cartridge holder, the combination with a member formed to partially encircle the body of the cartridge and having provision for attachment of the same to a belt, of a resilient retaining member integral therewith, said member projecting above the upper end of the encircling portion and formed to project over the rim of the cartridge and produced upward and backward therefrom to form a finger engagement.

2. As a cartridge holder, the combination with a member formed to partially encircle the body of the cartridge and having provision for attachment to a belt or the like, of a resilient retaining member, said retaining member formed to project within the circle of the holding portion and carried backward therefrom to form a finger engagement.

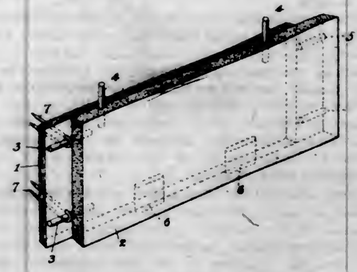
3. As a cartridge holder, the combination with a cartridge holding receptacle having means for attachment to a belt or the like, of a resilient retaining member carried by the cartridge receptacle on the same side as the belt attachment, said retaining member formed to positively engage the upper side of the rim of the cartridge inserted in the receptacle and produced backward and upward from this engagement to form a release engagement.

1,073,722. COMBINATION GAS AND ELECTRIC OUTLET CLAMP. CARL M. WHEELOCK, Milwaukee, Wis., assignor to New Process Specialty Company, a Corporation of Wisconsin. Filed Nov. 16, 1912. Serial No. 731,654. (Cl. 248—30.)



A clamp for securing flexible insulating tubing to gas-pipe comprising two strips of semiflexible material having each three half-sockets respectively at the ends and between the ends thereof, adapted to receive respectively two pieces of flexible tubing in the end-sockets and a gas-pipe in the intermediate socket; the two strips being disposed in symmetrical relation; and two fastening devices located respectively between the two end-sockets and the intermediate socket and adapted to draw the two pieces together at the respective ends thereof and thereby adjust their distance to variable dimensions of said flexible tubing.

1,073,723. BUILDING-BLOCK. JAMES COLLORD WHITE, Sewickley, Pa. Filed Feb. 28, 1913. Serial No. 751,344. (Cl. 72—19.)



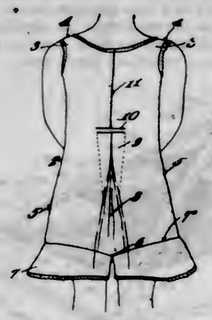
1. A compound building block formed solely of a layer of concrete molded and compressed upon a board of fibrous material protruding at one end beyond one edge of said concrete layer, pins molded in and held firmly by the body of said concrete and extending upon said protruding fibrous board.

2. The combination with a wall, of a plurality of building blocks each formed of a layer of concrete molded and compressed upon a board of fibrous material, said fibrous material protruding at one end beyond the edge of said concrete layer, there being pins molded in and held firmly by said body of concrete and extending upon said protruding fibrous board, and securing members extending through said fibrous board and engaging said pins and said wall.

3. The combination with a wall, of a plurality of building blocks each formed solely of a layer of concrete molded and compressed upon a board of fibrous material, said fibrous material protruding at one end beyond the edge of said concrete layer, there being pins molded in and held firmly by the body of said concrete and extending upon said protruding fibrous load, and double-pointed nails extending over said pins and engaging said wall through said protruding fibrous board.

1,073,724. LADY'S NEGLIGÉE UNDERGARMENT. VIRGINIA WHITTINGTON, Valdosta, Ga. Filed Oct. 24, 1912. Serial No. 727,574. (Cl. 2—144.)

A chemise, the body portion of which consists of two pieces of material only, comprising a front section and a back section, the longitudinal edges of the sections being secured together to form the side seams of the chemise, the intermediate portions only of the lower edges of the sections being secured together to form leg openings, the back section being folded toward the longitudinal center of the chemise to form a pair of plaits,

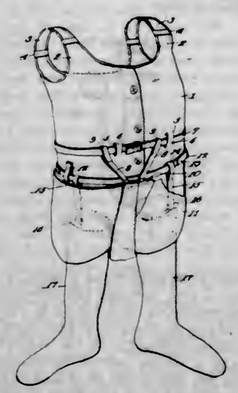


the upper edges only of the plaits being stitched down and the plaits at their lower ends tapering and running out into the constituent material of the back section, the back section being split and sewed together above the plaits to take up the slack caused in the upper portion of the chemise by the formation of the plaits.

1,073,725. TOOTH-POWDER. ROSE YEGANIAN, Yonkers, N. Y. Filed Jan. 4, 1913. Serial No. 740,226. (Cl. 167—9.)

A tooth powder composed of pulverized cloves, salt, rhubarb, charcoal, and pulverized and desiccated pine-apple pulp.

1,073,726. GARMENT. ROSE YEGANIAN, Yonkers, N. Y. Filed Jan. 9, 1913. Serial No. 741,088. (Cl. 2—41.)

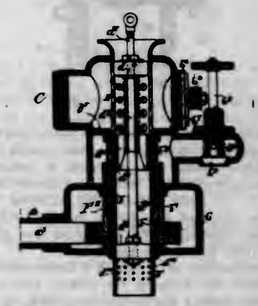


1. A body garment having incisions in the waist portion thereof forming straps, a belt outside of the garment and slidably engaging the straps, loops extending from the garment and below the belt, a belt outside of the garment and supported by the loops, and supporters slidably mounted upon the respective belts.

2. A body garment having incisions in the waist portions thereof forming straps, an elastic belt outside of the garment and slidable within the incisions and retained by the straps, loops extending from the outer side of the garment and below the belt, an elastic belt slidably mounted in the loops and disposed outside of the garment, and supporters carried by the respective belts and slidable thereon.

3. A body garment having incisions in the waist portions thereof forming straps, an elastic belt outside of the garment and slidable within the incisions and retained by the straps, loops extending from the outer side of the garment and below the belt, an elastic belt slidably mounted in the loops and disposed outside of the garment, and supporters carried by and slidable longitudinally of the respective belts, each supporter including a strap and a garment engaging fastener.

1,073,727. CARBURETER. LEONARD ATWOOD, Boston, Mass. Filed Apr. 14, 1909. Serial No. 489,757. (Cl. 48—156.)



1. The combination of a casing having two air inlets, and an outlet connected to an engine; a tubular wick in the casing between one of the air inlets and the outlet; means for delivering liquid fuel to the wick; with valves having means for simultaneously actuating them; said valves respectively controlling the flow of air into the casing through the second air inlet and the flow of vaporized fuel from the wick.

2. The combination in a carbureter of a casing having a carbureting chamber connected to an engine and provided with an air inlet to said chamber, a valve for said inlet, a source of supply of liquid fuel connected to another portion of the casing, a wick in the casing placed to receive said fuel from said source, means for delivering air to the wick, and means for controlling the flow of air through the wick to the carbureting chamber, said controlling means being operatively connected to the air inlet valve.

3. The combination in a carbureter of a casing, a wick mounted therein and connected to a source of supply of liquid fuel, means for connecting the casing with the engine, valves placed to respectively govern the flow of air through the wick and the entrance of air into the casing, said valves being mechanically connected and formed to maintain substantially constant the relative proportions of air and vaporized fuel irrespective of the quantities of said ingredients.

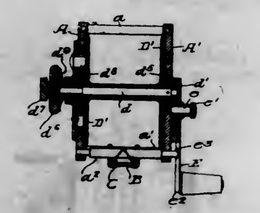
4. The combination in a carbureter of a casing, having an outlet, a cylinder, a wick adjacent to the cylinder and connected to a source of liquid fuel, there being air inlets for the casing of which one is placed to deliver air directly to the outlet and another is placed to deliver air to said outlet through the cylinder and the wick, with mechanically connected valves for the cylinder for regulating the flow of air into the casing and also the flow of vaporized fuel from the wick.

5. The combination in a carbureter of a casing, having an outlet, a cylinder, a wick adjacent to the cylinder and connected to a source of liquid fuel, there being air inlets for the casing of which one is placed to deliver air directly to the outlet and the other is placed to deliver air to said outlet through the cylinder and the wick, with valves for the cylinder for regulating the flow of air into the casing and also the flow of vaporized fuel from

the wick, and a common operating device for the valves, said valves being constructed to maintain substantially constant the relative proportions of said vaporized fuel and air regardless of the extent of their openings.

[Claims 6 to 13 not printed in the Gazette.]

1,073,728. FISHING-REEL. LEONARD ATWOOD, Boston, Mass., assignor of one-half to Charles F. Pope, New York, N. Y. Filed Apr. 30, 1909. Serial No. 493,209. (Cl. 43—15.)



1. The combination in a reel of a frame having a spool; a crank handle for turning the same; with a longitudinally movable locking pin mounted in bearings in the frame so as to be slidable in a line substantially parallel to the axis of the spool and capable of being projected at will into the path of the crank handle; with an automatic friction exerting device acting on said pin and tending to hold it in any given position.

2. The combination in a reel of a frame having a spool; a crank handle for turning the same; with a longitudinally movable locking pin mounted to slide in bearings in the frame so as to be adjustable transversely thereof and capable of being projected into the path of the crank handle; said handle having a cam surface placed to longitudinally move said pin when the handle is turned in one direction.

3. The combination in a reel, of a frame having a spool; a crank handle operatively connected to said spool for turning the same; a longitudinally movable locking pin mounted in the frame so as to be adjustable transversely thereof and capable of being projected into the path of the crank handle; with means for applying friction to said pin to prevent its free movement; the reel mechanism including means for moving the pin to an inactive position when the handle is turned in a predetermined direction.

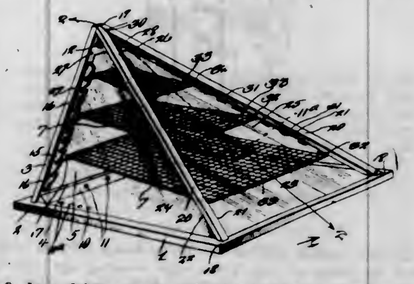
4. The combination in a reel of a frame, including two side plates; a spool; a crank handle for turning said spool; means for operatively connecting the crank handle and spool; a rod engaging structure connected to the frame; a locking pin supported to be longitudinally movable in a line parallel to the axis of the spool and capable of being projected into the path of the crank handle; with a friction producing piece mounted between said pin and said rod engaging structure.

5. The combination in a fishing reel of a frame, a spool, a spindle having an operating handle and threaded at one end, with means for operatively connecting said spool and spindle at will, said means including a sleeve threaded on the threaded end of the spindle, and an adjustable nut threaded on said sleeve, the threads between the nut and the sleeve running in a direction opposite those between the sleeve and the spindle.

1,073,729. DRIER. CHARLES BARNARD, Pasadena, Cal., assignor to E. E. Dow, Redlands, Cal. Filed May 2, 1913. Serial No. 765,121. (Cl. 34—41.)

1. In a drier, a base, a back rising therefrom triangular in rear view, sash bars extending from the forward corners of the base and converging toward and secured to the apex of the back, said bars having grooves, said back having grooves disposed to correspond with the shape of the back, triangular pieces of glass arranged in the grooves of the back and the sash bars, and means on the interior of the structure for the support of drying trays.

2. In a drier, a rectangular base, a back triangular in rear view rising from one edge of the base and provided with grooves running parallel with the inclined edges thereof, sash bars having grooves extending from the forward corners of the base extending rearwardly and converging toward and secured to the apex of the back, pieces of glass secured in the grooves, thereby forming substantially a half section of a true pyramid, means for supporting drying trays on the interior of the structure, the base having inlet vents, while the back near its apex is provided with a damper controlled outlet vent.



3. In a drier, a rectangular base, a back triangular to rear view rising from one edge of the base and provided with grooves running parallel with the inclined edges thereof, sash bars having grooves extending from the forward corners of the base extending rearwardly and converging toward and secured to the apex of the back, pieces of glass secured in the grooves, thereby forming substantially a half section of a true pyramid, said back having notched strips, rods arranged in the notches, the sash bars having hooks, rods arranged in the hooks, said rods adapted to support drying trays, the base having inlet vents, while the back near its apex is provided with a damper controlled outlet vent.

1,073,730. DAVIT TACKLE-BLOCK. JOHN T. BELL, San Francisco, Cal. Filed May 11, 1912. Serial No. 696,719. (Cl. 9—23.)



A davit tackle block comprising a block, a pulley wheel carried thereby, a rope securing pin above the block, and a pivoted hook secured to the block below the pulley on an axis at right angles to the pulley axis, said hook having a portion inclining upwardly to the side of the bottom of the block and a handle portion terminating in a ring extending along the side of the block and in contact therewith parallel to the plane of movement of the pulley, said ring being above the pulley axis, substantially as described.

1,073,731. PIPE-VISE. CARL OTTO BERGMAN, Evanston, Ill., assignor to Mark Manufacturing Company, Chicago, Ill., a Copartnership composed of Anson Mark, Clayton Mark, and Cyrus Mark. Filed Mar. 14, 1911. Serial No. 614,386. (Cl. 81—41.)

1. In combination with a pipe vise having a base provided with apertures, a detachable clamping member, said member having forwardly projecting arms at its upper portion, said arms being provided with means adapted to engage the base of said pipe vise through said apertures, said detachable clamping member being further provided with a projecting bottom portion, and a clamping means carried thereby.



2. In combination with a pipe vise having a base provided with apertures, a detachable clamping member, said member being provided with forwardly projecting arms, offset lugs carried by said arms, said lugs being adapted to be inserted through said apertures and engage the base of said pipe vise, said detachable clamping member being further provided with a forwardly projecting bottom portion, and an adjustable clamping means carried thereby.

3. In combination with a pipe vise having a base provided with bolting apertures, a clamping member having an upper face and a rear face, side flanges formed integrally with said top and rear faces, a forwardly projecting bottom portion, said bottom portion being provided with a vertically arranged threaded opening, a threaded screw passing through and in engagement with said threaded aperture, said threaded screw carrying a clamping plate at its upper extremity and an operating lever pivotally attached to its lower extremity, and engaging means at the top of said clamping member adapted to engage with the base of said pipe vise.

4. In combination with a pipe vise having a base provided with bolting apertures and a rear flange projecting downwardly from said base, a clamping member having a top and rear face and a forwardly projecting bottom portion, side flanges integrally formed with side, top and rear faces and bottom portion and extending from said top face to said bottom portion, and forwardly engaging arms extending horizontally outwardly from said top face of said clamping member, being forwardly bent and having offset heads at their upper extremities, said heads being provided with flat faces at the under forward portions thereof, said flat faces being adapted to engage with the upper face of the base of said pipe vise upon the insertion of said offset heads of said engaging arms through the bolting apertures in the base of said vise.

5. In combination with a pipe vise provided with a base having bolting apertures and a rear flange extending downwardly from said base, a clamping member being formed with a top face, a rear wall extending downwardly therefrom, and a projecting portion extending forwardly from the lower part of said rear wall, engaging arms projecting forwardly from the rear wall and top face of said clamping member, said arms being upwardly bent and formed with offset heads at their upper extremities, said heads being provided on their under forward portions with flat faces adapted to contact with the upper face of the base of said vise when said engaging arms are inserted through the bolting apertures in the base of said pipe vise, the bottom portion of said clamping member being provided with a threaded aperture, and a threaded screw passing through and in engagement with said threaded aperture, said threaded screw carrying a clamping plate at its upper extremity, said clamping plate having a ball and socket connection with the upper extremity of said threaded screw and being provided with engaging spurs or studs on its upper face, said clamping member being adapted to contact with the under surface of a supporting means.

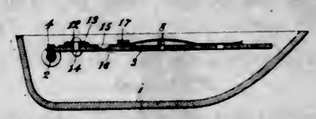
[Claim 6 not printed in the Gazette.]

1,073,732. COLANDER. SARAH E. BOYD, Gotebo, Okla. Filed Mar. 13, 1913. Serial No. 754,087. (Cl. 146—9.)



In a colander comprising upper and lower sections, the lower section including a perforated bottom, means for detachably connecting the two parts, a shaft extending transversely of the upper part, and a cutting member carried by said shaft, said cutting member comprising a flat steel blade provided with teeth and projections, said blade being constructed in helical volute scrolls, which substantially conform to the curvature of the perforated bottom.

1,073,733. SHUTTLE FOR EMBROIDERING-MACHINES. GUSTAV BÜHLER, Arbon, Switzerland. Filed Nov. 7, 1912. Serial No. 730,083. (Cl. 112—23.)



In a shuttle for embroidering machines, the combination with a shuttle body of known construction, of a pin laterally disposed and bearing in the side walls of the shuttle body, a lid mounted on said pin, the said lid corresponding with the shape of the shuttle and having guiding slits and an opening, means to secure the lid to and allow of its detachment from the said pin, and a tongue shaped spring resting on the lid and having a projection which normally engages with the said opening in the lid and being provided at its rear end with a slot which terminates in a circular perforation, and means to regulate the tension of the spring, all as described and shown.

1,073,734. PRESSURE-GAGE. HOWARD BUTTRESS and GEORGE BUTTRESS, Los Angeles, Cal. Filed Aug. 25, 1909. Serial No. 514,630. (Cl. 73—31.)

1. A pressure gage comprising an inner tube, an outer tube slidable thereon, a spring within the tubes connected to the respective tubes near their opposite ends, a cupped leather on the inner end of the inner tube bearing against the outer tube, a shouldered plug screwed to the end of the inner tube and retaining the cupped leather, air inlet means at the other end of the inner tube, and means for indicating the extension of the outer tube.

2. A pressure gage comprising an inner tube, an outer tube slidable thereon, a spring within the tubes connected to opposite ends of the tubes, packing means at the inner end of the inner tube preventing leakage, a plug screwed in the lower end of the inner tube, said plug having a central stud and formed with an air passage with two branches in the stud leaving a central solid portion on the stud adapted to contact with the valve stem of the tire, a rubber disk encircling said stud and having an annular groove and means for indicating the extension of the outer tube, a shouldered ferrule screwed on the end of the inner tube and retaining the rubber disk.

3. A pressure gage comprising an inner tube, an outer tube slidable thereon, a spring within the tubes connected

to the respective tubes near their outer ends, a cupped leather on the inner end of the inner tube bearing against the outer tube, a shouldered plug screwed to said end of the inner tube and retaining the cupped leather, air inlet



means at the outer end of the inner tube, and means for indicating the extension of the outer tube, said plug extending above the cupped leather, and a pin in the tube to which the spring is attached, said plug adapted to strike against said pin.

1,073,735. METHOD OF MAKING SOUND CASTINGS. FRANK D. CARNEY and LEWIS B. LINDEMUTH, Steelton, Pa. Filed June 12, 1913. Serial No. 773,291. (Cl. 22—216.)



1. The method of making sound castings, which comprises pouring molten metal into a mold to any desired depth, placing a form on the metal therein and allowing it to freeze in place, and then pouring into the form, while the center of the casting is still molten, an additional quantity of metal.

2. The method of making sound castings, which comprises pouring molten metal into a mold to any desired depth, placing a form on the metal therein and allowing it to freeze in place, and then pouring into the form, while the center of the casting is still molten, an additional quantity of metal of a composition calculated to mix with the molten metal to form a composition substantially the same as that of the body of the casting.

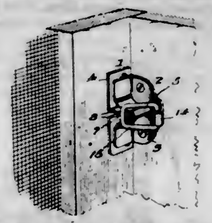
3. The method of making sound castings, which comprises filling a mold to the desired depth, freezing an open-ended form on the surface of the metal in the mold while maintaining the center of the casting molten and its surface metal within said form in condition for the reception of a subsequent quantity of molten metal, then placing in the form such molten metal, said added metal being of a temperature higher than the temperature of the molten center of the casting.

4. The method of making sound castings, which comprises filling a mold to the depth desired, freezing an open-ended form in the top of the metal, while the center of the casting is still molten, then filling said form with molten metal having a temperature higher than that of the metal first placed in the mold.

5. The method of making sound castings, which comprises filling a mold to the depth desired, freezing an open-ended form in the top of the casting and pouring into said form hot molten metal, after one-third to one-half of the volume of the casting has solidified.

[Claims 6 to 9 not printed in the Gazette.]

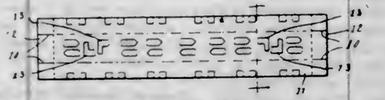
1,073,736. COMBINED LATCH AND LOCK FOR DOORS. ERNEST WILSON CASE, San Diego, Cal. Filed Apr. 11, 1913. Serial No. 760,422. (Cl. 70—119.)



1. A combined latch and lock having, in combination, a catch consisting of a base, a neck having notches on opposite sides, and a head, a keeper having lips adapted to engage said head, and a swinging lock mounted on the keeper and adapted to engage the outermost of the notches aforesaid.

2. A combined latch and lock having, in combination, a one-piece reversible catch composed of a base, a neck having notches on opposite sides, and a rounded head, a keeper having a one-piece base, a flange, and springy converging lips, and a locking loop or bail hinged to the base of the keeper and adapted to engage whichever of said notches aforesaid is outermost.

1,073,737. RAILROAD-TIE. ANDREW A. CASWELL, Los Angeles, Cal. Filed May 22, 1913. Serial No. 769,193. (Cl. 238—5.)



1. A railroad tie formed of metal plate and having rail holding lugs struck out of the body thereof and formed to fit against the sides of the rail, and also having anchor lugs struck out of the body thereof and formed to project away from the rail lugs and between and on the outer sides thereof.

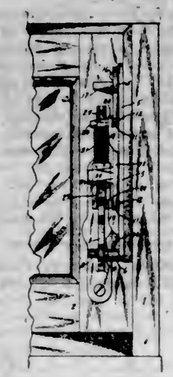
2. A railroad tie formed of metal plate and having the body U-shaped in cross section; rail holding lugs struck out of the top of the body and formed to fit against the sides of the rail and under the head of the rail; anchor lugs struck out of the top of the body and formed to project away from the rail lugs.

3. A railroad tie formed of metal plate and having the body U-shaped in cross section; rail holding lugs struck out of the top of the body and formed to fit against the side of the rail; anchor lugs struck out of the top of the body and formed to project away from the rail lugs; and retarding lugs in the sides of the tie, said retarding lugs being formed to lie at right angles to the sides of the tie.

4. A railroad tie formed of metal plate and having rail holding lugs struck out of the body thereof, said lugs having in the tops thereof two round holes and a square hole between the round holes and being formed to fit against the sides and head of the rail; in combination with rails having a square hole formed in the meeting ends of two rails and round holes at the sides of the square hole, said holes registering with the holes in the lugs when positioned for use.

1,073,738. DECK-SASH PIVOT MECHANISM. FRANK CONRAD, Milwaukee, Wis. Filed Apr. 28, 1913. Serial No. 764,118. (Cl. 16—142.)

1. The combination with the stationary frame of a deck sash, of a set of projecting recessed members supported therefrom, a movable member socketed in said projecting members and adapted to be disengaged therefrom by a lifting movement, a locking device supported from said frame in a position to normally retain said movable member in position, and a spring actuated rod carried by said movable member and adapted to travel along the margin of a toothed segmental bracket carried by the deck sash.



2. The combination with the stationary frame of a deck sash, of a set of projecting recessed members supported therefrom, a movable member socketed in said projecting members and adapted to be disengaged therefrom by a lifting movement, a locking device supported from said frame in a position to normally retain said movable member in position, and a spring actuated rod carried by said movable member and adapted to travel along the margin of a toothed segmental bracket carried by the deck sash, said movable member being provided with a downward extension adapted to retain a deck sash pivot stud in an open bearing member.

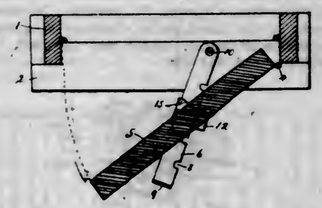
3. The combination with the stationary frame of a deck sash, of a set of projecting recessed members supported therefrom, a movable member socketed in said projecting members and adapted to be disengaged therefrom by a lifting movement, a locking device supported from said frame in a position to normally retain said movable member in position, and a spring actuated rod carried by said movable member and adapted to travel along the margin of a toothed segmental bracket carried by the deck sash, said spring actuated rod being provided with an anti-friction roller adapted to travel over the marginal teeth of said segmental bracket.

4. The combination with the stationary frame of a deck sash, of a set of projecting recessed members supported therefrom, a movable member socketed in said projecting members and adapted to be disengaged therefrom by a lifting movement, a locking device supported from said frame in a position to normally retain said movable member in position, and a spring actuated rod carried by said movable member and adapted to travel along the margin of a toothed segmental bracket carried by the deck sash, said spring actuated rod being provided with an anti-friction roller adapted to travel over the marginal teeth of said segmental bracket, and said rod also having a forked member adapted to straddle the margin of said bracket.

5. The combination with a deck sash frame, a deck sash provided with a segmental bracket having a pivot stud, of a fixed member secured to the frame and provided with an open bracket for said pivot stud, a removable plate having socketed connection with said fixed member and adapted to be disengaged therefrom only by a lifting movement, said plate having a rounded recess in its upper end, a cam rotatably pivoted to said fixed member and having its margin engaged in said recess, a spring actuated rod supported by said movable plate with one end adapted to travel upon the margin of the sash bracket, said plate being lifted by the reaction of the spring against said cam, and said cam in one position being adapted to prevent a removal of the plate from the fixed member.

[Claim 6 not printed in the Gazette.]

1,073,739. WINDOW-SASH HOLDER. CHRISTIAN W. COOK, Provo, Utah. Filed Dec. 9, 1910, Serial No. 596,485. Renewed Feb. 1, 1913. Serial No. 745,742. (Cl. 16—22.)



The combination with a window casing having a hinged sash of a link provided with lateral recesses and adapted for pivotal attachment at one end to the window casing, a guide on said link composed of a plate with its ends folded over toward each other and its upper and lower portions spaced apart to movably admit said link, said guide having a relatively large perforation through its under side and a smaller perforation through its upper side, a screw having a cylindrical head adapted to pass through said large perforation in the under side of said guide and to be engaged by said lateral recesses in said link, said screw being adapted to movably secure said guide to the lower edge of said sash, and an upturned terminal flange on said link to retain said guide thereon.

1,073,740. BAIL-HANDLE. HOWARD COONLEY, Clyde, Ill., assignor to Coonley Manufacturing Company, Clyde, Ill., a Corporation of Illinois. Filed Apr. 24, 1912. Serial No. 692,921. (Cl. 220—30.)

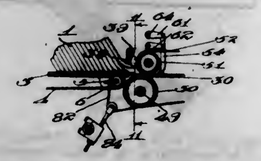


1. The combination with a receptacle of a bail handle comprising a pair of oppositely disposed sheet metal strips secured at their lower ends to the can, and inbent between the ends, the upper portions being in parallel spaced relation, a non-metallic hand grip between the upper end portions, a tie rod passing through the handle and strips, washers on the outer end portions of the rod, the latter being headed to retain the rivets, and inrolled margin wires on the strips whose lower end portions are hooked around the upper marginal portion of the receptacle.

2. The combination with a receptacle having an upper roll wired margin, of a pair of oppositely disposed sheet metal strips with roll wired margins, the margin wires

of each strip forming a pair of eyelets at the lower end of each strip that embrace the wired margin of the body, the strips being inbent between the ends with the upper portions thereof in parallel spaced relation, a non-metallic hand grip between the upper end portions, a tie rod passing through the handle and strips, and washers on the outer end portions of the rod, the latter being headed to retain the rivets.

1,073,741. FEEDER FOR ADDRESSING-MACHINES. SANDFORD C. COX, Chicago, Ill., assignor, by mesne assignments, to Cox Multi-Mailer Company, Augusta, Me., a Corporation of Maine. Filed May 29, 1905. Serial No. 262,722. (Cl. 101—36.)



1. In a device for the purpose described, the combination of means for holding a supply of papers, means for extracting the papers from said supply, means for driving or actuating said extracting means, a gravity stop for throwing the extracting means out of action, the end of said stop being arranged to be supported and held inactive by the extracted paper and while the paper is moving, and mechanical means operable as the paper passes away from the stop for supporting said stop to prevent the latter from throwing the last said means out of operation when the papers are being properly fed.

2. In a device for the purpose described, the combination of means for holding a supply of papers, means for extracting the papers from said supply, mechanism for receiving and acting upon the papers after they leave the extracting means, stop mechanism including a gravity actuated member for throwing the first said mechanism out of action, said stop being supported and held inactive by the paper and while the paper is moving, a cam, and means operatively related to the said gravity member and influenced by the cam for supporting the gravity member as the paper passes away from the stop for also preventing said mechanism from being thrown out of action.

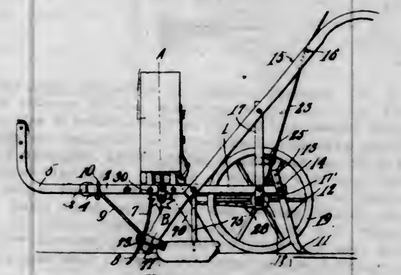
3. In a device for the purpose described the combination of means for holding a supply of papers, mechanism for receiving and acting upon the papers, means for extracting the papers from the supply and introducing them to the said mechanism, means operatively connecting the extracting means in time with the said mechanism, a stop mechanism embodying a gravity controlled member set in the line of movement of the paper after leaving the supply for rendering the first said mechanism inactive should a paper fail to pass the stop mechanism in time with the operation of the first said mechanism, said stop being supported by the paper while the paper is moving and means other than the papers and operable as the papers pass away from the stop for supporting the said gravity controlled member for preventing the stop mechanism from throwing the first said mechanism out of action, said means comprising an arm operatively related to the stop mechanism, and a cam coöperating with the arm.

4. In a device for the purpose described the combination of means for holding a supply of papers, mechanism for receiving and acting upon the papers after they are extracted from the supply, a stop mechanism comprising a gravity controlled trigger arranged in the line of movement of the papers from the supply, means operatively connected with the said stop mechanism whereby the first said mechanism is rendered inactive should a paper fail to pass the trigger in time with the operation of the first said mechanism, and means other than the papers and operable as the paper passes away from the stop for retaining the mechanism in operation when the papers are being uniformly fed, said trigger being supported by the paper while the paper is moving, said means comprising an arm for supporting the trigger to hold the latter inactive operatively related to the trigger and a cam coöperating with the arm.

5. In a machine for the purpose described the combination of a hopper for holding a supply of papers on edge, means in said hopper for feeding the papers forward, a shoulder in the bottom of the hopper near the forward end thereof on which the edges of the papers impinge for holding back the main supply, a gate or shutter situated a short distance beyond said shoulder for restraining the papers situated between the shoulder and gate, means for opening said gate periodically, means operatively connected with the gate for lifting the lower edge of the foremost paper clear of the gate when the gate opens, and means for conducting away the paper thus extracted.

[Claims 6 to 20 not printed in the Gazette.]

1,073,742. PLANTER. NOAH C. CROSS, Buford, Ga. Filed Mar. 30, 1912. Serial No. 687,378. (Cl. 111—32.)

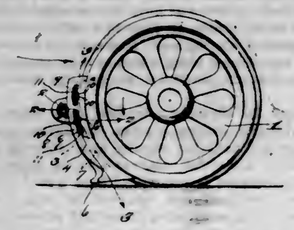


1. In a planter the combination with a furrow opener, a bracket extending rearwardly therefrom, and a shoe connected to the bracket and spaced therefrom from the furrow opener, of separate receptacles arranged side by side for holding seeds and fertilizer respectively, a boot extending downwardly from the fertilizer receptacle and through the bracket for discharging fertilizer back of the furrow opener and in front of the shoe, and a second boot extending downwardly from the seed receptacle for discharging seeds into the furrow at a point in back of the shoe.

2. The combination with a wheel supported structure and a furrow opener carried by the structure and in front of the supporting wheel, of a seed box and fertilizer box arranged side by side upon the structure, a transversely extending shaft located under the seed box, means carried by said shaft for controlling the discharge of seeds and fertilizer from the respective boxes, means operated by the supporting wheel for rotating said transverse shaft, a bracket arranged upon the back of the furrow opener, a shoe connected to the bracket, a boot extending downwardly from the fertilizer box and secured at its lower end portion within the bracket so as to discharge fertilizer into the furrow close to the furrow opener and in front of the shoe, and a boot extending downwardly and rearwardly from the seed box and disposed, at its lower end, between the back ends of the side portions of the shoe for directing seeds into the furrow back of the shoe, the lower ends of the two boots being disposed along the longitudinal center of the planter and in the path of the supporting wheel, said wheel constituting a coverer.

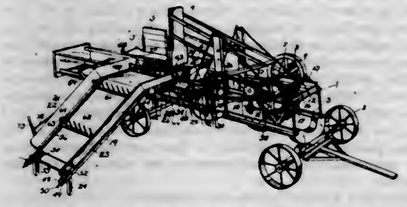
1,073,743. WHEEL-GUARD FOR DEFLECTING OBJECTS FROM THE TRACK. WILLIAM C. CERRAN, Maysville, Ky. Filed Mar. 13, 1913. Serial No. 754,073. (Cl. 105—131.)

1. In combination with a brake shoe holder, a wheel guard constructed of a shape to conform and fit the peripheral contour of the forward under portion of a car wheel, said guard having a bifurcation to receive said holder, and means for loosely connecting the guard to the holder.



2. In combination with a brake shoe holder, a wheel guard constructed of a shape to conform and fit the peripheral contour of the forward under portion of a car wheel, said guard having a bifurcation to receive said holder, said holder having pairs of laterally extending pins, one pair upon each side of the holder, said guard having elongated apertures arranged in pairs to receive said pins for loosely suspending the guard so as to permit vertical movement of the latter.

1,073,744. SELF-FEEDER FOR HAY-PRESSES. ORVIL F. DUNCAN and CLAUDE J. DUNCAN, Gridley, Kans. Filed Aug. 6, 1912. Serial No. 713,529. (Cl. 100—25.)



1. The combination with a hay press having suitable driving mechanism, of a feeder adapted for actuation from the driving mechanism for the press, and a single mechanism for controlling actuation of the feeder and of a working part of the press.

2. In a feeder for hay presses, the combination with a main driving mechanism, of a feeder comprising a conveyer having clutch connection with the main driving mechanism, and a single lever for actuating said clutch and controlling a part of the press.

3. The combination with a hay press having suitable driving mechanism and having a movable division board frame, of a conveyer having clutch connection with the main driving mechanism, and a single controlling device connected with the clutch and with the division board frame, for the purpose set forth.

4. The combination with a hay press having suitable driving mechanism, and having a movable division board frame, a conveyer having clutch connection with the driving mechanism, and a single control mechanism connected with the clutch and with the division board frame whereby the clutch is closed when the frame is in open position and opened when the frame is in closed position, substantially as set forth.

5. The combination with a hay press having suitable driving mechanism and a movable division board frame, of a conveyer having clutch connection with the driving mechanism, a crank arm having operative connection with the clutch, a crank arm on the division board frame, a single lever having link connection with both of said crank arms, and a handle connected with said lever whereby the clutch and division board frame are actuated synchronously, substantially as set forth.

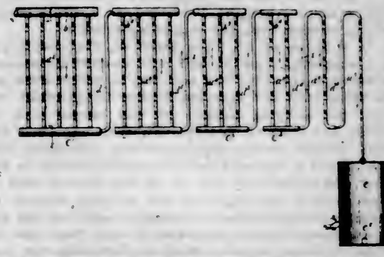
[Claims 6 to 9 not printed in the Gazette.]

1,073,745. PARTING COMPOUND FOR MOLDERS' USE. ANNA E. DURKEE, Los Angeles, Cal., assignor to The Alaska Garnet Mining and Manufacturing Company, a Corporation of Minnesota. Filed Mar. 14, 1912. Serial No. 683,882. (Cl. 22—163.5.)

1. A parting compound for molders' use consisting of alumina, protoxid of iron and silica combined in chemical union, substantially as set forth.

2. A parting compound for molders' use consisting of substantially twenty per cent. of alumina, forty-five per cent. of protoxid of iron and thirty-five per cent of silica combined, substantially as set forth.

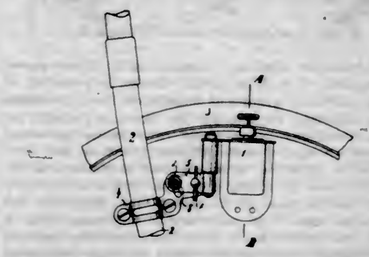
1,073,746. AMMONIA-GAS CONDENSER. JOSEPH DWYER, Montclair, N. J. Filed Dec. 30, 1912. Serial No. 739,185. (Cl. 62—6.)



1. In an ammonia gas condenser, a plurality of separate series of vertically arranged and continuous coils of pipes divided into horizontally arranged groups, one end group constituting the inlet group and the other the outlet group, each of said groups being also provided at the top and bottom thereof with headers, and the bottom header of one group being in communication with the top header of the next adjacent group.

2. In an ammonia gas condenser, a plurality of separate series of vertically arranged and continuous coils of pipes divided into horizontally arranged groups, one end group constituting the inlet group and the other the outlet group, and the capacity of said groups successively decreasing from the inlet to the outlet group, each of said groups being also provided at the top and bottom thereof with headers, and the bottom header of one group being in communication with the top header of the next adjacent group.

1,073,747. MEANS FOR ATTACHING DYNAMO-ELECTRIC MACHINES TO VELOCIPEDES AND THE LIKE. FRITZ EICHERT, Berlin, Germany, assignor to The Firm of Greif and Schlick, Coburg, Germany. Filed Mar. 18, 1912. Serial No. 684,568. (Cl. 248—20.)



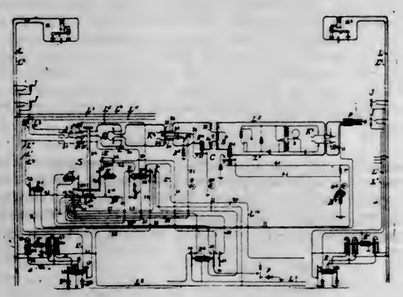
1. In a device of the class described, the combination with a supporting bracket, of a dynamo-carrying member pivotally connected to said bracket and removable bodily therefrom, a retaining member adjustable on the bracket in an arcuate path with respect to said pivotal connection of the dynamo-carrying member, said retaining member

engaging with said dynamo-carrying member for holding the latter against pivotal movement so that the dynamo will normally occupy a position insuring proper frictional contact with a driving member, and clamping means separate from said retaining means and operating to fixedly clamp said dynamo-carrying member in an operative position.

2. In a device of the class deacribed, the combination with a supporting bracket, of a dynamo-carrying member, means coöperating with said bracket and the carrying member for pivotally connecting said member and bracket and for clamping said member in fixed position, and a retaining member engaging the carrying member and shiftable therewith in an arcuate path with said pivotal means as the center of movement, said retaining member being fixedly attached to and movable upon the supporting bracket, said dynamo-carrying member being removable from the pivotal and clamping means and from the retaining member without disturbing the position of said retaining member upon the supporting bracket.

3. In a device of the class described, the combination with a supporting bracket, of a dynamo-carrying member, a pivotal and clamping bolt attached to said bracket and coöperating with said carrying member for pivotally connecting the carrying member to said bracket and for clamping the carrying member fixedly thereto, said supporting bracket having an arcuate slot concentric with said bolt, and a retaining member secured fixedly to said bracket and shiftable at will in the slot thereof, said retaining member engaging with the carrying member for precluding pivotal movement thereof on said bolt and said carrying member being removable at will from the bolt and the retaining member without disturbing the position of the latter upon the bracket.

1,073,748. SYSTEM FOR DIVIDING CALLS AMONG TELEPHONE-OPERATORS' POSITIONS. HAROLD J. W. FAY, Westboro, Mass., and EDWARD C. MOLINA, East Orange, N. J., assignors to American Telephone and Telegraph Company, Boston, Mass., a Corporation of New York. Filed Oct. 12, 1907. Serial No. 397,185. (Cl. 179—27.)



1. A system for dividing telephone calls among operators comprising a central station having a plurality of operating positions, groups of substation lines extending thereto, connecting circuits for the lines, a plurality of series of switching mechanisms each series including mechanisms associated with different positions and serving to unite a particular group of lines to connecting circuits, and means for giving each line control of non-busy switching mechanisms in its series, the capability for control with respect to each series beginning with a switching mechanism at a particular operating position and continuing in a definite order through switching mechanisms at other operating positions, and following a different definite order in other of the series.

2. In a telephone switching system, the combination with a central station provided with a plurality of operators' positions, of groups of substation lines extending to the central station, connecting circuits, mechanical switching means forming a part of each connecting circuit and being adapted under the control of a substation line to unite said circuit with any one of a group of lines, each operator's position including the switches of different line groups, and means acting when a group switching apparatus at one position is busy for causing the control of the lines of the group to pass to a switch at another operator's position, the sequence of control of the switches of different line groups being different with respect to the successive operator's positions, as and for the purpose set forth.

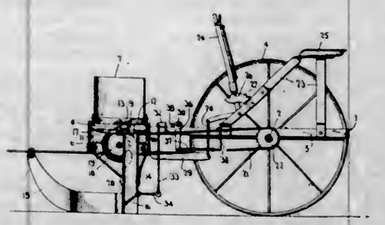
3. A system for dividing telephone calls among operators comprising a central station, substation lines extending thereto, connecting circuits each adapted to connect substation lines for conversation, a plurality of switching mechanisms associated with each of a plurality of operators' positions and adapted to join the connecting circuits and substation lines, and means operable when a switching mechanism is in use for rendering busy the other switches at the same position.

4. In a telephone exchange system, the combination with a central station at which is a plurality of operators' positions, of groups of substation lines extending to the central station, connecting circuits each adapted to connect substation lines for conversation, mechanical switching means adapted under the control of a substation line to unite a connecting circuit and one of a group of lines, each operator's position including the switches of different line groups, and means operable upon the appropriation of any switching mechanism by a line for rendering the other group switches which are at the same position irresponsive to line control.

5. In a telephone exchange system, the combination with a central station provided with a plurality of operators' positions, of substation lines extending to the central station, connecting circuits, mechanical switching means adapted under the control of a substation line to unite a connecting circuit and a line, each operator's position including a plurality of switches, means operable upon the appropriation of any switching apparatus by a line for rendering the other switches which are at the same position irresponsive to line control, and means for manipulation by the operator for restoring the line control.

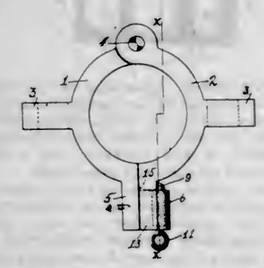
[Claim 6 not printed in the Gazette.]

1,073,749. CORN-PLANTER. CHARLES W. GILLESPIE, Etna Green, Ind. Filed June 20, 1912. Serial No. 704,847. (Cl. 111—6.)



In a seed planting machine, a main frame, supporting and operating wheels mounted thereon, seed planting hoppers carried by the frame, discharge tubes leading from said hoppers, revoluble seed discharging bottoms for the latter, means for operating said bottoms during the travel of the machine, seed discharging valves arranged in the tubes, a valve operating mechanism mounted on the frame, said operating mechanism comprising a rock shaft mounted upon the frame arms adjustably secured to the opposite ends of said shaft the ends of which are movably attached to the discharging valves, a trip lever adjustably secured to the shaft and located adjacent to one of the arms, an arm secured to the shaft and depending therefrom, a spring one end of which is attached to the end of the last named arm and having its opposite end attached to the frame, whereby the shaft is returned to its normal position when operated, and combined trip devices and land markers carried by one of the wheels and diametrically disposed thereon, said devices consisting of a land marking plate secured to and projecting from the outer edge of the rim, and a finger projecting from the opposite edge of the wheel, whereby the trip lever on the rock shaft is successively engaged to periodically operate the discharging bottoms of the hoppers and simultaneously mark the land.

1,073,750. CASING-ELEVATOR. SAMUEL ALLEN GUIBERSON, Jr., Coalinga, Cal. Filed Dec. 23, 1912. Serial No. 738,184. (Cl. 57—9.)

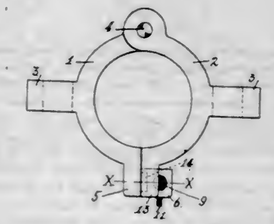


1. In a casing-elevator the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange, the inner face of which intermediate its upper and lower edges is provided with a projecting lug, said lug having a socket made in it parallel with its end face, and the free end of the other member having an outwardly extending flange formed with a notch in its outer end adapted to fit above and below the lug of the first member flange; and a retractable spring controlled latch mounted in the socket of said lug and coacting with said notch to automatically lock the members together.

2. In a casing-elevator the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange, the inner face of which intermediate its upper and lower edges is provided with a projecting tapered lug, said lug having a socket made in it parallel with its end face, and the free end of the other member having an outwardly extending flange formed with a tapered notch in its outer end adapted to fit above and below the lug of the first member flange, said notch having a beveled head wall; a spring controlled retractable latch mounted in the socket in said lug and having a beveled head projecting from the inner side face of the lug into the path of movement of the beveled head wall of the notch, whereby said latch is caused to automatically lock the members together; and a handle mounted in the lug and secured to said latch for manually effecting its withdrawal to unlock said members.

1,073,751. CASING-ELEVATOR. SAMUEL ALLEN GUIBERSON, Jr., Coalinga, Cal. Filed Dec. 23, 1912. Serial No. 738,185. (Cl. 57—9.)

1. In a casing-elevator the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange with a lug projecting from the lower portion of its inner face, said lug having a vertically disposed socket opening downward from its upper surface, and the free end of the other member having an outwardly extending tongue-flange adapted to fit upon said lug, said tongue-flange having a thickness less than that of the lug; and a retractable spring-controlled latch mounted in the socket of the lug, the head of said latch being adapted to project above the lug and to engage the outer face of the tongue-flange to lock the jaw members together.

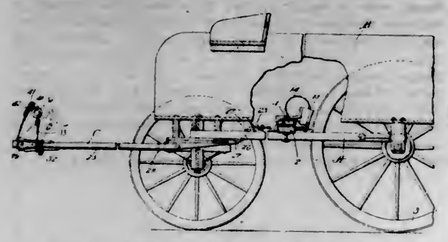


3. In a casing-elevator the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange with a lug projecting from the lower portion of its inner face, said lug having a vertically disposed socket opening downward from its upper surface, and the free end of the other member having an outwardly extending tongue-flange adapted to fit upon said lug, said flange having a thickness less than that of the lug; a retractable spring-controlled latch mounted in the socket of the lug of the flange of the first jaw-member and projecting above said lug in position to engage the outer face of and automatically lock the tongue-flange of the other jaw-member on said lug; and a handle playing in a slot in the lug of the flange of the first jaw-member and connected with the latch for manually effecting its withdrawal to unlock said members.

4. In a casing-elevator the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange with a lug projecting from the lower portion of its inner face, and the free end of the other member having an outwardly extending tongue-flange adapted to fit upon said lug; said tongue-flange having a guide-bevel in its lower inner edge; and a spring-controlled retractable latch mounted vertically in the lug of the flange of the first jaw-member and having a beveled head projecting above said lug in position to be ridden down by the guide bevel of the entering tongue-flange and to spring up behind said tongue-flange to lock it on said lug.

5. In a casing-elevator, the combination of opposing jaw-members hinged together at one end, the free end of one of said members having an outwardly extending flange with a lug projecting from the lower portion of its inner face, said lug having a vertically disposed socket opening downward from its upper surface, and the free end of the other member having an outwardly extending tongue-flange adapted to fit upon said lug, said tongue-flange having a thickness less than that of the lug and having also a guide-bevel in its lower inner edge; a spring-controlled retractable latch mounted vertically in the socket of the lug of the flange of the first jaw-member and having a beveled head projecting above said lug in position to be ridden down by the guide bevel of the entering tongue flange and to spring up behind said tongue flange to lock it on said lug; and a handle playing in a slot in the lug of the flange of the first jaw member and connected with the latch for manually effecting its withdrawal to unlock said members.

1,073,752. **WAGON-BRAKE.** BENJAMIN GUSSETTIE, Ward Springs, Minn. Filed Feb. 19, 1913. Serial No. 749,523. (Cl. 21—9.)



1. A wagon brake including a brake beam adapted to be applied to the wagon reach, brake levers pivotally mounted between their ends upon opposite ends of the brake beam, brake shoes carried by the outer ends of the brake levers, a slide mounted upon the brake beam under the inner ends of the brake levers, projections upon the slide loosely engaging opposite sides of the inner ends of the brake levers, guide means upon the brake beam for directing the slide in its back and forth movements, yielding means normally tending to move the slide in one direction to hold the brake shoes in inoperative position, and means for moving the slide against the action of the yielding means to throw the brake shoe into operative position.

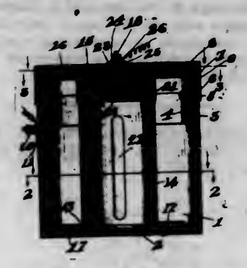
2. A wagon brake including a brake beam adapted to be applied to the wagon reach, brake levers pivotally mounted between their ends upon opposite ends of the brake beam, brake shoes carried by the outer ends of the brake levers, a slide mounted upon the brake beam under the inner ends of the brake levers, projections upon the slide loosely engaging opposite sides of the inner ends of the brake levers, a guide rod projecting from the brake beam and loosely engaging the slide, a spring surrounding the guide rod and engaging the slide for moving the same in one direction to move the friction shoes into an inoperative position, and means for moving the slide against the action of the spring to throw the brake shoes into operative position.

3. A wagon brake including a brake beam adapted to be applied to the wagon reach, brake levers pivotally mounted between their ends upon opposite ends of the brake beam, brake shoes carried by the outer ends of the brake levers, keepers upon the brake beam for receiving the ends of the brake levers and limiting the movement thereon, a slide mounted upon the brake beam under the inner ends of the brake levers, one end of the slide being deflected laterally and provided with a guide opening, projections upon the slide engaging opposite sides of the inner ends of the brake levers, a guide rod projecting from the brake beam and passing loosely through the guide opening of the slide, a spring surrounding the guide rod and engaging the slide for moving the same in one direction to swing the brake levers and bring the brake shoes into an inoperative position, and means for moving the slide against the action of the spring to throw the brake shoes into an operative position.

1,073,753. GALVANIC BATTERY. JOSEPH HAIGH, Muskogee, Okla., assignor of one-half to Josiah H. Childers, Muskogee, Okla. Filed Aug. 9, 1912. Serial No. 714,218. (Cl. 204—55.)

1. In an electric battery, the combination with a cylindrical positive electrode forming a container, of insulating irregular-shaped supporting plates each having a corrugated face, a cylindrical negative electrode mounted in said insulating plates and supported within said container away from the walls thereof, and binding posts connected respectively to said electrodes.

2. In a battery of the kind described, the combination with a cylindrical electrode forming a container having an insulated outer face, of an insulated cap threaded upon said container, spaced insulating supporting plates arranged within said container and cap, each having a corrugated face, and a cylindrical electrode arranged between said insulating plates.



3. A galvanic battery, comprising an electrode in the form of a container having an insulated outer face, and a threaded upper portion, of a threaded cap mounted upon said container, star-shaped glass plates having central recesses arranged in said container, and a cylindrical electrode arranged between said glass plates.

4. An electric battery comprising a cylindrical electrode having an insulated outer face, a cap arranged over said electrode having insulated inner and outer faces, insulating supporting plates arranged within said electrode and cap each having a corrugated face, and a cylindrical electrode arranged between said plates and connected to the cap thereof.

5. In a galvanic battery, the combination with a metal cylindrical electrode in the form of a container having a threaded portion, an insulating plate arranged within the bottom of said container having a central recess and a corrugated bottom, a cap for closing said container having a central opening, an insulating plate arranged on the under face of said cap having a central recess, a cylindrical electrode arranged within the recesses of said insulating plates, a binding post carried by said cylindrical electrode, a nipple arranged on said binding post extending through the opening of said cap, and means for insulating said electrodes from one another.

[Claims 6 and 7 not printed in the Gazette.]

1,073,754. AZO DYE. PETER HAUPTMANN, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 30, 1912. Serial No. 694,254. (Cl. 8—1.)

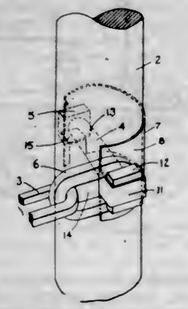
1. As new products basic monoazo dyestuffs which contain 2.4-dioxyquinolin as end component, and yield upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin.

2. As new products, basic monoazo dyestuffs of the following general formula: R—N=N—R_1, where R is the radical of an aromatic base, and R_1 the radical of 2.4-dioxyquinolin, which dyestuffs are after being dried and pulverized brownish-yellow powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly greenish-yellow shades fast to light, substantially as described.

3. As new products, basic monoazo dyestuffs of the following general formula: R—N=N—R_1, where R is the radical of a benzyl pyridin, and R_1 is the radical of a dioxyquinolin which dyes are after being dried and pulverized brownish-yellow powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly greenish-yellow shades fast to light, substantially as described.

4. As a new product the basic monoazo dye which can be obtained by combining diazotized para-aminobenzyl pyridin with dioxyquinolin, which dye after being dried and pulverized is a brownish-yellow powder soluble in water with a greenish-yellow color yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly greenish-yellow shades, substantially as described.

1,073,755. NUT AND BOLT LOCK. JAMES JOSEPH HERRON, Pittsburgh, Pa. Filed May 3, 1913. Serial No. 765,406. (Cl. 188—59.)



1. In a lock of the character described, the combination with a bolt and nut, of a sheet metal body portion shaped to extend across the article through which the bolt passes and having a plurality of registering openings through which the bolt passes and provided with integral locking tongues so disposed as to be bent into locking engagement with the head of the bolt and the nut.

2. In a lock of the character described, the combination with a bolt and nut, of a sheet metal body portion shaped to extend across the article through which the bolt passes and having a plurality of registering openings through which the bolt passes and provided with integral locking tongues so disposed as to be bent into locking engagement with the head of the bolt and the nut; the locking tongue engaging the head of the bolt being adapted to overlap the top of the bolt so as to prevent longitudinal creeping of the bolt.

3. In a lock of the character described, the combination with a bolt and nut, of a sheet metal body portion shaped to extend across the article through which the bolt passes and having a plurality of registering openings through which the bolt passes and provided at each end with a locking tongue so disposed as to be bent into locking engagement with the head of the bolt and the nut.

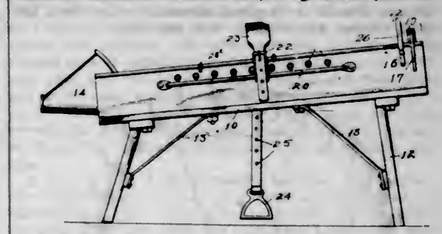
4. In a lock of the character described, the combination with a bolt and nut, of a sheet metal body portion shaped to extend across the article through which the bolt passes and having a plurality of registering openings through which the bolt passes and provided at each end with a locking tongue so disposed as to be bent into locking engagement with the head of the bolt and the nut; one of said locking tongues joining with the sheet metal body, at an angle with the other locking tongue.

5. In a lock of the character described, the combination with a brake staff and chain, and a nut and bolt for securing the chain to the staff, of a locking clip partly encircling the staff and having openings through which the bolt passes and provided with a plurality of locking tongues adapted to engage the bolt head and nut.

[Claim 6 not printed in the Gazette.]

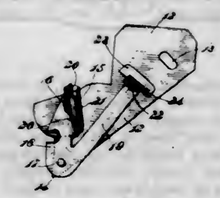
1,073,756. OPERATING-TABLE FOR ANIMALS. WALLACE B. HIGGASON, Zearing, Iowa. Filed Dec. 13, 1912. Serial No. 736,635. (Cl. 119—103.)

1. In an operating table for animals, a table body inclined downwardly and forwardly from its rear end, an approximately funnel shaped device secured to said table body at the forward end thereof and designed to receive the head of the animal, said funnel shaped device being open at both ends, the bottom of said funnel shaped portion, at the forward end thereof, being cut away.



2. In an operating table for animals, a movable side wing provided with a longitudinal rod spaced apart from the surface of said side wing and a plurality of pins adjacent to said rod.

1,073,757. SEWING-MACHINE HEMMER. JOHN HOLTZMANN, Baltimore, Md. Filed May 10, 1913. Serial No. 766,802. (Cl. 112—10.)



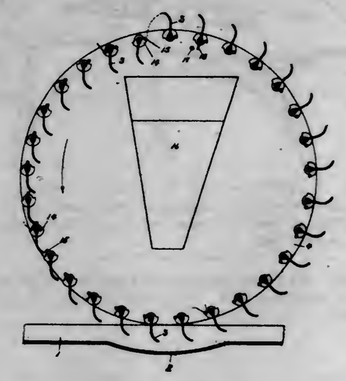
1. An adjustable sewing machine hemmer comprising a complete fixed scroll hemmer having depending and upturned portions, and an upturned scroll member arranged between the upturned and depending portions of said complete hemmer and adjustably mounted so that the distance between said fixed depending portion and said last-named upturned scroll member may be varied, combined with a two-armed lever on one arm of which said adjustable upturned scroll member is mounted.

2. An adjustable sewing machine hemmer comprising a complete fixed scroll hemmer having depending and upturned portions, and an upturned scroll member arranged between the upturned and depending portions of said complete hemmer and adjustably mounted so that the distance between said fixed depending portion and said last-named upturned scroll member may be varied, combined with a two-armed lever on one arm of which said adjustable upturned scroll member is mounted, and means for holding said lever in different positions of adjustment.

3. An adjustable sewing machine hemmer comprising a complete fixed scroll hemmer having depending and upturned portions, and an upturned scroll member arranged between the upturned and depending portions of said complete hemmer and adjustably mounted so that the distance between said fixed depending portion and said last-named upturned scroll member may be varied, combined with a two-armed lever on one arm of which said adjustable upturned scroll member is mounted, and a catch with which the other arm of said lever may be engaged when the hemmer is adjusted for narrow hems.

4. An adjustable sewing machine hemmer comprising a complete fixed scroll hemmer having depending and upturned portions, and an upturned scroll member arranged between the upturned and depending portions of said complete hemmer and adjustably mounted so that the distance between said fixed depending portion and said last-named upturned scroll member may be varied, combined with a two-armed lever on one arm of which said adjustable upturned scroll member is mounted, means for holding said lever in different positions of adjustment, and adjustable means on the other arm of said lever whereby the working position of said adjustable upturned scroll member may be varied when the hemmer is adjusted for wider hems.

1,073,758. BEET-BOOTLET CATCHER. EDWARD J. HOPKINS, Saginaw, Mich.; Jane E. Hopkins executrix of said Edward J. Hopkins, deceased. Filed Dec. 18, 1912. Serial No. 737,532. (Cl. 130—32.)



1. In combination with a flume, a wheel located above said flume, laterally projecting pins fixed to said wheel, a hollow sleeve loosely mounted on each of said pins, a plurality of tines fixed to said sleeve, said tines adapted to dip into said flume, means for rotating said wheel, a flange on said sleeve, shoulders formed on said flange, stops carried by said wheel and adapted to engage said shoulders to maintain the tines in a substantially radial position during their upward travel, and means for inverting said forks at the top of their travel to discharge material therefrom.

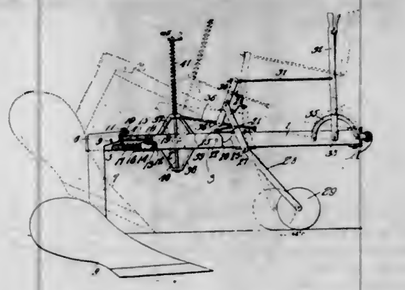
2. In combination with a flume, a wheel located above said flume, means for adjusting the height of said wheel with relation to said flume, forks, each composed of a plurality of tines spaced apart, said forks pivotally mounted on the side of said wheel and adapted to dip into said flume, means for rotating said wheel, stops carried by said wheel and adapted to engage said forks and maintain them in a substantially radial position during their upward travel, a wiper carried by said fork, and a stationary stop independent of said wheel and adapted to be contacted by said wiper, for the purposes set forth.

3. In combination with a flume of the class described, a plurality of forks, the lower ends of which are adapted to dip into and traverse said flume a short distance, each of said forks comprising a pivotally mounted sleeve having a flange at one end, said flange formed with shoulders and carrying a counterweight, tines secured to said sleeve; stops mounted in the path of movement of said shoulders and adapted to engage them to maintain the forks in a substantially radial position during their upward travel, said forks adapted to tip over when near the top of their travel to discharge material therefrom, for the purposes set forth.

4. In combination with a wheel having a plurality of laterally projecting pins fixed thereto, hollow sleeves loosely mounted on said pins, each of said sleeves formed with a flange having shoulders, a plurality of forwardly curved tines fixed to said sleeve, stops carried by said wheel and located in the path of travel of said shoulders, a wiper fixed to said sleeve; and a stationary stop supported independent of said wheel and adapted to be contacted by said wiper when the fork is near the top of its travel, for the purposes set forth.

1,073,759. PLOW. WALTER E. HUCK, Roscoe, S. D. Filed Mar. 20, 1912. Serial No. 685,009. (Cl. 97—69.)

1. A plow including a beam, a section pivotally connected thereto and movable upwardly relative to the beam, a plow share connected to and movable with said section, coöperating means upon the beam and section for normally holding the section in alinement with the beam, said holding means being shiftable to release the section when the share contacts with an unyielding obstruction, and means supported in front of the share and shiftable by the section, when released, for elevating the beam and share.



2. A plow including a beam, a section pivotally connected thereto and movable upwardly relative to the beam, a plow share connected to and movable with said section, coöperating means upon the beam and section for normally holding the section in alinement with the beam, said means being shiftable to release the section when the share contacts with an unyielding obstruction, soil engaging means supported in front of the share, means operated by the section when released, for bearing downwardly on said soil engaging means to elevate the beam and share.

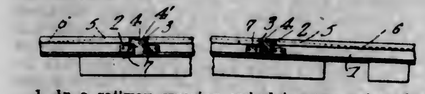
3. A plow including a beam, a section pivotally connected thereto and movable upwardly relative to the beam, a plow share connected to and movable with said section, coöperating means upon the beam and section for normally holding the section in alinement with the beam, said means being shiftable to release the section when the share contacts with an unyielding obstruction, soil engaging means supported in front of the share, means operated by the section when released, for bearing downwardly on said soil engaging means to elevate the beam and share, and means for automatically holding the beam and soil engaging means against relative movement while the share is elevated.

4. A plow including a beam, a section pivotally connected thereto and movable upwardly relative to the beam, a plow share connected to and movable with said section, coöperating means upon the beam and section for normally holding the section in alinement with the beam, said means being shiftable to release the section when the share contacts with an unyielding obstruction, soil engaging means supported in front of the share, means operated by the section when released, for bearing downwardly on said soil engaging means to elevate the beam and share, and means for automatically lowering the section and share upon passing over the obstruction.

5. A plow including a beam, a section pivotally connected thereto and movable upwardly relative to the beam, a plow share connected to and movable with said section, coöperating means upon the beam and section for normally holding the section in alinement with the beam, said means being shiftable to release the section when the share contacts with an unyielding obstruction, soil engaging means supported in front of the share, means operated by the section when released, for bearing downwardly on said soil engaging means to elevate the beam and share, means for automatically lowering the section and share upon passing over the obstruction, means for automatically holding the soil engaging device against movement relative to the beam, when the beam is elevated, and means operated by the section when lowered for automatically releasing said soil engaging device.

[Claims 6 to 17 not printed in the Gazette.]

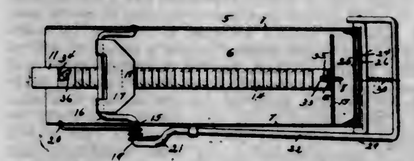
1,073,760. RAILWAY-CROSSING. THOMAS MASON HUGHS, San Jose, Cal. Filed May 21, 1913. Serial No. 769,083. (Cl. 104—40.)



1. In a railway crossing embodying two pairs of rails crossing each other, each rail having a relatively thick web and an upstanding guard flange spaced inwardly from its tread to provide a groove, the grooves being relatively deep considerably beyond the respective rails and being relatively shallow between and slightly beyond the respective rails, the grooves having relatively long gradual inclined portions between the shallow and deep portions.

2. In a railway crossing, two pairs of rails crossing each other, one pair of rails extending uninterruptedly from one side of the crossing to the other, and the other rails being formed in sections having their ends coped to the sides of the aforesaid rails, and angle plates secured to the webs of the respective rails, each of the rails embodying a flange groove, the grooves being relatively shallow between and slightly beyond the respective rails and then having relatively long and gradual inclined portions, the rails of the first mentioned pair having lateral grooves registering with the grooves of the other rails.

1,073,761. BUTTER-SLICING DEVICE. BUNPACHI IITSUKA, Escondido, Cal. Filed May 26, 1913. Serial No. 769,973. (Cl. 31—65.)



1. In a device of the character described, the combination with a body portion comprising a bottom and sides and having an open front end, of an operating handle pivoted thereto, a follower, a pawl and ratchet connection between said follower and said operating handle, a yoke pivoted to said operating handle, a cutting wire carried by said yoke and traveling vertically across the open front end of the body, and a spring connected to said yoke and to a portion of said operating handle for drawing said wire toward the front end of the body portion.

2. In a device of the character described, the combination with a body portion having an open front end, of a swinging operating handle pivoted in the side walls of said body portion, a yoke pivoted to said operating handle, a cutting wire carried by said yoke and extending transversely of the body portion, guides carried by the body portion, and a spring extending between said yoke and a portion of the operating handle for drawing the lower portion of said yoke into engagement with said guides, said yoke being bodily movable with the operating handle whereby said cutting wire is caused to travel in a vertical straight line while the operating handle by which it is carried travels in the arc of a circle.

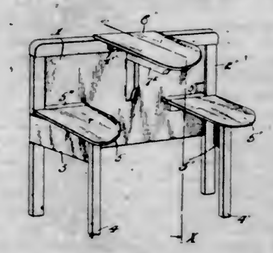
3. In a device of the character described, the combination with a body portion having an open front end, of a swinging operating handle pivoted in the side walls of said body portion, a yoke pivoted to said operating handle, a cutting wire carried by said yoke and extending transversely of the body portion, guides carried by the body portion, a spring extending between said yoke and a portion of the operating handle for drawing the lower portion of said yoke into engagement with said guides, said yoke being bodily movable with the operating handle whereby said cutting wire is caused to travel in a vertical straight line while the operating handle by which it is carried travels in the arc of a circle, and a spring normally tending to elevate said operating handle.

4. In a device of the character described, the combination with a body portion comprising a bottom and sides and having an open front end, of an operating handle pivoted thereto, a follower, a pawl and ratchet connection between said follower and said operating handle, a yoke pivoted to said operating handle, a cutting wire carried by said yoke and traveling vertically across the open front end of the body, a spring connected to said yoke and to a portion of said operating handle for drawing said wire toward the front end of the body portion, and a spring normally holding said operating handle in an elevated position.

5. In a device of the character described, the combination with a body portion, of a slide mounted therein, a follower carried by said slide, a ratchet bar removably mounted upon said slide, an operating handle, an offset crank carried by said operating handle, and a pawl plate carried by said crank and engaging said ratchet bar.

[Claims 6 to 11 not printed in the Gazette.]

1,073,762. REFRESHMENT-TABLE. OTTO C. KADE, Chicago, Ill.; Bertha Kade, administratrix of said Otto C. Kade, deceased, assignor to herself individually. Filed Nov. 8, 1909. Serial No. 526,806. (Cl. 45—31.)



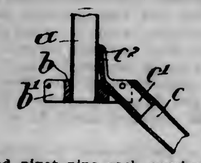
1. In a refreshment table, the combination of a portable back frame, two seats horizontally hinged to said back-frame and spaced apart thereon, a table member horizontally hinged to the back-frame centrally between and above said seats, a vertically hinged bracket secured to the back-frame adjacent each seat, each said bracket having a depending leg at its free end, said brackets being movable to a position beneath the seats further to support them when in use, a vertically hinged bracket secured to the back-frame beneath the table member in position to provide additional support therefor, said seats, table, and brackets all being foldable into intimate parallel relation with the back-frame, as and for the purpose specified.

2. In a refreshment table the combination of a portable back-frame, two seats horizontally hinged thereto and spaced apart thereon, a table member horizontally hinged to the back-frame centrally between and above said seats, a vertically hinged bracket carrying a leg at its free end secured to said back-frame at each side thereof, said brackets extending outwardly and inwardly from the back-frame beneath the seats, means securing the brackets thereto, a horizontally hinged table member secured to the back frame above and centrally between said seats, a vertically hinged bracket secured to the back-frame beneath the table member, said leg-carrying brackets and table-bracket being foldable into intimate parallel relation with the back frame and said seats and table being foldable over said brackets into parallel relation with the same and with the back-frame and serving to lock the brackets against the back-frame, as and for the purpose specified.

1,073,763. COLLAPSIBLE CLOTHES-HORSE. WILHELMINE KALITZKY, born WOLFF, Hamburg, Germany. Filed Feb. 20, 1912. Serial No. 678,923. (Cl. 45—18.)

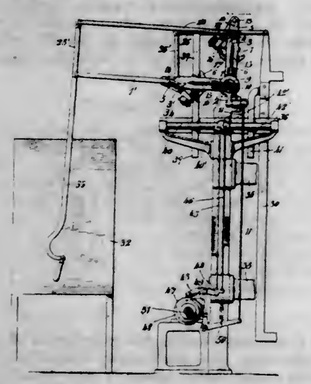
In a device of the kind described, a standard, a collar fixed on the lower end of said standard and provided with spaced pairs of lugs, tubular leg members having

their upper ends received between the lugs of the reapective pairs, tubular reinforcements fitted within the upper ends of said legs and provided with angularly disposed



extensions, and pivot pins each passing through a pair of lugs, a leg member and a reinforcement, whereby the single pivot pin holds all of said parts together.

1,073,764. MOTION-TRANSMITTING DEVICE. KARL KELLER, Arbon, Switzerland, assignor to The Firm of Adolph Saurer, Arbon, Switzerland. Filed June 28, 1911. Serial No. 635,859. (Cl. 112—7.)



1. In combination a member which is variably movable and which may be locked in position, and a second member, likewise movable and capable of being locked in position, said first member arranged to transmit its movement to said second member during a period of time of definite length; a slide mounted on the first member and moved during a portion of the said period of time, but only after the movement and locking of the first member, a motion transmitting member connected to said slide and engaging with the second member so that it is moved by the said second member when locked, after which the transmitting member is locked to the slide which then moves, and without idle movement positively moves the second member which is then released, by an amount equal to the movement of the first member.

2. In combination a member which is variably movable and may be locked in position, and a second member, likewise movable and capable of being locked in position, said first member arranged to transmit its movement to said second member during a period of time of definite length; a shaft, an arm constituting the first member mounted to rock on said shaft, a slide, a longitudinally extending guide for said slide on said first member, a lever pivoted to the slide having a guide-way extending from the lever pivot toward the axis of the rocking arm shaft, a spring-pressed pawl pivoted to the free end of the lever, a toother sector attached to the slide and arranged to be engaged by said pawl, a second arm constituting said second member mounted on the shaft, and a roller mounted on said second arm and engaging the guide-way on the lever.

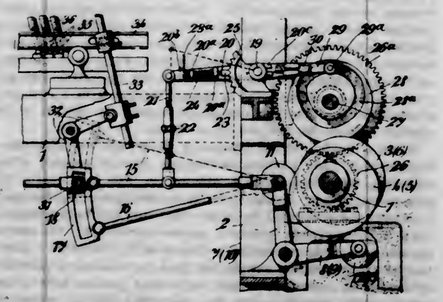
3. In combination a member which is variably movable and which may be locked in position, and a second member which is likewise movable and capable of being locked in position, said first member arranged to transmit its movement to said second member during a period of time of definite length; a shaft, an arm constituting the first member mounted to rock on said shaft, a slide, a longitudinally-extending guide for the slide on said first member, a lever pivoted to the slide having a guide-way extending from the lever pivot toward the axis of the rocking arm shaft, a spring-pressed pawl pivoted to the free end of the lever, a toothed sector attached to the slide and arranged to be engaged by said pawl, two sector-shaped stop-bars, two screws on the pawl coöperating with said stop bars, a second arm constituting said second member mounted on said shaft, and a roller mounted on said second arm and engaging the guide-way on the lever.

4. In combination a member which is variably movable and which may be locked in position, and a second member, likewise movable and capable of being locked in position, said first member arranged to transmit its movement to said second member during a period of time definite in length; a shaft, an arm constituting the first member mounted to rock on said shaft, a slide, a longitudinally-extending guide for the slide on said first member, a lever pivoted to the slide, having a guide-way extending from the lever pivot toward the axis of the rocking arm shaft, a spring acting on said lever, a spring-pressed pawl pivoted to the free end of the lever, a toothed sector attached to the slide and arranged to be engaged by said pawl, two sector-shaped stop-bars, two screws on the pawl coöperating with said stop-bars, a second arm constituting said second member mounted on said shaft and a roller mounted on said second arm and engaging the guide way on the lever.

5. In combination a member which is variably movable and which may be locked in position, and a second member, likewise movable and capable of being locked in position, said first member arranged to transmit its movement to said second member during a period of time of definite length; a shaft, an arm constituting the first member mounted to rock on said shaft, a slide, a longitudinally-extending guide for the slide on said first member, a lever pivoted to the slide having a guide-way extending from the lever pivot toward the axis of said shaft, a spring acting on the lever, a spring-pressed pawl pivoted to the free end of the lever, a toothed sector attached to the slide and arranged to be engaged by said pawl, two sector-shaped stop bars, a notch provided in one of the stop bars, two screws on the pawl coöperating with said stop bars, a second arm constituting said second member mounted on said shaft, and a roller mounted on said second arm and engaging the guide way on the lever.

[Claims 6 and 7 not printed in the Gazette.]

1,073,765. EMBROIDERING-MACHINE. KARL KELLER, Arbon, Switzerland, assignor to The Firm of Adolph Saurer, Arbon, Switzerland. Filed June 11, 1912. Serial No. 703,036. (Cl. 112—7.)



1. In a mechanism for impelling the shuttles and needles of embroidering machines, the combination with a stitching mechanism, of a driving shaft, two cams thereon, a bell-crank lever, a slotted member, means connecting the bell-crank lever to the latter and a slide in the slot connected to the stitching mechanism, the bell-crank lever being positively rocked by said cams so that the motion in one direction is produced by the action of one of the cams on one arm of the bell-crank lever and the motion in the opposite direction by the action of the second cam on the second arm of the bell-crank lever.

2. In a mechanism for impelling the shuttles and needles of embroidering machines, the combination with a stitching mechanism, of a driving shaft, two pairs of cams of different curvature on said shaft, a connecting link, a slide in the connecting link connected to the stitching mechanism, and two connecting rods each being positively reciprocated by one pair of said cams, each end of said connecting link being attached to one of said connecting rods.

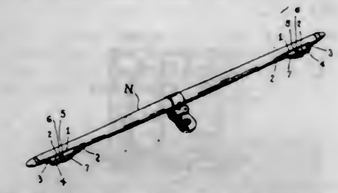
3. In a mechanism for impelling the shuttles and needles of embroidering machines, the combination with a stitching mechanism, of a driving shaft, two pairs of cams of different curvature on said shaft, a connecting link, a slide in the connecting link connected to the stitching mechanism, two bell-crank levers, each being moved in one direction by the action of one of said cams on one of its arms and in the opposite direction by the action of a second cam on the second arm of said lever, and two connecting rods, each end of the connecting link being attached to one of the bell-crank levers.

4. In a mechanism for impelling the shuttles and needles of embroidering machines, the combination with a stitching mechanism, of a driving shaft, two pairs of cams of different curvature on said shaft, a connecting link, a slide in the connecting link connected to the stitching mechanism, two connecting rods each being positively reciprocated by one pair of said cams and each end of said connecting link being attached to one of said connecting rods, and means for regulating the position of the connecting link so that its movements depend more on the one or the other connecting rod.

5. In a mechanism for impelling the shuttles and needles of embroidering machines, the combination with a stitching mechanism, of a driving shaft, two pairs of cams of different curvature on said shaft, a connecting link, a slide in the connecting link connected to the stitching mechanism, two connecting rods each being positively reciprocated by one pair of said cams, each end of said connecting link being attached to one of said connecting rods, and means for automatically regulating the position of the connecting link so that its movements depend more on the one or the other connecting rod.

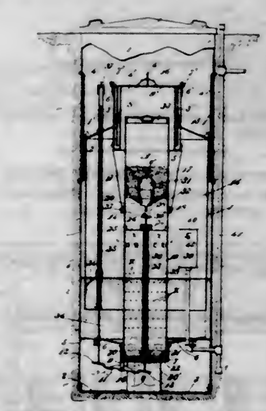
[Claims 6 to 8 not printed in the Gazette.]

1,073,766. NECK-YOKE. JESSE A. KOYEN, Washington Harbor, Wis. Filed Apr. 28, 1913. Serial No. 764,104. (Cl. 21—77.)



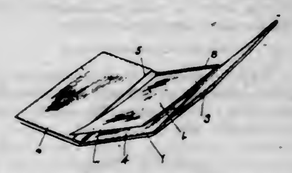
In a neck yoke, strap connections comprising base plates secured to the neck yoke and having in one of their ends a socket, clip attaching bolts arranged through said neck yoke and base plates and provided with enlarged bifurcated ends for binding contact with the plates, substantially U-shaped clips hinged at one end to the bifurcated ends of said bolts and having their enlarged free ends adapted to engage with said sockets, and springs secured at one end to said base plates and having their opposite ends notched and in sliding engagement with said clips whereby the latter are yieldingly held in closed position.

1,073,767. ACETYLENE-GAS GENERATOR. CHARLES H. LONG, Fairbury, Nebr. Filed Jan. 15, 1913. Serial No. 742,159. (Cl. 48—53.1.)



The combination in a device of the character described, of a tank having a supporting flange near its lower end, of a pan secured near the bottom of said tank, a lever pivotally secured to said pan, a gas bell arranged at times to rest upon said supporting flange, a vertically disposed tube closed at its upper end and carried by said gas bell, a valve rod loosely held within said tube and contacting with the upper end thereof and arranged to normally rest upon one end of said lever, a closed generating chamber removably held upon said pan and extending into said gas bell and having suitable escape openings, a tube, vertically disposed, within said generating chamber, a valve stem held within said last mentioned tube and extending beyond the ends thereof and passing through the bottom of said pan and resting upon the other end of said lever, a partition near the upper end of said chamber having a valve opening, and a valve secured to said stem arranged at times to close said valve opening, as and in the manner set forth.

1,073,768. CARD-CASE. EMMETT O. LOVELAND, Kansas City, Mo. Filed July 8, 1912. Serial No. 708,213. (Cl. 150—39.)

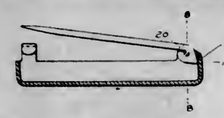


A card case comprising a body member, and a card holder comprising a sheet of transparent material folded upon itself to form a closed end and open longitudinal edges, the ends of the sheet being secured to the body member and the balance of the holder being free to form a loose pocket, substantially as set forth.

1,073,769. PIN. CHARLES F. MARKHAM, Providence, R. I. Filed Mar. 10, 1913. Serial No. 753,162. (Cl. 24—160.)

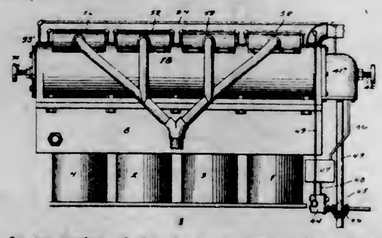
A pin comprising a body formed of sheet metal having ears bent to form a pin tongue joint and an abutment wall substantially perpendicular to the plane of said body, and a wire pin tongue having one end bent into a loop pivotally mounted between said ears, a portion of the wall of

said loop being extended rearwardly to form a fulcrum surface arranged to bear against said abutment when the pin



is closed, said abutment being located adjacent the rear end of said body.

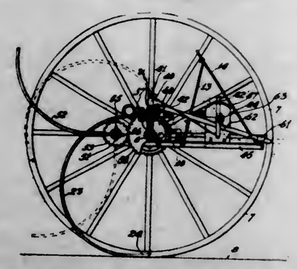
1,073,770. INTERNAL-COMBUSTION ENGINE. LUTHER O. MARTIN, Parkersburg, W. Va. Filed Jan. 25, 1912. Serial No. 673,458. (Cl. 121—115.)



1. In an engine of the character described, a plurality of cylinders, a head connected therewith and provided with an axial opening having means of communication with the interior of the cylinders, a rotary valve disposed within the axial opening, a shell connected with the head, driving means for said rotary valve including gears disposed within the shell, a perforated conduit for supplying oil to the rotary valve, and a return conduit connected with the perforated conduit and discharging the oil back into said shell to lubricate the elements therein.

2. In an engine of the character described, a plurality of cylinders, pistons operating therein, a head connected with the cylinders and provided with an axial opening having means of communication with the interior of the cylinders, a rotary valve disposed within the axial opening, a shell connected with the head, driving means for said rotary valve including gears disposed within the shell, a supply tank having means of communication with said shell, a pump having means of communication with the supply tank, a perforated conduit to supply the oil to the rotary valve and having means of communication with the pump, a return pipe connected with the perforated conduit and discharging into the shell to lubricate the elements therein, and means to operate the pump.

1,073,771. RAKE. DANIEL R. MCCLURE, Jr., Arlington Station, Cal., assignor of one-half to Arthur W. Risher, Pasadena, Cal. Filed Apr. 25, 1912. Serial No. 693,236. (Cl. 56—65.)



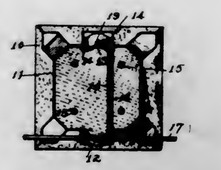
1. A rake comprising a frame, a shaft mounted on said frame, a pair of supporting wheels on said shaft, a tooth frame rotatably mounted on said shaft, a series of teeth extending rearwardly and downwardly from said tooth frame, a stripper shaft rotatably mounted on said frame, a series of strippers extending rearwardly from said stripper shaft, a segment fixed to said tooth frame, a gear on said stripper shaft in engagement with said segment, and means for rotating said tooth frame.

2. A rake comprising a frame, a shaft mounted on said frame, a pair of supporting wheels on said shaft, a tooth frame rotatably mounted on said shaft, a series of teeth extending rearwardly and downwardly from said tooth frame, a stripper shaft rotatably mounted on said frame, a series of strippers mounted on said stripper shaft and extending rearwardly therefrom, a segment fixed to said tooth frame, a gear on said stripper shaft in engagement with said segment, means for rotating said tooth frame, said means comprising a trip shaft mounted on said tooth frame, a dog on each end of said trip shaft, a gear secured to each first named wheel, and means for engaging and disengaging said dogs from the respective last named gears.

3. A rake comprising a frame, a shaft mounted on said frame, a pair of supporting wheels on said shaft, a tooth frame rotatably mounted on said shaft, a series of teeth extending rearwardly and downwardly from said tooth frame, a stripper shaft rotatably mounted on said frame, a series of strippers mounted on said stripper shaft and extending rearwardly therefrom, a segment fixed to said tooth frame, a gear on said stripper shaft in engagement with said segment, means for rotating said tooth frame, said means comprising a trip shaft mounted on said tooth frame, a dog on each end of said trip shaft, a gear secured to each first named wheel, an arm fixed on said trip shaft, a pivotally mounted foot lever, and a link connecting said arm and said lever.

4. A rake comprising a frame, a shaft mounted on said frame, a pair of supporting wheels on said shaft, a tooth frame rotatably mounted on said shaft, a series of teeth extending rearwardly and downwardly from said tooth frame, a stripper shaft rotatably mounted on said frame, a series of strippers mounted on said stripper shaft and extending rearwardly therefrom, a segment fixed to said tooth frame, a gear on said stripper shaft in engagement with said segment, means for rotating said tooth frame, said means comprising a trip shaft mounted on said tooth frame, a dog on each end of said trip shaft, a gear secured to each first named wheel, means for engaging and disengaging said dogs from the respective last named gears, means for positively pushing said teeth downwardly, said means consisting of a rack bar connected to said tooth frame, a segment adapted to engage the teeth on said rack bar, and means for operating said segment to move said rack bar.

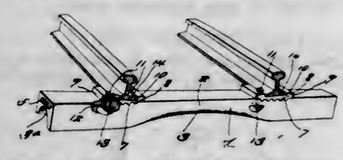
1,073,772. FENCE-POST. EDGAR E. MCCORD, Newton, Iowa. Filed Nov. 14, 1911. Serial No. 660,309. (Cl. 72—82.)



1. An improved fence post, comprising a body portion having on one face a rounded raised rib and being formed with two rows of openings on opposite sides of said raised rib, said openings being extended through the body of the post, the rear of the post being formed with a longitudinally arranged groove, said post being also provided with a rounded raised rib in the central portion of said groove and between said rows of openings.

2. An improved fence post, formed complete of concrete and provided with a rectangular face portion and an octagonal body portion tapered toward its upper end, one face of the post being provided at its longitudinal center with a raised rounded rib, the opposite face being provided with a longitudinal groove, there being a raised rib in the center of the longitudinal groove, said post also being provided with two rows of openings extended through it from one side to the other, said rows being arranged on opposite sides of said ribs, the openings in said rows being equally spaced apart and the openings in one row being arranged midway between the openings in the opposite row, for the purposes stated.

1,073,773. COMBINATION RAILWAY-TIE AND CLAMP. JEROME T. MCGONIGAL, Pottersdale, Pa. Filed July 19, 1913. Serial No. 780,046. (Cl. 238—5.)



1. A railway tie comprising an elongated body, the under surfaces of which at its ends are arched upwardly, while its central portion is contracted and constructed circular on its under surface in cross section, thereby permitting the outer ends of the tie to move downwardly while the central portion bows upwardly incident to weight thereon.

2. A railway tie having concaved under surfaces at its ends and provided with a contracted convexed central portion, which permits the end portions to move downwardly while the central portion bows or yields upwardly.

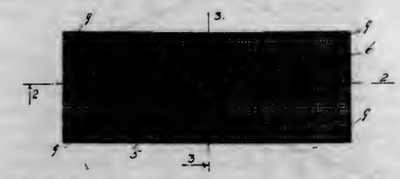
3. A railway tie having concaved under surfaces at its ends and provided with a contracted convexed central portion, which permits the end portions to move downwardly while the central portion bows or yields upwardly, said tie having its end portions hollow.

4. A railway tie having concaved under surfaces at its ends and provided with a contracted convexed central portion, which permits the end portions to move downwardly while the central portion bows or yields upwardly, said tie having its end portions hollow, the upper surface of the tie being constructed with means at each end for holding the rails inclined toward one another normally.

5. A railway tie having concaved under surfaces at its ends and provided with a contracted convexed central portion, which permits the end portions to move downwardly while the central portion bows or yields upwardly, and rail plates mounted on the tie having their upper surfaces inclined downwardly and toward one another, to hold the rails inclined toward one another normally, said tie having its end portions hollow.

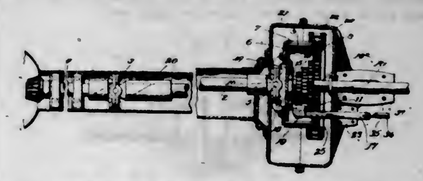
[Claim 6 not printed in the Gazette.]

1,073,774. FLAT-IRON CLEANER AND POLISHER. SAMUEL JESSE MERCER, Englewood, Colo., assignor to Thomas Francis Foley, Englewood, Colo. Filed Oct. 5, 1911. Serial No. 652,991. (Cl. 68—27.)



In a flat iron cleaner and polisher, a metallic base bowed outwardly in both longitudinal and transverse directions, a cover of wire screen mounted on the upper surface of said base and in intimate contact therewith at all points and a nonheat conducting material of uniform thickness mounted upon the under surface of said metallic base.

1,073,775. VARIABLE-SPEED-TRANSMISSION GEARING. JOSEPH O. MICHAUD, Fort Kent, Me. Filed June 14, 1912. Serial No. 703,735. (Cl. 74—58.)



1. A transmission gearing including a driving shaft, a driven shaft, an internal gear carried by one shaft, a series of gears having different diameters and shiftably mounted upon the other shaft, a lever, a rock shaft operatively connected to the internal gear, said lever being pivotally mounted upon the rock shaft for movement in a plane coincident to the rock shaft and engaging said rock shaft for rotative movement therewith, and connections between the lever and the cone of gears whereby the latter may be shifted upon a rocking of the lever in a plane parallel to the rock shaft.

2. A transmission gearing including a shaft, a coacting shaft pivotally mounted at one end and movable in one plane with relation to the first named shaft, an internal gear pivotally mounted upon the first named shaft and movable therewith, a cone of gears shiftably mounted upon the first named shaft and movable in a plane at right angles to the plane of movement of the internal gear and second named shaft, and common means for shifting the second named shaft and internal gear in one plane and the cone of gears in a plane at right angles thereto.

3. A transmission gearing including a driving shaft, a driven shaft, an internal gear carried by one shaft and movable in one plane, a cone of gears shiftably mounted upon the other shaft and movable in a plane at right angles to the plane of movement of the internal gear, common means for shifting said internal gear and the cone of gears in planes at right angles to each other, and means for detachably locking said gears in shifted position.

4. A transmission gearing including a driving shaft, a driven shaft, an internal gear carried thereby, a slide supporting the internal gear and the driven shaft, guides carried by said slide, latching devices detachably engaging said yielding slide to hold it in adjusted position, a cone of gears shiftably mounted on the driving shaft and movable in a plane at right angles to the plane of movement of the internal gear, and means for simultaneously shifting the said slide and the cone of gears in planes at right angles to each other.

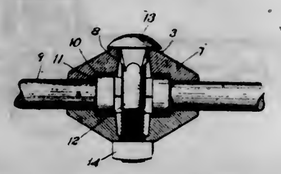
5. A transmission gearing including a driving shaft, a driven shaft, an internal gear carried by one shaft and movable in one plane, a slide surrounding the internal gear, antifriction devices disposed between the slide and the internal gear, a cone of gears shiftably mounted upon the other shaft and movable in a plane at right angles to the plane of movement of the internal gear, a casing surrounding said gears, a shifting member extending through said casing and engaging said cone of gears, a spur gear mounted upon said shifting member and in engagement with one of said last named gears, and common means for shifting said slide in one plane and shifting said cone of gears in a plane at right angles thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,073,776. PULL-ROD CLAMP. DANIEL D. NEVILLE, Kansas City, Mo., assignor to The Kansas City Bolt & Nut Co., Sheffield, Mo., a Corporation of Missouri. Filed Sept. 26, 1912. Serial No. 722,520. (Cl. 255—30.)

1. The combination with a longitudinally split clamp having transverse apertures and comprising body and end collar members of different diameter, forming shoulders at the ends of the body portions, of a bolt extending through said apertures and through the interior of the

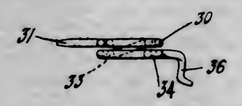
body, whereby the split members are held together, and separate pull rods lying within opposite collar members, and having heads located within the clamp body and bearing against the collar shoulders, with the inner ends of said heads spaced from the connecting bolt.



2. The combination with a split clamp, having a central portion and end collars of different diameters, forming shoulders, and having transverse apertures, tapered outwardly from the interior of the body, of a bolt extending through said apertures, and separate pull rods lying within the end collars and having heads bearing against said shoulders, and spaced from the bolt, for the purpose set forth.

3. The combination with clamp members, each comprising an interior recess and end channels and having a central transverse and outwardly tapered aperture, of a bolt adapted for projection through the tapered channels whereby lateral movement of the clamp on the bolt is afforded, substantially as set forth.

1,073,777. EYEGLASSES. SVAN NORDEN, Providence, R. I., assignor to Frederick A. Stevens, Providence, R. I. Filed June 24, 1912. Serial No. 705,869. (Cl. 88—50.)



1. In an eyeglass mounting, the combination with a support, and a nose guard pivotally mounted thereon, of a coil spring for positioning the guard having its axis coincident with the turning axis of the guard, said spring comprising coils one within the other upon opposite sides of the central portion of the spring, the coils upon one side extending in a direction opposite to those on the other side of said central portion.

2. In an eyeglass mounting, a coil spring for positioning the guard having its axis coincident with the turning axis of the guard, said spring having inner and outer coils of different diameters and a connecting portion intermediate the inner and outer coils intermediate the ends of the spring.

3. A spring for finger piece eyeglass guards comprising two superposed flat spiral coils formed from a single continuous strip of material.

4. A spring for finger piece eyeglass guards comprising two superposed flat spiral coils having portions of their reapective inner convolutions integrally connected togther.

5. A spring for finger piece eyeglass guards comprising two superposed flat spiral coils, the inner end of each coil being connected to that of the other and the outer end of each being free.

[Claims 6 to 10 not printed in the Gazette.]

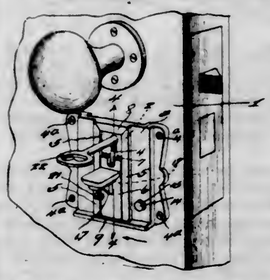
1,073,778. HORSESHOE. ADOLPH G. PALM, Lyle, Minn. Filed May 2, 1913. Serial No. 765,098. (Cl. 168—22.)

In combination with a horse shoe having integral ears, one upon each side extending upwardly and forwardly, one of said ears having a slot and a cylindrical rod adjoining the slot, a spring steel flexible band hinged to the other ear, a second steel spring flexible band having slidable adjustable connections with the first band, said second hand having a hinged tongue, in the crotch between which and the second band the cylindrical rod engages, said



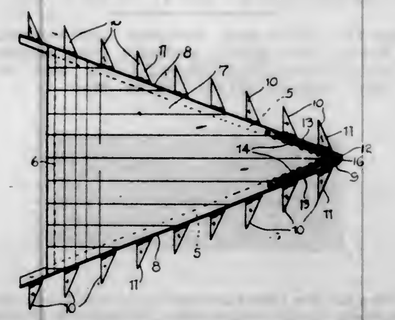
second band having a slot to receive the extremity of said tongue to hold the same detachably locked.

1,073,779. KEYHOLE-GUARD. ALBERT ROSS REED, Hot Springs, Ark. Filed May 29, 1913. Serial No. 770,710. (Cl. 70—8.)



A key hole guard, comprising an arched plate having a key hole to register with the key hole of a door and provided with guides having upper and lower stops, a slide guard plate arranged in the guide adapted to be limited in its upper movement by the upper stop and in its lower movement by the lower stop, a spring arm secured to the arched plate and having a lug penetrating the arched plate to assume a position in the path of the slide guard plate to support the same in an upper position over the key hole of the arched plate, and means carried by the slide guard plate adapted to prevent a key from being rotated from the exterior of a door.

1,073,780. WEED-DESTROYING MACHINE. JOHN R. ROE, Rupert, Idaho. Filed Apr. 9, 1913. Serial No. 760,066. (Cl. 55—60.)

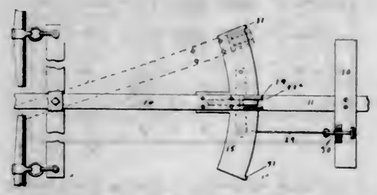


1. A machine of the character described comprising a frame of substantially V-shaped form in plan including diverging side walls and a platform connecting the same, a continuous metal wear plate extending along the lower

edges of said side walls and secured to the same, said wear plate having a widened intermediate portion engaged upon said side walls at their connected ends and constituting a nose piece, and a plurality of spaced laterally extending cutting knives secured to said wear plate and projecting from each side of said frame.

2. A machine of the character described comprising diverging side walls, a platform secured to and connecting said side walls, a plurality of spaced cutting knives secured to each of the side walls adjacent its lower edge, a standard mounted upon the forward meeting ends of said side walls and provided with diverging base arms secured to the respective side walls, and obliquely disposed brace bars fixed to said arms and to the upper end of the standard.

1,073,781. TONGUE FOR FARM IMPLEMENTS. GEORGE M. SCHNELL, Kellogg, Iowa. Filed Sept. 3, 1912. Serial No. 718,404. (Cl. 21—36.)

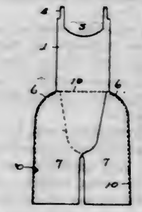


1. In a device of the class described, a frame member, a tongue pivoted thereto at a point spaced apart from the rear end, a curved plate provided with a notch at its rear edge on said frame member adjacent to and below the rear end of said tongue, said tongue being provided with a slot in its under surface at its rear end, a plate on the lower surface of said tongue, covering said slot, said plate being provided with a notch at its rear end and with downwardly extending flanges on each side of said notch, said flanges having downward and forward extensions to receive and travel on said curved plate, a plate mounted in said slot and having a downward extension designed to be received in said notch in said curved plate, and yielding means for holding said last named plate at the forward limit of its movement.

2. In a device of the class described, a frame member, a tongue pivoted thereto at a point spaced apart from the rear end, a curved plate provided with a notch at its rear edge on said frame member adjacent to and below the rear end of said tongue, said tongue being provided with a slot in its under surface at its rear end, a plate on the lower surface of said tongue, covering said slot, said plate being provided with a notch at its rear end and with downwardly extending flanges on each side of said notch, said flanges having downward and forward extensions to receive and travel on said curved plate, a plate mounted in said slot and having a downward extension designed to be received in said notch in said curved plate, yielding means for holding said last named plate at the forward limit of its movement and means for drawing said last named plate rearwardly.

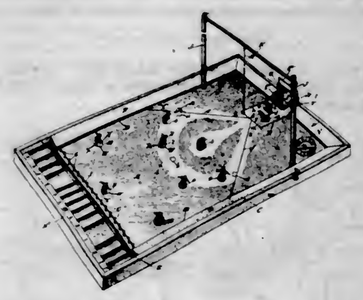
1,073,782. UNDERGARMENT. CLARENCE F. SCHULTZ, Reading, Pa., assignor to The Schultz Underwear Company, Reading, Pa., a Corporation of Pennsylvania. Filed Aug. 26, 1912. Serial No. 717,056. (Cl. 2—144.)

A union garment comprising a tubular body portion and an integral front depending portion, said depending portion increasing in width, throughout its length, from one-half of the entire circumference of the tubular body portion to a width greater than one-half the circumference of the tubular body portion, said depending portion being slit throughout a portion of its length and being turned out from the body portion to form only the entire front halves of the legs of the garment; and two sections seamed to the edges of the front halves of the legs and to the rear of the body portion across the entire width of said body portion, said sections forming the entire rear portions of



the leg portions and having overlapped free-edge portions forming a closure for the rear of the garment.

1,073,783. APPARATUS FOR PLAYING BASE-BALL. HERMAN SCHUM, New York, N. Y. Filed Mar. 15, 1912. Serial No. 683,929. (Cl. 46—61.)



1. In apparatus for playing base-ball, the combination of a movable turn-piece provided with a socket for a ball near one end, a bat movably connected with the turn-piece near its other end, and a spring for actuating the bat, substantially as described.

2. In apparatus for playing base-ball, the combination of a movable turn-piece, a bat movably connected with the turn-piece, means for actuating the bar, means for restraining the action of the actuating means, and means for releasing the restraining means, substantially as described.

3. In apparatus for playing base-ball, the combination of a movable turn-piece, a bat movably connected with the turn-piece, a spring for actuating the bat, a lever, means for detachably connecting the spring with the lever, and means for releasing the connection between the lever and the spring, substantially as described.

4. In apparatus for playing base-ball, the combination of a movable turn-piece, a revoluble bat-post carried by the turn-piece, a bat carried by the bat-post, a spring for revolving the bat-post, an arm carried by the bat-post, a lever provided with a notch for receiving and holding the arm, a spring pressing upon the lever to hold the arm within the notch and means for disengaging the arm from the notch of the lever whereby the bat is caused to swing by the action of the spring upon the bat-post, substantially as described.

5. In apparatus for playing base-ball, the combination of a movable turn-piece, a bat movably connected with the turn-piece, a spring for actuating the bat, means for restraining the action of the spring, a post, and means connected with the post for releasing the spring from the action of the means restraining its action, substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,073,784. MANUFACTURE OF COLORING-MATTERS. OTTO SIEPERMANN, East Orange, N. J., assignor to Consolidated Color & Chemical Co., Newark, N. J., a Corporation of New Jersey. Filed Oct. 18, 1912. Serial No. 726,494. (Cl. 8—1.)

1. The process of producing coloring matters which consists in combining one molecule of diazotized beta-naphthylamin-mono-sulfonic acid (2 : 1) with another molecule of beta-naphthylamin-mono-sulfonic acid (2 :1) diazotizing the resulting product and combining it with one molecule of beta naphthol.

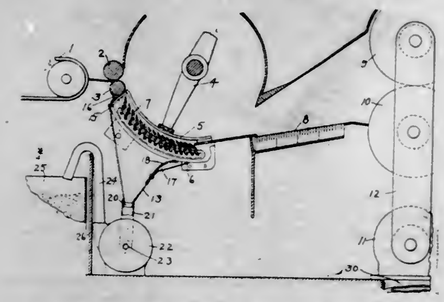
2. The coloring matter which can be obtained from two molecules of beta-naphthylamin-mono-sulfonic acid (2 :1) and one molecule of beta-naphthol, which color is of a red shade, insoluble in water, soluble in concentrated sulfuric acid with a dark crimson shade having a blue undertone, and which forms lake colors of a red shade possessing great fastness to light and lime.

3. The coloring matter having most probably the formula

$$C_{10}H_6.SO_3Na.N{=}N.C_{10}H_5.SO_3Na.N{=}N.C_{10}H_6.OH$$

which is in the form of a bright red paste, drying to a bright red powder which is insoluble in water and soluble in concentrated sulfonic acid with a dark crimson shade having a blue undertone, and which is capable of forming bright red lakes possessing great fastness to light.

1,073,785. COTTON-PICKER MACHINE. AMASA ST. ONGE, Providence, R. I. Filed Nov. 9, 1911. Serial No. 659,379. (Cl. 19—9.)



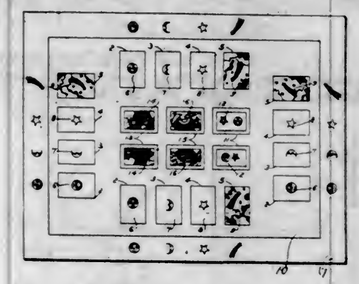
1. In a cotton picker, the combination with feed rolls, a set of grid bars and a beater, of a substantially air-tight hood engaging the underside of said grid bars, means for creating a downward draft through the grid and hood to assist gravity in removing the foreign matter separated from the cotton and forced through the grid by the beater, condenser rolls, and means for creating a suction through said condenser rolls, said hood being provided with means for regulating the area of said grid covered thereby

2. In a cotton picker the combination with a set of grid bars, a beater, of a substantially air-tight hood secured to the underside of said grid bars, a blower for creating a downward draft through the grid and hood to assist gravity in removing the foreign matter separated from the cotton and forced through the grid by the beater, said blower being provided with a discharge pipe, condenser rolls, and means for creating a suction through said condenser rolls, said hood being provided with an adjustable wall to regulate the area of the grid covered thereby.

3. In a cotton picker, the combination with grid bars mounted in a frame, a beater, an airtight hood secured to the underside of said grid frame, a blower for creating an exhaust draft downward through the grid and hood, condenser rolls, means for creating a suction through said condenser rolls, and an adjustable member carried by said hood to regulate the portion of said grid covered thereby.

4. In a cotton picker, the combination with grid irons mounted in a frame, a beater, an airtight hood secured to the underside of said grid frame, a blower for creating an exhaust draft downward through the grid and hood, condenser rolls, means for creating a suction through said condenser rolls, and a slidably mounted wall carried by said hood to regulate the area of said grid covered thereby.

1,073,786. CARD GAME. EDWIN M. THOMAS, Birmingham, Ala. Filed Dec. 21, 1912. Serial No. 737,939. (Cl. 46—25.)



1. A card game comprising a playing board having for each player a series of card receiving spaces, each space in a series having different designating symbols and each series having similarly designated spaces, and playing cards displaying designating symbols corresponding to those in the card receiving spaces, there being a series of such cards for each of said symbols and there being a different number of said symbols displayed on different cards of a series, substantially as described.

2. A card game comprising a playing board having for each player a series of card receiving spaces, each space in a series having different designating symbols and each series having smilarly designated spaces, playing cards displaying designating symbols corresponding to those in the card receiving spaces, there being a series of such cards for each of said symbols and there being a different number of said symbols displayed on different cards of a series, and a joker, substantially as described.

3. The combination with a playing board having for each player a series of card receiving spaces, each space in a series having different designating symbols and each series having similarly designated spaces, and prize card receiving spaces in the center of the board having distinguishing symbols, of playing cards displaying varying numbers of said symbols, there being a series of such cards for each of said symbols, a joker, and prize cards bearing symbols corresponding to the symbols on the prize card spaces, substantially as described.

4. The combination with a playing board having for each player a series of card receiving spaces, each space in a series having different designating symbols and each series having similarly designated spaces, and prize card receiving spaces in the center of the board having distinguishing symbols, of playing cards displaying said symbols, there being a series of ten cards for each of said different symbols of the card receiving spaces, the cards of a series displaying successively an increasing number of its respective symbol beginning with one, prize cards bearing symbols corresponding to the symbols on the prize card spaces, and a joker, substantially as described.

5. The combination with a playing board having for each player four card receiving spaces, the spaces for each player being each designated by a different symbol and each player having similarly designated spaces which are oppositely disposed across the board and having also prize card receiving spaces in the center of the board bearing distinguishing symbols, of four sets of cards one for each different symbol of the playing spaces, and in each set a series of cards which respectively display an increasing number of such symbols from 1 to 10, and cards displaying the symbol in each prize card playing space, and a joker, substantially as described.

1,073,787. COSMETIC CREAM. REGINALD C. THOMAS and ELSNI D. THOMAS, New York, N. Y. Filed May 17, 1911. Serial No. 627,724. (Cl. 167—9.)

1. A cosmetic cream containing *Halichondrid*.

2. A cosmetic cream comprising hishaf combined with a suitable excipient.

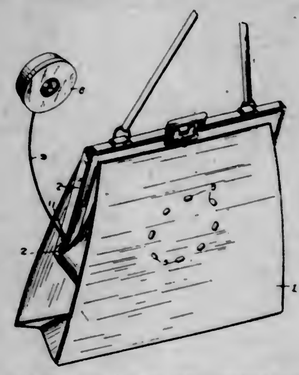
3. A cosmetic cream comprising *Halichondria* combined with a cosmetic cream to mellow the irritating properties of the *Halichondria*, substantially as described and for the purpose herein mentioned.

4. A cosmetic cream, comprising *Halichondria* and a saponaceous substance, substantially as described and for the purpose herein mentioned.

5. A cosmetic cream, comprising hishaf, ammonium stearate and glycerin, substantially as described and for the purpose herein mentioned.

[Claims 6 to 8 not printed in the Gazette.]

1,073,788. TELEPHONE OUTFIT FOR THE DEAF. KELLEY MONROE TURNER, Jamaica, N. Y. Filed May 25, 1912. Serial No. 699,701. (Cl. 179—107.)

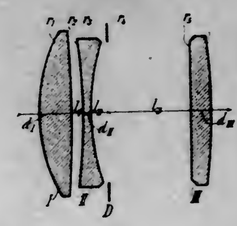


1. A telephone outfit for deaf persons comprising a clasp bag with hinged jaws, both jaws being recessed with notches which register and form a perforation, said bag having pockets therein, a telephone transmitter in one pocket with its sound receiving face against the flat wall of the bag, said wall having a plurality of perforations opposite the transmitter, a battery, and a receiver connected by a cord to the transmitter and battery, said cord being adapted to pass through the aperture formed by said notches.

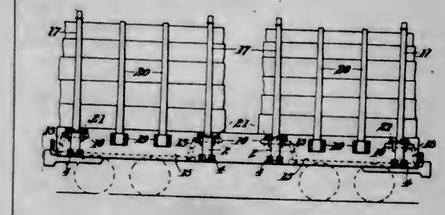
2. A telephone outfit for deaf persons comprising a clasp bag with hinged jaws, both jaws being recessed near the hinge with notches which register and form a perforation, said bag having pockets therein, a tlephone transmitter in one pocket with its sound receiving face against the flat wall of the bag, said wall having a plurality of perforations opposite the transmitter, a battery, and a receiver connected by a cord to the transmitter and battery, said cord being adapted to automatically fall into and pass through the aperture formed by said notches whenever the bag is closed with the receiver outside.

1,073,789. PHOTOGRAPHIC OBJECTIVE. ERNST WANDERSLEB, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Mar. 27, 1913. Serial No. 757,268. (Cl. 88—57.)

Spherically, astigmatically and chromatically corrected objective consisting of a dispersive single lens, the refractive index of which for the D-line lies between the values 1.545 and 1.565, and of two collective single lenses, one of which latter lenses is disposed in front of the said dispersive lens and the other one behind it, the distance between the dispersive lens and the lens lying in front of it being not less than two thirds of one per cent. and not greater than one and a half per cent. of the focal length of the total system.



1,073,790. HINGED STAKE-POCKET. REGINALD P. BORGA, South Norfolk, Va., assignor of two-thirds to Samuel W. Lyons, Jr., Norfolk, Va.; Dora A. Borga administratrix of said Reginald P. Borga, deceased. Filed Feb. 15, 1913. Serial No. 748,688. (Cl. 105—173.)



1. A stake-pocket, having closed sides and front, and an open back, and provided with a hinge at its bottom adapted to be secured to the side of the car, combined with a latching mechanism at the back by which the pocket may be locked to a car, and adapted to release the pocket so that it may separate bodily from the stake by outward movement on its hinge.

2. A stake-pocket, closed at its sides, front and bottom, open at its back, and having a hinge knuckle at its bottom, and hooks at its back at or near the top, and a complemental hinge member adapted to coöperate with the knuckle of the pocket to hinge the pocket to a car, combined with a sliding latch adapted to engage the hooks.

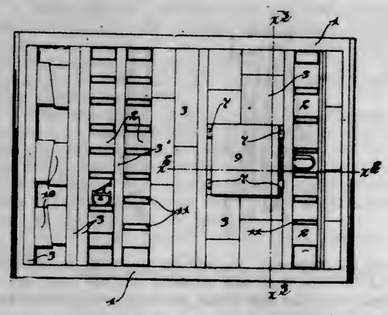
3. A stake pocket, closed at its sides, front and bottom, open at its back, and having a hinge knuckle at its bottom, and hooks at its back at or near the top, and a complemental hinge member adapted to coöperate with the knuckle of the pocket to hinge the pocket to a car, combined with a sliding wedging latch adapted to engage the hooks.

4. A stake-pocket, closed at its sides, front and bottom, open at its back, and having a hinge knuckle at its bottom, and hooks at its back at or near the top, and a complemental hinge member adapted to coöperate with the knuckle of the pocket to hinge the pocket to a car, combined with a sliding latch adapted to engage the hooks, and means to operate any number or all of such latches on a car.

5. A stake-pocket, means to hinge it to the side of a car, means to latch the stake-pocket in operative position on the car, and an automatic detent for holding the pocket in position to receive the latching means.

[Claims 6 to 8 not printed in the Gazette.]

1,073,791. PRINTER'S TYPE AND FURNITURE. ASA P. BROOKS, Minneapolis, Minn. Filed Aug. 25, 1910, Serial No. 578,872. Renewed July 19, 1913. Serial No. 780,029. (Cl. 101—169.)



The combination with a printer's chase having a marginal flange formed integral with and extending upward from the bottom of the chase, opposite side portions of the marginal flange being undercut, of type and furniture seated directly on the bottom of the chase, the type and furniture adjacent the aforesaid undercut portions of the marginal flange being interlocked with the latter, all of said type and furniture having interlocking ribs and grooves at their side faces and having a rib and groove interlocking connection with one end portion of said marginal flange, and locking means interposed between the opposite end portion of the marginal flange and the type and furniture in the chase.

1,073,792. PNEUMATO-ELECTRIC PIANO-PLAYER. GUENTHER BUECHNER and HUGO SEMRAU, Schenectady, N. Y. Filed Aug. 16, 1912. Serial No. 715,368. (Cl. 84—174.)



1. In a piano-player, and in combination, an air-chamber having a pneumatically operated diaphragm; and a circuit-making-and-breaking unit removably mounted upon said air-chamber opposite said diaphragm, said unit comprising a movable contact located in the path of said diaphragm in electrical connection with one side of an electric circuit, and a contact in the path of said movable contact in electrical connection with the other side of said circuit.

2. In a piano-player, and in combination, an air-box provided with a plurality of air-chambers and with a like plurality of socket-openings opposite the respective air-chambers; pneumatically operated diaphragms for the respective air-chambers; and a like plurality of circuit-making-and-breaking units interchangeably insertible in the respective socket-openings, each of said units comprising a movable contact located in the path of said diaphragm in electrical connection with one side of an electric circuit, and a contact in the path of said movable contact in electrical connection with the other side of said circuit.

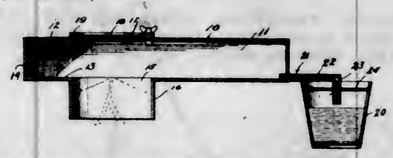
3. In a piano-player, and in combination, an air-chamber having a pneumatically operated diaphragm; and a circuit-making-and-breaking unit removably mounted upon said air-chamber opposite said diaphragm, said unit comprising a movable contact located in the path of said diaphragm in electrical connection with one side of an electric circuit, a contact in the path of said movable contact in electrical connection with the other side of said circuit, and a spark-arrester.

4. In a piano-player, and in combination, an air-chamber having a pneumatically operated diaphragm; and a circuit-making-and-breaking unit removably supported upon said air-chamber opposite said diaphragm, said unit comprising a conductive sleeve in electrical connection with one side of an electric circuit, a spring-contact mounted upon the inner end of said sleeve in the path of said diaphragm, and a contact in the path of said spring-contact in electrical connection with the other side of said circuit.

5. In a piano-player, and in combination, an air-chamber having a pneumatically operated diaphragm; and a circuit-making-and-breaking unit supported upon said air-chamber opposite said diaphragm, said unit having a contained spark-arrester.

[Claims 6 to 8 not printed in the Gazette.]

1,073,793. INSECT-TRAP. JOHN T. CHANDLER, Granbury, Tex., assignor of one-half to Joseph L. Harber, Granbury, Tex. Filed Jan. 4, 1913. Serial No. 740,189. (Cl. 43—22.)



In an insect trap, a substantially triangular housing including converging sides, a triangular top connecting the top edges of said sides, a triangular bottom parallel with said top and connecting said sides intermediate the top and bottom edges of the latter, an end wall connecting the rear edges of said top, said bottom and said sides, there being a central opening formed in said bottom, a flange on the marginal edges of said opening, said flange depending from the bottom face of said bottom and terminating flush with the bottom edges of said sides and said end wall, a sight opening in said top concentric with said bottom opening, a hinged closure for said sight opening said closure having a glazed center, an outlet pipe entering the apex of said trap near said bottom, the bottom of the opening in the pipe being on a level with that of this housing and exterminating means carried by said pipe.

1,073,794. BRIDGE OR FERRY. JENS PETER MARIUS MATHIAS CHRISTENSEN, Copenhagen, Denmark. Filed May 10, 1907. Serial No. 372,984. (Cl. 14—27.)

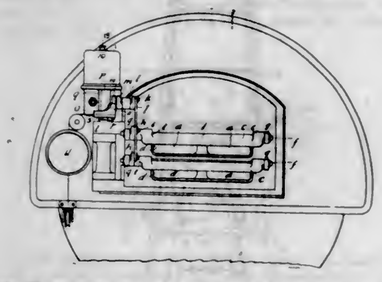


1. A bridge or ferry, comprising a plurality of elements, each element comprising watertight raft boxes, top cross ties to which the boxes are strapped, bottom cross ties bolted to the top ones, and a flooring secured to and carried by the tied boxes, substantially as described.

2. A bridge or ferry comprising a plurality of elements, each element comprising water-tight buoyant boxes, and a flooring secured to and carried by said boxes, upper assembling devices for coupling each element with a like element, said devices consisting of two horizontal pins located at two sides of the element and two eyes located at the opposite sides, and lower assembling devices for coupling each element with a like element, each of said devices consisting of two pivotal hooks on one side of the element, and two corresponding pins having wing nuts screwed on their ends positioned on the opposite side, said upper and lower assembling devices being adapted to attachably couple an element with a like element and prevent transverse tipping of any element with respect to the element adjacent thereto.

3. A bridge or ferry, comprising a plurality of elements each comprising water-tight raft boxes, a flooring secured to and carried thereby and devices for coupling the element with a like element, a landing platform, comprising a floor, ties carrying the same, two figured iron girders supporting the ties, devices located at the sides for joining the platform to the top of a bridge element, and flexible means having an eye at the end for securing the shore-end of the platform to the bottom of such element, substantially as described.

1,073,795. FUEL-ECONOMIZING APPARATUS. EDWARD FUHRMANN CLARKE, Birmingham, England. Filed Feb. 24, 1913. Serial No. 750,306. (Cl. 110—55.)



1. The combination with a furnace door provided with a damper opening, and a closure for said opening; of a clock work mechanism arranged to be wound by the opening of the door, means controlled by the clock work mechanism and arranged to open the damper as the door is returned to closed position, said last mentioned means being moved by the clock work mechanism to close the damper after the door is closed, and a governor connected to said clock work mechanism to regulate the speed thereof, said governor including a fan and manually operable means for varying the resistance of the movement of said fan.

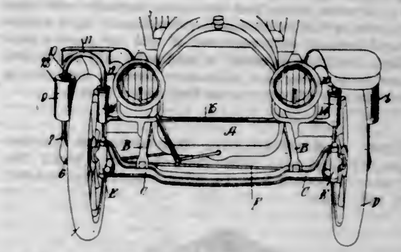
2. The combination with a clock work mechanism for automatically closing a damper; of a governor for such mechanism operably connected thereto and comprising a fan, a volute casing surrounding said fan and having an inlet opening at one side, and a movable closure plate to open and close said inlet opening.

3. The combination with a furnace door provided with a damper; of a clock work mechanism arranged to be wound by the opening of the door and controlling the operation of said damper, a governor for said mechanism, and means whereby the governor is operably connected to the mechanism at a predetermined position of the door whereby said damper remains open for a period of time independent of the opening of said door beyond said position.

4. The combination with a furnace door provided with a damper, of an element arranged to be rotated by the opening of the door, of a pawl carried by said element, a ratchet journaled for rotation and adapted for engagement by the pawl, a gear train operably connected to the ratchet and controlling the closing of said damper, and means adjacent the path of the pawl permitting engagement of the pawl with the ratchet until a predetermined point in its movement is reached.

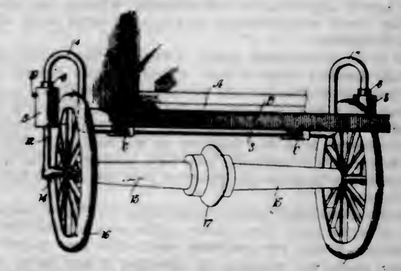
1,073,796. FRONT VEHICLE SUSPENSION. RAMÓN FEBRES CORDERO, Rubio, Venezuela. Filed July 25, 1911, Serial No. 640,473. Renewed Feb. 14, 1913. Serial No. 748,466. (Cl. 21—141.)

1. In a vehicle having a pair of vertically extending sockets on opposite sides thereof, a pair of traction wheels, a separate wheel axle for each wheel, a main axle mounted on said vehicle and having its opposite ends pivoted to one of said wheel axles, a pair of inverted U-shaped brackets, one straddling each wheel and having an inner arm pivoted within said vertically extending socket on the vehicle and in a vertical line containing the pivotal point of its respective wheel axle with the main axle, a compressed air cylinder depending from and in line with the outer arm of each of said brackets, a piston head movable in each of said cylinders, and piston rods integrally attached to said heads and depending therefrom, said piston rods integrally connected with the outer end of each of said wheel axles.



2. In a vehicle, a pair of traction wheels, a separate wheel axle for each wheel, a main axle mounted on said vehicle and having its opposite ends pivoted to one of said wheel axles, a pair of inverted U-shaped brackets, one bracket straddling each of said wheels and disposed in the plane containing said wheel axle, a relatively long open top socket rigidly mounted on the vehicle on opposite sides of the same, disposed above and in the vertical line containing the turning point between the main and wheel axles, the inner arm of each of said brackets removably and rotatably mounted in said socket, and a connection between the outer end of each of said brackets and said wheel axle, said connection comprising a vertically-disposed closed cylinder and a relatively long piston head, said connection and socket reinforcing the connection of the wheel with the vehicle.

1,073,797. VEHICLE SUSPENSION. RAMÓN FEBRES CORDERO, Rubio, Venezuela. Filed June 13, 1911, Serial No. 632,886. Renewed Feb. 14, 1913. Serial No. 748,467. (Cl. 21—50.)

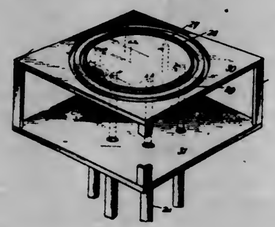


1. In a vehicle suspension, a frame extending transversely across the body of the vehicle and rigidly attached thereto, each end of the frame beyond the body being in the form of an inverted U, an open ended cylinder depending from each of the free ends of said frame and rigidly connected therewith, an axle disposed below and parallel with said frame, a piston head movable in each cylinder, said cylinders containing a compressed fluid cushioning the movements of said heads, a piston rod attached to each of said heads and extending through said open ends of the cylinders, said rods extending at right angles from and integral with each end of said axle, a pair of wheels rotatably mounted on said axle, said pistons and cylinders forming the sole connection between the framework and

wheels, one of said wheels disposed in each U, and a sleeve surrounding said auxiliary axle and rigidly connecting said wheels.

2. In a vehicle suspension, a frame extending transversely across the body of the vehicle and rigidly attached thereto, each end of the frame beyond the body being in the form of an inverted U, an open ended cylinder depending from each of the free ends of said frame and rigidly connected therewith, an axle disposed below and parallel with said frame, a piston head movable in each cylinder, said cylinders containing a compressed fluid cushioning the movements of said heads, a piston rod attached to each of said heads and extending through said open ends of the cylinders, said rods extending at right angles from and integral with each end of said axle, and a pair of wheels rotatably mounted on said axle, said piston and cylinder forming the sole connection between said vehicle and wheels, one of said wheels disposed in each U.

1,073,798. MARINE SIGNAL. RAMÓN FERRES CORDERO, Rubio, Venezuela. Filed Mar. 7, 1911, Serial No. 612,894. Renewed Feb. 14, 1913. Serial No. 748,468. (Cl. 116—18.)



1. In a marine signal device for boats, an indicator having the different parts of the boat designated thereon, light-receiving mechanisms disposed about the boat and below the water line thereof, and means for directing light received through any one of said mechanisms to its proper designation on said indicator, to indicate the direction from which the light was received.

2. In a marine signal device, an indicator, a series of light-receiving devices adapted to be disposed about a boat, and means for directing the light received through said devices separately to said indicator, whereby the particular device from which a light is received is noted on said indicator.

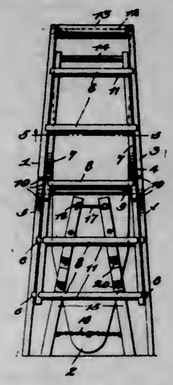
3. In a marine signal device, a series of light-receiving devices disposed about a boat, a ground glass annunciator positioned adjacent the steersman of the boat, and tubes leading from each of said light-receiving devices to a position adjacent said annunciator, and means whereby light received from any direction on the boat, will be directed through a particular tube to a position on the annunciator, to indicate the direction from which said light was received.

4. A marine signal device, comprising a series of means for collecting light rays, means within each of said light-collecting means for centering said rays into parallel beams, means for changing the direction of said beams, a set of tubes, one tube for each of said light-collecting means, inclosing the corresponding beam whereby the parallel beams are directed to the pilot house of a boat, and means in the pilot house, disposed adjacent the ends of said tubes for receiving the beam of light from any of said tubes, said last-mentioned means comprising a freely-swinging ground glass plate adapted to indicate the light from each of said tubes at a designated point on said ground glass plate.

5. In a marine signal device, a series of light-receiving means disposed about a boat, tubes leading from said means to the pilot house of the boat, their inner ends being parallel, and a translucent plate in the pilot house disposed in a plane substantially at right angles to the direction of light from said tubes, said plate having characters thereon indicating the part of the boat from which the tubes below said characters extend, and means whereby light received from any direction on the boat will be transmitted through a particular tube, to indicate on said plate, the direction from which said light was received.

[Claim 6 not printed in the Gazette.]

1,073,799. COMBINATION STEP-LADDER AND IRONING-TABLE. ARTHUR J. DEWEY and ALFRED J. CONKEY, New London, Iowa, assignors of one-third to Frank F. Roberts, New London, Iowa. Filed Dec. 27, 1912. Serial No. 738,964. (Cl. 228—32.)



1. In a combination step ladder and ironing table, a step member comprising two sections, a combined prop and ironing board pivotally connected to said step member and adapted to form a prop when the device is arranged as a step ladder and to form an ironing board or table top when the device is arranged as an ironing table, and means connected to the prop and ironing board member and adapted to form rear supporting legs for the device when arranged as a ladder and to form a stop with which one of the ladder sections is engaged when the device is arranged as an ironing table.

2. In a combination step ladder, and ironing table, a step member, a combined prop and ironing board pivotally connected to said step member and adapted to form a prop when the device is arranged as a step ladder and to form the ironing board or table top when the device is arranged as an ironing table, said step member comprising a main outer section, and a supplemental inner section pivotally connected and adapted to be folded together to form the step member and to be opened out and spread apart to form the supporting member for the top of the table, combined rack bars and ladder supporting legs pivotally secured to the free end of the ironing board or table top, means to hold said bars in position to form diverging legs for said ironing board and table top member when the latter is employed as a prop for the ladder, and means in the end of one of the sections of said step member to adjustably engage said combined rack bars and supporting legs whereby said step members are held in position to form supports for the table top when the device is arranged as an ironing table.

1,073,800. PROCESS OF FIREPROOFING ROOFING MATERIALS. HENDRIK DUBBELDAM, Hsn., Gorinchem, Netherlands. Filed May 11, 1912. Serial No. 696,670. (Cl. 99—12.)

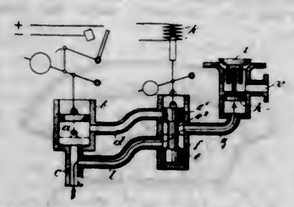
1. A process of fireproofing thatch and other fibrous material which comprises immersing such material in an ammoniacal bath containing river sediment and gypsum in suspension and drying the treated material.

2. The process of fireproofing thatch and other fibrous material which comprises treating such material with a solution of common salt and sal-ammoniac, immersing the material in an ammoniacal bath containing river sediment and gypsum in suspension, and drying the treated material.

3. The process of fireproofing thatch and other fibrous material which comprises immersing the same in a pulp made of finely divided asbestos and water, and drying the treated material.

4. The process of fireproofing thatch and other fibrous material which comprises immersing the thatch in an ammoniacal bath containing river sediment and gypsum in suspension, subsequently treating the material with a pulp of finely divided asbestos and water, and drying the treated material.

1,073,801. UNLOADER AND STARTER FOR COMPRESSORS AND PUMPS. ERNST FRIEDRICHS, Barmen, Germany. Filed Dec. 7, 1910. Serial No. 596,037. (Cl. 230—24.)



1. In an apparatus of the class described, the combination of a conduit connected with the compressor, a valve in the conduit, a piston and cylinder device connected with the valve for opening and closing the same, a pressure governor connected with the discharge side of the compressor, and an auxiliary valve for connecting the pressure-responsive device to the atmosphere when the pressure on the governor is at a predetermined minimum and for connecting the said device with the discharge side of the compressor when the pressure acting on the pressure governor is above a predetermined maximum.

2. In an apparatus of the class described, the combination of a conduit connected with the compressor, an unloading valve for opening the conduit to the atmosphere, a pressure-responsive device for controlling the valve, a pipe leading to the said device, an auxiliary valve connected with the pipe, a pressure governor, a connection between the discharge side of the compressor and the governor and the auxiliary valve whereby the output pressure of the compressor acts on the governor and through the auxiliary valve on the first-mentioned valve, and a connection between the pressure governor and auxiliary valve for permitting the pressure in the said pipe to escape to the atmosphere when the pressure acting on the governor is below a predetermined minimum.

3. The combination of an unloading valve, a pressure-responsive device controlling the same, an auxiliary valve in the form of a cylinder and a double-headed piston, a connection between the cylinder and said pressure-responsive device, a conduit connected with the discharge side of the compressor and the said cylinder and controlled by one head of the piston, a pressure governor also connected with the discharge side of the compressor and including a movable element, and a connection between the pressure governor and said cylinder, said connection being controlled by the movable element of the pressure governor and by the other head of the piston of the auxiliary valve.

4. The combination of an unloading valve, a pressure-responsive device connected therewith, an auxiliary valve consisting of a cylinder and a double-headed piston, a connection between the cylinder and said device and controlled by one head of the piston, a conduit connected with the discharge side of the compressor and connected with the cylinder and controlled by the same head of the piston that controls the said connection, a pressure governor including a piston and cylinder, a connection between the pressure governor cylinder and the discharge side of the compressor, and a connection between the auxiliary valve cylinder and the pressure governor cylinder and controlled by the other head of the said piston and also by the piston of the pressure governor whereby the pressure on the pressure-responsive device may escape through the auxiliary valve and said last-mentioned connection when the pressure on the governor is below a predetermined minimum.

5. The combination of an unloading valve, a pressure-responsive device connected therewith, an auxiliary valve consisting of a cylinder and a double-headed piston, a connection between the cylinder and said device and controlled by one head of the piston, a conduit connected with the discharge side of the compressor and connected with the cylinder and controlled by the same head of the piston that controls the said connection, a pressure governor including a piston and cylinder, a connection between the pressure governor cylinder and the discharge side of the compressor, a connection between the auxiliary valve cylinder and the pressure governor cylinder and controlled by the other head of the said piston and also by the piston of the pressure governor whereby the pressure on the pressure-responsive device may escape through the auxiliary valve and said last-mentioned connection when the pressure on the governor is below a predetermined minimum, and auxiliary valve-actuating means controlled by the pressure governor and the pressure on the discharge side of the compressor.

[Claims 6 to 8 not printed in the Gazette.]

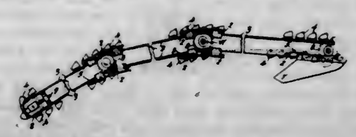
1,073,802. BLACKSMITH'S TOOL. ALBERT JEREMIAH FULGHUM, Chattanooga, Tenn. Filed Sept. 6, 1912. Serial No. 718,940. (Cl. 81—47.)



1. A blacksmith's tool comprising two members pivoted together and each comprising a handle portion and a nose portion on opposite sides of the pivot, with the nose portion oppositely beveled to an approximately sharp outer edge shaped to enter the nail groove of a horseshoe, said nose portion being formed into a curved beak with the beveled portion extending to the extremity of the beak.

2. A blacksmith's tool comprising two members pivoted together and each comprising a handle portion and a nose portion, the latter terminating in a curved beak presented toward the corresponding portion of the companion part of the tool with the outer edge of the beak to the extremity thereof beveled to an approximately sharp edge to enter the nail groove of a horseshoe with the beaks in embracing relation to the head of a horseshoe nail lodged in the groove.

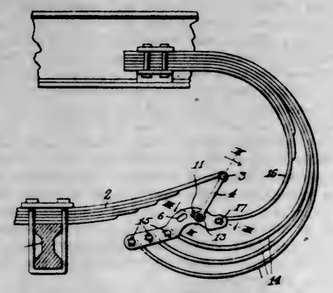
1,073,803. BUCKET-CHAIN ELEVATOR. SILVIO GIUSEPPE GOTUZZO, Leghorn, Italy. Filed Oct. 10, 1911. Serial No. 653,913. (Cl. 193—3.)



A bucket chain elevating device comprising in combination an endless flexible member, buckets carried there-

on, supporting drums for said member, a plurality of frames pivoted to one another and supporting said drums and said member, guiding plates provided with grooves and articulated guides for said endless member slidingly engaging said grooves, said guides being articulated at points corresponding to the points of pivotal connection of said frames.

1,073,804. VEHICLE SPRING-EQUALIZER. GEORGE M. HUSTON, New York, N. Y. Filed May 31, 1913. Serial No. 771,029. (Cl. 21—50.)



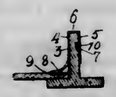
1. In combination with a plurality of similarly curved spring leaves fixed to one member in contact with each other and gradually separating toward their other ends, a leaf spring fixed to the other member, a bar or shackle pivoted to the free end of said leaf spring, and an equalizer adjustably connected intermediate its length with the other end of sad bar or shackle and also connected on opposite sides of the point of connection with said bar or shackle with the free end of said spring leaves.

2. In combination with a plurality of similarly curved spring leaves fixed to one member in contact with each other and gradually separating toward their other ends, a spring fixed to the other member, a bar or shackle pivoted to the free end of said spring, and an equalizer formed of similar oppositely disposed plates connected and spaced by a bolt receiving bushing to which the other end of said bar or shackle is pivoted, the free ends of said spring leaves being also connected to said equalizer between the spaced members thereof.

3. The combination with an equalizer having an elongated aperture therein, of a removable and reversible bolt receiving bushing shaped to fit said elongated aperture and having an eccentrically disposed bolt receiving bore therethrough.

4. The combination with an equalizer formed of two similarly shaped members having coinciding elongated apertures therein, of a bolt receiving bushing formed with shoulders to space apart said equalizer members and with ends adapted to pass through said elongated apertures therein and having an eccentrically disposed bolt receiving bore therethrough.

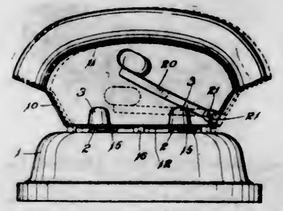
1,073,805. GLASS-HOLDER FOR METAL SASH. WILLIAM R. KINNEAR, New Castle, Pa. Filed Feb. 25, 1911. Serial No. 610,874. (Cl. 189—78.)



1. A clip for frames having a plate supporting base and a web at an angle to said base; said clip comprising a web-abutting member having struck therefrom a tongue transversely resilient but longitudinally rigid relatively to said member; said web-abutting member also carrying a tongue extending in the plane thereof adapted to engage the edge of a plate supported on the base of the frame, and with a presser foot extending at an angle to said tongue and resilient in the direction of the tongue.

2. A clip for frames having a plate supporting base and a web at an angle to said base; said clip comprising a web-abutting member having struck therefrom a tongue transversely resilient but longitudinally rigid relatively to said member; said web-abutting member also carrying a tongue extending in the plane thereof adapted to engage the edge of a plate supported on the base of the frame, and with a presser foot extending at an angle to said tongue and resilient in the direction of the tongue; said web-abutting member comprising two opposing leaves adapted to embrace the web, one of said leaves carrying the resilient web-engaging tongue, and the other carrying the presser foot and the plate-engaging tongue.

1,073,806. SAD-IRON. JOSEPH F. LAMB and JOSEPH F. SMART, New Britain, Conn., assignors to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Apr. 13, 1911. Serial No. 620,953. (Cl. 68—26.)



1. In an article of the character described, an iron provided with a stud in the top thereof, a handle having a base apertured to receive said stud, and a gravity-operated device fulcrumed on said handle and constituting in cooperation with the head of said stud a common means for first engaging said handle with said stud, and next for locking the parts in engaging position.

2. In an article of the character described, an iron, a pair of studs mounted in the top thereof, a handle having a base apertured to receive said studs, interengaging parts on the handle-base and studs, and a gravity-operated device fulcrumed on said handle and constituting in coöperation with the head of one of said studs a common means for first engaging said handle with said studs, and then for locking the parts in engaging position.

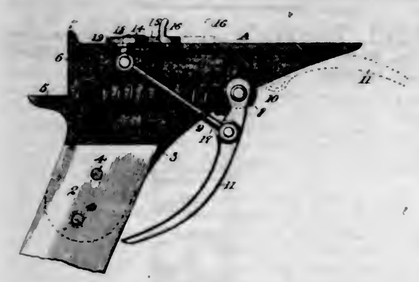
3. In an article of the character described, an iron, a stud mounted thereon, a handle including a base apertured to receive said stud, and a gravity-operated lever fulcrumed on the handle, and having a face adapted to cooperate with said stud, the aperture in the base and the operative face of the lever being at different distances from the fulcrum point of the lever whereby said lever will first cause a longitudinal movement of the handle and its base to engage it with said stud and then lock the parts against accidental disengagement.

4. In an article of the character described, an iron, a stud mounted thereon, a handle comprising a base apertured to receive said stud, and a gravity-operated lever fulcrumed upon the handle and apertured to receive the stud, the aperture in the lever being at a greater distance from the fulcrum point of the lever than the aperture in the base of the handle.

5. In an article of the character described, an iron, a pair of studs mounted in the op thereof, a handle provided with a base apertured to receive the studs and which is shiftable longitudinally to cause the handle and studs to be engaged, and a gravity-operated lever fulcrumed on the handle and coöperating with one of said studs to first shift the handle into engaging position with the studs, and next to lock said handle in engaging position.

[Claims 6 to 10 not printed in the Gazette.]

1,073,807. FOOT-REST AND SHOE-CLAMP. CHARLES E. LANG, Sebastopol, Cal. Filed July 29, 1912. Serial No. 711,987. (Cl. 15—58.)



1. In a foot rest and shoe clamp, the combination of a shoe supporting member, a sole engaging clamp thereon, a hand-lever, and means including a resilient spring cooperating with said lever for operating the clamp by the lever whereby the clamp can be closed and locked against shoe-soles of various widths.

2. In a foot rest and shoe clamp, the combination of a shoe supporting member, a sole engaging clamp thereon, consisting of a pair of coöperating jaw-members pivoted on the shoe support, a link connected to each of the jaw-members, a lever to which the links are connected, and means including a sliding pivot for said lever for locking the lever in either of two positions to retain the clamp in or out of engagement with a shoe.

3. In a foot rest and shoe clamp, the combination of a shoe supporting member, a sole engaging clamp thereon, consisting of a pair of coöperating jaw-members pivoted on the shoe support, a link connected to each of the jaw-members, a lever to which the links are connected, means including a shifting fulcrum for said lever for locking the lever in either of two positions to retain the clamp in or out of engagement with a shoe, and resilient means whereby the clamp can be closed and locked against shoe-soles of various widths by the operation of the lever.

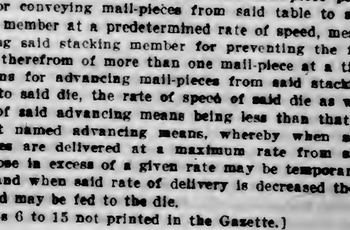
4. In a foot rest and shoe clamp, the combination with a shoe supporting member, of a pair of coöperating jaw-members pivoted on the shoe support, a swivel carried by each jaw-member, a link attached to each swivel, a lever-arm to which the links are connected, said lever-arm having a shiftable fulcrum, and means for locking the lever-arm in either of two positions to retain the jaw-members in or out of engagement with a shoe.

5. In a foot rest and shoe clamp, the combination with a shoe supporting member, of a pair of coöperating jaw-members pivoted on the shoe support, a swivel carried by each jaw-member, a link attached to each swivel, a lever-arm to which the links are connected, a bracket formed with a slot, a pin extending through said slot and movable lengthwise thereof, on which the lever-arm is fulcrumed, and a spring bearing against the lever-arm adjacent the pin to normally retain the lever-arm in either of two positions.

1,073,808. COMBINED PICK-UP TABLE AND POST-MARKING-MACHINE. JOHN T. LYNCH, Chicago, Ill., assignor to The B. F. Cummins Company, a Corporation of Illinois. Filed Feb. 20, 1911. Serial No. 609,725. (Cl. 101—82.)

1. The combination of a pick-up-table, a marking die, means for conveying mail-pieces from the former to the latter, an interposed stacking mechanism comprising a stacking receptacle upon one side of the mail-piece path opposite to a rotary stacking member forming a part of said conveying means, two sets of separating means one preceding said stacking mechanism and the other following it, and means upon said stacking receptacle for yieldingly resisting the action of the stacking member to press mail-pieces in the receptacle toward said member.

2. The combination of a pick-up-table, a marking die, a stacking receptacle interposed between the two upon one side of the mail-piece path, a revoluble stacking member upon the opposite side of said path, means for conveying mail-pieces from said pick-up-table to said stacking member, separating means between said pick-up-table and said stacking member, separating means between said stacking member and said die, means for conveying mail-pieces from said stacking member to said die and means in said stacking receptacle for pressing mail-pieces with a yielding pressure toward said stacking member.



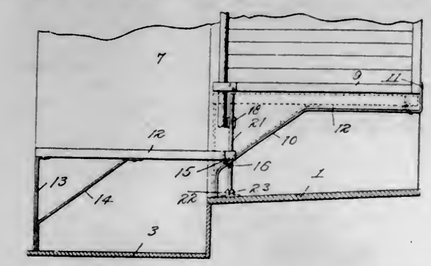
3. The combination of a pick-up-table, a rotary marking die, stacking mechanism interposed between the two comprising a rotary stacking member upon one side and a stacking receptacle upon the opposite side of the letter path, means for conveying mail-pieces from said pick-up-table to said stacking mechanism at a higher rate of speed than the peripheral speed of said marking die, separating means interposed between said table and said stacking mechanism, separating mechanism in the mail-piece path following said stacking mechanism, means for conveying mail-pieces from said last named separating mechanism to said die at a rate of speed conforming substantially to that of said die and yielding means for pressing mail-pieces in said stacking receptacle toward said rotary stacking member.

4. The combination of a pick-up-table adapted to a predetermined number of operatives, a marking die having a constant speed sufficient to cancel the average out-put of mail-pieces handled by said operators, a stacking mechanism interposed between the table and die comprising a rotary stacking member upon one side and a stacking receptacle upon the opposite side of the mail-piece path, means for conveying mail-pieces from said pick-up-table to said stacking mechanism at a rate equal to the maximum capacity of the operatives, separating mechanism interposed between said pick-up-table and said stacking mechanism, separating mechanism in the mail-piece path immediately following said stacking mechanism, means for conveying mail-pieces therefrom to said die at a speed conforming substantially to the peripheral speed of said die, and means for yieldingly pressing mail-pieces in said stacking receptacle toward said rotary stacking member.

5. The combination of a pick-up-table, a rotary marking die, a stacking receptacle interposed between the two, the same being arranged laterally to and upon one side of the mail-piece path, a laterally movable follower in said receptacle, means for advancing the same toward the mail-piece path with a yielding pressure, a rotary stacking member upon the opposite side of said mail-piece path, means for conveying mail-pieces from said table to said stacking member at a predetermined rate of speed, means succeeding said stacking member for preventing the forwarding therefrom of more than one mail-piece at a time and means for advancing mail-pieces from said stacking member to said die, the rate of speed of said die as well as that of said advancing means being less than that of said first named advancing means, whereby when said mail-pieces are delivered at a maximum rate from said table, those in excess of a given rate may be temporarily stacked and when said rate of delivery is decreased those so stacked may be fed to the die.

[Claims 6 to 15 not printed in the Gazette.]

1,073,809. SIDE-DOOR SEAT AND DOOR-LOCK. WILLIAM S. MENDEN, Brooklyn, N. Y. Filed Jan. 2, 1913. Serial No. 739,757. (Cl. 105—205.)



1. In a passenger car, a door, a movable seat, and door locking means operated by said seat.

2. In a passenger car, a door, a movable seat, and door locking means operated by said seat, said seat being adapted to hold said locking means in locking position.

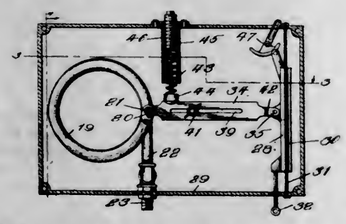
3. In a passenger car, a door, a movable seat, and door locking means operated by said seat, said seat being adapted to hold said locking means in locking position, in a predetermined position of said door.

4. In a passenger car, a door, normally inoperative locking means therefor, and a movable seat adapted to operate said locking means.

5. In a passenger car, a door, normally inoperative locking means therefor, and a movable seat adapted to operate said locking means, said seat being adapted to release said locking means adjacent one extremity of the seat movement.

[Claims 6 to 15 not printed in the Gazette.]

1,073,810. AUTOMATIC DRAFT-REGULATOR. JAMES W. MICKLESON, Dayton, Idaho, assignor of one-half to Thomas Morrison, Dayton, Idaho. Filed Apr. 20, 1912. Serial No. 691,988. (Cl. 236—6.)



1. A damper regulator including spaced helical tubular springs forming steam ducts and each adapted to be connected to the steam space of a boiler, a slide bar adapted to be connected to a damper, a rock link connected to said slide bar and having the movement of a walking beam, a single pivot passed through said rock link and the inner ends of the convolutions of said springs, and performing the dual function of connecting together said springs and pivotally connecting said rock link to said springs, and damper controlling means carried by the free end of said link.

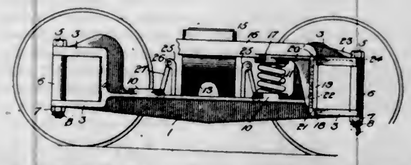
2. A damper regulator including a curvilinear tubular spring forming a steam duct, a slide bar adapted to be operatively connected to a damper, a rock link having the movement of a walking beam and operatively connected to the free end of said spring and to said slide bar, a stationary bracket, a fulcrum pin for said rock link adjustably secured to said rock link and connected to said bracket, and a tension device disposed between said bracket and said spring and operatively connected to said rock link between said fulcrum pin and said spring and serving to counterbalance the weight of said slide bar and connections thereof with said damper on said rock link.

1,073,811. FLY-TRAP. CARL G. MILLER, Mount Clemens, Mich. Filed Apr. 24, 1913. Serial No. 763,261. (Cl. 43—22.)



The combination with a screen provided with an opening therein, a border strip about said opening, a clip attached to said border strip and having its free and resilient end protruding from the top portion of the strip, and a spring catch attached to the screen above said opening, of a fly trap comprising screen wire forming a trapping chamber, an entrance-guide leading into said trapping chamber and a lead-way leading from the entrance-guide to a plane continuing one side of the trapping chamber, said lead-way having an open end at such plane, a border strip lining said opening, a spring clip attached to the lower portion of said border strip and a roll attached to the top of the fly trap, whereby the spring clip on the fly trap border strip may slip over the lower portion of the border strip of the screen opening and the spring clip of the screen opening may slip over the upper portion of the border strip of the lead-way, while the roll on the top of the fly trap slips under the spring catch near the top of the screen, substantially as described.

1,073,812. TRUCK. JOHN E. MUHLFELD, Scarsdale, N. Y. Filed Apr. 12, 1913. Serial No. 760,660. (Cl. 105—243.)



1. In a truck, the combination with journal boxes, of side-frames which respectively contact the journal boxes on the corresponding sides of the truck, means for supporting the superstructure of a vehicle, and yielding means interposed between the side-frames and the superstructure supporting means, said superstructure supporting means having contact with journal boxes on opposite sides of the truck, and the portions of the side-frames and superstructure supporting means which contact the respective journal boxes being overlapped vertically.

2. In a truck, the combination with journal boxes, of side-frames respectively connected to the journal boxes on the corresponding sides of the truck, connected devices for respectively engaging journal boxes on opposite sides of the truck, and yielding means interposed between the side-frames and said connected journal box engaging devices, said connected devices for engaging the journal boxes extending downwardly below said yielding means.

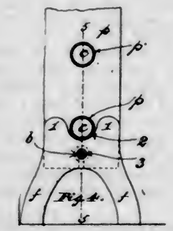
3. In a truck, the combination with wheels, axles and journal boxes, of side frames each of which is connected to all of the journal boxes on the corresponding side of the truck, a center-frame for supporting the superstructure of a vehicle, and yielding means interposed between the side-frames and the center-frame, said center-frame having portions for contacting all of the several journal boxes on both sides of the truck, said portions extending downwardly and vertically overlapping the corresponding journals of the several axles.

4. In a truck, the combination with journal boxes, of side-frames respectively contacting the journal boxes on the corresponding sides of the truck, a center-frame provided with a plurality of pedestals for each journal box of the truck, and yielding means interposed between the side-frames and the center-frame.

5. In a truck, the combination with journal boxes, of side-frames, a center-frame for supporting the superstructure of a vehicle, and yielding means interposed between the side-frames and center-frame, said center-frame being provided with a plurality of members each of which extends above and in vertical alinement with an adjacent journal box.

[Claims 6 to 10 not printed in the Gazette.]

1,073,813. HEAT-RADIATOR. ALVIN B. NEIMAN, New York, N. Y. Filed May 24, 1912. Serial No. 699,436. (Cl. 237—18.)



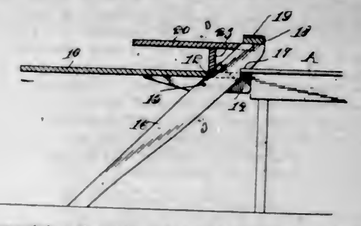
1. A radiator of the character designated comprising a coil of tubing of uniform diameter, and a series of sheet metal plates extending continuously from top to bottom of the coil, each formed with a series of hub flanges contacting with the horizontal members of the coil and forming therewith a rigid integral radiator unit, the end plates extending beyond the lowermost horizontal member of the coil and forming a means for supporting the coil.

2. The combination with a radiator having a cylindrical member, of a support therefor having a semi-circular seat to receive said member, said radiator having depending flanges embracing said support and secured thereto.

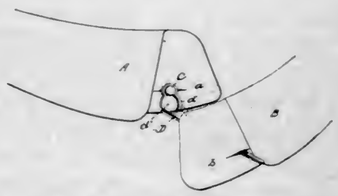
3. In combination with a radiator having a lower cylindrical member and depending flanges, foot pieces fitting snugly between said flanges, each being formed with a semicircular seat for said lower cylindrical member, said seat being of greater radius than that of the cross section of said cylindrical member, each foot piece being also formed with a bolt hole of greater diameter than that of the securing bolts, together with said securing bolts, and nuts clamping the adjacent flanges to the said foot pieces, whereby inequalities of floor support may be compensated for and the vertical alinement of the said radiator unit attained, as and for the purpose set forth.

1,073,814. IRONING-BOARD. WILLIAM J. NELSON, Rockford, Ill., assignor to Harry E. A. Olson, Rockford, Ill. Filed Nov. 3, 1911. Serial No. 658,384. (Cl. 68—10.)

In an ironing board the combination of a main board, a brace leg pivotally connected to the main board and having its ends disposed on opposite sides of said main board when positioned in supporting relation to the latter, a plate supported upon the upper end of the brace leg, and a sleeve board having one end extended beneath the plate carried by the brace leg and provided with a recess detachably receiving the brace leg and a supporting leg depending from said sleeve board at a point remote from the recessed end of the latter, the lower end of said leg resting upon the main board and being provided with a recess detachably receiving an intermediate portion of the brace leg.

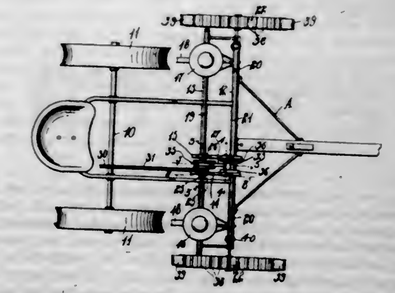


1,073,815. COLLAR-BUTTON BUTTONER. JOHN M. NEWLON, Vienna, Va. Filed Aug. 31, 1912. Serial No. 718,041. (Cl. 24—40.)



A collar buttoner, comprising a body portion of a straght tapered form widest at one end and pointed at the other, and a button engaging end portion at the wide end of the body portion formed as a loop with a small opening at its outer end and a larger communicating opening at the inner end, said looped end portion being arranged at an acute angle to the body portion and the acute angle being immediately adjacent to the looped portion.

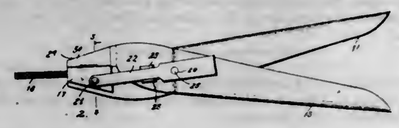
1,073,816. CORN-PLANTER. GEORGE E. PARKER and WILLIAM ELLINGER, Fairhaven, Mo. Filed Nov. 15, 1912. Serial No. 731,583. (Cl. 111—6.)



In a planter, the combination of a frame, a wheeled axle supporting the frame and rotatably mounted on the latter, seed delivering mechanism mounted on the frame, a rotatable shaft mounted on the frame and adapted by its rotation to operate the seed delivering mechanism,

a sprocket wheel loosely mounted on said shaft, a connection between said sprocket wheel and axle for rotating the former, a ratchet wheel fixed to said sprocket wheel, a disk fixed on the shaft, a pawl pivoted on the disk for operative engagement with said ratchet wheel, means normally holding the pawl in operative engagement with the ratchet wheel, brackets mounted on said frame, a tripping rod slidable in said brackets and normally disposed in the path of travel of said pawl whereby the engagement of the latter with the former will disengage the pawl from the ratchet wheel, a second shaft rotatably mounted on the frame, traction wheels fixed on the ends of said shaft respectively, and means secured to said second named shaft adapted during the rotation of the latter to intermittently move the tripping rod out of the path of travel of the pawl.

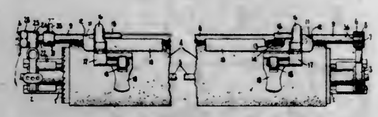
1,073,817. TOOL-HANDLE. DETRICH D. PETERS, Dallas, Oreg. Filed June 28, 1912. Serial No. 706,455. (Cl. 145—79.)



1. A handle comprising cross members having apertured jaws formed upon their forward ends, overlapping flanges carried by said jaws, and formed with apertures means carried by one of the jaws and adapted for engagement through the aperture of the opposite jaw and through a tool handle positioned between said jaws, and means carried by one of the handles and adapted for engagement through the apertures of the flanges of the jaws to lock the latter in position against the tool handle therebetween.

2. A tool handle comprising pivoted members one of which projects through the other, jaws at the outer end of said members being provided with transverse apertures and arranged to receive a tool therebetween, means positioned through the jaws and the tool for preventing withdrawal of the latter, and a latch member carried by one of said pivoted members and normally engaged through the apertured portions of the pivoted members for retaining the jaws engaged against opposite faces of the tool.

1,073,818. TYPE-WRITING MACHINE. JOHN PURDY, New York, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed July 19, 1912. Serial No. 710,352. (Cl. 197—139.)



1. In a typewriting machine, the combination of a carriage; a supporting rod that abuts at both ends with the parts by which it is supported in order to prevent a longitudinal movement of the rod; and means for detachably connecting the supporting rod to the carriage, said means comprising a latching device that is shiftable to connect the rod to the carriage or to release the rod and permit its removal from the carriage, and means for securing the latching device against accidental displacement from the position to which it may be shifted to connect the rod to the carriage.

2. In a typewriting machine, the combination of a carriage; a paper finger supporting rod; paper fingers carried thereby; and means for detachably connecting the supporting rod to the carriage, said means comprising a connecting member adapted to slide longitudinally of the rod and to constitute a bearing or rest for the rod at one end thereof, and means for securing the connecting member against movement longitudinally of the rod.

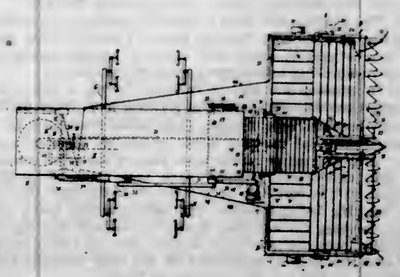
3. In a typewriting machine, the combination of a carriage; a supporting rod; and means for detachably connecting the supporting rod to the carriage, said means comprising a supporting section carried by the carriage, a latching member movable thereon into and out of engagement with the rod to connect the rod to the carriage or to free it for removal from the carriage, and means for locking the latching member against accidental movement out of engagement with the rod.

4. In a typewriting machine, the combination of a carriage; a supporting rod; and means for detachably connecting the supporting rod to the carriage, said means comprising a supporting section carried by the carriage, said supporting section and rod abutting end-to-end, a sleeve mounted for movement longitudinally of said section and rod to span the two and connect them together or to free the rod to enable it to be removed from the carriage, and a pin and slot connection between said sleeve and one of said rod and section members to enable the sleeve to move longitudinally as specified or to lock the sleeve against such longitudinal movement.

5. In a typewriting machine, the combination of a carriage; a supporting rod; and means for detachably connecting the snpporting rod to the carriage, said means comprising a supporting section carried by the carriage, said supporting section and rod abutting end-to-end, a sleeve mounted for movement longitudinally of said section and rod to span the two and connect them together or to free the rod to enable it to be removed from the carriage, said sleeve having a two-way slot therein, one portion of the slot extending longitudinally of the sleeve and the other portion at substantially right angles to the first mentioned portion, and a pin which is fixed to one of said section and rod members and which is received in said sleeve, whereby the sleeve may receive a movement longitudinally of the section and rod as specified and may be turned to lock the sleeve against such longitudinal movement.

[Claims 6 to 11 not printed in the Gazette.]

1,073,819. HARVESTING-MACHINE. SAMUEL J. RICE, Loma, N. D. Filed Mar. 8, 1912. Serial No. 682,394. Renewed Aug. 12, 1913. Serial No. 784,439. (Cl. 56—29.)



1. In a harvesting machine, the combination of a wheeled body, a plurality of independent cutting mechanisms supported by the body and means for actuating same, a plurality of feeding trays adapted to receive material from said cutting mechanisms respectively, means for reciprocating said feeding trays longitudinally of the body, a plurality of feeding trays adapted to receive material from said first named feeding trays respectively, means for reciprocating said second named feeding trays transversely of the body, and a conveyer adapted to receive material from all of said second named feeding trays.

2. In a harvesting machine the combination of a wheeled body, a threshing mechanism supported thereby, a plurality of independent cutting mechanisms supported by the body, a plurality of feeding trays adapted to receive material from said cutting mechanisms respectively, means for reciprocating said feeding trays longitudinally of the body, a plurality of feeding trays adapted to receive material from said first named feeding trays respectively, means for reciprocating said second named feeding trays transversely of a body, a conveyer receiving material from all of said second named feeding trays and delivering to said threshing mechanism, a motor supported by said body and connections between said motor and the cutting mechanisms, feeding trays, conveyer and threshing mechanism.

3. In a harvesting machine, the combination of a wheeled body, a plurality of independent cutting mechanisms supported by the body, a plurality of reciprocating feeding trays adapted to receive material from said cutting mechanisms respectively, a plurality of beaters rotatably mounted in position to move the material from the cutting mechanisms respectively to respective feeding trays, and means for simultaneously operating said cutting mechanisms, feeding trays and beaters.

4. In a harvesting machine, the combination of a wheeled body, a plurality of cutting mechanisms mounted upon said body for vertical movement, means for independently moving said cutting mechanisms up and down, a plurality of feeding trays adapted to receive material from said cutting mechanisms respectively, a plurality of beaters rotatably mounted in position to move the material from the cutting mechanisms respectively to respective feeding trays, and means for simultaneously operating said cutting mechanisms, feeding trays and beaters.

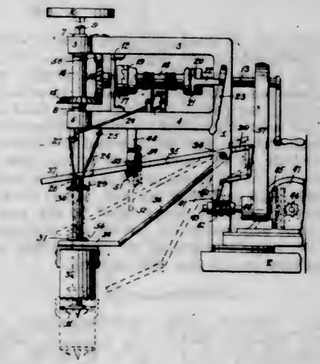
5. In a harvesting machine, the combination of a wheeled body, a plurality of cutting mechanisms, a plurality of feeding trays adapted to receive material from said cutting mechanisms respectively, means for reciprocating said feeding trays longitudinally of the body and for simultaneously moving one end of each of said feeding trays up and down during such reciprocation, a plurality of feeding trays adapted to receive material from said first named feeding trays respectively, means for reciprocating said second named feeding trays transversely of the body and for simultaneously moving one end of each of said second named feeding trays up and down during their reciprocation, and a conveyer adapted to receive material from all of said second named feeding trays.

1,073,820. PRODUCTION OF PORTLAND CEMENT. JOSEPH W. RICHARDS, South Bethlehem, and WALTER S. LANDIS, Bethlehem, Pa. Filed Feb. 28, 1911. Serial No. 611,323. (Cl. 75—14.)

The process of making iron and Portland cement in a single furnace operation, which consists in making up the charge of ore in an iron-ore reduction furnace, having a basic lining with the raw materials for producing a lime alumina silicate slag and with excess of limestone sufficient to produce a liquid product having the percentage composition of Portland cement clinker, and generating in said furnace a sufficient temperature to reduce the ore and to cause the clinker to flow from the furnace in the liquid state; substantially as described.

1,073,821. POST-HOLE MACHINE. BERT CECIL ROBERTS, Beckwith, Iowa, assignor of one-half to Lloyd Lessy, Beckwith, Iowa. Filed Sept. 9, 1912. Serial No. 719,494. (Cl. 255—19.)

1. In an excavator having a pivotally mounted frame consisting of an upright member having a horizontal extension at its upper end, a driving shaft mounted in said frame, an auger rod mounted in the outer end of said horizontal extension and adapted to be rotated by said driving shaft, an auger fixed on the end of said auger rod to rotate therewith, a bucket slidably mounted on said auger rod to set over said auger, and means operatively connected with said driving shaft for raising said bucket.



2. A post hole excavator having a pivotally mounted frame consisting of an upright member having two horizontal members at its upper end, an auger rod rotatably mounted in the outer ends of said two horizontal members and movable up and down, a driving shaft mounted in said frame and adapted to rotate said auger rod, an auger fixed on the end of said auger rod to rotate therewith, and means operatively connected with said driving shaft for raising said auger rod.

3. A post hole excavator having a pivotally mounted frame consisting of an upright member having two horizontal members at its upper end, a shaft mounted between said horizontal members, a drum on said shaft, an auger rod rotatably mounted in the outer ends of said horizontal members and movable up and down, an auger fixed to the end of said auger rod, a flexible member connected to said auger rod and to said drum, said flexible member adapted to be wound up on said drum and thus control the raising and lowering of said auger, and a bucket slidably mounted on said auger rod and adapted to set over said auger.

4. A post hole excavator having a pivotally mounted frame consisting of an upright member and two parallel members at its upper end, a shaft mounted between and parallel to said parallel members, a beveled gear fixed on the end of said shaft, an auger rod rotatably mounted in the ends of said parallel members and permitted to move up and down, a second beveled gear non-rotatably mounted on said auger rod, said second beveled gear meshing with the beveled gear on said shaft to transmit rotation from said shaft to said auger rod, and a bucket slidably mounted on said auger rod and mounted to set over said auger.

5. A post hole excavator having a frame, a shaft rotatably mounted in said frame, an auger rod rotatably mounted in said frame to rotate with said shaft, an auger fixed on the lower end of said auger rod, a drum loosely mounted on said shaft, a flexible member connected to said auger rod and adapted to be wound up on said drum, a toothed clutch member fixed on said shaft to rotate therewith, a toothed clutch member mounted on said drum to rotate therewith adapted to be set into engagement with the clutch member on said shaft and thereby wind up the flexible member on said drum and with it raise the auger rod.

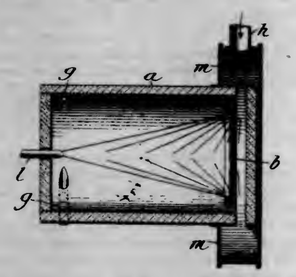
[Claims 6 to 28 not printed in the Gazette.]

1,073,822. PISTON FOR OIL-PUMP GOVERNORS. CHARLES W. SHINTON, Belleville, Ill. Filed Aug. 9, 1912. Serial No. 714,294. (Cl. 103—63.)



In a piston for oil pump governors, a piston rod, a head fixed on said piston rod in spaced relation to the pressure end of the piston, a perforated disk slidably mounted on the piston rod at the pressure end of the piston, a split ring encircling the piston rod between the head and perforated disk, said ring having its inner face entirely out of engagement with the disk and disposed throughout its extent outwardly of the perforations of said disk and in spaced relation to the piston rod, a plurality of split metallic packing rings encircling the first named packing ring and having a combined width equal to the first named packing ring, and means for forcing the perforated disk against the adjacent edges of tue packing ring to clamp said rings between the disk and the head.

1,073,823. DEVICE FOR SYNTHESIZING GASES. WERNER SIEBERT, Rheinfelden, Germany, assignor to Elektrochemische Werke G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Apr. 9, 1909. Serial No. 488,828. (Cl. 204—31.)



1. The method of producing electric flame discharges of large energy consumption between two electrodes in different planes by means of a large current at a low voltage per unit distance of separation of the electrodes, which consists in drawing out the arc by gradually separating the electrodes, and simultaneously causing the arc to be rapidly rotated to assume the form of a surface of revolution by streams of gases.

2. The method of producing electric flame discharges of large energy consumption between two electrodes in different planes by means of a large current at a low voltage per unit distance of separation of the electrodes, which consists in drawing out the arc by gradually separating the electrodes, and simultaneously causing the arc to be rapidly rotated to assume the form of a surface of revolution by introducing the gases to be synthesized tangentially to the surface of revolution.

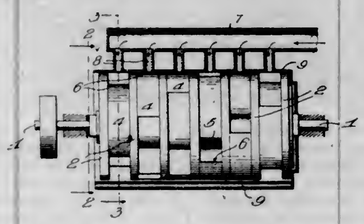
3. The method of producing electric flame discharges of conical form and of large energy consumption between an annular electrode and an electrode outside of the plane of the annulus by means of a large current at a low voltage per unit distance of separation of the electrodes, which consists in drawing out the arc by gradually separating the electrodes and simultaneously causing the arc to be rapidly rotated by the gases to be synthesized.

4. In an electric flame discharge furnace, two electrodes located in different planes, and means for introducing gases tangentially to an arc formed between said electrodes, whereby said arc is rapidly rotated to assume the form of a surface of revolution.

5. In an electric flame discharge furnace, an annular electrode, a second electrode located outside of the plane of the annulus, and inlets for the gases to be synthesized, said inlets being arranged tangentially to the surface of revolution of an arc formed between said electrodes, whereby said arc is rapidly rotated to assume a conical form.

[Claim 6 not printed in the Gazette.]

1,073,824. WATER-WHEEL. KIRK D. SMITH, Newport, N. H. Filed Sept. 24, 1912. Serial No. 722,014. (Cl. 138—3.)



1. A water wheel comprising a shaft, disks located upon the shaft, blocks located between the disks and having recesses, said disks having openings which communicate with the recesses in the blocks and at the opposite sides of the disks.

2. A water wheel comprising a shaft, disks mounted thereon, blocks located between the disks and having recesses, said recesses being in stepped relation throughout the length of the wheel, the disks having openings, the ends of which communicate with the recesses of the blocks at the opposite sides of the disks.

3. A water wheel comprising a shaft, disks mounted thereon, blocks mounted upon the shaft and located between the disks, said blocks having at their opposite edges recesses located at equal distance from the centers of the blocks, said disks having openings, the ends of which communicate with the recesses of the blocks at the opposite sides of the disks.

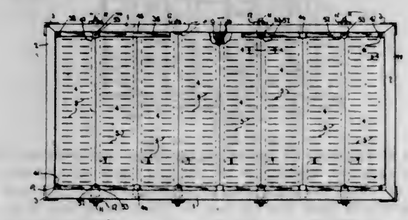
4. A water wheel comprising a shaft, disks mounted upon the shaft, blocks located between the disks and having in their edges recesses, the side walls of which converge to the ends of the blocks forming comparatively sharp edges, said disks having openings, the ends of which communicate with the recesses located in the blocks at the opposite sides of the disks.

5. A water wheel comprising a shaft, disks located thereon, blocks mounted upon the shaft between the disks and having recesses, said disks having openings, the ends of which communicate with recesses of the blocks at the opposite sides of the disks, a hood located adjacent the wheel in close proximity to the periphery of the same and discharge nozzles having their outer ends directly toward the blocks and recesses therein.

1,073,825. SCREEN-PLATE HOLDER. HERBERT E. SPRING, Fitchburg, Mass., assignor of one-half to Emmons Crocker, Fitchburg, Mass. Filed July 23, 1912. Serial No. 711,141. (Cl. 92—30.)

1. In a screen plate holder, the combination with a frame, and strips across within the same, each strip having a pair of upstanding ribs converging toward each other; of the screen plates having grooves in their lower faces along their side edges wider than but shaped to conform with said ribs, other strips across the frame near its end rails and each having a single rib to engage the outermost groove in the endmost plate, and means for moving said endmost strips apart to strain all the plates horizontally for the purpose set forth.

2. In a screen plate holder, the combination with a frame, and strips across within the same, each strip having a pair of upstanding ribs converging toward each other; of screen plates having undercut edges and grooves in their lower faces near said edges shaped to conform wth said ribs and disposed so that when in engagement therewith the upper corners of the edges are in contact, a packing between the undercut edges of contiguous plates, and means for straining the plates apart.



3. In a screen plate holder, the combination with a frame, and strips across within the same, each strip having a pair of upstanding ribs converging toward each other; of screen plates having undercut edges and grooves in their lower faces near said edges shaped to conform with said ribs and disposed so that when in engagement therewith the upper corners of the edges are in contact, a packing between the undercut edges of contiguous plates, other strips across the frame near its end rails and each having a single rib to engage the outermost groove in the endmost plate, and means for moving said endmost strips apart to strain all the plates horizontally for the purpose set forth.

4. In a screen plate holder, the combination with a frame having cross bars therein and provided with sockets in their upper edges, strips overlying certain of said cross bars having projections engaging said sockets to permit each strip to slide laterally upon its cross bar, and a pair of upstanding ribs along each strip converging toward each other; of a series of screen plates whereof each has downwardly projecting ribs along both edges shaped to conform with the ribs on said strips, and means for moving the endmost plates apart to put all the plates under horizontal strain for the purpose set forth.

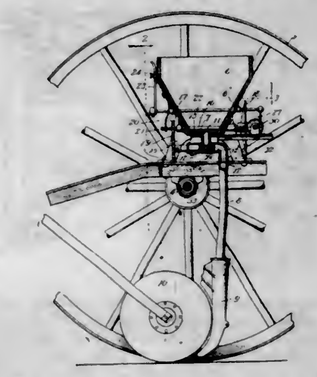
5. In a screen plate holder, the combination with a frame having cross bars therein and provided with sockets in their upper edges, strips overlying certain of said cross bars having projections engaging said sockets to permit each strip to slide laterally upon its cross bar, and a pair of upstanding ribs along each strip converging toward each other; of a series of screen plates whereof each has downwardly projecting ribs along both edges shaped to conform with the ribs on said strips, other strips across the frame near its end rails and each having a single rib to engage the outermost rib in the endmost plate, and means for moving said endmost strips apart to strain all the plates horizontally for the purpose set forth.

[Claims 6 to 13 not printed in the Gazette.]

1,073,826. GRAIN-DRILL. HARRY C. WAITE, Lewistown, Mont. Filed Feb. 12, 1912. Serial No. 677,069. (Cl. 111—31.)

1. In a grain-drill, the combination with the hopper having a longitudinal series of bottom outlets, of discharge-spouts at said outlets, stopper-forming and grain-feeding worm-conveyers in the spouts carrying chain-connected sprockets, a shaft journaled in said hopper and carrying on one end a sprocket engaging said chain, a friction-disk on the opposite end of said shaft, and a friction-wheel supported to engage the face of said disk and geared to the axle of the grain-drill to be driven thereby.

2. In a grain-drill, the combination with the hopper having a longitudinal series of bottom outlets, of discharge-spouts at said outlets, stopper-forming and grain-feeding worm-conveyers in the spouts carrying chain-connected sprockets, a shaft journaled in said hopper and longitudinally movable in its bearings, a sprocket on one end of the shaft engaging said chain and a friction-disk on the opposite end thereof, a friction-wheel supported to engage the face of said disk and geared to the axle of the grain-drill to be driven thereby, and a spring pressing against the shaft to force said disk against said wheel.



3. In a grain-drill, the combination with the hopper having a longitudinal series of bottom outlets, of discharge-spouts at said outlets, stopper-forming and grain-feeding screw-conveyers in the spouts carrying chain-connected sprockets, a shaft journaled in said hopper and longitudinally movable in its bearings, a sprocket on one end of the shaft engaging said chain and a friction-disk on the opposite end thereof, a friction-wheel supported to engage the face of said disk and geared to the axle of the grain-drill to be driven thereby, and a spring adjustably fastened to the box and provided with a head to bear against the adjacent end of the shaft and force said disk against said wheel.

4. In a grain-drill, the combination with the hopper having a longitudinal series of bottom outlets, of discharge-spouts at said outlets, stopper-forming and grain-feeding worm-conveyers in the spouts, a shaft journaled on said hopper and geared to said conveyers, a friction-disk on said shaft, a second shaft journaled to extend at right-angles to said first-named shaft and geared to the axle of the grain-drill to be driven thereby, a friction-wheel feathered on said second shaft to be adjustable longitudinally thereof and engage the face of said disk, a rock-shaft journaled in the hopper, having a crank-arm connected with said wheel to adjust it relative to the center of said face, an operating handle on the rock-shaft, and a gage-head provided with means for releasably fastening thereto said handle.

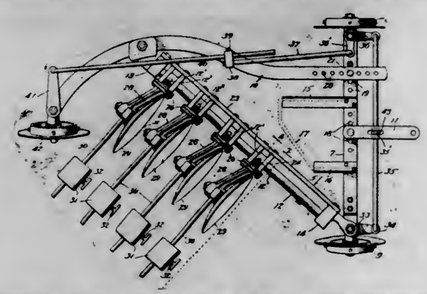
1,073,827. DISK PLOW. HARRY C. WAITE, Lewistown, Mont. Filed Mar. 20, 1912. Serial No. 685,057. (Cl. 97—40.)

1. In a wheeled plow, the combination of a wheeled draft-bar, a bar connected therewith, arms having pivotal connections at intervals with said last-named bar, stops on said connections, a stop-bar in the path of the stops for limiting the extent of depression of the arms, and plows journaled on the arms.

2. In a wheeled plow, the combination of a wheeled draft-bar, a bar connected therewith to incline relatively thereto, heads pivotally supported independently of each other at intervals on said last-named bar, plows secured to said heads, weights connected with the plows, and an adjustable stop-bar for said heads extending lengthwise of said plow-carrying bar.

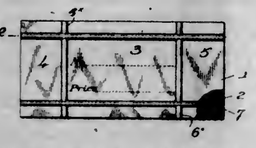
3. In a wheeled plow, the combination of a draft-bar having a straight-running wheel and an inclinedly-running wheel journaled respectively on its opposite ends, a drag-bar connected near its forward end with the draft-bar near said first-named wheel, an inclinedly-running

wheel journaled on the rear end of the drag-bar, a socket pivotally secured to the draft-bar near said inclinedly-running wheel thereon and a socket secured to the drag-bar toward its rear end, vertical series of holes in corresponding faces of said sockets, a stop-bar adjustably se-



cured at its ends in said holes, a bar inclining relatively to the draft-bar and connecting said sockets, a series of heads pivotally supported at intervals on said inclining bar and projecting beneath the stop-bar, means for releasably fastening said heads rigidly to their carrying-bar, and weight-carrying elements connected with said heads.

1,073,828. PINLESS MARKING-TICKET. GUSTAF A. WALLIN, New York, N. Y., assignor to A. Kimball Company, New York, N. Y., a Corporation of New York. Filed Jan. 5, 1910. Serial No. 536,445. (Cl. 40—2.)

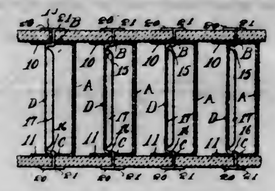


1. As an article of manufacture a marking ticket comprising an elongated blank formed of a plurality of plies of non-metallic, flexible material, secured together face-to-face, each of said plies being provided with transversely extending grooves on one face and permanently expanded portions on the other face, said transverse grooves and permanently expanded portions being opposed to each other on the faces of the respective plies, the combined length of the end portions of the ticket beyond the grooves and expanded portions being of a combined length no greater than the body of the ticket between said grooves and expanded portions, and a non-elastic metallic stiffener located between and extending longitudinally of the plies and crossing the line of the grooves.

2. As an article of manufacture a marking ticket comprising an elongated blank formed of a plurality of plies of flexible non-metallic material secured together face to face, each of said plies being provided at equal distances from the ends thereof with transverse grooves on one face and correlated expanded portions on the other face, and a non-elastic metallic stiffener extending longitudinally of the plies and crossing said transverse grooves, said metallic stiffener being bent to conform with the said transverse grooves when it crosses the same.

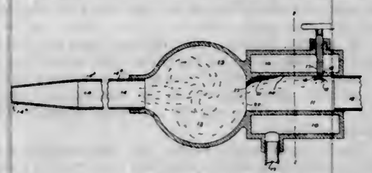
1,073,829. WALL STRUCTURE. GEORGE A. WIELAND and WILLIAM F. ALDRICH, San Francisco, Cal. Filed Sept. 19, 1912. Serial No. 721,246. (Cl. 72—31.)

In a wall structure, the combination of a plurality of studdings each of which is U-shape in cross section and has its arms provided with alining openings, the lower portion of which latter are reduced in width, wall members having their adjacent ends disposed against the outer faces of the arms of the studdings, and wall member fastening clips extending through alining openings in the arms of the studdings and having their intermediate portions offset to form shoulders adapted to engage the inner



face of the arms of the studdings when the terminals of said clips are disposed in the reduced lower ends of alining openings, the terminals of said clips being slit longitudinally to form tongues and the latter being bent in opposite directions over adjacent ends of the wall members.

1,073,830. BURNER. HARRY M. WILEY, Spokane, Wash. Filed Apr. 17, 1913. Serial No. 761,847. (Cl. 158—75.)



1. A hydrocarbon burner comprising a nozzle, a mixing chamber and a passageway, the mixing chamber being between the nozzle and the passageway and opening into each, an oil chamber surrounding the passageway, a conduit opening into the oil chamber leading to a source of oil supply, a conduit opening into the passageway and leading to a source of steam supply and a valve leading from the oil chamber into the passageway, together with a disk suspended into the passageway from the end of the valve and in the path of the oil passing from the oil chamber to the passageway.

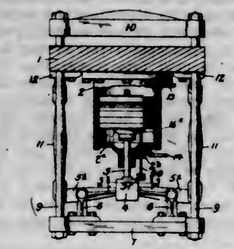
2. A hydrocarbon burner comprising a nozzle, a mixing chamber and a passageway, the mixing chamber being between the nozzle and the passageway and opening into each, an oil chamber surrounding the passageway, a conduit opening into the oil chamber leading to a source of oil supply, a conduit opening into the passageway and leading to a source of steam supply and a valve leading from the oil chamber into the passageway, together with an atomizer and a deflector in the passageway adapted to break the particles of oil and co-mingle the same with steam passing through the passageway to the mixing chamber.

1,073,831. POWER-PRESS. JOHN WILSON, Chicago, Ill., assignor of one-half to John Aun, Chicago, Ill. Filed Oct. 21, 1912. Serial No. 726,927. (Cl. 138—10.)

1. A double-acting piston comprising in its construction a pair of main piston members mounted in movable relation to each other, an expansible packing ring extending between said main piston members and adapted to be pressed outward against the cylinder wall by the movement of the said piston members toward each other during the power stroke of the piston, and expansible packing rings mounted upon one of said piston members adapted to be constantly forced outward in contact with the cylinder wall.

2. In a mechanism of the class described, the combination of a cylinder, a pair of connected double-acting piston members mounted in movable relation to each other in the cylinder, a packing ring extending between said main piston members and adapted to be pressed outward against

the cylinder wall during the power stroke of the piston by the movement of said piston members toward each other, and expansible packing rings mounted upon one of the main piston members and in constant engagement with the cylinder wall.



3. In a mechanism of the class described, the combination of a cylinder, a pair of double-acting piston members mounted in movable relation to each other in the cylinder, said piston members having adjacent peripheral surface portions disposed at an angle with relation to each other and adapted to admit a packing ring therebetween, a packing ring extending between said beveled peripheral surface portions and in sliding engagement therewith, and adapted to be forced outwardly against the wall of the cylinder by the movement of the piston members toward each other during the power stroke of the piston, expansible packing rings mounted upon one of the said main piston members, and means for holding said expansible packing rings constantly in yielding engagement with the inner surfaces of the cylinder.

4. A piston comprising in its construction a pair of main piston members mounted in movable relation to each other, a packing ring extending between said main piston members and adapted to be pressed outward by the movement of the latter toward each other, stop mechanism for limiting the movement of said main piston members toward each other, and means for adjusting said stop mechanism, exterior to the piston.

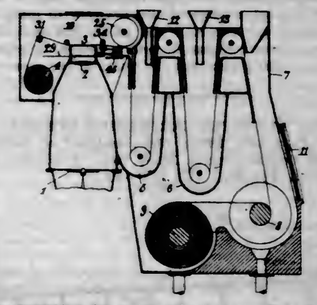
5. In a mechanism of the class described, the combination of a cylinder, a pair of loosely connected main piston members mounted in movable relation to each other in the cylinder, a packing ring extending between said main piston members and adapted to be pressed outward by the movement of the latter toward each other during the power stroke of the piston, expansible packing rings mounted upon one of the main piston members and in constant yielding engagement with the cylinder wall, stop mechanism connected with the main piston members and adapted to limit the movement of the main piston members toward each other, and means for adjusting said stop mechanism exterior to the cylinder.

[Claims 6 to 35 not printed in the Gazette.]

1,073,832. METHOD OF REGISTERING THE COURSE AND SPEED OF SHIPS. JULIAN WLODZIMIRSKI, Kielce, Russia. Filed Feb. 27, 1909. Serial No. 480,366. (Cl. 234—26.)

1. An apparatus for automatically recording the course of a ship and other data, comprising a compass, an objective above the same, a sensitive film above the objective, a ship's log floating in the water at the stern of the vessel, driving means for transmitting the rotatory motion of the log to the film for imparting a variable speed to the same, a shutter interposed between the objective and film, means for opening and closing the shutter at regular intervals of time for taking successively pictures of the compass-card.

2. An apparatus for automatically recording the course of a ship and other data, comprising a compass, an objective above the same, a sensitive film above the objective, a ship's log floating in the water at the stern of the vessel, driving means for transmitting the rotatory motion of the log to the film for imparting a variable speed to the same, a shutter between the objective and film, means for opening and closing the shutter for taking successively pictures of the compass on the film, and means for developing the pictures on the film.

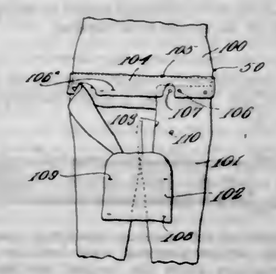


3. An apparatus for automatically recording the course of a ship and other data, comprising a compass, an objective above the same, a sensitive film, a ship's log submerged at the stern of the vessel, means driven by the log for imparting a variable speed to the film, a shutter interposed between the objective and film and provided with a sector-shaped recess, means for intermittently rotating the shutter at regular intervals of time, a sector-shaped cover on said shutter, and means for actuating the cover for opening or closing the shutter.

4. An apparatus for automatically recording the course of a ship and other data, comprising a compass, an objective above the same, a sensitive film above the objective, means for periodically moving the film over the objective, a shutter interposed between the objective and film, means for opening and closing the shutter at uniform intervals of time, a ship's log at the stern of the vessel, means between the ship's log and the film for imparting a variable speed to the film according to the varying speed of the ship for taking pictures on the film of the compass at variable distances from each other.

5. An apparatus for recording the course of a ship and other data, comprising a compass, an objective above the same, a sensitive film above the objective, means for moving the film over the objective, a shutter interposed between the objective and the film, means for opening and closing the shutter at regular intervals of time, a ship's log at the stern of the vessel, a differential gear driven by the ship's log and interposed between it and the means for moving the film for imparting a variable speed to the same for taking pictures of the compass at variable distances from each other according to the varying speed of the ship.

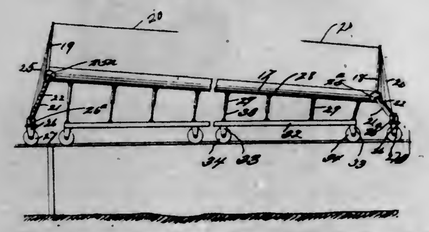
1,073,833. SEPARABLE UNION SUIT. WILLIAM W. WYER, Augusta, Me. Filed Oct. 18, 1911. Serial No. 655,402. (Cl. 2—144.)



In a garment of the class described, a shirt; a pendent element secured to the shirt; a pair of drawers having

an opening; a seat flap secured to the drawers and constituting a closure for the opening; the upper edge of the drawers and the upper edge of the seat flap being inserted between the pendent element and the shirt, and the lower edge of the shirt being extended below the lower edge of the pendent element to guide the upper edge of the seat flap and the upper edge of the drawers to place; and a single means for securing the shirt, the seat flap, the drawers and the pendent element together, to prevent the same from rolling up about the waist of the wearer.

1,073,834. ELEVATED IRRIGATION SYSTEM. YOUNG RHEA ANDERSON, Olney, Tex., assignor of one-tenth to Lawson Cephas Counts, Olney, Tex. Filed Oct. 7, 1912. Serial No. 724,493. (Cl. 137—66.)



1. In a device as set forth, a lead water trough, a pair of spray pipes adjustably connected to each end of the trough and communicating therewith and provided with rollers at their free ends adapted to engage tracks, and means including telescopically connected devices connected to the trough for supporting the same and constituting means for permitting one end or the other of the trough to be lowered.

2. In a device as set forth, a lead water trough, a pair of spray pipes adjustably connected to each end of said trough and communicating therewith and extending laterally, one pipe from each side of the trough, said trough having upwardly extending members, adjustable means connecting the members and the spray pipes, the outer ends of the spray pipes having rollers adapted to engage elevated tracks, and means including telescopically connected devices connected to the trough for supporting the same and provided with rollers to engage a track, said telescopically connected devices constituting means permitting one end or the other of the trough to be lowered.

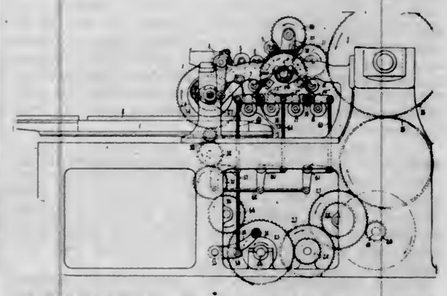
3. In combination with an elevated water supply system having laterally extending inclined pipes including valves, said inclined pipes having downwardly extending pipes including valves, of a lead water trough adapted to be positioned beneath any one of the downwardly extending pipes, a pair of spray pipes universally connected to and communicating with each end of the trough and provided with rollers adapted to engage tracks, and supporting means for the trough including rollers adapted to engage a track, said supporting means comprising telescopical connections constituting means to permit one end or the other of the trough to be lowered.

1,073,835. DRIVE WELL-POINT. OLAVE W. ANDREWS, Charleston, Mo. Filed Feb. 6, 1913. Serial No. 746,564. (Cl. 166—6.)



A well point of the character described, comprising a tubular body portion provided with laterally extending discharge openings which are tapered and increased in diameter outwardly for facilitating the insertion of a protecting tube therein, an approximately rectangular section of relatively non-corrosive sheet metal provided with an inwardly extending tapered tube which increases in diameter outwardly and is adapteld for insertion within the tapered laterally extending opening of the tubular body portion to cover the wall thereof, the approximately rectangular section of relatively non-corrosive sheet metal being provided upon its opposite edges with independent substantially triangular extensions bent down upon the same and having the apexes thereof cut away to form curved recesses brought into registration for forming a central opening, the substantially triangular extensions forming an outer protecting wall, a section of relatively non-corrosive wire gauze held between the section of sheet metal and the triangular extensions and protected by the triangular extensions, whereby said triangular extensions by being separate are capable of being readily bent outwardly to permit of the removal of the section of wire gauze when desired, and means for attaching the section of sheet metal to the tubular body portion.

1,073,836. INKING MECHANISM FOR BED-AND-CYLINDER PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed Dec. 15, 1910. Serial No. 597,589. (Cl. 101—71.)



1. In a machine of the character described, a reciprocating bed, a form thereon and inking mechanism therefor including a vibrator fixed against upward and downward movement, form rollers driven by the vibrator, and means independent of the bed for lowering the form rollers onto the form during the printing stroke and raising them from the form during the reverse stroke without disengaging them from the vibrator.

2. In a machine of the character described, a reciprocating bed, a form thereon, and inking mechanism therefor including a vibrator fixed against upward and downward movement, form rollers driven by the vibrator continuously in one direction and means independent of the bed for lowering the form rollers onto the form during the printing stroke and raising them from the form during the reverse stroke without disengaging them from the vibrator.

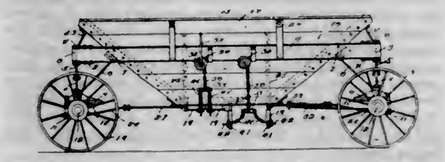
3. In a machine of the character described, a reciprocating bed, a form thereon and inking mechanism therefor including an ink cylinder driven continuously in one direction, a vibrator driven thereby and fixed against upward and downward movement, form rollers driven by the vibrator and means independent of the bed for lowering the form rollers on to the form during the printing strokes and raising them from the form during the reverse stroke without disengaging them from the vibrator.

4. In a machine of the character described, a reciprocating bed, a form thereon, and inking mechanism therefor including a vibrator fixed against upward and downward movement, form rollers driven by the vibrator and rotary means for lowering the form rollers on to the form during the printing stroke and raising them from the form during the reverse stroke without disengaging them from the vibrator.

5. In a machine of the character described, a reciprocating bed, a form thereon, and inking mechanism therefor including a vibrator fixed against upward and downward movement, form rollers driven by the vibrator continuously in one direction and rotary means for lowering the form rollers on to the form during the printing stroke and raising them from the form during the reverse stroke without disengaging them from the vibrator.

[Claim 6 not printed in the Gazette.]

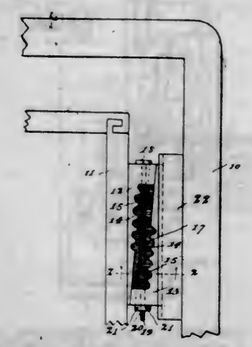
1,073,837. WAGON. JOHN B. BARTHOLOMEW, Peoria, Ill., assignor to Avery Company, a Corporation of Illinois. Original application filed Mar. 31, 1910, Serial No. 552,685. Divided and this application filed May 19, 1910. Serial No. 562,204. (Cl. 21—20.)



1. In a wagon, the combination of a frame comprising two side beams of structural metal sections, two end beams of structural metal sections and a plurality of supplementary structural metal sections secured parallel to and beneath each of the end beams with their webs in vertical alinement with the web of the end beam, supporting wheels connected with the lower of the supplementary metal sections, and a body located within and suspended from the frame, substantially as set forth.

2. In a wagon, the combination of a frame comprising two side beams of structural metal sections, two end beams of structural metal sections and a plurality of supplementary structural metal sections secured parallel to and beneath each of the end beams with their webs in vertical alinement with the web of the end beam, supporting wheels, connections between the supporting wheels and the lower of the supplementary metal sections, one of said connections comprising a fifth wheel, a body located within and suspended from the said frame, and connecting devices between the body and the wheels, substantially as set forth.

1,073,838. PRINTER'S QUOIN. JOSEPH T. BARTON, Chicago, Ill. Filed Apr. 7, 1913. Serial No. 759,364. (Cl. 101—51.)



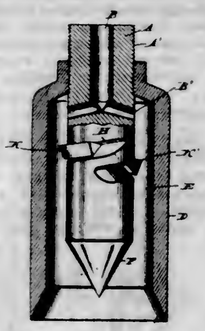
1. A printer's quoin comprising a pair of wedge blocks inversely disposed with their oblique faces in contact with each other, and a locking bolt extending lengthwise of and through substantially the wide half of each block and parallel to the outer sides of said blocks, the head of said bolt engaging the wide end of one block, and the nut of the bolt engaging the wide end of the other block.

2. A printer's quoin comprising a pair of wedge blocks inversely disposed with their oblique faces in contact with each other and each formed with a bolt-receiving space extending parallel to the straight side of the block, and a bolt engaging the bolt-receiving spaces of said blocks, the head of said bolt engaging the wide end of one block, and the nut of the bolt engaging the wide end of the other block.

3. A printer's quoin comprising a pair of wedge blocks inversely disposed with their oblique faces in contact with each other and each formed in its oblique face with a groove disposed parallel to the straight side of the block, and a bolt engaging the grooves of said blocks, the head of said bolt engaging the wide end of one block, and the nut of the bolt engaging the wide end of the other block.

4. The combination with a printer's quoin, and a reglet, of a tongue on the side of one of said members extending obliquely in a direction from its upper to its lower edge and a coöperating groove in the adjacent side of the other member engaged by said tongue whereby to prevent both relative angular and endwise movements of said members when locked in a chase.

1,073,839. DEVICE FOR REMOVING CASINGS FROM DRILLED WELLS. NELSON BEAUMONT, Racine, Wis. Filed July 5, 1913. Serial No. 777,487. (Cl. 57—9.)



1. A device for removing pipes from wells, comprising a tool with a spiral groove formed therein, a resilient spiral pipe-gripping member seated in said groove and provided with a sharp edge adapted to bite into the wall of the tube to be withdrawn from the well, as set forth.

2. A device for extracting pipes from wells consisting of a rod having a circumferential spiral groove formed therein, a resilient spiral pipe-gripping member with inclined edges seated in said groove and having a sharp edge projecting beyond the circumference of the grooved rod, as set forth.

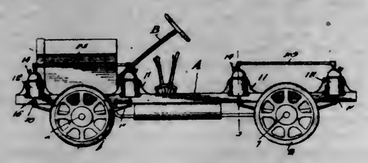
3. A device for extracting pipes from wells consisting of a rod having a circumferential spiral groove formed therein, a resilient spiral pipe-gripping member with inclined edges seated in said groove and having a sharp edge projecting beyond the circumference of the grooved rod, and a guide member secured to and surrounding said rod, as set forth.

4. A device for extracting pipes from wells consisting of a rod having a circumferential spiral groove formed therein, a resilient spiral pipe-gripping member with inclined edges seated in said groove and having a sharp edge projecting beyond the circumference of the grooved rod, a guide member secured to and surrounding said rod, said rod having a longitudinal channel, and exit ducts leading therefrom into the space intermediate the rod and said shell, as set forth.

5. A device for removing pipes from wells consisting of a rod having a duct therein which leads through the

circumference thereof and provided with a circumferential spiral groove with inclined wall, the end of said rod being tapered, a resilient spiral pipe-gripping member, angular in cross section and seated in said groove having a sharp edge adapted to engage the wall of a pipe, and means for guiding the rod, as set forth.

1,073,840. PNEUMATIC SPRING FOR VEHICLES. TOMÁS LUIS DE BEJAR and BERNARDO LANZAGORTA, Habana, Cuba. Filed Jan. 30, 1912. Serial No. 674,345. (Cl. 21—50.)



In a vehicle, the combination with the bed frame, of an axle disposed thereunder, a pair of compressed air cylinders secured to each side of the frame and disposed equi-distant from a respective axle, leaf springs each centrally secured to the axle, pistons movable in said cylinders, a guide carried by the lower end of each cylinder, a piston rod extending downwardly from the piston through the guide and terminating at its lower end in a split socket element, links each pivotally connected at one end to a respective end of a spring, a ball formed on the other end of each link and engageable within a respective socket element, and means for clamping said element around the ball.

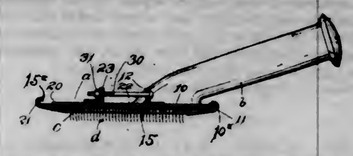
1,073,841. MANUFACTURE OF CHAIN-SWIVELS. GOTTHILF BISCHOFF, Freudenstadt, Germany, assignor to Firm of Ernst Gideon Bek, G. M. B. H., Pforzheim, Germany. Original application filed Feb. 24, 1913, Serial No. 750,355. Divided and this application filed May 8, 1913. Serial No. 766,270. (Cl. 59—9.)



1. The method of making chain swivels, which comprises stamping and pressing a blank in the form of a shank with a slotted and cross-grooved plate at the one end and with a plate having laterally projecting trunnions and a depending tongue at the other end, bending the said slotted plate angularly to said shank, and then bending the latter into horseshoe-shape until the said second plate takes into the slot of the said first plate and the trunnions engage in the cross-grooves thereof.

2. The method of making chain swivels, which comprises stamping and pressing a blank in the form of a shank with a slotted and cross-grooved plate at the one end and with a plate having laterally projecting trunnions and a depending tongue at the other end, bending the said slotted plate angularly to said shank, then bending the latter into horseshoe-shape until the said second plate takes into the slot of said first plate and the trunnions engage in the cross-grooves thereof, then cutting the horseshoe, introducing a spring into the swivel socket, and finally, attaching the latter to the carbine proper and the swivel eye by swaging or pressing, said spring being placed in coöperation with said depending swivel tongue.

1,073,842. HAND-CARD. VICTOR J. BIBBONNETTE and ALBERTUS M. LINN, Stafford Springs, Conn. Filed Jan. 2, 1912. Serial No. 669,056. (Cl. 119—93.)

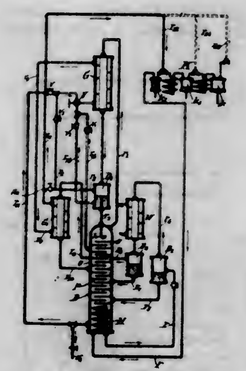


1. In a hand card, a back comprising an upper and a lower plate spaced from each other, the lower plate having a hooked flange along its rear edge, an intermediate plate received between said upper and lower plates with its forward edge projecting beyond the forward edges of the upper and lower plates and provided with a hooked flange along said forward edge, means for adjusting the intermediate plate relatively to the upper and lower plates, a toothed facing engaging the lower plate, binding clips secured to the front and rear edges of said facing and having hooked flanges engaging over the hooked flanges of the lower and intermediate plates respectively, and end clips carried by the back for clamping the ends of the facing thereto.

2. In a hand card, a back, and a handle carried by the back, said back comprising upper and lower plates and an intermediate plate adjustable relatively to the upper and lower plates, means for adjusting said intermediate plate, a facing engaging the lower plate and provided with teeth, and binding clips securing said facing to the back.

3. In a hand card, a back, and a handle carried thereby, said back comprising upper and lower fixed plates and an intermediate plate slidable between said upper and lower plates, means for adjusting the intermediate plate relatively to the upper and lower plates, a facing engaging the lower plate and provided with teeth, binding clips carried by the front and rear edges of said facing and detachably engaging the back, and end clips carried by the back and detachably engaging the facing at the ends of the latter.

1,073,843. ILLUMINATING LIQUEFIED GAS AND METHOD OF TREATING GASES. HERMANN BLAU, Augsburg, Germany. Filed July 31, 1911. Serial No. 641,691. (Cl. 48—1.)



1. In the production of an illuminating liquefied gas, the method of recovering liquefiable constituents consisting in resolving compressed, crude gases into liquefied constituents and into gaseous constituents comprising permanent gases, separating such gaseous constituents from the liquefied constituents and liquefiable gases suspended in the permanent gases and then subjecting the gaseous

constituents to strong artificial cooling, whereby liquefiable gases are separated out in liquid form, substantially as described.

2. In the production of an illuminating liquefied gas, the method consisting in separating easily volatile, liquid hydrocarbons from crude gases, resolving the remaining constituents of the crude gases into liquefied constituents and into gaseous constituents comprising permanent gases and liquefiable gases suspended in the permanent gases, separating such gaseous constituents from the liquefied constituents and then subjecting the gaseous constituents to strong artificial cooling, whereby liquefiable gases are separated out in liquid form, substantially as described.

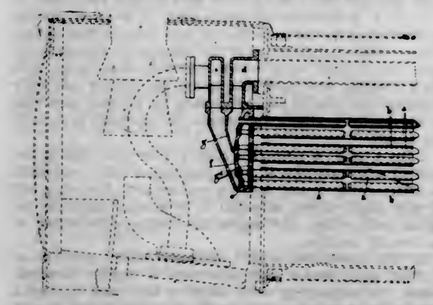
3. In the production of an illuminating liquefied gas, the method of recovering liquefiable constituents consisting in cooling compressed, crude gases to a temperature, such as normal temperature, whereby the crude gases are resolved into liquefied constituents and into gaseous constituents comprising permanent gases and liquefiable gases suspended in the permanent gases, separating such gaseous constituents from the liquefied constituents and then subjecting the gaseous constituents to strong artificial cooling, whereby liquefiable gases are separated out in liquid form, substantially as described.

4. In the production of an illuminating liquefied gas, the method consisting in resolving compressed, crude gases into liquefied constituents and into gaseous constituents comprising permanent gases and liquefiable gases suspended in the permanent gases, separating such gaseous constituents from the liquefied constituents, then subjecting the gaseous constituents to strong artificial cooling, whereby liquefiable gases are separated out in liquid form and heating, to a temperature such as normal temperature, a portion of the cold gas mixture thus obtained in order to drive out permanent gases dissolved therein and thus to permit the liquefied illuminating gas to fill the vessels into which it is withdrawn for shipment or use, substantially as described.

5. In the production of an illuminating liquefied gas, the method consisting in resolving compressed, crude gases into liquefied constituents and into gaseous constituents, leading the liquefied and gaseous constituents into a rectification column, separating such gaseous constituents from the liquefied constituents and then subjecting the gaseous constituents to strong artificial cooling, whereby liquefiable constituents are separated out in liquid form, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,073,844. STEAM-SUPERHEATER. ANDREW BOLTON, deceased, Manchester, England, by Elizabeth Anne Bolton, executrix, Manchester, England. Filed Mar. 19, 1913. Serial No. 755,440. (Cl. 122—462.)



In steam superheaters, in combination, a plurality of headers, a saturated steam inlet and a superheated steam outlet to each of said headers, a division wall extending between said inlet and outlet, a diaphragm extending across said header and joined by the division wall at a point midway between the ends of the diaphragm, open-ended tubes supported at one end by said diaphragm, some of said tubes communicating with the steam inlet and the remainder with the steam outlet, and tubes closed at one end, supported around the open ended tubes by said header, substantially as described.

1,073,845. PROCESS OF PRODUCING CAOUTCHOUC-LIKE SUBSTANCES. CARL COUTELLE, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 10, 1913. Serial No. 760,210. (Cl. 23—24.)

1. The process of producing caoutchous substances which comprises subjecting hydrocarbons of the butadiene series to the action of an exteriorly oxidized alkali forming metal, substantially as described.

2. The process of producing caoutchous substances which comprises subjecting hydrocarbons of the butadiene series to the action of an exteriorly oxidized alkali metal, substantially as described.

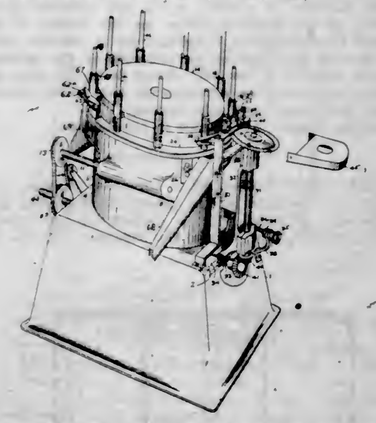
3. The process of producing caoutchous substances which comprises subjecting hydrocarbons of the butadiene series to the action of exteriorly oxidized sodium, substantially as described.

4. The process of producing caoutchouc substances which comprises subjecting isoprene to the action of an exteriorly oxidized alkali forming metal, substantially as described.

5. The process of producing caoutchouc substances which comprises subjecting isoprene to the action of an exteriorly oxidized alkali metal, substantially as described.

[Claim 6 not printed in the Gazette.]

1,073,846. DOWEL CUTTING-OFF AND POINTING MACHINE. CHARLES G. DAUBER, Oshkosh, Wis., assignor to Edwin J. Bell, Oshkosh, Wis. Filed Jan. 2, 1913. Serial No. 739,645. (Cl. 144—12.)



1. In a dowel cutting off and pointing machine the combination with a supporting frame, a plurality of dowel rod carriers mounted to rotate bodily about the frame and having radial movement within their mounting, a driving shaft, a revoluble cutting off and pointing cutter mounted slidingly on the frame and driven by gears from the driving shaft and means for causing the carriers to divert into a path concentrically disposed about the cutter during the cutting operation.

2. In a dowel cutting off and pointing machine the combination with a supporting frame, a plurality of dowel rod carriers mounted to rotate bodily about the frame and having radial movement within the mounting, yielding devices attached to the frame and adapted to grip and rotate the contents of the carriers during a portion

of the peripheral travel thereof, a driving shaft, a revoluble cutting off and pointing device mounted adjustably in the frame and driven through gears from the driving shaft and means for causing the carriers to divert into a path concentrically disposed about the axes of the cutting off device during its cutting action.

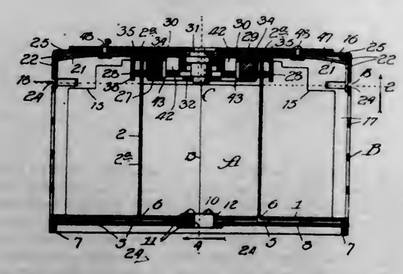
3. In a machine of the class described the combination with a base, a cylindrical frame mounted thereon, a revoluble disk mounted on the frame and having radial slots in its under face, dowel rod carriers extending from the slots and having a limited movement therein, a bracket adjustably mounted in the base, a cutter device comprising one or more circular saws rotatably mounted in the bracket and adapted to cut through the path of travel of the carriers, means for rotating the contents of the dowel carriers during the cutting action and means for causing the carriers to travel circumferentially about the cutter over a path concentric with the cutter axis during the cutting action thereof.

4. In a machine of the class described the combination with a base, a cylindrical frame mounted thereon, a revoluble disk mounted on the frame and having radial slots in its under face, a cam groove in the top of the cylindrical frame, bars fitted in the slots and having controlling means attached thereto and extending into the cam groove, dowel rod carriers attached to the bars, a cutting and pointing device adjustably mounted on the base and adapted to cut partially through the carriers, means for rotating the contents of the dowel rod carriers during the action of the cutting and pointing devices.

5. In a machine of the class described the combination with a base and cylindrical frame mounted thereon, a revoluble disk mounted on the frame and journaled therein, a plurality of dowel rod carriers connected with and extending from the disk, holes through the carriers, a rail disposed below the path of the carriers, and around the frame, means for adjusting the rail vertically, a revoluble cutting off and pointing device attached adjustably to the base and adapted to act within the path of the carriers, an opening in the rail adjacent to the cutting off and pointing device for the passing of the product of the carriers, a yielding device disposed above the opening for gripping the contents of the carriers; another opening in the rail spaced from the first said opening and means for retaining the rods in the carriers during their travel over said opening.

[Claims 6 and 7 not printed in the Gazette.]

1,073,847. SAVINGS-BANK. CHARLES FISHER, Chicago, Ill., assignor to The Automatic Recording Safe Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 27, 1912. Serial No. 686,639. (Cl. 232—4.)



1. In a savings bank, the combination with a casing having a peripheral wall provided with a coin-admission slot, of a resilient slot-guard holder, and a slot-guard carried thereby and having a pivot-portion adapted to effect flexing thereof when the slot-guard is swung about its pivot.

2. In a savings bank, the combination with a casing having a top wall and having also a peripheral wall provided with a coin-admission slot, of a resilient arm adjacent said top wall and projecting near the peripheral wall, and a swinging slot-guard having a pivot portion confined between said resilient arm and said top wall, and adapted to flex said arm when the slot-guard is swung about its pivot-portion.

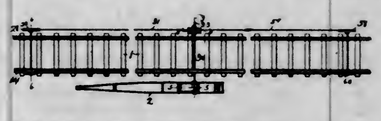
3. In a savings bank, the combination with a casing having a peripheral wall provided with a coin-admission slot, of a resilient arm having its end provided with a slot, and a slot-guard having an arm extending through said second-named slot, and having a head disposed above said resilient arm.

4. In a savings bank, the combination with a casing having a top wall and having also a peripheral wall provided with a coin-admission slot, of a resilient arm disposed beneath said top wall and having its extremity provided with a slot, and a slot-guard extending through said last-named slot and having a head confined between said top wall and said resilient arm.

5. In a savings bank, the combination with a casing having a top wall and having also a peripheral wall provided with a coin-admission slot, of a bent slot-guard having a head-portion forming an angle with its body portion, and a resilient arm between which and said top wall said head portion is normally confined, said head-portion being adapted to flex said resilient arm when the slot-guard is swung in the operation of inserting a coin.

[Claims 6 to 8 not printed in the Gazette.]

1,073,848. GATE. WILLIAM H. FLAGG, Syracuse, N. Y. Filed Apr. 25, 1913. Serial No. 763,536. (Cl. 39—35.)



1. In a gate operating mechanism, a lever, an arm actuated by the movement of said lever, a shaft, a disk rigidly mounted on said shaft, said arm adapted to contact with said disk to rotate the same, means for moving said lever whereby said disk is rotated, means for holding said disk in its rotating position, and means for releasing said holding means.

2. In a gate, a lever actuated by a train wheel, a pivoted arm having a connection with said lever, a shaft, a disk mounted on said shaft and rotating therewith, a bar mounted on said disk and adapted to contact with said arm, a pulley on said shaft, a cable mounted on said pulley, a self-closing gate, and means for holding said gate in open position, said cable having an attachment with said means for holding the gate in open position.

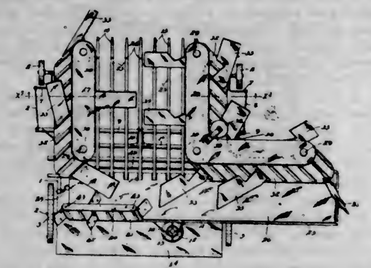
3. In a gate-operating mechanism, a lever, a pivoted arm actuated by the movement of said lever, a disk having a bar mounted thereon, said bar adapted to contact with said arm, a shaft upon which said disk is mounted, said shaft rotating with said disk, means for moving said lever whereby said disk is rotated, means for holding said disk in its rotated position, and means for releasing said holding means.

4. In a gate, a normally closing gate arm, means for holding said gate arm in open position, a cable connected to said holding means, a pulley connected to the other end of said cable, means actuated by a passing train for rotating said pulley, and means for locking said pulley in its rotated position.

5. The combination with a normally closing gate arm of a shaft upon which said gate arm is rigidly mounted, means for supporting said shaft, a rock arm having a rigid connection with said shaft, a second shaft, a rock arm rigidly connected to said shaft, a rod connecting said rock arms, means tending to rotate said second shaft and thereby open the gate, and means actuated by an approaching train for withdrawing said means tending to rotate said shaft whereby the gate is allowed to close.

[Claim 6 not printed in the Gazette.]

1,073,849. SHOCK-LOADER. OREA L. GILLILAND, Doyon, N. D. Filed Oct. 18, 1912. Serial No. 726,460. (Cl. 56—61.)



1. In a machine of the kind described, the combination with a truck, of a gathering deck supported from the frame of said truck, an inclined elevator deck receiving from said gathering deck and adjustably supported in part by said receiving deck and in part by said truck frame, and a pair of opposite endless conveyers operative to carry the bundles upward on said elevator deck and converging toward their upper portions so that they overlie said elevator deck.

2. In a machine of the kind described, the combination with a truck, of a gathering fork at the front thereof, an inclined elevator deck receiving from said fork, and a pair of opposite endless conveyer belts provided with projecting blades and converging toward their upper portion so that they overlie said elevator deck.

3. In a machine of the kind described, the combination with a truck, of a gathering fork at the front of said truck, an inclined primary elevator deck receiving from said fork, a secondary elevator deck receiving from said primary deck and set in a plane that inclines obliquely toward the front of the machine, and conveyers coöperating with said deck to move the bundles from the receiving portion of said primary deck to the delivery portion of said secondary deck.

4. In a machine of the kind described, the combination with a truck, of a gathering fork at the front thereof, an inclined primary elevator deck receiving from said fork, a transversely inclined secondary elevator deck receiving from said primary deck, and a pair of opposite endless conveyers coöperating to carry the bundles over said primary deck, and one thereof extending along said secondary deck and serving to carry the bundles over the latter.

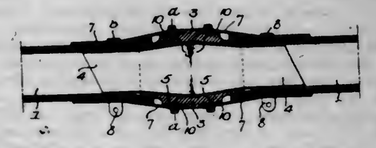
5. In a machine of the kind described, the combination with a truck, of a gathering fork at the front thereof, an inclined primary elevator deck receiving material from said fork, a transversely inclined secondary elevator deck receiving from said primary deck, and a pair of opposite endless conveyers coöperating to carry the bundles over said primary deck, one thereof extending along said secondary deck and serving to carry the bundles over the latter, and an auxiliary conveyer on the receiving portion of said secondary deck serving to assist in starting the bundles upward on said secondary deck.

[Claims 6 to 12 not printed in the Gazette.]

1,073,850. HOSE-COUPLING. GEORGE T. GREER, Roanoke, Va. Filed Aug. 20, 1912. Serial No. 716,029. (Cl. 137—28.)

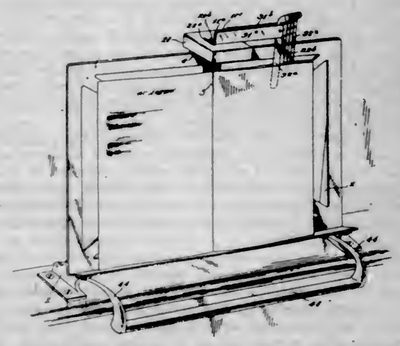
1. The combination in a hose coupling, of a sleeve formed to enter two hose lengths, said sleeve having its interior tapered from its middle toward the ends; means for holding said lengths to said sleeve; and an expansible tube mounted in the sleeve and forming a continuous lining therefor, said tube having its ends extending beyond the ends of the sleeve and for a substantial distance into the hose lengths.

2. The combination in a hose length of a sleeve formed to enter a hose; means for holding said sleeve to the hose, said means including a second sleeve longitudinally split for a portion only of its length and adapted to embrace the exterior of the hose, the edges of the split portion of said second sleeve being arranged to overlap and ride past each other when the sleeve is compressed upon the hose and said split sleeve having an annular recess struck outwardly from an unsplit portion; and means within said recess for detachably connecting the two sleeves.



3. The combination in a hose length of a sleeve formed to enter a hose; means for holding said sleeve to the hose, said means including a second sleeve longitudinally split for a portion only of its length and adapted to embrace the exterior of the hose, the edges of the split portion of said second sleeve being arranged to overlap and ride past each other when the sleeve is compressed upon the hose and said split sleeve having an annular recess struck outwardly from an unsplit portion; means within said recess for detachably connecting the two sleeves; and an inflatable tube mounted in the first-named sleeve and forming a continuous lining therefor, said inflatable tube having its ends extending beyond the ends of said first-named tube and for a substantial distance directly into the hose lengths.

1,073,851. MUSIC-TURNER. HUGO F. GUDDE, Cleveland, Ohio. Filed Oct. 10, 1912. Serial No. 724,927. (Cl. 84—135.)



1. In a device of the character described, in combination a plurality of arms pivoted at one end, the pivotal points of said arms being adjacent to each other and arranged in echelon formation whereby said arms, when turned in the same direction, may lie closely adjacent to and parallel with each other, means for rotating said arms successively about their pivots beginning with the forward arm of the series, the angle of movement of each arm being substantially one hundred and eighty degrees, and for simultaneously shifting the pivotal points of such arms past the pivotal points of the succeeding arms, whereby said arms when in reverse position will lie closely adjacent to and parallel with each other with their pivotal points still in echelon formation, but arranged oppositely to their arrangement at the beginning of the operation.

2. In a device of the character described, in combination, a plurality of arms pivoted at one end, the pivotal points of said arms being adjacent to each other and said arms being so formed relatively to their pivots as to lie

closely adjacent to and parallel with each other when turned in the same direction, means for rotating said arms about their pivots beginning with the forward arm of the series, the angle of movement of each arm being substantially one hundred and eighty degrees, and for simultaneously shifting the pivotal point of the arms which have already been moved past the pivotal points of the arms yet to be moved, whereby said arms when in reverse position will lie closely adjacent to and parallel with other.

3. In a device of the character described, the combination with a support for an open book, of a plurality of arms pivoted upon axes substantially parallel with the face of said support, such pivotal axes being arranged in echelon formation and respectively increasing in distance from the plane of said support whereby said arms when turned in the same direction may lie closely adjacent to each other and parallel both to each other and to the plane of said support, fingers carried by said arms adapted to engage the leaves of the book or like article carried by said support, means for rotating said arms successively about their pivots through an angle of substantially one hundred and eighty degrees and for simultaneously shifting the pivotal point of such arm toward the rear of the pivotal point of the succeeding arm whereby the echelon arrangement of the pivots will be reversed simultaneously with the reversal of the position of the arms.

4. In a device of the character described, the combination with a support for an open book, of a plurality of arms pivoted upon axes substantially parallel with the face of said support, such pivotal axes being arranged in echelon formation so that when said arms are turned toward the right they will lie closely adjacent to and parallel with each other and also substantially parallel to the face of said support with the pivot of the foremost arm located at the left of the series and farthest removed from the plane of said support, fingers carried by said arms adapted to engage the leaves of the book or like article carried by said support, means for rotating said arms successively about their pivot through an angle of substantially one hundred and eighty degrees, beginning with the nearest of said arms and for simultaneously shifting the pivotal point of such arm and of all previously moved arms toward the rear of the pivotal points of the arms remaining to be moved whereby the echelon arrangement of the pivots will be reversed simultaneously with the reversal of the position of the arms.

5. In a device of the character described, the combination, with a plurality of relatively movable members arranged side by side, of rotatable shafts journaled in and projecting beyond said members and having their axes substantially perpendicular to the direction of movement of said members, radial arms carried by said shafts and arranged when turned to a position substantially perpendicular to the direction of movement of said members to lie closely adjacent to and parallel with each other, means for successively moving each member beginning with the end member of the series past the succeeding members and means for simultaneously rotating the shaft carried by such member so as to reverse the position of the arm secured thereto.

[Claims 6 to 17 not printed in the Gazette.]

1,073,852. TREE-SPRAYER. FORREST G. HAYES, Sharon, Pa. Filed May 15, 1911. Serial No. 627,374. (Cl. 137—59.)



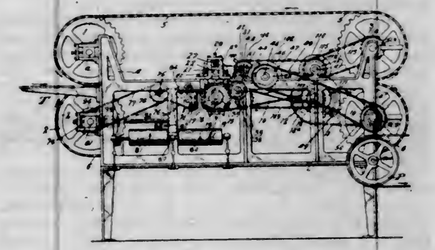
1. A tree sprayer comprising a base, a boom mounted thereon and adapted to swing in horizontal and vertical planes, a plurality of brackets fixed to said boom, a supply pipe slidably mounted on said brackets, and means, in one of said brackets, for rotating said supply pipe.

2. A tree sprayer comprising a base, a boom mounted thereon and adapted to swing in horizontal and vertical planes, a supply pipe slidably mounted on said boom, and means, operative at a fixed point relative to the base, to rotate said supply pipe irrespective of the position to which said supply pipe is slid.

3. A tree sprayer comprising a base, a boom mounted thereon and adapted to swing in horizontal and vertical planes, brackets mounted on said boom, a supply pipe slidably mounted on said brackets, and a jawed wrench mounted in one of said brackets and embracing the supply pipe.

4. In a tree sprayer the combination of a base comprising a platform, a pedestal, a member rotatably mounted on the pedestal, and a mast mounted on said member and adapted to swing relative thereto, a boom suspended from said mast, a plurality of brackets fixed to said boom, and a supply pipe slidably mounted on said brackets, means for supplying fluids to said supply pipe at a point intermediate its ends, a nozzle having a swivel joint on the end of said supply pipe, means located adjacent said mast for rotating said supply pipe, and means operative from any point along said supply pipe for rotating said nozzle.

1,073,853. TOBACCO-STEMMING MACHINE. HENRY CONRAD HEBIG, New York, N. Y., assignor, by mesne assignments, to Charles D. Simons, Jr., and Henry von L. Meyer, New York, N. Y. Filed Apr. 5, 1913. Serial No. 759,071. (Cl. 131—57.)



1. In a tobacco-leaf stemming-machine, the combination of a pair of separable stripping-devices; means for pulling a tobacco-leaf stem between and away from them; and a transverse, traveling wiper operatively adjacent to and parallel with the stripping devices.

2. In a tobacco-leaf stemming-machine, the combination of a pair of separable stripper-rolls; main stem-grips; means for moving the grips between and away from the rolls; and a traveling wiping mechanism comprising a transverse grip-dodging wiper.

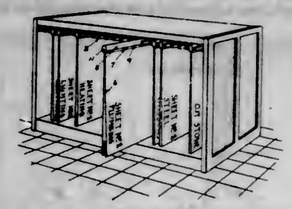
3. In a tobacco-leaf stemming-machine, the combination of a pair of stripping rolls with a transverse wiper mounted parallel with the rolls, and means for carrying the wiper into and through and, out of its working position, in a direction approximately perpendicular to the plane in which the rolls contact with a leaf.

4. In a tobacco-leaf stemming-machine, the combination of a pair of main stem-grips; means for moving them; and a pair of auxiliary stem-gripping bars operative in the path of the main stem-grips, and means for carrying the auxiliary stem-gripping bars into, along and out of the path of the main stem-grips.

5. In a tobacco-leaf stemming-machine, the combination of a pair of separable stripping-rollers; a pair of main stem-grips; and means for carrying them to, between and away from the stripping rolls of a pair of main stem-grips dodging auxiliary stem-grip bars located on the rear side of the stemming rolls.

[Claims 6 to 17 not printed in the Gazette.]

1,073,854. FILING DEVICE. ROBERT HELMER, New York, N. Y. Filed Feb. 14, 1912. Serial No. 677,437. (Cl. 211—22.)



1. As an article of manufacture a supporting track for a filing device comprising a strip of sheet metal turned down at its longitudinal edges to provide a pair of depending flanges to the strip, said flanges being diverged toward their free edges whereby to provide oppositely inclined supporting faces at either side of the strip, said flanges converging at the forward end of the strip whereby to provide inclined guiding faces merging into said supporting faces.

2. In a filing device, the combination with a support, and a plurality of sheet binding tubes, of a plurality of sheet metal tracks of substantially inverted V-shape, and means depending a short distance from the underside of the support to which said tracks are secured for holding said tracks in parallel and spaced relation whereby to provide spaces between the tracks for the reception of said tubes.

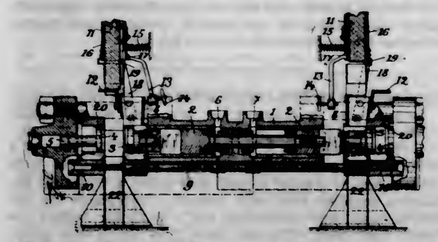
1,073,855. PHARMACEUTICAL COMPOUND. WILHELM HIEMENZ and LUDWIG TAUB, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 14, 1911. Serial No. 649,286. (Cl. 23—24.)

1. The herein described amids of dihalogen-substituted fatty acids of high molecular weight being solid stable compounds, tasteless and insoluble in water, substantially as described.

2. The herein-described amids of di-iodo substituted fatty acids of high molecular weight, being solid stable compounds, tasteless and insoluble in water, substantially as described.

3. The herein described amid of diiodo-brassidic acid, being a solid stable compound, forming crystals melting at 93° C., substantially as described.

1,073,856. HYDRAULIC PRESS FOR CONTINUOUSLY-FED PASTY OR LOOSE MATERIAL. JOHANNES JACOBSEN, Friedenau, near Berlin, Germany. Filed Mar. 23, 1909. Serial No. 485,335. (Cl. 29—91.)



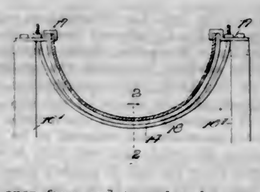
1. Hydraulic press for continuously fed pasty or loose material, fitted with a box into which the material to be pressed is fed, characterized in that the main ram passes transversely through an opening in the movable feed box and performs the working stroke against a gradually receding subsidiary ram, which during the back stroke of the main ram advances in its turn and ejects the finished piece.

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2. Hydraulic press for continuously fed pasty or loose material, characterized by a movable feed box actuated by a subsidiary hydraulic piston, a spring controlled chute carrying a projection adapted to be pressed aside by the said box, as it is moved into working position, and released as it goes back to its initial position, so that the finished piece receives a slight blow from a projection on the chute and is disengaged from the ejector ram.

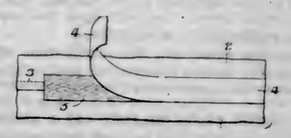
3. A hydraulic press for continuously fed pasty or loose material provided with a feed box into which the material to be pressed is fed, a subsidiary hydraulic piston to actuate said feed box, a main ram adapted to pass transversely through an opening in the movable feed box, a subsidiary ram which gradually recedes during the working stroke of the main ram and advances in its turn during the back stroke of the main ram to eject the finished piece of material, and a reversing valve to control the supply of fluid to said subsidiary piston and to said main and subsidiary rams.

1,073,857. FLUME. ROBERT J. JOHNSON, Sheridan, Wyo., assignor to Sheridan Iron Works, Sheridan, Wyo., a Corporation of Wyoming. Filed July 16, 1912. Serial No. 709,759. (Cl. 61—5.)



A flume open from end to end and composed of metal sections having their meeting ends formed with projections adapted to fit one within the other, an outwardly facing channel-member adapted to be placed within the inner projection to give a smooth inner surface to the flume, vertical posts opposite the meeting ends of the sections, brackets connected to the upper end of said posts, having flanges extending over the sections, and a truss rod extending beneath the meeting ends of said sections and having its ends extending through the said brackets, and securing and tensioning means on the ends of said rods.

1,073,858. REINFORCING SEAMS OF WATERPROOF GARMENTS. SIMON KAUFMAN, Philadelphia, Pa. Filed Dec. 27, 1912. Serial No. 738,805. (Cl. 154—42.)



The herein described process of reinforcing a seam for waterproof garments, which consists in taking a strip of fabric provided on one of its faces with a coating of vulcanized rubber and applying rubber cement to the face of the vulcanized coating on the strip, then applying the cemented face to a seamed portion of a waterproof garment and permitting the cement to dry, then applying naphtha to said strip of fabric and removing it from said coating leaving said coating united to said garment, then taking a reinforcing strip of fabric provided on one of its faces with a coating of vulcanized rubber and applying rubber cement to the face of the vulcanized coating on the reinforcing strip, and then applying the cemented face of the coating on the reinforcing strip to the exposed face of the coating on the waterproof garment and permitting the cement to dry.

1,073,859. SLIP-COVER CAN. WALDEN L. LASKEY, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 3, 1911. Serial No. 612,044. (Cl. 220—76.)



1. In a slip cover can, the combination with a sheet metal can body having an external locking shoulder, of a slip cover having a depending flange furnished with an internal locking shoulder adapted to engage the external locking shoulder on the can body and a contractible wire band provided with a loop and surrounding the flange of the slip cover and contained within a curled portion of the flange, said flange of the slip cover having a notch therein for said loop to project through, substantially as specified.

2. In a slip cover can, the combination with a sheet metal can body having an external locking shoulder, of a slip cover having a depending flange furnished with a locking shoulder adapted to engage the external locking shoulder on the can body, and a contractible, stiff, bendable band surrounding the flange of the slip cover, said band having an integrally formed contractible loop therein, the members of which are adapted to be pinched together to tighten the band, said can body being adapted to be contracted when the loop is pinched together, and to expand and take up the slack in the band after the loop has been formed.

3. In a slip cover can, the combination with a sheet metal can body having an external locking shoulder, of a slip cover having a depending flange furnished with an internal locking shoulder adapted to engage the external locking shoulder on the can body, and a contractible wire band having a contractible loop and surrounding the flange of the slip cover, said depending flange of the cover having a curved flange adapted to retain the wire band in place, substantially as specified.

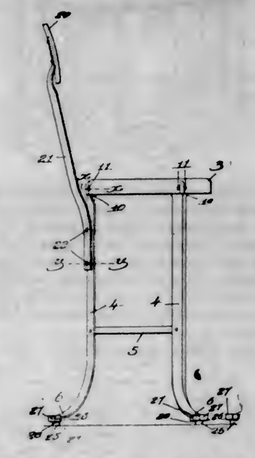
4. In a slip cover can, the combination with a thin sheet metal can body, of a thin sheet metal slip cover having a thin sheet metal depending flange embracing the upper end of the can body, and a contractible metal band encircling the flange of the cover, and having an integral contractible loop therein, said band being adapted to lock and tighten the cover on the can body and cause it to produce a tight closure therewith when the loop is pinched together, substantially as specified.

5. In a slip cover can, the combination with a sheet metal can body having an external locking shoulder, of a slip cover having a depending flange furnished with an internal locking shoulder adapted to engage the external locking shoulder on the can body, and a contractible wire band having a contractible loop and surrounding the flange of the slip cover, said depending flange of the cover having a curved flange adapted to retain the wire band in place, said curved flange being provided with a plurality of slits therein on its exterior, whereby the same is adapted to easily bend when the wire band is contracted, substantially as specified.

[Claim 6 not printed in the Gazette.]

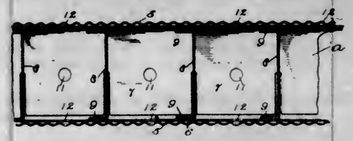
1,073,860. METALLIC STOOL OR CHAIR. SANFORD D. LELAND, Winchester, Mass., assignor to Manufacturing, Equipment and Engineering Company, South Framingham, Mass., a Corporation of Massachusetts. Filed Jan. 20, 1910. Serial No. 539,026. (Cl. 155—3.)

In a stool or chair, the combination with a seat formed wholly or partially of sheet metal bent or shaped to present an annular depending flange provided on its interior face with vertical grooves or indentations, of angle iron legs each arranged with the apex of the angle directed outwardly and each having its sides at the upper end spread sufficiently to lie against and fit the interior of said flange



while leaving the apex or corner of the angle in the form of a rib which projects beyond the outer face of the spread sides, said rib entering and fitting one of the grooves or indentations, and means securing said spread sides of the angle to the flange.

1,073,861. PROTECTOR. GEORGE C. LUDGATE, Brooklyn, N. Y. Filed Jan. 28, 1913. Serial No. 744,698. (Cl. 217—52.)



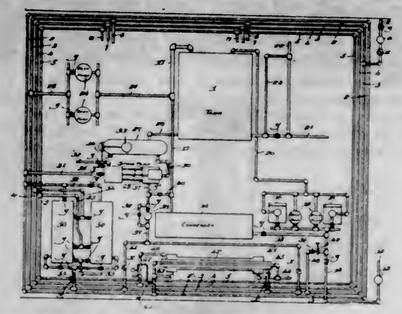
A protector comprising a plurality of sets of interlocking elements disposed transversely with relation to each other whereby cells are provided between the said elements, said elements having edge portions disposed approximately at right angles to their intermediate portions and located in said cells and corrugated plates located adjacent the flanges of the sets of elements and having openings which communicate with the cells.

1,073,862. WATER-SAVING SYSTEM. JAMES G. MACDONALD and WILLIAM F. C. MACKAY, Boston, Mass. Filed May 22, 1912. Serial No. 699,060. (Cl. 137—79.)

1. The combination with a house system of piping, of a water-service pipe having a meter, and connected with said system at a point beyond said meter, a hydraulic apparatus supplied from said system, a receptacle for the outflow from said apparatus, and a pump for forcing the water from said receptacle back into the system pipes, means being provided for preventing the water from being pumped back to the service pipe.

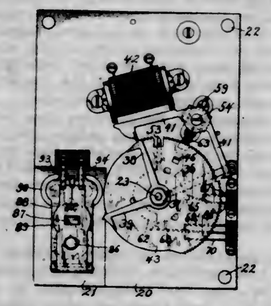
2. The combination with a house system of piping, of a water-service pipe having a meter, and connected with said system at a point beyond said meter, a hydraulic apparatus supplied from said system, a receptacle for the outflow from said apparatus, and a pump for forcing the water from said receptacle back into the system.

3. The combination with a system of piping, of water-service pipes for different pressures connected with said system, each of said service pipes having a meter in advance of such connections, hydraulic apparatus supplied



from said system, a receptacle for the outflow from said apparatus, and a pump for forcing the water from said receptacle back into the system pipes, means being provided for preventing the water from being pumped back to the service pipes.

1,073,863. MEANS FOR SELECTIVE SIGNALING. IRA F. MANNY, Milwaukee, Wis., assignor to Selective Signal Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 27, 1911. Serial No. 657,054. (Cl. 179—85.)



1. Means for selective signaling, comprising a motor actuated toothed rotary member, an escapement means therefor comprising a suitably operated anchor pawl for engaging the teeth of the rotary member, a swinging mounting on which the anchor pawl is pivotally supported, a suitably driven cam engaged by said mounting for causing it to swing to remove the anchor pawl from engagement with the toothed member, and a signaling circuit connection closed by the rotary member in one position thereof.

2. Means for selective signaling, comprising a motor driven toothed rotary member, a magnetically operated anchor pawl for producing escapement of the rotary member, a pivoted block on which the anchor pawl is pivotally mounted, an arm projecting from the pivoted block, a motor driven cam engaged by the arm for turning the block to remove the anchor pawl from engagement with the rotary member, and a signaling circuit connection closed by the rotary member in one position thereof.

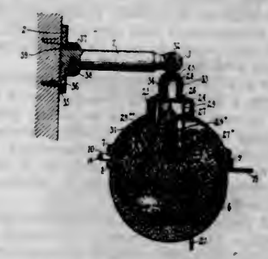
3. Means for selective signaling, comprising a motor driven cam, a pivoted block having an arm engaged by the cam for causing it to swing, a suitably operated escapement pawl pivotally mounted on the block, a motor driven rotary toothed member engaged by the escapement pawl in one position of the block, the movements of the block produced by the engagement of the cam with the arm serving to remove the escapement pawl from engagement with the toothed member and a signaling circuit connection closed by the rotary member in one position thereof.

4. Means for selective signaling, comprising a motor driven rotary toothed member, a motor driven cam, a sheet metal base plate having ears bent up therefrom, a block pivotally mounted between the ears, a spring connecting the block with the base plate, an arm carried by the block bearing on the cam to be moved thereby against the action of the spring, an anchor pawl pivotally mounted on the block, a spring surrounding the arm and engaging the anchor pawl, a magnet attracting the anchor pawl and causing it to swing against the action of its spring, said anchor pawl in one position of the block engaging with the teeth of the rotary member to provide an escapement therefor and in another position of the block being removed from engagement with the rotary member, and a signaling circuit connection closed by the rotary member in one position thereof.

5. Means for selective signaling, comprising a motor driven shaft, a disk thereon having a cam depression in one face thereof, a spring actuated pivoted block, an arm extending therefrom, a roller on the arm bearing against the cam disk and adapted to ride within the cam depression, an anchor pawl pivotally mounted on the block, a toothed rotary member loosely mounted on the motor shaft and having yielding connection therewith and adapted to be engaged by the anchor pawl in one position thereof, and a signaling circuit connection closed by the rotary member in one position thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,073,864. LIQUID-DISPENSING DEVICE. MOSES M. MARCUSE, New York, N. Y., assignor to West Disinfecting Company, New York, N. Y., a Corporation of New York. Filed Jan. 7, 1911. Serial No. 601,447. (Cl. 221—94.)



1. A bracket, a liquid dispensing vessel pivoted thereto, a nozzle, a weighted plunger for positively ejecting the liquid through the nozzle when the vessel is inverted, and a wire guide having a branch extended into the plunger for slidably supporting it in position.

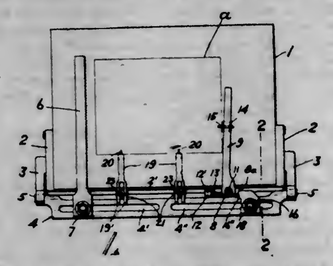
2. A bracket, a liquid dispensing vessel pivoted thereto, a nozzle, a weighted plunger for positively ejecting the liquid through the nozzle when the vessel is inverted, and a wire guide having a branch extended into the plunger for slidably supporting it in position and means for retaining the plunger on said branch.

3. A bracket, a liquid dispensing vessel pivoted thereto, a nozzle, a weighted plunger for positively ejecting the liquid through the nozzle when the vessel is inverted and a U-shaped wire guide having a longer branch attached to the vessel and a shorter branch extended into the plunger for slidably supporting the plunger.

4. A bracket, a liquid dispensing vessel pivoted thereto, a cap secured to the mouth of the vessel, a nozzle carried by said cap, a weighted plunger for positively ejecting the liquid through the nozzle when the vessel is inverted and a U-shaped guide having a longer branch attached to the cap and a shorter branch extended into the plunger for slidably supporting the plunger.

5. A bracket, a liquid dispensing vessel pivoted thereto, a nozzle, a weighted plunger for positively ejecting the liquid through the nozzle when the vessel is inverted and a guide for the plunger arranged at such an angle to the vertical axis of the vessel that the plunger will not start on its ejecting movement until the vessel has nearly reached the limit of its inverted movement.

1,073,865. FEED-GAGE FOR PRINTING-PRESSES. BERNARD MCGINTY, Doylestown, Pa., assignor to Printer's Specialties Company, a Corporation of Delaware. Filed Mar. 1, 1912. Serial No. 680,787. (Cl. 101—22.)



1. A feed gage for printing presses comprising, in combination with a tympan, a laterally movable gage arm adjustable along said tympan, and pivotally mounted oscillating mechanism comprising an adjustable member for operating said gage arm, said arm and member having engaging cam surfaces whereby the oscillation of said member moves said arm.

2. A feed gage for printing presses comprising the combination with a tympan having guiding means, a gage finger connected with said guiding means, a laterally movable gage arm connected with said guiding means and forming an angle of more than ninety degrees therewith, and a clip adjustable on said arm and having a part disposed at a right angle to said guiding means, of means whereby said arm is shifted laterally.

3. A feed gage for printing presses comprising, in combination with a bar and a tympan connected so that one is adapted to rock relatively to the other, guiding means disposed along a side of said typman between the body thereof and said bar, mechanism comprising a gage arm connected with said guiding means, and a cam fixed on said bar whereby said mechanism is actuated and said arm moved laterally.

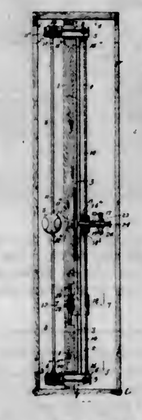
4. A feed gage for printing presses comprising, in combination with a bar and a tympan connected so that one can rock relatively to the other, said tympan having guiding means disposed between the body thereof and said bar, a gage finger, means whereby said finger is connected to said guiding means, a gage arm, means whereby said arm is connected to said guiding means, a cam fixed to said bar whereby said arm is moved laterally, and means comprising a spring whereby said arm is restored to its initial position.

5. A feed gage for printing presses comprising, in combination with a tympan having a bail provided with guiding means and a bar pivotally connected to said bail, a cam fixed to said bar, a cam block movable along said guiding means by said cam first named, a guide arm fixed to said block, and a bearing device movable on said arm, said arm being inclined so that in the movement of said device it is shifted laterally relatively to said tympan.

[Claims 6 and 7 not printed in the Gazette.]

1,072,866. BULLETIN-BOARD. GEORGE HENRY PARKER, Newark, N. J., assignor, by mesne assignments, to Mabel Crane Baker, Stamford, Conn. Filed Jan. 21, 1909. Serial No. 473,560. (Cl. 235—1.)

1. In an apparatus of the character described, a main field surface, an auxiliary field surface at the rear of the first mentioned field surface, a suitably supported shaft extending from the front to the rear of the board at one edge thereof, wheels mounted on the shaft, there being one wheel adjacent each end of the shaft, an indicator operatively connected with one of said wheels to play over the main field surface, a guide shoe operatively connected with the other wheel to play over the auxiliary field, the wheels being of different sizes whereby the guide shoe and indicator move different distances at the same time.



2. In an apparatus of the character described, a board having a field representation, a head block arranged adjacent one end of the field, an indicator adapted to play over the field, an operating device at the rear of the field, and means mounted on the head block for converting a relatively short movement of the operating device into an extended movement of the indicator.

3. In an apparatus of the character described, a field board representation, head blocks adjacent the upper and lower edges of the field, an operating shoe to the rear of the field, an indicator to play over the field, and connections between the shoe and indicator including a speed increasing mechanism mounted in the head blocks whereby the shoe and indicator move different distances at the same time.

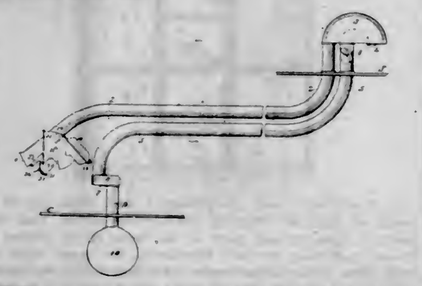
4. In an apparatus of the class described, a board having a field representation, an indicator adapted to play over the field, a movable frame mounted on the board at the rear thereof, head blocks carried by said frame, an operating device for the indicator mounted on said frame, and means carried by said head blocks for converting the movement of the device into a different movement of the indicator.

5. In an apparatus of the character described, a board having a field representation, head blocks overlying opposite edges of the field, a support at the rear of the board projecting between the head blocks, a shaft mounted in each of the blocks for rotary movement, a relatively small wheel fixed to the shaft, an operating device having flexible connections with said wheel for operating the latter, a different sized wheel fixed on said shaft, an indicator to play over the field representation, and flexible connections between the indicator and the last mentioned wheel.

[Claims 6 to 15 not printed in the Gazette.]

1,073,867. PNEUMATIC-DESPATCH-TUBE APPARATUS. ALBERT W. PEARSALL, Lowell, Mass., assignor to The Lamson Company (formerly Lamson Consolidated Store Service Company), Boston, Mass., a Corporation of New Jersey. Filed Aug. 20, 1908. Serial No. 449,507. (Cl. 243—15.)

1. In pneumatic despatch tube apparatus, a carrier transmission tube provided with a mouth to receive carriers and to admit outside air, a valve located in the transmission tube adjacent to its mouth to control the admission of outside air to the tube, said valve being movable in the direction of the air flowing in through said mouth, when being opened, means for exhausting air from the transmission tube, a chamber communicating directly with the transmission tube inside of the valve so that the pressure in the chamber will vary with the pressure in the tube, means for causing a fluctuation of pressure in the chamber, and a pneumatic motor normally operating to hold the valve to close the transmission tube to outside air and actuated by a fluctuation of pressure in the chamber to open the valve to admit outside air to the transmission tube to propel the carrier inserted in the mouth of the tube.



2. In pneumatic despatch tube apparatus, a carrier transmission tube provided with a mouth to receive carriers and to admit outside air, a valve, the opening of which is aided, in part at least, by the pressure of said outside air, said valve being located in the transmission tube adjacent to its mouth to control the admission of outside air to the tube, means for exhausting air from the transmission tube, a chamber communicating directly with the transmission tube inside of the valve so that the pressure in the chamber will vary with the pressure in the tube, means for causing a momentary variation of pressure in the tube to cause a fluctuation of pressure in the chamber, and a pneumatic motor normally operating to hold the valve to close the transmission tube to outside air and actuated by a fluctuation of pressure in the chamber to open the valve to admit outside air to the transmission tube to propel the carrier inserted in the mouth of the tube.

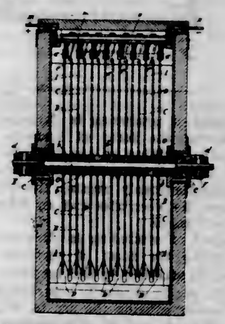
3. In pneumatic despatch tube apparatus, a carrier transmission tube provided with a mouth to receive carriers and to admit outside air, a main valve located in the transmission tube adjacent to its mouth to control the admission of outside air to the tube, means for exhausting air from the transmission tube, a chamber communicating directly with the transmission tube inside of the main valve so that the pressure in the chamber will vary with the pressure in the tube, means for causing a fluctuation of pressure in the chamber, said last mentioned means including a valve, actuation of which, unaided by other movable parts, causes said fluctuation, a pneumatic motor, freely operable by said fluctuation of pressure and normally operating to hold the main valve to close the transmission tube to outside air and actuated by a fluctuation of pressure in the chamber to open the main valve to admit outside air to the transmission tube to propel the carrier inserted in the mouth of the tube, and means for regulating the return movement of the motor to time the closing of the main valve to the period required for the transit of the carrier through the tube.

4. In pneumatic despatch tube apparatus, a carrier transmission tube provided with a mouth to receive carriers and to admit outside air, a valve located in the transmission tube adjacent to its mouth to control the admission of outside air, means for exhausting air from the transmission tube, a chamber communicating directly with the transmission tube inside of the valve so that the pressure in the chamber will vary with the pressure in the tube, means for causing a fluctuation of pressure in the chamber, a pneumatic motor actuated by the difference of pressure between the external air and the air in the chamber, said motor normally operating to hold the valve to close the transmission tube to outside air and actuated by a fluctuation of pressure in the chamber to open the valve to admit outside air to the transmission tube to propel the carrier inserted in the mouth of the tube, and means for restricting a too free admission of air to said tube, for insuring a proper closure of said valve by said motor.

5. In pneumatic despatch tube apparatus, a carrier transmission tube provided with a mouth to receive carriers and to admit outside air, a valve located in the transmission tube adjacent to its mouth to control the admission of outside air to the tube, means for exhausting air from the transmission tube, a chamber communicating directly with the transmission tube inside of the valve so that the pressure in the chamber will vary with the pressure in the tube, said chamber being provided with a sub-inlet to the outside air, a pneumatic motor operated by the difference between the outside air pressure and the air pressure in the chamber, said motor being normally influenced by the outside air pressure to hold the valve to close the transmission tube to the outside air, an auxiliary valve normally closing the sub-inlet of the chamber, adapted to be momentarily opened to admit outside air to the chamber to cause a fluctuation of pressure in the chamber to cause the motor to operate to open the valve in the transmission tube to admit outside air to the tube to propel the carrier inserted in the mouth of the tube, means for restricting a too free admission of air to said tube, and connections, between said last mentioned means and said auxiliary valve, for effecting a movement of one by a movement of the other of these parts.

[Claim 6 not printed in the Gazette.]

1,073,868. ELECTROLYTIC APPARATUS. MARCEL PERREUR-LLOYD, Boulogne-sur-Seine, France. Original application filed Mar. 28, 1912, Serial No. 686,826. Divided and this application filed Oct. 2, 1912. Serial No. 723,495. (Cl. 204—11.)

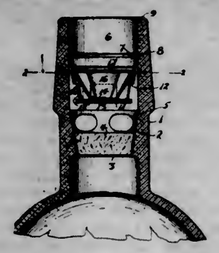


An electrolytic apparatus, comprising cathodes and anodes of rigid indestructible plates which are not acted upon by the current, composed of carbon or lead, said anodes having central portions forming circular disks and surrounding portions fixed in the same plane, said circular disks being mounted upon a horizontal shaft by means of which they are rotated in the plane of the fixed portion of the anodes, said cathodes being constituted by plates of metal which are suspended vertically between the anodes and are arranged symmetrically.

1,073,869. NON-REFILLABLE BOTTLE. MAX P. SCHELL, San Francisco, Cal., assignor of one-fourth to Charles A. Anderson, one-fourth to John Brenford, one-fourth to Cornelius Knudsen, and one-fourth to Soren J. Olson, San Francisco, Cal. Filed Dec. 11, 1912. Serial No. 736,136. (Cl. 215—65.)

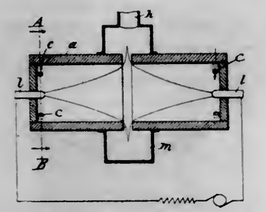
In combination with the neck of a bottle having a valve seat, a buoyant annular valve on said seat, a tubular re-

tainer secured in the neck of the bottle above, and directed toward, said valve, and spaced from said neck to permit said valve to pass between the retainer and the neck, said retainer having apertures in the sides, a protector within the retainer having wings covering said apertures,



the valve being formed with apertures arranged to be on the same level, when the bottle is inverted, as the apertures in the retainer, and substantially coextensive therewith, and a perforated disk secured within the retainer and preventing access to said wings.

1,073,870. DEVICE FOR SYNTHESIZING GASES. WERNER SIEBERT, Rheinfelden, Germany, assignor to Elektrochemische Werke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Original application filed Apr. 9, 1909, Serial No. 488,828. Divided and this application filed May 10, 1910. Serial No. 560,477. (Cl. 204—31.)



1. The method of producing in furnaces electric flame discharges having the form of surfaces of revolution, which consists in striking an arc between two electrodes, drawing out the arc by gradually separating the electrodes, and simultaneously causing the arc to be rapidly rotated between the electrodes and an intermediate outlet opening in the furnace.

2. The method of producing in furnaces electric flame discharges having the form of surfaces of revolution, which consists in striking an arc between two electrodes, drawing out the arc by gradually separating the electrodes, and simultaneously causing the arc to be rapidly rotated between the electrods and an intermediate outlet opening in the furnace, by impinging streams of gas on the arc tangentially to its surfaces of revolution.

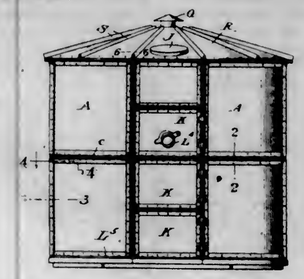
3. The method of producing in furnaces electric flame discharges having the form of surfaces of revolution, which consists in striking an arc between two electrodes, drawing out the arc by gradually separating the electrodes, and simultaneously causing the arc to be rapidly rotated between the electrodes and an intermediate outlet opening in the furnace by impinging the gases to be synthesized on said arc tangentially to its surfaces of revolution.

4. The method of producing in furnaces electric flame discharges of double conical form, which consists in striking an arc between two electrodes, drawing out the arc by gradually separating the electrodes and causing the arc to be rapidly rotated between the electrodes and an intermediate outlet opening in the furnace.

5. In an electric flame discharge furnace, two electrodes, an outlet opening in the furnace intermediate of the ends of the electrodes, and means for rapidly rotating an arc formed between the electrodes, whereby the arc is caused to assume the form of surfaces of revolution.

[Claims 6 to 8 not printed in the Gazette.]

1,073,871. SECTIONAL TANK. GEORGE SILLMAN, Spokane, Wash. Filed Feb. 20, 1913. Serial No. 749,701. (Cl. 220—125.)



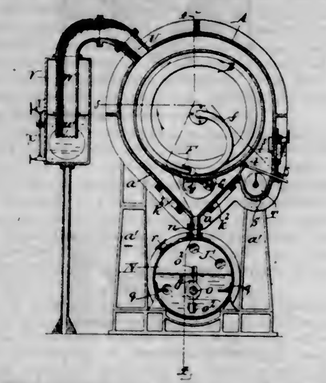
1. A sectional tank comprising a wall made up of a series of tiers of concaved plates, the bottom and the vertical edges of each plate of the lower series having a flange projecting outward therefrom, the upper edge of each plate of the lower series extending above the upper ends of said vertical flanges, angle plates fastened to each of said flanges and to the outer face of the plate, an angle bar fastened intermediate said vertical flanges and flush with the tops thereof and resting upon the angle bars which are fastened to the vertical flanges, the lower end of each plate of the upper series overlapping the portions of the lower tier of plates, which project above the vertical flanges thereof and terminating in flanges engaged thereby, and angle clamping bars resting upon the flanges at the lower ends of the upper tier of plates, and bolts passing through the angle bars which engage the flanges at the lower ends of the upper tier of plates, as set forth.

2. A sectional tank comprising a wall made up of a series of tiers of concaved plates, the bottom and the vertical edges of each plate of the lower series having a flange projecting outward therefrom, the upper edge of each plate of the lower series extending above the upper ends of said vertical flanges, angle plates fastened to each of said flanges and to the outer face of the plate, an angle bar fastened intermediate said vertical flanges and flush with the tops thereof and resting upon the angle bars which are fastened to the vertical flanges, the lower end of each plate of the upper series overlapping the portions of the lower tier of plates, which project above the vertical flanges thereof and terminating in flanges engaged by angle clamping bars resting upon the flanges at the lower ends of the upper tier of plates, bolts passing through the angle bars which engage the flanges at the lower ends of the upper tier of plates, the flanges at the ends of the plates being disposed between the vertical angle bars and the adjacent ends of the plates, and means for holding said vertical angle bars in clamping relation with said end flanges, as set forth.

1,073,872. VACUUM DRYING APPARATUS. OLIVER S. SLEEPER, Buffalo, N. Y., assignor to Buffalo Foundry and Machine Company, Buffalo, N. Y., a Corporation of New York. Filed Feb. 14, 1908, Serial No. 415,798. Renewed May 10, 1913. Serial No. 766,891. (Cl. 127—18.)

1. A vacuum drying apparatus comprising a vacuum chamber, a delivery pan independent of the bottom of said chamber arranged in the lower part of the vacuum chamber and adapted to support a stream of the condensate, a heating drum rotatable within the upper part of the vacuum chamber and adapted to dip its lower part into the condensate within said pan, means for supplying

said pan with condensate in excess of the amount which the drum is able to carry away and thereby cause the excess condensate to flow over the edge of the pan, and a catch basin communicating with the lower part of the vacuum chamber and adapted to receive the surplus condensate escaping from said delivery pan.



2. A vacuum drying apparatus comprising a vacuum chamber, a horizontal heating drum rotating vertically within said chamber, and a nozzle for delivering the solution to the periphery of the drum having a tubular body arranged lengthwise below the drum and provided with a longitudinal delivery slot on its upper side, a distributing shelf separated from the periphery of the drum by an intervening space and arranged on said body in front of its slot, and a dam arranged on said body in rear of its slot and extending closer to the periphery of the drum than said shelf, substantially as set forth.

3. A vacuum drying apparatus comprising a vacuum chamber, a horizontal heating drum rotating vertically within said chamber, and a nozzle for delivering the solution to the periphery of the drum having a tubular body arranged lengthwise below the drum and provided with a longitudinal delivery slot on its upper side, a distributing shelf separated from the periphery of the drum by an intervening space and arranged on said body in front of its slot, a dam arranged on said body in rear of its slot and extending closer to the periphery of the drum than said shelf, and guard flanges arranged transversely at opposite ends of said shelf and engaging the periphery of the drum, substantially as set forth.

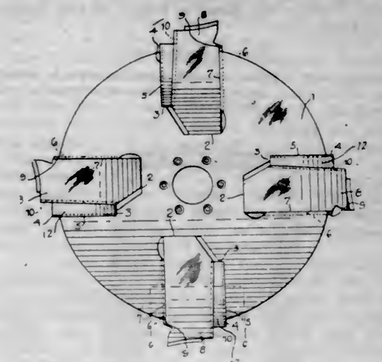
4. A vacuum drying apparatus comprising a vacuum chamber, a horizontal heating drum rotating vertically within said chamber, and a movable solution delivery nozzle arranged adjacent to the underside of the periphery of the drum and capable of being moved with its outlet toward the drum for delivering the solution to the drum or with its outlet away from the drum to permit of cleaning the nozzle, substantially as set forth.

5. A vacuum drying apparatus comprising a vacuum chamber, a horizontal heating drum rotating vertically within said chamber, and a nozzle arranged below the drum and adapted to deliver the solution to the underside of the periphery of the drum having a rotatable tubular body provided with an outlet adapted to face either toward or away from the periphery of said drum, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

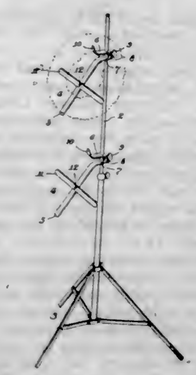
1,073,873. METAL-CUTTING-OFF DEVICE. ELMER E. SMITH, Lewistown, Pa. Filed Dec. 21, 1912. Serial No. 738,097. (Cl. 29—105.)

1. The combination with a rotary blade having pocket seats formed around its outer edge with grooves in their forward edges, said pocket seats having short rear edges with ribs formed thereon, of teeth removably positioned in the pocket seats and having ribs formed on their forward edges and engaged in the forward grooves in the forward edges of the pocket seats, said teeth having short rear edges with longitudinal grooves formed therein, and keys positioned between the rear edges of the teeth and rear edges of the pocket seats and formed with ribs upon their forward edges engaged in the grooves of the teeth while grooves are formed in the rear edges of the keys for the ribs upon the short rear edges of the pocket seats.



2. The combination with a rotary blade having pocket seats formed therein with long forward edges and short rear edges having stop projections at their inner extremities, of teeth positioned in said pocket seats and having their forward edges interlocked with the forward edges of said pocket seats, said teeth having their rear inner corners cut away to avoid the stop projections, and beveled keys engaged between the rear edges of the teeth and pocket seats and against the stop projections, said keys having their opposite edges interlocked with the rear edges of the teeth and pocket seats to lock said teeth within said pockets.

1,073,874. FLOWER-STAND. JOHN A. SMITH, Philadelphia, Pa. Filed Dec. 13, 1912. Serial No. 736,461. (Cl. 211—24.)

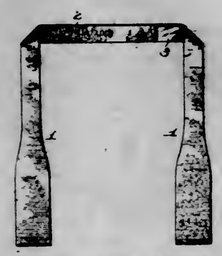


1. In a flower stand, the combination of a supporting standard, a frame slidably fitted to the standard, and means for securing the frame to the standard, said frame including an inclined part arranged on one side of the standard and an upwardly-extending projection arranged on the same side of the standard above the upper portion of the inclined part and adjacent the standard in spaced

relation thereto, whereby a supporting pocket is formed by said standard and said projection.

2. In a flower stand, the combination of a supporting standard, a frame including an inclined bar having its upper end formed into a loop comprising upper and lower arms and a connecting arm, said upper and lower arms having alined openings through which the standard extends, and said upper arm having an upwardly extending free end adjacent the standard and in spaced relation thereto, and means for securing said loop to the standard, whereby a supporting pocket is formed by said standard and said projection.

1,073,875. NECKTIE. JOHN CALVIN STANFORD, Atlanta, Ga. Filed Jan. 14, 1913. Serial No. 741,963. (Cl. 2—11.)



1. The combination with a necktie, of a shortening device consisting of a thin strip of rigid material permanently secured by a single transverse line of fastening means to the tie at a fixed position intermediate of the ends of the tie.

2. The combination with a necktie, of a strip of rigid material secured by a single transverse line of stitching to the tie between the ends of the latter, whereby the material of the tie may be folded over said strip in different directions to effect different adjustments in the length of the tie.

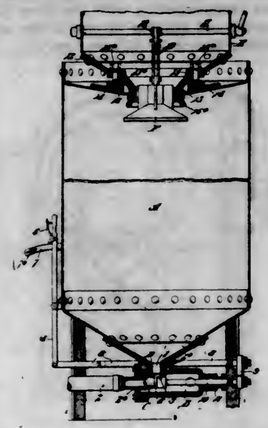
3. The combination with a necktie, of a strip of rigid material connected at a fixed position intermediate of its center and one end to the tie between the ends of the latter, the side edges of said disk being free.

1,073,876. CLOSED-HOPPER SAND-BLAST. GEORGE F. STEEDMAN, St. Louis, Mo. Filed Nov. 22, 1912. Serial No. 732,866. (Cl. 51—12.)

1. In a sand blast apparatus, a sand supply hopper, a mixing chamber communicating with said hopper and provided with a discharge opening, a throttle valve in said mixing chamber for closing said discharge opening, and a sand-gate or valve for regulating the flow of the sand from the supply hopper into the mixing chamber, said sand-gate being arranged between the throttle valve and the opening through which the sand enters the mixing chamber so as to protect the throttle valve in the mixing chamber from abrasions caused by the sand flowing into the mixing chamber as the throttle valve is closing.

2. In a sand blast apparatus, a sand supply hopper and a mixing chamber connected together by means of an opening, a conduit leading from said mixing chamber, a throttle valve in said mixing chamber for closing said conduit, and a plate arranged above said throttle valve and detachably connected to same for controlling the flow of sand through the opening that establishes communication between the supply hopper and the mixing chamber.

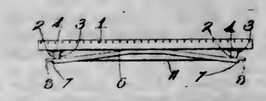
3. In a sand blast apparatus, a mixing chamber provided in its top wall with a receving opening and in one of its end walls with a discharge opening, a throttle valve in said mixing chamber provided with a non-metallic end portion for cutting off the escape of the material through said discharge opening, and a plate on said throttle valve arranged over the non-metallic portion of same for controlling the entrance of the material through said receiving opening.



4. In a sand blast apparatus, a sand supply hopper having a top wall, a ring permanently connected to said top wall, a filling hopper arranged above same and provided at its lower end with a casting, means for detachably connecting said casting to said ring, and a removable member clamped between said casting and ring and provided with an opening through which the sand flows from the filling hopper into the supply hopper.

5. In a closed hopper sand blast, a sand hopper, a removable mixing chamber detachably connected to the lower portion of the sand hopper, the sand hopper being provided with a sand opening that establishes communication between the sand hopper and the top of the mixing chamber and the mixing chamber being provided with a discharge opening to which the hose is connected, a sliding member to which a gate is connected that coöperates with the sand opening and regulates effective opening of the sand opening, and a flexible plug or valve carried by said sliding member that coöperates with the discharge opening in the mixing chamber and serves to close said discharge opening against the passage of air and sand or open same as may be desired, said gate being so arranged on the sliding member with relation to the said plug or valve that the gate will completely close the sand opening before the plug reaches the discharge opening in the mixing chamber.

1,073,877. SPRING-MATTRESS. JOHN L. TANDY, Kansas City, Mo. Filed Nov. 16, 1911. Serial No. 660,728. (Cl. 5—64.)



1. A spring mattress, comprising a rectangular frame, consisting of end bars and side bars, truss braces connecting the side bars inward of the adjacent end bars and also connected at intermediate points to said adjacent end bars, a wire fabric connecting the end bars and overlying the truss braces, fabric trusses at opposite sides of the fabric near each end thereof and consisting of standards projecting upwardly beyond the fabric, tie rods extending from said standards to the adjacent end bars of the frame, and elastic connections extending from said standards in the opposite direction and attached at their opposite ends to fabric.

2. A spring mattress, comprising a rectangular frame, consisting of end bars and side bars, truss braces connecting the side bars inward of the adjacent end bars and also connected at intermediate points to the said adjacent end bars, cross braces between the side bars and secured in fixed relation to the same and the ends of the truss braces, a wire fabric connecting the end bars and overlying the truss braces, fabric trusses at opposite sides of the fabric near each end thereof and consisting of standards projecting upwardly beyond the fabric, tie rods extending from said standards to the adjacent end bars of the frame, and elastic connections extending from said standards in the opposite direction and attached at their opposite ends to the fabric.

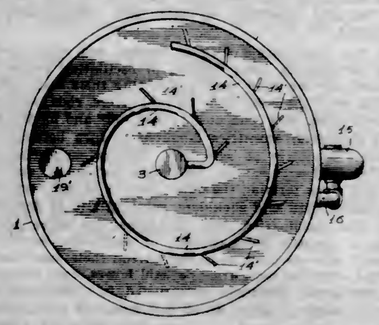
3. In a spring mattress, a rectangular frame, consisting of end bars and side bars, the latter having upturned ends, secured at their extremities to the end bars, and angle iron truss braces adapted to rest at their extremities upon the side rails of a bed frame and provided near such ends with outwardly-disposed shoulders to bear against the inner sides of said bed rails, the truss braces between such extremities lying in inclined planes and being secured midway their length to the under surfaces of the adjacent end bars of the rectangular frame.

4. A spring mattress comprising a rectangular frame, and a wire fabric covering and attached to the ends of the frame, and truss braces at opposite sides of said fabric, each comprising a standard projecting from the said frame, a tie rod connecting the standard with the adjacent end of said frame, and an elastic connection extending from said standard and attached to the fabric.

5. The combination with a spring mattress, comprising a rectangular frame and a wire fabric covering and attached to the said frame, and side guards attached to said wire fabric at opposite sides of the same and connected to slide vertically upon the side bars of the said rectangular frame and provided in substantially the plane of the outer side margins of said fabric with upwardly projecting portions.

[Claim 6 not printed in the Gazette.]

1,073,878. AGITATING AND MIXING APPARATUS. WALTER E. TRENT, Reno, Nev. Filed Jan. 20, 1912. Serial No. 672,364. (Cl. 75—86.)



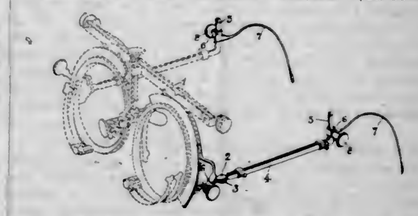
1. In an apparatus for the described purpose, the combination with a holding receptacle for the material to be treated, of a reservoir rotatably supported therein, a curved tubular arm extending horizontally therefrom, a series of jet nozzles extending angularly from the forward surface of said arm and arranged at an incline to the horizontal plane thereof, of a circulating pump for the liquid material, of connection between the pump and tank for the withdrawal of the material and connection between the pump and the rotatable reservoir, through which the material entering the pump is forced into the reservoir under pressure.

2. In an apparatus for the described purpose, the combination with a holding receptacle for the material to be treated, of a reservoir rotatably supported therein, a convolute tubular arm extending horizontally therefrom, a series of jet nozzles extending angularly from the forward face of said arm and arranged at a downward inclination to the horizontal plane thereof, of a circulating pump for the liquid material, of connection between the pump and tank for the withdrawal of the material and connection between the pump and the rotatable reservoir, through which the material is forced into the reservoir under pressure.

3. In an apparatus for the described purpose, the combination with a holding receptacle for the material to be treated, of a reservoir rotatably supported therein, a convolute tubular arm extending horizontally therefrom, a series of jet nozzles extending angularly from the forward face of said arm and arranged at an angle to the horizontal plane thereof, of a circulating pump for the liquid material, of connection between the pump and tank for the withdrawal of the material, connection between the pump and the rotatable reservoir, through which the material entering the pump is forced into the reservoir under pressure, and an adjustable spindle extending vertically through the bottom of said receptacle for supporting said reservoir and for raising or lowering the same and the arm carried thereby in the receptacle.

4. In an agitating apparatus for semi-solid liquids, the combination with a receiving receptacle for the solution to be treated, a rotating member provided with an interior chamber supported in said receptacle, a convolute hollow arm projected horizontally from said rotatable member, a plurality of jet nozzles extended from the forward surface of said arm, and means for supplying liquid under pressure into said arm through the rotatable member within the receiving receptacle.

1,073,879. TRIAL-FRAME. GEORGE L. TULLY, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed May 24, 1912. Serial No. 699,494. (Cl. 88—21.)



1. The combination with a temple side having an angular portion at one end thereof, of an ear hook having an angular portion adjustably engaging the angular portion of the side.

2. The combination with a temple side having an angular portion at one end thereof, of an ear hook having an angular portion slidably mounted on the angular portion of the side, and a clamp for securing the parts in relatively adjusted position.

3. The combination with a temple side, of an ear hook slidably supported thereby for vertical adjustment relative thereto.

4. The combination with a temple side, of an ear hook vertically adjustable relative thereto, and means for securing the parts in desired adjusted position.

5. The combination with a side section, of an angular arm carried thereby, an ear hook adjustably mounted on said arm and means for securing the ear hook in adjusted position on the arm.

1,073,880. TOY. GEORG FERRY VOLTZ, Hornau, Germany, assignor to The Firm of Ernst Paul Lehmann, Brandenburg-on-the-Havel, Germany. Filed Aug. 19, 1911. Serial No. 644,906. (Cl. 46—48.)

1. In a wheeled toy, in combination, a gyrator, a wheel on which the toy travels, said gyrator and wheel being

mounted to rotate in substantially the same plane, and actuating gearing arranged to drive said gyrator and said wheel.



2. In a wheeled toy, in combination, a gyrator, a wheel on which the toy travels, said gyrator and wheel being mounted to rotate in substantially the same plane, and actuating gearing arranged to drive said gyrator and said wheel at different rates of speed.

3. In a wheeled toy, in combination, a gyrator, a steering wheel, suitable axles carrying said gyrator and said steering wheel, a frame rigidly connecting said axles whereby said gyrator and said steering wheel are compelled to rotate in substantially the same plane, and gearing arranged to impart motion at different rates of speed to the gyrator and the steering wheel.

1,073,881. LADY'S HAT-PIN. ANDRÉ WALS, Glasgow, Scotland. Filed Aug. 15, 1911. Serial No. 644,089. (Cl. 24—155.)



1. A hat-pin, comprising a pointed pin-member adapted to pass through the hat and having its pointed end-portion tempered to normally bend back upon itself, and means forming part of the pin structure for temporarily straightening such tempered portion so that it can be pushed through the hat.

2. A hat-pin, comprising a pointed pin-member adapted to pass through the hat and having its pointed end-portion tempered to normally bend back upon itself, and sliding means forming part of the pin structure carried by said pin for temporarily straightening such tempered portion so that it can be pushed through the hat.

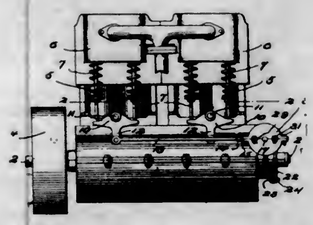
3. A hat-pin, comprising a pointed pin-member adapted to pass through the hat and having its pointed end-portion tempered to normally bend back upon itself, and means forming part of the pin structure slidable in relation to said pin to engage and temporarily straighten such tempered portion so that it can be passed through the hat.

4. A hat-pin, comprising a pointed pin-member adapted to pass through the hat and having its pointed end-portion tempered to normally bend back upon itself, and a member slidable in its relation to said pin member and supported to form a part of the pin-structure and engaging the tempered end-portion to temporarily straighten the same.

5. A hat-pin, comprising a pointed pin-member adapted to pass through the hat and having its pointed end-portion tempered to normally bend back upon itself, and a sheath slidable upon such pin-member to straighten and support such tempered portion.

[Claims 6 to 8 not printed in the Gazette.]

1,073,882. VALVE-OPERATING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. JESSEE M. WHITE, Philadelphia, Pa. Filed June 25, 1912. Serial No. 705,685. (Cl. 121—97.)



1. The combination with an engine, and valve moving rods positioned longitudinally of the engine and at opposite sides thereof, of oscillating levers fulcrumed between their ends and having their ends located in line with the rods, arms on said levers, rods connected to said arms, and eccentrics constructed to reciprocate said rods, substantially as described.

2. The combination with an engine, and valve moving rods at opposite sides thereof, of oscillating levers fulcrumed between their ends and having their ends located in line with the rods, arms on said levers, rods connected to said arms, bars connected to said rods and having parallel shoulders, and eccentrics mounted to turn between the parallel shoulders on said bars, substantially as described.

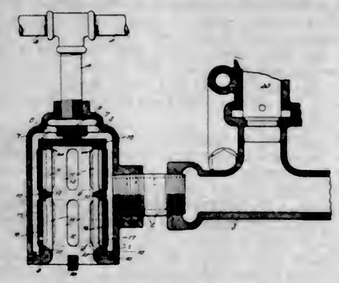
3. The combination with an engine, and valve moving rods at opposite sides thereof, of oscillating levers fulcrumed between their ends and having their ends located in line with the rods, arms on said levers, rods connected to said arms, bars connected to said rods and having parallel shoulders, eccentrics mounted to turn between the parallel shoulders on said bars, casings supporting and holding said bars against oscillating movement, and ball bearing rings forming the outer surface of said eccentrics in contact with said shoulders, substantially as described.

4. The combination with an engine, and valve moving rods at opposite sides thereof, of oscillating levers fulcrumed between their ends and having their ends located in line with the rods, arms on said levers, rods connected to said arms, eccentrics constructed to reciprocate said rods, a shaft on which all of the eccentrics are mounted, a worm wheel secured on said shaft, a crank shaft driven by the engine, and a worm on said crank shaft meshing with the worm wheel, substantially as described.

5. The combination with an engine, and valve moving rods at opposite sides thereof, of oscillating levers fulcrumed between their ends and having their ends located in line with the rods, arms on said levers, rods connected to said arms, bars connected to said rods and having parallel shoulders, eccentrics mounted to turn between the parallel shoulders on said bars, a shaft on which all of the eccentrics are mounted, a worm wheel secured on said shaft, a crank shaft driven by the engine, and a worm on said crank shaft meshing with the worm wheel, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,073,883. SELF-CLEANING STRAINER AND MUFFLER. BURTON S. AIKMAN, Milwaukee, Wis., assignor to National Brake & Electric Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Jan. 13, 1913. Serial No. 741,699. (Cl. 188—73.)



1. In a device of the class described, the combination of a casing having connections to the intake and exhaust of a compressed air system, and means in said casing for straining the air, said means also serving as a muffler for the exhaust air.

2. In a device of the class described, the combination of a casing having connections with the intake and exhaust of a compressed air system, and means in said casing for straining the air, said means comprising a metallic screen and fabric around said screen.

3. In a device of the class described, the combination of a casing communicating with the atmosphere, said casing having connections with inlet and outlet openings in a compressed air system, and mechanism in said casing for straining the air, said mechanism comprising a metallic screen and a fabric of large mesh disposed around said screen.

4. In a device of the class described, the combination of a casing having communication with the atmosphere, said casing having connection with a compressor of an air brake system, said casing also having a connection with the exhaust from the brake valves, and screening apparatus disposed in said casing for straining the air before it passes into the compressor, said screening apparatus also serving as a muffler for the exhaust air from the brake valves.

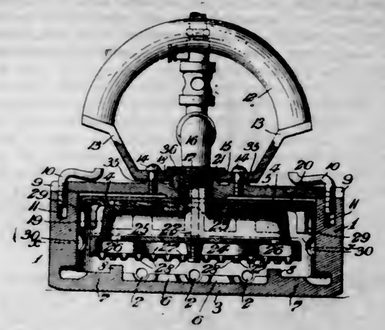
5. In a device of the class described, the combination of a casing having communication with the atmosphere, said casing having a connection with a compressor of an air brake system, said casing also having a connection with the exhaust from the brake valves, and screening apparatus mounted in said casing for straining the air before it passes into the compressor, said screening apparatus also serving as a muffler for the exhaust air from the brake valves, said screening apparatus consisting of a metallic screen and a fabric of wide mesh.

[Claims 6 to 15 not printed in the Gazette.]

1,073,884. GAS-HEATED IRON. HARRY ABRAMSON, Philadelphia, Pa. Filed Feb. 24, 1913. Serial No. 750,135. (Cl. 158—23.1.)

1. In a gas heated iron, a burner composed of upper and lower chambers formed by a divisional wall, the lower chamber having lateral extensions intermediate the ends, communications between said chambers adjacent the ends thereof and beyond the lateral extensions, a bottom plate for the lower chamber having a series of openings, a lug depending from the divisional wall of said upper and lower chambers, and a fastening device passing through said bottom plate into said lug, adapted to hold said plate to the underside of the lower chamber.

2. In a gas heated iron, a burner composed of upper and lower chambers formed by a divisional wall, communications between said chambers, a bottom plate for the lower chamber having a series of openings and nozzles depending from the underside around said openings, a lug depending from the divisional wall of said upper and lower chambers, and a fastening device passing through said bottom plate into said lug, adapted to hold said plate to the underside of the lower chamber.



3. In a gas heated iron, a hollow body having openings in each end thereof, a burner composed of upper and lower chambers formed by a divisional wall, means for introducing gas into the upper chamber at substantially the center thereof, communications between the chambers on opposite sides of said means, a bottom plate for the lower chamber, having a series of openings and nozzles depending from the underside of said plate around said openings, a lug depending from the divisional wall of said upper and lower chambers, a fastening device passing through said bottom plate into said lug, adapted to hold said plate to the underside of the lower chamber, and means for supporting the burner in said body.

4. In a gas heated iron, a hollow body, a burner composed of upper and lower chambers, means for introducing the gas into the upper chamber at substantially the center thereof, communications between said chambers on opposite sides of said means, a bottom plate for the lower chamber, having a series of openings, means for securing said bottom plate to said burner to hold the same to the underside of the lower chamber, and means for supporting the burner in said body.

5. In a device of the character stated, a hollow body, having openings in the ends thereof, a burner in said body having outlets in the bottom wall, the latter being situated in a plane below said openings, and a shield partly surrounding said burner and having spaced side members, which are in a plane above said openings.

[Claim 6 not printed in the Gazette.]

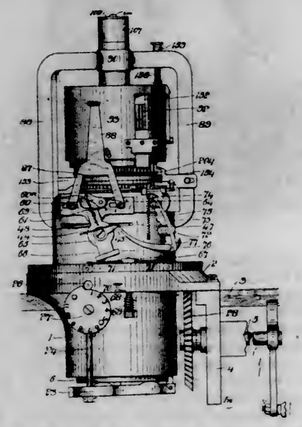
1,073,885. CIRCULAR-FASHIONING KNITTING-MACHINE USING DOUBLE-ENDED LATCH-NEEDLES. WILLIAM HENRY BEALE, Wellington, New Zealand. Filed Aug. 8, 1910. Serial No. 576,027. (Cl. 66—24.)

1. In knitting machines of the class described, the combination with transfer-needle-jacks, having a butt, of means on said butt and operating mechanism for operating therewith, said means and mechanism being constructed and arranged to effect the operations of knitting, dividing and transferring.

2. In knitting machines of the class described, the combination of an upper needle-cylinder, a lower needle-cylinder, and means for transferring needles from one cylinder to the other, comprising transfer-needle-jacks provided with butts, said butts having notches on their undersides, a guide-rail for engaging said notches, and a cam arranged to engage the butts and forward them on to said guide-rail, said guide-rail being eccentrically arranged with respect to the needle-cylinders to cause the jacks to disengage the needles.

3. In knitting machines of the class described, the combination of a needle-cylinder, a cam-box surrounding the

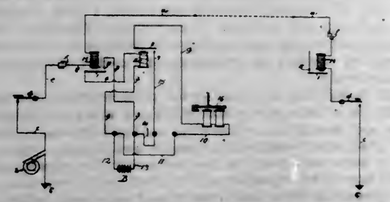
same, two cam plates arranged within said cam-box, said cam plates having surfaces forming portions of the path for the needle-butts, a device pivoted to the cam-box between the cam plates and arranged to lift the needle up out of range of the cams at each course, a swingingly mounted bridge-piece located between said cam plates and arranged to be operated by said pivoted device, and means for guiding the active needles from said bridge into engagement with one or the other of said cam plates.



4. In a knitting machine of the class described, the combination of an upper needle-cylinder, a frame, an axle supported by the frame, means on said axle for supporting said cylinder, and means for longitudinally adjusting said supporting means relatively to the axle, comprising a screw-controlled device at the top of the axle.

5. In knitting machines of the class herein described, a needle lifter and means for re-introducing the needles which have previously been rendered inactive by the needle-lifter, comprising a device consisting of an approximately inverted T shaped member, a sleeve portion pivotally mounted to the cam-box through which the shank of the T shaped member extends, a spring holding the head of the T shaped member normally against the lower end of the sleeve portion, and a plate secured horizontally to the cam-box against which the top of the shank is adapted to bear when the device is rocked upon its pivot in such a manner as to depress the shank and so increase the reach of the device, substantially as described and shown.

1,073,886. TELEGRAPHY. WILLIAM M. BRUCE, JR., Springfield, Ohio, assignor to The United Telegraph & Cable Company, Springfield, Ohio, a Corporation of Ohio. Filed Aug. 24, 1912. Serial No. 716,870. (Cl. 178—45.)



1. A system of telegraphy comprising a main line, a source of alternating current, transmitters in said line, and line relays in series with said transmitters adapted to respond to the alternations and to the interruptions of the transmitter, and a secondary circuit controlled by said line relay including an electro-magnet or relay slower to operate than the line relay and arranged to remain energized by the current alternations and to operate in unison with the relays sent by the transmitters, as set forth.

2. In a system of telegraphy, a main line, a source of alternating current supply, a relay in said line, a second relay slower to operate than said first relay and controlled by said first relay, and a make and break device in said line whereby said slow relay will respond to the current interruptions by the make and break device but will not respond to the current vibrations of the current alternations, as set forth.

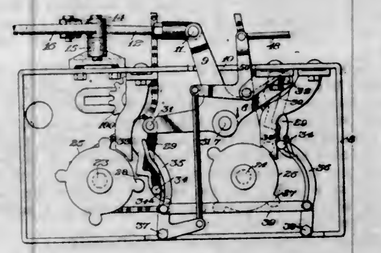
3. In a system of telegraphy, a main line, a source of alternating current, a current interrupter, a condenser and a relay in series in said line, said relay being adapted to respond to the current interrupter, and to the current alternations, a second relay adapted to remain energized by the current alternations in circuit with the repeating armature of said first relay and respond to the current interruptions and a source of current supply for said second relay and a receiving instrument in a local circuit controlled by the armature of said second relay.

4. In a system of telegraphy, a line relay, and a second or sluggish relay controlled thereby, said line relay being adapted to respond to rapid vibrations of current and retain said sluggish relay energized and said sluggish relay being adapted to be deënergized by a less rapid vibration or impulse transmitter over said line and through the line relay to said slow relay.

5. In a system of telegraphy, a main line, a source of alternating current to said line, means in said line for responding to the vibrations of said current and transmitting them into a local circuit and a slow relay in said local circuit adapted to absorb the said vibrations but respond to interruptions of less frequency.

[Claim 6 not printed in the Gazette.]

1,073,887. STOP MECHANISM. DANIEL M. COOPER, Rochester, N. Y., assignor to The American Laundry Machinery Company, Chicago, Ill., a Corporation of Ohio. Filed Dec. 30, 1909. Serial No. 535,565. (Cl. 74—46.)



1. The combination with a plurality of driving members, and a driven member, of a shifter for moving the driving members simultaneously and breaking connection between any one of said driving members and the driven member, mechanism movable with the machine to be stopped, a separate independently movable device for each driving member for effecting the connection of the shifter with said mechanism, and means for causing one of said devices to connect with the mechanism to operate the shifter.

2. The combination with a change-speed driving mechanism having means movable to a stop position from the different speed positions, of a shifter for said means, a movable member for moving the shifter, dogs carried by said shifter moving member and independently movable thereon, mechanism moving with the machine to be stopped, and means for causing one of said dogs to connect with the last named mechanism to operate the shifter.

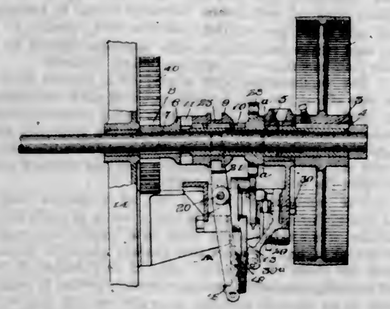
3. The combination with a change speed driving mechanism having means movable to a stop position from the different speed positions, of a shifter for said means, an oscillatory member for moving the shifter, dogs carried by said oscillatory member and independently movable thereon, mechanism moving with the machine to be stopped, and means for causing one of said dogs to connect with said mechanism to operate the shifter.

4. The combination with a change-speed driving mechanism having means movable to a stop position from the different speed positions, of a shifter for said means, an oscillatory member having connection with the shifter for moving the same, a pair of dogs carried by said oscillatory member and independently movable thereon and having their positions determined by the position of the shifter, mechanism moving with the machine to be stopped, and means for causing one of said dogs to connect with said mechanism to operate the shifter.

5. The combination with a change-speed driving mechanism having means movable to a stop position from the different speed positions, of a shifter for said means, a swing member connected to the shifter to operate the same, a pair of dogs pivoted to the swing member on opposite sides of the axis of the latter, mechanism moving with the machine to be stopped comprising two rotary members provided with projections, and means for causing one of said dogs to be engaged by one of the rotary members to operate the shifter.

[Claims 6 to 15 not printed in the Gazette.]

1,073,888. STOP MECHANISM FOR MACHINERY. DANIEL M. COOPER, Rochester, N. Y., assignor to The American Laundry Machinery Company, Chicago, Ill., a Corporation of Ohio. Filed Dec. 30, 1909. Serial No. 535,567. (Cl. 74—46.)



1. The combination with a machine having movable parts and detachable driving and driven elements for controlling the operation of said machine parts, of a member for disconnecting said elements, a pivoted cam adapted to actuate said disconnecting member, a dog pivotally mounted on the cam for moving the same and means for adjusting the dog into the path of movement of a movable part of the machine independently of the movement of the pivoted cam.

2. A stop mechanism comprising a shifter for disconnecting a driven from a driving member, a member mounted to swing and having a cam surface thereon concentric with the turning axis of the member and coöperating with the shifter, a part moving with the machine to be stopped, a dog pivoted on the swinging member, and means for moving said dog into engagement with the movable part independently of the movement of the swinging member.

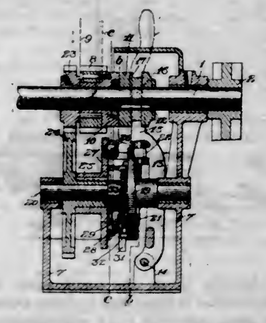
3. The combination with a driving and a driven member, of a clutch for establishing connection between them, a pivotally mounted shifter for operating the clutch, a member mounted to swing and having a cam surface on one side thereof coöperating with the shifter, a part moving with the machine to be stopped, a dog pivotally mounted on the swinging member for establishing connection between the moving part and the swinging member and means for moving said dog independently of the movement of the swinging member to establish such connection.

4. A stop mechanism comprising a pivotally mounted shifter for connecting the driven with the driving member, a member mounted to swing having a cam surface on one side thereof coöperating with the shifter, a brace carrying a roller bearing against the opposite side of the shifter, a part moving with the machine to be stopped, and means for establishing connection between said part and the swinging member.

5. The combination with a driving and a driven member and a clutch for effecting connection between the driving member and the driven member, of a projection carried by and movable with the driving member, a movable member controlling the shifting of the clutch, a dog for operating said movable member, means for moving said dog into the path of the projection on the driving member, and means actuated by the movable member for operating the clutch.

[Claims 6 to 14 not printed in the Gazette.]

1,073,889. STOP MECHANISM FOR MACHINERY. DANIEL M. COOPER, Rochester, N. Y., assignor to The American Laundry Machinery Company, Chicago, Ill., a Corporation of Ohio. Filed Dec. 30, 1909. Serial No. 535,568. (Cl. 74—46.)



1. A stop mechanism comprising a clutch shifter, a rotatable member having a projection thereon and movable with the machine to be stopped, a member having a cam surface thereon with which the shifter is engaged, said member being rotatable about the axis of rotation of the first named member and fixed on a normally stationary shaft, a dog carried by the second named rotatable member, and means for moving said dog into the path of the projection.

2. A stop mechanism comprising a shifter for breaking connection between a driven and a driving member, a rotatable member having a projection thereon and movable with the machine to be stopped, a movable member for moving the shifter, a dog carried by the movable member, a spring for moving the dog into the path of the projection, and a stop mounted independently of the movable member for holding the dog against movement under the action of the spring.

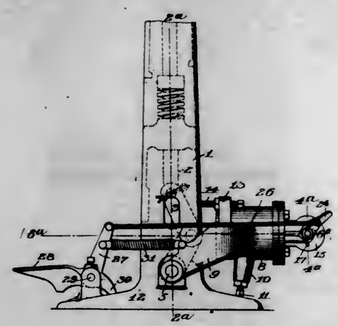
3. A stop mechanism comprising a shifter for breaking connection between a driven and a driving member, a rotatable member having a projection thereon and movable with the machine to be stopped, a movable member for moving the shifter, a spring pressed dog on the movable member movable into the path of the projection, and a yielding stop arranged to hold the said dog out of the path of the projection and mounted independently of the movable member.

4. A stop mechanism comprising a shifter for breaking connection between a driving and a driven member, a rotatable member having a projection thereon and adapted to move with the machine to be stopped, a rotatable member for operating the shifter, a spring

pressed dog carried by the last named rotatable member, a stop for holding the dog against movement, and a pawl for holding the dog-carrying member in such a position that the dog coöperates with the stop.

5. A stop mechanism comprising a shifter for breaking connection between the driving and the driven member, a rotatable member having a projection thereon and adapted to move with the machine to be stopped, a member rotatable about an axis coincident with the first named rotary member, a cam surface on the second named rotary member, for coöperation with the shifter, a spring pressed dog arranged on the cam-carrying member and movable into the path of the projection, a stop adapted to coöperate with the dog to hold it out of the path of the projection, and a pawl adapted to coöperate with the cam carrying member to hold the dog against the stop.

1,073,890. LAUNDRY-PRESS. DANIEL M. COOPER, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 9, 1912. Serial No. 696,215. (Cl. 138—10.)



1. In a laundry press, the combination with a fluid pressure controlling cylinder and a piston movable therein, said piston being connected to an operating member of the press, of a valve casing having a passage leading to the cylinder, a rotary valve and valve stem arranged in said casing, a ratchet wheel secured to the valve stem, a pawl in engagement with said ratchet wheel and a spring actuated treadle connected to the pawl.

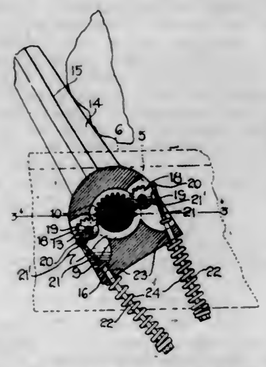
2. In a laundry press, the combination with a fluid pressure controlling cylinder and a piston movable therein, of an operating member including a toggle joint having connection with the said piston, a valve casing having a passage leading to the cylinder, a rotary valve and valve stem arranged in said casing, the casing being disposed at the rear of the machine, a ratchet wheel secured to the valve stem, a pawl in engagement with said ratchet wheel, a rod having connection with the pawl and extending forwardly from the valve casing and cylinder, and a spring actuated treadle at the front of the machine pivoted to said connecting rod.

1,073,891. PROCESS OF MANUFACTURING ARTIFICIAL LUSTROUS THREADS, BANDS, AND FILAMENTS. FRIEDRICH DIETLER, Kelsterbach-on-the-Main, Germany, assignor to Vereinigte Kunstseidefabriken A. G., Kelsterbach-on-the-Main, Germany, a Corporation of Germany. Filed Feb. 14, 1912. Serial No. 677,484. (Cl. 18—54.)

1. The herein described method of manufacturing artificial, lustrous threads, bands and filaments from viscose, which consists in forming viscose solution into thread like bodies and thereafter subjecting the same to the action of a precipitation bath of formic acid.

2. The herein described method of manufacturing artificial, lustrous threads, bands and filaments from viscose, which consists in forming viscose solution into thread like bodies and thereafter subjecting the same to the action of a precipitation bath consisting of formic acid and a salt.

1,073,892. CAR-STAKE. WILLIAM F. DROSTE, Waverly, Iowa. Filed July 26, 1913. Serial No. 781,407. (Cl. 105—174.)



1. The combination with a car, of a stationary element fixed thereto, a stake movable with relation to said stationary element, and means normally acting to yieldingly hold said stake in a vertical position with relation to the car, said means including movable members carried by the stake and coacting with said stationary element.

2. The combination with a car, of a spindle fixed to the side sill of the car, a stake mounted upon said spindle for rocking movement, said spindle being provided with a series of teeth, and means carried by the stake for yieldingly holding the same in a vertical position with relation to the car, said means including a movable element coacting with the teeth of said spindle.

3. The combination with a car, of a spindle fixed to the side sill of said car and having a series of teeth formed thereon, a stake mounted upon said spindle for rocking movement, a pair of mutilated pinions rotatably mounted upon the stake on opposite sides of said series of teeth and meshing therewith, springs normally acting to hold the stake in an upright position upon the car sill, and means connected to the respective pinions for tensioning the springs when the stake is rocked upon the spindle.

4. The combination with a car, of a spindle fixed to the side sill of said car and having a semi-circular series of teeth formed thereon intermediate of its ends, a stake provided with a housing upon its lower end mounted for rocking movement upon said spindle, mutilated pinions rotatably mounted in said housing upon opposite sides of the spindle and meshing with the teeth thereof, a pair of rods movable through the bottom wall of the housing and connected to the respective pinions, and springs arranged upon the lower ends of said rods to yieldingly hold the stake in a normal upright position upon the car sill.

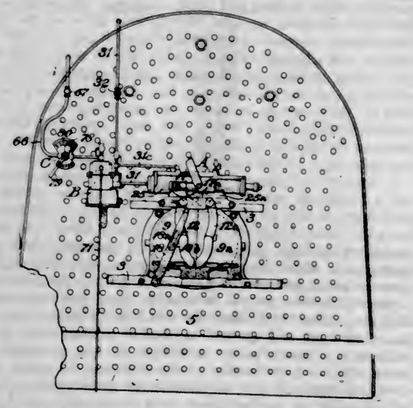
5. The combination with a car, of a spindle fixed to the car sill and provided with a semi-circular series of teeth intermediate of its ends, a stake having a housing formed upon its lower end mounted for rocking movement upon said spindle, a pair of mutilated pinions rotatably mounted in said housing upon opposite sides of the spindle and meshing with the teeth thereof, a pair of rods movable through the bottom wall of the housing, flexible connections between the rods and the respective pinions, and coil springs arranged upon said rods exteriorly of the housing to yieldingly hold the stake in a normal upright position upon the car sill.

1,073,893. HANDLE FOR DENTAL IMPRESSION-TRAYS, &c. LESLIE EUGENE EATON, Sturgis, S. D. Filed Feb. 1, 1913. Serial No. 745,707. (Cl. 32—6.)



A detachable handle for dental impression trays comprising a shank portion with arms, one of which is slotted in the marginal edge thereof and the other arm provided with an end slot and with an intermediate diagonally disposed slot, said slots adapted to engage the headed lugs of a dental tray, as set forth.

1,073,894. DOOR-OPERATING MECHANISM. ALBERT G. ELVIN, Somerville, N. J. Filed July 24, 1912. Serial No. 711,255. (Cl. 110—177.)



1. In a door operating mechanism, the combination of a door, a door motor coupled thereto, and an independent valve motor automatically and alternately controlling the admission and exhaust, respectively, of motive fluid to and from the door motor.

2. In a door operating mechanism, the combination of a door, a door motor coupled thereto, an independent valve motor automatically and alternately controlling the admission and exhaust, respectively, of motive fluid to and from the door motor, and a regulating mechanism controlling the rate of speed of the valve motor.

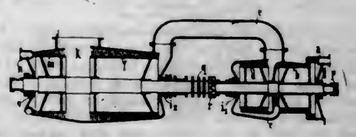
3. In a door operating mechanism, the combination of a door, a door motor coupled thereto, a door opening supply valve controlling the admission and exhaust of motive fluid to and from the door motor, an independent valve motor, and means, actuated by said valve motor, for automatically and alternately opening and closing said door opening supply valve.

4. In a door operating mechanism, the combination of a door, a door motor coupled thereto, a door opening supply valve controlling the admission and exhaust of motive fluid to and from the door motor, an independent valve motor, means, actuated by said valve motor, for automatically and alternately opening and closing said door opening supply valve, and a regulating mechanism controlling the rate of speed of the valve motor.

5. In a door operating mechanism, the combination of a door, a door motor coupled thereto, a door opening supply valve controlling the admission of motive fluid to the door motor in one direction of movement and permitting the exhaust thereof in the opposite direction, a valve motor, means, actuated by said valve motor, for automatically and alternately opening and closing said door opening supply valve, a door closing supply valve controlling the admission of motive fluid to the door motor for movement in the opposite direction to that effected by the opening of the supply valve, and means, actuated by the door motor, for opening said door closing supply valve.

[Claims 6 to 11 not printed in the Gazette.]

1,073,895. MARINE TURBINE. WALTER FAITZ, Berlin, Germany. Filed May 17, 1911. Serial No. 627,783. (Cl. 121—58.)



1. In a marine turbine engine, the combination with a shaft, of three ahead turbine drums on the shaft, an astern drum on the shaft, a casing having two inlets, an exhaust and channels for causing steam flowing astern to act on two of the ahead turbine drums and steam flowing ahead to act on the third ahead drum and on the astern drum, the first stages of the ahead and the astern drums being at the ends of the turbine engine.

2. A thrust neutralizing marine turbine construction comprising in combination, a series of three ahead turbines with the high pressure turbine of the series disposed forward and the intermediate and low pressure turbines disposed successively rearward, guiding means causing the steam to traverse the intermediate turbines in a direction reverse to the direction of flow through the high and low pressure turbines, an astern turbine in the rear of the low pressure turbine and having a steam flow in a direction reverse to the astern thrust of the propeller, and outlet means common to the low and astern turbine, substantially as described.

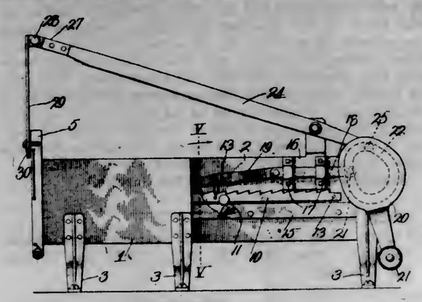
3. A thrust neutralizing turbine construction comprising in combination, a series of three ahead turbines with the high pressure turbine of the series disposed forward and the intermediate and low pressure turbines disposed sucessively rearward, guiding means causing the steam to traverse the intermediate turbine in a direction reverse to the direction of flow through the high and low pressure turbines, and an astern turbine in the rear of the low pressure turbine and having a steam flow in a direction reverse to the astern thrust of the propeller, substantially as described.

1,073,896. BUTTER-PAT-MAKING MACHINE. GEORGE W. FURBECK, Kansas City, Mo. Filed July 13, 1912. Serial No. 709,198. (Cl. 31—65.)

1. A butter-pat making machine, comprising a holder, stationary cutters bridging the space inclosed by the front end of the holder, ratchet means one element of which is positively actuated forwardly and backwardly to advance a block of butter in the holder until it projects beyond the front end of the same and is kerfed by said cutters, and a slicer to travel across the front end of the holder and through the kerfed end of the block of butter projecting therefrom.

2. A butter-pat making machine, comprising a holder, a bridge bar at the front end of the holder, stationary cutters bridging the space inclosed by the front end of the holder and the bridge bar, means to force a block of butter forwardly in the holder until it projects beyond the front end of the same and is kerfed by said cutters, a slicer, yielding means holding the same in almost the same plane

as the stationary cutters, and means to reciprocate the slicer across the end of the holder.



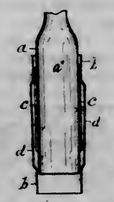
3. A butter-pat making machine, comprising a holder, stationary cutters bridging the space inclosed by the front end of the holder, a presser plate holding a block of butter in the holder against said stationary cutters, a rack bar for moving said presser plate forward a certain distance to cause the front end of the block of butter to project beyond the end of the holder and said cutters and be kerfed by the latter, a pawl for moving said bar and means for positively actuating said pawl both forwardly and backwardly, and a slicer for reciprocating across the front end of the holder to sever the kerfed portion of the butter from the block thereof.

4. A butter pat making machine, comprising a holder, slicing means at the front end of the holder, a presser plate for feeding a block of butter through the holder to the slicing means, and means acting intermittently to advance the presser plate, said latter means including a bar attached to the presser plate, said bar carrying two pins and a clamping screw projecting horizontally from one face thereof, a rack bar provided with perforations for receiving said pins and a notch to fit the shank of said screw, whereby the rack bar may be removably clamped to said first bar, and reciprocating means engaging the teeth of said rack bar for advancing said presser plate.

5. A butter pat making machine, comprising a holder, slicing means at the front end of the holder, a presser plate for feeding a block of butter through the holder to the slicing means, and means acting intermittently to advance the presser plate, said latter means including a rack bar removably attached to the presser plate, a reciprocating pawl for operating said bar, and cam-controlled means acting to move said pawl positively in both directions of its reciprocation.

[Claims 6 and 7 not printed in the Gazette.]

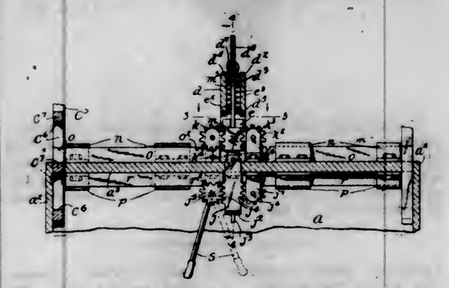
1,073,897. BOTTLE-CASING. CHARLES C. GOSS, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,629. (Cl. 215—3.)



1. The combination, with a flat sided flask, of a sheet-metal casing having elastic flat sides and adapted to fit loosely to the exterior of the flask, ribs upon the flat sides of one of such parts and corresponding sockets upon the flat sides of the opposite part adapted to engage one another longitudinally when the flask is inserted in the casing.

2. An elastic casing for a flask adapted to fit loosely upon the exterior of the flask, the casing and flask having longitudinal sockets and ribs provided with corresponding shoulders at the ends to retain the casing in a fixed position on the flask.

1,073,898. SAFETY ELEVATOR-CAR. JAMES H. HALL, Brooklyn, N. Y. Filed Dec. 3, 1912. Serial No. 734,655. (Cl. 187—84.)



1. An elevator apparatus of the class described involving a vertically movable car, an operating cable and a counterbalance weight and cable connected therewith, vertical bolt engaging bars at the opposite sides of the car, transversely movable lock bolts mounted on the top of the car and adapted to engage said bars so as to lock the car against downward movement, automatically operating devices for projecting said bolts into engagement with said bars on the breakage of either the operating cable or the counterbalance weight cable, and hand operated devices mounted in the top of the car and by means of which the lock bolts may be operated to lower the car step by step.

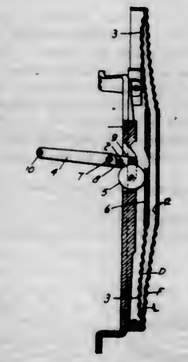
2. An elevator apparatus of the class described, involving a vertically movable car mounted between guides, a stationary frame at the top of said guides, a vertically movable frame mounted in the stationary frame and supported by springs and provided with suspended bolt engaging bars which extend downwardly at the sides of the elevator shaft, an operating cable connected with said car, a counterbalance weight and cable also connected with said car, transversely movable lock bolts mounted on the top of said car and adapted to operate in connection with said bars, automatically operating devices adapted to move said bolts outwardly on the breakage of either the operating cable or the counterbalance weight cable so as to lock said car against downward movement, and hand operated devices mounted in the top of the car and involving the said automatically operating devices, and by means of which the car may be lowered step by step.

3. In an elevator apparatus of the class described, a vertically movable car, vertical bolt engaging bars supported at the opposite sides thereof, transversely movable bolts mounted on the top of the car and adapted to operate in connection with said bars, devices for projecting said bolts on the breakage of the operating cable of the car so as to lock said car against downward movement, other transversely movable bolts mounted in the top of the car and also adapted to be operated in connection with said bars, and hand operated devices involving also the first named devices for operating said bolts so as to lower the car step by step.

4. In an elevator apparatus of the class described, a vertically movable car provided with a hoisting or operating cable and a counterbalance cable and weight, vertically movable rack bars supported at the opposite sides of the car, transversely movable bolts mounted in connection with the top of the car and adapted to operate in connection with said rack bars, devices for projecting said bolts on the breakage of the counterbalance weight cable to lock said car against downward movement, other transversely movable bolts mounted in the top of the car and also adapted to operate in connection with said bars, and hand operated devices involving also the first named devices for operating said bolts so as to lower the car step by step.

5. In an elevator apparatus of the class described, a vertically movable car, bolt engaging bars supported at the opposite sides thereof, transversely movable lock bolts mounted in connection with the top of the car and adapted to operate in connection with said bars, devices for projecting said lock bolts on the breakage of the operating cable of the car so as to lock said car against downward movement, and hand operated devices mounted within the car and also involving the first named devices for operating said bolts so as to lower the car step by step.

1,073,899. THERMOSTAT. EDWARD S. HALSEY, Lynn, Mass. Filed Dec. 1, 1911. Serial No. 663,448. (Cl. 60—2.)



1. A thermostatic motor consisting of a chamber having oppositely arranged walls, one of which walls is movable toward and from the other, and in the normal contracted condition of the motor is close to said other wall, a working fluid which at atmospheric pressure is entirely liquid at 66° Fahrenheit, completely filling the space between said walls in the contracted condition of the motor, said fluid being completely gaseous under atmospheric pressure at a temperature of approximately 73° Fahrenheit.

2. A thermostatic motor, consisting of a hermetically sealed expansion chamber having a movable wall, of which the expanding movement is resisted only by atmospheric pressure and the necessary opposition of the thing on which it acts, and a volatile liquid within the chamber, having a boiling point under such resistance, of approximately 67 degrees F.

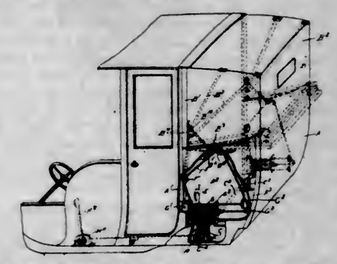
3. A thermostatic motor consisting of a chamber containing a quantity of volatile liquid and having a wall arranged to move under pressure generated by volatilization of the liquid, the pressure resisting such motion of said wall being only that caused by atmospheric pressure and by the opposition of the actuated mechanism or device, and the liquid having a boiling point under such pressure between 66° and 73° F., and being completely volatilized at 73° F.

4. A thermostatic motor, consisting of a hermetically sealed expansion chamber having a movable wall, of which the expanding movement is resisted only by atmospheric pressure and the necessary opposition of the thing on which it acts, and a small quantity of a compound volatile liquid essentially ethylamin within said expansion chamber.

5. A thermostatic motor, consisting of a hermetically sealed expansion chamber having a movable wall, of which the expanding movement is resisted only by atmospheric pressure and the necessary opposition of the thing on which it acts, and a small quantity of a compound volatile liquid essentially nitrous ether within said expansion chamber.

[Claims 6 to 17 not printed in the Gazette.]

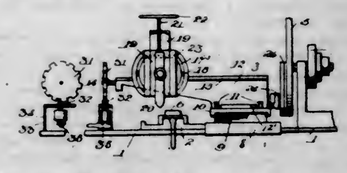
1,073,900. APPLIANCE FOR ADJUSTING THE FOLDING TOPS OF VEHICLES. WILLIAM JAMES HUTCHINSON, Toronto, Ontario, Canada. Filed Dec. 16, 1912. Serial No. 737,075. (Cl. 21—62.)



1. In an adjusting appliance for folding tops for vehicles, the combination with the body of the vehicle and the folding top frame hinged in the usual manner to the body, of a lever extending outwardly in a substantially horizontal direction from the hinged point at each side of the frame, an operating shaft journaled in the body of the vehicle, a tension spring located in the body, cords extending from the aforesaid lever over suitable pulleys to the tension spring, locking means for the operating shaft, and a cord extending from the shaft over suitable pulleys to the aforesaid lever, as and for the purpose specified.

2. In an adjusting appliance for top head pieces for closed vehicles, the combination with the body and the frame of the head piece hinged in the usual manner to the body, a lever extending outwardly from the hinged point an operating shaft, a ratchet wheel on the shaft, a spring locking plunger co-acting therewith, an operating lever mounted on the shaft and co-acting with the ratchet, pulleys suitably journaled in the body, tension springs secured within the body, a cord extending from the operating shaft over the pulleys to the lever arm, and a cord extending from the tension springs over pulleys to the lever arm, as and for the purpose specified.

1,073,901. TURNING-LATHE. CHRISTOPH FRIEDRICH HÜTHER, Jr., Eschwege, Germany. Filed May 1, 1911. Serial No. 624,519. (Cl. 90—40.)



1. The combination with a lathe bed, and a rotary chuck thereon, of a slide mounted over and movable transversely of the bed, a tool holder support mounted on the slide projecting above the bed and longitudinally of the bed, a stationary work holder on the bed beneath the support, a tool holder mounted on the latter, means operated by the chuck to reciprocate the slide transversely of the bed, and means operated on the reciprocations of the slide to move the tool holder longitudinally of the support.

2. The combination with a lathe bed, and a rotary chuck thereon, of a slide movable over and transversely of the bed, an arm carried by the slide projecting above the bed and longitudinally of the bed, a stationary work

holder on the bed beneath said arm, a tool holder movable on the latter parallel to the bed, and a pitman connecting the chuck and slide to reciprocate the latter transversely of the bed.

3. The combination with a lathe bed, and a rotary chuck thereon, of a slide movable over and transversely of the bed, a tapering arm mounted on the slide projecting over the bed and longitudinally of the latter and having shears parallel to the bed, a stationary holder on the bed beneath the arm, a tool holder slidable on the shears, a crank pin on the chuck, and a pitman connecting the pin and slide to reciprocate the latter transversely of the bed.

4. The combination with a lathe bed, of a rotary chuck thereon and a slide movable transversely of the bed, of a tapering arm mounted on the slide projecting longitudinally of the bed and having shears parallel to the latter, a work holder on the bed beneath the arm, a tool holder slidable on the shears, a crank pin on the chuck, a pitman connecting the pin and slide to reciprocate the latter transversely of the bed, and means operated on the reciprocations of the slide to move the tool holder longitudinally of the arm.

5. The combination with a lathe bed, a rotary chuck thereon and a slide movable transversely of the bed, of a tapering arm mounted on the slide projecting longitudinally of the bed and having shears parallel to the latter, a feed screw mounted between the shears, a tool holder on the latter connected with the screw, a work holder beneath the arm, a toothed wheel fixed on the screw, means connecting the chuck and slide to reciprocate the latter transversely of the bed, and means to rotate the wheel when the arm is moved in one direction.

[Claims 6 to 8 not printed in the Gazette.]

1,073,902. AZO DYE. PAUL JULIUS and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 28, 1913. Serial No. 770,328. (Cl. 8—1.)

The new azo coloring matter which can be produced by combining diazotized meta-toluidin with benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which coloring matter consists when dry of a violet-red powder which yields a brilliant red solution in water and in the form of its alkaline earth lakes possesses brilliant blue-red shades, and which upon gentle reduction with stannous chlorid and hydrochloric acid gives rise to meta-toluidin and an amino derivative of benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

1,073,903. AZO DYE. PAUL JULIUS and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 28, 1913. Serial No. 770,329. (Cl. 8—1.)

The new azo coloring matter which can be produced by combining diazotized meta-xylidin with benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which consists when dry of a bluish red powder which yields a brilliant blue-red solution in water and in the form of its alkaline earth lakes possesses brilliant blue-red shades, and which upon gentle reduction with stannous chlorid and hydrochloric acid gives rise to meta-xylidin and an amino derivative of benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

1,073,904. AZO DYE. PAUL JULIUS and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 28, 1913. Serial No. 770,330. (Cl. 8—1.)

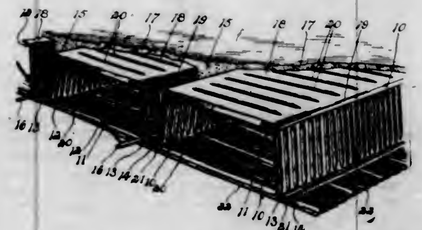
1. The new azo coloring matters which can be produced by combining diazotized amino-phenol-alkyl-ethers with benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which coloring matters consist when dry of red to violet powders which yield blue-red solutions in water and in the form of their alkaline earth lakes possess brilliant blue-red shades, and which upon gentle reduction with stannous chlorid and hydrochloric acid give rise to an amino-phenol-alkyl-ether and an amino derivative of benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

2. The new azo coloring matter which can be produced by combining diazotized ortho-anisidin with benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which consists when dry of a violet powder which yields a brilliant blue-red solution in water and in the form of its alkaline earth lakes possesses brilliant blue-red shades, and which upon gentle reduction with stannous chlorid and hydrochloric acid gives rise to ortho-anisidin and an amino derivative of benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

1,073,905. AZO DYE. PAUL JULIUS and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 28, 1913. Serial No. 770,331. (Cl. 8—1.)

The new azo coloring matter which can be produced by combining diazotized alpha-naphthylamin with benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which consists when dry of a brown-violet powder which yields a red-violet solution in water and in the form of its alkaline earth lakes possesses brilliant violet shades, and which upon gentle reduction with stannous chlorid and hydrochloric acid gives rise to alpha-naphthylamin and an amino derivative of benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

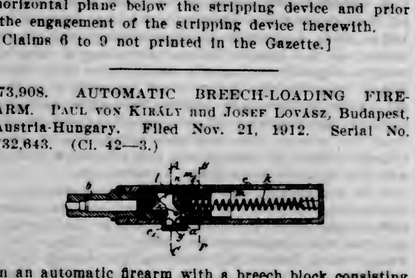
1,073,906. FLOOR CONSTRUCTION. JULIUS KAHN, Detroit, Mich. Filed Nov. 18, 1912. Serial No. 731,926. (Cl. 72—70.)



In a floor structure, the combination of sheet metal members arranged in pairs, sides adapted to carry the load of the structure and forming the side walls of a mold for floor joists, flanges on the lower edges of said members of each pair extending laterally therefrom toward each other to space said members apart and form a bottom for said mold, flanges on the upper edges of said members of each pair extending laterally therefrom in opposite directions and each flange formed with a downturned edge, sheet metal strips having plain edge portions to engage and rest upon the said upper flanges of and extend between the pairs of members to form the lower side of a floor, a plastic material within the space between the members of each pair and upon said strips to form, together with said members and strips, a floor with a series of parallel spaced joists, said strips being formed with open transverse ribs to strengthen the same and receive the material, and reinforcing members embedded in said material between the members of each pair forming the joists.

1,073,907. STRIPPING MECHANISM FOR CONVEYERS. JAMES E. KELSO, Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Nov. 22, 1911. Serial No. 661,793. (Cl. 193—2.)

1. In a stripping mechanism for conveyers, the combination with a conveyer and a goods holder carried thereby, of a movable stripping device mounted on a fixed support and coöperating with said holder to remove the goods therefrom, means carried by the conveyer for actuating the stripping device, and a goods loosening member arranged to engage the goods on the holder prior to the engagement of the stripping device therewith.



2. In a stripping mechanism for conveyers, the combination with a conveyer and a goods holder carried thereby, of a movable stripping device mounted on a fixed support and coöperating with said holder to remove the goods therefrom, means carried by the conveyer for actuating the stripping device, and a movable goods loosening member arranged to engage the goods on the holder prior to the engagement of the stripping device therewith.

3. In a stripping mechanism for conveyers, the combination with a conveyer and a goods holder carried thereby, of a movable stripping device mounted on a fixed support and coöperating with said holder to remove the goods therefrom, means carried by the conveyer for actuating the stripping device, and a goods loosening member mounted on the stripping device and arranged to engage the goods on the holder prior to the engagement of the stripping device therewith.

4. In a stripping mechanism for conveyers, the combination with a conveyer and a goods holder carried thereby, of a stripping device coöperating with said holder to remove the goods therefrom, and a goods loosening member arranged to engage the goods on the holder prior to the engagement of the stripping device therewith.

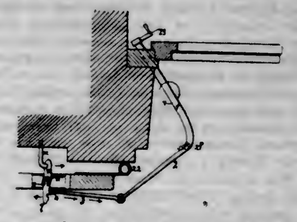
5. In a stripping mechanism for conveyers, the combination with a conveyer and a goods holder carried thereby, of a movable stripping device mounted on a fixed support and coöperating with said holder to remove the goods therefrom, means carried by the conveyer for actuating the stripping device, and a member carried by the stripping device arranged to engage the goods in a horizontal plane below the stripping device and prior to the engagement of the stripping device therewith.

[Claims 6 to 9 not printed in the Gazette.]

1,073,908. AUTOMATIC BREECH-LOADING FIREARM. PAUL VON KIRÁLY and JOSEF LOVÁSZ, Budapest, Austria-Hungary. Filed Nov. 21, 1912. Serial No. 732,643. (Cl. 42—3.)

In an automatic firearm with a breech block consisting of an outer and an inner part the combination of a two-armed lever as a connective member for the said parts, the arms being of different length and the longer arm engaging with the inner part, while the short arm, pivoted in the outer part projects therefrom, and a stop pivoted in the casing and adapted to engage said short arm and throw the long arm backward in the opening movement, and to yield and permit said short arm to pass in the closing movement, of the breech block.

1,073,909. SHUTTER-WORKER. RICHARD KIRCHHOFF, Zurich, Switzerland. Filed Nov. 6, 1911. Serial No. 658,860. (Cl. 16—136.)

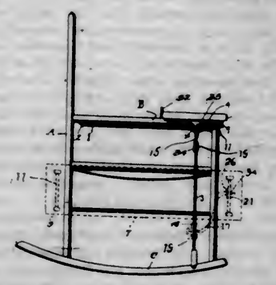


1. In a shutter operating mechanism, a shaft extending through the frame of the window, an arm carried by said shaft, a lever pivotally mounted on the shutter, a link connecting said arm with the lever, a double latch acted upon by said lever, and a fastening engaged by the latch in each end position of the shutter, whereby when opening as well as when closing the shutter the shaft is turned in but one direction, the shutter being at first released from the fastening device of its initial position, thereafter turned, and finally secured by the fastening device of its end position.

2. In a shutter operating mechanism, a shaft extending through the frame of the window, an arm carried by said shaft, a lever pivotally mounted on the shutter, a link connecting said arm with the lever, a double latch acted upon by said lever, a fastening engaging the latch in each of the end positions of the shutter, auxiliary latches operated from the lever, and fastenings for the shutter when closed and engaged by said auxiliary latches.

3. In a shutter operating mechanism, a shaft diagonally extending through the frame of the window, an arm carried by said shaft, a lever pivotally mounted on the shutter, a link connecting said arm with the lever, a double latch acted upon by said lever, and a fastening for each end position of the shutter engaged by said double latch, a crank lever pivotally mounted on the shutter, a substantially horizontal rod loosely supported by the shutter and transmitting motions of said first lever to said crank lever, a latch at the lower edge of the shutter operated by said crank lever, a latch at the upper edge of the shutter, and a substantially vertical rod loosely supported by the shutter and transmitting motions of said crank lever to said upper latch.

1,073,910. TABLE. FREAS B. KLEINTOB, Philadelphia Pa. Filed Nov. 25, 1912. Serial No. 733,457. (Cl 45—82.)



1. The combination with an arm chair having a vertical rod secured to one side thereof, of a table attachment comprising a platform, a transverse bar rotatably secured under said platform adjacent one end thereof, a depending apertured ear formed on said bar and provided upon one face with teeth, an arm mounted upon said vertical rod and having a horizontally projecting

end portion, said end portion being circular at its extremity, a toothed disk slidably mounted upon said end portion and adapted to engage said toothed ear whereby the latter is held against rotation and means mounted within the extremity of said arm whereby the toothed disk may be released from engagement with the ear.

2. A table attachment for arm chairs comprising a platform adapted to be positioned across the arms of the chair, spaced brackets secured to the under side of said platform adjacent one end thereof, a transverse bar rotatably secured at its ends to said brackets, the bar being formed intermediate its ends with a depending toothed ear having a circular opening formed therein, a vertical arm adapted to be secured to one side of the chair and having a horizontally projecting end portion, said end portion being rectangular in cross section for a portion of its length and having its extremity circular in cross section, a toothed disk slidably mounted upon the rectangular portion of said arm, means for holding said disk in its outermost position in engagement with the toothed ear which is supported upon the circular portion of said arm, means for holding said ear upon the arm, and means positioned within the extremity of said arm and adapted to be engaged by the under side of the platform to release the toothed disk from engagement with the ear whereby the latter may be free to rotate upon said arm.

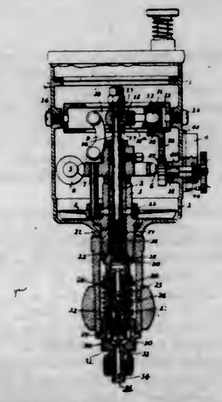
3. A table attachment for arm chairs comprising a platform adapted to be positioned across the arms of said chair, depending brackets secured to the under side of said platform adjacent one end thereof, a transverse bar rotatably secured at its ends to said brackets and formed intermediate its ends with a depending ear having teeth formed upon one face thereof and provided with a transverse opening, a supporting arm adapted to be secured to one side of the chair and having a horizontally projecting upper end portion, said end portion being rectangular in cross section for a portion of its length and rounded adjacent its extremity, said rounded portion being adapted to project through the ear and support the same, a toothed disk slidably mounted upon the rectangular portion of the end of said arm, means for holding said disk in engagement with said ear, the rectangular end portion of the arm being transversely slotted, a push rod working through a longitudinal opening in the extremity of the arm and provided upon its inner end with a cross bar for engagement with the toothed disk whereby the latter may be disengaged from said ear, and means securing said ear upon the arm.

4. The combination with a rocking chair having arms, of longitudinally extending rods secured to the under side of said arms, vertical telescoping rods pivotally secured at their lower ends to the rockers of the chair and slidably connected at their upper ends to said first mentioned rods, a platform having a pair of depending brackets pivotally secured to the under side thereof adjacent each end, transverse bars rotatably secured at their ends to said brackets and provided intermediate their ends with depending ears, one of said ears being toothed, a connecting arm slidably mounted upon one of said telescoping rods and having a horizontally projecting end portion rectangular in cross section for a portion of its length and having its extremity reduced in size and circular in cross section, said circular portion projecting through the toothed ear and supporting the same, a toothed disk slidably mounted upon the rectangular portion of said bar and adapted to engage the ear to prevent rotation thereof, said rectangular portion being transversely slotted, a push rod projecting longitudinally through the reduced circular portion of said arm and provided upon its extremity with a transverse bar working within said slot, the outer end of the push rod being adapted to be engaged by the under side of said platform whereby the toothed disk is forced inwardly, means for normally holding said disk in its outermost position, a nut threaded upon the end of said arm and a second arm slidably mounted upon the other telescoping rod and having a laterally projecting end portion adapted to be engaged by the other of said ears.

5. A table attachment for arm chairs comprising a platform arranged across the arms of the chair, longitudinally extending rods secured to the under side of said arms, vertical telescoping rods pivotally secured at their lower ends to the rockers of the chair and slidably connected at their upper ends to said first mentioned rods, an arm connected at one end to one of said vertical rods, said arm being pivotally connected at its opposite end to the under face of said platform near one end thereof, whereby said platform may be adjusted angularly and horizontally with relation to the arms of said chair, as and for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

1,073,911. LUBRICATOR. WILLIAM HUMPHREY KNOWLES and WILLIAM FREDERICK GOREHAM, London, England. Filed Sept. 19, 1912. Serial No. 721,266. (Cl. 184—27.)



1. In a lubricator and in combination a container casing for the lubricant, a pump therein, a movable swash ring controlling the stroke of the pump, means for moving such swash ring, and means for setting same in the desired position including a movable part, a rack with which such part can engage and means for withdrawing such part from the rack, and causing it to engage therewith after it has been moved, and the position of the swash ring altered.

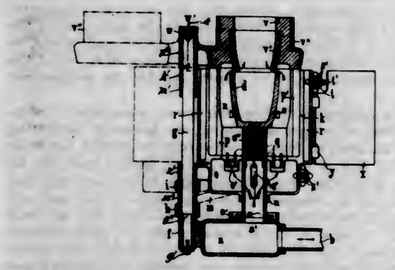
2. In a lubricator and in combination, a container casing for the lubricant, a pump therein, a movable swash ring controlling the stroke of the pump, means for moving such swash ring comprising a segment carried thereby and a pinion, a rotatable spindle for the pinion, a pointer carried by the spindle outside the casing a rack with which such pointer engages, a thumb screw on the spindle end, a collar on the thumb screw engaging a groove in the pointer and means for causing the pointer and spindle to move together, whereby rotation of the nut will withdraw the pointer from the rack, whereupon it may be turned to move the swash ring and afterward reengaged with the rack and screwed fast to the casing.

3. In a lubricator and in combination, a container casing for the lubricant, a barrel within the container, a slidable piston in the barrel, a plunger for the barrel, an inlet valve between the piston and plunger, a delivery valve, means for rotating the barrel, a lever connected to the plunger and barrel rotating means, said lever being capable of rotation, a pivoted swash ring in which such lever rotates, means for rocking such swash ring and means for setting such swash ring in the desired position including a movable part, a rack with which such part can engage and means for withdrawing said part from the rack after which it becomes rotatable and causing it to engage therewith after it has been rotated and the position of the swash ring altered.

4. In a lubricator and in combination, a container casing for the lubricant, a pump therein, a movable swash ring controlling the stroke of the pump, means for moving such swash ring, and means for setting same in the desired position including a movable part, a rack with which such part can engage, means for withdrawing such part from the rack, and causing it to engage therewith after it has been moved, and the position of the swash ring altered, and a delivery valve for the pump comprising a hard seating and a hard cutting edge engaging therewith.

5. In a lubricator and in combination, a container casing for the lubricant, a pump barrel within the container, a slidable piston in the barrel, a plunger for the barrel, an inlet valve between the piston and plunger, means for rotating the barrel, a lever connected to the plunger and barrel rotating means, said lever being capable of rotation, a pivoted swash ring in which such lever rotates, means for rocking such swash ring means for setting such swash ring in the desired position including a movable part, a rack with which such part can engage, means for withdrawing said part from the rack after which it becomes rotatable and causing it to engage therewith after it has been rotated and the position of the swash ring altered, and a delivery valve for the pump comprising a hard cutting edge carried by a member of the valve and a hard seating carried by the other member one of such members being attached to the barrel and the other being pressed to it by spring pressure.

1,073,912. CRUCIBLE-FURNACE. HANS KOCH, Dietikon, Zurich, Switzerland. Filed Dec. 19, 1911, Serial No. 666,740. Renewed July 25, 1913. Serial No. 781,253. (Cl. 75—186.)



1. A crucible furnace comprising in combination, a hollow crucible supporting structure communicating with an air supply, a crucible carried by said supporting structure, vertical companion furnace sections each having registering furnace chambers horizontal ash pit and grate portions, and hinged supporting means for said sections whereby the same may be swung into and out of surrounding relation with said crucible, said support having discharge openings delivering to said furnace below the grate thereof, substantially as described.

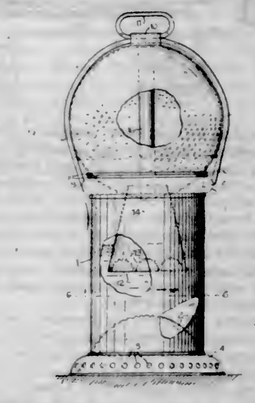
2. A crucible furnace comprising in combination, a support for the crucible, a crucible mounted on said support, vertical companion furnace sections having furnace chambers and horizontal ash pit and grate portions adapted to register, respectively, and hinged supporting means for said sections whereby the same may be swung into and out of surrounding relation with said crucible, substatially as described.

3. A crucible furnace comprising in combination, a crucible support, a crucible mounted on said support, companion furnace sections, hinged supporting means for said sections whereby the same may be swung into and out of surrounding relation with said crucible, and means for closing said sections when in an open position, substantially as described.

4. A crucible furnace comprising in combination, a crucible support, a crucible mounted on said support, companion furnace sections, hinged supporting means for said sections whereby the same may be swung into and out of surrounding relation with said crucible, and doors on said sections for closing the same when in an open position, substantially as described.

5. A crucible furnace comprising in combination, a crucible support, a crucible mounted on said support, companion furnace sections having furnace chamber portions adapted to register and horizontal removable grate portions adapted to register, and hinged supporting means for said sections whereby the same may be swung into and out of surrounding relation with respect to said crucible, substantially as described.

1,073,913. FORMALDEHYDE FUMIGATING APPARATUS. ROY I. LEACH and ANDREW T. BEALL, Salem, Ohio. Filed Jan. 22, 1913. Serial No. 743,607. (Cl. 167—3.)



1. A disinfecting device comprising a tank, a container within the tank and having portions of its bottom pressed upwardly, a cover for the tank, the upper end of the container being secured in the cover, means for forming an air tight joint between the cover and tank, and means carried by the tank for clamping the cover in position.

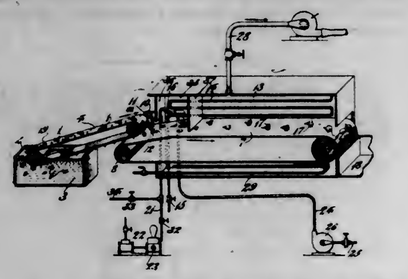
2. A disinfecting device comprising a tank, a spherical cover having a portion thereof positioned in the upper end of the tank, the remaining portion of the cover being perforated, means for forming air tight connections between the cover and tank, a formaldehyde container suspended from the cover and within the tank, and means for securing the cover in position.

3. A disinfecting device comprising a tank, a spherical cover for the tank, the greater portion of the cover being perforated, a formaldehyde container suspended from the remaining portion of the cover and having its reduced upper end secured in said cover, a feed tube within the cover and depending into the upper end of the container, means for closing the upper end of the feed tube, and means for clamping the cover in position and preventing movement of the same.

1,073,914. APPARATUS FOR MATURING IMMATURE AND FROST-BITTEN COTTON-BOLLS. JOHN ELLWOOD LEE, Conshohocken, Pa., assignor to John B. Hall, Philadelphia, Pa. Filed Dec. 5, 1912. Serial No. 735,024. (Cl. 47—36.)

1. An apparatus for maturing immature, unopened or frost bitten cotton bolls, comprising a moisture extracting chamber having a compartment in the forward portion thereof, an endless apron within said chamber adapted to receive said bolls, means for injecting steam upon said bolls within said compartment, and means for regulating the temperature of said moisture extracting chamber.

2. An apparatus for maturing immature, unopened or frost bitten cotton bolls, comprising a moisture extracting chamber, a carrier passing through said chamber, a partition in the forward portion of said moisture extracting chamber whereby a compartment is formed, a nozzle contained within said compartment and adapted to initially discharge steam or a maturing solution upon said bolls, and a second nozzle contained in said compartment adapted to discharge a maturing powder upon said bolls.



3. An apparatus for maturing immature, unopened or frost bitten cotton bolls comprising a moisture extracting chamber, a carrier passing through said chamber, a partition 37 in the forward portion of said moisture extracting chamber whereby the compartment 35 is formed, a nozzle 16 contained within said compartment and adapted to initially discharge steam or a maturing solution upon said bolls, a nozzle 20 contained in said compartment adapted to discharge a maturing powder upon said bolls, and means in said moisture extracting chamber for condensing the moisture so extracted.

4. An apparatus for maturing immature, unopened or frost bitten, cotton bolls, comprising a moisture extracting chamber, a carrier passing through said chamber, a partition 37 in the forward portion of said moisture extracting chamber whereby the compartment 35 is formed, a nozzle 16 contained within said compartment and adapted to initially discharge steam or a maturing solution upon said bolls, a nozzle 20 contained in said compartment adapted to discharge a maturing powder upon said bolls, means in said moisture extracting chamber for condensing the moisture so extracted, and means for controlling the amount of moisture condensed.

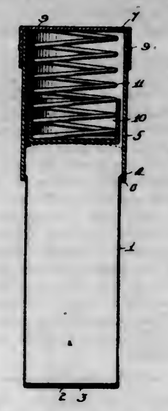
5. In an apparatus for maturing immature or frost bitten cotton bolls, a receptacle adapted to contain a liquid maturing composition and the bolls to be treated, an inclined conveyer mechanism having a portion thereof submerged in said maturing solution and its discharge end located above said receptacle, a moisture extracting chamber having a compartment in the forward portion thereof, an endless apron positioned to receive the bolls as delivered from said inclined conveyer and adapted to carry said bolls through said moisture extracting chamber, means within said compartment for injecting steam upon said bolls, and means for regulating the temperature of said moisture extracting chamber.

[Claims 6 to 19 not printed in the Gazette.]

1,073,915. APPARATUS FOR COOKING MEATS. AUGUSTUS R. LENDNER, Los Angeles, Cal., and FREDERICK BRIGGS, Washington, D. C. Filed June 16, 1911. Serial No. 632,537. (Cl. 53—1.)

1. An apparatus for cooking meat, comprising a shipping can or receptacle, a cylinder detachably connected to the can or receptacle and extending above the upper end thereof, a follower located in the cylinder, and means cooperating with the cylinder for exerting pressure against the follower, substantially as shown and for the purpose set forth.

2. In an apparatus for cooking meat, the combination, of a shipping can or receptacle having a supporting shoulder at its lower end, and a bottom plate resting against said shoulder and slidable in the can; together with a cylinder detachably connected to the can and extending above the upper end thereof, the upper end of said cylinder being closed, a follower located in the cylinder, and a spring interposed between the follower and closed upper end of the cylinder, substantially as shown and for the purpose set forth.



3. In an apparatus for cooking meat, the combination, of a shipping can or receptacle, a cylinder slidable over the can or receptacle to project above the upper end thereof, means for detachably connecting the can and cylinder together, a top detachably connected to the upper end of the cylinder, a follower located in the cylinder, and means, as a spring, interposed between the follower and top of the cylinder, substantially as shown and for the purpose set forth.

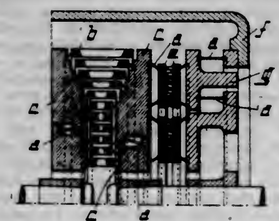
4. An apparatus for cooking meat, comprising a shipping can or receptacle having an inwardly projecting flange at one end and an outwardly projecting flange at the other end, a bottom plate resting loosely upon the inwardly projecting flange, a cylinder fitting over the can and having an inwardly projecting flange at its outer end to engage the outwardly projecting flange on the can, said cylinder forming a continuation of the can and separable therefrom, a follower located in the cylinder, and means coöperating with the cylinder for exerting pressure against the follower.

5. An apparatus for cooking meat, comprising a can or receptacle tapered from one end to the other and having an inwardly-projecting flange at its smaller end, a bottom resting against the flange and slidable in the can, a cylinder fitting over the can and forming an extension at the wider end thereof, means for detachably connecting the cylinder to the can, a cap on the outer end of the cylinder and detachably connected thereto, a follower located in the cylinder, and a spring interposed between the follower and cap, substantially as shown and for the purpose set forth.

1,073,916. STEAM-TURBINE. FREDRIK LJUNGSTRÖM, Liljeholmen, Stockholm, Sweden, assignor to Aktiebolaget Ljungström Ångturbin, Liljeholmen, Stockholm, Sweden. Filed Mar. 24, 1911. Serial No. 616,651. (Cl. 121—60.)

1. In a device of the class described, the combination of a turbine comprising a plurality of parts, and connecting means for said parts comprising link members journaled in said parts and adapted to permit relative expansive and contractive movement of the same when the parts are subjected to unequal temperature.

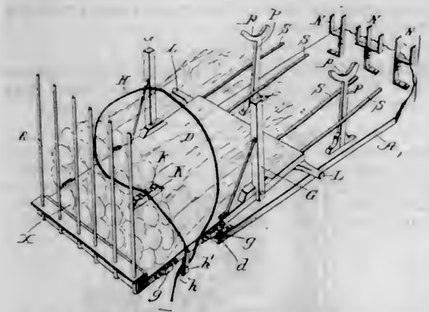
2. In a device of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, and link members having enlarged end portions adapted to be received in the recesses aforesaid to yieldingly connect said parts together.



3. In a device of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, ring members mounted in certain of said recesses, the recesses of other parts having their edge portions bent inwardly, and link members having one end mounted in the rings aforesaid and their other end mounted in the last mentioned recesses, whereby to permit of relative movement of said parts when subjected to unequal temperature.

4. In a device of the class described, the combination of a turbine comprising a plurality of parts having recesses therein, link members having enlarged end portions adapted to be received in the recesses aforesaid, said enlarged portions having openings therethrough, fastening members passing through the parts, and openings in the enlarged portions of the link members to connect said parts together and permit of relative movement of the parts when subjected to unequal temperature.

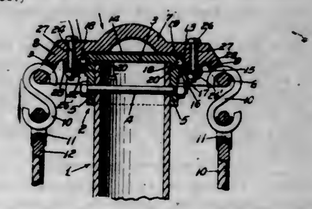
1,073,917. TRUCK FOR FORMING AND DEPOSITING SHOCKS. GEORGE MARSHALL, Fremont, Nebr. Filed Apr. 11, 1913. Serial No. 760,383. (Cl. 56—123.)



1. A shocking truck, comprising a body, a platform hinged to the rear end of the body, and sheaf-bending devices comprising a standard rising from the body for supporting a sheaf, and rods projecting from the platform and extending forwardly therefrom on opposite sides of the standard, the organization being such that when the platform is raised a sheaf may be placed on the standard and when the platform is lowered the rods carried thereby engage the sheaf on opposite sides of the standard and bend it.

2. A shocking truck, comprising a body, a platform hinged intermediate its front and rear ends to the rear end of the body, a standard rising from the body in front of said platform and provided with an enlarged upper end to receive a sheaf, and rods secured to and extending forwardly from the platform on opposite sides of said standard and which move with said platform and assume a position above the standard to permit a sheaf to be placed on said standard and which descend with said platform and bend the sheaf, substantially as described.

1,073,918. GIANT-STRIDE. ORSON H. MASON, Los Angeles, Cal. Filed Mar. 31, 1913. Serial No. 758,061. (Cl. 46—69.)



1. In a giant stride, the combination of a supporting block and a head, one being externally and the other internally grooved to form an annular race-way, antifriction balls in said race-way to revolubly support the head, and means to lock the head upon the supporting block.

2. In a giant stride, the combination with a pole of a supporting block provided with an annular semi-circular external groove, a head provided with an annular quadrantal internal groove, antifriction balls between said grooves and means to lock the head in place on the balls.

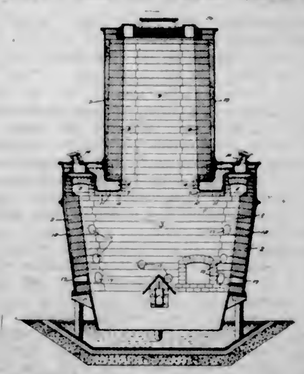
3. In a giant stride, the combination of a supporting block having an annular semi-circular groove, a head and a locking ring provided with annular quadrantal grooves, said latter grooves being adapted to register with said annular semi-circular groove to form an annular race-way; and antifriction balls in said race-way to revolubly support the head.

4. In a giant stride, the combination of a supporting block having an annular semi-circular external groove, a head and a locking ring provided with annular quadrantal internal grooves, said latter grooves being adapted to register with said semi-circular groove to form an annular race-way and antifriction balls in said race-way to revolubly support the head.

5. In a giant stride, the combination of a supporting block having an annular semi-circular groove, a head and locking ring provided with annular quadrantal grooves, said latter grooves being adapted to register with said semi-circular groove to form an annular race-way, antifriction balls in said race-way, and means to maintain the quadrantal grooves of said head and locking ring in register one with another.

[Claims 6 to 10 not printed in the Gazette.]

1,073,919. RECTANGULAR GAS-PRODUCER. REGINALD B. MILDON, Wilkinsburg, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 9, 1910. Serial No. 554,541. (Cl. 48—69.)

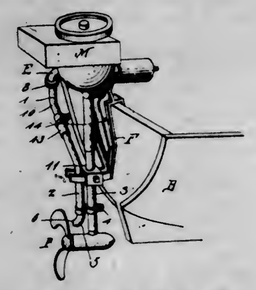


1. A gas-producer having a lower zone rectangular in cross-section, two removable vaporizers on opposite sides

of the lower zone and having flanges at their respective ends whereby said vaporizers are secured to the walls of the lower zone, and an upper zone of less diameter than the lower zone and having said walls supported by the vaporizers.

2. In a gas-producer polygonal in cross section, oppositely located hollow bodies 7 comprising vaporizers supported at their respective ends to opposite lower walls of the producer, the lower edges of said vaporizers resting on the upper edges of the side walls of the producer and upper walls for the producer supported upon the vaporizers.

1,073,920. UNDER-WATER EXHAUST. MILON VAL MILLER, Chicago, Ill. Filed Oct. 28, 1912. Serial No. 728,221. (Cl. 115—17.)



1. The combination with a boat, a motor, an upright framework detachably connected with the stern of the boat, an upright sleeve carried by the framework, and the propeller at the lower end of said sleeve; of an exhaust pipe connected at its upper end with the exhaust of the motor, its body led downward alongside said sleeve, and its lower end having an elbow whose outlet end is directed rearward toward and stands close to the propeller so that rotation thereof sets up suction in said pipe and means for clamping said pipe to said sleeve.

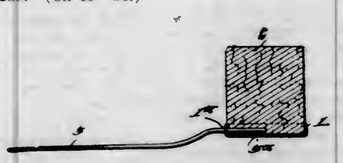
2. The combination with a boat, and a motor therefor including a framework clamped to the stern of the boat, an upright carried by the framework, and the propeller at the lower end of said upright; of an exhaust pipe connected at its upper end with the exhaust of the motor, its body led downward alongside said upright, and its lower end having an elbow whose outlet end is directed rearward toward the propeller, the pipe being made in sections telescoping on each other, a clamp for holding the sections after they are adjusted, and clamps for connecting said sections with the framework and upright.

3. The combination with a boat, and a motor therefor including a framework clamped to the stern of the boat, an upright sleeve carried by the framework, and the propeller at the lower end of said sleeve; of an exhaust made in two sections whose meeting ends are telescopically mounted upon each other, a clamp for holding said ends after they have been adjusted, the upper end of the upper section being connected with the motor-exhaust and the lower end of the lower section being directed to the rear in front of the propeller, means for connecting said sections with the framework and sleeve; the upper section being provided with a relief opening, and means for closing the latter at will.

4. The combination with a boat, and a motor therefor including a framework clamped to the stern of the boat, an upright carried by the framework, and the propeller at the lower end of said upright; of an exhaust made in two sections whose meeting ends are telescopically mounted upon each other, a clamp for holding said ends after they have been adjusted, the upper end of the upper section being connected with the motor-exhaust and the lower end of the lower section being directed to the rear in front of the propeller, means for connecting said sections with the framework; the upper section having elbows within its length throwing its upper extremity out of alinement with the lower section and also being pierced with a relief opening between said elbows, a collar slidably mounted on this section between its elbows and adapted to be moved over said opening, a clamp surrounding said collar, and a set screw through the clamp arms, for the purpose set forth.

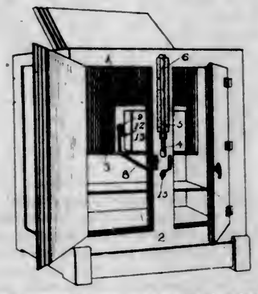
5. The combination with a boat, and a motor therefor including a framework clamped to the stern of the boat, an upright carried by the framework, and the propeller at the lower end of said upright; of an exhaust made in two sections whose meeting ends are telescopically mounted upon each other, means for holding said sections after they have been adjusted, the upper end of the upper section being connected with the motor-exhaust and the lower end of the lower section being directed to the rear, means for connecting said sections with the framework, the upper section having a relief opening, and a collar slidably mounted on this section and adapted to be moved over said opening, for the purpose set forth.

1,073,921. SHAVING-SOAP HOLDER. THOMAS G. MORGAN, Shamokin, Pa. Filed Aug. 9, 1912. Serial No. 714,239. (Cl. 45—28.)



The combination with a cylindrical cake of soap, of a shallow cylindrical cap arranged to fit over one end of the soap, said cap being provided with a pair of perforations on one side, a handle comprising a loop of spring wire, the ends of the handle being arranged to enter through the perforations into the soap for retaining the latter in the cap.

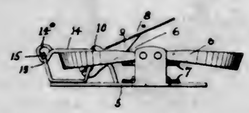
1,073,922. COMBINATION ICE-TANK AND HYDRAULIC SCALE. HANS S. MUNCH, Racine, Wis. Filed July 29, 1912. Serial No. 712,154. (Cl. 73—23.)



1. A tank having therein at a suitable elevation above the bottom thereof a discharge opening, a discharge tube connected with said opening, a valve casing on said tube, a valve arranged in said casing and adapted to be operated to close said opening, a fluid conducting pipe connected with the tank at the bottom thereof, and a gage tube connected with said fluid conducting pipe and having in connection therewith a scale of weight whereby the fluid displaced or raised in the tank by the specific gravity of a body placed therein, will also rise in said tube and the specific gravity or weight of the body placed in the tank thus indicated on the scale.

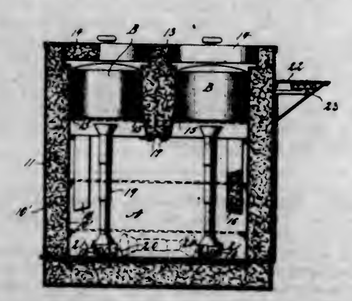
2. In a refrigerator, an ice tank having therein at a suitable elevation above the bottom thereof a fluid discharging opening, laterally-projecting ribs formed on the outer side of said tank, a discharge tube connected with said opening, a valve casing arranged on said tube over said opening, a valve in said casing to open and close said opening, a threaded stem on said valve having a threaded engagement with said casing, a crank handle on said stem, whereby the latter is actuated to open and close the valve, a fluid conducting pipe with the tank at the bottom thereof, and a glass gage tube connected with said fluid conducting tube and extending upwardly on the outer side of the refrigerator to the height of said tank, said tube having in connection therewith a scale of weight beginning at a point on a level with the opening in the tank, whereby when said valve is closed and a piece of ice placed in the tank the fluid therein will be displaced or raised to a height corresponding with the weight of the ice, said fluid rising in said gage tube to a corresponding height, thereby indicating on the scale of measurement the weight or specific gravity of the ice.

1,073,923. GAME-TRAP. SAMUEL R. MUNSON, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed June 5, 1912. Serial No. 701,868. (Cl. 43—23.)



In a game trap, the combination of a base, a pair of spring pressed jaws mounted on said base, a bait pan, a trip device carried by said bait pan, a lug or post extending upward from the base and provided with a slot having its upper edge directed transversely of said lug, and a detent member pivoted to said lug and adapted to cooperate with said trip device in confining one of said jaws, said detent comprising a bar having a wide loop passing loosely through said slot and embracing the upper end portion of said lug, said loop having a V-shaped portion or seat which is pressed by said jaw into engagement with the upper edge of said slot substantially throughout the width of the loop; substantially as described.

1,073,924. COMBINED FIRELESS COOKER AND RANGE. VIGGO W. PALLESEN, Collegeview, Nebr., and JUNIUS PAULSON, Hutchinson, Minn.; said Paulson assignor to said Pallesen. Filed Jan. 9, 1911, Serial No. 601,764. Renewed Feb. 11, 1913. Serial No. 747,801. (Cl. 126—39.)



1. A stove having walls of non-conductive material and comprising a main compartment, a source of heat for said compartment, auxiliary compartments having openings in the bottoms thereof located above said main compartment, a door pivotally mounted at the bottom of each auxiliary compartment and adapted to close the bottom of same, and pivotally mounted collapsible tubes over said source of heat for conducting heat directly to each of said latter compartments.

2. A stove having walls of non-conductive material and comprising a main compartment, a source of heat adjacent to the base of said main compartment, auxiliary compartments having openings in the bottoms thereof located above the main compartment, means for isolating the auxiliary compartments from the main compartment, and means above said source of heat for directly conducting heat to the auxiliary compartments and movable bodily in the main compartment to permit the heat to pass directly into the latter when isolated from the aforementioned auxiliary compartments.

3. A stove having walls of non-conductive material and comprising a main compartment, burners in the bottom of said main compartment, auxiliary compartments having openings in the bottoms thereof located above said main compartment, a door pivotally mounted at the bottom of each auxiliary compartment and adapted to close the bottom of same, collapsible tubes mounted over said burners for directly conducting heat to each of said auxiliary compartments, means for holding said doors in a horizontal position whereby each auxiliary compartment may be isolated from the main compartment, means for holding said tubes in a vertical position, and a door for said main compartment.

4. A stove having walls of non-conductive material and comprising a main compartment, burners in the bottom of said main compartment, auxiliary compartments having openings in the bottoms thereof located above said main compartment, a door pivotally mounted at the bottom of each auxiliary compartment and adapted to close the bottom of same, collapsible tubes mounted over said burners for directly conducting heat to each of said auxiliary compartments, means for holding said doors in a horizontal position whereby each auxiliary compartment may be isolated from the main compartment, means for holding said tubes in a vertical position, a door for said main compartment, and means for supporting shelves in said main compartment.

5. A stove having walls of non-conductive material and comprising a main compartment, burners located in the bottom of said compartment, auxiliary compartments having openings in the bottoms thereof located above the main compartment and having flanges about their lower sides for supporting vessels therein, a door pivotally mounted at the bottom of each auxiliary compartment and adapted to close the bottom of same, collapsible tubes flared at their opposite ends pivotally mounted over said burners and adapted to conduct heat directly to said auxiliary compartments, a spring catch to hold said tube in a vertical position when the door of the corresponding auxiliary compartment is open, a catch for holding the door in a horizontal position when it is desired to isolate the auxiliary compartment, flanges disposed on the opposite sides of the main compartment for supporting shelves, and a door for said latter compartment.

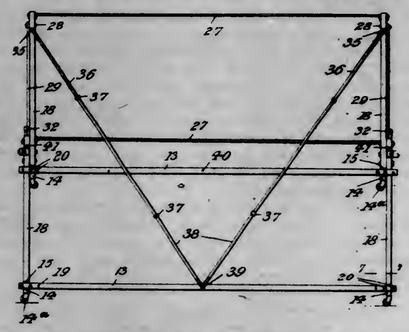
1,073,925. SCAFFOLD. STEPHAN PICHLER, Brooklyn, N. Y. Filed Oct. 17, 1912. Serial No. 726,192. (Cl. 20—81.)

1. A scaffold comprising a plurality of corner uprights, platform-sustaining means carried thereby, a base frame composed of a pair of longitudinal beams and a pair of cross beams that are secured to the ends of the longitudinal beams, said frame being adapted to encompass the uprights and to be slidable along the same, and means for detachably securing the frame to the uprights at an elevation above the lower ends thereof.

2. A scaffold unit comprising a base-frame, a plurality of yokes carried thereby, means for setting said yokes either vertically above or sidewise of part of said frame, a plurality of uprights encompassed by said yokes, and platform-sustaining means carried by said uprights.

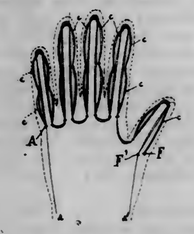
3. A scaffold unit comprising a base-frame, composed of longitudinal and transverse beams, one set of said beams

having yoke receiving means above and also sidewise of the other set of beams, yokes adapted to engage either of



said means, uprights encompassed by said yokes, and platform-sustaining means carried by said uprights.

1,073,926. ELECTRICALLY-HEATED GARMENT. ANTON POLLÁK, Paris, France. Filed Mar. 12, 1912. Serial No. 683,401. (Cl. 219—46.)



1. An article of clothing which for the purpose of electrical warming is provided with insulated flexible conductors serving as heating bodies, said conductors being arranged loose alongside of each other and fastened at only a few points, to one of the layers of the article so that their freedom of movement is preserved as far as possible and the extensibility of the article is substantially undiminished.

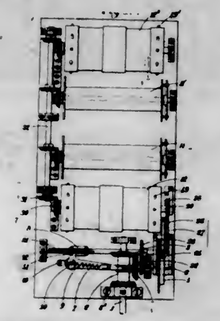
2. An article of clothing which for the purpose of electrical warming is provided with flexible conductors serving as heating bodies, said conductors being of a material of low specific electrical resistance and of very small cross-section, and a plurality of insulating layers imparting to each of said conductors greater mechanical strength and high insulation, in order with complete pliability, lightness and comparatively great length to be able to employ a current of low electric potential.

3. An article of clothing formed in a plurality of layers and which for the purpose of electrical warming is provided with insulated flexible conductors serving as heating bodies, said conductors being arranged in groups and being attached only at a few points loosely to one of said layers, so that the conductors, on stretching the garment, can slide in the direction of the stretching and thereby not be strained in the pulling, but can spread out between the two portions.

4. An article of clothing which for the purpose of electrical warming is provided with flexible conductors, serving as heating bodies, said conductors being connected in parallel groups, and in greater number than is necessary for attaining the designed heating effect, in order to be able to employ the superfluous conductors as substitutes for the conductors which become useless.

5. An article of clothing which for the purpose of electrical warming is provided with insulated flexible conductors serving as heating bodies, said conductors being arranged loose alongside of each other and fastened at only a few points, to one of the layers of the article so that their freedom of movement is preserved as far as possible and the extensibility of the article is substantially undiminished, the distribution of the wires being un-uniform, so that those portions of the organs covered by the garment which are less exposed to the cold, are less heated.

1,073,927. AUTOMATIC ADVERTISING APPARATUS. RICHARD POPP, Paris, France. Filed July 17, 1912. Serial No. 709,908. (Cl. 40—31.)



1. An advertising apparatus comprising winding rollers, guide rollers, a web associated with said winding and guide rollers, mechanical connections between the shafts of all of said rollers for driving the same, radially directed arms secured to the shafts of the winding rollers, and springs connecting said winding rollers and said radially directed arms.

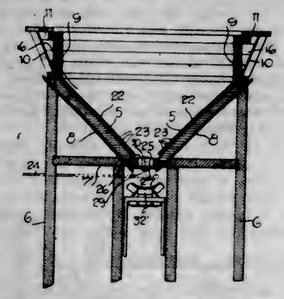
2. An advertising apparatus comprising winding rollers, guide rollers, a web associated with said winding and guide rollers, means to actuate one of said rollers, direct mechanical connections between the shafts of all of said rollers to actuate the same simultaneously, radially directed arms secured to the shaft of the winding rollers, and springs connecting said winding rollers with said radially directed arms.

3. An advertising apparatus comprising winding rollers, guide rollers, mechanical means for driving all of said rollers, a reversing mechanism associated with the driving means comprising a shiftable reversing sleeve, a pivoted lever having connection with said sleeve, means to actuate said lever comprising a worm shaft, a traveler adapted to be shifted longitudinally of and by the worm shaft, said traveler provided with shoulders thereon and said lever adapted to be engaged by said shoulders on the traveler to shift the reversing sleeve, a second lever pivotally connected to said first-named lever and directed away therefrom, means to guide the free end of said second lever, and resilient means connecting the opposite ends of said levers whereby said sleeve is normally held in its extreme shifted position.

1,073,928. ORE-CONCENTRATOR. MARION L. PORTER, Silverton, Colo. Filed May 12, 1913. Serial No. 767,170. (Cl. 210—5.)

1. In an ore concentrator, a receiving tank for the mineral impregnated liquid, collecting plates for the mineral particles arranged in the tank, a discharge pipe connected to the tank to withdraw the water therefrom, and means for heating said plates to dry the concentrates.

2. In an ore concentrator, a tank to receive the mineral impregnated liquid, mineral collecting plates arranged in said tank in spaced relation to the side walls thereof, a discharge pipe connected to the tank to withdraw the liquid therefrom, and heating pipes arranged between said plates and the tank walls to heat the plates and dry out the concentrates.



3. In an ore concentrator, a receiving tank for the mineral impregnated liquid, mineral collecting plates arranged in said tank, a discharge pipe connected to the tank to withdraw the liquid therefrom, and steam pipe coils contiguously related to said plates to heat the same and dry out the concentrates.

4. In an ore concentrator, a tank to receive the mineral impregnated liquid, said tank having convergently disposed side walls and outlet openings in its bottom between said side walls, a discharge pipe connected to the tank to withdraw the liquid therefrom, and means arranged between the inclined walls of the tank and said plates to heat the plates and dry out the concentrates whereby the same will gravitate downwardly to the openings in the bottom of the tank.

5. In an ore concentrator, a tank to receive the mineral impregnated liquid, said tank having convergently disposed side walls and openings in its bottom between the lower ends of the side walls, mineral collecting plates arranged in spaced relation to the upper surfaces of said side walls, steam pipe coils arranged between said plates and the side walls of said tank, a common supply pipe connected to said coils whereby the plates may be heated to dry out the concentrates settling thereon, a plurality of valved outlets for the tank and a common discharge pipe connected thereto, the concentrates gravitating downwardly upon the collecting plates through the openings in the bottom of the tank, and a conveyer arranged beneath said openings to receive the concentrates.

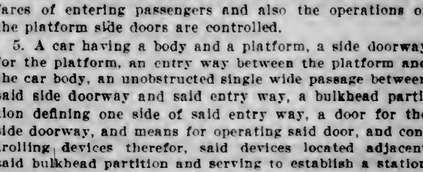
[Claims 6 and 7 not printed in the Gazette.]

1,073,929. PROCESS OF DECAFFEINATING NATURAL BEANS. NATHAN ROSEWATER, Cleveland, Ohio. Filed Nov. 1, 1912. Serial No. 728,995. (Cl. 99—11.)

1. The herein described process of treating natural beans containing caffein and other xanthins for the purpose of substantially eliminating therefrom said caffein and other xanthins, which consists in first subjecting the same to the influence of dry heat of a temperature sufficient to sterilize the beans, and in agitating said beans in contact with one another whereby they are decorticated; in dissolving out of the sterilized and decorticated beans the caffein and other xanthins together with other soluble constituents of the beans; and in subsequently restoring to the beans by absorption the removed constituents other than caffein and other xanthins.

2. The herein described process of treating natural beans containing caffein and other xanthins for the purpose of substantially eliminating therefrom said caffein and other xanthins, which consists in first subjecting the same to the influence of dry heat of a temperature sufficient to sterilize the beans, and in simultaneously agitating said beans in contact with one another whereby they are decorticated; in next macerating said sterilized and decorticated beans in cold water as many times as may be necessary to produce cold water extracts of approximately all of the cold water soluble constituents of the beans; in subsequently macerating said beans in hot water thereby producing a hot water extract of the caffein and other xanthins; in then drying the beans; in subsequently causing the dried beans to absorb the cold water extract; and in finally drying said beans.

1,073,930. PASSENGER-CAR-DOOR MECHANISM. HAROLD ROWNTREE, Kenilworth, Ill. Filed Sept. 30, 1910. Serial No. 584,624. (Cl. 105—205.)



1. A car having a body and a platform, a side doorway for the platform, a door therefor, a single wide unobstructed passage between the platform side doorway and the car body for use in common of entering and leaving passengers, and means for moving the door to open or closed position, said means located at the side of said passage opposite and farthest from the doorway and serving to establish a station at which the conductor collects the fares of entering passengers and also controls the operation of the platform side doors.

2. A car having a body and a platform, a side doorway for the platform, a door therefor, a single wide unobstructed passage between the platform side doorway and the car body for the use in common of entering and leaving passengers, said passage extending the full width of the car body space where merging with the platform, means for operating said door, and controlling devices therefor, said controlling devices located at the side of said passage and serving to establish a station at which the conductor collects the fares of entering passengers and also controls the operation of the platform side doors.

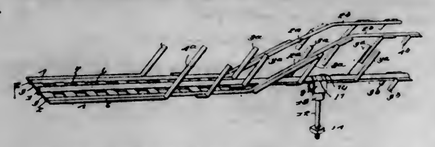
3. A car having a body and a platform, a side doorway for the platform, a door therefor, a single wide unobstructed passage between the platform side doorway and the car body for the use in common of entering and leaving passengers, said passageway extending the full width of the car body space where merging with the platform, means for operating said door, and controlling devices therefor, said controlling devices being located at the side of said passageway opposite and farthest removed from the platform side doorway and serving to establish a station at which the conductor collects the fares of entering passengers and also controls the operation of the platform side doors.

4. A car having a body and a platform, a side doorway for the platform, an entry way between the platform and car body, an unobstructed single wide passage between said side doorway and said entry way, a door for the side doorway, and means for operating said door, said means being controllable from a point located at one side of said passage, and adjacent said entry way and serving to establish a station at which the collection of fares of entering passengers and also the operations of the platform side doors are controlled.

5. A car having a body and a platform, a side doorway for the platform, an entry way between the platform and the car body, an unobstructed single wide passage between said side doorway and said entry way, a bulkhead partition defining one side of said entry way, a door for the side doorway, and means for operating said door, and controlling devices therefor, said devices located adjacent said bulkhead partition and serving to establish a station at which the collection of fares of entering passengers and also the operation of the platform side doors are controlled.

[Claims 6 and 7 not printed in the Gazette.]

1,073,931. CONCRETE REINFORCEMENT. GROVER C. ROYSE, Tacoma, Wash. Filed Sept. 20, 1912. Serial No. 721,423. (Cl. 72—113.)



1. A system of concrete girder reinforcement comprising a structure composed of a central and lateral bars, and webs between the bars and on the outer side of the lateral bars, the cross section of the said central bar and the adjacent webs being equal to the aggregate cross section of the lateral bars and the webs lying at the outer side of the said bars, to permit the lateral bars and the outermost webs to be separated and raised above the level of the central bar and the adjacent webs at the ends of the structure without increasing or diminishing the aggregate amount of metal at any portion of the said structure.

2. A system of concrete girder reinforcement comprising a metallic structure composed of a central and lateral bars and webs between the bars and at the outer side of the lateral bars, said webs being of equal cross section throughout the length of the structure, and the central bar being of a cross section equal to the aggregate cross section of the lateral bars throughout the length of the structure, to permit the lateral bars and the outermost web to be displaced laterally with respect to the central bar and the adjacent webs without increasing or diminishing the amount of metal in any portion of the length of the bar.

1,073,932. PROCESS FOR THE MANUFACTURE OF FLUORESCENT SUBSTANCES. GEORG RUPPERCHT, Hamburg, Germany. Filed Dec. 16, 1911. Serial No. 666,209. (Cl. 23—13.)

1. As a new article of manufacture, a fluorescent substance comprising an artificially produced basic salt of a refractory salt forming acid, and one of the earth metals of the zinc group of the periodic system, and a small percentage of a modifying agent.

2. As a new article of manufacture, a fluorescent substance consisting of an artificially produced basic silicate of one of the earth metals of the zinc group of the periodic system and a small percentage of a modifying agent.

3. As a new article of manufacture, a fluorescent substance comprising an artificially produced basic zinc salt of a refractory salt forming acid, and a small percentage of a modifying agent.

4. As a new article of manufacture, a fluorescent substance comprising artificially produced basic zinc silicate and a small percentage of a modifying agent.

5. As a new article of manufacture, a fluorescent substance comprising an artificially produced basic zinc salt and an artificially produced basic cadmium salt of a refractory salt forming acid, and a small percentage of a modifying agent.

[Claims 6 to 15 not printed in the Gazette.]

1,073,933. HEATING-IRON. PETER SANTURELLO, Columbus, Ohio. Filed Aug. 15, 1912. Serial No. 715,213. (Cl. 132—19.)

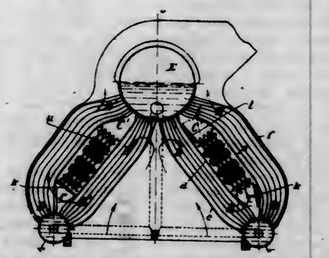


1. A heating iron for use in forming Marcel waves comprising a central stem, and a plurality of prongs extending from both sides of said stem, said stem and said prongs being of approximately cylindrical formation.

2. A heating iron for use in forming Marcel waves comprising two main sections, said sections being each formed of a central stem and a plurality of prong sections extending from both sides of each of the stems in staggered relation, each of the said stems and prong sections being of approximately semi-cylindrical hollow formation, a handle, and electric heating means disposed in the hollow portions formed when the said sections are in superimposed position.

3. A heating iron for use in forming Marcel waves comprising a central stem, a plurality of prongs extending from both sides of said stem in staggered relation, said stem and said prongs being of substantially cylindrical formation, a handle, heating means, and guard members for preventing the hair from sliding off the ends of said prongs.

1,073,934. SUPERHEATER FOR WATER-TUBE BOILERS. WILHELM SCHMIDT and PETER THOMSEN, Wilhelmshöhe, near Cassel, Germany, assignors to Schmidt'sche Heissdampf Gesellschaft, M. B. H., Cassel, Germany, a Corporation of Germany. Filed Feb. 7, 1910. Serial No. 542,595. (Cl. 122—473.)



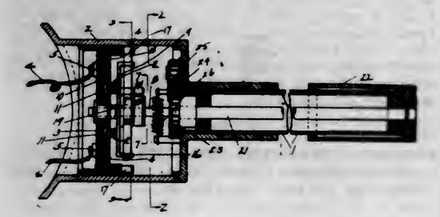
1. In a water tube boiler comprising upper and lower drums connected by sets of water tubes each of which sets is arranged to provide a plurality of flues, a set of said tubes having some tubes bent away from others so as to provide a special flue adapted to be paralleled with an adjacent flue of the same set, a superheater within said special flue, and a regulating damper at an end of said parallel flues.

2. In a water tube boiler comprising upper and lower drums connected by sets of water tubes each of which sets is arranged to provide a plurality of flues, a set of said tubes having some tubes bent away from others so as to provide a special flue adapted to be paralleled with an adjacent flue of the same set, a superheater within said special flue, and a regulating damper at an end of said parallel flues, the area of said damper corresponding to the section of the special flue and being less than that of the aforesaid adjacent flue.

3. In a water tube boiler comprising upper and lower drums connected by sets of water tubes, each of which sets is arranged to provide a plurality of flues, a set of said tubes having some tubes bent away from others so as to provide a special flue adapted to be paralleled with an adjacent flue of the same set, a superheater within said special flue and a regulating damper at an end of said parallel flues, said damper being arranged to completely shut off the superheater flue when in one of its limiting positions and to incompletely shut off the aforesaid adjacent flue when in the other of its limiting positions.

4. In a water tube boiler comprising upper and lower drums connected by sets of water tubes arranged to form three serially disposed flues, the arrangement of the water tubes so as to constitute a central flue such that some tubes are bent away from others to provide a special flue in parallel with an adjacent flue also formed out of the central flue, a superheater within said special flue, and a damper at an end of said central flue for regulating the relative amounts of fire gases which shall pass through the two sections of the central flue, said damper being arranged to completely shut off the special flue when in one of its limiting positions and to incompletely shut off the aforesaid adjacent flue belonging to the central flue when in its other limiting position.

1,073,935. ELECTRIC SWITCH. FRANKLIN SCHNEIDER, Cleveland, Ohio, assignor to The Van Dorn and Dutton Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 13, 1911. Serial No. 608,381. (Cl. 175—290.)



1. In a device of the character described, the combination of two spaced contacts; a movable piece adapted to bridge said contacts; tension means for effecting, and a catch for restraining, such movement; a spring tending to hold said catch in its restraining position; and means adapted to render said tension means operative and thereupon release said catch.

2. In a device of the character described, the combination of two spaced contacts; a rotatable piece adapted to bridge said contacts; a coil spring adapted, when wound up, to effect rotation of said bridge piece; a catch adapted to restrain such rotation; a spring tending to hold said catch in its restraining position; and means adapted to wind up said spring and thereupon release said catch.

3. In a device of the character described, the combination of a base of suitable material; two spaced contacts mounted thereon; a member rotatably mounted between said contacts; a piece carried by said member and adapted to bridge said contacts, said piece being movable relatively to said member; and resilient means, interposed between said member and piece, adapted to press the latter against said contacts.

4. In a device of the character described, the combination of a base of suitable material; two spaced contacts mounted thereon; a member rotatably mounted between said contacts; a piece carried by said member and adapted to bridge said contacts, said piece being movable relatively to said member; resilient means, interposed between said member and piece, adapted to press the latter against said contacts; a coil spring adapted, when wound up, to effect rotation of said member, and thus of said bridge piece; a catch adapted to restrain such rotation; and means adapted to wind up said spring and thereupon release said catch.

5. In a device of the character described, the combination of a base of suitable material; two spaced contacts mounted thereon; a member rotatably mounted between said contacts; a piece carried by said member and adapted to bridge said contacts, said piece being movable relatively to said member; resilient means, interposed between said member and piece, adapted to press the latter against said contacts; a coil spring adapted, when wound up, to effect rotation of said member, and thus of said bridge piece; a series of stops alternately corresponding with "on" and "off" positions of said piece; a reciprocable catch adapted to engage successive stops to restrain rotation of said member; and a spindle adapted to wind up said spring and thereupon reciprocate said catch to release the same.

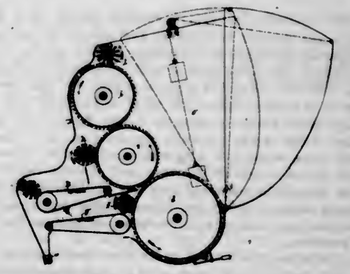
[Claims 6 to 10 not printed in the Gazette.]

1,073,936. ADJUSTABLE LIQUID-ATOMIZER. ROBERT SCHORR, San Francisco, Cal., assignor to Moore-Scott Iron Works, San Francisco, Cal., a Corporation of California. Filed Apr. 5, 1912. Serial No. 688,792. (Cl. 137—86.)



In an atomizer for liquid fuel, the combination with a casting provided with an inlet and outlet opening for the liquid to be atomized, of a tubular body extended from the outlet opening of the casting, a perforated nozzle tip provided with an interior chamber secured to the outer end of the tubular body, a co-axial cylindrical atomizing plug provided with fluid passages extended tangentially at their outer ends, said plug being longitudinally movable relative to the nozzle tip, a strainer within the casting, a perforated plate for holding the strainer in position, a stem extended from said plug through the tubular body, strainer and perforated plate for adjusting the position of the atomizing plug to vary the quantity of liquid passing therethrough to the nozzle tip, an insertion opening within the casting, and means for closing said opening to protect the adjustable stem for the atomizing plug.

1,073,937. TOBACCO-DELIVERY APPARATUS FOR CIGARETTE-MACHINES. EDUARD SCHÜRMANN, Koetzschenbroda, near Dresden, Germany. Filed Apr. 3, 1912. Serial No. 688,149. (Cl. 131—39.)



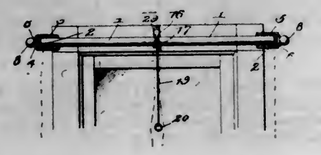
1. In a tobacco delivery apparatus for cigarette-machines, in combination with a tobacco receiving receptacle, a central working-roller constantly rotating and provided with cards slanting in the direction of its rotary movement, a delivery-roller arranged to intermittently rotate below the constantly rotating working-roller and provided with cards slanting in an opposite direction to its rotary movement and means for taking off and delivering the fibrous tobacco, substantially as and for the purpose specified.

2. In a tobacco delivery-apparatus for cigarette-machines in combination with a tobacco receiving receptacle, a central working-roller constantly rotating and provided with cards slanting in the direction of its rotary movement, a brush-roller taking the fibrous tobacco from said roller, a delivery roller arranged to intermittently rotate below the constantly rotating working roller and provided with cards slanting in an opposite direction to its rotary movement, a brush-roller taking the fibrous tobacco from said delivery roller, an equalizing roller rotating together with and above the working-roller and scraping off the superfluous tobacco from the central working-roller and a brush-roller scraping off the tobacco from said equalizing-roller back to the tobacco supply, substantially as and for the purpose specified.

3. In a tobacco delivery-apparatus for cigarette-machines, in combination with a tobacco receiving receptacle, a central working-roller, a brush-roller taking the fibrous tobacco from it, an endless traveling band receiving the long fiber tobacco from said working-roller, a delivery-roller, a brush-roller taking the fibrous tobacco from it and an endless traveling band receiving the short fiber tobacco from said delivery-roller, substantially as and for the purpose specified.

4. In a tobacco delivery-apparatus for cigarette-machines, in combination with a tobacco receiving receptacle, a central working-roller, constantly rotating and provided with cards slanting in the direction of its rotary movement, a brush-roller taking the long fiber tobacco from said working-roller, an endless traveling band receiving said tobacco from the working-roller, a delivery-roller arranged to intermittently rotate below the constantly rotating working roller and provided with cards slanting in an opposite direction to its rotary movement, a brush-roller taking the short fiber tobacco from it, and an endless traveling band receiving said tobacco from the delivery-roller, substantially as and for the purpose specified.

1,073,938. CURTAIN-POLE. STANISLAUS SOBOCIENSKI, Newark, N. J. Filed Mar. 13, 1913. Serial No. 754,116. (Cl. 156—22.)



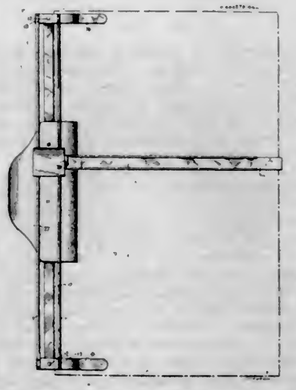
1. The combination with a window frame, of a hollow curtain pole formed in sections and having in the underside thereof longitudinally extending slots, means to hingedly connect the outer ends of said sections to the window frame, curtain attaching rods arranged in said sections, means to pivotally secure the outer end of said rod therein, cap plates hingedly secured to the inner ends of said sections, cross levers pivotally mounted on the inner side of said caps, segmental plates secured to the lower ends of said levers whereby the free end of said curtain rod may be held in an adjusted position or released to attach a curtain thereto, and means on said window frame whereby the meeting ends of said curtain pole may be held in a fixed position.

2. A curtain pole formed in sections each having on its outer end the movable member of a hinge connection comprising a cap plate, a bearing plate secured thereto and having its ends turned outwardly above and below the cap plate and apertured to form bearing lugs, a bearing sleeve secured to the outer side of said cap plate in line with the apertured lugs thereof, a stationary hinge member comprising an open right angular offset frame adapted to be secured at one end to the window frame, pintles formed on the opposite end of said frame to engage the apertured bearing lugs and the bearing sleeve on the cap plate of the pole section whereby said section is adapted to be swung inwardly and outwardly to support a curtain in front of or to one side of a window.

3. A curtain pole formed in sections hingedly connected at their outer ends to a window frame and offset therefrom, a bracket secured to the window frame opposite the meeting inner ends of the sections of the pole when the latter are swung inwardly to an operative position for supporting the curtains in front of the window, said bracket comprising a spring metal plate secured at its inner end to the window frame and having its outer end projecting downwardly and turned upwardly to form a seat for the inner ends of the pole sections and a flexible element whereby the curved outer end of the bracket is sprung downwardly to permit the ends of the pole sections to be engaged with and disengaged therefrom.

4. A curtain pole comprising hollow sections hingedly connected to and offset at their inner ends from a window frame and having in their under sides longitudinal slots, cap plates secured to the inner ends of said sections, a curtain attaching rod arranged in each of said hollow sections, means to hingedly connect the outer ends of said rods to the outer ends of the sections of the pole, pairs of crossed levers pivotally connected to the inner side of the cap plates on the inner ends of said sections and extending upwardly above the sections, segmental plates arranged on the inner ends of said levers and adapted to be swung inwardly by said levers to engage and support the free ends of said attaching rods whereby the latter are held in position in the hollow sections of the pole to attach a curtain thereto and whereby when said segmental plates are swung outwardly by said levers the free end of the attaching rods are released to permit the rods to swing out through the slot in the bottom of the sections of the pole whereby the curtains may be removed from said attaching rods.

1,073,939. LINE-GUIDE FOR COPYISTS. WILLIAM CHARLES SPEDDEN, Colville, Wash. Filed Jan. 4, 1913. Serial No. 740,143. (Cl. 120—33.)

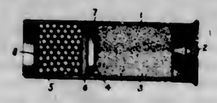


1. A line guide, comprising an elongated supporting frame having a clamp between its ends for securing it in place on a book or other support, and posts extending upwardly near the ends of the said frame, a second frame removably engaging the said posts and ranging longitudinally above the clamp, and a lateral guide arm having sliding connection with the said second frame for movement longitudinally of the latter.

2. A line guide, comprising a supporting frame having end posts rising therefrom, the posts being provided with shoulders thereon at points between the upper and lower ends of the posts, a clamp on the supporting frame between said posts and below the plane of the mentioned shoulders, a second frame having end members removably fitting the posts of the supporting frame and resting on the shoulders of the posts, and a slide on the second frame, said slide having a lateral line-guide arm.

3. A line guide, comprising a supporting frame having end posts rising therefrom, the posts being provided with shoulders thereon at points between the upper and lower ends of the posts, a clamp on the supporting frame between said posts and below the level of the mentioned shoulders, a second frame having end members removably fitting the posts of the supporting frame and resting on the shoulders of the posts, said second frame having bearing arms near the ends projecting laterally to bear on the surface of the book or other support, and a slide movable on the said second frame between the end members and bearing arms thereof, said slide having a lateral line-guide arm.

1,073,940. SHOT-CARTRIDGE. EVERETT M. SWEELEY, Twin Falls, Idaho. Filed July 9, 1912. Serial No. 708,443. (Cl. 102—42.)



1. In a cartridge, in combination, a shell, an explosive charge near the bottom of the shell, a shot charge near the top of the shell, a wad at the bottom of the shot charge and a gas check between the wad and the explosive charge, said check consisting of a metal disk having a wide, central recess on the side facing the wad, and an annular, approximately-peripheral depression on the other side, and a cylindrical, peripheral flange adapted to engage the gun bore.

2. In a cartridge, in combination, a shell, an explosive charge near the bottom of the shell, a shot charge near the top of the shell, a wad at the bottom of the shot charge and a gas check between the wad and the explosive charge, said check consisting of a metal disk having a wide, central recess on the side facing the wad, and an annular, approximately-peripheral depression on the other side, and a cylindrical, peripheral flange terminating in a free edge at the side of the disk toward the explosive charge, the flange on the side next to the wad being continuous with the body of the disk and forming an annular, approximately-peripheral base engaging the wad, said cylindrical flange being adapted to engage the gun bore upon firing.

3. As a new article of manufacture, a gas check for guns and the like, consisting of a disk of sheet-metal, having on one side a wide, central depression and on the other side an annular, approximately-peripheral depression and adapted to closely engage a gun-bore, the disk having also a peripheral, cylindrical flange immediately surrounding said annular depression.

4. As a new article of manufacture, a gas check for guns and the like, consisting of a disk of sheet-metal, having on one side a wide, central depression and on the other side an annular, approximately-peripheral depression, the disk having also a peripheral, cylindrical flange surrounding said annular depression, said flange terminating in a free edge at the side of the disk which has said annular depression, said flange at the opposite side being continuous with the body of the disk and forming an annular, approximately-peripheral base adapted to rest against a projectile charge.

5. As a new article of manufacture a check for guns and the like, consisting of a thin metallic dish-shaped body having outwardly flaring sides and provided with a circumferential cylindrical annular flange extending from said sides in direction of the bottom of the body and terminating in a free edge lying approximately in the plane of the bottom, said flange standing at right angles to the bottom and forming with the sides an annular V-shaped groove, said body being adapted to be placed wholly within a bore with its flange engaging throughout its length the inner surface of said bore, whereby the said body will be expanded by the exploding gases and the said gases prevented from escaping.

1,073,941. PRIMING COMPOSITION AND METHOD OF PREPARING THE SAME. MAURICE R. SWOPE, Alton, Ill. Filed Apr. 23, 1913. Serial No. 763,071. (Cl. 52—2.)

1. A process of producing a priming composition, which consists in preparing a mixture of gun cotton and amorphous phosphorus, allowing the said mass to dry, powdering the same, and mixing therewith potassium chlorate and antimony sulfid.

2. A priming composition containing gun cotton and amorphous phosphorus, potassium chlorate and antimony sulfid.

3. A priming composition containing the following ingredients in substantially the proportions stated: Gun cotton 20 parts; amorphous phosphorus 5 parts; potassium chlorate 37.5 parts; antimony sulfid 37.5 parts.

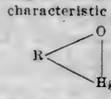
1,073,942. PHARMACEUTICAL PRODUCT. LUDWIG TAUB, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Mar. 2, 1912. Serial No. 681,302. (Cl. 23—24.)

1. As new products, mercuric compounds of unsulfonated phenols substituted in the nucleus by at least two substituents containing in the shape of the anhydrids in their molecule the characteristic group:



in which R stands for an unsulfonated polysubstituted benzene nucleus, which are whitish crystalline compounds soluble in dilute alkalis forming salts, insoluble in water, ether and benzene, splitting off $HgCl_2$ on being boiled with hydrochloric acid; and being valuable disinfectants, substantially as described.

2. As new products, mercuric compounds of unsulfonated phenols substituted in the nucleus by at least two substituents containing in the shape of the anhydrids in their molecule the characteristic group:



in which R stands for an unsulfonated alkyl substituted benzene nucleus, which are whitish crystalline compounds soluble in dilute alkalis forming salts, insoluble in water, ether and benzene, splitting off $HgCl_2$ on being boiled with hydrochloric acid; and being valuable disinfectants, substantially as described.

3. As new products, mercuric compounds of unsulfonated phenols substituted in the nucleus by at least two substituents containing in the shape of the anhydrid in their molecule the characteristic group:



in which R stands for a polyalkyl substituted benzene nucleus, which are whitish crystalline compounds soluble in dilute alkalis forming salts, insoluble in water, ether and benzene, splitting off $HgCl_2$ on being boiled with hydrochloric acid; and being valuable disinfectants, substantially as described.

4. As new products, mercuric compounds of unsulfonated phenols substituted in the nucleus by at least two substituents containing in the shape of the anhydrids in their molecule the characteristic group:



in which R stands for a polymethyl substituted benzene nucleus, which are whitish crystalline compounds soluble in dilute alkalis forming salts, insoluble in water, ether and benzene, splitting off $HgCl_2$ on being boiled with hydrochloric acid; and being valuable disinfectants, substantially as described.

5. As new products, mercuric compounds of unsulfonated phenols substituted in the nucleus by at least two substituents containing in the shape of the anhydrids in their molecule the characteristic group:

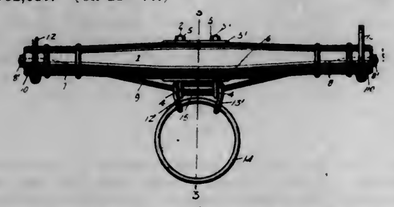


in which R stands for a dimethyl substituted benzene nucleus, which are whitish crystalline compounds soluble

in dilute alkalis forming salts, insoluble in water, ether and benzene, splitting off $HgCl_2$ on being boiled with hydrochloric acid; and being valuable disinfectants, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,073,943. NECK-YOKE. ORRIN TOWNER, Creston, British Columbia, Canada. Filed Nov. 21, 1912. Serial No. 732,686. (Cl. 21—77.)



1. A neck yoke comprising a bar, a rod secured at either end to said bar, bolts carried by said bar, said bolts having eyes at their lower ends encircling said rod, means carried by said rod for spacing said lower ends, and means carried by said rod for connecting said yoke to a wagon tongue.

2. A neck yoke comprising a bar, bolts carried by said bar at each side of its longitudinal center, said bolts being looped at their lower ends, a brace rod passing through the loops of said bolts and having its ends secured to said bar, means encircling said rod for spacing said bolts, links carried by said rod to either side of said spacing means, and a ring carried by said links for supporting a pole.

3. A yoke comprising a bar having bores, bolts extending through the central portion of said bar, each of said bolts having an eye and a screw threaded portion, guard members supported by said bolts, a bracing rod having its ends extending through the respective bores and the central portion thereof extending through the eyes of the bolts, ring supporting members on the respective ends of said bar, links supporting a relatively large ring, associated with said rod, and means for holding the bolts in spaced relation, as and for the purpose specified.

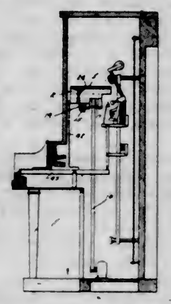
4. A yoke comprising a bar having bores, bolts extending through the bar, one end of each of said bolts being bent to form an eye, a rod having its ends extending through the respective bores, and the central portion of said rod being supported by the said bolts, and a tubular member for holding the eyes of the said bolts in spaced relation, as and for the purpose specified.

5. A neck yoke comprising a bar, a rod secured at either end to said bar, bolts carried by said bar to either side of its longitudinal center, said bolts having looped lower ends encircling said bar, a thimble carried by said bar for spacing said bolts, links carried by said bar to either side of said thimble, said links having inwardly bent lower portions, and a pole supporting ring carried by said links.

1,073,944. ATTACHMENT FOR PIANOS. IGNATIUS TRAVESSARO, San Francisco, Cal. Filed Dec. 26, 1911. Serial No. 667,662. (Cl. 84—55.)

1. In an attachment for producing an organ effect in conjunction with the effect produced by the operation of a piano, the combination with a piano, a supporting frame mounted in the piano between the front board and hammers thereof, of an air suction device carried by said frame, mechanism for operating the same, a sound board carried by said frame beneath said air suction device, reeds associated with said sound board, a wind chest, an air suction equalizing device carried by said frame, an air passage between said wind chest and air suction equalizing device, an air passage between said air suction equalizing device and said air suction device, openings between said sound board and wind chest, valves for normally closing said openings, and mechanism operatable by the manual actuation of the piano keys for opening said valves for permitting air to be drawn through said reeds.

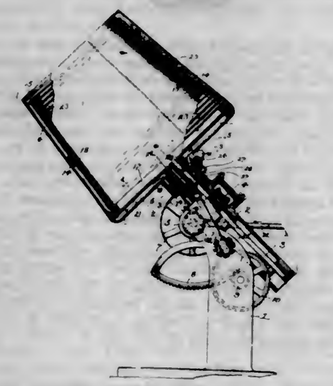
2. In an attachment for producing an organ effect in conjunction with the effect produced by the manual operation of a piano, the combination with a piano, a supporting frame mounted in the piano between the front board and the hammers thereof, of alternately operated air suction bellows mounted on the underside of said frame, mechanism for operating the same, a sound board mounted on said frame beneath said air suction bellows and provided with separate transversely extending channels therein, a reed associated with each of said channels, a wind chest located below said sound board and common to all of said channels, an air suction equalizing bellows supported by said frame, an air passage between said air suction equalizing bellows and said alternately operated air suction bellows, an air passage in said frame between said air suction equalizing bellows and said wind chest, openings communicating with each of said channels and said wind chest, separate valves for normally closing each of said openings, and mechanism operatable by the manual actuation of the piano keys for opening said valve associated therewith for permitting air to be drawn through said corresponding reed.



3. In an attachment for pianos for producing an organ effect in conjunction with the effect produced by the operation of the piano, the combination with a piano, a supporting frame adapted to be positioned within the piano between the front board and hammers thereof, of alternately operated air suction bellows carried beneath said frame, mechanism for operating the same, a sound board carried by said frame below said air suction bellows and provided with a plurality of spaced channels extending transversely thereof and arranged opposite each other, the inner ends of the corresponding channels communicating with each other, a reed positioned over each of said channels and covering the same, a wind chest located below said sound board, an air suction equalizing bellows carried by said frame, an air passage between said air suction equalizing bellows and said wind chest, an air passage located in said frame and extending between said air suction equalizing bellows and said alternately operated air suction bellows, openings communicating with each of said spaced channels, said openings positioned at the inner communicating ends of said channels, separate valves for normally closing each of said openings, and mechanism operatable by the manual actuation of the piano key bars for opening said valve associated therewith for permitting air to be drawn through said corresponding reed.

1,073,945. TUMBLING-BARREL. FREDERICK E. WARNER, Bridgeport, Conn. Filed May 28, 1913. Serial No. 770,444. (Cl. 34—21.)

1. In a machine of the class described, the combination of a barrel; a heating conduit located around the outer surface of the inner wall thereof; a supporting shaft to which said barrel is connected; means for rotating said shaft and the barrel; means for tilting the shaft and the barrel carried thereby; steam passages connected to the conduit and terminating in line with the axis about which the shaft and the attached bar are tilted; inlet and exhaust mains; and suitable connections between said mains and the steam passages, said connections likewise standing in alinement with the axis about which the shaft and barrel are tilted.



2. In an apparatus of the character described, the combination of a barrel having a hollow wall; a steam coil located within said wall; a head secured to one end of the barrel; steam passages formed in said head and connected, respectively, to the opposite ends of the coil; a hub formed on the head and provided with ports communicating, respectively, with the passages in the head; a shaft secured to the head; means for rotating the shaft; means for tilting the shaft about a substantially horizontal axis; a collar mounted upon the shaft; steam passages formed in said collar and opening, respectively, into the ports in the hub; pipes extending from said passages to a point in axial alinement with the horizontal axis about which the barrel and shaft are tilted; and steam inlet and exhaust mains swiveled to said pipes, whereby the barrel may be rotated and steam constantly introduced into and withdrawn from the coil, and the barrel and shaft tilted while steam continues to pass to and through the coil.

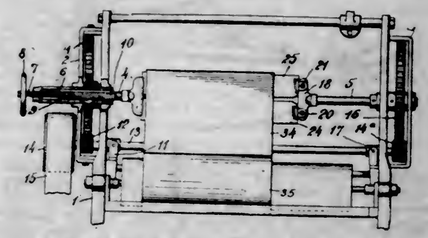
3. In an apparatus of the character described, the combination of a barrel, the body of which comprises an inner and an outer wall; a steam coil surrounding the inner wall; an insulating packing interposed between the coil and the inner face of the outer wall; a hollow head provided with inlet and exhaust passages connected, respectively, to the opposite ends of the coil; a hub extending from the head and provided with ports connected, respectively, with the passages in the head; a shaft extending into the hub and secured thereto; means for rotating the shaft; means for tilting the shaft and the barrel about a substantially horizontal axis; a collar loosely mounted upon the shaft, said collar having concentric passages formed in that face adjacent the hub; a washer interposed between said hub and collar, the washer having ports corresponding to the ports in the hub and likewise opening into the concentric passages in the collar; inlet and exhaust pipes connected, respectively, to the passages in the collar; and swivel connections for said pipes leading to inlet and exhaust mains, said swivel connections being located in alinement with the axis about which the shaft and barrel are tilted.

4. In an apparatus of the character described, the combination of a barrel, the body of which comprises an inner and an outer wall; a steam coil surrounding the inner wall; an insulating packing interposed between the coil and the inner face of the outer wall; a hollow head provided with inlet and exhaust passages connected, respectively, to the opposite ends of the coil; a hub extending from the head and provided with ports connected, respectively, with the passages in the head; a shaft extending into the hub and secured thereto; means for rotating the shaft; means for tilting the shaft and the barrel about a substantially horizontal axis; a collar loosely mounted upon the shaft, said collar having concentric passages formed in that face adjacent the hub; a washer interposed between said hub and collar, the washer having ports corresponding to the ports in the hub and likewise opening into the concentric passages in the collar; means for urging said collar toward the washer; inlet and exhaust pipes connected, respectively, to the passages in the collar; and swivel connections for said pipes leading to inlet and exhaust mains, said swivel connections being located in alinement with the axis about which the shaft and barrel are tilted.

5. In a machine of the character specified, the combination of a rotatable and tiltable barrel, the wall of the body whereof is hollow; a heating coil located in said hollow wall; a steam conduit opening into the lower end of the coil; and an exhaust conduit connected to the opposite end of the coil.

[Claims 6 and 7 not printed in the Gazette.]

1,073,946. MACHINE FOR WINDING FABRICS. DAVID BAIN, Passaic, N. J., assignor to Blauvelt-Wiley Paper Manufacturing Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 17, 1912. Serial No. 691,401. (Cl. 242—61.)



1. In a machine for winding fabric around a board, the combination of a revoluble support against which the cloth-board is placed sidewise and means for rotating the said support, the said support having the part at its axis of rotation thicker than the outer edges thereof for engaging and serving to warp or bend the cloth-board when the latter is pressed against the support by the tension of the cloth during the winding and resumes its normal condition when removed from said support, substantially as described.

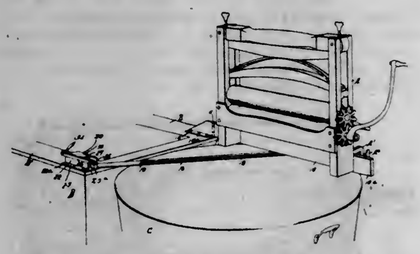
2. In a machine for winding fabric around a board, the combination of a revoluble support against which the cloth-board is placed sidewise and means for rotating the said support, the said support consisting in a pair of suitably spaced parallel pivoted arms having the part at its inner edge thicker than the outer edge for engaging the cloth-board and acting to warp it when pressed against said arms, whereby the cloth-board is bent or warped during the winding and resumes its normal condition when removed from said supporting-arms, substantially as described.

3. In a machine for winding fabric around a board, the combination of a rotatable support against which the cloth board is placed and means for rotating the said support, the said support consisting in a pair of suitably spaced parallel arms pivoted at one end, a pair of axially-alined journals having means for driving them and one of them being capable of longitudinal adjustment, a head carried on the inner end of each of said journals, the said pair of arms being each pivoted at one end to the head on said non-adjustable journal and adapted to be releasably attached to the head on said adjustable journal, the free ends of said arms being provided with lugs and the head on said adjustable journal being provided with sockets for receiving said lugs on the arms to lock the arms to the

head and said head being provided with a V-shaped projection between said sockets, substantially as described.

4. In a machine for winding fabric around a board, the combination of a rotatable support against which the cloth board is placed and means for rotating the said support, the said support consisting in a pair of suitably spaced parallel arms pivoted at one end, a pair of axially-alined journals having means for driving them and one of them being capable of longitudinal adjustment, a head carried on the inner end of each of said journals, the said pair of arms being each pivoted at one end to the head on said non-adjustable journal and adapted to be releasably attached to the head on said adjustable journal, the free ends of said arms being provided with lugs, the said head on said adjustable journal having its outer face grooved for receiving the ends of said arms, and sockets formed in the bottom of said groove for receiving said lugs on the arms, substantially as described.

1,073,947. WRINGER SUPPORT AND FASTENER. WILLIAM PAYNE BANCROFT, Bostwick, Nebr. Filed Sept. 24, 1912. Serial No. 722,045. (Cl. 68—31.)



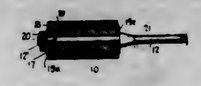
The combination of the supporting bar having means at one end to hingedly secure it in place, and fastening means for the opposite end of the bar, said means comprising a member to be secured in place, a latch member carried by the first member, and a device to bodily slide the latch member on the other member to tightly clamp the bar, said latch member being laterally yielding to permit the entrance and escape of the bar.

1,073,948. LOAD-EJECTOR FOR BULL HAY-RAKES. ISHAM M. BARNARD and JOHN W. LAWLER, Fowler, Colo. Filed Jan. 29, 1912. Serial No. 674,283. (Cl. 56—137.)



The combination with the bull-rake, comprising a series of teeth and a cross head connecting the same, of a load ejector adapted to slide on the rake and comprising a skeleton frame extending rearwardly from the cross-head and having a front elevated portion constituting the ejector proper, loop guides on the rake in which the longitudinal bars of the ejector are supported slidably, and the ejector frame having corresponding guides for the rake teeth, ropes attached to the rear portion of the ejector frame, and pulleys on the rake head through which such ropes run, the outer ends of the ropes being adapted for connection with the harness of a draft animal, as described.

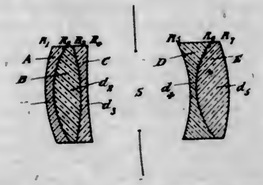
1,073,949. HEEL-BREAST BUFFER. HERMAN G. BENDIX, New York, N. Y. Filed Jan. 14, 1913. Serial No. 741,921. (Cl. 51—1.)



1. In an abrading device, the combination of a shank having a shoulder intermediate its ends, a core surrounding one end of the shank, a resilient body of cylindrical form surrounding and secured to said core, a sheath of abrading material removably fitted around said body, said sheath including a tab at one end, and means to secure the core, body and sheath removably to the shank, said tab being gripped between said shoulder and the core.

2. In an abrading device, the combination of a shank, a core slidably fitted upon said shank, a sheath of abrading material of hollow cylindrical form surrounding said core, said sheath including an integral tab at each end, each tab having a hole therethrough and bent up across the end of the cylindrical portion, the shank aforesaid being slipped through said holes in the tabs, and means securing the core and sheath removably to said shank, said securing means serving to grip both of said tabs squarely against the ends of the core.

1,073,950. PHOTOGRAPHIC LENS. WILLIAM BIELICKE, Clapham Common, London, England, assignor to Ross Limited, Clapham Common, England. Filed July 1, 1912. Serial No. 706,955. (Cl. 88—57.)



1. A photographic lens of the telephoto type, the said lens being composed of a positive front combination and a negative back combination of a focal length longer than the focal length of the positive combination both combinations including contact surfaces of negative power, for the purpose described.

2. A photographic lens of the telephoto type, the said lens being composed of a positive front combination and a negative back combination of a focal length longer than the focal length of the positive combination, the positive combination consisting of three component lenses, two of negative power inclosing one of positive power, one of the surfaces separating the lens of positive power from that of negative power having its convexity, and the other having its concavity, presented toward the incident rays of light, the negative combination being composed of a double concave lens and a double convex lens with its surface which is in contact with the double concave lens presented toward the incident rays of light, the difference of refraction on this surface being as great as possible as hereinbefore explained.

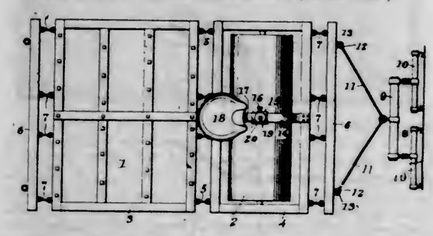
1,073,951. AZO DYE. LOUIS BLANGEY, Mannheim, and CARL IMMERHEISER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 28, 1913. Serial No. 770,332. (Cl. 8—1.)

1. The new azo coloring matters which can be obtained by combining a diazo compound which is free from sulfonic acid, carboxylic acid and hydroxyl groups with a chlorinated benzoyl-1.8-amino-naphthol-4.6-disulfonic acid containing at least one chlorin atom in the benzene nucleus, which coloring matters consist when dry of yellow-red to violet powders which yield yellow-red to violet solutions in water and in the form of their alkaline earth lakes possess yellow-red to violet shades and which upon gentle reduction with stannous chlorid and hydrochloric acid give rise to an amino compound free from sulfonic acid, carboxylic acid and hydroxyl groups and also to an amino derivative of a chlorinated benzoyl-1.8-amino-naphthol-4.6-disulfonic acid containing at least one chlorin atom in the benzene nucleus.

2. The new azo coloring matters which can be obtained by combining a diazo compound which is free from sulfonic acid, carboxylic acid and hydroxyl groups with ortho-para-dichlor-benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which coloring matters consist when dry of yellow-red to violet powders which yield yellow-red to violet solutions in water and in the form of their alkaline earth lakes possess yellow-red to violet shades and which upon gentle reduction with stannous chlorid and hydrochloric acid give rise to an amino compound free from sulfonic acid, carboxylic acid and hydroxyl groups and also to an amino derivative of ortho-para-dichlor-benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

3. The new azo coloring matter obtainable from diazotized meta-chlor-anilin and ortho-para-dichlor-benzoyl-1.8-amino-naphthol-4.6-disulfonic acid, which coloring matter consists, when dry, of a scarlet powder which yields a brilliant yellow-red solution in water and in the form of its alkaline earth lakes possesses brilliant blue-red shades and which upon gentle reduction with stannous chlorid and hydrochloric acid gives rise to meta-chlor-anilin and an amino derivative of ortho-para-dichlor-benzoyl-1.8-amino-naphthol-4.6-disulfonic acid.

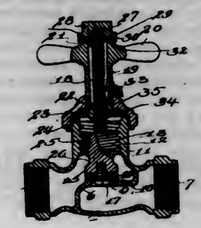
1,073,952. COMBINED GROUND HARROW AND ROLLER. PHILIP PIERRE BOLAND, Eureka, Mo. Filed Aug. 28, 1912. Serial No. 717,576. (Cl. 55—12.)



A combination implement of the character described comprising a harrow frame provided with rigid depending harrow teeth operative in either direction of movement of said frame, said frame being provided at front and rear with spaced eyes, a second frame having a ground roller journaled therein and provided at front and rear with similarly arranged eyes, links connecting the eyes at the inner sides of the frames, draft bars at the outer sides of the frames having correspondingly arranged eyes at their inner sides and each provided with a pair of spaced eyes at its outer side, links connecting the eyes of the draft bars with the eyes at the outer sides of the respective frames, a draft attachment including rods having hooks adapted for interchangeable connection with the eyes at the outer side of either of said draft bars and a seat reversibly mounted upon the roller carrying frame for adjustment to face toward either of said draft bars.

1,073,953. STOP AND WASTE OR DRAIN COCK. WILLIAM E. BURKE, Lorain, Ohio. Filed May 3, 1912. Serial No. 695,004. (Cl. 137—4.)

1. In a stop and waste cock, a body having inlet and outlet with a valve seat between, a valve for said seat having a waste port therethrough, and a compound valve stem associated with said valve and comprising two members one of which is tubular and has a waste port communicating with the interior of the body, one valve member being fixed to the valve and the other movable independently thereof and both members provided with means for causing them to unitedly move.



2. In a stop and waste cock, a body having inlet and outlet with a valve seat between, a valve for said seat provided with a screw-threaded stem, and a tubular member in threaded engagement with the stem for movement endwise upon the same and having a waste outlet adapted to communicate with the body, the said stem and tubular member being provided with means for causing them to move together.

3. In a stop and waste cock, a body having inlet and outlet with a valve seat between, a valve for said seat provided with a screw-threaded stem, and a tubular member adjustable endwise on the stem and having a waste outlet adapted to communicate with the body.

4. In a stop and waste cock, a body having inlet and outlet with a valve seat between, a valve for said seat, a screw-threaded member extending from the valve and constituting part of the stem, a friction device carried at the free end of said screw-threaded member, and a tubular stem member engaging the screw-threaded member and having a waste outlet adapted to communicate with the body, the outer free end of the tubular member adapted to engage the friction device to set up a unitary movement of the screw-threaded and tubular members.

5. In a stop and waste cock, a body having inlet and outlet with a valve seat between, a valve for said seat having a stem member extending therefrom, a tubular member movable on the said stem member and having an outer open extremity and a port at its inner extremity adapted to communicate with the body, and a device mounted on the outer end of the said stem member to engage and close the outer open end of the tubular member.

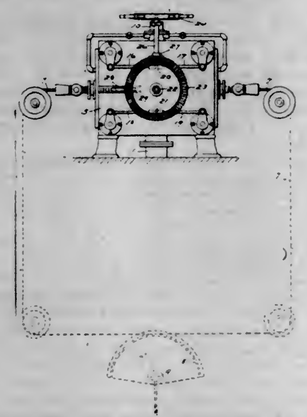
[Claims 6 to 8 not printed in the Gazette.]

1,073,954. MARINE STEERING-GEAR. LESLIE CAULDWELL BURNS, Union Hill, N. J., assignor of one-half to Cyrus J. Walters Burns, New Brunswick, N. J. Filed Aug. 29, 1912. Serial No. 717,784. (Cl. 121—113.)

1. A motor for actuating steering gear of the character described, comprising a fluid pressure cylinder, a piston working therein, a piston rod extending beyond each end of the cylinder to afford means for an operative connection to a rudder, inlet and outlet valves opening to each end of the piston cylinder, and a geared disk, connecting rods therefrom to each of said valves and a manually controlled pinion for rotating said disk to simultaneously actuate said valves, substantially as described.

2. A motor for actuating steering gear of the character described, comprising a fluid pressure cylinder, a piston working therein, a piston rod extending beyond each end of the cylinder to afford means for an operative connection to the rudder, inlet and outlet valves opening to each end of the piston cylinder, said inlet valves being normally in the open position to admit fluid to the opposite faces of the piston and said outlet valves in normal position being both closed, in combination with a geared disk, connecting rods therefrom to each of said valves and a manually controlled pinion for rotating said disk to simultaneously close the inlet valve and open the exhaust valve on one side of the piston while maintaining the exhaust valve closed and the inlet valve open on the opposite side of the piston, substantially as described.

3. A motor for actuating steering gear of the character described, comprising a fluid pressure cylinder, a piston working therein, a piston rod extending beyond each end of the cylinder to afford means for an operative connection to a rudder, inlet and outlet valves opening to each end of the piston cylinder, said inlet valves being normally in the open position to admit fluid to the opposite faces of the piston and said outlet valves in normal position being both closed, in combination with manually controlled means for simultaneously closing the inlet valve and opening the exhaust valve on one side of the piston while maintaining the exhaust valve closed and the inlet valve open on the opposite side of the piston, together with spring means for automatically returning said valves to normal position upon release of the manual controlling means, substantially as described.



4. A motor for actuating steering gear of the character described, comprising a fluid pressure cylinder, a piston working therein, a piston rod extending beyond each end of the cylinder to afford means for an operative connection to the rudder, inlet and outlet valves opening to each end of the piston cylinder, said inlet valves being normally in the open position to admit fluid to the opposite faces of the piston and said outlet valves in normal position, being both closed, in combination with an oscillating member to which said valves are pivotally connected and manually controlled means for rotating said oscillating member on its pivot, together with spring means engaging said oscillating member for automatically returning the same to normal position upon release of the hand controlling means, substantially as described.

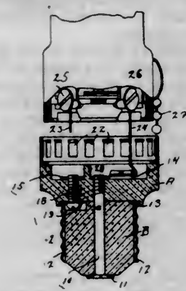
5. A motor for actuating steering gear of the character described, comprising a fluid pressure cylinder, a piston working therein, a piston rod extending beyond each end of the cylinder to afford means for an operative connection to a rudder, valve means for distributing the pressure fluid to opposite faces of the piston and means independent of the valves for holding said piston rod in any desired position while the valves are permitted to return to normal position, for the purpose described.

[Claim 6 not printed in the Gazette.]

1,073,955. ATTACHMENT-PLUG FITTING. FRANK V. BURTON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Dec. 3, 1912. Serial No. 734,700. (Cl. 173—344.)

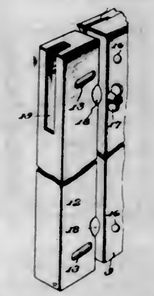
1. An attachment plug fitting comprising a plug element having plug and outlet terminals, together with a member on said plug comprising a ring having a series of latching elements formed thereon, and offset lugs for securing said ring to the head of the plug.

2. An attachment plug fitting comprising a plug element having plug and outlet terminals, a latching ring with lugs for securing the same on the head of the plug, and barriers on the head of the plug separating the outlet terminals from each other and from said ring-securing lugs.



3. An attachment plug fitting comprising a plug member having plug terminals on its entering end and latching elements on its outer end, an independent outlet member with latching elements adapted to coöperate with those of the plug, and contacts on the juxtaposed ends of the plug and outlet members electrically connected in the assembled fitting, for the purpose described.

1,073,956. WINDOW. JOHN M. CAMPANA, Morristown, N. J. Filed Mar. 29, 1911. Serial No. 617,585. (Cl. 20—52.2.)



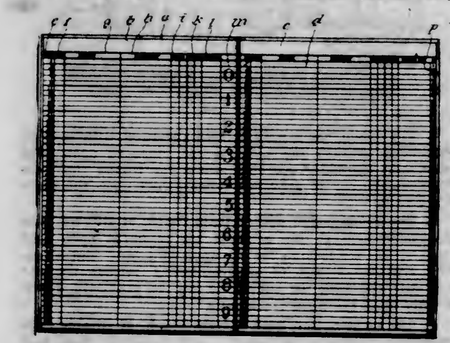
1. A window frame and sash therefor in combination with a laterally adjustable casing having flexible sides which embrace one side rail of the sash frame, and means extending through the sash frame by which the sides of the casing may be drawn toward each other into engagement with the sash frame to lock the casing in a projected operative position for retaining the sash within both runways of the window frame, the width of the sash being such that said sash and the casing may be removed bodily from the runways of the window frame.

2. A window frame and sash therefor in combination with a laterally adjustable casing having flexible sides which embrace one side rail of the sash frame and are freely movable in both directions with relation thereto, and bolts extending through the sash frame by which the sides of the casing may be drawn toward each other into engagement with the sash frame to lock the casing in a projected operative position for retaining the sash within both runways of the window frame, the width of the sash being such that said sash and the casing may be removed bodily from the runways of the window frame.

3. A window frame and sash therefor in combination with a laterally adjustable casing U-shaped in cross section having flexible sides which embrace the side rail of the sash frame, and means extending through the sash frame by which the sides of the casing may be drawn toward each other into engagement with the sash frame to lock the casing in a projected operative position for retaining the sash within both runways of the window frame, the width of the sash being such that said sash and the casing may be removed bodily from the runways of the window frame.

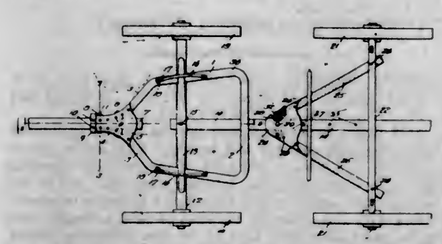
4. In a window frame and sash therefor in combination with a laterally adjustable casing having flexible sides which embrace one side rail of the sash frame and are perforated by oppositely disposed elongated slots, and bolts extending through the sash frame as also through each pair of said slots by which the sides of the casing may be drawn toward each other into engagement with the sash frame to lock the casing in a projected operative position for retaining the sash within both runways of the window frame, the width of the sash being such that said sash and the casing may be removed bodily from the runways of the window frame.

1,073,957. REGISTER. JAMES G. CARY, Jackson, Tenn. Filed Aug. 13, 1912. Serial No. 714,831. (Cl. 11—19.)



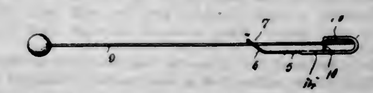
The herein described register for numbered coupons, checks, drafts and the like comprising a series of consecutively numbered leaves, the opposed pages of two adjacent leaves, when the book is in open position, comprising a pair of sections, each page of a pair of sections being ruled to provide alined main spaces extending across the sections, said spaces being further ruled transversely to provide five sub spaces in each main space, the main spaces being numbered progressively from "0 to 9" and the sub spaces of each section being consecutively numbered from "1 to 100", all the odd numbers being on one section and the even numbers on the other and the lowest number of the main and sub spaces beginning at the same edge of the book.

1,073,958. WAGON-HOUNDS. ROBERT F. CLIFTON, Mount Airy, N. C. Filed Nov. 14, 1911. Serial No. 660,217. (Cl. 21—29.)



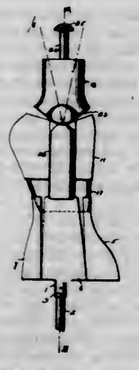
In a wagon, front hounds formed of angle material having one portion horizontal and upward and the other vertical and at the outer edge of the horizontal portion, the said material being bent to form a rear end member lying approximately transverse to the wagon, and integral side members extending forwardly from the ends of the end member transversely of the front axle, the said side members converging toward their front ends, the front ends being bent inwardly and thence forwardly to lie alongside each other, a plate secured to the horizontal portions, and an open rectangular frame secured to the front end of the plate to form a bearing for the tongue.

1,073,959. HAT-PIN PROTECTOR. RODERICK D. COLEMAN, Greenwood, Va. Filed May 14, 1912. Serial No. 697,217. (Cl. 24—155.)



A hat pin protector constructed of a single length of spring material formed at one end in return bend and having the free terminal of such return bend portion projected toward and into contact with the main length of the strip to form a housing, said laterally projected portion being formed with a slot extending at right angles to the main length of the strip and communicating in a channel opening through one edge of the laterally projected portion with its upper wall inclining upwardly and outwardly from its juncture with the slot, the main length of the strip at a point in advance of the housing being reduced in thickness to provide a resilient section the free terminal of said section being bent upwardly at an angle of approximately 45° to the main length of the strip and formed with an aperture approximately in alinement longitudinally of the strip with the slot in the laterally projected portion.

1,073,960. GARMENT-FORM. FILIBERTO CONTENTI, New Haven, Conn., assignor of one-half to Pietro Torello, New Haven, Conn. Filed Sept. 17, 1912. Serial No. 720,718. (Cl. 223—18.)



1. In a device of the character described, the combination with a base section, having hinged plates connected therewith; of a bust section, composed of two members, mounted so as to be independently moved about a common axis, and arranged in connection with said base section so that the movement of one of said sections toward and away from the other will move said plates toward and away from each other, depending upon the direction of movement of said member; and a neck section, pivotally connected with said bust section.

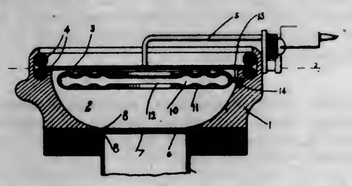
2. In a device of the character described, the combination with a base section; of a bust section, composed of

two members, mounted so as to be independently moved about a common axis; a neck section, said neck section being composed of members that are rotatable about a common axis; and means for pivotally connecting said neck section to said bust section, said pivotal connection being at substantially a right angle to said last mentioned common axis.

3. In a device of the character described, the combination with a base section; of a bust section, composed of two members, mounted so as to be independently moved about a common axis; a neck section, composed of members that are independently rotatable about a common axis; means for pivotally connecting said neck section to said bust section, at substantially a right angle to said last mentioned common axis; shoulder sections connected with said bust section; and means for adjusting the relative position of said shoulder sections with said bust section, said means being actuated through said neck section.

4. In a device of the character described, the combination with a base section; of a bust section, composed of two members, mounted so as to be movable about a common axis; a neck section, having a hinged connection with said bust section; shoulder members connected with said bust section; members connecting said neck section with said shoulder members; means connected with said neck section for adjusting the position of said members; and arm members mounted upon opposite sides of said bust section, and having an adjustable connection with the shoulder adjusting means.

1,073,961. SOUND-BOX. ADOLPH C. J. CONSTABEL, Honolulu, Hawaii. Filed Aug. 8, 1912. Serial No. 714,043. (Cl. 181—11.)



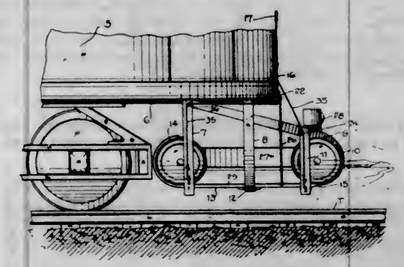
1. In a sound-box, a chambered-body member; a diaphragm closing one end of the chamber, the opposite end of the chamber having an outlet to a horn; a stylus bar disposed exteriorly to the chamber and associated with the diaphragm; a resonance-box in the chambered body in juxtaposition to the diaphragm but spaced from the same; and means for securing the resonance-box within the chambered body, said resonance-box having parallel walls provided with concentric corrugations and an axial opening substantially axial with the diaphragm.

2. In a sound-box, a chambered-body member having a diaphragm closing one end of the chamber, the opposite end of the same having an outlet to a horn; a stylus bar associated with the diaphragm; a resonance-box in the chambered body in juxtaposition to the diaphragm; and means for securing the resonance-box within the chambered body, said resonance-box being in the shape of a flattened drum, the end walls of which are corrugated, its lateral surface rounded, and having an axial opening.

3. In a sound-box, a chambered-body member; a diaphragm closing one end of the chamber, the other end having an outlet to a horn; a stylus bar associated with the diaphragm; a resonance-box in the chambered body in juxtaposition to the diaphragm; and means for securing the resonance-box within the chambered body, said resonance-box having concentrically corrugated walls substantially parallel to the diaphragm, each of said walls having an axial opening substantially axial with the diaphragm.

4. In a sound-box, a chambered-body member; a diaphragm associated with the chambered body; a stylus bar associated with the diaphragm and the chambered body; a resonance-box within the chambered body in juxtaposition to the diaphragm and spaced from the same; and means for securing said resonance-box in said chambered body, said resonance-box having the shape of a flattened drum the end walls of which are substantially parallel to the diaphragm and provided with concentric corrugations the centers of which are substantially in the axis of the diaphragm, said walls each having a central opening substantially axial with the axis of the diaphragm, and the lateral surface of said drum being rounded.

1,073,962. TRAIN-COACH ATTACHMENT. WILLIAM E. COOK, Brazil, Ind. Filed Feb. 21, 1913. Serial No. 749,942. (Cl. 105—32.)



1. The combination with a train coach, of tiltable rails suspended beneath the same, a car mounted upon said rails, and manually operable means for tilting the rails to cause the car to gravitate downwardly upon the main track rails.

2. The combination with a train coach, of tiltable rails suspended beneath the same, a car mounted upon said rails, means for locking the car upon said rails, and manually operable means to simultaneously release the car and tilt the rails to cause the car to gravitate downwardly upon the main track rails.

3. The combination with a train coach, of tiltable rails suspended beneath the same, a car mounted upon said rails, means for locking the rails against tilting movement, and manually operable means to simultaneously release the rails and tilt the same to cause the car to gravitate downwardly upon the main track rails.

4. The combination with a train coach, of tiltable rails suspended beneath the same, a car mounted upon said rails, means for locking the rails against tilting movement, means to prevent movement of the car upon the rails when the same are locked, and manually operable means to simultaneously release the rails and tilt the same to cause the car to gravitate downwardly upon the main track rails.

5. The combination with a train coach, of tiltable rails suspended beneath the same, a car mounted upon said rails, means for locking the rails against tilting movement, manually operable means for tilting said rails including a lever, and connections between said lever and the locking means to simultaneously release the rails and tilt the same to cause the gravity movement of the car upon the main track rails.

[Claims 6 to 11 not printed in the Gazette.]

1,073,963. NOZZLE. JOHN H. COTTLE, New York, N. Y. Filed June 6, 1911, Serial No. 631,659. Renewed May 24, 1913. Serial No. 769,766. (Cl. 137—17.)

1. A nozzle including a body portion having an interior liquid receiving chamber and provided with means for attachment to a hose, a plurality of independent diverging discharge tubes extending laterally from one end of the body portion and provided with liquid passages communicating with the chamber, the axes of said passages lying in the same plane with that of the hose attaching means, and a partition for directing a portion of the water to the discharge tubes on each side of said partition.

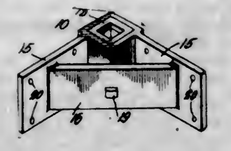
2. A nozzle including a body portion having means at one end thereof for connection with a hose and provided at its other end with a plurality of spaced independent diverging discharge tubes, there being a chamber formed in the body portion and longitudinal liquid passages in the discharge tubes communicating with said chamber, the axes of the liquid passages lying in the same plane with that of the hose attaching means, a main partition extending longitudinally of the nozzle at the junction of two of the tubes, and auxiliary partitions of less length than the main partition arranged at the junction of other of said tubes.



3. A nozzle including a body portion having one end thereof provided with a threaded extension for attachment to a hose and its other end provided with spaced diverging discharge tubes, there being a chamber formed in the body portion and longitudinal passages in the tubes communicating with said chamber, the axes of the passages in the tubes lying in the same plane with that of the hose attaching means, a longitudinal partition disposed at the junction of two of the tubes and having its free end terminating short of the threaded extension of the nozzle and centered with respect thereto, and auxiliary partitions of less length than the main partition disposed at the junction of other of said tubes, the side walls of the tubes at said partitions being curved laterally to provide a clearance for the water.

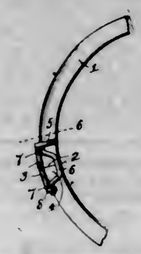
4. A nozzle including a body portion having substantially flat upper and lower faces, one end of said body portion being reduced to form an extension for attachment to a hose, and its other end provided with spaced independent diverging discharge tubes disposed between the planes of the flat faces of the nozzle, the axes of the discharge tubes lying in the same plane with that of the hose attaching means, said body portion being provided with an interior chamber communicating with the discharge tubes and hose, respectively.

1,073,964. CLAMP. JOSEPH E. DABBS, Lindale, Ga., assignor of one-half to John W. Bobo, Lindale, Ga. Filed Apr. 13, 1912. Serial No. 690,630. (Cl. 45—48.)



A table leg clamp comprising, a boxing, a plate secured to the upper portion thereof and provided with a square opening extending therethrough to form a shoulder, attaching plates formed integral with said boxing and extending radially therefrom, said plates being adapted to securely fasten the boxing to and flush with the sides of the table, said plates conforming with the table sides contour, a brace plate formed integral with the attaching plates and extending tangential to the boxing, said brace plate and boxing provided with alined apertures, means extending within said apertures adapted to secure the table leg to and at a certain height within the boxing, said means further adapted to rigidly secure said brace plate with said boxing to thereby form a triangular skeleton structure.

1,073,965. FASTENING MEANS FOR BUTT-JOINT METAL CULVERTS. JOHN H. DEAN, Birmingham, Ala. Filed Feb. 3, 1913. Serial No. 745,903. (Cl. 61—9.)



1. A bolt adapted for insertion within a passageway formed between the side of a butt-joint culvert and metal strips secured to said culvert, said bolt having a portion of its shank engaging the side of the culvert and another portion thereof engaging the strips, for the purpose specified.

2. A bolt adapted for insertion within a passageway formed between the side of a butt-joint culvert and metal strips secured thereto, and adapted for holding the longitudinal meeting edges of said culvert in abutting relation, said bolt having a head serving to prevent turning of the bolt within said passageway.

3. A bolt adapted for insertion within a passageway formed between the side of a butt-joint culvert and metal strips secured thereto, and adapted for holding and retaining the longitudinal meeting edges of said culvert in abutting relation, said bolt having a head adapted to engage the side of the culvert and thereby prevent turning of the bolt within said passageway.

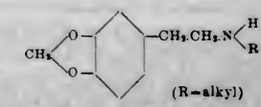
4. A bolt adapted for insertion within a passageway formed between the side of a butt-joint culvert and metal strips secured thereto, and adapted for holding and retaining the longitudinal meeting edges of said culvert in abutting relation, the shank of said bolt having its end portions engaging respectively the inner faces of adjacent strips, and a portion intermediate its ends for engaging the side of the culvert at a point where the longitudinal edges of said culvert meet, for the purpose specified.

5. A bolt adapted for insertion within a passageway formed between the side of a butt-joint culvert and metal strips secured thereto, and adapted for holding and retaining the longitudinal meeting edges of said culvert in abutting relation, said bolt comprising a head adapted for engagement with the top edge of the upper strip of adjacent metal strips, a shank so formed as to engage both the side of the culvert and the inner faces of said metal strips, and a nut secured to said shank and adapted for engagement with the bottom edge of the lower strip.

[Claims 6 and 7 not printed in the Gazette.]

1,073,966. ALKYLHOMOPIPERONYLAMINS AND THE PROCESS OF MAKING THEM. HERMAN DECKER, Hanover, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Nov. 25, 1912. Serial No. 733,351. (Cl. 23—24.)

1. The herein described alkylhomopiperonylamins of the formula:



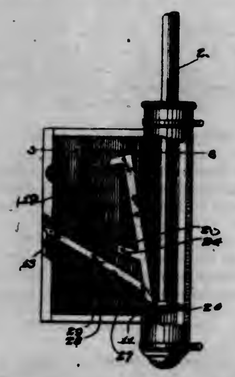
(R=alkyl)

being colorless oils which form white crystalline salts generally soluble in alcohol and water and being converted by treatment with anhydrous formic acid into formylalkylhomopiperonylamins being colorless thick oils soluble in most organic solvents and insoluble in water, which

are obtained by treating the condensation products *e. g.* $C_{16}H_{18}NO_2$ with halogenalkyl and decomposing these addition products, substantially as described.

2. The herein described methylhomopiperonylamin being a colorless oil boiling at 156–158° C. (24 mm.) which forms with hydrochloric acid white brilliant sheets melting at 178–180° C., easily soluble in alcohol and water and being converted by treatment with anhydrous formic acid into the formylmethylhomopiperonylamin, which is a colorless thick oil easily soluble in benzene, alcohol, ligroin and insoluble in water, substantially as described.

1,073,967. SELF-LOCKING WHIP-SOCKET. CHARLES R. DINGEE, Lostant, Ill., assignor of one-half to Alexander C. Kelso, Lostant, Ill. Filed Dec. 14, 1912. Serial No. 736,800. (Cl. 21—130.)



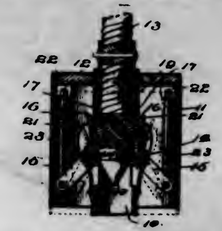
1. A whip socket provided with a vertically extending slot in one side, a housing inclosing the slot and provided with an opening in its outer face, a locking bar pivotally mounted in said housing and provided with an arm extending from its upper end, an extension leading from said bar intermediate its length, a spring secured to said housing and having its remaining end secured to said extension whereby the lower end of said bar will be normally caused to pass through said slot into said socket, a pin passing transversely through said housing, and a latching bar extending from said locking bar above said pin and through the opening in said housing, said latching bar being provided with a notch in which said pin is adapted to fit when said locking bar is rocked upon its pivot point to hold said locking bar in a released position.

2. A whip socket provided with a vertically extending opening, a housing carried by said socket and inclosing said slot, said housing being provided with an opening in its outer face, a locking bar pivotally mounted in said housing, resilient means for normally holding said locking bar with its lower end extending through the slot into said socket, a pin extending transversely through said housing, and a latching bar extending from said locking bar above said pin and through the opening in said housing, said latching bar being provided with a notch in which said pin is adapted to fit to hold said locking bar in a released position.

1,073,968. CABLE-RELEASE FOR ELEVATORS. SELDEN H. DOLPH, Olyphant, Pa. Filed Sept. 7, 1912. Serial No. 719,123. (Cl. 187—72.)

1. In a cable releasing apparatus, a tubular member, spring pressed detents extending into the tubular member in position to engage a cable extremity, a housing surrounding the tubular member, and links connecting the housing with the detents.

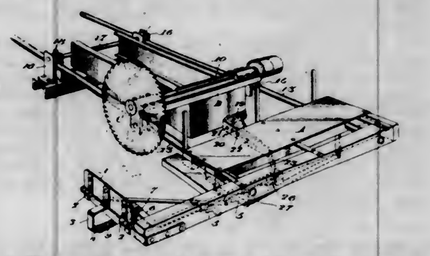
2. In a cable releasing mechanism, a tubular member, detents inserted through the tubular member and positioned to engage a cable extremity within the tubular member, a housing surrounding the tubular member and provided with an annular head embracing said member, and links extending from the head to the detents adapted to release the detents when the head is depressed.



3. In a cable releasing mechanism, a tubular member, detents inserted in the tubular member and adapted to engage a cable extremity, a member entirely surrounding the tubular member, and means connecting such surrounding member with and to actuate the detents.

4. In a cable releasing mechanism, a tubular member, a needle proportioned to be inserted in the tubular member, detents pivoted upon the exterior of the tubular member and extending through slits in said member into engagement with the needle, a disk surrounding the tubular member at the end receiving the cable, levers carried by the detents, and links connecting the disk with the levers.

1,073,969. SAW-GAGE. HELMUTH DUEYSEN, Thorp, Wis. Filed Jan. 11, 1913. Serial No. 741,399. (Cl. 143—168.)



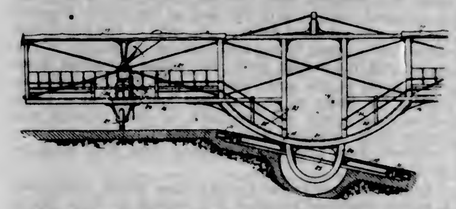
1. The combination of a frame and a movable carriage, a saw mounted upon the frame, of a gage pivotally mounted at one end of the carriage, a track connected to the frame, and means connected to the gage engaging the track for causing the gage to be lowered as the carriage is moved toward the saw.

2. The combination with a movable carriage and a frame, a saw mounted on the frame, a gage pivotally mounted at one end to the carriage, a lever connected thereto, a bar slidably mounted on the carriage, a link connecting the lever and bar, an angular track connected to the frame, and a wheel connected to the bar adapted to travel along the track for drawing the gage away from the end of the log being cut and below the level of the table as the carriage is moved toward the saw.

1,073,970. AMUSEMENT DEVICE. EMIL R. ERNST, New York, N. Y. Filed Mar. 26, 1913. Serial No. 756,877. (Cl. 46—27.)

1. The herein described amusement device comprising a turntable movable around a fixed axis, a main frame supported and tiltable upon said turntable, means to maintain the frame in substantially fixed relation to the turntable with respect to a vertical plane extending diametrically across the turntable, means to rotate the main frame and turntable in unison, and means to tilt the frame.

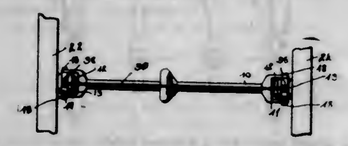
2. The herein described amusement device including a turntable having a central slot extending therethrough, a frame adapted to carry a number of passengers supported and tiltable upon said turntable, means connected to the frame and extending through said slot to maintain the frame in a definite vertical plane with respect to the turntable, means to rotate the frame and turntable in unison, and means to cause the main frame to rock or tilt upon the turntable within said plane independently of the means for rotating the device.



3. The herein described amusement device comprising a tiltable main frame, means to support the same substantially close to the ground line, each end of the main frame simulating an aeroplane and adapted to accommodate a number of passengers, there being provided a passageway for the passengers to and from the device adjacent the center of the main frame, means to rotate the frame including a motor pertinent to each aeroplane, and means under the control of the operator in each aeroplane extension for governing the elevation of either end of the device independently of the rotation thereof.

4. The herein described amusement device including a tiltable frame having diametrically opposite end extensions simulating aeroplanes, each extension having accommodation for a number of passengers, a propeller for each extension whereby the main frame is caused to rotate in a given direction around a fixed axis, an elevating plane extending from each aeroplane extension, a controller station, and devices operable from the controller station for manipulating the elevating plane of each aeroplane whereby the tilting operation of the main frame may be varied and controlled simultaneously with the rotation thereof, substantially as set forth.

1,073,971. AUTOMOBILE ATTACHMENT. WILLIAM J. EVANS, Linnburg, Iowa. Filed Sept. 20, 1912. Serial No. 721,431. (Cl. 21—90.)



1. The combination with a stationary axle having a forked end, of a driving shaft journaled in said axle and having a ball terminal, a hollow knuckle detachably pivoted in said forked end for swinging movement and having a sleeve, a wheel hub rotatably journaled upon said sleeve and having a socket receiving a portion of the knuckle whereby the hub will extend in close proximity to the pivot connection of the said knuckle with the forked end, a spindle journaled in the sleeve and having connection with the said hub, a box integrally formed with the spindle and rotatably mounted within the knuckle for receiving the ball terminal, the said boxing being provided with an external annular groove, bearing rollers disposed in said groove and working against the inner wall of the knuckle, and a joint connection between the boxing and the said ball terminal.

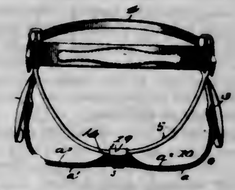
2. The combination with a stationary axle having a forked end, of a driving shaft journaled in said axle and having a ball terminal, a hollow knuckle detachably pivoted in said forked end for swinging movement and having a sleeve, a wheel hub rotatably journaled upon said sleeve and having a socket receiving a portion of the knuckle whereby the hub will extend in close proximity to the pivot connection of the said knuckle with the forked end, a spindle journaled in the sleeve and having connection with said hub, a box integrally formed with the spindle and rotatably mounted within the knuckle for receiving the ball terminal, the said boxing being provided with an external annular groove, bearing rollers disposed in said groove and working against the inner wall of the knuckle, a joint connection between the boxing and the said ball terminal, a guard ring fixed to and surrounding the knuckle, and a guard ring fixed to the inner side of the hub and receiving the first-named guard ring.

1,073,972. FLOOR AND ROOF CONSTRUCTION. VICENTE FONT, Habana, Cuba. Filed May 6, 1911. Serial No. 625,504. (Cl. 72—68.)



In floor and roof construction, the combination of I-shaped supporting beams spaced apart from each other, an I-shaped spanning member having the upper flange inclined downwardly at each end thereof to merge into the end face of said member at the neutral axis thereof, and having its opposite ends forming outstanding portions which are supported upon the lower flanges of said beams, said spanning member being relatively reduced in length with respect to the spacing of the supporting beams so as to leave spaces between the end faces of said outstanding portions and the webs of said supporting beams, reinforcing suspension means embedded in the lower flange of said spanning member and alined with the central longitudinal web thereof and extending from and beyond the said inclined portions of said upper flanges, and wedge shaped fillings between the webs of said beams and said inclined portions of said upper flanges and embedding the extending ends of the reinforcing suspension means, substantially as and for the purpose set forth.

1,073,973. HARNESS-BRIDLE. GEORGE L. FORMAN, Louisville, Ky. Filed Feb. 10, 1910. Serial No. 543,175. (Cl. 54—10.)



1. In a bridle, the combination with winkers and a brace having ends which are secured to the winkers, of a brow band and connections between the brow band and the center of the brace, the relative lengths of the brow band and brace being such that the brow band will pull the center of the brace in toward the brow of the animal and throw the ends out.

2. A winker brace having a flexible body, provided with laterally projecting ends to engage the winkers and a widened portion between its ends, said widened portion having a squared upper end, a loop connected to the body in proximity to the widened portion thereof, and a brow band which extends through the loop and bears upon the squared upper end of the body, the brow band and brace being of relative lengths such that the brow band will pull the center of the brace in toward the brow of the animal and throw the ends out.

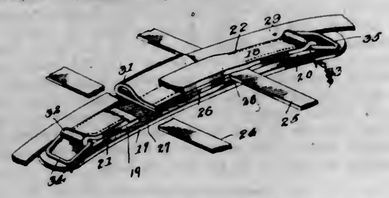
3. A winker brace having a flexible body and ends which are wider than the body and bent abruptly from the plane thereof and which extend rearward of the body and inclinatorily toward each other, said body curving longitudinally from each end to its center with its center rearward of the plane of the contiguous parts, a loop at said center arranged above the edge of the brace, and a brow band which extends through said loop and holds the parts of the brace in the position stated.

4. A winker brace comprising a plurality of parts each having an end portion arranged at an angle with its remaining portion and of greater width than the same and adapted to be secured to a winker, means for connecting said parts with each other, a brow band above the connecting means, and a loop encircling the brow band and connecting the same with said connecting means, said brow band being of such length that it will pull the center of the brace in toward the brow of the animal and throw the ends out.

5. A winker brace comprising a plurality of members each having a flexible body provided with ends projecting laterally in opposite directions therefrom, two of said ends adapted to be secured to winkers and the other two arranged in proximity to each other, a flexible strip secured to the brace in proximity to the latter ends, said strip being bent to form an eye or loop, and a brow band which extends through the loop or eye and is adapted to bend the brace inward at the center and throw the first mentioned ends outward.

[Claims 6 to 8 not printed in the Gazette.]

1,073,974. HARNESS-BRIDLE. GEORGE L. FORMAN, Louisville, Ky. Filed July 28, 1911. Serial No. 641,089. (Cl. 54—13.)



1. In a harness bridle, a crown piece comprising upper and lower layers and a spacer between said layers, correlated to provide within the interior of the crown piece separated transversely-extending channels, for the limbs of an overcheck, said channels having communication with each other through a space which extends from one channel to the other and is arranged between the spacer and one of the layers, the spacer being secured to one of the layers only and the layers being connected to each other at opposite ends of the spacer, at places which are spaced from the ends of the latter.

2. In a harness bridle, a crown piece comprising upper and lower layers, fillers arranged at the ends of the crown piece, between said layers, and a spacer arranged between said layers with its ends spaced from the ends of the fillers, the fillers being secured to both of the layers and the spacer being secured to one of the layers only, whereby channels between the ends of the fillers and spacer and a space extending from one channel to the other are formed between said layers, said channels being adapted to receive the limbs of an overcheck and said space being adapted to permit the overcheck to pass therethrough.

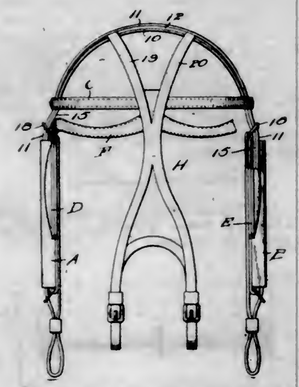
3. In a harness bridle, a crown piece comprising upper and lower layers, fillers arranged at the ends of the crown piece, between said layers, and a spacer arranged between said fillers with its ends spaced from the ends thereof, the filler being secured to both layers and the spacer being secured to one of the layers only, whereby channels are provided between the ends of the fillers and spacer and a space is provided between the surface of the spacer and one of the layers, said space extending from one channel to the other, the channels being adapted to receive the limbs of an overcheck and the space being adapted to permit the overcheck to pass through the crown piece, combined with a means for preventing the overcheck from accidentally passing from said space.

4. In a harness bridle, a crown piece comprising a layer having a spacer secured to it between its ends, a second layer mounted upon the first layer and extending over said spacer, said second layer having reverted ends disposed between it and the first layer and being secured to the latter by fastening means extending through said ends, said reverted ends forming fillers and terminating in a spaced relation with the ends of the spacer whereby channels are provided between the ends of the fillers and spacer and a space is provided between the surface of the spacer and the second layer, said space extending from one channel to the other, the channels being adapted to receive the limbs of an overcheck and the space being adapted to permit the overcheck to pass through the crown piece, combined with a means for preventing the overcheck from accidentally passing from said channels to said space.

5. In a harness bridle, a crown piece having layers and a spacer relatively arranged and secured to form within the crown piece, between said layers, separated channels for the limbs of an overcheck and a space between said channels adapted to permit the overcheck to pass through the crown piece, combined with a strap which extends across said limbs and prevents accidental movement of the same into said space.

[Claims 6 to 16 not printed in the Gazette.]

1,073,975. HARNESS-BRIDLE. GEORGE L. FORMAN, Louisville, Ky. Filed Dec. 23, 1911. Serial No. 667,426. (Cl. 54—10.)



1. A crown piece for a harness bridle comprising superimposed layers whose ends are arranged to be secured to appropriate parts of the bridle so as to permit detachment of the upper layer from said parts independently of the lower layer, said layers being secured together approximately at the longitudinal center of the crown piece to provide separated spaces for the limbs of an overcheck, said upper layer being devoid of permanent attachment to the lower layer from the portions of the spaces which receive said limbs outward to the ends of the upper layer, substantially as described and for the purposes set forth.

2. In a harness bridle, the combination of cheek pieces and a crown piece, the crown piece comprising a main layer whose ends are connected to the cheek pieces, a supplemental layer whose ends are detachably secured to the cheek pieces and are removable from the latter independently of the main layer and a spacer arranged approximately at the longitudinal center of the crown piece, the supplemental layer, main layer and spacer being secured together and the supplemental layer being devoid of permanent attachment to the main layer on opposite sides of the spacer, substantially as described and for the purposes set forth.

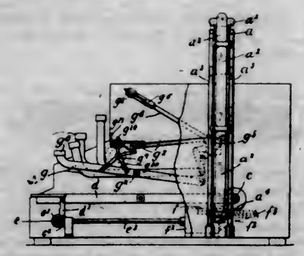
3. A crown piece for a harness bridle comprising a main layer whose ends are slit longitudinally to provide limbs which are integral with the layer and are adapted to secure it to the throat latch and cheek pieces of the bridle, a second layer having free ends arranged to be connected with said cheek pieces, a spacer disposed between said layers and arranged approximately at the middle of the crown piece, said layers and spacer being formed of flexible, non-metallic material, and stitches for securing them together, whereby spaces adapted to receive the limbs of an overcheck are provided between said layers and are separated from each other by said spacer, the portions of the second layer from the ends of the spacer outward being devoid of attachment to the main layer, whereby they are movable outward from said main layer and when so moved uncover said spaces.

4. A harness bridle comprising cheek pieces, a throat latch, a crown piece and an overcheck, said crown piece having a layer whose ends are provided with members which are secured to the throat latch and cheek pieces and also having a second layer which is secured between its ends to the first mentioned layer, and has its ends detachably secured to the check pieces, and said overcheck having limbs extending across the crown piece between said layers and respectively arranged at opposite ends of the place where the layers are secured together, the portions of the second layer from the inner longitudinal edges of the limbs of the overcheck outward being free from attachment to said first-mentioned layer, whereby the spaces which receive said limbs are open for removal or application of the overcheck when the ends of the second layer are detached from the cheek pieces.

5. A harness bridle, comprising cheek pieces, a throat latch, a crown piece and an overcheck, said overcheck having limbs and said crown piece having a main body or layer, a spacer and a second layer, the spacer being disposed between the ends of the crown piece and being shorter than the latter, and the layers and spacer being secured together, the main body or layer having each of its ends provided with members which are secured to the cheek pieces and ends of the throat latch, respectively, the ends of the second lever being detachably secured to the cheek pieces and the portions of said second layer from the inner longitudinal edges of the limbs of the overcheck outward to said ends being movable away from the main layer when the second layer is detached from the cheek pieces, to thereby permit the convenient removal or application of the overcheck.

[Claim 6 not printed in the Gazette.]

1,073,976. MUSIC TYPE-WRITING MACHINE. LUIGI FORTONI, London, England. Filed Feb. 12, 1912. Serial No. 677,191. (Cl. 197—8.)



1. In a music typewriting machine, the combination, with two separate keyboards, and a set of type-bars operatively connected with the keys of one keyboard; of a vertically-movable carriage; mechanism operative by the keys of the other keyboard and connected with the carriage, for raising the latter; a rotary element having a projection corresponding to each of the second-named keys; connections between the second-named keys and said element, for rotating the said elements in conformity with the movements of said carriage; and a member operatively connected with said mechanism and coöperative with said projections, for controlling the movement of said carriage in accordance with the second-named key selected.

2. In a music typewriting machine, the combination, with two separate keyboards, and a set of type-bars operatively connected with the keys of one keyboard; of a vertically-movable carriage; mechanisms operative by the key of the other keyboard and connected with the carriage, for raising the latter; a rotary element having one end thereof provided with a step corresponding to each of the second-named keys; connections between the second-named keys and said element, for rotating the said element in conformity with the movements of said carriage; and a member operatively connected with said mechanism and coöperative with said steps, for controlling the movement of said carriage in accordance with the second-named key selected.

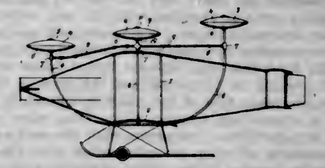
3. In a music typewriting machine, the combination, with printing means and operating devices therefor; of a vertically-movable carriage; a series of keys; a vertical rack connected with said carriage; a shaft having a pinion thereon engaging said rack, for raising said carriage when said shaft is rotated; means operative by said keys for rotating said shaft; and means controlled by said keys for controlling the extent of each rotary movement of said shaft in accordance with the key selected.

4. In a music typewriting machine, the combination, with a vertically-movable carriage, and a set of keys; of a shaft; connections between said shaft and said carriage for raising the latter when the former is rotated; means connected with said shaft and operative by said keys, for rfotating said shaft when a key is depressed; and mechanism operated by said keys for controlling the extent of rotation of said shaft in accordance with the key selected.

5. In a music typewriting machine, the combination, with a vertically-movable carriage provided with a vertical rack, and a set of keys; of a shaft having a pinion thereon engaging said rack, for raising the carriage when said shaft is rotated; a rod connected to said shaft and engageable by said keys for rotating said shaft when a key is depressed; and mechanism operated by said keys for controlling the extent of rotation of said shaft in accordance with the key selected.

[Claims 6 to 17 not printed in the Gazette.]

1,073,977. SAFETY-SUPPORT FOR FLYING-MACHINES. RALPH P. FOX, Fort Hancock, N. J. Filed Mar. 7, 1913. Serial No. 752,702. (Cl. 244—12.)

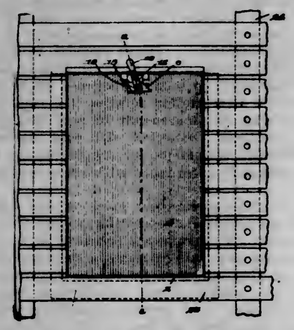


1. The combination with a flying machine, provided with a main supporting surface, of auxiliary balancing and supporting surfaces arranged in front, in rear and at the opposite sides of the machine beyond said main supporting surface, each of said auxiliary balancing and supporting surfaces comprising a body of circular form in plan and elliptical form in vertical section, presenting opposed upper and lower convex resisting surfaces.

2. The combination with a flying machine, provided with a main supporting surface, of auxiliary balancing and supporting surfaces arranged in front, in rear and at the sides of said machine beyond said main supporting surface, each of said auxiliary balancing and supporting surfaces comprising a staff, and a body mounted on said staff, said

body being of circular form in plan and oval form in cross section and presenting opposed upper and lower convex surfaces, and frame arms carrying said auxiliary balancing and supporting surfaces and fixed to the staff.

1,073,978. HEAD FOR VENTILATING OR HEATING FLUES. JOSEPH GEDDES, Rochester, N. Y. Filed Apr. 24, 1912. Serial No. 692,815. (Cl. 126—326.)



1. A double-walled flue-head having two openings at right angles to each other, one of said openings having an area equal to the cross sectional area of the head and the other opening having a width less than the width of the head to provide seats on opposite sides of the opening within the head, a collar surrounding the last named opening on the exterior of the head and serving as a protection for the laths of a building wall, and a valve pivoted within the head to coöperate with the seats on opposite sides of the opening, said valve having its free or swinging end located in proximity to the first named opening and adapted to cooperate with the inner face of the head, whereby the heat is confined within the double-walled head, and the collar, which protects the ends of the laths, is maintained in a cool condition when the valve is closed.

2. A double-walled flue-head having two openings at right angles to each other, one of said openings having a width less than the width of the head to provide a seat on the inside of the head about said opening, a collar projecting from the head about said opening, a valve, a member to which said valve is pivoted in such a position that the valve may coöperate with the inner wall of the head about the opening surrounded by the collar, and means for removably securing the member to the inner face of the collar, whereby the valve may be removed and the head used with a register provided with its own valve.
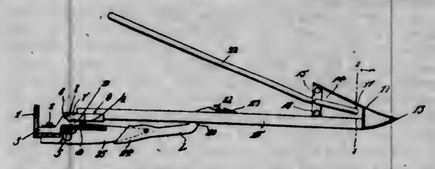
3. The combination with a head having an opening, and a seat surrounding said opening on the inside of the head, of a valve for coöperation with the seat, a collar surrounding said opening on the outside of the head, a block secured to the inner face of the collar and provided with a pocket, a supporting member having the valve pivoted thereto in a position to coöperate with the seat and having a retaining shoulder for coöperation with the collar, and a device inserted in the pocket of the block to hold the supporting member to the block.

4. The combination with a casing, and a pivoted valve for controlling the same, of operating means for the valve comprising two shoulders projecting from the valve in proximity to its pivot, and a slide supported independently of the valve between the projections and having cam faces at its ends coöperating with the shoulders.

5. The combination with a casing and a pivoted valve for controlling the same, of operating means for the valve comprising a pair of spaced projections, and a slide having end faces arranged parallel to each other but at oblique angles to the line of movement of the said slide, said faces coöperating with the projections on the valve.

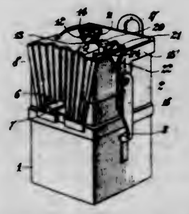
[Claims 6 and 7 not printed in the Gazette.]

1,073,979. GRAIN-LIFTING ATTACHMENT FOR HARVESTERS. MICHAEL C. GRANBY, Hoosick Falls, N. Y. Filed Oct. 29, 1910. Serial No. 589,770. (Cl. 56—129.)



In a grain lifting device for harvesters, a bearing member secured upon and extending forwardly from the finger bar, said bearing member having a downwardly extending lug intermediate the ends thereof engaging the cutting apparatus and forwardly extending lugs adjacent to the ends thereof, said bearing member being also provided with an approximately circular groove or channel with overhanging flanges, in combination with a yoke having a cross bar of circular cross section pivotally engaging the bearing and provided adjacent to one end of the cross bar with notches adapted to register with the overhanging flanges of the bearing member when the yoke is in a raised position, and a lifting arm connected with the yoke, the limbs of said yoke being supported when the yoke is in a lowered position on the forwardly extending lugs or offsets of the bearing member.

1,073,980. ACETYLENE-GAS LAMP. WOLFGANG GSCHWENDNER, Cleaton, Ky. Filed Nov. 29, 1912. Serial No. 734,199. (Cl. 240—11.)



A miner's gas lamp, comprising separable top and bottom sections, and a combined support and fastener for securing the top and bottom sections together, embodying a forked lever straddling the top section and pivotally attached thereto, a supporting hook projecting from the crown of the work, coupling hooks pivotally connected to the side arms of the forked lever, and projections on the bottom section engaged by said coupling hooks.

1,073,981. GRAIN-DOOR. PETER JAMES HANSEN, Lansford, N. D. Filed June 7, 1912. Serial No. 702,279. (Cl. 20—30.)

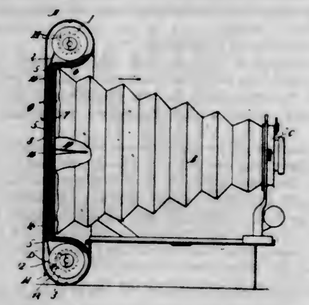


1. A doorway for grain cars or the like comprising two sets of sections, to wit: an inner set of sections of unequal width and an outer set of sections also of unequal widths arranged to lap joints, the inner set projecting beyond one side of the doorway and the outer set projecting beyond the other side of the doorway, means for preventing the inner set from inward movement in the ends which do not lap the doorway, and means for securing the opposite ends of the outer set in the doorway.

2. A door for grain cars or the like embodying two sets of independent members, one of said sets comprising a plurality of inner sections of unequal width, the outer set of sections also being of unequal width and arranged to lap joints, the inner set projecting beyond one side of the doorway and the outer set projecting beyond the other side of the doorway, means for preventing the inner set from inward movement at the ends which do not overlap the doorway, means for securing the opposite set within the doorway, said means embodying spring catch members arranged upon each of the sections, filler blocks arranged within one of the sides of the doorway, and wedge blocks arranged between the filler blocks and the spring catch members.

3. A door for grain cars or the like comprising two sets of independent members, one set comprising a plurality of inner sections of unequal width, and the outer set comprising a plurality of sections also of unequal width arranged to lap joints, one of the stiles of the doorway having a depression to receive one of the ends of the outer sections of the door, the stiles of the door being provided with additional ways to receive the inner sections of the door, and to arrange one of the ends of said inner sections beyond one side of the doorway, the outer sections of the doorway not received within the depression of the stile each having a vertically arranged substantially V-shaped resilient catch, the stile of the doorway adjacent the said catches being grooved, filler blocks of a size equaling the height of each of the outer sections within the groove and projecting beyond the groove and engaging with the outer faces of the outer sections of the doorway, and wedge blocks each of a size equaling the height of each of the outer sections of the doorway arranged between the filler blocks and the spring catches and adapted to be forced by the said catches into frictional engagement with the filler blocks.

1,073,982. FILM-CAMERA. ARTHUR E. HARPER, Newark, N. J., and HENRY H. RIGGS, Hyde Park, Mass. Filed Apr. 13, 1911. Serial No. 620,801. (Cl. 95—32.)



1. In a camera, the combination of a casing provided with spool holders and with a relatively thin portion located between said spool holders, a bellows secured to said thin portion and extending between said spool holders, a plurality of shutters slidably mounted within said thin portion, and movable independently of each other, and means controllable at the will of the operator for shifting said shutters independently of each other in relation to said thin portion of said casing.

2. In a camera, the combination of a casing provided with rounded walls forming housings for spools, a frame located within said casing and provided with rounded portions mating the curvature of said rounded walls and spaced therefrom, and a pair of shutters slidably mounted within said casing and provided with flexible portions extending between said rounded walls and the adjacent rounded portions of said frame for guiding said shutters partially in curved paths, and means for shifting relative positions of said shutters.

3. The combination of a casing provided with a spool holder having a curved wall, said casing being further provided with an opening for exposing a film, a frame having an opening registering with said opening in said casing, said frame having curved portions disposed adjacent to said curved wall and spaced therefrom, and a flexible shutter slidably mounted within said casing and provided with a portion extending between said curved wall and the adjacent portion of said frame.

4. In a camera, the combination of a casing provided with a passage-way a portion of which is curved, said casing being further provided with an opening registering with said passage-way, a frame provided with an opening registering with said passage-way, said frame being provided further with a portion curved to mate the curvature of said wall, and a shutter slidably mounted within said casing and adapted to close said openings, said shutter being provided with a portion extending between said curved wall and the adjacent curved portion of said frame.

5. In a camera, the combination of a casing provided with an exposure opening and with a slideway disposed adjacent to said exposure opening, said slideway having a curved portion and a flexible shutter mounted within said slideway for the purpose of partially closing said exposure opening, said shutter being provided with a portion extending into said curved portion of said slideway.

[Claim 6 not printed in the Gazette.]

1,073,983. DOUBLE-WALLED VESSEL WITH METALLIC END CLOSURE. JOHN W. HARRISON, Richmond, Va. Filed July 9, 1912. Serial No. 708,493. (Cl. 62—23.)



1. In a vessel, the combination of an inner and outer wall concentrically arranged and providing a dead air space therebetween; a closure permanently secured to one end of said outer wall and dished to frictionally engage with and center the corresponding end of the inner wall; a ring permanently secured to the other end of said outer wall having an annular flange to frictionally engage with and center the corresponding end of the inner wall, said closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

2. In a vessel comprising an inner and outer wall concentrically arranged and providing a dead air space therebetween, the combination of a metallic closure permanently secured to one end of the outer wall and having a centrally dished portion adapted to frictionally engage with and center the corresponding end of the inner wall, a metallic ring permanently secured to the other end of the outer wall having an upwardly inclined portion and provided with an annular flange adapted to fit within and frictionally engage with the corresponding end of the inner wall and center the same with respect to the outer wall; said fixed closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

3. In a vessel comprising an inner and outer wall concentricaly arranged and providing a dead air space therebetween, the combination of a metallic closure secured to one end of the outer wall and dished to provide a flat bottom and a surrounding inclined portion; an inner wall supported and centered on said bottom; a metallic ring secured to the other end of the outer wall

and having an annular inclined portion and an annular flange; said inclined portion and annular flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall; and a removable closure for the open end of the inner wall, substantially as described.

4. In a vessel, the combination of an inner and outer cylindrical wall concentrically arranged and providing a dead air space therebetween; a metallic closure crimped to the bottom edge of the outer wall, said closure having a flange tightly fitting within the outer wall, and having a dished portion providing a flat bottom and a surrounding inclined portion; said bottom supporting the inner wall and the inclined portion frictionally engaging and centering the same with respect to the outer wall; a metallic ring crimped to the upper edge of the outer wall and having a flange fitting tightly within the outer wall, and having an annular inclined portion and an annular flange; said inclined portion and annular flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall; and a removable closure for the open end of the inner wall, substantially as described.

5. A vessel comprising inner and outer concentric tubes, a closure at one end engaging at its periphery the outer tube and provided with an annular shoulder engaging the inner tube and a closure at the opposite end comprising an annular ring engaging at its periphery the outer tube and at the inner opening the inner tube, and a removable cover for the annular ring.

[Claim 6 not printed in the Gazette.]

1,073,984. SUBSOIL ATTACHMENT FOR PLOWS. WILLIAM F. HARTIG, Evansville, Ind. Original application filed Aug. 27, 1912, Serial No. 717,301. Divided and this application filed Jan. 18, 1913. Serial No. 742,946. (Cl. 97—32.)

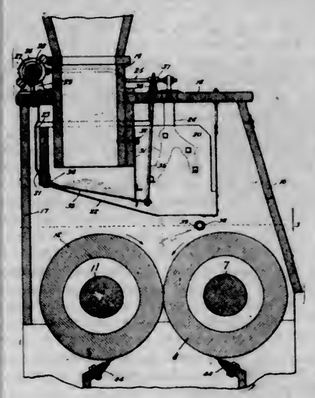


1. A subsoil attachment for plows including a standard provided at its lower end with a front notch and having a rear recess forming an upper shoulder, a subsoil blade provided with a slot receiving the lower end of the standard, said blade fitting in the notch and the recess of the standard, and a fastening device piercing the standard below the blade for retaining the latter in engagement with the notch and in contact with the said shoulder.

2. A subsoil attachment for plows including a standard provided at its lower end with an approximately rectangular front notch, and having a rear recess diametrically opposite the notch and forming an upper shoulder, a subsoil blade curved in cross section and provided with a slot intermediate its ends, said slot receiving the lower end of the standard, said blade having the walls of the slot engaging the notch and recess of the standard, a perforation in said lower end of the standard below the blade, and a transverse wedge-shaped key curved to conform to the configuration of the blade and extending through the perforation.

3. A subsoil attachment for plows including a standard provided at its lower end with a tapered front notch and having a rear recess forming a heel, which is rounded at the bottom, a subsoil blade provided with a slot to receive the lower end of the standard and engaging the front notch thereof and fitting in the rear recess, said rounded heel and tapering recess permitting the blade to be placed on or engaged with the standard, and fastening means for retaining the blade on the standard.

1,073,985. METHOD OF TREATING FLOUR. CHARLES HERENDEEN, Chicago, Ill. Filed June 28, 1913. Serial No. 776,305. (Cl. 99—10.)



1. The method of treating flour which consists in separating the flour into its particles and treating the flour while in this condition to the action of moisture, heat and pressure.

2. The method of treating flour which consists in separating the flour into its particles, and treating the flour while in this condition first to the action of steam and then to subjecting it to pressure.

3. The method of treating flour which consists in temporarily suspending the same in a finely divided condition, subjecting the flour while in this condition to the action of heat and moisture and thereafter subjecting it to pressure.

4. The method of treating flour which consists in temporarily suspending the same in a finely divided condition, subjecting the flour while in this condition to the action of steam and thereafter subjecting it to pressure.

5. The method of treating flour which consists in permitting the flour to fall freely in a finely divided shower, injecting steam into the shower and thereafter heating and drying the same under pressure.

[Claims 6 to 8 not printed in the Gazette.]

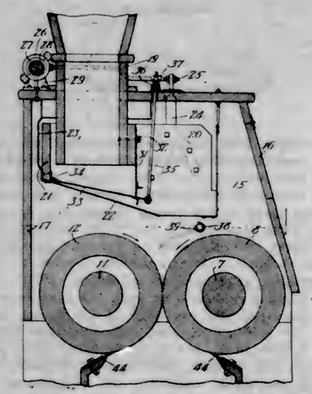
1,073,986. APPARATUS FOR TREATING FLOUR. CHARLES HERENDEEN, Chicago, Ill. Filed June 28, 1913. Serial No. 776,306. (Cl. 99—2.)

1. In a machine for treating flour, the combination with means for separating the flour into particles, of means for subjecting the flour while in this condition to the action of heat and moisture, and means for thereafter applying pressure to the flour.

2. In a machine for treating flour, the combination with means for separating the flour into its particles, of means for subjecting the flour while in this condition to the action of steam, and means for thereafter applying pressure to the flour.

3. In a machine for treating flour, the combination with means for temporarily suspending the same in a finely divided condition, of means for subjecting the flour while in this condition to the action of heat and moisture, and means for thereafter applying pressure to the flour.

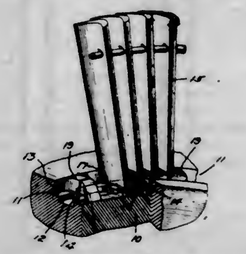
4. In a machine for treating flour, the combination with means for temporarily suspending the same in a finely divided condition, of means for subjecting the flour while in this condition to the action of steam, and means for thereafter applying pressure to the flour.



5. In a machine for treating flour, the combination with means for temporarily suspending the flour, in a finely divided condition in the atmosphere, means for injecting steam into the suspended particles, and means for immediately thereafter heating the same and applying pressure thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,073,987. BLADE-SECURING MEANS. FRANCIS HODGKINSON, Edgewood Park, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed July 24, 1911. Serial No. 640,250. (Cl. 121—57.)

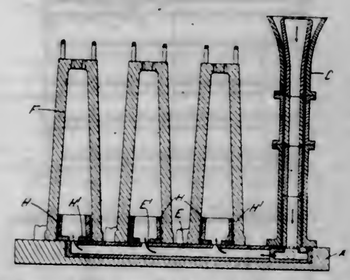


In combination with a grooved blade-holding element having a groove in the floor of the first named groove, a removable blade having a projection at right angles with its body portion and in the second mentioned groove, a packing piece in the first mentioned groove and beneath which the projection on the blade extends, and wedges on the side of the blade and packing piece for holding the packing piece in the groove.

1,073,988. CASTING INGOTS. JAMES ROSSITER HOYLE and ARTHUR WILLIAM BREARLEY, Sheffield, England, assignors to Thomas Firth and Sons Limited, Sheffield, England. Filed Dec. 13, 1912. Serial No. 736,582. (Cl. 22—216.)

1. The method of preventing the formation of shrinkage cavity within bottom cast ingots which consists in introducing the metal into the mold through a dozzle of refractory material placed in the base of the mold, heating said dozzle to incandescence by the incoming metal, and reversing the mold, said dozzle after the mold is reversed causing the metal in contact therewith to feed downward into any shrinkage cavity within the ingot.

2. The method of preventing the formation of shrinkage cavity within ingots which are bottom cast in groups which consists in securing a plurality of molds to a casting plate so as to communicate with the pouring trumpet, placing a refractory dozzle within the base of each mold and heating said dozzles to incandescence by the incoming metal, then reversing the casting plate and the molds mounted thereon, whereby the most recently introduced metal is brought to the top of each mold where it is maintained at a high temperature by the heated dozzle for the purpose set forth.



3. The method of preventing shrinkage cavity in ingots which are bottom cast in groups, which consists in securing to a casting plate a plurality of taper molds which widen toward their bases, said molds communicating by runner brick conduits with the pouring trumpet, placing a dozzle and a perforated plate both of refractory material within the widened base of each mold and heating said dozzles and plates to incandescence by the incoming metal, then closing the mouth of the trumpet and reversing the casting plate together with the molds mounted thereon whereby each ingot solidifies wide end uppermost, and the most recently introduced metal is brought to the top of each mold where it is maintained at a high temperature by the heated dozzle so that the metal in contact therewith is maintained in a molten state for the purpose described.

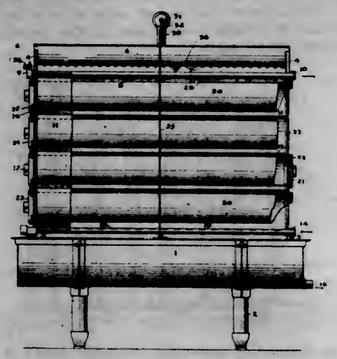
4. The method of preventing shrinkage cavity in ingots which are bottom cast in groups, which consists in securing to a casting plate a plurality of taper molds which widen toward their bases, said molds communicating by runner brick conduits with the pouring trumpet, placing a dozzle and a plate both of refractory material within the widened base of each mold, said plate having a plurality of inclined conduits whereby the incoming metal is directed against the walls of the dozzle thus heating said walls to incandescence, then closing the mouth of the trumpet and reversing the casting plate together with the molds mounted thereon whereby each ingot solidifies wide end uppermost, and the most recently introduced metal is brought to the top of each mold where it is maintained at a high temperature by the heated dozzle so that the metal in contact therewith is maintained in a molten state for the purpose described.

1,073,989. REGENERATOR. AAGE JENSEN, Oakland, Cal. Filed Mar. 15, 1911. Serial No. 614,531. Renewed June 10, 1913. Serial No. 772,913. (Cl. 62—2.)

1. A heat interchanger comprising a pair of uprights formed with similarly located vertical series of apertures, metal casings between said uprights the edges of which are secured to the inner sides of said uprights, close to, and around said apertures, inner tubes between the casings each slidable through an aperture in either upright, covers engaging the ends of said tubes and supporting said tubes, means secured upon the outer sides of said uprights for securing said covers in place, means for discharging a liquid upon the outer sides of said casings, and means for conducting a fluid between said casings and said tubes.

2. A heat interchanger comprising uprights formed with similarly located vertical series of circular apertures,

casings the ends of which are secured to the inner sides of said uprights close to, and around said apertures, cylindrical drums, each slidable through an aperture in either upright, unitary means for closing each aperture and supporting an adjacent end of a drum, means for discharging a liquid upon the outer sides of said casings, and means for conducting a fluid between said casings and said drums.



3. A heat interchanger comprising uprights formed with similarly located vertical series of circular apertures, casings the ends of which are secured to the inner sides of said uprights close to, and around said apertures, cylindrical drums, each slidable through an aperture in either upright, covers for the respective apertures provided with means for supporting said drums, and means whereby said covers can be secured to said uprights to make fluid tight closures of said apertures.

4. A heat interchanger comprising uprights formed with similarly located vertical series of circular apertures, casings, the ends of which are secured to the inner sides of said uprights close to and around said apertures, horizontal cylindrical drums having closed ends, each slidable through an aperture in either upright, covers having parts arranged to engage the ends of the drums, and elements secured upon the outer sides of the uprights for supporting said covers, said covers and element being formed with co-engaging parts adapted, in the rotation of the covers, to press said covers firmly against said uprights and tightly close said apertures, means for discharging a liquid upon the outer sides of said casings, and means for conducting a fluid between said casings and said drums.

5. A heat interchanger comprising uprights formed with similarly located vertical series of circular apertures, casings, the ends of which are secured to the inner sides of said uprights close to and around said apertures, horizontal cylindrical drums having closed ends, each slidable through an aperture in either upright, covers having parts arranged to engage the ends of the drums, said uprights being provided with lugs, and the covers having wedges engaging said lugs adapted, in the rotation of said covers, to wedge the covers firmly against the uprights, and tightly close said apertures.

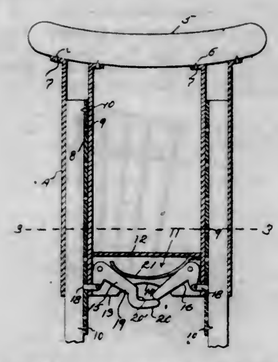
1,073,990. APPARATUS FOR THE SALVAGE OF VESSELS. MARQUIS L. JOHNSON, Mankato, Minn. Filed Mar. 11, 1913. Serial No. 753,611. (Cl. 9—9.)

1. In an apparatus of the class described the combination of a post secured to the top deck of a vessel and provided with downwardly extending radial arms and an aperture extending longitudinally therethrough, spaced arms connected to the said post extending downwardly through the vessel hull and secured to the various decks, a drum rotatably secured between the said arms and constituting a reel, a guide cable wound upon said drum and extending through the said post aperture, a buoy disposed upon the top deck of the said vessel and secured to the said guide cable, and a lifting cable provided with an annular ring secured thereto adapted to slide upon the guide cable for the engagement of the said post arms.



2. In an apparatus of the class described the combination of a post secured to the top deck of a vessel and including a base, spaced arms formed integral with the said base and extending downwardly through and secured to the various decks of the vessel, outstanding downwardly projecting arms connected to the upper extremity of said post, said post provided with an aperture extending centrally therethrough, a drum rotatably secured to the said first mentioned arms and in alinement with the post aperture, a guide cable wound upon the said drum and a buoy resting upon the top deck of the vessel and connected to the said guide cable, means for preventing the shifting of said buoy, and a lifting cable provided with an annular ring secured thereto, said annular ring encompassing the guide cable for the engagement of the former with the outwardly and downwardly projecting arms of the post.

1,073,991. ADJUSTABLE CRUTCH. FRANK H. JONES, Baltimore, Md., assignor of one-half to Frank Llewellyn Jones, Baltimore, Md. Filed Jan. 22, 1913. Serial No. 743,684. (Cl. 3—4.)

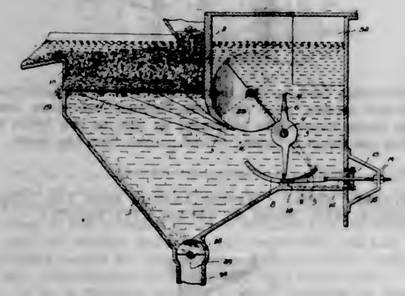


1. An adjustable crutch having side bars with upper and lower sections which telescope, sliding bolts movable with the upper sections and adapted to lockingly engage the lower sections, and pivoted levers connected to said bolts, said levers coöperating with each other whereby a movement of one will operate upon the other to cause the bolts to be simultaneously retracted from engagement with the lower sections.

2. An adjustable crutch comprising an arm rest, tubular uprights secured to said arm rest, side bars sliding within the uprights and provided with a plurality of alined openings, a casing secured between the uprights, said casing being open on its under side, a pair of angular levers secured within the casing, one of said levers being recessed to receive the free end of the other lever, bolts secured to said levers and sliding through openings formed in the uprights, and means for holding said bolts normally in their extended positions.

3. An adjustable crutch comprising an arm rest, tubular uprights secured to said arm rest, side bars sliding in said uprights, a concavo-convex metallic strip secured to the inner side of each side bar and formed with a plurality of alined openings, a casing having a top and side walls, the side walls being recessed intermediate their lower edges, said casing being positioned between the uprights, a pair of angular levers pivoted within said casing and having downwardly and inwardly extending arms, one of said arms being offset at its free end to provide a recess for the reception of the free end of the other arm, a flat metal spring secured to the top of the casing and bearing downwardly against said levers, and bolts secured to the levers and sliding through openings formed in said uprights, said bolts limiting the downward swing of the levers, the offset end portion of one of said levers limiting the inward movement of both of the levers whereby the bolts are prevented from being entirely withdrawn from the openings in the uprights.

1,073,992. COAL-WASHER. JAMES B. KEENAM, Birmingham, Ala. Filed Nov. 23, 1912. Serial No. 733,151. (Cl. 83—79.)



1. A washing device comprising a hopper having a supporting screen, a casing arranged within the hopper and having a port communicating with said hopper, a rotating plunger adapted to discharge the water through said port and toward the screen, and a valve normally closing the casing above the plunger and between said plunger and port.

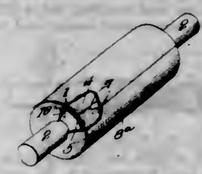
2. A washing device comprising a hopper having a supporting screen, a casing arranged within the hopper and having a port communicating with said hopper, a rotating plunger adapted to discharge the water through said port and toward the screen, a valve normally closing the casing above the plunger and between said plunger and port, and a manually operated sliding gate for governing the size of the port.

3. A washing device comprising a hopper having a supporting screen, a casing arranged within said hopper and having a port communicating with the hopper, a hub disposed within said casing and carrying a plunger, said plunger adapted to discharge the water through the said port and toward the screen, a hollow valve having a circular peripheral surface adapted to coöperate for valve purposes with the circular surface of the hub of the plunger.

4. A washing device comprising a hopper having a supporting screen, a casing arranged within the hopper having a port communicating with said hopper, a valve normally closing the port of the casing, a hub, a plunger carried by the hub and including diametrically opposed arms projecting from the hub, and means for operating the plunger and valve to move the valves beyond the path of the arms.

5. A washing device comprising a hopper having a supporting screen, a casing arranged within the hopper having a port communicating with said hopper, a rotating plunger adapted to discharge the water through said port and toward the screen, a valve normally closing the casing above the plunger and between said plunger and port, and a manually operated sliding gate for governing the size of the port, said gate having a water directing surface leading toward the screen.

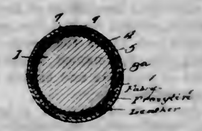
1,073,993. DRAWING-ROLL. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Filed July 21, 1913. Serial No. 780,310. (Cl. 118—23.)



1. A drawing roll comprising a hard core, a layer of composite material on the hard core, the composite material comprising an inner layer of fabric, and an outer calendered layer of rubber, the fabric and rubber being intimately intermingled with each other and forming a single piece, and an endless leather cot fitting over and compressing the composite material, the leather contacting with the rubber and the outward expansion of the composite material serving to prevent the cot slipping.

2. A drawing roll comprising a hard core, a layer of composite material on the hard core, the composite material comprising an inner layer of fabric, and an outer calendered layer of rubber, the fabric and rubber being intimately intermingled with each other and forming a single piece, and an endless leather cot fitting over and compressing the composite material, the leather contacting with the rubber and the outward expansion of the composite material serving to prevent the cot slipping, the ends of the cot being folded over and secured to the ends of the roll to inclose the rubber and prevent admission of air.

1,073,994. DRAWING-ROLL. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Filed July 21, 1913. Serial No. 780,311. (Cl. 118—23.)



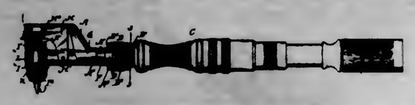
1. A drawing roll comprising a hard core, a layer of composite material on the hard core, the composite material comprising an inner layer of fabric and an outer calendered layer of pyroxylin, the fabric and pyroxylin being intimately intermingled with each other and forming a single piece, and an endless leather cot fitting over and compressing the composite material, the leather contacting with the pyroxylin and the outward expansion of the composite material serving to prevent the cot slipping.

2. A drawing roll comprising a hard core, a layer of composite material on the hard core, the composite material comprising an inner layer of fabric and an outer calendered layer of pyroxylin, the fabric and pyroxylin being intimately intermingled with each other and forming a single piece, and an endless leather cot fitting over and compressing the composite material, the leather contacting with the pyroxylin and the outward expansion of the composite material serving to prevent the cot slipping, the ends of the cot being folded over and secured to the ends of the roll to inclose the pyroxylin and prevent admission of air.

1,073,995. ATTACHMENT FOR DENTAL PLUGGERS. FREDERICK C. LAMBERT, New York, N. Y., assignor of one-half to George J. Koch, New York, N. Y. Filed May 12, 1913. Serial No. 767,173. (Cl. 32—24.)

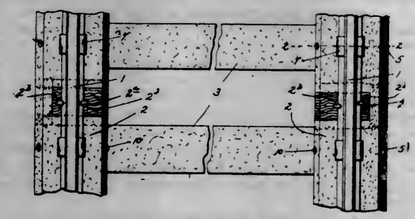
In combination with a dental plugger having a main casing provided with a concave neck and a tool spindle

mounted to reciprocate in the said main casing, of an attachment casing, a coupling nut held on the said attachment casing, a two-part coupling member fitting on the said concave neck and provided with an exterior screw thread engaged by the said coupling nut, a driving member slidable in the said attachment casing and removably at-



tached to the said spindle, an angular arm on the said driving member, a lever fulcrumed in the said attachment casing and engaged by the said angular arm, and a spring-pressed tool holder mounted to reciprocate at an angle to the axis of the said driving member, the said tool holder being engaged by the said lever.

1,073,996. RAIL-SUPPORTING BED. FRANK W. LAWSON, Algiers, La. Filed May 8, 1913. Serial No. 766,331. (Cl. 238—3.)



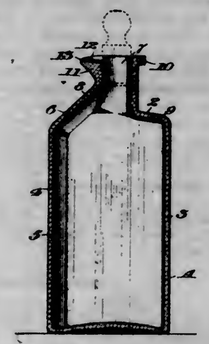
1. The combination in a railway, of longitudinal rail supports having upright surfaces and openings extending from said surfaces, said longitudinal portions being formed of plastic material, spaced transverse portions, of plastic material, integral with said longitudinal portions, rails superposed on and extending lengthwise of the longitudinal portions, rail fasteners resting against the webs and over the bases of the rails and under the heads thereof, and fasteners connecting the first-named fasteners and the longitudinal portions or supports and having portions disposed in the said openings.

2. The combination in a railway, of a bed of plastic material comprising longitudinal rail-supporting portions having upright surfaces and also having transversely disposed openings, and spaced transverse portions, of less height than the longitudinal portions, integral with and extending between said longitudinal portions, rails superposed on the longitudinal portions of the bed, fasteners connected with the rails and having depending apertured portions embedded in the longitudinal bed portions and intersecting the said transverse openings, and connecting means extending through the said transverse openings and the apertures in the fasteners and secured in the openings.

3. The combination in a railway, of a bed of plastic material comprising longitudinal rail-supporting portions having upright surfaces and also having downwardly and outwardly inclined transverse bores extending throughout their thicknesses, and spaced transverse portions, of less height than the longitudinal portions, integral with and extending between said longitudinal portions, rails superposed on the longitudinal portions of the bed, fasteners connected with the rails and having depending apertured portions embedded in the longitudinal bed portions and intersecting said transverse inclined bores, and bolts extending through the transverse bores and the apertures in the fasteners and secured to the bed.

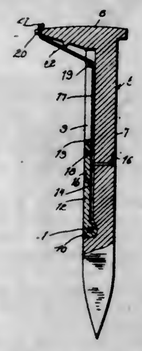
1,073,997. BOTTLE. WILLIS LONDON, Franklin, Ky. Filed Mar. 29, 1913. Serial No. 757,610. (Cl. 215—70.)

A bottle comprising a body portion and neck, a shoulder connecting the neck with the body portion, a spout formed at one side of the neck and having the groove thereof communicating with the mouth of the bottle, that side of the body adjacent the spout provided with a collecting channel, the shoulder above the collecting channel having



a collecting lead formed therein into which the collecting channel merges, said collecting channel, collecting lead and spout disposed in alinement so that as the bottle is tilted the liquid is guided to and poured from the spout.

1,073,998. SPIKE. MARTHA LUNDIN, Bells, Cal. Filed Feb. 6, 1913. Serial No. 746,494. (Cl. 85—23.)

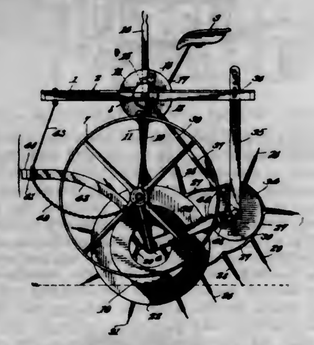


1. A spike of the character described, having a recess formed in the shank thereof, a blade pivoted at its lower end within said recess, means for forcing the upper end of the blade normally out of the recess, the shank being also formed with a longitudinal groove communicating with said recess and terminating at the head of the shank, a flexible connection attached at one end to the free extremity of said blade and extended upwardly through said groove and attached at its other end to the head of the shank, means for holding said connection within the groove, and means for cutting the connection when the spike is driven home.

2. A spike comprising a shank and a head, said shank being formed upon its inner face with a recess, a retaining blade pivoted at its lower end within said recess, spring means adapted to force the free end of said blade normally out of the recess, the shank being also formed with a longitudinal groove communicating with the upper end of the recess and terminating at the head of the shank, a pin extending transversely through the upper end of said groove, a cutting tooth extending transversely across the under side of said head, said head being notched upon its inner edge, and a flexible connection secured at one end to the free extremity of said blade and at the other end within said notch, a flexible connection passing through the

groove between the pin and the shank and under the cutting tooth, said flexible connection serving to hold the locking blade within the recess.

1,073,999. MACHINE FOR TURNING OVER GROUND. GEORGE A. MATHESON, Vancouver, British Columbia, Canada. Filed Apr. 27, 1912. Serial No. 693,537. (Cl. 97—38.)



1. In a machine for the purpose described, an endless series of connected flat spaced blades, and spaced roller supports for said series of blades, the spacing of the rollers being in the direction of active movement of the machine with the forward roller support constituting the sole sustaining means for the machine when in action, and the rear roller support being elevated from the ground.

2. In a machine for the purpose described, a ground roller having axially spaced annular cutters thereon, another roller disposed to the rear of the first roller with respect to the direction of travel of the machine, and an endless series or chain of blades extending between and encircling the rollers, the chain of blades encircling that portion of the first named roller between the annular cutters thereon.

3. In a machine for the purpose described, a ground roller having axially spaced annular cutters thereon, another roller disposed to the rear of the first roller with respect to the direction of travel of the machine, and an endless series or chain of blades extending between and encircling the rollers, the chain of blades encircling that portion of the first named roller between the annular cutters thereon, said annular cutters being disposed axially of the roller carrying them.

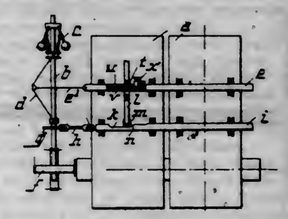
4. In a machine for the purpose described, a ground roller, another roller to the rear thereof with respect to the direction of active travel of the machine, an endless connected series of spaced blades extending between and in encircling relation to the rollers, and a support for the second named roller adjustable to determine the distance of the second named roller from the ground.

5. In a machine for the purpose described, a ground roller having axially spaced annular cutters thereon, another roller disposed to the rear of the first roller with respect to the direction of travel of the machine, and an endless series or chain of blades extending between and encircling the rollers, the chain of blades encircling that portion of the first named roller between the annular cutters thereon, said annular cutters being adjustable axially of the roller carrying them, and the second named roller being connected to the first named roller by links provided with means for changing their effective length.

[Claims 6 to 10 not printed in the Gazette.]

1,074,000. OIL-ENGINE. MAX RICHARD MATTI, Falun, Sweden. Filed Sept. 14, 1910. Serial No. 581,975. (Cl. 123—90.)

1. In oil engines, the combination, a cam carrying organ having a reciprocating motion and means for adjusting the situation of the moving path of the cam during the run of the engine, thereby maintaining the length of said moving path.



2. In oil engines, in combination, a cam carrying organ having a reciprocating motion, a driving organ, driving the said cam carrying organ and means for so adjusting the cam surface in relation to said driving organ during the run of the engine, that the situation, but not the length of the moving path of the cam is adjusted during the run of the engine.

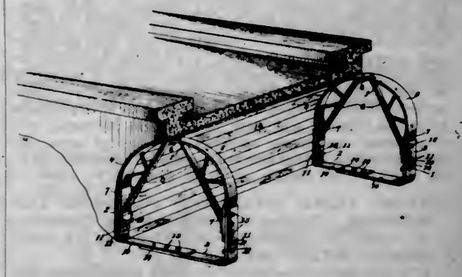
3. In oil engines, in combination, a cam carrying organ having a reciprocating motion, a driving organ for giving the said cam carrying organ this reciprocating motion and adjustable means for adjusting the situation of the moving path of the cam, thereby, however, maintaining the length of said moving path.

4. In oil engines, in combination, a cam carrying organ having a rectilinearly reciprocating motion, means for giving the said cam carrying organ this reciprocating motion and adjustable means between the cam carrying organ and the driving means for adjusting the moving path of the cam, during the run of the engine, thereby, however, maintaining the length of said moving path.

5. In oil engines, in combination, a cam carrying organ having a reciprocating motion, a driving organ for giving the cam carrying organ this reciprocating motion and an inclined groove between the cam carrying organ and the driving organ, connected with the one part and coöperating with a projection from the other part.

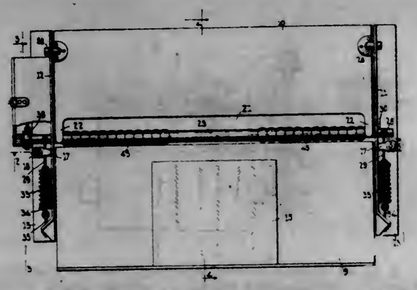
[Claim 6 not printed in the Gazette.]

1,074,001. METAL ARCH. PETER J. MAYER, Montrose, Mo. Filed June 5, 1911. Serial No. 631,362. (Cl. 25—131.5.)



A structure of the class described, comprising arched members hingedly connected to each other, the free ends of said arch members being offset, base members adjustably connected at their inner ends and having their outer ends bent at an angle to the body portions, uprights hingedly connected at their lower ends to the free ends of the base members and provided with a plurality of alined openings, threaded lugs formed upon the opposite ends of the arched members and adapted to be received in certain of said openings, and nuts threaded upon the lugs.

1,074,002. LOADED-TRUCK-COUNTING APPARATUS. RICHARD MCGARRY, Walla Walla, Wash. Filed Jan. 22, 1913. Serial No. 743,508. (Cl. 235—99.)



1. In an apparatus of the character named, the combination of a plurality of parallel, juxtaposed, serially-arranged platforms; a plurality of yielding supports for said platforms; a crank member intermediate said platforms, to be rocked by a passing truck; rigid supports for the second of said platforms, operable by said crank member to lower said second platform in correspondence with the other platform; and a counting mechanism operatively connected with said crank member, to register the number of operations thereof.

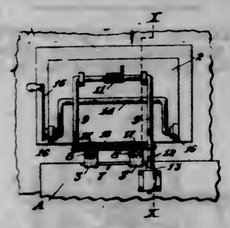
2. In an apparatus of the character named, the combination of a plurality of parallel, juxtaposed, serially-arranged platforms; a plurality of yielding supports for said platforms; a crank member intermediate said platforms, to be rocked by a passing truck; rigid supports for the second of said platforms, operable by said crank member to lower said second platform in correspondence with the other platform; a counting mechanism operatively connected with said crank member, to register the number of operations thereof; and side boards for said platform.

3. In an apparatus of the character named, the combination of a rotary crank member; yielding means for normally maintaining said member vertically disposed; a platform supported by said member, to be lowered thereby to receive a truck after the same has passed over said crank member; and a counting mechanism operatively connected with said crank member to register the operations thereof.

4. In an apparatus of the character named, the combination of a rocking member; resilient means for holding said member normally vertically disposed; guide members disposed adjacent the ends of said member and provided at a point removed from said member with upwardly and outwardly inclined slots; a platform mounted between said guide members, one edge whereof is supported by said rocking member, to be lowered and raised therewith; anchoring devices rigidly mounted on said platform to extend through said slots, to rock said platform; and a counting mechanism operatively connected with anchoring devices, to register the operations thereof.

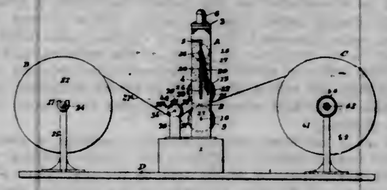
1,074,003. ALARM ATTACHMENT FOR DOORS AND WINDOWS. THOMAS L. MCGOVERN and FREDERICK W. ALLEN, San Francisco, Cal. Filed Mar. 14, 1912. Serial No. 683,745. (Cl. 177—202.)

1. In an alarm attachment for doors and the like, the combination with a door, an alarm, and conductors leading thereto, means operated by the opening of the door for completing a circuit through said conductors, said means including a pair of spaced contact members, a rigid bar pivotally mounted at one portion and having another portion disposed adjacent said contact members and adapted to bridge the space therebetween, a spring connected to the bar tending to normally retain said bar in contact with said members, means on the door for holding the swinging bar under tension out of contact with said members and adapted to release the bar when the door is opened, and means engaging said bar for holding the bar under tension out of its operative position.



2. In an alarm attachment for doors and the like, the combination with a door, an alarm, and conductors leading thereto, of means operated by the opening of the door for completing a circuit through said conductors, including a pair of contact members, a swinging bar adjacent said contact members, means for normally retaining the swinging bar in contact with the contact members, means on the door for holding the swinging bar out of contact with the contact members arranged to release the bar when the door is opened, means for adjusting the contact members, means for throwing the swinging bar out of its operative position, and means operated by the closing of the door for automatically redisposing the swinging bar into its operative position.

1,074,004. PRINTING-MACHINE. CHARLES L. MOON and JOHN ODELL, Joplin, Mo., assignors to Joplin Novelty Manufacturing Company, Joplin, Mo. Filed Aug. 6, 1912. Serial No. 713,602. (Cl. 101—126.)

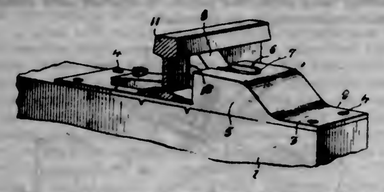


1. In an apparatus of the character described, in combination with strip supplying and winding devices, a printing mechanism including a frame, a plurality of platen rolls journaled in said frame, a series of sets of printing, ink distributing and inking rolls independently mounted upon shafts arranged in regular order above the platen rolls and slidably connected with and removably mounted upon the frame, tensioning springs disposed between the frame and shaft of the inking roll for maintaining the sets of rolls in contactual relation, means for supplying ink to the respective inking rolls, and suitable driving mechanism for the winding devices.

2. In an apparatus of the character described, and in combination with strip supplying and winding devices, a printing mechanism including a frame having vertical slots with lateral entrances, a plurality of platen rolls journaled in said frame, a series of sets of printing, ink distributing and inking rolls independently mounted upon shafts fitted within said slots in regular order above the platen rolls, tensioning springs connected with the frame and shaft of the inking roll for maintaining the sets of rolls in contactual relation, means for supplying ink to the respective inking rolls, and suitable driving mechanism for the winding devices.

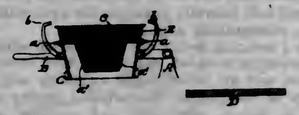
1,074,005. RAIL-FASTENER. ROBERT C. MORROW, Thetford Mines, Quebec, Canada. Filed Mar. 27, 1912. Serial No. 686,710. (Cl. 238—2.)

In combination with a rail fastener comprising a base plate having upon its upper side a lug provided at its inner edge with a pocket, the inner end of the pocket being round and disposed at a right angle to the plane of the base plate, and an imperforate shoe fitted at one end in the pocket and having a round extremity bearing directly against the rounded end of the pocket, the opposite



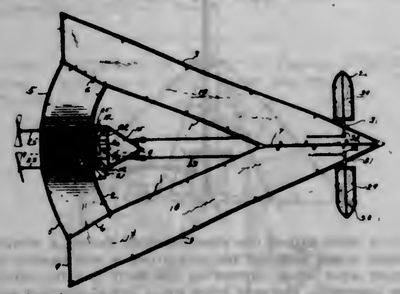
end of the shoe having a surface lying in a plane at a right angle to the median long dimension of the shoe and bearing against the web of the rail and extending from the head to the base flange thereof.

1,074,006. PROCESS OF MAKING MOLDS. ABRAM C. MOTT, Jr., Philadelphia, Pa., assignor to Abram Cox Stove Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 20, 1912. Serial No. 704,807. (Cl. 22—193.)



The process herein described of making sand molds, said process consisting in first inverting one section of a mold; placing a match board with a pattern thereon in the mold; mounting another section of the mold on top of the match board; ramming the last mentioned mold with sand; then mounting the bottom board thereon; securing the bottom board to the two sections of the flask with the match board between the flasks; turning over the flasks with the bottom board; ramming the first flask with sand while the flasks are still secured together; releasing and separating the flasks with the sections of the molds from the pattern; removing the pattern; replacing the flasks with the molds therein; detaching the first mentioned flask from its mold; and then detaching the second flask from its mold, leaving the two parts of the mold in position for pouring.

1,074,007. AEROPLANE. FREDERIC MILIUS, Atlanta, Ga. Filed Nov. 23, 1912. Serial No. 733,130. (Cl. 244—12.)



1. An aeroplane comprising a transverse carrier plane having its upper surface concave, and rearwardly converging guide planes secured at their forward ends to the carrier plane, said guide planes having their upper surfaces concave adjacent their forward ends and convex adjacent their rear ends.

2. An aeroplane including a carrier plane extending downwardly and forwardly, and rearwardly converging guide planes secured at their inner edges adjacent their forward ends to said carrier plane, the outer edge of each guide plane being doubly curved, having its forward half concave and its rear half convex, the inner edges of said guide planes being essentially straight.

3. An aeroplane comprising an outer frame, an inner frame, planes secured between said frames, the outer frame having rearwardly converging doubly curved side bars and a downwardly and forwardly curved front bar, the inner frame having straight rearwardly converging side bars and a downwardly and forwardly curved front bar, and means for connecting said frames.

4. An aeroplane comprising an outer frame somewhat triangular in plan, an inner frame spaced from said outer frame and segmental in plan, means connecting said frames, a downwardly and forwardly curved carrier plane secured between the forward ends of said frames, doubly curved guide planes secured between the sides of said frames, said guide planes having their upper surfaces concave adjacent their forward and convex adjacent their rear ends, a car supported by said frames, means for propelling the aeroplane, and means for steering the same.

5. An aeroplane comprising an outer frame having rearwardly converging doubly curved side bars and a downwardly and forwardly curved front bar, an inner frame having rearwardly converging side bars and a forwardly and downwardly curved front bar, planes secured between said frames, a car frame-work supported by the forward bars of said first mentioned frames, an engine mounted in the car frame-work, propeller shafts driven by said engine, a pair of rudders secured adjacent the rear end of the outer frame, means for actuating said rudders, and an operator's seat positioned adjacent the forward ends of said last mentioned means.

[Claim 6 not printed in the Gazette.]

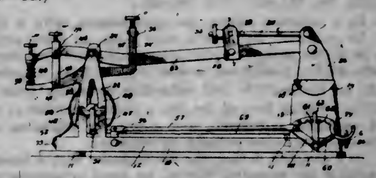
1,074,008. FOLDED FILTER. FRIEDRICH NAGEL, Düren, Germany. Filed Mar. 29, 1913. Serial No. 757,698. (Cl. 210—16.)



1. As a new article of manufacture, a foldable circular filter blank having a plane central portion and creases extending inwardly from its outer marginal edge to the marginal edge of such portion.

2. A substantially cylindrical filter folded from a blank which has radial creases therein, and pairs of parallel creases disposed between adjacent radial creases.

1,074,009. HAMMER. SAKARIAS KÄTKYT NIEMI, Tower, Minn. Filed Nov. 29, 1912. Serial No. 734,185. (Cl. 78—32.)



1. In a hammer, the combination with a base, of uprights thereon, an anvil on the base, a beam mounted to swing on the uprights, a hammer head on the beam and movable therewith to engage the said anvil, a frame for the said beam, a crank frame adjustably mounted on the

said uprights, and a crank shaft journaled on the said crank frame and having connection with the first mentioned frame for imparting a swinging movement to the said beam.

2. In a hammer, the combination with a base, of uprights thereon, an anvil on the base, a beam mounted to swing on the uprights, a hammer head on the beam and movable therewith to engage the said anvil, a frame for the said beam, a crank frame adjustably mounted on the said uprights, a crank shaft journaled on the said crank frame and having connection with the first mentioned frame for imparting a swinging movement to the said beam, and means on the said base and having connection with the said crank frame for adjusting the said crank frame on the said uprights.

3. In a hammer, the combination with a base, of an anvil thereon, uprights on the base, a beam mounted to swing on the said uprights, a hammer head on the said beam and movable therewith to engage the said anvil, a frame for the said beam, cushion members connecting the said frame and said beam, a crank shaft movable vertically on the said uprights and having connection with the said frame to impart a swinging movement to the said beam when the said crank shaft is operated, and means mounted on the said frame and having connection with the said beam for raising and lowering the said beam relatively to the said anvil.

4. In a hammer, the combination with a base, of an anvil thereon, uprights on the base, a beam mounted to swing on the said uprights, a hammer head on the said beam and movable therewith to engage the said anvil, a frame for the said beam, cushion members connecting the said frame and said beam, a crank shaft movable vertically on the said uprights and having connection with the said frame to impart a swinging movement to the said beam when the said crank shaft is operated, means mounted on the said frame and having connection with the said beam for raising and lowering the said beam relatively to the said anvil, and a spring on the said base and engaging the said frame to normally space the said hammer head from the said anvil.

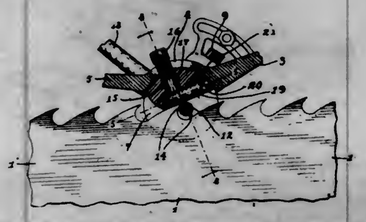
5. In a hammer, the combination with a base, of an anvil thereon, uprights on the base, a beam mounted to swing on the said uprights, a hammer head on the said beam and movable therewith to engage the said anvil, a frame for the said beam, cushion members connecting the said frame and said beam, a crank shaft movable vertically on the said uprights and having connection with the said frame to impart a swinging movement to the said beam when the said crank shaft is operated, means mounted on the said frame and having connection with the said beam for raising and lowering the said beam relatively to the said anvil, a spring on the said base and engaging the said frame to normally space the said hammer head from the said anvil, means on the said base for moving the said crank shaft vertically on the said uprights, and locking means for securing the said crank shaft in locked position on the said uprights.

1,074,010. SAW-SWAGE. CARL L. OLSEN, Indianapolis, Ind., assignor to E. C. Atkins and Company, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 16, 1912. Serial No. 731,838. (Cl. 76—54.)

1. In a swaging device, the combination with a block of a die rotatably mounted in said block, an anvil adjustable in a line parallel with its swaging face with respect to said die and positioned in said block to have its greater length at an angle to and extending upwardly from the effective swaging face of the die, a sliding member in said block engaging said anvil, and means for adjusting said sliding member, substantially as described.

2. In a swaging device, the combination with a block of a rotatable die mounted therein, an anvil adjustable in a line parallel to its swaging face with respect to the die, and a sliding member in said block engaging to adjust said anvil in said line, said sliding member being mounted in said block above the axis of rotation thereof and movable laterally, substantially as described.

3. In a swaging device, the combination with a block of a rotatable die, an anvil adjustable in a line parallel with its swaging face with respect to the die, a slidable member mounted within said block and having means to engage positively said anvil and means to operate said slidable member, substantially as described.

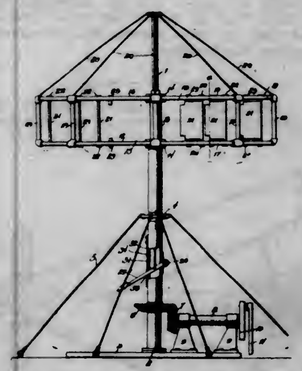


4. In a swaging device, the combination with a swaging block of a die mounted therein, an anvil mounted in said block and adjustable toward and away from said die in a line parallel to the swaging face of the anvil, a sliding bolt in said block having means to positively engage said anvil and a member having means to engage said bolt at one end and extending through the block at the outer plane face thereof at the other end and operable to move said bolt laterally to adjust the anvil with respect to the die, substantially as described.

5. In a swaging device, the combination with a block of a die rotatably mounted therein, an anvil movable toward and from said die laterally and angularly with respect to the axis of rotation of the latter, a sliding bolt having means to engage said anvil and mounted within said block in a socket extending angularly to said axis of rotation and also angularly to said anvil and a rotatable operable member extending into the block at right angles to said bolt and adapted to engage the latter, said member having means to slide said bolt toward or from said die, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,074,011. WINDMILL. JOSEPH PARTAIN, Williams, Cal. Filed Oct. 2, 1912. Serial No. 723,545. (Cl. 170—26.)



1. A wind mill of the class described having a vertical tubular shaft mounted for revolution, a horizontally arranged wind wheel carried by the shaft and for revolution therewith, the said wind wheel being provided with tubular radial upper and lower arms having longitudinal slots, vertically arranged vanes carried by the said radial arms and pivotally connected thereto, the pivotal axes of the vanes being to one side of the vertical centers thereof, dogs mounted for movement in the slots of the tubular arms into and out of the paths of the vanes, springs arranged in the tubular arms and connected to the dogs to normally move the latter into the paths of the vanes, a lever mounted in the revoluble tubular shaft and flexible connections between the dogs and the lever, the said flexible connections being arranged in the tubular arms and tubular shaft.

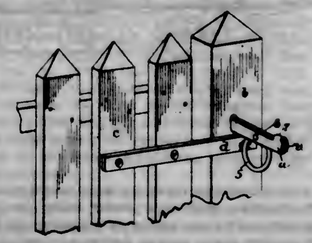
2. A wind mill of the class described comprising a tubular vertical shaft mounted for rotation, upper and lower tubular radial arms having their inner ends connected to said shaft, vertical pipes connecting the upper and lower tubular arms, circular tire rods connecting the outer ends of said tubular radial arms, vertical vanes pivotally mounted and carried by said upper and lower tubular radial arms, dogs guided by said tubular radial arms and movable into and out of engagement with the said vanes, springs arranged in the tubular radial arms and connected to the dogs to normally hold the dogs in the paths of the vanes, and means arranged in the tubular shaft and tubular radial arms and connected to the dogs to move the latter out of engagement with the vanes and against the tension of the said springs.

1,074,012. CHAIR. ISAAC G. POLLARD, Hammond, Ind. Filed Oct. 3, 1911. Serial No. 652,555. (Cl. 155—3.)



A chair having its back frame, legs and arm rests integral and formed from a single wire which is doubled upon itself to form the back frame and the outer members of the rear legs, said wire having its end portions further bent to provide the inner members of the rear legs and to form the front legs, which latter are of loop shape, the outer members of the front legs extending above the inner members of both the front and rear legs, and the end portions of the wire being further bent to form the arm rests and having their extremities secured to the side members of the back frame.

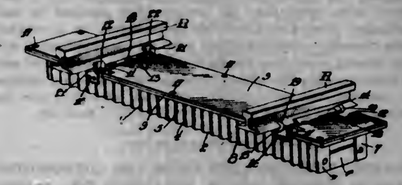
1,074,013. GATE-LATCH. WILEY W. PRINCE, Ellisville, Miss. Filed June 4, 1912. Serial No. 701,623. (Cl. 70—28.)



A latch member constructed of a single blank and including spaced arms having their marginal edges free of

connection for the greater portions of their lengths, one terminal of the arm having its upper and lower marginal edges connected to form a driving head and the opposing terminal having an entrant member, the arms in their unconnected edge portions being united by transverse pivot pin and a ring loosely supported on said pin.

1,074,014. METALLIC RAILWAY-TIE. WILLIAM H. PROCTOR, Ralston, Pa. Filed Jan. 10, 1913. Serial No. 741,275. (Cl. 238—5.)



1. A metallic tie for rails comprising a base, pressed from a single sheet of material and including a corrugated bottom and sides, the ends of the base terminating below the sides, and a metallic top for the base.

2. In a metallic railway tie, a hollow base having a corrugated bottom and corrugated sides, ends for the base terminating below the upper edges of the sides, the said sides having their ends provided with angular flanges which connect with the ends and top plate secured to the base.

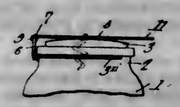
3. In a metallic railway tie, a base comprising a box-like structure having its ends disposed below its sides and its bottom and sides corrugated, the sides having their upper ends out-turned to provide horizontal flanges, and a top plate secured to the flange.

4. A railway tie embodying a base comprising a box-like structure and having its ends disposed below the upper edges of its sides, the bottom of the base as well as the sides thereof being corrugated, the upper edges of the sides being provided with horizontally disposed angular flanges, a top plate secured to the flanges of the base, said plate having spaced reinforced portions for the reception of the base flanges of the railway rails, and means connected with the top plate for securing the rails thereon.

5. A metallic railroad tie including a base comprising a box-like structure having its bottom and sides corrugated and its sides formed with angular flanges at the upper edges of the said sides, the flanges adjacent the opposite ends of the base being formed with depressed portions which are arranged in opposite pairs, a top plate secured to the flanges of the base, said top plate having its edges cut away to correspond with the depressed portions of the flanges of the base, the top plate between the said depressions being provided with enlarged reinforced portions, the said portions having their outer edges upset to provide rail-engaging ribs, the said reinforced portions extending within the depressions to provide eyes, and said eyes adapted for the reception of rail securing elements.

[Claim 6 not printed in the Gazette.]

1,074,015. CORK HOLDER AND LIFTER. EDWARD A. REAP and JAMES C. JOHNSTON, Enid, Okla. Filed Mar. 5, 1913. Serial No. 752,188. (Cl. 215—84.)



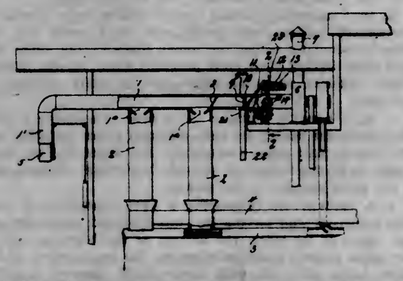
1. A bottle attachment comprising a member including a horizontal wire, a lid hingedly secured thereto, a bottle stopper with an upper curved surface, and means extend-

ing through said lid engaging the said bottle stopper and mounting the same for limited movement.

2. A bottle attachment comprising a member engaging the bottle neck, said member including a horizontally extending wire spaced above the bottle mouth, a lid hingedly secured to said horizontal wire and mounted for rotation in a vertical plane, a bottle stopper with an upper curved surface, and means connected to said lid detachably engaging the said bottle stopper and holding the said stopper for limited movement with respect to the lid.

3. A bottle attachment including a resilient member engaging the mouth of a bottle, and supporting a horizontal wire thereabove, a lid pivotally secured to said horizontal wire and mounted for rotation in a vertical plane thereon, a bottle stopper with an upper spherical surface, means extending through the central portion of said lid and engaging the central portion of said bottle stopper for holding the same to the lid and providing for the limited motion of the same with respect to said lid.

1,074,016. **FEEDING MECHANISM FOR COTTON-GINS.** ADOLPH RIEMENSCHNEIDER, Sarco Creek, Tex. Original application filed Mar. 1, 1910, Serial No. 546,729. Divided and this application filed Mar. 9, 1911. Serial No. 613,343. (Cl. 13—19.)

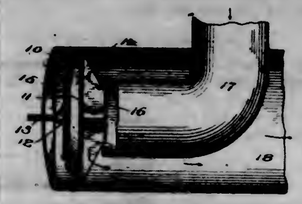


1. In a device of the class described, the combination, with a suction pipe having an intake and an exhaust, a gin receiver communicating therewith intermediate its ends, means for exhausting air from the pipe through the exhaust end, a valve adapted to be closed against the exhaust, said valve being disposed within the pipe between the gin receiver and the exhaust means, a pivotally mounted lever having one end connected with the valve for actuating the same, a cam engaging the lever and shaped to move the lever upon its pivot in a direction for closing the valve, and means for rotating the cam for effecting the closing movement, the cam being formed with the reduced portion permitting movement of the lever to a position with the valve open.

2. In a device of the class described, the combination, with a suction pipe having an intake and an exhaust, a gin receiver communicating therewith intermediate its ends, means for exhausting air from the pipe through the exhaust end, a valve adapted to be closed against the exhaust, said valve being disposed within the pipe between the gin receiver and the exhaust means, a pivotally mounted lever having one end connected with the valve for actuating the same, a cam engaging the lever and shaped to move the lever upon its pivot in a direction for closing the valve, means for rotating the cam for effecting the closing movement, the cam being formed with the reduced portion permitting movement of the lever to a position with the valve open, and a spring connected with the lever for subjecting the same to spring pressure in a direction tending to open the valve.

3. In a device of the class described, the combination, with a suction pipe having intake and exhaust ends, a gin receiver communicating with the pipe intermediate the ends, a valve within the pipe hinged to swing to and from a closed position and disposed between the gin receiver and exhaust end of the pipe, a fan communicating with the exhaust end of the pipe for exhausting air from the pipe, a rotatably mounted cam having an enlargement and a reduced portion with shoulders connecting the enlargement with the reduced portion, means for rotating the cam, a pivotally mounted lever having a free end resting against the cam and adapted to be swung by the engagement of the enlargement with a portion of the lever, the lever being free to swing in the opposite direction when disconnected from the enlargement of the cam, a link pivotally connected to the lever at the opposite side of the pivot of the lever from that of the free end, said link being pivotally connected to the valve at that side of the valve adapted to close the valve during the movement of the lever under actuation by engagement with the enlarged portion of the cam with the lever.

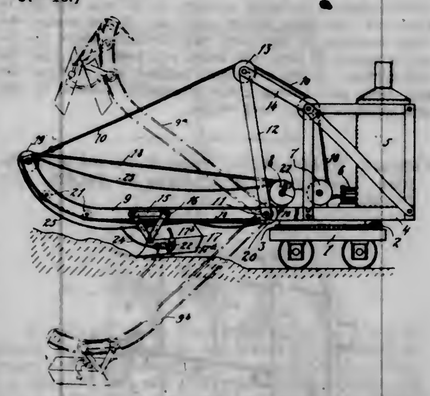
1,074,017. **VENTILATING-FAN.** WILLIAM F. ROTHENBERG, Denver, Colo. Filed Apr. 24, 1912. Serial No. 692,928. (Cl. 230—11.)



1. In a device of the class described comprising a pipe for admitting air, a fan axis placed in line with said pipe, a dished back secured to said axis, blades parallel with the axis of the pipe, a disk secured to said axis and adapted to obstruct part of the pipe, said blades extending between said disk and dished back and means for rotating with the axis.

2. In a device of the class described comprising a pipe having an outlet, a fan axis disposed before the outlet of said pipe, a dished back rigid with said axis, a disk rigid with said axis and parallel with the plane portion of the dished back, blades perpendicular to the disk and secured to the axis and means for rotating the axis.

1,074,018. **STEAM-SHOVEL.** THOMAS SCHOCK, Eugene, Oreg. Filed Sept. 23, 1912. Serial No. 721,970. (Cl. 37—16.)



1. In a device of the character described, the combination with a prime mover; of a pivoted boom connected for operation with said prime mover; a dipper frame mounted to travel on said boom; means for operatively connecting said frame with said prime mover for movement in both directions; a bucket pivotally hung on said frame, said bucket comprising two halves each of which has an independent cutting edge whereby said bucket is capable of performing its function in both directions; a latch-mechanism for inter-locking said halves; and means operated by said prime mover for disconnecting said bucket halves.

2. In a device of the character described, the combination with a prime mover and a series of cable drums operable by said prime mover; of a pivoted boom connected for independent operation with one of said drums, the outer portion of said boom curved upwardly; a dipper frame mounted to travel on said boom; an endless cable hung on a second drum of the series and fixed on said dipper frame; means for guiding said cable over the curved portion of the boom; and a bucket pivotally hung in said dipper frame; said bucket made in two portions, each portion having an independent cutting edge, one of which performs its function in one direction while the other operates in the opposite direction.

3. In a device of the character described, the combination with a series of cable drums mounted for independent operation; of a pivoted boom connected for operation with one of said drums, the outer portion of said boom curved upwardly; a dipper frame mounted to travel on said boom through the medium of a second drum of the series; a bucket pivotally hung in said dipper frame, said bucket made in two halves having each a cutting edge so as to permit the bucket to operate in either direction; means for inter-locking the bucket portions; an endless trip-cable hung on a third drum of the series and looped around the boom; means for guiding said trip-cable over the curved portion of the boom; and a short cable inter-connecting said inter-locking means with said trip-cable for the purpose of disconnecting the bucket portions.

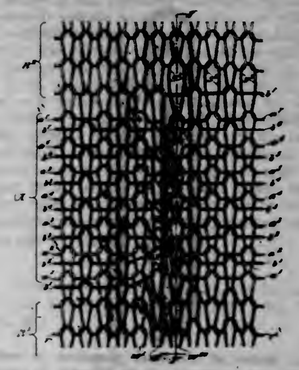
4. In a device of the character described, the combination with a series of cable drums mounted for independent operation; of a pivoted boom connected for operation with the first drum, the outer portion of said boom curved upwardly; a dipper frame mounted to travel on said boom and moved by the second drum; a bucket pivotally hung in said dipper frame, said bucket comprising two halves having each a cutting edge so as to permit the bucket to operate in either direction; a latch for inter-locking said halves; a bolt for releasing said latch; an endless trip-cable wound on the third drum of the series and looped around the boom; means for guiding said trip-cable over the curved portion of the boom; and a short cable inter-connecting said trip-cable and said bolt; the devices so arranged that the trip-cable normally follows the travel of the dipper frame, and so that the changing of the movement of the trip-cable relative to the said frame causes the said bolt to disconnect the bucket halves.

5. In a device of the character described, a traveling bucket made in two portions, each portion having an independent cutting edge whereby the bucket is enabled to perform its function in either direction, means for inter-locking the two portions and means for releasing said inter-locking means, said means including an endless trip-cable normally following the travel of the bucket and independently movable relative to said bucket for the purpose of effecting said release.

1,074,019. **KNIT FABRIC HAVING A WELT AND THE ART OF MAKING THE SAME.** ROBERT W. SCOTT, Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Dec. 20, 1912. Serial No. 737,808. (Cl. 66—4.)

1. A rib knit fabric having a body part, and a welt formed of walls of plain fabric extending respectively from courses knit through adjoining loops of a terminal course of body fabric, the initial loop of one wall and the final loop of the other wall being connected by a float or run of free yarn.

2. A knit fabric having a body part, and a welt formed of walls of plain fabric extending respectively from courses knit through adjoining loops of a terminal course of body fabric, the initial loop of one wall and the final loop of the other wall being connected by a float or run of free yarn within the walls of the welt, and another body part having an initial course knit through the final courses of both walls of the welt.



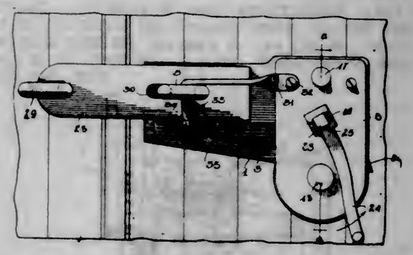
3. A rib knit article comprising a body part and a welt part integrally formed from an unbroken yarn, the welt part comprising a front wall of plain fabric and back wall of plain fabric having initial stitches in adjacent wales.

4. A rib knit article comprising a body part and a welt part integrally formed from an unbroken yarn, the welt part comprising a front wall of plain fabric and a back wall of plain fabric, the front wall having a final stitch and the back wall an initial stitch in adjacent wales.

5. A rib knit article comprising a body part and a welt part integrally formed from an unbroken yarn, the welt part comprising a front wall of plain fabric and a back wall of plain fabric, the front wall having a final stitch and the back wall an initial stitch in adjacent wales, the terminal courses of both walls being united by an initial course of the body fabric.

[Claims 6 to 14 not printed in the Gazette.]

1,074,020. **SEAL-LOCK.** OTIS E. SHARP, Middleville, Mich. Filed Oct. 9, 1912. Serial No. 724,880. (Cl. 70—23.)

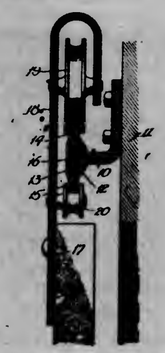


A car seal of the class described comprising a casing having openings in opposite sides thereof through which a doubled sealing strip may be passed, a pair of intermeshing gears mounted in the casing, slightly spaced apart and having triangular teeth which are narrower and shorter than the spaces between the teeth to cause the said gears to engage and crimp the doubled sealing strip between them, means to turn the gears, means to prevent retrograde rotation of the gears, and a securing element to which the sealing strip may be connected.

1,074,021. **DOOR-HANGER TRACK.** HENRY C. SMITH, Oak Park, Ill., assignor to Allith Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 26, 1910. Serial No. 589,198. (Cl. 16—7.)

1. A rolled metal track having a longitudinal T-shaped groove and an upwardly extending marginal rib or flange

terminating in a rounded head affording a track surface, substantially as described.

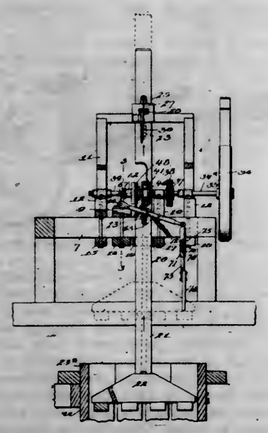


2. In a device of the class described, a rolled metal track having an undercut groove adapted to accommodate the enlarged heads of track supporting brackets, said track having an upper extension affording a track surface substantially in the same vertical plane of the undercut groove, substantially as described.

3. In a device of the class described, a rolled metal track having a longitudinal bracket groove, and oppositely extending marginal ribs or flanges affording upper and lower track surfaces, substantially as and for the purpose specified.

4. In a device of the class described, a rolled metal track having a longitudinal bracket groove, and oppositely extending marginal ribs or flanges affording upper and lower track surfaces, said ribs or flanges being in substantially the same vertical plane as the said longitudinal groove, substantially as described.

1,074,022. AUTOMATIC PACKER MECHANISM FOR COTTON-PRESSES. JAMES FRANKLIN SMITH, Charlotte, N. C. Filed Nov. 22, 1912. Serial No. 732,987. (Cl. 100—25.)



1. In a device of the class set forth, the combination of a packer head having a stem rising therefrom, and mechanism operating with the stem to permit the latter and packer head to have a gravitating falling movement and to positively elevate the same to normal position and including a drum having a strap in winding relation thereto and connected to the stem and a continuously moving shaft operatively associated with the said drum, the latter automatically operating to elevate the packer head and stem.

2. In a device of the class set forth, the combination of a packer head having a stem rising therefrom, mechanism for permitting the packer head and stem to have a gravitating movement and for elevating the same to a normal position and including a drum having a strap in winding relation thereto and connected to the stem and a continuously moving shaft operatively associated with the said drum, the latter automatically operating to elevate the packer head and stem, and means for locking the stem and packer head at intervals in normal elevated position.

3. In a device of the class set forth, an automatically operating packer head and stem, and mechanism coöperating with the packer and stem for releasing and permitting a gravitation of and also for elevating the packer head and stem and including a drum and a strap in winding relation to the drum, the strap being attached to the stem.

4. In a device of the class set forth, an automatically operating packer head and stem having a drum with a strap in winding relation thereto and connected to the stem, and mechanism coöperating with the drum to rotate the latter at intervals to wind the strap thereon.

5. In a device of the class set forth, a gravitating packer head and stem, and automatically operating mechanism for elevating the said packer head and stem including a drum having a strap adapted to wind thereon and attached to the stem and a shaft with an automatically operating clutch mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,074,023. CLOSURE. ABE SOLOMON, St. Louis, Mo. Filed Mar. 11, 1911. Serial No. 613,919. (Cl. 215—80.)

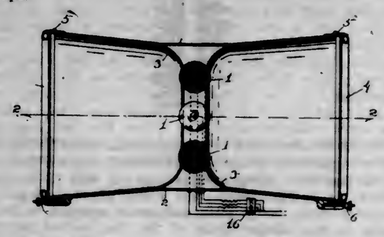


In combination with a vessel having an exteriorly arranged peripheral flange formed with the vessel at the upper end thereof, the said vessel being provided with oppositely arranged upwardly projecting flanges formed adjacent the peripheral flange, of a closure consisting of a circular portion having an integral depending flange provided with indentations oppositely opposed and adapted to normally receive the upwardly extending flanges of the vessel therein when the closure is normally seated thereon, a portion of the depending flange of the closure, between the indentations thereof, being reduced to normally lie in spaced relation to the upper end of the vessel adjacent the peripheral flange thereof.

1,074,024. TRAFFIC AND REAR-END SIGNAL LAMP. HARRY W. SWEETING, Auburn, N. Y. Filed Feb. 19, 1913. Serial No. 749,462. (Cl. 240—9.)

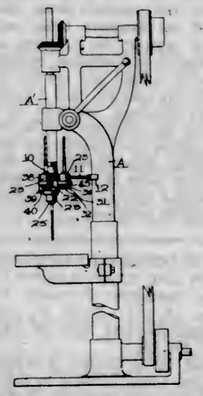
1. A signal lamp, comprising a horizontally elongated casing, a plurality of parallel electric light bulbs of different colors within said casing, said bulbs having their bases secured to said casing and extending from said bases all in the same direction in close relation to each other, a single horizontally elongated reflector for said bulbs, a single horizontally elongated glass door at the outer end of the reflector, and means for illuminating said bulbs singly or in groups.

2. A signal lamp, comprising an elongated casing, a plurality of electric light bulbs of different colors arranged in parallel relation at the center of said casing, a single elongated reflector extending forward and a single elongated reflector extending rearwardly of said bulbs, a single elongated glass door at the outer end of each reflector, and means for illuminating the bulbs singly or in groups.



3. A signal lamp, comprising an elongated casing, a plurality of lights of different colors arranged at the center of said casing, a single elongated reflector extending forwardly and a single elongated reflector extending rearwardly of said lights, a single elongated glass door at the outer end of each reflector, and means for showing said lights singly or in groups.

1,074,025. MULTIPLE-DRILL HOLDER. GEORGE P. TAYLOR, Clinton, Mass. Filed Mar. 21, 1911. Serial No. 615,900. (Cl. 77—25.)

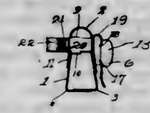


1. In a device of the character described, the combination with a spindle, of a plurality of drill holders arranged around the same and pivoted on axes transverse to the axis of the spindle, each one being adapted to swing on its pivot into a position in which a drill or the like carried thereby will be in alinement with the spindle, each of said holders having a surface adapted to engage a drill holder in operative position for preventing the inoperative holder from being turned toward operative position while one of the other holders is in operative position.

2. In a device of the character described, the combination with a central spindle, of a frame supported thereby, a plurality of auxiliary drill holders movably mounted on said frame around said spindle, collets on said holders, each constructed and adapted to be moved into position in which it will come into frictional contact with the end of said central spindle, each of said auxiliary holders having means for preventing its being turned on its axis in any direction while one of the other auxiliary holders is in operative position, said means being arranged and adapted to engage such other auxiliary holder when the latter is in operative position.

3. In a device of the character described, the combination of a central spindle having a surface at the end, a collet for holding a drill having a surface adapted to engage and fit the surface at the end of the spindle and having a passage for the reception of drill shanks of such size as to permit the tang of the drill to project beyond the end of the collet, and means for movably supporting said collet at the side of said spindle, said means being movable to two positions, in one of which said surface on the collet engages said surface on the end of the spindle, and in the other of which said surface on the collet is at the bottom of said means and both ends of the collet are exposed, said means having a readily detachable element for normally holding the collet therein and permitting it to turn.

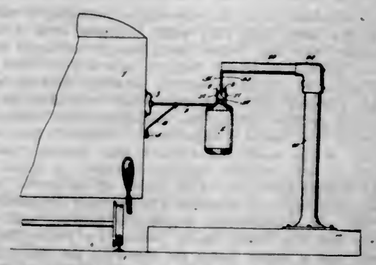
1,074,026. PENCIL-SHARPENER. FRANK UNRUH, New Orleans, La. Filed May 9, 1912. Serial No. 696,161. (Cl. 120—90.)



1. In a pencil sharpener, a strip of steel bent on itself and having its sides inclined slightly from one another, the terminals of said strip of steel then bent to overlap one another and provided with cutting surfaces, said cutting surfaces being converging and a clamping member inclosing said bent strip of steel and slidably mounted thereon.

2. In a pencil sharpener, a strip of steel bent on itself and having its sides inclined slightly from one another, the terminals of said strip of steel then bent to overlap one another and provided with cutting surfaces, said cutting surfaces converging, a clamping member comprising a plate bent on itself to form a pocket clip, and tongues integral with said plate and bent to inclose said strip of metal and slidably mounted thereon.

1,074,027. APPARATUS FOR DELIVERING ARTICLES, SUCH AS MAIL-BAGS, FROM TRAINS OR MOVING BODIES. MAURICE D. VAN LENTEN, Paterson, N. J. Filed Mar. 1, 1913. Serial No. 751,638. (Cl. 105—231.)



1. In apparatus of the class described, a post member, an arm turnable relative to said post member, means on said arm to engage an article, means connected to said arm and to said post operating to turn said arm after engagement with an article by said means, and means on said arm frictionally engaging said post for the purpose specified.

2. In apparatus of the class described, a stationary post member, a turnable arm member thereon, means on said arm member to engage an article, one of said members provided with a cam wall, the other of said members provided with a brake member in frictional engagement

therewith, means to maintain said arm in projected position and means to return said arm to normal position after release by said means.

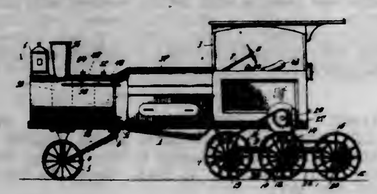
3. In apparatus of the class described, a stationary post member, an arm turnable relatively to said post member, means on said arm to engage an article, said post member provided with a cam wall, said arm provided with a brake member in frictional engagement with said wall, means to yieldably mount said brake member, and means to maintain said arm in projected position, and means to return said arm to normal position upon release by said last means.

4. In apparatus of the class described, a post member, an arm turnable relatively to said post member, means on said arm to engage an article, said post member provided with a groove having a cam wall, said arm having a hollow portion, a brake member extending into said groove having a part in frictional engagement with said wall, said brake member located within the hollow portion, a support member for said brake member, and a spring bearing against said brake member.

5. In apparatus of the class described, a post member, an arm turnable relatively to said post member having a hollow portion extending around the same, means on said arm to engage an article, said post member provided with a groove having a cam wall, a brake member extending into said groove having a part in frictional engagement with said wall, said brake member located within the hollow portion, a sleeve for said brake member extending from said hollow portion, a plug member extending into said sleeve, and a spring mounted intermediate said plug member and said brake member.

[Claims 6 to 20 not printed in the Gazette.]

1,074,028. LOCOMOTIVE OR TRACTION-ENGINE. GOTTLIEB W. VOLZ, Washtucna, Wash., assignor of one-half to Linn L. Bassett, Washtucna, Wash. Filed Mar. 12, 1912. Serial No. 683,302. (Cl. 21—114.)



1. A locomotive or traction engine including a cab and a hollow body, said body being provided with a motor chamber, fuel and water compartments arranged in advance thereof, a cellular radiator spaced from said compartments to provide a vacuum inducing chamber, and a draft inducing stack communicating with said chamber, a motor inclosed within the motor chamber, connections between the water compartment, radiator and water jacket of the motor, an exhaust pipe leading from the motor to said vacuum inducing chamber, a steam vent pipe leading from the water jacket of the motor to the stack, running gear including a drive shaft disposed within the cab, transmission mechanism between said drive shaft and the motor shaft, means for controlling the same, and a clutch device for throwing the transmission mechanism into and out of connection with the motor shaft.

2. A locomotive or traction engine including a cab, and a hollow body, running gear including fixed axles, wheels mounted to revolve upon the axles, bearing between said wheels, said gearing being operative for independently stopping the opposite series of wheels, a drive shaft disposed within the cab, a motor upon the body for driving said shaft, gearing between the drive shaft and each set of driving wheels, and clutches for throwing the gearing for driving the respective sets or series of wheels independently of each other.

1,074,029. PERMUTATION-PADLOCK. JOHN T. B. WILLIAMS, Vicksburg, Miss., assignor of one-half to Cornelius R. Custard, Vicksburg, Miss. Filed July 26, 1911. Serial No. 640,557. (Cl. 70—19.)



The herein described construction of locks embodying a pair of substantially U-shaped members, the arms of one of the members being tubular, one of said tubes being slitted its entire length, the arms of the second U-shaped member being solid and being adapted to be received in the tubular arms of the first named member, one of the solid arms having spaced bits which pass within and extend beyond the slit in the tubular arm when the members are assembled, a plurality of rotatable tumblers upon the slitted tubular arm of the first named member, said tumblers having bores of a greater area than the circumference of the slitted tubular arm, the said tumblers having both their upper and lower faces recessed to provide passages whereby the tumblers may be rotated upon the slitted tubular arm of the first named member, and around the projections of the bits, each of the said tumblers being further provided with a bit passage which is arranged adjacent to and which communicates with the bore of the tumbler, one of the faces of each of the tumblers being flat, the opposite face of each of the tumblers being rounded and the rounded faces of each of the tumblers adapted to rest upon the flat faces of the adjacent tumblers, and whereby when any or all of the bits are out of register with one or all of the bit passages and a pressure is exerted between the lock members, the wall or walls provided by the recesses of the tumblers will be contacted by the bit or bits to incline the tumbler or tumblers, and to force the diagonally opposite edges of the wall or walls forming the bore or bores of the same into frictional contact with the slitted tubular arm to prevent the separation of the U-shaped members.

1,074,030. N-HALOGENALKYL-C.C-DIALKYLBARBITURIC ACIDS AND PREPARATION OF THE SAME. OTTO WOLFES, Darmstadt, Germany. Original application filed Dec. 13, 1912, Serial No. 736,628. Divided and this application filed May 28, 1913. Serial No. 770,502. (Cl. 23—24.)

1. The method of producing N-halogenalkyl-C.C-dialkylbarbituric acids which consists in treating derivatives of halogenalkyl urea with dialkylmalonyl-halogenids.

2. The method of producing mono-N-halogenalkyl-C.C-dialkylbarbituric acids which consists in treating derivatives of mono-N-halogenalkyl urea with dialkylmalonylhalogenids.

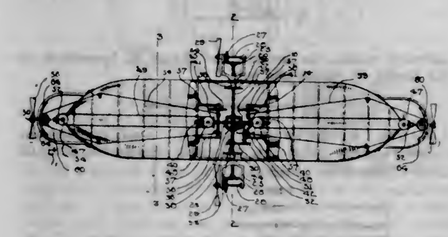
3. The method of producing mono-N-bromoalkyl-C.C-dialkylbarbituric acids which consists in treating bromoderivatives of monoalkyl urea with dialkylmalonylhalogenids.

4. The method of producing mono-N-dibromoalkyl-C.C-dialkylbarbituric acids which consists in treating dibromoderivatives of monoalkyl urea with dialkylmalonyl-chlorids.

5. The method of producing mono-N-dibromopropyl-C.C-diethylbarbituric acid which consists in treating dibromopropyl urea with diethylmalonylchlorid.

1,074,031. AIRSHIP. IRA ALLEN, Dansville, N. Y. Filed Nov. 18, 1912. Serial No. 732,122. (Cl. 244—6.)

1. A flying machine comprising a supporting bag, a car suspended from said supporting bag, said supporting bag being provided with a chamber intermediate its length, a yoke at each end of said bag, a vertical bearing at each end of said bag, a vertical shaft rotatably mounted in each of said bearings, a propeller shaft having one end pivotally mounted in said bearing and having its outer end passing through a slot formed in said yoke, gears connecting said vertical and propeller shafts, means for rotating said vertical shafts to transmit power to said propeller shafts, propeller blades mounted upon said propeller shafts, a bearing carried by each of said yokes, a vertical shaft mounted in each of said last mentioned bearings, a rack bar slidably connected with said yoke and provided with an opening through which said propeller shaft passes, a gear wheel carried by said last mentioned vertical shaft and meshing with said rack bar to move said rack bar and swing said propeller shaft when said last mentioned propeller shaft is rotated, means for rotating said last mentioned vertical shafts, and means in the chamber of said gas bag for controlling the rotation of said propeller shafts and for controlling the rotation of said last mentioned vertical shafts.



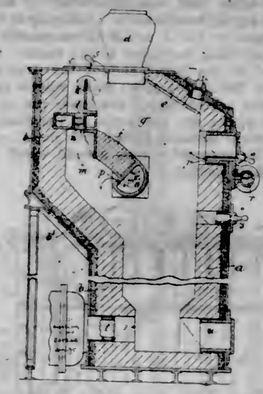
2. A flying machine comprising a gas bag provided with a chamber intermediate its length, a car suspended from said gas bag, a yoke at each end of said gas bag, a vertical shaft carried by said yoke, a rack bar slidably connected with said yoke and provided with an opening intermediate its length, a propeller shaft pivotally connected with the end of said gas bag and passing through the opening of said rack bar and through a slot formed in said yoke, a vertical shaft carried by said gas bag for rotating said propeller shaft, means operated from within said chamber for rotating said last mentioned vertical shaft, and means operated within said chamber for rotating said first mentioned vertical shaft to swing said propeller shaft.

1,074,032. GAS-PRODUCER. CHARLES HENRY THOMAS ALSTON, county of Chester, and PERCIVAL TURNER HOUSTON, London, England. Filed June 28, 1913. Serial No. 776,415. (Cl. 48—207.)

1. A gas producer having a wall forming a constricted area and dividing the interior of the producer into an upper chamber and a lower chamber to contain the fuel, a combustion chamber forming a passageway between the upper part of the lower chamber and the upper part of the upper chamber for the gases formed in the upper chamber, and means for introducing air into said combustion chamber and mixing such air with said gases after passing from the upper chamber to cause burning thereof in the combustion chamber and thereby destroy the hydrocarbon distillates in said gases before the same reach the lower chamber, the lower part of the lower chamber being open to permit passage of the producer gas from the combustion chamber downwardly through the incandescent fuel in the lower chamber to an outlet.

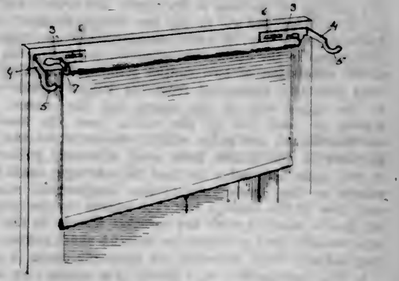
2. A gas producer having an arch or sloping wall projecting from the back toward the front thereof and forming a constricted area, openings being formed through the top of the arch or sloping wall to conduct the distillates to the combustion space below said arch, and air or air and steam inlets leading into said openings at the top of the arch or sloping wall.

3. A gas producer having an arch or sloping wall projecting from the back toward the front thereof, and a hol-



low chamber at the bottom of said arch or wall having vents therein.

1,074,033. SHADE AND CURTAIN HANGER. JOHN W. AWALD, Dunkirk, N. Y. Filed July 17, 1912. Serial No. 710,020. (Cl. 156—24.)



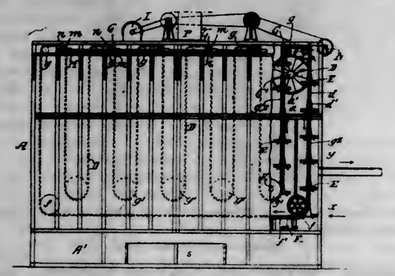
A sheet metal curtain and shade holding fixture, comprising an elongated flat base having an inner half provided with parallel horizontal slots, an outer half provided with a central horizontal integral right angle flat shade holding tongue of symmetrical arrangement with relation to said slots, and a horizontal right angle flat curtain holding arm at the outer end of and integral with said base and having its upper edge in line with the upper edge of said base and its lower edge approximately in line with the center of said base and of said tongue, said arm having a terminal flat curved end in the plane thereof.

1,074,034. DRIER. ELWOOD B. ATRES, Philadelphia, Pa., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 15, 1913. Serial No. 742,223. (Cl. 34—12.)

1. The combination in a drier, of a casing divided by a longitudinal partition into two compartments; heating mechanism in one compartment; an endless chain conveyer in the other compartment; guide wheels around which the chain passes, said guide wheels being so arranged that the conveyer will form a series of vertically arranged loops; and carriers pivotally suspended from the chains of the conveyer, said casing having a feeding opening and a discharge opening.

2. The combination in a drier, of a casing divided by a longitudinal partition into two compartments; heating mechanism in one compartment, the partition having

openings at the upper and at the lower ends; a series of fans in the upper openings whereby the heated air is circulated through both compartments; an endless conveyer in the drying compartment consisting of two chains connected together and a series of suspended trays, the trays being pivotally connected to the chains; a series of guide wheels at the upper end of the drying chamber around which the chains pass; guide wheels at each end of the chamber around which the lower run of the chain passes; and guides for the loops of the chain; with a series of carriers suspended from the chain; and means for driving the sprocket wheels around which the upper run of the chain passes.



3. The combination in a drier, of a casing divided into two compartments by a longitudinal partition, said partition having an opening at its upper and lower ends; fans for circulating the air in the two compartments; heating mechanism in one of said compartments and conveying mechanism in the other compartment, the conveying mechanism consisting of two chains connected together; carriers pivotally suspended from the chains; guide wheels at the upper end of the casing for the chains; guide wheels at each end of the casing near the lower end for the chains; and guide wheels around which the looped portions of the chains pass, each alternate guide wheel at the upper end being secured to a driving shaft; bevel wheels on the driving shaft; two longitudinal shafts at each side of the casing; sprocket wheels on the longitudinal shafts meshing with the sprocket wheels on the transverse shafts; and a transverse driving shaft geared to the longitudinal shaft, whereby the conveyer chain is driven.

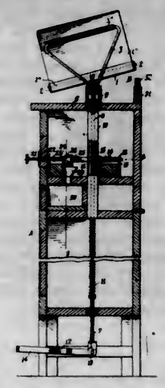
4. The combination in a drier, of a casing; an endless conveyer therein; perforated carriers mounted on the conveyer; means for circulating heated air through the conveyer; and a fire box at the bottom of the casing open to the interior of the casing so that as the smoke ascends from the fire it will smoke the fish, or other material, carried by the perforated carriers.

1,074,035. COIN-CONTROLLED DIRECTORY-HOLDER. JAMES ARTHUR BALDWIN, Maynard, Mass. Filed Mar. 13, 1913. Serial No. 753,989. (Cl. 45—85.)

1. A directory holding apparatus comprising holding means including swinging arms, pinions connected with the arms, a reciprocating element having rack teeth engaging the pinions, a spring-pressed bolt normally engaging the said element for preventing movement thereof, and means for releasing the bolt.

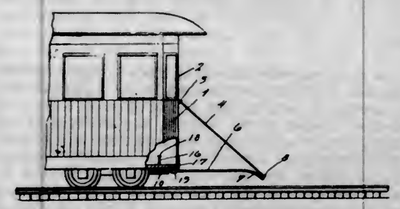
2. A directory holding apparatus comprising a cabinet, pivoted arms at the top thereof for engaging the directory, pinions on the arms, a rod having rack teeth engaging the pinions and extending from the top of the cabinet to the bottom thereof, a treadle connected with the rod and fulcrumed on the cabinet for moving the rod in one direction, a spring for moving the rod in the opposite direction, locking means in the cabinet adapted to set automatically to lock the rod against movement, and means for releasing the locking means.

3. In a directory holding apparatus, the combination of a movable element, a bolt engaging the element, a frame on which the bolt is mounted, a support for slidably supporting the frame, a spring operating to hold the bolt engaged with the said element, and manually-



operated means for moving the frame in opposition to the spring to release the bolt.

1,074,036. STREET-CAR FENDER. ABEL O. BARROUL, Mobile, Ala. Filed Oct. 30, 1912. Serial No. 728,718. (Cl. 105—255.)



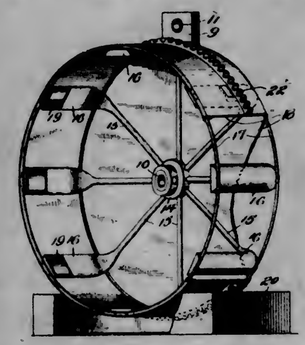
1. In a street car fender, the combination of an apron with a T shaped bar, said apron being secured to the front of the car and extending downward, the lower corners thereof being secured to the terminals of the transverse member of the T shaped bar, and resilient means to force said T shaped member forward so that fender may be placed in a position to catch a person who is about to be hit by said car.

2. The combination with a car, of a fender therefor, comprising a T-shaped bar slidably secured to the car, an apron secured at one end to the front of the car and at the other end to said T-shaped bar, spring means for forcing the bar forwardly to extend the apron, and means for holding said bar in its retracted position.

3. The combination with a car, of a T-shaped bar slidably secured to the bottom thereof, an apron secured at its upper end to the front of said car and at its lower end to the T-shaped bar, a lever pivotally secured at one end to the car, a sliding connection between said lever and bar, a contractile spring attached at one end to the car and at the other end to the lever, said spring tending to project the T-shaped bar forwardly from under the car, and means for locking the bar in its retracted position.

4. The combination with a car, of a T-shaped bar slidably secured to the bottom thereof, an apron secured at its upper end to the front of said car and at its lower end to the T-shaped bar, a lever pivotally secured at one end to the car, a sliding connection between said lever and bar, a contractile spring attached at one end to the car and at the other end to the lever, said spring tending to project the T-shaped bar forwardly from under the car, a pin slidable through a vertical opening formed in the car floor, and means for holding said pin normally in its raised position, the pin being formed with an upwardly extending end portion adapted to engage a slot formed in the bar, whereby said bar is limited in its retracted position.

1,074,037. COOLING ATTACHMENT FOR FANS. JOE M. BARRY, Los Angeles, Cal. Filed Sept. 21, 1911. Serial No. 650,581. (Cl. 98—44.)



1. The combination with a portable fan having a rotary bladed wheel, of a cooling attachment, comprising a frame formed of a plurality of perforated tubes at the periphery and rear of the wheel and supported by the axis of said wheel and receiving the same whereby the said wheel will be located wholly within the frame, a surface closing the frame at the periphery and at the rear thereof and adapted to receive moisture, and means for moistening the said surface.

2. A cooling attachment for portable fans, comprising a tubular frame adapted to be supported by the bladed wheel shaft of a fan for entirely inclosing the said bladed wheel at the periphery and at the rear thereof, a covering on the frame about the periphery and rear thereof and adapted to receive moisture, and means for supplying moisture to the said covering.

3. A cooling device for rotatable fans, comprising a standard, a hub intermediate the ends of said standard for loosely engaging the shaft of a fan, a foraminous frame carried by said hub, and means carried by the standard for the moistening of said frame.

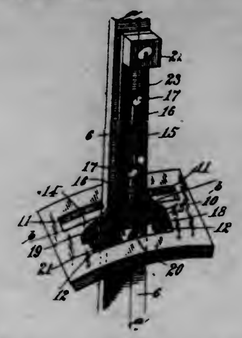
4. A cooling device for rotary fans, comprising a standard, a frame supported thereby, hollow perforated arms mounted in said frame and having cups at the free ends thereof in communication with the same, means for supplying water to said cups, and a foraminous covering partially encircling said frame and adapted to be moistened by the water from said arms.

5. The combination with a fan having a rotary bladed wheel, of a frame surrounding the bladed wheel, hollow perforated arms mounted in the frame and having water cups at their free ends, a water tank adapted to supply water to the water cups, a foraminous absorbent covering closing the inner side and the periphery of the frame and adapted to be moistened by the water from the said hollow perforated arms in the frame, and means for rotating the said frame.

[Claims 6 to 12 not printed in the Gazette.]

1,074,038. LEVER-LOCK. OLIVER A. BENHAM, Dayton, Ohio. Filed Dec. 23, 1912. Serial No. 738,130. (Cl. 70—90.)

1. In a locking device for transmission control levers, the combination with a gear shifting lever and an H-plate in which said lever is confined, of a locking plate slidably mounted on a side of said lever and having an enlarged end provided with a series of engaging shoulders whereby said locking plate is adapted to interlock said lever with different H-plates, a side projection on said locking plate adapted to lock said lever from lateral movement, and a lock for securing said plate in position, substantially as specified.



2. In a lock for transmission levers of automobiles, the combination with a lever and an H-plate having guide slots to the extent of which said lever is movable, of a slidable plate having an enlarged end mounted upon said lever and movable in the slots of said H-plate, the enlarged end of said slidable plate being provided with a series of engaging shoulders adapted to coöperate with H-plates of varying lengths of slots to prevent said lever being moved in a plane parallel with the length of the H-plate, and a projection on said plate adapted to engage said H-plate to prevent lateral movement of the lever relative thereto, and means such as a lock for locking said slidable plate in position.

1,074,039. HYDROMETER. FRANK J. BERBERICH, Brooklyn, N. Y. Filed May 29, 1912. Serial No. 700,455. (Cl. 73—22.)

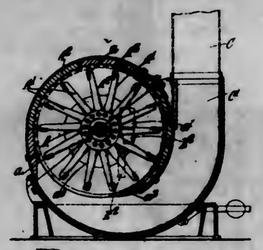


1. A hydrometer comprising a flotation bulb formed with an inner tubular section and outer reversely tapered sections, rings fixed in the ends of the inner section and telescoped within the ends of the outer sections for uniting the same together, the smaller end of one of the outer sections being perforated and extended to provide a neck, and a hollow scale stem telescoped upon the said neck and having a graduated scale exteriorly thereon.

2. A hydrometer comprising a flotation bulb formed with an inner tubular section and outer reversely tapered sections, rings fixed in the ends of the inner section and telescoped within the ends of the outer sections for uniting the same together, the smaller end of one of the outer sections being perforated and extended to provide a neck,

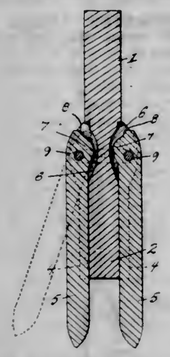
a hollow scale stem telescoped upon the said neck and having a graduated scale exteriorly thereon, and a ballast anchored within the other outer section of the bulb.

1,074,040. APPARATUS FOR PULVERIZING COAL AND OTHER MATERIALS. CLAUDE ALBEMARLE BETTINGTON, London, England. Filed Nov. 15, 1909. Serial No. 528,150. (Cl. 83—11.)



In a pulverizing apparatus, the combination of a casing having teeth formed on its internal periphery and provided with an extension forming approximately an involute curve and serving as an outlet, beaters rotating in the casing, a supply chute at one side of the casing for the material to be pulverized, a substantially horizontal lip in said casing below said chute upon which the material falls, and a chute at the other side of the casing by which the coarse material is returned to said lip.

1,074,041. TOOL-HOLDER. DANIEL M. BILBY, Sharon, Pa. Filed Feb. 18, 1913. Serial No. 749,254. (Cl. 90—53.)

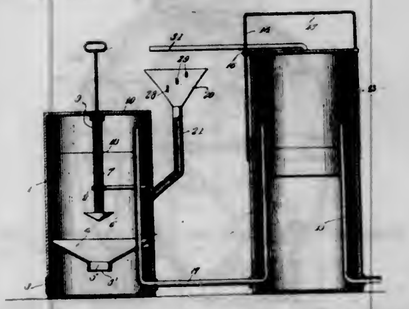


1. A tool holder comprising a body portion having longitudinal recesses extending from one terminal thereof upon opposite sides to a point approximately centrally of the ends of said body portion and terminating in enlarged recesses, and said body portion adapted to have tools mounted within said recesses.

2. A tool holder comprising a body portion having longitudinal recesses upon opposite sides thereof and extending from one terminal of said body portion to a point approximately centrally of the ends thereof, and terminating in enlarged recesses, said body portion adapted to have tools mounted within said recesses, the inner terminal of said body portion comprising a shank and the outer terminal extending to a point approximately centrally of the ends of said tools and adapted to space them.

3. A tool holder comprising a body portion having longitudinal recesses upon opposite sides extending from the outer terminal of said body portion to a point approximately centrally of the ends of said body portion and terminating in enlarged recesses, tools pivotally mounted within the enlarged recesses and adapted to engage the recesses upon the outer terminal of said body portion, and means formed on said tools adapted to coöperate with said enlarged recesses to limit the outward movement of said tools with relation to said body portion.

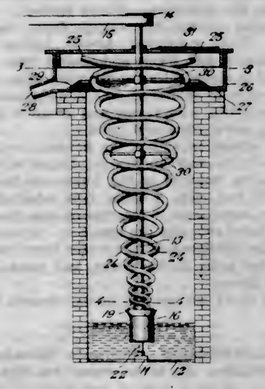
1,074,042. GAS-GENERATOR. JOHN W. BODYFIELD, Hot Springs, Ark. Filed Nov. 16, 1912. Serial No. 731,777. (Cl. 48—50.)



1. The combination with a gas generator, and a gas holder embodying a rising and falling bell, of a trip arm carried by the bell, a hopper embodying a plurality of dumping carbid holding buckets adapted for independent discharge and contained in the body of the hopper, and catches holding said buckets and projecting through the outside wall of the hopper and arranged for direct actuation successively by said trip arm.

2. The combination with a gas generator, and a gas holder embodying a rising and falling bell, of a trip arm carried by the bell, a hopper, a plurality of carbid holding buckets arranged in an inclined series along a straight upright wall of the hopper, and sustaining catches for said buckets also arranged in an inclined series and adapted for direct and successive actuation by said trip arm.

1,074,043. FLUID-ELEVATING APPARATUS. MARTIN W. BREUER, Denver, Colo. Filed Sept. 13, 1911. Serial No. 649,049. (Cl. 103—43.)



1. In a device of the class described, a casing provided with an inlet, a frusto-conically shaped head formed on the said casing, a driving shaft keyed to the said head, means for rotating the said driving shaft to rotate the said casing and tubular coils connected to the said casing and extending upwardly therefrom, the said coils being flared upwardly from the said casing and arranged spirally relatively to the said shaft.

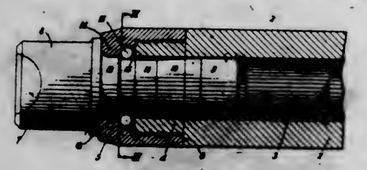
2. In combination with a well having a catch basin, a shaft journaled in the said well, a casing mounted in the said well to turn with the said shaft, a pair of reverse spirally arranged coils connected to said casing and to said shaft to turn therewith, the upper ends of the said coils being arranged in juxtaposition to the said catch basin and said coils having their convolutions gradually increasing in size from their lower to their upper ends, and means for imparting rotation to the said shaft.

3. In combination with a well having a catch basin, a casing arranged within the well and provided with an inlet and a frusto-conical head, a driving shaft extending through the casing and keyed to said frusto-conical head, means for rotating the shaft, and a pair of reverse spirally arranged coils communicating at their lower ends with the casing and having their upper ends arranged in juxtaposition to the catch basin, said coils having their convolutions of minimum size at their lower ends and thence increasing gradually in size toward their upper ends.

4. In combination with a catch basin, a casing adapted to receive a fluid, tubular coils having connection with the casing and extending spirally upward therefrom, with the convolutions of the coils increasing in size from the lower toward the upper ends of the coils, and means for imparting rotation to the said casing.

5. In a device of the class described, the combination with a casing, of means for imparting rotation thereto, and tubular coils having connection with the said casing and projecting upwardly therefrom, the convolutions of the said coils gradually increasing in size from their lower to their upper ends.

1,074,044. PERCUSSIVE HAMMER. FRANK J. BROWN, Scottdale, Pa. Filed Apr. 22, 1913. Serial No. 762,834. (Cl. 78—44.5.)

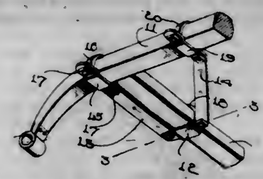


1. In a percussive hammer, a hollow hammer body having a reciprocating piston, a tool socket in the end of the hammer body, a tool having a taper shank positioned within the socket, a removable member engaging with the taper shank of the tool, to hold while permitting lengthwise movement of the tool in the tool socket, and a collar detachably secured on the hammer body and having a counterbore forming a recess to receive the tool retaining member.

2. In a percussive hammer, a hollow hammer body having a reciprocating piston, a tool socket in the end of the hammer body, a tool having a taper shank positioned within the socket to be engaged by said piston, a removable member engaging with the taper shank of the tool, to hold while permitting lengthwise movement of the tool in the tool socket, and a collar screw threaded on the hammer body and having a counterbore forming a recess to receive the tool retaining member.

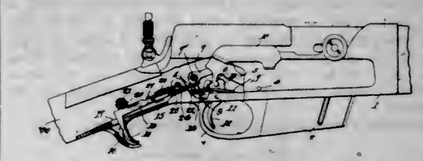
1,074,045. BUGGY-SHAFT BRACE. JOHN H. BRUNKEN, Paige, Tex. Filed Jan. 21, 1913. Serial No. 743,386. (Cl. 21—36.)

1. In combination with a pair of shafts including a cross bar, a brace having its bridge crimped to form a pocket to receive the cross bar of the shafts, an arm extending from said bridge parallel to the cross bar to one of said shafts, a second arm extending from said bridge diagonally from said cross bar to said shafts with its outer end extending parallel to the first mentioned arm, the end portions being crimped to form a pocket to receive said shaft and means for removably connecting said brace with the cross bar and shaft.



2. A brace of the character described comprising a bridge crimped to form a seat for the cross bar of a pair of shafts, arms extending from said bridge, one of said arms extending at substantially right angles to said bridge with its outer end portion crimped to form a pocket to receive the side bar of a pair of shafts, and a second arm extending diagonally from said bridge with its end portion carried parallel to said first mentioned arm and crimped to form a pocket to receive the side bar of a pair of shafts.

1,074,046. FIREARM. MARCUS L. CASTLE, Malone, N. Y. Filed May 15, 1913. Serial No. 767,946. (Cl. 42—70.)



1. A fire arm, including a receiver, a hammer, a trigger provided with a projecting portion and a trigger lock, said lock comprising a spring returned pull bar mounted in the receiver, the forward end of the pull bar being provided with an elongated aperture, and a pivoted member having a reduced projection threaded through the slot of the bar and disposed to be placed into and out of engagement with the trigger, whereby when the pull bar is operated against the tension of the spring, the trigger is released.

2. A fire arm, including a receiver, a hammer, a trigger provided with a rearward projection, a bar mounted for longitudinal movement within the receiver and provided with a slot in the forward end thereof, a spring connected to the receiver and the bar for holding the forward slotted end toward the trigger, a finger engaging portion disposed upon the opposite end of the bar and projecting exteriorly of the receiver at the rear of the trigger, and a pivoted arm mounted in the receiver and disposed in the slot of the bar, the lower end of said arm being disposed to engage the projection of the trigger to lock the trigger.

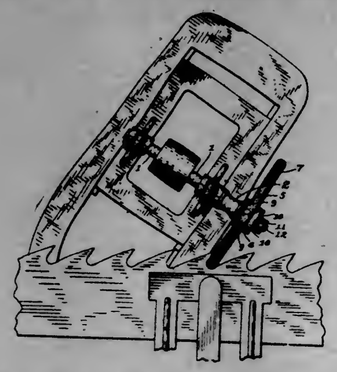
1,074,047. SAW-GRINDING MACHINE. ABRAHAM ELROD, Seymour, Ind. Filed Mar. 8, 1913. Serial No. 753,004. (Cl. 76—37.)

1. In a saw grinding machine, in combination with a grinding wheel, a rotating arbor, a hub carrying said wheel and mounted on said arbor and movable longitudinally on the arbor under the pressure of the saw tooth, substantially as described.

2. In a saw grinding machine, in combination with a grinding wheel, a rotatable downwardly inclined arbor, means to drive said arbor, a hub carried at the lower end of the arbor, and in which said wheel is fixed, said hub being mounted to have free movement longitudinally of said arbor, and spring means bearing against the hub on the lower side thereof, substantially as described.

3. In a saw grinding machine, in combination with a rotatable arbor, a grinding wheel mounted to rotate with said arbor and automatically movable longitudinally thereon and operable to exert a yielding pressure against the saw tooth, substantially as described.

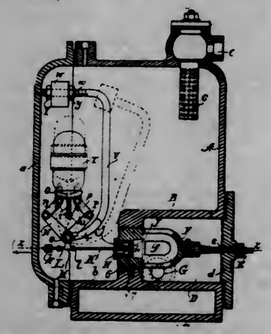
4. In a saw grinding machine in combination with a rotatable arbor, a grinding wheel mounted to rotate with said arbor and having a longitudinal movement thereon, and spring means on each side of said wheel to impart a yielding pressure thereto, substantially as described.



5. In a saw grinding machine in combination with a rotatable arbor, a grinding wheel mounted to rotate with but movable longitudinally on said arbor, a series of separated flat springs projecting radially and angularly from one face of said wheel and means fixed on the arbor against which said springs bear, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,048. STEAM-TRAP. GEORGE N. GRAHAM, New York, N. Y. Filed May 9, 1912. Serial No. 696,252. (Cl. 137—103.)



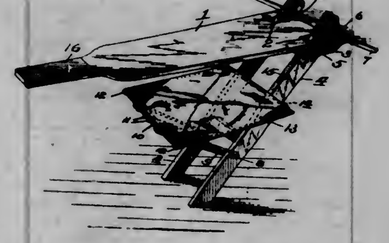
1. In a steam trap, the combination with a casing comprising a main portion having an interiorly-projecting portion and a base, the said projecting portion and base being constructed and arranged to form a chamber between them, the said chamber having discharge outlets and an open end, of a head constructed to close the end of the chamber, a cage having a stem passing outwardly through said head, means acting upon the stem and constructed to clamp the said head upon the open end of the chamber, the inner wall of said chamber being apertured to receive the end of said cage, means constructed to removably secure said end of the cage, the cage being removable through said chamber, a device having a valve seat, the said end of the cage being apertured to receive and engage said device, a valve and valve rod movably supported upon the cage and removable therewith, and float-operated means constructed and arranged to actuate the valve rod.

2. In a steam trap, the combination with a casing comprising a main portion having an interiorly-projecting portion and a base, the said projecting portion and base being constructed and arranged to form a chamber between them, the said chamber having discharge outlets and an open end, of a head constructed to close the open end of the chamber, a cage having a stem passing outwardly through said head, means acting upon the stem and constructed to clamp the said head upon the open end of said chamber, the inner wall of said chamber being apertured to receive the end of the cage, means constructed to removably secure the said end of the cage, the said cage being removable through said chamber, the said cage being provided with a valve seat, a movably supported valve arranged to engage said seat, and float-operated means constructed and arranged to actuate the valve.

3. In a steam trap, the combination with a casing comprising a main portion and a removable portion having interiorly-projecting pocket bearings, said pocket bearings having openings presented toward the main portion of the casing, a shaft having ends supported in said bearings, the said main portion of the casing being constructed to obstruct the said openings of the pocket bearings and to retain said shaft therein, said casing having a valve seat, a valve movably supported and arranged to engage said seat, and float-operated means connected with said shaft and constructed and arranged to actuate said valve.

4. The combination with a valve and valve-operating devices, of a float movably connected with said devices and constructed to actuate them, a rod attached to said valve-operating devices and having a vertical portion and a horizontal portion arranged to move above said float, and a weight adjustably secured upon the horizontal portion of the rod and arranged to be moved by the rod back and forth across a perpendicular passing through the float.

1,074,049. IRONING-BOARD. GEORGE G. GRIFFITH. Sault Ste. Marie, Mich. Filed Jan. 25, 1912. Serial No. 673,331. (Cl. 68—10.)

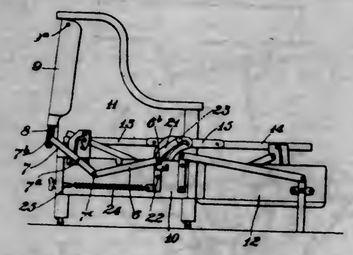


1. An ironing board, comprising a board proper, legs associated therewith and pivotally connected thereto, a pair of arms hingedly connected to said legs, extensible rods carried by the free ends of said arms, extensible rods connected to said legs, and a clothes shield connected to the extensible rods of the legs and arms and adapted to be extended and contracted by said rods, whereby to provide means for supporting the clothes from contact with the floor.

2. In an ironing board, the combination with a board proper, and a plurality of legs associated therewith and hingedly connected thereto, of a swinging support carried by said legs, extensible rods associated with said swinging support and with said legs, and a flexible clothes shield connected to said extensible rods, said legs being provided with notches for receiving the extensible rods of said swinging support when the latter is folded upon said legs.

3. In an ironing board having supporting legs, arms pivoted to the legs, an extensible rod carried by the arms, an extensible rod secured in the legs, the ends of the rods extending beyond the board when in their extended position, and a flexible supporting member extending between the rods.

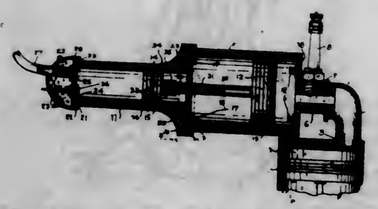
1,074,050. SOFA OR DAVENPORT BED. ULYSSES S. HENDERSON and ADOLPH F. SCHRAMM, Columbus, Ohio, assignors to The E. M. Huise Company, Columbus, Ohio, a Corporation of Ohio. Filed May 19, 1913. Serial No. 768,451. (Cl. 5—51.)



1. In a sofa or davenport bed, the combination with a supporting frame having a movable back and a seat frame hinged on said frame adapted to turn outward, a lever having an actuating spring, controlled by the position of the seat, and means connecting said lever and back for causing the back to move rearward when the seat frame is turned outward.

2. In a sofa or davenport bed, the combination with a supporting frame having a movable back and a seat frame hinged on said frame adapted to turn outward, a lever having an actuating spring controlled by the position of the seat, and means including a link and lever connecting said first mentioned lever and back for causing the back to move rearward when the seat frame is turned outward.

1,074,051. AIR-PUMP. FRITZ K. HOHENSTIEN and CHARLES G. MEYERS, Richmond, Ind. Filed Dec. 11, 1912. Serial No. 736,187. (Cl. 230—27.)



1. A pump comprising a cylinder, inlet and outlet ports formed in said cylinder, spaced pistons mounted for reciprocation in said cylinder, one of said pistons having an opening therein, a hollow piston rod mounted within said opening at one end and extending to the other of said pistons, said hollow piston rod being formed with longitudinal slots near its free end, a sleeve connected to said other piston and adapted to encircle the free end of said hollow piston rod and extend over the slots therein, and flexible means connecting said other piston with said hollow piston rod to normally maintain said sleeve over said slots, as and for the purpose described.

2. A pump comprising a cylinder, inlet and outlet ports formed in said cylinder, spaced pistons mounted for reciprocation in said cylinder, one of said pistons having an opening therein, a hollow piston rod mounted within said opening at one end extending to the other of said pistons, said hollow piston rod being formed with longitudinal slots near its free end, a sleeve connected to said other piston and adapted to encircle the free end of said hollow piston rod and extend over the slots therein, a pin mounted in the walls of said sleeve and projecting through said slots to limit the separation of said pistons, and a spring connected to said other piston and to the hollow piston rod to normally maintain said sleeve over the slots in said hollow piston rod, as and for the purpose described.

3. A pump comprising a cylinder, inlet and outlet ports formed in said cylinder, spaced pistons mounted for reciprocation in said cylinder, one of said pistons having an opening therein, a hollow piston rod mounted in said opening at one end and extending to the other of said pistons, a solid piston rod connected to said other piston and extending within said hollow piston rod, and a spring connected to said piston rods for holding said other piston in engagement with the outer end of said hollow piston rod, as and for the purpose described.

4. A pump comprising a cylinder, inlet and outlet ports formed in said cylinder, spaced pistons mounted for reciprocation in said cylinder, one of said pistons having an opening therein, a hollow piston rod mounted within said opening at one end and extending to the other of said pistons, a piston rod connected with said other piston and disposed within the free end of said hollow piston rod, the free end of the hollow piston rod being formed with longitudinal slots, a sleeve connected with said other piston and adapted to encircle the free end of said hollow piston rod and extend over the slots therein, and means for connecting said piston rods to normally hold said other piston against the free end of the hollow piston rod, as and for the purpose described.

1,074,052. GRAIN SCOURER OR CLEANER. FREDERICK HORSTMANN, Ashland, Ky., assignor of one-fourth to W. A. Hood, Ashland, Ky. Filed Mar. 8, 1913. Serial No. 753,061. (Cl. 83—30.)



1. In a grain scourer or cleaner of the class specified, the combination of a casing, a fixed foraminous cylinder within the casing, a fan rotating within the cylinder, spirally arranged ribs extending around the interior of the cylinder and forming longitudinally unobstructed spiral grain channels which cause the grain to move laterally of the scourer from the point of inlet toward the outlet, a dust chamber being formed between the outer portion of the cylinder and the casing and having a bottom outlet, and means for feeding grain into the interior of the cylinder at different points.

2. In a grain scourer or cleaner of the class specified, the combination of a casing, a fixed foraminous cylinder within the casing, a fan rotating within the cylinder, spirally arranged ribs extending around the interior of the cylinder and forming grain channels, a dust chamber being formed between the outer portion of the cylinder and the casing and having a bottom outlet, and means for feeding grain into the interior of the cylinder and embodying an adjustable slide for controlling the admission of the grain to different channels between the ribs.

3. In a grain scourer or cleaner of the class specified, the combination of a casing, a fixed foraminous cylinder within the casing, a dust chamber being formed between the cylinder and the casing and provided with a bottom outlet, a plurality of spirally arranged ribs in the cylin-

der and bearing against the latter and forming a corresponding plurality of spiral channels extending fully around the interior of the cylinder, a fan within the cylinder and ribs, means for feeding grain at one side to the interior of the cylinder to different spiral channels without feeding preceding channels, and means for permitting the cleaned grain to emerge from the cylinder at a point opposite the inlet of the grain to said cylinder.

4. In a grain scourer or cleaner of the class specified, the combination of a casing, a fixed foraminous cylinder within the casing, a plurality of spiral ribs extending fully around the interior of and bearing against the cylinder and forming spiral channels, a fan within the cylinder and ribs, an outlet at the lower portion of the cylinder and communicating with the interior of the latter, and an inlet to the cylinder embodying a feed box having a slide constituting its inner wall, the slide being formed with an opening to deposit the grain in either one of several of the spiral channels adjacent to the feed box.

5. In a grain scourer or cleaner of the class specified, the combination of a casing, a foraminous cylinder fixed within the casing and forming a dust chamber with the wall of the latter, the said dust chamber having a lower outlet, a plurality of spiral ribs within the cylinder and forming spiral channels extending fully around the said cylinder, a fan within the interior of the cylinder and ribs, an outlet for the cylinder, and means for feeding grain to one side of the cylinder and different spiral channels without feeding the preceding channel or channels.

[Claim 6 not printed in the Gazette.]

1,074,053. FABRIC FOR UMBRELLA-COVERS. DANIEL R. HOUSER, Lancaster, Pa., assignor to James Rose, Lancaster, Pa. Filed Sept. 7, 1911. Serial No. 648,039. (Cl. 139—9.)



1. As a new article of manufacture a fabric for umbrella covering the body of which is composed of silk warp threads and cotton weft yarns interwoven with the warp threads, the edges of the fabric being composed of cotton warp yarns interwoven with the weft yarns.

2. As a new article of manufacture a fabric for umbrella covering the body of the warp of which is composed of thin silk warp threads, the edges of the warp being of cotton warp yarns coarser than the silk threads, and a weft or filling of cotton yarn interwoven with the warp formed as described.

1,074,054. FULL-STROKE MECHANISM. HENRY KUNTZLER, Kingston, Pa., assignor to Adder Machine Company, a Corporation of Pennsylvania. Filed Nov. 15, 1909. Serial No. 527,981. (Cl. 235—129.)

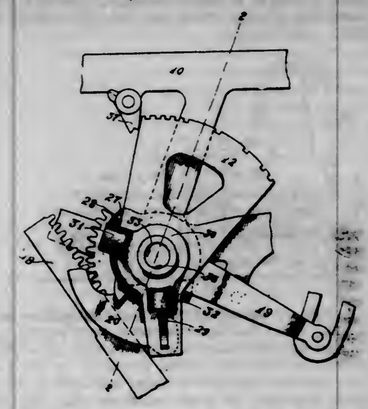
1. A full-stroke mechanism including an oscillating sector in combination with means to disable the said sector from movement at will.

2. A full-stroke mechanism including a shaft, an oscillating sector and a detachable handle to operate the same, in combination with means to disable the said sector from movement by detaching the handle.

3. A frame, a full-stroke mechanism including a shaft, an oscillating sector and a detachable handle to operate the same, in combination with means to disable the said sector and to lock it to the frame by detaching the handle.

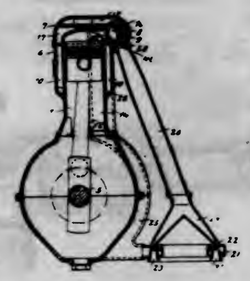
4. A frame, a full-stroke mechanism including a shaft, an oscillating sector and a detachable handle to operate the same, and means adapted to lock said sector to said frame upon detachment of the handle.

5. A full-stroke mechanism including an oscillating sector, an adjacent member adapted to be oscillated in unison therewith, and means to interlock the said sector and adjacent member.



[Claims 6 to 22 not printed in the Gazette.]

1,074,055. MULTICYLINDER INTERNAL-COMBUSTION ENGINE. HUGO LENTZ, Halensee, near Berlin, Germany. Filed Nov. 16, 1912. Serial No. 731,668. (Cl. 123—177.)



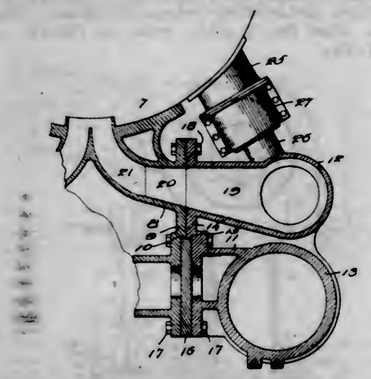
1. In an internal combustion engine having a cylinder housed by a cooling chamber, said cylinder having an intake and exhaust port, a fuel passage disposed adjacent to said cooling chamber, a valve having a cooling chamber, the cooling chamber of the valve being in communication with the cooling chamber of the cylinder, said valve being positioned on the cylinder to deliver fuel from the fuel passage to the cylinder and to exhaust gases from the cylinder, and means in communication with the exhaust port whereby the exhaust gases create a circulation of air through the chambers.

2. In an internal combustion engine having cylinders partially housed by a cooling chamber, each of said cylinders having an intake and exhaust port, a fuel passage disposed adjacent to said cooling chamber, a rotary valve having a cooling chamber, said valve being positioned on the cylinders to deliver fuel from the fuel chamber to the cylinders, and the exhaust gases from the cylinders, partitions in the cooling chambers of the cylinders for providing compartments, each compartment having means for admitting air thereto, and means in communication with the exhaust port whereby the exhaust gases create a circulation of air through the chambers.

3. In a multi cylinder internal combustion engine, each of the cylinders having a common intake and exhaust port, and a cooling chamber surrounding the cylinders, a fuel passage disposed adjacent to said cooling chamber and above the head of the cylinders, a rotary valve having a cooling chamber in communication with the cooling chamber of the cylinders, said valve being mounted to control communication between the fuel passage and the cylinders, and between the cylinders, and exhaust ports, and means in communication with the exhaust ports whereby the exhaust gases create a circulation of air through the chambers.

4. In an internal combustion engine having a common intake and exhaust port, and a cooling chamber surrounding the cylinder, a fuel passage disposed adjacent to said cooling chamber, a valve jacket adjacent the cylinders, valve operating in the jacket, said valve controlling communication between the fuel passage and the engine cylinder, and between said cylinder and the exhaust port, a bushing between the jacket and valve, means for holding the bushing in spaced relation with the jacket for providing a valve cooling chamber, and means in communication with the exhaust port whereby the exhaust gases create a circulation of air through the chambers.

1,074,056. CYLINDER CONSTRUCTION. SAMUEL HANCE LEWIS, Princeton, W. Va. Filed Dec. 14, 1912. Serial No. 736,837. (Cl. 121—14.)

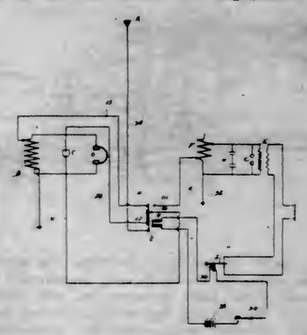


The combination with a frame extension, of a separate saddle disposed upon the inner side of the frame extension, a steam-chest-cylinder casting disposed upon the outer side of the frame extension and having exhaust ports leading into the opposite ends of the steam chest and crossing the frame extension at a point spaced from the same, so that it does not intersect therewith, means connecting the saddle and steam-chest-cylinder casting with the frame extension, and means to supply live steam to the steam chest.

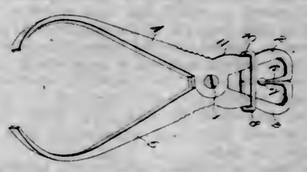
1,074,057. AUTOMATIC CHANGE-OVER SWITCH FOR WIRELESS-TELEGRAPH RECEIVING AND SENDING APPARATUS. WILLIAM L. LEWIS, Philadelphia, Pa. Filed Feb. 14, 1912, Serial No. 677,471. Renewed Jan. 21, 1913. Serial No. 743,422. (Cl. 250—13.)

1. In a wireless telegraph system including transmitting and receiving apparatus, a change-over switch comprising a movable contact connected to the aerial, a stationary contact connected to the transmitting apparatus, a second stationary contact connected to the receiving apparatus, said movable contact adapted normally to be in engagement with the second stationary contact, an electromagnet adapted upon being energized to bring said movable contact into engagement with the first stationary contact, said electro-magnet being in circuit with the key of the transmitting apparatus, means carried by the switch for short-circuiting the receiving apparatus upon said movable contact being brought into engagement with the first stationary contact.

2. In a wireless telegraph system including transmitting and receiving apparatus, a change-over switch comprising a movable contact connected to the aerial, an adjustable contact connected to the transmitting apparatus, a second adjustable contact connected to the receiving apparatus, means for holding said movable contact normally in engagement with the second adjustable contact, means controlled by the key of the transmitting apparatus for bringing the movable contact into engagement with the first adjustable contact, a spring contact carried by the movable contact and insulated therefrom, and a third adjustable contact adapted to be engaged by the spring contact upon the movable contact being in engagement with the first adjustable contact, said spring contact and third adjustable contact being in a normally open circuit in shunt with the receiving apparatus.



1,074,058. REPAIR-TOOL. BENJAMIN V. MAXWELL, Washington, D. C., and LUKE A. NICKERSON, Philadelphia, Pa. Filed Dec. 23, 1912. Serial No. 738,307. (Cl. 152—27.)



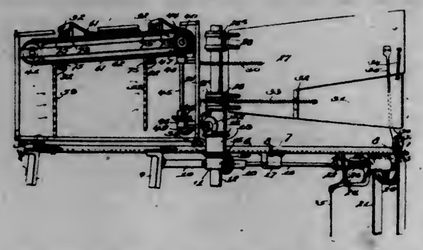
A tool comprising a pair of bent levers pivotally connected at their bent portions to provide diverging jaws and handles, coöperating expanding members extending perpendicularly from said jaws and terminating in barbed portions, series of recessed seats formed in the outer walls of said diverging handles, a confining link slidably mounted on said levers for engaging such seats to lock said expanding members in open position, and seats formed on the outer walls of said diverging jaws for receiving said link and provided with inclined portions for wedging said link thereon.

1,074,059. MOTOR. CLEAVE MCWOLFE, Vernal, Utah. Filed Aug. 17, 1912. Serial No. 715,669. (Cl. 170—6.)

1. In a motor of the class specified, the combination of a frame, chain belts mounted on said frame, a plurality of flexible propelling vanes carried by said chain belts and movable over the top portion of the frame, the chain belts having arms projecting outwardly therefrom to which brackets are attached for supporting the said vanes, mechanism operated by said chains, and means for transmitting the power generated from the said mechanism.

2. In a motor of the class specified, the combination of a frame, chain belts mounted on said frame, a plurality of flexible propelling vanes depending from the chain belts within the frame to receive the impact of a propelling medium, the chain belts being provided with outwardly

extending arms having brackets attached thereto to which the vanes are connected, means for moving the said propelling vanes to and from their operative position relatively to the propelling medium, and mechanism for taking the generated power from the said means.



3. In a motor of the class specified, the combination of a frame having an outwardly and downwardly inclined top portion, chain belts mounted on said frame and movable over the inclined top portion thereof, the chain belts being provided with outwardly projecting arms having brackets attached thereto, a plurality of jointed propelling vanes movable over the top portion of the frame and attached to said brackets, the propelling vanes adapted to depend within the said frame to receive the impact of the propelling medium, means to which the movement of the vanes is imparted, and mechanism for transmitting the power generated by the vanes to a point distant from the motor.

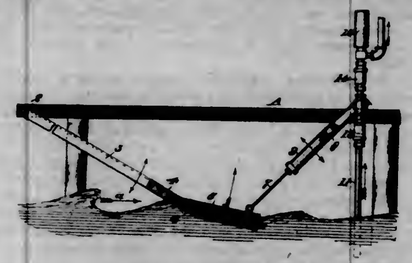
4. In a motor of the class specified, the combination of a frame having transversely extending shafts in the top portion thereof provided with sprocket wheels, chain belts engaging said sprocket wheels, the said chain belts including at intervals links having outwardly extending angular arms, brackets provided with cushioning members and secured to said arms, vane members movably connected at their ends and to the said brackets and arms and adapted to depend into the frame to receive the impact of the propelling medium, a transversely extending bracing means engaging the cushioning devices of the brackets and movable with the latter and the propelling vanes, and mechanism for taking the power generated from one of said shafts and transmitting it to a point distant from the motor.

5. In a motor of the class specified, the combination of a frame having a plurality of flexible propelling vanes movable in sequence over and around the top portion of the frame, circular means upon which the frame is shiftably mounted, a tail vane connected to the frame and having springs attached to opposite portions thereof and to the adjacent part of the motor to equalize a pulling tension on opposite sides of the vane, the tail vane being provided at its outer extremity with an auxiliary spring-actuated vane which is hinged to the outer lower portion of said tail vane and movable independently thereof as well as therewith, a circular frame on which the tail-vane has movement, the tail vane being provided with rollers to engage the circular frame, and mechanism for receiving and transmitting the power generated by said propelling vanes.

[Claims 6 and 7 not printed in the Gazette.]

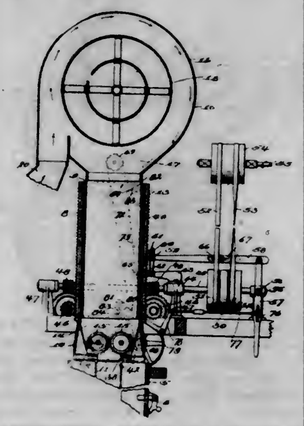
1,074,060. APPARATUS FOR UTILIZING WAVE-POWER. AUGUST W. MELANDER, San Francisco, Cal., assignor to Universal Wave Power Co., San Francisco, Cal., a Corporation of California. Filed Jan. 21, 1913. Serial No. 743,312. (Cl. 103—67.)

In an apparatus of the character described, a fixed structure, an inclined channel frame pivoted at one end to the fixed structure having a top plate and downwardly extending inclosing side plates, a box float, one end of which is closed by an inclined continuation of the top plate of the frame, a stand pipe and pump column with check valves located at a distance from the float, a pumping cylinder with hollow conducting trunnions connected



with the column, and a plunger rod extending from the pump cylinder and connected with the float-supporting frame at an obtuse angle substantially as described.

1,074,061. COMBINED FILLER AND PACKER FOR BALING APPARATUS. STEPHEN D. MURRAY, Dallas, Tex. Filed Dec. 7, 1912. Serial No. 735,574. (Cl. 100—25.)



1. A reciprocating packer having a permanently open outlet and a lint receiving chamber.

2. A reciprocating tubular packer for receiving lint cotton provided with a permanently open outlet.

3. A reciprocating packer for receiving lint cotton having a packer head with a permanently open outlet opening therethrough.

4. A reciprocating packer having a lint cotton receiving chamber and a permanently open outlet at one extremity.

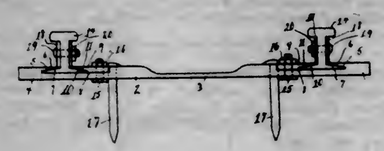
5. A reciprocating packer of tubular form having permanently open inlets and outlets at opposite extremities.

[Claims 6 to 36 not printed in the Gazette.]

1,074,062. RAILWAY-TIE. GEORGE S. MYERS, Philadelphia, Pa. Filed Jan. 30, 1913. Serial No. 745,270. (Cl. 238—5.)

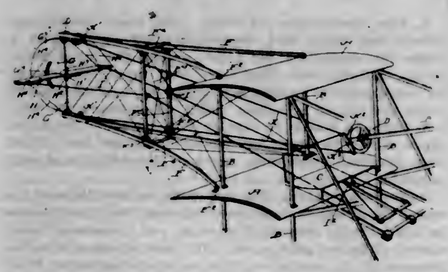
A tie consisting of a body having a reduced central portion, the body of said tie being under-cut adjacent each end to form inwardly extending projections, the under faces of which are beveled, said body also having an opening leading from the under-cut portion, the body also having elongated openings formed therein, holding plates, each having an open ended slot, mounted in said openings, an integral projection formed with each of said holding plates, the under faces of which are beveled,

a bolt passing through each of said elongated openings and open ended slots, a nut threaded on each of said bolts and engaging the holding plates for detachably fastening the latter in place, and spikes adapted to pass through



the elongated openings and lie in a portion of the open ended slots for preventing the accidental displacement of the bolts, said spikes adapted to enter the ground and prevent movement of the tie.

1,074,063. RUDDER FOR AEROPLANES. HARRY A. ORME, Wesley Heights, D. C. Filed Dec. 31, 1910. Serial No. 600,253. (Cl. 244—29.)



1. The combination with a vertical steering plane having a curved slot, of a horizontal elevating plane, slotted centrally to receive the vertical plane, means for moving the vertical plane from side to side and means for moving the horizontal plane up or down, a rib of the horizontal plane working in the curved slot of the steering plane.

2. A rudder for aeroplanes comprising a vertical steering plane, consisting of a rudder post, frame and fabric covering, and a horizontal elevating plane, consisting of a front rod, ribs and fabric covering, said front rod being pivotally connected to the rudder post of the vertical plane, said horizontal plane being centrally slotted or divided to receive the vertical plane therebetween, elevating cords connected centrally to the horizontal plane, said cords being arranged within the vertical plane, and passing through the rudder post, and cords connected to the front rod of horizontal plane, upon opposite sides of the said post, for the purpose specified.

1,074,064. RESILIENT WHEEL. JOSEPH PRONOVOST and HIRAM S. MILLER, Helena, Mont. Filed Mar. 25, 1913. Serial No. 756,775. (Cl. 152—45.)

A resilient wheel comprising a hub and a spoke plate, springs intermediate said hub and plate, a disk fastened to the hub and provided with a series of radially disposed lugs, with their outer edges flush with the peripheries thereof, V-shaped springs arranged in pairs with their adjacent ends fastened to said disk and each having a free end, said free ends positioned one upon either side of one of said lugs, a disk fastened to the spoke plate and provided with a central opening and radial wings projecting from the face thereof and each adapted to have a movement between the free ends of said springs which are arranged in pairs, said wings designed to have a free movement without interference from said lugs, overlapping disks fastened to the opposite edges of said spoke

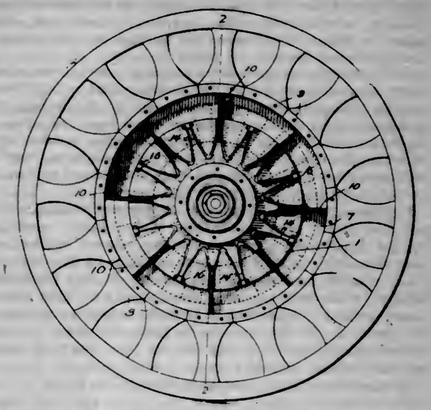
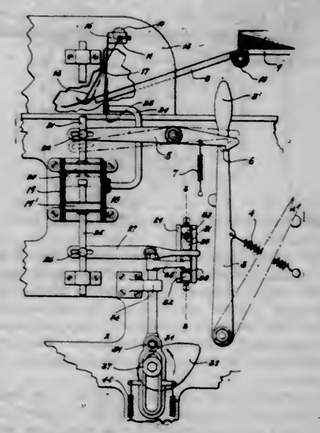


plate and to the hub and coöperating with the other disks to form casings for the springs, as set forth.

1,074,065. CONTROLLING MECHANISM. EDWARD J. F. REA and CHARLES E. CLARK, Hartford, Conn., assignors to American Automatic Press Company, San Francisco, Cal., a Corporation of California. Filed Apr. 26, 1912. Serial No. 693,358. (Cl. 101—36.)



1. Controlling mechanism comprising a controlling-member, means for normally preventing movement of said controlling member, a vacuum-creating device having an inlet from the atmosphere, means shiftable by the vacuum when created, for effecting the release of said controlling member, stock-feeding means, a valve for said inlet, and means governed by the stock, for holding said valve open.

2. Controlling mechanism comprising a controlling-member, a vacuum creating device having an inlet from the atmosphere, a latch for preventing movement of said controlling member, means shiftable by the vacuum when created for tripping said latch and thereby releasing said controlling member, stock-feeding means, a valve for said inlet, and means governed by the stock for holding the valve open.

3. Controlling mechanism comprising a controlling-member, means for normally preventing movement of said

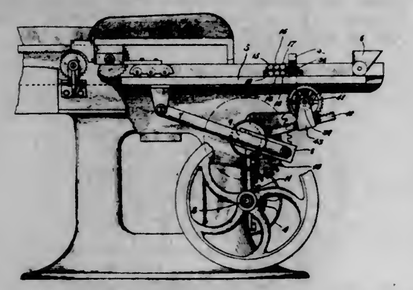
controlling-member, a vacuum-creating device having an inlet from the atmosphere, means shiftable by the vacuum when created, for effecting the release of said controlling-member, stock-feeding means, a valve for said inlet, and means governed by the stock for holding the valve open, the valve being closable by gravity.

4. Controlling mechanism comprising a spring operated controlling-member, means for holding said controlling-member normally against movement by its spring, a vacuum-creating device having an inlet from the atmosphere, means shiftable by the vacuum when created for effecting the release of said controlling-member, stock-feeding means, a valve for said inlet, and means governed by the stock, for holding said valve open.

5. Controlling mechanism comprising a shiftable member, means for normally holding said shiftable member against movement, a vacuum-creating device having an inlet from the atmosphere, means shiftable by the vacuum when created for effecting the release of said shiftable member, stock-feeding means, valve means for said inlet, means governed by the stock, for holding said valve open, an operating device, and mechanism, including a lost motion connection, for transferring the effect of said operating device to said vacuum creating device.

[Claims 6 and 7 not printed in the Gazette.]

1,074,066. **INK-DISTRIBUTING MECHANISM.** EDWARD J. F. REA, Hartford, Conn., assignor to American Automatic Press Company, San Francisco, Cal., a Corporation of California. Filed Sept. 19, 1912. Serial No. 721,224. (Cl. 101—78.)



1. The combination of an ink table, ink distributing rollers, slidable bearing blocks disposed in superposed order, the upper bearing blocks being supported by the lower bearing blocks, said rollers being rotatively supported by the respective bearing blocks, and means for reciprocating said bearing blocks in the direction of the longitudinal axes of the rollers and in opposite directions to each other.

2. The combination of an ink-table, ink-distributing rollers, rack bars connected with the respective rollers, and oppositely-oscillatory pinions in mesh with sets of the rack bars for endwise reciprocating the same and thereby the rollers connected therewith.

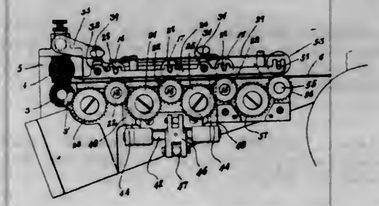
3. The combination of an ink-table, ink-distributing rollers, slidable bearing blocks disposed in superposed order, the upper bearing blocks being supported by the lower bearing blocks, said rollers having journals to rotatively fit the respective bearing blocks, racks connected with the respective bearing blocks, and oppositely oscillatory pinions in mesh with the respective rack bars for endwise reciprocating the same in sets.

4. The combination of an ink-table, ink-distributing rollers, bearing blocks disposed in sets and having T slots the rollers having T journals to rotatively fit in said T slots, rack bars connected with the respective bearing blocks, and oppositely oscillatory pinions in mesh with sets of the rack bars, for endwise reciprocating the same.

5. The combination of an ink-table, ink-distributing rollers, rack-bars connected with the respective rollers for endwise reciprocating the same, an oscillatory shaft provided with pinions in mesh with certain of the rack-bars, a second oscillatory shaft provided with a pinion in mesh with the remainder of the rack bars and provided also with a second pinion in mesh with one of the pinions on the first mentioned shaft.

[Claim 6 not printed in the Gazette.]

1,074,067. **FEED MECHANISM.** EDWARD J. F. REA, Hartford, Conn., assignor to American Automatic Press Company, San Francisco, Cal., a Corporation of California. Filed Feb. 17, 1913. Serial No. 748,920. (Cl. 101—36.)

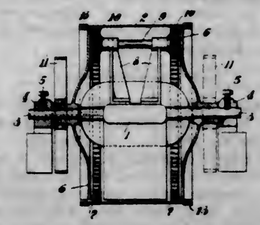


1. The combination of upper and lower forwarding rollers and upper and lower steadying rollers, and a frame for supporting the upper rollers, the latter being bodily shiftable with respect to said frame, and means for automatically raising said frame at a predetermined point, the upper steadying roller being connected with said frame to remain in contact with the lower steadying roller after the upper forwarding roller has been lifted from the lower forwarding roller on the elevation of said frame.

2. The combination of a feed table, rollers disposed respectively in sets in superposed relation, the upper rollers having laterally extending journals, and a movable frame slotted to receive said journals the slots which receive the journals of at least one of the rollers being deeper than the slots which receive the remainder of the journals of said upper rollers.

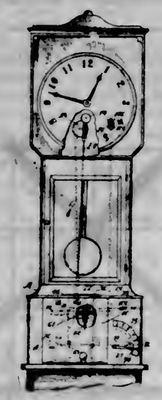
3. The combination of a feed table, a series of lower rollers, a corresponding series of upper rollers coöperative respectively with said lower rollers, a bar slotted to receive the upper rollers, the latter having laterally-extending journals and said bar having side slots to receive said journals at least two of said slots being deeper than the remainder of said side slots, and means for raising said bar.

1,074,068. **ELECTROMAGNETIC ORE-SEPARATOR.** GEORG RIETKÖTTER, Hagen, Germany. Filed Oct. 30, 1912. Serial No. 728,644. Renewed June 26, 1913. Serial No. 775,963. (Cl. 83—71.)



A device of the kind described including a frame, a shaft fixed in said frame, an opposed pair of magnets supported fixedly from said shaft, bearing brackets fixedly mounted on said shaft a second shaft journaled in said brackets, spaced disks revolubly mounted on said first mentioned shaft, internal gears on the inner sides of said disks, other gears on the second shaft meshing with said internal gears, means to rotate one of said disks, and a cylinder removably mounted on said disks and surrounding said gears and magnets.

1,074,069. **TIME-RECORDER.** JACOB SOKOLOV, New York, N. Y., assignor to The Follett Time Recording Company, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1911. Serial No. 612,682. (Cl. 234—43.)



1. In a time recorder, the combination with a clock movement, of a time-recording mechanism including meridian, minute and hour wheels having impression devices on the perimeters thereof; a spring drum to actuate said mechanism; an escapement controlled by the clock movement to control the movement of said mechanism; a platen movable independently toward the recording mechanism; a carrier for a card or record-surface interposed between the recording mechanism and the platen; means controlled by the escapement and actuated by the spring drum to move the carrier predetermined distances at predetermined times in a direction horizontal of the recording mechanism; means to move the card in a vertical direction in the carrier and indicate the extent of such movement; and independently operable means to cause the platen to move toward the recording mechanism and force the card against the impression devices on the meridian, minute and hour wheels to make an impression thereon.

2. In a time recorder, the combination with a clock movement, of a time recording mechanism including minute, meridian and hour wheels having impression devices on the perimeters thereof; a rotary escapement to intermittently advance the minute wheel, comprising a pair of toothed wheels, the teeth of one of which wheels are staggered relatively to the teeth of the other wheel; an escapement pawl; a pinion having a pin in the face thereof and driven by the minute wheel of the clock movement; a link connected to said pawl and having a forked portion in which the pin of the minute-wheel driven gear engages to operate the escapement; means to advance the meridian and hour wheels synchronously a predetermined distance upon each revolution of the minute wheel; and a spring drum to actuate said mechanism.

3. In a time recorder, the combination with a clock movement, of a time-recording mechanism including minute, meridian and hour wheels having impression devices upon the perimeters thereof; a rotary escapement comprising a pair of toothed wheels, the teeth of one of which wheels are staggered relative to the teeth of the other wheel; an escapement pawl controlled by the clock movement to permit the advance of the escapement one tooth space each minute; means to intermittently rotate the minute wheel synchronously with the movements of the escapement; and means to advance the meridian and hour wheels synchronously a predetermined distance upon each revolution of the minute wheel; and a spring drum to actuate said mechanism.

4. In a time recorder, the combination with a clock movement, of a time-recording mechanism including meridian, minute and hour wheels having impression devices upon the perimeters thereof, said minute wheel comprising an annular member having internal gear teeth; a fixed disk upon which the minute wheel is rotatably mounted; an escapement; an escapement pawl controlled by the clock movement to permit the escapement to advance one tooth space each minute; means to advance the minute wheel synchronously with the advancing movement of the escapement; and to advance the meridian and hour wheels upon each revolution of the minute wheel; and a spring drum to actuate said mechanism.

5. In a time recorder, the combination with a clock movement, of a time-recording mechanism including meridian, minute and hour wheels having impression devices upon the perimeters thereof, said minute wheel comprising an annular member having internal gear teeth; a fixed disk upon which the minute wheel is rotatably mounted; an escapement; an escapement pawl controlled by the clock movement to permit the escapement to advance one tooth space each minute; means to advance the minute wheel synchronously with the advance movement of the escapement, comprising a pinion rotatable with the escapement and meshing with the internal gear teeth of the minute wheel; means to advance the meridian and hour wheels upon each revolution of the minute wheel; and a spring drum to actuate said mechanism.

[Claims 6 to 20 not printed in the Gazette.]

1,074,070. **REMOVABLE TREAD FOR HEELS.** RICHARD STEINPACH, Vienna, Austria-Hungary. Filed July 2, 1912. Serial No. 707,156. (Cl. 36—42.)



1. The combination with the heel and tread of boots or shoes, of sheet metal plates secured to the heel and tread having flanges at the edges adapted to interengage and the tread plate having longitudinal hollow ribs, and means coöperating with the interengaging flange of the heel plate and the tread-plate ribs to lock the plates together and thereby the tread to the heel.

2. The combination with the heel and tread of boots or shoes, of plates secured to the heel and tread having flanges at the edges adapted to snugly fit together, and the tread plate having longitudinal hollow ribs, and a key coöperating with the flange of the heel-plate and the ribs of the tread-plate to releasably secure the plates together and thereby the tread to the heel.

3. The combination with the heel of boots or shoes, of a tread; plates secured to the heel and tread, each plate having a flange extending around its lateral edge with the flange of the tread plate adapted to snugly fit into the flange of the heel plate; an inwardly projecting lip at the rearmost portion of the heel plate flange; a recess in the rearmost portion of the tread plate in which said lip is adapted to engage; slots cut through the front portion of the heel plate flange; longitudinal hollow ribs in the tread plates corresponding with the latter slots; and keys adapted to enter through said slots and coöperate with said ribs to lock the plates together and thereby the tread to the heel, substantially as and for the purpose specified.

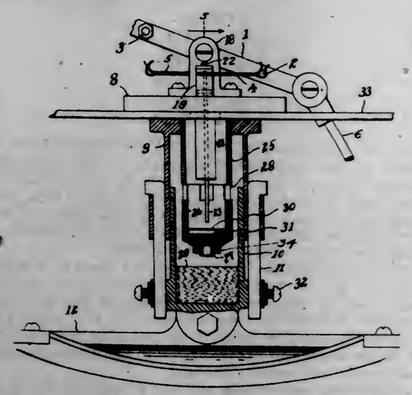
4. The combination with the heel of boots or shoes, of a tread; plates secured to the heel and tread each plate having a flange extending around its edge with the flange of the tread plate adapted to snugly fit into the flange of

the heel plate; an inwardly projecting lip at the rearmost portion of the heel plate flange; a recess in the rearmost portion of the tread plate in which said lip is adapted to engage; parallel slots cut through the front portion of the heel plate flange; parallel longitudinal hollow ribs in the tread plate, the front ends of which are open and adapted to register with the slots in the heel plate flange, and the central rib having a pair of parallel slots; connected bolts or keys adapted to enter through said slots and coöperate with said ribs to lock the plates together and thereby the tread to the heel; and means to lock the keys in position, substantially as and for the purpose specified.

5. The combination with the heel of boots or shoes, of a tread; plates secured to the heel and tread, each plate having a flange extending around its edge with the flange of the tread plate adapted to snugly fit into the flange of the heel plate; an inwardly projecting lip at the rearmost portion of the heel plate flange; a recess in the tread plate in which said lip is adapted to engage; parallel slots cut through the front portion of the heel plate flange; longitudinal hollow ribs in the tread plate the front ends of which are open and adapted to register with the slots in the heel plate flange, and one rib having a pair of parallel slots; bolts adapted to enter through said slots and coöperate with said ribs to lock the plates together and thereby the tread to the heel, the bolt engaging in the rib having the slots split longitudinally to provide a pair of resilient prongs; and means to lock the keys in position, comprising notches in the outer edges of the resilient prongs, teeth projecting down from the heel plate adapted to pass through the slots in the rib and adapted to engage in said notches.

[Claim 6 not printed in the Gazette.]

1,074,071. MAKE-AND-BREAK MECHANISM. HERMAN A. TEPEL, Jeffersonville, Ind. Filed June 30, 1911. Serial No. 636,239. (Cl. 246—54.)



1. A wire, a shoe thereon, a chamber connected therewith containing a fluid conductor, an inner chamber therein, containing a solid conductor and provided with admission and emission openings.

2. A wire, a shoe thereon, a chamber pivotally connected therewith, and an inner chamber therein, containing a solid conductor and provided with admission and emission openings.

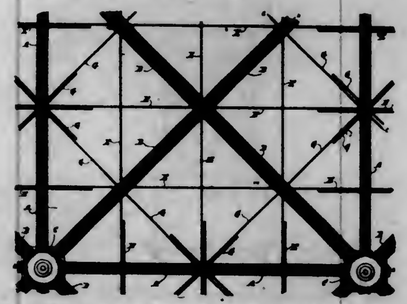
3. A wire, a shoe thereon, a chamber connected therewith containing a fluid conductor, an inner receptacle slidably associated therewith, containing a solid conductor and provided with admission and emission openings, and adjustable means for controlling said slidable association.

4. A wire, a shoe thereon, a chamber connected therewith containing a fluid conductor, a second chamber slidably associated therewith containing a solid conductor; said second chamber being provided with admission and emission openings and with two perforated insulating partitions therebetween, said admission perforations being spaced vertically from one another.

5. A wire, a shoe thereon, a chamber connected therewith containing a fluid conductor; a second chamber therein, containing a solid conductor and provided with admission and emission openings; a threaded perforated valve plug below said emission openings in said second chamber; and a lock nut adapted to set said plug at variable distances from said emission openings.

[Claims 6 to 9 not printed in the Gazette.]

1,074,072. FERROCONCRETE FLOOR. ROBERT THOMSON and WILLIAM AFFLECK THOMSON, Pollokshields, Glasgow, Scotland. Filed Oct. 12, 1911. Serial No. 654,335. (Cl. 72—15.)



1. A ferro-concrete floor structure comprising columnar substructures spaced apart, subdivided anchor devices clamped to the upper portion of each columnar substructure at the floor level, gapped anchor rings supported thereby, the rings being one within the other with the gap in one diametrically opposite the gap in the other, primary tensional reinforcing rod members extending between and secured to said anchor rings and in groups radial to them, and coacting compressional concrete masses around and between said tensional members, the tensional rod members reinforcing by their tension the concrete masses, and the concrete masses reinforcing by compression the tensional members.

2. A ferro-concrete floor structure comprising columnar substructures spaced apart, subdivided anchor devices clamped to the upper portion of each columnar substructure at the floor level, gapped anchor rings supported thereby, the rings being one within the other with the gap in one diametrically opposite the gap in the other, primary tensional reinforcing rod members extending between and secured to said anchor rings and in groups radial to them, secondary unanchored tensional rod members intercalated among and subdividing the spaces between the primary members.

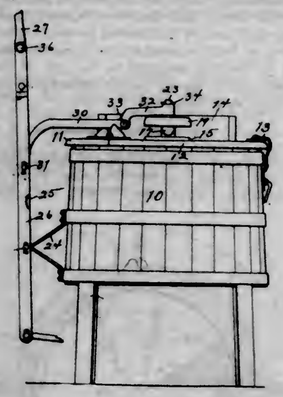
3. A ferro-concrete floor structure comprising columnar substructures spaced apart, ring-like anchor devices supported on each of said substructures and lying outside the columnar area, supplemental anchor devices lying within the columnar area and tensional members uniting said anchor devices to each other, in combination with primary tensional reinforcing rod members extending laterally from the anchor devices lying outside the columnar area and being arranged radially in groups, and coacting compressional concrete masses around and between said tensional members, the tension rod members reinforcing by their tension the concrete masses and the concrete masses reinforcing by compression the tensional members.

4. A ferro-concrete floor structure comprising columnar substructures spaced apart, ring-like anchor devices supported on each of said substructures and lying outside the columnar area, supplemental anchor devices lying within the columnar area and tensional members uniting said anchor devices to each other, in combination with primary tensional reinforcing rod members extending laterally from the anchor devices lying outside the columnar area and being arranged radially in groups, secondary unanchored tensional rod members intercalated among and subdividing the space between the primary members and coacting compressional concrete masses around and between said tensional members, the tension rod members reinforcing by their tension the concrete masses and the concrete masses reinforcing by compression the tensional members.

5. A ferro-concrete floor structure comprising ring-like anchor devices, columnar substructures spaced apart and supporting said devices, primary tensional reinforcing rod members extending rectangularly and diagonally between said anchor devices and secured thereto, secondary unanchored reinforcing rod series, one series in parallel with the rectangularly arranged primary rods and a second series in parallel with the diagonal primary rods, said secondary rods being arranged with their ends over the rectangularly arranged primary rods and their more median parts beneath the diagonally arranged primary rods, together with coacting compressional concrete masses around and beneath said tensional members, the tensional rod members reinforcing by their tension the concrete masses and the concrete masses reinforcing by compression the tensional members.

[Claims 6 and 7 not printed in the Gazette.]

1,074,073. DRIVING MECHANISM FOR WASHING-MACHINES. ORLA H. WATKINS, Clinton, Iowa, assignor to himself, J. A. Kelly, and W. J. Kelly, Clinton, Iowa. Filed Apr. 1, 1912. Serial No. 687,895. (Cl. 74—14.)



1. Driving mechanism for washing machines, comprising a suitable support, a lever fulcrumed on said support, a shaft mounted for rotation and rectilinear reciprocation in said support, a crank arm feathered to said shaft, a lever variably acting on said crank arm, a pitman composed of pivotally connected members, one member bent downwardly at its outer end and pivoted to the first lever on a horizontal axis, the other member pivoted to the second lever on a vertical axis, the pivot between the members being horizontal.

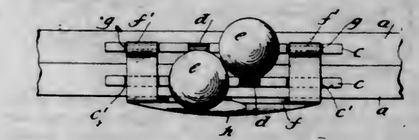
2. Driving mechanism for washing machines, comprising a suitable support, a movable member hinged to said support, a lever fulcrumed on said support, a shaft mounted for rectilinear reciprocation and rotation in said movable member, a crank arm feathered to said shaft, a second lever fulcrumed on the movable member and variably acting on said crank arm and a jointed pitman pivotally connecting said levers, the joint in the pitman being arranged for articulation on an axis parallel with the pitman connection to the first lever and with the hinge connection of the movable member.

3. In a driving mechanism for washing machines, an operating lever, arranged for oscillation on a horizontal axis and mounted on a stationary support, a second lever arranged for oscillation on a vertical axis, a pitman jointed between its ends for articulation on a horizontal axis, one end of said pitman being pivoted horizontally to the operating lever, the opposite end of said pitman being pivoted vertically on the second lever, and a support hinged on a horizontal axis and carrying the second lever aforesaid.

4. In a driving mechanism for washing machines, an operating lever pivoted on a horizontal axis and mounted on a stationary support, a movable support, a shaft journaled in the movable support, an oscillatory gear element for operating said shaft, and pitman connections between said lever and said shaft and so jointed as to permit of the movable support and therewith the gear element being raised without disconnection of said pitman connections.

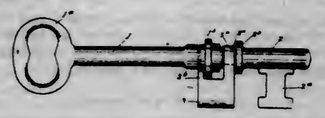
5. In a driving mechanism for washing machines, an operating lever arranged for oscillation on a horizontal axis and mounted on a stationary support, a gear element arranged for oscillation on a vertical axis, a pitman comprising elements pivotally jointed at their adjacent ends on a horizontal axis, one end of said pitman being pivoted horizontally to the operating lever, the opposite end of the pitman being pivoted vertically on the gear element, and a movable support hinged on a horizontal axis and carrying the gear element.

1,074,074. BAG-LOCK. LUDWIG WERTHEIM, New York, N. Y. Filed Mar. 20, 1913. Serial No. 755,640. (Cl. 70—116.)



The combination with a bag and its frames, of the locking knobs on the frame, a yoke hinged to one frame and adapted to embrace the locking knobs, the yoke bending down the side of the other frame and a knob on the side of said other frame to engage and lock the yoke, and ribs on the frames, one rib carrying the hinge pins of the yoke and the other recessed to receive the arms of the yoke.

1,074,075. SEPARABLE KEY. MYRON W. WIARD, San Diego, Cal., assignor of one-half to C. O. Nichols, Bostonia, Cal. Filed May 5, 1913. Serial No. 765,434. (Cl. 70—9.)



1. In a separable key the combination of a key divided into two parts, and a spring means mounted on one of said parts adapted to engage and disengage said parts when in certain relative position on said part.

2. In a separable key the combination of a handle part, a lock part, a spring mounted on said lock part engaging with said handle part adapted to allow the handle to be removed when the handle part is in certain relative position to the spring part.

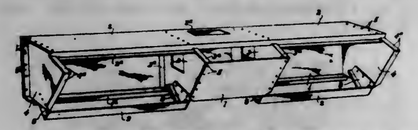
3. In a separable key the combination of a pin provided with a lug thereon adapted for turning the lock, said pin portion provided with a square portion, a spring mounted on said square portion and a handle portion engaging with said pin portion provided with oppositely disposed lugs adapted to engage with said spring portion when turned in certain position to said spring portion,

but to be readily disengaged when in other relative positions.

4. In a separable key the combination of a pin provided with a lug thereon adapted for turning a door lock, said pin provided with a square portion, an extended spring provided with a lug mounted on said square portion and a handle part engaging with said pin provided with oppositely disposed lugs adapted to engage with said lug on said spring when turned in certain position to said spring, but to be readily disengaged when in other relative positions.

5. In a separable key the combination of a pin provided with a lug or blade thereon of the conventional kind adapted for turning an ordinary lock, said pin provided with a square portion, a spring mounted on said square portion adapted to lock each quarter turn of said square portion, and a handle part engaging with said pin provided with oppositely disposed lugs adapted to engage with said spring portion when turned in certain position to said spring portion, but to be readily disengaged when in other relative positions.

1,074,076. METALLIC STRUCTURE FOR SODA-FOUNTAINS. FRANK T. WINCHERT, Bellevue, Ohio, assignor to The Wise Soda Apparatus Company, Bellevue, Ohio, a Corporation of Ohio. Original application filed Aug. 24, 1911, Serial No. 645,809. Divided and this application filed Dec. 16, 1912. Serial No. 736,950. (Cl. 211—11.)

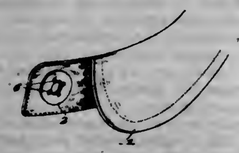


1. In a metallic structure for soda fountains, a container-counter frame comprising flanged polygonal supporting frames, top and lateral walls mounted thereon, said lateral wall terminating along its lower marginal edges in an inset flanged portion, and depending bracket members carried by said supporting frames.

2. In a metallic frame for soda fountains, a container-counter frame made up of longitudinally extending metallic walls, a plurality of peripherally flanged polygonal supporting frames connected to and reinforcing said metallic walls, depending brackets secured to the latter, and supporting strips interposed between and carried by said brackets.

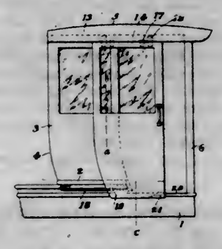
3. In a metallic frame for soda fountains, a container-counter frame made up of longitudinally extending top and lateral walls, said lateral wall terminating at its base in an inset longitudinally extending flanged portion and said top wall terminating at one side in an inset longitudinally extending flanged portion, flanged end and intermediate frames secured to said top and lateral walls, and depending supporting strips secured to and interposed between said end and intermediate frames.

1,074,077. REINFORCEMENT FOR COLLAR-BUTTON-HOLES. MICHAEL W. WISMER, Doylestown, Pa. Filed Jan. 14, 1910. Serial No. 538,077. (Cl. 24—202.)



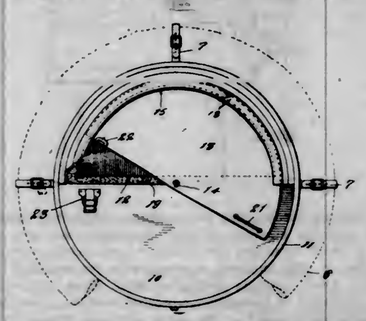
A new article of manufacture, the same consisting of a metal reinforcement for a button hole for a collar, the reinforcement consisting of complemental metal plates placed upon opposite sides of the collar and having openings in register with the openings of the said collar, one of said plates having notches at intervals in the edge surrounding the opening and the other plate having spurs projecting therefrom in line with the edge of the opening and in position and number to register with the notches of the first mentioned plate, said spurs extending through the opening of the collar and through the notches of the first mentioned plate and having their projecting ends clenched, thereby holding the reinforcing plates in position.

1,074,078. VEHICLE. JOHN E. WRIGHT, Hamilton, Ohio, assignor to The Columbia Carriage Company, Hamilton, Ohio. Filed Apr. 8, 1911. Serial No. 619,661. (Cl. 21—125.)



A vehicle comprising, in combination with a sliding door, a horizontal rail near the roof, a pair of hangers secured to the top of the door and having hooking engagement over said rail, a horizontal base-rail near the bed of the vehicle, a loop secured to the door and engaging said base-rail, a foot-rail secured to the top of the side edge of the bed, and a spring-runner secured to the door and hooking over said foot-rail.

1,074,079. AUTOMOBILE TIRE-TRUNK. ABRAHAM ZIEVE and HARRY DAVIDOVITZ, New York, N. Y. Filed Dec. 12, 1910. Serial No. 596,887. (Cl. 224—29.)

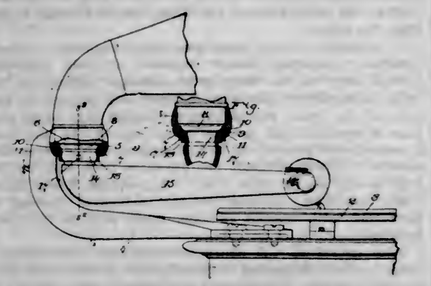


1. In a tire trunk, the combination with a cylindrical body of a circular head secured at its periphery to the cylindrical body and provided in its upper portion with a segmental opening having its curved edge spaced from and concentric with the periphery of the circular head leaving a relatively broad integral arcuate top portion, an annular binding strip having angularly related flanges embracing the cylindrical body and overlapping the peripheral portion of the said head, an arcuate housing and guiding strip angularly bent in a longitudinal direction to form a flat outer attaching flange and an inner offset guiding flange, the attaching flange being fitted flat against and secured to the said arcuate integral portion of the circular head between the side edges thereof, and the inner guiding flange being arranged in spaced relation with the inner portion of the said integral arcuate portion of the head and forming

therewith a guiding groove located at the curved edge of the said portion, and a substantially segmental closure pivoted to the center of the head beyond the opening thereof and having its peripheral edge guided in the said groove.

2. In a tire trunk, the combination with a cylindrical body of a circular head secured at its periphery to the cylindrical body and provided in its upper portion with a segmental opening having its curved edge spaced from and concentric with the periphery of the circular head leaving a relatively broad integral arcuate top portion, an annular binding strip having angularly related flanges embracing the cylindrical body and overlapping the peripheral portion of the said head, an arcuate housing and guiding strip angularly bent in a longitudinal direction to form a flat outer attaching flange and an inner offset guiding flange, the attaching flange being fitted flat against and secured to the said arcuate integral portion of the circular head between the side edges thereof, and the inner guiding flange being arranged in spaced relation with the inner portion of the said integral arcuate portion of the head and forming therewith a guiding groove located at the curved edge of the said portion, and a substantially segmental closure pivoted to the center of the head beyond the opening thereof and having its peripheral edge guided in the said groove, a sheet of water proof material covering the outer face of the closure, and a sheet of water proof material having its outer portion fitted against the integral arcuate portion of the head adjacent to the periphery thereof and extending under the annular binding strip, the inner portion of the said water proof strip overlying the exterior of the guiding and housing strip and extending around the inner edge of the guiding flange and over the inner face thereof to fit against the peripheral portion of the closure when the latter is in its closed position.

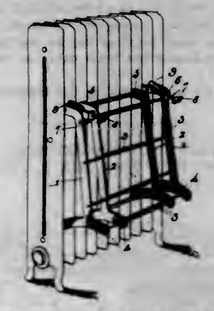
1,074,080. TALKING-MACHINE. HENRY BLAKE BABSON, Chicago, Ill., and ANDREW HAUG, Caldwell, N. J., assignors to Universal Talking Machine Manufacturing Company, a Corporation of New York. Original application filed Mar. 7, 1905, Serial No. 248,872. Divided and this application filed July 17, 1909. Serial No. 508,115. (Cl. 181—3.)



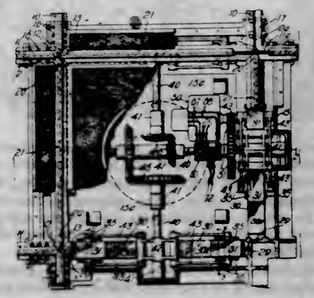
In a talking machine, the combination of a horn supporting bracket provided with an annular flange, a ring having struck up portions supported by the flange, a sound conveying tube extending from the bracket and terminating in a reproducer, and a member rotatably mounted in the ring and having a depending extension in which the sound conveying tube is held in suspended relation.

1,074,081. RADIATOR FOOT-REST. EBON B. BOWER, Bellefonte, Pa. Filed Sept. 30, 1911. Serial No. 652,097. (Cl. 155—9.)

A foot rest for radiators consisting of like sections, each of the sections comprising an inner and an outer upright having inner lateral extensions at their upper ends and cross pieces at their lower ends, and longitudinal rods supported at their ends in the uprights and the lateral extensions and cross pieces thereof and connecting the same, the rods of one section passing loosely through the inner upright, lateral extension and cross piece of the other section and vice versa, and means applied to the lateral extensions of the outer uprights to secure the foot rest to a radiator in elevated position.



1,074,082. RAILWAY INTERSECTION. EDWARD S. COBB, Whittier, Cal. Filed Mar. 1, 1913. Serial No. 751,477. (Cl. 104—116.)



1. A railway intersection, comprising two intersecting pairs of parallel rails with each rail terminating at its junction with a rail of another pair, single rail sections extending between the rail intersections and adapted to form continuations of the individual rails, said sections being vertically translatable and said sections and rails all meeting at the junctions along vertical planes diagonal to each of the rails, and means for raising and lowering said rail sections.

2. A railway intersection, comprising two intersecting pairs of parallel rails with each rail terminating at its junction with a rail of another pair, single rail sections extending between the rail intersections and adapted to form continuations of the individual rails, said rails and rail sections all meeting at the junctions along vertical planes diagonal to each of the rails, said sections being vertically translatable and abutting at each end one of the rail ends at a junction, and means for coöperatively raising and lowering said rail sections so that when one pair of said sections is in position to form continuation of one pair of rails the other pair of said sections is lowered below all the rails.

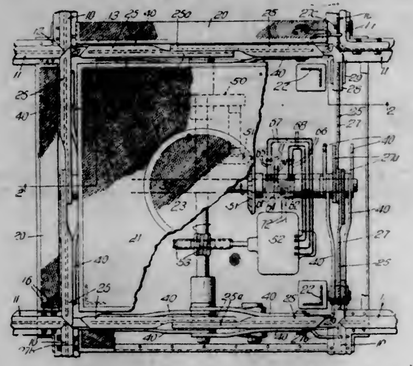
3. In combination, two intersecting rails, the section of each rail on one side of the intersection being stationary and the section of each rail on the opposite side of the intersection being vertically movable, all four of said sections meeting along vertical planes diagonal to each of the rails.

4. In combination, two intersecting rails, the section of each rail on one side of the intersection being stationary and the section of each rail on the opposite side of the intersection being vertically movable, all four of said sections meeting along vertical planes which bisect the angles between the rails.

5. In combination, two intersecting rails, the section of each rail on one side of the intersection being stationary and the section of each rail on the opposite side of the intersection being vertically movable, all four of said sections meeting along vertical planes which bisect the angles between the rails, and bearing blocks having surfaces in said planes to bear against each other at the ends of the rail sections.

[Claims 6 to 15 not printed in the Gazette.]

1,074,083. RAILWAY INTERSECTION. EDWARD S. COBB, Whittier, Cal. Filed Mar. 5, 1913. Serial No. 751,988. (Cl. 104—116.)



1. A rail joint construction, comprising a plurality of rails terminating in junction, and a continuation portion for each rail abutting the end of the rail at the junction, said continuation portion being pivoted below the rail junction to swing longitudinally toward or away from the adjacent rail end in the vertical plane determined by the longitudinal axis of the corresponding rail.

2. A rail joint construction, comprising a plurality of rails terminating in a junction, and a continuation portion for each rail abutting the end of the rail at the junction, said continuation portion being pivoted vertically beneath the rail junction to swing longitudinally toward or away from the adjacent rail end in the vertical plane determined by the longitudinal axis of the corresponding rail, and means to move said portions and lock them in position against the rail ends at their junction.

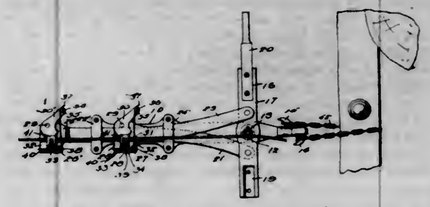
3. A rail joint construction, comprising a plurality of rails terminating in a junction, and a continuation portion for each rail abutting the end of the rail at the junction, said continuation portion being pivoted below the rail junction to swing longitudinally toward or away from the adjacent rail end in the vertical plane determined by the longitudinal axis of the corresponding rail, and means to coöperatively move said portions about their pivots to and from the respective rails.

4. A rail joint construction, comprising a plurality of rails terminating in a junction, and a continuation portion for each rail abutting the end of the rail at the junction, said continuation portion being pivoted vertically beneath the rail junction to swing longitudinally toward or away from the adjacent rail end in the vertical plane determined by the longitudinal axis of the corresponding rail, and means to coöperatively move said portions about their pivots to and from said rails so that when one of said portions is in engagement with its corresponding rail end the other is moved away from the junction of the rails.

5. A rail joint construction, comprising an intersecting pair of parallel rails each rail terminating at a junction with a rail of the other pair, continuation rail sections extending between the individual rail junctions and comprising movable portions adapted to abut each junction end of each rail, said portions being pivoted vertically beneath the individual rail junctions to oscillate longitudinally toward or away from the adjacent rail end in the vertical planes determined by the longitudinal axis of the respective corresponding rails, and means to move said portions to and away from the rail junctions.

[Claims 6 to 12 not printed in the Gazette.]

1,074,084. WIRE-STRETCHER. PETER FILLIEZ, Canton, Ohio. Filed Nov. 3, 1911. Serial No. 658,410. (Cl. 39—51.)



1. A device of the class described comprising a body member, an anchoring means thereon, a lever centrally pivoted thereon, links pivoted on opposite arms of the lever, extending in a common direction and slidable longitudinally on the body member in superposed relation, spaced standard members on the body without the links for lateral movement of the links as described, means to hold the links slidably upon the body, one of the links being longer than the other, and wire grip means carried by each for the purpose described.

2. A device of the class described comprising a body member, an anchoring means therefor, a lever centrally pivoted thereon, a transverse guide passage being formed on the body member outwardly of the lever in or parallel to the plane of its oscillation, links connected to respective arms of the lever, the outer portions being commonly engaged through the guide passage for sliding movement therein under operation of the lever, and grip devices carried at the outer ends of the links, one link being longer than the other.

3. A device of the class described comprising a body member, anchoring means therefor, a lever centrally pivoted thereon, an inner guide passage formed on the body outwardly of the lever, a short link pivoted on one arm of the lever and extended through the guide passage, a second guide passage outwardly of the link, and a second link pivoted on the other arm of the lever and engaged slidably through the passages, each link having grip means at its outer end, the passages being wider than the links, whereby lateral oscillation thereof is permitted with respect to each other and to the body member.

4. A device of the character described comprising a body member, anchoring means therefor, a lever centrally pivoted thereon, transversely extending guide means on the body outwardly of the lever, and in the plane of oscillation of the lever, links pivoted on respective arms of the lever and extending toward one side thereof, their outer portions being slidably engaged through the guide means for relative sliding movement under operation of the lever, the levers being curved outwardly in respective directions, and grip means carried at their outer ends.

1,074,085. METALLIC-BELT PROTECTOR FOR VEHICLE-TIRES. WILLIAM P. HAMMOND, Passaic, N. J., assignor of one-half to P. Frank Sonnek, Woodhaven, N. Y. Filed June 30, 1908. Serial No. 441,160. (Cl. 152—16.)

1. An apertured link for a metallic belt provided with a plurality of return bent loops and an apertured support for the free ends of said loops, said support extending above said ends.

2. A link for a metallic belt having a plurality of retaining members, a supporting member supporting the free ends of said retaining members, said supporting member extending above the plane of the retaining members.



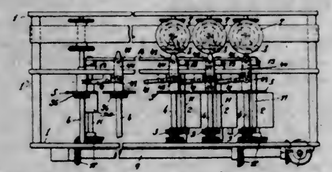
3. A tire protector comprising perforated links and integral radially disposed loops, an apertured supporting member, supporting the ends of said loops, and links interlocked with said loops.

4. A tire protector having links provided with retaining members, a supporting member provided with radial slots, the free ends of said retaining members resting in said slots upon said supporting member and links interlocked with said retaining members.

5. A tire protector having links provided with retaining members, said retaining members having reduced ends, a slotted supporting member adapted to receive the reduced ends of said retaining members, said links being provided with a central perforation and links interlocked with said retaining members.

[Claims 6 to 8 not printed in the Gazette.]

1,074,086. CARRYING MECHANISM. ARTHUR HANTSCH, Linden, N. J. Filed Apr. 15, 1912. Serial No. 690,732. (Cl. 235—133.)



1. In a mechanism for advancing the tens wheel in calculating machines, a counting drum, a tens transferring tooth carried by the said drum, means carried by the latter for operating said tooth and a lever in operative engagement with said counting drum, for actuating the said operating means.

2. In a mechanism for advancing the tens wheel in calculating machines, the combination of a counting drum, a tens transferring tooth, means supported on said drum for operating said tooth and a locking device for preventing incomplete action of the said means.

3. In a mechanism for advancing the tens wheel in calculating machines, the combination of a counting drum, a tens transferring tooth mounted on said drum, a member supported on the latter for operating said tooth, means for operating the said member and a locking device for preventing incomplete action of the said member.

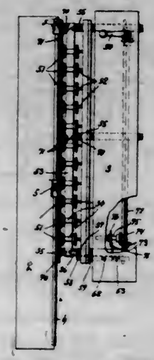
4. In a mechanism for advancing the tens wheel in calculating machines, the combination of a counting drum, a tens transferring tooth mounted on said drum, a reciprocating member for operating said tooth, means for reciprocating said member and a locking device for locking said reciprocating member against incomplete action thereof.

5. In a mechanism for advancing the tens wheel in calculating machines, the combination of a counting drum, a tens transferring tooth, operating connections between the latter and the said drum, a movable member for operating said tooth, means for actuating said member and a locking device for preventing incomplete action of the latter.

[Claims 6 to 21 not printed in the Gazette.]

1,074,087. REVERSING MECHANISM FOR CALCULATING-MACHINES. ARTHUR HANTSCH, Linden, N. J. Filed Sept. 17, 1912. Serial No. 720,732. (Cl. 235—75.)

1. In a reversing mechanism for calculating machines the combination of reversing wheels, a reversing bar for shifting said wheels, a reciprocating bar connected to said reversing bar for operating the same and vertically movable cams for actuating said reciprocating bar.



2. In a reversing mechanism for calculating machines the combination of reversing wheels, a reversing bar for shifting said wheels and having cut out portions forming oblique guide faces, fixed pins for said guide faces, a bell crank pivoted to said reversing bar to operate the same in an oblique direction guided by said pins, vertically movable cam members for operating said bell crank and operating connections between said cam members and the bell crank.

3. In a reversing mechanism for calculating machines, the combination with a frame and a cover plate, a plurality of reversing wheels, a reversing bar for shifting said wheels, a bell crank pivoted on said frame and connected with its one arm to said reversing bar, a reciprocating bar supported in the frame and connected to the other arm of said bell crank, vertically movable cam members below said cover plate for operating said reciprocating bar and means projecting through and above said cover plate for actuating said cam members.

4. In a reversing mechanism for calculating machines, the combination of reversing wheels, a reversing bar for shifting the same, a reciprocating bar for actuating said reversing bar and movable cam members for operating said reciprocating bar and for locking the same at the end of its movement in either direction.

5. In a reversing mechanism for calculating machines, the combination of reversing wheels, a member for moving the same into one of two different positions, a reciprocating bar for operating said member and having two slots and cams adapted to engage said slots to operate said bar and to lock the same and the reversing wheels in a given position.

[Claims 6 to 11 not printed in the Gazette.]

1,074,088. ELECTRODE-SUPPORTING ROD FOR ELECTROLYTIC TANKS. PETER JENSEN, Perth Amboy, N. J., assignor of one-third to Leo Goldberger and one-third to John Kudrik, Perth Amboy, N. J. Filed Apr. 9, 1913. Serial No. 759,891. (Cl. 204—5.)

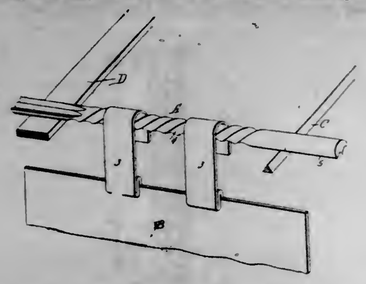
1. An electrode suspending rod formed from angular stock and twisted around its longitudinal axis for producing a plurality of helical edges for engaging the suspending hooks of an electrode.

2. An electrode supporting rod or conductor having a plurality of helical electrode-engaging [illegible] from the [illegible]

3. An electrode supporting rod or conductor having a plurality of helical electrode-engaging edges and longitudinally-extending ridges arranged in a common plane at the extremities of the rod.

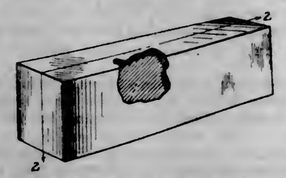
4. A supporting rod having a plurality of sharp edges and grooves between the edges, in combination with an electrode having a plurality of hooks engaging the said edges.

5. An electrode supporting rod having a sharp edge extending helically thereof, and an electrode having a plu-



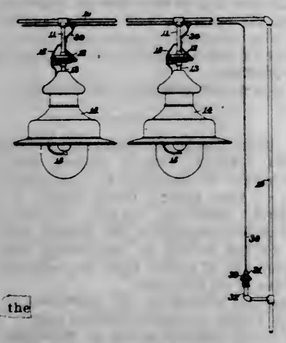
rality of hooks all engaging said edge for electrically connecting the electrode to the rod.

1,074,089. METHOD OF MAKING RAILWAY-RAILS. ALFRED H. MOORE, New York, N. Y., assignor of one-half to Charles F. Molley, New York, N. Y. Continuation of application Serial No. 712,126, filed July 29, 1912. This application filed Jan. 4, 1913. Serial No. 740,232. (Cl. 29—148.)



The method of making railway rails consisting in taking an ingot having a steel center and "best" iron envelop fused together, severing the ingot longitudinally and centrally, then rolling the sectional ingots in such a manner that the steel will be exposed and will form the tread of the rail and that the web and foot of the rail will have an outer surface of "best" iron and a core of steel.

1,074,090. DEVICE FOR CONTROLLING VALVES OF GAS-BURNERS. AI B. SHAW, Medford, Mass. Filed June 27, 1912. Serial No. 706,283. (Cl. 67—13.)



ned by the

1. In a device of the class described, the combination of a supply pipe containing an agent under pressure; a casing secured to the end thereof provided with a discharge outlet therefrom communicating at one end with the interior chamber of said casing near the top and at the other with the lamp burner; a gas inlet nozzle extending through said casing into the interior thereof and communicating with said supply pipe; means within said casing for dividing said chamber into two compartments, said means being provided with a greater pressure contacting surface on its under side than on its upper side, whereby it may be forced against the end of said inlet nozzle and close the same; a pipe connecting the lower compartment with said supply pipe; and a valve in said connecting pipe adapted to be opened to admit a portion of said agent under pressure to said lower compartment to operate said closing means.

2. In a device of the class described, the combination of a supply pipe containing an agent under pressure; a casing secured to the ends thereof provided with a discharge outlet therefrom communicating at one end with the interior chamber of said casing near the top and at the other with the lamp burner; a gas inlet nozzle extending through said casing into the interior thereof and communicating with said supply pipe; means within said casing for dividing said chamber into two compartments, said means being provided with a greater pressure contacting surface on its under side than on its upper side whereby it may be forced against the end of said inlet nozzle and close the same; a pipe connecting the lower compartment with said supply pipe; a valve in said connecting pipe adapted to be opened to admit a portion of said agent under pressure to said lower compartment to operate said closing means, the casing for said valve being provided with a discharge outlet open to atmosphere and adapted to communicate with said connecting pipe when said valve is in position to cut off communication with the main supply.

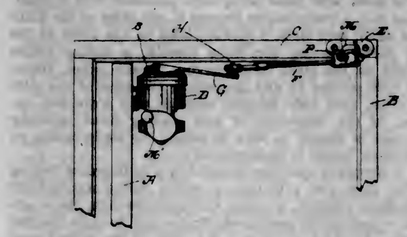
3. In a device of the class described, the combination of a supply pipe containing an agent under pressure; a casing secured to the end thereof provided with a discharge outlet therefrom communicating with the interior chamber of said casing near the top; a nozzle extending into said casing and communicating with said supply pipe; a perforated partition in said chamber; a flexible member covering said perforation and normally closing said nozzle; a diaphragm extending across said chamber provided with a projection normally contacting with said flexible member; a pipe connecting said chamber beneath said diaphragm with the main supply; and a valve in said connecting pipe adapted to be operated to admit a portion of said agent under pressure to said casing chamber to close said inlet nozzle.

4. In a device of the class described, the combination of a supply pipe containing an agent under pressure; a casing secured to the end thereof provided with a discharge outlet therefrom communicating with the interior chamber of said casing near the top; a nozzle extending into said casing and communicating with said supply pipe; a perforated partition in said chamber provided with a cylindrical flanged wall to said perforation surrounding said inlet nozzle; a flexible member covering said perforation secured to said flanged wall and adapted to close said nozzle; a diaphragm extending across said chamber provided with a projection normally contacting with said flexible member; a pipe connecting said chamber beneath said diaphragm with the main supply; and a valve in said connecting pipe adapted to be operated to admit a portion of said agent under pressure to said casing chamber to close said inlet nozzle.

5. In a device of the class described, the combination of a gas burner; a gas supply pipe thereto; a casing in said supply pipe; a diaphragm dividing the interior of said casing into two compartments; a small pipe leading from said supply pipe to the lower compartment; an inlet nozzle from said supply pipe extending into the upper compartment; a partition provided with an opening therein surrounding said nozzle; means coacting with said diaphragm normally closing said nozzle and adapted to prevent the passage of the gas through said opening; a valve in said branch pipe adapted to be opened to admit gas under pressure to said lower compartment and force said diaphragm toward said inlet nozzle and operate said closing means; and a pipe between said casing and lamp connected by a passage to said upper compartment.

[Claims 6 to 12 not printed in the Gazette.]

1,074,091. DOUBLE-ACTING DOOR-CHECK. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed July 21, 1905. Serial No. 270,692. (Cl. 16—88.)



1. The combination with a double acting door and a door frame, of a door check applied to one of said parts and having a spindle, a bracket applied to the other part, a link connected with the bracket, and an arm connected with said link and with the check spindle, and mounted to swing in a predetermined oblique path, independent of the action of said link; substantially as described.

2. The combination with a double acting door and a door frame, of a door check applied to the door and having a spindle, a bracket applied to the door frame, a link connected with said bracket, and an arm connected with said spindle and said link and mounted for swinging movement, independent of the action of said link, in a predetermined path over the edge of the door and under the lintel; substantially as described.

3. The combination with a double acting door and a door frame, of a bracket applied to the door frame, a link connected with said bracket, an arm loosely connected to said link, and a door check applied to the door and affording a mounting for said arm on which the latter swings in a definite path over the top edge of the door and under the lintel, independently of the action of said link; substantially as described.

4. The combination with a double acting door and a door frame, of a bracket applied to the door frame, a link, a coupling device connecting the link with the bracket to permit the link to have an oblique raising and lowering movement, an arm loosely connected to said link, and a door check applied to the door and affording a mounting for said arm on which the latter swings in a predetermined path over the top edge of the door and under the lintel, independently of the action of said link; substantially as described.

5. The combination with a door check and closer, including a casing and a spindle journaled therein, of means to connect said spindle with a door or door frame, including an arm on said spindle mounted to swing in a vertical plane, and means associated with said casing to raise and lower said arm as the spindle is rotated; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,074,092. ARTICLES COMPOSED OF CELLULOSE ESTERS. HARRY S. MORK, Boston, Mass., assignor to Chemical Products Company, Boston, Mass., a Corporation of Maine. Original application filed Feb. 10, 1910, Serial No. 543,098. Divided and this application filed May 19, 1910. Serial No. 562,318. (Cl. 154—43.)

1. As a new article of manufacture, a sheet, film or filament composed of an inseparable combination of cellulose of progressively varying degrees of acetylation prepared by removing superficially or locally from the higher cellulose ester a portion of the combined acid.

2. As a new article of manufacture, a sheet, film or filament composed of an inseparable combination of cellulose of progressively varying degrees of acetylation including the triacetate and a lower acetate prepared by removing superficially or locally from the triacetate a portion of the combined acid.

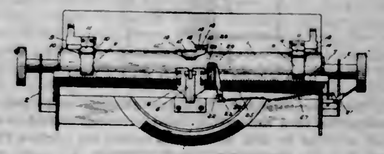
3. As a new article of manufacture, a sheet, film or filament of cellulose triacetate having its surface saponified to produce an article of progressively varying degrees of acetylation.

4. As a new article of manufacture, a film, filament, sheet or structure composed of cellulose of progressively varying degrees of acetylation and which is physically homogeneous but chemically heterogeneous in its relations to water, dyes and solvents.

5. As a new article of manufacture, a sheet, film or filament composed of cellulose acetate, superficially saponified.

[Claims 6 to 13 not printed in the Gazette.]

1,074,093. TYPE-WRITING MACHINE. EDWARD B. HESS, Brooklyn, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Original application filed Nov. 24, 1905, Serial No. 288,968. Divided and this application filed Sept. 19, 1912. Serial No. 721,230. (Cl. 197—135.)



1. In a visible writing machine, the combination with the platen of a paper holder comprising an arm pivoted in front of the platen and capable of being rocked transversely of the machine from normal substantially horizontal position to an upright position into operative relation to the platen and having at its operative end forwardly inclined paper deflectors.

2. In a visible writing machine, the combination with the platen of a paper holder comprising an arm pivoted in front of the platen and capable of being rocked transversely of the machine from normal substantially horizontal position to an upright position into operative relation to the platen.

3. In a visible writing machine the combination with the transversely movable platen of a paper holder stationary with respect to the transverse movement of the platen, mounted in front thereof, extending across the line of print adjacent the printing point and movable transversely of the machine to below the line of print and out of operative relation to the surface of the platen.

4. In a visible typewriting machine, the combination with the platen of a paper holding device adapted to hold the paper against the platen adjacent the printing point and comprising a roller that lies across the line of print and whose axis is transverse to that of the platen.

5. In a visible typewriting machine the combination with the platen of a paper holding device mounted on the frame of the machine and adapted to hold the paper against the platen adjacent the printing point and comprising a roller that lies across the line of print and whose axis is transverse to that of the platen.

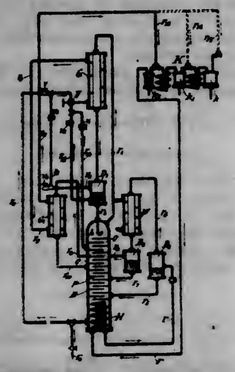
[Claims 6 to 29 not printed in the Gazette.]

1,074,094. APPARATUS FOR LIQUEFYING GASEOUS MIXTURES. HERMANN BLAU, Augsburg, Germany. Filed July 31, 1911. Serial No. 641,692. (Cl. 62—18.)

1. In apparatus for liquefying gaseous mixtures, the combination of a separating vessel, a cooler, a second separating vessel, means for the passage of gas from the first separating vessel to the cooler and into the second separating vessel, and means for leading liquefied gas from the second separating vessel into the first separating vessel, substantially as described.

2. In apparatus for liquefying gaseous mixtures, the combination of a separating vessel, means, passing through the separating vessel, for leading crude gases into the separating vessel, a cooler, a second separating vessel,

means for the passage of gas from the first separating vessel to the cooler and into the second separating vessel, and means for leading liquefied gas from the second separating vessel into the first separating vessel, substantially as described.



3. In apparatus for liquefying gaseous mixtures, the combination of a separating vessel, means, provided with a coil situated in said separating vessel, for leading crude gases into the separating vessel, a cooler, a second separating vessel, means for the passage of gas from the first separating vessel to the cooler and into the second separating vessel, and means for leading liquefied gas from the second separating vessel into the first separating vessel, substantially as described.

4. In apparatus for liquefying gaseous mixtures, the combination of a separating vessel (D_2), means for leading crude gases to the separating vessel, a second separating vessel (D), means for leading gas and means for leading liquefied gas from the first to the second separating vessel, a cooler (G), a third separating vessel (D_1), means for leading gas from the second separating vessel to the cooler and into the third separating vessel, and means for leading liquefied gas from the third separating vessel into the second separating vessel, substantially as described.

5. In apparatus for liquefying gaseous mixtures, the combination of a separating vessel (D_2), means for leading crude gases to the separating vessel, a second separating vessel (D) constructed as a rectification column, means for leading gas and means for leading liquefied gas from the first to the second separating vessel, a cooler (G), a third separating vessel (D_1), means for leading gas from the second separating vessel to the cooler and into the third separating vessel, and means for leading liquefied gas from the third separating vessel into the second separating vessel, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,074,095. RAZOR-STROPPING MACHINE. EDWARD B. GIFFORD and WILLIAM P. WELCH, Adrian, Mich.; said Welch assignor to Garrett O. Wright, Adrian, Mich. Filed Apr. 20, 1912, Serial No. 692,177. Renewed Apr. 23, 1913. Serial No. 763,182. (Cl. 51—16.)

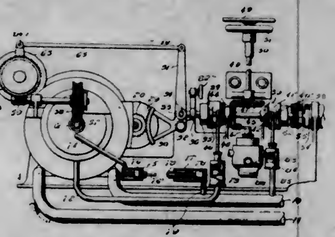


1. A stropping machine comprising a main frame having parallel sides and a bottom, one of the sides of said frame having a longitudinal slot, a strop lying in said frame between said sides and having frictional engagement with said bottom, a blade holder pivoted between said sides to swing, a rocking head on the shaft of the blade holder having cam-ways therein, a slide mounted to reciprocate on the main frame, and members attached to said slide passing laterally through said slot and engaging in the cam-ways in said rocking head to cause the blade holder to swing from side to side as said slide is reciprocated.

2. A stropping machine comprising a main frame having flanged sides, said sides being each provided with a longitudinal slot, a blade holder pivoted in the sides of the main frame above said slots, a rocking head on the pivot of the blade holder having cam-ways therein, a sliding frame mounted on the main frame having parallel sides, transverse rods carried by and connecting the sides of the sliding frame, said rods passing through said slots and engaging in the cam-ways of said rocking head, whereby said head is caused to rock to swing the blade holder as said sliding frame is reciprocated.

3. A stropping machine comprising a main frame having parallel sides and a bottom, a spring frame struck from the bottom thereof, a strop threaded through the main frame to pass below said spring frame and lie upon the end portions of said main frame, the sides of the main frame having longitudinal slots, a sliding frame mounted on the main frame to freely reciprocate, a blade holder pivoted to the sides of the main frame, a rocking head on the pivot of the blade holder, and members on the sliding frame extending through said slots and engaging said head to cause the blade holder to swing from side to side as the sliding frame is reciprocated.

1,074,096. LIQUID CHANGE-SPEED GEAR FOR AUTOMOBILES. LUDWIG HAMMER, Vienna, Austria-Hungary. Filed June 26, 1913. Serial No. 775,911. (Cl. 138—3.)



1. In a hydraulic change speed gear, a rotary machine driven by the engine and comprising piston systems revolving within casings; means for varying the delivery of the rotary machine; connections for driving wheel motors of a power vehicle with an infinitely variable transmission ratio by means of the circulation of working fluid developed by the rotary machine; a suction pipe and a delivery pipe connected to the rotary machine; a reversing cock built into the crossing of said pipes; means for operating the reversing cock whereby the amount and direction of circulation of working fluid behind said cock is controlled; and means for regulating the air supply to the engine, the oil supply and the fuel supply.

2. In a hydraulic change speed gear, a rotary machine driven by the engine and comprising inner casings functioning as slide valves and journaled in outer cylinders inclosing eccentrically journaled piston systems; means for angularly shifting the inner casing relatively to the axis of eccentricity while maintaining the eccentricity constant so as to vary the delivery of the rotary machine; and means for driving wheel motors with an infinitely variable transmission ratio by means of the circulation of working fluid developed by the rotary machine.

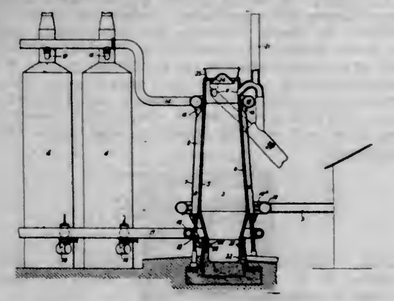
3. In a hydraulic change speed gear, a rotary machine driven by the engine, the total internal space of the machine being divided into three spaces of which the volume of the middle space is equal to half the total space; inner casings journaled within these spaces and functioning as slide valves; eccentrically arranged piston systems mounted upon a common driving shaft and journaled within said casings the eccentricity of the piston systems working within the middle casing being exactly opposite to that of both the other two systems whereby the bearings of the driving shaft are relieved of the pressure generated in the rotary machine, means for varying the delivery of the rotary machine and means for driving wheel motors with an infinitely variable transmission ratio by means of the circulation of working fluid developed by the rotary machine.

4. In a hydraulic change speed gear, a rotary machine driven by the engine, the total internal space of the machine being divided into three spaces of which the volume of the middle space is equal to half the total space; inner casings journaled within these spaces and functioning as slide valves; eccentrically arranged piston systems mounted upon a common driving shaft and journaled within said casings the eccentricity of the piston systems working within the middle casing being exactly opposite to that of both the other two systems whereby the bearings of the driving shaft are relieved of the pressure generated in the rotary machine; means for angularly shifting all three inner casings together relative to the axes of eccentricity while maintaining the axes of eccentricity constant so as to vary the delivery of the machine, and means for driving wheel motors of a power vehicle with an infinitely variable transmission ratio by means of the circulation of working fluid developed by the rotary machine.

5. In a hydraulic change speed gear, a rotary machine driven by the engine and comprising piston systems revolving within casings functioning as slide valves, outer casings inclosing the piston casings, tight fitting cover plates in the casings at the ends of the piston systems, spring packing means between the cover plates and the ends of the outer casings; means for varying the delivery of the rotary machine and connections for driving wheel motors with an infinitely variable transmission ratio by means of the circulation of working fluid developed by the rotary machine.

[Claims 6 to 30 not printed in the Gazette.]

1,074,097. AIR-COOLED BLAST-FURNACE. RICHARD H. STEVENS, Munhall, Pa. Filed Sept. 24, 1912. Serial No. 722,096. (Cl. 75—5.)



1. In a blast furnace plant, the combination with the furnace hot blast stoves, of a furnace having a hollow metal shell or jacket forming the furnace shaft, and means for conducting the air forming the cold blast through said hollow metal jacket, in its passage to said stoves, to thereby effect an interchange of heat which cools the metal jacket and preheats the cold blast in passing through said jacket preparatory to further heating in said hot blast stoves.

2. In a blast furnace plant, the combination with the furnace hot blast stoves, of a furnace having a hollow metal shell or jacket forming the furnace shaft, and having a refractory shaft lining, and means for conducting the air forming the cold blast through said hollow metal jacket in its passage to said stoves, to thereby effect an interchange of heat which cools the metal jacket and refractory lining, and preheats the cold blast in passing through said jacket preparatory to further heating in said hot blast stoves.

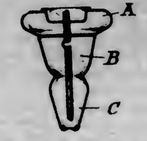
3. In a blast furnace plant, the combination with the furnace hot blast stoves of a furnace having a refractory shaft lining and a hollow metal jacket or shell surrounding said lining, means for conducing the air forming the cold blast into one end and out of the opposite end of said hollow jacket, in its passage to the furnace stoves, whereby an interchange of heat is effected cooling the shaft jacket and lining and preheating the cold blast in passing the cold blast through said jacket preparatory to further heating in said hot blast stoves.

4. In a blast furnace plant, the combination with the furnace hot blast stoves of a furnace having a hollow metal shell or jacket forming the furnace shaft, means for conducting the air forming the cold blast into the lower end and out of the upper end of said hollow metal jacket in its passage to the hot blast stoves, to thereby effect an interchange of heat which cools the metal jacket and preheats the cold blast in passing through said jacket preparatory to further heating in said hot blast stoves.

5. In a blast furnace plant, the combination with the furnace hot blast stoves of a furnace having a refractory shaft lining and a hollow metal jacket or shell surrounding said lining, bustle pipes each having a plurality of branches connecting the bustle pipes to the hollow metal jacket, means for supplying air forming the cold blast to one of said bustle pipes, and means connecting the other bustle pipe to the furnace stoves whereby the cold blast is delivered into said hollow metal jacket in its passage to the stoves to effect an interchange of heat which cools the jacket and jacket lining, and preheats the air of the cold blast preparatory to further heating in said hot blast stoves.

REISSUES.

13,618. ARC-LAMP. TITO LIVIO CARBONE, Charlottenburg, Germany. Filed Feb. 19, 1913. Serial No. 749,536. Original No. 975,935, dated Nov. 15, 1910, Serial No. 484,552. Division A. (Cl. 176—52.)



1. An arc-lamp globe specially adapted to the use of impregnated carbons, and divided into a plurality of superposed chambers by a chamber inclosing the arc, said chamber having a wall of a configuration suitable for surrounding the arc closely so as to be heated thereby for preventing the gases produced by the arc from condensing on said wall, the chambers above and below the arc chamber for the deposited condensed gases communicating only through said arc chamber.

2. An arc lamp globe specially adapted to the use of impregnated carbons, and divided into three superposed chambers by suitable contractions in the wall, the middle chamber having the shape of an inverted cone and its walls surrounding the arc as closely as possible to prevent the gases produced by the arc condensing on the walls of said chamber.

3. An arc-lamp globe specially adapted to the use of impregnated carbons, and divided into a plurality of superposed chambers by a chamber inclosing the arc, formed by a series of circular contractions in the globe the walls of the arc chamber surrounding the arc closely so as to be heated for preventing the gases produced by the arc from condensing thereon.

4. In an arc-lamp, a globe or inclosure for use with impregnated or flame-arc carbons, divided into three superposed chambers by suitable contractions in the walls, the middle chamber having a transparent wall surrounding the arc, and a separation or joint at the upper end of the middle chamber between it and the chamber above.

5. In an arc-lamp, a globe or inclosure for use with impregnated or flame-arc carbons, divided into three super-

posed chambers by suitable contractions in the walls, the middle chamber having a transparent wall surrounding the arc, an upper chamber separated from said middle chamber, and a lower chamber immediately below the transparent wall of the middle chamber and made integral therewith.

6. In an arc-lamp, a globe or inclosure for use with impregnated or flame-arc carbons, divided into three superposed chambers by suitable contractions in the walls, the middle chamber having a transparent wall surrounding the arc, an upper chamber separated from said middle chamber, and a lower chamber immediately below the transparent wall of the middle chamber made integral therewith and closed at the lower end.

7. In an arc-lamp for use with impregnated or flaming-arcs, an inclosure for the flaming arc having a space adjacent to the flaming arc heated thereby, the walls of said space having an inclination with respect to the axis of the arc so that said wall is so closely approached to the arc to utilize the same to prevent condensation of the condensable vapors, said inclosure having spaces above and below the arc space, forming with the walls of the inclosure, inclosed condensation spaces.

8. An arc-lamp globe specially adapted to the use of impregnated carbons, and divided into a plurality of superposed chambers by suitable configuration of the walls, the middle chamber inclosing the flame of the arc and having a transparent wall surrounding the arc closely for preventing the gases produced by the arc from condensing on said walls, said configuration of the walls being at the line of demarcation of the deposits, said chambers above and below the arc chamber being freely communicating therewith and communicating only through said arc chamber.

9. An arc-lamp globe specially adapted to the use of impregnated carbons, and divided into a plurality of superposed chambers by suitable configuration of the walls, the walls of the middle chamber surrounding the flame of the arc as closely as possible so as to be heated thereby for preventing the gases produced by the arc from condensing on the walls of the arc inclosing middle chamber, the said walls of the globe consisting partly of glass and partly of metal, said chambers above and below the arc chamber being freely communicating with each other only through said arc-chamber.

10. In an arc lamp specially adapted for the use of impregnated or flaming arcs, a globe divided into three walled spaces, the arc space having a wall surrounding the arc closely so as to be heated for preventing condensation thereon, said spaces communicating with each other only through said arc-space and the walls of said space having changes of configuration at their boundaries for securing a clear line of demarcation of the deposits at said changes.

11. An arc lamp globe or inclosure especially adapted to the use of impregnated carbons, and divided into a plurality of superposed walled spaces by a walled space for the arc, said arc space having a wall with an inverted conical shape surrounding the arc closely so as to be heated for preventing the gases produced by the arc from condensing thereon.

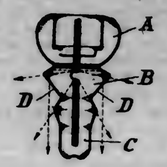
12. An arc lamp globe for use with impregnated or flaming arcs, including a walled space having a wall where the light mainly issues, upwardly inclined with respect to the arc or general alinement of electrodes, surrounding the flaming arc closely so as to be heated for preventing the gases produced by the arc from condensing on said wall.

13. In an arc lamp, having a globe or inclosure for use with impregnated or flaming arcs, a walled space or chamber for the arc having a wall where the light mainly issues of an inverted conical shape, arranged close to the arc so as to be heated for preventing the gases produced by the arc from condensing on said wall.

14. An arc lamp globe specially adapted to the use of impregnated carbons, and divided into a plurality of superposed chambers by a middle chamber inclosing the arc formed by a series of circular contractions in the globe, the wall of the middle chamber having a conical shape and surrounding the arc closely so as to be heated for preventing the gases produced by the arc from condensing thereon.

15. In an arc lamp specially adapted to the use of impregnated carbons, having a globe, a chamber inclosing the arc, formed by a series of circular contractions in the globe, the wall of the arc inclosing chamber having a conical shape and surrounding the arc closely so as to be heated for preventing the gases produced by the arc from condensing thereon.

13,619. ARC-LAMP. TITO LIVIO CARBONE, Charlottenburg, Germany. Filed May 15, 1913. Serial No. 767,921. Original No. 975,935, dated Nov. 15, 1910. Serial No. 484,552. Division B. (Cl. 176—52.)

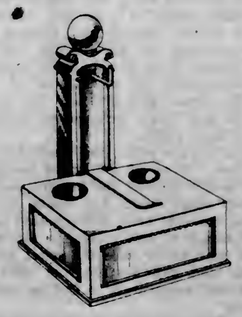


1. In the art of electric lighting by inclosed arc lamps of long lighting hours producing condensable vapors that condense to opaque deposits, that step of preventing the condensation of the condensable vapors in that part of the inclosure through which the light mainly issues, which consists in concentrating the heat of the arc only at the region adjacent to the arc and in said part of the inclosure, for permitting the removal of the condensable vapors beyond said region and said part, before condensation thereof on that part of the globe from which the light mainly issues.

2. In the art of electric lighting by inclosed arc lamps of long lighting hours producing condensable vapors that condense to opaque deposits, that improvement in the art which consists in concentrating the heat of the arc only at the region adjacent the arc in that portion of the inclosure through which the light mainly issues, for permitting the removal of the condensable vapors beyond said region and said portion before condensation thereof, and then after such removal, condensing said vapors beyond said region.

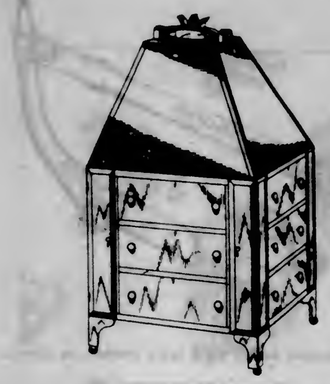
DESIGNS.

44,675. MEDICINE-HOLDER. DANIEL S. AUSTIN, Sodus, N. Y. Filed Aug. 5, 1913. Serial No. 783,199. Term of patent 14 years.



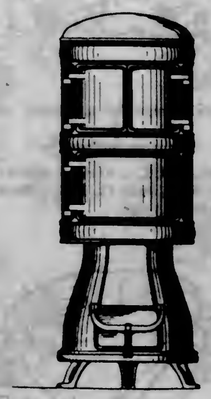
The ornamental design for a desk, as shown.

44,676. DESK. GEORGE L. CARRUTHERS, Pine Bluff, Ark. Filed June 28, 1913. Serial No. 776,439. Term of patent 7 years.



The ornamental design for a medicine holder, as shown.

44,677. VACUUM-CLEANER CASING. CORNELIUS SCHUYLER DAVIS, Rochester, N. Y., assignor to Domestic Appliances Company, Rochester, N. Y., a Corporation of New York. Filed July 31, 1913. Serial No. 782,356. Term of patent 14 years.



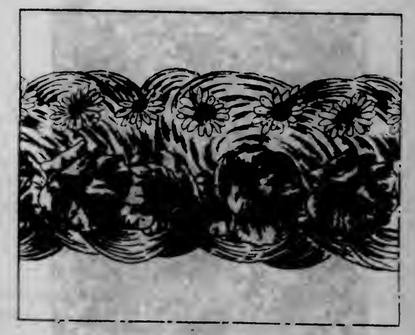
The ornamental design for a vacuum-cleaner casing, as shown in said drawing.

44,678. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Aug. 13, 1913. Serial No. 784,616. Term of patent 7 years.



The ornamental design for a carpet, as shown.

44,679. TEXTILE FABRIC. GUSTAVE GEORGE, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,505. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

44,680. TEXTILE FABRIC. GUSTAVE GEORGE, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,506. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown

44,681. TEXTILE FABRIC. GUSTAVE GEORGE, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,507. Term of patent 3½ years.



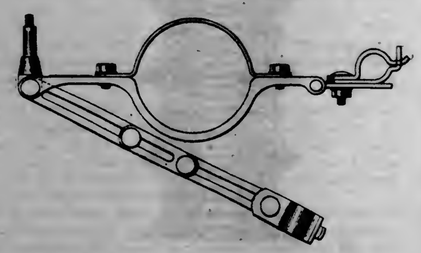
The ornamental design for a textile fabric, as shown.

44,682. TEXTILE FABRIC. GUSTAVE GEORGE, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,508. Term of patent 3½ years.



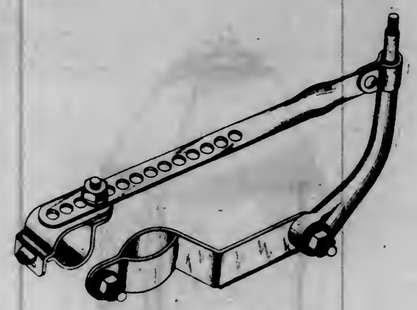
The ornamental design for a textile fabric, as shown.

44,683. LAMP-BRACKET. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed July 10, 1913. Serial No. 778,389. Term of patent 14 years.



The ornamental design for a lamp bracket, as shown.

44,684. LAMP-BRACKET. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed July 14, 1913. Serial No. 779,053. Term of patent 14 years.

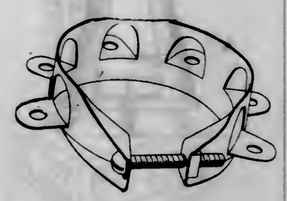


The ornamental design for a lamp bracket, as shown.

44,685. PRINTED TEXTILE FABRIC. ERNEST HOCH, New York, N. Y., assignor to Pacific Mills, Boston, Mass., a Corporation of Massachusetts. Filed July 21, 1913. Serial No. 780,395. Term of patent 3½ years.

The ornamental design for a printed textile fabric as shown.

44,686. TOWEL-RACK. ALFRED HENRY HOWE, New York, N. Y. Filed July 12, 1913. Serial No. 778,777. Term of patent 14 years.



The ornamental design for a towel rack, as shown.

44,687. TEXTILE FABRIC. HENRI MAISCH-BITSCHENAUER, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,509. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

44,688. TEXTILE FABRIC. HENRI MAISCH-BITSCHENAUER, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,510. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

44,689. BADGE OR SIMILAR ARTICLE. LUCIA K. MATHEWS, San Francisco, Cal., assignor to Panama-Pacific International Exposition Co., San Francisco, Cal., a Corporation of California. Filed July 8, 1913. Serial No. 777,965. Term of patent 3½ years.



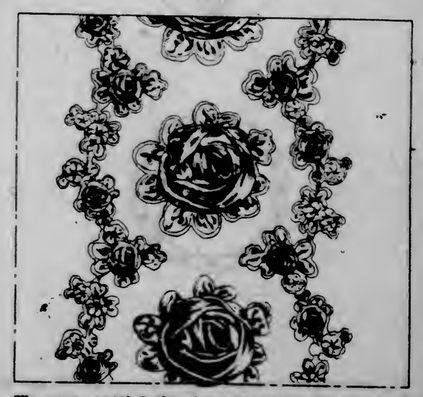
The ornamental design for a badge or similar article as shown.

44,690. PLATE OR SIMILAR ARTICLE. CHARLES A. MAY, Trenton, N. J., assignor to Maddock Pottery Company, Trenton, N. J. Filed Aug. 4, 1913. Serial No. 782,951. Term of patent 7 years.



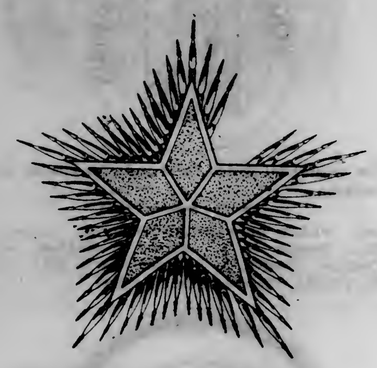
The ornamental design for a plate or similar article, as shown.

44,691. TEXTILE FABRIC. PAUL MOUTON, Paris, France, assignor to Cheney Brothers, South Manchester, Conn., a Corporation of Connecticut. Filed Aug. 13, 1913. Serial No. 784,511. Term of patent 3½ years.



The ornamental design for a textile fabric, as shown.

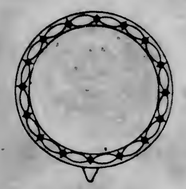
44,692. ADVERTISING DEVICE FOR DISPLAYING OIL. CLARENCE NEWTON SCOTT, Houston, Tex., assignor to The Texas Company, Houston, Tex. Filed Feb. 17, 1913. Serial No. 749,043. Term of patent 14 years.



The ornamental design for an advertising device for displaying oil as shown.

44,693. BUTTON. CHARLES J. SMITH, Springfield, Ill. Filed Mar. 5, 1913. Serial No. 752,228. Term of patent 7 years.





The ornamental design for a button, as shown and described.

44,694. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. RALPH L. SNOW, Pawtucket, R. I., assignor to Paye & Baker Manufacturing Company, North Attleboro, Mass., a Corporation of Massachusetts. Filed July 16, 1913. Serial No. 779,397. Term of patent 3½ years.



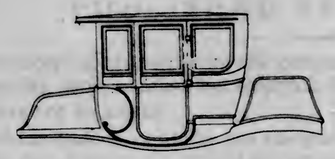
The ornamental design for a handle for spoons, forks or similar articles, as shown.

44,695. CORSET. THOMAS F. SOMERS, New York, N. Y. Filed July 31, 1913. Serial No. 782,358. Term of patent 14 years.



The ornamental design for a corset, as shown.

44,696. VEHICLE-BODY. FREDERICK K. STONE, Chicago, Ill., assignor to the Waverly Company, Indianapolis, Ind., a Corporation of Indiana. Filed May 2, 1913. Serial No. 765,135. Term of patent 7 years.



The ornamental design for a vehicle body, as shown.

44,697. VANITY-BOX. JOSEPH S. WALLENSTEIN, New York, N. Y. Filed Aug. 2, 1913. Serial No. 782,724. Term of patent 3½ years.



The ornamental design for a vanity box as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 23, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 53,126. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE COAST PRODUCTS COMPANY, St. Louis, Mo. Filed Dec. 5, 1910.



Particular description of goods.—Canned Fruits, Figs, Tomato Catsup, and Canned Vegetables.
Claims use since about Sept. 1, 1910.

Ser. No. 56,884. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MYRON L. CHAMBERLAIN, Beverly, Mass. Filed June 2, 1911.

CHERRY HILL FARM

Particular description of goods.—Milk and Cream.
Claims use since Jan. 1, 1900.

Ser. No. 57,455. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT A. JOHNSTON CO., Milwaukee, Wis. Filed July 3, 1911.

Sugalasses

Particular description of goods.—Cookies.
Claims use since April, 1911.

Ser. No. 61,474. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.



Particular description of goods.—Orange-Wood Sticks and Nail-Boards.
Claims use since Nov. 24, 1911.

Ser. No. 61,477. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.



Particular description of goods.—Orange-Wood Sticks and Nail-Boards.
Claims use since Jan. 1, 1899.

Ser. No. 61,886. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Piston-Rings, Tires, Hollow or Solid, Composed of India-Rubber, Gutta-Percha, Balata, and Similar Vegetable Substances, Alone or Mixed with Waxes, Oils, Resin, Grease, Tar, Pitch, or Asphalt; and Air-Tubes for such Tires, and Packing Composed of Cotton, Flax, Jute, Hemp, Manila, Sisal, or Similar Vegetable Substances, Twisted, Woven, or Plaited; Packing

Composed of Asbestos, Mica, or Similar Mineral Substances, Either Alone or Compounded with Waxes, Oils, Resin, Grease, Tar, Pitch, or Asphalt, Leather Packing.
Claims use since 1870.

Ser. No. 61,888. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—India-Rubber, Gutta-Percha, Balata, and Similar Vegetable Substances, Alone or Mixed with Waxes, Oils, Resin, Grease, Tar, Pitch, or Asphalt, and Disks, Plates, and Sheets Composed of Any of These Materials and Wool-Like Material Made from Slag, Known as Silicate-Cotton or Slag-Wool.
Claims use since 1870.

Ser. No. 64,741. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RICE AND COMPANY INCORPORATED, Lowell, Mass. Filed July 15, 1912. Under ten-year proviso.

FAVORITE

Particular description of goods.—Ash-Sifters.
Claims use since Sept. 20, 1883.

Ser. No. 67,047. (CLASS 39. CLOTHING.) CORSET II COMPANY, Worcester, Mass. Filed Nov. 21, 1912.



Particular description of goods.—Corsets, Brassières, Bust-Supporters, to be Used Either with or without Corsets, and Corset-Waists.
Claims use since February, 1905.

Ser. No. 67,277. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PEERLESS DRUG CO., New York, N. Y. Filed Dec. 7, 1912.



Particular description of goods.—A Talcum Powder and a Tooth-Powder.
Claims use since Oct. 1, 1912.

Ser. No. 68,160. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) WEDGERITE POWDER COMPANY, Boston, Mass. Filed Jan. 27, 1913.

WEDGERITE

Particular description of goods.—Powder.
Claims use since July 1, 1912.

Ser. No. 68,683. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FREDERICK H. FOX COMPANY, Syracuse, N. Y. Filed Feb. 24, 1913.



Particular description of goods.—Ammonia, Tooth-Powder, Writing Fluid, and Bluing.
Claims use since Jan. 1, 1895.

Ser. No. 68,865. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ELIE DE LAAGE, St. Savinien-sur-Charente, near Cognac, France. Filed Mar. 6, 1913.



The portrait being that of Francis the First of France.
Particular description of goods.—A Liqueur.
Claims use since January, 1912.

Ser. No. 69,039. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES C. SMITH, Dumont, N. J. Filed Mar. 14, 1913.

AMINITA

Particular description of goods.—A Preparation of Milk and Chocolate.
Claims use since Jan. 25, 1913.

Ser. No. 69,083. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM F. BENTE, Seattle, Wash. Filed Mar. 17, 1913.



Particular description of goods.—A Remedy for Rheumatism, Lumbago, Neuralgia, Pleurisy, Eczema, Cold in the

Head, Chest, and Lungs, Sore Muscles, Burns, Wounds, Chilblains, Cold or Sweaty Feet, Cramps, Toothache, Earache, Insect-Bites, Asthma, Coughs, La Grippe, Influenza, Kidney Disorders, Gout, Indigestion, Cramps, and Colic.
Claims use since Nov. 26, 1912.

Ser. No. 69,571. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Apr. 3, 1913.

Ecton

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Mar. 13, 1913.

Ser. No. 69,769. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FERMENT COMPANY, New York, N. Y. Filed Apr. 14, 1913.



Particular description of goods.—Bacteriological Products, Prepared in Both Tablet and Liquid Form, Containing in Symbiosis the Amylolytic Bacterium (*Glycobacter Peptolyticus*) and the *Bacillus Bulgaricus* Selected, Studied, and Recommended by Professor Élie Metchnikoff, Institut Pasteur, Paris, France, for the Modification of the Intestinal Microbic Flora, the Treatment and Prevention of Bacterial Infection of the Intestines, Intestinal Toxemia, Intestinal Auto-Intoxications, Ailments Resulting from Auto-Intoxications, Arteriosclerosis, and Premature Old Age.
Claims use since about Dec. 15, 1912.

Ser. No. 69,796. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DEUTSCHE MASCHINENFABRIK AKTIEN GESELLSCHAFT, Duisburg, Germany, and New York, N. Y. Filed Apr. 15, 1913.

DEMAG

Particular description of goods.—Rock-Drills, Hammer-Drills, Mining-Fans, Air-Compressors, Hauling-Engines, Pit-Head Winches, Adjustable Couplings and Safety Devices Connecting Pit-Cages to Their Cables, Pneumatic Motors for Shaking-Troughs, Machines for Coke-Ovens, Coal-Stamping Machines, Coke-Pushers, Coal-Cutting Machines, Gas-Cleaning Plants, Car-Unloaders, Grab-Buckets, Locomotive and Tilting Turn-Tables, Steam Locomotive-Cranes, Revolving Cranes, Gauntree-Cranes, Pig-Iron-Loading Cranes with Lifting-Magnets and Pig-Breakers, Skull-Cracker Cranes with Lifting-Magnets, Mixer-Cranes, Ladle-Cranes, Ingot-Strippers, Combined Ingot-Stripper and Soaking-Pit Cranes, Soaking-Pit Cranes, Ingot-Transporter Cranes, Overhead Traveling Cranes, Roll-Charging Cranes for Rolling-Mills, Profile-Iron-Loading Cranes, Wall-Cranes, Magnet-Cranes, Revolving Ship-Building Tower-Cranes, Cranes for Dry and Floating Docks, Floating Cranes, Capstans, Winches, Automatic Charging Installations, Inclined Hoists, Blast-Furnace Blowing-Engines, Pig-Iron-Casting Machines, Pig-Breakers, Converter Bottom Tamping and Relining Machines, Scrap-Iron Building-Presses, Rolling-Mill Engines, Rolling-Mills, Disk Mills, Tire-Mills, Roller-Gears, Oscillating and Lifting Tables, Traveling Roller and Lifting Tables, Tilting and Shifting Apparatus, Bloom-Tilters, Bloom Pushers and Withdrawing Devices, Reels for Curling or Winding Wire, Machines for Welded Tubes, Shears, Saws, Straightening and Bending Machines, Milling-Machines, Drilling-Machines, Sleeper Capping and Punching Machines, Bending and Punching Machines, Planing-Machines, Lathes, Steam-Hammers, Forging-Presses, Spur and Bevel Gear Wheels, Worms and Worm-Wheels, Starting-Machines for Fly-Wheels.
Claims use since July 1, 1910.

Ser. No. 69,798. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INGERSOLL CANDY COMPANY, San Diego, Cal. Filed Apr. 15, 1913.

Mon Amour

Consisting of the words "Mon Amour."
Particular description of goods.—Candies.
Claims use since Nov. 15, 1912.

Ser. No. 69,914. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD WOLFGANG BREY, Woonsocket, R. I. Filed Apr. 19, 1913.

BDC

The trade-mark consists of the letters "B D C."
Particular description of goods.—Dandruff-Remover and Hair-Renewer in a Liquid Form.
Claims use since January, 1912.

Ser. No. 69,988. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HASEROT COMPANY, Cleveland, Ohio. Filed Apr. 22, 1913.

SENORA

Particular description of goods.—Coffee.
Claims use since about October, 1896.

Ser. No. 69,997. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SPLIT BITTER CO., Peoria, Ill. Filed Apr. 22, 1913.



The words "Tonic Bitters" being disclaimed.
Particular description of goods.—Bitters.
Claims use since about Feb. 15, 1913.

Ser. No. 69,998. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTERN SAUSAGE & PROVISION CO., INCORPORATED, New York, N. Y. Filed Apr. 22, 1913.

CASALINGO

Particular description of goods.—Ham.
Claims use since January, 1911.

Ser. No. 70,094. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) RESISTO LUGGAGE CO., Newark, N. J. Filed Apr. 28, 1913.

RESISTO CASE

No claim being made to the word "Case."
Particular description of goods.—Suitcases, Trunks, and Bags.
Claims use since Mar. 17, 1913.

Ser. No. 70,185. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FR. KÜTTNER, Pirna, Germany. Filed May 2, 1913.

Kasema

Particular description of goods.—Artificial Silk.
Claims use since Jan. 1, 1913.

Ser. No. 70,396. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed May 13, 1913.



The representation of a star inclosing the letter "B."
Particular description of goods.—Rubber Tubing, Rubber Hose, Rubber and Cotton Fire-Hose, Rubber and Cotton Mill-Hose, Belting, and Machinery Packing.
Claims use since January, 1895.

Ser. No. 70,488. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELSON & BREWER, INC., New York, N. Y. Filed May 19, 1913.

ADHERON

Particular description of goods.—Chemically-Refined Stearate of Zinc Free from Oleates.
Claims use since about Nov. 1, 1911.

Ser. No. 70,567. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TUSCARAWAS CHEMICAL COMPANY, Uhrichsville, Ohio. Filed May 22, 1913.

Near-Nature

Particular description of goods.—Remedy for Live Stock for Dertroying Worms, Improving Digestion, Cleansing the Blood, Improving Appetite, and as a Tonic.
Claims use since Jan. 1, 1913.

Ser. No. 70,590. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WM. J. RYAN, Philadelphia, Pa. Filed May 23, 1913.

RADIUM

Particular description of goods.—Cold-Cream, Vanishing-Cream, Tissue-Cream, Massage-Cream, Lotion for Pimples and Skin Eruptions, Face-Powder, Massage-Powder, Talcum Powder, Tooth-Powder, Lip-Tint, Rose-Tint, Nail-Enamel, Nail-Luster, Scalp-Ointment, Ointment, Depilatory Powder, Liquid Rouge, Skin-Whitener, Nail-Bleach, Salve, and Cleansing-Cream, (an Antiseptic Cream for Whitening and Preserving the Skin.)
Claims use since May 17, 1913.

Ser. No. 70,626. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) MONTGOMERIE, STOBO & CO., LTD., Glasgow, Scotland. Filed May 24, 1913.

"Lantyck"

Particular description of goods.—Dry-Cleaning Soap.
Claims use since 1906.

Ser. No. 70,637. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHARLES J. STEVENOT, New York, N. Y. Filed May 24, 1913.

STEVNOLA

Particular description of goods.—A Cleanser Compound and Metal-Polish.
Claims use since Mar. 24, 1913.

Ser. No. 70,695. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALICE A. MCGEE, Glendale, Cal. Filed May 27, 1913.



Particular description of goods.—A Hair-Restorative.
Claims use since Apr. 10, 1913.

Ser. No. 70,742. (CLASS 38. PRINTS AND PUBLICATIONS.) BARTLETT-ORR PRESS, New York, N. Y. Filed May 29, 1913.

BARTLETT-ORR PRESS
NEW YORK

No claim is made to the name "Bartlett Orr Press, New York."
Particular description of goods.—Books, Booklets, Pamphlets, Hand-Books, Catalogues, Programs, Circulars, Prospectuses, Advertising Literature, Menu-Cards, Price-Lists, Reports, and All Kinds of Goods Prepared upon Order by Printing-Houses.
Claims use since October, 1907.

Ser. No. 70,743. (CLASS 17. TOBACCO PRODUCTS.) COMPAGNIE LAFERME TABAK- UND CIGARETTEN-FABRIKEN, Dresden, Germany. Filed May 29, 1913. Under ten-year proviso.

LAFERME

Particular description of goods.—Smoking-Tobacco and Cigarettes.
Claims use since 1852.

Ser. No. 70,765. (CLASS 37. PAPER AND STATIONERY.) CARL SCHLEICHER & SCHÜLL, Düren, Germany. Filed May 29, 1913.



No claim being made to the exclusive use of the words "C. Schleicher & Schüll," "Charta Filtratoria Acido Hydrochlorico et Fluorico Extracta," and "Eingetr. Schutzmarke."
Particular description of goods.—Filtering-Papers.
Claims use since May 1, 1882.

Ser. No. 70,873. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE ALBERT DICKINSON COMPANY, Chicago, Ill. Filed June 5, 1913.



The words "Brand Alfalfa" being disclaimed.
Particular description of goods.—Alfalfa.
Claims use since May 1, 1913.

Ser. No. 70,875. (CLASS 38. PRINTS AND PUBLICATIONS.) THE EDITOR & PUBLISHER CO., New York, N. Y. Filed June 5, 1913.

THE EDITOR AND PUBLISHER
AND JOURNALIST

Particular description of goods.—Newspapers.
Claims use since January, 1907.

Ser. No. 70,962. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE UNITED ALKALI COMPANY LIMITED, Liverpool, England. Filed June 7, 1913.



The trade-mark consists of the representation of a human skull and crossed bones.
Particular description of goods.—Caustic Soda and Soda-Ash.
Claims use since about the year 1874.

Ser. No. 71,004. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE MECHANICAL RUBBER COMPANY, Jersey City, N. J.; New York, N. Y., and Cleveland, Ohio. Filed June 10, 1913.

CORKER

Particular description of goods.—Hose Composed of Rubber and Rubber Combined with Fabric.
Claims use since August, 1911.

Ser. No. 71,023. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD K. MORRIS, Baltimore, Md. Filed June 11, 1913.

Yelvet

Particular description of goods.—Chewing-Gum.
Claims use since May 6, 1913.

Ser. No. 71,031. (CLASS 5. ADHESIVES.) LEON N. ADLER, New York, N. Y. Filed June 12, 1913.

COLLOL

Particular description of goods.—An Adhesive Labeling-Paste.
Claims use since Apr. 15, 1913.

Ser. No. 71,040. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed June 12, 1913.

OCTO

Particular description of goods.—Rubber, Cotton, and Linen Hose; Rubber, Cotton, and Canvas Belting; Rubber Packing; Rubber Jar-Rings.
Claims use since Dec. 1, 1909.

Ser. No. 71,046. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BALLIN & TAYLOR, New York, N. Y. Filed June 12, 1913.

IN

WASHRUNK

The exclusive use of the word "Washrunk" being disclaimed.
Particular description of goods.—Crash and Toweling.
Claims use since May 23, 1913.

Ser. No. 71,048. (CLASS 38. PRINTS AND PUBLICATIONS.) BARSE & HOPKINS, New York, N. Y. Filed June 12, 1913.

The Sunlit Year

Particular description of goods.—A Calendar and Collection of Mottoes.
Claims use since Jan. 1, 1913.

Ser. No. 71,049. (CLASS 38. PRINTS AND PUBLICATIONS.) BARSE & HOPKINS, New York, N. Y. Filed June 12, 1913.

THE HOUSEHOLD CALENDAR

Particular description of goods.—A Calendar and Collection of Mottoes.
Claims use since Jan. 1, 1913.

Ser. No. 71,050. (CLASS 38. PRINTS AND PUBLICATIONS.) BARSE & HOPKINS, New York, N. Y. Filed June 12, 1913.

MOTHERS' CALENDAR

Particular description of goods.—A Calendar and Collection of Mottoes.
Claims use since Jan. 1, 1913.

Ser. No. 71,076. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS NOT INCLUDING ELECTRICAL APPARATUS.) PRODUCTION ENGINEERING CO., Philadelphia, Pa. Filed June 12, 1913.

PECO

The trade-mark consists of the word or combination of letters "PECO," derived from the first letters of our corporate title, displayed upon the representation of an oil-burner, no claim, however, being made to the representation of the oil-burner.
Particular description of goods.—Various Forms of Burners for Burning Fuel-Oil.
Claims use since Jan. 1, 1913.

Ser. No. 71,243. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERNATIONAL COFFEE CO., Houston, Tex. Filed June 21, 1913.

HAVALAND.

Particular description of goods.—Coffee.
Claims use since November, 1911.

Ser. No. 71,251. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

OBERON

Particular description of goods.—Biscuit.
Claims use since at least May 12, 1913.

Ser. No. 71,252. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

CHICKADEE

Particular description of goods.—Biscuit.
Claims use since at least Apr. 22, 1913.

Ser. No. 71,253. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

GOOD CHEER

Particular description of goods.—Biscuit and Bread.
Claims use since at least June 5, 1912.

Ser. No. 71,254. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

AL FRESCO

Particular description of goods.—Biscuit.
Claims use since at least Feb. 24, 1913.

Ser. No. 71,256. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

ROMANTIC

Particular description of goods.—Biscuit.
Claims use since Apr. 23, 1913.

Ser. No. 71,257. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

JARICA

Particular description of goods.—Biscuit.
Claims use since at least May 2, 1913.

Ser. No. 71,259. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

ARBUTUS

Particular description of goods.—Biscuit.
Claims use since at least July, 1902.

Ser. No. 71,265. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

PHANTOM

Particular description of goods.—Biscuit.
Claims use since at least May, 1913.

Ser. No. 71,266. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

BITES

Particular description of goods.—Biscuit.
Claims use since at least May, 1913.

Ser. No. 71,267. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

JASMINE

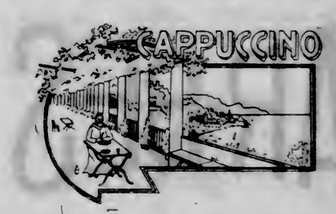
Particular description of goods.—Biscuit.
Claims use since at least December, 1909.

Ser. No. 71,268. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed June 21, 1913.

PANTRY

Particular description of goods.—Biscuit.
Claims use since at least Nov. 3, 1905.

Ser. No. 71,270. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOSEPH PETROCELLI & COMPANY, New York, N. Y. Filed June 21, 1913.



Particular description of goods.—Macaroni.
Claims use since May 1, 1913.

Ser. No. 71,273. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. W. B. Co., Buffalo, N. Y. Filed June 21, 1913.



No claim being made to the words "Death to Corns."
Particular description of goods.—Remedy for Corns, Warts, and Callouses.
Claims use since May 23, 1913.

Ser. No. 71,321. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ROCK ISLAND BUTTER CO., Toledo, Ohio. Filed June 23, 1913.



Particular description of goods.—Butter and Eggs.
Claims use since early in 1910.

Ser. No. 71,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOPF NURSERY & REALTY CO. INC., New Haven, Conn. Filed June 25, 1913.

KOPINE

Particular description of goods.—Pineapples.
Claims use since May 30, 1913.

Ser. No. 71,374. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed June 26, 1913.

RUD

Particular description of goods.—Rubber, Cotton, and Linen Hose; Rubber, Cotton, and Canvas Belting; Rubber Packing; Rubber Jar-Rings.
Claims use since June 15, 1913.

Ser. No. 71,387. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROYAL TEA COMPANY, Chicago, Ill. Filed June 26, 1913.

AR-BES

Particular description of goods.—Soap.
Claims use since May 8, 1913.

Ser. No. 71,421. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) AMERICAN FELT COMPANY, Boston, Mass. Filed June 28, 1913.

AmericanFelt Company



No claim being made to the words "American Felt Company."
Particular description of goods.—Felt in the Piece.
Claims use since June 5, 1913.

Ser. No. 71,437. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BUCHANAN COAL COMPANY, Chicago, Ill. Filed June 30, 1913.



The portrait being that of Benjamin Franklin, deceased.
Particular description of goods.—Coal.
Claims use since Mar. 4, 1913.

Ser. No. 71,525. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE ENOS ADAMS CO., Bennington, Vt. Filed July 5, 1913.

BRISKO

Particular description of goods.—A Hand Soap Paste Which is a Soft Composition Made from Soap, Fine Ground Quartz, and other Ingredients.
Claims use since May 25, 1913.

Ser. No. 71,550. (CLASS 31. FILTERS AND REFRIGERATORS.) CHARLES ZOLLER CO., New York, N. Y. Filed July 5, 1913.

EDELWEISS

Particular description of goods.—Filter Masse.
Claims use since Dec. 1, 1910.

Ser. No. 71,599. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN J. TIGHE, Dracut, Mass. Filed July 8, 1913.

KENLIS

Particular description of goods.—A Liniment for Rheumatism.
Claims use since June 23, 1913.

Ser. No. 71,629. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MONROE E. ZERPHY, Wilmington, Del., and Lancaster, Pa. Filed July 9, 1913.

ZERMON

Particular description of goods.—A Remedy for the Treatment of Leucorrhea, Gonorrhea, and Gleet.
Claims use since about June 15, 1913.

Ser. No. 71,662. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD F. MONTGOMERY, Burkeville, Tex. Filed July 11, 1913.

LOUISIANA LOU



Particular description of goods.—A Medicinal Remedy for Bright's Disease, Diseases of the Kidneys and Bladder and Females.
Claims use since Apr. 10, 1913.

Ser. No. 71,667. CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH YENN, Rock Island, Ill. Filed July 11, 1913.

J-Y

Particular description of goods.—A Compound for Flavoring Tobacco Used in the Manufacture of Cigars.
Claims use since June 12, 1913.

Ser. No. 71,685. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KNOX JULIAN, Indianapolis, Ind. Filed July 14, 1913.

Nevertells

Particular description of goods.—Breath-Tablets.
Claims use since July 10, 1913.

Ser. No. 71,740. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DETROIT EMERY WHEEL COMPANY, Detroit, Mich. Filed July 16, 1913.



The trade-mark being printed in red.
Particular description of goods.—Grinding-Wheels.
Claims use since Mar. 17, 1913.

Ser. No. 71,746. (CLASS 12. CONSTRUCTION MATERIALS.) FEDERAL CEMENT TILE COMPANY, Chicago, Ill. Filed July 16, 1913.

FEDERAL

Particular description of goods.—Cement Tiles for Roofs, Floors, Walls, and Gutters.
Claims use since January, 1907.

Ser. No. 71,813. CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MERIDIAN CHEMICAL COMPANY, Washington, D. C. Filed July 17, 1913.



Particular description of goods.—An Insecticide.
Claims use since Mar. 1, 1913.

Ser. No. 71,816. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ELSWORTH PICKEL, Portland, Oreg. Filed July 17, 1913.



Consisting of the word "Affinity," associated with a male and a female figure surrounded with a double wreath formed of orange-blossoms, the dark portions being shown in shades of green.

Particular description of goods.—Playing-Cards.

Claims use since June 1, 1913.

Ser. No. 71,856. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) M. GOTTESMAN & SON, New York, N. Y. Filed July 19, 1913.

"B.B"

Particular description of goods.—Wood-Pulp.

Claims use since Nov. 30, 1908.

Ser. No. 71,857. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) M. GOTTESMAN & SON, New York, N. Y. Filed July 19, 1913.

"B.C"

Particular description of goods.—Wood-Pulp.

Claims use since Nov. 30, 1908.

Ser. No. 71,883. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y. Filed July 22, 1913.

Larosan

Particular description of goods.—Casein Calcium.

Claims use since May 1, 1913.

Ser. No. 71,921. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WILLIAM K. SHELLEY, Baltimore, Md. Filed July 23, 1913.

SQUARE DEAL

Particular description of goods.—Automobiles.

Claims use since January, 1912.

Ser. No. 71,960. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) R. F. BYRD, Delta, Tex. Filed July 25, 1913.



A portrait of the applicant.

Particular description of goods.—A Remedy for Tuberculosis and Catarrh, Scrofula and Syphilis, Asthma, Bronchitis, and Croup, and Rheumatism and Neuralgia.

Claims use since Dec. 20, 1912.

Ser. No. 71,991. (CLASS 38. PRINTS AND PUBLICATIONS.) THE MODEL AMERICAN KITCHEN COMPANY, New York, N. Y. Filed July 26, 1913.

The Model American Kitchen

Particular description of goods.—Periodicals Issued Monthly.

Claims use since July 22, 1913.

Ser. No. 72,019. (CLASS 38. PRINTS AND PUBLICATIONS.) AMERICAN ASSOCIATION OF FOREIGN LANGUAGE NEWSPAPERS, INC., New York, N. Y. Filed July 29, 1913.

The American Leader

The trade-mark consists of the words "The American Leader."

Particular description of goods.—A Magazine Issued Semimonthly.

Claims use since Feb. 29, 1912.

Ser. No. 72,041. (CLASS 25. LOCKS AND SAFES.) EMIEL R. FUCHS, New York, N. Y. Filed July 30, 1913.

POLICE

Particular description of goods.—Door-Locks.

Claims use since July, 1907.

Ser. No. 72,046. (CLASS 33. GLASSWARE.) LIGHTING SUPPLIES COMPANY, New York, N. Y. Filed July 30, 1913.

SOLITE

Particular description of goods.—Sheet-Glass and Leaded-Glass Lamp Shades, Domes, and Globes.

Claims use since June 30, 1913.

Ser. No. 72,069. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES M. MUNTON, Jr., New York, N. Y. Filed July 31, 1913.

Lasto

The word "Lasto" written in the peculiar type shown.

Particular description of goods.—A Preservation of Rubber Products.

Claims use since Jan. 10, 1911.

Ser. No. 72,077. (CLASS 33. GLASSWARE.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo. Filed July 31, 1913.

MASSCO

Particular description of goods.—Glassware—Namely, Funnels, Beakers, Flasks, Burettes, and Graduated Cylinders.

Claims use since June 25, 1913.

Ser. No. 72,184. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PIETRO DE MAURO, New York, N. Y. Filed Aug. 6, 1913.



Particular description of goods.—A Rat-Exterminating Compound.

Claims use since about Apr. 15, 1913.

Ser. No. 72,240. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LEO ALEXANDER, New York, N. Y. Filed Aug. 9, 1913.

DEFIANCE.

Particular description of goods.—Windmills.

Claims use since September, 1911.

Ser. No. 72,252. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. D. RIEDEL AKTIENGESELLSCHAFT, New York, N. Y. Filed Aug. 9, 1913.

Pereat.

Particular description of goods.—Insect-Powder.

Claims use since Aug. 17, 1901.

Ser. No. 72,258. (CLASS 37. PAPER AND STATIONERY.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Butter-Paper, Manila Paper, and Toilet-Paper.

Claims use since June 1, 1913.

Ser. No. 72,321. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LEBANON CHEMICAL CO., Lebanon, Pa. Filed Aug. 13, 1913.

CALPHENE

Particular description of goods.—A Disinfectant and Insecticide.

Claims use since about July 1, 1911.

Ser. No. 72,419. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JACOB RUPPERT, New York, N. Y. Filed Aug. 19, 1913.



Particular description of goods.—Beer.

Claims use since about Jan. 1, 1913.

Ser. No. 72,470. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) LEMON BEER COMPANY, San Diego, Cal. Filed Aug. 21, 1913.

Nomel

Particular description of goods.—A Syrup Extract to be Used as a Beverage, the More Particular Class of Goods Being Syrups or Extracts and Flavors Consisting Principally of the By-Products of Lemon.

Claims use since Aug. 6, 1913.

Ser. No. 72,472. (CLASS 48. MALT EXTRACTS AND LIQUORS.) OBERMEYER & LIEBMANN, Brooklyn, N. Y. Filed Aug. 21, 1913.

PATRIOT

Particular description of goods.—Beer.

Claims use since July 16, 1913.

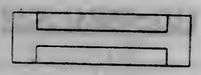
Ser. No. 72,473. (CLASS 48. MALT EXTRACTS AND LIQUORS.) OBERMEYER & LIEBMANN, Brooklyn, N. Y. Filed Aug. 21, 1913.

CONSTITUTION

Particular description of goods.—Beer.

Claims use since July 16, 1913.

Ser. No. 72,474. (CLASS 48. MALT EXTRACTS AND LIQUORS.) OBERMEYER & LIEBMANN, Brooklyn, N. Y. Filed Aug. 21, 1913.



Particular description of goods.—Beer.
Claims use since July 16, 1913.

Ser. No. 72,516. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE KOUYOUMJIAN ELECTRIC AND MANUFACTURING COMPANY, Cleveland, Ohio. Filed Aug. 25, 1913.

KEMCO

Particular description of goods.—Electric Generators.
Claims use since May 15, 1913.

[Vol. 194. No. 4.]

TRADE-MARKS

REGISTERED SEPTEMBER 23, 1913.

93,511. SOLDERING COMPOUNDS AND FLUXES. L. B. ALLEN CO., Chicago, Ill.
Filed January 20, 1912. Serial No. 60,939. PUBLISHED APRIL 1, 1913.

93,512. WHEAT-FLOUR. WM. ALTEN CO., INC., New York, N. Y.
Filed November 12, 1912. Serial No. 66,838. PUBLISHED JULY 22, 1913.

93,513. CHEMICAL USED AS A DYEING ASSISTANT. THE AMERICAN DIAMALT COMPANY, Cincinnati, Ohio.
Filed May 28, 1913. Serial No. 70,706. PUBLISHED JULY 22, 1913.

93,514. FERTILIZERS. THE AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y.
Filed January 15, 1912. Serial No. 60,810. PUBLISHED JULY 22, 1913.

93,515. BREAD-STICKS. ANTONIO ANGONOA, New York, N. Y.
Filed May 17, 1913. Serial No. 70,463. PUBLISHED JULY 22, 1913.

93,516. DENTIFRICE. BARCLAY & BARCLAY, New York, N. Y.
Filed May 28, 1913. Serial No. 70,707. PUBLISHED JULY 22, 1913.

93,517. ALUMINUM-CLEANSER. PHILIP J. BRADY, New York, N. Y.
Filed February 26, 1913. Serial No. 68,738. PUBLISHED JULY 15, 1913.

93,518. ORANGES AND GRAPE-FRUIT. BRUCE & SON, Pittsfield, Mass.
Filed June 7, 1911. Serial No. 56,886. PUBLISHED JULY 15, 1913.

93,519. CERTAIN CUTLERY, MACHINERY, TOOLS AND PARTS THEREOF. GEBRÜDER BÜHLER, Uzwil, Switzerland.
Filed July 12, 1912. Serial No. 64,694. PUBLISHED JULY 15, 1913.

93,520. MONTHLY PERIODICAL. CAMPBELL & KEMPER, Umbarger and Kerrville, Tex.
Filed May 5, 1913. Serial No. 70,231. PUBLISHED JULY 22, 1913.

93,521. ANTISEPTIC. CHATTANOOGA MEDICINE CO., Chattanooga, Tenn.
Filed June 4, 1913. Serial No. 70,851. PUBLISHED JULY 22, 1913.

93,522. CIGARS. CONSOLIDATED GROCERY COMPANY, Tampa, Jacksonville, and Pensacola, Fla.
Filed December 11, 1912. Serial No. 67,345. PUBLISHED FEBRUARY 4, 1913.

93,523. BLOOD-RENOVATOR. LUKE R. CRAWFORD & JOSEPH B. WOOD M. D., Haralson, Ga.
Filed April 17, 1912. Serial No. 62,959. PUBLISHED JULY 22, 1913.

93,524. BLEND COFFEE. DEAN & CO., LTD., Ann Arbor, Mich.
Filed May 15, 1913. Serial No. 70,431. PUBLISHED JULY 22, 1913.

93,525. PERIODICAL OR MAGAZINE DEVOTED TO TEXTILE AND ALLIED SUBJECTS. DRAPER COMPANY, Portland, Me., and Hopedale, Mass.
Filed January 18, 1913. Serial No. 67,981. PUBLISHED JULY 22, 1913.

93,526. BREWERS' AND DISTILLERS' MALT. ELECTRIC MALTING CO., Minneapolis, Minn.
Filed May 13, 1912. Serial No. 63,498. PUBLISHED JULY 30, 1912.

93,527. ABDOMINAL CORSETS AND BINDERS. ALBERT E. GALLANT, New York, N. Y.
Filed March 26, 1913. Serial No. 69,353. PUBLISHED JULY 15, 1913.

93,528. CERTAIN ADHESIVES. CHARLES L. GANE, Philadelphia, Pa.
Filed May 19, 1913. Serial No. 70,490. PUBLISHED JULY 22, 1913.

93,529. PLUMBAGO FOR POLISHING. GRAPHITES MASKAR SOCIÉTÉ ANONYME, Paris, France.
Filed May 16, 1913. Serial No. 70,448. PUBLISHED JULY 22, 1913.

93,530. CANDY. GEO. HAAS & SONS, San Francisco, Cal.
Filed March 18, 1913. Serial No. 69,162. PUBLISHED JULY 22, 1913.

93,531. CANNED FRUITS AND VEGETABLES, SAUERKRAUT, HOMINY, CANNED SWEET POTATOES, CANNED PORK AND BEANS, AND CANNED OYSTERS. HALE-HALSELL GROCERY CO., McAlester, Muskogee, Colgate, and Durant, Okla.
Filed July 15, 1912. Serial No. 64,737. PUBLISHED JANUARY 14, 1913.

93,532. SHINGLES, LUMBER, AND LATH. HOQUIAM LUMBER & SHINGLE COMPANY, Hoquiam, Wash.
Filed March 18, 1913. Serial No. 69,163. PUBLISHED JULY 22, 1913.

93,533. WATER-FILTERS. HYGEIA FILTER COMPANY, Detroit, Mich.
Filed May 31, 1913. Serial No. 70,784. PUBLISHED JULY 22, 1913.

93,534. WATER-FILTERS. HYGEIA FILTER COMPANY, Detroit, Mich.
Filed May 31, 1913. Serial No. 70,785. PUBLISHED JULY 22, 1913.

93,535. READY-MIXED PAINTS. OLIVER JOHNSON & Co., Providence, R. I.
Filed May 17, 1913. Serial No. 70,468. PUBLISHED JULY 22, 1913.

93,536. READY-MIXED PAINTS. OLIVER JOHNSON & Co., Providence, R. I.
Filed May 17, 1913. Serial No. 70,469. PUBLISHED JULY 22, 1913.

93,537. OIL AND GREASE PRODUCTS FOR CERTAIN PURPOSES. EMILE F. KICK, Newark, N. J.
Filed February 26, 1913. Serial No. 68,744. PUBLISHED JULY 22, 1913.

93,538. SERUM FOR THE TREATMENT OF CANCER. FREDERICK W. KOHLMYER, Cleveland, Ohio.
Filed June 2, 1913. Serial No. 70,830. PUBLISHED JULY 22, 1913.

93,539. HAMS, SHOULDERS, SAUSAGE, LARD, BACON, AND PICNICS. HANNAH E. KRIEL, Baltimore, Md.
Filed January 7, 1913. Serial No. 67,782. PUBLISHED JULY 22, 1913.

93,540. LEATHER. THE LACKAWANNA LEATHER CO., Hackettstown, N. J.
Filed April 8, 1913. Serial No. 69,659. PUBLISHED JULY 22, 1913.

93,541. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,953. PUBLISHED JULY 22, 1913.

93,542. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,954. PUBLISHED JULY 22, 1913.

93,543. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,955. PUBLISHED JULY 22, 1913.

93,544. LIQUEURS. LA UNION AGRICOLO SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,956. PUBLISHED JULY 22, 1913.

93,545. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,957. PUBLISHED JULY 22, 1913.

93,546. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,958. PUBLISHED JULY 22, 1913.

93,547. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed April 21, 1913. Serial No. 69,959. PUBLISHED JULY 22, 1913.

93,548. LIQUEURS. LA UNION AGRICOLA SOCIEDAD ANONIMA, Barcelona, Spain.
Filed May 16, 1913. Serial No. 70,450. PUBLISHED JULY 22, 1913.

93,549. RUBBER TIRES AND PARTS THEREOF AND RUBBER TUBING OF ALL DESCRIPTIONS. LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa.
Filed February 24, 1913. Serial No. 68,691. PUBLISHED JULY 15, 1913.

93,550. ICE-CREAM AND ICES. JOSEPH J. LIFTER, Philadelphia, Pa.
Filed January 18, 1913. Serial No. 67,996. PUBLISHED JULY 22, 1913.

93,551. TALCUM POWDER. LORD & RUSSELL MFG. CO., Richmond, Va.
Filed August 8, 1912. Serial No. 65,162. PUBLISHED JULY 22, 1913.

93,552. TEAS. LOUDON & SON INCORPORATED, New York, N. Y., assignor to The Woolson Spice Co., Toledo, Ohio, a Corporation of Ohio.
Filed November 21, 1912. Serial No. 67,053. PUBLISHED JANUARY 28, 1913.

93,553. MEDICINAL AGENTS FOR THE TREATMENT OF CONSTIPATION. THE MAX-I-MOL PHARMACAL COMPANY, Chicago, Ill.
Filed May 21, 1913. Serial No. 70,535. PUBLISHED JULY 22, 1913.

93,554. BLACKING FOR USE ON LEATHER. NUBIAN MANUFACTURING COMPANY LIMITED, London, England.
Filed January 22, 1913. Serial No. 68,060. PUBLISHED JULY 22, 1913.

93,555. READY-MIXED PAINTS, VARNISHES, ENAMELS, AND FILLERS. O'NEIL OIL & PAINT COMPANY, Milwaukee, Wis.
Filed July 6, 1912. Serial No. 64,604. PUBLISHED JULY 22, 1913.

93,556. LINIMENT. JOHN ANDREW POINDEXTER, Sikeston, Mo.
Filed May 20, 1913. Serial No. 70,764. PUBLISHED JULY 22, 1913.

93,557. CANDIES, COCOA, AND CHOCOLATE. POWELL'S, New York, N. Y.
Filed April 11, 1913. Serial No. 69,726. PUBLISHED JULY 22, 1913.

93,558. CIGARS. PULLARA & LAZZARA, Tampa, Fla.
Filed March 14, 1913. Serial No. 69,037. PUBLISHED APRIL 22, 1913.

93,559. CATCHER'S MITT. A. J. REACH CO., Philadelphia, Pa.
Filed June 6, 1913. Serial No. 70,911. PUBLISHED JULY 22, 1913.

93,560. JELLY-POWDER USED FOR FOOD PURPOSES. ELEAZER C. RICH, New York, N. Y.
Filed May 13, 1913. Serial No. 70,407. PUBLISHED JULY 22, 1913.

93,561. DUST-PREVENTIVE COMPOUND. SANITARY PRODUCTS CO., Jersey City and Tenafly, N. J.
Filed November 7, 1912. Serial No. 66,747. PUBLISHED JANUARY 7, 1913.

93,562. WRITING-PAPER. HARRIET A. SABLE, New York, N. Y.
Filed December 5, 1912. Serial No. 67,252. PUBLISHED JULY 22, 1913.

93,563. BREAD. JOHN G. SCHUERGER, Washington, D. C.
Filed February 19, 1913. Serial No. 68,625. PUBLISHED JULY 22, 1913.

93,564. WASH FOR THE MOUTH AND TEETH. JOHN A. SELBY, Camden, N. J.
Filed May 27, 1913. Serial No. 70,702. PUBLISHED JULY 22, 1913.

93,565. CERTAIN BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. "SEMPERIT" OESTERREICHISCH-AMERIKANISCHE GUMMIWERKE AKTIENGESELLSCHAFT, Vienna, Austria-Hungary.
Filed May 1, 1913. Serial No. 70,164. PUBLISHED JULY 22, 1913.

93,566. ASPHALT. STANDARD OIL COMPANY, Whiting, Ind., and Chicago, Ill.
Filed May 12, 1913. Serial No. 70,385. PUBLISHED JULY 22, 1913.

93,567. COFFEE. STEINWENDER-STOFFREGEN COFFEE CO., St. Louis, Mo.
Filed May 12, 1913. Serial No. 70,386. PUBLISHED JULY 22, 1913.

93,568. DAIRY PRODUCTS CONSISTING OF CULTURED MILK, BUTTER, CHEESE, AND ICE-CREAM. ARMEN L. TERTSAGIAN, Seattle, Wash.
Filed January 10, 1912. Serial No. 60,716. PUBLISHED JULY 22, 1913.

93,569. DAIRY PRODUCTS CONSISTING OF CULTURED MILK, BUTTER, CHEESE, AND ICE-CREAM. ARMEN L. TERTSAGIAN, Seattle, Wash.
Filed January 10, 1912. Serial No. 60,717. PUBLISHED JULY 22, 1913.

93,570. FACE-CREAM. HULDA THOMAS, New York, N. Y.
Filed May 23, 1913. Serial No. 70,595. PUBLISHED JULY 22, 1913.

93,571. LIVE-STOCK FEED. VALLEY CITY MILLING COMPANY, Grand Rapids, Mich.
Filed December 16, 1912. Serial No. 67,425. PUBLISHED JULY 22, 1913.

93,572. FIREWORKS. EDWARD H. WAGNER, New York, N. Y.
Filed June 7, 1913. Serial No. 70,964. PUBLISHED JULY 22, 1913.

93,573. REMEDY FOR PILES. JOHN W. WALSH, Lynn, Mass.
Filed May 26, 1913. Serial No. 70,681. PUBLISHED JULY 22, 1913.

93,574. POROUS PLASTERS. WHITALL TATUM COMPANY, Millville, N. J.
Filed June 4, 1913. Serial No. 70,869. PUBLISHED JULY 22, 1913.

93,575. CHEWING-GUM. W. J. WHITE CHICLE CO., Niagara Falls, N. Y.
Filed May 16, 1913. Serial No. 70,459. PUBLISHED JULY 22, 1913.

93,576. TEA. THE WOOLSON SPICE CO., Toledo, Ohio.
Filed June 27, 1910. Serial No. 50,598. PUBLISHED JULY 22, 1913.

93,577. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,569. PUBLISHED JULY 22, 1913.

93,578. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,570. PUBLISHED JULY 22, 1913.

93,579. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,571. PUBLISHED JULY 22, 1913.

93,580. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,572. PUBLISHED JULY 22, 1913.

93,581. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,573. PUBLISHED JULY 22, 1913.

93,582. CERTAIN NAMED MEASURING AND SCIENTIFIC APPLIANCES. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,575. PUBLISHED JULY 22, 1913.

LABELS

REGISTERED SEPTEMBER 23, 1913.

17,223.—*Title:* "BUSY LITTLE BEE PILLS." (For Pills.) THE BUSY LITTLE BEE COMPANY, New York, N. Y. Filed July 18, 1913.

17,224.—*Title:* "PRESERVES WOOD EVERYWHERE AGAINST DECAY." (For Avenarius Carbolineum Wood Preservative.) CARBOLINEUM WOOD PRESERVING COMPANY, New York, N. Y. Filed July 28, 1913.

17,225.—*Title:* "TEA CHEST." (For Tea.) GEO. W. CASWELL CO., San Francisco, Cal. Filed September 2, 1913.

17,226.—*Title:* "PUREST GAELIC." (For Wine.) T. C. MCDONOUGH & SON, Milwaukee, Wis. Filed September 5, 1913.

17,227.—*Title:* "HY-TEX." (For Brick.) HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo. Filed May 1, 1913.

17,228.—*Title:* "BLUE BIRD RACING AEROPLANE." (For Aeroplanes.) IDEAL AEROPLANE & SUPPLY CO., New York, N. Y. Filed August 12, 1913.

17,229.—*Title:* "PREMIER PURE, THE WHISKEY FOR FAMILY USE." (For Whisky.) P. R. LANCASTER & COMPANY, Owensboro, Ky. Filed September 6, 1913.

17,230.—*Title:* "THE SHOE THAT MADE CHIPPEWA FAMOUS." (For Shoes.) MASON SHOE MFG. CO., Chippewa Falls, Wis. Filed August 22, 1913.

17,231.—*Title:* "PACIFIC COAST LOGGERS." (For Shoes.) MASON SHOE MFG. CO., Chippewa Falls, Wis. Filed August 22, 1913.

17,232.—*Title:* "CHIPPEWA BEST." (For Shoes.) MASON SHOE MFG. CO., Chippewa Falls, Wis. Filed August 22, 1913.

17,233.—*Title:* "NORTHWESTERN SERVICE SHOES." (For Shoes.) MASON SHOE MFG. CO., Chippewa Falls, Wis. Filed August 22, 1913.

17,234.—*Title:* "NEW RIVER OAK." (For Shoes.) MASON SHOE MFG. CO., Chippewa Falls, Wis. Filed August 22, 1913.

17,235.—*Title:* "MINK." (For Cigars.) MORRIS MINK, Philadelphia, Pa. Filed August 2, 1913.

17,236.—*Title:* "REED'S AUTO-LUSTA." (For Automobile-Polish.) C. E. REED, Kansas City, Mo. Filed June 28, 1913.

17,237.—*Title:* "SULPHO-CARBON." (For Disinfectant Compounds.) JOSEPH M. SCHUTZ, Chicago, Ill. Filed July 31, 1913.

17,238.—*Title:* "THE SATURDAY EVENING SMOKE." (For Cigars.) LEONARD J. STADEKER, Chicago, Ill. Filed July 25, 1913.

17,239.—*Title:* "LA FLOR DE INTAL." (For Cigars.) E. A. & OTTO WEBER, Manila, Philippine Islands. Filed September 5, 1912.

17,240.—*Title:* "LA FLOR DE MINANGA." (For Cigars.) E. A. & OTTO WEBER, Manila, Philippine Islands. Filed September 5, 1912.

17,241.—*Title:* "PEANUTS IN NATURE'S WRAPPERS." (For Peanuts.) THOMAS S. WHEATCROFT, New York, N. Y. Filed July 5, 1913.

PRINTS

REGISTERED SEPTEMBER 23, 1913.

3,374.—*Title:* "GUARANTEE." (For Cigars.) MORRIS MINK, Philadelphia, Pa. Filed August 2, 1913.

3,375.—*Title:* "AFTER ANOTHER CUT OF BROWN'S MULE." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed September 3, 1913.

3,376.—*Title:* "HERE'S THE REAL JOY MAKIN'S." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed September 3, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

OPINION OF ASSISTANT ATTORNEY-GENERAL.

IN RE EGGEN.

Decided July 15, 1913.

ATTORNEYS—OFFICIAL STENOGRAPHERS OF UNITED STATES SENATORS INELIGIBLE TO ACT AS ATTORNEYS BEFORE THE PATENT OFFICE.

Held that under section 1782 of the Revised Statutes a person holding the office of official stenographer of United States Senators is ineligible to practice as an attorney representing applicants for patents before the United States Patent Office.

[Copy.]

DEPARTMENT OF THE INTERIOR,
Washington, D. C., July 15, 1913.

The Commissioner of Patents.

SIR: Your letter of June 6, 1913, has been received calling attention to the application for admission to practice as an attorney for applicants for patents before your Office of one Carston Eggen, who states he is the "official stenographer" of Senator Thomas Sterling, of South Dakota, and requesting the advice of the Assistant Attorney-General for the Department on the subject.

In response thereto I have to state that the question presented in your letter was submitted to the Assistant Attorney-General and there is herewith transmitted a copy of his opinion upon the subject, dated July 15, 1913, in which he holds, for the reasons therein set forth, that Mr. Eggen's application should be denied. The papers accompanying your letter are herewith returned.

Respectfully,

(Signed) CLEMENT S. UCKER,
Acting Assistant Secretary.

[Inclosure.]

[Copy.]

JULY 15, 1913.

The Secretary of the Interior.

SIR: By reference of the Assistant Secretary, June 9, 1913, I was asked for opinion upon a question submitted by the Commissioner of Patents whether Carston Eggen, who states that he is the "official stenographer" of Senator Thomas Sterling, of South Dakota, is eligible for admission to practice as an attorney before the United States Patent Office.

This question is controlled by section 1782 of the Revised Statutes, which provides that—

no Senator, Representative, or Delegate, after his election and during his continuation in office, and no head of a department, or other officer or clerk in the employ of the Government, shall receive or agree to receive any compensation whatever, directly or indirectly, for any services rendered, or to be rendered, to any person, either by himself or another, in relation to any proceeding, contract, claim, controversy, charge, accusation, arrest, or other matter or thing in which the United States is a party, or directly or indirectly interested, before any department, court-martial, bureau, officer, or any civil, military, or naval commission whatever.

The same section provides that every person offending against this section shall be deemed guilty of a misdemeanor and shall be fined and imprisoned and that conviction thereunder shall render the offender incapable of holding any office of honor, trust, or profit under the Government of the United States.

I am not informed as to just what an "official stenographer" to a United States Senator may be; but the Legislative, Executive, and Judicial Appropriation Act for the present fiscal year, under the head of "Stenographers to Senators," provides for twenty-six stenographers, at $1,200 each, and I am informally advised that Mr. Eggen is carried on the rolls of the Senate as one of these, after having taken the usual oath of office. That he is, therefore, "an officer or clerk in the employ of the Government" within the meaning of said section 1782 of the Revised Statutes would seem to be self-evident. The only remaining question is whether the services which Mr. Eggen could and would render an applicant for Letters Patent in the United States Patent Office would be with relation to a—

matter or thing in which the United States is a party or directly or indirectly interested.

This question has heretofore been the subject of consideration by this office. Under date of April 23, 1907, the then Assistant Attorney-General for this Department rendered an opinion upon the application of one Lester W. Block, a United States commissioner, of Albany, N. Y., for admission to practice as an attorney before the Patent Office. (128 O. G., 457.) In that opinion, referring to the inhibition of section 1782 of the Revised Statutes, it was said:

This section prohibits and renders highly penal the reception or agreement to receive by officers or clerks in the employ of the Government, compensation for services to any person in relation to any matter or thing

before any department, court-martial, bureau, officer, or any civil, military, or naval commission whatever. A patent upon an invention guarantees to the patentee protection in the enjoyment of the matters patented for a stated period, and surely the granting of such a right or privilege is a matter in which the United States, representing the people, is directly or indirectly interested, and it is my opinion that said section renders the person holding the office of United States commissioner ineligible to practice as an attorney representing applicants for patent before the United States Patent Office.

This opinion bears the approval of the then Secretary, Mr. Garfield. I concur in the view expressed in that opinion, and do not deem it necessary to add anything thereto. I advise you that Mr. Eggen, while perhaps eligible for *admission* to practice before the Patent Office, could not lawfully render any assistance to applicants for Letters Patent pending before that Office and that his application should be denied so long as he occupies the position which he now has, for obvious reasons of public policy. While the statute does not prohibit his admission to practice, no proper purpose would be served by admitting him to a practice in which he could not engage for compensation.

Respectfully,

(Signed) CHARLES W. COBB,
Assistant Attorney-General.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

RUUD MFG. CO. *v.* PITTSBURG WATER HEATER CO.

Decided May 12, 1913.

205 FED. REP., 372.

1. PATENTS—VALIDITY AND INFRINGEMENT—GAS-BURNER.

The Ruud patent, No. 761,409, for a gas-burner of the Bunsen type, for use particularly in automatic water-heaters, discloses invention and is valid; also *Held* infringed by the burner of the Frampton patent, No. 980,236.

2. PATENTS—VALIDITY—GAS-BURNER.

The Ruud patent, No. 875,218, for a gas-burner, *Held* void for lack of invention, in view of the prior art.

APPEAL from the District Court of the United States for the Southern District of New York.

Mr. S. T. Cameron, Mr. Reeve Lewis, Mr. C. A. L. Massie, and *Mr. R. L. Scott* for the appellant.

Messrs. Gifford & Bull (*Mr. Paul Synnestvedt, Mr. J. Edgar Bull,* and *Mr. James C. Bradley* of counsel) for the appellee.

Before LACOMBE, COXE, and WARD, circuit judges.

WARD, *Circ. J.:*

The complainant is the owner of two patents issued to one Ruud for burners in heating apparatus, particularly in automatic water-heaters, and most particularly in those which use natural gas, the supply of which is controlled both by a water-valve and a thermostatic valve. These are called T. V. heaters; that is, thermostatic-valve heaters. Automatic water-heaters all use burners of the Bunsen type, in which gas and air are mixed in a mixing-chamber, from which it is passed through a perforated wire-gauze to the point of combustion. The combustion of artificial as compared with natural gas is so quick and complete that there is a marked tendency in the gas to burn back of the wire-gauze burner-plate into the mixing-chamber. This prevents complete combustion, causes explosions, and is undesirable in other ways. The object of both patents is to prevent the back-burning of the gas.

[1] The claims of Patent No. 761,409 sued on are:

1. The combination, with a gas and air mixing chamber, of an expanded discharge chamber having an open front, a direct passageway connecting said mixing chamber with said discharge chamber and open front, a foraminous burner plate extending across the front of said discharge chamber, and a cap plate secured to the discharge chamber in front of the burner plate and having an upper discharge opening.

4. The combination with a gas and air mixing chamber, of an expanded discharge chamber having an open front, a direct passageway connecting said mixing chamber with said discharge chamber and open front, a foraminous burner plate extending across the front of said discharge chamber, a cap plate covering the front of said discharge chamber and having an upper discharge opening and connections by which the burner plate is clamped in position between the discharge chamber and cap plate.

5. The combination, with a gas and air mixer, of a discharge chamber having an open front, a foraminous burner plate extending across the front of said chamber, a cap plate secured to the discharge chamber in front of the burner plate and having an upper discharge opening, and a guard plate extending rearwardly on the cap plate beyond the joint between said plate and the discharge chamber.

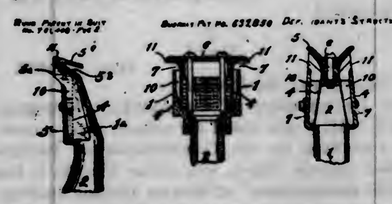
Patent No. 875,218 is an improvement upon 761,409, substantially in adding a row of teeth to the top of the cap-plate in front of the burner-plate, which further prevents the back-burning. The claims sued on are:

1. The combination, with a gas and air mixing chamber, of an expanded discharge chamber open directly to the mixing chamber and having an open front, a foraminous burner plate extending across the front of said discharge chamber, a cap plate secured to the discharge chamber in front of the burner plate and forming therewith an elongated narrow burner opening, said cap plate having formed on its inner side a plurality of separate and independent discharge channels at and near its top and leading to the outer end of the burner opening.

4. The combination, with a gas and air mixing chamber, of an expanded discharge chamber opening directly to a mixing chamber and having an open front, a foraminous burner plate extending across the front of said discharge chamber, a cap plate covering the front of said discharge chamber and separated therefrom by an intervening space and forming therewith an elongated narrow burner opening, said plate having a plurality of separated ribs or projections extending from its inner face to the burner plate at and near the top thereof, means projecting over and shielding the burner opening and connections by which the burner plate is clamped in position between the discharge chamber and the ribs of the cap plate.

The first great improvement in the art of heating these water-heaters was made by Buerkle, in his Patents Nos. 637,849 and 637,850, by substituting a vertical perforated gauze burning-plate for a horizontal one. Kelly, No. 50,938, had also shown a vertical gauze plate, but it lacked elements which contributed to the success of Buerkle.

The Ruud, Buerkle, and defendant's burners are represented in this cut.



The burner-plate is marked No. 4 in each.

We cannot concur with the district judge that there was no invention in Ruud's patent, 761,409, over

Buerkle's patents, 637,849 and 637,850. Buerkle's burner-plate was circular in form, rested on its lower end on a seat in the lower end of the head 1, and held the cover 6 on its upper end by means of a seat in the cover. The circular shape and frail material of the burner-plate gave it a tendency when exposed to heat to warp and leak, and so to permit back-burning, which it was essential to prevent.

On the other hand, Ruud was the first person to use a flat vertical burner-plate. Claim 4 describes it as "clamped between the cap-plate and the discharge-chamber." In other words, its edges were held between the flanges at each end of the cap-plate 5 and the solid shell. There was thus an entire absence of any tendency to distortion caused by pressure, and much less to distortion caused by heat. This was, in our opinion, a very valuable improvement. Perhaps the best evidence of it is the fact that though the defendant is the owner of the Buerkle patents it does *not* use them for artificial gas, but uses a structure which we think a mere duplication of the Ruud structure. Instead of one flat burner-plate it uses two in each lamp—that is, one on each side—clamped as the Ruud is, between flanges at each end of the cap-plate 7 and the shell. Another variation is that its cover 5 is independent and not integral with the cap-plate. This in our opinion makes no change in the function and is immaterial. Our conclusion is that Ruud's patent, No. 761,409, is valid.

[2] We agree with the district judge that Ruud patent, No. 875,218, which simply adds a row of teeth at the top of and inside the cap-plate leading to the outer end of the burner-opening, is invalid in view of the prior use of the Rose burner, which had such teeth for the same purpose.

The decree is modified by directing the usual decree in favor of the complainant on Patent 761,409, the bill to be dismissed as to Patent 875,218, and neither party to have the costs of this court.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Colman patent, No. 672,636, for a knotting-machine, *Held* valid and infringed. *Byrd Mfg. Co.* v. *Colman*, 205 Fed. Rep., 904.

(U. S. D. C.) The Hall patent, No. 692,277, for an incubator, as limited by the prior art and the specific language of the claim *Held* not infringed. *Hall Mammoth Incubator Co.* v. *Teabout*, 205 Fed. Rep., 906.

(U. S. D. C.) The Smith patent, No. 692,935, for weft-replenishing mechanism for looms, claims 13 and 14 *Held* void for lack of patentable novelty in view of the prior Northrop patent, No. 600,016. *Crompton & Knowles Loom Works* v. *Stafford Co.*, 205 Fed. Rep., 925.

(U. S. C. C. A.) The Colman patent, No. 755,110, for a knotting-machine, *Held* valid and infringed. *Byrd Mfg. Co.* v. *Colman*, 205 Fed. Rep., 904.

(U. S. D. C.) The Keys patent, No. 923,534, for an improvement in neckwear, claims 2, 3, and 7 *Held* void and claim 1 valid and infringed. *Slip Scarf Co.* v. *Blanchard & Price*, 205 Fed. Rep., 921.

(U. S. D. C.) The Miller patent, No. 1,007,041, for vehicle-seat and lock therefor, claims 1 and 2 *Held* void for lack of patentable novelty and invention. *Biddle* v. *Hodge & Graves Co.*, 205 Fed. Rep., 932.

(U. S. D. C.) The Coldwell and Gildard reissue patent, No. 11,928, (original No. 637,234,) for a warp stop-motion for looms, claim 19 is void as not for the same invention disclosed in the original patent. Claims 23 and 25 *Held* valid and infringed. *Coldwell-Gildard Co.* v. *Stafford Co.*, 205 Fed. Rep., 929.

Trade-Mark Law of Salvador.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 10, 1913.

This Office has received from the Department of State a copy of the following decree with reference to the trade-mark law of Salvador, which is published for the information of those concerned.

THOMAS EWING,
Commissioner.

[From *Diario Oficial*, San Salvador, Friday, July 4, 1913.—Translation.]

LEGISLATIVE POWER.

The National Assembly of the Republic of Salvador, *Considering:* that the present tariff for the registry of trade-marks does not provide adequate remuneration for the excessive labor occasioned by the numerous requests presented to the Patent Office for registry; also that the greater number of these requests are from factories established abroad, those of the country being few in number; and besides that it is neither just nor equitative that the small or few factories of the country should pay the same fee that is paid by the large factories abroad, to the consequent detriment of the national industries, it is proper, and the time has now come, to protect the interests of the home industries in view of the exclusive privilege which our trade-mark law now in force concedes to those who register their trade-marks, as well as to compensate for the double work occasioned the office charged with this duty; *Therefore*, in the exercise of the faculties which the Constitution confers upon it, having considered the opinion of the Supreme Court of Justice, *decrees:*

ARTICLE 1. To add to article 15, after the words: "and a certification of the solicitud" the words: "on stamped paper costing five pesos."

ART. 2. To add to article 33 the following sentence: "For any other certification that is issued in addition to those referred to in articles 15 and 27, there shall be paid in fiscal stamps a fee of five pesos."

ART. 3. To substitute the word "ten" for the word "twenty-five" in article 34.

ART. 4. Article 35 is amended as follows: "The fees for the registry of each trade-mark are: for the foreign, ten pesos; for the domestic, five pesos; in addition thereto they will pay an annual impost of five pesos for the foreign and two pesos for the domestic for each trade-mark registered and for the period of duration of the privilege which has been granted. The receipts issued by the General Treasury for the payment of the annual imposts shall be presented to the Patent Office every five years; if the said receipts are not presented the office will revoke the privilege.

"For the registry of the trade-mark transfer in the proper books, in accordance with article 8, the person interested shall pay the same fees as noted in the first part of the section next preceding."

ART. 5. Article 36 is amended as follows: "If the certifications mentioned in articles 33 and 34 are printed on ordinary paper, there must be affixed thereto a fiscal stamp for the total value of the fees equal to the value of the stamped paper, in accordance with this law.

"Whenever a stamp is used it must be canceled with the seal of the Patent Office."

ART. 6. The present decree will have the force of law from the date of its publication.

Given in the Chamber of Sessions of the Legislative Power National Palace, San Salvador, on the 19th day of June, nineteen hundred and thirteen.

JOAQUIN BONILLA,
President.
CLAUDIO OCHOA,
1st Secretary.
LAZARO MENDOZA,
2nd Secretary.

National Palace: San Salvador, June 30, 1913.
Therefore, let it be published.

C. MELÉNDEZ,
Secretary of State in the Offices Gobernacion, Fomento and Beneficencia.

SAMUEL LUNA.

Photographic Copies.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 28, 1913.

A photographic apparatus has been installed in the Patent Office for the purpose of avoiding the withdrawal from the examining divisions of foreign patents which are used as references and from the Scientific Library of bound volumes which are used by attorneys in making validity searches.

White-line photographic copies of the specifications and drawings of foreign patents only or of any page of any printed publication which may be in the possession of the Patent Office will be furnished upon payment of the prescribed fees. Copies on paper 7x11⅛ inches, comprising a single page only, will be furnished for 15¢ per print, and copies on paper 11⅛x14 inches, comprising single or double pages, as the case may be, for 25¢ per print. Coupons to the amount required, when properly filled in, will be accepted in payment for these prints.

The Office will not accept white-line photographic copies of original drawings for filing in connection with pending applications. Therefore prints of this class of drawings will not be furnished.

In ordering photographic copies of specifications or drawings of foreign patents applicants must state the country in which the patent was granted, the number of the patent, the date, including the year, and the name of the patentee.

For photographic copies to be made from other printed publications in possession of the Office the title and date of the publication and the page or part of page of which copy is desired must be given.

Failure to give complete identification as indicated above will cause delay and unnecessary correspondence.

In addition to the foregoing the Office will continue to furnish black-line photographic copies of drawings of pending, patented, forfeited, or abandoned cases, as heretofore, in two sizes, 8x12½ inches at 15¢ per print and 10x15 inches at 25¢ per print. Applicants and attorneys are strongly urged to file a set of black-line copies, small size, or order them to be made by the Office at the time of filing an application. Such procedure will save delay later if correction of the drawing is desired or required.

The Patent Office has no printed copies of foreign patents for sale.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Wm. H. Scott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyrene Manufacturing Co., 1858 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered August 12, 1902, No. 88,766, to Wm. H. Scott, 510 Court street, Reading, Pa., and a notice of such declaration sent by registered mail to said Wm. H. Scott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wm. H. Scott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Mortimer J. E. Huribut, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Drägerwerk. Heinr. & Bernh. Dräger, 53 Moislinger Allee, Lübeck, Germany, for registration of a trade-mark and trade-mark registered February 25, 1902, No. 87,870, to Mortimer J. E. Huribut, 212–214 Monroe street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Mortimer J. E. Huribut having been returned by the post-office undeliverable, notice is hereby given that unless said Mortimer J. E. Huribut, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Reed, Walsh & Lange, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Alaska-Portland Packers Association, of Portland, Oreg., for registration of a trade-mark and trade-mark No. 28,485, registered June 30, 1896, to Reed, Walsh & Lange, of 65 and 67 South Water street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Reed, Walsh & Lange at the said address having been returned undeliverable, notice is hereby given that unless said Reed, Walsh & Lange, their assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

French & Company, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the California Cracker Co., Park avenue and Watts street, Oakland, Cal., for registration of a trade-mark and trade-mark registered January 2, 1906, No. 48,456, to French & Company, of Factoryville, Pa., and a notice of such declaration sent by registered mail to said French & Company at the said address having been returned by the post-office undeliverable, notice is hereby given that unless French & Company, their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Chase, Merritt & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Beacon Falls Rubber Shoe Company, of Beacon Falls, Conn., for registration of a trade-mark and trade-mark registration No. 27,728, registered February 4, 1896, to Chase, Merritt & Co., of 32 High street, Boston, Mass., and a notice of such declaration sent by registered mail to said Chase, Merritt & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Chase, Merritt & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 27, 1913.

Joseph Giering and Anna Giering, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Haarer & Sons, of Ann Arbor, Mich., for registration of a trade-mark and trade-mark registration No. 15,334, registered April 3, 1888, to Joseph Giering and Anna Giering, of No. 28 South High street, Baltimore, Md., and a notice of such declaration sent by registered mail to said Joseph Giering and Anna Giering at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Joseph Giering and Anna Giering, their assigns or legal representatives, shall within thirty days from date of the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
United States Patent Office.

Vol. 194—No. 5. TUESDAY, SEPTEMBER 30, 1913. Price—$5 per year.

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Designs	17	No. 44,698 to No. 44,714, inclusive.
Trade-Marks	41	No. 92,587 to No. 92,627, inclusive.
Labels	13	No. 17,342 to No. 17,354, inclusive.
Prints	4	No. 3,377 to No. 3,380, inclusive.
Reissues	3	No. 13,620 to No. 13,622, inclusive.
Total	574	

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	1	.....	North Carolina	5	1
Arizona	.....	.....	North Dakota	4	.....
Arkansas	2	.....	Ohio	37	1
California	33	1	Oklahoma	2	.....
Colorado	3	.....	Oregon	2	.....
Connecticut	12	2	Pennsylvania	47	1
Delaware	.....	1	Rhode Island	6	.....
Florida	3	.....	South Carolina	1	.....
Georgia	1	1	South Dakota	1	.....
Idaho	2	.....	Tennessee	4	2
Illinois	46	9	Texas	5	2
Indiana	15	1	Utah	2	.....
Iowa	12	.....	Vermont	.....	.....
Kansas	9	1	Virginia	4	.....
Kentucky	1	2	Washington	5	.....
Louisiana	2	.....	West Virginia	4	1
Maine	.....	.....	Wisconsin	13	1
Maryland	4	.....	Wyoming	.....	.....
Massachusetts	17	4			
Michigan	9	2	Alaska, District of	.....	.....
Minnesota	13	.....	Canal Zone	.....	.....
Mississippi	1	.....	District of Columbia	4	.....
Missouri	7	3	Hawaii Territory	1	.....
Montana	1	.....	Philippine Islands	.....	1
Nebraska	6	.....	Porto Rico	.....	.....
Nevada	.....	.....	U. S. Army	.....	.....
New Hampshire	.....	.....	U. S. Navy	.....	.....
New Jersey	23	6			
New Mexico	3	.....	Total to residents of the United States	449	53
New York	70	10			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Mexico	.....	.....
Austria-Hungary	1	.....	Netherlands	1	.....
Belgium	1	.....	Newfoundland	.....	.....
Bermuda	.....	.....	New South Wales	.....	.....
Brazil	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	3	.....
Canada	9	.....	Queensland	.....	.....
Ceylon	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	1	.....
China	.....	.....	Scotland	4	1
Colombia	.....	.....	South Australia	.....	.....
Costa Rica	.....	.....	Spain	.....	.....
Cuba	.....	.....	Sweden	1	.....
Denmark	.....	.....	Switzerland	1	.....
England	15	2	Transvaal, South Africa	.....	.....
France	7	.....	Victoria	1	.....
Germany	23	2	Wales	1	.....
India	.....	.....	Total to residents of foreign countries	71	5
Italy	1	.....			
Japan	.....	.....			
Java	1	.....			

Disclaimer.

1,052,373.—*Alexander Palmros*, Syracuse, N. Y. ROCK-DRILL. Patent dated February 4, 1913. Disclaimer filed September 19, 1913, by the patentee, with concurrence of the assignee, *The Pneumelectric Machine Company.*

Enters this disclaimer—

"To that part which is included in claims 4 and 11 of this patent, which is in the following words, to wit:

"4. A machine of the class described comprising independently reciprocable tool-operating and fluid-compressing pistons, a cylinder in which said pistons are fitted, providing a tight compression chamber in rear of the compressing piston, and an expansion chamber between the pistons, said cylinder also having a by-pass adapted to conduct fluid from said compression chamber to said expansion chamber and means for exhausting fluid directly into the atmosphere in advance of the tool operating piston during its entire forward stroke, whereby the percussion stroke of the tool operating piston is developed by the expansive action of the pressure fluid medium, and means for conducting fluid under pressure to the front of the tool operating piston for retracting said piston.

"11. In a vertical percussion implement, the combination of the fluid pressure-driven tool-carrying piston, performing its percussion stroke in the direction of gravitation, means for exhausting fluid to the atmosphere in advance of said tool-carrying piston during its percussion strokes, a fluid pressure-developing means, an actuating mechanism for the fluid pressure-developing means, a pressure fluid storage chamber having a passage communicating with the lower face of the pressure-driven piston, means opening communication between the storage chamber and said lower face of the fluid pressure-driven piston, during retraction of the latter, and means supplying pressure fluid to said chamber from the pressure-developing means."

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business September 27, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 17	July 12	808
126	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	May 2	July 28	746
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Aug. 28	Sept. 11	248
222	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 3	July 16	801
167	5. Bookbinding; Harvesters; Jewelry; Music.	June 13	July 7	632
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 9	July 15	840
112	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Apr. 15	July 15	1101
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 7	Aug. 11	1012
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Apr. 9	Aug. 16	202
235	10. Carriages and Wagons	May 10	July 3	1266
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Aug. 8	Aug. 19	355
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	May 12	June 3	1631
220	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 26	July 10	737
207	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structures; Wire-Working.	Apr. 11	Aug. 27	566
308	15. Bread, Pastry, and Confection Making; Cooking; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Printing.	Mar. 31	June 27	1619
109	16. Railway Engineering; Telegraphy; Telephony.	Apr. 23	June 23	586
209	17. Bookbinding; Paper Manufacturing Machines; Type-Bar Making.	July 23	Aug. 27	361
327	18. Boilers and Boiler Accessories; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	June 27	Aug. 20	249
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 16	July 17	696

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	July 22	Aug. 13	260
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 10	June 2	758
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 4	July 16	454
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	July 2	July 18	446
144	24. Apparel; Apparel Apparatus; Sewing Machines.	July 21	July 26	609
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	July 28	Aug. 27	232
106	26. Electricity, Generation; Motive Power.	Apr. 12	June 2	641
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 9	Aug. 7	496
65	28. Internal-Combustion Engines	May 6	June 18	989
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	May 16	May 22	751
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 21	Aug. 15	295
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 7	June 30	466
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 10	Aug. 1	474
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	July 1	July 14	438
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	July 2	July 21	722
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	May 1	Aug. 23	826
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	June 25	June 26	1042
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Jan. 30	May 31	1000
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	Apr. 28	June 23	950
321	39. Water Distribution	June 13	July 30	505
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 15	July 22	1012
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Aug. 7	Aug. 11	443
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 2	Apr. 26	1015
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 13	Aug. 15	303

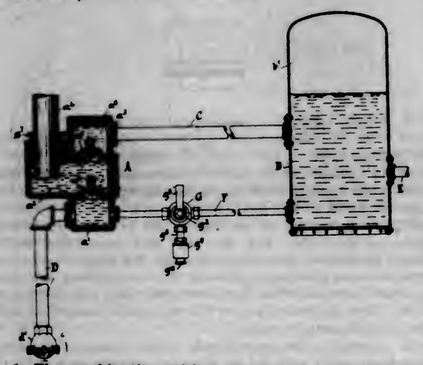
Oldest new case, Jan. 30; oldest amended, Apr. 26.
Total number of applications awaiting action..... 30,128

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 30	Aug. 6	1119
	Designs	Aug. 21	Aug. 22	229
	Labels and Prints	Sept. 17	Sept. 12	60

PATENTS

GRANTED SEPTEMBER 30, 1913.

1,074,098. AIR CHARGING AND PRIMING DEVICE FOR SUCTION-PUMPS. JOHN ASTROM, Fort Wayne, Ind. Filed Mar. 17, 1913. Serial No. 754,679. (Cl. 103—79.)



1. The combination with a pump, and a receiver connected with the discharge-side thereof, of a pipe leading from the discharge-side to the suction-side of the pump, a valve in said pipe, and means for admitting air through said valve.

2. The combination with a pump, and a receiver connected with the discharge-side thereof, of a pipe leading from the discharge-side to the suction-side of the pump, a valve in said pipe, means for admitting air through said valve, and means for independently shutting off the air while permitting the water to flow through said valve into the suction-side of said pump.

3. The combination with a pump, and a receiver connected with the discharge-side thereof, of a pipe leading from the discharge-side to the suction-side of the pump, a valve in said pipe, and means for admitting air into said pipe while the water is passing therethrough, whereby air is drawn into said pump along with the water from the receiver.

4. The combination with a pump, and a receiver connected with the discharge-side thereof, of a pipe leading from the discharge-side to the suction-side of the pump, a valve in said pipe, means for admitting air into said pipe while the water is passing therethrough whereby air is drawn into said pump along with the water from the receiver, and means for shutting off the air from said pipe while permitting the water to flow through said pipe.

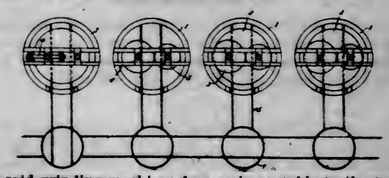
5. The combination with a pump, and a receiver connected with the discharge-side thereof, of a pipe leading from the discharge-side to the suction-side of the pump, and a valve in said pipe, combined with a constricted nozzle for the water, and an air-passage leading to the outside of said nozzle whereby air is inspirated into said pipe when water flows therethrough.

[Claims 6 to 9 not printed in the Gazette.]

1,074,099. TRUING MECHANISM FOR GLASS-GRINDING APPARATUS. RAYMOND C. BEATTY, Ford City, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 14, 1911. Serial No. 660,286. (Cl. 82—1.)

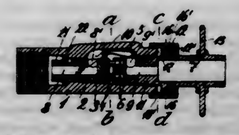
1. In glass grinding apparatus, the combination of a group of grinding machines having portable tables, a truing machine for facing off the surface of any of said tables, and a permanent transfer means connecting with each of said grinding machines for moving a table to the truing machine.

2. In glass grinding apparatus, the combination of a group of grinding machines having portable tables, a truing machine for facing off the surface of any of said tables, a permanent transfer means connecting with each



of said grinding machines for moving a table to the truing machines, and means for raising the table out of engagement with the transfer means and into operative relation to the truing machine.

1,074,100. DETACHABLE GAS-FITTING. RUDOLF BEHR, Kolberg, Germany. Filed Apr. 30, 1913. Serial No. 764,558. (Cl. 137—30.)



1. A detachable gas fitting comprising a gas supply pipe, a rotatable valve located within said pipe, said valve being secured from within against removal, a by-pass in said pipe extending from a point between the ends of said valve to one beyond the outer end thereof, said valve being hollow and provided with a normally closed lateral outlet adapted to register with said by-pass when in an abnormal position, inclosed spring controlled means for locking said valve in a normal position and a removable supplemental valve provided with means upon its inner end for engaging said rotatable valve to rotate the same and means for simultaneously engaging said valve locking means to unlock the same, said supplemental valve having a longitudinal passage-way therein and a lateral opening adapted to register with said by-pass.

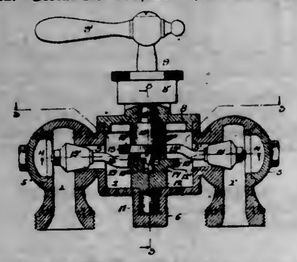
2. A device of the class described comprising a service pipe, a rotary valve permanently inclosed therein longitudinally of the pipe so as to leave an end space in the pipe for the reception of a supplemental valve, a supplemental valve, means upon its inner end for engaging said rotary valve to actuate the same, each of said valves having a normally closed laterally directed passage way therein adapted to connect with a by-pass in said pipe, a by-pass in said pipe arranged to overlap the meeting ends of said valves, a bent spring in said by-pass having a keeper thereon for normally locking said rotary valve, said supplemental valve being formed to engage said spring to actuate the same and unlock said rotary valve.

3. A device of the class described in which is combined a service pipe, a hollow valve permanently inclosed therein, said valve having a lateral port near its outer end, a hollow supplemental valve adapted to enter the outer end of said pipe, said valve having a lateral port near its inner end, a by-pass in said pipe in position to overlap said ports, means for interlocking said valves to enable them to be rotated in unison, and spring controlled locking means located in said pipe for locking said first named valve in a normal position, said locking means being adapted to be engaged and unlocked by said supplemental valve.

4. A device of the class described comprising a service pipe, a hollow normally closed valve permanently inclosed

therein, said valve having a lateral port near its outer end, a hollow supplemental valve adapted to enter the outer end of said pipe, said valve having a lateral port near its inner end, a by-pass in said pipe arranged to overlap said ports, means for interlocking the meeting ends of said valves to cause one to be rotated by the other, means adapted to be freed by the insertion of said supplemental valve for normally locking said inner valve in a closed position and means for preventing the insertion or removal of said supplemental valve except when turned upon its axis to conform to the normal position of said inner valve.

1,074,101. ANTISCALD-FAUCET. JOHN R. BOUTELL, Milwaukee, Wis., assignor of one-half to Siebers & Raisch Pattern Works, Milwaukee, Wis. Filed Dec. 26, 1912. Serial No. 738,725. (Cl. 137—26.)



1. A faucet comprising a housing having a mixing chamber provided with a pair of supply ports and a discharge port, a valve for each supply port, independent actuating eccentrics connected to the respective valves, one of which eccentrics is provided with a recess to form spaced tappet-shoulders, a tappet carried by the other eccentric extending into the aforesaid recess, and an operating spindle for one of said eccentrics.

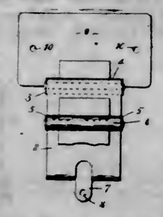
2. A faucet comprising a housing provided with a pair of supply ports and a discharge port, a valve for each supply port, independent actuating eccentrics connected to the respective valves, one of the eccentrics being provided with a recess having tappet shoulders at its ends, a tappet carried by the opposite eccentric extending into said recess, and an operating spindle for the tappet-carrying eccentric.

3. A faucet comprising a housing having a mixing chamber provided with a pair of supply ports and a discharge port, a valve for each supply port, independent valve actuating eccentrics having axially alined stems, one of the eccentrics being provided with a recess forming tappet-shoulders, a tappet extending from the opposite eccentric and fitted into said recess, a valve-stem extending from each valve having an apertured hub for engagement with its actuating eccentric, a non-rotatory spacing collar interposed between the eccentrics, and an operating spindle for the tappet-carrying eccentric.

1,074,102. TICKET-HOLDER. MICHAEL JOHN BURKE, Syracuse, N. Y. Filed June 14, 1909. Serial No. 501,916. (Cl. 40—11.)

1. In a ticket holder and in combination, a base member adapted to be mounted on a support, a fixed clamping member carried by the base member and provided with a clamping surface separated from the front face of the base member, and a tongue carried by the base member and extending between said clamping member and the base member and having portions coacting with portions of said clamping member and the base member for holding two tickets, said portions being arranged in different horizontal and vertical planes when the base member is in vertical position, substantially as and for the purpose described.

2. In a ticket holder and in combination, a base member provided with ears intermediate of its length at an angle to the general plane of the base member, a roller carried by the ears, a spring tongue fixed at one end to the base member and extending between the roller and the base member and above said roller when the base member is in vertical position, the upper end of the tongue being opposed to the surface of the base member, and one of the opposing surfaces of said upper end of the tongue and the base member being provided with angularly arranged ears and a roller supported by said ears for coacting with the other of said surfaces, substantially as and for the purpose specified.

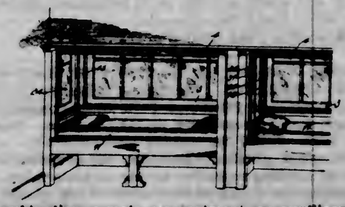


3. In a ticket holder and in combination, a base provided with ears intermediate of its length at an angle to the general plane of the base, a roller carried by the ears, a spring tongue fixed at one end to the base and extending between the roller and the base and above said roller when the base is in vertical position, the upper end of the tongue being provided with ears bent toward the base and a roller carried by the last-mentioned ears and desired to coact with the front face of the base, substantially as and for the purpose set forth.

4. A ticket holder comprising a base member, a spring-tongue member opposed to the base member and fixed at one end thereto, one of said members being formed with ears projecting toward the other member and terminating short of said other member, a roller carried by the ears and coacting with the other member for holding a ticket, the base member being formed with ears arranged opposite to each other and located on opposite sides of the spring-tongue member and projecting beyond the same, and a roller carried at the ends of the last-mentioned ears for coacting with the spring-tongue member and holding a ticket, substantially as and for the purpose set forth.

5. A ticket holder comprising a body formed from an elongated blank having ears extending laterally therefrom intermediate of its ends and laterally extending ears near one end thereof, the portion carrying the latter ears being bent upon the remaining portion of the blank and thereby forming a base member and a spring-tongue member, the first-mentioned ears being bent at right angles to the base member and located on opposite sides of the spring-tongue member and extending beyond the same, and the second-mentioned ears being bent toward the base member and at right angles to the spring-tongue member, a roller carried by the first-mentioned ears and coöperating with the spring-tongue member, and a roller carried by the second-mentioned ears and coöperating with the base member, substantially as and for the purpose set forth.

1,074,103. SLEEPING-PORCH. EDWIN RAYMOND CULVER, Culver, Ind., assignor to Culver Military Academy, Culver, Ind., a Corporation of Indiana. Filed July 8, 1912. Serial No. 708,096. (Cl. 20—1.11.)



In combination, a main compartment, an auxiliary compartment in the form of a porch leading from said main compartment, a bed structure forming a complete horizontal partition in said auxiliary compartment, said auxiliary compartment being open to the outside air above said bed structure, means for closing the communication between said main compartment and said auxiliary compartment, and means for closing the communication between said auxiliary compartment and the open air, the space under said bed structure being closed to the outside air and open to said main compartment at all times.

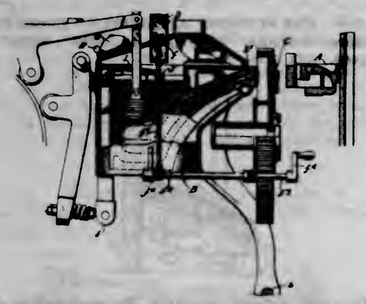
1,074,104. RETORT. CHARLES B. DARRIN and MARC DARRIN, Bellingham, Wash. Filed Dec. 16, 1911. Serial No. 666,309. (Cl. 203—5.)



1. A retort having compartment sections, a flue disposed over the central ones of said sections, the inlet portion of said flue being enlarged, steam pipes conducted through said flue and interiorly of a portion of said sections and exhausting into the terminal one thereof positioned within said flue, a furnace positioned within the enlarged inlet portion of the flue, and an exhaust outlet pipe for said flue.

2. A retort consisting of a plurality of compartment sections, steam pipes entering the terminal ones of said sections, a flue disposed over the remaining central ones of said sections, the inlet portion of said flue being enlarged, a furnace positioned within said enlarged flue portion and surrounding one of said sections, an exhaust outlet pipe at the opposite end of said flue, steam pipes extending through said enlarged flue portion and within said furnace, said steam pipes passing through the middle one of said flue-inclosed sections and entering and exhausting within the section lying adjacent the flue exhaust outlet.

1,074,105. LINE-CASTING MACHINE. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 28, 1911. Serial No. 668,227. (Cl. 22—80.)

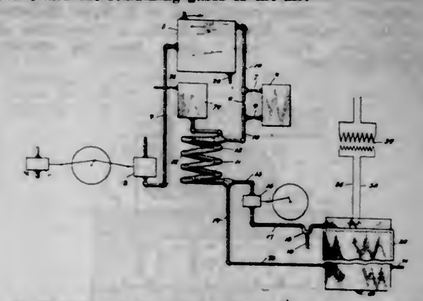


1. In a machine of the class described, a melting pot, means above the pot to contain a supply of solid metal, and means controllable from the front of the machine for effecting the delivery of the metal at the will of the operator.

2. In a machine of the class described, a melting pot, means for delivering metal to the pot, and means controllable from the front of the machine for effecting the delivery of the metal at the will of the operator.

1,074,106. PROCESS OF PRODUCING OZONE AND SEPARATING GASES. HORACE DEMARS, Glen Ridge, N. J. Filed Feb. 28, 1912. Serial No. 680,476. (Cl. 62—18.)

1. The process of producing liquid ozone and separating air gases which comprises reducing air to a temperature somewhat below the liquefying point for ozone, but above the liquefying point for oxygen and nitrogen, and at such temperature subjecting the oxygen of the air to the action of ozonizing means, and separately collecting the liquid ozone and the remaining gases of the air.



2. The process of producing liquid ozone and separating air gases which comprises reducing air to a temperature below the liquefying point for ozone but above the liquefying point for oxygen and nitrogen, and at such temperature subjecting the oxygen of the air to the action of electrical effluence to change said oxygen to liquid ozone, and separately collecting the liquid ozone and the remaining gases of the air.

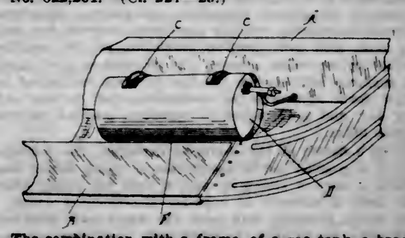
3. The process of producing liquid ozone and separating air gases which comprises reducing air to a temperature below the liquefying point for ozone preliminary to ozonizing said air, and at such temperature flowing said air into an ozonizing device and subjecting the oxygen of the air to the action of electrical effluence to change said oxygen to liquid ozone, and separately collecting the liquid ozone and remaining gases of the air.

4. The process of producing liquid ozone and separating air gases which comprises reducing air to a temperature below the liquefying point for ozone but above the liquefying point for oxygen and nitrogen, and at such temperature subjecting the oxygen of the air to the action of the ozonizing means and separately collecting the liquid ozone and the residual gases of the air.

5. The process of producing liquid ozone and separating air gases which comprises reducing air to a temperature below the liquefying point of ozone, causing said air to flow along in a current and subjecting said air current to an electrical effluence across the path of said current to convert the oxygen of the air into ozone, the ozone then becoming liquefied by reason of the temperature, and separately collecting the liquid ozone and remaining gases of the air.

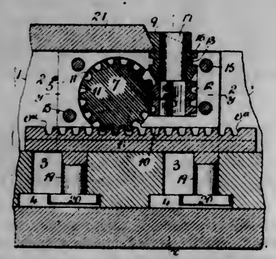
[Claims 6 to 20 not printed in the Gazette.]

1,074,107. GAS-TANK HOLDER FOR MOTOR-VEHICLES. GEORGE W. DUNHAM, Detroit, Mich., assignor to Chalmers Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 20, 1911. Serial No. 622,261. (Cl. 224—29.)



The combination with a frame, of a gas tank, a bracket fixedly secured to said frame, said bracket having a clamping portion for detachably holding the tank, and an independently removable metallic sheath surrounding said tank and interposed between the latter and the bracket, said sheath in its applied position having free adjacent end portions and being flexible to permit of contraction in its diameter, whereby the tank and sheath are secured by a clamping means common to both.

1,074,108. PRINTING-PLATE HOLDER AND REGISTERING CLAMP. EDMUND M. EBB, Jersey City, N. J., assignor, by mesne assignments, to F. Wesel Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed June 2, 1911. Serial No. 630,843. (Cl. 101—169.)



1. A clamp device for holding a printing plate to a grooved bed or foundation, comprising a body portion, a clamping jaw, a rack-bar along which said body portion is movable in opposite directions, a worm, a gear wheel meshing with both the worm and rack bar, said body portion consisting of two sections having corresponding grooves and recesses in their meeting surfaces which when the two sections are joined together form apertures for containing and holding said rack bar, worm and gear wheel in their operative positions, and means for securing the two body sections together.

2. A clamping device for holding a printing plate to a grooved bed or foundation, comprising a body formed of two parts, a swiveled clamping jaw having an annular recess in its neck, a recessed portion in each of said body portions which receive therebetween the neck of the clamping jaw, a semi-circular rib on each body portion within said body recessed portions, said semicircular ribs fitting within the annular recesses in the neck and together providing a continuous bearing for the recessed neck portion of said jaw whereby the latter is held within said aperture so that it can revolve.

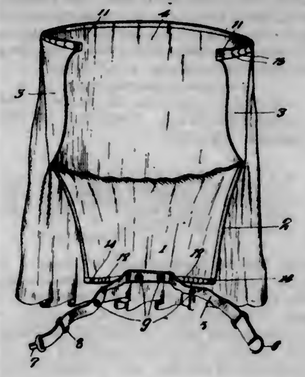
3. A clamp device for holding a printing plate to a grooved bed, comprising a body formed of two parts or sections, a rack bar along which said body portion is movable in opposite directions, and gear means for moving the body on the rack; each body section having corresponding grooves and recesses in the meeting surface which when the two sections are joined together form apertures for containing and holding said rack bar and gear means in operative position, and means for maintaining the body sections together.

4. A clamp device for holding a printing plate to a grooved bed or foundation, comprising a body portion, a clamping jaw, a rack bar along which said body portion is movable in opposite directions, and gearing comprising a worm for causing relative movement between the body and rack, said body portion consisting of two sections having corresponding grooves and recesses in their meeting surfaces which when the two sections are joined together form apertures for containing and holding said rack bar, and gear means in operative position relative to each other.

5. In a device of the character described, the combination of a grooved bed or foundation, a clamp device comprising a body, a clamping jaw, a rack bar along which said body is movable in opposite directions, a worm, a gear wheel meshing with both the worm and rack bar, said body being split longitudinally into two sections having corresponding grooves and recesses in their meeting surfaces which when the two sections are positioned together form apertures for containing and holding said rack bar, worm and gear wheel in operative positions, the width of the grooves and of the body being substantially the same.

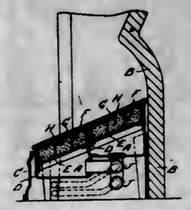
[Claims 6 to 10 not printed in the Gazette.]

1,074,109. PETTICOAT. EMANUEL ESCHELBACHER, New York, N. Y. Filed July 18, 1911. Serial No. 639,195. (Cl. 2—143.)



An adjustable petticoat comprising a main portion and a substantial flap portion, the flap portion being provided with an adjustable belt secured to the median portion of the waist band thereof, and adapted to encircle the body of the wearer to insure independent, uniform adjustment of the flap to the body of the wearer, said main and flap portions being provided with coöperating fastenings on each side, whereby the sides of the main portion may overlap the belt beneath the flap portions and be independently adjusted and secured to the latter, a portion of said belt contiguous to said flap portion, being provided on its inner surface with a plurality of friction members adapted to engage with the waist or other garment of the wearer when the belt is in adjusted position to prevent sagging or slipping of the petticoat.

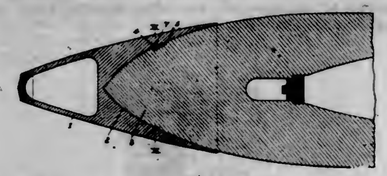
1,074,110. GAS-BURNING APPARATUS. PETER FYFE, Glasgow, Scotland. Filed Oct. 18, 1912. Serial No. 726,464. (Cl. 158—99.)



1. In a gas burning apparatus, the combination of a receptacle having an inlet, and also having an exit at which latter combustion takes place, a Bunsen nozzle at said inlet for supplying a combustible mixture of gas and air to the interior of said receptacle, a foraminous element arranged within said receptacle, said element affording the sole means for the passage of both the gas and the air toward said exit, a layer of fire-resisting material in a state of fine division, and granular non-combustible material interposed between said foraminous element and said fire-resisting material and affording a passage for the combustible gaseous mixture.

2. In a gas burning apparatus, the combination of a receptacle having an inlet, and also having an exit at which latter combustion takes place, a Bunsen nozzle at said inlet for supplying a combustible mixture of gas and air to the interior of said receptacle, a foraminous element arranged within said receptacle, said element affording the sole means for the passage of both the gas and the air toward said exit, a layer of fire-resisting material in a state of fine division, granular non-combustible material interposed between said foraminous element and said fire-resisting material and affording a passage for the combustible gaseous mixture, said granular material being located outside of the field of combustion, and means for retaining the said non-combustible and the fire-resisting materials in position.

1,074,111. PROJECTILE. EMIL GATHMANN, Baltimore, Md., assignor to Crucible Steel Company of America, a Corporation of New Jersey. Filed Jan. 9, 1913. Serial No. 741,065. (Cl. 102—28.)



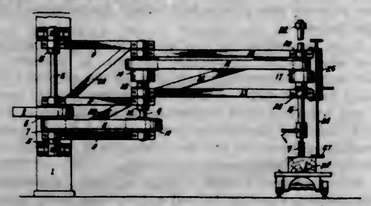
1. The combination of a projectile provided on its outer surface with a plurality of fractional grooves each lying in a plane at an angle to the axis of the projectile, a cap having a cavity adapted to fit upon the projectile, coöperating fractional grooves in the face of said cavity, passages through the cap communicating with said coöperating grooves, and keys inclosed in said passages and grooves.

2. The combination of a projectile provided on its outer surface with a plurality of tangential grooves each lying in a plane at an angle to the axis of the projectile, a cap having a cavity adapted to fit upon the projectile, coöperating grooves in the face of said cavity, passages through the cap communicating with said coöperating grooves, and keys inclosed in said passages and grooves.

3. The combination of a projectile provided on its outer surface with a plurality of fractional grooves each lying in a plane at an angle to the axis of the projectile, a cap having a cavity adapted to fit upon the projectile and coöperating grooves formed in the face of said cavity, and means for securing the cap to the projectile engaging said coöperating grooves.

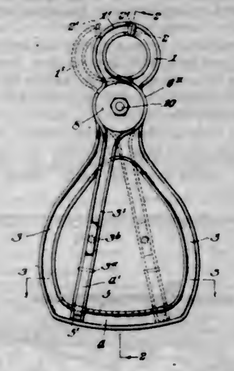
4. A cap for projectiles having a cavity adapted to fit upon the projectile, a plurality of fractional grooves formed in the face of said cavity, each groove lying in a plane at an angle to the axis of the cap, and passages through the cap communicating with said grooves.

1,074,112. BORING-MACHINE. FREDERICK W. GEBDING, Glandorf, Ohio. Filed Apr. 14, 1913. Serial No. 761,029. (Cl. 144—92.)



In combination, a support, a horizontally swinging crane projecting from said support and comprising a plurality of sections hingedly connected for relative horizontal movements, an auger shaft carried at the outer end of the outer section for vertical axial movements relative thereto, drive means carried by said support and having connection with said auger shaft, a U-shaped yoke having its legs pivoted to upper and lower sides of the outer end of the outer crane section for horizontal swinging movements relative thereto, and a rod threaded vertically through one leg of the said yoke and guided by the other of the said legs and adapted to rest at its lower end upon the work to be bored.

1,074,113. COMBINATION-TOOL. GEORGE WALKER GILMER, Jr., Philadelphia, Pa. Filed Sept. 17, 1912, Serial No. 720,777. Renewed Aug. 15, 1913. Serial No. 784,972. (Cl. 81—3.)



1. A tool comprising a pair of pivotally connected levers having coöperative jaws for spreading an opening and handles for operating said jaws, one of said jaws having a pair of said handles provided with a connecting member and the other of said jaws having one of said handles adapted to coöperate with said member for holding said jaws in the desired relation.

2. A tool comprising a pair of pivotally connected levers provided with coöperative jaws, one of said levers being provided with a pair of handles and a rack disposed between said handles, and the other of said levers being provided with a handle having a latch coacting with said rack.

3. A tool comprising a pair of pivotally connected levers having coöperative jaws, one of said levers having a loop comprising handles and the other of said levers having an arm adapted to oscillate between the limits of said handles, said loop and arm having means connected therewith whereby they can be fixed to hold said jaws in a desired relation.

4. A tool comprising a pair of pivotally connected levers formed of sheet metal bent to form a substantially U-shaped cross section, one of said levers having handles connected by a part provided with a rack and the other of said levers having a spring pressed latch movable over said rack.

5. A tool comprising a pair of levers having coöperative jaws disposed at an angle thereto, sheet metal handles of substantially U-shaped cross section, and broad bearings on which said levers oscillate connecting said jaws and handles respectively.

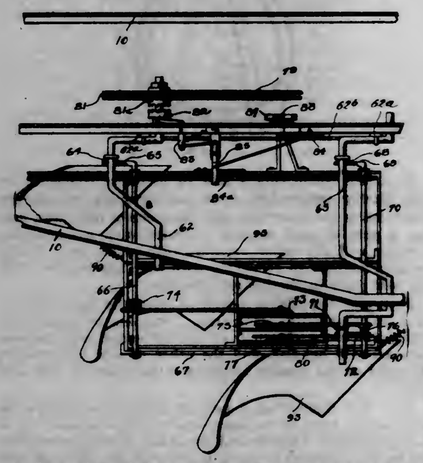
1,074,114. CASE-HARDENING PROCESS FOR ARTICLES OF IRON, STEEL, AND STEEL ALLOYS. FEDERICO GIOLITTI, Turin, Italy, assignor to Societa Anonima Italiana Gio. Ansaldo Armstrong & Co., Genoa, Italy. Filed Oct. 13, 1911. Serial No. 654,518. (Cl. 148—40.)

1. A process for case-hardening objects of iron, steel and steel alloys comprising the following steps; packing the objects to be treated in granular carbon in a container, heating the container from an external source, passing a current of air through the carbon, and adjusting the rate of flow to obtain the desired concentration of carbon in the treated article; the temperature and duration of the treament being kept constant.

2. A process for case-hardening objects of iron, steel and steel alloys comprising the following steps: packing the objects to be treated in granular carbon in a container, heating the container to 1000° C. from an external source, passing a current of air at about atmospheric pressure through the carbon and adjusting the rate of flow of the air to obtain the desired concentration of carbon in the treated article; the temperature and duration of the treatment being kept constant.

3. A process for case-hardening objects of iron, steel and steel alloys comprising the following steps: packing the objects to be treated in granular carbon, in a container, heating the container from an external source, passing a current of air and of a fluid hydrocarbon through the carbon, adjusting the rate of flow of the air and of the fluid hydrocarbon; to obtain the desired concentration of carbon in the treated article.

1,074,115. MOTOR-PLOW. LESLIE S. HACKNEY, St. Paul, Minn. Filed Sept. 19, 1910. Serial No. 582,734. (Cl. 97—70.)



1. In a plow of the class described the combination of a main frame, supporting wheels therefor, a plow frame carrying plows beneath said frame and between said wheels, a swinging support on the main frame for the plow frame and means for adjusting said plow frame vertically with respect to said support.

2. In a plow of the class described the combination of a main frame, supporting wheels therefor, a plow frame carrying plows beneath said frame and between said wheels, power driven cranks on the main frame for lowering and raising said plow frame, means extending above the main frame for adjusting the plow frame vertically with respect to said cranks and a draw bar connecting said frame.

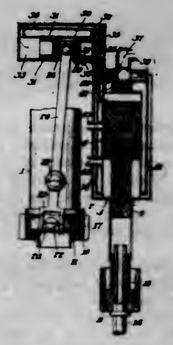
3. In a plow of the class described the combination of a main frame, supporting wheels therefor, a plow frame beneath the main frame and between the wheels, plows on said frame, a pair of power driven cranks on the main frame for raising and lowering the plow frame, levers on said frame for adjusting the forward end of said plow frame relative to one crank and the rear end of said frame relative to the other crank.

4. In a plow of the class described the combination of a main frame, supporting wheels therefor, a plow frame carrying plows beneath the main frame and between the wheels, cranks on the main frame, connecting means between the cranks and plow frame, said cranks being adapted to raise and lower said plow frame, and levers for operating said connecting means whereby said plow frame is adjusted vertically with respect to said cranks.

5. In a plow of the class described the combination of a main frame, supporting wheels therefor, a plow frame carrying plows beneath the main frame and between the wheels, power driven cranks on the main frame, transverse shafts rotatable on the plow frame, arms on said shafts, links connecting said arms and cranks, a second set of arms on said shafts, and levers connected with said last mentioned arms for moving the same and rotating said shafts whereby the plow frame is adjusted with respect to said cranks.

[Claim 6 not printed in the Gazette.]

1,074,116. ROTARY PERCUSSIVE TOOL. CHARLES H. HAESELER, Philadelphia, Pa. Filed May 27, 1913. Serial No. 770,135. (Cl. 121—20.)



1. In a percussive tool, the combination of a cylinder, a piston adapted to reciprocate therein, a chuck connected with and revoluble relatively to said cylinder, clutching means connected with said chuck, clutching means connected with and adapted for engaging and revolving said clutching means first named, means comprising a lever for oscillating said clutching means second named and revolving said clutching means first named, and means whereby the reciprocation of said piston effects the oscillation of said lever.

2. In a percussive tool, a main cylinder, a percussive piston adapted to reciprocate therein, a revoluble tool holder, clutching mechanism comprising a revoluble member connected with said holder and an oscillating member adapted for engaging said member first named, means comprising a fulcrumed lever for operating said oscillating member and intermittently turning said revoluble member, a piston connected with said lever, and fluid pressure means whereby said piston first named operates said piston second named.

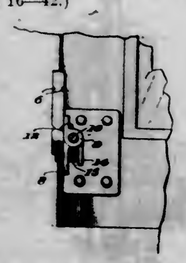
3. In a percussive tool, a main cylinder, a percussion piston adapted to reciprocate therein, a revoluble tool holder, means comprising clutching devices adjacent to the forward end of said cylinder for intermittently turning said tool holder, a lever connected with said means whereby said clutching mechanism is operated, and fluid pressure mechanism adjacent to the rear end of said cylinder whereby said lever is oscillated.

4. In a percussive tool, a main cylinder, a percussion piston therein, a revoluble tool holder, means for connecting said tool holder with the forward end of said cylinder, mechanism between the forward end of said cylinder and said tool holder for intermittently turning the latter, a lever for operating said mechanism and turning said holder, a motor in the rear of said cylinder whereby said lever is oscillated, and fluid pressure means whereby said piston operates said motor.

5. In a percussive tool, a main cylinder, an auxiliary cylinder connected with the forward end thereof, a percussive piston in said main cylinder, a hammer adapted to be reciprocated in said auxiliary cylinder by said piston, a tool holder connected with and revoluble relatively to said auxiliary cylinder, clutching mechanism adapted to turn on said auxiliary cylinder, said mechanism having a member fixed to said holder and a member movable relatively thereto, a fulcrumed lever whereby said second member is oscillated and said first member revolved in a step by step movement, a motor for oscillating said lever, and fluid pressure means whereby said piston operates said motor.

[Claims 6 and 7 not printed in the Gazette.]

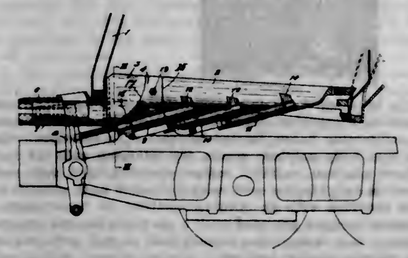
1,074,117. DECK-SASH PIVOT AND LATCH. AUGUST W. L. HARTBAUER, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Oct. 1, 1912. Serial No. 723,440. (Cl. 16—42.)



1. The combination with a deck sash and deck post, of a member fixed to the deck post, which member is provided with a series of notches in its side face, of a bracket fixed to the deck sash and pivotally connected to the first mentioned member, a plate on the outer end of the bracket, which plate is provided with an opening, and a spring-pressed pawl pivotally mounted on the plate, the point of which pawl passes through the opening in said plate to engage the notches in the side face of the first mentioned member.

2. The combination with a deck sash and deck posts, of interchangeable quadrant plates fixed to the deck posts, which quadrant plates are provided with notches in their side faces, brackets fixed to the deck sash adjacent to the quadrant plates, trunnions on said brackets which operate in bearings in the quadrant plates, plates integral with the brackets, which plates are provided with openings, and spring-pressed restraining pawls on said last mentioned plates, the points of which pawls pass through the openings in said plates to engage the notches in the quadrant plates for holding the deck sash in adjusted position.

1,074,118. UNDERFEED STOKER. WILLIAM C. A. HENRY, Columbus, Ohio, assignor to The B. T. U. Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 15, 1912. Serial No. 690,762. (Cl. 110—44.)



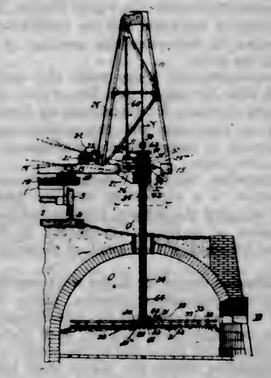
1. In combination in an underfeed stoker, a forward trough portion, a rear trough portion of larger size, and a filler block open at the top fitting the rear trough portion and abutting the rear end of the front trough portion, the said filler block having its rear edge inclined downwardly to the rear and having substantially the same interior diameter as the said front portion of the trough.

2. In combination in an underfeed stoker, a forward trough portion, a rear trough portion of larger size, and a U-shaped removable metal filler block fitting the rear trough portion and abutting the rear end of the front trough portion, the said filler block having its rear edge inclined downwardly to the rear and having substantially the same interior diameter as the forward portion of the trough.

3. In combination in an underfeed stoker, a forward trough portion, a rear trough portion of larger size, and a filler block open at the top fitting the rear trough portion and abutting the rear end of the front trough portion, the said filler block having its sides extending substantially to the top of the trough and having its rear edges inclined downwardly to the rear, the said block having substantially the same interior diameter as the forward trough portion.

4. In combination in an underfeed stoker, a forward trough portion, a rear trough portion of larger size, and deflector means fitting against the sides of the larger portion of the trough at its front end and abutting the rear end of the front trough portion, the said deflector means having rearwardly and downwardly inclined rear ends, and the distance between such deflector means being substantially equal to the diameter of the forward trough portion.

1,074,119. COAL-LEVELING MACHINE FOR BEE-HIVE-OVENS. JOHN H. HUHN, Fairmont, W. Va., assignor to Covington Machine Company, a Corporation of Virginia. Filed Feb. 6, 1911. Serial No. 606,827. (Cl. 193—19.)



1. In a coke leveling machine a rotatable spreading or leveling bar or arm composed of foldable and extensible parts of pantographic type.

2. In a coke leveling machine, the combination with a rotatable and vertically movable element of a spreading or leveling bar or arm, composed of foldable and extensible parts of pantographic type, and means, substantially as described, for unfolding and extending the parts after being moved vertically downward.

3. In a coke leveling machine the combination with an element arranged to be lowered into the coke oven and rotated, of a spreading bar or arm of a pantographic type, the parts of which are horizontally foldable and extensible, and means substantially as described for unfolding and extending the parts after the vertical element is lowered into the furnace.

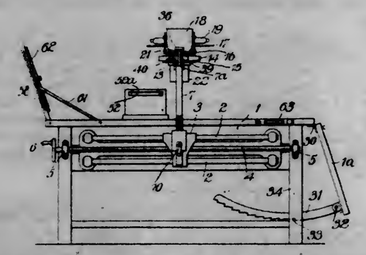
4. In a coke leveling machine the combination with an element arranged to be lowered into the coke oven and rotated, of a spreading or leveling bar or arm of a pantographic type, the parts of which are horizontally foldable

and extensible, and means substantially as described for unfolding and extending the parts after the vertical element is lowered into the furnace, and means substantially as described for rotating the vertical element and with it the spreading or leveling bar.

5. A coke leveling apparatus provided with a laterally adjustable carrying frame, and a vertically adjustable plunger provided with an inner vertically movable bar, and horizontally foldable and extensible spreader bar pivoted at its inner end thereto, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,074,120. COMPRESSION-TABLE AND SYSTEM OF OPERATION FOR THE SAME. SAMUEL T. HUTTON, Chicago, Ill., assignor to Scheidel Western X-Ray Coil Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 14, 1910. Serial No. 538,113. (Cl. 250—34.)



1. In a mechanism for X-ray work, the combination of a graduated table for supporting the subject, and an adjustable graduated member for supporting an X-ray tube, the graduations on the table and the graduations on such member serving to determine the position of such tube relatively to the table.

2. In a mechanism for X-ray work, the combination of a graduated table for supporting the subject, and adjustable graduated members for supporting an X-ray tube, the graduations on the table and the graduations on such members serving to determine the position of such tube relatively to the table.

3. A compression device for X-ray work consisting in the combination of a supporting member, and a second member for engaging the subject, such second member comprising a plate of material transparent to X-rays provided around its edges with a band of material opaque to X-rays.

4. A compression device for X-ray work consisting in the combination of a supporting member, plates of material transparent to X-rays, and rods for interchangeably securing them to the supporting member, such plates being of different conformation according to the work to be done.

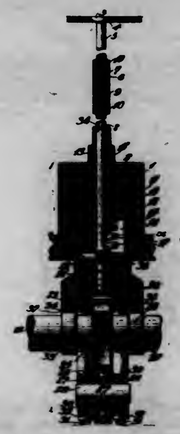
5. A compression device for X-ray work consisting in the combination of a supporting member, plates of material transparent to X-rays, and rods for interchangeably securing them to the supporting member, such plates being of different conformation according to the work to be done and having borders of material opaque to X-rays.

[Claims 6 to 18 not printed in the Gazette.]

1,074,121. VALVE MECHANISM FOR EXPLOSIVE-ENGINES. WILLIAM D. KELLY, Beechwood Park, Pa. Filed Sept. 19, 1912. Serial No. 721,123. (Cl. 121—97.)

1. In a device of the character stated, a valve, a timing shaft rotatably mounted in operative relation thereto, a head, means to guide said head, a spindle connected to said valve and freely movable within said head, a plurality of cams fixedly carried by said shaft, means carried by said head and alternately actuated by said cams for moving said head to shift said spindle to open and close said valve, and means coacting with said spindle for maintaining said valve seated after a closing action.

2. In a device of the character stated, a valve, a spindle connected to said valve, a head forming a guide for said spindle, an abutment carried by said spindle and normally out of contact with said head and in the path of movement thereof, a casing forming a guide for said head, a guide member carried by said head, yielding means between said guide member and said abutment, and means to respectively cause said head to move in opposite directions at a predetermined time, to open and close said valve.



3. In a device of the character stated, a valve, a timing shaft rotatably mounted in operative relation thereto, a head, means to guide said head, a spindle connected to said valve and freely movable in said head, means actuated by the movement of said shaft for alternately opening and closing said valve and means independent thereof and coacting with said spindle to maintain said valve seated after a closing movement.

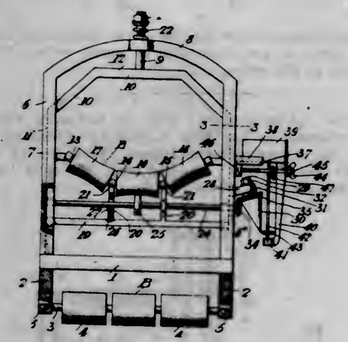
1,074,122. BUCKET. MARY C. KERSEY, Amo, Ind. Filed Jan. 16, 1913. Serial No. 742,509. (Cl. 47—29.)



1. In a sap receiving receptacle, a frusto-conical body portion, a spherical segmental lid hingedly mounted upon a reinforcing flange formed integral with the upper edge of said body portion, means for retaining said lid in a closed position, suitable means mounted upon said body portion for carrying said receptacle, said body portion being provided with an opening adjacent its upper edge, a tubular support provided with a centrally located integral flange, said flange being rigidly held to said body portion to thereby rigidly hold said tubular support within said opening.

2. A sap gathering receptacle comprising a body portion, a lid projecting over the side walls thereof and hingedly secured thereto, means for retaining said lid in a closed position, a bail secured to said body portion, said side walls provided with an aperture adjacent the upper extremity thereof, a supporting member comprising a hollow shank and flange and secured to the inside of said side walls and with the hollow shank extending through the said aperture, said supporting member adapted to receive a sap delivering spout therein.

1,074,123. WEIGHING-MACHINE. SAMUEL D. KINNE, Ann Arbor, Mich., assignor, by mesne assignments, to The Conveying Weigher Company, New York, N. Y., a Corporation of New York. Filed Oct. 28, 1903. Serial No. 178,882. (Cl. 73—46.)



1. The combination in a weighing machine of a conveyer belt, yieldably supported idle pulleys upon which said belt is carried, a yieldably supported rotatable shaft driven by one of said idle pulleys, a registering mechanism, and connections between said shaft and said registering mechanism whereby said registering mechanism is operated at a rate proportional to the rate of rotation of said shaft, and the amount of its depression from its normal position.

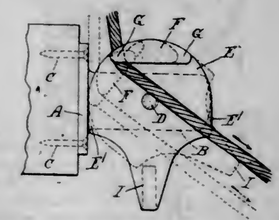
2. The combination in a weighing machine of a conveyer belt, a frame, idle pulleys mounted in said frame over which said belt travels, a spring which supports said frame, a registering mechanism, and driving devices for said registering mechanism arranged between said registering mechanism and one of said idle pulleys, said driving mechanism being adapted to operate said registering mechanism at a rate proportional to the rate of rotation of the idle pulleys and to their depression.

3. The combination in a weighing machine of a conveyer belt, a yieldably supported frame, idle pulleys mounted on said frame over which said belt travels, a shaft rotatably mounted in said frame and driven by one of said pulleys, a registering mechanism, and driving mechanism for said registering mechanism operated by said shaft at a rate proportional to the rate of rotation of the shaft and to the depression of the frame in which the shaft is mounted.

4. The combination in a weighing machine of a conveyer belt, a frame, idle pulleys mounted in said frame over which said belt travels, a spring to support said frame, means for adjusting the position of said frame relative to said spring, a registering mechanism and driving mechanism operated by one of said idle pulleys at a rate proportional to the rate of travel of the belt and the depression of the frame in which the idle pulleys are mounted.

5. The combination in a weighing machine of a conveyer belt, yieldably supported idle pulleys over which said conveyer belt travels, a registering mechanism, driving connection between one of said idle pulleys and said registering mechanism to operate said registering mechanism at a rate proportional to the rate of travel of said belt and the depression of said idle pulleys, and means for moving said registering mechanism to break the driving connection between said idle pulley and the registering mechanism.

1,074,124. CLOTHES-LINE FASTENER. JOHN R. KOOI and PETER KOOI, Chicago, Ill. Filed Oct. 8, 1906. Serial No. 337,912. (Cl. 24—134.)



1. In a clamping device, the combination with a supporting piece having a flat face thereon of a projecting arm substantially at right angles thereto, a plate pivotally connected to said arm and substantially parallel thereto and a hook fixed to said plate in a different plane from the plane of the plate so as to move therewith and adapted to engage the device to be clamped, said hook opposite said flat face so as to force the device to be clamped against said flat face, said hook providing a single connecting point between the device to be clamped and said plate.

2. In a clamping device, the combination with a vertical supporting piece of a projecting arm substantially at right angles thereto, a plate pivotally connected to said arm and substantially parallel thereto, a hook fixed to one end of said plate so as to move therewith and adapted to be brought into engagement with the device to be clamped and force said device against the face of said support, the relation between the bracket and the pivotal point of said plate being such that the hook may be rotated back and forth past the bracket so as to move from one side of the pivotal point of the plate to the other and a limiting piece associated with said plate so as to limit this movement.

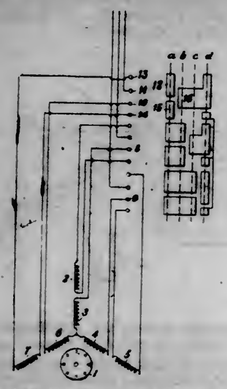
3. A clamping device comprising a vertical supporting piece, a flat face thereon, an arm projecting therefrom and rigidly connected therewith, a movable part pivotally connected with said arm, an engaging piece opposite said flat face and integral with said movable part and projecting at right angles therefrom, said engaging piece undercut so as to form two hooks.

4. A line clamp comprising a supporting device having two parts at right angles to each other, one adapted to be fastened to a fixed device, a pivot connected with the other part, a plate connected with said pivot and having a part concentric therewith and adapted to be moved with relation to said supporting device, said plate striking the part fastened to a fixed device when moved a predetermined amount so as to limit the movement, and a hook connected with the concentric portion of said plate for receiving the line, the point of the plate which strikes said part fastened to the fixed device being at a distance from the point where the line is connected with said plate and in a different horizontal plane.

5. A line clamp comprising a support having a vertical face and adapted to be fastened to a fixed part, a flat plate, a pivot by means of which it is pivotally connected with said part, said plate having a curved portion concentric with said pivot, two hooks attached to the curved concentric portion of said plate, both of said hooks when the device is in its operative position being located on the same side of a perpendicular line extending from the vertical face of said support through the pivot of said plate.

[Claim 6 not printed in the Gazette.]

1,074,125. METHOD OF OPERATING INDUCTION-MOTORS. BENJAMIN G. LAMME, Pittsburgh, Pa., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 6, 1908. Serial No. 442,221. (Cl. 172—280.)



1. The method of starting a polyphase induction motor having a primary winding comprising a plurality of sections for each phase of current which consists in first making a supply-circuit connection for each phase of current, with the sections corresponding to a plurality of phases connected in series relation, then successively cutting out a section corresponding to each of a plurality of phases, and finally connecting one terminal of each section to the supply circuit and the remaining terminals of the respective sections to form two independent groups.

2. The method of starting a polyphase induction motor having a primary winding comprising a plurality of sections for each phase of current which consists in first connecting the sections corresponding to each phase in series relation, then cutting out a section or sections corresponding to one or more phases, and finally connecting the sections in two independent star-connected groups.

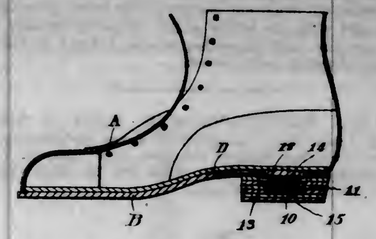
1,074,126. SAFETY-RAZOR. DEAN E. LOCHMAN, Salem, Mass. Filed Nov. 11, 1912. Serial No. 730,614. (Cl. 30—12.)



A razor having, in combination, a razor blade provided with notches at the rear corners thereof, a holder, means for positioning the cutting edge of said blade relatively to said holder, a forked member secured to said holder, the members thereof constituting said fork adapted to project into said notches to yieldingly press said blade against said positioning means, the extremities of the members of said fork having beveled faces adapted to engage the ends of said blade within said notches, to position said blade longitudinally of said holder, and lugs formed on said members adjacent to their extremities adapted to engage the upper face of said blade adjacent to said notches to retain said blade in contact with said holder.

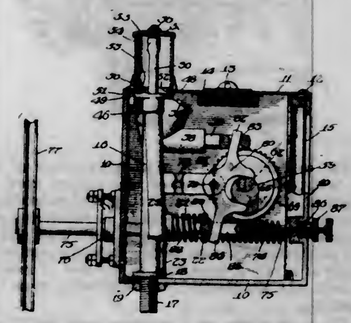
1,074,127. BOOT OR SHOE. JOHN BEVERLEY MACLAUGHLIN, Ottawa, Ontario, Canada. Filed Feb. 17, 1913. Serial No. 749,009. (Cl. 36—37.)

A boot or shoe having a recess in the heel thereof, a loose inner sole, a spring in the recess, a top plate having a recess and formed with an aperture through which the end of the spring may extend, and a groove or recess adapted to fit and snugly hold the end of the spring, a bottom plate provided with a corresponding recess and



aperture through which the end of the spring may extend, and a recess or groove adapted to snugly receive and fit a portion of the spring.

1,074,128. LUBRICATOR. JOHN F. MCCANNA, Chicago, Ill., assignor to The John F. McCanna Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 17, 1904, Serial No. 228,701. Renewed Aug. 10, 1910. Serial No. 576,516. (Cl. 184—27.)



1. In a lubricator, an oil reservoir, a stock mounted therein, a primary pump, means to regulate the stroke of said pump, an auxiliary pump for forcing to the part to be lubricated the oil discharged by the primary pump, and a sight-feed through which the oil passes from the primary to the auxiliary pump, said pumps and sight-feed being carried by the stock.

2. In a lubricator, an oil reservoir, a stock mounted therein, a primary pump on the stock, means to regulate the stroke of the said pump, a sight-feed glass on the stock, a tube in the stock through which the oil passes from the pump to the sight-feed, and an auxiliary pump on the stock by which the oil is forced from the sight-feed to the part to be lubricated.

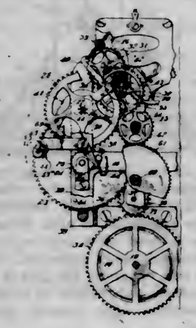
3. In a lubricator, an oil reservoir, a stock mounted therein, a primary pump, means to regulate the stroke of said pump, an auxiliary pump for forcing to the part to be lubricated the oil discharged by the primary pump, a sight-feed through which the oil passes from the primary to the auxiliary pump, and means to operate the pumps, said operating-means, pumps and sight-feed being carried by the stock.

4. The combination with a lubricator comprising an oil reservoir, a primary pump, an auxiliary pump for forcing to the part to be lubricated the oil discharged by the primary pump, of actuating means consisting of an oscillating yoke having arms coöperating with the pump plungers to reciprocate the same simultaneously in opposite directions.

5. The combination with a lubricator comprising an oil reservoir, a primary pump the plunger of which is provided with an elongated slot, and an auxiliary pump for forcing to the part to be lubricated the oil discharged by the primary pump and whose plunger is also provided with a slot, a sight feed device through which the oil passes from the primary pump to the auxiliary pump, of actuating means consisting of a pivoted yoke having arms one of which enters the slot of each pump plunger, a spring moving the primary pump plunger outwardly, and an adjustable abutment located in the path of the latter plunger.

[Claims 6 to 8 not printed in the Gazette.]

1,074,129. SWITCH-CLOCK. WALTER H. MELLOR and CORNELIUS E. OETH, Michigan City, Ind. Filed June 15, 1912. Serial No. 703,826. (Cl. 161—27.)



1. In combination, a rotatable member, a stud carried thereby, a brake arm having a sliding pivotal support, a part of the arm remote from the said support being adapted for engagement by the said stud to advance the brake arm, a spring for retracting the brake arm, a clock actuated trip lever and a pin and cam slot connection between the trip lever and the brake arm.

2. In combination, a pair of operatively connected rotatable members, a stud carried by one of such members, a stop arm having a sliding pivotal support, a part of the arm remote from the said support being adapted for engagement by the said stud to move the arm against the said rotatable member not having the stud, a spring urging the arm away from the said rotatable member, a clock actuated trip lever and a pin and cam slot connection between the trip lever and the stop arm.

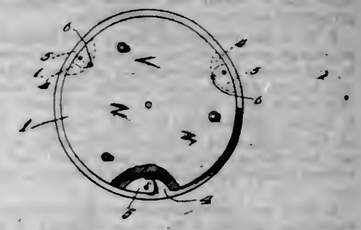
3. In combination, a plate having a measured period of rotation, a pin carried by the plate, a driving wheel, a rotatable member driven by the wheel, a stud carried by the wheel, a stop arm having a sliding pivotal support, a part of the arm remote from the said support being adapted for engagement by the said stud to move the arm against the said rotatable member, a spring urging the stop arm away from the said rotatable member, a trip lever extending into the path of the said pin and a pin and cam slot connection between the trip lever and the stop arm.

4. In combination, a spring motor, spring retracted holding means acting when advanced to prevent operation of the motor, a stud moved by the motor and engageable with the holding means to advance it, and a clock actuated trip acting on the holding means to move it out of engagement with the said stud.

5. In combination, a spring motor, spring retracted holding means acting when advanced to prevent operation of the motor, a stud moved by the motor and engageable with the holding means to advance it, and a clock actuated trip acting on the holding means to move it out of engagement with the said stud, the holding means being held in advanced position by the trip until the trip is released.

[Claims 6 to 10 not printed in the Gazette.]

1,074,130. DIAL-FASTENING DEVICE FOR WATCHES. WILLIAM B. MILLER, Louisville, Ohio. Filed July 2, 1912. Serial No. 707,164. (Cl. 58—127.)



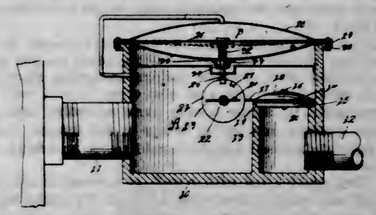
In a dial fastening device for watches, the combination of a watch-plate, said plate provided with a series of kerfs, said kerfs located in the body of the watch-plate, the watch-plate provided with a series of apertures, said apertures located at a point to be cut diametrically by the kerfs, a dial-plate provided with a series of studs, said studs provided with notches and the seats of the notches located in alinement with the back walls of the kerfs, a series of pawls located within the kerfs and normally within the body of the watch-plate, said pawls pivotally connected to the watch-plate and said pawls adapted to engage the notches in the studs of the dial-plate and the back walls of the kerfs, substantially as specified.

1,074,131. ROAD-SURFACING COMPOSITION FOR SURFACING ROADS, DRIVEWAYS, AND SIDEWALKS. ROBERT MUH and ALBERT SCHUPP, Loch Sheldrake, N. Y. Filed Apr. 10, 1913. Serial No. 760,187. (Cl. 106—31.)

1. The herein described composition of matter consisting of refined Bermudaz asphalt; #1 stearin pitch; ordinary dirt; and cement containing about equal amounts of asphalt and cement, more dirt than cement or asphalt, and less stearin pitch than cement or asphalt, substantially as described, and for the purposes specified.

2. The herein described composition of matter for surfacing of roads, drive-ways, and sidewalks, consisting of refined Bermudaz asphalt, four pounds; #1 stearin pitch, one pound; ordinary dirt, eight pounds; and cement, four pounds, substantially as described.

1,074,132. SAFETY GAS-CONTROLLER. SAMUEL L. NEELY and WOODY A. MINNO, Edmond, Okla. Filed July 17, 1913. Serial No. 779,649. (Cl. 67—115.)



1. A gas controlling device including a body casing, a flexible diaphragm arranged therein, a locking rod carried by said diaphragm, a valve mounted to control the outlet of said body casing, a rotatable hub member for said valve, said hub member being provided with a longitudinally extending groove adapted to receive the said rod when the valve is in locked open position, said rod being adapted to be withdrawn from the said groove, permitting the valve to drop into closed position upon the reduction of the gas pressure in the said body casing below a predetermined safety point.

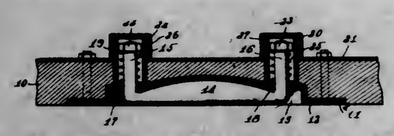
2. In a gas controlling device, a cylindrical casing, a cylindrical shell formed within said casing, a valve

adapted to seat upon the upper terminal of said shell, a shaft journaled in said casing, a cylindrical member loosely mounted upon said shaft and connected with said valve and a locking rod adapted to engage last named cylindrical member to lock said valve.

3. In a gas controlling device, a cylindrical casing, a diaphragm secured to said casing, a valve operating within said casing, a shaft rotatably mounted within said casing, a cylindrical locking member loosely mounted upon said shaft and operatively connected with said valve, a locking rod carried by said diaphragm and adapted for engagement with said cylindrical locking member and means carried by said shaft and cylindrical locking member for rotating said cylindrical locking member.

4. In a gas controlling device, a cylindrical casing, a diaphragm secured to the upper terminal of said casing, a valve mounted within said casing, a shaft rotatably mounted within said casing, a cylindrical locking member loosely mounted upon said shaft, said cylindrical locking member provided with a longitudinally extending groove, a locking rod carried by said diaphragm and adapted for engagement with said longitudinally extending groove, a pin carried by said shaft adjacent one of the terminals of said locking member and a pin extending outwardly from the locking member adapted for engagement with said first named pin.

1,074,133. TOOL-CHEST HANDLE. JOHN NEUSTAEDTER, Valley City, N. D. Filed May 17, 1913. Serial No. 768,303. (Cl. 16—10.)



1. The combination with a wall, of a recess in said wall, tubular casings in said wall and extending inwardly from said recess, a handle having arms extending into said tubular casings, nuts on the ends of said arms, and spring means actuating pressure on said nuts to maintain the handle in said recess and flush with said wall.

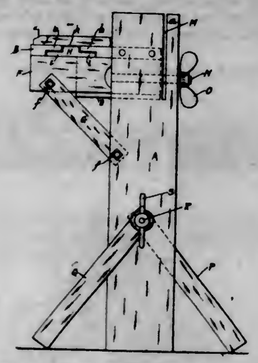
2. The combination with a wall, of a handle therefor, a recess in said wall, said recess being formed with an inwardly curved portion conforming with the shape of said handle whereby the handle lies flush with the wall, tubular casings extending inwardly from said recess, said handle having arms projecting into said tubular casings, nuts on the ends of said arms, and spring means encircling the arms and actuating pressure inwardly on said nuts to maintain the handle in said recess and flush with said wall.

3. The combination with a wall, of a recess in the outer face of said wall, a protecting plate on the inner face of said wall, tubular casings extending from said recess through the wall and projecting beyond said protecting plate, a handle having arms extending into said tubular casings, and spring means in the tubular casings for maintaining said handle in said recess and flush with the wall.

4. The combination with a wall, of a recess in the outer face of said wall, a protecting plate on the inner face of said wall, tubular casings extending from said recess through the wall and projecting beyond the protecting plate, caps on said projections, a handle having arms, extending into said tubular casings and spring means in the tubular casings for maintaining said handle in said recess and flush with said wall.

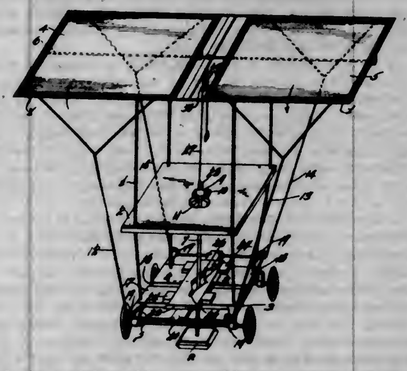
1,074,134. SAW FILING AND SETTING FRAME. CHARLES OSSTREICH, Marion, Wis. Filed May 24, 1912. Serial No. 699,360. (Cl. 76—73.)

1. A saw filing and setting frame comprising a pair of standards longitudinally slitted at their upper ends to form clamping jaws, a member connecting the upper ends of said standards and forming a saw setting table, a slide adjustably mounted for longitudinal movement in said table, a set of adjustable braces for the standards, and a clamping bolt extending through the jaws near the upper end of each standard.



2. In a device of the described class, the combination with a pair of standards, of a table connecting the upper ends thereof and projecting outwardly from the space between the standards, a slide mounted for longitudinal movement in said table and angularly extending braces for the standards, each connected with a standard by a single pivot bolt, whereby the braces may be swung to any desired position and utilized to hold the standards in an upright position upon uneven ground, substantially as described.

1,074,135. MACHINE FOR AERIAL FLIGHT. NATHAN J. PADDOCK, Jersey City, N. J. Filed Aug. 4, 1911. Serial No. 642,322. (Cl. 244—29.)



1. An aerial machine comprising an upper support, a lower support, an open frame mounted on the lower support, a locking slide mounted on the frame and having an aperture, and a pendulum suspended from the upper support and extending through the aperture and through the opening of said frame.

2. An aerial machine comprising an upper support, a lower support, a transverse frame having a slot and mounted on the lower support, a locking slide mounted on the transverse frame and having a central aperture and end recesses and a pendulum suspended from the upper support and extending through the central aperture and through the slot.

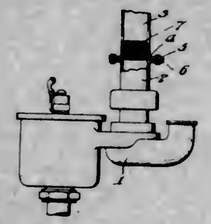
3. An aerial machine comprising a plane-frame, an upper support, a pendulum supported from the upper support, means controlled by said pendulum and located beneath said upper support, means for raising and lowering the pendulum from the plane-frame and for moving it vertically through said controlled means, and means for suspending the pendulum from the frame.

4. An aerial machine comprising a plane frame, an upper support, a pendulum having means whereby it is suspended from the upper support, and provided with an eye, a guide suspended from the plane-frame, a supporting hook for engaging the eye of the pendulum, and a flexible connection for raising and lowering the pendulum and for engaging the said eye with said hook.

5. An aerial machine comprising a plane-frame, an upper support, a pendulum having a head, whereby it is suspended from the upper support, provided with an eye, a pulley suspended from the plane-frame, and having a supporting hook for engaging the eye of the pendulum head, and a flexible connection for raising and lowering the pendulum on the pulley.

[Claims 6 to 8 not printed in the Gazette.]

1,074,136. GASEOUS-FUEL MIXER. WILLIS S. PARKER, Philadelphia, Pa., assignor to Delmont E. Notley and Willis S. Parker, Copartners trading as The Parker Manufacturing Company, Philadelphia, Pa. Filed June 11, 1913. Serial No. 772,932. (Cl. 48—180.)



1. In a device of the character described, a pair of annular sieves arranged one within the other and forming an annular space therebetween, and a stationary member mounted beneath said space having a plurality of inclined vanes adapted to impart a whirling motion to a passing vapor and air mixture.

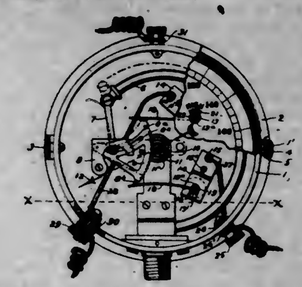
2. In a device of the character described adapted to be mounted in a conduit, a frusto-conical sieve, another frusto-conical sieve mounted within the first named sieve and forming a tapered annular space in conjunction therewith, and means for imparting a whirling motion to gaseous mixtures passing through the conduit.

3. In a device of the character described adapted to be mounted in a conduit, a frusto-conical sieve, another frusto-conical sieve mounted within the first named sieve and forming a tapered annular space in conjunction therewith, and a stationary member mounted beneath the second mentioned sieve and having a plurality of inclined vanes adapted to impart a whirling motion to gaseous mixtures passing through the conduit.

4. In a device of the character described adapted to be mounted in a conduit, a frusto-conical sieve, another frusto-conical sieve mounted within the first named sieve, a stationary member mounted beneath the second mentioned sieve and having a plurality of inclined vanes adapted to impart a whirling motion to gaseous mixtures passing through the conduit, and another sieve upon which said stationary member is mounted.

5. In a device of the character described adapted to be mounted in a conduit, a frusto-conical sieve, another frusto-conical sieve mounted within the first named sieve, a stationary member mounted beneath the second mentioned sieve and having a plurality of inclined vanes adapted to impart a whirling motion to gaseous mixtures passing through the conduit, another sieve upon which said stationary member is mounted, the first named sieve and the last named sieve each having a flange-like extension, and a supporting ring U shaped in cross section within which said extensions are clamped.

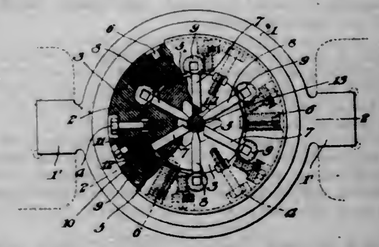
1,074,137. PRESSURE-ALARM GAGE. FREDERICK SCHUBERT, Sellersville, Pa. Filed Feb. 26, 1912. Serial No. 680,036. (Cl. 177—311.)



1. A pressure gage, having a Bourdon tube spring, a sector, and indicating means operated by said spring and said sector, all inclosed within a case, a plurality of insulated binding posts mounted on said case, an electrical alarm comprising an upper and a lower contact point on the free end of said sector, two independently mounted posts carrying resilient contact springs for making electrical connection respectively with the upper or lower contact points on said sector, each of said posts being rotatively mounted upon an insulated block against the back of said case, a binding post directly connected with said case, and an independent electrical connection from each of said adjustable posts to an insulated binding post on the periphery of said case, a dial upon which the pressure is indicated, openings in said dial which aline with each of said rotatable posts, indicating marks at said openings, each of said posts having an indicating mark which indicates the position of said contact springs.

2. In a pressure gage, a movement case containing a Bourdon tube spring, a sector and indicating means operated by said sector, a post rotatively mounted, carrying a spring adapted for contacting with the free upper end of said sector, another post rotatively mounted carrying a spring adapted for contacting with the free lower end of said sector, said two posts being independently mounted upon an insulated block, two insulated binding posts mounted on said movement case, having independent connection with the said two rotatively mounted posts, a dial having openings through which the said posts first mentioned are rotatively adjusted, said movement and said electrical adjustment devices being inclosed and locked within said case.

1,074,138. BOLT-TURNING MACHINE. ROBERT F. SCOTT, Philadelphia, Pa., assignor to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 6, 1912. Serial No. 729,901. (Cl. 82—35.)



1. In a turning machine, the combination of a collar, a body set in said collar, sectors fixed in said body with spaces between them, sectors movable in said spaces, means connected with said body whereby said movable sectors are adjusted relatively to said fixed sectors, cams

journaled in said body substantially parallel to the axis thereof, means for turning said cams, and cutters and guides adapted to be clamped within said body by said sectors and to be adjusted by said cams.

2. In a turning machine, the combination of a body, a revoluble cam journaled eccentrically therein, said cam having teeth adapted for engaging a worm, a revoluble worm engaging said teeth whereby said cam is turned, a cutter adjustable by the turning of said cam, and adjustable means for clamping said cutter in position.

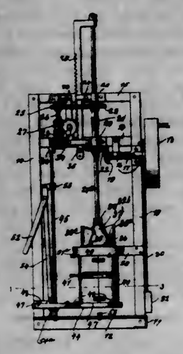
3. In a turning machine, the combination of a body, a revoluble cam journaled eccentrically therein, said cam having teeth adapted for engaging a worm, a revoluble worm engaging said teeth whereby said cam is turned, a guide adjustable by the turning of said cam, and adjustable means for clamping said guide in position.

4. In a turning machine, a hollow body, toothed cams journaled therein, means for operating said cams, cutters and guides adjustable by said cams, and means for clamping said cutters and guides in position, said means comprising fixed sectors and adjustable sectors held within said body.

5. In a turning machine, a hollow body, cams journaled in said body, means movable relatively to and engaging said cams for operating them, cutters and guides adjustable radially in said body by said cams, and fixed sectors and radially movable sectors in said body for clamping said cutters and guides in their adjusted positions.

[Claims 6 and 7 not printed in the Gazette.]

1,074,139. TILE-MACHINE. MICHAEL E. SHAW, Maplewood, Ohio. Filed July 8, 1912. Serial No. 708,247. (Cl. 25—35.)



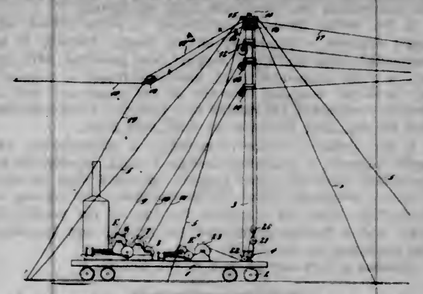
1. In a tile machine, a supporting frame, a rotatable and longitudinally movable rod carried by said frame, a mold supporting table carried by the rod, a lever pivoted to the rod, and a stem to which the lever is connected intermediate its ends, said stem being loosely engageable with the supporting frame.

2. In a tile machine, a support, a rotatable and longitudinally movable rod, a mold supporting table carried by the rod, a lever pivoted to the rod, a stem to which the lever is connected intermediate its ends, and a pivoted section carried by the stem and passing loosely through the table to engage the support.

3. In a tile machine, a cylindrical mold, members engageable with the ends of the cylinder and having annular flanges within which said ends seat, supports for said members, and set screws threaded through said supports to engage the outer edges of said members.

1,074,140. CABLEWAY. ERVIN D. SWAN, Glen Ridge, N. J. Filed Feb. 12, 1912. Serial No. 677,181. (Cl. 104—123.)

1. In a cableway, an elevated support, a main cable, an anchorage rope, a sheave on the anchorage rope, means for supporting the main cable on the support, said main cable being looped about said sheave, and a winding drum for operating on said main cable.



2. In a cableway, an elevated support, a cable, an anchorage, a rope guide on the anchorage over which the cable passes, a rope guide at the base of the support over which the cable passes from the first-named guide, a winding drum for the cable, and means for supporting the cable on the said support.

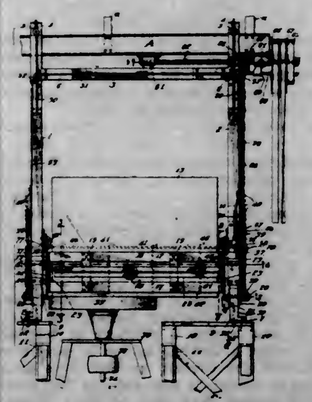
3. In a cableway, an elevated support, an anchorage, a rope guide on the anchorage, a cable passing over the support and said guide and doubled upon itself, a second guide on the support at the head portion thereof, a guide at the base thereof, the return portion of the cable passing over said guides, and a winding drum for the cable.

4. In a cableway, an elevated support, a cable, a split anchorage, a rope guide on the anchorage over which the cable passes, a rope guide on the support below said first-named guide and over which the cable passes from said first-named guide, winding means for the cable, and means for supporting the cable on the said support.

5. In a cableway, an elevated support, a cable, an anchorage, a rope guide on the anchorage, upper and lower rope guides on the support, a cable passing over one of said last-named guides, looped about the guide on the anchorage and then over the other of the guides on the support and winding means for said cable.

[Claim 6 not printed in the Gazette.]

1,074,141. MACHINE FOR FINISHING THE EDGES OF PLATE-GLASS. GEORGE M. TREMMEL, Two Rivers, Wis., assignor to The Tremmel Art Glass Works, Two Rivers, Wis., a Corporation of Wisconsin. Filed Jan. 19, 1912. Serial No. 672,096. (Cl. 51—11.)



1. A machine for polishing the edges of plate glass, comprising a supporting frame, guides by which said frame is movably supported, means for imparting reciprocating movement to said frame, a clamping frame pivoted in said machine frame, and means for imparting oscillating movement to said clamping frame, substantially as described.

2. A machine for finishing the edges of plate glass, comprising a supporting frame, guides by which said frame is movably supported, said guides comprising a fixed track or rail, and hangers on the upper end of said machine frame which slidably engage said track or rail, fixed supports at the lower end of said machine frame provided with guide slots and parts of or projections on said machine frame which engage said guide slots, means for imparting reciprocating movement to said frame, a clamping frame pivoted in the lower end of said machine frame and means for imparting oscillating movement to said clamping frame, substantially as described.

3. A machine for finishing the edges of plate glass, comprising a supporting frame, guides by which said frame is movably supported, means for imparting reciprocating movement to said frame, bearing blocks slidably fitted to guide slots formed in said machine frame, a clamping frame pivotally mounted in said bearing blocks and counterbalance springs applied to said clamping frame, substantially as described.

4. A machine for finishing the edges of plate glass, comprising spaced upright members and a transverse member which connects said upright members adjacent to their upper ends, said upright frame members being provided with guide slots, guides by which said frame is movably supported, means for imparting reciprocating movement to said machine frame, bearing blocks slidably fitted to the guide slots in said upright frame members, a clamping frame pivotally mounted in said bearing blocks, means for imparting oscillating movement to said clamping frame, and counterbalance springs applied to said clamping frame, substantially as described.

5. A machine for finishing the edges of plate glass, comprising spaced upright members and a transverse member which connects said upright members adjacent to their upper ends, said upright frame members being provided with guide slots, guides by which said frame is movably supported, means for imparting reciprocating movement to said machine frame, bearing blocks slidably fitted to the guide slots in said upright frame members, a clamping frame pivotally mounted in said bearing blocks, counterbalance springs applied to said clamping frame, and means for varying the tension of said springs for a given position of said clamping frame, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,074,142. BALLAST-CLEANER. WALTER IRA TRENCH and ARTIMUS G. ZEPP, Baltimore, Md. Filed Apr. 24, 1912. Serial No. 692,998. (Cl. 83—56.)



1. A railroad ballast cleaner consisting of an inclined trough screen, a support at each end of the screen, the support at the lower end having a runner to rest and travel on the ties, the runner being placed forward from the base of the screen so it spaces the base of the screen well back from the rails whereby the material which rolls down the screen is deposited at the side of the rails.

2. A railroad ballast cleaner consisting of an inclined trough screen, a support at each end of the screen, the support at the lower end having a runner to travel on the ties and a guide to engage the rails, the guide being spaced forward from the screen so that it gives a space between the screen and the rail whereby the material is deposited at the side of the rail.

3. A railroad ballast cleaner consisting of an inclined trough screen, means for adjusting the height of the support at the upper end of the screen, a support at each end of the screen, the support at the lower end having a guide to engage the rails, the guide being spaced well forward of the base of the screen so that the material is deposited at the side of the rail.

4. A railroad ballast cleaner consisting of an inclined trough screen, supporting means therefor, and a guide to engage the rail, the guide being spaced well forward from the base of the screen.

5. A railroad ballast cleaner consisting of an inclined trough screen, means for supporting it, and a hood pivotally mounted to take a position closing the top end of the screen or to swing from that position through an arc of about 180° to a position in which it acts as a hopper or funnel when the material is introduced at the top end of the screen.

[Claims 6 and 7 not printed in the Gazette.]

1,074,143. VENTILATOR FOR BUILDINGS. THOMAS E. VAUGHN, Chicago, Ill., and JOHN H. BRUNINGA, St. Louis, Mo., assignors to Champion Ventilator Company, St. Louis, Mo., a Corporation of Missouri. Filed June 10, 1912. Serial No. 702,913. (Cl. 98—4.)



1. A ventilator comprising an eduction pipe, a casing surrounding said pipe, and means for supporting said casing in spaced relation with respect to said pipe comprising a plurality of lobes extending along said pipe and engaging both said pipe and said casing, said lobes being connected to form a substantially continuous element surrounding said pipe and inside of said casing, whereby a plurality of passages are formed inside of said casing and extending along said pipe.

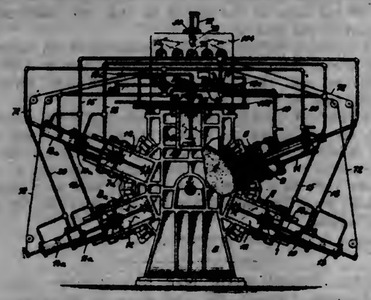
2. A ventilator comprising an eduction pipe, a casing surrounding said pipe, and means for supporting said casing in spaced relation with respect to said pipe comprising a plurality of lobes extending along said pipe and engaging both said pipe and said casing, said lobes being formed to extend circumferentially along and in engagement with said casing, said lobes being connected to form a substantially continuous element surrounding said pipe and inside of said casing, whereby a plurality of passages are formed inside of said casing and extending along said pipe.

3. A ventilator comprising an eduction pipe, a casing surrounding said pipe, means for supporting said casing in spaced relation with respect to said pipe comprising a plurality of lobes extending along said pipe and engaging both said pipe and said casing, said lobes being connected to form a substantially continuous element surrounding said pipe and inside of said casing, whereby a plurality of passages are formed inside of said casing and extending along said pipe, and a cap supported above said pipe and by said casing and said lobes.

1,074,144. APPARATUS FOR GRINDING WOOD. FREDERICK A. WALDRON, Plainfield, N. J. Filed May 14, 1909. Serial No. 496,015. (Cl. 83—75.)

1. In an apparatus for grinding wood, in combination, a rotary grinding element, a plurality of pairs of magn-

sines for holding charges of wood arranged on diametrically opposite sides of the grinding element, and fluid-pressure mechanism for simultaneously pressing the wood in all the pairs of magazines against the rotary grinding element, whereby the pressure on the grinding element at one side is opposed by corresponding pressure on the opposite side upon the simultaneous operation of the magazines of each pair.



2. In an apparatus for grinding wood, in combination, a rotary grinding element, a plurality of magazines for holding charges of wood arranged in diametrically opposite pairs, fluid-pressure mechanism for pressing the wood in all the pairs of magazines against the grinding element, and controlling devices controlling the magazines of all of said pairs simultaneously when the magazines of each pair are operated in unison.

3. In an apparatus for grinding wood, in combination, a rotary grinding element, magazines arranged in diametrically opposite pairs for holding charges of wood, fluid pressure means for pressing the wood in the magazines upon the grinding element, controlling devices adapted to simultaneously operate all the pairs of magazines whereby upon the simultaneous operation of one pair of magazines the pressure upon the grinding element is equalized, and means for retracting the wood pressing devices in any of the opposite pairs of magazines.

4. In an apparatus for grinding wood, in combination, a rotary grinding element, a magazine for holding a charge of wood, a magazine diametrically opposite the first, closures for the said magazines, fluid pressure rams for pressing the wood in the magazines against the grinding element, fluid pressure rams for operating the magazine closures and controlling means whereby the said closure operating and pressing rams may be operated in unison.

5. In an apparatus for grinding wood, in combination, a rotary grinding element, means for holding wood in contact with the grinding element, a breaking magazine for holding an auxiliary charge of wood, and means dependent for operation upon the speed of the grinding element for pressing the wood in the braking magazine against the grinding element.

[Claims 6 to 20 not printed in the Gazette.]

1,074,145. OPTICAL REFLECTOR. FRANK M. WALTS, New York, N. Y. Filed Mar. 16, 1910. Serial No. 549,591. (Cl. 88—41.)



1. In combination with an eyeglass, a reflector of less dimensions than the eyeglass back of and entirely within the outer boundaries of the eyeglass so as to be concealed thereby and normally located at an appreciable distance inward from the outer edge of the eyeglass so as to present to the eye a large field of vision and to permit a natural position of the eye as well as for further concealment of the reflector and supported at an angle to the eyeglass suitable for viewing in the reflector objects out of the direct line of vision.

2. In combination with an eyeglass, a reflector supported at the rear thereof adjacent to the inner margin thereof for substantially concealing the reflector from the public and arranged at an inclination to the eyeglass providing for viewing objects out of the direct line of vision while presenting to the eye a large field of vision.

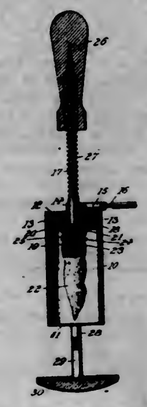
3. In combination with an eyeglass provided at its inner margin with a frame, a reflector supported at the rear of the eyeglass in proximity to the frame at the inner margin of the eyeglass and disposed at an inclination to the eyeglass so that objects out of the direct line of vision may be seen in the reflector and for affording concealment to the reflector by reason of its proximity to the frame and location at the rear of the eyeglass, the positioning of the reflector in proximity to the inner margin of the eyeglass providing an angle of the reflector which will present to the eye a field of vision of maximum extent.

4. In combination with an eyeglass, a reflector at the rear of the eyeglass, and a support for the reflector including means permitting adjustment of the reflector bodily across the surface of the eyeglass to different positions within the outer boundaries of the eyeglass.

5. In combination with an eyeglass, a reflector at the rear of the eyeglass, and a support for the reflector including means permitting adjustment of the reflector bodily to substantially all points within the marginal boundaries of the eyeglass.

[Claims 6 to 25 not printed in the Gazette.]

1,074,146. THERAPEUTIC ELECTRODE. REINHOLD H. WAPPLER, New York, N. Y., assignor to Wappler Electric Manufacturing Co., Inc., New York, N. Y. Filed Dec. 5, 1912. Serial No. 735,020. (Cl. 174—89.)



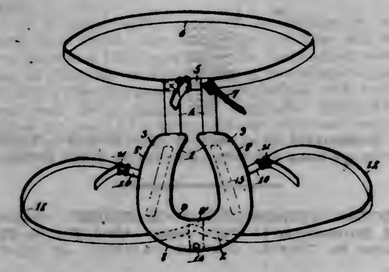
1. A therapeutic electrode comprising a compressible elastic member, the electric conductivity of which increases under compression, means for conductively connecting said member with a human body, means for supplying electric current to said member, and means for alternately compressing and releasing the same.

2. A therapeutic electrode comprising a casing having a conductive bottom, an insulated conductive rod reciprocable in said casing, a sponge secured to the rod and adapted to be forced against the conductive bottom, so as to be compressed thereby, means for supplying electric current to the sponge, and current-applying means depending from said bottom.

3. A therapeutic electrode comprising a casing having an insulating head and a conductive bottom, a bushing fitted into the head, a spring-influenced rod engaging the bushing, a handle on said rod, a plunger fitted to the rod, a sponge depending from the rod below said plunger and adapted to be forced against the conductive bottom so as to be compressed thereby, means for supplying electric current to the sponge, and current-applying means secured to the cylinder-bottom.

4. A device of the character described, comprising an electrode adapted to be applied to a human body, means for supplying electric current thereto, and a resistance controlled by the varying pressure of said electrode against said body for correspondingly varying the strength of the current supplied to the body.

1,074,147. SUPPORTER. WILMORE B. WHITLOCK, Richmond, Va. Filed Oct. 15, 1910. Serial No. 587,192. (Cl. 128—38.)



A device of the class described comprising a hollow air tight, U-shaped cushion, said cushion being formed of elastic material, an inflating valve for said cushion and non-elastic members secured to the inner walls of the vertical portions of said cushion, whereby the concavity of the body engaging portion of the device may be increased by increasing the degree of inflation, substantially as described.

1,074,148. NON-REFILLABLE BOTTLE. CHARLES WILCOVITZ, New York, N. Y., assignor of one-third to Michael Isbutsky and one-third to Hyman Isbutsky, Brooklyn, N. Y. Filed Sept. 25, 1912. Serial No. 722,229. (Cl. 215—62.)



1. In combination, a bottle having a short neck, a main neck, means for fastening the said necks together, a bearing depending within the main neck and integral therewith, the bearing having a central recess open at the lower end of the bearing, the said main neck having a reduced upper end and the said bearing having an extension extending concentrically within the said reduced end of the main neck, the extension being connected with the bearing by an integral neck, and the bearing being integrally connected with the main neck by bars on opposite sides of the said integral bearing neck, a valve seat held at the junction of the said necks, an inverted cup-shaped valve adapted to be seated on the said valve seat and having an integral valve stem slidingly engaging the said recess, and a ball free to roll within the said recess and adapted to rest on top of the said stem at the time the bottle is in upright position to hold the valve to its seat, the said ball rolling out of engagement with said stem on tilting the bottle to allow the valve to slide into open position.

2. The combination with a bottle having a short neck, of a main neck secured to the short neck and having a reduced upper portion provided with an annular pouring opening, a bearing in the main neck and connected therewith by bars, said bearing having an outwardly projecting annular flange at its upper end extending to within a short distance of the inner surface of the neck and a recess in its lower end, a valve seat at the junction of said necks and having a reduced upper end, an inverted cup-shaped valve adapted to fit on the reduced upper end of the seat, said valve having an annular shoulder and a stem slidable in the recess of the bearing, and a ball in the recess of the said bearing and held therein by the stem of the valve.

1,074,149. SAFETY-RAZOR. ALFRED G. WORMSER, Harrisburg, Pa. Filed Mar. 31, 1913. Serial No. 757,890. (Cl. 30—12.)



1. In a safety razor, a two-part hinged blade holder comprising a blade seat, a clamping plate rotatably mounted thereon, spring engaging means upon each end of the clamping plate near the front edge extending a short distance below the seat, and a spring coiled about the hinge pintle provided with extensions adapted to engage said means for normally drawing the plate and seat together and allowing a limited rotation of the plate to insert or remove a blade.

2. In a safety razor, a two-part hinged blade holder comprising a flat blade seat, a flat clamping plate rotatably secured to the back of the seat, blade guides and positioning members thereon provided with inturned ears arranged at a distance below the seat, the seat having cut out portions allowing the ears to pass therethrough, and a spring coiled about the hinge pintle for drawing the plate and seat together having extending ends normally engaging the inturned ears upon the under side of the seat allowing a limited upward rotation of the clamping plate to insert or remove a blade.

3. In a safety razor, a two-part hinged blade holder comprising a flat blade seat, a handle secured to the under side thereof, a flat clamping plate rotatably secured to the back of the seat having overlapping depending ends with inturned ears, the seat having cut out portions allowing the ears to pass therethrough, and a spring coiled about the hinge pintle for normally drawing the seat and plate together with its ends normally extending across the under side of the cut out portions of the seat and adapted to engage upon the upper surfaces of the respective inturned ears allowing a limited upward rotation of the clamping plate and adapted to be disengaged therefrom whereby the holder may be fully opened.

1,074,150. PROCESS OF TREATING MATERIALS. FREDERICK W. TOST, Chicago, Ill. Filed Apr. 11, 1910. Serial No. 554,712. Renewed Feb. 19, 1913. Serial No. 749,533. (Cl. 75—65.)

1. The process of treating finely divided metal-bearing material capable of undergoing propagative reaction, which comprises initiating a reaction in a mass of the material, conducting a current of reaction-supporting gas through the mass in one direction, conducting another current of reaction supporting gas through the mass in another di-

rection, and controlling conditions so as to cause propagative reaction between components of the currents of gas and of the mass.

2. The process of treating finely divided non-combustible material, which comprises mixing heat developing elements with the material to form a mixture capable of undergoing propagative reaction, initiating a reaction in a mass of the mixture, conducting a current of reaction-supporting gas through the mass in one direction, conducting another current of reaction-supporting gas through the mass in another direction, and controlling conditions so as to cause propagative reaction between components of the currents of gas and of the mass.

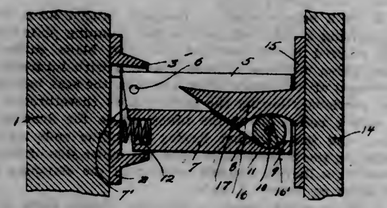
3. The process of treating finely divided metal bearing material containing heat developing components, which comprises initiating a reaction in a mass of the material, conducting a current of reaction-supporting gas through the mass in one direction, conducting another current of reaction-supporting gas through the mass in another direction, and controlling conditions so as to cause components of the mass to react with components of the gas currents.

4. The process of treating finely divided metal bearing material containing gas forming components, which comprises initiating a reaction in a mass of the material, conducting a current of reaction-supporting gas through the mass in one direction, conducting another current of reaction-supporting gas through the mass in another direction, and controlling conditions so as to cause components of the mass to react with components of the gas currents.

5. The process of treating finely divided metal-bearing material capable of undergoing propagative reaction, which comprises conducting a current of gas through a mass of the material in one direction, conducting another current of gas through the mass in another direction, heating the mass and controlling conditions so as to propagate a reaction effect through the mass.

[Claims 6 to 37 not printed in the Gazette.]

1,074,151. DOOR-CHECK. JOHN K. YOUNG, Philadelphia, Pa. Filed Oct. 29, 1912. Serial No. 728,410. (Cl. 16—78.)

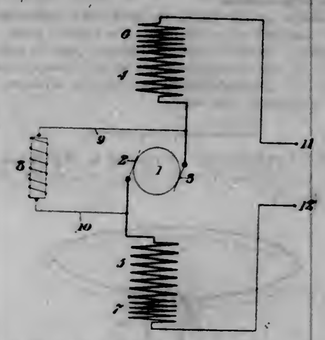


1. In combination a base, a channel member pivoted eccentrically thereof, a spring on said base adapted to hold said member normally in a horizontal position, said member being reduced at its onter end, a non flexible roller pivoted to said end, and a hook adapted to engage said roller and be held thereto.

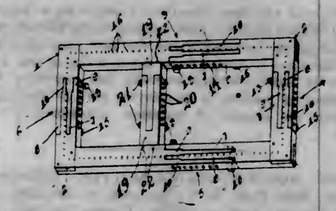
2. In combination a base-plate, a channel member fulcrumed eccentrically upon said base-plate, a spring carried by said base-plate holding said member in horizontal position, a depressed part being formed at the opposite end of said channel member, a roller fulcrnmed in said depressed part, and a latching member having a beveled end arranged to depressingly ride over said roller and having a hook for holding it in locked position.

1,074,152. ALTERNATING-CURRENT MOTOR. HENRY L. ZABRISKIE, Westfield, N. J., assignor to Diehl Manufacturing Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Feb. 1, 1913. Serial No. 745,703. (Cl. 172—276.)

In an alternating current motor, the combination with a series wound field, and an armature and commutator thereof, of an inductive resistance shunted across the terminals of said armature, and a high resistance winding incorporated as a part of each field coil winding, thereby adapting the motor for use on direct current.

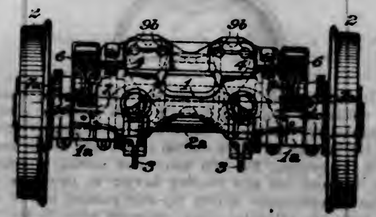


1,074,153. WINDOW AND DOOR SCREEN. CHARLES H. ZIMMERMAN, St. Paul, Kans. Filed Nov. 6, 1912. Serial No. 729,815. (Cl. 156—14.)



A screen including a collapsible and adjustable frame, and a screening member detachably secured thereto, said frame being provided with a plurality of locking joints having a transverse bore, said joints comprising a plurality of intermeshing tongues carried by the extremities of the several frame members for holding said joints in assembled position, a button stop carried on the underface of one of the tongue members, and a pin seated in said bore to pivotally connect the parts.

1,074,154. LOCOMOTIVE-TRUCK. HERMAN F. BALL, New York, N. Y. Filed July 5, 1913. Serial No. 777,376. (Cl. 105—226.)



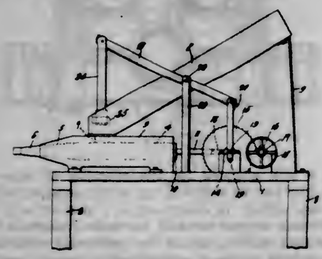
1. A frame for a lateral motion truck, comprising, in an integral structure, front and rear side members extending transversely to the longitudinal central plane of a locomotive and connected by shorter end members, pedestal jaws projecting laterally from the end members, bearings on the end members in position for the connection of the hangers of elliptic springs, and swing hanger bearings on the side members.

2. In a lateral motion truck, the combination of an integral truck frame, comprising front and rear side members extending transversely to the longitudinal plane of a locomotive and connecting end members having laterally projecting pedestal jaws, and tie bars connecting the end frame members in planes on the inner sides of, and clear of, the pedestal jaws.

3. In a lateral motion truck, the combination of an integral truck frame comprising front and rear side members extending transversely to the longitudinal central plane of a locomotive and connecting end members having laterally projecting pedestal jaws, axle boxes fitting between the pedestal jaws, elliptic springs seated on said axle boxes, and spring hangers connecting the ends of said springs with bearings on the end members of the truck frame.

4. In a lateral motion truck, the combination of an integral truck frame, comprising front and rear side members extending transversely to the longitudinal central plane of a locomotive and connecting end members having laterally projecting pedestal jaws provided with inclined upper and lower faces, and detachable shoes fitting against the inner sides of the pedestal jaws and connected thereto by side and top and bottom flanges turned over against the adjoining surfaces of the pedestal jaws.

1,074,155. MACHINE FOR STUFFING CRUPPERS. JOHN B. BASTIAN, Neosho, Mo. Filed July 17, 1912. Serial No. 710,045. (Cl. 69—4.)



A machine for stuffing cruppers, including a casing having an inlet in the top thereof, one end of the casing being tapered, a crupper engaging nozzle removably mounted within said tapered end, a piston mounted to reciprocate within the casing and to successively open and close the inlet, a hopper for directing material into the inlet, a plunger mounted for reciprocation above the inlet and within the hopper, a walking beam connected to the plunger, a shaft, and separate means operated by the shaft for actuating the walking beam and the piston, said plunger constituting means for directing material through the inlet and into the path of the retracted piston.

1,074,156. LEVEE. JOHN BRADLEY, Sr., La Porte, Tex. Filed June 12, 1913. Serial No. 773,373. (Cl. 61—35.)

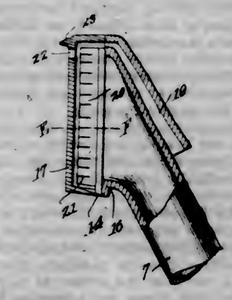


1. In a levee, the combination with an earth bank of a reinforced water tight wall arranged through the bank and extending into the ground below the bank and projecting above the top thereof, and braces connected to the upper portion of the wall and having their ends anchored in the ground at the base of the levee.

2. In a levee the combination with an earth bank having therethrough a trench, of a concrete wall formed in said trench and projecting above the bank, reinforcing posts embedded in said wall, reinforcing cables also embedded in the wall, means whereby said cables are stretched before the wall is formed around the same, braces connected at their upper ends to the wall and having their lower ends anchored in the ground at the base of the land side of the levee, and washer plates engaged with the top of the wall and with the upper ends of said braces.

3. In a levee the combination with an earth bank having therethrough a longitudinal trench, of a reinforced concrete wall formed in said trench and projecting above the bank, series of spikes arranged in and projecting above the top of the wall, and braces secured to the top of the wall and having their ends anchored in the ground at the base of the land side of the levee.

1,074,157. BURNER. ADOLF BELER, Pittsburgh, Pa. Filed Nov. 8, 1912. Serial No. 730,233. (Cl. 158—112.)



1. A burner including a base ring, a standard, means for directing combustible gas from the ring into the standard, said standard having an air inlet at the bottom thereof, an upstanding flange spaced from and surrounding the standard, and means adjustable longitudinally of the standard and relative to the flange for controlling the supply of air to the inlet.

2. A burner including a standard, having a head at its upper end provided with an open face, a cap mounted on the head and having an outlet, said cap being adapted to receive fuel passing through the head, and means for supplying fresh air to the interior of the cap and above the head.

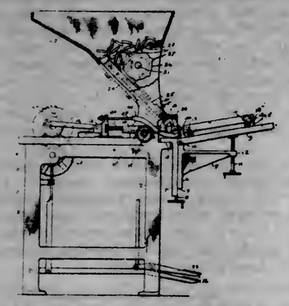
3. A burner including a standard, having a head at its upper end, said head including an open face, a cap mounted on the head and having an outlet, said cap being adapted to receive fuel passing through the head, and a separating plate mounted on the head and within the cap, said plate having transversely bowed outstanding portions formed with outlet slits extending transversely of the head.

4. A burner including a standard having a head provided with an open face, means coöperating with the head for forming a mixing chamber above the head, said chamber having a fuel outlet, a plate upon the head and having parallel outstruck portions formed with slits for the passage of sheets of gas into said mixing chamber, said slits being arranged transversely of the head.

5. A burner including a standard having a head, a cap upon the head and forming a mixing chamber, a plate seated in the mixing chamber and including means for directing separate sheets of gases against the cap, and means for directing fresh air into the upper portion of the cap.

[Claims 6 to 10 not printed in the Gazette.]

1,074,158. DOWEL GLUING AND DRIVING MACHINE. EDWIN J. BELL and CHARLES G. DAUBER, Oshkosh, Wis., assignors to The Dauber-Bell Machine Company, Oshkosh, Wis., a Corporation of Wisconsin. Filed Oct. 31, 1912. Serial No. 728,868. (Cl. 144—31.)



1. In a machine of the class described the combination with a hopper for holding the dowels, a plurality of inclined dowel passages below the hopper, means for causing the dowels to fall into the passages end to end, reciprocating dowel driving plungers horizontally disposed below the hopper, a work support, an oscillating carrier adapted to retain the dowels normally in the passages and adjustably connected to the plungers at a predetermined point of the driving plunger stroke and adapted to receive dowels from the inclined passages and deliver them to a position to be driven into the work.

2. In a machine of the class described the combination with a hopper for holding the dowels, a plurality of inclined dowel passages disposed below the hopper and adjustable longitudinally with relation thereto, means for feeding the dowels into the passages end to end, reciprocating dowel driving plungers horizontally disposed below the hopper, a work support, an oscillating carrier connected with the driving plungers and adapted to normally retain the dowels within the passages, dowel pockets in the carrier for receiving the dowels at a predetermined position thereof and means for adjusting the operative connection between the driving rods and the carrier.

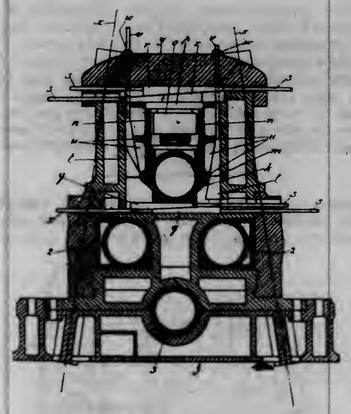
3. In a machine of the class described the combination with a hopper for holding the dowels, an incline plate having dowel passages therein extending from the hopper, means for feeding the dowels into the passages end to end, reciprocating dowel drivers disposed horizontally below the hopper, an oscillating carrier connected to the dowel drivers and means for adjusting the operative relationship therebetween, means for longitudinally adjusting the incline plate toward or away from the carrier, dowel receiving holes through the carrier, a segmentally formed rest positioned within the path of travel of the carrier, openings through the rest adapted to coincide with the holes of the carrier at the lowermost position thereof.

4. In a machine of the class described the combination with a hopper for holding the dowels and having dowel passages extending therefrom, means for feeding the dowels into the passages end to end, dowel driving mechanism adapted to reciprocate horizontally below the hopper, an oscillating carrier adapted to operate between the dowel passages and dowel driving mechanism and having holes therethrough for the passage of the dowels, a lip extending radially from the carrier adjacent to the holes to prevent the accidental passage of a dowel between the dowel passage and carrier, adjustable operating means between the driving mechanism and the carrier, a segmentally formed dowel rest disposed stationary within the carrier and having holes therebelow to coincide with the holes of the carrier at the lowermost extreme position thereof.

5. In a machine of the class described the combination with a dowel container having agitating means disposed therein, dowel passages extending from the container, reciprocating dowel driving mechanism comprising a sliding crosshead having an upwardly extending lug, driving plungers adjustably attached to the crosshead, a carrier operative to receive the dowels from the dowel passage and deliver them to a position to be acted upon by the plungers, means for actuating the carrier comprising a pivoted yoke extending toward the crosshead, a rod attached to and extending from the yoke to the upwardly extending lug of the crosshead and means for adjusting the rod in the lug.

[Claims 6 to 10 not printed in the Gazette.]

1,074,159. MILL ADAPTED FOR THE CRUSHING OF SUGAR-CANES AND THE LIKE. FREDERIK WILLEM BOLK, Pekalongan, Java. Filed Dec. 7, 1912. Serial No. 735,487. (Cl. 100—47.)



1. In a mill adapted for the crushing of sugar canes and the like and in which a top roller engages with each of two side rollers, in combination, a pair of mill cheeks, a shaft which carries the said top roller, bearings for said shaft in said cheeks, means for positively adjusting the height of said bearings within said cheeks, and means for positively adjusting the lateral position of said bearings within said cheeks.

2. In a mill adapted for the crushing of sugar canes and the like and in which a top roller engages with each of two side rollers, in combination, a pair of mill cheeks, a shaft which carries the said top roller, bearings for said shaft in said cheeks, a set of wedges adapted to be moved horizontally and adapted for positively adjusting the height of said bearings within said cheeks, and an independent set of wedges adapted to be raised and lowered and adapted for positively adjusting the lateral position of said bearings within said cheeks.

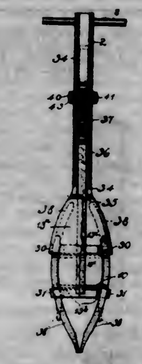
3. In a mill adapted for the crushing of sugar canes and the like and in which a top roller engages with each of two side rollers, in combination, a pair of mill cheeks, a shaft which carries the said top roller, bearings for said shaft in said cheeks, means for positively adjusting the height of said bearings within said cheeks, means for positively adjusting the lateral position of said bearings within said cheeks, and means for elastically controlling the automatic upward movement of said top roller with the pressure exerted on it by the material which is being crushed.

4. In a mill adapted for the crushing of sugar canes and the like and in which a top roller engages with each of two side rollers, in combination, a pair of mill cheeks, a shaft which carries the said top roller, bearings for said shaft in said cheeks, a set of wedges adapted to be moved horizontally and adapted for positively adjusting the height of said bearings within said cheeks, an independent set of wedges adapted to be raised and lowered and adapted for positively adjusting the lateral position of said bearings within said cheeks, and means for elastically controlling the automatic upward movement of said top roller with the pressure exerted on it by the material which is being crushed.

5. In a mill adapted for the crushing of sugar canes and the like and in which a top roller engages with each of two side rollers, in combination, a pair of mill cheeks, a shaft which carries the said top roller, bearings for said shaft in said cheeks, a set of wedges adapted to be moved horizontally and adapted for positively adjusting the height of said bearings within said cheeks, an independent set of wedges adapted to be raised and lowered and adapted for positively adjusting the lateral position of said bearings within said cheeks, and means for elastically controlling the automatic upward movement of said top roller with the pressure exerted on it by the material which is being crushed.

[Claims 6 to 10 not printed in the Gazette.]

1,074,160. END WRENCH. DANIEL M. BRUMFIEL, Connersville, Ind., and PHILIP G. WRIGHT, Williamstown, Mass. Filed Aug. 15, 1912. Serial No. 715,271. (Cl. 81—128.)



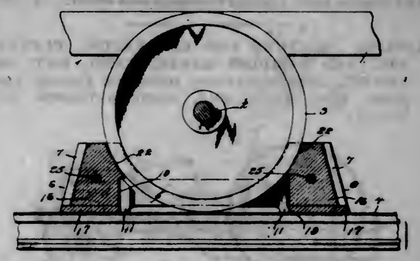
1. In a wrench, a shank terminating in a casing provided on each of its edges with a pair of lugs having apertures arranged substantially in arcs with relation to each other, an arcuate jaw slidably disposed in each pair of said apertures, their concave faces being opposed, a stem slidably disposed with reference to said shank, and a pin actuated by said stem and adapted to impart longitudinal movements to said jaws.

2. A wrench comprising a shank provided with a longitudinally arranged channel and terminating in a casing with which said channel communicates, an actuating stem slidably disposed in said channel and provided with a threaded portion projecting therefrom, jaws working in said casing, guided thereby, and operable by said stem, a nut embracing said shank and stem and engaged with the threaded portion of the latter, said nut provided with an arcuate groove, and a set-screw projected through said groove and adapted for engagement with said shank.

1,074,161. WHEEL-GUARD FOR SAWMILL-CARRIAGES. WILLIAM T. CAMPEN, South Creek, N. C. Filed June 4, 1912. Serial No. 701,644. (Cl. 105—131.)

1. A guard for sawmill carriage wheels consisting of mating sections, and wear blocks secured between said sections at the ends thereof, the wear blocks having integral shoes extending under the ends of the sections and the sections being provided adjacent their ends on their lower edges with transverse stops against which the inner ends of said shoes abut.

2. A guard for sawmill carriage wheels comprising mating sections provided on their inner opposed faces with inclined abutting ribs at their ends and inwardly from said ribs with inclined shoulders diverging downwardly from the ribs and having transverse stops on their lower edges, and wear blocks secured between the ends of the sections and having shoes abutting the said transverse stops and extending therefrom under the lower edges of the sections to the outer ends thereof, said blocks bearing against the inclined ribs and having lateral lugs resting upon the said inclined shoulders.



3. A wear block for sawmill wheel guards comprising a shoe adapted to extend under the guard, a standard rising from the shoe and adapted to fit within the guard, and an inclined wear plate at the upper rear portion of said standard and projecting laterally beyond the sides of the same to be engaged by the periphery of the sawmill carriage wheel.

4. A wear block for sawmill wheel guards comprising a shoe adapted to extend under the guard, a standard rising centrally from the shoe and disposed longitudinally of the same, the lower portion of one end edge of the standard being vertical and flush with the corresponding end edge of the shoe and the opposite end edge of the standard being disposed short of the adjacent end of the shoe and inclined upwardly away therefrom, and lateral lugs on the sides of the standard adjacent the vertical end edge portion of the same and extending upwardly and inwardly from said portion toward the inclined edge of the standard.

5. A guard for sawmill carriage wheels comprising mating sections provided at their ends on their inner opposed faces with outwardly and downwardly inclined abutting ribs extending between the upper and lower edges of the sections and adjacent their ends on said faces with inclined shoulders diverging downwardly from said ribs, transverse ledges at the lower ends of said shoulders, vertical shoulders extending downwardly from said ledges and terminating in transverse stops below and extending under the lower edges of the sections, wear blocks comprising standards fitted between the sections and against said ribs and said vertical shoulders, lateral inclined lugs at the upper rear corners of the standards fitting against said inclined shoulders and having their lower ends resting on said transverse ledges, and shoes rigid with the lower ends of the standards extending under the lower edges of the sections and having their lower ends abutting the said transverse stops, and means for securing the sections and the wear blocks together.

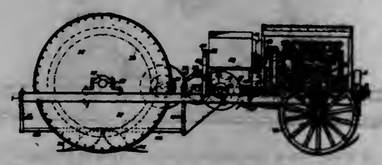
1,074,162. WINDOW-LOCK. ADOLPHUS CARRETTE, Los Angeles, Cal., assignor of one-half to Elizabeth M. Goodman, Los Angeles, Cal. Filed Apr. 7, 1913. Serial No. 759,325. (Cl. 16—18.)



A window lock, consisting of two members; one member comprising a rounded head having a screw hole; a dimension-piece extending from the head; a stop piece extending from the dimension piece there being a shoulder upon the lower end of the dimension piece at the junction with

the stop piece, said shoulder being slightly eccentric to the screw hole and the edge leading to the shoulder being rounded and the lower end of the stop piece being rounded; and the second member comprising an attaching plate, an off-set, and an arm; the rounded corner of the first member being adapted to engage said off-set.

1,074,163. MACHINE FOR EXCAVATING, ELEVATING, AND DUMPING EARTH, SAND, SILT, OR GRAVEL. WESLEY CASTLES, Melbourne, Victoria, Australia. Filed June 26, 1912. Serial No. 705,985. (Cl. 37—17.)



1. In a machine of the class described, the combination of an elevating and transport wheel, inwardly opening compartments arranged around the inner circumference of said wheel, and a shield for normally closing the inner openings of a number of said compartments, said shield being yieldable toward the center of the wheel, for the purpose specified.

2. In a machine of the class described, the combination of an elevating and transport wheel, inwardly opening compartments arranged around the inner circumference of said wheel, and a pair of shields for normally closing the inner openings of a number of said compartments, said shields being spaced apart at the upper and lower portions of the wheel and being yieldable toward the center of the wheel, for the purpose specified.

3. In a machine of the class described, the combination of an elevating and transport wheel, inwardly opening compartments arranged around the inner circumference of said wheel, a shield for normally closing the inner openings of a number of said compartments, a stationary member within said wheel, a plurality of rods extending between said shield and stationary member, and springs arranged on said rods, in order to render said shield yieldable toward the center of the wheel, for the purpose specified.

4. In a machine of the class described, a transport and elevating wheel having inwardly opening buckets or compartments arranged peripherally therein, the walls thereof radiating to the center of the wheels, a plate on the outside of and extending over the whole circumference of the rim of said wheels, the depth of the plate being sufficient to form one of the side walls of the said buckets or compartments, another plate covering the whole of the back of the wheel, a spur wheel attached to said latter plate by radiating beams, angle-iron strips also attached to the last-mentioned plate, and yieldable shields inside the transport and elevating wheel, all as and for the purpose described.

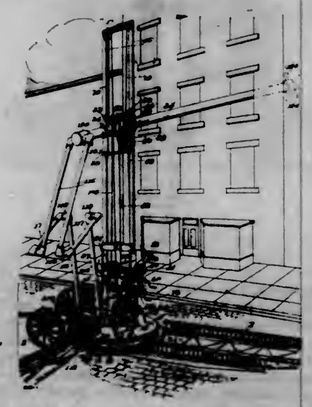
1,074,164. CURTAIN-POLE. ALICE M. CLARK, Ambridge, Pa. Filed May 24, 1912. Serial No. 699,588. (Cl. 156—19.)



1. A curtain fixture consisting of pole sections, each having one right-angularly bent end, brackets in which said ends are pivotally seated, said ends extending downwardly to form arms by means of which said sections may be rotated, knobs mounted on said bent portions to form outer ends for said sections, and the inner ends of said sections having over-lapping parts to form a continuous pole, a recessed bracket adapted to receive said overlapping portions and hold said sections against accidental movement.

2. A curtain fixture consisting of pole sections, each having one right-angularly bent end, brackets in which said ends are pivotally seated, said ends extending downwardly to form arms by means of which said sections may be rotated, knobs mounted on said bent portions to form outer ends for said sections and the inner ends of said sections having over-lapping parts to form a continuous pole, a recessed bracket adapted to receive said overlapping portions and hold said sections against accidental movement, said sections being loosely mounted in said first-named brackets so as to have vertical movement whereby said sections may be raised to be seated in or unseated from said recessed bracket.

1,074,165. FIRE-EXTINGUISHING APPARATUS. GEORGE J. COUTU, Lowell, Mass. Filed June 14, 1911. Serial No. 633,159. (Cl. 169—18.)



1. In apparatus of the class described, an upright, a support adjustable therealong, a water supply pipe slidably carried by the support, a drum, a cable connected to the support and wound upon the drum, a pulley upon the support, a winding device, cables connected to the water supply pipe near its opposite ends and trained over the pulley and connected with the winding device, a gear fixed with the drum, a gear fixed with the winding device, an operating shaft, a pinion carried thereby, a second operating shaft, a pinion carried by the last mentioned shaft and meshing with the first mentioned gear, and a pinion movable into mesh with the first mentioned pinion and last mentioned gear and movable also into mesh with the first mentioned gear.

2. In apparatus of the class described, a support, a winding drum, a cable connected to the support and to the drum to raise or lower the support when the drum is rotated in one direction or the other, a water supply pipe carried by the support, a second winding drum, a cable connected to the water supply pipe and wound upon the last mentioned drum and arranged, when the said last mentioned drum is rotated to move the pipe in the direction of its length upon the support, and means operable to rotate the first mentioned drum and simultaneously rotate the last mentioned drum to pay out or take up the last mentioned cable.

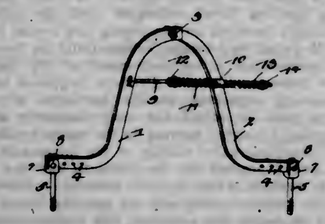
3. In apparatus of the class described, a support mounted for up and down adjustment, a winding drum, a cable connected with the support and wound upon the drum whereby to raise or lower the support when the drum is rotated in one direction or the other, a water supply pipe mounted upon the support, a second drum, a cable wound thereon and arranged upon rotation of said second mentioned drum to angularly adjust the support, and means for rotating the first mentioned drum and simultaneously rotating the last mentioned drum to pay out or take up the last mentioned cable.

4. In apparatus of the class described, a frame, rockers mounted in the frame, a drum supported by the rockers, a gear fixed for rotation with the drum, a second drum carried in the frame, a gear fixed for rotation therewith, a support, a water supply pipe carried by the support, the support being mounted for angular adjustment, cables wound upon the drums in opposite directions and operatively connected to the support, a shaft mounted in the rockers, a gear carried by the shaft, an operating pinion, a winding drum, a cable connected to the support and wound upon the drum, means for rotating the winding drum, and means for oscillating the rockers to move the first and second mentioned gears into mesh and the third mentioned gear into mesh with the last mentioned gear and out of mesh with the pinion, said means being operable to oscillate the rockers to move the first mentioned gear out of mesh with the second mentioned gear and the third mentioned gear out of mesh with the last mentioned gear and into mesh with the first mentioned gear and the pinion.

5. In apparatus of the class described, a base, an upright mounted thereon, a support vertically adjustable upon the upright, means upon the base connected with the said support for adjusting the same upon the upright, a head mounted for angular adjustment upon the support, means upon the base having operative connection with the head and operable to angularly adjust the same, a water supply pipe slidably mounted through the head, a pulley upon the support, cables wound upon the pulley and connected at their ends to opposite ends of the water supply pipe, and means upon the base for rotating the pulley.

[Claims 6 to 16 not printed in the Gazette.]

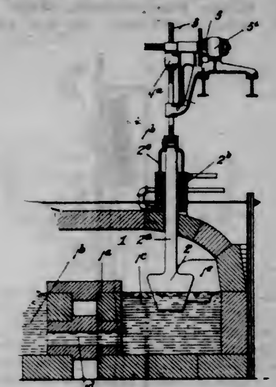
1,074,166. CULTIVATOR AND PLOW ATTACHMENT. ADELBERT W. DANIELS, Morrison, Ill. Filed Aug. 10, 1912. Serial No. 714,426. (Cl. 97—35.)



The combination with a pair of arch members pivotally united at their upper terminals, horizontal arms formed at the lower ends of the arch members, a guide formed intermediate one of the arch members, a threaded rod passing therethrough, stops adjustable upon said rod upon the opposite sides of one of the arch members, springs disposed upon the rod and engaging the stops and guide carried by one of the arch members, the opposite end of the rod being offset and extended through an opening provided intermediate the ends of the opposing arch member, and fastening means extended through the offset portion of the rod, the said rod and springs being spaced below the pivotal point of the arch member.

1,074,167. MEANS FOR MAINTAINING A CONSTANT WORKING LEVEL IN GLASS-FURNACES. ARTHUR L. DAY, Washington, D. C., assignor to Empire Machine Company, Portland, Me., a Corporation of Maine. Filed Feb. 6, 1912. Serial No. 675,897. (Cl. 49—56.)

1. In a glass furnace, the combination with a furnace having separate melting and gathering pools communicating with each other by a restricted passage, of means actuated by a temporary variation of glass level in the gathering pool to vary the glass capacity of the gathering pool at a rate in excess of the discharge capacity of the restricted passage, whereby the glass in the gathering pool will be restored to normal level.



2. In a glass furnace, the combination with a furnace having separate melting and gathering pools communicating with each other by a restricted passage, of a displacement block, and means actuated by a temporary variation of level in the gathering pool to raise or lower the block in the glass therein, to effect a variation in the capacity of the gathering pool at a rate greater than the discharge capacity of the restricted passage whereby the glass in the gathering pool will be restored to normal level.

1,074,168. BOTTLE CAP AND POURER. ABRAHAM FEINSTEIN, Cincinnati, Ohio. Filed Apr. 22, 1913. Serial No. 762,814. (Cl. 215—34.)



1. A bottle cap and pourer, comprising a cover plate, two concentric flanges depending from said plate in position to receive the bottle mouth between them, said plate having a central outlet opening, a strainer held across said opening, a spout extending from said plate partially around said opening, and a flat closing device pivoted to the plate outside of said spout having a closing portion conforming in shape and size to the inner contour of the spout at its junction with said plate and provided with a recess which embraces one side of the spout when closed, thence terminating in a handle extending outward in position to be operated by the hand which is holding the bottle.

2. A bottle cap and pourer, comprising a cover plate, two concentric flanges depending from said plate in position to receive the bottle-mouth between them, said plate having a central outlet-opening, a piece of strainer material, a ring 12 clamping the edges of said piece against the inner of said two flanges with the body of the piece held stretched over the ring close to said opening, an external oblique spout extending from said plate about three sides of the opening, and a flat closing device pivoted to the plate outside of said spout, having a closing portion conforming in shape and size to the inner contour of the spout at the plate about the opening and provided with a slit 10 which embraces one side of the spout when closed, and

thence terminating in a handle extending laterally slightly beyond the edge of the cover plate in position to be operated by the hand which is holding the bottle.

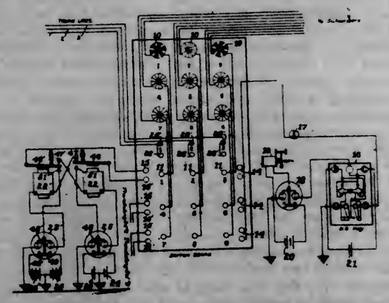
1,074,169. ANTISEPTIC TOOTH-BRUSH RECEPTACLE. ERNEST FOWLER, Seattle, Wash. Filed Aug. 27, 1912. Serial No. 717,268. (Cl. 132—11.)



1. An antiseptic receptacle of the character described comprising a body open at its lower end, a hinged closure for the open lower end of said body, and a carrier for disinfecting material comprising an absorbent member secured to said closure and formed in its upper face with a depression, adapted to normally have one end portion of a tooth brush engaged therein.

2. An antiseptic receptacle of the character described comprising a body closed at its upper end, the lower end of said body being open, a closure for the open end of said body, a hinge swingingly connecting said closure with said body, one leaf of said hinge extending across said closure and having its free end portion formed into a spring catch, a lip on said body adapted to be engaged by the free end portion of said hinge leaf, and a carrier for disinfecting material secured to said closure and adapted to normally support the object being disinfected.

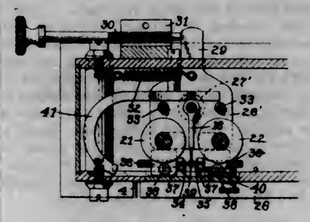
1,074,170. TELEGRAPHIC SYSTEM. JOHN GELL, London, England. Filed Dec. 21, 1910, Serial No. 598,557. Renewed Feb. 21, 1913. Serial No. 750,041. (Cl. 178—45.)



1. A telegraphic system comprising exchanges, trunk line connections between said exchanges, local subscribers' connections at each exchange, transmitting and receiving instruments at each subscriber's station, translating sets at each exchange, each set including a large and small battery and a relay for connecting the large battery with the trunk line at the sending station, and a relay for connecting the small battery with the local line at the receiving station, and batteries at the subscriber's station corresponding substantially in current intensity to the small batteries.

2. A telegraphic system comprising exchanges, trunk line connections between said exchanges, local subscribers' connections at each exchange, transmitting and receiving instruments at each subscriber's station, translating sets at each exchange, each set including a large and small battery, and a relay for connecting the large battery with the trunk line at the sending station, and a relay for connecting the small battery with the local line at the receiving station, electro-magnetic switches controlling the relays of the large and small batteries of the translating sets, said switches having sluggish magnets to maintain contact and be unaffected by the more rapid alternations of current from the relays, substantially as described.

1,074,171. RECEIVER FOR AUTOMATIC TELEGRAPHIC SYSTEMS. JOHN GELL, London, England. Filed Jan. 30, 1911, Serial No. 605,655. Renewed Feb. 21, 1913. Serial No. 750,043. (Cl. 178—46.)



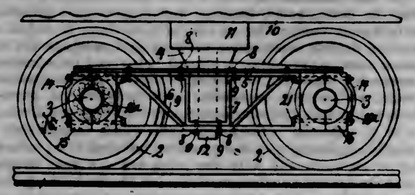
1. In combination in an instrument of the class described, a frame or casing, supporting means journaled in the casing, electro-magnets carried by said supporting means, an armature shaft journaled in the supporting means, a marking wheel connected with the armature shaft, contacts mounted on the casing and means for adjusting the supporting means, substantially as described.

2. In combination in an instrument of the class described, a frame or casing, a platform journaled therein, electro-magnets supported on the platform, an upper bracket, a plate to which the electro-magnets are attached having a journal bearing in the upper bracket, an armature shaft journaled axially of the upper and lower bearings and supported by the platform and the upper bearing, a marking wheel, a shaft therefor, a connection between the armature shaft and the marking wheel shaft, means for adjusting the platform, and contacts mounted on the frame, substantially as described.

3. In combination in an instrument of the class described, a casing or frame, a platform journaled therein, electro-magnets on the platform, an upper plate connected with the magnets and having a journal axially in line with the lower journal of the platform, an upper bracket having a bearing for the upper journal, an armature shaft journaled in the platform and in the upper bracket and axially in line with the journals thereof, said platform having an extension, an adjusting screw acting thereon for adjusting the platform and contacts or stops mounted on the casing coöperating with a contact or a stop on the armature shaft.

4. In combination a frame or casing, electro-magnets, a support therefor having trunnions by which the support may be turned, an armature shaft journaled axially in line with said trunnions, a marking wheel, a connection between the armature shaft and the marking wheel, stops or contacts on the frame, and a stop or contact on the armature shaft to engage the stops or contacts on the frame, and means for adjusting the support of the magnets, substantially as described.

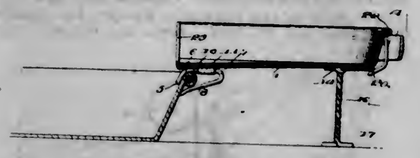
1,074,172. CAR-AXLE JOURNAL-BOX WITH INDEPENDENT SUPPORTING AND PULLING ROLLERS. ELMER W. GRAGERT, Minneapolis, Minn. Filed Sept. 16, 1912. Serial No. 720,711. (Cl. 105—135.)



1. The combination with a carrying axle and supporting wheels fixed on the same, of roller bearings embracing the axle, one of said roller bearings supporting the load carried by the axle, and the other roller bearing acting on the axle to actuate it and the wheels and the load in horizontal directions.

2. The combination with carrier wheels, of an axle fixed therein, a truck supported by the axle and adapted to carry a load and to move the axle and wheels, of roller bearings carried by the truck and comprising a journal box rollers engaging the axle exclusively for supporting the truck, and other rollers engaging the axle exclusively for moving it forward or backward in horizontal directions, each of said rollers when in action having one side in contact with the axle and its opposite side in rolling contact with the inner side of the journal box.

1,074,173. DISH-DRAINER. EDWIN G. HINES, Drums, Pa. Filed July 15, 1912. Serial No. 709,470. (Cl. 141—11.)



1. In a device of the class described, a pan, an attaching clip adjustable upon the bottom of the pan toward and from the forward edge thereof, and supporting means for the pan.

2. In a device of the class described, a pan, an attaching clip slidably adjustable upon the under side of the pan whereby the pan may be arranged to project a greater or less distance over the edge of a dish-pan with which the clip is engaged, and means for supporting the drainer pan.

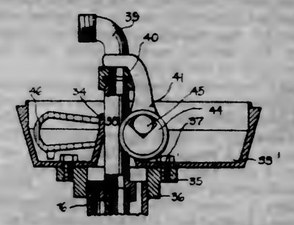
3. In a device of the class described, a pan, and means carried thereby for attaching the same to a dish-pan, said means including sleeves secured upon the under side of the pan, and a clip formed from a single length of wire bent between its ends to form spaced portions and having its said spaced portions slidably fitted within the sleeves and bent adjacent its first mentioned bend, whereby to form a portion projecting downwardly at an angle from the said spaced portions, the said spaced portions being further bent to form spaced downwardly projecting fingers having their engaging portions spaced from the first mentioned engaging portion of the clip.

4. In a device of the class described, a pan, supporting legs therefor, means connecting the legs and mounted for rocking movement upon the pan, an arm carried by the said connecting means and arranged, when the legs are in supporting position, to bear against the pan, and means for holding the legs in such position.

5. In a device of the class described, a pan, supporting legs therefor, means connecting the legs and mounted for rocking movement upon the pan, an arm carried by the said connecting means and arranged, when the legs are in supporting position, to bear against the pan, and a bail for holding the legs in such position.

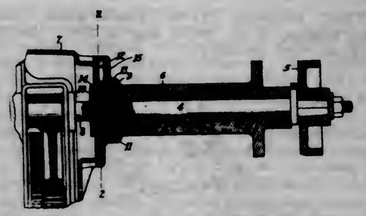
[Claim 6 not printed in the Gazette.]

1,074,174. WATER CONNECTION. LOUIS J. HOLSAPFEL, Nashville, Tenn. Filed May 31, 1913. Serial No. 771,019. (Cl. 137—13.)



A device of the class described including a main pipe, a hollow casting connected therewith, a pipe connected with the upper end of the casting, an outlet pipe arranged within the first pipe and having valve controlled communication with the main pipe, a nozzle removably secured to the upper end of the outlet pipe, a spigot removably mounted upon the upper end of the nozzle, a body member mounted upon the upper end of the second pipe, a transverse shaft carried by the body member, a cam mounted upon the shaft, a yoke mounted upon the cam and having spaced arms adapted to be arranged upon opposite sides of the spigot whereby upon the rotation of the cam the yoke will force the outlet pipe downwardly and open communication with the main pipe.

1,074,175. LOCKING MECHANISM. WINTHROP K. HOWE, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Original application filed May 19, 1909, Serial No. 497,125. Divided and this application filed May 28, 1910. Serial No. 564,017. (Cl. 74—5.)



1. Locking mechanism having, in combination, a stationary support, two members coaxially journaled in said support and constituting, respectively, a driving member and a driven member, driving connections between said members having provision for lost motion, and a bolt carried by the support and slidable therein, said bolt having a locking engagement with the driven member and a releasing engagement with the driving member.

2. Locking mechanism having, in combination with two shafts arranged in alinement, a stationary support for the shafts, a coupling for the shafts engageable by relative longitudinal movement of the shafts and comprising two rotative members fixed to the adjacent ends of the shafts and connected with provision for lost motion between them, and a locking device carried by said support and slidable therein, said device having a locking engagement with one coupling-member and having a releasing engagement with the other coupling-member.

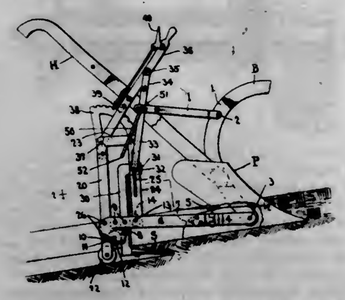
3. Locking mechanism having, in combination, a stationary support, two members coaxially journaled in said support and constituting, respectively, a driving member

and a driven member, said members having, respectively, bolt-engaging surfaces arranged at an angle to each other, driving connections between said members having provision for lost motion, and a locking bolt movable transversely of the axes of said members and carried by said stationary support and engageable with both of said bolt-engaging surfaces, the bolt being constrained by its connection with the stationary support to move substantially in the direction of the plane of the one of said surfaces on the driven member, so as to have a positive locking engagement therewith and to be moved out of said engagement by the wedging action of the bolt-engaging surface on the driving member when said member is moved relatively to the driven member.

4. Locking mechanism having, in combination, a stationary support, two shafts coaxially journaled in said support and constituting, respectively, a driving-shaft and a driven-shaft, a clutch connecting the adjacent ends of said shafts and comprising a disk on the end of each shaft, one of said disks having in its periphery a recess with a radial locking surface, and the other disk having in its periphery a recess with an inclined surface, and a spring-pressed locking-bolt slidingly mounted in the fixed support to move transversely of said shafts and having, at one end, a square locking projection to engage the first of said recesses, and an inclined releasing-surface to engage the inclined surface in the other of said recesses, whereby the bolt locks one of said disks against rotation until the other disk is turned by the driving-shaft to cause the inclined surfaces to force the bolt out of engagement with the locking-surface.

5. The combination of a rotatably mounted shaft section, a second rotatably mounted shaft section arranged in longitudinal alinement with the first section, a clutch connection between the two shaft sections, whereby the second one may have a limited rotary movement independent of the first, opposing disks fixed to the two shaft sections, the disk on the first shaft section having a catch-receiving seat and the disk on the second shaft section having a seat formed with an inclined or cam surface and adapted to be brought into register with said catch-receiving seat, and a catch adapted to enter said catch-receiving seat and having an inclined portion to enter said seat having the inclined or cam face.

1,074,176. SUBSOIL-PLOW. JAMES ALLEN HUGGINS, Red Springs, N. C. Filed Aug. 2, 1912. Serial No. 712,936. (Cl. 97—32.)



1. In a plow, the combination with the beam, point, handles, and braces; of a subsoiler and its standard, a tongue connected with said standard and with the beam and having a hinge within its length, and a bail connecting said handles and loosely engaging the subsoiler to permit the latter to swing from side to side.

2. The combination with a main plow structure including the beam, point, handles, and braces; of a subsoiler attachment comprising a carriage mounted on a shoe, a tongue connected with the carriage and pivotally connected with said beam, a hinge within the length of the tongue for permitting the carriage to swing from side to side, the subsoil point and standard, means for adjusting the standard vertically within said carriage, and a bail connecting said handles and loosely engaging through the carriage, for the purpose set forth.

3. The combination with a main plow structure including the beam, point, handles, and braces; of a subsoiler attachment comprising an upright carriage mounted on a shoe, flexible connections between said carriage and the lower end of the beam, a subsoil point and its standard, means for adjusting the latter vertically within said carriage, and a bail connecting said handles and passing loosely through the carriage, for the purpose set forth.

4. A subsoiler attachment for plows comprising a tongue consisting of a front member adapted to be connected at its front end with the plow beam, a rear member made in spaced parallel parts having blocks between their front ends, and a hinge connecting said members and whose pintle is upright; a carriage secured to said rear member and having upright guides, the subsoil plow point, its standard moving between the parts of said rear member and its upper end turned forward and moving within said guides, and means for adjusting it vertically.

5. A subsoiler attachment for plows comprising a tongue consisting of a front member adapted to be mounted on a horizontal pivot at its front end connecting it with the plow beam, a rear member made in spaced parallel parts having downturned rear ends, blocks between their front ends, and a hinge whose front leaf is connected with said front member and its rear leaf with said rear member and whose pintle is upright; a substantially upright carriage secured between the rear ends of said rear member and having upright guides, the subsoil plow point, its standard moving between the parts of said rear member and within said guides of the carriage, and means for adjusting it vertically.

[Claims 6 to 9 not printed in the Gazette.]

1,074,177. FILM-TENSIONING DEVICE FOR MOVING-PICTURE MACHINES. CHARLES HUNTOON, WILLIAM C. ROLFES, and WALTER L. WRIGHT, Los Angeles, Cal. Filed Oct. 31, 1911. Serial No. 657,882. (Cl. 88—17.)



1. In a moving picture machine, an aperture plate, independently actuated film engaging members disposed in series on each side of the aperture of said plate, each of said members being independently movable toward or from the plate and each independently and resiliently urged toward said plate.

2. In a moving picture machine, an aperture plate formed with longitudinally extending, parallel tracks on one face and a plurality of independently actuated parallel film engaging members disposed on each side of the aperture of said plate, each member being independently movable toward or from said tracks and each independently and resiliently urged toward said tracks.

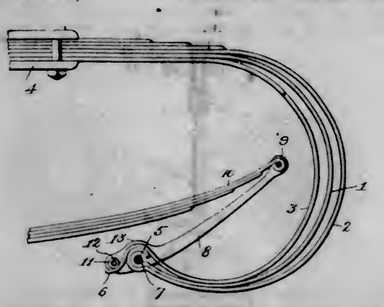
3. The combination with oppositely disposed, parallel apertured members spaced from each other for the passage of a photographic film, of a plurality of spring actuated film engaging rollers mounted upon one of said members on each side of the aperture thereof, each of said rollers being independently movable toward or from the opposite member and each of said rollers being independently and resiliently urged toward the other member.

4. In a moving picture machine, parallel apertured members spaced from each other for the passage of a film, a plurality of film engaging members mounted on each side of the aperture of one of said apertured members, each of said film engaging members being independently movable toward and from the opposed apertured member and independently and resiliently urged toward said member, and including, each an antifriction roller mounted thereon.

5. In a moving picture machine, parallel, oppositely disposed apertured members spaced from each other for the passage of a film, a plurality of independent film engaging members carried on one of said apertured members and disposed on each side of the aperture thereof, each of said film engaging members comprising an arm pivotally mounted upon the apertured member, an antifriction roller carried by the free end of said arm, and a spring acting to force the arm outward.

[Claims 6 to 8 not printed in the Gazette.]

1,074,178. VEHICLE-SPRING. LEWIS A. HUSTON, New York, N. Y. Filed July 28, 1913. Serial No. 781,582. (Cl. 21—50.)



1. A scroll spring for vehicles, embodying nested spring leaves gradually separating toward their centers, and formed at their outer ends with eyes that interlock to connect said ends with each other.

2. A scroll spring for vehicles, embodying nested spring leaves gradually separating toward their centers and formed at their outer ends into eyes that interlock to connect said ends to each other, and a leaf spring resiliently supporting said spring leaves from said interlocking eyes.

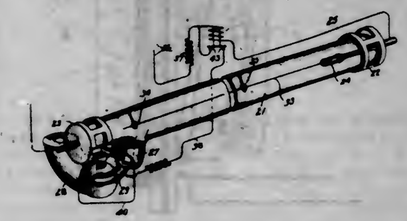
3. A scroll spring for vehicles, embodying nested spring leaves brought together at their ends and gradually separating toward their centers and formed at their outer ends into eyes that interlock to connect said ends to each other, and a leaf spring resiliently supporting said spring leaves from said interlocking eyes.

4. A scroll spring for vehicles, embodying nested spring leaves gradually separating toward their centers and formed at their outer ends into eyes that interlock to connect said ends to each other, a bracket link pivoted to said interlocking eyes, and a leaf spring resiliently supporting said bracket link.

5. A scroll spring for vehicles, embodying nested spring leaves gradually separating toward their centers, and formed at their outer ends with eyes that interlock to connect said ends with each other, a bracket link pivoted to said interlocking eyes intermediate its length, a tongue forming a continuation of one of said spring leaves and frictionally engaging the outer end of said bracket link to support and cushion the same, and a leaf spring resiliently supporting said bracket link.

[Claim 6 not printed in the Gazette.]

1,074,179. VAPOR ELECTRIC APPARATUS. ALEXANDER M. JACKSON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 8, 1904. Serial No. 202,149. (Cl. 176—49.)



1. In a vapor electric apparatus, the combination of a tubular exhausted envelop, a pivotal mounting for the tube permitting it to rotate about the axis of the tube, electrodes in the tube adapted when the tube is rotated to make or break initial electrical connection with each other, and electro-magnetic means for producing a partial rotation of the tube or envelop.

2. In a vapor electric apparatus, the combination of an exhausted envelop or container, a pivotal support for each end of the container, an electro-magnet for turning said container on its pivots, and electrodes in said container or envelop one at least of which electrodes is fluid.

3. In a vapor electric apparatus, the combination of a pivotally mounted envelop or container, electrodes therefor one at least of which is fluid, and a filament extending from one electrode and positioned to make and break contact with the fluid electrode when said apparatus turns on its pivot.

4. In a vapor electric apparatus, the combination of an envelop or container, supports for the respective ends of said container such as to permit rotation thereof, electrodes in said container, one at least of which is of fluid material, a filament dipping at one end into said fluid when the container is in the starting position, and a magnet for rotating said container and thereby causing separation between said filament and said fluid.

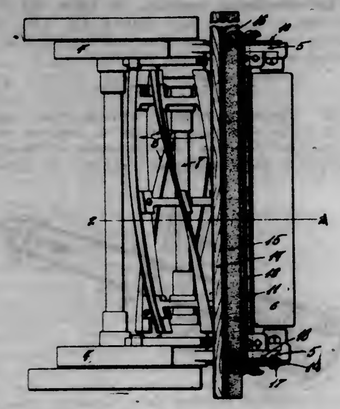
5. In a vapor electric apparatus, the combination of a pivotally mounted envelop or container, electrodes therefor, one at least of which is fluid, a filament extending from one electrode positioned to be in contact with the fluid electrode in one position of the container and means for partially rotating the container thereby withdrawing the fluid electrode from contact with the filament.

1,074,180. LAWN-MOWER SHARPENER. MIKKEL JOHANSEN, Maplewood, Mo. Filed Dec. 9, 1912. Serial No. 735,670. (Cl. 51—8.)

1. In a lawn mower sharpener, a pair of plates, tie-rods for securing said plates to the frame members of the mower, rearwardly and upwardly inclined rods carried by said plates, a sharpening element having openings adjacent its ends carried by said rods, nuts secured to said rods and springs arranged between said sharpening element and said nuts, and openings through said sharpening element having greater diameters than the diameters of said rods, substantially as shown and for the purposes stated.

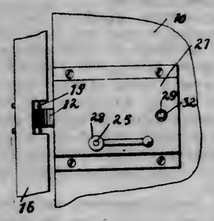
2. In a lawn mower sharpener, a pair of supports, means for detachably securing the supports to the lawn mower, a rigid sharpening element arranged to be carried by said supports in such manner as to permit of a free tangential

movement relative to the arc of travel of the rotating blades of the mower, and means for exerting a yielding



pressure to the sharpening element in the direction of the rotating blades.

1,074,181. GATE LATCH AND LOCK. THEODORE L. JOHNSON, Emmetsburg, Iowa. Filed Mar. 18, 1913. Serial No. 755,203. (Cl. 70—28.)



1. A gate latch comprising independently repressible spring-pressed bolts carried by the gate, a rotatable element carried by the gate, and means carried by the bolt engaged by said element during the rotation thereof for effecting the simultaneous retraction of the bolts.

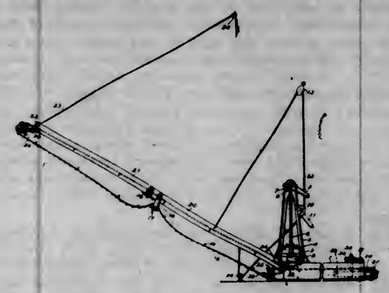
2. A gate latch comprising guides mounted on opposite sides of the gate, independently movable bolts slidably mounted in the guides, springs for holding the bolts in projected position, lugs carried by the bolts, a shaft rotatably mounted in the gate, and lugs carried by the shaft for engagement with the bolt carried lugs to retract the bolts simultaneously.

3. A gate latch comprising independently slidable spring-pressed bolts mounted on the gate, means operable from either side of the gate for retracting the bolts simultaneously, a keeper mounted for engagement by the bolts and confinement therebetween, and means operable from either side of the gate for locking the bolts against movement.

1,074,182. CONVEYER. NELS P. JORGENSON, Waterloo, Iowa, assignor of one-half to John Goulette, Mason City, Iowa. Filed June 10, 1912. Serial No. 702,802. (Cl. 198—8.)

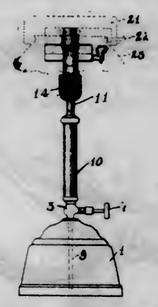
1. In a conveyer, a horizontal fixed integral body longitudinally troughed at top and bottom, a movable endless chain passed about said body within both troughs and spaced apart therefrom, scraper-blades fitting the interior of the upper trough and movable therethrough longitudinally to scrape its bottom and adapted to return through said lower trough, said blades being secured fixedly to links of said chain on their inner faces.

2. In a conveyer, a fixed body provided on its upper face with upstanding fixed integral spaced apart walls to provide an open-ended longitudinal trough therebetween, and having integral depending spaced apart walls to provide a downwardly-opening open-ended trough on its under side opposite the uppermost trough, an endless movable



chain passed about said body within said troughs and spaced apart therefrom medially, and scraper-blades secured to inner faces of links of said chain and depending toward the bottom of the upper trough and adapted to fit the trough and scrape over its bottom and to return within the lower trough.

1,074,183. INVERTED HYDROCARBON-LAMP. JAY F. LAWRENCE, Chicago, Ill. Filed Aug. 30, 1911. Serial No. 646,801. (Cl. 67—50.)



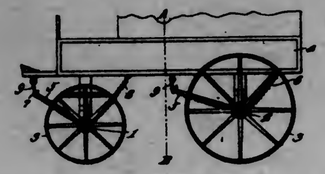
1. In a device of the class described a horizontally disposed casing, a mixing chamber therein, burner arms depending downwardly on each side of said casing and integral therewith, and a vaporizing passage in said casing beneath said mixing chamber adapted to communicate with a source of fuel at a centrally disposed opening in the lower wall of said casing.

2. In a device of the class described a horizontally disposed casing, a mixing chamber extending for the whole length longitudinally therein, a vaporizing passage beneath the same extending for half the length thereof, a needle valve intervening between said passages, and a pair of burners integral with said casing and depending below the same in a plane perpendicular to the axis thereof.

1,074,184. WAGON-JACK. WILLIAM M. LEWIS, Norfolk, Va. Filed Apr. 25, 1913. Serial No. 763,683. (Cl. 57—15.)

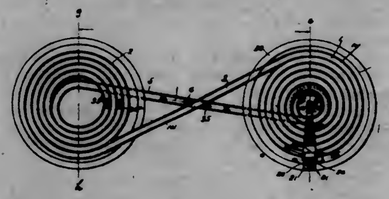
1. The combination with a vehicle body and a wheel supported axle connected thereto, of a bail-like jack mounted to swing upon the axle, an elongated coiled spring secured at one end to the free end of the jack and extending loosely under the axle and secured at its other end to the vehicle, said spring constituting means for drawing

the jack downwardly into contact with the supporting surface and for shifting it rearwardly past its center of gravity when the vehicle is raised, a stop device upon the axle for limiting the rearward movement of the jack past its center of gravity, and a fastening device for engaging the jack to hold it in inactive position.



2. The combination with a vehicle body and wheel supported axles connected thereto, of a bail-like jack mounted to swing upon each axle, means upon the free end of each jack for engaging the surface on which the vehicle is mounted, a spring extending under each axle and secured at one end to the adjacent jack and at its other end to the vehicle, fastening devices for engaging the jacks and holding them inactive, said springs constituting means for shifting the jacks, when released, downwardly into contact with the supporting surface and for shifting said jacks rearwardly past their centers of gravity when the vehicle is elevated, and a stop device upon each axle for engagement by the adjacent jack to limit the rearward movement of the jack.

1,074,185. PLEASURE-RAILWAY. HORACE A. LOCKWOOD, Kansas City, Mo. Filed Jan. 16, 1913. Serial No. 742,409. (Cl. 104—111.)



1. In a railway, a spiral car track, revolving means for propelling a car along said track, a motor carried by said revolving means, and means actuated by the motor for revolving said revolving means.

2. In a railway, a spiral track, a circular track, revolving means for propelling a car along the spiral track, a driving wheel running upon said circular track and movable with said revolving means, and means for rotating said driving wheel.

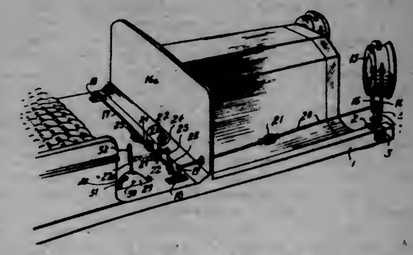
3. In a railway, a spiral car track, revolving means for propelling a car along said track, a driving wheel, a motor carried by said revolving means, actuating means connecting the motor and driving wheel, and means by which the revolving means is revolved when the driving wheel is rotated.

4. In a railway, a spiral track, a circular track, revolving means for propelling a car along the spiral track, a driving wheel running upon the circular track and movable with the revolving means, a motor carried by said revolving means, and means actuated by the motor for driving the driving wheel.

5. In a railway, a spiral car track, a vertical shaft in the axis of said track, a revoluble member carried by said shaft and extending across said track for propelling a car along said track, a driving wheel movable with said member, and means carried by said member for driving said driving wheel.

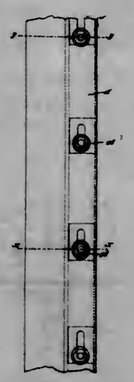
[Claims 6 to 16 not printed in the Gazette.]

1,074,186. LAMP-ADJUSTING MECHANISM. NELSON MAXFIELD, Malone, Tex. Filed Mar. 18, 1913. Serial No. 753,943. (Cl. 240—61.)



In a device of the character described, the combination with an automobile lamp pivoted to rotate about a vertical axis, of a rock shaft mounted upon the floor of the automobile transverse thereof, an arm fast upon one extremity of said rock shaft, an extensible rod extending from said arm to the lamp adapted to communicate a partial rotation to the lamp when the rock shaft is actuated, a pair of foot pedals rigidly carried by the rock shaft and adapted to actuate the same oppositely, and a friction brake mechanism for holding the rock shaft against accidental displacement in any position of adjustment.

1,074,187. MEANS FOR RELEASING THE FASTENINGS OF METALLIC PARTS IN CASE OF FIRE. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Nov. 20, 1907. Serial No. 402,959. (Cl. 189—45.)



1. In a structure of the kind described, the combination including a pair of parallel metallic bars perforated transversely to receive shanked fastening devices, the perforation in one of said bars having a diameter sufficiently larger than the shank of the fastening device to permit without distortion different rates of longitudinal expansion of the bars when they are subjected to a rise of temperature, shanked fastening devices extending transversely through said bars at said perforations, and disintegrable washers securing said bars with reference to said fastening devices.

2. In means of the kind described, the combination of two parts, one of which is a metallic bar subject to longitudinal expansion by heat, said bar being provided with a hole for the passage of a bolt sufficiently large to permit longitudinal expansion of the bar transversely of the

bolt without buckling, a bolt in such hole, and means associated with the bolt and bar for normally restricting their movement with reference to each other, said means adapted to be disintegrated by a dangerous rise of temperature to release the bar for longitudinal expansion.

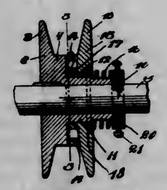
3. In means of the kind described, the combination of two parts, one of which is a metallic bar subject to longitudinal expansion by heat, said bar being provided at one point with means for holding the same, and at another point with a hole for the passage of a bolt, said hole being sufficiently large to permit longitudinal expansion of the bar transversely of the bolt without buckling, and means associated with the bolt and bar for normally restricting their movement with reference to each other, said means adapted to be deformed by a dangerous rise of temperature to release the bar for longitudinal expansion by the rising temperature.

4. In means of the kind described the combination of two parts, one of which is a metallic bar subject to longitudinal expansion by heat, means for holding the bar at one point, a securing member for said bar at another point adapted to permit longitudinal expansion of the bar but prevent substantial lateral movement thereof, and thermally controlled means associated with the securing means and bar to permit the tight securing of the bar by the securing means, said thermally controlled means being adapted to be deformed by a dangerous rise of temperature to release the bar for longitudinal expansion by the rising temperature.

5. In means of the kind described, the combination of two parts, one of which is a metallic bar subject to longitudinal expansion by heat, means for holding the bar at one point, a securing member for said bar at another point adapted to permit longitudinal expansion of the bar but prevent substantial lateral movement thereof, said securing member being adapted to withstand a dangerous rise of temperature, and thermally controlled means associated with the securing member and bar to permit the tight securing of the bar by the said securing member, said thermally controlled means being adapted to be deformed by a dangerous rise of temperature to release the bar for longitudinal expansion.

[Claim 6 not printed in the Gazette.]

1,074,188. EXPANSIBLE PULLEY. JAMES H. McGLYNN, Wilkes-Barre, Pa. Filed Jan. 6, 1912. Serial No. 669,837. (Cl. 64—8.)



In a device of the class described, the combination with a shaft having a pair of threaded sockets therein at diametrically-opposite points thereon; of a pulley section keyed to the shaft and having a sleeve formed integral therewith, a key formed on the outer periphery of said sleeve, a longitudinally movable pulley section applied to said sleeve and provided on its inner periphery with a key-way to receive the aforesaid key therein, the inner face of said movable pulley section being hollowed to provide a pair of spaced concentric flanges to contact with the inner face of the first mentioned pulley section, the outer face of said movable pulley section being provided with a recess, a washer disposed in said recess, a collar applied to the outer end of the sleeve on said first mentioned pulley section, set screws extending through said collar and sleeve to engage the threaded sockets in the shaft to simultaneously secure the collar on said sleeve and the sleeve on said shaft, and a coil spring encircling said sleeve between said collar and washer on the movable pulley section to normally retain the latter in engagement with the rigid pulley section.

1,074,189. HAY-CARRIER. D D MILLER and DAVID E. ROWLAND, Canton, Ohio; said Rowland assignor to The Ney Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed June 10, 1911. Serial No. 632,417. (Cl. 212—110.)



1. A hay carrier provided with a main sheave having its general plane coincident with the vertical, median longitudinal plane of said carrier, an elevating rope connected to said carrier and passing over said sheave, and forming a fall, and a portion of said carrier located below said sheave and constituting guiding means for the two parts of said fall for maintaining the same in substantially transverse position.

2. A hay carrier adapted to run upon a track, said hay carrier provided with a main sheave, an elevating rope connected to said carrier and passing over said sheave, said elevating rope forming a fall, the general plane of said fall being transverse to said track and a portion of said carrier extending below said sheave and constituting guiding means for the two parts of said fall for maintaining the same in said transverse position.

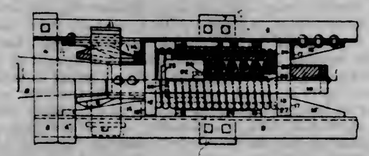
3. A transverse-fall hay carrier provided with means for the attachment of one end of the elevating rope substantially in the median, vertical, longitudinal plane of the carrier, an elevating rope having one of its ends attached to said means, said rope forming a fall transverse to the median, vertical, longitudinal plane of the carrier, a main sheave having its general plane coincident with the median, vertical, longitudinal plane of the carrier, said elevating rope passing over said sheave and extending longitudinally from said carrier, and a portion of said carrier located below said sheave and constituting guiding means for maintaining the two parts of said fall in said transverse position.

4. A transverse-fall hay carrier provided with means for the attachment of one end of the elevating rope substantially in the median, vertical, longitudinal plane of the carrier, an elevating rope having one of its ends attached to said means, said rope forming a fall transverse to the median, vertical, longitudinal plane of the carrier, a main sheave having its general plane substantially coincident with the median, vertical, longitudinal plane of the carrier, said elevating rope passing over said sheave, and a guiding frame provided with two apertures, said apertures adapted to accommodate the two sides of the fall of the elevating rope, said guiding frame located below said rope attaching means and said main sheave and adapted to maintain said fall in said transverse position.

5. A hay carrier, an elevating rope connected to said carrier and forming a fall, and a portion of said carrier located below the main body thereof and constituting guiding and separating means receiving the two sides of said fall for maintaining the same in a transverse plane with respect to the longitudinal median plane of the carrier.

[Claims 6 to 10 not printed in the Gazette.]

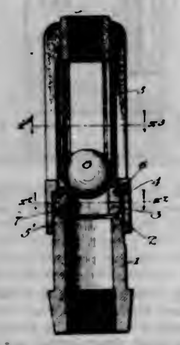
1,074,190. RAILWAY DRAFT-RIGGING. WILLIAM H. MINER, Chicago, Ill. Filed Feb. 24, 1913. Serial No. 750,163. (Cl. 213—64.)



1. In a draft rigging, in combination, followers, a shell between the followers, compression resisting mechanism within the shell, a spring inclosing the shell, said spring being seated between the followers.

2. In a draft rigging, in combination, followers and a shell, compression resisting mechanism within the shell, a spring inclosing the shell, said spring being forwardly seated against the front follower and adapted to yield on movement of the draw bar before compression of the mechanism within the shell.

1,074,191. VALVE-SEAT. JOHN HENRY MIXER, Shale, Cal. Filed June 20, 1912. Serial No. 704,930. (Cl. 103—66.)



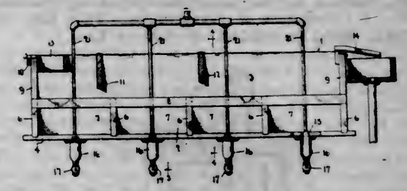
1. A pump valve seat comprising a tubular valve body provided with a flaring ring face, a metal valve seat ring having tapered peripheral lower and upper faces and a member having a shoulder provided with a flaring ring face binding on the valve seat ring.

2. A pump valve seat comprising a tubular valve body and provided with a flaring ring face, a metal valve seat ring having curved peripheral lower and upper faces and a member having a shoulder provided with a flaring ring face binding on the valve seat ring.

3. A valve seat for a standing valve well pump comprising a tubular valve body having means at its lower end, for securing it to a working barrel, and provided with a flaring ring face and a screw thread at its upper end, a metal valve seat ring having tapered peripheral lower and upper faces and a clamping cage having a screw thread working on the screw thread of the valve body and a shoulder provided with a flaring ring face binding on the valve seat ring.

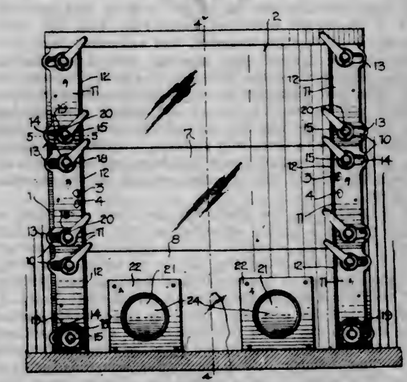
4. A valve seat for a standing valve, well pump comprising a tubular valve body having means at its lower end for securing it to a working barrel and provided with a flaring ring face and a screw thread at its upper end, a metal valve seat ring having curved peripheral lower and upper faces and a clamping cage having a screw thread working on the screw thread of the valve body and a shoulder provided with a flaring ring face binding on the valve seat ring.

1,074,192. SLIME-DEWATERING GRAVITY DEVICE. IRA F. MONELL, Boulder, Colo. Filed June 6, 1912. Serial No. 702,103. (Cl. 83—82.)



A pulp classifying and slime thickening apparatus comprising a tank having a long narrow settling chamber divided into a plurality of compartments each of which has an opening in its bottom, the upper end of said narrow chamber merging into a flaring current chamber, the opening between said current chamber and settling chamber being reduced, a plurality of baffle boards depending into said current chamber and arranged over the compartments of the settling chamber, the board nearest the inlet end of the current chamber being longer than the others, hydraulic pipes having their discharge ends arranged directly above the entrance to the openings in the compartments of the settling chamber and means for restricting the capacity of said openings.

1,074,193. GRAIN-CAR DOOR. ANDREW G. OLSON and JOHN A. DOLS, Elbow Lake, Minn. Filed Jan. 29, 1913. Serial No. 745,040. (Cl. 20—30.)

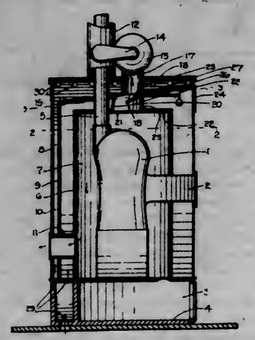


1. In combination with a vehicle having a door opening and door posts, slotted bars secured to said door posts, a door adapted to close said opening, said door having slots formed therein adapted to register with the slots in said bars, plates secured to said door and having slots therein, the slots in said plates and in said door registering with the slots in said bars, bolts arranged in said slots, nuts engaged upon said bolts and bearing upon said plates, and arcuate ribs formed on said plates and surrounding said nuts, as and for the purpose described.

2. In combination with a car having a door opening, vertical bars secured at the sides of the door opening and having horizontal slots intersecting their outer edges, a door adapted to close said opening, said door having horizontal slots adjacent to its opposite vertical edges and normally in registry with the slots in said vertical bars, said slots of the door being closed by the edge portions of

said door, and bolts projecting through said slots and adapted to be moved sufficiently longitudinally of the slots to disengage the bolts from the slots of the bars, the movement of the bolts being limited by said edge portions of the doors, so that the bolts are always confined within the slots of said door.

1,074,194. HEATER. WILLIAM F. PASCOE, Jr., Carlisle, Pa., assignor to The Cooper Heater Company, Carlisle, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1913. Serial No. 747,543. (Cl. 126—117.)

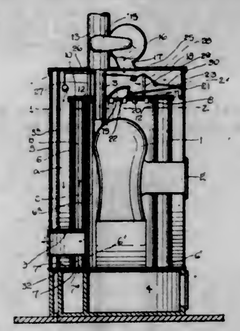


1. A heater of the character described, including a heater proper, a casing extending around the same and forming a heating chamber, said chamber being provided with a heated air outlet flue and in its top with a fresh air inlet opening, a heat-insulating housing surrounding said casing and spaced therefrom, a forced draft device, a fresh air feed flue extending from the forced draft device down through the top of the housing and provided with a downward extension registering with the inlet opening in the heating chamber, said extension being provided with a lateral vent opening, and a ventilating damper embodying plates disposed in angular relation to each other and connected to move simultaneously about a common axis at the juncture of said lateral vent opening and the fresh air feed flue, and means connected to said damper tending to move said plates in a direction to cause one of them to extend across the fresh air feed flue and to open the lateral vent opening, as and for the purpose set forth.

2. A heater of the character described, including a heater proper, a casing extending around the same and forming a heating chamber, said chamber being provided with a heated air outlet flue and in its top with a fresh air inlet opening, a heat-insulating housing surrounding said casing and spaced therefrom, a forced draft device, a fresh air feed flue extending from the forced draft device down through the top of the housing and provided with a downward extension registering with the inlet opening in the heating chamber, said extension being provided with a lateral vent opening, and a ventilating damper embodying plates disposed in angular relation to each other and connected to move simultaneously about a common axis at the juncture of said lateral vent opening and the fresh air feed flue, means connected to said damper tending to move said plates in a direction to cause one of them to extend across the fresh air feed flue and to open the lateral vent opening, and a register connected to the wall of the housing in horizontal alinement with the lateral vent opening, as and for the purpose set forth.

1,074,195. HEATER. WILLIAM F. PASCOE, Jr., Carlisle, Pa., assignor to The Cooper Heater Company, Carlisle, Pa., a Corporation of Pennsylvania. Filed Feb. 10, 1913. Serial No. 747,544. (Cl. 126—117.)

1. A heater of the character described, including a heater proper, a drum surrounding the same and spaced therefrom, whereby to form an inner heating chamber, another drum surrounding the first named drum and forming therewith an outer heating chamber, the top of the inner drum being provided with an upwardly projecting hood formed with a laterally facing vent opening, adapted to establish communication between the inner chamber and the outer chamber, the outer drum being formed with a laterally facing vent opening substantially in horizontal alinement with the first named vent opening, doors controlling said vent openings, a link connection between said doors, whereby they will move simultaneously, the outer drum being formed in its top with a fresh-air inlet opening, a forced draft device communicating with said fresh-air inlet opening and adapted to produce a current of air in a downward direction into the outer heating chamber, a damper plate mounted contiguous to said fresh-air inlet opening in line with the said current of air, means tending to move said plate in a direction to close the fresh-air inlet opening, and an operative connection between said plate and the door for the outermost vent opening, whereby the said door will be moved to an open position when the damper plate is moved toward a closed position, the two drums having communication one with the other irrespective of the first named vent opening, and the innermost drum being formed with a heated air outlet.

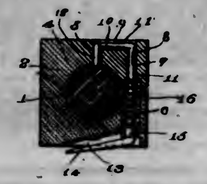


2. A heater of the character described, including a heater proper, inner and outer heating chambers extending around said heater proper, the inner chamber being provided on its top with a hood formed with a horizontally facing opening establishing communication between the inner and outer chambers, the outer chamber being formed with a horizontally facing opening in substantial alinement with the first named opening and also formed with an air inlet opening separate and distinct from its horizontally facing opening, a forced draft device communicating with the air inlet opening, a door swung from its upper edge upon said hood and adapted to close the first named horizontally facing opening, another door swung from its lower edge and adapted to close the second named horizontally facing opening, a plate adapted to close the air inlet opening and disposed in the path of the current induced by said forced draft device, whereby the actuation of the same will move said plate from the inlet opening, and connections between said plate and said doors, whereby the movement of the plate away from the inlet opening will close the doors against the horizontally facing openings and a movement of the plate toward the inlet opening will open said doors, and means tending to move the plate toward the inlet opening, the inner and outer heating chambers having communication one with the other irrespective of said first named opening and the inner chamber being formed with a heated air outlet.

1,074,196. NUT-LOCK. ISAAC M PECK, Tiffin, Ohio, assignor of one-half to Ralph H. May, Tiffin, Ohio. Filed Aug. 30, 1912. Serial No. 717,905. (Cl. 151—10.)

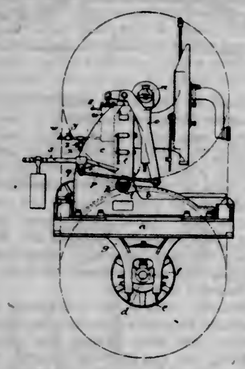
In a nut lock the combination with a longitudinally grooved bolt, of a nut having a pore opening into the bolt

opening, a second bore formed in the nut, an inclined groove formed in one side of the nut, a key consisting of an arm, said arm being operable in the second named bore, and having one of its ends bent for engagement in the inclined groove, a sleeve fixed to the arm and held thereon



by the bent end of said arm, a coil spring surrounding a portion of the arm and having one of its ends engaged by the sleeve, the other end of said arm having a lateral extension which terminates in a projection adapted for operation in the first named bore for engaging the grooves in said bolt.

1,074,197. BAND-SAW MILL. GEORGE M. PELTON, Milwaukee, Wis., assignor to The Filer and Stowell Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 9, 1911. Serial No. 659,311. (Cl. 143—27.)



1. In a band saw mill the combination with vertically adjustable bearings for the upper band wheel and screws for raising and lowering said bearings, of cylinders provided with pistons connected with and adapted to exert an upward pressure against said bearings.

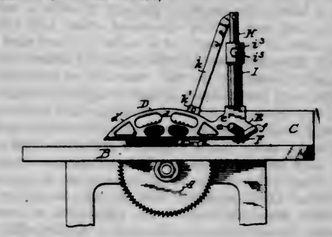
2. In a band saw mill the combination with a frame provided with standards, vertically adjustable slides guided in said standards parallel with each other, connected screws engaging with and adapted to simultaneously raise and lower said slides, levers pivoted to said slides and bearings for the upper band wheel mounted on said levers, of cylinders provided with valve controlled fluid pressure supply and exhaust connections and pistons fitted in said cylinders and connected with said levers so as to exert an upward pressure against the same and the bearings mounted thereon when the pressure medium is admitted to the cylinders.

3. In a band saw mill the combination with a frame provided with standards, vertically movable slides fitted and guided parallel with each other in said standards, levers pivoted to the upper ends of the slides, bearings for the upper band wheel mounted on said levers, connected adjusting screws adapted to simultaneously raise and lower said slides, and a weighted lever connected with said bearing supporting levers and adapted to subject the saw to tension, of cylinders mounted on the standards parallel with said slides and having valve controlled fluid pressure supply and exhaust connections and pistons fitted in said cylinders and connected with said bearing supporting levers and adapted to exert an upward pressure against them when the fluid pressure medium is admitted to the cylinders below the pistons.

4. In a band saw mill the combination with a vertically adjustable bearing for the upper band wheel and a screw for raising and lowering said bearing, of a cylinder provided with a piston connected with said bearing and adapted to relieve the screw from the weight to which it is subjected through said bearing.

5. In a band saw mill the combination with a supporting lever provided with a bearing for the upper band wheel, a screw on which said lever is fulcrumed and supported for raising and lowering said bearing, and a weighted tension lever connected by a link with said supporting lever, of a cylinder provided with a piston connected with said supporting lever and adapted to relieve said screw from the weight to which it is subjected through said supporting lever, the link connection with the tension lever serving to hold the supporting lever in proper position during its vertical movement by said screw when relieved of the weight of the upper band wheel by said piston.

1,074,198. SAW-GUARD. FRANCIS VOSBURGH PHILLIPS, Orlando, Fla. Filed Mar. 21, 1913. Serial No. 755,997. (Cl. 143—159.)



1. In a saw guard, the combination with a roller adapted to be engaged by the work to be operated on, an inclined rack arranged to wedge the roller between said rack and said work on backward movement of said work, teeth carried by said roller, and means for keeping said teeth in mesh with said rack.

2. In a saw guard, the combination of a toothed roller adapted to be engaged by the work to be operated on, an inclined rack arranged to wedge the roller between said rack and said work when the latter is moved rearwardly, and means for keeping said roller in mesh with said rack.

3. The combination with a guard adapted to house the upper portion of a circular saw, of a roller carried by said guard in line with said saw, an inclined track on said guard adapted to wedge said roller between said track and the work to be operated on when the latter is moved in a rearward direction, and a support for said guard arranged substantially in line with the upward pressure exerted by said roller in its wedging action.

1,074,199. GATE-VALVE. EDWARD F. POLAND, Boston, Mass. Filed June 12, 1913. Serial No. 773,212. (Cl. 137—5.)

1. In a gate-valve, the combination with a valve-case having a horizontal passage through it with a surrounding valve-seat and having chambers above and below the passage back of said seat, of a valve-plate contained in said case for engagement with said seat having an ear on its back side, at the top, a valve-rod arranged in the case and extended through the upper chamber thereof, which is pivotally connected to said ear, an ear centrally disposed on the back side of said plate, a dog loosely connected to said central ear and depending therefrom, said dog having a projection and a shoulder in rear of said projection for successive engagement with a fixed part of the case, thereby to move the dog inward and then relatively to

move the valve-plate in a direction toward its seat upon a downward movement of said plate, substantially as described.



2. In a gate-valve, the combination with a valve-case having a horisontal passage through it with a surrounding valve-seat and having chambers above and below the passage back of said seat, of a valve-rod arranged in the case and extended through the upper chamber thereof, a valve-plate contained in the case for engagement with said seat, said plate being loosely supported at the lower end of the valve-rod and movable up and down by said rod, a dog loosely connected to the back side of said plate having at its lower end a V-shaped projection and a shoulder in rear of said projection for successive engagement with a fixed part of the case, thereby to move said dog inward and then rotatably and in turn move the valve-plate in a direction toward its seat upon a downward movement of said plate, substantially as described.

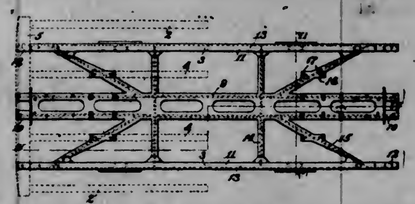
3. In a gate-valve, the combination with a valve-case having a horisontal passage through it with a surrounding valve-seat and having chambers above and below the passage back of said seat, a valve-rod arranged in the case and extended through the upper chamber thereof, a valve-plate contained in the case for engagement with said seat which is loosely supported at the lower end of the valve-rod and is movable up and down by said rod, a dog pivotally connected to the back side of said plate, at the center thereof, having a projection with an inclined side and a shoulder in rear of said projection for successive engagement with a fixed part of the case, thereby to move the dog bodily inward and subsequently turn it on its pivot to move the valve-plate in a direction toward its seat upon a downward movement of the plate, substantially as described.

4. In a gate-valve, the combination with a valve-case having a horisontal passage through it and a surrounding valve-seat and having chambers above and below the passage back of said seat, a valve-rod arranged in the case and extended through the upper chamber thereof, a valve-plate contained in the case for engagement with said seat, said plate being loosely supported at the lower end of the valve-rod and movable up and down by said rod, a dog pivotally connected to the back side of said plate, at the center thereof, having a projection with an inclined side and a shoulder in rear of said projection for successive engagement with a fixed part of the case, thereby to move the dog inward and rotatably and in turn move the valve-plate in a direction toward its seat upon a downward movement of the valve-plate, the pivotal connection of the dog with the plate being arranged at the front side of a straight line passing through the shoulder and the pivotal connection of the plate with the rod, substantially as described.

5. In a gate-valve, the combination with a valve-case having a horisontal passage through it and a surrounding valve-seat and having chambers above and below the passage back of said seat, and having vertical guide-ribs at the sides of the passage, of a valve-plate contained in the case for engagement with said seat, having an ear on its back side, at the top, a valve-rod arranged in the case and extended through the upper chamber thereof which is pivotally connected with said bar, an ear centrally disposed on the back side of said plate, a dog loosely connected to said ear and depending therefrom, said dog having a projection and a shoulder in rear of the projection for successive engagement with a fixed part of the case, thereby to move the dog inward and then rotatably to move the valve-plate in a direction toward its seat upon a downward movement of said plate, substantially as described.

[Claim 6 not printed in the Gazette.]

1,074,200. CAR BODY AND UNDERFRAME CONSTRUCTION. OSWALD S. PULLIAM, Pittsburgh, Pa., assignor to Pittsburgh Steel Foundry Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 26, 1910. Serial No. 589,134. (Cl. 105—76.)



1. The combination, with a car underframe comprising an integral metallic structure including a center-sill and parallel side-sills, said sills having free non-connected end portions with the end-portions formed with bearing members, diagonal members projecting from the center-sill toward the ends of the respective side-sills and merging with the side-sills at points short of the ends of said sills, separable car-body end-sills supported by the projecting members and extending beyond the side-sills of the underframe, car-body side-sills supported by the separable end-sills, and intermediate car-body sills supported by the diagonal members.

2. The combination, with a car underframe comprising an integral metallic structure including a center-sill and parallel side-sills, said sills having free non-connected end-portions with the end-portions formed with bearing members, diagonal members each formed with a sill bearing member, said diagonal members projecting from the center-sill toward an end of the respective side-sills and merging with the side-sills at points short of the ends of the said side sills, separable car-body end-sills supported by the projecting members and extending beyond the side-sills of the underframe, car-body side-sills supported by the separable end-sills, and intermediate car-body sills supported on the sill bearing members of the diagonal members.

3. The combination, with a car-body having side-sills, intermediate sills, and end-sills, said end-sills adapted to support the side-sills, of an underframe comprising an integral metallic structure of less width than the car-body, said underframe including a center-sill, side-sills, diagonal members projecting from the center-sill toward an end of the respective side-sills and merging with the side-sills at points short of the ends of said side-sills, and pedestals formed integral with the side-sills, said center and side-sills having projecting supporting members for the car-body end-sills, and the diagonal members having bearings for the car-body intermediate sills.

1,074,201. SMALL-ARM. RASMUS HAGBARTH QUISLING, Christiania, Norway. Filed May 1, 1909. Serial No. 493,280. (Cl. 42—76.)

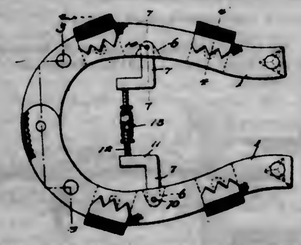
1. In a device for shooting projectiles larger than the bore of a fire-arm, a cylinder having a bore larger than the bore of a fire-arm to receive such a projectile and its driving charge, said cylinder having a reduced end portion to fit over the muzzle of the fire-arm to detachably connect the cylinder to the muzzle, the rear wall of the cylinder and the rear end of a projectile therein forming a chamber for the reception of said driving charge, said chamber communicating with the bore of the fire-arm, whereby an exploded charge in the chamber of the fire-arm will explode said driving charge, said wall acting as an abutment when the driving charge is exploded.



2. In a device for shooting projectiles larger than the bore of a fire-arm, a cylinder having a bore larger than the bore of the fire-arm to receive a projectile having a recess in its rear end, said cylinder having a reduced end portion to fit over the muzzle of the fire-arm to detachably connect the cylinder to the muzzle, said recess cooperating with the rear wall of the cylinder to form an explosion chamber which communicates with the bore of the fire-arm, for the purpose specified.

3. In a device for shooting projectiles larger than the bore of a fire-arm, a cylinder having a bore larger than the bore of the fire-arm to receive a projectile having a recess in its rear end, said cylinder having a reduced end portion to fit over the muzzle of the fire-arm to detachably connect the cylinder to the muzzle said recess cooperating with the rear wall of the cylinder and the end of the rifle barrel to form an explosion chamber which communicates with the bore of the fire-arm and locking means on said reduced end to effect said connection, for the purpose specified.

1,074,202. HORSESHOE. WLADISLAUS RAKOWSKI, Palmerton, Pa., and JOHN GLOWACKI, Davis, W. Va. Filed Oct. 18, 1912. Serial No. 726,552. (Cl. 168—19.)



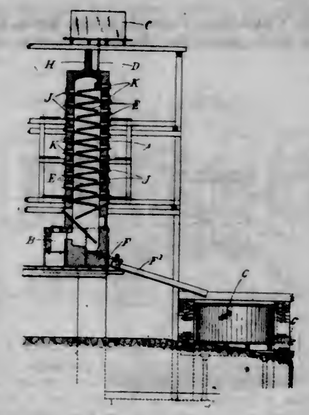
In a horse shoe, sections connected for adjustment with relations to each other, an arm pivoted to each section and having a forwardly offset threaded stem, and a nut threaded upon the stems of the arms.

1,074,203. DEPOSITION OF METALLIC SALTS FROM SOLUTIONS CONTAINING THEM. HARRY REES, Llansamlet, Glamorgan, Wales, and HENRY LIVINGSTONE SULMAN, London, England, assignors to The Metals Extraction Corporation Limited, London, England. Filed Aug. 18, 1911. Serial No. 644,798. (Cl. 23—13.)

1. A process for depositing monosulfite and sulfate of a metal from a solution containing bisulfite and sulfate of the metal, which consists in subjecting a continuously moving thin film of the solution to the action of hot gases, from a coke fire.

2. A process for depositing monosulfite and sulfate of a metal from a solution containing bisulfite and sulfate of the metal, which consists in forming a continuously moving thin film of the solution, passing it over a heated surface and submitting it to the action of hot gases from a coke fire.

3. A process for depositing monosulfite and sulfate of a metal from a solution containing bisulfite and sulfate of the metal, which consists in forming a continuously moving thin film of the solution, passing it over a number of heated surfaces in cascade and submitting it to the action of hot gases from a coke fire.

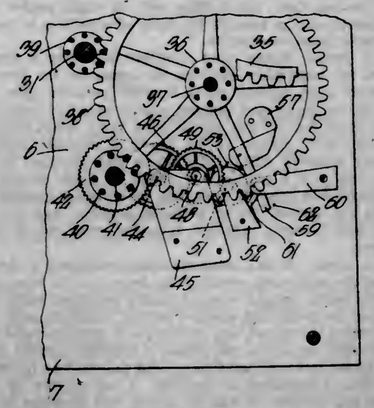


4. A process for depositing monosulfite and sulfate of a metal from a solution containing bisulfite and sulfate of the metal, which consists in forming a continuously moving thin film of the solution and submitting it to the action of hot gases from a coke fire under a gradually increasing temperature.

5. A process for treating complex sulfid ores for the extraction of metal therefrom which consists in forming a solution of bisulfite and sulfate of the metal making up the deficiency of monosulfite salt required to effect the precipitation of the sulfate salt by adding to the dilute solution a sufficiency of an oxid thereafter depositing monosulfite and sulfate of the metal from the solution in an insoluble and basic form by subjecting a continuously moving thin film of the solution to the action of hot gases from a coke fire.

[Claims 6 to 8 not printed in the Gazette.]

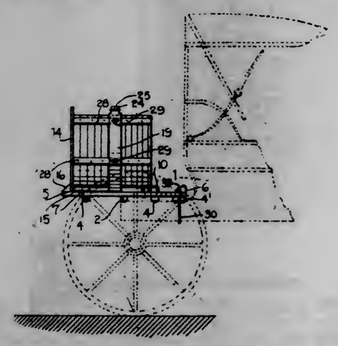
1,074,204. CLOCK. WILLIAM B. RIKARD, Prosperity, S. C. Filed June 27, 1912. Serial No. 706,185. (Cl. 58—7.)



A tower clock comprising a plurality of dials and hands; an arbor for operating said hands; a pinion on the hand

arbor; an escapement; a reducing train controlling the escapement; a single gear wheel meshing into the pinion and meshing also into the terminal member of the reducing train; and driving mechanism operatively connected with the gear wheel.

1,074,205. CARRIER. JAMES L. RILEY, Xenia, Ill. Filed June 4, 1913. Serial No. 771,754. (Cl. 224—29.)



1. A device of the class described including a frame, hinged posts mounted upon each end of said frame and adapted to fold inwardly upon the frame when not in use, one of said posts being movable laterally with respect to the frame, and means movably mounted upon the upper ends of the posts to connect the same and retain them into engagement with an object placed therebetween.

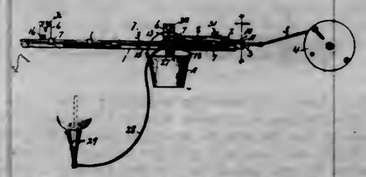
2. A device of the class described including a frame, upright posts hingedly mounted upon the frame at each end thereof and adapted to fold inwardly upon the frame when not in use, said posts being provided with transverse grooves, and engaging spurs extending through said posts and arranged within said grooves, as and for the purpose set forth.

3. A device of the class described including a frame, hingedly mounted posts at each end of said frame and adapted to fold inwardly upon the frame when not in use, one of said posts being movable laterally with respect to the frame, a movable member slidably mounted within said frame, a post hingedly mounted upon the outer end of said movable member and adapted to fold inwardly upon the movable member when not in use, and clamping rods having their lower ends bent at right angles and adapted to engage beneath the body of a vehicle to retain the frame upon the vehicle.

4. A device of the class described including a frame, means for removably securing the frame to the rear of a vehicle body, upright posts hingedly mounted upon the ends of the frame and adapted to fold inwardly upon the same when not in use, one of said posts being movable laterally with respect to the frame, a movable member slidably mounted within said frame and provided at its inner end with a plurality of openings, a pin carried by the frame and adapted to engage within said openings to retain the member in an adjusted position, and an upright post hingedly mounted upon the outer end of said member.

5. A device of the class described including a frame, means for removably securing the frame to the rear of a vehicle body, upright posts hingedly mounted upon the ends of the frame and adapted to fold inwardly upon the same when not in use, one of said posts being movable laterally with respect to the frame, a movable member slidably mounted within said frame and provided at its inner end with a plurality of openings, a pin carried by the frame and adapted to engage within said openings to retain the member in an adjusted position, an upright post hingedly mounted upon the outer end of said member, said end posts being provided with transverse notches, spur members carried by said posts and arranged within said notches and means connecting the upper ends of said posts to retain the same in engagement with an object placed therebetween.

1,074,206. MILKING APPARATUS. GEORGE V. ROBERTS, Jr., Port Byron, N. Y. Filed Mar. 8, 1912. Serial No. 682,431. (Cl. 31—98.)

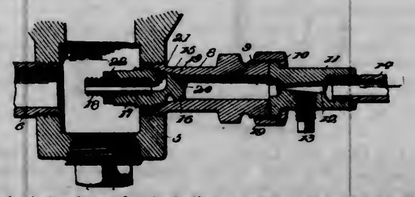


1. In a milking apparatus, the combination of a pump having an outlet, actuating means therefor, teat cups, a flexible hose leading from the teat cups to the pump, said pump being elevated some distance above the cups, and means for supporting a milk receptacle in the path of the outlet and in a plane above the cups.

2. In a milking apparatus, in combination with teat cups, a pump supported in a plane some distance above that of the cups when the latter are adjusted for use, a hose having one end connected to the cups and its other end connected directly to the pump, said pump having a piston rod provided with a lateral offset, a sliding bar movable lengthwise of the pump, means for reciprocating said bar, an inclined bearing on the bar terminating in an abutment and having an aperture for the reception of the offset at the junction of the abutment with the inclined bearing.

3. In a milking apparatus, a piston pump having a milk outlet and a valveless milk inlet, a spring closed valve for the outlet, teat cups, and a flexible valveless connection between the teat cups and milk inlet.

1,074,207. TRACK-SANDER. WALTER B. ROGERS, Knoxville, Tenn. Filed Oct. 1, 1912. Serial No. 723,455. (Cl. 105—263.)



1. A track sander including a sand trap having a discharge passage, a blast nozzle communicating with the interior of the trap, and a hollow plug fitting within the nozzle and having an exterior circumferential groove therein for preventing the sand in the trap from entering said blast nozzle.

2. A track sander including a sand trap having a discharge passage, a blast nozzle communicating with the interior of the trap, and means disposed within the nozzle for directing the blast in a spiral path through said nozzle to the tip thereof.

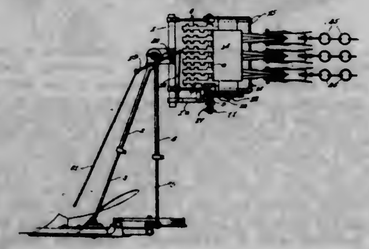
3. A plug for attachment to the blast nozzles of track sanders comprising a body portion having a longitudinal bore and provided with an exterior circumferential groove communicating with the bore of the body portion.

4. A track sander including a sand trap having a discharge passage, a blast nozzle communicating with the interior of the trap, and a plug seated in the nozzle and having a longitudinal bore formed therein, there being a circumferential groove formed in one end of the plug and communicating with the interior of the bore.

5. A track sander including a sand trap having a discharge passage, a nozzle communicating with the interior of the trap and having a conical seat formed therein, a plug having one end thereof tapered for engagement with the conical seat of the nozzle and provided with a circumferential groove for preventing the sand in the trap from entering the blast nozzle.

[Claims 6 to 16 not printed in the Gazette.]

1,074,208. COMBINATION SOIL-PULVERIZER AND SEEDER ATTACHMENT FOR PLOWS. GEORGE FRANKLIN ROWLEY, Oxbow, Saskatchewan, Canada. Filed Aug. 22, 1912. Serial No. 716,426. (Cl. 111—18.)



1. In combination, a plow, a draft frame, connections between said frame and plow, an axle journaled in said draft frame, land pulverizing and packing wheels carried by said axle, a drill frame carried by said axle, a grain hopper carried by said drill frame, feed mechanism therein, means for driving said mechanism from the aforesaid axle, a clutch interposed in said means, a lever fulcrumed on the draft frame and connected to one member of said clutch, a second lever, a link connecting said levers, and a pull rod connected to said second lever.

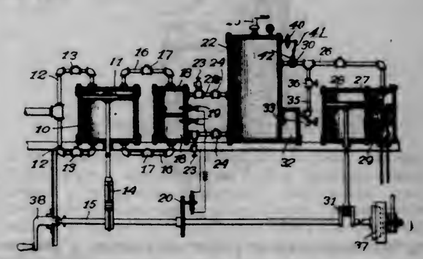
2. In combination, a plow, a draft frame, telescopically adjustable connections between said frame and plow, an axle journaled in said draft frame, land pulverizing and packing wheels carried by the axle, one or more of the said wheels being secured thereto so as to turn therewith, a drill frame pivotally mounted on said axle so as to be vertically movable, a grain hopper carried by said drill frame, feed mechanism therein, means for driving said mechanism from the aforesaid axle, independent laterally movable drills carried by said drill frame, and drag chains carried by said drills.

3. In combination, a plow, a draft frame, connections between said frame and plow, an axle journaled in said draft frame, land pulverizing and packing wheels carried by said axle, a drill frame carried by said axle, a grain hopper carried by said drill frame, feed mechanism therein, means for driving said mechanism from the aforesaid axle, drills carried by said drill frame, drag chains carried by said drills, and swivel connections between said drills and said drill frame.

1,074,209. APPARATUS FOR PRODUCING POWER. SYLVANUS B. ROY, Worcester, Mass. Filed Feb. 1, 1913. Serial No. 745,601. (Cl. 60—37.)

1. In a device of the character described, the combination of a compressor for fuel in the form of gas or vapor, a receiver for receiving the compressed fuel therefrom, means for exploding the fuel in said receiver, a receiving tank for receiving the exploded fuel from the receiver, an engine connected up to operate the compressor and having valve mechanism by which the exploded fuel from the receiving tank can be introduced into it to run it either forward or backward, and means connected with said receiving tank for starting the engine independently of the receiving tank.

2. In a device of the class described, the combination of a compressor, a receptacle for receiving compressed gases or vapors therefrom, means for exploding said gases or vapors in the receptacle, a receiving tank for receiving the exploded gases or vapors from the receptacle, an engine connected with said receptacle to be operated by the fuel therefrom, means connected with the engine for operating the compressor, a surplus tank connected with said receiving tank, means whereby said tank can be supplied constantly with gases or vapors under pressure from the receiving tank but cannot give up its charge thereto, and means for connecting the engine with the surplus tank for starting the engine independently of the receiving tank.



3. In a device of the class described, a fuel receptacle, means for exploding the fuel in the receptacle, a receiving tank for the gaseous products of the explosion, an engine connected to be operated by said gases, a surplus tank connected with said receiving tank by a passage having a check valve therein, connections from said surplus tank to said engine, and means whereby upon decrease of pressure within said receiving tank below a predetermined minimum, the connection between said receiving tank and said engine shall be automatically closed.

4. In a device of the class described, a fuel receptacle, means for exploding the fuel in the receptacle, a receiving tank for the gaseous products of the explosion, an engine connected to be operated by said gases, connections between said tank and said engine, and means operable on said connections to automatically close them upon reduction of pressure in the receiving tank below a predetermined minimum.

1,074,210. TREADLE-GUARD FOR SPRING-JAW TRAPS. LOUIS L. RUDRUD, Crary, N. D. Filed Dec. 9, 1912. Serial No. 735,820. (Cl. 43—23.)

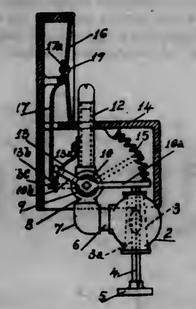


A treadle guard for attachment to spring jaw traps and comprising a frame in the form of a band of strip metal notched in its lower edge to fit the bars of the trap-frame, and provided in its upper edge with a single notch adapted to receive the treadle shank, and prongs formed on the lower edge of said band at opposite sides of the notches therein to be bent under and into engagement with said bars, substantially as described.

1,074,211. AUTOMATIC SHUT-OFF FOR GAS-BURNERS. CLEVELAND H. SCHENK, Springfield, Ill. Filed July 29, 1913. Serial No. 781,710. (Cl. 67—117.)

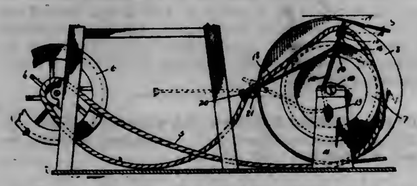
1. The combination of a burner; a valve controlling the supply of gas to the burner; a first lever adapted to operate said valve; a first spring adapted to engage said lever to keep the valve open; a second spring effective to move said lever to close the valve; a casing in fixed relation to the burner; an expansible plate mounted in the casing and adapted to buckle upon the heating of the plate and

move reversely upon the cooling of the plate; and a second lever connected with said expansible plate and adapted to disengage said first spring from said first lever upon the cooling of said expansible plate.



2. The combination of a first valve-casing; a plug rotative in said valve-casing; a stem adapted to slide longitudinally in said plug; a second valve-casing in communication with said first valve-casing; a plug rotative in said second valve-casing; a lever connected with the plug in said second valve-casing and operable by said stem; a burner in communication with said second valve-casing; a spring latch adapted to engage said lever; means for releasing said spring latch; and a spring adapted to move said lever.

1,074,212. BULL-ROPE PROTECTOR. PHILLIP A. SCHMUCK, Los Angeles, Cal. Filed Feb. 1, 1912. Serial No. 674,694. (Cl. 64—51.)



1. In a bull rope protector, the combination with a tug wheel and its support, of a bar pivotally mounted on said support and movable in a plane parallel with the periphery of the tug wheel limited by its contact with the shaft of said tug wheel, a stop adjacent said bar to support said bar, and a contact arm slidably mounted on said bar, extending over the groove in said tug wheel, an adjustable sleeve to adjust and support said contact arm, and an operating rod secured intermediate said pivotal mounting and said contact arm on said arm provided with a handle to swing said bar, whereby the bull rope is lifted and held out of contact with said tug wheel by said bar engaging said shaft, and also supported on said stop.

2. In a bull rope protector, the combination with a tug wheel and its support, of a bar pivotally mounted on said support and movable in a plane parallel with the periphery of the tug wheel limited by its contact with the shaft of said tug wheel, a stop adjacent said bar to support said bar, and a contact arm slidably mounted on said bar, extending over the groove in said tug wheel, an adjustable sleeve to adjust and support said contact arm, and means to swing said bar, whereby the bull rope is lifted and held out of contact with said tug wheel by said bar engaging said shaft, and also supported on said stop.

1,074,213. RUB-IRON FOR VEHICLES. GEORGE SCHUBERT, Oneida, N. Y. Filed Oct. 27, 1911. Serial No. 657,160. (Cl. 21—85.)

1. A rub iron comprising a main supporting plate having a recess in one side, a roller supporting plate having an extension slidable in the recess, a chafing roller on the last named plate, and means for securing the roller supporting plate to the main supporting plate.



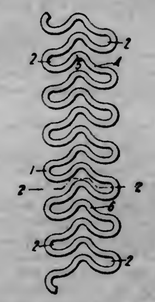
2. A rub iron for vehicle wheels comprising a main supporting plate having oppositely projecting slotted arms and a transversely elongated recess in one side between the arms, a roller supporting plate slidably mounted in the recess and pivotally connected to the main supporting plate for lateral rocking movement in either direction, and a chafing roller on the supporting plate.

3. A rub iron for vehicle wheels comprising a main supporting plate having oppositely projecting slotted arms, means passed through the slots in said arms for clamping the plate to a portion of the vehicle, said plate being provided with a transversely elongated recess, a roller supporting plate mounted for sliding and rocking movement in said recess, means for clamping the plates to each other, and a chafing roller on the roller supporting plate.

4. In a rub iron and roller supporting plate having bearings spaced some distance apart, a coil spring compressed between and tensioned against said bearings, and means for holding the spring in operative position, said spring having the helices of its intermediate portion in close contact and its end helices spaced apart and spring pressed against the inner faces of the bearings.

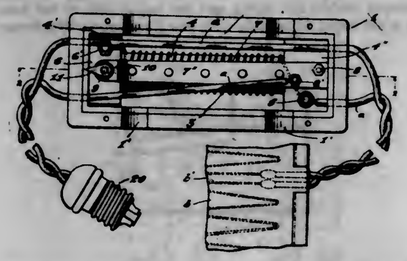
5. A rub iron comprising a main supporting member having oppositely projecting slotted arms, a roller supporting member mounted on the main supporting member between said arms and adjustable transversely thereof, and means for clamping the roller supporting member in its adjusted position.

1,074,214. GARMENT-STAY. DAVID SCHULER, Kerrtown, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1910. Serial No. 581,156. (Cl. 2—76.)



A garment stay formed of wire bent back and forth across the entire width of the stay in alternately progressive loops, the connecting crossings being bent in the plane of the stay into wavy or undulating form to produce a row of wave like portions all curved in one direction along the center line of the stay and rows of other wave like portions curved in the opposite direction along each side edge of the stay.

1,074,215. ELECTROTHERMOSTATIC REGULATOR. JOHN G. SCHUIRMANN, Kent, Wash., assignor of one-half to Charles L. Santee, Renton, Wash. Filed May 20, 1912. Serial No. 698,609. (Cl. 177—347.)

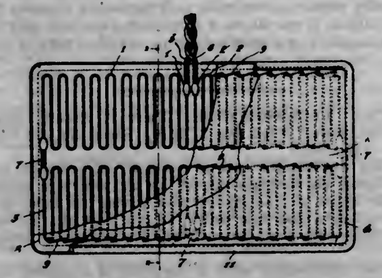


1. A circuit controller comprising a core of insulating material provided with head extensions, a resistance coil wound on said core, a terminal secured to one head extension of said core and connected with one end of said coil, and a thermostatic bar secured at one end to the other head extension of said core, the free end portion of said bar normally being in electrical connection with said terminal and thereby connecting the bar and coil in series.

2. A circuit controller comprising a core of insulating material provided with head extensions, a resistance coil wound on said core, a terminal secured to one head extension of said core and connected with one end of said coil, a thermostatic bar secured at one end to the other head extension of said core, a contact in electrical engagement with said terminal, and a screw threaded in said bar and carrying said contact.

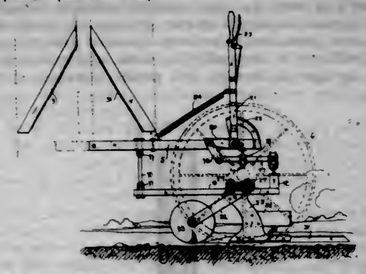
3. A circuit controller comprising a core of insulating material provided with head extensions, a resistance coil wound on said core, a terminal secured to one head extension of said core and connected with one end of said coil, a thermostatic bar secured at one end to the other head extension of said core, a contact in electrical engagement with said terminal, a screw threaded in said bar and carrying said contact, a pointer on said screw, and a dial associated with said pointer and mounted on a relatively fixed part.

1,074,216. ELECTRICALLY-HEATED PAD AND THE LIKE. JOHN G. SCHUIRMANN, Kent, Wash., assignor of one-half to Charles L. Santee, Renton, Wash. Filed May 20, 1912. Serial No. 698,611. (Cl. 219—46.)



In a device of the character described, a covering member comprising independent side sections, a heating element in said covering member comprising resistance wire sections, flexible joints connecting the sections in series, and enlarged insulating members covering the connection of said flexible joints to the resistance wire sections and spacing the side sections of said covering member from the heating element.

1,074,217. WEEDING-MACHINE. JOHN M. SHAFER, Rosebud, N. Mex. Filed Dec. 7, 1912. Serial No. 735,422. (Cl. 97—34.)



1. In apparatus of the character set forth, the combination with a wheeled support, of a standard carried thereby, a supporting horizontal weed-cutting blade mounted on the lower end of the standard, and means for mounting a fender on the standard above the blade and arranged to prevent the material cut by the blade from falling on the row.

2. In apparatus of the character set forth, the combination with a wheeled support, of a depending standard carried thereby, a rearwardly extending outwardly inclined cutting blade carried by the lower end of the standard, and a rearwardly and outwardly inclined fender secured to the standard above the blade for turning the material cut by the blade away from the row.

3. In apparatus of the character set forth, the combination with a support, of spaced standards suspended from the support and adjustable thereon toward and from each other, and substantially horizontal weed cutting blades mounted on the lower ends of the support and extending outwardly and rearwardly at an inclination from each other, the front ends of said blades extending in advance of the standards and said blades being adjustable toward and from each other upon the adjustment of the standards.

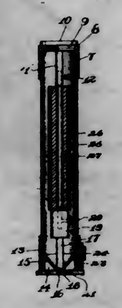
4. In apparatus of the character set forth, the combination with a support, of spaced standards suspended from the support and adjustable thereon toward and from each other, substantially horizontal weed cutting blades mounted on the lower ends of the support and extending outwardly and rearwardly at an inclination from each other, the front ends of said blades extending in advance of the standards and said blades being adjustable toward and from each other upon the adjustment of the standards, and a colter mounted on each standard and adjustable therewith and with the blade thereof, said colter coacting with the front end of the blade to cut the weeds that are cut by the front ends of said blades.

1,074,218. FUSE DEVICE. ALBERT E. SIMMONS, Sacramento, Cal. Filed Feb. 10, 1913. Serial No. 747,511. (Cl. 175—273.)

1. A fuse device of the character described, comprising a substantially vertically arranged outer casing formed of insulating material, metallic conductor elements connected with the upper and lower ends of the outer casing, a fuse wire disposed within the outer casing, means electrically connecting the fuse wire with the upper metallic conductor element, a gravity operated rod connected with the lower end of the fuse wire, means electrically connecting the gravity operated rod with the lower metallic conductor element, and a cap disposed exteriorly of and adjacent the lower end of the outer casing and detachably connected with the gravity operated rod to drop with the same when it is released.

2. A fuse device of the character described, comprising a substantially vertically arranged outer casing formed of insulating material, metallic conductor elements connected with the upper and lower ends of the outer casing, a fuse wire disposed within the outer casing, means detachably connected with the upper metallic conductor element and electrically connecting the fuse wire with the same, a

gravity operated rod connected with the lower end of the fuse wire and extending downwardly exteriorly of the outer casing, means electrically connecting the gravity operated rod with the lower metallic conductor element, a cap disposed exteriorly of and adjacent the lower end of the outer casing and detachably connected with the gravity operated rod to drop with the same, and means to lock the cap against rotation and permit the same to freely drop.



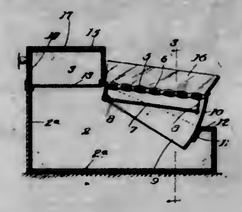
3. A fuse device of the character described, comprising a main shell formed of insulating material, metallic conductor sleeves carried by the main shell, a removable head connected with one of the conductor sleeves, a tube connected with the removable head, a fuse wire adapted to have one end thereof inserted within the tube, clamping means to securely hold the end of the fuse wire within the tube, a reciprocatory signal rod provided at its inner end with an enlarged socket to receive the other end of the fuse wire, means to clamp such end of the fuse wire within the socket, and a cap connected with one conductor sleeve and including an apertured conical apertured inner portion.

4. In a fuse device of the character described, a main shell formed of insulating material, upper and lower metallic conductor sleeves carried thereby, a cap connected with the lower conductor sleeve including an inner apertured conical portion decreasing in diameter downwardly, a reciprocatory rod provided at its upper end with a socket and having its lower end screw-threaded, a nut mounted upon the screw-threaded portion of the reciprocatory rod and provided with a laterally extending finger, a latch to engage with the finger, a fuse wire having its lower end extending into the socket, means to clamp the fuse wire within the socket, a head removably connected with the upper metallic conductor sleeve, a tube connected with the head and receiving the upper end of the fuse wire, and means for clamping the upper end of the fuse wire within the sleeve.

5. In a fuse device of the character described, a substantially vertically arranged outer casing formed of insulating material, metallic conductor elements connected with the upper and lower ends of the outer casing, a tapered metallic shell disposed adjacent the lower end of the outer casing, decreasing in width downwardly, apertured at its lower end, and electrically connected with the lower metallic conductor element, a fuse wire mounted within the outer casing, a cap detachably connected with the upper end of the outer casing, means connecting the fuse wire with the cap, and a gravity operated rod having its lower end mounted to reciprocate within the apertured end of the tapered shell and its upper end connected with the fuse wire, whereby upon the melting of the fuse wire the gravity operated rod will automatically drop to extend for a considerable distance below the outer casing.

1,074,219. SOLAR HEATER. FREDERIC A. SKIFF, Paxton, Mass. Filed Mar. 22, 1912. Serial No. 685,522. (Cl. 126—270.)

1. A solar heater of the character described, comprising a relatively fixed box or casing closed at its sides, end and bottom but open at the top, a frame hinged to the casing and forming a top thereto, glass carried upon said frame and extending across the top of the casing, and a heating plate supported upon said frame in rigid relation to the glass thereof and parallel thereto, said heating plate being disposed within the casing and the inclination of the heating plate being adjustable with the glass supporting frame.



2. A solar heater of the character described, comprising a box or casing, a glass supporting frame hinged to said casing for movement in a vertical plane a glass supported on said frame and closing the open top of the casing, said glass supporting frame being adjustable as to inclination, depending supports extending from the glass supporting frame into the box or casing, a heating plate mounted on said depending supports in rigid relation to the glass supporting frame but movable therewith, end plates carried by the supporting frame and extending down into and contacting with the side walls of the casing, and a plate attached to the free edge of the frame and extending into and contacting with the front wall of said casing.

3. A solar heater of the character described, comprising a metallic box or casing having an upward extension at one side forming an oven, the top of the casing in front of said extension being open, lens frames hinged to the front wall of the upward extension, lenses supported in said frames and closing the open top of the casing, said lenses and lens frames being adjustable as to inclination, depending supports extending from the lens frames into the box or casing, and a heating plate mounted on said depending supports in rigid relation to the lenses.

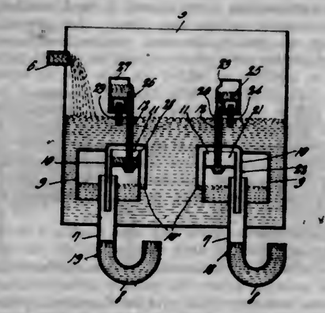
4. A solar heater of the character described, comprising a metallic box or casing having an upward extension at its rear side constituting an oven, the top of the casing in front of the extension being open, lens frames mounted in the open top of the casing and lenses supported on the lens frames, said lens frames being hinged to the front wall of the extension, a curved plate extending transversely and attached to the free end of the lens frames, a curved plate supported on the front wall of the casing and coacting with the first named curved plate, depending supports extending from the lens frames into the casing, a heating plate mounted upon said depending supports in fixed relation to the lenses, a door closing the rear wall of the extension, and a shelf separating the main body of the casing from said extension.

1,074,220. FLUSHING-TANK. EMIL P. STARY, Cedar Rapids, Iowa. Filed Feb. 3, 1910. Serial No. 541,706. (Cl. 137—106.)

1. The combination with a reservoir, of a siphon for discharging the contents thereof, an air vent pipe entering the crown of the siphon, and having its inlet end water-sealed, a tank into which the said vent pipe enters, and a waste pipe from the tank discharging into the reservoir.

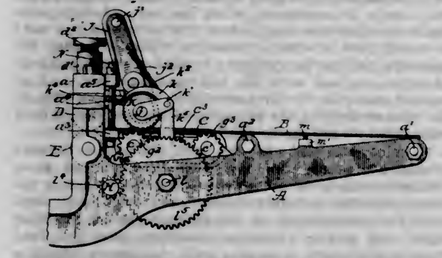
2. The combination with a reservoir, of a siphon for discharging the contents thereof, an air vent pipe entering the crown of the siphon, and having its inlet end water-sealed, a tank into which said vent pipe extends, and a siphon for discharging the contents of the tank into the reservoir, the long leg of the last-mentioned siphon being sealed by the contents of the reservoir.

3. The combination with a reservoir, of a plurality of siphons for discharging the contents thereof, each of said siphons having an air vent pipe entering the same, a trap sealing the inlet end of the vent pipe, a tank into which the vent pipe discharges, the capacity of said tank to the level of the discharge end of the vent pipe being less than the capacity of the trap, and a waste pipe from the tank discharging into the reservoir.



4. The combination with a reservoir, of a plurality of siphons for discharging the contents thereof, an air vent pipe entering each of said siphons, a trap sealing the inlet end of the air vent pipe, a tank into which said vent pipe discharges, the ratio of the capacity of the trap and of the tank to the level of the discharge end of the vent pipe being proportionate to the number of siphons, and a sealed waste pipe from the tank discharging into the reservoir.

1,074,221. SHEET-FEEDING MACHINE. BENJAMIN R. STICKNEY, Ticonderoga, N. Y. Filed Mar. 17, 1911. Serial No. 615,171. (Cl. 101—39.)



1. In a machine for feeding sheets from a stack or pile, the combination of a sheet withdrawing device, a sheet advancing device adapted to frictionally engage each successive sheet and advance it from the stack or pile to the withdrawing device, a sheet separating device coöperating with the sheet advancing device for separating the advancing sheet from the next adjacent sheet or sheets, and means for moving said separating device during the interval between the feeding of successive sheets for preventing uneven wear thereon, said device remaining stationary while each sheet is being advanced.

2. In a machine for feeding sheets from a stack or pile, the combination of a sheet withdrawing device, a sheet advancing device adapted to frictionally engage each successive sheet and advance it from a stack or pile to the withdrawing device and then move away from said sheet, a sheet separating device adapted by frictional engagement to coöperate with the sheet advancing device for separating the advancing sheet from the next adjacent sheet or sheets, and means for moving said separating device during an interval between the feeding of successive sheets for preventing uneven wear thereon, said device remaining stationary while each sheet is being advanced.

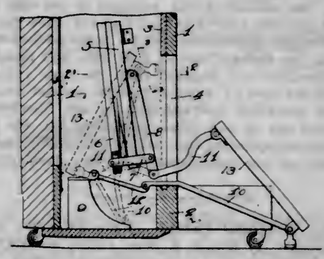
3. In a machine for feeding sheets from a stack or pile, the combination of a sheet withdrawing device, a constantly moving sheet advancing device adapted to frictionally engage each successive sheet and advance it from a stack or pile to the withdrawing device and then move away from said sheet, a sheet separating device adapted by frictional engagement to coöperate with the sheet advancing device for separating the advancing sheet from the next adjacent sheet or sheets, and means for moving said device during the interval between the feeding of successive sheets for preventing uneven wear thereon, said device remaining stationary while each sheet is being advanced.

4. In a machine for feeding sheets from a stack or pile, the combination of a sheet withdrawing device, a series of continuously moving endless bands adapted to frictionally engage a sheet and advance it from the stack or pile to the withdrawing device and then move away from the sheet, a second series of endless bands adapted to coöperate with the sheet advancing bands for separating the advancing sheet from the next adjacent sheet or sheets and means for moving said second set of bands during the interval between the feeding of successive sheets, said bands remaining stationary while each sheet is being advanced.

5. In a machine for feeding sheets from a stack or pile, the combination of a sheet withdrawing device, a series of continuously moving endless bands adapted to frictionally engage a sheet and advance it from a stack or pile to the withdrawing device and then move away from the sheet, a second series of endless bands adapted to coöperate with the sheet advancing bands for separating the advancing sheet from the next adjacent sheet or sheets and means for moving said second series of bands in the direction of travel of the sheet during the interval between the feed of successive sheets, said bands remaining stationary while each sheet is being advanced.

[Claims 6 to 8 not printed in the Gazette.]

1,074,222. FOLDING PEDAL. EMIL SWANSON, Steger, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill., a Corporation of Illinois. Filed Mar. 27, 1913. Serial No. 757,133. (Cl. 84—169.)



1. In combination with a case, a fixed member and a moving member, both within the case; a link pivoted to the fixed member; a pedal-positioning bar pivoted to said link, the pivot being within the case at the operative position of the pedal and the link, extending out thence forwardly from the case and downwardly to the floor; an operating link pivotally connected in the case for operating the moving member, and a pedal pivotally connected at its toe-end with said operating link, and fulcrumed at its heel-end on said pedal-positioning bar.

2. In combination with a case having the bottom rail at its forward side; a moving bellows member within the case; a link pivoted in the rear part of the case at a position near the level of the top edge of the bottom rail, and extending thence forward toward said bottom rail; a pedal-positioning bar pivotally connected to the forward end of said link, the pivot being within the case at the operative position of the pedal and the link, extending thence out over the bottom of the rail and downward to the floor; a link connected within the case for operating said moving bellows member, and a pedal connected at its

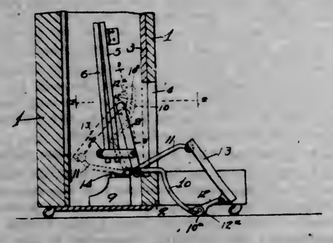
toe-end with said link and fulcrumed at its heel-end on the forward end of the pedal-positioning bar.

3. In combination with a case having a bottom rail at its forward side; a moving bellows member extending up and down and hinged at its upper end; a fixed bellows member in front of said moving bellows member; a lever pivoted to said fixed bellows member and a link extending from said lever back past said fixed member for operating connection with the moving bellows member; a link mounted on the case at the rear part thereof, and extending forward from its pivot and terminating within the case; a pedal positioning bar having one end pivotally connected to the forward end of said link within the case and adapted to swing from a position entirely within the case to a position at which it extends out above the bottom rail and thence down forwardly to the floor; a second link having one end connected to the lever mentioned, and a pedal having its toe-end pivoted to the other end of said last mentioned link, the heel-end of the pedal being fulcrumed upon the floor-supported end of said pedal-positioning bar.

4. In combination with a case, a fixed member and a moving member, both within the case, a link pivoted at its rear end to the fixed member and terminating at its forward end within the case; a pedal-positioning bar pivoted to the forward end of said link and adapted to extend therefrom out forwardly from the case and downwardly to the floor; an operating link pivotally connected within the case for operating the moving member, and a pedal pivotally connected at its toe end with said operating link and at its heel end fulcrumed on said pedal-positioning bar, the length of said operating link being considerably less than the length of the pedal-positioning bar, whereby the pedal is infolded and faced rearward when the structure is folded back and up into the case.

5. In combination with a case, a moving bellows member within the case at the rear part thereof, extending up and down and hinged at its upper end for moving back and forth at its lower end; means extending forward from said lower end of said moving bellows member for operating connection therewith; a bellows-operating link pivotally connected to said forwardly-extending means for operating the bellows; a link mounted in the case at the rear part thereof and extending forward from its pivot and terminating within the case; a pedal-positioning bar pivoted to the forward end of said link, and adapted to extend therefrom out forward from the case and downwardly to the floor; a pedal having its toe-end connected with said operating link and its heel-end fulcrumed on the forward end of said pedal positioning bar, the length of said bellows-operating link being considerably less than the length of the pedal-positioning bar from pivot to pivot.

1,074,223. FOLDING PEDAL. EMIL SWANSON. Steger, Ill., assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill., a Corporation of Illinois. Filed Mar. 27, 1913. Serial No. 757,134. (Cl. 84—169.)



1. In combination with a case, a fixed member and a movable member within the case; a pedal-controlling bar hinged at one end to the fixed member and mounted to swing about its hinge pivot from a position wholly within the case to a position at which its free end is outside the case; a link pivotally connected to said free end; a link connected to the moving member, and a pedal having its toe end connected with the last-mentioned link and having said first-mentioned link directly pivoted to its heel.

2. In combination with a case, a fixed member and a movable member within the case; a bar pivotally connected at one end to the fixed member and mounted to swing about its pivot from a position wholly within the case to a position at which its free end is outside the case; a link pivoted to said free end; a second link connected within the case for operating the moving member, and a pedal pivotally connected at its toe end with the last-mentioned link and at its heel end with the first-mentioned link, the latter being provided with means for stopping it as to movement about its pivot to the bar at a position at which it trends up forwardly from said pivot.

3. In combination with the case having a bottom rail at its forward side, a fixed member within the case positioned behind said bottom rail, and a moving member at a higher position within the case; a pedal-positioning bar having one end pivoted to said fixed support substantially as high as the top of the bottom rail and mounted to swing about its pivot from a position entirely inside the case to a position at which its free end is outside the case, said bar being shaped to extend from its pivot forwardly across the upper edge of the bottom rail, and thence down forwardly to reach the floor; a link pivoted to the floor-supported end of said bar; a link pivotally connected within the case for operating the moving member, and a pedal having its toe end pivotally connected with the first-mentioned link.

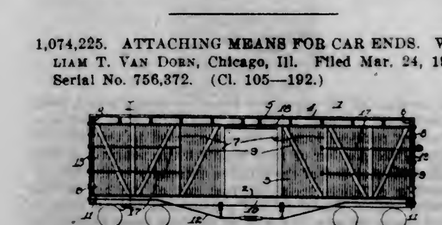
4. In combination with the case, a fixed member and a moving member within the case, a pedal-positioning bar pivoted at one end to the fixed member and mounted to swing about its pivot from a position wholly within the case to a position at which its free end rests upon the floor outside the case; a link pivoted to said free end; a second link pivotally connected within the case for operating the moving member; a pedal pivotally connected at its toe end with the last-mentioned link, and at its heel end with the first-mentioned link, and a stop in the case of limiting the swinging of the said second link behind its pivotal connection.

5. In combination with the case, the pumper bellows therein having its fixed board extending up and down and its moving board behind the fixed board hinged at the upper end for swinging toward and from said fixed board; a lever pivoted on the forward side of the fixed board, and a link extending therefrom past the fixed board and pivotally connected with the moving board; a pedal-positioning bar having one end connected at a fixed pivot within the case and mounted to swing about its pivot from a position entirely within the case to a position at which its free end extends to the floor outside the case; a link pivoted to said free end; a second link pivoted to said lever, and a pedal pivoted at its toe end to said second link, and at its heel end to the first-mentioned link.

1,074,224. DOUBLE-PRESSURE PUMP-GOVERNOR. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 11, 1911. Serial No. 620,472. (Cl. 230—24.)

1. The combination with a pump governor normally operating at a predetermined maximum degree of pump pressure for cutting the pump out of action and at a predetermined minimum degree of pump pressure for cutting the pump into action, of a valve mechanism operating at higher maximum and minimum pump pressures for controlling the supply of operating fluid to said governor to thereby cause the governor to operate at predetermined maximum and minimum degrees of pump pressure higher than the normal.

2. The combination with a pump governor comprising a pump controlling device and a valve mechanism operating at a predetermined maximum degree of pump pressure for actuating said controlling device to cut the pump out of action and at a predetermined minimum degree of pump pressure for cutting the pump into action, of a valve mechanism operating at higher maximum and minimum degrees of pump pressure and adapted to be cut in for controlling the pump governor valve mechanism to thereby cause the pump controlling device to operate at higher maximum and minimum degrees of pump pressure.



3. The combination with a pump governor adapted at a predetermined maximum degree of pump pressure to cut the pump out of action and at a predetermined minimum degree of pump pressure to cut the pump into action, of a valve mechanism operating at a higher maximum degree of pump pressure to supply operating fluid to effect the operation of the pump governor at said higher maximum pressure and operating at a higher minimum degree of pump pressure to release fluid from said governor to effect the operation thereof at said higher minimum degree of pump pressure.

4. The combination with a pump governor adapted at a predetermined maximum degree of pump pressure to cut the pump out of action and at a predetermined minimum degree of pump pressure to cut the pump into action, of a valve mechanism for controlling said pump governor according to a higher maximum and minimum degree of pump pressure, comprising a valve for supplying and releasing fluid to and from said pump governor, a piston device for operating said valve, a maximum pressure regulating device governed by the pump pressure and a minimum pressure regulating device governed by the pump pressure for controlling the operation of said piston device.

5. The combination with a pump governor adapted at a predetermined maximum degree of pump pressure to cut the pump out of action and at a predetermined minimum degree of pump pressure to cut the pump into action, of a valve mechanism operating according to a higher degree of maximum and minimum pump pressure for controlling the admission and release of fluid to and from said pump governor, and a cock adapted in one position to supply fluid at pump pressure to said pump governor and in another position to open communication from said valve mechanism for supplying and releasing fluid to and from the pump governor.

[Claims 6 and 7 not printed in the Gazette.]

1,074,225. ATTACHING MEANS FOR CAR ENDS. WILLIAM T. VAN DORN, Chicago, Ill. Filed Mar. 24, 1913. Serial No. 756,372. (Cl. 105—192.)

1. The combination with the end members of a car frame, of a car end secured thereon, means tying the same to intermediate members of the car frame, and integral continuous means at the top of the car for tying the opposite car ends together.

2. The combination with a car frame of car ends secured thereon, straight and parallel continuous tie rods extending the entire length of said car and secured on said car ends, and integral means on said car ends permitting a continuous connection to be effected between said opposite ends by means of the truss rods of the car frame.

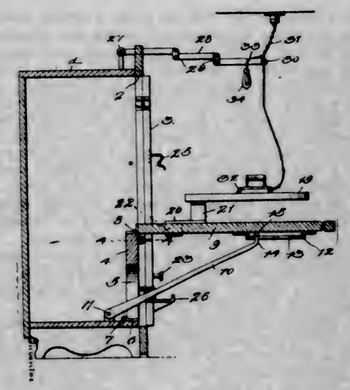
3. In a car frame the combination with the corner posts thereof, of a metallic car end flanged therearound, and bolts secured alternately transversely and longitudinally, relative the car, through said corner posts and car ends, to secure the same together.

4. Means for attaching a car end to a car frame comprising tie rods extending through the car frame and car ends and secured at points intermediate the length of the car frame and to said car ends, and continuous tie rods extending the length of the top of the car and securing the opposite car ends one to another.

5. In means for attaching a metallic car end to a car frame, the combination of extended flanges on said car end, longitudinal and transverse bolts extending therethrough, and one of said flanges adapting the truss rods of the car frame to extend therethrough to tie the opposite car ends together and to reinforce and strengthen the car frame.

[Claims 6 to 19 not printed in the Gazette.]

1,074,226. IRONING-BOARD CABINET. MAX CHARLEY WALTER, Talmage, Nebr. Filed Oct. 12, 1912. Serial No. 725,501. (Cl. 68—10.)



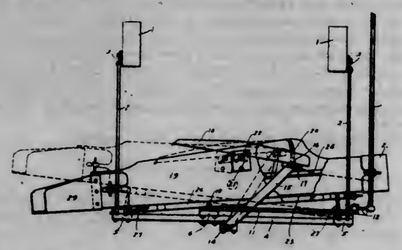
1. In combination with a cabinet, a support hingedly mounted within said cabinet, an ironing board hingedly mounted at one end upon said support, said support having an opening therein, and means carried by said cabinet and projecting through said opening for supporting the opposite end of said ironing board, substantially as and for the purpose described.

2. In a foldable ironing board, the combination with a stationary member, of a support bifurcated at one end to form a pair of standards, said standards being hingedly connected to said stationary member, an ironing board hingedly connected at one end to said support, and a brace rod pivotally connected at one end to said stationary member, said brace rod extending between said standards and being adjustably connected to the opposite end of said ironing board, as and for the purpose described.

3. In a foldable ironing board, the combination with a cabinet, of a support hingedly mounted at one end upon the bottom of said cabinet, an ironing board hingedly connected at one end to the opposite end of said support, means carried by said cabinet for supporting the outer end of said ironing board, and means carried by said support and adapted to engage one side of said cabinet to hold said ironing board in open position, as and for the purpose described.

4. In a device of the character described, the combination with a cabinet, of a support hingedly secured at one end thereto, an ironing board hingedly secured at one end to said support, means connected to said cabinet to support the opposite end of said ironing board, and spring pressed bolts mounted upon said support and adapted to engage said cabinet to hold said ironing board in open position, substantially as and for the purpose described.

1,074,227. AUXILIARY CLEANING MEANS FOR BEAN AND PEA HULLERS. LEWIS S. WHITING and WILLIAM M. KOPPES, Mansfield, Ohio, assignors to The Aultman & Taylor Machinery Company, Mansfield, Ohio, a Corporation of Ohio. Filed Jan. 9, 1913. Serial No. 740,910. (Cl. 130—15.)



1. In a device of the type set forth, a screen, means to oscillate the screen by alternately raising and lowering its ends, a delivery chute above the screen, and means to oscillate said chute so that when one end of the screen is raised the adjacent end of the chute is depressed.

2. In a device of the type set forth, a pivotally mounted screen, means to oscillate the screen by alternately raising and lowering its ends, and means to feed material alternately to the opposite ends and highest ends of the screen.

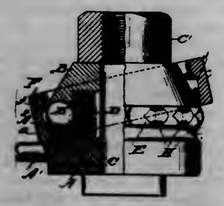
3. In a device of the type set forth, a pivotally mounted plane screen, means to feed material to the screen, and means to actuate the said elements, whereby when an end of the screen is raised, the material is fed to said end in a direction toward the highest point of said end.

4. In combination with a box having a screen, means to alternately raise and lower the ends of the box, a centrally pivoted delivery chute, and means to alternately raise and lower the ends of the chute.

5. In combination with a box having a screen, means to reciprocate the box and to simultaneously raise and lower its ends, a delivery chute pivoted to the box between the chute ends and between the ends of the box, and means operated by said box actuating means for alternately raising and lowering the chute ends.

[Claims 6 to 9 not printed in the Gazette.]

1,074,228. DEVICE FOR ASSEMBLING BALL-BEARINGS. HENRY B. WHITNEY, Detroit, Mich., assignor to F. Earl Long, Detroit, Mich. Filed May 21, 1913. Serial No. 768,903. (Cl. 29—84.)



1. In a device for assembling ball-bearings comprising a plurality of balls retained between a pair of concentrically arranged rings having a grooved unbroken ball-race on the opposing faces of the rings, a pair of clamping members adapted to receive and hold the inner ring and a plurality of balls, and a plurality of removable elements to be lodged between the balls to protect both the balls and the inner face of the outer ring from injury when the latter is forced over the balls in assembling the parts, substantially as described.

2. In a device of the character described, a pair of clamping plates adapted to receive between them the grooved inner ring of a ball-bearing, an adjustable bolt connecting the plates together, said plates provided with cup-shaped depressions in their opposing faces to receive the balls of the bearing, and a plurality of elements adapted to extend partially around the balls to protect them and the grooved outer ring from injury when forcing the ring over the balls in assembling the several parts, substantially as described.

3. In a device of the character described, a pair of clamping plates adapted to receive the grooved inner ring of a ball-bearing having cup-shaped depressions in their opposing faces to receive the balls of the bearing, said depressions being arranged in two spaced groups, removable filler blocks in the space between the groups of balls, other removable elements lodged between the balls adapted to protect the outer face of the balls and the inner face of the outer ring from injury when the latter is forced over the balls in assembling the parts, and an adjustable bolt engaging the clamping plates.

4. In a device of the character described, a pair of clamping plates adapted to receive the grooved inner ring of a ball-bearing having cup-shaped depressions in their opposing faces to receive the balls of the bearing, said depressions being arranged in two spaced groups, an adjustable bolt engaging the clamping plates, removable filler blocks lodged in the spaces between the groups of balls and having flat outer faces, other removable elements adapted to be lodged between the balls and extend partially around the latter, whereby in forcing the outer ring over the balls in assembling the parts the ring and balls are protected from injury by the removable elements, the flattened filler blocks permitting a slight elongation of the outer ring that it may be more readily forced over the balls.

5. In a device of the character described, a pair of clamping plates adapted to receive between them a plurality of balls and the inner grooved ring of a ball bearing, an adjustable bolt connecting the plates together, a plurality of removable elements adapted to be temporarily lodged between the balls of the bearing to protect them and the outer ring from injury when forcing the latter over the balls in assembling the parts, and a pin projecting from the lower plate to support and guide the outer grooved ring when the latter ring is forced over the balls in assembling the parts.

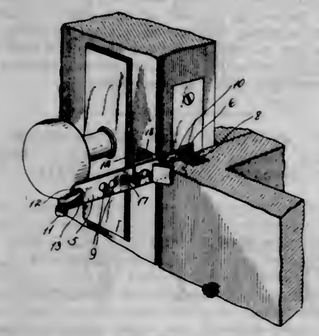
[Claim 6 not printed in the Gazette.]

1,074,229. GARMENT-FASTENER. MARY A. WILLBRANDT, Washington, Kans. Filed June 24, 1912. Serial No. 705,657. (Cl. 24—204.)



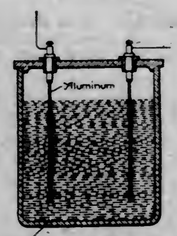
A fastener of the character described comprising a hook formed from a single length of wire, said hook having a bill and a resilient locking tongue opposed to the bill, the intermediate portion of said tongue being adapted to rest against the free end of the bill, the extremity of the tongue extending obliquely from the free end of the bill to the forward end of the hook, and a loop also formed from a single length of wire, the wire of the loop being bent upon itself at the ends of the loop to form attaching eyes, the intermediate portion of the wire of the loop being bent inwardly to rest against the wire of the bill and then offset at right angles to the plane of the body portion of the loop, the offset portion of the loop being of a length substantially the distance between the hook bill and the offset portion of the loop, and being adapted to extend entirely across the space between the hook bill and the body portion of the loop when said loop and hook are connected, said resilient locking tongue bearing against the cross bar of the offset portion of the loop and adapted to normally hold the hook against rocking movement upon the loop.

1,074,230. DOOR-SECURER. HALDON R. WISEMAN, Sawtelle, Cal. Filed May 14, 1912. Serial No. 697,172. (Cl. 16—8.)



A door securer, comprising an elongated bar provided with a bent end to engage a door jamb, having a series of longitudinally disposed bores, a latch formed of an integral piece of metal, bent to straddle said bar, the forwardly disposed sides bent upon themselves to form braced shoulders, and one of said sides of said latch being provided with an extension beyond the oppositely disposed side, and a stud upset on said extension, whereby the stud may be registered in one of said bores in said bar, and pivot the latch therein to straddle and lock said latch in adjustable relation on said bar.

1,074,231. ELECTROLYTIC CONDENSER. CLARENCE I. ZIMMERMAN, Niagara Falls, N. Y.; James G. Zimmerman, administrator of said Clarence I. Zimmerman, deceased, assignor to General Electric Company, a Corporation of New York. Filed Mar. 31, 1906. Serial No. 309,209. (Cl. 175—316.)



1. In an electrolytic cell, an aluminum electrode, a cooperating electrode, and an electrolyte consisting of an aqueous solution containing an oxyacid of boron, borax and glycerin.

2. In an electrolytic cell, the combination of an aluminum electrode, a coöperating electrode, and an electrolyte containing a borate and a soluble carbo-hydrate.

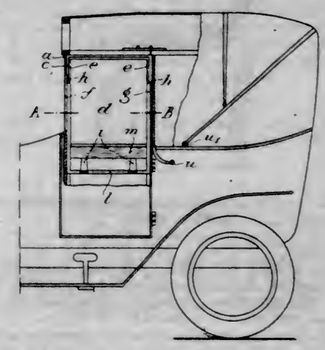
3. In an electrolytic condenser, aluminum electrodes, and an electrolyte consisting of an aqueous solution containing an oxyacid of boron, a borate and glycerin.

4. In an electrolytic alternating-current rectifier, an electrolyte containing a substance for preventing oxids and precipitates forming and collecting in the cell.

5. In an electrolytic alternating-current rectifier, an electrolyte containing glycerin for preventing oxids and precipitates forming and collecting in the cell.

[Claims 6 to 8 not printed in the Gazette.]

1,074,232. HOOD OF MOTOR-CARS. ANTON AUMÜLLER, Munich, Germany. Filed May 6, 1912. Serial No. 695,539. (Cl. 21—125.)



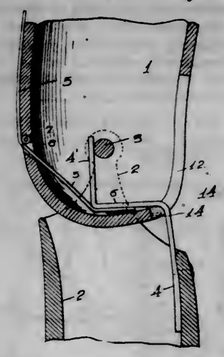
1. A window holder for motor cars or other vehicles, comprising a three-branched metal frame of U-shaped cross section for each front and side window, open at the top and adapted to partially participate in the movement of the windows, and provided with lateral grooves, each adapted to secure the metal frame of the adjoining front or side window, means upon the inner faces of the lower frames for arresting the upward movement at a predetermined point, and means at the upper end of each frame for increasing the frictional engagement between the frame and the walls of said groove, substantially as described.

2. A window holder for motor cars or other vehicles, comprising a three-branched metal frame of U-shaped cross section for each front and side window, open at the top and adapted to partially participate in the movement of the windows, and provided with lateral grooves, each adapted to secure the metal frame of the adjoining front or side window, stop tongues upon the inner faces of the lower frames for arresting the upward movement at a predetermined point, and an inwardly directed stop tongue at the upper end of each frame, substantially as described.

1,074,233. ARTIFICIAL KNEE-JOINT. CLYDE A. AUNGER, San Francisco, Cal. Filed Apr. 2, 1913. Serial No. 758,704. (Cl. 3—3.)

An artificial knee joint comprising a leg portion having vertical extensions secured to each side of the upper end thereof; a knee bolt rigidly secured between the upper ends of the vertical extensions; a stump portion pivotally secured to the knee bolt and having a horizontal slot with a roller therein in the front portion, and a vertical slot with a padded lower end in the back thereof; a retaining strap secured to and encircling the upper portion of the stump; a back check comprising upper and lower vertical portions and a central horizontal portion, the lower vertical portion being rigidly secured to the back of the leg portion and adapted to engage the lower padded end of the vertical slot in the back of the stump and the upper vertical portion being adapted to engage the knee bolt within the hollow stump; a strap secured to the horizontal portion of the back check and adapted to pass over the roller in the horizontal slot in the front portion of the stump and under the retaining strap secured to the upper portion of the said stump; and shoulder straps

secured to the back of the stump and adapted to pass over the shoulder of the wearer and to engage the upper



end of the strap secured to the horizontal portion of the back check.

1,074,234. ALLOY OF ZINC. THOMAS ABRAHAM BAYLISS, Warwick, England, assignor of one-half to Byron George Clark, London, England. Filed May 10, 1912. Serial No. 696,479. (Cl. 75—1.)

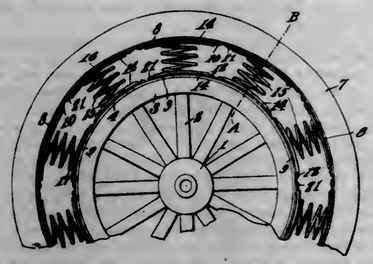
1. A malleable alloy composed of zinc, aluminium and lead in proportions between the limits of zinc 99.1%–99.9%; aluminium 0.001%–0.9%; and lead 0.01%–0.9%.

2. A malleable alloy containing 99.85% of zinc; 0.1% of aluminium; and 0.05% of lead.

3. A method of preparing a malleable alloy of zinc, aluminium and lead which consists in heating together zinc and lead to bring them into a molten condition while the zinc and lead are still in a molten condition, adding aluminium thereto to make the composition required, adding a flux thereto and allowing the alloy to cool and set, thereafter rolling it and subsequently annealing it.

4. A method of preparing a malleable alloy of zinc, aluminium and lead which consists in heating together zinc and lead to bring them into a molten condition, then while the zinc and lead are still in a molten condition adding aluminium thereto to make the composition required, maintaining the mixture in a molten condition until the aluminium has become evenly disseminated throughout the mass, adding a flux thereto and allowing the alloy to cool and set, thereafter rolling it and subsequently annealing it.

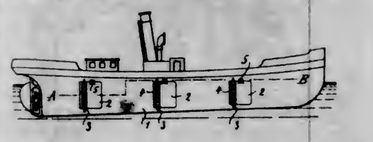
1,074,235. SPRING-WHEEL. RODDIE C. BEHRENDS, Easton, Ill. Filed Jan. 2, 1912. Serial No. 669,063. (Cl. 152—32.)



1. In a device of the class described, a rim; a tire; holders mounted upon the rim and upon the tire for lateral swinging movement, thereby to dispose the holders transversely of the tire and of the rim; a spring adapted to be assembled with the holders and be removed therefrom when the holders are disposed transversely of the tire and of the rim, the holders having spring engaging elements for receiving the spring slidably; and means for securing the holders against swinging movement and in alinement with the rim and with the tire.

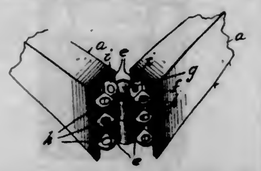
2. In a device of the class described, a tire; a rim; holders mounted upon the tire and upon the rim to swing transversely of the tire and of the rim; springs engaging the holders and removable therefrom when the holders are disposed transversely of the tire and of the rim; spaced elements connecting the holders with the tire and with the rim respectively, one connection element of each holder constituting a pivotal mounting for the holder, and the other connecting element of each holder constituting means for securing said holder against swinging movement, the last specified connecting element of each holder being engaged with the spring to prevent relative movement between the spring and said holder.

1,074,236. STOPPING DEVICE FOR SHIPS. CARL BEHRENS, Jabelitz, near Trent, Germany. Filed Apr. 7, 1913. Serial No. 759,539. (Cl. 114—145.)



In the herein described stopping device for use with ships, having a series of recesses in the sides of the hull, the combination with a corresponding number of doors hinged to the sides of the vessel and fitting in said recesses, of a longitudinally disposed slidable rod mounted in the middle of the ship, a pair of double armed levers and links connecting each oppositely arranged pair of doors, a U-shaped plate having a hollow head attached to the said rod at a place where the latter extends into the engine room of the ship, a second rod having a conical recess slidably mounted on the said plate and connecting with the reversing lever operating the engine, a spring influenced recessed cap mounted within the hollow head of the plate and terminating in a cone adapted to engage with the said conical recess, a spring influenced pin bearing in the recess of said cap, and a worm formed integrally with the propelling shaft, the said spring influenced pin being adapted to engage the threads of the worm, all substantially as and for the purpose specified and shown.

1,074,237. MESH-BAG. ELIE BELINE, New York, N. Y. Filed Sept. 29, 1911, Serial No. 651,916. Renewed May 6, 1913. Serial No. 765,909. (Cl. 150—29.)



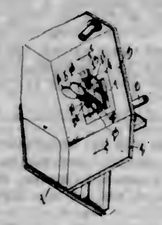
1. A mesh-bag having mesh-carrying frame members hinged together and formed with ribs at the hinge-joint and with eyes upon the ribs for the attachment of the mesh, whereby the latter covers the joint.

2. A mesh-bag having mesh-carrying frame members hinged together and formed with ribs at the hinge-joint and with eyes which project from the ribs in planes substantially perpendicular to the same and to which the mesh is attached to cover the hinge joint.

3. A mesh-bag having mesh-carrying frame members hinged together and formed with eyes at the joint, to which eyes the mesh is attached to cover the joint.

4. A mesh-bag having mesh-carrying frame members hinged together and formed with ribs at the hinge-joint and with eyes which project from the ribs in planes perpendicular and parallel to the ribs and to which the mesh is attached to cover the joint.

1,074,238. LOCK FOR AUTOMOBILES. ALBERT AUSTIN BENNETT, Los Angeles, Cal. Filed June 19, 1913. Serial No. 774,710. (Cl. 70—90.)

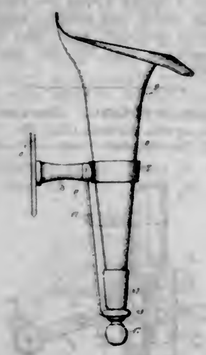


1. In combination with an automobile having separate forward and reverse gear levers, a locking plate provided with walls for securing said forward and reverse gear levers in the disengaged positions, and locking means for securing said locking plate to the automobile.

2. In combination with an automobile having separate forward and reverse gear levers, a locking plate having an opening fitting about said forward gear lever when said forward gear lever is in the disengaged position and a wall fitting against the reverse gear lever when said reverse gear lever is in the disengaged position, and locking means for securing said plate to the automobile.

3. In combination with an automobile having separate forward and reverse gear levers, a locking plate having a locking slot therein and a slot adapted to lock the forward lever and the reverse lever in the disengaged positions, a staple secured to the automobile so placed as to pass through said locking slot, and a padlock having a hasp adapted to engage said staple above said plate and thereby prevent the removal of said plate.

1,074,239. BRACKET-HOLDER FOR FLOWER-VASES. SIDNEY D. R. BRAUN, Chicago, Ill. Filed Apr. 27, 1912. Serial No. 693,711. (Cl. 248—20.)



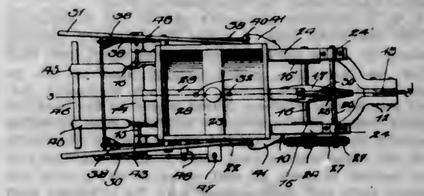
1. A bracket for flower holder vases comprising in combination a projected bracket arm, a collar rigid with and projecting from the end of said arm for surrounding a vase stem, a base support for the end of the vase adjustably secured to and suspending directly from said arm, substantially as described.

2. A bracket for flower holder vases comprising in combination a bracket arm, a vase retaining collar projecting from said arm, a support for the base of the vase, means suspending the said base from the bracket arm, an end socket for a vase and means projecting from the socket whereby the socket is tightened against the base support, substantially as described.

3. A bracket for flower holder vases comprising in combination a bracket arm, a vase stem retaining collar projecting from said arm, a ring below said bracket arm, means whereby said ring is adjusted with reference to the collar, and means for locking a vase to said collar, the end of which vase is seated thereon, substantially as described.

4. A bracket for flower-holder vases comprising in combination a bracket arm, a collar secured to and a rod adjustable in said arm, a base ring on the lower end of said arm, a socket piece receiving the adjacent end of said base, and means for tightening said socket piece against the base ring, substantially as described.

1,074,240. PLANTER. SEYMORE V. BROCK, Burch, La. Filed July 24, 1912. Serial No. 711,374. (Cl. 111—32.)



In a planter the combination with a frame, a hopper mounted thereupon and provided with a double bottom; of a transverse partition dividing the hopper into two compartments and secured to the upper floor of the hopper bottom, a spout depending from the upper floor and through the lower floor of the bottom of the hopper, the partition having an opening forming a means for communication between the compartments and the spout, a slide adapted to reciprocate upon said upper floor and within each of said compartments and the opening formed within the partition, the partition having a centrally located vertical bore formed therein, a cylindrical plug mounted in said bore, and bristles extending from said plug and adapted to contact with the upper face of the slide, for the purpose specified.

1,074,241. COMBINATION ELECTRIC SWITCH. YORKE BURGESS, Chicago, Ill. Filed May 11, 1912. Serial No. 696,563. (Cl. 175—282.)



1. In a combination electric switch a plurality of stationary contacts insulated from one another, a movable contact member electrically connected with each stationary contact and movable into connection with an adjoining fixed contact and insulating ratchet members each arranged with one of its recesses above a portion of an adjacent stationary contact, the teeth of said ratchet member interrupting the movement of the associated movable contact toward said recess a definite number of times.

2. In a combination electrical switch, the combination of an insulating base, a plurality of stationary contacts mounted thereon in series succession, each contact spaced apart from the adjoining contacts, a movable contact mem-

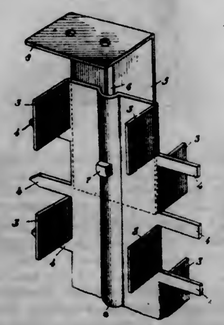
ber for each stationary contact member making constant electrical connection with its stationary contact member and movable to connect it with the adjoining contact member of the series; independent means to rotate each movable contact member, and an insulating ratchet member associated with each movable contact member to divide the rotative cycle of each movable contact member to a definite number of divisions, and two teeth of said ratchet spanning an adjacent stationary contact to permit contact of said movable contact member with the adjoining stationary contact at only one of said divisions.

3. In a combination electric switch, the combination of an insulating base, a series of contact strips thereon, corresponding operating knobs, metallic stems for said knobs each permanently connected with and rotatable with respect to the corresponding contact strip, a stationary insulating ratchet member associated with each stem and having a recess overlying the contact strip next adjacent to that with which the stem is permanently associated, a contact finger carried by and axially movable on each stem arranged to ride over the teeth of the corresponding ratchet and a spring for each movable contact surrounding the corresponding stem.

4. In a combination electric switch, the combination of an insulating base, a series of stationary contacts thereon in series succession and spaced apart from each other, an insulating ratchet member fixed on the insulating base in association with each stationary contact and having a recess giving access to the next adjoining contact in the series, a rotatable stem extending centrally through each ratchet and connected electrically with the corresponding fixed contact, and a movable contact carried by each of said stems to sweep over the ratchet teeth and make contact with the adjoining fixed contact through the appropriate recess and adjustable to different positions rotatively with respect to the stem.

5. The combination, in a device of the character described, of an insulating base, a plurality of manually movable stems extending through said insulating base, means to indicate a starting position for each stem in connection with a contact strip, a contact strip for each stem, each strip insulated from the others and all connectible together to complete a circuit, an insulating ratchet associated with each of said stems to expose between two of its teeth the next adjoining contact strip, and a movable contact adjustably carried by each stem and having a lateral resilient arm to ride over the teeth for final coaction with the adjacent contact strip after passing a number of ratchet teeth beyond starting position determined by the adjustment of said contact upon its stem.

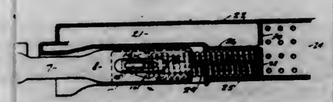
1,074,242. METAL STRUCTURE. WILLIAM L. CALDWELL, Canton, Ohio, assignor to The Berger Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Nov. 27, 1911. Serial No. 662,567. (Cl. 72—115.)



1. A metal structure of the character described formed from sheet metal and comprising an elongated main body portion provided at its longitudinal edge with transverse slits forming integral relatively broad flanges and integral relatively narrow bendable tangs, said flanges bent at substantially right angles to the main body portion and said tangs normally lying in the same plane with the main body portion.

2. A studding of the class described, consisting of a metallic strip provided with a series of oppositely disposed slits extending along the edges thereof, and forming a series of wings along said edges, certain of said wings being bent to extend at approximately right angles to the body of said studding, a portion of said bent wings extending in a direction from the body of the studding opposite to that direction in which the remainder of said bent wings extend, the remainder of said wings being unbent and extending parallel with the horizontal plane of the body of the studding, substantially as described.

1,074,243. RAILWAY DRAFT-RIGGING. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed Feb. 19, 1912. Serial No. 678,553. (Cl. 213—42.)

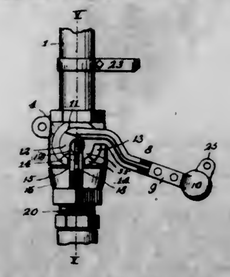


1. In a railway draft rigging the combination with the draw bar and means for supporting the same, of draft members and a shock absorbing mechanism between said draft members, a hollow casing secured to the draw bar springs within said hollow casing, a key passing through said casing and slidingly engaging the draft members, the said draft members have their side faces joined together at the top and bottom forming a recess to contain the shock absorbing member.

2. In a railway draft rigging, the combination with the draft members and draw bar, of a hollow casing secured to the draw bar, a spring within said casing, a key passing through said casing and slidably engaging the draft members, a pocket between said draft members, a spring within said pocket, the said spring being seated at its forward end against the said casing.

3. In a railway draft rigging, the combination with a draw bar and draft members, of a pocket formed by said draft members, a spring within said pocket, a casing secured to the draw bar, said casing being in engagement with said spring, a spring within the casing, a key passing through said casing and slidably engaging the draft members, a sleeve mounted upon said key within the casing and forming a seat for one end of the spring within the casing.

1,074,244. HOSE-COUPLING. THOMAS CARENCE and ERNEST W. SUMPTER, Kansas City, Mo. Filed Sept. 23, 1912. Serial No. 721,948. (Cl. 137—89.)



1. A hose coupling consisting of two interengaging members, a pair of annular flanges secured on opposite sides of one of said members each formed with an opening which extends through the flange periphery, a guide on each side of each opening, a pair of oppositely disposed jaws carried by the other member, an inwardly extending lug formed on each jaw for engagement through said respective openings of the flanges, a disk journaled in each of said annular flanges, and a lever having a bifurcated portion the ends of which latter are secured to said disks, the outer face of each disk having an eccentric recess the mouths of which recesses extend through the disk peripheries and are for registry with the respective openings of the flanges to admit the lugs of the second named member on the interiors of said eccentric recesses, said lugs being engaged by the walls formed by the eccentric recesses and being actuated thereby when the lever is operated.

2. A hose coupling embodying two interengaging members, a flange on each side of one of said members formed with an opening which extends through the flange periphery, a pair of jaws carried by the other member for engagement through the respective openings of the flanges, a disk rotatably supported by each flange, and a lever having one end secured to the disks, each disk having an eccentric recess the mouths of which extend through the disk peripheries and are for registry with the respective openings of the flanges to admit the jaws of the second named member on the interiors of said eccentric recesses, said lugs being engaged by the walls formed by the eccentric recesses and being actuated thereby when the lever is operated.

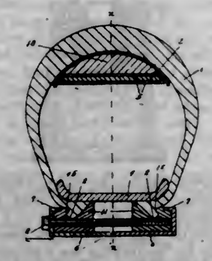
1,074,245. HYGIENIC TEXTILE SPONGE. HENRY CASEVITZ, Paris, France. Filed June 25, 1913. Serial No. 775,732. (Cl. 128—3.)



1. A hygienic sponge made of a sheet or layer of unwoven fibers folded upon itself and highly compressed endwise to the form of a compact wad or disk adapted when saturated with liquid to expand to many times its compressed volume and to unfold to a sheet or layer form.

2. A hygienic sponge made of a sheet or layer of absorbent cotton folded upon itself and highly compressed endwise to the form of a compact wad or disk adapted when saturated with liquid to expand to many times its compressed volume and to unfold to a sheet or layer form.

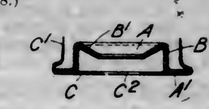
1,074,246. VEHICLE-TIRE. JOHN T. CLARK, Provo, Utah. Filed Nov. 29, 1912. Serial No. 734,203. (Cl. 152—8.)



1. A vehicle tire consisting of two floating concentric bands; a flexible tubular casing having a bead near each edge thereof and inclosing said bands and tending to draw the outer of said bands radially inward and the inner of said bands radially outward; a guide case consisting of two opposed annular metal members L-shaped in cross section; opposed laterally-movable annular bands adapted to engage said beads, each having threaded and unthreaded openings transversely therethrough; threaded bolts each adapted to engage one of said L-shaped metal members with the head of the bolt and the annular band in the other L-shaped member by means of the threads to move said last mentioned annular band laterally in said guide case to tension said tubular casing transversely and to hold said guide case, annular bands, floating bands, and tubular casing in fixed relation with each other.

2. A vehicle tire consisting of two floating bands of different diameters; a flexible tubular casing having a bead near each edge and inclosing said bands to hold them concentric; an annular guide case concentrically within said tubular casing and consisting of two opposed members L-shaped in cross section; opposed annular bands adapted to engage said beads and operable in said guide case; and means to move said annular bands within said guide case and thereby to tension said casing transversely of the wheel and hold said guide case, annular bands and floating bands in fixed relation with each other.

1,074,247. SNAP-FASTENER. ERNEST COLEGATE, London, England. Filed Dec. 8, 1911. Serial No. 664,599. (Cl. 229—78.)



1. The herein described socket member of a snap fastener comprising a base plate, an annular cover having at one end an aperture through which the stud member of the fastener passes to engage the socket portion and having at its opposite end an outwardly projecting flange that bears against the base plate, and spurs on the base plate bent over said flange to connect the component parts of the socket together, with the pointed extremity of each projecting from the flange and base plate and constituting means for securing the completed socket to a support.

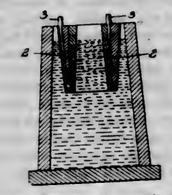
2. The herein described socket member of a snap fastener comprising a hollow cover section having a laterally projecting annular flange at one end and provided at its other end with an aperture through which the stud member of the fastener is adapted to extend, a base plate bearing against the flange of the cover section and having a plurality of spurs which are bent over and against said flange, at intermediate points in their length, to secure the cover section on the base plate, the free ends of said spurs projecting from and constituting the means for securing the entire device to a support, and a spring member arranged within the cover section to engage the stud member of the fastener when it is inserted in the socket member.

3. The herein described socket member for a snap fastener comprising a hollow cover section having a laterally projecting annular flange at one end and provided at its other end with an aperture through which the stud member of the fastener is adapted to extend, a base plate bearing against the flange of the cover section and having a plurality of spurs which are bent over and against said flange, at intermediate points in their length, to secure the cover section to the base plate, the free ends of the said spurs projecting from and constituting the means for securing the entire device to a support, and spring fingers arranged within the cover section to engage the stud member of the fastener when inserted in the socket, said fingers bearing against the end wall of the cover section so that they are prevented from moving in a direction permitting withdrawal of the stud from the socket.

4. The herein described socket member of a snap fastener comprising a base plate provided with a plurality

of peripheral spurs, a hollow cover having an aperture formed in its top and provided at its opposite end with an annular outwardly projecting flange which bears against the base plate, each of the spurs on the base plate being bent, at an intermediate point in its length, to extend first partly over said flange, to secure the cover and base plate together, and then away from the base plate, and providing means for securing the attached cover and base plate to a support, and means within the cover for engaging the stud member of the fastener.

1,074,248. MANUFACTURE OF INGOTS. WILLIAM H. CONNELL, Pittsburgh, Pa. Filed July 10, 1912. Serial No. 708,712. (Cl. 22—216.)

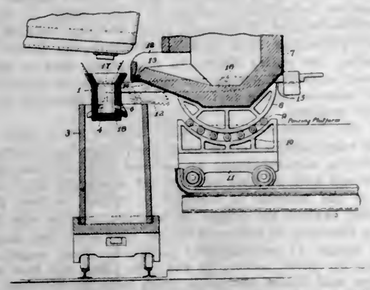


1. As an improvement in the method of forming solid ingots, the method herein described, which consists in teeming into the mold only the amount of metal desired in the finished ingot, applying sufficient heat to the metal in the upper portion of the ingot in such manner that it will maintain such upper portion including the metal in contact with the inner surface of the mold in a plastic condition, during the solidification of the lower portion of the ingot.

2. The improvement in the art of forming ingots, etc., the method herein described which consists in teeming metal into a mold, bringing such metal to an approximately even temperature transversely of the mold, and permitting the progressive solidification upwardly while maintaining the transverse uniformity of temperature.

3. The improvement in the art of forming ingots, the method herein described which consists in maintaining a substantial portion of the upper part of an ingot at a temperature not less than the melting point of the metal during the solidification of the lower portions of the ingot and permitting of the progressive upward cooling and solidification of such upper portion.

1,074,249. MANUFACTURE OF INGOTS. WILLIAM H. CONNELL, Pittsburgh, Pa. Filed Nov. 1, 1912. Serial No. 729,083. (Cl. 22—60.)



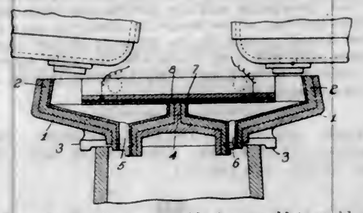
1. In an apparatus for teeming metal into a mold, the combination of a receptacle or distributer having a plurality of outlets, and means for heating the inner surface of such receptacle or distributer to a temperature substantially that of the molten metal.

2. In an apparatus for teeming metal into a mold, the combination of a receptacle or distributer having a plurality of outlets for distributing metal to different points in the mold, a second receptacle for pouring metal into one of the streams flowing into the mold, and means for maintaining said receptacles in proper relation to each other during the charging of the mold.

3. In an apparatus for teeming metals into a mold, the combination of a receptacle having a plurality of outlets for distributing metal to different points in the mold, a second receptacle for pouring metal into one of the streams flowing into the mold, and means for connecting said receptacles while permitting their independent movements in vertical planes.

4. An apparatus for teeming metal into a mold, the combination of two movable receptacles for molten metal, one of said receptacles having a plurality of outlets, arms pivotally mounted on opposite sides of one of said receptacles and provided with means for engaging the second receptacle, and means for counter-balancing the supported receptacle.

1,074,250. CASTING APPARATUS. WILLIAM H. CONNELL, Pittsburgh, Pa. Filed Nov. 1, 1912. Serial No. 729,084. (Cl. 22—60.)



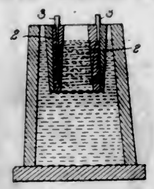
1. A metal distributer movable from mold to mold, having in combination independent chambers or compartments for the reception of metal, each compartment having a plurality of separated outlets.

2. A metal distributer movable from mold to mold, having in combination independent chambers or compartments for the reception of metal, each compartment having a plurality of separated outlets, the outlets from one compartment having a combined delivering capacity greater than the combined capacity of the outlets from the other compartment.

3. A metal distributer, having in combination independent chambers or compartments, each compartment having an outlet, and a roof arranged above the compartments and adapted to reflect back the heat radiating from the metal flowing through said compartments.

4. A metal distributer, having in combination independent compartments or chambers, each compartment provided with an outlet, a roof arranged above the compartments and adapted to reflect back the heat radiating from the metal flowing through said compartments, and means for applying heat to the surface of such metal.

1,074,251. APPARATUS FOR MANUFACTURING INGOTS. WILLIAM H. CONNELL, Pittsburgh, Pa. Filed Jan. 30, 1913. Serial No. 745,168. (Cl. 22—74.)



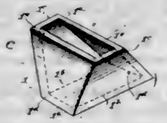
1. As a means for controlling the solidification of metal in a mold, a heater movable in the mold, and means for raising the temperature of such heater to a point approximately that of the melting point of the metal in the mold.

2. As a means for controlling the solidification of metal in a mold, a heater movable in the mold, and means for varying the temperature of the heater while in the mold.

3. The combination of a mold, and means for progressively regulating the temperature of the metal in the mold.

4. As a means for controlling the solidification of metal in a mold, the combination of a movable annular shell formed of refractory non-electric conducting material and a resistor embedded in said shell and adapted to be highly heated by an electric current.

1,074,252. CHIMNEY-FLUE REVERSER. STANLEY S. COVERT, Montclair, N. J. Filed Apr. 18, 1912. Serial No. 691,666. (Cl. 72—90.)



1. A device of the character described comprising a four-sided hollow block having two adjacent sides of similar angles and dimensions reversed in position with respect to one another, and having two other adjacent sides of similar angles and dimensions reversed in position with respect to one another, said body having openings at its opposite ends of practically the same dimensions, whereby said openings are angularly disposed as to their relative dimensions.

2. A device of the character described comprising a four-sided hollow block having two adjacent sides of similar angles and dimensions reversed in position with respect to one another, and having two other adjacent sides of similar angles and dimensions reversed in position with respect to one another, said body having openings at its opposite ends, said openings each having greater length than breadth, the plane of the greater length of one opening being at an angle to the plane of the greater length of the opening, said opening being on substantially parallel planes.

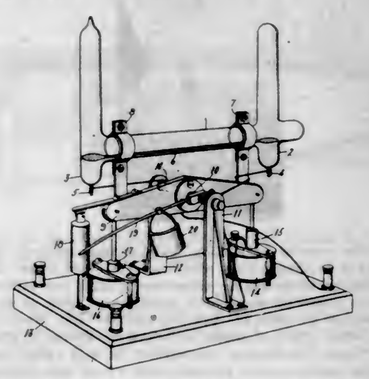
3. A device of the character described comprising a hollow body having four sides, two adjacent sides being at right angles to each other, the lower edge of one of said sides being longer than its upper edge, and the lower edge of the other of said sides being shorter than its upper edge, said body having two other sides inclined with respect to the first named two sides, the lower edge of one of the second named sides being shorter than the upper edge of said side, and the lower edge of the other of said sides being longer than the upper edge of said sides, said body having openings at its opposite ends of practically the same dimensions.

4. A chimney flue provided with a reverser comprising a hollow body having openings at opposite ends that are of greater length than breadth, the plane of the greater length of one opening being at an angle to the plane of the greater length of the other opening, the flue having greater transverse length than width, a portion of the flue having its greater transverse length at an angle to the length of another portion thereof, the reverser being interposed between such portions of the flue, and having the greater length of its respective openings extending in the direction of the corresponding portions of the flue.

5. A chimney flue provided with a reverser comprising a hollow body having openings at opposite ends that are of greater length than breadth, the plane of the greater length of one opening being at an angle to the plane of the greater length of the other opening, the flue being provided with a lining above and below the reverser, the linings having greater cross sectional length than breadth, the greater such length of one lining coinciding with the greater length of one opening of the reverser, and the greater such length of another lining coinciding with the greater length of the other opening of the reverser, the greater such length of said linings being at an angle to each other.

[Claim 6 not printed in the Gazette.]

1,074,253. VAPOR ELECTRIC APPARATUS. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Apr. 27, 1904, Serial No. 205,107. Divided and this application filed Aug. 14, 1905. Serial No. 274,212. (Cl. 176—48.)



1. A vapor device comprising a movable container, normally separated electrodes or contacts in said container and included in the main operating-circuit of the device, one of such electrodes being a conducting liquid, and automatic means for moving the container so as to make and break conductive connection between the said electrodes.

2. A vapor device comprising a movable container, normally separated electrodes or contacts in said container and included in the main operating-circuit of the device, a conducting liquid or fluid in said container, and automatic means for moving the container so as to make and break conductive connection between said electrodes.

3. A vapor device comprising a movable container, the said device being adapted to operate in a position other than horizontal, normally separated electrodes, and a conducting liquid in said container included in the main operating-circuit of the device, and automatic means for tilting the device so as to make and break conducting connection between the electrodes.

4. A mercury-vapor lamp comprising a movable container for mercury, normally separated electrodes in said container included in the main operating-circuit of the lamp, and automatic means for moving the container so as to make and break metallic connection between the said electrodes.

5. A mercury-vapor lamp comprising a movable container for mercury, the said lamp being normally tilted from a horizontal position and being adapted to operate in an inclined position, and automatic means for tilting the lamp so as to make and break metallic connection between the electrodes.

[Claims 6 to 8 not printed in the Gazette.]

1,074,254. PRINTING PROCESS. THOMAS S. FOX, New York, N. Y. Filed May 21, 1908. Serial No. 434,207. (Cl. 101—159.)

1. The process of making multi-colored surfaces consisting in preparing a key printing surface and three other printing surfaces having transfers of said key printing surface, producing marks on said key printing surface at an angle of about 45 degrees and producing the marks on said other three printing surfaces at angles of about 15, 75 and 105 degrees respectively, and printing from all of said printing surfaces.

2. The process of making multi-colored surfaces consisting in preparing a key printing surface and three other printing surfaces having transfers of said key printing surface, producing one kind of marks at an angle of about
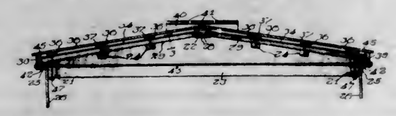
45 degrees on said key printing surface and producing another kind of marks arranged at angles of about 15, 75 and 105 degrees respectively on said other three printing surfaces, and printing from all of said printing surfaces.



3. The process of making multi-colored surfaces consisting in preparing a key printing surface and three other printing surfaces having transfers of said key printing surface, producing one kind of marks at an angle of about 45 degrees on said key printing surface and producing three other kinds of marks arranged at angles of about 15, 75 and 105 degrees respectively on said other three printing surfaces, and printing from all of said printing surfaces.

4. The process of making a multi-colored picture consisting in preparing a printing surface and three printing surfaces having transfers therefrom, producing marks upon each of said surfaces by the use of a printing film, said marks upon any one of said surfaces at an angle of from about 23 to about 30 degrees to the marks upon another of said surfaces, and printing from all of said printing surfaces upon said multi-colored picture.

1,074,255. CAR-ROOF. NORMAN LEE FRIESE, Roanoke, Va., assignor to Raymond C. Dudley, Chicago, Ill. Filed Jan. 8, 1912. Serial No. 669,938. (Cl. 108—15.)

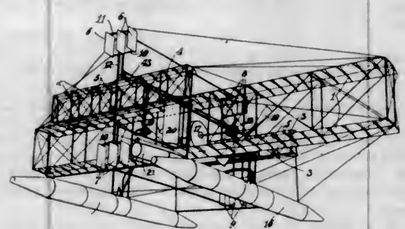


1. In an inside metal car roof, in combination: a laterally recessed ridge-pole; side plates; sub-carlines supported at their outer ends on the side plates and at their ridge ends in the recesses of the ridge-pole; metallic roof sheets having lateral elevated flanges supported by the sub-carlines, and having their ridge ends entered in the said recesses, the sheets being outwardly slidable transversely of the car; flanged metallic caps fitted over the sub-carlines and over the lateral flanges of the roof sheets, and having their inner ends entered in the recesses of the ridge-pole, and permanently closed at their outer ends, irrespective of attachment to the side of the car, to engage and retain the lateral flanges of the roof sheets and hold the latter at a distance from the fascia, whereby the caps themselves are adapted to serve to securely position the sheets from displacement independently of any eaves fastenings; said fascia opposite to the outer ends of the caps; and spacing means holding the fascia at a distance from the body of the car and from the eaves ends of the roof sheets, substantially as specified.

2. In an inside metal car roof, in combination: a laterally recessed ridge-pole; side plates sub-carlines supported at their outer ends on the side plates and at their ridge ends in the recesses of the ridge-pole; metallic roof sheets having lateral elevated flanges supported by the sub-carlines, and having their ridge ends entered in said recesses, the sheets being outwardly slidable transversely of the car, and having eaves flanges depending over the edge of the car to protect the latter and aid in the replacement of individual sheets; flanged metallic caps fitted over the sub-carlines and over the lateral flanges of the roof sheets and having their inner ends entered in the recesses of the ridge pole, and permanently closed at their outer ends, irrespective of attachment to the side of the car, to engage and retain the lateral flanges of the roof sheets and hold the latter at a distance from the fascia, whereby the caps themselves are adapted to serve to securely position the sheets from displacement independently of any eaves fastenings; said fascia opposite to the outer ends of the caps; and spacing means holding the fascia at a distance from the body of the car and from the eaves ends of the roof sheets, substantially as specified.

3. In an inside metal car roof, in combination: a roof-supporting frame; flanged metallic seam caps closed at their eaves ends; metallic roof sheets having upstanding flanges at their sides which are engaged within the said caps and retained by their closed ends; the roof sheets being outwardly and inwardly slidable, for removal and replacement, relative to the said frame, when the outer ends of the said caps are raised; and an outside board roof inclosing and confining the said caps; substantially as specified.

1,074,256. SYSTEM OF AERIAL CONTROL. EDSON F. GALLAUDET, Norwich, Conn. Filed Apr. 30, 1910. Serial No. 558,677. (Cl. 244—29.)



1. In a flying machine, the combination of movable surfaces adapted to cause the tilting of the machine when in flight around both its longitudinal and transverse axes, a seat for the operator suspended from the frame of the machine so as to swing as a pendulum forward and aft and transversely, and operative connections, including a vertically disposed steering shaft detachably connected to the seat and adapted to swing therewith, between the seat and the movable surfaces whereby a change from the normal in the position of the seat relative to the machine will cause the movable surfaces to so move as to tilt the machine and restore the seat to normal position relative thereto.

2. In a flying machine, the combination of a movable surface or surfaces adapted to cause the transverse tilting of the machine when in flight around its longitudinal axis, a seat for the operator suspended from the frame of the machine and free to swing as a pendulum transversely thereto, and operative connections, including a vertically disposed steering shaft detachably connected with the seat and adapted to swing therewith, between the seat and the movable surfaces whereby a change from the normal in the position of the seat relative to the machine will cause the movable surfaces to so move as to tilt the machine and restore the seat to normal position relative thereto.

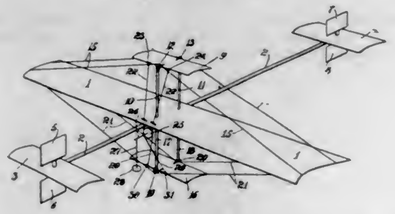
3. In a flying-machine, the combination with an aeroplane of rudders mounted in pairs one above and the other below said aeroplane both forward and aft and means for simultaneously turning said upper rudders in one direction and said lower rudders in the opposite direction.

4. In a flying-machine, the combination with an aeroplane of rudders mounted in pairs one above and the other below said aeroplane both forward and aft, means for simultaneously turning said forward rudders in one direction and said rear rudders in the opposite direction and means for simultaneously turning said upper rudders in one direction and said lower rudders in the opposite direction, said means being operable either separately or together.

5. In a flying-machine, rudders mounted in pairs one above and the other below the plane of the sustaining surface of the machine and at its center, one pair forward and the other aft at substantially equal distances from the lateral center of the machine, and means for causing said rudders both upper and lower to turn so as to simultaneously present compression surfaces on the sides thereof which are nearest the horizontal plane through the longitudinal axis of the machine.

[Claims 6 to 14 not printed in the Gazette.]

1,074,257. SYSTEM OF AEROPLANE CONTROL. EDSON F. GALLAUDET, Norwich, Conn. Filed May 9, 1910. Serial No. 560,192. (Cl. 244—29.)



1. The combination, in an aeroplane, of a fixed sustaining plane, a movably mounted sustaining plane, and means for simultaneously effecting both a lateral displacement and a transverse angular movement of said movable with respect to said fixed plane.

2. The combination, in an aeroplane, of sustaining planes suitably mounted centrally above and below the longitudinal axis of the aeroplane and means for simultaneously effecting a similar lateral displacement and an opposite transverse angular movement of said planes.

3. The combination, in an aeroplane, of fixed main wings, auxiliary sustaining planes mounted centrally above and below said main wings to have lateral and transverse angular movement, and a control mechanism adapted to simultaneously effect a similar lateral displacement and an opposite transverse angular movement of said auxiliary planes.

4. The combination, in an aeroplane, of fixed main wings, auxiliary sustaining planes mounted centrally above and below said main wings, and means for simultaneously effecting a similar lateral displacement of said auxiliary planes.

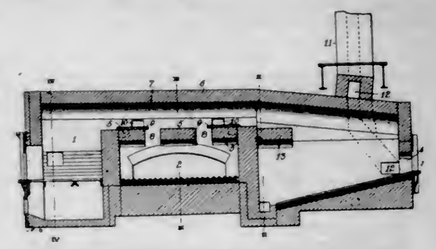
5. The combination, in an aeroplane, of fixed main wings, an auxiliary sustaining plane mounted centrally above said main wings on pivoted link-bars having transverse angular movement and different angular positions on the opposite sides of the longitudinal center of the aeroplane, and means for effecting a transverse angular movement of said link-bars.

[Claims 6 and 7 not printed in the Gazette.]

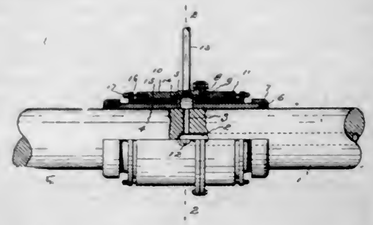
1,074,258. HEATING-FURNACE. ALEXANDER GLASS, Wheeling, W. Va. Filed Feb. 8, 1912. Serial No. 676,466. (Cl. 75—40.)

1. A furnace having in combination, a combustion chamber, two heating chambers, a flue or passage extending from the combustion chamber over the top of one of the heating chambers to the other chamber, an opening connecting the first chamber to said flue or passage, and means for varying the area of said opening.

2. A furnace having in combination, a combustion chamber, two heating chambers, a flue or passage, extending from the combustion chamber to one of said heating chambers, a plurality of openings from said flue or passage to the other heating chamber and means for varying the areas of said openings.



1,074,259. STUFFING-BOX. WILLIAM ALEXANDER GORDON, Shelton, Conn. Filed May 5, 1913. Serial No. 765,476. (Cl. 121—109.)



1. A stuffing box for a rotary shaft having sleeves designed to rotate with but move longitudinally upon the shaft, a stationary casing surrounding said sleeves with a fluid opening through the casing between the sleeves, and packing rings between the sleeves and the casing, said rings being subject to compression between these parts by the longitudinal movement from each other of the sleeves.

2. A stuffing box for a rotary shaft having sleeves designed to rotate with but move longitudinally upon the shaft, a stationary sectional casing surrounding said sleeves with a fluid opening through the casing between the sleeves, and packing rings between the sleeves and the casing, said rings being subject to compression between these parts by the longitudinal movement from each other of the sleeves.

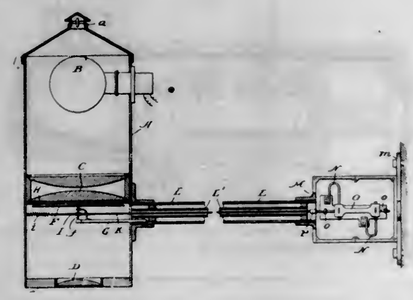
3. A stuffing box for a rotary shaft having sleeves with outwardly extending flanges, a casing with inwardly extending flanges, packing rings between the sleeve flanges and the casing flanges, and a fluid duct opening through the casing to the space between the sleeve flanges.

4. A stuffing box for a rotary shaft having sleeves with outwardly extending flanges, a casing with inwardly extending flanges, packing rings between the sleeve flanges and the casing flanges, packing between the outer surfaces of the sleeves and the inner surfaces of the casing, and sleeves secured to the casing for holding the said packing between the sleeves and the casing.

5. A stuffing box for a rotary shaft having a fluid duct opening through its periphery, said box comprising a casing that is adapted to be stationarily mounted, sleeves adapted to rotate and also move longitudinally in said casing, and metallic rings located between inwardly extending parts of the casing and outwardly extending parts of the sleeves and subject to the longitudinal thrust and rotary wear of said sleeve parts when in use.

[Claims 6 and 7 not printed in the Gazette.]

1,074,260. DEVICE FOR PROJECTING THE IMAGES OF TEMPERATURE-INDICATORS. GEORGE M. GUERRANT, Danville, Va., assignor to Henry Clark Bridgers, Tarboro, N. C. Filed Jan. 22, 1913. Serial No. 743,549. (Cl. 88—24.)



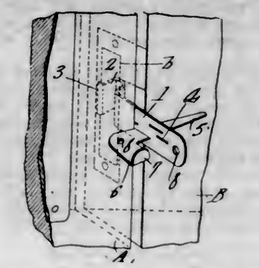
1. In a device for projecting the image of a temperature indicator, the combination with a casing and a laterally extending tubular arm on which the casing is mounted having a base for attachment to a support, of image projecting means within the casing including a source of illumination and a lens, and a temperature indicator having its indicating portion in the casing in position for its image to be projected and its operating portion extending away from the casing in the tubular arm, whereby it is remote from the heat of the source of illumination.

2. In a device for projecting the image of a temperature indicator, the combination with a casing, a laterally extending tubular arm on which the casing is mounted and a housing forming the base of the arm and adapted for attachment to a support, of image projecting means within the casing including a source of illumination and a lens, and a temperature indicator having its indicating portion in the casing in position to have its image projected and with its operating portion in the base housing of the arm and connected with the indicating portion through the tubular arm, whereby the operating portion is located at a point remote from the source of illumination.

3. In a device for projecting the image of a temperature indicator, the combination with a tubular arm having an enlarged base chamber adapted for attachment to a support, of a casing mounted on the end of said arm, image projecting means within the casing, including a source of illumination and a lens, an angularly movable temperature indicating pointer and a scale with which it registers both located in the casing in position to have their images projected, a thermostat in the enlarged base chamber of the arm, and an operating connection between the thermostat and pointer extending through the arm.

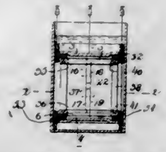
1,074,261. DOOR-FASTENER. ROY Y. HUGHES, Aberdeen, S. D., and LOUIS J. HOFFMANN, Buffalo, Minn. Filed Mar. 27, 1911. Serial No. 617,142. (Cl. 16—8.)

A door securer embodying a flat member insertible between the edge of a door and door jamb having jamb-engaging means and having substantially longitudinal slots therein, and a flat angular member, the inner edges of which are substantially at right angles to each other and the outer edge of one arm converging toward the inner edge from the elbow of the angular member to the extremity of the arm, and the other arm having its extremity bent at substantially right angles into a foot, so that the first mentioned arm of the angular member may be inserted through the slots of the former member with its outer edge bearing against the faces of the door and door jamb when they are flush, and so that the first mentioned arm may be inserted through the slots with its inner edge bearing flatly against the door jamb and with



the foot bearing flatly against the door when the door and jamb are relatively off-set.

1,074,262. ELECTRIC OSCILLOGRAPH. JOHN T. IRWIN, South Kensington, London, England. Filed Sept. 19, 1908. Serial No. 453,851. (Cl. 171—95.)



1. An instrument for measuring the difference in instantaneous pressures of a current existing at two separate points in an electric circuit, consisting of two stretched diaphragms and two fixed bodies forming two electro-static couples, combined with means supporting the two electro-static couples in fixed relation, and connecting means between them for indicating the difference in the electro-static condition of the two couples.

2. In a device for measuring the difference in characteristics of an electric current at different points in an electric circuit, the combination of two electro-static couples each consisting of a fixed body and a movable inductable diaphragm surface parallel to said fixed body, with terminal means for each of the fixed bodies, terminal means for the inductive diaphragm surfaces of the two couples, and means for indicating the extent of the inductive pulls of the two fixed bodies upon the induction diaphragm surfaces of the two couples.

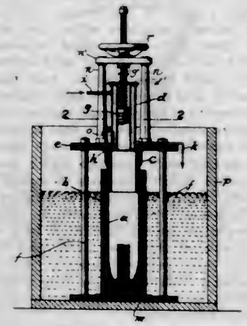
3. In a device for measuring the difference in characteristics of an electric current at different points in an electric circuit, the combination of two electro-static couples each consisting of a fixed body and a movable inductable diaphragm surface parallel to said fixed body, with terminal means for each of the fixed bodies, terminal means for the inductive diaphragm surfaces of the two couples, an inclosing vessel containing an insulating fluid, and means for indicating the extent of the inductive pulls of the two fixed bodies upon the induction diaphragm surfaces of the two couples.

4. A device for measuring the difference in characteristics of an electric current, which consists of two electro-static couples, and terminal means for each of said couples, combined with a source of electric energy of constant potential for energizing one of the elements of each electro-static couple, and means operating by the joint action of the two electro-static couples to indicate the induction produced in the respective couples, and means for maintaining a greater resistance between the elements of the couples than that of the atmosphere.

5. A device for measuring the difference in characteristics of an electric current, which consists of two electro-static couples, and terminal means for each of said couples, combined with a source of electric energy of constant potential for energizing one of the elements of each electro-static couple, and means operating by the joint action of the two electro-static couples to indicate the different electro-static characteristics of the couples, and means for maintaining a greater resistance between the elements of the couples than that of the atmosphere consisting of a body of oil in which the electro-static couples are immersed.

[Claims 6 to 11 not printed in the Gazette.]

1,074,263. METHOD OF DENSIFYING FUSIBLE EXPLOSIVE NITRO BODIES. GOTTHOLD ISSLER, Wahn, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del., a Corporation of New Jersey. Filed Jan. 13, 1912. Serial No. 671,096. (Cl. 86—20.)

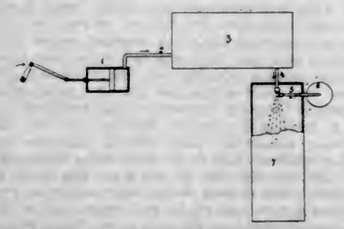


1. The method for densifying fusible explosive nitro bodies, which consists in casting the main body with an integral part projecting beyond the same to form the lost head and maintaining in a liquid state the part of the lost head more remote from the main body while applying pressure through the liquid layer to the charge.

2. The method for densifying fusible explosive nitro bodies cast in containers which consists in charging the container and allowing an integral part of the nitro body to project above the container to form the lost head and maintaining the upper part of the lost head liquid while applying pressure through the liquid layer to the charge.

3. The method for densifying fusible explosive nitro bodies which consists in applying heat to and thereby maintaining fused or liquid one end of the charge, and applying pressure to the charge through the medium of the part maintained liquid while gradually chilling the part of the charge more remote from the part maintained liquid.

1,074,264. PROCESS OF SEPARATING SOLID SUBSTANCES FROM SOLUTIONS BY EVAPORATION. GUSTAV JEBSEN and CHRISTIAN FINCKENHAGEN, Christiania, Norway. Filed May 22, 1912. Serial No. 698,997. (Cl. 99—5.)

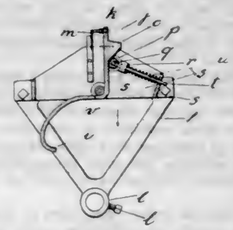


1. The process of evaporating to dryness, milk and other solutions containing easily decomposable substances which consists in simultaneously atomizing and evaporating the solution by directing a jet of compressed air having a temperature of from 250° to 600° C., so as to converge upon a jet of the solution.

2. The process of evaporating to dryness, milk and other solutions containing easily decomposable substances which consists in simultaneously atomizing and evaporating the solution by directing a jet of compressed air having a temperature of from 250° to 600° C., and a pressure of from 1.5 to 3 atmospheres so as to converge upon a jet of the solution.

3. The process of evaporating milk and similar solutions to dryness, which consists in simultaneously atomizing and evaporating the solution by directing a jet of compressed air having a temperature of from 250° to 600° C., at an angle of about 90° against the exit of a pipe through which the milk is sucked into the path of the jet of air by the action of said jet of air.

1,074,265. IGNITER. EDWIN CHARLES JONES, Toronto, Ontario, Canada, assignor of one-half to James Pearson, Toronto, Ontario, Canada. Filed Mar. 24, 1913. Serial No. 756,566. (Cl. 67—20.)



1. An igniter comprising a supporting structure, a rubbing surface fixedly connected thereto, a movable rod having at one end a handle part by which it can be operated, and at the other end a spark-producing element engaging with said rubbing surface, a cam-shaped projection on said rod, and a spring-tensioned presser engaging said rod and cam-shaped projection whereby the spark-producing element is maintained in contact with said rubbing surface, with gradually increasing pressure as it moves from its normal position.

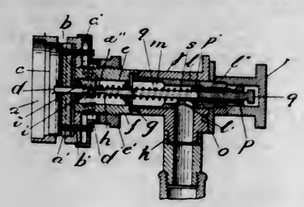
2. An igniter comprising a supporting structure, a rubbing surface fixedly connected thereto, a movable rod having at one end a handle part by which it can be operated, and at the other end a spark-producing element engaging with said rubbing surface, a cam-shaped projection on said rod, a spring-pressed roller engaging said rod and cam-shaped projection whereby the spark-producing element is maintained in contact with said rubbing surface, with gradually increasing pressure as it moves from its normal position, and a guide roller co-operating with the spring-pressed roller to maintain said rod in a fixed path during its movements.

1,074,266. AIR AND GAS MIXER. EDWIN CHARLES JONES, Toronto, Ontario, Canada, assignor of one-half to James Pearson, Toronto, Canada. Filed Mar. 24, 1913. Serial No. 756,568. (Cl. 48—180.)

1. An air and gas mixer comprising a mixing chamber having an air intake, a valve controlling the air intake, and an automatically-movable gas inlet tube operably connected with said valve, said inlet tube being sensitive to variations of gas pressure, whereby it automatically adjusts said valve to regulate the air intake and maintain the same proportions of air and gas in the mixing chamber under varying conditions of gas pressure.

2. An air and gas mixer comprising a mixing chamber having an air intake, a valve controlling the air intake, an automatically-movable gas inlet tube operably connected with said valve, said inlet tube being sensitive to

variations of gas pressure, whereby it automatically adjusts said valve to regulate the air intake and maintain the same proportions of air and gas in the mixing chamber under varying conditions of gas pressure, and balancing means to maintain said gas inlet tube and valve in a normal position under normal conditions of gas pressure.



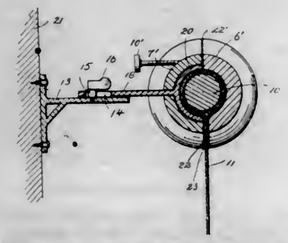
3. An air and gas mixer comprising a mixing chamber having an air intake, a valve controlling the air intake, a movable gas inlet tube operably connected with said valve, said inlet tube being sensitive to variations of gas pressure whereby it automatically regulates the air intakes to maintain the same proportions of air and gas in the mixing chamber under varying conditions of gas pressure, and means for balancing said inlet tube and valve in their normal position under normal conditions of gas pressure.

4. An air and gas mixer comprising a mixing chamber having an air intake, a valve controlling the same, and a gas inlet tube operably connected with said valve, said gas inlet tube being sensitive to variations of gas pressure, whereby it positions said valve with respect to the air intake to maintain the same proportions of gas and air in the mixing chamber under varying conditions of gas pressure.

5. An air and gas mixer comprising a mixing chamber having an air intake, an adjustable valve controlling the air intake, a movable gas inlet tube operably connected with said valve and sensitive to variations of gas pressure whereby it adjusts said valve relatively to the air intake, and means for balancing said inlet tube and valve to maintain them in a normal fixed position under normal conditions of gas pressure.

[Claims 6 to 9 not printed in the Gazette.]

1,074,267. CURTAIN-POLE. SIMON KAY, Cleveland, Ohio. Filed Dec. 12, 1911. Serial No. 665,294. (Cl. 156—19.)



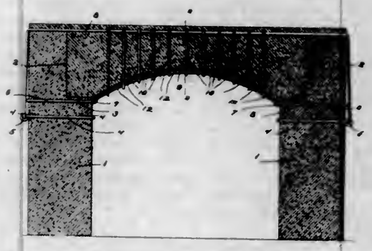
1. A device of the character described comprising two longitudinal sectional members arranged to be joined, segmental enlargements formed centrally and terminally of each segmental member, screw-rods tapped through the enlargements of the members to removably secure them together, heads upon said screw rods, dish-shaped members slidingly mounted in one of said members and having arms projecting outwardly of the latter, a rod having a curtain thereupon mounted in said last named member and held in said dished members, the opposite member engaging said rod to conceal it and means engaging said arms to support the joined members.

2. In combination with brackets secured to an abutment, a longitudinal concave member having dish-shaped members countersunk at each end, a rod around which a curtain is wound having one-half of its body held in said concave member and in said dish-shaped members, a correspondingly shaped concave member arranged to inclose the other half of said pole, means for removably securing said last to said first named member, said concave member being simultaneously movable longitudinally of said dish-shaped members, and means carried by said dish-shaped members adjustably supported upon said brackets.

3. In combination with brackets secured to an abutment, a longitudinal concave member having dish-shaped members countersunk at each end, a rod around which a curtain is wound having one-half of its body held in said concave member and in said dish shaped members, a correspondingly shaped concave member arranged to inclose the other half of said pole, means for removably securing said last to said first named members, said curtain having a part of its length vertically disposed between said concave members when they are joined, an arm formed upon each dish-shaped member, relatively elongated slots formed in one of said concave members through which said arms project, and means for adjustably securing said arms upon said brackets.

4. In combination a longitudinal concave member, dish-shaped members countersunk in said member at opposite ends and having arms, said concave members having relatively elongated slots through which said arms project, a rod around which a curtain is wound having one-half of its body held in said concave member and in said dish-shaped members, a correspondingly shaped concave member arranged to inclose the other half of said pole, means for removably securing said first to said last named member, said curtain having a part of its length vertically disposed between said concave members when they are joined, and means for supporting said arms horizontally against a wall.

1,074,268. CONCRETE ARCH. CHARLES D. KELLY and PATRICK MAHONEY, Oakview, Pa. Filed Mar. 29, 1912. Serial No. 687,263. (Cl. 72—56.)



1. A reinforced concrete structure of the character described, comprising piers having shoulders on their opposed faces at their upper ends, wires anchored in the piers and forming eyes at the inner and outer faces of the piers, wires secured to the eyes on the outer faces of the piers and extended over the upper ends of the piers, other wires connecting the eyes at the inner faces of the piers, and longer than the distance between the piers, and hangers connecting the wires extended across the top of the piers with the last-mentioned wires, said hangers of different lengths, whereby the last-mentioned wires are arched, and concrete material extended from shoulder to shoulder of the piers, substantially as described.

2. A reinforced concrete structure of the character described, comprising piers having shoulders on their opposed faces at their upper ends, wires anchored in the piers and forming eyes at the inner and outer faces of the piers, wires secured to the eyes on the outer faces of the piers and extended over the upper ends of the piers, other wires connecting the eyes at the inner faces of the piers and longer than the distance between the piers, and hangers connecting the wires extended across the top of the piers with the last-mentioned wires, said hangers of different lengths, whereby the last-mentioned wires are arched, and concrete material extended from shoulder to shoulder of the piers, said concrete extended over the upper ends of the piers embedding that portion of the wire on top of the piers and embedding the hangers throughout the greater portion of their length, substantially as described.

1,074,269. WATER BOTTLE OR BAG. IRWIN F. KEPLER, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a Corporation of New York. Filed June 25, 1912. Serial No. 705,789. (Cl. 128—39.)



1. In a water-bottle, the combination of a body provided with a collar; a funnel section having a depending neck adapted to fit within said collar, said neck being of a thickness substantially equal to that of the collar; a threaded nipple carried by said neck, the nipple being of a diameter substantially equal to the interior diameter of the lower portion of the funnel and serving to sustain the neck against inward pressure; and means carried by said collar and neck adapted to form an interlock between said parts when assembled.

2. In a water-bottle, the combination of a body provided with a collar; a rib formed upon the inner face of said collar; a funnel section provided with a depending neck, said neck being of a thickness substantially equal to that of the collar and having an annular groove formed upon the outer face thereof, the neck and groove making a close fit with the collar and rib aforesaid; and a nipple mounted within the neck, said nipple being of a diameter substantially equal to the internal diameter of the lower portion of the funnel and sustaining the neck against inward pressure.

3. In a water-bottle, the combination of a body provided with an upstanding collar; and a funnel having a depending portion, composed of two annular members having a spaced relation, and adapted to receive and embrace said collar.

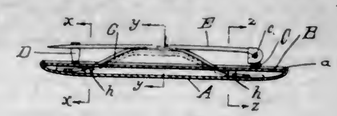
4. In a water-bottle, the combination of a body having an upstanding collar; a funnel having a depending portion composed of two annular members having a spaced relation and adapted to receive and embrace said collar; and means carried by said collar and depending portion to form an interlocking connection between the same.

5. In a water-bottle, the combination of a body having an upstanding collar; an inwardly-extending flange formed at the base of the collar; an annular rib formed upon the inner face of the collar; a funnel; a depending neck formed upon said funnel, said neck having an annular groove formed in the outer face thereof adapted to receive the rib aforesaid when the parts are assembled and the flange above specified contacts with the lower end of the neck; and a skirt extending downwardly from the funnel and adapted to cover the collar.

[Claim 6 not printed in the Gazette.]

1,074,270. PIN. CLIFFORD G. KING, Providence, R. I. Filed Dec. 28, 1911. Serial No. 668,275. (Cl. 24—160.)

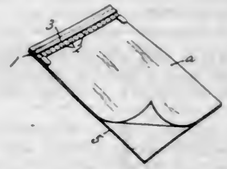
1. In a pin, the combination with a body, joint and catch, of a pin tongue mounted in the joint and adapted to engage the catch and longitudinally disposed rods provided with arched intermediate portions extending through slots in the body, and means within the body with which the ends of said rods are slidingly held against displacement, said rods being disposed upon either side of the vertical plane of the pin tongue.



2. In a pin, the combination with a body portion comprising a front plate and a back plate, of a joint and catch mounted upon the back plate, a pin tongue mounted in the joint and engageable with the catch, said back plate being provided with longitudinally disposed openings, inwardly extending lugs upon the back plate near the ends of the openings, and resilient arched rods extending through the openings, engaging the lugs and disposed at each side of the vertical plane of the pin tongue.

3. The pin described comprising a body portion consisting of a front plate and a back plate, the latter having longitudinal slots upon opposite sides of its center and with downwardly directed lugs at the inner margins of said slots, a joint and catch mounted upon said back plate, a pin tongue mounted in the joint and engageable with the catch, and a resilient friction device coöperating with said tongue and comprising parallel portions arched near their centers and projecting through the slots of the back plate, the ends of said device being slidably engaged with said lugs, and means connecting the ends of the parallel members of the said device.

1,074,271. LEAF-BINDER. LEE KINGSLEY, Syracuse, N. Y. Filed Jan. 21, 1913. Serial No. 743,262. (Cl. 129—19.)



1. A binding strip having a flap and a series of adhesive tabs normally folded under the flap.

2. A binding strip having one edge provided with a flap and its opposite edge provided with a series of adhesive tabs loosely folded under the flap.

3. A binding strip having a flap attached to one edge thereof and its opposite edge provided with a series of tabs folded along a straight line and their free ends normally but loosely inserted under the flap.

4. A binding strip having one of its edges provided with a straight row of integral adhesive tabs folded along a straight line, said strip having a protective flap normally holding the free ends of the tabs flatwise against the main body of the strip.

5. A binding strip having a series of adhesive tabs normally folded along a straight line to form an alining abutment for the head ends of sheets which are to be attached to the tabs.

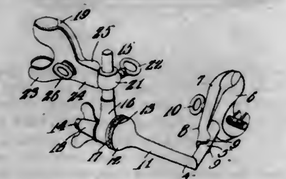
[Claims 6 and 7 not printed in the Gazette.]

1,074,272. LANTERN-BRACKET FOR VEHICLES. JOHN P. KLINE, Brooklyn, Mich. Filed Sept. 28, 1912. Serial No. 722,878. (Cl. 248—20.)

1. A lantern bracket for vehicles embodying an elbow, a clamp carried by one arm thereof to engage the vehicle, a post pivoted to the other arm to swing about the axis of the latter arm, means for clamping the post in any adjusted position, and a lantern clamp rotatably and slidably adjustable on the post.

2. A lantern bracket for vehicles embodying an elbow, a clamp carried by the end of one arm of the elbow to en-

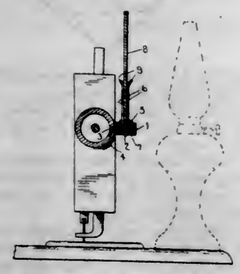
gage the vehicle, the other arm of the elbow having a head at its end, and a pintle projecting from the head, a post having a head at its lower end journaled on the pintle, a member threaded on the pintle to clamp the latter head against the former head, the adjoining faces of the heads being corrugated, and a removable lantern clamp adjustable on the post.



3. A lantern bracket for vehicles, embodying an elbow, one arm thereof having a jaw at its end, a movable jaw complementing the said jaw, the latter jaw having a shank provided with the ears for straddling the said arm, a thumb bolt passing loosely through the latter jaw and engaging the former jaw, a post pivoted to the end of the other arm of the elbow, means for clamping the post to the said arm, and a removable lantern clamp adjustable on the post.

4. A lantern bracket for vehicles, embodying an elbow, a clamp carried by the end of one arm to engage the vehicle, a post pivoted to the end of the other arm of the elbow, means for clamping the post to the said arm, a jaw having a shank provided with an eye embracing the post, a set screw carried by the eye, a movable jaw complementing the said jaw and having its shank provided with ears straddling the aforementioned shank, and a thumb bolt passing loosely through the latter jaw and engaging the former jaw, the jaws being designed for the engagement of various lanterns.

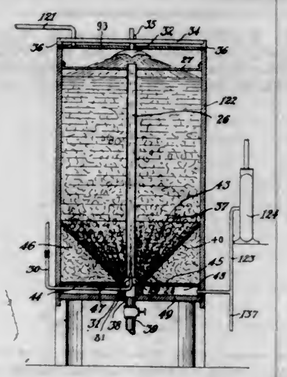
1,074,273. SHADE FOR SEWING-MACHINES. ELIZABETH KOLLER, near Bloomville, Ohio. Filed Jan. 27, 1913. Serial No. 744,491. (Cl. 248—30.)



The combination with the arm of a sewing machine, of spaced projecting brackets secured to one side of said arm and provided with rectangular shaped sockets, a pair of spring clips adjustably mounted along the length of a rigid shade, said clips being provided with blocks adapted to be removably received by the sockets when properly spaced upon the shade, said blocks projecting beyond the lower edge of the said shade whereby the same can be readily inserted within the sockets formed in the brackets.

1,074,274. APPARATUS FOR EXTRACTING METALS FROM ORES. HENRY S. MACKAY, Riverside, Cal., assignor to MacKay Copper Process Company, Riverside, Cal., a Corporation of Arizona. Filed Jan. 14, 1911. Serial No. 602,592. (Cl. 204—15.)

1. In an apparatus for the extraction of metal from ore the combination of two electrolyzing vats having anode and cathode compartments for containing the electrodes and fluids, the anode and cathode compartments of one vat being connected with same compartments of the other vat, means for mixing the fluids produced in the anode compartments of the said vats, a leaching means for bringing the ore and the said mixed fluids into contact, a third precipitating vat adapted to receive the solution from the said leaching means.



2. In an apparatus for the extraction of metal from ore which consists in two electrolyzing vats divided into anode and cathode compartments one of said compartments adapted to receive the anodes and the other to receive the cathodes, the cathode compartments of one vat adapted to receive the solution from the cathode compartments of the other vat and the anode compartments of one vat adapted to receive the fluid from the anode compartments of the other vat, a receptacle adapted to mix the fluids, a leaching means adapted to bring said mixture into contact with the ore, a precipitating vat adapted to separate the metal from the solution formed in leaching the ore and to revive the fluid by means of the elements separated from the metal in the precipitation process, means for directing the revived solution to a container containing the mixture of the fluids from the anode compartments of the first two named electrolyzing vats.

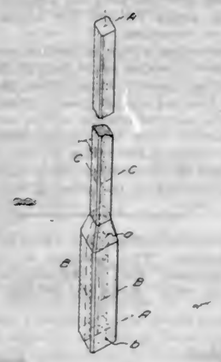
3. In an apparatus for extracting metal from its ore which consists in means for leaching the ore with a solution adapted to attack the desired metal, means for precipitating the metal in the solution obtained in the leaching process and means for separating the active agents of the original solution from the metal, means for collecting the metal at the bottom of the precipitating vat into the non-active solution, a receptacle connected with the bottom of the said vat and having means for separating the metal from the nonactive fluid into which it is precipitated.

4. In an electrolyzing vat the combination of a plurality of diaphragms adapted to divide the vat into a plurality of anode and cathode compartments, anodes located in the anode compartments and cathodes located in the cathode set of compartments, pipe connections adapted to connect the cathode compartments together at the top of the compartments, pipe connections adapted to connect the anode compartments together at the top of the said compartments, a pair of chambers adapted to collect the fluid from the said compartments, the top of the said chambers connected with the bottom of the said compartments, pipes connected to the bottom of the said chambers for removing the fluid from the chambers.

5. In an electrolyzing device the combination of a vat having a plurality of walls adapted to divide the vat into chambers, one of the said chambers having diaphragms adapted to divide the said chamber into compartments, anodes located in alternate compartments and cathodes located in the remaining compartments, another of the said chambers connected with the compartments containing the anodes and a third chamber connected with the compartments containing the cathodes and filters located in the two last mentioned chambers.

[Claims 6 to 14 not printed in the Gazette.]

1,074,275. CONCRETE SOCKET-PILE. KIRBY D. MACLEAN, Palo Alto, Cal. Filed Nov. 20, 1912. Serial No. 732,591. (Cl. 72—81.)



1. A monolithic reinforced concrete pile embodying a shaft or body portion solid in cross section and having its lower end enlarged in cross section and formed with an internal elongated socket having its axis in line with the axis of the solid shaft or body portion, said socket being adapted to form an elongated chamber in which the upper end of a timber extension will seat and be held in alinement with the solid shaft or body portion, whereby the concrete pile and its timber extension may be driven as a unit by power applied to the upper end of the shaft or body portion.

2. A pre-cast, monolithic concrete pile embodying a shaft, solid in cross section and having its lower end enlarged and formed with an elongated internal socket having its axis in line with the axis of the solid shaft, said shaft and the walls of said socket having incorporated therein longitudinally extending reinforcing metal and transversely arranged reinforcing metal, said socket forming an elongated chamber, and a timber extension having its upper end fitting and seating in said chamber, whereby said timber extension will be held in alinement with the solid shaft and the whole structure may be driven as a unit by power applied to the upper end of the shaft without causing shearing strains tending to disrupt the concrete portion of the structure.

1,074,276. NET. JOHN F. MASEK, New York, N. Y. Filed Feb. 24, 1913. Serial No. 750,266. (Cl. 43—20.)



1. A device of the character described, comprising a plurality of rectangular members hinged together, a plurality of triangular members, a plurality of substantially V-shaped skeleton frame members connected to one of the rectangular members and to the triangular members, a rod having loops and adapted to connect the skeleton frame members, and flexible means adapted to pass through said loops and connected to certain of the rectangular members and to the triangular members and adapted to move the same toward the rod to form a substantially closed receptacle.

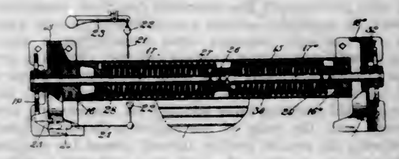
2. A device of the character described, comprising a bottom member and side members hinged together, a plurality of triangular end members, a plurality of skeleton frame members connected to the bottom member and to the triangular members, a rod having loops and adapted to connect the skeleton frame members together, and means adapted to pass through said loops and connected to certain of the side and end members and adapted to move the same on their hinges.

3. A device of the character described, comprising a plurality of members hinged together, each of said members being provided with a frame and said frame being bent inward, the inwardly extending portion of certain of the frames forming a holding means and the other a guide, said guide portion being bowed out of the plane of its frame, and a spring for each side member held to the frame of one of the members and one end slidingly engaging the guide and the other end held to the engaging part.

4. A device of the character described, comprising a bottom member, side members hinged thereto, V-shaped skeleton frames having inwardly turned end portions hinged to the bottom member, means for holding said skeleton frames in raised position, and triangular end members hinged to said inwardly turned end portions of the skeleton frames.

5. A device of the character described comprising a bottom member, side members hinged thereto, V-shaped skeleton frames, having inwardly turned end portions hinged to the bottom member, means for holding said skeleton frames in raised position, triangular end members hinged to said inwardly turned end portions of the skeleton frames, and springs for normally holding the side and end members in the plane of the bottom member, the springs for the end members being wound upon the turned end portions of the skeleton frames.

1,074,277. SPRING-ROLLER. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Filed Dec. 15, 1911. Serial No. 665,886. (Cl. 189—58.)



1. In a rolling shutter, the combination with a rotary shutter-receiving member, a two part shaft for supporting the same, means for fixing one of said shaft parts, thermally controlled means for holding the other shaft part, a normally operable tension member connected with the releasable shaft part and the shutter receiving member, a normally inoperable tension device fixed at one end and connected with the releasable shaft part at the other, substantially as described.

2. In a rolling shutter, the combination with a rotary shutter receiving member, a two part shaft for supporting the same, adjustable means for fixing one of said shaft parts, thermally controlled means for holding the other shaft part, a normally operable tension member connected with the releasable shaft part and the shutter receiving member, and a normally inoperable tension device fixed at one end and connected with the releasable shaft part at the other.

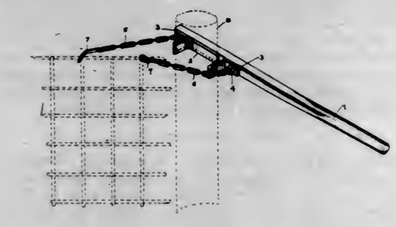
3. In a rolling shutter, the combination with a rotary shutter receiving member, a two part shaft for support-

ing the same, means for fixing one of said shaft parts, thermally controlled means for holding the other shaft part, a collar fixed on the inner end of the releasable shaft part adapted to turn on the inner end of the fixed shaft part, a normally operable tension member connected with the collar and with the shutter receiving member, and a normally inoperable tension member connected with the collar and a fixed point.

4. In a rolling shutter, the combination with a rotary shutter-receiving member, a two part shaft for supporting the same, means for adjusting and fixing one of said shaft parts, thermally controlled means for holding the other shaft part, a collar fixed on the inner end of the releasable shaft part adapted to turn on the inner end of the fixed shaft part, a normally operable tension member connected with the collar and with the shutter receiving member, and a normally inoperable tension member connected with said collar and with the adjustable shaft part, substantially as described.

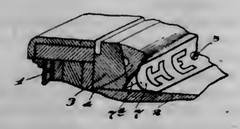
5. In a rolling shutter, the combination with a rotary shutter-receiving member, means at the opposite ends thereof for supporting the same, a tension member normally operative on the shutter-receiving means, a normally inoperative supplementary tension member, normally stationary means for connecting the two tension members, means for adjusting and fixing the supplementary tension member, and thermally controlled means for releasing the means connecting the two tension members, substantially as described.

1,074,278. WIRE-FENCE STRETCHER. WILLIAM HARRISON MEARS, Elgin, and THOMAS A. MEARS, Savanna, Ill. Filed Feb. 2, 1912. Serial No. 675,087. (Cl. 39—61.)



A wire stretcher of the character described, comprising a lever, an embracer secured longitudinally thereto adjacent one end, said embracer being formed from a single strip of metal and having a pair of laterally extending portions formed intermediate its ends, the opposed sides of said portions and that part of the embracer which lies between said portions being adapted for engagement with a fence post, the ends of the embracer being in alinement with the central portion thereof, means for securing said embracer to the lever, and wire engaging members secured to said means.

1,074,279. CUSHION-STRIP FOR BILLIARD AND POOL TABLES. JOHN J. MEDVEC, Minneapolis, Minn. Filed Oct. 25, 1912. Serial No. 727,739. (Cl. 46—53.)



1. The combination with a billiard or pool table having rails with angular cushioning strips applied thereto, of angular strips closely fitting the angle between the table and the cushioning strips and securely held in working position with the angular inner edges of the cushioning strips exposed for action on the balls, substantially as described.

2. The combination with a billiard or pool table having rails with angular cushioning strips applied thereto, of angular strips having concave inner faces, the angular portions of said inverted strips closely fitting the angle between the table and the cushioning strips and securely held in working position with the angular inner edges of the cushioning strips exposed for action on the balls, substantially as described.

3. The combination with a billiard or pool table having rails with angular cushion strips applied thereto, of angular strips having concave inner faces, the angular portions of said inverted strips closely fitting the angle between the table and the cushion strips and securely held in working position with the angular inner edges of the cushion strips exposed for action on the balls, the inner faces of the said inverted strips being marked with words or characters exposed to the view of the players.

1,074,280. POWER-OPERATED CHUCK. WILLIAM L. MILLER, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed May 15, 1912. Serial No. 697,398. (Cl. 29—107.)



1. In a power-operated chuck, the combination with a headstock frame, and a hollow spindle mounted therein, of chucking mechanism carried thereby, an endwise movable chuck-actuating member within said spindle, a non-rotary cylinder arranged coaxially with said spindle, a piston in said cylinder, and a thrust connection between said piston and said chuck-actuating member.

2. In a power-operated chuck, the combination with a headstock frame, and a hollow spindle mounted therein, of chucking mechanism carried thereby, an endwise movable chuck-actuating member within said spindle, a non-rotary double-acting cylinder arranged coaxially with said spindle, a piston in said cylinder, and oppositely acting thrust connections between said piston and said chuck-actuating member.

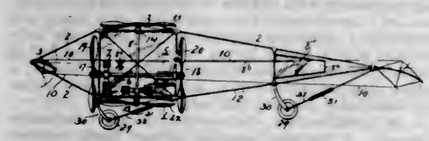
3. In a power-operated chuck, the combination with a headstock frame, and a hollow spindle mounted therein, of chucking mechanism mounted on one end of said spindle, a non-rotary cylinder arranged coaxially with the said spindle and supported on said headstock frame, an endwise movable chuck-actuating member within said spindle, a piston in said cylinder, and a thrust connection, including an anti-friction bearing, between said piston and said chuck-actuating member.

4. In a power-operated chuck, the combination with a headstock frame, and a hollow spindle mounted therein, of chucking mechanism mounted on one end of said spindle, a non-rotary cylinder arranged coaxially with said spindle and supported on said headstock frame with capacity for endwise movement relatively to the latter, an endwise movable chuck-actuating member within said spindle, a piston in said cylinder, a thrust connection, including an anti-friction bearing, between said piston and said chuck-actuating member, and a thrust connection including an anti-friction bearing, between said cylinder and said spindle.

5. In a power-operated chuck, the combination with a headstock frame, and a hollow spindle mounted therein, of chucking mechanism mounted on one end of said spindle, a non-rotary double acting cylinder arranged coaxially with said spindle and supported on said headstock frame with capacity for endwise movement relatively to the latter, and endwise movable chuck-actuating member within said spindle, a piston in said cylinder, oppositely acting thrust connections, including an anti-friction bearing between said piston and said chuck-actuating member, and oppositely acting thrust connections, including an anti-friction bearing, between said cylinder and said spindle.

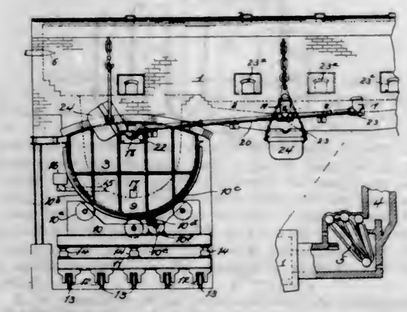
[Claim 6 not printed in the Gazette.]

1,074,281. APPARATUS FOR AERIAL NAVIGATION. GEORGE MITCHELL, Los Angeles, Cal. Filed Apr. 28, 1910. Serial No. 558,180. (Cl. 244—15.)



An aeroplane comprising frame-work having a central compartment, propellers above and below and in front and in rear of said compartment, means in said compartment for operating said propellers, main plane sections extending laterally in opposite directions from the upper and lower edges of said compartment, stabilizing planes at the outer ends of the main plane sections, connected head and tail planes, laterally movable guiding planes between said compartment and the tail plane, and means operable from said central compartment for controlling the planes.

1,074,282. APPARATUS FOR THE TREATMENT OF ORES. GEORGE MITCHELL, Los Angeles, Cal. Filed Nov. 8, 1912. Serial No. 730,296. (Cl. 75—57.)



1. In a combined smelting and converting furnace, the combination of an elongated furnace chamber having a smelting hearth therein and an opening in its bottom adjacent the hearth, a removable converter section the top of which conforms in size and shape to the opening in the bottom of the furnace chamber so as to make a close fit with the latter, a truck carrying said converter section and means carried by the truck for lifting and lowering and tilting said converter section.

2. In a combined smelting and converting furnace the combination of an elongated furnace chamber having a smelting hearth therein, an opening in its bottom adjacent the hearth and a dam intermediate the smelting hearth and the opening, a removable converter section the top of which conforms in size and shape to the opening in the bottom of the furnace chamber, and a trough located at one side of the furnace and in communication with the hearth, and adapted to discharge into the removable section of the converter, the said trough having a discharge spout intermediate the smelting hearth and converter whereby the matte can be tapped from the trough into a ladle, from which it may be subsequently discharged into the converter.

3. In a combined smelting and converting furnace, the combination of an elongated furnace chamber having a substantially horizontal smelting hearth, and an opening through its bottom adjacent the hearth, a removable converter section the open top of which registers with the opening in the bottom of the furnace chamber, fuel burners at the end of the furnace chamber adjacent the converter, a dam intermediate the hearth and converter, and a trough located at one side of the furnace and in communication with the hearth, and adapted to discharge into the removable section of the converter, the said trough having a discharge spout intermediate the smelting hearth and converter whereby the matte may be tapped from the trough into a ladle from which it may be subsequently discharged into the converter.

4. In a combined smelting and converting furnace, the combination of a horizontal elongated furnace chamber having a hearth and an opening through its bottom adjacent the hearth, a dam intermediate the hearth and opening in the bottom of the furnace, a removable converter section the upper end of which conforms in size and shape to said opening, a tap hole in the removable section of the converter, slag tap holes in the furnace adjacent the hearth, and a trough extending lengthwise the furnace and in communication with the hearth, and adapted to discharge into the removable section of the converter, the said trough having a discharge spout intermediate the hearth and the converter whereby the matte may be tapped from the trough into a ladle from which it may be subsequently discharged into the converter.

5. In a combined smelting and converting furnace, the combination of an elongated furnace chamber having a hearth and an opening in the floor adjacent the hearth, a converter section the upper open end of which conforms in size and shape to the opening in the floor of the furnace, a cradle carrying the converter section, means on the cradle for turning said section, a truck carrying the cradle, and means on the truck for elevating and lowering the cradle and the converter section thereon.

[Claim 6 not printed in the Gazette.]

1,074,283. RAILROAD CONSTRUCTION. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Nov. 29, 1912. Serial No. 734,098. (Cl. 238—3.)



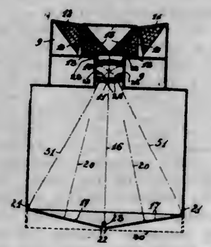
1. In a railroad construction for tunnels or subways, the combination of a concrete track-bed having pockets therein under each line of rails of the track and metal ties permanently attached to concrete bases the latter being located within said pockets.

2. In railroad construction for tunnels and subways, the combination of a concrete track bed having two sets

of spaced pockets therein, one set for each line of rails, and short metal ties permanently attached to concrete bases the latter being located within said spaced pockets.

3. In railroad construction for tunnels and subways, the combination of a concrete track bed having two sets of spaced pockets, one set for each line of rails, metal ties permanently attached to concrete bases the latter being located within said spaced pockets, shock absorbing seats secured to the ties and projecting above the latter, and rails secured to said seats.

1,074,284. APPARATUS FOR THE PRODUCTION OF STEREOSCOPIC PICTURES. HERMANN NEUHAUS, Wolfratshausen, near Munich, Germany. Filed June 19, 1912. Serial No. 704,574. (Cl. 88—1.)



A stereoscopic apparatus comprising in combination, a single objective provided with a pair of lenses, spaced prism elements adapted to direct light rays into said objective, a shutter between the lenses of said objective having a fixed opening, a shutter between said prisms and said objective having juxtaposed rhombic openings adapted to become smaller or narrower toward the top for the purpose of preventing an overlapping of the picture and for obtaining a uniform light.

1,074,285. COPPER ALLOY. WILLIAM F. NOLAN, St. Paul, Minn. Filed Apr. 19, 1912. Serial No. 691,978. (Cl. 75—1.)

1. An alloy consisting of copper, manganese, vanadium and aluminum.

2. An alloy consisting of copper, manganese, vanadium and aluminum in about the following proportions: copper 98.15 per cent., manganese 1.48 per cent., vanadium 0.25 per cent., aluminum 0.12 per cent.

1,074,286. MICROTELEPHONE. WILLIAM B. OLIVER, Collingswood, N. J., assignor to Oliver Electric Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 27, 1909. Serial No. 509,858. (Cl. 179—127.)



1. In a transmitter, the combination of a diaphragm electrode; a relatively massive carbon block electrode provided with pockets; carbon granules arranged within said pockets; a spring mounting for the carbon block electrode, said spring normally tending to press said carbon block electrode toward said front electrode; and an adjusting screw, adapted to retract said rear electrode against the tension of the spring mounting, and to permit movement in the opposite direction under the resiliency of said mounting.

2. In a transmitter, the combination of a diaphragm electrode; a relatively massive carbon block electrode provided with pockets; carbon granules arranged within said pockets and in electrical connection with each other, whereby together with said carbon block electrode they form part of one electrical circuit; and means for varying the depth of said pockets, whereby adjustment of the pressure of the carbon granules may be effected without varying the position of the carbon block electrode with relation to the diaphragm electrode.

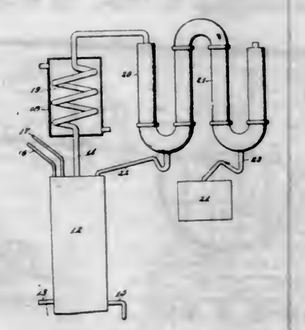
3. In a transmitter, the combination of a diaphragm electrode; a relatively massive carbon block electrode; carbon granules carried by said carbon block electrode; means for varying the adjustment of said carbon block electrode with relation to said diaphragm electrode; and independent means for varying the adjustment of the carbon granules with relation to said diaphragm electrode.

4. In a transmitter, the combination of a diaphragm electrode; a relatively massive carbon block electrode, provided with a pocket having an opening at the bottom thereof; carbon granules arranged within said pocket; a carbon plug arranged within said opening; and means for controllably shifting said plug.

5. In a transmitter, the combination of a diaphragm electrode; a relatively massive carbon block electrode having pockets open at the bottom; and plugs for closing the bottoms of said pockets, said plugs being mounted independently of said carbon block electrode, whereby said carbon block electrode and said plugs may respond differently to sound waves.

[Claims 6 to 9 not printed in the Gazette.]

1,074,287. PROCESS FOR HIGH CONCENTRATION OF WATERY NITRIC ACID. HARRY PAULING, Cologne, Germany, assignor to Southern Electro-Chemical Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 29, 1913. Serial No. 787,260. (Cl. 23—1.)



1. The process herein described of concentrating aqueous nitric acid, which consists in passing watery nitric acid together with a dehydrating agent against a countercurrent of hot gaseous medium, collecting and condensing the highly concentrated nitric acid vapors given off and returning all or a portion of such condensate for further treatment by said countercurrent and dehydrating agent.

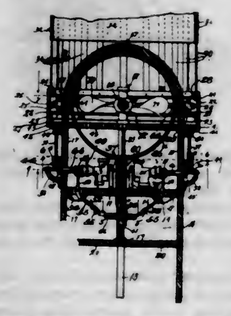
2. The process herein described of concentrating aqueous nitric acid, which comprises passing aqueous nitric acid together with a dehydrating agent through a distilling column, introducing superheated steam at one end of the column, withdrawing vapors of highly concentrated nitric acid from the opposite end of the column, condensing said vapors, and leading some of the acid so condensed back into the column for reconcentration.

3. The process herein described of concentrating aqueous nitric acid, which comprises passing aqueous nitric acid together with a dehydrating agent through a distilling column, introducing superheated steam at one end of the column, withdrawing vapors of highly concentrated nitric acid from the opposite end of the column, condensing said vapors in successive stages, and leading some of the acid so condensed back into the column for reconcentration.

4. The process herein described of concentrating aqueous nitric acid, which comprises passing a mixture of aqueous nitric acid and sulfuric acid against a countercurrent of steam, collecting and condensing the highly concentrated nitric acid vapors, and repassing some of the nitric acid so condensed back through the said countercurrent along with the original mixture of nitric acid and sulfuric acid.

5. The process herein described of concentrating nitric acid, which consists in passing a relatively weak mixture of aqueous nitric acid and sulfuric acid through a countercurrent of superheated steam, collecting and condensing the highly concentrated nitric acid vapors in successive stages, and returning a portion of the aqueous nitric acid so condensed in the first stage for further concentration.

1,074,288. APPARATUS FOR AERIAL NAVIGATION. MARTIN PEARSON, Los Angeles, Cal. Filed Feb. 19, 1913. Serial No. 749,549. (Cl. 244—19.)



1. In apparatus of the class specified, the combination of a frame, a ring provided with inwardly projecting flanges and adapted to fit over the upper end portion of the frame, brackets on the frame, rollers on the brackets adapted to bear against said flanges, a horizontal screw mounted on said ring, a motor mounted on the frame, operative connections between the motor and said ring, a second ring provided with pivots at the upper and lower ends thereof bearing in said frame, a third ring provided with pivots bearing in the second ring at right angles to the pivots on the second ring, a propeller, and a motor mounted on the third ring to drive said propeller.

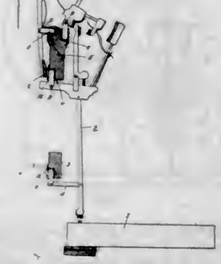
2. In apparatus of the class specified, the combination of a frame, a ring adapted to fit over the upper end portion of the frame and provided with inwardly projecting flanges, brackets on the frame, rollers on the brackets adapted to bear against said flanges, a motor mounted on the frame, means for operatively connecting the motor with said ring, a horizontal screw mounted on said ring, a second ring provided with pivots at the upper and lower ends thereof bearing in said frame, a third ring provided with pivots bearing in the second ring at right angles to the pivots on the second ring, a propeller arranged substantially centrally in the third ring, a motor mounted on the third ring and operatively connected with the said propeller, a drum, and a cable passing around said drum and having the ends thereof connected to said third ring.

3. In apparatus of the class specified, the combination of a frame, a ring rotatively mounted on said frame, a horizontal screw attached to said ring, a second ring having pivots on the upper and lower ends thereof bearing in said frame, a third ring arranged within the second ring and having pivots thereon bearing in the second ring at right angles to the pivots on the second ring, a propeller arranged substantially centrally within the third ring, a motor mounted on the third ring and operatively connected with said propeller, means for turning the second ring, and means for turning the third ring.

4. In apparatus of the class specified, the combination of a frame, a ring adapted to fit over the upper end portion of the frame, means for rotatively mounting said ring on said frame, a horizontal screw mounted on the ring, two independent motors mounted on the frame, means for operatively connecting said motors with said ring, a second ring provided with pivots at the upper and lower ends thereof bearing in said frame, a third ring provided with pivots bearing in the second ring at right angles to the pivots on the second ring, a propeller arranged within the third ring, a motor mounted on the third ring and operatively connected with said propeller, and means for turning the third ring, at will.

5. In apparatus of the class specified, the combination of a frame, a ring adapted to fit over the upper end portion of said frame and provided with inwardly projecting flanges, brackets mounted on said frame, rollers on said brackets adapted to contact with said flanges, a horizontal screw mounted on said ring, a second ring provided with pivots on the upper and lower ends thereof bearing in said frame, a third ring provided with pivots bearing in the second ring at right angles to the pivots on the second ring, a propeller arranged within the third ring, a motor mounted on the third ring and operatively connected with said propeller, means for turning the second ring, and means for turning the third ring.

1,074,289. PIANO-ACTION-FLANGE HOLDER. HENRY D. PELLE, Stockton, Cal., assignor of one-half to E. V. Burke, Stockton, Cal. Filed Feb. 24, 1913. Serial No. 750,192. (Cl. 84—101.)

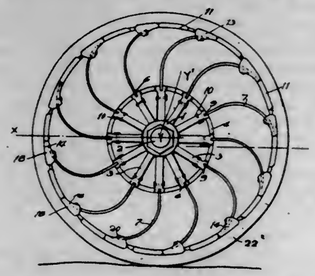


1. In a piano action, a means for holding the flanges of said action, such means comprising a member provided with a plurality of compartments, such flanges being disposed in said compartments, and spring-retaining members to hold said flanges in position in said compartments, as described.

2. In a piano action, a means for holding the flanges of said action, such means comprising a member provided with a plurality of compartments, such flanges being disposed in said compartments, a pin on each of said flanges, and spring retaining members fitting over such pins, as described.

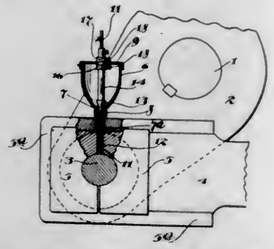
3. In a piano action, a means for holding the flanges of said action, such means comprising a member provided with a plurality of compartments, such flanges being disposed in said compartments, each compartment being provided with a recess in one of its sides, a pin on each flange, said pins fitting into said recesses, and spring retaining members fitting over said pins, as described.

1,074,290. SPRING-WHEEL. SAMUEL JAMES POYNER, Pierson, Manitoba, Canada. Filed Sept. 3, 1912. Serial No. 718,410. (Cl. 152—31.)



The combination comprising a hub having radiating members connected by an encircling band, the members being fitted with radiating pockets and the band with cross slots opening to the pockets, flat springs having their inner ends contracted and passing into the pockets and forming shoulders received within the slots and the body portions thereof extending and bent, the outer ends thereof presenting outwardly directed opposing pairs of flanges, releasable bolts retaining the springs within the pockets, shoes secured to the springs and adjoining the inner ends of the flanges thereon, said shoes being fitted with opposing pairs of flanges similar to those on the springs and having recesses formed therein designed to receive the extremities of the springs and an encircling tire bearing on the springs and shoes and prevented from lateral displacement thereon by the flanges.

1,074,291. GREASE-CUP. JOHN RANK, Minneapolis, Minn. Filed Nov. 2, 1911. Serial No. 658,111. (Cl. 184—82.)



1. The combination with a feed cup having a cover and a discharge passage, of a feed rod extended through said discharge passage, a sleeve adjustably mounted on said rod extended through said cover, and means for adjustably securing said sleeve in respect to said cover, operative from the exterior of said cover.

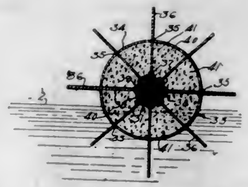
2. The combination with a feed cup having a cover and a discharge passage, of a feed rod extended through said discharge passage, a feed head on said rod, having a sleeve extended through said cover, and means for adjusting said feed head and sleeve from the exterior of said cup.

3. The combination with a feed cup having a cover and a discharge passage, of a feed rod extended through said discharge passage and through said cover, a sleeve on said rod extended through said cover, means for adjustably securing said sleeve on said feed rod from the exterior of said cup, and means for adjusting said sleeve in respect to said cover.

4. The combination with a feed cup having a cover and a discharge nipple, of a feed rod extended through said discharge nipple and cover, a feed head on said rod cooperating with said discharge nipple and provided with a long sleeve extending through said cover, means applied to the outer end of said sleeve, for adjustably securing the same on said feed rod, and stop collars, one above and one below said cover, adjustably secured on said sleeve.

5. The combination with a feed cup having a detachable cover and a discharge nipple, of a feed rod extended through said discharge nipple and through said cover, a feed head on said rod coöperating with said discharge nipple and provided with a long sleeve also extended through said cover, stop collars on said sleeve one above and one below said cover, and set screws applied to said collars and to said sleeve for adjustably securing said collars on said sleeve and said sleeve on said rod, the said screw for securing said sleeve being located above said cover and the upper collar, substantially as described.

1,074,292. HYDRAULIC-POWER SYSTEM. ALVA L. REYNOLDS, Longbeach, Cal. Filed Aug. 14, 1912. Serial No. 715,115. (Cl. 170—107.)



1. In a hydraulic power system, a paddle-wheel comprising a shell and a buoyant composition of cork and asphaltum in the shell.

2. A paddle-wheel comprising a shell with longitudinal slots, a core sleeve having longitudinal grooves, and paddles extending through the shell slots and into said grooves.

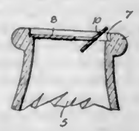
3. A paddle-wheel comprising a shell with longitudinal slots, paddles extending radially inward through the shell slots and a filling in the inter-paddle spaces of the shell.

4. A paddle-wheel comprising a shell with longitudinal slots, paddles extending radially inward through the shell slots, and a buoyant filling in the inter-paddle spaces of the shell.

5. A paddle-wheel having a shell with longitudinal slots, paddles extending radially inward through the shell slots, and a buoyant compostition of cork and asphaltum in the shell.

[Claims 6 and 7 not printed in the Gazette.]

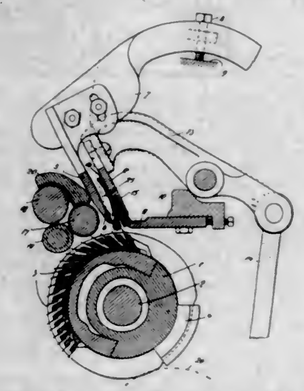
1,074,293. BOTTLE-STOPPER. AUGUST ROCHWITE, Green Lake, Wis., assignor of one-third to Halbert W. Brooks, Green Lake, Wis. Filed Apr. 23, 1913. Serial No. 763,094. (Cl. 215—14.)



1. A bottle stopper comprising a circular body portion, said circular body portion having segmental slits adjacent its edge, an inwardly extending tongue formed intermediate the slits, said inwardly extending tongue being adapted to be pressed downwardly whereby the portion intermediate the tongue and the periphery of the body portion will be bent upwardly.

2. A bottle stopper comprising a circular body portion, said circular body portion having segmental slits adjacent its periphery and to one side of the center, a tongue intermediate the slits, a ligament formed on the end of the tongue and connecting said tongue with the body portion, a weakened portion formed intermediate the outer extremity of the tongue and the periphery of the body portion, said weakened portion being adapted to bend and cause the portion intermediate the outer extremity of the tongue and the periphery to rise upwardly, thereby permitting the insertion of the thumb of the operator between the stopper and the bead on the bottle neck.

1,074,294. TOP-COMB CLEARER. EDWIN A. ROONEY, Fairhaven, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Jan. 17, 1912. Serial No. 671,599. (Cl. 19—6.)



1. The combination with the combing cylinder, top comb and nipper mechanism of a Heilmann type comber, of the movable nipper knife of such mechanism having a clearer brush mounted thereon adjacent to the rear of the top comb and adapted to be moved by the knife to clean the top comb teeth.

2. In a Heilmann comber the combination with the combing cylinder, of a top comb having fixed working position with reference to the cylinder, nipper mechanism including a movable nipper knife, and a top comb clearer carried thereby adapted to engage and clean the top comb teeth upon the closing movement of the knife.

3. A Heilmann comber having a combing cylinder and a top comb mounted in a fixed working position above the cylinder, in combination with nipper mechanism including a nipper knife, and a top comb brush carried thereby having the ends of its bristles extending below the points of the top comb teeth when the knife is in its closed position.

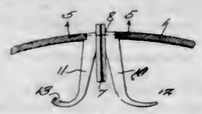
4. In a Heilmann comber, a combing cylinder, a top comb, and nipper mechanism comprising a stationary cushion plate and a movable nipper knife, in combination with a top comb clearer brush mounted on the front face of the nipper knife and having its bristles mounted thereon to project below the lower side of the said fixed cushion plate.

5. In a Heilmann comber having a top comb and a movable nipper knife, a clearer brush for the top comb consisting of a brush-stock carried by the knife, having a row of bristles suitably fastened thereto and having a natural forward inclination, in combination with a gage plate deflecting the bristles and prescribing a determined inclination therefor with respect to the top comb, suiting such bristles to engage and clean the teeth of such top comb.

[Claims 6 to 12 not printed in the Gazette.]

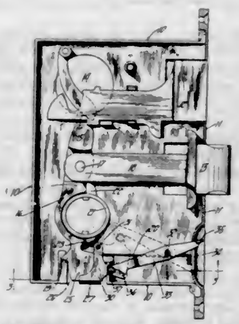
1,074,295. KNIFE-SHARPENER. GEORGE G. ROSS, Bladen, Nebr. Filed July 24, 1911. Serial No. 640,270. (Cl. 76—88.)

In combination with an elongated knife sharpener triangular in cross section; a pair of renewable or replaceable guides, one arranged adjacent each sharpening edge of said sharpener and extending at an angle to the sharpener, thereby forming a V-shaped opening between each guide and the sharpener to receive a knife blade; a handle member having alined three openings, the two end openings being substantially circular, while the central opening is angular in contour, in one side of which angular opening the triangular cross sectional contour of the



sharpener is arranged; said guides having lugs, the lugs of the guides and the walls of said circular openings being correspondingly beveled, in order to anchor the guides in position detachably, thereby rendering the guides renewable or replaceable; and a wedge key passing through the other side of the angular opening, and embedding in the guides, thus assisting further in securing the guides and the sharpener detachably in position.

1,074,296. LATCH MECHANISM FOR LOCKS. WILLIAM A. RUSSELL and ABRAHAM GRANT WEISER, Los Angeles, Cal., assignors to Thomas-Russell Lock Company, Los Angeles, Cal., a Corporation of California. Filed July 15, 1912. Serial No. 709,389. (Cl. 70—42.)



1. In combination, a mortise lock mechanism having a latch bolt, a hub, and a hub lever operating the latch bolt; a lower extension of the hub lever, a thumb latch engageable with said extension to operate the hub lever, means adapted to be thrown into the path of the thumb latch and prevent its lever operating movement, and means manually operable at the mortise face of the lock to move the means preventing the movement of the thumb latch.

2. In combination, a mortise lock mechanism having a latch bolt, a hub, and a hub lever operating the latch bolt; a lower extension of the hub lever, a thumb latch engageable with said extension to operate the hub lever, a movable stop lug, and means manually operable at the mortise face of the lock to move said lug into the path of the thumb latch and prevent its lever operating movement.

3. In combination, a mortise lock mechanism having a latch bolt, a hub, and a hub lever operating the latch bolt; a lower extension of the hub lever, a thumb latch engageable with said extension to operate the hub lever, a stop lug pivoted above the thumb latch, and means manually operable at the mortise face of the lock to rotate said lug into and out of the path of the thumb latch.

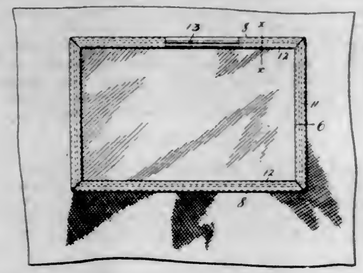
4. In combination, a mortise lock mechanism having a latch bolt, a hub, and a hub lever operating the latch bolt; a lower extension of the hub lever, a thumb latch engageable with said extension to operate the hub lever, a stop plug pivoted above the thumb latch, a lever

pivoted medially and connected at one end by pin and slot arrangement to the stop lug and manually engageable means at the other end of the lever at the mortise face of the lock.

5. In combination, a lock mechanism having a latch bolt, a hub, and a hub lever operating the latch bolt; a thumb latch engageable with the hub lever to operate it and the latch bolt, and means manually operable to be thrown into the path of the thumb latch and prevent its lever operating movement.

[Claim 6 not printed in the Gazette.]

1,074,297. STORM-CURTAIN FOR VEHICLES. CHARLES SEDLACEK, Lynch, Nebr. Filed Mar. 31, 1913. Serial No. 757,871. (Cl. 156—41.)



1. The combination with a body portion of flexible material, having a sight opening formed therein, of a filling of transparent flexible material for said sight opening, a pocket about said sight opening, and an endless, flexible, metallic, reinforcing member seated in said pocket.

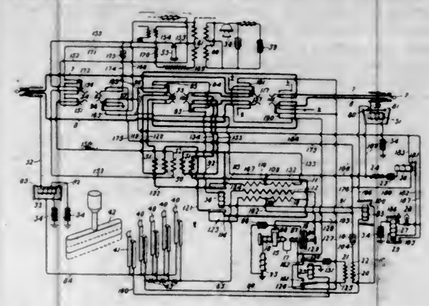
2. In a device of the character described, the combination with a body portion of flexible waterproof material having a sight opening formed therein, of a filling of transparent flexible material for said sight opening which constitutes a window, a section of material arranged to form a pocket and extending about said sight opening, said transparent material being stitched between said pocket and the material of the body portion, and an endless, flexible, reinforcing element seated in said pocket and extending entirely around said sight opening.

3. In a device of the character described, the combination with a body portion of flexible waterproof material having a sight opening formed therein, of a filling of transparent flexible material for said sight opening which constitutes a window, a section of material arranged to form a pocket and extending about said sight opening, said transparent material being stitched between said pocket and the material of the body portion, and an endless, flexible, metallic, reinforcing element seated in said pocket and extending entirely around said sight opening.

1,074,298. TELEPHONE REPEATER SYSTEM. HERBERT E. SHREEVE, Milburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Feb. 24, 1912. Serial No. 679,558. (Cl. 179—171.)

1. In a telephone repeating system the combination with link conductors, of a repeater circuit bridged between said conductors, current inducing windings connected in said conductors on both sides of said repeater bridge, a secondary winding in inductive relation to said current inducing windings and a receiver in circuit with said secondary winding.

2. In a telephone repeater system, the combination with link conductors, of a repeater circuit bridged between said conductors, a pair of current inducing windings connected in each of said conductors one on each side of said repeater circuit, a secondary winding in inductive relation to said current inducing windings, a receiver and means for connecting said receiver in circuit with said secondary winding.



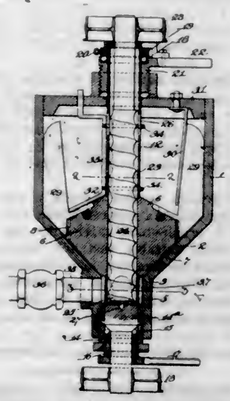
3. In a telephone repeating system the combination with link conductors, of switching means for connecting the opposite ends of said conductors with line wires, a repeater circuit adapted to be bridged between said link conductors, and switching means under the joint control of the link connecting means for completing said repeater circuit bridge.

4. In a telephone repeating system the combination with link conductors, of switching means for connecting the opposite ends of said conductors with line wires, a telephone repeater, a circuit for said repeater, electromagnetically controlled switching means for bridging said repeater circuit between said link conductors, a switching key, and a source of current the connection of which with said electromagnetic switching means and said repeater is under the joint control of said switching means and said link connecting means.

5. In a telephone repeating system the combination with link conductors of switching means for connecting the opposite ends of said conductors with line wires, a repeater circuit, relays for connecting said repeater circuit in bridge of the link conductors, the operation of one of said relays being under the control of one of said link connecting means and the operation of the other of said relays being controlled by the other of said link connecting means.

[Claims 6 to 16 not printed in the Gazette.]

1,074,299. GRINDING-MILL. HENRY C. STRACK, Owego, N. Y. Filed May 3, 1912. Serial No. 694,854. (Cl. 83—13.)



1. A grinding mill having a shell with a grinding surface; a grinder within the shell; means for rotating the grinder; a hollow shaft for supporting the grinder; and a conveyer within the shaft for causing the ground material to pass through the shaft from below the grinder to above the same; an inlet to the interior of the shaft below the grinder, and an outlet above the same, the said conveyer extending from the inlet to the outlet; and a plow carried by the grinder and rotating with it.

2. A grinding mill having a shell with a grinding surface; a grinder within the shell; means for rotating the grinder; a hollow shaft for supporting the grinder; means for causing the ground material to pass through the shaft from below the grinder to above the same; an inlet to the interior of the shaft, below the grinder, and an outlet above the same, the said conveyer extending from the inlet to the outlet; and a plow carried by the grinder and rotating with it, said plow being inclined to force the material downward.

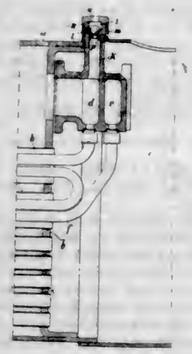
3. A grinding mill having a shell with a grinding surface; a grinder within the shell; means for rotating the grinder; a hollow shaft for supporting the grinder; means for causing the ground material to pass through the shaft from below the grinder to above the same; an inlet to the interior of the shaft, below the grinder, and an outlet above the same, the said conveyer extending from the inlet to the outlet; a plow carried by the grinder and rotating with it; and a fixed scraper carried by the shell and lying in the path of the inner edge of the plow.

4. A grinding mill having a shell with a grinding surface; a grinder within the shell; means for rotating the grinder; a hollow shaft for supporting the grinder; means for causing the ground material to pass through the shaft from below the grinder to above the same; a plow carried by the grinder and rotating with it, said plow being inclined to force the material downward; and a fixed scraper carried by the shell and lying in the path of the inner edge of the plow.

5. A grinding mill having a shell with a grinding surface; a rotary grinder within the shell and coöperating with the surface; means for rotating the grinder; a hollow shaft for the grinder; means for passing ground material from below the grinder to above the same through the shaft; and a scraper engaging with the shaft and top of the grinder and coöperating with the same.

[Claims 6 to 12 not printed in the Gazette.]

1,074,300. STEAM-SUPERHEATER. PETER THOMSEN, Cassel-Wilhelmshöhe, Germany, assignor to Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung, Cassel, Germany, a Corporation of Germany. Filed Oct. 29, 1912. Serial No. 728,371. (Cl. 122—462.)



1. In a smoke tube boiler, superheater pipes in some of the smoke tubes, steam supply means connecting the boiler to the superheater pipes, and a valve in said steam supply means adapted to be opened or closed as to the atmosphere.

2. In a smoke tube boiler, superheater pipes in some of the smoke tubes, steam supply means connecting the boiler to the superheater pipes, and a valve in said steam supply means opening to the atmosphere, said valve having means controlled by the steam pressure in said supply means for closing said valve.

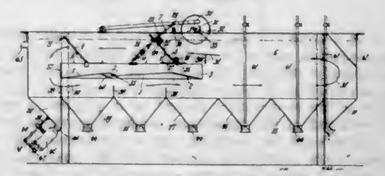
3. In a boiler of the class described having a superheater provided with a saturated steam header, a superheated steam header, and superheater pipes connecting said headers, an opening to the atmosphere between the boiler and the superheater pipes and means controlled by the steam pressure for closing said opening.

4. In a boiler of the class described having a superheater provided with a saturated steam header, a superheated steam header, and superheater pipes connecting said headers, a valve open to the atmosphere between the boiler and the superheater pipes, said valve having automatic means controlled by the steam pressure whereby said valve is closed.

5. In a boiler of the class described having a superheater provided with a saturated steam header, a superheated steam header, and superheater pipes connecting said headers, a valve opening into the saturated steam header, and having automatic means for opening to the atmosphere when the steam pressure is on and for closing to the atmosphere when the steam pressure is off.

[Claims 6 and 7 not printed in the Gazette.]

1,074,301. CLASSIFIER FOR SOLID MATERIAL. RENÉ EMILE TROTTIER, Puteaux, France. Filed June 29, 1911. Serial No. 636,038. (Cl. 83—82.)



1. An apparatus for classifying solid materials by specific gravity and in each order of specific gravity by volume, comprising a frame, a series of inclined sifting surfaces carried by the said frame, tables extending the said surfaces and inclined in the opposite direction thereto, transverse discharge gutters, separating the sifting surfaces, a vat sub-divided at its lower part into compartments corresponding with the several sifting surfaces, water filling the said vat and means for imparting to the sifting surfaces an oscillating movement and means for communicating to the water a movement around the said surfaces.

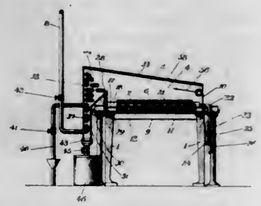
2. An apparatus for classifying solid materials by specific gravity and in each order of specific gravity by volume, comprising a frame, inclined sifting surfaces carried by the said frame, tables of inclination opposite to that of the sifting surfaces separating these surfaces, inclined walls fixed to the frame beneath the said surfaces, a vat filled with water in which the frame is immersed, compartments formed at the lower part of the said vat and corresponding with the several sifting surfaces, movable baffles of adjustable inclination arranged at the lines of separation of the said compartments and means for communicating to the said frame an oscillating movement and means for imparting to the water a movement around the said surfaces.

3. An apparatus for classifying solid materials by specific gravity and in each order of specific gravity by volume, comprising a frame having an oscillating movement, inclined sifting surfaces carried by the said frame, a vat filled with water in which the said frame is immersed, compartments formed at the lower part of the vat beneath the sifting surfaces, other compartments formed in front of the said surfaces, pipes adapted to admit water and opening at the bottom of the last-named compartments,

inclined walls fixed to the frame, beneath the sifting surfaces, inclined movable baffles located at the points of separation of the compartments formed under the sifting surfaces, and means for imparting to the water a movement around said surfaces.

4. An apparatus for classifying solid materials by specific gravity and in each order of specific gravity by volume, comprising a frame, inclined sifting surfaces carried by the said frame, tables of inclination opposite to that of the sifting surfaces separating these surfaces, inclined walls fixed to the frame beneath the said surfaces, a vat filled with water in which the frame is immersed, compartments formed at the lower part of the said vat and corresponding with the several sifting surfaces, means for communicating to the said frame an oscillating movement, and means for imparting to the water a movement around the said surfaces.

1,074,302. DRYING SYSTEM. CHARLES R. WALKER, Newburgh, N. Y. Filed Aug. 4, 1910. Serial No. 575,430. (Cl. 34—48.)



1. In a system of the class described, a suitable containing apparatus, means for causing the material to be passed horizontally through the apparatus, means for heating the material as it passes through the apparatus and increasing the temperature thereof as it progresses toward the exit end of the apparatus, condensing means located at one side of the material, and a heat insulating wall between the condensing means and the material, said condensing means extending materially above said wall and said apparatus being provided with a roof inclining upwardly toward the condensing means to promote the movement of the gases.

2. In a system of the class described, a suitable containing apparatus, means for causing the material to be passed horizontally through the apparatus, means for heating the material as it passes through the apparatus and increasing the temperature thereof as it progresses toward the exit end of the apparatus, condensing means located at one side of the material, and a heat insulating wall between the condensing means and the material, said condensing means extending materially above said wall and said apparatus being provided with a roof inclining upwardly toward the condensing means to promote the movement of the gases, and means for admitting air under pressure at the opposite side of the apparatus from the condensing means to cause the air to pass in a general horizontal direction over the material.

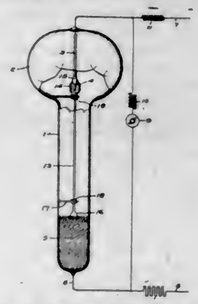
3. In a system for drying fabrics, a suitable containing apparatus, means for causing the fabric to be passed horizontally through the apparatus, means for heating the fabric as it passes through the apparatus and increasing the temperature thereof as it progresses toward the exit end of the apparatus.

4. In a system of the class described, a suitable chamber, means for causing the material to be gradually passed through said chamber, means for heating the material as it passes through the chamber and increasing the temperature thereof as it progresses toward the exit end of the chamber, and means for causing the vapors driven off from the material to be moved away therefrom in a general horizontal direction transverse to the movement of the material.

5. In a system for drying fabrics and the like, a suitable chamber, means for causing the fabric to be gradually moved through said chamber longitudinally, means for progressively heating the fabric as it passes through the chamber and means for condensing the vapors given off by said fabric.

[Claims 6 to 49 not printed in the Gazette.]

1,074,303. ELECTRICAL ILLUMINATION. EZECHIEL WEINTRAUB, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 9, 1907. Serial No. 356,541. (Cl. 176—43.)



1. The process of electric lighting which consists in passing a mercury vapor arc through a tube of very small bore consisting of refractory material in an exhausted space, and delivering sufficient energy to said arc to maintain the walls of said tube at incandescence.

2. The method of maintaining a fine bore tube of refractory material, excessive in length with respect to its diameter, at incandescence which consists in passing a metallic vapor arc through its bore in an exhausted space, whereby a luminant of low current and high voltage characteristics is secured.

3. The process of converting electrical energy into light which consists in striking a high voltage, low current metallic vapor arc through an evacuated space in a fine bore tube of refractory material excessive in length with respect to its diameter, whereby said material is heated to incandescence.

4. The combination of a mercury electrode, a coöperating electrode, a highly refractory tube of very fine bore interposed between said electrodes, an evacuated inclosing envelop and means for striking an arc between said electrodes through the bore of said tube, thereby maintaining it at incandescence.

5. The combination of an exhausted envelop, electrodes therein, at least one of which consists of mercury, and a tube of highly refractory material having a diameter of about 1/4 to 1/64 of an inch, and means for striking an arc through the bore of said tube thereby maintaining it at steady incandescence.

[Claim 6 not printed in the Gazette.]

1,074,304. EARTH-AUGER. DAVID WILSON, Kansas City, Mo. Filed Apr. 29, 1912. Serial No. 693,794. (Cl. 255—21.)

1. In an earth auger, a drill shaft, two sprockets disposed at opposite sides of the drill shaft and having their axes located in a plane which longitudinally bisects the drill shaft, two conveyer belts respectively driven by said sprockets, a gear wheel having spur teeth and internal teeth, means actuated respectively by said spur and internal teeth for driving said belts in a like direction, and means for actuating said gear wheel and simultaneously actuating said drill shaft.

2. In an earth auger, a drill shaft, two sprockets disposed at opposite sides of said drill shaft and having their axes in a plane which longitudinally bisects the drill shaft, two conveyer belts respectively driven by said sprockets, a gear wheel having spur and internal teeth, two pinions respectively meshing with said two sets of teeth, means respectively actuated by said two pinions for driving said belts in a like direction, and means for actuating the drill shaft and driving said gear wheel.



3. In an earth auger, a drill shaft, two sprockets disposed at opposite sides of said drill shaft, two conveyer belts respectively driven by said sprockets, a gear wheel having two sets of teeth disposed internally and externally respectively, two pinions respectively meshing with said two sets of teeth, means for simultaneously actuating the drill shaft and driving the gear wheel, and means by which said pinions respectively drive said sprockets.

4. In an earth auger, a drill shaft, two conveyer belts disposed at opposite sides of said drill shaft, a gear wheel having two sets of teeth disposed internally and externally respectively two pinions respectively meshing with said two sets of teeth, means actuated by said pinions respectively for respectively driving said conveyer belts, and means for simultaneously actuating the drill shaft and driving said gear wheel.

5. In an earth auger, a drill shaft, two conveyer belts disposed at opposite sides of said drill shaft, a gear wheel having two sets of teeth disposed internally and externally respectively, two pinions respectively meshing with said two sets of teeth, means actuated by said pinions for simultaneously driving said two conveyer belts in a like direction, and means for simultaneously actuating the drill shaft and driving said gear wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,074,305. PROCESS OF MAKING FINISH-REMOVERS. JOHN M. WILSON, Montclair, N. J., assignor to Wilson Remover Company, Newark, N. J., a Corporation of New Jersey. Filed July 17, 1908. Serial No. 443,982. (Cl. 87—5.)

1. The process which consists in causing a wax-precipitant to react upon an "emulsion" finish remover containing wax in homogeneous and permanent suspension therein, thereby destroying the equilibrium of said emulsion and effecting the deposition of said wax, and then separating the substantially clear, supernatant, solution from said deposited wax.

2. The process which consists in causing a wax-precipitant to react upon an "emulsion" finish remover containing wax in substantially permanent suspension therein, thereby destroying the equilibrium of said emulsion and effecting the deposition of said wax, the amount of wax-precipitant being in excess of the amount of emulsion remover treated, and then separating the substantially clear, supernatant solution from the said deposited wax.

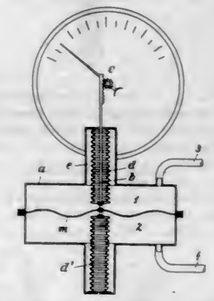
3. The process which consists in causing a wax-precipitant to react upon a finish remover containing a wax-solvent, a wax-precipitant, a dissolved thickening agent and wax, said wax being in homogeneous and substantially permanent suspension in said finish remover, thereby destroying the equilibrium of said finish remover and effecting the segregation of the wax suspended therein, and then separating the substantially clear supernatant solution from the said deposited wax.

4. The process which consists in causing an alcoholic wax-precipitant to react upon phenol, wax and a dissolved thickening agent, the amount of said wax-precipitant being sufficient to reduce the viscosity of the resultant mixture sufficiently to prevent the permanent suspension of any precipitated wax therein, whereby a thin remover, substantially free from particles of wax, may be obtained.

5. The process which consists in causing a mixture containing alcohol and acetone to react upon phenol, wax and an oxy-compound of cellulose in solution, the amount of said mixture of alcohol and acetone being sufficient to reduce the viscosity of the resultant mixture sufficiently to prevent the permanent suspension of any precipitated wax therein, whereby a thin remover substantially free from particles of wax may be obtained.

[Claims 6 and 7 not printed in the Gazette.]

1,074,306. DIFFERENTIAL MANOMETER. FRANZ EMIL WOLF, Nowawes, near Potsdam, Germany. Filed July 11, 1911. Serial No. 637,860. (Cl. 73—110.)



1. A differential manometer comprising a casing-wall a part of which is readily yielding; a diaphragm which is mounted within said casing-wall and which forms therewith a pair of fluid-pressure chambers, said wall being formed with openings one in each of said chambers, for the fluid; a pressure indicator; and a connector which connects said diaphragm and indicator and transmits the movements of the diaphragm to the indicator and which is fastened to and extends through the yielding part of said wall.

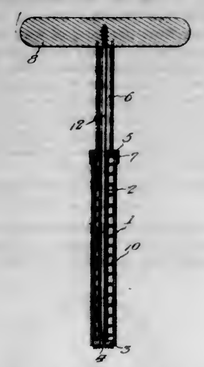
2. A differential manometer comprising a casing-wall a part of which is in the form of an elastic pocket; a diaphragm which is mounted within said casing-wall and forms therewith a pair of fluid-pressure chambers, said wall being formed with openings one in each of said chambers, for the fluid; a pressure indicator; and a connector which connects said diaphragm and indicator and transmits the movements of the diaphragm to the indicator and which is fastened to the bottom of said elastic pocket and extends therethrough.

3. A differential manometer comprising a casing-wall a part of which is in the form of an elastic pocket; a diaphragm which is mounted within said casing-wall and forms therewith a pair of fluid-pressure chambers, said wall being formed with openings one in each of said chambers, for the fluid; a pressure indicator; a connector which connects said diaphragm and indicator and transmits the movements of the diaphragm to the indicator and which is fastened to the bottom of said elastic pocket and extends therethrough; and a second elastic pocket arranged symmetrically with respect to the first-named pocket and attached to said diaphragm on the side thereof opposite from the first-named pocket.

1,074,307. ICE-CHIPPER. ADA M. WOOD, North Yakima, Wash. Filed Jan. 2, 1912. Serial No. 668,826. (Cl. 83—62.)

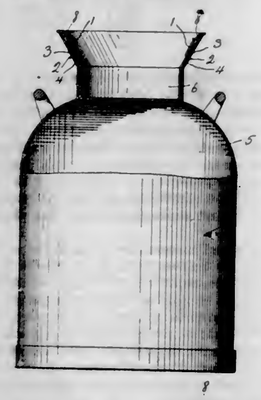
An ice chipper comprising a tubular member, a sheath located in said member and fixed with relation to the

same and spaced from the same, a pin slidably mounted in said sheath, a tube slidably mounted between the tubular member and the sheath, and surrounding the pin, a spring located in the space between the tubular member and the



sheath, and bearing at one end against the tube and bearing at its other end against a stop fixed with relation to the tubular member and the sheath, and a bar fixed to the pin and the tube.

1,074,308. FASTENER FOR MILK-CAN COVERS. JAMES P. ANDERSON, Lisbon, N. D. Filed Feb. 24, 1913. Serial No. 750,316. (Cl. 31—78.)



An article of manufacture comprising a cover fastener including a plate having a portion of one edge extended and turned upon itself, and a spring member having its main portion inclosed by the extended and turned edge portion of said plate, the ends of the spring member being bent at right angles and directed in opposite directions and looped, substantially as and for the purpose set forth.

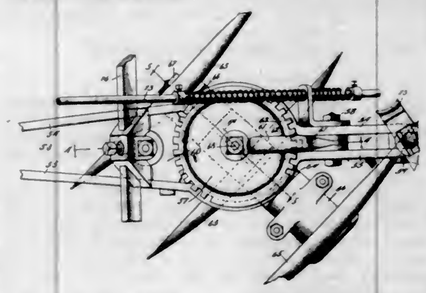
1,074,309. UNION SUIT. FRANK L. BARNES and JOHN MCGOEY, New York, N. Y. Filed Mar. 12, 1912. Serial No. 683,206. (Cl. 2—144.)

1. A union suit having a narrow elongated gusset extending across the crotch and downward on the inside of the legs and forming a permanent closure of the crotch, said gusset being of greater elasticity longitudinally of the gusset than transversely of the gusset, and the suit having a posterior opening extending upward from the gusset and overlapping seat flaps having their bottom edges secured to the gusset and free on one side for opening and closing said posterior opening.



2. A union suit having a narrow elongated gusset extending across the crotch and downward on the inside of the legs and forming a permanent closure of the crotch, said gusset being of greater elasticity longitudinally of the gusset than transversely of the gusset, and the suit having a posterior opening extending upward from the gusset at a point substantially at the central line of the garment and overlapping seat flaps having their bottom edges secured to the gusset and free on one side for opening and closing said posterior opening.

1,074,310. AGRICULTURAL IMPLEMENT. CARL CHRISTENSEN, Bradley, Ill., assignor, by mesne assignments, to Sears, Roebuck & Company, Chicago, Ill., a Corporation of New York. Filed Sept. 25, 1907. Serial No. 394,557. (Cl. 97—37.)



1. In an agricultural implement, the combination of a beam, a rotatable block carried by said beam, said block having a smooth peripheral bearing surface, a furrow-opener connected with said block, and means for clamping said block to frictionally engage and hold it against rotation and at the same time positively engage and lock it against rotation.

2. In an agricultural implement, the combination of a beam, a substantially circular rotatable block, a furrow-opener connected with said block, means rigid with the beam and forming a circular bearing for said block, and a dog pivotally mounted to swing about a substantially horizontal axis for locking said block against rotation

3. In an agricultural implement, the combination of a beam having members spaced apart, a circular block adapted to fit between said members, said members having curved portions forming peripheral bearings for said block, a furrow-opener connected with said block, and a swinging dog for locking said block against rotation.

4. In an agricultural implement, the combination of a beam composed of members spaced apart having oppositely-curved portions between their ends, a circular block adapted to fit between the curved portions of said members, a furrow-opener connected with said block, and a swinging dog for locking said block non-rotatably to said beam.

5. In an agricultural implement, the combination of a beam composed of members spaced apart, said members having oppositely-curved portions between their ends, a block fitted between said oppositely-curved portions of the beam, a plate secured to the beam and adapted to engage the periphery of said block, means carried by the beam at the opposite side of the block and adapted to engage and clamp said block against said plate, and a furrow-opener connected to said block.

[Claims 6 to 17 not printed in the Gazette.]

1,074,311. COUNTER-ACTUATOR AND VOTER-COUNTER FOR VOTING-MACHINES. CHRIST CHRISTENSEN, Indianapolis, Ind., assignor, by mesne assignments, to Triumph Voting Machine Company, a Corporation of New Jersey. Filed Mar. 12, 1909. Serial No. 482,979. (Cl. 235—97.)



1. In a voting machine, the combination, of a pair of associated counters, a common actuating element for said counters whereby both of said counters will be simultaneously and equally affected, means for substantially permanently maintaining the connection between said operating element and one of the counters.

2. In a voting machine, the combination, of a pair of associated counters, a permanent operating means for said counters, and means permitting the ready dissociation of only one of said counters from said operating means.

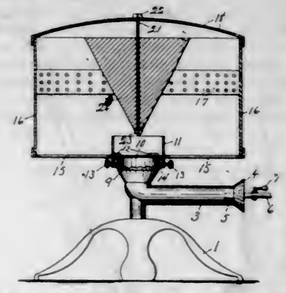
3. In a voting machine, the combination, of a suitable supporting structure, a counter-operating shaft journaled therein, a pair of independent counters both mounted on said shaft, one of said counters being so connected with said shaft as to be readily dissociated from the same.

4. In a voting machine, the combination, of a suitable supporting structure, a counter-operating shaft journaled therein, a pair of independent counters both mounted on said shaft, one of said counters being so connected with said shaft as to be readily dissociated from the same, a head carried by said shaft and provided with a radial slot, an actuating link having a pin entering said slot, and a cam structure coöperating with said pin and comprising stationary cam members, a coöperating rocking cam member, and means for yieldingly holding said rocking cam member in one position.

5. A counter, a shaft for operating the counter, a head carried by said shaft and provided with a radial slot, an actuating link having a pin entering said slot, and a cam structure coöperating with said pin and comprising stationary cam members, a coöperating rocking cam member, and means for yieldingly holding said rocking cam member in one position.

1,074,312. GAS-HEATER. WARREN COLLINS, College Point, N. Y., assignor to Stamford Gas Stove Company, Stamford, Conn., a Corporation of New York. Filed Nov. 23, 1901. Serial No. 83,376. (Cl. 126—85.)

1. In a gas heater, the combination with a gas burner, of a single shell arranged over the burner and having its lower edge substantially level with the burner, said shell being entirely open and unobstructed in its interior except for the cone and having an open bottom and perforations in its side and top, and an inverted cone of refractory material arranged in the shell with its apex adjacent to and above the burner.



2. In a gas heater, the combination with a gas burner, of a single metallic shell arranged over the burner and extending substantially level with the burner, said shell having an open and unobstructed interior except for the body of refractory material and having an open bottom and perforations in its side and top, and a body of refractory material arranged immediately above the flame to promote combustion.

3. In a gas heater, the combination with a burner having an enlarged tube to receive the air mixed with gas, a gas inlet adjacent to the outer end of said tube, an enlarged flat burner at the upper end of the tube, a gauze top to said burner, a ring surrounding the burner, means to secure the ring on the burner and to retain the gauze top in place, integral arms on the ring, a shell supported on the arms above and surrounding the burner, said shell having an open base and perforations in its sides and top, and a cone supported in said shell and arranged with its point extending downwardly adjacent to the center of the flame.

4. In a gas heater, the combination with a gas burner, of a single shell arranged over the burner, having a substantially open bottom and a substantially closed top, and sides provided with a limited number of openings toward their upper portion, so as to retard the escape of the heat, said shell being entirely open and unobstructed in its interior except for the cone, and an inverted cone of refractory material arranged in the shell with its apex adjacent to and above the burner, said cone being adapted to be superheated and retain the heat, promoting combustion.

5. In a gas heater, the combination with a suitable standard, of a suitable burner having an enlarged burner portion, means for supplying mixed air and gas to the burner, a gauze top fitted to the enlarged burner portion, a ring of slightly larger diameter surrounding and extending upwardly above said burner portion and leaving a narrow annular space between it and said burner portion for the admission of a limited amount of air, integral lugs on the ring engaging with the gauze top, set-screws on the ring engaging with the burner, integral arms on the ring, a single interiorly open shell supported on said arms having an open base and perforations around its side and in its top, and an inverted cone of refractory material suspended on the shell and having its apex arranged adjacent to the burner.

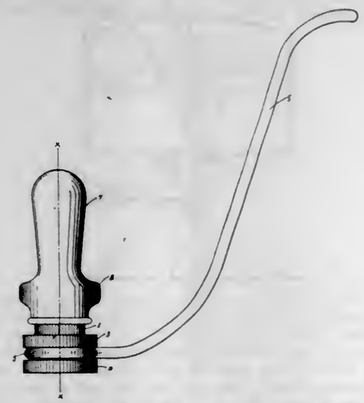
[Claims 6 to 12 not printed in the Gazette.]

1,074,313. CALF-FEEDER. CHARLES D. DAVIS, Sacramento, Cal. Filed May 7, 1912. Serial No. 695,612. (Cl. 119—71.)

1. A device of the character described comprising the combination of a body member provided with a central orifice, a pair of spaced flanges on the lower end of said body member, a handle member projecting between said flanges, a flange on the upper end of said body member, a nipple adapted to project over said last named flange, and a cork adapted to be inserted in said orifice, as described.

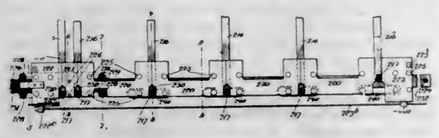
2. A device of the character described comprising the combination of a body member provided with a central

orifice, a pair of spaced flanges on the lower end of said body member, a handle member projecting between said



flanges, a flange on the upper end of said body member, and a nipple adapted to project over said last named flange, as described.

1,074,314. VOTING-MACHINE. JAMES H. DEAN, Chicago, Ill., assignor, by mesne assignments, to Triumph Voting Machine Company, a Corporation of New Jersey. Filed July 25, 1905. Serial No. 271,218. (Cl. 235—54.)



1. In a voting machine interlock, the combination of keys and interlocking blocks, spacing devices carried by the keys and maintaining engagement with the blocks, said blocks being arranged in parallel series or rows with connections between the series forming a group, the two outside end blocks of the group on the end office lines being left free to move with connections between them, compelling coördination between them and fixing the interlocking space between them to a constant quantity.

2. In a voting machine, interlocking mechanism for multi-candidate voting comprising a plurality of groups of interlocking slides or wedge blocks arranged in parallel rows, connections between said groups to transmit the movement of one group to the next adjacent group and a limiting device extending between the end slides or wedge blocks of the whole series, whereby the spreading of the slides or wedge blocks will occur upon the lines of least resistance.

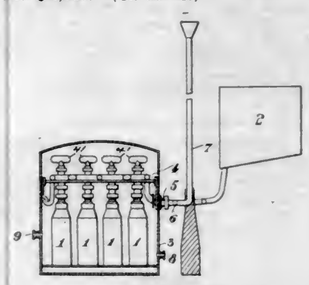
3. In a voting machine, interlocking mechanism for multi-candidate voting comprising a plurality of interlocking slides or wedge blocks, mechanism connected with the ballot keys for spreading the slides or wedge blocks and a movable limiting device extending between the end slides or wedge blocks of the whole series, whereby the shifting of the slides or wedge blocks of the series will occur upon the lines of least resistance.

4. In a voting machine, the combination with a series of voting devices, of interlocking mechanism for interchangeably limiting the number of said devices operable by a voter, said interlocking mechanism being bodily movable as a whole to automatically adjust itself to the operation thereof.

5. In a voting machine, the combination with a stationary frame or casing, of a series of voting devices mounted in said frame or casing, an interlocking mechanism for limiting the number of devices operable by the voter, said interlocking mechanism being freely movable as a whole relatively to said frame and to said voting devices through a plurality of steps to automatically adjust itself to the varied operations of said voting devices.

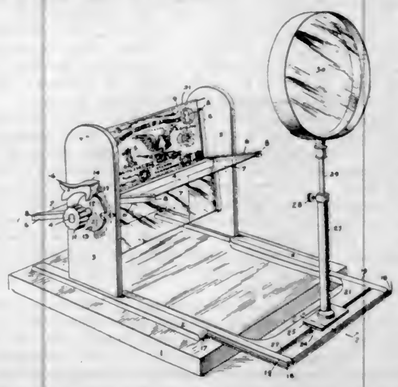
[Claims 6 to 78 not printed in the Gazette.]

1,074,315. PROCESS OF STERILIZING MILK. CHARLES DE BOCK, Zele, near Dendermonde, Belgium. Original application filed Mar. 7, 1911, Serial No. 612,940. Divided and this application filed Oct. 17, 1912. Serial No. 726,349. (Cl. 99—8.)



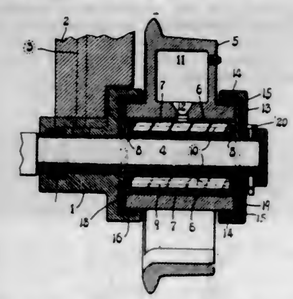
A process of sterilization which comprises placing the liquid to be sterilized in the transporting or dispensing vessels, by submitting this liquid, by means of the liquid itself, before the heating producing the sterilization and during the entire heating and subsequent cooling period, to a pressure greater than the maximum vapor pressure at the maximum temperature required for obtaining the entire and complete sterilization.

1,074,316. BANK-NOTE TESTER. ISABELLA DE DRAGITS, San Francisco, Cal. Filed Oct. 8, 1912. Serial No. 724,569. (Cl. 88—14.)



In an apparatus for examining bank notes and the like, the combination of a base, standards thereon, a horizontal shaft having its bearings in said standards, a carrier movable to and from said standards, a vertically adjustable lens supported by said carrier, four glass plates extending from said shaft at equal angular intervals, means for rotating said shaft, and means for automatically arresting said shaft at angular intervals of a right angle, the points of arrest being related to the directions of the respective plates that said shaft is arrested in a position in which one of said plates extends upwardly and inclined from the lens at a slight angle with the vertical.

1,074,317. CAR-TRUCK CONSTRUCTION. WILLIAM MILLEN DUNCAN, Alton, Ill. Filed Jan. 31, 1913. Serial No. 745,499. (Cl. 105—4.)



1. A car truck structure comprising a bearing adapted to be fastened to the car, a journal extending through said bearing, a cap removably attached to the end of said journal, a wheel, and rollers between said wheel and journal, said wheel and rollers being interposed between said bearing and cap.

2. A car truck structure comprising a bearing adapted to be fastened to the car, a journal extending through said bearing, a cap removably attached to the end of said journal, a wheel, rollers between said wheel and journal, said wheel and rollers being interposed between said bearing and cap, an outer chafing ring between the outer face of said wheel and said cap, and an inner chafing ring located between said bearing and the inner face of said wheel.

3. A car truck structure comprising a wheel, a journal, a sleeve surrounding said journal and closely fitted to said wheel, rollers between said sleeve and journal, means for retaining said rollers within said sleeve, said means including a bearing for said journal adapted to be fastened to the car, and a cap removably attached to the end of said journal.

4. A car truck structure comprising a wheel, a journal, rollers between said wheel and journal, a bearing for said journal adapted to be fastened to the car and provided with a flange which overlaps the hub at the inside face of the wheel, a cap removably attached to the end of the journal and provided with a flange which overlaps the hub at the outside face of the wheel, and packing interposed between said flanges and the hub of the wheel.

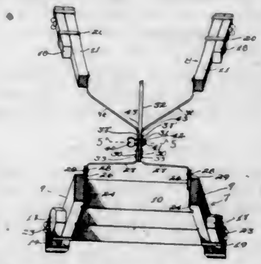
5. A car truck structure comprising a bearing adapted to be fastened to the car underframe, a journal extending through said bearing, a cap removably attached to the end of said journal, and a wheel arranged between said cap and bearing.

[Claim 6 not printed in the Gazette.]

1,074,318. STEP-LADDER. BRAD C. FREAS, Berwick, Pa. Filed Mar. 18, 1913. Serial No. 755,111. (Cl. 228—15.)

1. In a step ladder of the character described, step and prop sections pivotally connected near their upper ends, a locking arm having an inner thin portion and an outer thick portion and pivotally connected with one of said sections, spaced arms pivotally connected with the other section and disposed adjacent and upon opposite sides of the locking arm, and pivot means carried by the spaced arms and serving only as a free pivotal connection between the spaced arms and the locking arm when the spaced arms engage the inner thin portion of the locking arm and as positive clamping means when the spaced arms engage the thick portion of the locking arm.

2. In a step ladder of the character described, step and prop sections pivotally connected near their upper ends, a locking arm comprising a relatively thick body portion and a relatively thin extension and provided with a longitudinal slot having a depending notch formed near one end thereof and in free communication therewith, means pivotally connecting the locking arm with one section to swing in a substantially vertical plane, spaced arms pivotally connected with the other section and disposed adjacent and upon opposite sides of the locking arm, and a control bolt passing through the ends of the spaced arms and the longitudinal slot in the locking arm and having an unscrew-threaded portion longer than the combined width of the spaced arms and the thin extension of the locking arm and shorter than the combined width of the thicker body portion of the locking arm and the spaced arms.



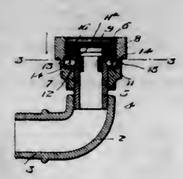
3. In a step ladder of the character described, step and prop sections pivotally connected near their upper ends, a locking arm comprising a relatively thick body portion and a relatively thin extension and provided with a longitudinal slot having a depending notch formed near one end thereof and in free communication therewith, means pivotally connecting the locking arm with one section to swing in a substantially vertical plane, spaced connecting arms pivotally connected with the other section to swing in a substantially vertical plane and disposed adjacent and upon opposite sides of the locking arm, a control bolt passing through the ends of the spaced arms and the longitudinal slot in the locking arm and including a body portion longer than the combined width of the spaced connecting arms and the thin extension of the locking arm and shorter than the combined width of the relatively thick portion of the locking arm and the spaced connecting arms, a screw-threaded extension connected with the free end of the body portion, and a nut engaging the screw-threaded extension and rigidly attached to one of the spaced connecting arms.

4. In a step ladder of the character described, step and prop sections pivotally connected near their upper ends, sockets attached to the step section and formed substantially U-shaped in vertical cross-section and substantially horizontally arranged, forward inwardly converging connecting arms having their outer ends pivotally mounted within the sockets, a locking arm rigidly connected with the inner ends of the forward connecting arms and provided with a longitudinal slot having free communication with a depending notch disposed near one end thereof, rear inwardly converging connecting arms pivotally connected with the prop section and having their inner ends disposed adjacent to and upon opposite sides of the locking arm and provided with apertures, and a bolt passing through the apertures and the longitudinal slot to connect the rear connecting arms and the locking arms.

1,074,319. HOSE-COUPLING. CHARLES GIOVANNONI, Enterprise, Oreg., assignor of one-half to C. E. Crow, Enterprise, Oreg. Filed Sept. 22, 1911. Serial No. 650,860. (Cl. 137—34.)

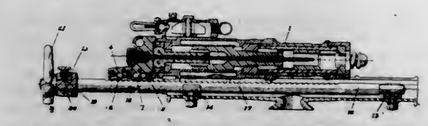
In a pipe coupling, the combination with a pipe elbow, of a hollow plug screwed into the elbow at one end, said plug terminating in an annular flanged head at its other end, a sleeve having one end loosely and adjustably receiving the plug between the pipe elbow and the flanged head on said plug and prevented from detachment by the head of said plug, said sleeve being separated from the end of the elbow to compensate for wear and having a part extending beyond the head of the plug and there provided with internal screw-threads of greater diameter

than that of the head on the plug, to permit assembling, and an externally screw-threaded flat ring of hard material engaged with the internal screw-threads of the sleeve and located inwardly from the mouth thereof, leaving



the screw-threaded mouth of the sleeve unobstructed for the attachment of a pipe section, said ring being adjustable in said sleeve and adapted to limit the inward play of the sleeve.

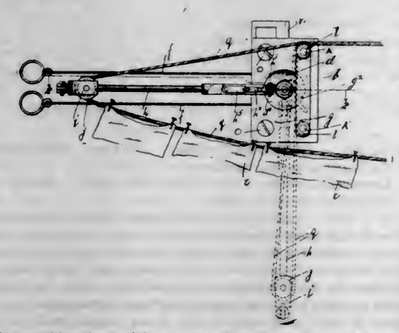
1,074,320. AUTOMATIC FEED FOR PERCUSSIVE DRILLS. CHARLES C. HANSEN, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed July 19, 1912. Serial No. 710,373. (Cl. 255—45.)



1. In combination with a hammer drill slidably mounted on a supporting means, a rack and pawl mechanism for automatically feeding said drill forward, said rack comprising a rotatably mounted bar having a portion of its surface provided with an extended row of feeding teeth, a smooth portion, and a portion near its rear end provided with one or more holding teeth, said pawl mechanism comprising backwardly extending pawls for engaging said feeding teeth and a forwardly extending pawl for engaging said holding teeth.

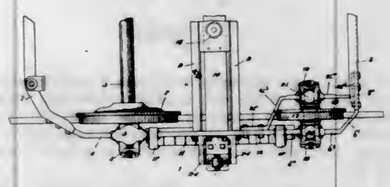
2. In combination a support, a drill slidably mounted thereon, a rack bar rotatably mounted on said support, said rack bar having one portion of its surface provided with feeding teeth, a separate portion with holding teeth disposed oppositely to said feeding teeth, two sets of pawls secured to said drill for engaging said teeth, and means to rotate said rack bar from a position of engagement with one set of pawls, to engagement with the other set.

1,074,321. WASHLINE-HANGER. ERNST HAUPT, Perth Amboy, N. J. Filed Oct. 1, 1912. Serial No. 723,332. (Cl. 68—3.)



In combination with a wash line hanger comprising a perforated base, of an L-shaped plate having in both wings or sides T-shaped recesses and flanges around the reduced portions of said recesses and being adapted to be fixed around a corner of a stationary part, and bolts carrying square nuts and adapted to be passed through said perforated base and to engage with the nuts the recesses in said plate, said nuts after depression of said base being adapted to engage between said flanges and to be held against rotation.

1,074,322. CAR-TRUCK. WILLIAM H. HEULINGS, Jr., Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 2, 1913. Serial No. 739,586. (Cl. 105—239.)



1. In a truck, the combination with a truck frame, driving wheels and smaller trailing wheels, a pivot located nearer the driving than the trailing wheels, inside supplemental frames attached to the trailing wheel ends of the truck frame, opposing axle-boxes secured to the truck frame and to the supplemental frames, and stud axles carrying the trailing wheel supported by the axle boxes in the truck and supplemental frames.

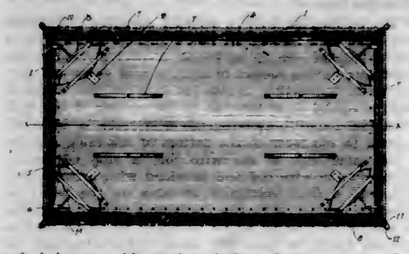
2. In a truck of the class described, side frames and means connecting the same to keep them in alinement, supplementary pedestals secured to said side frames, axle boxes and means for supporting the side frames and supplemental frames therefrom, an axle with driving wheels and stud axles with trailing wheels mounted between said side frames and supplemental pedestals.

3. In a truck of the class described, the combination with side frames, axles and driving wheels thereon mounted in axle boxes held in pedestals at one end of the frame, and smaller or trailing wheels mounted on stud axles the outer ends of which enter journal boxes mounted in pedestals at the other end of the frame, a pivot plate mounted on a bolster eccentrically placed with relation to the driving wheels, a crossing securing the side frames together adjacent the driving wheels, extensions 6^b from the outer pedestal of the trailing-wheel stud-axles, a crossing 8 secured to the extensions 6^b, and supplemental frames carrying pedestals for the inner axle-boxes for the said stud-axles secured at one end to the end crossing and at the other end to the side frames.

4. In a car truck, stud axles each having a wheel thereon, axle boxes adjacent the ends of the stud-axles, and a frame for securing the axle-boxes in position and in alinement comprising side-frames having pedestals 20 and extensions therefrom, a crossing securing the side-frame extensions together, and supplemental frames 21^a having extensions 21^d secured to the crossing, an extension 21^c secured to the side-frame, and an angular extension 21^b connecting the supplemental frame 21^a and its extension 21^c.

1,074,323. RESILIENT FRUIT-CRATE. IRVING HILL, Wallace, Cal. Filed Jan. 28, 1913. Serial No. 743,791. (Cl. 217—54.)

A device of the character described comprising an inner and outer crate each provided with a door adapted to register with each other, springs interposed between said crates at the top, bottom, sides and ends, springs disposed across the corners of the inner crate at the top and bottom thereof, one side of said springs being secured to said inner crate, rods on the other sides of said springs, said



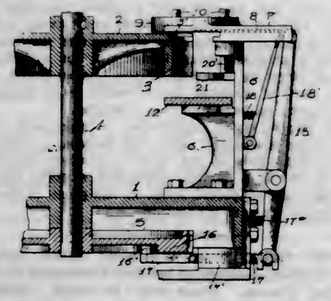
rods being movably projected through the corners of said outer crate, as described.

1,074,324. SHAVING-BRUSH. MORRIS JACOBS, Sacramento, Cal. Filed Dec. 20, 1912. Serial No. 737,899. (Cl. 15—50.)



A brush comprising a stock having a socket in one end, bristles fixed in the said socket, the said stock being further provided with an inwardly tapered cavity opening through its opposite end and also opening into the socket centrally thereof, a feed tube correspondingly shaped to the said cavity and removably held therein and having a discharge tip projecting into the socket, a collar threaded in the larger end of the said cavity for holding the feed tube against displacement therein, and a compressible bulb having a neck fixed in the collar.

1,074,325. CAN-HEAD-FEED MECHANISM. AXEL JOHNSON, Oakland, Cal., assignor to American Can Company, a Corporation of New Jersey. Filed Dec. 5, 1910. Serial No. 595,610. (Cl. 113—114.)



1. In a machine for the described purpose, the combination with a carrier provided with a plurality of holders for receiving and holding can bodies to have heads applied thereto, of a can head holder, a can head feeder for successively delivering can heads into alinement with the open end of cans carried by the carrier, a lock catch for normally holding the feeder locked against movement, means acted on by the propelled cans for releasing the lock catch of the can head feeder, and mechanism for actuating the can head feeder for releasing heads successively from the holder.

2. In a machine for the described purpose, the combination with a rotary carrier provided with a plurality of vertically disposed external segmental can holders, of a can head holder held above the rotary carrier, a reciprocating can head feed slide for sustaining can heads within the holder, a lock device for the feed slide, means acted on by cans propelled by the carrier for releasing the lock device as the cans are brought within the sphere of the can head holder, and mechanism for imparting reciprocating movements to the feed slide.

3. In a machine for the described purpose, the combination with a horizontal rotating carrier, a plurality of vertically disposed external segmental holders secured to the carrier for receiving and holding open ended cans in vertical position, a non-rotating support for said cans, of a can head holder arranged above the carrier and in alinement with the can holders carrier thereby, a spring actuated reciprocating can head feed slide working beneath the can head holder and normally sustaining a stack of can heads therein, lock means for holding the said feed slide locked beneath the can head holder, a device within the path of and acted on successively by the propelled cans for releasing the lock means to permit the withdrawal of the feed slide from beneath the stack of retained heads, and mechanism acted on by the rotary carrier for forcing inwardly the feed slide to cut out the lowermost can head of the stack of said heads.

4. In a machine for the described purpose, the combination with a horizontally rotary carrier provided with a plurality of vertically disposed external segmental can holders, of a stationary segmental can support concentric with said carrier, a can head holder above the carrier, a reciprocating feed slide for sustaining a stack of can heads within the holder, devices for holding the slide in locked position beneath the stack of can heads, means thrown into action by a propelled can for releasing the feed slide, and mechanism for actuating the said feed slide to separate the lowermost head of the stack of can heads from the holder and depositing the same immediately above a can positioned by the carrier beneath the can head holder.

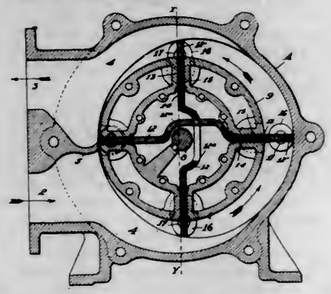
5. In a machine for the described purpose, the combination with a rotary carrier provided with a plurality of external vertically disposed segmental can holders, and can head supporting seats, of a coöperating stationary can head supporting seat, a can head holder arranged above the carrier, a reciprocating can head feed slide operating with the holder to release and successively discharge can heads immediately above the open end of cans positioned by the carrier beneath the can head holder, a lock device for said feed slide, mechanism for imparting reciprocating movement of the feed slide, and means thrown into action by the propelled cans for releasing the locked feed slide.

[Claims 6 to 15 not printed in the Gazette.]

1,074,326. ROTARY PUMP. ISRAEL J. JOHNSON, Redding, Cal. Filed Feb. 3, 1913. Serial No. 745,959. (Cl. 103—43.)

1. In a rotary pump, a casing having its interior periphery formed on arcs of different radii, parallel contiguous inlet and discharge passages in the larger periphery, with a dividing septum, a drum having an axis intermediate of the axes of the casing, pistons extending through radial channels in the drum, and guides coincident with the smaller arc of the casing, whereby the pistons are held in operative contact with said smaller arc of the casing opposite the inlet and discharge and are carried free from the remainder of the casing during rotation.

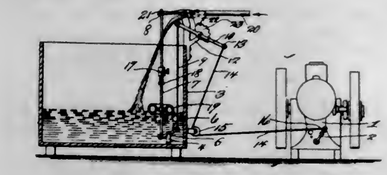
2. A rotary pump having parallel, contiguous inlet and discharge passages at one side of the periphery, with an intermediate septum, a channeled crescent-shaped interior portion, the side walls of which have the same radius with the smaller arc of the casing which is located opposite to the inlet and discharge passages, a sectional hollow drum revoluble within the casing, having its axis intermediate of the axes of the casing, and pistons slidable in slots at right angles through the drum, said pistons having rollers journaled in their ends and adapted to travel on the side walls of the crescent and maintain operative contact between the outer edges of the pistons and the smaller casing surface.



3. A casing for rotary pumps having its interior periphery formed of cylindrical arcs of different radii, parallel contiguous inlet and outlet passages connecting with the larger arc, a rotary piston carrying drum journaled within the casing and having an axis different from those of the casing, pistons slidable radially through the drum, and a crescent-shaped guide therefor within the casing having its thicker portion coinciding with the larger arc of the casing and its interior curvature of the same radius and continuous with the smaller arc of the casing.

4. In a rotary pump of the character described, a casing with its interior periphery in arcs of different radii, crescent-shaped guides, the curvature and the terminating horns of which are continuous with the smaller arc of the casing, parallel, contiguous inlet and outlet passages through the opposite periphery of the casing, a drum within the casing having a continuous shaft journaled outside of the casing ends, and pistons slidable at right angles through the drum by the action of the guides, said pistons being curved in the center to clear the shaft, and one of them slotted to clear each other.

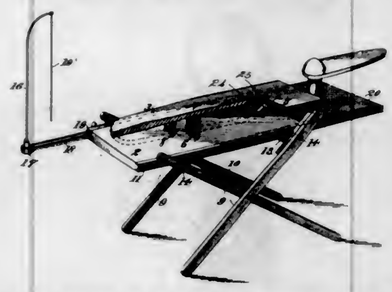
1,074,327. DEVICE FOR AUTOMATICALLY STOPPING GASOLENE-ENGINES. TOM ELMER JOHNSON, Northwood, Iowa. Filed Sept. 21, 1912. Serial No. 721,569. (Cl. 161—7.)



1. In combination with a machine stopping mechanism and a fluid tank having an inflow pipe provided with a valve; a lever adapted to actuate the valve and the machine stopping mechanism, a second lever pivoted in the bottom of the tank having a rod connection with the first lever, a wire rod connected to one end of the lever in the bottom of the tank, a guide for the upper portion of said wire rod, a stop having cushioning means adjustable on the wire rod, and a float vertically movable on the wire rod adapted to contact with the stop upon the rise of the fluid in the tank.

2. In combination with a machine stopping mechanism and a fluid tank having an inflow pipe provided with a valve; a bracket arm on said tank, a lever pivoted to the bracket arm having means to operate said valve and provided with connecting means to operate the stopping means; a second lever pivoted to the bottom of the tank and having connections with the first lever, a wire rod connected to the lever in the bottom of the tank, a guide for the upper end of the wire rod, a stop adjustably mounted on the wire rod and provided with a cushioning device, and a float vertically movable on the wire rod adapted to contact with the cushioning device when the fluid rises to the desired height, whereby the levers may be oscillated, which in turn will operate the valve and the stopping mechanism, to close the valve and stop the engine.

1,074,328. TAILOR'S AND LAUNDRY IRONING-TABLE. JOSEPH CHARLES OSTERN, San Francisco, Cal. Filed Aug. 14, 1912. Serial No. 715,025. (Cl. 68—10.)



1. An ironing table having a pressure board about which pieces being ironed may be turned and a suspension device attached to the table and having a twistable part overhanging the longitudinally projected plane of the board for turnably suspending portions of pieces overhanging the end of the board while being pressed and turned on the board.

2. A tailor's and laundry ironing table comprising an elevated table having an ironing board attached at one end thereon and spaced above the table for permitting the interposition of portions of pieces to be ironed, and a flexible garment supporter, longitudinally adjustable along and overhanging the plane of the table for holding attached portions of articles in the process of ironing on the board.

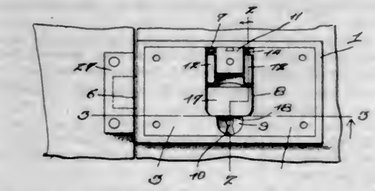
3. A tailor's and laundry ironing board comprising a table member, an ironing board spaced above and attached to the table, and an upwardly extending standard longitudinally adjustable along the table and having a flexible garment supporter overhanging the plane of the board and to which a garment being ironed may be attached and supported about in the plane of the ironing board, whereby that part of garment is prevented from engagement with adjacent surfaces and from creasing.

4. An ironing table comprising a table part and an ironing board above and supported thereon, a slide longitudinally adjustable on the table, a standard attached to said slide having a flexible connection whereby pieces being pressed are supported about in the plane of the board when secured to said connection.

1,074,329. LOCK. JOHN POTAPOFF, Arran, Saskatchewan, Canada, assignor of one-half to Michael F. Riebin, Verigin, Canada. Filed Feb. 14, 1913. Serial No. 748,446. (Cl. 70—76.)

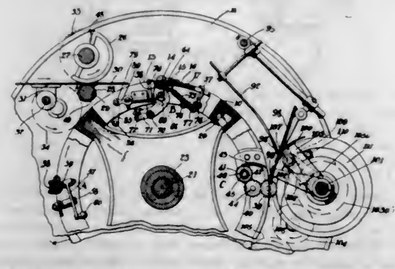
A lock of the class described including a casing, a locking bolt arranged within said casing for sliding

movement, blocks disposed within the casing and having longitudinal grooves formed therein to receive the locking bolt, said locking bolt being provided upon its longitudinal edges with spaced recesses, said blocks being provided at their abutting ends with inwardly extending recesses and further provided with a shallow recess communicating with the first recess, a spacing block secured to one side of the casing and arranged within said recesses, said spacing block having spaced openings formed therein, sliding tumblers disposed upon each side of said spacing



block and having beveled ends adapted to engage within the recesses in the locking bolt, springs having their intermediate portions arranged in the openings in the spacing block and their ends engaging the ends of the tumblers, an actuating plate connecting the inner ends of said tumblers and disposed in the shallow recess, one edge of said actuating plate being beveled off to provide an engaging surface and means engaging said plate to disengage the tumblers from the locking bolt and means cooperating with the first means to actuate the locking bolt.

1,074,330. PAPER-BAG MACHINE. CHARLES F. SMITH, Bridgeport, Conn., assignor to Howland Bag and Paper Company, Dexter, N. Y., a Corporation of New York. Filed Jan. 30, 1912. Serial No. 674,238. (Cl. 93—30.)



1. A paper bag machine including in combination, a folding-bed, having a fixed rear portion, and having another portion pivotally mounted coincident with the main transverse folding line and extending forwardly therefrom, means for gripping the lower plies of a bag blank to said other portion and means for turning said other portion backwardly on its pivot for folding the leading end of the blank onto its body against said folding-bed rear portion.

2. A paper bag machine including in combination, a folding-bed, having a fixed rear portion, and having another portion pivotally mounted coincident with the main transverse folding line and extending forwardly therefrom, means for gripping the lower plies of a bag blank to said other portion, means for turning said other portion backwardly on its pivot for folding the leading end of the blank onto its body and forwardly for opening out the blank into box shape and means for gripping the upper plies of the bag blank when the folding-bed other portion is in its backward position.
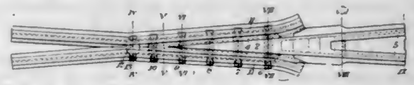
3. A paper bag machine including in combination, a folding-bed having a fixed rear portion and having another portion pivotally mounted coincident with the main transverse folding line and extending forwardly therefrom, means for gripping the lower plies of a bag blank to said other portion, means for turning said other portion backwardly on its pivot for folding the leading end of the blank onto its body and to the rear portion of said folding-bed when the folding-bed other portion is in its backward position.

4. A paper bag machine including in combination, a rotatable carrier, a folding-bed thereon, means for gripping the lower plies of the bag blank to said folding-bed, means for opening out the forward end of the bag blank into box shape, rotary means for folding the forward end of the diamond and delivering it into the grip of the front clip and rotary means for folding the rearward end of the diamond.

5. A paper bag machine including in combination, a rotatable carrier, a folding-bed thereon, means for gripping the lower plies of a bag blank to said folding-bed, means for opening out the forward end of the bag blank into box shape, means for turning inwardly the sides of the box shape, rotary means for folding the forward end of the diamond and delivering it into the grip of the front clip and rotary means for folding the rearward end of the diamond, said forward and rearward end folding means being mounted on a common fixed axis adjacent to said carrier.

[Claims 6 to 13 not printed in the Gazette.]

1,074,331. RAILWAY-FROG. JOHN V. STEWART, Johnstown, Pa., assignor to The Lorain Steel Company, Johnstown, Pa., a Corporation of Pennsylvania. Filed Jan. 5, 1912. Serial No. 669,624. (Cl. 104—5.)



1. A railway frog comprising in combination an integrally formed manganese-steel frog point, wing rails formed of manganese-steel, said frog point having integral side portions in interfitting engagement with the sides of the wing rails, and means whereby the wing rails and frog point are secured in assembled relation, the rear end of the frog point being bifurcated and the bifurcated portions extending rearwardly beyond the ends of the wing rails and having the cross sectional contour of the track rails to which the frog structure is attached when in use.

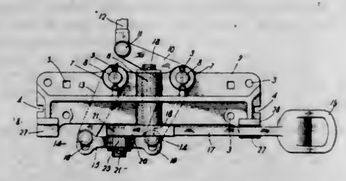
2. A railway frog comprising in combination an integrally formed manganese-steel frog point, wing rails formed of manganese-steel, said frog point having integral side portions in interfitting engagement with the sides of the wing rails, and means whereby the wing rails are secured directly to the frog point, the rear of the frog point being bifurcated and the bifurcated portions extending rearwardly beyond the ends of the wing rails and having the cross sectional contour of the track rails to which the frog structure is attached when in use.

3. A railway frog comprising in combination an integrally formed manganese-steel frog point, wing rails formed of rolled manganese-steel and extending rearwardly beyond the ends of the wing rails, said frog point having integral side portions in interfitting engagement with the sides of the wing rails, and means whereby the wing rails and frog point are secured in assembled relation, the ends of the wing rails and frog point having the contour of and abutting the ends of the track rails to which the frog structure is secured when in use.

4. A railway frog comprising in combination an integrally formed manganese-steel frog point, wing rails formed of rolled manganese-steel, and extending rearwardly beyond the ends of the wing rails, said frog point having integral side portions in interfitting engagement with the sides of the wing rails, and means whereby the

wing rails are secured directly to the frog point, the ends of the wing rails and frog point having the contour of and abutting the ends of the track rails to which the frog structure is secured when in use.

1,074,332. GROUND-SWITCH STAND. JOHN V. STEWART, Johnstown, Pa., assignor to The Lorain Steel Company, Johnstown, Pa., a Corporation of Pennsylvania. Filed Apr. 3, 1913. Serial No. 758,524. (Cl. 104—25.)



1. A ground switch stand comprising a base, a manually operated hand lever pivoted on the base, a lever arm and a bell crank pivoted on the base, said bell crank having one arm operatively connected to the switch points, and a cross arm connecting the lever arm and parallel arm of the bell crank with the hand lever to permit angular swinging movement of the hand lever in a plane at right angles to the plane of angular movement of the lever arm and bell crank.

2. A ground switch stand comprising a base, a manually operated hand lever pivoted on the side of the base, a lever arm and a bell crank pivoted on the under side of the base, said bell crank having one arm operatively connected to the switch points, and a cross arm connecting the lever arm and parallel arm of the bell crank with the hand lever to permit angular swinging movement of the hand lever in a plane at right angles to the plane of angular movement of the lever arm and bell crank.

3. A ground switch stand comprising a base, a manually operated hand lever pivoted on the side of the base, a lever arm and a bell crank pivoted on the under side of the base, said bell crank having one arm operatively connected to the switch points, and a cross arm connecting the lever arm and parallel arm of the bell crank with the hand lever to permit angular swinging movement of the hand lever in a vertical plane and the lever arm and bell crank in a horizontal plane.

4. A ground switch stand comprising a base, a manually operated hand lever pivoted on the side of the base, a lever arm and a bell crank pivoted on the under side of the base, said bell crank having one arm operatively connected to the switch points, and a cross arm connecting the lever arm and parallel arm of the bell crank with the hand lever to permit angular swinging movement of the hand lever in a vertical plane parallel to the length of the railway track and the lever arm and bell crank in a horizontal plane.

5. A ground switch stand comprising a base, a manually operated hand lever pivoted on the base, a lever arm and a bell crank pivoted on the base, said bell crank having one arm operatively connected to the switch points, and a cross arm connecting the lever arm and parallel arm of the bell crank with the hand lever, said cross arm having slotted openings to permit angular swinging movement of the hand lever in a plane at right angles to the plane of angular movement of the lever arm and bell crank.

[Claim 6 not printed in the Gazette.]

1,074,333. GLOWER FOR ELECTRICAL INCANDESCENT LAMPS. ORLANDO M. THOWLESS, Newark, N. J. Original application filed Jan. 20, 1911, Serial No. 603,663. Divided and this application filed Mar. 14, 1912. Serial No. 688,878. (Cl. 176—131.)

1. A glower for an electrical incandescent lamp consisting of a filament composed of tungsten and oxid of aluminum covered with refractory metal.

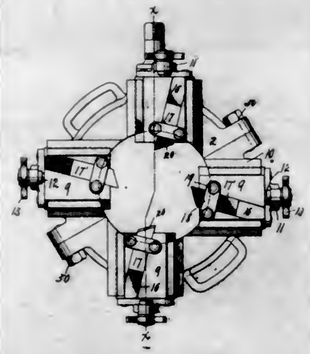
2. A glower for an electrical incandescent lamp consisting of a filament composed of a mixture of tungsten and oxid of aluminum covered with a deposit of tungsten.

3. A glower for an electrical incandescent lamp consisting of a fritted body composed of tungsten and oxid of aluminum covered with a coating of tungsten.

4. The method of making glowers for electrical incandescent lamps which consists in mixing a salt-binding material with a metal powder, forming the mixture into filaments and heating the filaments until all undesirable material is eliminated therefrom, a refractory oxid formed therein and the particles of the filament fritted together.

5. The method of making glowers for electrical incandescent lamps which consists in mixing a salt-binding material with metal powder, forming the mixture into filaments, heating the filaments until all undesirable material is eliminated therefrom, refractory oxid formed therein, the particles of the filaments fritted together and covering them with a deposit of refractory metal in such a manner as to make them uniform in their light-giving qualities.

1,074,334. PIPE-CUTTING MACHINE. WILLIAM W. VOSPER, Toledo, Ohio, assignor to The Toledo Pipe Threading Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Apr. 4, 1912. Serial No. 688,523. (Cl. 81—190.)

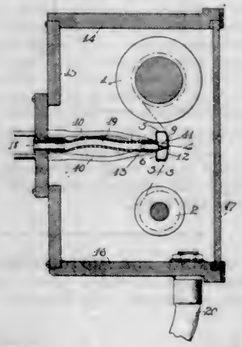


1. In a machine of the class described, a work-holding collar having the inner end portion thereof annularly reduced to form a circumferential recess, a die-carrying head fitting against the inner end of said collar and having an annular portion working in said groove and co-operating with the adjacent end edge of the collar to hold the collar and head in assembled relation for relative rotary movements, said annular portion having its outer edge toothed to form a crown gear on the head, which gear has its teeth covered by the side wall of the collar groove, and a drive pinion mounted in a part of said collar whereby its teeth are inclosed and meshing with the teeth on the annular portion of said head.

2. In a machine of the class described, the combination of a work-holding collar having its inner end recessed to form an annular circumferential groove having an outwardly tapered base portion, said collar also having a pinion-receiving socket in one side thereof, said socket being substantially the depth of said recess and open at one side to the recess, a die-carrying head having an opening therein in register with the annular opening and seating at its inner edge against the inner end of the collar and having a concentric annular flange on its inner side with its inner edge complemental to the tapered base of the collar recess to have rotary dove-tailed engagement therewith to retain the collar and head in assembled relation, the outer end of said flange being toothed with the teeth thereof protected by the inner wall of the collar recess, a stub-shaft projecting from the collar centrally within the socket thereof, and a drive pinion mounted on said shaft in mesh with the teeth on the head flange with its teeth protected by the wall of said socket except at the point of meshing thereof with the flange teeth.

3. In a machine of the class described, a work-holding collar having a radial opening therein, a U-shaped work clamping member having its looped portion mounted for radial movements in said opening and having one leg projecting into the central collar opening for clamping engagement with work disposed therein, and an adjusting screw threaded radially through said collar and having its inner end bearing against the inner clamping leg of said member and its outer end journaled in the outer leg of said member and anchored against longitudinal movements relative to said member.

1,074,335. TRACKER-BAR FOR SELF-PLAYING MUSICAL INSTRUMENTS. PHILIPP WIRSCHING, Salem, Ohio, assignor to The Wirsching Organ Company, Salem, Ohio, a Corporation of Ohio. Filed Jan. 3, 1910. Serial No. 536,021. (Cl. 84—165.)



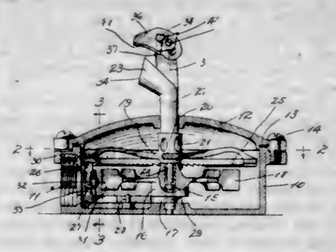
1. In an instrument adapted to be pneumatically controlled by a perforated sheet, a tracker-bar over which said sheet may pass which has a row of playing apertures constantly in the path of the perforation of the sheet, supplemental openings on each side of the row of playing apertures and midway between the paths of the perforations of the note sheet, individual tubular connections to each playing aperture, a connection common to the supplemental apertures, and means for creating a preponderance of atmospheric pressure on the working face of the tracker bar whereby the note sheet is held to the tracker-bar by air pressure against the portions of the note sheet covering the supplemental openings.

2. A tracker bar for an instrument of the character described comprising a hollow member with a front wall having through it a row of apertures and another row of apertures out of longitudinal alinement with reference to the first row, each aperture of the second row having its center on a line passing through the center of the space between the apertures of the first row at right angles to the row, and means for creating a preponderance of atmospheric pressure on the working face of the tracker bar whereby a note sheet having its perforations registering with the apertures of the first row is held to the tracker-bar by air pressure, the tracker bar being air tight except for the second row of apertures and an exit opening.

3. A tracker bar for an instrument of the character described comprising a hollow member with a front wall having through it a row of apertures, tubular connections to each aperture extending outside the hollow member, an auxiliary row of apertures on each side of the first row, each aperture of the auxiliary rows having its center on a line at right angles to the first row and passing through the center of the space between the apertures of said row, and means for creating a preponderance of atmospheric pressure on the working face of the tracker bar whereby a note sheet having its perforations registering with the apertures of the first row is held to the tracker bar by air pressure, the tracker bar being air tight except for the auxiliary apertures and an exit opening.

4. A tracker bar for an instrument of the character described comprising a hollow member with one wall having through it a row of playing apertures, tubular connections to each of said apertures extending outside the hollow member, supplemental apertures above and below the playing apertures, each of these apertures being centrally located on a line at right angles to the row of playing apertures and passing midway through the space between said apertures, an opening from the tracker-bar, said tracker bar being air-tight except for the supplemental apertures and said opening, and means for creating a preponderance of atmospheric pressure on the working face of the tracker bar whereby a note sheet having its perforations registering with the playing apertures is held to the tracker bar by air pressure.

1,074,336. LAWN-SPRINKLER. EMIL WISMAR, Los Angeles, Cal. Filed Mar. 19, 1912. Serial No. 684,765. (Cl. 137—59.)



1. A sprinkler, comprising a hollow casing, a water wheel concentrically mounted therein, a rotatable nozzle projecting concentrically from said casing and having an actuating member mounted on its shaft within the casing, and ratchet means operated by the water wheel for rotating the said nozzle actuating member.

2. A sprinkler, comprising a hollow casing, a water wheel pivotally mounted therein, a casing having a tangentially arranged inlet opening whereby the water will be given a whirling movement for turning said wheel, a nozzle member also pivoted in said casing, a ratchet wheel connected with said nozzle, a lever pivoted in said casing adjacent said ratchet wheel, a weight operated pawl mounted on said lever adapted to actuate said ratchet, a stop on the lever to limit the movement of said pawl, and an eccentric carried by said water wheel and adapted to engage and oscillate said lever.

1,074,337. PROCESS FOR THE REGENERATING OF DECOLORIZING-CARBON. ABRAHAM WIJNBERG, Amsterdam, Netherlands. Filed Aug. 29, 1912. Serial No. 717,777. (Cl. 127—2.)

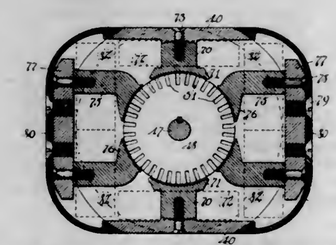
1. A process for regenerating decolorizing-carbon containing more than 50 per cent. of pure carbon and having a decolorizing power higher than bone-black, comprising treating said decolorizing-carbon with relatively strong alkaline solutions.

2. A process for regenerating decolorizing-carbon containing more than 50 per cent. of pure carbon and having a decolorizing power higher than bone-black, and containing absorbed impurities, comprising treating said decolorizing-carbon with alkaline solutions of such strength as to dissolve or destroy said absorbed impurities.

3. A process for regenerating decolorizing-carbon containing more than 50 per cent. of pure carbon and having a

decolorizing power higher than bone-black, comprising treating said decolorizing-carbon with alkaline solutions having a minimum concentration of one per cent.

1,074,338. DYNAMO-ELECTRIC MACHINE. CHARLES E. F. AHLM, Cleveland, Ohio. Original application filed Feb. 14, 1910, Serial No. 543,736. Divided and this application filed Jan. 23, 1911. Serial No. 604,120. (Cl. 171—209.)



1. In a dynamo electric machine, the combination, with an armature, of a frame forming a magnetic ring in planes parallel with the plane in which the axis of the armature lies, said frame being open on the sides of the armature, pole pieces carried by such main longitudinal ring, additional pole pieces at the open sides with a different magnetic circuit from the pole pieces first mentioned, and means for supporting the additional pole pieces.

2. In a dynamo electric machine, the combination, with an armature and field magnets, of a magnetic ring connecting the field magnets and carrying the magnetic flux through the frame of the machine longitudinally of the armature and having side openings, at least one of the ends of the frame having an opening sufficient for the removal of the armature, a bearing carried by such end at such end opening, independent magnets at the sides, and means carried by the magnetic ring for supporting such magnets at the sides.

3. The combination of a barrel-like frame formed with open sides and ends with central openings in them, an armature mounted within said barrel and having its shaft occupying said openings, removable end members in which the armature shaft is journaled and which are mounted on the frame at said openings, pole pieces carried by said frame, additional pole pieces at the open sides and independent of the full influence of magnetic flux through the barrel-like frame, and means for supporting the additional pole pieces.

4. The combination of a barrel-like frame formed with open sides, an armature mounted axially within said frame, removable end members in which the armature shaft is journaled, pole pieces carried by said frame, other pole pieces carried at such open sides, and means for supporting the last mentioned pole pieces and removably closing the sides.

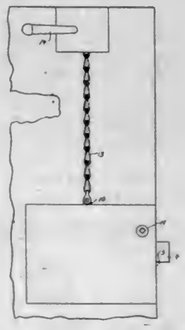
5. In a dynamo electric machine, the combination of a main frame, a shaft journaled therein, an armature on the shaft, pole pieces carried by the frame coöperating with the armature, said pole pieces being magnetically connected through the end portions of the frame, a plurality of pairs of additional pole pieces, each pair having a connecting bar of magnetic material independent the main magnetic flux of said frame, and non-magnetic members carrying said additional pole pieces and forming caps for the sides of the frame.

[Claims 6 to 8 not printed in the Gazette.]

1,074,339. PROCESS OF MAKING COLOPHONY AND COLOPHONY-SOAP. JACOUB AKTSCHOURIN, Aktschourinski Tupik, Russia. Filed Oct. 24, 1911. Serial No. 656,505. (Cl. 87—16.)

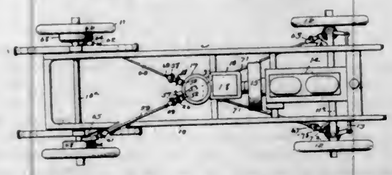
The process herein described of making rosin and rosin-soap from shavings of rosinous woods, which consists in distilling off the turpentine from the shavings, then treating the shavings with a diluted solution of alkali under a pressure of from 2 to 3 atmospheres and at a temperature below 100° C., and separating the rosin-emulsion and soap-glue by mechanical means.

1,074,340. LATCH. FRANK C. ALTMANN, New Haven, Conn., assignor to The English & Mersick Co., New Haven, Conn., a Corporation. Filed May 26, 1913. Serial No. 769,886. (Cl. 70—42.)



A latch comprising a horizontally movable bolt, a vertically movable wedge coacting with the bolt whereby the upward movement of the wedge will retract the bolt, an operating handle, and a flexible connection between the operating handle and wedge.

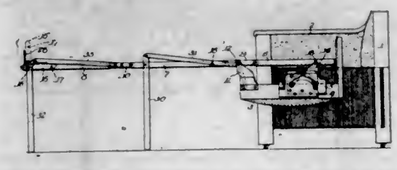
1,074,341. GEARING FOR MOTOR-VEHICLES. EUGENE HAROLD AVERY, Bradgate, Iowa. Filed Oct. 19, 1911. Serial No. 655,548. (Cl. 21—90.)



1. In a device of the class described, an upright shaft, means for operatively connecting the upper end of said shaft with an engine shaft, upper, middle and lower differential gears mounted on said shaft, the middle gear being operatively connected with said shaft and with said upper and lower differential gears, and having a differential motion with relation to the upper and lower differential gear, a gear casing inclosing said differentials and said upright shaft and forming bearings for the latter. two short shafts mounted in said casing near the upper differential, said short shafts being operatively connected with the upper and lower gears respectively of the upper differential, two short shafts mounted in said casing near the lower differential, said last named short shafts being operatively connected respectively with the upper and lower gears of said lower differential gear, said short shafts being mounted in substantially oil tight bearings and said casing being designed to contain oil in which said differentials run.

2. In a device of the class described, a vertical power shaft, a middle differential gear operatively mounted thereon, upper and lower differential gears mounted on said shaft and operatively connected with said middle differential gear, short shafts operatively connected respectively with the upper and lower gears of the upper and lower differential gears, driven-shafts, joints connecting said short shafts with said respective driven shafts, said driven shafts being composed of two parts capable of longitudinal, sliding movement with relation to each other.

1,074,342. SOFA-BED. MARCUS J. BARTLETT, Chicago, Ill., assignor to Pullman Couch Company, a Corporation of Illinois. Filed June 18, 1913. Serial No. 774,348. (Cl. 5—50.)



1. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a latch member pivotally mounted on one of said sections, coacting engaging means on said latch member and another of said sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said latch member, and means for swinging said part whereby said latch member will be shifted into and out of position to permit the engagement of said coacting engaging means.

2. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a latch member pivotally mounted on one of said wide sections, coacting engaging means on said latch member and another of said wide sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said latch member, and means for swinging said part whereby said latch member will be shifted into and out of position to permit the engagement of said coacting engaging means.

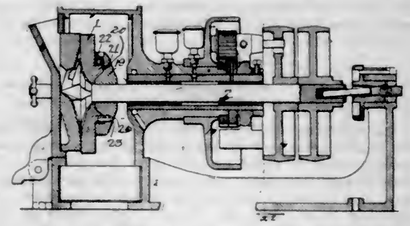
3. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said wide sections, a shoulder on another of said wide sections, said member having a notch therein adapted to engage said shoulder, a shaft rotatably mounted on said one section, an angularly disposed arm carried by said shaft and connected to said member, and means adapted to be actuated to revolve said shaft whereby said member will be shifted into position to permit the engagement of said notch and shoulder when said sections are folded, and be shifted into a retracted position at the side of said one section when said sections are extended.

4. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said sections, coacting engaging means on said member and another of said sections, a part rotatably mounted on said one section, an arm carried by said part and connected to said member, a foot rest shiftably mounted on said one section, and means operatively connecting said foot rest with said member whereby said member is adapted to be actuated by said foot rest for shifting said member into and out of position to permit the engagement of said coacting engaging means.

5. A sofa bed, comprising alternate wide and narrow sections pivotally connected together and adapted to be folded with the wide sections substantially parallel, and the narrow sections disposed transversely thereto to form a sofa, or to be extended in substantially horizontal alinement to form a bed, a member pivotally mounted on one of said wide sections, coacting engaging means on said member and another of said wide sections, a crank pivotally mounted on said one wide section and having one arm thereof connected to said member, and means movably mounted on said one wide section and operatively connected to the other arm of said crank and adapted to be actuated to cause said crank to shift said member into position to permit the engagement of said coacting engaging means when said sections are folded and to shift said member into a retracted position at the side of said one wide section when said sections are extended.

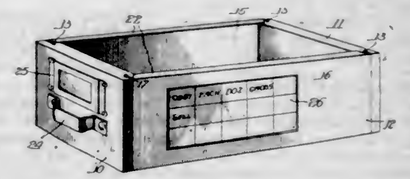
[Claims 6 to 9 not printed in the Gazette.]

1,074,343. KEYING DEVICE. OSCAR C. BEACH, Los Angeles, Cal., assignor to Frederick W. Braun, Los Angeles, Cal. Filed Dec. 9, 1909. Serial No. 532,267. (Cl. 74—8.)



In a keying device, a coupling comprising a disk having an undercut flange with a beveled edge, a head having an annular recess which receives said undercut flange, screws extending through said head and engaging the beveled edge of said flange, and a pin extending from said head into the body of said flange.

1,074,344. SHELF-BOX. EARL HENRY BEKKERING, Duluth, Minn., assignor to The Duluth Show Case Company, Duluth, Minn., a Corporation of Minnesota. Filed Aug. 3, 1912. Serial No. 713,110. (Cl. 220—5.)



1. A shelf box having side and end walls, one of said walls having a transversely extending groove at its end and a wall adjacent the said end having its edge folded upon itself and disposed in the said groove, and means for spreading the said fold after the edge is in position within the groove to secure the walls together.

2. A shelf box having side and end walls, one of said walls having a transversely extending groove at its end and a second wall having an edge adjacent the said end of the first-mentioned wall disposed in said groove, and means expanding the edge of the second-mentioned wall after it has been positioned in the groove at the end of the first-mentioned wall.

3. A shelf box having side and end walls, one of said walls having a transversely extending slot at its end, said slot having a reduced transverse dimension at its outer edge, a second wall having the edge adjacent the

said end of the first-mentioned wall disposed in the said slot, and means for expanding the edge of the second-mentioned wall after the same has been disposed in the said slot.

4. A shelf box comprising side and end walls, one of said walls having a transversely disposed groove in its end, and a second wall having the edge adjacent the said end bent from the plane of the said wall and folded upon itself and inserted in the said groove, and means disposed in the fold of the said edge for expanding the same to retain the wall in position.

5. A shelf box having two opposite walls provided with a transversely disposed groove at each end, a plurality of intermediate walls formed of a single sheet of suitable material bent to embrace the said opposite walls and having the edges thereof adjacent the said grooves bent to dispose the same in the said grooves, and means for expanding the said edges within the grooves to permanently secure the said opposite walls to the bent sheet forming the intermediate walls.

[Claims 6 to 10 not printed in the Gazette.]

1,074,345. ARTIFICIAL DENTURE. ERNEST C. BENNETT, New York, N. Y. Filed Mar. 8, 1913. Serial No. 752,910. (Cl. 32—12.)



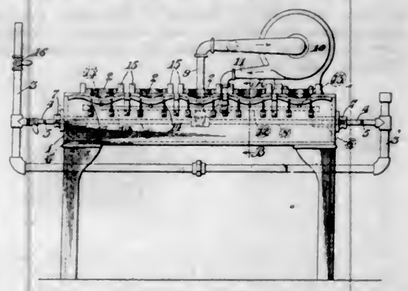
1. A removable artificial bridge for use in conjunction with a permanent end abutment comprising a removable saddle portion arranged to rest upon the natural gum adjacent such abutment and provided with an artificial tooth, and means carried by the bridge intermediate its upper and lower edges and movable transversely of the bridge for detachably interlocking said bridge with and against movement relative to said end abutment, said means including a movable latch member carried by the bridge.

2. A removable artificial bridge for use in conjunction with a permanent end tooth having a projecting abutment, comprising a removable saddle portion arranged to rest upon the natural gum adjacent such permanent tooth abutment and carrying an artificial tooth, means carried by said saddle portion arranged to interlockingly engage with and detachably hold said bridge to said abutment, said engaging means including a latch member carried by the saddle below said tooth and movable transversely of said saddle, and means normally holding said latch member in abutment engaging position.

3. A removable artificial bridge for use in conjunction with a permanent end tooth having a projecting abutment comprising a removable saddle portion arranged to rest upon the natural gum adjacent said permanent tooth abutment and recessed to receive the same therein, said saddle portion carrying an artificial tooth, and means carried by said saddle portion positioned to interlock the same with said end tooth, said means including a spring latch member movable transversely of said saddle and having a portion normally positioned within said saddle recess at a point intermediate its upper and lower edges to underlie said permanent tooth abutment when received therein.

4. A removable artificial bridge for use in conjunction with permanent end teeth having projecting abutments, comprising a removable saddle portion arranged to rest upon the natural gum between such permanent teeth and recessed to receive said projecting abutments, an artificial tooth carried by said saddle portion, and retaining abutments carried by said saddle portion and positioned to engage said permanent projecting abutments, one of said retaining abutments comprising a movable bar of spring material having a latching portion normally positioned within a saddle recess to underlie the permanent tooth abutment received therein, said bar being provided with an extension whereby it may be moved to withdraw its latching portion from beneath said permanent tooth abutment and thereby permit the removal of the bridge.

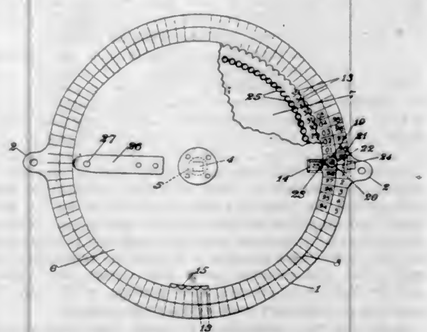
1,074,346. PROCESS OF DRYING SOLUTIONS APPLIED TO KID, LEATHER, OR OTHER MATERIALS. GEORGE W. BERNAUER, St. Charles, Mo., assignor of one-half to J. E. Hallowell, St. Charles, Mo. Filed Feb. 8, 1913. Serial No. 747,012. (Cl. 12—1.)



1. The method of drying and hardening solutions applied to shoes which comprises the disposition of the part carrying the solution within a heated receptacle, simultaneously disposing the portions of the shoe not treated with the solution without said receptacle, and restricting the action of the heat to said part.

2. The method of drying and hardening solutions applied to shoes which comprises the disposition of the part carrying the solution within a heated receptacle, forcing a blast of air against said part, simultaneously disposing the portions of the shoe not treated with the solution without said receptacle, and restricting the action of the heat and blast to said part.

1,074,847. CALCULATING-REGISTER. ALBERT G. BLACK, Millport, Ala., assignor of one-fourth to Alonzo K. Collins, one-fourth to William A. Shepherd, and one-fourth to Sid E. Wilson. Filed Dec. 2, 1912. Serial No. 734,615. (Cl. 235—78.)



1. A calculating register comprising a base plate provided with a marginal scale comprising one hundred subdivisions numbered consecutively, a flat calculating dial superimposed on and pivoted to said base and also provided with a marginal series of one hundred subdivisions which are successively numbered, the numbers being arranged in a reverse direction to and displayed adjacent to those of the plate, a flat toothed dial rotatably mounted above said movable disk and having peripheral symmetrical teeth which are successively numbered, a plate which overlies said dial and has a notch which exposes a tooth of the latter and its respective number, means connecting the several superimposed parts together and holding said notched plate and base plate in fixed relationship, a handle fixed on the exposed marginal edge of said calculating dial for setting it relatively to the numbers on the base,

a radially movable dog mounted on the exposed marginal edge of the calculating dial, and a stud on the base plate which is symmetrically beveled and adapted to engage and force said dog inwardly each time it is moved past the stud in either direction, said dog, when forced inwardly, being held in engagement with the exposed tooth on the upper dial and caused to move the latter the space of one tooth, the exposed marginal numbers on the two dials being arranged in close juxtaposition to jointly present in radial alinement the result of the calculating operation, substantially as described.

2. A calculating machine comprising a non-rotatable base plate having a circular marginal series of one hundred visible numbers running consecutively from zero up, two superimposed relatively movable flat dials of different diameters which are superposed and rotatably mounted on said base plate, the under dial having a narrow peripheral edge left exposed by the upper dial and each of said dials having about its peripheral edge a series of one hundred numbers running consecutively from zero up but progressing in a direction counter to that of the numbers on the base, a hand grip attached to the exposed margin of the under dial opposite its zero point, means to carry from the under to the upper dial, and means to expose and point out the numbers set up in radial alinement on the two relatively movable dials.

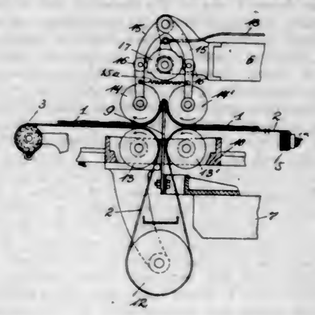
3. In a calculating machine, flat superposed numbered dials, of different diameters, a flat base plate on which said dials are concentrically pivoted, teeth around the edge of the upper dial, a stationary plate which extends over the toothed edge of said dial and is notched to expose one tooth at a time, there being a tooth for each number on said dial and each tooth being symmetrical with reference to a radial center line therethrough, a radially slidable dog mounted on the exposed marginal edge of the under dial and having its outer end rounded, a stud on the base plate opposite said notch which forces said dog into engagement with said exposed tooth to cause the top dial to advance a step with the continued movement of the under dial, and means to operate said tooth by hand to engage the upper toothed dial at a point spaced from said notch in the plate over and move it in either direction, substantially as described.

4. In a calculating machine, flat superposed numbered dials of different diameters, a flat base on which said dials are concentrically and pivotally mounted, symmetrical teeth around the edge of the upper dial, a stationary plate which extends over and protects the toothed edge of said upper dial and is notched at one point to expose one tooth at a time, there being a tooth for each number on said dial, an operating handle mounted on the exposed peripheral edge of the under dial, a radially movable dog mounted in said handle and having its outer end rounded, and a vertical stud on the exposed marginal edge of the base plate opposite said notch which automatically forces said dog, as it is moved past said stud, into engagement with said exposed tooth to cause the top dial to advance a step, said stationary plate being notched at a point spaced from said first mentioned notch, to expose a number of said teeth, and said dog being adapted to be manually moved to engage such exposed teeth and advance the upper dial in either direction at will, as and for the purposes described.

1,074,348. LEATHER-STAKING MACHINE. PAUL BOHACEK, Frankfort-on-the-Main, Germany, assignor to Maschinenfabrik Moenus A.-G., Frankfort-on-the-Main, Germany, a Corporation. Filed May 1, 1913. Serial No. 764,924. (Cl. 149—20.)

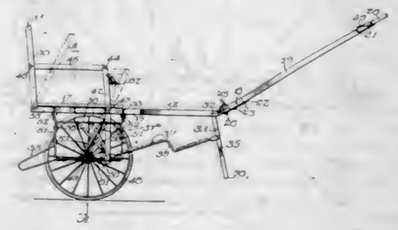
1. In a leather staking machine an apron fixed at one end to a cross beam, carrying rollers beneath said apron, a tension roller to which the other end of said apron is secured, a staking blade extending upwardly from between said carrying rollers, hinged levers above said apron, clamping rollers on said levers and means to reciprocate said clamping rollers toward and away from each other.

2. In a leather staking machine an apron fixed at one end to a cross beam, carrying rollers beneath said apron, a tension roller to which the other end of said apron is secured, a staking blade extending upwardly from between said carrying rollers, hinged levers above said



apron, clamping rollers on said levers, a cam between the middle portions of said levers, guide rollers on said levers adapted to engage said cam and a rod to adjust said cam, as specified.

1,074,349. COLLAPSIBLE SULKY. RHINEHARDT H. BROWN, Chicago, Ill. Filed Oct. 12, 1911. Serial No. 654,875. (Cl. 21—83.)



1. In a collapsible sulky, the combination with a seat frame, of a foot-rest frame pivotally supported from the seat frame and adapted to swing backward beneath the same in a line parallel to the axis thereof, a pair of wheel frames pivoted to the seat frame to swing thereunder, a back-rest frame pivoted to the seat frame and adapted to swing forward upon the frame, and means for locking the wheel frames, the foot-rest frame and the back-rest frame in either position.

2. In a collapsible sulky, the combination with a seat frame, of a foot-rest frame pivotally supported from the seat frame and adapted to swing backward beneath the same in a line parallel to the axis thereof, a pair of wheel frames pivoted to the seat frame to swing thereunder, a back-rest frame pivoted to the seat frame and adapted to swing forward upon the frame, and connections between the wheel frames, the foot-rest frame and the back-rest frame, whereby when the back-rest frame is moved either way the wheel frames and the foot-rest frame will be moved in the corresponding direction.

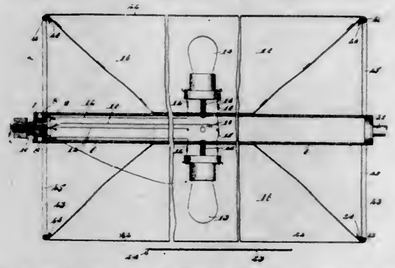
3. In a collapsible sulky, the combination with a seat frame, of a foot-rest frame pivotally supported from the seat frame and adapted to swing backward beneath the same in a line parallel to the axis thereof, a pair of wheel frames pivoted to the seat frame to swing thereunder, a back-rest frame pivoted to the seat frame and adapted to swing forward upon the frame, connections between the wheel frames, the foot-rest frame and the back-rest frame, whereby when the back-rest frame is moved either way the wheel frames and the foot-rest frame will be moved in the corresponding direction, and means for locking the wheel frames, the back-rest frame and the foot-rest frame in either position.

4. In a collapsible sulky, the combination with a seat frame, of a downwardly extending standard pivoted to the forward end of the seat frame, a foot-rest frame pivoted at its forward end to the standard and at its rear end pivotally supported from the seat frame, a pair of wheel frames pivoted to the seat frame to swing thereunder, a back-rest frame pivoted to the seat frame and adapted to swing forward upon said seat frame, and means for locking the wheel frames, the back-rest frame, the foot-rest frame and the standard in either position.

5. In a collapsible sulky, the combination with a seat frame, of a downwardly extending standard pivoted to the forward end of the seat frame, a foot-rest frame pivoted at its forward end to the standard and at its rear end pivotally supported from the seat frame, a pair of wheel frames pivoted to the seat frame to swing thereunder, a back-rest frame pivoted to the seat frame and adapted to swing forward upon said seat frame, and connections between the wheel frames, the foot-rest frame, the standand and the back-rest frame, whereby when the back-rest frame is moved either way, the wheel frames, the foot-rest frame and the standard will be moved in a corresponding direction.

[Claims 6 to 37 not printed in the Gazette.]

1,074,350. SIGN. MARTIN BRUNET, North Chicago, and JOHAN MAČEK, Waukegan, Ill. Filed July 11, 1912. Serial No. 708,776. (Cl. 40—77.)



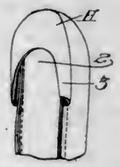
1. A sign comprising a hollow shaft; a plurality of radiating partitions secured to said shaft and forming a plurality of radiating compartments, each of said partitions being provided at its inner edge with a lip secured to said shaft and each end with an end flap bent to constitute the corresponding end of the the corresponding compartment, the free ends of said end flaps being provided with securing tangs, and there being slots at the bends to receive said tangs; means of illumination in said compartments; transparent sign sheets arranged over the sides of said compartments; and means for rotating said shaft intermittently to expose the different sign sheets, substantially as described.

2. A sign comprising a hollow shaft; a plurality of radiating partitions secured to said shaft and forming a plurality of radiating compartments, each of said partitions being provided at its inner edge with a lip secured to said shaft and each end with an end flap to constitute the corresponding end of the corresponding compartment, the free ends of said end flaps being provided with securing tangs, and there being slots at the bends to receive said tangs, substantially as described.

3. A sign comprising a hollow shaft; a plurality of radiating partitions secured to said shaft and forming a plurality of radiating compartments, each of said partitions being provided at its inner edge with a lip secured to said shaft and at each end with an end flap bent to constitute the corresponding end of the corresponding compartment, the free end of said flap being provided with securing tangs and there being slots at the bends to receive said tangs, the ends of each compartment being divergingly inclined away from each other, substantially as described.

4. A sign comprising a hollow shaft; a plurality of compartments formed about said shaft; an electric light bulb in each of said compartments; a hub of insulating material formed at one end of said shaft; electrical contact members embedded in said hub; a wire connecting each of said contact members with one terminal of a different one of said bulbs; an electric brush rubbing upon said hub and said contact member; an electric contact member projecting co-axially from said hub and connected with the other terminals of all of said bulbs; an electric contact member rubbing against the end of said co-axially projecting contact member; a tranparent sign sheet arranged over the outer sides of each of said compartments; and means for rotating said shaft intermittently to expose the different sign sheets, substantially as described.

1,074,351. HOOD FOR GLOVE-FINGERS. ROBERT N. CARSON, San Francisco, Cal. Filed Mar. 28, 1912. Serial No. 686,820. (Cl. 2—9.)

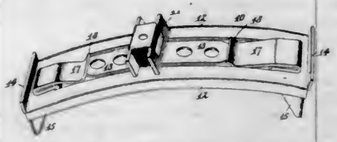


1. The combination with a glove, of a supplemental piece having its outer periphery turned inward and stitched into the seam around the end of a finger, said piece extending back over the seam and the back of the finger to form a hood therefor.

2. The combination with a glove, of a supplemental piece having its outer periphery turned inward and stitched into the seam around the end of a finger, said piece extending back over the seam and the back of the finger to form a hood therefor, said hood having its inner end unstitched to said finger.

3. The combination with a glove, of a supplemental piece having its outer periphery turned inward and stitched into the seam around the end of a finger, said piece extending back over the seam and the back of the finger to form a hood therefor, said hood being cut away to provide extensions which are stitched to said finger and the cut-away portion being unstitched and forming a closure which closure fits the back of the finger and allows small movements between the back of the finger and the hood.

1,074,352. BACK FOR BRAKE-SHOES. GEORGE COOK, Allendale, N. J., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed May 17, 1913. Serial No. 768,199. (Cl. 188—27.)



1. A back for a brake shoe provided with detachable ends, and means for securing said ends against movement on said back when assembled therewith.

2. A back for a brake shoe comprising a back proper and detachable ends, and means formed integral therewith for locking said ends in place on said back against movement thereon.

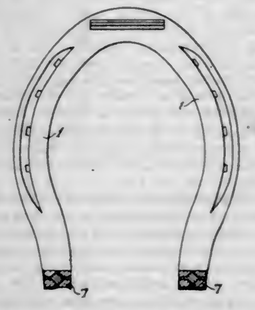
3. A back for a brake shoe comprising a back proper and removable ends attached thereto, in combination with means formed integral with said detachable ends for locking the latter against movement on said back when assembled therewith.

4. A back for a brake shoe comprising a back proper and detachable ends secured thereto, portions of said back proper impinging against said detachable ends whereby to prevent movement of the latter on said back proper.

5. A back for a brake shoe comprising two elements, viz., a back proper and detachable ends secured thereto, one of said elements being elongated to impinge against the other whereby to prevent movement of said detachable ends on said back proper.

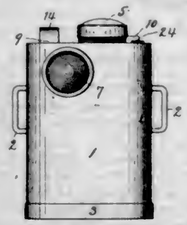
[Claims 6 to 8 not printed in the Gazette.]

1,074,353. HORSESHOE. EDWARD G. DONNELLY, Highland Park, Ill. Filed Feb. 8, 1912. Serial No. 676,258. (Cl. 168—29.)



A horse shoe comprising a shoe proper provided with calks, each calk having an upwardly extending circular recess therein and two grooves narrower than the diameter of such circular recess extending from side to side of said calk and intersecting each other at said circular recess; and hard cores fitted in said recesses and grooves, substantially as described.

1,074,354. FLASH-LIGHT. ARTHUR J. DUPONT, Adams, Mass., assignor of one-half to Archie H. Monat, Huntington, Mass. Filed Feb. 17, 1913. Serial No. 748,786. (Cl. 240—8.5.)



1. As an improved article of manufacture, a flash-light attachable to the back of the hand and comprising rear-side and front-end lights and provided with switch members for such lights, such switch members being arranged in operative position behind the fingers of such hand when the device is in place.

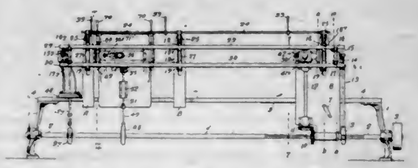
2. As an improved article of manufacture, a flash-light attachable to the back of the hand and comprising a plurality of lights and provided with individual controlling means for such lights, such controlling means being operable by the fingers of such hand.

3. The combination, in a flash-light, of a case adapted to be attached to the back of the hand, a battery in such case, a lamp arranged to show through such case, circuit-forming members between said battery and lamp, and a switch for opening and closing the circuit, such switch having a part which extends into operative position behind one of the fingers of such hand, when the device is in place.

4. The combination, in a flash-light, of a case adapted to be attached to the back of the hand, a battery in such case, lamps arranged to show through the back and an end of such case, circuit-forming members between said battery and said lamps, and switches for opening and closing the lamp circuits, such switches having parts that extend into operative position behind the fingers of such hand, when the device is in place.

5. The combination, in a flash-light, of a case adapted to be attached to the back of the hand, and provided with a lamp, a battery in such case, circuit-forming members between said battery and lamp, a switch for opening and closing the circuit, such switch having a part that extends into operative position behind a finger of such hand, when the device is in place, and means to lock said switch in closed position to relieve or release such finger without extinguishing the light.

1,074,355. WINDOW-JAMB MACHINE. JOHN E. EISELE, Tampa, Fla. Filed Sept. 18, 1912. Serial No. 720,979. (Cl. 144—5.)



1. In a window jamb machine, a frame, clamping devices carried by the frame for holding the jamb boards apart, a boring device carried by the frame between the clamping devices, the movement of the clamping devices serving to force the boards into engagement with the ends of the boring devices, said boring devices being movable laterally of the clamping devices for forming elongated openings in the boards, and reciprocating dado saws carried by said frame and arranged to be engaged by the boards through the movement of the clamping devices.

2. In a window jamb machine, a frame, clamping devices carried by the frame for holding the jamb boards apart, a boring device carried by the frame between the clamping devices, the movement of the clamping devices serving to force the boards into engagement with the ends of the boring devices, said boring devices being movable laterally of the clamping devices for forming elongated openings, reciprocating dado saws carried by said frame and arranged to be engaged by the boards through the movement of the clamping devices, pocket cutting saws, and means for bringing said boards into engagement with the pocket cutting saws.

3. In a window jamb machine, a frame comprising a bed plate having a rack, a carriage slidably disposed on said bed frame and being provided with a pinion arranged to engage the rack, a crank for said pinion, boring tools carried by said carriage, means for operating said boring tools, means for moving said boring tools relatively to said carriage and longitudinally of the bed plate, reciprocating dado saws carried by said carriage, and means for reciprocating said dado saws.

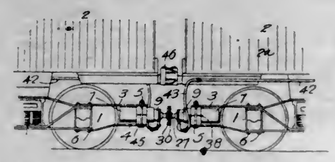
4. In a window jamb machine, a main frame, a bed plate carried thereby, a dado cutter frame revolubly supported on said bed plate, a shaft carried by said main frame, an eccentric on said shaft, a rod carried by said eccentric and arranged to extend through said dado cutter frame, the axis of rotation of the dado cutter frame and the axis of the rod being coincident, a bell-crank lever carried by said dado cutter frame and having connection with said rod, a link carried by said bell-crank lever, a slidable frame carried by said dado cutter frame and being pivotally

connected to said link, and saws carried by said slidable frame.

5. In a window jamb machine, a frame, a clamping device carried by said frame and having members for holding the opposed jamb boards apart, a dado cutter device disposed between the clamping device and arranged to be engaged by the boards through the movement of the clamping device.

[Claims 6 to 12 not printed in the Gazette.]

1,074,356. AUTOMATIC AIR-COUPLING. FREDERICK N. FISHER, Columbus, Kans. Filed July 10, 1912. Serial No. 708,637. (Cl. 188—13.)



1. An automatic air coupler of the character specified, comprising similar sections, each consisting of a telescoping casing composed of inner and outer members, each member having its inner end closed, a sectional bearing socket at the outer end of the inner member, a hollow head rotatable in the bearing socket, means for permitting the head to be connected to the train pipe, the head having a stem extending into the inner section of the casing, and a neck extending outwardly, a coupling plate secured to the outer end of the neck and having a central opening registering with the opening of the neck, an elastic gasket in the opening and extending beyond the outer face of the plate, means for preventing angular movement of the casing sections with respect to each other, said means comprising a longitudinal slot in the inner section, and screws threaded through the outer section and engaging the slot, a spring in the outer section between the sections and acting normally to force the inner section outward, an eye bolt passing through the inner end of the inner section, a spring connecting the bolt to the stem, a nut threaded onto the bolt outside the inner casing, and means for centering the plates.

2. An automatic air-coupler of the character specified comprising similar sections, each consisting of a telescoping casing composed of inner and outer members, each member having its inner end closed, a sectional bearing socket at the outer end of the inner section, a hollow head rotatable in the bearing socket, means for permitting the head to be connected to the train pipe, the head having a stem extending into the inner section of the casing, and a neck extending outwardly, a coupling plate secured to the outer end of the neck and having a central opening registering with the opening of the neck, an elastic gasket in the opening and extending beyond the outer face of the plate, means for preventing angular movement of the casing sections with respect to each other, a spring in the outer section between the sections and acting normally to force the inner section outward, an eye bolt passing through the inner end of the inner section, a spring connecting the bolt to the stem, a nut threaded onto the bolt outside the inner casing, and means for centering the plates.

3. An automatic air coupler of the character specified, comprising similar sections, each consisting of a telescoping casing composed of inner and outer members, each member having its inner end closed, a sectional bearing socket at the outer end of the inner section, a hollow head rotatable in the bearing socket, means for permitting the head to be connected to the train pipe, the head having a stem extending into the inner section of the casing, and a neck extending outwardly, a coupling plate secured to the outer end of the neck and having a central opening registering with the opening of the neck, an elastic gasket in the opening and extending beyond the outer face of the plate, means for preventing angular movement of the casing sections with respect to each other, a spring forcing the coupling sections apart, yielding means engaging the stem of the head to hold said stem at the axis of the casing, and means for centering the plates.

4. An automatic air coupler of the character specified, comprising similar sections, each consisting of a telescoping casing composed of inner and outer members, each member having its inner end closed, a sectional bearing socket at the outer end of the inner section, a hollow head rotatable in the bearing socket, means for permitting the head to be connected to the train pipe, the head having a stem extending into the inner section of the casing, and a neck extending outwardly, a coupling plate secured to the outer end of the neck and having a central opening registering with the opening of the neck, an elastic gasket in the opening and extending beyond the outer face of the plate, means for preventing angular movement of the casing sections with respect to each other, a spring forcing the sections of the casing apart, yielding means engaging the stem of the head to hold said stem at the axis of the casing, and means for centering the heads.

5. An automatic air coupler device comprising similar sections, each section comprising a coupling plate having a central opening and an elastic gasket extending beyond the outer face of the plate, a hollow head having a hollow neck secured to the inner face of the plate with the bore of the neck registering with the opening, a casing comprising inner and outer telescoping sections, a sectional bearing for the head at the outer end of the inner section, a spring forcing the sections of the casing apart, yielding means for holding the plate at right angles to the axis of the casing, and means on each plate for engaging the plate of the other section to cause the openings of the plates to register, said means comprising a tapering projection on one side of the central opening, the plate having a tapering opening at the other side for engagement by the projection on the plate of the adjacent coupler section, and means for connecting each coupler section to a car-truck, said head having a laterally extending nipple for connection to the train pipe of the car.

[Claim 6 not printed in the Gazette.]

1,074,357. HAT-PIN-POINT PROTECTOR. WALTER GRAMACKI, Chicago, Ill. Filed Jan. 16, 1913. Serial No. 742,350. (Cl. 24—155.)

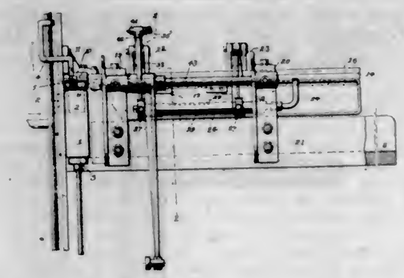


A hat pin point protector comprising a tubular body open at one end; a resilient U-shaped member embracing the opposite end of said body, the bight of said member closing said last mentioned end of said body; a head at said last mentioned end of said body having an extension thereon embracing said bight portion of said U-shaped member to retain the same in position upon said body; a screw for fastening said head and said U-shaped member to said body, the opposite ends of said U-shaped member constituting resilient engaging arms positioned at opposite sides of said body; corresponding ends of said arms being free and positioned adjacent said open end of said body, said ends normally assuming divergent inoperative positions; and means loosely embracing said arms and adapted to be moved thereon to force said free ends of said arms to and to retain the same in clamping relation, substantially as described.

1,074,358. DRYING APPARATUS FOR STAMPS, LABELS, OR SEALING-STRIPS. GEORGE W. GWINN, New York, N. Y., assignor to Automatic Packing & Labeling Company, Durham, N. C., a Corporation of North Carolina. Filed Jan. 20, 1911. Serial No. 603,717. (Cl. 216—35.)

1. In a machine for drying the ends of stamps applied to packages, the combination of a package-support; means

contacting with the end portions of the stamps lying against the sides of the packages for pressing the ends against the packages; and mechanism for heating said means.



2. In a machine for drying stamps applied to packages, the combination of a support or runway adapted to sustain a plurality of packages; means movable toward and from the opposite sides of the packages in line with the stamp-ends thereon to press the same against the sides of the packages; and mechanism for heating said pressing means.

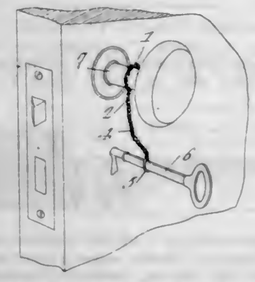
3. In a machine for drying stamps applied to packages, the combination of a package-support; means located upon opposite sides of said support movable toward and from the stamp-ends and adapted to press the ends against the opposite sides of the package; mechanism for heating said means; and means for advancing the packages along the support when the pressing means is in its retracted position.

4. In a machine for drying stamps applied to packages, the combination of a support for the packages; a pair of swinging plates located upon opposite sides of the support; means for heating said plates; and means for swinging the plates into and out of contact with the ends of the stamps upon the opposite sides of the package.

5. In a machine for drying stamps applied to packages, the combination of a runway adapted to support a plurality of packages; a pair of swinging plates located upon opposite sides of the runway; means for heating said plates; means for swinging the plates into and out of contact with the ends of the stamps; and means for advancing the packages along the support when the plates are in their retracted position.

[Claims 6 to 16 not printed in the Gazette.]

1,074,359. ATTACHMENT FOR KEYS. ARTHUR M. HEIMBAUGH, Kenmore, Ohio. Filed Apr. 15, 1913. Serial No. 761,395. (Cl. 70—7.)



In a device of the character described, a ring, a coiled wire spring attached at one end to the ring and having a hook at the other end to engage the ring, the spring being adapted to embrace the shank of a door knob, and a flexible member attached at one end to the ring and having means at its other end for engagement to the shank of a key.

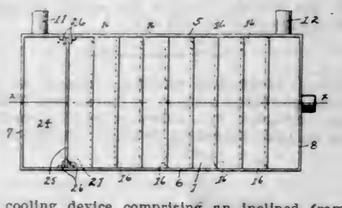
1,074,360. METHOD OF TREATING RAWHIDE AND THE PRODUCT RESULTING THEREFROM. ALBERT H. HENDERSON, Baltimore, Md., assignor to The Henderson Rubber Company, Baltimore, Md., a Corporation of Maryland. Filed Feb. 1, 1912. Serial No. 674,681. (Cl. 106—23.)

1. The herein described method which consists in rendering natural rawhide flexible and elastic under the influence of moist heat; dividing the substance thus treated into particles; subjecting them to a heated solution of salt and water the former in the proportion of about five per cent.; partially drying the particles; agitating them under the influence of heat and in the presence of oil whereby they are brought to a state of plasticity and comparative coalescence and all fluidity or moisture, having greater volatility than the oil, is dissipated thus allowing the substance to absorb the latter; again reducing the particles and mixing and kneading the same; subjecting the mixed and kneaded mass to heat and pressure in the presence of vulcanizing agents, and finally forming into sheets.

2. The herein described substance or composition of matter consisting of particles of rawhide rendered flexible and elastic, charged with oil, unified, and combined with vulcanizing agents.

3. The herein described substance or composition of matter consisting of particles of rawhide rendered flexible and elastic, charged with oil, unified, coated and sealed with vulcanizing agents, and combined with rubber.

1,074,361. CREAM-COOLER. JOHN O. HOCHER, Clinton, Wis. Filed Mar. 28, 1913. Serial No. 757,322. (Cl. 31—91.)



1. A cooling device comprising an inclined frame; a plurality of communicating cooling tubes in said frame, the upper walls of said tubes being inclined oppositely to the inclination of said frame providing a pocket on the upper side of each tube, substantially as described.

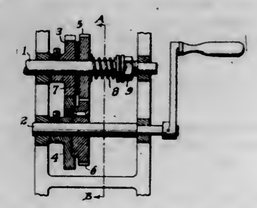
2. A cooling device comprising an inclined frame; a series of communicating cooling devices in said frame, the first and last of said series of said tubes having their upper walls parallel with said inclined frame and the upper walls of the remaining intermediate tubes being inclined oppositely to the inclination of said frame providing pockets thereon, substantially as described.

3. A cooling device comprising an inclined frame; a plurality of communicating tubes arranged in said frame having inclined upper walls, said walls being inclined in a direction opposite to that of the frame, and adapted for the passage of a cooling element therethrough and for the passage of an element to be cooled thereover; a receiving chamber arranged in said frame; and a slidable member disposed in said chamber, adapted for regulating the flow of the element to be cooled, substantially as described.

1,074,362. INTERMITTENT-GEAR MECHANISM. LODEWYK JAN RUTGER HOLST, Lansdowne, Pa. Filed Nov. 26, 1912. Serial No. 733,606. (Cl. 74—41.)

1. In intermittent gear mechanism, an intermittently rotating star-wheel, a continuously rotating cam, and

means to transmit to said intermittently rotating star-wheel a continuous driving torque from said continuously rotating cam.

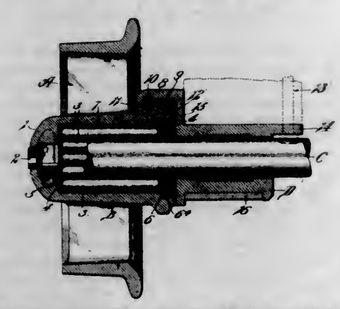


2. In intermittent gear mechanism, an intermittently rotating star-wheel and a continuously rotating cam, being permanently in peripheral contact with each other and means to transmit to said star-wheel a continuous driving torque from said cam.

3. In intermittent gear mechanism, an intermittently rotatable star-wheel, a gear co-axial and in frictional contact therewith, a cam, a gear co-axial and in rigid contact therewith, the periphery of said cam engaging the periphery of said star-wheel and said gears meshing with each other, to thereby exert on said star-wheel continuously the driving torque of said cam, so as to rotate said star-wheel during the passage of the recessed portion of said cam.

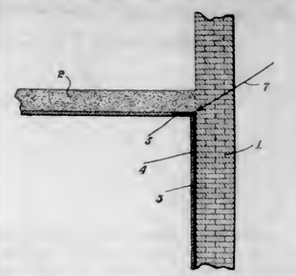
4. In intermittent gear mechanism, an intermittently rotating shaft, a star-wheel rigidly attached thereto, a gear co-axial and in frictional contact therewith, a continuously rotating shaft, a cam and a co-axial gear both in rigid connection with said continuously rotating shaft, said cam engaging said star-wheel and said gears engaging each other, to thereby exert a continuous torque on said intermittently rotating shaft by the continuous torque of said continuously rotating shaft, to intermittently rotate said star-wheel during the periods of passage of the recessed portion of said cam.

1,074,363. MINE-CAR WHEEL. HIRAM A. HOLZER, Pittsburgh, Kans., assignor to United Iron Works Company, Springfield, Mo., a Corporation of Missouri. Filed July 16, 1912. Serial No. 709,646. (Cl. 64—26.)



A wheel of the character described, provided with a hub having an annular rib or abutment that projects radially from the hub adjacent the inner end of same, a lubricating chamber in said hub for receiving the outer end of an axle, closures on the hub for both ends of said chamber, the closure at the inner end of the hub consisting of a beveled washer that is held in an undercut opening in the end of the hub by means of cast metal, an axle-box having a vertical portion that bears against the inner end of the hub and provided at its upper side with a laterally projecting bracket that hangs over the upper side of the hub, gussets or lugs integrally connected to the vertical portion of the box and to said bracket for reinforcing the bracket, and a transversely disposed removable member carried by said bracket and coöperating with the rib on the hub of the wheel for retaining the wheel on the axle.

1,074,364. PLASTIC WATERPROOF TROWELING COMPOUND. AARON C. HORN, New York, N. Y. Filed Apr. 9, 1913. Serial No. 760,050. (Cl. 106—43.)



1. The process of making a plastic troweling waterproof cement which comprises melting asphaltic material, thinning same with a drying oil, adding an aqueous paste comprising ammonium stearate, agitating and adding lime material; whereby calcium stearate is formed within the mass and ammonia is liberated.

2. The process of making a plastic troweling waterproof cement which comprises melting varnish gum, incorporating therewith a drying oil, adding hydrated ammonium stearate, agitating and adding a basic body to form a water-insoluble soap *in situ* and to liberate ammonia within the mass.

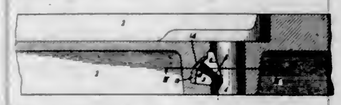
3. The process of making a plastic smooth-troweling cement which comprises melting asphaltic material, thinning with oily material comprising boiled oil, adding an aqueous paste containing ammonium stearate, agitating the mixture with hydrated lime and thereby forming a water-insoluble stearate soap in a finely-divided form disseminated throughout the mass.

4. The process of making a plastic smooth-troweling cement which comprises melting a varnish gum, thinning with a substantially non-volatile oil, adding a solution of a water-soluble stearate, agitating the mixture with a body capable of uniting with stearic acid to form a water-insoluble compound, and in continuing to agitate the mass until a smooth emulsion is formed.

5. A plastic smooth-troweling composition consisting of a fluent emulsion of heavy consistency comprising varnish gums and siccative oil substantially free from volatile thinner, incorporated with flocculent stearate of lime and a filler comprising calcareous material.

[Claims 6 to 12 not printed in the Gazette.]

1,074,365. SWITCH-TONGUE FASTENING. HERBERT G. ISENBERG, Johnstown, Pa., assignor to The Lorain Steel Company, Johnstown, Pa., a Corporation of Pennsylvania. Filed Nov. 23, 1912. Serial No. 733,138. (Cl. 104—115.)



1. In a railway switch a switch body having a pivot pin opening therein, a switch tongue having a pivot pin extending into said opening, registering recesses in adjacent faces of the pivot pin and pivot pin opening, and a tongue fastening comprising a locking bar loosely positioned within said registering recesses and arranged to secure the switch tongue in position on the switch body.

2. In a railway switch a switch body having a pivot pin opening therein, a switch tongue having a pivot pin extending into said opening, registering recesses in adjacent faces of the pivot pin and pivot pin opening, and a tongue fastening comprising a locking bar removably secured within said registering recesses and arranged to engage the opposite walls defining the depth of said recesses to secure the switch tongue in position on the switch body, said switch body having a transverse recess communicating with the registering recesses through which the removably locking bar is inserted and removed.

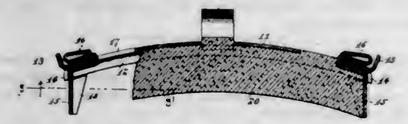
3. In a railway switch a switch body having a pivot pin opening therein, a switch tongue having a pivot pin extending into said opening, registering recesses in adjacent faces of the pivot pin and pivot pin opening, and a tongue fastening comprising a locking bar positioned within said recesses, the ends of said bar engaging with the walls defining the depth of said recesses to secure the pivot pin in position in the pivot pin opening.

4. In a railway switch a switch body having a pivot pin opening therein, a switch tongue having a pivot pin extending into said opening, registering recesses in adjacent faces of the pivot pin and pivot pin opening, and a tongue fastening comprising a locking bar within the recesses, the ends of said bar engaging with the walls of the recesses to prevent removal of the switch tongue from the switch body, and the wall of the recesses in the switch body engaging with the pin being curved to wedge the bar in locking position.

5. In a railway switch a switch body having a pivot pin opening therein, a switch tongue having a pivot pin extending into said opening, and a tongue fastening within said recesses, the ends of said bar engaging with the walls of the recesses to prevent disengagement of the switch tongue and switch body, registering recesses in adjacent faces of the pivot pin opening, the side wall of the recess in said switch body engaging with the locking bar being curved to wedge the bar in locking position and having a groove to receive the tongue on the end of said locking bar.

[Claim 6 not printed in the Gazette.]

1,074,366. COMPOSITION-FILLED BRAKE-SHOE. HARRY JONES, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J., a Corporation of New Jersey. Filed May 10, 1913. Serial No. 766,683. (Cl. 188—27.)



1. An end piece for use with the back for a brake shoe and adapted to be locked to said back.

2. An end piece for use in connection with the back for a brake shoe and adapted to be detachably secured to said back.

3. An end piece for use in connection with the back for a brake shoe, said end piece being provided with means for locking the same to said back.

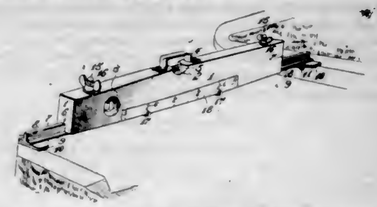
4. An end piece for use in connection with the back for a brake shoe, said end piece being provided with means for detachably securing the same to said back.

5. A back for a brake shoe provided with detachable ends.

[Claims 6 to 18 not printed in the Gazette.]

1,074,367. COMBINED LEVEL AND GAGE. GEORGE M. KEEFAUVER, Flatt, Ill. Filed Feb. 4, 1913. Serial No. 746,194. (Cl. 73—70.)

1. A combined level and gage comprising a body or stock having a bubble glass, a gage member longitudinally extensible from the stock or body, said member having a gage lug, means operable from the upper edge of the stock for clamping the extensible member in its adjusted positions, the said means comprising a screw rod that extends up above the upper edge of the stock, a nut that engages the rod and the said stock, and hangers pivotally suspended from the rod within which the said extensible member is held in slidable engagement, said stock having chambered portions to receive said hangers.



2. An implement of the character stated comprising a spirit level, having its body or stock provided with a longitudinal groove in its lower edge that extends through the opposite ends of the said stock, a pair of oppositely extensible members slidably mounted in the said groove, each of the members having a gage lug at the outer end, means operable from the upper edge of the level body for clamping the extensible members in their adjusted position, a scale plate on the said level body common to both of the extensible members and an indicator connected to each of the said members and movable over the scale plate.

3. A combined spirit level and gage, comprising the following elements in combination; a stock or body having the usual bubble glasses, a longitudinal groove in its lower edge that extends the full length thereof, a socket at each end that bisects the said groove and terminates in vertical apertures that open through the top of the level body, an extensible member for each end of the said body slidably mounted in the said groove, each of the said members having a gaging lug, clamping means for said members comprising a hanger held in each socket of the body that takes around their respective extensible member, a screw rod mounted in each of the vertical apertures in the stock, said rods being pivotally connected with their respective hangers and a nut engaging each screw rod and the top edge of the level body.

4. A combined level and gage, comprising a body or stock having a groove in its underside, a gage member including a web longitudinally slidable in said groove, and a base flange adapted to contact with the bottom face of said stock, said gage member being longitudinally extensible from the stock, a hanger shaped to embrace and slidably hold said gage member, said stock having a chamber to receive said hanger, a bolt pivoted to said hanger and projecting through said stock, and a nut coöperative with said bolt to draw said hanger toward said stock and thereby hold said gage member in its adjusted positions.

1,074,368. VAGINAL DOUCHE-CUP. MELCHERD H. KUTCH, Terre Haute, Ind. Filed Jan. 30, 1913. Serial No. 745,081. (Cl. 128—24.)

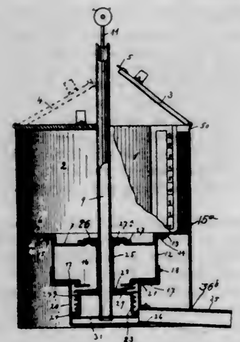


1. In an instrument of the character described, a cup provided on its posterior wall with a rearwardly project-

ing member, the upper edge of its anterior wall being disposed below the plane of said projecting member, and having upwardly extending wings extending from its side walls, and provided with an opening in its bottom for draining the same.

2. In an instrument of the character described, a cup provided on its posterior wall with a rearwardly projecting member, the upper edge of its anterior wall being disposed below the plane of said projecting member, and having upwardly extending wings extending from its side walls, said wings being curved and provided with concaved outer surfaces to conform to that portion of the anatomy against which they are placed.

1,074,369. DELIVERY-RECEPTACLE. LOUIE T. LA PAUGH, Utica, N. Y. Filed Feb. 19, 1909. Serial No. 478,835. (Cl. 73—159.)



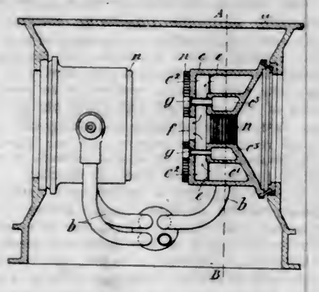
1. In a device of the character described, provided with a handle therefor, the combination of three interopening chambers, a piston rod lying in the openings between the chambers and projecting at one end of the device, and having its ends bent under the said handle for convenient operation by the hand of the operator, overlapping covering lids, one of the receptacles having a graduated scale, means on said piston rod to control the passage of fluid through the receptacles, one of said receptacles being of given size whereby a given quantity of fluid may be continuously run off according to the measurement of said scale, substantially as described.

2. In a device of the character described, the combination of a pail having an upper portion adapted to carry a liquid, said upper portion having its bottom centrally dished or depressed, a measuring receptacle mounted on the depressed portion of said former portion, a delivery receptacle mounted on the bottom of the said measuring receptacle, a spring mounted in said delivery receptacle and a piston rod operatively connected with the said spring, valves mounted on the said piston rod whereby under action of the spring the passage is opened from the measuring to the delivery receptacle and the passage from the upper portion of the pail to the measuring receptacle is closed, the walls of said several receptacles or chambers being formed to provide a passageway from one to the other, the piston rod having means whereby to raise the same.

1,074,370. STEAM-TURBINE. FREDRIK LJUNGSTRÖM, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, Liljeholmen, Sweden. Filed Feb. 4, 1913. Serial No. 746,168. (Cl. 121—60.)

1. A turbine inlet chamber provided with a partition dividing it into two compartments, one of which connects with a discharge opening, the other with a steam inlet, the said partition being adapted to permit the passage of steam at divers points for distributing it uniformly through said chamber.

2. A turbine inlet chamber adapted to support packing rings and divided by a partition into two compartments, in combination with an inlet tube supplying steam to one of said compartments and the other of said compartments communicating with a discharge opening, the said partition being provided with openings communicating with different parts of the latter compartment for distributing the steam within said chamber.

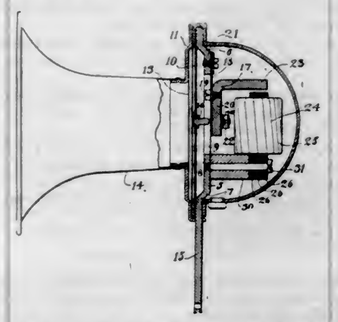


3. A turbine inlet chamber consisting of two compartments divided by a partition, in combination with two inlet tubes communicating with one of said compartments at approximately opposite points of their circumference and with a partition dividing said compartments from each other, but provided with openings in the intervals between said pipes for distributing steam in said chamber.

4. A turbine inlet chamber provided with a perforated partition for distributing steam uniformly through said chamber and a supplemental chamber normally discharging independently, but provided with means for opening communication at will between it and the former chamber.

5. A steam chamber adapted to support two sets of packing rings concentrically arranged outside of the same at an interval, said chamber comprising a steam-receiving compartment c', a discharge compartment c^2, a radial partition dividing these two compartments, but provided with openings, a third compartment c^3 and an independent outlet therefor normally discharging into the said interval between the said two sets of packing rings, means for distributing the steam uniformly within the former two compartments and means for opening at will communication between compartment c^3 and compartment c' for the purpose set forth.

1,074,371. AUTOMOBILE-HORN. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed May 6, 1912. Serial No. 695,386. (Cl. 177—7.)



1. In an automobile horn, the combination of a frame, a sonorous member in said frame, an angle armature for causing said member to sound a signal, one limb of said armature adapted to operate upon said member, a contact on such limb, electro-magnetic means for acting upon the other limb of said armature, a flexible member connected at each end to said frame, and a contact upon said flexible member adapted to coöperate with the contact upon the armature.

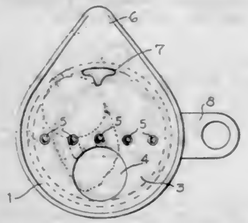
2. In an automobile horn, the combination of a frame, a sonorous member, an angle armature, one limb of which is adapted to operate said member to cause the same to sound a signal, a contact on such limb, a spring for connecting said armature to said frame, electro-magnetic means adapted to operate upon the other limb of said armature to actuate the same, a spring connected at each end to said frame, and a contact carried by said spring adapted to coöperate with the contact upon the armature.

3. In an automobile horn, the combination of a frame, a sonorous member, an anvil on said sonorous member, an angle armature, one limb of which is adapted to strike said anvil when the armature is vibrated, a contact on such limb, a spring for connecting said armature to said frame, electro-magnetic means for operating upon the other limb of the armature to actuate such armature, a flexible spring connected at each end to said frame, and a contact carried by said spring intermediate its ends adapted to coöperate with the contact upon the armature.

4. In an automobile horn, the combination of a frame plate dished at its upper part, an opening in the bottom of the dished part, a sonorous diaphragm mounted over the top of the dished part, an armature adapted to operate upon said diaphragm connected to the edge of the opening in the bottom of the dished part, and a magnet adapted to operate upon the armature connected to the bottom of the dished part adjacent the edge of the opening therein.

5. In an automobile horn, the combination of a main frame member, dished at the top thereof, a sonorous diaphragm mounted over the top of the dished portion, said dished portion having an opening in the bottom thereof, an armature connected to the edge of the opening, a spring for connecting the armature to the edge of the opening, a magnet for operating said armature, means for connecting said magnet upon the bottom of the dished portion and near the edge of the opening therein, and means for spacing said magnet from such bottom.

1,074,372. EGG-SEPARATOR. GRANT SHERMAN MARTIN, Dexter, Mich. Filed Mar. 19, 1913. Serial No. 755,445. (Cl. 65—12.)



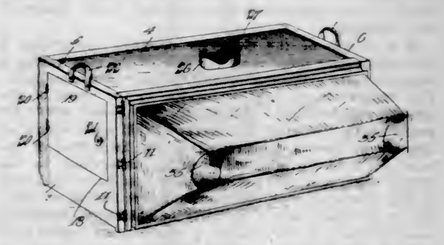
1. An egg separator comprising a cup having a concave bottom, said bottom having an opening formed therein to one side of the center, a plurality of transversely spaced upstanding pins formed on said bottom, and a lip formed on said cup at a point diametrically opposite the opening in said bottom, as and for the purpose described.

2. An egg separator comprising a cup having an annular supporting wall formed thereon inwardly of its marginal edge, said cup having a concave bottom, said bottom having an opening formed therein, and a plurality of upstanding pins formed on said bottom, as and for the purpose described.

3. An egg separator comprising a cup having a concave bottom, a plurality of transversely spaced upstanding pins formed on said bottom, said bottom having an opening therein formed on one side of said pins, and a lip formed on said cup on the opposite side of said pins, as and for the purpose described.

4. A device of the character described comprising a cup having a concave bottom, a plurality of transversely spaced upstanding pins arranged centrally on said bottom, said bottom having an opening formed therein to one side of said pins, a lip formed on said cup to the other side of said pins, and an auxiliary opening formed in said bottom between said pins and said lip, as and for the purpose described.

1,074,373. FOLDING DARK ROOM. JUNJI MASKO, Indianapolis, Ind. Filed Aug. 31, 1912. Serial No. 718,095. (Cl. 95—91.)



1. A device of the character specified, comprising a case consisting of a front plate and a rear frame, end plates, a top and a bottom, the front and end plates and the rear frame each having a longitudinal guideway at its upper edge, said guideways registering to receive the edges of the top, said front and side plates and rear frame each having a ledge spaced apart from its bottom edge, said ledges registering for receiving the bottom, the rear frame having an imperforate partition extending to the level of the floor and carrying the ledge, means for detachably connecting the side edges of the ends to the front plate and rear frame, a light proof hood of flexible material connected to the rear frame and having an open sleeve at each end for receiving the hands of the operator, a curtain for closing the opening of the rear frame, the top having an opening near its center, a shield inclosing the opening, the upper edge of the shield being shaped to fit the face, said top having a frame below the opening provided with guideways, sheets of material impervious to the actinic rays within the guideways, said front having an opening near its center, guideways on the inner face of the front above and below the opening, and a plurality of frames slidable in the said guideways, said frames being adapted to hold sheets of material impervious to the actinic rays.

2. A device of the character specified, comprising a case consisting of front and end plates and a rear frame, means for detachably connecting the end plates to the front plate and the rear frame, said front and end plates and the rear frame having registering guideways at their tops, a top plate in the guideways, said front and end plates and the rear frame having registering guideways spaced apart from their bottom edges, and a bottom in the guideways, a hood of light-proof flexible material connected with the rear frame, said hood having open sleeves for receiving the arms of the operator, and a curtain of flexible material impervious to light arranged at the top of the rear frame and capable of being raised and lowered by the operator to shut off the light from the interior of the case when his hands are not in the sleeve.

3. A device of the character specified, comprising a case consisting of front and end plates, a top and a bottom, and a rear frame, means for detachably connecting the front and end plates and the rear frame, said front and end plates and the rear frame having means for supporting the top and the bottom and a hood of flexible

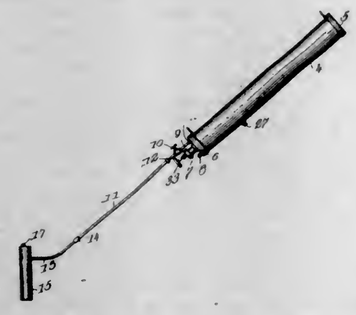
material impervious to light connected with the rear frame and having at each end a sleeve for receiving the arm of the operator, and means for closing the frame when the sleeves are opened.

4. A device of the character specified, comprising a collapsible light proof case, the rear of the case having a longitudinally extending opening, a hood of flexible material impervious to light, connected to the edges of the opening and provided at each end with an open sleeve for receiving the hands of the operator, a spring roller journaled at the top of the opening and extending longitudinally thereof, a curtain of flexible material impervious to light, winding on the roller for closing the opening when the sleeves are not in use, said case having an opening in its top, a cover for the opening, said cover transmitting only the non-actinic rays, a shield encircling the opening and shaped at its upper edge to fit the face, said case having a door opening at each end, and a door hinged at each opening.

5. A device of the character specified, comprising a collapsible light proof case, the rear of the case having a longitudinally extending opening, a hood of flexible material impervious to light, connected to the edges of the opening and provided at each end with an open sleeve for receiving the hands of the operator, said case having an opening in its top for permittting the inspection of the interior, a shield for the opening, impervious to the actinic rays, said case having a door opening at each end, a door hinged at each opening, said case having an opening in its front, and a plurality of guideways extending longitudinally of the opening, a plurality of frames slidable in the guideways, said guideways being spaced to permit the frames to slide over the opening, and a screen of material in each frame, impervious to the actinic rays, and means for closing the opening at the rear of the case, said means being operated from the interior of the case.

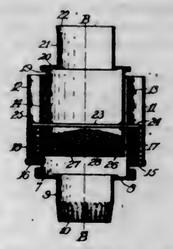
[Claims 6 to 8 not printed in the Gazette.]

1,074,374. PEAR-BURNER. JOHN J. MESSERLI, Kingsville, and JESSE L. MAYFIELD, Corpus Christi, Tex. Filed Nov. 5, 1912. Serial No. 729,588. (Cl. 158—50.1.)



A pear burner comprising a tank having a substantially tubular form and adapted to hold a hydrocarbon liquid, a valve casing containing valve mechanism and extending radially into said tank, a pump barrel extending axially into said tank, an angle block mounted upon said valve casing and connected with said pump barrel for the purpose of supporting the latter within said tank, said angle block having a passage extending through it for the purpose of establishing communication between said valve casing and said pump barrel, a partition disposed across said casing and provided with a bottom so as to form a compartment for holding a quantity of liquid hydrocarbon, a pipe extending into said casing and into said compartment, and a burner carried by said pipe.

1,074,375. TRASH-ARRESTER AND FILTER. WILLIAM H. MILLER, Crawfordsville, Ind. Filed Apr. 13, 1912. Serial No. 690,547. Renewed Aug. 9, 1913. Serial No. 783,969. (Cl. 210—4.)



1. A trash arrester comprising two relatively telescopic parts having each a pipe connected with its outer end, one of the parts being provided with a spring for yieldingly forcing each part outwardly relatively to the other, and a screen in one of the parts.

2. A trash arrester comprising a main part provided with two longitudinally extending guides, one end of the part having a bottom, a pipe connected to the bottom, two springs guided by the two guides respectively and supported by the main part, an upper part movable longitudinally in the main part and normally forced outwardly by the springs, the upper part having a head in its outer end, a pipe connected to the head, and a screen in the upper part.

3. A trash arrester and filter comprising a main part having two longitudinally extending spring housings thereon, the wall of the part having slots therein extending to the housings, the main part and the housings having bottoms respectively, a pipe connected to the bottom of the main part, two coil springs in the two housings respectively and seated on the bottoms thereof, an upper part movable longitudinally in the main part and having two arms thereon extending through the slots and seated on the two springs respectively, the upper part having a head in its outer end, a pipe connected to the head, a screen in the inner end of the upper part, and filtering substance on the screen.

1,074,376. ELECTRIC POCKET-LAMP. EMIL NEUDÖRFFER, Stuttgart, Germany. Filed July 6, 1911. Serial No. 637,169. (Cl. 240—8.5.)



1. In a portable pocket lamp having a battery, two opposed members forming a battery casing and connected with each other for relative rotary movements, and battery contacts respectively mounted eccentrically on said members and adapted to be engaged and disengaged by movements of said members.

2. In a portable pocket lamp having an electric battery, two flanged disks forming a battery casing and being connected with each other for a relatively rotary movement, and battery contacts respectively mounted eccentrically on said disks and controlled by said rotary movement.

3. In a portable pocket lamp having an electric battery, two flanged disks forming a battery casing and being connected with each other for a limited relative oscillatory movement, and battery contacts controlled by the said movement.

4. In a portable pocket lamp having an electric battery, two flanged disks having a relative oscillatory movement and constituting a battery casing, and being in frictional engagement with their adjoining flanges, and battery contacts controlled by the said rotary movement.

5. In a portable pocket lamp having an electric battery, a battery casing comprising two flanged disks being in frictional engagement with their adjoining flanges, and capable of a limited relative oscillatory movement, and battery contacts respectively mounted eccentrically on and controlled by said oscillatory movement.

[Claims 6 to 21 not printed in the Gazette.]

1,074,377. ELECTRIC POCKET-LAMP. EMIL NEUDÖRFFER, Stuttgart, Germany. Filed Oct. 9, 1911. Serial No. 653,699. (Cl. 240—8.5.)



1. A portable pocket lamp, comprising two spaced cells, a band embracing said cells, an intermediate piece separate from the cells and band interposed between the cells for holding the same in spaced relation against the band, and a lamp seat formed in said intermediate piece.

2. A portable pocket lamp comprising two spaced cells, a band embracing the same, an intermediate block between the cells for holding the same in spaced relation, and a lamp seat located in said block.

3. A portable pocket lamp comprising two spaced cells, an intermediate piece located between the cells and having recesses corresponding to the shape of the cells for receiving the same, a case surrounding said cells, and the intermediate piece, and a lamp seat formed in said intermediate piece.

1,074,378. BOOT-PROTECTOR. FRIEDRICH NUSSBAUMER, Zug, Switzerland. Filed Sept. 17, 1912. Serial No. 720,801. (Cl. 36—74.)

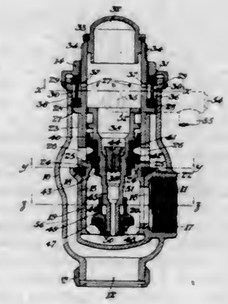


A yielding protector for boots and shoes comprising a metal plate having a turned up rim adapted to be driven into the heel or the sole and to render watertight a defective portion of the heel or sole and a patch of yielding material inserted in the hollow of the said plate to render the joint more watertight.

1,074,379. FLUSH-VALVE. ABRAM N. PASMAN, Jersey City, N. J. Filed Sept. 27, 1912. Serial No. 722,590. (Cl. 137—93.)

1. A flush valve comprising a casing, a cylinder within the casing and adjustable to position relatively thereto to control the admission of the operating liquid, a piston in the cylinder, means for releasing the liquid normally contained in the piston above the cylinder, adjustable means for permitting an accumulation of fluid pressure above the piston to return the same to its normal position after it has been operated, and devices for simultaneously making a tight joint between the casing and cylinder and permitting the escape of the liquid within the cylinder above the piston upon the actuation of the means for releasing the liquid above the piston.

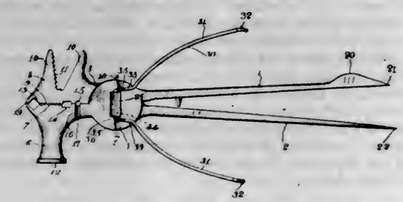
2. A flush valve comprising a casing having an inlet and an outlet connection, a cylindrical wall within and concentric with that portion of the casing adjacent to the inlet connection, the said cylindrical wall providing an inlet chamber, a cylinder adjustable to position within the said casing and cylindrical wall for opening and closing the passage to the inlet connection, a piston in the cylinder, means for releasing the liquid normally contained in the cylinder above the piston, adjustable means for permitting an accumulation of fluid pressure above the piston to return the same to its normal position after it has been operated, and devices for simultaneously making a tight joint between the casing and cylinder and permitting the escape of the liquid within the cylinder above the piston upon the actuation of the means for releasing the liquid above the piston.



3. A flush valve comprising a casing having an inlet and an outlet connection, a cylindrical wall within the casing and concentric with that portion thereof adjacent to the inlet connection, said cylindrical wall providing an inlet chamber and having an opening therein to the said inlet connection, a cylinder adapted at one end to fit within the said cylindrical wall and being provided with an opening adapted to register with the opening in the cylindrical wall to admit a liquid from the inlet connection to the said inlet chamber, and the said cylinder being also adjustable to position to close the opening in the cylindrical wall to shut off communication between the inlet chamber and the inlet connection, a piston within the said cylinder, means for releasing the liquid normally contained in the cylinder above the piston, adjustable means for permitting an accumulation of fluid pressure above the piston to return the same to its normal position after it has been operated, devices for simultaneously making a tight joint between the casing and cylinder and permitting the escape of the liquid within the cylinder above the piston upon the actuation of the means for releasing the liquid above the piston.

4. A flush valve comprising a casing having an inlet and an outlet connection, a cylindrical wall within the casing and concentric with that portion thereof adjacent to the inlet connection, said cylindrical wall providing an inlet chamber and having an opening therein to the said inlet connection, a cylinder adapted at one end to fit within the said cylindrical wall and being provided with an opening adapted to register with the opening in the cylindrical wall to admit a liquid from the inlet connection to the said inlet chamber, and the said cylinder being also adjustable to position to close the opening in the cylindrical wall to shut off communication between the inlet chamber and the inlet connection, a piston within the said cylinder, means for releasing the liquid normally contained in the cylinder above the piston, adjustable means for permitting an accumulation of fluid pressure above the piston to return the same to its normal position after it has been operated, devices for simultaneously making a tight joint between the casing and cylinder and permitting the escape of the liquid within the cylinder above the piston upon the actuation of the means for releasing the water above the piston, and means whereby a tight joint is made between the cylinder and the said cylindrical wall.

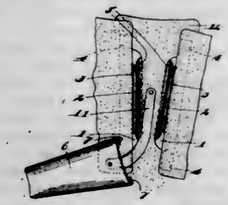
1,074,380. COMBINATION-TOOL. WILLIAM PEARSON, Hot Springs, Ark. Filed May 9, 1912. Serial No. 696,228. (Cl. 39—120.)



1. A tool of the class described comprising a pair of handles having formed near their outer ends circular enlargements, perforations formed centrally thereof, one of the perforations having a squared portion, a shank engaged in the perforations, said shank having a yoke engaging holder, a squared portion formed upon the shank for engaging the squared portion of one of the perforations, said holder having a longitudinal groove formed longitudinally therefor for detachably connecting the yoke.

2. A tool of the class described comprising a pair of handles having circular enlargements formed at their inner ends, perforations formed centrally thereof for registry, one of said perforations having a squared portion, a yoke holder, a shank therefor having a squared portion for engaging the squared portion of said perforation, said shank being adapted to pivotally connect the handles, said holder having a longitudinal groove formed therein, a slot opening into the groove, a wire stretching yoke having parallel portions formed with inclined sides to produce shoulders, said portions being connected by an arm adapted to rest in the groove after one of said portions has been passed through the slot.

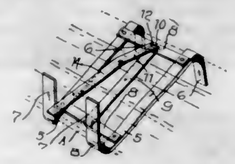
1,074,381. SHOE-FASTENER. WILLIAM HENRY POWELL, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,329. (Cl. 24—207.)



1. The combination with a shoe of metallic plates secured to the front edges of the shoe upper, said plates being provided with outwardly turned flanges and there being teeth formed at the bend between the flanges and plates; and a locking plate having convergent flanges on its edges adapted to engage said first mentioned flanges, the edge of one of the flanges on said locking plate being provided with teeth for substantially its full length and the edge of the other flange being provided with teeth at its lower portion, recessed at its central portion and smooth at its upper portion, substantially as described.

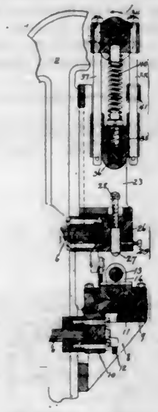
2. The combination with a shoe of metallic plates secured to the front edges of the shoe upper, said plates being provided with outwardly turned flanges having indentations in the angular juncture between the flanges and plates forming teeth; and a locking plate having converging flanges on its edges adapted to engage said first mentioned flanges, the edge of one of the flanges on said locking plate being provided with teeth for substantially its full length and the edge of the other flange being provided with teeth at its lower portion, recessed at its central portion to permit engagement of the teeth on said lower portion with corresponding teeth on one of said metallic plates, and smooth at its upper portion forming a fulcrum between said locking plate and one of said metallic plates to facilitate adjusting the fastening, substantially as described.

1,074,382. SHINGLING-BRACKET. HEZEKIAH RICHARDS, Toledo, Iowa. Filed Feb. 6, 1913. Serial No. 746,648. (Cl. 20—86.)



A shingle-holding bracket comprising spaced bars each having an upturned end and adapted to be engaged with a roof, cross bars connecting the first said bars, one of the bars being apertured, and a weight arm having one end loosely, removably and pivotally engaged with the aperture of the cross bar and having its other end extended in the direction of said upturned ends and adapted to co-act therewith for holding shingles on the bracket.

1,074,383. ELECTRIC METAL-WORKING APPARATUS. ADOLPH F. RIETZEL, Charlestown, R. I., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed May 13, 1909. Serial No. 495,601. (Cl. 219—4.)



1. An apparatus for electrically welding seams to unite edges of sheets of metal, embodying electrodes having contact faces forming positive and negative electrodes respectively in opposition to each other, and, movable toward and from each other to clamp or release the work between said contact faces, one of said electrodes forming a traveling work support, means for moving said electrodes toward and from each other periodically and means for establishing the circuit through said electrodes when the work is clamped between them, said means being adapted to break the circuit before the work is released and to only establish the same after the work is clamped between the electrodes.

2. An electric step by step seam welding apparatus embodying electrodes having proximate work contacting faces located opposite to each other and forming positive and negative electrodes respectively movable toward and from each other and between which the work is fed and clamped intermittently, one of said electrodes acting as a traveling work support, and a periodically acting switch timed to interrupt the current before the electrodes are separated.

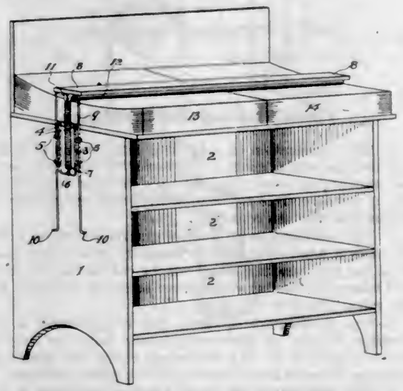
3. An electric step by step seam welding apparatus embodying electrodes having proximate work contacting faces located opposite to each other and forming positive and negative electrodes respectively, one of said electrodes forming a traveling work support, means for moving said electrodes toward and from each other and an intermittent work feeding mechanism timed to feed the work when the electrodes are moved away from each other.

4. An electric step by step seam welding apparatus embodying electrodes having proximate work contacting faces located opposite each other and forming positive and negative electrodes respectively, one of said electrodes forming a traveling work support, means for periodically moving said electrodes toward and from each other to clamp the work between said faces, an intermittent work feeding mechanism timed to feed the work when the electrodes are moved away from each other and an intermittently operating switch timed to establish the circuit and permit a welding current to flow only when the electrodes are pressed toward each other.

5. In an electric metal working apparatus, the combination with a pair of electrodes having contact faces adapted to engage the work located between them and movable to and from each other, one of said electrodes forming a traveling work support, and means controlled by the movement of one of said electrodes for intermittently feeding the work.

[Claims 6 to 19 not printed in the Gazette.]

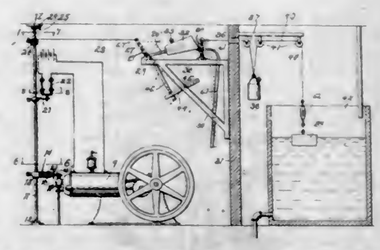
1,074,384. NEWSPAPER-STAND. THOMAS C. SCHEPIS, Wilmette, and ALWIN J. SCHEWE, Chicago, Ill. Filed Feb. 8, 1912. Serial No. 676,436. (Cl. 24—66.)



1. The combination of a stand; a retainer arranged across the top of said stand; a substantially U-shaped wire guide member secured to each end of said retainer with its limbs extending downwardly adjacent the corresponding end of said stand; stops on the ends of said limbs; a substantially U-shaped wire spring frame having its limbs extending upwardly and secured to each end of said stand adjacent the top thereof, there being guide loop connections between each limb of said frame and the limbs of said guide member; and a spring secured at its lower end to each of said spring frames and at its upper end to the corresponding end of said retainer, substantially as described.

2. The combination of a stand; a flat strip arranged across the top of said stand; a substantially U-shaped wire guide member secured to each end of said strip with its limbs extending downwardly adjacent the corresponding end of said stand; stops on the ends of said limbs; a substantially U-shaped wire spring frame having its limbs extending upwardly and secured to each end of said stand adjacent the tops thereof, there being two guide loops formed in each limb of said frame and the limbs of said guide member being passed through said loops; and a spring secured at its lower end to each of said spring frames and its upper end to the corresponding end of said strip, substantially as described.

1,074,385. MOTOR-STOPPING DEVICE. ARTHUR F. W. SCHLUETER, Bartlett, Ill. Filed Aug. 30, 1912. Serial No. 717,884. (Cl. 161—7.)



1. The combination with an internal combustion engine, a throttle valve; an ignition circuit switch; means connecting said throttle valve and said ignition circuit switch for simultaneous opening of such switch and closing of such valve; a bell-crank lever having one leg connected with said means; a weight adjustably mounted on the other leg of said bell-crank lever; a trigger engaging said weight and arresting the movement of said bell-crank; a second weight connected with said trigger; and means for moving said second weight at a predetermined time, substantially as described.

2. The combination with an internal combustion engine, a throttle valve; an ignition circuit switch; means connecting said throttle valve and said ignition circuit switch for simultaneous opening of such switch and closing of such valve; a bell-crank lever having one leg connected with said means; a weight adjustably mounted on the other leg of said bell-crank lever; means for varying the movement of said bell-crank lever; a trigger engaging said weight arresting the movement of said bell-crank; a second weight connected with said trigger; and means for moving said second weight at a predetermined time, substantially as described.

3. The combination with an internal combustion engine, a throttle valve; an ignition circuit switch; means connecting said throttle valve and said ignition circuit switch for simultaneous opening of such switch and closing of such valve; a bell-crank lever having one leg connected with said means; a weight adjustably mounted on the other leg of said bell-crank lever; a trigger engaging said weight and arresting the movement of said bell-crank; a second weight connected with said trigger; means for moving said second weight at a predetermined time, and a lock adapted to engage said first weight to prevent downward movement of such weight, substantially as described.

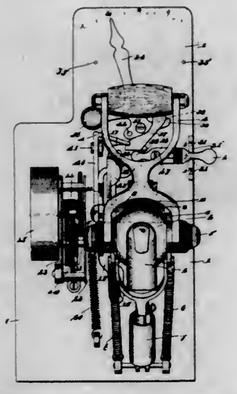
4. The combination with an internal combustion engine, a throttle valve; an ignition circuit switch; a rotative shaft; levers on said shaft operatively connected with said throttle valve and said ignition circuit switch; a bell-crank lever; a lever on said shaft connected with one arm of said bell-crank lever; a weight on the other arm of said bell-crank lever; a trigger arresting the downward movement of said weight; and means for automatically tripping said trigger to allow such weight to fall at a predetermined time, substantially as described.

5. The combination with an internal combustion engine, a throttle valve; an ignition circuit switch; means connecting said throttle valve and said ignition circuit switch for simultaneous opening of such switch and closing of such valve; a bell-crank lever having one leg connected with said means; a weight adjustably mounted on the

other leg of said bell-crank lever; means for varying the movement of said bell-crank lever; a trigger engaging said weight and arresting the movement of said bell-crank; and a second weight connected with said trigger to trip the latter at a predetermined time, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,386. AUTOMATIC LIQUID-MEASURING DEVICE. FRANK SCHORIK and FRANK F. MARSHALL, Chicago, Ill. Filed May 31, 1912. Serial No. 700,570. (Cl. 161—7.)



1. A liquid measuring device comprising a normally closed faucet having an oscillatory operating handle; an oscillatory detent for releasably retaining said handle in open position; oscillatory means for tripping said detent to release said handle at the expiration of a predetermined interval, said means being adjustable for varying the duration of said interval; means for oscillating said tripping means; and an operative connection between said last mentioned means and said faucet handle, whereby movement of said faucet handle to open position effects the setting of said means for operation, substantially as described.

2. A liquid measuring device comprising a normally closed faucet having an oscillatory operating handle; an oscillatory detent for releasably retaining said handle in open position; oscillatory means for tripping said detent to release said handle at the expiration of a predetermined interval, said means being adjustable for varying the duration of said interval; means for oscillating said tripping means; an operative connection between said last mentioned means and said faucet handle whereby movement of said faucet handle to open position effects the setting of said means for operation; and a train of gears and a rotary governor for governing the movement of said operating means when released, substantially as described.

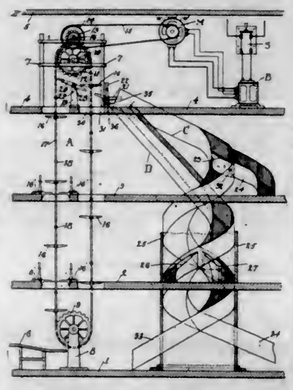
3. A liquid measuring device comprising a faucet having a movable operating handle; means for releasably retaining said handle in open position; adjustable means for tripping said retaining means at the expiration of a predetermined interval; resilient means for operating said tripping means; an operative connection between said faucet handle and said operating means, whereby movement of said handle to open position effects setting of said operating means for actuating said tripping means; and means for governing the operation of said operating means, substantially as described.

4. A liquid measuring device comprising a faucet having a movable operating handle; means for releasably retaining said handle in open position; adjustable means for tripping said retaining means at the expiration of a predetermined interval; resilient means for operating said tripping means; means for governing the operation of said operating means, said governing means comprising a train of gears; and a rotary blade coöperating with said gears, substantially as described.

5. A liquid measuring device comprising a normally closed faucet having an oscillatory operating handle; an oscillatory detent for releasably retaining said handle in open position; an oscillatory lever for tripping said detent to release said handle; means for oscillating said lever to effect tripping of said detent at the expiration of a predetermined interval, said means comprising an oscillatory member adapted when actuated to oscillate said tripping lever; means for operating said oscillatory member; and means for adjusting the position of said lever relative to said detent for varying the duration of the before mentioned interval, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,074,387. COMBINED TRAY-CONVEYER AND SPIRAL CHUTE. MARTIN C. SCHWAB, Chicago, Ill., assignor to Gravity Conveyor Company, a Corporation of New York. Filed June 11, 1909. Serial No. 501,614. (Cl. 193—8.)



1. The combination of a spiral gravity conveyer, a tray elevator for raising goods to the top of the conveyer, means for discharging goods from the tray elevator into the conveyer, and a receiver for holding the goods before they are discharged into the conveyer.

2. The combination of a spiral gravity conveyer, a tray elevator, a hand lever for mechanically discharging goods from the tray elevator, a receiver for the discharged goods, and means for turning the receiver to direct the goods into the spiral conveyer.

3. The combination of spiral gravity conveyers, a tray elevator, a lever for discharging goods from the tray elevator, a receiver for the discharged goods, and means for directing the said goods into one of the spiral conveyers.

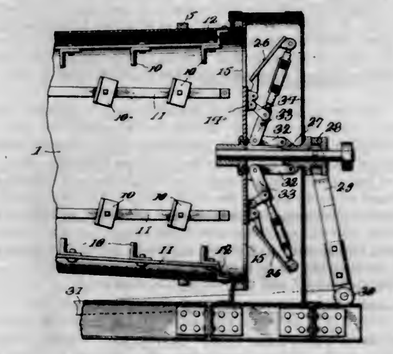
4. The combination of spiral gravity conveyers, a tray elevator, means for automatically discharging goods from the tray elevator, a receiver for the goods at the top of the spiral conveyers, and means for discharging the goods into one of the spiral conveyers or at the top thereof.

5. The combination of spiral gravity conveyers, a tray elevator, means for discharging freight from the tray elevator, a receiver for the freight, and a hand lever for directing the freight from the receiver into one of the conveyers or out at the top of the conveyers.

[Claims 6 to 17 not printed in the Gazette.]

1,074,388. MIXING-MACHINE. GEORGE M. STEDMAN, Aurora, Ind. Filed Aug. 29, 1912. Serial No. 717,683. (Cl. 83—73.)

1. A mixing machine, comprising a rotary cylinder, bars secured longitudinally of the same and spaced away from its inner wall, and mixing blades centrally bolted to said bars, whereby said blades can be adjusted to stand at any desired angle.



2. In a machine of the class described, a rotary shell having its discharge end closed by an apertured head, doors pivoted to said head in position to close said apertures, a stub-shaft projecting outwardly from the center of said head, a collar slidable on said shaft, a yoke lever rotatably engaging said collar, means to rock said lever, links pivoted to said collar, other links connecting said doors to said first-mentioned links, and a third set of links pivoted to said head and to said connecting links, substantially as described.

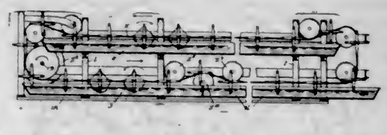
1,074,389. LAP-ROBE. GEORGE SULLIVAN, New York, N. Y. Filed May 19, 1911. Serial No. 628,334. (Cl. 2—80.)



1. A robe adapted for the protection of the body by being provided with a major portion capable of being wrapped about and under the body and a minor portion capable of being wrapped in the opposite direction about the lower part of the body and over said previously wrapped major portion, said major and minor portions being joined throughout only those middle portions of their edges which lie adjacent the heels of the wearer when the robe is adjusted in the manner herein described; substantially as described.

2. A robe to be folded about the lower part of the body comprising a body portion adapted to lie under the feet and fold about the body lapping at the back, and an end portion forming a continuation of that central part lying under the feet but disunited from said body portion adjacent the lateral edges thereof and adapted to be folded about the legs lapping at the front; substantially as described.

1,074,390. APPARATUS FOR DYEING THREAD AND LIKE MATERIAL. BERNHARD TEUFER, Chemnitz, Germany. Filed Oct. 29, 1912. Serial No. 728,340. (Cl. 8—16.)



1. An apparatus for dyeing threads and the like, comprising a base, a frame, a dye tank, endless chains, means for actuating the same, a frame pivotally connected to the said endless chains, a device removably connected to the last aforesaid frame and adapted to support the material to be dyed, and means whereby in the travel of the chains and frame the said device is turned in such a direction that its forward side ascends and its rearward side descends.

2. An apparatus for dyeting threads and the like, comprising a base, a frame, a dye tank, endless chains, means for actuating the same, a frame pivotally connected to the endless chains, a device for supporting the material to be dyed, means whereby said device is removably connected to the last aforesaid frame, and means whereby in the travel of the chains and frame the said device is turned in such a direction that its forward side ascends and its rearward end descends.

3. An apparatus for dyeing threads and the like, comprising a base, a frame, a dye tank in the said frame, endless chains, means for driving the same in unison, a reel frame pivotally connected to corresponding links of the endless chains, a reel for supporting the material to be dyed, means for removably connecting the said reel to the reel frame, and means whereby in the travel of the chains and reel frame the said reel is so turned that its forward portion ascends and its rearward portion descends.

4. An apparatus for dyeing threads and the like, comprising a base, a frame, a dye tank in the said frame, endless chains, means for driving the same in unison, a reel frame pivotally connected to corresponding links of the endless chains, a reel for supporting the material to be dyed, a gear associated with one end of the said reel frame, a rack meshing with the said gear, a journal gear in which one end of the reel shaft is removably connected, a bearing in which the opposite end of the reel shaft is removably journaled, and means whereby the said journal gear and reel shaft are turned from the first aforesaid gear.

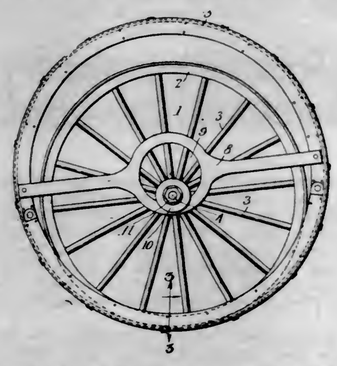
5. An apparatus for dyeing threads and the like, comprising a base, a frame, a dye tank in the said frame, endless chains, means for driving the same in unison, a reel frame pivotally connected to corresponding links of the endless chains, a reel for supporting the material to be dyed, a gear associated with one end of the said reel frame, a rack meshing with the said gear, a journal gear in which one end of the reel shaft is removably connected, a bearing in which the opposite end of the reel shaft is removably journaled, an internal gear connected with the first aforesaid gear, and an intermediate gear meshing both with the said internal gear and journal gear.

[Claims 6 and 7 not printed in the Gazette.]

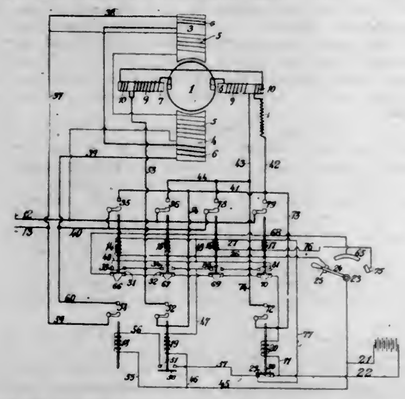
1,074,391. SAND-TIRE. GEORGE F. THOMPSON, Tucumcari, N. Mex. Filed June 6, 1912. Serial No. 702,047. (Cl. 21—64.)

In combination with a vehicle wheel, an axle therefor, a bur upon the axle, a washer held to the axle by said bur, a sand tire comprising two sections which are hinged together, each section made of angle irons on the arcs of circles, the adjacent marginal edges of the angle irons being adapted to engage the opposite edges of the tire of

said wheel, cross-pieces connecting the angle irons, a bar fastened at its ends to one of said sections at positions diametrically opposite each other and provided with a central opening through which the outer end of the axle extends, said bar being positioned behind said washer, as set forth.



1,074,392. ELECTRIC-MOTOR REGULATION AND CONTROL. LOUIS H. THULLEN and FRANK W. WILLEY, Cincinnati, Ohio, assignors to The Triumph Electric Company, a Corporation of Ohio. Filed Jan. 25, 1912. Serial No. 673,474. (Cl. 171—228.)



1. The combination with a motor having interpoles securing good commutation during normal operation of the motor, of means for causing reinforcement of the interpole magnetism to hasten its change, such reinforcement being beyond proportionality to the change in load current, means for placing said hastening means in operation at a time of abnormally quick change of motor load current and means for rendering the hastening means inactive.

2. The combination with a motor having interpoles securing good commutation during normal operation of the motor, of means for causing reinforcement of the interpole magnetism to hasten its change, such reinforcement being beyond proportionality to the change in load current, means for placing said hastening means in operation at a time of abnormally quick change of motor load current and electro-magnetic means for rendering the hastening means inactive.

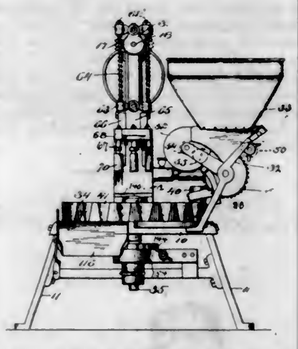
3. The combination with an interpole motor having main field winding and main and auxiliary windings upon its interpoles, of means for including said interpole main and auxiliary windings, the main field windings and the armature of said motor in circuit and then rendering said auxiliary interpole windings inactive but leaving the main interpole winding active.

4. The combination with an interpole motor having a main series field winding and main and auxiliary interpole windings, of means for connecting said series field winding, said interpole windings and the armature of said motor in circuit, then rendering said auxiliary interpole winding inactive and then rendering said main series field winding inactive.

5. The combination with a motor having interpoles securing proper value of the interpole magnetism for good commutation during normal operation of the motor, said interpoles having a main winding and an auxiliary winding, of means for placing said auxiliary interpole winding in circuit at a time when the load current is changed with abnormal quickness, connecting said auxiliary winding in different circuit combinations from those of the main winding and rendering the said auxiliary winding inactive while leaving the main interpole winding active.

[Claims 6 and 7 not printed in the Gazette.]

1,074,393. FRUIT-PITTING MACHINE. ELMER A. VARY, Middleport, N. Y. Filed May 29, 1911. Serial No. 630,011. (Cl. 146—5.)



1. In a fruit pitting machine, a hopper, a feeding roll provided with sockets, annular grooves intersecting the sockets, devices projecting into the grooves for freeing the fruit and means for pitting the fruit.

2. In a fruit pitting machine, a hopper, a feeding roll provided with sockets, annular grooves intersecting the sockets, devices projecting into the grooves for freeing the fruit, means for pitting the fruit and means for agitating the fruit within the hopper.

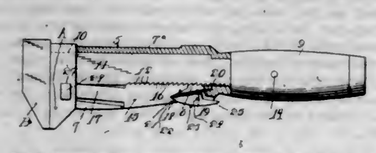
3. In a fruit pitting machine, a hopper, a plurality of spring held arms mounted adjacent thereto, fingers carried by the arms and projecting into the hopper, a fruit feeding roll, a shaft therefor, and means for operating the agitating devices from said shaft.

4. In a fruit pitting machine, a hopper, a plurality of spring held arms mounted adjacent thereto, fingers carried by the arms and projecting into the hopper, a fruit feeding roll, a shaft therefor, means for operating the agitating devices from said shaft and a second roll cooperating with the roll first mentioned and driven by the means last mentioned.

5. In a fruit pitting machine, a hopper, a framework including a bed plate, a standard carried thereby, a vertical shaft mounted within the standard, guides carried by the standard, a slide within the guides, pitting mechanism connected with the slide, a fruit feeding device, means for conveying fruit therefrom to the pitting mechanism, means for driving the feeding device from the vertical shaft and a shaft for operating the pitting mechanism and driving the vertical shaft.

[Claims 6 to 18 not printed in the Gazette.]

1,074,394. WRENCH. IVAN M. WALDRON, Gilchrist, Mich., assignor of one-half to Herbert Grimes, Gilchrist, Mich. Filed July 31, 1912. Serial No. 712,520. (Cl. 81—139.)

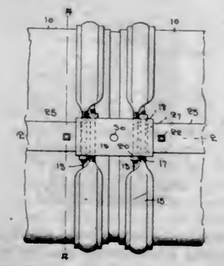


1. In a wrench, the combination with a fixed jaw and a hollow shank, of a movable jaw having a shank operating in said hollow shank, said fixed jaw being formed with a pocket, a dog loosely mounted in the hollow shank and having adjustable engagement with the second mentioned shank, a shank extending upwardly from the dog and into the pocket of the fixed jaw, the end of the last mentioned shank being inclined, and a cam element slidably mounted in the fixed jaw for engagement with the inclined end of the last mentioned shank for shifting the dog away from the fixed jaw to draw the movable jaw toward said fixed jaw.

2. In a wrench, the combination with a fixed jaw and a hollow shank, of a movable jaw having a shank operating in said hollow shank, said fixed jaw being formed with a pocket, a dog loosely mounted in the hollow shank and having adjustable engagement with the second mentioned shank, a shank extending upwardly from the dog and into the pocket of the fixed jaw, the end of the last mentioned shank being inclined, said fixed jaw being formed with openings registering with the pocket, and a cam element slidably mounted in the openings of the fixed jaw for engagement with the inclined end of the last mentioned cam for shifting the dog away from the fixed jaw to draw the movable jaw toward said fixed jaw.

3. In a wrench, the combination with a fixed jaw and a hollow shank, of a movable jaw having a shank operating in said hollow shank, said fixed jaw being formed with a pocket, a dog loosely mounted in the hollow shank and having adjustable engagement with the second mentioned shank, a shank extending upwardly from the dog and into the pocket of the fixed jaw, the end of the last mentioned shank being inclined, a cam element slidably mounted in the fixed jaw for engagement with the inclined end of the last mentioned shank for shifting the dog away from the fixed jaw to draw the movable jaw toward said fixed jaw, and projections extending downwardly from the ends of the element for engagement with the last mentioned shank to limit the movement of said element.

1,074,395. PIPE CONSTRUCTION. JOSEPH W. WELCH, Ogden, Utah. Filed Nov. 29, 1912. Serial No. 734,152. (Cl. 137—75.)

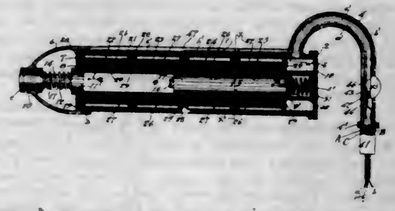


1. A knock-down pipe comprising counterpart pipe sections formed from sheet metal, each section having two opposite edges brought into proximity and being slightly spaced apart, clamping strips engaging the proximate edges, clamping bolts extending through the clamping strips between the proximate edges and coacting with the strips for clamping the edges, an internal clamping ring fitted within an end of each pipe section, clamping bands fitted around the ends of the pipe sections, a clamping block, and bolts carried by the clamping bands and having nuts coacting with the clamping block for tightening the bands, said block being provided with an aperture in communication with the spaces between said proximate edges for the application of melted material for preventing leakage.

2. A knock-down pipe comprising pipe sections formed from sheet metal with two opposite and axially parallel edges brought into proximate and spaced relation and having grooves formed adjacent to and parallel with said edges, a clamping strip having longitudinally disposed beads and having apertures between the beads, a second clamping strip having grooves to coöperate with the grooves in the pipe and the beads on the first clamping strip and provided also with apertures, clamping bolts through the apertures of the clamping strip and extending between the proximate edges and adapted to be moved longitudinally of the edges while the clamping strips are slid with said beads in said groove, whereby each pipe section may be alternately built up and knocked down with the maximum ease and facility.

3. A knock-down pipe, comprising pipe sections formed from sheet metal and having their axially parallel edges clamped together in slightly spaced relation, means including a clamping block for securing the adjacent ends of the several pipe sections together in slightly spaced relation, the axially parallel edges of the pipe sections being alined and having their respective spaces in communication with the space between the ends of the pipe sections, said clamping block having an aperture extending therethrough and in communication with the communicating space between said adjacent edges and ends, adapted to receive suitable material for closing the spaces at their point of communication, so as to prevent leakage.

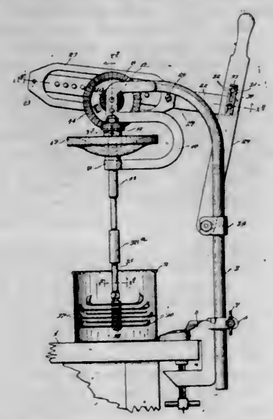
1,074,396. RIVETER. FREDRICK JAMES WEST and HARRY WILLIAM DARBY, Winnipeg, Manitoba, Canada. Filed July 8, 1912. Serial No. 708,239. (Cl. 172—126.)



The combination comprising a brass tube having an internal shoulder formed in one end thereof, a plurality of similar magnetic coils located on the tube and formed each from a spool supplied with a wire winding having the ends of the wire terminating in the opposite ends of the spool, contact rings located on the ends of the spools and connected with the ends of the wires, said rings connecting the coils in series, a casing containing the coils and provided with an extending hollow handle, a cap closing one end of the casing and the end of the tube provided with the shoulder, a metallic disk slidable within the tube and bearing normally against the shoulder, a spiral spring interposed between the cap and the disk, a head piece carried by the opposite ends of the casing and tube, a hammer slidably mounted in the head and provided at the outer end with a collar engaging with the head and at the inner end with an enlargement slidably received within the tube, a spiral spring interposed between the enlargement aforesaid and the head piece, a plunger adapted to reciprocate within the tube and alternately engage with the hammer and the disk, a feed wire passing through the handle and communicating directly

with the centrally located pair of contact rings, independent wires passing through the handle and communicating with the contact rings, located on the outer faces of the end coils and push button carried by the handle and inserted in the feed wire, as and for the purpose specified.

1,074,397. BEATING AND MIXING MACHINE. ADOLPH C. WESTBY, Porter, Minn. Filed Oct. 30, 1911. Serial No. 657,645. (Cl. 107—38.)



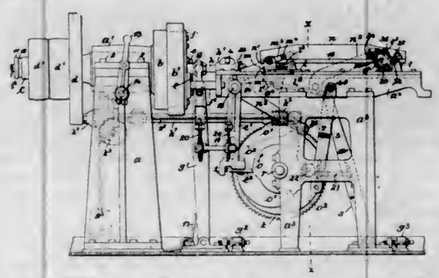
1. In a device of the kind described, the combination with a receptacle, of a standard, an upright shaft rotatively mounted on said standard and having a pinion secured thereto and provided with an agitator arranged to work in said receptacle, a gear mounted on said standard and meshing with said pinion, a star wheel carried by said gear, a pin tooth rack for driving said star wheel, a guide plate for said star wheel surrounding the teeth of said rack, and having one of its ends pivotally secured to said rack and having its other end adjustably secured thereto for swinging movement, the aperture in said guide plate permitting the removal of said star wheel therethrough, when said guide plate is moved to one extreme position, and a lever for operating said pin tooth rack, substantially as described.

2. In a device of the kind described, the combination with a depending driving shaft and a support therefor, of an agitator comprising a multiplicity of alternated loose and fixed flat bars horizontally disposed and intermediately mounted on said shaft, said bars being vertically spaced one above the other, and certain of said bars having their ends bent laterally to increase the efficiency of the agitator, substantially as described.

1,074,398. SWAGING-MACHINE. FRANK V. WHYLAND, Buffalo, N. Y. Filed May 15, 1911. Serial No. 627,123. (Cl. 78—22.)

1. In a swaging machine, the combination with the swaging devices and the tubular shaft through which the wire to be swaged passes, of an oiling device adjacent to the outer free end of the said tubular shaft and comprising a horizontal tube passing into the open end of the said tubular shaft and through which the wire to be swaged also passes, means for closing the outer end of the said tube and for closing the annular opening between the end of the tubular shaft and the tube passing therein, a support for the oiling device and a tube for supplying the oil, substantially as set forth.

2. In a swaging machine, the combination with the swaging devices and the tubular shaft through which the wire to be swaged passes, of an oiling device adjacent to the outer free end of the said tubular shaft and comprising a horizontal tube at one end passing into the open end of the tubular shaft and having a threaded portion and a nut and washer surrounding the same at the annular opening of the tubular shaft to close the same, a threaded portion on the free end of the said oil tube and a cap and washer for closing the same except for the passage therethrough of the wire, a support for the horizontal oil-tube and a vertical tube intersecting the same for supplying the oil thereto, which oil passes through the horizontal shaft and into the tubular shaft with the wire to be swaged to the swaging devices, substantially as set forth.



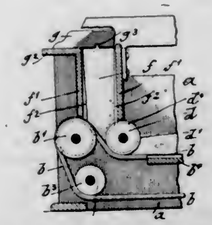
3. In a swaging machine, the tubular shaft, its head or boss and the ring face-plate, the hammers and the inner face-plate and means acting in connection with the said hammers and face-plate to normally hold the said hammers toward the wire being swaged, substantially as set forth.

4. In a swaging machine, the tubular shaft and its head or boss, the hammers recessed in their outer face, the auxiliary face-plate recessed in its inner or under face adjacent to the recesses in the hammers, but offset therefrom and the springs in the recesses between the hammers and the face-plate, substantially as and for the purposes set forth.

5. In a swaging machine, a grooved revoluble collar carrying the wedges, and a stationary tubular support on which the said revoluble collar is longitudinally movable, and a split head through which the said tubular support passes, and means for clamping the said head to adjustably secure the said tubular support to the frame of the machine to which the said head is connected, substantially as set forth.

[Claims 6 to 18 not printed in the Gazette.]

1,074,399. BRISTLE-FEEDING ATTACHMENT FOR BRUSH-MAKING MACHINES. KARL WINKLER, Jersey City, N. J. Filed May 1, 1913. Serial No. 764,763. (Cl. 15—7.)



1. A bristle-feeding attachment for brush-making machines, comprising a bristle-feed box, an endless feed-band in the same, means for imparting forward motion to the feed-band, a presser-roller at the feed-end of the feed-band, a bristle-receptacle located above the feed-end of the feed-band and presser-roller, and a horizontally-reciprocating slide-plate having a transverse tuft-forming groove moving over the upper end of the bristle-receptacle,

2. A bristle-feeding attachment for brush-making machines, comprising a bristle-feed box, a longitudinal endless feed-band in the same, means for guiding the bristles in said feed-box, means for imparting forward motion to said feed-band, a presser-roller adjacent to the feed-end of the feed-band, a bristle-receptacle above the feed-end of the feed-band and the presser-roller, adjustable end-walls for said bristle-receptacle, and a horizontally-reciprocating slide-plate having a transverse tuft-forming groove moving over the upper end of the bristle-receptacle.

3. A bristle-feeding attachment for brush-making machines, comprising a bristle-feed box, a longitudinally-grooved endless feed-band in the same, means for imparting forward motion to the feed-band, a circumferentially-grooved presser-roller at the feed-end of the feed-band, a bristle-receptacle above the free-end of the feed-band and the presser-roller, and provided with clearers extending into the longitudinal groove of the feed-band and circumferential groove of the presser-roller, and a horizontally-reciprocating slide-plate having a transverse tuft-forming groove and moving over the upper end of the bristle-receptacle.

4. A bristle-feeding attachment for brush-making machines, comprising a bristle-feed box, a longitudinally-grooved endless feed-band in the same, a driving-roller for imparting forward motion to the feed-band, guide-rollers below said driving-roller and at the opposite end of the feed-band, a rotary pressure-roller adjacent to the driving-roller, a bristle-receptacle above the driving and pressure rollers, adjustable end-walls in said receptacle, a horizontally-reciprocating slide-plate above the upper end of the bristle-receptacle and having a transverse tuft-forming groove, and a guide-box for said slide-plate.

5. A bristle-feeding attachment for brush-making machines, comprising a bristle-feed box, an endless feed-band in the same, driving means for imparting forward motion to the feed-band, a presser-roller at the feed-end of the feed-band, a bristle-receptacle located above the feed-end of the feed-band and presser-roller, a horizontally-reciprocating slide-plate having a transverse tuft-forming groove and moving over the upper end of the bristle-receptacle, and a friction device interposed in the driving means of the feed-band for retarding or interrupting the supply of bristles to the bristle-receptacle in case of over-pressure in the same.

[Claim 6 not printed in the Gazette.]

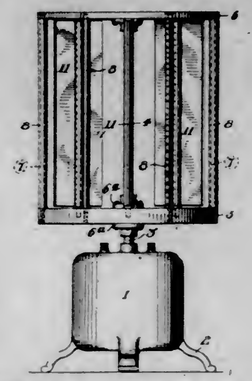
1,074,400. PROCESS FOR TREATING PEAT, SLIME, AND LIKE SUBSTANCES. GUSTAV WOLTERS, Weitmar, near Bochum, Germany. Filed Jan. 15, 1913. Serial No. 742,182. (Cl. 44—1.)



1. A process of treating peat, slime and like vegetable substances of a high degree of humidity, consisting in forcing the substance into a chamber comprising a plurality of communicating compartments, passing the substances successively from one compartment to another through said chamber, supplying heat to the off-take end of said chamber, and causing the vapors generated in the chamber from the substance to pass successively from one compartment to the other through the substance toward the intake end of the chamber, the pressure and temperature in the successive compartments increasing toward the off-take end of the chamber.

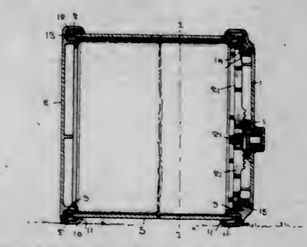
2. The process of treating peat, and like substances, consisting in forcing the substance successively from one to the next of a series of communicating compartments, and simultaneously forcing heat from the opposite end of said series successively through said series of compartments in such manner that the pressure and temperature of the vapor which is generated by the heat in the substance will regularly increase toward the source of heat.

1,074,401. FAN. CHARLES WYSOCKI, Whiting, Ind. Filed Nov. 27, 1912. Serial No. 733,852. (Cl. 230—1.)



A fan comprising a rotatable body including a vertically disposed shaft, a circular head fixed to each end of said shaft, a series of equally spaced tie rods connected to said heads, a series of vertically equally spaced shafts interposed between and connected to said heads and arranged inwardly with respect to said tie bars, spacer sleeves mounted upon the tie bars and interposed between the heads, a series of pairs of blades, the blades of each pair extending in opposite directions with respect to each other and integral with their respective hub, said hubs loosely mounted upon said series of vertically disposed shafts.

1,074,402. SEALING MEANS FOR VAULTS. FRANKLIN E. ARNDT, Galion, Ohio. Filed Dec. 24, 1912. Serial No. 738,403. (Cl. 27—7.)

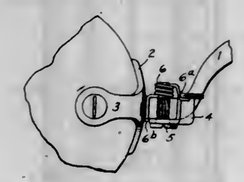


In a vault comprising side walls, an end closure having its outer edges curved inward into substantially semi-elliptic form with the extreme edge resting upon the side walls at a distance from their ends, said end walls being provided with perforations in that portion inclosed by the curved inward edges of the end closure, an inwardly projecting flange on the inside of the closure at distance from its edge parallel with and spaced away from the side walls, and a plastic sealing ring, filling the space between the curved edges and flange of the closure and forming retaining bars in the perforations of the side walls.

1,074,403. EYEGLASS-MOUNTING. GUSTAV A. BADER, Rochester, N. Y. Filed Mar. 2, 1911. Serial No. 611,948. (Cl. 88—50.)

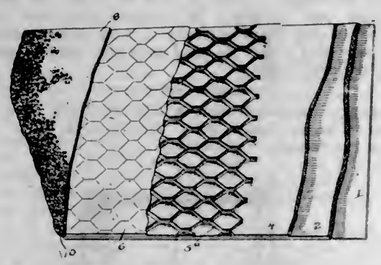
1. In an eyeglass-mounting comprising a bridge, a nose-guard lever pivoted on the bridge, and a post projecting

away from the bridge at one side thereof and substantially in line with the pivotal axis of the nose-guard lever; a spring for controlling said lever, the spring having a coiled portion of sufficient diameter to pass freely over the post, an end bent to extend toward and beneath the lever, and a second end which projects, alongside the bridge, to the opposite side thereof and terminates in a hook which engages said opposite side and normally retains the spring on the post.



2. An eyeglass-mounting having, in combination, a bridge, a nose-guard lever pivoted beneath the bridge, a post projecting from the upper surface of the bridge substantially in line with the pivotal axis of the nose-guard lever; and a spring for controlling said lever, the spring having a coiled portion of sufficient diameter to pass freely over the post, an end bent downwardly and inwardly to engage the nose-guard lever, and a second end which passes downwardly alongside the bridge and terminates in a hook engaging the bottom of the bridge so as to normally prevent upward movement of the spring on the post.

1,074,404. COMPOSITE ROOFING. WILLIAM L. BARNHART, Atlanta, Ga. Filed Oct. 19, 1912. Serial No. 726,646. (Cl. 108—6.)



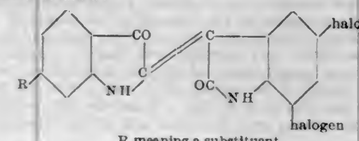
1. A composite roofing, comprising a cellular sheet metal structure having thin intersecting strips turned transversal of the metal sheet forming retaining walls for segregated cellular spaces, a body of amorphous bituminous material compacted into a hard, stable mass within said cellular spaces, said retaining walls preventing any movement or shifting of the individual portions of said body material and protecting it against transverse stresses or blows, and foundation and protective coatings united respectively to the bottom and top of the body portion.

2. A composite roofing comprising a foundation sheet of fibrous material, a cellular metal sheet structure formed of thin intersecting strips having their edges extending transversely of the sheet to provide segregated closed spaces, a body of amorphous bituminous material compacted into a hard, stable mass within the cellular spaces of said structure, a bituminous coating united to the top of said body, and a protective surface of hard mineral particles embedded therein.

3. A composite roofing comprising a foundation sheet of fibrous material, a cellular metal sheet structure formed of thin intersecting strips having their edges extending transversely of the sheet to provide segregated closed spaces, a body of amorphous bituminous material compacted into a hard, stable mass within the cellular spaces of said structure, an adherent coating forming a bond between said foundation sheet and the bottom of said body, a bituminous coating united to the top of said body, and a protective surface of hard mineral particles embedded therein.

1,074,405. VAT DYE. WILHELM BAUER, ALFRED HEBRE, and RUDOLF MAYER, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 11, 1913. Serial No. 747,699. (Cl. 8—1.)

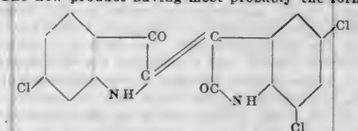
1. The new products being vat-dyestuffs derivable from an indoxyl substituted in position 6 and a 5.7-dihalogenated isatin and having the following graphically represented formula:



R meaning a substituent,

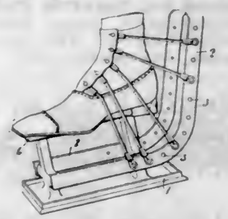
which dyes are in a dry state reddish-brown crystals with a metallic luster soluble in hot nitrobenzene generally with a red coloration; and which yield with hydrosulfite and caustic soda lye vats dyeing cotton red shades remarkable for their fastness to chlorin and to light, substantially as described.

2. The new product having most probably the formula:



being a vat dye derivable from 5.7-dichloroisatin and 6-chloroindoxyl, which is in a dry state a brown crystalline powder with a metallic luster, soluble in concentrated sulfuric acid with a brownish-red color and in monohydrated sulfuric acid with a reddish-violet color; and dyeing cotton from the hydrosulfite vat in red shades fast to chlorin, washing and light, substantially as described.

1,074,406. FITTING DEVICE FOR BOOTS AND SHOES. JOSEPH BOREL and FRANÇOIS GRANGE, Annecy, France. Filed Mar. 16, 1912. Serial No. 684,216. (Cl. 12—56.)

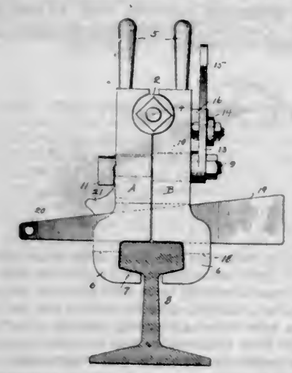


1. In a fitting device for button boots and shoes, a foot plate, a bracket supported in fixed relation to the foot plate and having a portion approximately concentric to the portion of the upper of the shoe to which the buttons are to be applied, and elastic tension devices detachably connected to the bracket and having their opposite ends adapted for detachable connection with the overlapping portion of the shoe upper, said opposite ends also having means whereby the position of the buttons on the upper may be indicated, substantially as described.

2. In a fitting device for button boots or shoes, the combination of a base plate, a bracket thereon, studs on each side of the bracket, a foot plate adjacent the bracket and connected to the base plate, and a plurality of elastic members each comprising an elastic rod, a loop at one end of the rod and adapted to engage one of the said studs, and a perforated connecting member at the other end of the rod adapted to engage a button hole or recess in the boot for the purpose set forth.

3. In a fitting device for button boots or shoes, the combination of a base plate, a pivoted bracket thereon, studs on each side of the bracket, two foot plates connected to the bracket, and a plurality of elastic members each comprising an elastic rod, a loop at one end of the rod and adapted to engage one of the said studs, and a perforated connecting member at the other end of the rod adapted to engage a button hole or recess in the boot for the purpose set forth.

1,074,407. RAIL-CLAMP. JOSEPH P. BRADEN, St. Paul, and WILLIAM D. PALMER, Minneapolis, Minn. Filed June 17, 1913. Serial No. 774,212. (Cl. 104—49.)



1. A rail clamp comprising hingedly connected jaw members, locking bolts rotatably mounted on one member, the other member having slots to receive the bolts, and the bolts having lugs movable into and out of the slots and engageable with the outer surface of the slotted member, and means for operating the bolts simultaneously.

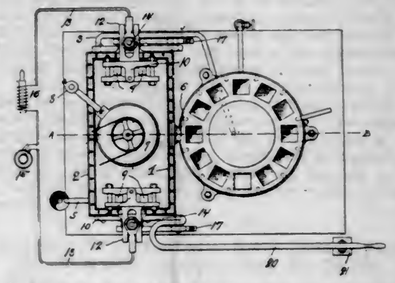
2. A rail clamp comprising hingedly connected jaw members, locking bolts rotatably mounted on one member, the other member having slots to receive the bolts, and the bolts having lugs movable into and out of the slots and engageable with the outer surface of the slotted member, crank arms on the bolts, and a connection between the arms for moving the bolts simultaneously.

3. A rail clamp of the class described comprising movably connected jaw members, means for locking the members in closed position, said members having registering openings in their jaw portions, a rail-engaging wedge mounted in the said openings, means on the smaller end of the wedge for preventing detachment of the latter from the jaw members, and the larger end of the wedge being of greater dimensions than the said opening to prevent the wedge from passing therethrough, and inclined abutments on one of the jaw members for engagement with the said means on the wedge when the latter is in fully released position, whereby the jaw members can be opened without the wedge interfering.

4. A rail clamp comprising hingedly connected jaw members, a plurality of locking means carried by one member and engageable with the other member, and connecting means between the locking means for causing simultaneous movement thereof to or from locking position.

1,074,408. APPARATUS FOR FUSING ELECTROLYTES. HECTOR RUSSELL CARVETH, Niagara Falls, N. Y., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Filed Mar. 19, 1910. Serial No. 550,472. (Cl. 204—64.)

1. An apparatus for fusing electrolytes by means of the electric current comprising a melting pot, means for cooling the walls of said pot, a plurality of groups of horizontally and vertically adjustable electrodes dipping into the fused mass in said pot, means connecting said electrodes to a source of electricity and means for adjusting and replacing said electrodes without interruption of the electric current comprising an electrode holder having independently operable electrode clamping means pivotally connected thereto.



2. An apparatus for fusing electrolytes by means of the electric current comprising a melting pot having outturned flanges, a water jacket therefor having correspondingly inturned flanges, means for feeding the unfused material into said pot, a plurality of groups of horizontally and vertically adjustable electrodes of opposite polarity dipping into the fused mass in said pot, means connecting said electrodes to a source of electricity, means for adjusting and replacing said electrodes without interruption of the electric current, and means for removing the fused product.

3. An apparatus for fusing electrolytes by means of the electric current comprising a melting pot having outturned flanges, a water jacket therefor having correspondingly inturned flanges, means for feeding the unfused material into said pot, a plurality of groups of horizontally and vertically adjustable electrodes of opposite polarity dipping into the fused mass in said pot, means connecting said electrodes to a source of electricity, means for adjusting and replacing said electrodes without interruption of the electric current and means for tilting the said pot so that the fused product may be delivered from said melting pot as desired.

4. An apparatus for fusing electrolytes by means of the electric current comprising a melting pot, means for cooling the walls of said pot, means for feeding the unfused material into said pot, a plurality of groups of horizontally and vertically adjustable electrodes of opposite polarity dipping into the fused mass in said pot, means for adjusting and replacing said electrodes without interruption of the electric current comprising an electrode holder having independently operable electrode clamping means pivotally connected thereto, means for controlling the supply of electrical energy and means for the intermittent removal of the fused product.

5. An apparatus for fusing electrolytes by means of the electric current comprising a melting pot, means for cooling the walls of said pot, means for delivering the unfused material into said pot, terminals attached to a source of electrical energy, means for supporting said terminals on said melting pot but electrically insulated therefrom holders in electrical connection with said terminals, a plurality of electrodes connected to each of said holders said electrodes being independently adjustable with reference to each other and dipping into the fused conductor in said pot, means for controlling the supply of electrical energy and means for the intermittent removal of the fused product.

1,074,409. SPIKE. HERBERT OSMOND CRIPPEN, New York, N. Y. Filed Nov. 16, 1912. Serial No. 731,692. (Cl. 85—23.)

1. A spike comprising a body member, and a plate movably carried thereby and to one side thereof, the center of movement of the said plate being to one side of the longitudinal axis of the body member.

2. A spike made up of a body member, and a plate in movable relation thereto, the side of the body member be-

ing provided with a shoulder forming a support, the end of the plate being provided with a portion engaging the said support and about which the plate may be moved, the said point of support lying to one side of the central axis of the body member.



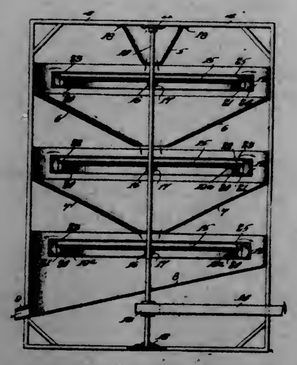
3. A spike comprising a body member, and a plate movably carried thereby and to one side thereof, the side of the body member being provided with a pocket, the end of the plate being provided with an extension engaging in the pocket, the said pocket and extension normally lying to one side of the longitudinal axis of the body member.

4. A spike comprising a body member, and a plate movably associated therewith, one side of the spike being provided with a pocket, the end of the plate being provided with an extension engaging in the said pocket, the entrance to the pocket adjacent the side of the body member being of lesser dimension than the width of the said extension, whereby the extension is prevented from withdrawal from the pocket by a longitudinal movement.

5. A spike comprising a body member, and a plate movably associated therewith, one side of the body member being provided with a shoulder, the upper portion of which is provided with downwardly converging edge portions, and a pocket in the shoulder and below the said converging edge portions, the plate being provided with an extension adjacent its lower end fitting in the said pocket, the extension being incapable of withdrawal from the pocket by a longitudinal movement of the plate.

[Claims 6 to 14 not printed in the Gazette.]

1,074,410. AMALGAMATOR. LLOYD OSCAR CROCKER, Beatrice, Nebr. Filed Apr. 5, 1913. Serial No. 759,100. (Cl. 83—67.)



1. An amalgamator comprising a rim provided with an annular compartment having a cross section bounded by an involute curve, a revoluble table carrying said rim and extending into said compartment, said revoluble table being in the form of a plane substantially tangential to a portion of greatest curvature of said wall, means for turning said rim and said table, and mechanism for discharging ore and water upon said table.

2. A device of the character described comprising a rim provided with an annular compartment, a table extending into said compartment and secured to one edge of said rim so as to close a portion of said compartment upon one side of said table and to leave open a portion of said compartment upon the opposite side of said table, means for turning said table and said rim, and mechanism for feeding ore upon said table.

1,074,411. STOP OR BUFFER FOR FLUSH-TANKS. SALLIE S. CROCKER, Lakewood, N. J. Filed June 4, 1912. Serial No. 701,571. (Cl. 4—18.)



1. A stop or buffer for the flush lever of a closet tank comprising a plate adapted to be secured to the tank, a hollow cylinder extending from said plate, a rod adapted to slide into said hollow cylinder and having an enlargement at its end with an opening therein, a rod or bolt securely held from said enlargement and supported in said opening, a series of separate and independent elastic washers held on said rod or bolt, and a removable plate passing over the outer end of the bolt or rod and against the outer washer, and means for securing said removable plate to the bolt or rod.

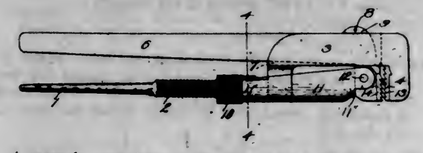
2. A stop or buffer for the flush lever of a closet tank comprising a plate adapted to be secured to the tank, a hollow cylinder extending from said plate and having a slot in its upper side, a rod adapted to slide into said hollow cylinder and having an enlargement at its end with an opening therein, a screw adapted to pass through the slot and engage the rod, a rod or bolt securely held from said enlargement and supported in said opening, a series of separate and independent elastic washers held on said rod or bolt, and a removable plate passing over the outer end of the bolt or rod and against the outer washer, and means for securing said removable plate to the bolt or rod.

3. A stop or buffer for the flush lever of a closet tank comprising a plate adapted to be secured to the tank, a hollow cylinder extending from said plate and having a slot in its upper side, a rod with a threaded hole adapted to slide into said hollow cylinder and having an enlargement at its end with an opening therein, a screw adapted to pass through the slot and engage said threaded hole in the rod, a rod or bolt securely held from said enlargement and supported in said opening, a series of separate and independent elastic washers held on said rod or bolt, and a removable plate passing over the outer end of the bolt or rod and against the outer washer, and means for securing said removable plate to the bolt or rod.

4. A stop or buffer for the flush lever of a closet tank comprising a plate adapted to be secured to the tank, a hollow rod extending from said plate, a rod adapted to be adjusted and locked into said hollow cylinder and having an enlargement at its end, a rod or bolt projecting from said enlargement, a series of washers removably held on said rod or bolt, and a removable plate passing over the outer end of the bolt or rod and against the outer washer, and means for securing said removable plate to the bolt or rod.

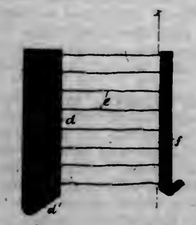
5. A stop or buffer for the flush lever of a closet tank comprising a plate adapted to be secured to the tank, a hollow rod extending from said plate, a rod having one end adapted to slide into said hollow rod and its other end provided with an enlarged and flat guide, a pin projecting from said flat guide, a buffer held on said pin, and a removable guide plate passing over the outer end of the pin and retaining said buffer on said pin.

1,074,412. WRENCH. DANIEL DAHLBERG, Braham, Minn., assignor of one-third to John Carlson, Braham, Minn. Filed May 25, 1912. Serial No. 699,829. (Cl. 81—79.)



A wrench comprising a shank having a handle at one end and terminating at its other end in a relatively stationary U-shaped jaw member, said member having a slot extending longitudinally thereof, a relatively movable lever passing through said slot and formed with a jaw movable between the sides of the first mentioned jaw member, an adjusting member having pivot ears at one end and of hollow form and open only on the side thereof adjacent to the jaw member so as to receive a side portion of the latter and constituting a guard surrounding the space between the relatively movable jaw and the inner side of said U-shaped jaw member, a pivotal connection between the ears at one end of the said adjusting member and the movable jaw, and adjustable means mounted on the shank intermediate its ends and coöperating with the other end of said adjusting member, said adjusting member being formed with a shoulder adjacent to the ears above mentioned and which shoulder is adapted to impinge against the inner side of the movable jaw to thereby limit the outward swinging movement of the lever in respect to said shank, and guide members connected with the lever adjacent to its jaw and movable along the U-shaped jaw member, for the purpose described.

1,074,413. SUTURE APPLIANCE. HARRY C. DE BAUN, Hackensack, N. J., and JOHN E. DE BAUN, Mount Vernon, N. Y. Filed Mar. 6, 1913. Serial No. 752,322. (Cl. 128—28.)



1. The herein-described suture member including an adhesive body-part formed of sheet material and tying threads each having one end-portion thereof projecting from one edge of said body-part and its other end-portion held at a series of points extending longitudinally thereof by said body-part in contact therewith.

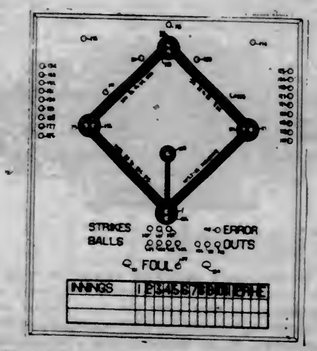
2. The herein-described suture member including an adhesive body-part formed of sheet material and tying threads each having one end-portion thereof projecting from one edge of said body-part and its other end-portion held for substantially its full length by said body-part in contact therewith.

3. The herein-described article of manufacture to be used for sutural purposes consisting of two separated body-parts formed of sheet material and one being adhesive and tying threads each having one end-portion thereof projecting from one edge of the adhesive body-part to and attached at its free end to the other body-part and its other end-portion held for substantially its full length by said adhesive body-part in contact therewith.

4. The herein-described article of manufacture to be used for sutural purposes including a piece of woven material having adhesive substance on one face thereof and tying threads projecting from one of the edges of said piece at spaced intervals and woven into said piece.

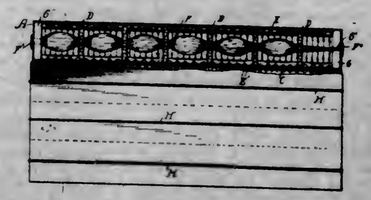
5. The herein-described article of manufacture to be used for sutural purposes including a piece of woven material having adhesive substance on one face thereof, tying threads projecting from one of the edges of said piece at spaced intervals and woven into said piece, and another piece to which said threads are attached in substantially the same order as they are woven into the first-named piece.

1,074,414. DISPLAY-BOARD. HARRY DETRICK, Houston, Tex. Filed Sept. 13, 1912. Serial No. 720,203. (Cl. 235—1.)



In a display board, a score board proper, a plurality of series of lamps arranged thereon in the form of a diamond, a switch board, a plurality of series of contact points arranged thereon for controlling the lamps, of the series forming the diamond, electrical connections between the contact points of each series and the lamps of the corresponding series of the diamond controlled thereby, a switch for each series of contact points, the switch of any particular series being arranged to be brought into contact successively with the points of said series whereby the lamps of the corresponding series of the diamond will be successively illuminated and extinguished and a means electrically connecting the last contact point of one series with the first contact point of the succeeding series.

1,074,415. EGG-CARRIER. EDWARD A. DIETERICH, New York, N. Y. Filed Mar. 14, 1913. Serial No. 754,227. (Cl. 217—28.)

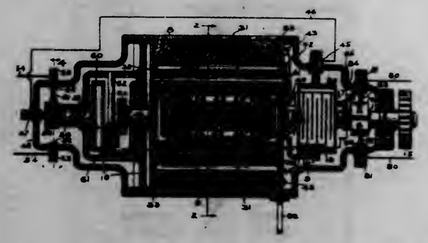


1. An egg carrier, comprising a box having a slot in one end and provided with partitions dividing it into a plurality of cells, each partition having an opening therein, a cover for the box, a tube of flexible material threaded

through the openings of the partitions and adapted to contain the eggs, one in each cell, said tube being secured to one end of the box and having its other end passed through the slot of the box, and a cord secured to the projecting end of the tube and wrapped around the box and its cover.

2. An egg carrier, comprising a box having a removable cover and provided along the inner faces of the sides with vertically-disposed corrugations, transverse partitions removably held in the corrugations and having central openings and cut-out corners, stiffening rods on the bottom and sides of the box and fitting the cut-out portions of the bottom corners of the partitions, and stiffening rods in the cover and fitting into the top cut-out corners of the partitions.

1,074,416. MAGNETO IGNITION SYSTEM. JOHN M. DINKINS and FRANKLIN B. HAYS, Indianapolis, Ind., assignors of eight-fifteenths to William L. Taylor, Indianapolis, Ind. Filed June 5, 1908. Serial No. 436,963. (Cl. 123—149.)



1. An electric spark producing apparatus comprising a generator, a rotating armature therefor, primary and secondary windings on said armature, an external source of current, means for connecting said external source of current with said primary winding, and a commutating device in circuit with said external source to periodically change the polarity of said armature when the winding thereof is traversed by said external current.

2. In an electric spark producing apparatus, a generator comprising a rotating armature having a primary and secondary winding, an external source of current, and means for coupling said external current to the primary winding of said armature, said means including means adapted to change the polarity of said external current to conform to the polarity of the current generated in said primary winding, whereby the current in said primary winding is augmented by said external current and the induced current in said secondary winding maintained of a sufficient power to produce an efficient spark, substantially as set forth.

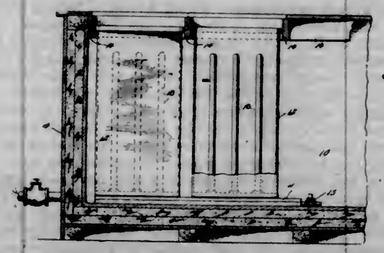
3. An electric spark producing apparatus comprising a generator including an armature having a primary and secondary winding, an external source of current, and means for connecting said external source of current to the primary winding of said armature, including means for changing the polarity of said external current to conform to the polarity of the current generated in said primary winding, whereby the current in said primary winding is augmented by said external current, and the induced current in said secondary winding maintained of sufficient power to produce an efficient spark, substantially as set forth.

4. An electric spark producing apparatus comprising a generator including a rotating armature having a primary and secondary winding, an external source of current, and means controlled by the speed of the rotating armature for coupling said external source of current to the primary winding of said armature and changing the polarity of said external current to conform to the polarity of the current generated in said primary winding, whereby when the speed of said rotating armature falls below that necessary to produce the necessary current for an efficient spark in the secondary winding said current will be augmented and maintained at such efficiency, substantially as set forth.

5. In a magneto-generator, a cylindrical case, a permanent magnet conforming in shape to the cylindrical case and mounted therein, an armature rotating about an axis which is at the center of said magnets, said armature having primary and secondary windings, an external source of current, and means for traversing the windings of the armature by said external current to change the polarity of the armature.

[Claims 6 to 10 not printed in the Gazette.]

1,074,417. APPARATUS FOR MAKING ICE. ZENAS U. DODGE, New York, N. Y., assignor to United Ice Improvement Company, New York, N. Y., a Corporation of Delaware. Filed Nov. 21, 1912. Serial No. 732,758. (Cl. 62—6.)



1. In an apparatus for making ice, the combination of a freezing tank, a brine conduit, at the bottom of the tank, having an outlet in its top, an ice can supported on said conduit and provided with a brine circulating tube extending upwardly from its bottom and communicating through the bottom with the interior of the tank, a second tube secured to said can and arranged within the first tube, and means connecting said second tube and said conduit outlet.

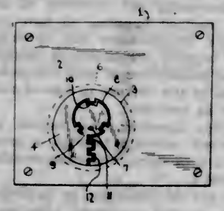
2. In an apparatus for making ice, the combination of a freezing tank, a brine conduit, at the bottom of the tank, having a plurality of outlets in its top, an ice can arranged in the tank above said conduit and having a plurality of brine circulating tubes extending upwardly from the bottom and communicating through the bottom with the interior of the tank, tubes secured to the can and arranged within said circulating tubes, and means supporting the can on said conduit and establishing communication between said conduit outlets and said second-mentioned tubes.

3. In apparatus for making ice, the combination of a freezing tank, a brine conduit, at the bottom of the tank, having an outlet in its top, an ice can arranged in the tank above said conduit and having a brine circulating tube secured in an opening through the bottom of the can and extending upwardly therefrom, a member secured to the bottom of the can and covering the outlet in said conduit, said member having an interior opening in communication with said outlet, a tube arranged within said circulating tube and secured in said member and adapted to convey brine from said conduit outlet to the upper part of said circulating tube, and means for conveying brine from the lower part of said circulating tube to the exterior of said can.

4. In apparatus for making ice, an ice can having sheet metal sides and a cast metal bottom plate, said bottom plate having an opening therethrough, a brine circulating tube closed at its upper end and having its lower end secured in said opening, a hollow plug secured in the lower end of said tube and provided with an opening or groove adapted to convey brine from the tube to the space below said bottom plate, and a tube secured in said plug and arranged within said first-mentioned tube.

5. In apparatus for making ice, a tank having a brine conduit at the bottom thereof, said conduit being provided with an outlet in its top, an ice can arranged in said tank above said conduit and having an opening through the bottom thereof in registration with said conduit outlet, a brine circulating tube secured in said opening and extending upwardly therefrom, a member secured to the bottom of said can surrounding said conduit outlet, packing means between said member and said conduit, and a tube arranged within said first-mentioned tube and secured to said member.

1,074,418. LOCK. FRANK M. DOUGHTY, Bronson, Kans. Filed Mar. 27, 1913. Serial No. 757,223. (Cl. 70—16.)



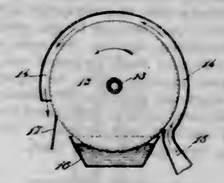
1. In a lock, a casing having therein circular apertures, keyhole plates revolubly mounted in said apertures and having therein segmental slots and radial slots, said slots being offset in opposite directions, a bolt to connect and hold said plates in operative engagement with the apertures in the lock casing, guide bolts arranged on said plate connecting bolt, a detent comprising a bar having therein longitudinal slots to receive the ends of said guide bolts, offset beveled ends formed on said detent to provide stop shoulders, a spring arranged between said detent and said plate connecting bolt whereby the detent is yieldingly held in spaced relation to said bolt and in position to form a stop or obstruction to the insertion of any but the proper key and a key constructed and designed for engagement with the slots in said key-hole plates and with said detent.

2. In a lock, a casing having therein alined circular apertures, key-hole plates revolubly mounted in said apertures and having therein irregular segmental slots and irregular radial slots, flanges formed on said plates to engage the inner side of the lock casing, a bolt to connect said plates and hold the same in operative engagement with the lock casing, a spring projected detent arranged between said plates, a key having a tubular body provided with longitudinal recesses and notches, and longitudinal corrugations corresponding to the irregularities in and the spaces between the ends of the segmental slots in said key-hole plates whereby the key may be engaged with said slots and with the detent between said plates, a bit arranged on the key and having corrugations corresponding to the corrugations in the radial slots in said key-hole plates whereby the bit may be inserted through said radial slots and to permit the key to be turned in the lock.

3. In a lock, a casing, slotted key-hole plates revolubly mounted in said casing and having therein key receiving slots, a detent arranged between said plates, a key comprising a tubular body provided with longitudinal recesses and notches and having therein longitudinal corrugations, and a corrugated bit arranged on the body of the key, said tubular body and bit of the key corresponding to the shape and construction of the slots in said key-hole plates and adapted to be engaged therewith and with the detent arranged between the plates.

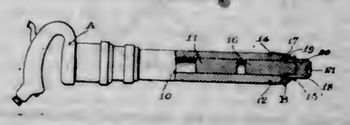
1,074,419. PROCESS FOR PRODUCING DESICCATED MILK. ANDREW A. DUNHAM, Bainbridge, N. Y., assignor to Casein Company of America, a Corporation of New Jersey. Filed Apr. 11, 1913. Serial No. 760,408. (Cl. 99—5.)

1. The herein described process for producing desiccated milk, consisting in first partially evaporating or condensing milk at a temperature or temperatures below the coagulating point of albumin, and finally drying the milk on a rotating cylinder internally heated to a temperature above the coagulating point of albumin, and simultaneously subjecting the film of milk to be dried to a hot air blast.



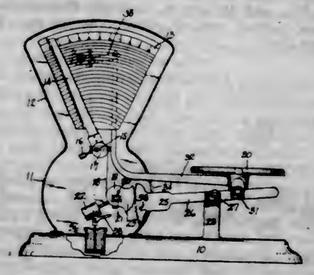
2. The herein described process for producing desiccated milk, consisting in first partially evaporating or condensing milk at a temperature or temperatures below the coagulating point of albumin, and finally drying the milk on a moving surface heated to a temperature above the coagulating point of albumin, and simultaneously subjecting the film of milk to be dried to a hot air blast.

1,074,420. SPRING-CLIP FOR PNEUMATIC HAMMERS. JOSEPH F. EISCHEID, Plattsmouth, Nebr., assignor of one-half to Edward P. Eischeid, Council Bluffs, Iowa. Filed Oct. 9, 1912. Serial No. 724,892. (Cl. 78—44.5.)



A spring clip for pneumatic hammers formed of a tapering tubular body having a portion of its wall removed throughout its entire length and its minor end flared, and a flange on the major end of the clip for engagement in a groove in the pneumatic hammer body.

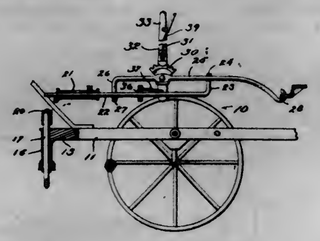
1,074,421. WEIGHING-SCALE. BENJAMIN D. EMANUEL, Anderson, Ind. Filed Jan. 20, 1912. Serial No. 672,484. (Cl. 73—104.)



1. A weighing scale including an oscillatory indicator, a weight connected therewith tending to return it to zero, a pendulum fulcrumed separately from said indicator, a connection between the pendulum and indicator arranged so that the indicator will be given its forward movement by said pendulum, a scale beam, means actuated by the scale beam for maintaining the pendulum in an elevated position when there is no load and yielding to the downward action of the pendulum when the load is applied, and means carried by the scale beam for supporting the load.

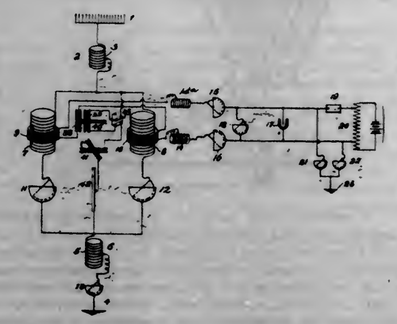
2. A weighing scale including an indicator, a shaft on which it is mounted, a counter-balance extending from said shaft at such an angle to the indicator that it will tend to return the indicator to zero, a pendulum, a shaft independent of the indicator shaft to which the pendulum is secured, a flexible connection between said two shafts whereby the downward movement of the pendulum will tend to give the indicator a forward movement, a segmental gear secured to the pendulum shaft, a scale beam fulcrumed between its ends with the end adjacent said indicator shaft weighted and provided with a segmental gear meshing with the segmental gear on the indicator shaft and geared so that when the weighted end of the scale beam is in its downward position the pendulum will be elevated, and means on the outer end of the scale beam for supporting the load.

1,074,422. PLOW ATTACHMENT. EDWARD B. EVENSON, Colfax, Wis. Filed Feb. 8, 1912. Serial No. 676,186. (Cl. 97—75.)



Operating means for the control of the adjustment of the wheels in a side-hill plow, said means including a pair of coacting rods, eyes formed upon the ends of said rods for the engagement of the adjacent rods, an operating lever and a link connecting operating lever with one of said rods, and means carried by one of said rods for adjustable connection with one of the wheels of said plow.

1,074,423. METHOD OF WIRELESS SIGNALING. REGINALD A. FESSENDEN, Washington, D. C., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed Jan. 9, 1905. Serial No. 240,269. (Cl. 250—20.)



1. In a system of signaling by periodic impulses, the method of increasing the efficiency of the signaling by causing the received impulses to flow through the primaries of two transformers and varying the inductive relation between the primaries and secondaries of said transformers.

2. In the art of signaling by periodic impulses, the method of increasing the efficiency of the signaling which comprises passing the received signal impulses through the primaries of two transformers, varying the inductive relation between said primaries and the secondaries of the transformers to increase the resonance effects peculiar to the wave length being received, and adjusting the phase of the currents in the two transformers, to thereby neutralize the effects of undesired currents on the secondaries, substantially as described.

3. In a system of signaling by periodic impulses, the method of increasing the efficiency of the signaling by causing the received impulses to flow through the primaries of two transformers and through variable condensers and varying the inductive relation between the primaries and secondaries of said transformers, and shifting the phase of the current in one of said transformers, substantially as described.

4. In electric signaling, the method which comprises passing received currents through a primary to induce currents in a secondary, and compensating the currents in the secondary.

5. In the art of signaling by periodic impulses, the method of preventing undesired impulses from affecting the receiver, which includes passing the received impulses through the primary of a transformer and inducing them into a receiver circuit connected with the secondary of said transformer, and electrostatically shielding the said primary from said secondary, substantially as described.

1,074,424. MAGNETIC MATERIAL. REGINALD A. FESSENDEN, Brant Rock, Mass., assignor, by mesne assignments, to Samuel M. Kintner, Pittsburgh, Pa., and Halsey M. Barrett, Bloomfield, N. J., receivers. Filed Mar. 14, 1908. Serial No. 421,218. (Cl. 181—1.)



1. A telegraphone wire comprising a continuous elongated base, and a series of separated magnetic bodies attached in a cross-wise position thereon.

2. A wire comprising a continuous supporting base, and a non-continuous magnetic face composed of a series of uniformly shaped elongated bars.

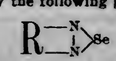
3. A telegraphone wire having a cross-wise corrugated magnetic face.

4. A telegraphone wire composed of a non-magnetic base, and a magnetic surface thereon comprising a series of separate bars lying across the wire.

5. A magnetic wire having a non-magnetic metal base and a series of magnetic bars fixed cross-wise thereon with intervening spaces.

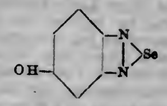
1,074,425. DERIVATIVE OF PIASELENOL. EMIL FISCHER, Berlin, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 29, 1913. Serial No. 744,876. (Cl. 23—24.)

1. As new products the new derivatives of piaselenol having most probably the following general formula:



R being an aromatic nucleus containing in this nucleus groups of an acid character; forming soluble salts with alkalis; and being therapeutically valuable remedies for the treatment of tumors, substantially as described.

2. As a new product the new para-oxypiaselenol having most probably the formula:



crystallizing from water in the shape of yellowish-brown needles melting at about 200–209° C. with evolution of gas; being soluble in dilute caustic alkali with a red to yellowish-red coloration; and being a therapeutically valuable remedy for the treatment of tumors, substantially as described.

1,074,426. CHECK-CONTROLLED VENDING-MACHINE. NORMAN P. FRASER, Carsonville, Mich. Filed July 6, 1912. Serial No. 708,031. (Cl. 194—91.)



1. A check controlled vending machine, including a rotary article holder, a pair of plates disposed in spaced relation to each other, a manually controlled spring returned lever mounted between said plates and operable exteriorly of the machine, a toothed lug carried by said lever, a pivoted toothed segment journaled between the plates and in co-active relation with the toothed lug of the lever, and a swingingly mounted holder engaging member carried by the inner end of the lever and disposed in operable relation to the holder, said holder engaging member being normally spaced from the pivoted segment to receive a coin between it and such segment and whereby with the coöperation of a coin and the depression of the lever, the article holder is rotated.

2. A check controlled vending machine, including a rotary article holder, a pair of plates disposed in spaced relation to each other, a manually controlled spring returned lever mounted between said plates and operable exteriorly of the machine, a toothed lug carried by said lever, a pivoted toothed segment journaled between the plates and in co-active relation with the toothed lug of the lever, a swingingly mounted holder engaging member carried by the inner end of the lever and disposed in operable relation to the holder, said holder engaging member being normally spaced from the pivoted segment to receive a coin between it and such segment and whereby with the coöperation of a coin and the depression of the lever, the holder engaging member is elevated to cause the article holder to be rotated, and coacting means carried by the holder rotating member and one of the plates for preventing a retrograde movement of the lever during the operation of the holder.

1,074,427. PIPE-ANCHOR. CLAYTON E. FREDERICKSON, San Francisco, Cal., assignor of one-half to W. H. Stenger, San Francisco, Cal. Filed Jan. 24, 1912. Serial No. 673,001. (Cl. 103—65.)

1. The combination with the pipe line or string, of a gripping mechanism slidably mounted thereon, and including a collar, grippers resiliently mounted on said collar, a gripper spreader mounted on said pipe, and a setting mechanism carried by said pipe and coöperative with the well casing, for holding the gripping mechanism in position, while said spreader is brought into action to spread the grippers into engagement with the well casing said setting mechanism being separate and distinct from and having no positive connection with said gripper spreader, said grippers, and the collar on which said grippers are mounted.



2. In combination with the pipe line or string, of a gripper carrying collar slidable thereon, grippers carried by said collar, a gripper spreader fixedly located on the pipe line, a well engaging setting device slidably mounted on the pipe line, and means carried by said device and coöperative with said collar to hold said gripping mechanism from movement when said pipe is lowered, to cause said gripper spreader to act said setting mechanism being separate and distinct from and having no positive connection with said gripper spreader, said grippers, and the collar on which said grippers are mounted.

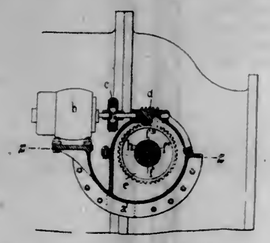
3. In combination with the pipe line of a stop fixed thereon, a gripper carrying member slidably mounted on said pipe above said stop, a spreader relatively fixedly located on said pipe above said stop and coöperative with the grippers of said gripper carrying member, a setting mechanism mounted on said pipe below said stop, and including members for engaging said gripper carrying mechanism at times to hold said gripper carrying mechanism immovable with relation to the well casing while said spreader is acting said setting mechanism being separate and distinct from and having no positive connection with said gripper spreader, said grippers, and the collar on which said grippers are mounted.

4. The device of the class described a pipe line, a stop relatively fixedly located on said pipe line, a spreader relatively fixedly located on said pipe line, a gripping mechanism slidably mounted on said pipe line, between said stop and said spreader, and including gripping elements coöperative with said spreader, a setting mechanism slidably mounted on said pipe line beyond said stop, said setting mechanism including a slidably mounted well casing engaging device, and resilient arms having portions for engaging said gripper carrying mechanism at times to hold the same stationary, while said spreader is acting said setting mechanism being separate and distinct from and having no positive connection with said gripper spreader, said grippers, and the collar on which said grippers are mounted.

5. In a device of the class described, a pipe line, a stop fixed on the pipe line, a gripping mechanism slidably mounted on the pipe line above said stop and including a slidable collar, a gripper spreader mounted on the pipe line to coöperate with the gripping mechanism to force it into its gripping position, and a setting mechanism separate and distinct from said gripping mechanism, said

setting mechanism including weil engaging devices, and resilient arms coöperative with the gripping mechanism collar to hold the gripping mechanism immovable while said spreader is in operation, substantially as shown and described.

1,074,428. MEANS FOR OPERATING COCKS, VALVES, AND THE LIKE FROM A DISTANCE. JOSEPH MARIE FRANÇOIS HUBERT GIL, Paris, France. Filed May 31, 1911. Serial No. 630,485. (Cl. 172—239.)



1. A device for operating valves, cocks, and the like from a distance, by electrical transmission, comprising an electric motor, operating mechanism for the valve actuated by the motor, a hand starter for starting the motor from a distance, the hand starter being adapted to be moved to a position to start the motor to open the valve, or to a position to start the motor to close the valve, electrical means for holding the hand starter in either of said positions, means for automatically returning the said hand starter when released to a position to break the circuit of the motor and stop the latter, a mechanical current breaker for releasing the hand starter at the end of the opening movement of the valve, means actuated by the movement of the valve for controlling said current breaker and a maximum electric circuit breaker for releasing the hand starter at the end of the closing stroke of the valve.

2. In a device for operating valves, cocks and the like from a distance by electrical transmission, a reversible electric motor arranged upon a conduit to which the valve to be operated is fitted, means for controlling the operation of the valve from the motor, the said means comprising a resilient clutch, an endless screw and a worm wheel, a hand starter for starting said motor from a distance to open or close the valve, a mechanical circuit breaker for automatically stopping said motor at the end of the opening movement of the valve, and a maximum electric circuit breaker for stopping said motor at the end of the closing stroke of the valve.

3. In a device for operating valves, cocks and the like, from a distance by electrical transmission and at the same time permitting of direct hand operation, an electric motor, a hand starter for starting the motor from a distance, a shaft controlling the operation of the valve, an operating mechanism driven from the motor and including an endless screw and a worm wheel, and a clutch sleeve for detachably coupling the shaft controlling the operation of the valve with said worm wheel.

4. In an electrical device for operating valves, cocks and the like from a distance, an electric motor, operating mechanism for the valve actuated by the motor, a hand starter for starting the motor from a distance to open or close the valve, a screw controlled by the operation of the valve, a mover moving upon said screw, a finger rigidly connected with said mover, a counterweighted lever adapted to be suddenly rocked by said finger at the end of the opening stroke of the valve, an ebonite core with which said lever is connected, a circle of conducting material on said core, a rubber permanently connecting said circle with the terminals of the motor, the said circle having a tongue, and a rubber connecting said tongue only when the valve is closed, with the leading-out terminal of the starting rheostat controlling the motor.

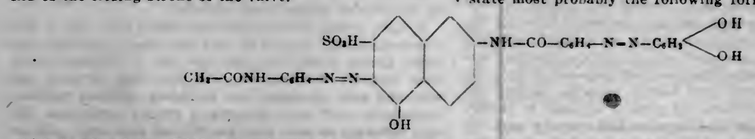
5. In a device for operating valves, cocks and the like at a distance by means of an electric motor, a starting lever for starting said motor from a distance, the said lever being adapted to be moved from a neutral position corresponding to the stopping of the motor to a position to start the motor to open the valve or to a position to start the motor to close the valve, a screw operated during the movement of the valve, a mover displaced by said screw, an interrupter actuated by said mover at the end of the opening movement of the valve for interrupting the current, and means for automatically returning the starting lever to neutral position on the interruption of the current.

[Claims 6 to 14 not printed in the Gazette.]

1,074,429. AZO COLORING-MATTER. OSCAR GÜNTHER, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 14, 1913. Serial No. 767,581. (Cl. 8—1.)

1. The herein described new azo dyes, which are after being dried and pulverized dark powders soluble in concentrated sulfuric acid generally with a red coloration; yielding upon reduction with stannous chlorid and HCl an aromatic amin, amino-resorcin and a derivative of the 2.6-diamino-5-naphthol-7-sulfonic acid; and dyeing cotton directly in orange to violet-red pure shades fast to acids and by an after treatment with formaldehyde fast to washing, substantially as described.

2. The herein described new azo dye having in a free state most probably the following formula:



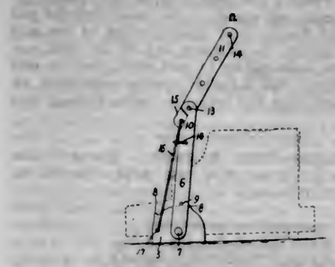
which is after being dried and pulverized in the shape of its sodium salt a dark powder with a metallic luster; soluble in concentrated sulfuric acid with a red coloration; yielding upon treatment with stannous chlorid and hydrochloric acid para-aminoacetanilid, 2-para-aminobenzoylamino-6-amino-5-naphthol-7-sulfonic acid and 1-amino-2.4-dioxybenzene; and dyeing cotton in pure red shades, substantially as described.

1,074,430. COPY-HOLDER. RUSSELL A. HILL, St. Thomas, Ontario, Canada. Filed Aug. 17, 1912. Serial No. 715,592. (Cl. 120—28.)

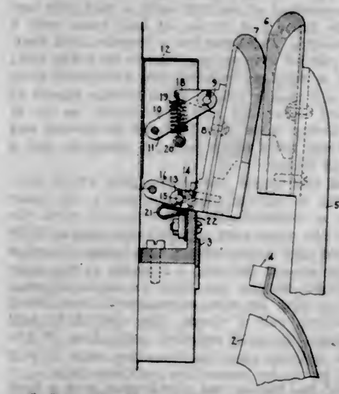
1. In a copy holder, two pivoted arms spaced apart, a member having two arms pivoted adjacent their lower ends to the first arms, transversely telescoping arms connecting the second-mentioned arms, and rods pivoted at one set of ends to the second-mentioned arms, and at their other ends relatively to the arms.

2. In a copy holder, two base members normally free from each other and having projections, two arms pivoted to the base members, pins on the arms for engaging the projections to limit the movement of the arms relatively to the base member, a member having two arms pivoted at their lower ends to the first arms, transversely telescoping members connecting the second-mentioned arms, and rods pivoted at one set of ends to the second-mentioned arms, and at their other ends to the base members.

3. In a copy holder, two base members normally free from each other, two arms pivoted to the base members, a member having two arms pivoted adjacent their lower ends to the first arms, transversely telescoping members connecting the second-mentioned arms, and rods pivoted at one set of ends to the lower ends of the second-mentioned arms, and at their other ends to the base members.



1,074,431. CIRCUIT-CONTROLLING CONTACT. EDWARD M. HEWLETT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 29, 1910. Serial No. 589,689. (Cl. 175—282.)



1. In a circuit controlling device, the combination of a contact, means for pivotally connecting said contact to two pivots fixed out of alinement and in the plane of movement of said contact to cause said contact to swing bodily about said pivots, and a coöperating movable contact mounted to move into and out of engagement with said first named contact and thereby swing said first named contact about its pivots.

2. In a circuit controlling device, the combination of a contact, means for mounting said contact to cause two different points thereon to move in circular paths which have different centers and a coöperating contact pivoted to swing about a point eccentric to one of said centers and thereby move into and out of engagement with said first named contact.

3. A circuit controlling device comprising, a contact, a link pivoted to said contact at one point, means coöperating with said contact at another point to constrain said latter point to follow a path which differs from the arc described by said first point, both of said points moving in circular paths which have different centers, and a coöperating contact pivoted to swing about a point eccentric to one of said centers and thereby move into and out of engagement with said first named contact.

4. A circuit controlling device comprising, a support, a contact mounted on said support, and two links of unequal length each pivoted at one end to different points on said contact and each pivotally mounted at the other end to different points on said support, said links mounted to move said contact toward and away from said support.

5. In a circuit controlling device, the combination of a support, two links of unequal length pivoted to said support at different points, a contact pivotally connected near one end to the longer of said links, and a pivotal lost motion connection between said contact and the shorter of said links at a point near the other end of said contact.

[Claims 6 to 10 not printed in the Gazette.]

1,074,432. CAOUTCHOUC SUBSTANCE. FRITZ HOFMANN, CARL COUTELLE, KURT MEISENBURG, and KONRAD DELBRÜCK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 20, 1910. Serial No. 588,173. (Cl. 23—24.)

1. As a new product a caoutchouclike substance comprising poly-methyl-substituted erythrene caoutchouc soluble in coal tar benzene and insoluble in alcohol.

2. As a new product a caoutchouclike substance comprising di-substituted erythrene caoutchouc soluble in coal tar benzene and insoluble in alcohol.

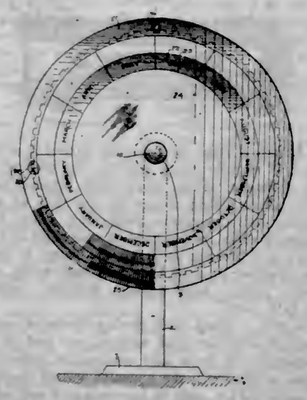
3. As a new product a caoutchouclike substance comprising beta-gamma-substituted erythrene caoutchouc soluble in coal tar benzene and insoluble in alcohol.

4. As a new product a caoutchouclike substance comprising dimethyl-substituted erythrene caoutchouc soluble in coal tar benzene and insoluble in alcohol.

5. As a new product a caoutchouclike substance comprising beta-gamma-diamethyl-butadiene caoutchouc, which is characterized by being a whitish substance soluble in coal tar benzene and insoluble in alcohol, forming a nitrosite which is a yellowish powder which becomes brown and is decomposed on being heated to 155–160° C.; forming a brom addition product which is a brownish-yellow powder which becomes black and is decomposed on being heated to 100–110° C., forming an ozonid which is a colorless oil detonating when heated, the ozonid furnishing H_2O_2 and acetonylacetone by treatment with boiling water; and in the vulcanized form is a whitish not adhesive powder, substantially as described.

[Claims 6 to 30 not printed in the Gazette.]

1,074,433. COMPUTING DEVICE. ADOLPH H. C. HORNBOSTEL and JAMES H. CROSWHITE, Waverly, Mo. Filed Dec. 14, 1912. Serial No. 736,868. (Cl. 235—77.)



1. A device of the character described comprising a spindle, a disk having an annular flange rotatably mounted on said spindle, a second disk rotatably mounted on said spindle within said flange, said second disk being

formed with a series of teeth, and means slidably connected to the first mentioned disk and adapted for engagement with said teeth, whereby independent rotation of the disks is prevented, as and for the purpose described.

2. A device of the character described comprising a spindle, a disk having an annular flange rotatably mounted on said spindle, a second disk rotatably mounted on said spindle within said flange, said second disk being formed with a series of teeth, a ring secured to the outer edge of said flange, a bolt slidably disposed in said ring, and means connected to said bolt and adapted for engagement with the teeth of said second disk, whereby independent rotation of the disks is prevented, as and for the purpose described.

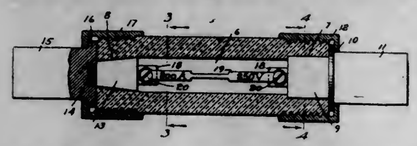
3. A device of the character described comprising a spindle, a disk having a laterally extending peripheral flange rotatably mounted on said spindle, a second disk rotatably mounted on said spindle within said flange, a ring secured to the outer edge of said flange, means whereby lateral movement of said disks is prevented, and means formed on said second disk for locking engagement with said ring, as and for the purpose described.

4. A device of the character described comprising a spindle, a disk having a laterally extending flange rotatably mounted on said spindle, a second disk rotatably mounted on said spindle within said flange, a ring secured to the outer edge of said flange, an inwardly offset peripheral flange formed on the second disk and adapted to bear against the inner face of said ring, and means secured to the flange on the first mentioned disk and adapted for engagement with the flange on the second mentioned disk whereby rotary movement of the disks independent of each other is prevented.

5. A device of the character described comprising a spindle, a disk rotatably mounted on said spindle, said disk having a transversely extending peripheral flange, a second disk rotatably mounted on said spindle within said flange, a ring secured to the outer edge of said flange, a plate secured to the inner face of said flange near the outer end thereof, and means supported by said plate for engagement with said second disk, whereby rotary movement of said disks independent of each other is prevented.

[Claims 6 and 7 not printed in the Gazette.]

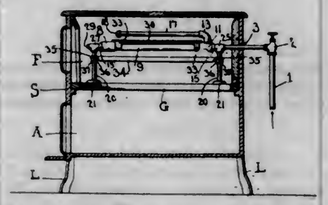
1,074,434. FUSE. JOHN W. HOOLEY, New York, N. Y. Filed May 7, 1913. Serial No. 766,007. (Cl. 175—273.)



1. In a fuse, a glass shell having threaded ends and an axial bore of angular cross section, one end of said bore being of prismatic shape, converging toward the end of the shell; plugs fitting snugly in the ends of said bores and having knife portions projecting away from said shell; caps threaded to the ends of said shell and engaging said plugs and thereby securing the same to said shell; a fusing member in said bore and removably associated with said plugs, said fusing member being visible through said shell.

2. In a fuse, a glass shell having threaded ends and an axial bore of angular cross section, one end of said bore being prismatic in form and converging toward the adjacent end of the shell, the opposite end of the bore being slightly enlarged; a plug in the enlarged end of the bore having a collar abutting against the structure of the shell and a blade portion projecting away from the shell; a threaded cap secured to the threaded end of the plug and forcing the collar against the structure of the shell, thereby securing said plug to said shell; a prismatic plug fitting snugly into the prismatic end of the bore; a blade portion provided with a flange secured to said second plug and wedging the said plug in the end of the bore; and a second cap engaging the other threaded end of the shell and forcing said flange portion of the said blade portion against the adjacent end of the shell and thereby securing same rigidly to said shell; lugs on said plugs in said bore; and a fusible member removably associated with said lugs and normally visible through said shell.

1,074,435. LIQUID-FUEL BURNER. HENRY IZARD, Portland, Oreg. Filed Nov. 27, 1912. Serial No. 733,873. (Cl. 158—66.)



1. A liquid fuel burner comprising a pair of spaced heating tubes connected at one extremity, a feed pipe connected with the inner end of one of said tubes, and a burner tube standing above the space between said heating tubes and pierced with jet openings in its lower side; combined with a coupling between the last-named heating tube and said burner tube, a plate having fingers at its corners bent outwardly and downwardly so as to overlie said heating tubes and its body perforated and pierced with large holes under said jet openings, and a support for said burner.

2. In a liquid fuel burner, the combination with a horizontal feed pipe, a heating tube connected at its inner end therewith, a second heating tube parallel with the first, elbows at the outer ends of said tubes connected by a cross pipe and each elbow having a reducing extension in line with the axis of its tube, a coupling at the inner end of the second heating tube also having a reducing extension in line with its axis, a compound elbow rising from this coupling, and a burner tube carried by said elbow; of nipples in said reducing extensions, T-couplings on said nipples, plugs in the outer ends of said couplings, and means for supporting such couplings.

3. In a liquid fuel burner, the combination with a horizontal feed pipe, a heating tube connected at its inner end therewith, a second heating tube parallel with the first, elbows at the outer ends of said tubes connected by a cross pipe and each elbow having a reducing extension in line with the axis of its tube, a coupling at the inner end of the second heating tube also having a reducing extension in line with its axis, a compound elbow rising from this coupling, and a burner tube carried by said elbow; of nipples in said reducing extensions, T-couplings engaging said nipples, plugs closing the outer ends of said couplings, a T-coupling loosely inclosing the feed pipe, cross rods connecting said couplings in pairs at the ends of the burner, and supports for said rods.

4. In a liquid fuel burner, the combination with a horizontal feed pipe, a heating tube connected at its inner end therewith, a second heating tube parallel with the first, elbows at the outer ends of said tubes connected by a cross pipe and each elbow having a reducing extension in line with the axis of its tube, a coupling at the inner end of the second heating tube also having a reducing extension in line with its axis, a compound elbow rising from this coupling, and a burner tube carried by said elbow, of nipples in said reducing extensions, T-couplings engaging said nipples, plugs closing the outer ends of said couplings, a T-coupling loosely inclosing the feed pipe, cross rods connecting said couplings in pairs at the ends of the burner, upright standards connected at their upper ends with said rods, collars adjustably mounted on said standards, and a pan disposed beneath the burner and having forks at its extremities loosely engaging the standards above their collars.

5. In a liquid fuel burner, the combination with a horizontal feed pipe, a heating tube connected at its inner end therewith, a second heating tube parallel with the first, elbows at the outer ends of said tubes connected by a cross pipe and each elbow having a reducing extension in line with the axis of its tube, a coupling at the inner end of the second heating tube also having a reducing extension in line with its axis, and a burner tube carried by said coupling; of nipples in said reducing extensions, T-couplings the inner ends of whose heads engage said nipples, plugs closing the outer ends of said heads, a T-coupling whose head loosely incloses the feed pipe, cross rods connecting the shanks of said couplings in pairs at the ends of the burner, and upright standards having T-couplings at their upper ends embracing said rods.

1,074,436. ALARM-CLOCK. GUSTAVE J. JACCARD, New York, N. Y. Filed Apr. 10, 1912. Serial No. 689,889. (Cl. 58—19.)



1. In a device of the kind described, the combination of locking means, an alarm bell, a clapper therefor, an illuminating device, means for controlling said illuminating device, and means for actuating the locking means to release the controlling means without releasing the clapper for the said bell.

2. In a device of the kind described, the combination of an illuminating device, means for controlling the actuation thereof, an audible alarm device, means for preventing the operation thereof carried by the controlling means, means for preventing the actuation of the controlling means and the audible alarm device, said means being movable to release the controlling means and the audible alarm device, and means for operating the said controlling means, whereby when the same is operated the audible alarm device and the illuminating device will be operated simultaneously.

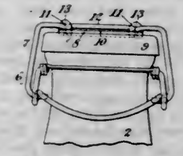
3. In a device of the kind described, the combination of a pair of contacts, means for connecting an illuminating device to the same, means for movably mounting one of said contacts, means for controlling the movement of said last-named means to permit said contacts to be brought together, a locking lever for holding the movable contact away from the other contact, manual means for controlling the locking lever to move the same to release position, a bell having a clapper, said manual means having a projection to engage the clapper to prevent the same from ringing the bell, and a projection carried by the means carrying the movable contact for preventing the operation of the clapper, whereby when the manual means is moved to intermediate position it releases the contacts to enable them to be brought together without releasing the clapper, and when moved to extreme position it releases the clapper also.

4. In a device of the kind described, the combination of a pair of contacts, means for connecting an illuminating device to the same, means for movably mounting one of said contacts, means for controlling the movement of said last-named means to permit said contacts to be brought together, locking means for holding the movable contact away from the other contact, a bell having a clapper, said locking means having a projection to engage the clapper and prevent the same from ringing the bell, and a projection carried by the means carrying the movable contact for preventing the operation of the clapper, whereby when the locking means is moved into an intermediate position it releases the contacts to enable them to be brought together without releasing the clapper, and when moved to extreme position to enable the clapper to be operated also.

5. A signal, including a movable element, a second signal, means for controlling the second signal, and a locking device for engagement with both the said element and the controlling means, said locking device being movable out of engagement with the controlling means without being moved out of engagement with the said element, or movable out of engagement with the actuating means also.

[Claims 6 to 8 not printed in the Gazette.]

1,074,437. FASTENER FOR BOTTLES, JARS, AND OTHER VESSELS. JOHN A. JONES, Hillsdale, N. Y. Filed Feb. 1, 1913. Serial No. 745,565. (Cl. 215—101.)



1. In a bail-fastener for vessels, the combination with a vessel having an internal seat, and with a sealing member for engaging said seat, of split contractible resilient clamping means normally of slightly greater diameter than said seat for forcing said sealing member to its seat, and means connected with said clamping means and operable to exert and maintain a downward pressure thereon, said means being operable to release said pressure.

2. In a bail-fastener for vessels, the combination with a vessel having an internal seat, and with a sealing member for engaging said seat, of a bail, means for securing said bail to the vessel, and a split circumferentially contractible clamping ring pivotally mounted on said bail for clamping said sealing member in place, said bail adapted to exert and maintain a downward pressure on said clamping ring, and being operable to release said pressure.

3. In a bail-fastener for vessels, the combination with a vessel having an internal seat, and with a sealing member for engaging said seat, of a split contractible clamping ring for forcing said sealing member to its seat, a bail pivotally connected to said clamping means at opposite ends of one of the diameters thereof, and means for securing said bail to the vessel, said bail adapted to exert and maintain a downward pressure on said clamping ring and being operable to release said pressure.

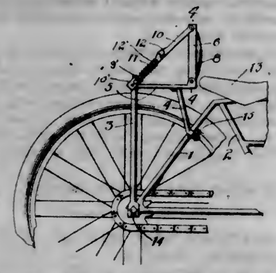
4. In a bail-fastener for vessels, the combination with a vessel having an internal seat, and with a sealing member for engaging said seat, of circumferentially contractible clamping means for forcing said sealing member to its seat, a bail pivotally connected to said clamping means at opposite ends of one of the diameters thereof and having means at one of said points for limiting movement of said clamping means lengthwise of its axis, and means for securing said bail to the vessel, said bail adapted to exert and maintain a downward pressure on said clamping means and being operable to release said pressure.

5. In a bail-fastener for vessels, the combination with a vessel having an internal seat, and with a sealing member for engaging said seat, of a split contractible resilient clamping ring normally of slightly greater diameter than said seat for forcing said sealing member to its seat, a bail pivotally connected to said clamping ring at opposite ends of one of the diameters of the ring and having means at

said points of connection for limiting movement of said clamping ring lengthwise of its axis, and means for securing said bail to the vessel.

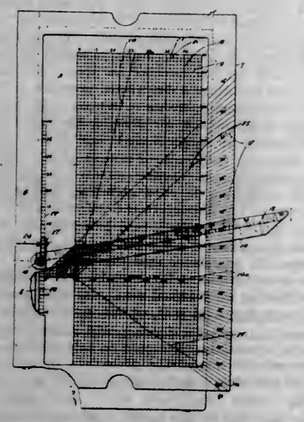
[Claims 6 and 7 not printed in the Gazette.]

1,074,438. SEAT FOR MOTOR-CYCLES. FRANK G. KIMPEL, Edgerton, Ohio. Filed May 20, 1913. Serial No. 768,809. (Cl. 208—24.)



In combination with a motorcycle, of a supplemental seat comprising front and rear legs, the former being clamped at their lower ends to the rear fork of the motorcycle and the latter having their lower ends supported by the rear axle of the motorcycle, a frame secured to the upper ends of the said legs, a back rest or seat pivotally connected to said frame, and rearward of the usual motorcycle seat, angular brackets pivotally connected to the seat, a pair of bars having their upper ends pivotally connected to the frame, a second pair of bars pivotally connected to the lower ends of the first named bars, and having their lower ends slidably and yieldably connected to the brackets, said back rest being held in its unfolded position by said bars, as and for the purpose set forth.

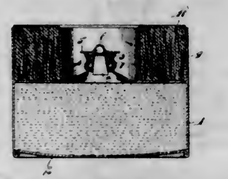
1,074,439. MEASURING-SCALE. JOSEPH ALBERT KINCAID, Santa Barbara, Cal. Filed Oct. 16, 1912. Serial No. 726,052. (Cl. 235—61.)



1. In a measuring scale, a member having two sides spaced apart, an arm with a scale pivoted to one of the sides of the member, there being markings on the other side of the member indicating the degree of a circle the center of which is the axis of the arm, a second member disposed between and substantially filling the space between the said sides of the first member, the second member being adapted for movement longitudinally of the sides of the first member, and having a scale extending substantially parallel with the sides of the first member and adjacent the side of the first member, having the arm, there being vertical and horizontal lines on the face of the second member dividing the face into squares.

2. In a measuring scale, a member having two sides spaced apart, an arm with a scale, the arm being pivoted to the side of the member with an eye for exhibiting the intersection of the plane of the scale with a scale on a second member, there being markings on the other side of the first member indicating the degrees of a circle the center of which is the axis of the arm, the second member having a surface on which lines may be made and erased, the said surface of the second member being disposed between and substantially filling the space between the sides of the first member, the second member being adapted for movement longitudinally of the sides of the first member, there being vertical and horizontal lines on the said surface of the second member, dividing the surface into squares, markings on the lines indicating distances for the purpose specified, and a scale on the second member extending substantially parallel with the sides of the first member, which is exhibited through the eye member.

1,074,440. OIL-CAN. HANS L. LARSEN, Chicago, Ill. Original application filed July 25, 1912, Serial No. 711,564. Divided and this application filed Dec. 23, 1912. Serial No. 738,195. (Cl. 221—4.)



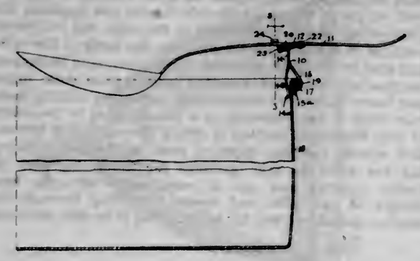
1. A device of the class described comprising a hollow body having a liquid chamber therein; a spout comprising a nipple projecting from said body; a cap engaging said nipple, said cap being formed at its center into a substantially conical spout having a central discharge orifice in its outer end; and a closure for said spout, substantially as described.

2. A device of the class described comprising a hollow body having a liquid chamber therein; a spout comprising a nipple projecting from said body; a cap engaging said nipple, said cap being formed at its center into a substantially conical spout having a central discharge orifice in its outer end; an upwardly tapering seat formed integral with the inner end of said cap; and a closure removably inserted in said seat to close said spout, substantially as described.

3. A device of the class described comprising a hollow body having a liquid chamber therein; a spout comprising a threaded nipple projecting from said body; a threaded cap engaging said nipple, said cap being formed at its center into a substantially conical spout having a central perforation at its apex; an upwardly tapering seat formed integral with the inner end of said cap under said spout; and an upwardly tapering closure removably inserted into said seat to close said spout, substantially as described.

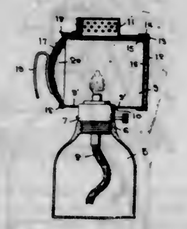
1,074,441. SPOON ATTACHMENT. JOSEPH WILLIAM LUNDAHL, Thomaston, Conn. Filed Apr. 30, 1913. Serial No. 764,585. (Cl. 30—22.)

The combination with the handle of a spoon or the like, having a transverse hole therein, of an attachment consisting of a clip and a fastener therefor, the clip presenting fork members at the front and a rear member having a hook at its lower end, said members being resilient, a shank integral with the said members and extending upwardly therefrom, the shank terminating at its upper end in a lateral offset and having a hole at the base of the offset, and the said fastener comprising a resilient shank secured to the handle at one end and extending through the hole of the clip, an upwardly extending portion at an angle to the resilient shank, said portion extending through the hole in the handle, and an offset terminal on



said upwardly extending portion, the terminal being approximately parallel with the handle and lying at the front of the latter.

1,074,442. LAMP. JOHN MAJER, Listie, Pa. Filed Oct. 12, 1912. Serial No. 725,493. (Cl. 240—11.)

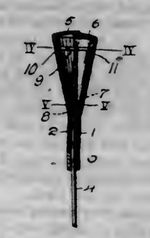


1. A lamp comprising a horizontally disposed cylindrical body having a transparent end, in combination with a burner projecting centrally into the body, a concavo-convex door at the end of the body opposite to the transparent end, a hinge connecting the door at its bottom to the body, a latch at the top of the door, a reflector on the inner concave surface of the door, and a supporting hook secured, point downward, to the outer convex outside of the door.

2. A lamp providing a horizontally disposed combustion chamber having openings located centrally in its upper and lower sides, a burner secured in the lower opening, a crown secured in the upper opening, the walls of said crown being provided with a plurality of perforations therein, the lower side of said combustion chamber provided with a series of rows of perforations therein concentric with said central opening therein, and in vertical alinement with said crown whereby air may be admitted directly into said combustion chamber and burnt gases be exhausted directly through said crown.

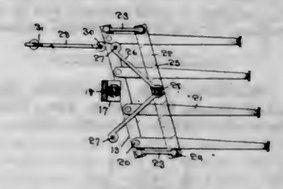
1,074,443. GUARD FOR HAT-PINS. ERNEST H. MANTLE, McKees Rocks, Pa. Filed Dec. 18, 1912. Serial No. 737,479. (Cl. 24—155.)

A guard for hat pins comprising a pair of elongated semi-cylindrical members, one nesting within the other and each having its inner face for a portion of its length at its inner end provided with teeth to frictionally engage the shank of a pin, outwardly tapering semi-cylindrical head sections integral with the outer termini of said members and one nesting within the other, the outer termini of said head sections being closed, the head section of smaller radius having its inner face in proximity to its closed end provided with a pair of inwardly projecting lugs, a horizontally disposed spiral band spring having its outer end fixed to the inner face of that head section of larger radius and having its inner end and outer spiral loosely supported between said lugs and constituting



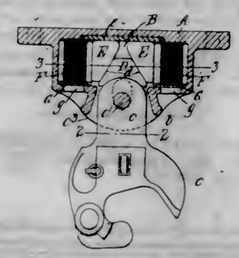
means for maintaining said members in gripping engagement with the shank of a pin, and means for pivotally connecting the inner termini of said heads together.

1,074,444. RIDING HARROW AND CULTIVATOR. WILLIAM W. MCARTHUR, Bostic, N. C. Filed Sept. 27, 1912. Serial No. 722,654. (Cl. 55—19.)



In a machine of the character described, a frame, a beam pivotally supported by the frame and adapted to be swung horizontally, a series of cultivator members pivoted to the beam, a second beam pivotally connected with the first said beam and coacting therewith for supporting the cultivator members, a bracket secured to the frame, a pivotal element connecting the bracket with the middle portion of the said second beam, and means associated with the first said beam whereby it may be swung on its pivotal support for changing the relative positions of the cultivator members.

1,074,445. BUFFER FOR LOCOMOTIVE AND TENDER COUPLINGS. THOMAS L. MCKEEN, Easton, Pa. Filed Dec. 8, 1910. Serial No. 596,317. (Cl. 213—64.)



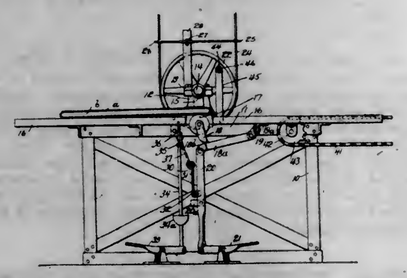
1. The combination of a casing having a chamber, a coupler having a short shank pivotally connected to said casing to swing sidewise and to move inwardly relative to said chamber, a wedge in said chamber in rear of the pivotal connection of the shank to the casing and which is adapted to be moved inwardly in the chamber by said shank, the inner end of the shank being located in front of said wedge and movable laterally relative thereto, friction blocks in said chamber at opposite sides of said wedge

and adapted to be moved laterally by said wedge, and means in said chamber for opposing the movement of said friction blocks, substantially as set forth.

2. The combination of a casing having a chamber, a coupler having a shank pivotally connected to said casing to swing sidewise and to move inwardly relative to said chamber a wedge in said chamber in rear of the inner end of the shank and which is adapted to be moved inwardly in the chamber by the inward movement of the shank, the inner end of the shank being movable laterally relative to said wedge, friction blocks in said chamber at opposite sides of said wedge and adapted to be moved laterally by said wedge, and leaf springs arranged in the opposite ends of said chamber for opposing the movement of said friction blocks, substantially as set forth.
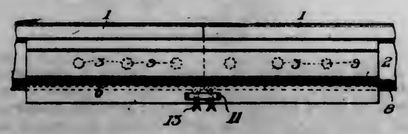
3. The combination of a casing having a drawbar chamber, a coupler having a shank which has a pin and slot connection with said casing whereby it is adapted to swing sidewise and move inwardly into said drawbar chamber, a wedge in said chamber against which the inner end of said drawbar bears and relatively to which the shank is adapted to move, said wedge being adapted to be moved inwardly by said drawbar, friction blocks arranged in said chamber at opposite sides of said wedge and adapted to be moved laterally by the inward movement of said wedge, and leaf springs arranged in an upright position between the walls of said chamber and said friction blocks, said springs being adapted to yield laterally and to oppose the lateral movement of said friction blocks, substantially as set forth.

1,074,446. MACHINE FOR STRIPPING OIL-CAKES. THOMAS J. MCNULTY, Brookhaven, Miss. Filed Mar. 12, 1913. Serial No. 753,738. (Cl. 100—52.)



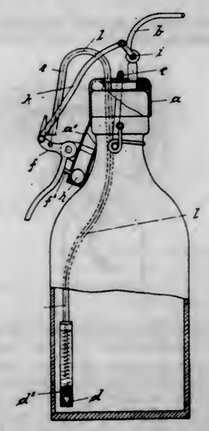
In a machine for stripping oil cakes and the like, a stripper shaft having cloth-gripping means turning with the shaft to grip the cloth and cause it to wind upon the shaft, means for reversing the movement of the shaft to unwind the cloth, a presser device to press the cake against the shaft for engagement with the gripping means, and means for throwing the reversing means into operation by the movement of said presser device.

1,074,447. RAIL-JOINT. JOHN MICCO and VITO GUIDO, New Castle, Pa. Filed Nov. 12, 1912. Serial No. 731,019. (Cl. 239—6.)



In a rail joint, the combination with a pair of opposing rails having the web thereof provided with openings, of splice bars engaging the sides of said rails and provided with flanges engaging the bases of the rails, pins carried by said splice bars and extending into said openings to prevent longitudinal displacement of said rails relative to the splice bars, angle-shaped tie plates of greater thickness than the flanges of said splice bars, the vertical portions of said tie plates integral with said flanges and opposing the longitudinal edges of the bases of the rails, the horizontal portions of said tie plates supporting the bases of the rails, and each of the same thickness throughout, said horizontal portions abutting and provided intermediate their upper and lower faces with transversely extending alining openings, each of said openings of a length equal to the width of that horizontal portion in which the opening is formed, said alining openings tapering from end to end, a tapering key fitted in said openings for connecting said tie plates together and out of engagement with the base flanges of the rails, and means extending through the smaller end of said key for maintaining it in said openings.

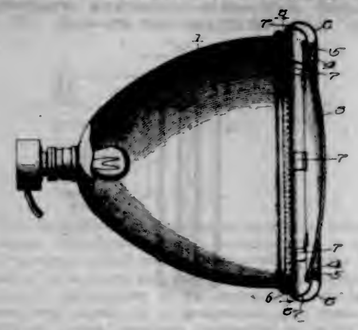
1,074,448. NON-EXPLOSIVE STOPPER FOR BOTTLES CONTAINING LIQUID FUELS. ANTON MUELLER, Breslau, Germany. Filed May 23, 1912. Serial No. 699,227. (Cl. 215—59.)



A non-explosive stopper for bottles containing liquid fuel, comprising in combination a stopper adapted to be airtightly fixed on the bottle mouth, a spout on said stopper, a stop-cock to close said spout, an air pipe to pass through said stopper and projecting down to the bottom of the bottle, the upper outer end of said air pipe being bent down, a spring-pressed valve in the lower end of said air pipe, a downwardly projecting bracket on said stopper, a shell on the back side of said bracket having a front slot, a ball in said shell, a double-armed operating lever fulcrumed on said bracket and connected with its upper arm to said stop-cock, a projection on the lower arm of said lever designed to engage the slot in said shell and to abut against the ball therein, and a cord between the upper arm of said lever and said valve to pass through said air-pipe, substantially as and for the purpose set forth.

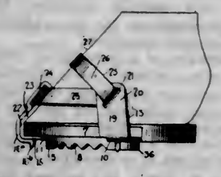
1,074,449. LAMP. DONALD D. MYERS, La Fayette, Ind., assignor to The Esterline Company, Indianapolis, Ind., a Corporation of Indiana. Filed Apr. 21, 1913. Serial No. 762,499. (Cl. 240—41.)

A lamp structure including a lamp body for inclosing a light source; a frame formed of inwardly curled sheet material carried at the front end of the body and having front and rear margins; a wall which permits of the passage of light engaging at its outer surface with the front margin of the frame and being disposed forwardly of the rear margin; and clips formed of strip spring metal whose rear ends engage the frame at its rear margin and whose



forward ends are pocketed and there receive the periphery of the cover.

1,074,450. HORSESHOE CALK AND CARRIER. PHILIP NORSE, New York, N. Y. Filed Feb. 28, 1913. Serial No. 751,285. (Cl. 168—30.)



1. In a horse shoe calk and carrier, a curved plate with teeth for engaging the ground, and adapted to be disposed at the inner side of a horse shoe, there being openings in the plate, angular members disposed in the openings and normally extending upward at the outer side of the horse shoe, there being openings in the upper ends of the angular members, and a strap disposed in the second-mentioned openings for the purpose specified.

2. In a horse shoe calk and carrier, a curved rib adapted to be disposed in the inner side of the horse shoe, there being openings in the rib, angular members disposed in the openings and normally extending upward at the outer side of the horse shoe and vertically at the inner side of the curved rib, there being openings in the upper ends of the angular members, and a strap disposed in the second-mentioned openings for the purpose specified.

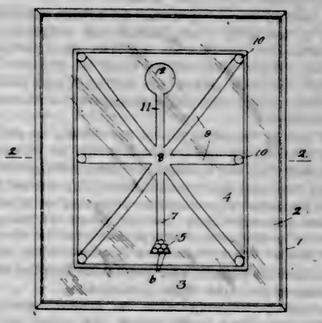
3. In a horse shoe calk and carrier, a curved rib adapted to be disposed against the inner side of a horse shoe, there being openings in the curved rib, angular members having portions extending through the openings in the curved rib, the said portions of the angular members having depending flanges at the inner sides of the curved rib, the angular members having upwardly extending terminals normally disposed at the outer side of a horse shoe, and means for engaging the terminals for the purpose specified.

4. In a horse shoe calk and carrier, a curved rib adapted to be disposed against the inner side of a horse shoe having teeth for engaging the ground, there being openings in the curved rib, angular members having portions extending through the openings in the curved rib, and vertically in the inner side of the curved rib, the angular members having upwardly extending terminals normally disposed at the outer side of the horse shoe, and means for engaging the terminals for the purpose specified.

5. In a horse shoe calk and carrier, a curved rib adapted to be disposed against the inner side of the horse shoe, there being openings in the curved rib, angular members having portions extending through the openings in the curved rib, the said portions of the angular members having depending flanges at the inner sides of the curved rib, the angular members having upwardly extending terminals normally disposed at the outer side of the horse shoe, there being openings in the terminals, and a strap disposed in the openings for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

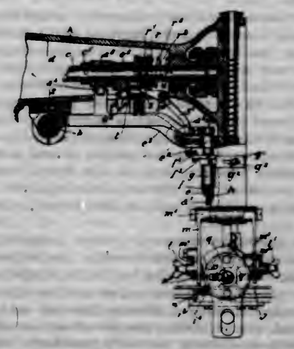
1,074,451. GAME APPARATUS. JOHN S. O'REILLY, Roxbury, Mass., assignor of one-half to Bernard J. Heaney, Dorchester, Mass., and one-half to said John S. O'Reilly. Filed Jan. 27, 1913. Serial No. 744,408. (Cl. 46—41.)



1. A puzzle comprising a game board having a central cut out space and a plurality of pockets communicating therewith, said board having a space cut out to represent the triangle of a pool table, spherical game pieces normally located in said triangle, said board also having a space cut out to represent the "spot" of a pool table and in which the game pieces may be rolled during the play, both of said spaces having communication with said central space and the whole board approximating a pool table in general outline.

2. A puzzle comprising a base and a portion raised therefrom, said raised portion having a central cut out space and a plurality of pockets communicating therewith, said raised portion having a space cut out in which game pieces are normally located, game pieces normally located in said space, said board also having a space cut out to receive some of the game pieces during the play, both of said spaces having communication with said central space and being diametrically opposed to each other.

1,074,452. SCALLOP-TRIMMING DEVICE FOR SEWING-MACHINES. ANTON ORT, Paris, France, assignor of one-half to Hermann Drossner, Paris, France. Filed Jan. 15, 1910. Serial No. 538,328. (Cl. 112—6.)



1. A scallop trimming device for sewing machines, comprising a trimming knife, a main shaft, an eccentric upon

the mainshaft, means for reciprocating said knife by the rotation of said eccentric, means for connecting said eccentric to said mainshaft, means for guiding the material having a longitudinal and transverse feed, and means for keeping said knife tangential to the outer edge of the scallop.

2. A scallop trimming device for sewing machines, comprising a trimming knife, means for reciprocating said knife, means for guiding the material, a pinion, means for transmitting the rotation of said pinion to said knife, a rack engaging said pinion and a cam-drum, and means for reciprocating said rack, said means being controlled by the scallop-controlling cam drum.

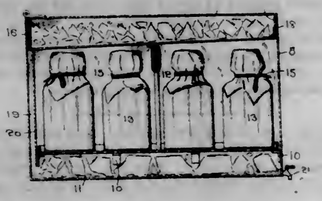
3. A scallop trimming device for sewing machines, comprising a trimming knife, means for reciprocating said knife, means for guiding the material, said guiding means including rollers, said rollers being on opposite sides of the knife, positive means for rotating said rollers, and means for keeping said knife tangential to the outer edge of the scallop.

4. A scallop trimming device for sewing machines, comprising a trimming knife, a main shaft, an eccentric upon the mainshaft of the machine, means for reciprocating said knife by the rotation of said eccentric, means for guiding the material, a presser-foot co-acting with said knife, a second eccentric upon the mainshaft of the machine, means for reciprocating said presser-foot by the rotation of said second eccentric, means for connecting said eccentrics to said mainshaft, and means for keeping said knife tangential to the outer edge of the scallop.

5. A scallop trimming device for sewing machines, comprising a trimming knife, means for reciprocating said knife, means for guiding the material, means for revolving said knife upon its axis in accordance with the direction of the outer edge of the scallop, and means for disconnecting said knife-reciprocating means just before the end of each scallop and for reconnecting at the beginning of the next scallop, said knife being meanwhile returned to its original position.

[Claims 6 to 11 not printed in the Gazette.]

1,074,453. REFRIGERATOR. WILLIAM E. PARK, Rockford, Ill. Filed Nov. 29, 1912. Serial No. 734,188. (Cl. 62—10.)



1. The herein described refrigerator comprising a casing, a hollow cover hinged thereto, the bottom of said cover being inclined from the free to the hinged end, a perforate end wall for the hinged end of said hollow cover, and a door hinged to the free end of said cover.

2. The herein described refrigerator comprising a casing, a hollow cover hinged thereto, a partition in the end of said casing forming a passage between the end wall of said casing and said partition, the bottom of said hollow cover being inclined from the free to the hinged end thereof and the lowermost end thereof extending into said passage, and a perforate end in the hinged end of said cover.

3. The herein described refrigerator comprising a casing, a hollow cover hinged thereto, the bottom of said cover being inclined from the free to the hinged end thereof, a door hinged to the free end of said cover, a partition in said casing forming a passage between said partition and the end of said casing, the lowermost end of the bottom of said cover being normally positioned within said passage, and a removable tray support above the bottom of said casing.

1,074,454. LIGHTNING-ARRESTER. FRANK W. PEEK, Jr., Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 10, 1909. Serial No. 477,159. (Cl. 175—30.)



1. In a lightning arrester, the combination of a discharge path of low impedance to high frequency oscillations and a permanently closed electrical circuit of low impedance inductively interlinked with said discharge path and subject only to those electromotive forces which are induced in it by discharges in said discharge path.

2. The combination of a plurality of electrolytic lightning arrester cells, metallic containers for said cells, and electrical connections for the adjacent upper and lower portions of said containers.

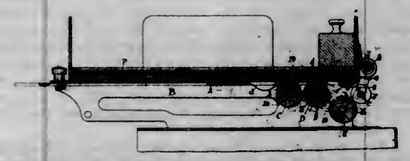
3. The combination of a plurality of electrolytic lightning arrester cells connected to a transmission system, metallic containers for said cells, and electrical connections between said containers for forming a closed electrical circuit interlinked inductively with said cells.

4. The combination with a line conductor, of an electrolytic cell connected to said conductor and forming one side of a discharge circuit, and a closed electrical circuit of low impedance inductively interlinked with said cell to decrease the self-induction of said discharge circuit.

5. The combination of line conductors, electrolytic condenser cells in operative relation thereto, and metallic connections in inductive relation to said cells for forming a closed electrical circuit of low impedance and thereby decreasing the self inductance of the circuit through said cells.

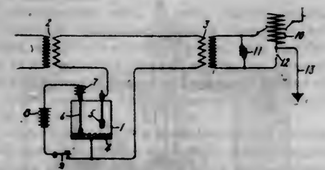
[Claim 6 not printed in the Gazette.]

1,074,455. PAPER-FEEDING MACHINE. ALBERT D. PEJAUD, Cleveland, Ohio, assignor to The American Folding Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 22, 1909. Serial No. 534,411. (Cl. 101—40.)



A paper feeding machine having a bed for the paper provided with an opening in its front and bottom and a fixed transverse ledge at the front end of said bed at the edge of said opening having an inclined deflecting edge for the paper, a rotatable separating roll beneath said opening adapted to withdraw the lower sheet of paper backward from the ledge, a feed-roll next in advance of said separating roll adapted to rotate in the opposite direction from said separating roll and carry the paper forward, and a pair of discharge rolls next in advance of said feed-roll adapted to withdraw the sheet of paper bodily from the machine, said feed-roll and said separating roll each having adhesive strips to engage the paper.

1,074,456. SPACE SIGNALING SYSTEM. HARRY F. PERKINS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 29, 1909. Serial No. 510,196. (Cl. 250—19.)



1. The combination of a source of current of considerable energy periodically passing through zero, a vapor electric device included in circuit therewith, means independent of said source for rendering said device conductive at will continuously during desired intervals in accordance with signals to be transmitted, and means for utilizing the current impulses transmitted by said device for the production of signals.

2. In a system of signaling, the combination of a source of current of considerable energy periodically falling to zero, a mercury arc device included in circuit therewith, and means independent of said source for starting an arc and maintaining the arcing space conductive during desired intervals in accordance with signals to be conveyed.

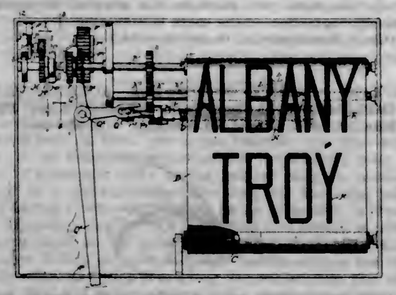
3. In a system of signaling, the combination of a source of alternating current of moderate potential and large current value, a mercury vapor device in circuit therewith, a source of direct current of moderate energy, means operative thereby to render said mercury vapor device conductive at will and an oscillation circuit for utilizing the energy transmitted through said device for the production of electromagnetic waves.

4. In a system of signaling, the combination of a source of periodic current, a vapor electric device included in circuit therewith, electrodes in said device for maintaining an auxiliary arc, a local circuit carrying current of small energy to sustain said auxiliary arc and means in said local circuit for controlling the supply of current in accordance with signals to be transmitted.

5. In a signaling system, the combination of a source of alternating current, a vapor electric device having a vaporizable cathode, and a main anode, a supplemental electrode urged into contact with the cathode, a source of current connected to the supplemental electrode and cathode, and means for withdrawing the supplemental electrode from the cathode, during intervals variable at will thereby striking an arc to render the space in the vapor device conductive during said intervals.

[Claim 6 not printed in the Gazette.]

1,074,457. STATION-INDICATOR. VICTOR M. PIECHOCINSKI, New York, N. Y. Filed Apr. 4, 1913. Serial No. 758,727. (Cl. 40—90.)



1. In a station indicator for cars, the combination of a web having the names of the stations along a predetermined route, a spring roller, an actuating roller, the rollers being spaced apart and connected with the ends of the web so that when the actuating roller is turned in one direction the web unwinds from the actuating roller and winds up on the spring roller, and when the actuating roller is turned in the opposite direction the web is wound up by the actuating roller and unwinds from the spring roller, and a manually-controlled turning mechanism for the said actuating roller and provided with shiftable reversing means for turning the actuating roller in the direction to unwind the web while the car is on the outgoing trip and to turn the actuating roller in the direction to wind up the web while the car is on the return trip, a shifting lever connected with the reversing means to shift the latter, a rock shaft, a connection between the rock shaft and the shifting lever to actuate the latter, and means driven from the shaft of the actuating roller and controlling said rock shaft, the said shifting lever having a handle extending within reach of the operator.

2. In a station indicator for cars, the combination of a web having the names of the stations along a predetermined route, a spring roller, an actuating roller, the rollers being spaced apart and connected with the ends of the web so that when the actuating roller is turned in one direction the web unwinds from the actuating roller and winds up on the spring roller, and when the actuating roller is turned in the opposite direction the web is wound up by the actuating roller and unwinds from the spring roller, a driving shaft, manually-controlled means for rotating the said driving shaft in one direction only, a roller shaft carrying the said actuating roller, shiftable gearing connecting the said driving shaft with the said roller shaft to rotate the latter and its actuating roller in either direction, an intermediate shaft driven from the said roller shaft, a traverse screw, a gear wheel nut screwing on the said traverse screw, a gear wheel mounted to turn with and to slide lengthwise on the said intermediate shaft and engaging the said gear wheel nut to turn the latter and to travel with the same, and a shifting mechanism connected with the said shiftable gearing and controlled by said gear wheel nut.

3. In a station indicator for cars, the combination of a web bearing the names of the stations along a predetermined route, a spring roller, an actuating roller, the rollers being spaced apart and connected with the ends of the web so that when the actuating roller is turned in one direction the web unwinds from the actuating roller and winds up on the spring roller, and when the actuating roller is turned in the opposite direction the web is wound up by the actuating roller and unwinds from the spring roller, a driving shaft, manually-controlled means for rotating the said driving shaft in one direction only, a roller shaft carrying the said actuating roller, shiftable gearing connecting the said driving shaft with the said roller shaft to rotate the latter and its actuating roller in either direction, an intermediate shaft driven from the said roller shaft, a traverse screw, a gear wheel nut screwing on the said traverse screw, a gear wheel mounted to turn with and to slide lengthwise on the said intermediate shaft and engaging the said gear wheel nut to turn the latter and to travel with the same, a rock shaft provided with arms spaced apart and located on opposite sides of the said gear wheel nut, lugs on opposite faces of the said gear wheel nut and adapted to alternately engage the said arms at the time the gear wheel nut nears either end of the traverse screw, a pin on the said rock shaft, and a shifting lever engaged by the said pin and connected with the said shiftable gearing to shift the latter.

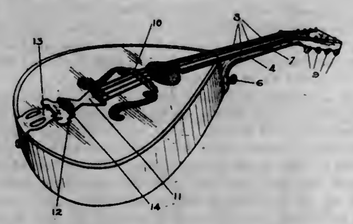
4. In a station indicator for cars, the combination of a web bearing the names of the stations along a predetermined route, a spring roller, an actuating roller, the rollers being spaced apart and connected with the ends of the web so that when the actuating roller is turned in one direction the web unwinds from the actuating roller and winds up on the spring roller, and when the actuating roller is turned in the opposite direction the web is wound up by the actuating roller and unwinds from the spring roller, a roller shaft carrying the said actuating roller, a driving shaft, reversible gearing connecting the said driving shaft with the said roller shaft for driving the latter

in either direction, a one-tooth ratchet wheel secured on the said driving shaft, a gear wheel loose on the said driving shaft and carrying a pawl engaging the said ratchet wheel, and a manually-controlled rack mounted to slide and in mesh with the said loose gear wheel.

5. In a station indicator for cars, the combination of a web bearing the names of the stations along a predetermined route, a spring roller, an actuating roller, the rollers being spaced apart and connected with the ends of the web so that when the actuating roller is turned in one direction the web unwinds from the actuating roller and winds up on the spring roller and when the actuating roller is turned in the opposite direction the web is wound up by the actuating roller and unwinds from the spring roller, a roller shaft carrying the said actuating roller, a driving shaft, reversible gearing connecting the said driving shaft with the said roller shaft for driving the latter in either direction, a one-tooth ratchet wheel secured on the said driving shaft, a gear wheel loose on the said driving shaft and carrying a pawl engaging the said ratchet wheel, a manually-controlled rack mounted to slide and in mesh with the said loose gear wheel, a locking wheel secured on the said shaft, a spring-pressed locking arm adapted to engage the said locking wheel to hold it against rotation, and a swing arm on the said rack and adapted to engage the said locking arm to lift the latter out of locking position prior to the pawl engaging the tooth of the said ratchet wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,074,458. STRINGED MUSICAL INSTRUMENT WITH INTERCHANGEABLE NECKS. SALVATORE PILERI, Chicago, Ill. Filed Aug. 30, 1912. Serial No. 717,868. (Cl. 84—133.)

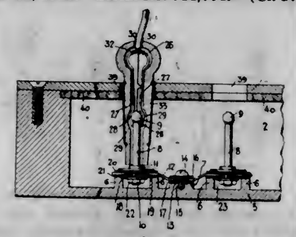


1. A musical instrument comprising a body; a plurality of interchangeable necks; means whereby said necks may be attached to or detached from said body; strings on said necks; a bridge permanently mounted on the strings of each neck; and means for detachably securing said strings in operative positions on said body, substantially as described.

2. A musical instrument comprising a body having a receiving socket in its upper neck portion and a threaded metallic socket member embedded in its lower neck portion; detachable necks of different lengths and having a projection fitting within said receiving socket and a screw taking into said socket member; strings on each of said necks; a bridge on each set of said strings; a main tail piece on said body; and a supplemental tail piece on each set of said strings adapted to engage said main tail piece, substantially as described.

3. A musical instrument comprising a body having a receiving socket in its upper neck portion and a threaded metallic socket member embedded in its lower neck portion; a detachable neck having a projection fitting within said receiving socket and a screw taking into said socket member; strings on said neck; a bridge on said strings; a main tail piece on said body and provided with an upwardly and outwardly curved lip at its inner edge; and a supplemental tail piece on said strings and provided with a downwardly and inwardly curved lip at its inner edge adapted to engage said edge lip on said main tail piece, substantially as described.

1,074,459. ELECTRICAL CONNECTOR. HENRY WILSON POOLE, Decatur, Ill. Original application filed Mar. 21, 1912, Serial No. 685,327. Divided and this application filed Jan. 28, 1913. Serial No. 744,704. (Cl. 173—338.)



1. The combination of a plug having an enlarged end, a socket made up of two pieces and containing a resilient conducting member having bent upper and lower ends and adapted to be connected to a wire, the inside of the socket being provided with pockets to receive the bent ends of the said resilient member.

2. A socket for use in making electrical connection, comprising two portions of substantially similar shape, a clamp surrounding the said portions on the outer side for holding them together, a substantially U-shaped resilient member of conducting material within the socket, the ends of the said member being curved and the inside of the said socket being provided with a plurality of pockets to receive the bent connecting portion and the curved ends of the resilient member.

3. In a structure such as described, the combination of a support, means for holding it in position, said means being intermediate the ends of the support, a plurality of plugs adjacent the ends of the support, insulating elements between the plugs and the supporting member, and means for securing the plugs to the support.

4. In an electric flatiron, the combination of a body member provided with a plurality of spaced projections, a supporting member extending across the projections, the middle projection being adapted to receive a fastening device, whereby the support may be held in position, a plurality of plugs carried by the support and adjacent the ends thereof and positioned between the end projections, means for maintaining the plugs out of electrical connection with the support, and means for securing the plugs to the support.

5. In means for making removable electrical connections, a socket adapted to receive an upstanding plug made up of two parts of substantially similar construction with means for holding them together, one end of the socket being provided with an opening whereby a wire may be entered therein, and a resilient substantially U-shaped conducting member within the socket, one end of the member being adapted to be connected to the said wire and the other end being adapted to engage the plug, the ends of the said conducting member being bent, and the interior of the socket being provided with pockets into which the said bent portions are adapted to engage, whereby separation of the parts is prevented.

[Claim 6 not printed in the Gazette.]

1,074,460. SAFETY-GUARD FOR AGRICULTURAL IMPLEMENTS. ARTHUR POHL, Bloomfield, Nebr. Filed Mar. 19, 1913. Serial No. 755,422. (Cl. 55—30.)



1. In combination with a roller having means associated therewith whereby it may be caused to roll upon the ground, a movable shield supported over the roller and adapted to be normally held above the ground by an operator and to swing downward into engagement with the ground and into contact with the roller, for stopping the motion of the roller.

2. In combination with a roller having means associated therewith whereby it may be caused to roll upon the ground, a movable shield supported over the roller and adapted to be normally secured above the ground by an operator and to swing downward into engagement with the ground when released by the operator, for stopping the motion of the roller.

3. In an attachment for a machine having rollers adapted to roll upon the ground, a movable guard hingedly supported above the roller, a crank-shaft in connection with the roller, a link connecting the crank-shaft with the guard, a lever secured to the crank shaft, a notched segment concentric with the crank-shaft, a latch carried by the lever and adapted to be held in a notch of the segment by an operator, and to coact with the segment and with the crank-shaft and link for holding the guard in an elevated position, said latch having means associated therewith for automatically releasing it from the notch when the latch is released by the operator.

4. A guard for a disk harrow or roller consisting of a curved plate of somewhat springy material and normally supported over the disks of said disk harrow and out of contact with the ground, for preventing a person from falling onto said disks and for minimizing the impact of the fall, and means associated with the guard for holding it in its normal position and allowing it to automatically engage with the ground when said person falls.

1,074,461. METHOD OF MAKING SIGNS. NATHAN A. RACHLISS, New York, N. Y. Filed Sept. 10, 1912. Serial No. 719,516. (Cl. 18—59.)



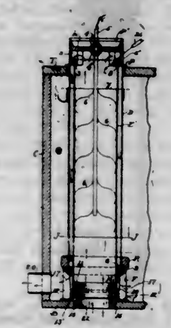
1. The herein-described method of forming signs, consisting in placing on a signboard a hollow mold having a profile of the character to be formed, marking the outline of the character on the board where the character is to be traced, then providing the board within the outline with elements to interlock the board and the character to be produced, then charging the mold with moldable material then molding the character by pressing the mold charged with said moldable material directly onto the board at said outline, over the mentioned elements, and then removing the mold after the moldable material has hardened.

2. A method of forming signs consisting in producing on a signboard the outlines of the character to be formed, driving interlocking and reinforcing elements into the board within said outline, in a series approximately following the general contour of the character, then pressing against the board and over said reinforcing elements a hollow mold corresponding with the character and charged with moldable material, and coated on the inner face to prevent adhesion of the mold to the moldable material, permitting the moldable material to harden, and then removing said mold and finally finishing the said character.

1,074,462. OZONIZER. FRANCIS H. RICHARDS, Hartford, Conn., assignor to John Parker Morris, New York, N. Y. Filed Dec. 10, 1912. Serial No. 735,953. (Cl. 204—32.)

1. In an ozonizing apparatus, the combination with a pair of concentric tubes having between them an annular space, of a self-adjusting upper ring for the outer tube and having a tube-bearing shelf on its inner side; a lower self-adjusting ring for the inner tube and having a tube-bearing shelf on its outer side; a ring-supporting frame-member having an annular lower bearing-surface for the inner ring and ring-supporting bearing-surface for the upper ring, and having side-outlet air-passage space located at a height between the two rings.

2. In an ozonizing apparatus, the combination with a pair of concentric tubes having between them an annular space, of a self-adjusting upper ring for the outer tube and having a tube-bearing shelf on its inner side; a lower self-adjusting ring for the inner tube and having a tube-bearing shelf on its outer side; a ring-supporting frame-member having a continuous annular lower bearing-surface for the inner ring and a plurality of segmental bearing-surfaces arranged for supporting the upper ring at a height for thereby providing air-outlet space located between the two rings, substantially as described.



3. In an ozonizing apparatus, the combination, with a pair of concentric tubes having between them an annular air space, of a self-adjusting upper ring for the outer tube and having a tube-bearing shelf on its inner side; a lower self-adjusting ring for the inner tube and having a tube-bearing shelf on its outer side; a frame-member having a continuous annular bearing-surface for supporting the inner ring and thereby packing the lower end of the inner tube against air currents thereunder; a plurality of pillars arranged on the frame for supporting the upper ring, the frame having air-outlet space located as to vertical position, between the two rings and located circumferentially between said pillars.

4. In an ozonizing apparatus, the combination with a pair of concentric tubes of substantially equal lengths and having between them an annular air space and arranged for the inner tube to extend below the outer tube, and for the outer tube to extend above the inner tube, of a pair of self-adjusting rings one for the outer tube having the tube-bearing shelf on its inner side; and one for the inner tube and having a tube-bearing shelf on its outer side; a ring-supporting member having a continuous annular bearing-surface for the inner ring, and having bearing-surface for supporting the upper ring, and arranged with air-outlet space between the two rings, and a tube-closing device at the upper end of the outer tube with an air-passage over the upper end of the inner tube.

5. In an ozonizer apparatus of the class having a pair of concentric tubes with an annular air-space between them, the combination of an upper ring for the outer tube provided with a tube-bearing shelf on its inner side and having its lower surface spherically-formed; a lower ring for the inner tube provided with a tube-bearing shelf on its outer side and having its lower surface spherically formed, and a ring supporting frame-member having an annular bearing-surface for the lower ring, and having bearing-surface for supporting the upper ring, and with air-outlet space between the two rings, substantially as described.

[Claim 6 not printed in the Gazette.]

1,074,463. DISPENSING DEVICE. EDWARD RIORDAN, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,919. (Cl. 221—60.)

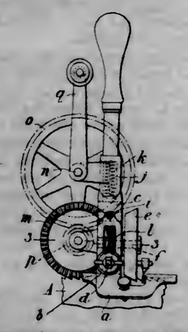
The herein described device comprising a tubular casing open at both ends, one end of said casing being re-

duced and an internally threaded neck formed on said reduced end, a head removably threaded within said neck and having a centrally disposed aperture with its interior end expanded and threaded, a flexible tube having an outwardly projecting annular flange on one end adapted to engage the shoulder in said aperture formed by the expanded portion and the opposite end projecting through



the reduced portion of the aperture, said casing being adapted to receive a collapsible tube through the opposite end, the nipple of said collapsible tube being adapted to be threaded in said expanded portion to engage the flange of said flexible tube to press the same tightly against said shoulder, means to collapse said collapsible tube, and closing caps for the opposite ends of the casing.

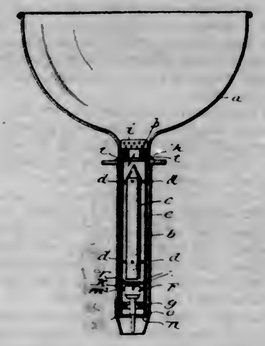
1,074,464. MACHINE OR TOOL FOR SHARPENING SAWS. HENRY ROBERT ROBERTS, Bloomsbury, London, England. Filed Jan. 6, 1913. Serial No. 740,395. (Cl. 76—37.)



1. A saw sharpening machine comprising a saddle adapted to rest upon the edge of the saw, a frame pivotally connected to said saddle, means for locking said frame in different relations to said saddle, sliding bearings mounted in said frame, a spindle in said bearings, a grinding disk mounted upon said spindle, means for revolving said spindle, and automatic means for depressing said bearings whereby the grinding disk is fed downwardly.

2. A saw sharpening machine comprising a saddle, a frame pivotally mounted upon said saddle, means for adjusting said frame relatively to said saddle, sliding bearings mounted in said frame, a spindle mounted to revolve in said bearings, a grinding disk rigidly mounted upon said spindle, a pinion also mounted upon said spindle, a gear meshing with said pinion, means for rotating said gear positioned at right angles to said grinding disk, and means for automatically depressing said bearings whereby said grinding disk is fed downwardly.

1,074,465. SELF-CLOSING FUNNEL FOR LIQUIDS. KARL HEINRICH ROSENAUER, Frankfort-on-the-Main, Germany. Filed Mar. 18, 1911. Serial No. 615,427. (Cl. 226—83.)



1. A funnel for filling bottles comprising a funnel-bowl, a stem connected thereto, projections within said stem, a float-valve fitted in the stem and guided on the inner ends of said projections, a valve seat in the upper part of the stem for receiving the valve and closing the funnel when said valve is raised, means for discharging the displaced air, and means for closing the lower end of the stem when the funnel is removed from the bottle, substantially as set forth.

2. A funnel for filling bottles, comprising a funnel-bowl, a stem connected thereto, a float-valve arranged in said stem so as to close the funnel, pins fitted in the walls of the stem and adapted to guide said valve with their inner ends, a sleeve slidably fitted on the stem and guided on the heads of said pin so as to leave a space for the discharge of the displaced air, a flange at the upper end of the sleeve for supporting the funnel on the mouth of the bottle-neck, a bridge in the lower part of the sleeve for supporting the stem, and a drop-valve in the lower part of the stem supported on said bridge so as to open when the funnel descends in the sleeve and close when it is lifted, substantially as set forth.

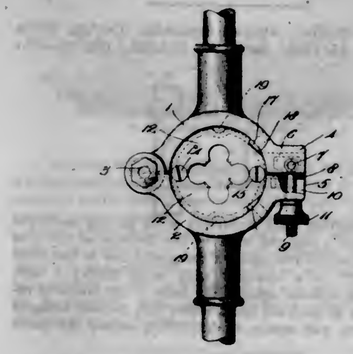
3. A funnel for filling bottles, comprising a bowl, a stem connected thereto, a float-valve in the stem adapted to close the funnel, pins in the walls of the stem to guide the valve with their inner ends, a sleeve slidably fitted on the stem and guided on the heads of said pins to provide a passage for the displaced air, a lug on the lower part of the stem guided in a longitudinal slot in the sleeve, a bridge in the sleeve formed by bending the strip cut out from said slot, a bottom-valve in the stem guided with its tail-piece in the bridge and supported thereon so as to open when the funnel descends in the sleeve and close when it is raised, and radiating pins on the body of said bottom-valve for guiding the same in the stem, substantially as set forth.

4. A spout having in its ends perforated rings forming oppositely arranged valve seats, a buoyant valve adapted to close one of said rings and a non-buoyant valve adapted to close the other ring, a sleeve incasing the spout and means for unseating the non-buoyant valve upon the insertion of the spout into a vessel, as described.

5. A spout having perforated rings forming oppositely disposed valve seats, a tubular buoyant valve incased in the spout adapted to close the upper ring, a sleeve incasing the spout and connected thereto to permit limited relative movement, and a non-buoyant valve in the spout adapted to be unseated by the movement of the spout relative to the sleeve upon the insertion of the spout into a vessel.

[Claims 6 and 7 not printed in the Gazette.]

1,074,466. SCREW-PLATE. CHARLES C. RUSSELL, Greenfield, Mass. Filed Dec. 14, 1912. Serial No. 736,867. (Cl. 10—117.)

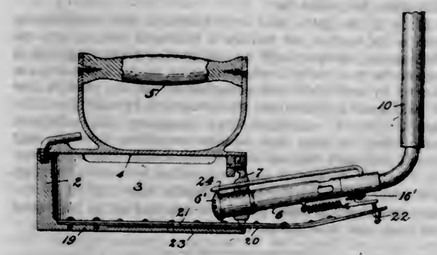


1. In a screw cutting device, a stock comprising separable sections, means for detachably clamping said sections together, a pair of die members hinged together, and means on said stock sections for engaging said die members to open the latter upon separation of said stock sections.

2. In a screw cutting device, the combination of a stock comprising separable sections, means for detachably clamping said sections together, a pair of die members provided with peripheral slots and hinged together, a screw provided with a tapered head engaging between said die members for adjusting the latter, and lugs on said stock engaging said slots in said die members for opening the latter upon separation of said stock sections.

3. In a screw cutting device the combination of a stock comprising separable sections, means for detachably connecting said sections together, a guide seated on said stock sections, a pair of dies rotatably secured on said guide, a screw threaded in said guide and provided with a tapered head engaging between said die members for adjusting the latter, and means on said stock sections for engaging said die members to open the latter upon separation of said stock sections.

1,074,467. AUTOMATIC TEMPERATURE CONTROL FOR SELF-HEATING FLAT-IRONS. EDWIN RUUD, Pittsburgh, Pa. Filed Sept. 7, 1912. Serial No. 719,115. (Cl. 236—5.)



1. The combination of a flat iron, a gas supplied burner for heating the iron, and means for automatically proportioning the flow of gas to the temperature of the smoothing surface of the iron whereby such temperature may be maintained substantially uniform regardless of varying heat consuming demands upon the smoothing surface.

2. The combination of a flat iron, a burner for heating the iron, and means for automatically proportioning the supply of fuel to the temperature of the smoothing surface of the iron whereby such temperature may be maintained substantially uniform regardless of varying heat consuming demands upon the smoothing surface.

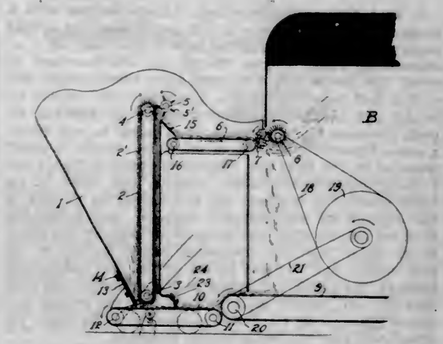
3. The combination of a flat iron, a burner for heating the iron, a valve for controlling the supply of fuel to the burner, and thermostatic means operatively connected to the valve and actuated by variations of temperature of the smoothing surface of the iron for proportioning the flow of fuel to varying heat consuming demands upon said surface.

4. The combination of a flat iron body having the portion thereof adjacent its smoothing surface constituting an element of a thermostat, a gas supplied burner for heating the smoothing surface, a valve for controlling the flow of gas to the burner, and another thermostatic element coöperating wih the first mentioned thermostatic element and operatively connected to the valve for proportioning the flow of gas to the heat consuming demands upon the smoothing surface.

5. The combination of a flat iron having a smoothing surface, a gas supplied burner for heating said surface, a valve for controlling the flow of gas to the burner, and thermostatic means operatively connected to the valve and actuated by variations of temperature of the smoothing surface for proportioning the flow of gas to the heat consuming demands upon said surface.

[Claims 6 to 19 not printed in the Gazette.]

1,074,468. AUTOMATIC FEED FOR FIBERS AND THE LIKE. MICHAEL EMMET RYAN, Fall River, Mass. Filed Mar. 18, 1912. Serial No. 684,596. (Cl. 38—10.)

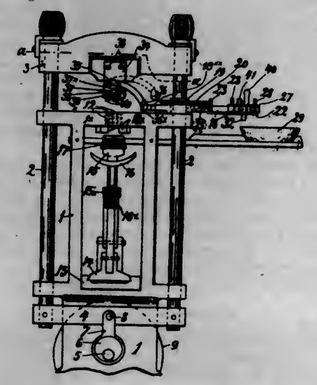


A feeding device for hair, fiber and the like comprising an open bottom receptacle, a vertical picker therein, a feeding conveyer in receptive relation to said picker and a return conveyer effectively disposed beneath said feeding conveyer and set across the open bottom of said receptacle to receive any material dropped from said feeding conveyer and present the same to the open bottom of said receptacle, and a slide disposed in front of said picker and adjustable relative to said return conveyer for regulating the feed of the return conveyer to said picker.

1,074,469. SHOE-HEEL-NAILING MACHINE. JOHN F. SALABA, St. Paul, Minn. Filed Jan. 27, 1913. Serial No. 744,588. (Cl. 1—36.)

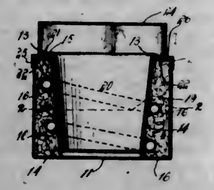
1. In a shoe heel nailing machine, the combination with a chute block having a series of nail chutes arranged to hold nails in readiness to be driven, of a reciprocating punch carrier having punches arranged to enter the chutes and drive the nails therethrough into a shoe heel below the chutes, a movable nail carrier arranged and adapted to receive a charge of nails and deposit the same into the chutes when moved in over them; a guard mounted on the punch carrier and adapted to occupy alternately a higher

and a lower position thereon, and when in its lower position to intercept the nail carrier on its way to the chutes; a trip mechanism mounted on the punch carrier and adapted to automatically engage and support the guard in its upper position, means carried by the nail carrier and arranged to act on the trip mechanism whereby the guard is dropped to its lower position each time the nail carrier deposits a charge of nails into the chutes, and means intercepting the guard to raise it to its upper position every time the punch-holder descends.



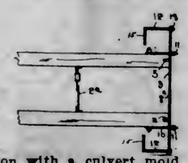
2. In a shoe nailing machine, the combination with a chute block having a series of nail chutes arranged to hold nails in readiness to be driven into a shoe heel, of a reciprocating punch carrier having punches arranged to enter the chutes and drive the nails therethrough into a shoe heel below the chutes, a movable nail carrier arranged and adapted to receive a charge of nails and deposit the same into the chutes when moved in over them; a plate detachably secured to the punch carrier, a guard mounted on the plate and adapted to occupy a higher and a lower position alternately thereon, and when in its lower position to intercept the nail carrier on its way to the chutes; an automatically engaging trip mechanism mounted on the plate and adapted to support the guard in its upper position; detachable means carried by the nail carrier and arranged to act on the trip mechanism, whereby the guard is dropped to its lower position each time the nail carrier deposits nails into the chutes, and means intercepting the guard to raise it to its upper position each time the punch carrier descends.

1,074,470. BREAD-MIXER CABINET. EMMA J. SAMMIS, Norwalk, Ohio. Filed June 22, 1912. Serial No. 705,301. (Cl. 126—281.)



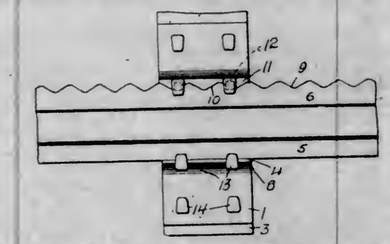
In a bread raiser, a casing, a downwardly converging partition in the casing and combining therewith to form an inner compartment and an outer compartment surrounding said inner compartment, a receptacle fitted snugly within the inner compartment, and means within the outer compartment for distributing heat over the surface of said partition, and thereby allowing the heat to be conducted and distributed into and through the contents of the inner receptacle.

1,074,471. MOLD. AUGUST SCHLICHT, Canton, Kans. Filed July 27, 1912. Serial No. 711,939. (Cl. 25—32.)



The combination with a culvert mold having sectional side walls and a top, the ends of the sections of the side walls being slotted vertically, a rod positioned in the slots of each wall; of a two-part wing mold having a side adapted to be secured against the ends of the walls to retain the rods in position and another side formed integral with the ends, and means to detachably secure the parts together.

1,074,472. TIE-PLATE AND RAIL-FASTENER. MARTIN SCHROYER, Brownsville, Pa. Filed July 22, 1913. Serial No. 780,556. (Cl. 238—2.)

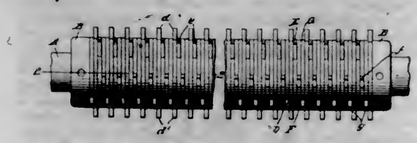


1. In a tie plate and rail fastener, the combination with a tie, and a rail having a scalloped flange, of a tie plate arranged upon said tie and having depending ribs to engage in the upper surface thereof, a transverse brace carried by said plate and engaging one of the base flanges of said rail, a transverse brace carried by said tie plate and having a scalloped edge engaging the scalloped base flange of said rail, spikes extending through said braces into said tie and having the heads thereof engaging the base flanges of said rail, and spikes extending through said plate into said tie.

2. In a tie plate and rail fastener, the combination with a tie, and a rail having a scalloped flange, of a tie plate arranged upon said tie and having depending ribs to engage in the upper surface thereof, a transverse brace carried by said plate and engaging one of the base flanges of said rail, a transverse brace carried by said tie plate and having a scalloped edge engaging the scalloped base flange of said rail, spikes extending through said braces into said tie and having the heads thereof engaging the base flanges of said rail, spikes extending through said plate into said tie, and malleable lugs carried by the scalloped brace of said plate and adapted to be bent onto the scalloped base flange of said rail.

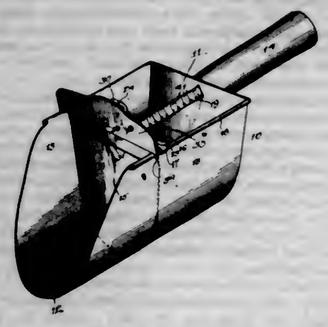
1,074,473. COMB-ROLL FOR ROLLER COTTON-GINS. SILVANUS D. SHEPPERD, Newark, N. J. Filed Sept. 24, 1912. Serial No. 722,094. (Cl. 13—20.)

1. A comb roller comprising a shaft, a longitudinal key or feather connected therewith, a series of toothed washers arranged in abutting relation about the shaft and having circumferential key seats for engagement with said key or feather, whereby the washers may be arranged in groups to dispose the teeth in spaced relation longitudinally and circumferentially and interchangeably keyed to the shaft, and means for holding the washers assembled against longitudinal displacement on the shaft.



2. A comb roller comprising a shaft, a series of toothed washers mounted thereon in abutting relation in groups with the teeth thereof circumferentially and longitudinally spaced, means whereby each washer is locked to the shaft against circumferential movement and adapted to be locked in any one of a series of positions, whereby the disks are rendered interchangeable so that any disk may be employed in the arrangement of any group, and means for holding the washers assembled against longitudinal displacement on the shaft.

1,074,474. SCOOP. CHRISTIAN E. SKYUM, Chicago, Ill. Filed Dec. 3, 1910. Serial No. 595,504. (Cl. 73—165.)



1. A scoop comprising a body for holding the material, a member slidably mounted on the body, a diaphragm carried by and movably mounted on said member, and clamping-means for securing said member against longitudinal movement in the body, mounted on said member and disposed to engage said body.

2. A scoop comprising a body for holding the material, a member slidably mounted on the body, a diaphragm carried by and movably mounted on said member and spring-operated clamping-means for securing the member against longitudinal movement in the body, mounted on said member and disposed to engage said body.

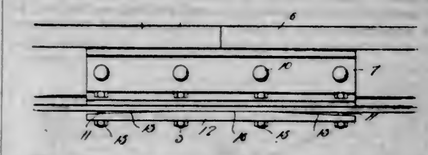
3. A scoop comprising a body for holding the material, a member slidably mounted on the body, a diaphragm carried by and movably mounted on said member, and clamping-means mounted on said member and disposed to engage the sides of said body.

4. A scoop comprising a body for holding the material, a member slidably mounted on the body, a diaphragm carried by said member and clamping-means for securing said member against longitudinal movement on the body, comprising a rod pivoted on said member and having arms for engaging the sides of the body.

5. A scoop comprising a body for holding the material, a member slidably mounted on the body, a diaphragm carried by said member and clamping means for securing said member against longitudinal movement on the body, comprising a cross-rod pivoted on said member and having arms for engaging the sides of the body, and a spring for operating said arms.

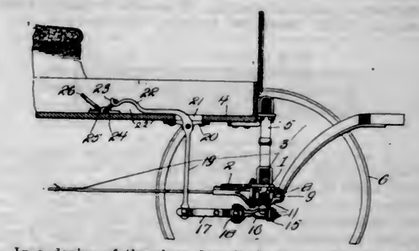
[Claims 6 to 14 not printed in the Gazette.]

1,074,475. RAIL-JOINT SUPPORT. ADOLPHUS G. SMITH, Punnichy, Saskatchewan, Canada. Filed Aug. 31, 1912. Serial No. 718,141. (Cl. 238—2.)



The combination with the meeting ends of railway rails and angle plates connecting the same, the said rail ends being formed with longitudinally directed elongated openings in their webs and bases, of a rail joint support comprising a plate underlying the joint between the rail ends and having a thickened medial portion, and a plurality of bolt members passed through the slots in the rail ends and engaged in the angle and joint supporting plates, the said bolt members being located at opposite sides of the abutting ends of the rails.

1,074,476. HORSE-DETACHER. CHARLES B. SMITH, Terra Alta, W. Va. Filed Aug. 26, 1911. Serial No. 646,151. (Cl. 21—75.)

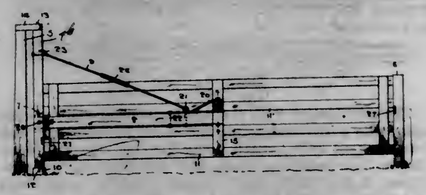


In a device of the class described, the combination of a vehicle, of a bolt releasing means, and means for effecting the operation of the said bolt releasing means, said last named means comprising a bell crank lever pivotally connected with the bottom of the vehicle, said bell crank lever consisting of a depending arm and a horizontally disposed arm, the free end of the depending arm being connected with the bolt releasing means, the horizontal arm extending within and rearwardly of the vehicle, the free end of said horizontal arm being formed with a concavo-convexed manipulating portion and a hook, a crank journaled to the bottom of the vehicle in rear of the terminal of the hook and adapted for engagement with the latter for locking the bolt releasing means in inactive position, a foot pedal formed on one of the terminal ends of said crank for releasing the same from the hook, the said concavo convexed manipulating portion extending longitudinally of and in spaced relation with the bottom of the vehicle and in a direction toward the rear end thereof, defining between the bottom of the vehicle and the underneath surface of the hook a shoe receiving space.

1,074,477. FARM-GATE. JOHN M. SPITLER, Cable, Wis. Filed Jan. 23, 1913. Serial No. 743,820. (Cl. 39—15.)

1. The combination with a pair of rigid posts and a post mounted to swivel on its vertical axis, of a substantially horizontal swinging supporting arm pivoted to the swiveled post, a gate proper, a bracket attached centrally to the gate on a horizontal pivot and resting on the end of the supporting arm, a vertical pivot in said bracket passing also through the supporting arm, and a main brace comprising a threaded rod attached to the arm, a like rod attached to the swiveled post, and a turnbuckle connecting the threaded rods.

2. The combination with a pair of rigid posts and a post mounted to swivel on its vertical axis, of a substantially horizontal swinging supporting arm pivoted to the swiveled post, a gate proper, a bracket attached centrally to the gate on a horizontal pivot and resting on the end of the supporting arm, a brace having one end resting on



top of said bracket and the other end on top of the swinging arm, a vertical pivot in said bracket passing also through the supporting arm and brace, a plain bolt securing the brace to the arm, an eye-bolt passing through the arm and brace and projecting above the latter, and a main brace connecting the eye-bolt with the swiveled post and comprising a turnbuckle.

1,074,478. CLEANING AND WAXING PAD FOR SAD-IRONS. JAMES A. SUMNER, Shenandoah, Iowa. Filed Oct. 31, 1912. Serial No. 728,961. (Cl. 68—27.)



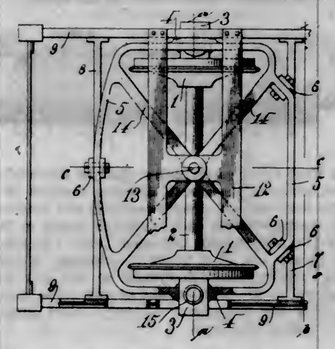
1. A waxing and cleaning pad for sad irons comprising a block having in one side a series of wax receiving grooves and in one edge a longitudinal slit, a waxing composition arranged in said grooves, an abrasive surface on the opposite side of the block from that having said grooves, a waxing sheet arranged over the side of the block having said grooves, said sheet having one edge engaged with the longitudinal slit in the edge of the block, and a combined iron scraper and clamp pivotally connected to the block and adapted to grip and firmly clamp the free end of the sheet to the opposite edge of the block from that to which the opposite end of the sheet is secured.

2. A cleaning and waxing pad for sad irons comprising a block having in one edge a slit, a waxing sheet arranged over one side of said block and having one edge inserted in said slit, a combined clamping member and iron scraper comprising a bail shaped bar having its ends pivotally connected to the ends of the block and adapted to be swung down into engagement with the opposite side edge of the block from that having said slit, whereby the free end of said waxing sheet is clamped to the adjacent edge of the block, and an outwardly projecting flange on one edge of said clamping member.

3. A cleaning and waxing pad of the character described comprising a block having a wax holding depression in one face thereof, and an abrasive surface on another face, said block having a slit in one side thereof, a waxing sheet arranged over the face of the block having the wax holding depression therein, said sheet having one edge engaged with the longitudinal slit in the block, and a waxing sheet clamp engaged with the block and adapted to clamp the free edge of said sheet thereto.

1,074,479. CAB-TRUCK. GEORGE C. TOWLE, Dayton, Ohio. Filed Sept. 3, 1912. Serial No. 718,241. (Cl. 105—137.)

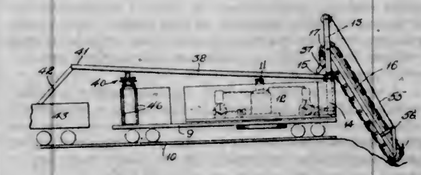
1. In a car truck, a main frame, a sub-frame including wheels and an axle, pivotally attached to said main frame, said main and sub-frames being vertically movable relative to each other, links connecting said main and sub-frame, whereby, when the sub-frame is swung on the pivot, the weight of the main frame will exert an influence to move said sub-frame to a normal position.



2. In a car truck, a main frame, a sub-frame including the wheels and axle, pivotally attached to said main frame, said pivot being in vertical alinement with the axle of the truck, said main and sub-frame being movable relative to each other, links constituting a three point suspension connecting said main and sub-frames, whereby, when the sub-frame is swung on the pivot, the weight of the main frame will exert an influence tending to move said sub-frame to a normal position.

3. In a car truck, a main frame, a cross-frame mounted on said main frame, a sub-frame, a spider attached to said sub-frame, said cross-frame and said spider being pivotally connected, said main frame and said sub-frame being vertically movable relative to each other; said pivot being in vertical alinement with the axle of the truck, and links constituting a three point suspension connecting said main frame and sub-frame, whereby, when the sub-frame is swung on the pivot, the weight of the main frame will exert an influence tending to move said sub-frame to a normal position.

1,074,480. EXCAVATING-MACHINE. ABRAM D. WARD, Chicago, Ill. Filed Jan. 15, 1912. Serial No. 671,256. (Cl. 57—39.)



1. A machine of the class described comprising a car body, a platform swingingly mounted on said car body, an upright frame and excavating mechanism carried near one end of said platform and swingingly mounted thereon, means for swinging said platform to any desired position horizontally of the car body, and means for swinging said frame and excavating mechanism horizontally of said platform, substantially as described.

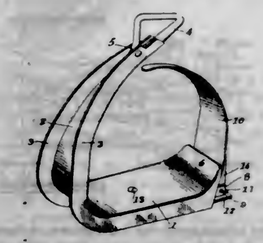
2. A machine of the class described comprising a car body movable upon a track, a platform swingingly mounted on said car body, an upright frame and excavating mechanism carried near one end of said platform and swingingly mounted thereon, means for swinging said platform to any desired position horizontally of the car body, means for swinging said frame and excavating mechanism horizontally of said platform, and means for carrying the excavated material to a point over the car track or over a track adjacent either side thereto, substantially as described.

3. A machine of the class described comprising a car body movable upon a track, a platform swingingly mounted on said car body, an upright frame and excavating mechanism carried near one end of said platform and swingingly mounted thereon, means for swinging said platform to any desired position horizontally of the car body, means for swinging said frame and excavating mechanism horizontally of said platform, a runway arranged to convey the excavated material having the receiving end thereof positioned adjacent the said upright frame, and a laterally movable truck carried on said car body arranged to support the discharging end of said runway whereby the excavated material may be discharged at a point over the car track or over a track adjacent either side thereto, substantially as described.

4. A machine of the class described comprising a car body movable upon a track, a platform swingingly mounted on said car body, an upright frame and excavating mechanism carried near one end of said platform and swingingly mounted thereon, means for swinging said platform to any desired position horizontally of the car body, means for swinging said frame and excavating mechanism horizontally of said platform, a runway arranged to convey the excavated material having the receiving end thereof positioned adjacent the side of the upright frame, and a truck arranged to travel laterally of said car body and to slidably support the discharging end of said runway, whereby the said discharging end may be positioned directly over the car track or over a track adjacent either side thereto, substantially as described.

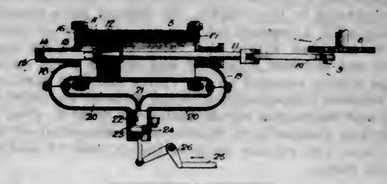
5. A machine of the class described comprising a car body movable upon a track, a platform swingingly mounted on said car body, an upright frame and excavating mechanism carried near one end of said platform and swingingly mounted thereon, means for swinging said platform to any desired position horizontally of the car body, means for swinging said frame and excavating mechanism horizontally of said platform, a runway arranged to convey the excavated material having the receiving end thereof positioned adjacent the side of the upright frame, a track extending laterally of the car body near one end thereof having movable track extensions to either side thereof, and a truck arranged to travel upon said track to slidably support the discharging end of said runway, whereby the said discharging end may be moved to a point directly over the car track or over a track adjacent either side thereof, substantially as described.

1,074,481. SAFETY-STIRRUP. WILLIAM L. WARD, Watauga Falls, N. C., assignor of one-fourth to B. H. Harman, Watauga Falls, N. C. Filed June 15, 1912. Serial No. 703,847. (Cl. 54—49.)



A safety stirrup comprising a channeled tread, the flanges of which extend downwardly, and having its outer end swaged upwardly to form a stop shoulder, a side arm integral with and extending upwardly from the channeled tread and formed with upwardly converging flanges, said tread and arm being formed of pressed sheet metal, a suspending eye fastened between the flanges of said arm in fixed relation to the upper end thereof, a folding arm pivotally connected with the channeled tread and curving upwardly and inwardly toward the rigid arm and also provided with an outwardly projecting L-shaped lower heel portion having a flat bottom face which projects beyond the extremity of the tread, said folding arm and its heel portion being also formed of pressed sheet metal, and a flat spring housed within the channel of the tread and fastened to said tread, said spring bearing against the outwardly projecting heel portion of the folding arm and serving to hold the folding arm against said stop shoulder.

1,074,482. VEHICLE-BRAKE. HERBERT C. WASHBURN, Suffern, N. Y. Filed Feb. 14, 1912. Serial No. 677,420. (Cl. 188—5.)



In a vehicle brake, the combination with a geared axle of the vehicle; of a second gear meshing with the said axle-gear, a cylinder having heads provided with openings, a piston within the cylinder, a piston rod passing through the piston and having one end squared, a pitman connecting the other end of the piston with the second named gear, a pipe inserted in each end of the cylinder, a second pipe having two branches connecting with the two first-named pipes and further provided with a valve seat at the point of division, a valve operating in the trunk of the second pipe, a stem carried by the valve, a bell crank connected with the valve stem, and means for operating the bell crank.

1,074,483. FOOD PRODUCT. MITCHEL WOLF and HARRY COWEN, New York, N. Y. Filed May 16, 1913. Serial No. 768,063. (Cl. 99—11.)

1. A composition of matter comprising glucose, dextrose, soap root extract, peanut butter, cotton-seed oil and ground sesame seed.

2. A composition of matter comprising glucose, granulated sugar, cotton-seed oil, peanut butter and ground sesame seeds.

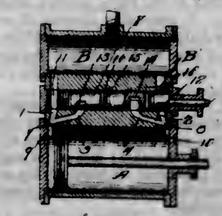
3. A composition of matter comprising glucose, granulated sugar, peanut butter and cotton-seed oil.

4. A composition of matter comprising glucose, granulated sugar, cotton-seed oil and a mixture of semi-solid fatty substances.

5. A composition of matter comprising glucose, granulated sugar, soap root extract, cotton-seed oil and a mixture of semi-solid fatty substances.

[Claims 6 to 8 not printed in the Gazette.]

1,074,484. VALVE. JAMES W. ABBOTT, Ingalls, Kans. Filed June 19, 1912. Serial No. 704,605. (Cl. 136—7.)

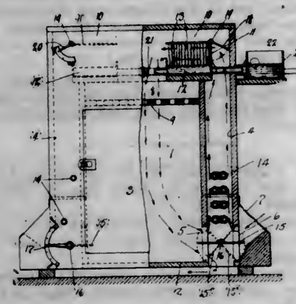


1. The combination of a cylinder having a piston moving therein and a steam chest provided with and communicating with a valve casing, there being end inlet ports and intermediate exhaust ports forming communication between the valve casing and the cylinder, the

exhaust ports communicating with a common exhaust passage, a cylindrical valve within the casing and having inlet ports adjacent its ends, one of said ports being angularly disposed with relation to the other, said latter ports being alternately brought into alinement with the adjacent ports leading to the cylinder, the valve having ports of angular form also adapted to be alternately brought into exhausting alinement relative to the cylinder and mechanism for oscillating the valve.

2. The combination with a cylinder having a piston moving therein, a steam chest provided with a valve casing and communicating therewith, there being a plurality of inlet and a plurality of exhaust ports leading from the valve casing to the cylinder, the exhaust ports communicating with a common exhaust passage, of a cylindrical valve arranged within the valve casing of the steam chest and provided with inlet and exhaust ports, packing rings loosely mounted on the valves and held stationary by frictional engagement with the walls of the valve casing, and meachnism for oscillating the valve to bring the inlet and exhaust ports thereof into communication with the inlet and exhaust ports of the cylinder at predetermined times.

1,074,485. DRIER-KILN. FREDERICK W. BALLARD, Cleveland Heights, Ohio, assignor to The Sherwin-Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 8, 1911. Serial No. 664,546. (Cl. 34—19.)



1. In a kiln of the class described, the combination with a main drying chamber adapted to receive the article to be dried; of an auxiliary chamber communicating with the upper portion of said main chamber; means adapted to heat the air in said auxiliary chamber, whereby an ascending current of air is created therein; and other means above said main chamber adapted to humidify such current of air by the evaporation of a liquid, whereby the air is cooled and caused to descend into said main chamber independent of any agency in the latter.

2. In a kiln of the class described, the combination with a main drying chamber; of an auxiliary chamber communicating with the upper portion of said main chamber; heating coils located in the lower portion of said auxiliary chamber, whereby an ascending current of air is created therein; and air-humidifying means located above said main chamber and adapted to cool such current of air and thereby cause it to descend into said main chamber independent of any agency in the latter.

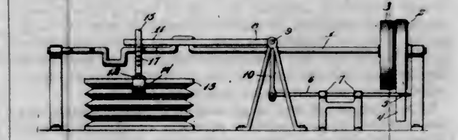
3. In a kiln of the class described, the combination with a main drying chamber; of an auxiliary chamber; two passages connecting said auxiliary chamber with the upper portion of said main chamber; means for optionally closing either of said passages; air-humidifying means located in one of said passages; and air-heating means located in said auxiliary chamber.

4. In a kiln of the class described, the combination with a main drying chamber; of an auxiliary chamber connected at its lower portion with the lower portion of said main chamber and with the exterior; means for closing one connection or the other, as desired, said auxiliary chamber being also connected with the upper portion of said main chamber; means adapted to heat the air in said auxiliary chamber, whereby an ascending current of air is created therein; and other means above said main chamber adapted to cool such current of air and thereby cause it to descend into said main chamber.

5. In a kiln of the class described, the combination with a main drying chamber; of an auxiliary chamber connected at its lower portion with the lower portion of said main chamber and with the exterior; means for closing one connection or the other, as desired, said auxiliary chamber being also connected with the upper portion of said main chamber; means adapted to heat the air in said auxiliary chamber, whereby an ascending current of air is created therein; and other means above said main chamber adapted to humidify such current of air by the evaporation of a liquid, whereby the air is cooled and caused to descend into said main chamber.

[Claims 6 and 7 not printed in the Gazette.]

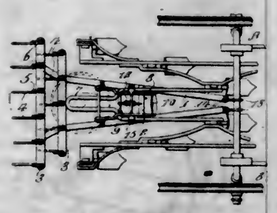
1,074,486. AIR-REGULATOR FOR ORGANS. PAUL OTTO BOESKE, Manton, R. I. Filed July 10, 1912. Serial No. 708,614. (Cl. 230—24.)



1. The combination with a bellows, of fast and loose pulleys on the crank shaft of the air pump, a belt passing around said pulleys, an arm projecting from the movable side of the bellows and having a slotted extension formed with a longitudinal series of holes, a belt shifting member, a lever connected to said member and passing through the slotted extension of the arm of the bellows, and a stop insertible in any of said holes.

2. The combination with a bellows, of fast and loose pulleys on the crank shaft of the air pump, a belt passing around said pulleys, an arm projecting from the movable side of the bellows and provided with a slot, a belt shifting member, a lever connected to said member and passing through said slot, and a stop extending across the said slot and made adjustable lengthwise of the same.

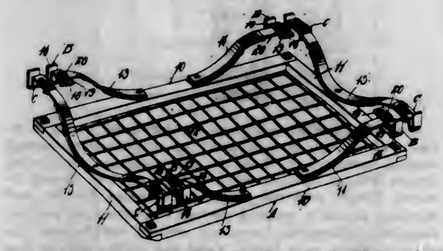
1,074,487. CULTIVATOR ATTACHMENT. WILLIAM F. BOUD, Adelphia, N. J. Filed Jan. 11, 1913. Serial No. 741,505. (Cl. 97—44.)



1. A weeder attachment for cultivators comprising rearwardly divergent side bars, cross bars mounted on the rear portions of said side bars and having downwardly extending spring teeth, a pivoted spring actuated handle member having notches, means for mounting the front ends of the side bars pivotally with respect to the axle of a cultivator, and a cross bar supported in the path of the spring actuated handle member to be engaged by the notches of said member.

2. The combination with a cultivator having an axle and rearwardly extending seat supporting bars, of a weeder attachment comprising connected rearwardly divergent side bars, clips connected detachably with the front ends of said side bars and loosely engaging the cultivator axle, cross bars supported on the rear portions of the side bars, downwardly extending spring teeth connected with the cross bars, a handle pivotally connected with the frame and comprising side straps having notches at their front edges, a spring whereby the handle member is rocked in a forward direction, and a cross bar supported on the seat supporting bars of the cultivator in the path of the spring actuated handle member and engaged by the notches in the side straps thereof.

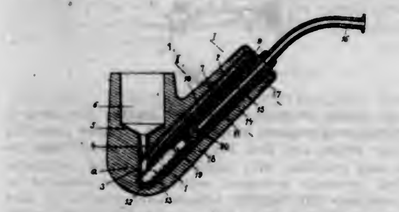
1,074,488. BED. JOSEPH ALPHSO BROWN, Jacksonville, Fla. Filed Feb. 7, 1913. Serial No. 746,863. (Cl. 5—64.)



1. A bed spring comprising a frame, a plurality of leaf springs anchored to the under side of the frame, brackets connected to the free ends of said springs respectively and adapted to engage the side and end members of a bed, and means for adjusting the brackets relatively to the springs.

2. A bed spring comprising a frame, a plurality of leaf springs anchored to the under side of the frame, and means carried at the free ends of said spring for detachably and slidably engaging a bed frame.

1,074,489. TOBACCO-PIPE. TOMÁŠ BROŽ, Prague, Austria-Hungary. Filed Dec. 16, 1912. Serial No. 736,992. (Cl. 131—12.)

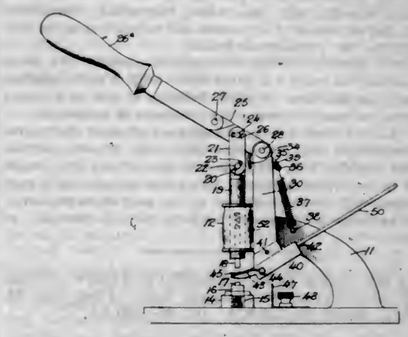


1. In a tobacco pipe the combination of a bowl having a neck extension, a tapering tube closed at the lower end and adapted to be inserted into the neck extension, an extension branch on the lower end of the tapering tube, a transmission tube substantially parallel to the tapering tube and connected to the extension branch at the bottom and to the tapering tube at its upper end, a smoke tube adapted to be inserted in the tapering tube, a helical groove on the outside of the smoke tube and connected at its lower end to the interior of the smoke tube, a chamber in the lower end of the smoke tube and connected at its upper end to the helical groove, and a suction plug to close the lower end of the chamber in the lower end of the smoke tube.

2. In a tobacco pipe the combination of a bowl having a neck extension, a socket piece adapted to be inserted in the neck extension and comprising a tapering tube closed at the lower end, an extension branch on the lower end of the tapering tube and a transmission tube substantially parallel to the tapering tube and connected at its lower end to the extension branch and to the tapering tube at its upper end, for the purpose set forth.

3. In a tobacco pipe the combination of a bowl having a neck extension, a tapering tube closed at the lower end and adapted to be inserted into the neck extension, an extension branch on the lower end of the tapering tube, a transmission tube substantially parallel to the tapering tube and connected to the extension branch at the bottom and to the tapering tube at its upper end, a smoke tube adapted to be inserted in the tapering tube a helical groove on the outside of the smoke tube and connected at its lower end to the interior of the smoke tube, a chamber in the lower end of the smoke tube and connected at its upper end to the helical groove, and a sleeve provided with diametrical slots of different widths and adapted to receive interchangeable suction plugs, said sleeve being adapted to close the bottom of the chamber in the lower end of the smoke tube.

1,074,490. EYELETING-MACHINE WITH AUTOMATIC FEED. ISADORE COHEN and ALEXANDER LANDSBERG, New York, N. Y. Filed Aug. 22, 1912. Serial No. 716,354. (Cl. 218—15.)



1. An eyeleting machine of the character described, comprising, in combination, a punch, an exchangeable eyelet feeding receptacle, a vertical swinging arm carrying said receptacle at its lower end, means adapted to move said arm into feeding position when the punch is moved upward, means operating simultaneously with the eyeleting operation to move the arm out of feeding position, and a frictional pivotal support for the vertical swinging arm to hold said feeding receptacle out of feeding position during punching operation.

2. An eyeleting machine comprising a base, a standard on one side of said base, a laterally disposed vertical sleeve integral with said standard, a punch slidable in said sleeve, a vertical extension on said standard carrying a horizontal bearing sleeve, a horizontal pin in said sleeve, a plunger bar pivotally mounted upon said horizontal pin, means for connecting said plunger bar intermediate its end with the punch, a vertically depending arm frictionally pivoted on said horizontal pin, an eyelet guide block removably secured to the lower end of said arm, and means for moving the vertical arm on its pivot during the upward and downward movement of the plunger bar.

3. In an eyeleting machine of the character described, a punch, a handle lever for reciprocating the punch, a guide and block for feeding the eyelets to position to be operated upon, connections between the eyelet feeding devices and the lever for moving the feeding means into and out of operative position, and a frictional support for the eyelet feeding means for holding said feeding means out of feeding position during a limited portion of the reciprocation of the punch.

4. In an eyeleting machine, in combination, a base, an arm mounted thereon, a vertical sleeve carried thereby, an extension integral with said arm, a horizontal sleeve carried at the top of said extension, a horizontal bolt in said horizontal sleeve, a plunger bar pivotally mounted on said

bolt, an arm depending vertically from said bolt, friction means for securing said arm in various positions, a punch in the vertical sleeve, a link connecting the punch with the plunger bar, an extension on the plunger bar beyond its pivot, a pin projecting laterally therefrom to connect with and move the vertical depending arm inward when the plunger bar is raised to its highest position, a lateral pin on the vertical depending arm and a pin on the plunger bar adapted to co-act with the last named lateral pin to move the vertical arm outward at the lower end of the stroke of the plunger bar, and an eyelet feeding device removably connected to the lower end of the vertical arm.

1,074,491. DETERGENT. MARGARET COLVIN, Inverness, Scotland. Filed Apr. 28, 1913. Serial No. 764,067. (Cl. 87—5.)

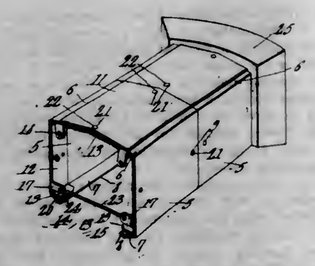
1. An improved detergent composed of citric acid, gelatin, paraffin wax, bran water, turpentine and commercial soap, in substantially the proportions stated.

2. An improved detergent composed of citric acid, gelatin, paraffin wax, bran water, turpentine, commercial soap and infusions of orris-root and burdock root, in substantially the proportions stated.

3. An improved detergent composed of about 79.5 parts of commercial soap, 1.5 parts citric acid, 4 parts gelatin, 1 part paraffin wax, 10 parts infusion of one half pound bran to one quart of water and two parts of turpentine.

4. An improved detergent composed of about 79.5 parts of commercial soap, 1.5 parts citric acid, 4 parts gelatin, 1 part paraffin wax, 10 parts infusion of one half pound bran to one quart of water, two parts turpentine, 1 part infusion of 3 ounces orris-root to one pint of water, and 1 part infusion of 3 ounces burdock root to one pint of water.

1,074,492. FORM FOR CONCRETE CULVERTS. GEORGE W. COUNTRYMAN, Birmingham, Iowa. Filed Aug. 24, 1912. Serial No. 716,924. (Cl. 25—131.5.)



1. In a collapsible culvert form, a plurality of units, each comprising a pair of side plates having upper inturned flanges, and a top plate; and arches fitting within the adjoining ends of the units, the ends of the side plates and flanges being detachably connected to the arches, the ends of the top plates being detachably connected to the arches between the flanges and the top plates having their edges overlapping the flanges.

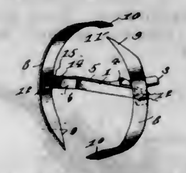
2. In a collapsible culvert form, a plurality of units each comprising a pair of side plates having upper and lower inturned flanges, and a top plate; arches fitting within the adjoining ends of the units, the arches terminating above the lower flanges and having their ends bent inwardly above their lower flanges; and stay rods attachable to the ends of the arches; the ends of the side plates and upper flanges being detachably connected to the arches, the top plates having their ends detachably connected to the arches between the upper flanges and having their edges overlapping the upper flanges, and the lower flanges being adapted to rest on a base for supporting the form.

1,074,493. COLUMN FOR STEAM-BOILERS. HARTSELL H. CROSS and WALTER F. WRATCHFORD, Hendricks, W. Va. Filed July 14, 1911. Serial No. 638,516. (Cl. 73—54.)



A water gage comprising a tubular body having a series of alined spaced openings at the opposite sides thereof, annular members threaded in said openings and having flanges bearing against said tubular body and having internal flanges adjacent the first mentioned flanges, said members having a reduced portion to provide an annular shoulder, transparent members secured within said annular members, each having a reduced portion on one face thereof to provide a shoulder adapted to bear against said internal flanges, and a flanged ring threadedly secured to said reduced portion of the annular member and having its flanged portion bearing against the opposite face of the transparent member.

1,074,494. COTTON-CHOPPER. WILLIAM A. CROW, Chickasha, Okla. Filed Jan. 24, 1913. Serial No. 744,005. (Cl. 97—61.)



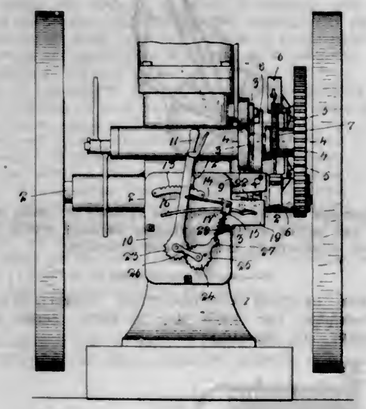
In a cotton chopper, a support having an integral socket, the said support having a pair of arms radiating from the socket and then bent angularly away from the socket and provided with oppositely disposed terminals, identical reversely arranged cutting blades mounted on said terminals for angular adjustments relative to said flanges and having their ends spaced from each other, and means for holding said blades in adjusted positions.

1,074,495. CONTROLLING MECHANISM. RAY DAVIS, Lehigh, Iowa. Filed Sept. 27, 1912. Serial No. 722,724. (Cl. 121—112.)

1. The combination with a hydrocarbon engine, having a spring controlled governor and a speed controlling lever operated by the governor, of a lever operatively connected to the first-named lever, a spring for operating the second-named lever, and means for moving the spring over the second-named lever away from the fulcrum point and simultaneously increasing the tension thereof.

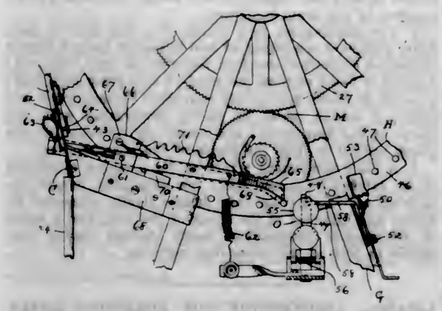
2. The combination with a hydrocarbon engine having a spring controlled governor and a speed controlling lever operated thereby, of a lever operatively connected to said first named lever, a spring for operating said second named lever, and means for moving the connection of said spring with the second lever so as to increase or decrease the tension of the spring and the distance of the connection from the fulcrum point of the lever.

3. The combination with a hydrocarbon engine having a governor controlled lever, of a second lever operatively connected at one end to the first lever, a spring connected to the second lever for movement between its fulcrum point and the free end thereof, and means to move the connection of said spring toward the free end of the second lever and to simultaneously increase the tension of the spring.



4. The combination with a hydrocarbon engine having a governor operated speed controlling lever, of a second lever operatively connected to the first lever, a guide slidably mounted upon said second lever toward and away from the fulcrum point, a hand lever for operating said guide, a rotating member operated by said hand lever, and a spring interconnecting the guide and the rotating member whereby when the hand lever is operated the guide will be moved over the second lever and the spring simultaneously tensioned by the rotation of said rotating member.

1,074,496. ELECTRIC COIN-CONTROLLED DEVICE. FRANK E. DODGE and NORMAN M. LOOMIS, Hartford, Conn. Filed Aug. 30, 1912. Serial No. 717,898. (Cl. 194—7.)



1. A coin controlled device comprising a shaft, a motor tending to turn the said shaft, a controlling wheel mounted on the said shaft, and having a plurality of pins and means responsive to the insertion of a coin in the said device for engaging and disengaging the said pins and thereby controlling the movement of the said shaft, the said means comprising holding means engaged with one of the said pins and a tripping arm, pivotally supported, having the outer end suitably positioned to engage with a coin inserted in the said device and the inner end provided with a tripping nose and suitably positioned to be engaged with another of the said pins responsive to a turning movement of the said controlling wheel.

2. A coin controlled device comprising a shaft, a motor tending to turn the said shaft, a controlling wheel mounted on the said shaft, and having a plurality of pins, and means responsive to the insertion of a coin in the said device for engaging and disengaging the said pins and thereby controlling the movement of the said shaft, the said means comprising holding means engaged with one of the said pins and a tripping arm, pivotally supported, having the outer end suitably positioned to engage with a coin inserted in the said device and the inner end provided with a tripping nose and suitably positioned to be engaged with another of the said pins responsive to a turning movement of the said controlling wheel, the said outer end being provided with contact fingers, and a coin chute having a closed inner wall and an outer wall provided with an opening, and the said contact fingers being positioned in the said opening.

3. In a coin controlled device comprising a shaft, a motor connected thereto, and a controlling wheel mounted on the said shaft, and having a plurality of pins on one face, a coin chute and a tripping arm, holding means operative normally to hold the said controlling wheel in opposition to the said motor, the said tripping arm being pivotally supported by the middle portion, the inner end of the said tripping arm having a tripping nose positioned normally adjacent one of the said pins suitably to be tripped thereby responsive to a movement of the said wheel, contact fingers on the outer end of the said tripping arm, the said chute having one closed wall and a wall opposite the said closed wall provided with an opening, the said contact fingers being positioned in the said opening and normally separated from the said closed wall by a space suitable to be bridged by a coin, and the position of the pivotal support for the said tripping arm being such relatively to the said chute that upon the tripping of the said tripping arm the said contact fingers will be moved away from the said closed wall so as to increase the extent of the said space suitably to permit the said coin to drop between the said contact fingers and closed wall.

4. In a coin controlled device, a controlling wheel, a plurality of pins thereon, a motor tending to move the said wheel, a magnet having an armature, the said armature being pivotally mounted by one end, the other end of the said armature being normally engaged with one of the said pins, and a backing engaged with the said other end and serving to positively position the same in the normal plane of movement, and means for energizing the said magnet responsive to a coin inserted in the said device.

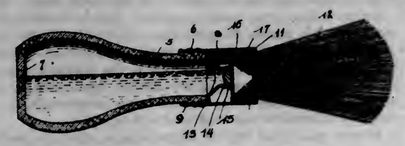
5. In a coin controlled device, a controlling wheel, a plurality of pins thereon, a motor, a magnet having an armature normally engaged with one of the said pins, a tripping arm pivotally mounted, having a contact finger at the outer end, the inner end of the said arm being positioned adjacent another of the said pins and suitably shaped to engage therewith and to be tripped thereby responsive to a movement of the said controlling wheel.

[Claim 6 not printed in the Gazette.]

1,074,497. SHAVING-BRUSH. WILLIAM J. DUNCAN, Wardner, Idaho. Filed Dec. 6, 1912. Serial No. 735,324. (Cl. 15—50.)

A shaving brush comprising a hollow handle, a ferrule detachably mounted on one end of the handle, a cap mounted in the ferrule and having a valve seat, a perforated thimble adjustably engaging the ferrule, a valve

carried by the thimble and engageable in the valve seat, brush bristles mounted in the thimble, and a discharge



nozzle communicating with the perforations in the thimble and projecting into the brush bristles.

1,074,498. GARTER. FRISBEY G. EIKER, Washington, D. C. Filed July 1, 1911. Serial No. 636,552. (Cl. 241—6.)



1. In a garter, a one-piece band adapted to completely encircle the leg, a plate and a slide on the band, said slide being freely movable toward and away from said plate to vary the diameter of the band, the end portions of the band extending downward through the plate and slide and carrying stocking sustaining devices.

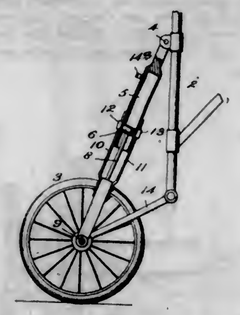
2. A garter comprising a one-piece band formed into an adjustable loop adapted to completely encircle the leg and having a plate at one end and a fastening device at the other end coacting with said plate, a slide on the band freely movable thereon toward and away from said plate to vary the diameter of the loop, and a stocking sustaining device supported from said slide.

3 A garter comprising a one-piece band adapted to completely encircle the leg, said band being formed into an adjustable loop and having a plate at one end of the loop and a fastening device at the other end to coact with the plate, the band being continued integrally downward through said plate and suspending a stocking supporting device, and a slide on the band freely movable thereon toward and away from said plate to vary the diameter of the loop, the band being extended integrally downward through said slide and suspending a second stocking supporting device.

4. In a garter, the combination of a one-piece band adapted to completely encircle the leg, a plate and an adjustable slide on said band, one end of said band being integrally laced to the plate and extended therethrough to form a stocking supporting member, said band passing at its intermediate portion through the slide and then folded back upon itself to form a loop, the second extremity of the band being laced to said slide and extended therethrough to form a second stocking supporting member, and means to connect the said loop to said plate.

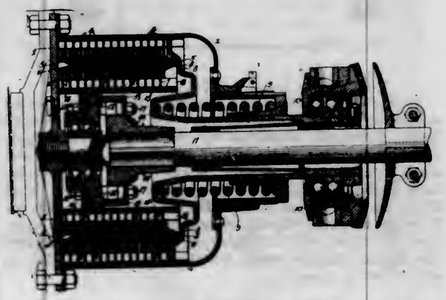
1,074,499. SHOCK-ABSORBER FOR AEROPLANES. WESLEY N. ENSIGN, Whitestone, N. Y. Filed Oct. 11, 1912. Serial No. 725,297. (Cl. 244—2.)

In a shock absorber for aeroplanes embodying a cylinder for air and a plunger seated therein, the combination with a vertically disposed standard rigidly secured to the frame of the aeroplane at its upper end; of a swinging rod pivotally secured to the lower end of the said standard and extending forwardly from said standard, its forward end journaled to the axle of a supporting wheel, and a member having its upper end pivotally secured to said standard near the upper end thereof and having in its lower end an air cylinder, a second member having its lower end journaled to the axle of the wheel and having



its upper end slidably engaging the exterior of the air cylinder, and having a suitable plunger disposed within the cylinder, substantially as shown and described.

1,074,500. CLUTCH CONSTRUCTION. POWELL EVANS, Philadelphia, Pa. Filed May 8, 1912. Serial No. 696,010. (Cl. 192—10.)



1. The combination in a clutch of a casing; two series of plates therein of which those of one series are operatively connected to said casing; a drum structure inside of the plates and consisting of two rigidly connected, structurally independent parts; tooth sections mounted on the drum structure and operatively engaging the plates of the second series; said tooth sections being structurally independent of the drum structure.

2. The combination in a clutch of a core hub; a main drum structure consisting of two inwardly flanged rigidly connected cylindrical sections mounted on said core hub; a series of tooth sections mounted on said drum structure; a series of plates operatively connected to said tooth sections; a second series of plates coöperating with the plates of the first series; and means for transmitting the power toward or from the plates of the second series.

3. A plate supporting structure for a clutch consisting of an externally flanged hub; two internally flanged cylindrical sections having their flanges rigidly connected together and attached to the flange of the hub; and a series of structurally independent tooth sections rigidly connected to both of the cylindrical sections.

1,074,501. COMPOSITION FOR PURIFYING GASES. PASCAL JULES GRANJON, Marseille, France. Filed Sept. 7, 1912. Serial No. 719,224. (Cl. 48—224.)

1. A composition for purifying gases comprising metallic oxids and chlorids, bichlorid of mercury, and a porous permeable supporting agent in substantially the proportions set forth, with the addition of a relatively small quantity of manganous acid (hydrated dioxid of manganese obtained chemically) acting as catalysing agent.

2. A composition for purifying gases, comprising metallic oxids and chlorids, bichlorid of mercury, and a porous permeable supporting agent in substantially the proportions set forth, with the addition of a relatively small quantity of an easily reducible oxid of manganese acting as catalyzing agent.

3. A composition for purifying gases comprising metallic oxids and chlorids, bichlorid of mercury, and a porous permeable supporting agent in substantially the proportions set forth, with the addition of a relatively small quantity of manganous acid and of a relatively small quantity of a copper salt.

4. A composition for purifying gases comprising oxids and chlorids of iron, bichlorid of mercury, and a porous permeable supporting agent in substantially the proportions set forth, with the addition of a relatively small quantity of manganous acid (hydrated dioxid of manganese obtained chemically) acting as catalyzing agent.

5. A composition for purifying gases, comprising oxids and chlorids of iron, bichlorid of mercury, and a porous permeable supporting agent in substantially the proportions set forth, with the addition of a relatively small quantity of an easily reducible oxid of manganese acting as catalyzing agent.

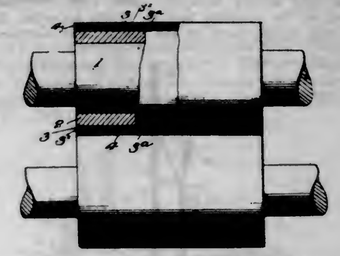
[Claim 6 not printed in the Gazette.]

1,074,502. CULTIVATOR. LOUIS KANTO, Albany, La. Filed Mar. 18, 1912. Serial No. 684,431. (Cl. 97—37.)

In a cultivator the combination of a frame; a block having a groove receiving a member of the frame, and provided with concentric slots; an angular bracket having one part thereof pivotally mounted on said frame member and disposed against a surface of the block, and a horizontally disposed part providing a support; said first named bracket part having slots registering with the slots of the block; bolts passing through said registering slots for securing the bracket in vertically adjusted positions; a standard provided with a flange swiveled on the horizontally disposed part of the bracket, said flange provided with a series of perforations; a bolt passing through said horizontal part and one of said flange perforations adapted to secure the standard in horizontally adjusted positions; and ground treating tools on said standard, substantially as described.

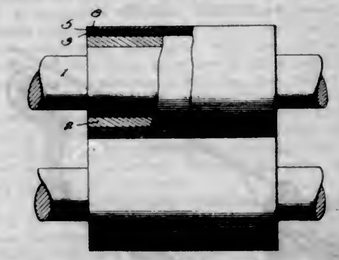
1,074,503. SPINNING-ROLL. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Filed Jan. 29, 1913. Serial No. 744,978. (Cl. 118—23.)

1. A roll of the class described, comprising a hard core, a layer of soft rubber on the core, a binder of leather around the rubber, and a coating of plastic material on the leather.



2. A roll comprising a hard core, a layer of soft yielding material on the core, a leather binder around the soft yielding material and a coating of plastic material of different density than the leather around the latter.

1,074,504. SPINNING-ROLL. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Filed Jan. 29, 1913. Serial No. 744,979. (Cl. 118—23.)



1. A roll comprising a core, a layer of thick fabric on the core, a binder of leather on the fabric, and a coating o. pyroxylin on the leather.

2. A roll comprising a core, a thick layer of felt on the core, a binder of leather around the felt, and a coating of pyroxylin around the leather, the pyroxylin being embedded in the interstices of the leather.

1,074,505. SPINNING-ROLL. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Filed Mar. 3, 1913. Serial No. 751,893. (Cl. 118—23.)



As a new article of manufacture, a composite cot for a spinning roll comprising a tubular leather binder and a previously vulcanized soft rubber tube fitted within the leather tube and having an initial exterior diameter greater than the interior diameter of the leather tube, whereby the expansive resilience of the rubber tube against the inner surface of the tubular leather binder serves to form a means for securing the leather to the soft rubber tube, the tubular leather binder determining the diameter of the cot.

1,074,506. SAFETY ARTICLE-HOLDER. BERTHOLD A. KUSSEROW, Schenectady, N. Y. Filed Dec. 20, 1912. Serial No. 737,895. (Cl. 24—11.)

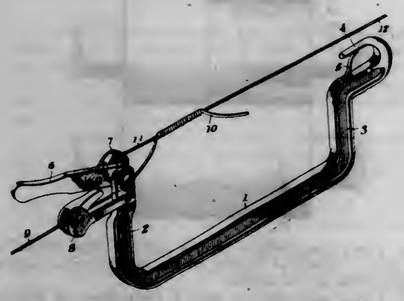
A safety article holder comprising a casing having a rounded bottom, front and rear parallel walls, the said

rear wall being corrugated and extended above the front wall, a plurality of resilient fingers mounted within the casing and having hook-like inner ends correspondingly shaped to the rounded bottom, rivets securing the hook-like ends to the back of the casing, and outturned nibs



formed at the outer ends of the resilient fingers, the said fingers being normally in contact with the back of the casing and in alinement with the corrugations therein, the contacting portion of the fingers being located at a point slightly above the open end of the casing.

1,074,507. ATTACHMENT FOR WIRE-STRETCHERS. HUGH M. KYLE, Mount Vernon, Iowa. Filed Mar. 8, 1913. Serial No. 753,050. (Cl. 39—55.)

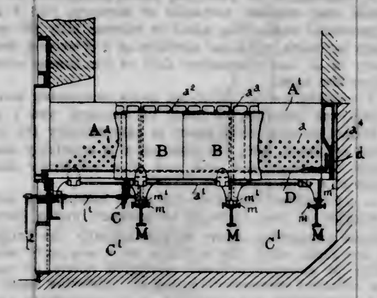


A device of the character described comprising a frame provided with branch arms lying substantially in parallel relation with one another, one of the arms terminating in a hook, a clamp pivotally supported upon the other arm and disposed in line with the hook, said other arm being extended above the point of connection of the clamp therewith, a swinging lever mounted on the extension of the said other arm and adjustable with relation to the clamp, and a clamp carried by the lever.

1,074,508. REFUSE-DESTRUCTOR. HENRY NORMAN LEASK, Egremont, England. Filed May 12, 1910. Serial No. 560,914. (Cl. 110—165.)

1. In a refuse destructor furnace, the combination of a grate having bar supporting means below the same and extending longitudinally thereof and provided with an open top portion in line with an open portion of the grate, and bar means movably disposed in said supporting means and partially extending into the supporting means and also partially located on the upper portion of the grate, the bar means having an angular projection at its rear extremity above the plane of the grate.

2. The combination in a furnace, of a grate of trough-like form having a lower reduced extremity with a lower reduced bottom with an opening extending longitudinally thereof, a supporting means applied under and against the grate and with which the said opening in the grate has communication, and a bar extending full length of the grate and movable in the slot and also partially bearing on the upper portion of the grate and also within the supporting means, the bar having a rear upwardly projecting angular extremity to bodily remove the burned out charge by drawing the same longitudinally of the grate.



3. The combination in a furnace, of a grate of trough-like form having a lower reduced bottom with an opening extending therethrough longitudinally thereof and the full length of the bottom, a supporting means applied to the under side of the grate and with which the said opening has communication, a bar slidably disposed in said opening and extending full length of the grate and provided with devices projecting across the grate to bodily remove a burned out charge, and means in the supporting means on which the bar is movably supported to facilitate actuation of the bar.

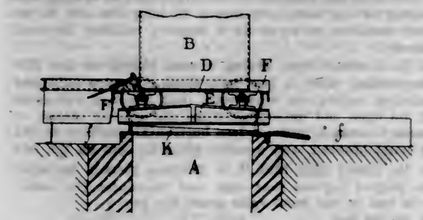
4. The combination of a furnace having a trough-shaped grate with a lower reduced bottom and an opening extending full length of the grate, the grate being provided with air ingress means at its lower portion for cooling the same, a supporting means extending along the bottom of the grate and with which the said opening communicates, and a bar movably mounted in the lower reduced portion of the bottom in the opening in the latter and extending full length of the grate, the bar having a portion thereof bearing on the grate and the remaining portion projecting into the supporting means.

5. The combination in a furnace, of a trough-shaped grate having a lower reduced bottom with an opening extending longitudinally therethrough and full length thereof, the furnace also having an opening extending the full width of the grate through which the burned out charge is adapted to be delivered at one operation, a supporting means extending along the bottom of the grate and with which the said opening communicates, and a bar mounted in the opening in the reduced bottom portion of the grate and extending full length of the latter and movable longitudinally relatively to the grate, the bar being provided with means for drawing a burned out charge through the opening in the furnace extending the full width of the grate, the bar partially resting on the grate and having a portion also extending into the supporting means, the grate being provided with air ingress openings adjacent to the bar for cooling the latter.

1,074,509. CHARGING-DOOR FOR FURNACES. HENRY NORMAN LEASK, Egremont, England. Filed Dec. 30, 1910. Serial No. 600,013. (Cl. 110—118.)

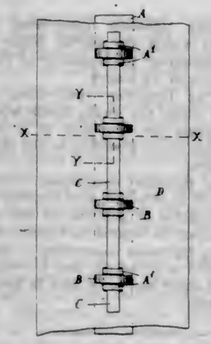
1. In a furnace charging and closing means of the class specified, the combination of a furnace having an inlet opening provided with a surrounding rim with a top inclined contacting edge, a fixed charging container disposed over and at a distance from the inlet opening of the furnace, a carriage movably mounted between the bottom portion of the fixed container and the inlet opening of the furnace, and a door suspended from the carriage and movable with the latter between the container and furnace inlet opening and provided with an inclined bottom edge to slide over and bear upon the top inclined edge of the rim of the furnace inlet opening to close the latter by a tight wedging action.

2. In a furnace charging and closing means of the class specified, the combination of a furnace having an inlet opening provided with a surrounding rim with a top inclined contacting edge, a fixed charging container disposed over and at a distance from the furnace inlet opening, a carriage movably mounted between the container and inlet opening of the furnace, a door suspended from and mov-



able with the carriage between the container and furnace inlet and provided with a lower inclined bottom edge slidable over the top inclined edge of the furnace rim and having snug bearing on said inclined rim edge to form a tight closure, and a closure supported by the carriage above the door to engage and close the lower portion of the container.

1,074,510. RENEWABLE-LEAF BOOK. PETER MACMASTER, London, England. Filed Mar. 29, 1913. Serial No. 757,605. (Cl. 129—1.)



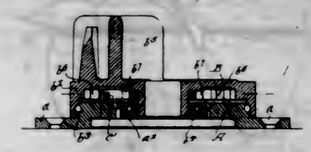
1. In a ring mounting for a renewable leaf ring book the combination of a plurality of rings, two strips of metal arranged one inside and the other outside the rings, pairs of loops punched up from one of said strips each pair of loops being suitably spaced to receive a ring between them and to form lateral supports therefor, the other of said strips passing through said loops, and being retained by the loops.

2. In a ring mounting for a renewable leaf ring book the combination of a plurality of rings, two strips of metal arranged one inside and the other outside the rings, and means integral with the strips for preventing twisting of the rings, and for fastening the strips together to tightly grip the rings between them, and a strip of fabric outside the rings and gripped between the two strips of metal.

1,074,511. PROCESS OF PRODUCING A FIREPROOF AND ELASTIC MATERIAL. NINO MAGELSSEN, Christiania, Norway. Filed Nov. 23, 1911. Serial No. 661,934. (Cl. 106—30.)

The process of producing a fireproof and elastic material capable of resisting the action of water, which consists in mixing carbonate of lime and asbestos with water-glass containing an excess of alkali, and incorporating in the mass a substance acting as an acid upon the silicate.

1,074,512. CONTROLLER-REGULATOR. RICHARD MARX, Philadelphia, Pa., assignor to Defiance Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 15, 1912. Serial No. 683,955. (Cl. 172—179.)



1. The combination of a fixed and a movable member, one member having two sets of teeth, with two coöperating pawls on the other member placed to respectively engage the teeth of said two sets, the tooth engaging portion of one of said pawls being movable relatively to the remainder thereof and the teeth of one set being capable of causing said pawl to force the other into position to be engaged by the teeth of the second set when said members are relatively moved.

2. A controller regulator consisting of two relatively movable members; two sets of teeth; means including two pawls coöperating with said teeth for connecting said members to each other after one of them has been moved a predetermined distance in one direction, means for causing one of said pawls to automatically disconnect said members when one of the latter is moved for a predetermined distance in the opposite direction after each connection, and the other pawl including two relatively movable parts respectively coöperating with one set of teeth and with the first pawl.

3. A controller regulator consisting of two members of which one is provided with two series of teeth, and two pawls mounted on the other member so as to respectively coöperate with said teeth, means for causing one of said pawls to act on the other pawl to cause movement thereof when the toothed member is moved in one direction, and a pivotally mounted tooth for said pawl placed to cooperate with the teeth of one series, the first pawl being movable independently of the second pawl when said member is moved in the opposite direction.

4. A controller regulator consisting of two members of which one has two sets of concentric teeth, with two cooperating pawls connected to the other member and placed to respectively coöperate with said two sets of teeth, one of said pawls having a movably mounted tooth capable of limited movement in one direction and placed to cooperate with the teeth of one set to cause its supporting pawl to move the other pawl into engagement with the teeth of the second set.

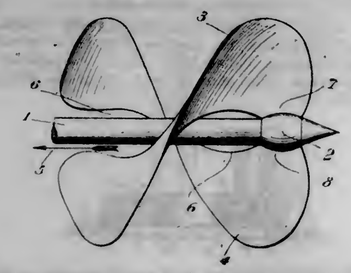
5. A controller regulator consisting of two relatively movable members of which one is provided with two sets of oppositely facing teeth and the other is provided with two pawls placed to respectively engage said teeth, with means for mounting one of said pawls so that when its supporting member is moved in one direction it causes movement of the second pawl into the path of the second set of teeth and when said member is moved in a reverse direction it is moved by the first set of teeth without operatively affecting the second pawl.

[Claim 6 not printed in the Gazette.]

1,074,513. SHIP-PROPELLER. LÉON MAUBLANC and NORBERT LALLIÉ, Nantes, France. Filed July 9, 1912. Serial No. 708,486. (Cl. 115—34.)

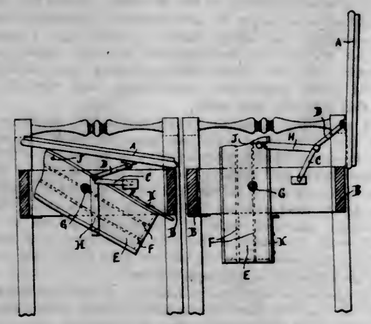
1. A propeller comprising a shaft, a hub at the rear end of said shaft, two blades secured at two diametrically opposite points on said hub, said blades opposite the hub extending radially from said shaft, the blades extending

forwardly in helical form around said shaft and spaced therefrom to form a passage between said blades and the shaft from the front portion of the propeller to the hub.



2. A propeller comprising a shaft, a hub at the rear end of the shaft, and blades secured to opposite sides of the hub and extending forwardly therefrom in helical form around the shaft, the inner edges of the blades from the hub being spaced from the shaft to form a passage from the front portion of the propeller to the hub, the front edge of the blades being sharpened to form cutters.

1,074,514. MUSIC-STOOL. WILLIAM SEATON MCLENNAN, Glasgow, Scotland. Filed Dec. 9, 1912. Serial No. 735,802. (Cl. 45—64.)



1. In a music stool, a supporting frame, a seat hinged at one side thereto, and beneath the seat a music box normally open at one edge only and held in substantially horizontal normal position by said seat, said music box being so pivoted to the frame that on the lifting of the said seat, the music box tends to swing downward by gravity to present its open edge upward.

2. In a music stool having a seat hinged at one side to supporting rails; a box open along one edge only and so pivoted within the stool rails that it hangs vertically with its open end uppermost when the seat is raised, or is made to take a more or less horizontal position on the seat being lowered, means to hold the box in an angled position to serve as a support holding the seat inclined.

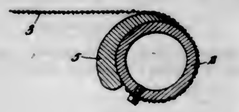
3. In a music stool, a supporting frame, a seat hinged at one side thereto, and beneath the seat a music box normally open at one edge only and held in substantially horizontal normal position by said seat, said music box being so pivoted to the frame that on the lifting of the said seat, the music box tends to swing downward by gravity to present its open edge upward, in combination with an inter-connecting link system between said music box and seat whereby the weight of the music box assists in lifting the seat, while the weight of the seat during the lowering thereof assists in lifting the music box to its normal horizontal position, substantially as described.

4. In a music stool having a seat hinged at one side to supporting rails; a box open along one edge only and so pivoted within the stool rails that it hangs vertically with its open end uppermost when the seat is raised, or is made to take a more or less horizontal position on the seat being lowered, a disconnectible link connection between the seat and the box controlling the movement of the box from one position to the other on the raising and lowering of the seat, and means to hold the box in an angled position to serve as a support holding the seat inclined.

5. In a music stool having a seat hinged at one side to supporting rails; a box open along one edge only and so pivoted within the stool rails that it hangs vertically with its open end uppermost when the seat is raised, or is made to take a more or less horizontal position on the seat being lowered, and a catch plate so held on the box near its closed edge that it is movable thereon to cause it to project beyond that edge and encounter the under side of one of the stool rails when the seat bear on the box.

[Claim 6 not printed in the Gazette.]

1,074,515. SPRING-TIGHTENER. LOYD M. MENGLE and ALFRED GRIFFITHS, Atlantic City, N. J. Filed Jan. 17, 1913. Serial No. 742,666. (Cl. 5—68.)



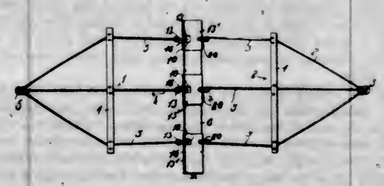
1. A bed spring tightener comprising a rotatably mounted shaft to which the spring fabric is attached, and means for increasing the diameter of the shaft at a predetermined point in its length.

2. A bed spring tightener comprising a rotatably mounted shaft to which the spring fabric is attached, and means for increasing the diameter of a predetermined portion of the shaft proportionately as the same is rotated to tighten the fabric.

3. A bed spring tightener comprising a rotatable shaft to which the fabric is attached, and removable means for increasing the diameter of portions of the shaft proportionately as the shaft is rotated to tighten the fabric.

4. A bed spring tightener comprising a rotatable shaft to which the fabric is attached, and a removable wedge adapted to fit the shaft and to be held in position thereon by the spring fabric.

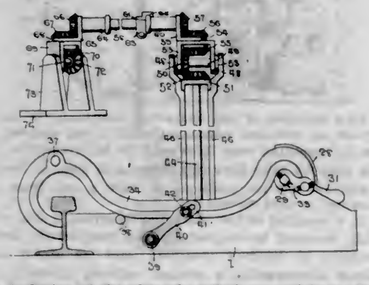
1,074,516. HAY-SLING. HENRY MORGEN, Crary, N. D., assignor of one-third to Lars Kragerud and one-third to Peter Paulson, Willow City, N. D. Filed Jan. 31, 1913. Serial No. 745,523. (Cl. 57—11.)



1. A hay sling comprising a pair of sections, one of the sections having hooks, a pair of bars, clips carried by the bars and permanently connected to the other section, pockets formed between the bars, slots communicating with the pockets, a trip rod movable between said bars, hooks carried by said rod and movable in the pockets for engaging the first named hooks when passed through said slots, and means for operating the trip rod to disengage said hooks to permit the sections to spread.

2. A hay sling comprising a pair of sections, one of which carries hooks, a pair of bars having recesses formed in their opposing faces, said recesses when confronting forming pockets, slots communicating with the pockets, clips carried by the bars and engaged permanently by the other section, a trip rod movable between the bars, hooks carried by the rod and operable in the pockets to engage the first named hooks which pass through the slots, a plate carried by the bars, a lever pivotally connected to the plate, said lever being similarly connected intermediate its ends to one end of the trip rod, whereby when said lever is rocked the trip rod will be operated to cause disengagement of said hooks, as and for the purpose set forth.

1,074,517. RAIL-DRILL. LESLIE W. MORTON, Canton, Ill. Filed June 26, 1911. Serial No. 635,366. (Cl. 77—9.)



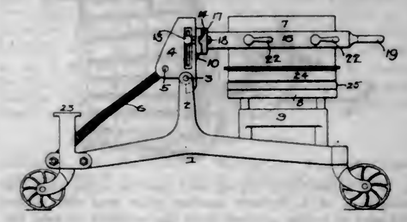
1. A device of the class described, comprising a framework, central cross braces for said framework, a shaft rotatably secured through said central braces and extending longitudinally of said framework, means carried by said framework for moving said shaft longitudinally of said framework, means for rotating said shaft within the cross braces of said framework, clamp arms connected to said framework and extending beyond the latter, means for moving said clamp arms in respect to the framework to draw and hold the latter against the web of a rail, and straight guide links having their lower ends secured to the framework while their upper ends are connected with the clamp arms for guiding and limiting the latter in their movement.

2. The combination with a drill frame having cross pieces and collars on said cross pieces; of a drive frame having side pieces, the lower ends of said side pieces being apertured for engagement over the collars of the cross pieces, means for connecting the side pieces of the drive frame, a power shaft rotatably mounted between the side pieces of said drive frame, a shaft in said drill frame, and means to transmit rotary motion from the drive shaft to the drill shaft.

3. The combination with a drill frame having cross pieces and a shaft carried in said cross pieces, said shaft having a gear positioned thereon, the cross pieces having collars projecting in opposite directions, the shaft being rotatably positioned in said collars; of a drive frame having parallel side pieces, the lower ends of said side pieces being provided with suitable openings to accommodate the collars, means for connecting the parallel side pieces of the drive frame, a shaft carried by the connecting means having a gear upon its lower end for mesh with the gear on the shaft positioned through said collars for transmitting rotary motion to said drill shaft.

4. The combination with side pieces of a drive frame connected by central cross pieces upon which a drive frame is pivotally secured; of a transverse shaft carried by the side pieces, links secured to opposite ends of the shaft, a second shaft secured through the outer ends of the links, clamping arms having their rear ends secured upon the second shaft, the forward ends of said clamping arms being adapted for clamping engagement against the far side of a rail, straight guide links having their lower ends pivoted to the side pieces and elongated slots through their upper ends, means positioned through the slots and connected with the clamping arms to guide and limit the movement of said arms upon rotation of the first shaft to raise or lower said arms, and stop pins secured in the side pieces near their upper edges for limiting the downward movement of the clamping arms and preventing the same from reaching their dead centers.

1,074,518. MOLDING-MACHINE. ABRAM C. MOTT, Philadelphia, Pa., assignor to Abram Cox Stove Company Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 26, 1913. Serial No. 769,899. (Cl. 22—33.)



1. The combination in a molding machine, of a frame; a flask; a table for supporting the flask; a bead pivoted to the frame; arms carried by the head; and means for rigidly securing the arms to the sides of the flask so as to leave the upper and lower portions of the flask clear.

2. The combination in a molding machine, of a frame; a pivot thereon; a head mounted on the pivot; a table at one side of the pivot; a support on the opposite side of the pivot; arms detachably and adjustably mounted on the pivot; a flask located between the arms; means for detachably securing the arms to the sides of the flask so as to leave the top and bottom of the flask unobstructed.

3. The combination in a molding machine, of a frame; a shaft pivotally mounted therein; heads carried by the shaft; a transverse bar mounted on the heads; arms laterally adjustable on the bar; a flask mounted between the arms; and means for removably securing the flask to the arms.

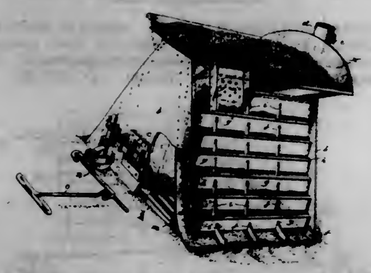
4. The combination in a molding machine, of a frame; a shaft pivotally mounted on the frame; two heads on the shaft; said heads being connected together; a spring secured to the connection; a cross bar having projections, said bar being vertically adjustable on the heads; means for securing the bar to the heads after adjustment; arms adjustable on the cross bar; means for securing the arms in position after adjustment; pins on the arms; and a flask, arranged to be located between the arms, having recesses in the side walls adapted to receive the pins so as to hold the flask to the arms.

5. The combination in a molding machine, of a frame; arms pivotally mounted on the frame; a flask located between the arms and having recesses in its side walls; and handled screw pins in the arms adapted to be projected into the recesses in the flask, when turned.

1,074,519. DRYING AND HEATING APPARATUS. CHARLES A. MULLEN, New York, N. Y., assignor to Ruth Davis Mullen, New York, N. Y. Filed June 30, 1910. Serial No. 569,783. (Cl. 34—34.)

1. In a gravitating drying and heating apparatus, the combination of a furnace having sides and end plates, metal bars or strips secured upon the exterior of the sides of said furnace and transversely arranged thereon at intervals throughout the length of the sides, and a series of flights arranged lengthwise of the furnace and supported by said bars or strips, said flights forming with said furnace sides a compartment through which the material to be dried and heated may pass in a thin and approximately even layer.

2. In a gravitating drying and heating apparatus, the combination of a furnace having sides and end plates, metal bars or strips secured upon the exterior of the sides of said furnace, and a series of flights arranged adjacent said furnace sides in spaced relation therewith and being supported by said bars or strips, said flights forming with said furnace sides a compartment through which the material to be dried and heated may pass in a thin and approximately even layer.



3. In a gravitating drying and heating apparatus, the combination of a furnace having sides and end plates, metal bars or strips secured upon the exterior of said furnace sides and having slots formed therein, and a series of flights arranged adjacent said furnace sides in spaced relation therewith and engaging within said slots, whereby they are supported and held in position, said flights forming with said furnace sides a compartment through which the material to be dried and heated may pass in a thin and approximately even layer.

4. In a gravitating drying and heating apparatus, a furnace consisting of a perforated sheet of metal bent over roofwise to form two heating sides arranged directly above the floor of said furnace, end plates secured to the edges of said sides, said end plates having extensions which project beyond the sides of the furnace, and a series of flights arranged lengthwise of the furnace at spaced intervals therefrom, said flights being secured and supported by the said extensions of the end plates, and said flights and the sides of the furnace forming a drying and heating compartment for containing a thin approximately even layer of the material to be treated.

5. In a gravitating drying and heating apparatus, the combination of a furnace having sides and end plates arranged above the fire of said furnace, said end plates having extensions which project beyond the sides of the furnace, downwardly and inwardly directed flights arranged lengthwise of the furnace and approximately parallel to its sides, said flights being secured to the said extensions of the end plates, which extensions serve as the end walls of a compartment which is formed between the sides of the furnace and the flights, and a hopper arranged above the furnace and adapted to feed the material to be treated to the drying and heating compartment.

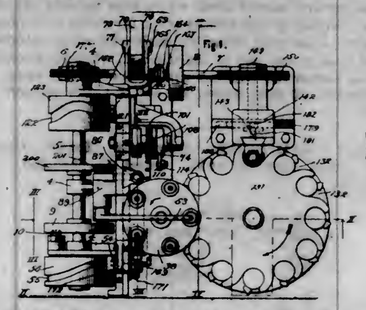
[Claims 6 to 9 not printed in the Gazette.]

1,074,520. CAP-MAKING AND BOTTLING MACHINE. FRIEDERICH MÜLLER, Hartford, Conn., assignor, by mesne assignments, to The American Dan Stopper Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 18, 1912. Serial No. 721,053. (Cl. 113—86.)

1. In a machine which embodies a cap shaping device, a cap shaping die forming a part of said device, means for presenting a filled vessel in suitable position to have the cap transferred from said die directly on to said filled vessel, and means for applying said cap from the cap-shaping die, directly to the filled vessel.

2. The combination with a machine which embodies a cap shaping die and means for displacing a cap from said die, of mechanism for presenting a series of vessels successively into suitable relative position with respect to the cap shaping die to adapt said cap displacing means to apply the cap directly to the vessel.

3. In a machine of the character described, the combination of cap forming means including a cap forming die, means for applying caps from said die to receptacles, means for transferring the cap forming die from a cap forming position to a cap applying position and means for successively presenting at the cap applying position a series of receptacles.

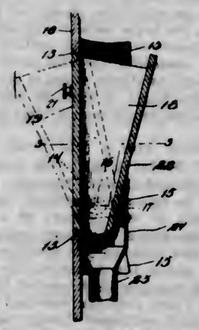


4. In a machine of the character described, the combination of cap shaping means including a cap shaping die, means for applying caps from said die to receptacles, and means whereby said die and a receptacle may be brought into suitable relative positions to have a cap from said die applied to said receptacle.

5. In a machine of the character described, a die socket suitably mounted to successively and temporarily assume a plurality of different positions, said die socket being presented downwardly, a plunger suitably mounted and disposed to coöperate with said die socket in one of said positions, said plunger being adapted to stamp a flat blank into said die socket to form a bottle cap, a bottle carrier suitably mounted to successively present a plurality of bottles immediately below and coaxial with said die socket in another of its positions, and means for transferring the cap from the die socket directly to the mouth of said bottle.

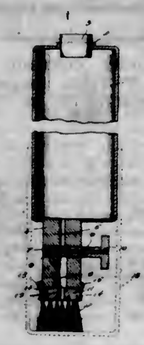
[Claims 6 to 31 not printed in the Gazette.]

1,074,521. CUSPIDOR. ALLEN C. MURDOCK, Inlet, N. Y., assignor of one-half to Gerald A. Kenwell, Inlet, N. Y. Filed Apr. 8, 1913. Serial No. 759,735. (Cl. 4—39.)



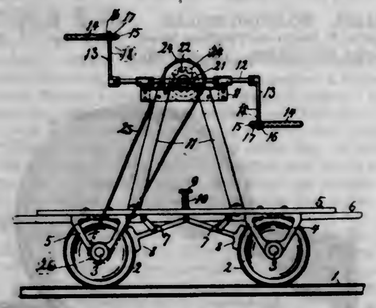
In a cuspidor for cars including an apertured panel supported on the walls thereof, a plurality of supporting members journaled on the walls of the car, a receptacle swingingly supported on the said supporting members and interposed therebetween, the said receptacle including a front beveled wall adapted to engage beveled edges of the panel and constitute a portion of the panel when the receptacle is in closed position, springs carried by the supporting members and engaging the receptacle to swing the receptacle from an open to a closed position and normally hold the receptacle in closed position, a conduit arranged beneath the receptacle and in the rear of the said panel, and a flared head projecting upwardly from the conduit and adapted to be engaged by the receptacle to limit the opening swinging movement thereof, the front wall of the said receptacle engaging the said panel to close the aperture therein and being adapted to limit the closing swinging movement of the receptacle.

1,074,522. FOUNTAIN BLACKING-BRUSH. MARTIN W. NELSON, Harlem, Mont. Filed Dec. 10, 1912. Serial No. 736,001. (Cl. 15—46.)



A blacking brush including a reservoir, a neck projecting therefrom and having a channel in communication with the reservoir and a chamber in communication with the channel, a turning plug formed with an opening to establish communication between the channel and chamber and with an air duct to establish communication between the chamber and atmosphere when said plug is in a position to cut off communication between the chamber and channel, and a brush head removably secured to the neck and formed with an opening to receive the material from the chamber.

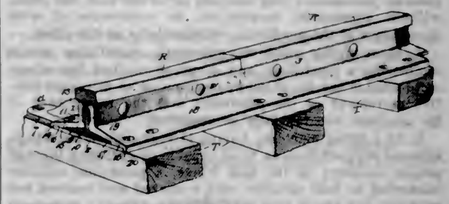
1,074,523. HAND-CAR. NELS NELSON, St. Paul, Minn. Filed May 12, 1913. Serial No. 766,969. (Cl. 105—196.)



1. In a car of the class described, the combination with a platform, of axles and wheels fixed together and supporting the same, a sprocket fixed on one of the axles, a frame mounted on the platform, a short shaft journaled in the frame and having at one end a fixed bevel gear, a longer shaft journaled in longitudinal direction of the car, a bevel gear fixed on the long shaft and meshing with the bevel gear on the short shaft, hand cranks at the ends of the long shaft, a sprocket revolubly mounted on the short shaft and a reversible ratchet mechanism constituting operative connection between the short shaft and the sprocket wheel on same and an endless link-belt connecting the sprocket on the short shaft with the sprocket on the axle.

2. In a car of the class described, the combination with a platform, of axles and wheels supporting the same, a sprocket fixed on one of the axles, a frame mounted on the platform, a short shaft journaled in the frame and having at one end a fixed bevel gear, a longer shaft journaled in longitudinal direction of the car, a bevel gear fixed on the long shaft and meshing with the bevel gear on the short shaft, hand cranks at the ends of the long shaft, a sprocket revolubly mounted on the short shaft and a reversible ratchet mechanism constituting operative connection between the short shaft and the sprocket wheel on same, said ratchet mechanism consisting of a cog wheel fixed on the shaft, a pawl pivoted to the adjacent side of the sprocket, and a spring pressing on the pawl to hold it engaged with the cog wheel, said pawl being reversible so as to enable the operating mechanism to be reversed for moving the car in either direction on the track and an endless link-belt connecting the sprocket on the short shaft with the sprocket on the axle.

1,074,524. RAIL-JOINT. HENRY A. PALMER, Jewell, Kans. Filed Apr. 18, 1913. Serial No. 761,980. (Cl. 239—6.)

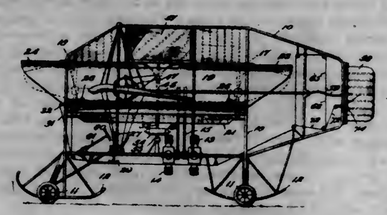


1. In a rail joint, two rails having abutting ends, a joint, said joint including a flat base member adapted to underlie the rails, said base having its longitudinal edges provided with outturned flanges, an outer member for the joint, said outer member comprising an angular portion which is shaped to engage with the fishing spaces upon one of the sides of the rails, the base of the said outer member having outwardly extending lugs provided with bolt-receiving openings, the said base being further provided with recesses forming pockets for the flanges upon one of the edges of the base plate of the joint, an angular fish plate for the opposite faces of the rails, the said fish plate having its base provided with depressions forming pockets for the reception of the flanges upon the opposite edge of the base, means comprising spikes for securing the fish plate and outer member to the base plate and to the ties which support the joint, means, comprising spikes passing through the lugs and entering the ties, and means for securing the vertical portions of the outer member and fish plate to the webs of the rails.

2. In a rail joint, two rails having abutting ends, ties for the rails, a chair, comprising a flat plate having its opposite longitudinal edges formed with spaced out-turned flanges, an outer member comprising a base having an angular extension formed with a vertical projection adapted to engage with the fishing spaces upon one of the sides of the rails, the base being provided with pockets to receive the flanges of the base plate upon one of the longitudinal edges of said base plate, the base of the member being further provided with outwardly extending lugs arranged beyond its pockets, the vertical portion of the member having its outer face provided with reinforcing members which are arranged adjacent the pockets, ribs connecting the reinforcing members and the lugs of the member, bolts passing through the pockets and through the flanges of the base plate for securing the plate and outer member to the ties, securing means passing through the lugs and engaging the ties, an angular member for the opposite side of the rails, said member having its base recessed to provide pockets for the reception of the

flanges on the opposite longitudinal edge of the base plate, securing members passing through the pockets and through the said flanges and entering the ties, and means for connecting the vertical portions with the webs of the rails.

1,074,525. FLYING-MACHINE. MICHAEL A. PARISANO, New York, N. Y. Filed Dec. 21, 1911. Serial No. 667,156. (Cl. 244—29.)



1. In a flying machine, stabilizing means comprising a pendulum for actuating the same, a curved bar having teeth, and a resilient tip on said pendulum normally engaging said teeth to restrain the pendulum from small accidental movements and adapted to sweep over the same, without substantial retardation on occurrence of wide movements of the pendulum, substantially as described.

2. In a flying machine, automatic stabilizing means comprising a pendulum, and a curved toothed bar adapted to engage the tip of said pendulum so as to retard relative movement of the pendulum and the frame-work of the machine, substantially as described.

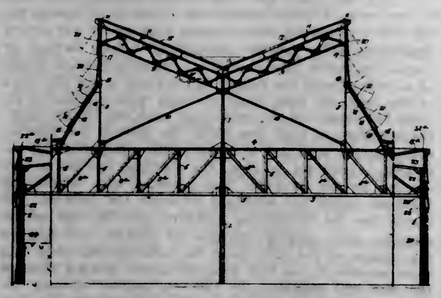
3. In a flying machine, having lateral supporting wings, ailerons supported so as to be capable of swinging through proper openings in the said wings, a pendulum suitably connected to said ailerons, and a curved and toothed bar engaging the tip of said pendulum for damping movement thereof, substantially as described.

4. In a flying machine having lateral wings, movable ailerons mounted thereon, a stabilizing pendulum suitably connected to said ailerons, a swinging jib suitably connected to said pendulum, and a curved and toothed bar engaging the tip of said pendulum for damping movement thereof, substantially as described.

5. In a flying machine, a draft cylinder or tube of substantially uniform cross section, open at front and back and along its under side, and a revoluble propeller located entirely within said tube, said propeller being arranged to compress the air within said tube and being materially smaller in diameter than said tube, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

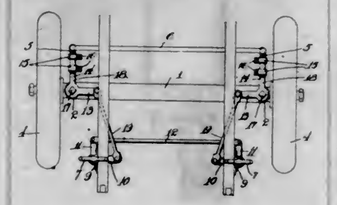
1,074,526. BUILDING CONSTRUCTION. CLARKE P. POND, Philadelphia, Pa. Filed June 1, 1912. Serial No. 701,085. (Cl. 108—1.)



1. A building having a monitor, the upper part of the sides of said monitor being substantially vertical and the lower parts thereof being outwardly inclined to the main roof of the building, said sides being for the greater part formed by windows.

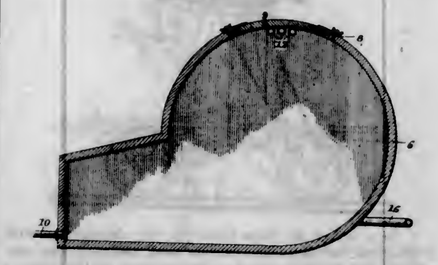
2. A building having a frame formed of a series of substantially parallel elements, each of said elements consisting of columns; a truss carried by said columns; a central column; auxiliary columns supported by the truss and extending vertically to a height above the central column; means for connecting said auxiliary columns with the central column; longitudinally extending members connecting the various elements of the frame; a roof sloping from points above the auxiliary columns downwardly to the central columns; and main roofs extending respectively from points adjacent the bases of the auxiliary columns outwardly to the sides of the building.

1,074,527. HEADLIGHT CONTROL FOR AUTOMOBILES. HARVEY W. POTTS, Longmont, Colo. Filed Mar. 28, 1913. Serial No. 757,462. (Cl. 240—62.)



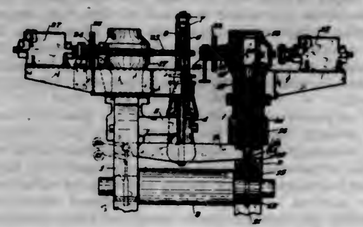
The combination with the steering knuckles of an automobile or similar vehicle, of elbow levers having their axes of movement coincident with the axes of the steering knuckles, one arm of each lever being deflected and extended in the same direction as the knuckle arm, means for securing said arm of the elbow lever to the adjacent knuckle arm, lamp shafts journaled to turn on vertical axes, elbow levers fast on said lamp shafts, a connecting rod coupling the last-named elbow levers together for simultaneous and equal movement, and links extending in a fore and aft direction and connecting the remaining arms of the two sets of elbow levers so as to admit of the relative up and down motion of the steering wheel axle and frame of the machine.

1,074,528. WASHING-BOILER. JOHN E. ROWAN and LOUIS F. BAUMAN, Virginia, Minn. Filed Sept. 11, 1912. Serial No. 719,802. (Cl. 68—30.)



A wash boiler comprising a receptacle tapered throughout its length and formed to provide a substantially cylindrical portion and a longitudinally alined offset portion in communication with the cylindrical portion, a steam inlet pipe opening into the offset portion remote from the cylindrical portion and adjacent the bottom of the receptacle and steam exhaust means including a pipe communicating with the interior of the cylindrical portion adjacent the top of the receptacle.

1,074,529. SCREW-DOWN FOR ROLLING-MILLS. WILLIAM F. RUST and CLINTON H. HUNT, Youngstown, Ohio. Filed May 1, 1912. Serial No. 694,533. (Cl. 80—56.)



1. In a screw-down for rolling mills, a pair of housings, a roll between the housings and having its ends within the housings, a vertical screw in each housing arranged to drive the roll downwardly and hold it from rising, a roll-balancing mechanism having vertically-removable elements over the roll and between the housings, a horizontal bevel-gear wheel in axial alinement with each screw for rotating the same, two horizontal bevel gear shafts, each shaft provided with a bevel-gear wheel meshing, respectively, with the horizontal bevel-gear wheels, a horizontal drive-shaft parallel with the two bevel-gear shafts, and spur gearing connecting each bevel-gear shaft with the drive shaft, the said three shafts being clear of the space required for the vertical removal of the said roll-balancing elements.

2. In a screw-down for rolling mills, a pair of housings, a roll between the housings and having its ends within the housings, a vertical screw in each housing arranged to drive the roll downwardly and hold it from rising, a roll-balancing mechanism having vertically-removable elements over the roll and between the housings, a horizontal bevel-gear wheel in axial alinement with each screw for rotating the same, two horizontal bevel gear shafts, each shaft provided with a bevel-gear wheel meshing, respectively, with the horizontal bevel-gear wheels, a horizontal drive-shaft parallel with the two bevel-gear shafts, and spur gearing connecting each bevel-gear shaft with the drive shaft, the said three shafts being clear of the space required for the vertical removal of the said roll-balancing elements and one of the bevel gear shafts being located on the side of the screw opposite the said roll-balancing mechanism.

1,074,530. WEFT-REPLENISHING LOOM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Mar. 24, 1913. Serial No. 756,356. (Cl. 139—85.)

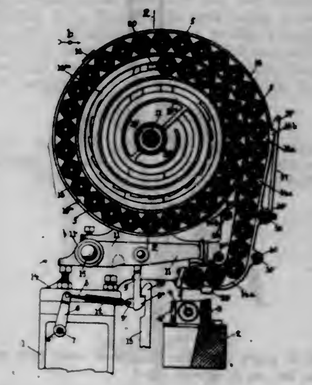
1. In a weft replenishing loom, a magazine for bobbins or filling carriers, having a spiral guide-way or groove for the bobbins, starting from the central part of the magazine, and a pusher to engage and move the bobbins toward the discharging end of the magazine and under the transferrer.

2. In a weft replenishing loom, a magazine for bobbins or filling carriers, having a spiral guide-way or groove for the bobbins, and means to move the bobbins in said guide-way or groove toward the discharging end of the magazine, and into a position to be transferred.

3. In a weft replenishing loom, a rotatably mounted magazine for the bobbins or filling carriers, having a spiral guide-way or groove for the bobbins, and means to move the bobbins in said groove toward the discharging end of the magazine, and into a position to be transferred.

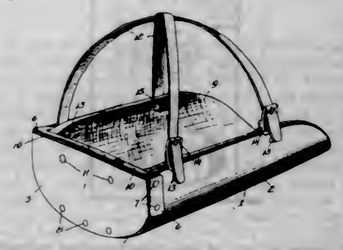
4. In a weft replenishing loom, a magazine for bobbins or filling carriers, comprising a rotatably mounted part having a spiral guide-way or groove, and a stationary part having a guide-way or groove, and means to push the bobbins through the spiral groove and the stationary groove, and into a position to be transferred.

5. In a weft replenishing loom, a magazine, having a stationary discharging end, and a rotatably mounted part having a spiral guide-way or groove for the bobbins, and means to move the bobbins in said groove or guide-way toward the discharging end of the magazine, and means to connect the discharging end of said rotatably mounted part with said stationary discharging end.



[Claims 6 to 9 not printed in the Gazette.]

1,074,531. KNEE-PAD. WILLIAM SCHMITT, Seguin, Tex. Filed Sept. 10, 1912. Serial No. 719,621. (Cl. 2—130.)



A pad of the class described comprising a semi-tubular sheet metal cover having an inturned strengthening flange at and across its upper end, a flexible cap covering the upper end of the cover and secured to the strengthening flange thereof, the said cap being provided with extensions at its upper corners bent around and secured to the upper corners of the sides of the cover, a lining covering the inner sides of the cover and cap, and attaching devices connected to the cover.

1,074,532. CLAM-DIGGER. JULES SCHOOS, New Bedford, Mass. Filed Apr. 2, 1913. Serial No. 758,450. (Cl. 43—12.)

1. A clam digger including a bar, a series of fingers connected to the bar and arranged in pairs, the fingers of each pair diverging from the bar and throughout their full lengths.

2. A clam digger including a bar, a series of fingers connected to the bar and arranged in pairs, the fingers of each pair diverging from the bar and throughout their full lengths, the relatively inner surfaces of the fingers being formed with teeth.

3. A clam digger including a bar, a handle socket projecting therefrom, said bar being formed with opposing

alined recesses and fingers removably secured in said recesses and depending below the bar, said fingers being



arranged in pairs with the fingers of each pair projected below the bar on divergent lines.

1,074,533. PUZZLE OR TOY. EDWARD J. SCHOWALTER, Racine, Wis. Filed Nov. 20, 1912. Serial No. 732,570. (Cl. 46—49.)



1. A puzzle or toy of the class described comprising a transparent plate, obscuring pieces arranged beneath said plate, an unfinished figure arranged behind said transparent plate, and a plurality of interchangeable movable members normally hidden by said obscuring pieces and adapted to be brought into position to complete the figure.

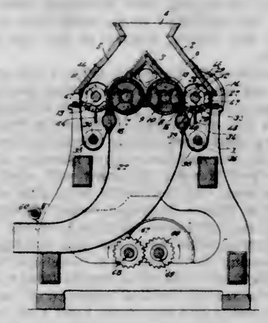
2. A puzzle or toy of the character described comprising a casing having a transparent front and a back piece, obscuring pieces arranged in the casing beneath the transparent front and spaced from the back piece, an unfinished figure depicted partially on said back piece and partially on one of said obscuring pieces, and a plurality of interchangeable movable members or pieces representing in various ways the unfinished portion of the figure and adapted to be brought into position to complete the figure.

3. A puzzle or toy of the character described comprising a casing having a transparent front and a back piece, obscuring pieces arranged in the casing beneath the transparent front and spaced from the back piece, an unfinished figure depicted partially on said back piece and partially on one of said obscuring pieces, a plurality of interchangeable pieces or members loosely arranged in the casing and representing in different ways the unfinished part of the figure depicted on the back piece and obscuring pieces of the casing and adapted to be brought into position to complete the figure, and means whereby said movable pieces or members may be manually actuated.

4. A puzzle or toy of the character described comprising a casing consisting of an open frame, a transparent front secured to one side of said frame, a back piece secured to the opposite side thereof, a binding strip secured around the edges of said frame, front, and back piece, whereby these parts are bound together to form the casing, an unfinished figure depicted on the back piece of the casing, and a plurality of interchangeable pieces or figures loosely arranged in the casing and adapted to be brought into position to complete the figure to represent different characters.

5. A puzzle or toy of the character described comprising a casing having a transparent front and a back piece, an unfinished figure depicted on said back piece, a plurality of movable and interchangeable pieces or members loosely arranged in said casing and adapted to be brought into position to complete said unfinished figure, means whereby the movable pieces when not being manipulated or in operative position may be hidden from view, magnetic strips secured to said movable pieces, and a magnet adapted to attract said pieces through the front or back piece of the casing whereby the pieces or members may be moved around in the casing and brought into position for completing the figure depicted therein.

1,074,534. ROLLER COTTON-GIN. SYLVANUS D. SHEPPERD, Newark, N. J. Filed July 19, 1911. Serial No. 639,347. (Cl. 13—7.)



1. In a cotton gin, the combination of a frame or casing, a hopper provided with downwardly diverging passages, a pair of horizontal, downwardly and outwardly rotating juxtaposed ginning rolls, having their outer surfaces partially exposed in the respective passages, a lint chute common to and disposed beneath said ginning rolls, vertically disposed doctor blades having their upper edges bearing against the outer sides of the respective rolls, inwardly and downwardly rotating knocker rolls disposed within said passages opposite the exposed faces of the ginning rolls and provided with teeth operating in paths parallel with the acting edges of the doctor blades, and means for driving the rolls.

2. In a cotton gin, the combination of a frame or casing, a hopper provided with downwardly diverging passages, a pair of horizontal, parallel juxtaposed downwardly and outwardly rotating ginning rolls having their outer portions exposed in said passages, a lint chute common to and arranged beneath said ginning rolls, vertically disposed doctor blades having their upper edges arranged to bear against the outer faces of the respective ginning rolls, downwardly and inwardly rotating knocker rolls arranged on the outer sides of the ginning rolls within said passages and provided with teeth operating in paths parallel with the acting edges of the doctor blades, a driving shaft, gearing for operating the ginning roll of one set and the knocker roll of the other set from said drive shaft, and separate and independent gearing for operating the other ginning roll and knocker roll from said shaft.

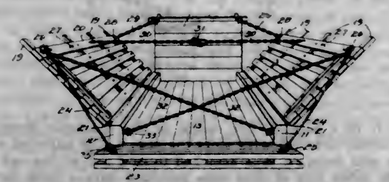
3. In a cotton gin, a ginning chamber having a feed inlet and side walls inclining downwardly and outwardly in diverging relation therefrom, a central inverted V-shaped deflector disposed in said chamber with its sides parallel with said walls and forming therewith diverging feed passages, a pair of outwardly and downwardly rotating juxtaposed ginning rolls disposed partially beneath the deflector and having portions exposed in the respective passages, doctor blades on the outer sides of said ginning rolls, knocker rolls arranged at the lower ends of the passages with their axes parallel with and in the horizontal plane of said ginning rolls, said knocker rolls being provided with longitudinal rows of teeth for coöperation with the doctor blades and ginning rolls, and doors at the lower ends of the diverging walls of the ginning chamber adapted to be opened to afford access to the lower end of the passages and to directly expose the rolls.

4. In a cotton gin, the combination of a frame or casing, a hopper provided with downwardly diverging passages, horizontal, parallel downwardly and outwardly rotating juxtaposed ginning rolls having their outer faces exposed in said passages, a lint chute common to and arranged beneath said rolls and provided with resilient walls, vertically disposed doctor blades having their upper edges arranged to bear respectively against the outer faces of the respective ginning rolls, said blades being mounted to rock on axes for lateral adjustment toward and from the rolls, means connecting said shafts with the resilient walls of the chute for normally holding said doctor blades away from the ginning rolls, means for adjusting said doctor blades on their axes for regulating their bearing pressure on the rolls, downwardly and inwardly rotating knocker rolls arranged on the outer sides of said ginning rolls within said passages and provided with teeth operating in paths parallel with the acting edges of the doctor blades, and means for driving the rolls.

5. In a cotton gin, the combination of a frame or casing, a hopper superposed thereon and provided with an inlet, said hopper having downwardly diverging side walls, a deflector disposed within said hopper below said inlet and having downwardly diverging sides coöperating with the side walls of the hopper to provide correspondingly diverging passages, horizontal, parallel downwardly and outwardly rotating ginning rolls disposed partially beneath said deflector and projecting partially into said passages, vertically disposed doctor blades supported beneath said rolls and having their upper edges arranged to bear against the respective outer faces thereof, downwardly and inwardly rotating knocker rolls arranged in said passages opposite the exposed portions of the ginning rolls and provided with teeth operating in paths parallel with the acting edge of the doctor blade, and means for driving the rolls.

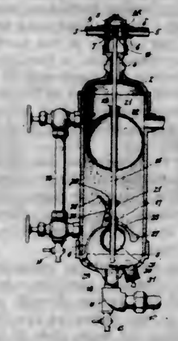
[Claims 6 to 12 not printed in the Gazette.]

1,074,535. WAGON-BED. JOSEPHUS L. SWEENEY, Franklin, Tenn. Filed Nov. 11, 1911. Serial No. 659,869. (Cl. 21—76.)



In a wagon body, the combination of side and rear extensions having readily detachable hinged connections therewith, a readily removable front board, flexible tension members connecting the upper portions of the side extensions with each other and with the body, tension members for supporting the front ends of the side extensions from the front board, rods attached to the rear extension by universal joint connections and passing through eyes secured to the rear ends of the side extensions on the inner sides thereof, said rods having hooks on their forward ends adapted to engage said eyes to support the rear extension from the side extension, and other eyes on the side extensions forwardly of the first-mentioned eyes and adapted to be engaged by said hooks to secure the side and rear extensions together in closed position, said parts being so constructed and arranged that said rods for the open and closed positions of the side and rear extensions lie substantially in the planes of the side extensions.

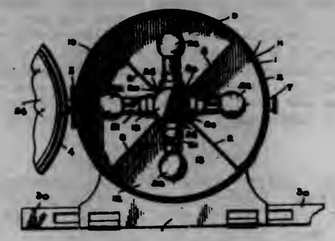
1,074,536. SAFETY FEED-WATER CONTROLLER FOR BOILERS. FRED WALLACE and FRED ERNST, Eden, N. Y. Filed Nov. 8, 1912. Serial No. 730,258. (Cl. 137—101.)



1. A feed water controller for steam boilers comprising a water containing casing in communication with the boiler, a valve for controlling the feed of water to the boiler, a rod connected with the valve and movable vertically in the casing, said rod being adapted to drop by gravity to valve opening position, spaced contacts upon the rod, a main float slidable on the rod between said contacts and coöperating with the upper contact to lift the rod to valve closing position, locking means adapted to engage the lower contact to hold the valve rod in valve closing position and to be retracted to release the rod by the main float when the latter descends to a predetermined position, a second float mounted on the rod below the level of the main float, an electric circuit containing an alarm, and contacts included in said circuit and adapted to be connected by said second float to close the circuit when said second float descends to a predetermined degree.

2. A feed water controller for steam boilers, comprising a vertical water containing casing in communication at its lower end with the boiler, a vertically movable valve at the upper end of said casing controlling the flow of water to the boiler, a rod carrying said valve and depending into the casing, said rod being adapted to drop by gravity to valve-opening position, a pair of spaced contacts on the rod, a main float slidable on the rod between said contacts, a bracket supported by the casing, a second float slidably mounted on the rod below the level of the main float and limited in upward motion by said bracket, an electric circuit containing an alarm, contacts included in said circuit and adapted to be connected by said second float to close the circuit when said second float descends to a predetermined degree, and a pivoted latch mounted upon the bracket, said latch having a weighted arm for maintaining it in locking position, a latch arm adapted for engagement with the lower contact to hold the valve rod in valve closing position, and a trip projection adapted to be engaged by the main float on its descent to retract the latch and permit the valve rod to drop to valve opening position.

1,074,537. SIGNALING DEVICE. LEO ARNEIS, Philadelphia, Pa. Filed May 13, 1913. Serial No. 767,251. (Cl. 240—46.)



1. A signaling device of the character described comprising a cylindrical casing having an opening in the center of its back, and a wire guiding head secured to the casing and covering the opening in the back, said casing divided by radial partitions into a plurality of chambers, a removable block closing the inner ends of all of the chambers, and in line with the opening in the back of the casing, and said block carrying a plurality of lamp sockets, one socket projecting into each chamber in the casing, substantially as described.

2. A device of the character described, comprising a casing, diagonal partitions dividing the casing into a plurality of chambers, a removable block located centrally in the casing and closing the several chambers, and lamp supports on said block in the respective chambers, substantially as described.

3. In a signaling device of the character described, the combination with a casing, partitions in the casing terminating short of the center thereof, a movable block located centrally in the casing at the inner ends of the partition and closing the inner ends of all of said chambers, and lamps on said block projected into the respective chambers, substantially as described.

4. In a signaling device of the character described, the combination with a casing, partitions in the casing terminating short of the center thereof, a movable block located centrally in the casing at the inner ends of the partition and closing the inner ends of all of said chambers, lamps on said block projected into the respective chambers, said partitions and said block projected out beyond the edge of the casing, a door on the casing, and a glass in the door bearing against the outer edges of the partitions and the end of the block when the door is in closed position, substantially as described.

5. In a signaling device of the character described, the combination with a casing, partitions in the casing terminating short of the center thereof, a movable block located centrally in the casing at the inner ends of the partition and closing the inner ends of all of said chambers, lamps on said block projected into the respective chambers, a transparent section in the bottom of said casing, and a license tag holder secured to the casing below the transparent section, substantially as described.

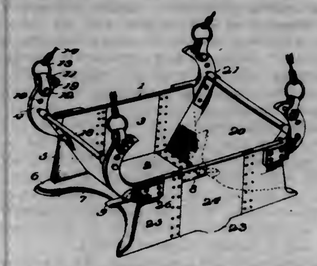
[Claims 6 to 8 not printed in the Gazette.]

1,074,538. EXCAVATING-SHOVEL. TONY ALEXANDER, San Francisco, Cal. Filed Mar. 19, 1912. Serial No. 684,844. (Cl. 37—19.)

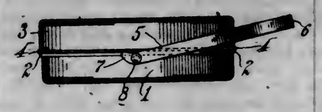
1. A shovel comprising a body open at its ends and having at the corner portions of its sides inwardly disposed beams each of which is provided with a series of apertures, and shackles adjustably mounted upon the beams.

2. A shovel comprising a body having open ends, inwardly curved beams mounted at the corners of the sides of the body and having inwardly disposed lugs, and gates hingedly mounted at the ends of the body between the beams, the said lugs projecting into the paths of movement of the gates.

3. An excavating shovel comprising a body having an open end through which material enters and is discharged, a gate hung freely in said end of the body to swing inwardly and upwardly as material is taken up and downwardly and outwardly as the material is discharged, suspending cables attached to the ends of the body, and operating means connected with said cables.

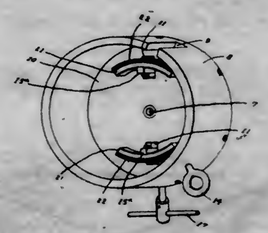


1,074,539. METALLIC BOX. ROLLYN H. BAKER, Dayton, Ohio. Filed May 22, 1911. Serial No. 628,831. (Cl. 220—7.)



A metallic box having a lid with a laterally extended marginal flange therearound, a handle for said box consisting of a flat band a portion of which is shaped to conform to the contour of the box and the ends of which are pivoted to opposite sides of the box, at the center of the circumference of said box, the said ends being tapered and extended to conform to the circumference of the box beyond the pivots and extended upwardly to engage the flange of the cover, the portion of said handle lying beyond the circumference of the box being formed into a loop which serves as a hand grip in using said box and as a hanger for the box when it is not in use, as shown and described.

1,074,540. PORTABLE FIRE-ESCAPE. HECTOR CHIARIGLIONE, PETER VESCOVI, and EDMOND GOBATTI, Pueblo, Colo. Filed Sept. 7, 1912. Serial No. 719,252. (Cl. 227—24.)



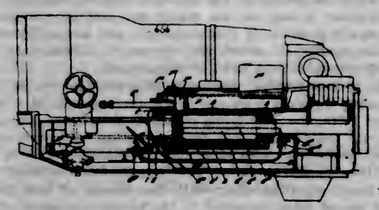
1. In a portable fire escape of the character described, a drum provided with slots therein; a reel adjusted within said drum; a tape attached to said reel at one end and the other end of said tape provided with a hook for attaching purposes; brake levers attached pivotally to said drum and extending to the interior thereof and provided with brake shoes on the interior side, adapted to engage the interior of said reel, the exterior end of each of said brake levers screw threaded; a screw threaded bar adapted to engage the exterior ends of said brake levers and provided with a handle, adapted to operate said brake levers, all as described.

2. In a portable fire escape of the character described a reel inclosed in a drum having provided on the interior surface of said reel a space adapted for the operation of a brake; a tape attached to said reel and extending outside of said drum and provided with a hook adapted to attach to any object; brake levers attached pivotally to said drum, and adapted to operate on the interior side of said reel; a right and left threaded bar adapted to operate in the exterior ends of said brake lever and the same being provided with screw threads adapted to receive the same, all as described.

3. In a portable fire escape of the character described, a tape attached to a reel and inclosed in a drum; brake levers attached pivotally to the head of said drum and adapted to operate on the interior side of said reel, the exterior end of said levers provided with a ball head; a nut adjustable over said ball head of said lever and adapted to be held in position by bolt with washers; a right and left screw threaded bar adapted to operate said nuts, all as described.

4. In a portable fire escape of the character described, a drum provided with slots therein; a reel adjusted within said drum; a tape attached to said reel at one end and the other end of said tape provided with a hook for attaching purposes; brake levers attached pivotally to said drum and extending to the interior thereof and provided with brake shoes on the interior side, adapted to engage the interior of said reel, the exterior end of each of said brake levers screw threaded; a screw threaded bar adapted to engage the exterior ends of said brake levers and provided with a handle, adapted to operate said brake levers; a double nut on the free end of said screw threaded bar adapted to adjust the extent of release of said brake levers; all as described.

1,074,541. RECOIL AND RUN-OUT GEAR OF HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Filed Dec. 26, 1912. Serial No. 738,559. (Cl. 89—43.)



1. In recoil and run out gear for ordnance, the combination with the brake cylinder, the tension brake piston, the displacement ram integral with said piston, the air cylinder and its floating piston, of means for removing the pressure of the liquid from the floating piston to permit the gun to move inward under the influence of gravity.

2. In recoil and run out gear for ordnance, the combination with the brake cylinder, the tension brake piston, the displacement ram integral with said piston, the air cylinder and its floating piston, of means for removing the pressure of the liquid from the floating piston to permit the gun to move inward under the influence of gravity, and separate means for admitting water under pressure to the brake cylinder.

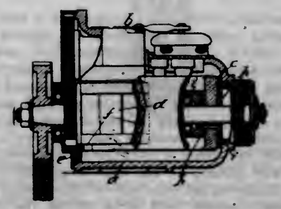
3. In recoil and run out gear for ordnance, the combination with the brake cylinder, the tension brake piston, the displacement ram integral with said piston, the air cylinder and its floating piston, of means in the air cylinder for exhausting the liquid therefrom to permit the gun to move inward under the influence of gravity, and separate means for admitting water under pressure to the brake cylinder.

4. In recoil and run out gear for ordnance, the combination with the brake cylinder, the tension brake piston, the displacement ram integral with said piston, the air cylinder and its floating piston, of a stop cock in the wall of the air cylinder for exhausting the liquid therefrom to permit the gun to move inward under the influence of gravity, and separate means for admitting water under pressure to the brake cylinder.

5. In recoil and run out gear for ordnance, the combination with the brake cylinder, the tension brake piston, the displacement ram integral with said piston, the air cylinder and its floating piston, of a stop cock in the wall of the air cylinder for exhausting the liquid therefrom to permit the gun to move inward under the influence of gravity, and a control valve for admitting and exhausting water under pressure to and from the brake cylinder.

[Claims 6 and 7 not printed in the Gazette.]

1,074,542. MAGNETO-ELECTRIC IGNITION APPARATUS FOR USE WITH INTERNAL-COMBUSTION ENGINES. CARL EBNER, Stuttgart, Germany. Filed Mar. 9, 1910. Serial No. 548,201. (Cl. 123—149.)



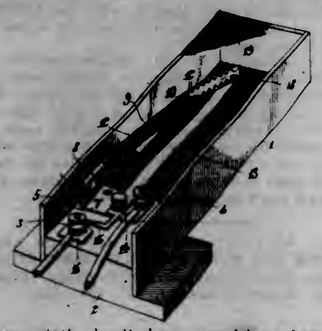
In a magneto-electric ignition apparatus, the combination of a stationary casing and having a bearing opening; a bell-magnet in said casing and having poles of arc-shaped cross-section and provided with arc-shaped grooves; plates in said bearing opening and provided with arcuate projections engaging in said grooves; a shaft passing longitudinally between the poles; an armature thereon; a distributer fixed to the casing and operatively connected to the shaft.

1,074,543. SAFETY WATCH-GUARD. ROBERT FISCHER, Brooklyn, N. Y. Filed June 26, 1912. Serial No. 706,016. (Cl. 2—153.)



In a watch guard, the combination with a clasp; of a flexible tube, caps at the ends of the tube, one of which caps is provided with an opening and is secured to the said clasp, a chain within the tube and passing through the opening in the cap, the projecting end of the chain being provided with a swivel, a spring located in the tube and wound around the chain and adapted to return the chain to within the tube when the said chain is withdrawn, substantially as described.

1,074,544. THERMOSTATIC CIRCUIT-CLOSER. CEPHAS V. FITE, Charlotte, N. C. Filed Jan. 10, 1913. Serial No. 741,252. (Cl. 177—128.)



A thermostatic circuit closer comprising a base block, a pair of binding posts on said block and spaced apart, a stationary contact electrically connected to one of said binding posts, a metallic plate electrically connected to the other binding post and having one edge thereof upturned and then bent upon itself to provide parallel members, a thermostatic element having one end disposed between and secured to said parallel members and the opposite end projected beyond the same, a strip pivotally mounted upon said plate and formed at one end to provide a contact adapted to be moved into and out of engagement with the first-mentioned contact, said strip having the other end thereof disposed adjacent to the outer end of said thermostatic element and upturned and cut out to form lugs spaced apart and designed to receive the free extremities of said thermostatic element.

1,074,545. PROCESS FOR THE REDUCTION OF META-NITRO DERIVATIVES OF HYDROCARBONS OF THE BENZENE SERIES. BERNHARD JACQUES FLÜRSCHEIM, Fleet, England. Filed Mar. 25, 1912. Serial No. 686,123. (Cl. 23—24.)

1. The process for the reduction of a meta-dinitro derivative of a hydrocarbon of the benzene series, which consists in gradually introducing a sulfid into a heated mixture of the said hydrocarbon derivative with water, substantially as described.

2. The process for the reduction of a meta-dinitro derivative of a hydrocarbon of the benzene series, which consists in gradually introducing a sulfid and sulfur into a heated mixture of the said hydrocarbon derivative with water, substantially as described.

3. The process for the reduction of a meta-dinitro derivative of a hydrocarbon of the benzene series, which consists in gradually introducing an aqueous solution of a sulfid into a heated mixture of the said hydrocarbon derivative with water, substantially as described.

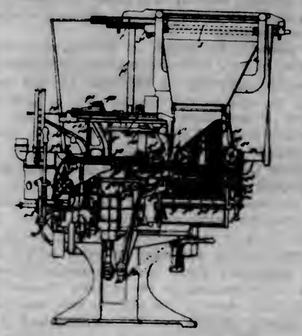
4. The process for the reduction of a meta-dinitro derivative of a hydrocarbon of the benzene series, which consists in gradually introducing an alkali sulfid into a heated mixture of the said hydrocarbon derivative with water, substantially as described.

5. The process for the reduction of a meta-dinitro derivative of a hydrocarbon of the benzene series, which consists in gradually introducing an alkali sulfid and sulfur into a heated mixture of the said hydrocarbon derivative with water, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,546. APPARATUS FOR COMPOSING AND CASTING TYPE. HENRY JAMES SYDNEY GILBERT-STRINGER, Brighton, and PERCY WALTER DRUITT, Mitcham, England, assignors, by mesne assignments, to Edward Heron Allen and Arthur Frank De Fonblanque, London, England. Filed Feb. 12, 1910. Serial No. 543,506. (Cl. 101—200.)

1. In typographic machines, an assembly box movable laterally outward from the assembling position into alinement with the justifying position, said box having a front wall as one of its integral parts and said front wall having a vertically movable part normally urged upward into the operative position, and means operating to retract said movable part automatically when the assembly box is shifted laterally outward into alinement with the justifying position, substantially as described.



2. In typographic machines, an assembly box movable laterally outward from the assembling into alinement with the justifying position, said assembly box having a front wall and an end wall rigid therewith, and a rear guiding wall separate from the remainder of the assembly box and mounted upon the fixed frame, substantially as described.

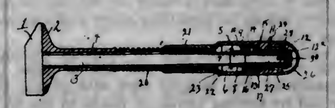
3. In typographic machines, an assembly box movable laterally outward from the assembling position, a movable abutment against which matrices are delivered from the magazine, means for preventing backward movement of the abutment during the feeding of the matrices comprising a rack movable with the abutment and a pawl on the frame cooperating with said rack, means actuated by the outward movement of the assembly box to disengage the said pawl, a stop on the frame determining the normal rearward position of the abutment, and means operating automatically to return the abutment against said stop when the aforesaid pawl is disengaged.

4. In typographic machines, an assembly box movable laterally outward from the assembling position into alinement with the justifying position, a movable abutment for the matrices, means for preventing backward movement thereof, an addendum rod and rack and driving and locating pawls therefor, and means for releasing said abutment simultaneously with the release of said pawls, said means being actuated by the return movement of the assembly box.

5. In typographic machines, a justifying raceway comprising top and bottom pairs of rails whereof the front top rail is hinged at its rear end and horizontally springurged to exert pressure upon the leading matrices in transit along the raceway, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,074,547. WRENCH. ELMER P. GUMMO, Monument, Pa. Filed Jan. 23, 1913. Serial No. 743,860. (Cl. 81—155.)



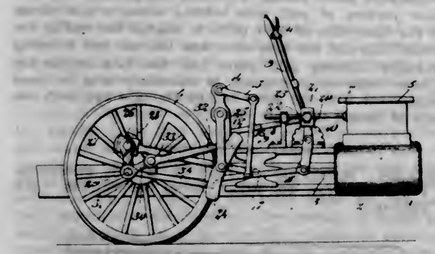
1. In a tool, the combination of a shank, a hollow shank fitted to slide on the first named shank, a sleeve journaled on the first named shank, screw threads formed on the hollow shank and on the sleeve the two sets of threads being of different pitch, a handle member having two sets of threads, one set engaging the threads on the hollow shank, the other set engaging the threads on the sleeve and means for automatically causing the sleeve to revolve with the handle member or remain stationary relative to the rotation of said handle member for changing the rate of travel of the hollow shank.

2. In a tool, the combination of a stationary shank, a sleeve journaled thereon, a hollow shank fitted to slide on the stationary shank, screw threads formed on the hollow shank and on the sleeve, the two sets of threads being of different pitch, a handle member having two sets of internal threads, one set engaging the threads on the hollow shank, the other set engaging the threads on the sleeve, a spring actuated clutch held against rotation on the stationary shank and means for automatically locking said clutch into engagement with the sleeve and unlocking said clutch from said sleeve.

3. In a tool, the combination of a stationary shank carrying a jaw, a movable shank fitted to slide upon the stationary shank and also carrying a jaw, a sleeve journaled on the stationary shank, screw threads formed on the movable shank and on the sleeve, the two sets of threads being of different pitch a handle member having two sets of internal threads, one set engaging the threads on the movable shank, the other set engaging the threads on the sleeve, means dependent upon the thrust caused by the closing of the jaws upon an object for automatically holding the sleeve against rotation, a clutch adapted to positively lock said sleeve against rotation and means for automatically locking and unlocking said clutch.

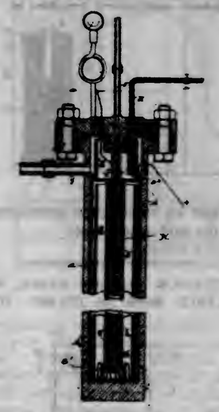
4. In a wrench, a stationary shank, a jaw carried thereby, a movable shank, a jaw carried thereby, threads of relatively steep pitch formed upon the movable shank, a sleeve journaled on the end of the stationary shank, screw threads formed on the sleeve of less pitch than the threads on the shank, a hollow handle having one set of internal screw threads for engagement with the screw threads on the movable shank, and another set of screw threads for engagement with the screw threads on the sleeve, a nut threaded upon the stationary shank for holding the sleeve in position and exerting a certain amount of friction thereon by the end thrust between the shanks, a spring actuated clutch mounted on the stationary shank, and held against rotation thereon, teeth formed upon the clutch, corresponding teeth formed upon the adjacent end of the sleeve and means for automatically putting the clutch into and out of engagement with the teeth on the sleeve, whereby the screw threads on the sleeve will be brought into or put out of action to cause the movable jaw to move at different rates of travel by the rotation of the handle as specified.

1,074,548. LOCOMOTIVE REVERSING-VALVE GEAR. JULIUS HENDERSON, Jonesboro, Ark. Filed Oct. 1, 1912. Serial No. 723,392. (Cl. 121—98.)



In reversing valve gear, the combination with the drive wheel and its crank pin, of the main connecting rod journaled on said pin, a link operating crank adjustable axially around said pin, a pin on said crank, and a second link operating crank adjustable axially around the pin of the first mentioned crank, the two adjustments being independent of one another, whereby the throw of the link throw rods may be adjusted independently of each other.

1,074,549. ELECTROLYTIC APPARATUS. HUGO HENKEL and WALTER WEBER, Dusseldorf, Germany, assignors to The Firm of Henkel & Cie., Dusseldorf, Germany. Filed June 16, 1913. Serial No. 774,053. (Cl. 204—5.)



1. An electrolytic apparatus of the character described, the combination of a long tubular vessel adapted to stand a high internal pressure, a ceramic cylinder in said vessel, a tubular anode in said cylinder, a tubular diaphragm having apertures at the bottom end thereof in said anode, a porous porcelain tube in said diaphragm, and a cathode connected to said porcelain tube.

2. An electrolytic apparatus of the character described, the combination of a long tubular vessel adapted to stand a high internal pressure, a ceramic cylinder in said vessel, a tubular anode in said cylinder, a tubular diaphragm having apertures at the bottom end thereof in said anode, a porous porcelain tube in said diaphragm, and a cathode connected to said porcelain tube, said porcelain tube almost completely filling said diaphragm.

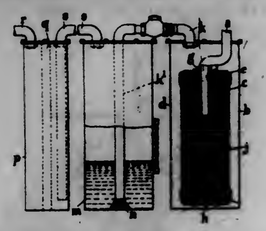
3. In electrolytic apparatus of the character described, the combination of a vertical steel tube closed at its lower end and having an inlet near the top thereof, a ceramic liner in the tube extending from the inlet to the bottom of the tube, a tubular anode in said liner, and resting on the bottom thereof, a tubular diaphragm having an enlarged portion in the steel tube above the anode and a smaller portion extending in the anode to the bottom of the steel tube, said diaphragm having apertures in the bottom end thereof at the bottom of the steel tube, a cover closing the top end of the steel tube and of the diaphragm, a porous porcelain tube attached inside to, and opening through said cover and projecting into the smaller portion of the diaphragm, a cathode wire wound around said porcelain tube, and a discharge tube passing through said cover into the enlarged portion of the diaphragm.

1,074,550. APPARATUS FOR OXYGENATING AIR. HERBERT WILLIAM IZOD, Upper Norwood, England. Filed Aug. 12, 1910. Serial No. 576,844. (Cl. 23—10.)

1. In apparatus for oxygenating air, an outer vessel, cylinders of wire gauze within the said vessel, a screwed socket at one end of the cylinders, a cross member at the other end of the said cylinders, rods tying the said socket and member together, an air inlet pipe screwed into the said socket, an oxygenating agent packed between the cylinders, and an outlet pipe conducting oxygenated air away from the said outer vessel.

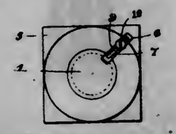
2. In apparatus for oxygenating air, an outer vessel, cylinders of wire gauze within the said vessel, arranged concentrically, U-section rings at the ends of said cylinders, a screwed socket at one end of the cylinders, a cross member at the other end of the cylinders, rods tying the

said socket and member together, an air inlet pipe screwed into the said socket, an oxygenating agent packed between



the cylinders, and an outlet pipe conducting oxygenated air away from the said outer vessel.

1,074,551. NUT-LOCK. GEORGE KLENK, Weiser, Idaho. Filed Nov. 5, 1912. Serial No. 729,662. (Cl. 151—5.)



In combination a threaded bolt having a longitudinal channel throughout the threaded portion thereof, parallel with the center line through the bolt, a nut threaded upon the bolt and having a diagonally positioned channel or recess formed in the top face thereof, a longitudinally slotted key slidably mounted in said channel or recess and having an upturned finger piece and a set screw passing through the slot in the key and threaded onto the nut for locking the key in operative position with its end engaged in the channel of the bolt.

1,074,552. ATTACHMENT FOR MICROMETER-CALIPERS. GEORGE P. KLINE, Moline, Ill. Filed Apr. 22, 1912, Serial No. 692,257. Renewed Aug. 19, 1913. Serial No. 785,593. (Cl. 33—167.)



1. In a micrometer-caliper, a detachable base and two oppositely disposed thread-engaging supports both of which are slidably mounted on said base so as to be free to be moved in opposite directions by the thread of the bolt being calipered.

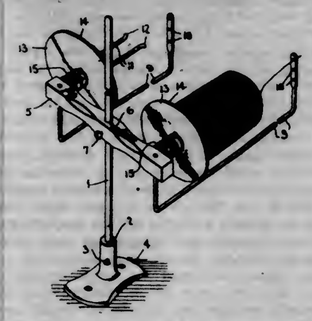
2. In a micrometer-caliper, a detachable base having a groove extending longitudinally thereof, and two oppositely disposed thread-engaging supports both of which are slidable in said groove so as to be free to be moved in opposite directions by the thread of the bolt being calipered.

3. In a micrometer-caliper, a detachable base having a groove, means for securing said base to the caliper, and oppositely movable thread-engaging supports in said base, said supports being capable of said adjustment by engaging the threads of the work to be calipered.

4. In a micrometer caliper having an arm, a detachable base having a flared groove, means for securing said base to said arm, longitudinally adjustable thread-engaging supports mounted on said base and flared at their lower ends to fit in said groove, and stops on said base for limiting the movements of said support.

5. In a micrometer-caliper having an arm, a detachable base having a flared groove, means for securing said base to said arm, longitudinally adjustable supports mounted on said base and flared at their lower ends to fit in said groove, each support being of trianguiar-formation, and stops on said base for limiting the movements of said supports.

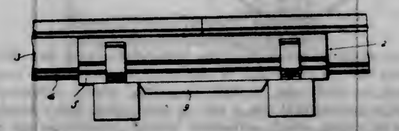
1,074,553. THREAD-STAND. JOHN MAITLAND, Lynn, Mass. Filed Sept. 24, 1912. Serial No. 722,156. (Cl. 242—139.)



1. In a thread stand, a suitably mounted spool supporting member having in its ends apertures, thread guiding rods secured in said apertures, thread holding forks each comprising a spring metal rod bent midway between its ends to form a loop embedded in the end of the supporting member around the guide rod therein, the fork arms being spaced apart and having their extremities bent outwardly to engage the ends of the thread tubes, and means to prevent the coils of thread from falling off the tubes and onto said forks.

2. In a thread holder, a supporting stand, a tube supporting member adjuatably secured to said stand, tube holding arms secured to the ends of said member and adapted to receive a tube of thread whereby the latter is held in operative position, a thread guard comprising a concaved plate having a sliding engagement with the inner portion of said tube holding arms, a soft lining on the inner side of said plate to engage the end of the thread tube and the coils of thread thereon, and a spring arranged between said plate and the tube supporting member whereby said guard is yieldingly held in close engagement with the inner end of the tube and with the coils of thread thereon.

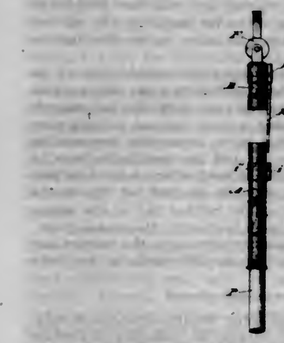
1,074,554. RAIL-JOINT. JOHN E. MCCOY, Pittsburgh, Pa. Filed Nov. 16, 1912. Serial No. 731,748. (Cl. 239—6.)



A rail chair including members formed to together embrace the rail web and base flange thereof, said members being formed with laterally extending recesses to receive

the base flange of the rail, one of said members below said recess provided with laterally projected tongues and the opposing member with corresponding recesses to receive said tongues, the length of said tongues and recesses transverse the rail being less than the length of the flange protection on one side of the web whereby to arrange the interlocking portion wholly beneath the base flange, each of the members being formed intermediate its length with a depending enlargement adapted to contact when the members are in chair forming relation to provide reinforcements intermediate the adjacent ties, and brace webs formed on the members in alinement with the interlocking tongues and recesses to overlie and rest upon the ties, said brace webs being provided with spike-receiving openings.

1,074,555. COMBINED CIGAR-LIGHTER AND PENCIL-POINT PROTECTOR. FRANK MCINTYRE, New York, N. Y., assignor to Eagle Pencil Company, New York, N. Y. Filed Aug. 21, 1913. Serial No. 785,977. (Cl. 67—8.)

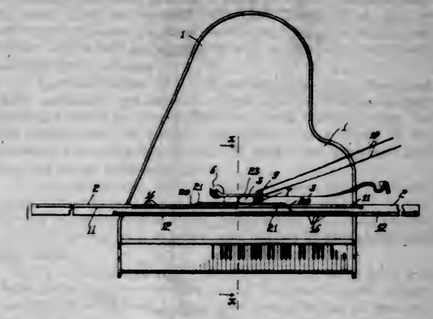


1. The combination of the tubular body and wick chamber therein; the cap constituting a removable cover for said chamber; the sparking member mounted on and carried by the cap; a stem attached at one end to the outside of the cap, extending lengthwise of said cap and beyond the mouth of the same; a tubular guide of similar cross section to the stem secured to the exterior of the body and extending lengthwise of the same, in position to receive and permit the passage through it of the stem, the stem having a shape in cross section to permit its lengthwise movement and prevent its rotation in the guide, and being free to be withdrawn and completely disengaged from the guide when desired, substantially as and for the purposes hereinbefore set forth.

2. The combination of the tubular body and wick chamber therein; the cap constituting a removable cover for the wick chamber; the sparking member carried by the cap; a stem attached at one end to the outside of the cap, extending lengthwise of said cap and beyond the mouth of the same; a tubular guide on the exterior of the tubular body, into which the stem may be inserted and moved lengthwise only, and from which it may be completely withdrawn so as to disengage the cap from the tubular body, and a stop to arrest the further sliding movement of the stem in the guide when the cap has been moved in a direction and far enough to bring the sparking member on it in operative relation to the wick chamber, substantially as and for the purposes hereinbefore set forth.

1,074,556. DEVICE FOR RECORDING THE TONE VOLUMES ON MUSICAL INSTRUMENTS. PHILIP J. MEARL, Summit, N. J. Filed June 13, 1912. Serial No. 703,382. (Cl. 84—68.)

1. The combination with a pianoforte, of a flexible member having its ends secured to suitable supports, a record-producing mechanism operatively connected with said member and means for moving said member between its secured ends by the actuation of piano hammers, substantially as set forth.



2. The combination with a pianoforte, of a member secured at its ends to suitable supports and thereby normally held in a predetermined position, a record producing mechanism operatively connected with said member, means for moving a record receiving element, and means for moving said member out of the predetermined position, between its secured ends by the actuation of the piano hammers, substantially as set forth.

3. The combination with a pianoforte, of a flexible member secured at its ends to suitable supports and held normally in a predetermined position, a recording device operatively connected with said flexible member, means for moving a record tape lengthwise, a series of instrumentalities coöperating with movable parts of the pianoforte for bringing the said flexible member out of its normal position, substantially at right angles to a line connecting the secured ends of said flexible member, substantially as set forth.

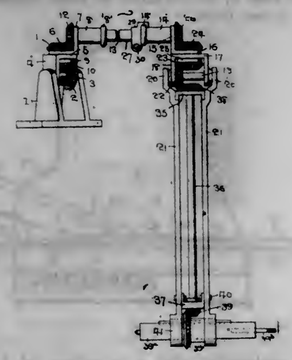
4. The combination with a pianoforte, of a flexible member secured at its ends to suitable supports and held in a predetermined normal position, a series of movable instrumentalities below the flexible member and adapted to move said flexible member between its secured ends substantially at right angles to the length of said member, a recording device operatively connected with said member and means for moving a record strip upon which the recording device can produce a record, substantially as set forth.

5. The combination with a pianoforte, of a flexible member having its ends secured to suitable supports, a record producing mechanism operatively connected with said member and means for moving said member between its secured ends, substantially at right angles to the length of said member by the actuation of any one of a number of pianoforte hammers, substantially as set forth.

1,074,557. RAIL-DRILL DRIVE AND FRAME THEREFOR. LESLIE W. MORTON, Canton, Ill. Original application filed June 26, 1911, Serial No. 635,366. Divided and this application filed Dec. 20, 1911. Serial No. 666,943. (Cl. 77—8.)

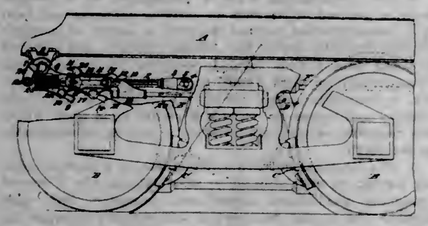
1. A drive and frame comprising a plurality of shafts carrying gears and means for connecting the shafts and holding the gears in mesh with one another, a sleeve for one of the shafts, parallel side pieces for supporting one of said shafts, means for connecting the sleeve and the parallel side pieces for supporting the shafts carried by the sleeve and the parallel side pieces in angularly adjusted position in relation to each other, braces for connecting the side pieces and receiving the shaft and holding the latter in position between the parallel side pieces, the lower ends of said side pieces being adapted for engagement with a drill shaft to support the latter, the shaft between the parallel side pieces having a gear upon its lower end for mesh with a gear carried by the drill

shaft to rotate the latter, and means for supporting one end of the drive and frame upon a platform.



2. In a drill driving mechanism, a supporting bracket, a rotary driver element carried thereby on a horizontal axis and a tranamission mechanism mounted for angular adjustment around the axis of the driver element and including a plurality of intermeshing gears, a normally horizontal shaft which is mounted for swinging movement in a horizontal plane around a point above the driver member, a depending frame, means connecting the frame with the horizontal shaft and being rotatable relative thereto, a normally vertical shaft carried by the frame, said frame providing means adapted for supporting a drill, and a gear carried by said vertical shaft and adapted for actuating the drill.

1,074,558. SLACK-ADJUSTER FOR CAR-BRAKES. WILLIAM S. O'BRIEN, Nevada City, Cal. Filed May 7, 1913. Serial No. 766,065. (Cl. 188—50.)



1. In a slack adjuster, the combination of a ratchet bar pivotally connected to a brake-lever, a pivoted guide housing in which the outer end of said bar is slidably mounted, a pawl in said guide housing normally engaging the teeth of the ratchet bar, a sleeve slidably mounted on the ratchet bar and normally engaged therewith, a link having a slotted connection with said sleeve, a spring connecting one end of the link to a rigid support, and a connection between the link and the brake-operating lever adapted to reciprocate the link in one direction when the brakes are set.

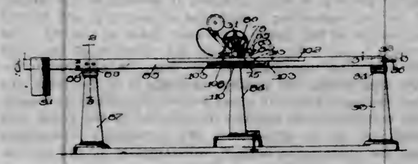
2. In a slack adjuster, the combination with a dead-brake lever and a live-brake lever, of a ratchet bar connected to the dead-brake lever, means for engaging the bar to prevent its movement in one direction, and adapted to permit of its movement in the opposite direction, a sleeve slidably mounted on said ratchet bar, means for normally connecting the sleeve to the bar, a stud on said sleeve, a slotted link supported on said stud, a spring normally exerting a pull on one end of said link, and connections between the opposite end of the link and the live-brake lever adapted to reciprocate the link in opposition to the spring when the brakes are operated.

3. In a slack adjuster, the combination with a dead-brake lever and a live-brake lever, of a ratchet bar connected to the dead-brake lever, means for engaging the bar to prevent its movement in one direction, and adapted to permit of its movement in the opposite direction, a sleeve slidably mounted on said ratchet bar, means for normally connecting the sleeve to the bar, a stud on said sleeve, a slotted link supported on said stud, a spring normally exerting a pull on one end of said link, connections between the opposite end of the link and the live-brake lever adapted to reciprocate the link in opposition to the spring when the brakes are operated, and a buffer carried by the link arranged to absorb the shock or impact between the link and the stud on the sleeve.

4. A slack adjuster comprising a slotted link adapted to be reciprocated in one direction on the operation of the brakes, spring means for reciprocating the link in the opposite direction when the brakes are released, a ratchet bar paralleling the link and spaced therefrom, a sleeve slidably mounted on said ratchet bar, slidable connections between the link and said sleeve, means for limiting the movement of the ratchet bar in one direction, a connection between the ratchet bar and the dead-brake lever, and means on the sleeve for engaging the ratchet bar and adapted to advance the latter in one direction to take up the slack.

5. A slack adjuster comprising the combination of an anchor iron adapted to be attached to a car sill, a guide housing pivoted to said anchor iron, a ratchet bar extending into said guide housing, a pawl on said housing normally engaging said ratchet bar, a connection between the inner end of the ratchet bar and the dead-brake lever, a sleeve slidably mounted on the ratchet bar, a pawl carried by said sleeve normally engaging the ratchet bar, means for advancing the sleeve on the ratchet bar on the operation of the brakes when there is slack in the brake-operating mechanism, and means for advancing the ratchet bar in the guide housing to take up the slack in the brake mechanism.

1,074,559. WORK-FEED FOR STAPLING-MACHINES. WILLIAM OSTERHOLM, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed July 7, 1908. Serial No. 442,326. (Cl. 1—15.)



1. In a machine of the character described, the combination of a work support, a pair of operating shafts, a pawl and ratchet mechanism operatively connected to each of the shafts, a common means operatively related to the pawls for oscillating the pawls to rotate the shafts, work feeding means operatively connected to one of the shafts and controlled by said shafts, means for moving the work feeding means into and out of engagement with the work, and means for simultaneously throwing one of the pawls out of operative position and for positioning the other pawl to assume an operative position for controlling the direction of rotation of the work-feeding means.

2. In a machine of the character described, the combination of a work support, a pair of operating shafts, a pawl and ratchet mechanism operatively connected to each of the shafts, a common means operatively related to the pawls for simultaneously rocking the same to rotate the shafts, a feed wheel, means for supporting the wheel above the work support, a flexible connection between the wheel and one of the said shafts, means for simultaneously throwing one of the pawls out of operative position and for permitting the other pawl to assume an operative position for controlling the direction of rotation of the feed wheel, and means for lowering the feed wheel with respect to the operating shaft and into engagement with the work.

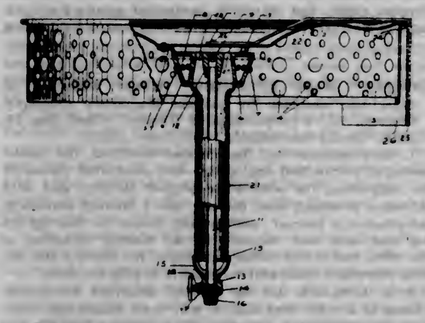
3. In a machine of the character described, the combination of a work support, a pair of operating shafts, a pawl and ratchet mechanism operatively connected to each of the shafts, a common means operatively related to the pawl for simultaneously rocking the pawls to rotate the shafts, a feed wheel, a support for the wheel, a flexible connection between the wheel and one of the shafts, a guide for the wheel support, elastic means tending normally to hold the wheel in engagement with the work support, means for simultaneously throwing one of the pawls out of operative position and for permitting the other pawl to assume an operative position for controlling the direction of rotation of the feed wheel, and means for raising and holding the feed wheel out of engagement with the work and against the tension of the said elastic means.

4. In a machine of the character described, the combination of a work support, a pair of operating shafts, a pawl and ratchet mechanism operatively connected to each of the shafts, a common means operatively related to the pawls for simultaneously rocking the pawls to rotate the shafts, a feed wheel, a support for the wheel, a flexible connection between the wheel and one of the shafts, a guide for the wheel support, elastic means tending normally to hold the wheel in engagement with the work support, means for simultaneously throwing one of the pawls out of operative position and for permitting the other pawl to assume an operative position for controlling the direction of rotation of the feed wheel, means for raising and holding the feed wheel out of engagement with the work and against the tension of the said elastic means, and means for varying the tension of the said elastic means.

5. A machine of the character described, including in combination a pair of shafts, a ratchet wheel operatively connected to each of the shafts for rotating the same, a pawl coöperating with each of the ratchets, a pivotally mounted support for the pawls, means for rocking the pawls to shift the ratchets, a work feed wheel having operative connection with one of the shafts, means for simultaneously shifting one of the pawls out of operative position and for permitting the other pawl to assume an operative position to control the direction of rotation of the said work feed wheel, and means for shifting the latter into and out of engagement with the work.

[Claims 6 to 22 not printed in the Gazette.]

1,074,560. COMBINED HEATING AND ILLUMINATING BURNER. MORTIMER L. PACKER, Columbus, Ohio. Filed Feb. 1, 1912. Serial No. 674,762. (Cl. 126—248.)



1. A heat and light radiating gas burner comprising a hood, a hollow fuel chamber having an annular series of radially disposed gas jets, a central feed pipe for feeding gas to said fuel chamber and a concentric pipe having an outlet above said gas jets and within the outer periphery of said fuel chamber.

2. A heat and light radiating gas burner comprising a hood having a plurality of apertures in its side wall and having its upper internal surface formed of reflecting material, a hollow fuel chamber having an annular series of radially disposed gas ports and centrally mounted within said hood, a central feed pipe for feeding gas to said fuel chamber, and a concentric air pipe having an outlet above said gas jets and within the outer periphery of said fuel chamber.

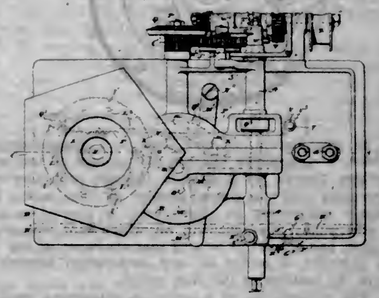
3. In combination with a hood structure for a heat and light radiating gas burner, a gas burner element proper having a series of gas outlet ports, said burner proper being constructed to permit the flowing of a layer of air between the radiating surface of said hood structure and the gas flame from said ports.

4. In combination with a hood structure for a heat and light radiating gas burner, a gas burner element proper having a series of gas outlet ports along its outer periphery and having an air outlet port inward of and above said gas ports.

5. In combination with a hood structure for a heat and light radiating gas burner, a gas burner element proper comprising a casting having an annular series of gas outlet ports and having an air outlet concentric with, but of less diameter, and above said gas ports.

[Claims 6 and 7 not printed in the Gazette.]

1,074,561. TURRET-LATHE. JAMES C. POTTER and JOHN JOHNSTON, Pawtucket, R. I., assignors to Potter and Johnston Machine Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Mar. 27, 1905. Serial No. 252,344. (Cl. 29—49.)



1. In a turret lathe, the combination of a turret, a support therefor, means for revolving the turret, and means for clamping the turret, comprising a threaded stem on the turret projecting through the support, a pinion nut engaging the other side of the support from the turret, and a rack-bar engaging said pinion-nut, a spring for moving said rack-bar in a direction to clamp the nut, and a cam-operated lever for moving said rack-bar in the opposite direction.

2. In a turret lathe, the combination of a turret, a support, means for revolving said turret, and means for clamping said turret during cutting operations, said means for clamping comprising a stem on said turret passing through said support, a pinion nut on the opposite side of said support from said turret, a rack-bar engaging said pinion-nut, a spring for moving said rack-bar in a direction to clamp the turret, means for positively moving the rack-bar in the opposite direction, and a latch adapted to secure said rack-bar in unlocked position.

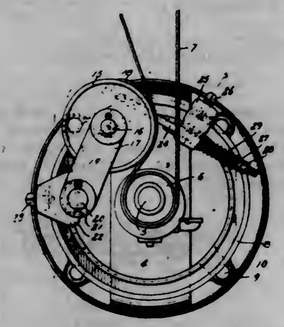
3. In a turret lathe, the combination of a turret, a support for the turret with which it is movable toward and from the work, means for moving said support, a turret clamp comprising independent members that are movable toward and from each other, and automatic means positively acting on the clamp to release the turret, operated independently of the turret-support moving means.

4. In a turret lathe, the combination of a turret, a support for the turret with which it is movable toward and from the work, means for moving said support, a turret clamp comprising a bolt having a turret engaging member and a turret support engaging member, and automatic means positively acting on the clamp to release the turret, operated independently of the turret-support moving means.

5. In a turret lathe, the combination of a turret, an automatic clamping device for the turret embracing a pinion, and a clamping member actuated by the rotation of the pinion, a rack bar, and a spring for moving the rack bar in one direction, and a latch consisting of a pin to engage a shoulder on the rack bar.

[Claims 6 to 14 not printed in the Gazette.]

1,074,562. BELT-TIGHTENER. LEONARD A. TIERILL, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 30, 1905. Serial No. 243,198. (Cl. 64—5.)



1. In combination, an end plate of a dynamo-electric machine, a ring-shaped member having lugs or feet with apertures therein, bolts passing through said apertures for securing said ring-shaped member in place, and a belt tightener comprising an idler pulley, a pivoted support for said pulley, an abutment on which said support is mounted, and means for locking said abutment at any one of a plurality of points on said ring-shaped member to change the position of the idler pulley.

2. The combination of a pulley, a supporting shaft, a frame surrounding the shaft with angularly spaced points of attachment, an idler pulley, an arm for the support of the idler pulley, a yoke with a plurality of connection points for the arm, and a tension device applied to the arm, substantially as described.

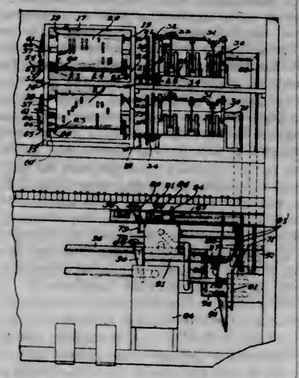
3. The combination of a pulley, a supporting shaft, a frame surrounding the shaft with angularly spaced points of attachment, an idler pulley, an arm for the support of the idler pulley, and a yoke with a plurality of connection points for the arm with different angular spacing from the spacing of the points of attachment of the yoke to the frame, substantially as described.

4. The combination of a pulley, a supporting shaft, a frame surrounding the shaft with angularly spaced points of attachment, an idler pulley, an arm for the support of the idler pulley, a yoke with a plurality of connection points for the arm, a tension spring for the idler arm and an anchor pin adapted to be attached at the connection points provided for the arm, substantially as described.

5. In combination, an electric motor having a frame and an end-head, a plurality of equally spaced bolts for attaching said end-head to said frame, a belt-tightener comprising an idler-pulley, a pivoted support for said pulley, and a plate on which said support is mounted, said plate being mounted on a bolt passing through the end-head into the frame, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,563. PIANO-PLAYING MECHANISM. BURT R. VAN VALKENBURG, Oakland, Cal. Filed Jan. 8, 1912. Serial No. 669,240. (Cl. 84—166.)



1. In a player piano, a plurality of motors, an equal number of control boxes, conductors leading from said motors to said control boxes, a conductor leading from the main bellows of said player piano and communicating with said control boxes, valves for controlling the entrance from said control boxes to said last mentioned conductor, a bellows for operating each of said valves, a vacuum chest, tubes leading from said bellows to said chest, a tube leading from said vacuum chest to said last mentioned conductor, controlling levers for said tubes leading from said bellows, an equalizing bellows, pipes leading from said control boxes and communicating with said equalizing bellows, and manually controlled valves for opening and closing the passageway between said control boxes and said last mentioned pipes.

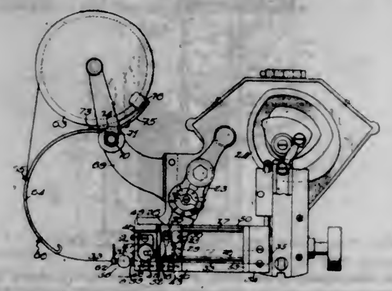
2. In a player piano, a plurality of motors, an equal number of control boxes, a pipe leading from each motor to its respective control box, an equalizing bellows, pipes leading from said control boxes to said equalizing bellows, manually controlled valves for opening and closing the entrance from said control boxes to said last mentioned pipes, a pipe leading from the main bellows of said player piano and communicating with said control boxes, valves for opening and closing the entrance from said control boxes to said last mentioned pipe, bellows for operating said last mentioned valves, a vacuum chest, a pipe leading from said vacuum chest to said last mentioned pipe, tubes leading from said last mentioned bellows to said vacuum chest, and manually controlled means for opening and closing the entrance from said chest to said tubes.

1,074,564. WIRE-STITCHER. HENRY WEBER, Chicago, Ill., assignor to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 16, 1911. Serial No. 644,372. (Cl. 140—130.)

1. In a machine for the purpose described, the combination of a wire feed dog, a wire seat associated therewith for supporting the wire while gripped thereby, and with reference to which seat the dog has a limited movement independently thereof; and driving means for moving the dog and wire seat together in the feeding direction of the wire, and a dog actuating means for moving the dog with relation to said seat to cause it to grip the wire.

2. In a machine for the purpose described, the combination of a wire feed dog, a wire seat associated therewith for supporting the wire while gripped thereby and with reference to which seat the dog has a limited movement independently thereof; driving means for moving the dog and wire seat together in the feeding direction of the wire, and a dog actuating means for moving the dog with relation to said seat to cause it to grip the wire, operatively related to the said driving means.

3. In a machine for the purpose described, the combination of a wire feed dog, a wire seat associated therewith for supporting the wire while gripped thereby and with reference to which seat the dog has a limited movement independently thereof; driving means for moving the dog and wire seat together in the feeding direction of the wire; and feed dog actuating means for positively moving the dog with relation to its seat to cause it to approach and recede from the wire.

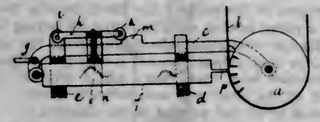


4. In a machine for the purpose described, the combination of a wire feed dog, a wire seat associated therewith for supporting the wire while gripped thereby and with reference to which seat the dog has a limited movement independently thereof; a slide supporting said dog and seat, driving means for moving said slide back and forth, and an adjustable stop arranged to be impinged by the slide for limiting its movement in one direction.

5. In a machine for the purpose described, the combination of a wire feed dog for gripping the wire, a slide for supporting said dog, driving means for moving said slide back and forth, a frame, and guiding means for said slide removably supported upon the frame.

[Claims 6 to 21 not printed in the Gazette.]

1,074,565. JACQUARD MECHANISM FOR EMBROIDERING-MACHINES. ROBERT ZAHN, Plauen, Germany. Filed July 9, 1912. Serial No. 708,495. (Cl. 112—7.)



1. In an embroidering machine, the combination with a Jacquard needle bar and the Jacquard card cylinder reciprocatory supporting means, of a brake mechanism for said bar controlled by said supporting means and adapted to automatically release the said bar at the moment its needle enters a hole in the Jacquard card.

2. In an embroidering machine, the combination with a Jacquard needle bar and the Jacquard card cylinder reciprocatory supporting means, of a brake mechanism for said bar, means on said supporting means coacting with said brake mechanism and adapted at the moment the needle of said bar enters a hole in the Jacquard card to release said bar from said brake.

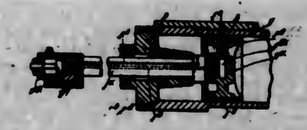
3. In an embroidering machine, the combination with a Jacquard needle bar and the Jacquard card cylinder reciprocatory supporting means, of a brake mechanism for said bar, a swinging member carrying said brake mechanism and means on said supporting means coacting with said swinging member and adapted to automatically release the said bar from said brake at the moment its needle enters a hole in the Jacquard card.

4. In an embroidering machine, the combination with a Jacquard needle bar and the Jacquard card cylinder reciprocatory supporting means, of a movable member, a brake for said needle bar carried by said member and a cam on said supporting means coacting with the said movable member and adapted at the moment the needle of said bar enters a hole in the Jacquard card to release said bar from said brake.

5. In an embroidering machine, the combination with a Jacquard needle bar, the Jacquard card cylinder and the reciprocating means supporting the latter, of a spring actuated brake for the said needle bar and means on said supporting means whereby the said bar will be automatically released at the moment its needle enters a hole in the Jacquard card.

[Claims 6 to 8 not printed in the Gazette.]

1,074,566. RUN-OUT GEAR OF HEAVY ORDNANCE. ARTHUR TREVOR DAWSON, Westminster, London, and JAMES HORNE, Barrow-in-Furness, England, assignors to Vickers Limited, Westminster, England. Original application filed Dec. 26, 1912, Serial No. 738,559. Divided and this application filed June 3, 1913. Serial No. 771,387. (Cl. 89—43.)



1. In run out gear for ordnance the combination with the air cylinder, its floating piston and the packing rings of said piston, said piston being subjected to air pressure on one side and to liquid pressure on the other side, of means for forcing liquid into a cavity between said packing rings and for subjecting it to a pressure which is greater than that in the air cylinder.

2. In run out gear for ordnance, the combination with the air cylinder, the floating piston, the projecting rod of said piston and the packing rings of said piston, said piston being subjected to air pressure on one side and to liquid pressure on the other side, of means carried by said projecting rod for forcing liquid into a cavity between said packing rings and for subjecting it to a pressure which is greater than that in the air cylinder.

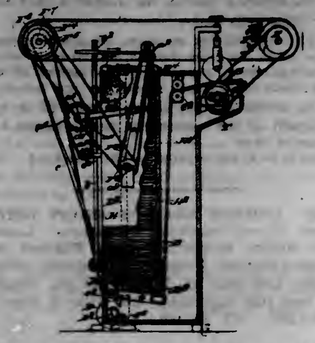
3. In run out gear for ordnance, the combination with the air cylinder, the floating piston, the projecting rod of said piston and the packing rings of said piston, said piston being subjected to air pressure on one side and to liquid pressure on the other side, of an intensifier piston in communication with the air cylinder and in contact with other liquid and means for establishing communication between said other liquid and a cavity between the packing rings of the floating piston.

4. In run out gear for ordnance, the combination with the air cylinder, the floating piston, the projecting rod of said piston and the packing rings of said piston, said piston being subjected to air pressure on one side and to liquid pressure on the other side, of a liquid chamber on the end of said projecting rod, a differential piston in said chamber, a rod of said differential piston projecting through the chamber into the atmosphere, a chamber in the floating piston communicating with liquid in the first mentioned chamber and with a cavity between the packing rings of the floating piston, and means for establishing communication between the larger face of the differential piston and the air cylinder.

1,074,567. PILING MECHANISM FOR FABRICS. HENRY L. GANTT, Pawtucket, R. I. Filed Jan. 13, 1908. Serial No. 410,576. (Cl. 8—19.)

1. A piling mechanism for fabrics consisting of drawing rolls movable in a direction transverse to their axes to draw the fabric from a source of supply and arrange the same in folds, combined with a keir having a portion to receive the folded fabric, said portion being open at the bottom and terminating above the bottom of the keir; means for sustaining the fabric above and free from the

bottom of the keir; and devices for drawing the folded fabric endwise from the bottom of the pile thus sustained.



2. A keir provided with an inner retaining wall for the fabric terminating above the bottom of the keir; a yielding bottom member to support the fabric; means for withdrawing the fabric through the space between said retaining wall and said bottom member; reciprocating members transversely movable with relation to each other located over the top of the keir for piling the fabric in the keir; and means for producing circulation of the liquid in the keir.

3. A keir provided with a fabric containing portion having an inner retaining wall terminating above the bottom of the keir, reciprocating members transversely movable with relation to each other located above the keir for piling fabric into the fabric containing portion, means located under the pile of fabric for supporting the pile and maintaining the original configuration of the lower layers thereof, means for withdrawing the fabric endwise from the bottom of the pile layer after layer, and means for producing the circulation of the liquid in the keir.

4. A keir having a fabric containing portion, provided at its bottom with a series of parallel members to support the pile of fabric, combined with piling mechanism adapted to lay the fabric in loops, the strands of which extend generally lengthwise of said parallel members.

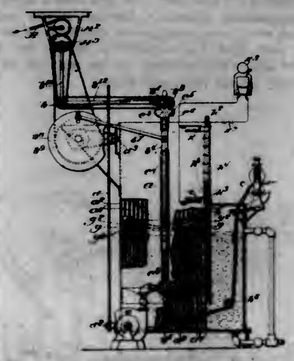
5. A keir provided with a fabric containing portion having an inner retaining wall terminating above the bottom of the keir; reciprocating members transversely movable with relation to each other located above the keir for piling fabric into the fabric-containing portion; means located under the pile of fabric for supporting the pile and maintaining the original configuration of the lower layers thereof; means for withdrawing the fabric endwise from the bottom of the pile layer by layer; and means for saturating the fabric with flowing liquid before it is submerged in the liquid in the keir.

[Claims 6 to 10 not printed in the Gazette.]

1,074,568. PROCESSING APPARATUS. HENRY L. GANTT, Pawtucket, R. I. Filed July 20, 1909. Serial No. 508,622. (Cl. 8—19.)

1. An apparatus for subjecting fabric to the action of a liquid comprising a keir; delivery devices located over the keir for laying or piling layers of the fabric in said keir in regular formation; spray nozzles located adjacent to said delivery devices adapted to eject liquid and distribute the same over the surface of the pile as it is formed by the said delivery devices; and means for reciprocating said delivery devices and said spray nozzles whereby they travel together across the top surface of the pile of fabric.

2. An apparatus for subjecting fabric to the action of liquid comprising a keir; means located over the keir for piling layers of fabric in said keir in regular formation; spray nozzles also located over the keir; means for causing said spray nozzles to travel above the top surface of the pile of fabric while the fabric is being added thereto, and spray on all parts of the top layer; and means for supplying said spray nozzles with liquid under pressure.



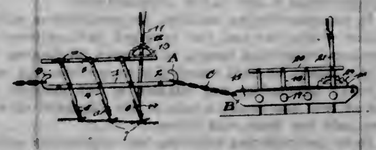
3. The combination with a keir; of delivery ducts for liquid located over the keir and provided with downwardly directed outlets; draw rolls for the fabric adjacent to said ducts, but out of the path of the liquid issuing from said outlets; means for supplying said ducts with liquid under pressure; and reciprocating mechanism common to said delivery ducts and said draw rolls, whereby said draw rolls and ducts coöperate in piling the fabric in circular layers and in causing the liquid to impinge on all parts of the top layer.

4. The combination with a keir; of delivery ducts located over the keir and provided with downwardly directed outlets; draw rolls for the fabric adjacent to said ducts, but out of the path of the liquid issuing from said outlets; a pump having a suction pipe projecting into the keir; a flexible connecting tube leading from the outlet of the pump to said delivery ducts; and reciprocating mechanism to cause said ducts and draw rolls to travel together across the top of the keir.

5. The combination with a keir; of delivery ducts located over the keir and provided with downwardly directed outlets; draw rolls for the fabric adjacent to said ducts, but out of the path of the liquid issuing from said outlets; a pump having a suction pipe projecting into the keir; a flexible connecting tube leading from the outlet of the pump to said delivery ducts; means for reciprocating said ducts and said draw rolls; and a strainer between the outlet of the pump and said delivery ducts.

[Claims 6 to 17 not printed in the Gazette.]

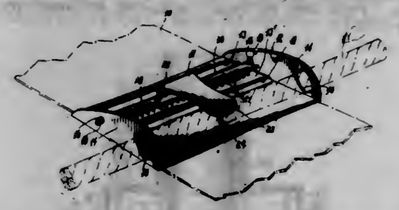
1,074,569. FARMING IMPLEMENT. CORNELIUS HARRIS, Winchester, Ind. Filed Oct. 2, 1912. Serial No. 723,612. (Cl. 55—23.)



1. A device of the character described comprising spaced side bars, supporting arms pivoted intermediate of their ends to said side bars, drag bars secured to the lower ends of said supporting arms, a connecting bar having adjustable connection with the upper ends of said supporting arms, and means pivotally connected to said connecting bar and to one of said supporting arms, whereby the drag bars may be adjusted simultaneously.

2. A drag comprising spaced side bars, supporting arms pivoted intermediate their ends to said side bars, drag bars secured to the lower ends of said supporting arms, a connecting bar having adjustable connection with the upper ends of said supporting arms, a ratchet lever pivotally arranged upon said connecting bar and having its lower end pivoted to one of the supporting arms whereby the drag bars may be adjusted as a whole.

1,074,570. HARNESS-BUCKLE. EDMUND HUMPHREYS, Salisbury, Md. Filed Feb. 24, 1912. Serial No. 679,571. (Cl. 54—55.)



A combined back band buckle and rope trace holder formed of sheet metal and consisting of a body member having a pair of spaced back band receiving slots and an intervening web near the top portion of the body member, the end portions of the body member being bent up at right angles and each having a pivot perforation above the web, trace guides above the unslotted portion of the body member and an angular clamp pivoted in the perforations and having a trace engaging tongue disposed to lie at times between the guides and spaced from the latter.

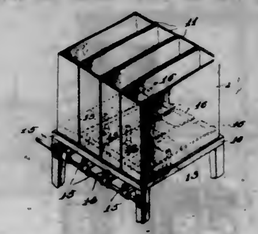
1,074,571. WINDOW-SCREEN. FRANK MCLAUGHLIN, Philadelphia, Pa. Filed July 5, 1912. Serial No. 707,807. (Cl. 156—14.)



1. The combination of a window frame and sash with a screen composed of a plurality of sections, each less in height than the lift of the sash, means for engaging the outer section with the sash, whereby, as the latter is raised, it will cause the screen sections to be extended, and guides for said screen sections independent of the guides for the sash, whereby the presence of the screens does not prevent the full closing of the sash.

2. The combination of a window frame and sash with a screen comprising a plurality of sections, each less in height than the lift of the sash but capable, when extended, of closing the full opening formed by the lift of the sash, said screen sections being disposed beyond the face of the sash so as not to interfere with the full closing of the latter, and means upon the sash for engaging and lifting the outer section of the screen, said lifting means being free from engagement with the screen section when the latter has been lowered and the sash continues its downward movement.

1,074,572. PHOTOGRAPH-DEVELOPING APPARATUS. FRANK W. NORTON, Cedar Rapids, Iowa. Filed Nov. 21, 1912. Serial No. 723,653. (Cl. 95—97.)

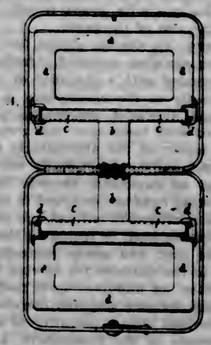


1. A device of the class described comprising a frame work, a bottom tray member positioned thereon, separated containers upon the upper face of said tray member, casings positioned in each of said separated containers, foraminous false bottoms, one within each of said containers, fluid inlets tapped through said tray member in each of said containers and beneath the false bottom thereof, and means for regulating the flow of fluid to said inlets, said false bottom being adapted to edgewise support photographic members thereon within the casings and immersed within the fluid of said containers.

2. A device of the class described comprising a container adapted to receive a photographic solution, a perforated false bottom horizontally positioned therein adjacent the bottom thereof, an air inlet pipe entering said container below said partition, a lining vertically adjustably supported within said container above said false bottom and transverse means carried by said lining for adjustably supporting photographic members immersed within the solution of said container.

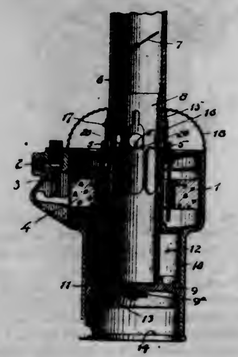
3. A photograph developing apparatus comprising a tray member, containers mounted upon said tray member, foraminous false bottoms positioned within each of said containers, air inlets passing through said tray member and communicating with the interior of each of said containers, said false bottoms being adapted to edgewise support photographic members thereon immersed within the fluid of said containers.

1,074,573. CIGARETTE-CASE. JAMES WILLIAM HENRY PATTISON, Glasgow, Scotland. Filed Jan. 10, 1913. Serial No. 741,255. (Cl. 206—41.)



A cigarette case comprising an interior cigarette-carrying frame having a body portion, means for fastening cigarettes therein in the open position of the case and a spring metal strap extending from said frame to the case and secured at one end to the latter, said end of the spring strap being bent at sufficient angle to the length of the strap to automatically lift the free end of the frame when the case is opened, substantially as described.

1,074,574. CARBURETER. EUGENE A. RIOTTE, Bronxville, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 16, 1912. Serial No. 671,465. (Cl. 48—155.1.)



1. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted therein and extending thereabove provided with a plurality of air admission ports opening directly to the atmosphere, a plurality of fuel supply nozzles arranged concentrically about said chamber and placed with their open ends, respectively substantially at the centers of the atmospheric sides of said ports.

2. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted therein and extending thereabove provided with a plurality of air admission ports opening directly to the atmosphere, a plurality of fuel supply nozzles arranged concentrically about said chamber and placed with their open ends respectively substantially at the center of the atmospheric sides of said ports, and means for manually symmetrically varying the size of the ports.

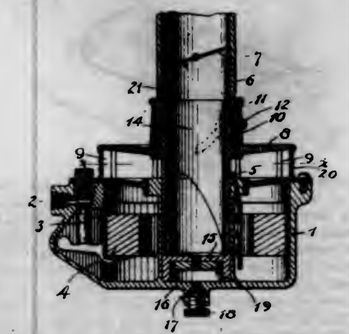
3. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted therein and extending thereabove provided with a plurality of air admission ports opening direct to the atmosphere, a plurality of fuel supply nozzles arranged concentrically about said chamber, placed with their open ends respectively substantially at the center of the atmospheric sides of said ports, and means for manually, symmetrically and simultaneously varying the size of the ports.

4. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted therein and extending thereabove provided with a plurality of air admission ports opening directly to the atmosphere, a plurality of fuel supply nozzles arranged concentrically about said chamber and placed with their open ends respectively substantially at the center of the atmospheric sides of said ports, means for manually symmetrically varying the size of said ports, and an automatic throttle for said ports within the carbureting chamber arranged to open and close the ports and also arranged to cut out one or more of the said fuel supply nozzles from or including the same in the draft through said port, and means controllable by variation in pressure in the chamber for moving said throttle.

5. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted therein and extending thereabove provided with a plurality of air admission ports opening directly to the atmosphere, a plurality of fuel supply nozzles arranged concentrically about said chamber and placed with their open ends respectively substantially at the center of the atmospheric sides of said ports, means for manually symmetrically varying the size of the ports, an automatically controllable throttle adapted to open and close said ports progressively, a piston carried by said throttle, a concentric depending cylinder for said piston, and a duct connecting the carbureting chamber with the space within said cylinder to produce therein a vacuum corresponding to the vacuum in the carbureting chamber for the purpose of moving the piston and controlling the position of said throttle.

[Claim 6 not printed in the Gazette.]

1,074,575. CARBURETER. EUGENE A. RIOTTE, Bronxville, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 16, 1912. Serial No. 671,466. (Cl. 48—155.1.)

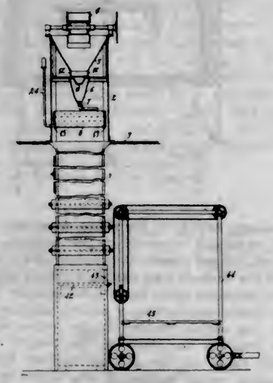


1. In a carbureter, a carbureting chamber, an air admission passage at the base of the same and extending around the same, means for manually varying the area of said passage, a plurality of open-ended fuel supply nozzles arranged around said carbureting chamber and adjacent to said air admission passage, an automatically controllable throttle comprising a piston sleeve, the walls of said sleeve having vertical openings therein which are narrow at the top and widen downwardly, said sleeve overstanding said air admission passage, a piston at the lower end of said throttle, a dashpot at the lower end of said piston having a relatively small external vent to permit said piston to slowly ascend and descend and to thereby permit said throttle to slowly ascend and descend to vary the effective size of the air entrance passage and to progressively expose said nozzles to the draft of air through said passage as said throttle ascends and to progressively cut out of the line of draft said fuel supply nozzles as said throttle descends.

2. In a carbureter, a tubular carbureting chamber having an annular air admission passage at its lower end, a plurality of open-ended fuel supply nozzles arranged around said opening and in front of the same, a sleeve-like throttle arranged to move up and down in said tubular carbureting chamber, and a tubular guide for said throttle below said air admission passage, said tubular guide being closed excepting for a relatively small vent at its lower end, said sleeve being closed at its lower end, the sides of said sleeve being slotted, said slots being narrow at the upper part and increasing in width downwardly whereby a vacuum in said mixing chamber will raise said sleeve and open said air passage more and more as said sleeve ascends and simultaneously and progressively expose said nozzles progressively to the influence of the draft of entering air, said piston descending by gravity as said vacuum decreases, correspondingly reducing the effective area of the air admission passage and correspondingly cut out of the line of draft progressively the said fuel supply nozzles.

3. In a carbureter, an annular liquid fuel reservoir, a tubular carbureting chamber mounted concentrically thereabove and spaced apart therefrom forming an air admission passage direct to the atmosphere on all sides, a concentric guide tube within the reservoir, means for manually varying the area of said passage, a plurality of open ended supply nozzles arranged around said carbureting chamber and entering said air passage, an automatically controlled throttle comprising a piston sleeve sliding in said tube and guide, the walls of said sleeve having vertical openings therein which are narrower at one end and widened toward the other end.

1,074,576. MICA-BUILDING MACHINE. JOHN R. SANBORN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 10, 1910, Serial No. 576,578. Renewed May 14, 1912. Serial No. 697,304. (Cl. 154—1.)



1. The combination with a tower, of a hopper at the upper end of the tower for receiving flake material and an ejector for disassociating the flakes and forcing them upwardly out of the hopper, whereby they are permitted to fall to the bottom of the tower in a uniformly distributed shower.

2. The combination with a tower, and a hopper at its upper end, of a deflector in the mouth of the hopper and means for ejecting flake material upwardly and outwardly from the hopper into the upper end of the tower.

3. The combination with a tower, a receiving hopper at the upper end of the tower, and a distributing hopper below the receiving hopper, of a deflector in the mouth of the distributing hopper and pneumatic means for forcing flake material upwardly out of the distributing hopper into the tower.

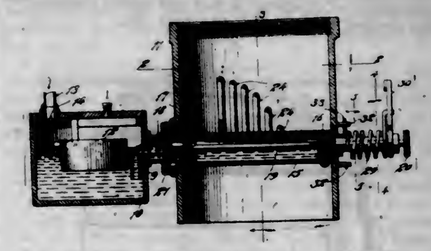
4. The combination with a tower, a hopper, and means for ejecting flake material from the hopper into the upper end of the tower, of means for evenly distributing a layer of powdered bond among and upon said flake material.

5. The combination with a tower, a hopper, and means for ejecting insulating flakes from the hopper into the upper end of the tower, of means for sifting powdered insulating bond upon said flakes after they are ejected from the hopper without interrupting the free downward movement thereof.

[Claims 6 to 20 not printed in the Gazette.]

1,074,577. CARBURETER. ELMER S. SMITH, Boundbrook, N. J., assignor, by mesne assignments, to International Accessories Manufacturing Company, Wilmington, Del., a Corporation of Delaware. Filed May 22, 1909. Serial No. 497,646. (Cl. 48—155.1.)

1. In combination with a casing having an air inlet and a mixture outlet, a combined valve and fuel receptacle disposed across said casing, having its normally horizontal dimensions approximately corresponding to the internal horizontal cross section of said casing and of less vertical than horizontal dimension, and having the wall of the fuel receptacle apertured to discharge fuel therefrom, whereby the fuel discharge and air passage are correspondingly increased as the combined valve and fuel receptacle is rotated.



2. In combination with a casing having an air inlet and a mixture outlet, a rotatable member comprising a fuel receptacle disposed across said casing to act as a valve approximately closing the passage therethrough when in normal position, the wall of the fuel receptacle being apertured to permit the discharge of fuel in amounts dependent upon the amount of rotation of said member, and means for rotating the said member to elevate the fuel discharging means and prevent the discharge of fuel while permitting air unmixed with fuel to pass.

3. A carbureter having a chamber for the passage of the air and gasolene, a transverse rotary receptacle therein, a source of gasolene supply connected with said receptacle, a series of outlets connected at their inner ends with the interior of said receptacle at different heights, whereby as said receptacle is rotated said outlets are successively moved to or from their discharging position and a variable discharge of the gasolene is secured, and means for rotating said receptacle.

4. A carbureter having a chamber for the passage of the air and gasolene, a transverse rotary receptacle therein, a source of gasolene supply connected with said receptacle, a series of outlets connected at their inner ends with the interior of said receptacle at different heights, whereby as said receptacle is rotated said outlets are successively moved to or from their discharging position and a variable discharge of the gasolene is secured, and means for rotating said receptacle, said outlets having independent control valves.

5. A carbureter having a chamber for the passage of the air and gasolene, a transverse rotary receptacle therein, a source of gasolene supply connected with said receptacle, a series of outlets connected at their inner ends with the interior of said receptacle at different heights, whereby as said receptacle is rotated said outlets are successively moved to or from their discharging position and a variable discharge of the gasolene is secured, and means for rotating said receptacle, said outlets being arranged on a line extending partly around the upper side of said receptacle.

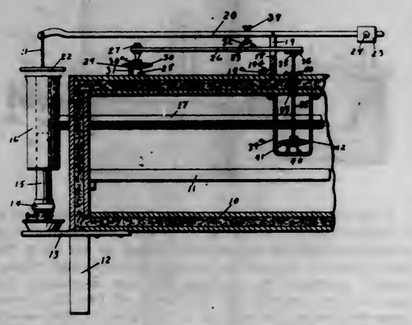
[Claims 6 to 26 not printed in the Gazette.]

1,074,578. THERMOSTATIC REGULATOR. CHARLES HENRY STENBERG, Ellsworth, Iowa. Filed Sept. 27, 1912. Serial No. 722,758. (Cl. 236—6.)

1. In a device of the class described, an incubator frame, a rod pivotally mounted above same, a lever arm operatively and adjustably connected therewith, a disk mounted outside said frame operatively connected with said arm near one end thereof, a thermostatic disk mounted within said frame operatively connected with the other end of said arm, one of said disks being adjustably mounted with relation to said arm.

2. In a device of the class described, an incubator frame, a rod pivotally supported above said incubator frame, a lever arm above said incubator frame, means for operatively and adjustably connecting said rod and arm, said rod, a thermostatic disk adjustably mounted within said incubator frame, a rod pivotally mounted on said lever arm near one end thereof and extending through the top of said incubator frame to the top of said thermostatic

disk, a thermostatic disk adjustably mounted on the outside of said incubator frame and adjustable for operatively connecting said second disk with said arm, whereby the contraction or expansion of said last named thermostatic disk imparts movement to said lever arm.



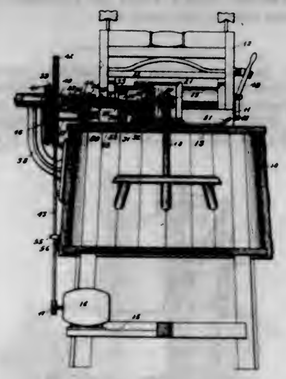
3. In a device of the class described, an incubator body, a rod pivotally supported on said incubator frame, a lever arm above said incubator body, adjustable means whereby the upward movement of said lever arm raises said first described rod, said first described rod being so mounted that it is lowered by its own weight when said lever arm is lowered, a thermostatic disk mounted within said incubator frame, a rod pivotally mounted on said lever arm and extending downwardly through the top of said incubator frame and resting upon said thermostatic disk, a thermostatic disk outside the incubator frame, operatively connected with said lever arm, said last named disk being longitudinally adjustable with relation to said arm.

4. In a device of the class described, an incubator frame, a receptacle adjacent thereto, means for heating the air in said receptacle, means for conveying heated air from said receptacle through the interior of said frame, said receptacle being open at its upper end, a rod pivotally supported on said incubator frame, a cover device pivotally mounted on said rod and designed in one position of the movement thereof to close the upper end of said receptacle, a lever arm above said incubator frame, means whereby the upward movement of said lever arm raises said first described rod, first described rod being so mounted that it is lowered by its own weight when said lever arm is lowered, a thermostatic disk mounted within said incubator frame, a rod pivotally mounted on said lever arm near one end and extending downwardly through the top of said incubator frame and resting upon said thermostatic disk, a thermostatic disk outside the incubator frame below the other end of said lever arm, means for vertically adjusting said last named disk, and means whereby the expansion of said last named disk raises said lever arm.

5. In a device of the class described, an incubator frame, a receptacle adjacent thereto, means for heating the air in said receptacle, means for conveying heated air from said receptacle through the interior of said frame, said receptacle being open at its upper end, a rod pivotally supported on said incubator frame, a cover device pivotally mounted on said rod and designed in one position of the movement thereof to close the upper end of said receptacle, a lever arm above said incubator frame, means whereby the upward movement of said lever arm raises said first described rod, said first described rod being so mounted that it is lowered by its own weight when said lever arm is lowered, a thermostatic disk mounted within said incubator frame, means for adjusting said disk, a rod pivotally mounted on said lever arm and extending downwardly through the top of said incubator frame and resting upon said thermostatic disk, a thermostatic disk outside the incubator frame below the free end of said lever arm, and means whereby the expansion of said last named disk raises said lever arm.

[Claim 6 not printed in the Gazette.]

1,074,579. GEARING. JOHN C. THOMPSON, Cincinnati, Ohio. Filed Mar. 29, 1910. Serial No. 552,261. (Cl. 74—30.)



1. A gearing device of the class described, comprising a support, a hinged member on the support, an upright shaft in the hinged member, a power shaft mounted on the side of the support and having a clutch member thereon, a shaft mounted upon the hinged member in line with the power shaft and having a clutch member thereon to coact with the clutch member on the power shaft, means interposed between the shaft on the hinged member and the upright shaft on the hinged member for imparting an alternating rotary motion to the latter by a continuous rotary motion of the former, and means for connecting and disconnecting said clutch device.

2. A gearing device of the class described, comprising a support, a hinged member on the support, an upright shaft in the hinged member, a power shaft mounted on the side of the support and having a clutch member thereon, a shaft mounted upon the hinged member in line with the power shaft and having a clutch member thereon to coact with the clutch member on the power shaft, means interposed between the shaft on the hinged member and the upright shaft on the hinged member for imparting an alternating rotary motion to the former, a latch device for the hinged member and a bar connected with the latch device and the clutch device for disconnecting them in unison when moved to one position and for closing the latch device and connecting the clutch members in unison when in another position.

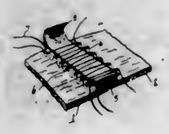
3. In a device of the class described, the combination of a support, a hinged member on the top of the support, an upright shaft in the hinged member, a horizontally arranged shaft at the side of the support, a clutch member thereon, means for rotating said shaft, a second horizontally arranged shaft on said hinged member in line with the first, a sliding clutch member thereon to coact with the clutch member on the first shaft, means interposed between the horizontally arranged shaft and the vertically arranged shaft on the hinged member for imparting an alternating rotary motion to the vertically arranged shaft by means of a continuous rotary motion applied to the horizontal shaft, said clutch members being arranged at one side of said hinged member so that when the hinged member is raised the horizontally arranged shaft on the hinged member will move away from the shaft on the support, a slide bolt on the hinged member, a keeper for the slide bolt on the support adjacent to the slide bolt, a bell crank lever connected with the slide bolt, a bar slidingly supported on the hinged member and having one end connected with the sliding clutch member, said bar also being pivoted to said bell crank lever, for the purposes stated.

4. In a device of the class described, the combination of a support, a hinged member on the top of the support, a horizontally arranged power shaft at the side of the support extended in a direction toward the center of the support, a horizontally arranged shaft on the hinged member in line with the shaft on the support, coacting clutch devices on said shafts, means for connecting and disconnecting them, a vertically arranged shaft on the hinged member, and means interposed between it and the horizontal shaft for imparting an alternating rotary motion to the vertical shaft by a continuous rotary motion of the horizontal shaft, said clutch devices being arranged at one side of the hinged member, whereby the shaft on the hinged member will move away from the shaft on the support when the hinged member is elevated.

5. In a gearing device of the class described, the combination of a support, a hinged member for the support, a power shaft mounted on the support, an upright shaft mounted in the hinged portion of the support, a horizontal shaft mounted on the hinged member of the support, means interposed between the two shafts on the hinged member of the support for imparting an alternating rotary motion to the upright shaft by a continuous rotary motion applied to the horizontal shaft, and means for operatively connecting or disconnecting the horizontal shaft on the hinged member of the support from the power shaft on the support.

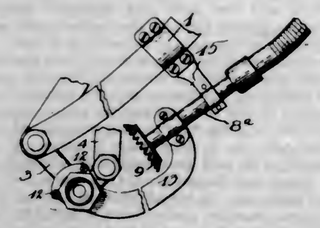
[Claim 6 not printed in the Gazette.]

1,074,580. SEAM FOR SEWED ARTICLES. WALLACE BRADLEY TYRRELL, Delavan, Wis., assignor to Bradley Knitting Co., Delavan, Wis. Filed Mar. 14, 1910. Serial No. 549,361. (Cl. 112—34.)



In a seam for garments, the combination of two pieces of fabric secured together at a distance from their edges by a series of stitches forming a seam, the marginal edges of such fabric being folded over upon itself in opposite directions, a reinforcing tape located above and upon said folded marginal edges, a continuous series of zigzag loops of yarn formed transversely to and upon the upper surface of said tape and extending in opposite directions past its respective edges, and a plurality of longitudinal series of loop retaining stitches formed outside of and parallel with the respective edges of said tape, said parallel series of stitches being formed through the ends of said zigzag loops and said fabric only, all substantially as and for the purpose specified.

1,074,581. DRIVING-PINION SUPPORT. AUGUSTUS W. WESSOLECK, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 15, 1913. Serial No. 742,199. (Cl. 235—96.)



1. In combination, a yielding support for a wheel comprising an oscillating bracket supported at its ends, a support for said wheel in said bracket intermediate said ends and including an axle, with a driving gear carried by said wheel and a driven gear arranged to mesh with said driving gear, a support for said driven gear comprising an arm freely pivoted on said bracket concentrically with the front wheel and independent of the axle therefor.

2. In combination, a yielding support for a wheel comprising an oscillating bracket supported at its ends, a support for said wheel in said bracket intermediate said ends and including an axle, with a driving gear carried by said wheel and a driven gear arranged to mesh with said driving gear, a support for said driven gear comprising an arm freely pivoted on said bracket concentrically with the front wheel and independent of the axle therefor, said pivotal support comprising a sleeve, with means or detachably securing the same to said bracket, said sleeve being of sufficient internal diameter to permit the wheel axle to be passed freely therethrough.

1,074,582. SPRING. FREDERICK GEORGE WINKLER, Buffalo, N. Y., assignor, by mesne assignments, to Berend J. Burns and Clifford A. Cutler, Buffalo, N. Y. Filed Oct. 29, 1907. Serial No. 399,759. (Cl. 105—121.)



1. A compound spring comprising bending and stretching portions the bending portion or portions being so arranged that they will respond in a substantially arithmetical progression of resisting power against the pressure of the load, and the stretching portion or portions being so arranged in combination with the bending portion or portions that the said arithmetical progressive action will be modified into a progressive geometrical resistance against the load.

2. A compound spring comprising bending and stretching portions the stretching portion or portions being so arranged that they will respond in a substantially geometrical progression of resisting power against the pressure of the load and the bending portion or portions being so arranged in combination with the stretching portion or portions that the said geometrical progressive action will be modified in its progressive action.

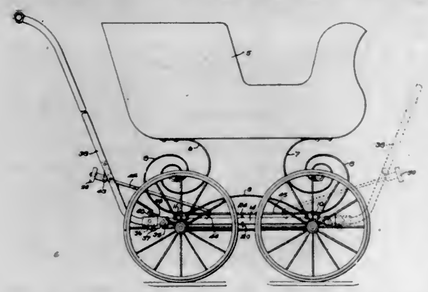
3. A compound spring comprising two or more bending portions so combined and arranged that one or more of said portions when under load will respond in a substantially arithmetical progressive resisting power to the pressure of the load by bending and gradually be brought to a tensile resistance against one or more other and stronger of the said bending portions of the spring thereby modifying said arithmetical progressive resisting power into a substantially geometrical progressive resisting power.

4. A compound spring comprising two or more bending and stretching portions so arranged that when under a load one or more of said portions will respond to the action of the load by simultaneously bending and stretching in combination with the other of said portions which will respond simultaneously with the first of said portions by bending and compressing, and being so arranged that any desired modification in the progressive increase of resistance against the load may be obtained.

5. A compound spring comprising two or more bending and stretching portions so arranged that when under a load one or more of said portions will respond to the action of the load by stretching in combination with the other of said portions which will respond simultaneously with the first of said portions by bending and compressing, and being so arranged that any desired modification in the progressive increase of resistance against the load may be obtained.

[Claims 6 to 15 not printed in the Gazette.]

1,074,583. CHILD'S CARRIAGE. JOHN W. R. ANDREWS, Leominster, Mass., assignor to F. A. Whitney Carriage Co., Leominster, Mass., a Corporation of Massachusetts. Filed Oct. 14, 1911. Serial No. 654,744. (Cl. 21—83.)

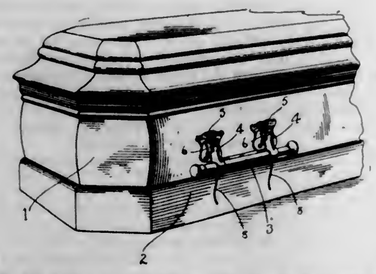


1. A knock-down children's carriage comprising, in combination, a substantially rigid running gear frame having longitudinal bars connected by transverse axle bars; clips upon the axle bars removably engaging the wheel hubs; diagonal braces for the running gear frame; hinges at the four corners of the running gear frame; a bolt traversing a leaf of each hinge, a longitudinal bar of the frame, an axle bar, and a diagonal brace; springs secured to the free leaves of the hinges a casting having an eye, secured to an end of each longitudinal bar; handle bars having hooks to engage said eyes; and a link carried by the handle bars, having a hooked end; and means mounted upon the running gear frame to receive the hook of said link.

2. A knock-down children's carriage comprising, in combination, a substantially rigid running gear frame having longitudinal bars connected by transverse axle bars; clips upon the axle bars removably engaging the wheel hubs; hinges at the four corners of the running gear frame; a bolt traversing a leaf of each hinge, a longitudinal bar of the frame, and an axle bar; springs secured to the free leaves of the hinges; and handle bars removably attached to the frame.

3. A knock-down children's carriage comprising, in combination, a substantially rigid running gear frame having longitudinal bars connected by transverse axle bars; hinges at the four corners of the running gear frame; a bolt traversing a leaf of each hinge, a longitudinal bar of the frame, and an axle bar; and springs secured to the free leaves of the hinges.

1,074,584. DISPLAY DEVICE FOR CASKET-HANDLES. LAWRENCE T. BUTLER, Grand Rapids, Mich., assignor of one-half to Daniel G. Lyzen, Grand Rapids, Mich. Filed Apr. 28, 1913. Serial No. 764,084. (Cl. 211—40.)

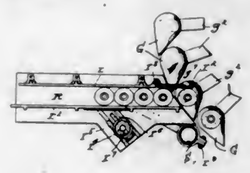


1. A device of the class described, comprising two spurs spaced apart and adapted to penetrate a supporting surface, a brace extending below each spur to engage said surface and a bifurcated supporting member projecting upward from each spur to hold the article to be displayed against said surface and above said spurs.

2. A device of the class described comprising spring forks to hold the article to be displayed, each of said forks being formed of two wires bound together, one of said wires projecting below the fork and terminating in a spur to penetrate a supporting surface and the other wire extending below the said spur and serving as a brace to engage said surface.

3. A device of the class described comprising two spring forks to embrace the article to be displayed said forks being arranged in the same plane and parallel to a supporting surface and each jaw of each respective fork being formed of a separate piece of wire clips to bind the wires together beneath the fork, one of said wires extending beneath the clip and terminating in a spur to penetrate said supporting surface and the other wire extending below the spur and serving as a brace to engage said surface, and a spacing bar connecting said forks.

1,074,585. BOTTLE-FILLING MACHINE. JOSEPH H. CHAMP, Cleveland, Ohio, assignor to The Bishop & Babcock Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Oct. 4, 1904, Serial No. 227,152. Divided and this application filed Mar. 14, 1910. Serial No. 549,144. (Cl. 191—1.)



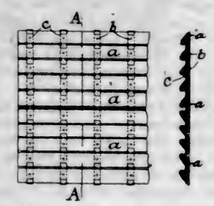
1. In mechanism of the class described, the combination of a bottle rest having a horizontal circular path of travel; a relatively stationary support adjacent to the path of travel of said rest and adapted to receive a bottle from the latter, the side of said support toward which said rest approaches making an obtuse angle with respect to a tangent to such path of travel; a guide fixed to said support along the other side thereof and extending substantially up to such path of travel; and a second guide parallel with the first guide and adjustable in a direction transverse thereof but at an angle such as to cause said guide also to extend substantially up to such path of travel irrespective of its adjusted position.

2. In mechanism of the class described, the combination of bottle rests having a horizontal circular path of travel; a relatively stationary support adjacent to the path of travel of said rests and adapted to receive bottles therefrom, the side of said support toward which said rests approach making an obtuse angle with respect to a tangent to such path of travel; a guide fixed to said support along the other side thereof and extending substantially up to such path of travel; and a second guide parallel with said first guide and adjustable in a direction transverse thereof but on a line substantially parallel to such tangent to the path of travel of said rest.

3. In mechanism of the class described, the combination of a bottle rest having a horizontal circular path of travel; a relatively stationary support adjacent to the path of travel of said rest and adapted to receive a bottle from the latter; a guide fixed on said support and extending substantially up to such path of travel; a second guide parallel with said first guide and adjustable in a direction transverse thereof but at an angle such as to cause said guide also to extend substantially up to such path of travel; another guide pivotally attached to said first guide and adapted to project into such path of travel; and a spring normally maintaining said last named guide in such projecting position so as to sweep a bottle that offers less than a predetermined resistance from off said rest onto said support, a bottle that offers more than such predetermined resistance serving to move said guide out of such path.

4. In mechanism of the class described, the combination of bottle rests having a horizontal circular path of travel; a relatively stationary support adjacent to the path of travel of said rests and adapted to receive bottles therefrom, the side of said support toward which said rests approach making an obtuse angle with respect to a tangent to such path of travel; a guide fixed to said support along the other side thereof and extending substantially up to such path of travel; a second guide parallel with said first guide and adjustable in a direction transverse thereof but on a line substantially parallel to such tangent to the path of travel of said rest; another guide pivotally attached to said first guide and adapted to project into such path of travel, and a spring normally maintaining said last-named guide in such projecting position so as to sweep a bottle that offers less than a predetermined resistance from off said rest onto said support, a bottle that offers more than such predetermined resistance serving to move said guide out of such path.

1,074,586. DOOR MAT, TREAD, AND THE LIKE. GEORGE CUMMINGS, Gosforth, England. Filed Dec. 13, 1912. Serial No. 736,547. (Cl. 15—62.)



1. A mat or tread comprising a plurality of pieces of material resilient throughout and of substantially single right-angle triangular sections the inclined surfaces of the pieces on one-half of the longitudinal center of the mat lying in the opposite direction to the similar surfaces on the other half, and tie members engaging each of said pieces to connect the whole together.

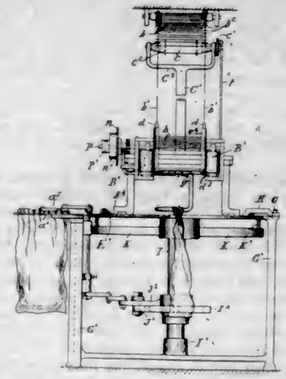
2. A mat or tread comprising a plurality of strips of material resilient throughout and of substantially right-angled triangular cross-section, the inclined surfaces of the strips on one half of the longitudinal center of the mat lying in an opposite direction to the similar surfaces on the other half, short lengths of material also of substantially right-angled triangular cross-section disposed in juxtaposition to said strips, and being spaced apart to provide open spaces between said lengths of material, and tie members traversing said strips and short lengths of material and being secured thereto to connect the same together.

1,074,587. BAG-TYING MACHINE. JOHN P. CURRY, New York, N. Y. Filed Apr. 9, 1912. Serial No. 689,599. (Cl. 140—93.)

1. In a bag-tying machine, the combination of the following instrumentalities operating successively, first, means operating above the socket for looping a straight wire-tie around the neck of the bag and projecting both ends of the tie at one side of the neck, second, a twister operated to grasp the two ends of the tie simultaneously and hold them separate from one another, and third, means for rotating the twister to twist the ends of the tie together with engaging coils, and the terminals of the tie diverging to be readily untwisted by the fingers.

2. In a bag-tying machine, the combination, of means for looping a wire-tie around the neck of the bag, a twister adapted to separately grasp the two ends of the tie, means for pulling the tie toward one side of the bag-neck, and means for rotating the twister to twist the ends of the tie together.

3. In a bag-tying machine, the combination, of means for delivering individual wire-ties adjacent to the bag-neck, means for looping the wire-tie around the neck of the bag, means for twisting the ends of the tie together, and mechanism operating the several means successively.

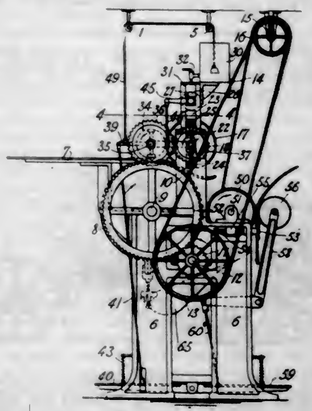


4. In a bag-tying machine, the combination, of means for moving the carrier with the bag-neck to a twister, means for delivering an individual wire-tie adjacent to the bag-neck and twister, means for looping the wire-tie around the neck of the bag, means for twisting the ends of the tie together, and connected mechanism for operating the several means successively.

5. In a bag-tying machine, the combination, of means for moving the carrier to shift the bag-neck to a twister, means for delivering an individual wire-tie adjacent to the bag-neck and twister, means for looping the wire-tie around the neck of the bag, means for twisting the ends of the tie together, and connected mechanism for operating the several means successively.

[Claims 6 to 18 not printed in the Gazette.]

1,074,588. SEASONING-MACHINE. THOMAS DAWSON, Beverly, Mass., assignor of one-half to Samuel F. Thompson, Springfield, Mass. Filed Aug. 14, 1912. Serial No. 715,033. (Cl. 91—39.)



1. In a seasoning machine, a frame, a drum rotatably mounted in the frame, a feed roll rotatably mounted in the frame, means for rotating both the said members, a scroll roll rotatably mounted in the frame and movable

to and from the drum, means for rotating the scroll roll during its said movement, a liquor trough mounted above the feed roll, and means for moving the scroll roll to and from the drum and at the same time causing the trough to feed liquor onto the feed roll.

2. In a seasoning machine, a frame, a drum rotatably mounted in the frame, a feed roll rotatably mounted in the frame, means for rotating both the said members, a scroll roll rotatably mounted in the frame and movable to and from the drum, means for rotating the scroll roll during its said movement, a liquor trough mounted above the feed roll, means for moving the scroll roll to and from the drum and at the same time causing the trough to feed liquor onto the feed roll, and an agitator for the liquor connected with said roll moving means to be operated thereby.

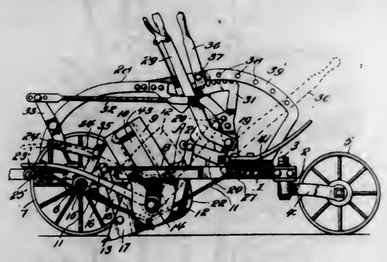
3. In a seasoning machine, a frame, a drum rotatably mounted in the frame, a feed roll rotatably mounted in the frame, means for rotating both the said members, a scroll roll rotatably mounted in the frame and movable to and from the drum, means for rotating the scroll roll during its said movement, a liquor trough mounted above the feed roll, and means for moving the scroll roll to and from the drum and at the same time causing the trough to feed liquor onto the feed roll, a set of bearings adjustable on the frame, and a felt roll mounted in said bearings to be shifted into and out of engagement with said drum beyond said feed roll to engage the hide after being operated upon by said roll.

4. In a seasoning machine, a frame, a drum rotatably mounted in the frame, a feed roll rotatably mounted in the frame, means for rotating both said members, a pair of levers pivoted at the ends of the feed roll to swing on the same axis as the feed roll, a scroll roll mounted to rotate on bearings in said levers in engagement with the feed rolls during the swinging of the levers and to be thereby shifted to and from the drum, and means for simultaneously swinging the levers.

5. In a seasoning machine, a frame, a drum rotatably mounted in the frame, a feed roll rotatably mounted in the frame, means for rotating both said members, a pair of levers pivoted at the ends of the feed roll to swing on the same axis as the feed roll, a scroll roll mounted to rotate on bearings in said levers in engagement with the feed rolls during the swinging of the levers and to be thereby shifted to and from the drum, and means for simultaneously swinging the levers, a liquor trough mounted above the feed roll, and means for causing the trough to feed liquor onto the feed roll from the swinging of said levers to move the feed roll to engage the drum.

[Claims 6 to 8 not printed in the Gazette.]

1,074,589. WHEELED SCRAPER. THOMAS B. FERGUSON, Hanford, Cal. Filed Oct. 9, 1912. Serial No. 724,772. (Cl. 37—33.)



1. In a machine of the class described, a wheel supported frame, rocking members mounted on said frame and having radially extending arms, slotted guides fixed on the frame, a scoop having trunnions engaging and riding in the slotted guides, links connecting the front end of the scoop with the arms of one rocking member, and links connecting the rear end of the scoop with the arms of another rocking member; in combination with draft members connected with the trunnions of the scoop to assist in moving the latter along the slotted guides.

2. In a machine of the class described, a wheeled frame, slotted guides fixed on the sides thereof, a scoop having trunnions engaging and riding in the slotted guides, rocking members supported on the frame in front and in rear of the scoop and having radially extending arms, links connecting the forward end of the scoop with the arms of the front rocking member, links connecting the rear end of the scoop with the arms of the rear rocking member, and means for independently operating the rocking members and for securing them at various adjustments; in combination with draft members connected with the trunnions of the scoop to assist in moving the latter along the slotted guides.

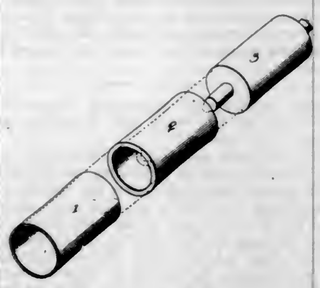
3. In a machine of the class described, a frame having transporting wheels, angular slotted guides fixed on the side members of the frame, a scoop having trunnions engaging and riding in the slotted guides, means for tilting the scoop and for supporting it at various adjustments, and suitably guided draft members connected with the trunnions of the scoop to move the latter along the angular slotted guides.

4. In a machine of the class described, a frame having side members, slotted guides fixed on the side members, a scoop having trunnions engaging the slotted guides, rocking members supported for oscillation on the frame and having radially extending arms, links connecting the arms with the scoop, suitably guided draft members connected with the trunnions of the scoop, and means for independently operating the rocking members and for securing them at various adjustments.

5. In a machine of the class described, a frame having transporting wheels, slotted guides fixed on the side members of the frame, the upper ends of said guides being bent forwardly to present inclined planes, a scoop having trunnions riding in the slotted guides, suitably guided draft members connected with the trunnions, rocking members supported in front and in rear of the scoop and having radial arms, links connecting said arms with the scoop, and means for independently actuating the rocking members and for securing them at various adjustments.

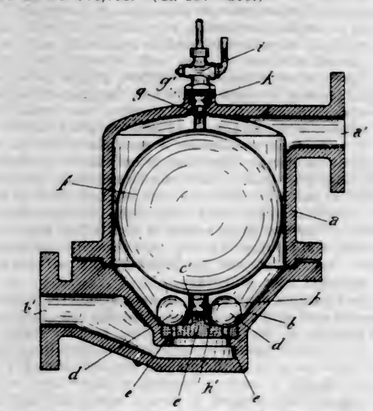
[Claims 6 and 7 not printed in the Gazette.]

1,074,590. METHOD OF FORMING DRAWING-ROLLS FOR SPINNING-MACHINES. ELEAZER KEMPSHALL, New York, N. Y., assignor to Kempshall Supply Company, a Corporation of New Jersey. Original application filed Mar. 3, 1913, Serial No. 751,893. Divided and this application filed Apr. 29, 1913. Serial No. 764,395. (Cl. 118—23.)



The herein described method of manufacturing a drawing roll consisting in forming a covering from a thin flat strip of leather, then forming a rubber tube of slightly greater diameter than the leather covering, and inserting the tube in the covering by bending or creasing said tube, and then expanding the tube, then drawing the completed cot over a hard core of slightly greater diameter than the rubber tube, so that the said tube will be held frictionally and in a compressed state on the said core, and the entire cot will be firmly secured on the core.

1,074,591. AUTOMATIC DRAINING DEVICE. EDMUND WINARSKY, Brunswick, Germany, assignor to Richard Naurer, Brunswick, Germany. Filed June 29, 1912. Serial No. 706,758. (Cl. 137—103.)



1. An automatic draining device, having in combination a receptacle, a plurality of separate outlet valves located symmetrically at the lower end of said receptacle, a float in said receptacle, a member fixed to said float and arranged centrally to, but independent of, said valves to engage the same loosely and open them when the float rises.

2. An automatic draining device having in combination a receptacle, a conical base on said receptacle, a plurality of gravity valves located in a circle at the lower narrow end of said base, a float in said receptacle, a member fixed to said float and arranged centrally to, but independent of, said valves to engage the same loosely and open them when the float rises, substantially as described.

3. An automatic draining device having in combination a receptacle, a float therein, an outlet at the lower end thereof, a plurality of symmetrically disposed ball valves controlling said outlet, an expanded tube carried by said float and having its expanded end located centrally to engage and open said ball valves when the float rises.

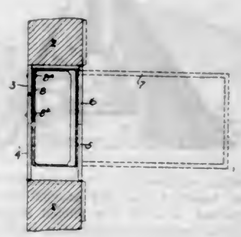
4. An automatic draining device having in combination a receptacle, a float therein, a conical base on said receptacle, an outlet from the lower narrow end of said conical base, a plurality of ball valves arranged in a circle at the lower end of said base and controlling said outlet, a tube carried by said float and having a flared end taking under said ball valves to spread and open the same when the float rises.

5. An automatic draining device having in combination a receptacle, a float therein, a conical base on said receptacle, an outlet from the lower narrow end of said conical base, a plurality of ball valves arranged in a circle at the lower end of said base and controlling said outlet, a tube carried by said float and having a flared end taking under said ball valves to spread and open the same when the float rises, and a fixed guide fitting loosely into said flared tube.

[Claims 6 to 9 not printed in the Gazette.]

1,074,592. WALL-BED. ROBERT H. ANDERSON, San Diego, Cal., assignor to Ruth B. Anderson, San Diego, Cal. Filed Dec. 19, 1910. Serial No. 597,976. (Cl. 5—18.)

1. The combination with a wall provided with an opening therein, of a panel centrally and vertically pivoted to one side of the middle of said opening, adapted to close approximately one-half of said opening, a head board of a bed frame secured to said panel so that one of its ends extends past said panel and along the wall on the panel side of said opening approximately one-half of its width when the panel is turned so that said headboard is out of said opening, a door hinged to the opposite side of said opening for closing its remaining portion and to allow the extended portion of said head board to pass through said opening when revolved with said panel, and a bed frame pivotally mounted on said head board.

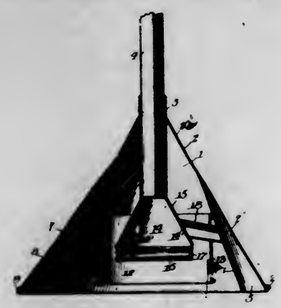


2. The combination with a wall provided with an opening therein, of a panel centrally and vertically pivoted to one side of the middle of said opening adapted to close approximately one-half of said opening, a head board of a bed frame secured to said panel so that one of its ends extends past said panel and along the wall on the panel side of said opening approximately one-half of its width when the panel is turned so that said headboard is out of said opening, a door hinged to the opposite side of said opening for closing the remaining portion and to allow the extended portion of said head board to pass through said opening when revolved with said panel, tension rods pivotally mounted at their one ends near the top of said head board, a bed frame pivotally mounted on the other ends of said tension rods, thrust rods pivotally mounted at their one ends near the bottom of said head board and the other ends thereof pivotally mounted on said bed frame in front of and below the pivotal mountings of said tension rods, and a plurality of pivotally mounted supports adapted to support said bed frame when down.

3. The combination with a receptacle provided with an opening therein and a door hinged at the one side thereof closing approximately one-half of said opening into said receptacle, of a panel centrally and vertically pivoted at its upper and lower ends on the upper and lower sides of the receptacle, closing the remainder of the opening into said receptacle when parallel therewith, a head board of a bed firmly mounted on said pivoted panel so that when said panel is turned in one direction one end projects along the wall beyond said pivoted panel and when reversed with said panel it passes through the side of the opening closed by said hinged door into the portion of said receptacle closed by said hinged door.

4. The combination with a receptacle provided with an opening therein and a door hinged at the one side thereof closing approximately one-half of said opening into said receptacle, of a panel centrally and vertically pivoted at its upper and lower ends on the upper and lower sides of the receptacle closing the remainder of the opening into said receptacle when parallel therewith, a head board of a bed firmly mounted on said pivoted panel so that when said panel is turned in one direction one end projects along the wall beyond said pivoted panel and when reversed with said panel it passes through the side of the opening closed by said hinged door into the portion of said receptacle closed by said hinged door, a bed frame pivotally mounted on said head board and adapted to be swung vertically, thrust rods connecting said head board and said frame adapted to control the inward swing of said frame and supports pivotally mounted on said frame.
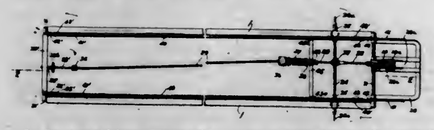
1,074,593. CLOTHES-POUNDER. ROBERT E. BEAUBIEN, Chicago, Ill., assignor to S. O. Cavette, Chicago, Ill. Filed Nov. 14, 1912. Serial No. 731,297. (Cl. 68—5.)



In a washing apparatus, the combination of a bell shaped hollow head; a plurality of vacuum tubes in the inner face thereof, a soap box placed centrally of said head, and tubular connections between said soap box and said vacuum tubes.

REISSUES.

13,620. BRAKING MECHANISM FOR VEHICLES. TRACY V. BUCKWALTER, Altoona, Pa. Filed June 4, 1913. Serial No. 771,658. Original No. 1,058,719, dated Apr. 15, 1913, Serial No. 552,352. (Cl. 21—8.)



1. In a braking mechanism, the combination of a truck having a revoluble wheel adapted to oscillate on an axis transverse to its axis of revolution, with braking means comprising a frictional member adapted to oscillate with said wheel, a bearing member engaged by and relative whereto said frictional member is adapted to oscillate and means operable from each end of said truck for moving said bearing member whereby said frictional member is operated.

2. In a braking mechanism, the combination in a vehicle, of a frictional member having a bearing, a revoluble wheel having a frictional member adapted to be engaged by said frictional member first named, means whereby said wheel and frictional member are adapted to oscillate, a bearing member engaged by and relative to which said bearing first named is adapted to turn, a device adapted to be turned and to move said bearing member, and means operable from each end of said vehicle for operating said device.

3. In a braking mechanism, a frictional member having a bearing, a revoluble wheel having a frictional member adapted to be engaged by said frictional member first named, means whereby said wheel and frictional members are adapted to oscillate on an axis transverse to the axis of revolution of said wheel, a bearing member engaged by and upon which said bearing is adapted to turn, and a journaled shaft having a cam thereon by which said bearing member is moved to effect the engagement of said frictional members, and means for automatically disengaging said frictional members.

4. In a braking mechanism, in combination with a traction wheel having a frictional member fixed thereto, a frictional device movable relative to and adapted for engaging said member, said device having a bearing, a bearing member on which the bearing of said device is adapted to turn, a journaled shaft whereby said bearing member is operated, and means for turning said shaft.

5. In a braking mechanism, a revoluble friction member having an axis of oscillation transverse to its axis of revolution, frictional segments adapted to coact with said member and to oscillate therewith, bearing members relative whereto said segments are adapted to turn in their action of oscillation, and means whereby said bearing members are spread and said segments are operated.

6. In a braking mechanism, a revoluble frictional member, frictional segments adapted to coact with said member, bearing members between ends of and upon which said segments are adapted to oscillate, a cam for operating said bearing members to effect the engagement of said segments with said frictional member, and means for withdrawing said segments from said frictional member.

7. In a braking mechanism, a revoluble wheel having an axis of oscillation transverse to its axis of revolution, a frictional ring fixed to said wheel, frictional segments adapted to oscillate about the axis of oscillation of said wheel, bearings upon which the respective segments are adapted to turn in their action of oscillation, means for spreading said bearings whereby said segments are applied to said ring, and means for automatically withdrawing said segments from said ring.

8. In a braking mechanism, an axle, a knuckle pivotally connected with said axle, a wheel revolubly connected with said knuckle, a frictional ring fixed to said wheel, a pair of frictional segments pivotally connected in relation to said axle so as to oscillate about the axis of oscillation of said knuckle, a pair of bearing members upon which said segments are adapted to turn, a rock shaft having a cam thereon between said bearing members, and means for operating said shaft.

9. In a braking mechanism, a revoluble wheel having an axis of oscillation transverse to its axis of revolution, a ring fixed to said wheel in said axes, segments disposed within said ring and adapted to turn about said axis of oscillation, bearings upon which said segments are adapted to turn in moving about said axis of oscillation, and means disposed in said axis of oscillation for spreading said bearings to effect the application of said segments to said ring.

10. In a braking mechanism, the combination with an axle, a knuckle journaled relatively thereto and a wheel journaled relatively to said knuckle, of a frictional band fixed to said wheel in the plane of the journals of said knuckle, frictional segments within said band, said segments being journaled relatively to said axle so as to turn about the axis of oscillation of said band, bearings on either side of said axis relatively to which said segments are adapted to turn, a cam disposed in said axis between said bearings, and means for operating said cam to operate said bearings and segments.

11. In a braking mechanism, in combination with a revoluble traction wheel having a friction ring thereon and means whereby said wheel is adapted to oscillate on an axis transverse to its axis of revolution, frictional clutching mechanism coacting with said ring, said clutching mechanism having an axis of oscillation coincident with the axis of oscillation of said wheel, and means coacting with said clutching mechanism for automatically applying and manually releasing the same, said means comprising a movable platform, a lever connected with and operated by said platform, a rock shaft, means whereby said lever rocks said shaft, and means operated by said shaft relative whereto said clutching mechanism turns and by which it is operated.

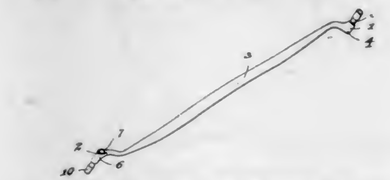
12. In a braking mechanism, the combination with a vehicle wheel and a frame, of platforms movably connected to the respective ends of said frame, means for connecting said platforms whereby the lowering of one elevates the other, frictional means for braking said wheel, and mechanism whereby said platforms are adapted to control the operation of said frictional means.

13. In a braking mechanism, the combination with a vehicle frame and wheels, of platforms hinged to the respective ends of said frame, means comprising flexible members connecting said platforms whereby the depression of one elevates the other, frictional means for braking said wheels, mechanisms operated by the depression of the respective platforms for disengaging said frictional means, and mechanism for automatically applying said frictional means.

14. In a braking mechanism, the combination, with traction wheels, of devices for automatically braking one or more of said wheels, a movable platform, means whereby the depression of said platform releases said braking devices, a lever movable independently of and adapted to be moved by said platform, and means whereby said lever operates said devices to effect the braking operation.

15. In a braking mechanism, the combination of a frame, traction wheels, and knuckles for supporting said frame on said wheels, with friction rings fixed to the respective wheels, brake shoes adapted for engaging said rings, bearings curved about axes substantially coincident with the axes of said knuckles, means for spreading said bearings to apply said shoes to said rings, platforms movable relatively to said frame, levers movable independently of and adapted to be moved by said platforms, and means whereby said levers are respectively adapted for operating said spreading means.

13,621. DENTAL INSTRUMENT. JOHN L. KELLY, Chicago, Ill., assignor of one-half to Frank H. Skinner, Chicago, Ill. Filed Jan. 7, 1911. Serial No. 601,475. Original No. 971,382, dated Sept. 27, 1910, Serial No. 530,197. (Cl. 32—10.)



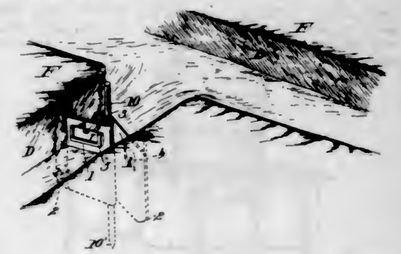
1. A dental instrument for the purpose described, comprising a handle portion, end portions extending laterally at different angles from said handle portion, and bored heads on said end portions adapted to receive and hold pieces of polishing material, substantially as described.

2. A dental instrument for the purpose described, comprising a handle portion, end portions angularly disposed with relation to said handle portion, and bored heads on said end portions adapted to receive and hold pieces of polishing material, the bores of said heads being disposed at different angles to said handle portion, substantially as described.

3. A dental instrument, comprising an intermediate handle portion, reduced end portions, of different lengths, extending laterally at different angles from the handle portions, and heads on the said end portions, each head having an inwardly tapered bore, open at its opposite ends, and provided with a flared mouth and a cutting edge at its outer end; the said bores being also disposed at different angles to the handle portion, for the purpose set forth.

13,622. FOLDING DAM FOR IRRIGATING-DITCHES. WILLIAM A. LINKLETTER, Boulder, Colo. Filed May 29, 1913. Serial No. 770,780. Original No. 1,059,174, dated Apr. 15, 1913, Serial No. 708,891. (Cl. 137—66.)

1. The herein described folding dam for irrigation ditches, the same made up of a series of sheet metal leaves, the meeting upright edges of contiguous leaves being rolled in relatively opposite directions into nearly complete cylindrical scrolls extending throughout the entire height of said leaves slidably, rotatably, and removably engaging each other, the outermost leaves of the series omitting these scrolls along their outer edges and having the lower corners of such edges rounded, and a series of round poles longer than the height of the leaves and disposed within the respective pairs of engaging scrolls with their lower ends adapted to be driven into the bottom of the ditch.



2. The herein described portable dam consisting of a series of sheet metal leaves, all having one upright edge rolled on one side thereof, and the intermediate leaves having both upright edges rolled on respectively opposite sides of the bodies thereof, to produce tubular hinge elements with which the like elements on the contiguous leaves are adapted to slidably and rotatably engage, and a pole passing through the innermost roll of each pair of engaging rolls.

3. The herein described portable dam consisting of a series of sheet metal leaves, all having one upright edge rolled on one side thereof and the intermediate leaves having both upright edges rolled to produce tubular hinge elements with which the like elements on the contiguous leaves are adapted to slidably and rotatably engage, the rolls on the intermediate leaves being disposed on respectively opposite sides of the bodies thereof and having their throats open next to said body, and upright fastening means passing through the innermost roll of each pair of engaged rolls, for the purpose set forth.

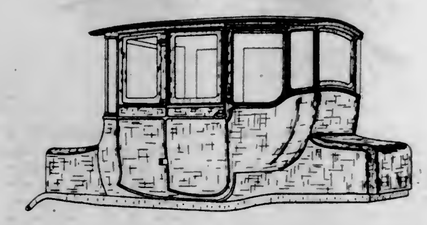
4. A sectional dam made up of sections hinged to each other at their vertical meeting edges and relatively movable into positions at different angles to each other about said hinged point, and means for holding said sections at said hinged point rigidly against displacement with respect to the bottom of the stream in which the dam is adapted to be placed, said means comprising a pole adapted to be driven into the bottom of said stream.

5. A sectional dam made up of sections hinged to each other at their meeting edges by means of interengaging tubular hinge elements and relatively movable into position at different angles to each other and a pole freely slidable through said tubular hinge elements and adapted to be driven into the earth sufficiently to hold said sections rigidly against displacement at the hinged point.

6. A sectional dam comprising a pole adapted to be driven rigidly into the bottom of a ditch or stream, and dam sections provided with integral tubular hinge elements at their vertical edges surrounding said pole and independently slidable thereon and engaging each other to form a tubular hinge, said sections being held rigidly against displacement at the hinged point by said pole but being movable into positions at different angles to each other about said hinge.

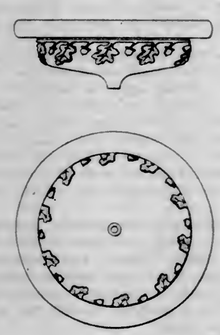
DESIGNS.

44,698. VEHICLE-BODY. WILLIAM C. ANDERSON, Detroit, Mich., assignor to Anderson Electric Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 25, 1912. Serial No. 699,805. Term of patent 14 years.



The ornamental design for a vehicle body, as shown.

44,699. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. ROBERT S. ASPINWALL, Cleveland, Ohio, assignor to The Virden Manufacturing Company, a Corporation of Ohio. Filed Aug. 9, 1913. Serial No. 783,959. Term of patent 7 years.



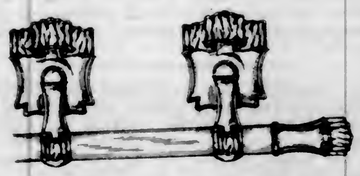
The ornamental design for a shell for lighting fixtures or similar articles, as shown.

44,700. SHELL FOR LIGHTING-FIXTURES OR SIMILAR ARTICLES. ROBERT S. ASPINWALL, Cleveland, Ohio, assignor to The Virden Manufacturing Company, a Corporation of Ohio. Filed Aug. 9, 1913. Serial No. 783,960. Term of patent 7 years.



The ornamental design for a shell for lighting fixtures or similar articles, as shown.

44,701. BURIAL-CASKET HANDLE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed June 30, 1913. Serial No. 776,705. Term of patent 7 years.



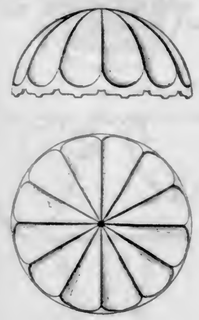
The ornamental design for a burial-casket handle, as shown.

44,702. LAMP-SHADE. ESTILL B. BROWN, New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,948. Term of patent 7 years.



The ornamental design for a lamp shade as shown.

44,703. LAMP-SHADE. ESTILL B. BROWN, New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,944. Term of patent 7 years.



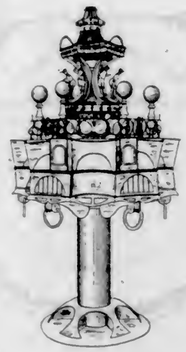
The ornamental design for a lamp shade as shown.

44,704. ATTACHMENT-PLUG FOR ELECTRIC CIRCUITS. FRANK H. CHAPMAN and OWEN E. KENNEY, Toledo, Ohio, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio, a Corporation of Ohio. Continuation of application Serial No. 756,023, filed Mar. 21, 1913. This application filed Aug. 6, 1913. Serial No. 783,418. Term of patent 14 years.



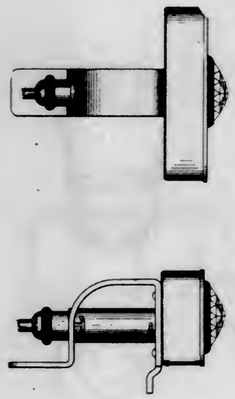
The ornamental design for an attachment plug for electric circuits, as shown.

44,705. STAND. MICHAEL CRISAFI, New Haven, Conn. Filed Aug. 7, 1913. Serial No. 783,616. Term of patent 14 years.



The ornamental design for a stand as shown

44,706. LAMP. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed July 31, 1913. Serial No. 782,359. Term of patent 14 years.



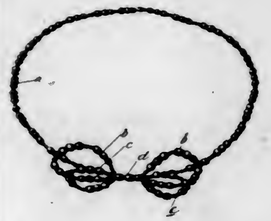
The ornamental design for a lamp, as shown.

44,707. PLATE OR SIMILAR ARTICLE. DONALD T. HOYT, East Liverpool, Ohio, assignor to The Smith-Phillips China Company, East Liverpool, Ohio, a Corporation of Ohio. Filed June 27, 1913. Serial No. 776,161. Term of patent 3½ years.



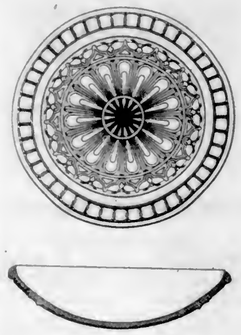
The ornamental design for a plate or similar article.

44,708. BEAD COLLAR. GERTRUDE KAYLOR, Chicago, Ill. Filed July 11, 1912. Serial No. 708,912. Term of patent 7 years.



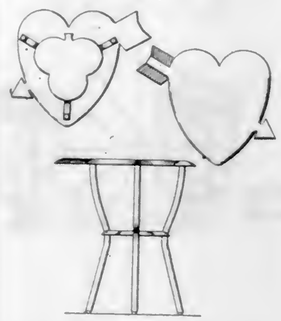
The ornamental design for a bead collar, as shown and described.

44,709. LAMP-SHADE. WILLIAM C. LEASURE, Steubenville, Ohio. Filed July 19, 1913. Serial No. 780,079. Term of patent 7 years.



The ornamental design for a lamp shade as shown.

44,710. TABLE. HUGH J. RILEY, Fort Shafter, Honolulu, Hawaii. Filed July 23, 1913. Serial No. 780,796. Term of patent 7 years.



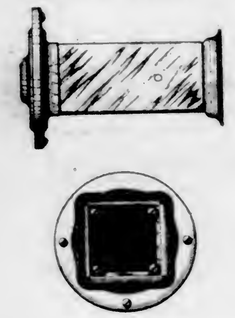
The ornamental design for a table, as shown.

44,711. COMBINED HAT-RACK AND UMBRELLA-STAND. FRANK C. ROBERTS, Nashville, Tenn. Filed July 19, 1913. Serial No. 780,076. Term of patent 14 years.



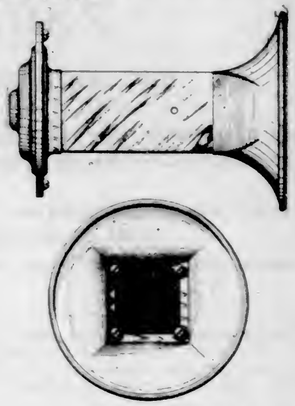
The ornamental design for a combined hat rack and umbrella stand, as shown.

44,712. WARNING-SIGNAL. CHARLES F. SENDALL, Brooklyn, N. Y., assignor to D. S. P. Automobile Specialty Company, Brooklyn, N. Y., a Corporation of New York. Filed June 10, 1913. Serial No. 772,915. Term of patent 7 years.



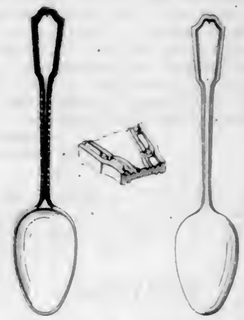
The ornamental design for a warning signal, as shown.

44,713. WARNING-SIGNAL. CHARLES F. SENDALL, Brooklyn, N. Y., assignor to D. S. P. Automobile Specialty Company, Brooklyn, N. Y., a Corporation of New York. Filed June 10, 1913. Serial No. 772,916. Term of patent 7 years.



The ornamental design for a warning signal, as shown.

44,714. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. WILLIAM H. WILKE, Berkeley, Cal., assignor to Gorham Manufacturing Company, Providence, R. I., a Corporation of Rhode Island. Filed July 26, 1913. Serial No. 781,402. Term of patent 14 years.



The ornamental design for a handle for spoons, forks or similar articles, as shown.

TRADE-MARKS

PUBLISHED SEPTEMBER 30, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 57,790. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARTUS.) KING LIGHT CO., Peoria, Ill. Filed July 24, 1911.

Red Crown

The word "Light" being disclaimed.

Particular description of goods.—Gas and Vapor Mantles.

Claims use since about Mar. 1, 1911.

Ser. No. 58,041. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) F. L. FALCK & CO., Allegheny, Pa. Filed Aug. 4, 1911.

HONEST

Particular description of goods.—Laundry, Toilet, and Shaving Soap.

Claims use since on or about February, 1897.

Ser. No. 61,842. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE W. A. JENKINS MFG. CO., London, Canada. Filed Mar. 1, 1912.

Royal Purple

Particular description of goods.—A Tonic for Animals and Poultry.

Claims use since Nov. 10, 1906.

Ser. No. 61,884. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Flexible Shafts and Tubes; Heddles, Tackle, Hooks, Thread-Dividers, Reeds, and Harness for Looms; Machines for Making Cables and Ropes; Braiding-Machines; Rolling-Mills; Drawing-Mills for Wire, Tubes, Rods, and Sheets; Metal-Presses; Wire-Netting Machines; Barb-Wire Machines, Machines for Making Wire Goods; Chain-Making Machines; Lathe-Machines for Working India-Rubber and Gutta-Percha; Machines for Turning, Boring, Drilling, Planing, Shaping, Slotting, Punching, or Shearing, and Parts of Such Machines; Reels and Bobbins for Spinning and Weaving; Gear-Wheels; Cranes; Shovels and Spades; Files; Ball-Bearings; Cable-Winches; Clamps; Wire Heddles; Machine Parts and Gearings; Weaving-Shafts; Machine Parts and Bearings.

Claims use since 1870.

Ser. No. 61,889. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Cycles; Driving-Chains, Chain-Wheels, Tubes for Frames, Complete Frames, Spokes, Rims, Hubs, Handle-Bars, and Wheels, All Being Parts of Cycles, Autocars, or Road-Vehicles; Metal Tires; Boat-Fenders, Car and Carriage Springs.

Claims use since 1870.

Ser. No. 62,856. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DEXTEROSE FOOD CO., Richmond, Va. Filed Apr. 12, 1912.

Dexterose

No claim being made to the word "Dexterose."

Particular description of goods.—Foods for Infants and Invalids.

Claims use since about Feb. 1, 1907.

Ser. No. 63,043. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SETH WILLIAM EDDY, Lincoln, Nebr. Filed Apr. 22, 1912.



Particular description of goods.—Chewing-Gum.
Claims use since Dec. 10, 1911.

Ser. No. 63,382. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) AUTO PARTS MFG. CO., Milwaukee, Wis. Filed May 6, 1912.

BADGER

Particular description of goods.—Automobile Accessories Consisting of Side Tire-Holders and Rear-End Tire-Holders.
Claims use since May, 1911.

Ser. No. 63,691. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BRADBURY EQUALIZER COMPANY, Coxsackie, N. Y. Filed May 21, 1912. Under ten-year proviso.

Equalizer

E K Bradbury

Facsimile signature being that of E. K. Bradbury, deceased.
Particular description of goods.—A Remedy for Diseases of Horses.
Claims use since 1892.

Ser. No. 63,980. (CLASS 12. CONSTRUCTION MATERIALS.) STANDARD OIL COMPANY, Richmond, Cal. Filed June 5, 1912.



Particular description of goods.—An Asphaltum Product of Crude Oil.
Claims use since Apr. 1, 1912.

Ser. No. 64,539. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) PIERRE CONSTANT LEMY, Paris, France. Filed July 2, 1912. Under ten-year proviso.

BILLET

Particular description of goods.—Sardines à l'Huile d'Olive Pure, Thon à l'Huile d'Olive Pure, Maquereaux à l'Huile d'Olive Pure, Pâté de Veau et Jambon, Saucisses de Toulouse à la Tomate, Crêtes de Coq, Choucroute Garnie, Boudins Blancs, Bœuf à la Mode, Rognons de Coq, Jambon d'York Truffé, Andouillettes, Bœuf Bouilli, Morilles, Moules, Pâté de Faisan Truffé, Salade Russe, Pointes d'Asperges, Mont d'Or, Bouillon Gras, Bisque, Pieds de Porc, Cuisses et Ailes d'Oies, Côtelettes de Porc, Bœuf en Daube, Tomates, Filets de Sole, Fricassée de Poulet, Jardinière, Pâté de Mauviettes Truffé, Julienne au Gras, Pâté de Chevreuil Truffé, Salsifis, Civet de Lièvre, Rillettes de Tours, Tripes à la Mode de Caen, Pommes de Terre, Saucisses Truffées, Choux de Bruxelles, Anchois à l'Huile, Tortue, Homards à l'Huile, Fines Herbes, Pâté de Bécasse Truffé, Canard aux Petits Pois, Hure de Sanglier, Céleri, Cardons, Oseille, Cèpes au Naturel, Carottes Nouvelles, French Roast Chicken, Carottes Tournées, Champignons Extra, French Roast Chicken in Jelly, Truffes Extra Pelées, Fonds d'Artichauts, Petits Pois Extra Fins, Épinards Extra, Asperges en Branches, Haricots Verts Extra Fins, Flageolets Extra Fins, Matelottes, Tête de Veau, Cèpes à l'Huile, Turbot à l'Huile, Bouillon, Saumon à la Tomate, Galantine de Volaille Truffée, Pâté de Lièvre Truffé, Pâté de Cailles Truffé, Boudin Noir, Ris de Veau au Jus, Pâté de Perdreau Truffé, Chicorée, Asperges Pour Potage, Chanterelles, Filets de Turbet, Petits Navets, Cœurs de Laitue, Homards au Naturel, Saumon à l'Huile, Choux-fleurs, Écrevisses, Mortadelle, Galantine de Porc Truffée, Pâté de Foie Gras Truffé.
Claims use since Apr. 1, 1850.

Ser. No. 65,493. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BENJAMIN E. HARRIS, Chicago, Ill. Filed Aug. 29, 1912.

"S S"

Particular description of goods.—Vacuum-Cleaners and Carpet-Sweepers.
Claims use since May 1, 1912.

Ser. No. 65,940. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) M. S. HALLOCK COMPANY, Rocky Point, N. Y. Filed Sept. 23, 1912.

THE FARM

Particular description of goods.—Live Poultry, Dressed Poultry, Dried, Fresh, Canned, and Preserved Fruits and Vegetables.
Claims use since about June 1, 1912.

Ser. No. 66,374. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE REEVES COMPANY, New Orleans, La. Filed Oct. 19, 1912. Under ten-year proviso.



The star, the circular border, and the horizontal lines being printed in red.
Particular description of goods.—Wood-Preservers Manufactured from Coal-Tar Distilled.
Claims use since January, 1890.

Ser. No. 67,055. (CLASS 37. PAPER AND STATIONERY.) ASAHEL U. MORSE, Kansas City, Mo. Filed Nov. 22, 1912.



Particular description of goods.—Toilet-Paper.
Claims use since Mar. 9, 1905.

Ser. No. 67,460. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HEBE'S BOUDOIR CORPORATION, Minneapolis, Minn. Filed Dec. 17, 1912.

HEBE'S

Particular description of goods.—Tooth-Paste, Tooth-Powder, Talcum Powder, Face-Powder, Face-Creams, and Perfumery.
Claims use since about during the month of July, 1910.

Ser. No. 68,518. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed Feb. 12, 1913. Under ten-year proviso.

BOSTON

Particular description of goods.—Pipes, Tubes, and Casings.
Claims use since prior to Feb. 20, 1895.

Ser. No. 68,553. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHASE-O MANUFACTURING COMPANY, Camden, N. J., and Philadelphia, Pa. Filed Feb. 15, 1913.

CHASE-O

Particular description of goods.—A Detergent Preparation in Crystal Form for Washing, Cleansing, and the Harmless Bleaching of Clothes.
Claims use since Aug. 1, 1912.

Ser. No. 69,359. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM S. JOHNSON, Baxley, Ga. Filed Mar. 26, 1913.



The portrait shown being a likeness of myself.
Particular description of goods.—A Remedy for Piles.
Claims use since Dec. 26, 1912.

Ser. No. 69,660. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FREDERICK W. LIPPS COMPANY OF BALTIMORE CITY, Baltimore, Md. Filed Apr. 8, 1913.

SPOONEY

Particular description of goods.—Candy.
Claims use since Apr. 1, 1913.

Ser. No. 69,951. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) INLAND STEEL COMPANY, Chicago, Ill. Filed Apr. 21, 1913.

VISMERA

Particular description of goods.—Sheet-Steel.
Claims use since Mar. 1, 1911.

Ser. No. 70,045. (CLASS 5. ADHESIVES.) JAMES A. POSEY, Waxahachie, Tex. Filed Apr. 24, 1913.



The star being lined for red. No claim is made to the word "Texas."

Particular description of goods.—A Puncture-Proof Composition.

Claims use since Dec. 1, 1912.

Ser. No. 70,147. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE CONSOLIDATED MANUFACTURING COMPANY, Toledo, Ohio. Filed May 1, 1913.



Particular description of goods.—Motor-Cycles and Bicycles.

Claims use since October, 1912.

Ser. No. 70,560. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) GUSTAV PIRAZZI & CO., Offenbach-on-the-Main, Germany. Filed May 22, 1913.



Particular description of goods.—Violins, Bass-Viols, Cellos, and Guitars, and Strings of Gut or Gut Surrounded with Metal for Such Instruments.

Claims use since January, 1895.

Ser. No. 70,638. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEARS, ROEBUCK AND CO., Chicago, Ill. Filed May 24, 1913.

WHITE CLIFF

Particular description of goods.—A Substitute for Lard.

Claims use since Febrnary, 1913.

Ser. No. 70,693. (CLASS 37. PAPER AND STATIONERY.) GEORGE W. HUGHES, Birmingham, England. Filed May 27, 1913.



Particular description of goods.—Steel Pens.

Claims use since from about June 3, 1903.

Ser. No. 70,780. (CLASS 12. CONSTRUCTION MATERIALS.) GENERAL ROOFING MANUFACTURING CO., East St. Louis, Ill. Filed May 31, 1913.



Certain-teed

Particular description of goods.—Asphalt Roofing, Tarred Felts, and Building-Papers.

Claims use since Mar. 7, 1913.

Ser. No. 70,850. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOLOMON C. BRINSER, Middletown, Pa. Filed June 4, 1913.



The trade-mark being a portrait of myself.

Particular description of goods.—Cornmeal.

Claims use since the year 1895.

Ser. No. 70,893. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) EMPIRE AUTOMOBILE CO., Indianapolis, Ind. Filed June 6, 1913.

Empire
The Little Aristocrat

Particular description of goods.—Automobiles.

Claims use since Aug. 1, 1909.

Ser. No. 70,894. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE GENERAL FIREPROOFING COMPANY, Youngstown, Ohio. Filed June 6, 1913.



Particular description of goods.—Metallic Filing Cases and Cabinets, in Both Sectional and Solid Construction.

Claims use since Feb. 27, 1913.

Ser. No. 70,997. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ELMER W. HILL, Portland, Oreg. Filed June 10, 1913.

GEM



No claim being made to the exclusive use of the term "I never will scratch."

Particular description of goods.—A Valve-Grinding Paste.

Claims use since May 1, 1913.

Ser. No. 71,034. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ATLANTIC MACARONI CO., Long Island City, N. Y. Filed June 12, 1913.

Particular description of goods.—Alimentary Paste Products.

Claims use since Sept. 17, 1912.

Ser. No. 71,099. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) AUGUSTA P. COOLBROTH, Brookline, Mass. Filed June 14, 1913.



Particular description of goods.—Catamenial Belts.

Claims use since May 26, 1913.

Ser. No. 71,116. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) BACK-RACK COLLAR BUTTON CO., Providence, R. I. Filed June 16, 1913.

RED-MAN

Particular description of Goods.—Gold-Plated and Precious-Metal Collar-Buttons, Cuff-Buttons, and Shirt-Studs.

Claims use since June 13, 1913.

Ser. No. 71,312. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MIDLAND CHEMICAL CO., Dubuque, Iowa. Filed June 23, 1913.

DRIPOLEUM

Particular description of goods.—A Disinfectant and Deodorant.

Claims use since July 3, 1903.

Ser. No. 71,318. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) JOHN H. MEYER & CO., New York, N. Y. Filed June 23, 1913.



Particular description of goods.—Waterproof Fabrics Woven of Cotton and of Cotton and Silk.

Claims use since June 1, 1913.

Ser. No. 71,327. (CLASS 31. FILTERS AND REFRIGERATORS.) VULKAN-WERKE GESELLSCHAFT FÜR BRAUEREI-BEDARF M. B. H., Berlin, Germany. Filed June 23, 1913.

Vulkan

Particular description of goods.—Filtering Apparatus, Refrigerating Systems, and Filter Masses or Material for Filter-Presses.

Claims use since Dec. 28, 1905.

Ser. No. 71,425. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JESSIE ELVIRA LEAVENWORTH DUNN, Chicago, Ill. Filed June 28, 1913.

MILKA

Particular description of goods.—A Cleansing Fluid.

Claims use since Mar. 15, 1904.

Ser. No. 71,478. (CLASS 38. PRINTS AND PUBLICATIONS.) FLORISTS' PUBLISHING COMPANY, Chicago, Ill. Filed July 2, 1913.

THE FLORISTS' REVIEW

Particular description of goods.—A Weekly Publication for Florists, Nurserymen, and Seedsmen.

Claims use since June 27, 1912.

Ser. No. 71,492. Renewal. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) NEW YORK BOAT OAR COMPANY, East Orange, N. J., and New York, N. Y. Filed June 28, 1913. Under ten-year proviso.

"EZEKIEL PAGE BRAND."

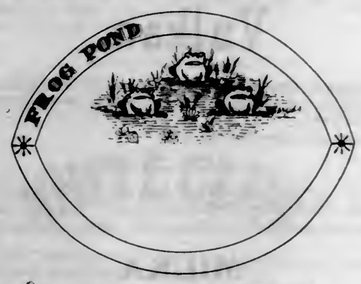
Particular description of goods.—Oars, Sweeps, and Sculls.
Claims use since on or about Apr. 1, 1883.

Ser. No. 71,504. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) FRANK GAIUS BURKE, New York, N. Y. Filed July 3, 1913.



Particular description of goods.—Toilet Soaps.
Claims use since May 11, 1903.

Ser. No. 71,538. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ED GWIN, Ada, Okla. Filed July 5, 1913.



Particular description of goods.—Liver-Pills.
Claims use since Feb. 4, 1910.

Ser. No. 71,566. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSCAR C. KRETSCHMAR, Minneapolis, Minn. Filed July 7, 1913.

O. K.

Particular description of goods.—A Compound to be Used in Exterminating Rats, Mice, Gophers, and other Animal Pests.
Claims use since about Feb. 1, 1913.

Ser. No. 71,608. (CLASS 37. PAPER AND STATIONERY.) BRADNER SMITH & Co., Chicago, Ill. Filed July 9, 1913.

LAKESIDE

Particular description of goods.—Book-Paper, Writing-Paper, Envelops, Bond-Paper, and Bristol-Board.
Claims use since May 18, 1897.

Ser. No. 71,623. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ROLLER POLISHER COMPANY, New York, N. Y. Filed July 9, 1913.



No claim being made to the representation of the buffer or polisher.
Particular description of goods.—Manicuring Hand Polishers, Buffers, and Enamelers.
Claims use since Jan. 17, 1911.

Ser. No. 71,713. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) J. L. HOPKINS & Co., New York, N. Y. Filed July 15, 1913.

RAJAH

Particular description of goods.—Capsicum, Almond-Meal, Turmeric, Cudbear, and Dragon's-Blood.
Claims use since about Jan. 1, 1898.

Ser. No. 71,748. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS. SCOTT B. HAMBLY, Detroit, Mich. Filed July 16, 1913.

CITROPHATE

Scott B. Hambly M.D.

Containing a facsimile of the applicant's signature.
Particular description of goods.—A Laxative Cathartic and Diuretic.
Claims use since Jan. 11, 1912.

Ser. No. 71,790. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUGUST H. VORDICK, St. Louis, Mo. Filed July 16, 1913. Under ten-year proviso.



Particular description of goods.—A Remedy for Neuralgia, Sciatica, Lumbago, Deafness, Gout, Backache, Frosted Ears, Quinsy, Sprains, Frosted Feet, Sore Throat, Scalds, Burns, Rheumatism, Pleurisy, Ulcers, Diphtheria, and Catarrh in the Head.
Claims use since Aug. 14, 1877.

Ser. No. 71,885. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE S. MCCREEDY, Brooklyn, N. Y. Filed July 22, 1913.

BABY KISS

Particular description of goods.—Talcum Powder, Sachet-Powder, Face-Powder, Face-Cream, and Perfume.
Claims use since July 16, 1913.

Ser. No. 71,892. (CLASS 37. PAPER AND STATIONERY.) O. M. STEINMAN INC., New York, N. Y. Filed July 22, 1913.

OPAL

Particular description of goods.—Cover-Paper in Sheets.
Claims use since January, 1910.

Ser. No. 71,903. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PAUL H. GESSWEIN & COMPANY, New York, N. Y. Filed July 23, 1913.



Particular description of goods.—Jewelers' Saws.
Claims use since July 1, 1913.

Ser. No. 71,906. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE IMPERIAL MERCHANDISE Co., Perry, Ohio. Filed July 23, 1913.

DAYNIGHT

Particular description of goods.—Gas-Mantles.
Claims use since Apr. 9, 1913.

Ser. No. 71,911. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE IMPERIAL MERCHANDISE Co., Perry, Ohio. Filed July 23, 1913.

IMPERIAL

Particular description of goods.—Gas-Mantles.
Claims use since about July 1, 1909.

Ser. No. 71,918. (CLASS 39. CLOTHING.) SHAFT-PIERCE SHOE Co., Faribault, Minn. Filed July 23, 1913.

TRAILLER

Particular description of goods.—Shoes Made of Leather and Canvas.
Claims use since April, 1913.

Ser. No. 72,029. (CLASS 10. FERTILIZERS.) MOUNT PLEASANT FERTILIZER COMPANY, INCORPORATED, Mountpleasant, Tenn. Filed July 29, 1913.

HEART OF THE GREAT PHOSPHATE FIELD

The words "Heart of the Great Phosphate Field," which appear on the drawing, form no part of the mark.
Particular description of goods.—Fertilizer.
Claims use since January, 1908.

Ser. No. 72,040. (CLASS 5. ADHESIVES.) ERNECKE & SALMSTEIN COMPANY, Chicago, Ill. Filed July 30, 1913.

Chica

Particular description of goods.—Adhesive Pastes.
Claims use since June 1, 1913.

Ser. No. 72,089. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed July 31, 1913.

ALPHA

Particular description of goods.—Toilet-Paper.
Claims use since Jan. 1, 1908.

Ser. No. 72,118. (CLASS 38. PRINTS AND PUBLICATIONS.) STAR COMPANY, New York, N. Y. Filed Aug. 1, 1913.

Us Boys



Particular description of goods.—A Newspaper-Section Published Periodically.
Claims use since Dec. 14, 1910.

Ser. No. 72,135. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) J. & C. FISCHER, New York, N. Y. Filed Aug. 2, 1913. Under ten-year proviso.

Fischer

Particular description of goods.—Pianofortes, Grand and Upright Pianos, and Grand and Upright Player-Pianos.
Claims use since prior to Jan. 1, 1895.

Ser. No. 72,154. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) BENJAMIN R. FAUNCE, Riverside, N. J. Filed Aug. 4, 1913.

Tak-Aboost

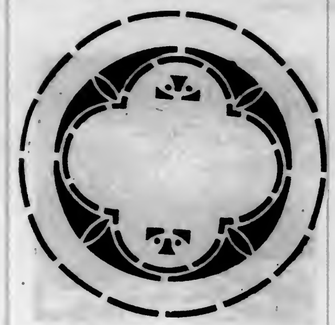
Particular description of goods.—A Plain Soft Drink in the Form of a Sweet Syrup.
Claims use since about May 20, 1913.

Ser. No. 72,190. (CLASS 33. GLASSWARE.) MAXWELL LEVY, Chicago, Ill. Filed Aug. 6, 1913. Under ten-year proviso.

CULLET

Particular description of goods.—Broken Glass.
Claims use since Jan. 1, 1895.

Ser. No. 72,245. (CLASS 12. CONSTRUCTION MATERIALS.) THE CANTON STEEL CEILING CO., New York, N. Y. Filed Aug. 9, 1913.



Particular description of goods.—Steel Ceilings.
Claims use since about the year 1908.

Ser. No. 72,266. (CLASS 7. CORDAGE.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Clothes-Lines and Twine.
Claims use since June 1, 1913.

Ser. No. 72,269. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Smokers' Pipes.
Claims use since June 1, 1913.

Ser. No. 72,282. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CARBON CLEANING COMPOUND CO., St. Louis, Mo. Filed Aug. 11, 1913.

FOUR SEES

Particular description of goods.—A Compound for Cleaning the Cylinders of Internal-Combustion Engines.
Claims use since Mar. 1, 1913.

Ser. No. 72,385. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) C. F. ROPER & CO., Hopedale, Mass. Filed Aug. 16, 1913.

Dependo

Particular description of goods.—Gasolene-Gages.
Claims use since Mar. 28, 1913.

Ser. No. 72,425. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Aug. 19, 1913.

LUXURY

Particular description of goods.—Writing-Tablets, Envelops, Papeteries, and Writing-Paper.
Claims use since Sept. 15, 1912.

Ser. No. 72,439. (CLASS 37. PAPER AND STATIONERY.) HECO ENVELOPE & PAPER COMPANY, Chicago, Ill. Filed Aug. 20, 1913.

HECO

Particular description of goods.—Paper Towels and Toilet-Paper.
Claims use since Jan. 1, 1913.

Ser. No. 72,477. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CARL ZEISS, Jena, Germany. Filed Aug. 21, 1913.

Triotar

Particular description of goods.—Objective-Lens Systems.
Claims use since December, 1912.

Ser. No. 72,595. (CLASS 32. FURNITURE AND UPHOLSTERY.) FEDERAL SIGN SYSTEM (ELECTRIC), Chicago, Ill. Filed Aug. 30, 1913.



Particular description of goods.—Shaving-Mirrors.
Claims use since Oct. 1, 1911.

Ser. No. 72,695. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TONY RIPLESE, Cleveland, Ohio. Filed Sept. 5, 1913.



The portrait being that of applicant.
Particular description of goods.—Corn Remedy, Hair-Tonic, and Toilet Water.
Claims use since Aug. 22, 1913.

Ser. No. 72,700. (CLASS 47. WINES.) C. BERRY & CO., Boston, Mass. Filed Sept. 6, 1913.

San Minuel

Particular description of goods.—Port-Wine.
Claims use since June, 1906.

Ser. No. 72,701. (CLASS 47. WINES.) C. BERRY & CO., Boston, Mass. Filed Sept. 6, 1913.

VICTORIA CLUB

Particular description of goods.—Sherry-Wine.
Claims use since August, 1913.

TRADE-MARKS

REGISTERED SEPTEMBER 30, 1913.

93,583. REFRIGERATORS. THE ALASKA REFRIGERATOR COMPANY, Muskegon Heights, Mich.
Filed January 10, 1913. Serial No. 67,812. PUBLISHED JULY 29, 1913.

93,584. TOOTH-POWDER, TALCUM POWDER, TOILET WATER, AND TOOTH-PASTE. ALLAN CHEMICAL COMPANY, Louisville, Ky.
Filed May 10, 1913. Serial No. 70,331. PUBLISHED JULY 29, 1913.

93,585. EYEGLASSES, SPECTACLES, LENSES, NOSE-GUARDS, FRAMES, BRIDGES, AND MOUNTINGS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed April 25, 1913. Serial No. 70,050. PUBLISHED JULY 29, 1913.

93,586. TOILET SOAP. THE ARTHUR CHEMICAL CO., New Haven, Conn.
Filed May 5, 1913. Serial No. 70,228. PUBLISHED JULY 29, 1913.

93,587. MONTHLY MAGAZINE. AUSTIN BROTHERS, Dallas, Tex.
Filed June 23, 1913. Serial No. 71,278. PUBLISHED JULY 29, 1913.

93,588. PERFUMES, TOILET WATERS, AND FACE-POWDERS. AUSTRO-HUNGARIAN ART CO., INC., New York, N. Y.
Filed April 3, 1913. Serial No. 69,545. PUBLISHED JULY 29, 1913.

93,589. PAINTS, VARNISHES, AND OTHER LIKE PAINTERS' MATERIALS. FREDERICK BEHREND, New York, N. Y.
Filed May 27, 1913. Serial No. 70,687. PUBLISHED JULY 29, 1913.

93,590. PRECIOUS AND PLATED METAL CHAINS, LOCKETS, AND PINS. THE D. F. BRIGGS CO., Attleboro, Mass.
Filed May 19, 1913. Serial No. 70,483. PUBLISHED JULY 29, 1913.

93,591. ALTAR-WINE. BROTHERHOOD WINE COMPANY, New York, N. Y.
Filed June 23, 1913. Serial No. 71,282. PUBLISHED JULY 29, 1913.

93,592. AUTOMOBILES. COMMERCIAL TRUCK COMPANY OF AMERICA, Philadelphia, Pa.
Filed June 2, 1913. Serial No. 70,821. PUBLISHED JULY 29, 1913.

93,593. FURNITURE-POLISH. CO-OPERATIVE DRUG MANUFACTURING COMPANY, Jackson, Tenn.
Filed June 7, 1913. Serial No. 70,945. PUBLISHED JULY 29, 1913.

93,594. SALT, CALCIUM CHLORID, AND BROMIN. JOHN Q. DICKINSON, Malden, W. Va.
Filed September 20, 1912. Serial No. 65,878. PUBLISHED JULY 29, 1913.

93,595. POLISH FOR FURNITURE, AUTOMOBILE-BODIES, AND FLOORS. DEVOLA COMPANY, INC., Charlotte, N. C.
Filed June 11, 1913. Serial No. 71,015. PUBLISHED JULY 29, 1913.

93,596. TOILET CREAMS AND LOTIONS FOR CHAPPED, TANNED, AND SUNBURNED SKIN. JOHN E. ESPEY, Chicago, Ill.
Filed April 5, 1913. Serial No. 69,617. PUBLISHED JUNE 17, 1913.

93,597. LITHOGRAPHIC STONES. FISCHER & KLUGE, Pappenheim, Germany.
Filed May 26, 1913. Serial No. 70,657. PUBLISHED JULY 29, 1913.

93,598. SMOKELESS POWDER. HERCULES POWDER COMPANY, Wilmington, Del.
Filed June 3, 1913. Serial No. 70,843. PUBLISHED JULY 29, 1913.

93,599. EYE-WATER. HOWARD BROS. CHEMICAL CO., Buffalo, N. Y.
Filed March 18, 1912. Serial No. 62,230. PUBLISHED JULY 29, 1913.

93,600. STEEL PENS. GEORGE W. HUGHES, Birmingham, England.
Filed May 27, 1913. Serial No. 70,691. PUBLISHED JULY 29, 1913.

93,601. STEEL PENS. GEORGE W. HUGHES, Birmingham, England.
Filed May 27, 1913. Serial No. 70,694. PUBLISHED JULY 29, 1913.

93,602. BRICK. HYDRAULIC-PRESS BRICK COMPANY, St. Louis, Mo.
Filed May 2, 1913. Serial No. 70,181. PUBLISHED JULY 29, 1913.

93,603. BAKING-POWDER AND BAKING-SODA. THE JOANNES-SPLANE CO., Los Angeles, Cal.
Filed May 20, 1913. Serial No. 70,507. PUBLISHED JULY 29, 1913.

93,604. CIGARS, CIGARETTES, AND MANUFACTURED TOBACCO. LA MINERVA CIGAR FACTORY, Manila, Philippine Islands.
Filed March 17, 1913. Serial No. 69,105. PUBLISHED JULY 29, 1913.

93,605. POWDER-PUFFS. MAURICE LEVY, New York, N. Y.
Filed June 18, 1913. Serial No. 71,170. PUBLISHED JULY 29, 1913.

93,606. ARCH-SUPPORTS TO BE INSERTED IN SHOES. LYNN RUBBER MANUFACTURING COMPANY, Lynn, Mass.
Filed May 20, 1913. Serial No. 70,513. PUBLISHED JULY 29, 1913.

93,607. CERTAIN NAMED SUPPLIES FOR TROLLEY AND ELECTRIC RAILWAY SYSTEMS. NORTHWESTERN CONSTRUCTION COMPANY, New York, N. Y.
Filed June 4, 1913. Serial No. 70,860. PUBLISHED JULY 29, 1913.

93,608. REMEDY FOR CERTAIN AILMENTS OF HORSES AND DOGS. GEORGE W. PARK, Port Chester, N. Y.
Filed August 26, 1912. Serial No. 65,430. PUBLISHED JULY 29, 1913.

93,609. CERTAIN ATTACHMENTS FOR WATCH-CHAINS AND PENDANT-BOWS FOR WATCH-CASES. HENRY PAULSON, Chicago, Ill.
Filed October 16, 1912. Serial No. 66,323. PUBLISHED JULY 29, 1913.

93,610. SCOURING, CLEANING, AND POLISHING COMPOUND. THE REYNOLDS CORPORATION, Bristol, Tenn.
Filed August 1, 1912. Serial No. 65,039. PUBLISHED JULY 29, 1913.

93,611. COLLECTIONS OF SPECIMENS OF ANIMAL, MINERAL, AND VEGETABLE SUBSTANCES. SCIENTIFIC SUPPLY COMPANY, St. Louis, Mo.
Filed May 10, 1913. Serial No. 70,361. PUBLISHED JULY 29, 1913.

93,612. LITTLE MANDRAKE PILLS, CAMPHORATED CARBOLIC OINTMENT, WORM SPECIFIC, AND INSECT-POWDER. SHEDD MEDICINE COMPANY, Jamestown, N. Y.
Filed April 2, 1912. Serial No. 62,599. PUBLISHED JULY 29, 1913.

93,613. FISH-HOOKS. CHARLES H. STAPF, Prescott, Wis.
Filed May 22, 1913. Serial No. 70,562. PUBLISHED JULY 29, 1913.

93,614. SALMON-NETS. J. & W. STUART, Esk Mills, Musselburgh, Scotland.
Filed May 2, 1913. Serial No. 70,189. PUBLISHED JULY 29, 1913.

93,615. CERTAIN NAMED REMEDIES FOR FOWLS, ANIMALS, AND MAN. THE F. C. STUYVESANT COMPANY, Hartford, Conn.
Filed February 14, 1913. Serial No. 68,550. PUBLISHED JULY 29, 1913.

93,616. SMOKING-TOBACCO. THE SURBRUG COMPANY, Hoboken, N. J.
Filed April 7, 1913. Serial No. 69,642. PUBLISHED JULY 29, 1913.

93,617. REMEDIES FOR PLEURISY, ASTHMA, INDIGESTION, COLIC, AND RHEUMATISM. TAYLOR & MCMILLAN, Ocilla, Ga.
Filed May 29, 1913. Serial No. 70,766. PUBLISHED JULY 29, 1913.

93,618. COMPUTING-SCALES. TOLEDO SCALE COMPANY, Jersey City, N. J., and Toledo, Ohio.
Filed June 2, 1913. Serial No. 70,835. PUBLISHED JULY 29, 1913.

93,619. WATCHCASES. THE WADSWORTH WATCH CASE COMPANY, Dayton, Ky.
Filed June 16, 1913. Serial No. 71,142. PUBLISHED JULY 29, 1913.

93,620. DENTIFRICES. CHARLES W. WESTENFELTER, Springfield, Ohio.
Filed May 9, 1913. Serial No. 70,328. PUBLISHED JULY 29, 1913.

93,621. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed June 7, 1913. Serial No. 70,963. PUBLISHED JULY 29, 1913.

93,622. CLOCKS AND WATCHES. WESTERN CLOCK CO., Peru, Ill.
Filed June 16, 1913. Serial No. 71,144. PUBLISHED JULY 29, 1913.

93,623. CERTAIN NAMED OPTICAL GOODS. CARL ZEISS, Jena, Germany.
Filed May 22, 1913. Serial No. 70,574. PUBLISHED JULY 29, 1913.

LABELS

REGISTERED SEPTEMBER 30, 1913.

17,242.—*Title:* "VENOGEN." (For a Medicinal Preparation.) L. V. BATES, Waco, Tex. Filed April 28, 1913.

17,243.—*Title:* "THE EMPIRE TABLET." (For Writing-Tablets.) BUTLER BROTHERS, New York, N. Y.; Chicago, Ill.; St. Louis, Mo.; Minneapolis, Minn., and Dallas, Tex. Filed July 1, 1913.

17,244.—*Title:* "NU WHITE." (For a Preparation for Cleaning Shoes.) BENJAMIN ETTENSON, Leavenworth, Kans. Filed January 31, 1913.

17,245.—*Title:* "VAL DONA HAIR TONIC." (For a Hair-Tonic.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Jersey City, N. J., and Detroit, Mich. Filed May 24, 1913.

17,246.—*Title:* "VAL DONA PERFUMES." (For Perfumes.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Jersey City, N. J., and Detroit, Mich. Filed June 12, 1913.

17,247.—*Title:* "VAL DONA CREAM OF ALMONDS." (For Cream of Almonds.) DRUGGISTS' CO-OPERATIVE ASSOCIATION, INC., Jersey City, N. J., and Detroit, Mich. Filed June 12, 1913.

17,248.—*Title:* "CASA LEO." (For Cigars.) A. C. HENSCHEL & COMPANY, Chicago, Ill. Filed July 11, 1913.

17,249.—*Title:* "ROBERT GRAY." (For Cigars.) A. C. HENSCHEL & COMPANY, Chicago, Ill. Filed July 11, 1913.

17,250.—*Title:* "KRESAPOL." (For a Germicide and Disinfectant.) THE HOFFMAN-LA ROCHE CHEMICAL WORKS, New York, N. Y. Filed April 2, 1913.

17,251.—*Title:* "PILL." (For Cigars.) EMMET KANOUSE, Ludington, Mich. Filed August 22, 1913.

17,252.—*Title:* "MENNEN'S SHAVING CREAM." (For Shaving-Cream.) G. MENNEN CHEMICAL COMPANY, Newark, N. J. Filed September 8, 1913.

17,253.—*Title:* "BILTMORE LINEN." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 13, 1913.

17,254.—*Title:* "LITTLE TOURIST." (For Cigars.) WIEDMANN-ST. LOUIS CIGAR BOX COMPANY, St. Louis, Mo. Filed September 11, 1913.

PRINTS

REGISTERED SEPTEMBER 30, 1913.

3,377.—*Title:* "PHONE BEFORE ELEVEN—DELIVERED BEFORE SEVEN." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,378.—*Title:* "FAMED 'EDELWEISS' IS BREWED AT HOME WHY FROM CHICAGO SHOULD YOU ROAM." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,379.—*Title:* "DELICIOUS SATISFACTION IS AN EDELWEISS ATTRACTION." (For Beer.) THE PETER SCHOENHOFEN BREWING COMPANY, Chicago, Ill. Filed August 29, 1913.

3,380.—*Title:* "WAYNE KNIT HALF HOSE." (For Half-Hose.) WAYNE KNITTING MILLS, Fort Wayne, Ind. Filed July 23, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE VAN NOSTRAND.

Decided September 23, 1915.

REISSUE—APPLICATION—DIVISION—CANNOT BE REQUIRED.

Where an application is filed for the reissue of a patent, *Held* that division cannot be required. (*Ex parte Lippincott*, 16 O. G., 632, overruled.)

APPEAL from Examiners-in-Chief.

ROTARY PLOW.

Messrs. Bacon & Milans for the applicant.

EWING, *Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the requirement of division by the Primary Examiner.

Two questions are raised by this appeal, first, whether division can be required in a reissue application, and, second, whether the claims of this application cover divisible inventions.

The right of reissue to correct defects arising from inadvertence, accident, or mistake is so obviously necessary and fair that it became the established practice before statutory provision was made for it. (*Grant* v. *Raymond*, 6 Peters, 218.)

The first statutory provision for reissue was enacted in the act of July 3, 1832, which read in part as follows:

> That wherever any patent which has been heretofore, or shall be hereafter, granted to any inventor in pursuance of the act of Congress, entitled "An act to promote the progress of useful arts, and to repeal the act heretofore made for that purpose," passed on the twenty-first day of February, in the year of our Lord, one thousand seven hundred and ninety-three, or of any of the acts supplementary thereto, shall be invalid or inoperative, by reason that any of the terms or conditions prescribed in the third section of the said first-mentioned act, have not by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, been complied with on the part of the said inventor, it shall be lawful for the Secretary of State, upon the surrender to him of such patent, to cause a new patent to be granted to the said inventor for the same invention for the residue of the period then unexpired, for which the original patent was granted, upon his compliance with the terms and conditions prescribed in the said third section of the said act.

The act of 1836 repealed all prior statutes relevant to patents. Section 13 of this act provided that the applicant should pay the further duty of fifteen dollars, and contained the further provision:

> And whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars as hereinbefore provided, have the same annexed to the original description and specification; * * * and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification.

By the act of 1837, section 5, it was provided that—

> Whenever a patent shall be returned for correction and reissue under the thirteenth section of the act to which this is additional, and the patentee shall desire several patents to be issued for distinct and separate parts of the thing patented, he shall first pay, in manner and in addition to the sum provided by that act, the sum of thirty dollars for each additional patent so to be issued.

By the act of 1861, section 10, the fee on every application for the reissue of a patent was thirty dollars.

These provisions were modified by sections 53 and 68 of the act of 1870, which became sections 4916 and 4934 of the Revised Statutes, and have not since been modified.

In *ex parte Lippincott* (C. D., 1879, 212; 16 O. G., 632) it was held that division might be required in reissue applications. The portion of section 4916 of the Revised Statutes which was deemed to give this authority reads as follows:

> The Commissioner may, in his discretion, cause several patents to be issued for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue for each of such reissued Letters Patent. The specifications and claims in every such case shall be subject to revision and restriction in the same manner as original applications are.

It was held in this case that the words—

> subject to revision and restriction in the same manner as original applications are—

included the right to require division, so that the Commissioner might exercise his discretion in acceding to the demand of the applicant for a reissue and might require the applicant to take out several, instead of a single, reissue patents.

This practice has obtained ever since this decision was rendered, and it has been the practice to require the payment of an additional fee for each reissue patent, whether the division of the original patent was demanded by the applicant or required by the Commissioner.

I cannot find in the law any warrant for requiring an applicant for reissue to pay more than the one fee, unless he shall "demand" that the patent be reissued in divisions; nor can I find warrant in the law for granting more than one reissue without payment of a fee for each reissue.

The statute seems to me plainly to assume that the Commissioner having once granted a patent

will not change his opinion as to the propriety of allowing in a single reissue claims covering the whole subject-matter thereof. The issuance of a reissue patent is not the granting of a patent, but the exercise of the privilege of correcting a patent already granted, for which the law provides a fee different from the fee required originally, and I find no authority for requiring the applicant to pay more.

There are reasons why such a requirement by the Commissioner may work a hardship upon the patentee applying for a reissue which make it important that the right granted by the statute should be fully recognized; but these reasons do not aid in defining what the right is.

In view of the above holding it will not be necessary to consider the ground for the requirement of division.

The decision in *ex parte Lippincott, supra*, is overruled.

The decision of the Examiners-in-Chief is reversed.

GOLD *v.* DIXON.

Decided April 4, 1913.

1. INTERFERENCE—MOTION TO DISSOLVE—INFORMALITY—FORMULATION OF CLAIM BY EXAMINER DOES NOT CONSTITUTE.

The fact that the claim which was suggested for the purpose of interference was formulated by the Examiner constitutes no informality in the declaration of the interference and a motion to dissolve on that ground *Held* properly refused transmission.

2. SAME—SAME—SUPPLEMENTAL OATH—NO PRELIMINARY STATEMENT.

Where the senior party did not file a preliminary statement, *Held* that a motion to dissolve on the ground that the claim should have been supported by a supplemental oath should be transmitted to the Primary Examiner in order that he may determine whether a supplemental oath is necessary and to dissolve the interference if in his opinion a supplemental oath is necessary and is not filed within a given time.

APPEAL on motion.

STEAM-HEATING SYSTEM.

Messrs. Fraser, Turk & Myers for Gold.

Messrs. Kiddle & Margeson for Dixon.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Gold from the decision of the Examiner of Interferences refusing to transmit a motion to dissolve based upon the following grounds:

(*a*) Informality in the declaration of the interference;

(*b*) Lack of right on the part of Dixon to make the claims;

(*c*) Unpatentability of the issue.

At the same time the appeal was taken an amended motion was filed as to the third ground of the former motion which was transmitted by the Examiner of Interferences, so the third ground of the appeal need not be considered.

The alleged informality is based upon the fact that the claims suggested to the parties were formulated by the Examiner himself. As pointed out by the Examiner of Interferences, this constitutes no such informality as will preclude the proper determination of the question of priority. The action taken by the Examiner was the only action he could have taken if he was convinced that an interference in fact existed and there were claims in each application drawn to cover substantially the same invention, yet, in his opinion, because of the wording thereof, the claims of neither party could be suggested to the other.

Moreover, as each party has now presented the same claim, if it is patentable and each party has the right to make it it would be a vain thing to discuss the question of procedure as to how the interfering claims were presented in the applications of both parties. A dissolution of the interference on the mere ground of alleged informality in the practice would serve no useful purpose in the present case.

It has been repeatedly held that the mere question of the necessity for filing a supplemental oath is an *ex parte* matter that can be taken care of after the interference is over. In the present case, however, Dixon has filed no preliminary statement. If, therefore, the claims suggested were such that a supplemental oath was necessary to support them, Dixon has made no oath whatever to the inventorship of this subject-matter. It is believed that under these circumstances the interference should be transmitted to the Primary Examiner in order that he may decide whether a supplemental oath is necessary. If he is of the opinion that it is, he should give Dixon an opportunity to file such an oath, and if he fails to file it within the time fixed Gold should not be required to contest priority of invention on the subject-matter of these claims.

The decision of the Examiner of Interferences refusing to transmit the motion to dissolve is modified to the extent indicated.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Second Circuit.

OEHRING *et al. v.* WILLIAM GARDAM & SON.

Decided January 13, 1913; on petition for rehearing, January 24, 1913; on rehearing, February 10, 1913.

202 FED. REP., 753.

PATENTS—VALIDITY AND INFRINGEMENT—MULTIPLE DRILL.

The Oehring patent, No. 560,171, for a multiple drill consisting of a machine by which a plurality of holes arranged at regular or irregular intervals and extending to various depths may be simultaneously drilled, claim 1 was not anticipated and discloses patentable invention in that the bracket-supports for the drill-carrying spindles are "independently adjustable in all directions," a combination not found in the prior art. Claim 3 also *Held* valid, and both said claims infringed.

THE decree of the District Court, Southern District of New York, dismissed the bill with respect to claims 1, 2, 7, 10 and 11 in a suit to restrain the alleged infringement of Letters Patent No. 560,171 issued on May 12, 1896, to the complainant Oehring for an improvement in multiple drills.[1] The complainant corporation is an assignee under the patent.

[1] The decree finds claim 3 of the patent valid and infringed but the defendant does not appeal.

Mr. A. v. Briesen and *Mr. T. E. Brown, Jr.*, for the appellants.

Mr. J. Q. Rice and *Mr. M. B. Philipp* for the appellee.

Before LACOMBE, WARD, and NOYES, Circuit Judges.

NOYES, *Cir. J.:*

The patent itself at its commencement clearly discloses its subject-matter:

This invention relates to multiple drills, and has for its object to provide a machine by means of which a plurality of holes arranged at regular or irregular intervals and extending to various depths may be simultaneously drilled.

Several claims are in issue but as the complainant will obtain sufficient relief if the first claim be found valid and infringed, we may confine our examination to that. This claim reads as follows:

In a multiple drill, the combination, with the drill carrying spindles, and flexible shafts for driving the same, of a frame arranged in a plane at right angles to the axes of the spindles, and bracket supports for the said spindles, connected with said frame and independently adjustable in all directions in the plane of the same, substantially as described.

The claim, then, covers a drilling-machine whereby a multiplicity of holes may be drilled simultaneously and according to any desired arrangement, regular or irregular. But as showing merely a multiple drill, nothing new is disclosed. Multiple drills of various kinds were old in the art. Whatever novelty is to be found in the claim is to be looked for in the words "independently adjustable in all directions." The claim is valid, if at all, because the multiple drill which it shows has—

(1) *Independent* adjustability;

(2) *Universal* adjustability.

Independent adjustability as we now use the phrase is the capacity of adjusting the drill-spindles in a desired arraugement without the aid of an additional perforated patteru-plate or "jig" to guide them.[2] This independence is found to some extent in the prior art. Thus for example the Morgan patent shows a multiple drill-machine in which the drill-spindles may be adjusted and different arrangements made without the aid of a pattern-plate. But the field of arraugement is very limited. The holes must be drilled either in a straight, slightly-curved or zigzag line. The drill-carriers can be moved only so far as is permitted by the connecting-links and are held in the same relation to them. In this as in the other patents and uses of the prior art, independent adjustability does not go with universal adjustability in a substantial field.

Universal adjustability in multiple drills is to be found in the prior art. Thus the Woodcock and Gwyn English patent permits every adjustment in a substantial field but a pattern-plate is provided to guide the drills. There is no capacity for adjusting the drills by themselves—for independent adjustment. So other patents and uses disclose universal adjustability but do not disclose it in combination with independent adjustability.

Probably the nearest approach to the patent is the Gardner machine but if the slotted plate of that machine can be said to permit independent adjustment, it does not permit universal adjustment. The slots permit only a limited radial adjustment. The Gardner machine cannot be said to be "independently adjustable in all directions."

Going over the prior art with care, the two things, capacity for universal adjustment and capacity for independent adjustment will not be found together. Those patents and uses in the prior art which show capacity for universal adjustment do not show capacity for independent adjustment and we are not convinced that it would be merely a matter of shop practice to make a drill which is adjustable by a pattern-plate as in the English patent referred to independently adjustable. So those uses which show a capacity for independent adjustment do not show with it a capacity for universal adjustment. It is not altogether apparent that mere mechanical skill would suffice to remove the slots of the Gardner machine and substitute the field of the patent.

To sum up the situation: It does not appear that any one before Oehring made the combination of the claim and it does appear that his structure supplanted the earlier drills and made a real advance in the art. Taking this into consideration we think that invention should be said to exist in the first claim and that it should be sustained. We also think it very clear that this claim has been infringed by the defendant. We do not think the defense of laches established.

The decree appealed from is reversed with costs and the cause remanded with instructions to enter the usual decree for the complainant upon claim 1 of the patent.[3]

ON PETITION FOR REHEARING.

Before LACOMBE, COXE, and NOYES, Circuit Judges.

PER CURIAM:

The petition for rehearing is granted with respect to the question whether the complainants have waived or have lost by laches the right to an accounting and with respect to costs.

Oral argument is not required, but the case may be considered as resubmitted on printed briefs to be filed within two weeks.

ON REHEARING.

After carefully considering the briefs submitted, we adhere to the conclusion stated in the opinion that the defense of laches was not established either as a bar to an injunction or an accounting. We think that the complainants by waiving an accounting upon the narrow claim did not waive it upon the broad one, and, under all the circumstances, that the delay in bringing this suit after the notice to the defendants was not inexcusable. The complainants were prosecuting another infringer, and the defendants were hardly misled.

The complainants are entitled to the costs of the appeal and in the lower court. This is not a case where the complainants have prevailed on certain claims and the defendants on others. We held that the broadest claim in question was valid and in-

[2] The words "independently adjustable" in the claim undoubtedly mean primarily that the drills may be individually adjusted. But the claim, in connection with the specification, makes capacity for independent adjustment as defined in the text, an element, and the phrase "independent adjustability" is used as a convenient expression of the idea involved in connection with the phrase "universal adjustability."

[3] Assuming that we may review upon this appeal that part of the decree which finds for the complainant on claim 2 of the patent, we see no reason to differ from the conclusions reached by Judge Hazel.

fringed, and, as that would give the complainants adequate relief, we thought it unnecessary to consider the narrower claims.

The opinion of the court as rendered will stand without modification.

ADJUDICATED PATENTS.

(U. S. D. C.) The Crowe patent, No. 668,495, claims 1 and 2, for a grate-bar, *Held* not infringed. *Crowe* v. *Oscar Barnett Foundry Co.*, 206 Fed. Rep., 164.

(U. S. D. C.) The Wood patent, No. 790,609, for a shaft-hanger, *Held* not infringed. *T. B. Wood's Sons Co.* v. *Valley Iron Works*, 206 Fed. Rep., 172.

(U. S. D. C.) The Dunham patent, No. 865,171, for a thermostatic controller, *Held* not infringed. *C. A. Dunham Co.* v. *Warren Webster & Co.*, 206 Fed. Rep., 168.

(U. S. C. C. A.) The Payson patent, No. 623,620, for a sash-lock, *Held* valid and infringed. *Ludwigs* v. *Payson Mfg. Co.*, 206 Fed. Rep., 60.

(U. S. D. C.) The Gail patent, No. 639,222, for a spring-bed, is void for lack of invention in view of the prior art. *Simmons Mfg. Co.* v. *Kinney, Rodier Co.*, 206 Fed. Rep., 68.

(U. S. D. C.) The Holmes patent, No. 900,541, for a dental appliance, *Held* valid and infringed. *Holmes* v. *Burnett*, 206 Fed. Rep., 66.

Photographic Copies.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., August 28, 1913.

A photographic apparatus has been installed in the Patent Office for the purpose of avoiding the withdrawal from the examining divisions of foreign patents which are used as references and from the Scientific Library of bound volumes which are used by attorneys in making validity searches.

White-line photographic copies of the specifications and drawings of foreign patents only or of any page of any printed publication which may be in the possession of the Patent Office will be furnished upon payment of the prescribed fees. Copies on paper 7x11¼ inches, comprising a single page only, will be furnished for 15¢ per print, and copies on paper 11¼x14 inches, comprising single or double pages, as the case may be, for 25¢ per print. Coupons to the amount required, when properly filled in, will be accepted in payment for these prints.

The Office will not accept white-line photographic copies of original drawings for filing in connection with pending applications. Therefore prints of this class of drawings will not be furnished.

In ordering photographic copies of specifications or drawings of foreign patents applicants must state the country in which the patent was granted, the number of the patent, the date, including the year, and the name of the patentee.

For photographic copies to be made from other printed publications in possession of the Office the title and date of the publication and the page or part of page of which copy is desired must be given.

Failure to give complete identification as indicated above will cause delay and unnecessary correspondence.

In addition to the foregoing the Office will continue to furnish black-line photographic copies of drawings of pending, patented, forfeited, or abandoned cases, as heretofore, in two sizes, 8x12½ inches at 15¢ per print and 10x15 inches at 25¢ per print. Applicants and attorneys are strongly urged to file a set of black-line copies, small size, or order them to be made by the Office at the time of filing an application. Such procedure will save delay later if correction of the drawing is desired or required.

The Patent Office has no printed copies of foreign patents for sale.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

Frank Wright & Bro., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 8,231, registered May 17, 1881, to Frank Wright & Bro., of Washington, D. C., and a notice of such declaration sent by registered mail to said Frank Wright & Bro. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank Wright & Bro., their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

John B. Daniels, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Radio Company, of 1518 West Pico street, Los Angeles, Cal., for registration of a trade-mark and trade-mark registration No. 43,229, registered August 23, 1904, to John B. Daniels, of 673 Vanderbilt avenue, borough of Brooklyn, New York, N. Y., and a notice of such declaration sent by registered mail to said John B. Daniels at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said John B. Daniels, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C. September 23, 1913.

Oliver J. Freeman, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 23,700, registered March 28, 1893, to Oliver J. Freeman, of 1883 North Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Oliver J. Freeman at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Oliver J. Freeman, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Mortimer J. E. Hurlbut, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Drägerwerk, Heinr. & Bernh. Dräger, 53 Moislinger Allee, Lübeck, Germany, for registration of a trade-mark and trade-mark registered February 25, 1902, No. 37,870, to Mortimer J. E. Hurlbut, 212–214 Monroe street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Mortimer J. E. Hurlbut having been returned by the post-office undeliverable, notice is hereby given that unless said Mortimer J. E. Hurlbut, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 9, 1913.

Wm. H. Scott, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyrene Manufacturing Co., 1358 Broadway, New York, N. Y., for registration of a trade-mark and trade-mark registered August 12, 1902, No. 38,766, to Wm. H. Scott, 510 Court street, Reading, Pa., and a notice of such declaration sent by registered mail to said Wm. H. Scott at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Wm. H. Scott, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

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SEPTEMBER, 1913.

[The opinion of the Attorney-General is indicated by a double dagger (‡) and the decisions of the United States Circuit Courts of Appeal by the letter [d].]

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

SEPTEMBER, 1913.

[The opinion of the Attorney-General is indicated by a double dagger (‡) and the decisions of the United States Circuit Courts of Appeal by the letter ⁴.]

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To authorize a reissue patent under Revised Statutes, section 4916, (U. S. Comp. St., 1901, p. 3393,) there must be clear proof that the error which renders the original patent inoperative or invalid arose by "inadvertence, accident or mistake" and that the party asking for relief acquires no more than he was originally entitled to, and what is called for by the words "same invention" in the statute cannot be gathered from mere inferences or suggestions with reference to what the patentee might or might not have conceived. [⁴ Stafford Co. *v.* Coldwell-Gildard Co. *et al.*, 746.

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Where a design is for the form or configuration or involves the relative proportions of parts of an article of manufacture, such article must necessarily be disclosed in the application, but where the design is for an ornament adapted to be applied to any article of manufacture it is not necessary that applicant disclose the design as applied to some particular article of manufacture.

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[Gold *v.* Dixon, 1142.

2. SUPPLEMENTAL OATH—NO PRELIMINARY STATEMENT.

Where the senior party did not file a preliminary statement, *Held* that a motion to dissolve on the ground that the claim should have been supported by a supplemental oath should be transmitted to the Primary Examiner in order that he may determine whether a supplemental oath is necessary and to dissolve the interference if in his opinion a supplemental oath is necessary and is not filed within a given time. [Id.

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1. COLDWELL AND GILDARD—REISSUE NO. 11,923—STOP-MOTION FOR LOOMS—VALIDITY.

The Coldwell and Gildard Reissue Patent No. 11,923, (original No. 637,234,) for a warp stop-motion for looms, in which claims 19 to 30, inclusive, are new, is void as to claim 19 and all subsequent claims which are substantially broader than claim 23 as not for the same invention disclosed in the original patent.

[⁴Stafford Co. *v.* Coldwell-Gildard Co. *et al.*, 746.

2. RUUD—No. 761,409—GAS-BURNER—VALIDITY AND INFRINGEMENT.

The Ruud patent, No. 761,409, for a gas-burner of the Bunsen type, for use particularly in automatic water-heaters, discloses invention and is valid; also *Held* infringed by the burner of the Frampton patent, No. 980,236.

[d Ruud Mfg. Co. *v.* Pittsburg Water Heater Co., 952.

3. SAME—No. 875,218—GAS-BURNER—VOID PATENT.

The Ruud patent, No. 875,218, for a gas-burner, *Held* void for lack of invention, in view of the prior art. [d Id.

4. OEHRING—No. 560,171—MULTIPLE DRILL—VALIDITY AND INFRINGEMENT.

The Oehring patent, No. 560,171, for a multiple drill consisting of a machine by which a plurality of holes arranged at regular or irregular intervals and extending to various depths may be simultaneously drilled, claim 1 was not anticipated and discloses patentable invention in that the bracket-supports for the drill-carrying spindles are "independently adjustable in all directions," a combination not found in the prior art. Claim 3 also *Held* valid, and both said claims infringed.

[d Oehring *et al. v.* William Gardam & Son, 1142.

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O

ALPHABETICAL LIST OF PATENTEES

TO WHOM

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[Abbreviations: "Gaz."—Official Gazette.]

A. Kimball Company. (See Wallin, Gustaf A., assignor.)
A. B. Dick Company. (See Brasseur, Ernest J., assignor.)
A. G. Spalding & Bros. (See King, Charles M., assignor.)
Abbott, James W., Ingalls, Kans. Valve. No. 1,074,484; Sept. 30; Gaz. vol. 194; p. 1083.
Abeles, Leo, Philadelphia, Pa. Signaling device. No. 1,074,537; Sept. 30; Gaz. vol. 194; p. 1100.
Aberegg, Otto J., Bern, Switzerland. Speed-recorder. No. 1,073,555; Sept. 16; Gaz. vol. 194; p. 719.
Abram Cox Stove Company. (See Mott, Abram C., Jr., assignor.)
Abramson, Harry, Philadelphia, Pa. Gas-heated iron. No. 1,073,884; Sept. 23; Gaz. vol. 194; p. 855.
Acker, Charles E., Ossining, N. Y., assignor to The Nitrogen Company. Producing cyanogen compounds and the like. No. 1,072,373; Sept. 2; Gaz. vol. 194; p. 239.
Acree, Louis C., Stanford University, Cal. Fly-trap. No. 1,072,374; Sept. 2; Gaz. vol. 194; p. 239.
Adams, Frank W., Eastbourne, England. Apparatus for use in printing or stenciling. No. 1,073,556; Sept. 16; Gaz. vol. 194; p. 719.
Adams, George R., Jacksonville, Fla. Rat-trap. No. 1,072,375; Sept. 2; Gaz vol. 194; p. 239.
Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
Adams & Westlake Company, The. (See Warder, Walter J., Jr., assignor.)
Adder Machine Company. (See Küntzler, Henry, assignor.)
Adolf Bleichert & Company. (See Döhle, Fritz, assignor.)
Adreon, Edward L., Jr., St. Louis, Mo. Tie-plate. No. 1,073,011; Sept. 9; Gaz. vol. 194; p. 493.
Adreon, Edward L., Jr., St. Louis, Mo. Tie-plate. No. 1,073,078; Sept. 9; Gaz. vol. 194; p. 517.
Aeschlimann, John J., Monroe, Wis. Wrench. No. 1,073,557; Sept. 16; Gaz. vol. 194; p. 720.
Ahern, Albert M., St. Louis, Mo. Smoke-producing device for routing wild animals. No. 1,073,384; Sept. 16; Gaz. vol. 194; p. 661.
Ahlm, Charles E. F., Cleveland, Ohio. Dynamo-electric machine. No. 1,074,338; Sept. 30; Gaz. vol. 194; p. 1036.
Aikman, Burton S., assignor to National Brake & Electric Company, Milwaukee, Wis. Self-cleaning strainer and muffler. No. 1,073,883; Sept. 23; Gaz. vol. 194; p. 855.
Aktiebolaget Ljungström Angturbin. (See Ljungström, Fredrik, assignor.)
Aktschourin, Jacoub, Aktschourinski Tupik, Russia. Making colophony and colophony-soap. No. 1,074,339; Sept. 30; Gaz. vol. 194; p. 1036.
Alaska Garnet Mining and Manufacturing Company, The. (See Durkee, Anna E., assignor.)
Albee, Frank H., Boston, Mass. Hose-clamp. No. 1,072,896; Sept. 9; Gaz. vol. 194; p. 452.
Albert, Kurt, Wiesbaden, Germany. Siemens-Martin furnace. No. 1,073,053; Sept. 23; Gaz. vol. 194; p. 775.
Albrecht, Oscar A., assignor to O. A. Albrecht Company, Omaha, Nebr. Braiding-machine. No. 1,073,558; Sept. 16; Gaz. vol. 194; p. 720.
Alden, Herbert W., assignor, by mesne assignments, to The Columbia Motor Car Company, Hartford, Conn. Carbureter. No. 1,072,376; Sept. 2; Gaz. vol. 194; p. 240.
Aldrich, William F. (See Wieland and Aldrich.)
Alexander, Tony, San Francisco, Cal. Excavating-shovel. No. 1,074,538; Sept. 30; Gaz. vol. 194; p. 1100.
Allen, Bessie W., New York, N. Y. Novelty adapted for advertising and other purposes. No. 1,071,680; Sept. 2; Gaz. vol. 194; p. 3.
Allen, Charley O. (See Bowles and Allen.)
Allen, Edward A. and H. I., assignors, by mesne assignments, to Electron Chemical Company, Portland, Me. Electrolytic cell. No. 1,073,550; Sept. 16; Gaz. vol. 194; p. 720.
Allen, Edward H., *et al.* (See Gilbert-Stringer and Druitt, assignors.)
Allen, Frederick W. (See McGovern and Allen.)
Allen, Herbert I. (See Allen, Edward A. and H. I.)
Allen, Ira, Dansville, N. Y. Airship. No. 1,074,031; Sept. 23; Gaz. vol. 194; p. 904.
Allen, Lynn L., Atlanta, Ga. Device for making designs. No. 1,071,681; Sept. 2; Gaz. vol. 194; p. 3.
Allen, Samuel L., Moorestown, N. J. Potato-digger. No. 1,073,012; Sept. 9; Gaz. vol. 194; p. 494.
Allen, Thomas B., assignor to The Carborundum Company, Niagara Falls, N. Y. Silicon article. No. 1,073,560; Sept. 16; Gaz. vol. 194; p. 721.
Alley, Stephen E., Glasgow, Scotland, and R. McGregor, London, England. Trunk-piston. No. 1,073,062; Sept. 9; Gaz. vol. 194; p. 511.
Alley, William C., Kokomo, Ind. Wall-paper-trimming machine. No. 1,072,377; Sept. 2; Gaz. vol. 194; p. 240.
Allis-Chalmers Company. (See Schley, George B., assignor.)
Allith Manufacturing Company. (See Smith, Henry C., assignor.)
Allsop, Thomas. (See Sibson and Allsop.)
Alma Manufacturing Company of Baltimore City. (See Greenebaum, Abraham H., assignor.)
Alma Manufacturing Company of Baltimore City. (See Hartmann, Emil, assignor.)
Alsten & Goulding Company. (See Laforce, Joseph E., assignor.)
Alston, Charles H. T., county of Chester, and P. T. Houston, London, England. Gas-producer. No. 1,074,032; Sept. 23; Gaz. vol. 194; p. 905.
Altman, George M., Parkers Landing, Pa. Fence-gap fastener. No. 1,073,063; Sept. 9; Gaz. vol. 194; p. 511.
Altman, John W. (See Johnson, William M., assignor.)
Altmann, Frank C., assignor to The English & Mersick Co., New Haven, Conn. Latch. No. 1,074,340; Sept. 30; Gaz. vol. 194; p. 1036.
Amacher, Jake, Cullom, Ill. Bag-measuring apparatus. No. 1,072,807; Sept. 9; Gaz. vol. 194; p. 453.
Ambler, George A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Wire-feeding mechanism. No. 1,072,803; Sept. 9; Gaz. vol. 194; p. 417.
Ambrette, Conrad. (See Cevasco, Cavagnaro, and Ambrette.)
Ambrose, Harry T. (See Walter, Edward C., assignor.)
American Automatic Press Company. (See Rea, Edward J. F., assignor.)
American Automatic Press Company. (See Rea and Clark, assignors.)
American Brake Shoe & Foundry Company. (See Cook, George, assignor.)
American Brake Shoe & Foundry Company. (See Jones, Harry, assignor.)
American Can Company. (See Carnes, Edward W., assignor.)
American Can Company. (See Downing, Charles, assignor.)
American Can Company. (See Fuhrmann, Charles P., assignor.)
American Can Company. (See Johnson, Axel, assignor.)
American Can Company. (See Laskey, Walden L., assignor.)
American Can Company. (See Taylor, William E., assignor.)
American Can Company. (See Tevander, Swan, assignor.)
American Car and Foundry Company. (See Cooper, James J., assignor.)
American Car and Foundry Company. (See Hartbauer, August W. L., assignor.)
American Circular Loom Company. (See Lutz, George A., assignor.)
American Dan Stopper Company. (See Müller, Friederich, assignor.)
American Electrical Heater Company. (See Hoffmann, William F., assignor.)
American Folding Machine Company, The. (See Pejauo, Albert D., assignor.)
American Hardware Corporation, The. (See Wessoleck, Augustus W., assignor.)
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American Laundry Machinery Company. (See Kelso, James E., assignor.)
American Optical Company. (See Morrissey, James T., assignor.)

American Optical Company. (See Tully, George L., assignor.)
American Road Machine Company. (See Philips, Edwin S., assignor.)
American Steel Foundries. (See Kinne, Edmund P., assignor.)
American Street Lighting Company. (See Newbold, Eugene S., assignor.)
American Telephone and Telegraph Company. (See Browne, Sidney H., assignor.)
American Telephone and Telegraph Company. (See Fay and Molina, assignors.)
Ames Steel Lath Company. (See Curtis, Lewis E., assignor.)
Andersen, Jorgen, Perth Amboy, N. J. Piano string-plate. No. 1,072,294; Sept. 2; Gaz. vol. 194; p. 211.
Anderson-Barngrover Mfg. Co. (See Anderson and Thompson, assignors.)
Anderson, Charles R., *et al.* (See Schell, Max P., assignor.)
Anderson, Elias B., Rock Falls, Ill. Horse-blanket holder. No. 1,072,070; Sept. 2; Gaz. vol. 194; p. 137.
Anderson, Emil, assignor to H. S. Todd, New York, N. Y. Turbine. No. 1,072,295; Sept. 2; Gaz. vol. 194; p. 211.
Anderson, Eric, assignor to The Bryant Electric Company, Bridgeport, Conn. Electric switch. No. 1,072,898; Sept. 9; Gaz. vol. 194; p. 453.
Anderson, George V., Philadelphia, Pa. Machine for treating leather. No. 1,073,064; Sept. 9; Gaz. vol. 194; p. 511.
Anderson, Hans, Healdsburg, Cal. Beehive. No. 1,073,458; Sept. 16; Gaz. vol. 194; p. 687.
Anderson, Hans, Geyserville, Cal. Honey-jar. No. 1,073,459; Sept. 16; Gaz. vol. 194; p. 687.
Anderson, James P., Lisbon, N. D. Fastener for milk-can covers. No. 1,074,308; Sept. 30; Gaz. vol. 194; p. 1026.
Anderson, Lars, and E. F. Engel, assignors of one-half to G. W. Stahl, Chicago, Ill. Caloric engine. No. 1,073,065; Sept. 9; Gaz. vol. 194; p. 512.
Anderson, Louis, Chicago, Ill. Bundle-transfer for grain-binders. No. 1,073,066; Sept. 9; Gaz. vol. 194; p. 512.
Anderson, Mads, Hastings, Nebr. Land-roller. No. 1,073,460; Sept. 16; Gaz. vol. 194; p. 688.
Anderson, Robert H., assignor to R. B. Anderson, San Diego, Cal. Wall-bed. No. 1,074,592; Sept. 30; Gaz. vol. 194; p. 1119.
Anderson, Ruth B. (See Anderson, Robert H., assignor.)
Anderson, Samuel K., and J. Long, South Auburn, Nebr. Pole-tip. No. 1,072,296; Sept. 2; Gaz. vol. 194; p. 211.
Anderson, William C., and A. R. Thompson, assignors to Anderson-Barngrover Mfg. Co., San Jose, Cal. Syruper. No. 1,072,412; Sept. 9; Gaz. vol. 194; p. 281.
Anderson, Young R., assignor of one-tenth to L. C. Counts, Olney, Tex. Elevated irrigation system. No. 1,073,834; Sept. 23; Gaz. vol. 194; p. 838.
Andres, Charles M., assignor of one-half to J. Houseweller, Albany, N. Y. Mechanic's candle-holder. No. 1,073,013; Sept. 9; Gaz. vol. 194; p. 494.
Andrews, Charles W. (See Hawks, William, assignor.)
Andrews, Edwin W., assignor to J. Jepson and E. U. Andrews, trustees, Buffalo, N. Y. Incubator. No. 1,073,314; Sept. 16; Gaz. vol. 194; p. 637.
Andrews, Elise and H. P., Portland, Oreg. Hair-waver. No. 1,073,014; Sept. 9; Gaz. vol. 194; p. 494.
Andrews, Emma U., *et al.*, trustees. (See Andrews, Edwin W., assignor.)
Andrews, Herbert P. (See Andrews, Elise and H. P.)
Andrews, John W. R., assignor to F. A. Whitney Carriage Co., Leominster, Mass. Child's carriage. No. 1,074,583; Sept. 30; Gaz. vol. 194; p. 1116.
Andrews, Olave W., Charleston, Mo. Drive well-point. No. 1,073,835; Sept. 23; Gaz. vol. 194; p. 838.
Annis, Nathaniel P., Chicago, Ill. Centrifugal block-machine. No. 1,073,584; Sept. 23; Gaz. vol. 194; p. 751.
Applequist, Otto N., Council Bluffs, Iowa. Safety device for automobiles. No. 1,073,385; Sept. 16; Gaz. vol. 194; p. 661.
Appley, Harrison V., Binghamton, N. Y. Truss. No. 1,072,804; Sept. 9; Gaz. vol. 194; p. 417.
Armstrong, Andrew. (See Byron and Armstrong.)
Armstrong, Thomas H. (See Gibbs, James E., assignor.)
Arndt, Franklin E., Galion, Ohio. Sealing means for vaults. No. 1,074,402; Sept. 30; Gaz. vol. 194; p. 1057.
Arnold Electric Company. (See Arnold, George A., assignor.)
Arnold, George A., Middletown, Conn., assignor to Arnold Electric Company. Vaporizer. No. 1,072,685; Sept. 9; Gaz. vol. 194; p. 376.
Arnold, William R., Geneva, Nebr. Lamp-wick. No. 1,073,015; Sept. 9; Gaz. vol. 194; p. 495.
Arthur, Walter, Schenectady, N. Y., assignor to General Electric Company. Refractory material. No. 1,072,413; Sept. 9; Gaz. vol. 194; p. 281.
Arthur, Walter, Schenectady, N. Y., assignor to General Electric Company. Refractory material. No. 1,072,414; Sept. 9; Gaz. vol. 194; p. 281.
Arzinger, William F., Jersey City, N. J. Bottle-filling and fluid-measuring machine. No. 1,071,682; Sept. 2; Gaz. vol. 194; p. 3.
Asbestos Protected Metal Co. (See Stewart, Perez M., assignor.)
Ashburner, Charles E., Lynchburg, Va. Toy puzzle. No. 1,072,558; Sept. 9; Gaz. vol. 194; p. 332.
Ashcroft, Edgar A., Balestrand, Norway. Treatment of metal-bearing solutions. No. 1,071,856; Sept. 2; Gaz. vol. 194; p. 65.
Ashley, Charles F., Bolton, N. C. Sawmill-carriage feed. No. 1,072,805; Sept. 9; Gaz. vol. 194; p. 418.
Ashley, Frank M., *et al.* (See Kendall, Edward D., assignor.)
Astor Trust Company, trustee. (See Lundin, Andreas P., assignor.)
Astrom, John, Fort Wayne, Ind. Air charging and priming device for suction-pumps. No. 1,074,098; Sept. 30; Gaz. vol. 194; p. 957.
Atlantic National Bank. (See Claflin, Charles R. B., assignor.)
Atlantic Refining Company, The. (See Van Dyke and Irish, assignors.)
Atwood, Leonard, Boston, Mass. Carbureter. No. 1,073,727; Sept. 23; Gaz. vol. 194; p. 803.
Atwood, Leonard, Boston, Mass., assignor of one-half to C. E. Pope, New York, N. Y. Fishing-reel. No. 1,073,728; Sept. 23; Gaz. vol. 194; p. 804.
Auburn Ignition Manufacturing Co., The. (See Raves, Ewald A., assignor.)
Auchu, Henry, Emporium, Pa. Machine for packing dynamites and other high explosives into shells. No. 1,071,683; Sept. 2; Gaz. vol. 194; p. 4.
Aultman & Taylor Machinery Company, The. (See Whiting and Koppes, assignors.)
Aumüller, Anton, Munich, Germany. Hood of motor-cars. No. 1,074,232; Sept. 30; Gaz. vol. 194; p. 1001.
Aun, John. (See Wilson, John, assignor.)
Aunger, Clyde A., San Francisco, Cal. Artificial knee-joint. No. 1,074,233; Sept. 30; Gaz. vol. 194; p. 1001.
Aunkst, William H., Milton, Pa. Pneumatic pump. No. 1,072,806; Sept. 9; Gaz. vol. 194; p. 418.
Austin, Herbert, Bromsgrove, England. Sheet-metal wheel. No. 1,071,684; Sept. 2; Gaz. vol. 194; p. 4.
Austin, John, Geneva, Ohio. Mouthpiece for smokers' articles. No. 1,073,315; Sept. 16; Gaz. vol. 194; p. 637.
Austin, Samuel E. (See Dickinson, Charles E., assignor.)
Automatic Gas Lighting Equipment Co. (See Shaw, Al B., assignor.)
Automatic Machinery Manufacturing and Sales Company. (See Gaynor, John J., assignor.)
Automatic Packing & Labeling Company. (See Gwinn, George W., assignor.)
Automatic Recording Safe Company, The. (See Fisher, Charles, assignor.)
Autopress Company, The. (See Freeman, Rufus A., assignor.)
Autopress Company, The. (See Vierengel, Matthew, assignor.)
Autosales Gum and Chocolate Company. (See Bowers, Frank A., assignor.)
Avery Company. (See Bartholomew, John B., assignor.)
Avery, Eugene H., Bradgate, Iowa. Gearing for motor-vehicles. No. 1,074,341; Sept. 30; Gaz. vol. 194; p. 1036.
Avery Scale Company. (See Welsh, Henry W., assignor.)
Avery, Ulysses S., assignor of one-half to J. W. Berryman, Ashland, Kans. Screen. No. 1,073,016; Sept. 9; Gaz. vol. 194; p. 495.
Awald, John W., Dunkirk, N. Y. Shade and curtain hanger. No. 1,074,033; Sept. 23; Gaz. vol. 194; p. 905.
Ayars, Charles H., assignor to Ayars Machine Company, Salem, N. J. Can-filling machine. No. 1,073,067; Sept. 9; Gaz. vol. 194; p. 513.
Ayars Machine Company. (See Ayars, Charles H., assignor.)
Ayer, Frederick H., Chicago Heights, Ill. Ratchet-driving mechanism. No. 1,072,807; Sept. 9; Gaz. vol. 194; p. 419.
Aylsworth, Jonas W., East Orange, assignor to New Jersey Patent Company, West Orange, N. J. Apparatus for producing duplicate sound-records. No. 1,071,685; Sept. 2; Gaz. vol. 194; p. 5.
Ayres, Clinton J., Saranac Lake, N. Y. Collapsible couch. No. 1,072,297; Sept. 2; Gaz. vol. 194; p. 212.
Ayres, Elwood B., assignor to The Philadelphia Textile Machinery Company, Philadelphia, Pa. Drier. No. 1,074,034; Sept. 23; Gaz. vol. 194; p. 905.
Azadian, Akabi R. (See Azadian, Haruthn B., assignor.)
Azadian, Haruthn B., assignor to A. R. Azadian, Syracuse, N. Y. Pressure-gage. No. 1,072,415; Sept. 9; Gaz. vol. 194; p. 281.
B. F. Cummins Company, The. (See Lynch, John T., assignor.)
B. F. Goodrich Company, The. (See Kepler, Irwin F., assignor.)
B. F. Sturtevant Company. (See Williams, Eugene B., assignor.)
B. T. U. Company. (See Henry, William C. A., assignor.)
Babé, Jules, Honfleur, France. Separation of lead and zinc. No. 1,073,461; Sept. 16; Gaz. vol. 194; p. 688.
Babson, Henry B., Chicago, Ill., and A. Haug, Caldwell, N. J., assignors to Universal Talking Machine Manufacturing Company, Talking-machine. No. 1,074,080; Sept. 23; Gaz. vol. 194; p. 921.
Bacon, Thomas P., Oakland, Cal. Robe-lock. No. 1,072,559; Sept. 9; Gaz. vol. 194; p. 333.
Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,074,403; Sept. 30; Gaz. vol. 194; p. 1057.

Badger, Edward E. (See Young, Edward T., assignor.)
Badische Anilin & Soda Fabrik. (See Blangey and Immerheiser, assignors.)
Badische Anilin & Soda Fabrik. (See Julius and Immerheiser, assignors.)
Bailey, De Witt C., Nicholas, Fla. Pipe-coupling. No. 1,073,017; Sept. 9; Gaz. vol. 194; p. 495.
Bailey, Warder J., Cedarville, W. Va. Signaling and telephone system for railways. No. 1,073,018; Sept. 9; Gaz. vol. 194; p. 496.
Bain, David, Passaic, N. J., assignor to Blauvelt-Wiley Paper Manufacturing Company, New York, N. Y. Machine for winding fabrics. No. 1,073,946; Sept. 23; Gaz. vol. 194; p. 957.
Baker, Daniel M. (See Smith and Baker.)
Baker, Frederick, Blackheath, and L. Jacobs, assignors to Baker Sewing Machines Trust Limited, London, England. Seam for sewed articles. No. 1,072,201; Sept. 2; Gaz. vol. 194; p. 182.
Baker, Mabel C. (See Parker, George H., assignor.)
Baker, Rollyn H., Dayton, Ohio. Metallic box. No. 1,074,539; Sept. 30; Gaz. vol. 194; p. 1100.
Baker Sewing Machines Trust Limited. (See Baker and Jacobs, assignors.)
Baker, Winthrop D., Abington, assignor to Boston Blacking Company, East Cambridge, Mass. Filling shoe-bottom cavities. No. 1,071,857; Sept. 2; Gaz. vol. 194; p. 65.
Baldwin, Eli N., Jr., Stratford, Conn. Concealed hinge. No. 1,073,316; Sept. 16; Gaz. vol. 194; p. 637.
Baldwin, James A., Maynard, Mass. Coin-controlled directory-holder. No. 1,074,035; Sept. 23; Gaz. vol. 194; p. 906.
Baldwin Locomotive Works, The. (See Bowen, George D., assignor.)
Balko, Pal, assignor of one-half to J. J. Vlach, Milwaukee, Wis. Wrench. No. 1,073,019; Sept. 9; Gaz. vol. 194; p. 496.
Ball, Frank H. and F. O., Plainfield, N. J. Carbureter. No. 1,071,858; Sept. 2; Gaz. vol. 194; p. 65.
Ball, Frederick O. (See Ball, Frank H. and F. O.)
Ball, Herman F., New York, N. Y. Locomotive-truck. No. 1,074,154; Sept. 30; Gaz. vol. 194; p. 974.
Ballance, John, assignor of one-half to J. A. Pressl, New York, N. Y. Liquid-container. No. 1,071,859; Sept. 2; Gaz. vol. 194; p. 66.
Ballard, Frederick W., Cleveland Heights, assignor to The Sherwin-Williams Company, Cleveland, Ohio. Drier-kiln. No. 1,074,485; Sept. 30; Gaz. vol. 194; p. 1084.
Bancroft, William P., Bostwick, Nebr. Wringer support and fastener. No. 1,073,947; Sept. 23, Gaz. vol. 194; p. 878.
Banes, Ernest E., Strathfield, near Sydney, New South Wales, Australia. Process and apparatus for treating sulfid ores. No. 1,073,462; Sept. 16; Gaz. vol. 194; p. 688.
Banes, Ernest E., Strathfield, near Sydney, New South Wales, Australia. Feeding-twyer for ore-treating furnaces. No. 1,073,463; Sept. 16; Gaz. vol. 194; p. 689.
Banger, Frank M. (See Banger, Hiram A. and F. M.)
Banger, Hiram A. and F. M., Philadelphia, Pa. Window. No. 1,072,071; Sept. 2; Gaz. vol. 194; p. 137.
Barber-Colman Company. (See Colman, Howard D., assignor.)
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Inking mechanism for bed-and-cylinder printing-presses. No. 1,072,836; Sept. 23; Gaz. vol. 194; p. 838.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Sheet-delivery apparatus for printing-machines. No. 1,073,317; Sept. 16; Gaz. vol. 194; p. 638.
Barber, John C., assignor to Standard Car Truck Company, Chicago, Ill. Car-truck. No. 1,073,654; Sept. 23; Gaz. vol. 194; p. 776.
Barbour, George H., Pittsburgh, Pa. Metallic clip-fastening. No. 1,073,082; Sept. 16; Gaz. vol. 194; p. 555.
Barcalo Manufacturing Company. (See Vallone, Charles, assignor.)
Bárcz, Josef, (now by judicial change of name J. Bércs,) Cologne-Ehrenfeld, Germany. Flying-machine. No. 1,073,655; Sept. 23; Gaz. vol. 194; p. 776.
Bardsley, Willard W., Providence, R. I. Mechanism for controlling action. No. 1,072,416; Sept. 9; Gaz. vol. 194; p. 282.
Barker, England J., Chicago, Ill. Type-writer attachment. No. 1,072,202; Sept. 2; Gaz. vol. 194; p. 182.
Barker, James, Detroit, Mich. Trial or balance sheet. No. 1,072,417; Sept. 9; Gaz. vol. 194; p. 282.
Barker, John P., Orange, Cal., assignor, by mesne assignments, to Orange Auto Power Company. Engine or motor. No. 1,073,656; Sept. 23; Gaz. vol. 194; p. 777.
Barnard, Charles, Pasadena, assignor to E. E. Dow, Redlands, Cal. Drier. No. 1,073,729; Sept. 23; Gaz. vol. 194; p. 804.
Barnard, Isham M., and J. W. Lawler, Fowler, Colo. Load-ejector for bull hay-rakes. No. 1,073,948; Sept. 23; Gaz. vol. 194; p. 878.
Barnard, Therides V., Schaller, Iowa. Harrow. No. 1,073,318; Sept. 16; Gaz. vol. 194; p. 638.
Barnard, Walter E., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,071,860; Sept. 2; Gaz. vol. 194; p. 66.
Barnard, Walter E., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,073,068; Sept. 9; Gaz. vol. 194; p. 513.
Barnard, Walter E., Hartford, Conn., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,073,083; Sept. 16; Gaz. vol. 194; p. 555.
Barnes, Frank L., and J. McGoey, New York, N. Y. Union suit. No. 1,074,309; Sept. 30; Gaz. vol. 194; p. 1026.
Barnes, John. (See Hice and Barnes.)
Barnes, Raymond F., Washington, D. C., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1, 071,981; Sept. 2; Gaz. vol. 194; p. 106.
Barnhart, William L., Atlanta, Ga. Composite roofing. No. 1,074,404; Sept. 30; Gaz. vol. 194; p. 1058.
Barr, John H., New York, assignor to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,072,899; Sept. 9; Gaz. vol. 194; p. 453.
Barrett, Flora A., Columbus Grove, Ohio. Detachable door-hinge. No. 1,071,982; Sept. 2; Gaz. vol. 194; p. 107.
Barrett, Halsey M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)
Barroul, Abel O., Mobile, Ala. Street-car fender. No. 1,074,036; Sept. 23; Gaz. vol. 194; p. 906.
Barry, Joe M., Los Angeles, Cal. Cooling attachment for fans. No. 1,074,037; Sept. 23; Gaz. vol. 194; p. 907.
Bartholomew, John B., Peoria, Ill., assignor to Avery Company. Wagon. No. 1,073,837; Sept. 23; Gaz. vol. 194; p. 839.
Bartholomew, William, assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Bosom-board. No. 1,072,808; Sept. 9; Gaz. vol. 194; p. 420.
Bartlett, James H., *et al.* (See Redmond, John E., assignor.)
Bartlett, Kent W., Chicago, Ill. Liquid-treating apparatus. No. 1,072,900; Sept. 9; Gaz. vol. 194; p. 454.
Bartlett, Lauren L., Sturgeon Lake, Minn. Car-stake. No. 1,073,319; Sept. 16; Gaz. vol. 194; p. 638.
Bartlett, Marcus J., Chicago, Ill., assignor to Pullman Couch Company. Sofa-bed. No. 1,074,342; Sept. 30; Gaz. vol. 194; p. 1037.
Barton, Joseph T., Chicago, Ill. Printer's quoin. No. 1,073,838; Sept. 23; Gaz. vol. 194; p. 839.
Barzee, George, and C. J. Wahlquist, Heber, Utah. Automatic weir-gage. No. 1,072,901; Sept. 9; Gaz. vol. 194; p. 454.
Baskin, Edwin T., Independence, Mo. Glove. No. 1,072,560; Sept. 9; Gaz. vol. 194; p. 333.
Bass, Benton A., and R. D. Osgood, Birmingham, Ala. Rail-straightening mill. No. 1,071,861; Sept. 2; Gaz. vol. 194; p. 66.
Bassett, George B., Buffalo, N. Y. Water-meter. No. 1,073,386; Sept. 16; Gaz. vol. 194; p. 662.
Bassett, George B., Buffalo, N. Y. Water-meter. No. 1,073,387; Sept. 16; Gaz. vol. 194; p. 662.
Bassett, Harry P., assignor to The Spar Chemical Company, Baltimore, Md. Obtaining potash salts from feldspar. No. 1,072,686; Sept. 9; Gaz. vol. 194; p. 376.
Bassett, Linn L. (See Volz, Gottlieb W., assignor.)
Bastian, John B., Neosho, Mo. Machine for stuffing cruppers. No. 1,074,155; Sept. 30; Gaz. vol. 194; p. 975.
Bastian-Morley Co. (See Bastian, William B., assignor.)
Bastian, William B., Chicago, Ill., assignor to Bastian-Morley Co., Pierre, S. D. Gas water-heater. No. 1,072,072; Sept. 2; Gaz. vol. 194; p. 137.
Batcheller, Josiah W., Jr. (See Dunbar and Batcheller.)
Batdorf, Charles S., Brooklyn, N. Y., assignor to Universal Coinwrapping Machine Company. Coin-package wrapper. No. 1,073,575; Sept. 16; Gaz. vol. 194; p. 726.
Bates, Arthur. (See Bennion, Bates, and Gouldbourn.)
Bates, Benjamin W., H. W. Kelly, and D. H. Corbin, Birmingham, assignors to Life Targets Limited, London, England. Target apparatus for use with kinematographs. No. 1,072,298; Sept. 2; Gaz. vol. 194; p. 212.
Batzel, Eugene P., Detroit, Mich., assignor of one-half to G. C. Beck, Spokane, Wash. Rotary valve mechanism for gas-engines. No. 1,071,686; Sept. 2; Gaz. vol. 194; p. 5.
Baucom, Ransom J. (See Lilies and Baucom.)
Bauer, Wilhelm, A. Herre, and R. Mayer, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat dye. No. 1,074,405; Sept. 30; Gaz. vol. 194; p. 1058.
Baughman, Harry S., Albion, Mich. Draft-collar for horses. No. 1,073,657; Sept. 23; Gaz. vol. 194; p. 777.
Bauman, Louis, F. (See Rowan and Bauman.)
Bauschlicher, August, Sachenhausen-Frankfort-on-the-Main, Germany, assignor, by mesne assignments, to H. Hess, Philadelphia, Pa. Gage. No. 1,072,378; Sept. 2; Gaz. vol. 194; p. 240.
Baxter, Berry A., Mansfield, Ohio. Stove-door. No. 1,072,809; Sept. 9; Gaz. vol. 194; p. 420.
Baxter, William, Jr., assignor to Otis Elevator Company, Jersey City, N. J. Push-button system. No. 1,072,074; Sept. 2; Gaz. vol. 194; p. 138.
Bayliss, Thomas A., Warwick, assignor of one-half to B. G. Clark, London, England. Alloy of zinc. No. 1,074,234; Sept. 30; Gaz. vol. 194; p. 1002.
Bayrer, William J. (See Henry and Bayrer.)

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,072,075; Sept. 2; Gaz. vol. 194; p. 139.

Bazeley, Arthur J., assignor to The National Malleable Castings Company, Cleveland, Ohio. Bottom-opening car-coupling. No. 1,072,076; Sept. 2; Gaz. vol. 194; p. 139.

Beach, Oscar C., assignor to F. W. Braun, Los Angeles, Cal. Keying device. No. 1,074,343; Sept. 30; Gaz. vol. 194; p. 1037.

Beale, William H., Wellington, New Zealand. Circular-fashioning knitting-machine using double-ended latch-needles. No. 1,073,885; Sept. 23; Gaz. vol. 194; p. 855.

Beall, Andrew T. (See Leach and Beall.)

Beam, Joseph J., assignor of one-half to B. J. Toben, Duluth, Minn. Mop-stick. No. 1,073,464; Sept. 16; Gaz. vol. 194; p. 689.

Beatty, Raymond C., Ford City, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Truing mechanism for glass-grinding apparatus. No. 1,074,099; Sept. 30; Gaz. vol. 194; p. 957.

Beatty, Robert D. (See Burton, Charles G., assignor.)

Beaubien, Robert E., assignor to S. O. Cavette, Chicago, Ill. Clothes-pounder. No. 1,074,593; Sept. 30; Gaz. vol. 194; p. 1120.

Beaujon, Charles A., Canaan, Conn. Penholder or pencil brace. No. 1,073,561; Sept. 16; Gaz. vol. 194; p. 721.

Beaumont, Nelson, Racine, Wis. Removing casings from drilled wells. No. 1,073,839; Sept. 23; Gaz. vol. 194; p. 890.

Beauregard, Victor, Boston, Mass. Embroidery-hoop. No. 1,072,687; Sept. 9; Gaz. vol. 194; p. 376.

Beausejour, Reme A., assignor to Standard Varnish Works, New York, N. Y. Article-holder for liquid-coating machines. No. 1,072,910; Sept. 9; Gaz. vol. 194; p. 420.

Beaver, John M., Fort Worth, Tex. Folding umbrella. No. 1,073,562; Sept. 16; Gaz. vol. 194; p. 721.

Beazley, John, Sr., La Porte, Tex. Levee. No. 1,074,156; Sept. 30; Gaz. vol. 194; p. 975.

Beck, Adolf. (See Paul, Anton, assignor.)

Beck, Charles W., Rockville Center, N. Y., assignor, by mesne assignments, to Michigan Motor Specialties Company, Detroit, Mich. Terminal connector for spark-plugs. No. 1,072,561; Sept. 9; Gaz. vol. 194; p. 333.

Beck, George C. (See Batzel, Eugene P., assignor.)

Beck, Perry, Alexandria, Ind. Magneto. No. 1,073,020; Sept. 9; Gaz. vol. 194; p. 496.

Becker, Felix, Arlon, Belgium. Door-latch. No. 1,071,862; Sept. 2; Gaz. vol. 194; p. 67.

Becker, Frank J., Hamilton, Ohio. Molder's flask. No. 1,072,811; Sept. 9; Gaz. vol. 194; p. 421.

Becker, John G., Campbell, Mo. Automobile light-shifter. No. 1,072,418; Sept. 9; Gaz. vol. 194; p. 282.

Becklin, Oscar, West Duluth, Minn. Pipe-wrench. No. 1,071,687; Sept. 2; Gaz. vol. 194; p. 5.

Beckwith, George C., Minneapolis, Minn. Soap-holding attachment for brushes. No. 1,072,077; Sept. 2; Gaz. vol. 194; p. 139.

Beckwith, Joseph H., St. Louis, Mo. Mechanism for aerial navigation. No. 1,072,078; Sept. 2; Gaz. vol. 194; p. 139.

Bedal, William A., Port Huron, Mich. Water-strainer. No. 1,072,299; Sept. 2; Gaz. vol. 194; p. 213.

Beeman, Marcus M., assignor to The Spirella Company, Meadville, Pa. Corset-display device. No. 1,073,585; Sept. 23; Gaz. vol. 194; p. 751.

Beguhn, Theodore L., Detroit, Mich. Differential driving mechanism. No. 1,071,863; Sept. 2; Gaz. vol. 194; p. 67.

Behr, Rudolf, Kolberg, Germany. Detachable gas-fitting. No. 1,074,100; Sept. 30; Gaz. vol. 194; p. 957.

Behrends, Roddie C., Easton, Ill. Spring-wheel. No. 1,074,235; Sept. 30; Gaz. vol. 194; p. 1002.

Behrens, Carl, Jabelitz, near Trent, Germany. Stopping device for ships. No. 1,074,236; Sept. 30; Gaz. vol. 194; p. 1002.

Bejar, Tomás L. de, and B. Lanzagorta, Habana, Cuba. Pneumatic spring for vehicles. No. 1,073,840; Sept. 23; Gaz. vol. 194; p. 840.

Bekkering, Earl H., assignor to The Duluth Show Case Company, Duluth, Minn. Shelf-box. No. 1,074,344; Sept. 30; Gaz. vol. 194; p. 1037.

Belden Manufacturing Company. (See Beutler, Albert, assignor.)

Beler, Adolf, Pittsburgh, Pa. Burner. No. 1,074,157; Sept. 30; Gaz. vol. 194; p. 975.

Beline, Elie, New York, N. Y. Mesh-bag. No. 1,074,237; Sept. 30; Gaz. vol. 194; p. 1002.

Bell, Edwin J. (See Dauber, Charles G., assignor.)

Bell, Edwin J., and C. G. Dauber, assignors to The Dauber-Bell Machine Company, Oshkosh, Wis. Dowel gluing and driving machine. No. 1,074,158; Sept. 30; Gaz. vol. 194; p. 976.

Bell, Elmer, assignor to Bryce Brothers Company, Mount Pleasant, Pa. Glass-etching machine. No. 1,073,586; Sept. 23; Gaz. vol. 194; p. 751.

Bell, John T., San Francisco, Cal. Davit tackle-block. No. 1,072,730; Sept. 23; Gaz. vol. 194; p. 804.

Bellows, Warren S., assignor to Walden Manufacturing Company, Worcester, Mass. Brace-socket wrench. No. 1,072,079; Sept. 2; Gaz. vol. 194; p. 140.

Belt, Joseph W. (See Belt, Samuel P. and J. W.)

Belt, Samuel P., Cherrydale, Va., and J. W. Belt, Oklahoma, Okla. Liquid-operated damper-regulator. No. 1,071,864; Sept. 2; Gaz. vol. 194; p. 68.

Belz, August, Goldach, assignor to Firm of H. Levy, Rorschach, Switzerland. Bobbin-winder. No. 1,073,388; Sept. 16; Gaz. vol. 194; p. 663.

Bemis, Herbert G., Riceville, Iowa. Fence-gate. No. 1,073,563; Sept. 16; Gaz. vol. 194; p. 722.

Bender, George L., San Francisco, Cal. Bottle-labeling machine. No. 1,072,403; Sept. 2; Gaz. vol. 194; p. 249.

Bendix, Herman G., New York, N. Y. Heel-breast buffer. No. 1,073,949; Sept. 23; Gaz. vol. 194; p. 878.

Benedict, George H., Chicago, Ill. Electrotype plate or cast cleaner or the like. No. 1,072,902; Sept. 9; Gaz. vol. 194; p. 455.

Beneke, A. J., *et al.* (See Ray, Albert J., assignor.)

Benham, Oliver A., Dayton, Ohio. Lever-lock. No. 1,074,038; Sept. 23; Gaz. vol. 194; p. 907.

Bennett, Albert A., Los Angeles, Cal. Lock for automobiles. No. 1,074,238; Sept. 30; Gaz. vol. 194; p. 1003.

Bennett, Algernon E. (See Fravel, Charles G., assignor.)

Bennett, Ernest C., New York, N. Y. Artificial denture. No. 1,074,345; Sept. 30; Gaz. vol. 194; p. 1038.

Benninghoff, William H. (See Gorin, Fred P., assignor.)

Bennion, Charles, A. Bates, and J. Gouldbourn, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Starting and stopping mechanism. No. 1,071,865; Sept. 2; Gaz. vol. 194; p. 68.

Bentzon, Malcolm, London, England. Apparatus for the manufacture of lenses. No. 1,072,419; Sept. 9; Gaz. vol. 194; p. 283.

Berberich, Frank J., Brooklyn, N. Y. Hydrometer. No. 1,074,039; Sept. 23; Gaz. vol. 194; p. 907.

Bérez, Josef. (See Bárcz, Josef.)

Berg, Louis D., Watertown, N. Y. Hydropneumatic valve. No. 1,072,502; Sept. 9; Gaz. vol. 194; p. 334.

Bergener, Charles, assignor of one-half to C. T. Ham Manufacturing Company, Rochester, and one-half to R. E. Dietz Company, New York, N. Y. Tubular lantern. No. 1,072,688; Sept. 9; Gaz. vol. 194; p. 376.

Berger Manufacturing Company, The. (See Caldwell, William L., assignor.)

Bergman, Carl O., Evanston, assignor to Mark Manufacturing Company, Chicago, Ill. Pipe-vise. No. 1,073,731; Sept. 23; Gaz. vol. 194; p. 804.

Bergman, Charles A., Los Angeles, Cal. Sash-fastener. No. 1,071,866; Sept. 2; Gaz. vol. 194; p. 68.

Bernauer, George W., assignor of one-half to J. E. Hallowell, St. Charles, Mo. Drying solutions applied to kid, leather, or other materials. No. 1,074,340; Sept. 30; Gaz. vol. 194; p. 1038.

Bernstein, Isaac, New York, N. Y. Garment-holder and shape-retainer. No. 1,073,084; Sept. 16; Gaz. vol. 194; p. 535.

Berry, Henry F., Westminster, London, England. Road-preparing machine. No. 1,073,021; Sept. 9; Gaz. vol. 194; p. 497.

Berryman, Jerome W. (See Avery, Ulysses S., assignor.)

Bertram, Milton E., Cleveland, Ohio. Valve-operating mechanism. No. 1,072,812; Sept. 9; Gaz. vol. 194; p. 421.

Beta Fertilizer Co. (See Reichelt, Bruno, assignor.)

Bettendorf, J. W., administrator. (See Bettendorf, William P.)

Bettendorf, William P., deceased, Davenport, Iowa; J. W. Bettendorf, administrator. Draft-rigging and support therefor. No. 1,072,300; Sept. 2; Gaz. vol. 194; p. 213.

Bettington, Claude A., London, England. Apparatus for pulverizing coal and other materials. No. 1,074,040; Sept. 23; Gaz. vol. 194; p. 908.

Bettini, Glanni, Paris, France. Yarn spinning or twisting apparatus. No. 1,073,022; Sept. 9; Gaz. vol. 194; p. 497.

Betts, Charles L., Brooklyn, assignor to R. E. Dietz Company, New York, N. Y. Tubular lantern. No. 1,073,465; Sept. 16; Gaz. vol. 194; p. 689.

Beutler, Albert, assignor to Belden Manufacturing Company, Chicago, Ill. Covering-machine. No. 1,073,085; Sept. 16; Gaz. vol. 194; p. 536.

Biasatti, Sam, Memphis, Tenn. Display-rack. No. 1,073,564; Sept. 16; Gaz. vol. 194; p. 722.

Biehl, John H., assignor of one-half to D. L. Snow, Philadelphia, Pa. Compound implement. No. 1,073,565; Sept. 16; Gaz. vol. 194; p. 722.

Bielicke, William, assignor to Ross Limited, Clapham Common, London, England. Photographic lens. No. 1,073,950; Sept. 23; Gaz. vol. 194; p. 878.

Bigwood, Henry M., and F. H. Terry, Wolverhampton, England. Pipe union or coupling for electric-conduit junction-boxes and other purposes. No. 1,072,379; Sept. 2; Gaz. vol. 194; p. 240.

Bilby, Daniel M., Sharon, Pa. Tool-holder. No. 1,074,041; Sept. 23; Gaz. vol. 194; p. 908.

Billings, James R., assignor to Billings Process Company, Birmingham, Ala. Making iron and steel. No. 1,073,587; Sept. 23; Gaz. vol. 194; p. 752.

Billings Process Company. (See Billings, James R., assignor.)

Bippart, Achill, Newark, N. J. Flower-holder for the dress. No. 1,072,903; Sept. 9; Gaz. vol. 194; p. 455.

Birchler, Joseph M., assignor to S. A. McNear, San Jose, Cal. Dumb-waiter. No. 1,073,466; Sept. 16; Gaz. vol. 194; p. 690.

Birrell, James. (See Birrell, William and J.)

Birrell, William and J., assignors to F. J. Koloman, trustee, Seattle, Wash. Vacuum-producing device. No. 1,073,467; Sept. 16; Gaz. vol. 194; p. 691.

Birtman Electric Co. (See English, Frederick A., assignor.)

Bischoff, Gotthilf, Freudenstadt, assignor to Ernst Gideon Bek, G. m. b. H., Pforzheim, Germany. Manufacture of chain-swivels. No. 1,073,841; Sept. 23; Gaz. vol. 194; p. 840.

Bishop & Babcock Company, The. (See Champ, Joseph H., assignor.)

Bissonnette, Victor J., and A. M. Linn, Stafford Springs, Conn. Hand-card. No. 1,073,842; Sept. 23; Gaz. vol. 194; p. 840.

Bitter, Reuben H., and D. C. Stephenson, Toledo, Ohio. Tie-plate and rail-fastener for railways. No. 1,071,867; Sept. 2; Gaz. vol. 194; p. 68.

Black, Albert G., Millport, Ala., assignor of one-fourth to A. K. Collins, one-fourth to W. A. Shepherd, and one-fourth to S. E. Wilson. Calculating-register. No. 1,074,347; Sept. 30; Gaz. vol. 194; p. 1038.

Black, Hugh M., Brighton, England. Apparatus for testing the eyesight. No. 1,072,818; Sept. 9; Gaz. vol. 194; p. 421.

Blackburn, Jasper, Kirkwood, Mo. Guy-clamp. No. 1,071,868; Sept. 2; Gaz. vol. 194; p. 69.

Blackwelder, J. W., *et al.* (See Martin and Flowers, assignors.)

Blain, James M., Spring City, Utah. Electric switch. No. 1,073,023; Sept. 9; Gaz. vol. 194; p. 497.

Blake, Albert C. (See Blake, Frank F. C. and A. C.)

Blake, Frank F. C. and A. C., Buffalo, N. Y. Non-refillable bottle. No. 1,072,689; Sept. 9; Gaz. vol. 194; p. 377.

Blake, James E., Tacoma, Wash. Hose-clamp applier. No. 1,072,301; Sept. 2; Gaz. vol. 194; p. 213.

Blangey, Louis, Mannheim, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,073,951; Sept. 23; Gaz. vol. 194; p. 878.

Blau, Hermann, Augsburg, Germany. Illuminating liquefied gas and treating gases. No. 1,073,843; Sept. 23; Gaz. vol. 194; p. 840.

Blau, Hermann, Augsburg, Germany. Apparatus for liquefying gaseous mixtures. No. 1,074,094; Sept. 23; Gaz. vol. 194; p. 925.

Blaustein, Joseph. (See Greenwald, Blaustein, Weiss, and Selkovits.)

Blauvelt-Wiley Paper Manufacturing Company. (See Bain, David, assignor.)

Bliss, William L., Niagara Falls, assignor to The United States Light & Heating Company, New York, N. Y. Continuous foot-cap. No. 1,071,809; Sept. 2; Gaz. vol. 194; p. 69.

Bliss, William L., Niagara Falls, assignor to The United States Light & Heating Company, New York, N. Y. Resistance unit. No. 1,073,320; Sept. 16; Gaz. vol. 194; p. 639.

Block, Louis C., *et al.* (See Snyder, William H., assignor.)

Blose, Charles S., Palmerton, Pa. Two-cycle gas-engine. No. 1,073,086; Sept. 16; Gaz. vol. 194; p. 536.

Blouin, Joseph L. G. (See Vosburgh and Blouin.)

Bobo, John W. (See Dabbs, Joseph E., assignor.)

Bock, Charles de, Zele, near Dendermonde, Belgium. Sterilizing milk. No. 1,074,315; Sept. 30; Gaz. vol. 194; p. 1028.

Bodkin, John A., New York, N. Y. Insulated rail-joint. No. 1,072,563; Sept. 9; Gaz. vol. 194; p. 334.

Bodyfield, John W., Hot Springs, Ark. Gas-generator. No. 1,074,042; Sept. 23; Gaz. vol. 194; p. 908.

Boeck, Peter M., assignor to The Malleable Steel Range Manufacturing Co., South Bend, Ind. Pilot-lighter. No. 1,073,321; Sept. 16; Gaz. vol. 194; p. 639.

Boecker, Olof, Wilmersdorf, near Berlin, Germany. Support for small-arms. No. 1,072,203; Sept. 2; Gaz. vol. 194; p. 182.

Boehm, Oscar A., New York, N. Y. Rack for towels and similar articles. No. 1,072,204; Sept. 2; Gaz. vol. 194; p. 183.

Boeske, Paul O., Manton, R. I. Air-regulator for organs. No. 1,074,486; Sept. 30; Gaz. vol. 194; p. 1084.

Bognar, Frank W., Williamsport, Pa. Garment-stretcher. No. 1,072,690; Sept. 9; Gaz. vol. 194; p. 377.

Bohacek, Paul, assignor to Maschinenfabrik Moenus A.-G., Frankfort-on-the-Main, Germany. Leather-staking machine. No. 1,074,348; Sept. 30; Gaz. vol. 194; p. 1039.

Bohannon, A. G., *et al.* (See Martin and Flowers, assignors.)

Boland, Philip P., Eureka, Mo. Combined ground harrow and roller. No. 1,073,052; Sept. 23; Gaz. vol. 194; p. 879.

Bolens, Harry W., Port Washington, Wis. Make-and-break igniter. No. 1,073,087; Sept. 16; Gaz. vol. 194; p. 536.

Bolk, Frederik W., Pekalongan, Java. Mill adapted for the crushing of sugar-canes and the like. No. 1,074,159; Sept. 30; Gaz. vol. 194; p. 976.

Bolton, Andrew, deceased; E. A. Bolton, executrix, Manchester, England. Steam-superheater. No. 1,073,844; Sept. 23; Gaz. vol. 194; p. 841.

Bolton, Elizabeth A., executrix. (See Bolton, Andrew.)

Bolus, Glenn H., assignor to The Ohio Brass Company, Mansfield, Ohio. Suspension-clamp. No. 1,073,658; Sept. 23; Gaz. vol. 194; p. 777.

Bonhomme, Joseph, Nice, France. Wireless apparatus for preventing collisions. No. 1,073,088; Sept. 16; Gaz. vol. 194; p. 556.

Bono, Michelangelo, New York, N. Y. Suspenders. No. 1,071,688; Sept. 2; Gaz. vol. 194; p. 6.

Bonson Dry Concentrator Company. (See Bonson, William W., assignor.)

Bonson, William W., assignor to Bonson Dry Concentrator Company, Dubuque, Iowa. Dry-ore separator. No. 1,073,069; Sept. 9; Gaz. vol. 194; p. 514.

Bontempi, Augusto, New York, N. Y., assignor to Bontempi Rust Proofing Company. Rust-proofing iron, steel, or the like. No. 1,072,904; Sept. 9; Gaz. vol. 194; p. 455.

Bontempi Rust Proofing Company. (See Bontempi, Augusto, assignor.)

Booth, Albert T., Waterbury, Conn. Oil-can. No. 1,073,391; Sept. 16; Gaz. vol. 194; p. 663.

Booth, Thomas, Boise, Idaho. Fire-escape. No. 1,072,814; Sept. 9; Gaz. vol. 194; p. 422.

Bopp, Clinton L., Waterloo, Iowa. Electrical signaling device. No. 1,073,024; Sept. 9; Gaz. vol. 194; p. 498.

Borel, Joseph, and P. Grange, Annecy, France. Fitting device for boots and shoes. No. 1,074,406; Sept. 30; Gaz. vol. 194; p. 1058.

Borg, Charles W., Moline, Ill. Wood-planing machine. No. 1,072,691; Sept. 9; Gaz. vol. 194; p. 378.

Borga, Dora A., administrator. (See Borga, Reginald P.)

Borga, Reginald P., deceased, (D. A. Borga, administrator,) South Norfolk, assignor of two-thirds to S. W. Lyons, Jr., Norfolk, Va. Hinged stake-pocket. No. 1,073,790; Sept. 23; Gaz. vol. 194; p. 823.

Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)

Bosch, Firm of Robert. (See Steinhart, Hermann, assignor.)

Bosnische Electricitats-Actiengesellschaft. (See Hess, Johannes, assignor.)

Boss, John C., Elkhart, Ind. Drying bricks. No. 1,072,302; Sept. 2; Gaz. vol. 194; p. 213.

Boss, Martin P., San Francisco, Cal. Centrifugal concentrator. No. 1,071,870; Sept. 2; Gaz. vol. 194; p. 69.

Boston Blacking Company. (See Baker, Winthrop D., assignor.)

Boston Machinery Company. (See Petersen, Anker, assignor.)

Boud, William F., Adelphia, N. J. Cultivator attachment. No. 1,074,487; Sept. 30; Gaz. vol. 194; p. 1084.

Boualog, William H. (See Lister, Levi H., assignor.)

Boutell, John R., assignor of one-half to Siebers & Raisch Pattern Works, Milwaukee, Wis. Antiscald-faucet. No. 1,074,101; Sept. 30; Gaz. vol. 194; p. 958.

Bowen, George D., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Locomotive-pilot. No. 1,072,303; Sept. 2; Gaz. vol. 194; p. 214.

Bower, Ebon B., Bellefonte, Pa. Radiator foot-rest. No. 1,074,081; Sept. 23; Gaz. vol. 194; p. 921.

Bowers, Ernest C., and E. Cook, Kalamazoo, assignors to National Standard Company, Niles, Mich. Drilling-machine. No. 1,073,322; Sept. 16; Gaz. vol. 194; p. 639.

Bowers, Frank A., New Britain, Conn., assignor to Autosales Gum and Chocolate Company, New York, N. Y. Coin-controlled vending-machine. No. 1,072,905; Sept. 9; Gaz. vol. 194; p. 456.

Bowers, George W., Somerville, Mass. Machine for making grinding-laps. No. 1,072,564; Sept. 9; Gaz. vol. 194; p. 334.

Bowers, George W., Somerville, Mass. Grinding-machine. No. 1,072,692; Sept. 9; Gaz. vol. 194; p. 378.

Bowers, George W., Somerville, Mass. Square. No. 1,073,089; Sept. 16; Gaz. vol. 194; p. 557.

Bowles, Willie M., and C. O. Allen, Shawnee, Okla. Furnace for smelting and refining ores. No. 1,073,468; Sept. 16; Gaz. vol. 194; p. 691.

Bowman, Adam K., and C. J. McKnight, Greensburg, Pa. Foldable swing-seat. No. 1,072,906; Sept. 9; Gaz. vol. 194; p. 456.

Boyce, William D., New York, N. Y. Smoke-consuming device for fire-boxes. No. 1,071,689; Sept. 2; Gaz. vol. 194; p. 6.

Boyce, Wirt B., Chicago, Ill. Window-shade adjuster. No. 1,073,823; Sept. 16; Gaz. vol. 194; p. 640.

Boyd, Sarah E., Gotebo, Okla. Colander. No. 1,073,732; Sept. 23; Gaz. vol. 194; p. 805.

Brackley, Arthur, Jersey City, N. J. Display-stand. No. 1,072,693; Sept. 9; Gaz. vol. 194; p. 379.

Braden, Joseph P., St. Paul, and W. D. Palmer, Minneapolis, Minn. Rail-clamp. No. 1,074,407; Sept. 30; Gaz. vol. 194; p. 1059.

Bradley Knitting Co. (See Tyrrell, Wallace B., assignor.)

Bradley, William J., assignor to Monarch Steam Blower Company, Troy, N. Y. Boiler-flue cleaner. No. 1,073,659; Sept. 23; Gaz. vol. 194; p. 779.

Brady, Michael E., Chicago, Ill. Collapsible shade. No. 1,072,815; Sept. 9; Gaz. vol. 194; p. 422.

Brainard, James W. (See Glader, William, assignor.)

Brame, Peter E., Wilderness, Va. Folding box. No. 1,073,207; Sept. 16; Gaz. vol. 194; p. 598.
Brandt, George F., Boston, Mass. Fountain-pen. No. 1,072,073; Sept. 2; Gaz. vol. 194; p. 138.
Brangier, P. A. (See Jubien, Pierre, assignor.)
Branson, John W., Wallace, Va. Metal-shearing machine. No. 1,073,583; Sept. 16; Gaz. vol. 194; p. 729.
Brasseur, Ernest J., assignor to A. B. Dick Company, Chicago, Ill. Sheet-feeding apparatus. No. 1,071,690; Sept. 2; Gaz. vol. 194; p. 6.
Braun, Frederick W. (See Beach, Oscar C., assignor.)
Braun, Georg, Munich, H. V. Luithlen and W. Neumann, Andernach, Germany. Production of soup or broth-like substances or liquids. No. 1,073,392; Sept. 16; Gaz. vol. 194; p. 664.
Braun, Joseph. (See Fleischmann, Samuel, assignor.)
Braun, Sidney D. R., Chicago, Ill. Bracket-holder for flower-vases. No. 1,074,239; Sept. 30; Gaz. vol. 194; p. 1003.
Bräuning, Karl A., Herstal, Belgium. Firing mechanism for automatic firearms. No. 1,073,588; Sept. 23; Gaz. vol. 194; p. 752.
Brüntigam, Josef, assignor, by mesne assignments, of one-half to F. A. Rolf, Detroit, Mich. Carbureter. No. 1,072,565; Sept. 9; Gaz. vol. 194; p. 335.
Braveman, Isidor, and J. Schmidt, New York, N. Y. Hat-fastener. No. 1,071,691; Sept. 2; Gaz. vol. 194; p. 7.
Breakey, James W., *et al.* (See Redmond, John E., assignor.)
Brearley, Arthur W. (See Hoyle and Brearley.)
Bredenberg, Alfred, Champlain, N. Y., assignor of one-half to The Sheridan Iron Works and one-half to T. W. & C. B. Sheridan Company. Bookbinding and covering machine. No. 1,073,324; Sept. 16; Gaz. vol. 194; p. 640.
Brenjord, John, *et al.* (See Schell, Max P., assignor.)
Breuer, Martin W., Denver, Colo. Fluid-elevating apparatus. No. 1,074,043; Sept. 23; Gaz. vol. 194; p. 908.
Briden, Robert, receiver. (See Palmer, Charles.)
Bridgers, Henry C. (See Guerrant, George M., assignor.)
Briggs, Frederick. (See Lendner and Briggs.)
Briggs, Herbert B., Tacoma, Wash. Valve-operating mechanism for engines. No. 1,072,566; Sept. 9; Gaz. vol. 194; p. 335.
Brigham, Charles H., Brooklyn, N. Y., assignor to Powdered Milk Company of America. Desiccating process. No. 1,071,692; Sept. 2; Gaz. vol. 194; p. 7.
Bright, Fred E., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Antifriction-bearing. No. 1,071,693; Sept. 2; Gaz. vol. 194; p. 7.
Bright, Fred E., Philadelphia, Pa., assignor to The Hess-Bright Manufacturing Company. Antifriction-bearing. No. 1,072,080; Sept. 2; Gaz. vol. 194; p. 140.
Briukerhoff, George F., Cuyahoga Falls, Ohio. Pen-holder. No. 1,073,208; Sept. 16; Gaz. vol. 194; p. 598.
British Cyanides Company, The. (See Rossiter, Edmund C., assignor.)
British Reinforced Concrete Engineering Company Limited. (See Storey, Andrew W., assignor.)
Brock, John M., Flushing, N. Y., assignor to William M. Crane Company. Toaster and broiler. No. 1,073,660; Sept. 23; Gaz. vol. 194; p. 778.
Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine-speed-controlling mechanism. No. 1,072,694; Sept. 9; Gaz. vol. 194; p. 379.
Brock, Seymore V., Burch, La. Planter. No. 1,074,240; Sept. 30; Gaz. vol. 194; p. 1003.
Broderick, Ernest N., Detroit, Mich. Float. No. 1,072,420; Sept. 9; Gaz. vol. 194; p. 283.
Bronson, Ralph C., assignor of one-half to W. J. Krueger, Chicago, Ill. Fuse-plug. No. 1,071,871; Sept. 2; Gaz. vol. 194; p. 70.
Brooks, Asa P., Minneapolis, Minn. Printer's type and furniture. No. 1,073,791; Sept. 23; Gaz. vol. 194; p. 824.
Brooks, Claude A., and E. G. Kinley, Topeka, Kans. Primer for gasolene-engines. No. 1,072,304; Sept. 2; Gaz. vol. 194; p. 214.
Brooks, Halbert W. (See Rochwite, August, assignor.)
Brooks, James A., assignor to The J. G. Brill Company, Philadelphia, Pa. Car-truck. No. 1,071,694; Sept. 2; Gaz. vol. 194; p. 8.
Brooks, Lester L., Falls City, Oreg. Automobile tire-inflating mechanism. No. 1,072,907; Sept. 9; Gaz. vol. 194; p. 456.
Brotherton, Wilfred A., Rochester, Mich. Pocket-cuspidor. No. 1,072,695; Sept. 9; Gaz. vol. 194; p. 379.
Brotschneider, Julius, San Francisco, Cal. Tire-protector. No. 1,071,695; Sept. 2; Gaz. vol. 194; p. 8.
Brown, Alexander T., assignor to Brown-Lipe Gear Company, Syracuse, N. Y. Lubricant-retaining means. No. 1,072,421; Sept. 9; Gaz. vol. 194; p. 283.
Brown, Dickson Q., *et al.* (See Kendall, Edward D., assignor.)
Brown, Eugene, assignor to Colfax Manufacturing Company, Inc., Colfax, Wash. Orchard-cultivator. No. 1,073,325; Sept. 16; Gaz. vol. 194; p. 641.
Brown, Frank J., Scottdale, Pa. Percussive hammer. No. 1,074,044; Sept. 23; Gaz. vol. 194; p. 909.
Brown, Fred O. C., Grand Rapids, Mich. Shoestring-fastener. No. 1,071,696; Sept. 2; Gaz. vol. 194; p. 8.
Brown, George B., *et al.*, executors and trustees. (See Brown, George H.)
Brown, George H., deceased, Belfast, Ireland; K. M., H., and G. B. Brown, executors and trustees. Electric signaling on railways. No. 1,072,404; Sept. 2; Gaz. vol. 194; p. 250.
Brown, Harvey H., Grand Rapids, Mich. Sifting-machine. No. 1,072,816; Sept. 9; Gaz. vol. 194; p. 422.
Brown, Herbert, Belfast, Ireland. Electric signaling on railways. No. 1,072,567; Sept. 9; Gaz. vol. 194; p. 336.
Brown, Herbert, *et al.*, executors and trustees. (See Brown, George H.)
Brown, Joseph A., Jacksonville, Fla. Bed. No. 1,074,488; Sept. 30; Gaz. vol. 194; p. 1085.
Brown, Kathleen M., *et al.*, executors and trustees. (See Brown, George H.)
Brown-Lipe Gear Company. (See Brown, Alexander T., assignor.)
Brown, Oliver W., and A. R. Nees, Bloomington, Ind. Production of lead oxids. No. 1,072,205; Sept. 2; Gaz. vol. 194; p. 183.
Brown, Perry, Wilmington, Del. Journal-box. No. 1,071,872; Sept. 2; Gaz. vol. 194; p. 70.
Brown, Rhinehardt H., Chicago, Ill. Collapsible sulky. No. 1,074,349; Sept. 30; Gaz. vol. 194; p. 1039.
Brown, Summers, London, England. Wheel. No. 1,072,305; Sept. 2; Gaz. vol. 194; p. 214.
Browne, Sidney H., Pittsburgh, Pa., assignor to American Telephone and Telegraph Company. Telephone-exchange system. No. 1,073,589; Sept. 23; Gaz. vol. 194; p. 753.
Broż, Tomáš, Prague, Austria-Hungary. Tobacco-pipe. No. 1,074,489; Sept. 30; Gaz. vol. 194; p. 1085.
Bruce, William M., Jr., assignor to The United Telegraph & Cable Company, Springfield, Ohio. Telegraphy. No. 1,073,886; Sept. 23; Gaz. vol. 194; p. 856.
Bruders, Bernhard, Rochester, N. Y. Suspension-coupling for arc-lamps. No. 1,073,566; Sept. 16; Gaz. vol. 194; p. 723.
Brumfiel, Daniel M., Connersville, Ind., and P. G. Wright, Williamstown, Mass. End wrench. No. 1,074,160; Sept. 30; Gaz. vol. 194; p. 977.
Brummett, William S., Coalinga, Cal. Adjustable casing-tongs. No. 1,073,661; Sept. 23; Gaz. vol. 194; p. 779.
Brunet, Martin, North Chicago, and J. Macek, Waukegan, Ill. Sign. No. 1,074,350; Sept. 30; Gaz. vol. 194; p. 1040.
Brunette, Auguste, Montreal, Quebec, Canada. Burner for petroleum and other hydrocarbons. No. 1,073,326; Sept. 16; Gaz. vol. 194; p. 641.
Bruninga, John H. (See Vaughn and Bruninga.)
Brunken, John H., Paige, Tex. Buggy-shaft brace. No. 1,074,045; Sept. 23; Gaz. vol. 194; p. 909.
Bryant, Clarence R., Fort Worth, Tex. Packing-ring for piston-rods. No. 1,072,306; Sept. 2; Gaz. vol. 194; p. 215.
Bryant Electric Company, The. (See Anderson, Eric, assignor.)
Bryant Electric Company, The. (See Burton, Frank V., assignor.)
Bryant Electric Company, The. (See Thomas, George B., assignor.)
Bryant, George E., Utica, N. Y. Safety device for railway-locomotive tenders. No. 1,072,081; Sept. 2; Gaz. vol. 194; p. 140.
Bryce Brothers Company. (See Bell, Elmer, assignor.)
Buchanan, John A., Pittsburgh, Pa. Draft appliance. No. 1,073,327; Sept. 16; Gaz. vol. 194; p. 641.
Buchanan, William A., Asheville, N. C. Thill-coupling. No. 1,073,328; Sept. 16; Gaz. vol. 194; p. 642.
Büchel, Josef, Wengern-Ruhr, Germany. Refining iron and steel by means of ferrochromium alloy. No. 1,071,873; Sept. 2; Gaz. vol. 194; p. 70.
Buckham, George T. (See Dawson and Buckham.)
Buckwalter, John T. (See Weaver, Morries, assignor.)
Buckwalter, Tracy V., Altoona, Pa. Baggage-truck. No. 1,072,817; Sept. 9; Gaz. vol. 194; p. 422.
Buckwalter, Tracy V., Altoona, Pa. Traction-wheel. No. 1,072,818; Sept. 9; Gaz. vol. 194; p. 423.
Buckwalter, Tracy V., Altoona, Pa. Braking mechanism for vehicles. (Reissue.) No. 13,620; Sept. 30; Gaz. vol. 194; p. 1120.
Buda, Pasquale, New York, N. Y. Method and apparatus for making patterns. No. 1,072,908; Sept. 9; Gaz. vol. 194; p. 457.
Buechner, Guenther, and H. Semrau, Schenectady, N. Y. Pneumato electric piano-player. No. 1,073,792; Sept. 23; Gaz. vol. 194; p. 824.
Buell, Albert W., assignor to M. H. O. Fisher, St. Paul, Minn. Hand-rake. No. 1,072,568; Sept. 9; Gaz. vol. 194; p. 336.
Buffalo Foundry and Machine Company. (See Sleeper, Oliver S., assignor.)
Bugg, Owen T., Hoboken, N. J. Tire or tube for wheeled vehicles. No. 1,073,329; Sept. 16; Gaz. vol. 194; p. 642.
Bühler, Gustav, Arbon, Switzerland. Shuttle for embroidering-machines. No. 1,073,733; Sept. 23; Gaz. vol. 194; p. 805.
Bullock, Herbert, Bradford, England. Regulating apparatus. No. 1,073,025; Sept. 9; Gaz. vol. 194; p. 498.
Bültzingslöwen, Bruno von, New York, N. Y. Lifting-propeller for aeroplanes. No. 1,071,697; Sept. 2; Gaz. vol. 194; p. 9.

Bunnell, Morton G., assignor to The Mulloy Acetylene Gas Plant and Engineering Company, Limited, Chicago, Ill. Acetylene-gas generator. No. 1,073,070; Sept. 9; Gaz. vol. 194; p. 514.
Burbank, Louis S., Hopedale, Mass. Puzzle. No. 1,071,874; Sept. 2; Gaz. vol. 194; p. 71.
Bürck, Theodor, Pforzheim, Germany. Manufacture of soldered chains and wire tissues from wire of solid cross-section. No. 1,073,090; Sept. 16; Gaz. vol. 194; p. 557.
Burdette, William W. (See Miller and Burdette.)
Burgess, Yorke, Chicago, Ill. Combination electric switch. No. 1,074,241; Sept. 30; Gaz. vol. 194; p. 1003.
Burghoffer, Frank G., Bellingham, Wash. Gas-engine governor. No. 1,072,696; Sept. 9; Gaz. vol. 194; p. 380.
Burgueres, Denis P. J., C. L. Corne, and G. E. Marshall, New Orleans, La. Evaporating apparatus. No. 1,072,307; Sept. 2; Gaz. vol. 194; p. 215.
Burke, E. V. (See Pelle, Henry D., assignor.)
Burke Electric Company. (See Burke, James, assignor.)
Burke, James, Erie, Pa., assignor to Burke Electric Company. Electric controlling apparatus. No. 1,072,422; Sept. 9; Gaz. vol. 194; p. 284.
Burke, James, Erie, Pa., assignor to Burke Electric Company. Means for controlling synchronous machines. No. 1,073,662; Sept. 23; Gaz. vol. 194; p. 779.
Burke, Michael J., Syracuse, N. Y. Ticket-holder. No. 1,074,102; Sept. 30; Gaz. vol. 194; p. 958.
Burke, William E., Lorain, Ohio. Stop and waste or drain cock. No. 1,073,953; Sept. 23; Gaz. vol. 194; p. 879.
Burke, William W., Bennington, Vt. Yarn-scraper. No. 1,071,698; Sept. 2; Gaz. vol. 194; p. 9.
Burnett, Richard W., Montreal, Quebec, Canada. Dump-car door. No. 1,072,423; Sept. 9; Gaz. vol. 194; p. 284.
Burney, Charles D., Kilmeston, Alresford, England. Aeronautical apparatus. No. 1,073,567; Sept. 16; Gaz. vol. 194; p. 723.
Burns, Berend J., *et al.* (See Winkler, Frederick G., assignor.)
Burns, Cyrus J. W. (See Burns, Leslie C., assignor.)
Burns, Joseph, Okmulgee, Okla. Wire-line-rope socket. No. 1,073,469; Sept. 16; Gaz. vol. 194; p. 691.
Burns, Joseph, Okmulgee, Okla. Wire-line-rope socket. No. 1,073,470; Sept. 16; Gaz. vol. 194; p. 691.
Burns, Leslie C., Union Hill, assignor of one-half to C. J. W. Burns, New Brunswick, N. J. Marine steering-gear. No. 1,073,954; Sept. 23; Gaz. vol. 194; p. 879.
Burpee, John H., assignor of one-half to E. T. Hoskins, Bellingham, Wash. Molding-machine. No. 1,073,209; Sept. 16; Gaz. vol. 194; p. 599.
Burpee, John H., assignor of one-half to E. T. Hoskins, Bellingham, Wash. Molding-machine. No. 1,073,210; Sept. 16; Gaz. vol. 194; p. 599.
Burrows Manufacturing Company *et al.* (See Butcher, John A., assignor.)
Burson Manufacturing Company. (See Rolston, Walter F., assignor.)
Burton, Charles G., Lakewood, assignor of one-half to R. D. Beatty, Cleveland, Ohio. Valve for Corliss engines and the like. No. 1,072,308; Sept. 2; Gaz. vol. 194; p. 215.
Burton, Frank V., assignor to The Bryant Electric Company, Bridgeport, Conn. Attachment-plug fitting. No. 1,073,955; Sept. 23; Gaz. vol. 194; p. 880.
Burton-Jones, Noel L. (See Dickson and Burton-Jones.)
Buschel, Heinrich, Bochum, Germany. Gas-purifying apparatus. No. 1,071,875; Sept. 2; Gaz. vol. 194; p. 71.
Bush Manufacturing Company, The. (See Bush, Philip M., assignor.)
Bush, Philip M., assignor to The Bush Manufacturing Company, Hartford, Conn. Gage for gasolene-tanks. No. 1,072,819; Sept. 9; Gaz. vol. 194; p. 423.
Bushby, Ludger E., Newark, N. J. Vehicle. No. 1,073,330; Sept. 16; Gaz. vol. 194; p. 642.
Butcher, John A., York, Pa., assignor of one-half to A. A. Thomson, Atlantic City, N. J., and one-fourth to Burrows Manufacturing Company, York, Pa. Steam-trap. No. 1,072,405; Sept. 2; Gaz. vol. 194; p. 251.
Butler, Lawrence T., assignor of one-half to D. G. Lyxen, Grand Rapids, Mich. Display device for casket-handles. No. 1,074,584; Sept. 30; Gaz. vol. 194; p. 1116.
Buttress, George. (See Buttress, Howard and G.)
Buttress, Howard and G., Los Angeles, Cal. Pressure-gage. No. 1,073,734; Sept. 23; Gaz. vol. 194; p. 805.
Byers, Charles M., Fayetteville, N. C. Shade-fixture. No. 1,073,389; Sept. 16; Gaz. vol. 194; p. 663.
Byrd, Oscar O., Slater, Mo., assignor of one-fourth to S. F. Whittaker, one-fourth to S. F. Whittaker, Prescott, Ariz., and one-half to J. W. Thompson, New Orleans, La. Car-brake. No. 1,073,390; Sept. 16; Gaz. vol. 194; p. 663.
Byrn, Montgomery T., Trumann, Ark. Loading-hook. No. 1,071,983; Sept. 2; Gaz. vol. 194; p. 107.
Byrne, Edward L. (See Harrington and Byrne.)
Byron, Clayborne, and A. Armstrong, Rialto, Cal. Orchard-heater. No. 1,072,082; Sept. 2; Gaz. vol. 194; p. 141.
C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
C. B. Cottrell & Sons Company. (See Cottrell, Edgar H., assignor.)
C. B. Cottrell & Sons Company. (See Cundall, Constant T., assignor.)
C. P. Goerz American Optical Co. (See Schmid, Frederick, assignor.)
C. T. Ham Manufacturing Company *et al.* (See Bergener Charles, assignor.)
Cadwell, Louis E., New York, N. Y. Tire-support. No. 1,072,909; Sept. 9; Gaz. vol. 194; p. 457.
Cady, Henry G., St. Louis, Mo. Submarine vessel. No. 1,072,569; Sept. 9; Gaz. vol. 194; p. 336.
Caesar, John. (See Morris, William S., assignor.)
Cahn, Henry S. (See Hartman and Cahn.)
Caldwell, Edward P., Waterloo, Iowa. Compound rail. No. 1,073,211; Sept. 16; Gaz. vol. 194; p. 600.
Caldwell, Edward P., Waterloo, Iowa. Compound rail. No. 1,073,212; Sept. 16; Gaz. vol. 194; p. 600.
Caldwell, Edward P., Waterloo, Iowa. Compound rail. No. 1,073,213; Sept. 16; Gaz. vol. 194; p. 600.
Caldwell, William L., assignor to The Berger Manufacturing Company, Canton, Ohio. Metal structure. No. 1,074,242; Sept. 30; Gaz. vol. 194; p. 1004.
Callahan, Harley W., assignor of one-third to B. Steen, Roundup, Mont. Feed-box. No. 1,072,570; Sept. 9; Gaz. vol. 194; p. 337.
Callahan, Martin, *et al.* (See Kuhlman, Herman C., assignor.)
Callanan, James T., Parkersburg, W. Va. Casing-head for oil and gas wells. No. 1,072,910; Sept. 9; Gaz. vol. 194; p. 458.
Cameron, John S., Boston, assignor to Stall & Dean Manufacturing Company, Brockton, Mass. Ball-player's glove. No. 1,072,697; Sept. 9; Gaz. vol. 194; p. 380.
Cameron, Neill C., Detroit, Tex. Tombstone-mold. No. 1,072,309; Sept. 2; Gaz. vol. 194; p. 216.
Camp, Thomas, Atlanta, Ga. Motor-harrow. No. 1,073,026; Sept. 9; Gaz. vol. 194; p. 499.
Campana, John M., Morristown, N. J. Window. No. 1,073,956; Sept. 23; Gaz. vol. 194; p. 880.
Campau, Lawrence M., Oconto, Nebr. Pump for spraying devices. No. 1,071,876; Sept. 2; Gaz. vol. 194; p. 71.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Hopper-car. No. 1,071,699; Sept. 2; Gaz. vol. 194; p. 10.
Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Railway draft-rigging. No. 1,074,243; Sept. 30; Gaz. vol. 194; p. 1004.
Campbell, Jonah H., Hollis, Okla. Front-wheel brake for vehicles. No. 1,073,590; Sept. 23; Gaz. vol. 194; p. 753.
Campbell, Thomas A. (See Williams and Campbell.)
Campen, William T., South Creek, N. C. Wheel-guard for sawmill-carriages. No. 1,074,161; Sept. 30; Gaz. vol. 194; p. 977.
Campus, Cesare, New York, N. Y. Machine for making match-cards. No. 1,073,393; Sept. 16; Gaz. vol. 194; p. 664.
Campus, Cesare, New York, N. Y. Book-match machine. No. 1,073,394; Sept. 16; Gaz. vol. 194; p. 665.
Candee, Zenas P., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Friction-brake. No. 1,072,424; Sept. 9; Gaz. vol. 194; p. 285.
Candee, Zenas P., assignor to Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Connection. No. 1,072,425; Sept. 9; Gaz. vol. 194; p. 285.
Canham, Percy D., assignor to Power Specialty Company, New York, N. Y. Furnace-charging apparatus. No. 1,072,571; Sept. 9; Gaz. vol. 194; p. 337.
Cannon, Louis S., Rosemary, N. C. Jacquard-card wire. No. 1,072,572; Sept. 9; Gaz. vol. 194; p. 337.
Cantlon, William, Paris, Ill. Waste and overflow fixture. No. 1,072,911; Sept. 9; Gaz. vol. 194; p. 458.
Canton Culvert Company, The. (See Schlafly, Julius H., assignor.)
Carbone, Tito L., Charlottenburg, Germany. Arc-lamp. (Reissue.) No. 13,618; Sept. 23; Gaz. vol. 194; p. 927.
Carbone, Tito L., Charlottenburg, Germany. Arc-lamp. (Reissue.) No. 13,619; Sept. 23; Gaz. vol. 194; p. 928.
Carborundum Company, The. (See Allen, Thomas B., assignor.)
Carence, Thomas, Kansas City, Mo. Means to prevent condensation of water on glass windows. No. 1,073,091; Sept. 16; Gaz. vol. 194; p. 557.
Carence, Thomas, and E. W. Sumpter, Kansas City, Mo. Hose-coupling. No. 1,074,244; Sept. 30; Gaz. vol. 194; p. 1004.
Carichoff, Eugene R., East Orange, assignor to Otis Elevator Company, Jersey City, N. J. Motor-controlling system. No. 1,072,083; Sept. 2; Gaz. vol. 194; p. 141.
Carlson, John. (See Dahlberg, Daniel, assignor.)
Carnes, Edward W., Chicago, Ill., assignor to American Can Company, New York, N. Y. Sheet-metal box. No. 1,072,820; Sept. 9; Gaz. vol. 194; p. 423.
Carney, Frank D., and L. B. Lindemuth, Steelton, Pa. Making sound castings. No. 1,073,735; Sept. 23; Gaz. vol. 194; p. 806.
Carp, Arthur, St. Louis, Mo., assignor to The Reece Button Hole Machine Company, Boston, Mass. Needle-setting device. No. 1,072,084; Sept. 2; Gaz. vol. 194; p. 141.
Carr, John H., assignor to W. K. Carr, Alhambra, Cal. Wave-power mechanism. No. 1,073,214; Sept. 16; Gaz. vol. 194; p. 601.
Carr, William K. (See Carr, John H., assignor.)

Carrette, Adolphus, assignor of one-half to E. M. Goodman, Los Angeles, Cal. Window-lock. No. 1,074,162; Sept. 30; Gaz. vol. 194; p. 977.

Carroll, Elbert H., assignor to Morgan Construction Company, Worcester, Mass. Wire-drawing machine. No. 1,072,085; Sept. 2; Gaz. vol. 194; p. 142.

Carson, Robert N., San Francisco, Cal. Hood for glove-fingers. No. 1,074,851; Sept. 30; Gaz. vol. 194; p. 1040.

Carswell, Robert E., Minneapolis, Minn. Combined ventilator and advertising device. No. 1,072,821; Sept. 9; Gaz. vol. 194; p. 424.

Carter, Robert A., Pittsburgh, Pa. Bending-machine. No. 1,071,700; Sept. 2; Gaz. vol. 194; p. 10.

Carter, William H., assignor to The William Carter Company, Needham Heights, Mass. Forming crochet-stitch fabric-borders. No. 1,072,086; Sept. 2; Gaz. vol. 194; p. 142.

Carter, William H., assignor, by mesne assignments, to The William Carter Co., Needham Heights, Mass. Border for fabrics. No. 1,072,380; Sept. 2; Gaz. vol. 194; p. 241.

Carveth, Hector R., Niagara Falls, assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Apparatus for fusing electrolytes. No. 1,074,408; Sept. 30; Gaz. vol. 194; p. 1059.

Cary, James G., Jackson, Tenn. Register. No. 1,073,957; Sept. 23; Gaz. vol. 194; p. 881.

Case, Ernest W., San Diego, Cal. Combined latch and lock for doors. No. 1,073,736; Sept. 23; Gaz. vol. 194; p. 806.

Casein Company of America. (See Dunham, Andrew A., assignor.)

Casevitz, Henry, Paris, France. Hygienic textile sponge. No. 1,074,245; Sept. 30; Gaz. vol. 194; p. 1005.

Cash, Elisa, Sandpoint, Idaho. Curtain-pole. No. 1,071,877; Sept. 2; Gaz. vol. 194; p. 72.

Castle, Marcus L., Malone, N. Y. Firearm. No. 1,074,046; Sept. 23; Gaz. vol. 194; p. 909.

Castles, Wesley, Melbourne, Victoria, Australia. Machine for excavating, elevating, and dumping earth, sand, silt, or gravel. No. 1,074,163; Sept. 30; Gaz. vol. 194; p. 978.

Caswell, Andrew A., Los Angeles, Cal. Railway-tie. No. 1,073,737; Sept. 23; Gaz. vol. 194; p. 806.

Causey, Joseph L., Kansas City, Mo. Hydrostatic pipe-testing machine. No. 1,072,912; Sept. 9; Gaz. vol. 194; p. 459.

Cavagnaro, Nicholas J. (See Cevasco, Cavagnaro, and Ambrette.)

Cavette, S. O. (See Beaubien, Robert E., assignor.)

Cavner, Walter R., Venice, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo. Car end frame. No. 1,073,663; Sept. 23; Gaz. vol. 194; p. 780.

Central Electric Company. (See Woodhead, Daniel, assignor.)

Cevasco, James, and N. J. Cavagnaro, Brooklyn, and C. Ambrette, New York, N. Y. Valve mechanism. No. 1,072,822; Sept. 9; Gaz. vol. 194; p. 424.

Chalmers Motor Company. (See Dunham, George W., assignor.)

Chambers Brothers Company. (See King, Howard K., assignor.)

Champ, Joseph H., assignor to The Bishop & Babcock Company, Cleveland, Ohio. Bottle-filling machine. No. 1,074,585; Sept. 30; Gaz. vol. 194; p. 1116.

Champion Shoe Machinery Company. (See Dobyne, George A. and S. A., assignors.)

Champion Shoe Machinery Company. (See Dobyne, Stephen A. and G. A., assignors.)

Champion Ventilator Company. (See Vaughn and Brininga, assignors.)

Chandler, John T., assignor of one-half to J. L. Harber, Granbury, Tex. Insect-trap. No. 1,073,793; Sept. 23; Gaz. vol. 194; p. 824.

Chapman, Charles H., assignor to Chapman Gravity Spindle Company, Winchester, Mass. Spinning-spindle. No. 1,072,573; Sept. 9; Gaz. vol. 194; p. 338.

Chapman Gravity Spindle Company. (See Chapman, Charles H., assignor.)

Chappell, Thomas E., assignor to Phillips Manufacturing Company, New York, N. Y. Machine for trimming commutators. No. 1,072,410; Sept. 2; Gaz. vol. 194; p. 252.

Chassaing, Frank X. (See Shiras and Chassaing.)

Chatterton, Charles K., assignor of one-fourth to P. Knapp, Long Prairie, Minn. Fan attachment for smoke-stacks. No. 1,072,698; Sept. 9; Gaz. vol. 194; p. 380.

Cheheyl, Stephen F., Cleveland, Ohio. Base for display-forms. No. 1,072,087; Sept. 2; Gaz. vol. 194; p. 143.

Chemical Products Company. (See Mork, Harry S., assignor.)

Cherry, Felix F., Aurora, N. C. Fertilizer-distributer. No. 1,072,823; Sept. 9; Gaz. vol. 194; p. 425.

Cherry, John H., and L. R. Melendy, assignors to The Kelly Manufacturing Company, Waterloo, Iowa. Road-drag. No. 1,073,664; Sept. 23; Gaz. vol. 194; p. 780.

Cheshire, Carey A., Des Moines, Iowa. Feeding mechanism. No. 1,073,215; Sept. 16; Gaz. vol. 194; p. 601.

Chevrolet Motor Company. (See Durant, William C., assignor.)

Chi-Ill Electric Company. (See Silbert, Gustaf I., assignor.)

Chiariglione, Hector, P. Vescovi, and E. Gobatti, Pueblo, Colo. Portable fire-escape. No. 1,074,540; Sept. 30; Gaz. vol. 194; p. 1100.

Childers, Josiah H. (See Haigh, Joseph, assignor.)

Chipperfield, Walter, Romford, and W. E. Garforth, Snydale Hall, near Pontefract, England. Kinematograph apparatus. No. 1,073,395; Sept. 16; Gaz. vol. 194; p. 665.

Chodzko, Adam E., Los Angeles, Cal. Pneumatic pumping apparatus. No. 1,071,878; Sept. 2; Gaz. vol. 194; p. 72.

Christensen, Carl, Bradley, assignor, by mesne assignments, to Sears, Roebuck & Company, Chicago, Ill. Agricultural implement. No. 1,074,310; Sept. 30; Gaz. vol. 194; p. 1026.

Christensen, Christ, Indianapolis, Ind., assignor, by mesne assignments, to Triumph Voting Machine Company. Counter-actuator and voter-counter for voting-machines. No. 1,074,311; Sept. 30; Gaz. vol. 194; p. 1027.

Christensen, Jens P. M. M., Copenhagen, Denmark. Bridge or ferry. No. 1,073,794; Sept. 23; Gaz. vol. 194; p. 824.

Christensen, Niels A., Milwaukee, Wis. Internal-combustion engine. No. 1,073,092; Sept. 16; Gaz. vol. 194; p. 558.

Christensen, Theodore C., Menominee, Mich. Register for filing accounts. No. 1,073,027; Sept. 9; Gaz. vol. 194; p. 490.

Christensen, Valdemar, Mexico, Mexico. Fodder and making same. No. 1,073,591; Sept. 23; Gaz. vol. 194; p. 753.

Christie, Alexander J., *et al.*, executors. (See Christie, James.)

Christie, Elizabeth R., *et al.*, executors. (See Christie, James.)

Christie, James, deceased, Philadelphia, Pa.; A. J. and E. R. Christie, executors. Ventilator. No. 1,073,079; Sept. 9; Gaz. vol. 194; p. 517.

Christlein, Paul. (See Josse and Christlein.)

Christopher, Whornner B., Lone Wolf, Okla. Valve-actuating gear for steam tramping-presses. No. 1,071,701; Sept. 2; Gaz. vol. 194; p. 10.

Claflin, Charles R. B., Boston, Mass., assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I. Indicating device. No. 1,072,426; Sept. 9; Gaz. vol. 194; p. 286.

Clark, Alice M., Ambridge, Pa. Curtain-pole. No. 1,074,164; Sept. 30; Gaz. vol. 194; p. 978.

Clark, Byron G. (See Bayliss, Thomas A., assignor.)

Clark, Charles E. (See Rea and Clark.)

Clark, George J., and H. Cortland, Defiance, Ohio. Metallic barrel. No. 1,073,396; Sept. 16; Gaz. vol. 194; p. 666.

Clark, James A., Albany, N. Y. Fireproof filing-case. No. 1,071,984; Sept. 2; Gaz. vol. 194; p. 107.

Clark, John T., Provo, Utah. Resilient vehicle-tire. No. 1,072,699; Sept. 9; Gaz. vol. 194; p. 381.

Clark, John T., Provo, Utah. Resilient vehicle-tire. No. 1,072,700; Sept. 9; Gaz. vol. 194; p. 381.

Clark, John T., Provo, Utah. Vehicle-tire. No. 1,074,246; Sept. 30; Gaz. vol. 194; p. 1005.

Clark, Spencer L., Hale, Mich. Mold for fence-posts. No. 1,073,471; Sept. 16; Gaz. vol. 194; p. 602.

Clark, Spencer L., Hale, Mich. Molding fence-posts. No. 1,073,472; Sept. 16; Gaz. vol. 194; p. 602.

Clark, William F., Corsopolis, Pa. Skelp-charging bench. No. 1,071,879; Sept. 2; Gaz. vol. 194; p. 72.

Clarke, Edward F., Birmingham, England. Fuel-economizing apparatus. No. 1,073,795; Sept. 23; Gaz. vol. 194; p. 825.

Claudel, Charles H., Paris, France. Carbureter. No. 1,073,473; Sept. 16; Gaz. vol. 194; p. 602.

Clay, Harry C., Columbus, Ind., assignor to Emerson-Brantingham Company, Rockford, Ill. Power steering-gear for traction-engines. No. 1,072,824; Sept. 9; Gaz. vol. 194; p. 425.

Clayton, Joy, Stotts City, Mo. Holdback. No. 1,073,028; Sept. 9; Gaz. vol. 194; p. 499.

Clayton, O. W., *et al.* (See Holsclaw, Thomas C., assignor.)

Clayton, William R., Barberton, Ohio. Moisture-proof construction. No. 1,072,310; Sept. 2; Gaz. vol. 194; p. 216.

Cleary, John C. (See Cleary, William J., W. B., and J. C.)

Cleary, William B. (See Cleary, William J., W. B., and J. C.)

Cleary, William J., W. B., and J. C., Jeffersontown, assignors of one-fourth to W. R. B. Hall, Mount Washington, Ky. Nut-lock. No. 1,073,665; Sept. 23; Gaz. vol. 194; p. 780.

Clemens, Albert, Louisville, Ky. Device for delivering material from a container. No. 1,072,427; Sept. 9; Gaz. vol. 194; p. 286.

Clemmer, Howard M., Gastonia, N. C. Metal shingle. No. 1,072,825; Sept. 9; Gaz. vol. 194; p. 426.

Cleveland Armature Works. (See Pifer, Alvin A., assignor.)

Cleveland, Charles C., Boulder, Colo. Combined tire-pressure indicator and signal. No. 1,071,880; Sept. 2; Gaz. vol. 194; p. 73.

Clifton, Robert F., Mount Airy, N. C. Wagon-hounds. No. 1,073,958; Sept. 23; Gaz. vol. 194; p. 881.

Cline, Benjamin F., and J. F. Hensley, Indianapolis, Ind. Sign. No. 1,072,688; Sept. 2; Gaz. vol. 194; p. 143.

Clowes, Bumpter A., Pittsburgh, Pa. Die. No. 1,071,702; Sept. 2; Gaz. vol. 194; p. 11.

Cluett, Peabody & Co. (See Hurd, Hubbard F., assignor.)

Cluthe, Alfred, *et al.* (See Cluthe, Charles, assignor.)

Cluthe, Charles, Glen Ridge, N. J., assignor to C., Jr., F. W., H., and A. Cluthe. Truss. No. 1,073,216; Sept. 16; Gaz. vol. 194; p. 601.

Cluthe, Charles, Glen Ridge, N. J., assignor to C., Jr., F. W., H., and A. Cluthe. Holding-pad for rupture-trusses. No. 1,073,217; Sept. 16; Gaz. vol. 194; p. 602.

Cluthe, Frederick, *et al.* (See Cluthe, Charles, assignor.)

Cluthe, Hermann, *et al.* (See Cluthe, Charles, assignor.)

Clutsam, Frederick, assignor of one-half to E. Jacob, Berlin, Germany. Keyboard for musical instruments. No. 1,072,311; Sept. 2; Gaz. vol. 194; p. 216.

Coffo, Alton E., and H. L. Parker, Los Angeles, Cal. Suction-pounder for washing-machines. No. 1,072,312; Sept. 2; Gaz. vol. 194; p. 216.

Cobb, Dillard, and C. H. Shaw, Nineveh, Ind., assignors to Sunshine Specialty Manufacturing Company. Umbrella-holder for corn-plows. No. 1,072,574; Sept. 9; Gaz. vol. 194; p. 338.

Cobb, Edward S., Whittier, Cal. Railway intersection. No. 1,074,082; Sept. 23; Gaz. vol. 194; p. 921.

Cobb, Edward S., Whittier, Cal. Railway intersection. No. 1,074,083; Sept. 23; Gaz. vol. 194; p. 922.

Cochran, Clyde E., assignor to The Elwell-Parker Electric Company of America, Cleveland, Ohio. Controller. No. 1,073,397; Sept. 16; Gaz. vol. 194; p. 666.

Cochran, James M., Chicago, Ill. Wrench. No. 1,071,703; Sept. 2; Gaz. vol. 194; p. 11.

Cochran, Joseph E. (See Kell and Stephens, assignors.)

Coddington, Harry W., Roanoke, Va. Flange-lubricator. No. 1,073,093; Sept. 16; Gaz. vol. 194; p. 558.

Cohen, Hyman, Brooklyn, N. Y. Automobile-hood. No. 1,073,398; Sept. 16; Gaz. vol. 194; p. 667.

Cohen, Isadore, and A. Landsberg, New York, N. Y. Eyeleting-machine with automatic feed. No. 1,074,490; Sept. 30; Gaz. vol. 194; p. 1085.

Colardeau, Louis J. E., and J. Richard, Paris, France. Display device. No. 1,073,331; Sept. 16; Gaz. vol. 194; p. 642.

Colbert, Clarence F., Hoopeston, Ill. Filling-machine. No. 1,072,428; Sept. 9; Gaz. vol. 194; p. 286.

Colbert, Clarence F., Hoopeston, Ill. Filling-machine. No. 1,072,429; Sept. 9; Gaz. vol. 194; p. 287.

Colborne, Oliver, Chicago, Ill. Rimming-machine. No. 1,071,881; Sept. 2; Gaz. vol. 194; p. 73.

Cole, Christopher O., Bellingham, Wash. Hauling apparatus. No. 1,071,882; Sept. 2; Gaz. vol. 194; p. 74.

Cole, Henry, Denver, Colo. Water-elevator. No. 1,072,430; Sept. 9; Gaz. vol. 194; p. 287.

Cole, Robert F., Ysleta, Tex. Orchard-beater. No. 1,071,704; Sept. 2; Gaz. vol. 194; p. 11.

Colgate, Ernest, London, England. Snap-fastener. No. 1,074,247; Sept. 30; Gaz. vol. 194; p. 1005.

Coleman, Henry F., Sneedsville, Tenn. Animal-trap. No. 1,073,094; Sept. 16; Gaz. vol. 194; p. 559.

Coleman, James M., Montreal, Quebec, Canada. Sander. No. 1,072,206; Sept. 2; Gaz. vol. 194; p. 183.

Coleman, Roderick D., Greenwood, Va. Hat-pin protector. No. 1,073,959; Sept. 23; Gaz. vol. 194; p. 881.

Colfax Manufacturing Company. (See Brown, Eugene, assignor.)

Colles, George W. (See Gugler and Colles.)

Collier, Arthur T., St. Albans, England. Change-speed gear. No. 1,072,913; Sept. 9; Gaz. vol. 194; p. 459.

Collins, Alonzo K., *et al.* (See Black, Albert G., assignor.)

Collins, Carl A., Brockton, Mass. Engine. No. 1,072,701; Sept. 9; Gaz. vol. 194; p. 381.

Collins, Patrick J., Philadelphia, Pa. Dish-handler. No. 1,071,705; Sept. 2; Gaz. vol. 194; p. 12.

Collins, Warren, College Point, N. Y., assignor to Stamford Gas Stove Company, Stamford, Conn. Gas-heater. No. 1,074,312; Sept. 30; Gaz. vol. 194; p. 1027.

Colman, Howard D., assignor, by mesne assignments, to Barber-Colman Company, Rockford, Ill. Knotter. No. 1,072,535; Sept. 9; Gaz. vol. 194; p. 338.

Colonial Trust Company, The, trustee. (See Mildon, Reginald B., assignor.)

Columbia Carriage Company, The. (See Wright, John E., assignor.)

Columbia Motor Car Company, The. (See Alden, Herbert W., assignor.)

Columbia Nut and Bolt Company. (See Meredith-Jones, Hubert, assignor.)

Colvin, Margaret, Inverness, Scotland. Detergent. No. 1,074,491; Sept. 30; Gaz. vol. 194; p. 1086.

Combs, George W., Leavenworth, Kans. Gyratory structure. No. 1,071,706; Sept. 2; Gaz. vol. 194; p. 12.

Combs, George W., Leavenworth, Kans. Gyratory structure. No. 1,071,707; Sept. 2; Gaz. vol. 194; p. 12.

Combs, Marshall C., assignor of one-half to J. F. Skidmore, Lexington, Ky. Window-shade bracket. No. 1,071,888; Sept. 2; Gaz. vol. 194; p. 74.

Combustion Utilities Company. (See Eldred, Byron E., assignor.)

Comings, William R., Wimbledon, England. Cartridge or like charge of tobacco. No. 1,072,914; Sept. 9; Gaz. vol. 194; p. 459.

Commonwealth Steel Company. (See Cavner, Walter R., assignor.)

Commonwealth Steel Company. (See Shallenberger, Charles S., assignor.)

Condos, Ellen M., Goldfield, Nev. Extension-step for railway-cars. No. 1,072,207; Sept. 2; Gaz. vol. 194; p. 183.

Cone, William H., Minneapolis, Minn. Reflexagraph. No. 1,071,708; Sept. 2; Gaz. vol. 194; p. 13.

Conkey, Alfred J. (See Dewey and Conkey.)

Conklin, Herbert J., Lowell, Mich., assignor to W. Ziegenbalg, Portland, Oreg. Brush-holder. No. 1,073,568; Sept. 16; Gaz. vol. 194; p. 725.

Conkling, Cloud C., Buffalo, assignor to Lackawanna Steel Company, Lackawanna, N. Y. Caisson construction. No. 1,071,985; Sept. 2; Gaz. vol. 194; p. 108.

Connell, William H., Pittsburgh, Pa. Manufacture of ingots. No. 1,074,248; Sept. 30; Gaz. vol. 194; p. 1006.

Connell, William H., Pittsburgh, Pa. Manufacture of ingots. No. 1,074,249; Sept. 30; Gaz. vol. 194; p. 1006.

Connell, William H., Pittsburgh, Pa. Casting apparatus. No. 1,074,250; Sept. 30; Gaz. vol. 194; p. 1006.

Connell, William H., Pittsburgh, Pa. Apparatus for manufacturing ingots. No. 1,074,251; Sept. 30; Gaz. vol. 194; p. 1006.

Connelly, Joseph M., Philadelphia, Pa. Collapsible wardrobe. No. 1,072,089; Sept. 2; Gaz. vol. 194; p. 143.

Conner, Frank, assignor of one-third to W. Davis and one-third to C. W. Kelly, Topeka, Kans. Door-opener. No. 1,073,399; Sept. 16; Gaz. vol. 194; p. 667.

Conrad, Frank, Milwaukee, Wis. Deck-sash pivot mechanism. No. 1,073,738; Sept. 23; Gaz. vol. 194; p. 806.

Conrad, Robert S. (See Sixel and Conrad.)

Conrader, Rudolph, Erie, Pa. Controlling device for compressors. No. 1,072,576; Sept. 9; Gaz. vol. 194; p. 339.

Consolidated Car-Heating Company. (See Farmer, Thomas, Jr., assignor.)

Consolidated Car Heating Company. (See McElroy, James E., assignor.)

Consolidated Color & Chemical Co. (See Siepermann, Otto, assignor.)

Constabel, Adolph C. J., Honolulu, Hawaii. Sound-box. No. 1,073,961; Sept. 23; Gaz. vol. 194; p. 882.

Conte, Pasquale C., Freeport, Pa. Ratchet mechanism. No. 1,072,313; Sept. 2; Gaz. vol. 194; p. 217.

Contenti, Filliberto, assignor of one-half to P. Torello, New Haven, Conn. Marking device. No. 1,073,592; Sept. 23; Gaz. vol. 194; p. 754.

Contenti, Filliberto, assignor of one-half to P. Torello, New Haven, Conn. Garment-form. No. 1,073,960; Sept. 23; Gaz. vol. 194; p. 881.

Conveying Weigher Company, The. (See Kinne, Samuel D., assignor.)

Cook, Christian W., Provo, Utah. Window-sash holder. No. 1,073,739; Sept. 23; Gaz. vol. 194; p. 807.

Cook, Eugene. (See Bowers and Cook.)

Cook, Eugene, Kalamazoo, assignor to National Standard Company, Niles, Mich. Drilling-machine. No. 1,073,218; Sept. 16; Gaz. vol. 194; p. 602.

Cook, Frank H., and C. C. Stannard, Leominster, Mass.; said Stannard assignor to said Cook. Cutting and embossing device. No. 1,072,915; Sept. 9; Gaz. vol. 194; p. 459.

Cook, George, Allendale, assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Back for brake-shoes. No. 1,074,352; Sept. 30; Gaz. vol. 194; p. 1040.

Cook, Herbert F., and C. C. Hildreth, Lake Mills, Iowa. Back-stop for bowling-alleys. No. 1,073,400; Sept. 16; Gaz. vol. 194; p. 667.

Cook, Ludlow G., Everett, Wash. Instrument for measuring standing timber. No. 1,072,577; Sept. 9; Gaz. vol. 194; p. 339.

Cook, Otis, Talladega, Ala. Device for raising and lowering automobile-tops. No. 1,073,332; Sept. 16; Gaz. vol. 194; p. 643.

Cook Railway Signaling Company, The. (See Cook, William J., assignor.)

Cook, Walter H., London, England. Wrench. No. 1,072,090; Sept. 2; Gaz. vol. 194; p. 143.

Cook, Walter H., New Orleans, La. Shock-absorber. No. 1,073,401; Sept. 16; Gaz. vol. 194; p. 667.

Cook, William E., Brazil, Ind. Train-coach attachment. No. 1,073,962; Sept. 23; Gaz. vol. 194; p. 882.

Cook, William J., assignor to The Cook Railway Signaling Company, Denver, Colo. Automatically-operated electric signals for railways. No. 1,071,884; Sept. 2; Gaz. vol. 194; p. 74.

Cooke, Truman, Louisville, Ky. Knockdown crate. No. 1,072,826; Sept. 9; Gaz. vol. 194; p. 426.

Coonley, Howard, assignor to Coonley Manufacturing Company, Clyde, Ill. Ball-handle. No. 1,073,740; Sept. 23; Gaz. vol. 194; p. 807.

Coonley Manufacturing Company. (See Coonley, Howard, assignor.)

Cooper, Daniel M., Rochester, N. Y., assignor to The American Laundry Machinery Company, Chicago, Ill. Stop mechanism. No. 1,073,887; Sept. 23; Gaz. vol. 194; p. 856.

Cooper, Daniel M., Rochester, N. Y., assignor to The American Laundry Machinery Company, Chicago, Ill. Stop mechanism for machinery. No. 1,073,888; Sept. 23; Gaz. vol. 194; p. 857.

Cooper, Daniel M., Rochester, N. Y., assignor to The American Laundry Machinery Company, Cincinnati, Ohio. Stop mechanism for machinery. No. 1,073,889; Sept. 23; Gaz. vol. 194; p. 857.

Cooper, Daniel M., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Laundry-press. No. 1,073,890; Sept. 23; Gaz. vol. 194; p. 858.

Cooper Heater Company, The. (See Pascoe, William F., Jr., assignor.)

Cooper, James J., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,072,431; Sept. 9; Gaz. vol. 194; p. 288.

Cooper, John J., London, England, assignor, by mesne assignments, to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,071,885; Sept. 2; Gaz. vol. 194; p. 75.

Copiestone, Herbert W., Bunbury, Western Australia, assignor of one-half to W. L. Marsh, Bunbury, Australia. Pneumatic-operated pump for liquids. No. 1,073,474; Sept. 16; Gaz. vol. 194; p. 698.

Copony, Alfred, Verdun, Quebec, Canada. Bolster-guide plate for railway-car trucks. No. 1,073,333; Sept. 16; Gaz. vol. 194; p. 643.

Copper Process Company. (See Lovett, Thomas J., assignor.)

Corbin, Douglas H. (See Bates, Kelly, and Corbin.)

Cordero, Ramón F., Rubio, Venezuela. Front vehicle suspension. No. 1,073,796; Sept. 23; Gaz. vol. 194; p. 825.

Cordero, Ramón F., Rubio, Venezuela. Vehicle suspension. No. 1,073,797; Sept. 23; Gaz. vol. 194; p. 825.

Cordero, Ramón F., Rubio, Venezuela. Marine signal. No. 1,073,798; Sept. 23; Gaz. vol. 194; p. 826.

Cordray, James M., Los Angeles, Cal. Compound for igniting blast-fuses. No. 1,072,827; Sept. 9; Gaz. vol. 194; p. 426.

Corne, Charles L. (See Burgulères, Corne, and Marshall.)

Côte, Cyrille, Paris, assignor to Société des Etablissements Côte, Pantin, France. Two-cycle explosion-motor. No. 1,072,314; Sept. 2; Gaz. vol. 194; p. 217.

Cottle, John H., New York, N. Y. Nozzle. No. 1,073,963; Sept. 23; Gaz. vol. 194; p. 882.

Cottrell, Edgar H., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Printing-machine. No. 1,072,702; Sept. 9; Gaz. vol. 194; p. 382.

Cottrell, Edgar H., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Printing-machine. No. 1,072,703; Sept. 9; Gaz. vol. 194; p. 382.

Coulter, John H. (See Hiett, De Kernla J. T., assignor.)

Countryman, George W., Birmingham, Iowa. Form for concrete culverts. No. 1,074,492; Sept. 30; Gaz. vol. 194; p. 1086.

Counts, Lawson C. (See Anderson, Young R., assignor.)

Cousin, Paul A. J., Nord, France. Gas-furnace. No. 1,072,578; Sept. 9; Gaz. vol. 194; p. 340.

Coutelle, Carl. (See Hofmann, Coutelle, Meisenburg, and Delbrück.)

Coutelle, Carl, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing caoutchouc-like substances. No. 1,073,845; Sept. 23; Gaz. vol. 194; p. 841.

Coutu, George J., Lowell, Mass. Fire-extinguishing apparatus. No. 1,074,165; Sept. 30; Gaz. vol. 194; p. 978.

Couturier, Ernst A., Chicago, Ill. Cornet. No. 1,073,593; Sept. 23; Gaz. vol. 194; p. 754.

Covert, Stanley S., Montclair, N. J. Chimney-flue reverser. No. 1,074,252; Sept. 30; Gaz. vol. 194; p. 1007.

Covington Machine Company. (See Huhn, John H., assignor.)

Cowen, Harry. (See Wolf and Cowen.)

Cowles, Alfred H., assignor to The Electric Smelting and Aluminum Company, Sewaren, N. J. Process of and apparatus for feeding cars into and through tunnel-furnaces. No. 1,073,219; Sept. 16; Gaz. vol. 194; p. 603.

Cowper-Coles, Sherard O., Westminster, London, England. Protecting iron surfaces from corrosion. No. 1,072,091; Sept. 2; Gaz. vol. 194; p. 144.

Cox, Millard F., Louisville, Ky. Self-adjusting stay-bolt. No. 1,072,315; Sept. 2; Gaz. vol. 194; p. 217.

Cox Multi-Mailer Company. (See Cox, Sandford C., assignor.)

Cox, Paul F., assignor to The Goss Printing Press Company, Chicago, Ill. Chases. No. 1,072,092; Sept. 2; Gaz. vol. 194; p. 144.

Cox, Sandford C., Chicago, Ill., assignor, by mesne assignments, to Cox Multi-Mailer Company, Augusta, Me. Feeder for addressing-machines. No. 1,073,741; Sept. 23; Gaz. vol. 194; p. 808.

Cracroft, Chester O., Sewaren, N. J. Water-cycle. No. 1,071,709; Sept. 2; Gaz. vol. 194; p. 13.

Cramer, Charles W., Scranton, Pa. Antiskidding device for vehicle-tires. No. 1,072,579; Sept. 9; Gaz. vol. 194; p. 340.

Cramer, Stuart W., Charlotte, N. C. Air-conditioning apparatus. No. 1,073,095; Sept. 16; Gaz. vol. 194; p. 559.

Cramer, Stuart W., Charlotte, N. C. Air-conditioning apparatus. No. 1,073,096; Sept. 16; Gaz. vol. 194; p. 559.

Cramer, Stuart W., Charlotte, N. C. Air-conditioning apparatus. No. 1,073,475; Sept. 16; Gaz. vol. 194; p. 693.

Crandall, Jay E., Cherry Valley, Ill. Grinding-machine. No. 1,073,097; Sept. 16; Gaz. vol. 194; p. 560.

Crandall, Thomas W., *et al.* (See Matthew, Amos H., assignor.)

Crane, Ernest M., assignor to The Pelton & Crane Co., Detroit, Mich. Dental appliance. No. 1,072,432; Sept. 9; Gaz. vol. 194; p. 288.

Crawford-Frost, William A., Baltimore, Md. Spring-wheel. No. 1,072,433; Sept. 9; Gaz. vol. 194; p. 289.

Crawford, Harry G. (See Griffin, Charles M., assignor.)

Crawford, Harvey F., Brockton, Mass. Shoe and tread member thereof. No. 1,072,916; Sept. 9; Gaz. vol. 194; p. 460.

Creamery Package Manufacturing Company. (See Valerius, Theodore L., assignor.)

Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Lightning-arrester. No. 1,071,710; Sept. 2; Gaz. vol. 194; p. 13.

Cress, Jesse E., Litchfield, Ill. Propelling mechanism for vehicles. No. 1,072,093; Sept. 2; Gaz. vol. 194; p. 144.

Crichton-Clarke, William H., New York, N. Y., assignor to Gillette Safety Razor Company, Boston, Mass. Safety-razor. No. 1,071,711; Sept. 2; Gaz. vol. 194; p. 13.

Crippen, Herbert O., New York, N. Y. Spike. No. 1,074,409; Sept. 30; Gaz. vol. 194; p. 1059.

Cripps, George T., Toronto, Ontario, Canada. Egg-tester. No. 1,073,594; Sept. 23; Gaz. vol. 194; p. 754.

Crisp, Charles, London, England. Type-casting and similar machine. No. 1,072,917; Sept. 9; Gaz. vol. 194; p. 460.

Crocker, Emmons. (See Spring, Herbert E., assignor.)

Crocker, Lloyd O., Beatrice, Nebr. Amalgamator. No. 1,074,410; Sept. 30; Gaz. vol. 194; p. 1060.

Crocker, Sallie S., Lakewood, N. J. Stop or buffer for flush-tanks. No. 1,074,411; Sept. 30; Gaz. vol. 194; p. 1060.

Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)

Crone, Seth A., East Orange, N. J. Brake-beam for railway-cars. No. 1,073,220; Sept. 16; Gaz. vol. 194; p. 603.

Cronin, John P., Paterson, N. J. Creel. No. 1,072,580; Sept. 9; Gaz. vol. 194; p. 340.

Crook, Charles M., assignor to The Willis Electric Meter Co., Chicago, Ill. Electrical measuring instrument. No. 1,073,098; Sept. 16; Gaz. vol. 194; p. 560.

Crosbie, Sydney, Hertford, England. Liquid-fuel burner. No. 1,072,918; Sept. 9; Gaz. vol. 194; p. 460.

Crosby Steam Gage and Valve Company. (See Phillips, Arthur P., assignor.)

Cross, Hartsell H., and W. F. Wratchford, Hendricks, W. Va. Column for steam-boilers. No. 1,074,493; Sept. 30; Gaz. vol. 194; p. 1086.

Cross, Noah C., Buford, Ga. Planter. No. 1,073,742; Sept. 23; Gaz. vol. 194; p. 808.

Croswhite, James H. (See Hornbostel and Croswhite.)

Crow, C. E. (See Giovannoni, Charles, assignor.)

Crow, William A., Chickasha, Okla. Cotton-chopper. No. 1,074,494; Sept. 30; Gaz. vol. 194; p. 1086.

Crowell, John H., Vineyard Haven, Mass. Freezer-holder. No. 1,072,434; Sept. 9; Gaz. vol. 194; p. 289.

Crozier, Harry C., Phoenix, Ariz. Loose-leaf binder. No. 1,072,919; Sept. 9; Gaz. vol. 194; p. 461.

Crucible Steel Company of America. (See Gathmann, Emil, assignor.)

Cubitt, Archibald S., Rugby, England, assignor to General Electric Company. Electromagnetic switch. No. 1,071,886; Sept. 2; Gaz. vol. 194; p. 75.

Culver, Edwin R., assignor to Culver Military Academy, Culver, Ind. Sleeping-porch. No. 1,074,103; Sept. 30; Gaz. vol. 194; p. 958.

Culver Military Academy. (See Culver, Edwin R., assignor.)

Cummings, George, Gosforth, England. Door mat, tread, and the like. No. 1,074,586; Sept. 30; Gaz. vol. 194; p. 1117.

Cummings, Henry H., Newton, Mass. Air-vell for gun-sights. No. 1,072,828; Sept. 9; Gaz. vol. 194; p. 426.

Cumnock, Arthur J., Rye, N. Y. Web-cutting machine. No. 1,072,829; Sept. 9; Gaz. vol. 194; p. 427.

Cumnock, Arthur J., New York, N. Y. Making collars. No. 1,073,080; Sept. 9; Gaz. vol. 194; p. 518.

Cundall, Constant T., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Web cutting and folding machine. No. 1,072,094; Sept. 2; Gaz. vol. 194; p. 144.

Cundall, Constant T., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Web cutting and folding machine. No. 1,072,316; Sept. 2; Gaz. vol. 194; p. 217.

Cunniff, John V., Fall River, assignor of one-half to J. K. Lanning, Boston, Mass. Top-roll saddle for spinning-frames. No. 1,072,317; Sept. 2; Gaz. vol. 194; p. 218.

Cupper, William, Malden, Mass. Fastening device. No. 1,071,986; Sept. 2; Gaz. vol. 194; p. 108.

Curnow, Francis A., Pittsburg, Kans. Roasting-furnace. No. 1,072,920; Sept. 9; Gaz. vol. 194; p. 461.

Curran, William C., Maysville, Ky. Wheel-guard for deflecting objects from the track. No. 1,073,743; Sept. 23; Gaz. vol. 194; p. 808.

Curry, John P., New York, N. Y. Bag-tying machine. No. 1,074,587; Sept. 30; Gaz. vol. 194; p. 1117.

Curtis, Benjamin F., Covington, Ky. Holding means for attachments for sewing-machines. No. 1,072,581; Sept. 9; Gaz. vol. 194; p. 341.

Curtis, Charles G., New York, N. Y. Elastic-fluid turbine. No. 1,071,887; Sept. 2; Gaz. vol. 194; p. 75.

Curtis, George W., Oakland, Cal. Mail-bag holder. No. 1,073,402; Sept. 16; Gaz. vol. 194; p. 668.

Curtis, Lewis B., Bridgeport, Conn. Pipe-threading machine. No. 1,072,830; Sept. 9; Gaz. vol. 194; p. 427.

Curtis, Lewis E., Kenilworth, Ill., assignor to Ames Steel Lath Company, St. Louis, Mo. Machine for slitting sheet metal. No. 1,071,712; Sept. 2; Gaz. vol. 194; p. 14.

Curtland, Herbert. (See Clark and Curtland.)

Cushing, James R., deceased; M. K. Cushing, administratrix, Columbus, Ohio. Steam-boiler. No. 1,072,831; Sept. 9; Gaz. vol. 194; p. 427.

Cushing, Mary K., administratrix. (See Cushing, James R.)

Cushman, Everett B., assignor to Cushman Motor Works, Lincoln, Nebr. Motor-supporting bracket for harvesting-machines. No. 1,073,099; Sept. 16; Gaz. vol. 194; p. 561.

Cushman Motor Works. (See Cushman, Everett B., assignor.)

Custard, Cornelius R. (See Williams, John T. B., assignor.)

Cutler, Clifford A., *et al.* (See Winkler, Frederick G., assignor.)

Cutler-Hammer Mfg. Co., The. (See Schureman, Jacob L., assignor.)

Dabbs, Joseph E., assignor of one-half to J. W. Bobo, Lindale, Ga. Clamp. No. 1,073,964; Sept. 23; Gaz. vol. 194; p. 883.

Dahl, Knut M., assignor to Union Iron Works Co., San Francisco, Cal. Means for connecting pipes with heads, &c. No. 1,072,208; Sept. 2; Gaz. vol. 194; p. 183.

Dahlberg, Daniel, assignor of one-third to J. Carlson, Braham, Minn. Wrench. No. 1,074,412; Sept. 30; Gaz. vol. 194; p. 1061.

Daines, Edwin U., Detroit, Mich. Window-cleaning device. No. 1,072,832; Sept. 9; Gaz. vol. 194; p. 428.

Dairymens Supply Company, The. (See Wood and Steer, assignors.)

Daisy Mfg. Company. (See Williams, Maurice O., assignor.)

Dallwig, Ernst, Königsberg, Germany. Organ. No. 1,071,888; Sept. 2; Gaz. vol. 194; p. 76.

Dalton, William, Schenectady, N. Y. Steam-engine valve-reversing gear. No. 1,073,403; Sept. 16; Gaz. vol. 194; p. 668.

Damon, George B., Glenside, Pa., assignor, by mesne assignments, to Lehigh Coal & Navigation Co. Apparatus for separating fine coal and the waste materials thereof. No. 1,072,833; Sept. 9; Gaz. vol. 194; p. 428.

Daniels, Adelbert W., Morrison, Ill. Cultivator and plow attachment. No. 1,074,166; Sept. 30; Gaz. vol. 194; p. 979.

Danielson, Charles, Cannon Falls, Minn. Ironing-board. No. 1,073,404; Sept. 16; Gaz. vol. 194; p. 669.

Darby, Harry W. (See West and Darby.)

Darrin, Charles B. and M., Bellingham, Wash. Retort. No. 1,074,104; Sept. 30; Gaz. vol. 194; p. 959.

Darrin, Marc. (See Darrin, Charles B. and M.)

Dauber-Bell Machine Company, The. (See Bell and Dauber, assignors.)

Dauber, Charles G. (See Bell and Dauber.)

Dauber, Charles G., assignor to E. J. Bell, Oshkosh, Wis. Dowel cutting-off and pointing machine. No. 1,073,846; Sept. 23; Gaz. vol. 194; p. 841.

Daughtry, Willie L., Mulberry, Fla. Shaft-brace. No. 1,073,476; Sept. 16; Gaz. vol. 194; p. 694.

Davidovitz, Harry. (See Zieve and Davidovitz.)

Davis, Arthur B., and A. B. Leffel, Springfield, Ohio. Inking device for printing-presses. No. 1,072,095; Sept. 2; Gaz. vol. 194; p. 145.

Davis, Charles D., Sacramento, Cal. Calf-feeder. No. 1,074,313; Sept. 30; Gaz. vol. 194; p. 1027.

Davis, Charles R., Marlinton, W. Va. Planter. No. 1,073,405; Sept. 16; Gaz. vol. 194; p. 669.

Davis, Frank E., La Crosse, Wis. Seeding-machine. No. 1,073,666; Sept. 23; Gaz. vol. 194; p. 781.

Davis, George W. (See Stokes and Davis.)

Davis, Henry L., London, England. Metal-shank button. No. 1,072,921; Sept. 9; Gaz. vol. 194; p. 461.

Davis, Lewis A., Everett, Wash. Cement-mixing machine. No. 1,072,318; Sept. 2; Gaz. vol. 194; p. 218.

Davis, Micajah R., Kemp, Okla. Seed-cotton cleaner. No. 1,071,987; Sept. 2; Gaz. vol. 194; p. 108.

Davis, Percy L., San Francisco, Cal. Display-stand. No. 1,072,704; Sept. 9; Gaz. vol. 194; p. 382.

Davis, Ray, Lehigh, Iowa. Controlling mechanism. No. 1,074,495; Sept. 30; Gaz. vol. 194; p. 1086.

Davis, William, *et al.* (See Conner, Frank, assignor.)

Davis, William F., assignor to Universal Refrigerating Company, Portland, Oreg. Refrigerating-machine. No. 1,071,713; Sept. 2; Gaz. vol. 194; p. 14.

Davison, Gregory C., Quincy, Mass. Folding hydroplane for submersible boats. No. 1,073,100; Sept. 16; Gaz. vol. 194; p. 561.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Breech-actuating apparatus of heavy guns. No. 1,072,319; Sept. 2; Gaz. vol. 194; p. 218.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Recoil and run-out gear of heavy ordnance. No. 1,074,541; Sept. 30; Gaz. vol. 194; p. 1101.

Dawson, Arthur T., Westminster, London, and J. Horne, Barrow-in-Furness, assignors to Vickers Limited, Westminster, England. Run-out gear of heavy ordnance. No. 1,074,566; Sept. 30; Gaz. vol. 194; p. 1109.

Dawson, Arthur T., and G. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Breech-loading ordnance. No. 1,072,435; Sept. 9; Gaz. vol. 194; p. 289.

Dawson, Thomas, Beverly, assignor of one-half to S. F. Thompson, Springfield, Mass. Seasoning-machine. No. 1,074,588; Sept. 30; Gaz. vol. 194; p. 1117.

Day, Arthur L., Washington, D. C., assignor to Empire Machine Company, Portland, Me. Means for maintaining a constant working level in glass-furnaces. No. 1,074,167; Sept. 30; Gaz. vol. 194; p. 979.

Day, Charles, and G. E. Windeler, Stockport, England, assignors to General Electric Company. Centrifugal governor. No. 1,071,988; Sept. 2; Gaz. vol. 194; p. 109.

Day, Harry L., assignor of five-sixths to L. B. Langston and one-sixth to C. E. Stavely, Paducah, Ky. Cross-tie. No. 1,073,406; Sept. 16; Gaz. vol. 194; p. 669.

De Angelis, Frank, New York, N. Y. Cooking-range. No. 1,072,097; Sept. 2; Gaz. vol. 194; p. 146.

De Baun, Harry C., Hackensack, N. J., and J. E. De Baun, Mount Vernon, N. Y. Suture appliance. No. 1,074,413; Sept. 30; Gaz. vol. 194; p. 1061.

De Baun, John E. (See De Baun, Harry C. and J. E.)

De Bevoise, Charles R., Newark, N. J. Dress-form. No. 1,072,923; Sept. 9; Gaz. vol. 194; p. 462.

De Draglis, Isabella, San Francisco, Cal. Bank-note tester. No. 1,074,316; Sept. 30; Gaz. vol. 194; p. 1028.

De Fonblanque, Arthur F. (See Gilbert-Stringer and Druitt, assignors.)

De Neergaard, Lewis E., Port Chester, assignor, by mesne assignments, to Technology Sales Co., Inc., New York, N. Y. Sash-lock. No. 1,072,099; Sept. 2; Gaz. vol. 194; p. 146.

De Neergaard, Lewis E., Port Chester, assignor, by mesne assignments, to Technology Sales Co., Inc., New York, N. Y. Adjustable sash-lock. No. 1,072,100; Sept. 2; Gaz. vol. 194; p. 146.

Deam, Harry. (See Desmond, John, assignor.)

Dean, Clark A., Harvey, Ill. Lighting system for vehicles. No. 1,072,096; Sept. 2; Gaz. vol. 194; p. 145.

Dean Electric Company, The. (See Manson, Ray H., assignor.)

Dean, James H., Chicago, Ill., assignor, by mesne assignments, to Empire Voting Machine Company. Voting-machine. No. 1,072,922; Sept. 9; Gaz. vol. 194; p. 461.

Dean, James H., Chicago, Ill., assignor to Empire Voting Machine Company, Jamestown, N. Y. Voting-machine. No. 1,073,407; Sept. 16; Gaz. vol. 194; p. 670.

Dean, James H., Chicago, Ill., assignor, by mesne assignments, to Triumph Voting Machine Company. Voting-machine. No. 1,074,314; Sept. 30; Gaz. vol. 194; p. 1028.

Dean, John H., Birmingham, Ala. Fastening means for butt-joint metal culverts. No. 1,073,965; Sept. 23; Gaz. vol. 194; p. 883.

Debrosee, Michael L., Jr. (See Dignon and Debrosee.)

Decker, Herman, Hanover, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Alkylhomopiperonylamins and making them. No. 1,073,966; Sept. 23; Gaz. vol. 194; p. 883.

Defiance Machine Works. (See Ensign, George A., assignor.)

Defiance Manufacturing Company. (See Marx, Richard, assignor.)

Dehn, George J., Chicago, Ill. Grease-trap. No. 1,071,889; Sept. 2; Gaz. vol. 194; p. 76.

Dehu, Arthur, Brussels, Belgium. Grease-box for the axles of vehicles. No. 1,071,989; Sept. 2; Gaz. vol. 194; p. 109.

Deldesheimer, Matilda, *et al.* (See Moran and Mosher, assignors.)

Delster, William F., Fort Wayne, Ind. Slime-concentrator. No. 1,071,714; Sept. 2; Gaz. vol. 194; p. 15.

Delster, William F., Fort Wayne, Ind. Process and apparatus for classifying crushed ores. No. 1,071,715; Sept. 2; Gaz. vol. 194; p. 15.

Delbrück, Konrad. (See Hofmann, Coutelle, Meisenburg, and Delbrück.)

Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,074,253; Sept. 30; Gaz. vol. 194; p. 1007.

Dempster, Thomas, Jr., Grand Rapids, Mich. Clamp for printers' forms. No. 1,073,221; Sept. 16; Gaz. vol. 194; p. 604.

Denby, Wythe, Chicago, Ill. Gas-range. No. 1,072,582; Sept. 9; Gaz. vol. 194; p. 341.

Desgraz, Adolphe H., Hanover, Germany. Extracting zinc from residues containing zinc, especially slags, in reverberatory furnaces. No. 1,072,209; Sept. 2; Gaz. vol. 194; p. 184.

Desmond, John, Chicago, assignor of one-half to H. Deam, Riverside, Ill. Liquid-dispenser. No. 1,071,890; Sept. 2; Gaz. vol. 194; p. 77.

Destribats, Louis P., Trenton, N. J. Apparatus for impregnating and coating materials. No. 1,072,705; Sept. 9; Gaz. vol. 194; p. 382.

Detrick, Harry, Houston, Tex. Display-board. No. 1,074,414; Sept. 30; Gaz. vol. 194; p. 1061.
Detroit Can Company. (See Harbeck, Jervis R., assignor.)
Devlin, Henry, assignor to The M. Garland Company, Bay City, Mich. Transmission mechanism. No. 1,072,834; Sept. 9; Gaz. vol. 194; p. 428.
Dewey, Arthur J., and A. J. Conkey, assignors of one-third to F. F. Roberts, New London, Iowa. Combination step-ladder and ironing-table. No. 1,073,799; Sept. 23; Gaz. vol. 194; p. 826.
Dibert, Loyd C., San Francisco, Cal. Gold-saving machine. No. 1,071,891; Sept. 2; Gaz. vol. 194; p. 77.
Dick, Joseph, Canton, Ohio. Fodder-cutter. No. 1,072,924; Sept. 9; Gaz. vol. 194; p. 462.
Dickinson, Bruce J. (See Pratt and Dickinson.)
Dickinson, Charles E., assignor of one-half to S. E. Austin, Garden City, Kans. Steam and hot-water radiator. No. 1,071,716; Sept. 2; Gaz. vol. 194; p. 16.
Dicks, Thomas A., Wilkinsburg, assignor of one-half to F. P. Lauffer, Irwin, Pa. Manufacture of metal bars, rails, &c. No. 1,072,436; Sept. 9; Gaz. vol. 194; p. 290.
Dickson, Charles A., Kodarma, Bengal, and N. L. Burton-Jones, Taraghatty, Bengal, British India. Railway diamond and other crossings. No. 1,072,706; Sept. 9; Gaz. vol. 194; p. 383.
Dickson, George E., New Lenox, Ill. Flying-machine. No. 1,073,334; Sept. 16; Gaz. vol. 194; p. 643.
Didier, Edmund, Baltimore, Md., assignor to The Universal Safety Elevator Locking Device Co. Safety appliance for elevators. No. 1,072,835; Sept. 9; Gaz. vol. 194; p. 420.
Diehl, Albert C., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box. No. 1,073,408; Sept. 16; Gaz. vol. 194; p. 670.
Diehl, Arthur. (See Diepenhorst and Diehl.)
Diehl Manufacturing Company. (See Zabriskie, Henry L., assignor.)
Diepenhorst, Frederick, and A. Diehl, Milwaukee, Wis. Cycle-frame. No. 1,071,892; Sept. 2; Gaz. vol. 194; p. 78
Dieterich, Edward A., New York, N. Y. Egg-carrier. No. 1,074,415; Sept. 30; Gaz. vol. 194; p. 1061.
Dietler, Friedrich, assignor to Vereinigte Kunstseidefabriken A. G., Kelsterbach-on-the-Main, Germany. Manufacturing artificial lustrous threads, bands, and filaments. No. 1,073,891; Sept. 23; Gaz. vol. 194; p. 858.
Dietz, Frederick, assignor to R. E. Dietz Company, New York, N. Y. Lamp-socket. No. 1,073,477; Sept. 16; Gaz. vol. 194; p. 694.
Dietz, John, assignor to The John Dietz Manufacturing Company, Cincinnati, Ohio. Operating mechanism. No. 1,073,409; Sept. 16; Gaz. vol. 194; p. 670.
Dight, William M., Grove City, Pa. Window-sash holder. No. 1,073,595; Sept. 23; Gaz. vol. 194; p. 755.
Dignon, Sydney L., and M. L. Debrosee, Jr., New York, N. Y. Non-refillable bottle. No. 1,072,583; Sept. 9; Gaz. vol. 194; p. 341.
Diller Manufacturing Company, The. (See Triplett, Ray L., assignor.)
Dillon, James A., Chicago, Ill. Water-heater. No. 1,073,222; Sept. 16; Gaz. vol. 194; p. 604.
Dimmitt, Ora, Green Castle, Mo. Tire. No. 1,072,925; Sept. 9; Gaz. vol. 194; p 463.
Dinesen, Laurits, Velle, Denmark. Milking apparatus. No. 1,072,584; Sept. 9; Gaz. vol. 194; p. 341.
Dingee, Charles R., assignor of one-half to A. C. Kelso, Lostant, Ill. Self-locking whip-socket. No. 1,073,967; Sept. 23; Gaz. vol. 194; p. 884.
Dinkins, John M., and F. B. Hays, assignors of eight-fifteenths to W. L. Taylor, Indianapolis, Ind. Magneto ignition system. No. 1,074,416; Sept. 30; Gaz. vol. 194; p. 1062.
Dirksen, Theodor L., Springfield, assignor of one-half to H. W. Le Tissier, Bath, and one-half to W. Hartter, Springfield, Ill. Self-dumping wheelbarrow. No. 1,071,717; Sept. 2; Gaz. vol. 194; p. 16.
Diss, Albert B., Newark, N. J., assignor to Universal Caster & Foundry Company, New York, N. Y. Caster for furniture. No. 1,072,210; Sept. 2; Gaz. vol. 194; p. 194.
Ditmars, Frederick R. S., Kansas City, Mo. Stamp-affixing and envelop-sealing machine. No. 1,072,585; Sept. 9; Gaz. vol. 194; p. 342.
Dixon, William. (See Gaudron, Edward N., assignor.)
Dobrowolski, Konstanty, New York, N. Y. Wrench. No. 1,072,101; Sept. 2; Gaz. vol. 194; p. 147.
Dobyne, George A. (See Dobyne, Stephen A. and G. A.)
Dobyne, George A. and S. A., assignors to Champion Shoe Machinery Company, St. Louis, Mo. Seam for shoe-soles. No. 1,072,211; Sept. 2; Gaz. vol. 194; p. 194.
Dobyne, George A. and S. A., assignors to Champion Shoe Machinery Company, St. Louis, Mo. Shoe-nail. No. 1,072,213; Sept. 2; Gaz. vol. 194; p. 195.
Dobyne, Stephen A. (See Dobyne, George A. and S. A.)
Dobyne, Stephen A. and G. A., assignors to Champion Shoe Machinery Company, St. Louis, Mo. Making seams for shoe-soles. No. 1,072,212; Sept. 2; Gaz. vol. 194; p. 194.
Dodd, Jacob E., Yoakum, Tex. Baby-protector. No. 1,073,478; Sept. 16; Gaz. vol. 194; p. 694.
Dodge, Frank E., and N. M. Loomis, Hartford, Conn. Electric coin-controlled device. No. 1,074,496; Sept. 30; Gaz. vol. 194; p. 1087.
Dodge, Philip T., Washington, D. C., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,074,105; Sept. 30; Gaz. vol. 194; p. 959.
Dodge, Zenas U., assignor to United Ice Improvement Company, New York, N. Y. Apparatus for making ice. No. 1,074,417; Sept. 30; Gaz. vol. 194; p. 1062.
Dodson, Charles L., Pittsburg, Kans., assignor to Funk Brothers, Chicago Heights, Ill. Fastener for feed-heads. No. 1,073,101; Sept. 16; Gaz. vol. 194; p. 561.
Doen, Nathan M., Swampscott, Mass. Carding articles of merchandise. No. 1,072,836; Sept. 9; Gaz. vol. 194; p. 429.
Doettloff, Egmont. (See Thomsen and Doettloff.)
Doherty, Henry L., New York, N. Y. Removing suspended matter from gaseous fluids. No. 1,071,893; Sept. 2; Gaz. vol. 194; p. 78.
Döhle, Fritz, Leipzig, assignor to Adolf Bleichert & Company, Leipzig-Gohlis, Germany. Carriage for ropeways and the like. No. 1,073,410; Sept. 16; Gaz. vol. 194; p. 671.
Dohoney, Priscilla W., Columbia, Ky. Curtain-pole. No. 1,072,214; Sept. 2; Gaz. vol. 194; p. 195.
Dolph, Selden H., Olyphant, Pa. Cable-release for elevators. No. 1,073,908; Sept. 23; Gaz. vol. 194; p. 884.
Dols, John A. (See Olson and Dols.)
Doman, Lewis B., Elbridge, N. Y. Wind-inducing device for self-playing musical instruments. No. 1,073,223; Sept. 16; Gaz. vol. 194; p. 605.
Donath, Otto A., Sedalia, Mo. Valve-gear. No. 1,073,576; Sept. 16; Gaz. vol. 194; p. 726.
Doney, Frank, assignor of one-half to W. T. Smith, Colfax, Wash. Insect-exterminator. No. 1,073,029; Sept. 9; Gaz. vol. 194; p. 499.
Donlan, Robert W. L., Seattle, Wash. Vehicle spring device. No. 1,072,586; Sept. 9; Gaz. vol. 194; p. 342.
Donnelly, Edward G., Highland Park, Ill. Horseshoe. No. 1,074,353; Sept. 30; Gaz. vol. 194; p. 1041.
Dooley, Joseph R., Mobile, Ala. Railway-tie. No. 1,073,030; Sept. 9; Gaz. vol. 194; p. 500.
Dor-Delattre, Emile, Liege, Belgium. Gas-producer. No. 1,072,098; Sept. 2; Gaz. vol. 194; p. 146.
Doran, John H., Schenectady, N. Y. Seam. No. 1,072,102; Sept. 2; Gaz. vol. 194; p. 147.
Dorer, Primus O., Lee, assignor to S. Smith & Son, Limited, Westminster, England. Centrifugal governor and speed-indicator. No. 1,073,031; Sept. 9; Gaz. vol. 194; p. 500.
Dorey, George B., assignor to F. H. Hopkins, Montreal, Quebec, Canada. Car-spring. No. 1,073,102; Sept. 16; Gaz. vol. 194; p. 561.
Dormandy, Garry J., assignor of one-half to United Shirt and Collar Company, Troy, N. Y. Electric-lamp fixture. No. 1,072,926; Sept. 9; Gaz. vol. 194; p. 463.
Dorneth, Julius, assignor to Typograph G. m. b. H., Berlin, Germany. Typograph composing-machine. No. 1,072,927; Sept. 9; Gaz. vol. 194; p. 463.
Doss, Charles C., Jackson, Ohio. Lubricating device. No. 1,071,894; Sept. 2; Gaz. vol. 194; p. 78.
Double Body Bolster Company. (See Pfager, Harry M., assignor.)
Dougan, Kennedy, Minneapolis, Minn. Governing mechanism. No. 1,071,895; Sept. 2; Gaz. vol. 194; p. 78.
Doughty, Frank M., Bronson, Kans. Lock. No. 1,074,418; Sept. 30; Gaz. vol. 194; p. 1063.
Doughty, Herman W., Binghamton, assignor to G. O. Knapp, New York, N. Y. Signaling system. No. 1,073,335; Sept. 16; Gaz. vol. 194; p. 644.
Douglas, Elizabeth J., Los Angeles, Cal. Folding booth. No. 1,071,896; Sept. 2; Gaz. vol. 194; p. 79.
Dow, E. E. (See Barnard, Charles, assignor.)
Downing, Charles, Chicago, Ill., assignor to American Can Company, New York, N. Y. Electrically-driven cantester. No. 1,072,837; Sept. 9; Gaz. vol. 194; p. 430.
Downing, Frank J., assignor to Rock Island Plow Company, Rock Island, Ill. Plow. No. 1,072,838; Sept. 9; Gaz. vol. 194; p. 430.
Drägerwerk, Heinr. & Bernh. Dräger. (See Stelzner, Hermann, assignor.)
Draper, Francis W., assignor to Starr Piano Company, Richmond, Ind. Sheet-driving mechanism for automatic players. No. 1,071,897; Sept. 2; Gaz. vol. 194; p. 79.
Dreher, Phillip J., Toledo, Ohio. Sheet-winding mechanism. No. 1,072,411; Sept. 2; Gaz. vol. 194; p. 253.
Dressel, Frederick W., New York, N. Y. Signal-glass holder. No. 1,073,224; Sept. 16; Gaz. vol. 194; p. 605.
Dressler, Charles E., and I. W. Ullman, New York, N. Y. Moving-picture film. No. 1,073,411; Sept. 16; Gaz. vol. 194; p. 671.
Dreux, Alexander H., Newark, N. J., assignor to Scoop Folding Box Company, New York, N. Y. Antisifting box or carton. No. 1,073,103; Sept. 16; Gaz. vol. 194; p. 562.
Droitcour, Michael A., Chicago, Ill. Means for converting rotary into reciprocating motion. No. 1,073,104; Sept. 16; Gaz. vol. 194; p. 562.
Dronsfield, Albert J. (See Potter, John W., assignor.)
Drossner, Hermann. (See Ort, Anton, assignor.)
Droste, William F., Waverly, Iowa. Car-stake. No. 1,073,892; Sept. 23; Gaz. vol. 194; p. 858.
Druhe, George W., Oakland, Cal. Photographic-printing frame. No. 1,072,215; Sept. 2; Gaz. vol. 194; p. 195.
Druitt, Percy W. (See Gilbert-Stringer and Druitt.)

Du Pont, Antoine B., Cleveland, Ohio. Car adapted for subway use. No. 1,073,106; Sept. 16; Gaz. vol. 194; p. 563.
Dubbeldam, Hendrik, Hzn., Gorinchem, Netherlands. Fireproofing roofing materials. No. 1,073,800; Sept. 23; Gaz. vol. 194; p. 826.
Dudley, Raymond C. (See Friese, Norman L., assignor.)
Dudley, Thomas J., assignor to Eureka Manufacturing Company, Dallas, Tex. Draft-equalizer. No. 1,071,898; Sept. 2; Gaz. vol. 194; p. 79.
Dudley, Wallace R., and L. A. Greenleaf, Danville, Pa., assignors to Star Speedometer Company. Speedometer. No. 1,072,587; Sept. 9; Gaz. vol. 194; p. 343.
Dueysen, Helmuth, Thorp, Wis. Saw-gage. No. 1,073,969; Sept. 23; Gaz. vol. 194; p. 884.
Duffy, Peter, assignor to The Schubert Piano Company, New York, N. Y. Self-playing instrument. No. 1,072,437; Sept. 9; Gaz. vol. 194; p. 290.
Duluth Show Case Company, The. (See Bekkering, Earl H., assignor.)
Dumars, Horace, Glen Ridge, N. J. Producing ozone and separating gases. No. 1,074,106; Sept. 30; Gaz. vol. 194; p. 959.
Dunbar, Benjamin G., Sandoval, Ill. Sash-fastener. No. 1,072,839; Sept. 9; Gaz. vol. 194; p. 431.
Dunbar, Claire N., and J. W. Batcheller, Jr., Kansas City, Mo. Garment. No. 1,073,470; Sept. 16; Gaz. vol. 194; p. 695.
Duncan, Charles E., Sault Ste. Marie, Ontario, Canada, and J. Fawell, Pittsburgh, Pa.; said Duncan assignor to said Fawell. Manufacture of structural material. No. 1,071,718; Sept. 2; Gaz. vol. 194; p. 16.
Duncan, Claude J. (See Duncan, Orvil F. and C. J.)
Duncan, Frederick. (See Heissig, Paul von, assignor.)
Duncan, Orvil F. and C. J., Gridley, Kans. Self-feeder for hay-presses. No. 1,073,744; Sept. 23; Gaz. vol. 194; p. 800.
Duncan, Rolla E. (See Pronovost and Duncan.)
Duncan, William J., Wardner, Idaho. Shaving-brush. No. 1,074,497; Sept. 30; Gaz. vol. 194; p. 1087.
Duncan, William M., Alton, Ill. Car-truck construction. No. 1,074,317; Sept. 30; Gaz. vol. 194; p. 1029.
Duncan, William T., San Francisco, Cal. Milk-can container and milk-server. No. 1,072,588; Sept. 9; Gaz. vol. 194; p. 343.
Dungan, Charles. (See Lawson and Dungan.)
Dunham, Andrew A., Bainbridge, N. Y., assignor to Casein Company of America. Producing desiccated milk. No. 1,074,419; Sept. 30; Gaz. vol. 194; p. 1063.
Dunham, Charles L., Sistersville, W. Va. Pipe-wrench. No. 1,072,320; Sept. 2; Gaz. vol. 194; p. 219.
Dunham, George W., assignor to Chalmers Motor Company, Detroit, Mich. Gas-tank holder for motor-vehicles. No. 1,074,107; Sept. 30; Gaz. vol. 194; p. 959.
Dunn, Patrick, New York, N. Y. Grinding-wheel for granite. No. 1,072,216; Sept. 2; Gaz. vol. 194; p. 196.
Dunton, George E., New York, N. Y. Backing up electrotype-shells in the manufacture of electrotype-plates. No. 1,073,105; Sept. 16; Gaz. vol. 194; p. 563.
Dupen, Fred A. (See Hall and Dupen.)
Dupont, Arthur J., Adams, assignor of one-half to A. H. Monat, Huntington, Mass. Flash-light. No. 1,074,354; Sept. 30; Gaz. vol. 194; p. 1041.
Duquette, Maxim A., assignor to Toledo Scale Company, Toledo, Ohio. Weighing-scale. No. 1,072,589; Sept. 9; Gaz. vol. 194; p. 343.
Durant, William C., assignor to Chevrolet Motor Company, Detroit, Mich. Control-lever for automobiles. No. 1,072,438; Sept. 9; Gaz. vol. 194; p. 290.
Durkee, Anna E., Los Angeles, Cal., assignor to The Alaska Garnet Mining and Manufacturing Company. Parting compound for molders' use. No. 1,073,745; Sept. 23; Gaz. vol. 194; p. 809.
Duryea, Charles E., Saginaw, Mich. Mechanism for transmitting power and motion. No. 1,072,439; Sept. 9; Gaz. vol. 194; p. 291.
Dustin, John F., Lawrence, Mass. Apparatus for applying stop-motion detectors to warp-threads. No. 1,072,103; Sept. 2; Gaz. vol. 194; p. 147.
Duwellius, Alfred H. (See Foster and Duwellius.)
Dwyer, Joseph, Montclair, N. J. Ammonia-gas condenser. No. 1,073,746; Sept. 23; Gaz. vol. 194; p. 809.
E. C. Atkins and Company. (See Olsen, Carl L., assignor.)
E. I. du Pont de Nemours Powder Company. (See Isaler, Gotthold, assignor.)
E. M. Hulse Company, The. (See Henderson and Schramm, assignors.)
E. M. Hulse Company, The. (See Pease, William A., assignor.) (Reissue.)
Eagar, George T., Ballston Spa, N. Y., assignor to General Electric Company. Motor-control system. No. 1,072,440; Sept. 9; Gaz. vol. 194; p. 291.
Eagle Pencil Company. (See McIntyre, Frank, assignor.)
Earl, Ernest P., et al. (See Earl, Malcolm W., assignor.)
Earl, Malcolm W., assignor of one-fourth to P. J. Earl, one-fourth to S. E. Earl, and one-fourth to E. J. Earl, Watertown, N. Y. Machine for wrapping celery. No. 1,071,899; Sept. 2; Gaz. vol. 194; p. 80.
Earl, Persis J., et al. (See Earl, Malcolm W., assignor.)
Earl, Sheridan E., et al. (See Earl, Malcolm W., assignor.)
Easterfield, Thomas H., Wellington, New Zealand. Production of ammonium sulfate. No. 1,072,840; Sept. 9; Gaz. vol. 194; p. 431.
Eastes, James B., Konawa, Okla. Cranking device. No. 1,071,900; Sept. 2; Gaz. vol. 194; p. 110.
Eaton, Leslie E., Sturgis, S. D. Handle for dental impression-trays, &c. No. 1,073,803; Sept. 23; Gaz. vol. 194; p. 859.
Ebersole, James E., Palmyra, Pa. Fluid-pressure motor. No. 1,072,104; Sept. 2; Gaz. vol. 194; p. 148.
Ebert, Harry, Frederick, Md. Bag-closure. No. 1,071,901; Sept. 2; Gaz. vol. 194; p. 110.
Ebner, Carl, Stuttgart, Germany. Magneto-electric ignition-apparatus for use with internal-combustion engines. No. 1,074,542; Sept. 30; Gaz. vol. 194; p. 1104.
Ecks, John, Milwaukee, Wis. Car-loader. No. 1,072,441; Sept. 9; Gaz. vol. 194; p. 291.
Eddleman's Never Fail Fish Hook and Animal Trap Company. (See Sweet, Welcome F., assignor.)
Edgar Allen American Manganese Steel Company. (See Nichols, Wesley G., assignor.)
Edison, Karl, assignor of one-half to J. B. Moschenross, New York, N. Y. Illuminating device. No. 1,071,900; Sept. 2; Gaz. vol. 194; p. 80.
Edison Storage Battery Company. (See Edison, Thomas A., assignor.)
Edison, Thomas A. (See Holland, Newman H., assignor.)
Edison, Thomas A. (See Saltzman, Auguste L., assignor.)
Edison, Thomas A., Llewellyn Park, assignor to Edison Storage Battery Company, West Orange, N. J. Storage battery. No. 1,073,107; Sept. 16; Gaz. vol. 194; p. 563.
Edmunds & Jones Mfg. Co., The. (See Godley, Charles E., assignor.)
Edmunds & Jones Mfg. Co. (See Jones, William T., assignor.)
Edwards, John P., Kinmundy, Ill. Device for sharpening lawn-mowers. No. 1,073,412; Sept. 16; Gaz. vol. 194; p. 671.
Edwards, Oliver P. (See Thompson, Ralph P. and W. S., assignors.)
Edwin Harrington, Son & Co. (See Scott, Robert F., assignor.)
Egerton, Henry C., Ridgewood, N. J., assignor to Western Electric Company, New York, N. Y. Electric cable. No. 1,073,590; Sept. 23; Gaz. vol. 194; p. 755.
Egerton, Henry C., Passaic, N. J., assignor to Western Electric Company, New York, N. Y. Telephone-transmitter. No. 1,073,667; Sept. 23; Gaz. vol. 194; p. 781.
Eggers, Lee G., assignor to Z. M. Eggers, Mount Lebanon, Pa. Automatic safety-brake for automobiles. No. 1,072,841; Sept. 9; Gaz. vol. 194; p. 431.
Eggers, Zeffie M. (See Eggers, Lee G., assignor.)
Ehrsam, William J., Enterprise, and L. N. Morscher, Lawrence, Kans., assignors to themselves as cotrustees. Throwing-wheel for graders. No. 1,072,442; Sept. 9; Gaz. vol. 194; p. 292.
Eichberg, Friedrich. (See Winter and Eichberg.)
Eichert, Fritz, Berlin, assignor to Greif and Schlick, Coburg, Germany. Means for attaching dynamo-electric machines to velocipedes and the like. No. 1,073,747; Sept. 23; Gaz. vol. 194; p. 809.
Elker, Frisbey G., Washington, D. C. Garter. No. 1,074,498; Sept. 30; Gaz. vol. 194; p. 1088.
Elsaman, Joseph R., Latrobe, Pa. Trolley. No. 1,073,480; Sept. 16; Gaz. vol. 194; p. 695.
Elscheid, Edward P. (See Elscheid, Joseph F., assignor.)
Elscheid, Joseph F., Plattsmouth, Nebr., assignor of one-half to E. P. Elscheid, Council Bluffs, Iowa. Spring-clip for pneumatic hammers. No. 1,074,420; Sept. 30; Gaz. vol. 194; p. 1063.
Elsele, John E., Tampa, Fla. Window-jamb machine. No. 1,074,355; Sept. 30; Gaz. vol. 194; p. 1041.
Eldred, Byron E., Bronxville, assignor to Combustion Utilities Company, New York, N. Y. Burning natural and other gases. No. 1,073,108; Sept. 16; Gaz. vol. 194; p. 564.
Electric Compositor Company. (See Petri-Palmedo, David, assignor.)
Electric Ore Separator Company. (See Weatherby, Joseph, assignor.)
Electric Smelting and Aluminum Company, The. (See Cowles, Alfred H., assignor.)
Electric Storage Battery Company, The. (See Heap, Benjamin, assignor.)
Elektrochemische Werke G. m. b. H. (See Siebert, Werner, assignor.)
Electron Chemical Company. (See Allen, Edward A. and H. L., assignors.)
Elektrochemische Werke G. m. b. H. (See Siebert, Werner, assignor.)
Ellis, Giovanni E., Paris, France, assignor to Vickers Limited, Westminster, England. Automatic anchoring device for submarine mines. No. 1,072,928; Sept. 9; Gaz. vol. 194; p. 464.
Ellett, Frederick S., Elmira, N. Y. Clutch. No. 1,071,902; Sept. 2; Gaz. vol. 194; p. 111.
Ellinger, William. (See Parker and Ellinger.)
Elliott, George. (See White and Elliott.)
Elliott, James A., Sycamore, Ill. Brooder. No. 1,072,217; Sept. 2; Gaz. vol. 194; p. 196.
Elliott, Percy M., Chicago, Ill. Razor-strop. No. 1,072,590; Sept. 9; Gaz. vol. 194; p. 343.
Elliott, Sterling, Newton, Mass. Drinking-cup. No. 1,073,481; Sept. 16; Gaz. vol. 194; p. 695.
Elliott, William S., Pittsburgh, Pa. Heater. No. 1,073,109; Sept. 16; Gaz. vol. 194; p. 564.

Ellison, Walter P., Lyons, Kans. Colt-weaner. No. 1,072,591; Sept. 9; Gaz. vol. 194; p. 344.
Elrod, Abraham, Seymour, Ind. Saw-grinding machine. No. 1,074,047; Sept. 23; Gaz. vol. 194; p. 909.
Elvin, Albert G., Somerville, N. J. Door-operating mechanism. No. 1,073,894; Sept. 23; Gaz. vol. 194; p. 859.
Elwell-Parker Electric Company of America, The. (See Cochran, Clyde E., assignor.)
Emanuel, Benjamin D., Anderson, Ind. Weighing-scale. No. 1,074,421; Sept. 30; Gaz. vol. 194; p. 1063.
Emerson-Brantingham Company. (See Clay, Harry C., assignor.)
Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)
Emmet, William L. R., Schenectady, N. Y., assignor to General Electric Company. Governing mechanism for turbines. No. 1,072,929; Sept. 9; Gaz. vol. 194; p. 464.
Empire Machine Company. (See Day, Arthur L., assignor.)
Empire Voting Machine Company. (See Dean, James H., assignor.)
Empire Voting Machine Company. (See Gillespie, Alfred J., assignor.)
Empire Voting Machine Company. (See Lausterer, William J., assignor.)
Engebretson, Oscar C., Garretson, S. D. Attachment for pitchforks. No. 1,072,592; Sept. 9; Gaz. vol. 194; p. 344.
Engel, Edwin F. (See Anderson and Engel.)
Engelhard, Armin, Offenbach-on-the-Main, Germany. Universal radial drill, portable or on wheels. No. 1,073,597; Sept. 23; Gaz. vol. 194; p. 755.
English, Frederick A., assignor to Birtman Electric Co., Chicago, Ill. Electrically-heated curling-iron. No. 1,073,336; Sept. 16; Gaz. vol. 194; p. 644.
English, John C. (See Johnson and English.)
English & Mersick Co., The. (See Altmann, Frank C., assignor.)
Englund, Leon, Pittsfield, Mass. Domestic boiler. No. 1,072,105; Sept. 2; Gaz. vol. 194; p. 149.
Ensign, George A., assignor to Defiance Machine Works, Defiance, Ohio. Cutter-head. No. 1,072,930; Sept. 9; Gaz. vol. 194; p. 464.
Ensign, Wesley N., Whitestone, N. Y. Shock-absorber for aeroplanes. No. 1,074,499; Sept. 30; Gaz. vol. 194; p. 1088.
Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
Enterprise Tool and Metal Works. (See Rosengren, Frank W., assignor.)
Entwisle, Ernest J., London, England. Mechanism for cutting pile loops in the manufacture of coarse pile fabrics. No. 1,072,842; Sept. 9; Gaz. vol. 194; p. 431.
Erb, Edmund M., Jersey City, N. J., assignor, by mesne assignments, to F. Wesel Manufacturing Company, Brooklyn, N. Y. Printing-plate holder and registering clamp. No. 1,074,108; Sept. 30; Gaz. vol. 194; p. 960.
Ergensinger, Martin, Atlanta, Ga. Mechanism for controlling the operation of valves. No. 1,071,993; Sept. 2; Gaz. vol. 194; p. 111.
Erickson, Peter, Grand Junction, Colo. Railway-tie. No. 1,072,931; Sept. 9; Gaz. vol. 194; p. 465.
Ericson, Richard W., Chicago, Ill. Car-door-closing mechanism. No. 1,072,106; Sept. 2; Gaz. vol. 194; p. 149.
Ernst, Emil R., New York, N. Y. Amusement device. No. 1,073,970; Sept. 23; Gaz. vol. 194; p. 884.
Ernst, Fred. (See Wallace and Ernst.)
Ernst Gideon Bek, G. m. b. H. (See Bischoff, Gotthilf, assignor.)
Erz, George, Lynden, Wash. Window-latch. No. 1,072,593; Sept. 9; Gaz. vol. 194; p. 344.
Eschelbacher, Emanuel, New York, N. Y. Petticoat. No. 1,074,109; Sept. 30; Gaz. vol. 194; p. 960.
Esterline Company, The. (See Myers, Donald D., assignor.)
Eureka Manufacturing Company. (See Dudley, Thomas J., assignor.)
Evans, Owen B., Lansdowne, assignor to The United Gas Improvement Company, Philadelphia, Pa. Burning solid fuel. No. 1,073,668; Sept. 23; Gaz. vol. 194; p. 782.
Evans, Powell, Philadelphia, Pa. Clutch construction. No. 1,074,500; Sept. 30; Gaz. vol. 194; p. 1088.
Evans, William J., Linnburg, Iowa. Automobile attachment. No. 1,073,971; Sept. 23; Gaz. vol. 194; p. 885.
Evenson, Edward B., Colfax, Wis. Plow attachment. No. 1,074,422; Sept. 30; Gaz. vol. 194; p. 1064.
Everstick Patents Co., The. (See Shook, Floyd D., assignor.)
F. Wesel Manufacturing Company. (See Erb, Edmund M., assignor.)
F. A. Hardy Company. (See Pixley, Charles H., assignor.)
F. A. Whitney Carriage Co. (See Andrews, John W. R., assignor.)
F. O. Motor Washer Company, The. (See Frank, William V., assignor.)
F. P. Motor Wagon Company. (See Price, William C., assignor.)
Fadden, James D., Auburn, assignor to himself, and W. J. Mahoney, Lewiston, Me. Collapsible last. No. 1,071,901; Sept. 2; Gaz. vol. 194; p. 81.
Faehrmann, Hermann, New York, N. Y. Propeller. No. 1,073,413; Sept. 16; Gaz. vol. 194; p. 672.
Fairchild, Albert S. (See Schrey, Robert W., assignor.)
Fairchild, William, Albany, N. Y. Spool. No. 1,073,110; Sept. 16; Gaz. vol. 194; p. 564.
Fairhurst, William S., New York, N. Y. Valve mechanism for air-compressors. No. 1,073,337; Sept. 16; Gaz. vol. 194; p. 645.
Fairhurst, William S., New York, N. Y. Valve. No. 1,073,338; Sept. 16; Gaz. vol. 194; p. 645.
Fairweather, Charles B., assignor to J. S. and W. P. Worth, Coatesville, Pa. Railway-tie. No. 1,072,932; Sept. 9; Gaz. vol. 194; p. 465.
Fanger, John A., Kalida, Ohio. Beet-harvester. No. 1,072,218; Sept. 2; Gaz. vol. 194; p. 186.
Farbenfabriken vorm. Friedr. Bayer & Co. (See Bauer, Herre, and Mayer, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Coutelle, Carl, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Decker, Herman, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Fischer, Emil, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Günther, Oscar, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Harries, Carl, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hauptmann, Peter, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hlemenz and Taub, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann, Coutelle, Meisenburg, and Delbrück, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Linden, Meissen, and Strauss, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Taub, Ludwig, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Wagner and Kohlhaas, assignors.)
Fargo, Frank F., Portland, Oreg. Combination vehicle-track and curbstone. No. 1,073,669; Sept. 23; Gaz. vol. 194; p. 782.
Farmer, Thomas, Jr., assignor to Consolidated Car-Heating Company, Albany, N. Y. Thermostatic controlling apparatus for heating systems. No. 1,072,707; Sept. 9; Gaz. vol. 194; p. 383.
Farnham, Stephen H., A. W. Smith, New York, N. Y., and J. Phelps, Belleville, N. J., assignors to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,073,577; Sept. 16; Gaz. vol. 194; p. 727.
Fast, Gustave, Baltimore, Md. Gearing. No. 1,071,719; Sept. 2; Gaz. vol. 194; p. 16.
Faulkner, W. H., *et al.* (See Holsclaw, Thomas C., assignor.)
Faust, Jared F., Basin, Wyo. Blinker-stay. No. 1,073,225; Sept. 16; Gaz. vol. 194; p. 605.
Fawell, Joseph. (See Duncan and Fawell.)
Fawell, Joseph, Pittsburgh, Pa. Rolling-mill. No. 1,071,720; Sept. 2; Gaz. vol. 194; p. 17.
Fay, Alpheus, Louisville, Ky. Cream-separator and churn. No. 1,072,219; Sept. 2; Gaz. vol. 194; p. 187.
Fay, Harold J. W., Westboro, Mass., and E. C. Molina, East Orange, N. J., assignors to American Telephone and Telegraph Company, Boston, Mass. System for dividing calls among telephone-operators' positions. No. 1,073,748; Sept. 23; Gaz. vol. 194; p. 810.
Feinstein, Abraham, Cincinnati, Ohio. Bottle cap and pourer. No. 1,074,168; Sept. 30; Gaz. vol. 194; p. 979.
Felt, Dorr E., Chicago, Ill. Calculating-machine. No. 1,072,933; Sept. 9; Gaz. vol. 194; p. 466.
Felt, Dorr E., and J. A. V. Turck, assignors to Felt & Tarrant Manufacturing Company, Chicago, Ill. Calculating-machine. No. 1,072,934; Sept. 9; Gaz. vol. 194; p. 466.
Felt & Tarrant Manufacturing Company. (See Felt and Turck, assignors.)
Ferguson, Samuel, Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,072,443; Sept. 9; Gaz. vol. 194; p. 292.
Ferguson, Thomas B., Hanford, Cal. Wheeled scraper. No. 1,074,589; Sept. 30; Gaz. vol. 194; p. 1118.
Ferrara, Francesco, Boston, Mass. Shoestring-fastener. No. 1,072,594; Sept. 9; Gaz. vol. 194; p. 344.
Fessenden, Reginald A., Washington, D. C., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Wireless signaling. No. 1,074,423; Sept. 30; Gaz. vol. 194; p. 1064.
Fessenden, Reginald A., Brant Rock, Mass., assignor, by mesne assignments, to S. M. Kintner, Pittsburgh, Pa., and H. M. Barrett, Bloomfield, N. J., receivers. Magnetic material. No. 1,074,424; Sept. 30; Gaz. vol. 194; p. 1064.
Filer and Stowell Company, The. (See Pelton, George M., assignor.)
Filipek, Eugen, Pforzheim, Germany. Stud. No. 1,073,032; Sept. 9; Gaz. vol. 194; p. 500.
Fill, Stanley M., Fairmont, W. Va. Fastener. No. 1,071,902; Sept. 2; Gaz. vol. 194; p. 81.
Filliez, Peter, Canton, Ohio. Wire-stretcher. No. 1,074,084; Sept. 23; Gaz. vol. 194; p. 922.
Filshie, Alexander, Atkinson, Ill. Nail. No. 1,072,107; Sept. 2; Gaz. vol. 194; p. 150.
Finckenhagen, Christian. (See Jebsen and Finckenhagen.)

Finlay, Forest, Petersham, near Sydney, New South Wales, Australia, assignor to O. Imray, London, England. Roller-skate. No. 1,071,721; Sept. 2; Gaz. vol. 194; p. 17.
Finn, Joseph T. (See Wright and Finn.)
Fire-Proof Furniture and Construction Company. (See Millice, Paul S., assignor.)
Firsching, Joseph A., Utica, N. Y. Cloth-marking machine. No. 1,072,708; Sept. 9; Gaz. vol. 194; p. 384.
Fischer, Emil, Berlin, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Derivative of plaselenol. No. 1,074,425; Sept. 30; Gaz. vol. 194; p. 1064.
Fischer, Robert, New York, N. Y. Lighter. No. 1,072,935; Sept. 9; Gaz. vol. 194; p. 466.
Fischer, Robert, Brooklyn, N. Y. Safety watch-guard. No. 1,074,543; Sept. 30; Gaz. vol. 194; p. 1101.
Fisher, Alfred E., Inglewood, Cal. Automatic reverse for planers and the like. No. 1,073,033; Sept. 9; Gaz. vol. 194; p. 500.
Fisher Body Company. (See Methven, Archibald D., assignor.)
Fisher, Charles, assignor to The Automatic Recording Safe Company, Chicago, Ill. Savings-bank. No. 1,072,709; Sept. 9; Gaz. vol. 194; p. 384.
Fisher, Charles, assignor to The Automatic Recording Safe Company, Chicago, Ill. Savings-bank. No. 1,073,847; Sept. 23; Gaz. vol. 194; p. 842.
Fisher, Frederick N., Columbus, Kans. Automatic air-coupling. No. 1,074,356; Sept. 30; Gaz. vol. 194; p. 1042.
Fisher, Melville H. O. (See Buell, Albert W., assignor.)
Fisk, Henry C., Stafford, Conn. Stabilizer for aeroplanes. No. 1,072,710; Sept. 9; Gaz. vol. 194; p. 384.
Fitch, Belle G., Philadelphia, Pa. Head-protector for babies. No. 1,072,321; Sept. 2; Gaz. vol. 194; p. 219.
Fite, Cephas V., Charlotte, N. C. Thermostatic circuit-closer. No. 1,074,544; Sept. 30; Gaz. vol. 194; p. 1102.
Fitzpatrick, Mae, Victoria, British Columbia, Canada. Veil-display rack. No. 1,071,722; Sept. 2; Gaz. vol. 194; p. 18.
Flagg, William H., Syracuse, N. Y. Gate. No. 1,073,848; Sept. 23; Gaz. vol. 194; p. 842.
Fleischmann, Samuel, assignor of one-half to J. Braun, Indianapolis, Ind. Fender for vehicles. No. 1,072,108; Sept. 2; Gaz. vol. 194; p. 150.
Flood, John R., assignor to Unique Specialty Company, Spokane, Wash. Vault-door. No. 1,071,723; Sept. 2; Gaz. vol. 194; p. 18.
Flowers, Edgar L. (See Martin and Flowers.)
Flues, Emil, assignor to The Ithaca Gun Company, Ithaca, N. Y. Safety mechanism for breakdown guns. No. 1,071,994; Sept. 2; Gaz. vol. 194; p. 112.
Flume Improvement Company, The. (See Maginnis, Patrick, assignor.)
Flürscheim, Bernhard J., Fleet, England. Reduction of meta-nitro derivatives of hydrocarbons of the benzene series. No. 1,074,545; Sept. 30; Gaz. vol. 194; p. 1102.
Foley, Thomas F. (See Mercer, Samuel J., assignor.)
Follett Time Recording Company, The. (See Sokolov, Jacob, assignor.)
Font, Vincente, Habana, Cuba. Floor and roof construction. No. 1,073,972; Sept. 23; Gaz. vol. 194; p. 885.
Ford, Benjamin F., U. S. Army. Cover-fastener. No. 1,073,482; Sept. 16; Gaz. vol. 194; p. 695.
Ford, Bruce, Philadelphia, Pa. Strap or connection for secondary or storage batteries. No. 1,073,670; Sept. 23; Gaz. vol. 194; p. 782.
Ford, Henry, Detroit, Mich. Automobile transmission. No. 1,073,569; Sept. 16; Gaz. vol. 194; p. 724.
Ford, John L., Camden, N. J. Brush-handle. No. 1,073,034; Sept. 9; Gaz. vol. 194; p. 501.
Foreman, John D., Searcy, Ark. Stretching device for heel-counters. No. 1,071,903; Sept. 2; Gaz. vol. 194; p. 81.
Forman, George L., Louisville, Ky. Harness-bridle. No. 1,073,973; Sept. 23; Gaz. vol. 194; p. 885.
Forman, George L., Louisville, Ky. Harness-bridle. No. 1,073,974; Sept. 23; Gaz. vol. 194; p. 886.
Forman, George L., Louisville, Ky. Harness-bridle. No. 1,073,975; Sept. 23; Gaz. vol. 194; p. 886.
Fornaca, Guido, Turin, Italy. Combustion-engine. No. 1,073,071; Sept. 23; Gaz. vol. 194; p. 782.
Forrest, Frederick C., Sacramento, Cal. Continuous sun blue-printing machine. No. 1,071,724; Sept. 2; Gaz. vol. 194; p. 18.
Fortescue, Charles L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of electric-current distribution. No. 1,073,598; Sept. 23; Gaz. vol. 194; p. 755.
Forthmann, Walter, Potsdam, Germany. Vehicle-coupling. No. 1,073,339; Sept. 16; Gaz. vol. 194; p. 646.
Fortoni, Luigi, London, England. Music type-writing machine. No. 1,073,976; Sept. 23; Gaz. vol. 194; p. 887.
Foster, John H., Cuthbert, Tex. Cultivator. No. 1,073,672; Sept. 23; Gaz. vol. 194; p. 783.
Foster, William B., Norwood, and A. H. Duwellius, Cincinnati, Ohio. Brush. No. 1,072,822; Sept. 2; Gaz. vol. 194; p. 219.
Fournier, Albert, Chicago, Ill. Making ornamental structures. No. 1,072,712; Sept. 9; Gaz. vol. 194; p. 385.
Fowler, Ernest, Seattle, Wash. Antiseptic tooth-brush receptacle. No. 1,074,169; Sept. 30; Gaz. vol. 194; p. 980.
Fowler, Walter B., Lawrence, Mass. Regulating-damper. No. 1,072,323; Sept. 2; Gaz. vol. 194; p. 220.
Fox, Ralph P., Fort Hancock, N. J. Safety-support for flying-machines. No. 1,073,977; Sept. 23; Gaz. vol. 194; p. 887.
Fox, Thomas S., New York, N. Y. Printing process. No. 1,074,254; Sept. 30; Gaz. vol. 194; p. 1007.
Fraenkell, Eugen J., New York, N. Y. Toy. No. 1,073,111; Sept. 16; Gaz. vol. 194; p. 565.
Francis, Charles E., Evanston, Ohio. Veneer-press for manufacturers of woodworking material. No. 1,073,414; Sept. 16; Gaz. vol. 194; p. 672.
Frank, William V., assignor to The F. O. Motor Washer Company, Springfield, Ohio. Operating mechanism for washing-machines. No. 1,072,109; Sept. 2; Gaz. vol. 194; p. 150.
Frankel, Fridolf, Stockholm, Sweden. Piano or other string instrument. No. 1,073,673; Sept. 23; Gaz. vol. 194; p. 783.
Franklin Knitting Mills. (See Kellner and Worms, assignors.)
Franks, William L., assignor of one-third to E. Peters, Rock Island, Ill. Adjustable mirror and light. No. 1,071,725; Sept. 2; Gaz. vol. 194; p. 19.
Fraser, Norman P., Carsonville, Mich. Check-controlled vending-machine. No. 1,074,426; Sept. 30; Gaz. vol. 194; p. 1065.
Fravel, Charles G., Plain township, Franklin county, assignor of one-half to A. E. Bennett, Westerville, Ohio. Shock-tier. No. 1,073,035; Sept. 9; Gaz. vol. 194; p. 501.
Freas, Brad C., Berwick, Pa. Step-ladder. No. 1,074,318; Sept. 30; Gaz. vol. 194; p. 1029.
Frederickson, Clayton E., assignor of one-half to W. H. Stenger, San Francisco, Cal. Pipe-anchor. No. 1,074,427; Sept. 30; Gaz. vol. 194; p. 1065.
Freeman, August, Newhall, Iowa. Halter-rope clip. No. 1,073,226; Sept. 16; Gaz. vol. 194; p. 606.
Freeman, Frank A., Overbrook, Pa., assignor to Pioneer Suspender Company. Garter. No. 1,071,726; Sept. 2; Gaz. vol. 194; p. 19.
Freeman, Rufus A., Flushing, N. Y., assignor to The Autopress Company. Sheet-separator. No. 1,072,936; Sept. 9; Gaz. vol. 194; p. 467.
Freeman, Rufus A., Flushing, N. Y., assignor to The Autopress Company. Sheet-feeding machine. No. 1,072,937; Sept. 9; Gaz. vol. 194; p. 467.
French, Horace E., assignor to Jesse French & Sons Piano Company, Newcastle, Ind. Modulating mechanism for musical instruments. No. 1,071,995; Sept. 2; Gaz. vol. 194; p. 113.
Fried. Krupp Aktiengesellschaft. (See Hermsdorf, Max, assignor.)
Fried. Krupp Aktiengesellschaft. (See Wieser, Karl, assignor.)
Friedmann, Samuel, Baltimore, Md. Cuff-fastener. No. 1,072,110; Sept. 2; Gaz. vol. 194; p. 151.
Friedrichs, Ernst, Barmen, Germany. Unloader and starter for compressors and pumps. No. 1,073,801; Sept. 23; Gaz. vol. 194; p. 827.
Friese, Norman L., Roanoke, Va., assignor to R. C. Dudley, Chicago, Ill. Car-roof. No. 1,074,255; Sept. 30; Gaz. vol. 194; p. 1008.
Frink, Robert L., Cleveland, Ohio. Method of and apparatus for drawing glass. No. 1,071,727; Sept. 2; Gaz. vol. 194; p. 19.
Fritsch, John A., Pittsburgh, Pa. Cushion-cleaning machine. No. 1,072,843; Sept. 9; Gaz. vol. 194; p. 432.
Fritz, Walter, Berlin, Germany. Marine turbine. No. 1,073,805; Sept. 23; Gaz. vol. 194; p. 859.
Froendt, George, Milford, Iowa. Printing-frame. No. 1,072,444; Sept. 9; Gaz. vol. 194; p. 292.
Frood, Alfred D., East Caulfield, Victoria, Australia. Composition for cleaning metal goods and paintwork. No. 1,071,728; Sept. 2; Gaz. vol. 194; p. 20.
Frost, Martha, New York, N. Y. Sad-iron holder. No. 1,073,483; Sept. 16; Gaz. vol. 194; p. 695.
Fuchs, Ernesto, Guadalajara, Mexico. Identification device. No. 1,073,036; Sept. 9; Gaz. vol. 194; p. 501.
Fuhrmann, Charles P., Erie, Pa., assignor to American Can Company, New York, N. Y. Pipe-band wire-looping machine. No. 1,072,844; Sept. 9; Gaz. vol. 194; p. 432.
Fulghum, Albert J., Chattanooga, Tenn. Blacksmith's tool. No. 1,073,802; Sept. 23; Gaz. vol. 194; p. 827.
Fuller, Charles E. (See Hats, George J., assignor.)
Fuller, Silas S., Auburn, Me. Single-service tool-holder. No. 1,073,112; Sept. 16; Gaz. vol. 194; p. 565.
Funk Brothers. (See Dodson, Charles I., assignor.)
Funk, John E., Moorland, assignor to Progressive Manufacturing Company, Stockton, Cal. Ditching-machine. No. 1,073,227; Sept. 16; Gaz. vol. 194; p. 606.
Furbeck, George W., Kansas City, Mo. Butter-pat-making machine. No. 1,073,896; Sept. 23; Gaz. vol. 194; p. 859.
Furman, Clifford G., Binghamton, assignor to G. O. Knapp, New York, N. Y. Stamping mechanism. No. 1,073,340; Sept. 16; Gaz. vol. 194; p. 646.
Fyfe, Peter, Glasgow, Scotland. Gas-burning apparatus. No. 1,074,110; Sept. 30; Gaz. vol. 194; p. 960.
Fynn, Valère A., assignor to Wagner Electric Manufacturing Company, St. Louis, Mo. Alternating-current-motor control. No. 1,072,445; Sept. 9; Gaz. vol. 194; p. 293.
Gaines, Henry W., Bowling Green, Ky. Clamp for wire fences. No. 1,073,228; Sept. 16; Gaz. vol. 194; p. 606.

Gallagher, Elizabeth A. M., New York, N. Y. Collapsible bath-tub. No. 1,072,446; Sept. 9; Gaz. vol. 194; p. 293.
Gallaher, William, St. Louis, Mo. Heater for automobile-radiators. No. 1,072,595; Sept. 9; Gaz. vol. 194; p. 345.
Gallaudet, Edson F., Norwich, Conn. System of aerial control. No. 1,074,256; Sept. 30; Gaz. vol. 194; p. 1008.
Gallaudet, Edson F., Norwich, Conn. System of aeroplane control. No. 1,074,257; Sept. 30; Gaz. vol. 194; p. 1009.
Gantt, Henry L., Pawtucket, R. I. Piling mechanism for fabrics. No. 1,074,567; Sept. 30; Gaz. vol. 194; p. 1109.
Gantt, Henry L., Pawtucket, R. I. Processing apparatus. No. 1,074,568; Sept. 30; Gaz. vol. 194; p. 1110.
Ganz, Charles, New York, N. Y., assignor to Treibacher Chemische Werke Gesellschaft mit beschränkter Haftung, Treibach, Austria-Hungary. Lighter. No. 1,073,229; Sept. 16; Gaz. vol. 194; p. 607.
Gardiner, John H. A., Downers Grove, Ill. Incandescent-lamp lock. No. 1,073,113; Sept. 16; Gaz. vol. 194; p. 505.
Gardner, Joseph B., North McAlester, Okla. Car-step. No. 1,072,325; Sept. 2; Gaz. vol. 194; p. 220.
Gardner, Levi S., New Orleans, La. Explosive-engine. No. 1,072,506; Sept. 9; Gaz. vol. 194; p. 345.
Garforth, William E. (See Chipperfield and Garforth.)
Garland, Thomas H., Chicago, Ill. Ventilator. No. 1,071,729; Sept. 2; Gaz. vol. 194; p. 20.
Garland, Thomas H., Chicago, Ill. Controlling mechanism for doors. No. 1,071,730; Sept. 2; Gaz. vol. 194; p. 20.
Garred, Ulysses A., Anaconda, Mont. Filter. No. 1,072,111; Sept. 2; Gaz. vol. 194; p. 151.
Garrett, Gloster J. and H. C., Richmond, Ind. Vehicle wheel. No. 1,072,597; Sept. 9; Gaz. vol. 194; p. 345.
Garrett, Herbert C. (See Garrett, Gloster J. and H. C.)
Garrett, William J. (See Williams, William W., assignor.)
Gasau, Otto, New York, N. Y. Wire mattress. No. 1,072,220; Sept. 2; Gaz. vol. 194; p. 187.
Gaskill, Earl R., Post Falls, Idaho. Lock. No. 1,071,904; Sept. 2; Gaz. vol. 194; p. 81.
Gaskill, Edwin A. and J. F., Laneville, W. Va. Spar-cap. No. 1,072,845; Sept. 9; Gaz. vol. 194; p. 432.
Gaskill, Joseph F. (See Gaskill, Edwin A. and J. F.)
Gates, Louis W. (See Gates, William, assignor.)
Gates, William, New Haven, assignor of one-half to L. W. Gates, West Haven, Conn. Curtain-fastener. No. 1,071,996; Sept. 2; Gaz. vol. 194; p. 113.
Gathmann, Emil, Baltimore, Md., assignor to Crucible Steel Company of America. Projectile. No. 1,074,111; Sept. 30; Gaz. vol. 194; p. 961.
Gaudion, Emile, Marolles, France. Machine for the manufacture of buttons. No. 1,072,221; Sept. 2; Gaz. vol. 194; p. 187.
Gaudron, Edward N., Newark, N. J., assignor to W. Dixon. Machine for making brushes. No. 1,072,326; Sept. 2; Gaz. vol. 194; p. 221.
Gaul, David, Los Angeles, Cal. Automobile street-cleaner. No. 1,072,713; Sept. 9; Gaz. vol. 194; p. 385.
Gay, Frederick J., Camberwell, England. Seat, chair, bunk, and the like. No. 1,073,415; Sept. 16; Gaz. vol. 194; p. 672.
Gaynor, John J., assignor, by mesne assignments, to Automatic Machinery Manufacturing and Sales Company, Indianapolis, Ind. Bottle-labeler. No. 1,071,731; Sept. 2; Gaz. vol. 194; p. 21.
Geddes, Joseph, Rochester, N. Y. Head for ventilating or heating flues. No. 1,073,978; Sept. 23; Gaz. vol. 194; p. 888.
Geer, Maurice F., and R. C. Leake, Rochester, assignors to General Railway Signal Company, Gates, N. Y. Electromagnetic device. No. 1,071,905; Sept. 2; Gaz. vol. 194; p. 81.
Geiger, Frederick J. (See Mulford, Logan W., assignor.)
Gell, John, London, England. Telegraphic system. No. 1,074,170; Sept. 30; Gaz. vol. 194; p. 980.
Gell, John, London, England. Receiver for automatic telegraphic systems. No. 1,074,171; Sept. 30; Gaz. vol. 194; p. 980.
General Electric Company. (See Arthur, Walter, assignor.)
General Electric Company. (See Creighton, Elmer E. F., assignor.)
General Electric Company. (See Cubitt, Archibald S., assignor.)
General Electric Company. (See Day and Windeler, assignors.)
General Electric Company. (See Dempster, John T. H., assignor.)
General Electric Company. (See Eagar, George T., assignor.)
General Electric Company. (See Emmet, William L. R., assignor.)
General Electric Company. (See Ferguson, Samuel, assignor.)
General Electric Company. (See Hayden, Joseph L. R., assignor.)
General Electric Company. (See Hewlett, Edward M., assignor.)
General Electric Company. (See Jackson, Alexander M., assignor.)
General Electric Company. (See McLain, Robert H., assignor.)
General Electric Company. (See Motter and Kochendorfer, assignors.)
General Electric Company. (See Naumann, Wilhelm, assignor.)
General Electric Company. (See Peek, Frank W., Jr., assignor.)
General Electric Company. (See Perkins, Harry F., assignor.)
General Electric Company. (See Robinson and Holz, assignors.)
General Electric Company. (See Schmidt, Karl, assignor.)
General Electric Company. (See Thomson, Elihu, assignor.)
General Electric Company. (See Tirrill, Leonard A., assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. (See Whiting, Max A., assignor.)
General Electric Company. (See Winter and Elchberg, assignors.)
General Electric Company. (See Zimmerman, Clarence I., assignor.)
General Railway Signal Company. (See Geer and Leake, assignors.)
General Railway Signal Company. (See Howe, Winthrop K., assignor.)
General Railway Signal Company. (See Leake, Richard C., assignor.)
Genovese, Rosario, assignor of one-fourth to H. Silverman, one-fourth to M. Steinberg, and one-fourth to P. Tascano, New York, N. Y. Vending-machine. No. 1,071,732; Sept. 2; Gaz. vol. 194; p. 21.
Gentry, Alva, *et al.* (See Lincoln, Charles B. F., assignor.)
Gentzel, Harry A., New Brighton, Pa. Electric rat-exterminator. No. 1,072,222; Sept. 2; Gaz. vol. 194; p. 188.
Geoghegan, Edward A., Erie, Pa. Apparatus for superheating steam. No. 1,072,598; Sept. 9; Gaz. vol. 194; p. 346.
George, Richard F. (See Hall and George.)
Geraty, George C., Chicago, Ill. Filing-cabinet. No. 1,073,037; Sept. 9; Gaz. vol. 194; p. 501.
Gerding, Frederick W., Glandorf, Ohio. Boring-machine. No. 1,074,112; Sept. 30; Gaz. vol. 194; p. 961.
Gerlinger, Carl F., Dallas, Oreg. Bunk and locking-block for logging-cars. No. 1,071,997; Sept. 2; Gaz. vol. 194; p. 113.
Geyer, Jacob A., McKeesport, Pa. Rail-fastener. No. 1,072,327; Sept. 2; Gaz. vol. 194; p. 221.
Gibbons, Thomas J., Farmington, Ill. Carpet-stretcher. No. 1,072,599; Sept. 9; Gaz. vol. 194; p. 346.
Gibbs, James E., assignor of one-half to T. H. Armstrong, Covington, Ky. Massage device. No. 1,071,998; Sept. 2; Gaz. vol. 194; p. 114.
Gibford, Edward B., and W. P. Welch; said Welch assignor to G. O. Wright, Adrian, Mich. Razor-stropping machine. No. 1,074,095; Sept. 23; Gaz. vol. 194; p. 926.
Gil, Joseph M. F. H., Paris, France. Means for operating cocks, valves, and the like from a distance. No. 1,074,428; Sept. 30; Gaz. vol. 194; p. 1066.
Gilbert-Stringer, Henry J. S., Brighton, and P. W. Druitt, Mitcham, assignors, by mesne assignments, to E. H. Allen and A. F. De Fonblanque, London, England. Apparatus for composing and casting type. No. 1,074,546; Sept. 30; Gaz. vol. 194; p. 1102.
Gillen, Isabella, Woodmere, N. Y. Shut-off system for conduits. No. 1,072,938; Sept. 9; Gaz. vol. 194; p. 468.
Gillet, Francis W., and D. Marshall, Cheltenham, England. Fastening for rugs, mats, carpets, and the like. No. 1,073,416; Sept. 16; Gaz. vol. 194; p. 673.
Gillespie, Alan K., assignor to F. K. Gillespie, Kenosha, Wis. Track-door. No. 1,072,600; Sept. 9; Gaz. vol. 194; p. 346.
Gillespie, Alfred J., assignor, by mesne assignments, to Empire Voting Machine Company, Rochester, N. Y. Voting-machine. No. 1,072,939; Sept. 9; Gaz. vol. 194; p. 468.
Gillespie, Charles W., Etna Green, Ind. Corn-planter. No. 1,073,749; Sept. 23; Gaz. vol. 194; p. 810.
Gillespie, Frances K. (See Gillespie, Alan K., assignor.)
Gillette, Cassius E., *et al.* (See Moran and Mosher, assignors.)
Gillette Safety Razor Company. (See Crichton-Clarke, William H., assignor.)
Gilliland, Orra L., Doyon, N. D. Shock-loader. No. 1,073,849; Sept. 23; Gaz. vol. 194; p. 843.
Gilman, George H., and H. M. Robertson, St. Paul, Minn. Draft-rigging. No. 1,073,578; Sept. 16; Gaz. vol. 194; p. 727.
Gilmer, George W., Jr., Philadelphia, Pa. Combustion-tool. No. 1,074,113; Sept. 30; Gaz. vol. 194; p. 961.
Gilmore, Martin A., and W. E. Woodard, Schenectady, N. Y. Washout-plug for steam-boilers. No. 1,071,906; Sept. 2; Gaz. vol. 194; p. 82.
Gilsdorf, Arnold J., Toledo, Ohio. Coat-hanger. No. 1,073,599; Sept. 23; Gaz. vol. 194; p. 755.
Gilson, Henry E., Baden, assignor to National Metal Molding Company, Pittsburgh, Pa. Lock. No. 1,071,999; Sept. 2; Gaz. vol. 194; p. 114.

Giolitti, Federico, Turin, assignor to Societa Anonima Italiana Gio. Ansaldo Armstrong & Co., Genoa, Italy. Case-hardening articles of iron, steel, and steel alloys. No. 1,074,114; Sept. 30; Gaz. vol. 194; p. 961.
Giordano, Anthony, San Antonio, Tex. Cabinet-bed. No. 1,073,674; Sept. 23; Gaz. vol. 194; p. 784.
Giovannoni, Charles, assignor of one-half to C. E. Crow, Enterprise, Oreg. Hose-coupling. No. 1,074,319; Sept. 30; Gaz. vol. 194; p. 1029.
Girard, John H., Lowell, Mass. Threader for sewing-machines. No. 1,072,601; Sept. 9; Gaz. vol. 194; p. 347.
Glabolt Machine Company. (See Miller, William L., assignor.)
Given, Hansford F., Upperglade, W. Va. Saddle-bag. No. 1,072,602; Sept. 9; Gaz. vol. 194; p. 347.
Glader, William, Chicago, Ill., assignor to J. W. Brainard, Pittsburgh, Pa. Hoop-machine. No. 1,071,733; Sept. 2; Gaz. vol. 194; p. 21.
Glanschnig, Ignaz, assignor of one-half to W. Hatzfeld, Chicago, Ill. Automatic gas-shut-off valve. No. 1,072,603; Sept. 9; Gaz. vol. 194; p. 347.
Glasgow, Arthur G. (See Stelfox, James C., assignor.)
Glass, Alexander, Wheeling, W. Va. Heating-furnace. No. 1,074,258; Sept. 30; Gaz. vol. 194; p. 1009.
Gleaves, Samuel, Salt Lake City, Utah. Curtain-stretcher. No. 1,073,341; Sept. 16; Gaz. vol. 194; p. 646.
Glowacki, John. (See Rakowski and Glowacki.)
Gobatti, Edmond. (See Chiariglione, Vescovi, and Gobatti.)
Godley, Charles E., assignor to The Edmunds & Jones Mfg. Co., Detroit, Mich. Lamp structure. No. 1,071,907; Sept. 2; Gaz. vol. 194; p. 82.
Gohmann, Arthur, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany. Chamber-oven. No. 1,072,223; Sept. 2; Gaz. vol. 194; p. 188.
Goldberger, Leo, *et al.* (See Jensen, Peter, assignor.)
Golden, Irving B., Toledo, Ohio. Bread-rack. No. 1,072,000; Sept. 2; Gaz. vol. 194; p. 114.
Goldsmith, George H. (See Rankine and Goldsmith.)
Goodall Worsted Company. (See Spence, Fred, assignor.)
Gooding, Jennie W. (See Johanson, Claes G., assignor.)
GoodKnight, Alva L., Heavener, Okla. Self-adjusting brake-shoe. No. 1,073,038; Sept. 9; Gaz. vol. 194; p. 502.
Goodman, Elisabeth M. (See Carrette, Adolphus, assignor.)
Goodrich, De Witt C., National Military Home, Kans. Brace-bit boring-tool. No. 1,072,328; Sept. 2; Gaz. vol. 194; p. 221.
Goodridge, Gilbert W., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Switch-handle. No. 1,072,224; Sept. 2; Gaz. vol. 194; p. 188.
Goodridge, James F., New York, N. Y. Sheet-feeding mechanism. No. 1,072,846; Sept. 9; Gaz. vol. 194; p. 433.
Goodson, George A., Minneapolis, Minn. Means for regulating receptor-clocks. No. 1,073,675; Sept. 23; Gaz. vol. 194; p. 784.
Goodspeed, Leland F., assignor to Milwaukee Locomotive Manufacturing Company, Milwaukee, Wis. Gasoline-tank. No. 1,073,076; Sept. 23; Gaz. vol. 194; p. 784.
Goppelt, Frederick A., Jr., assignor to The Holder Manufacturing Company, Waterbury, Conn. Holder for collapsible tubes. No. 1,072,940; Sept. 9; Gaz. vol. 194; p. 469.
Gordon, David D., assignor of one-half to Reliable Electric Company, Chicago, Ill. Buffer. No. 1,072,847; Sept. 9; Gaz. vol. 194; p. 433.
Gordon, William A., Shelton, Conn. Stuffing-box. No. 1,074,259; Sept. 30; Gaz. vol. 194; p. 1009.
Gore, Thomas, New York, N. Y. Cable. No. 1,071,734; Sept. 2; Gaz. vol. 194; p. 22.
Goreham, William P. (See Knowles and Goreham.)
Gorin, Fred P., assignor to W. H. Benninghoff, Seattle, Wash. Preserving food. No. 1,072,406; Sept. 2; Gaz. vol. 194; p. 251.
Gorton, George, Racine, Wis. Cutting-off machine. No. 1,073,600; Sept. 23; Gaz. vol. 194; p. 756.
Goss, Charles C., New York, N. Y. Bottle-casing. No. 1,073,897; Sept. 23; Gaz. vol. 194; p. 860.
Goss Printing Press Company, The. (See Cox, Paul F., assignor.)
Goss Printing Press Company, The. (See Pettigrew, Charles H., assignor.)
Goss Printing Press Company, The. (See Walser, Joseph J., assignor.)
Gotuzzo, Silvio G., Leghorn, Italy. Bucket-chain elevator. No. 1,073,803; Sept. 23; Gaz. vol. 194; p. 827.
Gould, John J., Woodstock, Ill. Clothes-line hanger. No. 1,073,230; Sept. 16; Gaz. vol. 194; p. 607.
Gould Storage Battery Company. (See Gould, William S., assignor.)
Gould, William S., New York, N. Y., assignor to Gould Storage Battery Company. Electric battery. No. 1,073,801; Sept. 23; Gaz. vol. 194; p. 756.
Gouldbourn, Joseph. (See Bennion, Bates, and Gouldbourn.)
Goulette, John. (See Jorgenson, Nels P., assignor.)
Gove, Edward H., Biddeford, Me. Siphon-flushing apparatus. No. 1,072,711; Sept. 9; Gaz. vol. 194; p. 383.
Grace, Henry S., San Francisco, Cal. Resilient vehicle-wheel. No. 1,072,604; Sept. 9; Gaz. vol. 194; p. 348.
Grace, Henry S., San Francisco, Cal. Resilient vehicle-wheel. No. 1,072,605; Sept. 9; Gaz. vol. 194; p. 349.
Grady, Charles B. (See Murray and Grady.)
Graefe, Paul, Malmitz, Germany. Apparatus for separating out liquids from vapors and gases. No. 1,072,941; Sept. 9; Gaz. vol. 194; p. 469.
Graf, Joseph B., St. Louis, Mo. Railway-rail. No. 1,072,112; Sept. 2; Gaz. vol. 194; p. 151.
Gregert, Elmer W., Minneapolis, Minn. Car-axle journal-box with independent supporting and pulling rollers. No. 1,074,172; Sept. 30; Gaz. vol. 194; p. 981.
Graham, George N., New York, N. Y. Steam-trap. No. 1,074,048; Sept. 23; Gaz. vol. 194; p. 910.
Grahl, Gustav de, Zehlendorf, near Berlin, Germany. Boiler-furnace. No. 1,073,039; Sept. 9; Gaz. vol. 194; p. 502.
Gramacki, Walter, Chicago, Ill. Hat-pin-point protector. No. 1,074,357; Sept. 30; Gaz. vol. 194; p. 1042.
Graney, Michael C., Hoosick Falls, N. Y. Grain-lifting attachment for harvesters. No. 1,073,979; Sept. 23; Gaz. vol. 194; p. 888.
Grange, François. (See Borel and Grange.)
Granjon, Pascal J., Marseille, France. Composition for purifying gases. No. 1,074,501; Sept. 30; Gaz. vol. 194; p. 1088.
Grantland, John W., Cincinnati, Ohio. Injector. No. 1,073,602; Sept. 23; Gaz. vol. 194; p. 757.
Gravity Conveyor Company. (See Schwab, Martin C., assignor.)
Green, Ellis, assignor of one-half to T. F. Worth, Los Angeles, Cal. Automatic chain tongs. No. 1,071,908; Sept. 2; Gaz. vol. 194; p. 83.
Green, John F., Boston, Mass. Stretching device. No. 1,072,329; Sept. 2; Gaz. vol. 194; p. 222.
Green, Thomas L. (See Hanson and Green.)
Greene, Alfred J., Monrovia, Md. Marker for corn-planters. No. 1,072,447; Sept. 9; Gaz. vol. 194; p. 293.
Greenebaum, Abraham H., assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Sliding-tongue box-buckle. No. 1,072,714; Sept. 9; Gaz. vol. 194; p. 385.
Greenleaf, Louis A. (See Dudley and Greenleaf.)
Greenwald Brothers. (See Greenwald, Jacob, assignor.)
Greenwald, Isidore, J. Blaustein, Pittsburgh, M. Z. Weiss, and M. Selkovits, McKeesport, Pa. Lamp-extinguisher. No. 1,073,484; Sept. 16; Gaz. vol. 194; p. 696.
Greenwald, Jacob, assignor to Greenwald Brothers, Incorporated, Philadelphia, Pa. Skirt. No. 1,072,381; Sept. 2; Gaz. vol. 194; p. 241.
Greer, George T., Roanoke, Va. Hose-coupling. No. 1,073,850; Sept. 23; Gaz. vol. 194; p. 843.
Greif and Schlick. (See Eichert, Fritz, assignor.)
Grieshaber, Hugo E. (See Spear and Grieshaber.)
Griffin, Charles M., Indianapolis, Ind., assignor to C. M. Griffin and H. G. Crawford. Tire. No. 1,072,382; Sept. 2; Gaz. vol. 194; p. 241.
Griffith, George G., Sault Ste. Marie, Mich. Ironing-board. No. 1,074,049; Sept. 23; Gaz. vol. 194; p. 910.
Griffiths, Alfred. (See Mengle and Griffiths.)
Grimes, Herbert. (See Waldron, Ivan M., assignor.)
Grimm, H. J. (See Grimm, Henry C., assignor.)
Grimm, Henry C., assignor of one-half to H. J. Grimm, Pleasantville, N. J. Overshoe. No. 1,072,225; Sept. 2; Gaz. vol. 194; p. 188.
Griswold, Horatio F., assignor of one-half to F. M. Richey, Jr., Connellsville, Pa. Bottle. No. 1,072,606; Sept. 9; Gaz. vol. 194; p. 349.
Griswold Manufacturing Company, The. (See Hollands, John C., assignor.)
Grive, Charles K., assignor of one-half to W. Hultgren, Minneapolis, Minn. Cooking utensil. No. 1,071,909; Sept. 2; Gaz. vol. 194; p. 83.
Grochil, Joseph A., New York, N. Y. Counterbalancing mechanism for embroidering-machines. No. 1,073,342; Sept. 16; Gaz. vol. 194; p. 647.
Grochil, Joseph A., New York, N. Y. Jacquard mechanism. No. 1,073,343; Sept. 16; Gaz. vol. 194; p. 647.
Grochil, Joseph A., New York, N. Y. Bead-sewing machine. No. 1,073,344; Sept. 16; Gaz. vol. 194; p. 648.
Gruber, Robert C., Spring City, Pa. Stop-motion for knitting-machines. No. 1,071,910; Sept. 2; Gaz. vol. 194; p. 83.
Grundstrom, Gustave E., assignor of one-half to J. W. Ion, Chicago, Ill. Power molding-press. No. 1,072,448; Sept. 9; Gaz. vol. 194; p. 293.
Gschwendner, Wolfgang, Cleaton, Ky. Acetylene-gas lamp. No. 1,073,990; Sept. 23; Gaz. vol. 194; p. 888.
Gudde, Hugo F., Cleveland, Ohio. Music-turner. No. 1,073,851; Sept. 23; Gaz. vol. 194; p. 843.
Gudgeon, Simon, New Bedford, Mass. Plant-supporter. No. 1,073,114; Sept. 16; Gaz. vol. 194; p. 565.
Guerrant, George M., Danville, Va., assignor to H. C. Bridgers, Tarboro, N. C. Device for projecting the images of temperature-indicators. No. 1,074,260; Sept. 30; Gaz. vol. 194; p. 1010.
Guerrero, Jorge, Paris, France. Vehicle-wheel. No. 1,073,040; Sept. 9; Gaz. vol. 194; p. 503.
Gugler, Julius H., and G. W. Colles, Milwaukee, Wis.; said Colles assignor to said Gugler. Primary-battery cell. No. 1,073,677; Sept. 23; Gaz. vol. 194; p. 785.
Gulberson, Samuel A., Jr., Coalinga, Cal. Casing-elevator. No. 1,073,750; Sept. 23; Gaz. vol. 194; p. 811.
Gulberson, Samuel A., Jr., Coalinga, Cal. Casing-elevator. No. 1,073,751; Sept. 23; Gaz. vol. 194; p. 811.

Guido, Vito. (See Micco and Guido.)
Gummo, Elmer P., Monument, Pa. Wrench. No. 1,074,547; Sept. 30; Gaz. vol. 194; p. 1102.
Günther, Oscar, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo coloring-matter. No. 1,074,429; Sept. 30; Gaz. vol. 194; p. 1066.
Guesettle, Benjamin, Ward Springs, Minn. Wagon-brake. No. 1,073,752; Sept. 23; Gaz. vol. 194; p. 812.
Guthorn, Seymour L., assignor to Vacuum Engineering Company, New York, N. Y. Pneumatic cleaning implement. No. 1,072,607; Sept. 9; Gaz. vol. 194; p. 349.
Gwinn, George W., New York, N. Y., assignor to Automatic Packing & Labeling Company, Durham, N. C. Drying apparatus for stamps, labels, or sealing-strips. No. 1,074,358; Sept. 30; Gaz. vol. 194; p. 1042.
Gyulay, Joe, Kansas City, Mo. Planter. No. 1,072,942; Sept. 9; Gaz. vol. 194; p. 469.
Haagenson, Benjamin T., Ashtabula, Ohio. Ice-breaking marine vessel. No. 1,071,735; Sept. 2; Gaz. vol. 194; p. 22.
Haak, Paul, Philadelphia, Pa. Non-refillable bottle. No. 1,072,449; Sept. 9; Gaz. vol. 194; p. 294.
Haas, Philip M., Youngstown, Ohio. Machine for reducing the section of metal blanks. No. 1,072,001; Sept. 2; Gaz. vol. 194; p. 115.
Hackney, Leslie S., St. Paul, Minn. Motor-plow. No. 1,074,115; Sept. 30; Gaz. vol. 194; p. 962.
Haeseler, Charles H., Philadelphia, Pa. Rotary percussive tool. No. 1,074,116; Sept. 30; Gaz. vol. 194; p. 962.
Hagerman, Robert O., Butte, Mont. Hollow partition. No. 1,073,041; Sept. 9; Gaz. vol. 194; p. 503.
Haigh, Joseph, assignor of one-half to J. H. Childers, Muskogee, Okla. Galvanic battery. No. 1,073,753; Sept. 23; Gaz. vol. 194; p. 812.
Halbleib, Edward A., assignor to North East Electric Company, Rochester, N. Y. Engine-starting apparatus. No. 1,072,002; Sept. 2; Gaz. vol. 194; p. 115.
Hale, Charles J., assignor to United States Metal Products Co., New York, N. Y. Metal frame for doors, windows, and the like. No. 1,071,911; Sept. 2; Gaz. vol. 194; p. 84.
Hall, Alfred, Los Gatos, Cal., assignor of one-third to W. W. Whitten, Dorchester, Mass. Stamp-affixing device. No. 1,071,912; Sept. 2; Gaz. vol. 194; p. 84.
Hall, James H., Brooklyn, N. Y. Safety elevator-car. No. 1,073,898; Sept. 23; Gaz. vol. 194; p. 860.
Hall, John B. (See Lee, John E., assignor.)
Hall Milk Bottle Cap Company, The. (See Hall, William D., assignor.)
Hall, Thomas. (See Owen and Hall.)
Hall, Wallace L., and R. F. George, San Francisco, Cal. Portable gas-range. No. 1,072,113; Sept. 2; Gaz. vol. 194; p. 152.
Hall, Wesley H., and F. A. Dupea, Tacoma, Wash. Candy-cutting machine. No. 1,072,848; Sept. 9; Gaz. vol. 194; p. 433.
Hall, William D., Philadelphia, Pa., assignor to The Hall Milk Bottle Cap Company. Milk-bottle seal. No. 1,073,071; Sept. 9; Gaz. vol. 194; p. 515.
Hall, William H., Cicero, Ill. Suction device. No. 1,072,943; Sept. 9; Gaz. vol. 194; p. 470.
Hall, William R. B. (See Cleary, William J., W. B., and J. C. assignors.)
Haller, Joseph, Chicago, Ill. Belt-buckle. No. 1,073,115; Sept 16; Gaz. vol. 194; p. 566.
Hallowell, J. E. (See Bernauer, George W., assignor.)
Halsey, Edward S., Lynn, Mass. Thermostat. No. 1,073,899; Sept. 23; Gaz. vol. 194; p. 861.
Halverson, John O., Columbia, Mo. Chemical apparatus. No. 1,072,330; Sept. 2; Gaz. vol. 194; p. 222.
Hamblin, Frank H., Worcester, Mass. Bread-slicer. No. 1,072,450; Sept. 9; Gaz. vol. 194; p. 294.
Hames, Harry C., assignor to The Thomas & Armstrong Company, London, Ohio. Metal shingle. No. 1,073,485; Sept. 16; Gaz. vol. 194; p. 696.
Hamilton, John W., Jr., and J. W. Johnson, Coatesville, Pa. Furnace. No. 1,072,331; Sept. 2; Gaz. vol. 194; p. 222.
Hamm, George W. (See Turner and Hamm.)
Hammack, Cicero T., Knoxville, Tenn. Automatic headlight. No. 1,072,114; Sept. 2; Gaz. vol. 194; p. 152.
Hammer, Ludwig, Vienna, Austria-Hungary. Liquid change-speed gear for automobiles. No. 1,074,096; Sept. 23; Gaz. vol. 194; p. 926.
Hammersberg, Christian. (See Olson and Hammersberg.)
Hammond, William P., Passaic, N. J., assignor of one-half to P. F. Sonnek, Woodhaven, N. Y. Metallic-belt protector for vehicle-tires. No. 1,074,085; Sept. 23; Gaz. vol. 194; p. 922.
Hanfig, Harris, Charlestown, Mass. Lock. No. 1,071,913; Sept. 2; Gaz. vol. 194; p. 84.
Hann, Chester K., Columbus, Ohio. Means for raising and lowering automobile-tops. No. 1,071,914; Sept. 2; Gaz. vol. 194; p. 85.
Hansen, Charles C., Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Automatic feed for percussive drills. No. 1,074,320; Sept. 30; Gaz. vol. 194; p. 1030.
Hansen, Hans P., Hoboken, N. J. Flush-valve for water-closets. No. 1,073,603; Sept. 23; Gaz. vol. 194; p. 757.
Hansen, Jens P., Evanston, Ill. Fireplace-grate. No. 1,071,915; Sept. 2; Gaz. vol. 194; p. 85.
Hansen, Peter J., Lansford, N. D. Grain-door. No. 1,073,981; Sept. 23; Gaz. vol. 194; p. 888.
Hanson, William E., and T. L. Green, Toledo, Ohio. Bread-cutter. No. 1,072,003; Sept. 2; Gaz. vol. 194; p. 115.
Hantsch, Arthur, Linden, N. J. Carrying mechanism. No. 1,074,086; Sept. 23; Gaz. vol. 194; p. 923.
Hantsch, Arthur, Linden, N. J. Reversing mechanism for calculating-machines. No. 1,074,087; Sept. 23; Gaz. vol. 194; p. 923.
Harbeck, Jervis R., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich. Forming tubes. No. 1,072,715; Sept. 9; Gaz. vol. 194; p. 386.
Harber, Joseph L. (See Chandler, John T., assignor.)
Harman, B. H. (See Ward, William L., assignor.)
Harmon, William H., Chicago, Ill. Gas-stove. No. 1,072,115; Sept. 2; Gaz. vol. 194; p. 153.
Harper, Arthur E., Newark, N. J., and H. H. Riggs, Hyde Park, Mass. Film-camera. No. 1,073,982; Sept. 23; Gaz. vol. 194; p. 889.
Harries, Carl, Kiel, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Caoutchouc substance and making same. No. 1,073,116; Sept. 16; Gaz. vol. 194; p. 566.
Harrington, James P., and E. L. Byrne, Dorchester, Mass. Rotary file-cabinet. No. 1,072,451; Sept. 9; Gaz. vol. 194; p. 295.
Harrington, Joseph. (See Poppenhusen and Harrington.)
Harris, Albert M., Jenkinjones, W. Va. Vehicle brake-lever. No. 1,071,736; Sept. 2; Gaz. vol. 194; p. 23.
Harris, Cornelius, Winchester, Ind. Farming implement. No. 1,074,569; Sept. 30; Gaz. vol. 194; p. 1110.
Harris, Mary F., assignor of one-half to W. D. Lewis, Carthage, Ill. Automobile-bonnet. No. 1,073,345; Sept. 16; Gaz. vol. 194; p. 648.
Harris, William, Newark, N. J. Sign-illuminator. No. 1,073,346; Sept. 16; Gaz. vol. 194; p. 649.
Harrison, Charles R., deceased; L. F. McLean, Fond du Lac, Wis., administrator de bonis non. Railway-post-office-car construction. No. 1,073,231; Sept. 16; Gaz. vol. 194; p. 607.
Harrison, Herbert C., and E. C. F. Streichert, Lockport, N. Y. Radiator-cell section. No. 1,073,579; Sept. 16; Gaz. vol. 194; p. 727.
Harrison, John W., Richmond, Va. Double-walled vessel with metallic end closure. No. 1,073,983; Sept. 23; Gaz. vol. 194; p. 889.
Harrod, Walter E., Harrod, Ohio. Index-tab. No. 1,071,916; Sept. 2; Gaz. vol. 194; p. 85.
Hart, George, Williamsport, Pa. Valve-disk. No. 1,072,004; Sept. 2; Gaz. vol. 194; p. 115.
Hart, Gerald W., West Hartford, assignor to The Hart Manufacturing Company, Hartford, Conn. Switch. No. 1,071,737; Sept. 2; Gaz. vol. 194; p. 23.
Hart, John A., Blackburn, England. Apparatus for producing interaction between liquids and gases or vapors. No. 1,072,849; Sept. 9; Gaz. vol. 194; p. 434.
Hart Manufacturing Company, The. (See Hart, Gerald W., assignor.)
Hart, William, Tarrytown, N. Y. Wheel-mount for vehicles. No. 1,072,716; Sept. 9; Gaz. vol. 194; p. 386.
Hart, William H., Jr., Philadelphia, Pa. Folder or container for goods. No. 1,073,117; Sept. 16; Gaz. vol. 194; p. 566.
Hartbauer, August W. L., Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo. Deck-sash pivot and latch. No. 1,074,117; Sept. 30; Gaz. vol. 194; p. 963.
Hartig, William F., Evansville, Ind. Subsoil attachment for plows. No. 1,073,984; Sept. 23; Gaz. vol. 194; p. 890.
Hartley, Bernard M., assignor of one-half to W. F. Swift, West Haven, Conn. Fishing-float. No. 1,072,005; Sept. 2; Gaz. vol. 194; p. 116.
Hartman, William W., and H. S. Cahn, Los Angeles, Cal., assignors to said Cahn. Operating means for clutches. No. 1,072,116; Sept. 2; Gaz. vol. 194; p. 153.
Hartmann, Emil, assignor to Alma Manufacturing Company of Baltimore City, Baltimore, Md. Pivoted-tongue buckle. No. 1,072,717; Sept. 9; Gaz. vol. 194; p. 386.
Hartter, Walter, *et al.* (See Dirksen, Theodor L., assignor.)
Harvey, George L., Chicago, Ill. Friction-spring. No. 1,073,678; Sept. 23; Gaz. vol. 194; p. 785.
Harvey, Joseph C., Chicago, Ill., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Tally-roll attachment. No. 1,072,452; Sept. 9; Gaz. vol. 194; p. 295.
Haseltine, Stacy B., assignor to W. H. Miner, Chicago, Ill. Draft-yoke for railway-car draft-rigging. No. 1,073,222; Sept. 16; Gaz. vol. 194; p. 607.
Hastings, Ralph V., Chicago, Ill. Tire-protector. No. 1,073,118; Sept. 16; Gaz. vol. 194; p. 566.
Hatz, George J., assignor of one-half to C. E. Fuller, Omaha, Nebr. Water-gage. No. 1,072,608; Sept. 9; Gaz. vol. 194; p. 349.
Hatzfeld, Wilhelm. (See Glanschnig, Ignaz, assignor.)
Haug, Andrew. (See Babson and Haug.)
Haupt, Ernst, Perth Amboy, N. J. Washline-hanger. No. 1,074,321; Sept. 30; Gaz. vol. 194; p. 1030.
Hauptmann, Peter, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dye. No. 1,073,754; Sept. 23; Gaz. vol. 194; p. 812.

Häusermann, Jakob, Stetten, near Lörrach, Germany, assignor to Gebr. Stäuble, Horgen, Canton of Zurich, Switzerland. Ribbon-loom. No. 1,072,944; Sept. 9; Gaz. vol. 194; p. 470.
Hausner, William, and A. Schweigert, Cleveland, Ohio. Refrigerator. No. 1,072,453; Sept. 9; Gaz. vol. 194; p. 295.
Hausseman, Herman, North Chicago, Ill. Tool-holder. No. 1,073,679; Sept. 23; Gaz. vol. 194; p. 785.
Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to The Union Switch and Signal Company. Semaphore-signal. No. 1,073,680; Sept. 23; Gaz. vol. 194; p. 786.
Hawks, William, assignor of one-half to C. W. Andrews, Duluth, Minn. Water-heating apparatus. No. 1,072,609; Sept. 9; Gaz. vol. 194; p. 349.
Hawksley, Arthur F., Fairhaven, England. Wheel for motor-cars and other vehicles. No. 1,072,226; Sept. 2; Gaz. vol. 194; p. 189.
Hay, Christian E., Cataldo, Idaho. Bed. No. 1,072,610; Sept. 9; Gaz. vol. 194; p. 350.
Hayden, Arthur C., Brockton, Mass. Honer and stropper. No. 1,073,119; Sept. 16; Gaz. vol. 194; p. 566.
Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Electrochemical process. No. 1,072,945; Sept. 9; Gaz. vol. 194; p. 470.
Hayes, Forrest G., Sharon, Pa. Tree-sprayer. No. 1,073,852; Sept. 23; Gaz. vol. 194; p. 844.
Hayes, Willison H., Toledo, Ohio. Water-tight hatch for boats. No. 1,072,611; Sept. 9; Gaz. vol. 194; p. 350.
Hayman, Julius. (See Schneider and Hayman.)
Haynes, Daniel and R. H., Sealy, Tex. Bat-forming apparatus. No. 1,073,681; Sept. 23; Gaz. vol. 194; p. 786.
Haynes, Richard H. (See Haynes, Daniel and R. H.)
Hays, Franklin B. (See Dinkins and Hays.)
Healy, William D. (See Sprung, Edmund, assignor.)
Heaney, Bernard J. (See O'Reilly, John S., assignor.)
Heap, Benjamin, Clifton Junction, near Manchester, England, assignor to The Electric Storage Battery Company, Philadelphia, Pa. Treated wood for use in electric storage batteries. No. 1,073,417; Sept. 16; Gaz. vol. 194; p. 673.
Heaton Manufacturing Company. (See Owsley, Paul O., assignor.)
Hebden, Frank S., Peoria, Ill. Scale. No. 1,073,072; Sept. 9; Gaz. vol. 194; p. 515.
Hebig, Henry C., assignor, by mesne assignments, to C. D. Simons, Jr., and H. von L. Meyer, New York, N. Y. Tobacco-stemming machine. No. 1,073,853; Sept. 23; Gaz. vol. 194; p. 844.
Hedberg, Jakob A., Gottenborg, Sweden. Blind, roller-blind, and the like. No. 1,073,418; Sept. 16; Gaz. vol. 194; p. 673.
Hefter, Louis. (See Rous, Bernard, assignor.)
Heimbaugh, Arthur M., Kenmore, Ohio. Attachment for keys. No. 1,074,359; Sept. 30; Gaz. vol. 194; p. 1043.
Heindl, Richard, Vienna, Austria-Hungary. Hydraulic-power transformer. No. 1,072,718; Sept. 9; Gaz. vol. 194; p. 386.
Heinmiller, William, Chesley, Ontario, Canada. Suspenders. No. 1,073,604; Sept. 23; Gaz. vol. 194; p. 757.
Heissig, Paul von, assignor to F. Duncan, Vienna, Austria-Hungary. Station-indicator. No. 1,073,347; Sept. 16; Gaz. vol. 194; p. 649.
Heller, Charles S., Barberton, assignor to The Moore Architectural and Engineering Company, Akron, Ohio. Reclaiming vulcanized-rubber waste. (Reissue.) No. 13,613; Sept. 9; Gaz. vol. 194; p. 518.
Heller, William, Westphalia, Kans. Wheel-truing device. No. 1,073,042; Sept. 9; Gaz. vol. 194; p. 503.
Hellwig, John A., Albany, N. Y. Bill-fold. No. 1,073,120; Sept. 16; Gaz. vol. 194; p. 567.
Helmer, Robert, New York, N. Y. Filing device. No. 1,073,854; Sept. 23; Gaz. vol. 194; p. 845.
Helms, James T., Lockland, Ohio. Mechanical movement. No. 1,073,121; Sept. 16; Gaz. vol. 194; p. 567.
Helton, Guy B., Elmer, Mo. Mail catching and delivering device. No. 1,072,454; Sept. 9; Gaz. vol. 194; p. 296.
Henderson, Albert H., assignor to The Henderson Rubber Company, Baltimore, Md. Treating rawhide and the product resulting therefrom. No. 1,074,360; Sept. 30; Gaz. vol. 194; p. 1043.
Henderson, John H., East Oakland, Cal. Wave-motor. No. 1,072,682; Sept. 23; Gaz. vol. 194; p. 786.
Henderson, Julius, Jonesboro, Ark. Locomotive reversing-valve gear. No. 1,074,548; Sept. 30; Gaz. vol. 194; p. 1103.
Henderson Rubber Company, The. (See Henderson, Albert H., assignor.)
Henderson, Ulysses S., and A. F. Schramm, assignors to The E. M. Hulse Company, Columbus, Ohio. Sofa or davenport bed. No. 1,073,050; Sept. 23; Gaz. vol. 194; p. 911.
Hendricks, Thomas B., Twin Falls, Idaho. Grubber. No. 1,072,455; Sept. 9; Gaz. vol. 194; p. 296.
Hendryx, Wilbur A., New York, N. Y. Dewatering device or means for separating solids and liquids. No. 1,071,917; Sept. 2; Gaz. vol. 194; p. 85.
Henkel & Cie. (See Henkel and Weber, assignors.)
Henkel, Hugo, and W. Weber, assignors to Firm of Henkel & Cie., Dusseldorf, Germany. Electrolytic apparatus. No. 1,074,549; Sept. 30; Gaz. vol. 194; p. 1103.
Henn, Edwin C., Cleveland, Ohio. Spark-plug. No. 1,073,043; Sept. 9; Gaz. vol. 194; p. 503.
Henne, George C., New Columbia, Ill. Ironing-table. No. 1,073,122; Sept. 16; Gaz. vol. 194; p. 568.
Henry, Robert G., West Hartford, and W. J. Bayrer, assignors to The Henry & Wright Manufacturing Company, Hartford, Conn. Belt-shifter. No. 1,073,683; Sept. 23; Gaz. vol. 194; p. 787.
Henry, William C. A., Columbus, Ohio, assignor to The B. T. U. Company, Pittsburgh, Pa. Underfeed stoker. No. 1,074,118; Sept. 30; Gaz. vol. 194; p. 963.
Henry & Wright Manufacturing Company, The. (See Henry and Bayrer, assignors.)
Hense, Rudolf, Charlottenburg, Germany. Obtaining a charge liquid particularly adapted for explosion-motors from liquid hydrocarbons. No. 1,073,233; Sept. 16; Gaz. vol. 194; p. 607.
Hensley, Jesse F. (See Cline and Hensley.)
Herendeen, Charles, Chicago, Ill. Treating flour. No. 1,073,985; Sept. 23; Gaz. vol. 194; p. 890.
Herendeen, Charles, Chicago, Ill. Apparatus for treating flour. No. 1,073,986; Sept. 23; Gaz. vol. 194; p. 890.
Hermann, Emanuel, San Francisco, Cal. Universal joint. No. 1,072,612; Sept. 9; Gaz. vol. 194; p. 350.
Hermelin, Harris, New York, N. Y. Machine for sharpening safety-razor blades. No. 1,073,123; Sept. 16; Gaz. vol. 194; p. 568.
Hermsdorf, Max, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Wedge-block breech mechanism. No. 1,072,456; Sept. 9; Gaz. vol. 194; p. 296.
Herr, Herbert T., Pittsburgh, Pa., assignor to The Westinghouse Machine Company. Blade-mounting. No. 1,072,457; Sept. 9; Gaz. vol. 194; p. 297.
Herre, Alfred. (See Bauer, Herre, and Mayer.)
Herrick, James A., New York, N. Y. Gas-producer. No. 1,073,124; Sept. 16; Gaz. vol. 194; p. 568.
Herrmann, Oscar, New York, N. Y. Electric attachment for keyboards of autoplayers. No. 1,073,044; Sept. 9; Gaz. vol. 194; p. 504.
Herron, James J., Pittsburgh, Pa. Nut and bolt lock. No. 1,073,755; Sept. 23; Gaz. vol. 194; p. 813.
Hershberger, John H., Wilkes-Barre, Pa. Calk-fastener. No. 1,072,006; Sept. 2; Gaz. vol. 194; p. 116.
Herzfeldt, Walter, Weyauwega, Wis. Protecting-cover for funnels of war vessels. No. 1,072,117; Sept. 2; Gaz. vol. 194; p. 153.
Hess-Bright Manufacturing Company, The. (See Bright, Fred E., assignor.)
Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)
Hess, Edward B., assignor to Royal Typewriter Company, New York, N. Y. Escapement mechanism for typewriting machines. No. 1,072,118; Sept. 2; Gaz. vol. 194; p. 154.
Hess, Edward B., Brooklyn, assignor to Royal Typewriter Company, New York, N. Y. Type-writing machine. No. 1,074,093; Sept. 23; Gaz. vol. 194; p. 925.
Hess, Henry. (See Bauschlicher, August, assignor.)
Hess, Henry, Wawa, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Ball-holding cage for ball-bearings. No. 1,071,738; Sept. 2; Gaz. vol. 194; p. 24.
Hess, Henry, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Ball-bearing. No. 1,071,739; Sept. 2; Gaz. vol. 194; p. 24.
Hess, Johannes, assignor to Firm of Bosnische Electricitäts-Actiengesellschaft, Vienna, Austria-Hungary. Electric furnace. No. 1,073,684; Sept. 23; Gaz. vol. 194; p. 787.
Hesselman, Knut J. E., Stockholm, Sweden. Water-cooled internal-combustion engine. No. 1,072,946; Sept. 9; Gaz. vol. 194; p. 471.
Heulings, William H., Jr., assignor to The J. G. Brill Company, Philadelphia, Pa. Car-truck. No. 1,074,322; Sept. 30; Gaz. vol. 194; p. 1030.
Hewitt, Herbert H., Buffalo, N. Y. Car-axle journal-box. No. 1,072,719; Sept. 9; Gaz. vol. 194; p. 387.
Hewitt, Herbert H., Buffalo, N. Y. Car-axle box. No. 1,072,720; Sept. 9; Gaz. vol. 194; p. 387.
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,072,721; Sept. 9; Gaz. vol. 194; p. 387.
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,072,722; Sept. 9; Gaz. vol. 194; p. 388.
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,072,723; Sept. 9; Gaz. vol. 194; p. 388.
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,072,724; Sept. 9; Gaz. vol. 194; p. 388.
Hewitt, Herbert H., Buffalo, N. Y. Car-truck. No. 1,072,725; Sept. 9; Gaz. vol. 194; p. 389.
Hewitt, Herbert H., Buffalo, N. Y. Railway-car journal-box. No. 1,072,726; Sept. 9; Gaz. vol. 194; p. 389.
Hewitt, Herbert H., Buffalo, N. Y. Railway-car journal-box. No. 1,072,727; Sept. 9; Gaz. vol. 194; p. 390.
Hewlett, Edward M., Schenectady, N. Y., assignor to General Electric Company. Circuit-controlling contact. No. 1,074,481; Sept. 30; Gaz. vol. 194; p. 1067.
Hice, George S., New York, N. Y., and J. Barnes, Philadelphia, Pa. Settable-type device. No. 1,073,234; Sept. 16; Gaz. vol. 194; p. 608.
Hick, Harry J., assignor to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,072,007; Sept. 2; Gaz. vol. 194; p. 116.
Hicks, John F. (See Kovsky and Hicks.)
Hicks, Stanley, North Yakima, Wash. Current-motor. No. 1,071,918; Sept. 2; Gaz. vol. 194; p. 86.

Hiemenz, Wilhelm, and L. Taub, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical compound. No. 1,073,855; Sept. 23; Gaz. vol. 194; p. 845.

Hiett, De Kernia J. T., assignor to J. H. Coulter, Chicago, Ill. Ventilator. No. 1,073,125; Sept. 16; Gaz. vol. 194; p. 569.

Higgason, Wallace B., Zearing, Iowa. Operating-table for animals. No. 1,073,756; Sept. 23; Gaz. vol. 194; p. 813.

Hildreth, Carl C. (See Cook and Hildreth.)

Hiles, Pearl, and J. J. McNerney, St. Louis, Mo. Safety-pin. No. 1,071,919; Sept. 2; Gaz. vol. 194; p. 86.

Hill, Abner, Warminster, assignor to Trier and Martin Limited, London, England. Dynamo-electric machine. No. 1,071,020; Sept. 2; Gaz. vol. 194; p. 86.

Hill, Charles D., Rochester, assignor to Judd & Leland Mfg. Co., Clifton Springs, N. Y. Pump. No. 1,072,613; Sept. 9; Gaz. vol. 194; p. 351.

Hill, Charles W., Wellsville, Kans. Cultivator attachment. No. 1,072,119; Sept. 2; Gaz. vol. 194; p. 154.

Hill, Irving, Wallace, Cal. Resilient fruit-crate. No. 1,074,323; Sept. 30; Gaz. vol. 194; p. 1030.

Hill, James H., Fort Smith, Ark. Tuft-cleaning brush. No. 1,072,458; Sept. 9; Gaz. vol. 194; p. 297.

Hill, Russell A., St. Thomas, Ontario, Canada. Copy-holder. No. 1,074,430; Sept. 30; Gaz. vol. 194; p. 1066.

Hillebrand, Hermann, Jr., Werdohl, Germany. Annealing apparatus. No. 1,073,235; Sept. 16; Gaz. vol. 194; p. 608.

Hiller, Nicolai H., Carbondale, Pa. Method of evaporation and apparatus therefor. No. 1,071,740; Sept. 2; Gaz. vol. 194; p. 24.

Hilpert, George, Morgantown, W. Va. Sash-lock. No. 1,073,486; Sept. 16; Gaz. vol. 194; p. 606.

Hilton, Roland C., assignor to National Coupling Manufacturing Company, Boston, Mass. Hose-coupling. No. 1,071,921; Sept. 2; Gaz. vol. 194; p. 87.

Hinde & Dauch Paper Company, The. (See Morton, Lawrence D., assignor.)

Hinds, James J., and M. R. Wright, Wall Lake, Iowa. Holder for disks and colters for use when they are being sharpened. No. 1,073,487; Sept. 16; Gaz. vol. 194; p. 606.

Hines, Edwin G., Druma, Pa. Dish-drainer. No. 1,074,173; Sept. 30; Gaz. vol. 194; p. 981.

Hinson, George E., Atlanta, Ga. Tire-armor. No. 1,071,741; Sept. 2; Gaz. vol. 194; p. 25.

Hitchcock, Minor L., Los Angeles, Cal. Baking device. No. 1,073,126; Sept. 16; Gaz. vol. 194; p. 569.

Hjorth, Oscar B., Sandwich, Ill. Substation selective apparatus. No. 1,072,459; Sept. 9; Gaz. vol. 194; p. 297.

Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Mushroom-bullet. No. 1,071,742; Sept. 2; Gaz. vol. 194; p. 25.

Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Tubular carrier. No. 1,073,348; Sept. 16; Gaz. vol. 194; p. 649.

Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Mushroom-bullet. No. 1,073,349; Sept. 16; Gaz. vol. 194; p. 650.

Hoch, Franz, Frankfort-on-the-Main, Germany. Rail-joint. (Reissue.) No. 13,616; Sept. 16; Gaz. vol. 194; p. 729.

Hocher, John O., Clinton, Wis. Cream-cooler. No. 1,074,361; Sept. 30; Gaz. vol. 194; p. 1043.

Hodge, Howard D., Waltham Abbey, England, assignor to Nobel's Explosives Company, Limited, Glasgow, Scotland. Cartridge-making machine. No. 1,073,127; Sept. 16; Gaz. vol. 194; p. 570.

Hodges, William H., assignor, by mesne assignments, to Thomson Electric Welding Company, Lynn, Mass. Electrically welding chain-links. No. 1,072,614; Sept. 9; Gaz. vol. 194; p. 351.

Hodgkinson, Francis, Edgewood Park, Pa., assignor to The Westinghouse Machine Company. Blade-securing means. No. 1,073,987; Sept. 23; Gaz. vol. 194; p. 891.

Hoerl, Conrad, Newark, N. J. Friction-clutch. No. 1,073,685; Sept. 23; Gaz. vol. 194; p. 787.

Hoffer, John, Fairmont, W. Va. Safety-stop for elevators. No. 1,072,008; Sept. 2; Gaz. vol. 194; p. 117.

Hofman, Morris J., Chicago, Ill. Garment-staying device. No. 1,071,743; Sept. 2; Gaz. vol. 194; p. 25.

Hoffmann, Louis J. (See Hughes and Hoffmann.)

Hoffmann, William F., assignor to American Electrical Heater Company, Detroit, Mich. Plug-socket electrical connector. No. 1,072,469; Sept. 9; Gaz. vol. 194; p. 298.

Hofmann, Fritz, C. Coutelle, K. Meisenburg, and K. Delbrück, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Caoutchouc substance. No. 1,074,432; Sept. 30; Gaz. vol. 194; p. 1067.

Hofmayr, John, Buffalo, N. Y. Extension-table. No. 1,073,128; Sept. 16; Gaz. vol. 194; p. 570.

Hogan, Harry C. (See Thelen, Jacob J., assignor.)

Hogan, John C., Goodwin, Nebr. Double-door-locking device. No. 1,073,488; Sept. 16; Gaz. vol. 194; p. 607.

Hohenstien, Fritz K., and C. G. Meyers, Richmond, Ind. Air-pump. No. 1,074,051; Sept. 23; Gaz. vol. 194; p. 911.

Hohmann, Richard K., San Diego, Cal. Take-up for sewing-machines. No. 1,073,489; Sept. 16; Gaz. vol. 194; p. 607.

Hoke, John L., Frankfort, Ind. Two-wheel tractor. No. 1,073,490; Sept. 16; Gaz. vol. 194; p. 607.

Holdich Manufacturing Company, The. (See Goppelt, Frederick A., Jr., assignor.)

Holdsworth, Fred D., assignor to Sullivan Machinery Company, Claremont, N. H. Heating device. No. 1,072,728; Sept. 9; Gaz. vol. 194; p. 390.

Holland, Henry W., and W. Mansfield, London, England, assignors to Holland and Holland, Limited. Sight for small-arms. No. 1,073,491; Sept. 16; Gaz. vol. 194; p. 608.

Holland and Holland. (See Holland and Mansfield, assignors.)

Holland, Newman H., assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Antivibration device for centrifugal governors. No. 1,071,744; Sept. 2; Gaz. vol. 194; p. 26.

Hollands, John C., assignor to The Griswold Manufacturing Company, Erie, Pa. Tea-kettle. No. 1,072,461; Sept. 9; Gaz. vol. 194; p. 298.

Holliday, Jaquella S., Indianapolis, Ind. Horseshoe-calk. No. 1,073,236; Sept. 16; Gaz. vol. 194; p. 609.

Hollinshead, Forman P., *et al.* (See Snyder, William H., assignor.)

Holmberg, Alfred E., Maple Lake, Minn. Toy. (Reissue.) No. 13,611; Sept. 2; Gaz. vol. 194; p. 253.

Holmes, Frank J., assignor to Vulcan Electric Heating Company, Chicago, Ill. Electric heater. No. 1,072,227; Sept. 2; Gaz. vol. 194; p. 189.

Holsclaw, Thomas C., Horseshoe, assignor of one-half to O. W. Clayton and one-half to W. H. Faulkner, Bevard, N. C. Roofing-tool. No. 1,073,580; Sept. 16; Gaz. vol. 194; p. 727.

Holst, Lodewyk J. R., Landsdowne, Pa. Intermittent-gear mechanism. No. 1,074,362; Sept. 30; Gaz. vol. 194; p. 1043.

Holtzman, John, assignor of one-half to J. Lisken, New York, N. Y. Gas-burner valve and lighter. No. 1,072,615; Sept. 9; Gaz. vol. 194; p. 352.

Holtzman, John, Baltimore, Md. Sewing-machine hemmer. No. 1,073,757; Sept. 23; Gaz. vol. 194; p. 813.

Holz, Mattie D., executrix. (See Robinson and Holz.)

Holz, Otto. (See Robinson and Holz.)

Holzapfel, Louis J., Nashville, Tenn. Water connection. No. 1,074,174; Sept. 30; Gaz. vol. 194; p. 981.

Holzer, Hiram A., Pittsburg, Kans., assignor to United Iron Works Company, Springfield, Mo. Mine-car wheel. No. 1,074,363; Sept. 30; Gaz. vol. 194; p. 1044.

Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Armature for magneto-induction machines. No. 1,072,120; Sept. 2; Gaz. vol. 194; p. 154.

Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Armature for magneto-induction machines. No. 1,072,228; Sept. 2; Gaz. vol. 194; p. 189.

Hood, W. A. (See Horstmann, Frederick, assignor.)

Hook, Carnealus, Vigo, Ohio. Kiln. No. 1,073,045; Sept. 9; Gaz. vol. 194; p. 504.

Hooley, John W., New York, N. Y. Fuse. No. 1,074,434; Sept. 30; Gaz. vol. 194; p. 1068.

Hoose, Herbert H., Port Chester, N. Y. Molding-machine. No. 1,072,229; Sept. 2; Gaz. vol. 194; p. 190.

Hoover, Herbert W., Bayonne, N. J. Steam-boiler gage-cock. No. 1,072,850; Sept. 9; Gaz. vol. 194; p. 434.

Hoover Suction Sweeper Company, The. (See Spangler, James M., assignor.)

Hope, William H., Newark, N. J. Outlet-box. No. 1,072,462; Sept. 9; Gaz. vol. 194; p. 299.

Hopkins, Edward J., deceased, Saginaw, Mich.; J. E. Hopkins, executrix. Beet-rootlet catcher. No. 1,073,758; Sept. 23; Gaz. vol. 194; p. 814.

Hopkins, Frank H. (See Dorey, George B., assignor.)

Hopkins, James M., Chicago, Ill. Sliding-door fastener. No. 1,071,745; Sept. 2; Gaz. vol. 194; p. 26.

Hopkins, Jane E., executrix. (See Hopkins, Edward J.)

Hopkins, William H., and W. R. Wilson, Oakland, Cal. Floor-mat. No. 1,072,729; Sept. 9; Gaz. vol. 194; p. 391.

Horn, Aaron C., New York, N. Y. Transparent waterproofing. No. 1,073,129; Sept. 16; Gaz. vol. 194; p. 571.

Horn, Aaron C., New York, N. Y. Plastic waterproof troweling compound. No. 1,074,364; Sept. 30; Gaz. vol. 194; p. 1044.

Horn, Bernard. (See Horn, Herman, B., and P.)

Horn, Herman, B., and P., Washita county, Okla. Valve-grinding tool. No. 1,073,686; Sept. 23; Gaz. vol. 194; p. 788.

Horn, Peter. (See Horn, Herman, B., and P.)

Hornbostel, Adolph H. C., and J. H. Croswhite, Waverly, Mo. Computing device. No. 1,074,433; Sept. 30; Gaz. vol. 194; p. 1067.

Horne, James. (See Dawson and Horne.)

Horstmann, Frederick, assignor of one-fourth to W. A. Hood, Ashland, Ky. Grain scourer or cleaner. No. 1,074,052; Sept. 23; Gaz. vol. 194; p. 911.

Hoskins, Eugene T. (See Burpee, John H., assignor.)

Hotaling, Omar J., Carlstadt, N. J. Vending-machine. No. 1,072,947; Sept. 9; Gaz. vol. 194; p. 471.

Hougas, Willie E., and F. W. Rauch, Lamont, Iowa. Wire-splicer. No. 1,072,332; Sept. 2; Gaz. vol. 194; p. 223.

Hough, Walter A., Lyons, N. Y. Railway road-bed. No. 1,073,046; Sept. 9; Gaz. vol. 194; p. 505.

House, Lauzerne W., Gloversville, N. Y. Lap-robe for automobiles, &c. No. 1,073,237; Sept. 16; Gaz. vol. 194; p. 609.

Houser, Daniel R., assignor to J. Rose, Lancaster, Pa. Fabric for umbrella-covers. No. 1,074,053; Sept. 23; Gaz. vol. 194; p. 912.

Housewelter, Joseph. (See Andres, Charles M., assignor.)

Houston, Percival T. (See Alston and Houston.)

Hovland, Abraham N., Melsomvik, near Stakke, Norway. Signal system. No. 1,073,130; Sept. 16; Gaz. vol. 194; p. 571.

Howard, Edward D., Buffalo, N. Y. Addressing-machine. No. 1,072,463; Sept. 9; Gaz. vol. 194; p. 299.

Howard, Francis H., Houston, Tex. Concrete construction. No. 1,072,230; Sept. 2; Gaz. vol. 194; p. 190.

Howard, Thomas J., Gilman, Ill. Barber's chair. No. 1,073,419; Sept. 16; Gaz. vol. 194; p. 673.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Signal mechanism. No. 1,071,922; Sept. 2; Gaz. vol. 194; p. 87.

Howe, Winthrop K., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Locking mechanism. No. 1,074,175; Sept. 30; Gaz. vol. 194; p. 981.

Howell, Henry G., Anderson, S. C. Oven. No. 1,072,231; Sept. 2; Gaz. vol. 194; p. 190.

Howland Bag and Paper Company. (See Smith, Charles F., assignor.)

Hoyle, James R., and A. W. Brearley, assignors to Thomas Firth and Sons Limited, Sheffield, England. Casting ingots. No. 1,073,988; Sept. 23; Gaz. vol. 194; p. 891.

Huber, John A., Lancaster, Pa. Adjustable pivot-bearing. No. 1,071,746; Sept. 2; Gaz. vol. 194; p. 26.

Hubermann, Max L., Los Angeles, Cal. Electric switch. No. 1,073,047; Sept. 9; Gaz. vol. 194; p. 505.

Huck, Walter E., Roscoe, S. D. Plow. No. 1,073,759; Sept. 23; Gaz. vol. 194; p. 814.

Huff, Russell, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,072,851; Sept. 9; Gaz. vol. 194; p. 435.

Huff, Russell, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,073,073; Sept. 9; Gaz. vol. 194; p. 515.

Huffman, Dur A. (See Huffman, Silas S. and D. A.)

Huffman, Silas S. and D. A., Youngstown, Ohio. Tire-protector. No. 1,072,464; Sept. 9; Gaz. vol. 194; p. 300.

Huggins, James A., Red Springs, N. C. Subsoil-plow. No. 1,074,176; Sept. 30; Gaz. vol. 194; p. 982.

Hughes, Albert R., Thomas, Okla. Pruning-shears. No. 1,072,232; Sept. 2; Gaz. vol. 194; p. 191.

Hughes, Roy Y., Aberdeen, S. D., and L. J. Hoffmann, Buffalo, Minn. Door-fastener. No. 1,074,261; Sept. 30; Gaz. vol. 194; p. 1010.

Hughs, Thomas M., San Jose, Cal. Railway-crossing. No. 1,073,760; Sept. 23; Gaz. vol. 194; p. 815.

Huhn, John H., Fairmont, W. Va., assignor to Covington Machine Company. Coal-leveling machine for beehive-ovens. No. 1,074,119; Sept. 30; Gaz. vol. 194; p. 963.

Hulet, C. B., *et al.* (See Sheppard, John L., assignor.)

Hultgren, William. (See Grive, Charles K., assignor.)

Hultman, Gustaf H., Stockholm, Sweden. Removing impurities from coal-gas. No. 1,073,605; Sept. 23; Gaz. vol. 194; p. 758.

Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Pen and pencil holder. No. 1,072,730; Sept. 9; Gaz. vol. 194; p. 391.

Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Cutting device. No. 1,073,581; Sept. 16; Gaz. vol. 194; p. 728.

Humphrey Gas Pump Company. (See Humphrey, Herbert A., assignor.)

Humphrey, Herbert A., London, England, assignor to Humphrey Gas Pump Company. Raising or forcing liquids. No. 1,072,852; Sept. 9; Gaz. vol. 194; p. 435.

Humphrey, William G., Toronto, Ontario, Canada. Tray-slide attachment for printing-presses. No. 1,073,131; Sept. 16; Gaz. vol. 194; p. 571.

Humphreys, Edmund, Salisbury, Md. Harness-buckle. No. 1,074,570; Sept. 30; Gaz. vol. 194; p. 1111.

Humphreys, Ira B., Denver, Colo. Rotary pump. No. 1,073,048; Sept. 9; Gaz. vol. 194; p. 506.

Hunt, Clinton H. (See Rust and Hunt.)

Hunter, James S., Somerville, Mass. Type-writer desk. No. 1,072,121; Sept. 2; Gaz. vol. 194; p. 154.

Huntoon, Charles, W. C. Rolfes, and W. L. Wright, Los Angeles, Cal. Film-tensioning device for moving-picture machines. No. 1,074,177; Sept. 30; Gaz. vol. 194; p. 982.

Hupp Motor Car Company. (See Nelson, Emil A., assignor.)

Hurd, Hubbard F., assignor, by mesne assignments, to Cluett, Peabody & Co., Inc., Troy, N. Y. Soft fold-collar. No. 1,073,132; Sept. 16; Gaz. vol. 194; p. 572.

Hurford, Bella C., Cleveland, Ohio. Window-screen. No. 1,073,492; Sept. 16; Gaz. vol. 194; p. 608.

Hussey, Harry W. (See Levick, Alban O., assignor.)

Huston, George M., New York, N. Y. Door-securer. No. 1,073,288; Sept. 16; Gaz. vol. 194; p. 609.

Huston, George M., New York, N. Y. Vehicle spring-equalizer. No. 1,073,804; Sept. 23; Gaz. vol. 194; p. 828.

Huston, Lewis A., New York, N. Y. Vehicle-spring. No. 1,074,178; Sept. 30; Gaz. vol. 194; p. 983.

Hutchinson, Job, New York, N. Y., assignor to National Indicator Company. Beater for mayonnaise dressing and the like. No. 1,071,747; Sept. 2; Gaz. vol. 194; p. 26.

Hutchinson, William J., Toronto, Ontario, Canada. Appliance for adjusting the folding tops of vehicles. No. 1,073,900; Sept. 23; Gaz. vol. 194; p. 861.

Hüther, Christoph P., Jr., Eschwege, Germany. Turning-lathe. No. 1,073,901; Sept. 23; Gaz. vol. 194; p. 861.

Hutton, Samuel T., assignor to Scheidel Western X-Ray Coil Co., Chicago, Ill. Compression-table and system of operation for the same. No. 1,074,120; Sept. 30; Gaz. vol. 194; p. 964.

Hyslop, John, Abington, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Nail-making machine. No. 1,072,465; Sept. 9; Gaz. vol. 194; p. 300.

Iitsuka, Bunpachi, Escondido, Cal. Butter-slicing device. No. 1,073,761; Sept. 23; Gaz. vol. 194; p. 815.

Imle, Emil, Dresden, Germany. Steam-turbine blade. No. 1,072,228; Sept. 2; Gaz. vol. 194; p. 191.

Immerheiser, Carl. (See Blangey and Immerheiser.)

Immerheiser, Carl. (See Julius and Immerheiser.)

Imray, Oliver. (See Finlay, Forest, assignor.)

Ingersoll-Rand Company. (See Hansen, Charles C., assignor.)

Ingison, Jay W., Kenmare, N. D. Current-motor. No. 1,071,748; Sept. 2; Gaz. vol. 194; p. 27.

International Accessories Manufacturing Company. (See Smith, Elmer S., assignor.)

International Tunnel Machine Company, The. (See Speer, George P., assignor.)

International Window Manufacturing Company. (See McLaughlin, Frank, assignor.)

Invincible Grain Cleaner Company. (See Keith, Elgin, assignor.)

Ion, John W. (See Grundstrom, Gustave E., assignor.)

Irish, William M. (See Van Dyke and Irish.)

Irwin, John T., South Kensington, London, England. Electric oscillograph. No. 1,074,262; Sept. 30; Gaz. vol. 194; p. 1010.

Irwin, Richard, Farmington, Mo. Radiator-truck. No. 1,072,234; Sept. 2; Gaz. vol. 194; p. 191.

Isbutsky, Hyman, *et al.* (See Wilcovitz, Charles, assignor.)

Isbutsky, Michael, *et al.* (See Wilcovitz, Charles, assignor.)

Isenberg, Herbert G., assignor to The Lorain Steel Company, Johnstown, Pa. Switch-tongue fastening. No. 1,074,365; Sept. 30; Gaz. vol. 194; p. 1044.

Isidor, Carlo, Rome, Italy. Vehicle with cellular partitions, boxes, or drawers which are let separately for the conveyance of goods. No. 1,072,948; Sept. 9; Gaz. vol. 194; p. 471.

Issler, Gotthold, Wahn, Germany, assignor to E. I. du Pont de Nemours Powder Company, Wilmington, Del. Densifying fusible explosive nitro bodies. No. 1,074,268; Sept. 30; Gaz. vol. 194; p. 1011.

Ithaca Gun Company, The. (See Flues, Emil, assignor.)

Izard, Henry, Portland, Oreg. Liquid-fuel burner. No. 1,074,435; Sept. 30; Gaz. vol. 194; p. 1068.

Izod, Herbert W., Upper Norwood, England. Apparatus for oxygenating air. No. 1,074,550; Sept. 30; Gaz. vol. 194; p. 1103.

J. A. Fay & Egan Company. (See Solem, Peter A., assignor.)

J. G. Brill Company, The. (See Brooks, James A., assignor.)

J. G. Brill Company, The. (See Heulings, William H., Jr., assignor.)

J. Geo. Leyner Engineering Works, The. (See Leyner, John G., assignor.) (Reissue.)

J. L. Owens Manufacturing Company. (See Owens, Richard L., assignor.)

J. N. Lapointe Co., The. (See Lapointe, Francis J., assignor.)

Jaccard, Gustave J., New York, N. Y. Alarm-clock. No. 1,074,436; Sept. 30; Gaz. vol. 194; p. 1069.

Jackson, Alexander M., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,074,179; Sept. 30; Gaz. vol. 194; p. 983.

Jackson, Byron D., assignor to Modern Tool Company, Erie, Pa. Driving device. No. 1,072,616; Sept. 9; Gaz. vol. 194; p. 352.

Jackson, Isaac, Glossop, England. Belt-fastener. No. 1,073,493; Sept. 16; Gaz. vol. 194; p. 698.

Jackson, Isaac, Glossop, England. Belt-fastener. No. 1,073,494; Sept. 16; Gaz. vol. 194; p. 698.

Jackson, John W., Denver, Colo. Flash-light apparatus. No. 1,072,853; Sept. 9; Gaz. vol. 194; p. 435.

Jackson, Salo J., New York, N. Y., assignor to C. V. Watskey, Richmond, Va. Lady's apparel. No. 1,072,466; Sept. 9; Gaz. vol. 194; p. 300.

Jackson, Thomas, London, assignor to himself, and A. Ramsay, Chesham, England. Mechanism for producing gas-lighted flash-signs. No. 1,073,420; Sept. 16; Gaz. vol. 194; p. 674.

Jacob, Ernst. (See Clutsam, Frederick, assignor.)

Jacobs, Lesser. (See Baker and Jacobs.)

Jacobs, Morris, Sacramento, Cal. Shaving-brush. No. 1,074,324; Sept. 30; Gaz. vol. 194; p. 1031.

Jacobsen, Johannes, Friedenau, near Berlin, Germany. Hydraulic press for continuously-fed pasty or loose material. No. 1,073,856; Sept. 23; Gaz. vol. 194; p. 845.

Jacobson, Charl. (See Lease, Charles E., assignor.)

Jacobson, Peter G., Chicago, Ill. Strainer. No. 1,073,081; Sept. 9; Gaz. vol. 194; p. 518.
Jaeger, Max, assignor to Jaeger Rotary Valve Motor Co., Mount Vernon, N. Y. Rotary valve. No. 1,072,949; Sept. 9; Gaz. vol. 194; p. 471.
Jaeger Rotary Valve Motor Co. (See Jaeger, Max, assignor.)
James, Owen, Fall River, Mass. Syringe. No. 1,072,467; Sept. 9; Gaz. vol. 194; p. 301.
James, Roswell G., Louisville, Ky., assignor to United States Cast Iron Pipe and Foundry Company, Burlington, N. J. Pattern for ramming pipe-molds. No. 1,072,235; Sept. 2; Gaz. vol. 194; p. 191.
Jeanmaire, Paul, Koilnau, Germany. Means for removing yarn residues from bobbins, spools, and the like. No. 1,072,468; Sept. 9; Gaz. vol. 194; p. 301.
Jeavons, William R., Cleveland, Ohio. Hydrocarbon-igniter. No. 1,071,749; Sept. 2; Gaz. vol. 194; p. 27.
Jebsen, Gustav, and C. Finckenbagen, Christiania, Norway. Separating solid substances from solutions by evaporation. No. 1,074,264; Sept. 30; Gaz. vol. 194; p. 1011.
Jeffcott, Lewis B., New York, N. Y. Convertible davenport and bed. No. 1,072,950; Sept. 9; Gaz. vol. 194; p. 472.
Jeffrey Manufacturing Company, The. (See Merrill, Edwin R., assignor.)
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jenkins, Samuel M., assignor of one-sixth to C. C. Tennis, one-sixth to E. C. Rietman, Louisville, Ky., and one-sixth to M. F. Tennis, Pittsburgh, Pa. Lubrication. No. 1,073,606; Sept. 23; Gaz. vol. 194; p. 758.
Jennings, Nancy C., Appomattox, Va. Beater and mixer. No. 1,073,133; Sept. 16; Gaz. vol. 194; p. 572.
Jensen, Aage, Oakland, Cal. Regenerator. No. 1,073,989; Sept. 23; Gaz. vol. 194; p. 891.
Jensen, Irving, West Branch, Iowa. Water-heater. No. 1,073,687; Sept. 23; Gaz. vol. 194; p. 788.
Jensen, John F., assignor to R. Jensen, Union Hill, N. J. Non-refillable bottle. No. 1,073,230; Sept. 16; Gaz. vol. 194; p. 609.
Jensen, Peter, assignor of one-third to L. Goldberger and one-third to J. Kudrik, Perth Amboy, N. J. Electrode-supporting rod for electrolytic tanks. No. 1,074,088; Sept. 23; Gaz. vol. 194; p. 925.
Jensen, Robert. (See Jensen, John F., assignor.)
Jepson, John, *et al.*, trustees. (See Andrews, Edwin W., assignor.)
Jesse French & Sons Piano Company. (See French, Horace E., assignor.)
Jester, Marvin H., Denver, Colo., assignor to The M. H. Jester Investment Company. Wall construction. No. 1,073,134; Sept. 16; Gaz. vol. 194; p. 572.
Johansen, Mikkel, Maplewood, Mo. Lawn-mower sharpener. No. 1,074,180; Sept. 30; Gaz. vol. 194; p. 983.
Johanson, Claes G., Dorchester, Mass., assignor to J. W. Gooding, Providence, R. I. Vehicle-Wheel. No. 1,073,049; Sept. 9. Gaz. vol. 194; p. 506.
John Dietz Manufacturing Company, The. (See Dietz, John, assignor.)
John F. McCanna Company, The. (See McCanna, John F., assignor.)
Johnson, Axel, Oakland, Cal., assignor to American Can Company, Can-head-feed mechanism. No. 1,074,325; Sept. 30; Gaz. vol. 194; p. 1031.
Johnson, Eldridge R., Merion Station, Pa., and J. C. English, Camden, N. J., assignors to Victor Talking Machine Company. Talking-machine. No. 1,072,854; Sept. 9; Gaz. vol. 194; p. 436.
Johnson, Francis T., Chicago, Ill. Wringer attachment. No. 1,071,923; Sept. 2; Gaz. vol. 194; p. 88.
Johnson, Frank A., Dunellen, N. J., assignor to Signature Company, New York, N. Y. Pen-clamp for multiple-writing machines. No. 1,073,240; Sept. 16; Gaz. vol. 194; p. 609.
Johnson, Frank O., *et al.* (See Nordlund, Oscar A., assignor.)
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,073,241; Sept. 16; Gaz. vol. 194; p. 610.
Johnson, George A., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,073,242; Sept. 16; Gaz. vol. 194; p. 610.
Johnson, Ira A., Glendale, Tex. Sleeping-shirt. No. 1,072,469; Sept. 9; Gaz. vol. 194; p. 301.
Johnson, Israel J., Redding, Cal. Rotary pump. No. 1,074,326; Sept. 30; Gaz. vol. 194; p. 1031.
Johnson, John W. (See Hamilton and Johnson.)
Johnson, Lincoln, Marble, Colo. Rail-tie. No. 1,072,236; Sept. 2; Gaz. vol. 194; p. 192.
Johnson, Marquis L., Mankato, Minn. Apparatus for the salvage of vessels. No. 1,073,990; Sept. 23; Gaz. vol. 194; p. 892.
Johnson, Percy L., and F. J. S. Kilgour, Hereford, England. Transmission-gearing. No. 1,072,237; Sept. 2; Gaz. vol. 194; p. 192.
Johnson, Robert J., assignor to Sheridan Iron Works, Sheridan, Wyo. Flume. No. 1,073,857; Sept. 23; Gaz. vol. 194; p. 847.
Johnson, Theodore L., Emmetsburg, Iowa. Gate latch and lock. No. 1,074,181; Sept. 30; Gaz. vol. 194; p. 984.
Johnson, Tom E., Northwood, Iowa. Device for automatically stopping gasolene-engines. No. 1,074,327; Sept. 30; Gaz. vol. 194; p. 1032.
Johnson, William M., assignor of one-half to J. W. Altman, Birmingham, Ala. Clothes-hanger rack. No. 1,073,495; Sept. 16; Gaz. vol. 194; p. 698.
Johnston, David S., Knoxville, Tenn. Fire-hose nozzle. No. 1,072,951; Sept. 9; Gaz. vol. 194; p. 472.
Johnston, Herbert L., Troy, Ohio. Coffee-pot. No. 1,073,688; Sept. 23; Gaz. vol. 194; p. 789.
Johnston, James C. (See Reap and Johnston.)
Johnston, John. (See Potter and Johnston.)
Johnston, Joseph E., Ardmore, Pa. Liquid-level indicator. No. 1,072,122; Sept. 2; Gaz. vol. 194; p. 155.
Jolles, Adolf, Vienna, Austria-Hungary. Manufacture of a salutary drink from dairy residues. No. 1,073,135; Sept. 16; Gaz. vol. 194; p. 572.
Jolly, Benjamin R., Raleigh, N. C. Specific-gravity balance. No. 1,072,952; Sept. 9; Gaz. vol. 194; p. 473.
Jones, Adrian D., Holloway, London, England. Means for transmitting rotary motion. No. 1,071,924; Sept. 2; Gaz. vol. 194; p. 88.
Jones, Edwin C., assignor of one-half to J. Pearson, Toronto, Ontario, Canada. Igniter. No. 1,074,265; Sept. 30; Gaz. vol. 194; p. 1011.
Jones, Edwin C., assignor of one-half to J. Pearson, Toronto, Ontario, Canada. Air and gas mixer. No. 1,074,266; Sept. 30; Gaz. vol. 194; p. 1011.
Jones, Eugene F., assignor of one-half to F. A. Spence, Richmond, Va. Cover-fastener. No. 1,073,136; Sept. 16; Gaz. vol. 194; p. 573.
Jones, Eugene F., assignor of one-half to F. A. Spence, Richmond, Va. Knockdown box. No. 1,073,137; Sept. 16; Gaz. vol. 194; p. 573.
Jones, Frank H., assignor of one-half to F. L. Jones, Baltimore, Md. Adjustable crutch. No. 1,073,991; Sept. 23; Gaz. vol. 194; p. 892.
Jones, Frank L. (See Jones, Frank H., assignor.)
Jones, Frank T., assignor to The Jones Safety Train Control System Company, Baltimore, Md. Electric train-controlled system for railways. No. 1,072,383; Sept. 2; Gaz. vol. 194; p. 241.
Jones, Harry, Suffern, N. Y., assignor to American Brake Shoe & Foundry Company, Mahwah, N. J. Composition-filled brake-shoe. No. 1,074,366; Sept. 30; Gaz. vol. 194; p. 1045.
Jones, Jacob M. (See Lipscomb, Sylvester G., assignor.)
Jones, John A., Hillsdale, N. Y. Fastener for bottles, jars, and other vessels. No. 1,074,437; Sept. 30; Gaz. vol. 194; p. 1069.
Jones, Joshua J., Pittsburgh, Pa., assignor, by mesne assignments, to Union Draft Gear Company. Draw-gear and buffing apparatus. No. 1,072,470; Sept. 9; Gaz. vol. 194; p. 301.
Jones Safety Train Control System Company, The. (See Jones, Frank T., assignor.)
Jones, William H., Chicago, Ill. Brake apparatus. No. 1,072,123; Sept. 2; Gaz. vol. 194; p. 155.
Jones, William J., Minneapolis, Minn. Curtain and shade support. No. 1,073,074; Sept. 9; Gaz. vol. 194; p. 516.
Jones, William T., assignor to Edmunds & Jones Mfg. Co., Detroit, Mich. Oil-burner fastener and splash-preventer. No. 1,073,089; Sept. 23; Gaz. vol. 194; p. 789.
Jones, Wilson P., Birmingham, Ala. Combination display-stand and counter. No. 1,073,138; Sept. 16; Gaz. vol. 194; p. 573.
Joplin Novelty Manufacturing Company. (See Moon and Odell, assignors.)
Jordan, Perry R., and W. Wright, Adamsville, Ala. Coke-loader. No. 1,072,731; Sept. 9; Gaz. vol. 194; p. 391.
Jorgenson, Nels P., Waterloo, assignor of one-half to J. Goulette, Mason City, Iowa. Conveyer. No. 1,074,182; Sept. 30; Gaz. vol. 194; p. 984.
Joseph Reid Gas Engine Company. (See Platt, Wilber O., assignor.)
Josse, Emil, Charlottenburg, Germany. Turbine. No. 1,072,953; Sept. 9; Gaz. vol. 194; p. 473.
Josse, Emil, Berlin, and P. Christlein, Charlottenburg, Germany. Elastic-fluid turbine. No. 1,073,421; Sept. 16; Gaz. vol. 194; p. 674.
Jubien, Pierre, San Francisco, assignor of one-half to P. A. Erangier, Agnew, Cal. Ore and like separating means. No. 1,072,732; Sept. 9; Gaz. vol. 194; p. 391.
Judd & Leland Mfg. Co. (See Hill, Charles D., assignor.)
Judelson, Louis, New York, N. Y. Laundry machinery. No. 1,072,617; Sept. 9; Gaz. vol. 194; p. 352.
Julius, Paul, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,073,902; Sept. 23; Gaz. vol. 194; p. 862.
Julius, Paul, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,073,903; Sept. 23; Gaz. vol. 194; p. 862.
Julius, Paul, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,073,904; Sept. 23; Gaz. vol. 194; p. 862.
Julius, Paul, and C. Immerheiser, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,073,905; Sept. 23; Gaz. vol. 194; p. 862.
Junn, Frank B., Sharon, Pa. Game apparatus. No. 1,072,954; Sept. 9; Gaz. vol. 194; p. 474.
Kade, Bertha, administratrix. (See Kade, Otto C.)
Kade, Otto C., deceased, Chicago, Ill.; B. Kade, administratrix, assignor to herself. Refreshment-table. No. 1,073,762; Sept. 23; Gaz. vol. 194; p. 815.

Kadel, Byers W., Roanoke, Va. Door-operating mechanism for dump-cars. No. 1,071,750; Sept. 2; Gaz. vol. 194; p. 28.
Kahn, Julius, Detroit, Mich. Floor construction. No. 1,073,906; Sept. 23; Gaz. vol. 194; p. 862.
Kaiser, Oliver B., Ramona, assignor of one-third to W. S. Ludlow and one-third to W. S. Ludlow, Jr., Cincinnati, Ohio. Alarm system. No. 1,073,582; Sept. 16; Gaz. vol. 194; p. 728.
Kale, Joseph J. (See Miller, Kale, and Robinson.)
Kalitzky, Wilhelmine, Hamburg, Germany. Collapsible clothes-horse. No. 1,073,763; Sept. 23; Gaz. vol. 194; p. 815.
Kaltenbach, Ernest J. (See Kaltenbach, Robert W., assignor.)
Kaltenbach, Robert W., Cleveland, Ohio, assignor of one-half to E. J. Kaltenbach, Brooklyn, N. Y. Carbureter. No. 1,072,733; Sept. 9; Gaz. vol. 194; p. 392.
Kampschmidt, S. L., *et al.* (See Linville, Arthur P., assignor.)
Kann, William L., Pittsburgh, Pa. Glass grinding or polishing machine. No. 1,071,751; Sept. 2; Gaz. vol. 194; p. 28.
Kansas City Bolt & Nut Co., The. (See Neville, Daniel D., assignor.)
Kanyo, Louis, Albany, La. Cultivator. No. 1,074,502; Sept. 30; Gaz. vol. 194; p. 1089.
Karpen, Adolph. (See Kramer and Miller, assignors.)
Kasson, C. Vallette. (See Ross, Oscar A., assignor.)
Kattar, Jasmin, New York, N. Y. Cigarette. No. 1,073,422; Sept. 16; Gaz. vol. 194; p. 674.
Kaufman, Adolph G., New York, N. Y. Bottle-seal. No. 1,071,752; Sept. 2; Gaz. vol. 194; p. 28.
Kaufman, Simon, Philadelphia, Pa. Reinforcing seams of waterproof garments. No. 1,073,858; Sept. 23; Gaz. vol. 194; p. 845.
Kay, Simon, Cleveland, Ohio. Curtain-pole. No. 1,074,267; Sept. 30; Gaz. vol. 194; p. 1012.
Keck, Christian, Crescent Springs, Ky., assignor to C. Keck Manufacturing Co., Cincinnati, Ohio. Mechanical movement. No. 1,073,075; Sept. 9; Gaz. vol. 194; p. 516.
Keck Manufacturing Co., C. (See Keck, Christian, assignor.)
Keefauver, George M., Flatt, Ill. Combined level and gage. No. 1,074,367; Sept. 30; Gaz. vol. 194; p. 1045.
Keefe, Joseph, Boston, assignor to J. H. Parker, Saugus, Mass. Sectional box. No. 1,072,009; Sept. 2; Gaz. vol. 194; p. 117.
Keeler, Henry L., Lundys Lane, Pa. Station-indicator. No. 1,072,955; Sept. 9; Gaz. vol. 194; p. 474.
Keenam, James B., Birmingham, Ala. Coal-washer. No. 1,073,992; Sept. 23; Gaz. vol. 194; p. 893.
Keffer, William, Philadelphia, Pa. Crossing. No. 1,072,855; Sept. 9; Gaz. vol. 194; p. 436.
Keighley Company, The. (See Keighley, William B., assignor.)
Keighley, William B., assignor to The Keighley Company, Vineland, N. J. Lasting-strip. No. 1,073,570; Sept. 16; Gaz. vol. 194; p. 724.
Kell, John L., Plainview, assignor of one-half to S. A. Kell, Bancroft, Nebr. Saw-filing machine. No. 1,072,384; Sept. 2; Gaz. vol. 194; p. 242.
Kell, Peter, and E. A. Stephens, assignors to J. E. Cochran, Elkhart, Ind. Scale-pan support. No. 1,072,956; Sept. 9; Gaz. vol. 194; p. 474.
Kell, Solomon A. (See Kell, John L., assignor.)
Keith, Elgin, assignor to Invincible Grain Cleaner Company, Silver Creek, N. Y. Corn-husking machine. No. 1,071,925; Sept. 2; Gaz. vol. 194; p. 88.
Kelthley, Herbert R., Kansas City, Mo. Manufacturing car-wheels. No. 1,073,350; Sept. 16; Gaz. vol. 194; p. 650.
Kellan, Edward L., Chicago, Ill. Valve for bubbling fountains. No. 1,071,753; Sept. 2; Gaz. vol. 194; p. 28.
Keller, Karl, assignor to Firm of A. Saurer, Arbon, Switzerland. Motion-transmitting device. No. 1,073,764; Sept. 23; Gaz. vol. 194; p. 816.
Keller, Karl, assignor to Firm of A. Saurer, Arbon, Switzerland. Embroidering-machine. No. 1,073,765; Sept. 23; Gaz. vol. 194; p. 816.
Kelley, George H., assignor to The Kelley Self-Starter Company, Gainesville, Fla. Starter for explosive-engines. No. 1,073,139; Sept. 16; Gaz. vol. 194; p. 573.
Kelley Self-Starter Company, The. (See Kelley, George H., assignor.)
Kellner, Josef, Brooklyn, and S. Worms, New Rochelle, assignors to Franklin Knitting Mills, New York, N. Y. Knitted necktie. No. 1,072,471; Sept. 9; Gaz. vol. 194; p. 302.
Kellner, Josef, Brooklyn, and S. Worms, New Rochelle, N. Y., assignors to Franklin Knitting Mills. Knitting bias-lace knitted necktles. No. 1,072,734; Sept. 9; Gaz. vol. 194; p. 393.
Kellner, Josef, Brooklyn, and S. Worms, New Rochelle, assignors to Franklin Knitting Mills, New York, N. Y. Muffler. No. 1,072,735; Sept. 9; Gaz. vol. 194; p. 393.
Kellner, Josef, Brooklyn, and S. Worms, New Rochelle, assignors to Franklin Knitting Mills, New York, N. Y. Knitting neckties and scarfs. No. 1,072,856; Sept. 9; Gaz. vol. 194; p. 436.
Kellner, Josef, Brooklyn, and S. Worms, New Rochelle, assignors to Franklin Knitting Mills, New York, N. Y. Bias-lace knitted necktie. No. 1,073,050; Sept. 9; Gaz. vol. 194; p. 507.
Kells, Charles E., Jr., New Orleans, La. Drinking-fountain. No. 1,072,124; Sept. 2; Gaz. vol. 194; p. 156.
Kelly, Charles D., and P. Mahoney, Oakview, Pa. Concrete arch. No. 1,074,268; Sept. 30; Gaz. vol. 194; p. 1012.
Kelly, Charles W., *et al.* (See Conner, Frank, assignor.)
Kelly, Eugene J., Washington, D. C. Pipe-coupling. No. 1,072,736; Sept. 9; Gaz. vol. 194; p. 393.
Kelly, Henry W. (See Bates, Kelly, and Corbin.)
Kelly, J. A., *et al.* (See Watkins, Orla H., assignor.)
Kelly, John F., Chicago, Ill. Starter for hydrocarbon-engines. No. 1,072,385; Sept. 2; Gaz. vol. 194; p. 242.
Kelly, John L., assignor of one-half to F. H. Skinner, Chicago, Ill. Dental instrument. (Reissue.) No. 13,621; Sept. 30; Gaz. vol. 194; p. 1121.
Kelly Manufacturing Company, The. (See Cherry and Melendy, assignors.)
Kelly, W. J., *et al.* (See Watkins, Orla H., assignor.)
Kelly, William D., Beechwood Park, Pa. Valve mechanism for explosive-engines. No. 1,074,121; Sept. 30; Gaz. vol. 194; p. 964.
Kelso, Alexander C. (See Dingee, Charles R., assignor.)
Kelso, James E., Rochester, N. Y., assignor to American Laundry Machinery Company, Cincinnati, Ohio. Stripping mechanism for conveyers. No. 1,073,907; Sept. 23; Gaz. vol. 194; p. 862.
Kelty, Howard, Franktown, Colo. Stove-mat. No. 1,072,333; Sept. 2; Gaz. vol. 194; p. 223.
Kempshall, Eleazer, Chevy Chase, Md., assignor, by mesne assignments, to Kempshall Fast Color Tip Company. Shoe-lace. No. 1,073,496; Sept. 16; Gaz. vol. 194; p. 699.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Drawing-roll. No. 1,073,993; Sept. 23; Gaz. vol. 194; p. 893.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Drawing-roll. No. 1,073,994; Sept. 23; Gaz. vol. 194; p. 893.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Spinning-roll. No. 1,074,503; Sept. 30; Gaz. vol. 194; p. 1089.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Spinning-roll. No. 1,074,504; Sept. 30; Gaz. vol. 194; p. 1089.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Spinning-roll. No. 1,074,505; Sept. 30; Gaz. vol. 194; p. 1089.
Kempshall, Eleazer, New York, N. Y., assignor to Kempshall Supply Company. Forming drawing-rolls for spinning-machines. No. 1,074,590; Sept. 30; Gaz. vol. 194; p. 1118.
Kempshall Fast Color Tip Company. (See Kempshall, Eleazer, assignor.)
Kempshall Supply Company. (See Kempshall, Eleazer, assignor.)
Kempton, Osman B., Lander, Wyo. Gate-hinge. No. 1,072,957; Sept. 9; Gaz. vol. 194; p. 474.
Kendall, Edward D., Elizabeth, N. J., assignor of one-fourth to F. M. Ashley, Brooklyn, and one-fourth to D. Q. Brown, New York, N. Y. Controlling device for internal-combustion engines. No. 1,073,051; Sept. 9; Gaz. vol. 194; p. 507.
Kendig, Witmer J., Lancaster, Pa. Sewing-needle. No. 1,073,140; Sept. 16; Gaz. vol. 194; p. 574.
Kendrick, John W., Chicago, Ill. Tool-car. No. 1,072,618; Sept. 9; Gaz. vol. 194; p. 352.
Kendrick, Karl A., Detroit, Mich. Spring vehicle-wheel. No. 1,071,926; Sept. 2; Gaz. vol. 194; p. 89.
Kenely, William J., Elizabeth, N. J. Heating-flue. No. 1,073,351; Sept. 16; Gaz. vol. 194; p. 650.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,072,737; Sept. 9; Gaz. vol. 194; p. 394.
Kennedy, George R., assignor of one-half to G. McCargo, Pittsburgh, Pa. Lubricator. No. 1,071,754; Sept. 2; Gaz. vol. 194; p. 29.
Kennedy, Julian, Pittsburgh, Pa. Metal-manipulator. No. 1,073,607; Sept. 23; Gaz. vol. 194; p. 758.
Kenney, Edward F. (See Wolle and Kenney.)
Kennicott, Cass L., Chicago Heights, assignor to The Kennicott Company, Chicago, Ill. Tank-car construction. No. 1,073,423; Sept. 16; Gaz. vol. 194; p. 674.
Kennicott Company, The. (See Kennicott, Cass L., assignor.)
Kenny, Michael J., Chicago, assignor of one-half to R. C. Ross, Wilmette, Ill. Door holder and stop. No. 1,073,243; Sept. 16; Gaz. vol. 194; p. 611.
Kenwell, Gerald A. (See Murdock, Allen C., assignor.)
Kepler, Irwin F., Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y. Water bottle or bag. No. 1,074,269; Sept. 30; Gaz. vol. 194; p. 1013.
Kerlinger, Lillie F., Philadelphia, Pa. Strainer measuring-cup. No. 1,073,141; Sept. 16; Gaz. vol. 194; p. 574.
Kern, George, Peru, Ill., assignor to Western Clock Co. Clock. No. 1,073,608; Sept. 23; Gaz. vol. 194; p. 759.
Kerr, Charles V., Wellsville, N. Y. Flexible shaft-coupling. No. 1,073,690; Sept. 23; Gaz. vol. 194; p. 789.
Kerr, John W., Orlando, Fla. Quickly-adjustable stirrup-leather. No. 1,072,958; Sept. 9; Gaz. vol. 194; p. 475.
Kersey, Mary C., Amo, Ind. Bucket. No. 1,074,122; Sept. 30; Gaz. vol. 194; p. 964.

Kersten, Julius, Dellbruck, near Cologne, Germany. Producing alkali-metal hydroxids directly from alkali-metal chlorids. No. 1,072,010; Sept. 2; Gaz. vol. 194; p. 117.

Kessler, Karl, Wasseralfingen, Germany. Lock-nut. No. 1,073,497; Sept. 16; Gaz. vol. 194; p. 699.

Kestner, Fredrick, *et al.* (See Kuhlman, Herman C., assignor.)

Kestner, Jean F. P., and H. J. E. Neu, Lille, France. Arrangement for ventilating and for moistening the atmosphere of premises. No. 1,073,609; Sept. 23; Gaz. vol. 194; p. 759.

Keyes, Frank E., Pasadena, Cal. Winding-roll or former for paper-pulp tubes. No. 1,072,011; Sept. 2; Gaz. vol. 194; p. 118.

Kickert, Hermann, Herrigen, near Hamm, Westphalia, Germany. Coke-oven door. No. 1,072,857; Sept. 9; Gaz. vol. 194; p. 437.

Kiefer, John, Bozeman, Mont. Wagon-seat clamp. No. 1,072,858; Sept. 9; Gaz. vol. 194; p. 437.

Kiewicz, John, Hyde Park, assignor to The Reece Button Hole Machine Company, Boston, Mass. Sewing-machine-needle-setting means. No. 1,072,472; Sept. 9; Gaz. vol. 194; p. 302.

Kiewicz, John, Hyde Park, assignor to The Reece Button Hole Machine Company, Boston, Mass. Buttonhole-stitching machine. No. 1,073,244; Sept. 16; Gaz. vol. 194; p. 611.

Kilgour, Francis J. S. (See Johnson and Kilgour.)

Kimpel, Frank G., Edgerton, Ohio. Seat for motorcycles. No. 1,074,438; Sept. 30; Gaz. vol. 194; p. 1070.

Kincaid, Joseph A., Santa Barbara, Cal. Measuring-scale. No. 1,074,439; Sept. 30; Gaz. vol. 194; p. 1070.

Kincannon, Edwin S., Spokane, Wash. Baby-walker. No. 1,072,959; Sept. 9; Gaz. vol. 194; p. 475.

Kindberg, John A., Gaither, Okla. Wardrobe. No. 1,072,473; Sept. 9; Gaz. vol. 194; p. 303.

Kindle, William S., and A. L. Plush, Philadelphia, Pa., assignors, by mesne assignments, to said Plush. Variable-speed gearing. No. 1,072,407; Sept. 2; Gaz. vol. 194; p. 251.

King, Alonzo A., Paonia, Colo. Apparatus for casting metal. No. 1,072,738; Sept. 9; Gaz. vol. 194; p. 394.

King, Charles M., Washington, D. C., assignor to A. G. Spalding & Bros., New York, N. Y. Base-ball glove and mitt. No. 1,072,012; Sept. 2; Gaz. vol. 194; p. 118.

King, Clifford G., Providence, R. I. Pin. No. 1,074,270; Sept. 30; Gaz. vol. 194; p. 1013.

King, Edward L., Charleston, Ill. Shade-bracket. No. 1,072,739; Sept. 9; Gaz. vol. 194; p. 395.

King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company, Folding-machine. No. 1,071,755; Sept. 2; Gaz. vol. 194; p. 30.

Kingsley, Lee, Syracuse, N. Y. Holder for adhesive binders. No. 1,072,859; Sept. 9; Gaz. vol. 194; p. 438.

Kingsley, Lee, Syracuse, N. Y. Leaf-binder. No. 1,074,271; Sept. 30; Gaz. vol. 194; p. 1013.

Kinley, Evan G. (See Brooks and Kinley.)

Kinne, Edmund P., Alliance, Ohio, assignor to American Steel Foundries, New York, N. Y. Pilot-beam. No. 1,072,125; Sept. 2; Gaz. vol. 194; p. 156.

Kinne, Samuel D., Ann Arbor, Mich., assignor, by mesne assignments, to The Conveying Weigher Company, New York, N. Y. Weighing-machine. No. 1,074,123; Sept. 30; Gaz. vol. 194; p. 965.

Kinnear Manufacturing Company, The. (See McCloud, Edward H., assignor.)

Kinnear, William R., New Castle, Pa. Glass-holder for metal sash. No. 1,073,805; Sept. 23; Gaz. vol. 194; p. 828.

Kintner, Samuel M., *et al.*, receivers. (See Fessenden, Reginald A., assignor.)

Király, Paul von, and J. Lovász, Budapest, Austria-Hungary. Automatic breech-loading firearm. No. 1,073,908; Sept. 23; Gaz. vol. 194; p. 863.

Kirchhoff, Richard, Zurich, Switzerland. Shutter-worker. No. 1,073,909; Sept. 23; Gaz. vol. 194; p. 863.

Kirkham, Arthur, Bolton, England. Force-feed lubricator. No. 1,073,142; Sept. 16; Gaz. vol. 194; p. 574.

Kirschbaum, August F., St. Paul, Minn. Lubricating device. No. 1,072,619; Sept. 9; Gaz. vol. 194; p. 353.

Kitchen, Joseph M. W., East Orange, N. J. Manufactured and packed butter. No. 1,072,238; Sept. 2; Gaz. vol. 194; p. 193.

Klay, Lewis F., Niagara Falls, N. Y. Polishing-machine. No. 1,072,620; Sept. 9; Gaz. vol. 194; p. 353.

Klein, Otto, Paterson, N. J. Self-indicating target. No. 1,072,621; Sept. 9; Gaz. vol. 194; p. 353.

Kleinfeldt, Arthur, Hoboken, N. J. Siphon for dispensing liquids. No. 1,072,239; Sept. 2; Gaz. vol. 194; p. 193.

Kleintob, Freas B., Philadelphia, Pa. Table. No. 1,073,910; Sept. 23; Gaz. vol. 194; p. 863.

Klenk, George, Weiser, Idaho. Nut-lock. No. 1,074,551; Sept. 30; Gaz. vol. 194; p. 1104.

Kline, George P., Moline, Ill. Attachment for micrometer-calipers. No. 1,074,552; Sept. 30; Gaz. vol. 194; p. 1104.

Kline, John P., Brooklyn, Mich. Lantern-bracket for vehicles. No. 1,074,272; Sept. 30; Gaz. vol. 194; p. 1013.

Klock, Frank W., Kelton, Utah. Game apparatus. No. 1,072,013; Sept. 2; Gaz. vol. 194; p. 118.

Kloeb, Joseph A., Piqua, Ohio. Floor-furnace. No. 1,073,610; Sept. 23; Gaz. vol. 194; p. 759.

Klopping, Adolph C., assignor of one-half to The Toledo Parlor Furniture Company, Toledo, Ohio. Leg-bracing means for bed-frames. No. 1,071,927; Sept. 2; Gaz. vol. 194; p. 89.

Klunker, Frederick E., Canon City, Colo. Gravel-hopper. No. 1,073,245; Sept. 16; Gaz. vol. 194; p. 611.

Knapp, George O. (See Doughty, Herman W., assignor.)

Knapp, George O. (See Furman, Clifford G., assignor.)

Knapp, Perry. (See Chatterton, Charles K., assignor.)

Knight, Charles Y., Chicago, Ill. Explosion-engine. No. 1,072,860; Sept. 9; Gaz. vol. 194; p. 438.

Knights, Harry W. (See Love, Matthew, assignor.)

Knipping, Rainer H., Franklin, La. Well-pump. No. 1,073,143; Sept. 16; Gaz. vol. 194; p. 575.

Knistrom, August, Binghamton, N. Y. Calculating-machine. No. 1,072,740; Sept. 9; Gaz. vol. 194; p. 395.

Knowles, Albert E., Wolverhampton, England. Apparatus for the purification of electrolytic gases. No. 1,073,246; Sept. 16; Gaz. vol. 194; p. 612.

Knowles, William H., and W. F. Goreham, London, England. Lubricator. No. 1,073,911; Sept. 23; Gaz. vol. 194; p. 864.

Knox, Luther L., assignor to The Knox Pressed & Welded Steel Company, Niles, Ohio. Water-cooled furnace-door frame. No. 1,073,144; Sept. 16; Gaz. vol. 194; p. 575.

Knox Pressed & Welded Steel Company, The. (See Knox, Luther L., assignor.)

Knudsen, Cornelius, *et al.* (See Schell, Max P., assignor.)

Koch, George J. (See Lambert, Frederick C., assignor.)

Koch, Hans, Dietikon, Zurich, Switzerland. Crucible-furnace. No. 1,073,912; Sept. 23; Gaz. vol. 194; p. 865.

Kochendorfer, Frederic S. (See Motter and Kochendorfer.)

Koechlin, Albert G., Basel, Switzerland, assignor to Spinnerei & Weberei Steinen A. G., Steinen, Germany. Loom for weaving. No. 1,073,145; Sept. 16; Gaz. vol. 194; p. 575.

Koechlin, Isaac, Levallois-Perret, assignor to Société Anonyme des Automobiles et Cycles Peugeot, Paris, France. Elastic coupling for motor-gearing. No. 1,072,622; Sept. 9; Gaz. vol. 194; p. 354.

Koehler, Charles, Passaic, N. J. Fabric-frame for embroidery-machines. No. 1,072,623; Sept. 9; Gaz. vol. 194; p. 354.

Koehler, William H., New York, N. Y., assignor, by mesne assignments, to The Lamson Company, Newark, N. J. Pneumatic-carrier. No. 1,072,126; Sept. 2; Gaz. vol. 194; p. 156.

Koehring Machine Company. (See Koehring, Philip A., assignor.) (Reissue.)

Koehring, Philip A., assignor to Koehring Machine Company, Milwaukee, Wis. Concrete-distributer. (Reissue.) No. 13,617; Sept. 16; Gaz. vol. 194; p. 729.

Koerner, Ewald, Dresden, Germany. Sheet-feeding device. No. 1,071,928; Sept. 2; Gaz. vol. 194; p. 90.

Koerner, Ewald, Dresden, Germany. Sheet-feeding device. No. 1,072,397; Sept. 2; Gaz. vol. 194; p. 247.

Kohlhaas, Jakob. (See Wagner and Kohlhaas.)

Koike, Kihei, Seattle, Wash. Projecting apparatus. No. 1,072,861; Sept. 9; Gaz. vol. 194; p. 438.

Kolier, Elizabeth, near Bloomville, Ohio. Shade for sewing-machines. No. 1,074,273; Sept. 30; Gaz. vol. 194; p. 1014.

Koloman, Frank J., trustee. (See Birrell, William and J., assignors.)

Koiosa, Albert G., Newberry, Mich. Envelop. No. 1,072,741; Sept. 9; Gaz. vol. 194; p. 395.

Kool, John R. and P., Chicago, Ill. Clothes-line fastener. No. 1,074,124; Sept. 30; Gaz. vol. 194; p. 965.

Kool, Peter. (See Kool, John R. and P.)

Koontz, Victor R., Waynesboro, Pa. Cutter-head. No. 1,072,127; Sept. 2; Gaz. vol. 194; p. 156.

Koppers, Heinrich, Essen-on-the-Ruhr, Germany. Producing sulfate of ammonia from ammoniacal gases or vapors. No. 1,073,247; Sept. 16; Gaz. vol. 194; p. 612.

Koppes, William M. (See Whiting and Koppes.)

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,072,128; Sept. 2; Gaz. vol. 194; p. 157.

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,072,862; Sept. 9; Gaz. vol. 194; p. 439.

Körner, Rudolf, Niederlössnitz, near Dresden, Germany. Apparatus for decanting or settling liquids. No. 1,073,146; Sept. 16; Gaz. vol. 194; p. 576.

Kortick, John C., San Francisco, Cal. Tool for attaching aerial cable-hangers to their supporting-wires. No. 1,072,742; Sept. 9; Gaz. vol. 194; p. 395.

Köster, Johann T., Klagenfurt, Austria-Hungary. Rolling gate for sluices. No. 1,073,424; Sept. 16; Gaz. vol. 194; p. 674.

Köszegi, Karl, Baja, Austria-Hungary. Elastic wheel. No. 1,073,498; Sept. 16; Gaz. vol. 194; p. 699.

Kouba, Anton V., Verdigre, Nebr. Banker's note-case. No. 1,073,248; Sept. 16; Gaz. vol. 194; p. 612.

Kovacs, Joseph, Kulpmont, Pa. Car-coupling. No. 1,073,352; Sept. 16; Gaz. vol. 194; p. 650.

Kovsky, Philip, and J. F. Hicks, Philadelphia, Pa. Automobile-lock. No. 1,071,756; Sept. 2; Gaz. vol. 194; p. 30.

Koyen, Jesse A., Washington Harbor, Wis. Neck-yoke. No. 1,073,766; Sept. 23; Gaz. vol. 194; p. 817.

Kragerud, Lars, *et al.* (See Morgen, Henry, assignor.)

Krahe, Henry, New York, N. Y. Window-sash lock. No. 1,072,960; Sept. 9; Gaz. vol. 194; p. 475.

Kramer, Julius, and R. R. Miller; said Miller assignor to A. Karpen, Chicago, Ill. Davenport-divan. No. 1,071,737; Sept. 2; Gaz. vol. 194; p. 30.

Kraning, Charles F., North Manchester, Ind. Attachment for milanow-buckets. No. 1,073,353; Sept. 16; Gaz. vol. 194; p. 651.

Krueger, William J. (See Bronson, Ralph C., assignor.)

Kudla, Anton C., Meriden, Conn. Trolley stand and pole. No. 1,072,014; Sept. 2; Gaz. vol. 194; p. 119.

Kudrik, John, *et al.* (See Jensen, Peter, assignor.)

Kuhlman, Herman C., assignor of one-third to F. Kestner and one-third to M. Callahan, Cleveland, Ohio. Automatic mail catcher and deliverer. No. 1,072,129; Sept. 2; Gaz. vol. 194; p. 157.

Kulla, Michael J., Cleveland, Ohio. Safety-valve. No. 1,072,334; Sept. 2; Gaz. vol. 194; p. 223.

Kulow, John H., Buffalo, N. Y. Pen-point holder. No. 1,072,240; Sept. 2; Gaz. vol. 194; p. 194.

Küntzler, Henry, Kingston, Pa., assignor to Adder Machine Company. Full-stroke mechanism. No. 1,074,054; Sept. 23; Gaz. vol. 194; p. 912.

Kunz, Louis F., Chicago, Ill. Attachment for firearms. No. 1,072,335; Sept. 2; Gaz. vol. 194; p. 224.

Kurowski, Alfred G. F., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,072,386; Sept. 2; Gaz. vol. 194; p. 243.

Kurtz, Isaac W., and J. W. Rankin, Peru, Ind. Vaginal syringe. No. 1,073,249; Sept. 16; Gaz. vol. 194; p. 613.

Kusserow, Berthold A., Schenectady, N. Y. Safety article-holder. No. 1,074,506; Sept. 30; Gaz. vol. 194; p. 1080.

Kutch, Melchered H., Terre Haute, Ind. Vaginal douche-cup. No. 1,074,368; Sept. 30; Gaz. vol. 194; p. 1045.

Kyle, Hugh M., Mount Vernon, Iowa. Attachment for wire-stretchers. No. 1,074,507; Sept. 30; Gaz. vol. 194; p. 1090.

La Driere, Joseph L., Albuquerque, N. Mex. Spring and cushioning means for vehicles. No. 1,072,241; Sept. 2; Gaz. vol. 194; p. 194.

La Paugh, Louie T., Utica, N. Y. Delivery-receptacle. No. 1,074,369; Sept. 30; Gaz. vol. 194; p. 1046.

La Rue, Henry U., Chicago, Ill. Attaching means for grab-irons. No. 1,071,930; Sept. 2; Gaz. vol. 194; p. 90.

Labelle, Wilfrid, Montreal, Quebec, Canada. Plastering-tool. No. 1,071,758; Sept. 2; Gaz. vol. 194; p. 31.

Lackawanna Steel Company. (See Conkling, Cloud C., assignor.)

Lafitte, Joachim, Biarritz, France. Illuminating device. No. 1,073,147; Sept. 16; Gaz. vol. 194; p. 576.

Laforce, Joseph E., North Grafton, assignor to Alsten & Goulding Company, Worcester, Mass. Air-pump. No. 1,071,929; Sept. 2; Gaz. vol. 194; p. 90.

Laing, George W., Curwensville, Pa. Nut-lock. No. 1,072,336; Sept. 2; Gaz. vol. 194; p. 224.

Laing, John E., Dubois, assignor of one-half to J. F. Mitchell, Bells Landing, Pa. Automatically-operated railway-switch. No. 1,072,337; Sept. 2; Gaz. vol. 194; p. 224.

Lallié, Norbert. (See Maublanc and Lallié.)

Lamb, Joseph F., and J. F. Smart, assignors to Landers, Frary & Clark, New Britain, Conn. Sad-iron. No. 1,073,806; Sept. 23; Gaz. vol. 194; p. 828.

Lambert, Frank, Chicago, Ill. Apparatus for granulating clay. No. 1,073,425; Sept. 16; Gaz. vol. 194; p. 675.

Lambert, Frederick C., assignor of one-half to G. J. Koch, New York, N. Y. Attachment for dental pluggers. No. 1,073,995; Sept. 23; Gaz. vol. 194; p. 893.

Lambert, Gerard B., New York, N. Y. Igniter. No. 1,072,961; Sept. 9; Gaz. vol. 194; p. 476.

Lambot, Albert, Brussels, Belgium. Automatic electric recording device. No. 1,072,474; Sept. 9; Gaz. vol. 194; p. 303.

Lamme, Benjamin G., Pittsburgh, assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Operating induction-motors. No. 1,074,125; Sept. 30; Gaz. vol. 194; p. 966.

Lamson Company, The. (See Koehler, William H., assignor.)

Lamson Company, The. (See Pearsall, Albert W., assignor.)

Landers, Frary & Clark. (See Lamb and Smart, assignors.)

Landfair, John M., Black Lick, Pa. Window-screen. No. 1,073,426; Sept. 16; Gaz. vol. 194; p. 675.

Landis, Frank F., Waynesboro, Pa. Valve. No. 1,071,759; Sept. 2; Gaz. vol. 194; p. 31.

Landis, Walter S. (See Richards and Landis.)

Landsberg, Alexander. (See Cohen and Landsberg.)

Lane, John P. H., Harriman, Tenn. Detachable basket-frame. No. 1,073,691; Sept. 23; Gaz. vol. 194; p. 790.

Lang, Charles E., Sebastapol, Cal. Foot-rest and shoe-clamp. No. 1,073,807; Sept. 23; Gaz. vol. 194; p. 829.

Lang, Joseph, Mannheim, Germany. Iron staircase with flagstone stairs. No. 1,073,250; Sept. 16; Gaz. vol. 194; p. 613.

Langley, Eugene, San Antonio, Tex. Bilge-water discharger. No. 1,072,398; Sept. 2; Gaz. vol. 194; p. 247.

Langston, Liner B., *et al.* (See Day, Harry L., assignor.)

Lanning, Charles D., Boston, Mass. Current-transmitting instrument. No. 1,073,692; Sept. 23; Gaz. vol. 194; p. 790.

Lanning, James K. (See Cunniff, John V., assignor.)

Lanning, James K. (See Webster, Charles B., assignor.)

Lanning, William H., Jr., Toledo, Ohio. Adjustable eccentric. No. 1,073,148; Sept. 16; Gaz. vol. 194; p. 576.

Lanoue, John B., Troy, assignor of one-half to C. H. White, Cohoes, N. Y. Medicine-cabinet. No. 1,071,760; Sept. 2; Gaz. vol. 194; p. 32.

Lanzagorta, Bernardo. (See Bejar and Lanzagorta.)

Lapointe, Francis J., Hudson, Mass., assignor to The J. N. Lapointe Co., New London, Conn. Key-seat-broaching machine. No. 1,073,251; Sept. 16; Gaz. vol. 194; p. 614.

Lapsley, Howard G., Plainfield, N. J. Snow-melting device. No. 1,073,427; Sept. 16; Gaz. vol. 194; p. 676.

Larimer, William J., Kansas City, Kans. Oil-burner. No. 1,072,624; Sept. 9; Gaz. vol. 194; p. 354.

Larmuth, William O., Salford, England. Wire-stranding machine. No. 1,073,052; Sept. 9; Gaz. vol. 194; p. 508.

Larsen, Hans L., Chicago, Ill. Oil-can. No. 1,074,440; Sept. 30; Gaz. vol. 194; p. 1070.

Lash, Horace W. (See Wellman and Lash.)

Laskey, Walden L., assignor to American Can Company, New York, N. Y. Slip-cover can. No. 1,073,859; Sept. 23; Gaz. vol. 194; p. 846.

Latham Machinery Company. (See Osterholm, William, assignor.)

Latham Machinery Company. (See Weber, Henry, assignor.)

Lathrop, Frank K., assignor to The Ohio Rake Company, Dayton, Ohio. Disk harrow. No. 1,073,428; Sept. 16; Gaz. vol. 194; p. 676.

Laufenburg, Leland S., and S. G. Pearson, Stockton, Cal. Engine-supporting frame. No. 1,072,743; Sept. 9; Gaz. vol. 194; p. 396.

Lauffer, Frank P. (See Dicks, Thomas A., assignor.)

Lausterer, William J., Jamestown, assignor to Empire Voting Machine Company, Rochester and Jamestown, N. Y. Cumulative-voting mechanism for voting-machines. No. 1,072,562; Sept. 9; Gaz. vol. 194; p. 476.

Lauterbach, Christopher, Baltimore, Md. Automatic air-escape valve. No. 1,073,354; Sept. 16; Gaz. vol. 194; p. 651.

Lauterjung, Eugen, Solingen, Germany. Non-circular-hole-shaping machine. No. 1,073,252; Sept. 16; Gaz. vol. 194; p. 614.

Lavelle, Thomas M., Pottsville, Pa. Buffer for doors. No. 1,073,253; Sept. 16; Gaz. vol. 194; p. 615.

Lawler, John W. (See Barnard and Lawler.)

Lawless, Christopher J., Lincoln, Nebr. Silo and like receptacle. No. 1,072,387; Sept. 2; Gaz. vol. 194; p. 243.

Lawrence, George R., Cleveland, Ohio, assignor to The W. W. Sly Manufacturing Company. Sand-blast apparatus. No. 1,073,149; Sept. 16; Gaz. vol. 194; p. 577.

Lawrence, Jay F., Chicago, Ill. Inverted hydrocarbon-lamp. No. 1,074,183; Sept. 30; Gaz. vol. 194; p. 984.

Lawrenz, Emil, Detroit, Mich. Cutter. No. 1,073,254; Sept. 16; Gaz. vol. 194; p. 615.

Lawrenz, Emil, Detroit, Mich. Cutter. No. 1,073,255; Sept. 16; Gaz. vol. 194; p. 615.

Lawson, Charles R., San Francisco, Cal. Hydraulic motor. No. 1,072,475; Sept. 9; Gaz. vol. 194; p. 303.

Lawson, Frank W., Algiers, La. Rail-supporting bed. No. 1,073,996; Sept. 23; Gaz. vol. 194; p. 894.

Lawson, Olof F., and C. Dungan, New Sharon, Iowa. Combination pencil-clip. No. 1,073,053; Sept. 9; Gaz. vol. 194; p. 508.

Le Tissier, Howard W., *et al.* (See Dirksen, Theodor L., assignor.)

Leach, Roy I., and A. T. Beall, Salem, Ohio. Formaldehyde fumigating apparatus. No. 1,073,913; Sept. 23; Gaz. vol. 194; p. 865.

Leake, Richard C. (See Geer and Leake.)

Leake, Richard C., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Support for oscillatable members. No. 1,071,761; Sept. 2; Gaz. vol. 194; p. 32.

Lease, Charles E., assignor of one-half to C. Jacobson, Gait, Cal. Concrete railway-tie. No. 1,073,256; Sept. 16; Gaz. vol. 194; p. 615.

Leask, Henry N., Egremont, England. Refuse-destructor. No. 1,074,508; Sept. 30; Gaz. vol. 194; p. 1090.

Leask, Henry N., Egremont, England. Charging-door for furnaces. No. 1,074,509; Sept. 30; Gaz. vol. 194; p. 1090.

Leavitt, William H., Stamford, Tex. Tying device for hay-balers. No. 1,073,499; Sept. 16; Gaz. vol. 194; p. 700.

Lee, John E., Conshohocken, assignor to J. B. Hall, Philadelphia, Pa. Apparatus for maturing immature and frost-bitten cotton-bolls. No. 1,073,914; Sept. 23; Gaz. vol. 194; p. 865.

Lee, William H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Raising and lowering the earth-turning element of wheeled plows. No. 1,072,863; Sept. 9; Gaz. vol. 194; p. 439.

Lee, William H., assignor to Syracuse Chilled Plow Company, Syracuse, N. Y. Detachable shoe for landsides of plows. No. 1,073,693; Sept. 23; Gaz. vol. 194; p. 791.

Leffel, Ancel B. (See Davis and Leffel.)

Leggett, Joseph P., Carthage, Mo. Railway-car. No. 1,073,429; Sept. 16; Gaz. vol. 194; p. 676.

Legris, Edgar S. (See Legris, Joseph and E. S.)

Legris, Joseph and E. S., Bourbonnais, Ill. Portable conveyer. No. 1,073,054; Sept. 9; Gaz. vol. 194; p. 508.
Lehigh Coal & Navigation Co. (See Damon, George B., assignor.)
Lehman, Maurice M., Selma, Ala. Stick-candy. No. 1,072,338; Sept. 2; Gaz. vol. 194; p. 225.
Lehmann, Firm of Ernest P. (See Voltz, Georg F., assignor.)
Leik, Henry, Seattle, Wash. Attachment for electric chandeliers. No. 1,072,625; Sept. 9; Gaz. vol. 194; p. 355.
Leland, Sanford D., Winchester, assignor to Manufacturing, Equipment and Engineering Company, South Framingham, Mass. Metallic stool or chair. No. 1,073,860; Sept. 23; Gaz. vol. 194; p. 846.
Lendner, Augustus R., Los Angeles, Cal., and F. Briggs, Washington, D. C. Apparatus for cooking meats. No. 1,073,915; Sept. 23; Gaz. vol. 194; p. 866.
Lentz, Hugo, Halensee, near Berlin, Germany. Multicylinder internal-combustion engine. No. 1,074,055; Sept. 23; Gaz. vol. 194; p. 912.
Leopold, George O., assignor to North Bro's M'f'g Co., Philadelphia, Pa. Bench-drill. No. 1,073,500; Sept. 16; Gaz. vol. 194; p. 700.
Lepperd, Charles J. (See McEvoy and Lepperd.)
Leslie, Sylvester F., West Maitland, New South Wales, Australia. Automatic coupling. No. 1,072,626; Sept. 9; Gaz. vol. 194; p. 355.
Lessy, Lloyd. (See Roberts, Bert C., assignor.)
Levick, Alban O., assignor of one-third to H. W. Hussey, Peabody, Mass. Globe-valve. No. 1,072,744; Sept. 9; Gaz. vol. 194; p. 396.
Levy, Firm of Henri. (See Belz, August, assignor.)
Lewis, Samuel H., Princeton, W. Va. Cylinder construction. No. 1,074,056; Sept. 23; Gaz. vol. 194; p. 913.
Lewis, Wilbur E., Dade City, Fla. Roller-bearing. No. 1,073,501; Sept. 16; Gaz. vol. 194; p. 700.
Lewis, Wilfred, and J. T. Ramsden, assignors to The Tabor Manufacturing Company, Philadelphia, Pa. Molding-machine. No. 1,072,395; Sept. 2; Gaz. vol. 194; p. 246.
Lewis, William D. (See Harris, Mary F., assignor.)
Lewis, William L., Philadelphia, Pa. Automatic change-over switch for wireless-telegraph receiving and sending apparatus. No. 1,074,057; Sept. 23; Gaz. vol. 194; p. 913.
Lewis, William M., Norfolk, Va. Wagon-jack. No. 1,074,184; Sept. 30; Gaz. vol. 194; p. 984.
Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Rock-drilling engine. (Reissue.) No. 13,614; Sept. 9; Gaz. vol. 194; p. 519.
Libby, Harry T., Alvin, Tex. Orchard-heater. No. 1,072,242; Sept. 2; Gaz. vol. 194; p. 194.
Life Targets Limited. (See Bates, Kelly, and Corbin, assignors.)
Ligon, Arthur L., Pecos, Tex. Well-cylinder. No. 1,073,257; Sept. 16; Gaz. vol. 194; p. 616.
Liles, Soloman H., and R. J. Baucom, Reaford, N. C. Cotton-chopper. No. 1,073,355; Sept. 16; Gaz. vol. 194; p. 651.
Liljegran, Ernest W., Medford, Oreg. Tree-protector. No. 1,072,339; Sept. 2; Gaz. vol. 194; p. 225.
Liljegran, Ernest W., Medford, Oreg. Tree-protector. No. 1,072,340; Sept. 2; Gaz. vol. 194; p. 225.
Lincoln, Charles R. F., San Francisco, assignor of one-fourth to A. Gentry and one-fourth to D. H. Platt, Los Angeles, Cal. Certificate. No. 1,072,341; Sept. 2; Gaz. vol. 194; p. 226.
Lindeman, Max. (See Newton, Dimond C., assignor.)
Lindemann, August, assignor to R. Lindemann, New York, N. Y. Machine for separating liquids and solids. No. 1,073,611; Sept. 23; Gaz. vol. 194; p. 760.
Lindemann, Rudolph. (See Lindemann, August, assignor.)
Lindemuth, Lewis B. (See Carney and Lindemuth.)
Linden, Gräfin M. von, Bonn, E. Meissen, Hohenhonnef, near Bonn, and A. Strauss, Barmen, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical compound. No. 1,072,745; Sept. 9; Gaz. vol. 194; p. 397.
Lindstrom, Andrew, San Francisco, Cal. Bell-buoy. No. 1,072,130; Sept. 2; Gaz. vol. 194; p. 158.
Line, Lester. (See McGowan and Line.)
Link-Belt Company. (See Peck, Staunton B., assignor.)
Linkletter, William A., Boulder, Colo. Folding dam for irrigating-ditches. (Reissue.) No. 13,622; Sept. 30; Gaz. vol. 194; p. 1121.
Linn, Albertus M. (See Bissonnette and Linn.)
Linskie, Benjamin B., Dallas, Tex. Sewer-clean-out cover. No. 1,073,150; Sept. 16; Gaz. vol. 194; p. 577.
Linville, Arthur P., assignor of one-third to C. E. Linville, Richmond, and one-third to S. L. Kampschmidt, Stockton, Cal. Sanitary towel. No. 1,072,746; Sept. 9; Gaz. vol. 194; p. 397.
Linville, C. E., *et al.* (See Linville, Arthur P., assignor.)
Lipp, Albert E., Philadelphia, Pa. Photograph-printing device. No. 1,073,430; Sept. 16; Gaz. vol. 194; p. 677.
Lippis, Samuel. (See Piccone and Lippis.)
Lippe, Louis P., assignor of one-half to himself as trustee, one-fourth to W. L. Westcott, and one-fourth to G. C. Wing, Cleveland, Ohio. Ticket for street-cars and similar uses. No. 1,072,627; Sept. 9; Gaz. vol. 194; p. 355.
Lipscomb, Sylvester G., Louisville, assignor of one-half to J. M. Jones, Elizabethtown, Ky. Machine for slicing pickles and the like. No. 1,072,628; Sept. 9; Gaz. vol. 194; p. 355.
Liquid Forged Steel Company, The. (See Wellman and Lash, assignors.)
Lisken, Joseph. (See Holtzman, John, assignor.)
Lister, Levi H., Bay St. Louis, assignor of one-half to W. H. Bouslog, Gulfport, Miss. Refrigerating-car. No. 1,072,131; Sept. 2; Gaz. vol. 194; p. 158.
Little, Archibald S. B., Nashville, Tenn. Paint composition and making the same. No. 1,072,476; Sept. 9; Gaz. vol. 194; p. 304.
Ljungström, Fredrik, assignor to Aktiebolaget Ljungström Ångturbin, Liljeholmen, Stockholm, Sweden. Steam-turbine. No. 1,073,916; Sept. 23; Gaz. vol. 194; p. 866.
Ljungström, Fredrik, Stockholm, Sweden, assignor to Aktiebolaget Ljungströms Ångturbin, Liljeholmen, Sweden. Steam-turbine. No. 1,074,370; Sept. 30; Gaz. vol. 194; p. 1046.
Lloyd, Ernest F., Detroit, Mich. Closure for gas-purifiers. No. 1,073,258; Sept. 16; Gaz. vol. 194; p. 616.
Lloyd, Ernest F., Detroit, Mich. Gas-scrubbing apparatus. No. 1,073,259; Sept. 16; Gaz. vol. 194; p. 617.
Lochman, Dean E., Salem, Mass. Safety-razor. No. 1,074,126; Sept. 30; Gaz. vol. 194; p. 966.
Lockhart, John M., Coraopolis, Pa. Mop. No. 1,073,612; Sept. 23; Gaz. vol. 194; p. 760.
Lockwood, Horace A., Kansas City, Mo. Pleasure-railway. No. 1,074,185; Sept. 30; Gaz. vol. 194; p. 985.
Loeb, Herman A. (See Riddle, Robert N., assignor.)
Loewer, Henry F., Rochester, N. Y. Machine for trimming last-heels. No. 1,072,963; Sept. 9; Gaz. vol. 194; p. 477.
London, Willis, Franklin, Ky. Bottle. No. 1,073,997; Sept. 23; Gaz. vol. 194; p. 894.
Long, Charles E., Lancaster, Pa. Fishing-rod. No. 1,073,260; Sept. 16; Gaz. vol. 194; p. 617.
Long, Charles H., Fairbury, Nebr. Acetylene-gas generator. No. 1,073,767; Sept. 23; Gaz. vol. 194; p. 817.
Long, F. Earl. (See Whitney, Henry B., assignor.)
Long, Ira H., Peru, Ind. Folding umbrella. No. 1,071,762; Sept. 2; Gaz. vol. 194; p. 32.
Long, John. (See Anderson and Long.)
Long, William J., St. Louis, Mo. Vacuum-massage. No. 1,071,931; Sept. 2; Gaz. vol. 194; p. 91.
Loockerman, Charles A., Crisfield, Md. Crab-crate. No. 1,073,356; Sept. 16; Gaz. vol. 194; p. 651.
Loomis, Norman M. (See Dodge and Loomis.)
Lorain Steel Company, The. (See Isenberg, Herbert G., assignor.)
Lorain Steel Company, The. (See Stewart, John V., assignor.)
Louden Machinery Company. (See Neller, Albert H., assignor.)
Loureiro, Joao B., Para, Brazil. Can-opener. No. 1,073,502; Sept. 16; Gaz. vol. 194; p. 701.
Louviere, Samuel, Union, La. Fly-trap. No. 1,072,342; Sept. 2; Gaz. vol. 194; p. 226.
Lovász, Josef. (See Király and Lovász.)
Love, Matthew, Worcester, assignor to H. W. Knights, Boston, Mass. Mechanism for cracking nuts. No. 1,073,694; Sept. 23; Gaz. vol. 194; p. 791.
Loveland, Emmett O., Kansas City, Mo. Card-case. No. 1,073,768; Sept. 23; Gaz. vol. 194; p. 817.
Lovett, Thomas J., assignor to Copper Process Company, Chicago, Ill. Ore-treating process. No. 1,071,763; Sept. 2; Gaz. vol. 194; p. 33.
Lowrimore, James M., Thomasville, Ga. Sleeping-hammock. No. 1,071,764; Sept. 2; Gaz. vol. 194; p. 33.
Ludgate, George C., Brooklyn, N. Y. Protector. No. 1,073,861; Sept. 23; Gaz. vol. 194; p. 846.
Ludlow, Walter S., *et al.* (See Kaiser, Oliver B., assignor.)
Ludlow, Walter S., Jr., *et al.* (See Kaiser, Oliver B., assignor.)
Ludwig, John A., and J. B. Moses, Dallas, Tex. Trousers. No. 1,071,932; Sept. 2; Gaz. vol. 194; p. 91.
Luithlen, Hermann V. (See Braun, Luithlen, and Neumann.)
Lumiere, Louis, Lyon, France, assignor to Victor Talking Machine Company, Camden, N. J. Acoustical instrument. No. 1,072,477; Sept. 9; Gaz. vol. 194; p. 304.
Lumsden, Thomas, Gateshead, England. Tool-holder for tool-grinding machines. No. 1,072,629; Sept. 9; Gaz. vol. 194; p. 356.
Lundahl, Joseph W., Thomaston, Conn. Spoon attachment. No. 1,074,441; Sept. 30; Gaz. vol. 194; p. 1070.
Lundin, Andreas P., New York, N. Y., assignor, by mesne assignments, to Astor Trust Company, trustee. Device for securing and releasing life-boats. No. 1,071,765; Sept. 2; Gaz. vol. 194; p. 33.
Lundin, Martha, Bells, Cal. Spike. No. 1,073,998; Sept. 23; Gaz. vol. 194; p. 894.
Lutes, Christopher J. (See Savage, Frederick J., assignor.)
Luthi, Hans, Kenosha, Wis. Sanitary closet-seat cover. No. 1,071,933; Sept. 2; Gaz. vol. 194; p. 91.
Lutz, George A., Plainfield, N. J., assignor to American Circular Loom Company, Portland, Me. Protecting conduits for electric conductors. No. 1,072,478; Sept. 9; Gaz. vol. 194; p. 305.

Lutz, William D., Allendale borough, assignor to Otis Elevator Company, Jersey City, N. J. Accelerating device for alternating-current motors. No. 1,072,132; Sept. 2; Gaz. vol. 194; p. 159.
Lydick, Ernest B., Pittsburgh, Pa. Fruit-knife. No. 1,072,243; Sept. 2; Gaz. vol. 194; p. 195.
Lyle, Joel I., Plainfield, N. J. Thermal interchanging process. No. 1,072,133; Sept. 2; Gaz. vol. 194; p. 159.
Lynch, John T., Chicago, Ill., assignor to The B. F. Cummins Company. Combined pick-up table and post-marking-machine. No. 1,073,808; Sept. 23; Gaz. vol. 194; p. 829.
Lynch, Patrick J., New York, N. Y. Device for cleaning printing-rollers. No. 1,072,244; Sept. 2; Gaz. vol. 194; p. 195.
Lyon, Charles D., St. Louis, Mo. Sanitary toothpick-dispenser. No. 1,072,399; Sept. 2; Gaz. vol. 194; p. 248.
Lyons, Samuel W., Jr. (See Borga, Reginald P., assignor.)
Lyzen, Daniel G. (See Butler, Lawrence T., assignor.)
M. Garland Company, The. (See Devlin, Henry, assignor.)
M. H. Jester Investment Company, The. (See Jester, Marvin H., assignor.)
MacDonald, James G., and W. F. C. MacKay, Boston, Mass. Water-saving system. No. 1,073,862; Sept. 23; Gaz. vol. 194; p. 846.
MacKay Copper Process Company. (See MacKay, Henry S., assignor.)
MacKay, Henry S., assignor to MacKay Copper Process Company, Riverside, Cal. Apparatus for extracting metals from ores. No. 1,074,274; Sept. 30; Gaz. vol. 194; p. 1014.
MacKay, William F. C. (See MacDonald and MacKay.)
MacKenzie, Fred L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Starting and stopping mechanism. No. 1,072,630; Sept. 9; Gaz. vol. 194; p. 356.
MacKinnon, William C., Newark, N. J. Piston-ring remover. No. 1,071,934; Sept. 2; Gaz. vol. 194; p. 92.
MacLaughlin, John B., Ottawa, Ontario, Canada. Boot or shoe. No. 1,074,127; Sept. 30; Gaz. vol. 194; p. 966.
MacLean, Kirby D., Palo Alto, Cal. Concrete socket-pile. No. 1,074,275; Sept. 30; Gaz. vol. 194; p. 1015.
MacMaster, Peter, London, England. Renewable-leaf book. No. 1,074,510; Sept. 30; Gaz. vol. 194; p. 1091.
MacMinn, Benjamin F., Philadelphia, Pa. Station-indicator. No. 1,072,747; Sept. 9; Gaz. vol. 194; p. 397.
Macdonald, Donald J., Portland, Me. Combined bow rest and lock. No. 1,073,503; Sept. 16; Gaz. vol. 194; p. 701.
Maček, Johan. (See Brunet and Maček.)
Machlet, Adolph W., Elizabeth, N. J. Case-hardening, &c. No. 1,072,134; Sept. 2; Gaz. vol. 194; p. 159.
Macpherson, Malcolm, New York, N. Y. Towel-rack. No. 1,072,135; Sept. 2; Gaz. vol. 194; p. 160.
Madigan, Patrick J., and J. Rehak, Chicago, Ill.; said Rehak assignor to said Madigan. Combined facing-table and postmarking-machine. No. 1,072,388; Sept. 2; Gaz. vol. 194; p. 244.
Magelssen, Nino, Christiania, Norway. Producing fireproof and elastic material. No. 1,074,511; Sept. 30; Gaz. vol. 194; p. 1091.
Magidson, Frank, New York, N. Y. Ticket-dispensing machine. No. 1,072,631; Sept. 9; Gaz. vol. 194; p. 357.
Maginnis, Patrick, Kimball, Nebr., assignor, by mesne assignments, to The Flume Improvement Company. Extensible trough or flume. No. 1,072,343; Sept. 2; Gaz. vol. 194; p. 226.
Mahaney, William J. (See Fadden, James D., assignor.)
Maher, James and M. M., and T. Terry, East Liverpool, Ohio. Well-drilling apparatus. No. 1,072,964; Sept. 9; Gaz. vol. 194; p. 477.
Maher, Michael M. (See Maher and Terry.)
Mahoney, Patrick. (See Kelly and Mahoney.)
Mail-om-eter Company. (See Straight, Bennett D., assignor.)
Maitland, John, Lynn, Mass. Thread-stand. No. 1,074,553; Sept. 30; Gaz. vol. 194; p. 1104.
Major, John, Listie, Pa. Lamp. No. 1,074,442; Sept. 30; Gaz. vol. 194; p. 1071.
Maker, John A., Duluth, Minn. Matrix device. No. 1,072,015; Sept. 2; Gaz. vol. 194; p. 119.
Makowsky, Michael, Passaic, N. J. Combination check and stop valve. No. 1,072,245; Sept. 2; Gaz. vol. 194; p. 195.
Makray, Paul, Chicago, Ill. Bowling outfit. No. 1,073,431; Sept. 16; Gaz. vol. 194; p. 677.
Malleable Steel Range Manufacturing Co., The. (See Boeck, Peter M., assignor.)
Maloney, Thomas F., New York, N. Y. Belt-buckle. No. 1,073,504; Sept. 16; Gaz. vol. 194; p. 701.
Manny, Ira F., assignor to Selective Signal Company, Milwaukee, Wis. Means for selective signalling. No. 1,073,863; Sept. 23; Gaz. vol. 194; p. 847.
Mansfield, Ellery C., Meredith, N. H. Sash-stop. No. 1,073,261; Sept. 16; Gaz. vol. 194; p. 617.
Mansfield, William. (See Holland and Mansfield.)
Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Automobile-horn. No. 1,074,371; Sept. 30; Gaz. vol. 194; p. 1046.
Manteau, Amos, Dillonvale, Ohio. Shield for trucks. No. 1,072,965; Sept. 9; Gaz. vol. 194; p. 478.
Manthei, Gustav, Wismar, Germany. Scissors with movable pivot. No. 1,072,136; Sept. 2; Gaz. vol. 194; p. 160.
Mantle, Ernest H., McKees Rocks, Pa. Guard for hatpins. No. 1,074,443; Sept. 30; Gaz. vol. 194; p. 1071.
Manufacturing, Equipment and Engineering Company. (See Leland, Sanford D., assignor.)
Marconi Wireless Telegraph Company of America. (See Pickerill, Elmo N., assignor.)
Marcus, Adolph, Louisville, Ky. Reinforcement for baskets. No. 1,071,766; Sept. 2; Gaz. vol. 194; p. 34.
Marcuse, Moses M., assignor to West Disinfecting Company, New York, N. Y. Liquid-dispensing device. No. 1,073,864; Sept. 23; Gaz. vol. 194; p. 847.
Marino, Pascal, London, England. Preparing electrolytes for use in the deposition of a metal or metallic alloy. No. 1,073,432; Sept. 16; Gaz. vol. 194; p. 678.
Mark Manufacturing Company. (See Bergman, Carl O., assignor.)
Markham, Charles F., Providence, R. I. Pin. No. 1,073,769; Sept. 23; Gaz. vol. 194; p. 817.
Markwell, Andrew E., assignor of one-half to C. W. Stanton, Fort Worth, Tex. Matrix-molding device. No. 1,072,137; Sept. 2; Gaz. vol. 194; p. 160.
Marmorstein, John, Jersey City, N. J. Pipe-patch. No. 1,073,505; Sept. 16; Gaz. vol. 194; p. 701.
Marr, Walter L., Flint, Mich. Carbureter. No. 1,073,695; Sept. 23; Gaz. vol. 194; p. 791.
Marsh, George W., *et al.* (See Palmer, Charles, assignor.)
Marsh, William L. (See Coplestone, Herbert W., assignor.)
Marshall, Dale. (See Giller and Marshall.)
Marshall, Frank F. (See Schorik and Marshall.)
Marshall, George, Fremont, Nebr. Truck for forming and depositing shocks. No. 1,073,917; Sept. 23; Gaz. vol. 194; p. 867.
Marshall, George F. (See Burguieres, Corne, and Marshall.)
Marshall, Thomas. (See Ruger, Durl P., assignor.)
Martell, Louis H., assignor to The Metallic Packing and Manufacturing Company, Elyria, Ohio. Stuffing-box. No. 1,072,016; Sept. 2; Gaz. vol. 194; p. 119.
Martin, David L., and E. L. Flowers, assignors of one-fifth to J. L. Riddle, one-fifth to J. W. Blackwelder, and one-fifth to A. G. Bohannon, Hickory, N. C. Game-register. No. 1,073,262; Sept. 16; Gaz. vol. 194; p. 618.
Martin, Earl, Charles City, Iowa. Hay-rack-removing appliance. No. 1,071,935; Sept. 2; Gaz. vol. 194; p. 92.
Martin, Frederick, Pomona, Cal. Electric vulcanizer. No. 1,073,263; Sept. 16; Gaz. vol. 194; p. 618.
Martin, Grant S., Dexter, Mich. Egg-separator. No. 1,074,372; Sept. 30; Gaz. vol. 194; p. 1047.
Martin, Luther O., Parkersburg, W. Va. Internal-combustion engine. No. 1,073,770; Sept. 23; Gaz. vol. 194; p. 818.
Martindale, Frederick N., Sprague ville, N. Y. Wrench. No. 1,072,479; Sept. 9; Gaz. vol. 194; p. 305.
Marvin, Ida S., Detroit, Mich. Funeral-car. No. 1,072,864; Sept. 9; Gaz. vol. 194; p. 439.
Marx, Richard, assignor to Defiance Manufacturing Company, Philadelphia, Pa. Controller-regulator. No. 1,074,512; Sept. 30; Gaz. vol. 194; p. 1091.
Maschinenfabrik Moenus A.-G. (See Bohacek, Paul, assignor.)
Masek, John F., New York, N. Y. Net. No. 1,074,276; Sept. 30; Gaz. vol. 194; p. 1015.
Masko, Junji, Indianapolis, Ind. Folding dark room. No. 1,074,378; Sept. 30; Gaz. vol. 194; p. 1047.
Mason, James M., Jr., Charlestown, W. Va. Drinking-fountain for fowls. No. 1,072,344; Sept. 2; Gaz. vol. 194; p. 227.
Mason, Orson H., Los Angeles, Cal. Giant-stride. No. 1,073,918; Sept. 23; Gaz. vol. 194; p. 867.
Mason, Daniel, New York, N. Y. Expansion-bolt. No. 1,072,240; Sept. 2; Gaz. vol. 194; p. 195.
Matchette, Frank J., Milwaukee, Wis. Automatic vacuum-governor. No. 1,071,936; Sept. 2; Gaz. vol. 194; p. 92.
Matheson, George A., Vancouver, British Columbia, Canada. Machine for turning over ground. No. 1,073,999; Sept. 23; Gaz. vol. 194; p. 895.
Matteson, Rufus S., Providence, R. I. Device for automatically clutching bobbins to spindles of spinning and twisting machines. No. 1,072,345; Sept. 2; Gaz. vol. 194; p. 227.
Matteson, William. (See Nelson, Charles C., assignor.)
Matthew, Amos H., assignor of one-third to D. Meikel and one-third to T. W. Crandall, Colville, Wash. Meat-clamp. No. 1,072,966; Sept. 9; Gaz. vol. 194; p. 478.
Matthew, William H., Zanesville, Ohio. Drier. No. 1,073,151; Sept. 16; Gaz. vol. 194; p. 577.
Matthews, Edwin S., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Speed-regulator for traction-elevators. No. 1,072,138; Sept. 2; Gaz. vol. 194; p. 161.
Matti, Max R., Falun, Sweden. Oil-engine. No. 1,074,090; Sept. 23; Gaz. vol. 194; p. 895.
Maublanc, Léon, and N. Lallié, Nantes, France. Ship-propeller. No. 1,074,513; Sept. 30; Gaz. vol. 194; p. 1091.

Maurer, Richard. (See Winarsky, Edmund, assignor.)
Mauro, Antonino, F., and B., New York, N. Y. Piano with transposing-keyboard. No. 1,071,767; Sept. 2; Gaz. vol. 194; p. 34.
Mauro, Benedetto. (See Mauro, Antonino, F., and B.)
Mauro, Filippo. (See Mauro, Antonino, F., and B.)
Maxfield, Nelson, Malone, Tex. Lamp-adjusting mechanism. No. 1,074,186; Sept. 30; Gaz. vol. 194; p. 985.
Maxwell, Benjamin V., Washington, D. C., and L. A. Nickerson, Philadelphia, Pa. Repair-tool. No. 1,074,058; Sept. 23; Gaz. vol. 194; p. 913.
Maxwell, Russell R., Mansfield, Ohio. Saw-sharpener. No. 1,072,967; Sept. 9; Gaz. vol. 194; p. 478.
May, Ralph H. (See Peck, Isaac M., assignor.)
Mayer, Heinrich, Arbon, Switzerland. Transmission in motor-vehicles. No. 1,072,389; Sept. 2; Gaz. vol. 194; p. 244.
Mayer, Heinrich, and G. Schlatter, Arbon, Switzerland. Ball-and-socket joint. No. 1,073,264; Sept. 16; Gaz. vol. 194; p. 819.
Mayer, Louis, Mankato, Minn. Vehicle running-gear. No. 1,073,265; Sept. 16; Gaz. vol. 194; p. 619.
Mayer, Peter J., Montrose, Mo. Metal arch. No. 1,074,001; Sept. 23; Gaz. vol. 194; p. 895.
Mayer, Rudolf. (See Bauer, Herre, and Mayer.)
Mayfield, Jesse L. (See Messerli and Mayfield.)
Mayhall, William A., Gloster, Miss. Gearing. No. 1,073,055; Sept. 9; Gaz. vol. 194; p. 508.
Maynard, Oliver E., Kane, assignor to The Window Glass Machine Company, Pittsburgh, Pa. Glass-drawing and take-down apparatus. No. 1,073,613; Sept. 23; Gaz. vol. 194; p. 760.
Maytag Company, The. (See Snyder, Howard F., assignor.)
McAdams, William A., Bay Shore, N. Y. Aluminum alloy. No. 1,072,017; Sept. 2; Gaz. vol. 194; p. 120.
McArthur, William W., Bostic, N. C. Riding harrow and cultivator. No. 1,074,444; Sept. 30; Gaz. vol. 194; p. 971.
McCanna, John F., assignor to The John F. McCanna Company, Chicago, Ill. Lubricator. No. 1,074,128; Sept. 30; Gaz. vol. 194; p. 966.
McCargo, Grant. (See Kennedy, George R., assignor.)
McCarter, William W., Quitman, Ga. Casting-machine. No. 1,072,480; Sept. 9; Gaz. vol. 194; p. 305.
McCaskey Register Company, The. (See Hick, Harry J., assignor.)
McClellon, James M., Everett, Mass. Fire-box for boilers. No. 1,072,865; Sept. 9; Gaz. vol. 194; p. 440.
McClintock, William, New York, N. Y. Fire-hose rack. No. 1,073,152; Sept. 16; Gaz. vol. 194; p. 578.
McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Means for releasing the fastenings of metallic parts in case of fire. No. 1,074,187; Sept. 30; Gaz. vol. 194; p. 985.
McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Spring-roller. No. 1,074,277; Sept. 30; Gaz. vol. 194; p. 1015.
McClure, Daniel R., Jr., Arlington Station, assignor of one-half to A. W. Risher, Pasadena, Cal. Rake. No. 1,073,771; Sept. 23; Gaz. vol. 194; p. 818.
McConney, Robert B. (See Vivian, Alfred J., assignor.)
McCord, Edgar E., Newton, Iowa. Fence-post. No. 1,073,772; Sept. 23; Gaz. vol. 194; p. 818.
McCormick, John H., Columbus, Ohio. Surface-hardening metal. No. 1,071,937; Sept. 2; Gaz. vol. 194; p. 93.
McCormick, John H., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,071,768; Sept. 2; Gaz. vol. 194; p. 34.
McCoy, John E., Pittsburgh, Pa. Rail-joint. No. 1,074,554; Sept. 30; Gaz. vol. 194; p. 1104.
McCready, Harold, Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Circuit-controller. No. 1,071,769; Sept. 2; Gaz. vol. 194; p. 35.
McCreary, Benjamin F., New York, N. Y. Means for carrying life-lines. No. 1,072,968; Sept. 9; Gaz. vol. 194; p. 479.
McCreary, Benjamin F., New York, N. Y. Means for carrying life-lines. No. 1,072,969; Sept. 9; Gaz. vol. 194; p. 479.
McDearmid, William A., Fernandina, Fla. Pile-splice. No. 1,073,614; Sept. 23; Gaz. vol. 194; p. 761.
McDougal, William J., Rising Sun, Md. Vehicle-brake. No. 1,073,266; Sept. 16; Gaz. vol. 194; p. 619.
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company. Electrically-heated boiler. No. 1,072,748; Sept. 9; Gaz. vol. 194; p. 397.
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company. Pressure-motor. No. 1,072,749; Sept. 9; Gaz. vol. 194; p. 397.
McEvoy, Timothy F., and C. J. Lepperd, Pottstown, Pa. Reversible hard-center frog. No. 1,072,866; Sept. 9; Gaz. vol. 194; p. 440.
McFarlane, Henry H., Extension, British Columbia, Canada. Envelop. No. 1,073,056; Sept. 9; Gaz. vol. 194; p. 509.
McFarlane Manufacturing Company. (See McFarlane, Robert, assignor.)
McFarlane, Robert, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill. Scale. No. 1,072,018; Sept. 2; Gaz. vol. 194; p. 120.
McFarlane, Robert, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill. Scale. No. 1,072,019; Sept. 2; Gaz. vol. 194; p. 120.
McFarlane, Robert, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill. Scale. No. 1,072,020; Sept. 2; Gaz. vol. 194; p. 121.
McFarlane, Robert, Minneapolis, Minn., assignor to McFarlane Manufacturing Company, Chicago, Ill. Scale. No. 1,072,390; Sept. 2; Gaz. vol. 194; p. 245.
McGahey, Richard, Walla Walla, Wash. Loaded-truck-counting apparatus. No. 1,074,002; Sept. 23; Gaz. vol. 194; p. 896.
McGinty, Bernard, Doylestown, Pa., assignor to Printer's Specialties Company. Feed-gage for printing-presses. No. 1,073,865; Sept. 23; Gaz. vol. 194; p. 848.
McGlynn, James H., Wilkes-Barre, Pa. Expansible pulley. No. 1,074,188; Sept. 30; Gaz. vol. 194; p. 986.
McGoey, John. (See Barnes and McGoey.)
McGonigal, Jerome T., Pottersdale, Pa. Combination railway-tie and clamp. No. 1,073,773; Sept. 23; Gaz. vol. 194; p. 819.
McGovern, Thomas L., and F. W. Allen, San Francisco, Cal. Alarm attachment for doors and windows. No. 1,074,003; Sept. 23; Gaz. vol. 194; p. 896.
McGowan, Scott, and L. Line, Dayton, Ohio. Chalk-holder. No. 1,072,247; Sept. 2; Gaz. vol. 194; p. 196.
McGregor, Robert. (See Alley and McGregor.)
McGuire, Frank A., Iola, Kans. Non-resealable bottle. No. 1,072,139; Sept. 2; Gaz. vol. 194; p. 161.
McGuire, Frank A., Iola, Kans. Cuspidor. No. 1,072,140; Sept. 2; Gaz. vol. 194; p. 161.
McInnis, Austin, Richmond, Prince Edward Island, Canada. Station-indicator. No. 1,073,153; Sept. 16; Gaz. vol. 194; p. 578.
McInroy, James P. (See Wolf, Ralph, assignor.)
McIntyre, Frank, assignor to Eagle Pencil Company, New York, N. Y. Combined cigar-lighter and pencil-point protector. No. 1,074,555; Sept. 30; Gaz. vol. 194; p. 1105.
McIntyre, John C., Hoopeston, assignor to Sprague Canning Machinery Company, Chicago, Ill. Rotary screen. No. 1,072,750; Sept. 9; Gaz. vol. 194; p. 398.
McKechnie, Herbert M., Toledo, Ohio. Lighting-fixture. No. 1,071,938; Sept. 2; Gaz. vol. 194; p. 93.
McKeen, Thomas L., Easton, Pa. Buffer for locomotive and tender couplings. No. 1,074,445; Sept. 30; Gaz. vol. 194; p. 1071.
McKillop, Samuel W., Cleveland, Ohio, assignor to The Thatcher-Rueter Manufacturing Company. Grease-cup. No. 1,073,154; Sept. 16; Gaz. vol. 194; p. 579.
McKissick, Hugh R., deceased, (S. McKissick, administrator,) assignor of one-half to J. S. Stone, Okemah, Okla. Wagon-brake. No. 1,073,267; Sept. 16; Gaz. vol. 194; p. 620.
McKissick, Susie, administrator. (See McKissick, Hugh R.)
McKnight, Charles J. (See Bowman and McKnight.)
McLain, Robert H., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,071,770; Sept. 2; Gaz. vol. 194; p. 35.
McLarty, James A., Toronto, Ontario, Canada. Treating organic and inorganic materials. No. 1,072,751; Sept. 9; Gaz. vol. 194; p. 398.
McLarty, James A., Toronto, Ontario, Canada. Treating ores. No. 1,072,752; Sept. 9; Gaz. vol. 194; p. 399.
McLarty, James A., Toronto, Ontario, Canada. Treating ores. No. 1,072,753; Sept. 9; Gaz. vol. 194; p. 399.
McLarty, James A., Toronto, Ontario, Canada. Treating metals. No. 1,073,076; Sept. 9; Gaz. vol. 194; p. 517.
McLaughlin, Edward O., Masontown, Pa. Non-breakable safety lamp-glass. No. 1,072,021; Sept. 2; Gaz. vol. 194; p. 121.
McLaughlin, Frank, Philadelphia, Pa. Window-screen. No. 1,074,571; Sept. 30; Gaz. vol. 194; p. 1111.
McLaughlin, Frank, Philadelphia, Pa., assignor, by mesne assignments, to International Window Manufacturing Company, Dover, Del. Lock for pivoted windows. No. 1,073,268; Sept. 16; Gaz. vol. 194; p. 620.
McLean, Embury, Brooklyn, N. Y. Pressure-regulating apparatus. No. 1,071,771; Sept. 2; Gaz. vol. 194; p. 36.
McLean, Laughlin F., administrator. (See Harrison, Charles R.)
McLennan, William S., Glasgow, Scotland. Music-stool. No. 1,074,514; Sept. 30; Gaz. vol. 194; p. 1092.
McMeans, William, West Liberty, Iowa. Sleigh-propeller. No. 1,071,772; Sept. 2; Gaz. vol. 194; p. 36.
McMurtry, Alden L., Sound Beach, Conn. Apparatus for scenic and musical effects. No. 1,071,939; Sept. 2; Gaz. vol. 194; p. 93.
McNaughton, James A., New York, assignor of one-half to G. Pluskat, Brooklyn, N. Y. Table attachment. No. 1,072,248; Sept. 2; Gaz. vol. 194; p. 196.
McNear, Samuel A. (See Birchler, Joseph M., assignor.)
McNeil, Roy, Cape Breton, Nova Scotia, Canada. Rail-fastener. No. 1,072,754; Sept. 9; Gaz. vol. 194; p. 399.
McNerney, Jeremiah J. (See Hiles and McNerney.)
McNulty, Thomas J., Brookhaven, Miss. Machine for stripping oil-cakes. No. 1,074,446; Sept. 30; Gaz. vol. 194; p. 1072.
McPherson, Arthur, Beaumont, Tex. Demountable rim. No. 1,073,506; Sept. 16; Gaz. vol. 194; p. 702.

McProud, David W., Farmland, Ind. Automatic device for corn-planters. No. 1,073,269; Sept. 16; Gaz. vol. 194; p. 620.
McWethy, Frank L., Marshall, Mich. Truss-pad. No. 1,072,970; Sept. 9; Gaz. vol. 194; p. 479.
McWolfe, Cleave, Vernal, Utah. Motor. No. 1,074,059; Sept. 23; Gaz. vol. 194; p. 913.
Meacham, John H., Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for measuring boots and shoes. No. 1,071,773; Sept. 2; Gaz. vol. 194; p. 36.
Meehl, Philip J., Summit, N. J. Device for recording the tone volumes on musical instruments. No. 1,074,556; Sept. 30; Gaz. vol. 194; p. 1105.
Menker, John W., Detroit, Mich. Spark-plug. No. 1,073,270; Sept. 16; Gaz. vol. 194; p. 621.
Mears, Thomas A. (See Mears, William H. and T. A.)
Mears, William H., Elgin, and T. A. Mears, Savanna, Ill. Wire-fence stretcher. No. 1,074,278; Sept. 30; Gaz. vol. 194; p. 1016.
Medvec, John J., Minneapolis, Minn. Cushion-strip for billiard and pool tables. No. 1,074,279; Sept. 30; Gaz. vol. 194; p. 1016.
Meeker, Samuel G., New York, N. Y. Lock-nut. No. 1,072,755; Sept. 9; Gaz. vol. 194; p. 399.
Meikel, David, *et al.* (See Matthew, Amos H., assignor.)
Meisenburg, Kurt. (See Hofmann, Coutelle, Meisenburg, and Delbrück.)
Meissen, Ernst. (See Linden, Meissen, and Strauss.)
Melander, August W., assignor to Universal Wave Power Co., San Francisco, Cal. Apparatus for utilizing wave-power. No. 1,074,060; Sept. 23; Gaz. vol. 194; p. 914.
Melendy, Louis R. (See Cherry and Melendy.)
Meling, Gustave, Chicago, Ill. Gramophone. No. 1,072,346; Sept. 2; Gaz. vol. 194; p. 228.
Mellor, Walter H., and C. E. Oeth, Michigan City, Ind. Switch-clock. No. 1,074,129; Sept. 30; Gaz. vol. 194; p. 967.
Melvin, Joe D., Sherman, Tex. Oil-can spout. No. 1,072,481; Sept. 9; Gaz. vol. 194; p. 305.
Menden, William S., Brooklyn, N. Y. Side-door seat and door-lock. No. 1,073,809; Sept. 23; Gaz. vol. 194; p. 830.
Mengle, Loyd M., and A. Griffiths, Atlantic City, N. J. Spring-tightener. No. 1,074,515; Sept. 30; Gaz. vol. 194; p. 1092.
Mentgen, Francis A., Sterling, Colo. Ironing-table. No. 1,071,774; Sept. 2; Gaz. vol. 194; p. 37.
Mercer, Samuel J., assignor to T. F. Foley, Englewood, Colo. Flat-iron cleaner and polisher. No. 1,073,774; Sept. 23; Gaz. vol. 194; p. 819.
Meredith-Jones, Hubert, New York, N. Y., assignor to Columbia Nut and Bolt Company, Incorporated, Bridgeport, Conn. Starting mechanism for explosive-engines. No. 1,071,775; Sept. 2; Gaz. vol. 194; p. 37.
Mergenthaler Linotype Company. (See Barnes, Raymond F., assignor.)
Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Morrison, Luther E., assignor.)
Mergenthaler Linotype Company. (See Neumayer, Frederick W., assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Merrell, Oliver E., Syracuse, N. Y. Desiccating apparatus. No. 1,072,391; Sept. 2; Gaz. vol. 194; p. 245.
Merrill, Edwin R., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, Mining-machine. No. 1,073,271; Sept. 16; Gaz. vol. 194; p. 621.
Merrill, Robert A., Cincinnati, Ohio. Chuck. No. 1,071,940; Sept. 2; Gaz. vol. 194; p. 93.
Merrow, Joseph M., Hartford, Conn. Forming hooked or throated needles. No. 1,072,482; Sept. 9; Gaz. vol. 194; p. 305.
Merrow Machine Company, The. (See Stedman, William H., assignor.)
Meschkat, Wilhelm, Houston, Tex. Propelling mechanism for bicycles. No. 1,073,696; Sept. 23; Gaz. vol. 194; p. 792.
Messerli, John J., Kingsville, and J. L. Mayfield, Corpus Christi, Tex. Pear-burner. No. 1,074,374; Sept. 30; Gaz. vol. 194; p. 1048.
Metallic Packing and Manufacturing Company, The. (See Martell, Louis H., assignor.)
Metals Extraction Corporation Limited, The. (See Rees and Sulman, assignors.)
Methven, Archibald D., assignor to Fisher Body Company, Detroit, Mich. Carriage-door bumper. No. 1,072,141; Sept. 2; Gaz. vol. 194; p. 162.
Meyer, Gustave R. (See Smith, Charles E., assignor.)
Meyer, Henry L. von, *et al.* (See Hebig, Henry C., assignor.)
Meyer, Jean J. C., Paris, France. Liquid-dispensing apparatus. No. 1,073,432; Sept. 16; Gaz. vol. 194; p. 678.
Meyer, John J., Yonkers, N. Y. Supply-valve. No. 1,072,971; Sept. 9; Gaz. vol. 194; p. 480.
Meyercord, George R., Chicago, Ill. Adjustable bracket. No. 1,072,756; Sept. 9; Gaz. vol. 194; p. 400.
Meyers, Charles G. (See Hohenstien and Meyers.)
Meyers & Son, Louis. (See Oathout, Arthur N., assignor.)
Micco, John, and V. Guido, New Castle, Pa. Rail-joint. No. 1,074,447; Sept. 30; Gaz. vol. 194; p. 1072.
Michaelis, Fred, Bartlesville, Okla. Operating mechanism for annunciating systems. No. 1,073,357; Sept. 16; Gaz. vol. 194; p. 652.
Michaels, Charles E., Wilson, Pa. Nozzle for ladies. No. 1,072,972; Sept. 9; Gaz. vol. 194; p. 480.
Michaud, Joseph O., Fort Kent, Me. Variable-speed-transmission gearing. No. 1,073,775; Sept. 23; Gaz. vol. 194; p. 819.
Michigan Motor Specialties Company. (See Beck, Charles W., assignor.)
Mickleson, James W., assignor of one-fourth to T. Morrison, Dayton, Idaho. Automatic draft-regulator. No. 1,073,810; Sept. 23; Gaz. vol. 194; p. 830.
Middlemiss, Edward T., Manchester, England. Check-issuing machine. No. 1,073,272; Sept. 16; Gaz. vol. 194; p. 622.
Milburn, Samuel, Kennett, Mo. Attachment for seed-planters. No. 1,072,632; Sept. 9; Gaz. vol. 194; p. 357.
Mildon, Reginald B., Wilkinsburg, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Rectangular gas-producer. No. 1,073,919; Sept. 23; Gaz. vol. 194; p. 867.
Miller, Adam L., and W. W. Burdette, Handley, W. Va. Brake for railway-cars. No. 1,072,757; Sept. 9; Gaz. vol. 194; p. 400.
Miller, Carl G., Mount Clemens, Mich. Fly-trap. No. 1,073,811; Sept. 23; Gaz. vol. 194; p. 830.
Miller, D. D. and D. E. Rowland; said Rowland assignor to The Ney Manufacturing Company, Canton, Ohio. Hay-carrier. No. 1,074,189; Sept. 30; Gaz. vol. 194; p. 986.
Miller, Emma T., San Antonio, Tex. Hat-fastener. No. 1,073,507; Sept. 16; Gaz. vol. 194; p. 702.
Miller, Frank P., Meadville, Pa. Chuck. No. 1,072,142; Sept. 2; Gaz. vol. 194; p. 162.
Miller, Fred W., J. J. Kale, and S. D. Robinson, Sheldon, Iowa. Combination display stand and rack. No. 1,072,347; Sept. 2; Gaz. vol. 194; p. 228.
Miller, George E., Madison, Me. Fluid stuffing-box. No. 1,073,273; Sept. 16; Gaz. vol. 194; p. 622.
Miller, George W., Los Angeles, Cal. Vending-machine. No. 1,072,758; Sept. 9; Gaz. vol. 194; p. 400.
Miller, Henry C., Milwaukee, Wis. Loose-leaf binder. No. 1,072,633; Sept. 9; Gaz. vol. 194; p. 357.
Miller, Henry C., Milwaukee, Wis. Post for loose-leaf binders. No. 1,072,867; Sept. 9; Gaz. vol. 194; p. 441.
Miller, Hiram S. (See Pronovost and Miller.)
Miller, John R., Chicago, Ill. Inhaler. No. 1,072,759; Sept. 9; Gaz. vol. 194; p. 401.
Miller, John J., San Diego, Cal. Ornamental reinforced-concrete veneer. No. 1,072,760; Sept. 9; Gaz. vol. 194; p. 401.
Miller, John J. A., Denver, Colo. Paper-fastener. No. 1,072,483; Sept. 9; Gaz. vol. 194; p. 306.
Miller, Milon V., Chicago, Ill. Under-water exhaust. No. 1,073,920; Sept. 23; Gaz. vol. 194; p. 868.
Miller, Robert E., Pecos, Tex. Cigar-tip cutter. No. 1,073,615; Sept. 23; Gaz. vol. 194; p. 761.
Miller, Royal R. (See Kramer and Miller.)
Miller, Sarah A., New York, N. Y. Alcohol or powder appliance. No. 1,073,155; Sept. 16; Gaz. vol. 194; p. 578.
Miller, William B., Louisville, Ohio. Dial-fastening device for watches. No. 1,074,130; Sept. 30; Gaz. vol. 194; p. 967.
Miller, William E., Providence, R. I. Gripping device. No. 1,073,156; Sept. 16; Gaz. vol. 194; p. 579.
Miller, William H., Crawfordsville, Ind. Trash-arrester and filter. No. 1,074,375; Sept. 30; Gaz. vol. 194; p. 1048.
Miller, William L., assignor to Gisholt Machine Company, Madison, Wis. Automatic cross-slide feed-trip for lathes. No. 1,072,484; Sept. 9; Gaz. vol. 194; p. 306.
Miller, William L., assignor to Gisholt Machine Company, Madison, Wis. Power-operated chuck. No. 1,074,280; Sept. 30; Gaz. vol. 194; p. 1016.
Miller, William S., Lawton, Okla. Garbage-can. No. 1,072,022; Sept. 2; Gaz. vol. 194; p. 121.
Millice, Paul S., Hamilton, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y. Locking mechanism for superposed drawers. No. 1,073,274; Sept. 16; Gaz. vol. 194; p. 622.
Mills, George W., and J. E. Simpson, Georgetown, Pa. Gravity concrete-mixer. No. 1,072,143; Sept. 2; Gaz. vol. 194; p. 163.
Mills, Virgil H., Hubbard, Tex. Lamp-burner. No. 1,073,358; Sept. 16; Gaz. vol. 194; p. 652.
Milton, John, Washington, D. C. Draft-regulator. No. 1,072,023; Sept. 2; Gaz. vol. 194; p. 121.
Milwaukee Locomotive Manufacturing Company. (See Goodspeed, Leland F., assignor.)
Mineo, Woody A. (See Neely and Mineo.)
Miner, William H. (See Hazeltine, Stacy B., assignor.)
Miner, William H. (See Johnson, George A., assignor.)
Miner, William H. (See O'Connor, John F., assignor.)
Miner, William H., Chicago, Ill. Draw-bar and yoke connection for railway draft-rigging. No. 1,073,275; Sept. 16; Gaz. vol. 194; p. 623.
Miner, William H., Chicago, Ill. Railway draft-rigging. No. 1,074,190; Sept. 30; Gaz. vol. 194; p. 987.
Minerals Separation Limited. (See Nutter, Edward H., assignor.)
Miner, William F., New York, N. Y. Timer. No. 1,072,973; Sept. 9; Gaz. vol. 194; p. 480.

Misener, Sampson J., Woodside, Dartmouth, Nova Scotia, Canada. Traveling-grate furnace. No. 1,073,359; Sept. 16; Gaz. vol. 194; p. 653.

Missouri Gas Heater and Appliance Company. (See Rohan, James J., assignor.)

Mitchell, George, Los Angeles, Cal. Apparatus for aerial navigation. No. 1,074,281; Sept. 30; Gaz. vol. 194; p. 1017.

Mitchell, George, Los Angeles, Cal. Apparatus for the treatment of ores. No. 1,074,282; Sept. 30; Gaz. vol. 194; p. 1017.

Mitchell, John F. (See Laing, John E., assignor.)

Mitchell, John F., Topeka, Kans. Vehicle-wheel. No. 1,073,697; Sept. 23; Gaz. vol. 194; p. 793.

Mix, George W., Batavia, N. Y. Feeding device. No. 1,071,941; Sept. 2; Gaz. vol. 194; p. 94.

Mixer, John H., Shale, Cal. Valve-seat. No. 1,074,191; Sept. 30; Gaz. vol. 194; p. 987.

Mochida, Suekichi, Upland, Cal. Smokeless orchard-heater. No. 1,071,942; Sept. 2; Gaz. vol. 194; p. 94.

Modern Tool Company. (See Jackson, Byron D., assignor.)

Mogni, Charles M., New York, N. Y. Drier for photographic plates. No. 1,071,943; Sept. 2; Gaz. vol. 194; p. 94.

Mohr, Otto H., San Francisco, Cal. Preserving apparatus. No. 1,073,276; Sept. 16; Gaz. vol. 194; p. 623.

Molina, Edward C. (See Fay and Molina.)

Moller, Peder T., San Diego, Cal. Street-sprinkling apparatus. No. 1,071,944; Sept. 2; Gaz. vol. 194; p. 94.

Molley, Charles F. (See Moore, Alfred H., assignor.)

Momo, Domenico, Saluggia, Italy. Combined window-railing and fire-ladder. No. 1,072,024; Sept. 2; Gaz. vol. 194; p. 122.

Monahan, Francis A., London, England. Dress form or stand. No. 1,073,157; Sept. 16; Gaz. vol. 194; p. 580.

Monarch Steam Blower Company. (See Bradley, William J., assignor.)

Monarch Typewriter Company, The. (See Purdy, John, assignor.)

Monat, Archie H. (See Dupont, Arthur J., assignor.)

Monell, Ira F., Boulder, Colo. Slime-dewatering gravity device. No. 1,074,192; Sept. 30; Gaz. vol. 194; p. 987.

Monfils, Napoleon A., Haverhill, Mass. Counter-buffing machine. No. 1,072,868; Sept. 9; Gaz. vol. 194; p. 441.

Monich, Alex, New Britain, Conn. Curtain-supporter. No. 1,072,144; Sept. 2; Gaz. vol. 194; p. 163.

Moomaw, Henry E., Chattanooga, Tenn. Sheet-metal roofing-plate. No. 1,072,025; Sept. 2; Gaz. vol. 194; p. 122.

Moon, Charles L., and J. Odell, assignors to Joplin Novelty Manufacturing Company, Joplin, Mo. Printing-machine. No. 1,074,004; Sept. 23; Gaz. vol. 194; p. 896.

Moon, Clarence W., and I. Moore, Minneapolis, Minn. Hot-water heater. No. 1,073,616; Sept. 23; Gaz. vol. 194; p. 761.

Moon, Herman, and J. M. Reynolds, Grove City, Pa. Friction reversing mechanism. No. 1,072,145; Sept. 2; Gaz. vol. 194; p. 163.

Moon-Hopkins Billing Machine Company. (See Harvey, Joseph C., assignor.)

Moon, Sampson W., Chicago, Ill. Electric safety-razor. No. 1,072,634; Sept. 9; Gaz. vol. 194; p. 357.

Moon, Wesley J., Economy, Pa. Pipe-straightener. No. 1,071,945; Sept. 2; Gaz. vol. 194; p. 95.

Moor, Edward N., Oakland, Cal. Traverse grinding, milling, and drilling machine for lathes. No. 1,073,698; Sept. 23; Gaz. vol. 194; p. 793.

Moore, Alfred H., assignor of one-half to C. F. Molley, New York, N. Y. Making railway-rails. No. 1,074,080; Sept. 23; Gaz. vol. 194; p. 924.

Moore Architectural and Engineering Company, The. (See Heller, Charles S., assignor.) (Reissue.)

Moore, Frederick J., Brooklyn, assignor of one-half to P. H. Reid, Sheepshead Bay, N. Y. Automobile heating device. No. 1,072,635; Sept. 9; Gaz. vol. 194; p. 358.

Moore, Irwin. (See Moon and Moore.)

Moore, John N., Great Falls, Mont. Staple. No. 1,072,974; Sept. 9; Gaz. vol. 194; p. 481.

Moore-Scott Iron Works. (See Schorr, Robert, assignor.)

Moran, Thomas, and D. Mosher; said Mosher assignor of three-eighths to M. Deidesheimer, San Francisco, Cal., and one-eighth to C. E. Gillette, Philadelphia, Pa. Marine paint. No. 1,072,485; Sept. 9; Gaz. vol. 194; p. 306.

Morgan Construction Company. (See Carroll, Elbert H., assignor.)

Morgan-Gardner Electric Company. (See Noble, Ralph E., assignor.)

Morgan, Lilly M., Hillsboro, Ohio. Hat-pin. No. 1,073,360; Sept. 16; Gaz. vol. 194; p. 653.

Morgan, Thomas G., Shamokin, Pa. Shaving-soap holder. No. 1,073,921; Sept. 23; Gaz. vol. 194; p. 868.

Morgan, William H., Alliance, Ohio. Railway-track construction. No. 1,072,761; Sept. 9; Gaz. vol. 194; p. 401.

Morgan, William H., Alliance, Ohio. Railway construction. No. 1,074,283; Sept. 30; Gaz. vol. 194; p. 1017.

Morgen, Henry, Crary, assignor of one-third to L. Kragerud and one-third to P. Paulson, Willow City, N. D. Hay-sling. No. 1,074,516; Sept. 30; Gaz. vol. 194; p. 1092.

Mork, Harry S., assignor to Chemical Products Company, Boston, Mass. Articles composed of cellulose esters. No. 1,074,092; Sept. 23; Gaz. vol. 194; p. 925.

Morley, Herbert S., Newton Center, Mass. Propeller. No. 1,072,249; Sept. 2; Gaz. vol. 194; p. 196.

Morris, Archibald D., assignor, by mesne assignments, to Murray and Jacobs Manufacturing Company, New York, N. Y. Making resistant surfaces. No. 1,072,026; Sept. 2; Gaz. vol. 194; p. 122.

Morris, Constance M., Warroad, Minn. Forehead-protector. No. 1,072,486; Sept. 9; Gaz. vol. 194; p. 306.

Morris, Fulton R., assignor to Morris Grain Drier Company, Milwaukee, Wis. Duct-control mechanism for grain-driers. No. 1,072,762; Sept. 9; Gaz. vol. 194; p. 402.

Morris Grain Drier Company. (See Morris, Fulton R., assignor.)

Morris, Henry G., Philadelphia, Pa. Flying-machine. No. 1,073,277; Sept. 16; Gaz. vol. 194; p. 623.

Morris, John P. (See Richards, Francis H., assignor.)

Morris, William D., assignor to The Republic Rubber Company, Youngstown, Ohio. Vehicle-wheel. No. 1,072,348; Sept. 2; Gaz. vol. 194; p. 228.

Morris, William S., assignor of forty one-hundredths to J. Caesar, St. Louis, Mo. Pole-climbing device. No. 1,073,158; Sept. 16; Gaz. vol. 194; p. 580.

Morrison, Luther E., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,072,763; Sept. 9; Gaz. vol. 194; p. 402.

Morrison, Thomas. (See Mickleson, James W., assignor.)

Morrissey, James T., assignor to American Optical Company, Southbridge, Mass. Drilling and kindred machine. No. 1,071,770; Sept. 2; Gaz. vol. 194; p. 37.

Morrow, Robert C., Thetford Mines, Quebec, Canada. Rail-fastener. No. 1,074,005; Sept. 23; Gaz. vol. 194; p. 896.

Morsberger, George B., Baltimore, Md. Draft-rigging. No. 1,072,146; Sept. 2; Gaz. vol. 194; p. 164.

Morscher, Lawrence N. (See Ehrsam and Morscher.)

Morse Chain Company. (See Morse, Frank L., assignor.)

Morse, Frank L., Trumansburg, assignor to Morse Chain Company, Ithaca, N. Y. Sprocket-wheel. No. 1,071,946; Sept. 2; Gaz. vol. 194; p. 95.

Morton, Lawrence D., assignor to The Hinde & Dauch Paper Company, Sandusky, Ohio. Egg-crate or shipping-box. No. 1,072,487; Sept. 9; Gaz. vol. 194; p. 307.

Morton, Leslie W., Canton, Ill. Rail-drill. No. 1,074,517; Sept. 30; Gaz. vol. 194; p. 1093.

Morton, Leslie W., Canton, Ill. Rail-drill drive and frame therefor. No. 1,074,557; Sept. 30; Gaz. vol. 194; p. 1105.

Moschenross, John B. (See Edison, Karl, assignor.)

Moser, Charles E., Boulogne-sur-Seine, France. Shock-absorbing wheel for vehicles. No. 1,073,508; Sept. 16; Gaz. vol. 194; p. 702.

Moses, Jacob B. (See Ludwig and Moses.)

Mosher, David. (See Moran and Mosher.)

Mosher, James W., Berkeley, Cal. Levee. No. 1,073,278; Sept. 16; Gaz. vol. 194; p. 623.

Moss, Fred. (See Pepling, Marinus, assignor.)

Mosteller, Dosier H., Chicago, Ill. Water-bicycle. No. 1,072,027; Sept. 2; Gaz. vol. 194; p. 123.

Mott, Abram C., Jr., assignor to Abram Cox Stove Company, Philadelphia, Pa. Lighting device for gas-burners of ovens. No. 1,072,349; Sept. 2; Gaz. vol. 194; p. 229.

Mott, Abram C., Jr., assignor to Abram Cox Stove Company, Philadelphia, Pa. Making molds. No. 1,074,006; Sept. 23; Gaz. vol. 194; p. 897.

Mott, Abram C., assignor to Abram Cox Stove Company, Philadelphia, Pa. Molding-machine. No. 1,074,518; Sept. 30; Gaz. vol. 194; p. 1093.

Motter, William N., and F. S. Kochendorfer, Chicago, Ill., assignors, by mesne assignments, to General Electric Company. Oscillating-fan motor. No. 1,073,617; Sept. 23; Gaz. vol. 194; p. 762.

Mueller, Anton, Breslau, Germany. Non-explosive stopper for bottles containing liquid fuels. No. 1,074,448; Sept. 30; Gaz. vol. 194; p. 1072.

Mueller, Rudolph, Chicago, Ill. Liquid-dispensing pump. No. 1,072,636; Sept. 9; Gaz. vol. 194; p. 358.

Muh, Robert, and A. Schupp, Loch Sheldrake, N. Y. Road-surfacing composition for surfacing roads, driveways, and sidewalks. No. 1,074,131; Sept. 30; Gaz. vol. 194; p. 967.

Muhlfeld, John E., Scarsdale, N. Y. Truck. No. 1,073,812; Sept. 23; Gaz. vol. 194; p. 830.

Mulford, Logan W., Narberth, assignor of one-half to F. J. Geiger, Philadelphia, Pa. Constructing a concrete skylight, vault-light, and floor-light. No. 1,073,147; Sept. 2; Gaz. vol. 194; p. 164.

Mullen, Charles A., assignor to R. D. Mullen, New York, N. Y. Drying and heating apparatus. No. 1,074,519; Sept. 30; Gaz. vol. 194; p. 1093.

Mullen, Ruth D. (See Mullen, Charles A., assignor.)

Müller, Emil, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Differential-recoil gun. No. 1,072,350; Sept. 2; Gaz. vol. 194; p. 229.

Müller, Friederich, Hartford, assignor, by mesne assignments, to The American Dan Stopper Company, Bridgeport, Conn. Cap-making and bottling machine. No. 1,074,520; Sept. 30; Gaz. vol. 194; p. 1094.

Müller, Henry, Brooklyn, N. Y. Machine for making crimped paper cups. No. 1,073,618; Sept. 23; Gaz. vol. 194; p. 762.

Mulloy Acetylene Gas Plant and Engineering Company. (See Bunnell, Morton G., assignor.)

Munch, Hans S., Racine, Wis. Combination ice-tank and hydraulic scale. No. 1,073,922; Sept. 23; Gaz. vol. 194; p. 868.

Munsey, Percy F. (See Robertson, David N., assignor.)

Munson, Edward L., U. S. Army. Apparatus for applying disinfectants and deodorants. No. 1,072,351; Sept. 2; Gaz. vol. 194; p. 230.

Munson, Samuel R., assignor to Sargent & Company, New Haven, Conn. Game-trap. No. 1,073,923; Sept. 23; Gaz. vol. 194; p. 869.

Muntz, Frank, Greenfield, Ill. Plow attachment. No. 1,073,434; Sept. 16; Gaz. vol. 194; p. 678.

Murdock, Allen C., assignor of one-half to G. A. Kenwell, Inlet, N. Y. Cuspidor. No. 1,074,521; Sept. 30; Gaz. vol. 194; p. 1094.

Murphy, Harry, *et al.* (See Shipp, Michael W., assignor.)

Murphy, Howard M. P., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure-reducing valve. No. 1,071,777; Sept. 2; Gaz. vol. 194; p. 38.

Murphy, Walter P. (See Sisson, Vinton E., assignor.)

Murray and Jacobs Manufacturing Company. (See Morris, Archibald D., assignor.)

Murray, Stephen D., Dallas, Tex. Combined filler and packer for baling apparatus. No. 1,074,061; Sept. 23; Gaz. vol. 194; p. 914.

Murray, Thomas E., New York, N. Y. Device for trapping particles in suspension in gas-currents. No. 1,073,621; Sept. 23; Gaz. vol. 194; p. 763.

Murray, Thomas E., Jr., assignor to T. E. Murray, New York, N. Y. Electric fuse. No. 1,073,619; Sept. 23; Gaz. vol. 194; p. 762.

Murray, Thomas E., and C. B. Grady, New York, N. Y. Trapping solid particles in suspension in gas-currents. No. 1,073,622; Sept. 23; Gaz. vol. 194; p. 764.

Murray, Thomas E., and C. B. Grady, New York, N. Y.; said Grady assignor to said Murray. Trapping particles in suspension in gas-currents. No. 1,073,620; Sept. 23; Gaz. vol. 194; p. 763.

Myers, Donald D., La Fayette, assignor, to The Esterline Company, Indianapolis, Ind. Lamp. No. 1,074,449; Sept. 30; Gaz. vol. 194; p. 1072.

Myers, George S., Philadelphia, Pa. Railway-tie. No. 1,074,062; Sept. 23; Gaz. vol. 194; p. 914.

Myers, Lewis C., assignor to Royal Typewriter Company, New York, N. Y. Ribbon mechanism for type-writing machines. No. 1,072,148; Sept. 2; Gaz. vol. 194; p. 164.

Myers, Lewis C., assignor to Royal Typewriter Company, New York, N. Y. Spring-barrel mechanism for type-writing machines. No. 1,072,149; Sept. 2; Gaz. vol. 194; p. 165.

Myllus, Frederic, Atlanta, Ga. Aeroplane. No. 1,074,007; Sept. 23; Gaz. vol. 194; p. 897.

Naeckel, Alexander, Davenport, Iowa. Piston-rod packing. No. 1,072,975; Sept. 9; Gaz. vol. 194; p. 481.

Nagel, Friedrich, Düren, Germany. Folded filter. No. 1,074,008; Sept. 23; Gaz. vol. 194; p. 897.

Nagel, William A., Harrison, Ohio. Parachute attachment for airships. No. 1,072,764; Sept. 9; Gaz. vol. 194; p. 403.

Nance, James W., assignor of one-fourth to H. W. Wilson, Twin Falls, Idaho. Spark-plug. No. 1,073,699; Sept. 23; Gaz. vol. 194; p. 793.

National Brake & Electric Company. (See Aikman, Burton S., assignor.)

National Cash Register Company, The. (See McCormick, John H., assignor.)

National Cash Register Company, The. (See Pein, Edward J. von, assignor.)

National Coupling Manufacturing Company. (See Hilton, Roland C., assignor.)

National Dump Car Company. (See Yost, Winfield H., assignor.)

National Fire Proofing Company. (See Nickson, Elliott E., assignor.)

National Indicator Company. (See Hutchinson, Job, assignor.)

National Malleable Castings Company, The. (See Bazeley, Arthur J., assignor.)

National Malleable Castings Company, The. (See Pope, Henry F., assignor.)

National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)

National Malleable Castings Company, The. (See Willison, John, assignor.)

National Match Company. (See Vaughan, Bernard G., assignor.)

National Metal Molding Company. (See Gilson, Henry R., assignor.)

National Standard Company. (See Bowers and Cook, assignors.)

National Standard Company. (See Cook, Eugene, assignor.)

National Tube Company. (See Waterman, Fred W., assignor.)

Naumann, Wilhelm, Berlin, Germany, assignor to General Electric Company. System of motor control. No. 1,071,778; Sept. 2; Gaz. vol. 194; p. 38.

Nauss, Lee A. and R. J., Greenville, Ohio. Powder-sprayer. No. 1,073,159; Sept. 16; Gaz. vol. 194; p. 580.

Nauss, Ray J. (See Nauss, Lee A. and R. J.)

Nearing, Frank, New York, N. Y. Rotary engine. No. 1,071,779; Sept. 2; Gaz. vol. 194; p. 39.

Neely, Samuel L., and W. A. Mineo, Edmond, Okla. Safety gas-controller. No. 1,074,132; Sept. 30; Gaz. vol. 194; p. 967.

Neenan Elevator Company. (See Neenan, Michael E., assignor.)

Neenan, Michael E., New York, assignor to Neenan Elevator Company, Brooklyn, N. Y. Rope elevator. No. 1,073,700; Sept. 23; Gaz. vol, 194; p. 794.

Nees, Alpheus K. (See Brown and Nees.)

Neher, Noah N., Los Angeles, Cal. Vending-machine. No. 1,072,150; Sept. 2; Gaz. vol. 194; p. 165.

Neidig Typewriter Co. (See Neidig and Stewart, assignors.)

Neidig, William J., and C. B. Stewart, Madison, Wis., assignors to Neidig Typewriter Co., Chicago, Ill. Typewriting machine. No. 1,071,780; Sept. 2; Gaz. vol. 194; p. 39.

Neiman, Alvin B., New York, N. Y. Heat-radiator. No. 1,073,813; Sept. 23; Gaz. vol. 194; p. 831.

Neller, Albert H., assignor to Louden Machinery Company, Fairfield, Iowa. Cattle-stall. No. 1,072,352; Sept. 2; Gaz. vol. 194; p. 230.

Nelson, Anton R., Janesville, Cal. Automatic battery cut-out for telephone-circuits. No. 1,072,400; Sept. 2; Gaz. vol. 194; p. 248.

Nelson, Charles C., assignor of one-half to W. Matteson, Bay City, Mich. Door-hanger. No. 1,073,509; Sept. 16; Gaz. vol. 194; p. 703.

Nelson, De Witt C., assignor of one-half to J. H. Nichols, Dallas, Tex. Cotton-saw gummer. No. 1,072,353; Sept. 2; Gaz. vol. 194; p. 231.

Nelson, Emil A., assignor to Hupp Motor Car Company, Detroit, Mich. Engine and magneto assembly. No. 1,071,781; Sept. 2; Gaz. vol. 194; p. 39.

Nelson, Emma B., Vernon Center, Minn. Hay or straw spear. No. 1,071,947; Sept. 2; Gaz. vol. 194; p. 95.

Nelson, Martin W., Harlem, Mont. Fountain blacking-brush. No. 1,074,522; Sept. 30; Gaz. vol. 194; p. 1095.

Nelson, N. P., *et al.* (See Nordlund, Oscar A., assignor.)

Nelson, Nels, St. Paul, Minn. Hand-car. No. 1,074,523; Sept. 30; Gaz. vol. 194; p. 1095.

Nelson, Oscar T. (See Rollings, Sweeney, Nelson, and Trentham.)

Nelson, William J., assignor to H. E. A. Olson, Rockford, Ill. Ironing-board. No. 1,073,814; Sept. 23; Gaz. vol. 194; p. 831.

Neu, Henri J. E. (See Kestner and Neu.)

Neudörffer, Emil, Stuttgart, Germany. Electric pocket-lamp. No. 1,074,376; Sept. 30; Gaz. vol. 194; p. 1048.

Neudörffer, Emil, Stuttgart, Germany. Electric pocket-lamp. No. 1,074,377; Sept. 30; Gaz. vol. 194; p. 1049.

Neuhaus, Hermann, Wolfratshausen, near Munich, Germany. Apparatus for the production of stereoscopic pictures. No. 1,074,284; Sept. 30; Gaz. vol. 194; p. 1018.

Neumann, Walter. (See Braun, Luithlen, and Neumann.)

Neumayer, Frederick W., Baltimore, Md., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,072,765; Sept. 9; Gaz. vol. 194; p. 403.

Neustaedter, John, Valley City, N. D. Tool-chest handle. No. 1,074,133; Sept. 30; Gaz. vol. 194; p. 968.

Neville, Daniel D., Kansas City, assignor to The Kansas City Bolt & Nut Co., Sheffield, Mo. Pull-rod clamp. No. 1,073,776; Sept. 23; Gaz. vol. 194; p. 819.

New Jersey Patent Company. (See Aylsworth, Jonas W., assignor.)

New Process Specialty Company. (See Wheelock, Carl M., assignor.)

New York Bottlers' Supplies Mfg. Co. (See Schultz, John A., Jr., assignor.)

Newbold, Eugene S., assignor to American Street Lighting Company, Baltimore, Md. Incandescing-mantle gasolene-lamp. No. 1,072,354; Sept. 2; Gaz. vol. 194; p. 231.

Newlon, John M., Vienna, Va. Collar-button buttoner. No. 1,073,815; Sept. 23; Gaz. vol. 194; p. 831.

Newman, Ernest A., Woburn, Mass. Radiator. No. 1,072,637; Sept. 9; Gaz. vol. 194; p. 359.

Newman, Horatio H., Sandersville, Ga. Two-cycle explosive-engine. No. 1,072,766; Sept. 9; Gaz. vol. 194; p. 403.

Newpher, Alfred H., Chicago, Ill., assignor to The Adams & Westlake Company. Door. No. 1,073,160; Sept. 16; Gaz. vol. 194; p. 580.

Newton, Dimond C., assignor of one-half to M. Lindeman, Owego, N. Y. Safety and signaling device for railways. No. 1,073,510; Sept. 16; Gaz. vol. 194; p. 703.

Ney Manufacturing Company, The. (See Miller and Rowland, assignors.)

Nichols, C. O. (See Wiard, Myron W., assignor.)

Nichols, John H. (See Nelson, De Witt C., assignor.)

Nichols, Oliver, Mound Valley, Kans. Combined gas and oil burner. No. 1,072,976; Sept. 9; Gaz. vol. 194; p. 482.

Nichols, Wesley G., Chicago Heights, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me. Driving-pinion for rolling-mills. No. 1,072,488; Sept. 9; Gaz. vol. 194; p. 307.

Nickerson, Luke A. (See Maxwell and Nickerson.)

Nickson, Elliott E., Philadelphia, assignor to National Fire Proofing Company, Pittsburgh, Pa. Window-sill construction and tile therefor. No. 1,071,782; Sept. 2; Gaz. vol. 194; p. 40.
Niemi, Sakarias K., Tower, Minn. Hammer. No. 1,074,009; Sept. 23; Gaz. vol. 194; p. 897.
Nitrogen Company, The. (See Acker, Charles E., assignor.)
Nitschman, Joseph, Newark, N. J. Embroidery-frame. No. 1,073,511; Sept. 16; Gaz. vol. 194; p. 704.
Nixon, Moses C., Peru, Ind. Baling-press. (Reissue.) No. 13,615; Sept. 9; Gaz. vol. 194; p. 522.
Nobel's Explosives Company. (See Hodge, Howard D., assignor.)
Noble, Ralph E., assignor to Morgan-Gardner Electric Company, Chicago, Ill. Locomotive. No. 1,072,396; Sept. 2; Gaz. vol. 194; p. 247.
Nolan, James A., Bowerston, Ohio. Stop for mining-cars. No. 1,072,977; Sept. 9; Gaz. vol. 194; p. 482.
Nolan, Oliver, assignor to C. R. Wilkinson, St. Paul, Minn. Tamping-machine. No. 1,072,355; Sept. 2; Gaz. vol. 194; p. 231.
Nolan, William F., St. Paul, Minn. Copper alloy. No. 1,074,285; Sept. 30; Gaz. vol. 194; p. 1018.
Norcross, William M., Boston, Mass. Lawn-trimmer. No. 1,072,151; Sept. 2; Gaz. vol. 194; p. 166.
Norden, Svan, assignor to F. A. Stevens, Providence, R. I. Eyeglasses. No. 1,073,777; Sept. 23; Gaz. vol. 194; p. 820.
Nordlund, Oscar A., assignor of two-thirds to N. P. Nelson, Lindsborg, and F. O. Johnson, McPherson, Kans. Wrench. No. 1,072,767; Sept. 9; Gaz. vol. 194; p. 404.
Norman, John W., Caruthersville, Mo. Mail-receptacle. No. 1,072,356; Sept. 2; Gaz. vol. 194; p. 232.
North Bro's M'f'g Co. (See Leopold, George O., assignor.)
North, Charles, Colorado Springs, Colo. Box-car door. No. 1,072,638; Sept. 9; Gaz. vol. 194; p. 359.
North East Electric Company. (See Halbleib, Edward A., assignor.)
Norton, Frank W., Cedar Rapids, Iowa. Photograph-developing apparatus. No. 1,074,572; Sept. 30; Gaz. vol. 194; p. 1111.
Norton, Harold F., Newport News, Va. Boat-davit. No. 1,071,783; Sept. 2; Gaz. vol. 194; p. 40.
Nurse, Philip, New York, N. Y. Horseshoe calk and carrier. No. 1,074,450; Sept. 30; Gaz. vol. 194; p. 1073.
Nussbaumer, Friedrich, Zug, Switzerland. Boot-protector. No. 1,074,378; Sept. 30; Gaz. vol. 194; p. 1049.
Nutter, Edward H., New York, N. Y., assignor to Minerals Separation Limited, London, England. Valve for controlling the flow of thick pulpy material and the like. No. 1,071,784; Sept. 2; Gaz. vol. 194; p. 41.
Nydegger, Max, Elizabeth, N. J. Knitting-machine. No. 1,072,639; Sept. 9; Gaz. vol. 194; p. 360.
Nydegger, Max, Elizabeth, N. J. Knitted garment. No. 1,072,640; Sept. 9; Gaz. vol. 194; p. 360.
O. A. Albrecht Company. (See Albrecht, Oscar A., assignor.)
O'Brien, James F., Chicago, Ill. Explosive. No. 1,071,949; Sept. 2; Gaz. vol. 194; p. 96.
O'Brien, James F., Chicago, Ill. Explosive. No. 1,073,279; Sept. 16; Gaz. vol. 194; p. 624.
O'Brien, William S., Nevada City, Cal. Slack-adjuster for car-brakes. No. 1,074,558; Sept. 30; Gaz. vol. 194; p. 1106.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Shock-absorbing device for vehicles. No. 1,073,161; Sept. 16; Gaz. vol. 194; p. 581.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,073,162; Sept. 16; Gaz. vol. 194; p. 581.
O'Connor, John F., assignor to W. H. Miner, Chicago, Ill. Draft-rigging for railway-cars. No. 1,073,163; Sept. 16; Gaz. vol. 194; p. 581.
O'Meara, Jeremiah, New York, N. Y. Pencil-sharpener. No. 1,072,768; Sept. 9; Gaz. vol. 194; p. 404.
O'Neal, Oscar, Fremont, Mich. Automobile-lamp. No. 1,071,785; Sept. 2; Gaz. vol. 194; p. 41.
O'Neill, Frank, Toledo, Ohio. Vehicle-wheel. No. 1,072,979; Sept. 9; Gaz. vol. 194; p. 483.
O'Reilly, John S., Roxbury, assignor of one-half to B. J. Heaney, Dorchester, Mass. Game apparatus. No. 1,074,451; Sept. 30; Gaz. vol. 194; p. 1073.
Oathout, Arthur N., Gloversville, assignor to L. Meyer & Son, New York, N. Y. Attachment for sewing-machines. No. 1,072,480; Sept. 9; Gaz. vol. 194; p. 307.
Oberstadt, Graf O. B. von, Chicago, Ill. Signaling device. No. 1,071,948; Sept. 2; Gaz. vol. 194; p. 95.
Ocampo, Sixto, New York, N. Y. Means for the systematic control of electric circuits by light-rays. No. 1,072,152; Sept. 2; Gaz. vol. 194; p. 166.
Odell, John. (See Moon and Odell.)
Oelke, Theodore G., Anadarko, Okla. Vehicle hub and axle. No. 1,072,250; Sept. 2; Gaz. vol. 194; p. 197.
Oestreich, Charles, Marion, Wis. Saw filing and setting frame. No. 1,074,134; Sept. 30; Gaz. vol. 194; p. 968.
Oeth, Cornelius E. (See Mellor and Oeth.)
Offutt, John W., Ellwood City, Pa. Saw-guard. No. 1,072,401; Sept. 2; Gaz. vol. 194; p. 249.
Ohio Brass Company, The. (See Bolus, Glenn H., assignor.)
Ohio Rake Company, The. (See Lathrop, Frank K., assignor.)
Oliar, Forrest L., La Fayette, Ind. Bed attachment. No. 1,072,490; Sept. 9; Gaz. vol. 194; p. 308.
Oliver Chilled Plow Works. (See Paul, William L., assignor.)
Oliver Electric Company. (See Oliver, William B., assignor.)
Oliver, William B., Collingswood, N. J., assignor to Oliver Electric Company, Philadelphia, Pa. Microtelephone. No. 1,074,286; Sept. 30; Gaz. vol. 194; p. 1018.
Olsen, Carl L., assignor to E. C. Atkins and Company, Indianapolis, Ind. Saw-swage. No. 1,074,010; Sept. 23; Gaz. vol. 194; p. 898.
Olson, Andrew G., and J. A. Dola, Elbow Lake, Minn. Grain-car door. No. 1,074,193; Sept. 30; Gaz. vol. 194; p. 987.
Olson, Harry E. A. (See Nelson, William J., assignor.)
Olson, Søren J., *et al.* (See Schell, Max P., assignor.)
Olson, Thomas, and C. Hammersberg, La Crosse, Wis. Automatic sight-feed lubricator. No. 1,072,978; Sept. 9; Gaz. vol. 194; p. 482.
Opgenorth, Henry, Sheboygan, Wis. Belt-replacer. No. 1,072,641; Sept. 9; Gaz. vol. 194; p. 360.
Orange Auto Power Company. (See Barker, John P., assignor.)
Orme, Harry A., Wesley Heights, D. C. Rudder for aeroplanes. No. 1,074,063; Sept. 23; Gaz. vol. 194; p. 915.
Ort, Anton, assignor of one-half to H. Drossner, Paris, France. Scallop-trimming device for sewing-machines. No. 1,074,452; Sept. 30; Gaz. vol. 194; p. 1073.
Orth, Frank, Indiana Harbor, Ind. Furnace-door. No. 1,071,786; Sept. 2; Gaz. vol. 194; p. 41.
Orth, Ludwig von. (See Richter and Orth.)
Orvis, Orland D., New York, N. Y. Steam-boiler furnace. No. 1,071,787; Sept. 2; Gaz. vol. 194; p. 42.
Osborne, Charles M., Brainerd, Minn. Bechive. No. 1,073,701; Sept. 23; Gaz. vol. 194; p. 794.
Osgood, John H. (See Voorhees and Osgood.)
Osgood, Rollin D. (See Bass and Osgood.)
Osterholm, William, assignor to Latham Machinery Company, Chicago, Ill. Work-feed for stapling-machines. No. 1,074,559; Sept. 30; Gaz. vol. 194; p. 1106.
Ostern, Joseph C., San Francisco, Cal. Tailor's and laundry ironing-table. No. 1,074,328; Sept. 30; Gaz. vol. 194; p. 1032.
Otis Elevator Company. (See Baxter, William, Jr., assignor.)
Otis Elevator Company. (See Carlchoff, Eugene R., assignor.)
Otis Elevator Company. (See Lutz, William D., assignor.)
Otis Elevator Company. (See Matthews, Edwin S., assignor.)
Ott, Firm of A. (See Ott, Ludwig, assignor.)
Ott, Ludwig, assignor to Firm of A. Ott, Kempten, Bavaria, Germany. Integrator. No. 1,072,153; Sept. 2; Gaz. vol. 194; p. 166.
Ovington, Edward J., Los Angeles, Cal., assignor, by mesne assignments, to Simplex Electric Heating Company, Cambridge, Mass. Culinary apparatus. No. 1,072,154; Sept. 2; Gaz. vol. 194; p. 167.
Owen, Alden B., and T. Hall., assignors to The Ridgway Dynamo and Engine Company, Ridgway, Pa. Steam-turbine blade. No. 1,073,623; Sept. 23; Gaz. vol. 194; p. 794.
Owen, Herbert W., Dover, N. H. Tool for applying travelers to rings. No. 1,073,280; Sept. 16; Gaz. vol. 194; p. 624.
Owen, Robert, Jr., Shawnee, Ohio. Double-acting wrench. No. 1,072,980; Sept. 9; Gaz. vol. 194; p. 483.
Owens, Richard L., assignor to J. L. Owens Manufacturing Company, Minneapolis, Minn. Machine for transplanting plants. No. 1,073,702; Sept. 23; Gaz. vol. 194; p. 794.
Owsley, Paul O., Evanston, Ill., assignor to Heaton Manufacturing Company, Wilmington, Del. Baby's portable collapsible bath-tub. No. 1,073,435; Sept. 16; Gaz. vol. 194; p. 678.
Packard Motor Car Company. (See Huff, Russell, assignor.)
Packard Motor Car Company. (See Trego, Frank H., assignor.)
Packer, Mortimer L., Columbus, Ohio. Combined heating and illuminating burner. No. 1,074,560; Sept. 30; Gaz. vol. 194; p. 1107.
Paddack, Arthur J., Omaha, Nebr. Hanger for storm-windows and the like. No. 1,071,950; Sept. 2; Gaz. vol. 194; p. 96.
Paddock, Nathan J., Jersey City, N. J. Machine for aerial flights. No. 1,074,135; Sept. 30; Gaz. vol. 194; p. 968.
Palin, David, Central Falls, R. I. Clothes-line tightener. No. 1,073,512; Sept. 16; Gaz. vol. 194; p. 704.
Pallesen, Viggo W., Collegeview, Nebr., and J. Paulson, Hutchinson, Minn.; said Paulson assignor to said Pallesen. Combined fireless cooker and range. No. 1,073,924; Sept. 23; Gaz. vol. 194; p. 869.
Palm, Adolph G., Lyle, Minn. Horseshoe. No. 1,073,778; Sept. 23; Gaz. vol. 194; p. 820.
Palmer, Bartlett J., Davenport, Iowa. Mounting for bones. No. 1,073,703; Sept. 23; Gaz. vol. 194; p. 795.
Palmer, Charles, Catford; R. Briden, receiver in lunacy of said Palmer, assignor to G. W. Marsh and C. R. Thomas, London, England. Cash-register. No. 1,072,769; Sept. 9; Gaz. vol. 194; p. 404.

Palmer, Charles J., Appleton, Wis. Dental device. No. 1,072,357; Sept. 2; Gaz. vol. 194; p. 232.
Palmer Electric & Manufacturing Company, The. (See Palmer, Granville E., assignor.)
Palmer, Granville E., Brookline, assignor to The Palmer Electric & Manufacturing Company, Boston, Mass. Service-switch mechanism. No. 1,073,281; Sept. 16; Gaz. vol. 194; p. 624.
Palmer, Henry A., Jewell, Kans. Rail-joint. No. 1,074,524; Sept. 30; Gaz. vol. 194; p. 1095.
Palmer, William D. (See Braden and Palmer.)
Palmros, Alexander, assignor to The Pneumelectric Machine Company, Syracuse, N. Y. Fluid-pressure-driven tool. No. 1,072,358; Sept. 2; Gaz. vol. 194; p. 232.
Palmros, Alexander, assignor to The Pneumelectric Machine Company, Syracuse, N. Y. Rock-drill with water-feed. No. 1,072,359; Sept. 2; Gaz. vol. 194; p. 233.
Palomo y Golmadia, Cándido, Deusto, Bilbao, Spain. Lubricator for piston-rods. No. 1,073,282; Sept. 16; Gaz. vol. 194; p. 625.
Pap, Károly, Kolozsvár, Austria-Hungary. Automatic-shut-off water-gage. No. 1,072,642; Sept. 9; Gaz. vol. 194; p. 361.
Parham, William J., Pittsburgh, Pa. Egg-beater. No. 1,072,251; Sept. 2; Gaz. vol. 194; p. 197.
Parisano, Michael A., New York, N. Y. Flying-machine. No. 1,074,525; Sept. 30; Gaz. vol. 194; p. 1096.
Park, William E., Rockford, Ill. Refrigerator. No. 1,074,453; Sept. 30; Gaz. vol. 194; p. 1074.
Parker, Clarence L., Los Angeles, Cal. Elevator for sucker-rods. No. 1,072,360; Sept. 2; Gaz. vol. 194; p. 233.
Parker, George E., and W. Ellinger, Fairhaven, Mo. Corn-planter. No. 1,073,816; Sept. 23; Gaz. vol. 194; p. 831.
Parker, George H., Newark, N. J., assignor, by mesne assignments, to M. C. Baker, Stamford, Conn. Bulletin-board. No. 1,073,866; Sept. 23; Gaz. vol. 194; p. 848.
Parker, Harry L. (See Cobb and Parker.)
Parker, John H. (See Keefe, Joseph, assignor.)
Parker, Joseph N., Bedford City, Va. Motor-plow. No. 1,073,513; Sept. 16; Gaz. vol. 194; p. 704.
Parker Manufacturing Company, The. (See Parker, Willis S., assignor.)
Parker, Willis S., assignor to The Parker Manufacturing Company, Philadelphia, Pa. Gaseous-fuel mixer. No. 1,074,136; Sept. 30; Gaz. vol. 194; p. 969.
Parkin, Winfred T., Providence, R. I. Tea and coffee strainer. No. 1,073,164; Sept. 16; Gaz. vol. 194; p. 582.
Partain, Joseph, Williams, Cal. Windmill. No. 1,074,011; Sept. 23; Gaz. vol. 194; p. 898.
Partmann, Johan, New York, N. Y. Lock for hand-bags. No. 1,072,981; Sept. 9; Gaz. vol. 194; p. 484.
Pascoe, William F., Jr., assignor to The Cooper Heater Company, Carlisle, Pa. Heater. No. 1,074,194; Sept. 30; Gaz. vol. 194; p. 988.
Pascoe, William F., Jr., assignor to The Cooper Heater Company, Carlisle, Pa. Heater. No. 1,074,195; Sept. 30; Gaz. vol. 194; p. 988.
Pasman, Abram N., Jersey City, N. J. Flush-valve. No. 1,074,379; Sept. 30; Gaz. vol. 194; p. 1049.
Patrick, Joseph S. (See Patrick, Uriah B. and J. S.)
Patrick, Uriah B. and J. S., Oklahoma, Okla. Crude-oil burner. No. 1,073,283; Sept. 16; Gaz. vol. 194; p. 625.
Pattison, James W. H., Glasgow, Scotland. Cigarette-case. No. 1,074,573; Sept. 30; Gaz. vol. 194; p. 1111.
Pattison, Thomas, Sunnyvale, Cal. Chimney, ventilator, and the like. No. 1,071,951; Sept. 2; Gaz. vol. 194; p. 96.
Paul, Anton, assignor of one-half to A. Beck, Budapest, Austria-Hungary. Nut-shelling machine. No. 1,073,165; Sept. 16; Gaz. vol. 194; p. 582.
Paul, William L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Engine gang-plow. No. 1,073,361; Sept. 16; Gaz. vol. 194; p. 653.
Pauling, Harry, Cologne, Germany, assignor to Southern Electro-Chemical Company, New York, N. Y. High concentration of watery nitric acid. No. 1,074,287; Sept. 30; Gaz. vol. 194; p. 1018.
Paulson, Junius. (See Pallesen and Paulson.)
Paulson, Peter, *et al.* (See Morgen, Henry, assignor.)
Peare, George R. (See Stephenson and Peare.)
Peare, Sarah S., administratrix. (See Stephenson and Peare.)
Pearsall, Albert W., Lowell, assignor to The Lamson Company (formerly Lamson Consolidated Store Service Company), Boston, Mass. Pneumatic-despatch-tube apparatus. No. 1,073,867; Sept. 23; Gaz. vol. 194; p. 848.
Pearson, James. (See Jones, Edwin C., assignor.)
Pearson, Martin, Los Angeles, Cal. Apparatus for aerial navigation. No. 1,074,288; Sept. 30; Gaz. vol. 194; p. 1019.
Pearson, Sylvester G. (See Laufenburg and Pearson.)
Pearson, William, Hot Springs, Ark. Combination-tool. No. 1,074,380; Sept. 30; Gaz. vol. 194; p. 1050.
Pearson, William E., Boston, Mass. Rotary pump. No. 1,072,155; Sept. 2; Gaz. vol. 194; p. 167.
Pease, William A., assignor to The E. M. Hulse Company, Columbus, Ohio. Sofa or davenport bed. (Reissue.) No. 13,612; Sept. 2; Gaz. vol. 194; p. 254.
Peck, Anna L., Minneapolis, Minn. Foldable box. No. 1,072,643; Sept. 9; Gaz. vol. 194; p. 361.
Peck, Frank H., Jamesville, N. Y. Sampler. No. 1,072,644; Sept. 9; Gaz. vol. 194; p. 361.
Peck, Isaac M., assignor of one-half to R. H. May, Tiffin, Ohio. Nut-lock. No. 1,074,196; Sept. 30; Gaz. vol. 194; p. 988.
Peck, John E., Logan, W. Va. Trolley-pole and brake control. No. 1,072,252; Sept. 2; Gaz. vol. 194; p. 197.
Peck, John E., Logan, W. Va. Hose-mending device. No. 1,072,253; Sept. 2; Gaz. vol. 194; p. 197.
Peck, Staunton B., assignor to Link-Belt Company, Chicago, Ill. Stand for troughing-rolls. No. 1,072,156; Sept. 2; Gaz. vol. 194; p. 167.
Pedersen, John D., Jackson, Wyo. Firearm. No. 1,072,982; Sept. 9; Gaz. vol. 194; p. 484.
Peek, Frank W., Jr., Schenectady, N. Y., assignor to General Electric Company. Lightning-arrester. No. 1,074,454; Sept. 30; Gaz. vol. 194; p. 1074.
Peelle Co., The. (See Wexler, Benjamin, assignor.)
Pein, Edward J. von, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,071,788; Sept. 2; Gaz. vol. 194; p. 42.
Pein, Edward J. von, assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,073,704; Sept. 23; Gaz. vol. 194; p. 795.
Pejauo, Albert D., assignor to The American Folding Machine Company, Cleveland, Ohio. Paper-feeding machine. No. 1,074,455; Sept. 30; Gaz. vol. 194; p. 1074.
Pelle, Henry D., assignor of one-half to E. V. Burke, Stockton, Cal. Piano-action-flange holder. No. 1,074,289; Sept. 30; Gaz. vol. 194; p. 1019.
Pelton, Charles H., assignor to The Thomas Manufacturing Company, Springfield, Ohio. Drill. No. 1,072,869; Sept. 9; Gaz. vol. 194; p. 441.
Pelton & Crane Co., The. (See Crane, Ernest M., assignor.)
Pelton, George M., assignor to The Filer and Stowell Company, Milwaukee, Wis. Sawmill-carriage offset. No. 1,073,166; Sept. 16; Gaz. vol. 194; p. 583.
Pelton, George M., assignor to The Filer and Stowell Company, Milwaukee, Wis. Band-saw mill. No. 1,074,197; Sept. 30; Gaz. vol. 194; p. 989.
Pennington, Henry J., St. Marys, Ind. Wire-splicer. No. 1,073,514; Sept. 16; Gaz. vol. 194; p. 705.
Pennsylvania Globe Gas Light Company. (See Slinack, Victor H., assignor.)
Pepling, Marinus, Newark, N. J., assignor to F. Moss, New York, N. Y. Winding-machine. No. 1,072,157; Sept. 2; Gaz. vol. 194; p. 168.
Percival, John A., Winnipeg, Manitoba, Canada. Manifolding-book. No. 1,072,254; Sept. 2; Gaz. vol. 194; p. 198.
Peregrine, Seymour W., Portland, Me. Gas-generator for explosive-engines. No. 1,072,402; Sept. 2; Gaz. vol. 194; p. 249.
Perkins Electric Switch Manufacturing Company, The. (See Goodridge, Gilbert W., assignor.)
Perkins, Harry F., Schenectady, N. Y., assignor to General Electric Company. Space signaling system. No. 1,074,456; Sept. 30; Gaz. vol. 194; p. 1075.
Perreur-Lloyd, Marcel, Boulogne-sur-Seine, France. Electrolytic apparatus. No. 1,073,868; Sept. 23; Gaz. vol. 194; p. 849.
Perry, Edgar W., Georgetown, S. C. Wheel-hub. No. 1,072,983; Sept. 9; Gaz. vol. 194; p. 485.
Perry, Edson, Mulhall, Okla. Draft attachment for plows. No. 1,072,255; Sept. 2; Gaz. vol. 194; p. 198.
Perry, Thomas O., Oak Park, Ill. Hydroturbine-aspirator. No. 1,071,789; Sept. 2; Gaz. vol. 194; p. 43.
Perzin, Leo, Philadelphia, Pa. Artificial tooth. No. 1,071,952; Sept. 2; Gaz. vol. 194; p. 97.
Peteler, Adolph, New York, N. Y. Shock-absorber. No. 1,072,770; Sept. 9; Gaz. vol. 194; p. 405.
Peters Cartridge Company. (See Tewes, William A., assignor.)
Peters, Detrich D., Dallas, Oreg. Tool-handle. No. 1,073,817; Sept. 23; Gaz. vol. 194; p. 832.
Peters, Edward. (See Franks, William L., assignor.)
Peters, Walter H., Steger, Ill. Postage-stamp vending and affixing machine. No. 1,073,515; Sept. 16; Gaz. vol. 194; p. 705.
Petersen, Anker, assignor to Boston Machinery Company, Boston, Mass. Machine for making tubular fabrics. No. 1,072,984; Sept. 9; Gaz. vol. 194; p. 485.
Petersen, Hans P., South Tacoma, Wash. Draft appliance. No. 1,073,516; Sept. 16; Gaz. vol. 194; p. 705.
Petri-Palmedo, David, Providence, R. I., assignor to Electric Compositor Company, New York, N. Y. Squirt-preventer mechanism for linotype-machines. No. 1,073,705; Sept. 23; Gaz. vol. 194; p. 796.
Pettigrew, Charles H., Hayes, England, assignor to The Goss Printing Press Company, Chicago, Ill. Plate-casting machine. No. 1,072,158; Sept. 2; Gaz. vol. 194; p. 168.
Pfeiffer, George S., Chicago, Ill. Mounting for rimless spectacles and eyeglasses. No. 1,072,159; Sept. 2; Gaz. vol. 194; p. 168.
Pflager, Harry M., assignor to Double Body Bolster Company, St. Louis, Mo. Car-truck. No. 1,072,645; Sept. 9; Gaz. vol. 194; p. 361.
Pflager, Harry M., assignor to Double Body Bolster Company, St. Louis, Mo. Car end frame. No. 1,072,646; Sept. 9; Gaz. vol. 194; p. 362.
Pflager, Harry M., assignor to Double Body Bolster Company, St. Louis, Mo. Car end frame. No. 1,073,706; Sept. 23; Gaz. vol. 194; p. 796.
Phelps, Joseph. (See Farnham, Smith, and Phelps.)
Phelps, Sebring I., Buchanan, Mich. Time-switch. No. 1,073,707; Sept. 23; Gaz. vol. 194; p. 797.

Philadelphia Drying Machinery Company, The. (See Sibson and Allsop, assignors.)

Philadelphia Textile Machinery Company, The. (See Ayres, Elwood B., assignor.)

Phillips, Edwin S., Kennett Square, Pa., assignor to American Road Machine Company. Road-scraper. No. 1,072,160; Sept. 2; Gaz. vol. 194; p. 169.

Phillips, Arthur P., Haverhill, assignor to Crosby Steam Gage and Valve Company, Boston, Mass. Pressure-recording gage. No. 1,072,161; Sept. 2; Gaz. vol. 194; p. 169.

Phillips, Byron B., Gouldsboro, Pa. Conveyer for handling ice, &c. No. 1,072,985; Sept. 9; Gaz. vol. 194; p. 485.

Phillips, Francis V., Orlando, Fla. Saw-guard. No. 1,074,198; Sept. 30; Gaz. vol. 194; p. 989.

Phillips Manufacturing Company. (See Chappell, Thomas E., assignor.)

Picard, Alphonse A., New York, N. Y. Wheel-tire. No. 1,071,953; Sept. 2; Gaz. vol. 194; p. 97.

Piccone, Gimi, and S. Lippis, Chandler, Colo. Drilling-machine. No. 1,072,256; Sept. 2; Gaz. vol. 194; p. 198.

Pichler, Stephan, Brooklyn, N. Y. Scaffold. No. 1,073,925; Sept. 23; Gaz. vol. 194; p. 869.

Pickerill, Elmo N., New York, N. Y., assignor, by mesne assignments, to Marconi Wireless Telegraph Company of America. Breaking means for radiotelegraphy. No. 1,073,624; Sept. 23; Gaz. vol. 194; p. 764.

Piechocinski, Victor M., New York, N. Y. Station-indicator. No. 1,074,457; Sept. 30; Gaz. vol. 194; p. 1075.

Pierce, Leon, assignor to The Underpinning & Foundation Co., New York, N. Y. Apparatus for forming concrete caps on piles. No. 1,072,491; Sept. 9; Gaz. vol. 194; p. 308.

Pierson, George S., Kalamazoo, Mich. Carbureter. No. 1,072,492; Sept. 9; Gaz. vol. 194; p. 308.

Pietiläinen, Matti, Helsingfors, Finland, Russia. Hammock. No. 1,071,954; Sept. 2; Gaz. vol. 194; p. 97.

Pifer, Alvin A., assignor to Cleveland Armature Works, Cleveland, Ohio. Dynamo-electric machine. No. 1,072,647; Sept. 9; Gaz. vol. 194; p. 362.

Pieri, Salvatore, Chicago, Ill. Stringed musical instrument with interchangeable necks. No. 1,074,458; Sept. 30; Gaz. vol. 194; p. 1076.

Pioneer Suspender Company. (See Freeman, Frank A., assignor.)

Pittaluga, Stefano, Los Angeles, Cal. Syrup-filler for fruit-cans. No. 1,072,771; Sept. 9; Gaz. vol. 194; p. 405.

Pittsburgh Plate Glass Company. (See Beatty, Raymond G., assignor.)

Pittsburgh Steel Foundry Company. (See Pulliam, Oswald S., assignor.)

Pixley, Charles H., Chicago, Ill., assignor to F. A. Hardy & Company. Corneal microscope. No. 1,073,436; Sept. 16; Gaz. vol. 194; p. 679.

Plankinton, William W. (See Silverston, Anthony R., assignor.)

Plant, Henry S., Melrose, Mass. Micrometer-gage. No. 1,072,493; Sept. 9; Gaz. vol. 194; p. 309.

Platt, Dallas H., *et al.* (See Lincoln, Charles B. F., assignor.)

Platt, Wilber O., assignor to Joseph Reid Gas Engine Company, Oil City, Pa. Horizontal power-transmission wheel. No. 1,072,028; Sept. 2; Gaz. vol. 194; p. 123.

Plocher, Martin, and E. A. Scott, St. Louis, Mo. Sanitary cuspidor. No. 1,073,167; Sept. 16; Gaz. vol. 194; p. 583.

Plummer, Frank E. (See Plummer, George C., assignor.)

Plummer, George C., assignor of one-half to F. E. Plummer, Washington, D. C. Convertible body for vehicles. No. 1,072,304; Sept. 2; Gaz. vol. 194; p. 246.

Plush, Abram L. (See Kindle and Plush.)

Pluskat, George. (See McNaughton, James A., assignor.)

Pneumelectric Machine Company, The. (See Palmros, Alexander, assignor.)

Pneumelectric Machine Company, The. (See Sibley, Samuel D., assignor.)

Pogue, Henry W., Decatur, Ill. Electrical connector. No. 1,074,459; Sept. 30; Gaz. vol. 194; p. 1076.

Pohl, Arthur, Bloomfield, Nebr. Safety-guard for agricultural implements. No. 1,074,460; Sept. 30; Gaz. vol. 194; p. 1076.

Poland, Edward F., Boston, Mass. Gate-valve. No. 1,074,199; Sept. 30; Gaz. vol. 194; p. 989.

Polák, Anton, Paris, France. Electrically-heated garment. No. 1,073,926; Sept. 23; Gaz. vol. 194; p. 870.

Pollard, Isaac G., Hammond, Ind. Chair. No. 1,074,012; Sept. 23; Gaz. vol. 194; p. 899.

Pollock, Samuel, Zanesville, Ohio. Flat-iron. No. 1,072,257; Sept. 2; Gaz. vol. 194; p. 198.

Pond, Clarke P., Philadelphia, Pa. Building construction. No. 1,074,526; Sept. 30; Gaz. vol. 194; p. 1096.

Pope, Charles F. (See Atwood, Leonard, assignor.)

Pope, Henry F., assignor to The National Malleable Castings Company, Cleveland, Ohio. Pivot-pin support for couplings. No. 1,072,162; Sept. 2; Gaz. vol. 194; p. 169.

Pope, Henry F., assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling. No. 1,072,163; Sept. 2; Gaz. vol. 194; p. 170.

Pope, Joseph H., Hamilton, assignor to United Shoe Machinery Company, Boston, Mass. Nailing-machine. No. 1,072,986; Sept. 9; Gaz. vol. 194; p. 486.

Popp, Richard, Paris, France. Automatic advertising apparatus. No. 1,073,927; Sept. 23; Gaz. vol. 194; p. 870.

Poppenhusen, Herman A., Evanston, and J. Harrington, Riverside, Ill. Furnace. No. 1,073,437; Sept. 16; Gaz. vol. 194; p. 679.

Porter, Alvin G., Auburn, Wash. Bottle. No. 1,072,987; Sept. 9; Gaz. vol. 194; p. 486.

Porter, Marion L., Silverton, Colo. Ore-concentrator. No. 1,073,928; Sept. 23; Gaz. vol. 194; p. 870.

Posson, Edward, Chicago, Ill. Hatch-cover and ventilator for refrigerator-cars. No. 1,072,164; Sept. 2; Gaz. vol. 194; p. 170.

Potapoff, John, Arran, Saskatchewan, assignor of one-half to M. F. Riebin, Verigin, Canada. Lock. No. 1,074,329; Sept. 30; Gaz. vol. 194; p. 1032.

Potter, James C., Pawtucket, R. I. Evener for cotton-opening machines, &c. No. 1,072,640; Sept. 9; Gaz. vol. 194; p. 363.

Potter, James C., assignor to Potter and Johnston Machine Co., Pawtucket, R. I. Automatic turret-lathe. No. 1,072,648; Sept. 9; Gaz. vol. 194; p. 363.

Potter, James C., and J. Johnston, assignors to Potter and Johnston Machine Company, Pawtucket, R. I. Turret-lathe. No. 1,074,561; Sept. 30; Gaz. vol. 194; p. 1107.

Potter, John W., Cranston, assignor to A. J. Dronsfield, Providence, R. I. Spraying-nozzle. No. 1,073,438; Sept. 16; Gaz. vol. 194; p. 680.

Potter and Johnston Machine Co. (See Potter, James C., assignor.)

Potter and Johnston Machine Company. (See Potter and Johnston, assignors.)

Potter, Leslie W., Rockford, Ill. Hover. No. 1,072,029; Sept. 2; Gaz. vol. 194; p. 124.

Potts, Harvey W., Longmont, Colo. Headlight control for automobiles. No. 1,074,527; Sept. 30; Gaz. vol. 194; p. 1096.

Poulton, Ross E., assignor to I. M. Schwab, Savannah, Ga. Eyeglass-guard. No. 1,072,494; Sept. 9; Gaz. vol. 194; p. 309.

Powdered Milk Company of America. (See Brigham, Charles H., assignor.)

Powell, William H., Chicago, Ill. Shoe-fastener. No. 1,074,381; Sept. 30; Gaz. vol. 194; p. 1050.

Power Specialty Company. (See Canham, Percy D., assignor.)

Poyner, Samuel J., Pierson, Manitoba, Canada. Spring-wheel. No. 1,074,290; Sept. 30; Gaz. vol. 194; p. 1020.

Pratt, Alphonso C., Montclair, N. J. Machine for making link mesh. No. 1,071,790; Sept. 2; Gaz. vol. 194; p. 43.

Pratt, Frank W., Ambridge, and B. J. Dickinson, Fair Oaks, Pa. Toy catapult. No. 1,072,988; Sept. 9; Gaz. vol. 194; p. 487.

Preiswerk, Ernst, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Albumin-iron-phosphorus compounds and making same. No. 1,072,980; Sept. 9; Gaz. vol. 194; p. 487.

Pressl, John A. (See Ballance, John, assignor.)

Prestwich, Frank M., New York, N. Y. Garment. No. 1,071,935; Sept. 2; Gaz. vol. 194; p. 97.

Prestwich, John A., Tottenham, London, England. Valve-gear for internal-combustion engines. No. 1,073,284; Sept. 16; Gaz. vol. 194; p. 625.

Price, Gomer W., San Francisco, Cal. Centrifugal pump. No. 1,072,650; Sept. 9; Gaz. vol. 194; p. 363.

Price, William C., Chicago, Ill., assignor, by mesne assignments, to F. P. Motor Wagon Company. Gearing for motor-vehicles. No. 1,072,105; Sept. 2; Gaz. vol. 194; p. 170.

Price, William G., New Castle, Pa. Damping device for truck-bolsters. No. 1,073,625; Sept. 23; Gaz. vol. 194; p. 765.

Price, William G., New Castle, Pa. Damping device for truck-bolsters. No. 1,073,626; Sept. 23; Gaz. vol. 194; p. 765.

Price, William G., New Castle, Pa. Damping device for truck-bolsters. No. 1,073,627; Sept. 23; Gaz. vol. 194; p. 765.

Priest, George W., Newton, Mass. Apparatus for lining pipes. No. 1,072,495; Sept. 9; Gaz. vol. 194; p. 309.

Priest, Irwin G., Washington, D. C. Photometric device. No. 1,072,166; Sept. 2; Gaz. vol. 194; p. 170.

Prince, Wiley W., Ellisville, Miss. Gate-latch. No. 1,074,013; Sept. 23; Gaz. vol. 194; p. 899.

Pringle, George C., Biloxi, Miss. Tool for installing turpentine-cups. No. 1,073,517; Sept. 16; Gaz. vol. 194; p. 705.

Printer's Specialties Company. (See McGinty, Bernard, assignor.)

Prochaska, Friedrich, Charlottenburg, assignor to Siemens & Halske A. G., Berlin, Germany. Rail-circuit-closing contact. No. 1,072,030; Sept. 2; Gaz. vol. 194; p. 124.

Proctor, William H., Ralston, Pa. Metallic railway-tie. No. 1,074,014; Sept. 23; Gaz. vol. 194; p. 899.

Progressive Manufacturing Company. (See Funk, John E., assignor.)

Pronovost, Joseph, and R. E. Duncan, Helena, Mont. Ventilator-control apparatus. No. 1,073,285; Sept. 16; Gaz. vol. 194; p. 626.

Pronovost, Joseph, and H. S. Miller, Helena, Mont. Resilient wheel. No. 1,074,064; Sept. 23; Gaz. vol. 194; p. 915.

Psarski, John T., Cleveland, Ohio. Centrifugal drier. No. 1,071,956; Sept. 2; Gaz. vol. 194; p. 97.

Pugsley, Frank W., Pittsford, N. Y. Treating ores. No. 1,071,791; Sept. 2; Gaz. vol. 194; p. 44.

Pulliam, Oswald S., Pittsburgh, Pa. Bolster. No. 1,073,628; Sept. 23; Gaz. vol. 194; p. 766.

Pulliam, Oswald S., assignor to Pittsburgh Steel Foundry Company, Pittsburgh, Pa. Car body and underframe construction. No. 1,074,200; Sept. 30; Gaz. vol. 194; p. 990.

Pullman Couch Company. (See Bartlett, Marcus J., assignor.)

Purdy, John, New York, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,073,818; Sept. 23; Gaz. vol. 194; p. 832.

Purvis, Joseph R., Norwood Grove, Manitoba, Canada. Stereoscopic device. No. 1,072,990; Sept. 9; Gaz. vol. 194; p. 487.

Putzel, Charles, New York, N. Y. Ash and refuse vehicle. No. 1,072,651; Sept. 9; Gaz. vol. 194; p. 364.

Quackenbush, Charles G., Toledo, Ohio. Bookcase. No. 1,072,258; Sept. 2; Gaz. vol. 194; p. 198.

Quigley, Martin G., Charlestown, Mass. Water-level-indicating device for boilers. No. 1,073,518; Sept. 16; Gaz. vol. 194; p. 706.

Quin, Charles W., Centralia, Wash. Combined tie-plate and spike-retainer. No. 1,072,991; Sept. 9; Gaz. vol. 194; p. 487.

Quisling, Rasmus H., Christiania, Norway. Small-arm. No. 1,074,201; Sept. 30; Gaz. vol. 194; p. 990.

R. E. Dietz Company *et al.* (See Bergener, Charles, assignor.)

R. E. Dietz Company. (See Retts, Charles L., assignor.)

R. E. Dietz Company. (See Dietz, Frederick, assignor.)

Raabe, Frank A., Stanton, Nebr. Fabric holder and exhibitor. No. 1,073,519; Sept. 16; Gaz. vol. 194; p. 706.

Rachlise, Nathan A., New York, N. Y. Making signs. No. 1,074,461; Sept. 30; Gaz. vol. 194; p. 1077.

Radcliffe, John, East Barnet, England. Composition containing pitch. No. 1,071,792; Sept. 2; Gaz. vol. 194; p. 44.

Rae Electric Company. (See Rae, Frank B., assignor.)

Rae, Frank B., Detroit, Mich., assignor, by mesne assignments, to Rae Electric Company. Combined vehicle steering-gear and controlling mechanism. No. 1,073,439; Sept. 16; Gaz. vol. 194; p. 680.

Rae, Thomas H., Farmington, Cal. Axle-set. No. 1,073,571; Sept. 16; Gaz. vol. 194; p. 724.

Raiber, Hugo C., Pittsburgh, Pa. Receiver-holder for telephones. No. 1,073,708; Sept. 23; Gaz. vol. 194; p. 797.

Rakowitzky, Hirsch, Vilna, Russia. Mouthpiece-rolling machine. No. 1,072,259; Sept. 2; Gaz. vol. 194; p. 199.

Rakowski, Wladislaus, Palmerton, Pa., and J. Glowacki, Davis, W. Va. Horseshoe. No. 1,074,202; Sept. 30; Gaz. vol. 194; p. 991.

Ramige, John W., Ontario, Cal. Automatic station-indicator. No. 1,072,772; Sept. 9; Gaz. vol. 194; p. 406.

Ramsay, Allan. (See Jackson, Thomas, assignor.)

Ramsden, John T. (See Lewis and Ramsden.)

Ramsey, John P., Springfield, Ill. Valve-gear. No. 1,071,793; Sept. 2; Gaz. vol. 194; p. 44.

Randolph, Ithamer N. F., Iola, Kans. Oil-burner. No. 1,072,773; Sept. 9; Gaz. vol. 194; p. 406.

Rank, John, Minneapolis, Minn. Grease-cup. No. 1,074,291; Sept. 30; Gaz. vol. 194; p. 1020.

Rankin, Joseph W. (See Kurtz and Rankin.)

Rankine, James C., Pawtucket, R. I., and G. H. Goldsmith, Biddeford, Me. Atomizer or humidifier. No. 1,072,031; Sept. 2; Gaz. vol. 194; p. 124.

Raschig, Fritz, Ludswigshafen-on-the-Rhine, Germany. Explosive. No. 1,072,032; Sept. 2; Gaz. vol. 194; p. 125.

Rasey, Edward A., Denver, Colo. Beet-harvesting machine. No. 1,071,794; Sept. 2; Gaz. vol. 194; p. 44.

Rastello, Charles B., Hancock, Mich. Propeller for self-propelled sleds. No. 1,073,520; Sept. 16; Gaz. vol. 194; p. 706.

Raster, Walther, Chicago, Ill. Sign. No. 1,072,870; Sept. 9; Gaz. vol. 194; p. 442.

Rathbun, Edward, Toledo, Ohio. Engine. No. 1,073,629; Sept. 23; Gaz. vol. 194; p. 766.

Rauch, Ferdinand W. (See Houcas and Rauch.)

Rauskolb, Fred W., Medford, Mass. Forming mountings for metal leaf. No. 1,072,992; Sept. 9; Gaz. vol. 194; p. 488.

Raves, Ewald A., assignor to The Auburn Ignition Manufacturing Co., Auburn, N. Y. Air-pressure pump. No. 1,072,496; Sept. 9; Gaz. vol. 194; p. 310.

Rawson, Justin L., New Bedford, Mass. Electric-light adjuster. No. 1,071,957; Sept. 2; Gaz. vol. 194; p. 98.

Ray, Albert J., assignor of one-third to A. J. Beneke and one-third to D. Wells, Fort Worth, Tex. Valve for explosive-engines. No. 1,071,958; Sept. 2; Gaz. vol. 194; p. 98.

Rea, Edward J. F., Hartford, Conn., assignor to American Automatic Press Company, San Francisco, Cal. Ink-distributing mechanism. No. 1,074,066; Sept. 23; Gaz. vol. 194; p. 916.

Rea, Edward J. F., Hartford, Conn., assignor to American Automatic Press Company, San Francisco, Cal. Feed mechanism. No. 1,074,067; Sept. 23; Gaz. vol. 194; p. 916.

Rea, Edward J. F., and C. E. Clark, Hartford, Conn., assignors to American Automatic Press Company, San Francisco, Cal. Controlling mechanism. No. 1,074,065; Sept. 23; Gaz. vol. 194; p. 915.

Reap, Edward A., and J. C. Johnston, Enid, Okla. Cork holder and lifter. No. 1,074,015; Sept. 23; Gaz. vol. 194; p. 899.

Reddick, Joseph G., Portland, Oreg. Non-refillable bottle. No. 1,072,497; Sept. 9; Gaz. vol. 194; p. 310.

Reddy, James F., Rochester, N. Y. Liquid-raising apparatus. No. 1,073,630; Sept. 23; Gaz. vol. 194; p. 766.

Redeker, George W., Wheeling, W. Va. Ball-cock-seat dresser-guide. No. 1,073,362; Sept. 16; Gaz. vol. 194; p. 654.

Redmond, John E., assignor of one-half to J. W. Breakey and J. H. Bartlett, Souris, Manitoba, Canada. Buckle. No. 1,072,498; Sept. 9; Gaz. vol. 194; p. 311.

Reece Button Hole Machine Company, The. (See Carp, Arthur, assignor.)

Reece Button Hole Machine Company, The. (See Kiewicz, John, assignor.)

Reed, Albert R., Hot Springs, Ark. Keyhole-guard. No. 1,073,779; Sept. 23; Gaz. vol. 194; p. 820.

Reed, Frank, Omaha, Nebr. Resilient tire. No. 1,072,260; Sept. 2; Gaz. vol. 194; p. 199.

Rees, Harry, Llansamlet, Glamorgan, Wales, and H. L. Sulman, assignors to The Metals Extraction Corporation Limited, London, England. Deposition of metallic salts from solutions containing them. No. 1,074,203; Sept. 30; Gaz. vol. 194; p. 991.

Rees, Henry J., Llansamlet, Glamorgan, Wales. Deposition of metallic salts from solutions containing them. No. 1,073,363; Sept. 16; Gaz. vol. 194; p. 654.

Rehak, James. (See Madigan and Rehak.)

Reichardt, Bruno O., New York, N. Y. Bung-lock. No. 1,071,796; Sept. 2; Gaz. vol. 194; p. 45.

Reichart, James H., La Fayette, Ind. Illuminated fountain. No. 1,073,521; Sept. 16; Gaz. vol. 194; p. 707.

Reichelt, Bruno, assignor to Beta Fertilizer Co., Newark, N. J. Fertilizer. No. 1,071,795; Sept. 2; Gaz. vol. 194; p. 45.

Reid, Philip H. (See Moore, Frederick J., assignor.)

Reidhaar, Frank P., Connersville, Ind. Concealed hinge. No. 1,072,774; Sept. 9; Gaz. vol. 194; p. 406.

Reiss, Carl, Berlin, Germany. Incandescent lamp. No. 1,072,993; Sept. 9; Gaz. vol. 194; p. 488.

Reliable Electric Company. (See Gordon, David D., assignor.)

Remington, Joseph P., Philadelphia, Pa. Capsule-filling mechanism. No. 1,073,286; Sept. 16; Gaz. vol. 194; p. 626.

Remington Typewriter Company. (See Barr, John H., assignor.)

Remington Typewriter Company. (See Farnham, Smith, and Phelps, assignors.)

Remington Typewriter Company. (See Steele, Herbert H., assignor.)

Republic Rubber Company, The. (See Morris, William D., assignor.)

Revel, Antoine A., Lyon, France. Means for retaining the ends of the ribs of umbrellas and the like in closed position. No. 1,073,631; Sept. 23; Gaz. vol. 194; p. 766.

Revelli, Bethel A., Rome, Italy. Automatic gun. No. 1,073,709; Sept. 23; Gaz. vol. 194; p. 798.

Reynolds, Alva L., Longbeach, Cal. Hydraulic-power system. No. 1,074,292; Sept. 30; Gaz. vol. 194; p. 1020.

Reynolds, James M. (See Moon and Reynolds.)

Reynolds, Robert A., Port Huron, Mich. Self-adjusting grinding-disk. No. 1,072,033; Sept. 2; Gaz. vol. 194; p. 125.

Rheinische Metallwaaren- und Maschinenfabrik. (See Müller, Emil, assignor.)

Rheinische Metallwaaren- und Maschinenfabrik. (See Waninger, Carl, assignor.)

Rice, Samuel J., Loma, N. D. Bag filling and tying apparatus. No. 1,072,775; Sept. 9; Gaz. vol. 194; p. 407.

Rice, Samuel J., Loma, N. D. Harvesting-machine. No. 1,073,819; Sept. 23; Gaz. vol. 194; p. 832.

Richard, Jules. (See Colardeau and Richard.)

Richards, Charles A., Bellows Falls, Vt. Locking device for carcass-hangers. No. 1,072,871; Sept. 9; Gaz. vol. 194; p. 442.

Richards, Francis H., Hartford, Conn., assignor to J. P. Morris, New York, N. Y. Ozonizer. No. 1,074,462; Sept. 30; Gaz. vol. 194; p. 1077.

Richards, Hezekiah, Toledo, Iowa. Shingling-bracket. No. 1,074,382; Sept. 30; Gaz. vol. 194; p. 1050.

Richards, Joseph W., South Bethlehem, and W. S. Landis, Bethlehem, Pa. Production of Portland cement. No. 1,073,820; Sept. 23; Gaz. vol. 194; p. 833.

Richardson, Dwight S., New York, N. Y. Hot-air furnace. No. 1,072,499; Sept. 9; Gaz. vol. 194; p. 311.

Richardson, Henry, New York, N. Y. Automatic traveling-load scale. No. 1,072,500; Sept. 9; Gaz. vol. 194; p. 311.

Richey, Francis M., Jr. (See Griswold, Horatio F., assignor.)

Richter, Felix, Frankfort-on-the-Main, and L. von Orth, Berlin, Germany. Bleaching solid and semisolid fats of all kinds. No. 1,072,034; Sept. 2; Gaz. vol. 194; p. 125.

Richter, Felix, Frankfort-on-the-Main, and L. von Orth, Berlin, Germany. Purifying and bleaching wax of all kinds. No. 1,072,035; Sept. 2; Gaz. vol. 194; p. 125.

Richter, Herman, Tacoma, Wash. Car. No. 1,072,501; Sept. 9; Gaz. vol. 194; p. 312.

Richter, Rudolf, Charlottenburg, assignor to Siemens-Schuckert-Werke, G. m. b. H., Berlin, Germany. Armature-winding for electrical machines with commutators. No. 1,072,086; Sept. 2; Gaz. vol. 194; p. 125.

Ricketts, James R., Los Angeles, Cal. Iron. No. 1,073,440; Sept. 16; Gaz. vol. 194; p. 681.

Rickly, George C., Ottawa, Ill. Tobacco-pipe. No. 1,072,167; Sept. 2; Gaz. vol. 194; p. 171.

Rickman, Ulysses S., assignor of one-half to L. B. Swartz, Newton, Kans. Support for pipe-hangers. No. 1,072,361; Sept. 2; Gaz. vol. 194; p. 234.

Riddle, Emil, *et al.* (See Riddle, Henry, assignor.)

Riddle, Frank, *et al.* (See Riddle, Henry, assignor.)

Riddle, Henry, assignor of one-third to F. Riddle, one-third to J. Riddle, and one-third to E. Riddle, North Liberty, Iowa. Device for preventing the derailing of railway-cars. No. 1,072,261; Sept. 2; Gaz. vol. 194; p. 199.

Riddle, J. L., *et al.* (See Martin and Flowers, assignors.)

Riddle, James, *et al.* (See Riddle, Henry, assignor.)

Riddle, Robert N., Rahway, N. J., assignor of three-fourths to H. A. Loeb, New York, N. Y. Cocoa derivative and separating constituents of the cacao-bean. No. 1,073,441; Sept. 16; Gaz. vol. 194; p. 681.

Ridgway Dynamo and Engine Company, The. (See Owen and Hall, assignors.)

Riebin, Michael F. (See Potapoff, John, assignor.)

Riel, Victor, Manchester, N. H. Driving connection for picker-sticks of weaving-looms. No. 1,072,502; Sept. 9; Gaz. vol. 194; p. 312.

Riemenschneider, Adolph, Sarco Creek, Tex. Feeding mechanism for cotton-gins. No. 1,074,016; Sept. 23; Gaz. vol. 194; p. 900.

Rietkötter, Georg, Hagen, Germany. Electromagnetic ore-separator. No. 1,074,068; Sept. 23; Gaz. vol. 194; p. 916.

Rietman, E. G., *et al.* (See Jenkins, Samuel M., assignor.)

Rietzel, Adolph F., Charlestown, R. I., assignor to Thomson Electric Welding Company, Lynn, Mass. Electric metal-working apparatus. No. 1,074,383; Sept. 30; Gaz. vol. 194; p. 1050.

Riggs, Henry H. (See Harper and Riggs.)

Rikard, William B., Prosperity, S. C. Clock. No. 1,074,204; Sept. 30; Gaz. vol. 194; p. 991.

Riley, Edward, Spokane, Wash. Thread-cutting machine. No. 1,072,503; Sept. 9; Gaz. vol. 194; p. 312.

Riley, James L., Xenia, Ill. Carrier. No. 1,074,205; Sept. 30; Gaz. vol. 194; p. 992.

Ringel, Charles J., Los Angeles, Cal. Noiseless railway-crossing. No. 1,072,652; Sept. 9; Gaz. vol. 194; p. 364.

Riordan, Edward, New York, N. Y. Dispensing device. No. 1,074,463; Sept. 30; Gaz. vol. 194; p. 1077.

Riotte, Eugene A., Bronxville, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J. Carbureter. No. 1,074,574; Sept. 30; Gaz. vol. 194; p. 1112.

Riotte, Eugene A., Bronxville, N. Y., assignor to Standard Motor Construction Company, Jersey City, N. J. Carbureter. No. 1,074,575; Sept. 30; Gaz. vol. 194; p. 1112.

Risher, Arthur W. (See McClure, Daniel R., Jr., assignor.)

Roberts, Bert C., assignor of one-half to L. Lessy, Beckwith, Iowa. Post-hole machine. No. 1,073,821; Sept. 23; Gaz. vol. 194; p. 833.

Roberts, Brereton B., Cimla, Neath, Wales. Safety-clutch for mine-cages. No. 1,072,362; Sept. 2; Gaz. vol. 194; p. 234.

Roberts, Charles C., Ansonia, Conn. Adjustable work-supporting device. No. 1,072,363; Sept. 2; Gaz. vol. 194; p. 235.

Roberts, Frank F. (See Dewey and Conkey, assignors.)

Roberts, George V., Jr., Port Byron, N. Y. Milking apparatus. No. 1,074,206; Sept. 30; Gaz. vol. 194; p. 992.

Roberts, Henry C., Murphysboro, Ill. Automobile jack and reversing-stand. No. 1,073,168; Sept. 16; Gaz. vol. 194; p. 584.

Roberts, Henry R., Bloomsbury, London, England. Machine or tool for sharpening saws. No. 1,074,464; Sept. 30; Gaz. vol. 194; p. 1078.

Roberts, Jesse M., Los Angeles, Cal. Land-leveler. No. 1,073,287; Sept. 16; Gaz. vol. 194; p. 627.

Roberts, Marion M., Gossett, Ill. Hinge. No. 1,072,364; Sept. 2; Gaz. vol. 194; p. 235.

Roberts, Urlah, Columbus, Wis. Negative-outline-indicating device. No. 1,073,169; Sept. 16; Gaz. vol. 194; p. 584.

Robertson, David N., Lynn, assignor of one-half to P. F. Munsey, Swampscott, Mass. Buffing-machine for parts of boots and shoes. No. 1,073,288; Sept. 16; Gaz. vol. 194; p. 627.

Robertson, Henry M. (See Gilman and Robertson.)

Robinson, Frederick J., Lackawanna, N. Y. Electric switch. No. 1,073,289; Sept. 16; Gaz. vol. 194; p. 627.

Robinson, Lewis T., and O. Holz, deceased, (M. D. Holz, executrix,) Schenectady, N. Y., assignors to General Electric Company. Electrical measuring instrument. No. 1,073,632; Sept. 23; Gaz. vol. 194; p. 767.

Robinson, Samuel D. (See Miller, Kale, and Robinson.)

Robinson, Willis E., Chicago, Ill. Mail-distributing machine. No. 1,072,504; Sept. 9; Gaz. vol. 194; p. 312.

Roch, Hermann. (See Stein, Johannes, assignor.)

Roche, Arthur, Newport, R. I. Lunch-box. No. 1,071,797; Sept. 2; Gaz. vol. 194; p. 45.

Rochwite, August, assignor of one-third to H. W. Brooks, Green Lake, Wis. Bottle-stopper. No. 1,074,293; Sept. 30; Gaz. vol. 194; p. 1020.

Rock Island Plow Company. (See Downing, Frank J., assignor.)

Rockowitz, Abraham, New York, N. Y. Hose-supporter. No. 1,072,872; Sept. 9; Gaz. vol. 194; p. 443.

Roe, John R., Rupert, Idaho. Weed-destroying machine. No. 1,073,780; Sept. 23; Gaz. vol. 194; p. 820.

Roedel, Arthur J., Cincinnati, Ohio. Machine for wrapping candy. No. 1,072,505; Sept. 9; Gaz. vol. 194; p. 312.

Roeder, Henry, Longmont, Colo. Collar attachment. No. 1,073,710; Sept. 23; Gaz. vol. 194; p. 798.

Roessler & Hasslacher Chemical Co., The. (See Carveth, Hector B., assignor.)

Roever, Julius, New York, N. Y. Multiple phonograph. No. 1,072,873; Sept. 9; Gaz. vol. 194; p. 443.

Rogalski, Anthony, St. Louis, Mo. Lace-curtain stretcher. No. 1,073,290; Sept. 16; Gaz. vol. 194; p. 628.

Rogers, Edward E., Highfield, Four Oaks, England. Safety-razor. No. 1,072,506; Sept. 9; Gaz. vol. 194; p. 313.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,072,037; Sept. 2; Gaz. vol. 194; p. 126.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,072,653; Sept. 9; Gaz. vol. 194; p. 364.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,073,170; Sept. 16; Gaz. vol. 194; p. 585.

Rogers, Walter B., Knoxville, Tenn. Track-sander. No. 1,074,207; Sept. 30; Gaz. vol. 194; p. 992.

Rohan, James J., assignor to Missouri Gas Heater and Appliance Company, St. Louis, Mo. Combined water-heater and steam-generator. No. 1,072,874; Sept. 9; Gaz. vol. 194; p. 444.

Rolf, Frank A. (See Brautigam, Josef, assignor.)

Rolfes, William C. (See Huntoon, Rolfes, and Wright.)

Roller Polisher Company. (See Seymour, Horace A., assignor.)

Rollings, Alex W., J. H. Sweeney, O. T. Nelson, and T. T. Trentham, Montgomery, Ala. Railway-switch. No. 1,071,798; Sept. 2; Gaz. vol. 194; p. 45.

Rollins, George E., Brockton, Mass. Machine for preparing insoles. No. 1,072,168; Sept. 2; Gaz. vol. 194; p. 171.

Rolston, Walter F., assignor to Burson Manufacturing Company, Rockford, Ill. Knitting-machine. No. 1,072,363; Sept. 2; Gaz. vol. 194; p. 235.

Romeyn, Jean, Brussels, Belgium. Starting valve-gear for internal-combustion motors. No. 1,073,633; Sept. 23; Gaz. vol. 194; p. 767.

Ronda, Steve, Detroit, Mich. Thread and twine cutting device. No. 1,073,522; Sept. 16; Gaz. vol. 194; p. 707.

Rooney, Edwin A., Fairhaven, assignor to The Whitin Machine Works, Whitinsville, Mass. Top-comb cleaner. No. 1,074,294; Sept. 30; Gaz. vol. 194; p. 1021.

Rorabeck, David J., Ryegate, Mont. Rack for drying photographic films. No. 1,072,654; Sept. 9; Gaz. vol. 194; p. 365.

Rose, James. (See Houser, Daniel R., assignor.)

Rosenauer, Karl H., Frankfort-on-the-Main, Germany. Self-closing funnel for liquids. No. 1,074,465; Sept. 30; Gaz. vol. 194; p. 1078.

Rosenbaum, Louis, New York, N. Y. Sad-iron. No. 1,073,171; Sept. 16; Gaz. vol. 194; p. 585.

Rosenbaum, Louis, New York, N. Y. Sad-iron. No. 1,073,634; Sept. 23; Gaz. vol. 194; p. 767.

Rosengren, Frank W., assignor to Enterprise Tool and Metal Works, Chicago, Ill. Burner. No. 1,073,711; Sept. 23; Gaz. vol. 194; p. 798.

Rosewater, Nathan, Cleveland, Ohio. Decaffeinating natural beans. No. 1,073,929; Sept. 23; Gaz. vol. 194; p. 871.

Ross, George G., Bladen, Nebr. Knife-sharpener. No. 1,074,295; Sept. 30; Gaz. vol. 194; p. 1021.

Ross, John F., Chicago, Ill. Combined time-recording and valve-controlling mechanism. No. 1,073,172; Sept. 16; Gaz. vol. 194; p. 586.

Ross Limited. (See Bielicke, William, assignor.)

Ross, Oscar A., assignor of one-half to C. V. Kasson, Chicago, Ill. Valve or the like. No. 1,072,507; Sept. 9; Gaz. vol. 194; p. 313.

Ross, Robert C. (See Kenny, Michael J., assignor.)

Rossiter, Edmund C., Birmingham, assignor to The British Cyanides Company, Limited, London, England. Manufacture of sodium alloys. No. 1,073,523; Sept. 16; Gaz. vol. 194; p. 707.

Roth, Karl, Terre Haute, Ind. Sheet-metal roofing. No. 1,072,508; Sept. 9; Gaz. vol. 194; p. 314.

Rothenberg, William F., Denver, Colo. Ventilating-fan. No. 1,074,017; Sept. 23; Gaz. vol. 194; p. 900.

Rous, Bernard, Brooklyn, assignor to L. Hefter, New York, N. Y. Neck-making machine. No. 1,073,712; Sept. 23; Gaz. vol. 194; p. 798.

Rous, Bernard, Brooklyn, assignor to L. Hefter, New York, N. Y. Neck-making machine. No. 1,073,713; Sept. 23; Gaz. vol. 194; p. 799.

Routery, Herbert C., Los Angeles, Cal. One-piece garment. No. 1,072,776; Sept. 9; Gaz. vol. 194; p. 407.

Rowan, John E., and L. F. Bauman, Virginia, Minn. Washing-boiler. No. 1,074,528; Sept. 30; Gaz. vol. 194; p. 1096.

Rowland, David E. (See Miller and Rowland.)

Rowley, George F., Oxbow, Saskatchewan, Canada. Combination soil-pulverizer and seeder attachment for plows. No. 1,074,208; Sept. 30; Gaz. vol. 194; p. 993.

Rowntree, Harold, Kenilworth, Ill. Passenger-car-door mechanism. No. 1,073,930; Sept. 23; Gaz. vol. 194; p. 871.

Roy, Sylvanus B., Worcester, Mass. Apparatus for producing power. No. 1,074,209; Sept. 30; Gaz. vol. 194; p. 993.

Royal Typewriter Company. (See Hess, Edward B., assignor.)

Royal Typewriter Company. (See Myers, Lewis C., assignor.)

Royal Typewriter Company. (See Stern, Philip, assignor.)

Royse, Grover C., Tacoma, Wash. Concrete reinforcement. No. 1,073,931; Sept. 23; Gaz. vol. 194; p. 872.

Rubber Substitute (1910) Limited. (See Scammell, Joseph B., assignor.)

Rudolph, John B., Jersey City, N. J. Sanitary shaving-mug. No. 1,072,994; Sept. 9; Gaz. vol. 194; p. 488.

Rudrud, Louis L., Crary, N. D. Treadle-guard for spring-jaw traps. No. 1,074,210; Sept. 30; Gaz. vol. 194; p. 993.

Ruger, Durl P., assignor to T. Marshall, Chicago, Ill. Rheostat. No. 1,073,173; Sept. 16; Gaz. vol. 194; p. 586.

Rumpf, Fredrick. (See Rumpf, Herman and F.)

Rumpf, Herman, Bellevue, and F. Rumpf, Newport, Ky.; said F. Rumpf assignor to said Herman Rumpf. Collapsible bolster-roll. No. 1,071,799; Sept. 2; Gaz. vol. 194; p. 46.

Rupprecht, Georg, Hamburg, Germany. Manufacture of fluorescent substances. No. 1,073,932; Sept. 23; Gaz. vol. 194; p. 872.

Rush, Chris C., Hot Springs, Ark. Saloon-stock-recording chart. No. 1,073,364; Sept. 16; Gaz. vol. 194; p. 654.

Russell, Charles C., Greenfield, Mass. Screw-plate. No. 1,074,466; Sept. 30; Gaz. vol. 194; p. 1079.

Russell, Plummer D., Pueblo, Colo. Obstetrical instrument. No. 1,072,038; Sept. 2; Gaz. vol. 194; p. 126.

Russell, Wallace B., Chicago, Ill. Therapeutic device. No. 1,073,524; Sept. 16; Gaz. vol. 194; p. 707.

Russell, Wallace B., Chicago, Ill. Therapeutic device. No. 1,073,525; Sept. 16; Gaz. vol. 194; p. 708.

Russell, Whitman, Greenfield, Mass. Internal-combustion engine. No. 1,072,777; Sept. 9; Gaz. vol. 194; p. 408.

Russell, William A., and A. G. Weiser, assignors to Thomas-Russell Lock Company, Los Angeles, Cal. Latch mechanism for locks. No. 1,074,296; Sept. 30; Gaz. vol. 194; p. 1021.

Rust, William F., and C. H. Hunt, Youngstown, Ohio. Screw-down for rolling-mills. No. 1,074,529; Sept. 30; Gaz. vol. 194; p. 1097.

Ruszkowski, Frank, New York, N. Y. Envelop-sealing machine. No. 1,072,262; Sept. 2; Gaz. vol. 194; p. 209.

Rutan, Archie N., Elmira, N. Y. Refacing and recounterboring tool. No. 1,073,526; Sept. 16; Gaz. vol. 194; p. 708.

Rutland, Hedley, York, Pa. Artificial tooth. No. 1,073,365; Sept. 16; Gaz. vol. 194; p. 654.

Ruud, Edwin, Pittsburgh, Pa. Automatic temperature control for self-heating flat-irons. No. 1,074,467; Sept. 30; Gaz. vol. 194; p. 1079.

Ryan, John C., Crosby, Tex. Attachment for rocking-chairs. No. 1,072,995; Sept. 9; Gaz. vol. 194; p. 489.

Ryan, Michael E., Fall River, Mass. Automatic feed for fibers and the like. No. 1,074,468; Sept. 30; Gaz. vol. 194; p. 1079.

Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Pattern mechanism for looms. No. 1,073,635; Sept. 23; Gaz. vol. 194; p. 768.

Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,074,530; Sept. 30; Gaz. vol. 194; p. 1097.

S. Smith & Son. (See Dorer, Primus O., assignor.)

Sacket, Charles T., Livingston, Mont. Automatic weir. No. 1,073,174; Sept. 16; Gaz. vol. 194; p. 586.

Salabn, John F., St. Paul, Minn. Shoe-heel-nailing machine. No. 1,074,469; Sept. 30; Gaz. vol. 194; p. 1079.

Saltzman, Auguste L., East Orange, assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Take-up device for motion-picture machines. No. 1,071,800; Sept. 2; Gaz. vol. 194; p. 46.

Sammis, Emma J., Norwalk, Ohio. Bread-mixer cabinet. No. 1,074,470; Sept. 30; Gaz. vol. 194; p. 1080.

Sammons, Milton L., Kansas City, Mo. Carbureter mechanism. No. 1,072,875; Sept. 9; Gaz. vol. 194; p. 444.

Sampson, Archibald T., assignor, by mesne assignments, to M. S. Sampson, Lynn, Mass. Stop mechanism for moving machinery. No. 1,072,509; Sept. 9; Gaz. vol. 194; p. 314.

Sampson, Mary S. (See Sampson, Archibald T., assignor.)

Sanborn, John R., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Mica-building machine. No. 1,074,576; Sept. 30; Gaz. vol. 194; p. 1113.

Sandell, Harry J., Minneapolis, Minn. Beer-cooling apparatus. No. 1,072,039; Sept. 2; Gaz. vol. 194; p. 126.

Sanders, Newell, Chattanooga, Tenn. Plow. No. 1,072,169; Sept. 2; Gaz. vol. 194; p. 171.

Santee, Charles L. (See Schuirmann, John G., assignor.)

Santurello, Peter, Columbus, Ohio. Heating-iron. No. 1,073,933; Sept. 23; Gaz. vol. 194; p. 872.

Sargent, Charles E., Chicago, Ill. Electric cooking device. No. 1,072,170; Sept. 2; Gaz. vol. 194; p. 171.

Sargent, Charles E., Chicago, Ill. Gas-engine. No. 1,072,366; Sept. 2; Gaz. vol. 194; p. 236.

Sargent & Company. (See Munson, Samuel R., assignor.)

Sargent & Company. (See Shaw, John H., assignor.)

Sattler, Adolph, Lange, Tex. Water-gap gate. No. 1,072,778; Sept. 9; Gaz. vol. 194; p. 408.

Saurer, Firm of Adolph. (See Keller, Karl, assignor.)

Saurer, Hippolyt, Arbon, Switzerland. Automatic embroidering-machine. No. 1,072,510; Sept. 9; Gaz. vol. 194; p. 314.

Savage, Edward S., Rochester, N. Y. Gage for tanks. No. 1,072,876; Sept. 9; Gaz. vol. 194; p. 444.

Savage, Frederick J., Ford, Saskatchewan, assignor of one-third to C. J. Lutes, Tisdale, Canada. Mechanical plow-lift. No. 1,073,636; Sept. 23; Gaz. vol. 194; p. 768.

Scammell, Joseph B., assignor to Rubber Substitute (1910) Limited, London, England. Substitute for rubber. No. 1,073,527; Sept. 16; Gaz. vol. 194; p. 708.

Schaab, Herman J. M., Millvale, Pa. Utensil. No. 1,073,528; Sept. 16; Gaz. vol. 194; p. 709.

Schadel, John A., Pittsburgh, Pa. Fluid-pressure switch. No. 1,073,175; Sept. 16; Gaz. vol. 194; p. 587.

Schaffler, rekte Glössl, Konrad, Vienna, Austria-Hungary. Dynamo-electric apparatus for firing mines. No. 1,072,511; Sept. 9; Gaz. vol. 194; p. 315.

Schalk, Emil, Chicago, Ill. Strainer for coffee-pots. No. 1,072,171; Sept. 2; Gaz. vol. 194; p. 172.

Schatz, Grover H., *et al.* (See Schatz, John W., assignor.)

Schatz, Herman A., *et al.* (See Schatz, John W., assignor.)

Schatz, John W., assignor of one-third to H. A. Schatz and one-third to G. H. Schatz, Poughkeepsie, N. Y. Annular ball-bearing. No. 1,073,529; Sept. 16; Gaz. vol. 194; p. 709.

Schatz, John W., assignor of one-third to H. A. Schatz and one-third to G. H. Schatz, Poughkeepsie, N. Y. Ball-bearing. No. 1,073,530; Sept. 16; Gaz. vol. 194; p. 709.

Scheidel Western X-Ray Coil Co. (See Hutton, Samuel T., assignor.)

Schell, Charles E., Knights Ferry, Cal. Fish-spear. No. 1,072,172; Sept. 2; Gaz. vol. 194; p. 172.

Schell, Max P., assignor of one-fourth to C. A. Anderson, one-fourth to J. Brenjord, one-fourth to C. Knudsen, and one-fourth to S. J. Olson, San Francisco, Cal. Non-refillable bottle. No. 1,073,869; Sept. 23; Gaz. vol. 194; p. 849.

Schemmel, George C., Wapakoneta, Ohio. Acetylene welding apparatus. No. 1,072,655; Sept. 9; Gaz. vol. 194; p. 365.

Schenk, Cleveland H., Springfield, Ill. Automatic shut-off for gas-burners. No. 1,074,211; Sept. 30; Gaz. vol. 194; p. 993.

Schepis, Thomas C., Wilmette, and A. J. Schewe, Chicago, Ill. Newspaper-stand. No. 1,074,384; Sept. 30; Gaz. vol. 194; p. 1051.

Schewczik, Silvio, San Remo, Italy. Drying plant for textile fabrics. No. 1,072,512; Sept. 9; Gaz. vol. 194; p. 315.

Schewe, Alwin J. (See Schepis and Schewe.)

Schimmel, Fridolin, Faribault, Minn. Piano-action. No. 1,071,801; Sept. 2; Gaz. vol. 194; p. 46.

Schlafly, Julius H., assignor to The Canton Culvert Company, Canton, Ohio. Culvert. No. 1,072,173; Sept. 2; Gaz. vol. 194; p. 172.

Schlatter, Gustav. (See Mayer and Schlatter.)

Schlatz, August. (See Schlatz, Otto and A.)

Schlatz, Otto and A., Republican City, Nebr. Latch. No. 1,071,802; Sept. 2; Gaz. vol. 194; p. 47.

Schless, Brod & Co. (See Schless, Maurice J., assignor.)

Schless, Maurice J., New York, N. Y., assignor to Schless, Brod & Co., Newark, N. J. Necktie-clasp. No. 1,072,779; Sept. 9; Gaz. vol. 194; p. 408.

Schley, George B., Milwaukee, Wis., assignor to Allis-Chalmers Company. Motor-control system. No. 1,072,656; Sept. 9; Gaz. vol. 194; p. 365.

Schlicht, August, Canton, Kans. Mold. No. 1,074,471; Sept. 30; Gaz. vol. 194; p. 1080.

Schlueter, Arthur F. W., Bartlett, Ill. Motor-stopping device. No. 1,074,385; Sept. 30; Gaz. vol. 194; p. 1051.

Schlutter, John, Baltimore, Md. Nut-lock. No. 1,073,176; Sept. 16; Gaz. vol. 194; p. 587.

Schmid, Emil, Twining City, D. C. Door-hanger. No. 1,072,040; Sept. 2; Gaz. vol. 194; p. 127.

Schmid, Emil, Twining City, D. C. Sliding-door fastener and buffer. No. 1,073,057; Sept. 9; Gaz. vol. 194; p. 509.

Schmid, Frederick, New Rochelle, assignor to C. P. Goerz American Optical Co., New York, N. Y. Film-pack adapter. No. 1,073,442; Sept. 16; Gaz. vol. 194; p. 681.

Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Radial-draft gear. No. 1,072,041; Sept. 2; Gaz. vol. 194; p. 127.

Schmidt, Joseph. (See Braveman and Schmidt.)

Schmidt, Karl, Hermsdorf, near Berlin, Germany, assignor to General Electric Company. Transformer connection. No. 1,072,042; Sept. 2; Gaz. vol. 194; p. 127.

Schmidt, Wilhelm, Cassel-Wilhelmshöhe, assignor to Schmidt'sche Heissdampf Gesellschaft mit beschränkter Haftung, Cassel, Germany. Water-tube boiler. No. 1,072,174; Sept. 2; Gaz. vol. 194; p. 173.

Schmidt, Wilhelm, and P. Thomsen, Wilhelmshöhe, near Cassel, Germany, assignors to Schmidt'sche Heissdampf Gesellschaft, m. b. H., Cassel, Germany. Superheater for water-tube boilers. No. 1,073,934; Sept. 23; Gaz. vol. 194; p. 872.

Schmidt'sche Heissdampf Gesellschaft, m. b. H. (See Schmidt and Thomsen, assignors.)

Schmidt'sche Heissdampf Gesellschaft mit beschränkter Haftung. (See Schmidt, Wilhelm, assignor.)

Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung. (See Thomsen, Peter, assignor.)

Schmidt'sche Heissdampf-Gesellschaft mit beschränkter Haftung. (See Thomsen and Doettloff, assignors.)

Schmitt, Jacob, *et al.* (See Shipp, Michael W., assignor.)

Schmitt, William, Seguin, Tex. Knee-pad. No. 1,074,531; Sept. 30; Gaz. vol. 194; p. 1097.

Schmitz, Frank C., New York, N. Y. Bar for reinforcing concrete, &c. No. 1,071,803; Sept. 2; Gaz. vol. 194; p. 47.

Schmuck, Phillip A., Los Angeles, Cal. Bull-rope protector. No. 1,074,212; Sept. 30; Gaz. vol. 194; p. 994.

Schneider, Charles F., and J. Hayman, Waukegan, Ill. Window. No. 1,073,637; Sept. 23; Gaz. vol. 194; p. 769.

Schneider, Eugène, Le Creuzot, France. Submarine mine. No. 1,073,291; Sept. 16; Gaz. vol. 194; p. 628.

Schneider, Frank F., Ridgefield, Conn. Electric lock-strike. No. 1,072,996; Sept. 9; Gaz. vol. 194; p. 489.

Schneider, Franklin, assignor to The Van Dorn and Dutton Company, Cleveland, Ohio. Electric switch. No. 1,073,935; Sept. 23; Gaz. vol. 194; p. 873.

Schneider, Philipp, St. Charles, Mo. Collapsible supporting-rack. No. 1,073,531; Sept. 16; Gaz. vol. 194; p. 710.

Schnell, George M., Kellogg, Iowa. Tongue for farm implements. No. 1,073,781; Sept. 23; Gaz. vol. 194; p 821.

Schock, Thomas, Eugene, Oreg. Steam-shovel. No. 1,074,018; Sept. 23; Gaz. vol. 194; p. 900.

Schoenfeld, Morris, Rorschach, Switzerland. Machine for cutting embroidery. No. 1,071,959; Sept. 2; Gaz. vol. 194; p. 98.

Schofield, Eugene H., deceased, Atlanta, Ga.; R. H. Schofield, administrator, Cook county, Ill. Transmission-gearing. No. 1,071,804; Sept. 2; Gaz. vol. 194; p. 48.

Schofield, Ray H., administrator. (See Schofield, Eugene H.)

Schollenberger, Edmund M., assignor of one-half to L. A. Stahl, Chicago, Ill. Attachment for telephone-transmitters. No. 1,072,513; Sept. 9; Gaz. vol. 194; p. 316.

Schoos, Jules, New Bedford, Mass. Clam-digger. No. 1,074,532; Sept. 30; Gaz. vol. 194; p. 1097.

Schorik, Frank, and F. F. Marshall, Chicago, Ill. Automatic liquid-measuring device. No. 1,074,386; Sept. 30; Gaz. vol. 194; p. 1052.

Schorr, Robert, assignor to Moore-Scott Iron Works, San Francisco, Cal. Adjustable liquid-atomizer. No. 1,073,936; Sept. 23; Gaz. vol. 194; p. 873.

Schowalter, Edward J., Racine, Wis. Toy. No. 1,071,805; Sept. 2; Gaz. vol. 194; p. 48.

Schowalter, Edward J., Racine, Wis. Puzzle or toy. No. 1,074,533; Sept. 30; Gaz. vol. 194; p. 1098.

Schramm, Adolph F. (See Henderson and Schramm.)

Schrey, Robert W., assignor of one-half to A. S. Fairchild, Philadelphia, Pa. Loom. No. 1,072,877; Sept. 9; Gaz. vol. 194; p. 445.

Schroyer, James A., and J. E. Thorp, Ira, Iowa. Safety-hook. No. 1,071,806; Sept. 2; Gaz. vol. 194; p. 49.

Schroyer, Martin, Brownsville, Pa. Tie-plate and rail-fastener. No. 1,074,472; Sept. 30; Gaz. vol. 194; p. 1080.

Schubert, Frederick, Sellersville, Pa. Pressure-alarm gage. No. 1,074,137; Sept. 30; Gaz. vol. 194; p. 969.

Schubert, George, Oneida, N. Y. Rub-iron for vehicles. No. 1,074,213; Sept. 30; Gaz. vol. 194; p. 994.

Schubert Piano Company, The. (See Duffy, Peter, assignor.)

Schuirmann, John G., Kent, assignor of one-half to C. L. Santee, Renton, Wash. Electrothermostatic regulator. No. 1,074,215; Sept. 30; Gaz. vol. 194; p. 995.

Schuirmann, John G., Kent, assignor of one-half to C. L. Santee, Renton, Wash. Electrically-heated pad and the like. No. 1,074,216; Sept. 30; Gaz. vol. 194; p. 995.

Schuler, David, Kerrtown, assignor to The Spirella Company, Meadville, Pa. Garment-stay. No. 1,074,214; Sept. 30; Gaz. vol. 194; p. 994.

Schultz, Clareuce F., assignor to The Schultz Underwear Company, Reading, Pa. Undergarment. No. 1,073,782; Sept. 23; Gaz. vol. 194; p. 821.

Schultz, John A., Jr., Newark, assignor to New York Bottlers' Supplies Mfg. Co., Hoboken, N. J. Apparatus for filling siphon-bottles. No. 1,073,366; Sept. 16; Gaz. vol. 194; p. 655.

Schultz Underwear Company, The. (See Schultz, Clarence F., assignor.)

Schultz, Wilhelm, Stendal, Germany. Hoe. No. 1,072,657; Sept. 9; Gaz. vol. 194; p. 366.

Schulz, Theodore, Jersey City, N. J. Window. No. 1,073,638; Sept. 23; Gaz. vol. 194; p. 770.

Schum, Herman, New York, N. Y. Apparatus for playing base-ball. No. 1,073,783; Sept. 23; Gaz. vol. 194; p. 821.

Schuman, Alexander C. (See Schuman, George E. and A. C.)

Schuman, George E. and A. C., Louisville, Ky. Registering-machine. No. 1,072,658; Sept. 9; Gaz. vol. 194; p. 366.

Schupp, Albert. (See Muh and Schupp.)

Schureman, Jacob L., Chicago, Ill., assignor, by mesne assignments, to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. Electrical interlocking mechanism. No. 1,071,807; Sept. 2; Gaz. vol. 194; p. 49.

Schürmann, Eduard, Koetzschenbroda, near Dresden, Germany. Tobacco-delivery apparatus for cigarette-machines. No. 1,073,937; Sept. 23; Gaz. vol. 194; p. 873.

Schürmann, Walter, Dusseldorf, Germany. Speed-indicator. No. 1,073,443; Sept. 16; Gaz. vol. 194; p. 681.

Schütte, Johann, Danzig, Germany. Dirigible balloon. No. 1,072,514; Sept. 9; Gaz. vol. 194; p. 316.

Schwab, Isaac M. (See Poulton, Ross E., assignor.)

Schwab, Martin C., Chicago, Ill., assignor to Gravity Conveyor Company. Deflector for gravity-conveyers. No. 1,072,175; Sept. 2; Gaz. vol. 194; p. 173.

Schwab, Martin C., Chicago, Ill., assignor to Gravity Conveyor Company. Combined tray-conveyer and spiral chute. No. 1,074,387; Sept. 30; Gaz. vol. 194; p. 1052.

Schwarz, Charles L., Philadelphia, Pa. Vehicle-wheel. No. 1,072,515; Sept. 9; Gaz. vol. 194; p. 316.

Schwarzlose, Andreas W., Charlottenburg, Germany. Breech mechanism for machine-guns. No. 1,072,997; Sept. 9; Gaz. vol. 194; p. 489.

Schweigert, Albert. (See Hausner and Schweigert.)

Scoop Folding Box Company. (See Dreux, Alexander H., assignor.)

Scott, Charles H., Brooklyn, N. Y. Dress-pad. No. 1,071,808; Sept. 2; Gaz. vol. 194; p. 49.

Scott, Elijah A. (See Plocher and Scott.)

Scott, Robert F., assignor to Edwin Harrington, Son & Co., Inc., Philadelphia, Pa. Bolt-turning machine. No. 1,074,138; Sept. 30; Gaz. vol. 194; p. 969.

Scott, Robert P., Cadiz, Ohio. Machine for hulling peas, beans, and the like. No. 1,072,176; Sept. 2; Gaz. vol. 194; p. 173.

Scott, Robert W., Boston, Mass., assignor to Scott & Williams, Incorporated, Camden, N. J. Knit fabric having a welt and making the same. No. 1,074,019; Sept. 23; Gaz. vol. 194; p. 901.

Scott, S. Walter, Troy, N. Y. Pneumatic wheel. No. 1,073,177; Sept. 16; Gaz. vol. 194; p. 587.

Scott, Walter, Snake River, Wash. Combined levelling device and drive-gear. No. 1,072,043; Sept. 2; Gaz. vol. 194; p. 128.

Scott & Williams. (See Scott, Robert W., assignor.)

Scott, Wynn W., Racine, Wis. Vehicle top-fastening. No. 1,072,044; Sept. 2; Gaz. vol. 194; p. 128.

Seabrook, Bagster R., Toronto, Ontario, Canada, assignor to The Seabrook-Box Differential Railway Axle Company, Los Angeles, Cal. Differential railway-axle. No. 1,072,045; Sept. 2; Gaz. vol. 194; p. 128.

Seabrook-Box Differential Railway Axle Company, The. (See Seabrook, Bagster R., assignor.)

Seaman, Joseph S., Jr., Pittsburgh, Pa. Manufacture of rolls. No. 1,071,809; Sept. 2; Gaz. vol. 194; p. 49.

Seaman, Joseph S., Jr., Pittsburgh, Pa. Roll. No. 1,071,810; Sept. 2; Gaz. vol. 194; p. 50.

Sears, Roebuck & Company. (See Christensen, Carl, assignor.)

Sedlacek, Charles, Lynch, Nebr. Storm-curtain for vehicles. No. 1,074,297; Sept. 30; Gaz. vol. 194; p. 1022.

Selective Signal Company. (See Manny, Ira F., assignor.)

Selkovits, Max. (See Greenwald, Blaustein, Weiss, and Selkovits.)

Semrau, Hugo. (See Buechner and Semrau.)

Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Circuit-breaker for electric circuits. No. 1,072,177; Sept. 2; Gaz. vol. 194; p. 174.

Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Circuit-breaker. No. 1,072,178; Sept. 2; Gaz. vol. 194; p. 174.

Sewall, Iver T., Lowry, Minn. Stone-loading apparatus. No. 1,073,532; Sept. 16; Gaz. vol. 194; p. 710.

Seymoure, Horace A., assignor to Roller Polisher Company, New York, N. Y. Manicuring implement. No. 1,072,046; Sept. 2; Gaz. vol. 194; p. 129.

Shafer, John M., Rosebud, N. Mex. Weeding-machine. No. 1,074,217; Sept. 30; Gaz. vol. 194; p. 995.

Shallenberger, Charles S., assignor to Commonwealth Steel Company, St. Louis, Mo. Draw-bar carrier. No. 1,072,655; Sept. 9; Gaz. vol. 194; p. 367.

Shane, Ettie L., Carnegie, Pa. Instep-support. No. 1,072,878; Sept. 9; Gaz. vol. 194; p. 445.

Sharp, Otis E., Middleville, Mich. Seal-lock. No. 1,074,020; Sept. 23; Gaz. vol. 194; p. 901.

Sharpe, George E., Steubenville, Ohio. Gas-heater. No. 1,072,780; Sept. 9; Gaz. vol. 194; p. 408.

Shaw, Al B., West Medford, assignor to Automatic Gas Lighting Equipment Co., Boston, Mass. Automatic gas lighting and extinguishing mechanism. No. 1,072,998; Sept. 9; Gaz. vol. 194; p. 490.

Shaw, Al B., Medford, Mass. Device for controlling valves of gas-burners. No. 1,074,090; Sept. 23; Gaz. vol. 194; p. 924.

Shaw, Clarence W., Johnstonville, Cal. Hook. No. 1,072,263; Sept. 2; Gaz. vol. 194; p. 200.

Shaw, Clethie H. (See Cobb and Shaw.)

Shaw, John H., assignor to Sargent & Company, New Haven, Conn. Double-acting door-check. No. 1,074,091; Sept. 23; Gaz. vol. 194; p. 925.

Shaw, Michael E., Maplewood, Ohio. Tile-machine. No. 1,074,139; Sept. 30; Gaz. vol. 194; p. 970.

Shaw-Walker Company, The. (See Wilson, Charles E., assignor.)

Shea, John A., Wilkes-Barre, Pa. Garment-hanger. No. 1,072,179; Sept. 2; Gaz. vol. 194; p. 175.

Shepard, Walter L., Melrose, Mass. Making enameled articles. No. 1,072,047; Sept. 2; Gaz. vol. 194; p. 129.

Shepherd, William A., *et al.* (See Black, Albert G., assignor.)

Sheppard, John L., assignor of one-fourth to C. B. Hulet, Charleston, S. C., and three-fourths to J. L. Sheppard, Jr., Newark, Ohio. Apparatus for reshaping and compressing plantation cotton-bales. No. 1,071,811; Sept. 2; Gaz. vol. 194; p. 50.

Sheppard, John L., Jr., *et al.* (See Sheppard, John L., assignor.)

Shepperd, Sylvanus D., Newark, N. J. Comb-roll for roller cotton-gins. No. 1,074,473; Sept. 30; Gaz. vol. 194; p. 1080.

Shepperd, Sylvanus D., Newark, N. J. Roller cotton-gin. No. 1,074,534; Sept. 30; Gaz. vol. 194; p. 1098.

Sheridan Iron Works, The, *et al.* (See Bredenberg, Alfred, assignor.)

Sheridan Iron Works. (See Johnson, Robert J., assignor.)

Sherwin-Williams Company, The. (See Ballard, Frederick W., assignor.)

Shields, Edward B., Tacoma, Wash., assignor to Turtle-Back Log Bunk & Car Stake Company. Car-stake. No. 1,072,516; Sept. 9; Gaz. vol. 194; p. 317.

Shields, James W., and A. C. Thielmann, Hubbell, Mich. Ore-classifier. No. 1,073,367; Sept. 16; Gaz. vol. 194; p. 655.

Shinton, Charles W., Belleville, Ill. Piston for oil-pump governors. No. 1,073,822; Sept. 23; Gaz. vol. 194; p. 834.

Shipp, Michael W., assignor of two-thirds to J. Schmitt and H. Murphy, Wilkes-Barre, Pa. Hose-clamp. No. 1,073,533; Sept. 16; Gaz. vol. 194; p. 710.

Shiras Electric Company. (See Shiras and Chassaing, assignors.)

Shiras, Oliver, and F. X. Chassaing, assignors to Shiras Electric Company, St. Louis, Mo. Light-reflector. No. 1,073,639; Sept. 23; Gaz. vol. 194; p. 770.

Shnable, Emile R., assignor to Shnable & Quinn, Chicago, Ill. Rope-fitting. No. 1,073,292; Sept. 16; Gaz. vol. 194; p. 628.

Shnable & Quinn. (See Shnable, Emile R., assignor.)

Shoemaker, Frank P., Basic City, Va. Liquid-fuel heating apparatus. No. 1,073,534; Sept. 16; Gaz. vol. 194; p. 711.

Shonnard, Harold W., East Orange, N. J. Heat-engine. No. 1,072,180; Sept. 2; Gaz. vol. 194; p. 175.

Shook, Floyd D., assignor to The Everstick Patents Co., Cleveland, Ohio. Overshoe. No. 1,071,960; Sept. 2; Gaz. vol. 194; p. 99.

Shore, Albert F., New York, N. Y. Case-hardening of steel. No. 1,072,660; Sept. 9; Gaz. vol. 194; p. 367.

Shore, Albert F., New York, N. Y. Case-hardened steel. No. 1,072,661; Sept. 9; Gaz. vol. 194; p. 367.

Shouse, William J., Nashville, Tenn. Clasp. No. 1,073,714; Sept. 23; Gaz. vol. 194; p. 799.

Shorter, George E., Washingtonville, N. Y. Ironing-table. No. 1,071,961; Sept. 2; Gaz. vol. 194; p. 99.

Shreeve, Herbert E., Milburn, N. J., assignor to Western Electric Company, New York, N. Y. Telephone repeater system. No. 1,074,298; Sept. 30; Gaz. vol. 194; p. 1022.

Shuyler, Reynolds, San Diego, Cal. Amusement racing device. No. 1,072,181; Sept. 2; Gaz. vol. 194; p. 175.

Sibley, Samuel D., assignor to The Pneumelectric Machine Company, Syracuse, N. Y. Double-compression reciprocating implement. No. 1,072,367; Sept. 2; Gaz. vol. 194; p. 236.

Sibson, Walter W., and T. Allsop, assignors to The Philadelphia Drying Machinery Company, Philadelphia, Pa. Circulating dyeing-machine. No. 1,072,662; Sept. 9; Gaz. vol. 194; p. 367.

Sideman, Reuben, San Francisco, Cal. Fire-escape. No. 1,073,293; Sept. 16; Gaz. vol. 194; p. 629.

Siebenhaar, Christian J., Oramel, N. Y. Wall-papering machine. No. 1,071,812; Sept. 2; Gaz. vol. 194; p. 50.

Siebers & Raisch Pattern Works. (See Boutell, John R., assignor.)

Siebert, Werner, Rheinfelden, assignor to Elektrochemische Werke G. m. b. H., Berlin, Germany. Device for synthesizing gases. No. 1,073,823; Sept. 23; Gaz. vol. 194; p. 834.

Siebert, Werner, Rheinfelden, assignor to Elektrochemische Werke, G. m. b. H., Berlin, Germany. Device for synthesizing gases. No. 1,073,870; Sept. 23; Gaz. vol. 194; p. 850.

Siegel, Frederick L., New York, N. Y. Bottle-stopper. No. 1,073,444; Sept. 16; Gaz. vol. 194; p. 682.

Siemens & Halske A. G. (See Prochaska, Friedrich, assignor.)

Siemens-Schuckert-Werke, G. m. b. H. (See Richter, Rudolf, assignor.)

Siepermann, Otto, East Orange, assignor to Consolidated Color & Chemical Co., Newark, N. J. Manufacture of coloring-matters. No. 1,073,784; Sept. 23; Gaz. vol. 194; p. 822.

Sievert, Charles E, Council Bluffs, Iowa. Car-door. No. 1,073,715; Sept. 23; Gaz. vol. 194; p. 800.

Siewert, Alexander, Berlin, Germany. Extension and retraction device. No. 1,073,294; Sept. 16; Gaz. vol. 194; p. 629.

Signature Company. (See Johnson, Frank A., assignor.)

Silbert, Gustaf I., assignor, by mesne assignments, to Chi-lil Electric Company, Chicago, Ill. Combination-lock for plug-and-socket fixtures. No. 1,073,295; Sept. 16; Gaz. vol. 194; p. 629.

Silliman, George, Sookane, Wash. Sectional tank. No. 1,073,871; Sept. 23; Gaz. vol. 194; p. 850.

Sills, Thomas, Westmount, Quebec, Canada. Grain-car door. No. 1,073,296; Sept. 16; Gaz. vol. 194; p. 630.

Silverman, Harry, *et al.* (See Genovese, Rosario, assignor.)

Silverston, Anthony R., Milwaukee, Wis. Airship. No. 1,072,664; Sept. 9; Gaz. vol. 194; p. 368.

Silverston, Anthony R., assignor of one-half to W. W. Plankinton, Milwaukee, Wis. Airship. No. 1,072,663; Sept. 9; Gaz. vol. 194; p. 368.

Simcoe, George, Trenton, N. J. Tubular insulator. No. 1,072,999; Sept. 9; Gaz. vol. 194; p. 490.

Simler, Oliver P., Johnstown, Pa., assignor to Union Radiator Company. Ventilating-radiator. No. 1,072,264; Sept. 2; Gaz. vol. 194; p. 200.

Simmons, Albert E., Sacramento, Cal. Fuse device. No. 1,074,218; Sept. 30; Gaz. vol. 194; p. 995.

Simmons Manufacturing Company, The. (See Travis, Don Carlos, assignor.)

Simmons, Peter C., Forest Lake, Minn. Burial-casket. No. 1,072,182; Sept. 2; Gaz. vol. 194; p. 175.

Simmons, William M., Burlington, Iowa. Latch-operating mechanism for vehicle-doors. No. 1,072,048; Sept. 2; Gaz. vol. 194; p. 129.

Simons, Charles D., Jr., *et al.* (See Hebig, Henry C., assignor.)

Simplex Electric Heating Company. (See Ovington, Edward J., assignor.)

Simplex Window Company, The. (See Soule, Arthur C., assignor.)

Simplicity Shade Adjuster Co. (See Smith, Alva B., assignor.)

Simpson, James E. (See Mills and Simpson.)

Simpson, Montague, New York, N. Y. Jack apparatus for vehicles. No. 1,072,183; Sept. 2; Gaz. vol. 194; p. 176.

Singer, Ludwig, Bochum, Germany. Automatic charging device for roasting-furnaces and the like. No. 1,071,962; Sept. 2; Gaz. vol. 194; p. 100.

Sisson, Vinton E., assignor to W. P. Murphy, Chicago, Ill. End construction for railway-cars. No. 1,071,813; Sept. 2; Gaz. vol. 194; p. 50.

Sixel, Albert J., and R. S. Conrad, Sheboygan, Wis. Sawguard. No. 1,071,963; Sept. 2; Gaz. vol. 194; p. 100.

Skakel, William, Avon, S. D. Manure-loader. No. 1,073,716; Sept. 23; Gaz. vol. 194; p. 800.

Skidmore, James F. (See Combs, Marshall C., assignor.)

Skiff, Frederic A., Paxton, Mass. Solar heater. No. 1,074,219; Sept. 30; Gaz. vol. 194; p. 996.

Skinner, Frank H. (See Kelly, John L., assignor.) (Reissue.)

Skinner, Frank H., Chicago, Ill. Crown-pin extractor. No. 1,072,517; Sept. 9; Gaz. vol. 194; p. 317.

Skinner, Frank H., Chicago, Ill. Dental instrument. No. 1,072,518; Sept. 9; Gaz. vol. 194; p. 317.

Skinner, Frank H., Chicago, Ill. Dental appliance. No. 1,072,519; Sept. 9; Gaz. vol. 194; p. 318.

Skinner, Frank H., Chicago, Ill. Double-acting pin-puller. No. 1,072,520; Sept. 9; Gaz. vol. 194; p. 318.

Skinner, Frank H., Chicago, Ill. Pin-puller. No. 1,072,521; Sept. 9; Gaz. vol. 194; p. 318.

Skyum, Christian E., Chicago, Ill. Scoop. No. 1,074,474; Sept. 30; Gaz. vol. 194; p. 1081.

Slaughter and Company. (See Strohmenger, Arthur P., assignor.)

Slaughter, William, Marinette, Wis. Storm-window for locomotive-cabs. No. 1,072,184; Sept. 2; Gaz. vol. 194; p. 176.

Sleeper, Oliver S., assignor to Buffalo Foundry and Machine Company, Buffalo, N. Y. Vacuum drying apparatus. No. 1,073,872; Sept. 23; Gaz. vol. 194; p. 850.

Slinack, Victor H., assignor to Pennsylvania Globe Gas Light Company, Philadelphia, Pa. Inverted incandescent gas-burner. No. 1,072,781; Sept. 9; Gaz. vol. 194; p. 400.
Sloan, James I., Kansas City, Mo. Oil-burner. No. 1,072,265; Sept. 2; Gaz. vol. 194; p. 201.
Smart, Joseph F. (See Lamb and Smart.)
Smelser, Albert S., Anderson, Ind. Wire-wiping machine. No. 1,073,297; Sept. 16; Gaz. vol. 194; p. 630.
Smiley, Cassius C., Indianapolis, Ind. Egg-carton. No. 1,072,185; Sept. 2; Gaz. vol. 194; p. 176.
Smith, Abram E., Brooklyn, N. Y. Railway-car-truck bolster. No. 1,073,178; Sept. 16; Gaz. vol. 194; p. 587.
Smith, Adolphus G., Punnichy, Saskatchewan, Canada. Rail-joint support. No. 1,074,475; Sept. 30; Gaz. vol. 194; p. 1081.
Smith, Alva B., assignor to Simplicity Shade Adjuster Co., Inc., Memphis, Tenn. Shade-support. No. 1,073,000; Sept. 9; Gaz. vol. 194; p. 491.
Smith, Arthur W. (See Farnham, Smith, and Phelps.)
Smith, Cecil B., Cleveland, Ohio. Rotary drier. No. 1,072,186; Sept. 2; Gaz. vol. 194; p. 176.
Smith, Charles B., Terra Alta, W. Va. Horse-detacher. No. 1,074,476; Sept. 30; Gaz. vol. 194; p. 1081.
Smith, Charles E., assignor of one-fourth to G. R. Meyer, Saginaw, Mich. Roll for bean-picking machines. No. 1,072,665; Sept. 9; Gaz. vol. 194; p. 369.
Smith, Charles F., Bridgeport, Conn., assignor to Howland Bag and Paper Company, Dexter, N. Y. Paper-bag machine. No. 1,074,330; Sept. 30; Gaz. vol. 194; p. 1033.
Smith, David W., Kansas City, Kans. Dauber. No. 1,071,964; Sept. 2; Gaz. vol. 194; p. 100.
Smith, David W., Kansas City, Kans. Dauber. No. 1,071,965; Sept. 2; Gaz. vol. 194; p. 100.
Smith, Edgar D., Elizabeth, N. J. Spring-wheel. No. 1,073,368; Sept. 16; Gaz. vol. 194; p. 656.
Smith, Elmer E., Lewistown, Pa. Metal-cutting-off device. No. 1,073,873; Sept. 23; Gaz. vol. 194; p. 851.
Smith, Elmer S., Boundbrook, N. J., assignor, by mesne assignments, to International Accessories Manufacturing Company, Wilmington, Del. Carbureter. No. 1,074,577; Sept. 30; Gaz. vol. 194; p. 1113.
Smith, Frank, Quick, W. Va. Nut-lock. No. 1,072,666; Sept. 9; Gaz. vol. 194; p. 369.
Smith, George W. (See Smith, William T., assignor.)
Smith, Henry C., Oak Park, assignor to Allith Manufacturing Company, Chicago, Ill. Door-hanger track. No. 1,074,021; Sept. 23; Gaz. vol. 194; p. 901.
Smith, Herbert, Yonkers, N. Y. Self-adjustable hat-retainer. No. 1,072,266; Sept. 2; Gaz. vol. 194; p. 201.
Smith, James F., Charlotte, N. C. Automatic packer mechanism for cotton-presses. No. 1,074,022; Sept. 23; Gaz. vol. 194; p. 902.
Smith, John A., Philadelphia, Pa. Flower-stand. No. 1,073,874; Sept. 23; Gaz. vol. 194; p. 851.
Smith, Kirk D., Newport, N. H. Water-wheel. No. 1,073,824; Sept. 23; Gaz. vol. 194; p. 834.
Smith, Paul S., Newburgh, N. Y. Internal-combustion engine. No. 1,073,640; Sept. 23; Gaz. vol. 194; p. 770.
Smith, Reuben S., Milwaukee, Wis. Roller-bearing. No. 1,072,667; Sept 9; Gaz. vol. 194; p. 369.
Smith, Richard J., and D. M. Baker, Dublin, Ireland. Machine for sowing seeds in drills. No. 1,072,368; Sept. 2; Gaz. vol. 194; p. 237.
Smith, Vincent W. J., Edinburgh, Scotland. Automatic coupling for railway-carriages, wagons, and the like. No. 1,073,535; Sept. 16; Gaz. vol. 194; p. 711.
Smith, Wesley L., Pittsburgh, Pa. Apparatus for preserving organic substances. No. 1,073,641; Sept. 23; Gaz. vol. 194; p. 771.
Smith, William D., Washington, D. C., assignor to W. D. Smith Ordnance Company, Pittsburgh, Pa. Ordnance. No. 1,073,298; Sept. 16; Gaz. vol. 194; p. 631.
Smith, William D., Washington, D. C., assignor to W. D. Smith Ordnance Company, Pittsburgh, Pa., Ordnance. No. 1,073,299; Sept. 16; Gaz. vol. 194; p. 631.
Smith, William T. (See Doney, Frank, assignor.)
Smith, William T., assignor of one-half to G. W. Smith, Bellefontaine, Ohio. Tubular door-lock. No. 1,072,668; Sept. 9; Gaz. vol. 194; p. 370.
Smithers, Herbert, *et al.*, executors. (See Smithers, Joseph P.)
Smithers, Joseph P., deceased, Brooklyn, N. Y.; H. and W. Smithers, executors. Automatic starting device for motors. No. 1,072,187; Sept. 2; Gaz. vol. 194; p. 177.
Smithers, Walter, *et al.*, executors. (See Smithers, Joseph P.)
Snedeker, James W., Adrian, Mich. Farm-gate. No. 1,073,536; Sept. 16; Gaz. vol. 194; p. 711.
Snelling, John H., Newark, N. J. Ash-ejector. No. 1,073,445; Sept. 16; Gaz. vol. 194; p. 682.
Snow, David L. (See Biehl, John H., assignor.)
Snyder, Howard F., Newton, Iowa, assignor to The Maytag Company. Gearing mechanism. No. 1,072,188; Sept. 2; Gaz. vol. 194; p. 177.
Snyder, Paul S. (See Snyder, Phaon W. and P. S.)
Snyder, Phaon W. and P. S., Wooster, Ohio. Automatic curve-showing headlight. No. 1,071,814; Sept. 2; Gaz. vol. 194; p. 51.
Snyder, William H., Washington, D. C. Collapsible canopy-frame. No. 1,072,049; Sept. 2; Gaz. vol. 194; p. 129.
Snyder, William H., Ashbourne, assignor of one-fourth to L. C. Block, one-fourth to F. P. Hollinshead, and one-fourth to W. R. Walton, Elkins Park, Pa. Anti-skidding device for vehicle-wheels. No. 1,073,446; Sept. 16; Gaz. vol. 194; p. 683.
Soboclenski, Stanislaus, Newark, N. J. Curtain-pole. No. 1,073,988; Sept. 23; Gaz. vol. 194; p. 874.
Sobra, Marguerite L., New York, N. Y. Tackless window-shade. No. 1,073,447; Sept. 16; Gaz. vol. 194; p. 683.
Societa Anonima Italiana Gio. Ansaldo Armstrong & Co. (See Giolitti, Federico, assignor.)
Société Anonyme des Automobiles et Cycles Peugeot. (See Koechlin, Isaac, assignor.)
Société des Etablissements Côte. (See Côte, Cyrille, assignor.)
Society of Chemical Industry in Basle. (See Preiswerk, Ernst, assignor.)
Sokolov, Jacob, assignor to The Follett Time Recording Company, New York, N. Y. Time-recorder. No. 1,074,069; Sept. 23; Gaz. vol. 194; p. 917.
Solem, Peter A., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Planing-machine. No. 1,073,300; Sept. 16; Gaz. vol. 194; p. 632.
Solomon, Abe, St. Louis, Mo. Closure. No. 1,074,023; Sept. 23; Gaz. vol. 194; p. 902.
Sonnek, P. Frank. (See Hammond, William P., assignor.)
Soprunoff, Feodor P., Moscow, Russia. Reversing-gearing. No. 1,073,448; Sept. 16; Gaz. vol. 194; p. 683.
Sorensen, Herbert W., U. S. Navy. Tooth-brush holder. No. 1,071,966; Sept. 2; Gaz. vol. 194; p. 101.
Soule, Arthur C., assignor, by mesne assignments, to The Simplex Window Company, San Francisco, Cal. Window. No. 1,072,669; Sept. 9; Gaz. vol. 194; p. 370.
Southern Electro-Chemical Company. (See Pauling, Harry, assignor.)
Spahn, Edward, Los Angeles, Cal. Knee and ankle brace. No. 1,072,369; Sept. 2; Gaz. vol. 194; p. 237.
Spangler, Jacob D., Sharon, Kans. Breeding-crate. No. 1,073,369; Sept. 16; Gaz. vol. 194; p. 656.
Spangler, James M., Canton, assignor to The Hoover Suction Sweeper Company, New Berlin, Ohio. Suction carpet-sweeper. No. 1,073,301; Sept. 16; Gaz. vol. 194; p. 632.
Spar Chemical Company, The. (See Bassett, Harry P., assignor.)
Sparks, William, assignor to The Sparks-Witlington Company, Jackson, Mich. Rotary fan. No. 1,072,180; Sept. 2; Gaz. vol. 194; p. 177.
Sparks-Witlington Company, The. (See Sparks, William, assignor.)
Spear, Lawrence Y., and H. E. Grieshaber, New London, Conn. Construction and conning equipment for submersible boats. No. 1,072,392; Sept. 2; Gaz. vol. 194; p. 245.
Spear, Lawrence Y., and H. E. Grieshaber, New London, Conn. Submersible-boat construction. No. 1,072,393; Sept. 2; Gaz. vol. 194; p. 246.
Spedden, William C., Colville, Wash. Line-guide for copyists. No. 1,073,930; Sept. 23; Gaz. vol. 194; p. 874.
Speer, George F., Fort Worth, Tex., assignor to The International Tunnel Machine Company. Tunnel-driving machine. No. 1,072,050; Sept. 2; Gaz. vol. 194; p. 130.
Spence, F. A. (See Jones, Eugene F., assignor.)
Spence, Fred, assignor of one-half to Goodall Worsted Company, Sanford, Me. Apparatus for sorting and conditioning bobbins. No. 1,072,782; Sept. 9; Gaz. vol. 194; p. 409.
Spencer, Ira H., West Hartford, assignor to The Spencer Turbine Cleaner Company, Hartford, Conn. Cleaning apparatus. No. 1,072,783; Sept. 9; Gaz. vol. 194; p. 410.
Spencer Turbine Cleaner Company, The. (See Spencer, Ira H., assignor.)
Sperry, Elmer A., Brooklyn, N. Y. Apparatus for determination of periodic motion. No. 1,071,815; Sept. 2; Gaz. vol. 194; p. 51.
Spiegelhalter, Joseph, Jr., St. Louis, Mo. Sash-fastener. No. 1,071,810; Sept. 2; Gaz. vol. 194; p. 51.
Spinnerei & Weberei Steinen A. G. (See Koechlin, Albert G., assignor.)
Spirella Company, The. (See Beeman, Marcus M., assignor.)
Spirella Company, The. (See Schuler, David, assignor.)
Spiro, Charles, New York, N. Y. Type-bar action. No. 1,072,784; Sept. 9; Gaz. vol. 194; p. 410.
Spitler, John M., Cable, Wis. Farm-gate. No. 1,074,477; Sept. 30; Gaz. vol. 194; p. 1081.
Spohrer, Gregory J., assignor to Wilson Motor Starter Company, Franklin, Pa. Engine-starter. No. 1,072,267; Sept. 2; Gaz. vol. 194; p. 202.
Sprague Canning Machinery Company. (See McIntyre, John C., assignor.)
Spranger, Paul, Gera-Reuss, Germany. Internal-combustion engine. No. 1,071,967; Sept. 2; Gaz. vol. 194; p. 101.
Sprecher, Harry M., Ephrata, Pa. Roll-measurer. No. 1,072,268; Sept. 2; Gaz. vol. 194; p. 202.
Spring, Herbert E., assignor of one-half to E. Crocker, Fitchburg, Mass. Screen-plate holder. No. 1,073,825; Sept. 23; Gaz. vol. 194; p. 834.
Springer, Charles L., Uniontown, Pa. Safety-razor. No. 1,072,785; Sept. 9; Gaz. vol. 194; p. 411.
Spruks, Stephen S. (See Witty, George, assignor.)

Sprung, Edmund, assignor of one-half to W. D. Healy, Detroit, Mich. Carbureter. No. 1,073,179; Sept. 16; Gaz. vol. 194; p. 588.
St. Onge, Amasa, Providence, R. I. Cotton-picker machine. No. 1,073,785; Sept. 23; Gaz. vol. 194; p. 822.
Stachel, Arthur E., Chicago, Ill. Gas-turbine. No. 1,073,717; Sept. 23; Gaz. vol. 194; p. 801.
Stahl, George W. (See Anderson and Engel, assignors.)
Stahl, Lee A. (See Schollenberger, Edmund M., assignor.)
Stalder, John J., Meade, Kans. Cultivator-tooth. No. 1,073,642; Sept. 23; Gaz. vol. 194; p. 771.
Stall & Dean Manufacturing Company. (See Cameron, John S., assignor.)
Stamford Gas Stove Company. (See Collins, Warren, assignor.)
Standard Car Truck Company. (See Barber, John C., assignor.)
Standard Motor Construction Company. (See Riotte, Eugene A., assignor.)
Standard Varnish Works. (See Beausejour, Reme A., assignor.)
Standford, John C., Atlanta, Ga. Necktie. No. 1,073,875; Sept. 23; Gaz. vol. 194; p. 852.
Stanley, John O., Holyoke, Mass. Safety cranking device for explosive-engines. No. 1,073,058; Sept. 9; Gaz. vol. 194; p. 509.
Stanley, William, Great Barrington, Mass. Heat-insulated receptacle. No. 1,071,817; Sept. 2; Gaz. vol. 194; p. 52.
Stannard, Carlton C. (See Cook and Stannard.)
Stanton, C. W. (See Markwell, Andrew E., assignor.)
Staples, John A., Newburgh, N. Y. Temporary connecting and applying device for automobile tire-chains. No. 1,072,522; Sept. 9; Gaz. vol. 194; p. 319.
Star Speedometer Company. (See Dudley and Greenleaf, assignors.)
Starr Piano Company. (See Draper, Francis W., assignor.)
Stary, Emil P., Cedar Rapids, Iowa. Flushing-tank. No. 1,074,220; Sept. 30; Gaz. vol. 194; p. 996.
Stäuble, Gebr. (See Hausermann, Jakob, assignor.)
Stavely, Charles E., *et al.* (See Day, Harry L., assignor.)
Staziak, John, Seattle, Wash. Vending-machine. No. 1,072,051; Sept. 2; Gaz. vol. 194; p. 130.
Stedman, George M., Aurora, Ind. Mixing-machine. No. 1,074,388; Sept. 30; Gaz. vol. 194; p. 1052.
Stedman, William H., assignor to The Merrow Machine Company, Hartford, Conn. Feeding mechanism for sewing-machines. No. 1,071,818; Sept. 2; Gaz. vol. 194; p. 52.
Steedman, George F., St. Louis, Mo. Closed-hopper sand-blast. No. 1,073,876; Sept. 23; Gaz. vol. 194; p. 852.
Steel, Leonard R., Cleveland, Ohio. Milk-can. No. 1,071,968; Sept. 2; Gaz. vol. 194; p. 102.
Steele, Edwin G. (See Sutton and Steele.)
Steele, Herbert H., Marcellus, assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Combined type-writer and telegraph-transmitter. No. 1,071,819; Sept. 2; Gaz. vol. 194; p. 53.
Steele, Walter L. (See Sutton and Steele.)
Steen, Brit. (See Callahan, Harley W., assignor.)
Steer, Alfred G. (See Wood and Steer.)
Steger & Sons Piano Manufacturing Company. (See Swanson, Emil, assignor.)
Stein, Johannes, Dresden, assignor to H. Roch, Blasewitz, Dresden, Germany. Game appliance. No. 1,072,190; Sept. 2; Gaz. vol. 194; p. 178.
Steinberg, Morris, *et al.* (See Genovese, Rosario, assignor.)
Steinberger, Louis, Brooklyn, N. Y. Insulator. No. 1,072,523; Sept. 9; Gaz. vol. 194; p. 319.
Steinberger, Louis, Brooklyn, N. Y. Insulator. No. 1,072,524; Sept. 9; Gaz. vol. 194; p. 320.
Steinberger, Louis, Brooklyn, N. Y. Suspension-insulator. No. 1,072,525; Sept. 9; Gaz. vol. 194; p. 320.
Steingruber, George, Hazlehurst, Miss. Hinge. No. 1,073,537; Sept. 16; Gaz. vol. 194; p. 712.
Steinhart, Hermann, assignor to Firm of R. Bosch, Stuttgart, Germany. Brush-holder for dynamos. No. 1,073,643; Sept. 23; Gaz. vol. 194; p. 771.
Steinpach, Richard, Vienna, Austria-Hungary. Removable tread for heels. No. 1,074,070; Sept. 23; Gaz. vol. 194; p. 917.
Stelfox, James C., Westminster, London, England, assignor to A. G. Glasgow, Richmond, Va. Water-gas apparatus. No. 1,072,370; Sept. 2; Gaz. vol. 194; p. 238.
Stelzner, Hermann, assignor to Firm of Drägerwerk, Heinr. & Bernh. Dräger, Lubeck, Germany. Diving apparatus. No. 1,073,370; Sept. 16; Gaz. vol. 194; p. 656.
Stenberg, Charles H., Ellsworth, Iowa. Thermostatic regulator. No. 1,074,578; Sept. 30; Gaz. vol. 194; p. 1113.
Stenger, W. H. (See Frederickson, Clayton E., assignor.)
Stephens, Aaron F., Canisteo, N. Y. Milking apparatus. No. 1,073,538; Sept. 16; Gaz. vol. 194; p. 712.
Stephens, Ernest A. (See Kell and Stephens.)
Stephenson, Charles H., and G. R. Peare, deceased, Lynn, Mass.; S. S. Peare, administratrix. Apparatus for bending wired sheet metal. No. 1,073,077; Sept. 9; Gaz. vol. 194; p. 517.
Stephenson, David C. (See Bitter and Stephenson.)
Stereo-Kinema Film Co. (See Wayditch, Aloys, assignor.)
Stern, Philip, Hartford, Conn., assignor to Royal Typewriter Company, New York, N. Y. Type-writing machine. No. 1,072,191; Sept. 2; Gaz. vol. 194; p. 178.
Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier. (See Gobmann, Arthur, assignor.)
Stevens, Frederick A. (See Norden, Svan, assignor.)
Stevens, Richard H., Munhall, Pa. Air-cooled blast-furnace. No. 1,074,097; Sept. 23; Gaz. vol. 194; p. 927.
Stevens, Robert C., Erie, Pa. Engine valve-gear. No. 1,072,786; Sept. 9; Gaz. vol. 194; p. 411.
Stevens, Thomas A., Caney, Kans. Sanitary cuspidor. No. 1,071,820; Sept. 2; Gaz. vol. 194; p. 53.
Stewart, Clarke W., Olean, N. Y. Pumping means for vacuum-cleaners. No. 1,073,539; Sept. 16; Gaz. vol. 194; p. 712.
Stewart, Clinton B. (See Neidig and Stewart.)
Stewart, John V., assignor to The Lorain Steel Company, Johnstown, Pa. Railway-frog. No. 1,074,331; Sept. 30; Gaz. vol. 194; p. 1033.
Stewart, John V., assignor to The Lorain Steel Company, Johnstown, Pa. Ground-switch stand. No. 1,074,332; Sept. 30; Gaz. vol. 194; p. 1034.
Stewart, Perez M., New York, N. Y. Tile. No. 1,073,541; Sept. 16; Gaz. vol. 194; p. 713.
Stewart, Perez M., New York, N. Y., assignor, by mesne assignments, to Asbestos Protected Metal Co. Building construction. No. 1,073,540; Sept. 16; Gaz. vol. 194; p. 713.
Stewart, Perez M., New York, N. Y., assignor, by mesne assignments, to Asbestos Protected Metal Co. Building construction. No. 1,073,542; Sept. 16; Gaz. vol. 194; p. 713.
Stickney, Benjamin R., Ticonderoga, N. Y. Sheet-feeding machine. No. 1,074,221; Sept. 30; Gaz. vol. 194; p. 997.
Stiles, Noel R., London, England. Shock-absorber for type-writers. No. 1,072,526; Sept. 9; Gaz. vol. 194; p. 320.
Still, Carl, Recklinghausen, Germany. Cooler for condensing mixtures of hydrocarbon and steam. No. 1,073,302; Sept. 16; Gaz. vol. 194; p. 632.
Stillman, Albert A., Syracuse, N. Y. Starting means for internal-combustion engines. No. 1,071,969; Sept. 2; Gaz. vol. 194; p. 102.
Stine, Thomas L., Trego, Md. Portable bath-tub. No. 1,072,269; Sept. 2; Gaz. vol. 194; p. 202.
Stoddard, Charles F., Boston, Mass. Note-sheet for musical instruments. No. 1,072,527; Sept. 9; Gaz. vol. 194; p. 321.
Stoddard, Elgin, San Francisco, Cal. Means for displaying automobile-numbers. No. 1,071,821; Sept. 2; Gaz. vol. 194; p. 53.
Stoehr, John J., Brooklyn, N. Y. Convertible field apparatus. No. 1,072,052; Sept. 2; Gaz. vol. 194; p. 130.
Stoffels, Karel W. G. J., *et al.* (See Weenen, Johannes J. H. W., assignor.)
Stokes, Thomas H., Lincoln, Ill. Necktie-slide and collar-button. No. 1,073,001; Sept. 9; Gaz. vol. 194; p. 491.
Stokes, William E. D., Jr., New York, N. Y., and G. W. Davis, Gallilee, N. J., assignors to W. E. D. Stokes, New York, N. Y. Spark-gap-cooling device. No. 1,073,371; Sept. 16; Gaz. vol. 194; p. 657.
Stolz, Joseph, New York, N. Y. Sliding-door hanger. No. 1,073,180; Sept. 16; Gaz. vol. 194; p. 588.
Stone, Joe C., Tipton, Ind. Alarm device for gasolene-tanks. No. 1,072,371; Sept. 2; Gaz. vol. 194; p. 238.
Stone, John S. (See McKissick, Hugh R., assignor.)
Stoneback, Samuel A., Philadelphia, Pa. Railway-tie. No. 1,072,053; Sept. 2; Gaz. vol. 194; p. 130.
Storey, Andrew W., Newton Heath, Manchester, assignor to British Reinforced Concrete Engineering Company Limited, Westminster, England. Wire fencing and the like. No. 1,071,822; Sept. 2; Gaz. vol. 194; p. 53.
Stowe, Larkin, Pleasant View, Ky. Water-elevating apparatus. No. 1,072,787; Sept. 9; Gaz. vol. 194; p. 411.
Strack, Henry C., Owego, N. Y. Grinding-mill. No. 1,074,299; Sept. 30; Gaz. vol. 194; p. 1022.
Straight, Bennett D., assignor to Mail-om-eter Company, Detroit, Mich. Stamp or label delivery mechanism. No. 1,072,054; Sept. 2; Gaz. vol. 194; p. 131.
Straight, Bennett D., assignor to Mail-om-eter Company, Detroit, Mich. Stamp or label delivery mechanism. No. 1,072,055; Sept. 2; Gaz. vol. 194; p. 131.
Strater & Sons, Herman. (See Strater, Theodore G., Jr., assignor.)
Strater, Theodore G., Jr., West Tisbury, assignor to H. Strater & Sons, Boston, Mass. Tumbler-washer. No. 1,072,528; Sept. 9; Gaz. vol. 194; p. 321.
Strauser, John B., Altoona, Pa. Flue-expander. No. 1,072,056; Sept. 2; Gaz. vol. 194; p. 131.
Strauss, Arthur. (See Linden, Meissen, and Strauss.)
Streichert, Emil C. F. (See Harrison and Streichert.)
Strite, Frank S., Dallas, Tex. De-aerator. No. 1,072,670; Sept. 9; Gaz. vol. 194; p. 371.
Strohmenger, Arthur P., Westminster, London, assignor to Slaughter and Company, Limited, London, England. Electric deposition of metals by fusion. No. 1,073,543; Sept. 16; Gaz. vol. 194; p. 714.
Stubblefield, John M., Pawhuska, Okla. School seat and desk. No. 1,073,718; Sept. 23; Gaz. vol. 194; p. 801.
Sturtevant Mill Company. (See Sturtevant, Thomas J., assignor.)
Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Crushing-mill. No. 1,072,057; Sept. 2; Gaz. vol. 194; p. 132.
Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Crushing-mill. No. 1,072,058; Sept. 2; Gaz. vol. 194; p. 132.

Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Crushing-mill. No. 1,072,059; Sept. 2; Gaz. vol. 194; p. 132.
Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Screen or separator. No. 1,072,870; Sept. 9; Gaz. vol. 194; p. 446.
Stutzman, Frank, Williamsport, Pa. Circular cutter-head. No. 1,071,970; Sept. 2; Gaz. vol. 194; p. 102.
Suhr, William H., Oelwein, Iowa. Tank-heater. No. 1,073,544; Sept. 16; Gaz. vol. 194; p. 714.
Sullivan, Clark E., Evansville, Ind. Safety horse-hitching device. No. 1,072,671; Sept. 9; Gaz. vol. 194; p. 371.
Sullivan, George, New York, N. Y. Lap-robe. No. 1,074,389; Sept. 30; Gaz. vol. 194; p. 1053.
Sullivan Machinery Company. (See Holdsworth, Fred D., assignor.)
Sulman, Henry L. (See Rees and Sulman.)
Sumner, James A., Shenandoah, Iowa. Cleaning and waxing pad for sad-irons. No. 1,074,478; Sept. 30; Gaz. vol. 194; p. 1082.
Sumpter, Ernest W. (See Carence and Sumpter.)
Sunshine Specialty Manufacturing Company. (See Cobb and Shaw, assignors.)
Superior Hay Stacker Mfg. Co., The. (See Vroom, Oler P., assignor.)
Sutphin, Elmer E. E., Davenport, Iowa. Explosive-engine. No. 1,071,823; Sept. 2; Gaz. vol. 194; p. 54.
Sutton, Henry M., W. L. and E. G. Steele, Dallas, Tex. Separating-table and process of separation. No. 1,073,644; Sept. 23; Gaz. vol. 194; p. 772.
Sutton, Henry M., W. L. and E. G. Steele, Dallas, Tex. Process of and apparatus for progressive electrostatic separation of comminuted materials. No. 1,073,645; Sept. 23; Gaz. vol. 194; p. 772.
Swan, Ervin D., Glen Ridge, N. J. Cableway. No. 1,074,140; Sept. 30; Gaz. vol. 194; p. 970.
Swanson, Emil, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Folding pedal. No. 1,074,222; Sept. 30; Gaz. vol. 194; p. 997.
Swanson, Emil, assignor to Steger & Sons Piano Manufacturing Company, Steger, Ill. Folding pedal. No. 1,074,223; Sept. 30; Gaz. vol. 194; p. 998.
Swartz, Louis B. (See Rickman, Ulysses S., assignor.)
Sweeley, Everett M., Twin Falls, Idaho. Shot-cartridge. No. 1,073,940; Sept. 23; Gaz. vol. 194; p. 875.
Sweeney, James H. (See Rollings, Sweeney, Nelson, and Trentham.)
Sweeney, Josephus L., Franklin, Tenn. Wagon-bed. No. 1,074,535; Sept. 30; Gaz. vol. 194; p. 1089.
Sweet, Thomas J. (See Wright and Finn, assignors.)
Sweet, Welcome F., St. Louis, Mo., assignor to Eddleman's Never Fail Fish Hook and Animal Trap Company, Mineral Wells, Tex. Combined fish-hook and animal-trap. No. 1,072,672; Sept. 9; Gaz. vol. 194; p. 371.
Sweeting, Harry W., Auburn, N. Y. Traffic and rear-end signal-lamp. No. 1,074,024; Sept. 23; Gaz. vol. 194; p. 902.
Swift, William F. (See Hartley, Bernard M., assignor.)
Swigert, Fredrick B., Galesburg, Ill. Saw-filing machine. No. 1,072,788; Sept. 9; Gaz. vol. 194; p. 412.
Swope, Maurice R., Alton, Ill. Priming composition and preparing the same. No. 1,073,941; Sept. 23; Gaz. vol. 194; p. 875.
Syler, John W., Hillyard, Wash. Fruit-grader. No. 1,072,192; Sept. 2; Gaz. vol. 194; p. 178.
Symons, Edgar B., Milwaukee, Wis. Crushing-machine. No. 1,072,193; Sept. 2; Gaz. vol. 194; p. 179.
Syracuse Chilled Plow Company. (See Lee, William H., assignor.)
Szwargulski, Mikolaj, St. Louis, Mo. Trolley-guard. No. 1,073,303; Sept. 16; Gaz. vol. 194; p. 633.
T. W. & C. B. Sheridan Company *et al.* (See Bredenberg, Alfred, assignor.)
Tabor Manufacturing Company, The. (See Lewis and Ramsden, assignors.)
Taft, Ira B., Cedar Rapids, Iowa. Door spring and check. No. 1,073,545; Sept. 16; Gaz. vol. 194; p. 714.
Tagliamonte, Silverio, Somerville, Mass. Boat. No. 1,072,270; Sept. 2; Gaz. vol. 194; p. 203.
Talent, Harry, Prestwich, England. Leather packing. No. 1,073,181; Sept. 16; Gaz. vol. 194; p. 589.
Tandy, John L., Kansas City, Mo. Spring-mattress. No. 1,073,877; Sept. 23; Gaz. vol. 194; p. 852.
Tascano, Peter, *et al.* (See Genovese, Rosario, assignor.)
Tatum, Edward L., Shop Spring, Tenn. Hay-press. No. 1,073,304; Sept. 16; Gaz. vol. 194; p. 633.
Taub, Ludwig. (See Hiemenz and Taub.)
Taub, Ludwig, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical product. No. 1,073,942; Sept. 23; Gaz. vol. 194; p. 875.
Taylor, George H., Richmond, Va. Halter-lock. No. 1,071,824; Sept. 2; Gaz. vol. 194; p. 54.
Taylor, George P., Clinton, Mass. Multiple-drill holder. No. 1,074,025; Sept. 23; Gaz. vol. 194; p. 903.
Taylor, William E., Eastport, Me., assignor to American Can Company, New York, N. Y. Sardine-can. No. 1,072,789; Sept. 9; Gaz. vol. 194; p. 412.
Taylor, William L. (See Dinkins and Hays, assignors.)
Technology Sales Co. (See De Neergaard, Lewis E., assignor.)
Tennis, Charles C., *et al.* (See Jenkins, Samuel M., assignor.)
Tennis, Marshall F., *et al.* (See Jenkins, Samuel M., assignor.)
Tepel, Herman A., Jeffersonville, Ind. Make-and-break mechanism. No. 1,074,071; Sept. 23; Gaz. vol. 194; p. 918.
Terry, Frederick H. (See Bigwood and Terry.)
Terry, Thomas. (See Maher and Terry.)
Teufer, Bernhard, Chemnitz, Germany. Apparatus for dyeing thread and like material. No. 1,074,390; Sept. 30; Gaz. vol. 194; p. 1053.
Tevander, Swan, Maywood, Ill., assignor to American Can Company, New York, N. Y. Machine for attaching ball-ears to sheet-metal pails or vessels. No. 1,072,790; Sept. 9; Gaz. vol. 194; p. 412.
Tewes, William A., Jersey City, N. J., assignor to Peters Cartridge Company, Cincinnati, Ohio. Bullet. No. 1,072,880; Sept. 9; Gaz. vol. 194; p. 446.
Thatcher-Reuter Manufacturing Company, The. (See McKillop, Samuel W., assignor.)
Thelen, Jacob J., assignor of one-half to H. C. Hogan, Schenectady, N. Y. Check-valve. No. 1,072,673; Sept. 9; Gaz. vol. 194; p. 371.
Thiel, Gustav, Berlin, Germany. Talking-machine. No. 1,072,529; Sept. 9; Gaz. vol. 194; p. 322.
Thielmann, Albert C. (See Shields and Thielmann.)
Thomas & Armstrong Company, The. (See Hames, Harry C., assignor.)
Thomas, Charles R., *et al.* (See Palmer, Charles, assignor.)
Thomas, Edwin M., Birmingham, Ala. Card game. No. 1,073,786; Sept. 23; Gaz. vol. 194; p. 822.
Thomas, Eleni D. (See Thomas, Reginald C. and E. D.)
Thomas, Elisha G., Washington, D. C. Wagon. No. 1,071,971; Sept. 2; Gaz. vol. 194; p. 102.
Thomas Firth and Sons Limited. (See Hoyle and Brearley, assignors.)
Thomas, George B., assignor to The Bryant Electric Company, Bridgeport, Conn. Electric-lamp socket. No. 1,072,271; Sept. 2; Gaz. vol. 194; p. 203.
Thomas, Henry B., assignor to Thomas and Thorne Mfg. Company, Seattle, Wash. Combination shade-roller and curtain-pole bracket. No. 1,073,372; Sept. 16; Gaz. vol. 194; p. 657.
Thomas Manufacturing Company, The. (See Pelton, Charles H., assignor.)
Thomas, Reginald C. and E. D., New York, N. Y. Cosmetic cream. No. 1,073,787; Sept. 23; Gaz. vol. 194; p. 823.
Thomas-Russell Lock Company. (See Russell and Weiser, assignors.)
Thomas and Thorne Mfg. Company. (See Thomas, Henry B., assignor.)
Thomas, William H., Ontario, Cal. Wave-motor. No. 1,072,272; Sept. 2; Gaz. vol. 194; p. 203.
Thompson, Albert R. (See Anderson and Thompson.)
Thompson, Fred C., Granger, Wash. Orchard-spraying machine. No. 1,073,646; Sept. 23; Gaz. vol. 194; p. 773.
Thompson, George F., Tucumcari, N. Mex. Sand-tire. No. 1,074,391; Sept. 30; Gaz. vol. 194; p. 1053.
Thompson, James W., *et al.* (See Byrd, Oscar O., assignor.)
Thompson, John C., Cincinnati, Ohio. Gearing. No. 1,074,579; Sept. 30; Gaz. vol. 194; p. 1114.
Thompson, Ralph P. and W. S., assignors of one-third to O. P. Edwards, Leipsic, Ohio. Automobile. No. 1,072,791; Sept. 9; Gaz. vol. 194; p. 413.
Thompson, Samuel F. (See Dawson, Thomas, assignor.)
Thompson, Stacy C., Manistee, Mich. Knockdown table. No. 1,072,060; Sept. 2; Gaz. vol. 194; p. 133.
Thompson, William S. (See Thompson, Ralph P. and W. S.)
Thomsen, Peter. (See Schmidt and Thomsen.)
Thomsen, Peter, assignor to Schmidt'sche Heissdampf Gesellschaft m. b. H., Cassel-Wilhelmshöhe, Germany. Apparatus for cooling superheater-pipes. No. 1,072,194; Sept. 2; Gaz. vol. 194; p. 179.
Thomsen, Peter, Cassel-Wilhelmshöhe, assignor to Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung, Cassel, Germany. Steam-superheater. No. 1,074,309; Sept. 30; Gaz. vol. 194; p. 1023.
Thomsen, Peter, and E. Doettloff, assignors to Schmidt'sche Heissdampf-Gesellschaft mit beschränkter Haftung, Cassel, Germany. Smoke-tube superheater. No. 1,073,305; Sept. 16; Gaz. vol. 194; p. 633.
Thomson, Alexander A., *et al.* (See Butcher, John A., assignor.)
Thomson Electric Welding Company. (See Hodges, William H., assignor.)
Thomson Electric Welding Company. (See Rietzel, Adolph F., assignor.)
Thomson, Elihu, Swampscott, Mass., assignor to General Electric Company. Electric heater. No. 1,082,530; Sept. 9; Gaz. vol. 194; p. 322.
Thomson, Robert and W. A., Pollokshields, Glasgow, Scotland. Ferroconcrete floor. No. 1,074,072; Sept. 23; Gaz. vol. 194; p. 918.
Thomson, William A. (See Thomson, Robert and W. A.)
Thorp, Jay E. (See Schroyer and Thorp.)
Thowless, Orlando M., Newark, N. J. Glower for electrical incandescent lamps. No. 1,074,333; Sept. 30; Gaz. vol. 194; p. 1034.
Thull, Peter J., Culebra, Canal Zone. Rail-joint for portable tracks. No. 1,072,273; Sept. 2; Gaz. vol. 194; p. 203.

Thullen, Louis H., and F. W. Willey, Cincinnati, Ohio, assignors to The Triumph Electric Company. Electric-motor regulation and control. No. 1,074,392; Sept. 30; Gaz. vol. 194; p. 1054.
Timmer, John N., Uniontown, Pa. Valved coupling. No. 1,073,719; Sept. 23; Gaz. vol. 194; p. 801.
Tint, Louis J., Chicago, Ill. Means for protecting the contents of receptacles. No. 1,072,674; Sept. 9; Gaz. vol. 194; p. 372.
Tirrill, Leonard A., Lynn, Mass., assignor to General Electric Company. Belt-tightener. No. 1,074,562; Sept. 30; Gaz. vol. 194; p. 1108.
Tissier, Teófilo, Buenos Aires, Argentina. Dowel. No. 1,073,182; Sept. 16; Gaz. vol. 194; p. 589.
Toben, Bernard J. (See Beam, Joseph J., assignor.)
Tobias, Hermann B., New York, N. Y. Photographic developing apparatus. No. 1,072,792; Sept. 9; Gaz. vol. 194; p. 413.
Todd, H. Stanley. (See Anderson, Emil, assignor.)
Toledo Parlor Furniture Company, The. (See Klopping, Adolph C., assignor.)
Toledo Pipe Threading Machine Company, The. (See Vosper, William W., assignor.)
Toledo Scale Company. (See Duquette, Maxim A., assignor.)
Tompkins, George N., Croton on Hudson, N. Y. Fastener. No. 1,071,825; Sept. 2; Gaz. vol. 194; p. 54.
Torello, Pietro. (See Contenti, Filiberto, assignor.)
Torkington, Alfred W., London, England. Tire for the wheels of road-vehicles. No. 1,072,793; Sept. 9; Gaz. vol. 194; p. 414.
Totti, John, Joliet, Ill. Switch-throwing device. No. 1,071,826; Sept. 2; Gaz. vol. 194; p. 54.
Tothill, William S., Chicago, Ill. Merry-go-round. No. 1,073,449; Sept. 16; Gaz. vol. 194; p. 684.
Touchard, Victor J., Paris, France. Water-heating device. No. 1,072,274; Sept. 2; Gaz. vol. 194; p. 204.
Towle, George C., Dayton, Ohio. Car-truck. No. 1,074,479; Sept. 30; Gaz. vol. 194; p. 1082.
Towner, Orrin, Creston, British Columbia, Canada. Neck-yoke. No. 1,073,943; Sept. 23; Gaz. vol. 194; p. 876.
Townsend, Cortez W., Canton, Ohio. Roll-polisher. No. 1,072,195; Sept. 2; Gaz. vol. 194; p. 179.
Tozer, Luke, Iola, Kans. Oil-burner. No. 1,073,306; Sept. 16; Gaz. vol. 194; p. 634.
Tradesco, Daniel A., Priceburg, Pa. Spike for base-ball shoes. No. 1,072,794; Sept. 9; Gaz. vol. 194; p. 414.
Traut & Hine Manufacturing Company, The. (See Humphrey, Ernest N., assignor.)
Traversaro, Ignatius, San Francisco, Cal. Attachment for pianos. No. 1,073,944; Sept. 23; Gaz. vol. 194; p. 876.
Travis, Don Carlos, assignor to The Simmons Manufacturing Company, Kenosha, Wis. Spring-mattress frame. No. 1,071,827; Sept. 2; Gaz. vol. 194; p. 55.
Treadwell, Victor A., Detroit, Mich. Berth. No. 1,073,002; Sept. 9; Gaz. vol. 194; p. 491.
Trego, Frank H., assignor to Packard Motor Car Company, Detroit, Mich. Hydrocarbon-motor. No. 1,073,183; Sept. 16; Gaz. vol. 194; p. 589.
Treibacher Chemische Werke Gesellschaft mit beschränkter Haftung. (See Ganz, Charles, assignor.)
Tremmel Art Glass Works, The. (See Tremmel, George M., assignor.)
Tremmel, George M., assignor to The Tremmel Art Glass Works, Two Rivers, Wis. Machine for finishing the edges of plate-glass. No. 1,074,141; Sept. 30; Gaz. vol. 194; p. 970.
Trench, Walter L. and A. G. Zepp, Baltimore, Md. Ballast-cleaner. No. 1,074,142; Sept. 30; Gaz. vol. 194; p. 971.
Trent, Walter E., Reno, Nev. Mucking apparatus. No. 1,073,184; Sept. 16; Gaz. vol. 194; p. 589.
Trent, Walter E., Reno, Nev. Agitating and mixing apparatus. No. 1,073,878; Sept. 23; Gaz. vol. 194; p. 853.
Trentham, Thomas T. (See Rollings, Sweeney, Nelson, and Trentham.)
Trevillion, Edward E., Newellton, La. Nut-lock. No. 1,072,275; Sept. 2; Gaz. vol. 194; p. 204.
Trewhella, Benjamin H., Birmingham, England. Metallic rope-fitting. No. 1,073,720; Sept. 23; Gaz. vol. 194; p. 801.
Trier and Martin Limited. (See Hill, Abner, assignor.)
Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,072,324; Sept. 2; Gaz. vol. 194; p. 220.
Triplett, Ray L., assignor, by mesne assignments, to The Diller Manufacturing Company, Bluffton, Ohio. Electrical measuring instrument. No. 1,072,531; Sept. 9; Gaz. vol. 194; p. 322.
Triumph Electric Company, The. (See Thullen and Willey, assignors.)
Triumph Voting Machine Company. (See Christensen, Christ, assignor.)
Triumph Voting Machine Company. (See Dean, James H., assignor.)
Trompeter, George, Clearwater, Kans. Agricultural machine. No. 1,073,373; Sept. 16; Gaz. vol. 194; p. 657.
Trottier, René E., Puteaux, France. Classifier for solid material. No. 1,074,301; Sept. 30; Gaz. vol. 194; p. 1023.
Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)
Troyer, Frank, Nampa, Idaho. Trap-door lifter. No. 1,073,003; Sept. 9; Gaz. vol. 194; p. 491.
Trull, Clarence A. (See Trull, Harvey L., assignor.)
Trull, Harvey L., Mart, assignor of one-half to C. A. Trull, Waco, Tex. Animal-trap. No. 1,072,675; Sept. 9; Gaz. vol. 194; p. 372.
Trundle, Edward H., Washington, D. C. Horseshoe-calk. No. 1,073,546; Sept. 16; Gaz. vol. 194; p. 715.
Tully, George L., assignor to American Optical Company, Southbridge, Mass. Trial-frame. No. 1,073,879; Sept. 23; Gaz. vol. 194; p. 853.
Tunes, Manoel F., Rio de Janeiro, Brazil. Carving-machine. No. 1,073,547; Sept. 16; Gaz. vol. 194; p. 715.
Turck, Joseph A. V. (See Felt and Turck.)
Turner, Claude A. P., Minneapolis, Minn. Reinforced concrete construction. No. 1,072,532; Sept. 9; Gaz. vol. 194; p. 323.
Turner, Henry C., and G. W. Hamm, Represa, Cal. Water-meter. No. 1,071,828; Sept. 2; Gaz. vol. 194; p. 55.
Turner, Kelley M., Jamaica, N. Y. Telephone outfit for the deaf. No. 1,073,788; Sept. 23; Gaz. vol. 194; p. 823.
Turner, Robert E., Boston, Mass. Bunion shield or protector. No. 1,073,185; Sept. 16; Gaz. vol. 194; p. 590.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pressure-governor for pumps. No. 1,071,829; Sept. 2; Gaz. vol. 194; p. 55.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electric pump-governor. No. 1,071,830; Sept. 2; Gaz. vol. 194; p. 56.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve device. No. 1,071,831; Sept. 2; Gaz. vol. 194; p. 56.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Triple-valve device. No. 1,073,186; Sept. 16; Gaz. vol. 194; p. 590.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Double-pressure pump-governor. No. 1,074,224; Sept. 30; Gaz. vol. 194; p. 998.
Turtle-Back Log Bunk & Car Stake Company. (See Shields, Edward B., assignor.)
Tuttle, Henry A., Taunton, Mass. Shock-absorber. No. 1,073,187; Sept. 16; Gaz. vol. 194; p. 590.
Twombly Motors Company. (See Twombly, Willard L., assignor.)
Twombly, Willard L., assignor to Twombly Motors Company, New York, N. Y. Lubricating system for rotary engines. No. 1,073,374; Sept. 16; Gaz. vol. 194; p. 657.
Typograph G. m. b. H. (See Dorneth, Julius, assignor.)
Tyrrell, Wallace B., assignor to Bradley Knitting Co., Delavan, Wis. Seam for sewed articles. No. 1,074,580; Sept. 30; Gaz. vol. 194; p. 1115.
Ullman, Isaac W. (See Dressler and Ullman.)
Ulrich, Georg, Magdeburg, Germany. Magnetic separator. No. 1,072,276; Sept. 2; Gaz. vol. 194; p. 204.
Ulrich, Georg, Magdeburg, Germany. Apparatus for magnetic separation of ores and other materials. No. 1,072,277; Sept. 2; Gaz. vol. 194; p. 205.
Underpinning & Foundation Co., The. (See Pierce, Leon, assignor.)
Underwood Typewriter Company. (See Barnard, Walter E., assignor.)
Underwood Typewriter Company. (See Cooper, John J., assignor.)
Underwood Typewriter Company. (See Kurowski, Alfred G. F., assignor.)
Union Draft Gear Company. (See Jones, Joshua J., assignor.)
Union Iron Works Co. (See Dahl, Knut M., assignor.)
Union Metallic Cartridge Company, The. (See Hoagland, Frank O., assignor.)
Union Radiator Company. (See Simler, Oliver P., assignor.)
Union Special Sewing Machine Company. (See Woodward, Russel G., assignor.)
Union Switch and Signal Company, The. (See Hawkins, Laurence A., assignor.)
Union Switch & Signal Company, The. (See McCready, Harold, assignor.)
Unique Specialty Company. (See Flood, John R., assignor.)
United Gas Improvement Company, The. (See Evans, Owen B., assignor.)
United Ice Improvement Company. (See Dodge, Zenas U., assignor.)
United Injector Company, The. (See Williston, Belvin T., assignor.)
United Iron Works Company. (See Holzer, Hiram A., assignor.)
United Shirt and Collar Company. (See Dormandy, Garry J., assignor.)
United Shoe Machinery Company. (See Ambler, George A., assignor.)
United Shoe Machinery Company. (See Bennion, Bates, and Gouldbourn, assignors.)
United Shoe Machinery Company. (See Brock, Matthias, assignor.)
United Shoe Machinery Company. (See Hyslop, John, assignor.)
United Shoe Machinery Company. (See MacKenzie, Fred L., assignor.)
United Shoe Machinery Company. (See Meacham, John H., assignor.)

United Shoe Machinery Company. (See Pope, Joseph H., assignor.)
United States Cast Iron Pipe and Foundry Company. (See James, Roswell G., assignor.)
United States Light & Heating Company, The. (See Bliss, William L., assignor.)
United States Metal Products Co. (See Hale, Charles J., assignor.)
United Telegraph & Cable Company, The. (See Bruce, William M., Jr., assignor.)
Universal Caster & Foundry Company. (See Diss, Albert B., assignor.)
Universal Coinwrapping Machine Company. (See Batdorf, Charles S., assignor.)
Universal Refrigerating Company. (See Davis, William F., assignor.)
Universal Safety Elevator Locking Device Co. (See Didier, Edmund, assignor.)
Universal Talking Machine Manufacturing Company. (See Babson and Haug, assignors.)
Universal Wave Power Co. (See Melander, August W., assignor.)
Unrub, Frank, New Orleans, La. Pencil-sharpener. No. 1,074,026; Sept. 23; Gaz. vol. 194; p. 903.
Uren, William W., Savona, British Columbia, Canada. Cartridge-holder. No. 1,073,721; Sept. 23; Gaz. vol. 194; p. 802.
Vacuum Engineering Company. (See Guthorn, Seymour L., assignor.)
Valerius, Theodore L., Fort Atkinson, Wis., assignor to Creamery Package Manufacturing Company, Chicago, Ill. Bottle filler and capper. No. 1,072,795; Sept. 9; Gaz. vol. 194; p. 414.
Vallone, Charles, assignor to Barcalo Manufacturing Company, Buffalo, N. Y. Connecting device for bedstead-frame tubes and the like. No. 1,072,278; Sept. 2; Gaz. vol. 194; p. 205.
Van Buskirk, Abraham L., Idaho Falls, Idaho. Evaporative refrigerator. No. 1,073,375; Sept. 16; Gaz. vol. 194; p. 658.
Van Der Sprenkel, Jan B., *et al.* (See Weenen, Johannes J. H. W., assignor.)
Van der Velden, Friedrich, Barmen, assignor to Wickueler Kuepper Brauerei Actiengesellschaft, Elberfeld, Germany. Internally tinning metal vessels. No. 1,072,372; Sept. 2; Gaz. vol. 194; p. 238.
Van Dorn and Dutton Company, The. (See Schneider, Franklin, assignor.)
Van Dorn, William T., Chicago, Ill. Attaching means for car ends. No. 1,074,225; Sept. 30; Gaz. vol. 194; p. 999.
Van Dyke, John W., and W. M. Irish, assignors to The Atlantic Refining Company, Philadelphia, Pa. Process of and apparatus for distilling petroleum. No. 1,073,548; Sept. 16; Gaz. vol. 194; p. 715.
Van Houten, Fred E., Denver, Colo. Weeding implement. No. 1,073,188; Sept. 16; Gaz. vol. 194; p. 591.
Van Lenten, Maurice D., Paterson, N. J. Apparatus for delivering articles, such as mail-bags, from trains or moving bodies. No. 1,074,027; Sept. 23; Gaz. vol. 194; p. 903.
Van Noorden, Ezekiel, Boston, Mass. Automatic self-closing attachment for windows. No. 1,073,307; Sept. 16; Gaz. vol. 194; p. 634.
Van Rooijen, Garrit, Chester, N. J. Trousers-stretcher. No. 1,072,881; Sept. 9; Gaz. vol. 194; p. 446.
Van Valkenburg, Burt R., Oakland, Cal. Piano-playing mechanism. No. 1,074,563; Sept. 30; Gaz. vol. 194; p. 1108.
Vance, Charles E., Pittsburgh, Pa. Blow-off valve. No. 1,072,796; Sept. 9; Gaz. vol. 194; p. 415.
Varcoe, Earl V., Honesdale, Pa. Driving-gear for motor-vehicles. No. 1,072,797; Sept. 9; Gaz. vol. 194; p. 415.
Vardaman, Albert T. (See Vardaman, Robert M. and A. T.)
Vardaman, Robert M. and A. T., Ironaton, Ala. Sod-liner. No. 1,072,798; Sept. 9; Gaz. vol. 194; p. 415.
Varley Duplex Magnet Company. (See Varley, Richard, assignor.)
Varley, Richard, Englewood, assignor to Varley Duplex Magnet Company, Jersey City, N. J. Starter apparatus and system for autovehicles. No. 1,072,279; Sept. 2; Gaz. vol. 194; p. 206.
Varley, Richard, Englewood, assignor to Varley Duplex Magnet Company, Jersey City, N. J. Making coils. No. 1,073,059; Sept. 9; Gaz. vol. 194; p. 510.
Varley, Richard, Englewood, assignor to Varley Duplex Magnet Company, Jersey City, N. J. Electric coil. No. 1,073,060; Sept. 9; Gaz. vol. 194; p. 510.
Vary, Elmer A., Middleport, N. Y. Fruit-pitting machine. No. 1,074,393; Sept. 30; Gaz. vol. 194; p. 1054.
Vaughan, Bernard G., assignor to National Match Company, Joliet, Ill. Match-splint cleaning and assembling machine. No. 1,072,882; Sept. 9; Gaz. vol. 194; p. 446.
Vaughn, Thomas E., Chicago, Ill., and J. H. Bruninga, assignors to Champion Ventilator Company, St. Louis, Mo. Ventilator for buildings. No. 1,074,143; Sept. 30; Gaz. vol. 194; p. 971.
Vereinigte Kunstseidefabriken A. G. (See Dietler, Friedrich, assignor.)
Vescovi, Peter. (See Chiariglione, Vescovi, and Gobatti.)
Vickers Limited. (See Dawson and Buckham, assignors.)
Vickers Limited. (See Dawson and Horne, assignors.)
Vickers Limited. (See Elia, Giovanni E., assignor.)
Victor Talking Machine Company. (See Diehl, Albert C., assignor.)
Victor Talking Machine Company. (See Johnson and English, assignors.)
Victor Talking Machine Company. (See Lumiere, Louis, assignor.)
Victor Vacuum Cleaning Company. (See Williams, Calvin C., assignor.)
Vierengel, Matthew, assignor, by mesne assignments, to The Autopress Company, New York, N. Y. Printing-press. No. 1,072,883; Sept. 9; Gaz. vol. 194; p. 447.
Vivian, Alfred J., assignor of three-tenths to R. B. McConney, Denver, Colo. Box-car loader. No. 1,073,376; Sept. 16; Gaz. vol. 194; p. 658.
Vlach, John J. (See Balko, Pal, assignor.)
Vold, Lars H., Westville, N. J., assignor to William Sellers & Company, Incorporated, Philadelphia, Pa. Loading and unloading apparatus. No. 1,072,533; Sept. 9; Gaz. vol. 194; p. 323.
Völler, Karl, and C. Waninger, Dusseldorf, Germany. Support of pivoted guns. No. 1,073,061; Sept. 9; Gaz. vol. 194; p. 511.
Voltz, Georg F., Hornau, assignor to Firm of E. P. Lehmann, Brandenburg-on-the-Havel, Germany. Toy. No. 1,073,880; Sept. 23; Gaz. vol. 194; p. 853.
Volz, Gottlieb W., assignor of one-half to L. L. Bassett, Washtucna, Wash. Locomotive or traction-engine. No. 1,074,028; Sept. 23; Gaz. vol. 194; p. 904.
Voorhees, Walter K., and J. H. Osgood, Cedar Falls, Iowa. Machine for forming loops in wires. No. 1,073,180; Sept. 16; Gaz. vol. 194; p. 591.
Vosburgh, Cornelius S., and J. L. G. Blouin, Waterbury, Conn. Rotary bar-scalper. No. 1,072,061; Sept. 2; Gaz. vol. 194; p. 133.
Vosper, Sydney C., Petersfield, England. Artist's easel. No. 1,072,534; Sept. 9; Gaz. vol. 194; p. 324.
Vosper, William W., assignor to The Toledo Pipe Threading Machine Company, Toledo, Ohio. Pipe-cutting machine. No. 1,074,334; Sept. 30; Gaz. vol. 194; p. 1034.
Vroom, Oler P., assignor to The Superior Hay Stacker Mfg. Co., Linneus, Mo. Corn-harvesting machine. No. 1,073,572; Sept. 16; Gaz. vol. 194; p. 725.
Vulcan Electric Heating Company. (See Holmes, Frank J., assignor.)
W. D. Smith Ordnance Company. (See Smith, William D., assignor.)
W. G. Wilson Company. (See Wilson, Wylie G., assignor.)
W. W. Sly Manufacturing Company, The. (See Lawrence, George R., assignor.)
Wafer, William, Oak Park, Ill. Automatic safety-valve. No. 1,071,972; Sept. 2; Gaz. vol. 194; p. 103.
Waggoner, William I., Burlington, Ind. Fly-trap. No. 1,073,190; Sept. 16; Gaz. vol. 194; p. 592.
Wagner Electric Manufacturing Company. (See Fynn, Valère A., assignor.)
Wagner, Frank, St. Louis, Mo. Multiple-joint miter-clamp. No. 1,073,549; Sept. 16; Gaz. vol. 194; p. 717.
Wagner, Hermann, and J. Kohlhaas, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Color-lakes. No. 1,071,832; Sept. 2; Gaz. vol. 194; p. 57.
Wagner, Hermann, and J. Kohlhaas, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Red wool dyestuffs and making same. No. 1,071,833; Sept. 2; Gaz. vol. 194; p. 57.
Wahlquist, Charles J. (See Barzee and Wahlquist.)
Waite, Harry C., Lewistown, Mont. Grain-drill. No. 1,073,826; Sept. 23; Gaz. vol. 194; p. 835.
Waite, Harry C., Lewistown, Mont. Disk plow. No. 1,073,827; Sept. 23; Gaz. vol. 194; p. 835.
Wakeman, Abram, New York, N. Y. Vehicle license-tag. No. 1,073,004; Sept. 9; Gaz. vol. 194; p. 492.
Walden Manufacturing Company. (See Bellows, Warren S., assignor.)
Waldner, Frederick, Alexandria, S. D. Wrench. No. 1,072,535; Sept. 9; Gaz. vol. 194; p. 324.
Waldron, Frederick A., Plainfield, N. J. Apparatus for grinding wood. No. 1,074,144; Sept. 30; Gaz. vol. 194; p. 971.
Waldron, Ivan M., assignor of one-half to H. Grimes, Gilchrist, Mich. Wrench. No. 1,074,304; Sept. 30; Gaz. vol. 194; p. 1055.
Walker, Charles R., Newburgh, N. Y. Drying system. No. 1,074,302; Sept. 30; Gaz. vol. 194; p. 1024.
Walker, Henry M., Chicago, Ill. Ironing-table. No. 1,072,884; Sept. 9; Gaz. vol. 194; p. 447.
Walker, Louis C., Muskegon, Mich. Desk. No. 1,072,280; Sept. 2; Gaz. vol. 194; p. 206.
Wall, Ellis W., Medford, Oreg. Outdoor cooking-crane. No. 1,071,834; Sept. 2; Gaz. vol. 194; p. 57.
Wall, William L., Philadelphia, Pa. Display-cabinet for eye-testing cards. No. 1,072,799; Sept. 9; Gaz. vol. 194; p. 416.
Wallace, Fred, and F. Ernst, Eden, N. Y. Safety feed-water controller for boilers. No. 1,074,536; Sept. 30; Gaz. vol. 194; p. 1099.
Wallace, Isaac B., Independence, Kans. Railway-tie fastener. No. 1,072,281; Sept. 2; Gaz. vol. 194; p. 206.
Wallin, Gustaf A., assignor to A. Kimball Company, New York, N. Y. Pinless marking-ticket. No. 1,073,828; Sept. 23; Gaz. vol. 194; p. 836.
Wallis, Charles W., Toronto, Ontario, Canada. Life-boat. No. 1,071,835; Sept. 2; Gaz. vol. 194; p. 58.
Wallmann, Henning F., Chicago, Ill. Gas-producer. No. 1,072,536; Sept. 9; Gaz. vol. 194; p. 324.

Wals, André, Glasgow, Scotland. Lady's hat-pin. No. 1,073,881; Sept. 23; Gaz. vol. 194; p. 854.
Walser, Joseph J., assignor to The Goss Printing Press Company, Chicago, Ill. Printing-press. No. 1,073,450; Sept. 16; Gaz. vol. 194; p. 684.
Walsh-Baker Corporation. (See Walsh, Thomas P., assignor.)
Walsh, George W., Boston, Mass. High and low water alarm apparatus. No. 1,072,062; Sept. 2; Gaz. vol. 194; p. 134.
Walsh, Thomas P., Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Loom for weaving oriental knotted fabrics. No. 1,071,973; Sept. 2; Gaz. vol. 194; p. 103.
Walsh, Thomas P., Boston, Mass., assignor to Walsh-Baker Corporation, Portland, Me. Loom for weaving oriental knotted fabrics. No. 1,072,885; Sept. 9; Gaz. vol. 194; p. 448.
Walter, Charles P., Harrisburg, Pa. Pavement. No. 1,073,647; Sept. 23; Gaz. vol. 194; p. 773.
Walter, Edward C., New York, N. Y., assignor to H. T. Ambrose, Orange, N. J. Type-writer. No. 1,073,573; Sept. 16; Gaz. vol. 194; p. 725.
Walter, Max C., Talmage, Nebr. Ironing-board cabinet. No. 1,074,226; Sept. 30; Gaz. vol. 194; p. 999.
Walther, Robert E., Werdau, Germany. Device for opening preserve-tins. No. 1,071,974; Sept. 2; Gaz. vol. 194; p. 104.
Walton, William R., *et al.* (See Snyder, William H., assignor.)
Waltz, Frank M., New York, N. Y. Optical reflector. No. 1,074,145; Sept. 30; Gaz. vol. 194; p. 972.
Wandersleb, Ernst, assignor to Firm of C. Zeiss, Jena, Germany. Photographic objective. No. 1,073,789; Sept. 23; Gaz. vol. 194; p. 823.
Waninger, Carl. (See Völler and Waninger.)
Waninger, Carl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Gearing. No. 1,072,282; Sept. 2; Gaz. vol. 194; p. 207.
Wappler Electric Manufacturing Co. (See Wappler, Reinhold H., assignor.)
Wappler, Reinhold H., assignor to Wappler Electric Manufacturing Co., Inc., New York, N. Y. Therapeutic electrode. No. 1,074,146; Sept. 30; Gaz. vol. 194; p. 972.
Ward, Abram D., Chicago, Ill. Excavating-machine. No. 1,074,480; Sept. 30; Gaz. vol. 194; p. 1082.
Ward, Ernest N. and F. J., assignors of one-third to S. M. West, Baxter Springs, Kans. Pneumatically-operated pump. No. 1,072,886; Sept. 9; Gaz. vol. 194; p. 448.
Ward, Frederick J. (See Ward, Ernest N. and F. J.)
Ward, Nellie H., Milwaukee, Wis. Lady's hat-case. No. 1,073,191; Sept. 16; Gaz. vol. 194; p. 592.
Ward, William L., assignor of one-fourth to B. H. Harman, Watauga Falls, N. C. Safety-stirrup. No. 1,074,481; Sept. 30; Gaz. vol. 194; p. 1083.
Warder, Walter J., Jr., Chicago, Ill., assignor to The Adams & Westlake Company. Electric signaling device. No. 1,073,192; Sept. 16; Gaz. vol. 194; p. 592.
Wardwell, Simon W., Providence, R. I. Supply-carrier for braiding-machines. No. 1,072,800; Sept. 9; Gaz. vol. 194; p. 416.
Wardwell, Simon W., Providence, R. I. Braiding-machine. No. 1,073,208; Sept. 16; Gaz. vol. 194; p. 635.
Warner, Frederick E., Bridgeport, Conn. Tumbling-barrel. No. 1,073,945; Sept. 23; Gaz. vol. 194; p. 876.
Warner, Ludo J., Chicago, Ill. Freight-car or the like. No. 1,072,887; Sept. 9; Gaz. vol. 194; p. 449.
Warren, Clarence S., Milford, Ohio. Individual telephone-mouthpiece. No. 1,072,537; Sept. 9; Gaz. vol. 194; p. 325.
Washburn, Herbert C., Suffern, N. Y. Vehicle-brake. No. 1,074,482; Sept. 30; Gaz. vol. 194; p. 1083.
Washburn, James M., Chicago, Ill. Support for cards, pictures, and the like. No. 1,071,836; Sept. 2; Gaz. vol. 194; p. 58.
Washington Iron Works Company. (See Watt, Sern P., assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Candee, Zenas P., assignor.)
Waterman, Fred W., Elyria, Ohio, assignor to National Tube Company, Pittsburgh, Pa. Looping device for rolling-mills. No. 1,072,676; Sept. 9; Gaz. vol. 194; p. 372.
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Hay rake and tedder. No. 1,072,677; Sept. 9; Gaz. vol. 194; p. 373.
Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Power-lift plow. No. 1,072,678; Sept. 9; Gaz. vol. 194; p. 373.
Waters, Richard H., Rosebud, Tex. Wrench. No. 1,072,283; Sept. 2; Gaz. vol. 194; p. 207.
Watkins, Orla H., assignor to himself, J. A. and W. J. Kelly, Clinton, Iowa. Driving mechanism for washing-machines. No. 1,074,073; Sept. 23; Gaz. vol. 194; p. 919.
Watkins, Samuel J., Avondale, Colo. Boring-bit. No. 1,073,005; Sept. 9; Gaz. vol. 194; p. 492.
Watskey, Claire V. (See Jackson, Salo J., assignor.)
Watt, Sern P., assignor to Washington Iron Works Company, Seattle, Wash. Gearing. No. 1,072,538; Sept. 9; Gaz. vol. 194; p. 325.
Watts, Charles H., North Braddock, Pa. Hydraulic packing-shield. No. 1,073,550; Sept. 16; Gaz. vol. 194; p. 718.
Watts, Warren, Hayes township, Clay county, Kans. Feed-regulator. No. 1,073,193; Sept. 16; Gaz. vol. 194; p. 592.
Waycott, Albert K., New York, N. Y. Rod-packing. No. 1,072,679; Sept. 9; Gaz. vol. 194; p. 374.
Wayditch, Aloys, assignor to Stereo-Kinema Film Co., New York, N. Y. Attachment for taking-cameras for making stereoscopic moving-picture films. No. 1,071,837; Sept. 2; Gaz. vol. 194; p. 58.
Weatherby, Joseph, assignor, by mesne assignments, to Electric Ore Separator Company, New Cumberland, Pa. Magnetic separator. No. 1,071,838; Sept. 2; Gaz. vol. 194; p. 58.
Weatherby, Joseph, assignor to The Electric Ore Separator Company, New Cumberland, Pa. Ore-concentrator. No. 1,071,839; Sept. 2; Gaz. vol. 194; p. 59.
Weatherby, Joseph, assignor, by mesne assignments, to Electric Ore Separator Company, New Cumberland, Pa. Ore-concentrator. No. 1,071,975; Sept. 2; Gaz. vol. 194; p. 104.
Weaver, Morries, Jonestown, assignor to J. T. Buckwalter, Lancaster, Pa. Grain-separating machine. No. 1,073,451; Sept. 16; Gaz. vol. 194; p. 685.
Weber, Henry, assignor to Latham Machinery Company, Chicago, Ill. Wire-stitcher. No. 1,074,564; Sept. 30; Gaz. vol. 194; p. 1108.
Weber, Walter. (See Henkel and Weber.)
Webster, Charles B., assignor of one-half to J. K. Lanning, Fall River, Mass. Mechanism for forming thread-guiding slots in weaving-shuttles. No. 1,072,196; Sept. 2; Gaz. vol. 194; p. 180.
Webster, Harry A., Lancaster, Pa. Drafting instrument. No. 1,072,539; Sept. 9; Gaz. vol. 194; p. 325.
Weeden, Arthur W., Somerville, Mass. Shift mechanism for type-writers. No. 1,071,976; Sept. 2; Gaz. vol. 194; p. 104.
Weenen, Johannes J. H. W., assignor of one-third to K. W. G. J. Stoffels and one-third to J. B. Van Der Sprenkel, Amsterdam, Netherlands. Contact device. No. 1,072,540; Sept. 9; Gaz. vol. 194; p. 325.
Weidenbach, Herman A., Buffalo, N. Y. Multiple centrifugal governor. No. 1,072,888; Sept. 9; Gaz. vol. 194; p. 449.
Weimer, Henry, Winona, Minn. Bed-support for hospitals or sick-rooms. No. 1,073,194; Sept. 16; Gaz. vol. 194; p. 593.
Weintraub, Ezechiel, Schenectady, N. Y., assignor to General Electric Company. Electrical illumination. No. 1,074,303; Sept. 30; Gaz. vol. 194; p. 1024.
Weiper, Henry B., Eau Claire, Wis. Sepulcher-cover. No. 1,073,377; Sept. 16; Gaz. vol. 194; p. 659.
Weiser, Abraham G. (See Russell and Weiser.)
Weiss, Morris Z. (See Greenwald, Blaustein, Weiss, and Selkovits.)
Welch, Joseph W., Ogden, Utah. Pipe construction. No. 1,074,395; Sept. 30; Gaz. vol. 194; p. 1055.
Welch, William P. (See Gilford and Welch.)
Weller, Thomas B., Vinita, Okla. Stock-watering tank. No. 1,073,195; Sept. 16; Gaz. vol. 194; p. 593.
Wellman, Samuel T., and H. W. Lash, assignors to The Liquid Forged Steel Company, Cleveland, Ohio. Apparatus for handling ingot-molds. No. 1,073,196; Sept. 16; Gaz. vol. 194; p. 593.
Wells, D., *et al.* (See Ray, Albert J., assignor.)
Welsh, Henry W., assignor to Avery Scale Company, North Milwaukee, Wis. Automatic weighing-machine. No. 1,072,541; Sept. 9; Gaz. vol. 194; p. 326.
Welton, Samuel D., Craigsville, Pa. Window shade and curtain hanger. No. 1,072,889; Sept. 9; Gaz. vol. 194; p. 450.
Wertheim, Ludwig, New York, N. Y. Bag-lock. No. 1,074,074; Sept. 23; Gaz. vol. 194; p. 919.
Wertz, Daniel, Toledo, Ohio. Hose or garment supporter. No. 1,072,542; Sept. 9; Gaz. vol. 194; p. 326.
Wescott, Willis L., *et al.* (See Lipps, Louis P., assignor.)
Wesener, John A., Chicago, Ill. Improving the condition of flour. No. 1,071,977; Sept. 2; Gaz. vol. 194; p. 105.
Wessoleck, Augustus W., assignor to The American Hardware Corporation, New Britain, Conn. Driving-pinion support. No. 1,074,581; Sept. 30; Gaz. vol. 194; p. 1115.
West Disinfecting Company. (See Marcuse, Moses M., assignor.)
West, Frank P., Port Orchard, Wash. Curtain-holder. No. 1,072,063; Sept. 2; Gaz. vol. 194; p. 134.
West, Fredrick J., and H. W. Darby, Winnipeg, Manitoba, Canada. Riveter. No. 1,074,396; Sept. 30; Gaz. vol. 194; p. 1055.
West, Samuel M. (See Ward, Ernest N. and F. J., assignors.)
Westby, Adolph C., Porter, Minn. Beating and mixing machine. No. 1,074,397; Sept. 30; Gaz. vol. 194; p. 1056.
Western Clock Co. (See Kern, George, assignor.)
Western Electric Company. (See Egerton, Henry C., assignor.)
Western Electric Company. (See Shreeve, Herbert E., assignor.)
Westinghouse Air Brake Company, The. (See Murphy, Howard M. P., assignor.)
Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)
Westinghouse Air Brake Company, The. (See Woernley, Harry F., assignor.)

Westinghouse Electric and Manufacturing Company. (See Fortescue, Charles L., assignor.)
Westinghouse Electric & Manufacturing Company. (See Lamme, Benjamin G., assignor.)
Westinghouse Electric and Manufacturing Company. (See Sanborn, John R., assignor.)
Westinghouse, George, Pittsburgh, Pa. Cooling means for internal-combustion engines. No. 1,073,197; Sept. 16; Gaz. vol. 194; p. 594.
Westinghouse Machine Company, The. (See Herr, Herbert T., assignor.)
Westinghouse Machine Company, The. (See Hodgkinson, Francis, assignor.)
Weston, Folke W., New York, N. Y. Printer's plate-holding device. No. 1,073,378; Sept. 16; Gaz. vol. 194; p. 650.
Wexler, Benjamin, Brooklyn, assignor to The Peelle Co., New York, N. Y. Latch for elevator-doors. No. 1,072,064; Sept. 2; Gaz. vol. 194; p. 134.
Wheelock, Carl M., Milwaukee, Wis., assignor to New Process Specialty Company. Combination gas and electric outlet clamp. No. 1,073,722; Sept. 23; Gaz. vol. 194; p. 802.
Whisner, Samuel E., Verona, Pa. Perforation device for wall-paper. No. 1,072,890; Sept. 9; Gaz. vol. 194; p. 450.
Whitaker, Vance, St. Louis, Mo. Street-car fare-box. No. 1,072,891; Sept. 9; Gaz. vol. 194; p. 450.
Whitcomb, Marcellus L., Seattle, Wash. Filing-case. No. 1,073,198; Sept. 16; Gaz. vol. 194; p. 594.
White, Charles E., and G. Elliott, Washington, D. C. Article-holding device. No. 1,072,680; Sept. 9; Gaz. vol. 194; p. 374.
White, Clarence H. (See Lanoue, John B., assignor.)
White, Ellis, Hoquiam, Wash. Attachment for flat-cars. No. 1,073,006; Sept. 9; Gaz. vol. 194; p. 492.
White, James C., Sewickley, Pa. Building-block. No. 1,073,723; Sept. 23; Gaz. vol. 194; p. 802.
White, Jessee, M., Philadelphia, Pa. Valve-operating mechanism for internal-combustion engines. No. 1,073,882; Sept. 23; Gaz. vol. 194; p. 854.
White, John E., Rochester, N. Y. Device for removing hairs. No. 1,071,978; Sept. 2; Gaz. vol. 194; p. 105.
White, Joseph C., Chelsea, assignor to White-Merrill Company, Boston, Mass. Firearm. No. 1,073,452; Sept. 16; Gaz. vol. 194; p. 685.
White-Merrill Company. (See White, Joseph C., assignor.)
White, Robert, St. Paul, Minn. Vegetable-picker. No. 1,072,065; Sept. 2; Gaz. vol. 194; p. 135.
Whitin Machine Works, The. (See Rooney, Edwin A., assignor.)
Whiting, Lewis S., and W. M. Koppes, assignors to The Aultman & Taylor Machinery Company, Mansfield, Ohio. Auxiliary cleaning means for bean and pea huilers. No. 1,074,227; Sept. 30; Gaz. vol. 194; p. 1000.
Whiting, Max A., Schenectady, N. Y., assignor to General Electric Company. Motor control. No. 1,071,840; Sept. 2; Gaz. vol. 194; p. 59.
Whitlock, Wilmore B., Richmond, Va. Supporter. No. 1,074,147; Sept. 30; Gaz. vol. 194; p. 973.
Whitman, Frank, Ypsilanti, Mich. Emergency-nut. No. 1,071,841; Sept. 2; Gaz. vol. 194; p. 60.
Whitney, Henry B., assignor to F. E. Long, Detroit, Mich. Device for assembling ball-bearings. No. 1,074,228; Sept. 30; Gaz. vol. 194; p. 1000.
Whittaker, Sallie F., *et al.* (See Byrd, Oscar O., assignor.)
Whittaker, Samuel F., *et al.* (See Byrd, Oscar O., assignor.)
Whitten, William W. (See Hall, Alfred, assignor.)
Whittington, Virginia, Valdosta, Ga. Lady's negligée undergarment. No. 1,073,724; Sept. 23; Gaz. vol. 194; p. 802.
Whitworth, George W., Cedar Falls, Iowa. Rack for seed-corn. No. 1,071,842; Sept. 2; Gaz. vol. 194; p. 60.
Whyland, Frank V., Buffalo, N. Y. Swaging-machine. No. 1,074,398; Sept. 30; Gaz. vol. 194; p. 1056.
Whyte, John, Everett, Wash. Countersink attachment for bits. No. 1,072,543; Sept. 9; Gaz. vol. 194; p. 327.
Wiard, Myron W., San Diego, assignor of one-half to C. O. Nichols, Bostonia, Cal. Separable key. No. 1,074,075; Sept. 23; Gaz. vol. 194; p. 919.
Wickueler Kuepper Brauerei Actiengesellschaft. (See Van der Velden, Friedrich, assignor.)
Widera, Pawel J., Chicago, Ill. Pedal-propelled vehicle. No. 1,072,284; Sept. 2; Gaz. vol. 194; p. 207.
Wiechert, Frank T., assignor to The Wise Soda Apparatus Company, Bellevue, Ohio. Metallic structure for soda-fountains. No. 1,074,070; Sept. 23; Gaz. vol. 194; p. 920.
Wiegand, Henry J., Milwaukee, Wis. Resistance-grid. No. 1,071,843; Sept. 2; Gaz. vol. 194; p. 60.
Wiegand, Henry J., Milwaukee, Wis. Reinforced-grid resistance. No. 1,071,844; Sept. 2; Gaz. vol. 194; p. 61.
Wieland, George A., and W. F. Aldrich, San Francisco, Cal. Wall structure. No. 1,073,820; Sept. 23; Gaz. vol. 194; p. 836.
Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Percussion-fuse for projectiles. No. 1,072,544; Sept. 9; Gaz. vol. 194; p. 327.
Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Mechanical time-fuse. No. 1,072,545; Sept. 9; Gaz. vol. 194; p. 328.
Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Impact-fuse. No. 1,072,546; Sept. 9; Gaz. vol. 194; p. 328.
Wigley, Robert J., Centralia, Wash. Handy hook. No. 1,072,285; Sept. 2; Gaz. vol. 194; p. 207.
Wijnberg, Abraham, Amsterdam, Netherlands. Regenerating of decolorizing-carbon. No. 1,074,337; Sept. 30; Gaz. vol. 194; p. 1035.
Wilber, William P., Providence, R. I. Self-closing compartment-doors. No. 1,071,845; Sept. 2; Gaz. vol. 194; p. 61.
Wilcomb, Frank, assignor to Wilcomb Machine Company, Norristown, Pa. Knitting-machine. No. 1,073,309; Sept. 16; Gaz. vol. 194; p. 635.
Wilcomb Machine Company. (See Wilcomb, Frank, assignor.)
Wilcovitz, Charles, New York, assignor of one-third to M. isbutsky and one-third to H. Isbutsky, Brooklyn, N. Y. Non-refillable bottle. No. 1,074,148; Sept. 30; Gaz. vol. 194; p. 973.
Wild, Günther P., Philadelphia, Pa. Brake for talking-machines. No. 1,072,066; Sept. 2; Gaz. vol. 194; p. 135.
Wild, Günther P., Philadelphia, Pa. Expansible roller. No. 1,072,067; Sept. 2; Gaz. vol. 194; p. 135.
Wilde, Daniel, Washington, Iowa. Shoveling-board. No. 1,072,286; Sept. 2; Gaz. vol. 194; p. 208.
Wildman, Frank B., Norristown, Pa. Knitting-machine. No. 1,071,979; Sept. 2; Gaz. vol. 194; p. 106.
Wiley, Edgar C., Lynchburg, Va. Water-seal radiator-trap. No. 1,072,287; Sept. 2; Gaz. vol. 194; p. 208.
Wiley, Harry M., Spokane, Wash. Burner. No. 1,073,330; Sept. 23; Gaz. vol. 194; p. 836.
Wilkinson, Clarence R. (See Nolan, Oliver, assignor.)
Willbrandt, Mary A., Washington, Kans. Garment-fastener. No. 1,074,229; Sept. 30; Gaz. vol. 194; p. 1000.
Willette, Charles W., Tacoma, Wash. Sawmill set-works. No. 1,073,310; Sept. 16; Gaz. vol. 194; p. 636.
Willey, Frank W. (See Thullen and Willey.)
William Carter Company, The. (See Carter, William H., assignor.)
William M. Crane Company. (See Brock, John M., assignor.)
William Sellers & Company. (See Vold, Lars H., assignor.)
Williams, Appleton P. (See Winder, Samuel E., assignor.)
Williams, Calvin C., Philadelphia, Pa., assignor to Victor Vacuum Cleaning Company. Vacuum-cleaner pump. No. 1,072,547; Sept. 9; Gaz. vol. 194; p. 329.
Williams, Charles F. and I. C., Coldwater, Mich. Fluid-hydrocarbon burner. No. 1,072,548; Sept. 9; Gaz. vol. 194; p. 329.
Williams, Eugene B., assignor to B. F. Sturtevant Company, Boston, Mass. Centrifugal fan. No. 1,072,549; Sept. 9; Gaz. vol. 194; p. 330.
Williams, Frank O. (See Witsil, Charles W., assignor.)
Williams, Ira C. (See Williams, Charles F. and I. C.)
Williams, John T. B., assignor of one-half to C. R. Custard, Vicksburg, Miss. Permutation-padlock. No. 1,074,020; Sept. 23; Gaz. vol. 194; p. 904.
Williams, Joseph S., Riverton, N. J. Constructing subaqueous tunnels. No. 1,072,068; Sept. 2; Gaz. vol. 194; p. 136.
Williams, Maurice O., Detroit, assignor, by mesne assignments, to Daisy Manufacturing Company, Plymouth, Mich. Razor-strop. No. 1,072,288; Sept. 2; Gaz. vol. 194; p. 209.
Williams, Sarah E., Brooklyn, and T. A. Campbell, New York, N. Y. Holding and expelling device for collapsible tubes. No. 1,073,007; Sept. 9; Gaz. vol. 194; p. 493.
Williams, William W., Indianapolis, Ind., assignor to W. J. Garrett, Chicago, Ill. Child's carriage. No. 1,073,379; Sept. 16; Gaz. vol. 194; p. 650.
Willis, Albert C., Columbus, Ohio. Churn. No. 1,072,801; Sept. 9; Gaz. vol. 194; p. 416.
Willis Electric Meter Co., The. (See Crook, Charles M., assignor.)
Willison, John, Derby, England, assignor to The National Malleable Castings Company, Cleveland, Ohio. Car-coupling mechanism. No. 1,073,453; Sept. 16; Gaz. vol. 194; p. 685.
Williston, Belvin T., Somerville, Mass., assignor to The United Injector Company, New York, N. Y. Water-heater. No. 1,072,197; Sept. 2; Gaz. vol. 194; p. 180.
Wilmot, Frank A., Bridgeport, Conn. Rolling-mill. No. 1,071,846; Sept. 2; Gaz. vol. 194; p. 61.
Wilson, Charles E., assignor to The Shaw-Walker Company, Muskegon, Mich. Desk. No. 1,073,574; Sept. 16; Gaz. vol. 194; p. 725.
Wilson, Clifton C., Eureka, Cal. Folding table. No. 1,072,550; Sept. 9; Gaz. vol. 194; p. 330.
Wilson, David, Kansas City, Mo. Earth-auger. No. 1,074,304; Sept. 30; Gaz. vol. 194; p. 1024.
Wilson, David H., Chicago, Ill. Electric battery. No. 1,072,551; Sept. 9; Gaz. vol. 194; p. 330.
Wilson, Hubert W. (See Nance, James W., assignor.)
Wilson, John, assignor of one-half to J. Ann, Chicago, Ill. Power-press. No. 1,073,831; Sept. 23; Gaz. vol. 194; p. 856.
Wilson, John H., New Kensington, Pa. Cooking utensil. No. 1,072,892; Sept. 9; Gaz. vol. 194; p. 451.
Wilson, John M., Montclair, assignor to Wilson Remover Company, Newark, N. J. Making finish-removers. No. 1,074,305; Sept. 30; Gaz. vol. 194; p. 1025.

Wilson, John T., Jersey Shore, Pa. Piston-valve. No. 1,072,681; Sept. 9; Gaz. vol. 194; p. 374.
Wilson, John T., Jersey Shore, Pa. Piston-valve. No. 1,072,682; Sept. 9; Gaz. vol. 194; p. 375.
Wilson, John T., Jersey Shore, Pa. Packing for piston-valves. No. 1,072,683; Sept. 9; Gaz. vol. 194; p. 375.
Wilson, Leonard B., Otter Creek, Fla. Switch. No. 1,071,980; Sept. 2; Gaz. vol. 194; p. 106.
Wilson Motor Starter Company. (See Spohrer, Gregory J., assignor.)
Wilson Remover Company. (See Wilson, John M., assignor.)
Wilson, Sid E., *et al.* (See Black, Albert G., assignor.)
Wilson, Walter R. (See Hopkins and Wilson.)
Wilson, William A., Dallas, Tex. Peanut-planter. No. 1,072,552; Sept. 9; Gaz. vol. 194; p. 330.
Wilson, Wylie G., Elizabeth, assignor to W. G. Wilson Company, Montclair, N. J. Magnetically-operated conveying and discharging apparatus. No. 1,071,847; Sept. 2; Gaz. vol. 194; p. 61.
Wilt, Clinton, Springfield, Mo. Minnow. No. 1,073,199; Sept. 16; Gaz. vol. 194; p. 594.
Winans, George H., Salt Lake City, Utah. Heat-regulator for cars. No. 1,072,408; Sept. 2; Gaz. vol. 194; p. 252.
Winarsky, Edmund, assignor to R. Maurer, Brunswick, Germany. Automatic draining device. No. 1,074,591; Sept. 30; Gaz. vol. 194; p. 1119.
Windeler, George E. (See Day and Windeler.)
Winder, Samuel E., Waltham, assignor to A. P. Williams, West Upton, Mass. Automatic bottle-blowing machine. No. 1,072,553; Sept. 9; Gaz. vol. 194; p. 331.
Window Glass Machine Company, The. (See Maynard, Oliver E., assignor.)
Windsor, Frederick E., Los Angeles, Cal. Clock-dial. No. 1,072,554; Sept. 9; Gaz. vol. 194; p. 331.
Wing, George C., *et al.* (See Lipps, Louis P., assignor.)
Winkelmann, Henry F., Nebraska City, Nebr. Roof construction. No. 1,073,551; Sept. 16; Gaz. vol. 194; p. 718.
Winkler, Frederick G., assignor, by mesne assignments, to B. J. Burns and C. A. Cutler, Buffalo, N. Y. Spring. No. 1,074,582; Sept. 30; Gaz. vol. 194; p. 1115.
Winkler, Karl, Jersey City, N. J. Bristle-feeding attachment for brush-making machines. No. 1,074,399; Sept. 30; Gaz. vol. 194; p. 1056.
Winter, Gabriel, Vienna, Austria-Hungary, and F. Eichberg, Berlin, Germany, assignors to General Electric Company. Controlling system for alternating-current machines. No. 1,073,200; Sept. 16; Gaz. vol. 194; p. 595.
Winter, Gabriel, deceased, (O. Wolfrum, administrator, Vienna, Austria-Hungary,) and F. Eichberg, Berlin, Germany; said Winter and said Eichberg assignors to General Electric Company. Dynamo-electric machine. No. 1,073,201; Sept. 16; Gaz. vol. 194; p. 595.
Winter, Gabriel, deceased, (O. Wolfrum, administrator, Vienna, Austria-Hungary,) and F. Eichberg, Berlin, Germany; said Winter and said Eichberg assignors to General Electric Company. Dynamo-electric machine. No. 1,073,311; Sept. 16; Gaz. vol. 194; p. 636.
Wirsching Organ Company, The. (See Wirsching, Philipp, assignor.)
Wirsching, Philipp, assignor to The Wirsching Organ Company, Salem, Ohio. Musical instrument. No. 1,072,198; Sept. 2; Gaz. vol. 194; p. 181.
Wirsching, Philipp, assignor to The Wirsching Organ Company, Salem, Ohio. Tracker-bar for self-playing musical instruments. No. 1,074,335; Sept. 30; Gaz. vol. 194; p. 1035.
Wise Soda Apparatus Company, The. (See Wiechert, Frank T., assignor.)
Wise, William D., Fargo, N. D. Concrete-mixer. No. 1,071,848; Sept. 2; Gaz. vol. 194; p. 62.
Wiseman, Haldon R., Sawtelle, Cal. Door-securer. No. 1,074,230; Sept. 30; Gaz. vol. 194; p. 1001.
Wismar, Emil, Los Angeles, Cal. Lawn-sprinkler. No. 1,074,336; Sept. 30; Gaz. vol. 194; p. 1035.
Wismer, Michael W., Doylestown, Pa. Reinforcement for collar-buttonholes. No. 1,074,077; Sept. 23; Gaz. vol. 194; p. 920.
Wissler, Adolph, St. Louis, Mo. Air-gun. No. 1,073,454; Sept. 16; Gaz. vol. 194; p. 686.
Wissler, Adolph, St. Louis, Mo. Air-gun. No. 1,073,455; Sept. 16; Gaz. vol. 194; p. 686.
Witham, George S., Sr., Hudson Falls, N. Y. Machine for making sheets of paper-pulp. No. 1,072,555; Sept. 9; Gaz. vol. 194; p. 332.
Witsil, Charles W., East Stroudsburg, assignor of one-half to F. O. Williams, Analomink, Pa. Means for operating gates. No. 1,073,552; Sept. 16; Gaz. vol. 194; p. 718.
Witty, George, assignor of one-half to S. S. Spruks, Scranton, Pa. Wall-plastering. No. 1,073,008; Sept. 9; Gaz. vol. 194; p. 493.
Witzel, Paul, Berlin-Weissensee, Germany. Autoplane. No. 1,073,648; Sept. 23; Gaz. vol. 194; p. 773.
Wixcel, Samuel M., Sioux City, Iowa. Hay-loader. No. 1,073,649; Sept. 23; Gaz. vol. 194; p. 773.
Wixcel, Samuel M., Marcus, Iowa. Automatic hitching mechanism for vehicles. No. 1,073,650; Sept. 23; Gaz. vol. 194; p. 774.
Wixcel, Samuel M., Marcus, Iowa. Automatic hitching mechanism. No. 1,073,651; Sept. 23; Gaz. vol. 194; p. 774.
Wlodzimirski, Julien, Kielce, Russia. Registering the course and speed of ships. No. 1,073,832; Sept. 23; Gaz. vol. 194; p. 837.
Woernley, Harry F., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Uncoupling mechanism. No. 1,071,849; Sept. 2; Gaz. vol. 194; p. 62.
Wolf, Franz E., Nowawes, near Potsdam, Germany. Differential manometer. No. 1,074,306; Sept. 30; Gaz. vol. 194; p. 1025.
Wolf, Mitchel, and H. Cowen, New York, N. Y. Food product. No. 1,074,483; Sept. 30; Gaz. vol. 194; p. 1083.
Wolf, Ralph, Franktown, assignor of one-fourth to J. P. McInroy, Larkspur, Colo. Lock-nut. No. 1,073,009; Sept. 9; Gaz. vol. 194; p. 493.
Wolfes, Otto, Darmstadt, Germany. N-halogenalkyl-C.C-dialkylbarbituric acids and preparation of the same. No. 1,073,380; Sept. 16; Gaz. vol. 194; p. 660.
Wolfes, Otto, Darmstadt, Germany. N-halogenalkyl-C.C-dialkylbarbituric acids and preparation of the same. No. 1,074,030; Sept. 23; Gaz. vol. 194; p. 904.
Wolffenstein, Richard, Berlin, Germany. Esters of polyhalogen compounds of alcohols with therapeutically-active acids. No. 1,072,289; Sept. 2; Gaz. vol. 194; p. 209.
Wolffradt, William von, Cleveland, Ohio. Window-operating mechanism. No. 1,072,893; Sept. 9; Gaz. vol. 194; p. 451.
Wolfrum, Otto, administrator. (See Winter and Eichberg.)
Wolle, Hartley C., and E. F. Kenney, Westmont borough, Pa. Utilizing fine ores, flue-dust, and the like. No. 1,073,381; Sept. 16; Gaz. vol. 194; p. 660.
Wolters, Gustav, Weitmar, near Bochum, Germany. Treating peat, slime, and like substances. No. 1,074,400; Sept. 30; Gaz. vol. 194; p. 1057.
Wood, Ada M., North Yakima, Wash. Ice-chipper. No. 1,074,307; Sept. 30; Gaz. vol. 194; p. 1025.
Wood, Alfred F., and A. G. Steer, assignors to The Dairymens Supply Company, Lansdowne, Pa. Bottle-filling machine. No. 1,072,290; Sept. 2; Gaz. vol. 194; p. 209.
Wood, Earl D., Irvington, N. J. Rope-fastener. No. 1,072,556; Sept. 9; Gaz. vol. 194; p. 332.
Wood, Henry E., Denver, Colo. Ore-concentrator. No. 1,071,850; Sept. 2; Gaz. vol. 194; p. 62.
Wood, James H., Chicago, Ill. Chimney-protector. No. 1,072,199; Sept. 2; Gaz. vol. 194; p. 181.
Woodard, William E. (See Gilmore and Woodard.)
Woodhead, Daniel, assignor to Central Electric Company, Chicago, Ill. Car construction. No. 1,071,851; Sept. 2; Gaz. vol. 194; p. 63.
Woods, Joseph, Herbert, Saskatchewan, Canada. Grain-door. No. 1,073,202; Sept. 16; Gaz. vol. 194; p. 595.
Woods, Leonard, St. Louis, Mo. Pistol. No. 1,073,312; Sept. 16; Gaz. vol. 194; p. 636.
Woods, Robert, Grand Fork, N. D. Grain-shocker. No. 1,073,456; Sept. 16; Gaz. vol. 194; p. 686.
Woodward, Russel G., Waukegan, assignor to Union Special Sewing Machine Company, Chicago, Ill. Thread-controlling device for sewing-machines. No. 1,072,291; Sept. 2; Gaz. vol. 194; p. 209.
Worms, Sidney. (See Kellner and Worms.)
Wormser, Alfred G., Harrisburg, Pa. Safety-razor. No. 1,074,149; Sept. 30; Gaz. vol. 194; p. 973.
Worst, Warren H., Fargo, N. D. Sash-cord fastener. No. 1,071,852; Sept. 2; Gaz. vol. 194; p. 63.
Worth, John S., *et al.* (See Fairweather, Charles B., assignor.)
Worth, Theodore F. (See Green, Ellis, assignor.)
Worth, William P., *et al.* (See Fairweather, Charles B., assignor.)
Worthington, Charles C., Dunnfield, N. J. Condensing apparatus for steam motor-carriages. No. 1,072,894; Sept. 9; Gaz. vol. 194; p. 452.
Wratchford, Walter F. (See Cross and Wratchford.)
Wright, Charles E., Newark, N. J. Band-saw machine. No. 1,072,200; Sept. 2; Gaz. vol. 194; p. 181.
Wright, Charles W., Blaine, Wash. Registering branding-hammer. No. 1,073,203; Sept. 16; Gaz. vol. 194; p. 596.
Wright, Edward M., Madison Heights, Va. Device for connecting core-arbors. No. 1,073,010; Sept. 9; Gaz. vol. 194; p. 493.
Wright Engine Company. (See Wright, William J., assignor.)
Wright, Garrett O. (See Gibford and Welch, assignors.)
Wright, John E., assignor to The Columbia Carriage Company, Hamilton, Ohio. Vehicle. No. 1,074,078. Sept. 23; Gaz. vol. 194; p. 920.
Wright, Melbourn R. (See Hinds and Wright.)
Wright, Philip G. (See Brumfiel and Wright.)
Wright, Walter L. (See Huntoon, Rolfes, and Wright.)
Wright, William. (See Jordan and Wright.)
Wright, William D., and J. T. Finn; said Finn assignor of one-fourth to T. J. Sweet, Albion, N. Y. Switch. No. 1,072,409; Sept. 2; Gaz. vol. 194; p. 252.
Wright, William J., Franklin, assignor to Wright Engine Company, Pittsburgh, Pa. Internal-combustion engine. No. 1,073,652; Sept. 23; Gaz. vol. 194; p. 775.
Wyer, William W., Augusta, Me. Separable union suit. No. 1,073,833; Sept. 23; Gaz. vol. 194; p. 837.
Wygant, Lewis B., Vincennes, Ind. Baling-press packer. No. 1,072,069; Sept. 2; Gaz. vol. 194; p. 136.
Wygant, Lewis B., Vincennes, Ind. Block-placer for baling-presses. No. 1,073,382; Sept. 16; Gaz. vol. 194; p. 661.

Wysocki, Charles, Whiting, Ind. Fan. No. 1,074,401; Sept. 30; Gaz. vol. 194; p. 1057.
Wyss, John, Johnstown, Colo. Harrow. No. 1,072,292; Sept. 2; Gaz. vol. 194; p. 210.
Yeganian, Rose, Yonkers, N. Y. Tooth-powder. No. 1,073,725; Sept. 23; Gaz. vol. 194; p. 803.
Yeganian, Rose, Yonkers, N. Y. Garment. No. 1,073,726; Sept. 23; Gaz. vol. 194; p. 803.
Yost, Frederick W., Chicago, Ill. Treating materials. No. 1,074,150; Sept. 30; Gaz. vol. 194; p. 973.
Yost, Winfield H., Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill. Dump-car. No. 1,072,684; Sept. 9; Gaz. vol. 194; p. 375.
Young, Albert E., Christchurch, New Zealand. Means for folding and wrapping newspapers and the like. No. 1,071,853; Sept. 2; Gaz. vol. 194; p. 63.
Young, Charles D., Altoona, Pa. Superheater. No. 1,073,204; Sept. 16; Gaz. vol. 194; p. 596.
Young, Charles D., Altoona, Pa. Superheater. No. 1,073,205; Sept. 16; Gaz. vol. 194; p. 597.
Young, Edward T., Boston, assignor of one-half to E. E. Badger, Hyde Park, Mass. Internal-combustion engine. No. 1,073,533; Sept. 16; Gaz. vol. 194; p. 718.
Young, John K., Philadelphia, Pa. Door-check. No. 1,074,151; Sept. 30; Gaz. vol. 194; p. 974.
Young, Otis W., Schenectady, N. Y. Steam-engine valve-gear. No. 1,071,854; Sept. 2; Gaz. vol. 194; p. 64.
Youngerman, Frank C., Grimes, Iowa. Gearing. No. 1,073,313; Sept. 16; Gaz. vol. 194; p. 637.
Younggren, Oscar A., Kewanee Ill. Catcher's mask. No. 1,072,802; Sept. 9; Gaz. vol. 194; p. 417.
Zabriskie, Albert T., Passaic, N. J. Automatic calendar. No. 1,073,206; Sept. 16; Gaz. vol. 194; p. 597.
Zabriskie, Henry L., Westfield, assignor to Diehl Manufacturing Company, Elizabeth, N. J. Alternating-current motor. No. 1,074,152; Sept. 30; Gaz. vol. 194; p. 974.
Zahn, Robert, Plauen, Germany. Jacquard mechanism for embroidering-machines. No. 1,074,565; Sept. 30; Gaz. vol. 194; p. 1109.
Zak, John F., Chicago, Ill. Detachable button. No. 1,071,855; Sept. 2; Gaz. vol. 194; p. 64.
Zarker, John J., Wiconisco, Pa. Cigar-holder. No. 1,073,457; Sept. 16; Gaz. vol. 194; p. 687.
Zeimet, Carlo, New York, N. Y. Sectional concrete building. No. 1,072,293; Sept. 2; Gaz. vol. 194; p. 210.
Zeiss, Firm of Carl. (See Wandersleb, Ernst, assignor.)
Zeller, Reilly W., Sheppton, Pa. Fire-door. No. 1,073,554; Sept. 16; Gaz. vol. 194; p. 719.
Zepp, Artimus G. (See Trench and Zepp.)
Ziegenbalg, William. (See Conklin, Herbert J., assignor.)
Zielinski, Hieronymus, Berlin, Germany. Motor-vehicle. No. 1,072,557; Sept. 9; Gaz. vol. 194; p. 332.
Zieve, Abraham, and H. Davidovitz, New York, N. Y. Automobile tire-trunk. No. 1,074,079; Sept. 23; Oct. vol. 194; p. 920.
Zilius, John, Huntingdon, Pa. Device for repairing car-couplings. No. 1,073,383; Sept. 16; Gaz. vol. 194; p. 661.
Zimmerman, Charles H., St. Paul, Kans. Window and door screen. No. 1,074,153; Sept. 30; Gaz. vol. 194; p. 974.
Zimmerman, Clarence I., deceased, Niagara Falls, N. Y.; J. G. Zimmerman, administrator, assignor to General Electric Company. Electrolytic condenser. No. 1,074,231; Sept. 30; Gaz. vol. 194; p. 1001.
Zimmerman, James G., administrator. (See Zimmerman, Clarence I.)
Zsuzsits, Vinczenz, Aurora, Ill. Antirefillable bottle. No. 1,072,895; Sept. 9; Gaz. vol. 194; p. 452.

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A. H. & F. H. Lippincott. (See Lippincott, Fisher H., assignor.)
Altenberg, George P., Cincinnati, Ohio. Casing for vacuum-insulated pitchers. Nos. 44,601–2; Sept. 2; Gaz. vol. 194; pp. 254–5.
American Cigar Company. (See Weiss, Nathan, assignor.)
Andersen, Paul, Freeport, N. Y. Hammer-head. No. 44,649; Sept. 16; Gaz. vol. 194; p. 730.
Anderson Electric Car Company. (See Anderson, William C., assignor.)
Anderson, William C., assignor to Anderson Electric Car Company, Detroit, Mich. Vehicle-body. No. 44,698; Sept. 30; Gaz. vol. 194; p. 1122.
Aspinwall, Robert S., Cleveland, Ohio, assignor to The Virden Manufacturing Company. Shell for lighting-fixtures or similar articles. Nos. 44,699–700; Sept. 30; Gaz. vol. 194; p. 1122.
Austin, Daniel S., Sodus, N. Y. Medicine-holder. No. 44,675; Sept. 23; Gaz. vol. 194; p. 928.
Bennett, Charles A., Taunton, Mass., assignor to The Bennett-Merwin Silver Company, New Milford, Conn. Teapot or similar article. No. 44,603; Sept. 2; Gaz. vol. 194; p. 255.
Bennett-Merwin Silver Company, The. (See Bennett, Charles A., assignor.)
Bertine, Harry B., New York, N. Y. Cabinet. No. 44,650; Sept. 16; Gaz. vol. 194; p. 730.
Bigelow Carpet Company. (See Elliot, William A., assignor.)
Birkin, Charles W., Nottingham, England. Levers lace. Nos. 44,651–6; Sept. 16; Gaz. vol. 194; pp. 730–1.
Blain, Wilson R., Albany, Oreg. Union suit. No. 44,604; Sept. 2; Gaz. vol. 194; p. 255.
Blesch, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Plate for burial-caskets. No. 44,626; Sept. 9; Gaz. vol. 194; p. 524.
Blesch, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket handle. No. 44,701; Sept. 30; Gaz. vol. 194; p. 1122.
Boyce, Harrison H., Forest Hills, N. Y. Temperature-indicator. No. 44,627; Sept. 9; Gaz. vol. 194; p. 525.
Brede, Max L., Chicago, Ill. Drinking-goblet. No. 44,605; Sept. 2; Gaz. vol. 194; p. 255.
Bromley & Sons, John. (See Petzold, Adolph, assignor.)
Brown, Estill B., New York, N. Y. Lamp-shade. Nos. 44,702–3; Sept. 30; Gaz. vol. 194; p. 1123.
Brunhoff, Edward, Cincinnati, Ohio. Change-tray. No. 44,657; Sept. 16; Gaz. vol. 194; p. 731.
Bye, Edwin A., assignor to L. A. Disbrow Churn Company, Owatonna, Minn. Churn-frame. No. 44,628. Sept. 9; Gaz. vol. 194; p. 525.
Carruthers, George L., Pine Bluff, Ark. Desk. No. 44,676; Sept. 23; Gaz. vol. 194; p. 929.
Chapman, Frank H., and O. E. Kenney, assignors to The Yost Electric Manufacturing Company, Toledo, Ohio. Attachment-plug for electric circuits. No. 44,704; Sept. 30; Gaz. vol. 194; p. 1123.
Cheney Brothers. (See George, Gustave, assignor.)
Cheney Brothers. (See Maisch-Bitschenauer, Henri, assignor.)
Cheney Brothers. (See Mouton, Paul, assignor.)
Clarke, Ira M., Pittsburgh, assignor to John B. Higbee Glass Company, Bridgeville, Pa. Pressed-glass vessel. No. 44,629; Sept. 9; Gaz. vol. 194; p. 525.
Crane & Breed Manufacturing Company, The. (See Blesch, Charles, assignor.)
Crisad, Michael, New Haven, Conn. Stand. No. 44,705; Sept. 30; Gaz. vol. 194; p. 1123.
Curwen, William P., and A. M. Potter, Plano, Ill. Electric sign. No. 44,658; Sept. 16; Gaz. vol. 194; p. 731.
D. S. P. Automobile Specialty Company. (See Sendall, Charles F., assignor.)
Davis, Cornelius S., assignor to Domestic Appliances Company, Rochester, N. Y. Vacuum-cleaner casing. No. 44,677; Sept. 23; Gaz. vol. 194; p. 929.
Dawley, Herbert M., assignor to The Pierce-Arrow Motor Car Company, Buffalo, N. Y. Headlight. No. 44,606; Sept. 2; Gaz. vol. 194; p. 255.
De Yoos, Charles, New York, N. Y. Savings-bank and stand. No. 44,625; Sept. 2; Gaz. vol. 194; p. 259.
Dieges, Charles J., New York, N. Y. Badge. No. 44,630; Sept. 9; Gaz. vol. 194; p. 525.
Disbrow Churn Company, L. A. (See Bye, Edwin A., assignor.)
Dix, Arthur A., Kansas City, Mo. Badge. No. 44,659; Sept. 16; Gaz. vol. 194; p. 732.
Domestic Appliances Company. (See Davis, Cornelius, assignor.)
Edison, Thomas A. (See Holland, Newman H., assignor.)
Edward Miller & Company. (See Schoenhardt, Frederick P., assignor.)
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,678; Sept. 23; Gaz. vol. 194; p. 929.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Tumbler-holder. No. 44,631; Sept. 9; Gaz. vol. 194; p. 525.
Flauder, Alfred J., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn. Clock-case. Nos. 44,607–8; Sept. 2; Gaz. vol. 194; p. 256.
Flauder, Alfred J., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn. Jewel-case. Nos. 44,632–3; Sept. 9; Gaz. vol. 194; p. 526.
Fleischmann, Jacob A., Philadelphia, Pa. Spiral hair-pin. No. 44,635; Sept. 9; Gaz. vol. 194; p. 526.
Friedman, Joseph, Philadelphia, Pa. Drain-pipe. No. 44,609; Sept. 2; Gaz. vol. 194; p. 256.
Fulda, Edward, New York, N. Y. Article of manufacture. No. 44,674; Sept. 16; Gaz. vol. 194; p. 734.
Gedig, Andrew A., Indianapolis, Ind. Vase. No. 44,660; Sept. 16; Gaz. vol. 194; p. 732.
George, Gustave, Paris, France, assignor to Cheney Brothers, South Manchester, Conn. Textile fabric. Nos. 44,679–82; Sept. 23; Gaz. vol. 194; pp. 929–30.
Glendening, George A., Bowlby, W. Va. Burial-vault. No. 44,636; Sept. 9; Gaz. vol. 194; p. 526.
Gorham Manufacturing Company. (See Wilke, William H., assignor.)
H. D. Smith and Company, The. (See Thomson, William S., assignor.)
Hartford Carpet Corporation. (See Howe, Herbert A., assignor.)
Hartford Carpet Corporation. (See Pegel, Julius G., assignor.)
Hartford Carpet Corporation. (See Sayers, William E., assignor.)
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp-bracket. Nos. 44,683–4; Sept. 23; Gaz. vol. 194; p. 930.
Hawthorne, Ellsworth A., Bridgeport, Conn. Lamp. No. 44,706; Sept. 30; Gaz. vol. 194; p. 1124.
Hill, Charles D., assignor to Judd & Leland Manufacturing Company, Clifton Springs, N. Y. Pump-casing. No. 44,637; Sept. 9; Gaz. vol. 194; p. 526.
Hoch, Ernest, New York, N. Y., assignor to Pacific Mills, Boston, Mass. Printed textile fabric. No. 44,685; Sept. 23; Gaz. vol. 194; p. 930.
Holland, Newman H., assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Cabinet. No. 44,638; Sept. 9; Gaz. vol. 194; p. 527.
Howe, Alfred H., New York, N. Y. Towel-rack. No. 44,686; Sept. 23; Gaz. vol. 194; p. 930.
Howe, Herbert A., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. No. 44,639; Sept. 9; Gaz. vol. 194; p. 527.
Hoyt, Donald, assignor to The Smith-Phillips China Company, East Liverpool, Ohio. Plate or similar article. No. 44,707; Sept. 30; Gaz. vol. 194; p. 1124.
Hunter, Wilber E., Morgantown, W. Va. Goblet. No. 44,661; Sept. 16; Gaz. vol. 194; p. 732.
John B. Higbee Glass Company. (See Clarke, Ira M., assignor.)
Judd & Leland Manufacturing Company. (See Hill, Charles D., assignor.)
Kaylor, Gertrude, Chicago, Ill. Bead collar. No. 44,708; Sept. 30; Gaz. vol. 194; p. 1124.
Kenney, Owen E. (See Chapman and Kenney.)
Leasure, William C., Steubenville, Ohio. Lamp-shade. No. 44,610; Sept. 2; Gaz. vol. 194; p. 256.
Leasure, William C., Steubenville, Ohio. Lamp-shade. No. 44,709; Sept. 30; Gaz. vol. 194; p. 1124.
Lee, John E., Conshohocken, Pa. Tire. No. 44,640; Sept. 9; Gaz. vol. 194; p. 527.
Leonard, William A., Riverside, Ill. Spool-cabinet. No. 44,611; Sept. 2; Gaz. vol. 194; p. 256.
Lippincott, Fisher H., assignor to A. H. and F. H. Lippincott, Inc., Philadelphia, Pa. Soda-fountain. Nos. 44,662–5; Sept. 16; Gaz. vol. 194; p. 732.
Maddock Pottery Company. (See May, Charles A., assignor.)
Maisch-Bitschenauer, Henri, Paris, France, assignor to Cheney Brothers, South Manchester, Conn. Textile fabric. Nos. 44,687–8; Sept. 23; Gaz. vol. 194; p. 931.
Mallory, Frederick B., Portland, Oreg. Block side. No. 44,612; Sept. 2; Gaz. vol. 194; p. 257.
Manning, Bowman & Company. (See Farr, Edward A., assignor.)

Mathews, Lucia K., assignor to Panama-Pacific International Exposition Co., San Francisco, Cal. Badge or similar article. No. 44,689; Sept. 23; Gaz. vol. 194; p. 931.

May, Charles A., assignor to Maddock Pottery Company, Trenton, N. J. Plate or similar article. No. 44,690; Sept. 23; Gaz. vol. 194; p. 931.

Mississippi Glass Company. (See Walsh, Julius S., assignor.)

Mouton, Paul, Paris, France, assignor to Cheney Brothers, South Manchester, Conn. Textile fabric. No. 44,691; Sept. 23; Gaz. vol. 194; p. 931.

Mygatt, Otis A., New York, N. Y. Glass shade. No. 44,613; Sept. 2; Gaz. vol. 194; p. 257.

Neracher, Carl A., assignor to The Willys-Overland Company, Toledo, Ohio. Casing for internal-combustion engines. No. 44,614; Sept. 2; Gaz. vol. 194; p. 257.

Pacific Mills. (See Hoch, Ernest, assignor.)

Panama-Pacific International Exposition Co. (See Mathews, Lucia K., assignors.)

Paul, William J., Pittsburgh, Pa. Vending-machine case. No. 44,615; Sept. 2; Gaz. vol. 194; p. 257.

Paye & Baker Manufacturing Company. (See Snow, Ralph L., assignor.)

Peerless Motor Car Company, The. (See Wadsworth, George R., assignor.)

Pegel, Julius G., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. Nos. 44,641–3; Sept. 9; Gaz. vol. 194; pp. 527–8.

Perry, Joseph M., Meridian, Miss. Display-rack. No. 44,666; Sept. 16; Gaz. vol. 194; p. 733.

Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. No. 44,667; Sept. 16; Gaz. vol. 194; p. 733.

Pick, Hugo, Chicago, Ill. Drinking-glass. No. 44,616; Sept. 2; Gaz. vol. 194; p. 257.

Pierce-Arrow Motor Car Company, The. (See Dawley, Herbert M., assignor.)

Potter, Albert M. (See Curwen and Potter.)

Raff, Jack, Chicago, Ill. Looking-glass and rack. No. 44,669; Sept. 16; Gaz. vol. 194; p. 733.

Rikard, William B., Prosperity, S. C. Clock-case. No. 44,670; Sept. 16; Gaz. vol. 194; p. 733.

Riley, Hugh J., Fort Shafter, Honolulu, Hawaii. Table. No. 44,710; Sept. 30; Gaz. vol. 194; p. 1124.

Roberts, Frank C., Nashville, Tenn. Combined hat-rack and umbrella-stand. No. 44,711; Sept. 30; Gaz. vol. 194; p. 1125.

Romanoff, Hippolyt, St. Petersburg, Russia. Combined cupboard and folding writing-table. No. 44,617; Sept. 2; Gaz. vol. 194; p. 258.

Ross, Frank A., assignor to Stewart-Warner Speedometer Corporation, Chicago, Ill. Casing for travel-indicators for vehicles. No. 44,618; Sept. 2; Gaz. vol. 194; p. 258.

Sayers, William E., assignor to Hartford Carpet Corporation, Thompsonville, Conn. Carpet or rug. No. 44,644; Sept. 9; Gaz. vol. 194; p. 528.

Schoenhardt, Frederick P., assignor to Edward Miller & Company, Meriden, Conn. Panel for lamp shades, domes, and the like. No. 44,671; Sept. 16; Gaz. vol. 194; p. 734.

Scott, Clarence N., assignor to The Texas Company, Houston, Tex. Advertising device for displaying oil. No. 44,692; Sept. 23; Gaz. vol. 194; p. 932.

Sendall, Charles F., assignor to D. S. P. Automobile Specialty Company, Brooklyn, N. Y. Warning-signal. Nos. 44,712–13; Sept. 30; Gaz. vol. 194; p. 1125.

Shikaku, George, Los Angeles, Cal. Fly-trap. No. 44,645; Sept. 9; Gaz. vol. 194; p. 528.

Smith, Charles J., Springfield, Ill. Button. No. 44,693; Sept. 23; Gaz. vol. 194; p. 932.

Smith-Phillips China Company, The. (See Hoyt, Donald, assignor.)

Snow, Ralph L., Pawtucket, R. I., assignor to Paye & Baker Manufacturing Company, North Attleboro, Mass. Handle for spoons, forks, or similar articles. No. 44,694; Sept. 23; Gaz. vol. 194; p. 932.

Somers, Thomas F., New York, N. Y. Corset. No. 44,695; Sept. 23; Gaz. vol. 194; p. 932.

Spieles, Jakob, New York, N. Y. Support for display-racks. No. 44,619; Sept. 2; Gaz. vol. 194; p. 258.

Stewart-Warner Speedometer Corporation. (See Ross, Frank, assignor.)

Stone, Frederick K., Chicago, Ill., assignor to The Waverly Company, Indianapolis, Ind. Vehicle-body. No. 44,696; Sept. 23; Gaz. vol. 194; p. 933.

Strong, James H., Steubenville, Ohio. Reflector-shade. No. 44,620; Sept. 2; Gaz. vol. 194; p. 258.

Texas Company, The. (See Scott, Clarence N., assignor.)

Thieler, Edward R., Hoboken, N. J. Jug or similar article. No. 44,672; Sept. 16; Gaz. vol. 194; p. 734.

Thomson, William S., assignor to The H. D. Smith and Company, Plantsville, Conn. Cold-chisel. No. 44,646; Sept. 9; Gaz. vol. 194; p. 528.

U. S. Hame Company. (See Wiedrich, Charles L., assignor.)

Van Raalte, Zealie, New York, N. Y. Net-veiling. No. 44,668; Sept. 16; Gaz. vol. 194; p. 733.

Virden Manufacturing Company, The. (See Aspinwall, Robert S., assignor.)

Wadsworth, George R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Lamp. No. 44,621; Sept. 2; Gaz. vol. 194; p. 258.

Wadsworth, George R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Automobile body and hood. Nos. 44,647–8; Sept. 9; Gaz. vol. 194; p. 529.

Wallenstein, Joseph S., New York, N. Y. Vanity-box. No. 44,697; Sept. 23; Gaz. vol. 194; p. 933.

Walsh, Julius S., assignor to Mississippi Glass Company, St. Louis, Mo. Sheet-glass. No. 44,622; Sept. 2; Gaz. vol. 194; p. 259.

Waverly Company, The. (See Stone, Frederick K., assignor.)

Weidlich Brothers Manufacturing Co., The. (See Flauder, Alfred J., assignor.)

Weiss, Nathan, assignor to American Cigar Company, New York, N. Y. Box of cigars. No. 44,673; Sept. 16; Gaz. vol. 194; p. 734.

Wiedrich, Charles L., assignor to U. S. Hame Company, Buffalo, N. Y. Sheet-metal hame-body. No. 44,623; Sept. 2; Gaz. vol. 194; p. 259.

Wilke, William H., Berkeley, Cal., assignor to Gorham Manufacturing Company, Providence, R. I. Handle for spoons, forks, or similar articles. No. 44,714; Sept. 30; Gaz. vol. 194; p. 1125.

Willys-Overland Company, The. (See Neracher, Carl A., assignor.)

Wintrob, Jacob M., Philadelphia, Pa. Cabinet for sound recording and reproducing machines and the like. No. 44,624; Sept. 2; Gaz. vol. 194; p. 259.

Yost Electric Manufacturing Company, The. (See Chapman and Kenney, assignors.)

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Peuchot, Inc., New York, N. Y. Bleaching liquids. No. 93,459; Sept. 16; Gaz. vol. 194; p. 740.

A. J. Reach Co., Philadelphia, Pa. Catcher's mitt. No. 93,559; Sept. 23; Gaz. vol. 194; p. 948.

Akin-Erskine Milling Co., Evansville, Ind. Wheat-flour. No. 93,406; Sept. 16; Gaz. vol. 194; p. 739.

Alaska Refrigerator Company, The, Muskegon Heights, Mich. Refrigerators. No. 93,583; Sept. 30; Gaz. vol. 194; p. 1137.

Allan Chemical Company, Louisville, Ky. Tooth powder and paste, talcum powder, and toilet water. No. 93,584; Sept. 30; Gaz. vol. 194; p. 1137.

American Agricultural Chemical Company, The, New York, N. Y. Fertilizers. No. 93,514; Sept. 23; Gaz. vol. 194; p. 947.

American Asbestos Company, Norristown, Pa. Certain vehicles. No. 93,318; Sept. 9; Gaz. vol. 194; p. 545.

American Bottling Corporation, Providence, R. I. Whisky. No. 93,253; Sept. 2; Gaz. vol. 194; p. 269.

American Diamalt Company, The, Cincinnati, Ohio. Chemical used as a dyeing assistant. No. 93,513; Sept. 23; Gaz. vol. 194; p. 947.

American Manufacturing Company, Boston, Mass. Rope. No. 93,319; Sept. 9; Gaz. vol. 194; p. 545.

American Optical Company, Southbridge, Mass. Eyeglasses, spectacles, lenses, nose-guards, &c. No. 93,585; Sept. 30; Gaz. vol. 194; p. 1137.

American "Radio Thor X" Company, The, Chicago, Ill. Chemical compound for diabetes. No. 93,407; Sept. 16; Gaz. vol. 194; p. 739.

American Sugar Refining Company, The, Jersey City, N. J. Syrup for use as food. No. 93,408; Sept. 16; Gaz. vol. 194; p. 739.

American Sugar Refining Company, The, Jersey City, N. J. Syrup for use as food. Nos. 93,486–8; Sept. 16; Gaz. vol. 194; p. 741.

Angonoa, Antonio, New York, N. Y. Bread-sticks. No. 93,515; Sept. 23; Gaz. vol. 194; p. 947.

Ansonia Clock Company, The, New York, N. Y. Clocks. No. 93,409; Sept. 16; Gaz. vol. 194; p. 739.

Arbuckle Bros., New York, N. Y. Coffee. No. 93,254; Sept. 2; Gaz. vol. 194; p. 269.

Arthur Chemical Co., The, New Haven, Conn. Toilet powder. No. 93,411; Sept. 16; Gaz. vol. 194; p. 739.

Arthur Chemical Co., New Haven, Conn. Toilet soap. No. 93,586; Sept. 30; Gaz. vol. 194; p. 1137.

Arwe, Carl H., Brooklyn, N. Y. Liquid-measures. No. 93,255; Sept. 2; Gaz. vol. 194; p. 269.

Associated Manufacturers' Company, Waterloo, Iowa. Internal-combustion engines. No. 93,320; Sept. 9; Gaz. vol. 194; p. 545.

Associated Manufacturers' Company, Waterloo, Iowa. Internal-combustion engines. No. 93,412; Sept. 16; Gaz. vol. 194; p. 739.

Atlas Bituminous Enamel Co., The, Wilmington, Del. Enamel paint. No. 93,415; Sept. 16; Gaz. vol. 194; p. 739.

Austin Brothers, Dallas, Tex. Monthly magazine. No. 93,587; Sept. 30; Gaz. vol. 194; p. 1137.

Austro-Hungarian Art Co., Inc., New York, N. Y. Perfumes, toilet waters, and face-powders. No. 93,588; Sept. 30; Gaz. vol. 194; p. 1137.

Autopiano Company, The, New York, N. Y. Player-pianos and pianos. No. 93,416; Sept. 16; Gaz. vol. 194; p. 739.

B. Kuppenheimer & Company, Chicago, Ill. Overcoats, coats, vests, and trousers. No. 93,365; Sept. 9; Gaz. vol. 194; p. 546.

Bachmann, Robert A., Newport, R. I. Preparation for venereal diseases. No. 93,321; Sept. 9; Gaz. vol. 194; p. 545.

Baldwin Garment Company, Holyoke, Mass. Housedresses. No. 93,322; Sept. 9; Gaz. vol. 194; p. 545.

Barclay & Barclay, New York, N. Y. Dentifrice. No. 93,516; Sept. 23; Gaz. vol. 194; p. 947.

Barley, Ellwood E., Exeter, Cal. Monthly magazine. No. 93,323; Sept. 9; Gaz. vol. 194; p. 545.

Barnard & Company, M. J., Portland, Oreg. Deodorizers. No. 93,324; Sept. 9; Gaz. vol. 194; p. 545.

Barnes & Kobert Manufacturing Company, The, New Haven, Conn. Certain pressed steel pole line hardware. No. 93,256; Sept. 2; Gaz. vol. 194; p. 269.

Barrett Manufacturing Company, New York, N. Y. Prepared roofings. No. 93,325; Sept. 9; Gaz. vol. 194; p. 545.

Barse & Hopkins, New York, N. Y. Certain prints and publications. No. 93,326; Sept. 9; Gaz. vol. 194; p. 545.

Beck, Samuel C., Chicago, Ill. Rubber. No. 93,489; Sept. 16; Gaz. vol. 194; p. 741.

Behrend, Frederick, New York, N. Y. Paints, varnishes, and other like painters' materials. No. 93,589; Sept. 30; Gaz. vol. 194; p. 1137.

Benoit, Constant, New York, N. Y. Adhesive shellac. No. 93,418; Sept. 16; Gaz. vol. 194; p. 739.

Berard, Frank, Spencer, Mass. Remedy for certain diseases. No. 93,419; Sept. 16; Gaz. vol. 194; p. 739.

Berry Brothers, Ltd., Detroit, Mich. Substitute for linseed-oil. No. 93,327; Sept. 9; Gaz. vol. 194; p. 545.

Best & Company, New York, N. Y. Gloves. No. 93,328; Sept. 9; Gaz. vol. 194; p. 545.

Best & Company, New York, N. Y. Hosiery and underwear. No. 93,329; Sept. 9; Gaz. vol. 194; p. 545.

Best Manufacturing Company, The, Inc., San Leandro, Cal. Traction-engines, harvesters, headers, and separators. No. 93,330; Sept. 9; Gaz. vol. 194; p. 545.

Biddle Hardware Company, Philadelphia, Pa. Certain cutlery, machinery, tools, and parts thereof. No. 93,331; Sept. 9; Gaz. vol. 194; p. 545.

Brady, Philip J., New York, N. Y. Aluminum-cleanser. No. 93,517; Sept. 23; Gaz. vol. 194; p. 947.

Brandt Cashier Company, Chicago, Ill. Money-changers. No. 93,421; Sept. 16; Gaz. vol. 194; p. 739.

Brotherhood Wine Company, New York, N. Y. Altar-wine. No. 93,591; Sept. 30; Gaz. vol. 194; p. 1137.

Bruce & Son, Pittsfield, Mass. Oranges and grape-fruit. No. 93,518; Sept. 23; Gaz. vol. 194; p. 947.

Brun, Bernard L., Baltimore, Md. Pomatum. No. 93,258; Sept. 2; Gaz. vol. 194; p. 269.

Bühler Gebrüder, Uzwil, Switzerland. Certain cutlery, machinery, tools, and parts thereof. No. 93,519; Sept. 23; Gaz. vol. 194; p. 947.

Cabell Co., The, Baltimore, Md. Substitute for eggs. No. 93,423; Sept. 16; Gaz. vol. 194; p. 739.

Cadick Milling Company, Grand View, Ind. Wheat-flour. No. 93,424; Sept. 16; Gaz. vol. 194; p. 739.

California Condensed Fruit & Syrup Co., The, San Francisco, Cal. Compound of raisin-syrup and cane-sugar. No. 93,259; Sept. 2; Gaz. vol. 194; p. 269.

California Queen Co., Los Angeles, Cal. Hair-restorer and head-shampoo. No. 93,260; Sept. 2; Gaz. vol. 194; p. 269.

Campbell & Kemper, Umbarger and Kerrville, Tex. Monthly periodical. No. 93,520; Sept. 23; Gaz. vol. 194; p. 947.

Capewell Horse Nail Company, The, Hartford, Conn. Horse-nails. No. 93,261; Sept. 2; Gaz. vol. 194; p. 269.

Caproni Bros. Co., Providence, R. I. Ginger-ale. No. 93,262; Sept. 2; Gaz. vol. 194; p. 269

Chamber of Commerce of the United States of America, Washington, D. C. Monthly periodical. No. 93,334; Sept. 9; Gaz. vol. 194; p. 545.

Charles William Stores, Inc., The, New York, N. Y. Certain named paints and painters' materials. No. 93,317; Sept. 2; Gaz. vol. 194; p. 271.

Chattanooga Medicine Co., Chattanooga, Tenn. Antiseptic. No. 93,521; Sept. 23; Gaz. vol. 194; p. 947.

Cheek, Simmons L., Easley, Ala. Remedy for certain diseases. No. 93,335; Sept. 9; Gaz. vol. 194; p. 545.

Chesebrough Manufacturing Co., (Consolidated,) New York, N. Y. Lubricating-oil. No. 93,425; Sept. 16; Gaz. vol. 194; p. 739.

Chronister, Val H., Decatur, Ill. Perfumes and cold-creams. No. 93,426; Sept. 16; Gaz. vol. 194; p. 739.

Clauberg & Co., F. A., New York, N. Y. Razors, razor-blades, and shears. No. 93,427; Sept. 16; Gaz. vol. 194; p. 739.

Clausen-Flanagan Brewery, New York, N. Y. Malt liquors. No. 93,502; Sept. 16; Gaz. vol. 194; p. 741.

Clymer, Edgar E., Philadelphia, Pa. Pump-bows, bust-ruffles, bosom-forms, &c. No. 93,338; Sept. 9; Gaz. vol. 194; p. 545.

Clymer, Reuben S., Allentown, Pa. Books. No. 93,339; Sept. 9; Gaz. vol. 194; p. 545.

Co-operative Drug Manufacturing Company, Jackson, Tenn. Furniture-polish. No. 93,593; Sept. 30; Gaz. vol. 194; p. 1137.

Columbia Graphophone Company, Washington, D. C. Talking-machines and records. No. 93,428; Sept. 16; Gaz. vol. 194; p. 739.

Commercial Truck Company of America, Philadelphia, Pa. Automobiles. No. 93,592; Sept. 30; Gaz. vol. 194; p. 1137.

Common Sense Suspender Co., Morristown, N. J. Hosiery. No. 93,336; Sept. 9; Gaz. vol. 194; p. 545.

Concrete Finishing Company, Inc., New York, N. Y. Certain construction materials. No. 93,337; Sept. 9; Gaz. vol. 194; p. 545.

Consolidated Grocery Company, Tampa, Jacksonville, and Pensacola, Fla. Cigars. No. 93,522; Sept. 23; Gaz. vol. 194; p. 947.

Crawford, Luke R., & Joseph B. Wood, M. D., Haralson, Ga. Blood-renovator. No. 93,523; Sept. 23; Gaz. vol. 194; p. 947.
Cresson, William H., City Point, Fla. Oranges and grapefruit. No. 93,263; Sept. 2; Gaz. vol. 194; p. 269.
Crompton Company, Crompton, R. I. Certain named textile fabrics. No. 93,264; Sept. 2; Gaz. vol. 194; p. 269.
Cullen, Thomas C., Bradford, England. Wool, worsted, and hair piece material. No. 93,265; Sept. 2; Gaz. vol. 194; p. 269.
Curtis Publishing Company, The, Philadelphia, Pa. Periodical publication. No. 93,341; Sept. 9; Gaz. vol. 194; p. 545.
D. F. Briggs Co., Attleboro, Mass. Metal chains, lockets, and pins. No. 93,590; Sept. 30; Gaz. vol. 194; p. 1137.
Deal, Enan M., Philadelphia, Pa. Liquid boiler compound. No. 93,266; Sept. 2; Gaz. vol. 194; p. 269.
Dean & Co., Ltd., Ann Arbor, Mich. Blend coffee. No. 93,524; Sept. 23; Gaz. vol. 194; p. 947.
Déclat Manufacturing Co., The, New York, N. Y. Medicines for burns, wounds, erysipelas, &c. No. 93,429; Sept. 16; Gaz. vol. 194; p. 739.
Deltsch Brothers, New York, N. Y., assignors to United Drug Company. Toilet-brushes. No. 93,430; Sept. 16; Gaz. vol. 194; p. 739.
Diamond State Fibre Company, Elsmere, Del. Certain named goods made of vulcanized fiber for electrical purposes. No. 93,267; Sept. 2; Gaz. vol. 194; p. 269.
Dickinson, John Q., Malden, W. Va. Salt, calcium chlorid, and bromin. No. 93,594; Sept. 30; Gaz. vol. 194; p. 1137.
Divine, Charles A., Columbus, Ohio. Metal signs. No. 93,491; Sept. 16; Gaz. vol. 194; p. 741.
Draper Company, Portland, Me., and Hopedale, Mass. Periodical or magazine. No. 93,525; Sept. 23; Gaz. vol. 194; p. 947.
Driver-Harris Wire Co., Harrison, N. J. Metal plates, strips, and insulated wire. No. 93,342; Sept. 9; Gaz. vol. 194; p. 545.
Druggists' Co-Operative Association, Inc., Jersey City, N. J., and Detroit, Mich. Clothes and toilet brushes. No. 93,503; Sept. 16; Gaz. vol. 194; p. 741.
Dryola Company, Inc., Charlotte, N. C. Polish for furniture, automobile-bodies, and floors. No. 93,595; Sept. 30; Gaz. vol. 194; p. 1137.
E. F. Houghton & Company, Philadelphia, Pa. Oil compound. No. 93,273; Sept. 2; Gaz. vol. 194; p. 269.
E. T. Burrowes Company, The, Portland, Me. Hardware and plumbing and steam-fitting supplies. No. 93,422; Sept. 16; Gaz. vol. 194; p. 739.
Earnshaw Knitting Company, Chicago, Ill. Woven tape. No. 93,343; Sept. 9; Gaz. vol. 194; p. 545.
Edmands, Arthur B., Pawtucket, R. I. Lubricating-oil. No. 93,431; Sept. 16; Gaz. vol. 194; p. 739.
Electric Malting Co., Minneapolis, Minn. Brewers' and distillers' malt. No. 93,526; Sept. 23; Gaz. vol. 194; p. 947.
Elgin National Watch Company, Elgin and Chicago, Ill. Watch-movements. No. 93,432; Sept. 16; Gaz. vol. 194; p. 739.
Eppstein, Milton L., Fort Worth, Tex. Beer. No. 93,268; Sept. 2; Gaz. vol. 194; p. 269.
Eska Manufacturing Co., Baltimore, Md. Watches. No. 93,433; Sept. 16; Gaz. vol. 194; p. 739.
Espey, John B., Chicago, Ill. Toilet creams and lotions. No. 93,596; Sept. 30; Gaz. vol. 194; p. 1137.
Eugen Zimmermann & Co. G. m. b. H., Berlin, Germany. Matches, fire igniters and kindlers, &c. No. 93,405; Sept. 9; Gaz. vol. 194; p. 547.
F. C. Sturtevant Company, Hartford, Conn. Certain named remedies for fowls, animals, and man. No. 93,615; Sept. 30; Gaz. vol. 194; p. 1138.
F. H. Bennett Biscuit Company, New York, N. Y. Certain named foods. No. 93,417; Sept. 16; Gaz. vol. 194; p. 739.
F. W. Spacke Machine Company, The, Indianapolis, Ind. Internal-combustion engines. No. 93,474; Sept. 16; Gaz. vol. 194; p. 741.
Falter Tangermünder Schokoladenfabrik Gesellschaft mit beschränkter Haftung, Tangermünde, Germany. Cocoa and chocolate. No. 93,434; Sept. 16; Gaz. vol. 194; p. 739.
Fidalgo Island Packing Co., Anacortes, Wash. Canned salmon. No. 93,435; Sept. 16; Gaz. vol. 194; p. 740.
Fischer & Kluge, Pappenheim, Germany. Lithographic stones. No. 93,597; Sept. 30; Gaz. vol. 194; p. 1137.
Fix Manufacturing Co., Buffalo, N. Y. Egg substitute. No. 93,436; Sept. 16; Gaz. vol. 194; p. 740.
Flexotile Floor Company, Rockford, Ill. Flooring, wainscoting, stairs, and newels. No. 93,344; Sept. 9; Gaz. vol. 194; p. 545.
Fowler, Frederick H., Chicago, Ill. Mineral waters and beverage compositions made therefrom. No. 93,269; Sept. 2; Gaz. vol. 194; p. 269.
Fried. Krupp Aktiengesellschaft, Essen, Germany. Vehicle tires, wheels, axles, shafts, and springs. No. 93,346; Sept. 9; Gaz. vol. 194; p. 545.
Frings Bros. Co., Philadelphia, Pa. Cigars. No. 93,270; Sept. 2; Gaz. vol. 194; p. 269.
Frits-Taber Mfg. Co., The, New Bedford, Mass. Paper-clips. No. 93,271; Sept. 2; Gaz. vol. 194; p. 269.
Gallant, Albert E., New York, N. Y. Abdominal corsets and binders. No. 93,527; Sept. 23; Gaz. vol. 194; p. 947.
Galt & Co., W. M., Washington, D. C. Wheat-flour. No. 93,437; Sept. 16; Gaz. vol. 194; p. 740.
Gane, Charles L., Philadelphia, Pa. Certain adhesives. No. 93,528; Sept. 23; Gaz. vol. 194; p. 947.
General Ceramic Manufacturing Company, The, Revere and Boston, Mass. Building-blocks, bricks, pillars, and tiles. No. 93,347; Sept. 9; Gaz. vol. 194; p. 546.
General Fireproofing Company, The, Youngstown, Ohio. Metal lathing, wall-ties, &c. No. 93,348; Sept. 9; Gaz. vol. 194; p. 546.
Geo. H. Strietmann's Sons Company, Cincinnati, Ohio. Sugar-wafers. No. 93,305; Sept. 2; Gaz. vol. 194; p. 270.
Goes Lithographing Co., Chicago, Ill. Bond-paper. No. 93,438; Sept. 16; Gaz. vol. 194; p. 740.
Graham, Gervaise, Chicago, Ill. Shampoo preparation. No. 93,272; Sept. 2; Gaz. vol. 194; p. 269.
Graphites Maskar Societe Anonyme, Paris, France. Plumbago for polishing. No. 93,529; Sept. 23; Gaz. vol. 194; p. 947.
Gum Tragasol Supply Company Limited, The, county of Chester and Hooton, England. Certain mucilaginous products for special uses. No. 93,402; Sept. 16; Gaz. vol. 194; p. 741.
Haas Brothers, New York, N. Y. Woolen piece goods. No. 93,349; Sept. 9; Gaz. vol. 194; p. 546.
Haas-Lieber Grocery Company, St. Louis, Mo. Certain named foods. No. 93,430; Sept. 16; Gaz. vol. 194; p. 740.
Haas & Sons, Geo., San Francisco, Cal. Candy. No. 93,530; Sept. 23; Gaz. vol. 194; p. 947.
Haigh, Joseph, Muskogee, Okla. Preparation for the treatment of the hair and scalp. No. 93,350; Sept. 9; Gaz. vol. 194; p. 546.
Hale-Halsell Grocery Co., McAlester, Muskogee, Colgate, and Durant, Okla. Canned goods. No. 93,531; Sept. 23; Gaz. vol. 194; p. 947.
Hall & Ruckel, New York, N. Y. Tooth-brushes. No. 93,351; Sept. 9; Gaz. vol. 194; p. 546.
Ham, John I., Flatwoods, Tenn. Remedy for certain named diseases. No. 93,440; Sept. 16; Gaz. vol. 194; p. 740.
Hampoian, Hovnan A., Lynn, Mass. Remedy for piles. No. 93,352; Sept. 9; Gaz. vol. 194; p. 546.
Hance Brothers & White, Philadelphia, Pa. Troches. No. 93,353; Sept. 9; Gaz. vol. 194; p. 546.
Handy, Herbert L., Springfield, Mass. Certain named foods. No. 93,441; Sept. 16; Gaz. vol. 194; p. 740.
Hardtmuth, L. & C., Vienna and Budweis, Austria-Hungary. Fountain-pens and nibs therefor. No. 93,442; Sept. 16; Gaz. vol. 194; p. 740.
Harley-Davidson Motor Co., Milwaukee, Wis. Motorcycles. No. 93,504; Sept. 16; Gaz. vol. 194; p. 742.
Heinzkill, John, Appleton, Wis. Caustic soda. No. 93,443; Sept. 16; Gaz. vol. 194; p. 740.
Henry C. Kelley Company, New York, N. Y. Cords, twines, ropes, and lines. No. 93,362; Sept. 9; Gaz. vol. 194; p. 546.
Henry E. Frankenberg Company, New York, N. Y. Receptacles made of certain named materials. No. 93,345; Sept. 9; Gaz. vol. 194; p. 545.
Henry Likly & Company, Rochester, N. Y. Trunks, traveling-bags, suitcases, &c. No. 93,366; Sept. 9; Gaz. vol. 194; p. 546.
Hercules Powder Company, Wilmington, Del. Smokeless powder. No. 93,508; Sept. 30; Gaz. vol. 194; p. 1137.
Hirschy, Ernst D., Kewanee, Ill. Certain pharmaceutical preparations. No. 93,354; Sept. 9; Gaz. vol. 194; p. 546.
Hoquiam Lumber & Shingle Company, Hoquiam, Wash. Shingles, lumber, and lath. No. 93,532; Sept. 23; Gaz. vol. 194; p. 948.
Howard Bros. Chemical Co., Buffalo, N. Y. Eye-water. No. 93,599; Sept. 30; Gaz. vol. 194; p. 1137.
Hughes, George W., Birmingham, England. Steel pens. Nos. 93,600–1; Sept. 30; Gaz. vol. 194; p. 1137.
Hutchison Scott Company, New York, N. Y. Certain chemical preparation. No. 93,444; Sept. 16; Gaz. vol. 194; p. 740.
Hydraulic-Press Brick Company, St. Louis, Mo. Brick. No. 93,602; Sept. 30; Gaz. vol. 194; p. 1137.
Hydrox Chemical Co., New York, N. Y. Hydrogen peroxid. No. 93,356; Sept. 9; Gaz. vol. 194; p. 546.
Hygeia Filter Company, Detroit, Mich. Water-filters. Nos. 93,533–4; Sept. 23; Gaz. vol. 194; p. 947.
Hyman & Oppenheim, New York, N. Y. Hair goods. No. 93,274; Sept. 2; Gaz. vol. 194; p. 269.
Illinois Iron & Bolt Co., Carpentersville, Ill. Tire benders and shrinkers. No. 93,445; Sept. 16; Gaz. vol. 194; p. 740.
Independent Chemical Company, New York, N. Y. Certain chemicals, medicines, and pharmaceutical preparations. No. 93,357; Sept. 9; Gaz. vol. 194; p. 546.
International Harvester Corporation, Chicago, Ill. Certain machinery, tools, and parts thereof. No. 93,358; Sept. 9; Gaz. vol. 194; p. 546.
Interwoven Stocking Company, New Brunswick, N. J. Hosiery. No. 93,359; Sept. 9; Gaz. vol. 194; p. 546.
Invader Oil Company, Camden, N. J., and New York, N. Y. Lubricating oils and greases. No. 93,275; Sept. 2; Gaz. vol. 194; p. 269.
J. A. Walter Milling Co., Buffalo, N. Y. Wheat-flour. No. 93,314; Sept. 2; Gaz. vol. 194; p. 271.

J. C. Blair Company, Huntingdon, Pa. Paper, envelops, and blank books. No. 93,257; Sept. 2; Gaz. vol. 194; p. 269.
J. C. Blair Company, Huntingdon, Pa. Certain named paper and stationery. No. 93,420; Sept. 16; Gaz. vol. 194; p. 739.
J. E. Tygert Company, Philadelphia, Pa. Fertilizers. No. 93,395; Sept. 9; Gaz. vol. 194; p. 547.
J. K. Armsby Co., The, Chicago, Ill., and San Francisco, Cal. Canned and dried fruits and raisins. No. 93,410; Sept. 16; Gaz. vol. 194; p. 739.
J. M. Selser Carriage & Business Wagon Mfg. Co., St. Louis, Mo. Carriages, wagons, and auto-bodies. No. 93,508; Sept. 16; Gaz. vol. 194; p. 742.
J. W. Buckley Rubber Co., New York, N. Y. Certain belting, hose, and machinery packing. No. 93,490; Sept. 16; Gaz. vol. 194; p. 741.
Jacobson, Albert E., New York, N. Y. Photographic sensitized paper and plates. No. 93,446; Sept. 16; Gaz. vol. 194; p. 740.
Japstick Company, Inc., Cambridge, Mass. Certain chemicals and pharmaceutical preparations. No. 93,360; Sept. 9; Gaz. vol. 194; p. 546.
Jarden, Gerhard T., Brooklyn, N. Y. Polish for furniture, woodwork, carriages, &c. No. 93,361; Sept. 9; Gaz. vol. 194; p. 546.
Joannes-Splane Co., The, Los Angeles, Cal. Baking powder and soda. No. 93,603; Sept. 30; Gaz. vol. 194; p. 1137.
John F. White Company, Mount Morris, N. Y. Canned fruits and vegetables. No. 93,316; Sept. 2; Gaz. vol. 194; p. 271.
Johnson & Co., Oliver, Providence, R. I. Ready-mixed paints, Nos. 93,535–6; Sept. 23; Gaz. vol. 194; p. 947.
Johnson-Layne Coffee Co., The, St. Louis, Mo. Coffee. No. 93,447; Sept. 16; Gaz. vol. 194; p. 740.
Johnson Pickle Corporation, The, now by change of name The Rosemary Company, Incorporated, Richmond, Va. Pickles. No. 93,485; Sept. 16; Gaz. vol. 194; p. 741.
Keuffel & Esser Company, Hoboken, N. J. Slide-rules. No. 93,448; Sept. 16; Gaz. vol. 194; p. 740.
Kick, Emile F., Newark, N. J. Oil and grease products for certain purposes. No. 93,537; Sept. 23; Gaz. vol. 194; p. 947.
King Company, The, Rockford, Ill. Spices and flavoring extracts. No. 93,449; Sept. 16; Gaz. vol. 194; p. 740.
Kohlmyer, Frederick W., Cleveland, Ohio. Serum for the treatment of cancer. No. 93,538; Sept. 23; Gaz. vol. 194; p. 947.
Kornahrens, George, Charleston, S. C. Certain named beverages. No. 93,276; Sept. 2; Gaz. vol. 194; p. 269.
Kriel, Hannah E., Baltimore, Md. Hams, shoulders, sausage, lard, bacon, and picnics. No. 93,539; Sept. 23; Gaz. vol. 194; p. 947.
Kronthal, Benjamin, Michigan City, Ind. Dresses and negligée and flannel shirts. No. 93,363; Sept. 9; Gaz. vol. 194; p. 546.
Kroyer, John M., Stockton, Cal. Wheels. No. 93,505; Sept. 16; Gaz. vol. 194; p. 742.
Kucki, Louis J., Chicago, Ill. Vacuum-cleaners. No. 93,364; Sept. 9; Gaz. vol. 194; p. 546.
Kueber, Andrew J., Mount Vernon, Ind. Remedy for hog-cholera. No. 93,277; Sept. 2; Gaz. vol. 194; p. 269.
L. B. Allen Co., Chicago, Ill. Soldering compounds and fluxes. No. 93,511; Sept. 23; Gaz. vol. 194; p. 947.
La Minerva Cigar Factory, Manila, Philippine Islands. Cigars, cigarettes, and tobacco. No. 93,604; Sept. 30; Gaz. vol. 194; p. 1137.
La Union Agricola Sociedad Anonima, Barcelona, Spain. Liqueurs. Nos. 93,541–8; Sept. 23; Gaz. vol. 194; p. 948.
Lackawanna Leather Co., The, Hackettstown, N. J. Leather. No. 93,540; Sept. 23; Gaz. vol. 194; p. 947.
Lamson Company, Boston, Mass. Conveying and transmission apparatus. No. 93,450; Sept. 16; Gaz. vol. 194; p. 740.
Lashell, Jacob, Coney Island, N. Y. Orange-juice. No. 93,278; Sept. 2; Gaz. vol. 194; p. 269.
Lawther, Joseph E., Dallas, Tex. Chicken feed. No. 93,279; Sept. 2; Gaz. vol. 194; p. 269.
Lee County Packing Co., Fort Myers, Fla. Oranges, lemons, grape-fruit, limes, and tangerines. No. 93,280; Sept. 2; Gaz. vol. 194; p. 270.
Lee Tire & Rubber Co., Whitemarsh township, Montgomery county, Pa. Certain tires, tubes, patches, cases, and rubber tubing. No. 93,493; Sept. 16; Gaz. vol. 194; p. 741.
Lee Tire & Rubber Co., Whitemarsh township, Montgomery county, Pa. Rubber tires and tubing. No. 93,549; Sept. 23; Gaz. vol. 194; p. 948.
Lemy, Pierre C., Paris, France. Certain foods. No. 93,281; Sept. 2; Gaz. vol. 194; p. 270.
Levy, Maurice, New York, N. Y. Powder-puffs. No. 93,605; Sept. 30; Gaz. vol. 194; p. 1137.
Lifter, Joseph J., Philadelphia, Pa. Ice-cream and ices. No. 93,550; Sept. 23; Gaz. vol. 194; p. 948.
Lightfoot, Roy, San Antonio, Tex. Hair-restorer. No. 93,506; Sept. 16; Gaz. vol. 194; p. 742.
Long, David D., Oswego, N. Y. Sweetened chocolate and candy. No. 93,494; Sept. 16; Gaz. vol. 194; p. 741.
Lord & Russell Mfg. Co., Richmond, Va. Talcum powder. No. 93,551; Sept. 23; Gaz. vol. 194; p. 948.
Loudon & Son Incorporated, New York, N. Y., assignor to The Woolson Spice Co., Toledo, Ohio. Teas. No. 93,552; Sept. 23; Gaz. vol. 194; p. 948.
"Luterma" G. m. b. H., Lubeck, Germany. Chair-seats. No. 93,367; Sept. 9; Gaz. vol. 194; p. 546.
Lynn Rubber Manufacturing Company, Lynn, Mass. Arch-supports to be inserted in shoes. No. 93,606; Sept. 30; Gaz. vol. 194; p. 1137.
Lyrachord Company, New York, N. Y. Pianos, piano-players, and piano-actions. No. 93,451; Sept. 16; Gaz. vol. 194; p. 740.
Lyster Chemical Co., Lawrence, Mass. Preparation for preserving wood. No. 93,452; Sept. 16; Gaz. vol. 194; p. 740.
MacCreadye, William F., Detroit, Mich. Rheumatic medicines. No. 93,453; Sept. 16; Gaz. vol. 194; p. 740.
Maegerlein, Firm of Wm., Chicago, Ill. Prepared skins for racking beer. No. 93,368; Sept. 9; Gaz. vol. 194; p. 546.
Martin, Charles H., New York, N. Y. Remedy for abortion and sterility in domestic animals. No. 93,282; Sept. 2; Gaz. vol. 194; p. 270.
Martin-Senour Company, The, Chicago, Ill. Paints and varnishes. No. 93,370; Sept. 9; Gaz. vol. 194; p. 546.
Mason, Sanborn & Ramsdell Co., Boston, Mass. Certain foods. No. 93,283; Sept. 2; Gaz. vol. 194; p. 270.
Mason, Thomas W., Fife Lake, Mich. Fly and insect killer. No. 93,371; Sept. 9; Gaz. vol. 194; p. 546.
Mattoch, Robert L., Chicago, Ill. Violin-strings. No. 93,454; Sept. 16; Gaz. vol. 194; p. 740.
Max-i-mol Pharmacal Company, The, Chicago, Ill. Medicinal agents for the treatment of constipation. No. 93,553; Sept. 23; Gaz. vol. 194; p. 948.
Mayer, Josef, Hohenaschau, Germany. Letter-papers and envelops. No. 93,455; Sept. 16; Gaz. vol. 194; p. 740.
McGinnis-Meehan Co., Inc., New York, N. Y. Razor-strops. No. 93,284; Sept. 2; Gaz. vol. 194; p. 270.
Mme. Mariette Co., Chicago, Ill. Corsets. No. 93,369; Sept. 9; Gaz. vol. 194; p. 546.
Morse, Hazen, New Rochelle, N. Y. Remedy for coughs. No. 93,285; Sept. 2; Gaz. vol. 194; p. 270.
Mouse-o-Cide Chemical Company, Boise, Idaho. Chemical preparation for exterminating rodents and vermin. No. 93,372; Sept. 9; Gaz. vol. 194; p. 546.
Murray, George W., Dublin, Ind. Medicinal plaster. No. 93,456; Sept. 16; Gaz. vol. 194; p. 740.
Neuhausel Bro's, Toledo, Ohio. Corsets. No. 93,286; Sept. 2; Gaz. vol. 194; p. 270.
Norrie, Emily L., New York, N. Y. Salad-dressing. No. 93,457; Sept. 16; Gaz. vol. 194; p. 740.
Northern Illinois Cereal Company, Chicago, Ill. Rolled oats and corn-flakes. No. 93,287; Sept. 2; Gaz. vol. 194; p. 270.
Northwestern Construction Company, New York, N. Y. Certain named supplies for trolley and electric railway systems. No. 93,607; Sept. 30; Gaz. vol. 194; p. 1137.
Nubian Manufacturing Company Limited, London, England. Blacking for leather. No. 93,554; Sept. 23; Gaz. vol. 194; p. 948.
O'Neil Oil & Paint Company, Milwaukee, Wis. Paints, varnishes, enamels, and fillers. No. 93,555; Sept. 28; Gaz. vol. 194; p. 948.
Obermeyer & Liebmann, Brooklyn, N. Y. Beer. No. 93,288; Sept. 2; Gaz. vol. 194; p. 270.
Owl Drug Company, Chicago, Ill. Certain named pharmaceutical preparations. No. 93,373; Sept. 9; Gaz. vol. 194; p. 546.
Pacific Lime & Gypsum Company, Gypsum, Oreg., and St. Louis, Mo. Manufactured lime. No. 93,374; Sept. 9; Gaz. vol. 194; p. 546.
Paris-New York Fashion Co., New York, N. Y. Monthly magazine. No. 93,375; Sept. 9; Gaz. vol. 194; p. 546.
Park, George W., Port Chester, N. Y. Remedy for certain ailments of horses and dogs. No. 93,608; Sept. 30; Gaz. vol. 194; p. 1137.
Park Novelty Company, Philadelphia, Pa. Paper-board and paste board. No. 93,289; Sept. 2; Gaz. vol. 194; p. 270.
Parker Pen Company, The, Janesville, Wis. Fountain-pens. No. 93,458; Sept. 16; Gaz. vol. 194; p. 740.
Parsons-Jackson Co., The, Cleveland, Ohio. Dolls. Nos. 93,376–7; Sept. 9; Gaz. vol. 194; p. 546.
Pastime Novelty Co., Inc., The, New York, N. Y. Games. No. 93,378; Sept. 9; Gaz. vol. 194; p. 546.
Paulson, Henry, Chicago, Ill. Watch-chain bars, swivels, &c. No. 93,609; Sept. 30; Gaz. vol. 194; p. 1137.
Pfueger Piano Co., Inc., New York, N. Y. Pianos and player-pianos. No. 93,290; Sept. 2; Gaz. vol. 194; p. 270.
Philip Brous Company, New York, N. Y. Imitation fur. No. 93,332; Sept. 9; Gaz. vol. 194; p. 545.
Philip Carey Manufacturing Co., The, Lockland, Ohio. Brake-linings. No. 93,333; Sept. 9; Gaz. vol. 194; p. 545.
Pillar Bay Packing Company, Seattle, Wash. Canned salmon. No. 93,460; Sept. 16; Gaz. vol. 194; p. 740.
Pittsburgh-Hickson Co., Butler, Pa. Lacquer. No. 93,291; Sept. 2; Gaz. vol. 194; p. 270.
Planett, John J., Yuba City, Cal. Bread. No. 93,461; Sept. 16; Gaz. vol. 194; p. 740.
Poindexter, John A., Sikeston, Mo. Liniment. No. 93,556; Sept. 23; Gaz. vol. 194; p. 948.
Powell's, New York, N. Y. Candles, cocoa, and chocolate. No. 93,557; Sept. 23; Gaz. vol. 194; p. 948.
Pratt & Inman, Worcester, Mass. Steel and iron. No. 93,462; Sept. 16; Gaz. vol. 194; p. 740.

Providence Brewing Co., Providence, R. I. Ale. No. 93,463; Sept. 16; Gaz. vol. 194; p. 740.
Pullara & Lazzara, Tampa, Fla. Cigars. No. 93,558; Sept. 23; Gaz. vol. 194; p. 948.
Pullman Couch Company, Chicago, Ill. Sofa-beds. No. 93,507; Sept. 16; Gaz. vol. 194; p. 742.
Rath Packing Company, The, Waterloo, Iowa. Bacon. No. 93,464; Sept. 16; Gaz. vol. 194; p. 740.
Rath Packing Company, The, Waterloo, Iowa. Hams, bacon, and lard. No. 93,495; Sept. 16; Gaz. vol. 194; p. 741.
Reese Chemical Company, Cleveland, Ohio. Remedy for genito-urinary diseases. No. 93,379; Sept. 9; Gaz. vol. 194; p. 546.
Reiss, Max, New York, N. Y. Skirts and petticoats. No. 93,292; Sept. 2; Gaz. vol. 194; p. 270.
Renner Sons Company, Cincinnati, Ohio. Substitute for coffee. No. 93,465; Sept. 16; Gaz. vol. 194; p. 740.
Revere Rubber Company, Providence, R. I., and Chelsea, Mass. Belting, hose, and packing. No. 93,293; Sept. 2; Gaz. vol. 194; p. 270.
Revere Rubber Company, Providence, R. I., and Chelsea, Mass. Rubber matting and rubber in the piece. No. 93,496; Sept. 16; Gaz. vol. 194; p. 741.
Rex-Conservenglas-Gesellschaft Leonhardt & Kleemann, Homburg, Germany. Steam cooking apparatus. No. 93,466; Sept. 16; Gaz. vol. 194; p. 740.
Reynolds Corporation, The, Bristol, Tenn. Scouring, cleaning, and polishing compound. No. 93,610; Sept. 30; Gaz. vol. 194; p. 1137.
Rhenania Vereinigte Emaillirwerke Actien-Gesellschaft, Dusseldorf, Germany. Certain named metal cooking utensils and other household articles. No. 93,294; Sept. 2; Gaz. vol. 194; p. 270.
Rich, Eleazer C., New York, N. Y. Jelly-powder. No. 93,560; Sept. 23; Gaz. vol. 194; p. 948.
Roeper, Herman H., Reading, Pa. Electric hoists and cranes. No. 93,295; Sept. 2; Gaz. vol. 194; p. 270.
Russell Manufacturing Co., The, Middletown, Conn. Woven machine-belting. No. 93,497; Sept. 16; Gaz. vol. 194; p. 741.
Ryno Film Company, Inc., New York, N. Y. Motion-picture films and projecting apparatus therefor. No. 93,296; Sept. 2; Gaz. vol. 194; p. 270.
S. S. Stafford, Inc., New York, N. Y. Carbon-paper and type-writer ribbons. No. 93,303; Sept. 2; Gaz. vol. 194; p. 270
S. W. Straus & Co., Chicago, Ill., and New York, N. Y. Semimonthly periodical. No. 93,392; Sept. 9; Gaz. vol. 194; p. 547.
Saccharin-Fabrik, Aktien-Gesellschaft, vorm. Fahlberg, List & Co., Salbke-Westerhüsen, Germany. Acids, sodium bisulfate, potash, &c. No. 93,467; Sept. 16; Gaz. vol. 194; p. 740.
San Francisco Salt Refinery, San Francisco, Cal. Salt. No. 93,469; Sept. 16; Gaz. vol. 194; p. 740.
Sanborn & Son, Geo. W., Astoria, Oreg. Canned salmon. No. 93,468; Sept. 16; Gaz. vol. 194; p. 740.
Sandile, P. E., Grand Forks, N. D. Remedy for rheumatism and kidney ailments. No. 93,380; Sept. 9; Gaz. vol. 194; p. 546.
Sanitary Products Co., Jersey City and Tenafly, N. J. Dust-preventive compound. No. 93,561; Sept. 23; Gaz. vol. 194; p. 948.
Sanitas M'f'g Co., Boston, Mass. Certain hardware, plumbing, and steam-fitting supplies. No. 93,381; Sept. 9; Gaz. vol. 194; p. 547.
Sarle, Harriet A., New York, N. Y. Writing-paper. No. 93,562; Sept. 23; Gaz. vol. 194; p. 948.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. Nos. 93,297–8; Sept. 2; Gaz. vol. 194; p. 270.
Sauquoit Toilet Paper Co. Inc., New Hartford, N. Y. Toilet-paper. Nos. 93,470–1; Sept. 16; Gaz. vol. 194; pp. 740–1.
Sayman, Thomas M., St. Louis, Mo. Complexion-powder. No. 93,472; Sept. 16; Gaz. vol. 194; p. 741.
Schäffer, Eugen, Berlin, Germany. Pharmaceutical preparation. No. 93,299; Sept. 2; Gaz. vol. 194; p. 270.
Schermerhorn Bros. Co., Omaha, Nebr. Paper towels and napkins and toilet-paper. No. 93,300; Sept. 2; Gaz. vol. 194; p. 270.
Schermerhorn Bros. Co., Chicago, Ill. Twine and cordage. No. 93,382; Sept. 9; Gaz. vol. 194; p. 547.
Schindler, Carl, Schöneberg, Germany. Antisyphiliticum. No. 93,383; Sept. 9; Gaz. vol. 194; p. 547.
Schmitt & Henry Manufacturing Company, Des Moines, Iowa. Mattresses and pillows. No. 93,384; Sept. 9; Gaz. vol. 194; p. 547.
Schuerger, John G., Washington, D. C. Bread. No. 93,563; Sept. 23; Gaz. vol. 194; p. 948.
Scientific Supply Company, St. Louis, Mo. Collections of specimens of animal, mineral, and vegetable substances. No. 93,611; Sept. 30; Gaz. vol. 194; p. 1138.
Selby, John A., Camden, N. J. Wash for the mouth and teeth. No. 93,564; Sept. 23; Gaz. vol. 194; p. 948.
"Semperit" Oesterreichisch-Amerikanische Gummiwerke Aktiengesellschaft, Vienna, Austria-Hungary. Certain belting, hose, machinery packing, and non-metallic tires. No. 93,565; Sept. 23; Gaz. vol. 194; p. 948.
Senz, Anthony W., Chicago, Ill. Candies. No. 93,498; Sept. 16; Gaz. vol. 194; p. 741.
Shaw & Co., Alex. B., New York, N. Y. German wine. No. 93,301; Sept. 2; Gaz. vol. 194; p. 270.
Shedd Medicine Company, Jamestown, N. Y. Pills, ointment, worm specific, &c. No. 93,612; Sept. 30; Gaz. vol. 194; p. 1138.
Single Service Package Corporation of America, New York, N. Y. Metal and paper cartons. No. 93,385; Sept. 9; Gaz. vol. 194; p. 547.
Smith, Kline & French Company, Philadelphia, Pa. Talcum powder. No. 93,386; Sept. 9; Gaz. vol. 194; p. 547.
Societe Anonyme Des Anciens Etablissements Braunstein Freres, Paris, France. Cigarette-papers. No. 93,509; Sept. 16; Gaz. vol. 194; p. 742.
Societe Francaise De L'Ondulium, Vitry-sur-Seine, France. Building materials. No. 93,387; Sept. 9; Gaz. vol. 194; p. 547.
Sokol Chemical Company, Philadelphia, Pa. Pharmaceutical preparation. No. 93,473; Sept. 16; Gaz. vol. 194; p. 741.
Southern States Refining Company, The, Jacksonville, Fla. Paint-oil. No. 93,388; Sept. 9; Gaz. vol. 194; p. 547.
Sparks-Withington Company, The, Jackson, Mich. Electrical horns. No. 93,302; Sept. 2; Gaz. vol. 194; p. 270.
St. Jean, Vitaline, Putnam, Conn. Salve. No. 93,477; Sept. 16; Gaz. vol. 194; p. 741.
Standard Manufacturing Company, The, Cambridge City, Ind. Chairs. No. 93,389; Sept. 9; Gaz. vol. 194; p. 547.
Standard Oil Company, Richmond, Cal. Refined oil, gasolene, lubricating oils and greases. No. 93,475; Sept. 16; Gaz. vol. 194; p. 741.
Standard Oil Company, Whiting, Ind., and Chicago, Ill. Asphalt. No. 93,566; Sept. 23; Gaz. vol. 194; p. 948.
Standard Varnish Works, New York, N. Y. Concrete coatings. No. 93,390; Sept. 9; Gaz. vol. 194; p. 547.
Stapf, Charles H., Prescott, Wis. Fish-hooks. No. 93,613; Sept. 30; Gaz. vol. 194; p. 1138.
Stas-Motor-Gesellschaft m. b. H. Dusseldorf-Obercassel, Germany. Power-engines and parts thereof. No. 93,476; Sept. 16; Gaz. vol. 194; p. 741.
Steinwender-Stoffregen Coffee Co., St. Louis, Mo. Coffee. No. 93,567; Sept. 23; Gaz. vol. 194; p. 948.
Stevenot, Charles J., New York, N. Y. Glue. No. 93,304; Sept. 2; Gaz. vol. 194; p. 270.
Strathmore Worsted Mills, Boston, Mass. Worsted and woolen piece goods. No. 93,391; Sept. 9; Gaz. vol. 194; p. 547.
Stuart, J. & W., Esk Mills, Musselburgh, Scotland. Salmon-nets. No. 93,614; Sept. 30; Gaz. vol. 194; p. 1138.
Stutz Candy Company, The, Paducah, Ky. Candy. No. 93,306; Sept. 2; Gaz. vol. 194; p. 270.
Surbrug Company, The, Hoboken, N. J. Smoking-tobacco. No. 93,616; Sept. 30; Gaz. vol. 194; p. 1138.
Tabard Cigarette and Tobacco Company, The, Ltd., London, England, and New York, N. Y. Cigarettes. No. 93,499; Sept. 16; Gaz. vol. 194; p. 741.
Taggart, Robert G., Washington, Pa. Paint for roofs. No. 93,478; Sept. 16; Gaz. vol. 194; p. 741.
Tauber, Ryttenberg & Co., New York, N. Y. Night-shirts and pajamas. No. 93,307; Sept. 2; Gaz. vol. 194; p. 270.
Taylor & McMillan, Ocilla, Ga. Remedies for pleurisy, asthma, indigestion, &c. No. 93,617; Sept. 30; Gaz. vol. 194; p. 1138.
Tertsaglan, Armen L., Seattle, Wash. Dairy products. Nos. 93,568–9; Sept. 23; Gaz. vol. 194; p. 948.
Thomas, Hulda, New York, N. Y. Face-cream. No. 93,570; Sept. 23; Gaz. vol. 194; p. 948.
Thomas-Peter Company, The, Canton, Ohio. Embroidery-hoops. No. 93,308; Sept. 2; Gaz. vol. 194; p. 270.
Thread Tight Co., New York, N. Y. Paste for tightening pipe-joints. No. 93,393; Sept. 9; Gaz. vol. 194; p. 547.
Tide Water Oil Company, New York, N. Y. Lubricating oil and grease. No. 93,309; Sept. 2; Gaz. vol. 194; p. 270.
Toledo Scale Company, Jersey City, N. J., and Toledo, Ohio. Computing-scales. No. 93,618; Sept. 30; Gaz. vol. 194; p. 1138.
Tredegar Company, Richmond, Va. Horse and mule shoes. No. 93,394; Sept. 9; Gaz. vol. 194; p. 547.
Tricur Salve Co., Elizabethtown, Ind. Salve. No. 93,479; Sept. 16; Gaz. vol. 194; p. 741.
Turpsene Manufacturing Company, Philadelphia, Pa. Compound oil for certain named purposes. No. 93,500; Sept. 16; Gaz. vol. 194; p. 741.
Twisted Wire and Steel Co., New York, N. Y. Metal paper-weights, ink-wells, paper-files, &c. No. 93,480; Sept. 16; Gaz. vol. 194; p. 741.
United Drug Company. (See Deitsch Brothers, assignors.)
United Grocery Co., Jacksonville, Fla. Remedy for certain named ailments. No. 93,396; Sept. 9; Gaz. vol. 194; p. 547.
United Supply Company, New York, N. Y. Cleaning material for wood, metal, &c. No. 93,501; Sept. 16; Gaz. vol. 194; p. 741.
Universal Shock Eliminator, Inc., New York, N. Y. Springs and shock-absorbers in connection with automobiles. No. 93,397; Sept. 9; Gaz. vol. 194; p. 547.
Upson Company, The, Lockport, N. Y. Wall-board. No. 93,398; Sept. 9; Gaz. vol. 194; p. 547.
Valley City Milling Company, Grand Rapids, Mich. Live-stock feed. No. 93,571; Sept. 23; Gaz. vol. 194; p. 948.
Vittucci, John, Seattle, Wash. Olive-oil. No. 93,481; Sept. 16; Gaz. vol. 194; p. 741.
Voorhees, Harry B., Easton, Pa. Castor-oil confection. No. 93,482; Sept. 16; Gaz. vol. 194; p. 741.

Vulko-Fiberene Co., Oklahoma, Okla. Liquid compound for special use. No. 93,399; Sept. 9; Gaz. vol. 194; p. 547.
W. J. White Chicle Co., Niagara Falls, N. Y. Chewing-gum. No. 93,575; Sept. 23; Gaz. vol. 194; p. 948.
Wadsworth, Howland & Co., Inc., Boston, Mass. Paints, varnishes, and paint-oils. No. 93,311; Sept. 2; Gaz. vol. 194; p. 270.
Wadsworth and Jenkins, Cincinnati, Ohio. Candied popcorn confection. No. 93,310; Sept. 2; Gaz. vol. 194; p. 270.
Wadsworth Watch Case Company, The, Dayton, Ky. Watchcases. No. 93,619; Sept. 30; Gaz. vol. 194; p. 1138.
Wagner, Edward H., New York, N. Y. Fireworks. No. 93,572; Sept. 23; Gaz. vol. 194; p. 948.
Waite, Frederick D., Palmetto, Fla. Oranges and grapefruit. No. 93,312; Sept. 2; Gaz. vol. 194; p. 270.
Walker Brothers, Orlando, Fla. Oranges and grape-fruit. No. 93,483; Sept. 16; Gaz. vol. 194; p. 741.
Wallace, Francis C., Drummond, Md. Game. No. 93,400; Sept. 9; Gaz. vol. 194; p. 547.
Walsh, John W., Lynn, Mass. Remedy for piles. No. 93,573; Sept. 23; Gaz. vol. 194; p. 948.
Walters & Co., London, England. Cigars. No. 93,313; Sept. 2; Gaz. vol. 194; p. 270.
Wells & Richardson Company, Burlington, Vt. Remedies for constipation, liver complaint, and biliousness. No. 93,610; Sept. 16; Gaz. vol. 194; p. 742.
West Construction Company, Chattanoogs, Tenn. Certain construction materials. No. 93,401; Sept. 9; Gaz. vol. 194; p. 547.
Westenfelter, Charles W., Springfield, Ohio. Dentifrices. No. 93,620; Sept. 30; Gaz. vol. 194; p. 1138.
Western Clock Co., Peru, Ill. Clocks and watches. Nos. 93,621–2; Sept. 30; Gaz. vol. 194; p. 1138.
Western Silo Company, Des Moines, Iowa. Silos. No. 93,402; Sept. 9; Gaz. vol. 194; p. 547.
Wheelock, Lucy D., Weedsport, N. Y. Game of cards. No. 93,403; Sept. 9; Gaz. vol. 194; p. 547.
Whitall Tatum Company, New York, N. Y. Pharmaceutical rubber goods. No. 93,315; Sept. 2; Gaz. vol. 194; p. 271.
Whitall Tatum Company, Millville, N. J. Porous plasters. No. 93,574; Sept. 23; Gaz. vol. 194; p. 948.
William Atkins & Co. Ltd., Sheffield, England. Metals and metal castings and forgings. No. 93,413; Sept. 16; Gaz. vol. 194; p. 739.
William Atkins & Co. Ltd., Sheffield, England. Certain named cutlery and tools. No. 93,414; Sept. 16; Gaz. vol. 194; p. 739.
William Cooke & Co. Limd, Sheffield, England. Wire ropes. No. 93,340; Sept. 9; Gaz. vol. 194; p. 545.
William Hollins & Company, Limited, London, England. Sheets, pillow-cases, rugs, &c. No. 93,355; Sept. 9; Gaz. vol. 194; p. 546.
Wm. Alten Co., Inc., New York, N. Y. Wheat-flour. No. 93,512; Sept. 23; Gaz. vol. 194; p. 947.
Woolson Spice Co., The. (See Loudon & Son Incorporated, assignor.)
Woolson Spice Co., The, Toledo, Ohio. Tea. No. 93,576; Sept. 23; Gaz. vol. 194; p. 948.
Worcester Baking Company, Worcester, Mass. Bread. No. 93,484; Sept. 16; Gaz. vol. 194; p. 741.
Wray, Mamie E., St. Louis, Mo. Furniture cleaning and polishing compound. No. 93,404; Sept. 9; Gaz. vol. 194; p. 547.
Zeiss, Carl, Jena, Germany. Certain named measuring and scientific appliances. Nos. 93,577–82; Sept. 23; Gaz. vol. 194; p. 949.
Zeiss, Carl, Jena, Germany. Certain named optical goods. No. 93,623; Sept. 30; Gaz. vol. 194; p. 1138.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Anti-Toxine Chemical Co., Chicago, Ill. "How to Apply Dr. Cunningham's Plasters." (For Medicinal Plasters.) No. 17,213; Sept. 16; Gaz. vol. 194; p. 743.

Bates, L. V., Waco, Tex. "Venogen." (For a Medicinal Preparation.) No. 17,242; Sept. 30; Gaz. vol. 194; p. 1139.

Busy Little Bee Company, The, New York, N. Y. "Busy Little Bee Pills." (For Pills.) No. 17,223; Sept. 23; Gaz. vol. 194; p. 950.

Butler Brothers, New York, N. Y.; Chicago, Ill.; St. Louis, Mo.; Minneapolis, Minn., and Dallas, Tex. "The Empire Tablet." (For Writing-Tablets.) No. 17,243; Sept. 30; Gaz. vol. 194; p. 1139.

Carbolineum Wood Preserving Company, New York, N. Y. "Preserves Wood Everywhere Against Decay." (For Avenarius Carbolineum Wood Preservative.) No. 17,224; Sept. 23; Gaz. vol. 194; p. 950.

Clark & Host Co., Milwaukee, Wis. "Morning Tonic." (For Coffee.) No. 17,204; Sept. 2; Gaz. vol. 194; p. 272.

Druggists' Co-operative Association, Inc., Jersey City, N. J., and Detroit, Mich. "Val dona Hair Tonic." (For a Hair-Tonic.) No. 17,245; Sept. 30; Gaz. vol. 194; p. 1139.

Druggists' Co-operative Association, Inc., Jersey City, N. J., and Detroit, Mich. "Val dona Perfumes." (For Perfumes.) No. 17,246; Sept. 30; Gaz. vol. 194; p. 1139.

Druggists' Co-operative Association, Inc., Jersey City, N. J., and Detroit, Mich. "Val dona Cream of Almonds." (For cream of Almonds.) No. 17,247; Sept. 30; Gaz. vol. 194; p. 1139.

Ettenson, Benjamin, Leavenworth, Kans. "Nu White." (For a Preparation for Cleaning Shoes.) No. 17,244; Sept. 30; Gaz. vol. 194; p. 1139.

G. Mennen Chemical Company, Newark, N. J. "Mennen's Shaving Cream." (For Shaving-Cream.) No. 17,252; Sept. 30; Gaz. vol. 194; p. 1139.

Geo. W. Caswell Co., San Francisco, Cal. "Tea Chest." (For Tea.) No. 17,225; Sept. 23; Gaz. vol. 194; p. 950.

Henschel & Company, A. C., Chicago, Ill. "Casa Leo." (For Cigars.) No. 17,248; Sept. 30; Gaz. vol. 194; p. 1139.

Henschel & Company, A. C., Chicago, Ill. "Robert Gray." (For Cigars.) No. 17,249; Sept. 30; Gaz. vol. 194; p. 1139.

Hoffer, Peter, New York, N. Y. "Hippopatrol A Powder for Remedy and Relief For Wind Broken Horses." (For a Veterinary Remedy.) No. 17,205; Sept. 2; Gaz. vol. 194; p. 272.

Hoffman-La Roche Chemical Works, The, New York, N. Y. "Kresapol." (For a Germicide and Disinfectant.) No. 17,250; Sept. 30; Gaz. vol. 194; p. 1139.

Hydraulic-Press Brick Company, St. Louis, Mo. "Hytex." (For Brick.) No. 17,227; Sept. 23; Gaz. vol. 194; p. 950.

Ideal Aeroplane & Supply Co., New York, N. Y. "Blue Bird Racing Aeroplane." (For Aeroplanes.) No. 17,228; Sept. 23; Gaz. vol. 194; p. 950.

Kanouse, Emmet, Ludington, Mich. "Pill." (For Cigars.) No. 17,251; Sept. 30; Gaz. vol. 194; p. 1139.

Knickerbocker Chocolate Co., New York, N. Y. "Almond Chocolate." (For Almond Chocolate.) No. 17,206; Sept. 2; Gaz. vol. 194; p. 272.

Lancaster & Company, P. R., Owensboro, Ky. "Premier Pure, The Whiskey for Family Use." (For Whisky.) No. 17,229; Sept. 23; Gaz. vol. 194; p. 950.

Lewis, Samuel, New York, N. Y. "Lily White Brand." (For Toilet-Paper.) No. 17,214; Sept. 16; Gaz. vol. 194; p. 743.

Mason Shoe Mfg. Co., Chippewa Falls, Wis. "The Shoe That Made Chippewa Famous." (For Shoes.) No. 17,230; Sept. 23; Gaz. vol. 194; p. 950.

Mason Shoe Mfg. Co., Chippewa Falls, Wis. "Pacific Coast Loggers." (For Shoes.) No. 17,231; Sept. 23; Gaz. vol. 194; p. 950.

Mason Shoe Mfg. Co., Chippewa Falls, Wis. "Chippewa Best." (For Shoes.) No. 17,232; Sept. 23; Gaz. vol. 194; p. 950.

Mason Shoe Mfg. Co., Chippewa Falls, Wis. "Northwestern Service Shoes." (For Shoes.) No. 17,233; Sept. 23; Gaz. vol. 194; p. 950.

Mason Shoe Mfg. Co., Chippewa Falls, Wis. "New River Oak." (For Shoes.) No. 17,234; Sept. 23; Gaz. vol. 194; p. 950.

McDonough & Son, T. C., Milwaukee, Wis. "Purest Gaelic." (For Wine.) No. 17,226; Sept. 23; Gaz. vol. 194; p. 950.

Mink, Morris, Philadelphia, Pa. "Mink." (For Cigars.) No. 17,235; Sept. 23; Gaz. vol. 194; p. 950.

National Music Roll Co., St. Johnsville, N. Y. "Hand Played." (For Music-Rolls for Pneumatic Pianos and Similar Musical Instruments.) No. 17,215; Sept. 16; Gaz. vol. 194; p. 743.

Paroubek, Anton J., Fishkill on the Hudson, N. Y. "A. J. Paroubek's Risicorset." (For Bandages or Splints for the Wrist or Hand.) No. 17,216; Sept. 16; Gaz. vol. 194; p. 743.

Peck & Co., Samuel W., New York, N. Y. "Britannia English Slip-On Shower-Proof Coat." (For Shower-Proof Coats.) No. 17,218; Sept. 16; Gaz. vol. 194; p. 743.

Phelps Manufacturing Company, Providence, R. I. "Nu-Tan-Fin The Leather Doctor." (For a Liquid Dressing for Use on Leather and Rubber.) No. 17,217; Sept. 16; Gaz. vol. 194; p. 743.

Reed, C. E., Kansas City, Mo. "Reed's Auto-Lusta." (For Automobile-Polish.) No. 17,236; Sept. 23; Gaz. vol. 194; p. 950.

Rheinstrom Bros., Cincinnati, Ohio. "Yazoo Brand Ginger and Gin Cordial." (For Cordial.) No. 17,207; Sept. 2; Gaz. vol. 194; p. 272.

Rochester Produce & Commission Co., The, New York, N. Y. "Maplewood Brand." (For Creamery-Butter.) No. 17,208; Sept. 2; Gaz. vol. 194; p. 272.

Salant & Salant, New York, N. Y. "A C S." (For Shirts.) No. 17,209; Sept. 2; Gaz. vol. 194; p. 272.

Schuler & Co., E. H., Scranton, Pa. "'Owl' Self-Shining Stove Polish." (For Stove-Polish.) No. 17,219; Sept. 16; Gaz. vol. 194; p. 743.

Schutz, Joseph M., Chicago, Ill. "Sulpho-Carbon." (For Disinfectant Compounds.) No. 17,237; Sept. 23; Gaz. vol. 194; p. 950.

Sibrava, Joseph A., Chicago, Ill. "Sultana Fig Chicory Coffee Substitute." (For a Fig-Chicory Coffee Substitute.) No. 17,210; Sept. 2; Gaz. vol. 194; p. 272.

Societe Generale Des Eaux Minerales De Vittel, Vittel, France. "Vittel Grande Sauce." (For a Mineral Water.) No. 17,220; Sept. 16; Gaz. vol. 194; p. 743.

Stadeker, Leonard J., Chicago, Ill. "The Saturday Evening Smoke." (For Cigars.) No. 17,238; Sept. 23; Gaz. vol. 194; p. 950.

Sweepo Broom Company, Scranton, Pa. "Sweepo." (For Brooms.) No. 17,221; Sept. 16; Gaz. vol. 194; p. 743.

Transparentine Company, Philadelphia, Pa. "Transparentine." (For a Chemical Preparation for Coating Glass Surfaces to Prevent Water from Adhering.) No. 17,222; Sept. 16; Gaz. vol. 194; p. 743.

Van Camp Packing Company, The, Indianapolis, Ind. "Van Camp's Sugar Corn." (For Canned Corn.) No. 17,211; Sept. 2; Gaz. vol. 194; p. 272.

Van Camp Packing Company, The, Indianapolis, Ind. "Van Camp's Golden Pumpkin." (For Canned Pumpkin.) No. 17,212; Sept. 2; Gaz. vol. 194; p. 272.

Weber, E. A. & Otto, Manila, Philippine Islands. "La Flor De Intal." (For Cigars.) No. 17,239; Sept. 23; Gaz. vol. 194; p. 950.

Weber, E. A. & Otto, Manila, Philippine Islands. "La Flor De Minanga." (For Cigars.) No. 17,240; Sept. 23; Gaz. vol. 194; p. 950.

Wheatcroft, Thomas S., New York, N. Y. "Peanuts in Nature's Wrapper." (For Peanuts.) No. 17,241; Sept. 23; Gaz. vol. 194; p. 950.

White & Wyckoff Mfg. Co., Holyoke, Mass. "Biltmore Linen." (For Stationery.) No. 17,253; Sept. 30; Gaz. vol. 194; p. 1139.

Wiedmann-St. Louis Cigar Box Company, St. Louis, Mo. "Little Tourist." (For Cigars.) No. 17,254; Sept. 30; Gaz. vol. 194; p. 1139.

PRINTS.

Cream of Wheat Co., Minneapolis, Minn. "What De' Debil' You-All Laughin' At, Anyhow?" (For Wheat Breakfast Food.) No. 3,367; Sept. 16; Gaz. vol. 194; p. 743.

Mink, Morris, Philadelphia, Pa. "Guarantee." (For Cigars.) No. 3,374; Sept. 23; Gaz. vol. 194; p. 950.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "Phone For A Case To Be Sent To Your Place." (For Beer.) No. 3,368; Sept. 16; Gaz. vol. 194; p. 743.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "For a home surprise—send a case of Edelweiss." (For Beer.) No. 3,369; Sept. 16; Gaz. vol. 194; p. 743.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "The Brewery will speed it wherever you need it." (For Beer.) No. 3,370; Sept. 16; Gaz. vol. 194; p. 743.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "Here's the Case—You be the Judge." (For Beer.) No. 3,371; Sept. 16; Gaz. vol. 194; p. 743.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "Phone before Eleven—Delivered before Seven." (For Beer.) No. 3,377; Sept. 30; Gaz. vol. 194; p. 1139.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "Famed 'Edelweiss' is brewed at home Why from Chicago should you roam." (For Beer.) No. 3,378; Sept. 30; Gaz. vol. 194; p. 1139.

Peter Schoenhofen Brewing Company, The, Chicago, Ill. "Delicious Satisfaction is an Edelweiss Attraction." (For Beer.) No. 3,379; Sept. 30; Gaz. vol. 194; p. 1139.

Portage Rubber Co., The, Barberton, Ohio. "Sign of Efficiency." (For Tires.) No. 3,366; Sept. 2; Gaz. vol. 194; p. 272.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Taste the Flavor." (For Chewing-Tobacco.) No. 3,364; Sept. 2; Gaz. vol. 194; p. 272.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "A Run-away Race." (For Chewing-Tobacco.) No. 3,365; Sept. 2; Gaz. vol. 194; p. 272.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "After another Cut of Brown's Mule." (For Chewing-Tobacco.) No. 3,275; Sept. 23; Gaz. vol. 194; p. 950.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Here's the Real Joy Makin's." (For Smoking-Tobacco.) No. 3,376; Sept. 23; Gaz. vol. 194; p. 950.

R. P. Smith & Sons Co., Chicago, Ill. "Solid Service Shoes." (For Shoes.) No. 3,372; Sept. 16; Gaz. vol. 194; p. 743.

Udolpho Wolfe Company, New York, N. Y. "Drink Wolfe's Schnapps and keep on the right road." (For Schnapps.) No. 3,373; Sept. 16; Gaz. vol. 194; p. 743.

Wayne Knitting Mills, Fort Wayne, Ind. "Wayne Knit Half Hose." (For Half-Hose.) No. 3,380; Sept. 30; Gaz. vol. 194; p. 1139.

DISCLAIMERS.

Palmros, Alexander, Syracuse, N. Y.; disclaimer filed by patentee, with concurrence of assignee, The Pneumelectric Machine Company. Rock-drill. No. 1,052,373; disclaimer filed Sept. 19, 1913; Gaz. vol. 194; p. 955.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF SEPTEMBER, 1913.

[Abbreviations: "Gaz."—Official Gazette.

Acid and preparation of the same, N-halogenalkyl-C. C-dialkylbarbituric. O. Wolfes. No. 1,073,380; Sept. 16; Gaz. vol. 194; p. 660.

Acid, High concentration of watery nitric. H. Pauling. No. 1,074,287; Sept. 30; Gaz. vol. 194; p. 1018.

Acids and preparation of the same, N-halogenalkyl-C.C-dialkylbarbituric. O. Wolfes. No. 1,074,030; Sept. 23; Gaz. vol. 194; p. 904.

Acoustical instrument. L. Lumiere. No. 1,072,477; Sept. 9; Gaz. vol. 194; p. 304.

Action-controlling mechanism. W. W. Bardsley. No. 1,072,416; Sept. 9; Gaz. vol. 194; p. 282.

Addressing-machine. E. D. Howard. No. 1,072,463; Sept. 9; Gaz. vol. 194; p. 299.

Addressing-machine feeder. S. C. Cox. No. 1,073,741; Sept. 23; Gaz. vol. 194; p. 808.

Adjustable bracket. G. R. Meyercord. No. 1,072,756; Sept. 9; Gaz. vol. 194; p. 400.

Advertising and other purposes, Novelty adapted for. B. W. Allen. No. 1,071,680; Sept. 2; Gaz. vol. 194; p. 3.

Advertising apparatus, Automatic. R. Popp. No. 1,073,027; Sept. 23; Gaz. vol. 194; p. 870.

Aerial control system. E. F. Gallaudet. No. 1,074,256; Sept. 30; Gaz. vol. 194; p. 1008.

Aerial flights, Machine for. N. J. Paddock. No. 1,074,135; Sept. 30; Gaz. vol. 194; p. 968.

Aerial navigation, Apparatus for. G. Mitchell. No. 1,074,281; Sept. 30; Gaz. vol. 194; p. 1017.

Aerial navigation, Apparatus for. M. Pearson. No. 1,074,288; Sept. 30; Gaz. vol. 194; p. 1019.

Aerial-navigation mechanism. J. H. Beckwith. No. 1,072,078; Sept. 2; Gaz. vol. 194; p. 139.

Aeronautical apparatus. C. D. Burney. No. 1,073,567; Sept. 16; Gaz. vol. 194; p. 723.

Aeroplane. F. Myllus. No. 1,074,007; Sept. 23; Gaz. vol. 194; p. 897.

Aeroplane-control system. E. F. Gallaudet. No. 1,074,257; Sept. 30; Gaz. vol. 194; p. 1009.

Aeroplane-rudder. H. A. Orme. No. 1,074,063; Sept. 23; Gaz. vol. 194; p. 915.

Aeroplane shock-absorber. W. N. Ensign. No. 1,074,499; Sept. 30; Gaz. vol. 194; p. 1088.

Aeroplane-stabilizer. H. C. Fisk. No. 1,072,710; Sept. 9; Gaz. vol. 194; p. 384.

Aeroplanes, Lifting-propeller for. B. von Bültzingslöwen. No. 1,071,697; Sept. 2; Gaz. vol. 194; p. 9.

Agitating and mixing apparatus. W. E. Trent. No. 1,073,878; Sept. 23; Gaz. vol. 194; p. 853.

Agricultural implement. C. Christensen. No. 1,074,310; Sept. 30; Gaz. vol. 194; p. 1026.

Agricultural-implement safety-guard. A. Pohl. No. 1,074,460; Sept. 30; Gaz. vol. 194; p. 1076.

Agricultural machine. G. Trompeter. No. 1,073,373; Sept. 16; Gaz. vol. 194; p. 657.

Air and gas mixer. E. C. Jones. No. 1,074,266; Sept. 30; Gaz. vol. 194; p. 1011.

Air-conditioning apparatus. S. W. Cramer. No. 1,073,095; Sept. 16; Gaz. vol. 194; p. 559.

Air-conditioning apparatus. S. W. Cramer. No. 1,073,096; Sept. 16; Gaz. vol. 194; p. 559.

Air-conditioning apparatus. S. W. Cramer. No. 1,073,475; Sept. 16; Gaz. vol. 194; p. 693.

Air-coupling, Automatic. F. N. Fisher. No. 1,074,356; Sept. 30; Gaz. vol. 194; p. 1042.

Air-oxygenating apparatus. H. W. Izod. No. 1,074,550; Sept. 30; Gaz. vol. 194; p. 1103.

Airship. A. R. Silverston. No. 1,072,663; Sept. 9; Gaz. vol. 194; p. 368.

Airship. A. R. Silverston. No. 1,072,664; Sept. 9; Gaz. vol. 194; p. 368.

Airship. I. Allen. No. 1,074,031; Sept. 23; Gaz. vol. 194; p. 904.

Airships, Parachute attachment for. W. A. Nagel. No. 1,072,764; Sept. 9; Gaz. vol. 194; p. 403.

Alarm attachment for doors and windows. T. L. McGovern and F. W. Allen. No. 1,074,003; Sept. 23; Gaz. vol. 194; p. 896.

Alarm system. O. B. Kaiser. No. 1,073,582; Sept. 16; Gaz. vol. 194; p. 728.

Albumin-iron-phosphorus compounds and making same. E. Preiswerk. No. 1,072,989; Sept. 9; Gaz. vol. 194; p. 487.

Alcohol or powder appliance. S. A. Miller. No. 1,073,155; Sept. 16; Gaz. vol. 194; p. 579.

Alcohols with therapeutically-active acids, Esters of polyhalogen compounds of. R. Wolffenstein. No. 1,072,289; Sept. 2; Gaz. vol. 194; p. 209.

Alkali-metal hydroxids directly from alkali-metal chlorids, Producing. J. Kersten. No. 1,072,010; Sept. 2; Gaz. vol. 194; p. 117.

Alkylhomopiperouriamins and making them. H. Decker. No. 1,073,966; Sept. 23; Gaz. vol. 194; p. 883.

Alloy, Aluminum. W. A. McAdams. No. 1,072,017; Sept. 2; Gaz. vol. 194; p. 120.

Alloy, Copper. W. F. Nolen. No. 1,074,285; Sept. 30; Gaz. vol. 194; p. 1018.

Alloy, Zinc. T. A. Bayliss. No. 1,074,234; Sept. 30; Gaz. vol. 194; p. 1002.

Alloys, Manufacture of sodium. E. C. Rossiter. No. 1,073,523; Sept. 16; Gaz. vol. 194; p. 707.

Amalgamator. L. O. Crocker. No. 1,074,410; Sept. 30; Gaz. vol. 194; p. 1060.

Ammonia from ammoniacal gases or vapors, Producing sulfate of. H. Koppers. No. 1,073,247; Sept. 16; Gaz. vol. 194; p. 612.

Ammonium sulfate, Production of. T. H. Easterfield. No. 1,072,840; Sept. 9; Gaz. vol. 194; p. 431.

Amusement device. E. R. Ernst. No. 1,073,970; Sept. 23; Gaz. vol. 194; p. 884.

Animal-trap. H. L. Trull. No. 1,072,675; Sept. 9; Gaz. vol. 194; p. 372.

Animal-trap. H. F. Coleman. No. 1,073,094; Sept. 16; Gaz. vol. 194; p. 559.

Annealing apparatus. H. Hillebrand, Jr. No. 1,073,235; Sept. 16; Gaz. vol. 194; p. 608.

Annunciating systems, Operating mechanism for. F. Michaelis. No. 1,073,357; Sept. 16; Gaz. vol. 194; p. 652.

Antisifting box or carton. A. H. Dreux. No. 1,073,103; Sept. 16; Gaz. vol. 194; p. 562.

Antiskidding device for vehicle-tires. C. W. Cramer. No. 1,072,579; Sept. 9; Gaz. vol. 194; p. 340.

Antiskidding device for vehicle-wheels. W. H. Snyder. No. 1,073,446; Sept. 16; Gaz. vol. 194; p. 683.

Apparel, Lady's. S. J. Jackson. No. 1,072,466; Sept. 9; Gaz. vol. 194; p. 300.

Arch, Metal. P. J. Mayer. No. 1,074,001; Sept. 23; Gaz. vol. 194; p. 895.

Armature for magneto-induction machines. G. Honold. No. 1,072,120; Sept. 2; Gaz. vol. 194; p. 154.

Armature for magneto-induction machines. G. Honold. No. 1,072,228; Sept. 2; Gaz. vol. 194; p. 189.

Armature-winding for electrical machines with commutators. R. Richter. No. 1,072,036; Sept. 2; Gaz. vol. 194; p. 125.

Article-holding device. C. E. White and G. Elliott. No. 1,072,680; Sept. 9; Gaz. vol. 194; p. 374.

Ash-ejector. J. H. Snelling. No. 1,073,445; Sept. 16; Gaz. vol. 194; p. 682.

Atomizer, Adjustable liquid-. R. Schorr. No. 1,073,936; Sept. 23; Gaz. vol. 194; p. 873.

Atomizer or humidifier. J. C. Rankine and G. H. Goldsmith. No. 1,072,031; Sept. 2; Gaz. vol. 194; p. 124.

Auger, Earth-. D. Wilson. No. 1,074,304; Sept. 30; Gaz. vol. 194; p. 1024.

Automatic coupling. S. F. Leslie. No. 1,072,626; Sept. 9; Gaz. vol. 194; p. 355.

Automobile. R. P. and W. S. Thompson. No. 1,072,791; Sept. 9; Gaz. vol. 194; p. 413.

Automobile attachment. W. J. Evans. No. 1,073,971; Sept. 23; Gaz. vol. 194; p. 885.

Automobile heating device. F. J. Moore. No. 1,072,635; Sept. 9; Gaz. vol. 194; p. 358.

Automobile-hood. H. Cohen. No. 1,073,398; Sept. 16; Gaz. vol. 194; p. 667.

Automobile-horn. R. H. Manson. No. 1,074,371; Sept. 30; Gaz. vol. 194; p. 1046.

Automobile jack and reversing-stand. H. C. Roberts. No. 1,073,168; Sept. 16; Gaz. vol. 194; p. 584.

Automobile light-shifter. J. G. Becker. No. 1,072,418; Sept. 9; Gaz. vol. 194; p. 282.
Automobile-lock. P. Kovsky and J. F. Hicks. No. 1,071,756; Sept. 2; Gaz. vol. 194; p. 30.
Automobile-lock. A. A. Bennett. No. 1,074,238; Sept. 30; Gaz. vol. 194; p. 1003.
Automobile-numbers, Means for displaying. E. Stoddard. No. 1,071,821; Sept. 2; Gaz. vol. 194; p. 53.
Automobile radiator-heater. W. Gallaher. No. 1,072,595; Sept. 9; Gaz. vol. 194; p. 345.
Automobile safety device. O. N. Applequist. No. 1,073,385; Sept. 16; Gaz. vol. 194; p. 661.
Automobile tire-trunk. A. Zieve and H. Davidovitz. No. 1,074,070; Sept. 23; Gaz. vol. 194; p. 920.
Automobile-tops, Device for raising and lowering. O. Cook. No. 1,073,332; Sept. 16; Gaz. vol. 194; p. 643.
Automobile-tops, Means for raising and lowering. C. K. Hann. No. 1,071,914; Sept. 2; Gaz. vol. 194; p. 85.
Automobile transmission. H. Ford. No. 1,073,569; Sept. 16; Gaz. vol. 194; p. 724.
Automobiles, Automatic safety-brake for. L. G. Eggers. No. 1,072,841; Sept. 9; Gaz. vol. 194; p. 431.
Automobiles, Control-lever for. W. C. Durant. No. 1,072,438; Sept. 9; Gaz. vol. 194; p. 290.
Automobiles, Liquid change-speed gear for. L. Hammer. No. 1,074,096; Sept. 23; Gaz. vol. 194; p. 926.
Autoplane. P. Witzel. No. 1,073,648; Sept. 23; Gaz. vol. 194; p. 773.
Autovehicle starter apparatus and system. R. Varley. No. 1,072,279; Sept. 2; Gaz. vol. 194; p. 206.
Axle box, Car-. H. H. Hewitt. No. 1,072,720; Sept. 9; Gaz. vol. 194; p. 387.
Axle, Differential railway-. B. R. Seabrook. No. 1,072,045; Sept. 2; Gaz. vol. 194; p. 128.
Axle-set. T. H. Rae. No. 1,073,571; Sept. 16; Gaz. vol. 194; p. 724.
Baby-protector. J. E. Dodd. No. 1,073,478; Sept. 16; Gaz. vol. 194; p. 604.
Baby-walker. E. S. Kincannon. No. 1,072,959; Sept. 9; Gaz. vol. 194; p. 475.
Baby's head-protector. B. G. Fitch. No. 1,072,321; Sept. 2; Gaz. vol. 194; p. 219.
Bag: *See* Mesh-bag; Saddle-bag.
Bag-closure. H. Ebert. No. 1,071,991; Sept. 2; Gaz. vol. 194; p. 110.
Bag filling and tying apparatus. S. J. Rice. No. 1,072,775; Sept. 9; Gaz. vol. 194; p. 407.
Bag-lock. L. Wertheim. No. 1,074,074; Sept. 23; Gaz. vol. 194; p. 919.
Bag lock, Hand-. J. Partmann. No. 1,072,981; Sept. 9; Gaz. vol. 194; p. 484.
Bag-tying machine. J. P. Curry. No. 1,074,587; Sept. 30; Gaz. vol. 194; p. 1117.
Bail-bandle. H. Coonley. No. 1,073,740; Sept. 23; Gaz. vol. 194; p. 807.
Baking device. M. L. Hitchcock. No. 1,073,126; Sept. 16; Gaz. vol. 194; p. 569.
Balance, Specific-gravity. B. R. Jolly. No. 1,072,952; Sept. 9; Gaz. vol. 194; p. 473.
Baler tying device, Hay-. W. H. Leavitt. No. 1,073,499; Sept. 16; Gaz. vol. 194; p. 700.
Bales, Apparatus for reshaping and compressing plantation cotton-. J. L. Sheppard. No. 1,071,811; Sept. 2; Gaz. vol. 194; p. 50.
Baling apparatus, Combined filler and packer for. S. D. Murray. No. 1,074,061; Sept. 23; Gaz. vol. 194; p. 914.
Baling-press. M. C. Nixon. (Reissue.) No. 13,615; Sept. 9; Gaz. vol. 194; p. 522.
Baling-press packer. L. B. Wygant. No. 1,072,069; Sept. 2; Gaz. vol. 194; p. 136.
Baling-presses, Block-placer for. L. B. Wygant. No. 1,073,382; Sept. 16; Gaz. vol. 194; p. 661.
Ball-and-socket joint. H. Mayer and G. Schlatter. No. 1,073,264; Sept. 16; Gaz. vol. 194; p. 619.
Ball-playing apparatus, Base-. H. Schum. No. 1,073,783; Sept. 23; Gaz. vol. 194; p. 821.
Ballast-cleaner. W. I. Trench and A. G. Zepp. No. 1,074,142; Sept. 30; Gaz. vol. 194; p. 971.
Balloon, Dirigible. J. Schütte. No. 1,072,514; Sept. 9; Gaz. vol. 194; p. 316.
Bank-note tester. I. De Dragits. No. 1,074,316; Sept. 30; Gaz. vol. 194; p. 1028.
Bank, Savings-. C. Fisher. No. 1,072,709; Sept. 9; Gaz. vol. 194; p. 384.
Bank, Savings-. C. Fisher. No. 1,073,847; Sept. 23; Gaz. vol. 194; p. 842.
Bar: *See* Metal bar.
Barber's chair. T. J. Howard. No. 1,073,419; Sept. 16; Gaz. vol. 194; p. 673.
Barrel, Metallic. G. J. Clark and H. Curtland. No. 1,073,396; Sept. 16; Gaz. vol. 194; p. 666.
Basket-frame, Detachable. J. P. H. Lane. No. 1,073,691; Sept. 23; Gaz. vol. 194; p. 790.
Baskets, Reinforcement for. A. Marcus. No. 1,071,766; Sept. 2; Gaz. vol. 194; p. 34.
Bat-forming apparatus. D. and R. H. Haynes. No. 1,073,681; Sept. 23; Gaz. vol. 194; p. 786.
Bath-tub, Baby's portable collapsible. P. O. Owsley. No. 1,073,435; Sept. 16; Gaz. vol. 194; p. 678.
Bath-tub, Collapsible. E. A. M. Gallagher. No. 1,072,446; Sept. 9; Gaz. vol. 194; p. 293.
Bath-tub, Portable. T. L. Stine. No. 1,072,269; Sept. 2; Gaz. vol. 194; p. 202.
Batteries, Strap or connection for secondary or storage. B. Ford. No. 1,073,670; Sept. 23; Gaz. vol. 194; p. 782.
Batteries, Treated wood for use in electric storage. B. Heap. No. 1,073,417; Sept. 16; Gaz. vol. 194; p. 673.
Battery: *See* Electric battery; Galvanic battery; Storage battery.
Battery cell, Primary-. J. H. Gugler and G. W. Colles. No. 1,073,677; Sept. 23; Gaz. vol. 194; p. 785.
Bean and pea hullers, Auxiliary cleaning means for. L. S. Whiting and W. M. Koppes. No. 1,074,227; Sept. 30; Gaz. vol. 194; p. 1000.
Bean-picking machines, Roll for. C. E. Smith. No. 1,072,665; Sept. 9; Gaz. vol. 194; p. 369.
Beans, Decaffeinating natural. N. Rosewater. No. 1,073,929; Sept. 23; Gaz. vol. 194; p. 871.
Bearing, Adjustable pivot-. J. A. Huber. No. 1,071,746; Sept. 2; Gaz. vol. 194; p. 26.
Bearing, Annular ball-. J. W. Schatz. No. 1,073,529; Sept. 16; Gaz. vol. 194; p. 709.
Bearing, Antifriction-. F. E. Bright. No. 1,071,693; Sept. 2; Gaz. vol. 194; p. 7.
Bearing, Antifriction-. F. E. Bright. No. 1,072,080; Sept. 2; Gaz. vol. 194; p. 140.
Bearing, Ball-. H. Hess. No. 1,071,739; Sept. 2; Gaz. vol. 194; p. 24.
Bearing, Ball-. J. W. Schatz. No. 1,073,530; Sept. 16; Gaz. vol. 194; p. 709.
Bearing, Roller-. R. S. Smith. No. 1,072,667; Sept. 9; Gaz. vol. 194; p. 369.
Bearing, Roller-. W. E. Lewis. No. 1,073,501; Sept. 16; Gaz. vol. 194; p. 700.
Bearings, Ball-holding cage for ball-. H. Hess. No. 1,071,738; Sept. 2; Gaz. vol. 194; p. 24.
Bearings, Device for assembling ball-. H. B. Whitney. No. 1,074,228; Sept. 30; Gaz. vol. 194; p. 1000.
Beater and mixer. N. G. Jennings. No. 1,073,133; Sept. 16; Gaz. vol. 194; p. 572.
Beating and mixing machine. A. C. Westby. No. 1,074,397; Sept. 30; Gaz. vol. 194; p. 1050.
Bed. C. E. Hay. No. 1,072,610; Sept. 9; Gaz. vol. 194; p. 350.
Bed. J. A. Brown. No. 1,074,488; Sept. 30; Gaz. vol. 194; p. 1085.
Bed attachment. F. L. Ollar. No. 1,072,490; Sept. 9; Gaz. vol. 194; p. 308.
Bed, Cabinet-. A. Giordano. No. 1,073,674; Sept. 23; Gaz. vol. 194; p. 784.
Bed-frames, Leg-bracing means for. A. C. Klopping. No. 1,071,927; Sept. 2; Gaz. vol. 194; p. 89.
Bed, Sofa-. M. J. Bartlett. No. 1,074,342; Sept. 30; Gaz. vol. 194; p. 1037.
Bed, Sofa or davenport. W. A. Pease. (Reissue.) No. 13,612; Sept. 2; Gaz. vol. 194; p. 254.
Bed, Sofa or davenport. U. S. Henderson and A. F. Schramm. No. 1,074,050; Sept. 23; Gaz. vol. 194; p. 911.
Bed-support for hospitals or sick-rooms. H. Weimer. No. 1,073,194; Sept. 16; Gaz. vol. 194; p. 593.
Bed, Wall-. R. H. Anderson. No. 1,074,502; Sept. 30; Gaz. vol. 194; p. 1119.
Bedstead-frame tubes and the like, Connecting device for. C. Vallone. No. 1,072,278; Sept. 2; Gaz. vol. 194; p. 205.
Beehive. H. Anderson. No. 1,073,458; Sept. 16; Gaz. vol. 194; p. 687.
Beehive. C. M. Osborne. No. 1,073,701; Sept 23; Gaz. vol. 194; p. 794.
Beer-cooling apparatus. H. J. Sandell. No. 1,072,039; Sept. 2; Gaz. vol. 194; p. 126.
Beet-rootlet catcher. E. J. Hopkins. No. 1,073,758; Sept. 23; Gaz. vol. 194; p. 814.
Belt-fastener. I. Jackson. No. 1,073,493; Sept. 16; Gaz. vol. 194; p. 698.
Belt-fastener. I. Jackson. No. 1,073,494; Sept. 16; Gaz. vol. 194; p. 698.
Belt-replacer. H. Opgenorth. No. 1,072,641; Sept. 9; Gaz. vol. 194; p. 360.
Belt-shifter. R. G. Henry and W. J. Bayer. No. 1,073,683; Sept. 23; Gaz. vol. 194; p. 787.
Belt-tightener. L. A. Tirrill. No. 1,074,562; Sept. 30; Gaz. vol. 194; p. 1108.
Bench: *See* Skelp-charging bench.
Bench-drill. G. O. Leopold. No. 1,073,500; Sept. 16; Gaz. vol. 194; p. 700.
Bending-machine. R. A. Carter. No. 1,071,700; Sept. 2; Gaz. vol. 194; p. 10.
Berth. V. A. Treadwell. No. 1,073,002; Sept. 9; Gaz. vol. 194; p. 491.
Bicycle propelling mechanism. W. Meschkat. No. 1,073,696; Sept. 23; Gaz. vol. 194; p. 792.
Bicycle, Water-. D. H. Mosteller. No. 1,072,027; Sept. 2; Gaz. vol. 194; p. 123.
Bilge-water discharger. E. Langley. No. 1,072,358; Sept. 2; Gaz. vol. 194; p. 247.
Bill-fold. J. A. Hellwig. No. 1,073,120; Sept. 16; Gaz. vol. 194; p. 567.
Billiard and pool tables, Cushion-strip for. J. J. Medvec. No. 1,074,279; Sept. 30; Gaz. vol. 194; p. 1016.
Binder, Leaf-. L. Kingsley. No. 1,074,271; Sept. 30; Gaz. vol. 194; p. 1013.
Binder, Loose-leaf. H. C. Miller. No. 1,072,633; Sept. 9; Gaz. vol. 194; p. 357.

Binder, Loose-leaf. H. C. Crozier. No. 1,072,919; Sept. 9; Gaz. vol. 194; p. 461.
Binders, Holder for adhesive. L. Kingsley. No. 1,072,859; Sept. 9; Gaz. vol. 194; p. 438.
Binders, Post for loose-leaf. H. C. Miller. No. 1,072,867; Sept. 9; Gaz. vol. 194; p. 441.
Bit: *See* Boring-bit.
Bits, Countersink attachment for. J. Whyte. No. 1,072,543; Sept. 9; Gaz. vol. 194; p. 327.
Blacksmith's tool. A. J. Fulghum. No. 1,073,802; Sept. 23; Gaz. vol. 194; p. 827.
Blade-mounting. H. T. Herr. No. 1,072,457; Sept. 9; Gaz. vol. 194; p. 297.
Blade-securing means. F. Hodgkinson. No. 1,073,987; Sept. 23; Gaz. vol. 194; p. 891.
Blast-furnace, Air-cooled. R. H. Stevens. No. 1,074,097; Sept. 23; Gaz. vol. 194; p. 927.
Blind, roller-blind, and the like. J. A. Hedberg. No. 1,073,418; Sept. 16; Gaz. vol. 194; p. 673.
Blinker-stay. J. F. Faust. No. 1,073,225; Sept. 16; Gaz. vol. 194; p. 605.
Block: *See* Building-block; Davit tackle-block.
Block-machine, Centrifugal. N. P. Annis. No. 1,073,584; Sept. 23; Gaz. vol. 194; p. 751.
Board: *See* Bosom-board; Bulletin-board; Display-board; Ironing-board; Shoveling-board.
Boat. S. Tagliamonte. No. 1,072,270; Sept. 2; Gaz. vol. 194; p. 203.
Boat construction, Submersible-. L. Y. Spear and H. E. Grieshaber. No. 1,072,393; Sept. 2; Gaz. vol. 194; p. 246.
Boat, Life-. C. W. Wallis. No. 1,071,835; Sept. 2; Gaz. vol. 194; p. 58.
Boat securing and releasing device, Life-. A. P. Lundin. No. 1,071,765; Sept. 2; Gaz. vol. 194; p. 33.
Boats, Construction and conning equipment for submersible. L. Y. Spear and H. E. Grieshaber. No. 1,072,392; Sept. 2; Gaz. vol. 194; p. 245.
Boats, Water-tight hatch for. W. H. Hayes. No. 1,072,611; Sept. 9; Gaz. vol. 194; p. 350.
Bobbin-winder. A. Belz. No. 1,073,388; Sept. 16; Gaz. vol. 194; p. 663.
Bobbins, Apparatus for sorting and conditioning. F. Spence. No. 1,072,782; Sept. 9; Gaz. vol. 194; p. 400.
Boiler: *See* Domestic boiler; Electrically-heated boiler; Steam-boiler; Washing-boiler; Water-tube boiler.
Boiler fire-box. J. M. McClellon. No. 1,072,865; Sept. 9; Gaz. vol. 194; p. 440.
Boiler-flue cleaner. W. J. Bradley. No. 1,073,659; Sept. 23; Gaz. vol. 194; p. 778.
Boiler-furnace. G. de Grahl. No. 1,073,039; Sept. 9; Gaz. vol. 194; p. 502.
Boiler furnace, Steam-. O. D. Orvis. No. 1,071,787; Sept. 2; Gaz. vol. 194; p. 42.
Boiler-water-level-indicating device. M. G. Quigley. No. 1,073,518; Sept. 16; Gaz. vol. 194; p. 706.
Boilers, Column for steam-. H. H. Cross and W. F. Wratchford. No. 1,074,493; Sept. 30; Gaz. vol. 194; p. 1086.
Boilers, Washout-plug for steam-. M. A. Gilmore and W. E. Woodard. No. 1,071,906; Sept. 2; Gaz. vol. 194; p. 82.
Bolster. O. S. Pulliam. No. 1,073,628; Sept. 23; Gaz. vol. 194; p. 766.
Bolster-roll, Collapsible. H. and F. Rumpf. No. 1,071,799; Sept. 2; Gaz. vol. 194; p. 46.
Bolt: *See* Expansion-bolt; Stay-bolt.
Bolt-turning machine. R. F. Scott. No. 1,074,138; Sept. 30; Gaz. vol. 194; p. 969.
Bones, Mounting for. B. J. Palmer. No. 1,073,703; Sept. 23; Gaz. vol. 194; p. 795.
Bonnet, Automobile-. M. F. Harris. No. 1,073,345; Sept. 16; Gaz. vol. 194; p. 648.
Book, Manifolding-. J. A. Percival. No. 1,072,254; Sept. 2; Gaz. vol. 194; p. 198.
Book, Renewable-leaf. P. MacMaster. No. 1,074,510; Sept. 30; Gaz. vol. 194; p. 1091.
Bookbinding and covering machine. A. Bredenberg. No. 1,073,324; Sept. 16; Gaz. vol. 194; p. 640.
Bookcase. C. G. Quackenbush. No. 1,072,258; Sept. 2; Gaz. vol. 194; p. 198.
Boot and shoe buffing machine. D. N. Robertson. No. 1,073,288; Sept. 16; Gaz. vol. 194; p. 627.
Boot and shoe fitting device. J. Borel and F. Grange. No. 1,074,406; Sept. 30; Gaz. vol. 194; p. 1058.
Boot or shoe. J. B. MacLaughlin. No. 1,074,127; Sept. 30; Gaz. vol. 194; p. 966.
Boot-protector. F. Nusabaumer. No. 1,074,378; Sept. 30; Gaz. vol. 194; p. 1049.
Booth, Folding. E. J. Douglas. No. 1,071,896; Sept. 2; Gaz. vol. 194; p. 79.
Boring-bit. S. J. Watkins. No. 1,073,005; Sept. 9; Gaz. vol. 194; p. 492.
Boring-machine. F. W. Gerding. No. 1,074,112; Sept. 30; Gaz. vol. 194; p. 961.
Boring-tool, Brace-bit. D. C. Goodrich. No. 1,072,328; Sept. 2; Gaz. vol. 194; p. 221.
Bosom-board. W. Bartholomew. No. 1,072,808; Sept. 9; Gaz. vol. 194; p. 420.
Bottle. H. F. Griswold. No. 1,072,606; Sept. 9; Gaz. vol. 194; p. 349.
Bottle. A. G. Porter. No. 1,072,987; Sept. 9; Gaz. vol. 194; p. 486.
Bottle. W. London. No. 1,073,997; Sept. 23; Gaz. vol. 194; p. 894.
Bottle, Antirefillable. V. Zsuzsits. No. 1,072,895; Sept. 9; Gaz. vol. 194; p. 452.
Bottle-blowing machine. S. E. Winder. No. 1,072,553; Sept. 9; Gaz. vol. 194; p. 331.
Bottle cap and pourer. A. Feinstein. No. 1,074,168; Sept. 30; Gaz. vol. 194; p. 979.
Bottle-casing. C. C. Goss. No. 1,073,897; Sept. 23; Gaz. vol. 194; p. 860.
Bottle filler and capper. T. L. Valerius. No. 1,072,795; Sept. 9; Gaz. vol. 194; p. 414.
Bottle-filling and fluid-measuring machine. W. F. Arzinger. No. 1,071,682; Sept. 2; Gaz. vol. 194; p. 3.
Bottle-filling apparatus, Siphon-. J. A. Schultz, Jr. No. 1,073,366; Sept. 16; Gaz. vol. 194; p. 655.
Bottle-filling machine. A. F. Wood and A. G. Steer. No. 1,072,290; Sept. 2; Gaz. vol. 194; p. 209.
Bottle-filling machine. J. H. Champ. No. 1,074,585; Sept. 30; Gaz. vol. 194; p. 1116.
Bottle, Non-refillable. P. Haak. No. 1,072,449; Sept. 9; Gaz. vol. 194; p. 294.
Bottle, Non-refillable. J. G. Reddick. No. 1,072,497; Sept. 9; Gaz. vol. 194; p. 310.
Bottle, Non-refillable. S. L. Dignon and M. L. Debrosee, Jr. No. 1,072,583; Sept. 9; Gaz. vol. 194; p. 341.
Bottle, Non-refillable. F. F. C. and A. C. Blake. No. 1,072,689; Sept. 9; Gaz. vol. 194; p. 377.
Bottle, Non-refillable. J. F. Jensen. No. 1,073,239; Sept. 16; Gaz. vol. 194; p. 609.
Bottle, Non-refillable. M. P. Schell. No. 1,073,869; Sept. 23; Gaz. vol. 194; p. 849.
Bottle, Non-refillable. C. Wilcovitz. No. 1,074,148; Sept. 30; Gaz. vol. 194; p. 973.
Bottle, Non-resealable. F. A. McGuire. No. 1,072,139; Sept. 2; Gaz. vol. 194; p. 161.
Bottle or bag, Water. I. F. Kepler. No. 1,074,269; Sept. 30; Gaz. vol. 194; p. 1013.
Bottle-stopper. F. L. Siegel. No. 1,073,444; Sept. 16; Gaz. vol. 194; p. 682.
Bottle-stopper. A. Rochwite. No. 1,074,293; Sept. 30; Gaz. vol. 194; p. 1020.
Bottles, jars, and other vessels, Fastener for. J. A. Jones. No. 1,074,437; Sept. 30; Gaz. vol. 194; p. 1069.
Bow rest and lock, Combined. D. J. Macdonald. No. 1,073,503; Sept. 16; Gaz. vol. 194; p. 701.
Bowling-alleys, Back-stop for. H. F. Cook and C. C. Hildreth. No. 1,073,400; Sept. 16; Gaz. vol. 194; p. 667.
Bowling outfit. P. Makray. No. 1,073,431; Sept. 16; Gaz. vol. 194; p. 677.
Box: *See* Antisifting-box; Axle-box; Boiler fire-box; Fare-box; Feed-box; Foldable box; Folding box; Grease-box; Journal-box; Knockdown box; Lunch-box; Metallic box; Outlet-box; Sectional box; Sheet-metal box; Shelf-box; Sound-box; Stuffing-box.
Brace: *See* Knee and ankle brace; Shaft-brace.
Brace-socket wrench. W. S. Bellows. No. 1,072,079; Sept. 2; Gaz. vol. 194; p. 140.
Bracket: *See* Adjustable bracket; Lantern-bracket; Shade-bracket; Shingling-bracket.
Bracket-holder for flower-vases. S. D. R. Braun. No. 1,074,230; Sept. 30; Gaz. vol. 194; p. 1003.
Braiding-machine. S. W. Wardwell. No. 1,073,308; Sept. 16; Gaz. vol. 194; p. 635.
Braiding-machine. O. A. Albrecht. No. 1,073,558; Sept. 16; Gaz. vol. 194; p. 720.
Braiding-machines, Supply-carrier for. S. W. Wardwell. No. 1,072,800; Sept. 9; Gaz. vol. 194; p. 416.
Brake: *See* Car-brake; Friction-brake; Talking-machine brake; Vehicle-brake; Wagon-brake; Wheel-brake.
Brake apparatus. W. H. Jones. No. 1,072,123; Sept. 2; Gaz. vol. 194; p. 155.
Brake-lever, Vehicle. A. M. Harris. No. 1,071,736; Sept. 2; Gaz. vol. 194; p. 28.
Brake-shoe, Composition-filled. H. Jones. No. 1,074,366; Sept. 30; Gaz. vol. 194; p. 1045.
Brake-shoe, Self-adjusting. A. L. Goodknight. No. 1,073,038; Sept. 9; Gaz. vol. 194; p. 502.
Brake-shoes, Back for. G. Cook. No. 1,074,352; Sept. 30; Gaz. vol. 194; p. 1040.
Bread-cutter. W. E. Hanson and T. L. Green. No. 1,072,003; Sept. 2; Gaz. vol. 194; p. 115.
Bread-mixer cabinet. E. J. Sammis. No. 1,074,470; Sept. 30; Gaz. vol. 194; p. 1080.
Bread-rack. I. B. Golden. No. 1,072,000; Sept. 2; Gaz. vol. 194; p. 114.
Breech mechanism, Wedge-block. M. Hermsdorf. No. 1,072,456; Sept. 9; Gaz. vol. 194; p. 296.
Bricks, Drying. J. C. Boss. No. 1,072,302; Sept. 2; Gaz. vol. 194; p. 213.
Bridge or ferry. J. P. M. M. Christensen. No. 1,073,794; Sept. 23; Gaz. vol. 194; p. 824.
Bridle, Harness-. G. L. Forman. No. 1,073,973; Sept. 23; Gaz. vol. 194; p. 885.
Bridle, Harness-. G. L. Forman. No. 1,073,974; Sept. 23; Gaz. vol. 194; p. 886.
Bridle, Harness-. G. L. Forman. No. 1,073,975; Sept. 23; Gaz. vol. 194; p. 886.
Brooder. J. A. Elliott. No. 1,072,217; Sept. 2; Gaz. vol. 194; p. 186.
Brush. W. B. Foster and A. H. Duwelius. No. 1,072,322; Sept. 2; Gaz. vol. 194; p. 219.
Brush, Fountain blacking-. M. W. Nelson. No. 1,074,522; Sept. 30; Gaz. vol. 194; p. 1095.
Brush-handle. J. L. Ford. No. 1,073,034; Sept. 9; Gaz. vol. 194; p. 501.

Brush-holder. H. J. Conklin. No. 1,073,568; Sept. 16; Gaz. vol. 194; p. 723.
Brush holder, Tooth-. H. W. Sorensen. No. 1,071,966; Sept. 2; Gaz. vol. 194; p. 101.
Brush-making machine. E. N. Gaudron. No. 1,072,326; Sept. 2; Gaz. vol. 194; p. 221.
Brush-making machines, Bristle-feeding attachment for. K. Winkler. No. 1,074,399; Sept. 30; Gaz. vol. 194; p. 1056.
Brush receptacle, Antiseptic tooth-. E. Fowler. No. 1,074,169; Sept. 30; Gaz. vol. 194; p. 980.
Brush, Shaving-. M. Jacobs. No. 1,074,324; Sept. 30; Gaz. vol. 194; p. 1081.
Brush, Shaving-. W. J. Duncan. No. 1,074,497; Sept. 30; Gaz. vol. 194; p. 1087.
Brush, Tuft-cleaning. J. H. Hill. No. 1,072,458; Sept. 9; Gaz. vol. 194; p. 297.
Brushes, Soap-holding attachment for. G. C. Beckwith. No. 1,072,077; Sept. 2; Gaz. vol. 194; p. 139.
Bucket. M. C. Kersey. No. 1,074,122; Sept. 30; Gaz. vol. 194; p. 964.
Bucket attachment, Minnow-. C. F. Kraning. No. 1,073,353; Sept. 16; Gaz. vol. 194; p. 651.
Bucket-chain elevator. S. G. Gotuzzo. No. 1,073,803; Sept. 23; Gaz. vol. 194; p. 827.
Buckle. J. E. Redmond. No. 1,072,498; Sept. 9; Gaz. vol. 194; p. 311.
Buckle, Belt-. J. Haller. No. 1,073,115; Sept. 16; Gaz. vol. 194; p. 566.
Buckle, Belt-. T. F. Maloney. No. 1,073,504; Sept. 16; Gaz. vol. 194; p. 701.
Buckle, Harness-. E. Humphreys. No. 1,074,570; Sept. 30; Gaz. vol. 194; p. 1111.
Buckle, Pivoted-tongue. E. Hartmann. No. 1,072,717; Sept. 9; Gaz. vol. 194; p. 386.
Buckle, Sliding-tongue box-. A. H. Greenebaum. No. 1,072,714; Sept. 9; Gaz. vol. 194; p. 385.
Buffer. D. D. Gordon. No. 1,072,847; Sept. 9; Gaz. vol. 194; p. 433.
Building-block. J. C. White. No. 1,073,723; Sept. 23; Gaz. vol. 194; p. 802.
Building construction. P. M. Stewart. No. 1,073,540; Sept. 16; Gaz. vol. 194; p. 713.
Building construction. P. M. Stewart. No. 1,073,542; Sept. 16; Gaz. vol. 194; p. 713.
Building construction. C. P. Pond. No. 1,074,526; Sept. 30; Gaz. vol. 194; p. 1096.
Building-ventilator. T. E. Vaughn and J. E. Bruninga. No. 1,074,143; Sept. 30; Gaz. vol. 194; p. 971.
Bullet. W. A. Tewes. No. 1,072,880; Sept. 9; Gaz. vol. 194; p. 446.
Bullet, Mushroom-. F. O. Hoagland. No. 1,071,742; Sept. 2; Gaz. vol. 194; p. 25.
Bullet, Mushroom-. F. O. Hoagland. No. 1,073,349; Sept. 16; Gaz. vol. 194; p. 650.
Bulletin-board. G. H. Parker. No. 1,073,866; Sept. 23; Gaz. vol. 194; p. 848.
Bung-lock. B. O. Reichardt. No. 1,071,796; Sept. 2; Gaz. vol. 194; p. 45.
Bunion shield or protector. R. E. Turner. No. 1,073,185; Sept. 16; Gaz. vol. 194; p. 590.
Buoy, Bell-. A. Lindstrom. No. 1,072,130; Sept. 2; Gaz. vol. 194; p. 158.
Burner: *See* Gas-burner; Gas and oil burner; Heating and illuminating burner; Hydrocarbon-burner; Lamp-burner; Liquid-fuel burner; Oil-burner; Pear-burner.
Burner, F. W. Rosengren. No. 1,073,711; Sept. 23; Gaz. vol. 194; p. 798.
Burner. H. M. Wiley. No. 1,073,830; Sept. 23; Gaz. vol. 194; p. 836.
Burner. A. Beier. No. 1,074,157; Sept. 30; Gaz. vol. 194; p. 975.
Burning solid fuel. O. B. Evans. No. 1,073,668; Sept. 23; Gaz. vol. 194; p. 782.
Butter, Manufactured and packed. J. M. W. Kitchen. No. 1,072,238; Sept. 2; Gaz. vol. 194; p. 193.
Butter-pat-making machine. G. W. Furbeck. No. 1,073,896; Sept. 23; Gaz. vol. 194; p. 859.
Button buttoner, Collar-. J. M. Newlon. No. 1,073,815; Sept. 23; Gaz. vol. 194; p. 831.
Button, Detachable. J. F. Zak. No. 1,071,855; Sept. 2; Gaz. vol. 194; p. 64.
Button-manufacturing machine. E. Gaudion. No. 1,072,221; Sept. 2; Gaz. vol. 194; p. 187.
Button, Metal-shank. H. L. Davis. No. 1,072,921; Sept. 9; Gaz. vol. 194; p. 461.
Buttonhole reinforcement. Collar-. M. W. Wismer. No. 1,074,077; Sept. 23; Gaz. vol. 194; p. 920.
Cabinet, Medicine-. J. B. Lanoue. No. 1,071,760; Sept. 2; Gaz. vol. 194; p. 32.
Cable. T. Gore. No. 1,071,734; Sept. 2; Gaz. vol. 194; p. 22.
Cable-hangers to their supporting-wires, Tool for attaching aerial. J. C. Kortick. No. 1,072,742; Sept. 9; Gaz. vol. 194; p. 395.
Cableway. E. D. Swan. No. 1,074,140; Sept. 30; Gaz. vol. 194; p. 970.
Caisson construction. C. C. Conkling. No. 1,071,985; Sept. 2; Gaz. vol. 194; p. 108.
Calculating-machine. F. Trinks. No. 1,072,324; Sept. 2; Gaz. vol. 194; p. 220.
Calculating-machine. A. Knistrom. No. 1,072,740; Sept. 9; Gaz. vol. 194; p. 395.
Calculating-machine. D. E. Felt. No. 1,072,933; Sept. 9; Gaz. vol. 194; p. 465.
Calculating-machine. D. E. Felt and J. A. V. Turck. No. 1,072,934; Sept. 9; Gaz. vol. 194; p. 466.
Calculating-machines, Reversing mechanism for. A. Hantsch. No. 1,074,087; Sept. 23; Gaz. vol. 194; p. 923.
Calculating-register. A. G. Black. No. 1,074,347; Sept. 30; Gaz. vol. 194; p. 1038.
Calendar, Automatic. A. T. Zabriskie. No. 1,073,206; Sept. 16; Gaz. vol. 194; p. 597.
Calipers, Attachment for micrometer-. G. P. Kline. No. 1,074,552; Sept. 30; Gaz. vol. 194; p. 1104.
Calk-fastener. J. H. Hershberger. No. 1,072,006; Sept. 2; Gaz. vol. 194; p. 116.
Caloric engine. L. Anderson and E. F. Engel. No. 1,073,065; Sept. 9; Gaz. vol. 194; p. 512.
Camera, Film-. A. E. Harper and H. H. Riggs. No. 1,073,982; Sept. 23; Gaz. vol. 194; p. 889.
Cameras for making stereoscopic moving-picture films, Attachment for taking-. A. Wayditch. No. 1,071,837; Sept. 2; Gaz. vol. 194; p. 58.
Can: *See* Garbage-can; Milk-can; Oil-can; Sardine-can; Slip-cover can.
Can container and milk-server, Milk-. W. T. Duncan. No. 1,072,588; Sept. 9; Gaz. vol. 194; p. 343.
Can-cover fastener, Milk-. J. P. Anderson. No. 1,074,308; Sept. 30; Gaz. vol. 194; p. 1026.
Can-filling machine. C. H. Ayars. No. 1,078,067; Sept. 9; Gaz. vol. 194; p. 513.
Can-head-feed mechanism, A. Johnson. No. 1,074,325; Sept. 30; Gaz. vol. 194; p. 1031.
Can-opener. J. B. Loureiro. No. 1,073,502; Sept. 16; Gaz. vol. 194; p. 701.
Can spout, Oil-. J. D. Melvin. No. 1,072,481; Sept. 9; Gaz. vol. 194; p. 305.
Can-tester, Electrically-driven. C. Downing. No. 1,072,837; Sept. 9; Gaz. vol. 194; p. 430.
Cans, Syrup-filler for fruit-. S. Pittaluga. No. 1,072,771; Sept. 9; Gaz. vol. 194; p. 405.
Candle-holder, Mechanic's. C. M. Andres. No. 1,073,013; Sept. 9; Gaz. vol. 194; p. 494.
Candy-cutting machine. W. H. Hall and F. A. Dupes. No. 1,072,848; Sept. 9; Gaz. vol. 194; p. 433.
Candy, Stick-. M. M. Lehman. No. 1,072,338; Sept. 2; Gaz. vol. 194; p. 225.
Candy-wrapping machine. A. J. Roedel. No. 1,072,505; Sept. 9; Gaz. vol. 194; p. 312.
Canopy-frame, Collapsible. W. H. Snyder. No. 1,072,049; Sept. 2; Gaz. vol. 194; p. 129.
Caoutchouc-like substances, Producing. C. Coutelle. No. 1,073,845; Sept. 23; Gaz. vol. 194; p. 841.
Caoutchouc substance. F. Hofmann, C. Coutelle, K. Melsenburg, and K. Delbrück. No. 1,074,432; Sept. 30; Gaz. vol. 194; p. 1067.
Caoutchouc substance and making same. C. Harries. No. 1,073,116; Sept. 16; Gaz. vol. 194; p. 566.
Cap-making and bottling machine. F. Müller. No. 1,074,520; Sept. 30; Gaz. vol. 194; p. 1094.
Capsule-filling mechanism. J. P. Remington. No. 1,073,286; Sept. 16; Gaz. vol. 194; p. 626.
Car. H. Richter. No. 1,072,501; Sept. 9; Gaz. vol. 194; p. 312.
Car adapted for subway use. A. B. Du Pont. No. 1,073,106; Sept. 16; Gaz. vol. 194; p. 563.
Car and other vehicle wheel, Motor-. A. F. Hawksley. No. 1,072,226; Sept. 2; Gaz. vol. 194; p. 189.
Car attachment, Flat-. P. White. No. 1,073,006; Sept. 9; Gaz. vol. 194; p. 492.
Car body and underframe construction. O. S. Pulliam. No. 1,074,200; Sept. 30; Gaz. vol. 194; p. 990.
Car-brake. O. O. Byrd. No. 1,073,390; Sept. 16; Gaz. vol. 194; p. 663.
Car brake-beam, Railway-. S. A. Crone. No. 1,073,220; Sept. 16; Gaz. vol. 194; p. 603.
Car brake, Railway-. A. L. Miller and W. W. Burdette. No. 1,072,757; Sept. 9; Gaz. vol. 194; p. 400.
Car-brake slack-adjuster. W. S. O'Brien. No. 1,074,558; Sept. 30; Gaz. vol. 194; p. 1106.
Car construction. D. Woodhead. No. 1,071,851; Sept. 2; Gaz. vol. 194; p. 63.
Car construction, Railway-post-office-. C. R. Harrison. No. 1,073,231; Sept. 16; Gaz. vol. 194; p. 607.
Car construction, Tank-. C. L. Kennicott. No. 1,073,423; Sept. 16; Gaz. vol. 194; p. 674.
Car-coupling. A. J. Bazeley. No. 1,072,075; Sept. 2; Gaz. vol. 194; p. 139.
Car-coupling. H. F. Pope. No. 1,072,163; Sept. 2; Gaz. vol. 194; p. 170.
Car-coupling. J. Kovacs. No. 1,073,352; Sept. 16; Gaz. vol. 194; p. 650.
Car-coupling, Bottom-opening. A. J. Bazeley. No. 1,072,076; Sept. 2; Gaz. vol. 194; p. 139.
Car-coupling mechanism. J. Willison. No. 1,073,453; Sept. 16; Gaz. vol. 194; p. 685.
Car-coupling-repairing device. J. Zillus. No. 1,073,383; Sept. 16; Gaz. vol. 194; p. 661.
Car-door, C. E. Sievert. No. 1,073,715; Sept. 23; Gaz. vol. 194; p. 800.
Car door, Box-. C. North. No. 1,072,638; Sept. 9; Gaz. vol. 194; p. 359.
Car-door-closing mechanism. R. W. Ericson. No. 1,072,106; Sept. 2; Gaz. vol. 194; p. 149.
Car door, Dump-. R. W. Burnett. No. 1,072,423; Sept. 9; Gaz. vol. 194; p. 284.
Car door, Grain-. T. Sills. No. 1,073,296; Sept. 16; Gaz. vol. 194; p. 630.

Car door, Grain-. A. G. Olson and J. A. Dols. No. 1,074,193; Sept. 30; Gaz. vol. 194; p. 987.
Car-door mechanism, Passenger-. H. Rowntree. No. 1,073,930; Sept. 23; Gaz. vol. 194; p. 871.
Car-door-operating mechanism, Dump-. B. W. Kadel. No. 1,071,750; Sept. 2; Gaz. vol. 194; p. 28.
Car draft-rigging, Draft-yoke for railway-. S. E. Haseltine. No. 1,073,232; Sept. 16; Gaz. vol. 194; p. 607.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,073,162; Sept. 16; Gaz. vol. 194; p. 581.
Car draft-rigging, Railway-. J. F. O'Connor. No. 1,073,163; Sept. 16; Gaz. vol. 194; p. 581.
Car draft-rigging, Railway-. G. A. Johnson. No. 1,073,241; Sept. 16; Gaz. vol. 194; p. 610.
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Car, Dump-. W. H. Yost. No. 1,072,684; Sept. 9; Gaz. vol. 194; p. 375.
Car end construction, Railway-. V. E. Sisson. No. 1,071,813; Sept. 2; Gaz. vol. 194; p. 50.
Car end construction, Railway-. J. J. Cooper. No. 1,072,431; Sept. 9; Gaz. vol. 194; p. 288.
Car end frame. H. M. Pfager. No. 1,072,646; Sept. 9; Gaz. vol. 194; p. 362.
Car end frame. W. R. Cavner. No. 1,073,663; Sept. 23; Gaz. vol. 194; p. 780.
Car end frame. H. M. Pfager. No. 1,073,706; Sept. 23; Gaz. vol. 194; p. 796.
Car ends, Attaching means for. W. T. Van Dorn. No. 1,074,225; Sept. 30; Gaz. vol. 194; p. 999.
Car extension-step, Railway-. E. M. Condos. No. 1,072,207; Sept. 2; Gaz. vol. 194; p. 183.
Car fender, Street-. A. O. Barroul. No. 1,074,036; Sept. 23; Gaz. vol. 194; p. 906.
Car, Funeral-. I. S. Marvin. No. 1,072,864; Sept. 9; Gaz. vol. 194; p. 439.
Car, Hand-. N. Nelson. No. 1,074,523; Sept. 30; Gaz. vol. 194; p. 1095.
Car, Hopper-. A. Campbell. No. 1,071,699; Sept. 2; Gaz. vol. 194; p. 10.
Car-loader. J. Ecks. No. 1,072,441; Sept. 9; Gaz. vol. 194; p. 291.
Car loader, Box-. A. J. Vivian. No. 1,073,376; Sept. 16; Gaz. vol. 194; p. 658.
Car or the like, Freight-. L. J. Warner. No. 1,072,887; Sept. 9; Gaz. vol. 194; p. 449.
Car, Railway-. J. P. Leggett. No. 1,073,429; Sept. 16; Gaz. vol. 194; p. 676.
Car-roof. N. L. Friese. No. 1,074,255; Sept. 30; Gaz. vol. 194; p. 1008.
Car-spring. G. B. Dorey. No. 1,073,102; Sept. 16; Gaz. vol. 194; p. 561.
Car-stake. E. B. Shields. No. 1,072,516; Sept. 9; Gaz. vol. 194; p. 317.
Car-stake. L. L. Bartlett. No. 1,073,319; Sept. 16; Gaz. vol. 194; p. 638.
Car-stake. W. F. Droste. No. 1,073,892; Sept. 23; Gaz. vol. 194; p. 858.
Car-step. J. B. Gardner. No. 1,072,325; Sept. 2; Gaz. vol. 194; p. 220.
Car stop, Mining-. J. A. Nolan. No. 1,072,977; Sept. 9; Gaz. vol. 194; p. 482.
Car, Tool-. J. W. Kendrick. No. 1,072,618; Sept. 9; Gaz. vol. 194; p. 352.
Car wheel, Mine-. H. A. Holzer. No. 1,074,303; Sept. 30; Gaz. vol. 194; p. 1044.
Car-wheels, Manufacturing. H. R. Keithley. No. 1,073,350; Sept. 16; Gaz. vol. 194; p. 650.
Cars, Device for preventing the derailing of railway-. H. Riddle. No. 1,072,261; Sept. 2; Gaz. vol. 194; p. 199.
Cars, Heat-regulator for. G. H. Winans. No. 1,072,408; Sept. 2; Gaz. vol. 194; p. 252.
Cars, Hood of motor-. A. Aumüller. No. 1,074,232; Sept. 30; Gaz. vol. 194; p. 1001.
Carbon, Regenerating of decolorizing-. A. Wijnberg. No. 1,074,337; Sept. 30; Gaz. vol. 194; p. 1035.
Carbureter. F. H. and F. O. Ball. No. 1,071,858; Sept. 2; Gaz. vol. 194; p. 65.
Carbureter. H. W. Alden. No. 1,072,376; Sept. 2; Gaz. vol. 194; p. 240.
Carbureter. G. S. Pierson. No. 1,072,492; Sept. 9; Gaz. vol. 194; p. 308.
Carbureter. J. Bräutigam. No. 1,072,565; Sept. 9; Gaz. vol. 194; p. 335.
Carbureter. R. W. Kaltenbach. No. 1,072,733; Sept. 9; Gaz. vol. 194; p. 392.
Carbureter. E. Sprung. No. 1,073,179; Sept. 16; Gaz. vol. 194; p. 588.
Carbureter. C. H. Claudel. No. 1,073,473; Sept. 16; Gaz. vol. 194; p. 692.
Carbureter. W. L. Marr. No. 1,073,695; Sept. 23; Gaz. vol. 194; p. 791.
Carbureter. L. Atwood. No. 1,073,727; Sept. 23; Gaz. vol. 194; p. 803.
Carbureter. E. A. Riotte. No. 1,074,574; Sept. 30; Gaz. vol. 194; p. 1112.
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Carbureter. E. S. Smith. No. 1,074,577; Sept. 30; Gaz. vol. 194; p. 1133.
Carbureter mechanism. M. L. Sammons. No. 1,072,875; Sept. 9; Gaz. vol. 194; p. 444.
Carcass-hangers, Locking device for. C. A. Richards. No. 1,072,871; Sept. 9; Gaz. vol. 194; p. 442.
Card-case. E. O. Loveland. No. 1,073,788; Sept. 23; Gaz. vol. 194; p. 817.
Card, Hand-. V. J. Bissonnette and A. M. Linn. No. 1,073,842; Sept. 23; Gaz. vol. 194; p. 840.
Card wire, Jacquard-. L. S. Cannon. No. 1,072,572; Sept. 9; Gaz. vol. 194; p. 337.
Cards, pictures, and the like, Support for. J. M. Washburn. No. 1,071,836; Sept. 2; Gaz. vol. 194; p. 58.
Carding articles of merchandise. N. M. Doen. No. 1,072,836; Sept. 9; Gaz. vol. 194; p. 429.
Carpet-stretcher. T. J. Gibbons. No. 1,072,599; Sept. 9; Gaz. vol. 194; p. 346.
Carpet-sweeper, Suction. J. M. Spangler. No. 1,073,301; Sept. 16; Gaz. vol. 194; p. 632.
Carriage, Child's. W. W. Williams. No. 1,073,379; Sept. 16; Gaz. vol. 194; p. 659.
Carriage, Child's. J. W. R. Andrews. No. 1,074,583; Sept. 30; Gaz. vol. 194; p. 1116.
Carriage-door bumper. A. D. Methven. No. 1,072,141; Sept. 2; Gaz. vol. 194; p. 162.
Carriage for ropeways and the like. F. Döhle. No. 1,073,410; Sept. 16; Gaz. vol. 194; p. 671.
Carrier: *See* Draw-bar carrier; Egg-carrier; Hay-carrier; Pneumatic carrier; Tubular carrier.
Carrier. J. L. Riley. No. 1,074,205; Sept. 30; Gaz. vol. 194; p. 992.
Carrying mechanism. A. Hantsch. No. 1,074,086; Sept. 23; Gaz. vol. 194; p. 923.
Cartridge-holder. W. W. Uren. No. 1,073,721; Sept. 23; Gaz. vol. 194; p. 802.
Cartridge-making machine. H. D. Hodge. No. 1,073,127; Sept. 16; Gaz. vol. 194; p. 570.
Cartridge, Shot-. E. M. Sweeley. No. 1,073,940; Sept. 23; Gaz. vol. 194; p. 875.
Carving-machine. M. F. Tunes. No. 1,073,547; Sept. 16; Gaz. vol. 194; p. 715.
Case: *See* Card-case; Cigarette-case; Filing-case; Fireproof filing-case; Hat-case; Note-case.
Case-hardening, &c. A. W. Machlet. No. 1,072,134; Sept. 2; Gaz. vol. 194; p. 159.
Cash-register. J. H. McCormick. No. 1,071,768; Sept. 2; Gaz. vol. 194; p. 34.
Cash-register. E. J. von Pein. No. 1,071,788; Sept. 2; Gaz. vol. 194; p. 42.
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Casing-elevator. S. A. Guiberson, Jr. No. 1,073,750; Sept. 23; Gaz. vol. 194; p. 811.
Casing-elevator. S. A. Guiberson, Jr. No. 1,073,751; Sept. 23; Gaz. vol. 194; p. 811.
Casket, Burial-. P. C. Simmons. No. 1,072,182; Sept. 2; Gaz. vol. 194; p. 175.
Caster, Furniture-. A. B. Diss. No. 1,072,210; Sept. 2; Gaz. vol. 194; p. 184.
Casting apparatus. W. H. Connell. No. 1,074,250; Sept. 30; Gaz. vol. 194; p. 1006.
Casting apparatus, Metal-. A. A. King. No. 1,072,738; Sept. 9; Gaz. vol. 194; p. 394.
Casting ingots. J. R. Hoyle and A. W. Brearley. No. 1,073,988; Sept. 23; Gaz. vol. 194; p. 891.
Casting-machine. W. W. McCarter. No. 1,072,480; Sept. 9; Gaz. vol. 194; p. 305.
Castings, Making sound. F. D. Carney and L. B. Lindemuth. No. 1,073,735; Sept. 23; Gaz. vol. 194; p. 806.
Celery-wrapping machine. M. W. Earl. No. 1,071,899; Sept. 2; Gaz. vol. 194; p. 80.
Cellulose esters, Articles composed of. H. S. Mork. No. 1,074,092; Sept. 23; Gaz. vol. 194; p. 925.
Cement-mixing machine. L. A. Davis. No. 1,072,318; Sept. 2; Gaz. vol. 194; p. 218.
Cement, Production of Portland. J. W. Richards and W. S. Landis. No. 1,073,820; Sept. 23; Gaz. vol. 194; p. 833.
Centrifugal drier. J. T. Psarski. No. 1,071,956; Sept. 2; Gaz. vol. 194; p. 97.
Certificate. C. B. F. Lincoln. No. 1,072,341; Sept. 2; Gaz. vol. 194; p. 226.
Chain-swivels, Manufacture of. G. Bischoff. No. 1,073,841; Sept. 23; Gaz. vol. 194; p. 840.
Chair: *See* Barber's chair.
Chair. I. G. Pollard. No. 1,074,012; Sept. 23; Gaz. vol. 194; p. 899.
Chair attachment, Rocking-. J. C. Ryan. No. 1,072,995; Sept. 9; Gaz. vol. 194; p. 489.
Chalk-holder. S. McGowan and L. Line. No. 1,072,247; Sept. 2; Gaz. vol. 194; p. 196.
Chandelier attachment, Electric. H. Leik. No. 1,072,625; Sept. 9; Gaz. vol. 194; p. 355.
Chart, Saloon-stock-recording. C. C. Rush. No. 1,073,364; Sept. 16; Gaz. vol. 194; p. 654.
Chases. F. F. Cox. No. 1,072,092; Sept. 2; Gaz. vol. 194; p. 144.
Check-issuing machine. E. T. Middlemiss. No. 1,073,272; Sept. 16; Gaz. vol. 194; p. 622.
Chemical apparatus. J. O. Halverson. No. 1,072,330; Sept. 2; Gaz. vol. 194; p. 222.
Chimney-flue reverser. S. S. Covert. No. 1,074,252; Sept. 30; Gaz. vol. 194; p. 1007.
Chimney-protector. J. H. Wood. No. 1,072,199; Sept. 2; Gaz. vol. 194; p. 181.
Chimney, ventilator, and the like. T. Pattison. No. 1,071,951; Sept. 2; Gaz. vol. 194; p. 96.
Chopper: *See* Cotton-chopper.

Chuck. R. A. Merrill. No. 1,071,940; Sept. 2; Gaz. vol. 194; p. 93.
Chuck. F. P. Miller. No. 1,072,142; Sept. 2; Gaz. vol. 194; p. 162.
Chuck, Power-operated. W. L. Miller. No. 1,074,280; Sept. 30; Gaz. vol. 194; p. 1016.
Churn. A. C. Willis. No. 1,072,801; Sept. 9; Gaz. vol. 194; p. 416.
Cigar-holder. J. J. Zarker. No. 1,073,457; Sept. 16; Gaz. vol. 194; p. 687.
Cigar-lighter and pencil-point protector, Combined. F. McIntyre. No. 1,074,555; Sept. 30; Gaz. vol. 194; p. 1105.
Cigar-tip cutter. B. E. Miller. No. 1,073,615; Sept. 23; Gaz. vol. 194; p. 761.
Cigarette. J. Kattar. No. 1,073,422; Sept. 16; Gaz. vol. 194; p. 674.
Cigarette-case. J. W. H. Pattison. No. 1,074,573; Sept. 30; Gaz. vol. 194; p. 1111.
Cigarette-machines, Tobacco-delivery apparatus for. E. Schürmann. No. 1,073,937; Sept. 23; Gaz. vol. 194; p. 873.
Circuit-breaker. F. L. Sessions. No. 1,072,178; Sept. 2; Gaz. vol. 194; p. 174.
Circuit-closer, Thermostatic. C. V. Fite. No. 1,074,544; Sept. 30; Gaz. vol. 194; p. 1102.
Circuit-closing contact, Rail-. F. Prochaska. No. 1,072,030; Sept. 2; Gaz. vol. 194; p. 124.
Circuit-controller. H. McCready. No. 1,071,769; Sept. 2; Gaz. vol. 194; p. 35.
Circuit-controlling contact. E. M. Hewlett. No. 1,074,431; Sept. 30; Gaz. vol. 194; p. 1067.
Clam-digger. J. Schoos. No. 1,074,532; Sept. 30; Gaz. vol. 194; p. 1097.
Clamp: *See* Fence-clamp; Gas and electric outlet clamp; Guy-clamp; Hose-clamp; Meat-clamp; Miter-clamp; Printer's form-clamp; Pull-rod clamp; Rail-clamp; Suspension-clamp; Wagon-seat clamp.
Clamp. J. E. Dabbs. No. 1,073,964; Sept. 23; Gaz. vol. 194; p. 883.
Clasp: *See* Necktie-clasp.
Clasp. W. J. Shorten. No. 1,073,714; Sept. 23; Gaz. vol. 194; p. 799.
Classifier for solid material. R. E. Trottier. No. 1,074,301; Sept. 30; Gaz. vol. 194; p. 1023.
Clay-granulating apparatus. F. Lambert. No. 1,073,425; Sept. 16; Gaz. vol. 194; p. 675.
Cleaner: *See* Ballast-cleaner; Boiler-flue cleaner; Cotton-cleaner; Flat-iron cleaner; Street-cleaner; Top-comb cleaner.
Cleaning apparatus. I. H. Spencer. No. 1,072,783; Sept. 9; Gaz. vol. 194; p. 410.
Cleaning metal goods and paintwork, Composition for. A. D. Frood. No. 1,071,728; Sept. 2; Gaz. vol. 194; p. 20.
Climbing device, Pole-. W. S. Morris. No. 1,073,158; Sept. 16; Gaz. vol. 194; p. 580.
Clip: *See* Halter-rope clip; Pencil-clip.
Clip-fastening, Metallic. G. H. Barbour. No. 1,073,082; Sept. 16; Gaz. vol. 194; p. 555.
Clock. G. Kern. No. 1,073,608; Sept. 23; Gaz. vol. 194; p. 759.
Clock. W. B. Rikard. No. 1,074,204; Sept. 30; Gaz. vol. 194; p. 991.
Clock, Alarm-. G. J. Jaccard. No. 1,074,436; Sept. 30; Gaz. vol. 194; p. 1069.
Clock-dial. F. E. Windsor. No. 1,072,554; Sept. 9; Gaz. vol. 194; p. 331.
Clock, Switch-. W. H. Mellor and C. E. Oeth. No. 1,074,129; Sept. 30; Gaz. vol. 194; p. 967.
Clocks, Means for regulating receptor-. G. A. Goodson. No. 1,073,675; Sept. 23; Gaz. vol. 194; p. 784.
Closet-seat cover, Sanitary. H. Luthl. No. 1,071,933; Sept. 2; Gaz. vol. 194; p. 91.
Closure. A. Solomon. No. 1,074,023; Sept. 23; Gaz. vol. 194; p. 902.
Cloth-marking machine. J. A. Firsching. No. 1,072,708; Sept. 9; Gaz. vol. 194; p. 384.
Clothes-hanger rack. W. M. Johnson. No. 1,073,495; Sept. 16; Gaz. vol. 194; p. 698.
Clothes-horse, Collapsible. W. Kalitzky. No. 1,073,763; Sept. 23; Gaz. vol. 194; p. 815.
Clothes-line fastener. J. R. and P. Kool. No. 1,074,124; Sept. 30; Gaz. vol. 194; p. 965.
Clothes-line hanger. J. J. Gould. No. 1,073,230; Sept. 16; Gaz. vol. 194; p. 607.
Clothes-line tightener. D. Palin. No. 1,073,512; Sept. 16; Gaz. vol. 194; p. 704.
Clothes-pounder. R. E. Beaubien. No. 1,074,593; Sept. 30; Gaz. vol. 194; p. 1120.
Clutch. F. S. Ellett. No. 1,071,992; Sept. 2; Gaz. vol. 194; p. 111.
Clutch construction. P. Evans. No. 1,074,500; Sept. 30; Gaz. vol. 194; p. 1088.
Clutch for mine-cages, Safety-. B. B. Roberts. No. 1,072,362; Sept. 2; Gaz. vol. 194; p. 234.
Clutch, Friction-. C. Hoerl. No. 1,073,685; Sept. 23; Gaz. vol. 194; p. 787.
Clutch-operating means. W. W. Hartman and H. S. Cahn. No. 1,072,116; Sept. 2; Gaz. vol. 194; p. 153.
Coal and the waste materials thereof, Apparatus for separating fine. G. B. Damon. No. 1,072,833; Sept. 9; Gaz. vol. 194; p. 428.
Coal-washer. J. B. Keenam. No. 1,073,992; Sept. 23; Gaz. vol. 194; p. 893.
Coat-hanger. A. J. Gilsdorf. No. 1,073,599; Sept. 23; Gaz. vol. 194; p. 755.
Coating machines, Article-holder for liquid-. R. A. Beausejour. No. 1,072,810; Sept. 9; Gaz. vol. 194; p. 420.
Cock-seat dresser-guide, Ball-. G. W. Redeker. No. 1,073,362; Sept. 16; Gaz. vol. 194; p. 654.
Cock, Steam-boiler gage-. H. W. Hoover. No. 1,072,850; Sept. 9; Gaz. vol. 194; p. 434.
Cock, Stop and waste or drain. W. E. Burke. No. 1,073,953; Sept. 23; Gaz. vol. 194; p. 879.
Cocks, valves, and the like from a distance, Means for operating. J. M. F. H. Gil. No. 1,074,428; Sept. 30; Gaz. vol. 194; p. 1066.
Cocoa derivative and separating constituents of the cacao-bean. R. N. Riddle. No. 1,073,441; Sept. 16; Gaz. vol. 194; p. 681.
Coffee-pot. H. L. Johnston. No. 1,073,688; Sept. 23; Gaz. vol. 194; p. 789.
Coils, Making. R. Varley. No. 1,073,059; Sept. 9; Gaz. vol. 194; p. 510.
Coin-controlled device, Electric. F. E. Dodge and N. M. Loomis. No. 1,074,496; Sept. 30; Gaz. vol. 194; p. 1087.
Coin-package wrapper. C. S. Batdorf. No. 1,073,575; Sept. 16; Gaz. vol. 194; p. 726.
Coke-loader. P. R. Jordan and W. Wright. No. 1,072,731; Sept. 9; Gaz. vol. 194; p. 391.
Coke-oven door. H. Kickert. No. 1,072,857; Sept. 9; Gaz. vol. 194; p. 437.
Colander. S. E. Boyd. No. 1,073,732; Sept. 23; Gaz. vol. 194; p. 805.
Collar attachment. H. Roeder. No. 1,073,710; Sept. 23; Gaz. vol. 194; p. 798.
Collar for horses, Draft-. H. S. Baughman. No. 1,073,657; Sept. 23; Gaz. vol. 194; p. 777.
Collar, Soft fold-. H. F. Hurd. No. 1,073,132; Sept. 16; Gaz. vol. 194; p. 572.
Collars, Making. A. J. Cumnock. No. 1,073,080; Sept. 9; Gaz. vol. 194; p. 518.
Colophony and colophony-soap, Making. J. Aktschourin. No. 1,074,339; Sept. 30; Gaz. vol. 194; p. 1036.
Color-lakes. H. Wagner and J. Kohlhaas. No. 1,071,832; Sept. 2; Gaz. vol. 194; p. 57.
Coloring-matter, Azo. O. Günther. No. 1,074,429; Sept. 30; Gaz. vol. 194; p. 1066.
Coloring-matters, Manufacture of. O. Siepermann. No. 1,073,784; Sept. 23; Gaz. vol. 194; p. 822.
Combination-lock for plug-and-socket fixtures. G. I. Silbert. No. 1,073,295; Sept. 16; Gaz. vol. 194; p. 629.
Combustion-engine. G. Fornaca. No. 1,073,671; Sept. 23; Gaz. vol. 194; p. 782.
Commutator-trimming machine. T. E. Chappell. No. 1,072,410; Sept. 2; Gaz. vol. 194; p. 252.
Composing-machine, Typograph. J. Dorneth. No. 1,072,927; Sept. 9; Gaz. vol. 194; p. 463.
Composing-machine, Typographical. R. F. Barnes. No. 1,071,981; Sept. 2; Gaz. vol. 194; p. 106.
Composing-machine, Typographical. J. R. Rogers. No. 1,072,653; Sept. 9; Gaz. vol. 194; p. 364.
Compression-table and system of operation for the same. S. T. Hutton. No. 1,074,120; Sept. 30; Gaz. vol. 194; p. 964.
Compressor-controlling device. R. Conrader. No. 1,072,576; Sept. 9; Gaz. vol. 194; p. 339.
Compressors and pumps, Unloader and starter for. E. Friedrichs. No. 1,073,801; Sept. 23; Gaz. vol. 194; p. 827.
Computing device. A. H. C. Hornbostel and J. H. Croswhite. No. 1,074,433; Sept. 30; Gaz. vol. 194; p. 1067.
Concentrator, Centrifugal. M. P. Boss. No. 1,071,870; Sept. 2; Gaz. vol. 194; p. 69.
Concrete arch. C. D. Kelly and P. Mahoney. No. 1,074,268; Sept. 30; Gaz. vol. 194; p. 1012.
Concrete, &c., Bar for reinforcing. F. C. Schmitz. No. 1,071,803; Sept. 2; Gaz. vol. 194; p. 47.
Concrete building, Sectional. C. Zeimet. No. 1,072,293; Sept. 2; Gaz. vol. 194; p. 210.
Concrete caps on piles, Apparatus for forming. L. Pierce. No. 1,072,401; Sept. 9; Gaz. vol. 194; p. 308.
Concrete construction. F. H. Howard. No. 1,072,230; Sept. 2; Gaz. vol. 194; p. 190.
Concrete construction, Reinforced. C. A. P. Turner. No. 1,072,532; Sept. 9; Gaz. vol. 194; p. 323.
Concrete-distributer. P. A. Koehring. (Reissue.) No. 13,617; Sept. 16; Gaz. vol. 194; p. 729.
Concrete-mixer. W. D. Wise. No. 1,071,848; Sept. 2; Gaz. vol. 194; p. 62.
Concrete-mixer, Gravity. G. W. Mills and J. E. Simpson. No. 1,072,143; Sept. 2; Gaz. vol. 194; p. 163.
Concrete railway-tie. C. E. Lease. No. 1,073,256; Sept. 16; Gaz. vol. 194; p. 615.
Concrete reinforcement. G. C. Royse. No. 1,073,931; Sept. 23; Gaz. vol. 194; p. 872.
Concrete skylight, vault-light, and floor-light, Constructing a. L. W. Mulford. No. 1,072,147; Sept. 2; Gaz. vol. 194; p. 164.
Concrete socket-pile. K. D MacLean. No. 1,074,275; Sept. 30; Gaz. vol. 194; p. 1015.
Concrete veneer, Ornamental reinforced-. J. J. Miller. No. 1,072,760; Sept. 9; Gaz. vol. 194; p. 401.
Condenser, Electrolytic. C. I. Zimmerman. No. 1,074,231; Sept. 30; Gaz. vol. 194; p. 1001.
Condensing mixtures of hydrocarbon and steam, Cooler for. C. Still. No. 1,073,302; Sept. 16; Gaz. vol. 194; p. 632.

Conduits, Shut-off system for. I. Gillen. No. 1,072,938; Sept. 9; Gaz. vol. 194; p. 468.
Connection. Z. P. Candee. No. 1,072,425; Sept. 9; Gaz. vol. 194; p. 285.
Contact device. J. J. H. W. Weenen. No. 1,072,540; Sept. 9; Gaz. vol. 194; p. 325.
Container, Liquid-. J. Ballance. No. 1,071,859; Sept. 2; Gaz. vol. 194; p. 66.
Controller. C. E. Cochran. No. 1,073,397; Sept 16; Gaz. vol. 194; p. 666.
Controller-regulator. R. Marx. No. 1,074,512; Sept. 30; Gaz. vol. 194; p. 1091.
Controlling mechanism. E. J. F. Rea and C. E. Clark. No. 1,074,065; Sept. 23; Gaz. vol. 194; p. 915.
Controlling mechanism. R. Davis. No. 1,074,495; Sept. 30; Gaz. vol. 194; p. 1086.
Conveyer. N. P. Jorgenson. No. 1,074,182; Sept. 30; Gaz. vol. 194; p. 984.
Conveyer and spiral chute, Combined tray-. M. C. Schwab. No. 1,074,387; Sept. 30; Gaz. vol. 194; p. 1052.
Conveyer, Portable. J. and E. S. Legris. No. 1,073,054; Sept. 9; Gaz. vol. 194; p. 508.
Conveyers, Deflector for gravity-. M. C. Schwab. No. 1,072,175; Sept. 2; Gaz. vol. 194; p. 173.
Conveyers, Stripping mechanism for. J. E. Kelso. No. 1,073,907; Sept. 23; Gaz. vol. 194; p. 862.
Conveying and discharging apparatus, Magnetically-operated. W. G. Wilson. No. 1,071,847; Sept. 2; Gaz. vol. 194; p. 61.
Cooker and range, Combined fireless. V. W. Pallesen and J. Paulson. No. 1,073,924; Sept. 23; Gaz. vol. 194; p. 869.
Cooking apparatus, Meat-. A. R. Lendner. No. 1,073,915; Sept. 23; Gaz. vol. 194; p. 866.
Cooking device, Electric. C. E. Sargent. No. 1,072,170; Sept. 2; Gaz. vol. 194; p. 171.
Cooking utensil. C. K. Grive. No. 1,071,909; Sept. 2; Gaz. vol. 194; p. 83.
Cooking utensil. J. H. Wilson. No. 1,072,892; Sept. 9; Gaz. vol. 194; p. 451.
Cooler: *See* Cream-cooler.
Copy-holder. R. A. Hill. No. 1,074,430; Sept. 30; Gaz. vol. 194; p. 1066.
Core-arbors, Device for connecting. E. M. Wright. No. 1,073,010; Sept. 9; Gaz. vol. 194; p. 493.
Cork holder and lifter. E. A. Reap and J. C. Johnston. No. 1,074,015; Sept. 23; Gaz. vol. 194; p. 899.
Corn-husking machine. E. Keith. No. 1,071,925; Sept. 2; Gaz. vol. 194; p. 88.
Corn rack, Seed-. G. W. Whitworth. No. 1,071,842; Sept. 2; Gaz. vol. 194; p. 60.
Cornet. E. A. Couturier. No. 1,073,593; Sept. 23; Gaz. vol. 194; p. 754.
Corset, Apparel-. D. Kops. No. 1,072,128; Sept. 2; Gaz. vol. 194; p. 157.
Corset, Apparel-. D. Kops. No. 1,072,862; Sept. 9; Gaz. vol. 194; p. 439.
Cotton-bolls, Apparatus for maturing immature and frost-bitten. J. E. Lee. No. 1,073,914; Sept. 23; Gaz. vol. 194; p. 865.
Cotton-chopper. S. H. Lilles and R. J. Baucom. No. 1,073,355; Sept. 16; Gaz. vol. 194; p. 651.
Cotton-chopper. W. A. Crow. No. 1,074,494; Sept. 30; Gaz. vol. 194; p. 1086.
Cotton cleaner, Seed-. M. R. Davis. No. 1,071,987; Sept. 2; Gaz. vol. 194; p. 108.
Cotton-gin-feeding mechanism. A. Riemenschneider. No. 1,074,016; Sept. 23; Gaz. vol. 194; p. 900.
Cotton-gin, Roller. S. D. Shepperd. No. 1,074,534; Sept. 30; Gaz. vol. 194; p. 1098.
Cotton-gins, Comb-roll for roller. S. D. Shepperd. No. 1,074,473; Sept. 30; Gaz. vol. 194; p. 1080.
Cotton-opening machines, Evener for. J. C. Potter. No. 1,072,640; Sept. 9; Gaz. vol. 194; p. 363.
Cotton-picker machine. A. St. Onge. No. 1,073,785; Sept. 23; Gaz. vol. 194; p. 822.
Cotton-presses, Automatic packer mechanism for. J. F. Smith. No. 1,074,022; Sept. 23; Gaz. vol. 194; p. 902.
Couch, Collapsible. C. J. Ayrea. No. 1,072,297; Sept. 2; Gaz. vol. 194; p. 212.
Counter-buffing machine. N. A. Monfils. No. 1,072,868; Sept. 9; Gaz. vol. 194; p. 441.
Coupling: *See* Air-coupling; Automatic coupling; Car-coupling; Hose-coupling; Pipe-coupling; Shaft-coupling; Thill-coupling; Valved coupling; Vehicle-coupling.
Couplings, Pivot-pin support for. H. F. Pope. No. 1,072,162; Sept. 2; Gaz. vol. 194; p. 169.
Cover-fastener. E. F. Jones. No. 1,073,136; Sept. 16; Gaz. vol. 194; p. 573.
Cover-fastener. B. F. Ford. No. 1,073,482; Sept. 16; Gaz. vol. 194; p. 695.
Covering-machine. A. Beutler. No. 1,073,085; Sept. 16; Gaz. vol. 194; p. 556.
Crane, Outdoor cooking-. E. W. Wall. No. 1,071,834; Sept. 2; Gaz. vol. 194; p. 57.
Cranking device. J. B. Eastes. No. 1,071,990; Sept. 2; Gaz. vol. 194; p. 110.
Crate, Breeding-. J. D. Spangler. No. 1,073,369; Sept. 16; Gaz. vol. 194; p. 656.
Crate, Crab-. C. A. Loockerman. No. 1,073,356; Sept. 16; Gaz. vol. 194; p. 651.
Crate, Knockdown. T. Cooke. No. 1,072,826; Sept. 9; Gaz. vol. 194; p. 426.
Crate or shipping-box, Egg-. L. D. Morton. No. 1,072,487; Sept. 9; Gaz. vol. 194; p. 307.
Crate, Resilient fruit-. I. Hill. No. 1,074,323; Sept. 30; Gaz. vol. 194; p. 1030.
Cream-cooler. J. O. Hocher. No. 1,074,361; Sept. 30; Gaz. vol. 194; p. 1043.
Cream, Cosmetic. R. C. and E. D. Thomas. No. 1,073,787; Sept. 23; Gaz. vol. 194; p. 823.
Cream-separator and churn. A. Fay. No. 1,072,219; Sept. 2; Gaz. vol. 194; p. 187.
Creel. J. P. Cronin. No. 1,072,580; Sept. 9; Gaz. vol. 194; p. 340.
Cross-tie. H. L. Day. No. 1,073,406; Sept. 16; Gaz. vol. 194; p. 669.
Crossing. W. Keffer. No. 1,072,855; Sept. 9; Gaz. vol. 194; p. 436.
Crown-pin extractor. F. H. Skinner. No. 1,072,517; Sept. 9; Gaz. vol. 194; p. 317.
Crucible-furnace. H. Koch. No. 1,073,912; Sept. 23; Gaz. vol. 194; p. 865.
Cruppers, Machine for stuffing. J. B. Bastian. No. 1,074,155; Sept. 30; Gaz. vol. 194; p. 975.
Crushing-machine. E. B. Symons. No. 1,072,193; Sept. 2; Gaz. vol. 194; p. 179.
Crushing-mill. T. J. Sturtevant. No. 1,072,057; Sept. 2; Gaz. vol. 194; p. 132.
Crushing-mill. T. J. Sturtevant. No. 1,072,058; Sept. 2; Gaz. vol. 194; p. 132.
Crushing-mill. T. J. Sturtevant. No. 1,072,059; Sept. 2; Gaz. vol. 194; p. 132.
Crutch, Adjustable. F. H. Jones. No. 1,073,991; Sept. 23; Gaz. vol. 194; p. 892.
Cuff-fastener. S. Friedmann. No. 1,072,110; Sept. 2; Gaz. vol. 194; p. 151.
Culinary apparatus. E. J. Ovington. No. 1,072,154; Sept. 2; Gaz. vol. 194; p. 167.
Cultivator. J. H. Foster. No. 1,073,672; Sept. 23; Gaz. vol. 194; p. 783.
Cultivator. L. Kanyo. No. 1,074,502; Sept. 30; Gaz. vol. 194; p. 1089.
Cultivator and plow attachment. A. W. Daniels. No. 1,074,166; Sept. 30; Gaz. vol. 194; p. 979.
Cultivator attachment. C. W. Hill. No. 1,072,119; Sept. 2; Gaz. vol. 194; p. 154.
Cultivator attachment. W. F. Boud. No. 1,074,487; Sept. 30; Gaz. vol. 194; p. 1084.
Cultivator, Orchard-. E. Brown. No. 1,073,325; Sept. 16; Gaz. vol. 194; p. 641.
Cultivator-tooth. J. J. Stalder. No. 1,073,642; Sept. 23; Gaz. vol. 194; p. 771.
Culvert. J. H. Schlafly. No. 1,072,173; Sept. 2; Gaz. vol. 194; p. 172.
Culvert-form, Concrete. G. W. Countryman. No. 1,074,492; Sept. 30; Gaz. vol. 194; p. 1086.
Culverts, Fastening means for butt-joint metal. J. H. Dean. No. 1,073,965; Sept. 23; Gaz. vol. 194; p. 883.
Cup: *See* Douche-cup; Drinking-cup; Grease-cup; Measuring-cup.
Curling-iron, Electrically-heated. F. A. English. No. 1,073,336; Sept. 16; Gaz. vol. 194; p. 644.
Current-machine-controlling system, Alternating-. G. Winter and F. Eichberg. No. 1,073,200; Sept. 16; Gaz. vol. 194; p. 595.
Current-motor. J. W. Ingison. No. 1,071,748; Sept. 2; Gaz. vol. 194; p. 27.
Current-motor. S. Hicks. No. 1,071,918; Sept. 2; Gaz. vol. 194; p. 86.
Current motor, Alternating-. H. L. Zabriskie. No. 1,074,152; Sept. 30; Gaz. vol. 194; p. 974.
Current-transmitting instrument. C. D. Lanning. No. 1,073,692; Sept. 23; Gaz. vol. 194; p. 790.
Curtain and shade support. W. J. Jones. No. 1,073,074; Sept. 9; Gaz. vol. 194; p. 516.
Curtain-fastener. W. Gates. No. 1,071,996; Sept. 2; Gaz. vol. 194; p. 113.
Curtain-holder. F. P. West. No. 1,072,063; Sept. 2; Gaz. vol. 194; p. 134.
Curtain-pole. E. Cash. No. 1,071,877; Sept. 2; Gaz. vol. 194; p. 72.
Curtain-pole. P. W. Dohoney. No. 1,072,214; Sept. 2; Gaz. vol. 194; p. 185.
Curtain-pole. S. Sobocienski. No. 1,073,938; Sept. 23; Gaz. vol. 194; p. 874.
Curtain-pole. A. M. Clark. No. 1,074,164; Sept. 30; Gaz. vol. 194; p. 978.
Curtain-pole. S. Kay. No. 1,074,267; Sept. 30; Gaz. vol. 194; p. 1012.
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Curtain stretcher, Lace-. A. Rogalski. No. 1,073,290; Sept. 16; Gaz. vol. 194; p. 628.
Curtain-supporter. A. Monich. No. 1,072,144; Sept. 2; Gaz. vol. 194; p. 163.
Cushion-cleaning machine. J. A. Fritsch. No. 1,072,843; Sept. 9; Gaz. vol. 194; p. 432.
Cuspidor. F. A. McGuire. No. 1,072,140; Sept. 2; Gaz. vol. 194; p. 161.
Cuspidor. A. C. Murdock. No. 1,074,521; Sept. 30; Gaz. vol. 194; p. 1094.
Cuspidor, Pocket-. W. A. Brotherton. No. 1,072,695; Sept. 9; Gaz. vol. 194; p. 379.
Cuspidor, Sanitary. T. A. Stevens. No. 1,071,820; Sept. 2; Gaz. vol. 194; p. 53.

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Cutter. E. Lawrenz. No. 1,073,254; Sept. 16; Gaz. vol. 194; p. 615.
Cutter. E. Lawrenz. No. 1,073,255; Sept. 16; Gaz. vol. 194; p. 615.
Cutter-head. V. R. Koontz. No. 1,072,127; Sept. 2; Gaz. vol. 194; p. 156.
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Cutter-head, Circular. F. Stutzman. No. 1,071,970; Sept. 2; Gaz. vol. 194; p. 102.
Cutting and embossing device. F. H. Cook and C. C. Stannard. No. 1,072,915; Sept. 9; Gaz. vol. 194; p. 459.
Cutting device. E. N. Humphrey. No. 1,073,581; Sept. 16; Gaz. vol. 194; p. 728.
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Cyanogen compounds and the like, Producing. C. E. Acker. No. 1,072,373; Sept. 2; Gaz. vol. 194; p. 239.
Cycle-frame. F. Diepenhorst and A. Diehl. No. 1,071,892; Sept. 2; Gaz. vol. 194; p. 78.
Cycle seat, Motor-. F. G. Kimpel. No. 1,074,438; Sept. 30; Gaz. vol. 194; p. 1070.
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Dam for irrigating ditches, Folding. W. A. Linkletter. (Reissue.) No. 13,622; Sept. 30; Gaz. vol. 194; p. 1121.
Damper, Regulating-. W. B. Fowler. No. 1,072,323; Sept. 2; Gaz. vol. 194; p. 220.
Damper-regulator, Liquid-operated. S. P. and J. W. Belt. No. 1,071,864; Sept. 2; Gaz. vol. 194; p. 68.
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Dauber. D. W. Smith. No. 1,071,965; Sept. 2; Gaz. vol. 194; p. 100.
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Davenport-divan. J. Kramer and R. R. Miller. No. 1,071,757; Sept. 2; Gaz. vol. 194; p. 30.
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Davit tackle-block. J. T. Bell. No. 1,073,730; Sept. 23; Gaz. vol. 194; p. 804.
De-aerator. F. S. Strite. No. 1,072,670; Sept. 9; Gaz. vol. 194; p. 371.
Decanting or settling liquids, Apparatus for. R. Körner. No. 1,073,146; Sept. 16; Gaz. vol. 194; p. 576.
Delivery-receptacle. L. T. La Paugh. No. 1,074,369; Sept. 30; Gaz. vol. 194; p. 1046.
Dental appliance. E. M. Crane. No. 1,072,432; Sept. 9; Gaz. vol. 194; p. 288.
Dental appliance. F. H. Skinner. No. 1,072,519; Sept. 9; Gaz. vol. 194; p. 318.
Dental device. C. J. Palmer. No. 1,072,357; Sept. 2; Gaz. vol. 194; p. 232.
Dental impression-trays, &c., Handle for. L. E. Eaton. No. 1,073,893; Sept. 23; Gaz. vol. 194; p. 859.
Dental instrument. F. H. Skinner. No. 1,072,518; Sept. 9; Gaz. vol. 194; p. 317.
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Dental plugger attachment. F. C. Lambert. No. 1,073,995; Sept. 23; Gaz. vol. 194; p. 893.
Denture, Artificial. E. C. Bennett. No. 1,074,345; Sept. 30; Gaz. vol. 194; p. 1038.
Desiccating apparatus. O. E. Merrell. No. 1,072,391; Sept. 2; Gaz. vol. 194; p. 245.
Desiccating process. C. H. Brigham. No. 1,071,692; Sept. 2; Gaz. vol. 194; p. 7.
Designs, Device for making. L. L. Allen. No. 1,071,681; Sept. 2; Gaz. vol. 194; p. 3.
Desk. L. C. Walker. No. 1,072,280; Sept. 2; Gaz. vol. 194; p. 206.
Desk. C. E. Wilson. No. 1,073,574; Sept. 16; Gaz. vol. 194; p. 725.
Detergent. M. Colvin. No. 1,074,491; Sept. 30; Gaz. vol. 194; p. 1086.
Die. S. A. Clowes. No. 1,071,702; Sept. 2; Gaz. vol. 194; p. 11.
Digger: *See* Clam-digger; Potato-digger.
Directory-holder, Coin-controlled. J. A. Baldwin. No. 1,074,035; Sept. 23; Gaz. vol. 194; p. 906.
Dish-handler. P. J. Collins. No. 1,071,705; Sept. 2; Gaz. vol. 194; p. 12.
Disinfectants and deodorants, Apparatus for applying. E. L. Munson. No. 1,072,351; Sept. 2; Gaz. vol. 194; p. 230.
Disks and colters when they are being sharpened, Holder for. J. J. Hinds and M. R. Wright. No. 1,073,487; Sept. 16; Gaz. vol. 194; p. 696.
Dispensing device. E. Riordan. No. 1,074,463; Sept. 30; Gaz. vol. 194; p. 1077.
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Display-cabinet for eye-testing cards. W. L. William. No. 1,072,799; Sept. 9; Gaz. vol. 194; p. 416.
Display device. L. J. E. Colardeau and J. Richard. No. 1,073,331; Sept. 16; Gaz. vol. 194; p. 642.
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Display device for casket-handles. L. T. Butler. No. 1,074,584; Sept. 30; Gaz. vol. 194; p. 1116.
Display-form base. S. F. Cheheyl. No. 1,072,087; Sept. 2; Gaz. vol. 194; p. 143.
Display-rack. S. Biasatti. No. 1,073,564; Sept. 16; Gaz. vol. 194; p. 722.
Display rack, Veil-. M. Fitzpatrick. No. 1,071,722; Sept. 2; Gaz. vol. 194; p. 18.
Display-stand. A. Brackley. No. 1,072,693; Sept. 9; Gaz. vol. 194; p. 379.
Display-stand. P. L. Davis. No. 1,072,704; Sept. 9; Gaz. vol. 194; p. 382.
Display-stand and counter, Combination. W. P. Jones. No. 1,073,138; Sept. 16; Gaz. vol. 194; p. 573.
Display stand and rack, Combination. F. W. Miller, J. J. Kale, and S. D. Robinson. No. 1,072,347; Sept. 2; Gaz. vol. 194; p. 228.
Distilling petroleum, Process of and apparatus for. J. W. Van Dyke and W. M. Irish. No. 1,073,548; Sept. 16; Gaz. vol. 194; p. 715.
Ditching-machine. J. E. Funk. No. 1,073,227; Sept. 16; Gaz. vol. 194; p. 606.
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Domestic boiler. L. Englund. No. 1,072,105; Sept. 2; Gaz. vol. 194; p. 140.
Door. A. H. Newpher. No. 1,073,160; Sept. 16; Gaz. vol. 194; p. 580.
Door-buffer. T. M. Lavelle. No. 1,073,253; Sept. 16; Gaz. vol. 194; p. 615.
Door-check. J. K. Young. No. 1,074,151; Sept. 30; Gaz. vol. 194; p. 974.
Door-check, Double-acting. J. H. Shaw. No. 1,074,091; Sept. 23; Gaz. vol. 194; p. 925.
Door-controlling mechanism. T. H. Garland. No. 1,071,730; Sept. 2; Gaz. vol. 194; p. 20.
Door-fastener. R. Y. Hughes and L. J. Hoffmann. No. 1,074,261; Sept. 30; Gaz. vol. 194; p. 1010.
Door fastener and buffer, Sliding-. E. Schmid. No. 1,073,057; Sept. 9; Gaz. vol. 194; p. 599.
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Door, Grain-. J. Woods. No. 1,073,202; Sept. 16; Gaz. vol. 194; p. 595.
Door, Grain-. P. J. Hansen. No. 1,073,081; Sept. 23; Gaz. vol. 194; p. 888.
Door-hanger. E. Schmid. No. 1,072,040; Sept. 2; Gaz. vol. 194; p. 127.
Door-hanger. C. C. Nelson. No. 1,073,509; Sept. 16; Gaz vol. 194; p. 703.
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Door-hanger track. H. C. Smith. No. 1,074,021; Sept. 23; Gaz. vol. 194; p. 901.
Door holder and stop. M. J. Kenny. No. 1,073,243; Sept. 16; Gaz. vol. 194; p. 611.
Door-lock, Tubular. W. T. Smith. No. 1,072,668; Sept. 9; Gaz. vol. 194; p. 370.
Door-locking device, Double-. J. C. Hogan. No. 1,073,488; Sept. 16; Gaz. vol. 194; p. 697.
Door mat, tread, and the like. G. Cummings. No. 1,074,586; Sept. 30; Gaz. vol. 194; p. 1117.
Door-opener. F. Conner. No. 1,073,399; Sept. 16; Gaz. vol. 194; p. 667.
Door-operating mechanism. A. G. Elvin. No. 1,073,894; Sept. 23; Gaz. vol. 194; p. 859.
Door seat and door-lock, Side-. W. S. Menden. No. 1,073,809; Sept. 23; Gaz. vol. 194; p. 830.
Door-securer. G. M. Huston. No. 1,073,238; Sept. 16; Gaz. vol. 194; p. 609.
Door-securer. H. R. Wiseman. No. 1,074,230; Sept. 30; Gaz. vol. 194; p. 1001.
Door spring and check. I. B. Taft. No. 1,073,545; Sept. 16; Gaz. vol. 194; p. 714.
Door, Track-. A. K. Gillespie. No. 1,072,600; Sept. 9; Gaz. vol. 194; p. 346.
Door, Vault-. J. R. Flood. No. 1,071,723; Sept. 2; Gaz. vol. 194; p. 18.
Doors, Self-closing compartment-. W. P. Wilber. No. 1,071,845; Sept. 2; Gaz. vol. 194; p. 61.
Doors, windows, and the like, Metal frame for. C. J. Hale. No. 1,071,911; Sept. 2; Gaz. vol. 194; p. 84.
Double-acting wrench. R. Owen, Jr. No. 1,072,980; Sept. 9; Gaz. vol. 194; p. 483.
Douche-cup, Vaginal. M. H. Kutch. No. 1,074,368; Sept. 30; Gaz. vol. 194; p. 1045.
Dowel. T. Tissler. No. 1,073,182; Sept. 16; Gaz. vol. 194; p. 589.
Dowel cutting-off and pointing machine. C. G. Dauber. No. 1,073,846; Sept. 23; Gaz. vol. 194; p. 841.
Dowel gluing and driving machine. E. G. Bell and C. G. Dauber. No. 1,074,158; Sept. 30; Gaz. vol. 194; p. 976.
Draft appliance. J. A. Buchanan. No. 1,073,327; Sept. 16; Gaz. vol. 194; p. 641.
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Draft-equalizer. T. J. Dudley. No. 1,071,898; Sept. 2; Gaz. vol. 194; p. 79.
Draft gear, Radial-. E. H. Schmidt. No. 1,072,041; Sept. 2; Gaz. vol. 194; p. 127.

Draft-regulator. J. Milton. No. 1,072,023; Sept. 2; Gaz. vol. 194; p. 121.
Draft-regulator, Automatic. J. W. Mickleson. No. 1,073,810; Sept. 23; Gaz. vol. 194; p. 830.
Draft-rigging. G. B. Morsberger. No. 1,072,146; Sept. 2; Gaz. vol. 194; p. 164.
Draft-rigging. G. H. Gilman and H. M. Robertson. No. 1,073,578; Sept. 16; Gaz. vol. 194; p. 727.
Draft-rigging and support therefor. W. P. Bettendorf. No. 1,072,300; Sept. 2; Gaz. vol. 194; p. 213.
Drafting instrument. H. A. Webster. No. 1,072,539; Sept. 9; Gaz. vol. 194; p. 325.
Drag Road-. J. H. Cherry and L. R. Melendy. No. 1,073,604; Sept. 23; Gaz. vol. 194; p. 780.
Drainer, Dish-. E. G. Hines. No. 1,074,173; Sept. 30; Gaz. vol. 194; p. 981.
Draining device, Automatic. E. Winarsky. No. 1,074,591; Sept. 30; Gaz. vol. 194; p. 1119.
Draw-bar carrier. C. S. Shallenberger. No. 1,072,659; Sept. 9; Gaz. vol. 194; p. 367.
Draw-gear and buffing apparatus. J. J. Jones. No. 1,072,470; Sept. 9; Gaz. vol. 194; p. 301.
Drawer-locking mechanism, Superposed-. P. S. Millice. No. 1,073,274; Sept. 16; Gaz. vol. 194; p. 622.
Drawing-roll. E. Kempshall. No. 1,073,993; Sept. 23; Gaz. vol. 194; p. 893.
Drawing-roll. E. Kempshall. No. 1,073,994; Sept. 23; Gaz. vol. 194; p. 893.
Dress-pad. C. H. Scott. No. 1,071,808; Sept. 2; Gaz. vol. 194; p. 49.
Drier: *See* Centrifugal drier; Photographic-plate drier; Rotary drier.
Drier. W. H. Matthew. No. 1,073,151; Sept. 16; Gaz. vol. 194; p. 577.
Drier. C. Barnard. No. 1,073,729; Sept. 23; Gaz. vol. 194; p. 804.
Drier. E. B. Ayres. No. 1,074,034; Sept. 23; Gaz. vol. 194; p. 905.
Drier-kiln. F. W. Ballard. No. 1,074,485; Sept. 30; Gaz. vol. 194; p. 1084.
Drying and heating apparatus. C. A. Mullen. No. 1,074,519; Sept. 30; Gaz. vol. 194; p. 1093.
Drying apparatus, Vacuum. O. S. Sleeper. No. 1,073,872; Sept. 23; Gaz. vol. 194; p. 850.
Drying system. C. R. Walker. No. 1,074,302; Sept. 30; Gaz. vol. 194; p. 1024.
Drill: *See* Bench-drill; Grain-drill; Radial drill; Rail-drill; Rock-drill.
Drill. C. H. Pelton. No. 1,072,869; Sept. 9; Gaz. vol. 194; p. 441.
Drill holder, Multiple-. G. P. Taylor. No. 1,074,025; Sept. 23; Gaz. vol. 194; p. 903.
Drills, Automatic feed for percussive. C. C. Hansen. No. 1,074,320; Sept. 30; Gaz. vol. 194; p. 1030.
Drilling and kindred machine. J. T. Morrissey. No. 1,071,776; Sept. 2; Gaz. vol. 194; p. 37.
Drilling-machine. G. Piccone and S. Lippis. No. 1,072,256; Sept. 2; Gaz. vol. 194; p. 198.
Drilling-machine. E. Cook. No. 1,073,218; Sept. 16; Gaz. vol. 194; p. 602.
Drilling-machine. E. C. Bowers and E. Cook. No. 1,073,322; Sept. 16; Gaz. vol. 194; p. 639.
Drink from dairy residues, Manufacture of a salutary. A. Jolles. No. 1,073,135; Sept. 16; Gaz. vol. 194; p. 572.
Drinking-cup. S. Elliott. No. 1,073,481; Sept. 16; Gaz. vol. 194; p. 695.
Drinking-fountain. C. E. Kells, Jr. No. 1,072,124; Sept. 2; Gaz. vol. 194; p. 156.
Drinking-fountain for fowls. J. M. Mason, Jr. No. 1,072,344; Sept. 2; Gaz. vol. 194; p. 227.
Driving device. B. D. Jackson. No. 1,072,616; Sept. 9; Gaz. vol. 194; p. 352.
Driving mechanism, Differential. T. L. Beguhn. No. 1,071,863; Sept. 2; Gaz. vol. 194; p. 67.
Driving mechanism, Ratchet. F. H. Ayer. No. 1,072,807; Sept. 9; Gaz. vol. 194; p. 419.
Driving-pinion support. A. W. Wessoleck. No. 1,074,581; Sept. 30; Gaz. vol. 194; p. 1115.
Dumb-waiter. J. M. Birchler. No. 1,073,466; Sept. 16; Gaz. vol. 194; p. 690.
Dye, Azo. P. Hauptmann. No. 1,073,754; Sept. 23; Gaz. vol. 194; p. 812.
Dye, Azo. P. Julius and C. Immerheiser. No. 1,073,902; Sept. 23; Gaz. vol. 194; p. 862.
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Dye, Vat. W. Bauer, A. Herre and R. Mayer. No. 1,074,405; Sept. 30; Gaz. vol. 194; p. 1058.
Dyeing-machine, Circulating. W. W. Sibson and T. Allsop. No. 1,072,662; Sept. 9; Gaz. vol. 194; p. 367.
Dyeing thread and like material, Apparatus for. B. Teufer. No. 1,074,390; Sept. 30; Gaz. vol. 194; p. 1053.
Dyestuff and making same, Red wool. H. Wagner and J. Kohlhaas. No. 1,071,833; Sept. 2; Gaz. vol. 194; p. 57.
Dynamites and other high explosives into shells, Machine for packing. H. Auchu. No. 1,071,683; Sept. 2; Gaz. vol. 194; p. 4.
Dynamo brush-holder. H. Steinhart. No. 1,073,643; Sept. 23; Gaz. vol. 194; p. 771.
Easel, Artist's. S. C. Vosper. No. 1,072,534; Sept. 9; Gaz. vol. 194; p. 324.
Eccentric, Adjustable. W. H. Lanning, Jr. No. 1,073,148; Sept. 16; Gaz. vol. 194; p. 576.
Egg-beater. W. J. Parham. No. 1,072,251; Sept. 2; Gaz. vol. 194; p. 197.
Egg-carrier. E. A. Dieterich. No. 1,074,415; Sept. 30; Gaz. vol. 194; p. 1061.
Egg-carton. C. C. Smiley. No. 1,072,185; Sept. 2; Gaz. vol. 194; p. 176.
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Egg-tester. G. T. Cripps. No. 1,073,594; Sept. 23; Gaz. vol. 194; p. 754.
Elastic wheel. K. Köszegi. No. 1,073,498; Sept. 16; Gaz. vol. 194; p. 699.
Electric apparatus for firing mines, Dynamo-. K. Schaffler, rekte Glössl. No. 1,072,511; Sept. 9; Gaz. vol. 194; p. 315.
Electric apparatus, Vapor. S. Ferguson. No. 1,072,443; Sept. 9; Gaz. vol. 194; p. 292.
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Electric apparatus, Vapor. J. T. H. Dempster. No. 1,074,253; Sept. 30; Gaz. vol. 194; p. 1007.
Electric battery. D. H. Wilson. No. 1,072,551; Sept. 9; Gaz. vol. 194; p. 330.
Electric battery. W. S. Gould. No. 1,073,601; Sept. 23; Gaz. vol. 194; p. 756.
Electric cable. H. C. Egerton. No. 1,073,596; Sept. 23; Gaz. vol. 194; p. 755.
Electric-circuit breaker. F. L. Sessions. No. 1,072,177; Sept. 2; Gaz. vol. 194; p. 174.
Electric circuits by light-rays, Means for the systematic control of. S. Ocampo. No. 1,072,152; Sept. 2; Gaz. vol. 194; p. 166.
Electric coil. R. Varley. No. 1,073,060; Sept. 9; Gaz. vol. 194; p. 510.
Electric conductors, Protecting conduit for. G. A. Lutz. No. 1,072,478; Sept. 9; Gaz. vol. 194; p. 305.
Electric controlling apparatus. J. Burke. No. 1,072,422; Sept. 9; Gaz. vol. 194; p. 284.
Electric-current-distribution system. C. L. Fortescue. No. 1,073,598; Sept. 23; Gaz. vol. 194; p. 755.
Electric furnace. J. Hess. No. 1,073,684; Sept. 23; Gaz. vol. 194; p. 787.
Electric heater. F. J. Holmes. No. 1,072,227; Sept. 2; Gaz. vol. 194; p. 189.
Electric heater. E. Thomson. No. 1,072,530; Sept. 9; Gaz. vol. 194; p. 322.
Electric-light adjuster. J. L. Rawson. No. 1,071,957; Sept. 2; Gaz. vol. 194; p. 98.
Electric machine, Dynamo-. A. Hill. No. 1,071,920; Sept. 2; Gaz. vol. 194; p. 86.
Electric machine, Dynamo-. A. A. Pifer. No. 1,072,647; Sept. 9; Gaz. vol. 194; p. 362.
Electric machine, Dynamo-. G. Winter and F. Eichberg. No. 1,073,301; Sept. 16; Gaz. vol. 194; p. 595.
Electric machine, Dynamo-. G. Winter and F. Eichberg. No. 1,073,311; Sept. 16; Gaz. vol. 194; p. 636.
Electric machine, Dynamo-. C. E. F. Ahlm. No. 1,074,338; Sept. 30; Gaz. vol. 194; p. 1036.
Electric machines to velocipedes and the like, Means for attaching dynamo-. F. Eichert. No. 1,073,747; Sept. 23; Gaz. vol. 194; p. 809.
Electric oscillograph. J. T. Irwin. No. 1,074,262; Sept. 30; Gaz. vol. 194; p. 1010.
Electric switch. E. Anderson. No. 1,072,808; Sept. 9; Gaz. vol. 194; p. 453.
Electric switch. J. M. Blain. No. 1,073,023; Sept. 9; Gaz. vol. 194; p. 497.
Electric switch. M. L. Hubermann. No. 1,073,047; Sept. 9; Gaz. vol. 194; p. 505.
Electric switch. F. J. Robinson. No. 1,073,289; Sept. 16; Gaz. vol. 194; p. 627.
Electric switch. F. Schneider. No. 1,073,935; Sept. 23; Gaz. vol. 194; p. 873.
Electric switch, Combination. Y. Burgess. No. 1,074,241; Sept. 30; Gaz. vol. 194; p. 1003.
Electric vulcanizer. F. Martin. No. 1,073,263; Sept. 16; Gaz. vol. 194; p. 618.
Electrical connector. H. W. Pogue. No. 1,074,459; Sept. 30; Gaz. vol. 194; p. 1076.
Electrical connector, Plug-socket. W. F. Hoffmann. No. 1,072,460; Sept. 9; Gaz. vol. 194; p. 298.
Electrical illumination. E. Weintraub. No. 1,074,303; Sept. 30; Gaz. vol. 194; p. 1024.
Electrical interlocking mechanism. J. L. Schureman. No. 1,071,807; Sept. 2; Gaz. vol. 194; p. 49.
Electrically-heated boiler. J. F. McElroy. No. 1,072,748; Sept. 9; Gaz. vol. 194; p. 397.
Electrically-heated pad and the like. J. G. Schuirmann. No. 1,074,216; Sept. 30; Gaz. vol. 194; p. 995.
Electrochemical process. J. L. R. Hayden. No. 1,072,945; Sept. 9; Gaz. vol. 194; p. 470.
Electrode-supporting rod for electrolytic tanks. P. Jensen. No. 1,074,088; Sept. 23; Gaz. vol. 194; p. 823.
Electrode, Therapeutic. R. H. Wappler. No. 1,074,146; Sept. 30; Gaz. vol. 194; p. 972.
Electrolytes, Apparatus for fusing. H. R. Carveth. No. 1,074,408; Sept. 30; Gaz. vol. 194; p. 1059.

Electrolytes for use in the deposition of a metal or metallic alloy, Preparing. P. Marino. No. 1,073,432; Sept. 16; Gaz. vol. 194; p. 678.
Electrolytic apparatus. M. Perreur-Lloyd. No. 1,073,868; Sept. 23; Gaz. vol. 194; p. 849.
Electrolytic apparatus. H. Henkel and W. Weber. No. 1,074,549; Sept. 30; Gaz. vol. 194; p. 1103.
Electrolytic cell. E. A. and H. I. Allen. No. 1,073,559; Sept. 16; Gaz. vol. 194; p. 720.
Electromagnetic device. M. F. Geer and R. C. Leake. No. 1,071,905; Sept. 2; Gaz. vol. 194; p. 81.
Electromagnetic switch. A. S. Cubitt. No. 1,071,886; Sept. 2; Gaz. vol. 194; p. 75.
Electrothermostatic regulator. J. G. Schuirmann. No. 1,074,215; Sept. 30; Gaz. vol. 194; p. 995.
Electrotype plate or cast cleaner or the like. G. H. Benedict. No. 1,072,902; Sept. 9; Gaz. vol. 194; p. 455.
Electrotype-shells in the manufacture of electrotype-plates, Backing up. G. E. Dunton. No. 1,073,105; Sept. 16; Gaz. vol. 194; p. 563.
Elevator: *See* Bucket-chain elevator; Casing-elevator; Rope elevator; Sucker-rod elevator; Water-elevator.
Elevator-car, Safety. J. H. Hall. No. 1,073,898; Sept. 23; Gaz. vol. 194; p. 860.
Elevator safety appliance. E. Didier. No. 1,072,835; Sept. 9; Gaz. vol. 194; p. 429.
Elevator safety-stop. J. Hoffer. No. 1,072,008; Sept. 2; Gaz. vol. 194; p. 117.
Elevators, Cable-release for. S. H. Dolph. No. 1,073,968; Sept. 23; Gaz. vol. 194; p. 884.
Elevators, Speed-regulator for traction-. E. S. Matthews. No. 1,072,138; Sept. 2; Gaz. vol. 194; p. 161.
Embroidering-machine. K. Keller. No. 1,073,765; Sept. 23; Gaz. vol. 194; p. 816.
Embroidering-machine, Automatic. H. Saurer. No. 1,072,510; Sept. 9; Gaz. vol. 194; p. 314.
Embroidering-machine shuttle. G. Bühler. No. 1,073,733; Sept. 23; Gaz. vol. 194; p. 805.
Embroidering-machines, Counterbalancing mechanism for. J. A. Groebil. No. 1,073,342; Sept. 16; Gaz. vol. 194; p. 647.
Embroidering-machines, Jacquard mechanism for. R. Zahn. No. 1,074,565; Sept. 30; Gaz. vol. 194; p. 1109.
Embroidery-cutting machine. M. Schoenfeld. No. 1,071,959; Sept. 2; Gaz. vol. 194; p. 98.
Embroidery-frame. J. Nitschman. No. 1,073,511; Sept. 16; Gaz. vol. 194; p. 704.
Embroidery-hoop. V. Beauregard. No. 1,072,687; Sept. 9; Gaz. vol. 194; p. 376.
Embroidery-machines, Fabric-frame for. C. Koehler. No. 1,072,623; Sept. 9; Gaz. vol. 194; p. 354.
Enameled articles, Making. W. L. Shepard. No. 1,072,047; Sept. 2; Gaz. vol. 194; p. 129.
End wrench. D. M. Brumfiel and P. G. Wright. No. 1,074,160; Sept. 30; Gaz. vol. 194; p. 977.
Engine: *See* Caloric engine; Combustion-engine; Explosion-engine; Explosive-engine; Gas-engine; Heat-engine; Internal-combustion engine; Locomotive or traction-engine; Oil-engine; Rotary engine.
Engine. C. A. Collins. No. 1,072,701; Sept. 9; Gaz. vol. 194; p. 381.
Engine. E. Rathbun. No. 1,073,629; Sept. 23; Gaz. vol. 194; p. 766.
Engine and magneto assembly. E. A. Nelson. No. 1,071,781; Sept. 2; Gaz. vol. 194; p. 39.
Engine-controlling device, Internal-combustion-. E. D. Kendall. No. 1,073,051; Sept. 9; Gaz. vol. 194; p. 507.
Engine-cooling means, Internal-combustion-. G. Westinghouse. No. 1,073,197; Sept. 16; Gaz. vol. 194; p. 594.
Engine-lubricating system, Rotary-. W. I. Twombly. No. 1,073,374; Sept. 16; Gaz. vol. 194; p. 657.
Engine or motor. J. P. Barker. No. 1,073,656; Sept. 23; Gaz. vol. 194; p. 777.
Engine primer, Gasolene-. C. A. Brooks and E. G. Kinley. No. 1,072,304; Sept. 2; Gaz. vol. 194; p. 214.
Engine safety cranking device, Explosive-. J. G. Stanley. No. 1,073,058; Sept. 9; Gaz. vol. 194; p. 509.
Engine-starter. G. J. Spohrer. No. 1,072,267; Sept. 2; Gaz. vol. 194; p. 202.
Engine starter, Explosive-. G. H. Kelley. No. 1,073,139; Sept. 16; Gaz. vol. 194; p. 573.
Engine starter, Hydrocarbon-. J. F. Kelly. No. 1,072,385; Sept. 2; Gaz. vol. 194; p. 242.
Engine-starting apparatus. E. A. Halbleib. No. 1,072,002; Sept. 2; Gaz. vol. 194; p. 115.
Engine-starting means, Internal-combustion-. A. A. Stillman. No. 1,071,969; Sept. 2; Gaz. vol. 194; p. 102.
Engine-starting mechanism, Explosive-. H. Meredith-Jones. No. 1,071,775; Sept. 2; Gaz. vol. 194; p. 37.
Engine-supporting frame. L. S. Laufenburg and S. G. Pearson. No. 1,072,743; Sept. 9; Gaz. vol. 194; p. 396.
Engines, Device for automatically stopping gasolene-. T. E. Johnson. No. 1,074,327; Sept. 30; Gaz. vol. 194; p. 1032.
Engines, Magneto-electric ignition apparatus for use with internal-combustion. C. Ebner. No. 1,074,542; Sept. 30; Gaz. vol. 194; p. 1101.
Engines, Power steering-gear for traction-. H. C. Clay. No. 1,072,824; Sept. 9; Gaz. vol. 194; p. 425.
Envelop. A. G. Kolosa. No. 1,072,741; Sept. 9; Gaz. vol. 194; p. 395.
Envelop. H. H. McFarlane. No. 1,073,056; Sept. 9; Gaz. vol. 194; p. 509.
Evaporating apparatus. D. P. J. Burgulères, C. L. Corne, and G. E. Marshall. No. 1,072,307; Sept. 2; Gaz. vol. 194; p. 215.
Evaporation, Method of and apparatus for. N. H. Hiller. No. 1,071,740; Sept. 2; Gaz. vol. 194; p. 24.
Evaporation, Separating solid substances from solutions by. G. Jebsen and C. Finckenhagen. No. 1,074,264; Sept. 30; Gaz. vol. 194; p. 1011.
Excavating, elevating, and dumping earth, sand, silt, or gravel, Machine for. W. Castles. No. 1,074,163; Sept. 30; Gaz. vol. 194; p. 978.
Excavating-machine. A. D. Ward. No. 1,074,480; Sept. 30; Gaz. vol. 194; p. 1082.
Excavating-shovel. T. Alexander. No. 1,074,538; Sept. 30; Gaz. vol. 194; p. 1100.
Exhaust, Under-water. M. V. Miller. No. 1,073,920; Sept. 23; Gaz. vol. 194; p. 868.
Expansible roller. G. P. Wild. No. 1,072,067; Sept. 2; Gaz. vol. 194; p. 135.
Expansion-bolt. D. Mason. No. 1,072,246; Sept. 2; Gaz. vol. 194; p. 195.
Explosion-engine. C. Y. Knight. No. 1,072,860; Sept. 9; Gaz. vol. 194; p. 438.
Explosion-motor, Two-cycle. C. Côte. No. 1,072,314; Sept. 2; Gaz. vol. 194; p. 217.
Explosive. J. F. O'Brien. No. 1,071,940; Sept. 2; Gaz. vol. 194; p. 96.
Explosive. F. Raschig. No. 1,072,032; Sept. 2; Gaz. vol. 194; p. 125.
Explosive. J. F. O'Brien. No. 1,073,279; Sept. 16; Gaz. vol. 194; p. 624.
Explosive-engine. E. E. E. Sutphin. No. 1,071,823; Sept. 2; Gaz. vol. 194; p. 54.
Explosive-engine. L. S. Gardner. No. 1,072,596; Sept. 9; Gaz. vol. 194; p. 345.
Explosive-engine, Two-cycle. H. H. Newman. No. 1,072,766; Sept. 9; Gaz. vol. 194; p. 403.
Explosive nitro bodies, Densifying fusible. G. Issler. No. 1,074,263; Sept. 30; Gaz. vol. 194; p. 1011.
Extensible trough or flume. P. Maginnis. No. 1,072,343; Sept. 2; Gaz. vol. 194; p. 226.
Extension and retraction device. A. Siewert. No. 1,073,294; Sept. 16; Gaz. vol. 194; p. 629.
Extension-table. J. Hofmayr. No. 1,073,128; Sept. 16; Gaz. vol. 194; p. 570.
Extractor: *See* Crown-pin extractor.
Eyeglass-guard. R. E. Poulton. No. 1,072,494; Sept. 9; Gaz. vol. 194; p. 309.
Eyeglass-mounting. G. A. Bader. No. 1,074,403; Sept. 30; Gaz. vol. 194; p. 1057.
Eyeglasses. S. Norden. No. 1,073,777; Sept. 23; Gaz. vol. 194; p. 820.
Eyeleting-machine with automatic feed. I. Cohen and A. Landsberg. No. 1,074,490; Sept. 30; Gaz. vol. 194; p. 1085.
Eyesight-testing apparatus. H. M. Black. No. 1,072,813; Sept. 9; Gaz. vol. 194; p. 421.
Fabric: *See* Knit fabric.
Fabric-borders, Forming crochet-stitch. W. H. Carter. No. 1,072,086; Sept. 2; Gaz. vol. 194; p. 142.
Fabric holder and exhibitor. F. A. Raabe. No. 1,073,519; Sept. 16; Gaz. vol. 194; p. 706.
Fabric-piling mechanism. H. L. Gantt. No. 1,074,567; Sept. 30; Gaz. vol. 194; p. 1109.
Fabrics, Border for. W. H. Carter. No. 1,072,880; Sept. 2; Gaz. vol. 194; p. 241.
Fabrics, Drying plant for textile. S. Schewczik. No. 1,072,512; Sept. 9; Gaz. vol. 194; p. 315.
Fabrics, Mechanism for cutting pile loops in the manufacture of coarse pile. E. J. Entwisle. No. 1,072,842; Sept. 9; Gaz. vol. 194; p. 431.
Facing-table and postmarking-machine, Combined. P. J. Madigan and J. Rehak. No. 1,072,388; Sept. 2; Gaz. vol. 194; p. 244.
Fan. C. Wysocki. No. 1,074,401; Sept. 30; Gaz. vol. 194; p. 1057.
Fan, Centrifugal. E. B. Williams. No. 1,072,549; Sept. 9; Gaz. vol. 194; p. 330.
Fan motor, Oscillating-. W. N. Motter and F. S. Kochendorfer. No. 1,073,617; Sept. 23; Gaz. vol. 194; p. 762.
Fan, Rotary. W. Sparks. No. 1,072,180; Sept. 2; Gaz. vol. 194; p. 177.
Fan, Ventilating-. W. F. Rothenberg. No. 1,074,017; Sept. 23; Gaz. vol. 194; p. 900.
Fans, Cooling attachment for. J. M. Barry. No. 1,074,037; Sept. 23; Gaz. vol. 194; p. 907.
Fare-box, Street-car. V. Whitaker. No. 1,072,891; Sept. 9; Gaz. vol. 194; p. 450.
Farm-gate. J. W. Snedeker. No. 1,073,536; Sept. 16; Gaz. vol. 194; p. 711.
Farm-gate. J. M. Spitler. No. 1,074,477; Sept. 30; Gaz. vol. 194; p. 1081.
Farming implement. C. Harris. No. 1,074,569; Sept. 30; Gaz. vol. 194; p. 1110.
Fastener. G. N. Tompkins. No. 1,071,825; Sept. 2; Gaz. vol. 194; p. 54.
Fastener. S. M. Fill. No. 1,071,902; Sept. 2; Gaz. vol. 194; p. 81.
Fastening device. W. Cupper. No. 1,071,986; Sept. 2; Gaz. vol. 194; p. 108.
Fats of all kinds, Bleaching solid and semisolid. F. Richter and L. von Orth. No. 1,072,034; Sept. 2; Gaz. vol. 194; p. 125.

Faucet, Antiscald-. J. R. Boutell. No. 1,074,101; Sept. 30; Gaz. vol. 194; p. 958.
Feed-box. H. W. Callahan. No. 1,072,570; Sept. 9; Gaz. vol. 194; p. 337.
Feed-head fastener. C. I. Dodson. No. 1,073,101; Sept. 16; Gaz. vol. 194; p. 561.
Feed mechanism. E. J. F. Rea. No. 1,074,067; Sept. 23; Gaz. vol. 194; p. 916.
Feed-regulator. W. Watts. No. 1,073,193; Sept. 16; Gaz. vol. 194; p. 592.
Feed-water controller for boilers, Safety. F. Wallace and F. Ernst. No. 1,074,536; Sept. 30; Gaz. vol. 194; p. 1099.
Feeder, Calf-. C. D. Davis. No. 1,074,313; Sept. 30; Gaz. vol. 194; p. 1027.
Feeding device. G. W. Mix. No. 1,071,941; Sept. 2; Gaz. vol. 194; p. 94.
Feeding mechanism. C. A. Cheshire. No. 1,073,215; Sept. 16; Gaz. vol. 194; p. 601.
Fence clamp, Wire-. H. W. Gaines. No. 1,073,228; Sept. 16; Gaz. vol. 194; p. 606.
Fence-gap fastener. G. M. Altman. No. 1,073,063; Sept. 9; Gaz. vol. 194; p. 511.
Fence-gate. H. G. Bemis. No. 1,073,563; Sept. 16; Gaz. vol. 194; p. 722.
Fence-post. E. E. McCord. No. 1,073,772; Sept. 23; Gaz. vol. 194; p. 818.
Fence-post mold. S. L. Clark. No. 1,073,471; Sept. 16; Gaz. vol. 194; p. 692.
Fence-post molding. S. L. Clark. No. 1,073,472; Sept. 16; Gaz. vol. 194; p. 692.
Fence stretcher, Wire-. W. H. and T. A. Mears. No. 1,074,278; Sept. 30; Gaz. vol. 194; p. 1016.
Fencing and the like, Wire. A. W. Storey. No. 1,071,822; Sept. 2; Gaz. vol. 194; p. 53.
Fender: *See* Car-fender; Vehicle-fender.
Fertilizer. B. Reichelt. No. 1,071,795; Sept. 2; Gaz. vol. 194; p. 45.
Fertilizer-distributer. F. F. Cherry. No. 1,072,823; Sept. 9; Gaz. vol. 194; p. 425.
Fibers and the like, Automatic feed for. M. E. Ryan. No. 1,074,468; Sept. 30; Gaz. vol. 194; p. 1079.
Field apparatus, Convertible. J. J. Stoehr. No. 1,072,052; Sept. 2; Gaz. vol. 194; p. 130.
File-cabinet, Rotary. J. F. Harrington and E. L. Byrne. No. 1,072,451; Sept. 9; Gaz. vol. 194; p. 295.
Filing accounts, Register for. T. C. Christensen. No. 1,073,027; Sept. 9; Gaz. vol. 194; p. 499.
Filing appliance. H. J. Hick. No. 1,072,007; Sept. 2; Gaz. vol. 194; p. 116.
Filing-cabinet. G. C. Geraty. No. 1,073,037; Sept. 9; Gaz. vol. 194; p. 501.
Filing-case. M. L. Whitcomb. No. 1,073,198; Sept. 16; Gaz. vol. 194; p. 594.
Filing device. R. Helmer. No. 1,073,854; Sept. 23; Gaz. vol. 194; p. 845.
Filling-machine. C. F. Colbert. No. 1,072,428; Sept. 9; Gaz. vol. 194; p. 286.
Filling-machine. C. F. Colbert. No. 1,072,429; Sept. 9; Gaz. vol. 194; p. 287.
Film-pack adapter. P. Schmid. No. 1,073,442; Sept. 16; Gaz. vol. 194; p. 681.
Filter. U. A. Garred. No. 1,072,111; Sept. 2; Gaz. vol. 194; p. 151.
Filter, Folded. F. Nagel. No. 1,074,008; Sept. 23; Gaz. vol. 194; p. 807.
Finish-removers, Making. J. M. Wilson. No. 1,074,305; Sept. 30; Gaz. vol. 194; p. 1025.
Fire-boxes, Smoke-consuming device for. W. D. Boyce. No. 1,071,680; Sept. 2; Gaz. vol. 194; p. 6.
Fire-door. R. W. Zeller. No. 1,073,554; Sept. 16; Gaz. vol. 194; p. 719.
Fire-escape. T. Booth. No. 1,072,814; Sept. 9; Gaz. vol. 194; p. 422.
Fire-escape. R. Sideman. No. 1,073,293; Sept. 16; Gaz. vol. 194; p. 629.
Fire-escape, Portable. H. Chiariglione, P. Vescovi, and E. Gobatti. No. 1,074,540; Sept. 30; Gaz. vol. 194; p. 1100.
Fire-extinguishing apparatus. G. J. Coutu. No. 1,074,165; Sept. 30; Gaz. vol. 194; p. 978.
Fire-hose nozzle. D. S. Johnston. No. 1,072,951; Sept. 9; Gaz. vol. 194; p. 472.
Fire-hose rack. W. McClintock. No. 1,073,152; Sept. 16; Gaz. vol. 194; p. 578.
Fire, Means for releasing the fastenings of metallic parts in case of. E. H. McCloud. No. 1,074,187; Sept. 30; Gaz. vol. 194; p. 985.
Firearm. J. D. Pedersen. No. 1,072,982; Sept. 9; Gaz. vol. 194; p. 484.
Firearm. J. C. White. No. 1,073,452; Sept. 16; Gaz. vol. 194; p. 685.
Firearm. M. L. Castle. No. 1,074,046; Sept. 23; Gaz. vol. 194; p. 900.
Firearm attachment. L. F. Kuaz. No. 1,072,335; Sept. 2; Gaz. vol. 194; p. 224.
Firearm, Automatic breech-loading. P. von Király and J. Lovász. No. 1,073,908; Sept. 23; Gaz. vol. 194; p. 863.
Firearms, Firing mechanism for automatic. K. A. Brüning. No. 1,073,566; Sept. 23; Gaz. vol. 194; p. 752.
Fireproof and elastic material, Producing a. N. Magelssen. No. 1,074,511; Sept. 30; Gaz. vol. 194; p. 1091.
Fireproof filing-case. J. A. Clark. No. 1,071,984; Sept. 2; Gaz. vol. 194; p. 107.
Fireproofing roofing materials. H. Dubbeldam, Hzn. No. 1,073,800; Sept. 23; Gaz. vol. 194; p. 826.
Fish-hook and animal-trap, Combined. W. F. Sweet. No. 1,072,672; Sept. 9; Gaz. vol. 194; p. 371.
Fish-spear. C. E. Schell. No. 1,072,172; Sept. 2; Gaz. vol. 194; p. 172.
Fishing-float. B. M. Hartley. No. 1,072,005; Sept. 2; Gaz. vol. 194; p. 116.
Fishing-reel. L. Atwood. No. 1,073,728; Sept. 23; Gaz. vol. 194; p. 804.
Fishing-rod. C. E. Long. No. 1,073,260; Sept. 16; Gaz. vol. 194; p. 617.
Flange-lubricator. H. W. Coddington. No. 1,073,093; Sept. 16; Gaz. vol. 194; p. 558.
Flash-light. A. J. Dupont. No. 1,074,354; Sept. 30; Gaz. vol. 194; p. 1041.
Flash-light apparatus. J. W. Jackson. No. 1,072,853; Sept. 9; Gaz. vol. 194; p. 435.
Flask: *See* Molder's flask.
Flat-iron. S. Pollock. No. 1,072,257; Sept. 2; Gaz. vol. 194; p. 198.
Flat-iron cleaner and polisher. S. J. Mercer. No. 1,073,774; Sept. 23; Gaz. vol. 194; p. 819.
Flat-irons, Automatic temperature control for self-heating. E. Ruud. No. 1,074,467; Sept. 30; Gaz. vol. 194; p. 1079.
Float. E. N. Broderick. No. 1,072,420; Sept. 9; Gaz. vol. 194; p. 283.
Floor and roof construction. V. Font. No. 1,073,972; Sept. 23; Gaz. vol. 194; p. 885.
Floor construction. J. Kahn. No. 1,073,906; Sept. 23; Gaz. vol. 194; p. 862.
Floor, Ferroconcrete. R. and W. A. Thomson. No. 1,074,072; Sept. 23; Gaz. vol. 194; p. 918.
Floor-furnace. J. A. Kloeb. No. 1,073,610; Sept. 23; Gaz. vol. 194; p. 759.
Floor-mat. W. H. Hopkins and W. R. Wilson. No. 1,072,729; Sept. 9; Gaz. vol. 194; p. 391.
Flour, Improving the condition of. J. A. Wesener. No. 1,071,977; Sept. 2; Gaz. vol. 194; p. 105.
Flour, Treating. C. Herendeen. No. 1,073,985; Sept. 23; Gaz. vol. 194; p. 890.
Flour-treating apparatus. C. Herendeen. No. 1,073,986; Sept. 23; Gaz. vol. 194; p. 890.
Flower-holder for the dress. A. Bippart. No. 1,072,903; Sept. 9; Gaz. vol. 194; p. 455.
Flower-stand. J. A. Smith. No. 1,073,874; Sept. 23; Gaz. vol. 194; p. 851.
Flue-expander. J. B. Strauser. No. 1,072,056; Sept. 2; Gaz. vol. 194; p. 131.
Flue, Heating-. W. J. Kenely. No. 1,073,351; Sept. 16; Gaz. vol. 194; p. 650.
Flues, Head for ventilating or heating. J. Geddes. No. 1,073,978; Sept. 23; Gaz. vol. 194; p. 888.
Fluid-elevating apparatus. M. W. Breuer. No. 1,074,043; Sept. 23; Gaz. vol. 194; p. 908.
Fluid-pressure motor. J. E. Ebersole. No. 1,072,104; Sept. 2; Gaz. vol. 194; p. 148.
Fluid-pressure switch. J. A. Schadel. No. 1,073,175; Sept. 16; Gaz. vol. 194; p. 587.
Flume. R. J. Johnson. No. 1,073,857; Sept. 23; Gaz. vol. 194; p. 845.
Fluorescent substances, Manufacture of. G. Rupprecht. No. 1,073,932; Sept. 23; Gaz. vol. 194; p. 872.
Flush-tanks, Stop or buffer for. S. S. Crocker. No. 1,074,411; Sept. 30; Gaz. vol. 194; p. 1060.
Flushing apparatus, Siphon. E. H. Gove. No. 1,072,711; Sept. 9; Gaz. vol. 194; p. 385.
Flushing-tank. E. P. Stary. No. 1,074,220; Sept. 30; Gaz. vol. 194; p. 996.
Fly-trap. S. Louviere. No. 1,072,342; Sept. 2; Gaz. vol. 194; p. 226.
Fly-trap. L. C. Acree. No. 1,072,374; Sept. 2; Gaz. vol. 194; p. 239.
Fly-trap. W. I. Waggoner. No. 1,073,190; Sept. 16; Gaz. vol. 194; p. 592.
Fly-trap. C. G. Miller. No. 1,073,811; Sept. 23; Gaz. vol. 194; p. 830.
Flying-machine. H. G. Morris. No. 1,073,277; Sept. 16; Gaz. vol. 194; p. 623.
Flying-machine. G. E. Dickson. No. 1,073,334; Sept. 16; Gaz. vol. 194; p. 643.
Flying-machine. J. Bárcz, (now by judicial change of name J. Bércz.) No. 1,073,655; Sept. 23; Gaz. vol. 194; p. 776.
Flying-machine. M. A. Parisano. No. 1,074,525; Sept. 30; Gaz. vol. 194; p. 1096.
Flying-machine safety-support. R. P. Fox. No. 1,073,977; Sept. 23; Gaz. vol. 194; p. 887.
Fodder and making same. V. Christensen. No. 1,073,591; Sept. 23; Gaz. vol. 194; p. 753.
Fodder-cutter. J. Dick. No. 1,072,924; Sept. 9; Gaz. vol. 194; p. 462.
Foldable box. A. L. Peck. No. 1,072,643; Sept. 9; Gaz. vol. 194; p. 361.
Folder or container for goods. W. H. Hart, Jr. No. 1,073,117; Sept. 16; Gaz. vol. 194; p. 566.
Folding box. P. E. Brame. No. 1,073,207; Sept. 16; Gaz. vol. 194; p. 598.
Folding-machine. H. K. King. No. 1,071,755; Sept. 2; Gaz. vol. 194; p. 80.
Folding table. C. C. Wilson. No. 1,072,550; Sept. 9; Gaz. vol. 194; p. 330.

Food product. M. Wolf and H. Cowen. No. 1,074,483; Sept. 30; Gaz. vol. 194; p. 1083.
Foot-cap, Continuous. W. L. Bliss. No. 1,071,800; Sept. 2; Gaz. vol. 194; p. 69.
Foot-rest and shoe-clamp. C. E. Lang. No. 1,073,807; Sept. 23; Gaz. vol. 194; p. 829.
Force-feed lubricator. A. Kirkham. No. 1,073,142; Sept. 16; Gaz. vol. 194; p. 574.
Forehead-protector. C. M. Morris. No. 1,072,486; Sept. 9; Gaz. vol. 194; p. 306.
Form, Dress-. C. R. De Bevoise. No. 1,072,023; Sept. 9; Gaz. vol. 194; p. 462.
Form, Garment-. F. Contenti. No. 1,073,960; Sept. 23; Gaz. vol. 194; p. 881.
Form or stand, Dress. F. A. Monahan. No. 1,073,157; Sept. 16; Gaz. vol. 194; p. 580.
Fountain: *See* Drinking-fountain; Illuminated fountain.
Frame: *See* Basket-frame; Canopy-frame; Car end frame, Cycle-frame; Embroidery-frame; Engine-supporting frame; Furnace-door frame; Mattress-frame; Photographic-printing frame; Printing-frame; Trial-frame.
Freezer-holder. J. H. Crowell. No. 1,072,434; Sept. 9; Gaz. vol. 194; p. 289.
Friction-brake. Z. P. Candee. No. 1,072,424; Sept. 9; Gaz. vol. 194; p. 285.
Friction-spring. G. L. Harvey. No. 1,073,678; Sept. 23; Gaz. vol. 194; p. 785.
Frog, Reversible hard-center. T. F. McEvoy and C. J. Lepperd. No. 1,072,866; Sept. 9; Gaz. vol. 194; p. 440.
Fruit-grader. J. W. Syler. No. 1,072,192; Sept. 2; Gaz. vol. 194; p. 178.
Fruit-knife. E. B. Lydick. No. 1,072,243; Sept. 2; Gaz. vol. 194; p. 195.
Fruit-pitting machine. E. A. Vary. No. 1,074,393; Sept. 30; Gaz. vol. 194; p. 1054.
Fuel-economizing apparatus. E. F. Clarke. No. 1,073,795; Sept. 23; Gaz. vol. 194; p. 825.
Fuel mixer, Gaseous-. W. S. Parker. No. 1,074,136; Sept. 30; Gaz. vol. 194; p. 969.
Full-stroke mechanism. H. Küntzler. No. 1,074,054; Sept. 23; Gaz. vol. 194; p. 912.
Fumigating apparatus, Formaldehyde. R. I. Leach and A. T. Beall. No. 1,073,913; Sept. 23; Gaz. vol. 194; p. 865.
Funnel for liquids, Self-closing. K. H. Rosenauer. No. 1,074,465; Sept. 30; Gaz. vol. 194; p. 1078.
Furnace: *See* Boiler-furnace; Crucible-furnace; Electric furnace; Floor-furnace; Gas-furnace; Heating-furnace; Hot-air furnace; Roasting-furnace; Siemens-Martin furnace; Smelting and refining furnace; Traveling-grate furnace.
Furnace. J. W. Hamilton, Jr., and J. W. Johnson. No. 1,072,331; Sept. 2; Gaz. vol. 194; p. 222.
Furnace. H. A. Poppenhusen and J. Harrington. No. 1,073,437; Sept. 16; Gaz. vol. 194; p. 679.
Furnace-charging apparatus. P. D. Canham. No. 1,072,571; Sept. 9; Gaz. vol. 194; p. 337.
Furnace-charging door. H. N. Leask. No. 1,074,509; Sept. 30; Gaz. vol. 194; p. 1090.
Furnace-door. F. Orth. No. 1,071,786; Sept. 2; Gaz. vol. 194; p. 41.
Furnace-door frame, Water-cooled. L. L. Knox. No. 1,073,144; Sept. 16; Gaz. vol. 194; p. 575.
Furnaces and the like, Automatic charging device for roasting-. L. Singer. No. 1,071,962; Sept. 2; Gaz. vol. 194; p. 100.
Furnaces, Feeding-twyer for ore-treating. E. E. Banes. No. 1,073,463; Sept. 16; Gaz. vol. 194; p. 689.
Furnaces, Process of and apparatus for feeding cars into and through tunnel-. A. H. Cowles. No. 1,073,219; Sept. 16; Gaz. vol. 194; p. 603.
Fuse. J. W. Hooley. No. 1,074,434; Sept. 30; Gaz. vol. 194; p. 1068.
Fuse device. A. E. Simmons. No. 1,074,218; Sept. 30; Gaz. vol. 194; p. 995.
Fuse, Electric. T. E. Murray, Jr. No. 1,073,619; Sept. 23; Gaz. vol. 194; p. 762.
Fuse for projectiles, Percussion-. K. Wieser. No. 1,072,544; Sept. 9; Gaz. vol. 194; p. 327.
Fuse, Impact-. K. Wieser. No. 1,072,546; Sept. 9; Gaz. vol. 194; p. 328.
Fuse, Mechanical time-. K. Wieser. No. 1,072,545; Sept. 9; Gaz. vol. 194; p. 328.
Fuse-plug. R. C. Bronson. No. 1,071,871; Sept. 2; Gaz. vol. 194; p. 70.
Fuses, Compound for igniting blast-. J. M. Cordray. No. 1,072,827; Sept. 9; Gaz. vol. 194; p. 426.
Gage: *See* Micrometer-gage; Pressure-gage; Pressure-alarm gage; Pressure-recording gage; Printing-press feed-gage; Saw-gage; Tank-gage; Water-gage; Weir-gage.
Gage. A. Bauschlicher. No. 1,072,378; Sept. 2; Gaz. vol. 194; p. 240.
Galvanic battery. J. Haigh. No. 1,073,753; Sept. 23; Gaz. vol. 194; p. 812.
Game apparatus. F. W. Klock. No. 1,072,013; Sept. 2; Gaz. vol. 194; p. 118.
Game apparatus. F. B. Junn. No. 1,072,954; Sept. 9; Gaz. vol. 194; p. 474.
Game apparatus. J. S. O'Reilly. No. 1,074,451; Sept. 30; Gaz. vol. 194; p. 1073.
Game appliance. J. Stein. No. 1,072,190; Sept. 2; Gaz vol. 194; p. 173.
Game, Card. E. M. Thomas. No. 1,073,786; Sept. 23; Gaz. vol. 194; p. 822.
Game-register. D. L. Martin and E. L. Flowers. No. 1,073,262; Sept. 16; Gaz. vol. 194; p. 618.
Game-trap. S. R. Munson. No. 1,073,923; Sept. 23; Gaz. vol. 194; p. 869.
Garbage-can. W. S. Miller. No. 1,072,022; Sept. 2; Gaz. vol. 194; p. 121.
Garment. F. M. Prestwich. No. 1,071,955; Sept. 2; Gaz. vol. 194; p. 97.
Garment. C. N. Dunbar and J. W. Batcheller, Jr. No. 1,073,479; Sept. 16; Gaz. vol. 194; p. 695.
Garment. R. Yeganian. No. 1,073,726; Sept. 23; Gaz. vol. 194; p. 803.
Garment, Electrically-heated. A. Pollák. No. 1,073,926; Sept. 23; Gaz. vol. 194; p. 870.
Garment-fastener. M. A. Willbrandt. No. 1,074,229; Sept. 30; Gaz. vol. 194; p. 1000.
Garment-hanger. J. A. Shea. No. 1,072,179; Sept. 2; Gaz. vol. 194; p. 175.
Garment holder and shape retainer. I. Bernstein. No. 1,073,084; Sept. 16; Gaz. vol. 194; p. 555.
Garment, One-piece. H. C. Routery. No. 1,072,776; Sept. 9; Gaz. vol. 194; p. 407.
Garment-staying device. M. J. Hoffman. No. 1,071,743; Sept. 2; Gaz. vol. 194; p. 25.
Garment-stretcher. F. W. Bognar. No. 1,072,690; Sept. 9; Gaz. vol. 194; p. 377.
Garter. F. A. Freeman. No. 1,071,726; Sept. 2; Gaz. vol. 194; p. 19.
Garter. F. G. Elker. No. 1,074,498; Sept. 30; Gaz. vol. 194; p. 1088.
Gas and electric outlet clamp, Combination. C. M. Wheelock. No. 1,073,722; Sept. 23; Gaz. vol. 194; p. 802.
Gas and oil burner, Combined. O. Nichols. No. 1,072,976; Sept. 9; Gaz. vol. 194; p. 482.
Gas and treating gases, Illuminating liquefied. H. Blau. No. 1,073,843; Sept. 23; Gaz. vol. 194; p. 840.
Gas apparatus, Water-. J. C. Stelfox. No. 1,072,370; Sept. 2; Gaz. vol. 194; p. 238.
Gas-burner, Inverted incandescent. V. H. Slinack. No. 1,072,781; Sept. 9; Gaz. vol. 194; p. 409.
Gas-burners, Automatic shut-off for. C. H. Schenk. No. 1,074,211; Sept. 30; Gaz. vol. 194; p. 993.
Gas-burning apparatus. P. Fyfe. No. 1,074,110; Sept. 30; Gaz. vol. 194; p. 960.
Gas condenser, Ammonia-. J. Dwyer. No. 1,073,746; Sept. 23; Gaz. vol. 194; p. 809.
Gas-controller, Safety. S. L. Neely and W. A. Minco. No. 1,074,132; Sept. 30; Gaz. vol. 194; p. 967.
Gas-currents, Device for trapping particles in suspension in. T. E. Murray. No. 1,073,621; Sept. 23; Gaz. vol. 194; p. 763.
Gas-currents, Trapping particles in suspension in. T. E. Murray and C. B. Grady. No. 1,073,620; Sept. 23; Gaz. vol. 194; p. 763.
Gas-currents, Trapping solid particles in suspension in. T. E. Murray and C. B. Grady. No. 1,073,622; Sept. 23; Gaz. vol. 194; p. 764.
Gas-engine. C. E. Sargent. No. 1,072,366; Sept. 2; Gaz. vol. 194; p. 236.
Gas-engine, Two-cycle. C. S. Blose. No. 1,073,086; Sept. 16; Gaz. vol. 194; p. 556.
Gas-fitting, Detachable. R. Behr. No. 1,074,100; Sept. 30; Gaz. vol. 194; p. 957.
Gas-furnace. P. A. J. Cousin. No. 1,072,578; Sept. 9; Gaz. vol. 194; p. 340.
Gas-generator. J. W. Bodyfield. No. 1,074,042; Sept. 23; Gaz. vol. 194; p. 908.
Gas generator, Acetylene-. M. G. Bunnell. No. 1,073,070; Sept. 9; Gaz. vol. 194; p. 514.
Gas generator, Acetylene-. C. H. Long. No. 1,073,767; Sept. 23; Gaz. vol. 194; p. 817.
Gas-generator for explosive-engines. S. W. Peregrine. No. 1,072,402; Sept. 2; Gaz. vol. 194; p. 249.
Gas-heated iron. H. Abramson. No. 1,073,884; Sept. 23; Gaz. vol. 194; p. 855.
Gas-heater. G. E. Sharpe. No. 1,072,780; Sept. 9; Gaz. vol. 194; p. 408.
Gas-heater. W. Collins. No. 1,074,312; Sept. 30; Gaz. vol. 194; p. 1027.
Gas lighting and extinguishing mechanism, Automatic. A. B. Shaw. No. 1,072,998; Sept. 9; Gaz. vol. 194; p. 490.
Gas-producer. E. Dor-Delattre. No. 1,072,098; Sept. 2; Gaz. vol. 194; p. 146.
Gas-producer. H. F. Wallmann. No. 1,072,536; Sept. 9; Gaz. vol. 194; p. 324.
Gas-producer. J. A. Herrick. No. 1,073,124; Sept. 16; Gaz. vol. 194; p. 568.
Gas-producer. C. H. T. Alston and P. T. Houston. No. 1,074,032; Sept. 23; Gaz. vol. 194; p. 905.
Gas-producer, Rectangular. R. B. Mildon. No. 1,073,919; Sept. 23; Gaz. vol. 194; p. 867.
Gas-purifiers, Closure for. E. F. Lloyd. No. 1,073,258; Sept. 16; Gaz. vol. 194; p. 616.
Gas-purifying apparatus. H. Buschel. No. 1,071,875; Sept. 2; Gaz. vol. 194; p. 71.
Gas, Removing impurities from coal-. G. H. Hultman. No. 1,073,605; Sept. 23; Gaz. vol. 194; p. 758.
Gas-scrubbing apparatus. E. F. Lloyd. No. 1,073,259; Sept. 16; Gaz. vol. 194; p. 617.
Gases, Apparatus for the purification of electrolytic. A. E. Knowles. No. 1,073,246; Sept. 16; Gaz. vol. 194; p. 612.

Gases, Burning natural and other. B. E. Eldred. No. 1,073,108; Sept. 16; Gaz. vol. 194; p. 564.
Gases, Composition for purifying. P. J. Granjon. No. 1,074,501; Sept. 30; Gaz. vol. 194; p. 1088.
Gases, Device for synthesizing. W. Siebert. No. 1,073,823; Sept. 23; Gaz. vol. 194; p. 834.
Gases, Device for synthesizing. W. Siebert. No. 1,073,870; Sept. 23; Gaz. vol. 194; p. 850.
Gaseous fluids, Removing suspended matter from. H. L. Doherty. No. 1,071,893; Sept. 2; Gaz. vol. 194; p. 78.
Gaseous mixtures, Apparatus for liquefying. H. Blau. No. 1,074,094; Sept. 23; Gaz. vol. 194; p. 925.
Gasolene-tank. L. F. Goodspeed. No. 1,073,676; Sept. 23; Gaz. vol. 194; p. 784.
Gasolene-tank alarm device. J. C. Stone. No. 1,072,371; Sept. 2; Gaz. vol. 194; p. 238.
Gate: *See* Farm-gate; Fence-gate; Sluice-gate; Water-gap gate.
Gate. W. H. Flagg. No. 1,073,848; Sept. 23; Gaz. vol. 194; p. 842.
Gate-operating means. C. W. Witall. No. 1,073,552; Sept. 16; Gaz. vol. 194; p. 718.
Gear, Change-speed. A. T. Collier. No. 1,072,913; Sept. 9; Gaz. vol. 194; p. 450.
Gear mechanism, Intermittent-. L. J. R. Holst. No. 1,074,362; Sept. 30; Gaz. vol. 194; p. 1043.
Gearing. G. Fast. No. 1,071,719; Sept. 2; Gaz. vol. 194; p. 16.
Gearing. C. Wauinger. No. 1,072,282; Sept. 2; Gaz. vol. 194; p. 207.
Gearing. S. P. Watt. No. 1,072,538; Sept. 9; Gaz. vol. 194; p. 325.
Gearing. W. A. Mayhall. No. 1,073,055; Sept. 9; Gaz. vol. 194; p. 508.
Gearing. F. C. Youngerman. No. 1,073,313; Sept. 16; Gaz. vol. 194; p. 637.
Gearing. J. C. Thompson. No. 1,074,579; Sept. 30; Gaz. vol. 194; p. 1114.
Gearing, Elastic coupling for motor-. I. Koechlin. No. 1,072,622; Sept. 9; Gaz. vol. 194; p. 354.
Gearing for motor-vehicles. W. C. Price. No. 1,072,165; Sept. 2; Gaz. vol. 194; p. 170.
Gearing mechanism. H. F. Snyder. No. 1,072,188; Sept. 2; Gaz. vol. 194; p. 177.
Gearing, Reversing-. F. P. Soprunoff. No. 1,073,448; Sept. 16; Gaz. vol. 194; p. 683.
Gearing, Transmission-. E. H. Schofield. No. 1,071,804; Sept. 2; Gaz. vol. 194; p. 48.
Gearing, Transmission-. P. L. Johnson and F. J. S. Kilgour. No. 1,072,237; Sept. 2; Gaz. vol. 194; p. 192.
Gearing, Variable-speed. W. S. Kindle and A. L. Plush. No. 1,072,407; Sept. 2; Gaz. vol. 194; p. 251.
Gearing, Variable-speed-transmission. J. O. Michaud. No. 1,073,775; Sept. 23; Gaz. vol. 194; p. 819.
Generator: *See* Gas-generator.
Giant-stride. O. H. Mason. No. 1,073,918; Sept. 23; Gaz. vol. 194; p. 867.
Glass-drawing and take-down apparatus. O. E. Maynard. No. 1,073,613; Sept. 23; Gaz. vol. 194; p. 760.
Glass-etching machine. E. Bell. No. 1,073,586; Sept. 23; Gaz. vol. 194; p. 751.
Glass-furnaces, Means for maintaining a constant working level in. A. L. Day. No. 1,074,167; Sept. 30; Gaz. vol. 194; p. 979.
Glass-grinding apparatus, Truing mechanism for. R. C. Beatty. No. 1,074,099; Sept. 30; Gaz. vol. 194; p. 957.
Glass grinding or polishing machine. W. L. Kann. No. 1,071,751; Sept. 2; Gaz. vol. 194; p. 28.
Glass, Machine for finishing the edges of plate-. G. M. Tremmel. No. 1,074,141; Sept. 30; Gaz. vol. 194; p. 970.
Glass, Method of and apparatus for drawing. R. L. Frink. No. 1,071,727; Sept. 2; Gaz. vol. 194; p. 19.
Glove. E. T. Baskin. No. 1,072,560; Sept. 9; Gaz. vol. 194; p. 333.
Glove and mitt, Base-ball. C. M. King. No. 1,072,012; Sept. 2; Gaz. vol. 194; p. 118.
Glove, Ball-player's. J. S. Cameron. No. 1,072,697; Sept. 9; Gaz. vol. 194; p. 380.
Glove-fingers, Hood for. R. N. Carson. No. 1,074,351; Sept. 30; Gaz. vol. 194; p. 1040.
Gold-saving machine. L. C. Dibert. No. 1,071,891; Sept. 2; Gaz. vol. 194; p. 77.
Governing mechanism. K. Dougan. No. 1,071,895; Sept. 2; Gaz. vol. 194; p. 78.
Governor and speed-indicator, Centrifugal. P. O. Dorer. No. 1,073,031; Sept. 9; Gaz. vol. 194; p. 500.
Governor, Centrifugal. C. Day and G. E. Windeler. No. 1,071,988; Sept. 2; Gaz. vol. 194; p. 109.
Governor, Gas-engine. F. G. Burghoffer. No. 1,072,696; Sept. 9; Gaz. vol. 194; p. 380.
Governor, Multiple centrifugal. H. A. Weidenbach. No. 1,072,888; Sept. 9; Gaz. vol. 194; p. 449.
Governors, Antivibration device for centrifugal. N. H. Holland. No. 1,071,744; Sept. 2; Gaz. vol. 194; p. 26.
Grab-irons, Attaching means for. H. U. La Rue. No. 1,071,930; Sept. 2; Gaz. vol. 194; p. 90.
Graders, Throwing-wheel for. W. J. Ehrsam and L. N. Morscher. No. 1,072,442; Sept. 9; Gaz. vol. 194; p. 292.
Grain-binders, Bundle-transfer for. L. Anderson. No. 1,073,066; Sept. 9; Gaz. vol. 194; p. 512.
Grain-driers, Duct-control mechanism for. F. R. Morris. No. 1,072,762; Sept. 9; Gaz. vol. 194; p. 402.
Grain-drill. H. C. Waite. No. 1,073,826; Sept. 23; Gaz. vol. 194; p. 835.
Grain scourer or cleaner. F. Horstmann. No. 1,074,052; Sept. 23; Gaz. vol. 194; p. 911.
Grain-separating machine. M. Weaver. No. 1,073,451; Sept. 16; Gaz. vol. 194; p. 685.
Grain-shocker. R. Woods. No. 1,073,456; Sept. 16; Gaz. vol. 194; p. 686.
Gramophone. G. Meling. No. 1,072,346; Sept. 2; Gaz. vol. 194; p. 228.
Grate, Fireplace-. J. P. Hansen. No. 1,071,915; Sept. 2; Gaz. vol. 194; p. 85.
Grease-box for the axles of vehicles. A. Dehu. No. 1,071,989; Sept. 2; Gaz. vol. 194; p. 109.
Grease-cup. S. W. McKillop. No. 1,073,154; Sept. 16; Gaz. vol. 194; p. 579.
Grease-cup. J. Rank. No. 1,074,291; Sept. 30; Gaz. vol. 194; p. 1020.
Grease-trap. G. J. Dehn. No. 1,071,889; Sept. 2; Gaz. vol. 194; p. 76.
Grinding apparatus, Wood-. F. A. Waldron. No. 1,074,144; Sept. 30; Gaz. vol. 194; p. 971.
Grinding-disk, Self-adjusting. R. A. Reynolds. No. 1,072,033; Sept. 2; Gaz. vol. 194; p. 125.
Grinding-laps, Machine for making. G. W. Bowers. No. 1,072,564; Sept. 9; Gaz. vol. 194; p. 334.
Grinding-machine. G. W. Bowers. No. 1,072,692; Sept. 9; Gaz. vol. 194; p. 378.
Grinding-machine. J. E. Crandall. No. 1,073,097; Sept. 16; Gaz. vol. 194; p. 560.
Grinding machine, Saw-. A. Elrod. No. 1,074,047; Sept. 23; Gaz. vol. 194; p. 909.
Grinding machines, Tool-holder for tool-. T. Lumsden. No. 1,072,629; Sept. 9; Gaz. vol. 194; p. 356.
Grinding-mill. H. C. Strack. No. 1,074,299; Sept. 30; Gaz. vol. 194; p. 1022.
Grinding-wheel for granite. P. Dunn. No. 1,072,216; Sept. 2; Gaz. vol. 194; p. 186.
Gripping device. W. E. Miller. No. 1,073,156; Sept. 16; Gaz. vol. 194; p. 579.
Ground, Machine for turning over. G. A. Matheson. No. 1,073,999; Sept. 23; Gaz. vol. 194; p. 895.
Grubber. T. B. Hendricks. No. 1,072,455; Sept. 9; Gaz. vol. 194; p. 296.
Gun, Air-. A. Wissler. No. 1,073,454; Sept. 16; Gaz. vol. 194; p. 686.
Gun, Air-. A. Wissler. No. 1,073,455; Sept. 16; Gaz. vol. 194; p. 686.
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Gun, Differential-recoil. E. Müller. No. 1,072,350; Sept. 2; Gaz. vol. 194; p. 229.
Gun safety mechanism, Breakdown-. E. Flues. No. 1,071,994; Sept. 2; Gaz. vol. 194; p. 112.
Gun-sights, Air-vell for. H. H. Cummings. No. 1,072,828; Sept. 9; Gaz. vol. 194; p. 426.
Gun-support, Pivoted. K. Völler and C. Waninger. No. 1,073,061; Sept. 9; Gaz. vol. 194; p. 511.
Guns, Breech-actuating apparatus of heavy. A. T. Dawson and J. Horne. No. 1,072,319; Sept. 2; Gaz. vol. 194; p. 218.
Guns, Breech mechanism for machine-. A. W. Schwarzlose. No. 1,072,997; Sept. 9; Gaz. vol. 194; p. 489.
Guy-clamp. J. Blackburn. No. 1,071,868; Sept. 2; Gaz. vol. 194; p. 69.
Hair-removing device. J. E. White. No. 1,071,978; Sept. 2; Gaz. vol. 194; p. 105.
Hair-waver. E. and H. P. Andrews. No. 1,073,014; Sept. 9; Gaz. vol. 194; p. 494.
Halter-lock. G. H. Taylor. No. 1,071,824; Sept. 2; Gaz. vol. 194; p. 54.
Halter-rope clip. A. Freeman. No. 1,073,226; Sept. 16; Gaz. vol. 194; p. 606.
Hammer. S. K. Niemi. No. 1,074,009; Sept. 23; Gaz. vol. 194; p. 897.
Hammer, Percussive. F. J. Brown. No. 1,074,044; Sept. 23; Gaz. vol. 194; p. 909.
Hammer, Registering branding-. C. W. Wright. No. 1,073,203; Sept. 16; Gaz. vol. 194; p. 596.
Hammers, Spring-clip for pneumatic. J. F. Eischeid. No. 1,074,420; Sept. 30; Gaz. vol. 194; p. 1063.
Hammock. M. Pietilänen. No. 1,071,954; Sept. 2; Gaz. vol. 194; p. 97.
Hammock, Sleeping-. J. M. Lowrimore. No. 1,071,764; Sept. 2; Gaz. vol. 194; p. 33.
Hand-rake. A. W. Buell. No. 1,072,568; Sept. 9; Gaz. vol. 194; p. 336.
Handle: *See* Ball-handle; Brush-handle; Switch-handle; Tool-handle; Tool-chest handle.
Handy hook. R. J. Wigley. No. 1,072,285; Sept. 2; Gaz. vol. 194; p. 207.
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Harrow. J. Wyss. No. 1,072,292; Sept. 2; Gaz. vol. 194; p. 210.
Harrow. T. V. Barnard. No. 1,073,318; Sept. 16; Gaz. vol. 194; p. 638.
Harrow and cultivator, Riding. W. W. McArthur. No. 1,074,444; Sept. 30; Gaz. vol. 194; p. 1071.
Harrow and roller, Combined ground. P. P. Boland. No. 1,073,952; Sept. 23; Gaz. vol. 194; p. 879.
Harrow, Disk. F. K. Lathrop. No. 1,073,428; Sept. 16; Gaz. vol. 194; p. 676.

Harrow, Motor-. T. Camp. No. 1,073,026; Sept. 9; Gaz. vol. 194; p. 499.
Harvester, Beet-. J. A. Fanger. No. 1,072,218; Sept. 2; Gaz. vol. 194; p. 196.
Harvesters, Grain-lifting attachment for. M. C. Graney. No. 1,073,979; Sept. 23; Gaz. vol. 194; p. 888.
Harvesting-machine. S. J. Rice. No. 1,073,819; Sept. 23; Gaz. vol. 194; p. 832.
Harvesting machine, Beet-. E. A. Rasey. No. 1,071,794; Sept. 2; Gaz. vol. 194; p. 44.
Harvesting machine, Corn-. O. P. Vroom. No. 1,073,572; Sept. 16; Gaz. vol. 194; p. 725.
Harvesting-machines, Motor-supporting bracket for. E. B. Cushman. No. 1,073,099; Sept. 16; Gaz. vol. 194; p. 561.
Hat-case, Lady's. N. H. Ward. No. 1,073,191; Sept. 16; Gaz. vol. 194; p. 592.
Hat-fastener. I. Braverman and J. Schmidt. No. 1,071,691; Sept. 2; Gaz. vol. 194; p. 7.
Hat-fastener. E. T. Miller. No. 1,073,507; Sept. 16; Gaz. vol. 194; p. 702.
Hat-pin. L. M. Morgan. No. 1,073,360; Sept. 16; Gaz. vol. 194; p. 653.
Hat-pin guard. E. H. Mantle. No. 1,074,443; Sept. 30; Gaz. vol. 194; p. 1071.
Hat-pin, Lady's. A. Wals. No. 1,073,881; Sept. 23; Gaz. vol. 194; p. 854.
Hat-pin-point protector. W. Gramacki. No. 1,074,357; Sept. 30; Gaz. vol. 194; p. 1042.
Hat-pin protector. R. D. Coleman. No. 1,073,959; Sept. 23; Gaz. vol. 194; p. 881.
Hat-retainer, Self-adjustable. H. Smith. No. 1,072,266; Sept. 2; Gaz. vol. 194; p. 201.
Hauling apparatus. C. O. Cole. No. 1,071,882; Sept. 2; Gaz. vol. 194; p. 74.
Hay-carrier. D D Miller and D. E. Rowland. No. 1,074,189; Sept. 30; Gaz. vol. 194; p. 986.
Hay-loader. S. M. Wixcel. No. 1,073,649; Sept. 23; Gaz. vol. 194; p. 773.
Hay-press. E. L. Tatum. No. 1,073,304; Sept. 16; Gaz. vol. 194; p. 633.
Hay-presses, Self-feeder for. O. F. and C. J. Duncan. No. 1,073,744; Sept. 23; Gaz. vol. 194; p. 809.
Hay-rack-removing appliance. E. Martin. No. 1,071,935; Sept. 2; Gaz. vol. 194; p. 92.
Hay rake and tedder. L. E. Waterman. No. 1,072,677; Sept. 9; Gaz. vol. 194; p. 373.
Hay-rakes, Load-ejector for bull. I. M. Barnard and J. W. Lawler. No. 1,073,948; Sept. 23; Gaz. vol. 194; p. 878.
Hay-sling. H. Morgen. No. 1,074,516; Sept. 30; Gaz. vol. 194; p. 1092.
Headlight, Automatic. C. T. Hammack. No. 1,072,114; Sept. 2; Gaz. vol. 194; p. 152.
Headlight, Automatic curve-showing. P. W. and P. S. Snyder. No. 1,071,814; Sept. 2; Gaz. vol. 194; p. 51.
Headlight control for automobiles. H. W. Potts. No. 1,074,527; Sept. 30; Gaz. vol. 194; p. 1096.
Heat-engine. H. W. Shonnard. No. 1,072,180; Sept. 2; Gaz. vol. 194; p. 175.
Heat-insulated receptacle. W. Stanley. No. 1,071,817; Sept. 2; Gaz. vol. 194; p. 52.
Heater: *See* Automobile radiator-heater; Electric heater; Gas-heater; Hot-water heater; Orchard-heater; Solar heater; Tank-heater; Water-heater.
Heater. W. S. Elliott. No. 1,073,109; Sept. 16; Gaz. vol. 194; p. 564.
Heater. W. F. Pascoe, Jr. No. 1,074,194; Sept. 30; Gaz. vol. 194; p. 988.
Heater. W. F. Pascoe, Jr. No. 1,074,195; Sept. 30; Gaz. vol. 194; p. 988.
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Heating apparatus, Liquid-fuel. F. P. Shoemaker. No. 1,073,534; Sept. 16; Gaz. vol. 194; p. 711.
Heating device. F. D. Holdsworth. No. 1,072,728; Sept. 9; Gaz. vol. 194; p. 390.
Heating-furnace. A. Glass. No. 1,074,258; Sept. 30; Gaz. vol. 194; p. 1009.
Heating-iron. P. Santurello. No. 1,073,933; Sept. 23; Gaz. vol. 194; p. 872.
Heating systems, Thermostatic controlling apparatus for. T. Farmer, Jr. No. 1,072,707; Sept. 9; Gaz. vol. 194; p. 383.
Heel-breast buffer. H. G. Bendix. No. 1,073,949; Sept. 23; Gaz. vol. 194; p. 878.
Heel-counters, Stretching device for. J. D. Foreman. No. 1,071,903; Sept. 2; Gaz. vol. 194; p. 81.
Heel-nailing machine, Shoe-. J. F. Salaba. No. 1,074,469; Sept. 30; Gaz. vol. 194; p. 1079.
Heels, Machine for trimming last-. H. F. Loewer. No. 1,072,963; Sept. 9; Gaz. vol. 194; p. 477.
Heels, Removable tread for. R. Steinpach. No. 1,074,070; Sept. 23; Gaz. vol. 194; p. 917.
High and low water alarm apparatus. G. W. Walsh. No. 1,072,062; Sept. 2; Gaz. vol. 194; p. 134.
Hinge. M. M. Roberts. No. 1,072,364; Sept. 2; Gaz. vol. 194; p. 225.
Hinge. G. Steingruber. No. 1,073,537; Sept. 16; Gaz. vol. 194; p. 712.
Hinge, Concealed. F. P. Reidhaar. No. 1,072,774; Sept. 9; Gaz. vol. 194; p. 406.
Hinge, Concealed. E. N. Baldwin, Jr. No. 1,073,316; Sept. 16; Gaz. vol. 194; p. 637.
Hinge, Detachable door-. F. A. Barrett. No. 1,071,982; Sept. 2; Gaz. vol. 194; p. 107.
Hinge, Gate-. O. B. Kempton. No. 1,072,957; Sept. 9; Gaz. vol. 194; p. 474.
Hitching device, Safety horse-. C. E. Sullivan. No. 1,072,671; Sept. 9; Gaz. vol. 194; p. 371.
Hitching mechanism, Automatic. S. M. Wixcel. No. 1,073,651; Sept. 23; Gaz. vol. 194; p. 774.
Hitching mechanism for vehicles, Automatic. S. M. Wixcel. No. 1,073,650; Sept. 23; Gaz. vol. 194; p. 774.
Hoe. W. Schultz. No. 1,072,657; Sept. 9; Gaz. vol. 194; p. 366.
Holdback. J. Clayton. No. 1,073,028; Sept. 9; Gaz. vol. 194; p. 499.
Hole-shaping machine, Non-circular-. E. Lauterjung. No. 1,073,252; Sept. 16; Gaz. vol. 194; p. 614.
Honer and stropper. A. C. Hayden. No. 1,073,119; Sept. 16; Gaz. vol. 194; p. 566.
Honey-jar. H. Anderson. No. 1,073,459; Sept. 16; Gaz. vol. 194; p. 687.
Hook: *See* Fish-hook; Loading-hook; Safety-hook.
Hook. C. W. Shaw. No. 1,072,263; Sept. 2; Gaz. vol. 194; p. 200.
Hoop: *See* Embroidery-hoop.
Hoop-machine. W. Glader. No. 1,071,733; Sept. 2; Gaz. vol. 194; p. 21.
Hopper, Gravel-. F. E. Klunker. No. 1,073,245; Sept. 16; Gaz. vol. 194; p. 611.
Horse-blanket holder. E. R. Anderson. No. 1,072,070; Sept. 2; Gaz. vol. 194; p. 137.
Horse-detacher. C. B. Smith. No. 1,074,476; Sept. 30; Gaz. vol. 194; p. 1081.
Horseshoe. A. G. Palm. No. 1,073,778; Sept. 23; Gaz. vol. 194; p. 820.
Horseshoe. W. Rakowski and J. Glowacki. No. 1,074,202; Sept. 30; Gaz. vol. 194; p. 991.
Horseshoe. E. G. Donnelly. No. 1,074,353; Sept. 30; Gaz. vol. 194; p. 1041.
Horseshoe-calk. J. S. Holliday. No. 1,073,236; Sept. 16; Gaz. vol. 194; p. 609.
Horseshoe-calk. E. H. Trundle. No. 1,073,546; Sept. 16; Gaz. vol. 194; p. 715.
Horseshoe calk and carrier. P. Nurse. No. 1,074,450; Sept. 30; Gaz. vol. 194; p. 1073.
Hose-clamp. F. H. Albee. No. 1,072,896; Sept. 9; Gaz. vol. 194; p. 452.
Hose-clamp. M. W. Shipp. No. 1,073,533; Sept. 16; Gaz. vol. 194; p. 710.
Hose-clamp applier. J. E. Blake. No. 1,072,301; Sept. 2; Gaz. vol. 194; p. 213.
Hose-coupling. R. C. Hilton. No. 1,071,921; Sept. 2; Gaz. vol. 194; p. 87.
Hose-coupling. G. T. Greer. No. 1,073,850; Sept. 23; Gaz. vol. 194; p. 843.
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Hose-coupling. C. Giovannoni. No. 1,074,319; Sept. 30; Gaz. vol. 194; p. 1029.
Hose-mending device. J. E. Peck. No. 1,072,253; Sept. 2; Gaz. vol. 194; p. 197.
Hose or garment supporter. D. Wertz. No. 1,072,542; Sept. 9; Gaz. vol. 194; p. 329.
Hose-supporter. A. Rockowitz. No. 1,072,872; Sept. 9; Gaz. vol. 194; p. 443.
Hot-air furnace. D. S. Richardson. No. 1,072,409; Sept. 9; Gaz. vol. 194; p. 311.
Hot-water heater. C. W. Moon and I. Moore. No. 1,073,016; Sept. 23; Gaz. vol. 194; p. 761.
Hover. L. W. Potter. No. 1,072,029; Sept. 2; Gaz. vol. 194; p. 124.
Hub and axle, Vehicle. T. G. Oelke. No. 1,072,250; Sept. 2; Gaz. vol. 194; p. 197.
Hub, Wheel-. E. W. Perry. No. 1,072,983; Sept. 9; Gaz. vol. 194; p. 485.
Hulling peas, beans, and the like, Machine for. R. P. Scott. No. 1,072,176; Sept. 2; Gaz. vol. 194; p. 173.
Hydraulic motor. C. R. Lawson. No. 1,072,475; Sept. 9; Gaz. vol. 194; p. 303.
Hydraulic-power system. A. L. Reynolds. No. 1,074,292; Sept. 30; Gaz. vol. 194; p. 1020.
Hydraulic-power transformer. R. Heindl. No. 1,072,718; Sept. 9; Gaz. vol. 194; p. 386.
Hydraulic press for continuously-fed pasty or loose material. J. Jacobsen. No. 1,073,856; Sept. 23; Gaz. vol. 194; p. 845.
Hydrocarbon burner, Fluid-. C. F. and I. C. Williams. No. 1,072,548; Sept. 9; Gaz. vol. 194; p. 329.
Hydrocarbon-igniter. W. R. Jeavons. No. 1,071,749; Sept. 2; Gaz. vol. 194; p. 27.
Hydrocarbon-motor. F. H. Trego. No. 1,073,183; Sept. 16; Gaz. vol. 194; p. 589.
Hydrocarbons, Obtaining a charge liquid particularly adapted for explosion-motors from liquid. R. Hense. No. 1,073,233; Sept. 16; Gaz. vol. 194; p. 607.
Hydrocarbons of the benzene series, Reduction of meta-nitro derivatives of. B. J. Flürscheim. No. 1,074,545; Sept. 30; Gaz. vol. 194; p. 1102.
Hydrometer. F. J. Berberich. No. 1,074,039; Sept. 23; Gaz. vol. 194; p. 907.
Hydroplane for submersible boats, Folding. G. C. Davison. No. 1,073,100; Sept. 16; Gaz. vol. 194; p. 561.
Hydroturbine-aspirator. T. O. Perry. No. 1,071,789; Sept. 2; Gaz. vol. 194; p. 43.

Ice-chipper. A. M. Wood. No. 1,074,307; Sept. 30; Gaz. vol. 194; p. 1025.
Ice, &c., Conveyer for handling. B. B. Phillips. No. 1,072,985; Sept. 9; Gaz. vol. 194; p. 485.
Ice-making apparatus. Z. U. Dodge. No. 1,074,417; Sept. 30; Gaz. vol. 194; p. 1062.
Ice-tank and hydraulic scale, Combination. H. S. Munch. No. 1,073,922; Sept. 23; Gaz. vol. 194; p. 868.
Identification device. E. Fuchs. No. 1,073,036; Sept. 9; Gaz. vol. 194; p. 501.
Igniter. G. B. Lambert. No. 1,072,961; Sept. 9; Gaz. vol. 194; p. 476.
Igniter. E. C. Jones. No. 1,074,265; Sept. 30; Gaz. vol. 194; p. 1011.
Igniter, Make-and-break. H. W. Bolens. No. 1,073,087; Sept. 16; Gaz. vol. 194; p. 556.
Ignition system, Magneto. J. M. Dinkins and F. B. Hays. No. 1,074,416; Sept. 30; Gaz. vol. 194; p. 1062.
Illuminated fountain. J. H. Reichart. No. 1,073,521; Sept. 16; Gaz. vol. 194; p. 707.
Illuminating device. K. Edison. No. 1,071,900; Sept. 2; Gaz. vol. 194; p. 80.
Illuminating device. J. Lafitte. No. 1,073,147; Sept. 16; Gaz. vol. 194; p. 576.
Implement, Compound. J. H. Biehl. No. 1,073,565; Sept. 16; Gaz. vol. 194; p. 722.
Impregnating and coating materials, Apparatus for. L. F. Destribats. No. 1,072,705; Sept. 9; Gaz. vol. 194; p. 382.
Incubator. E. W. Andrews. No. 1,073,814; Sept. 16; Gaz. vol. 194; p. 637.
Index-tab. W. E. Harrod. No. 1,071,916; Sept. 2; Gaz. vol. 194; p. 85.
Indicating device. C. R. R. Claflin. No. 1,072,426; Sept. 9; Gaz. vol. 194; p. 286.
Indicator: *See* Liquid-level indicator; Speed-indicator; Station-indicator; Tire-pressure indicator.
Ingot-manufacturing apparatus. W. H. Connell. No. 1,074,251; Sept. 30; Gaz. vol. 194; p. 1006.
Ingot-molds, Apparatus for handling. S. T. Wellman and H. W. Lash. No. 1,073,196; Sept. 16; Gaz. vol. 194; p. 593.
Ingots, Manufacture of. W. H. Connell. No. 1,074,248; Sept. 30; Gaz. vol. 194; p. 1006.
Ingots, Manufacture of. W. H. Connell. No. 1,074,249; Sept. 30; Gaz. vol. 194; p. 1006.
Inhaler. J. B. Miller. No. 1,072,759; Sept. 9; Gaz. vol. 194; p. 401.
Injector. J. W. Grantland. No. 1,073,602; Sept. 23; Gaz. vol. 194; p. 757.
Ink-distributing mechanism. E. J. F. Rea. No. 1,074,066; Sept. 23; Gaz. vol. 194; p. 916.
Insect-exterminator. F. Doney. No. 1,073,029; Sept. 9; Gaz. vol. 194; p. 499.
Insect-trap. J. T. Chandler. No. 1,073,793; Sept. 23; Gaz. vol. 194; p. 824.
Insole-preparing machine. G. E. Rollins. No. 1,072,168; Sept. 2; Gaz. vol. 194; p. 171.
Instep-support. E. L. Shane. No. 1,072,878; Sept. 9; Gaz. vol. 194; p. 445.
Insulator. L. Steinberger. No. 1,072,523; Sept. 9; Gaz. vol. 194; p. 319.
Insulator. L. Steinberger. No. 1,072,524; Sept. 9; Gaz. vol. 194; p. 320.
Insulator, Suspension-. L. Steinberger. No. 1,072,525; Sept. 9; Gaz. vol. 194; p. 320.
Insulator, Tubular. G. Simcoe. No. 1,072,999; Sept. 9; Gaz. vol. 194; p. 400.
Integrator. L. Ott. No. 1,072,153; Sept. 2; Gaz. vol. 194; p. 166.
Internal-combustion engine. P. Spranger. No. 1,071,967; Sept. 2; Gaz. vol. 194; p. 101.
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Internal-combustion engine. N. A. Christensen. No. 1,073,092; Sept. 16; Gaz. vol. 194; p. 558.
Internal-combustion engine. E. T. Young. No. 1,073,553; Sept. 16; Gaz. vol. 194; p. 718.
Internal-combustion engine. P. S. Smith. No. 1,073,640; Sept. 23; Gaz. vol. 194; p. 770.
Internal-combustion engine. W. J. Wright. No. 1,073,652; Sept. 23; Gaz. vol. 194; p. 775.
Internal-combustion engine. L. O. Martin. No. 1,073,770; Sept. 23; Gaz. vol. 194; p. 818.
Internal-combustion engine, Multicylinder. H. Lentz. No. 1,074,055; Sept. 23; Gaz. vol. 194; p. 912.
Internal-combustion engine, Water-cooled. K. J. E. Heselman. No. 1,072,946; Sept. 9; Gaz. vol. 194; p. 471.
Iron: *See* Curling-iron; Flat-iron; Gas-heated iron; Heating-iron; Sad-iron; Vehicle rub-iron.
Iron. J. R. Ricketts. No. 1,073,440; Sept. 16; Gaz. vol. 194; p. 681.
Iron and steel by means of ferrochromium alloy, Refining. J. Büchel. No. 1,071,873; Sept. 2; Gaz. vol. 194; p. 70.
Iron and steel, Making. J. R. Billings. No. 1,073,587; Sept. 23; Gaz. vol. 194; p. 752.
Iron, steel, and steel alloys, Case-hardening articles of. F. Giolitti. No. 1,074,114; Sept. 30; Gaz. vol. 194; p. 961.
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Iron surfaces from corrosion, Protecting. S. O. Cowper-Coles. No. 1,072,091; Sept. 2; Gaz. vol. 194; p. 144.
Ironing-board. C. Danielson. No. 1,073,404; Sept. 16; Gaz. vol. 194; p. 669.
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Ironing-table, Tailor's and laundry. J. C. Ostern. No. 1,074,328; Sept. 30; Gaz. vol. 194; p. 1032.
Irrigation system, Elevated. Y. R. Anderson. No. 1,073,834; Sept. 23; Gaz. vol. 194; p. 838.
Jack: *See* Automobile-jack; Wagon-jack.
Jacquard mechanism. J. A. Groebli. No. 1,073,343; Sept. 16; Gaz. vol. 194; p. 647.
Jar: *See* Honey-jar.
Joint: *See* Ball-and-socket joint; Knee-joint; Rail-joint; Universal joint.
Journal-box. P. Brown. No. 1,071,872; Sept. 2; Gaz. vol. 194; p. 70.
Journal-box, Car-axle. H. H. Hewitt. No. 1,072,719; Sept. 9; Gaz. vol. 194; p. 387.
Journal-box, Railway-car. H. H. Hewitt. No. 1,072,726; Sept. 9; Gaz. vol. 194; p. 389.
Journal-box, Railway-car. H. H. Hewitt. No. 1,072,727; Sept. 9; Gaz. vol. 194; p. 390.
Journal-box with independent supporting and pulling rollers, Car-axle. F. W. Gragert. No. 1,074,172; Sept. 30; Gaz. vol. 194; p. 981.
Key: *See* Separable key.
Key attachment. A. M. Heimbaugh. No. 1,074,359; Sept. 30; Gaz. vol. 194; p. 1043.
Key-seat-broaching machine. F. J. Lapointe. No. 1,073,251; Sept. 16; Gaz. vol. 194; p. 614.
Keying device. O. C. Beach. No. 1,074,343; Sept. 30; Gaz. vol. 194; p. 1037.
Keyboards of autopiayers, Electric attachment for. O. Herrmann. No. 1,073,044; Sept. 9; Gaz. vol. 194; p. 504.
Keyhole-guard. A. R. Reed. No. 1,073,779; Sept. 23; Gaz. vol. 194; p. 820.
Kiln: *See* Drier-kiln.
Kiln. C. Hook. No. 1,073,045; Sept. 9; Gaz. vol. 194; p. 504.
Kinematograph apparatus. W. Chipperfield and W. E. Garforth. No. 1,073,395; Sept. 16; Gaz. vol. 194; p. 665.
Kinematographs, Target apparatus for. B. W. Bates, H. W. Kelly, and D. H. Corbin. No. 1,072,298; Sept. 2; Gaz. vol. 194; p. 212.
Knee and ankle brace. E. Spahn. No. 1,072,369; Sept. 2; Gaz. vol. 194; p. 237.
Knee-joint, Artificial. C. A. Aunger. No. 1,074,238; Sept. 30; Gaz. vol. 194; p. 1001.
Knee-pad. W. Schmitt. No. 1,074,531; Sept. 30; Gaz. vol. 194; p. 1097.
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Knit fabric having a welt and making the same. R. W. Scott. No. 1,074,019; Sept. 23; Gaz. vol. 194; p. 901.
Knitted garment. M. Nydegger. No. 1,072,640; Sept. 9; Gaz. vol. 194; p. 360.
Knitted necktie. J. Kellner and S. Worms. No. 1,072,471; Sept. 9; Gaz. vol. 194; p. 302.
Knitted necktie, Bias-lace. J. Kellner and S. Worms. No. 1,073,050; Sept. 9; Gaz. vol. 194; p. 507.
Knitting bias-lace knitted necktie. J. Kellner and S. Worms. No. 1,072,734; Sept. 9; Gaz. vol. 194; p. 393.
Knitting-machine. F. B. Wildman. No. 1,071,979; Sept. 2; Gaz. vol. 194; p. 106.
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Knitting-machine stop-motion. R. C. Gruber. No. 1,071,910; Sept. 2; Gaz. vol. 194; p. 83.
Knitting-machine using double-ended latch-needles, Circular-fashioning. W. H. Beale. No. 1,073,885; Sept. 23; Gaz. vol. 194; p. 855.
Knitting neckties and scarfs. J. Kellner and S. Worms. No. 1,072,856; Sept. 9; Gaz. vol. 194; p. 436.
Knockdown box. E. F. Jones. No. 1,073,187; Sept. 16; Gaz. vol. 194; p. 573.
Knockdown table. S. C. Thompson. No. 1,072,060; Sept. 2; Gaz. vol. 194; p. 133.
Knotter. H. D. Colman. No. 1,072,575; Sept. 9; Gaz. vol. 194; p. 338.
Labeler, Bottle-. J. J. Gaynor. No. 1,071,781; Sept. 2; Gaz. vol. 194; p. 21.
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Lace, Shoe-. E. Kempshall. No. 1,073,496; Sept. 16; Gaz. vol. 194; p. 690.
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Ladder, Step-. B. C. Freas. No. 1,074,318; Sept. 30; Gaz. vol. 194; p. 1029.
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Lamp. D. D. Myers. No. 1,074,449; Sept. 30; Gaz. vol. 194; p. 1072.
Lamp, Acetylene-gas. W. Gschwendner. No. 1,073,980; Sept. 23; Gaz. vol. 194; p. 888.
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Lamp, Electric pocket-. E. Neudörffer. No. 1,074,377; Sept. 30; Gaz. vol. 194; p. 1049.
Lamp-extinguisher. I. Greenwald, J. Blaustein, M. Z. Weiss, and M. Selkovits. No. 1,073,484; Sept. 16; Gaz. vol. 194; p. 696.
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Lamp, Traffic and rear-end signal-. H. W. Sweeting. No. 1,074,024; Sept. 23; Gaz. vol. 194; p. 902.
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Lantern-bracket for vehicles. J. P. Kline. No. 1,074,272; Sept. 30; Gaz. vol. 194; p. 1013.
Lantern, Tubular. C. Bergener. No. 1,072,688; Sept. 9; Gaz. vol. 194; p. 376.
Lantern, Tubular. C. L. Betts. No. 1,073,465; Sept. 16; Gaz. vol. 194; p. 689.
Lap-robe. G. Sullivan. No. 1,074,389; Sept. 30; Gaz. vol. 194; p. 1053.
Lap-robe for automobiles, &c. L. W. House. No. 1,073,237; Sept. 16; Gaz. vol. 194; p. 609.
Last, Collapsible. J. D. Fadden. No. 1,071,901; Sept. 2; Gaz. vol. 194; p. 81.
Lasting-machine speed-controlling mechanism. M. Brock. No. 1,072,694; Sept. 9; Gaz. vol. 194; p. 379.
Lasting-strip. W. B. Keighley. No. 1,073,570; Sept. 16; Gaz. vol. 194; p. 724.
Latch. O. and A. Schlatz. No. 1,071,802; Sept. 2; Gaz. vol. 194; p. 47.
Latch. F. C. Altmann. No. 1,074,340; Sept. 30; Gaz. vol. 194; p. 1036.
Latch and lock for doors, Combined. E. W. Case. No. 1,073,736; Sept. 23; Gaz. vol. 194; p. 806.
Latch and lock, Gate. T. L. Johnson. No. 1,074,181; Sept. 30; Gaz. vol. 194; p. 984.
Latch, Door-. F. Becker. No. 1,071,862; Sept. 2; Gaz. vol. 194; p. 67.
Latch for elevator-doors. B. Wexler. No. 1,072,064; Sept. 2; Gaz. vol. 194; p. 134.
Latch, Gate-. W. W. Prince. No. 1,074,013; Sept. 23; Gaz. vol. 194; p. 899.
Latch-operating mechanism for vehicle-doors. W. M. Simmons. No. 1,072,048; Sept. 2; Gaz. vol. 194; p. 129.
Latch, Window-. G. Erz. No. 1,072,593; Sept. 9; Gaz. vol. 194; p. 344.
Lathe, Automatic turret-. J. C. Potter. No. 1,072,648; Sept. 9; Gaz. vol. 194; p. 363.
Lathe, Turning-. C. F. Huther, Jr. No. 1,073,901; Sept. 23; Gaz. vol. 194; p. 861.
Lathe, Turret-. J. C. Potter and J. Johnston. No. 1,074,561; Sept. 30; Gaz. vol. 194; p. 1107.
Lathes, Automatic cross-slide feed-trip for-. W. L. Miller. No. 1,072,484; Sept. 9; Gaz. vol. 194; p. 306.
Lathes, Traverse grinding, milling, and drilling machine for. E. N. Moor. No. 1,073,698; Sept. 23; Gaz. vol. 194; p. 793.
Laundry machinery. L. Judelson. No. 1,072,617; Sept. 9; Gaz. vol. 194; p. 352.
Laundry-press. D. M. Cooper. No. 1,073,890; Sept. 23; Gaz. vol. 194; p. 858.
Lawn-sprinkler. E. Wismar. No. 1,074,336; Sept. 30; Gaz. vol. 194; p. 1035.
Lawn-trimmer. W. M. Norcross. No. 1,072,151; Sept. 2; Gaz. vol. 194; p. 166.
Lead and zinc, Separation of. J. Babé. No. 1,073,461; Sept. 16; Gaz. vol. 194; p. 688.
Lead oxids, Production of. O. W. Brown and A. R. Nees. No. 1,072,205; Sept. 2; Gaz. vol. 194; p. 183.
Leather packing. H. Talent. No. 1,073,181; Sept. 16; Gaz. vol. 194; p. 589.
Leather-staking machine. P. Bohacek. No. 1,074,348; Sept. 30; Gaz. vol. 194; p. 1039.
Leather-treating machine. G. V. Anderson. No. 1,073,064; Sept. 9; Gaz. vol. 194; p. 511.
Lenses, Apparatus for the manufacture of. M. Bentzon. No. 1,072,419; Sept. 9; Gaz. vol. 194; p. 285.
Levee. J. W. Mosher. No. 1,073,278; Sept. 16; Gaz. vol. 194; p. 623.
Levee. J. Beazley, Sr. No. 1,074,156; Sept. 30; Gaz. vol. 194; p. 975.
Level and gage, Combined. G. M. Keefauver. No. 1,074,367; Sept. 30; Gaz. vol. 194; p. 1045.
Leveling device and drive-gear, Combined. W. Scott. No. 1,072,043; Sept. 2; Gaz. vol. 194; p. 128.
Lever-lock. O. A. Benham. No. 1,074,038; Sept. 23; Gaz. vol. 194; p. 907.
Life-lines, Means for carrying. B. F. McCreary. No. 1,072,968; Sept. 9; Gaz. vol. 194; p. 479.
Life-lines, Means for carrying. B. F. McCreary. No. 1,072,969; Sept. 9; Gaz. vol. 194; p. 479.
Lifter: *See* Trap-door lifter.
Light: *See* Flash-light.
Lighter. R. Fischer. No. 1,072,935; Sept. 9; Gaz. vol. 194; p. 466.
Lighter. C. Gabz. No. 1,073,229; Sept. 16; Gaz. vol. 194; p. 607.
Lighting-fixture. H. M. McKechnie. No. 1,071,938; Sept. 2; Gaz. vol. 194; p. 93.
Lightning-arrester. E. E. F. Creighton. No. 1,071,710; Sept. 2; Gaz. vol. 194; p. 13.
Lightning-arrester. F. W. Peek, Jr. No. 1,074,454; Sept. 30; Gaz. vol. 194; p. 1074.
Line-casting machine. J. R. Rogers. No. 1,072,037; Sept. 2; Gaz. vol. 194; p. 126.
Line-casting machine. F. W. Neumayer. No. 1,072,765; Sept. 9; Gaz. vol. 194; p. 403.
Line-casting machine. P. T. Dodge. No. 1,074,105; Sept. 30; Gaz. vol. 194; p. 959.
Line-guide for copyists. W. C. Spedden. No. 1,073,939; Sept. 23; Gaz. vol. 194; p. 874.
Link-mesh-making machine. A. C. Pratt. No. 1,071,790; Sept. 2; Gaz. vol. 194; p. 43.
Linotype-machines, Squirt-preventer mechanism for. D. Petri-Palmedo. No. 1,073,705; Sept. 23; Gaz. vol. 194; p. 796.
Liquid-dispenser. J. Desmond. No. 1,071,890; Sept. 2; Gaz. vol. 194; p. 77.
Liquid-dispensing apparatus. J. J. C. Meyer. No. 1,073,433; Sept. 16; Gaz. vol. 194; p. 678.
Liquid-dispensing device. M. M. Marcuse. No. 1,073,864; Sept. 23; Gaz. vol. 194; p. 847.
Liquid-fuel burner. S. Crosbie. No. 1,072,918; Sept. 9; Gaz. vol. 194; p. 460.
Liquid-fuel burner. H. Izard. No. 1,074,435; Sept. 30; Gaz. vol. 194; p. 1068.
Liquid-level indicator. J. E. Johnston. No. 1,072,122; Sept. 2; Gaz. vol. 194; p. 155.
Liquid-raising apparatus. J. F. Reddy. No. 1,073,630; Sept. 23; Gaz. vol. 194; p. 766.
Liquid-treating apparatus. K. W. Bartlett. No. 1,072,900; Sept. 9; Gaz. vol. 194; p. 454.
Liquids and gases or vapors, Apparatus for producing interaction between. J. A. Hart. No. 1,072,849; Sept. 9; Gaz. vol. 194; p. 434.
Liquids and solids, Machine for separating. A. Lindemann. No. 1,073,611; Sept. 23; Gaz. vol. 194; p. 760.
Liquids from vapors and gases, Apparatus for separating out. P. Graefe. No. 1,072,941; Sept. 9; Gaz. vol. 194; p. 469.
Liquids, Raising or forcing. H. A. Humphrey. No. 1,072,852; Sept. 9; Gaz. vol. 194; p. 435.
Loading and unloading apparatus. L. H. Vold. No. 1,072,533; Sept. 9; Gaz. vol. 194; p. 323.
Loading-hook. M. T. Byrn. No. 1,071,983; Sept. 2; Gaz. vol. 194; p. 107.
Lock: *See* Automobile-lock; Bag-lock; Bung-lock; Combination-lock; Door-lock; Halter-lock; Lamp-lock; Lever-lock; Nut-lock; Nut and bolt lock; Padlock; Robe-lock; Sash-lock; Seal-lock; Window-lock.
Lock. E. R. Gaskill. No. 1,071,904; Sept. 2; Gaz. vol. 194; p. 81.
Lock. H. Handig. No. 1,071,913; Sept. 2; Gaz. vol. 194; p. 84.
Lock. H. R. Gilson. No. 1,071,999; Sept. 2; Gaz. vol. 194; p. 114.
Lock. J. Potapoff. No. 1,074,329; Sept. 30; Gaz. vol. 194; p. 1032.
Lock. F. M. Doughty. No. 1,074,418; Sept. 30; Gaz. vol. 194; p. 1063.
Lock-strike, Electric. F. F. Schneider. No. 1,072,996; Sept. 9; Gaz. vol. 194; p. 489.
Locks, Latch mechanism for. W. A. Russell and A. G. Weiser. No. 1,074,296; Sept. 30; Gaz. vol. 194; p. 1021.
Locking mechanism. W. K. Howe. No. 1,074,175; Sept. 30; Gaz. vol. 194; p. 981.
Locomotive. R. E. Noble. No. 1,072,396; Sept. 2; Gaz. vol. 194; p. 247.

Locomotive and tender couplings, Buffer for. T. L. McKeen. No. 1,074,445; Sept. 30; Gaz. vol. 194; p. 1071.
Locomotive-cab storm-window. W. Slaughter. No. 1,072,184; Sept. 2; Gaz. vol. 194; p. 176.
Locomotive or traction-engine. G. W. Volz. No. 1,074,028; Sept. 23; Gaz. vol. 194; p. 904.
Locomotive-pilot. G. D. Bowen. No. 1,072,303; Sept. 2; Gaz. vol. 194; p. 214.
Locomotive tenders, Safety device for railway-. G. E. Bryant. No. 1,072,081; Sept. 2; Gaz. vol. 194; p. 140.
Logging-cars, Bunk and locking-block for. C. F. Gerlinger. No. 1,071,997; Sept. 2; Gaz. vol. 194; p. 113.
Loom. R. W. Schrey. No. 1,072,877; Sept. 9; Gaz. vol. 194; p. 445.
Loom for weaving. A. G. Koechlin. No. 1,073,145; Sept. 16; Gaz. vol. 194; p. 575.
Loom for weaving oriental knotted fabrics. T. P. Walsh. No. 1,071,973; Sept. 2; Gaz. vol. 194; p. 103.
Loom for weaving oriental knotted fabrics. T. P. Walsh. No. 1,072,885; Sept. 9; Gaz. vol. 194; p. 448.
Loom pattern mechanism. E. H. Ryon. No. 1,073,635; Sept. 23; Gaz. vol. 194; p. 768.
Loom, Ribbon-. J. Hausermann. No. 1,072,944; Sept. 9; Gaz. vol. 194; p. 470.
Loom, Weft-replenishing. E. H. Ryon. No. 1,074,530; Sept. 30; Gaz. vol. 194; p. 1097.
Looms, Driving connection for picker-sticks of weaving-. V. Riel. No. 1,072,502; Sept. 9; Gaz. vol. 194; p. 312.
Lubricant-retaining means. A. T. Brown. No. 1,072,421; Sept. 9; Gaz. vol. 194; p. 283.
Lubricating device. C. C. Doss. No. 1,071,804; Sept. 2; Gaz. vol. 194; p. 78.
Lubricating device. A. F. Kirschbaum. No. 1,072,619; Sept. 9; Gaz. vol. 194; p. 353.
Lubrication. S. M. Jenkins. No. 1,073,606; Sept. 23; Gaz. vol. 194; p. 758.
Lubricator: *See* Flange-lubricator; Force-feed lubricator; Piston-rod lubricator; Sight-feed lubricator.
Lubricator. G. R. Kennedy. No. 1,071,754; Sept. 2; Gaz. vol. 194; p. 29.
Lubricator. W. H. Knowles and W. F. Goreham. No. 1,073,911; Sept. 23; Gaz. vol. 194; p. 864.
Lubricator. J. F. McCanna. No. 1,074,128; Sept. 30; Gaz. vol. 194; p. 966.
Lunch-box. A. Roche. No. 1,071,797; Sept. 2; Gaz. vol. 194; p. 45.
Magnetic material. R. A. Fessenden. No. 1,074,424; Sept. 30; Gaz. vol. 194; p. 1064.
Magnetic separator. J. Weatherby. No. 1,071,838; Sept. 2; Gaz. vol. 194; p. 58.
Magnetic separator. G. Ullrich. No. 1,072,276; Sept. 2; Gaz. vol. 194; p. 204.
Magneto. P. Beck. No. 1,073,020; Sept. 9; Gaz. vol. 194; p. 496.
Mail-bag holder. G. W. Curtis. No. 1,073,402; Sept. 16; Gaz. vol. 194; p. 668.
Mail catcher and deliverer, Automatic. H. C. Kuhlman. No. 1,072,129; Sept. 2; Gaz. vol. 194; p. 157.
Mail catching and delivering device. G. R. Helton. No. 1,072,454; Sept. 9; Gaz. vol. 194; p. 296.
Mail-distributing machine. W. E. Robinson. No. 1,072,504; Sept. 9; Gaz. vol. 194; p. 312.
Mail-receptacle. J. W. Norman. No. 1,072,356; Sept. 2; Gaz. vol. 194; p. 232.
Make-and-break mechanism. H. A. Tepel. No. 1,074,071; Sept. 23; Gaz. vol. 194; p. 918.
Manicuring implement. H. A. Seymoure. No. 1,072,046; Sept. 2; Gaz. vol. 194; p. 129.
Manometer, Differential. F. E. Wolf. No. 1,074,306; Sept. 30; Gaz. vol. 194; p. 1025.
Manure-loader. W. Skakel. No. 1,073,716; Sept. 23; Gaz. vol. 194; p. 800.
Marine signal. R. F. Cordero. No. 1,073,798; Sept. 23; Gaz. vol. 194; p. 826.
Marking device. F. Contenti. No. 1,073,592; Sept. 23; Gaz. vol. 194; p. 754.
Mask, Catcher's. O. A. Younggren. No. 1,072,802; Sept. 9; Gaz. vol. 194; p. 417.
Massage device. J. E. Gibbs. No. 1,071,998; Sept. 2; Gaz. vol. 194; p. 114.
Massage, Vacuum-. W. J. Long. No. 1,071,931; Sept. 2; Gaz. vol. 194; p. 91.
Mat: *See* Door-mat; Floor-mat; Stove-mat.
Match-cards, Machine for making. C. Campus. No. 1,073,393; Sept. 16; Gaz. vol. 194; p. 664.
Match machine, Book-. C. Campus. No. 1,073,394; Sept. 16; Gaz. vol. 194; p. 665.
Match-splint cleaning and assembling machine. B. G. Vaughan. No. 1,072,852; Sept. 9; Gaz. vol. 194; p. 446.
Material from a container, Device for delivering. A. Clemens. No. 1,072,427; Sept. 9; Gaz. vol. 194; p. 286.
Materials, Treating. F. W. Yost. No. 1,074,150; Sept. 30; Gaz. vol. 194; p. 973.
Matrix device. J. A. Maker. No. 1,072,015; Sept. 2; Gaz. vol. 194; p. 119.
Mattress frame, Spring-. D. C. Travis. No. 1,071,827; Sept. 2; Gaz. vol. 194; p. 55.
Mattress, Spring-. J. L. Tandy. No. 1,073,877; Sept. 23; Gaz. vol. 194; p. 852.
Mattress, Wire. O. Gasau. No. 1,072,220; Sept. 2; Gaz. vol. 194; p. 187.
Mayonnaise dressing and the like, Beater for. J. Hutchinson. No. 1,071,747; Sept. 2; Gaz. vol. 194; p. 26.
Measurer, Roll-. H. M. Sprecher. No. 1,072,268; Sept. 2; Gaz. vol. 194; p. 202.
Measuring apparatus, Bag-. J. Amacher. No. 1,072,897; Sept. 9; Gaz. vol. 194; p. 453.
Measuring apparatus, Boot and shoe. J. H. Meacham. No. 1,071,778; Sept. 2; Gaz. vol. 194; p. 36.
Measuring-cup, Strainer. L. F. Kerlinger. No. 1,073,141; Sept. 16; Gaz. vol. 194; p. 574.
Measuring device, Automatic liquid-. F. Schorik and F. F. Marshall. No. 1,074,386; Sept. 30; Gaz. vol. 194; p. 1052.
Measuring instrument, Electrical. R. L. Triplett. No. 1,072,531; Sept. 9; Gaz. vol. 194; p. 322.
Measuring instrument, Electrical. C. M. Crook. No. 1,073,098; Sept. 16; Gaz. vol. 194; p. 560.
Measuring instrument, Electrical. L. T. Robinson and O. Holz. No. 1,073,632; Sept. 23; Gaz. vol. 194; p. 767.
Measuring standing timber, Instrument for. L. G. Cook. No. 1,072,577; Sept. 9; Gaz. vol. 194; p. 339.
Meat-clamp. A. H. Matthew. No. 1,072,966; Sept. 9; Gaz. vol. 194; p. 478.
Mechanical movement. C. Keck. No. 1,073,075; Sept. 9; Gaz. vol. 194; p. 516.
Mechanical movement. J. T. Helms. No. 1,073,121; Sept. 16; Gaz. vol. 194; p. 567.
Merry-go-round. W. S. Tothill. No. 1,073,449; Sept. 16; Gaz. vol. 194; p. 684.
Mesh-bag. E. Beline. No. 1,074,237; Sept. 30; Gaz. vol. 194; p. 1002.
Metal bars, rails, &c., Manufacture of. T. A. Dicks. No. 1,072,436; Sept. 9; Gaz. vol. 194; p. 290.
Metal blanks, Machine for reducing the section of. P. M. Haas. No. 1,072,001; Sept. 2; Gaz. vol. 194; p. 115.
Metal-cutting-off device. E. E. Smith. No. 1,073,873; Sept. 23; Gaz. vol. 194; p. 851.
Metal leaf, Forming mountings for. F. W. Rauskolb. No. 1,072,992; Sept. 9; Gaz. vol. 194; p. 488.
Metal-manipulator. J. Kennedy. No. 1,073,607; Sept. 23; Gaz. vol. 194; p. 758.
Metal-shearing machine. J. W. Branson. No. 1,073,583; Sept. 16; Gaz. vol. 194; p. 720.
Metal structure. W. L. Caldwell. No. 1,074,242; Sept. 30; Gaz. vol. 194; p. 1004.
Metal, Surface-hardening. J. H. McCormick. No. 1,071,937; Sept. 2; Gaz. vol. 194; p. 93.
Metal-working apparatus, Electric. A. F. Rietzel. No. 1,074,383; Sept. 30; Gaz. vol. 194; p. 1050.
Metals by fusion, Electric deposition of. A. P. Strohmenger. No. 1,073,543; Sept. 16; Gaz. vol. 194; p. 714.
Metals from ores, Apparatus for extracting. H. S. MacKay. No. 1,074,274; Sept. 30; Gaz. vol. 194; p. 1014.
Metals, Treating. J. A. McLarty. No. 1,073,076; Sept. 9; Gaz. vol. 194; p. 517.
Metallic box. R. H. Baker. No. 1,074,539; Sept. 30; Gaz. vol. 194; p. 1100.
Meter: *See* Water-meter.
Mica-building machine. J. R. Sanborn. No. 1,074,576; Sept. 30; Gaz. vol. 194; p. 1113.
Micrometer-gage. H. S. Plant. No. 1,072,493; Sept. 9; Gaz. vol. 194; p. 309.
Microscope, Corneal. C. H. Pixley. No. 1,073,436; Sept. 16; Gaz. vol. 194; p. 679.
Microtelephone. W. B. Oliver. No. 1,074,286; Sept. 30; Gaz. vol. 194; p. 1018.
Milk-can. L. R. Steel. No. 1,071,968; Sept. 2; Gaz. vol. 194; p. 102.
Milk, Producing desiccated. A. A. Dunham. No. 1,074,419; Sept. 30; Gaz. vol. 194; p. 1063.
Milk, Sterilizing. C. de Bock. No. 1,074,315; Sept. 30; Gaz. vol. 194; p. 1028.
Milking apparatus. L. Dinesen. No. 1,072,584; Sept. 9; Gaz. vol. 194; p. 341.
Milking apparatus. A. F. Stephens. No. 1,073,538; Sept. 16; Gaz. vol. 194; p. 712.
Milking apparatus. G. V. Roberts, Jr. No. 1,074,206; Sept. 30; Gaz. vol. 194; p. 992.
Mill: *See* Crushing-mill; Grinding-mill; Rail-straightening mill; Rolling-mill; Sawmill; Windmill.
Mill adapted for the crushing of sugar-canes and the like. F. W. Bolk. No. 1,074,159; Sept. 30; Gaz. vol. 194; p. 976.
Mine, Submarine. E. Schneider. No. 1,073,291; Sept. 16; Gaz. vol. 194; p. 628.
Mines, Automatic anchoring device for submarine. G. E. Elia. No. 1,072,928; Sept. 9; Gaz. vol. 194; p. 464.
Mining-machine. E. R. Merrill. No. 1,073,271; Sept. 16; Gaz. vol. 194; p. 621.
Minnow. C. Wilt. No. 1,073,199; Sept. 16; Gaz. vol. 194; p. 594.
Mirror and light, Adjustable. W. L. Franks. No. 1,071,725; Sept. 2; Gaz. vol. 194; p. 19.
Miter-clamp, Multiple-joint. F. Wagner. No. 1,073,549; Sept. 16; Gaz. vol. 194; p. 717.
Mixer: *See* Air and gas mixer; Concrete-mixer; Fuel-mixer.
Mixing-machine. G. M. Stedman. No. 1,074,388; Sept. 30; Gaz. vol. 194; p. 1052.
Moisture-proof construction. W. R. Clayton. No. 1,072,310; Sept. 2; Gaz. vol. 194; p. 216.
Mold: *See* Fence-post mold; Tombstone-mold.
Mold. A. Schlicht. No. 1,074,471; Sept. 30; Gaz. vol. 194; p. 1080.
Molds, Making. A. C. Mott, Jr. No. 1,074,006; Sept. 23; Gaz. vol. 194; p. 897.

Molder's flask. F. J. Becker. No. 1,072,811; Sept. 9; Gaz. vol. 194; p. 421.
Molders' use, Parting compound for. A. E. Durkee. No. 1,073,745; Sept. 23; Gaz. vol. 194; p. 809.
Molding device, Matrix-. A. E. Markwell. No. 1,072,137; Sept. 2; Gaz. vol. 194; p. 160.
Molding-machine. H. H. Hoose. No. 1,072,229; Sept. 2; Gaz. vol. 194; p. 190.
Molding-machine. W. Lewis and J. T. Ramsden. No. 1,072,395; Sept. 2; Gaz. vol. 194; p. 246.
Molding-machine. J. H. Burpee. No. 1,073,209; Sept. 16; Gaz. vol. 194; p. 599.
Molding-machine. J. H. Burpee. No. 1,073,210; Sept. 16; Gaz. vol. 194; p. 599.
Molding-machine. A. C. Mott. No. 1,074,518; Sept. 30; Gaz. vol. 194; p. 1093.
Mop. J. M. Lockhart. No. 1,073,612; Sept. 23; Gaz. vol. 194; p. 760.
Mop-stick. J. J. Beam. No. 1,073,464; Sept. 16; Gaz. vol. 194; p. 689.
Motion, Apparatus for determination of periodic. E. A. Sperry. No. 1,071,815; Sept. 2; Gaz. vol. 194; p. 51.
Motion, Means for converting rotary into reciprocating. M. A. Droitcour. No. 1,073,104; Sept. 16; Gaz. vol. 194; p. 562.
Motion, Means for transmitting rotary. A. D. Jones. No. 1,071,924; Sept. 2; Gaz. vol. 194; p. 88.
Motion-transmitting device. K. Keller. No. 1,073,764; Sept. 23; Gaz. vol. 194; p. 816.
Motor: *See* Current-motor; Explosion-motor; Fan-motor; Fluid-motor; Hydraulic motor; Hydrocarbon-motor; Pressure-motor; Wave-motor.
Motor. C. McWolfe. No. 1,074,059; Sept. 23; Gaz. vol. 194; p. 913.
Motor accelerating device, Alternating-current-. W. D. Lutz. No. 1,072,132; Sept. 2; Gaz. vol. 194; p. 159.
Motor-carriages, Condensing apparatus for steam. C. C. Worthington. No. 1,072,894; Sept. 9; Gaz. vol. 194; p. 452.
Motor control. M. A. Whiting. No. 1,071,840; Sept. 2; Gaz. vol. 194; p. 59.
Motor control, Alternating-current-. V. A. Fynn. No. 1,072,445; Sept. 9; Gaz. vol. 194; p. 293.
Motor-control system. R. H. McLain. No. 1,071,770; Sept. 2; Gaz. vol. 194; p. 35.
Motor-control system. W. Naumann. No. 1,071,778; Sept. 2; Gaz. vol. 194; p. 38.
Motor-control system. G. T. Eagar. No. 1,072,440; Sept. 9; Gaz. vol. 194; p. 291.
Motor-control system. G. B. Schley. No. 1,072,656; Sept. 9; Gaz. vol. 194; p. 365.
Motor-controlling system. E. R. Carichoff. No. 1,072,083; Sept. 2; Gaz. vol. 194; p. 141.
Motor regulation and control, Electric-. L. H. Thullen and F. W. Willey. No. 1,074,392; Sept. 30; Gaz. vol. 194; p. 1054.
Motor-starting device, Automatic. J. P. Smithers. No. 1,072,187; Sept. 2; Gaz. vol. 194; p. 177.
Motor-stopping device. A. F. W. Schlueter. No. 1,074,385; Sept. 30; Gaz. vol. 194; p. 1051.
Motors, Operating induction-. B. G. Lamme. No. 1,074,125; Sept. 30; Gaz. vol. 194; p. 966.
Mouthpiece-rolling machine. H. Rakowitzky. No. 1,072,259; Sept. 2; Gaz. vol. 194; p. 199.
Mucking apparatus. W. E. Trent. No. 1,073,184; Sept. 16; Gaz. vol. 194; p. 589.
Muffler. J. Kellner and S. Worms. No. 1,072,735; Sept. 9; Gaz. vol. 194; p. 393.
Music-turner. H. F. Gudde. No. 1,073,851; Sept. 23; Gaz. vol. 194; p. 843.
Musical instrument. P. Wirsching. No. 1,072,198; Sept. 2; Gaz. vol. 194; p. 181.
Musical-instrument keyboard. F. Clutsam. No. 1,072,311; Sept. 2; Gaz. vol. 194; p. 216.
Musical-instrument note-sheet. C. F. Stoddard. No. 1,072,527; Sept. 9; Gaz. vol. 194; p. 321.
Musical instrument with interchangeable necks, Stringed. S. Pieri. No. 1,074,458; Sept. 30; Gaz. vol. 194; p. 1076.
Musical instruments, Device for recording the tone volumes on. P. J. Meahl. No. 1,074,556; Sept. 30; Gaz. vol. 194; p. 1105.
Musical instruments, Modulating mechanism for. H. E. French. No. 1,071,995; Sept. 2; Gaz. vol. 194; p. 113.
Musical instruments, Tracker-bar for self-playing. P. Wirsching. No. 1,074,335; Sept. 30; Gaz. vol. 194; p. 1035.
Musical instruments, Wind-inducing device for self-playing. L. B. Doman. No. 1,073,223; Sept. 16; Gaz. vol. 194; p. 605.
Nail: *See* Shoe-nail.
Nail. A. Filshie. No. 1,072,107; Sept. 2; Gaz. vol. 194; p. 150.
Nail-making machine. J. Hyslop. No. 1,072,465; Sept. 9; Gaz. vol. 194; p. 300.
Nailing-machine. J. H. Pope. No. 1,072,986; Sept. 9; Gaz. vol. 194; p. 486.
Neck-making machine. B. Rous. No. 1,073,712; Sept. 23; Gaz. vol. 194; p. 798.
Neck-making machine. B. Rous. No. 1,073,713; Sept. 23; Gaz. vol. 194; p. 799.
Necktie. J. C. Stanford. No. 1,073,875; Sept. 23; Gaz. vol. 194; p. 852.
Necktie-clasp. M. J. Schloss. No. 1,072,779; Sept. 9; Gaz. vol. 194; p. 408.
Necktie-slide and collar-button. T. H. Stokes. No. 1,073,001; Sept. 9; Gaz. vol. 194; p. 491.
Needle-setting device. A. Carp. No. 1,072,084; Sept. 2; Gaz. vol. 194; p. 141.
Needle, Sewing-. W. J. Kendig. No. 1,073,140; Sept. 16; Gaz. vol. 194; p. 574.
Needles, Forming hooked or throated. J. M. Merrow. No. 1,072,482; Sept. 9; Gaz. vol. 194; p. 305.
Negative-outline-indicating device. U. Roberts. No. 1,073,169; Sept. 16; Gaz. vol. 194; p. 584.
Net. J. F. Masek. No. 1,074,276; Sept. 30; Gaz. vol. 194; p. 1015.
Newspaper-stand. T. C. Schepis and A. J. Schewe. No. 1,074,384; Sept. 30; Gaz. vol. 194; p. 1051.
Newspapers and the like, Means for folding and wrapping. A. E. Young. No. 1,071,853; Sept. 2; Gaz. vol. 194; p. 63.
Non-explosive stopper for bottles containing liquid fuels. A. Mueller. No. 1,074,448; Sept. 30; Gaz. vol. 194; p. 1072.
Note-case, Banker's. A. V. Kouba. No. 1,073,248; Sept. 16; Gaz. vol. 194; p. 612.
Nozzle. J. H. Cottle. No. 1,073,963; Sept. 23; Gaz. vol. 194; p. 882.
Nozzle for ladies. C. E. Michaels. No. 1,072,972; Sept. 9; Gaz. vol. 194; p. 480.
Nozzle, Spraying-. J. W. Potter. No. 1,073,438; Sept. 16; Gaz. vol. 194; p. 680.
Nut and bolt lock. J. J. Herron. No. 1,073,755; Sept. 23; Gaz. vol. 194; p. 813.
Nut-cracking mechanism. M. Love. No. 1,073,694; Sept. 23; Gaz. vol. 194; p. 791.
Nut, Emergency-. F. Whitman. No. 1,071,841; Sept. 2; Gaz. vol. 194; p. 60.
Nut-lock. E. E. Trevillion. No. 1,072,275; Sept. 2; Gaz. vol. 194; p. 204.
Nut-lock. G. W. Laing. No. 1,072,336; Sept. 2; Gaz. vol. 194; p. 224.
Nut-lock. F. Smith. No. 1,072,666; Sept. 9; Gaz. vol. 194; p. 369.
Nut-lock. J. Schlutter. No. 1,073,176; Sept. 16; Gaz. vol. 194; p. 587.
Nut-lock. W. J., W. B., and J. C. Cleary. No. 1,073,665; Sept. 23; Gaz. vol. 194; p. 780.
Nut-lock. I. M. Peck. No. 1,074,196; Sept. 30; Gaz. vol. 194; p. 988.
Nut-lock. G. Klenk. No. 1,074,551; Sept. 30; Gaz. vol. 194; p. 1104.
Nut, Lock-. S. G. Meeker. No. 1,072,755; Sept. 9; Gaz. vol. 194; p. 399.
Nut, Lock-. R. Wolf. No. 1,073,009; Sept. 9; Gaz. vol. 194; p. 493.
Nut, Lock-. K. Kessler. No. 1,073,497; Sept. 16; Gaz. vol. 194; p. 609.
Nut-shelling machine. A. Paul. No. 1,073,165; Sept. 16; Gaz. vol. 194; p. 582.
Obstetrical instrument. P. D. Russell. No. 1,072,038; Sept. 2; Gaz. vol. 194; p. 126.
Oil-burner. J. I. Sloan. No. 1,072,265; Sept. 2; Gaz. vol. 194; p. 201.
Oil-burner. W. J. Larimer. No. 1,072,024; Sept 9; Gaz. vol. 194; p. 354
Oil-burner. I. N. F. Randolph. No. 1,072,773; Sept. 9; Gaz. vol. 194; p. 406.
Oil-burner. L. Toxer. No. 1,073,306; Sept. 16; Gaz. vol. 194; p. 634.
Oil burner, Crude-. U. B. and J. S. Patrick. No. 1,073,283; Sept. 16; Gaz. vol. 194; p. 625.
Oil-burner fastener and splash-preventer. W. T. Jones. No. 1,073,689; Sept. 23; Gaz. vol. 194; p. 789.
Oil-cake-stripping machine. T. J. McNulty. No. 1,074,449; Sept. 30; Gaz. vol. 194; p. 1072.
Oil-can. A. T. Booth. No. 1,073,391; Sept. 16; Gaz. vol. 194; p. 663.
Oil-can. H. L. Larsen. No. 1,074,440; Sept. 30; Gaz. vol. 194; p. 1070.
Oil-engine. M. E. Matti. No. 1,074,000; Sept. 23; Gaz. vol. 194; p. 895.
Operating mechanism. J. Dietz. No. 1,073,409; Sept. 16; Gaz. vol. 194; p. 670.
Operating-table for animals. W. B. Higgason. No. 1,073,756; Sept. 23; Gaz. vol. 194; p. 813.
Orchard-heater. R. F. Cole. No. 1,071,704; Sept. 2; Gaz. vol. 194; p. 11.
Orchard-heater. C. Byron and A. Armstrong. No. 1,072,082; Sept. 2; Gaz. vol. 194; p. 141.
Orchard-heater. H. T. Libby. No. 1,072,242; Sept. 2; Gaz. vol. 194; p. 194.
Orchard-heater, Smokeless. S. Mochida. No. 1,071,942; Sept. 2; Gaz. vol. 194; p. 94.
Ordnance. W. D. Smith. No. 1,073,298; Sept. 16; Gaz. vol. 194; p. 631.
Ordnance. W. D. Smith. No. 1,073,299; Sept. 16; Gaz. vol. 194; p. 631.
Ordnance, Breech-loading. A. T. Dawson and G. T. Buckham. No. 1,072,485; Sept. 9; Gaz. vol. 194; p. 289.
Ordnance, Recoil and run-out gear of. A. T. Dawson and J. Horne. No. 1,074,541; Sept. 30; Gaz. vol. 194; p. 1101.
Ordnance, Run-out gear of heavy. A. T. Dawson and J. Horne. No. 1,074,566; Sept. 30; Gaz. vol. 194; p. 1105.
Ore and like separating means. P. Jubien. No. 1,072,732; Sept. 9; Gaz. vol. 194; p. 391.

Ore-classifier. J. W. Shields and A. C. Thielmann. No. 1,073,367; Sept. 16; Gaz. vol. 194; p. 655.
Ore-concentrator. J. Weatherby. No. 1,071,839; Sept. 2; Gaz. vol. 194; p. 59.
Ore-concentrator. H. E. Wood. No. 1,071,850; Sept. 2; Gaz. vol. 194; p. 62.
Ore-concentrator. J. Weatherby. No. 1,071,975; Sept. 2; Gaz. vol. 194; p. 104.
Ore-concentrator. M. L. Porter. No. 1,073,928; Sept. 23; Gaz. vol. 194; p. 870.
Ore separator, Dry-. W. W. Bonson. No. 1,073,069; Sept. 9; Gaz. vol. 194; p. 514.
Ore-separator, Electromagnetic. G. Rietkötter. No. 1,074,068; Sept. 23; Gaz. vol. 194; p. 916.
Ore-treating process. T. J. Lovett. No. 1,071,763; Sept. 2; Gaz. vol. 194; p. 35.
Ores and other materials, Apparatus for magnetic separation of. G. Ullrich. No. 1,072,277; Sept. 2; Gaz. vol. 194; p. 205.
Ores, Apparatus for the treatment of. G. Mitchell. No. 1,074,282; Sept. 30; Gaz. vol. 194; p. 1017.
Ores, flue-dust, and the like, Utilizing fine. H. C. Wolle and E. F. Kenney. No. 1,073,881; Sept. 16; Gaz. vol. 194; p. 660.
Ores, Process and apparatus for classifying crushed. W. F. Deister. No. 1,071,715; Sept. 2; Gaz. vol. 194; p. 15.
Ores, Process and apparatus for treating sulfid. E. E. Banes. No. 1,073,462; Sept. 16; Gaz. vol. 194; p. 688.
Ores, Treating. F. W. Pugsley. No. 1,071,791; Sept. 2; Gaz. vol. 194; p. 44.
Ores, Treating. J. A. McLarty. No. 1,072,752; Sept. 9; Gaz. vol. 194; p. 399.
Ores, Treating. J. A. McLarty. No. 1,072,753; Sept. 9; Gaz. vol. 194; p. 399.
Organ. E. Daliwig. No. 1,071,888; Sept. 2; Gaz. vol. 194; p. 76.
Organs, Air-regulator for. P. O. Boeske. No. 1,074,486; Sept. 30; Gaz. vol. 194; p. 1084.
Organic and inorganic materials, Treating. J. A. McLarty. No. 1,072,751; Sept. 9; Gaz. vol. 194; p. 398.
Oscillatable members, Support for. R. C. Leake. No. 1,071,761; Sept. 2; Gaz. vol. 194; p. 32.
Outlet-box. W. H. Hope. No. 1,072,462; Sept. 9; Gaz. vol. 194; p. 299.
Oven. H. G. Howell. No. 1,072,231; Sept. 2; Gaz. vol. 194; p. 190.
Oven, Chamber-. A. Gohmann. No. 1,072,223; Sept. 2; Gaz. vol. 194; p. 188.
Ovens, Coal-leveling machine for beehive-. J. H. Huhn. No. 1,074,119; Sept. 30; Gaz. vol. 194; p. 963.
Ovens, Lighting device for gas-burners of. A. C. Mott, Jr. No. 1,072,349; Sept. 2; Gaz. vol. 194; p. 229.
Overshoe. F. D. Shook. No. 1,071,960; Sept. 2; Gaz. vol. 194; p. 99.
Overshoe. H. C. Grimm. No. 1,072,225; Sept. 2; Gaz. vol. 194; p. 188.
Ozone and separating gases, Producing. H. Dumars. No. 1,074,106; Sept. 30; Gaz. vol. 194; p. 959.
Ozonizer. F. H. Richards. No. 1,074,462; Sept. 30; Gaz. vol. 194; p. 1077.
Packing, Piston-rod. A. Naeckel. No. 1,072,975; Sept. 9; Gaz. vol. 194; p. 481.
Packing-ring, Piston-rod. C. R. Bryant. No. 1,072,306; Sept. 2; Gaz. vol. 194; p. 215.
Packing, Rod-. A. K. Waycott. No. 1,072,679; Sept. 9; Gaz. vol. 194; p. 374.
Packing-shield, Hydraulic. C. H. Watts. No. 1,073,550; Sept. 16; Gaz. vol. 194; p. 718.
Pad: *See* Dress-pad; Electrically-heated pad; Knee-pad; Truss-pad.
Padlock, Permutation-. J. T. B. Williams. No. 1,074,029; Sept. 23; Gaz. vol. 194; p. 904.
Pails or vessels, Machine for attaching bail-ears to sheet-metal. S. Tevander. No. 1,072,790; Sept. 9; Gaz. vol. 194; p. 412.
Paint composition and making the same. A. S. B. Little. No. 1,072,476; Sept. 9; Gaz. vol. 194; p. 304.
Paint, Marine. T. Moran and D. Mosher. No. 1,072,485; Sept. 9; Gaz. vol. 194; p. 306.
Paper-bag machine. C. F. Smith. No. 1,074,330; Sept. 30; Gaz. vol. 194; p. 1033.
Paper cups, Machine for making crimped. H. Müller. No. 1,073,618; Sept. 23; Gaz. vol. 194; p. 762.
Paper-fastener. J. J. A. Miller. No. 1,072,483; Sept. 9; Gaz. vol. 194; p. 306.
Paper-feeding machine. A. D. Pejauo. No. 1,074,455; Sept. 30; Gaz. vol. 194; p. 1074.
Paper, Perforation device for wall-. S. E. Whisner. No. 1,072,896; Sept. 9; Gaz. vol. 194; p. 450.
Paper-pulp, Machine for making sheets of. G. S. Witham, Sr. No. 1,072,555; Sept. 9; Gaz. vol. 194; p. 332.
Paper-pulp tubes, Winding-roll or former for. F. E. Keyes. No. 1,072,011; Sept. 2; Gaz. vol. 194; p. 118.
Paper-trimming machine, Wall-. W. C. Alley. No. 1,072,377; Sept. 2; Gaz. vol. 194; p. 240.
Papering machine, Wall-. C. J. Siebenhaar. No. 1,071,812; Sept. 2; Gaz. vol. 194; p. 50.
Partition, Hollow. R. O. Hagerman. No. 1,073,041; Sept. 9; Gaz. vol. 194; p. 503.
Pattern-making method and apparatus. P. Buda. No. 1,072,906; Sept. 9; Gaz. vol. 194; p. 457.
Pavement. C. P. Walter. No. 1,073,647; Sept. 23; Gaz. vol. 194; p. 773.
Pear-burner. J. J. Messerli and J. L. Mayfield. No. 1,074,374; Sept. 30; Gaz. vol. 194; p. 1048.
Peat, slime, and like substances, Treating. G. Wolters. No. 1,074,400; Sept. 30; Gaz. vol. 194; p. 1057.
Pedal, Folding. E. Swanson. No. 1,074,222; Sept. 30; Gaz. vol. 194; p. 997.
Pedal, Folding. E. Swanson. No. 1,074,223; Sept. 30; Gaz. vol. 194; p. 998.
Pen, Fountain-. G. F. Brandt. No. 1,072,073; Sept. 2; Gaz. vol. 194; p. 138.
Pen and pencil holder. E. N. Humphrey. No. 1,072,730; Sept. 9; Gaz. vol. 194; p. 391.
Pen-point holder. J. H. Kulow. No. 1,072,240; Sept. 2; Gaz. vol. 194; p. 194.
Penholder. G. F. Brinkerhoff. No. 1,073,208; Sept. 16; Gaz. vol. 194; p. 598.
Penholder or pencil brace. C. A. Beaujon. No. 1,073,561; Sept. 16; Gaz. vol. 194; p. 721.
Pencil-clip, Combination. O. F. Lawson and C. Dungan. No. 1,073,053; Sept. 9; Gaz. vol. 194; p. 508.
Pencil-sharpener. J. O'Meara. No. 1,072,768; Sept. 9; Gaz. vol. 194; p. 404.
Pencil-sharpener. F. Unruh. No. 1,074,026; Sept. 23; Gaz. vol. 194; p. 903.
Percussive tool, Rotary. C. H. Hacseler. No. 1,074,116; Sept. 30; Gaz. vol. 194; p. 962.
Petroleum and other hydrocarbon burner. A. Brunette. No. 1,073,326; Sept. 16; Gaz. vol. 194; p. 641.
Petticoat. E. Eschelbacher. No. 1,074,109; Sept. 30; Gaz. vol. 194; p. 960.
Pharmaceutical compound. G. M. von Linden, E. Meissen, and A. Strauss. No. 1,072,745; Sept. 9; Gaz. vol. 194; p. 397.
Pharmaceutical compound. W. Hiemenz and L. Taub. No. 1,073,855; Sept. 23; Gaz. vol. 194; p. 845.
Pharmaceutical product. L. Taub. No. 1,073,942; Sept. 23; Gaz. vol. 194; p. 875.
Phonograph, Multiple. J. Roever. No. 1,072,873; Sept. 9; Gaz. vol. 194; p. 443.
Photograph-developing apparatus. F. W. Norton. No. 1,074,572; Sept. 30; Gaz. vol. 194; p. 1111.
Photograph-printing device. A. E. Lipp. No. 1,073,480; Sept. 16; Gaz. vol. 194; p. 677.
Photographic developing apparatus. H. B. Tobias. No. 1,072,792; Sept. 9; Gaz. vol. 194; p. 413.
Photographic films, Rack for drying. D. J. Rorabeck. No. 1,072,654; Sept. 9; Gaz. vol. 194; p. 365.
Photographic lens. W. Bielicke. No. 1,073,950; Sept. 23; Gaz. vol. 194; p. 878.
Photographic objective. E. Wandersleb. No. 1,073,789; Sept. 23; Gaz. vol. 194; p. 823.
Photographic-plate drier. C. M. Mogni. No. 1,071,943; Sept. 2; Gaz. vol. 194; p. 94.
Photographic-printing frame. G. W. Druhe. No. 1,072,215; Sept. 2; Gaz. vol. 194; p. 165.
Photometric device. I. G. Priest. No. 1,072,166; Sept. 2; Gaz. vol. 194; p. 170.
Piano-action. F. Schimmel. No. 1,071,801; Sept. 2; Gaz. vol. 194; p. 46.
Piano-action-flange holder. H. D. Pelle. No. 1,074,289; Sept. 30; Gaz. vol. 194; p. 1019.
Piano attachment. I. Traversaro. No. 1,073,944; Sept. 23; Gaz. vol. 194; p. 876.
Piano or other string instrument. F. Frankel. No. 1,073,673; Sept. 23; Gaz. vol. 194; p. 783.
Piano-player, Pneumato-electric. G. Beuchner and H. Semrau. No. 1,073,792; Sept. 23; Gaz. vol. 194; p. 824.
Piano-playing mechanism. B. R. Van Valkenburg. No. 1,074,563; Sept. 30; Gaz. vol. 194; p. 1106.
Piano string-plate. J. Andersen. No. 1,072,294; Sept. 2; Gaz. vol. 194; p. 211.
Piano with transposing-keyboard. A., F., and B. Mauro. No. 1,071,767; Sept. 2; Gaz. vol. 194; p. 34.
Piaselenol, Derivative of. E. Fischer. No. 1,074,425; Sept. 30; Gaz. vol. 194; p. 1064.
Pick-up table and postmarking-machine, Combined. J. T. Lynch. No. 1,073,808; Sept. 23; Gaz. vol. 194; p. 829.
Picker: *See* Vegetable-picker.
Picture film, Moving-. C. E. Dressler and I. W. Ullman. No. 1,073,411; Sept. 16; Gaz. vol. 194; p. 671.
Picture machines, Film-tensioning device for moving-. C. Huntoon, W. C. Roifes, and W. L. Wright. No. 1,074,177; Sept. 30; Gaz. vol. 194; p. 982.
Picture machines, Take-up device for motion-. A. L. Saltsman. No. 1,071,800; Sept. 2; Gaz. vol. 194; p. 46.
Pictures, Apparatus for the production of stereoscopic. H. Neuhaus. No. 1,074,284; Sept. 30; Gaz. vol. 194; p. 1018.
Pile-splice. W. A. McDearmid. No. 1,073,614; Sept. 23; Gaz. vol. 194; p. 761.
Pilot-beam. E. P. Kinne. No. 1,072,125; Sept. 2; Gaz. vol. 194; p. 156.
Pilot-lighter. P. M. Boeck. No. 1,073,321; Sept. 16; Gaz. vol. 194; p. 639.
Pin: *See* Hat-pin; Safety-pin.
Pin. C. F. Markham. No. 1,073,769; Sept. 23; Gaz. vol. 194; p. 817.
Pin. C. G. King. No. 1,074,270; Sept. 30; Gaz. vol. 194; p. 1013.
Pin-puller. F. H. Skinner. No. 1,072,521; Sept. 9; Gaz. vol. 194; p. 318.
Pin-puller, Double-acting. F. H. Skinner. No. 1,072,520; Sept. 9; Gaz. vol. 194; p. 318.
Pipe: *See* Tobacco-pipe.

Pipe-anchor. C. E. Frederickson. No. 1,074,427; Sept. 30; Gaz. vol. 194; p. 1065.
Pipe-band wire-looping machine. C. P. Fuhrmann. No. 1,072,844; Sept. 9; Gaz. vol. 194; p. 432.
Pipe construction. J. W. Welch. No. 1,074,395; Sept. 30; Gaz. vol. 194; p. 1055.
Pipe-coupling. E. J. Kelly. No. 1,072,736; Sept. 9; Gaz. vol. 194; p. 393.
Pipe-coupling. D. C. Bailey. No. 1,073,017; Sept. 9; Gaz. vol. 194; p. 495.
Pipe-cutting machine. W. W. Vosper. No. 1,074,334; Sept. 30; Gaz. vol. 194; p. 1034.
Pipe-hanger support. U. S. Rickman. No. 1,072,361; Sept. 2; Gaz. vol. 194; p. 234.
Pipe-lining apparatus. G. W. Priest. No. 1,072,495; Sept. 9; Gaz. vol. 194; p. 309.
Pipe-molds. Pattern for ramming. R. G. James. No. 1,072,235; Sept. 2; Gaz. vol. 194; p. 191.
Pipe-patch J. Marmorstein. No. 1,073,505; Sept. 16; Gaz. vol. 194; p. 701.
Pipe-straightener. W. J. Moon. No. 1,071,945; Sept. 2; Gaz. vol. 194; p. 95.
Pipe-testing machine, Hydrostatic. J. L. Causey. No. 1,072,912; Sept. 9; Gaz. vol. 194; p. 459.
Pipe-threading machine. L. B. Curtis. No. 1,072,830; Sept. 9; Gaz. vol. 194; p. 427.
Pipe union or coupling for electric-conduit junction-boxes and other purposes. H. M. Bigwood and F. H. Terry. No. 1,072,379; Sept. 2; Gaz. vol. 194; p. 240.
Pipe-wrench. O. Becklin. No. 1,071,087; Sept. 2; Gaz. vol. 194; p. 5.
Pipe-wrench. C. L. Dunham. No. 1,072,320; Sept. 2; Gaz. vol. 194; p. 219.
Pipes with heads, &c., Means for connecting. K. M. Dahl. No. 1,072,208; Sept. 2; Gaz. vol. 194; p. 183.
Pistol. L. Woods. No. 1,073,312; Sept. 16; Gaz. vol. 194; p. 636.
Piston-ring remover. W. C. MacKinnon. No. 1,071,934; Sept. 2; Gaz. vol. 194; p. 92.
Piston-rod lubricator. C. Palomo y Goitiandia. No. 1,073,282; Sept. 16; Gaz. vol. 194; p. 625.
Piston, Trunk-. S. E. Alley and R. McGregor. No. 1,073,062; Sept. 9; Gaz. vol. 194; p. 511.
Pitch, Composition containing. J. Radcliffe. No. 1,071,792; Sept. 2; Gaz. vol. 194; p. 44.
Pitchfork attachment. O. C. Engebretson. No. 1,072,592; Sept. 9; Gaz. vol. 194; p. 344.
Planers and the like, Automatic reverse for. A. E. Fisher. No. 1,073,033; Sept. 9; Gaz. vol. 194; p. 500.
Planing-machine. P. A. Solem. No. 1,073,300; Sept. 16; Gaz. vol. 194; p. 632.
Planing machine, Wood-. C. W. Borg. No. 1,072,601; Sept. 9; Gaz. vol. 194; p. 378.
Plant-supporter. S. Gudgeon. No. 1,073,114; Sept. 16; Gaz. vol. 194; p. 565.
Planter. J. Gyulay. No. 1,072,942; Sept. 9; Gaz. vol. 194; p. 469.
Planter. C. R. Davis. No. 1,073,405; Sept. 16; Gaz. vol. 194; p. 669.
Planter N. C. Cross. No. 1,073,742; Sept. 23; Gaz. vol. 194; p. 808.
Planter. S. V. Brock. No. 1,074,240; Sept. 30; Gaz. vol. 194; p. 1003.
Planter attachment, Seed-. S. Milburn. No. 1,072,632; Sept. 9; Gaz. vol. 194; p. 357.
Planter, Corn-. C. W. Gillespie. No. 1,073,749; Sept. 23; Gaz. vol. 194; p. 810.
Planter, Corn-. G. E. Parker and W. Ellinger. No. 1,073,816; Sept. 23; Gaz. vol. 194; p. 831.
Planter marker, Corn-. A. J. Greene. No. 1,072,447; Sept. 9; Gaz. vol. 194; p. 293.
Planter, Peanut-. W. A. Wilson. No. 1,072,552; Sept. 9; Gaz. vol. 194; p. 330.
Planters, Automatic device for corn-. D. W. McProud. No. 1,073,269; Sept. 16; Gaz. vol. 194; p. 620.
Plastering-tool. W. Labelle. No. 1,071,758; Sept. 2; Gaz. vol. 194; p. 31.
Plastering, Wall-. G. Witty. No. 1,073,008; Sept. 9; Gaz. vol. 194; p. 493.
Plate-casting machine. C. H. Pettigrew. No. 1,072,158; Sept. 2; Gaz. vol. 194; p. 168.
Players, Sheet-driving mechanism for automatic. F. W. Draper. No. 1,071,897; Sept. 2; Gaz. vol. 194; p. 79.
Plow. N. Sanders. No. 1,072,160; Sept. 2; Gaz. vol. 194; p. 171.
Plow. F. J. Downing. No. 1,072,838; Sept. 9; Gaz. vol. 194; p. 430.
Plow. W. E. Huck. No. 1,073,759; Sept. 23; Gaz. vol. 194; p. 814.
Plow attachment. F. Muntz. No. 1,073,434; Sept. 16; Gaz. vol. 194; p. 678.
Plow attachment. E. B. Evenson. No. 1,074,422; Sept. 30; Gaz. vol. 194; p. 1064.
Plow, Disk. H. C. Waite. No. 1,073,827; Sept. 23; Gaz. vol. 194; p. 835.
Plow, Engine gang-. W. L. Paul. No. 1,073,361; Sept. 16; Gaz. vol. 194; p. 653.
Plow-lift, Mechanical. F. J. Savage. No. 1,073,636; Sept. 23; Gaz. vol. 194; p. 768.
Plow, motor-. J. N. Parker. No. 1,073,513; Sept. 16; Gaz. vol. 194; p. 704.
Plow, Motor-. L. S. Hackney. No. 1,074,115; Sept. 30; Gaz. vol. 194; p. 992.
Plow, Power-lift. L. E. Waterman. No. 1,072,678; Sept. 9; Gaz. vol. 194; p. 373.
Plow, Subsoil-. J. A. Huggins. No. 1,074,176; Sept. 30; Gaz. vol. 194; p. 982.
Plow subsoil attachment. W. F. Hartig. No. 1,073,984; Sept. 23; Gaz. vol. 194; p. 890.
Plows, Combination soil-pulverizer and seeder attachment for. G. F. Rowley. No. 1,074,208; Sept. 30; Gaz. vol. 194; p. 993.
Plows, Detachable shoe for landsides of. W. H. Lee. No. 1,073,698; Sept. 23; Gaz. vol. 194; p. 791.
Plows, Draft attachment for. E. Perry. No. 1,072,255; Sept. 2; Gaz. vol. 194; p. 198.
Plows, Raising and lowering the earth-turning element of wheeled. W. H. Lee. No. 1,072,863; Sept. 9; Gaz. vol. 194; p. 439.
Plows, Umbrella-holder for corn-. D. Cobb and C. H. Shaw. No. 1,072,574; Sept. 9; Gaz. vol. 194; p. 338.
Plug fitting, Attachment-. F. V. Burton. No. 1,073,955; Sept. 23; Gaz. vol. 194; p. 880.
Pneumatic carrier. W. H. Koehler. No. 1,072,126; Sept. 2; Gaz. vol. 194; p. 156.
Pneumatic cleaning implement. S. L. Guthorn. No. 1,072,607; Sept. 9; Gaz. vol. 194; p. 349.
Pneumatic-despatch-tube apparatus. A. W. Pearsall. No. 1,073,867; Sept. 23; Gaz. vol. 194; p. 848.
Pneumatic wheel. S. W. Scott. No. 1,073,177; Sept. 16; Gaz. vol. 194; p. 587.
Pole-tip. S. K. Anderson and J. Long. No. 1,072,296; Sept. 2; Gaz. vol. 194; p. 211.
Polishing-machine. L. F. Klay. No. 1,072,620; Sept. 9; Gaz. vol. 194; p. 353.
Porch, Sleeping-. E. R. Culver. No. 1,074,103; Sept. 30; Gaz. vol. 194; p. 958.
Post: *See* Fence-post.
Post-hole machine. B. C. Roberts. No. 1,073,821; Sept. 23; Gaz. vol. 194; p. 833.
Pot: *See* Coffee-pot.
Potash salts from feldspar, Obtaining. H. P. Bassett. No. 1,072,686; Sept. 9; Gaz. vol. 194; p. 376.
Potato-digger. S. L. Allen. No. 1,073,012; Sept. 9; Gaz. vol. 194; p. 494.
Power and motion transmitting mechanism. C. E. Duryea. No. 1,072,439; Sept. 9; Gaz. vol. 194; p. 291.
Power molding-press. G. E. Grundstrom. No. 1,072,448; Sept. 9; Gaz. vol. 194; p. 293.
Power-press. J. Wilson. No. 1,073,831; Sept. 23; Gaz. vol. 194; p. 836.
Power-producing apparatus. S. B. Roy. No. 1,074,209; Sept. 30; Gaz. vol. 194; p. 993.
Power-transmission wheel, Horizontal. W. O. Platt. No. 1,072,028; Sept. 2; Gaz. vol. 194; p. 123.
Preserve-tin-opening device. R. E. Walther. No. 1,071,974; Sept. 2; Gaz. vol. 194; p. 104.
Preserving apparatus. O. H. Mohr. No. 1,073,276; Sept. 16; Gaz. vol. 194; p. 623.
Preserving food. F. P. Gorin. No. 1,072,406; Sept. 2; Gaz. vol. 194; p. 251.
Preserving organic substances, Apparatus for. W. L. Smith. No. 1,073,641; Sept. 23; Gaz. vol. 194; p. 771.
Press: *See* Baling-press; Hay-press; Hydraulic press; Laundry-press; Power-press; Power-molding press; Printing-press; Veneer-press.
Pressure-alarm gage. F. Schubert. No. 1,074,137; Sept. 30; Gaz. vol. 194; p. 969.
Pressure-gage. H. B. Azadian. No. 1,072,415; Sept. 9; Gaz. vol. 194; p. 281.
Pressure-gage. H. and G. Buttress. No. 1,073,734; Sept. 23; Gaz. vol. 194; p. 805.
Pressure-motor. J. F. McElroy. No. 1,072,749; Sept. 9; Gaz. vol. 194; p. 397.
Pressure-recording gage. A. P. Phillips. No. 1,072,161; Sept. 2; Gaz. vol. 194; p. 169.
Pressure-regulating apparatus. E. McLean. No. 1,071,771; Sept. 2; Gaz. vol. 194; p. 36.
Printer's form-clamp. T. Dempster. No. 1,073,221; Sept. 16; Gaz. vol. 194; p. 604.
Printer's plate-holding device. F. W. Weston. No. 1,073,378; Sept. 16; Gaz. vol. 194; p. 659.
Printer's quoin. J. T. Barton. No. 1,073,838; Sept. 23; Gaz. vol. 194; p. 839.
Printer's type and furniture. A. P. Brooks. No. 1,073,791; Sept. 23; Gaz. vol. 194; p. 824.
Printing. T. S. Fox. No. 1,074,254; Sept. 30; Gaz. vol. 194; p. 1007.
Printing composition and preparing the same. M. R. Swope. No. 1,073,941; Sept. 23; Gaz. vol. 194; p. 875.
Printing-frame. G. Froendt. No. 1,072,444; Sept. 9; Gaz. vol. 194; p. 292.
Printing-machine. E. H. Cottrell. No. 1,072,702; Sept. 9; Gaz. vol. 194; p. 382.
Printing-machine. E. H. Cottrell. No. 1,072,703; Sept. 9; Gaz. vol. 194; p. 382.
Printing-machine. C. L. Moon and J. Odell. No. 1,074,004; Sept. 23; Gaz. vol. 194; p. 896.
Printing machine, Continuous sun blue-. F. C. Forrest. No. 1,071,724; Sept. 2; Gaz. vol. 194; p. 18.
Printing-machines, Sheet-delivery apparatus for. H. M. Barber. No. 1,073,317; Sept. 16; Gaz. vol. 194; p. 638.
Printing or stenciling apparatus. F. W. Adams. No. 1,073,556; Sept. 16; Gaz. vol. 194; p. 719.
Printing-plate holder and registering clamp. E. M. Erb. No. 1,074,108; Sept. 30; Gaz. vol. 194; p. 960.
Printing-press. M. Wierengel. No. 1,072,883; Sept. 9; Gaz. vol. 194; p. 447.
Printing-press. J. J. Walser. No. 1,073,450; Sept. 16; Gaz. vol. 194; p. 684.

Printing-press feed-gage. B. McGinty. No. 1,073,865; Sept. 23; Gaz. vol. 194; p. 848.
Printing-press inking device. A. B. Davis and A. B. Leffel. No. 1,072,095; Sept. 2; Gaz. vol. 194; p. 145.
Printing-press tray-slide attachment. W. G. Humphrey. No. 1,073,131; Sept. 16; Gaz. vol. 194; p. 571.
Printing-presses, Inking mechanism for bed-and-cylinder. H. M. Barber. No. 1,073,836; Sept. 23; Gaz. vol. 194; p. 838.
Printing-rollers, Device for cleaning. P. J. Lynch. No. 1,072,244; Sept. 2; Gaz. vol. 194; p. 195.
Processing apparatus. H. L. Gantt. No. 1,074,568; Sept. 30; Gaz. vol. 194; p. 1110.
Projectile. E. Gathmann. No. 1,074,111; Sept. 30; Gaz. vol. 194; p. 961.
Projecting apparatus. K. Kolke. No. 1,072,861; Sept. 9; Gaz. vol. 194; p. 438.
Propeller. H. S. Morley. No. 1,072,249; Sept. 2; Gaz. vol. 194; p. 196.
Propeller. H. Faehrmann. No. 1,073,418; Sept. 16; Gaz. vol. 194; p. 672.
Propeller, Ship-. L. Maublanc and N. Lallié. No. 1,074,513; Sept. 30; Gaz. vol. 194; p. 1091.
Protector. G. C. Ludgate. No. 1,073,861; Sept. 23; Gaz. vol. 194; p. 846.
Pruning-shears. A. R. Hughes. No. 1,072,232; Sept. 2; Gaz. vol. 194; p. 191.
Pull-rod clamp. D. D. Neville. No. 1,073,776; Sept. 23; Gaz. vol. 194; p. 819.
Puller: *See* Pin-puller.
Pulley, Expansible. J. H. McGlynn. No. 1,074,188; Sept. 30; Gaz. vol. 194; p. 986.
Pulverizing coal and other materials, Apparatus for. C. A. Bettington. No. 1,074,040; Sept. 23; Gaz. vol. 194; p. 908.
Pump. C. D. Hill. No. 1,072,613; Sept. 9; Gaz. vol. 194; p. 351.
Pump, Air-. J. E. Laforce. No. 1,071,920; Sept. 2; Gaz. vol. 194; p. 90.
Pump, Air-. F. K. Hohenstien and C. G. Meyers. No. 1,074,051; Sept. 23; Gaz. vol. 194; p. 911.
Pump, Air-pressure. E. A. Raves. No. 1,072,496; Sept. 9; Gaz. vol. 194; p. 310.
Pump, Centrifugal. G. W. Price. No. 1,072,650; Sept. 9; Gaz. vol. 194; p. 363.
Pump for liquids, Pneumatic-operated. H. W. Copelestone. No. 1,073,474; Sept. 16; Gaz. vol. 194; p. 693.
Pump for spraying devices. L. M. Campau. No. 1,071,876; Sept. 2; Gaz. vol. 194; p. 71.
Pump-governor, Double-pressure. W. V. Turner. No. 1,074,224; Sept. 30; Gaz. vol. 194; p. 998.
Pump-governor, Electric. W. V. Turner. No. 1,071,830; Sept. 2; Gaz. vol. 194; p. 56.
Pump governors, Piston for oil-. C. W. Shinton. No. 1,073,822; Sept. 23; Gaz. vol. 194; p. 834.
Pump, Liquid-dispensing. R. Mueller. No. 1,072,636; Sept. 9; Gaz. vol. 194; p. 358.
Pump, Pneumatic. W. H. Aunkst. No. 1,072,806; Sept. 9; Gaz. vol. 194; p. 418.
Pump, Pneumatically-operated. E. N. and F. J. Ward. No. 1,072,886; Sept. 9; Gaz. vol. 194; p. 448.
Pump pressure-governor. W. V. Turner. No. 1,071,829; Sept. 2; Gaz. vol. 194; p. 55.
Pump, Rotary. W. E. Pearson. No. 1,072,155; Sept. 2; Gaz. vol. 194; p. 167.
Pump, Rotary. I. B. Humphreys. No. 1,073,048; Sept. 9; Gaz. vol. 194; p. 506.
Pump, Rotary. I. J. Johnson. No. 1,074,326; Sept. 30; Gaz. vol. 194; p. 1031.
Pump, Vacuum-cleaner. C. C. Williams. No. 1,072,547; Sept. 9; Gaz. vol. 194; p. 329.
Pump, Well-. R. H. Knipping. No. 1,073,143; Sept. 16; Gaz. vol. 194; p. 575.
Pumps, Air charging and priming device for suction-. J. Astrom. No. 1,074,098; Sept. 30; Gaz. vol. 194; p. 957.
Pumping apparatus, Pneumatic. A. E. Chodzko. No. 1,071,878; Sept. 2; Gaz. vol. 194; p. 72.
Push-button system. W. Baxter, Jr. No. 1,072,074; Sept. 2; Gaz. vol. 194; p. 138.
Puzzle. L. S. Burbank. No. 1,071,874; Sept. 2; Gaz. vol. 194; p. 71.
Puzzle or toy. E. J. Schowalter. No. 1,074,533; Sept. 30; Gaz. vol. 194; p. 1098.
Racing device, Amusement. R. Shuyler. No. 1,072,181; Sept. 2; Gaz. vol. 194; p. 175.
Rack: *See* Bread-rack; Clothes-hanger rack; Corn-rack; Display-rack; Fire-hose rack; Supporting-rack; Towel-rack.
Rack for towels and similar articles. O. A. Boehm. No. 1,072,204; Sept. 2; Gaz. vol. 194; p. 183.
Radial drill, portable or on wheels, Universal. A. Engelhard. No. 1,073,597; Sept. 23; Gaz. vol. 194; p. 755.
Radiator. E. A. Newman. No. 1,072,637; Sept. 9; Gaz. vol. 194; p. 359.
Radiator-cell section. H. C. Harrison and E. C. F. Streichert. No. 1,073,570; Sept. 16; Gaz. vol. 194; p. 727.
Radiator foot-rest. E. B. Bower. No. 1,074,081; Sept. 23; Gaz. vol. 194; p. 921.
Radiator, Heat-. A. B. Neiman. No. 1,073,813; Sept. 23; Gaz. vol. 194; p. 831.
Radiator, Steam and hot-water. C. E. Dickinson. No. 1,071,716; Sept. 2; Gaz. vol. 194; p. 16.
Radiator-trap, Water-seal. E. C. Wiley. No. 1,072,287; Sept. 2; Gaz. vol. 194; p. 208.
Radiator, Ventilating-. O. P. Simler. No. 1,072,284; Sept. 2; Gaz. vol. 194; p. 200.
Rail-clamp. J. P. Braden and W. D. Palmer. No. 1,074,407; Sept. 30; Gaz. vol. 194; p. 1059.
Rail, Compound. E. P. Caldwell. No. 1,073,211; Sept. 16; Gaz. vol. 194; p. 600.
Rail, Compound. E. P. Caldwell. No. 1,073,212; Sept. 16; Gaz. vol. 194; p. 600.
Rail, Compound. E. P. Caldwell. No. 1,073,213; Sept. 16; Gaz. vol. 194; p. 600.
Rail-drill. L. W. Morton. No. 1,074,517; Sept. 30; Gaz. vol. 194; p. 1093.
Rail-drill drive and frame therefor. L. W. Morton. No. 1,074,557; Sept. 30; Gaz. vol. 194; p. 1105.
Rail-fastener. J. A. Geyer. No. 1,072,327; Sept. 2; Gaz. vol. 194; p. 221.
Rail-fastener. R. McNeil. No. 1,072,754; Sept. 9; Gaz. vol. 194; p. 399.
Rail-fastener. R. C. Morrow. No. 1,074,005; Sept. 23; Gaz. vol. 194; p. 896.
Rail-joint. F. Hoch. (Reissue.) No. 13,616; Sept. 16; Gaz. vol. 194; p. 729.
Rail-joint. J. Micco and V. Guido. No. 1,074,447; Sept. 30; Gaz. vol. 194; p. 1072.
Rail-joint. H. A. Palmer. No. 1,074,524; Sept. 30; Gaz. vol. 194; p. 1095.
Rail-joint. J. E. McCoy. No. 1,074,554; Sept. 30; Gaz. vol. 194; p. 1104.
Rail-joint for portable tracks. P. J. Thull. No. 1,072,273; Sept. 2; Gaz. vol. 194; p. 203.
Rail-joint, Insulated. J. A. Bodkin. No. 1,072,563; Sept. 9; Gaz. vol. 194; p. 334.
Rail-joint support. A. G. Smith. No. 1,074,475; Sept. 30; Gaz. vol. 194; p. 1081.
Rail-straightening mill. B. A. Bass and R. D. Osgood. No. 1,071,861; Sept. 2; Gaz. vol. 194; p. 66.
Rail supporting bed. F. W. Lawson. No. 1,073,926; Sept. 23; Gaz. vol. 194; p. 894.
Rail-tie. L. Johnson. No. 1,072,236; Sept. 2; Gaz. vol. 194; p. 192.
Railway-carriages, wagons, and the like, Automatic coupling for. V. W. J. Smith. No. 1,073,535; Sept. 16; Gaz. vol. 194; p. 711.
Railway construction. W. H. Morgan. No. 1,074,283; Sept. 30; Gaz. vol. 194; p. 1017.
Railway-crossing. T. M. Hughs. No. 1,073,760; Sept. 23; Gaz. vol. 194; p. 815.
Railway-crossing, Noiseless. C. J. Ringel. No. 1,072,652; Sept. 9; Gaz. vol. 194; p. 364.
Railway diamond and other crossings. C. A. Dickson and N. L. Burton-Jones. No. 1,072,706; Sept. 9; Gaz. vol. 194; p. 383.
Railway draft-rigging. W. H. Miner. No. 1,074,190; Sept. 30; Gaz. vol. 194; p. 987
Railway draft-rigging. A. Campbell. No. 1,074,243; Sept. 30; Gaz. vol. 194; p. 1004.
Railway draft-rigging, Draw-bar and yoke connection for. W. H. Miner. No. 1,073,275; Sept. 16; Gaz. vol. 194; p. 623.
Railway electric signals, Automatically-operated. W. J. Cook. No. 1,071,884; Sept. 2; Gaz. vol. 194; p. 74.
Railway-frog. J. V. Stewart. No. 1,074,331; Sept. 30; Gaz. vol. 194; p. 1033.
Railway intersection. E. S. Cobb. No. 1,074,082; Sept. 23; Gaz. vol. 194; p. 921.
Railway intersection. E. S. Cobb. No. 1,074,083; Sept. 23; Gaz. vol. 194; p. 922.
Railway, Pleasure-. H. A. Lockwood. No. 1,074,185; Sept. 30; Gaz vol. 194; p. 985.
Railway-rail. J. B. Graf. No. 1,072,112; Sept. 2; Gaz. vol. 194; p. 151.
Railway-rails, Making. A. H. Moore. No. 1,074,089; Sept. 23; Gaz. vol. 194; p. 924.
Railway road-bed. W. A. Hough. No. 1,073,046; Sept. 9; Gaz. vol. 194; p. 505.
Railway safety and signaling device. D. C. Newton. No. 1,073,510; Sept. 16; Gaz. vol. 194; p. 703.
Railway-switch. A. W. Rollings, J. H. Sweeney, O. T. Nelson, and T. T. Trentham. No. 1,071,798; Sept. 2; Gaz. vol. 194; p. 45.
Railway-switch, Automatically-operated. J. E. Laing. No. 1,072,337; Sept. 2; Gaz. vol. 194; p. 224.
Railway-tie. S. A. Stoneback. No. 1,072,053; Sept. 2; Gaz. vol. 194; p. 130.
Railway-tie. P. Erickson. No. 1,072,931; Sept. 9; Gaz. vol. 194; p. 465.
Railway-tie. C. B. Fairweather. No. 1,072,932; Sept. 9; Gaz. vol. 194; p. 465.
Railway-tie. A. A. Caswell. No. 1,073,737; Sept. 23; Gaz. vol. 194; p. 806.
Railway-tie. G. S. Myers. No. 1,074,062; Sept. 23; Gaz. vol. 194; p. 914.
Railway-tie and clamp, Combination. J. T. McGonigal. No. 1,073,773; Sept. 23; Gaz. vol. 194; p. 819.
Railway-tie fastener. I. B. Wallace. No. 1,072,281; Sept. 2; Gaz. vol. 194; p. 206.
Railway-tie, Metallic. W. H. Proctor. No. 1,074,014; Sept. 23; Gaz. vol. 194; p. 899.
Railway tie-plate and rail-fastener. R. H. Bitter and D. C. Stephenson. No. 1,071,867; Sept. 2; Gaz. vol. 194; p. 68.
Railway-track construction. W. H. Morgan. No. 1,072,761; Sept. 9; Gaz. vol. 194; p. 401.

Railways, Electric signaling on. G. H. Brown. No. 1,072,404; Sept. 2; Gaz. vol. 194; p. 250.
Railways, Electric signaling on. H. Brown. No. 1,072,567; Sept. 9; Gaz. vol. 194; p. 336.
Railways, Electric train-controlled system for. F. T. Jones. No. 1,072,383; Sept. 2; Gaz. vol. 194; p. 241.
Railways, Signaling and telephone system for. W. J. Bailey. No. 1,073,018; Sept. 9; Gaz. vol. 194; p. 496.
Rake: *See* Hand-rake; Hay-rake.
Rake. D. R. McClure, Jr. No. 1,073,771; Sept. 23; Gaz. vol. 194; p. 818.
Range, Cooking-. F. De Angelis. No. 1,072,097; Sept. 2; Gaz. vol. 194; p. 146.
Range, Gas-. W. Denby. No. 1,072,582; Sept. 9; Gaz. vol. 194; p. 341.
Range, Portable gas-. W. L. Hall and R. F. George. No. 1,072,113; Sept. 2; Gaz. vol. 194; p. 152.
Rat-exterminator, Electric. H. A. Gentzel. No. 1,072,222; Sept. 2; Gaz. vol. 194; p. 188.
Rat-trap. G. R. Adams. No. 1,072,375; Sept. 2; Gaz. vol. 194; p. 239.
Ratchet mechanism. P. C. Conte. No. 1,072,313; Sept. 2; Gaz. vol. 194; p. 217.
Rawhide and the product resulting therefrom, Treating. A. H. Henderson. No. 1,074,360; Sept. 30; Gaz. vol. 194; p. 1043.
Razor, Electric safety-. S. W. Moon. No. 1,072,634; Sept. 9; Gaz. vol. 194; p. 357.
Razor, Safety-. W. H. Crichton-Clarke. No. 1,071,711; Sept. 2; Gaz. vol. 194; p. 13.
Razor, Safety-. E. E. Rogers. No. 1,072,506; Sept. 9; Gaz. vol. 194; p. 313.
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Razor, Safety-. D. E. Lochman. No. 1,074,126; Sept. 30; Gaz. vol. 194; p. 966.
Razor, Safety-. A. G. Wormser. No. 1,074,149; Sept. 30; Gaz. vol. 194; p. 973.
Razor-strop. M. O. Williams. No. 1,072,288; Sept. 2; Gaz. vol. 194; p. 209.
Razor-strop. P. M. Elliott. No. 1,072,590; Sept. 9; Gaz. vol. 194; p. 343.
Razor-stropping machine. E. B. Gibford and W. P. Welch. No. 1,074,095; Sept. 23; Gaz. vol. 194; p. 926.
Receptacles, Means for protecting the contents of. L. J. Tint. No. 1,072,674; Sept. 9; Gaz. vol. 194; p. 372.
Reciprocating implement, Double-compression. S. D. Sibley. No. 1,072,367; Sept. 2; Gaz. vol. 194; p. 236.
Recorder: *See* Speed-recorder; Time-recorder.
Recording device, Automatic electric. A. Lambot. No. 1,072,474; Sept. 9; Gaz. vol. 194; p. 303.
Reel: *See* Fishing-reel.
Refacing and recounterboring tool. A. N. Rutan. No. 1,073,526; Sept. 16; Gaz. vol. 194; p. 708.
Reflector, Light-. O. Shiras and F. X. Chassaing. No. 1,073,636; Sept. 23; Gaz. vol. 194; p. 770.
Reflector, Optical. F. M. Waltz. No. 1,074,145; Sept. 30; Gaz. vol. 194; p. 972.
Reflexagraph. W. H. Cone. No. 1,071,708; Sept. 2; Gaz. vol. 194; p. 13.
Refractory material. W. Arthur. No. 1,072,413; Sept. 9; Gaz. vol. 194; p. 281.
Refractory material. W. Arthur. No. 1,072,414; Sept. 9; Gaz. vol. 194; p. 281.
Refreshment-table. O. C. Kade. No. 1,073,762; Sept. 23; Gaz. vol. 194; p. 815.
Refrigerating-car. L. H. Lister. No. 1,072,131; Sept. 2; Gaz. vol. 194; p. 158.
Refrigerating-machine. W. F. Davis. No. 1,071,713; Sept. 2; Gaz. vol. 194; p. 14.
Refrigerator. W. Hammer and A. Schweigert. No. 1,072,453; Sept. 9; Gaz. vol. 194; p. 295.
Refrigerator. W. E. Park. No. 1,074,453; Sept. 30; Gaz. vol. 194; p. 1074.
Refrigerator-cars, Hatch-cover and ventilator for. E. Posson. No. 1,072,164; Sept. 2; Gaz. vol. 194; p. 170.
Refrigerator, Evaporative. A. L. Van Buskirk. No. 1,073,875; Sept. 16; Gaz. vol. 194; p. 658.
Refuse-destructor. H. N. Leask. No. 1,074,508; Sept. 30; Gaz. vol. 194; p. 1090.
Regenerator. A. Jensen. No. 1,073,989; Sept. 23; Gaz. vol. 194; p. 891.
Register: *See* Calculating-register; Cash-register; Game-register.
Register. J. G. Cary. No. 1,073,957; Sept. 23; Gaz. vol. 194; p. 881.
Registering-machine. G. E. and A. C. Schuman. No. 1,072,658; Sept. 9; Gaz. vol. 194; p. 366.
Regulating apparatus. H. Bullock. No. 1,073,025; Sept. 9; Gaz. vol. 194; p. 498.
Regulator: *See* Controller - regulator; Damper - regulator; Draft-regulator; Electrothermostatic regulator; Feed-regulator; Thermostatic regulator.
Repair-tool. B. V. Maxwell and L. A. Nickerson. No. 1,074,055; Sept. 23; Gaz. vol. 194; p. 913.
Resilient wheel. J. Pronovost and H. S. Miller. No. 1,074,064; Sept. 23; Gaz. vol. 194; p. 915.
Resistance-grid. H. J. Wiegand. No. 1,071,843; Sept. 2; Gaz. vol. 194; p. 60.
Resistance, Reinforced-grid. H. J. Wiegand. No. 1,071,844; Sept. 2; Gaz. vol. 194; p. 61.
Resistance unit. W. L. Bliss. No. 1,073,320; Sept. 16; Gaz. vol. 194; p. 639.
Resistant surfaces, Making. A. D. Morris. No. 1,072,026; Sept. 2; Gaz. vol. 194; p. 122.
Retort. C. B. and M. Darrin. No. 1,704,104; Sept. 30; Gaz. vol. 194; p. 959.
Reversing mechanism, Friction. H. Moon and J. M. Reynolds. No. 1,072,145; Sept. 2; Gaz. vol. 194; p. 163.
Rheostat. D. P. Ruger. No. 1,073,173; Sept. 16; Gaz. vol. 194; p. 586.
Rim, Demountable. A. McPherson. No. 1,073,506; Sept. 16; Gaz. vol. 194; p. 702.
Rimming-machine. O. Colborne. No. 1,071,881; Sept. 2; Gaz. vol. 194; p. 73.
Ring: *See* Packing-ring.
Rings, Tool for applying travelers to. H. W. Owen. No. 1,073,280; Sept. 16; Gaz. vol. 194; p. 624.
Riveter. F. J. West and H. W. Darby. No. 1,074,896; Sept. 30; Gaz. vol. 194; p. 1055.
Road-preparing machine. H. F. Berry. No. 1,073,021; Sept. 9; Gaz. vol. 194; p. 497.
Road-surfacing composition for surfacing roads, driveways, and sidewalks. R. Muh and A. Schupp. No. 1,074,131; Sept. 30; Gaz. vol. 194; p. 967.
Roasting-furnace. F. A. Curnow. No. 1,072,920; Sept. 9; Gaz. vol. 194; p. 461.
Robe-lock. T. P. Bacon. No. 1,072,559; Sept. 9; Gaz. vol. 194; p. 333.
Rock-drill with water-feed. A. Palmros. No. 1,072,359; Sept. 2; Gaz. vol. 194; p. 233.
Rock-drilling engine. J. G. Leyner. (Reissue.) No. 13,614; Sept. 9; Gaz. vol. 194; p. 519.
Rod: *See* Fishing-rod.
Roll. J. S. Seaman, Jr. No. 1,071,810; Sept. 2; Gaz. vol. 194; p. 50.
Roll-polisher. C. W. Townsend. No. 1,072,195; Sept. 2; Gaz. vol. 194; p. 179.
Rolls, Manufacture of. J. S. Seaman, Jr. No. 1,071,809; Sept. 2; Gaz. vol. 194; p. 49.
Roller: *See* Expansible roller; Land-roller; Shade-roller; Spring-roller.
Rolling-mill. J. Fawell. No. 1,071,720; Sept. 2; Gaz. vol. 194; p. 17.
Rolling-mill. F. A. Wilmot. No. 1,071,846; Sept. 2; Gaz. vol. 194; p. 61.
Rolling-mill driving-pinion. W. G. Nichols. No. 1,072,488; Sept. 9; Gaz. vol. 194; p. 307.
Rolling-mills, Looping device for. F. W. Waterman. No. 1,072,676; Sept. 9; Gaz. vol. 194; p. 372.
Rolling-mills, Screw-down for. W. F. Rust and C. H. Hunt. No. 1,074,529; Sept. 30; Gaz. vol. 194; p. 1097.
Roof construction. H. F. Winkelmann. No. 1,073,551; Sept. 16; Gaz. vol. 194; p. 718.
Roofing, Composite. W. L. Barnhart. No. 1,074,404; Sept. 30; Gaz. vol. 194; p. 1058.
Roofing-plate, Sheet-metal. H. E. Moomaw. No. 1,072,025; Sept. 2; Gaz. vol. 194; p. 122.
Roofing, Sheet-metal. K. Roth. No. 1,072,508; Sept. 9; Gaz. vol. 194; p. 314.
Roofing-tool. T. C. Holsclaw. No. 1,073,580; Sept. 16; Gaz. vol. 194; p. 727.
Rope elevator. M. E. Neenan. No. 1,073,700; Sept. 23; Gaz. vol. 194; p. 794.
Rope-fastener. E. D. Wood. No. 1,072,556; Sept. 9; Gaz. vol. 194; p. 332.
Rope-fitting. E. R. Shnable. No. 1,073,292; Sept. 16; Gaz. vol. 194; p. 628.
Rope-fitting, Metallic. B. H. Trewhella. No. 1,073,720; Sept. 23; Gaz. vol. 194; p. 801.
Rope protector, Bull-. P. A. Schmuck. No. 1,074,212; Sept. 30; Gaz. vol. 194; p. 994.
Rotary drier. C. B. Smith. No. 1,072,186; Sept. 2; Gaz. vol. 194; p. 176.
Rotary engine. F. Nearing. No. 1,071,779; Sept. 2; Gaz. vol. 194; p. 39.
Rotary screen. J. C. McIntyre. No. 1,072,750; Sept. 9; Gaz. vol. 194; p. 398.
Rubber substitute. J. B. Scammell. No. 1,073,527; Sept. 16; Gaz. vol. 194; p. 708.
Rubber waste, Reclaiming vulcanized. C. S. Heller. (Reissue.) No. 13,613; Sept. 9; Gaz. vol. 194; p. 518.
Rugs, mats, carpets, &c., Fastening for. F. W. Giller and D. Marshall. No. 1,073,416; Sept. 16; Gaz. vol. 194; p. 673.
Sad-iron. L. Rosenbaum. No. 1,073,171; Sept. 16; Gaz. vol. 194; p. 585.
Sad-iron. L. Rosenbaum. No. 1,073,634; Sept. 23; Gaz. vol. 194; p. 767.
Sad-iron. J. F. Lamb and J. F. Smart. No. 1,073,806; Sept. 23; Gaz. vol. 194; p. 828.
Sad-iron holder. M. Frost. No. 1,073,483; Sept. 16; Gaz. vol. 194; p. 695.
Sad-irons, Cleaning and waxing pad for. J. A. Sumner. No. 1,074,478; Sept. 30; Gaz. vol. 194; p. 1082.
Saddle-bag. H. F. Given. No. 1,072,602; Sept. 9; Gaz. vol. 194; p. 347.
Safety article-holder. B. A. Kusserow. No. 1,074,506; Sept. 30; Gaz. vol. 194; p. 1089.
Safety-hook. J. A. Schroyer and J. E. Thorp. No. 1,071,806; Sept. 2; Gaz. vol. 194; p. 49.
Safety-pin. P. Hiles and J. J. McNerney. No. 1,071,919; Sept. 2; Gaz. vol. 194; p. 86.
Salts from solutions containing them, Deposition of metallic. H. J. Rees. No. 1,073,363; Sept. 16; Gaz. vol. 194; p. 654.
Salts from solutions containing them, Deposition of metallic. H. Rees and H. L. Sulman. No. 1,074,203; Sept. 30; Gaz. vol. 194; p. 991.

Sampler. F. H. Peck. No. 1,072,644; Sept. 9; Gaz. vol. 194; p. 361.
Sand-blast apparatus. G. R. Lawrence. No. 1,073,149; Sept. 16; Gaz. vol. 194; p. 577.
Sand-blast, Closed-hopper. G. F. Steedman. No. 1,073,876; Sept. 23; Gaz. vol. 194; p. 852.
Sander. J. M. Coleman. No. 1,072,206; Sept. 2; Gaz. vol. 194; p. 183.
Sardine-can. W. E. Taylor. No. 1,072,789; Sept. 9; Gaz. vol. 194; p. 412.
Sash-cord fastener. W. H. Worst. No. 1,071,852; Sept. 2; Gaz. vol. 194; p. 63.
Sash-fastener. J. Spiegelhalter, Jr. No. 1,071,816; Sept. 2; Gaz. vol. 194; p. 51.
Sash-fastener. C. A. Bergman. No. 1,071,866; Sept. 2; Gaz. vol. 194; p. 63.
Sash-fastener. B. G. Dunbar. No. 1,072,839; Sept. 9; Gaz. vol. 194; p. 431.
Sash, Glass-holder for metal. W. R. Kinnear. No. 1,073,905; Sept. 23; Gaz. vol. 194; p. 828.
Sash holder, Window-. W. M. Dight. No. 1,073,595; Sept. 23; Gaz. vol. 194; p. 755.
Sash holder, Window-. C. W. Cook. No. 1,073,739; Sept. 23; Gaz. vol. 194; p. 807.
Sash-lock. L. E. De Neergaard. No. 1,072,099; Sept. 2; Gaz. vol. 194; p. 146.
Sash-lock. G. Hilpert. No. 1,073,486; Sept. 16; Gaz. vol. 194; p. 696.
Sash-lock, Adjustable. L. E. De Neergaard. No. 1,072,100; Sept. 2; Gaz. vol. 194; p. 146.
Sash lock, Window-. H. Krahe. No. 1,072,960; Sept. 9; Gaz. vol. 194; p. 475.
Sash pivot and latch, Deck-. A. W. L. Hartbaner. No. 1,074,117; Sept. 30; Gaz. vol. 194; p. 963.
Sash pivot mechanism, Deck-. F. Conrad. No. 1,073,738; Sept. 23; Gaz. vol. 194; p. 806.
Sash-stop. E. C. Mansfield. No. 1,073,261; Sept. 16; Gaz. vol. 194; p. 617.
Saw filing and setting frame. C. Oestreich. No. 1,074,184; Sept. 30; Gaz. vol. 194; p. 968.
Saw-filing machine. J. L. Keil. No. 1,072,384; Sept. 2; Gaz. vol. 194; p. 242.
Saw-filing machine. F. B. Swigert. No. 1,072,788; Sept. 9; Gaz. vol. 194; p. 412.
Saw-gage. H. Dueysen. No. 1,073,969; Sept. 23; Gaz. vol. 194; p. 884.
Saw-guard. A. J. Sixel and B. S. Conrad. No. 1,071,963; Sept. 2; Gaz. vol. 194; p. 100.
Saw-guard. J. W. Offutt. No. 1,072,401; Sept. 2; Gaz. vol. 194; p. 249.
Saw-guard. F. V. Phillips. No. 1,074,198; Sept. 30; Gaz. vol. 194; p. 989.
Saw gummer, Cotton-. D. C. Nelson. No. 1,072,353; Sept. 2; Gaz. vol. 194; p. 231.
Saw machine, Band-. C. E. Wright. No. 1,072,200; Sept. 2; Gaz. vol. 194; p. 181.
Saw mill, Band-. G. M. Pelton. No. 1,074,197; Sept. 30; Gaz. vol. 194; p. 989.
Saw-swage. C. L. Olsen. No. 1,074,010; Sept. 23; Gaz. vol. 194; p. 898.
Sawmill-carriage feed. C. F. Ashley. No. 1,072,805; Sept. 9; Gaz. vol. 194; p. 418.
Sawmill-carriage offset. G. M. Pelton. No. 1,073,166; Sept. 16; Gaz. vol. 194; p. 583.
Sawmill-carriages, Wheel-guard for. W. T. Campen. No. 1,074,161; Sept. 30; Gaz. vol. 194; p. 977.
Sawmill set-works. C. W. Willette. No. 1,073,310; Sept. 16; Gaz. vol. 194; p. 636.
Scaffold. S. Pichler. No. 1,073,925; Sept. 23; Gaz. vol. 194; p. 869.
Scale. R. McFarlane. No. 1,072,018; Sept. 2; Gaz. vol. 194; p. 120.
Scale. R. McFarlane. No. 1,072,019; Sept. 2; Gaz. vol. 194; p. 120.
Scale. R. McFarlane. No. 1,072,020; Sept. 2; Gaz. vol. 194; p. 121.
Scale. R. McFarlane. No. 1,072,390; Sept. 2; Gaz. vol. 194; p. 245.
Scale. F. S. Hebden. No. 1,073,072; Sept. 9; Gaz. vol. 194; p. 515.
Scale, Automatic traveling load-. H. Richardson. No. 1,072,500; Sept. 9; Gaz. vol. 194; p. 311.
Scale, Measuring-. J. A. Kincaid. No. 1,074,489; Sept. 30; Gaz. vol. 194; p. 1070.
Scale-pan support. P. Kell and E. A. Stephens. No. 1,072,956; Sept. 9; Gaz. vol. 194; p. 474.
Scale, Weighing-. M. A. Duquette. No. 1,072,589; Sept. 9; Gaz. vol. 194; p. 343.
Scale, Weighing-. B. D. Emanuel. No. 1,074,421; Sept. 30; Gaz. vol. 194; p. 1065.
Scalper, Rotary bar-. C. S. Vosburgh and J. L. G. Blouin. No. 1,072,061; Sept. 2; Gaz. vol. 194; p. 133.
Scenic and musical effects, Apparatus for. A. L. McMurtry. No. 1,071,939; Sept. 2; Gaz. vol. 194; p. 93.
School seat and desk. J. M. Stubblefield. No. 1,073,718; Sept. 23; Gaz. vol. 194; p. 801.
Scissors with movable pivot. G. Manthei. No. 1,072,136; Sept. 2; Gaz. vol. 194; p. 160.
Scoop. C. E. Skyum. No. 1,074,474; Sept. 30; Gaz. vol. 194; p. 1081.
Scraper, Road-. E. S. Philips. No. 1,072,160; Sept. 2; Gaz. vol. 194; p. 169.
Scraper, Wheeled. T. B. Ferguson. No. 1,074,589; Sept. 30; Gaz. vol. 194; p. 1116.
Screen: *See* Rotary screen; Window-screen; Window and door screen.
Screen. U. S. Avery. No. 1,073,016; Sept. 9; Gaz. vol. 194; p. 495.
Screen or separator. T. J. Sturtevant. No. 1,072,879; Sept. 9; Gaz. vol. 194; p. 446.
Screen-plate holder. H. E. Spring. No. 1,073,825; Sept. 23; Gaz. vol. 194; p. 834.
Screw-plate. C. C. Russell. No. 1,074,466; Sept. 30; Gaz. vol. 194; p. 1079.
Seal, Bottle-. A. G. Kaufman. No. 1,071,752; Sept. 2; Gaz. vol. 194; p. 28.
Seal-lock. O. E. Sharp. No. 1,074,020; Sept. 23; Gaz. vol. 194; p. 901.
Seal, Milk-bottle. W. D. Hall. No. 1,073,071; Sept. 9; Gaz. vol. 194; p. 515.
Sealing machine, Envelop-. F. Ruszkowski. No. 1,072,262; Sept. 2; Gaz. vol. 194; p. 200.
Sealing means for vaults. F. E. Arndt. No. 1,074,402; Sept. 30; Gaz. vol. 194; p. 1057.
Seam. J. H. Doran. No. 1,072,102; Sept. 2; Gaz. vol. 194; p. 147.
Seasoning-machine. T. Dawson. No. 1,074,588; Sept. 30; Gaz. vol. 194; p. 1117.
Seat: *See* Cycle-seat; Door-seat; School-seat; Swing-seat; Valve-seat.
Seat, chair, bunk, and the like. F. J. Gay. No. 1,073,415; Sept. 16; Gaz. vol. 194; p. 672.
Sectional box. J. Keefe. No. 1,072,009; Sept. 2; Gaz. vol. 194; p. 117.
Sectional tank. G. Sillman. No. 1,073,871; Sept. 23; Gaz. vol. 194; p. 850.
Seeding-machine. F. E. Davis. No. 1,073,666; Sept. 23; Gaz. vol. 194; p. 781.
Selective apparatus, Substation. O. B. Hjorth. No. 1,072,459; Sept. 9; Gaz. vol. 194; p. 297.
Self-playing instrument. P. Duffy. No. 1,072,437; Sept. 9; Gaz. vol. 194; p. 290.
Semaphore-signal. L. A. Hawkins. No. 1,073,680; Sept. 23; Gaz. vol. 194; p. 786.
Separable key. M. W. Wiard. No. 1,074,075; Sept. 23; Gaz. vol. 194; p. 919.
Separating-table and process of separation. H. M. Sutton, W. L. and E. G. Steele. No. 1,073,644; Sept. 23; Gaz. vol. 194; p. 772.
Separation of comminuted materials, Process of and apparatus for progressive electrostatic. H. M. Sutton, W. L. and E. G. Steele. No. 1,073,645; Sept. 23; Gaz. vol. 194; p. 772.
Separator: *See* Cream-separator; Egg-separator; Magnetic separator; Ore-separator; Sheet-separator.
Sepulcher-cover. H. B. Welper. No. 1,073,377; Sept. 16; Gaz. vol. 194; p. 659.
Sewed articles, Seam for. F. Baker and L. Jacobs. No. 1,072,201; Sept. 2; Gaz. vol. 194; p. 182.
Sewed articles, Seam for. W. B. Tyrrell. No. 1,074,580; Sept. 30; Gaz. vol. 194; p. 1115.
Sewer-clean-out cover. B. B. Linskie. No. 1,073,150; Sept. 16; Gaz. vol. 194; p. 577.
Sewing-machine attachment. A. N. Oathout. No. 1,072,489; Sept. 9; Gaz. vol. 194; p. 307.
Sewing machine, Bead-. J. A. Groebli. No. 1,073,344; Sept. 16; Gaz. vol. 194; p. 648.
Sewing-machine feeding mechanism. W. H. Stedman. No. 1,071,818; Sept. 2; Gaz. vol. 194; p. 52.
Sewing-machine hemmer. J. Holtzmann. No. 1,073,757; Sept. 23; Gaz. vol. 194; p. 813.
Sewing-machine needle-setting means. J. Kiewicz. No. 1,072,472; Sept. 9; Gaz. vol. 194; p. 302.
Sewing-machine shade. E. Koller. No. 1,074,278; Sept. 30; Gaz. vol. 194; p. 1014.
Sewing-machine take-up. R. K. Hohmann. No. 1,073,480; Sept. 16; Gaz. vol. 194; p. 697.
Sewing-machine thread-controlling device. R. G. Woodward. No. 1,072,291; Sept. 2; Gaz. vol. 194; p. 209.
Sewing-machine threader. J. H. Girard. No. 1,072,601; Sept. 9; Gaz. vol. 194; p. 347.
Sewing-machines, Holding means for attachments for. B. F. Curtis. No. 1,072,581; Sept. 9; Gaz. vol. 194; p. 341.
Sewing-machines, Scallop-trimming device for. A. Ort. No. 1,074,452; Sept. 30; Gaz. vol. 194; p. 1073.
Shade adjuster, Window-. W. B. Boyce. No. 1,073,323; Sept. 16; Gaz. vol. 194; p. 640.
Shade and curtain hanger. J. W. Awald. No. 1,074,035; Sept. 23; Gaz. vol. 194; p. 905.
Shade and curtain hanger, Window. S. D. Welton. No. 1,072,889; Sept. 9; Gaz. vol. 194; p. 450.
Shade-bracket. E. L. King. No. 1,072,739; Sept. 9; Gaz. vol. 194; p. 395.
Shade bracket, Window-. M. C. Combs. No. 1,071,883; Sept. 2; Gaz. vol. 194; p. 74.
Shade, Collapsible. M. E. Brady. No. 1,072,815; Sept. 9; Gaz. vol. 194; p. 422.
Shade-fixture. C. M. Byers. No. 1,073,389; Sept. 16; Gaz. vol. 194; p. 663.
Shade-roller and curtain-pole bracket, Combination. H. B. Thomas. No. 1,073,372; Sept. 16; Gaz. vol. 194; p. 657.
Shade-support. A. B. Smith. No. 1,073,000; Sept. 9; Gaz. vol. 194; p. 491.
Shade, Tackless window-. M. L. Sobra. No. 1,073,447; Sept. 16; Gaz. vol. 194; p. 683.

Shaft-brace. W. L. Daughtry. No. 1,073,476; Sept. 16; Gaz. vol. 194; p. 694.
Shaft brace, Buggy-. J. H. Brunken. No. 1,074,045; Sept. 23; Gaz. vol. 194; p. 909.
Shaft-coupling, Flexible. C. V. Kerr. No. 1,073,690; Sept. 23; Gaz. vol. 194; p. 789.
Sharpener, Knife-. G. G. Ross. No. 1,074,295; Sept. 30; Gaz. vol. 194; p. 1021.
Sharpener, Lawn-mower. M. Johansen. No. 1,074,180; Sept. 30; Gaz. vol. 194; p. 983.
Sharpener, Saw-. R. R. Maxwell. No. 1,072,967; Sept. 9; Gaz. vol. 194; p. 478.
Sharpening device, Lawn-mower-. J. P. Edwards. No. 1,073,412; Sept. 16; Gaz. vol. 194; p. 671.
Sharpening machine or tool, Saw-. H. R. Roberts. No. 1,074,464; Sept. 30; Gaz. vol. 194; p. 1078.
Sharpening safety-razor blades, Machine for. H. Hermelin. No. 1,073,123; Sept. 16; Gaz. vol. 194; p. 568.
Shaving-mug, Sanitary. J. B. Rudolph. No. 1,072,994; Sept. 9; Gaz. vol. 194; p. 488.
Shears: *See* Pruning-shears.
Sheet-feeding apparatus. E. J. Brasseur. No. 1,071,690; Sept. 2; Gaz. vol. 194; p. 6.
Sheet-feeding device. E. Koerner. No. 1,071,928; Sept. 2; Gaz. vol. 194; p. 90.
Sheet-feeding device. E. Koerner. No. 1,072,397; Sept. 2; Gaz. vol. 194; p. 247.
Sheet-feeding machine. B. R. Stickney. No. 1,074,221; Sept. 30; Gaz. vol. 194; p. 997.
Sheet-feeding mechanism. J. F. Goodridge. No. 1,072,846; Sept. 9; Gaz. vol. 194; p. 433.
Sheet-feeding mechanism. R. A. Freeman. No. 1,072,937; Sept. 9; Gaz. vol. 194; p. 467.
Sheet metal, Apparatus for bending wired. C. H. Stephenson and G. R. Peare. No. 1,073,077; Sept. 9; Gaz. vol. 194; p. 517.
Sheet-metal box. E. W. Carnes. No. 1,072,820; Sept. 9; Gaz. vol. 194; p. 423.
Sheet-metal-slitting machine. L. E. Curtis. No. 1,071,712; Sept. 2; Gaz. vol. 194; p. 14.
Sheet-metal wheel. H. Austin. No. 1,071,684; Sept. 2; Gaz. vol. 194; p. 4.
Sheet-separator. R. A. Freeman. No. 1,072,936; Sept. 9; Gaz. vol. 194; p. 467.
Shelf-box. E. H. Bekkering. No. 1,074,344; Sept. 30; Gaz. vol. 194; p. 1037.
Shingle, Metal. H. M. Clemmer. No. 1,072,825; Sept. 9; Gaz. vol. 194; p. 426.
Shingle, Metal. H. C. Hames. No. 1,073,485; Sept. 16; Gaz. vol. 194; p. 696.
Shingling-bracket. H. Richards. No. 1,074,382; Sept. 30; Gaz. vol. 194; p. 1050.
Ship stopping device. C. Behrens. No. 1,074,236; Sept. 30; Gaz. vol. 194; p. 1002.
Ships, Registering the course and speed of. J. Wlodzimirski. No. 1,073,832; Sept. 23; Gaz. vol. 194; p. 837.
Shirt, Sleeping-. I. A. Johnson. No. 1,072,469; Sept. 9; Gaz. vol. 194; p. 301.
Shock-absorber. A. Peteler. No. 1,072,770; Sept. 9; Gaz. vol. 194; p. 405.
Shock-absorber. H. A. Tuttle. No. 1,073,187; Sept. 16; Gaz. vol. 194; p. 590.
Shock-absorber. W. H. Cook. No. 1,073,401; Sept. 16; Gaz. vol. 194; p. 667.
Shock-loader. O. L. Gilliland. No. 1,073,849; Sept. 23; Gaz. vol. 194; p. 843.
Shock-tier. C. G. Fravel. No. 1,073,035; Sept. 9; Gaz. vol. 194; p. 501.
Shoe and tread member thereof. H. F. Crawford. No. 1,072,916; Sept. 9; Gaz. vol. 194; p. 460.
Shoe-bottom cavities, Filling. W. D. Baker. No. 1,071,857; Sept. 2; Gaz. vol. 194; p. 65.
Shoe-fastener. W. H. Powell. No. 1,074,381; Sept. 30; Gaz. vol. 194; p. 1050.
Shoe-nail. G. A. and S. A. Dobyne. No. 1,072,213; Sept. 2; Gaz. vol. 194; p. 185.
Shoes, Spike for base-ball. D. A. Tradesco. No. 1,072,794; Sept. 9; Gaz. vol. 194; p. 414.
Shoestring-fastener. F. O. C. Brown. No. 1,071,696; Sept. 2; Gaz. vol. 194; p. 8.
Shoestring-fastener. F. Ferrara. No. 1,072,594; Sept. 9; Gaz. vol. 194; p. 344.
Shovel: *See* Excavating-shovel; Steam-shovel.
Shoveling-board. D. Wilde. No. 1,072,286; Sept. 2; Gaz. vol. 194; p. 208.
Shutter-worker. R. Kirchhoff. No. 1,073,909; Sept. 23; Gaz. vol. 194; p. 863.
Siemens-Martin furnace. K. Albert. No. 1,073,653; Sept. 23; Gaz. vol. 194; p. 775.
Sifting-machine. H. H. Brown. No. 1,072,816; Sept. 9; Gaz. vol. 194; p. 422.
Sight-feed lubricator, Automatic. T. Olson and C. Hammersberg. No. 1,072,976; Sept. 9; Gaz. vol. 194; p. 482.
Sign. B. F. Cline and J. F. Hemsley. No. 1,072,088; Sept. 2; Gaz. vol. 194; p. 143.
Sign. W. Raster. No. 1,072,870; Sept. 9; Gaz. vol. 194; p. 442.
Sign. M. Brunet and J. Maček. No. 1,074,350; Sept. 30; Gaz. vol. 194; p. 1040.
Sign-illuminator. W. Harris. No. 1,073,346; Sept. 16; Gaz. vol. 194; p. 649.
Signs, Making. N. A. Rachliss. No. 1,074,461; Sept. 30; Gaz. vol. 194; p. 1077.
Signs, Mechanism for producing gas-lighted flash-. T. Jackson. No. 1,073,420; Sept. 16; Gaz. vol. 194; p. 674.
Signal: *See* Marine signal; Semaphore-signal.
Signal-glass holder. F. W. Dressel. No. 1,073,224; Sept. 16; Gaz. vol. 194; p. 605.
Signal mechanism. W. K. Howe. No. 1,071,922; Sept. 2; Gaz. vol. 194; p. 87.
Signal system. A. N. Hovland. No. 1,073,130; Sept. 16; Gaz. vol. 194; p. 571.
Signaling device. G. O. B. von Oberstadt. No. 1,071,948; Sept. 2; Gaz. vol. 194; p. 95.
Signaling device. L. Abeles. No. 1,074,537; Sept. 30; Gaz. vol. 194; p. 1100.
Signaling device, Electric. W. J. Warder, Jr. No. 1,073,192; Sept. 16; Gaz. vol. 194; p. 592.
Signaling device, Electrical. C. L. Bopp. No. 1,073,024; Sept. 9; Gaz. vol. 194; p. 408.
Signaling, Means for selective. I. F. Manny. No. 1,073,863; Sept. 23; Gaz. vol. 194; p. 847.
Signaling system. H. W. Doughty. No. 1,073,335; Sept. 16; Gaz. vol. 194; p. 644.
Signaling system, Space. H. F. Perkins. No. 1,074,456; Sept. 30; Gaz. vol. 194; p. 1075.
Signaling, Wireless. R. A. Fessenden. No. 1,074,423; Sept. 30; Gaz. vol. 194; p. 1064.
Silicon article. T. B. Allen. No. 1,073,560; Sept. 16; Gaz. vol. 194; p. 721.
Silo and like receptacle. C. J. Lawless. No. 1,072,387; Sept. 2; Gaz. vol. 194; p. 243.
Siphon for dispensing liquids. A. Kleinfeldt. No. 1,072,239; Sept. 2; Gaz. vol. 194; p. 193.
Skate, Roller-. F. Finlay. No. 1,071,721; Sept. 2; Gaz. vol. 194; p. 17.
Skeip-charging bench. W. F. Clark. No. 1,071,879; Sept. 2; Gaz. vol. 194; p. 72.
Skirt. J. Greenwald. No. 1,072,381; Sept. 2; Gaz. vol. 194; p. 241.
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Sleigh-propeller. W. McMeans. No. 1,071,772; Sept. 2; Gaz. vol. 194; p. 36.
Slicer, Bread-. F. H. Hamblin. No. 1,072,450; Sept. 9; Gaz. vol. 194; p. 294.
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Slicing pickles and the like, Machine for. S. G. Lipscomb. No. 1,072,628; Sept. 9; Gaz. vol. 194; p. 355.
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Slip-cover can. W. L. Laskey. No. 1,073,859; Sept. 23; Gaz. vol. 194; p. 846.
Sluice-gate, Rolling. J. T. Köster. No. 1,073,424; Sept. 16; Gaz. vol. 194; p. 674.
Small-arm. R. H. Quisling. No. 1,074,201; Sept. 30; Gaz. vol. 194; p. 990.
Small-arms, Sight for. H. W. Holland and W. Mansfield. No. 1,073,491; Sept. 16; Gaz. vol. 194; p. 698.
Small-arms, Support for. O. Boecker. No. 1,072,203; Sept. 2; Gaz. vol. 194; p. 182.
Smelting and refining furnace, Ore. W. M. Bowles and C. O. Allen. No. 1,073,468; Sept. 16; Gaz. vol. 194; p. 691.
Smoke-producing device for routing wild animals. A. M. Ahern. No. 1,073,384; Sept. 16; Gaz. vol. 194; p. 661.
Smoke-stack fan attachment. C. K. Chatterton. No. 1,072,698; Sept. 9; Gaz. vol. 194; p. 380.
Smokers' articles, Mouthpiece for. J. Austin. No. 1,073,315; Sept. 16; Gaz. vol. 194; p. 637.
Snap-fastener. E. Colegate. No. 1,074,247; Sept. 30; Gaz. vol. 194; p. 1005.
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Soap holder, Shaving-. T. G. Morgan. No. 1,073,921; Sept. 23; Gaz. vol. 194; p. 868.
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Solids and liquids, Dewatering device or means for separating. W. A. Hendryx. No. 1,071,917; Sept. 2; Gaz. vol. 194; p. 85.
Solutions applied to kid, leather, &c., Drying. G. W. Bernauer. No. 1,074,346; Sept. 30; Gaz. vol. 194; p. 1138.
Solutions, Treatment of metal-bearing. E. A. Ashcroft. No. 1,071,856; Sept. 2; Gaz. vol. 194; p. 65.
Sound-box. A. C. Diehl. No. 1,073,408; Sept. 16; Gaz. vol. 194; p. 670.
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Spark-plug. E. C. Henn. No. 1,073,043; Sept. 9; Gaz. vol. 194; p. 503.
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Spark-plugs, Terminal connector for. C. W. Beck. No. 1,072,561; Sept. 9; Gaz. vol. 194; p. 333.
Spear, Hay or straw. E. B. Nelson. No. 1,071,947; Sept. 2; Gaz. vol. 194; p. 95.
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Speed-indicator. W. Schürmann. No. 1,073,443; Sept. 16; Gaz. vol. 194; p. 681.
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Speedometer. W. R. Dudley and L. A. Greenleaf. No. 1,072,587; Sept. 9; Gaz. vol. 194; p. 343.
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Spike. H. O. Crippen. No. 1,074,409; Sept. 30; Gaz. vol. 194; p. 1059.
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Spinning and twisting machines, Device for automatically clutching bobbins to spindles of. R. S. Matteson. No. 1,072,345; Sept. 2; Gaz. vol. 194; p. 227.
Spinning-frames, Top-roll saddle for. J. V. Cunniff. No. 1,072,317; Sept. 2; Gaz. vol. 194; p. 218.
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Spinning-roll. E. Kempshall. No. 1,074,503; Sept. 30; Gaz. vol. 194; p. 1089.
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Spool. W. Fairchild. No. 1,073,110; Sept. 16; Gaz. vol. 194; p. 564.
Spoon attachment. J. W. Lundahl. No. 1,074,441; Sept. 30; Gaz. vol. 194; p. 1070.
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Spring. F. G. Winkler. No. 1,074,582; Sept. 30; Gaz. vol. 194; p. 1115.
Spring-roller. E. H. McCloud. No. 1,074,277; Sept. 30; Gaz. vol. 194; p. 1015.
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Sprocket-wheel. F. L. Morse. No. 1,071,946; Sept. 2; Gaz. vol. 194; p. 95.
Square. G. W. Bowers. No. 1,073,089; Sept. 16; Gaz. vol. 194; p. 557.
Staircase with flagstone stairs, Iron. J. Lang. No. 1,073,250; Sept. 16; Gaz. vol. 194; p. 613.
Stake-pocket, Hinged. R. P. Borga. No. 1,073,700; Sept. 23; Gaz. vol. 194; p. 823.
Stall, Cattle-. A. H. Neller. No. 1,072,352; Sept. 2; Gaz. vol. 194; p. 230.
Stamp-affixing and envelop-sealing machine. F. R. S. Ditmars. No. 1,072,585; Sept. 9; Gaz. vol. 194; p. 342.
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Stamp or label delivery mechanism. B. D. Straight. No. 1,072,065; Sept. 2; Gaz. vol. 194; p. 131.
Stamps, labels, or sealing-strips, Drying apparatus for. G. W. Gwinn. No. 1,074,356; Sept. 30; Gaz. vol. 194; p. 1042.
Stamping mechanism. C. G. Furman. No. 1,073,340; Sept. 16; Gaz. vol. 194; p. 646.
Stand: *See* Display-stand; Flower-stand; Newspaper-stand; Switch-stand; Thread-stand; Trolley-stand.
Staple. J. N. Moore. No. 1,072,974; Sept. 9; Gaz. vol. 194; p. 481.
Stapling-machines, Work-feed for. W. Osterholm. No. 1,074,559; Sept. 30; Gaz. vol. 194; p. 1106.
Starting and stopping mechanism. F. L. MacKenzie. No. 1,072,630; Sept. 9; Gaz. vol. 194; p. 356.
Station-indicator. B. F. MacMinn. No. 1,072,747; Sept. 9; Gaz. vol. 194; p. 397.
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Station-indicator, Automatic. J. W. Ramige. No. 1,072,772; Sept. 9; Gaz. vol. 194; p. 406.
Stay-bolt, Self-adjusting. M. F. Cox. No. 1,072,315; Sept. 2; Gaz. vol. 194; p. 217.
Stay, Garment-. D. Schuler. No. 1,074,214; Sept. 30; Gaz. vol. 194; p. 994.
Steam-boiler. J. R. Cushing. No. 1,072,831; Sept. 9; Gaz. vol. 194; p. 427.
Steam-shovel. T. Schock. No. 1,074,018; Sept. 23; Gaz. vol. 194; p. 900.
Steam-trap. J. A. Butcher. No. 1,072,405; Sept. 2; Gaz. vol. 194; p. 251.
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Steel, Case-hardened. A. F. Shore. No. 1,072,661; Sept. 9; Gaz. vol. 194; p. 367.
Steel, Case-hardening of. A. F. Shore. No. 1,072,660; Sept. 9; Gaz. vol. 194; p. 367.
Steering-gear, Marine. L. C. Burns. No. 1,073,954; Sept. 23; Gaz. vol. 194; p. 879.
Stereoscopic device. J. R. Purvis. No. 1,072,990; Sept. 9; Gaz. vol. 194; p. 487.
Stirrup-leather, Quickly-adjustable. J. W. Kerr. No. 1,072,958; Sept. 9; Gaz. vol. 194; p. 475.
Stirrup, Safety-. W. L. Ward. No. 1,074,481; Sept. 30; Gaz. vol. 194; p. 1083.
Stitching machine, Buttonhole-. J. Hiewicz. No. 1,073,244; Sept. 16; Gaz. vol. 194; p. 611.
Stoker, Underfeed. W. C. A. Henry. No. 1,074,118; Sept. 30; Gaz. vol. 194; p. 963.
Stone-loading apparatus. I. T. Sewall. No. 1,073,532; Sept. 16; Gaz. vol. 194; p. 710.
Stool, Music-. W. S. McLennan. No. 1,074,514; Sept. 30; Gaz. vol. 194; p. 1092.
Stool or chair, Metallic. S. D. Leland. No. 1,073,860; Sept. 23; Gaz. vol. 194; p. 846.
Stop mechanism. D. M. Cooper. No. 1,073,887; Sept. 23; Gaz. vol. 194; p. 856.
Stop mechanism for machinery. D. M. Cooper. No. 1,073,888; Sept. 23; Gaz. vol. 194; p. 857.
Stop mechanism for machinery. D. M. Cooper. No. 1,073,889; Sept. 23; Gaz. vol. 194; p. 857.
Stop mechanism for moving machinery. A. T. Sampson. No. 1,072,509; Sept. 9; Gaz. vol. 194; p. 314.
Stopper: *See* Bottle-stopper; Non-explosive stopper.
Storage battery. T. A. Edison. No. 1,073,107; Sept. 16; Gaz. vol. 194; p. 563.
Stove-door. B. A. Baxter. No. 1,072,809; Sept. 9; Gaz. vol. 194; p. 420.
Stove, Gas-. W. H. Harmon. No. 1,072,115; Sept. 2; Gaz. vol. 194; p. 153.
Stove-mat. H. Kelty. No. 1,072,333; Sept. 2; Gaz. vol. 194; p. 223.
Strainer. P. G. Jacobson. No. 1,073,081; Sept. 9; Gaz. vol. 194; p. 518.
Strainer and muffler, Self-cleaning. B. S. Aikman. No. 1,073,883; Sept. 23; Gaz. vol. 194; p. 855.
Strainer for coffee-pots. E. Schalk. No. 1,072,171; Sept. 2; Gaz. vol. 194; p. 172.
Strainer, Tea and coffee. W. T. Parkin. No. 1,073,164; Sept. 16; Gaz. vol. 194; p. 582.
Strainer, Water-. W. A. Bedal. No. 1,072,299; Sept. 2; Gaz. vol. 194; p. 213.
Street-cleaner, Automobile. D. Gaul. No. 1,072,718; Sept. 9; Gaz. vol. 194; p. 385.
Street-sprinkling apparatus. P. T. Moller. No. 1,072,944; Sept. 2; Gaz. vol. 194; p. 94.
Stretching device. J. F. Green. No. 1,072,329; Sept. 2; Gaz. vol. 194; p. 222.
Structural material, Manufacture of. C. E. Duncan and J. Farwell. No. 1,071,718; Sept. 2; Gaz. vol. 194; p. 16.
Structure, Gyratory. G. W. Combs. No. 1,071,706; Sept. 2; Gaz. vol. 194; p. 12.
Structure, Gyratory. G. W. Combs. No. 1,071,707; Sept. 2; Gaz. vol. 194; p. 12.
Structures, Making ornamental. A. Fournier. No. 1,072,712; Sept. 9; Gaz. vol. 194; p. 385.
Stud. E. Filipek. No. 1,073,032; Sept. 9; Gaz. vol. 194; p. 500.
Stuffing-box. L. H. Martell. No. 1,072,016; Sept. 2; Gaz. vol. 194; p. 119.
Stuffing-box. W. A. Gordon. No. 1,074,259; Sept. 30; Gaz. vol. 194; p. 1009.

Stuffing-box, Fluid. G. E. Miller. No. 1,073,273; Sept. 16; Gaz. vol. 194; p. 622.
Sucker-rod elevator. C. L. Parker. No. 1,072,360; Sept. 2; Gaz. vol. 194; p. 235.
Suction device, W. H. Hall. No. 1,072,943; Sept. 9; Gaz. vol. 194; p. 470.
Sulky, Collapsible. R. H. Brown. No. 1,074,340; Sept. 30; Gaz. vol. 194; p. 1039.
Superheater. C. D. Young. No. 1,073,204; Sept. 16; Gaz. vol. 194; p. 596.
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Superheater for water-tube boilers. W. Schmidt and P. Thomsen. No. 1,073,934; Sept. 23; Gaz. vol. 194; p. 872.
Superheater-pipes, Apparatus for cooling. P. Thomsen. No. 1,072,194; Sept. 2; Gaz. vol. 194; p. 179.
Superheater, Smoke-tube. P. Thomsen and E. Doettloff. No. 1,073,305; Sept. 16; Gaz. vol. 194; p. 633.
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Superheating apparatus, Steam-. E. A. Geoghegan. No. 1,072,598; Sept. 9; Gaz. vol. 194; p. 846.
Supporter. W. B. Whitlock. No. 1,074,147; Sept. 30; Gaz. vol. 194; p. 973.
Supporting-rack, Collapsible. P. Schneider. No. 1,073,581; Sept. 16; Gaz. vol. 194; p. 710.
Suspenders. M. Bono. No. 1,071,688; Sept. 2; Gaz. vol. 194; p. 6.
Suspenders. W. Heinmiller. No. 1,073,604; Sept. 23; Gaz. vol. 194; p. 757.
Suspension-clamp. G. H. Bolus. No. 1,073,658; Sept. 23; Gaz. vol. 194; p. 777.
Suture appliance. H. C. and J. E. De Baun. No. 1,074,413; Sept. 30; Gaz. vol. 194; p. 1061.
Swaging-machine. F. V. Whyland. No. 1,074,398; Sept. 30; Gaz. vol. 194; p. 1056.
Swing-seat, Foldable. A. K. Bowman and C. J. McKnight. No. 1,072,906; Sept. 9; Gaz. vol. 194; p. 456.
Switch: *See* Electric switch; Electromagnetic switch; Fluid-pressure switch; Railway-switch; Time-switch.
Switch. G. W. Hart. No. 1,071,737; Sept. 2; Gaz. vol. 194; p. 28.
Switch. L. B. Wilson. No. 1,071,980; Sept. 2; Gaz. vol. 194; p. 106.
Switch. W. D. Wright and J. T. Finn. No. 1,072,409; Sept. 2; Gaz. vol. 194; p. 252.
Switch-handle. G. W. Goodridge. No. 1,072,224; Sept. 2; Gaz. vol. 194; p. 188.
Switch mechanism, Service-. G. E. Palmer. No. 1,073,281; Sept. 16; Gaz. vol. 194; p. 624.
Switch stand, Ground-. J. V. Stewart. No. 1,074,332; Sept. 30; Gaz. vol. 194; p. 1034.
Switch-throwing device. J. Toth. No. 1,071,826; Sept. 2; Gaz. vol. 194; p. 54.
Switch-tongue fastening. H. G. Isenberg. No. 1,074,365; Sept. 30; Gaz. vol. 194; p. 1044.
Synchronous machines, Means for controlling. J. Burke. No. 1,073,662; Sept. 23; Gaz. vol. 194; p. 779.
Syringe. O. James. No. 1,072,467; Sept. 9; Gaz. vol. 194; p. 301.
Syringe, Vaginal. I. W. Kurtz and J. W. Rankin. No. 1,073,249; Sept. 16; Gaz. vol. 194; p. 613.
Syruper. W. C. Anderson and A. R. Thompson. No. 1,072,412; Sept. 9; Gaz. vol. 194; p. 281.
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Table. F. B. Kleintob. No. 1,073,910; Sept. 23; Gaz. vol. 194; p. 863.
Table attachment. J. A. McNaughton. No. 1,072,248; Sept. 2; Gaz. vol. 194; p. 196.
Tag, Vehicle license-. A. Wakeman. No. 1,073,004; Sept. 9; Gaz. vol. 194; p. 492.
Talking-machine. G. Thiel. No. 1,072,529; Sept. 9; Gaz. vol. 194; p. 322.
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Talking-machine. H. B. Babson and A. Haug. No. 1,074,080; Sept. 23; Gaz. vol. 194; p. 921.
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Tally-roll attachment. J. C. Harvey. No. 1,072,452; Sept. 9; Gaz. vol. 194; p. 295.
Tamping-machine. O. Nolan. No. 1,072,355; Sept. 2; Gaz. vol. 194; p. 231.
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Tank-gage. E. S. Savage. No. 1,072,876; Sept. 9; Gaz. vol. 194; p. 444.
Tank gage, Gasolene-. P. M. Bush. No. 1,072,819; Sept. 9; Gaz. vol. 194; p. 423.
Tank-heater. W. H. Suhr. No. 1,073,544; Sept. 16; Gaz. vol. 194; p. 714.
Target, Self-indicating. O. Klein. No. 1,072,621; Sept. 9; Gaz. vol. 194; p. 353.
Tea-kettle. J. C. Hollands. No. 1,072,461; Sept. 9; Gaz. vol. 194; p. 296.
Telegraph receiving and sending apparatus, Automatic change-over switch for wireless-. W. L. Lewis. No. 1,074,057; Sept. 23; Gaz. vol. 194; p. 913.
Telegraphic system. J. Gell. No. 1,074,170; Sept. 30; Gaz. vol. 194; p. 980.
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Telegraphy. W. M. Bruce, Jr. No. 1,073,886; Sept. 23; Gaz. vol. 194; p. 856.
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Telephone-circuits, Automatic battery cut-out for. A. R. Nelson. No. 1,072,400; Sept. 2; Gaz. vol. 194; p. 248.
Telephone-exchange system. S. H. Browne. No. 1,073,589; Sept. 23; Gaz. vol. 194; p. 753.
Telephone-mouthpiece, Individual. C. S. Warren. No. 1,072,537; Sept. 9; Gaz. vol. 194; p. 325.
Telephone-operators' positions, System for dividing calls among. H. J. W. Fay and E. C. Molina. No. 1,073,748; Sept. 23; Gaz. vol. 194; p. 810.
Telephone outfit for the deaf. K. M. Turner. No. 1,073,788; Sept. 23; Gaz. vol. 194; p. 823.
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Telephone repeater system. H. E. Shreeve. No. 1,074,298; Sept. 30; Gaz. vol. 194; p. 1022.
Telephone-transmitter. H. C. Egerton. No. 1,073,667; Sept. 23; Gaz. vol. 194; p. 781.
Telephone-transmitter attachment. E. M. Schollenberger. No. 1,072,513; Sept. 9; Gaz. vol. 194; p. 316.
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Therapeutic device. W. B. Russell. No. 1,073,524; Sept. 16; Gaz. vol. 194; p. 707.
Therapeutic device. W. B. Russell. No. 1,073,525; Sept. 16; Gaz. vol. 194; p. 708.
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Thermostat. E. S. Halsey. No. 1,073,899; Sept. 23; Gaz. vol. 194; p. 861.
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Thill-coupling. W. A. Buchanan. No. 1,073,328; Sept. 16; Gaz. vol. 194; p. 642.
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Thread-cutting machine. E. Riley. No. 1,072,503; Sept. 9; Gaz. vol. 194; p. 312.
Thread-stand. J. Maitland. No. 1,074,553; Sept. 30; Gaz. vol. 194; p. 1104.
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Ticket-dispensing machine. F. Magidson. No. 1,072,631; Sept. 9; Gaz. vol. 194; p. 357.
Ticket for street-cars and similar uses. L. P. Lippa. No. 1,072,627; Sept. 9; Gaz. vol. 194; p. 355.
Ticket-holder. M. J. Burke. No. 1,074,102; Sept. 30; Gaz. vol. 194; p. 958.
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Tie: *See* Concrete railway-tie; Cross-tie; Rail-tie; Railway-tie.
Tie-plate. E. L. Adreon, Jr. No. 1,073,011; Sept. 9; Gaz. vol. 194; p. 493.
Tie-plate. E. L. Adreon, Jr. No. 1,073,078; Sept. 9; Gaz. vol. 194; p. 517.
Tie-plate and rail-fastener. M. Schroyer. No. 1,074,472; Sept. 30; Gaz. vol. 194; p. 1080.
Tie-plate and spike-retainer, Combined. C. W. Quin. No. 1,072,991; Sept. 9; Gaz. vol. 194; p. 487.
Tie, Railway-. J. R. Dooley. No. 1,073,030; Sept. 9; Gaz. vol. 194; p. 500.
Tile. P. M. Stewart. No. 1,073,541; Sept. 16; Gaz. vol. 194; p. 713.
Tile-machine. M. E. Shaw. No. 1,074,139; Sept. 30; Gaz. vol. 194; p. 970.
Time-recorder. J. Sokolov. No. 1,074,069; Sept. 23; Gaz. vol. 194; p. 917.
Time-recording and valve-controlling mechanism, Combined. J. F. Rose. No. 1,073,172; Sept. 16; Gaz. vol. 194; p. 586.
Time-switch. S. I. Phelps. No. 1,073,707; Sept. 23; Gaz. vol. 194; p. 797.
Timer. W. F. Minor. No. 1,072,973; Sept. 9; Gaz. vol. 194; p. 480.
Tinning metal vessels internally. F. Van der Velden. No. 1,072,372; Sept. 2; Gaz. vol. 194; p. 238.
Tire. C. M. Griffin. No. 1,072,382; Sept. 2; Gaz. vol. 194; p. 241.
Tire. O. Dimmitt. No. 1,072,925; Sept. 9; Gaz. vol. 194; p. 463.
Tire-armor. G. E. Hinson. No. 1,071,741; Sept. 2; Gaz. vol. 194; p. 25.
Tire-chains, Temporary connecting and applying device for automobile. J. A. Staples. No. 1,072,522; Sept. 9; Gaz. vol. 194; p. 319.
Tire for the wheels of road-vehicles. A. W. Terrington. No. 1,072,793; Sept. 9; Gaz. vol. 194; p. 414.
Tire-inflating mechanism, Automobile. L. L. Brooks. No. 1,072,997; Sept. 9; Gaz. vol. 194; p. 454.
Tire or tube for wheeled vehicles. O. T. Bugg. No. 1,073,329; Sept. 16; Gaz. vol. 194; p. 642.
Tire-pressure indicator and signal, Combined. C. C. Cleveland. No. 1,071,880; Sept. 2; Gaz. vol. 194; p. 73.

Tire-protector. J. Brotschneider. No. 1,071,695; Sept. 2; Gaz. vol. 194; p. 8.
Tire-protector. S. S. and D. A. Huffman. No. 1,072,464; Sept. 9; Gaz. vol. 194; p. 300.
Tire-protector. R. V. Hastings. No. 1,073,118; Sept. 16; Gaz. vol. 194; p. 566.
Tire, Resilient. F. Reed. No. 1,072,260; Sept. 2; Gaz. vol. 194; p. 190.
Tire, Resilient vehicle-. J. T. Clark. No. 1,072,699; Sept. 9; Gaz. vol. 194; p. 381.
Tire, Resilient vehicle-. J. T. Clark. No. 1,072,700; Sept. 9; Gaz. vol. 194; p. 381.
Tire, Sand-. G. F. Thompson. No. 1,074,391; Sept. 30; Gaz. vol. 194; p. 1053.
Tire-support. L. E. Cadwell. No. 1,072,909; Sept. 9; Gaz. vol. 194; p. 457.
Tire, Vehicle-. J. T. Clark. No. 1,074,246; Sept. 30; Gaz. vol. 194; p. 1005.
Tire, Wheel-. A. A. Picard. No. 1,071,953; Sept. 2; Gaz. vol. 194; p. 97.
Tires, Metallic belt-protector for vehicle-. W. P. Hammond. No. 1,074,085; Sept. 23; Gaz. vol. 194; p. 922.
Toaster and broiler. J. M. Brock. No. 1,073,660; Sept. 23; Gaz. vol. 194; p. 778.
Tobacco, Cartridge or like charge of. W. R. Comings. No. 1,072,914; Sept. 9; Gaz. vol. 194; p. 459.
Tobacco-pipe. G. C. Rickly. No. 1,072,167; Sept. 2; Gaz. vol. 194; p. 171.
Tobacco-pipe. T. Broš. No. 1,074,489; Sept. 30; Gaz. vol. 194; p. 1085.
Tobacco-stemming machine. H. C. Hebig. No. 1,073,853; Sept. 23; Gaz. vol. 194; p. 844.
Tombstone-mold. N. C. Cameron. No. 1,072,309; Sept. 2; Gaz. vol. 194; p. 216.
Tongs, Adjustable casing-. W. S. Brummett. No. 1,073,661; Sept. 23; Gaz. vol. 194; p. 779.
Tongs, Automatic chain. E. Green. No. 1,071,908; Sept. 2; Gaz. vol. 194; p. 83.
Tongue for farm implements. G. M. Schnell. No. 1,073,781; Sept. 23; Gaz. vol. 194; p. 821.
Tool-chest handle. J. Neustaedter. No. 1,074,133; Sept. 30; Gaz. vol. 194; p. 968.
Tool, Combination-. G. W. Gilmer, Jr. No. 1,074,113; Sept. 30; Gaz. vol. 194; p. 961.
Tool, Combination-. W. Pearson. No. 1,074,380; Sept. 30; Gaz. vol. 194; p. 1050.
Tool, Fluid-pressure-driven. A. Palmros. No. 1,072,358; Sept. 2; Gaz. vol. 194; p. 232.
Tool-handle. D. D. Peters. No. 1,073,817; Sept. 23; Gaz. vol. 194; p. 832.
Tool-holder. H. Haussman. No. 1,073,679; Sept. 23; Gaz. vol. 194; p. 785.
Tool-holder. D. M. Bilby. No. 1,074,041; Sept. 23; Gaz. vol. 194; p. 908.
Tool-holder, Single-service. S. S. Fuller. No. 1,073,112; Sept. 16; Gaz. vol. 194; p. 565.
Tooth, Artificial. L. Persin. No. 1,071,952; Sept. 2; Gaz. vol. 194; p. 97.
Tooth, Artificial. H. Rutland. No. 1,073,365; Sept. 16; Gaz. vol. 194; p. 654.
Tooth-powder. R. Yeganian. No. 1,073,725; Sept. 23; Gaz. vol. 194; p. 803.
Toothpick-dispenser, Sanitary. C. D. Lyon. No. 1,072,399; Sept. 2; Gaz. vol. 194; p. 248.
Top-comb cleaner. E. A. Rooney. No. 1,074,294; Sept. 30; Gaz. vol. 194; p. 1021.
Towel-rack. M. Macpherson. No. 1,072,135; Sept. 2; Gaz. vol. 194; p. 160.
Towel, Sanitary. A. P. Linville. No. 1,072,746; Sept. 9; Gaz. vol. 194; p. 397.
Toy. E. J. Schowalter. No. 1,071,805; Sept. 2; Gaz. vol. 194; p. 48.
Toy. A. E. Holmberg. (Reissue.) No. 13,611; Sept. 2; Gaz. vol. 194; p. 253.
Toy. E. J. Fraenkell. No. 1,073,111; Sept. 16; Gaz. vol. 194; p. 565.
Toy. G. F. Voltz. No. 1,073,880; Sept. 23; Gaz. vol. 194; p. 853.
Toy catapult. F. W. Pratt and B. J. Dickinson. No. 1,072,988; Sept. 9; Gaz. vol. 194; p. 487.
Toy puzzle. C. E. Ashburner. No. 1,072,558; Sept. 9; Gaz. vol. 194; p. 332.
Track-sander. W. B. Rogers. No. 1,074,207; Sept. 30; Gaz. vol. 194; p. 992.
Traction-wheel. T. V. Buckwalter. No. 1,072,818; Sept. 9; Gaz. vol. 194; p. 423.
Tractor, Two-wheel. J. I. Hoke. No. 1,073,490; Sept. 16; Gaz. vol. 194; p. 697.
Train-coach attachment. W. E. Cook. No. 1,073,962; Sept. 23; Gaz. vol. 194; p. 882.
Trains or moving bodies, Apparatus for delivering articles, such as mail-bags, from. M. D. Van Lenten. No. 1,074,027; Sept. 23; Gaz. vol. 194; p. 903.
Transformer connection. K. Schmidt. No. 1,072,042; Sept. 2; Gaz. vol. 194; p. 127.
Transmission mechanism. H. Devlin. No. 1,072,834; Sept. 9; Gaz. vol. 194; p. 428.
Transplanting machine, Plant-. R. L. Owens. No. 1,073,702; Sept. 23; Gaz. vol. 194; p. 794.
Trap: *See* Animal-trap; Fly-trap; Game-trap; Grease-trap; Insect-trap; Radiator-trap; Rat-trap; Steam-trap.
Trap-door lifter. F. Troyer. No. 1,073,003; Sept. 9; Gaz. vol. 194; p. 491.
Traps, Treadle-guard for spring-jaw. L. L. Rudrud. No. 1,074,210; Sept. 30; Gaz. vol. 194; p. 993.
Trash-arrester and filter. W. H. Miller. No. 1,074,375; Sept. 30; Gaz. vol. 194; p. 1046.
Traveling-grate furnace. S. J. Misener. No. 1,073,359; Sept. 16; Gaz. vol. 194; p. 653.
Tree-protector. E. W. Liljegran. No. 1,072,339; Sept. 2; Gaz. vol. 194; p. 225.
Tree-protector. E. W. Liljegran. No. 1,072,340; Sept. 2; Gaz. vol. 194; p. 225.
Trial-frame. G. L. Tully. No. 1,073,870; Sept. 23; Gaz. vol. 194; p. 853.
Trial or balance sheet. J. Barker. No. 1,072,417; Sept. 9; Gaz. vol. 194; p. 282.
Trimmer: *See* Lawn-trimmer.
Trolley. J. R. Eisaman. No. 1,073,480; Sept. 16; Gaz. vol. 194; p. 695.
Trolley-guard. M. Szwargulski. No. 1,073,303; Sept. 16; Gaz. vol. 194; p. 633.
Trolley-pole and brake control. J. E. Peck. No. 1,072,252; Sept. 2; Gaz. vol. 194; p. 197.
Trolley stand and pole. A. C. Kudla. No. 1,072,014; Sept. 2; Gaz. vol. 194; p. 119.
Trough: *See* Extensible trough.
Troughing-rolls, Stand for. S. B. Peck. No. 1,072,156; Sept. 2; Gaz. vol. 194; p. 167.
Trousers. J. A. Ludwig and J. B. Moses. No. 1,071,932; Sept. 2; Gaz. vol. 194; p. 91.
Trousers-stretcher. G. Van Rooijen. No. 1,072,881; Sept. 9; Gaz. vol. 194; p. 446.
Trowelling compound, Plastic waterproof. A. C. Horn. No. 1,074,364; Sept. 30; Gaz. vol. 194; p. 1044.
Truck. J. E. Muhlfeld. No. 1,073,812; Sept. 23; Gaz. vol. 194; p. 830.
Truck, Baggage-. T. V. Buckwalter. No. 1,072,817; Sept. 9; Gaz. vol. 194; p. 422.
Truck-bolster-damping device. W. G. Price. No. 1,073,625; Sept. 23; Gaz. vol. 194; p. 765.
Truck-bolster-damping device. W. G. Price. No. 1,073,626; Sept. 23; Gaz. vol. 194; p. 765.
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Truck bolster, Railway-car-. A. E. Smith. No. 1,073,178; Sept. 16; Gaz. vol. 194; p. 587.
Truck, Car-. J. A. Brooks. No. 1,071,694; Sept. 2; Gaz. vol. 194; p. 8.
Truck, Car-. H. M. Pflager. No. 1,072,645; Sept. 9; Gaz. vol. 194; p. 361.
Truck, Car-. H. H. Hewitt. No. 1,072,721; Sept. 9; Gaz. vol. 194; p. 387.
Truck, Car-. H. H. Hewitt. No. 1,072,722; Sept. 9; Gaz. vol. 194; p. 388.
Truck, Car-. H. H. Hewitt. No. 1,072,723; Sept. 9; Gaz. vol. 194; p. 388.
Truck, Car-. H. H. Hewitt. No. 1,072,724; Sept. 9; Gaz. vol. 194; p. 388.
Truck, Car-. H. H. Hewitt. No. 1,072,725; Sept. 9; Gaz. vol. 194; p. 389.
Truck, Car-. J. C. Barber. No. 1,073,654; Sept. 23; Gaz. vol. 194; p. 776.
Truck, Car-. W. H. Heulings, Jr. No. 1,074,322; Sept. 30; Gaz. vol. 194; p. 1030.
Truck, Car-. G. C. Towle. No. 1,074,479; Sept. 30; Gaz. vol. 194; p. 1082.
Truck construction, Car-. W. M. Duncan. No. 1,074,317; Sept. 30; Gaz. vol. 194; p. 1029.
Truck-counting apparatus, Loaded-. R. McGahey. No. 1,074,002; Sept. 23; Gaz. vol. 194; p. 896.
Truck for forming and depositing shocks. G. Marshall. No. 1,073,917; Sept. 23; Gaz. vol. 194; p. 867.
Truck, Locomotive-. H. F. Ball. No. 1,074,154; Sept. 30; Gaz. vol. 194; p. 974.
Truck, Radiator-. R. Irwin. No. 1,072,234; Sept. 2; Gaz. vol. 194; p. 191.
Truck-shield. A. Manteau. No. 1,072,965; Sept. 9; Gaz. vol. 194; p. 478.
Trucks, Bolster-guide plate for railway-car. A. Copony. No. 1,073,333; Sept. 16; Gaz. vol. 194; p. 643.
Truss. H. V. Appley. No. 1,072,804; Sept. 9; Gaz. vol. 194; p. 417.
Truss. C. Cluthe. No. 1,073,216; Sept. 16; Gaz. vol. 194; p. 601.
Truss-pad. F. L. McWethy. No. 1,072,970; Sept. 9; Gaz. vol. 194; p. 479.
Trusses, Holding-pad for rupture-. C. Cluthe. No. 1,073,217; Sept. 16; Gaz. vol. 194; p. 602.
Tub: *See* Bath-tub.
Tube holder, Collapsible-. F. A. Goppelt, Jr. No. 1,072,940; Sept. 9; Gaz. vol. 194; p. 469.
Tubes, Forming. J. R. Harbeck. No. 1,072,715; Sept. 9; Gaz. vol. 194; p. 386.
Tubes, Holding and expelling device for collapsible. S. E. Williams and T. A. Campbell. No. 1,073,007; Sept. 9; Gaz. vol. 194; p. 493.
Tubular carrier. F. O. Hoagland. No. 1,073,348; Sept. 16; Gaz. vol. 194; p. 649.
Tubular fabrics, Machine for making. A. Petersen. No. 1,072,984; Sept. 9; Gaz. vol. 194; p. 485.
Tumbler-washer. T. G. Strator, Jr. No. 1,072,528; Sept. 9; Gaz. vol. 194; p. 321.
Tumbling-barrel. F. E. Warner. No. 1,073,945; Sept. 23; Gaz. vol. 194; p. 876.
Tunnel-driving machine. G. F. Speer. No. 1,072,050; Sept. 2; Gaz. vol. 194; p. 130.
Tunnels, Constructing subaqueous. J. S. Williams. No. 1,072,068; Sept. 2; Gaz. vol. 194; p. 136.

Turbine. E. Anderson. No. 1,072,295; Sept. 2; Gaz. vol. 194; p. 211.
Turbine. E. Josse. No. 1,072,953; Sept. 9; Gaz. vol. 194; p. 478.
Turbine blade, Steam-. E. Imle. No. 1,072,233; Sept. 2; Gaz. vol. 194; p. 191.
Turbine blade, Steam-. A. B. Owen and T. Hall. No. 1,073,623; Sept. 23; Gaz. vol. 194; p. 764.
Turbine, Elastic-fluid. C. G. Curtis. No. 1,071,887; Sept. 2; Gaz. vol. 194; p. 75.
Turbine, Elastic-fluid. E. Josse and P. Christlein. No. 1,073,421; Sept. 16; Gaz. vol. 194; p. 674.
Turbine, Gas-. A. E. Stachel. No. 1,073,717; Sept. 23; Gaz. vol. 194; p. 801.
Turbine-governing mechanism. W. L. R. Emmet. No. 1,072,929; Sept. 9; Gaz. vol. 194; p. 464.
Turbine, Marine. W. Fritz. No. 1,073,895; Sept. 23; Gaz. vol. 194; p. 859.
Turbine, Steam-. F. Ljungström. No. 1,073,916; Sept. 23; Gaz. vol. 194; p. 866.
Turbine, Steam-. F. Ljungström. No. 1,074,370; Sept. 30; Gaz. vol. 194; p. 1046.
Turpentine-cups, Tool for installing. G. C. Pringle. No. 1,073,517; Sept. 16; Gaz. vol. 194; p. 705.
Type-bar action. C. Spiro. No. 1,072,784; Sept. 9; Gaz. vol. 194; p. 410.
Type-casting and similar machine. C. Crisp. No. 1,072,917; Sept. 9; Gaz. vol. 194; p. 460.
Type composing and casting apparatus. H. J. S. Gilbert-Stringer and P. W. Druitt. No. 1,074,546; Sept. 30; Gaz. vol. 194; p. 1102.
Type device, Settable-. G. S. Hice and J. Barnes. No. 1,073,234; Sept. 16; Gaz. vol. 194; p. 606.
Type-writer. E. C. Walter. No. 1,073,573; Sept. 16; Gaz. vol. 194; p. 726.
Type-writer and telegraph-transmitter, Combined. H. H. Steele. No. 1,071,819; Sept. 2; Gaz. vol. 194; p. 53.
Type-writer attachment. E. J. Barker. No. 1,072,202; Sept. 2; Gaz. vol. 194; p. 182.
Type-writer desk. J. S. Hunter. No. 1,072,121; Sept. 2; Gaz. vol. 194; p. 154.
Type-writer shock-absorber. N. R. Stiles. No. 1,072,526; Sept. 9; Gaz. vol. 194; p. 320.
Type-writers, Shift mechanism for. A. W. Weeden. No. 1,071,976; Sept. 2; Gaz. vol. 194; p. 104.
Type-writing machine. W. J. Neidig and C. B. Stewart. No. 1,071,780; Sept. 2; Gaz. vol. 194; p. 39.
Type-writing machine. W. E. Barnard. No. 1,071,860; Sept. 2; Gaz. vol. 194; p. 66.
Type-writing machine. J. J. Cooper. No. 1,071,885; Sept. 2; Gaz. vol. 194; p. 75.
Type-writing machine. P. Stern. No. 1,072,191; Sept. 2; Gaz. vol. 194; p. 178.
Type-writing machine. A. G. F. Kurowsky. No. 1,072,886; Sept. 2; Gaz. vol. 194; p. 243.
Type-writing machine. J. H. Barr. No. 1,072,899; Sept. 9; Gaz. vol. 194; p. 453.
Type-writing machine. W. E. Barnard. No. 1,073,068; Sept. 9; Gaz. vol. 194; p. 513.
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Type-writing machine. S. H. Farnham, A. W. Smith, and J. Phelps. No. 1,073,577; Sept. 16; Gaz. vol. 194; p. 727.
Type-writing machine. J. Purdy. No. 1,073,818; Sept. 23; Gaz. vol. 194; p. 832.
Type-writing machine. E. B. Hess. No. 1,074,093; Sept. 23; Gaz. vol. 194; p. 925.
Type-writing-machine escapement mechanism. E. B. Hess. No. 1,072,118; Sept. 2; Gaz. vol. 194; p. 154.
Type-writing machine, Music. L. Fortoni. No. 1,073,976; Sept. 23; Gaz. vol. 194; p. 887.
Type-writing-machine ribbon mechanism. L. C. Myers. No. 1,072,148; Sept. 2; Gaz. vol. 194; p. 164.
Type-writing-machine spring-barrel mechanism. L. C. Myers. No. 1,072,149; Sept. 2; Gaz. vol. 194; p. 165.
Typographical machine. D. S. Kennedy. No. 1,072,737; Sept. 9; Gaz. vol. 194; p. 394.
Typographical machine. L. E. Morrison. No. 1,072,763; Sept. 9; Gaz. vol. 194; p. 402.
Typographical machine. J. R. Rogers. No. 1,073,170; Sept. 16; Gaz. vol. 194; p. 585.
Umbrella-covers, Fabric for. D. R. Houser. No. 1,074,053; Sept. 23; Gaz. vol. 194; p. 912.
Umbrella, Folding. I. H. Long. No. 1,071,762; Sept. 2; Gaz. vol. 194; p. 32.
Umbrella, Folding. J. M. Beaver. No. 1,073,562; Sept. 16; Gaz. vol. 194; p. 721.
Umbrellas and the like in closed position, Means for retaining the ends of the ribs of. A. A. Revel. No. 1,073,631; Sept. 23; Gaz. vol. 194; p. 766.
Uncoupling mechanism. H. F. Woernley. No. 1,071,849; Sept. 2; Gaz. vol. 194; p. 62.
Undergarment. C. F. Schultz. No. 1,073,782; Sept. 23; Gaz. vol. 194; p. 821.
Undergarment, Lady's negligée. V. Whittington. No. 1,073,724; Sept. 23; Gaz. vol. 194; p. 802.
Union suit. F. L. Barnes and J. McGoey. No. 1,074,309; Sept. 30; Gaz. vol. 194; p. 1026.
Union suit, Separable. W. W. Wyer. No. 1,073,833; Sept. 23; Gaz. vol. 194; p. 837.
Universal joint. E. Hermann. No. 1,072,612; Sept. 9; Gaz. vol. 194; p. 350.
Utensil. H. J. M. Schaab. No. 1,073,528; Sept. 16; Gaz. vol. 194; p. 709.
Vacuum-cleaners, Pumping means for. C. W. Stewart. No. 1,073,539; Sept. 16; Gaz. vol. 194; p. 712.
Vacuum-governor, Automatic. F. J. Matchette. No. 1,071,936; Sept. 2; Gaz. vol. 194; p. 92.
Vacuum-producing device. W. and J. Birrell. No. 1,073,467; Sept. 16; Gaz. vol. 194; p. 691.
Valve. F. F. Landis. No. 1,071,759; Sept. 2; Gaz. vol. 194; p. 31.
Valve. W. S. Fairhurst. No. 1,073,338; Sept. 16; Gaz. vol. 194; p. 645.
Valve. J. W. Abbott. No. 1,074,484; Sept. 30; Gaz. vol. 194; p. 1083.
Valve-actuating gear for steam tramping-presses. W. B. Christopher. No. 1,071,701; Sept. 2; Gaz. vol. 194; p. 10.
Valve and lighter, Gas-burner. J. Holtzman. No. 1,072,615; Sept. 9; Gaz. vol. 194; p. 352.
Valve, Automatic air-escape. C. Lauterbach. No. 1,073,354; Sept. 16; Gaz. vol. 194; p. 651.
Valve, Automatic gas-shut-off. I. Glanschnig. No. 1,072,603; Sept. 9; Gaz. vol. 194; p. 347.
Valve, Automatic safety-. W. Wafer. No. 1,071,972; Sept. 2; Gaz. vol. 194; p. 103.
Valve, Blow-off. C. E. Vance. No. 1,072,796; Sept. 9; Gaz. vol. 194; p. 415.
Valve, Check-. J. J. Thelen. No. 1,072,673; Sept. 9; Gaz. vol. 194; p. 371.
Valve, Combination check and stop. M. Makowsky. No. 1,072,245; Sept. 2; Gaz. vol. 194; p. 195.
Valve device, Triple-. W. V. Turner. No. 1,071,831; Sept. 2; Gaz. vol. 194; p. 56.
Valve device, Triple-. W. V. Turner. No. 1,073,185; Sept. 16; Gaz. vol. 194; p. 590.
Valve-disk. G. Hart. No. 1,072,004; Sept. 2; Gaz. vol. 194; p. 115.
Valve, Explosive-engine. A. J. Ray. No. 1,071,958; Sept. 2; Gaz. vol. 194; p. 98.
Valve, Fluid-pressure-reducing. H. M. P. Murphy. No. 1,071,777; Sept. 2; Gaz. vol. 194; p. 38.
Valve, Flush-. A. N. Pasman. No. 1,074,379; Sept. 30; Gaz. vol. 194; p. 1049.
Valve for bubbling fountains. E. L. Kellan. No. 1,071,758; Sept. 2; Gaz. vol. 194; p. 28.
Valve for controlling the flow of thick pulpy material and the like. E. H. Nutter. No. 1,071,784; Sept. 2; Gaz. vol. 194; p. 41.
Valve for Corliss engines and the like. C. G. Barton. No. 1,072,308; Sept. 2; Gaz. vol. 194; p. 215.
Valve for water-closets, Flush-. H. P. Hansen. No. 1,073,603; Sept. 23; Gaz. vol. 194; p. 757.
Valve, Gate-. E. F. Poland. No. 1,074,199; Sept. 30; Gaz. vol. 194; p. 989.
Valve-gear. J. P. Ramsey. No. 1,071,793; Sept. 2; Gaz. vol. 194; p. 44.
Valve-gear. O. A. Dönath. No. 1,073,576; Sept. 16; Gaz vol. 194; p. 726.
Valve-gear, Engine. R. C. Stevens. No. 1,072,786; Sept. 9; Gaz. vol. 194; p. 411.
Valve-gear for internal-combustion engines. J. A. Prestwich. No. 1,073,284; Sept. 16; Gaz. vol. 194; p. 625.
Valve-gear for internal-combustion motors, Starting. J. Romeyn. No. 1,073,633; Sept. 23; Gaz. vol. 194; p. 767.
Valve gear, Locomotive reversing-. J. Henderson. No. 1,074,548; Sept. 30; Gaz. vol. 194; p. 1103.
Valve-gear, Steam-engine. O. W. Young. No. 1,071,854; Sept. 2; Gaz. vol. 194; p. 64.
Valve, Globe-. A. O. Levick. No. 1,072,744; Sept. 9; Gaz. vol. 194; p. 396.
Valve-grinding tool. H., B., and P. Horn. No. 1,073,686; Sept. 23; Gaz. vol. 194; p. 788.
Valve, Hydropneumatic. L. D. Berg. No. 1,072,562; Sept. 9; Gaz. vol. 194; p. 334.
Valve mechanism. J. Cevasco, N. J. Cavagnaro, and C. Ambrette. No. 1,072,822; Sept. 9; Gaz. vol. 194; p. 424.
Valve mechanism for air-compressors. W. S. Fairhurst. No. 1,073,337; Sept. 16; Gaz. vol. 194; p. 645.
Valve mechanism for explosion-engines. W. D. Kelly. No. 1,074,121; Sept. 30; Gaz. vol. 194; p. 964.
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Valves, Mechanism for controlling the operation of. M. Ergensinger. No. 1,071,998; Sept. 2; Gaz. vol. 194; p. 111.
Valves of gas-burners, Device for controlling. A. B. Shaw. No. 1,074,090; Sept. 23; Gaz. vol. 194; p. 924.
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Vehicle-body, Convertible. G. C. Plummer. No. 1,072,394; Sept. 2; Gaz. vol. 194; p. 246.
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Vehicle-fender. S. Fleischmann. No. 1,072,108; Sept. 2; Gaz. vol. 194; p. 150.
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Vehicle propelling mechanism. J. E. Cress. No. 1,072,093; Sept. 2; Gaz. vol. 194; p. 144.
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Vehicle shock-absorbing wheel. C. E. Moser. No. 1,073,508; Sept. 16; Gaz. vol. 194; p. 702.
Vehicle-spring. L. A. Huston. No. 1,074,178; Sept. 30; Gaz. vol. 194; p. 988.
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Vehicle spring-equaliser. G. M. Huston. No. 1,073,804; Sept. 23; Gaz. vol. 194; p. 828.
Vehicle-spring, Pneumatic. T. L. de Bejar and B. Lanzagorta. No. 1,073,840; Sept. 23; Gaz. vol. 194; p. 840.
Vehicle steering-gear and controlling mechanism, Combined. F. B. Rae. No. 1,073,439; Sept. 16; Gaz. vol. 194; p. 690.
Vehicle storm-curtain. C. Sedlacek. No. 1,074,297; Sept. 30; Gaz. vol. 194; p. 1022.
Vehicle suspension. R. F. Cordero. No. 1,073,797; Sept. 23; Gaz. vol. 194; p. 825.
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Vehicle-track and curbstone, Combination. F. F. Fargo. No. 1,073,669; Sept. 23; Gaz. vol. 194; p. 782.
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Vehicle-wheel, Resilient. H. S. Grace. No. 1,072,604; Sept. 9; Gaz. vol. 194; p. 348.
Vehicle-wheel, Resilient. H. S. Grace. No. 1,072,605; Sept. 9; Gaz. vol. 194; p. 348.
Vehicle-wheel, Spring. K. A. Kendrick. No. 1,071,926; Sept. 2; Gaz. vol. 194; p. 89.
Vehicle with cellular partitions, boxes, or drawers which are let separately for the conveyance of goods. C. Isidor. No. 1,072,948; Sept. 9; Gaz. vol. 194; p. 471.
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Vehicles, Gearing for motor-. E. H. Avery. No. 1,074,241; Sept. 30; Gaz. vol. 194; p. 1036.
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Vending and affixing machine, Postage-stamp. W. H. Peters. No. 1,073,515; Sept. 16; Gaz. vol. 194; p. 705.
Vending-machine. R. Genovese. No. 1,071,732; Sept. 2; Gaz. vol. 194; p. 21.
Vending-machine. J. Staziak. No. 1,072,051; Sept. 2; Gaz. vol. 194; p. 130.
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Vending-machine. G. W. Miller. No. 1,072,758; Sept. 9; Gaz. vol. 194; p. 400.
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Vending-machine, Check-controlled. N. P. Fraser. No. 1,074,426; Sept. 30; Gaz. vol. 194; p. 1065.
Vending-machine, Coin-controlled. F. A. Bowers. No. 1,072,905; Sept. 9; Gaz. vol. 194; p. 456.
Veneer-press for manufacturers of woodworking material. C. E. Francis. No. 1,073,414; Sept. 16; Gaz. vol. 194; p. 672.
Ventilating and for moistening the atmosphere of premises, Arrangement for. J. F. P. Kestner and H. J. E. Neu. No. 1,073,609; Sept. 23; Gaz. vol. 194; p. 759.
Ventilator: *See* Building-ventilator.
Ventilator. T. H. Garland. No. 1,071,729; Sept. 2; Gaz. vol. 194; p. 20.
Ventilator. J. Christie. No. 1,073,079; Sept. 9; Gaz. vol. 194; p. 517.
Ventilator. D. J. T. Hiett. No. 1,073,125; Sept. 16; Gaz. vol. 194; p. 569.
Ventilator and advertising device, Combined. R. E. Carswell. No. 1,072,821; Sept. 9; Gaz. vol. 194; p. 424.
Ventilator-control apparatus. J. Pronovost and R. E. Duncan. No. 1,073,285; Sept. 16; Gaz. vol. 194; p. 626.
Vessel, Ice-breaking marine. B. T. Haagenson. No. 1,071,785; Sept. 2; Gaz. vol. 194; p. 22.
Vessel, Submarine. H. G. Cady. No. 1,072,569; Sept. 9; Gaz. vol. 194; p. 336.
Vessel with metallic end closure, Double-walled. J. W. Harrison. No. 1,073,983; Sept. 23; Gaz. vol. 194; p. 889.
Vessels, Apparatus for the salvage of. M. L. Johnson. No. 1,073,990; Sept. 23; Gaz. vol. 194; p. 892.
Vessels, Protecting-cover for funnels of war. W. Hersfeldt. No. 1,072,117; Sept. 2; Gaz. vol. 194; p. 153.
Vise, Pipe-. C. O. Bergman. No. 1,073,731; Sept. 23; Gaz. vol. 194; p. 804.
Voting-machine. J. H. Dean. No. 1,072,922; Sept. 9; Gaz. vol. 194; p. 461.
Voting-machine. A. J. Gillespie. No. 1,072,039; Sept. 9; Gaz. vol. 194; p. 468.
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Voting-machine. J. H. Dean. No. 1,074,314; Sept. 30; Gaz. vol. 194; p. 1028.
Voting-machines, Counter-actuator and voter-counter for. C. Christensen. No. 1,074,311; Sept. 30; Gaz. vol. 194; p. 1027.
Voting-machines, Cumulative-voting mechanism for. W. J. Lausterer. No. 1,072,962; Sept. 9; Gaz. vol. 194; p. 476.
Wagon. E. G. Thomas. No. 1,071,971; Sept. 2; Gaz. vol. 194; p. 102.
Wagon. J. B. Bartholomew. No. 1,073,837; Sept. 23; Gaz. vol. 194; p. 839.
Wagon-bed. J. L. Sweeney. No. 1,074,535; Sept. 30; Gaz. vol. 194; p. 1099.
Wagon-brake. H. R. McKissick. No. 1,073,267; Sept. 16; Gaz. vol. 194; p. 620.
Wagon-brake. B. Gussettie. No. 1,073,752; Sept. 23; Gaz. vol. 194; p. 812.
Wagon-hounds. R. F. Clifton. No. 1,073,958; Sept. 23; Gaz. vol. 194; p. 881.
Wagon-jack. W. M. Lewis. No. 1,074,184; Sept. 30; Gaz. vol. 194; p. 984.
Wagon-seat clamp. J. Kiefer. No. 1,072,858; Sept. 9; Gaz. vol. 194; p. 437.
Wall construction. M. H. Jester. No. 1,073,134; Sept. 16; Gaz. vol. 194; p. 572.
Wall structure. G. A. Wieland and W. F. Aldrich. No. 1,073,629; Sept. 23; Gaz. vol. 194; p. 836.
Wardrobe. J. A. Kindberg. No. 1,072,473; Sept. 9; Gaz. vol. 194; p. 303.
Wardrobe, Collapsible. J. M. Connelly. No. 1,072,089; Sept. 2; Gaz. vol. 194; p. 143.
Warp-threads, Apparatus for applying stop-motion detectors to. J. F. Dustin. No. 1,072,103; Sept. 2; Gaz. vol. 194; p. 147.
Washer: *See* Coal-washer; Tumbler-washer.
Washing-boiler. J. E. Rowan and L. F. Bauman. No. 1,074,528; Sept. 30; Gaz. vol. 194; p. 1096.

Washing-machine-driving mechanism. O. H. Watkins. No. 1,074,073; Sept. 23; Gaz. vol. 194; p. 919.
Washing-machine-operating mechanism. W. V. Frank. No. 1,072,100; Sept. 2; Gaz. vol. 194; p. 159.
Washing-machines, Suction-pounder for. A. H. Cobb and H. L. Parker. No. 1,072,312; Sept. 2; Gaz. vol. 194; p. 216.
Washline-hanger. R. Haupt. No. 1,074,321; Sept. 30; Gaz. vol. 194; p. 1080.
Waste and overflow fixture. W. Cantlon. No. 1,072,911; Sept. 9; Gaz. vol. 194; p. 488.
Watch-dial-fastening device. W. B. Miller. No. 1,074,180; Sept. 30; Gaz. vol. 194; p. 967.
Watch-guard, Safety. E. Fischer. No. 1,074,543; Sept. 30; Gaz. vol. 194; p. 1101.
Water connection. L. J. Holmapfel. No. 1,074,174; Sept. 30; Gaz. vol. 194; p. 961.
Water-elevating apparatus. L. Stowe. No. 1,072,787; Sept. 9; Gaz. vol. 194; p. 411.
Water-elevator. H. Cole. No. 1,072,430; Sept. 9; Gaz. vol. 194; p. 287.
Water-gage. G. J. Hatz. No. 1,072,608; Sept. 9; Gaz. vol. 194; p. 349.
Water-gage, Automatic-shut-off. K. Pap. No. 1,072,642; Sept. 9; Gaz. vol. 194; p. 361.
Water-gap gate. A. Sattler. No. 1,072,778; Sept. 9; Gaz. vol. 194; p. 406.
Water-heater. B. T. Williston. No. 1,072,197; Sept. 2; Gaz. vol. 194; p. 180.
Water-heater. J. A. Dillon. No. 1,073,222; Sept. 16; Gaz. vol. 194; p. 604.
Water-heater. I. Jensen. No. 1,073,687; Sept. 23; Gaz. vol. 194; p. 788.
Water-heater and steam-generator, Combined. J. J. Rohan. No. 1,072,874; Sept. 9; Gaz. vol. 194; p. 444.
Water-heater, Gas. W. B. Bastian. No. 1,072,072; Sept. 2; Gaz. vol. 194; p. 137.
Water-heating apparatus. W. Hawks. No. 1,072,609; Sept. 9; Gaz. vol. 194; p. 349.
Water-heating device. V. J. Touchard. No. 1,072,274; Sept. 2; Gaz. vol. 194; p. 204.
Water-meter. H. C. Turner and G. W. Hamm. No. 1,071,828; Sept. 2; Gaz. vol. 194; p. 55.
Water-meter. G. K. Bassett. No. 1,073,386; Sept. 16; Gaz. vol. 194; p. 662.
Water-meter. G. B. Bassett. No. 1,073,387; Sept. 16; Gaz. vol. 194; p. 662.
Water-saving system. J. G. MacDonald and W. F. C. MacKay. No. 1,073,862; Sept. 23; Gaz. vol. 194; p. 846.
Water-tube boiler. W. Schmidt. No. 1,072,174; Sept. 2; Gaz. vol. 194; p. 173.
Water-wheel. K. D. Smith. No. 1,073,824; Sept. 23; Gaz. vol. 194; p. 834.
Watering tank, Stock-. T. B. Weller. No. 1,073,195; Sept. 16; Gaz. vol. 194; p. 593.
Waterproof garments, Reinforcing seams of. S. Kaufman. No. 1,073,856; Sept. 23; Gaz. vol. 194; p. 845.
Waterproofing, Transparent. A. C. Horn. No. 1,073,129; Sept. 16; Gaz. vol. 194; p. 571.
Wave-motor. W. H. Thomas. No. 1,072,272; Sept. 2; Gaz. vol. 194; p. 203.
Wave-motor. J. H. Henderson. No. 1,073,682; Sept. 23; Gaz. vol. 194; p. 786.
Wave-power, Apparatus for utilizing. A. W. Melander. No. 1,074,060; Sept. 23; Gaz. vol. 194; p. 914.
Wave-power mechanism. J. H. Carr. No. 1,073,214; Sept. 16; Gaz. vol. 194; p. 601.
Wax of all kinds, Purifying and bleaching. F. Richter and L. von Orth. No. 1,072,035; Sept. 2; Gaz. vol. 194; p. 125.
Weaner, Colt-. W. P. Ellison. No. 1,072,591; Sept. 9; Gaz. vol. 194; p. 344.
Weaving-shuttles, Mechanism for forming thread-guiding slots in. C. B. Webster. No. 1,072,196; Sept. 2; Gaz. vol. 194; p. 180.
Web cutting and folding machine. C. T. Cundall. No. 1,072,094; Sept. 2; Gaz. vol. 194; p. 144.
Web cutting and folding machine. C. T. Cundall. No. 1,072,316; Sept. 2; Gaz. vol. 194; p. 217.
Web-cutting machine. A. J. Cumnock. No. 1,072,829; Sept. 9; Gaz. vol. 194; p. 427.
Weed-destroying machine. J. R. Roe. No. 1,073,780; Sept. 23; Gaz. vol. 194; p. 820.
Weeding implement. F. E. Van Houten. No. 1,073,188; Sept. 16; Gaz. vol. 194; p. 591.
Weeding-machine. J. M. Shafer. No. 1,074,217; Sept. 30; Gaz. vol. 194; p. 995.
Weighing-machine. S. D. Kinne. No. 1,074,123; Sept. 30; Gaz. vol. 194; p. 965.
Weighing-machine, Automatic. H. W. Welsh. No. 1,072,541; Sept. 9; Gaz. vol. 194; p. 326.
Weir, Automatic. C. T. Sacket. No. 1,073,174; Sept. 16; Gaz. vol. 194; p. 586.
Weir-gage, Automatic. G. Barzee and C. J. Wahlquist. No. 1,072,901; Sept. 9; Gaz. vol. 194; p. 454.
Welding apparatus, Acetylene. G. C. Schemmel. No. 1,072,665; Sept. 9; Gaz. vol. 194; p. 365.
Welding chain-links, Electrically. W. H. Hodges. No. 1,072,014; Sept. 9; Gaz. vol. 194; p. 351.
Well casing-head, Oil and gas. J. T. Callanan. No. 1,072,910; Sept. 9; Gaz. vol. 194; p. 458.
Well-cylinder. A. L. Ligon. No. 1,073,257; Sept. 16; Gaz. vol. 194; p. 616.
Well-drilling apparatus. J. and M. M. Maher and T. Terry. No. 1,072,944; Sept. 9; Gaz. vol. 194; p. 477.
Well-point, Drive. O. W. Andrews. No. 1,073,533; Sept. 23; Gaz. vol. 194; p. 826.
Wells, Device for removing casings from drilled. B. Beaumont. No. 1,073,539; Sept. 23; Gaz. vol. 194; p. 839.
Wheel: *See* Car-wheel; Car and other vehicle wheel; Elastic wheel; Grinding-wheel; Pneumatic wheel; Power-transmission wheel; Resilient wheel; Sheet-metal wheel; Spring-wheel; Sprocket-wheel; Traction-wheel; Vehicle-wheel; Water-wheel.
Wheel. S. Brown. No. 1,072,305; Sept. 2; Gaz. vol. 194; p. 214.
Wheel brake, Vehicle front-. J. H. Campbell. No. 1,073,590; Sept. 23; Gaz. vol. 194; p. 753.
Wheel-guard for deflecting objects from the track. W. C. Curran. No. 1,073,743; Sept. 23; Gaz. vol. 194; p. 808.
Wheel-truing device. W. Heller. No. 1,073,042; Sept. 9; Gaz. vol. 194; p. 503.
Wheelbarrow, Self-dumping. T. L. Dirksen. No. 1,071,717; Sept. 2; Gaz. vol. 194; p. 16.
Whip-socket, Self-locking. C. R. Dingee. No. 1,073,967; Sept. 23; Gaz. vol. 194; p. 884.
Wick, Lamp-. W. H. Arnold. No. 1,073,015; Sept. 9; Gaz. vol. 194; p. 495.
Winding-machine. M. Pepling. No. 1,072,157; Sept. 2; Gaz. vol. 194; p. 168.
Winding machine, Fabric-. D. Bain. No. 1,073,946; Sept. 23; Gaz. vol. 194; p. 877.
Winding mechanism, Sheet-. P. J. Dreher. No. 1,072,411; Sept. 2; Gaz. vol. 194; p. 253.
Windmill. J. Partain. No. 1,074,011; Sept. 23; Gaz. vol. 194; p. 893.
Window. H. A. and F. M. Banger. No. 1,072,071; Sept. 2; Gaz. vol. 194; p. 137.
Window. A. C. Soule. No. 1,072,669; Sept. 9; Gaz. vol. 194; p. 370.
Window. C. F. Schneider and J. Hayman. No. 1,073,637; Sept. 23; Gaz. vol. 194; p. 769.
Window. T. Schulz. No. 1,073,638; Sept. 23; Gaz. vol. 194; p. 770.
Window. J. M. Campana. No. 1,073,956; Sept. 23; Gaz. vol. 194; p. 880.
Window and door screen. C. H. Zimmerman. No. 1,074,153; Sept. 30; Gaz. vol. 194; p. 974.
Window-cleaning device. E. U. Daines. No. 1,072,832; Sept. 9; Gaz. vol. 194; p. 428.
Window-jamb machine. J. E. Eisele. No. 1,074,355; Sept. 30; Gaz. vol. 194; p. 1041.
Window-lock. A. Carrette. No. 1,074,162; Sept. 30; Gaz. vol. 194; p. 977.
Window-lock, Pivoted. F. McLaughlin. No. 1,073,268; Sept. 16; Gaz. vol. 194; p. 620.
Window-operating mechanism. W. von Wolfradt. No. 1,072,893; Sept. 9; Gaz. vol. 194; p. 451.
Window-railing and fire-ladder, Combined. D. Momo. No. 1,072,024; Sept. 2; Gaz. vol. 194; p. 122.
Window-screen. J. M. Landfair. No. 1,073,428; Sept. 16; Gaz. vol. 194; p. 675.
Window-screen. B. C. Hurford. No. 1,073,492; Sept. 16; Gaz. vol. 194; p. 698.
Window-screen. F. McLaughlin. No. 1,074,571; Sept. 30; Gaz. vol. 194; p. 1111.
Window-sill construction and tile therefor. E. E. Nickson. No. 1,071,782; Sept. 2; Gaz. vol. 194; p. 40.
Windows and the like, Hanger for storm-. A. J. Paddack. No. 1,071,950; Sept. 2; Gaz. vol. 194; p. 96.
Windows, Automatic self-closing attachment for. E. Van Noorden. No. 1,073,307; Sept. 16; Gaz. vol. 194; p. 634.
Windows, Means to prevent condensation of water on glass. T. Carence. No. 1,073,091; Sept. 16; Gaz. vol. 194; p. 557.
Wire-drawing machine. E. H. Carroll. No. 1,072,085; Sept. 2; Gaz. vol. 194; p. 142.
Wire-feeding mechanism. G. A. Ambler. No. 1,072,803; Sept. 9; Gaz. vol. 194; p. 417.
Wire-line rope-socket. J. Burns. No. 1,073,469; Sept. 16; Gaz. vol. 194; p. 691.
Wire-line rope-socket. J. Burns. No. 1,073,470; Sept. 16; Gaz. vol. 194; p. 691.
Wire-splicer. W. E. Hougas and F. W. Rauch. No. 1,072,332; Sept. 2; Gaz. vol. 194; p. 223.
Wire-splicer. H. J. Pennington. No. 1,073,514; Sept. 16; Gaz. vol. 194; p. 705.
Wire-stitcher. H. Weber. No. 1,074,564; Sept. 30; Gaz. vol. 194; p. 1108.
Wire-stranding machine. W. O. Larmuth. No. 1,073,052; Sept. 9; Gaz. vol. 194; p. 508.
Wire-stretcher. P. Fillies. No. 1,074,084; Sept. 23; Gaz. vol. 194; p. 922.
Wire-stretcher attachment. H. M. Kyle. No. 1,074,507; Sept. 30; Gaz. vol. 194; p. 1090.
Wire-wiping machine. A. B. Smelser. No. 1,073,297; Sept. 16; Gaz. vol. 194; p. 630.
Wires, Machine for making loops in. W. K. Voorhees and J. H. Osgood. No. 1,073,189; Sept. 16; Gaz. vol. 194; p. 591.
Wireless apparatus for preventing collisions. J. Bonhomme. No. 1,073,088; Sept. 16; Gaz. vol. 194; p. 556.
Work-supporting device, Adjustable. C. C. Roberts. No. 1,072,363; Sept. 2; Gaz. vol. 194; p. 235.

Wrench: *See* Brace-socket wrench; Double-acting wrench; End wrench; Pipe-wrench.
Wrench. J. M. Cochran. No. 1,071,708; Sept. 2; Gaz. vol. 194; p. 11.
Wrench. W. H. Cook. No. 1,072,090; Sept. 2; Gaz. vol. 194; p. 143.
Wrench. K. Dobrowolski. No. 1,072,101; Sept. 2; Gaz. vol. 194; p. 147.
Wrench. E. H. Waters. No. 1,072,283; Sept. 2; Gaz. vol. 194; p. 207.
Wrench. F. N. Martindale. No. 1,072,479; Sept. 9; Gaz. vol. 194; p. 305.
Wrench. F. Waldner. No. 1,072,535; Sept. 9; Gaz. vol. 194; p. 324.
Wrench. O. A. Nordlund. No. 1,072,767; Sept. 9; Gaz. vol. 194; p. 404.
Wrench. P. Balko. No. 1,073,019; Sept. 9; Gaz. vol. 194; p. 496.
Wrench. J. J. Aeschlimann. No. 1,073,557; Sept. 16; Gaz. vol. 194; p. 720.
Wrench. I. M. Waldron. No. 1,074,394; Sept. 30; Gaz. vol. 194; p. 1056.
Wrench. D. Dahlberg. No. 1,074,412; Sept. 30; Gaz. vol. 194; p. 1061.
Wrench. E. P. Gummo. No. 1,074,547; Sept. 30; Gaz. vol. 194; p. 1102.
Wrinkler attachment. F. T. Johnson. No. 1,071,928; Sept. 2; Gaz. vol. 194; p. 88.
Wrinkler support and fastener. W. P. Bancroft. No. 1,073,947; Sept. 23; Gaz. vol. 194; p. 878.
Writing machines, Pen-clamp for multiple-. F. A. Johnson. No. 1,073,240; Sept. 16; Gaz. vol. 194; p. 609.
Yarn residues from bobbins, spools, and the like, Means for removing. P. Jeanmaire. No. 1,072,468; Sept. 9; Gaz. vol. 194; p. 301.
Yarn-scraper. W. W. Burke. No. 1,071,698; Sept. 2; Gaz. vol. 194; p. 9.
Yoke, Neck-. J. A. Koyen. No. 1,073,766; Sept. 23; Gaz. vol. 194; p. 817.
Yoke, Neck-. O. Towner. No. 1,073,943; Sept. 23; Gaz. vol. 194; p. 876.
Zinc from residues containing zinc, especially slags, in reverberatory furnaces, Extracting. A. H. Desgraz. No. 1,072,209; Sept. 2; Gaz. vol. 194; p. 184.

ALPHABETICAL LIST OF DESIGNS.

Advertising device for displaying oil. C. N. Scott. No. 44,692; Sept. 23; Gaz. vol. 194; p. 932.
Article of manufacture. E. Fulda. No. 44,674; Sept. 16; Gaz. vol. 194; p. 734.
Automobile body and hood. G. R. Wadsworth. Nos. 44,647–8; Sept. 9; Gaz. vol. 194; p. 529.
Badge. C. J. Dieges. No. 44,630; Sept. 9; Gaz. vol. 194; p. 525.
Badge. A. A. Dix. No. 44,659; Sept. 16; Gaz. vol. 194; p. 732.
Badge or similar article. L. K. Mathews. No. 44,689; Sept. 23; Gaz. vol. 194; p. 931.
Bank and stand, Savings-. C. De Yoos. No. 44,625; Sept. 2; Gaz. vol. 194; p. 259.
Block side. F. B. Mallory. No. 44,612; Sept. 2; Gaz. vol. 194; p. 257.
Button. C. J. Smith. No. 44,693; Sept. 23; Gaz. vol. 194; p. 932.
Cabinet. N. H. Holland. No. 44,638; Sept. 9; Gaz. vol. 194; p. 527.
Cabinet. H. B. Bertine. No. 44,650; Sept. 16; Gaz. vol. 194; p. 730.
Cabinet for sound recording and reproducing machines and the like. J. M. Wintrob. No. 44,624; Sept. 2; Gaz. vol. 194; p. 259.
Cabinet, Spool-. W. A. Leonard. No. 44,611; Sept. 2; Gaz. vol. 194; p. 256.
Carpet. W. A. Elliot. No. 44,678; Sept. 23; Gaz. vol. 194; p. 929.
Carpet or rug. H. A. Howe. No. 44,639; Sept. 9; Gaz. vol. 194; p. 527.
Carpet or rug. J. G. Pegel. Nos. 44,641–3; Sept. 9; Gaz. vol. 194; pp. 527–8.
Carpet or rug. W. E. Sayers. No. 44,644; Sept. 9; Gaz. vol. 194; p. 528.
Casket handle, Burial-. C. Biesch. No. 44,701; Sept. 30; Gaz. vol. 194; p. 1122.
Casket plate. Burial-. C. Biesch. No. 44,626; Sept. 9; Gaz. vol. 194; p. 524.
Chisel, Cold-. W. S. Thomson. No. 44,646; Sept. 9; Gaz. vol. 194; p. 528.
Churn-frame. E. A. Bye. No. 44,628; Sept. 9; Gaz. vol. 194; p. 525.
Cigars, Box of. N. Weiss. No. 44,673; Sept. 16; Gaz. vol. 194; p. 734.
Clock-case. A. J. Flauder. Nos. 44,607–8; Sept. 2; Gaz. vol. 194; p. 256.
Clock-case. W. B. Rikard. No. 44,670; Sept. 16; Gaz. vol. 194; p. 733.
Collar, Bead. G. Kaylor. No. 44,708; Sept. 30; Gaz. vol. 194; p. 1124.
Corset. T. F. Somers. No. 44,695; Sept. 23; Gaz. vol. 194; p. 932.
Cupboard and folding writing-table, Combined. H. Romanoff. No. 44,617; Sept. 2; Gaz. vol. 194; p. 258.
Desk. G. L. Carruthers. No. 44,676; Sept. 23; Gaz. vol. 194; p. 929.
Display-rack. J. M. Perry. No. 44,666; Sept. 16; Gaz. vol. 194; p. 733.
Display-rack support. J. Spieles. No. 44,619; Sept. 2; Gaz. vol. 194; p. 258.
Drain-pipe. J. Friedman. No. 44,609; Sept. 2; Gaz. vol. 194; p. 256.
Electric circuits, Attachment-plug for. F. H. Chapman and O. E. Kenney. No. 44,704; Sept. 30; Gaz. vol. 194; p. 1123.
Engine casing, Internal-combustion-. C. A. Neracher. No. 44,614; Sept. 2; Gaz. vol. 194; p. 257.
Fabric, Printed textile. E. Hoch. No. 44,685; Sept. 23; Gaz. vol. 194; p. 930.
Fabric, Textile. G. George. Nos. 44,679–82; Sept. 23; Gaz. vol. 194; pp. 929–30.
Fabric, Textile. H. Maisch-Bitschenauer. Nos. 44,687–8; Sept. 23; Gaz. vol. 194; p. 931.
Fabric, Textile. P. Mouton. No. 44,691; Sept. 23; Gaz. vol. 194; p. 931.
Fly-trap. G. Shikaku. No. 44,645; Sept. 9; Gaz. vol. 194; p. 528.
Glass, Drinking-. H. Pick. No. 44,616; Sept. 2; Gaz. vol. 194; p. 257.
Glass shade. O. A. Mygatt. No. 44,613; Sept. 2; Gaz. vol. 194; p. 257.
Glass, Sheet-. J. S. Walsh. No. 44,622; Sept. 2; Gaz. vol. 194; p. 259.
Glass vessel, Pressed-. I. M. Clarke. No. 44,629; Sept. 9; Gaz. vol. 194; p. 525.
Goblet. W. E. Hunter. No. 44,661; Sept. 16; Gaz. vol. 194; p. 732.
Goblet, Drinking-. M. L. Brede. No. 44,605; Sept. 2; Gaz. vol. 194; p. 255.
Hair-pin. J. A. Fleischmann. No. 44,635; Sept. 9; Gaz. vol. 194; p. 526.
Hame-body, Sheet-metal. C. L. Wiedrich. No. 44,623; Sept. 2; Gaz. vol. 194; p. 259.
Hammer-head. P. Andersen. No. 44,649; Sept. 16; Gaz. vol. 194; p. 730.
Hat-rack and umbrella-stand, Combined. F. C. Roberts. No. 44,711; Sept. 30; Gaz. vol. 194; p. 1125.
Headlight. H. M. Dawley. No. 44,606; Sept. 2; Gaz. vol. 194; p. 255.
Jewel-case. A. J. Flauder. Nos. 44,632–3; Sept. 9; Gaz. vol. 194; p. 526.
Jug or similar article. E. R. Thieler. No. 44,672; Sept. 16; Gaz. vol. 194; p. 734.
Lace, Levers. C. W. Birkin. Nos. 44,651–6; Sept. 16; Gaz. vol. 194; pp. 730–1.
Lamp. G. R. Wadsworth. No. 44,621; Sept. 2; Gaz. vol. 194; p. 258.
Lamp. E. A. Hawthorne. No. 44,706; Sept. 30; Gaz. vol. 194; p. 1124.
Lamp-bracket. E. A. Hawthorne. Nos. 44,683–4; Sept. 23; Gaz. vol. 194; p. 930.
Lamp-shade. W. C. Leasure. No. 44,610; Sept. 2; Gaz. vol. 194; p. 256.
Lamp-shade. E. B. Brown. Nos. 44,702–3; Sept. 30; Gaz. vol. 194; p. 1123.
Lamp-shade. W. C. Leasure. No. 44,709; Sept. 30; Gaz. vol. 194; p. 1124.
Lamp shades, domes, and the like, Panel for. F. P. Schoenhardt. No. 44,671; Sept. 16; Gaz. vol. 194; p. 734.
Lighting-fixtures or similar articles, Shell for. R. S. Aspinwall. Nos. 44,699–700; Sept. 30; Gaz. vol. 194; p. 1122.
Looking-glass and rack. J. Raff. No. 44,669; Sept. 16; Gaz. vol. 194; p. 733.
Medicine-holder. D. S. Austin. No. 44,675; Sept. 23; Gaz. vol. 194; p. 928.
Pitchers, Casing for vacuum-insulated. G. P. Altenberg. Nos. 44,601–2; Sept. 2; Gaz. vol. 194; pp. 254–5.
Plate or similar article. C. A. May. No. 44,690; Sept. 23; Gaz. vol. 194; p. 931.
Plate or similar article. D. Hoyt. No. 44,707; Sept. 30; Gaz. vol. 194; p. 1124.
Pump-casing. C. D. Hill. No. 44,637; Sept. 9; Gaz. vol. 194; p. 526.
Reflector-shade. J. H. Strong. No. 44,620; Sept. 2; Gaz. vol. 194; p. 258.
Rug. A. Petzold. No. 44,667; Sept. 16; Gaz. vol. 194; p. 733.
Sign, Electric. W. P. Curwen and A. M. Potter. No. 44,658; Sept. 16; Gaz. vol. 194; p. 731.
Signal, Warning-. C. F. Sendall. Nos. 44,712–13; Sept. 30; Gaz. vol. 194; p. 1125.
Soda-fountain. F. H. Lippincott. Nos. 44,662–5; Sept. 16; Gaz. vol. 194; p. 732.
Spoons, forks, or similar articles, Handle for. R. L. Snow. No. 44,694; Sept. 23; Gaz. vol. 194; p. 932.
Spoons, forks, or similar articles, Handle for. W. H. Wilke. No. 44,714; Sept. 30; Gaz. vol. 194; p. 1125.
Stand. M. Crisafi. No. 44,705; Sept. 30; Gaz. vol. 194; p. 1123.
Table. H. J. Riley. No. 44,710; Sept. 30; Gaz. vol. 194; p. 1124.
Teapot or similar article. C. A. Bennett. No. 44,603; Sept. 2; Gaz. vol. 194; p. 255.
Temperature-indicator. H. H. Boyce. No. 44,627; Sept. 9; Gaz. vol. 194; p. 525.
Tire. J. E. Lee. No. 44,640; Sept. 9; Gaz. vol. 194; p. 527.
Towel-rack. A. H. Howe. No. 44,686; Sept. 23; Gaz. vol. 194; p. 930.
Tray, Change-. E. Brunhoff. No. 44,657; Sept. 16; Gaz. vol. 194; p. 731.
Tumbler-holder. E. A. Farr. No. 44,631; Sept. 9; Gaz. vol. 194; p. 525.
Union suit. W. R. Blain. No. 44,604; Sept. 2; Gaz. vol. 194; p. 255.
Vacuum-cleaner casing. C. S. Davis. No. 44,677; Sept. 23; Gaz. vol. 194; p. 929.
Vanity-box. J. S. Wallenstein. No. 44,697; Sept. 23; Gaz. vol. 194; p. 933.
Vase. A. A. Gedig. No. 44,660; Sept. 16; Gaz. vol. 194; p. 732.
Vault, Burial-. G. A. Glendening. No 44,636; Sept 9; Gaz. vol. 194; p. 526.
Vehicle-body. F. K. Stone. No. 44,696; Sept. 23; Gaz. vol. 194; p. 933.
Vehicle-body. W. C. Anderson. No. 44,698; Sept. 30; Gaz. vol. 194; p. 1122.
Vehicles, Casing for travel-indicators for. F. A. Ross. No. 44,618; Sept. 2; Gaz. vol. 194; p. 258.
Velling, Net-. Z. Van Raalte. No. 44,668; Sept. 16; Gaz. vol. 194; p. 733.
Vending-machine case. W. J. Paul. No. 44,615; Sept. 2; Gaz. vol. 194; p. 257.

ALPHABETICAL LIST OF TRADE-MARKS.

Acids, sodium-bisulfate, potash, &c. Saccharin-Fabrik, Aktien-Gesellschaft, vorm. Fahlberg, List & Co. No. 93,467; Sept. 16; Gaz. vol. 194; p. 740.

Adhesives, Certain. C. L. Gane. No. 93,528; Sept. 23; Gaz. vol. 194; p. 947.

Ale. Providence Brewing Co. No. 93,463; Sept. 16; Gaz. vol. 194; p. 740.

Ale, Ginger-. Caproni Bros. Co. No. 93,262; Sept. 2; Gaz. vol. 194; p. 269.

Aluminum-cleanser. P. J. Brady. No. 93,517; Sept. 23; Gaz. vol. 194; p. 947.

Antiseptic. Chattanooga Medicine Co. No. 93,521; Sept. 23; Gaz. vol. 194; p. 947.

Antisyphiliticum. C. Schindler. No. 93,383; Sept. 9; Gaz. vol. 194; p. 547.

Asphalt. Standard Oil Company. No. 93,566; Sept. 23; Gaz. vol. 194; p. 948.

Automobile springs and shock-absorbers. Universal Shock Eliminator. No. 93,397; Sept. 9; Gaz. vol. 194; p. 547.

Automobiles. Commercial Truck Company of America. No. 93,592; Sept. 30; Gaz. vol. 194; p. 1137.

Bacon. The Rath Packing Company. No. 93,464; Sept. 16; Gaz. vol. 194; p. 740.

Baking powder and soda. The Joannes-Splane Co. No. 93,603; Sept. 30; Gaz. vol. 194; p. 1137.

Beds, Sofa-. Pullman Couch Company. No. 93,507; Sept. 16; Gaz. vol. 194; p. 742.

Beer. M. L. Eppstein. No. 93,268; Sept. 2; Gaz. vol. 194; p. 269.

Beer. Obermeyer and Liebmann. No. 93,288; Sept. 2; Gaz. vol. 194; p. 270.

Beer, ale, stout, and malt tonic, Lager-. Clausen-Flanagan Brewery. No. 93,502; Sept. 16; Gaz. vol. 194; p. 741.

Beer, Prepared skins for racking. W. Maegerlein. No. 93,365; Sept. 9; Gaz. vol. 194; p. 546.

Belting, hose, and packing. Revere Rubber Company. No. 93,293; Sept. 2; Gaz. vol. 194; p. 270.

Belting, hose, machinery, packing, and non-metallic tires, Certain. "Semperit" Oesterreichisch-Amerikanische Gummiwerke Aktiengesellschaft. No. 93,565; Sept. 23; Gaz. vol. 194; p. 948.

Belting, Woven machine-. The Russell Manufacturing Co. No. 93,497; Sept. 16; Gaz. vol. 194; p. 741.

Beverages, Certain named. G. Kornahrens. No. 93,276; Sept. 2; Gaz. vol. 194; p. 269.

Bleaching liquids. A. Peuchot, Inc. No. 93,459; Sept. 16; Gaz. vol. 194; p. 740.

Blood-renovator. L. B. Crawford & J. B. Wood, M. D. No. 93,523; Sept. 23; Gaz. vol. 194; p. 947.

Boiler compound, Liquid. E. M. Deal. No. 93,266; Sept. 2; Gaz. vol. 194; p. 269.

Books. R. S. Clymer. No. 93,339; Sept. 9; Gaz. vol. 194; p. 545.

Bows, bust-ruffles, bosom-forms, &c., Pump-. E. E. Clymer. No. 93,338; Sept. 9; Gaz. vol. 194; p. 545.

Brake-linings. The Philip Carey Manufacturing Co. No. 93,333; Sept. 9; Gaz. vol. 194; p. 545.

Bread. J. J. Planett. No. 93,461; Sept. 16; Gaz. vol. 194; p. 740.

Bread. Worcester Baking Company. No. 93,484; Sept. 16; Gaz. vol. 194; p. 741.

Bread. J. G. Schuerger. No. 93,563; Sept. 23; Gaz. vol. 194; p. 948.

Bread-sticks. A. Angonoa. No. 93,515; Sept. 23; Gaz. vol. 194; p. 947.

Brick. Hydraulic-Press Brick Company. No. 93,602; Sept. 30; Gaz. vol. 194; p. 1137.

Brushes, Clothes and toilet. Druggists' Co-Operative Association. No. 93,503; Sept. 16; Gaz. vol. 194; p. 741.

Brushes, Toilet-. Deitsch Brothers. No. 93,430; Sept. 16; Gaz. vol. 194; p. 739.

Brushes, Tooth-. Hall & Ruckel. No. 93,351; Sept. 9; Gaz. vol. 194; p. 546.

Building-blocks, bricks, tiles, and pillars. The General Ceramic Manufacturing Company. No. 93,347; Sept. 9; Gaz. vol. 194; p. 546.

Building materials. Societe Francaise De L'Ondulium. No. 93,337; Sept. 9; Gaz. vol. 194; p. 547.

Candies. A. W. Sens. No. 93,498; Sept. 16; Gaz. vol. 194; p. 741.

Candies, cocoa, and chocolate. Powell's. No. 93,557; Sept. 23; Gaz. vol. 194; p. 948.

Candy. The Stutz Candy Company. No. 93,306; Sept. 2; Gaz. vol. 194; p. 270.

Candy. G. Haas & Sons. No. 93,530; Sept. 23; Gaz. vol. 194; p. 947.

Canned and dried fruits and raisins. The J. K. Armsby Co. No. 93,410; Sept. 16; Gaz. vol. 194; p. 739.

Canned fruits and vegetables. John F. White Company. No. 93,316; Sept. 2; Gaz. vol. 194; p. 271.

Canned goods, Certain. Hale-Halsell Grocery Co. No. 93,531; Sept. 23; Gaz. vol. 194; p. 447.

Canned salmon. Fidalgo Island Packing Co. No. 93,435; Sept. 16; Gaz. vol. 194; p. 740.

Canned salmon. Pillar Bay Packing Company. No. 93,460; Sept. 16; Gaz. vol. 194; p. 740.

Canned salmon. G. W. Sanborn & Son. No. 93,468; Sept. 16; Gaz. vol. 194; p. 740.

Carbon-paper and type-writer ribbons. S. S. Stafford, Inc. No. 93,303; Sept. 2; Gaz. vol. 194; p. 270.

Carriages, wagons, and auto-bodies. J. M. Selzer Carriage & Business Wagon Mfg. Co. No. 93,506; Sept. 16; Gaz. vol. 194; p. 742.

Cartons, Metal and paper. Single Service Package Corporation of America. No. 93,385; Sept. 9; Gaz. vol. 194; p. 547.

Castor-oil in the form of a confection. H. B. Voorhees. No. 93,482; Sept. 16; Gaz. vol. 194; p. 741.

Chains, lockets, and pins, Metal. The D. F. Briggs Co. No. 93,590; Sept. 30; Gaz. vol. 194; p. 1137.

Chair-seats. "Luterma" G. m. b. H. No. 93,367; Sept. 9; Gaz. vol. 194; p. 546.

Chairs. The Standard Manufacturing Company. No. 93,389; Sept. 9; Gaz. vol. 194; p. 547.

Chemical compound. The American "Radio Thor X" Company. No. 93,407; Sept. 16; Gaz. vol. 194; p. 739.

Chemical preparation, Certain. Hutchinson Scott Company. No. 93,444; Sept. 16; Gaz. vol. 194; p. 740.

Chemical used as a dyeing assistant. The American Diamalt Company. No. 93,513; Sept. 23; Gaz. vol. 194; p. 947.

Chemicals and pharmaceutical preparations, Certain. Japstick Company. No. 93,360; Sept. 9; Gaz. vol. 194; p. 546.

Chemicals, medicines, and pharmaceutical preparations, Certain. Independent Chemical Company. No. 93,357; Sept. 9; Gaz. vol. 194; p. 546.

Chocolate and candy, Sweetened. D. D. Long. No. 93,494; Sept. 16; Gaz. vol. 194; p. 741.

Cigarette-papers. Societe Anonyme Des Anciens Etablissements Braunstein Freres. No. 93,509; Sept. 16; Gaz. vol. 194; p. 742.

Cigarettes. The Tabard Cigarette and Tobacco Company. No. 93,499; Sept. 16; Gaz. vol. 194; p. 741.

Cigars. Frings Bros. Co. No. 93,270; Sept. 2; Gaz. vol. 194; p. 269.

Cigars. Walters & Co. No. 93,313; Sept. 2; Gaz. vol. 194; p. 270.

Cigars. Consolidated Grocery Company. No. 93,522; Sept. 23; Gaz. vol. 194; p. 947.

Cigars. Pullara & Lazzara. No. 93,558; Sept. 23; Gaz. vol. 194; p. 948.

Cigars, cigarettes, and tobacco. La Minerva Cigar Factory. No. 93,604; Sept. 30; Gaz. vol. 194; p. 1137.

Cleaners, Vacuum-. L. J. Kucke. No. 93,364; Sept. 9; Gaz. vol. 194; p. 546.

Cleaning material for wood, metal, &c. United Supply Company. No. 93,501; Sept. 16; Gaz. vol. 194; p. 741.

Clocks. The Ansonia Clock Company. No. 93,409; Sept. 16; Gaz. vol. 194; p. 739.

Clocks and watches. Western Clock Co. Nos. 93,621-2; Sept. 30; Gaz. vol. 194; p. 1138.

Cocoa and chocolate. Falter Tangermünder Schokoladenfabrik Gesellschaft mit beschränkter Haftung. No. 93,434; Sept. 16; Gaz. vol. 194; p. 739.

Coffee. Arbuckle Bros. No. 93,254; Sept. 2; Gaz. vol. 194; p. 269.

Coffee. The Johnson-Layne Coffee Co. No. 93,447; Sept. 16; Gaz. vol. 194; p. 740.

Coffee. Steinwender-Stoffregen Coffee Co. No. 93,567; Sept. 23; Gaz. vol. 194; p. 948.

Coffee, Blend. Dean & Co. No. 93,524; Sept. 23; Gaz. vol. 194; p. 947.

Coffee substitute. Renner Sons Company. No. 93,465; Sept. 16; Gaz. vol. 194; p. 740.

Compound for special use, Liquid. Vulko-Fiberene Co. No. 93,399; Sept. 9; Gaz. vol. 194; p. 547.

Concrete coatings. Standard Varnish Works. No. 93,390; Sept. 9; Gaz. vol. 194; p. 547.

Confection, Candied popcorn. Wadsworth and Jenkins. No. 93,310; Sept. 2; Gaz. vol. 194; p. 270.

Construction materials, Certain. Concrete Finishing Company. No. 93,337; Sept. 9; Gaz. vol. 194; p. 546.

Construction materials, Certain. The West Construction Company. No. 93,401; Sept. 9; Gaz. vol. 194; p. 547.

Conveying and transmission apparatus. The Lamson Company. No. 93,450; Sept. 16; Gaz. vol. 194; p. 740.

Cooking apparatus, Steam. Rex-Conservenglas-Gesellschaft Leonhardt & Kleemann. No. 93,466; Sept. 16; Gaz. vol. 194; p. 740.
Cords, twines, ropes, and lines. Henry C. Kelley Company. No. 93,362; Sept. 9; Gaz. vol. 194; p. 546.
Corsets. Neuhausel Bros. No. 93,286; Sept. 2; Gaz. vol. 194; p. 270.
Corsets. Mme. Mariette Co. No. 93,369; Sept. 9; Gaz. vol. 194; p. 546.
Corsets and binders, Abdominal. A. E. Gallant. No. 93,527; Sept. 23; Gaz. vol. 194; p. 947.
Cream, Face-. H. Thomas. No. 93,570; Sept. 23; Gaz. vol. 194; p. 948.
Creams and lotions, Toilet. J. E. Espey. No. 93,596; Sept. 30; Gaz. vol. 194; p. 1137.
Cutlery and tools, Certain named. William Atkins & Co. No. 93,414; Sept. 16; Gaz. vol. 194; p. 739.
Cutlery, machinery, tools, and parts thereof. Bühler Gebrüder. No. 93,519; Sept. 23; Gaz. vol. 194; p. 947.
Cutlery, machinery, tools, and parts thereof, Certain. Biddle Hardware Company. No. 93,331; Sept. 9; Gaz. vol. 194; p. 545.
Cycles, Motor-. Harley-Davidson Motor Co. No. 93,504; Sept. 16; Gaz. vol. 194; p. 742.
Dairy products. A. L. Tertsagian. Nos. 93,568–9; Sept. 23; Gaz. vol. 194; p. 948.
Dentifrice. Barclay & Barclay. No. 93,516; Sept. 23; Gaz. vol. 194; p. 947.
Dentifrices. C. W. Westenfelter. No. 93,620; Sept. 30; Gaz. vol. 194; p. 1138.
Deodorizers. M. J. Barnard & Company. No. 93,324; Sept. 9; Gaz. vol. 194; p. 545.
Dolls. The Parsons-Jackson Co. Nos. 93,376–7; Sept. 9; Gaz. vol. 194; p. 546.
Dresses, House-. Baldwin Garment Company. No. 93,322; Sept. 9; Gaz. vol. 194; p. 545.
Dresses, negligée and flannel shirts. B. Kronthal. No. 93,363; Sept. 9; Gaz. vol. 194; p. 546.
Dust-preventive compound. Sanitary Products Co. No. 93,561; Sept. 23; Gaz. vol. 194; p. 948.
Egg substitute. The Cabell Co. No. 93,423; Sept. 16; Gaz. vol. 194; p. 739.
Egg substitute. Fix Manufacturing Co. No. 93,436; Sept. 16; Gaz. vol. 194; p. 740.
Electrical purposes, Vulcanized fiber goods for. Diamond State Fibre Company. No. 93,267; Sept. 2; Gaz. vol. 194; p. 269.
Embroidery-hoops. Thomas-Peter Company. No. 93,308; Sept. 2; Gaz. vol. 194; p. 270.
Engines and parts thereof, Power-. Stas-Motor-Gesellschaft m. b. H. No. 93,476; Sept. 16; Gaz. vol. 194; p. 741.
Engines, harvesters, headers, and separators, Traction-. The Best Manufacturing Company. No. 93,330; Sept. 9; Gaz. vol. 194; p. 545.
Engines, Internal-combustion. Associated Manufacturers' Company. No. 93,320; Sept. 9; Gaz. vol. 194; p. 545.
Engines, Internal-combustion. Associated Manufacturers' Company. No. 93,412; Sept. 16; Gaz. vol. 194; p. 739.
Engines, Internal-combustion. The F. W. Spacke Machine Company. No. 93,474; Sept. 16; Gaz. vol. 194; p. 741.
Eye-water. Howard Bros. Chemical Co. No. 93,599; Sept. 30; Gaz. vol. 194; p. 1137.
Eyeglasses, spectacles, lenses, &c. American Optical Company. No. 93,585; Sept. 30; Gaz. vol. 194; p. 1137.
Fabrics, Certain named textile. Crompton Company. No. 93,264; Sept. 2; Gaz. vol. 194; p. 269.
Feed, Chicken. J. E. Lawther. No. 93,279; Sept. 2; Gaz. vol. 194; p. 269.
Feed, Live-stock. Valley City Milling Company. No. 93,571; Sept. 23; Gaz. vol. 194; p. 948.
Fertilisers. J. E. Tygert Company. No. 93,395; Sept. 9; Gaz. vol. 194; p. 547.
Fertilizers. The American Agricultural Chemical Company. No. 93,514; Sept. 23; Gaz. vol. 194; p. 947.
Filters, Water-. Hygeia Filter Company. Nos. 93,533–4; Sept. 23; Gaz. vol. 194; p. 947.
Fireworks. E. H. Wagner. No. 93,572; Sept. 23; Gaz. vol. 194; p. 948.
Fish-hooks. C. H. Stapf. No. 93,613; Sept. 30; Gaz. vol. 194; p. 1138.
Flooring, wainscoting, stairs, and newels. Flexotile Floor Company. No. 93,344; Sept. 9; Gaz. vol. 194; p. 545.
Flour, Self-rising wheat-. Akin-Erskine Milling Co. No. 93,406; Sept. 16; Gaz. vol. 194; p. 739.
Flour, Wheat-. J. A. Walter Milling Co. No. 93,314; Sept. 2; Gaz. vol. 194; p. 271.
Flour, Wheat-. W. M. Galt & Co. No. 93,347; Sept. 16; Gaz. vol. 194; p. 740.
Flour, Wheat-. Cadick Milling Company. No. 93,424; Sept. 16; Gaz. vol. 194; p. 739.
Flour, Wheat-. Wm. Alten Co. No. 93,512; Sept. 23; Gaz. vol. 194; p. 947.
Fly and insect killer. T. W. Mason. No. 93,371; Sept. 9; Gaz. vol. 194; p. 546.
Foods, Certain. P. C. Lemy. No. 93,281; Sept. 2; Gaz. vol. 194; p. 270.
Foods, Certain. Mason, Sanborn & Ramsdell Co. No. 93,283; Sept. 2; Gaz. vol. 194; p. 270.
Foods, Certain named. F. H. Bennett Biscuit Company. No. 93,417; Sept. 16; Gaz. vol. 194; p. 739.
Foods, Certain named. Haas-Lieber Grocery Company. No. 93,439; Sept. 16; Gaz. vol. 194; p. 740.
Foods, Certain named. H. L. Handy. No. 93,441; Sept. 16; Gaz. vol. 194; p. 740.
Fur, Imitation. Philip Brous Company. No. 93,332; Sept. 9; Gaz. vol. 194; p. 545.
Furniture, automobile-body, and floor polish. Dryola Company. No. 93,595; Sept. 30; Gaz. vol. 194; p. 1137.
Furniture cleaning and polishing liquid compound. M. E. Wray. No. 93,404; Sept. 9; Gaz. vol. 194; p. 547.
Furniture-polish. Co-operative Drug Manufacturing Company. No. 93,593; Sept. 30; Gaz. vol. 194; p. 1137.
Game. F. C. Wallace. No. 93,400; Sept. 9; Gaz. vol. 194; p. 547.
Game, Card. L. D. Wheelock. No. 93,403; Sept. 9; Gaz. vol. 194; p. 547.
Games. The Pastime Novelty Co. No. 93,378; Sept. 9; Gaz. vol. 194; p. 546.
Gloves. Best & Co. No. 93,328; Sept. 9; Gaz. vol. 194; p. 545.
Glue. C. J. Stevenot. No. 93,304; Sept. 2; Gaz. vol. 194; p. 270.
Gum, Chewing-. W. J. White Chicle Co. No. 93,575; Sept. 23; Gaz. vol. 194; p. 948.
Hair goods. Hyman & Oppenheim. No. 93,274; Sept. 2; Gaz. vol. 194; p. 269.
Hair-restorer. R. Lightfoot. No. 93,506; Sept. 16; Gaz. vol. 194; p. 742.
Hair-restorer and head-shampoo. California Queen Co. No. 93,260; Sept. 2; Gaz. vol. 194; p. 269.
Hams, bacon, and lard. The Rath Packing Company. No. 93,495; Sept. 16; Gaz. vol. 194; p. 741.
Hams, shoulders, sausage, lard, &c. H. E. Kriel. No. 93,539; Sept. 23; Gaz. vol. 194; p. 947.
Hardware and plumbing and steam-fitting supplies. The E. T. Burrowes Company. No. 93,422; Sept. 16; Gaz. vol. 194; p. 739.
Hardware, plumbing, and steam-fitting supplies. Sanitas M'f'g Co. No. 93,381; Sept. 9; Gaz. vol. 194; p. 547.
Hoists and cranes, Electric. H. P. Roeper. No. 93,295; Sept. 2; Gaz. vol. 194; p. 270.
Horns, Electrical. The Sparks-Withington Company. No. 93,302; Sept. 2; Gaz. vol. 194; p. 270.
Horse and mule shoes. The Tredegar Company. No. 93,394; Sept. 9; Gaz. vol. 194; p. 547.
Hose, belting, and packing, Certain. J. W. Buckley Rubber Co. No. 93,490; Sept. 16; Gaz. vol. 194; p. 741.
Hosiery. Common Sense Suspender Co. No. 93,336; Sept. 9; Gaz. vol. 194; p. 545.
Hosiery. Interwoven Stocking Company. No. 93,359; Sept. 9; Gaz. vol. 194; p. 546.
Hosiery and underwear. Best & Company. No. 93,329; Sept. 9; Gaz. vol. 194; p. 545.
Household articles. Rhenania Vereinigte Emaillierwerke Actien-Gesellschaft. No. 93,294; Sept. 2; Gaz. vol. 194; p. 270.
Hydrogen peroxid. Hydrox Chemical Co. No. 93,356; Sept. 9; Gaz. vol. 194; p. 546.
Ice-cream and ices. J. J. Lifter. No. 93,550; Sept. 23; Gaz. vol. 194; p. 948.
Jelly-powder. E. C. Rich. No. 93,560; Sept. 23; Gaz. vol. 194; p. 948.
Lacquer. Pittsburgh-Hickson Co. No. 93,291; Sept. 2; Gaz. vol. 194; p. 270.
Lathing, wall-ties, &c., Metal. The General Fireproofing Company. No. 93,348; Sept. 9; Gaz. vol. 194; p. 546.
Leather. The Lackawanna Leather Co. No. 93,540; Sept. 23; Gaz. vol. 194; p. 947.
Leather-blacking. Nubian Manufacturing Company. No. 93,554; Sept. 23; Gaz. vol. 194; p. 948.
Lime, Manufactured. Pacific Lime & Gypsum Company. No. 93,374; Sept. 9; Gaz. vol. 194; p. 546.
Liniment. J. A. Poindexter. No. 93,556; Sept. 23; Gaz. vol. 194; p. 948.
Liqueurs. La Union Agricola Sociedad Anonima. Nos. 93,541–8; Sept. 23; Gaz. vol. 194; p. 948.
Lithographic stones. Fischer & Kluge. No. 93,597; Sept. 30; Gaz. vol. 194; p. 1137.
Machinery, tools, and parts thereof, Certain. International Harvester Corporation. No. 93,358; Sept. 9; Gaz. vol. 194; p. 546.
Magazine, Monthly. E. E. Barley. No. 93,323; Sept. 9; Gaz. vol. 194; p. 545.
Magazine, Monthly. Paris-New York Fashion Co. No. 93,375; Sept. 9; Gaz. vol. 194; p. 546.
Magazine, Monthly. Austin Brothers. No. 93,587; Sept. 30; Gaz. vol. 194; p. 1137.
Malt, Brewers' and distillers'. Electric Malting Co. No. 93,526; Sept. 23; Gaz. vol. 194; p. 947.
Matches, fire igniters and kindlers, &c. Eugen Zimmermann & Co. G. m. b. H. No. 93,405; Sept. 9; Gaz. vol. 194; p. 547.
Mattresses and pillows. Schmitt & Henry Manufacturing Company. No. 93,384; Sept. 9; Gaz. vol. 194; p. 547.
Measures, Liquid-. C. H. Arwe. No. 93,255; Sept. 2; Gaz. vol. 194; p. 269.
Measuring and scientific appliances, Certain named. C. Zeiss. Nos. 93,577–92; Sept. 23; Gaz. vol. 194; p. 949.
Medicinal agents for treatment of constipation. The Maxi-mol Pharmacal Company. No. 93,553; Sept. 23; Gaz. vol. 194; p. 948.
Medicinal plaster. G. W. Murray. No. 93,456; Sept. 16; Gaz. vol. 194; p. 740.

Medicines for burns, wounds, erysipelas, &c. The Déclat Manufacturing Co. No. 93,429; Sept. 16; Gaz. vol. 194; p. 739.
Medicines, Rheumatic. W. F. MacCreadye. No. 93,453; Sept. 16; Gaz. vol. 194; p. 740.
Metal plates, strips, and insulated wire. Driver-Harris Wire Co. No. 93,342; Sept. 9; Gaz. vol. 194; p. 545.
Metals and metal castings and forgings. William Atkins & Co. No. 93,413; Sept. 16; Gaz. vol. 194; p. 739.
Mitt, Catcher's. A. J. Reach Co. No. 93,559; Sept. 23; Gaz. vol. 194; p. 948.
Money-changers. Brandt Cashier Company. No. 93,421; Sept. 16; Gaz. vol. 194; p. 739.
Mucilaginous products for special use, Certain. The Gum Tragasol Supply Company. No. 93,492; Sept. 16; Gaz. vol. 194; p. 741.
Nails, Horse-. The Capewell Horse Nail Company. No. 93,261; Sept. 2; Gaz. vol. 194; p. 269.
Nets, Salmon-. J. & W. Stuart. No. 93,614; Sept. 30; Gaz. vol. 194; p. 1138.
Oats and corn-flakes, Rolled. Northern Illinois Cereal Company. No. 93,287; Sept. 2; Gaz. vol. 194; p. 270.
Oil and grease, Lubricating. Tide Water Oil Company. No. 93,309; Sept. 2; Gaz. vol. 194; p. 270.
Oil and grease products for certain purposes. E. F. Kick. No. 93,537; Sept. 23; Gaz. vol. 194; p. 947.
Oil compound. E. F. Houghton & Company. No. 93,273; Sept. 2; Gaz. vol. 194; p. 269.
Oil for certain named purposes, Compound. Turpsene Manufacturing Company. No. 93,500; Sept. 16; Gaz. vol. 194; p. 741.
Oil, gasolene, lubricating oils and greases, Refined. Standard Oil Company. No. 93,475; Sept. 16; Gaz. vol. 194; p. 741.
Oil, Lubricating-. Chesebrough Manufacturing Co. No. 93,425; Sept. 16; Gaz. vol. 194; p. 739.
Oil, Lubricating-. A. B. Edmands. No. 93,431; Sept. 16; Gaz. vol. 194; p. 739.
Oil, Olive-. J. Vitucci. No. 93,481; Sept. 16; Gaz. vol. 194; p. 741.
Oil, Paint-. The Southern States Refining Company. No. 93,388; Sept. 9; Gaz. vol. 194; p. 547.
Oil substitute, Linseed-. Berry Brothers. No. 93,327; Sept. 9; Gaz. vol. 194; p. 545.
Oils and greases, Lubricating. Invader Oil Company. No. 93,275; Sept. 2; Gaz. vol. 194; p. 269.
Optical goods, Certain named. C. Zeiss. No. 93,623; Sept. 30; Gaz. vol. 194; p. 1138.
Orange-juice. J. Lasbell. No. 93,278; Sept. 2; Gaz. vol. 194; p. 269.
Oranges and grape-fruit. W. H. Cresson. No. 93,263; Sept. 2; Gaz. vol. 194; p. 269.
Oranges and grape-fruit. F. D. Waite. No. 93,312; Sept. 2; Gaz. vol. 194; p. 270.
Oranges and grape-fruit. Walker Brothers. No. 93,483; Sept. 16; Gaz. vol. 194; p. 741.
Oranges and grape-fruit. Bruce & Son. No. 93,518; Sept. 23; Gaz. vol. 194; p. 947.
Oranges, lemons, grape-fruit, limes, and tangerines. Lee County Packing Co. No. 93,280; Sept. 2; Gaz. vol. 194; p. 270.
Overcoats, coats, vests, and trousers. B. Kuppenheimer & Company. No. 93,365; Sept. 9; Gaz. vol. 194; p. 546.
Paint, Enamel. The Atlas Bituminous Enamel Co. No. 93,415; Sept. 16; Gaz. vol. 194; p. 739.
Paint for roofs. R. G. Taggart. No. 93,478; Sept. 16; Gaz. vol. 194; p. 741.
Paints and painters' materials, Certain named. The Charles William Stores, Inc. No. 93,317; Sept. 2; Gaz. vol. 194; p. 271.
Paints and varnishes. The Martin-Senour Company. No. 93,370; Sept. 9; Gaz. vol. 194; p. 546.
Paints, Ready-mixed. Oliver Johnson & Co. Nos. 93,535–6; Sept. 23; Gaz. vol. 194; p. 947.
Paints, varnishes, and other like painters' materials. F. Behrend. No. 93,589; Sept. 30; Gaz. vol. 194; p. 1137.
Paints, varnishes, and paint-oils. Wadsworth, Howland & Co. No. 93,311; Sept. 2; Gaz. vol. 194; p. 270.
Paints, varnishes, enamels, and fillers. O'Neil Oil & Paint Company. No. 93,555; Sept. 23; Gaz. vol. 194; p. 948.
Paper and stationery, Certain named. J. C. Blair Company. No. 93,420; Sept. 16; Gaz. vol. 194; p. 739.
Paper-board and pasteboard. Park Novelty Company. No. 93,289; Sept. 2; Gaz. vol. 194; p. 270.
Paper, Bond-. Goes Lithographing Co. No. 93,438; Sept. 16; Gaz. vol. 194; p. 740.
Paper-clips. The Frits-Taber Mfg. Co. No. 93,271; Sept. 2; Gaz. vol. 194; p. 269.
Paper, envelops, and blank books. J. C. Blair Company. No. 93,257; Sept. 2; Gaz. vol. 194; p. 269.
Paper, Toilet-. Sauquoit Toilet Paper Co. Nos. 93,297–8; Sept. 2; Gaz. vol. 194; p. 270.
Paper, Toilet-. Sauquoit Toilet Paper Co. Nos. 93,470–1; Sept. 16; Gaz. vol. 194; pp. 740–1.
Paper towels and napkins and toilet-paper. Schermerhorn Bros. Co. No. 93,300; Sept. 2; Gaz. vol. 194; p. 270.
Paper-weights, ink-wells, paper-files, &c., Metal. Twisted Wire and Steel Co. No. 93,480; Sept. 16; Gaz. vol. 194; p. 741.
Paper, Writing-. H. A. Sarle. No. 93,562; Sept. 23; Gaz. vol. 194; p. 948.
Papers and envelops, Letter-. J. Mayer. No. 93,455; Sept. 16; Gaz. vol. 194; p. 740.
Pens and nibs therefor, Fountain-. L. & C. Hardtmuth. No. 93,442; Sept. 16; Gaz. vol. 194; p. 740.
Pens, Fountain-. The Parker Pen Company. No. 93,458; Sept. 16; Gaz. vol. 194; p. 740.
Pens, Steel. G. W. Hughes. Nos. 93,600–1; Sept. 30; Gaz. vol. 194; p. 1137.
Perfumes and cold-creams. V. H. Chronister. No. 93,426; Sept. 16; Gaz. vol. 194; p. 739.
Perfumes, toilet waters, and face-powders. Austro-Hungarian Art Co. No. 93,588; Sept. 30; Gaz. vol. 194; p. 1137.
Periodical, Monthly. Chamber of Commerce of the United States of America. No. 93,334; Sept. 9; Gaz. vol. 194; p. 545.
Periodical, Monthly. Campbell & Kemper. No. 93,520; Sept. 23; Gaz. vol. 194; p. 947.
Periodical or magazine. Draper Company. No. 93,525; Sept. 23; Gaz. vol. 194; p. 947.
Periodical publication. The Curtis Publishing Company. No. 93,341; Sept. 9; Gaz. vol. 194; p. 545.
Periodical, Semimonthly. S. W. Straus & Co. No. 93,392; Sept. 9; Gaz. vol. 194; p. 547.
Pharmaceutical preparation. E. Schäffer. No. 93,299; Sept. 2; Gaz. vol. 194; p. 270.
Pharmaceutical preparation for certain ailments. Sokol Chemical Company. No. 93,473; Sept. 16; Gaz. vol. 194; p. 741.
Pharmaceutical preparations, Certain. E. D. Hirschy. No. 93,354; Sept. 9; Gaz. vol. 194; p. 546.
Pharmaceutical preparations, Certain named. Owl Drug Company. No. 93,373; Sept. 9; Gaz. vol. 194; p. 546.
Photographic paper and plates. A. E. Jacobsen. No. 93,446; Sept. 16; Gaz. vol. 194; p. 740.
Pianos. Pflueger Piano Co. No. 93,290; Sept. 2; Gaz. vol. 194; p. 270.
Pianos. The Autopiano Company. No. 93,416; Sept. 16; Gaz. vol. 194; p. 739.
Pianos, piano-players, and piano-actions. The Lyrachord Company. No. 93,451; Sept. 16; Gaz. vol. 194; p. 740.
Pickles. The Johnson Pickle Corporation. No. 93,485; Sept. 16; Gaz. vol. 194; p. 741.
Picture films and projecting apparatus therefor, Moving-. Ryno Film Company. No. 93,296; Sept. 2; Gaz. vol. 194; p. 270.
Pills, ointment, worm specific, and insect-powder. Shedd Medicine Company. No. 93,612; Sept. 30; Gaz. vol. 194; p. 1138.
Pipe-joints, Paste for tightening. Thread Tight Co. No. 93,393; Sept. 9; Gaz. vol. 194; p. 547.
Plasters, Porous. Whitall Tatum Company. No. 93,574; Sept. 23; Gaz. vol. 194; p. 948.
Plumbago for polishing. Graphites Maskar Societe Anonyme. No. 93,529; Sept. 23; Gaz. vol. 194; p. 947.
Pole line-holders, guy-clamps, strain-insulators, &c. Barnes & Kobert Manufacturing Company. No. 93,256; Sept. 2; Gaz. vol. 194; p. 269.
Polish for furniture, woodwork, carriages, &c. G. T. Jarden. No. 93,361; Sept. 9; Gaz. vol. 194; p. 546.
Pomatum. B. L. Brun. No. 93,258; Sept. 2; Gaz. vol. 194; p. 269.
Powder, Complexion-. T. M. Sayman. No. 93,472; Sept. 16; Gaz. vol. 194; p. 741.
Powder-puffs. M. Levy. No. 93,605; Sept. 30; Gaz. vol. 194; p. 1137.
Powder, Smokeless. Hercules Powder Company. No. 93,598; Sept. 30; Gaz. vol. 194; p. 1137.
Powder, Talcum. Smith, Kline & French Company. No. 93,386; Sept. 9; Gaz. vol. 194; p. 547.
Powder, Talcum. Lord & Russell Mfg. Co. No. 93,551; Sept. 23; Gaz. vol. 194; p. 948.
Powder, Toilet. The Arthur Chemical Co. No. 93,411; Sept. 16; Gaz. vol. 194; p. 739.
Preparation for the treatment of the hair and scalp. J. Haigh. No. 93,350; Sept. 9; Gaz. vol. 194; p. 546.
Preparation for venereal diseases. R. A. Bachmann. No. 93,321; Sept. 9; Gaz. vol. 194; p. 545.
Prints and publications, Certain. Barse & Hopkins. No. 93,326; Sept. 9; Gaz. vol. 194; p. 545.
Railway systems, Certain named supplies for trolley and electric. Northwestern Construction Company. No. 93,607; Sept. 30; Gaz. vol. 194; p. 1137.
Razor-strops. McGinnis-Meehan Co. No. 93,284; Sept. 2; Gaz. vol. 194; p. 270.
Razors, razor-blades, and shears. F. A. Clauberg & Co. No. 93,427; Sept. 16; Gaz. vol. 194; p. 739.
Receptacles made of certain named materials. Henry E. Frankenberg Company. No. 93,345; Sept. 9; Gaz. vol. 194; p. 545.
Refrigerators. The Alaska Refrigerator Company. No. 93,583; Sept. 30; Gaz. vol. 194; p. 1137.
Remedies for constipation, liver complaint, biliousness, &c. Wells & Richardson Company. No. 93,510; Sept. 16; Gaz. vol. 194; p. 742.
Remedies for fowls, animals, and man, Certain named. The F. C. Sturtevant Company. No. 93,615; Sept. 30; Gaz. vol. 194; p. 1138.
Remedies for pleurisy, asthma, indigestion, &c. Taylor & McMillan. No. 93,617; Sept. 30; Gaz. vol. 194; p. 1138.
Remedy for abortion and sterility in domestic animals. C. H. Martin. No. 93,282; Sept. 2; Gaz. vol. 194; p. 270.

Remedy for certain ailments of horses and dogs. G. W. Park. No. 93,608; Sept. 30; Gaz. vol. 194; p. 1137.
Remedy for certain diseases. F. Berard. No. 93,419; Sept. 16; Gaz. vol. 194; p. 739.
Remedy for certain named ailments. United Grocery Co. No. 93,396; Sept. 9; Gaz. vol. 194; p. 547.
Remedy for certain named diseases. S. L. Cheek. No. 93,335; Sept. 9; Gaz. vol. 194; p. 545.
Remedy for certain named diseases. J. I. Ham. No. 93,440; Sept. 16; Gaz. vol. 194; p. 740.
Remedy for coughs. H. Morse. No. 93,285; Sept. 2; Gaz. vol. 194; p. 270.
Remedy for genito-urinary diseases. Reese Chemical Company. No. 93,379; Sept. 9; Gaz. vol. 194; p. 546.
Remedy for hog-cholera. A. J. Kueber. No. 93,277; Sept. 2; Gaz. vol. 194; p. 269.
Remedy for piles. H. A. Hampoian. No. 93,352; Sept. 9; Gaz. vol. 194; p. 546.
Remedy for piles. J. W. Walsh. No. 93,573; Sept. 23; Gaz. vol. 194; p. 948.
Remedy for rheumatism and kidney ailments. P. E. Sandlie. No. 93,380; Sept. 9; Gaz. vol. 194; p. 546.
Rodent and vermin exterminator. Mouse-o-Cide Chemical Company. No. 93,372; Sept. 9; Gaz. vol. 194; p. 546.
Roofing, Prepared. Barrett Manufacturing Company. No. 93,325; Sept. 9; Gaz. vol. 194; p. 545.
Rope. American Manufacturing Company. No. 93,319; Sept. 9; Gaz. vol. 194; p. 545.
Ropes, Wire. William Cooke & Co. No. 93,340; Sept. 9; Gaz. vol. 194; p. 545.
Rubber. S. C. Beck. No. 93,489; Sept. 16; Gaz. vol. 194; p. 741.
Rubber goods, Pharmaceutical. Whitall Tatum Company. No. 93,315; Sept. 2; Gaz. vol. 194; p. 271.
Rubber matting and rubber in the piece. Revere Rubber Company. No. 93,496; Sept. 16; Gaz. vol. 194; p. 741.
Rules, Slide-. Keuffel & Esser Company. No. 93,448; Sept. 16; Gaz. vol. 194; p. 740.
Salad-dressing. E. L. Norrie. No. 93,457; Sept. 16; Gaz. vol. 194; p. 740.
Salt. San Francisco Salt Refinery. No. 93,469; Sept. 16; Gaz. vol. 194; p. 740.
Salt, calcium chlorid, and bromin. J. Q. Dickinson. No. 93,594; Sept. 30; Gaz. vol. 194; p. 1137.
Salve. V. St. Jean. No. 93,477; Sept. 16; Gaz. vol. 194; p. 741.
Salve. Tricur Salve Co. No. 93,479; Sept. 16; Gaz. vol. 194; p. 741.
Scales, Computing-. Toledo Scale Company. No. 93,618; Sept. 30; Gaz. vol. 194; p. 1138.
Scouring, cleaning, and polishing compound. The Reynolds Corporation. No. 93,610; Sept. 30; Gaz. vol. 194; p. 1137.
Serum for the treatment of cancer. F. W. Kohlmyer. No. 93,538; Sept. 23; Gaz. vol. 194; p. 947.
Shampoo preparation. G. Graham. No. 93,272; Sept. 2; Gaz. vol. 194; p. 269.
Sheets, pillow-cases, rugs, &c. William Hollins & Company. No. 93,355; Sept. 9; Gaz. vol. 194; p. 546.
Shellac, Adhesive. C. Benoit. No. 93,418; Sept. 16; Gaz. vol. 194; p. 739.
Shingles, lumber, and lath. Hoquiam Lumber & Shingle Company. No. 93,532; Sept. 23; Gaz. vol. 194; p. 947.
Shirts and pajamas, Night-. Tauber, Ryttenberg & Co. No. 93,307; Sept. 2; Gaz. vol. 194; p. 270.
Shoes, Arch-supports to be inserted in. Lynn Rubber Manufacturing Company. No. 93,606; Sept. 30; Gaz. vol. 194; p. 1137.
Signs, Metal. C. A. Divine. No. 93,491; Sept. 16; Gaz. vol. 194; p. 741.
Silos. Western Silo Company. No. 93,402; Sept. 9; Gaz. vol. 194; p. 547.
Skirts and petticoats. M. Reisa. No. 93,292; Sept. 2; Gaz. vol. 194; p. 270.
Soap, Toilet. The Arthur Chemical Co. No. 93,586; Sept. 30; Gaz. vol. 194; p. 1137.
Soda, Caustic. J. Heinzkill. No. 93,443; Sept. 16; Gaz. vol. 194; p. 740.
Soldering compounds and fluxes. L. B. Allen Co. No. 93,511; Sept. 23; Gaz. vol. 194; p. 947.
Specimens of animal, mineral, and vegetable substances, Collections of. Scientific Supply Company. No. 93,611; Sept. 30; Gaz. vol. 194; p. 1138.
Spices and flavoring extracts. The King Company. No. 94,449; Sept. 16; Gaz. vol. 194; p. 740.
Steel and iron. Pratt & Inman. No. 93,462; Sept. 16; Gaz. vol. 194; p. 740.
Syrup. The American Sugar Refining Company. Nos. 93,496-8; Sept. 16; Gaz. vol. 194; p. 741.
Syrup and cane-sugar, Compound of raisin-. The California Condensed Fruit & Syrup Co. No. 93,239; Sept. 2; Gaz. vol. 194; p. 269.
Syrup for use as food. American Sugar Refining Company. No. 93,406; Sept. 16; Gaz. vol. 194; p. 739.
Talking-machines and records for same. Columbia Graphophone Company. No. 93,428; Sept. 16; Gaz. vol. 194; p. 739.
Tape, Woven. Earnshaw Knitting Company. No. 93,343; Sept. 9; Gaz. vol. 194; p. 545.
Tea. The Woolson Spice Co. No. 93,576; Sept. 23; Gaz. vol. 194; p. 949.
Teas. Loudon & Son. No. 93,552; Sept. 23; Gaz. vol. 194; p. 948.
Tire benders and shrinkers. Illinois Iron & Bolt Co. No. 93,445; Sept. 16; Gaz. vol. 194; p. 740.
Tires and parts thereof and rubber tubing of all descriptions, Rubber. Lee Tire and Rubber Co. No. 93,549; Sept. 23; Gaz. vol. 194; p. 948.
Tires, tubes, patches, &c. Rubber. Lee Tire & Rubber Co. No. 93,493; Sept. 16; Gaz. vol. 194; p. 741.
Tires, wheels, axles, shafts, and springs, Vehicle. Fried. Krupp Aktiengesellschaft. No. 93,546; Sept. 9; Gaz. vol. 194; p. 545.
Tobacco, Smoking-. The Surbrug Company. No. 93,616; Sept. 30; Gaz. vol. 194; p. 1138.
Tooth powder and paste, talcum powder, and toilet water. Allan Chemical Company. No. 93,584; Sept. 30; Gaz. vol. 194; p. 1137.
Troches. Hance Brothers & White. No. 93,353; Sept. 9; Gaz. vol. 194; p. 546.
Trunks, traveling-bags, suitcases, &c. Henry Likly & Company. No. 93,366; Sept. 9; Gaz. vol. 194; p. 546.
Twine and cordage. Schermerhorn Bros. Co. No. 93,382; Sept. 9; Gaz. vol. 194; p. 547.
Vehicles, not including engines, Certain. American Asbestos Company. No. 93,318; Sept. 9; Gaz. vol. 194; p. 545.
Violin-strings. R. L. Mattoch. No. 93,454; Sept. 16; Gaz. vol. 194; p. 740.
Wafers, Sugar-. The Geo. H. Strietmann's Sons Company. No. 93,305; Sept. 2; Gaz. vol. 194; p. 270.
Wall-board. The Upson Company. No. 93,398; Sept. 9; Gaz. vol. 194; p. 547.
Wash for the mouth and teeth. J. A. Selby. No. 93,564; Sept. 23; Gaz. vol. 194; p. 948.
Watch-chains and pendant-bows for watches, Certain attachments for. H. Paulson. No. 93,609; Sept. 30; Gaz. vol. 194; p. 1137.
Watch-movements. Elgin National Watch Company. No. 93,432; Sept. 16; Gaz. vol. 194; p. 739.
Watches. Eska Manufacturing Co. No. 93,433; Sept. 16; Gaz. vol. 194; p. 739.
Watchcases. The Wadsworth Watch Case Company. No. 93,619; Sept. 30; Gaz. vol. 194; p. 1138.
Waters and beverage compositions made therefrom, Mineral. F. H. Fowler. No. 93,269; Sept. 2; Gaz. vol. 194; p. 269.
Wheels. J. M. Kroyer. No. 93,505; Sept. 16; Gaz. vol. 194; p. 742.
Whisky. American Bottling Corporation. No. 93,253; Sept. 2; Gaz. vol. 194; p. 269.
Wine, Altar-. Brotherhood Wine Company. No. 93,591; Sept. 30; Gaz. vol. 194; p. 1137.
Wine, German. A. D. Shaw & Co. No. 93,301; Sept. 2; Gaz. vol. 194; p. 270.
Wood-preserving preparation. Lyster Chemical Co. No. 93,452; Sept. 16; Gaz. vol. 194; p. 740.
Wool, worsted, and hair piece material. T. C. Cullen. No. 93,265; Sept. 2; Gaz. vol. 194; p. 269.
Woolen piece goods. Haas Brothers. No. 93,349; Sept. 9; Gaz. vol. 194; p. 546.
Worsted and woolen piece goods. Strathmore Worsted Mills. No. 93,391; Sept. 9; Gaz. vol. 194; p. 547.

ALPHABETICAL LIST OF LABELS.

"A C S." (For Shirts.) Salant & Salant. No. 17,209; Sept. 2; Gaz. vol. 194; p. 272.
"A. J. Paroubek's Ristcorset." (For Bandages or Splints for the Wrist or Hand.) A. J. Paroubek. No. 17,216; Sept. 16; Gaz. vol. 194; p. 743.
"Almond Chocolate." (For Almond Chocolate.) Knickerbocker Chocolate Co. No. 17,206; Sept. 2; Gaz. vol. 194; p. 272.
"Biltmore Linen." (For Stationery.) White & Wyckoff Mfg. Co. No. 17,253; Sept. 30; Gaz. vol. 194; p. 1139.
"Blue Bird Racing Aeroplane." (For Aeroplanes.) Ideal Aeroplane & Supply Co. No. 17,228; Sept. 23; Gaz. vol. 194; p. 950.
"Britannia English Slip-On Shower-Proof Coat." (For Shower-Proof Coats.) S. W. Peck & Co. No. 17,218; Sept. 16; Gaz. vol. 194; p. 743.
"Busy Little Bee Pills." (For Pills.) The Busy Little Bee Company. No. 17,223; Sept. 23; Gaz. vol. 194; p. 950.
"Casa Leo." (For Cigars.) A. C. Henschel & Company. No. 17,248; Sept. 30; Gaz. vol. 194; p. 1139.
"Chippewa Best." (For Shoes.) Mason Shoe Mfg. Co. No. 17,232; Sept. 23; Gaz. vol. 194; p. 950.
"Hand Played." (For Music-Rolls for Pneumatic Pianos and Similar Musical Instruments.) National Music Roll Co. No. 17,215; Sept. 16; Gaz. vol. 194; p. 743.
"Hippopatrol A Powder for Remedy and Relief For Wind Broken Horses." (For a Veterinary Remedy.) P. Hoffer. No. 17,205; Sept. 2; Gaz. vol. 194; p. 272.
"How to Apply Dr. Cunningham's Plasters." (For Medicinal Plasters.) Anti-Toxine Chemical Co. No. 17,213; Sept. 16; Gaz. vol. 194; p. 743.
"Hy-tex." (For Brick.) Hydraulic-Press Brick Company. No. 17,227; Sept. 23; Gaz. vol. 194; p. 950.
"Kresapol." (For a Germicide and Disinfectant.) The Hoffman-La Roche Chemical Works. No. 17,250; Sept. 30; Gaz. vol. 194; p. 1139.
"La Flor De Intal." (For Cigars.) E. A. & O. Weber. No. 17,239; Sept. 23; Gaz. vol. 194; p. 950.
"La Flor De Minanga." (For Cigars.) E. A. & O. Weber. No. 17,240; Sept. 23; Gaz. vol. 194; p. 950.
"Lily White Brand." (For Toilet-Paper.) S. Lewis. No. 17,214; Sept. 16; Gaz. vol. 194; p. 743.
"Little Tourist." (For Cigars.) Wiedmann-St. Louis Cigar Box Company. No. 17,254; Sept. 30; Gaz. vol. 194; p. 1139.
"Maplewood Brand." (For Creamery-Butter.) The Rochester Produce & Commission Co. No. 17,208; Sept. 2; Gaz. vol. 194; p. 272.
"Mennen's Shaving Cream." (For Shaving-Cream.) G. Mennen Chemical Company. No. 17,252; Sept. 30; Gaz. vol. 194; p. 1139.
"Mink." (For Cigars.) M. Mink. No. 17,235; Sept. 23; Gaz. vol. 194; p. 950.
"Morning Tonic." (For Coffee.) Clark & Host Co. No. 17,204; Sept. 2; Gaz. vol. 194; p. 272.
"New River Oak." (For Shoes.) Mason Shoe Mfg. Co. No. 17,234; Sept. 23; Gaz. vol. 194; p. 950.
"Northwestern Service Shoes." (For Shoes.) Mason Shoe Mfg. Co. No. 17,233; Sept. 23; Gaz. vol. 194; p. 950.
"Nu-Tan-Fin The Leather Doctor." (For a Liquid Dressing for Use on Leather and Rubber.) Phelps Manufacturing Company. No. 17,217; Sept. 16; Gaz. vol. 194; p. 743.
"Nu White." (For a Preparation for Cleaning Shoes.) B. Ettenson. No. 17,244; Sept. 30; Gaz. vol. 194; p. 1139.
"'Owl' Self-Shining Stove Polish." (For Stove-Polish.) E. H. Schuler & Co. No. 17,219; Sept. 16; Gaz. vol. 194; p. 743.
"Pacific Coast Loggers." (For Shoes.) Mason Shoe Mfg. Co. No. 17,231; Sept. 23; Gaz. vol. 194; p. 950.
"Peanuts in Nature's Wrapper." (For Peanuts.) T. S. Wheatcroft. No. 17,241; Sept. 24; Gaz. vol. 194; p. 950.
"Pill." (For Cigars.) E. Kanouse. No. 17,251; Sept. 30; Gaz. vol. 194; p. 1139.
"Premier Pure, The Whiskey for Family Use." (For Whisky.) P. R. Lancaster & Company. No. 17,229; Sept. 23; Gaz. vol. 194; p. 950.
"Preserves Wood Everywhere Against Decay." (For Averanius Carbolineum Wood Preservative.) Carbolineum Wood Preserving Company. No. 17,224; Sept. 23; Gaz. vol. 194; p. 950.
"Purest Gaelic." (For Wine.) T. C. McDonough & Son. No. 17,226; Sept. 23; Gaz. vol. 194; p. 950.
"Reed's Auto-Lusta." (For Automobile-Polish.) C. E. Reed. No. 17,236; Sept. 23; Gaz. vol. 194; p. 950.
"Robert Gray." (For Cigars.) A. C. Henschel & Company. No. 17,249; Sept. 30; Gaz. vol. 194; p. 1139.
"Sulpho-Carbon." (For Disinfectant Compounds.) J. M. Schutz. No. 17,237; Sept. 23; Gaz. vol. 194; p. 950.
"Sultana Fig Chicory Coffee Substitute." (For a Fig-Chicory Coffee Substitute.) J. A. Sibrava. No. 17,210; Sept. 2; Gaz. vol. 194; p. 272.
"Sweepo." (For Brooms.) Sweepo Broom Company. No. 17,221; Sept. 16; Gaz. vol. 194; p. 743.
"Tea Chest." (For Tea.) Geo. W. Caswell Co. No. 17,225; Sept. 23; Gaz. vol. 194; p. 950.
"The Empire Tablet." (For Writing-Tablets.) Butler Brothers. No. 17,243; Sept. 30; Gaz. vol. 194; p. 1139.
"The Saturday Evening Smoke." (For Cigars.) L. J. Städeker. No. 17,238; Sept. 23; Gaz. vol. 194; p. 950.
"The Shoe That Made Chippewa Famous." (For Shoes.) Mason Shoe Mfg. Co. No. 17,230; Sept. 23; Gaz. vol. 194; p. 950.
"Transparentine." (For a Chemical Preparation for Coating Glass Surfaces to Prevent Water from Adhering.) Transparentine Company. No. 17,222; Sept. 16; Gaz. vol. 194; p. 743.
"Val dona Cream of Almonds." (For Cream of Almonds.) Druggists' Co-operative Association, Inc. No. 17,247; Sept. 30; Gaz. vol. 194; p. 1139.
"Val dona Hair Tonic." (For a Hair-Tonic.) Druggists' Co-operative Association, Inc. No. 17,245; Sept. 30; Gaz. vol. 194; p. 1139.
"Val dona Perfumes." (For Perfumes.) Druggists' Co-operative Association, Inc. No. 17,246; Sept. 30; Gaz. vol. 194; p. 1139.
"Van Camp's Golden Pumpkin." (For Canned Pumpkin.) The Van Camp Packing Company. No. 17,212; Sept. 2; Gaz. vol. 194; p. 272.
"Van Camp's Sugar Corn." (For Canned Corn.) The Van Camp Packing Company. No. 17,211; Sept. 2; Gaz. vol. 194; p. 272.
"Venogen." (For a Medicinal Preparation.) L. V. Bates. No. 17,242; Sept. 30; Gaz. vol. 194; p. 1139.
"Vittel Grande Sauce." (For a Mineral Water.) Societe Generale Des Eaux Minerales De Vittel. No. 17,220; Sept. 16; Gaz. vol. 194; p. 743.
"Yazoo Brand Ginger and Gin Cordial." (For Cordial.) Rheinatrom Bros. No. 17,207; Sept. 2; Gaz. vol. 194; p. 272.

PRINTS.

"A Run-away Race." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,365; Sept. 2; Gaz. vol. 194; p. 272.

"After another Cut of Brown's Mule." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,375; Sept. 23; Gaz. vol. 194; p. 950.

"Delicious Satisfaction is an Edelweiss Attraction." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,379; Sept. 30; Gaz. vol. 194; p. 1139.

"Drink Wolfe's Schnapps and keep on the right road." (For Schnapps.) Udolpho Wolfe Company. No. 3,373; Sept. 16; Gaz. vol. 194; p. 743.

"Famed 'Edelweiss' is brewed at home Why from Chicago should you roam." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,378; Sept. 30; Gaz. vol. 194; p. 1139.

"For a home surprise—send a case of Edelweiss." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,369; Sept. 16; Gaz. vol. 194; p. 743.

"Guarantee." (For Cigars.) M. Mink. No. 3,374; Sept. 23; Gaz. vol. 194; p. 950.

"Here's the Case—You be the Judge." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,371; Sept. 16; Gaz. vol. 194; p. 743.

"Here's the Real Joy Makin's." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,376; Sept. 23; Gaz. vol. 194; p. 950.

"Phone before Eleven—Delivered before Seven." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,377; Sept. 30; Gaz. vol. 194; p. 1139.

"Phone For A Case To Be Sent To Your Place." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,368; Sept. 16; Gaz. vol. 194; p. 743.

"Sign of Efficiency." (For Tires.) The Portage Rubber Co. No. 3,366; Sept. 2; Gaz. vol. 194; p. 272.

"Solid Service Shoes." (For Shoes.) R. P. Smith & Sons Co. No. 3,372; Sept. 16; Gaz. vol. 194; p. 748.

"Taste the Flavor." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,364; Sept. 2; Gaz. vol. 194; p. 272.

"The Brewery will speed it wherever you need it." (For Beer.) The Peter Schoenhofen Brewing Company. No. 3,370; Sept. 16; Gaz. vol. 194; p. 743.

"Wayne Knit Half Hose." (For Half-Hose.) Wayne Knitting Mills. No. 3,380; Sept. 30; Gaz. vol. 194; p. 1139.

"What De' Debil' You-All Laughin' At, Anyhow?" (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,367; Sept. 16; Gaz. vol. 194; p. 743.

DISCLAIMERS.

Rock-drill. A. Palmros. No. 1,052,373; date of patent Feb. 4, 1913; disclaimer filed Sept. 19, 1913; Gaz. vol. 194; p. 955.

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1913.

ERRATA.

1,075,187, page 206, first claim, line 3, for the words "plurality of" read *one or more*, and line 5, before the word "said," second occurrence, insert the words *at least one of*.

1,076,599, page 749, third claim, line 7, for the word "tension" read *pull*, and same claim, line 8, for the word "pull" read *tension*.

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THE OFFICIAL GAZETTE OF THE United States Patent Office.

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Total	788		

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	1	....	North Carolina	6	1
Arizona	1	1	North Dakota	3	....
Arkansas	2	....	Ohio	45	3
California	25	5	Oklahoma	7	1
Colorado	6	....	Oregon	4	....
Connecticut	26	....	Pennsylvania	49	5
Delaware	1	....	Rhode Island	7	....
Florida	1	1	South Carolina	1	....
Georgia	15	....	South Dakota	4	....
Idaho	3	....	Tennessee	4	1
Illinois	70	3	Texas	19	....
Indiana	11	....	Utah	1	....
Iowa	11	1	Vermont	2	....
Kansas	9	2	Virginia	7	....
Kentucky	3	....	Washington	13	....
Louisiana	2	....	West Virginia	7	....
Maine	3	....	Wisconsin	18	....
Maryland	12	4	Wyoming	1	....
Massachusetts	44	3			
Michican	18	2	Alaska, District of	....	....
Minnesota	10	....	Canal Zone	....	....
Mississippi	1	....	District of Columbia	5	....
Missouri	25	1	Hawaii Territory	1	....
Montana	2	....	Philippine Islands	1	....
Nebraska	4	....	Porto Rico	....	....
Nevada	1	....	U. S. Army	....	....
New Hampshire	1	....	U. S. Navy	....	....
New Jersey	30	1			
New Mexico	1	....	Total to residents of the United States	639	46
New York	95	11			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Netherlands	1	....
Austria-Hungary	3	....	Newfoundland	....	....
Belgium	....	....	New South Wales	1	....
Brazil	....	....	New Zealand	2	....
British West Indies	....	....	Norway	1	....
Canada	5	1	Queensland	....	....
Cape Colony	....	....	Roumania	....	....
Chile	....	....	Russia	....	....
China	....	....	Scotland	1	....
Costa Rica	....	....	South Australia	....	....
Cuba	1	....	Spain	....	....
Denmark	....	....	Sweden	2	....
England	17	2	Switzerland	6	1
France	3	....	Transvaal, South Africa	....	....
Germany	41	3	Victoria	1	....
Guatemala	1	....	Wales	1	....
India	1	....			
Ireland	1	....			
Italy	....	1	Total to residents of foreign countries	90	9
Japan	1	....			
Mexico	....	1			

Notice.

Notice is hereby given of the withdrawal from the issue of September 30, 1913, of the application of Ray H. Manson, for an automobile-horn, Serial No. 695,886, inadvertently published in the GAZETTE as Patent No. 1,074,371, because of the formal abandonment of the application on September 27, 1913.

Correction of Drawings.

RULE 72. * * * * *

The drawing may be withdrawn only for such corrections as cannot be made by the Office; but a drawing cannot be withdrawn unless a photographic copy has been filed and accepted by the Examiner as a part of the application. Permissible changes in the construction shown in any drawing may be made only within the Office and after an approved photographic copy has been filed. Substitute drawings will not be admitted in any case unless required by the Office.

Access to Pending Applications.

Hereafter no person except the applicant, the assignee whose assignment is of record, or the attorney of record will be permitted to have access to the file of any application, except as provided for under the interference rules, unless written authority from the applicant, assignee, or attorney, identifying the application to be inspected, is filed in the case to become a part of the record thereof, or upon the written order of the Commissioner, which will also become a part of the record of the case.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 4, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 22	July 21	829
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	May 15	Aug. 2	704
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Sept. 5	Sept. 22	222
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 18	July 31	777
167	5. Bookbinding; Harvesters; Jewelry; Music.	June 14	July 10	652
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 23	July 28	878
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	Apr. 29	July 22	1091
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 8	Aug. 12	1010
142	9. Air and Gas-Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Apr. 12	Aug. 28	745
235	10. Carriages and Wagons	May 19	July 14	1215
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Aug. 11	Aug. 23	318
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	May 22	June 9	1631
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	May 26	July 14	717
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 24	Sept. 3	600
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Mar. 31	July 5	1642
109	16. Radiant Energy; Telegraphy; Telephony.	Apr. 24	June 30	566
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Aug. 8	Sept. 4	365
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 5	Aug. 28	289
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 22	July 17	686

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 5	Aug. 15	246
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 10	June 16	729
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 14	July 17	460
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	July 17	July 23	455
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Aug. 1	Aug. 4	602
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Aug. 4	Sept. 5	252
106	26. Electricity, Generation; Motive Power.	Apr. 18	June 10	650
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 9	Aug. 8	500
65	28. Internal-Combustion Engines	May 29	July 1	949
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	May 22	May 22	779
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 21	Sept. 11	300
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 15	July 8	464
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 21	Aug. 9	465
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	July 7	Aug. 1	441
304	34. Railways; Railway-Brakes; Railway-Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	July 21	July 30	656
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	May 8	Sept. 2	856
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	July 9	June 26	1072
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Feb. 25	June 2	975
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	May 12	June 25	969
321	39. Water Distribution	June 13	Aug. 7	544
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 16	July 28	1153
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Aug. 11	Aug. 22	474
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 7	May 17	996
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 13	Aug. 16	302

Oldest new case, Feb. 25; oldest amended, May 17.
Total number of applications awaiting action..... 30,226

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 16	Sept. 8	1098
	Designs	Aug. 23	Sept. 12	214
	Labels and Prints	Sept. 26	Sept. 26	38

PATENTS

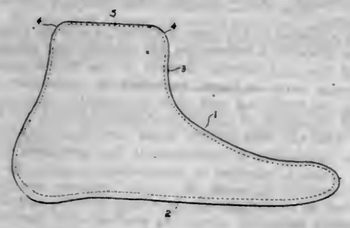
GRANTED OCTOBER 7, 1913.

1,074,594. WRENCH. CHRISTIAN ANDERSEN, Chicago, Ill. Filed Oct. 10, 1912. Serial No. 725,053. (Cl. 81—62.)



In a wrench, the combination of a shaft, a pinion at one end thereof, a handle mounted on the other end of the shaft, pawl and ratchet connections between said handle and shaft, a head provided with a transverse guiding groove rotatably mounted on said shaft, a pair of jaw-bearing racks slidably arranged in said groove in mesh with said pinion, a ratchet wheel formed on said head, a disk secured on said shaft above the head, and a pawl adapted to engage said ratchet wheel whereby the head is locked to the shaft.

1,074,595. BATHING-SHOE. ALBERT AUMONT, Montreal, Quebec, Canada. Filed Mar. 14, 1913. Serial No. 754,297. (Cl. 36—4.)

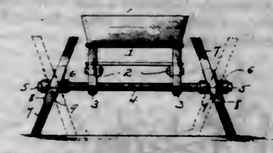


1. A bathing shoe molded of one piece of gum or india rubber and having its bottom made much thicker than the body of the shoe so as to form a sole integral therewith and contained therein, and having the upper end of the leg portion turned inwardly to form means for closely gripping the leg of the wearer.

2. A bathing shoe formed exclusively of soft flexible elastic sand tight material adapted to conform to and completely inclose the entire foot in a snug glove-like sand tight fit, and means for maintaining a snug sand tight closure between the upper open end and the leg of the wearer.

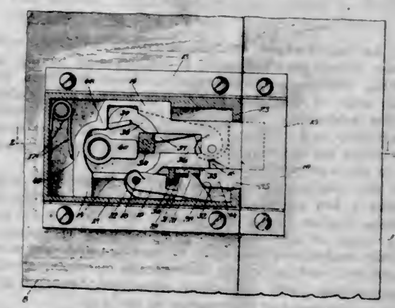
3. A bathing shoe formed exclusively of soft flexible elastic sand tight material adapted to conform to and completely inclose the entire foot in a snug glove-like sand tight fit, and flexible elastic means for maintaining a snug sand tight closure between the upper open end and the leg of the wearer.

1,074,596. VEHICLE. JAMES A. BECHER, Chicago, Ill. Filed May 13, 1912. Serial No. 697,059. (Cl. 21—65.)



An advertising vehicle comprising a body, an axle, and wheels mounted loosely on the axle and each disposed at an angle other than a right angle to the axle, whereby a wabbling motion may be imparted to the vehicle body to attract attention for advertising purposes.

1,074,597. AUTOMATIC-LOCKING DEAD-LOCK. ALFRED C. O. BOCK, Brooklyn, N. Y., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Apr. 7, 1909. Serial No. 488,515. (Cl. 70—29.)

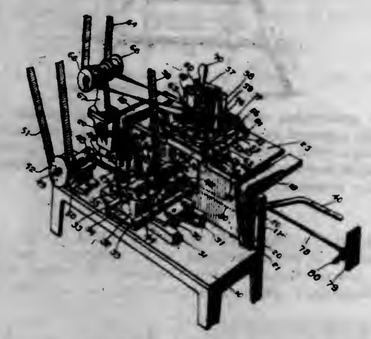


1. An automatic dead-lock mechanism comprising a spring-actuated dead-lock bolt, a tail-frame connected therewith, a spring-actuated restraining-tumbler for engaging said tail-frame to retain said dead-lock bolt in its withdrawn position, a reversible releasing-latch adapted to release said restraining-tumbler from its holding engagement with said tail-frame, a spring-actuated locking-tumbler pivotally connected with said tail-frame, a stationary post adapted to be engaged by said locking-tumbler when said dead-lock bolt is thrown, means for resetting said dead-lock bolt, comprising a projection on said tail-frame, a key-barrel-mechanism, a dog operated thereby, a knob operated dog, either of said dogs being operated to engage said projection to draw back said dead-lock bolt, a cam-portion connected with said tail-frame against which said knob-operated dog may be turned in holding engagement to detain said dead-lock bolt independently of said restraining-tumbler, to permit the door to be closed without throwing said dead-lock bolt.

2. An automatic dead-lock mechanism comprising a spring-actuated dead-lock bolt, a tail-frame connected therewith, a spring-actuated restraining-tumbler for engaging said tail-frame to retain said dead-lock bolt in its

withdrawn position, a reversible releasing-latch adapted to release said restraining-tumbler from its holding engagement with said tail-frame, a spring-actuated locking-tumbler pivotally connected with said tail-frame, a stationary post adapted to be engaged by said locking tumbler when said dead-lock bolt is thrown, means for resetting said dead-lock bolt, and means for detaining said dead-lock bolt in its withdrawn position independently of said restraining-tumbler, to permit the door to be closed without throwing said dead-lock bolt when so desired, comprising a cam-portion connected with said tail-frame, a rotatable dog adapted to be turned in holding engagement with said cam-portion, and means for rotating said dog.

1,074,598. LOCK-MORTISING MACHINE. IVAN H. BRADLEY, Bridgeport, Conn., assignor to The Burns and Bassick Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 24, 1912. Serial No. 711,310. (Cl. 144—69.)



1. An improvement in lock mortising machines comprising a bed provided with a vertical wall having an opening therein, a table extending forwardly from the upper edge of said wall and provided with an opening, cutting mechanisms supported by said bed and said table respectively and projecting through the openings therein, and means for supporting the work in front of said opening in the wall and beneath said table.

2. An improvement in lock mortising machines comprising a bed provided with a vertical wall having an opening therein, a table extending forwardly from the upper edge of said wall and provided with an opening, cutting mechanisms supported by said bed and said table respectively and projecting through the openings therein, a supporting plate adjustably supported beneath said table and in front of the opening in the wall.

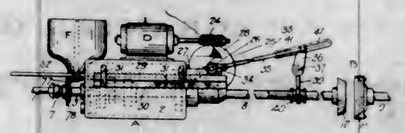
3. An improvement in lock mortising machines comprising a bed having a vertical wall provided with an opening therein, a table extending forwardly from the upper edge of said wall and provided with an opening, a bracket extending forwardly from said bed beneath said table, a work supporting plate carried by said bracket, and cutting mechanisms supported by said bed and said table respectively, and projecting through the opening therein.

4. An improvement in lock mortising machines comprising a bed having a vertical wall provided with an opening therein, a table extending forwardly from the upper edge of said wall and provided with an opening, a bracket extending forwardly from said bed beneath said table, a work supporting plate carried by said bracket, a cam plate for raising and lowering said supporting plate, and cutting mechanisms supported by said bed and said table respectively, and projecting through the openings therein.

5. An improvement in lock mortising machines comprising a bed provided with a vertical wall having an opening therein, a table extending forwardly from the upper edge of said wall and provided with an opening, cutting mechanisms supported by said bed and said table respectively, and projecting through the openings therein, a supporting plate mounted beneath said table, and a cam plate for raising and lowering said supporting plate.

[Claims 6 to 9 not printed in the Gazette.]

1,074,599. ELECTRIC SYSTEM FOR OPERATING SPEED-VARYING POWER TRANSMISSION. RALPH W. BRADLEY, Fort Collins, Colo. Filed Jan. 28, 1913. Serial No. 744,640. (Cl. 172—239.)



1. In a system of the class described, a driving element, a driven element, an adjustable transmission mechanism adapted to transmit the movement of the said driving element to the driven element at different rates of speed, an electric motor for the adjustment of said mechanism, a normally open circuit therefor, a series of circuit-breakers adapted to separately close said circuit when electrically connected, a device responsive to variations in the movement of the driven element, adapted to successively actuate the said circuit-breakers, and means coöperative with the transmission mechanism for opening said circuit at determinate points in the adjustment of the said mechanism.

2. In a system of the class described, a driving element, a driven element, and adjustable transmission mechanism adapted to transmit the movement of the said driving element to the driven element at different rates of speed, an electric motor for the adjustment of said mechanism, a normally open circuit therefor, a governor including a rotary member connected to be driven by the movement of said driven element, a movable device carried by said member and a series of circuit breakers adapted to separately close said circuit when electrically connected, and disposed to be successively actuated by the said device when impelled by centrifugal force, and means coöperative with the transmission mechanism for opening said circuit at determinate points in the adjustment of the said mechanism.

3. In a system of the class described, a driving element, a driven element, a mechanism for transmitting the movement of the said driving element to the driven element at different rates of speed, including an adjustable part, a motor for adjusting said part, a normally open circuit therefor, a series of circuit breakers adapted to separately close the said circuit, when electrically connected, a device responsive to variations in the movement of the driven element, adapted to successively actuate the said circuit-breakers, a series of circuit breakers electrically connected to separately open the said circuit, and means coöperative with the adjustable part of said mechanism for actuating the circuit breakers in the last mentioned series separately at determinate points in its movement.

4. In a system of the class described, a driving element, a driven element, a mechanism for transmitting the movement of the said driving element to the driven element at different rates of speed, including an adjustable part, a motor, a normally open circuit therefor, mechanism for transmitting the movement of said motor to the said part, including a reciprocatory-member, a series of circuit breakers adapted to separately close the said circuit when electrically connected, a device responsive to variations in the movement of the driven element, adapted to successively actuate said circuit-breakers, a series of circuit-breakers connected to sepurately open said circuit, and means on said reciprocatory member adapted to separately actuate the circuit breakers of the last mentioned series, to open the circuit at determinate points in the movement of the adjustable part of the transmission mechanism.

5. In a system of the class described, a driving element, a driven element, a mechanism for transmitting the movement of the said driving element to the driven element at different rates of speed, including an adjustable part, a clutch adapted to discontinue the operative connection between said driving element and said mechanism, a motor, a normally open circuit therefor, means adapted to convert the movement of said motor into an operative movement of said part and to simultaneously effect an adjustment of said clutch to discontinue the connection between the driving element and the said transmission mechanism during the periods of inaction of the latter, a series of circuit breakers adapted to separately close the said circuit when electrically connected, a device responsive to variations in the movement of the driven element, adapted to successively actuate the said circuit-breakers, and means coöperative with the adjustable part of the transmission mechanism for opening said circuit at determinate points in the movement of the said part.

[Claims 6 to 19 not printed in the Gazette.]

1,074,600. MOLD FOR CONFECTIONERY. THEODOR E. BREYER, Wilmette, Ill., assignor to Corn Products Refining Company, Chicago, Ill., a Corporation. Filed Sept. 7, 1910. Serial No. 580,863. (Cl. 106—39.)

1. As a composition of matter, ordinary confectioner's starch rendered plastic through the intimate association therewith of a small percentage of corn oil.

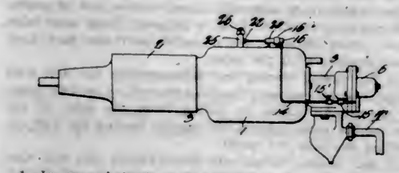
2. As a composition of matter suitable for use and re-use as confectioner's molds, ordinary powdered starch associated with a relatively small amount of unctuous substance and in a plastic condition, the proportion of unctuous substance being such that after use the material may be prepared for re-use by simple sifting.

3. As a composition of matter suitable for use as confectioner's molds, granular mill starch associated with about two-tenths of one per-cent. unctuous substance capable of rendering the material plastic enough to form a firm mold and easily returnable and after use being capable of return to its original useful condition by simple sifting.

4. The product herein described and composed solely of fresh mill starch intimately associated with approximately two-tenths of one per-cent. unctuous substance so that the resultant product is plastic enough and otherwise suited for repeated use as confectioner's molds.

5. The product herein described and composed solely of fresh starch intimately associated with approximately two-tenths of one per cent. corn oil.

1,074,601. AIR-BRAKE. ROBERT D. BUSWELL, Wellington, Kans. Filed Nov. 15, 1912. Serial No. 731,640. (Cl. 188—10.



1. In an air-brake system, the combination with an auxiliary reservoir, a brake cylinder, a train pipe, and a triple valve, of an automatic means for releasing pressure in the auxiliary reservoir to release a sluggish triple valve piston after the setting of the brakes and during the release thereof, said means being operably connected to the triple valve piston and the auxiliary reservoir, and said means operating when the triple valve piston refuses to operate up to a predetermined pressure to release the pressure in the auxiliary reservoir and permit the piston to move to brake cylinder released position.

2. The combination with an auxiliary reservoir, a train pipe, a brake cylinder, and a triple valve, of means for automatically venting the auxiliary reservoir controlled by the triple valve piston.

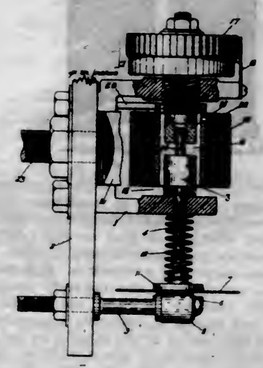
3. The combination with an auxiliary reservoir, a train pipe, a brake cylinder, and a triple valve, of means for automatically venting the auxiliary reservoir controlled by the triple valve piston, said means including a pneumatic and spring actuated vent valve for the auxiliary reservoir, and a valve connected to and controlled by the triple valve piston for controlling the supply of air to the pneumatic and spring actuated vent valve.

4. The combination with an auxiliary reservoir, a train pipe, a brake cylinder, and a triple valve, of means for automatically venting the auxiliary reservoir controlled by the triple valve piston, said means including an air chamber, a spring operated piston mounted therein, a venting valve for the auxiliary reservoir connected to the piston and held closed by the spring, and means controlled by the triple valve piston for supplying air to the chamber to operate the piston and open the vent valve.

5. The combination with an auxiliary reservoir, a train pipe, a brake cylinder, and a triple valve, of means for automatically venting the auxiliary reservoir controlled by the triple valve piston, said means including an air chamber, a spring operated piston mounted therein, a venting valve for the auxiliary reservoir connected to the piston and held closed by the spring, a conduit leading from the triple valve casing to the air chamber, a valve in said conduit constructed to operate at a predetermined pressure before admitting air to the air chamber, and a valve operated by the triple valve piston to control the supply of air through the conduit.

[Claims 6 to 10 not printed in the Gazette.]

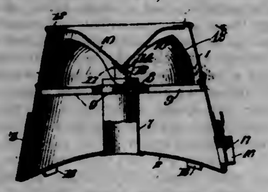
1,074,602. OVERLOAD DEVICE. HARRY R. CANFIELD, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 22, 1911. Serial No. 616,104. (Cl. 175—268.)



1. In a magnetically-operated device, a frame, a movable member, a winding to move said member when energized with predetermined values of current, an air gap between said member and the frame, means for adjusting said air gap in predetermined increments to change the value of operating current, and means for maintaining substantially constant the ratio between said increments of adjustment and the increments of operating current.

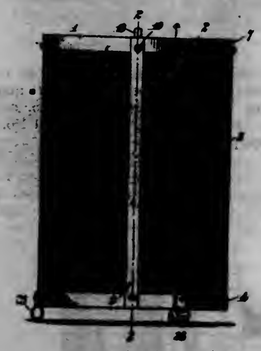
2. In a magnetically-operated device, a frame, a movable member, a winding to move said member when energized with predetermined values of current, an air gap between said member and the frame, means for adjusting said air gap in predetermined increments to change the value of operating current, and means for changing the ratio between said increments of adjustment and the increments of operating current.

1,074,603. SPARK-ARRESTER. CHRISTOPHER A. CARDWELL, Concord Depot, Va. Filed Aug. 2, 1912. Serial No. 712,857. (Cl. 110—134.)



In a spark arrester, a drum having a curved bottom supported upon legs above the boiler and inclined walls, an intake sleeve, a plurality of removable inclined gratings centrally supported above the intake the bottom of one grating engaging supports on opposite side walls and supporting the other grating, and a cover having a discharge stack and the side walls of the lower portions provided with apertures with closures for the removal of dead ashes.

1,074,604. FLY-TRAP. GEORGE J. CARLISLE, Muskogee, Okla., assignor to I X L Insu-Metallic Products Company of Missouri, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 3, 1912. Serial No. 675,132. (Cl. 43—22.)



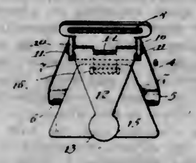
1. A fly trap comprising a foraminous cylinder, a foraminous top therefor, and a foraminous cone mounted in the cylinder said cone having an exit opening at its top, and a resiliently expansible base member.

2. A fly trap comprising a cylindrical foraminous body, a foraminous top therefor, and inwardly extending legs secured to the base of the body and a cone mounted in the body and having a resiliently expansible base to rest upon the legs and to fit the interior of the body.

3. A fly trap comprising semi-cylindrical foraminous sections, V-shaped extensions on said sections, said V-shaped extensions being folded to form top portions, a reinforcing member for each of the sections folded with the fabric to hold the V-shaped portions in top forming position, said sections having reinforcing ribs folded with the fabric, and grooved connecting members slidably mounted upon the ribs of the sections for connecting the same together, together with a foraminous cone having a resiliently expansible base for removable engagement with the body.

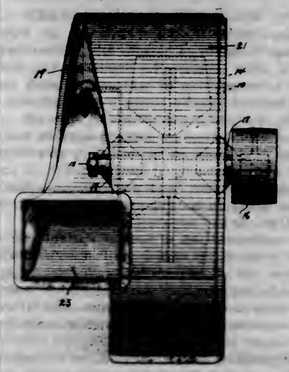
1,074,605. GARMENT-SUPPORTER. ROBERT S. CARTER, Chicago, Ill. Filed Sept. 14, 1912. Serial No. 720,335. (Cl. 24—250.)

A garment supporter comprising in combination a fixed jaw, provided with lugs bent therefrom, a lever pivoted to said lugs, a loop bent from said lever, a movable jaw pivoted to said loop provided with a slot of greater length and width than the width and thickness of the loop,



whereby on operating the lever said jaw has a shifting fulcrum movement thereon, substantially as described.

1,074,606. FAN-BLOWER. GEORGE W. CHRISTOPH, Hartford, Conn., assignor to Sterling Blower Company, Hartford, Conn., a Corporation of Connecticut. Filed Sept. 12, 1912. Serial No. 719,928. (Cl. 230—11.)



1. A fan blower comprising a rotor and a casing having an inlet, an outlet, and a passage which connects the inlet and outlet, a portion of such passage from inlet to outlet being out of the path of the rotor and of substantially uniform cross-section.

2. A fan blower including a rotor and a casing having a passageway entering substantially tangentially at one side of said rotor and leaving tangentially thereof at the periphery, said passageway at all points along its length having a portion out of the path of the rotor.

3. A fan blower, including a rotor and a casing having an inlet and an outlet, said casing being of gradually increasing radius from said inlet to said outlet and of gradually decreasing width to form a fair-way from said inlet to said outlet through which solid particles may pass without contact with the rotor.

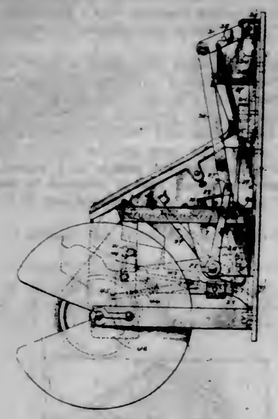
4. A fan casing having one substantially flat end wall and the opposite end wall inclined thereto to provide gradually decreasing width of casing from the inlet to the outlet, and a rotor within the casing having its axis intersecting the said end walls.

5. A fan casing having one substantially flat end wall and the opposite end wall inclined thereto to provide gradually decreasing width of casing from the inlet to the outlet, and having a spirally-disposed peripheral wall, and a rotor mounted between said walls.

[Claims 6 to 11 not printed in the Gazette.]

1,074,607. VENDING-MACHINE. SARA L. W. COE, HENRIETTA T. WERDEN, and EDWARD W. WERDEN, New York, N. Y. Filed Oct. 22, 1912. Serial No. 727,202. (Cl. 211—33.)

1. The combination with discharging means and actuating means therefor, of means for permitting the setting of said actuating means, and means for isolating said mechanism after it has been set and before the discharging means has fully operated.



2. The combination with discharging means and actuating means therefor, of a member having an opening, a shutter for said opening, means for operating the shutter to close said opening, said member also having another opening, and means near said last-mentioned opening for resetting the shutter.

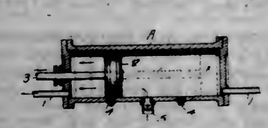
3. The combination with a platform and means for feeding a strip over said platform, of a knife bar carrying a blade for severing the strip, means for operating the knife bar, a member having an opening, a shutter adjacent to said opening, and means coöperating with the knife bar and shutter to open and close the latter.

4. In a machine of the character described, the combination with a face plate having a slot or opening therein, a platform, means for feeding a strip over said platform and discharging the same, a knife-bar carrying a blade to sever said strip, means for actuating said feeding means and knife-bar, a shutter for the opening in the face plate, a pivoted lever connected with said shutter, and a weighted-bar connected with said pivoted lever and coöperating with the knife-bar to control the position of said shutter.

5. In a machine of the character described, the combination with a face plate having an opening, of a shutter for said opening, means for releasing said shutter to close the opening, a vertically movable weight, a trip normally retaining said weight elevated, and devices coöperating with said weight and shutter to open the latter when the weight has been tripped.

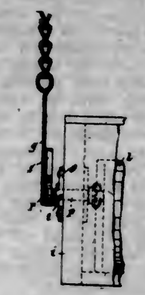
[Claims 6 to 9 not printed in the Gazette.]

1,074,608. AIR SUCTION AND FORCE PUMP. FRANKLIN O. DE HYMEL, San Antonio, Tex. Filed Oct. 10, 1912. Serial No. 724,937. (Cl. 230—27.)



In an apparatus for the purpose specified, the air-pump comprising a reciprocating piston and a cylinder having its under side provided with a series of openings, and interchangeable screw plugs and air-inlet valves adapted to be secured in said openings for regulating air vacuum and compression, as described.

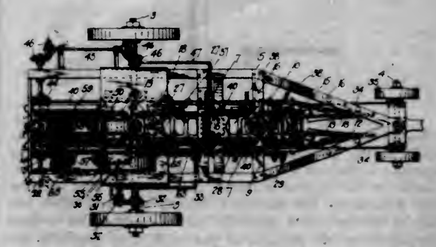
1,074,609. FURNACE-CONTROLLING APPARATUS. JOHN DENTON, Paterson, N. J. Filed Jan. 15, 1913. Serial No. 742,110. (Cl. 161—8.)



1. In combination, a suitable support, a peripherally notched rotary detent member journaled therein, an alarm clock having an alarm arbor separately clutched with said member, a hook engaged in the notch of said member and exerting dead-center pressure on the latter, a normally moved furnace controlling means, and a flexible connection connecting the hook with said controlling means, substantially as described.

2. In combination, a suitable support, a peripherally notched rotary detent member journaled therein, an alarm clock having an alarm arbor separably clutched with said member, a hook engaged in the notch of said member and exerting dead-center pressure on the latter, a normally moved furnace controlling means, and a flexible connection connecting the hook with said controlling means, the notch of said detent having the side thereof which is in advance during the alarm rotation of said arbor less steep than the opposite side of said notch, substantially as described.

1,074,610. BEET-HARVESTER. FERDINAND DUHSEL, Denver, Colo. Filed July 10, 1912. Serial No. 708,639. (Cl. 55—9.)



1. A beet harvester comprising in combination with a wheel-supported carrier, means for lifting beets out of the ground over which said carrier is advanced, a knife rearward of said means for severing the roots of the beets, a conveyer for elevating the beets, and a cutter for topping the same.

2. A beet harvester comprising in combination with a wheel supported carrier, means for lifting beets out of the ground over which the carrier is advanced, a conveyer for elevating the beets, series of rotary arms at opposite sides of the conveyer and moving above the same to engage the beets carried thereby, and a cutter for topping the beets.

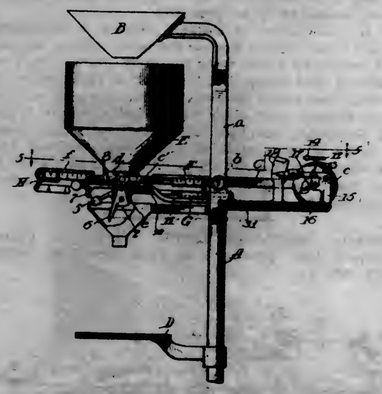
3. A beet harvester comprising in combination with a wheel supported carrier, means for lifting beets out of the ground over which the carrier is advanced, a conveyer for elevating the beets, series of rotary arms at opposite sides of the conveyer and moving above the same to alternately engage the beets carried thereby, and a cutter for topping the beets.

4. A beet harvester comprising in combination with a wheel-supported carrier, means for lifting beets out of the ground over which the carrier is advanced, a conveyer for elevating the beets, series of rotary devices at opposite sides of the conveyer for maintaining the beets carried thereon in a position at substantially right angles to its surface, means for imparting a rotary movement to said devices, and a cutter for topping the beets, each of said devices comprising arms radiating from its axis of rotation and extending above the conveyer.

5. A beet harvester comprising in combination with a wheel-supported carrier, means for lifting beets out of the ground over which the carrier is advanced, a conveyer for elevating the beets, series of rotary devices at opposite sides of the conveyer for maintaining the beets carried thereon in a position at substantially right angles to its surface, means for imparting a rotary movement to said devices, and a cutter for topping the beets, each of said devices comprising two sets of arms radiating from its axis of rotation and extending above the conveyer at different distances from its surface.

[Claims 6 to 14 not printed in the Gazette.]

1,074,611. AUTOMATIC WEIGHING APPARATUS. PETRONELLA EDTBAUER, Chicago, Ill. Filed June 7, 1912. Serial No. 702,184. (Cl. 73—171.)



1. A weighing machine comprising a balance-beam fulcrumed between its ends, one branch of which is provided with a permanent weight, a pan having a discharge opening supported by the other branch in which the commodity to be weighed is placed, a closure for said opening and devices for automatically closing the same when the pan is in its raised position, and an adjustable weight supported by the branch of the beam that supports the pan, which is adjustable toward and from the fulcrumnal axis of the beam.

2. Weighing mechanism comprising a balance-beam fulcrumed at a suitable point between its ends and one branch of which is provided with a permanent weight, a receiving pan supported by the other branch having a suitable opening in its bottom, a closure for said opening and devices for closing the same when the pan is in its upper position.

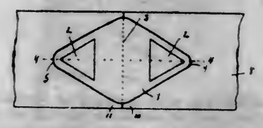
3. Weighing mechanism comprising a balance-beam fulcrumed between its ends one branch of which is provided with a permanent weight, a receiving pan supported by the other branch and having a discharge opening in its bottom, a closure for said discharge opening which is adapted to be opened during the weighing of the commodity and devices for automatically closing said closure when the pan is in its raised position.

4. Weighing mechanism comprising a balance-beam fulcrumed between its ends one branch of which is provided with a permanent weight, a receiving pan supported by the other branch having a discharge opening in its bottom, a closure for said discharge opening, which is adapted to be opened during the weighing of the commodity, devices that automatically close said closure when the pan is in its raised position, and a stationary element independent of said beam and adapted to engage said devices.

5. Weighing mechanism comprising a balance-beam fulcrumed between its ends, a receiving pan supported by one of the branches thereof having a discharge opening in its bottom, a closure plate pivotally connected to said pan for opening and closing said discharge opening, means for locking said plate in an open position that is tripped and releases said plate when the pan is in a raised position, and a stationary element that is adapted to engage and actuate said tripping device when said pan is in a raised position.

[Claims 6 to 13 not printed in the Gazette.]

1,074,612. BELT-FASTENER. WILLIAM H. ELMER, New Hartford, N. Y. Filed July 3, 1912. Serial No. 707,441. (Cl. 24—36.)



1. In a belt fastener of the character described, a plate, said plate having a quadrilateral shape, and a maximum thickness in the center portion thereof, teeth projecting from said plate, whereby to engage the end portions of a belt, said teeth having curved surfaces to prevent said teeth from tearing said belt, and said plate having triangular shaped recesses, whereby to aid said plate to bend to conform to the curved surface of a pulley.

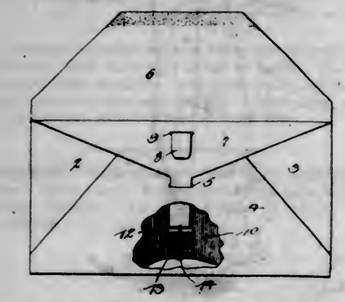
2. In a belt fastener, a flexible plate having a quadrilateral shape, a thickness tapering from its center portion toward either end thereof, and triangular shaped recesses in either end, whereby to aid said plate to bend, teeth disposed in rows adjacent the center portion of the plate, and adapted to engage the ends of a belt, and a tooth disposed at either end of the plate, whereby to steady the grip of the first mentioned teeth on the ends of the belt and thereby prevent said belt from wabbling.

3. In a belt fastener, a flexible plate having a quadrilateral shape, a thickness tapering from its center portion toward either end thereof, and triangular shaped recesses in either end, whereby to aid said plate to bend to conform to the curved surface of a pulley, two rows of teeth disposed adjacent the center and wider portion of said plate, a tooth disposed at either end of the plate, whereby to steady the pull of the aforementioned teeth when the plate is secured to a belt, and said teeth having curved surfaces adjacent the edge thereof against which the pull of the belt is exerted, to thereby prevent said teeth from tearing said belt, substantially as described.

1,074,613. ENVELOP. CLYDE N. ENGLAND, Fort Flagler, Wash. Filed Sept. 23, 1912. Serial No. 721,903. (Cl. 229—84.)

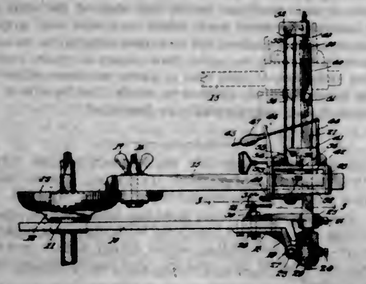
1. An envelop of the class described comprising a body blank forming a front wall, end and bottom flaps formed thereon to form a rear wall, said rear wall being provided with a slot, a closing flap formed on the upper edge of said front wall, an additional and smaller closing flap formed on said other closing flap, said latter closing flap being also provided with a slot, a member inserted between said front and rear walls and also provided with a pair of slots, a tongue formed on the last mentioned closing flap and adapted for introduction through the slots of said rear wall, inserted member, and said last mentioned closing flap, and separable means to secure said tongue in engagement with said inserted member.

2. An envelop of the class described comprising a body blank, a front wall, end and bottom flaps formed thereon and folded upon one another to form a rear wall, said rear wall being provided with a slot, a closing flap formed on the upper edge of the rear wall, an additional closing flap carried on said other closing flap, said latter closing flap being provided with a slot, a card inserted between said front and rear walls, said card being also provided with slots, a tongue formed on said additional closing flap and adapted for insertion through the slots of said rear wall, card and said last mentioned closing flap, and means carried on said card to secure said tongue thereto.



3. The combination with an envelop of suitable design having a tongue on the closing flap thereof and also provided with a slot in the rear wall to receive said tongue therethrough; of a card introduced in said envelop, said card being provided with a slot to receive said tongue therethrough and also having the lower edge thereof cutaway to form a cavity, and a pin slidably disposed through said card from the cavity therein, said pin being adapted to cross the slot in said card to engage said tongue extending therethrough, whereby the latter will be secured to the card.

1,074,614. CUTTER-GUARD. PETER ERICKSON, Chicago, Ill. Filed Oct. 7, 1912. Serial No. 724,320. (Cl. 144—251.)



1. The combination with a work-table and a cutter; of a support mounted adjacent to the edge of the table, a member pivoted to said support, a standard carried by said member and rotatable therein, means for holding the standard against rotation, a cutter-guard, a support for the cutter-guard mounted on the standard, a slotted member carried by the standard, and a clamping bolt passing through the table and the slot of said member.

2. The combination with a work-table and a cutter; of a support mounted adjacent to the edge of the table, a member pivoted to said support, a standard carried by said member and rotatable therein, means for holding the standard against rotation, a cutter-guard, a support for the cutter-guard mounted on the standard, and means for locking the standard in upright position, said means having an adjustable fastening to permit rotation of the standard.

3. The combination with a work-table and a cutter; of a support mounted adjacent to the edge of the table, a member pivoted to said support, a standard carried by said member and rotatable therein, means for holding the standard against rotation, a cutter-guard, a support for the cutter-guard mounted on the standard, a plate carried by the standard and having an arcuate slot, and a fastening means passing through the slot and the work-table.

4. The combination of a standard, a cutter-guard, a support for said guard slidably and non-rotatably mounted on the standard, and a rotatable member carried by the standard onto which member the aforesaid support is movable.

5. The combination of a standard, a cutter-guard, a support for said guard slidably and non-rotatably mounted in the standard, a rotatable and slidable member carried by the standard onto which member the aforesaid support is movable, means for locking the member, and an abutment on the member engageable by the support for sliding said member to release the same.

[Claims 6 to 9 not printed in the Gazette.]

1,074,615. STUDIO-CHAIR. WILLIAM F. FOLMER, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Jan. 10, 1910. Serial No. 537,269. (Cl. 155—22.)



1. A body support comprising a back provided with an opening embodying an enlarged portion through which a part of the clothing of the occupant may be passed and a relatively restricted portion or communicating slot, adapted to subsequently receive and wedge the clothing, a pair of rigid waist supporting arms disposed at opposite sides of the back and a carrying member therefor adjustable in the slot.

2. A body support comprising a back provided with an opening embodying an enlarged portion through which a part of the clothing of the occupant may be passed and a relatively restricted portion or communicating slot adapted to subsequently receive and wedge the clothing, a pair of rigid waist supporting arms disposed at opposite sides of the back and laterally thereof, a carrying member therefor adjustable in the slot in the back and a securing member pivoted to the carrier to move across the back transversely of the slot to wedge a projecting portion of such clothing between it and the back.

3. The combination with a body support including a back having a vertical slot or guide therein, of a vertically adjustable spindle extending through the slot and provided with a head on one side of the back, a pair of waist supporting arms arranged at either side of the support having shank portions embodying rack bars guided in the head, a gear loosely mounted on the spindle to coöperate with both rack bars and insure simultaneous lateral adjusting movements of the arms in opposite directions, and a clamping member engaging the spindle on the other side and reacting against the latter to lock the shank portions of the arms between the head and back against both vertical and lateral movement.

4. The combination with a body support including a back, of a spindle extending through the back and provided with a head on one side of the latter, a pair of

waist supporting arms arranged at either side of the support having shank portions embodying rack bars guided in the head, a gear loosely mounted on the spindle to coöperate with both rack bars and insure simultaneous lateral adjusting movements of the arms in opposite directions and a clamping member engaging the spindle on the other side of the back and reacting against the latter to lock the shank portions of the arms between the head and back in their different positions of lateral adjustment.

5. The combination with a body support including a back, of a spindle extending through the back and provided with a head on one side of the latter, a pair of waist supporting arms arranged at either side of the support having shank portions guided beneath the head to permit lateral adjustment of the arms in opposite directions and a clamping member engaging the spindle on the other side of the back and reacting against the latter to lock the shank portions of the arms between the head and back in their various positions of adjustment.

[Claims 6 to 8 not printed in the Gazette.]

1,074,616. VALVED STOPPER FOR SIPHON AND OTHER BOTTLES. THEODORE FRANCIS GARRETT, London, England, assignor to Charles Cary-Elwes, Eltham, England. Filed Dec. 21, 1912. Serial No. 737,951. (Cl. 215—115.)



1. The herein described rubber valve closing spring for siphon and other bottle stoppers, having a number of pillars slightly sloped inward and tied together by thinner webs or connecting walls which together with the pillars fulfil the function of definitely gripping the valve plunger at the upper part of the spring.

2. The herein described valve stopper comprising a body having a square shaped recess therein, a rubber valve closing spring, the underside of which is of a square configuration, such spring having a number of pillars slightly sloped inward and tied together by thinner webs or connecting walls which together with the pillars fulfil the function of definitely gripping the valve plunger at the upper part of the spring, and a square head upon the valve stem between which and the bottom of said recess the said spring is located.

1,074,617. NAIL-PULLER. ISAAC NEWTON HALEY, Philadelphia, Pa. Filed Sept. 30, 1912. Serial No. 723,145. (Cl. 145—42.)

1. A nail puller comprising a base member having parallel slotted sides, and side plates at opposite sides of the base member, nail gripping members pivotally connected to the base member and having slots therein above other pivotal connection, devices projected through the base member and the side plates and through the slots in the nail gripping members, a handle member positioned between the nail gripping members and having a wedge shaped enlargement adapted to engage the nail gripping members, a transverse bar on the handle movable in the slots in the casting, said handle having a longitudinal slot therein, and a rivet projected through the upper ends of the side plates and through said slot in the handle, substantially as described.

2. A nail puller comprising a base having an extension thereon constituting a fulcrum, nail gripping members pivotally supported by the base, and a wedge shaped handle connected to the base and movable longitudinally between the nail gripping members, whereby the movement of the handle in one direction forces the ends of the nail gripping members toward each other, substantially as described.



3. A nail puller comprising a base having an extension thereon constituting a fulcrum, nail gripping members pivotally supported by the base, and a wedge shaped handle connected to the base and movable longitudinally between the nail gripping members, whereby the movement of the handle in one direction forces the ends of the nail gripping members toward each other, and said nail gripping members extended above the base and adapted to be moved toward the handle to move them apart at their nail engaging ends, substantially as described.

4. A nail puller comprising a base having an extension thereon constituting a fulcrum, nail gripping members pivotally supported by the base, and a wedge shaped handle connected to the base and movable longitudinally between the nail gripping members, whereby the movement of the handle in one direction forces the ends of the nail gripping members toward each other, and said nail gripping members extended above the base and adapted to be moved toward the handle to move them apart at their nail engaging ends, one of said nail gripping members bifurcated at its upper end and adapted to receive the handle in said bifurcated end, substantially as described.

1,074,618. PROCESS OF MANUFACTURING LIGHT FIRE-BRICK. MASAHIDE HANABUSA, Tokyo, Japan. Filed Feb. 14, 1912. Serial No. 677,511. (Cl. 106—42.)

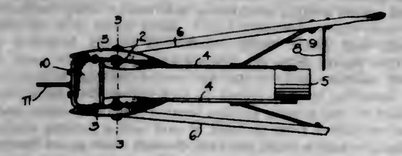
1. Process for producing light-fire bricks which consists in mixing clay of great plasticity with clay of a highly refractory character, adding sulfur mixed with a powdered friable material to the mixture, and finally subjected the mass to heat.

2. Process for producing light fire bricks which consists in mixing clay of great plasticity with clay of a highly refractory character, adding sulfur mixed with a finely divided combustible material to the mixture, and finally subjecting the mass to heat.

3. Process for producing light fire bricks which consists in mixing clay of great plasticity with clay of a highly refractory character, adding sulfur mixed with powdered coal to the mixture, and finally subjecting the mass to heat.

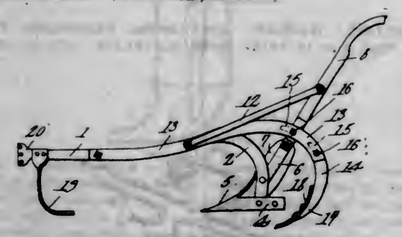
1,074,619. TOBACCO-CULTIVATOR. JOHN MORGAN HARNED, Madisonville, Ky. Filed Feb. 3, 1913. Serial No. 746,075. (Cl. 97—24.)

In a cultivator of the class described, a frame formed of a single strip of metal bent to provide a base, a pair of spaced arms, said arms having portions intermediate the ends thereof converging rearwardly and the remaining portions of said arms on both sides of the rearwardly converging portions being disposed parallel, stub axles projecting laterally from the converging portions of said arms,



disks rotatably mounted on said axles, and means in connection with said axles and disks to incline the latter downwardly and inwardly, said disks being spaced but slightly from the converging portions of said arms, whereby the latter may form cleaners for said disks.

1,074,620. COMBINED PLOW AND SUBSOILER. JOSEPH RICHARDSON HARRISON and GEORGE WILLIAM HOOPER, Nashville, Ark. Filed May 21, 1912. Serial No. 698,805. (Cl. 97—32.)

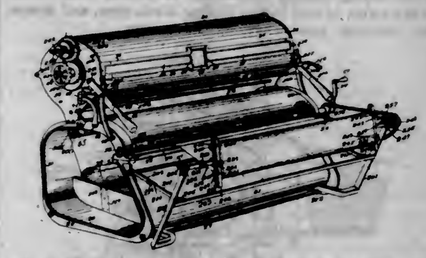


A plow including a beam having a downwardly extending rear portion, a furrow opener connected to said portion, guide strip fixedly connected to each side of the beams, the rear ends of the strips being spaced apart and parallel and curved downwardly and rearwardly, said ends being extended rearwardly beyond the downwardly curved portion of the beam, a curved stock slidably mounted between the guide strips and having arcuate slots, means extending through the slots and guide strips for binding said guide strips upon the stock to hold the stock against movement, and a sub-soil blade secured to the stock, said blade being adjustable angularly by sliding the stock between the guide strips and along the line of curvature of the same, the blade being maintained at the same distance from the heel of the plow at all points of adjustment of the blade.

1,074,621. CLOTH MEASURING AND REWINDING MACHINE. OTTO A. HECKEL, CHARLES M. KACHEL, WILLIAM F. GOESSLING, and HENRY E. PAUK, St. Louis, Mo., assignors to Clothmeter Manufacturing Company, a Corporation of Missouri. Filed Dec. 30, 1909. Serial No. 535,691. (Cl. 73—9.)

1. In a cloth-measuring and re-winding machine, the combination of a receptacle adapted to receive and hold a bolt of cloth to be measured and unwound; two lower friction rollers mounted parallel with said receptacle; an upper friction roller adapted to engage with the upper faces of said lower friction rollers; a crank whereby said upper friction roller is actuated; a re-winding shaft actuated simultaneously with the friction roller; a bracket supporting said rewinding shaft; a scaled collar, and actuating means interposed between the friction roller and said scaled collar, substantially as described.

2. In a device of the class described, a frame; means carried by the frame for holding a bolt of cloth in revoluble position; two lower horizontal and parallel friction rollers mounted parallel with the bolt; an upper friction roller pivotally carried by the frame and having operative frictional contact with the upper faces of the lower rollers; a scaled collar revolubly mounted on the frame; means adapted to convey rotative movement from the upper friction roller to said scaled collar; a re-winding shaft carried by the frame parallel with the rollers; and a friction means whereby the re-winding shaft is revolved simultaneously with the upper friction roller, substantially as described.



3. In a cloth-measuring and re-winding machine, the combination of a receptacle adapted to receive and hold a bolt of cloth to be measured and unwound; two lower friction rollers mounted parallel with said receptacle; an upper friction roller adapted to engage with the upper faces of said lower friction rollers; a crank whereby said upper friction roller is actuated; a re-winding shaft actuated by a chain connection with said upper friction roller; a scaled collar; actuating means interposed between the friction rollers and said scaled collar; the re-winding shaft being provided with adjustable means for holding a board upon which the cloth is to be re-wound, substantially as described.

4. In a device of the class described, a frame; means carried by the frame for holding a bolt of cloth in revoluble position; two lower horizontal and parallel friction rollers mounted parallel with the bolt; an upper friction roller pivotally carried by the frame and having operative frictional contact with the upper faces of the lower rollers; a scaled collar revolubly mounted on the frame; means adapted to convey rotative movement from the upper friction roller to said scaled collar; a re-winding shaft detachably carried by the frame and parallel with the rollers; means whereby the re-winding shaft is revolved simultaneously with the friction rollers; the re-winding shaft being provided with adjustable and friction means for holding and operating a board upon which the cloth is to be re-wound, substantially as described.

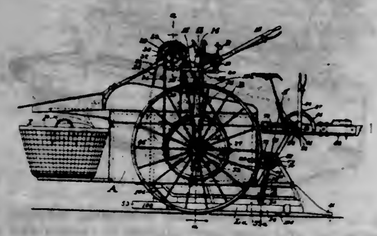
5. In a cloth-measuring and re-winding machine, the combination of a frame; a cloth receptacle carried by said frame; a price-computing drum revolubly mounted in said frame, said drum having means whereby it is restored to its initial zero upon the completion of each measuring operation; means whereby said price-computing drum is revolved by the withdrawal of cloth from said receptacle; a secondary frame detachably mounted upon the first-named frame; a re-winding shaft carried by said secondary frame; means whereby said re-winding shaft is revolved by the withdrawal of cloth from said receptacle; a measurement wheel provided with a scale and carried by the first-named frame; and means for detachably connecting said measurement wheel with said price-computing drum, whereby said wheel is revolved by the revolution of said drum, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,074,622. COTTON-PICKER. ORLEY C. HOUGHTON, Chicago, Ill., assignor to Henry E. and James E. Bullock, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,396. (Cl. 56—118.)

1. A cotton harvester, including, in combination, a machine body mounted on wheels, cotton picking mecha-

nism in said machine body, means for operating said cotton picking mechanism, and a guard below said machine body, said guard being constructed to lift branches of cotton plants from the ground and support the same in said machine body while the cotton picking mechanism is operating in said plants to pick cotton therefrom, said guard underlying the cotton picking mechanism in front and in the rear thereof, a conveyer constructed to conduct cotton carried upon the rear portion of said guard forwardly to that portion of said guard which is in front of the cotton picking mechanism to present said cotton to the action of said cotton picking mechanism, and means for operating said conveying mechanism.



2. A cotton harvester, including, in combination, a machine body mounted on wheels, cotton picking mechanism in said machine body, means for operating said cotton picking mechanism, and a guard below said machine body and connected thereto, said guard being constructed to lift branches of cotton plants from the ground and support the same in said machine body while the cotton picking mechanism is operating to pick cotton therefrom, said guard comprising two shelves underlying the cotton picking mechanism in front and in the rear thereof, conveying mechanism constructed to conduct cotton carried upon that portion of each shelf which is in the rear of the cotton picking mechanism forwardly and in front of said cottotn picking mechanism to present said cotton to the action of said cotton picking mechanism, and means for operating said conveying mechanism.

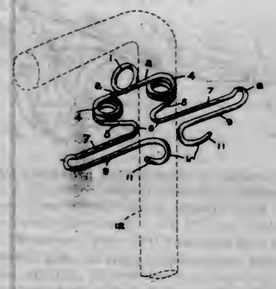
3. A cotton harvester, including, in combination, a machine body mounted on wheels, cotton picking mechanism in said machine body, means for operating said cotton picking mechanism, and a guard, said guard being constructed to lift branches of cotton plants from the ground and support the same in said machine body while the cotton picking mechanism is operating in said plants to pick cotton therefrom, said guard extending from in front of said cotton picking mechanism to and beyond the rear thereof, said guard having a main portion located in said machine body and side extensions projecting laterally therefrom, there being upon said side extensions conveying mechanism constructed to transport cotton carried upon the rear end of said guard forwardly past the sides of said machine body to the forward end of said guard to present said cotton to the action of said cotton picking mechanism, and means for operating said conveying mechanism.

4. A cotton harvester, including, in combination, a machine body mounted on wheels, cotton picking mechanism in said machine body, means for operating said cotton picking mechanism, and a guard connected to said machine body, said guard being constructed to lift branches of cotton plants from the ground and support the same in said machine body while the cotton picking mechanism is operating to pick cotton from the said plants, said guard extending from in front of said cotton picking mechanism to and beyond the rear thereof, said guard comprising two main portions located in said machine body in spaced relation, each main portion having a side extension projecting laterally from the side of said machine body, there being upon each side extension conveying mechanism constructed to transport cotton carried upon the rear end of its main portion forwardly past the side of said machine body to the forward end of each main portion of said guard to present said cotton to the action of said cotton picking mechanism, and means for operating said conveying mechanisms.

5. A cotton harvester, including, in combination, a machine body mounted on traction wheels, cotton picking mechanism in said machine body, means for operating said cotton picking mechanism said means being connected to said traction wheels, and a guard below said machine body, said guard being constructed to lift branches of cotton plants from the ground and support the same in said machine body while the cotton picking mechanism is operating in said plants to pick cotton therefrom, said guard having a main portion located in said machine body and extending from in front of said cotton picking mechanism, to and beyond the rear thereof, said guard having side extensions, projecting laterally therefrom, there being upon said side extensions conveying mechanism constructed to transport cotton carried upon the rear end of said guard forwardly to the front end thereof into said machine body, to present said cotton to the action of the cotton picking mechanism, and means for operating said conveying mechanism, the latter means being connected to said cotton picking mechanism and operating simultaneously therewith.

[Claims 6 to 17 not printed in the Gazette.]

1,074,623. HANGER. JOHN IRVINE, Philadelphia, Pa. Filed Apr. 18, 1913. Serial No. 761,868. (Cl. 15—6.)



1. A hanger of the character described, comprising a single piece of spring wire having its intermediate portion bent into circular form with the ends of the wires crossed forming an eye, coils formed in the wire at opposite sides of the eye, the ends of the wires then projecting inwardly toward each other, and then outwardly in opposite directions, then curved upwardly, then extended toward each other substantially in parallelism with the outwardly bent portion, then curved outwardly and upwardly forming a clamp having four contact points and having a curved entrance thereto, substantially as described.

2. A hanger of the character described, comprising a single piece of spring wire having its intermediate portion bent into circular form with the ends of the wires crossed forming an eye, coils formed in the wire at opposite sides of the eye, said coils having their inner edges in substantially the same vertical plane as the eye, the ends of the wires then projecting inwardly toward each other and then outwardly in opposite directions, then curved upwardly, then extended toward each other substantially in parallelism with the outwardly bent portion, then curved outwardly and upwardly forming a clamp having four contact points and having a curved entrance thereto, substantially as described.

3. A hanger of the character described, comprising a single piece of spring wire bent between its ends forming an eye, coils at opposite sides of the eye, said wire bent at its ends forming four hangers, and a spring clamp, said spring clamp having four contact points and a relatively wide entrance, substantially as described.

4. A hanger of the character described, comprising a single piece of wire bent between its ends forming an eye, coils at opposite sides of the eye, arms projecting in opposite directions and each comprising two parallel sections of wire, the inner ends of said sections spaced apart whereby an article clamp is formed having four contact points, and the ends of the wire flared apart forming an entrance to said clamp, substantially as described.

1,074,624. RADIATOR VENT-VALVE. ANDREW JACKSON, Chicago, Ill. Filed Mar. 14, 1913. Serial No. 754,290. (Cl. 237—19.)



1. A radiator vent comprising a shell having an inlet and a valve controlled outlet, a bent tube located in the shell and connected to the outlet, the inlet end of the tube being at the top of the shell from which it extends downward and then upward to the aforesaid outlet.

2. A radiator vent comprising a shell having an inlet and a valve controlled outlet, a bent tube located in the shell and connected to the outlet, the inlet end of the tube being at the top of the shell from which it extends downward and then upward to the aforesaid outlet, and muffling means in the tube.

3. A radiator vent comprising a shell having a bottom inlet and a top neck, a plug seating in the neck and having an outlet channel and a valve seat therefor, a cap closing the neck, said cap having an outlet and carrying a valve for the seat, and a bent tube in the shell and connected to the outlet channel of the plug.

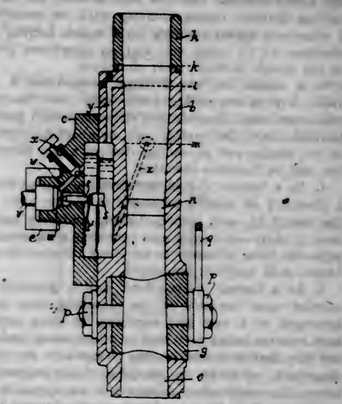
4. A radiator vent comprising a shell having a bottom inlet and a top neck, a plug seating in the neck and having an outlet channel and a valve seat therefor, a cap closing the neck, said cap having an outlet and carrying a valve for the seat, a bent tube in the shell and connected to the outlet channel of the plug, and muffling means in the tube.

5. A radiator vent comprising a shell having a bottom inlet and a top neck, a plug seating in the neck and having an outlet channel and a valve seat therefor, a cap mounted on the neck, said cap having an outlet and carrying a valve for the seat, said cap being adjustable on the neck to effect adjustment of the valve, and a bent tube in the shell connected to the outlet channel of the plug.

[Claim 6 not printed in the Gazette.]

1,074,625. CARBURETER. ERIC TOWNSEND JOHNSON, Timperley, and WILLIAM HENRY GLASER and HAROLD RHYS LLOYD, Cheadle Hulme, England. Filed Mar. 30, 1912. Serial No. 687,208. (Cl. 48—155.1.)

1. In a carbureting apparatus, the combination of a pipe of gradually varying section with two openings therein at points of different section, the said sections being of areas such that the fluid pressure differences between said openings caused by the flow of air through the pipe at varying speeds and the corresponding varying pressures at the two openings are substantially proportional to the square of the quantity of air flowing at the various speeds, connecting passages between said openings and means for supplying spirit to one of the passages under a gaseous pressure head determined by the other passage.



2. In a carbureting apparatus, the combination of a pipe of gradually varying section with two openings therein at points of different section, the said sections being of areas such that the fluid pressure differences between said openings caused by the flow of air through the pipe at varying speeds, and the corresponding varying pressures at the two openings are substantially proportional to the square of the quantity of air flowing at the various speeds, a chamber and means of supplying spirit thereto, a passage leading from the opening at the larger section of the pipe to the upper part of said chamber, and another passage leading from below the level of the spirit in said chamber to the opening in the pipe at the smaller section thereof.

3. In a carbureting apparatus, the combination of a pipe of gradually varying section formed with an intermediate throat whose free sectional area is more than sixty per cent. of the sectional area at the inlet of the pipe, said pipe having two apertures, one at a point of larger section and the other at a point of smaller section, connecting passages between said apertures, and means for supplying spirit to one of said passages under a gaseous pressure head determined by the other passage.

4. In a carbureting apparatus, the combination of a pipe of gradually varying section contracting from the inlet end to a throat whose free sectional area is more than sixty per cent. of the sectional area at the inlet, said pipe being formed with two apertures at points of different sectional area, both at the side of the throat at which the inlet lies, connecting passages between said apertures, and means for supplying spirit to one of said passages under a gaseous pressure head determined by the other passage.

1,074,626. BURNER. WILLIAM WALLACE KEMP and WILLIAM H. VAN HORN, Baltimore, Md. Filed Apr. 26, 1913. Serial No. 763,761. (Cl. 158—105.)



1. In combination with a pipe manifold, of a plurality of nozzles carried thereby, each of said nozzles comprising a casing, having a gas collecting chamber, and an ignition

chamber, an apertured plug arranged in the casing between said chambers, and a stem upon the inner end of said casing engaging the manifold and having a small perforation therein constituting a source of communication between the manifold and the collecting chamber.

2. In a burner, and in combination, a pipe-manifold, a plurality of nozzles arranged in a row upon one side of the pipe-manifold, each of said nozzles having a gas collecting chamber communicating with the manifold through a relatively small opening, said nozzle having an ignition chamber at its outer end and an apertured plug disposed in the nozzle between said chambers.

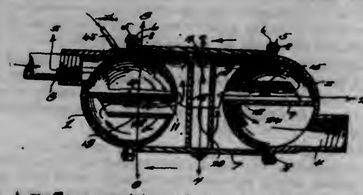
3. A nozzle for gas burners comprising a casing provided with a depending stem, said stem having a single relatively small perforation through which gas may be introduced into the casing, and an apertured plug arranged in the casing and providing therein a gas collecting chamber and an ignition chamber.

4. In a burner and in combination a pipe-manifold, and a plurality of nozzles arranged in a row upon one side of the manifold, said nozzles having abutting ignition chambers in their outer ends and provided with recesses in their adjacent sides whereby to establish intercommunication between said ignition chambers.

5. In a burner, a manifold, and a plurality of nozzles carried upon one side of the manifold, said nozzles being arranged in a row and abutting at their adjacent sides, said nozzles being provided in their outer ends with combustion chambers and having recesses in the walls of said chambers, whereby to establish intercommunication between the combustion chambers of said nozzles.

[Claims 6 to 11 not printed in the Gazette.]

1,074,627. MUFFLER OR SILENCER FOR GAS-ENGINES. CHARLES HILTON KENNEY, New London, Conn. Filed Mar. 29, 1913. Serial No. 757,635. (Cl. 121—116.)



1. A muffler comprising a hollow spherical member provided with a centrally disposed division plate, an arched plate on said division plate forming an arched passage, chambers, one upon each side of the division plate, openings in said division plate forming communications between said chambers, said chambers together with the arched passage forming a sinuous passage or course for products of combustion, and an inlet to said sinuous passage.

2. A muffler comprising a hollow spherical member provided with a centrally disposed division plate, an arched plate on said division plate forming an arched passage, chambers, one upon each side of the division plate, openings in said division plate forming communications between said chambers, said chambers together with the arched passage forming a sinuous passage or course for products of combustion, and an inlet to said sinuous passage, a cylinder secured to the spherical member and provided with baffle means forming an undulated passage into which the products of combustion from the sinuous passage enters.

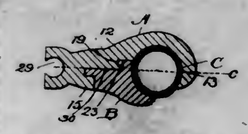
3. A muffler comprising a casing having sinuous passages at its ends, and provided with baffle means between said passages forming an undulated passage, the adjacent ends of said sinuous passages being offset from one another.

4. A muffler comprising a casing having spherical members at each end provided with sinuous passages, one having an inlet to the muffler, while the other has an outlet for the muffler, the opposite adjacent ends of said sinuous passages being offset from one another, said casing including a cylinder connecting said spherical members, baffle means in said cylinder forming an undulated passage of communication between said sinuous passages.

5. A muffler comprising a casing having sinuous passages at its ends, and provided with baffle means between said passages, and a fluid ejecting nozzle for ejecting the fluid into one of the sinuous passages.

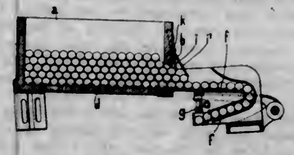
[Claim 6 not printed in the Gazette.]

1,074,628. CLAMPING DEVICE. WILLIAM H. KIRKBRIDE, Cleveland, Ohio. Filed Sept. 14, 1912. Serial No. 720,435. (Cl. 5—55.)



In a clamp for a cylindrical post, a main clamping member comprising a body provided at one end with a clamping jaw and provided between its ends and at one side thereof with a transverse recess, an auxiliary clamping member movable in said recess, said members having inclined abutting faces which give said auxiliary clamping member, when it is moved along said recess, a clamping movement toward the jaw of the main clamping member, said jaw and auxiliary clamping member having inner cylindrical clamping surfaces which extend on both sides of the central axis of the clamp.

1,074,629. AUTOMATIC WEFT-BOBBIN-EXCHANGING DEVICE FOR LOOMS. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Nov. 1, 1911. Serial No. 657,996. (Cl. 139—85.)

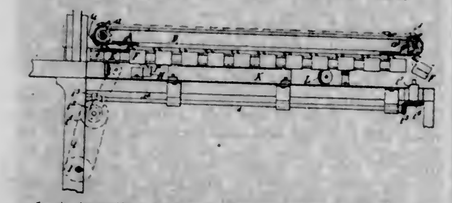


1. In an automatic weft bobbin exchanging device for looms of the kind above referred to, the arrangement of a bobbin magazine in form of a substantially rectangular box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having a slightly inclined base with a guide-rail thereon for the bobbins of the lowest layer and being provided with a lower bobbin exit opening, a movable transferrer for transferring the bobbins into the working shuttle, a guide-channel for conveying the bobbins from the box directly to said transferrer, and a movable retaining device outside the box for retaining the superposed bobbin layers with the exception of the lowest one which is entirely free to pass onto the transferring guide-channel under the pressure of the supply of bobbins in the magazine, substantially as described.

2. In an automatic weft bobbin exchanging device for looms of the kind above referred to, the arrangement of a bobbin magazine in form of a box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having a slightly inclined base with a guide-rail thereon or the bobbins of the lowest layer and being provided with a lower bobbin exit opening, a movable transferrer for transferring the bobbins into the working shuttle, a guide-channel for conveying the bobbins from the box directly to said transferrer, and two movable retaining members outside the box so arranged with regard to said opening and guide-channel as to form a stop respectively for the second and third lowest row of bobbins of the supply of bobbins, while they leave free the lowermost row of bobbins, substantially as described.

3. In an automatic weft bobbin exchanging device for looms of the kind above referred to, the arrangement of a bobbin magazine in form of a box without any inner partition wall for receiving a plurality of superposed layers of bobbins, said box having a slightly inclined base with a guide-rail thereon for the bobbins of the lowest layer and being provided with a lower bobbin exit opening, a movable transferrer for transferring the bobbins into the working shuttle, a guide-channel for conveying the bobbins from the box directly to said transferrer, and two hinged retaining members outside the box, of different operative length and of such a weight as to be limited in their outward oscillating movement, said retaining members constituting a stop respectively for the second and third lowest row of bobbins of the supply of bobbins while leaving free the lowermost row of bobbins, substantially as described.

1,074,630. CAN-GRIPPING DEVICE. PETER KRUSE, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed July 9, 1912. Serial No. 708,458. (Cl. 113—115.)



1. A traveling device for gripping cans and the like, comprising a pair of jaws pivotally connected, one of which is adapted to grip the inner surface of a can and the other of which is adapted to grip the outer surface of a can, a carrier for said jaws, fixed guides extending the length of the operative travel of the jaws between which said jaws travel and which hold the jaws in gripping position upon a can, means for bringing said jaws together before they enter the guides, and said jaws adapted to separate and release the can upon emerging from said guides.

2. A traveling device for gripping cans and the like, comprising an upper jaw, a lower jaw pivoted thereto, upper and lower guides adapted to hold said jaws in gripping position, said jaws adapted to separate and release the can upon emerging from said guides, a tail-piece on said lower jaw, and a fixed projection on the machine adapted to be engaged by said tail-piece and to swing the lower jaw to position to enter the lower guide.

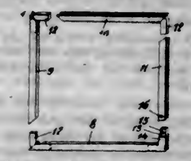
3. A traveling device for gripping cans and the like, comprising an upper jaw, a lower jaw pivoted thereto, fixed guides adapted to engage said jaws and to hold the same in position, means for carrying said jaws, said lower jaw adapted to swing on its pivot and to release the can upon emerging from its guide, a tail-piece on said lower jaw, and a fixed projection on the machine adapted to be engaged by said tail-piece and to swing the lower jaw to position to enter the lower of said guides.

4. A traveling device for gripping cans and the like, comprising a flexible continuous carrier, gripping devices secured at intervals thereto, each comprising an upper jaw, a guide overlying a portion of said jaw and adapted to hold the same against movement out of gripping position, a lower jaw pivoted to said upper jaw, and a channel guide holding said lower jaw against movement out of gripping position.

5. A traveling device for gripping cans and the like, comprising a flexible continuous carrier, gripping devices secured at intervals thereto, each comprising an upper jaw, a guide overlying a portion of said jaw and adapted to hold the same against movement out of gripping position, a lower jaw pivoted to said upper jaw, a channel guide holding said lower jaw against movement out of gripping position, said lower jaw adapted to swing on its pivot and to release the can upon emerging from its guide, a tail-piece on said lower jaw, and a fixed projection on the machine adapted to be engaged by said tail-piece and to swing the lower jaw to position to enter said channel guide.

[Claims 6 and 7 not printed in the Gazette.]

1,074,631. METALLIC WINDOW AND DOOR. ALBERT LESLIE LAMBERT, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Oct. 27, 1911. Serial No. 657,035. (Cl. 189—78.)



1. The combination of a frame the members of which have grooves on the inner sides thereof, a panel in the frame, and means for holding the panel in position comprising a plurality of disconnected but interlocking retainer-strips lying in the grooves in said members, means at the end of each retainer-strip fitting within the end of the next adjacent strip, and means for securing the end of one of the strips in position, substantially as set forth.

2. The combination of a frame the members of which have grooves on the inner sides thereof, a panel in the frame, and means for holding the panel in position comprising a plurality of disconnected but interlocking retainer-strips lying in the grooves in said members, a plurality of angle-pieces each having one end secured to the end of a strip and the other end projecting laterally from the strip and entering within the end of the next adjacent strip and means for securing the end of one of the strips in position, substantially as set forth.

3. The combination of a frame the members of which have grooves in the inner sides thereof, a panel in the frame, and means for holding the panel in position comprising a plurality of retainer-strips of U-shaped cross-section and mitered at their ends, a plurality of angular corner-pieces each having one end fitting within and secured to a strip and the other end extending laterally from the strip and entering the end of the next adjacent strip, and means for securing one of the strips in position, substantially as set forth.

4. The combination of a sash consisting of frame-members secured together at their ends and each formed of sheet-metal bent to a rectangular cross-section and to form a lengthwise flange and a groove parallel thereto on the inner side thereof, a pane of glass within the sash positioned by the flange on the members of the sash, and a retainer-frame lying in the said grooves, said retainer-frame consisting of a plurality of strips each extending along one of the frame-members of the sash, and each of a plurality of said strips consisting of a sheet-metal piece of U-shaped cross-section mitered at its ends and having an angle-piece secured to one end thereof and extending laterally therefrom for coaction with the end of the next adjacent strip, substantially as set forth.

5. The combination of a frame the members of which have grooves in the inner sides thereof, a panel in the frame, and means for holding the panel in position comprising a plurality of retainer-strips of U-shaped cross-section and mitered at their ends, a plurality of angular corner-pieces each having one end fitting within and secured to a strip and the other end extending laterally from the strip and entering the end of the next adjacent strip, a retainer-strip mitered at one end and coacting with a corner-piece at said end and having the other end

squared, and means for securing said squared end of the last-named retainer-strip in position, substantially as set forth.

1,074,632. CHAIN. WALTER B. LASHAR, Bridgeport, Conn. Filed Jan. 12, 1911. Serial No. 602,184. (Cl. 59—78.)



1. The chain comprising curbed links having ends formed of the twisted gripping ends of the link material, each end of the link material being flattened and having its tip substantially three-quarters inclosing the adjacent neck of the other end of the link material, said twisted ends being swaged to substantially uniform section and provided with a wearing notch on the inside of said link end between said gripping tips and having the lapped ends of the link material at the outer end of each link electrically welded.

2. The chain comprising links having ends formed of the twisted gripping ends of the link material, each end of the link material being flattened and having its tip substantially three-quarters inclosing the adjacent neck of the other end of the link material, said twisted ends being swaged to substantially uniform section and provided with a wearing notch on the inside of said link end between said gripping tips.

3. The chain comprising links having ends formed of the twisted gripping ends of the link material, each end of the link material being flattened and having its tip passed under and partly around the adjacent neck of the other end of the link material, said twisted ends being swaged to substantially uniform section and provided with a wearing notch on the inside of said link end between said gripping tips.

4. The chain comprising links having ends formed of the interlocked gripping ends of the link material, each end of the link material having its tip passed beneath and partly around the adjacent other end of the link material, said interlocked ends being swaged together and provided with a wearing notch on the inside of said link end between said gripping tips.

5. The chain comprising links having ends formed of the interlocked gripping ends of the link material, each end of the link material having its tip passed partly around the adjacent other end of the link material, said interlocked ends being swaged together and provided with a wearing notch on the inside of said link end between said gripping tips and portions of said interlocked ends being welded together.

1,074,633. PROCESS FOR THE MANUFACTURE OF DIETHYL SULFATE. LEON LILIENFELD, Vienna, Austria-Hungary. Filed May 20, 1913. Serial No. 768,702. (Cl. 23—24.)

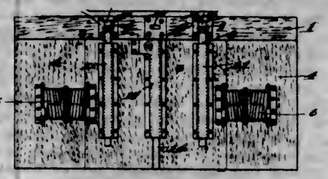
1. A process for the manufacture of diethyl sulfate, which consists in subjecting sodium ethyl sulfate to distillation in a vacuum.

2. A process for the manufacture of diethyl sulfate, which consists in distilling *in vacuo* sodium ethyl sulfate in mixture with a suitable diluting agent.

1,074,634. DRESSING-CASE. HELENE V. A. LORING, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,941. (Cl. 45—99.)

1. A dressing case comprising a hollow body having a compartment therein opening at the upper side of said body; a closure for said body; a hinged connection between said body and said closure permitting of vertical adjustment of said closure when the latter is in upright position; a rack and pinion for vertically adjusting said closure; and means for releasably locking said closure in positions of vertical adjustment, substantially as described.

2. A dressing case comprising a hollow body having a compartment therein opening at the upper side of said body; a closure for said compartment; a hinged connection between said body and said closure permitting of vertical adjustment of said closure when the latter is in upright position; a rack and pinion for vertically moving said closure; and means adapted for coöperation with said pinion for releasably locking said closure in positions of vertical adjustment, substantially as described.



3. A dressing case comprising a body having an open upper side; a cover for said body; a hinged connection between said body and said cover permitting of vertical adjustment of said cover, when the latter is in upright position; a rack bar slidably mounted in said cover; a socket provided in said body, one end of said rack bar being adapted to releasably engage said socket when said cover is in vertical position; a pinion provided in said cover meshing with said rack bar whereby said cover may be moved vertically through rotation of said pinion; and means for releasably locking said cover in positions of vertical adjustment, substantially as described.

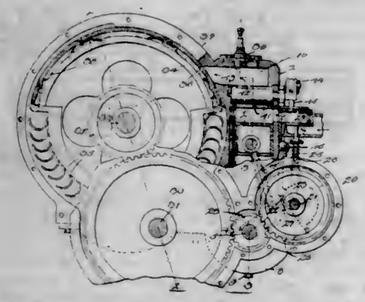
4. A dressing case comprising a body having an open upper side; a cover for said body; a hinged connection between said body and said cover permitting of vertical adjustment of said cover, when the latter is in upright position; a rack bar slidably mounted in said cover; a tapering socket provided in said body, one end of said rack bar being correspondingly tapered for releasable engagement with said socket when said cover is in upright position to support said rack bar in upright position; a pinion mounted in said cover meshing with said rack bar whereby said cover may be moved vertically through rotation of said pinion; and means for releasably locking said cover in positions of vertical adjustment, substantially as described.

5. A dressing case comprising a body having an open upper side; a cover for said body; a hinged connection between said body and said cover permitting of vertical adjustment of said cover when the latter is in upright position; a rack bar slidably mounted in said cover; a socket provided in said body, one end of said rack bar being adapted to releasably engage said socket when said cover is in upright position; a pinion provided in said cover meshing with said rack bar whereby said cover may be moved vertically through rotation of said pinion; and means coöperating with said pinion for releasably locking said cover in positions of vertical adjustment, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,074,635. INTERNAL-COMBUSTION ENGINE. LOUIS A. MARCOTTE, Beverly Cove, Mass., assignor of one-half to William Herd, Beverly Cove, Mass. Filed July 15, 1912. Serial No. 709,553. (Cl. 123—9.)

1. An engine of the character described, including a casing, a rotor mounted in said casing, the casing being provided with an explosion chamber communicating with the rotor casing and with a compression chamber adapted to communicate with the explosion chamber, an oscillatory valve controlling the communication between the compression and explosion chambers, a piston mounted in the compression chamber, means for reciprocating the piston therein, the oscillatory valve being provided at its outer end with a crank arm, a link rod pivotally connected to said crank arm, a rocker bar to which the link rod is connected, a cam shaft provided with a cam, and a push rod engageable by said cam and acting against the rocker bar, for the purpose specified.



2. An engine of the character described, including a casing, a rotor mounted therein and embodying a plural number of parts, the casing being provided with two explosion chambers communicating with the interior of the said casing and with a compression chamber common to both explosion chambers, oscillatory valves controlling the communication between the compression chamber and the explosion chambers, a piston mounted in the compression chamber, means for reciprocating the piston therein, the valves being provided at their outer ends with crank arms, link rods pivotally connected to said arms, a rocker bar to which the link rods are connected, an intake valve adapted to control the passage of an explosive charge into the compression chamber, a valve rod connected to the intake valve, a cam shaft provided with a cam engageable with said valve rod and with other cams, and push rods engageable by said other cams and acting against the rocker bar.

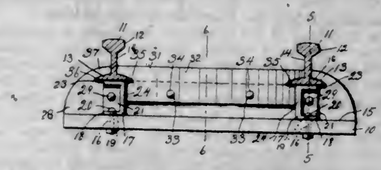
3. An engine of the character described, including a casing, a rotor mounted therein and embodying a plural number of parts, the casing being provided with two explosion chambers communicating with the interior of the casing and with a compression chamber common to both explosion chambers, valves controlling communication between the compression chamber and the explosion chambers, a piston mounted in the compression chamber, means for reciprocating the piston therein, an intake valve adapted to control the passage of a gaseous charge into the compression chamber, and means for opening said intake valve and for also opening the first named valves in alternate relation to each other.

4. An engine of the character described, including a casing, a rotor mounted therein and embodying a plural number of parts, the casing being provided with explosion chambers communicating with the interior of the casing and with compression chambers, oscillatory valves controlling the communication between the compression chambers and the explosion chambers, pistons mounted in the compression chambers, means for reciprocating the pistons therein, the valves being provided at their outer ends with crank arms, link rods pivotally connected to said arms, rocker bars to which the link rods are connected, a cam shaft provided with cams, and push rods engageable by said cams and acting against the rocker bars, for the purpose specified.

5. An engine of the character described, including a casing, a rotor mounted therein and embodying a plural number of parts, the casing being provided with two explosion chambers communicating with the interior of the rotor casing and with a compression chamber common to both explosion chambers, rolling valves controlling the communication between the compression chamber and the explosion chambers, a piston mounted in the compression chamber, means for reciprocating the piston therein, the valves being provided at their outer ends with crank arms, link rods pivotally connected to said arms, a rocker bar to which the link rods are connected, a cam shaft provided with cams, and push rods engageable by said cams and acting against the rocker bar, for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

1,074,636. RAILWAY-TIE. GEORGE W. MASKREY, Willow River, Minn. Filed Mar. 8, 1913. Serial No. 753,124. (Cl. 238—5.)



1. In a tie such as described, the combination with a base, a web disposed upon the base, supporting brackets connecting the web and the base, and a locking bar coöperating with the web.

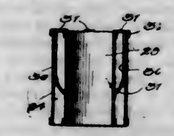
2. In a tie such as described, the combination with a base, brackets secured to the opposite ends thereof, a supporting web disposed within said brackets, said supporting web having notches in the opposite ends thereof, a locking bar engaging said web, and coöperative notches provided in the locking bar.

3. In a tie such as described, the combination with a base plate, brackets secured to the opposite ends thereof, said brackets being formed with passages, a supporting web disposed within said passages, a locking bar engaging the web, a flange formed upon the locking bar to engage one edge of the supporting web and the said locking bar and web being provided with coöperative notches.

4. In a metallic tie, the combination with a base plate, brackets secured thereto, said brackets consisting of supporting plates arranged for connection with the base plate and spaced flanges, a web engaging the base plate and disposed between the flanges of the brackets, said web being notched to engage the supporting plates of the brackets, and locking bars arranged for engagement with the web.

5. In a metallic tie, the combination with a base plate, of brackets secured thereto, said brackets each consisting of a supporting plate, spaced flanges and rail supporting flanges, a web secured to the base plate and having its ends disposed between the spaced flanges of the brackets, said web being provided with notches in the ends thereof, a locking bar arranged for engagement with the web, said bar having a flange formed thereon to engage one edge of the web, and means for bracing the rail engaging flanges.

1,074,637. CUTTER AND SLICER. SANFORD WOOLF MASSEY, South Bellingham, Wash. Filed Sept. 7, 1912. Serial No. 719,148. (Cl. 146—11.)



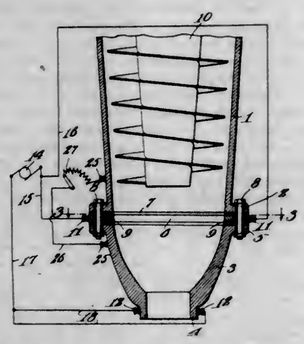
1. In a device of the character described, a material receiving cylinder open at both ends, an insertible cylinder, laterally extending arms secured upon one end of the latter cylinder, each of said arms having an angularly disposed lug formed upon its outer end, and a spring plate formed on said arm adjacent to the lug and extending in parallel relation to the inner cylinder for frictional engagement with the inner wall of the outer cylinder to detachably retain the inner cylinder in position.

2. In a device of the character described, a material receiving cylinder open at both ends, an insertible cylinder, laterally extending arms secured to one end of the

latter cylinder, a spring plate integrally formed on each of said arms and extending longitudinally of the cylinder in frictional engagement with the inner wall of the first named cylinder to a point adjacent the free end of said spring plate, the free end of said plate being inwardly curved and adapted to engage the periphery of the inner cylinder when the same is inserted within said outer cylinder, the longitudinally extending portion of said plate frictionally engaging the wall of the outer cylinder to detachably retain the insertible cylinder therein.

3. In a device of the character described, a material receiving cylinder, a second cylinder insertible within the first named cylinder and disposed in spaced concentric relation thereto, laterally extending arms secured to one end of said insertible cylinder at diametrically opposite points, each of said arms being provided with a lug on its outer end for engagement over the upper edge of said outer cylinder, a spring plate integrally formed with said arm contiguous to said lug and extending in spaced parallel relation to said outer cylinder and in frictional engagement with the inner wall thereof, the free end of said spring plate being inwardly curved and adapted for engagement at its extremity with the periphery of said insertible cylinder.

1,074,638. BRICK-MACHINE. JOHN WATSON MOLTZ, Watsontown, Pa. Filed May 3, 1912. Serial No. 694,806. (Cl. 25—18.)

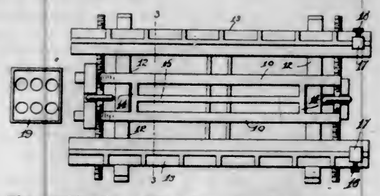


1. In a device of the class described, a continuous support for fictile material, comprising a barrel and die; and an element carried by the support and insulated therefrom; said element being engageable by the fictile material while the material is traversing the support; and an electrical circuit of which said element and the die constitute terminals.

2. In a device of the class described, a continuous support for fictile material, comprising a barrel and a die; an element carried by the support and insuluated from the support, said element being engageable by the fictile material while the same is traversing the support; an electrical circuit of which said element and the die constitute terminals; a connection extending between the barrel and the die and independent of the insulated element; and a variable resistance interposed in the connection.

1,074,639. DOOR-BUILDING DEVICE. HENRY E. MOORE, Atlanta, Ga., assignor of one-half to Frederick Q. Cason, Atlanta, Ga. Filed Apr. 22, 1912. Serial No. 692,296. (Cl. 144—291.)

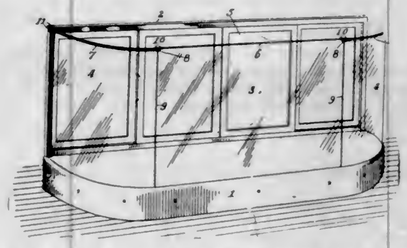
1. In a door building device, the combination with a door clamping machine of an elongated frame for disposition between the jaws of the machine, means for preventing longitudinal movement of the frame relative to the clamping machine, a transversely arranged stop on one end of the frame for engagement by one end piece of the door, and adjustable blocks on the jaws of the clamping machine for engagement by the opposite end piece of the door.



2. The combination with a door clamping machine having stop blocks on the jaws thereof, of a frame for supporting the parts of the door being assembled, said frame being disposed between the jaws of the machine, and having an end stop for holding one end of the door square, said stop blocks being arranged to hold the opposite end of the door square, and being adjustable toward and away from the end stop to accommodate doors of different dimensions.

3. The combination with a door clamping machine having stop blocks on its jaws, of a frame for supporting the parts of the door being assembled, said frame being disposed between the jaws of the machine, and having an end stop for holding one end of the door square, said stop blocks being arranged to hold the opposite end of the door square.

1,074,640. GLASS SHOW-CASE. EDMUND MORRIS, Grand Rapids, Mich., assignor to Wilmarth Show Case Co., Grand Rapids, Mich., a Corporation of Michigan. Filed June 13, 1912. Serial No. 703,497. (Cl. 211—25.)

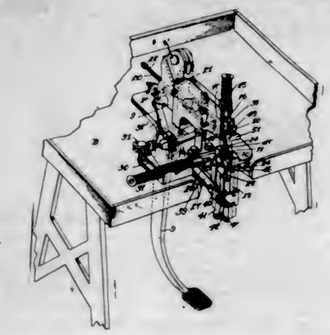


1. A show case comprising a base, a back, a flat front plate, a curved end plate having one edge engaging the back and the opposite edge engaging the front plate, a coupling member including a web portion and opposite flanges which embrace the adjacent upper corners of the plates, the web portion of the coupling having a slot therein, a strap secured in said slot of the web portion of the coupling and extending along the upper edge of said front plate, a strap connected to the coupling and extending between the adjacent edges of the plates, the outer flange of said coupling having a slot therein, a separate flat strap secured at one end in the slot of said outer flange of the coupling and having its inner flat face bearing against the outer side of said curved end plate in spaced relation to the upper edge of the end plate to support the latter against outward lateral displacement, means for attaching the last-named strap to the back, means for tensioning all of said straps, and spaced books on the coupling engaging the edge of the top plate.

2. A show case comprising a base, a back, a flat front plate, a curved end plate having one edge engaging the back and the opposite edge of the front plate, a coupling member including a web portion and opposite flanges and which embrace the adjacent upper corner of the plates, the web portion of the coupling having a slot therein, a strip secured in said slot of the web portion of the coupling and extending along the upper edge of said front plate, the outer flange of said coupling having a slot therein, a flat strip secured at one end in the slot of said outer flange of the coupling and having its inner flat face bearing against the outer side of said curved end plate in spaced relation to the upper edge of the end plate to support the latter against outward lateral displacement, and means for attaching the last-named strip to the back.

1,074,641. BUTTON-MAKING MACHINE. HERMAN MÜLLER, New York, N. Y. Filed July 11, 1912. Serial No. 708,855. (Cl. 79—2.)

1. In a machine of the class specified, the combination of a support for the button blank and a headed pin inserted in an opening therein; means to engage with the head of the pin to maintain the pin in the button and the button in position on the support; means to sever the pin at a predetermined point; means to form the pin into an eyelet; and a lever to actuate all of said means in sequence.



2. In a machine of the class specified, the combination of a support for the button blank and a pin inserted in an opening therein; means to maintain the pin and button in position on the support; means to sever the pin at a predetermined point; means to bend the pin; means to form the bent pin into an eyelet; and a lever to actuate all of said means in sequence.

3. In a machine of the class specified, the combination of a support for the button blank and a pin inserted in an opening therein: means to maintain the pin and button in position on the support; means to sever the pin at a predetermined point; means to bend the pin; means to form the bent pin into an eyelet; a lever to actuate all of said means in sequence; and means to eject the finished button from its support.

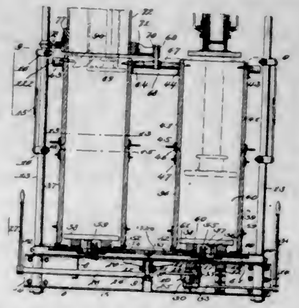
4. In a machine of the class specified, the combination of a support for the button blank and a pin inserted in an opening therein; means to maintain the pin and button on the support; means to sever the pin at a predetermined point; means to bend the pin; means to return said pin bending means to initial position after the pin has been bent; means to form the pin into an eyelet after the pin-bending means has been returned to initial position; means to eject the button from its support; and a lever to actuate all of said means in sequence.

5. In a machine of the class specified, the combination of a support for a button blank and a headed pin inserted in an opening therein; a plunger to engage with the head of the pin and maintain the button blank upon its support; a cutter to sever the pin at a predetermined point; means to bend the pin to form an eyelet; and a lever to actuate all of said means in sequence.

[Claims 6 to 25 not printed in the Gazette.]

1,074,642. BALING-PRESS. STEPHEN D. MURRAY, Dallas, Tex. Filed Feb. 10, 1911. Serial No. 607,794. (Cl. 100—28.)

1. In a baling press, a fixed base, and an elevatable and rotatable supporting means disposed on the base and carrying a plurality of baling boxes, with a fully open space between their inner opposing portions, the said boxes directly resting upon and held by the said supporting means.



2. In a baling press, a fixed base, an elevatable and rotatable supporting means disposed on the base and carrying a plurality of baling boxes, the boxes resting directly upon and supported at their extremities by said means, and cotton supplying and pressing mechanism for coöperation with the boxes, the boxes being pivotally held solely at their upper and lower portions and having a clear space between their inner opposing sides.

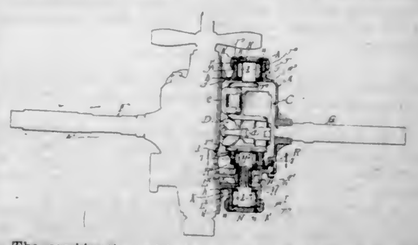
3. In a baling press, a base, an elevatable and rotatable supporting means disposed on the base and carrying a plurality of baling boxes with an unobstructed space between their inner opposing sides, and cotton supplying and pressing means alternately coöperating with the boxes, the said boxes directly resting upon and held by the said supporting means.

4. A baling press embodying an elevatable and rotatable plurality of baling boxes having the pivotal means therefor located solely adjacent to the upper and lower portions thereof, means for effecting the elevation and rotation of said boxes and on which the lower extremities of the boxes directly rest, and means for supplying and pressing material in the boxes.

5. A baling press embodying a plurality of elevatable and rotatable baling boxes having the pivotal means therefor located solely adjacent to the upper and lower portions thereof, a fixed base on which the boxes directly rest and operate, and pressing means alternately operating with the boxes, the boxes during the maximum pressure imposed therein being held positively on the base to remove any strain from the means for elevating and rotating the same.

[Claims 6 to 45 not printed in the Gazette.]

1,074,643. ROLLER-BEARING. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Nov. 30, 1910. Serial No. 594,814. (Cl. 64—62.)



The combination with a casing and a shaft, of an end bearing for said shaft, comprising a cylindric housing provided with a bore concentric with said shaft, and an annular flange at the inner end of said bore, said flange

being provided with transversely extending apertures, a bearing sleeve fitting within said bore and provided at its ends with outwardly extending lugs, the lugs at the inner end thereof being adapted to engage the apertures of the said flange, to prevent the rotation of the said sleeve, a cage containing a plurality of anti-friction rollers, interposed between the shaft and said sleeve, a circular thrust plate extending over the end face of the shaft and bearing against the end surface of the bearing sleeve, said plate being provided at its margin with notches adapted to be engaged by the said lugs on the outer end of said sleeve, to prevent the rotation of said plate relative to the said sleeve, and a cap having screw-threaded engagement with the outer marginal surface of said housing and adapted to bear against the outer surface of said thrust plate.

1,074,644. CORSET-STAY-TIP PROTECTOR. ANNIE E. POWERS, Bishop, Cal. Filed Feb. 25, 1911. Serial No. 610,868. (Cl. 2—76.)



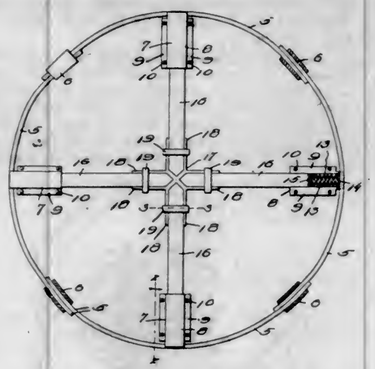
In combination with a corset, a set of stays applied thereto, a fabric covering the stays, a pair of plates of counterpart structure disposed one against the corset and one against the fabric, the said plates at their lower edges being formed with a plurality of indentations piercing the fabric in a line with the lower ends of the stays, the indentations of the two plates abutting at their piercing ends and forming a support for the lower ends of the stays and serving also as a means for securing the plates against displacement with relation to the fabric, the plates being formed adjacent their upper edges with other indentations also piercing the fabric between the outer and intermediate stays of the set and serving to hold the intermediate stays against lateral displacement in the direction of either outer stay and to hold the outer stays against lateral displacement in the direction of the intermediate stay, and rivets secured through the corners of the plates and coöperating with the outer lateral edges of the outer stays of the set whereby to prevent their outward lateral displacement.

1,074,645. INSIDE BRACE FOR SILOS AND TANKS. ELMER ELLSWORTH REED, Chillicothe, Mo. Filed Dec. 6, 1912. Serial No. 735,303. (Cl. 217—4.)

1. In a device of the character described, an expansible and contractible ring, radially disposed rods connected therewith, a hub carrying pairs of spaced extensions to receive the inner ends of the rods therebetween, and loops to be moved onto and off of the pairs of extensions.

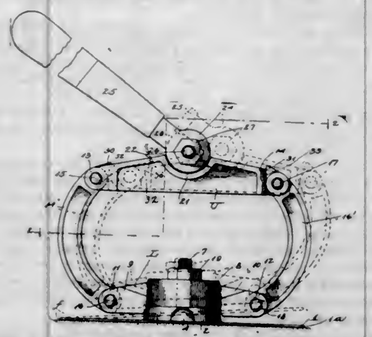
2. In a device of the character described, an expansible and contractible ring, sockets connected therewith, radially disposed rods mounted to reciprocate within the sockets, coiled springs disposed within the sockets between the ends of the rods and the ring, and means connecting the inner ends of the rods.

3. In a device of the character described, a plurality of ring-sections having their adjacent ends overlapping, sleeves surrounding the overlapping adjacent ends, a socket pivotally connected with each of the ring sections, a rod mounted to reciprocate within each socket, a suitably stiff coil spring disposed within each socket between the outer end of the rod and the ring section, and means connecting the inner ends of the rods.



4. In a device of the character described, an expansible ring, a plurality of sockets connected therewith, each socket comprising two parts having openings cut in their outer ends to receive portions of the ring, bolts connecting the two parts, a compressible coil spring mounted within each socket, a reciprocatory rod mounted within each socket, and a hub connecting the inner ends of the rods.

1,074,646. TROWEL. JOSEPH E. RUNNER and IRA M. ABRAM, Dugger, Ind., assignors, by direct and mesne assignments, to Ira M. Abram, Dugger, Ind. Filed Jan. 6, 1911. Serial No. 601,216. (Cl. 72—136.)



1. In a device of the class described, an upper frame, a lower frame, a handle extending from the upper frame, a tool carried by the lower frame and extending parallelly therewith, and links connecting the ends of said upper and lower frames, an intermediate relative position of said frames and links causing said upper and lower frames and tool to be parallel, lateral movement of said upper frame to either side of its intermediate position causing said lower frame and tool to assume an angle with reference to the upper frame.

2. In combination, a tool supporting frame, a tool supported on said frame and adapted to engage a surface to be finished, a link extending upwardly from each end of said supporting frame, a handle frame having pivotal connection with the upper ends of said links, a handle extending from said handle frame, said links being adapted, when said handle frame is moved parallelly with the surface to be finished, to swing the tool supporting frame upwardly into inclined position to carry the advancing end of the tool away from the surface to be finished.

3. In combination, a supporting frame, a finishing tool connected to said frame and adapted to engage a surface to be finished, a handle, a frame at the lower end of said handle, link mechanism pivotally connected with said tool supporting frame and said handle frame and allowing back and forth movement of the handle frame with relation to the tool supporting frame, and means for limiting such relative movement, said link mechanism being adapted, upon back and forth movement of the handle frame, to cause rocking of the tool supporting frame to swing the advancing end of the tool away from the surface to be finished.

4. In a finishing tool the combination with a trowel and a stud carried thereby, of a head block removably attached to said stud, means to hold the head block in adjusted positions on the stud, brackets carried by the head block, links pivotally attached to said brackets, a cross head pivoted to the opposite ends of said links and a handle adjustably attached to said cross head.

5. In a finishing tool, the combination with a trowel having a rib thereon and a stud projecting upwardly therefrom, of a head block removably attached to said stud, brackets having outwardly extending arms thereon, a cross head, links pivoted to said arms and cross head, whereby the cross head will have a swinging movement and a handle adjustably attached to said cross head.

[Claims 6 to 11 not printed in the Gazette.]

1,074,647. COOKING UTENSIL. EMIL SCHMID, Twining City, D. C. Filed Apr. 13, 1912. Serial No. 690,635. (Cl. 53—1.)



1. In a cooking utensil the combination with a meat receptacle, of a plunger within said receptacle, a removable double ratchet bar bearing loosely upon the plunger aforesaid, a removable cover for said receptacle broken by an aperture of greater cross sectional area than the greatest cross sectional area of the ratchet bar projecting upward therethrough, a lever-fulcrum carried by said cover, a removable hand lever provided with means for engaging the said fulcrum and also with means for engaging one set of ratchet bar teeth to forcibly depress said bar, and a ratchet pawl upon the cover aforesaid for engaging the second set of ratchet bar teeth and when so engaged to prevent upward movement thereof.

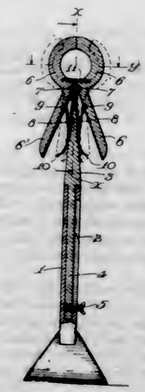
2. In a cooking utensil the combination with a meat receptacle, of a plunger within said receptacle, a removable double faced ratchet bar bearing loosely upon the plunger aforesaid, a removable cover for said receptacle broken by an aperture of greater cross sectional area than the greatest cross sectional area of the ratchet bar projecting upward therethrough, a removable hand lever fulcrumed upon the cover aforesaid and provided with a pawl for engaging one set of teeth upon said ratchet bar to forcibly depress the bar, and a ratchet pawl upon the receptacle cover for engaging the other set of ratchet bar teeth and when so engaged to prevent upward movement thereof.

3. In a cooking utensil the combination with a meat receptacle having a top cover adapted to be secured thereon and a removable bottom, of a plunger within said receptacle, a double ratchet bar passing loosely through the cover and bearing upon the plunger aforesaid, a pair of parallel lugs rising from said receptacle cover, a pawl pin connecting said lugs and projecting upon both sides thereof, a ratchet pawl upon said pin adapted to engage one set of ratchet bar teeth to prevent upward movement, a bifurcated hand lever adapted to fulcrum beneath the projecting ends of said pawl pin, and a pawl pivotally secured between the bifurcated members of the lever aforesaid so as to engage the second set of ratchet bar teeth to forcibly depress the ratchet bar.

4. In a cooking utensil the combination with a meat receptacle, of a plunger within said receptacle, a removable presser bar bearing loosely upon the plunger aforesaid and provided with ratchet teeth, a removable cover for said receptacle broken by an aperture of greater cross sectional area than the greatest cross sectional area of the said presser bar projecting upward therethrough, a lever-fulcrum carried by said cover, a detached hand lever provided with means for engaging said fulcrum and also with means for engaging said presser bar to forcibly depress it, and a ratchet pawl upon the cover aforesaid for engaging teeth upon the presser bar and when so engaged to prevent upward movement thereof.

5. In a cooking utensil the combination with a meat receptacle, of a plunger within said receptacle, a removable presser bar bearing loosely upon the plunger aforesaid, a removable cover for said reeeptacle broken by an aperture of greater cross sectional area than the greatest cross sectional area of the presser bar projecting upward therethrough, a lever-fulcrum carried by said cover, a detached hand-lever provided with means for engaging said fulcrum and also with means for engaging said presser bar to forcibly depress it, and a detent carried by the receptacle cover for engaging the presser bar to prevent accidental upward movement thereof.

1,074,648. TELEPHONE-RECEIVER STAND. MORRIS SCHWARTZBERG, Chicago, Ill. Filed Apr. 17, 1913. Serial No. 761,730. (Cl. 248—3.)

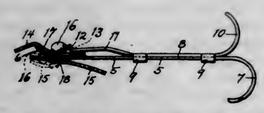


1. A device of the class described comprising a support; a pair of clamping jaws hinged to said support; a downwardly and outwardly extending finger piece on each of said jaws; a leaf spring secured to said support under each of said finger pieces; and a coiled tension spring

secured to each of said jaws at each side thereof and arranged to draw said jaws together, substantially as described.

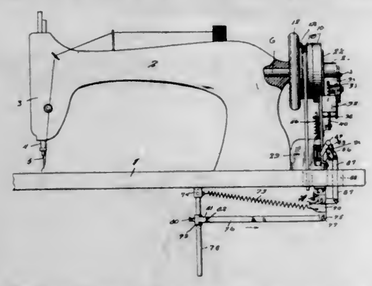
2. A device of the class described comprising an adjustable support; a pair of clamping jaws hinged to said support; a downwardly and outwardly extending finger piece on each of said jaws; a double leaf spring secured to said support under each of said finger pieces, the upper ends of said leaf springs being arranged in contact with said finger pieces and the lower ends being arranged to contact with said finger pieces after partial operation thereof; and a coiled tension spring secured to each of said jaws at each side thereof and arranged to draw said jaws together, substantially as described.

1,074,649. UNBUTTONING DEVICE. JOSEPH F. SCHWERY, Waukegan, Ill., assignor of forty-nine one-hundredths to Frank Flower, Waukegan, Ill. Filed Oct. 7, 1912. Serial No. 724,327. (Cl. 24—40.)



An unbuttoning device comprising a member having one end bifurcated and curved forming button-hole flap supporting fingers; a plunger slidably mounted on said member and having one end offset forming a finger adapted to pass between said button-hole flap supporting fingers, said finger being provided with a button engaging recess in the end of its offset end, substantially as described.

1,074,650. CLUTCH MECHANISM FOR SEWING-MACHINES. ROBERT A. SCRANTON, New York, N. Y., assignor, by mesne assignments, to The Imperial Sewing Machine Company, a Corporation of Delaware. Filed Apr. 11, 1912. Serial No. 690,197. (Cl. 74—46.)



1. The combination with a movable element, of a rod, a finger pivotally connected with the rod, a spring to move the finger into engagement with the movable element when the rod is in one position, means to move the finger out of engagement with the element when the rod is in another position, and means to move the rod.

2. The combination with a movable element, of a rod, a depending finger pivotally connected with the rod and having an extension to engage said element, said finger having an angular portion, a guide pin to engage the angular portion to swing the finger laterally, a spring for swinging said finger laterally, and means to move the rod.

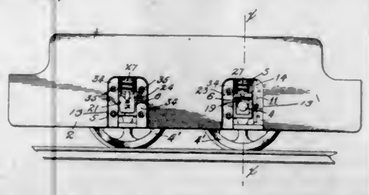
3. The combination with a movable element, of a fixed guide bracket, a rod carrying means engaging said bracket, a depending finger pivotally connected with the rod and having a shoulder to engage said element and provided below the shoulder with an angular portion, a guide pin connected with the bracket to be engaged by said angular portion, a spring to move the finger in one direction, and means to move the rod.

4. In a device of the character described, driving and driven rotatable elements, clutch elements serving to normally rigidly connect the rotatable elements and capable of partaking of restricted movements in one direction with relation thereto, a shifting plate carrying pins engaging the clutch element whereby said shifting plate is bodily rotatable with the driving rotatable element, a movable plate provided with a brake-shoe to engage the driven rotatable element, a latch to normally hold the movable plate against movement in one direction, a spring to quickly move the movable plate in one direction when released, a movable holding element adapted to engage the shifting plate to positively prevent its further rotation, means operated by the movable plate to prevent the movement of the holding element in one direction before said movable plate is released, and means operated by one of the rotatable elements to move the latch which normally holds said movable plate against movement.

5. In a device of the character described, driving and driven rotatable elements, clutch mechanism between the same, a supporting plate disposed near said rotatable elements, a movable brake-plate mounted upon one side of the supporting plate, a shifting plate bodily rotatable with one of the rotatable elements and carrying means to operate the clutch mechanism, a movable holding element mounted upon the opposite side of said supporting plate and adapted to engage the shifting plate, a bolt attached to the brake-plate and extending through an opening in the supporting plate to engage the holding element for controlling its operation, a spring to move the brake-plate in one direction, a spring to move the holding element in one direction, a latch to normally hold the brake-plate against movement in one direction, and means automatically driven by one rotatable element and timed in its operation to move said latch just after a certain portion of the shifting plate has passed the holding element.

[Claims 6 to 10 not printed in the Gazette.]

1,074,651. CAR-AXLE BOX. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Dec. 18, 1905, Serial No. 292,346. Renewed Aug. 23, 1912. Serial No. 716,748. (Cl. 105—113.)



1. In a vehicle of the sort described the combination with the body having the opening 5 in the side thereof and having at each edge of the opening the chamber or recess with an inner wall and a removable outer wall, of the box movable on and off from the end of the axle, and having the laterally projecting guides fitted in the said recesses at the edges of the opening, and the car spring interposed between the box and the upper edge wall of the opening, substantially as set forth.

2. The combination with the body having the opening 5 in its side wherein is positioned the end of the axle and having vertical guideways in the side edges of the said opening, of the axle box having the guide ribs fitted in the said vertical guideways, the front side walls of the guide-ways being removable independently of the rear vertical walls of the guideways, and the spring interposed between the box and the body.

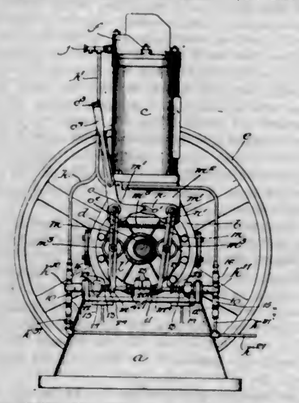
3. The vehicle body having an opening for an outward extension of the axle, said opening being surrounded by an integral mass of metal forming part of the car body and formed with the vertical walls 12 and the recesses 11 alongside of said walls, and having rabbets or recesses 13 in the metal surrounding the said opening, in combination with the axle box having guides fitted in said recess 11 and the bars 34 adapted to be detachably fastened in the recesses 13, substantially as set forth.

4. The vehicle body formed with the aperture 5 in its side walls and having the guide recesses 11 at the edges of the said aperture, in combination with the axle box having upward and downward tapered guides fitted in the said recesses, said box being removable from the axle while the latter is in the said aperture, and means for securing the box against detachment, substantially as set forth.

5. The vehicle body having the aperture 5 with the inner guide wall 12, and the outer removable guide and retaining bars 34, there being guide recesses 11 between the said walls and the said bars, in combination with the axle box having guides 10, and removable wearing plates 14 in the said recesses 11, and fitted around said box guides.

[Claims 6 to 11 not printed in the Gazette.]

1,074,652. GOVERNOR MECHANISM. FRANK W. SEVERIN, Chicago, Ill., assignor to Venn-Severin Machine Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 2, 1911. Serial No. 611,930. (Cl. 123—140.)



1. In an internal combustion engine, the combination of a shaft, a fly-wheel on said shaft, a lever pivoted to the fly-wheel eccentrical with respect to the axis of the shaft and in close proximity to the axis, the lever comprising oppositely extending arms, an eccentric on said lever, a spring having one of its ends connected to the fly-wheel and its other end to one of the arms of said lever, a fuel pump, and means operated by the eccentric for operating the pump.

2. In an internal combustion engine, the combination of a shaft, a fly-wheel on said shaft, a lever movably connected to said fly-wheel and rotated thereby, abutments on the fly-wheel, adjustable stops on the lever for engaging said abutments to limit the movement of the lever, an eccentric operated by said lever, a fuel-pump, and connections for operating the pump by the eccentric.

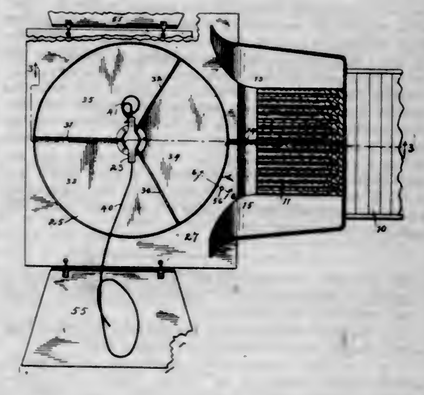
3. In an internal combustion engine, the combination of a shaft, a fly-wheel on said shaft, a lever pivotally and eccentrically connected to said fly-wheel and rotated thereby, an abutment on the fly-wheel, adjustable stops on the lever for engaging said abutment to limit the pivotal movement of the lever, a fuel pump, pump-operating means on the lever and connections for operating the pump by the pump-operating means on the lever.

4. In an internal combustion engine, the combination of a shaft, a lever mounted to be rotated by the shaft and eccentrically pivoted with respect to the axis of the shaft, an eccentric on the lever, a fuel pump comprising a piston and mechanism for operating the pump by the eccentric comprising a lever having a lost-motion connection with the piston and an adjustable stop for varying the stroke of the piston.

5. In an internal combustion engine, the combination of a shaft, a lever mounted to be rotated by and eccentrically pivoted with respect to the shaft, an eccentric operated by said lever, a fuel-pump comprising a piston, and mechanism for operating the pump by the eccentric, comprising a lever having a lost-motion connection with the piston, a spring for operating the piston in one direction, and an adjustable stop for varying the stroke of the piston.

[Claims 6 to 8 not printed in the Gazette.]

1,074,653. SHOCK RECEIVING AND DELIVERING MEANS FOR SHREDDING-MACHINES. JOSEPH K. SHARPE, Jr., Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed Feb. 23, 1911. Serial No. 610,122. (Cl. 214—2.)



1. Shock receiving and delivering mechanism for shredding machines, comprising a mast, a rotary table associated with said mast and having divisional walls constituting shock receptacles, an elevating cable supported by said mast, and winding mechanism communicating with said cable for actuating the same to elevate shocks upon said table.

2. Shock receiving and delivering mechanism for shredding machines, comprising a track, a table mounted on said track and having divisional walls constituting shock receptacles, a mast projecting through said table, a cable carried by said mast, and winding mechanism communicating with said cable for operating the same.

3. Shock receiving and delivering mechanism for shredding machines, comprising a table having a base and divisional walls, and means for movably supporting said table to shift shocks from receiving to delivering positions.

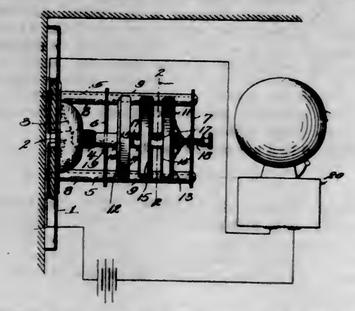
4. Shock receiving and delivering mechanism for shredding machines, comprising a table having a base and divisional walls, a track, anti-friction bearings between said base and track, and means for holding said table in predetermined position.

5. Shock receiving and delivering means for shredding machines, comprising a track, a table mounted on said track and having divisional walls constituting shock receptacles, a mast constituting an axial bearing for said table, means associated with said mast for encircling and

elevating a shock, and means for actuating said shock-elevating means.

[Claims 6 to 9 not printed in the Gazette.]

1,074,654. THERMOSTATIC HEAT OR FIRE ALARM. GEORGE SNYDER SIMPSON, Morgantown, W. Va. Filed May 23, 1912. Serial No. 699,204. (Cl. 177—128.)



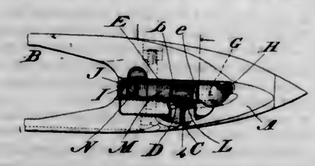
A device of the type set forth, comprising a base having contacts associated therewith and a push button for operating one of the contacts, a plurality of posts projecting from the base, a pair of plates mounted in spaced relation on the posts, one of the plates being intermediate the other plate and the base and having an opening, an expansible body arranged between the plates and including cup-like end heads located adjacent the plates and sections intermediate said heads and each including cup-like members and connecting tubes, the adjacent cup-like parts having telescopically interfitting relation, the cup-like end head adjacent the inner plate having a stem which projects through the opening of said plate for engagement with said push button, the other cup-like end head being anchored to the outer plate.

1,074,655. VETERINARY MEDICINE. JOSEPH T. SLUSHER, Sabetha, Kans. Filed Jan. 27, 1912. Serial No. 673,777. (Cl. 167—10.)

1. A medical compound for the purpose described comprising indigo, sodium chlorid and linseed meal.

2. A medicinal compound for decreasing or preventing menstruation, consisting of indigo, about 16 ounces; chlorid of sodium, about 6 ounces; linseed meal, about 10 ounces.

1,074,656. AUTOMATICALLY-THREADING SHUTTLE. JOHN SMITH, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 15, 1913. Serial No. 759,037. (Cl. 139—46.)



1. An automatically threading shuttle having, in combination, a slotted thread eye; a sheet metal threader having a longitudinal thread passage communicating at its outer end with said eye, a laterally extending beak partly crossing said thread passage, and laterally extending thread guards at opposite ends of said passage; and a thread block located within and at the bottom of said passage, said block having (*a*) a longitudinal thread groove open at both ends with its outer end opposite the shuttle eye and its bottom below the upper portion of the shuttle eye, (*b*) a thread retainer on its front side extending downwardly and rearwardly toward the rear wall of the thread passage but stopping short thereof to leave a narrow throat for the thread, said retainer being located between the thread guards, (*c*) a narrow slot below the bottom edge of said retainer and communicating with said thread groove, and (*d*) an inwardly extending notch on its front side opposite the shuttle eye through which the thread extends from the thread groove to the shuttle eye, said notch having a downwardly and outwardly extending thread directing surface.

2. An automatically threading shuttle having, in combination, a slotted thread eye; a sheet metal threader having a longitudinal thread passage communicating at its outer end with said eye, a laterally extending beak partly crossing said thread passage, and laterally extending thread guards at opposite ends of said passage; and a thread block located within and at the bottom of said passage, said block having a longitudinal thread groove open at both ends with its outer end opposite the shuttle eye and its bottom below the upper portion of the shuttle eye, a thread retainer on its front side extending downwardly and rearwardly toward the rear wall of the thread passage but stopping short thereof to leave a narrow throat for the thread, said retainer being located between the thread guards, and a narrow slot below the bottom edge of said retainer and communicating with said thread groove.

3. An automatically threading shuttle having, in combination, a slotted thread eye; a threader having a longitudinal thread passage communicating at its outer end with said eye, a laterally extending beak partly crossing said thread passage, and laterally extending thread guards at opposite ends of said passage; a thread retainer extending from the front wall of the thread passage downwardly and rearwardly toward the rear wall of the thread passage, but stopping short thereof to leave a narrow throat for the thread, said retainer being between the thread guards; a thread groove below the retainer; a narrow slot below the bottom edge of said retainer and communicating with said thread groove; and an inwardly extending notch at the front side of said groove and opposite the shuttle eye through which the thread extends from the thread groove to the shuttle eye.

4. An automatically threading shuttle having, in combination, a slotted thread eye; a threader having a longitudinal thread passage communicating at its outer end with said eye, a rearwardly and laterally extending beak partly crossing said thread passage, and laterally extending thread guards at opposite ends of said passage; and a thread retainer extending partly across the thread passage but leaving a narrow throat for the thread, said retainer being between the beak and the inner thread guard at the entrance to the thread passage.

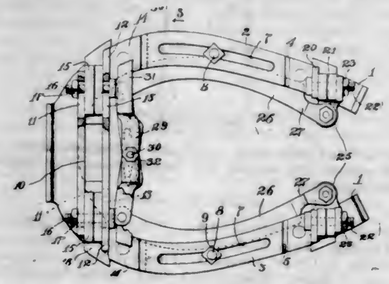
5. An automatically threading shuttle having, in combination, a slotted thread eye; a sheet metal threader having a longitudinal thread passage communicating at its outer end with said eye, and an upturned outwardly inclined shoulder at the entrance to said passage; a block at the bottom of said passage having at its inner end an outwardly and downwardly inclined face; a tension pad between said shoulder and the inner end of said block; and a transverse bolt in the shuttle passing through said threader and said block.

[Claim 6 not printed in the Gazette.]

1,074,657. ANTISLIPPING DEVICE FOR HORSE-SHOES. WILLIAM F. SMYTHE, New York, N. Y. Filed July 16, 1912. Serial No. 709,621. (Cl. 168—30.)

1. In a supplemental horse shoe, in combination, a side plate comprising a laterally extending downwardly projecting flange, a second side plate provided with a laterally extending downwardly projecting flange overlapping said first mentioned flange, said flanges being spaced from one another and in parallelism with one another, a calk interposed between said flanges, and means for holding said calk in position and said side plates from relative movement.

2. In a supplemental horse shoe, in combination, a side plate provided with a laterally extending downwardly projecting flange, a second side plate provided with a laterally extending downwardly projecting flange, said flanges over-lapping one another and being in parallelism with one another, said flanges being provided with registering slots, a calk interposed between said flanges, and fastening means extending through said slots and through said calk to hold the latter in position and to hold said side plates from relative movement, said slots extending in the direction of the length of said flanges whereby the said plates may be moved relatively to one another to vary the distance between the same.



3. In a supplemental horse shoe, in combination, side plates adapted to be positioned beneath the lower surface of a horse shoe, clamping plates pivotally secured thereto at their rear ends, said clamping plates extending throughout, substantially the length of the horse shoe and being bent upward and forward in parallelism with said side plates whereby said clamping plates are adapted to engage the upper surface of the horse shoe, and means connected to the front ends of said clamping plates for moving them inwardly or outwardly.

4. In a supplemental horse shoe, in combination, side plates, upper clamping plates pivotally secured to said side plates adjacent their rear ends, a lower clamping plate, and means operatively connected with said lower clamping plate and with the front ends of said upper clamping plates to move said plates relatively to said side plates whereby the supplemental shoe may be attached to or removed from the horse shoe.

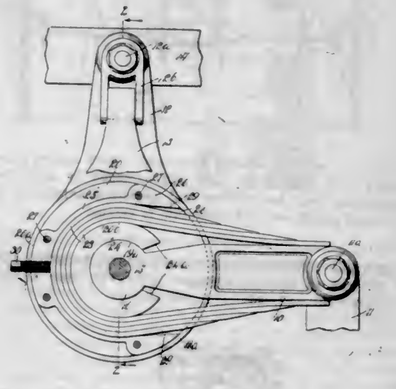
5. In a supplemental horse shoe, in combination, side plates, upper clamping plates pivotally secured thereto, links pivotally secured to the front ends of said upper clamping plates, said links being provided with slots, a bolt passing through said slots to form a toggle joint, a lower clamping plate provided with a hole to receive said bolt, and a nut engaging said bolt.

1,074,658. SHOCK-ABSORBER. CHARLES N. SOWDEN, Guantánamo, Cuba. Filed Sept. 11, 1912. Serial No. 719,739. (Cl. 21—105.)

1. A shock absorber, comprising rotary friction elements, pivoted arms mounting the friction elements, the pivoted arms having friction surfaces relatively to which the rotary friction elements are movable, said elements and the pivoted arms having a common center of movement, and spring means interposed between the one arm and one of the friction elements, said spring means initially receiving the shock and adapted to yield, without the friction elements functioning, during initial movements of the arms relatively to each other.

2. In a shock absorber, arms pivoted on a common center and having ends adapted for connection with relatively movable parts of a vehicle, a friction element around the pivotal center of the arms and adapted for turning movements relatively to both the arms, and spring means bearing at opposite sides of one arm, the mentioned friction element having members with which the spring means have engagement.

3. In a shock absorber, pivoted arms movable relatively to each other, a friction element on one of said arms around the pivot, an interposed rotary friction element between said arms and co-acting with the said first mentioned arm, and spring means acting on one of said arms and on the said rotary interposed element, said last mentioned arm being movable against the resistance of the spring means toward the interposed element under initial shocks, and the said last mentioned arm and interposed element moving jointly under excessive shocks relatively to the first mentioned arm and its friction element.



4. A shock absorber, comprising a pair of arms having friction rings and means for mounting the arms to move in unison, a third arm between the pair of arms, friction disk sections arranged respectively between the third arm and each arm of the pair, the said disk sections being capable of movement relatively to the pair of arms, and the third arm being movable relatively to the pair of arms and to the disk sections, and spring means at opposite sides of the said arm and opposing its movement in either direction, said spring means resisting severe shocks to cause a movement of the disk sections relatively to the friction rings on the pair of arms.

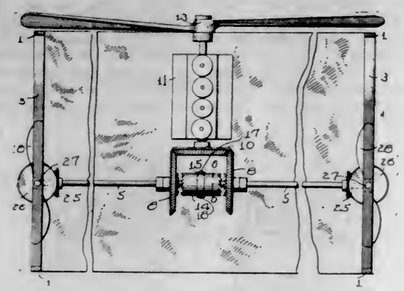
5. A shock absorber, comprising an arm having a friction element, a second friction element movable relatively to the first one, an arm movable relatively to the first arm and relatively to the second friction element, and spring means having elongated members bearing frictionally near the ends thereof against opposite sides of the second mentioned arm and disposed at an angle thereto, the spring members yielding to a movement of the arm against which they bear without movement of the friction elements, and the said spring members, the arm against which they bear, and the second friction element being movable in unison relatively to the first mentioned friction element under severe shocks.

[Claims 6 and 7 not printed in the Gazette.]

1,074,659. AUTOMATIC BALANCE FOR AEROPLANES. LEON SPIRO, Everett, Wash. Filed June 25, 1912. Serial No. 705,795. (Cl. 244—25.)

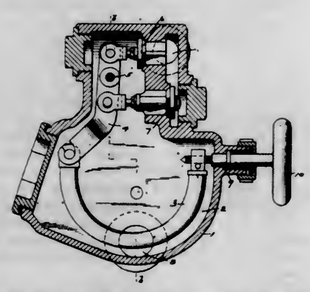
A machine of the class described comprising an upper and a lower plane, vertically extending bars holding said planes in spaced relation, a transversely extending bar secured to said vertically extending members, vertical shafts journaled within said transversely extending bar, a collar positioned upon each shaft and resting upon said transversely extending member for limiting the downward movement of said shaft relative to said transversely extending bar, a propeller blade carried by the upper end of said shaft, a drive gear carried by the lower end of said shaft, a drive shaft extending longitudinally of said

lower plane, gears carried by said shaft and meshing with said gears carried by said vertical shafts, a pendulum suspended from the upper plane, an arm carried by said pendulum and extending laterally thereof, a clutch operat-



ing lever secured to said arm, and clutch means coöperating with said drive shaft and engaged by said clutch operating lever for driving said propellers carried by said vertical shafts as said pendulum is swung.

1,074,660. THERMOSTATIC PRESSURE-REGULATOR. WILLIS C. SQUIRE, Chicago, Ill. Filed May 11, 1908. Serial No. 432,215. (Cl. 236—9.)



1. A thermostatic device for regulating the flow of heating medium from a source to the heating system comprising two valves, the direction of movement to seat one valve being opposite to that of the other valve and each having different effective areas exposed to the opposing pressures of the source and the heating system for controlling the flow of heating medium from said source to the heating system, a large area of one valve and a small area of the other valve being exposed to each pressure and means governed by variations in the temperature of the heating medium in the system for operating said valves.

2. A thermostatic device for regulating the flow of heating medium from a source to the heating system comprising a casing, two oppositely seating valves therein for controlling the flow of heating medium from said source to the heating system, a thermostatic device for operating said valves, and a rocker arm operated by said thermostatic device for moving said valves in opposite directions.

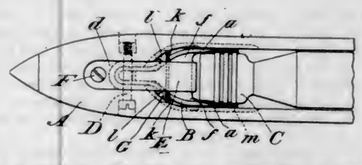
1,074,661. GARMENT-STRETCHER. CARL STARKE, Hoboken, N. J. Filed Sept. 13, 1912. Serial No. 720,143. (Cl. 223—19.)

A garment stretcher comprising a continuous strip of resilient material bent to form an upper cross bar, a pair of diverging shanks and a pair of overlapping lower serrated ends, said strip having converging sides that merge into an outer rounded creasing edge, a sleeve fast on each of said ends and loosely encompassing the other end, and catches pivoted to said sleeves and provided with curved resilient tail pieces which bear against the sleeves and normally hold the catches in engagement with



the serrated strip ends, while upon a compression of the tail pieces, the catches are simultaneously withdrawn from said ends.

1,074,662. SHUTTLE FOR WEFT-REPLENISHING LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Apr. 5, 1913. Serial No. 759,039. (Cl. 139—27.)



1. A loom shuttle having, in combination, a one piece weft-carrier holding shuttle-spring bent from a single piece of metal and having two jaws, the shanks of which are wider than the weft-carrier holding ends; a guard having integral top and bottom plates which embrace said shanks between them, said top plate being fastened to the shuttle; a transverse bolt in the shuttle passing through the shanks of both jaws; a recess in each side wall of the shuttle opposite the holding end of each jaw; and a one piece spreader having parallel top and bottom legs and an inclined bridge connecting them, the bottom leg having an upwardly projecting tongue, and the top leg having laterally projecting arms each with a reversely turned wing, said legs and bridge fitting between the jaw shanks, said bridge being forward of said bolt, said tongue fitting between said bolt and the connecting bend of the two jaws, each of said arms extending between the guard and a reduced portion of one of the jaws, and each of said wings entering one of the shuttle recesses and lying close to its face.

2. A loom shuttle having, in combination, a one piece weft-carrier holding shuttle-spring bent from a single piece of metal and having two jaws; a guard having top and bottom plates which embrace said shanks between them, said top plate being fastened to the shuttle; a transverse bolt in the shuttle passing through the shanks of both jaws; and a spreader having top and bottom legs and a bridge connecting them, the bottom leg having an upwardly projecting tongue, and the top leg having laterally projecting arms, said legs and bridge fitting between the jaw shanks, said bridge being forward of said bolt, said tongue fitting between said bolt and the connecting bend of the two jaws, each of said arms extending between the guard and one of the jaws.

3. A loom shuttle having, in combination, a one piece weft-carrier holding shuttle-spring bent from a single piece of metal and having two jaws; a guard having top and

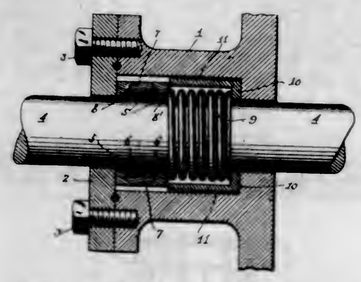
bottom plates which embrace said shanks between them; a transverse bolt in the shuttle passing through the shanks of both jaws; and a spreader having top and bottom legs and a bridge connecting them, the bottom leg having an upwardly projecting tongue, and the top leg having laterally projecting arms, said legs and bridge fitting between the jaw shanks, said bridge being forward of said bolt, said tongue fitting between said bolt and the connecting bend of the two jaws, and each of said arms extending between the guard and a reduced portion of one of the jaws.

4. A loom shuttle having, in combination, a one piece weft-carrier holding shuttle-spring bent from a single piece of metal and having two jaws, the shanks of which are wider than the weft-carrier holding ends; a guard having top and bottom plates which embrace said shanks between them; and a spreader having laterally projecting arms, said spreader fitting between the jaw shanks, and each of said arms extending between the guard and a reduced portion of one of the jaws.

5. A loom shuttle having, in combination, a one piece weft-carrier holding shuttle-spring bent from a single piece of metal and having two jaws; a transverse bolt in the shuttle passing through the shanks of both jaws; and a spreader having top and bottom legs and an inclined bridge connecting them, the bottom leg having an upwardly projecting tongue, said legs and bridge fitting between the jaw shanks, said bridge being forward of said bolt, and said tongue fitting between said bolt and the connecting bend of the two jaws.

[Claim 6 not printed in the Gazette.]

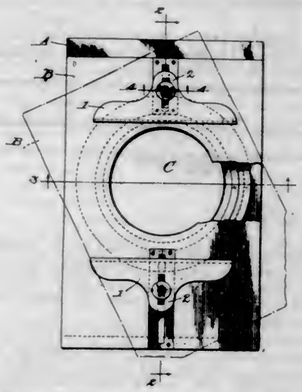
1,074,663. METALLIC PACKING. WILLIAM SUDEKUM, Nashville, Tenn. Filed Jan. 27, 1913. Serial No. 744,421. (Cl. 121—109.)



1. A metallic packing comprising a stuffing box adapted to slidingly receive a piston rod, metallic sectional packing rings surrounding said piston rod, lubricating material embedded in and extending through said packing rings, a split ring surrounding said sectional rings, the sides of the split ring and sectional rings being conical, a ring on each side of said split ring and packing rings conforming to the conical surfaces of said inner rings and terminating at the split ring, a shell within said stuffing box and having a flange at its inner end loosely surrounding the piston rod, a coil spring surrounding the piston rod one end of which abuts against the flange of the shell and its other end engages the inner surrounding ring.

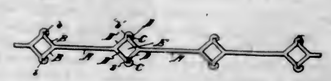
2. A metallic packing comprising a stuffing box adapted to slidingly receive a piston rod, metallic sectional packing rings surrounding said piston rod, a split ring surrounding said sectional rings, the sides of the split ring and sectional rings being conical, means for locking said rings against movement on each other, a ring on each side of said split ring and packing rings conforming to the conical surfaces of said inner rings and terminating at the split ring, a shell within said stuffing box and having a flange at its inner end loosely surrounding the piston rod, a coil spring surrounding the piston rod one end of which abuts against the flange of the shell and its other end engages the inner surrounding ring.

1,074,664. PHOTOGRAPHIC RETOUCHING-FRAME. HAMPARTZUM SUMBULIAN, Boston, Mass. Filed Apr. 24, 1912. Serial No. 693,003. (Cl. 95—101.)



A photographic retouching frame, comprising a base-plate having an opening through it, a negative-holder having an opening through it registering with the opening in the base-plate, rings L-shaped in cross section detachably connected to the inner sides of said holder and base-plate and interlocking with each other whereby the holder may be rotated or turned relatively to the base-plate, adjustable jaws carried by the holder on opposite sides of its opening for supporting the negative, and devices for holding the jaws securely in their adjusted positions.

1,074,665. METAL PILING STRUCTURE. CONRAD TRIMBORN, Milwaukee, Wis. Filed Dec. 29, 1911. Serial No. 668,401. (Cl. 61—52.)

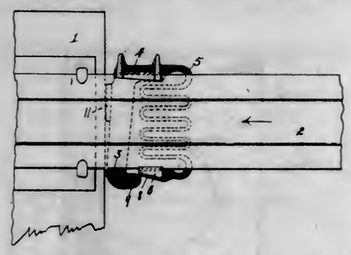


1. A metal piling unit comprising a web having one side margin provided with angularly divergent flanges formed with outwardly turned edges and having its other margin provided with angularly divergent flanges provided with edge portions having grooves in their inner faces adapted to receive the outward turned edge margins of the flanges of a like unit.

2. A sheet metal piling comprising a set of like units, each unit having one vertical margin provided with a pair of outwardly and angularly extending like flanges, the free marginal portions of which are provided with integral grooves, and the other vertical margin of the unit being provided with a pair of angularly disposed like flanges having their free margins turned abruptly outwardly and adapted to engage in the grooves of the flanges of an adjacent unit in a plane substantially at right angles to the plane of the assembled units.

3. A metal piling unit comprising a web portion having along one margin, diagonally extending divergent flanges of substantially equal dimensions and provided with outwardly turned edge portions, said web having along its opposing margin a set of diagonally extending flanges of equal dimensions provided with edge portions, hook shape in cross section, and forming grooves to receive the outwardly turned edges of the flanges on another unit, said flanges in each set being substantially equally divergent from the plane of said web and adapted to coöperate with the interlocking flanges of the adjacent unit to form an unobstructed cavity adapted to receive a packing in a position symmetrically disposed with reference to the webs of the respective units, substantially as described.

1,074,666. RAIL-STAY. JOSEPH M. VAIL, Bryan, Ohio. Filed May 3, 1913. Serial No. 765,337. (Cl. 238—4.)



1. A device of the class described having opposed spring connected rail-base clamping parts, and a part yieldingly movable relative to said clamping parts for coöperating with the connection therebetween to tighten such parts against a rail-base.

2. A device of the class described comprising a pair of connected relatively movable cross members one being longitudinally yieldable and having rail-base clamping parts at opposite ends thereof, said members having parts coöperating to impart a clamping action to the clamping parts when the members have relative predetermined movements.

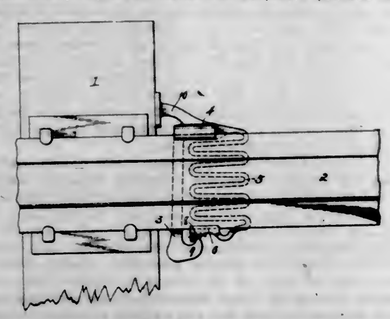
3. A device of the class described having a plurality of yieldingly connected cross-bars and rail-base clamping members carried by the bars for relative yielding movements transversely of a rail, one of said bars serving as a thrust member.

4. A device of the class described having a pair of opposed rail-base clamping parts, and a looped member yieldingly connecting said parts beneath an engaged rail-base and normally maintaining the same in clamped engagement therewith, one of said parts having a tie abutting portion separate from said looped member.

5. A device of the class described having two bars for projecting under a rail base, said bars being yieldingly connected and having a rail clamping member adjacent to their connected ends and one bar being yieldable transversely of a rail and having a rail clamping member at its free end, while the other of said bars serves as a thrust member and is operable when pressure is exerted thereon in one direction to coöperate with the free end portion of the longitudinally yieldable bar to effect a rigid clamping of said members against an interposed rail-base.

[Claims 6 to 10 not printed in the Gazette.]

1,074,667. RAIL-STAY. JOSEPH M. VAIL, Bryan, Ohio. Filed May 23, 1913. Serial No. 769,379. (Cl. 238—4.)



1. A device of the class described having a pair of yieldingly connected opposed rail base clamping parts, and a bar and a thrust arm projecting from one of said parts, the bar being movable transversely of a clamped rail base and caused to impart a rail clamping action to one of said parts when pressure is applied in one direction to the thrust arm.

2. A device of the class described having a plurality of yieldingly connected cross-bars, rail base clamping parts carried by said bars and a thrust-member projecting from the connected end portions of said bars and operable upon an application of pressure thereto in one direction to longitudinally move one of said bars to effect a clamping action of said parts against an engaged rail base.

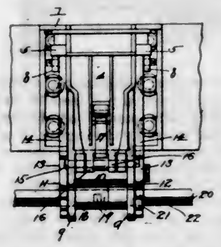
3. A device of the class described having opposed yieldingly connected rail clamping parts, a body member projecting from one of said parts transversely of a rail and having its free end shaped and positioned to have engagement with the outer side of the other of said clamping parts to cause it to have a rigid rail clamping action when said body member is moved in one direction transversely of a rail, and a thrust-arm projecting from the clamping part from which said body member projects and movable by pressure thereon in one direction lengthwise of a rail to impart part clamping movements to said member.

4. A device of the class described having a body member projecting transversely under a rail base, said body member having one end hooked and its free end provided with a rail base clamping part, a spring member projecting from said part in the direction of projection of said body member and having a part for yieldingly clamping a rail base in opposition to said first part, and means movable by tie thrust action to move said body member transversely of a rail and to cause its hooked end to act on the clamping part of said spring bar to hold it in firm rail clamping position.

5. A device of the class described having a lever member extending under a rail base and adapted to have thrust contact with a side of a tie at one side of a rail base, said member having a part adjacent to its tie abutting end for engaging an edge of a rail base and having its opposite end angled, and an element for clamping a rail base in opposition to said part and caused to be held in firm rail base clamping position when pressure is applied in one direction on the tie abutting end of said member.

[Claims 6 to 8 not printed in the Gazette.]

1,074,668. CAR-STAKE AND POCKET. CORNELIUS HENRY VANDONK, Wells, Mich. Filed Mar. 3, 1913. Serial No. 751,846. (Cl. 105—173.)



1. A stake pocket having a forwardly inclined rear wall and a forwardly and downwardly inclined bottom, the side walls of said pocket extending downwardly below said pocket, a spring pressed door adapted to close the front of the pocket, means for locking said door in closed position and operating means journaled in said side walls and below said bottom for the purpose of releasing said door.

2. The combination with a stake pocket having depending side members, a divided bushing journaled in said depending members, said bushing being formed in interlocking half sections, toothed segments carried at an end of each section, an operating shaft extending through said bushing, a sleeve journaled in said depending members, segments carried by said sleeve and meshing with the segments of the bushing, a hinged door for said pocket, pivoted locking members carried by the sides of the pocket, hook members carried by the door and adapted to engage portions of said locking members, and arms carried by the second mentioned segments and adapted to engage said pivoted locking members for the purpose of holding them in locking position relative to the hook members carried by the door.

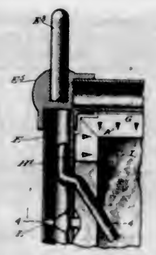
3. A car stake comprising a front door adapted to swing outwardly and downwardly, hook members carried by the free end of said door and adapted to overlap the sides of the pocket, pivoted locking members carried by said sides, said locking members having shoulders adapted to be engaged by said hook members, said locking members having curved side faces adjacent their free ends, a rotatable sleeve journaled below said pocket, arms carried by said sleeve having curved end portions adapted to engage the curved faces of said locking members, and means for rotating said sleeve.

4. The combination with a pocket, a spring pressed door adapted to close the front of the pocket, and to swing downwardly beneath the pocket, hook members carried by said door and adapted to overlap the sides of the pocket, pivoted locking members carried by the sides of the pocket and adapted to be engaged by said hook members, a rotatable sleeve journaled beneath said pocket, means carried by said sleeve for engaging said locking members and holding them in engagement with the hook members, means for rotating said sleeve, and a stop carried by said sleeve and adapted to limit rotation of the sleeve in one direction.

5. A car stake pocket comprising an integral back plate, side and bottom members, a door adapted to close the front of said pocket and adapted to swing downwardly beneath the pocket, lugs carried by the said back plate, said lugs being arranged respectively upon opposite sides of the pocket, and spaced therefrom, locking members pivoted between said lugs and the sides of the pocket, and hook members carried by the door and adapted to overlap the sides of the pocket and to engage portions of said locking members, said hook members being provided with a lateral web adapted to partially inclose portions of the said locking members, as and for the purpose set forth.

[Claim 6 not printed in the Gazette.]

1,074,669. DISPLAY-STAND. JAMES D. WALSH, Brooklyn, N. Y. Filed Apr. 16, 1909. Serial No. 490,399. (Cl. 40—102.)



1. A frame for exhibiting purposes comprising in its construction an outer hollow frame, an inner fabric holding frame parallel therewith and a connection between the two frames comprising a plug passed through the inner frame and through one side of the outer frame and expanded by being forced against another side of said outer frame.

2. The combination of a stationary frame composed of vertical and horizontal members, leaves pivoted to said frame and comprising in their construction an outer frame, an inner frame parallel therewith, a connection between the said outer and inner frames, flanges on the edges of said inner frame formed by turning the said edges over substantially parallel with the main part of said inner frame, the said flanges being separated from the said main portion of the frame, prongs extending inwardly from said flanges, and a sheet of fabric over the said inner frame, and having its edges secured by engagement with said prongs within the space between the flange and the main inner frame.

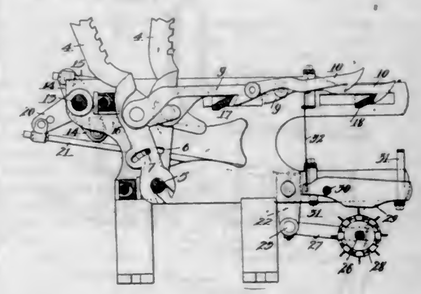
3. A frame for exhibiting purposes composed of members disposed at an angle to one another and inclosing a space, said members consisting of a strip of metal having its edges turned over to a position substantially parallel with its body, and prongs between said body and turned over edges, a fabric stretched over the said space and over the said turned over edges and engaged by the said prongs.

4. A frame for exhibiting purposes composed of members disposed at an angle to one another and inclosing a space, said members consisting of a strip of metal having its edges turned over to a position substantially parallel with its body, and prongs between said body and turned over edges formed by displacing a portion of the metal of the turned over part and causing it to project toward the body, a fabric stretched over the said space and over the said turned over edges and engaged by the said prongs.

5. In a wing or leaf for display-racks, the combination with a frame, of a body-portion adapted to cover the area thereof and comprising a pair of parallel walls, and hooks on said frame adapted to engage with said walls and hold the same spaced apart within and in operative position on said frame.

[Claims 6 to 9 not printed in the Gazette.]

1,074,670. DOBBY. ROBERT F. WATCHORN, Millbury, Mass. Filed Dec. 5, 1912. Serial No. 735,018. (Cl. 139—79.)



1. A dobby comprising a set of jacks, a pair of hooks connected to each jack, and a reciprocating knife for moving each hook, each of said knives making a complete reciprocation during each pick of the loom, and one of said knives having an effective travel substantially twice that of the other knife.

2. A dobby comprising a set of jacks, means to move all of said jacks to mid-position at each beat of the lay, and selective means to move certain of said jacks to extreme upper position.

3. A loom having in combination harnesses, jacks connected to said harnesses, hooks mounted on said jacks, and a second set of hooks pivotally mounted on said first mentioned hooks, means for moving said first mentioned hooks to raise all of the harnesses to mid-position at each beat of the lay, means for moving the harnesses connected to certain of said second mentioned hooks to extreme upper position, and pattern means for selecting said last mentioned harnesses.

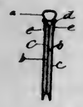
4. In a dobby, a jack, a pair of hooks connected to said jack, and means operable upon said hooks to raise said jack to extreme upper position for successive picks and to permit said jack to be moved to mid-position between such successive picks.

5. In a dobby, a jack, a pair of hooks connected to said jack, and means operable upon said hooks to raise said jack from extreme lower to mid-position and to permit said

jack to return to extreme lower position between two successive picks of the loom.

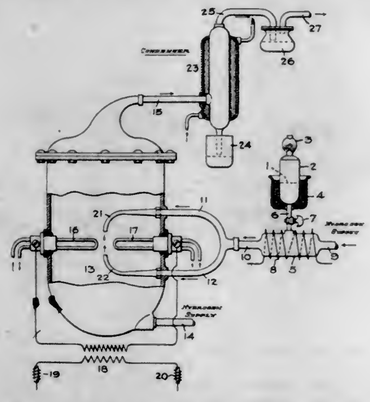
[Claims 6 to 9 not printed in the Gazette.]

1,074,671. POLISHER FOR EYEGLASSES. HELEN M. WATERMAN, Orange, N. J. Filed Jan. 8, 1912. Serial No. 670,093. (Cl. 15—68.)



A polishing device for eyeglasses and the like consisting of a pair of disks having polishing surfaces on their abutting faces, a clip with its looped end beyond the disks and having its free ends extending over the sides of the disks to exert a spring pressure thereon, and means for pivoting the disks and the clip so that they swing on a common pivot.

1,074,672. METALLOIDAL MATERIAL. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Original application filed Oct. 27, 1909, Serial No. 524,939. Divided and this application filed May 28, 1912. Serial No. 700,151. (Cl. 204—63.)



1. The material herein described, the same being dense, black, hard, having a high melting point, being convertible by oxidation to boric anhydrid, being electrically conductive and having a very high negative temperature resistance coefficient, its conductivity approximately doubling for 17° C. rise in temperature above room temperature.

2. The material herein described, the same being black, having a hardness greater than sapphire, a conchoidal fracture, a melting point above 2000° C., of high electrical resistance when cold, having a high negative temperature resistance coefficient, and convertible by oxidation to boric anhydrid.

3. The material derived from a compound of boron, having a hardness greater than sapphire, a high negative temperature resistance coefficient, high electrical resistance when cold, being fusible, inert chemically with respect to copper and combining directly with chlorin to form a volatile colorless liquid.

4. The material herein described derived from a compound of boron, having a melting point above 2000° C., a hardness greater than sapphire, a high resistance when cold, a high negative temperaturue resistance coefficient and convertible by oxidation to boric anhydrid.

5. The material herein described, the same being electrically conductive and fusible, produced by interaction of boric chlorid and hydrogen at high temperature, said material having great hardness, a conchoidal fracture, extreme purity and homogeneity.

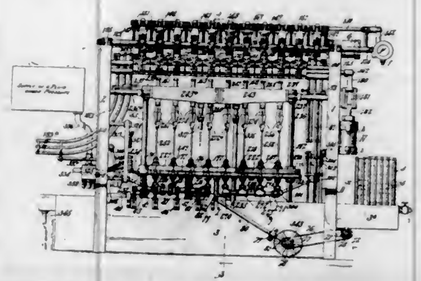
1,074,673. JEWELRY. FREDERICK B. WEISS, Newark, N. J. Filed Jan. 27, 1912. Serial No. 673,812. (Cl. 63—29.)



1. In an ornament of the character specified, the combination with a pendant or drop formed with a pointed end-portion and with a hole extending laterally across the pointed end-portion of said pendant or drop, of a bell-shaped ornamental shell mounted upon said pointed end-portion of the pendant or drop, and means connected with said shell and extending into retaining engagement with said laterally extending hole for securing said shell in its mounted relation upon the pointed end-portion of the pendant or drop.

2. In an ornament of the character specified, the combination with a pendant or drop formed with a pointed end-portion and with a hole extending laterally across the pointed end-portion of said pendant or drop, of a bell-shaped ornamental shell mounted upon said pointed end-portion of the pendant or drop, prong-like members connected with said shell, and fingers projecting from said prong-like members, said fingers extending into retaining engagement with said laterally extending hole for securing said shell in its mounted relation upon the pointed end-portion of the pendant or drop.

1,074,674. BOTTLE-CLEANING MACHINE. CHARLES WENDE and WILLIAM WENDE, St. Louis, Mo., assignors to Chaswill Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 23, 1909. Serial No. 519,117. (Cl. 141—7.)



1. In a bottle cleaning machine, a tank adapted to contain water, a pair of elongated parallel rollers mounted in said tank adapted to lengthwise rotatably support a bottle and upon which said bottle is caused to travel endwise in said tank, means adapted to rotate said rollers, means adapted to cause said bottle to travel endwise on said rollers in said tank, a hingedly mounted rotary brush to one side of said rollers and having its axis parallel with the axes of said rollers, said brush being adapted to clean the exterior of said bottle while on said rollers and to be engaged and swingably moved by said bottle to accommodate the same as said bottle is caused to travel endwise on said rollers therebeneath, and means adapted to rotate said brush; substantially as described.

2. A bottle-cleaning machine comprising a tank adapted to contain water, rollers mounted in said tank adapted to rotatably support a bottle, means adapted to rotate said rollers, a plurality of rotatable brushes adapted to clean the exterior of said bottle while on said rollers, a flexible connection between said brushes, and means adapted to rotate said brushes; substantially as described.

3. A bottle-cleaning machine comprising a tank adapted to contain water rollers mounted in said tank adapted to rotatably support a bottle and upon which said bottle is caused to travel in said tank, means adapted to rotate said rollers, means adapted to cause said bottle to travel on said rollers in said tank, a plurality of pivotally mounted flexibly connected rotatable brushes adapted to clean the exterior of said bottle while on said rollers and to be independently swingingly moved by said bottle while on said rollers, and means adapted to rotate said brushes; substantially as described.

4. In a bottle-cleaning machine, the combination with a tank adapted to contain water, of a pair of elongated parallel rollers in said tank, said rollers being adapted to lengthwise support a bottle and upon which said bottle is caused to travel endwise in said tank, means adapted to shiftingly cause said bottle to travel endwise in said tank on said rollers, and an alining series of hinged independently movable spring-pressed rollers arranged above and extending longitudinally with said bottle-supporting rollers, said hinged rollers being adapted to yieldingly hold said bottle in frictional engagement with said bottle-supporting rollers as the same is caused to shiftingly travel endwise therealong: substantially as described.

5. In a bottle-cleaning machine, the combination with a tank adapted to contain water, of a pair of elongated parallel rollers in said tank, said rollers being adapted to lengthwise support a bottle and upon which said bottle is caused to travel endwise in said tank, means adapted to shiftingly cause said bottle to travel endwise in said tank on said rollers, an alining series of hinged independently movable spring-pressed rollers arranged above and extending longitudinally with said bottle-supporting rollers, said hinged rollers being adapted to yieldingly hold said bottle in frictional engagement with said bottle-supporting rollers as the same is caused to shiftingly travel endwise therealong, and a rotary brush adapted to clean the exterior of said bottle while traveling on said bottle-supporting rollers; substantially as described.

[Claims 6 to 57 not printed in the Gazette.]

1,074,675. PACKING-RING. ALBERT W. WENZEL, Newark, N. J., assignor to American Piston Ring Company, a Corporation of New Jersey. Filed Oct. 30, 1912. Serial No. 728,580. (Cl. 121—108.)



1. A packing ring consisting of a split ring of uniform cross-section having in a curved surface a circumferential series of transverse series of dents or indentations.

2. A packing ring consisting of a split ring of uniform cross-section having in a curved surface a circumferential series of transverse series of dents or indentations, said transverse series being all substantially alike but differing in distance apart.

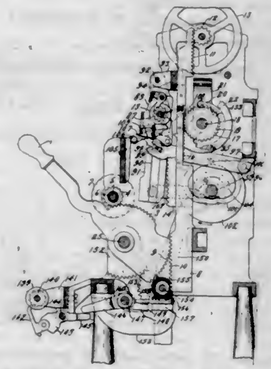
3. A packing ring consisting of a split ring of uniform cross-section having in a curved surface a circumferential series of transverse series of dents or indentations, said transverse series being closest together opposite the split of the ring and getting farther apart in either direction.

4. A packing ring consisting of a split ring of uniform cross-section having in a curved surface a circumferential series of transverse series of dents or indentations, the dents or indentations being all substantially alike but the transverse series differing in distance apart.

5. A packing ring consisting of a split ring of uniform cross-section having in a curved surface a circumferential series of transverse series of dents or indentations, the dents or indentations of each transverse series being separated by unbroken portions of the said surface.

[Claims 6 and 7 not printed in the Gazette.]

1,074,676. MULTIPLE CASH-REGISTER. JOHN A. WERNER and CHARLES W. GREEN, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed Nov. 19, 1910. Serial No. 593,213. (Cl. 235—6.)



1. In a machine of the class described, the combination with an accounting device, of differential mechanism for actuating the accounting device, said differential mechanism including; a segment gear, a pawl rigidly connected with the segment gear and having two oppositely extending teeth, a differentially movable member normally in engagement with one of said teeth for the purpose of differentially setting the segment gear, and a curved plate having a notch and positioned to prevent the pawl from becoming disengaged from said differentially movable member; and means for oscillating said plate an invariable extent thereby causing the pawl to enter said notch and move with the plate to its original position and back again.

2. In a machine of the class described, the combination with an accounting device, of a differentially movable setting lever, a notched disk suitably connected to said lever to be rotated by the lever, an accounting device actuator, a pawl connected to the actuator and positioned to be engaged by the notched disk for the purpose of differentially setting the accounting device actuator, a member constructed to disconnect said pawl from the disk and connect the pawl with itself and then to restore the pawl and the actuator to their original position, and means for moving said member invariable extents.

3. In a machine of the class described, the combination with an accounting device, of a differentially movable setting lever, a notched disk suitably connected to the lever to be rotated by the lever, an accounting device actuator, a pawl connected to the actuator and positioned to be engaged by the notched disk for the purpose of differentially setting the accounting device actuator, a member constructed to disconnect said pawl from the disk and connect the pawl with itself and then to restore the pawl and actuator to their original position and back to the position to which they were moved by the lever, and means for moving said member.

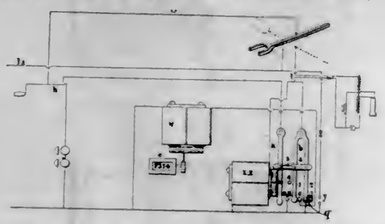
4. In a machine of the class described, the combination with an accounting device, of a differentially movable setting lever, a notched disk suitably connected to the lever to be rotated by the lever, an accounting device actuator, a pawl connected to the actuator and positioned to be engaged by the notched disk for the purpose of differentially setting the accounting device actuator, a member constructed to disconnect said pawl from the disk and

to connect the pawl with itself, and then restore the pawl and actuator to their original position and back to the position to which they were moved by the lever, and finally to reconnect the pawl with the notched disk, and means for moving said member.

5. In a machine of the class described, the combination with an accounting device, an actuator therefor, two notched members, a pawl connected to the actuator and located between the two notched members, means for moving each of said members, said pawl and said notches being so formed that movement of either one of said notched members will move the pawl and thereby move the accounting device actuator.

[Claims 6 to 26 not printed in the Gazette.]

1,074,677. ENUMERATION OF TELEPHONE-CALLS. SAMUEL DICKINSON WILLIAMS, Newport, Wales. Filed Oct. 31, 1908. Serial No. 460,551. (Cl. 179—7.)



1. Apparatus for registering the number of telephone calls comprising in combination an enumerator for each subscriber at the subscriber's instrument and at the exchange, electromagnetic means operating said enumerator, a device operated by the subscriber to put said electromagnetic means in circuit by an action necessitated in ringing up the exchange and electromagnetic means adapted to cut said enumerator out of the circuit immediately an enumerator actuating current is sent, as and for the purpose described.

2. Apparatus for registering the number of telephone calls, comprising in combination, an enumerator for each subscriber at the subscriber's instrument and at the exchange, electromagnetic means operating said enumerator, a circuit including said electromagnetic means and a source of current; a break in said circuit, means operated by the subscriber in making a call said means closing said break in said circuit, means adapted to complete said circuit, and means in said circuit adapted to break said circuit on the passage of an enumerating current.

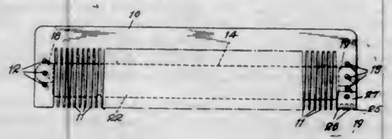
3. Apparatus for registering the number of telephone calls, comprising in combination, enumerators for each subscriber one at the subscriber's instrument and one at the exchange, electromagnetic means operating said enumerators, a circuit including said electromagnetic means and a source of current, a make and break in said circuit, means necessarily operated by the subscriber in making a call before said circuit can be made, and means by which the enumerator actuating current breaks said circuit, as and for the purposes described.

4. Apparatus for registering the number of telephone calls, comprising in combination, enumerators for each subscriber one at the subscriber's instrument and one at the exchange, electromagnetic means operating said enumerators, a circuit including said electromagnetic means and a source of current, a break in said circuit, means operated by the subscriber in making a call said means closing said break in said circuit, means adapted to complete said circuit, and means in said circuit adapted to break said circuit on the passage of an enumerating current.

5. Apparatus for registering the number of telephone calls, comprising in combination, an enumerator for each subscriber, electromagnetic means operating said enumerator, a circuit including said electromagnetic means and a source of current; a key in said circuit, means operated by the subscriber to make contact at said key in making a call, an electromagnet in said circuit adapted to operate said key to break contact, and means distant from the subscriber's instrument adapted to complete said circuit, as and for the purposes described.

[Claims 6 to 11 not printed in the Gazette.]

1,074,678. SAFETY HAIR-CUTTER. JOHN W. WILLIAMSON, New York, N. Y. Filed Nov. 20, 1912. Serial No. 732,516. (Cl. 30—12.)



1. In a safety hair cutter, a comb, a plurality of spaced compressible buttons provided upon one surface at each end of the comb, an elongated holder of substantially the shape of an inverted U in cross section, the free lengthwise edges of the arms of the holder being curved and disposed toward each other, two extensions, one provided upon each end of the holder and each of said extensions having a hole therethrough for reception of one of the compressible buttons at each end of the comb whereby the holder may be removably held thereto so that the comb will serve as a guard when the cutter is in use, and an elongated blade having a groove lengthwise thereof, said blade being removably inserted between the arms of the holder whereby the curved edge of one of the arms will be disposed in the groove of said blade.

2. In a safety hair cutter, a comb, an elongated holder of substantially the shape of an inverted U in cross section, the free lengthwise edges of the arms of the holder being curved and disposed toward each other, two extensions, one provided upon each end of the holder and each of said extensions having a hole therethrough, means provided at each end of the comb and adapted to engage with the openings of the extensions of the holder whereby the holder may be removably held thereto so that the comb will serve as a guard when the cutter is in use, an elongated blade removably inserted between the arms of the holder, and a guide removably held upon the opposite surface of the comb, said guide being adapted to contact with the head for disposing the comb and the blade at a suitable angle for cutting the hair.

3. In a safety hair cutter, a comb, a plurality of spaced compressible buttons provided upon one surface at each end of the comb, an elongated holder of substantially the shape of an inverted U in cross section, the free lengthwise edges of the arms of the holder being curved and disposed toward each other, two extensions, one provided upon each end of the holder and each of said extensions having a hole therethrough for reception of one of the compressible buttons at each end of the comb whereby the holder may be removably held thereto so that the comb will serve as a guard when the cutter is in use, an elongated blade having a groove lengthwise thereof, said blade being removably inserted between the arms of the holder whereby the curved edge of one of the arms will be disposed in the groove of said blade, a guide, and means serving to detachably hold the guide to the opposite surface of the comb, said guide being adapted to contact with the head for disposing the comb and the blade at a suitable angle for cutting the hair.

4. In a safety hair cutter, a comb, an elongated holder of substantially the shape of an inverted U in cross section, the free lengthwise edges of the arms of the holder being curved and disposed toward each other, means adapted to removably hold the holder upon one surface of the comb so that the comb will serve as a guard when the cutter is in use, an elongated blade having a groove lengthwise thereof, said blade being removably inserted between the arms of the holder whereby the curved edge of one of the arms will be disposed in the groove of said blade, and a guide removably held upon the opposite surface of the comb, said guide being adapted to contact with the head for disposing the comb and the blade at a suitable angle for cutting the hair.

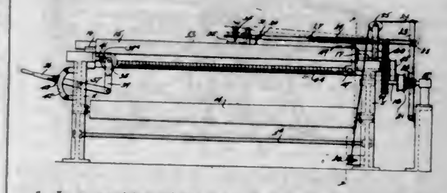
5. In a safety hair cutter, a comb, a plurality of spaced compressible buttons provided upon one surface at each end of the comb, an elongated holder of substantially the shape of an inverted U in cross section, two extensions, one provided upon each end of the holder and each of said extensions having a hole therethrough for reception of one of the compressible buttons at each end of the comb whereby the holder may be held thereto, an elongated blade removably inserted between the arms of the holder whereby the curved edge of one of the arms will be disposed in the groove of said blade, a plurality of spaced alined compressible buttons provided upon the opposite surface of the comb, and a guide having a plurality of spaced holes through each of which one of the latter said buttons of said holder is passed so that the guide may be removably held thereto.

1,074,679. FILTER. JOHN F. WISE, Onawa, Iowa. Filed Feb. 11, 1913. Serial No. 747,760. (Cl. 210—16.)

1. A filter, including an inverted funnel shaped member, the reduced end of which is threaded for engagement with the bung of a barrel, a cylindrical member detachably connected to the enlarged end of the funnel shaped member, said cylindrical member being provided with a circumferential depression near the upper end thereof, a ring disposed in the cylindrical member adjacent the depression thereof, a filtering bag mounted within the cylindrical member and having its open end adjacent the upper end of the cylindrical member and said ring, a perforated screening disk engaging the open end of the bag to clamp the same upon the ring and its adjacent portion of the cylindrical member, and an outlet member detachably connected to the opposite end of the cylindrical member.

2. A filter, including an inverted funnel shaped member, the reduced end of which is threaded for engagement with the bung of a barrel, a cylindrical member detachably connected to the enlarged end of the funnel-shaped member, said cylindrical member being provided with a circumferential depression near the upper end thereof, a ring disposed in the cylindrical member adjacent the depression thereof, a filtering bag mounted within the cylindrical member and having its open edge adjacent the upper end of the cylindrical member and said ring, a perforated screening disk engaging the open end of the bag to clamp the same upon the ring and the adjacent portion of the cylindrical member, an outlet member detachably connected to the lower end of the cylindrical member and having a circumferential depression, a filtering material disposed below the depression, and a filtering material securing and screening the disk having its periphery disposed in the circumferential depression of the outlet member for maintaining the filtering material in said outlet member.

1,074,680. MACHINE FOR MAKING PAPER OR FIBER TUBES OR CORES. GEORGE S. WITHAM, Sr., Hudson Falls, N. Y., assignor to The Union Bag & Paper Company, a Corporation of New Jersey. Filed Aug. 22, 1911. Serial No. 645,408. (Cl. 93—81.)



1. In a machine of the class described, the combination with a frame, a winder shaft mounted in bearings thereof and adapted to wind a web thereon, driving gears, one of which is mounted on said shaft, and means for applying an adhesive to said web before it is wound on said shaft, of means for inclining said shaft on its said gear as a fulcrum and moving one end away from its bearing.

2. In a machine of the class described, the combination with a frame, a winder shaft mounted in bearings thereof and adapted to wind a web thereon, driving gears, one of which is mounted on said shaft, and means for applying an adhesive to said web before it is wound on said shaft, of a manually operable device movably mounted on said frame, and means operated by said device for inclining said shaft on its said gear as a fulcrum and for lifting one end of said shaft away from its bearing.

3. In a machine of the class described, the combination with a frame, a winder shaft mounted in bearings thereof and adapted to wind a web thereon, and means for applying an adhesive to said web before it is wound on said shaft, of a grooved roller arranged under and in contact with one end of said shaft, and means for raising and lowering said roller to incline said shaft.

4. In a machine of the class described, the combination with a frame, and winder shaft supported thereby, and adapted to form a tube or core thereon, of a worm parallel with said shaft, and having a continuous helical thread, means operable by said worm for engaging the formed tube or core and stripping it from said shaft, and means for moving said means laterally and bodily away from said worm to disengage it therefrom.

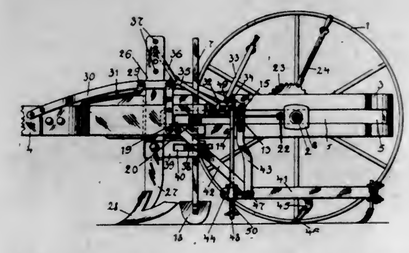
5. In a machine of the class described, the combination with a frame, and a winder shaft supported thereby, and adapted to form a tube or core thereon, of a worm parallel with said shaft, a guide shaft parallel with said worm, and a traveler pivoted and guided on said guide shaft, and provided with a segmental nut adapted to be moved laterally by said traveler to mesh with said worm and with a stripper for engaging the formed tube or core and stripping it from said winder-shaft.

[Claims 6 to 16 not printed in the Gazette.]

1,074,681. COMBINED PLOW AND CULTIVATOR. CORNELIOUS E. WOMBLE, Cedar Hill, Tex., assignor of one-half to Henry G. Martin, Arlington, Tex. Filed Sept. 2, 1911. Serial No. 647,318. (Cl. 97—34.)

1. In a combined plow and cultivator, an axle, ground wheels secured on the axle, a horizontal frame having elongated slots in opposite sides extending longitudinally of the frame, said frame having its slotted portion curved, bearing members in which the axle is rotatably secured, said axle being held against longitudinal displacement in the bearing members, said bearing members being mount-

ed in the slots of the frame and having upper and lower grooves receiving the adjacent portions of the frame, said grooves being curved to conform to the contour of the frame, and connections extending from the bearing members having pivotal connection with a mounting fixed against movement transversely and longitudinally of the frame.



2. In a combined plow and cultivator, an axle, ground wheels secured on the axle, a horizontal frame having elongated slots in opposite sides extending longitudinally of the frame, said frame having its slotted portions curved, bearing members in which the axle is rotatably secured, said axle being held against longitudinal displacement in the bearing members, said bearing members being mounted in the slots of the frame and having upper and lower grooves receiving the adjacent portions of the frame, said grooves being curved to conform to the contour of the frame, a vertical support disposed forward of the axle, a cross bar fixed on the vertical support, the vertical support being pivotally sustained and held against movement transversely and longitudinally of the frame, and pivoted connections between the cross bar and the bearing members.

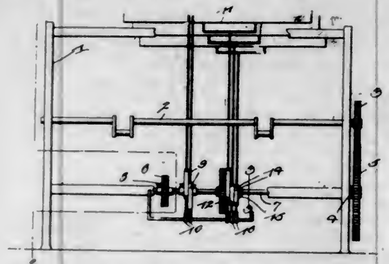
3. In a combined plow and cultivator, an axle, ground wheels secured on the axle, a horizontal frame having elongated slots in opposite sides extending longitudinally of the frame, said frame having its slotted portions curved, bearing members in which the axle is rotatably secured, said axle being held against longitudinal displacement in the bearing members, said bearing members being mounted in the slots of the frame and having upper and lower grooves receiving the adjacent portions of the frame, said grooves being curved to conform to the contour of the frame, a pivoted vertical support disposed forward of the axle, connections between the axle bearing members and the vertical support, a guiding blade secured in a vertical position to the lower end of the vertical support in advance of the ground wheels.

4. In a combined plow and cultivator, the combination of ground wheels, an axle on which the ground wheels are mounted, a frame disposed between the ground wheels, bearings slidably mounted on opposite sides of the frame and receiving the axle, a support pivotally sustained with relation to the frame and held against movement transversely and longitudinally of the frame, a vertical flat guide blade secured to the support in advance of the ground wheels and presenting a narrow vertical edge to the ground, and laterally disposed swinging connections pivotally attached to the support and bearings and extending therebetween.

5. In a combined plow and cultivator, the combination of ground wheels, an axle on which the ground wheels are mounted, a frame disposed between the ground wheels, bearings slidably mounted on opposite sides of the frame and receiving the axle, a support pivotally sustained with relation to the frame and held against movement transversely and longitudinally of the frame, a vertical flat guide blade secured to the support in advance of the ground wheels and presenting a narrow vertical edge to the ground, and a plow sustained immediately in advance of the blade, said blade having its vertical axis in line with the center of the plow longitudinally of the frame.

[Claims 6 to 8 not printed in the Gazette.]

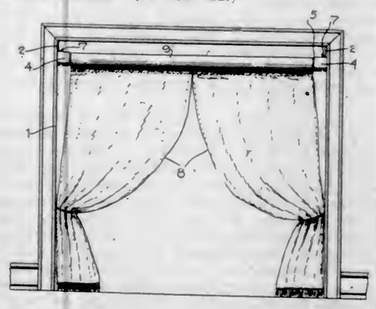
1,074,682. ATTACHMENT FOR LOOMS. WALTER A. WOODS, Wilmington, N. C. Filed June 22, 1912. Serial No. 705,331. (Cl. 139—78.)



1. In a device of the class described, the combination with a frame, a main drive shaft rotatably mounted thereon, a cam drive shaft also rotatably mounted on said frame, means to drive said cam drive shaft from the main drive shaft, and a cam shaft driven from said last mentioned shaft; of a plurality of cams adjustably mounted on said cam shaft and adapted to be rotated therewith, a plurality of additional cams spaced from the aforesaid cams and loosely mounted on said cam shaft, a gear also loosely mounted on said cam shaft, means to secure said additional cams to said gear at predetermined points thereon, an additional gear mounted on said cam drive shaft to rotate therewith, said additional gear being meshed with the aforesaid gear to cause the latter and said additional cams to be rotated on the cam shaft, and a plurality of treadles adapted for engagement by said cams.

2. In a device of the class described, the combination with a frame, a main drive shaft rotatably mounted thereon, a cam drive shaft also rotatably mounted on said frame, means to drive said cam drive shaft from the main drive shaft, and a cam shaft driven from said last mentioned shaft; of a plurality of cams mounted on said cam shaft to be rotated therewith and individually adjustable thereon, a plurality of additional cams spaced from the aforesaid cams and loosely mounted on said cam shaft, a gear also loosely mounted on said cam shaft, bolts extending through said last mentioned cams and said gear to secure the former to the latter at predetermined points thereon, an additional gear mounted on said cam drive shaft to rotate therewith, said additional gear being in mesh with the aforesaid gear to cause the latter and said additional cams to be rotated on the cam shaft, and a plurality of treadles adapted for engagement with said cams.

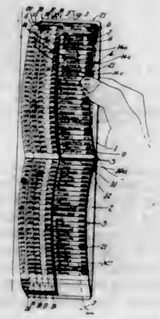
1,074,683. CURTAIN POLE AND HANGER. WILLIAM J. ZIETLOW, Cedarburg, Wis. Filed Apr. 21, 1913. Serial No. 762,682. (Cl. 156—22.)



1. A support comprising a body portion, spaced parallel side portions formed integral therewith, inwardly projecting supporting arms formed at the outer ends of the side portions, a resilient tongue formed integral with the body and arranged between the side portions, said tongue being adapted to engage the end of a curtain pole when arranged between the side portions to securely hold the same in place.

2. A support including a body provided at one end with an opening, spaced parallel side portions formed at the other end of said body and projecting at right angles thereto, supporting arms formed at the outer ends of said side portions, a resilient tongue formed integral with the lower end of the body and bent upwardly and arranged in spaced parallel relation therewith, said tongue frictionally engaging the end of a curtain pole to securely hold the same in position between the side portions.

1,074,684. TARIFF-BOOK. FRANK WILLIAM BACON, Los Angeles, Cal. Filed July 25, 1912. Serial No. 711,568. (Cl. 11—19.)



1. A tariff book comprising a plurality of leaves, the leaves being in two sets on opposite sides of the hinge line of the book, the leaves of each set having horizontal columns bearing indications of the amounts of fare from a station to other stations, said leaves of both sets being cut away on the same side to form alined marginal stepped tab portions bearing on obverse and reverse faces the names of the stations, the stepped marginal tab portions of the two leaves presented to view on each side of the hinge line when the book is opened at any point descending in the same direction and presenting the names of the stations in consecutive order.

2. A tariff book comprising a plurality of leaves, the leaves being in two sets on opposite sides of the hinge line of the book, the leaves of each set having horizontal columns bearing indications of the amounts of fare from a station to other stations, said leaves of both sets being cut away on the same side to form alined marginal stepped tab portions bearing on obverse and reverse faces the names of the stations, the stepped marginal tab portions of the two leaves presented to view on each side of the hinge line when the book is opened at any point descending in the same direction and presenting the names of the stations in consecutive order, the reverse face of those leaves which lie intermediate the terminal stations bearing the names of stations concealed by a leaf of a set when that leaf is folded on top of the other leaf of that set.

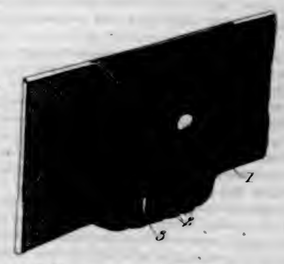
3. A tariff book comprising a plurality of leaves, the leaves being in two sets on opposite sides of the hinge line of the book, the leaves of each set having horizontal columns bearing indications of the amounts of fare from one station to other stations, said leaves of both sets being cut away on the same side to form alined marginal stepped tab portions bearing on obverse and reverse faces the names of the stations, the stepped marginal tab portions of the two leaves presented to view on each side of the hinge line when the book is opened at any point descending in the same direction and presenting the names of the stations in consecutive order, the said names of stations being arranged in line with the respective horizontal columns containing designations of fare, said leaves also having vertical columns with designatons of the miles between the respective stations and terminal, each of said mileage designations being located in a horizontal column in line with the name of the station corresponding to that mileage from the terminal station.

4. A tariff book hinged in the middle and containing a plurality of leaves, the leaves being cut away on the same side to form alined marginal stepped tab portions, said tab portions bearing on obverse and reverse faces the names of stations, said names being arranged parallel to the hinge line of the book, the leaves of the book when opened presenting to view a continuous line of the station names, the said line of names extending uninterruptedly across the hinge line of the book.

5. A tariff book hinged in the middle and containing a plurality of leaves, the leaves being cut away on the same side to form alined marginal stepped tab portions, said tab portions bearing on obverse and reverse faces the names of stations, said names being arranged parallel to the hinge line of the book, the leaves of the book when opened presenting to view a continuous line of the station names, the said line of names extending uninterruptedly across the hinge line of the book, the leaves being provided with horizontal columns extending parallel to the hinge line of the book, one of said columns being in line with the name of the station on that leaf, the other horizontal columns on that leaf being in line with respective names of stations on other leaves, each leaf also containing vertical columns at right angles to the hinge line of the book, a vertical column containing indications of fares in line with the respective horizontal columns and with the other statons alined therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,074,685. FABRIC POCKET. FRANK R. BATCHELDER, Worcester, Mass. Filed Nov. 15, 1910. Serial No. 592,480. (Cl. 224—23.)



1. A woven fabric receptacle having a plurality of tubes formed in the process of weaving, and strips of reinforcing material inserted in said tubes.

2. A fabric pocket having upon its exterior at its lower portion, a plurality of tubes of flexible material, and strips of reinforcing-material inserted and secured in said tubes.

3. A fabric pocket having upon its exterior at its lower portion, a plurality of tubes of flexible material extending from one face of the pocket around beneath the same to the other face thereof, and strips of reinforcing-material inserted and secured in said tubes.

1,074,686. BLUE-FLAME OIL-STOVE. ATWELL J. BLACKFORD, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 12, 1912. Serial No. 730,985. (Cl. 158—94.)

1. A burner of the type described, comprising a chimney having a blue flame burner-cap at its top, an initial heating yellow flame burner within the lower end of the chim-

ney, a movable tube within the chimney adapted to surround the burner and convert the yellow flame into a blue flame, said tube having air passages therethrough for creating a draft and mixing air with the excess vapor and drawing it through the blue-flame burner and forcing it through the aforesaid blue flame burner-cap at the top of the chimney.



2. A burner of the type disclosed having a chimney with a blue flame burner-cap at its top, an initial heating yellow flame burner within the lower end of the chimney, a vertically movable tube within the chimney and adapted to surround the yellow flame burner to convert it into a blue flame burner, said tube having openings at its lower end.

3. A burner of the type disclosed, comprising a chimney having a blue flame burner at its top, an initial heating yellow flame burner within the lower end of the chimney, a vertically movable tube within the chimney and adapted to have its lower end surround the burner to convert the yellow flame into a blue flame, said tube having air passages at its lower end and passages intermediate its end.

4. A burner of the type disclosed, comprising a chimney having a blue flame burner-cap at its top, an initial heating yellow flame burner within the lower end of the chimney and an elongated open ended vertically movable tube within the chimney and adapted to have its lower end surround the burner to convert the yellow flame into a blue flame, said chimney creating a draft to draw the excess vapor through the tube and delivering it to the burner-cap at the upper end of the chimney.

5. A burner of the type disclosed, comprising a chimney having a blue flame burner-cap at its top, an initial heating yellow flame burner within the lower end of the chimney, a vertically movable tube within the chimney at its lower end and adapted to surround the burner, the burner having air passages located in a vertical plane within the lower end of the tube through which air and excess vapor are drawn and conveyed to the burner-cap at the top of the chimney.

1,074,687. WICK BLUE-FLAME OIL-BURNER. ATWELL J. BLACKFORD, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 12, 1912. Serial No. 730,986. (Cl. 158—94.)

1. A burner of the type described, comprising a chimney having at its upper end a blue-flame burner cap, a burner within the lower end of the chimney, said burner having a cap with a perforated flange, a vertically movable tube within the chimney adapted to convert the flame of the burner from a yellow to a blue flame, manually operated means for lifting the tube constructed to cause the tube to automatically fall when the manually operated means is released and thus automatically cause the conversion of the yellow flame into a blue flame for the purpose described.

2. A burner of the type described, comprising a chimney having a blue-flame burner cap at its upper end, a wick burner within its lower end, a cap for the wick burner having a perforated annular flange, a vertically movable tube within the chimney, the lower end of the tube adapted to fit snugly the periphery of the said flange to cause the excess vapor to be drawn through the said perforations of the flange and the draft therethrough increased, for the purpose described.



3. A burner of the type described, comprising a chimney having a blue-flame burner-cap at its upper end, a wick-burner at its lower end, a cap for the said wick burner, a vertically movable tube adapted to coact with the cap to produce a blue flame, the chimney and parts adjacent the wick having registering lighting openings, and the tube having an air opening above the burner-cap and on the side opposite the said lighting openings for the purpose described.

1,074,688. BLUE-FLAME WICK-STOVE. EDWARD BOEKENKAMP, St. Louis, Mo., assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 11, 1912. Serial No. 730,694. (Cl. 158—88.)

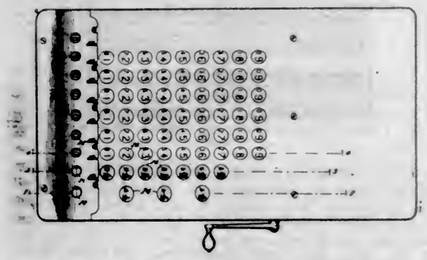


1. A burner of the type described comprising a chimney, a blue flame vapor generating burner within and at the lower end of the chimney, the said blue flame burner comprising vertically arranged inner and outer tubes having the perforations at their lower ends only, a wick extending between the perforated walls, the chimney having air passages, and the top of the chimney provided with a blue flame burner-cap.

2. A burner of the type described, comprising a chimney, a blue flame vapor generating burner within the lower end of the chimney and comprising concentrically arranged tubes spaced apart to receive a wick between their lower

ends, the lower portion of the tubes being perforated, the upper end of the space between the tubes in communication with the interior of the chimney, a deflector flange projecting over this space between the tubes and a blue flame burner cap at the upper end of the chimney.

1,074,689. ADDING-MACHINE. GEORGE STENINGER BOLLENSEN, Chicago, Ill., assignor to Felt & Tarrant Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 30, 1912. Serial No. 723,035. (Cl. 235—82.)



1. In a multiple-order keyboard adding-machine, in combination: a plurality of ordinal series of keys designating integers; and a plurality of series of keys all designating common fractions of one common denominator value, a left-hand series of said fractional keys designating fractions having numerator values that are progressive multiples of the other numerator values of the fractions designated by the next adjacent right-hand series of keys; substantially as specified.

2. In a multiple-order keyboard adding-machine, in combination: a plurality of orders of keys designating integers; and a plurality of orders of keys all designating common fractions of one common denominator value, a left-hand order of said fractional keys designating fractions having a numerator value in multiple of the numerator value of fractions designated by the next adjacent right-hand order of the keys; substantially as specified.

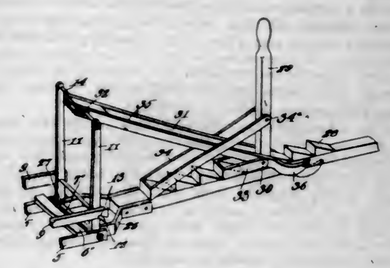
3. In a multiple-order key-driven calculating-machine, in combination: adding-mechanism including numeral-wheels and transfer devices adapted to permit said adding mechanism to receive prime key-actuations in a plurality of orders simultaneously; a plurality of orders of keys designating integers; and a plurality of orders of keys all designating common fractions of one common denominator value, a left-hand order of said fractional keys designating fractions having a numerator value in multiple of the numerator value of fractions designated by the next adjacent right-hand order of the keys, the transfer devices between the fractional orders being adapted to impart numeral-wheel movements of the special amplitude required by the fractional values to be transferred; substantially as specified.

4. In a multiple-order key-driven calculating-machine, in combination: adding mechanism including numeral-wheels and transfer devices adapted to permit said adding mechanism to receive prime key-actuations in a plurality of orders simultaneously, one of said transfer devices being further adapted to impart to the next higher numeral-wheel a proper transfer-movement exceeding one-tenth of a rotation and registering a fractional value greater than one-tenth of unity; a plurality of ordinal series of keys designating the integers of a decimal notation; and a plurality of series of keys all designating common fractions of one common denominator value, a left-hand series of less than nine of said fractional keys designating fractions having numerator values that are multiples of the other numerator values of the fractions designated by the next adjacent right-hand series of keys; substantially as specified.

5. In a multiple-order keyboard adding-machine, in combination: adding-mechanism including a series of numeral-wheels and transfer-mechanism therefor, one set of said numeral-wheels designating integers, and another set designating fractions all of one common denominator value, a left-hand one of said fractional wheels designating fractions having numerator values that are multiples of the other numerator values of the fractions designated by the next adjacent right-hand numeral-wheel; and keys co-operating with and determining the adding movements of the numeral-wheels, and designating corresponding integers and fractional values; substantially as specified.

[Claims 6 to 13 not printed in the Gazette.]

1,074,690. AUTOMOBILE-JACK. W. CLAUGHTON BOULDIN, Oakland, Tex. Filed Aug. 29, 1912. Serial No. 717,811. (Cl. 57—15.)



1. In a device of the character described, a base, a frame, links connecting the base and frame, a lever pivoted to the base for raising the frame, a ratchet bar connected to the base, a thrust member connected to the lever, an auxiliary lever pivoted to the thrust bar and a ratchet bar engaging pawl pivoted to the lever.

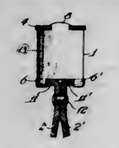
2. In a device of the character described, a base, a frame, links connecting the base and frame, a lever pivoted to the base for raising the frame, a ratchet bar connected to the base, a thrust member connected to the lever at one end with its other end adapted to ride on a surface, an auxiliary lever pivoted to the thrust member, and ratchet bar engaging pawls pivoted to the lever and thrust member.

3. In a device of the character described, a base, a frame, links connecting the base and frame, a lever pivoted to the base for raising the frame, a ratchet bar connected to the base, a thrust member embodying side strips engaged to the lever at one end with the other end straddling the ratchet bar to ride on the floor, an auxiliary lever pivoted between the strips, and ratchet bar engaging pawls pivoted to the auxiliary lever and thrust member.

4. In a device of the character described, a base, a frame, links connecting the base and frame, a lever pivoted to the said base for raising the same, a ratchet bar connected to the base, a thrust member embodying side strips engaged to the said lever with their rear ends straddling the ratchet bar to ride on the floor, an auxiliary lever pivoted between the strips, a looped pawl pivoted to the auxiliary lever and straddling the thrust member to engage the ratchet bar, and a looped pawl pivoted to the thrust member to engage the ratchet bar.

5. In a device of the character described, a base embodying an end rung, a frame, links connecting the base and frame, a lever pivoted to the said rung for raising the same and embodying a rung at its free end, a ratchet bar connected to the said rung of the base, a thrust member embodying side strips having notches at one end to engage the said rung of the lever, the other ends of the strips straddling the ratchet bar and formed into feet to ride on the floor, an auxiliary lever pivoted between the strips, a looped pawl pivoted to the auxiliary lever and straddling the thrust member to engage the ratchet bar, and a looped pawl pivoted to the strips to engage the ratchet bar.

1,074,691. TURBINE-WHEEL. OTTO F. BRUMAN, Berlin, Germany, assignor to Robert S. Hotz, Chicago, Ill. Filed Mar. 20, 1911. Serial No. 615,540. (Cl. 121—57.)

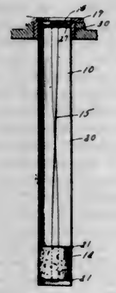


1. In a turbine wheel, the combination with two disks secured together at their peripheries and having flanges forming a rim on said wheel, said rim being provided with notches in the outer edges thereof, of blades having tangs on their outer edges fitting in said notches and secured therein.

2. In a turbine wheel, the combination with two disks secured together at their peripheries and having flanges forming a rim on said wheel, said rim being provided with notches on the outer edges thereof, of blades having tangs on their outer edges fitting in said notches and secured therein, said blades being beveled on the entering side along the working portion of the blade.

3. In a turbine wheel, the combination with two disks secured together at their peripheries and having oppositely extending flanges forming a rim on said wheel, said rim being provided with notches in the outer edges thereof, of blades having tangs on their outer edges fitting in said notches and welded to said rim, a band covering the ends of said blades, said band being provided with notches therein and said blades being provided with tangs fitting in said notches and welded to said band.

1,074,692. TANK-GAGE. BERNARD H. CAMDEN, Washington, D. C. Filed July 3, 1912. Serial No. 707,543. (Cl. 73—82.)



1. In a gage, the combination with a float barrel, of a non-rotatable float member in said barrel, an index actuating means suspended within said barrel in driving engagement with said float and having its lower end free and unattached to the barrel.

2. In a gage, the combination with a float barrel, of a non-rotatable float member in said barrel, and an index-actuating spiral suspended within said barrel in driving engagement with said float and having the lower end free and unattached.

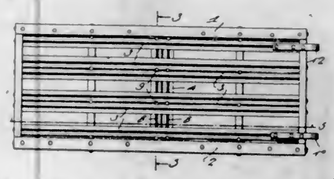
3. In a gage, the combination with a float barrel, of a non-rotatable float in said barrel, a float driven spiral having a free unattached lower end, an index plate at the top of said barrel, and a spiral suspension bearing carried by said index plate.

4. In a gage, the combination with a float barrel having a dial-supporting ledge at its upper end, of a dial mounted on said ledge, a spiral mounted in a suspension bearing carried by said dial and having its lower end free and unattached, and a non-rotatable float in said barrel engaging said spiral.

5. In a gage, the combination with a float barrel having a ledge at its upper end, a dial mounted on said ledge, a rotatable bearing block mounted centrally of said dial, a spiral suspended from said bearing block and having a free unattached lower end, and a non-rotatable float in said barrel engaging said spiral.

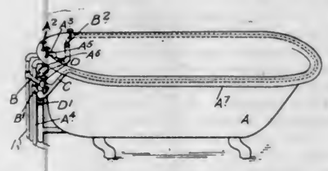
[Claims 6 to 12 not printed in the Gazette.]

1,074,693. GATE. ALBERT CARTER and ALBERT E. COMBER, Galesburg, Ill. Filed Nov. 7, 1912. Serial No. 730,051. (Cl. 39—8.)



A gate comprising a rectangular shaped frame composed of bars which are right angular in cross section, longitudinal corrugated bars secured to said frame and having their opposite ends projected at right angles thereto and secured to the opposite end members of the frame, one edge of the upper and lower longitudinal bars being rigidly secured to the upper and lower members of the frame, a vertical transverse bar of similar construction to the longitudinal bars, the opposite ends of which are in binding contact with the upper and lower members of the frame, said bars having opposite inclined extensions and a concavo-convex contral portion, and means for fastening the longitudinal bars to said transverse bar whereby the parts are rigidly connected, the concavo-convex portion of the longitudinal bars being normally out of contact with the recessed portions of the transverse bar whereby the parts of the gate are bindingly engaged.

1,074,694. HEATING DEVICE FOR BATHS AND THE LIKE. JOHN ROBERT CARTER, Toronto, Ontario, Canada. Filed Nov. 25, 1912. Serial No. 733,362. (Cl. 4—27.)

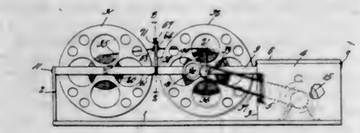


1. In a heating device for baths, the combination with a bath having hot and cold water supply pipes and a waste pipe, of a circulating pipe extending around the bath and terminating in an inlet, branch pipes connecting said circulating pipe with said hot and cold water supply pipe, and connecting said circulating pipe with said waste pipe, valves for regulating the flow and temperature of the water through the circulating pipe, and means for directing such flow into the bath or to said waste pipe.

2. In a heating device for baths and the like, the combination with the bath having a suitable inlet opening, of a water supply device, of a pipe leading from the water supply device around the bath to the inlet opening, a waste pipe and a controlling valve designed to control the admission of water from the circulating pipe to the waste pipe and the interior of the bath.

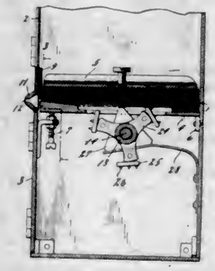
3. In a heating device for baths and the like, the combination with a bath and the hot and cold water supply pipes and waste pipe, of a duct leading around the rim of the bath, separate branch pipes communicating between the hot and cold water supply pipes and the duct and separate controlling valves for the branch pipes designed to regulate the proportionate flow of water through such branch pipes to the surrounding duct, as and for the purpose specified.

1,074,695. MOTOR ATTACHMENT. GUY K. CLARK, Canon City, Colo. Filed Nov. 23, 1911. Serial No. 662,015. (Cl. 242—55.)



In a machine for winding and cleaning moving picture films, a frame; reel holding shafts journaled in the frame; oppositely disposed arms fixed to and rising from the frame between the shafts, the arms being provided in their adjacent faces with guides; a lower clamp bar slidable vertically in the guides and held against horizontal movement by the guides, the lower clamp bar being upheld by the lower ends of the guides; an upper clamp bar slidable in the guides above the lower clamp bar and held against horizontal movement by the guides; yieldable facing upon the bars, between which the film is adapted to pass, a latch bar pivoted to one arm and coöperating with the other arm; locking means for uniting the latch bar with said other arm; and a member adjustable in the latch bar, transversely of the latch bar, and adapted to engage the upper clamp bar to secure a coöperation between the facings.

1,074,696. VENDING-MACHINE. HENRY B. COOLEY, New Britain, Conn., assignor to The American Paper Goods Company, Kensington, Conn., a Corporation of New Jersey. Filed July 19, 1911. Serial No. 639,265. (Cl. 211—33.)



1. In a vending apparatus, a casing having a magazine and a delivery outlet, a floor for said magazine having a convex raised section at its forward end in proximity to the delivery outlet, a guide plate above said raised section, said guide plate having its lower edge curved, and an ejector and means for operating the same.

2. In a vending apparatus, a casing having a magazine and a delivery outlet, a floor for said magazine having a convex raised section at its forward end in proximity to the delivery outlet, a guide plate above said raised section, said guide plate having its lower edge curved, means for adjusting the height of the forward end of the floor relative to said plate, and an ejector and means for operating the same.

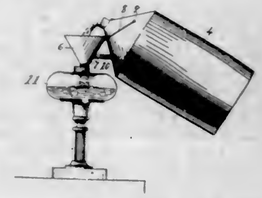
3. In a vending apparatus, the combination of a casing having a magazine and a delivery outlet, a floor for said magazine having an opening therein, an ejector comprising arms having shoes pivoted thereon and adapted to engage the lowermost article in the magazine through said opening and to eject it through the delivery outlet, and means for rotating said arms and shoes.

4. In a vending apparatus, the combination of a casing having a magazine and a delivery outlet, an ejector having pivoted shoes, projecting points on said shoes to engage the article to be delivered, a cam rotating with said ejector, and a spring coöperating with said cam to impart a quick movement to the ejector after it has engaged the article to be delivered.

5. In a vending apparatus, the combination of a casing having a magazine and a delivery outlet, an ejector comprising a plurality of radial arms having surfaces adapted to engage the article to be delivered, means for rotating said arms, a cam having its high points midway of the arms, and a spring coöperating with said cam to impart a quick movement to the ejector after it has engaged the article to be delivered.

[Claims 6 and 7 not printed in the Gazette.]

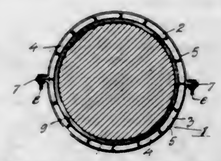
1,074,697. OIL-CAN AND FUNNEL. JAMES J. COX, Oskaloosa, Iowa. Filed Apr. 12, 1913. Serial No. 760,631. (Cl. 221—12.)



1. The combination with a can, of a funnel having a loop on one side; a bail pivotally connected with the can and engaging the said loop, and a brace secured to the can as a support to the funnel in service.

2. The combination with a can, of a funnel, a bail pivotally attached to the can, and the funnel having a loop on one side engaging the bail, whereby the funnel may be used in filling the can, or in filling a receptacle from the can, or be placed as a cap upon the can.

1,074,698. PROTECTING DEVICE FOR PILING. JOSEPH CROCKETT and LINNIE LOCKWOOD, Bandon, Oreg. Filed Dec. 11, 1912. Serial No. 736,200. (Cl. 61—43.)

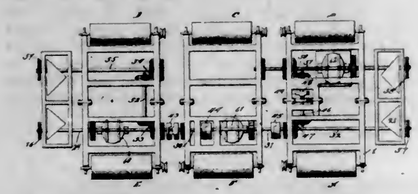


In a device of the character described, the combination of a body comprising two semi-circular sections, each section comprising a plurality of buoyant timbers, metallic bands arranged upon the outer sides of the timbers and secured thereto, oppositely disposed ears formed upon each of said bands, bolts securing said ears together, and scraper blades secured to the inner sides of each of said sections and arranged at the top and bottom thereof.

1,074,699. COMBINATION AND ARRANGEMENT OF ROTARY WEB-PRINTING MACHINES. CLARENCE W. DOLL, Indianapolis, Ind. Filed Apr. 2, 1910. Serial No. 553,071. (Cl. 101—124.)

1. The combination of a plurality of perfecting printing presses arranged in opposite pairs, the said pairs being spaced apart to permit access to each press on all sides, means for connecting said presses to run in groups having any desired number in each group, and means for driving each group independently and simultaneously.

2. The combination of a plurality of double perfecting printing presses arranged in parallel rows on a common base, two of said presses being provided with common drive shaft sections and the other of said presses being provided with a drive shaft, and means for connecting all of said drive shafts in operable relation to each other and in separate groups.



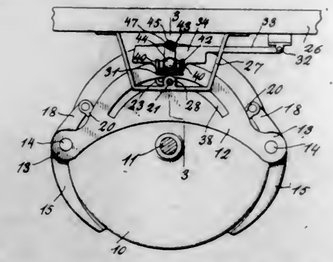
3. The combination of a plurality of double perfecting printing presses arranged in parallel rows on a common base, some of said presses being provided with a common drive shaft section and the other of said presses being provided with a drive shaft, a folder geared to each end press shaft and operable from its drive shaft with or without said end press in any desired grouping, and means for connecting all of said drive shafts in operable relation to each other in any desired grouping.

4. The combination of a plurality of double perfecting printing presses, each double press being provided with a drive shaft section, and two of said double presses each having an additional common drive shaft, and means for connecting all of said drive shafts in operable relation to each other and in any desired groups.

5. The combination of a plurality of double perfecting printing presses, each double press being provided with a drive shaft section, and two of said double presses having an additional common drive shaft, means for connecting all of said drive shafts in operable relation to each other, and means whereby one section of each of the double presses having the common additional drive shaft may be operated independently by said common additional drive shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,074,700. RAILWAY-BRAKE. CHARLES W. DRAKE, Wellington, Tex. Filed June 26, 1913. Serial No. 775,928. (Cl. 188—65.)



1. A brake comprising opposite brake shoes, a tiltable plate to which the brake shoes are pivoted, a brake setting bar, connections between said bar and the brake shoes, a rock shaft having means to engage the bar for actuating the same, means for locking the plate, and means for releasing the plate to permit the same to tilt to carry one of the brake shoes between the wheel and the part on which the wheel runs.

2. A brake comprising opposite brake shoes, a tiltable plate to which the brake shoes are pivoted, a brake setting bar, connections between said bar and the brake shoes, a rock shaft having means to engage the bar for actuating the same, a lug extending from the plate, a pivoted arm having a recess to receive the lug, and means for swinging the arm to release the lug to permit the plate to tilt and carry one of the brake shoes between the wheel and the part on which the wheel runs.

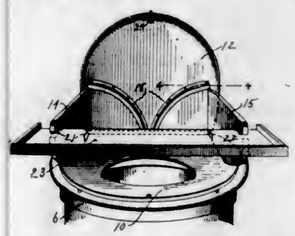
3. A brake comprising a tiltable plate, brake shoes carried by said plate, means for applying the brake shoes, means for locking the plate, and means for releasing the plate to permit the same to tilt to carry one of the brake shoes between the wheel and the part on which the wheel runs.

4. A brake comprising a tiltable plate, brake shoes carried by said plate, means for applying the brake shoes, a lug extending from the plate, a pivoted arm having a recess to receive the lug, and means for swinging the arm to release the lug to permit the plate to tilt and carry one of the brake shoes between the wheel and the part on which the wheel runs.

5. A brake comprising a tiltable plate, brake shoes carried by said plate, means for applying the brake shoes, a lug and a shelf extending from the plate, a pivoted arm having a recess to receive the lug, and a lever carried by the arm and having means engageable with the shelf to lift the arm to release the lug to permit the plate to tilt and carry one of the brake shoes between the wheel and the part on which it runs.

[Claims 6 to 10 not printed in the Gazette.]

1,074,701. CLOSET-SEAT. SAMUEL L. EASTBURN, Sloatsburg, N. Y. Filed Sept. 6, 1912. Serial No. 718,855. (Cl. 4—18.)



1. The combination with a water closet seat, of a pivotally supported cover therefor; two guides carried by said cover, and two side arms carried by said seat and pivotally connected therewith, said side arms having each an element adapted to engage one of the guides aforesaid.

2. The combination with a water closet seat, of a pivotally supported cover therefor; two curved guides carried by said cover; and two side arms carried by said seat and pivotally connected therewith, said side arms having each a projection adapted to engage and move in contact with one of the guides aforesaid.

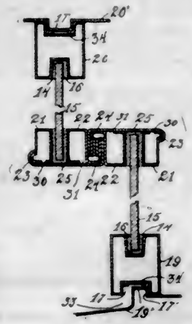
3. In a device of the class described, a water closet seat; a pivotally supported cover therefor; two guides carried by said cover; and two side arms pivotally connected with said seat and adapted to swing about axes extending substantially at right angles to the axis of said cover; said arms having each means located at the end thereof adjacent said cover and adapted to move in contact with the guides aforesaid.

4. In a device of the class described, a water closet seat; a pivotally supported cover therefor; two curved guides carried by said cover; and two side arms pivotally connected with said seat and adapted to swing about axes extending substantially at right angles to the axis of said cover; said arms having each a projecting lug located at the upper edge of the end thereof adjacent said cover and adapted to move in contact with the guides aforesaid.

5. The combination with a water closet seat, of a pivotally supported cover therefor; two side arms carried by said seat and pivotally connected therewith, said side arms having each a projection adapted to engage and move in contact with one of the guides aforesaid; and a spring operatively associated with each of said side arms and tending to swing the same into an upright position.

[Claim 6 not printed in the Gazette.]

1,074,702. SHEET-METAL WINDOW. ARVID W. ECKBERG and CARL STOHLBERG, Jamestown, N. Y. Original application filed Sept. 19, 1911, Serial No. 650,209. Divided and this application filed Dec. 9, 1911. Serial No. 664,708. (Cl. 189—78.)



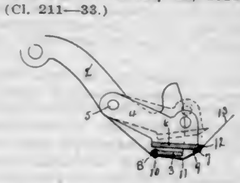
1. In a sheet metal window, an upper and a lower sash each having a cross rail formed of two tubular parts, each cross rail having the outer side of its outer tubular part at the top thereof curved outwardly to form a projection, the other tubular part having its inner side spaced from the inner side of the other said tubular part to form a glass receiving space, the outer side of said second named tubular part being extended outwardly and then inwardly to form a flange which is spaced from the outer side of the second named tubular part, and a cap which has one side engaged over said projection and has its opposite side formed of U-shape in cross-section to receive the flange of the second named tubular part, the U-shaped sides of the caps when the cross rails are in meeting position being engaged with each other and with the adjacent outer sides of the second named tubular parts of the cross rails.

2. In a sheet metal window, an upper and a lower sash each having a two-part cross rail, each cross rail having the outer side of its outer part extended outwardly and inwardly to form a flange which is spaced from the inner side of the cross rail, and a cap engaged over said two parts of each of the cross-rails, said caps each having one side thereof formed of U-shape in cross section so as to receive said flanges in the space between the legs of the U-shaped parts, the adjacent legs of the U-shaped parts contacting when the sashes are closed and the other legs of the U-shaped parts contacting with the adjacent outer sides of the outer parts of the cross rails.

3. In a sheet metal window, an upper and a lower sash each having a two-part cross rail, and a cap for connecting the two parts of each cross rail, each cap having one side thereof spaced from the adjacent side of the cross rail, the said sides of the caps on their inner faces contacting when the sashes are closed and having their outer faces engaging said adjacent sides of the cross rails.

4. A sheet metal window sash having a lengthwise groove for the window glass on its inner edges, one side of said sash having a slot through the sash side to receive said window glass, projections on the outer sides of said slotted sash side, a cap having flanged edges to engage over said projections and close said slot, the other three sash sides having lengthwise grooves in their outer edges with openings lengthwise in the bottom of said grooves admitting to the interior of the tubular sash sides, substantially as and for the purpose specified.

1,074,703. FEEDING MECHANISM. CHARLES J. FANCHER, Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y., a Corporation of New York. Filed May 24, 1912. Serial No. 699,356. (Cl. 211—33.)



1. A gripping jaw, for feeding mechanism, comprising a pair of oscillatory arms provided with a cross piece, and a plurality of resilient gripping members attached to said cross piece and arranged independent of the latter for a normal amount of movement under pressure that is common to all, and capable of yielding individually beyond the normal point.

2. In feeding mechanism, relatively-operating gripping jaws, one of such jaws being unyielding and the other comprising a plurality of resilient members arranged and adapted to coöperate with said unyielding jaw.

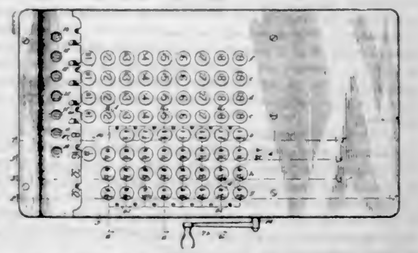
3. In feeding mechanism, relatively operating gripping jaws, one of such jaws being unyielding and the other comprising a plurality of members arranged and adapted to coöperate with said unyielding jaw and capable of yielding sectionally.

4. In feeding mechanism, relatively-operating gripping jaws, one of such jaws being unyielding and the other comprising a plurality of members arranged and adapted to coöperate with said unyielding jaw and capable of yielding collectively under pressure thereon from said unyielding jaw.

5. In feeding mechanism, relatively-operating gripping jaws, one of such jaws being unyielding and the other comprising a plurality of members arranged and adapted to coöperate with said unyielding jaw and capable of yielding collectively and individually under pressure thereon from said unyielding jaw.

[Claim 6 not printed in the Gazette.]

1,074,704. CALCULATING-MACHINE. DORR E. FELT, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,190. (Cl. 235—82.)



1. In a calculating machine for registering and calculating common fractions, mechanism for registering separately a plurality of the component parts of such fractions, and actuating mechanism for jointly actuating such registering mechanism to register by a single operation the component parts that together equal the full value of the fraction, substantially as specified.

2. In a calculating machine, the combination of a plurality of fraction numeral wheels of higher and lower orders, keys marked to indicate fractions, and means whereby a key affects said wheels jointly and causes the value of its fraction to be registered in separate parts respectively on the said wheels, substantially as specified.

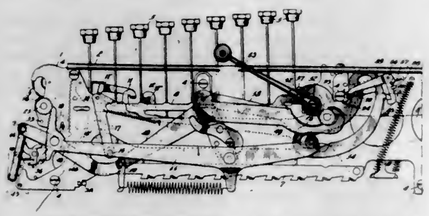
3. In a calculating machine, the combination of a plurality of fraction numeral wheels of higher and lower orders, keys marked to indicate fractions, means whereby a key affects said wheels jointly and causes the value of its fraction to be registered in separate parts respectively on the said wheels, and carrying mechanism arranged operatively between the said wheels, substantially as specified.

4. In a calculating machine, the combination of a plurality of fraction numeral wheels of higher and lower orders, keys marked with fractions of a value greater than the value of one revolution of the lower wheel, and means whereby such a key affects the said wheels jointly, to cause the higher wheel to be turned to register that part of the fraction, indicated by the key, which is equal in value to a revolution of the lower wheel, and to cause the lower wheel to be turned to register the remainder of said fraction.

5. In a calculating machine, the combination of a plurality of fraction numeral wheels of higher and lower orders, keys marked with fractions of a value greater than the value of one revolution of the lower wheel, means whereby such a key acts on the said wheels jointly, to cause the higher wheel to be turned to express that part of a fraction which is equal in value to the registering value of one or more full revolutions of the lower wheel, and to cause the lower wheel to be turned to register the remainder of said fraction, and carrying mechanism arranged operatively between the said wheels, substantially as specified.

[Claims 6 to 27 not printed in the Gazette.]

1,074,705. CALCULATING-MACHINE. DORR E. FELT, Chicago, Ill. Filed Apr. 5, 1913. Serial No. 759,192. (Cl. 235—144.)



1. In a calculating machine having multiple-order accumulator mechanism, including numeral wheels and carrying mechanisms, in combination a canceling device for restoring the accumulator mechanism to normal position or zero; and a positive stop acting when the canceling device has reached the end of its final throw to prevent the rebound of the canceling device and an improper positioning of the accumulator mechanism; substantially as specified.

2. In a calculating machine having multiple-order accumulator mechanism, including numeral wheels and carrying mechanisms, in combination a canceling device for restoring the accumulator mechanism to normal position or zero; and a positive stop movable into the path of a part of the canceling device at the end of its final movement and acting to prevent the rebound of the canceling device; substantially as specified.

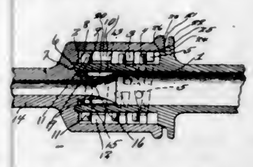
3. In a calculating machine having multiple-order accumulator mechanism, including numeral wheels and carrying mechanisms, in combination a canceling device for restoring the accumulator mechanism to normal position or zero; and a stop movable into the path of a part of the canceling device at the end of its final movement and acting to prevent the rebound of the canceling device, the canceling device having means to so move the stop; substantially as specified.

4. In a calculating machine having multiple-order accumulator mechanism, including numeral wheels and carrying mechanisms, in combination a canceling device for restoring the accumulator mechanism to normal position or zero; a stop moved with the canceling device; a stop actuating part moved with the canceling device; and a swinging stop movable to engage the stop which moves with the canceling device and having a part which may be engaged by the stop actuating part at the end of the final movement of the canceling device, to operatively position the swinging stop and prevent rebound; substantially as specified.

5. In a calculating machine having multiple-order accumulator mechanism and a series of column-actuators, in combination a canceling device adapted to advance a plurality of the orders from diverse positions to a predetermined limit; cancellation controlling means to operate said canceling device and effect a succeeding adding movement of the series of column actuators; and a stopping device for engaging the cancellation controlling means, after it has completed the cancellation, and preventing a rebound of the same; substantially as specified.

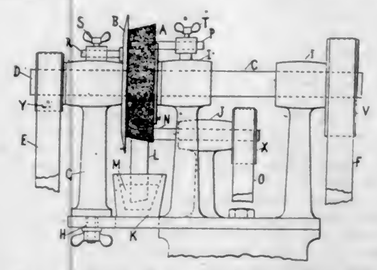
[Claim 6 not printed in the Gazette.]

1,074,706. PIPE-COUPLING. GILBERT JEROME FERGUSON, Lost Creek, Pa. Filed Mar. 22, 1913. Serial No. 756,263. (Cl. 137—28.)



In a pipe coupling, a male and female member telescopically insertible, one within the other, the female member having upon its interior an interrupted worm having diametrically opposite openings, while the male member is provided upon its exterior circumference with a plurality of spirally arranged radial lugs to enter the openings to lock into coöperation with the worm, a ground joint between one end of the male member and the interior of the female member, and a ground joint between the forward end of the female member and the rear portion of the male member, said female member having an interior extension provided with a flange forming a spiral shoulder, said flange having grooves, while the interior of the male member is provided with lugs adapted to enter the said groove to engage the said spiral shoulder, thereby forming an additional lock.

1,074,707. HEEL-BLACKING MACHINE. JOHN BAPTISTE FONTAINE, Marlboro, Mass., assignor to Electro Weld Company, Marlboro, Mass., a Corporation of Massachusetts. Filed Jan. 6, 1910. Serial No. 536,601. (Cl. 12—31.)



1. The combination of a rotary brush, a disk in juxtaposition with said brush and rotatable in a plane substantially parallel to the plane of rotation of said brush, and means for rotating said brush and disk simultaneously but at different rates of speed.

2. The combination of a rotatable circular brush, a rotatable disk parallel to and overlapping the brush, and means for rotating the brush and disk simultaneously at different rates of peripheral speed, said means comprising independently driven shafts the axes of which are substantially in parallelism.

1,074,708. PROCESS OF MAKING LACTIC ACID. OTTO FRIEDBERGER, Giessen, Germany, assignor of one-third to Eugene A. Byrnes, Clinton Paul Townsend, and John H. Brickenstein. Filed Jan. 18, 1912. Serial No. 671,956. (Cl. 23—24.)

1. The process of producing lactic acid, which consists in fermenting a saccharid, by the *Bacillus Delbrucki*, previously brought to a healthy development and accustomed to dextrose.

2. The process of producing lactic acid, which consists in fermenting a saccharid, by the *Bacillus Delbrucki*, previously brought to a healthy development in a solution of maltose and then accustomed to dextrose by the gradual addition of a dextrose solution, and completing the fermentation by cultures of the *Bacillus acidi lactici* and the *Bacillus Bulgaricus*.

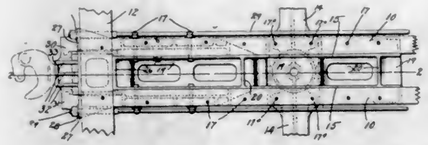
3. The process of producing lactic acid, which consists in fermenting a sterilized solution, having a strength of about ten per cent., of a saccharid, by the *Bacillus Delbrucki*, previously brought to a healthy development in a solution of maltose for about two days at a temperature of about 120–125° F. and then accustomed to dextrose by daily additions for about three days of a dextrose solution.

4. The process of producing lactic acid, which consists in fermenting a sterilized solution, having a strength of about ten per cent., of a saccharid, by the *Bacillus Delbrucki*, previously brought to a healthy development in a solution of maltose for about two days at a temperature of about 120–125° F. and then accustomed to dextrose by daily additions for about three days of a dextrose solution, and completing the fermentation by cultures of *Bacillus acidi lactici* and *Bacillus Bulgaricus* at a temperature of about 110–115° F.

5. The process of producing lactic acid, which consists in fermenting a saccharid, in the presence of a nitrogenous food for the bacillus, by the *Bacillus Delbrucki*, previously brought to a healthy development and accustomed to dextrose.

[Claim 6 not printed in the Gazette.]

1,074,709. COMBINATION BUFFER DRAFT-ARM AND SILL-REINFORCEMENT. FREDERICK F. GAINES, Savannah, Ga. Filed Dec. 17, 1912. Serial No. 737,190. (Cl. 105—76.)



1. As a new article of manufacture a car underframe member cast in a single piece and comprising a pair of sill and bolster-engaging draft arms, end sill engaging walls between the forward ends of said draft arms a draft rigging housing, a dead block and a striking plate.

2. As a new article of manufacture a car underframe member cast in a single piece and comprising a pair of sill and bolster-engaging draft arms, a dead block, a striking plate and sub-sill engaging brackets, all of which parts are cast integral.

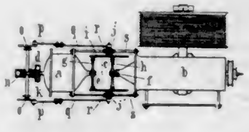
3. In a car underframe member, a pair of sill and bolster-engaging draft arms formed integral with each other, sub-sill engaging brackets integral with the rear ends of said arms, the forward portion of the vertical walls of which arms are extended downward and recessed to form a draft rigging housing, and a combined dead block and striking plate integral with the forward ends of said arms.

4. In a device of the class described, a pair of sill and bolster-engaging draft arms, which are substantially L-shaped in cross-section, web plates integral with and connecting said draft arms, the forward portions of the vertical walls of which arms are extended downward and recessed to form a draft rigging pocket, sub-sill engaging brackets integral with the rear ends of said draft arms and a combined dead block and striking plate integral with the forward ends of said draft arms.

5. In a car underframe member, a pair of integrally connected sill and bolster-engaging draft arms, the undersides of which are recessed to receive the car body bolster, a pair of transversely disposed web plates connecting the forward portions of said arms, which web plates are adapted to engage the end sill of a car underframe and sub-sill brackets integral with the rear portions of said draft arms.

[Claims 6 to 9 not printed in the Gazette.]

1,074,710. GEARING. ADOLPHE GAZAGNAIRE, Cannes, France. Filed Apr. 2, 1912. Serial No. 688,044. (Cl. 74—26.)



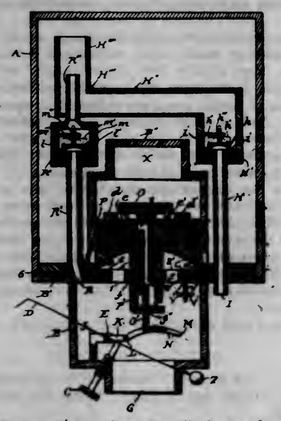
1. In a control mechanism for a body in motion, the combination of a pair of friction disks; driving means for one of the disks; friction plates each engaging an edge of both disks; slidable means for supporting the plates; a pair of cranks; a rod connecting each crank to one of the sliding means; a connection between the cranks and the driving means for slowly revolving the cranks; and a clutch in said connection.

2. In a control mechanism for a body in motion, the combination of oppositely disposed friction disks; a driving means for driving one of the disks; slides at opposite edges of the disks; friction plates carried by said slides; a pair of cranks; links connecting the respective cranks with the slides; and an operative connection between the driving means and the cranks for revolving the cranks at a slow speed and including a clutch.

3. In a control mechanism for a body in motion, the combination of a driving shaft; a driving disk thereon; a driven disk parallel to the driving disk; guides on opposite sides of said shaft; slides on the guides; plates rotatably mounted on said slides respectively and engaging the disks; a worm screw; a clutch device connecting the screw with the driving shaft; a worm wheel engaged by said screw; cranks rotated by said wheel; and links connecting the respective cranks to said slides.

4. In a control mechanism for a body in motion, the combination of a driving shaft; a driven shaft in alinement therewith; a friction disk on the driving shaft; a friction disk on the driven shaft; a pair of guides on opposite sides of said shafts; slides provided on said guides respectively; friction plates rotatably mounted on said slides respectively and pressed against opposite sides of said disks; a worm geared to said driving shaft and provided with a clutch therebetween; a worm wheel engaging said screw; a wheel shaft supporting said worm wheel and parallel to the axis of said plates; disks at opposite ends of said shaft and each provided with an eccentric crank pin; and adjustable links connecting the respective crank pins with the adjacent slides.

1,074,711. SANITARY FLUSHING-TANK. JOHN LINCOLN GISH, South Bend, Ind. Filed Aug. 10, 1912. Serial No. 714,488. (Cl. 4—5.)



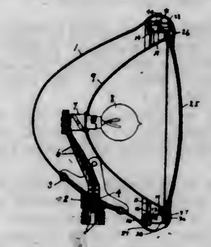
1. In a device of the class described, an air supplying means comprising an intake tube for water, a valve-casing containing a gravity check-valve for water joined to said intake tube for water, a conducting tube projecting in a horizontal line from said valve-casing, said conducting tube joining said valve-casing for water and terminating in a right angle elbow, a mixing and conducting tube for air and water projecting in a perpendicular line from said elbow, said mixing tube joining the said elbow and emptying into the pressure tank; an intake tube for air, said intake tube for air provided with an inlet opening, a valve-casing containing a gravity check-valve for air joined to said intake tube for air, a conducting tube, joined to, and projecting from said valve-casing for air and passing through a fluid-tight opening in the said elbow ends within the said mixing tube; whereby, during the refilling of the pressure tank, air is drawn through the said intake tube for air and mixed with the intake of water within the said mixing tube, as water, under pressure, flows through the said intake tube for water, and whereby, the required amount of air is re-stored to the direct pressure tank, that is needed for a successful re-flushing.

2. A closed tank having a base provided with a liquid inlet and a fluid inlet, tubes connected with said inlets and extending into said tank, a flush pipe connected outside of the tank to said base, the fluid inlet pipe having an aspirator at one end within the tank and direct fluid communication with said flush pipe at its other end, the upper end of the liquid inlet pipe being connected by a conduit with said aspirator, and a check valve within the aspirating device to prevent the egress of fluid from said tank.

1,074,712. LAMP. CHARLES E. GODLEY, Detroit, Mich., assignor to Edmunds and Jones Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed May 12, 1913. Serial No. 767,111. (Cl. 240—41.)

1. In a lamp, the combination of a cup-shaped body having a radial inwardly turned flange at its edge, headed bolts mounted on the flange, arched springs mounted between the heads of the bolts and the flange, a parabolic reflector having a grooved rim and a circumferential flange provided with key-hole slots to receive the bolts projecting from the body, a cushion in the groove of the rim of the reflector, a ring and a lens carried thereby, and means to removably secure the ring to the body and hold it against the rim of the reflector in such a manner as to compress said springs.

2. In a lamp, the combination of a body having a circular edge, headed bolts extending at right angles to said edge, springs mounted on the bolts, a reflector having a grooved circular rim and a circumferential flange provided with key-hole slots to receive the headed bolts on the body, a circular cushion mounted on the grooved rim, a ring and a lens carried thereby, and means to connect the ring to the body in engagement with the reflector in such a manner as to compress said springs.



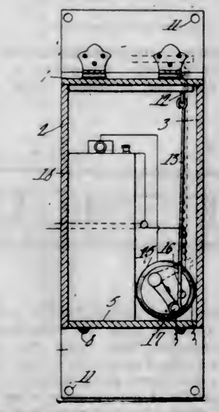
3. In a lamp, the combination of a body having a circular edge, bolts carried thereby, springs on the bolts, a reflector extending into said body and having a circular flange formed with holes through which the bolts extend, a lens-supporting ring in engagement with the reflector, and means to secure the ring to the body and in contact with the reflector so as to compress said springs.

4. In a lamp, the combination of a body having an opening, a ring and a lens secured over the opening, a reflector slidably mounted within the body, guides for said reflector mounted on the body and resilient means to press the reflector against said ring.

5. In a lamp, the combination of a body having an opening, bolts mounted thereon around the opening, a ring and a lens mounted on the bolts over the opening, a reflector slidably mounted in the body on said bolts, and springs mounted between the body and the reflector to hold the latter against the ring.

[Claims 6 to 8 not printed in the Gazette.]

1,074,713. MAIL-BOX. URIAH C. GREGGS and EDWARD H. FALLS, Terre Haute, Ind. Filed Jan. 10, 1913. Serial No. 741,356. (Cl. 177—301.)



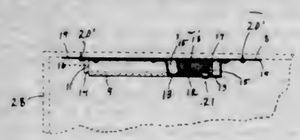
1. A mail box comprising a mail receiving receptacle, a hinged lid therefor, a two point switch linkedly connected to said lid, one of said switch points adapted to sound an electric alarm during the opening and closing of said lid, the second of said electric switch points adapted to be brought into an electric circuit including a push button, at the closure of said lid.

2. In a device of the class described, a mail box comprising a mail receiving receptacle and a hinged lid therefor, a two point contact switch disposed within said receptacle, a linked connection between the traveling arm of said switch and said hinged lid, an electric circuit including a source of electric energy and a sounding alarm connected to said switch traveling arm and to the upper of said electric switch contacts, to thereby sound an alarm during the opening and closing of said lid, the lower of said switch contact points electrically connected to a push button disposed on the outer portion of said mail box and shunting said first mentioned contact.

3. A sounding alarm for a mail box comprising a two point switch linkedly connected to the mail box lid, one of the points being above the other, an electric circuit including a source of electric energy and a sounding alarm connected to said switch and to the upper of said electric contact points, a conductor from the lower of said electric contact points including a push button and connected to the upper point, said upper of said contact points designed to sound a limited alarm during the opening and closing of said lid, said lower contact point adapted to connect the electric push button in the alarm circuit during the period of closure of said mail box lid.

4. A sounding alarm for a mail box comprising a two point switch linkedly connected to the mail box lid, one of the contact points being above the other, the upper point of said switch disposed approximately central of the arc of travel of the traveling arm of the switch, the lower switch point disposed at the lower extremity of the arc of travel of the traveling arm of the switch, an electric circuit including a source of electric energy and a sounding bell connected to said switch traveling arm and to the upper contact point, and a connection between the upper and lower switch contact points including a push button, the upper contact point adapted to sound the alarm for a limited period during the opening of the lid and to sound an alarm for a limited period during the closing of said lid, and said switch adapted to operatively connect said push button with said bell when the lid is in a closed position.

1,074,714. HUMIDOR. HERMAN F. GUENTHER and WILLIAM C. SCHULZ, Milwaukee, Wis. Filed July 26, 1912. Serial No. 711,766. (Cl. 131—80.)

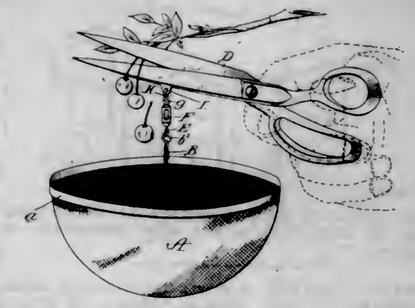


A humidor, comprising a base portion having apertured ears and angular side walls and an end wall, the base portion and the walls forming a rectangular inclosure, a perforated cover slidably engaging the angular portions of the wall and having an end and side flanged portions which form a cover inclosure, an absorbent medium removably positioned within the cover inclosure and removable therewith, and means extending through the apertures of the base ears for securing said base to a support, the means extending through one of the ears serving to lock the cover in closed position.

1,074,715. FRUIT-GATHERER. AXEL B. HANSON, Traverse City, Mich. Filed Jan. 29, 1913. Serial No. 744,923. (Cl. 56—99.)

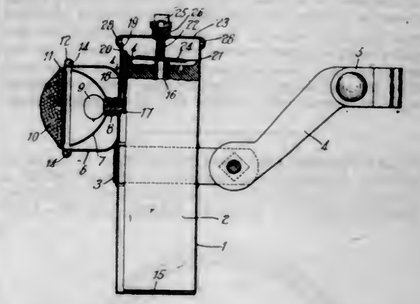
1. A fruit gatherer comprising a receptacle, a rigid post rigidly connected with the central portion thereof, a pair of shears, and a universal joint between the upper end of the post and the shears.

2. A fruit gathering comprising a receptacle, a rigid post rigidly connected with the central portion thereof and extending upwardly above the top of said receptacle, a pair of shears and a universal joint connecting the shears and post.



3. A fruit gatherer comprising a receptacle, a rigid post rigidly connected with the central portion thereof and extending upwardly above its top, a pair of shears, a swivel, a flexible connection between the swivel and the upper end of the post, and a flexible connection between the swivel and the shears.

1,074,716. LIGHTING APPARATUS. ELLSWORTH A. HAWTHORNE, Bridgeport, Conn. Filed Jan. 27, 1913. Serial No. 744,349. (Cl. 240—8.5.)



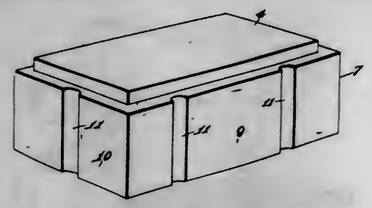
An electric lamp for vehicles comprising, in combination, a casing adapted to contain a dry battery cell, a lamp holding socket, a resilient contact member against which the lamp is adapted to seat when in said socket, said contact member being slotted, a second contact member having an end passing through said slot and bent over and about said first contact member, providing thereby a hinged connection thereto having provision tending to lift said second contact member from a terminal of the battery, and means for applying said second contact member to said battery terminal.

1,074,717. PAVING-BLOCK. OTTO A. HECKEL, St. Louis, Mo. Filed Mar. 28, 1912. Serial No. 686,946. (Cl. 94—1.)

1. A paving block comprising a creosote treated wooden block, a netting of reinforcing material attached to the bottom, sides and ends of said block, and a concrete covering placed over the reinforced portions of the block.

2. A paving block comprising a resilient block, a netting of reinforcing material attached to the bottom sides and ends of the block, a concrete covering applied over the reinforcing material, the walls of the reinforcing material being provided with depressions.

3. A paving block comprising a resilient creosote treated block, concrete partially covering the block reinforcing ma-



terial attached to said block, by which the concrete is rigidly and firmly held to said block, substantially as specified.

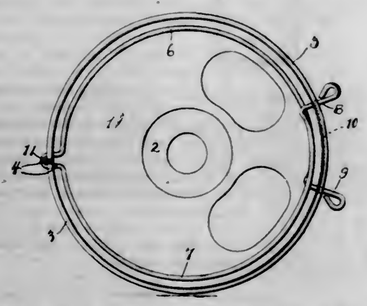
1,074,718. CULVERT. R BAZELL HIBBS, Lewiston, Idaho. Filed May 17, 1913. Serial No. 768,347. (Cl. 61—9.)



1. A culvert comprising sides and a connection therebetween; locking strips secured to and spaced from the sides; and a closure comprising top strips and bridges connecting the top strips, each bridge having a depending end engaged between one side and the adjacent locking strip.

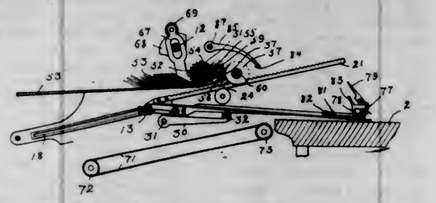
2. A culvert comprising connected sides; locking strips secured to and spaced from the sides; bridges extended across the upper edges of the sides and provided with depending ends engaged between the locking strips and the sides; and angle members each comprising a flange supported by and secured to the bridges, and a depending flange overlapped upon the outer face of one locking strip.

1,074,719. GLOBE AND SHADE HOLDER. WILLIAM C. HOMAN, Meriden, Conn., assignor to Edward Miller & Company, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 11, 1912. Serial No. 730,545. (Cl. 240—115.)



In a globe or shade holder, an annular sheet metal flange, a ring-like wire shade retaining element having a U-shaped projection, said flange having a slot formed therein through which said projection extends, a retaining bar distinct from said flange extending transversely of the slot therein, and between said flange and the end of said U-shaped projection, said bar being fixedly attached to said flange to thereby retain said projection against disengagement from said flange, said ring-like element having its ends offset to form operating handles, and said annular flange having a second elongated slot therein through which said handles pass to the outside of the flange.

1,074,720. AUTOMATIC FEEDING DEVICE FOR PRINTING-PRESSES. HANS HONIGMANN, Duluth, Minn. Filed Dec. 26, 1911. Serial No. 667,761. (Cl. 101—36.)



1. The combination with a platen printing press, of a frame pivoted adjacent thereto adapted to be swung into or out of operative position with respect to said press, a carriage reciprocating within said frame, radially movable feeder arms carried by the carriage for carrying sheets of paper to and from the platen of the printing press, and means for operating said carriage and adapted to interlock with a necessary operative part of the press when the frame is swung around into operative position.

2. The combination of a platen printing press, of a frame pivoted adjacent thereto adapted to be swung into or out of operative position with respect to said press, a reciprocating carriage within the frame, radially movable reciprocating arms carried by the carriage for conveying sheets of paper to and from the platen printing press, and means operated by the press for operating said arms when the frame is swung into operative position.

3. The combination with a platen printing press, of a frame pivoted adjacent thereto, a carriage reciprocating in said frame, radially movable reciprocating feeder arms carried by the carriage for conveying sheets of paper to and from the platen of the press, means carried by the free ends of the arms for gripping and holding the sheets while feeding them to the platen of the press, and means operated by the press for operating the reciprocating feeder arms.

4. The combination with a platen printing press, of a frame pivoted adjacent thereto adapted to be swung into or out of operative position with respect to said press, radially movable reciprocating feeder arms carried by the frame for conveying sheets of paper to and from the platen of the press, and a gearing carried by the frame for operating the feeder arms and adapted to interlock with the driving gear of the press when the frame is swung around into operating position.

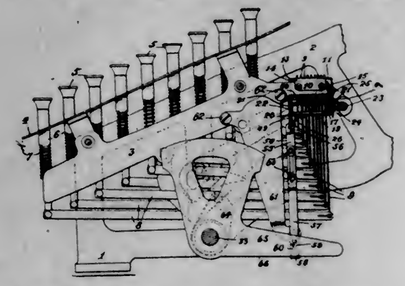
5. The combination with a platen printing press, of a frame pivoted adjacent thereto adapted to be swung into or out of operative position with respect to said press, radially movable reciprocating feeder arms carried by the frame for conveying sheets of paper to and from the platen of the press, automatic means at the free end of the feeder arms for gripping and holding the sheets while they are fed to the platen of the press, means for reciprocating the feeder arms and adapted to interlock with an operative part of the press when the frame is swung into operative position.

[Claims 6 to 23 not printed in the Gazette.]

1,074,721. KEYBOARD-LOCKING MECHANISM FOR ADDING-MACHINES. JOHN PIERONG HUNTER and HENRY KÜNTZLER, Wilkes-Barre, Pa., assignors, by direct and mesne assignments, to Adder Machine Company, a Corporation of Pennsylvania. Filed Mar. 23, 1909. Serial No. 485,240. (Cl. 235—60.)

1. In a calculating machine, comprising a main shaft, numeral keys arranged in denominational series and stops, one for each key adapted to be moved to and from an operative position; a common lock for all of the stops and means operated from the main shaft of the machine adapted automatically simultaneously to lock all of the stops at the beginning of the actuation of the main shaft.

2. In a calculating machine, comprising a main shaft, numeral keys arranged in denominational series and stops, one for each key adapted to be moved to and from an operative position; a common lock for all of the stops and means operated from the main shaft of the machine adapted automatically simultaneously to lock all of the stops at the beginning of the actuation of the main shaft, in combination with means also operated from the main shaft adapted automatically simultaneously to unlock all of the stops at the end of the actuation of the main shaft.



3. In a calculating machine, comprising a main shaft, numeral keys arranged in denominational series and stops, one for each key adapted to be moved to and from an operative position by the numeral keys; means adapted simultaneously to lock all of the stops at the beginning of the actuation of the main shaft, comprising a common locking plate adapted to engage with all of the stops, means constantly tending to bring about such engagement, and positive means adapted to prevent such engagement until the main shaft has been moved.

4. In a calculating machine, comprising a main shaft, numeral keys arranged in denominational series and stops, one for each key adapted to be moved to and from an operative position by the numeral keys; means adapted simultaneously to lock all of the stops at the beginning of the actuation of the main shaft, comprising a locking plate adapted to engage with all of the stops, means including a spring constantly tending to bring about such engagement, and positive means, including a link, adapted to prevent such engagement until the main shaft has been moved.

5. In a machine of the character described, including stops arranged in denominational series, a common locking plate adapted to engage all of the stops in each of two positions to which they may be moved.

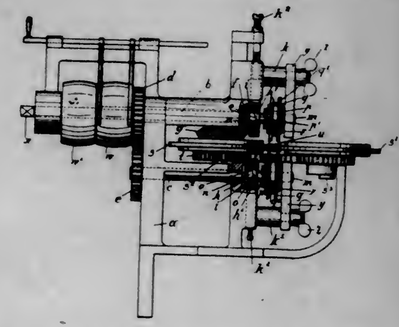
[Claims 6 to 22 not printed in the Gazette.]

1,074,722. APPARATUS FOR PRODUCING ORNAMENTAL SASH-BARS. KARL HERMANN FRANZ HUTH, Hamburg, Germany. Filed Oct. 5, 1911. Serial No. 653,015. (Cl. 164—60.)

1. An apparatus for ornamenting sash bars of lead comprising two supporting disks mounted opposite one another in the same plane and adapted to project into the grooves of the sash bar in operation, a train of gears connecting the said disks and to rotate the same, two parallel shafts, one above and the other below the said disks, two pairs of ornamenting cutting disks each pair mounted on one of the shafts, gears to operatively connect the shafts and means to rotate one of the shafts.

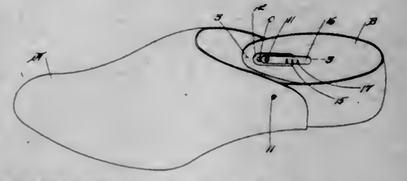
2. An apparatus for ornamenting sash bars of lead comprising a frame, two supporting disks mounted rotatively opposite one another in the same plane at such a distance apart as to allow a sash bar to be slipped on the disks, where they meet, a train of gears connecting the disks, two shafts carrying each a pair of cutting disks and adapted to be adjusted relatively to the sash bar held by the supporting disks, and means to rotate the disk.

3. An apparatus for ornamenting sash bars of lead comprising a frame, two parallel shafts journaled in the frame, two pairs of cutting disks mounted on the shafts, means to rotate the shafts two supporting disks rotatably mounted in a plane intermediate of the two shafts, gearings between the two supporting disks and gearings between one of the supporting disks and one of the shafts.



4. An apparatus for ornamenting sash bars of lead comprising a frame, two sectional parallel shafts journaled in the frame, a coupling between the sections of the shafts adapted to transmit rotation, even though one section be out of line with the other, adjustable bearings for one section of each shaft, a pair of cutting disks mounted on the adjustable section of each shaft, two supporting disks rotatably mounted in a plane intermediate of the two shafts, means to rotate the shafts carrying the cutting disks and means operatively connected with the shafts to rotate the supporting disks.

1,074,723. SHOE-FORM. ALFRED G. LEGGE, Brockton, Mass. Filed July 2, 1912. Serial No. 707,185. (Cl. 12—128.)



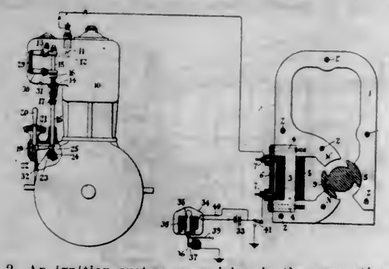
1. A shoe form having a toe part and a heel part, said toe and heel parts overlapping each other on the sides, said members being connected to each other on the sides by a slot and pivot connection and having a notched latch to position the pivot in the slot.

2. The improved shoe form comprising a toe part and a heel part, one of said members being provided with a pivot rigidly secured thereto and the other of said members having a slot therein within which the said pivot is received, an edging plate having thereon a projection, said edging plate surrounding said slot and being secured to the member within which the slot is formed and a latch secured to the said pivot and provided with notches to engage the projection on the said edging plate.

1,074,724. SYSTEM OF IGNITION FOR EXPLOSIVE-ENGINES. LEON J. LE PONTOIS, New Rochelle, N. Y., assignor, by mesne assignments, to H. W. Johns. Filed June 15, 1909. Serial No. 502,202. (Cl. 123—148.)

1. An ignition system comprising in the generating circuit, a source of direct current, an inductor alternator, having a permanently magnetized portion and a plurality of poles of the same polarity, the stationary coil of the alternator being disposed about a magnetic portion be-

tween said plurality of poles of the same polarity, and means for connecting the direct current source in series with said stationary winding.



2. An ignition system comprising in the generating circuit a source of direct current, an inductor magneto alternator having a permanently magnetized portion and a plurality of poles of the same polarity, the stationary coil of the alternator embracing a magnetic portion in the magnetic path between said poles of the same polarity, and means for connecting the direct current source in series with said stationary winding.

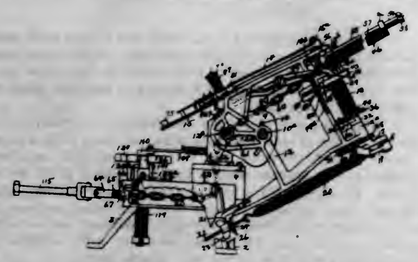
3. An ignition system comprising in the generating circuit, a source of direct current and a source of alternating electromotive force connected in series relatively to each other, the said source of alternating electromotive force having a stationary generating winding and means for causing an increase and decrease of magnetic flux through said winding in one direction only.

4. An ignition system comprising in the generating circuit, a source of direct current and an inductor alternator connected in series relatively to each other, the said alternator having a stationary generating winding and means for causing an increase and decrease of magnetic flux through said winding in one direction only.

5. An ignition system comprising in the generating circuit, a source of direct current and an inductor magneto alternator connected in series relatively to each other, the said alternator having a stationary generating winding and means for causing an increase and decrease of magnetic flux through said winding in one direction only.

[Claims 6 to 26 not printed in the Gazette.]

1,074,725. TARGET-TRAP. HUGH C. LORD, Erie, Pa. Filed Dec. 31, 1909. Serial No. 535,746. (Cl. 124—6.)



1. In a target trap the combination of a throw arm; a crank associated with the throw arm; a spring acting on the crank for exerting driving pressure on the arm during its throwing movement; a reciprocating pull mechanism; and a yielding connection between the throw arm and the pull mechanism for resetting the arm; and means for limiting the relative movement between the throw arm and the pull mechanism to less than a revolution of the throw arm.

2. In a target trap, the combination of a throw arm arranged to make a complete revolution at each operation of the trap; a crank associated with the throw arm; a spring operating upon the crank; a reciprocating mechanism for resetting the throw arm; a yielding connection between the throw arm and the pull mechanism; and means for limiting the relative movement between the throw arm and the pull mechanism to less than a revolution of the throw arm.

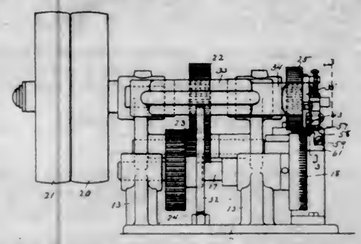
3. In a target trap the combination of a throw arm a shaft on which the arm is mounted; a crank associated with the throw arm; a spring actuating the throw arm; a reciprocating pull mechanism; a connection between the pull mechanism and the shaft for resetting the throw arm, comprising an element mounted on the shaft and free to oscillate thereon: and a spring connection between the element and the shaft; and means for limiting the movement of the element on the shaft to less than one revolution.

4. In a target trap the combination of a throw arm arranged to make a complete revolution at each operation of the shaft; a shaft on which the throw arm is mounted; a crank associated with the throw arm; a spring operating upon the crank; a reciprocating pull mechanism; a connection between the pull mechanism and the shaft for resetting the throw arm, comprising an element mounted on the shaft, and free to oscillate thereon; and a spring connection between said element and the shaft; and means for limiting the movement of said element relative to the shaft to less than a rotation.

5. In a target trap the combination of a throw arm; a shaft on which the arm is mounted; a crank associated with the throw arm; a spring operating on the crank; a reciprocating pull mechanism; a driving wheel mounted on the shaft and actuated by the pull mechanism; a plate mounted on the shaft and driven by said wheel; a spring connection between the plate and the shaft; and means for limiting the movement of the plate relatively to the shaft to less than one revolution.

[Claims 6 to 33 not printed in the Gazette.]

1,074,726. WELT GROOVING AND BEVELING MACHINE. HARRY LYON, Brockton, Mass., assignor to John A. Barbour and Perley E. Barbour, Brockton, Mass., Copartners doing business as Brockton Rand Company, Brockton, Mass. Filed May 17, 1913. Serial No. 768,285. (Cl. 12—67.)



1. A welt-preparing machine comprising a lower feeding-roll supported by fixed bearings, a support movable toward and from the lower roll, an upper feed roll and a grooving-knife carried by said support, a driving-shaft and driving connections between said shaft and feeding-rolls causing the torque of the driving-shaft to exert a downward pressure on the upper feeding-roll.

2. A welt-preparing machine comprising a lower feeding shaft journaled in fixed bearings and provided with a lower feeding-roll, a driving-shaft provided with a driving gear, an oscillatory support journaled on the driving-shaft, an upper feeding shaft journaled in bearings on said support and provided with an upper feeding-roll, a grooving-knife connected with said support, and connections between the driving gear and the feeding shafts, whereby said shafts and rolls are driven, the upper feeding-roll being pressed downwardly by the torque of the driving gear.

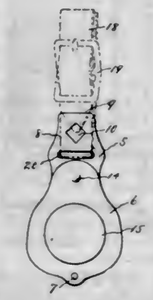
3. A welt-preparing machine comprising a lower feeding shaft journaled in fixed bearings and provided with a lower feeding-roll, a driving-shaft provided with a driving gear, an oscillatory support journaled on the driving-shaft, an upper feeding shaft journaled in bearings on said support and provided with an upper feeding-roll, a grooving-knife connected with said support, a gear on the upper feed shaft meshing with the driving gear and pressed downwardly by the torque of the latter, a gear on the lower feed shaft, and an intermediate gear journaled in fixed bearings and connecting the gear on the lower feed shaft with the driving gear.

4. A welt-preparing machine comprising a lower shaft supported by fixed bearings and provided with a lower feeding-roll, a driving shaft having a driving gear, a swinging frame journaled on the driving shaft, and provided with an arm at its swinging end, an upper shaft journaled in bearings on said frame and provided with an upper feeding roll, driving connections between the driving gear and feed shafts, and a grooving-knife adjustably mounted on said arm.

5. A welt-preparing machine comprising a lower shaft supported by fixed bearings and provided with a lower feeding-roll, a driving shaft having a driving gear, a swinging frame journaled on the driving shaft, and provided with an arm at its swinging end, an upper shaft journaled in bearings on said frame and provided with an upper feeding roll, driving connections between the driving gear and feed shafts, a finger connected with said arm and adapted to bear on a welt strip, and a grooving-knife adjustably mounted on the arm and adapted to bear on said finger.

[Claims 6 to 10 not printed in the Gazette.]

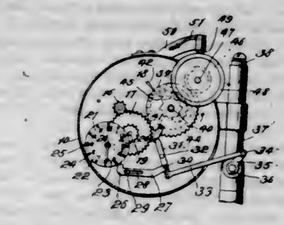
1,074,727. ARTICLE OF ADORNMENT. ARTHUR H. MERRILL, Hartford, Conn. Filed Apr. 20, 1912. Serial No. 692,193. (Cl. 63—1.)



1. An article of adornment in the form of a watch fob comprising a body member provided with a main portion having a slot, the dimensions of which are nearly as great as those of said main portion and also provided with an extension having a strap receiving slot, a facing member movably connected with said main portion, to occupy positions to cover or uncover said slot in said main portion, and yieldable means for maintaining said facing member in said slot covering position.

2. An article of adornment in the form of a watch fob comprising a body member having a main portion provided with an extension, said main portion having a slot, the dimensions of which are nearly as great as those of said main portion, said extension having a strap receiving slot, a facing member pivoted to the main portion below the slot therein, to swing in the plane of said main portion into positions to cover or uncover the slot therein, and a spring catch for maintaining said facing member in its slot closing position.

1,074,728. AUTOMATIC GAS-LIGHTER. HENRY MEYER, New York, N. Y. Filed Dec. 27, 1912. Serial No. 738,888. (Cl. 161—9.)



1. A device of the character described, comprising clock mechanism, a gas controlling device, means for operating the gas controlling device in one direction, means operated by the clock mechanism for operating said gas controlling device in the opposite direction, means whereby each of said means may be set at a predetermined time to determine when the gas controlling device is to be actuated, and means for automatically creating a spark to ignite the gas.

2. A device of the character described, comprising clock mechanism, a gas controlling device, means actuated by the clock mechanism for operating the gas controlling device in one direction, and means operated by independent rotary mechanism for operating said gas controlling device in the opposite direction.

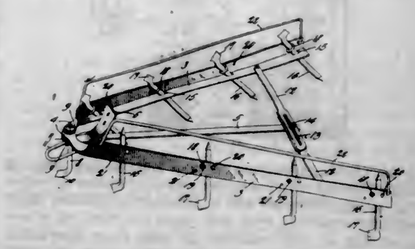
3. The combination of a gas controlling element, a lever, a connection between the lever and said gas controlling element, means adapted to operate the controlling element in one direction, a segmental gear, a projecting part carried by said gear for moving the lever to actuate the gas controlling element in the opposite direction, and means for automatically igniting the gas.

4. The combination of a gas controlling element, igniting means, a lever, a connection between the lever and said gas controlling element, means adapted to operate the controlling element in one direction, a gear, and a part carried by said gear for moving the lever to actuate the gas controlling element in the opposite direction.

5. The combination of a controlling element, a lever, a connection between the lever and said controlling element, means connected to said lever and adapted to operate the controlling element in one direction, a gear, and a part carried by said gear and adapted to engage said lever for moving the controlling element in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,074,729. CULTIVATOR ATTACHMENT. JOSEPH E. MOODY, Stamford, Tex. Filed Feb. 8, 1913. Serial No. 747,195. (Cl. 97—44.)



1. A cultivator attachment embodying a center bar having its forward end bent back and turned upward to provide a standard attachable to the foot of the cultivator, a pair of beams pivoted to the forward end of the center

bar, earth tilling elements carried by the beams, and heel braces adjustably connecting the beams and the rear end of the center bar.

2. A cultivator attachment embodying a center bar having its forward end bent back and turned upward to provide a standard attachable to the foot of a cultivator, a pair of angle iron beams having their forward ends flattened and pivoted to the forward end of the said bar, earth tilling elements carried by the beams, and heel braces adjustably connecting the beams and the rear end of the said bar.

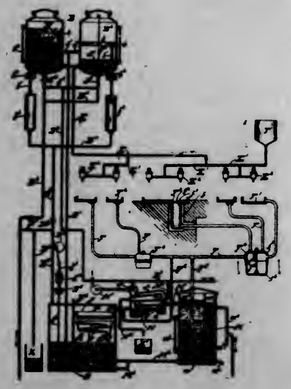
3. A cultivator attachment embodying a center bar having its forward end bent back and turned upward to provide a standard and having an eye formed at the bend, a pivot member passing through the eye, a pair of beams pivoted to the said pivot member, members adjustable on the pivot member to clamp the beams and the eye together, earth tilling elements carried by the beams, and brace members adjustably connecting the beams and center bar.

4. A cultivator attachment embodying a center bar having its forward end bent back and turned upward to provide a standard and having an eye formed at the bend, an earth tilling element having a shank passing through the eye, a pair of angle iron beams having their forward ends flattened and pivoted to the said shank, nuts threaded on the shank to clamp the eye and ends of the beams together, earth tilling elements carried by the beam, and brace members adjustably connecting the free ends of the beams and the rear end of the center bar.

5. A cultivator attachment embodying a center bar having an upturned standard at its forward end, a pivot member carried by the center bar in advance of the standard, a pair of beams pivoted to the pivot member, earth tilling elements carried by the beams, and heel braces adjustably connecting the beams and center bar.

[Claim 6 not printed in the Gazette.]

1,074,730. LUBRICATING APPARATUS. WILLIAM L. MORRIS, Cleveland, Ohio, assignor to S. F. Bowser & Company, Incorporated, Fort Wayne, Ind., a Corporation of Indiana. Filed Aug. 5, 1905. Serial No. 272,822. (Cl. 184—6.)



1. In lubricating apparatus, the combination with oil distributing and drip collecting pipes, of means for circulating oil therethrough and a plurality of settling tanks separately connected with said pipes for receiving a portion of such oil and retaining the same from circulation, said tanks being arranged to permit the discharge of oil from one, and its retention in the other, and vice versa.

2. In lubricating apparatus, the combination with oil distributing and drip collecting pipes, of means for circulating oil therethrough, a receptacle connected therewith, an overflow for said receptacle, a discharge pipe for said overflow having a plurality of discharge connections, and means adapted to raise the oil in said receptacle up to and over said overflow.

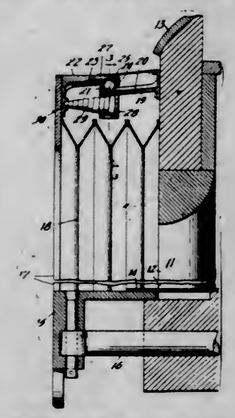
3. In lubricating apparatus, the combination with oil distributing and drip collecting pipes, of means for circulating oil therethrough, a plurality of receptacles independently connected therewith, overflows for said receptacles respectively, and means for raising the oil in each of said receptacles up to and over the corresponding overflow.

4. In lubricating apparatus, the combination with oil distributing and drip collecting pipes, of means for circulating oil therethrough, a plurality of receptacles independently connected therewith, overflows for said receptacles respectively, a discharge pipe for each of said overflows having a plurality of discharge connections, and means for raising the oil in each of said receptacles up to and over the same.

5. In lubricating apparatus, the combination with oil distributing and drip collecting pipes, of means for circulating oil therethrough, a receptacle connected therewith, an overflow for said receptacle, a discharge pipe for said overflow having a plurality of discharge connections, and means adapted to supply to said receptacle a liquid heavier than oil in order to raise the oil therein up to and over said overflow.

[Claims 6 to 12 not printed in the Gazette.]

1,074,731. VESTIBULE-DIAPHRAGM AND SUPPORT THEREFOR. JOHN E. MUHLFELD, Kansas City, Mo. Filed Mar. 17, 1913. Serial No. 754,668. (Cl. 105—61.)



1. In combination with a vehicle having a vestibule, a flexible vestibule diaphragm, a diaphragm face plate, and means located outside of said diaphragm for supporting the face plate and permitting the same to automatically center itself laterally solely under the influence of gravity, substantially as specified.

2. In combination with a vehicle having a vestibule, a vestibule diaphragm, a diaphragm face plate, and means for supporting the face plate and permitting the same to automatically center itself laterally under the influence of gravity, said means including a supporting bracket, a carrier bracket, relatively wide ball races formed in said brackets, and bearing balls interposed between the ball races and bodily and laterally movable therein, substantially as specified.

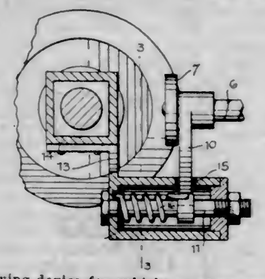
3. In combination with a vehicle having a vestibule, a vestibule diaphragm, a diaphragm face plate, said diaphragm being secured to the vestibule and to the face plate, a supporting bracket secured to the end of the vehicle, a carrier bracket rigidly secured to the face plate, each of said brackets being provided with ball races and having bearing balls interposed therebetween, substantially as specified.

4. In combination with a vehicle having a vestibule, a vestibule diaphragm, a diaphragm face plate, said diaphragm being secured to the vestibule and to the face plate, a supporting bracket secured to the end of the vehicle, a carrier bracket secured to the face plate, each of said brackets being provided with ball races and having bearing balls interposed therebetween, and springs located near the top of the face plate for normally forcing the latter outwardly, substantially as specified.

5. In combination with a vehicle having a vestibule, a vestibule diaphragm, a diaphragm face plate, means for supporting the face plate and permitting the same to automatically center itself laterally solely under the influence of gravity, and stops for limiting the amount of lateral movement of the face plate relatively to the vestibule, substantially as specified.

[Claims 6 to 15 not printed in the Gazette.]

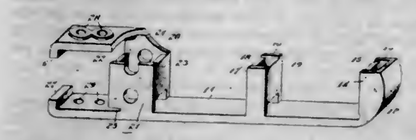
1,074,732. DRIVING DEVICE FOR VEHICLE-SPEEDOMETERS. FRANK M. MURRAY, Cadyville, N. Y. Filed Jan. 4, 1913. Serial No. 740,203. (Cl. 235—96.)



1. A driving device for vehicle speedometers comprising in combination with a flexible transmission shaft, a friction disk secured on one end of said shaft, a disk mounted upon the hub of the vehicle wheel with which the friction disk on the shaft engages, a casing mounted upon the axle casing of the vehicle wheel, an arm pivotally mounted in said casing, in which said transmission shaft is supported, and means within the casing and connected to said arm to hold the friction disk in engagement with the disk upon the wheel hub.

2. A driving device for vehicle speedometers comprising in combination with a flexible transmission shaft, a friction disk secured on the end of said shaft, a disk mounted upon the hub of the vehicle wheel, a casing mounted upon the axle casing of the vehicle, a shaft extending through said casing and fixed therein, an arm loosely mounted at one of its ends on said shaft and movable through a slot in the casing wall, said transmission shaft being mounted in the other end of said arm, and a coil spring arranged upon said shaft within the casing and fixed at one of its ends to the casing and at its other end to the arm to yieldingly hold the disk of the transmission shaft in frictional engagement with the face of the disk upon the vehicle wheel hub.

1,074,733. DRAFT-GEAR YOKE. CHARLES J. NASH, Chicago, Ill., assignor to Universal Draft Gear Attachment Co., a Corporation of Illinois. Filed July 25, 1912. Serial No. 711,482. (Cl. 213—42.)



1. In a draft gear yoke, in combination, a pair of longitudinal members, a cross member uniting the rear ends thereof, cheek plates extending forwardly from the side edges of the cross member, and a bridge plate uniting the cheek plates at their forward edges and being spaced apart from the longitudinal members.

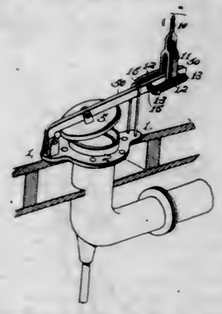
2. In a draft gear yoke, in combination, a pair of longitudinal members, a cross member uniting the rear ends thereof, bridge plates uniting the margins of the longitudinal members intermediate of their ends, and webs uniting the bridge plates at both of their margins and being spaced apart from the longitudinal members.

3. In a draft gear yoke, in combination, a pair of longitudinal members, a cross member uniting the same at their rear ends, bridge plates uniting the margins of the longitudinal members and located adjacent the forward ends thereof, a web uniting the bridge plates at their forward margins and forming a seat for a coupler butt and being spaced apart from the longitudinal members.

4. In a draft gear yoke, in combination, a pair of longitudinal members, a cross member uniting the same at their rear ends, bridge plates uniting the margins of the longitudinal members and located adjacent the forward ends thereof, the bridge plates extending forwardly beyond the point of their attachment to the longitudinal members, a web uniting the bridge plates at their forward margins and forming a seat for a coupler butt.

5. In a draft gear yoke, in combination, a pair of longitudinal members, a cross member uniting the same at their rearward ends, a pair of cheek-plates extending forwardly from the cross member, a bridge plate uniting the cheek-plates at their forward margins, a pair of bridge plates uniting the longitudinal members at their margins intermediate of their ends, webs uniting both margins of the bridge plates, a pair of bridge plates uniting the longitudinal members at their margins and adjacent their forward ends, and webs uniting both margins of the last-named bridge plates; all of the named elements being cast integrally and being of substantially the same thickness the several named webs being spaced apart from the longitudinal members.

1,074,734. CONNECTING DEVICE FOR WATER-TANK-VALVE LEVERS. ALFRED L. NEILAN, Saginaw, Mich. Filed Apr. 24, 1912. Serial No. 692,930. (Cl. 137—21.)



In a valve control for water delivery means of the character stated, and in which is included a hinged drop valve having a lever member, a lifting connection for the said member that comprises a slotted yoke through which the lever member extends and in which it has free movement, and means on the lever member for holding the yoke and the said member from separation, the said means including studs on the lever having roller bearings between which the yoke end of the lifting rod plays.

1,074,735. HAT-PIN GUARD. JOSEPH NEMETH, St. Louis, Mo. Filed Mar. 13, 1913. Serial No. 754,010. (Cl. 24—155.)

1. In a device of the kind described, an elongated casing having a pin-opening at one end, the upper wall of said casing being provided with a slot, a substantially U-shaped

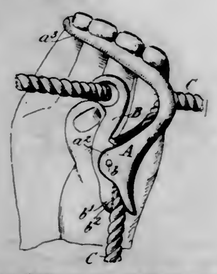
member having its bight movably fitting in said slot and its legs disposed on opposite sides of said wall, and a spring interposed between the opposite wall of said casing and the lower leg of said member, the lower leg of said member being adapted to coöperate with the upper wall of said casing to frictionally engage a pin or the like therebetween; substantially as described.



2. In a device of the kind described, an elongated casing having a pin-opening at one end, the upper wall of said casing being provided with a slot, a substantially U-shaped member having its bight movably fitting in said slot and its legs disposed on opposite sides of said wall, a spring interposed between the opposite wall of said casing and the lower leg of said member, the leg of said member within said casing being adapted to coöperate with the upper wall of said casing to frictionally engage the pin or the like therebetween, and a member within said casing adapted to guide the pin or the like between said leg and casing-wall; substantially as described.

3. In a device of the kind described, an elongated casing having a pin-opening at one end, the upper wall of said casing being provided with a slot, a substantially U-shaped member having its bight movably fitting in said slot and its legs disposed on opposite sides of said wall, the leg of said member within said casing being adapted to coöperate with the upper wall of said casing to frictionally engage a pin or the like therebetween, a member within said casing adapted to guide the pin or the like between said leg and casing-wall, said guide-member having a portion extending lengthwise with and upon the opposite wall of said casing, and a coiled spring interposed between said guide-member-portion and said leg of said U-shaped member; substantially as described.

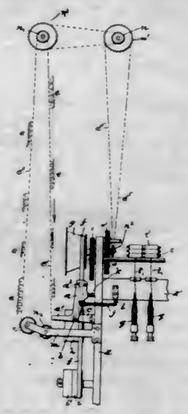
1,074,736. CLOTHES-LINE CLAMP. GEORGE H. NOLL, New York, N. Y. Filed Apr. 23, 1912. Serial No. 692,722. (Cl. 24—133.)



1. A clothes-line fastener comprising two arms, pivoted together between their ends, and adapted to clamp a rope between them, the ends of said arms on one side of the pivot diverging beyond the pivoted point, means on the divergent end of one of said arms for attaching a rope, means on the other of said divergent arms, substantially opposite said rope-attaching means, through which the rope is adapted to run, one of said arms having an elbow extension thereon extending over and above the opposite end of the opposite arm, whereby the elbow extension and opposite end of the opposite arm are adapted to be grasped between the thumb and fingers and pressed together to force apart the opposite ends of the arms between which the rope is gripped and loosen the grip of the arms upon said rope.

2. A clothes-line fastener comprising two arms pivoted together between their ends, and adapted to clamp a rope between them, one of said arms being formed on a convex curve on its inner side and forming a runway for the rope, and diverging at one end from the opposite end of the opposite arm, said convex arm having at its divergent end an eye through which a rope is adapted to run, and said opposite arm having opposite said eye means for attaching thereto the end of a rope, said convex arm also having an elbow extension thereon extending over and above the opposite end of the opposite arm, whereby the elbow extension and opposite end of the opposite arm are adapted to be grasped between the thumb and fingers and pressed together to force apart the opposite ends of the arms between which the rope is gripped and loosen the grip of the arms upon said rope.

1,074,737. SPINNING MACHINERY. JOHN J. O'CONNOR, Pawtucket, R. I. Filed Mar. 19, 1913. Serial No. 755,507. (Cl. 118—7.)

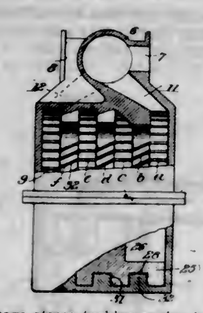


1. In a spinning frame a device for varying the relative speeds of the feed and delivery rolls comprising a cone pulley operating the feed rolls; an opposed cone pulley operating the delivery rolls; an endless belt connecting said cone pulleys with each other and with a driving pulley on the main shaft of the frame; a shipper lever adapted to move said belt to any portion of the surface of said cone pulleys; an endless chain operated by the driving shaft of the frame; and cams mounted upon said chain and arranged to engage and operate the shipper lever at predetermined intervals, substantially as specified.

2. In a mechanism for varying the relative speed of the feed and delivery rolls of a spinning frame, the combination of an endless chain driven by the driving shaft of the frame; cams varying in depth mounted upon said chain; a shipper lever actuated by said cams, the extent of movement of said shipper lever being determined by the depth of said cams; a pair of opposed cone pulleys one of them operating the feed rolls and the other the delivery rolls of the frame; an endless belt connecting said cone pulleys with each other and with a driving pulley fixed on the main shaft of the frame and transmitting motion to said belt, said belt being capable of being changed in position upon the surfaces of said cone pulleys by means of said shipper lever; and feed and delivery rolls actuated by said cone pulleys, substantially as set forth.

1,074,738. TURBINE. CHARLES T. OWENS, Baltimore, Md. Filed Nov. 5, 1912. Serial No. 729,613. (Cl. 121—58.)

1. A plurality of turbines arranged on a shaft common to all of them, a single inlet port leading to the valve of each turbine, a plurality of exhaust ports leading from the valve of each turbine and means for conducting the steam from the exhaust ports of any turbine to the inlet port of the next succeeding turbine.



2. A multistage steam turbine engine having cylindrical casings each casing provided with internal circumferential rows of vanes disposed at an angle to the axis of the rotor shaft, each casing containing a rotor fixed to a common shaft, the rotor being provided with peripheral rows of vanes, said vanes being parallel to the axis of the main shaft, tangentially arranged ports leading to one end of each rotor, and tangentially arranged ports leading from the opposite end of said rotor, a valve chamber having a single inlet port and a plurality of outlet ports attached to each stage of the turbine, and means for conveying the exhaust from the several outlet ports of each stage to the single inlet port of each next succeeding stage, valves operating in each valve chamber, and means for operating all of said valves in unison.

3. A multistage circumferential flow turbine the stages of which have oppositely disposed ports arranged at the ends of the rotor, circumferential rows of blades arranged at an angle to the axis of the shaft, and a rotor co-acting therewith having peripheral rows of blades each blade parallel with the axis of the shaft, supplemental starting valves arranged to direct steam against the vanes of the rotors of the intermediate and low pressure cylinders.

4. In a multistage circumferential turbine, each stage having a valve chamber having inlet and outlet ports, oppositely disposed ports connecting said valve chamber with the turbine, a sliding piston valve in each valve casing, said sliding valve being actuated from a counter shaft disposed at an angle to the main shaft of the turbine, and a piston for rocking said counter shaft substantially as described.

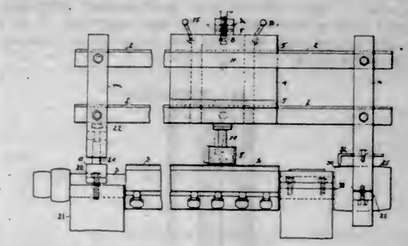
5. A multistage circumferential turbine, each stage having oppositely disposed ports, said ports being at the opposite ends thereof, each stage having circumferential rows of tapered vanes attached to the inner wall of the casing, said vanes being arranged at an angle to the axis of the main shaft, a rotor having circumferential rows of tapered vanes, said vanes being parallel to the axis of the main shaft, the sides of said vanes being curved; curved ports in the casing and directed against the vanes of the rotor.

[Claims 6 and 7 not printed in the Gazette.]

1,074,739. GRINDING DEVICE FOR MACHINE-TOOLS. HENRY L. PIXLEY, Cleveland, Ohio. Filed Dec. 9, 1912. Serial No. 735,825. (Cl. 51—7.)

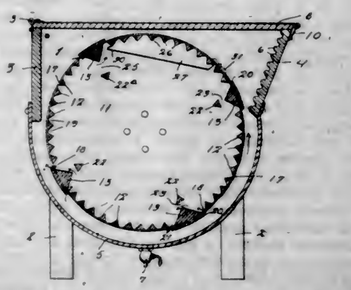
1. An attachment for sharpening planer knives and the like having a suitable frame, a rotatable grinder movable lengthwise on said frame as grinding proceeds, means by which said frame is mounted directly upon the shaft carrying the blades to be sharpened, a motor pivotally supported by said frame and means operatively connecting said grinder with said motor.

2. An attachment carrying a grinder adapted to sharpen planer knives consisting of a frame having parallel horizontal bars and standards carrying said bars curved inward at substantially right angles at their lower ends and means on said ends constructed to support said frame directly upon the axis of the knives to be sharpened, in combination with a head slidably mounted on said parallel bars, a motor chamber pivotally mounted on said head, a motor in said chamber having a downwardly projecting shaft, a grinder operatively connected with the end of the said shaft and means adjustably supporting said motor chamber on its pivot.



3. A grinder attachment for planer knives comprising a frame having uprights adapted to rest upon the axis of said knives and parallel horizontal guide-bars supported on said uprights, a head slidably mounted on said bars, a hanger supported at the upper portion of said head and guide-ways therefor on the front of said head and a screw to adjust said hanger on said head, in combination with a motor chamber and motor pivoted on said hanger and means to adjust said hanger laterally in its lower portion comprising springs on each side.

1,074,740. WASHING-MACHINE. BYNUM J. REID, Milan, Ga. Filed June 24, 1912. Serial No. 705,550. (Cl. 68—18.)

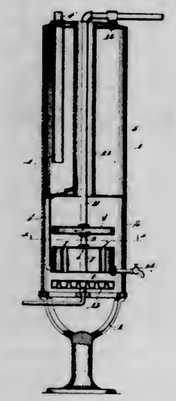


In a machine of the character described, a stationary outer shell, a rotatable drum disposed therein and having its periphery formed of spaced large and small slats which are substantially V-shaped in cross-section, the slats being arranged with their apexes disposed innermost and the bases of the large slats extending beyond the bases of the small slats to provide means to force currents of water through the drum, such currents entering the drum adjacent the leading edges of the large slats and discharging therefrom adjacent the trailing edges, and rods extending longitudinally within the drum and disposed relatively near and spaced from the apexes of the large slats, the drum having its central portion entirely open and free from any obstruction, whereby the clothes held by the rods in spaced relation from the large slats are free to fall from said rods when they are rotated upwardly sufficiently.

1,074,741. WATER-HEATING DEVICE. JOHN C. RISSLING, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,344. (Cl. 122—16.)

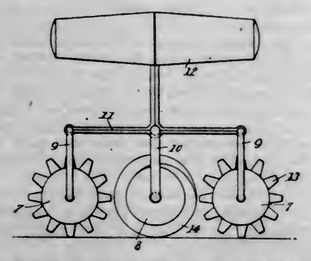
1. In a water heating device, the combination of a boiler; heating apparatus, said heating apparatus comprising a vertically extending housing open at its re-

spective ends; a burner arranged in said housing; a comparatively high hollow member arranged above said burner; a communication between said member and said boiler; a plurality of elongated vertically extending flues traversing the interior of said member; a second hollow member arranged above said first mentioned member so that gas passing through said flues will impinge upon the under side of said second mentioned member; a central communication between said first and second mentioned members; a pipe leading from said second mentioned member; and a flue leading from the upper end of said housing surrounding said last mentioned pipe, substantially as described.



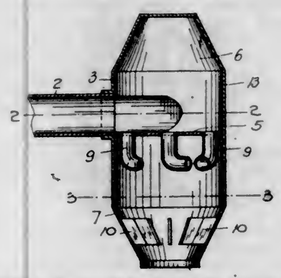
2. In a water heating device, the combination of a boiler; heating apparatus comprising a vertically extending housing open at its respective ends; a burner arranged in said housing at the lower end thereof; a comparatively high hollow member arranged above said burner; a communication between the lower end of said member and the lower end of said boiler; a plurality of elongated vertically extending flues traversing the interior of said member; a second hollow comparatively thin flat member arranged above said first mentioned member so that gas passing through said flues will impinge upon the under side of said second mentioned member; a central communication between the upper end of said first mentioned member and the lower end of said second mentioned member; a pipe leading from the upper end of said second mentioned member having a branch returning to said boiler; and a flue leading from the upper end of said housing surrounding the said last mentioned pipe, substantially as described.

1,074,742. HAND-RUBBER. CONSTANZE RITTER, New York, N. Y. Filed Sept. 25, 1912. Serial No. 722,237. (Cl. 68—8.)



A hand rubber, comprising a pair of spaced-apart rollers, provided with annularly-disposed knobs; an intermediate roller having a spiral thread formed thereon; and a frame connecting said rollers to provide parallel bearings therefor.

1,074,743. DEVICE FOR RETARDING THE DISCHARGE FROM SUCTION-FANS AND THE LIKE. SHERMAN C. ROBERTS, Denver, Colo. Filed Sept. 10, 1912. Serial No. 719,546. (Cl. 193—10.)



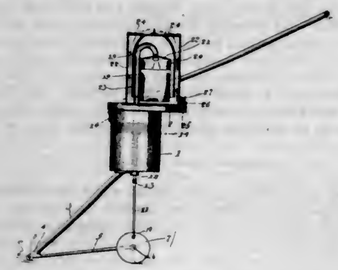
1. A device of the class described comprising a case having an inlet opening in its upper portion and a single outlet which is provided by an opening at its lower end, an apertured transverse partition in said case disposed between said openings to obstruct the flow of material after it has entered the case through the inlet opening, and means for retarding the flow of material after it has passed through the apertures of the partitition to prevent separation of its constituents before its discharge from the case through the outlet opening.

2. A device of the class described comprising a case having an inlet opening in its upper portion and a single outlet which is provided by an opening at its lower end, an apertured transverse partition in said case disposed between said openings to obstruct the flow of material after it has entered the case through the inlet opening, means for directing the material after it has passed through the apertures of the partition against the inner surface of the case below the partition to retard its flow by frictional contact with said surface and thus prevent separation of its constituents before it is discharged from the case through the outlet opening, and means at the lower end of the case for converting the circular motion of the material into a straight, downward flow before it reaches the said outlet opening.

3. A device of the class described comprising a case having an inlet opening in its upper portion and a single outlet which is provided by an opening at its lower end, an apertured transverse partition in said case disposed between said openings to obstruct the flow of material after its has entered the case through the inlet opening, nozzles extending downwardly from the apertures in the partition and curved at their lower ends toward the inner surface of the case for directing material after it has passed through the said apertures against the said inner surface to retard its flow by frictional contact with the same, and thus prevent separation of its constituents before it is discharged from the case through the outlet opening, and means at the lower end of the case for converting the circular motion of the material into a straight downward flow before it reaches the said outlet opening.

4. A device of the class described comprising a case having an inlet opening in its upper portion and a single outlet which is provided by an opening at its lower end, an apertured transverse partition in said case disposed between said openings to obstruct the flow of material after it has entered the case through the inlet opening, means for directing the material after it has passed through the apertures of the partition against the inner surface of the case below the latter to retard its flow by frictional contact with said surface, and thus prevent separation of its constituents before it is discharged from the case through the outlet opening, and blades extending inwardly from the inner surface of the case at its lower end to convert the circular motion of the material into a straight, downward flow before it reaches the said outlet opening.

1,074,744. VACUUM-CLEANER. HERBERT T. RODDEN, Chicago, Ill., assignor of one-third to Paul M. Schraut, Chicago, Ill. Filed July 21, 1911. Serial No. 639,749. (Cl. 83—47.)

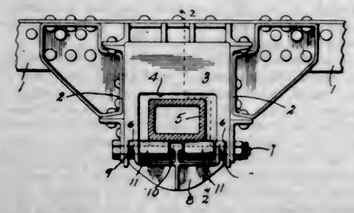


1. A dust collector comprising an outer casing and a depending bell shaped member within said casing, the lower portion of the walls of said bell shaped member and the adjacent walls of said casing together forming a restricted passage-way, the walls of said bell shaped member and said casing being flared apart at their upper ends to form an expansion chamber, there being restricted exhaust ports in said casing communicating with said expansion chamber, susbstantially as described.

2. A dust collector comprising a cylindrical outer casing and a depending bell shaped member therein, the lower portion of said bell shaped member forming with the adjacent walls of said casing a restricted passage-way and the outer portion of said bell shaped member being reduced in diameter to form with said casing an expansion chamber at the upper end of said passage-way, there being restricted exhaust ports in said casing communicating with said expansion chamber, substantially as described.

3. A dust collector comprising an outer casing, a depending bell shaped member within said casing and forming with the walls of said casing a restricted passage-way, the upper portion of said bell shaped member being reduced in diameter to form with said casing an expansion chamber at the upper end of said passage-way, there being restricted exhaust ports in said casing communicating with said expansion chamber and a dust separator arranged within said bell shaped member, substantially as described.

1,074,745. DRAW-BAR CARRY-IRON. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Apr. 15, 1912. Serial No. 690,971. (Cl. 213—42.)



1. A drawbar carrier comprising a truss supported transversely beneath the drawbar which truss includes a bolt, and an anti-friction element on said bolt and forming a bearing for the drawbar.

2. The combination with supports, of a trussed bolt detachably connected to said supports, and an antifriction draw bar engaging member on said trussed bolt.

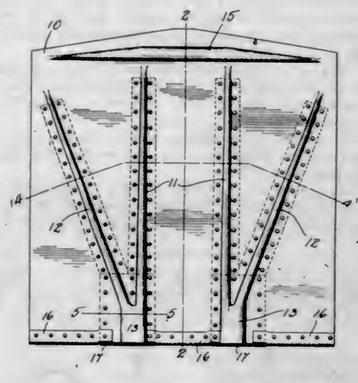
3. In a draw bar carrier, the combination with a carrying element, of separate trussing means connected thereto and depending therefrom, and anti-friction elements on said carrying element which anti-friction elements are transversely arranged with respect to the draw-bar.

4. In a draw bar carrier, the combination with a carrying element, of a separate trussing element therefor provided with spaced bearings, and anti-friction elements between said bearings which anti-friction elements are transversely disposed with respect to the draw-bar.

5. In a draw bar carrier, the combination with a carrying element of a separate trussing element and separate anti-friction elements coöperating with said carrying element.

[Claims 6 to 15 not printed in the Gazette.]

1,074,746. RAILWAY-CAR END CONSTRUCTION. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 14, 1913. Serial No. 742,001. (Cl. 105—192.)



1. A car end constructed of pairs of sheet metal having formed therein a series of stiffening ribs or corrugations, extending across the sheet of metal, the members of each pair being united at one end and reinforcing plates fixed to the sheet metal plate over said ribs or corrugations.

2. A car end constructed of a single piece of sheet metal and provided with diverging stiffening ribs or corrugations which extend from one of the horizontal edges of the piece of sheet metal across the same toward the opposite edge and corners thereof.

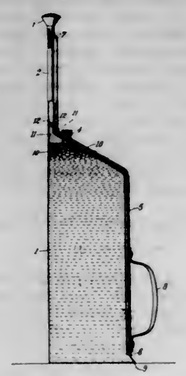
3. A car end formed of a single piece of sheet metal having formed therein a pair of vertically disposed ribs or corrugations, and a pair of diagonally disposed stiffening ribs or corrugations.

4. A car end formed of a single piece of sheet metal having formed therein a pair of vertically disposed ribs or corrugations, a pair of diagonally disposed stiffening ribs or corrugations, and a horizontally disposed stiffening rib or corrugation.

5. A car end comprising a single piece of sheet metal having formed therein pairs of diverging corrugations, and reinforcing plates applied to the sheet metal plate over said ribs or corrugations.

[Claims 6 to 15 not printed in the Gazette.]

1,074,747. PROCESS AND APPARATUS FOR SEALING CARBON TETRACHLORID. ARTHUR C. ROWE, New York, N. Y., assignor to A. C. Rowe & Son, New York, N. Y., a Firm composed of Arthur C. Rowe and Kenneth P. Rowe. Filed Apr. 18, 1911. Serial No. 621,805. (Cl. 23—11.)



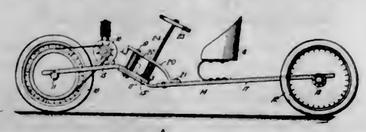
1. A vessel containing carbon tetrachlorid, and having the upper surface thereof completely covered by water, and having the upper surface of the water completely covered by a non-volatile liquid.

2. A fire-extinguisher consisting of a vessel containing carbon tetrachlorid and provided with a water-seal for said tetrachlorid consisting of a layer of water floating on the surface thereof.

3. The method of preserving carbon tetrachlorid from evaporation-loss, which consists of covering the exposed surface thereof with water.

4. The method of preserving carbon tetrachlorid from evaporation-loss, which consists of covering the exposed surface thereof with a liquid impervious to its vapors.

1,074,748. STEERING-GEAR. MARCUS D. SATTERLEE, Andover, and NELLIS C. SATTERLEE, Williamsfield, Ohio. Filed Oct. 3, 1912. Serial No. 723,729. (Cl. 21—192.)

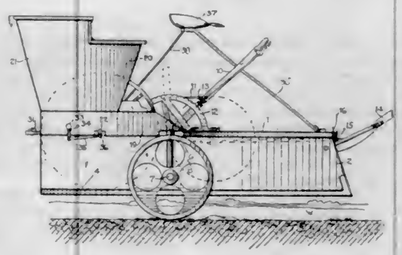


1. In a motor vehicle, the combination of front and rear axles, wheels supporting said axles, a two-part reach extending between the axles and constituting the frame of the vehicle, the two parts of the reach overlapping each other, a brace connected to one part and extending thence along the same parallel and in spaced relation thereto, the overlapping portion of the other reach part lying between said brace and the part to which the brace is connected, a thimble extending from the brace to the overlapping reach parts, a pivot passing through the brace, thimble and reach parts, a steering arc being formed upon the intermediate reach part, and a steering shaft journaled in said brace and opposite reach part and having a pinion meshing with said arc, substantially as set forth.

2. In a motor vehicle, the combination of front and rear axles, wheels supporting said axles, a reach extending between said axles and constituting the frame of the vehicle, said reach being jointed intermediate its ends, the parts thereof at the joint being inclined from the horizontal plane and overlapping each other, a brace connected to one reach part and extending in spaced relation to said overlapping parts, a pivot passing through said overlapped portions and said brace and extending at a right angle to said inclined parts, and means associated with said reach and acting upon said overlapped portions thereof to cause the front and rear portions of the reach to assume angular relations.

3. In a motor vehicle, the combination of front and rear axles, wheels supporting said axles, a reach extending between the axles constituting the frame of the vehicle, one portion of the reach being bent upwardly at one end, a brace connected to said reach portion and extending thence at its other end parallel to said upwardly bent portion, the other reach portion having a downwardly bent portion coöperating with the upwardly bent portion of the other reach portion, a thimble between the brace and the bent reach portions, a pivot extending through said brace, thimble and reach portions, and means to cause the reach portions to be deflected laterally around the axis of said pivot.

1,074,749. COMBINED PLANTER AND FERTILIZER-DISTRIBUTER. WILLIAM LOWRY SCHOENING, New Milliport, Pa. Filed Jan. 16, 1913. Serial No. 742,500. (Cl. 111—6.)

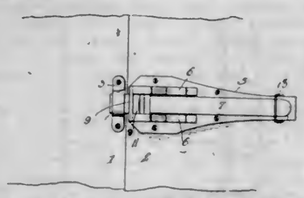


1. In a planter, the combination with a main frame supported on runners, portions of said runners being provided with vertical slots, an axle mounted on said main frame, and supporting wheels carried on the axle; of slotted members hinged on said main frame and adapted to rest on portions of said runners, said hinged members being provided with longitudinal slots alining with the slots of said runners, hoppers carried on said hinged members, dropping mechanisms for said hoppers operatively mounted on the hinged members to convey the contents of the hoppers to the slots of said runners, and means for operating said mechanisms as the device is propelled.

2. In a planter, the combination with a main frame mounted on runners, portions of said runners being provided with vertical longitudinal slots, an axle carried on said main frame, and supporting wheels mounted on the axle; of slotted members hinged on said main frame and resting on portions of the runners, the slots of said hinged members alining with the slots of said runners, a rotatable shaft supported between said hinged members, dropping mechanisms for the hoppers mounted in the hinged members in connection with said rotatable shaft, and means carried on said shaft adapted to contact with the surface of the ground as the device is propelled for operating said dropping mechanisms.

3. In a planter of the class described, the combination with a main frame mounted on runners, portions of said runners being provided with vertical longitudinal slots, and means to raise and lower the runners and frame with respect to the ground; of a pair of slotted members hinged to said main frame and resting on portions of said runners, the slots of said hinged members alining with the slots of said runners, hoppers mounted on said slotted members, dropping mechanisms for the hoppers carried on said slotted members to conduct the contents of said hoppers into the slots of said runners, and means adapted to operate said dropping mechanisms when the device is propelled and the runners in engagement with the ground.

1,074,750. LATCH. ERSKINE LOWRY SCOTT, Grandview, W. Va. Filed Nov. 28, 1911. Serial No. 662,797. (Cl. 16—64.)

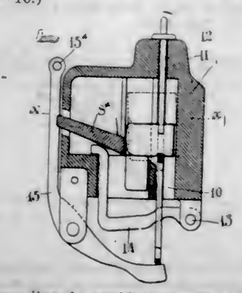


1. In a door fastening means, a keeper carried by the door, a base plate carried by the door frame and having parallel bolt guiding flanges, a bolt slidable on said base plate between said flanges and having lugs spaced apart from each other with the adjacent faces of the lugs diverging from their bases toward their ends, a cross guide bar mounted on said flanges and acting as a stop limiting movement of the bolt in a shot or locking direction and holding said bolt between said flanges, and a lever pivotally mounted on and disposed between said flanges and having an extension lying between said lugs and adapted to actuate said bolt by engagement therewith, substantially as described.

2. In a door fastening means, a keeper, a bolt guiding means, a bolt in said guiding means adapted to be shot into and out of said keeper and provided with lugs having rounded adjacent faces, a lever pivoted on said guiding means and having a cam-shaped extension eccentrically disposed with respect to the pivot of said lever and arranged to engage both of said lugs when said lever is in a locking position, a stop engaging said bolt when the same is shot, and means for securing said lever in a locking position, substantially as described.

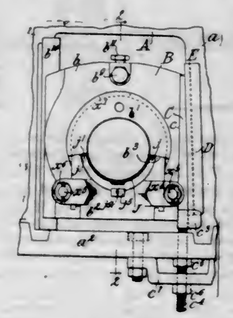
3. In a door fastening means, a keeper, bolt guiding means, a bolt in said guiding means adapted to be shot into and out of said keeper and provided with lugs spaced apart from each other, a lever pivoted on said guided means and provided with a bolt actuating extension reduced in thickness with respect to the space between said lugs to fit loosely therebetween when said bolt is out of a shot position and adapted to engage both of said lugs when the bolt is shot to resist movement of the bolt in opposite directions, and means for holding said lever in a position to shift said extension into engagement with both of said lugs and lock the bolt in a shot position, substantially as described.

1,074,751. CAR-COUPLING. WILLIAM H. SIMONS, Columbus, Ohio. Filed June 20, 1912. Serial No. 704,719. (Cl. 152—10.)



In a car coupling the combination with a draw head having a wall 10 forming a shoulder and a knuckle pivoted in the draw head having a tail piece inclined to the horizontal on its upper and lower sides, of a vertically moving and laterally swinging locking block for the tail piece consisting of the block 9 provided with a leg 9^a extending downward from its lower side at one end and an independent sliding lifter pin 11 in said draw head adapted to engage the other end of said block 9, said leg 9^a adapted when the block is sufficiently raised by partially raising the lifter pin to swing laterally into engagement with said shouldered wall 10 to set the same and be released from said shoulder wall by swinging in the opposite direction when the block is engaged by the inclined upper side of the tail of the knuckle when the latter is swung to open position, and a bent lever 14 independent of the lock to act on the lower inclined side of the tail piece, said lever being actuated by said sliding pin to move the knuckle toward open position when said lifter pin is raised beyond the point to set the lock.

1,074,752. HUB-LINER FOR LOCOMOTIVE-JOURNALS. LUTHER KELLER SMITH, Moberly, Mo., assignor to Augustus Crane Buzby, Philadelphia, Pa. Original application filed Feb. 2, 1912, Serial No. 674,861. Divided and this application filed Apr. 23, 1912. Serial No. 692,671. (Cl. 64—25.)



1. The combination of a journal box body having channels in its rear face, hub liners in the said channels, and a bearing brass disposed in the body with its rear end when in operative position engaging the hub liners and preventing their withdrawal, said brass adapted to be moved out of engagement with said hub liner by a slight axial movement, and without removing it entirely from the box, whereupon said hub liners are adapted to be moved out of their channels.

2. The combination of a journal box body having channels in its rear face provided with undercut walls, hub liners seated in the channels and having flanges engaging the undercut walls thereof, and a bearing brass arranged in the body with its rear end when in operative position engaging the hub liners and preventing their withdrawal.

3. The combination of a journal box body having a chamber, a bearing brass therein, a cellar disposed in the body under the bearing brass, and hub liners applied to the rear face of the body, said bearing brass and cellar engaging said hub liners and preventing their withdrawal, and said hub liners being adapted to be withdrawn upon movement of said brass and cellar out of engaging position.

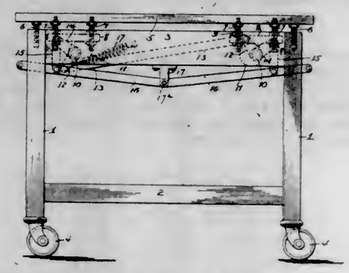
4. The combination of a journal box body having channels in its rear face provided with undercut walls and having inwardly-extending recesses leading from the channels, hub liners seated in the channels and engaging the undercut walls thereof and provided with lugs extending into the recess, a cellar in the body engaging the said lugs and preventing their movement out of said recess while the cellar is in operative position, and a bearing brass in the body engaging the hub liners and preventing their withdrawal while the brass is in operative position.

5. The combination of a journal box body having arcuate channels in its rear face substantially concentric with the journal opening and provided with undercut walls, hub liners formed in substantially the arc of a circle having peripheral flanges adapted to be inserted in said chan-

nels, and a sliding member in said journal box adapted to overlap a portion of said liners and to hold the same in place and prevent the withdrawal of said liners while said sliding member is in operative position and to permit such withdrawal upon movement of said sliding member out of such overlapping position.

[Claims 6 to 9 not printed in the Gazette.]

1,074,753. TRUCK. GEORGE E. SMOUSE, Washington, D. C. Filed June 7, 1912. Serial No. 702,272. (Cl. 21—118.)



1. The combination of a frame, a movable top, supports adjustably secured to the frame and disconnected from the top and adapted to form supports for the top when the latter is in its lower position only, and means for lifting said top off said supports and lowering it onto the same.

2. In a truck, the combination of a frame mounted on wheels, a movable top, adjustable supports intermediate the frame and top and on which the latter rests, blocks secured to the table top and series of connected eccentrics engaging the blocks for lifting and lowering the top and means for actuating the eccentrics.

3. In a truck, the combination of a frame mounted on wheels, a movable top carried on said frame, a series of connected eccentrics located below the top for elevating and lowering the latter, means for actuating the eccentrics and a spring for cushioning the movements of the eccentrics during the descent of the top.

4. In a truck, the combination of a frame mounted on wheels, a movable top on said frame, supports adjustably secured to the frame for sustaining the top in its lowered position, a series of connected eccentrics mounted in the frame below the top and engaging the latter, whereby when the eccentrics are turned in one direction the top will be lifted from the adjustable supports, and when turned in the opposite direction will be lowered onto said supports, and means located at opposite ends of the table whereby the entire series of eccentrics may be actuated from either end.

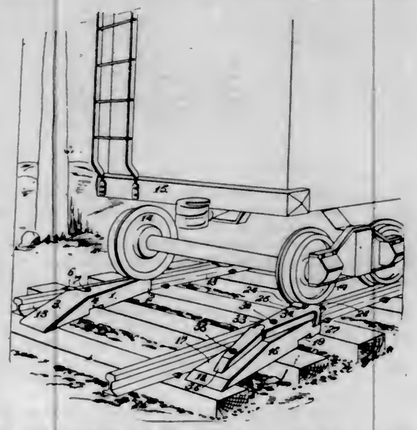
5. The combination of a frame mounted on wheels, a series of connected eccentrics carried by said frame, a table top adapted to be moved vertically, and a series of bearings secured to the underside of the table top and adjustable toward and from the latter, the said bearings resting on the eccentrics.

[Claim 6 not printed in the Gazette.]

1,074,754. CAR REPLACER AND DERAILER. RASMUS B. SORENSEN, Tonopah, Nev., assignor of one-half to Martin L. Strother, Tonopah, Nev. Filed Sept. 18, 1912. Serial No. 721,022. (Cl. 104—162.)

1. In a derailer and replacer, a clamp securable to the rail, a member hinged to said clamp on an axis parallel to the rail and adapted to be bodily swung over the rail into operative position, and means including rail-tie-engaging members for holding said hinged member from slipping.

2. In a derailer and replacer, a rail engaging clamp, a replacing member, a hinged connection between said member and said clamp, said replacing member being adapted to be bodily swung over the rail into operative position, said member having a bottom slot to receive a part of said clamp and having a top recess to receive said hinged connection.



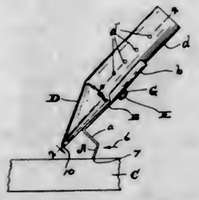
3. In a derailer and replacer, a rail engaging clamp, a replacing member, a hinged connection between said member and said clamp, said replacing member being adapted to be bodily swung over the rail into operative position, said member having a bottom slot to receive a part of said clamp and having a top recess to receive said hinged connection, and tie engaging spikes on the underside of said replacing member.

4. In a derailer and replacer, a rail clamp, a bed member designed to rest on the ties close to the rail, a tread plate hinged to said clamp on an axis paralleling the rail and bodily swingable over the rail and bed member to lie on the same, and means for securing said tread plate to said bed member.

5. In a derailer and replacer, a rail clamp, a bed member designed to rest on the ties close to the rail, a tread plate hinged to said clamp on an axis paralleling the rail and bodily swingable over the rail and bed member to lie on the same, means for securing said tread plate to said bed member, and a guide rail mounted on said bed member and cooperating with said tread plate.

[Claims 6 to 8 not printed in the Gazette.]

1,074,755. PAINT-REMOVING DEVICE. MARKUS L. SPIRA, Cleveland, Ohio. Filed June 7, 1913. Serial No. 772,414. (Cl. 158—33.)



1. In a paint-removing device, the combination, with a blade for scraping paint from a painted surface, and a paint-burning nozzle, of a member engaging and secured to the nozzle and connected to the aforesaid blade, the nozzle having a front edge extending longitudinally of the blade, said front edge forming the forward end of the nozzle and arranged forward of and spaced from the blade, and the nozzle and the blade being so relatively arranged that when the scraping edge of the plate is in contact with the surface to be scraped the aforesaid edge of the nozzle is spaced from said surface in the operative position of the blade.

2. In a paint-removing device, the combination, with a blade for scraping paint from a painted surface, and a paint-burning nozzle having a head forming the forward portion of the nozzle, said nozzle also having a neck which projects rearwardly from said head, of a plate extending widthwise of said head and being connected to the aforesaid blade and provided at the rear end of said head with a rearwardly projecting arm arranged longitudinally of and secured to the aforesaid neck.

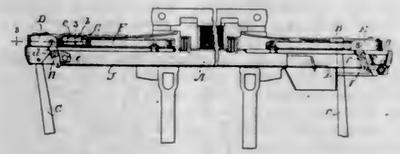
3. In a paint-removing device, the combination, with a blade for scraping paint from a painted surface, and a paint-burning nozzle having a head forming the forward portion of the nozzle, said nozzle also having a neck which projects rearwardly from said head, of a plate extending widthwise of and engaging said head and being parallel with the nozzle, said plate being connected to the aforesaid blade and provided at the rear end of said head with a rearwardly projecting arm arranged longitudinally of and secured to the aforesaid neck.

4. In a paint-removing device, the combination, with a blade for scraping paint from a painted surface, and a paint-burning nozzle having a head forming the forward portion of the nozzle, said nozzle also having a neck which projects rearwardly from said head, of a plate extending widthwise of and engaging said head and being connected to the aforesaid blade and provided at the rear end of said head with a rearwardly projecting arm arranged longitudinally of and engaged by the aforesaid neck, said arm and said neck being relatively adjustable longitudinally, and means for securing said neck and said arm in the desired adjustment.

5. In a paint-removing device, the combination, with a blade for scraping paint from a painted surface, and a paint-burning nozzle having a head forming the forward portion of the nozzle, which head is widest at the forward extremity of the nozzle and gradually reduced in width toward the rear end of the head, said nozzle also having a neck which projects rearwardly from the head and is arranged centrally widthwise of the head, of a plate extending widthwise of and engaging said head and having its side edges converging rearwardly, said plate being connected to the aforesaid blade and provided at the rear end of said head with a rearwardly projecting arm arranged longitudinally of and secured to the aforesaid neck.

[Claim 6 not printed in the Gazette.]

1,074,756. PICKER-CHECK FOR LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 10, 1911. Serial No. 637,596. (Cl. 139—22.)



1. An automatic feeler weft-replenishing loom having, in combination, a lay having a weft-carrier discharge slot at one end and an apertured front plate at its other end; a picker check at each end of the lay fastened at its rear end at the back of the lay, extending across the outer end of the lay in the path of the neighboring picker, and thence to the front of the lay; two vertically disposed levers centrally pivoted at the front of the lay and connected at their upper ends respectively to said picker checks, and a thrust rod connecting said levers at their lower ends, said thrust rod extending beneath both shuttle-boxes and extending forward of the lay opposite the weft-carrier discharge slot therein.

2. An automatic feeler weft-replenishing loom having, in combination, a lay having a weft-carrier discharge slot at one end and an apertured front plate at its other end; a picker check at each end of the lay fastened at one end to the lay, and extending across the outer end of the lay in the path of the neighboring picker; two levers pivotally mounted on the lay each connected at one end to one of said picker checks, and a thrust rod connecting said levers at their other ends.

1,074,757. THUMB-STALL. ROBERT N. THOMAS, Shenandoah, Iowa. Filed July 25, 1910. Serial No. 573,712. (Cl. 2—194.)



1. A thumb stall consisting of flat cut links.

2. A thumb stall including a tip, separate longitudinal chains extending therefrom, and reticulated connections between the chains, said chains and connections being made up of flat cut links.

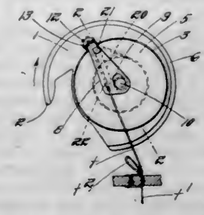
3. A thumb stall having a gripping or wear surface made up of compactly arranged connected chains, the balance of the stall being formed of chains widely separated.

4. A thumb stall made up of connected chains, certain of said chains being compactly arranged to form a gripping or wear surface, the remaining chains being widely separated, all of said chains being formed of flat cut links.

5. A thumb stall consisting of a plurality of longitudinal chains, all of said chains being separate, chains extending around the stall and transversely of the first named chains for connecting all of the chains together, certain of the longitudinal chains being disposed in lapped relation to form a compact gripping or wear surface, the remaining chains being widely separated.

[Claims 6 to 9 not printed in the Gazette.]

1,074,758. SHUTTLE. FELIX EMILE VALOIS, Haverhill, Mass., assignor to Hamel Shoe Machinery Company, Lynn, Mass., a Corporation of Massachusetts. Filed Nov. 22, 1912. Serial No. 732,989. (Cl. 112—23.)



1. A circularly moving shuttle, having a bobbin chamber therein one side of which is open, a central post for the bobbin, and a retaining plate located on the open side

of the bobbin chamber, said retaining plate being detachably secured to the post at one end and detachably secured to the shuttle at the other end.

2. A circularly moving shuttle having a bobbin chamber therein, a central post for the bobbin, a retaining plate engaging the post at one end and the shuttle at the other end, and a tension spring on the said plate.

3. A circularly moving shuttle having in one face an open bobbin chamber, a post for the bobbin projecting centrally from the base of the bobbin chamber, a detachable retaining plate located on the open side of the bobbin chamber, said retaining plate having at one end a slot for engaging the head of the post and at its opposite end a compressible latch for engaging a recess in the shuttle.

4. A circularly moving shuttle having in one face an open bobbin chamber, a post for the bobbin projecting centrally from the base of the bobbin chamber, a detachable retaining plate having at one end a slot for engaging the head of the post and at its opposite end a compressible latch for engaging a recess in the shuttle and a thread guide carried by said retaining plate.

5. A circularly movable shuttle, a bobbin chamber in one face thereof, a post projecting centrally from the base of the bobbin chamber, a detachable latch plate having at one end means for engaging the post and at its opposite end spring members and a recess in the shuttle outside of the bobbin chamber for receiving the spring members of the latch plate.

[Claims 6 to 8 not printed in the Gazette.]

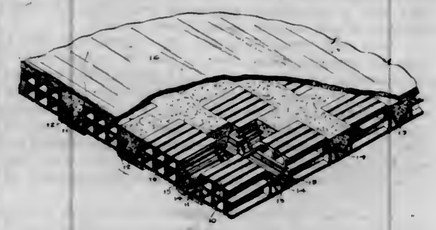
1,074,759. TRAPPING DEVICE FOR GAS-BURNERS. GEORGE B. VAN SICKEL, Garden City, N. Y., assignor to Edward Miller & Company, Meriden, Conn., a Corporation of Connecticut. Filed Feb. 25, 1913. Serial No. 750,493. (Cl. 67—94.)



1. In a device of the character described, a section of gas supply conduit having a transverse web therein provided with a feed opening therethrough, and with an integral nozzle portion extending from said opening, said web having a ridge formed about the edges of the opening therethrough providing, with adjacent side walls of said section a cupped trapping well, a trapping cylinder having one closed imperforate end and one open end, said cylinder being, positioned with the interior face of its closed end in the direct line of gas flow and with its edges at the open end loosely seated within and against said cupped well portion, said cylinder being provided with a gas inlet aperture in the side wall thereof and out of the direct line of gas flow, said opening communicating with the gas flow side of said section and with said web opening and nozzle.

2. In a device of the character described, a gas supply conduit comprising two supply sections and a tubular coupling member uniting said sections, said coupling member being provided with a transverse web having a feed opening therethrough and with an integral nozzle portion extending from said opening, said web portion having a ridge formed about the edges of the opening therethrough providing, with the adjacent side walls of said coupling, a cupped trapping well, a trapping cylinder having one closed imperforate end and one open end, said cylinder being positioned with the exterior face of its closed end in the direct line of gas flow and with its edges at its open end loosely seated within and against said cupped well portion, said cylinder being provided with a gas inlet aperture in the side wall thereof and out of the direct line of gas flow, said opening communicating with said gas conduit and with said web opening and nozzle.

1,074,760. FLOOR CONSTRUCTION. HENRY H. VOUGHT, Jr., Williamsbridge, N. Y., assignor of one-third to Frederick Squires, Plainfield, N. J., and one-third to Asher Atkinson, New Brunswick, N. J. Filed June 15, 1912. Serial No. 703,821. (Cl. 72—66.)



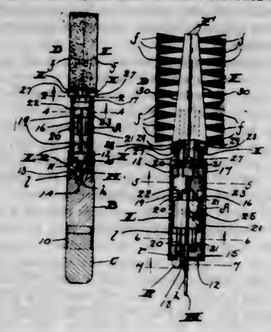
1. A reinforced concrete and tile floor, comprising approximately hollow tile open ended blocks arranged in rows and spaced apart, the interiors of said blocks being divided by partitions into upper and lower spaces extending horizontally therethrough, the closed sides of the blocks having their lower portions projected, and complementary small blocks conforming to these projections placed against the lower portions of the open sides of the blocks and leaving said upper spaces open, whereby a two-way system of crossing T-channels is formed, in combination with crossing concrete T-beams formed in said channels, the concrete extending into said upper spaces of the main blocks whereby a wide T is formed.

2. A reinforced concrete and tile floor comprising approximately tile blocks arranged in rows and spaced apart affording two sets of intersecting channels, the blocks being hollow with their openings extending horizontally therethrough so that the blocks have open sides and closed sides, the lower portions of said closed sides projecting into the corresponding channels so as to narrow the lower parts thereof, complementary small blocks spaced against the lower portions of the open sides in the other channels, said complementary blocks conforming to the projections of the closed sides and likewise narrowing the lower portions of their channels, whereby a two-way system of T-channels is formed, and a two-way concrete T-beam structure formed in said channels, the tops of said complementary blocks and projections affording upward facing shoulders suitable for the reception of rod spacers.

1,074,761. TOOTH-BRUSH. DAVID WEISS, Cleveland, Ohio. Filed Nov. 29, 1912. Serial No. 733,984. (Cl. 15—39.)

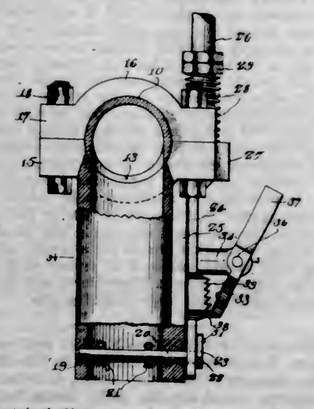
1. In a tooth-brush, the combination, with two brushing-sections arranged in position side by side when ready for use and adapted in said position to be swung laterally and outwardly into a position back to back; mechanism for swinging said brushing sections laterally, and a handle carrying said mechanism and comprising a shell instrumental in inclosing said mechanism and removable rearwardly from said mechanism, of means for locking said shell in position relative to and independently of the operation of said mechanism.

2. In a tooth-brush, the combination, with two brushing-sections arranged in position side by side when ready for use and adapted in said position to be swung laterally and outwardly into a position back to back, each brushing-section comprising a rearwardly extending shaft, and a handle comprising a member affording bearing to and instrumental in supporting the aforesaid shaft, said handle also comprising a shell slipped forwardly onto and removable rearwardly from and surrounding said shaft-supporting member, of means for locking said shell in position relative to the aforesaid shaft-supporting member independently of the operation of the aforesaid shafts.



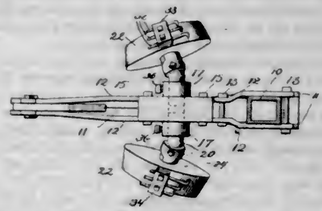
3. In a tooth-brush, the combination, with two brushing-sections arranged in position side by side when ready for use and adapted in said position to be swung laterally and outwardly into a position back to back, said brushing-sections comprising rearwardly extending shafts, and a handle comprising a member affording bearing to and instrumental in supporting said shafts, said handle also comprising a shell slipped forwardly onto and removable rearwardly from and surrounding said shaft-supporting member, which shell at its rear end has a head provided with a hole extending through the head, and mechanism for rotating the shafts when the brushing-sections are in the first-mentioned position in the direction required to swing the brushing-sections into the second-mentioned position, which mechanism is arranged within the handle, of a latch for locking the aforesaid shell in position relative to the aforesaid shaft-supporting member, which latch is pivotally supported independently of said shell and in its locking position overlaps the outer side of the aforesaid head and in said position is arranged to be swung into a position opposite the aforesaid hole to render the latch inoperative, said hole being large enough in dimensions and having the arrangement required to permit the removal of the aforesaid shell upon actuating said latch into its last-mentioned position.

1,074,762. AUTOMOBILE CUT-OUT. RAYMOND T. WHIPPLE, San Jose, Cal.* Filed July 15, 1912. Serial No. 709,500. (Cl. 137—7.)



A cut-out including a tubular body, means for securing said body to an exhaust pipe, a valve in said body, a spring controlled push rod on said body adapted to normally hold said valve closed, a series of ratchet teeth formed on said push rod, a counterbalanced gravity pawl on said body adapted to be operatively engaged with said ratchet teeth upon a graduated depression of said push rod, and adapted to be disengaged from said ratchet teeth upon an abrupt depression of said push rod.

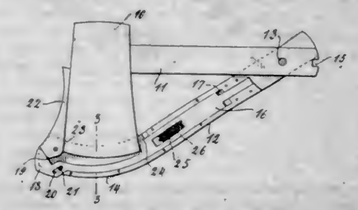
1,074,763. FURROW-GAGE. EDGAR B. WILLS, Mendota, Ill. Filed Apr. 18, 1912. Serial No. 691,559. (Cl. 97—14.)



1. In a device of the class described, the combination with the boot and shovel of a grain planter, of wheels upon opposite sides of the shovel, a framework supporting said wheels, horizontally extending bars lying upon opposite sides of the boot, adjustable fastening means for holding said bars in place, each bar having a series of alined holes therein, and fastening members carried by said frame adapted to be inserted through said holes, two adjacent of said holes being elongated to permit limited adjustment of said frame longitudinally of the bar without removal of the locking members from position, substantially as described.

2. In a device of the class described, the combination with a boot and shovel of a grain planter of a T-shaped casting having a bore through its horizontal portion, bars arranged upon opposite sides of the vertical portion of the casting, an adjustable connection between said bars and casting, means for securing one end of said bar to the boot and the opposite end to the shovel, trunnions mounted in said bore, and gage wheels secured to said trunnions, substantially as described.

1,074,764. FOLDING AX. CLARENCE H. WINSHIP, Sunrise, Wyo. Filed Dec. 14, 1912. Serial No. 736,744. (Cl. 145—2.)



1. In a tool, a handle having a foldable section provided with a recess in which the cutting edge of the tool-head seats when said section is folded, a latch-bolt for locking the foldable section in unfolded position, and a cam lever carried by the foldable section and engageable with the latch-bolt for retracting the same, said cam lever being mounted in the aforesaid recess and adapted to be swung out of the same to engage the tool-head when the edge thereof is seated in said recess.

2. In a tool, a handle having a foldable section provided with a recess in which the cutting edge of the tool-head seats when said section is folded, a slidable spring-actuated latch-bolt for locking the foldable section in unfolded position, said latch-bolt having a shoulder, a cam-lever carried by the foldable section and engageable with

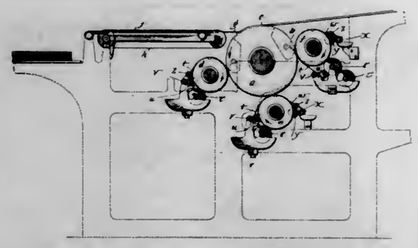
the aforesaid shoulder for retracting the latch-bolt, said cam-lever being mounted in the aforesaid recess and adapted to be swung out of the same to engage the tool-head when the edge thereof is seated in said recess.

3. In a tool, a handle having a foldable section provided with a recess in which the cutting edge of the tool-head seats when said section is folded, a latch-bolt for locking the foldable section in unfolded position, said latch-bolt having an abutment, and a cam lever carried by the foldable section and engageable with the latch-bolt for retracting the same, said cam lever also engaging the abutment for locking the latch-bolt in advanced position, and said cam lever being mounted in the aforesaid recess and adapted to be swung out of the same when the edge of the tool-head is seated in said recess.

4. In a tool, a handle having a foldable section provided with a recess in which the cutting edge of the tool-head seats when said section is folded, a slidable spring-actuated latch-bolt for locking the foldable section in unfolded position, said latch bolt having a shoulder and an abutment, and a cam lever carried by the foldable section and engageable with the shoulder for retracting the latch-bolt, said cam lever also engaging the abutment for locking the latch-bolt in advanced position, and said lever being mounted in the aforesaid recess and adapted to be swung out of the same to engage the tool-head when the edge thereof is seated in said recess.

5. In a tool, a handle comprising a section, to which the tool head is rigidly secured, and a grip section, said sections being pivotally connected to permit folding of the grip section toward the tool head, the grip section having a recess into which the cutting edge of the tool head seats when said section is folded, a latch bolt for locking the handle sections in unfolded position, and a spring-actuated lever carried by the extremity of the grip section and having means for retracting the latch bolt, said spring-actuated lever being engageable with the outer end of the tool head when the grip section of the handle is in folded position to receive the cutting edge of the tool head.

1,074,765. MACHINE FOR PRINTING FROM INTAGLIO PRINTING-PLATES. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Apr. 23, 1906. Serial No. 313,118. (Cl. 101—104.)



1. A printing press having means for supporting an intaglio plate movable to and from operative position, a cleaning device for said plate, means for yieldingly holding the cleaning device in position to engage the printing surface of the plate when the supporting means is in operative position, said cleaning device being movable out of position, and means for holding the cleaning device out of contact with the plate when the supporting means is out of operative position.

2. A printing press having means for supporting a printing plate, said means being movable out of operative position, a cleaning device for the printing plate, and means for holding the cleaning device and plate out of contact with each other when said supporting means is out of operative position.

3. In a printing press, the combination of a plate holding means, a cleaning device adapted to engage the printing surface of the plate carried by the plate holding means, and a connection between said plate holding means and cleaning device whereby motion of the plate holding means will move the cleaning device out of engagement with the printing surface.

4. In a printing press, the combination of a plate holding device, a shaft mounted adjacent thereto, a cleaning device mounted on said shaft and adapted to engage the printing surface, and a roller connected with said shaft and resting on the printing surface, said roller being located between said shaft and the point at which the plate engages the printing surface, whereby motion of the printing surface toward the roller will move the cleaning device out of engagement with the printing surface.

5. In a printing press, the combination of a plate cylinder, a shaft journaled adjacent thereto, a cleaning blade mounted on said shaft, an extra shaft connected with said shaft for yieldingly holding the cleaning blade in engagement with said cylinder, and a roller connected with said shaft and bearing on said cylinder at a point between the shaft and the point at which the blade engages the cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,074,766. PRUNING-SHEARS. THOMAS E. WYLIE, Seattle, Wash. Filed Nov. 21, 1911. Serial No. 661,630. (Cl. 30—11.)

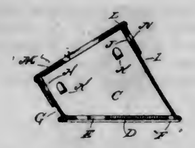


1. A pruning implement comprising a handle, a hook shaped member on one end portion of said handle, a cutting blade pivoted for movement through said member, a pair of pivotally connected crossed levers pivotally supported at one end to said handle, an actuator slide mounted on said handle for movement lengthwise thereof and connected with the free end portion of said system of levers, an articulated driving connection between the intermediate levers of said system and said cutting blade, and a guide on said handle slidably receiving the section of said driving connection connected to said cutting blade.

2. A pruning implement comprising a handle, a fixed member secured thereto, a cutting blade member pivoted for cutting against said member, a pair of pivotally connected crossed levers, means connecting said blade member to the pivotal connection of said cross levers, an actuator slide on said handle, and sets of levers connecting the slide to one terminal of each crossed lever and the opposite terminal of each crossed lever to said handle.

1,074,767. SUPPORT FOR WATCHES. ARCHIBALD BANNATYNE, Waterbury, Conn., assignor to The Bannatyne Watch Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 23, 1909. Serial No. 524,236. (Cl. 58—53.)

1. The combination with a watch, of a support therefor, comprising a shell having an oblique base, and means for supporting the watch in said shell substantially at right angles to the axis of the latter, there being openings on the longer and shorter sides respectively of the shell for receiving the winding stem of said watch, whereby the watch may be placed in the shell in different positions according as the base of the shell is applied to a horizontal surface or an upright surface respectively; substantially as described.

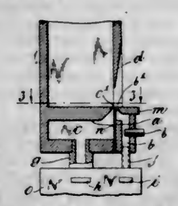


2. The combination with a watch, of a support or casing therefor, comprising a shell having an oblique base, the upper edge of said shell being provided on the longer and shorter sides with openings for the winding stem of the watch, and a cap ring for confining the watch in the shell, having an opening therein to coöperate with either of said first named openings in positioning the watch in either of two distinct adjustments, whereby said support may be applied either to a horizontal surface or an upright surface; substantially as described.

3. A support or casing for watches, comprising a shell having an L-shaped stem receiving slot at the edge thereof, and a coöperating cap ring having a corresponding but oppositely directed L-shaped slot to coöperate with said first slot in positioning the watch stem; substantially as described.

4. A watch support comprising a shell having an oblique base, and means for supporting the watch in said shell with its stem adjacent either the longer or the shorter side of the shell so that the dial of the watch may be read when the support is applied either to a horizontal surface or to an upright surface; substantially as described.

1,074,768. ORGAN-PIPE. ROBERT Y. BARROWS, Rutherford, N. J., assignor of one-half to George H. Harman, Glen Ridge, N. J. Filed Oct. 27, 1911. Serial No. 657,128. (Cl. 84—22.)



1. An organ pipe having a mouth, and provided with a slit to deliver a sheet of air across said mouth and a second slit parallel to the first slit and also adapted to deliver a sheet of air across said mouth, in combination with a wind-chest, and means to deliver air from the wind-chest through each of said slits independently.

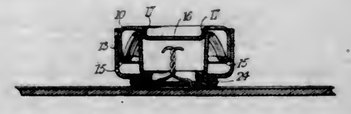
2. An organ pipe having a mouth, and provided with two slits operatively related to said mouth so as to deliver two parallel sheets of air across said mouth, in combination with a wind-chest, independent passages to deliver air from the wind-chest to the respective slits, and means to control the delivery of air through each passage independently of that through the other passage.

3. The combination with a wind-chest, an organ pipe, two hollow feet forming passages from the wind-cheat to the pipe, and a slider for opening and closing the passage in each foot, said pipe having a mouth and being provided with two parallel slits of different length in which said passages terminate respectively, and each of said slits being adapted to deliver a sheet of air across said mouth to cause the pipe to speak.

4. The combination of a wind-chest, an organ pipe, and means for delivering air from the chest to the pipe, said pipe having a lip, a cap and a block, the lip and cap forming a mouth for the pipe and the cap and block forming the normal slit of the pipe, the top edge of the cap being provided with a second slit and both of said slits communicating with the aforesaid means for delivering air from the chest to the pipe, and means to control the delivery of said air through one slit independently of that through the other slit.

5. An organ pipe having a mouth, and provided with a slit to deliver a sheet of air across said mouth and a second slit parallel to the first slit but of a different length and also adapted to deliver a sheet of air across said mouth, in combination with a wind-chest, and means to deliver air from the wind-chest through one slit independently of that through the other slit.

1,074,769. SEAL AND KNOT PROTECTOR. SAMUEL BARUCH, New York, N. Y. Filed July 12, 1912. Serial No. 708,954. (Cl. 70—101.)



1. A seal and knot protector including two telescoping members, each having an end wall and a peripheral wall, and interengaging flanges at the open ends of said members, a portion of the end wall of the outer member being countersunk to project into the open end of the inner member.

2. A seal and knot protector including two telescoping members, each having an end wall, a peripheral wall, and interengaging portions extending backwardly from the open ends to prevent the separation of the members, one of said members having an inwardly-projecting portion at its closed end for registry with the open end of the inner member.

3. A seal and knot protector comprising two telescoping members, each having an end wall and a peripheral wall interengaging portions on said members for preventing their separation, and an annular flange on the inner member at its closed end for preventing the insertion of an instrument lengthwise between said members.

4. A seal and knot protector comprising two telescoping members, each having an end wall and a peripheral wall, interengaging portions on said members for preventing their separation, and a separate section on the inner member at its closed end and encircling said inner member for preventing the insertion of an instrument lengthwise between said members.

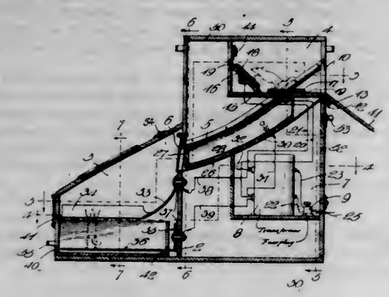
5. A seal and knot protector including two telescoping members each having an end wall and a peripheral wall integral therewith, the peripheral wall of the inner member having a plurality of spaced spring fingers extending backwardly and outwardly from its open end and the peripheral wall of the outer member having a continuous annular inwardly extending flange or ledge at its open end and adapted to engage with the free ends of said spring fingers, and the end wall of said outer member having a portion bent inwardly to lie within the open end of the inner member.

[Claims 6 and 7 not printed in the Gazette.]

1,074,770. ELECTRIC RAT-TRAP. CLAUDE WILLIAM BEARDSLEY, Tacoma, Wash. Filed Nov. 18, 1912. Serial No. 732,068. (Cl. 43—84.)

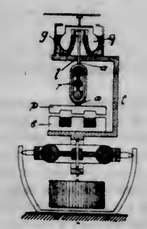
The herein described animal trap comprising a casing having an inlet opening through its front wall, a transverse partition within the casing having an opening at a lower level than said inlet opening, a transversely dished chute inclined downwardly from the inlet opening to the opening in the partition, a receptacle at the lower

end of the chute and a gate between the chute and the receptacle, a bridge narrower than the chute secured to the front wall of the casing at the bottom of the inlet opening and extending toward the opening in the partition, said bridge intersecting the upper end of the chute



and having an inclined strip forming a continuation thereof, metallic plates secured to the bridge and to the inclined strip and separated from each other, a lure mounted immediately above the inclined strip, and means for connecting said plates with the terminals of an electric circuit.

1,074,771. GYROSCOPE-COMPASS. THEODOR BRUGER, Frankfort-on-the-Main, Germany, assignor to The Firm of Hartmann & Braun A. G., Frankfort-on-the-Main, Germany. Filed Oct. 26, 1910. Serial No. 589,269. (Cl. 73—151.)



1. A gyroscope compass of the character described comprising a base, means for supporting the base in a horizontal position, a gyroscopic member, means for supporting the said gyroscopic member over and from the base, so that it can swing laterally with respect to the base, and an auxiliary device carried by the base and arranged to supplement the force of gravity in its influence upon the gyroscopic member.

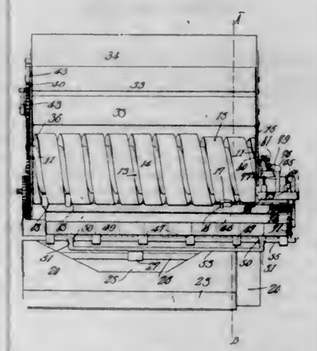
2. A gyroscopic compass of the character described comprising a base, means for supporting the base in a horizontal position, a gyroscopic member, means for loosely suspending the said gyroscopic member from the base in a position over the latter, and an auxiliary device carried by the base and arranged to supplement the force of gravity in its influence upon the gyroscopic member.

3. A gyroscopic compass of the character described including a base, means for supporting the base in a horizontal position, a gyroscopic member, float-suspension means for supporting the said gyroscopic member from and over the base, and an auxiliary correcting device including an electromagnet and movable armature, respectively, carried by the base and gyroscopic member.

4. A gyroscopic compass of the character described comprising a base having a Cardan suspension, a gyroscopic member arranged above the base and mounted to swing laterally with respect to the base, an auxiliary correcting device carried by the base and supplementing the force of gravity in its influence upon the gyroscopic member.

5. A gyroscopic compass of the character described comprising a gyroscopic member suspended so as to swing laterally, and an auxiliary correcting device supplying an auxiliary field of force supplementing the force of gravity, and so adjusted as to outweigh the effect of gravity, and substantially control the action of the gyroscope.

1,074,772. MACHINE FOR SEALING ENVELOPS. CHARLES A. BURR, Norwich, N. Y., assignor, by mesne assignments, to J. Stevens Arms & Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Filed Sept. 12, 1908. Serial No. 452,707. (Cl. 120—6.)



1. In a machine of the character described, a receptacle for unsealed envelops, said receptacle having an opening for the passage of the flaps of the envelops, a pair of feed rolls, one of which is cut away to form a pocket, and means for turning the flaps of the envelops successively forward from the bodies of the envelops into position to be grasped by the feed rolls.

2. In a machine of the character described, a receptacle for unsealed envelops, said receptacle having an opening for the passage of the flaps of the envelops, a pair of feed rolls, and a rotatable finger movable into the receptacle into engagement with the flap of an envelop and adapted to turn the same forward from the body of an envelop into position to be grasped by the feed rolls, one of said rolls being slotted circumferentially to permit the passage of said finger.

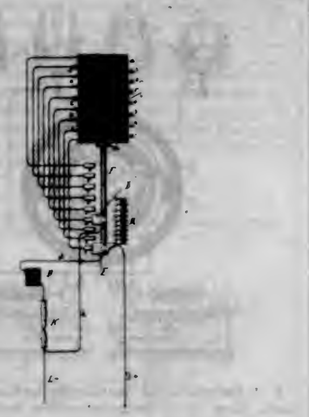
3. In a machine of the character described, a receptacle for unsealed envelops, said receptacle having an opening for the passage of the flaps of the envelops, a pair of feed rolls, one of which is cut away to form a pocket to receive the envelop flap and having also a circumferential slot, and a rotatable finger movable into the receptacle into engagement with the flap of an envelop and through said circumferential slot and adapted to move the flap out of the receptacle into position to be grasped by the feed rolls.

4. In a machine of the character described, a receptacle for unsealed envelops, said receptacle having an opening for the passage of the flaps of the envelops, a pair of feed rolls, one of which is cut away to form a pocket, a moistening device mounted in said pocket, and a rotatable finger movable into the receptacle into engagement with the flap of an envelop and adapted to move the same out of the receptacle into the path of the moistening means.

5. In a machine of the character described, a receptacle for unsealed envelops, said receptacle having an opening for the passage of the flaps of the envelops, means for moistening the flaps of the envelops, and a rotatable finger movable into the receptacle into engagement with the flap of an envelop, and adapted to move the same out of the receptacle into the path of the moistening means.

[Claims 6 to 17 not printed in the Gazette.]

1,074,773. ELECTRIC REGULATOR. WILLIAM H. CLARKE, New York, N. Y., and OSCAR A. ROSS, Chicago, Ill., assignors, by direct and mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 6, 1902. Serial No. 92,918. Renewed Jan. 10, 1903. Serial No. 138,523. (Cl. 171—229.)



1. In an automatic regulator, a plurality of terminals, a resistance connected to one of the terminals and comprising a series of sections, contact plates connected to the sections, a shifting zone sectional solenoid, commutator bars connected to the sections of said solenoid, an armature for the solenoid, a brush secured to the armature and connecting the solenoid with another terminal, and a second brush secured to the armature and traversing said commutator bars and contact plates, the parts arranged to vary the sections of the solenoid in circuit, substantially as described.

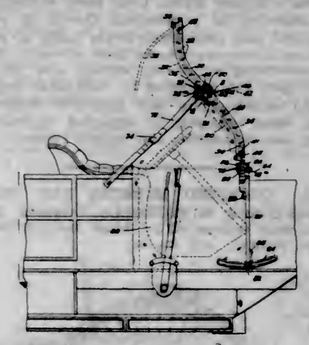
2. An electric regulator consisting of the combination of a sectional solenoid having a core controlled thereby, a series of commutator bars forming the terminals of the sections of the solenoid, a pair of brushes carried by the aforesaid core and contacting with the said commutator bars and spaced apart so as to include a desired number of the same, a rheostat, and a main circuit, one terminal of which is connected with one brush and the other through the rheostat to the other brush.

3. A regulating device comprising a sectional solenoid having a series of conductors leading from the various sections to a series of contacts, a second series of contacts with resistances connected between them, a controlling electric circuit for said solenoid in which said contacts are adapted to be connected, a core controlled by the said sectional solenoid, a circuit varying device adapted to coöperate with said contacts and connected with the said core whereby resistance is cut into and out of the circuit responsive to variations of the current therein, the sections of said solenoid in circuit being varied as the circuit varying device moves along said contacts.

1,074,774. AUTOMOBILE WIND-SHIELD. GUY B. COLLIER, Kinderhook, N. Y. Filed Aug. 8, 1910. Serial No. 576,000. (Cl. 21—148.)

1. In a vehicle, the combination of extensible wind shield means, a frame therefor having longitudinal edge flanges extending laterally beyond said wind shield means, means engaging said flanges and coöperating with the wind shield, means for maintaining the latter shield means laterally taut, and clamping strips secured to said frame for holding said wind shield means in extended position.

2. In a vehicle, the combination of extensible wind shield means, a frame coöperating therewith and having longitudinal edge strips provided with wind shield receiving pins, and means engaging said edge strips for maintaining said wind shield means laterally and uniformly taut.



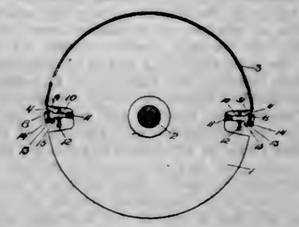
3. In a vehicle, the combination of a frame divided into parts hinged together, an extensible wind shield for adjustment along both of said parts, and clamping means on each of said parts and distinct from each other for securing said shield thereto in any of its positions along said parts.

4. In a vehicle, the combination of a frame, a wind shield supported thereby, means permitting a limited tilt of said shield to facilitate entrance into or departure of passengers from the vehicle, means whereby the frame may be adjusted to various angular positions as a whole relatively to the vehicle seat and secured in such position, and means automatically to restore said shield to normal position after tilting.

5. In a vehicle, the combination of a frame horizontally hinged to form upper and lower portions, an extensible wind shield for adjustment to any elevation along each of said portions and clamping strips distinct from each other and coöperating with said upper and lower portions for securing said shield thereto.

[Claims 6 to 25 not printed in the Gazette.]

1,074,775. OFFSET-BLANKET. GEORGE R. CORNWALL, Rye, N. Y. Filed Feb. 4, 1910. Serial No. 542,104. (Cl. 101—113.)

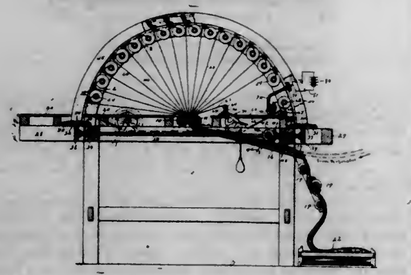


1. In a printing press, the combination with a support for a printing element, of an offset printing element comprising a unitary flexible plane sheet of non-elastic metal having apertures or perforations therein of relatively small extent, and plane imperforate areas of relatively large extent therebetween and a layer of elastic offset material constituting a printing surface, said layer being adherent upon and supported by said plane imperforate areas and entering into said apertures, whereby said layer of offset material is supported against lateral

spreading and deformation and against creeping, said unitary flexible plate extending beyond said elastic offset material to afford a gripping surface for the plate clamps of the press.

2. In a printing press, the combination with a support for a printing element, of an offset printing element comprising a unitary flexible plane sheet of flexible metal having apertures or perforations therein of relatively small extent, and plane imperforate areas of relatively large extent therebetween and a layer of elastic offset material constituting a printing surface, said layer being adherent upon and supported by said plane imperforate areas and entering into said apertures, whereby said layer of offset material is supported against lateral spreading and deformation and against creeping.

1,074,776. COMBINED MARKING AND SPOOLING MACHINE FOR MUSIC-ROLLS. GEORGE HOWLETT DAVIS, West Orange, N. J. Filed Jan. 16, 1911. Serial No. 602,760. (Cl. 33—6.)



1. In a device of the class described the combination of a plurality of parallel spindles, a stationary frame in which said spindles are mounted, arc shaped means for simultaneously rotating said spindles, means for maintaining a uniform tension in the materials to be wound upon said spindles, and a separate marking device for and located adjacent to each of said spindles for simultaneously and uniformly marking the materials to be wound upon said spindles.

2. In a device of the class described the combination of a plurality of parallel spindles, an arc shaped frame in which said spindles are mounted, means for simultaneously rotating said spindles and means for simultaneously and uniformly marking the materials to be wound upon said spindles during the winding operation.

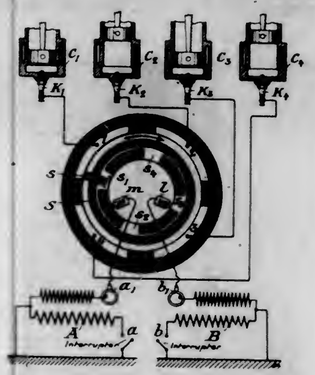
3. In a device of the class described, the combination of a plurality of spindles, an arc shaped frame in which said spindles are mounted, means rotating all of said spindles at the same speed, and means for simultaneously and uniformly marking the material to be wound upon each of said spindles during the winding operation.

4. In a machine for spooling and marking perforated music sheets, the combination of a plurality of spindles, an arc shaped frame in which said spindles are mounted, means for rotating all of said spindles at the same speed, a perforated marking model sheet having a zig-zag or sinuous line thereon for indicating musical effects to be produced in playing, a pointer for following said line and means for simultaneously marking duplicate lines upon each of the perforated music sheets as the same are wound upon said spindles, said means being governed or controlled by the movements of said pointer.

5. In a machine for marking and spooling perforated music sheets, the combination of a plurality of parallel spindles, an arc shaped frame upon which said spindles are mounted, means for simultaneously rotating all of said spindles at the same relative speed, and means for applying a zig-zag or sinuous line to each of said music sheets as they are wound upon said spindles.

[Claims 6 to 23 not printed in the Gazette.]

1,074,777. DISTRIBUTER FOR ELECTRICAL IGNITION SYSTEMS. ANTON DIEMER, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Mar. 28, 1913. Serial No. 757,332. (Cl. 123—184.)



1. A distributer for distributing ignition currents to the spark plugs in a multiple-cylinder internal combustion engine comprising a normally-stationary contact brush adapted to be electrically connected to a source of ignition current supply, a normally-stationary distributer member having insulated contact segments adapted to be electrically connected to the spark plugs, and an engine-driven rotary contact member having contact segments arranged to engage the contact brush at different periods and also having a contact brush electrically connected to all the contact segments of the rotary member so as to connect the normally-stationary contact brush with each of the contact segments of the distributer member in turn; substantially as described.

2. In an electric ignition system for internal combustion engines, two independent sources of ignition current supply, two normally-stationary contact brushes insulated from each other and electrically connected to the individual sources of current supply, a normally-stationary contact segment adapted to be electrically connected to a spark plug in a cylinder of the engine, and a rotary contact member adapted to electrically connect the two contact brushes with the contact segment at different periods; substantially as described.

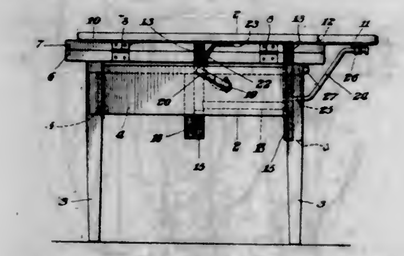
3. In an electrical ignition system for internal combustion engines, two independent sources of ignition current supply, two normally-stationary contact brushes insulated from each other and electrically connected to the individual sources of current supply, a normally-stationary contact segment adapted to be electrically connected to a spark plug in a cylinder of the engine, a rotary member having contact segments arranged to engage the contact brushes at different periods and also having a contact brush electrically connected to all the contact segments of the rotary member and arranged to engage the normally-stationary contact segment so as to connect the sources of current supply to the spark plug at different periods; substantially as described.

4. In an electrical ignition system for multiple-cylinder internal combustion engines, two independent sources of ignition current supply, two normally-stationary contact brushes insulated from each other and electrically connected to the individual sources of current supply, a normally-stationary distributer member having contact segments insulated from each other and adapted to be electrically connected to spark plugs in the cylinders of the engine, and a rotary contact member adapted to electrically connect at different periods each of the contact brushes with each of the contact segments in turn; substantially as described.

5. In an electrical ignition system for multiple-cylinder internal combustion engines, two independent sources of ignition current supply, two normally-stationary contact brushes insulated from each other and electrically connected to the individual sources of current supply, a normally-stationary distributer member having contact segments insulated from each other and adapted to be electrically connected to spark plugs in the cylinders of the engine, and a rotary member having contact segments arranged to engage the contact brushes at different periods and also having a contact brush electrically connected to all the contact segments of the rotary member and arranged to successively engage the contact segments of the distributer member to thereby connect the individual sources of ignition current supply to the spark plugs at different periods; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,074,778. IRONING-TABLE. GEORGE DONGES, Philadelphia, Pa. Filed Mar. 15, 1912. Serial No. 683,942. (Cl. 68—10.)



1. In an ironing table, the combination of a table frame, a vertically-movable ironing-board, means on said frame for supporting and guiding said board, a shaft journaled on said frame, an operating arm on said shaft, and a cam carried by said shaft and having a curved portion adapted to raise said board and a flat portion adapted to maintain said board in the raised position.

2. In an ironing table, the combination of a table frame provided with a vertical guideway, a vertically-movable ironing-board, a bar slidably fitted to said guideway and supporting said board, a shaft journaled on said frame, an operating arm on said shaft, and a cam carried by said shaft and operative to raise said board and maintain it in the raised position, said bar forming a stop for said cam when said board is in the raised position.

1,074,779. ART OF CONVERTING PHOSPHORITES. HENRY VAIL DUNHAM, Bainbridge, N. Y., assignor to Nacirema Chemical Company, a Corporation of Vermont. Filed Sept. 14, 1911. Serial No. 649,326. (Cl. 71—7.)

1. A process of converting the phosphoric acid of phosphate rock into the ammonium citrate-soluble state, but not into the water-soluble state, which comprises producing an intimate mixture of said phosphate, a carbonate and a sulfate, and heating said mixture to substantially a white heat, in the substantial absence of reducing agents, until said conversion is substantially complete.

2. A process of rendering the phosphoric acid of phosphate rock soluble in ammonium citrate solution, but not soluble in water, which comprises producing an intimate mixture of said phosphate an alkali metal carbonate and an alkali metal sulfate, and heating said mixture to a white heat, in the substantial absence of reducing agents, until said conversion is substantially complete.

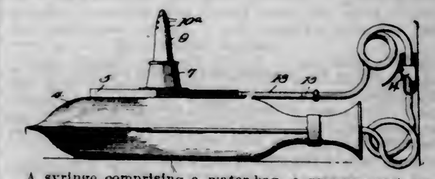
3. A process of rendering the phosphoric acid of phosphate rock soluble in ammonium citrate, but not in water, said process comprising the step of producing an intimate mixture of said phosphate, an alkali metal carbonate and an alkali metal sulfate, each in amount equal to about 12% of the amount of phosphate rock, and heating said mixture to substantially a white heat, in the substantial absence of reducing agents, for about one hour.

4. A process of converting the phosphoric acid of phosphate rock into a condition in which it is soluble in ammonium citrate, but insoluble in water, which comprises producing an intimate mixture of said phosphate, a carbonate and a sulfate, by mixing said materials in the presence of sufficient water to form a plastic mass, and heating said mixture to substantially a white heat, in the substantial absence of reducing agents, until said conversion is substantially complete.

5. A process of converting the phosphoric acid of phosphate rock into citrate-soluble, but not water-soluble condition which comprises producing an intimate mixture of said phosphate, a carbonate and a sulfate, and heating said mixture to substantially a white heat, in the substantial absence of reducing agents, for about an hour.

[Claim 6 not printed in the Gazette.]

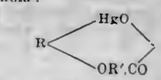
1,074,780. SYRINGE. JAMES H. L. EAGER, Brooklyn, N. Y. Filed Mar. 17, 1913. Serial No. 754,825. (Cl. 128—47.)



A syringe comprising a water-bag, a pressure-seat consisting of a flat integral member of sufficient area relative to the side of the water-bag upon which it is adapted to be placed to shield the user from contact with the surface of said bag and having an opening therethrough, a dome-shaped nozzle support mounted on said seat over said opening and provided with a water-passage therethrough adapted to receive an injector nozzle, and a tube extending beneath said pressure-seat and connected at one end with the water passage through said dome-shaped nozzle support, and having its other end attached to the mouth of the water-bag.

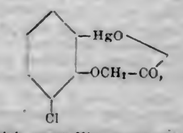
1,074,781. ORGANIC MERCURY COMPOUNDS. MAX ENGELMANN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 26, 1913. Serial No. 750,877. (Cl. 23—24.)

1. As new products the new mercury compounds derivable from aryloxy substituted fatty acids, which new compounds have in the shape of their anhydrids most probably the formula:



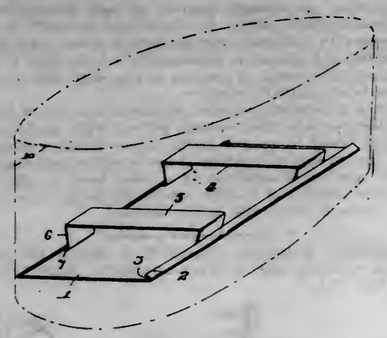
(R standing for an aromatic radical, R' for a hydrocarbon radical) which products are whitish compounds insoluble in water, alcohol, ether and benzene, soluble in dilute alkalis; yielding soluble compounds with alkali and nitrogen compounds; and being valuable therapeutics, substantially as described.

2. As a new product the new mercury compound derivable from ortho-chlorophenoxy-acetic acid, which new product has in the shape of its anhydrid most probably the formula:



which is a whitish crystalline compound having no melting point; insoluble in water, alcohol, ether, benzene, soluble in caustic alkalis, sodium carbonate and ammonia; yielding soluble compounds with alkali and nitrogen compounds; and being a valuable therapeutic, substantially as described.

1,074,782. SILVER-CLEANER. JOHN L. ENNIS, Reading, Pa. Filed Feb. 25, 1913. Serial No. 750,472. (Cl. 204—7.)



1. A device for cleansing silver metal articles comprising a flat sheet of zinc having its longitudinal edges bent up to form a pair of longitudinal grooves, and a plurality of aluminum, metal supporting members formed with lips engaging said grooves, said members being longitudinally slidable in said grooves.

2. In a device of the character described, the combination of a flat plate made of zinc having its longitudinal edges bent to form longitudinal grooves, and a pair of aluminum members formed with lips engaging said grooves and in constant contact with the surface of said plate, said members being longitudinally adjustable in said grooves.

3. In a device of the character described, the combination of a receptacle for holding an alkaline solution, a flat sheet of zinc having its longitudinal edges bent to form a pair of longitudinal grooves, a pair of aluminum supporting members for the articles to be cleansed, said members having their ends bent to form lips, said lips being in slidable engagement with the grooves on the plate and in constant contact with said plate, whereby a galvanic action is set up to effect a cleansing of the articles in contact with said aluminum supporting members.

1,074,783. METHOD OF MAKING U-SHAPED PIPE-BENDS. PETER ESCH, Duesseldorf, Germany, assignor to Schmidt'sche Heissdampf-Gesellschaft mit beschrankter Haftung, Cassel, Germany, a Corporation of Germany. Filed Sept. 22, 1910. Serial No. 583,171. (Cl. 29—148.)



1. The method of making U-shaped pipe bends which consists in uniting two legs by a bridge piece and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

2. The method of making U-shaped pipe bends which consists in uniting two legs by a bridge piece, then forming a hollow cap by taking a short length of flattened tube and closing one end thereof, and finally uniting the open edges of said cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

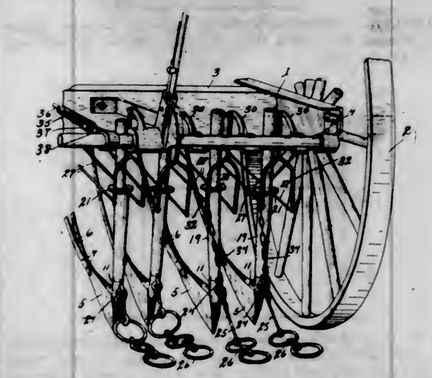
3. The method of making U-shaped pipe bends which consists in uniting two legs by a bridge piece, then forming a hollow cap by taking a short length of flattened tube and closing one end thereof by pressing upon a mandrel, and welding, and finally uniting the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

4. The method of making U-shaped pipe bends which comprises uniting two pipe ends and in then uniting a cup shaped or hollow cap to the free edges of said ends.

5. The method of making U-shaped pipe bends which comprises approaching two pipe ends and uniting them along adjacent edges and in then uniting a cup shaped or hollow cap to the remaining edges of said ends.

[Claims 6 to 10 not printed in the Gazette.]

1,074,784. GRAIN-DRILL. CHARLES L. FOWLE, Dowagiac, Mich. Filed Mar. 25, 1911. Serial No. 616,898. (Cl. 111—18.)



In a grain drill, the combination of the frame, carrying wheels therefor, furrow openers, pressure controlled devices for the said furrow openers, chain furrow coverers at the rear thereof with rearwardly-projecting arms pivoted on the boots to carry said chain furrow coverers; flexible connections from the said pressure controlled devices to the rearwardly-projecting arms whereby, when the pressure is relieved and the furrow openers are raised, the chain furrow coverers will be elevated above the ground by said flexible connection, as specified.

1,074,785. FERTILIZER. ALBERT R. FRANK, Spandau, Germany, assignor to American Cyanamid Company, Nashville, Tenn., a Corporation of Maine. Filed Aug. 25, 1909, Serial No. 514,555. Renewed June 18, 1913. Serial No. 774,480. (Cl. 71—9.)

1. A non-dusting nitrogen containing fertilizer of the cyanamid type containing free lime and having admixed therewith an acid sulfate adapted to neutralize a portion of said lime, substantially as described.

2. A non-dusting nitrogen containing fertilizer containing a cyanamid salt, free lime, and an acid sulfate containing a metal having alkaline properties, substantially as described.

3. A non-dusting nitrogen containing fertilizer containing a cyanamid salt, free lime and an acid sulfate of an alkaline earth metal, substantially as described.

1,074,786. SPOOL. ALOIS GLASER, Dedham, and JOHN W. EDSON, Hingham, Mass., assignors to Louis E. Vose, Walpole, Mass. Filed Jan. 23, 1913. Serial No. 743,753. (Cl. 242—118.)

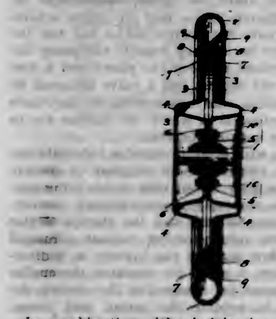
1. A thread spool comprising an inner tube, a barrel and conical head flanges surrounding the tube, end disks fitting within the head flanges, and plugs securing the disks to the ends of the inner tube.

2. A thread spool comprising an inner tube, a molded barrel and integral conical head flanges surrounding the tube, end disks, and devices securing the end disks to the inner tube.



3. A thread spool comprising a tube 1, a molded barrel 2 surrounding the tube and provided with head flanges 3, end disks 4 fitting within the flanges, and plugs 5 securing the end disks to the ends of the tube 1.

1,074,787. VEHICLE AND LIKE WHEEL. GEORGE F. GODLEY, Philadelphia, Pa. Filed July 18, 1912. Serial No. 710,194. (Cl. 152—29.)

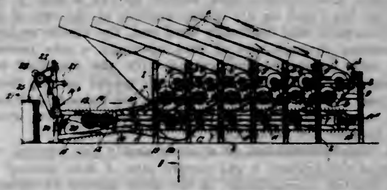


In combination with a hub having formed integral therewith an annular flange, a tire provided with an inwardly extended flange portion, a pair of relatively flat thin circular plates arranged face to face between said hub and tire, each plate having a single expanded portion arranged intermediate of the inner and outer circumferences of said plate, the combined expanded portions being of generally elliptical cross-section which cross section is in excess of the cross-section of the tire, the outer peripheral portions of said plates being flared and spaced apart to receive the tire flange and the inner peripheral portions of said plates abutting with each other and one of said plates abutting against the hub flange, a flat ring removably fitted below the flared portion of each plate, a hub flange comprising a flat ring removably fitted over said hub and abutting against the outermost plate and bolts and nuts for clamping said plates between the hub flanges and other bolts and nuts for clamping the tire flange between said plates and said rings, substantially as described.

1,074,788. COMBING-MACHINE. JOHN GOOD, New York, N. Y. Filed June 10, 1910. Serial No. 566,154. (Cl. 19—6.)

1. A combing machine adapted to receive three or more separate, continuous supplies of the fiber to be combed, a corresponding number of combing-units each composed of high and low speed gill-pin trains respectively operative with a combing effect on each of such separate supplies, in combination with means for collecting the products of all said combing-units and combining the same into a single sliver.

2. A combing machine, comprising three or more feed-boards adapted for the forming of bunches of raw fiber into continuous laps of fiber, a combing-unit for each such lap, each unit comprising a gill-pin train for conducting the lap and a higher speed train coöperating therewith with combing effect upon the lap, in combination with means common to all the said combing-units for combining their combined products into a continuous, composite sliver.



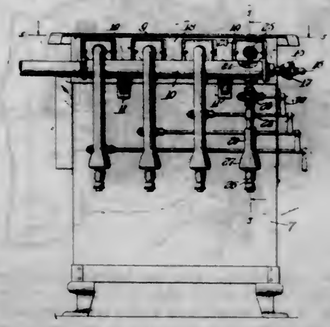
3. A combing machine, comprising a plurality of feed-boards terminating in elbow conduits, a combing-unit operative upon the fiber issuing from each such conduit and mechanism common to each unit for collecting and combing the fiber combed thereby.

4. A combing machine having a plurality of feed-boards inclined in the same direction and adapted for the formation of bunches of raw fiber placed thereon into continuous fiber-lap, a combing-unit operative upon each lap at the base or end of its feed-board and a common conveyer mechanism adapted to collect and combine the combed fiber of all the combing units.

5. A combing machine, comprising a plurality of combing-units, each comprising high hand low-speed gill-pin trains, means for supplying fiber to be combed to said units and conveyer and collector means mounted to travel beneath said combing-units for collecting and combining the combed fiber from each of them into a single sliver.

[Claims 6 to 20 not printed in the Gazette.]

1,074,789. GAS HEATING APPLIANCE. MICHAEL J. GREEN, Rockford, Ill., assignor to Eclipse Gas Stove Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 11, 1913. Serial No. 747,637. (Cl. 158—99.)



1. The combination of a stove and a gas heating appliance comprising, a gas manifold, a plate at one side of the heating compartment of the stove, said plate formed with openings therein, gas burners, each burner having a flue and discharge head, the discharge head extending through one of said openings in said plate, the burner being supported by said plate, and a gas passage for each burner communicating with the manifold and discharging in said flue.

2. The combination of a stove and a gas heating appliance comprising, a gas manifold, a side member of the heating compartment of the stove formed with openings therein, gas burners, each burner having a flue and discharge head, the discharge head extending through one of said openings, the burner resting on said side member and having a stud for contacting the side member and hold-

ing the burner in position, and a gas passage for each burner communicating with the manifold and discharging in said flue.

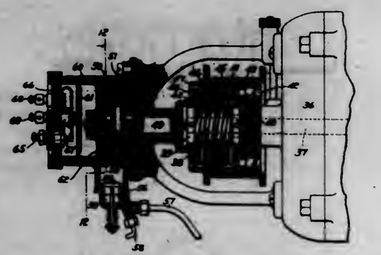
3. The combination of a stove and a gas heating appliance comprising, a gas-manifold, a side member of the heating compartment of the stove formed with openings therein, gas burners, each burner having a flue, a discharge head and an air intake portion at the end of the flue opposite said discharge head end, the discharge head extending through one of said openings, a gas passage for each burner communicating with the manifold and discharging into said flue at the air intake portion thereof, and a loose connection between the burners and said side member, adjacent the discharge head and from which the burners are detachable.

4. The combination of a stove and a gas heating appliance comprising, a gas supply pipe, a side member of the heating compartment of the stove having an opening therein, a gas burner having a flue and discharge head, the discharge head extending through said opening, the burner adapted to rest on said side member and having a stud for contacting the side member and holding the burner in position, a gas passage communicating with the gas supply pipe and discharging in said flue, and a valve for controlling the supply of gas to the burner.

5. The combination of a stove and a gas heating appliance comprising, a gas supply pipe, a side member of the heating compartment of the stove having an opening therein, a gas burner having a flue, a discharge head and an air intake portion at the end of the flue opposite the discharge head, said head extending through the opening in the said member, a gas passage communicating with the gas supply pipe and discharging into the flue at the air intake portion thereof, a valve controlling the supply of gas to said burner, and the burner being supported by the side member and detachable therefrom.

[Claims 6 to 17 not printed in the Gazette.]

1,074,790. ENGINE-STARTING APPARATUS. EDWARD A. HALBLEIB, Rochester, N. Y., assignor to Northeast Electric Company, Rochester, N. Y., a Corporation. Filed July 8, 1910. Serial No. 571,099. (Cl. 123—179.)



1. The combination, with an internal-combustion engine, of an electric device adapted to operate either as a generator or as a motor, said device being normally actuated by the engine as a generator, a storage-battery connected with and charged by the electric device, manually-operable means for connecting the battery with the electric device to energize the latter and operate it as a motor when the engine is not running, a charging pump adapted to be actuated by the electric device when so operating, and connections between the pump and the engine cylinders whereby one or more cylinders may be charged with combustible mixture to start the engine.

2. The combination, with an internal-combustion engine, of an electric device adapted to operate either as a generator or as a motor, a storage-battery connected with the electric device and adapted to receive current from or deliver it to the latter, a pump for charging the engine with combustible mixture to start the engine, and mechanism connecting the engine, the pump and the electric device, said mechanism operating automatically, when the engine is running, to actuate the electric device but not the pump, and, when the engine is not running and the electric device operates as a motor, to actuate the pump but not the engine.

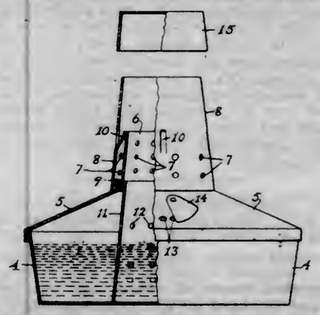
3. The combination, with a multi-cylinder internal-combustion engine, of an electric device adapted to operate either as a generator or as a motor, a storage-battery connected with the electric device and adapted either to receive current from or deliver it to said device, a pump for charging the engine to start it, connections between the pump, the electric device and the engine whereby the engine may actuate the electric device, or the electric device may actuate the pump, connections between the pump and a plurality of cylinders of the engine, and distributing means operating automatically, in accordance with the position of the engine parts, to control said connections between the pump and the cylinders so as to distribute the charge to the cylinders in which the pistons are in proper position for starting.

4. The combination, with a multi-cylinder internal-combustion engine, of an electric device adapted to operate either as a generator or as a motor, said device being normally actuated by the engine, a storage-battery connected with the electric device and adapted either to receive current from or deliver it to said device, a pump for charging the engine to start the latter, connections between the pump, the electric device and the engine whereby the engine may actuate the electric device but not the pump, while the electric device may actuate the pump but not the engine, connections between the pump and a plurality of cylinders of the engine, and a valve actuated by the engine and controlling said connections to distribute the discharge to the cylinders in which the pistons are in the compression or the expansion-stroke.

5. The combination, with a multi-cylinder internal-combustion engine, of an electric device adapted to operate either as a generator or as a motor, said device being normally actuated by the engine, a storage-battery, connections between the storage-battery and the electric device including an automatic return-current cut-out arranged to permit current to flow through the battery in a direction to charge the latter, a pump for charging the engine to start the latter, means for connecting the electric device with the pump to actuate the latter, and means under control of the operator for rendering said cut-out inoperative so as to permit the battery to energize the electric device when the pump is to be operated.

[Claim 6 not printed in the Gazette.]

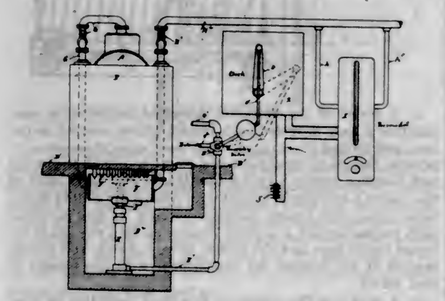
1,074,791. ORCHARD-HEATER. JAMES L. HAMILTON, Grand Junction, Colo., assignor to The Hamilton Orchard Heater Company, a Corporation of West Virginia. Filed Nov. 8, 1912. Serial No. 730,292. (Cl. 158—91.)



1. An orchard heater comprising a liquid fuel reservoir, a sloping annular hood closely fitted to the top of the fuel reservoir, a perforated inner draft chimney having its lower end permanently secured to the central opening of the hood, a perforated outer draft chimney of larger diameter, and means for retaining the outer draft chimney concentric with the inner one.

2. An orchard heater comprising a liquid fuel reservoir, a sloping annular hood closely fitted to the top of the fuel reservoir, a perforated inner draft chimney having its lower end permanently secured to the central opening of the hood, a perforated outer draft chimney of larger diameter, means for retaining the outer draft chimney concentric with the inner one, and a perforated central fire tube with its lower end resting on the bottom of the fuel reservoir and its upper end extending into the inner draft chimney.

1,074,792. STEAM-SUPERHEATER. CHARLES S. HOOPER and ROBERT C. STEVENS, Erie, Pa. Filed May 11, 1912. Serial No. 696,574. (Cl. 122—469.)



1. The combination in a super-heater of walls forming a heating chamber, a super-heating apparatus in said chamber, mechanism adapted to be operated to move said apparatus into and out of the path of the heating gases in said chamber, and thermo-automatic mechanism adapted to control the operation of said first mentioned mechanism, substantially as and for the purpose set forth.

2. The combination in a super-heater, of walls forming a heating chamber, a super-heating apparatus in said chamber, a fluid pressure jack adapted to be operated to move said super-heating apparatus into and out of the path of the heating gases in said chamber, a fluid supply pipe, valve mechanism in said pipe adapted to control the admission and escape of fluid from said pressure jack, automatic mechanism adapted to operate said valve, and thermo-electric mechanism adapted to control the operation of said automatic mechanism, substantially as and for the purpose set forth.

3. The combination in a super-heater, of walls forming a heating chamber, a super-heating apparatus in said chamber, a fluid pressure jack adapted to cause said apparatus to move into or out of the path of the heating-gases in said chamber, a fluid supply pipe adapted to supply fluid to said jack, a valve adapted to control the admission and escape of fluid through said pipe, electrically controlled mechanism adapted to control the operation of said valve, and electric mechanism adapted to be controlled by the thermal condition of the super-heated steam for controlling the operation of said electrically controlled mechanism, substantially as and for the purpose set forth.

1,074,793. CAR SIDE-DOOR-FRAME BOTTOM MEMBER. CLARENCE H. HOWARD, St. Louis, Mo., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 21, 1912. Serial No. 705,085. (Cl. 189—46.)

1. A car side door frame bottom member cast in a single piece and comprising a pair of short, vertically disposed posts adapted to engage and be fixed to the lower ends of the car side door posts, a horizontally disposed rail integral with the lower portions of said posts, which rail is adapted to engage and reinforce the side sill of the car underframe and the ends of which rail extend beyond the short, vertically disposed posts for attachment to the side sill of the car underframe.

2. In car construction, the combination with the underframe side sill and side door posts, of a sill reinforcing and post-attaching member comprising a rail adapted to be applied and fixed to the side sill beneath the door opening, a pair of short, vertically disposed posts integral with said rail, which posts engage and are fixed to the lower ends of the side door posts, and the ends of which horizontally disposed rail project beyond the short, vertically disposed posts.



3. The combination with a car side sill and side door posts, of a sill-reinforcing and post-attaching member comprising a horizontally disposed rail that is channel-shaped in cross section and adapted to be applied to the side sill beneath the door opening which rail is of sufficient length to extend substantial distances beyond the ends of the door opening, and short upright members on the end portions of said rail, the upper ends of which upright members are adapted to be engaged by the lower ends of the side door posts.

1,074,794. CENTRIFUGAL PUMP. BEN HUNT, Fresno, Cal., assignor to Valley Foundry and Machine Works, Fresno, Cal., a Corporation. Filed Mar. 26, 1910. Serial No. 551,676. (Cl. 103—43.)

1. In a centrifugal pump, a runner provided with vanes on the outer faces of the impeller blades, arranged angularly to the plane of rotation of the impeller.

2. In a centrifugal pump, a runner provided with means adapted to engage the water in the volute chamber, said means being arranged angularly to the path of the water in said chamber and adapted to produce a thrust in the opposite direction to the suction thrust.

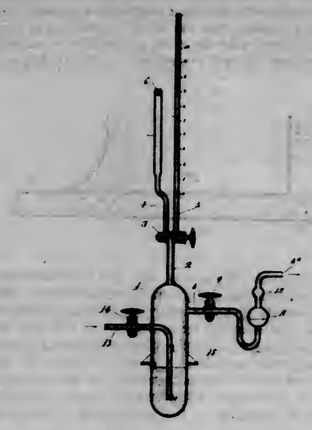
3. In a centrifugal pump, a casing having a suction inlet at one side, a runner in said casing, and vanes on the outer faces of said runner adapted to produce a thrust on the runner in opposition to the suction pull on the runner.

4. In a horizontal shaft centrifugal pump, a casing having a suction inlet at one side, a runner rotatably mounted in said casing, and vanes on the outer faces of said runner arranged at an angle to the plane of rotation thereof, said vanes being arranged so that their rear ends lie closer to the suction side of the pump than their leading ends.

5. In a centrifugal pump, a runner having curved impeller blades extending outward to a circumscribing circle, and vanes on the impeller blades within said circle, arranged at an angle to the plane of rotation of the runner.

[Claims 6 to 9 not printed in the Gazette.]

1,074,795. GAS-TESTING APPARATUS. EINER JOHNSON, Minneapolis, Minn. Filed Dec. 5, 1912. Serial No. 735,072. (Cl. 23—3.)



1. A gas testing apparatus comprising a main bulb having an upwardly extended tube and two burettes connected to the upper end thereof, a valve for closing the lower ends of said burettes and for connecting the same, at will, to said tube, a valved tube extending into said main bulb and downward within the same, and another valved tube extending from the upper portion of said main bulb.

2. A gas testing apparatus comprising a main bulb having an upwardly extended tube and two burettes connected to the upper end thereof, a valve for closing the lower ends of said burettes and for connecting the same, at will, to said tube, a valved tube extending into said main bulb and downward within the same, and another valved tube extending from the upper portion of said main bulb and provided with a U-shaped downward bend adapted to serve as a seal.

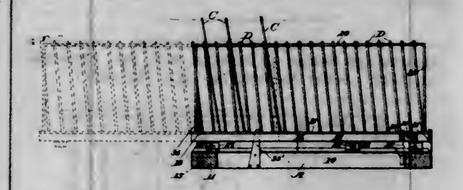
3. A gas testing apparatus comprising a main bulb having an upwardly extended tube and two burettes connected to the upper end thereof, a valve for closing the lower ends of said burettes and for connecting the same, at will, to said tube, a valved tube extending into said main bulb and downward within the same, and another valved tube extending from the upper portion of said main bulb and provided with a bulb that is small as compared with said main bulb.

4. A gas testing apparatus comprising a main bulb having an upwardly extended tube and two burettes connected to the upper end thereof, a valve for closing the lower ends of said burettes and for connecting the same, at will, to said tube, a valved tube extending into said main bulb and downward within the same, and another valved tube extending from the upper portion of said main bulb and provided with a U-shaped downward depression and a bulb, which bulb is small as compared with said main bulb.

5. The process of determining the amount of hydrogen sulfid in coal gas or other gas containing the same, which consists, in absorbing the hydrogen sulfid content and allowing the other constituents of the gas to escape, in confining the absorbed hydrogen sulfid gas, and in liberating the said hydrogen sulfid gas, by the use of hydrochloric acid in a partial vacuum, and in titrating under partial vacuum.

1,074,796. LACE-RACK. LAURENCE E. JONES, Bridgeport, Tex. Filed Aug. 3, 1912. Serial No. 713,183. (Cl. 45—77.)

1. A device of the character described including in combination a base provided with tracks, a carriage provided with wheels for sliding movement along the tracks, means for limiting the inward movement of the carriage, means for limiting outward movement of the carriage, boxings carried by the sides of the carriage, each boxing having an upwardly directed projection, a roller mounted in each boxing, plates carried by the base and at their upper ends provided with inwardly directed flanges for engagement with said rollers of the boxings and to form a channel into which the projections of the boxings project, and whereby sidewise movement of the carriage is prevented.



2. A device of the character described including in combination a base provided with tracks, plates secured to the base and having their upper edges bent upon themselves to provide flanges in spaced relation to the bodies of the plates and forming spaces between the flanges and the bodies of the plates, a carriage provided with wheels for sliding movement along the tracks, boxings secured to the carriage, each boxing having a portion projecting into the space between the flanges and the bodies of said plates, and rollers carried by the boxings for engagement with the flanges of said plates.

3. A device of the character described including in combination, a base provided with tracks, a carriage including side sills and end pieces connecting the side sills and provided with wheels for sliding movement along the tracks, means for limiting the inward movement of the carriage, a latch 33 secured to the base for engagement by the rear connecting piece of the carriage to limit outward movement of the latter, means for preventing sidewise movement of the carriage off of the tracks, and a latch pivotally secured to the rear portion of the base for swinging movement to permit sliding of the carriage when in one position and also movable to a position to engage the inner side of the rear connecting piece of the carriage to lock the carriage against outward movement when in its rearward position.

1,074,797. PRESSURE-OPERATED DEEP-WELL PUMP. PAUL G. KAISER, Chicago, Ill. Filed Sept. 26, 1912. Serial No. 722,443. (Cl. 103—84.)



1. A nozzle for the purpose set forth comprising a series of spaced conic sections, with the larger end of each section connected to a smaller part of an adjacent section by an annular offset web portion, the said web portions and walls of said conic section being made of substantially uniform thickness, and openings extending through said web portions from the interior to the exterior of the nozzle.

2. In a pressure operated, deep well pump, the combination with an out-flow liquid pipe, and an air pipe therein adapted for connection at its upper end with an air forcing device, of a nozzle within the outflow pipe at the lower end of the air pipe formed with external, annularly, vertically spaced shoulders spaced by external conic offsets, said wall being provided with a series of annularly arranged jet openings which open at their outer ends at said shoulders, and the external contour of the nozzle following the external contour so as to thereby decrease the length of the jet openings and materially lighten the nozzle.

1,074,798. DOOR-CHECK. HUBERT A. KENDALL, Kansas City, Mo. Filed Oct. 28, 1912. Serial No. 728,302. (Cl. 16—85.)

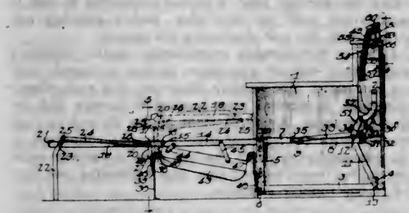


1. The combination in door checks with the stationary member, a movable member, a pivoted normally-pendant swinging member provided with cross arms, one of which coacts with the said movable member to check the rebound of the movable member, an upward extension of the swinging member upon its outer face portion extending above the line of its pivoted upper end and an abutting device on the movable part adapted to tilt the swinging member into a door checking position.

2. The combination in door checks with the door and its casing, of a pivoted swinging resilient member on the door casing and an upward extension upon its outer face portion and an abutting device on the door in the path of said upward extension adapted to tilt the swinging member into a door checking position, and a cross arm or arms upon the swinging resilient member adapted to check the rebound of the door.

3. The combination in door checks with the door and its casing of a pivoted swinging resilient member on the door casing and an upward extension upon its outer face portion extending above the line of its pivoted upper end an abutting device on the door in the path of said upward extension adapted to tilt the swinging member into a door checking position, and a cross arm or arms upon the swinging resilient member adapted to check the rebound of the door, and lateral extensions of the abutting device adapted to check the upward movement of said arms in their path of rotation.

1,074,799. DIVANETTE. CHARLES J. KINDEL, Wilmette, Ill. Filed Feb. 19, 1912. Serial No. 678,560. (Cl. 5—51.)



1. In a folding couch, the combination of a main frame, a main section, an intermediate section and an end section, locking means for holding said last two sections together when in closed position during the opening and closing operation, said means being mounted adjacent the end of the intermediate section.

2. In a folding couch, the combination of a main frame, a main section, an intermediate section and an end section, locking means comprising a swinging bail for holding said last two sections together when in closed position during the opening and closing operation, said means being mounted adjacent the end of the intermediate section.

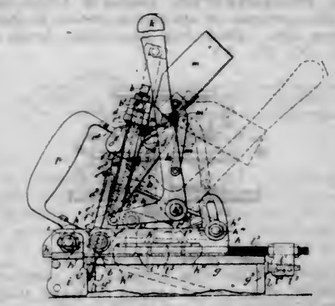
3. In a folding couch, the combination of a main frame, a main section, an intermediate section and an end section, locking means for holding said last two sections together when in closed position during the opening and closing operation, said means being mounted on a pivotal connection adjacent the end of the intermediate section.

4. In a folding couch, the combination of a main frame, a main section, an intermediate section and an end section, locking means for holding said last two sections together when in closed position during the opening and closing operation, said means being mounted adjacent the end of the intermediate section, and a leg pivotally mounted on said end section.

5. In a folding couch, the combination of a main frame, a main section, an intermediate section and an end section, locking means comprising a swinging bail for holding said last two sections together when in closed position during the opening and closing operation, said means being mounted adjacent the end of the intermediate section, and a leg pivotally mounted on said end section and secured to said bail through the medium of a link connection.

[Claims 6 to 13 not printed in the Gazette.]

1,074,800. BOX-LID-NAILING MACHINE. ALFRED STEPHEN KING, Norwich, England. Filed Nov. 8, 1912. Serial No. 730,215. (Cl. 1—46.)



1. A portable nailing machine constructed and arranged for nailing down the lids of boxes, comprising a standard carrying a nail chute, a nail chuck at the bottom of the chute, a nail plunger reciprocable in the standard, supporting base plates at the lower end of the standard, a downwardly extending stop secured to one end of a base plate and located in a plane at a right angle to the plane of the base plate, and means for adjusting the position of the stop relatively to the base plate and for changing the angle of the supporting base plates relatively to the standard.

2. A portable nailing machine constructed and arranged for nailing down the lids of boxes, comprising a standard carrying a nail chute, a nail chuck at the bottom of the chute, a nail plunger reciprocable in the standard, supporting base plates at the lower end of the standard, and a downwardly extending stop secured to one end of a base plate and having a recess arranged to receive the overhanging edges of the lids.

3. A portable nailing machine constructed and arranged for nailing down the lids of boxes, comprising a standard carrying a nail chute, a nail chuck at the bottom of the chute, a nail plunger reciprocable in the standard, supporting base plates secured to the lower end of the standard, a downwardly extending stop secured to one end of a base plate, an arm pivoted to the downwardly extending stop, and a jaw carried by the arm and constructed and arranged to engage with the bottom of the box.

4. A portable nailing machine constructed and arranged for nailing down the lids of boxes, comprising a standard

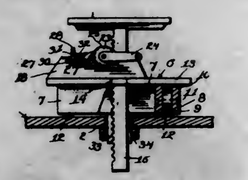
carrying a nail chute, a nail chuck at the bottom of the chute, a nail plunger reciprocable in the standard, a nail hopper, a lever actuating the nail plunger and the nail hopper, supporting base plates secured to the lower end of the standard, a downwardly extending stop secured to one end of a base plate, and a jaw carried by the base plates and arranged to press the box against the downwardly extending stop, the said jaw being arranged to be operated by said lever.

1,074,801. LAYERS OF REED. PHILIPP KREBS, Frankfort-on-the-Main, Germany. Filed Mar. 17, 1911. Serial No. 615,174. (Cl. 20—13.)



A fabric of rushes and the like, comprising parallel layers of spaced rushes, said layers being separated from one another by cords which are approximately the diameter of the rushes, thereby forming intervening spaces between the layers to permit the penetration of mortar between said layers and around the reeds, thus forming a solid mass.

1,074,802. STORE-FIXTURE. JOSEPH G. LUNDY, Evergreen, Ala., assignor of one-half to Robert F. Croom, Evergreen, Ala. Filed July 31, 1912. Serial No. 712,426. (Cl. 211—8.)

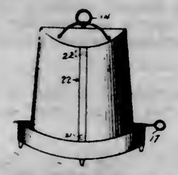


1. In a device of the class described, the combination with a counter, of a carriage adapted for travel thereon, a vertically adjustable bar carried by the carriage, a scale supporting platform mounted on the upper end of bar, and means for adjusting sid bar.

2. In a device of the class described, the combination with a counter having a longitudinal groove formed therein, of a wheel supported carriage adapted for travel upon the counter, a rack bar passing through the carriage and groove of the counter, a scale supporting platform fixed to the upper end of said bar, a shaft arranged transversely of the carriage, a pinion fixed to the shaft and adapted to mesh with the rack bar, a crank on the shaft, said crank being operable to rotate the shaft to raise or lower said platform, means for holding the rack bar in adjusted positions, as and for the purposes set forth.

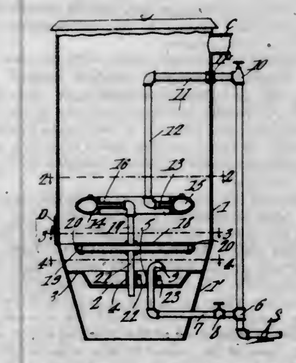
3. In a device of the class described, the combination with a counter having a longitudinal groove formed therein, of a carriage having wheels for engaging the counter at opposite sides of the groove, a rack bar passing through the carriage, and groove, a scale supporting platform mounted on the upper end of said bar, guide bars mounted upon the ends of the carriage and adapted for travel in the groove, friction wheels mounted on the lower ends of the guide bars and adapted to bear against the under surface of the counter, a shaft arranged transversely of the carriage, a pinion fixed thereto for meshing with the rack bar, a ratchet wheel fixed to the shaft, a gravity pawl carried by the carriage for engaging said ratchet, a crank for rotating the shaft to raise or lower the rack bar so as to position the scale supporting platform at different height said pawl serving to hold the bar in any of its adjusted positions, as and for the purposes set forth.

1,074,803. DRINKING-FOUNTAIN. JOSEPH W. MANON, Charleroi, Pa. Filed Feb. 24, 1910. Serial No. 545,653. (Cl. 119—77.)



A drinking fountain, semi-frustum of a cone in shape, and consisting of the combination of a storage tank, a detachable basin, a disjointing hinge, the hinge attaching the basin to the tank, a keeper's support on the tank, a double purpose keeper, the keeper being held by and operated through the support, and provided with a hanger eye on one end and a spring arm on the other, thereby securing the basin in proper position to the tank, and communicating means between the tank and basin substantially as set forth and described.

1,074,804. LIQUID-HYDROCARBON BURNER. DAVID MCKEE, Wichita, Kans. Filed Apr. 15, 1913. Serial No. 761,278. (Cl. 158—53.)

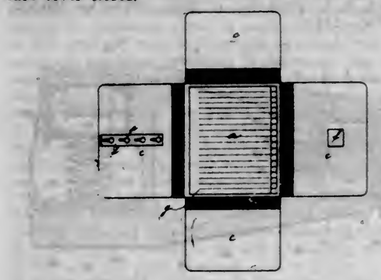


1. A device for burning hydrocarbon liquid, including an upper ring shaped generator having a liquid inlet pipe, a gas outlet leading from the ring and extending inwardly, a vertical pipe connected thereto and depending therefrom, a pipe at right angles to and in communication with the vertical pipe, a burner connected to and in communication with the last pipe, and a starting pan supported from the last pipe below the burner.

2. A device for burning hydrocarbon liquid, including an upper ring shaped generator having a liquid inlet pipe, a gas outlet pipe leading from the ring and extending inwardly, a vertical pipe connected thereto and depending therefrom, a pipe at right angles to and in communication with the vertical pipe, a burner connected to and in communication with the last pipe, a tubular member depending from the last pipe, and a starting pan connected to the tubular member.

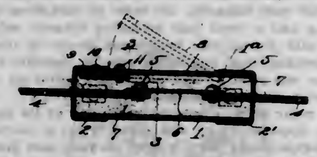
1,074,805. FILE FOR LETTERS, INVOICES, AND THE LIKE. AUREL MECKEL, Elberfeld, Germany. Filed Nov. 14, 1911. Serial No. 660,277. (Cl. 129—15.)

1. As a new article of manufacture, a file for letters or the like comprising a stack of leaves, each leaf having an edge folded parallel to itself more than twice and so as to provide an inwardly projecting flap which flap is attached to the top of the lower adjacent leaf so that the leaves may be separated without losing their parallelism, a relatively stiff bottom for said stack provided with a partially creased flap at each of the four sides thereof, said flaps being adapted to fold over so as to constitute, with said bottom, a cover for said stack, and locking devices attached to two opposite flaps for holding said cover closed.



2. As a new article of manufacture, a file for letters and the like comprising a stack of leaves, flexible bellows-like joints between said leaves for attaching them to one another, each joint being formed by folding the edge of a given leaf parallel to itself and in the same direction three times so as to provide an inwardly projecting flap, which flap is attached to the top edge of the lower adjacent leaf so that the leaves may be separated without losing their parallelism, a relatively stiff bottom for said stack provided with a partially creased flap at each of the four sides thereof, said flaps being adapted to fold over so as to constitute, with said bottom, a cover for said stack, and locking devices attached to two opposite flaps for holding said cover closed.

1,074,806. INCLOSED ELECTRIC FUSE. WILLIAM J. MORGAN, St. Louis, Mo., assignor, by direct and mesne assignments, to Alfred L. Eustice, Chicago, Ill. Filed Aug. 5, 1912. Serial No. 713,332. Renewed Aug. 20, 1913. Serial No. 785,819. (Cl. 175—273.)



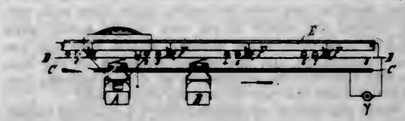
1. In a fuse, an open ended tubular casing, cup-shaped caps arranged on, and closing, the ends of said casing, said casing being longitudinally provided with an elongated circumferential opening through which access may be had from the exterior into the interior thereof, an elongated closure substantially arc-shaped in cross-section for removably closing said opening, a short metallic section fixed within said casing and projecting below said opening, and a screw adapted to pass through said closure and seat in said metallic section to removably secure said closure to said casing; substantially as described.

2. In a fuse, an open-ended tubular casing, cup-shaped caps arranged on, and closing, the ends of said casing, said casing being longitudinally provided with an elongated circumferential opening through which access may be had from the exterior into the interior thereof, an elongated closure substantially arc-shaped in cross section for removably closing said opening, one end of said closure lying under the projecting edge of one of said caps when said closure is in normal closing position, and means adapted to removably secure the other end of said closure to said casing; substantially as described.

3. In a fuse, an open ended tubular casing, cup-shaped caps arranged on, and closing, the ends of said casing, said casing being longitudinally provided with an elongated circumferential opening through which access may be had from the exterior into the interior thereof, an elongated closure substantially arc-shaped in cross-section for removably closing said opening, one end of said closure lying under the projecting edge of one of said caps when said closure is in normal closing position, a short metallic section fixed within said casing and projecting at one end below said opening, and a screw adapted to pass through said closure and seat in said metallic section to removably secure the other end of said closure to said casing; substantially as described.

4. In a fuse, an open ended tubular casing, cup-shaped caps arranged on, and closing, the ends of said casing, said casing being longitudinally provided with an elongated circumferential opening through which access may be had from the exterior into the interior thereof, an elongated closure substantially arc-shaped in cross-section for removably closing said opening, one end of said closure lying under the projecting edge of one of said caps when said closure is in normal closing position, a short metallic section fixed within said casing and projecting at one end below said opening, and a screw adapted to pass through said closure and seat in said metallic section to removably secure the other end of said closure to said casing, the outer faces of said casing and said closure being substantially flush when said closure is in normal closing position; substantially as described.

1,074,807. ELECTRICAL SUSPENSION-RAILWAY. HERMANN MÜLLER, Leipzig-Gohlis, Germany. Filed Feb. 7, 1906. Serial No. 300,003. (Cl. 191—20.)



An electric suspension railway comprising a main supply wire, a trolley wire divided into sections, a pair of auxiliary train supply wires divided into corresponding sections, a pair of switches mechanically operated by the running car, arranged at each of the division points of the sections and controlling the connections with the auxiliary train supply wires, one switch of each pair normally connecting the corresponding section of one auxiliary wire with the main supply wire and one switch of another pair normally connecting said section of auxiliary wire with the trolley section to the rear of said section of auxiliary wire whereby under normal conditions this section of trolley wire is energized.

1,074,808. PROCESS OF MAKING FERTILIZER. SPENCER B. NEWBERRY and HARVEY N. BARRETT, Baybridge, Ohio. Filed Sept. 30, 1910. Serial No. 584,628. (Cl. 71—7.)

1. The process of making fertilizer by grinding together insoluble phosphate and an amount of gypsum and of carbonaceous matter each approximately equal to two-thirds the phosphoric acid contained in the phosphate, calcining the mixture and grinding the calcined product.

2. The process of making fertilizer by grinding together insoluble phosphate and an amount of gypsum and of carbonaceous matter each approximately equal to two-thirds the phosphoric acid contained in the phosphate, calcining the mixture until the gypsum is substantially decomposed and the carbonaceous matter oxidized and expelled, and grinding the calcined product.

1,074,809. POWDER AND PROPELLANT FOR USE IN FIREARMS. CHARLES NEWTON, Buffalo, N. Y. Filed June 13, 1911. Serial No. 632,821. (Cl. 102—1.)

1. As a new article of manufacture, a propellant kernel consisting of a perforated quick burning colloid protected

on its exposed surfaces by one or more layers of slow burning colloids so disposed that each layer of slower burning colloid surrounds one which is quicker burning than itself.



2. As a new article of manufacture, a propellant kernel consisting of a perforated quick burning colloid protected on its exposed surfaces by one or more layers of slow burning colloids so disposed that each layer of slower burning colloid surrounds one which is quicker burning than itself, and end closures formed of a slow burning substance, whereby the quick burning colloids are protected until the outer layer of slower burning colloid shall be partially or wholly burned away.

3. As a new article of manufacture, a perforated propellant kernel comprising a plurality of layers of colloids having different rates of burning, said layers being so disposed that those forming the exterior surface of the kernel and the interior surface of the perforation are slowest burning and each successive layer from such surfaces toward the center of the web of the kernel being composed of a more rapid burning colloid than the one which envelops it.

4. As a new article of manufacture, a perforated propellant kernel comprising a plurality of layers of colloids having different rates of burning, said layers being so disposed that those forming the exterior surface of the kernel and the interior surface of the perforation are slowest burning and each successive layer from such surfaces toward the center of the web of the kernel being composed of a more rapid burning colloid than the one which envelops it, and the whole protected at the ends from the flame by the application of a slow burning substance to retard the rate of burning at the ends.

5. As a new article of manufacture, a propellant kernel, having a central perforated slow burning colloid, a quick burning colloid surrounding said slow burning colloid and a slow burning colloid surrounding said quick burning colloid.

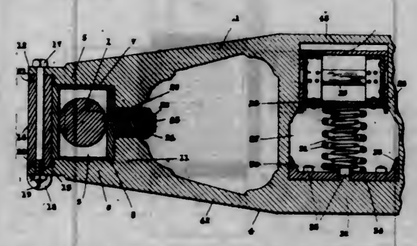
[Claims 6 to 11 not printed in the Gazette.]

1,074,810. OIL-CAN. JOHN W. NILSSON, Halfour, N. D. Filed June 27, 1910. Serial No. 569,057. (Cl. 221—34.)



An oil can comprising, in combination, a flexible body having a frusto-conical top portion, a coil spring disposed within the body and having a spiral portion at its upper end, a frusto-conical plug at the upper extremity of the body, a shield member having a downwardly directed peripheral flange disposed over the upper extremity of the body, the plug and shield being formed with centrally alined openings and a spout having a threaded nipple passed through the opening in the shield and threaded in the opening of the plug to clamp the extremity of the can between the inner face of the flange and the periphery of the plug.

1,074,811. CAR-TRUCK. WILLIAM H. NUNAMACHER, Newark, N. J. Filed Dec. 13, 1912. Serial No. 736,532. (Cl. 105—243.)



1. In a car truck, a side frame having at its end horizontally disposed upper and lower jaws, a journal box seated between said jaws, a filler between said jaws having dove-tailed ends engaging the same to hold them against spreading, and means for releasably securing said filler.

2. In a car truck, a side frame having at its end horizontally disposed upper and lower jaws, a journal box seated between said jaws, jaws having dove-tailed ends engaging the same to hold them against spreading and a truck bolt extending between said jaws outside said journal box to prevent escape of the same.

3. In a car truck, a side frame having at its ends horizontally disposed upper and lower jaws, a journal box seated between said jaws, a filler between said jaws having dove-tailed ends engaging the same to hold them against spreading, and a truck bolt extending through said jaws and filler.

4. In a car truck, a side frame having at its end horizontally disposed upper and lower jaws, a journal box seated between said jaws, a filler between said jaws having dove-tailed ends engaging the same to hold them against spreading and a truck bolt extending between said jaws outside said journal box to prevent escape of the same, ears depending from the side frame on opposite sides of the lower end of said truck bolt, and a cotter-pin extending through said ears beneath said bolt.

5. In a car truck, a side frame having at its end horizontally disposed upper and lower jaws, a journal box seated between said jaws, a filler between said jaws having dove-tailed ends engaging the same to hold them against spreading, and means for releasably securing said filler, and cotter-pins extending one through each dove-tailed joint to prevent separation of the members thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,074,812. LOG-CAR. ALBIN OLSSON, Renton, Wash. Filed May 24, 1913. Serial No. 769,737. (Cl. 188—24.)



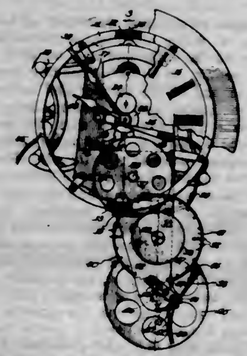
1. A log car comprising trucks with brake rigging thereon, telescoping main beams secured to the said trucks, and air brake mechanism rigidly secured to one of the said beams and adapted to adjustably and operatively engage the said truck brake rigging.

2. A longitudinally extensible and contractible log car comprising trucks with brake rigging thereon and bolsters pivotally secured thereto, main beams rigidly secured to said bolsters and insertible one within the other, said beams provided with transverse apertures extending therethrough adapted to aline and receive holding means therein, said holding means adapted to hold said beams in fixed relation, and an air brake operating mechanism rigidly secured to one of the said main beams and operatively and adjustably engaging the truck brake rigging.

3. A log car comprising trucks with brake rigging secured thereto, bolsters pivotally secured to the said trucks, a main beam rigidly secured to one of the said bolsters and provided with a plurality of apertures extending transversely therethrough, a hollow main beam rigidly secured to the other of said bolsters and provided with a plurality of apertures extending transversely therethrough and alining with the apertures in the first mentioned main beam, said main beams insertible one within the other, means insertible into the alined beam apertures adapted to hold the same in fixed relation, an air brake operating mechanism secured to the said hollow beam and adapted to engage the truck brake rigging there adjacent, and a reach rod operatively connected to the brake rigging of the other truck and provided with a plurality of apertures extending therethrough, said reach rod adjustably engaging the said air brake operating mechanism, air pipes rigidly secured to the said telescoping beams, one of the said air pipes provided with a plurality of hose couplings arranged at intervals therealong, the other of said air pipes provided with a hose coupling adapted to engage the hose couplings of the other air pipe.

4. In a longitudinally extensible and contractible log car, the combination of trucks with brake rigging thereon, bolsters pivotally secured thereto, metallic main beams rigidly secured to said bolsters and insertible one within the other, an air brake cylinder rigidly secured to one of the main beams and operatively engaging the brake rigging of the adjacent truck, adjustable means engaging the brake rigging of the other truck and adjustably engaging the said other truck operating mechanism, air pipes rigidly secured to the said main beams, one of said air pipes provided with hose couplings arranged at intervals therealong, a single hose coupling secured to the other of said air pipes and adapted to engage one of the said plurality of hose couplings of the other of the air pipes, and means for holding the said beams in fixed adjusted relation.

1,074,813. TIME-CONTROLLED CIRCUIT-CLOSING DEVICE. CARL A. PALMGREN, Chicago, Ill. Filed Jan. 8, 1912. Serial No. 670,036. (Cl. 161—4.)



1. In a device of the class described, the combination of a time-controlled actuating mechanism, a contact member driven by said actuating mechanism, a second contact member adapted to be periodically brought into electrical connection with said first contact member, a time ring, means for electrically connecting said time ring with said first-mentioned contact member, means operatively connecting said time ring with said actuating means, a plurality of contact arms adapted to engage selected points on said contact ring, and means for automatically actuating said contact arms, thereby electrically connecting said contact arms with said second contact member during independently selected periods of engagement of said second contact member by said first contact member on successive revolutions of said time ring, substantially as described.

2. In a device of the class described, the combination of a time ring having a plurality of rows of holes in its periphery, contact plugs adapted for insertion in any of said holes, a plurality of contact arms, each of said arms adapted to engage the plugs in one of said rows of holes, electric conductors connected with said contact arms and said time ring, means for actuating said ring, cams for engaging said contact arms, and means for operatively connecting said cams with the actuating means of said time ring, whereby a different contact arm is brought into position to engage said contact plugs on successive rotations of said time ring, substantially as described.

3. In a device of the class described, the combination of time-controlled actuating means, a contact arm driven by said actuating means, electrically conducting members adapted to be periodically engaged by said contact arm, said conducting members being electrically connected to each other, a time ring having a plurality of rows of adjustable contact plugs mounted on its periphery, means for rotating said ring by said actuating means, means electrically connecting said time ring with said contact arm, a contact member for each row of plugs of said time ring, and cams for causing the selective engagement of one of said rows of plugs by its corresponding contact member, whereby the electrical circuit from said contact members to said conducting members is periodically closed when said contact arm engages one of said conducting members and one of said contact members simultaneously engages a plug of said time ring, substantially as described.

1,074,814. PROCESS OF PROMOTING FERMENTATION. EDUARD POHL, Rhöndorf, Germany. Filed Nov. 14, 1911. Serial No. 660,291. (Cl. 195—20.)

1. In the manufacture of alcohol the process which comprises making a suspension of fine-powdered zeolites containing nutrient mineral matters in an aqueous liquid and adding such suspension to material wherein enzymic activity is to be produced.

2. In the manufacture of alcohol, the process which comprises producing malt in the presence of fine-powdered zeolites and moisture.

3. In the manufacture of alcohol, the process which comprises producing malt in the presence of fine-powdered zeolites and moisture and mashing such malt in the presence of such zeolites.

4. In the manufacture of alcohol, the process which comprises producing malt in the presence of fine-powdered zeolites and moisture, and mashing such malt to form wort and fermenting such wort in the presence of such zeolites.

5. In the manufacture of alcohol, the process which comprises steeping grain to form malt in the presence of water containing zeolites, mashing the malt to form wort in the presence of the zeolites originally added and fermenting the wort, still in the presence of such zeolites.

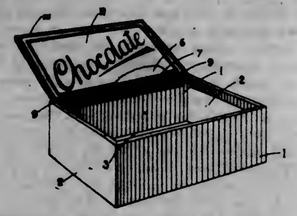
1,074,815. BOX. ALFRED PRIOR and RICHARD WILLIAM BRICKELL, Dunedin, New Zealand. Filed Apr. 6, 1912. Serial No. 686,927. (Cl. 217—57.)

1. In combination a box lid, a strip of pliable material secured to both surfaces of said lid over an edge thereof forming a fold, and a series of staples having their heads within said fold and their legs passing through said strip substantially as and for the purposes set forth.

2. In combination a box lid, a side of a box, a strip of pliable material secured to both surfaces of said lid over an edge thereof forming a fold, and a series of staples within said fold passing through said strip at said fold and entering the upper edge of said side of said box substantially as described.

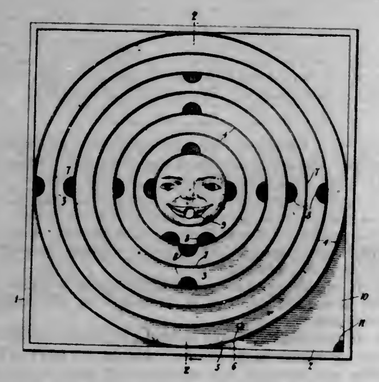
3. In combination a box lid, one or more strips of pliable material secured to both surfaces of said lid over an edge thereof forming folds in each strip, and a series of

staples with their heads within said folds and their legs passing through said strips substantially as and for the purposes set forth.



4. In combination a box lid, a side of a box, one or more strips of pliable material secured to both surfaces of said lid over an edge thereof forming folds in each strip and a series of staples with their heads within said folds and entering the upper edge of said side of said box substantially as described.

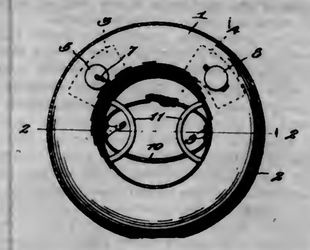
1,074,816. PUZZLE. HAROLD G. RANDALL, Felchville, Vt. Filed Apr. 13, 1911. Serial No. 620,762. (Cl. 46—41.)



A puzzle comprising a casing, a horizontal partition in said casing dividing the latter into lower and upper compartments, concentric rings arranged in and dividing the upper compartment into a series of endless passages, said rings having staggered gateways through which adjacent passages communicate, and said partition being provided with openings affording communication between the lower compartment and said passages, said openings being located in pairs with the openings of each pair disposed on opposite sides of the respective gate-ways and in adjacent passages respectively.

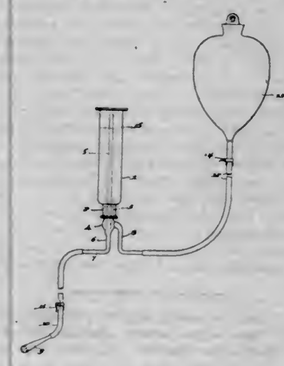
1,074,817. LIFE-PRESERVER. ERNESTINE RUSSELL, Enid, Okla. Filed Aug. 26, 1912. Serial No. 717,175. (Cl. 9—17.)

A life preserver comprising a cylindrical cover and a filling for the same, said filling having receptacle accommodating openings formed therein, the long edges of which correspond to the curvature of the filling and cover, food receptacles of substantially rectangular form positioned in the receptacle accommodating openings, said receptacles fitting snugly within the openings and having their long edges curved to correspond with the long edges of the openings, the upper portion of the cover covering the upper faces of the receptacles, said receptacles having threaded neck portions projecting through the upper portion of the cover, caps for closing the threaded neck portions projecting through the cover, a stem carried by one of the caps, means for securing the life preserver to the body of a person, and shoulder straps carried by the cover



of the preserver to prevent the same from turning upon the wearer.

1,074,818. RECTAL IRRIGATOR. CARLETON SAWYER, Foxboro, Mass. Filed Nov. 25, 1908, Serial No. 464,368. Renewed Feb. 27, 1913. Serial No. 751,184. (Cl. 128—25.)

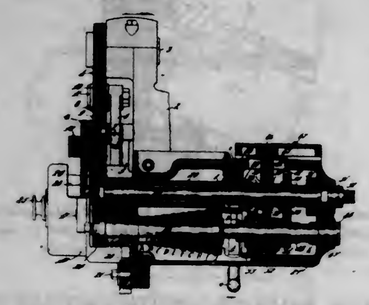


1. In apparatus of the class described, an invertible oil-holder having a filling opening, a removable tubular stopper closed at its outer end and adapted to entirely fit the filling opening, an oil outlet conduit passed through the closed outer end of the stopper and extending therethrough into the holder and terminating near the bottom thereof, a nozzle tube connected with the outer end of said conduit, and a source of water supply connected with the tubular stopper externally to the oil-holder and communicating with the interior of the oil-holder by the tubular portion of the stopper surrounding the outlet conduit.

2. In apparatus of the class described, an elongated invertible oil holder having a filling opening, a removable tubular stopper to tightly close the opening and having a globular head, an inlet conduit communicating with the interior of the head and stopper, an oil outlet conduit extended through the head and stopper and terminating within the holder near its bottom, the opposite end of said outlet projecting beyond the head, a nozzle tube connected with said projecting end, and a source of water supply connected with the inlet conduit.

1,074,819. GEARING. WILLIAM SCHELLENBACH, Hartwell, Ohio. Filed Oct. 28, 1912. Serial No. 728,326. (Cl. 74—58.)

1. A structure of the nature disclosed combining a first shaft, a gear mounted thereon, a second shaft, a cone of gears keyed thereto, a tumbler gear establishing connection therebetween, a driven member on said second shaft, a driving member on said first shaft, means for connecting said driving and driven members respectively directly with their shaft, and alternative means for gearing said driving member directly to said second shaft and gearing said driven member to said first shaft.



2. A structure of the nature disclosed combining a shaft, a gear journaled thereon and adapted to rotate independently of said shaft, a cone of gears, a tumbler gear for connecting said gear to any one of said cone of gears, and gearing intervening between said cone of gears and said shaft to enable the former to drive the latter.

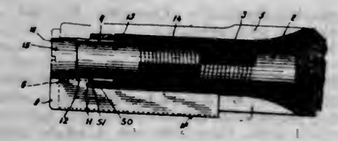
3. A structure of the nature disclosed combining a shaft, a gear journaled thereon and adapted to rotate independently of said shaft, a cone of gears, a tumbler gear for connecting said gear to any one of said cone of gears, and speed change gearing adapted to establish a driving connection between said cone of gears and said shaft.

4. A structure of the nature disclosed combining a shaft, a gear journaled thereon and adapted to rotate independently of said shaft, a cone of gears, a tumbler gear for connecting said gear to any one of said cone of gears, gearing between said cone of gears and said shaft, and a clutch for connecting said gearing with said shaft.

5. A structure of the nature disclosed combining a shaft, a gear journaled thereon and adapted to rotate independently of said shaft, a cone of gears, a tumbler gear for connecting said gear to any one of said cone of gears, a sleeve journaled on said shaft, gearing between said sleeve and said cone of gears, and clutch mechanism for enabling said sleeve to be connected either with said first mentioned gear or said shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,074,820. EXPANSION-REAMER. CHARLES O. SCHELLENBACH, Cincinnati, Ohio. Filed Dec. 20, 1912. Serial No. 737,872. (Cl. 77—76.)

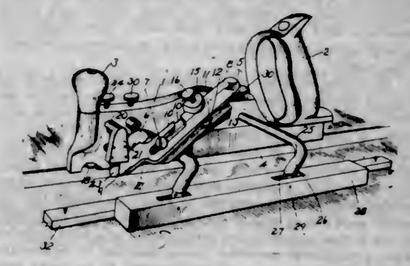


1. A reamer comprising a bored body formed with an external longitudinal series of radial grooves forwardly terminating in slots penetrating the walls at the end of the body, the inner end of said body bore being formed with fine screw threads, blades having inward extensions at their forward ends, said blades being forcibly compressed into said grooves with a friction fit, the blade extensions extending entirely through the body slots, an expander formed with threads at its inner ends engaging the body threads and formed with a head having a slightly, inwardly tapering peripheral surface engaging the inner edges of the blade extensions within the body, the coöperative effect of the fine threads and taper pitch of the expander head, producing, when the expander is turned, an expanding pressure slightly in excess of the frictional hold of the blades within the shank.

2. A reamer body centrally bored and formed with external slots and grooves extending longitudinally of the body, a series of radial blades friction-fitted into the grooves with inward extensions penetrating entirely through the slots, an expander having screw threaded relations with the body, said expander and blades being formed with taper contact surfaces within the body, adapted to overcome the frictional hold and radially expand the blades in their seats.

3. A reamer body centrally bored and formed with external slots and grooves extending longitudinally of the body, a series of radial blades friction-fitted into the grooves with inward extensions penetrating entirely through the slots so as to definitely position the blades longitudinally in said grooves and slots, an expander having screw threaded relations with the body, said expander and blades being formed with taper contact surfaces within the body, adapted to overcome the frictional hold and radially expand the blades in their seats.

1,074,821. PLANE. FRANK D. STINE, Kansas City, Mo., assignor of one-half to H. E. Clark, Kansas City, Mo. Filed Aug. 21, 1912. Serial No. 716,246. (Cl. 145—16.)



1. A rabbet plane comprising a body portion having a laterally projecting shelf provided with a curved upper surface, means at upper and lower positions on the shelf for binding a bit, and a bit adapted for application to the shelf and engagement by the binding means, for the purpose set forth.

2. A rabbet plane comprising a body member having a laterally directed and longitudinally curved shelf, a keeper at one end of the shelf, a tooth member near the opposite end of the shelf, a bit adapted to overlie the shelf and having an opening for receiving said keeper and having a rack face adapted for engaging the tooth member, a boss on the body portion overlying the shelf, and a set-screw on said boss adapted for engaging the bit binding the same to said curved shelf and moving the rack portion thereof against the tooth member, substantially as set forth.

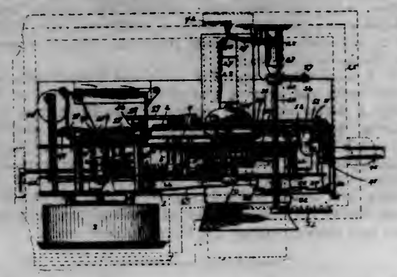
3. In a rabbet plane, a body member having a laterally directed and longitudinally curved shelf, a stud on said shelf, a bit having a longitudinal slot adapted to receive said stud, and means on the body of the plane for engaging said bit and binding same to the curved shelf.

4. In a rabbet plane, a body member having a laterally directed and longitudinally curved shelf, a retaining member on said shelf, a bit having a laterally opening slot adapted for receiving said retaining member, and means on the body of the plane for engaging said bit and binding the same to the curved surface of said shelf and thereby against the retaining member.

5. In a rabbet plane, a body member having a laterally directed and longitudinally curved shelf, a retaining member near one end of said shelf, a bit having a laterally opening slot adapted for receiving said retaining member,

and means on the body of the plane for engaging said bit and binding the same to the curved shelf and thereby against the retaining member.

1,074,822. WORKMAN'S TIME-RECORDER. FRANK J. TRAN, Cleveland, Ohio, and FRANK CAIS, Denver, Colo. Filed July 30, 1910. Serial No. 574,616. (Cl. 234—43.)



1. In a time recorder, the combination of a time printing device, a relatively movable platen designed to receive the article to be printed on, a time-controlled rotatable shaft, a plurality of spaced projections on said shaft angularly disposed relatively to each other, and means connecting said platen with said shaft, said projections and said means coöperating to allow successive movements of the platen.

2. In a time recorder, the combination of a time printing device, a relatively movable platen designed to receive the article to be printed on, means tending to so move said platen, a time-controlled rotatable shaft, a plurality of spaced projections on said shaft angularly disposed relatively to each other, and a member secured to said platen and transversely engaging said shaft, said member being provided with a slot adapted to allow movement of the member past one of said projections when alined therewith.

3. In a time recorder, the combination of a time printing device, a relatively movable platen designed to receive the article to be printed on, means tending to so move said platen, a time-controlled rotatable shaft, a plurality of spaced projections on said shaft angularly disposed relatively to each other, and a member secured to said platen and transversely engaging said shaft, said member being provided with a slot adapted to allow movement of the member past one of said projections when alined therewith, and said member being movable out of engagement with said shaft.

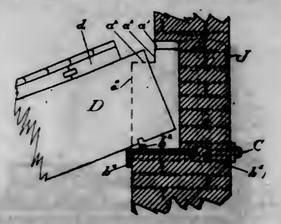
4. In a time recorder, the combination of a time-printing device rotatable on a horizontal axis, time-controlled means for rotating said device, a platen designed to receive the article to be printed on and movable transversely of the axis of said device, a time-controlled rotatable shaft, a plurality of spaced projections on said shaft angularly disposed relatively to each other, and means connecting said platen with said shaft, said projections and said means coöperating to allow successive movements of the platen.

5. In a time recorder, the combination of a time-printing device, a relatively movable platen designed to receive the article to be printed on, time-controlled means for regulating movement of the platen, and time-controlled means for regulating the position of said article on said platen relatively to said device.

[Claims 6 to 25 not printed in the Gazette.]

1,074,823. TIMBER POCKET AND PLATE. WILLIAM E. TRIPP, New Bedford, Mass. Filed May 6, 1912. Serial No. 695,552. (Cl. 72—108.)

The combination in a timber pocket, of a plate adapted to be set into a wall, having a longitudinal slot adapted to engage a lock-pin, on its rear edge a projecting lug adapted to engage an anchor-bolt, on its front edge a downturned apron adapted to engage the inner side of the wall, and having two beads to form footings for the side



members of the pocket and two L-shaped side members, cut back near the top on the inside and adapted to engage said plate and beads and form a rectangular box.

1,074,824. MEANS FOR DENSIFYING METALLIC SURFACES. FRANK L. O. WADSWORTH, Sewickley, Pa. Filed Feb. 6, 1911. Serial No. 606,898. (Cl. 80—30.)



1. A die for use in the process of densifying the surfaces of metallic articles by first roughening and then smoothing the surface to be densified, having formed in its operating surface closely adjacent pyramidal indentations.

2. A die for use in the process of densifying the surfaces of metallic articles by first roughening and then smoothing the surface to be densified, having formed in its operating surface pyramidal indentations, each edge of each indentation coinciding with an edge of an adjacent indentation.

3. A die for use in the process of densifying the surfaces of metallic articles by first roughening and then smoothing the surface to be densified, having formed in its operating surface pyramidal indentations of triangular cross-section arranged edge to edge.

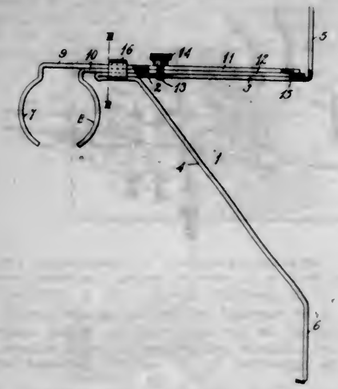
4. A rolling mill for densifying the surfaces of metallic articles, having formed in the surface of one pass pyramidal indentations of triangular cross-section arranged edge to edge, and having a smooth-surfaced succeeding pass.

1,074,825. CURTAIN-ROD HOLDER. WALTER W. WALSH, Pittsburgh, Pa. Filed Mar. 20, 1911. Serial No. 615,498. (Cl. 156—22.)

1. The combination with a pair of curved, downwardly-projecting, rod-embracing arms having slotted lateral projections, one of said projections having a guide piece to coöperate with the slot in the other, of a supporting member provided with integral guide clips and a slot to receive said guide piece and with a single means for clamping said lateral projections in any position to which either or both of them may be adjusted.

2. The combination with a pair of curved, downwardly-projecting, rod-embracing arms having lateral slotted projections, one of said projections having a guide piece that coöperates with the slot in the other projection, of a supporting member provided with integral guides and with a slot to receive said guide piece and having a screw stud projecting through the slots in said projections, and a nut coöperating with said screw stud to clamp said projections in any position to which either or both of them may be adjusted.

3. The combination with two superposed slotted metal strips having curved, downwardly-projecting, rod-embracing arms and one of them having a guide piece to coöperate with the slot in the other, of a supporting member having a slot to receive said guide piece and



clips to embrace the edges of the slotted strips, a screw stud mounted in said member and projecting through the slots in said strips, and a nut for said screw stud to engage the outer face of the upper strip.

1,074,826. SEED-TESTER. WILLIS WEAVER, near Sealy, Tex. Filed Apr. 3, 1913. Serial No. 758,664. (Cl. 47—30.)



1. A sample-containing element for seed-testers comprising a strip of absorbent material having a continuous central portion adapted to have samples placed thereon and side flaps bearing identifying characters adapted to be folded over the samples.

2. A seed-tester comprising a sample-containing strip of absorbent material, a core adapted to have said strip wound therearound, and a box adapted to hold said core and strip.

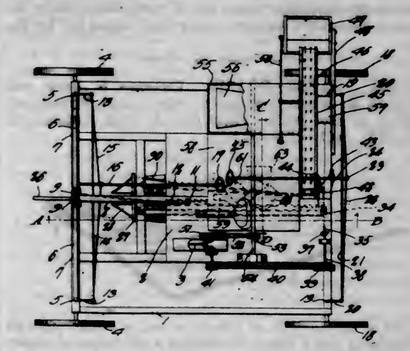
3. A seed-tester comprising a sample-containing strip of absorbent material, a hollow laterally perforated core adapted to have said strip wound therearound, and a box adapted to hold said core and strip.

4. A seed-tester comprising a sample-containing strip, a core adapted to have said strip wound therearound, and a heat-insulated box adapted to hold said core and strip.

1,074,827. MACHINE FOR TOPPING BEETS. ELLIS C. WINCHESTER, Billings, Mont. Filed Mar. 27, 1913. Serial No. 757,222. (Cl. 55—107.)

1. In a machine for topping beets, the combination with a cutting element, and means for conveying beets past said element, of pneumatic means for holding the tops of the beets against the cutting element to sever the tops during the movement of the beets past the element.

2. In a machine of the class described, the combination with a cutting element, and means for conveying beets past said element, of suction means for positioning the tops of the beets upon said cutting element and holding them in such position during the movement of the beets past the element.



3. In a beet topper the combination with severing means and means for conveying beets past the severing means, of pneumatic means for holding the tops of the beets against the severing means during the movement of the beets.

4. In a beet topper the combination with severing means and means for conveying beets past and close to the severing means, of pneumatic means for holding the tops against the severing means during such movement of the beets and for discharging the tops when severed.

5. In a beet topping machine the combination with beet conveying means, of severing devices disposed along a tortuous opening, and close to the conveying means, and pneumatic means for sucking the beet tops into the opening and holding them upon the severing means during the movement of the beets with the conveyer.

[Claims 6 to 15 not printed in the Gazette.]

1,074,828. PLANT-PROTECTOR. CHARLES A. BIGELOW, Lakewood, N. Mex. Filed Aug. 29, 1912. Serial No. 717,805. (Cl. 47—22.)



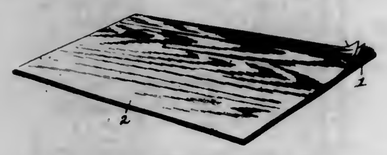
1. In a device of the class described, a hollow body open at its lower end, a screen supported within the body near the upper end thereof, and a perforated cover removably fitted upon the upper end of the body.

2. In a device of the class described, a hollow body, formed from a single sheet of material provided at opposite edges with flanges arranged to be interlocked, the said flanges being idented to form studs and sockets ar-

ranged to coöperate with each other to hold the flanges interlocked, and a foraminous closure for the upper end of the body.

3. In a device of the class described, a hollow body formed from a single sheet of material having interlocking separable edges, the sheet being provided with a transversely extending bead, and a foraminous sheet removably disposed within the body and supported by the bead.

1,074,829. PAPER-BOARD. CHARLES S. BIRD and GEORGE R. WYMAN, Walpole, Mass.; said Wyman assignor to said Bird. Filed July 5, 1912. Serial No. 707,835. (Cl. 154—50.)



1. As a new article of manufacture, a composite and substantially rigid board comprising a plurality of sheets of paper secured to one another by a suitable adhesive and charged within the fibers thereof with an amount of moisture approximating ten per cent. by weight, the board being exteriorly waterproofed.

2. As a new article of manufacture, a composite and substantially rigid board comprising a plurality of plies of paper secured to one another by a suitable adhesive, and charged with an excess of moisture over that required for adhesion, the outer surface of the sheet being waterproofed and presenting a substantially smooth and unbroken surface.

1,074,830. SUSPENSION OF THE CARS OF AIR-SHIPS. ERNST BLOCHMANN, Bitterfeld, Germany, assignor to Luft-Fahrzeug-Gesellschaft M. B. H., Berlin, Germany, a Corporation of Prussia. Filed Apr. 29, 1913. Serial No. 764,418. (Cl. 244—30.)



1. In a movable car suspension for airships the combination of a car sliding freely on a running cable with means for automatically stopping the movement of the car relatively to the cable, substantially as set forth.

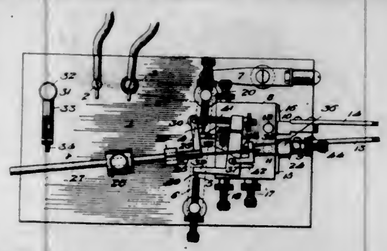
2. In a movable car suspension for airships the combination of a car sliding freely on a running cable with a brake adapted to automatically stopping the movement of the car relatively to the cable at a certain limit of speed and means for moving the car on the cable, substantially as set forth.

3. In a movable car suspension for airships the combination of a car sliding freely on a running cable with a brake, a gearing interposed between the cable and the brake shaft, means for operating the brake by the movement of the car on the cable and means for moving the car on the cable by rotating the brake shaft, substantially as set forth.

4. In a movable car suspension for airships the combination of a car sliding freely on a running cable with a brake adapted to automatically stopping the movement of the car relatively to the cable at a certain limit of speed and means for measuring the turning movement of the brake, substantially as set forth.

5. In a movable car suspension for airships the combination of a car sliding freely on a running cable with a brake adapted to automatically stopping the movement of the car relatively to the cable at a certain limit of speed and a balancing lever frictionally mounted on the brake spindle, substantially as set forth.

1,074,831. TELEGRAPH-KEY. ROYAL L. BOULTER, Los Angeles, Cal. Filed Aug. 13, 1912. Serial No. 714,794. (Cl. 178—63.)



1. In a telegraph transmitter, the combination with an operating key, of a movable spring cushioned contact adapted to be operated thereby, and a vibrator also adapted to be operated by the key in addition to the adaptability of the key to operate the spring cushioned contact and arranged and adapted to tap or actuate the contact in opposition to the spring cushioned action thereof.

2. In a telegraph transmitter, the combination with an operating key, of a contact pivoted thereto and bodily movable therewith, spring means for cushioning said contact, and a vibrator carried by the key and arranged and adapted to tap or actuate the contact in opposition to the spring cushioned action thereon.

3. In a telegraph transmitter, the combination with an operating key, of a movable contact carried thereby, a vibrator also carried by the key, and an adjustable tappet device interposed between the contact and the vibrator, whereby the vibrator is adapted to deliver taps on said contact.

4. In a telegraph transmitter, the combination with an operating key, of a movable contact carried thereby, a vibrator also carried by the key, an adjustable tappet device interposed between the contact and the vibrator, whereby the vibrator is adapted to deliver taps on said contact, and an adjustable spring cushion for said contact.

5. In a telegraph transmitter, the combination with an operating key, of a contact pivoted to the key and also having an adjustable connection therewith, whereby it may be moved as an entirety in relation to the key.

[Claims 6 and 7 not printed in the Gazette.]

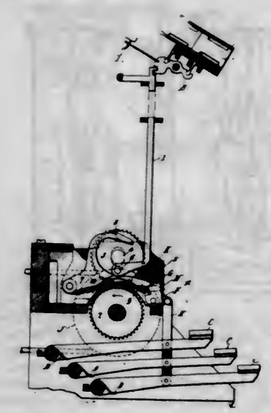
1,074,832. MECHANICAL MOVEMENT. FRED EUGENE BRIGHT, Philadelphia, Pa. Filed Mar. 4, 1911. Serial No. 612,212. (Cl. 199—7.)

1. The combination with a rotated driving member and a rotatable driven member capable of engaging therewith, of a device to contact with and hold the driven member out of engagement with the driving member, the driven member being independently mounted and movable toward and from both the driving member and the holding device.

2. The combination with a rotated driving member and a rotatable driven member capable of engaging therewith, of a device to contact with and hold the driven member out of engagement with the driving member, the driven member being independently mounted and movable toward and from both the driving member and the holding device, together with means for tripping the holding device.

3. The combination with a rotated driving member and a rotatable driven member capable of engaging therewith, of a device whereon the driven member directly rests and is thus held out of engagement with the driving member, the driven member being independently mounted and movable toward and from both the driving member and the holding device.

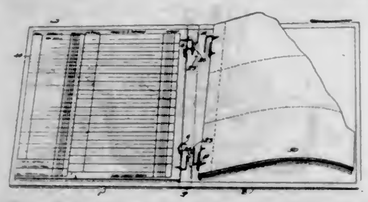
4. The combination with a rotated driving member and a rotatable driven member capable of engaging therewith, of a device whereon the driven member directly rests and is thus held out of engagement with the driving member, the driven member being independently mounted and movable toward and from both the driving member and the holding device, together with means for tripping the holding device.



5. The combination with a rotated driving member and a rotatable driven member capable of engaging therewith, of a device to hold the driven member out of engagement with the driving member, the driven member being independently mounted and movable toward and from both the driving member and the holding device, means for tripping the said holding device, and means connected to the driven member for restoring the holding device to normal position.

[Claims 6 to 18 not printed in the Gazette.]

1,074,833. BOOK. EDWIN S. BROWNE, Riverton, N. J. Filed Oct. 23, 1911. Serial No. 656,160. (Cl. 129—1.)



1. A loose leaf check book, having, in combination, a cover, a binder-plate in the cover, two sets of binder-yokes mounted in said binder-plate, a check signature, and a record signature, each comprising sheets of paper folded upon themselves and having notches cut in their folded edges to fit over both sets of binder-yokes, the check signature being provided with wire staples extending over the ends of the notches engaged by one set of binder-yokes and the record signature being provided with wire staples extending over the ends of the notches engaged by the other set of binder-yokes, substantially as described.

2. A loose leaf check book, having in combination, a cover, a binder-plate in the cover, two sets of binder-yokes mounted in the binder-plate, a record signature comprising a plurality of sheets of paper folded upon themselves, a plurality of check signatures placed between the pages of the record signature, each check signature comprising a plurality of sheets of paper folded upon themselves, said record and check signatures forming a composite record-signature having a plurality of notches cut in its folded edge, and wire staples for each signature extending over the open ends of certain of the notches in said signature and clenched through the sheets of paper to permanently secure them together, the staples of the record signature extending over the notches engaging one set of binder-yokes and the staples of the check signature extending over the notches engaged by the other set of binder-yokes, substantially as described.

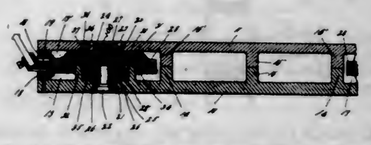
3. A loose leaf book, having, in combination, a cover, a plurality of sets of filler units, and a corresponding number of sets of binding devices located on the cover in longitudinal alinement and in proximity to each other for holding the filler units in substantially the same longitudinal position in the cover, each set of binding devices being adapted to engage and removably secure one of the sets of the filler units, whereby each set of filler units is separately secured in the cover, substantially as described.

4. A composite record and check signature for a loose leaf check book, having, in combination, a record signature comprising a plurality of sheets of paper folded upon themselves, check signatures comprising a plurality of sheets of paper folded upon themselves placed between the leaves of the record signature, all of said signatures having a plurality of coinciding binder-receiving notches cut in their folded edges, fastening devices on the record signature over the open ends of certain of the notches, and fastening devices on the check signature over the open ends of certain other of the notches, substantially as described.

5. A composite signature for a loose leaf book comprising a sheet of paper folded upon itself and having binder-receiving notches cut in its folded edge, fastening devices over the open ends of certain of said notches, a second sheet of paper folded upon itself and having binder-receiving notches cut in its folded edge coinciding with the notches of the first sheet, and fastening devices over the open ends of certain of said notches not coinciding with the notches closed by the fastening devices of the first sheet, said second sheet being placed between the leaves of the first sheet, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,074,834. CUTTER-HEAD. FRANK CARTLIDGE, Terre Haute, Ind. Filed Aug. 10, 1911. Serial No. 643,421. (Cl. 125—14.)



1. In a cutter head, the combination of a pair of mating body members forming a wheel pocket therebetween, a clamping bolt extending through said body members in the axis of the pocket, a bushing sleeved upon said bolt between the body members and angularly adjustable thereon, a nut mounted upon said clamping bolt for independently clamping the bushing in place, and a chain wheel journaled upon said bushing.

2. In a cutter head, the combination of a pair of mating body members forming a wheel pocket therebetween, a clamping bolt extending through said body members in the axis of the pocket, a bushing sleeved upon said bolt between the body members and angularly adjustable thereon, said bushing having a pocket in its upper end, a nut mounted upon said clamping bolt for independently clamping the bushing in place, a boss carried by the upper body member and fitting within the upper end of said pocket, and a chain wheel journaled upon said bushing.

3. In a cutter head, the combination of a pair of mating body members forming a wheel pocket therebetween, a clamping bolt extending through said body members in the axis of the pocket, a bushing sleeved upon said bolt between the body members and angularly adjustable thereon, a nut mounted upon said clamping bolt for independently clamping the bushing in place, and a chain wheel

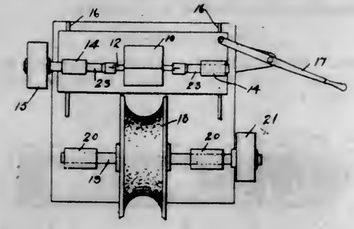
journaled upon said bushing, said chain wheel comprising a central hub, a horizontally extending flange at one end of said hub and a depending rim at the outer edge of said horizontal flange, an annular flange carried by the lower head member and surrounding the wheel hub to form an oil pocket therefor.

4. A cutter head comprising a pair of mating body members having engaging portions to determine the spacing thereof, means for clamping the two members together, a chain wheel mounted between the two body members, a bearing bushing for said wheel arranged between the two body members, a clamping bolt passing through the two body members and through said bushing, a nut on said bolt for independently clamping the bushing upon one of the body members, a second nut on said bolt for clamping the other of said body members upon the bushing, and a flange carried by the lower body member and surrounding the hub of the chain wheel and spaced therefrom to form an oil well, the upper body member and the chain wheel having registrable perforations through which oil may be introduced into said oil well.

5. In a cutter head, the combination of a pair of mating body members forming a wheel pocket therebetween, a clamping bolt extending through said body members in the axis of the pocket, a shouldered nut on said bolt, said nut being countersunk in the surface of one of the body members, a boss carried by said countersunk body member opposite the countersinking, a bushing sleeved upon said bolt between the body members and angularly adjustable thereon, said bushing in its upper end having a pocket in the upper end of which fits the boss on said body member, and a chain wheel journaled upon said bushing.

[Claims 6 and 7 not printed in the Gazette.]

1,074,835. PROCESS OF FORMING CORK BALLS. FRANK E. CHESTER, Providence, R. I. Filed July 9, 1913. Serial No. 778,002. (Cl. 144—309.)



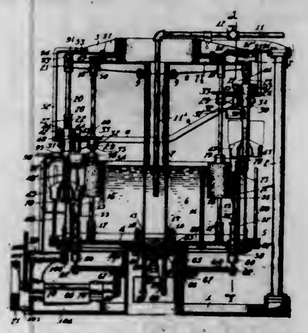
A method of forming a cork ball consisting of providing a body of cork of any convenient shape, forming a hole through its center, forcing a pin of greater length and of harder material than said body through said hole leaving both ends projecting, engaging said projecting ends and rotating said body rapidly and moving this rotating body into contact with a rapidly rotating shaping wheel, and subsequently cutting off the ends of the pin flush with the face of the ball.

1,074,836. BOTTLE-WASHING APPARATUS. HENRY J. CHILTON, Chicago, Ill. Filed July 25, 1910. Serial No. 573,737. (Cl. 141—7.)

1. A bottle washing machine, the combination of a rotary main frame, a tank carried thereby, bottle holders adapted to be lowered into and raised out of said tank, and means for washing the bottles while in said tank.

2. In a bottle washing apparatus, the combination with a rotary main frame, of a water tank, a pair of bottle holders, means for alternately lowering each bottle holder into the tank, and means for washing the bottles when the latter are in said tank.

3. In a bottle washing apparatus, the combination with a main frame, of a tank, a plurality of bottle holders, means for lowering the bottle holders into said tank, brushes seated in said tank for washing the bottles, a plurality of rinsers extending around the tank, and means for raising the bottles out of the tank and for shifting them into alinement with said rinsers.

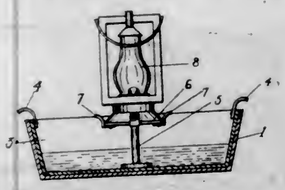


4. In a bottle washing machine, the combination with a bottle holder adapted to hold a bottle in inverted position, a water tank, means for lowering the bottle holder into said tank, a brush for washing the interior of the bottle while in the tank, and means for permitting the air in the bottle to escape when the bottle is lowered into the tank.

5. In a bottle washing machine, the combination with a water tank, of a bottle holder for carrying a bottle in inverted position, reciprocatory mechanism for lowering the bottle holder into the tank, a brush for washing the interior of the bottle, an open ended spindle for said brush, said spindle extending below the tank whereby the air in the bottle can escape when the interior of the bottle is being washed.

[Claims 6 to 14 not printed in the Gazette.]

1,074,837. INSECT-TRAP. KATHERINE B. COOK, Hubbard, Tex. Filed Feb. 17, 1913. Serial No. 748,848. (Cl. 43—22.)



1. In an insect trap, a receptacle adapted to contain a fluid, a second receptacle fitting within the first receptacle in contact with the walls thereof and having a foraminous bottom, handles at opposite sides of the second receptacle, a pedestal fixed on the bottom of the second receptacle, and a disk fixed at the top of the pedestal and provided with means for holding a lamp.

2. In an insect trap, a receptacle adapted to contain a fluid, a second receptacle fitting within the first receptacle in contact with the walls thereof and having a foraminous bottom, handles at opposite sides of the second receptacle, a pedestal fixed on the bottom of the second receptacle, a disk fixed on the top of the pedestal adapted to receive a lamp, and a plurality of lamp engaging spring clips secured to the disk.

1,074,838. AUTOMOBILE MARKER-BRACKET. DAVID H. COX, Roselle, N. J. Filed Apr. 18, 1911. Serial No. 621,958. (Cl. 40—129.)

1. A marker bracket for automobiles adapted to be rigidly connected to and supported by the radiator cap in a position forward of the radiator, said bracket extending downwardly below the radiator cap, and adjustable means projecting rearwardly from the bottom of the bracket and adapted to bear against said radiator without connection therewith to prevent vibration of the bracket.

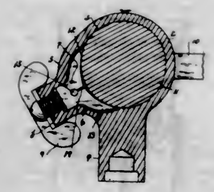


2. A marker bracket for automobiles comprising an arm having a clamp at one end adapted to be rigidly connected to and supported by the radiator cap, said arm extending forwardly and downwardly in front of the radiator with a space therebetween, and rigid means projecting rearwardly from the lower end of the arm adapted to bear only against the radiator to hold the bracket relatively thereto and prevent vibration of the same, said means having an adjustable end to vary the bearing pressure against the radiator.

3. A marker bracket for automobiles comprising a rigid integral arm having a clamp at one end for firmly and removably connecting the bracket to the radiator cap, said arm projecting forwardly and downwardly in front of the radiator with a space therebetween, and adjustable means mounted on the rear of the arm at its lower end adapted to press on the radiator to hold the bracket against vibration.

4. A marker bracket for automobiles having a rearwardly projecting arm at one end provided with a terminal clamp, and also having a rearwardly projecting stud, and a bearing member mounted adjustably on said stud whereby its distance of projection from the bracket may be varied.

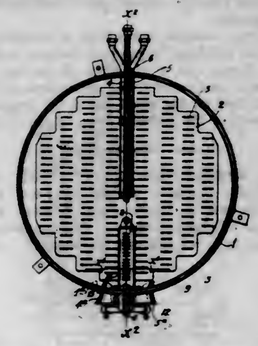
1,074,839. LOCK-JOINT FOR WIND-SHIELDS. JOSEPH F. CURRY, Newark, N. J., assignor to Ulysses G. Clark, New York, N. Y. Filed Apr. 10, 1913. Serial No. 760,231. (Cl. 21—148.)



1. A lock joint comprising a socket formed with a circular chamber and an offset sleeve, a cam-shaped recess between the chamber and sleeve and opening into said sleeve, a hub located in said chamber, a wedge located in said recess, said wedge having arms adapted to be crowded between the walls of said cam-shaped recess and the side of said hub, and means for moving said wedge.

2. A lock joint comprising a socket formed with a circular chamber, an offset sleeve and a cam-shaped recess between said chamber and sleeve and opening into said sleeve, a hub located in said chamber, a wedge located in said recess, said wedge formed with integral reversely turned arms adapted to impinge between the walls of the said chamber and against the said hub, and a screw entering the said sleeve and adapted to crowd the said wedge inward.

1,074,840. PROTECTOR FOR PILOT-LIGHTS. HARRISON H. DAVENPORT, Tropico, Cal. Filed Feb. 27, 1913. Serial No. 751,151. (Cl. 158—31.)

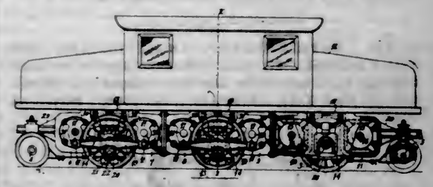


1. The combination, with the corrugated burner plate and the pilot light located between two corrugations thereof, of a strip set up on edge, said strip being in the form of an elongated U, the sides of the U extending parallel to the corrugations of the burner plate and to a point considerably above the pilot light, the open end of the U being provided with flanges fastened to the inner side of the wall of the fire-box.

2. The combination with a fire box and pilot burner of a U-shaped strip, the sides of which inclose the pilot burner, the ends of said strip being outwardly deflected and secured to the wall of said fire box to hold said strip in position, there being a match opening extending through the wall of the fire box, and through one of the outbent ends of said strip.

3. The combination, with the fire box and pilot burner therein, of a protecting strip extending alongside of the pilot light, there being a match opening through the wall of said fire box and an opening through the portion of the protecting strip which is spaced away from the wall of the fire box, said last mentioned opening allowing the fuel to reach the flame of a match inserted through the first mentioned opening.

1,074,841. ELECTRIC LOCOMOTIVE. JOSEPH LE CONTE DAVIS, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 21, 1911. Serial No. 609,945. (Cl. 105—259.)



1. A railway vehicle comprising wheel axles, and a plurality of driving motors having frames which, together constitute the entire frame of the locomotive.

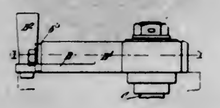
2. A railway vehicle comprising wheel axles, and a plurality of driving motors arranged in pairs having their armatures operatively connected to the axles and having their field magnet frames joined together to constitute the vehicle frame.

3. A railway vehicle comprising wheel axles, a pair of driving motors for each axle, Scotch yoke connections between the armatures of each pair of motors and the corresponding axle, and yokes joining the motor frames together over the axle.

4. A railway vehicle comprising a plurality of wheel axles, and electric driving motors having armatures connected to the wheel axles in pairs and having field magnet frames which together constitute a yieldingly supported locomotive frame.

5. A railway vehicle comprising a plurality of wheel axles, a frame yieldingly supported thereon, a body mounted on the frame and a plurality of driving motors arranged in pairs and respectively associated with, and operatively connected to, the wheel axles, the locomotive frame being composed of the joined frames of the driving motors.

1,074,842. BREECH-BLOCK-ACTUATING GEAR FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors to Vickers Limited, Westminster, England. Filed Aug. 11, 1911. Serial No. 643,578. (Cl. 89—4.)



1. In breech block actuating gear, the combination with the actuating spindle and its hand lever, of a toothed member on said spindle, a reciprocatory spring controlled tooth member carried by the hand lever and gearing with the first-mentioned member.

2. In breech block actuating gear, the combination with the actuating spindle, and its hand lever, of a toothed segment on the said spindle, and a spring controlled rack carried by the said hand lever and gearing with the toothed segment.

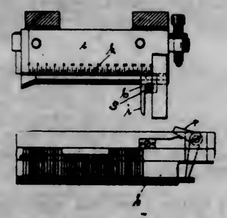
3. In breech block actuating gear, the combination with the actuating spindle, and its hand lever, of a toothed segment on the said spindle, and a spring controlled rack contained in a cavity in the hand lever and gearing with the toothed segment.

4. In breech block actuating gear, the combination with the actuating spindle and its hand lever, of a toothed segment on one end of the spindle, a cam on the other end of the spindle, an external pawl adapted to engage with said cam and a spring controlled rack carried by the said hand lever and gearing with the toothed segment.

5. In breech block actuating gear, the combination with the actuating spindle and its hand lever, of a toothed segment on one end of the spindle, a cam on the other end of the spindle, an external pawl adapted to engage with said cam, and a spring controlled rack contained in a cavity in the hand lever and gearing with the toothed segment.

[Claims 6 to 9 not printed in the Gazette.]

1,074,843. MATRIX-SETTING AND TYPE-LINE-CASTING MACHINE. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 14, 1911. Serial No. 602,562. (Cl. 199—7.)



1. In a matrix setting and line casting machine of the Mergenthaler type in combination a movable casting carriage having a bar holding the matrices in the upper level, means to move said bar longitudinally, a fixed part of the machine and a slide arranged on said fixed part engaging behind the outermost matrix, when the casting carriage is moved into its upper position and before the bar begins to move.

2. In a matrix setting and line casting machine of the Mergenthaler type in combination a movable casting carriage having a bar holding the matrices in the upper level, means to move said bar longitudinally, a bar intended to return the spacing wedges to their ordinary length and a slide arranged on said bar and adjustable thereon, the said slide engaging behind the outermost matrix, when the casting carriage is moved into its upper position and before the bar begins to move.

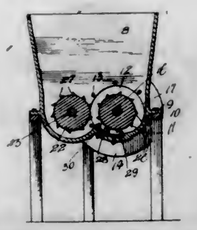
3. In a matrix setting and line casting machine of the Mergenthaler type in combination a movable casting carriage having a bar holding the matrices in the upper level, means to move said bar longitudinally, a bar intended to return the spacing wedges to their ordinary length and a slide arranged on said bar and adjustable thereon, the said slide having arms engaging behind the outermost matrix, when the casting carriage is moved into its upper position and before the bar begins to move.

4. In a matrix setting and line casting machine of the Mergenthaler type in combination a movable casting carriage having a bar holding the matrices in the upper level, means to move said bar longitudinally, a bar intended to return the spacing wedges to their ordinary length, a slide arranged on said bar and adjustable thereon, the said slide engaging behind the outermost matrix when the casting carriage is moved into its upper position and before the bar begins to move and means for fixing the slide in any position.

5. In a matrix setting and line casting machine of the Mergenthaler type in combination a movable casting carriage having a bar holding the matrices in the upper level, means to move said bar longitudinally, a bar intended to return the spacing wedges to their ordinary length and a slide arranged on said bar and adjustable thereon, the said slide engaging behind the outermost matrix of the line, said slide being provided with means for compressing the matrix line in such a manner that the spaces produced by the withdrawal of the spacing wedges within the line are again closed up.

[Claims 6 to 11 not printed in the Gazette.]

1,074,844. GRINDING AND CRUSHING MILL. ABRAHAM M. DELLINGER, Lancaster, Pa. Filed June 8, 1911. Serial No. 632,073. (Cl. 83—14.)



1. In combination with a hopper, a shaft carrying a crushing roll arranged in the bottom of said hopper, a second shaft carrying a crushing roll arranged beside the first in the bottom of said hopper and gearing between the said shafts arranged for driving the second shaft and roll from the first at a lower rate of speed, the said rolls turning away from each other at the top of the rolls and toward the walls of said hopper said rolls and the walls and bottom of the hopper being arranged to provide a downwardly tapering throat between the more slowly moving roll and the adjacent wall, through which throat the material to be crushed is first caused to descend, also a curved throat extending under said roll, between it and the bottom of the hopper and directing the material afterward up between the two rolls substantially as set forth.

2. In combination with a hopper, a main shaft carrying a crushing roll and a rotary grinding disk, said roll and disk acting successively on the material supplied by said hopper, a fixed grinding disk coöperating with the rotary disk aforesaid, a second shaft carrying a second crushing roll coöperating with the first mentioned roll and arranged beside it in the bottom of the hopper and gearing between these two shafts whereby the second shaft is driven from the first at a lower rate of speed and the said rolls turn away from each other at the top of the rolls and toward the walls of the hopper the said pair of rolls preventing the formation of a bridge by requiring the hopper to be broader immediately above them than would be feasible if only one roll were used.

3. In combination with a hopper, crushing mechanism arranged in the bottom thereof and consisting wholly of two rotary rolls arranged side by side and turning away from each other at the top of the rolls toward the walls of the hopper, a fixed crushing concave and gearing whereby one of the said rolls is rotated at a less rate of speed than the other, the said concave being arranged only under the more rapidly rotating roll and the more slowly moving roll providing a downward throat between it and the proximate wall of the casing and directing it under the said roll and the bottom of the hopper up between the two rolls whence it passes for final grinding out between the more swiftly moving roll and the bottom of the hopper, the latter being provided with a grinding concave under this more swiftly turning roll.

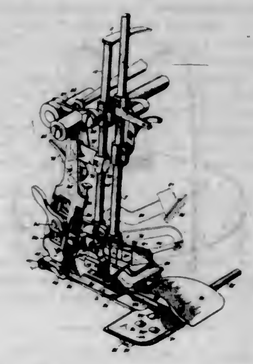
4. A pair of crushing rolls, in combination with a hopper in which they are located, means for driving their upper surfaces away from each other and giving said rolls different rates of speed, the bottom of said hopper providing two curved faces under the said rolls respectively and rising in the middle toward the space between the more slowly moving roll and said casing and another throat between the said rolls and operating to crush the material first as it passes down through the first mentioned throat, then a second time as it is lifted up into the second throat and finally a third time as it passes under the more swiftly moving roll.

5. A pair of crushing rolls, in combination with a casing in which they are located and means for driving them at different rates of speed, their upper parts turning away from each other, the said rolls and hopper being constructed and arranged to provide a throat between the more slowly moving roll and said hopper and another throat between the two rolls and operating to crush the material first as it passes down through the first mentioned throat, then a second time as it is lifted up into the throat between the two rolls and finally a third time as it passes out under the more swiftly moving roll.

[Claim 6 not printed in the Gazette.]

1,074,845. RUFFLING AND STITCHING MACHINE. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 23, 1910. Serial No. 562,798. (Cl. 112—16.)

1. In a sewing machine, the combination with stitch-forming mechanism, of ruffling mechanism comprising a vibratory lever, a carrier pivotally mounted upon and movable transversely of the direction of vibratory movement of said lever, a ruffling blade mounted upon said carrier, means disposed above the path of operative mevement of the ruffling blade and detachably connected with the carrier for normally maintaining the ruffling blade in operative relation with the stitch-forming mechanism, independently-acting edge-turning fold-guides normally disposed respectively above and below said ruffling blade, a laterally swinging carrier for one of said fold-guides whereby the latter may be shifted to one side of the stitch-forming mechanism, and a laterally movable carrier for the other fold-guide adapted to be shifted in the opposite direction from the first-mentioned fold-guide carrier and provided with shifting means crossing the line of movement of the ruffling blade and controllable from the same side thereof as the first mentioned fold-guide carrier.



2. In a sewing machine, the combination with stitch-forming mechanism, of ruffling mechanism comprising a vibratory lever, a carrier pivotally mounted upon and movable transversely of the direction of vibratory movement of said lever, and a ruffling blade mounted upon said carrier, a fold-guide normally disposed in overlapping relation with said ruffling blade, a carrier-lever upon which said fold-guide is mounted, a normally stationary support, and a universal joint connection between said support and the carrier lever whereby the latter is adapted to be shifted laterally and upwardly out of operative position.

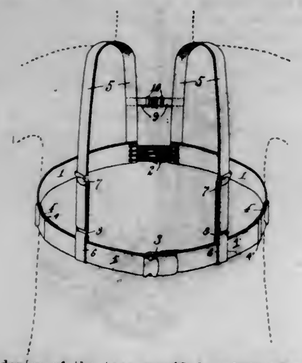
3. In a sewing machine, the combination with stitch-forming mechanism, of ruffling mechanism comprising a vibratory lever, a carrier having universal joint connection with said vibratory lever, and a ruffling blade mounted upon said carrier, a fold-guide normally disposed in overlapping relation with said ruffling blade, a carrier-lever upon which said fold-guide is mounted, a normally stationary support, a universal joint connection between said support and the carrier-lever whereby the latter is adapted to be shifted laterally and upwardly out of operative position, and stops mounted independently of the ruffling blade carrier and fold-guide carrying lever for maintaining them in retracted position.

4. In a sewing machine, the combination with stitch-forming mechanism, of ruffling mechanism comprising a vibratory lever, a blade-carrying lever, a ruffling blade mounted upon said blade-carrying lever, a swivel-block having a fulcrum-pin mounted upon and transversely of the direction of operative movement of said vibratory lever, a pivotal connection between said blade-carrying lever and said swivel-block disposed transversely of the latter's fulcrum-pin and positively acting means disposed wholly above the path of operative movement of the ruffling blade for restraining the latter from lateral displacement out of normal operative relation with the stitch-forming mechanism.

5. In a sewing machine, the combination with stitch-forming mechanism, of ruffling mechanism comprising a vibratory lever, a blade-carrying lever, a ruffling blade mounted upon said blade-carrying lever, a swivel-block having a fulcrum-pin mounted upon and transversely of the direction of operative movement of said vibratory lever, a pivotal connection between said blade-carrying lever and said swivel-block disposed transversely of the latter's fulcrum-pin, and a stop mounted independently of the blade-carrying lever and adapted to sustain the same when shifted laterally and upwardly out of operative position.

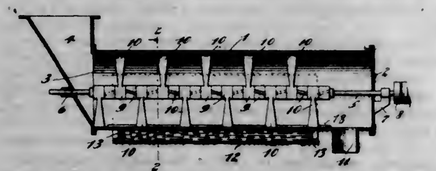
[Claims 6 to 14 not printed in the Gazette.]

1,074,846. DEVICE FOR PROMOTING DEEP BREATHING. CHARLES FRANKLIN DICKMAN and JOHN PETER DICKMAN, Dayton, Ohio. Filed Jan. 24, 1913. Serial No. 744,000. (Cl. 128—13.)



In a device of the type specified, a belt adapted to fit over the chest of the wearer and constructed of adjustable elastic and non-elastic portions, said non-elastic portions being adapted to fit across the back of the wearer and the elastic portion being adapted to fit across the chest of the wearer, buckles located at the sides of said belt between the elastic and non-elastic portions and on said elastic portion, whereby said elastic portion may be adjusted to an enlarging chest, and shoulder straps attached to the front and back of said belt, and adapted to support the belt upon the chest of the wearer.

1,074,847. PROCESS FOR CRUSHING OR PULVERIZING MATERIALS. CARL DIETZ and EMIL GOFFERJE, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 16, 1910. Serial No. 561,716. (Cl. 83—11.)



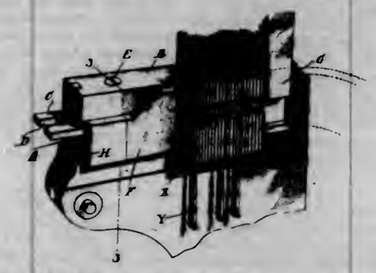
The process of crushing and cooling roasted chemical products and ores which are easily frangible while hot but difficultly frangible when cold which comprises subjecting such material to crushing or disintegration while still in a highly heated condition and bringing such material while being crushed or disintegrated into contact with cooling means keeping the cooling medium free from direct contact with the material being treated.

1,074,848. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, New York, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 18, 1912. Serial No. 737,386. (Cl. 199—13.)

1. In a typographical machine, the combination with a slotted mold comprising a cap, a body portion and an intermediate liner adjustable to vary the length of the mold slot, a matrix confining jaw movably carried by the mold and connected to said liner, whereby the corresponding adjustment of said parts will be insured.

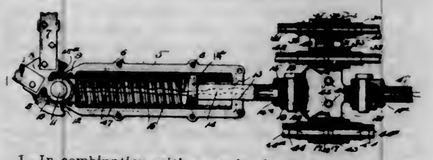
2. In a typographical machine, the combination of a mold comprising an adjustable part and a relatively fixed part, and an adjustable matrix confining jaw connected to said movable part and engaging and supported by said fixed part.

3. In a typographical machine, the combination of a mold comprising a cap and body portion and an intermediate liner adjustable to vary the length of the mold slot,



and an adjustable matrix confining jaw connected to said liner and mounted to slide in guides upon the body portion.

1,074,849. AUTOMATIC TRAIN-PIPE CONNECTOR. VOTAW S. DURBIN, St. Louis, Mo., assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo., a Corporation of Arizona. Filed Apr. 27, 1912. Serial No. 693,650. (Cl. 188—13.)



1. In combination with a car having train pipes, a rigid member supported from the car affording a bearing, a cylindrical casing having its rear end pivotally mounted in said bearing to oscillate vertically, stops provided on said member for limiting the movement of said casing on its pivot in either direction, a coil spring housed in said casing, a plunger extending through the front end of the casing and having a head working in the casing against said spring, a coupler-head pivotally mounted on the outer end of the plunger and having a movement about its pivot in a plane at right angles to the movement of the casing about its pivot, and being provided with ports for the passage of fluid, means for maintaining said coupler-head normally in the coupling position, and hose-attaching means carried by said coupler-head and communicating with said ports.

2. In combination with a car having train pipes, a casing pivotally supported at one end from said car, a spring-pressed plunger housed in said casing, a coupler-head pivotally mounted on the end of said plunger, a locking member pivotally mounted on said coupler-head at one side thereof, a spring connected at one end to said locking member, and at its other end to the coupler-head, a connection between said end of the locking member and the end of said casing, and a connection between the other side of said coupler-head to that described and the said casing, said locking member being adapted to engage a part of the mating coupler-head under the influence of its spring when the two coupler-heads have been brought together and the plungers forced inward.

3. In a train pipe coupling, in combination with a spring-controlled plunger supported from the car, a coupler-head having a hollow tapered projection for entering an opening in, and provided with an opening for receiving a corresponding projection on, the mating coupler-head, and said projection having an opening in its wall, a lever pivotally mounted on the head at one end, a spring connected at its opposite ends to the other end of said lever and to said coupler-head, respectively, means connecting the free end of the lever with a relatively fixed member on the car, and a locking member carried by said lever and working through said opening in the projection of the head, said locking member being adapted to engage a part of the mating coupler-head under the influence of said spring when the coupler-heads are brought together and the plunger forced inward, and to be withdrawn from such engagement by the said connecting means when the plunger is forced outward by its spring as the heads are drawn apart by the separation of the cars.

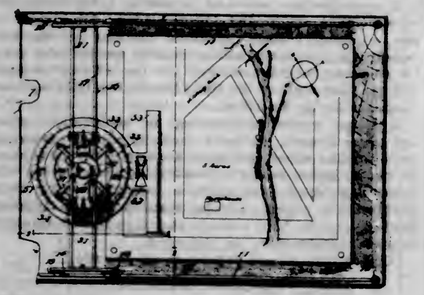
1,074,850. VAT DYESTUFFS OF THE INDIGO SERIES AND PROCESS OF MAKING SAME. GADIENT ENGI, Basel, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed May 8, 1912. Serial No. 695,880. (Cl. 8—1.)

1. The described process for the manufacture of new reddish yellow vat dyestuffs of the indigo series consisting in treating a halogenated derivative of the condensation product resulting from a haloid of an aromatic acid and an indigo compound with reducing agents in absence of caustic alkalis.

2. The described process for the manufacture of new reddish yellow vat dyestuffs of the indigo series consisting in treating a halogenated derivative of the condensation product resulting from a haloid of an aromatic acid and an indigo compound, with reducing agents in absence of caustic alkalis and in presence of an organic diluent mixable with water.

3. As new products the vat dyestuffs of the indigo series obtained by reducing the halogenated derivatives of the condensation products resulting from the haloids of aromatic acids and indigo compounds, in absence of caustic alkalis forming in dry state orange to orange-brown powders insoluble in water, difficultly soluble in hot alcohol, more easily soluble in hot nitrobenzene with a brownish yellow color, dissolving in concentrated sulfuric acid to reddish brown solutions from which, on addition of ice-water, the unaltered dyestuff is precipitated in the form of yellowish orange flakes, yielding by treating with caustic alkali and hydrosulfite a wine-red colored vat, from which textile fibers are dyed in reddish yellow shades fast to washing, light and chlorin.

1,074,851. DRAFTING INSTRUMENT. JAMES H. EWBANK, Lawrenceburg, Ind. Filed May 13, 1912. Serial No. 697,018. (Cl. 33—8.)



1. A platting instrument including a support, a meridian bar movable over said support, a carriage movable on the meridian bar, a protractor supported by said carriage, and a rule tangential to and carried by said protractor.

2. A platting instrument including a support, a meridian bar movable over the support, a carriage movable upon the meridian bar, a double circle protractor supported by the carriage, means for adjusting the protractor angularly with respect to the meridian bar, means for adjusting the protractor circles with respect to each other, and a rule rigidly secured to one of the protractor circles.

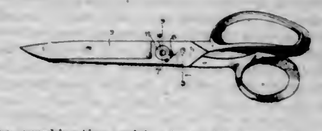
3. A platting instrument including a support, tracks on the support, a meridian bar mounted for movement on the tracks, a carriage mounted for movement on the bar, locks for automatically locking the bar against movement on the tracks and the carriage against movement on the bar, and catches movable into engagement with the locks to hold the latter in inoperative position.

4. A platting instrument including a support, tracks on the support, a meridian bar mounted for movement on the tracks, a carriage mounted for movement on the bar, locks for automatically holding the bar against movement on the tracks and the carriage against movement on the bar, each of said locks including a brake bar carried by the movable member and extending beneath the tracks, and a spring normally holding said brake bar in engagement with the tracks.

5. A platting instrument including a support, a meridian bar mounted for movement over the support, a carriage movable along the meridian bar, and a double circle protractor supported by the carriage, one of the protractor circles being entirely independent of the carriage and adjustably mounted upon the other protractor circle.

[Claims 6 and 7 not printed in the Gazette.]

1,074,852. PIVOT FOR SHEARS. JOSEPH W. FOLGERT, Worcester, Wis., assignor of one-half to James M. Frysinger, Phillips, Wis. Filed Dec. 21, 1912. Serial No. 738,107. (Cl. 30—13.)



1. The combination with shear blades, each provided with an opening, one of said blades having an arcuate recess in its outer face communicating with the opening therein, of a pivot bolt adapted to be fitted into said openings and having a threaded bore, said bolt being provided with a lug movable in the arcuate recess of the shear blade, and a fastening screw threaded in the bore of said bolt having a head countersunk in the face of the other shear blade, substantially as and for the purpose specified.

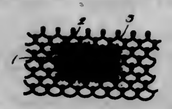
2. The combination with shear blades each provided with an opening, the outer edge of which is beveled, one of said blades being provided with an arcuate recess communicating with the opening therein, of a pivot bolt adapted to be fitted into said openings having a head on one end, the periphery of which is beveled for engagement with the beveled edge of the opening in one of the blades, a radially projecting lug formed on the periphery of said head and movable in the recess of said blade, said bolt having a threaded bore, bearing sleeves loosely fitted into the openings of the blades, and loosely engaged upon the bolt for turning movement thereon, and a fastening screw adapted to be threaded into the bore of said bolt and having a head, the inner face of which is spaced from the end of the bolt, the outer edge of said head being beveled for engagement with the beveled edge of the opening in the other shear blade when said screw is threaded home, substantially as and for the purpose specified.

3. The combination with shear blades each provided with an opening, of a pivot bolt disposed in said openings and having a threaded bore, a fastening screw adapted to be threaded into the bore of said bolt and having a head countersunk in the face of one of the shear blades, the inner surface of said head being spaced from the end of the bolt, and bearing sleeves arranged in the openings of the shear blades upon said bolt and freely movable with respect to the bolt and the shear blades.

4. The combination with shear blades, each provided with an opening, the outer edges of said opening being beveled, a pivot bolt disposed in said openings, but of less length than the combined thickness of the blades, said bolt having a head provided with a beveled edge for engagement with the outer beveled edge of the opening in one shear blade, a screw adapted to be threaded into the bore of said

bolt and having a head, the inner face of which is spaced from the end of the bolt, said head having a beveled edge to engage the beveled edge of the opening in the other shear blade, and a bearing sleeve loosely arranged in the opening of each shear blade upon said pivot bolt and freely movable around said bolt and longitudinally thereof.

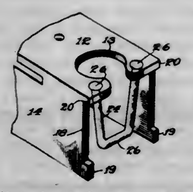
1,074,853. PRESERVED-FABRIC DISPLAY. AMELIA FOWLER, Boston, Mass. Original application filed Feb. 1, 1913, Serial No. 745,598. Divided and this application filed June 5, 1913. Serial No. 771,922. (Cl. 2—187.)



1. An article of the class described comprising a textile strengthening member, a fabric to be displayed and an enveloping mesh of thread formed of interconnected lines of open stitches inclosing said strengthening member and said fabric, said strengthening member and the fabric to be displayed being held in immovable contact by the penetration of the stitches of the mesh.

2. An article of the class described comprising a textile strengthening member, a plural colored fabric to be displayed and an enveloping mesh of thread formed of interconnected lines of open stitches inclosing said strengthening member and said fabric, said strengthening member and the plural colored fabric to be displayed being held in immovable contact by the penetration of the stitches of the mesh, the thread of said mesh being locally of the color of the fabric to be displayed.

1,074,854. BED. HARVEY FOX, Chicago, Ill. Filed Dec. 11, 1912. Serial No. 736,120. (Cl. 5—55.)

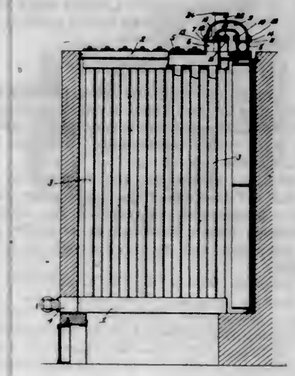


1. In a coupling for beds, a sheet metal post-section having a seat, a brace extending across the lower end of the seat, a sheet-metal rail-section having a head adapted to fit in the seat and provided on its lower edge with notches to engage the brace to lock these parts together when assembled.

2. In a coupling for beds, a sheet metal post-section having an extended seat, a U-shape brace attached at its ends to the section and having its bow embracing the seat, and a sheet-metal rail-section having a head adapted to fit the seat and provided at its lower edge with notches to engage the bow of the brace.

1,074,855. FUEL-ECONOMIZER. ERNEST B. FREEMAN, Dedham, Mass., assignor to B. F. Sturtevant Company, Boston, Mass., a Corporation of Massachusetts. Filed Nov. 25, 1908. Serial No. 464,464. (Cl. 62—32.)

1. A fuel economizer, having, in combination, upper and lower headers, series of circulating pipes connecting corresponding upper and lower headers, the end pipes in adjacent series being connected with the headers at different distances from the ends so that the series of pipes are staggered, joint seats in the top of each of the upper headers in line with the end circulating tubes, a manifold having joint seats arranged out of line with the header joint seats and corresponding thereto, and integral elbow pipes having joint seats at their ends to engage the header and manifold joint seats and connect the headers with the manifold, substantially as described.



2. A fuel economizer, having, in combination, upper and lower headers, series of circulating tubes connecting corresponding upper and lower headers, a taper joint seat in the top of each of the upper series of headers, a manifold having corresponding taper joint seats out of line with the header joint seats, and coupling pipes provided at their ends with taper joint seats to engage the header and manifold joint seats and connect the headers with the manifold, substantially as described.

3. A fuel economizer, having, in combination, upper and lower headers, series of circulating tubes connecting corresponding upper and lower headers, a taper joint seat in the top of each of the upper series of headers, a manifold having corresponding taper joint seats out of line with the header joint seats, and coupling elbows having taper joint seats at their ends to engage the header and manifold joint seats and connect the headers with the manifold, substantially as described.

4. A fuel economizer, having, in combination, upper and lower headers, series of circulating tubes connecting corresponding upper and lower headers, joint seats in two adjacent headers, manifold sections having corresponding joint seats, and a coupling having joint seats for engaging the joint seats of the two adjacent headers and the joint seats of the two adjacent manifold sections, substantially as described.

5. A fuel economizer, having, in combination, upper and lower headers, series of circulating tubes connecting corresponding upper and lower headers, taper joint seats in two adjacent headers, manifold sections having corresponding taper joint seats, a coupling having taper joint seats to engage the joint seats in the two adjacent headers, and the joint seats in the two adjacent manifold sections, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,074,856. METHOD OF PRESERVING ALIMENTS. VICTOR FRESTADIUS, EVERT NORLIN, and ERIK OMAN, Stockholm, Sweden. Filed Sept. 4, 1912. Serial No. 718,563. (Cl. 99—8.)

1. A method of preserving aliments comprising first evacuating the material and heating the same with a concentrated solution of a preserving agent and then treating the material in a similar manner with a dilute solution of such preserving agent to give the desired taste to the final product.

2. A method of preserving aliments comprising first heating the same under a high vacuum with a concentrated solution of a preserving agent and then treating the material in a similar manner with a dilute solution of such preserving agent under a lower vacuum to give the desired taste to the final product.

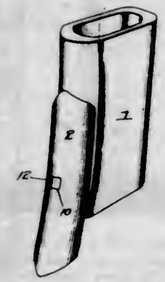
3. A method of preserving aliments comprising first heating the same under a vacuum with a concentrated solution of a preserving agent, diluting such solution, and treating the material with such diluted material in a similar manner to give the desired taste to the final product.

4. A method of preserving aliments comprising first adding to such material a preserving agent to form with the juice of such material a concentrated solution of such preserving agent, heating the material with such concentrated solution under a vacuum, and then heating the material with a dilute solution of such preserving agent to give the desired taste to the final product.

5. A method of preserving aliments comprising first evacuating the material and heating the same with a concentrated solution of sugar, and then treating the material in a similar manner with a dilute solution of sugar to give the desired taste to the final product.

[Claims 6 and 7 not printed in the Gazette.]

1,074,857. DRILL-BOOT. FRANK L. GLENN, Mint Spring, Va. Filed Oct. 24, 1912. Serial No. 727,600. (Cl. 111—11.)



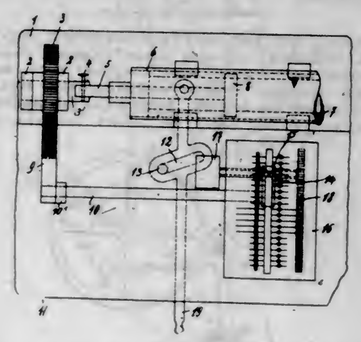
1. A grain boot having a dove-tail recess upon its inner front face, a spring pressed plate slidably arranged in said recess and having a T-slot, said boot having a front opening communicating with the recess, a point, and a pin having a T-head carried by said point and adapted to pass through said opening in the boot and through the head of said T-slot, as and for the purpose set forth.

2. The combination with a point having a locking pin provided with a T-head, of a boot longitudinally recessed upon its inner front face and having a front opening communicating with said recess, a plate slidable in the recess provided with a T-slot the larger end of which is adapted to receive the T-head of the locking pin, said boot having a longitudinal groove communicating with the inner end of the recess, a shank carried by the plate and adapted to work in said groove, said groove being bridged at one point and a spring encircling said shank and bearing upon the bridge and upon said plate.

1,074,858. TYPE-WRITING MACHINE FOR PRINTING NOTES. FERDINAND GROYEN, Cologne, Germany, assignor to The Firm of Groyen and Richtmann, Cologne, Germany. Filed June 11, 1912. Serial No. 703,030. (Cl. 197—8.)

1. In a typewriting machine for printing notes, the combination with the platen, of a shaft permitting longitudinal movement of the platen and adapted to transmit rotary movement thereto, a toothed gear wheel, a clutch mechanism intermediate said shaft and gear wheel, means to rotate said toothed gear wheel, and a slide carrying said rotating means and adapted to shift the same into or out of engagement with said gear wheel.

2. In a typewriting machine for printing notes, the combination with the platen, of a shaft directly connected with said platen and adapted to permit longitudinal movement thereof and to transmit rotary movement thereto, a toothed gear wheel, mechanism adapted to rotate said gear wheel for setting the platen in positions for printing on different lines and spaces of the staff, and a slide carrying said rotating means and adapted to shift the same into or out of engagement with said gear wheel.



3. In a typewriting machine for printing notes, the combination with the platen, of a shaft permitting longitudinal movement of the platen and adapted to transmit rotary movement thereto, a toothed gear wheel, a toothed sector engaging said gear wheel, means to rock said sector, and a slide carrying the sector and rocking means and adapted to throw the sector into or out of engagement with the gear wheel.

4. In a typewriting machine for printing notes, the combination with the platen, of a shaft permitting longitudinal movement of the platen and adapted to transmit rotary movement thereto, a toothed gear wheel, a toothed sector engaging said gear wheel, a rock shaft carrying said sector, a lever fixed to said rock shaft for rocking the same, a curved member adjacent said rocking lever and having a scale indicating the lines and spaces of the shaft, and means for holding said lever in the position to which it is moved.

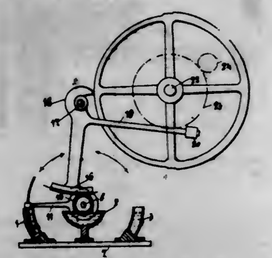
1,074,859. ELECTRIC SIGNAL FOR RAILWAYS. JOSEPH H. GUNN, Cortland, N. Y. Filed Aug. 3, 1908. Serial No. 446,619. (Cl. 246—21.)



In an electric signal for railways, the combination with a railroad switch and lever for operating the same, of a vertically movable shaft to which the railroad switch and lever are connected, electric signals, a rotatable elec-

tric-switch controlling the latter, a spring connected to the electric-switch for moving the same to normally closed position, an arm connected to and projecting from the vertically movable shaft, and a depending portion on the arm beveled at one side to engage and move the electric-switch to open position when the shaft is turned and lowered to close and lock the railroad switch, substantially as shown and described.

1,074,860. ELECTRIC REVERSING-SWITCH AND CIRCUIT-CLOSER. CHARLES HAAS, Strassburg, Germany, assignor to The Firm of Herrenschmidt & Co., Strassburg, Germany. Original application filed Sept. 19, 1912, Serial No. 721,152. Divided and this application filed Jan. 30, 1913. Serial No. 745,071. (Cl. 175—282.)



1. In an automatic reversing device, the combination with two parallel sets of three contacts each, of a rocking shaft above the two middle contacts, two switches fastened on and insulated from said shaft and constantly electrically connected with the two middle contacts and adapted to simultaneously come in contact either with two outer contacts on one side of said shaft or with the two outer contacts on the other side, conductors connecting the outer contacts on both sides alternately with those on the other side in the two sets, a fly wheel stepped on the periphery, means for constantly driving said fly wheel in one direction, a pinion on said rocking shaft, a two-armed lever having a long arm and a short arm, a toothed segment on the long arm of said lever for meshing with said pinion, the short arm of said lever being adapted to bear against the periphery of said fly wheel, and means for pressing the short arm of said lever against said fly wheel.

2. In an automatic reversing device, the combination with two parallel sets of three mercury cups each, of a rocking shaft above the two middle mercury cups, two switches fastened on and insulated from said shaft, said two switches constantly dipping in the two middle mercury cups and adapted to simultaneously dip either in the two outer mercury cups on one side of said shaft or in the two outer mercury cups on the other side, conductors for connecting the outer contacts on both sides alternately with those on the other side in the two sets, a fly wheel stepped on the periphery, means for constantly driving said fly wheel in one direction, a pinion on said rocking shaft, a two-armed lever having a long arm and a short arm, a toothed segment on the long arm of said lever for meshing with said pinion, the short arm of said lever being adapted to bear against the periphery of said fly wheel, and means for pressing the short arm of said lever against said fly wheel.

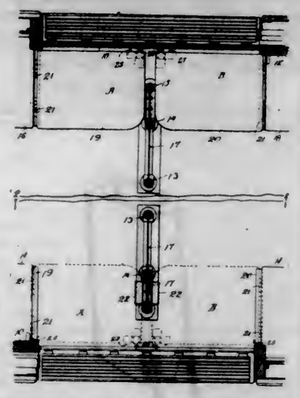
1,074,861. FEED-GUIDE FOR PRINTING-PRESSES. WILLIAM P. HARMONY, Sidney, Ohio. Filed Sept. 11, 1912. Serial No. 719,832. (Cl. 101—22.)



1. A guide for fed sheets in platen printing presses comprising a continuous strip of metal having a main flat body portion, a double upward and forwardly inclined extension, and a front foot in substantially the plane of the body portion and extending clear across the guide.

2. A guide for fed sheets comprising a single strip having a supporting body portion, an upward extension against which fed sheets bear, there being a loop or bend at the top and overhanging on the front side of said extension, and a foot as wide as said body portion and in substantially the plane thereof in advance of the lower end of said upward extension below the bearing portion for said fed sheets.

1,074,862. CAR SEAT AND DOOR ARRANGEMENT. FRANK HEDLEY, Yonkers, and JAMES S. DOYLE, New York, N. Y. Filed Feb. 12, 1910. Serial No. 543,502. (Cl. 105—205.)



1. The combination with a car having a side door, of means arranged inside the door and extending transversely of the car to divide the space inside the door into separate passages, hinged seat sections for said passages, and means carried by the hinged seat sections for locking the door closed while said sections are in position for use.

2. The combination with a car having a doorway in each side thereof intermediate its ends, said side doorways being arranged to open into the body of the car at points opposite each other, of a door for each of said side doorways, and means arranged within the car and extending in a transverse direction partway across the car from a point approximately opposite the midwidth of each side doorway opening, to divide the space immediately inside said side doorways into separate passages, the passage separating means for one side doorway being spaced apart from that of the opposite side doorway to afford a passage therebetween longitudinally of the car.

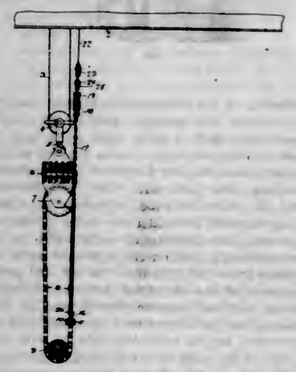
3. The combination with a car having a doorway in the side thereof intermediate its ends, and opening into the body of the car, of a door for said side doorway means arranged inside the body of the car and extending transversely partway thereacross from a point approximately opposite the mid width of the side doorway to divide the car body space inside said side doorway into separate passages, and a movable seat section arranged on each side of said passage separating means to extend across said passages when in position for use.

4. The combination with a car having a doorway in the side thereof intermediate its ends and opening into the body of the car, of a door for said side doorway, means arranged inside the body of the car and extending transversely partway thereacross from a point approximately opposite the mid-width of the side doorway to divide the car body space inside the said doorway into separate passages, and a seat section hinged at each side of the side doorway and when in position for use extending transversely across said passages.

5. The combination with a car having a doorway in the side thereof intermediate its ends and opening into the body of the car, of a door for said side doorway, means arranged inside the body of the car and extending transversely partway thereacross from a point approximately opposite the mid-width of the side doorway, to divide the car body space inside the said doorway into separate passages, a bracket carried by said passage separating means on each side thereof, a seat section hinged on each side of said side doorway and arranged, when in position for use, to extend across said passages and to be received and to rest on said brackets.

[Claims 6 to 10 not printed in the Gazette.]

1,074,863. TURNING DEVICE FOR FORGING-MACHINES. SAMUEL B. HEPPENSTALL, Pittsburgh, Pa., assignor to United Engineering & Foundry Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 25, 1912. Serial No. 733,403. (Cl. 78—96.)



1. In a manipulating device for forgings and like objects, the combination with a suitable support, of an endless chain carried thereby for supporting the forging, a gripping member adapted to engage said chain, and means for raising said gripping member.

2. In a device for manipulating forgings and like objects, the combination with a suitable support, of an endless chain carried thereby for supporting the forging, and a gripping member adapted to engage the chain when lifted, and released by gravity when lowered.

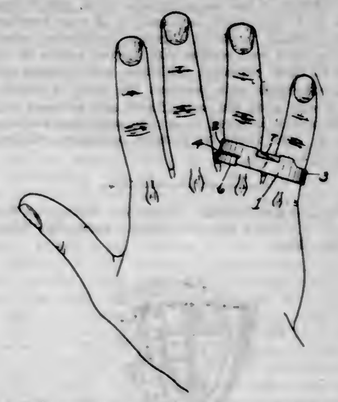
3. In a device for manipulating forgings or like objects, the combination with a suitable support, of an endless chain carried thereby for supporting the forging, a gripping member engaging said chain comprising pivotally mounted sections, dogs carried by said sections, a lifting device, and flexible connections between said sections and said lifting device.

4. In a device for manipulating forgings or like objects, the combination with a suitable support, of an endless chain carried thereby for supporting the forging, a gripping device comprising pivotally connected U-shaped sections surrounding said chain, dogs carried by said sections, chains connected to said sections, a support to which said chains are connected, a lifting device, and yielding connections between said last named support and said lifting device.

1,074,864. TWINE-CUTTER. THOMAS H. HOWELL, Barnesville, Ohio. Filed Sept. 6, 1912. Serial No. 718,859. (Cl. 30—14.)

1. A twine cutter comprising a strip body portion formed to embrace adjacent fingers of the hand, and a cutting edge about midway on and substantially parallel with the forward edge of said body portion.

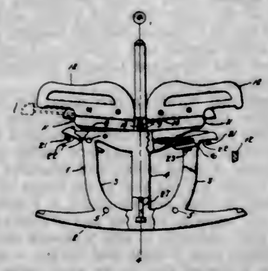
2. A twine cutter comprising a strip body portion having its under side formed to embrace adjacent fingers of the hand and having its upper side substantially flat, and a cutting edge about midway on and substantially parallel with the upper forward edge of said body portion.



3. A twine cutter comprising a strip body portion having its under side formed to embrace adjacent fingers of the hand and having a substantially flat upper side with a cut-out portion about midway therein, and a cutter located in said cut-out portion and having its sharpened edge substantially parallel with the upper forward edge of said body portion.

4. A twine cutter comprising a strip body portion having both its end portions bent to form embracing means for adjacent fingers of the hand, a cutter carried about midway on the upper portion of said body portion and having its sharpened edge substantially parallel with the upper forward edge of said body portion, and a pad secured to said body portion to prevent chafing of the hand.

1,074,865. CONVERTIBLE FURNITURE. ANDY JOHNSON, Springfield, Ill. Filed Dec. 16, 1912. Serial No. 737,033. (Cl. 155—6.)



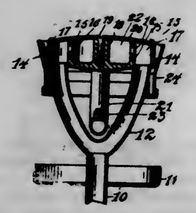
1. In a device of the character described, and in combination, a base or support, a plurality of seat sections or members pivotally mounted thereon, and a back member or section slidably mounted between said seat sections, and means for holding it in its raised positions, either of said seat sections being adapted to be raised on its pivot to serve as the back for the other seat section to provide a single seat, said seat sections being adapted to move to their lowermost positions on their pivots with the back section in its raised position to provide two seats, one on either side of said back section.

2. In a device of the character described, and in combination, a base or support, a plurality of seat sections or members pivotally mounted thereon, and a back member

or section slidably mounted between said seat sections and means for holding it in its adjusted positions, said holding means including extensible side portions, the ends of which are adapted to rest upon said seat sections or members.

3. In a device of the character described, and in combination, a base or support, a plurality of seat sections or members pivotally mounted thereon, extensible members provided on each seat section and having means for holding them in their extended positions, said holding means including extensible side portions the ends of which are adapted to rest upon the ends of said seat sections or portions, and means adapted to engage said seat sections or members to hold them in various positions relative to said base or support.

1,074,866. GAS-BURNER. CARL A. JOHNSON, Jamestown, N. Y. Filed June 18, 1913. Serial No. 774,473. (Cl. 158—53.)



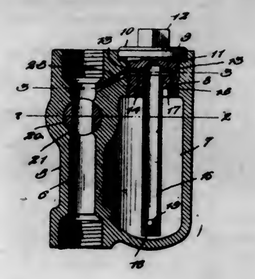
1. In a liquid fuel burner, a supply pipe having a branching upper end, a burner connected to the upper ends of said branching supply pipe having a circular generating chamber around its outer portion and a central distributing chamber connected to said generating chamber, a second branching pipe connected to said distributing chamber within the branching upper end of said supply pipe, and a burner nozzle within said second branching pipe beneath said burner.

2. In a liquid fuel burner, a metal top having an outer generating chamber and an inner distributing chamber and connective passages therebetween, a V-shaped pipe connected to the opposite sides of said generating chamber and to the supply pipe, a second V-shaped pipe connected to the opposite sides of said distributing chamber, a gas nozzle in the upper side and within said second V-shaped pipe and at a spaced distance beneath said top, and a metal shield around said burner at a spaced distance therefrom and supported thereon, substantially as and for the purpose specified.

3. In a liquid fuel burner, a cast metal top having a circular partition therewithin to form an outer generating chamber and an inner distributing chamber and passages therebetween, a central standard within said distributing chamber, a sheet metal disk engaging beneath the outer rim of said top and held at the center by a screw in said standard to close said chambers, a V-shaped pipe connected to the opposite sides of said generating chamber, a supply pipe connected to said V-shaped pipe, a fuel cup on said supply pipe beneath said burner, a shield attached to said V-shaped pipe on its outer sides and extending up a spaced distance around said burner, a second V-shaped pipe connected to the opposite sides of said distributing chamber and extending down therefrom within the first V-shaped pipe, and a gas nozzle witnin said second V-shaped pipe on its upper side, substantially as and for the purpose specified.

1,074,867. LUBRICATOR. STARKY DANIEL JONES, Georgetown, Colo. Filed Sept. 9, 1912. Serial No. 719,401. (Cl. 184—55.)

1. A lubricator of the character described comprising a body having an air line passage and an oil reservoir, a valve located in said passage, a removable head arranged in one end of said reservoir and provided with a port opening into the same, said body having a single port connecting the port in said head with the air line passage and through which air is admitted to the reservoir when the valve is closed, and means connected to said head through which oil is drawn by suction through the communicating ports in the head and body and into the air line passage when said valve is opened.



2. A lubricator of the character described comprising a body having an air line passage, and an oil reservoir in said body provided with a port connecting said passage with one end of the reservoir, a valve located in said passage, means mounted in said reservoir and provided with ports connecting said port with the reservoir chamber, and a valved oil receiving tube extending into the reservoir, oil being supplied to said tube under pressure of air in the reservoir, the opening of said valve in the air line passage creating a suction through said ports whereby the oil is drawn from the tube into the air line passage.

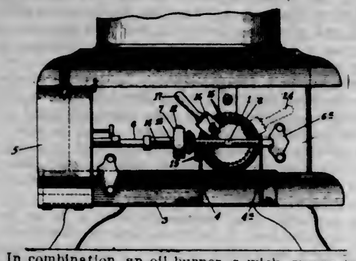
3. A lubricator of the character described comprising a body having an air line passage therein and an oil reservoir, communicating ports to admit air from said passage into the reservoir, an oil receiving tube in said reservoir opening at one of its ends into one of said ports, a valve located in the other end of said tube to normally close the same, and a valve in the air line passage to supply air to said tube and reservoir when said valve is closed, the opening of said valve creating a suction through said ports to withdraw the air from the tube and allow the air pressure in the reservoir to force the oil into said tube from which the same is drawn through said ports into the air line passage.

4. A lubricator of the character described, comprising a body having a longitudinal air line passage and an oil reservoir therein, a removable head threaded in the body and closing one end of the reservoir, said head being provided with a port and having a duct connecting said port with the interior of the reservoir, said body being provided with an inclined port connecting the port in said head with the air line passage, an oil receiving tube connected to the head and extending into said reservoir, one end of said tube opening into the port in said head, and a valve located in the air line passage to open and close the same, substantially as and for the purpose specified.

5. A lubricator of the character described, comprising a body having a longitudinal air line passage and an oil reservoir therein, a head threaded in the body to close one end of the reservoir, said head being provided with a transverse port and having a duct connecting the port with the interior of the reservoir, said body being provided with an inclined port connecting the port in said head with the air line passage, an oil receiving tube threaded in the head and opening at one end into the port thereof, said tube extending into the reservoir, a ball valve seated in the other end of the tube and normally closing the same, and a rotary valve located in the air line passage, substantially as and for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.].

1,074,868. WICK RAISING AND LOWERING DEVICE. HENRY JUNGJOHANN, Davenport, Iowa. Filed May 1, 1913. Serial No. 764,772. (Cl. 67—65.)

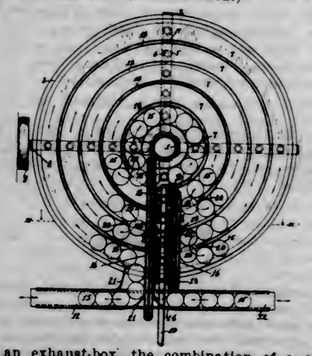


1. In combination, an oil burner, a wick, means to raise and lower said wick at a predetermined moment consisting of a spindle operated by the clock mechanism of an ordinary alarm clock and provided with a slidably mounted bevel pinion, a bevel gear capable of engagement with said pinion and provided with an adjustable stop adapted to limit the extent of movement of said gear.

2. In combination, an oil burner, brackets secured to the base thereof, a spindle journaled in the free ends of said brackets, adapted to be revolved by the clock mechanism of an ordinary alarm clock, a wick raising spindle extending from said oil burner and at right angles to and in the plane of the other spindle, a bevel gear on the wick raising spindle, a bevel pinion on the other spindle capable of engagement with said bevel gear, a spring actuated ball engaging grooves in the spindle adapted to hold said pinion into and out of engagement with said bevel gear.

3. In a mechanism of the class described, a rotatably mounted spindle provided with a bevel gear at one end, a spring actuated spindle located at right angles to and intersecting the plane of the first mentioned spindle, a pinion slidably mounted on one spindle capable of engagement with the bevel gear on the other spindle, and an adjustable limiting stop coöperating with one of said gears.

1,074,869. EXHAUST-BOX FOR CANS. ALFRED JOHN KEAST and HAROLD KEAST, San Jose, Cal., assignors to California Fruit Canners Association, San Francisco, Cal., a Corporation of California. Filed Aug. 7, 1912. Serial No. 713,903. (Cl. 126—272.)



1. In an exhaust-box, the combination of a series of horizontally disposed concentric independent rings; means for rotating adjacent rings in relatively opposite directions; means for feeding the cans to one of the terminal rings of the series; means for discharging the cans from the other terminal ring of the series; means for automatically transferring the cans upon the completion of their travel with one ring to the next ring throughout the series; means for covering said rings to form an inclosure for the cans; and means for supplying heat to said inclosure.

2. In an exhaust-box, the combination of a series of horizontally disposed concentric independent rings; means for rotating adjacent rings in realtively opposite directions; means for feeding the cans to the innermost ring of the series; means for discharging the cans from the outermost ring of the series; means controlled by the feeding means for automatically transferring the cans upon the completion of their travel with one ring to the next ring throughout the series; means for covering said rings to form an inclosure for the cans; and means for supplying heat to said inclosure.

3. In an exhaust-box, the combination of a series of horizontally disposed concentric independent rings successively communicating alternately on either side of a radially directed infeeding can pathway; means for rotating adjacent rings in relatively opposite directions; means for discharging the cans from the outermost ring; a radially directed infeeding can pathway to the innermost ring; means for feeding the cans through said radially directed infeeding pathway to the innermost ring, said feeding means being adapted at the communications of the rings with each other to automatically transfer the cans from one ring to the next ring throughout the series; means for covering said rings to form an inclosure for the cans; and means for supplying heat to said inclosure.

4. In an exhaust-box, the combination of a series of horizontally disposed concentric independent rings; means for rotating adjacent rings in relatively opposite directions; means for directing the cans to the innermost ring of the series comprising a pair of separated endless traveling belts radially directed relative to the ring series, the adjacent courses of said belts moving from circumference to center of said ring series and adapted to advance the cans between them, and the outer courses of said belts moving from center to circumference of said ring series; fixed guard rails for the cans separating one ring from the next ring, said rails terminating short of the outward moving courses of said belts alternately on opposite sides thereof to leave alternate spaces of communication for the cans from one ring to the next ring, said spaces having for one boundary the outward moving course of one belt or the other belt alternately whereby the cans by contact with said courses are transferred through said spaces from one ring to the other successively; means for covering said rings to form an inclosure for the cans; and means for supplying heat to said inclosure.

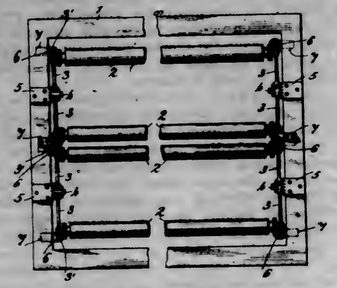
5. In an exhaust-box, the combination of a series of horizontally disposed concentric independent rings; means for rotating adjacent rings in relatively opposite directions; means for directing the cans to the innermost ring of the series comprising a pair of separated endless traveling belts radially directed relative to the ring series, the adjacent courses of said belts moving from circumference to center of said ring series and adapted to advance the cans between them, and the outer courses of said belts moving from center to circumference of said ring series; fixed guard rails for the cans separating one ring from the next ring, said rails consisting of perforated pipes terminating short of the outward moving courses of said belts alternately on opposite sides thereof to leave alternate spaces of communication for the cans from one ring to the next ring, said spaces having for one boundary the outward moving course of one belt or the other belt alternately whereby the cans by contact with said courses are transferred through said spaces from one ring to the other successively; means for covering said rings to form an inclosure for the cans; and means for supplying heat to said perforated guard-rail pipes.

[Claims 6 and 7 not printed in the Gazette.]

1,074,870. FABRIC-FRAME OF EMBROIDERING-MACHINES. KARL KELLER, Arbon, Switzerland, assignor to The Firm of Adolph Saurer, Arbon, Switzerland. Filed June 11, 1912. Serial No. 703,035. (Cl. 112—7.)

1. In an embroidering machine, a movable vertical fabric-frame, a pair of fabric-rollers arranged in said

frame vertically one above another, and a pair of pivotal levers located at each side of the frame and fulcrumed thereon at their contiguous ends while their opposite ends support said rollers, substantially as and for the purposes set forth.

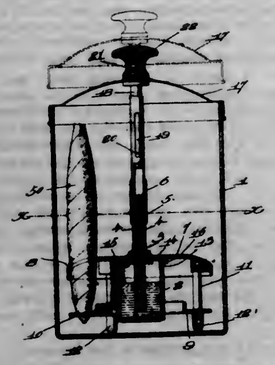


2. In an embroidering machine, in combination, a fabric-frame, a pair of fabric-rollers, a pair of pivotal levers located at each side of the frame and fulcrumed thereon at their contiguous ends, while their opposite ends support the said rollers, and adjustable means for positioning the levers and fixing them in the working position, substantially as and for the purposes specified.

3. In an embroidery machine, the combination with the movable fabric frame thereof; of a pair of fabric rollers, a pair of pivotal levers located at each side of the frame and fulcrumed thereon at their contiguous ends while their opposite ends support the said rollers, and hand screws for holding and adjusting the levers with their rollers in operative positions.

4. In an embroidery machine, the combination with the movable fabric frame thereof; of a pair of fabric rollers, a pair of levers located at each side of the frame, a pivot pin on the frame common to the contiguous ends of the levers of each pair, said rollers mounted in the opposite ends of the levers, and a screw and hand wheel at the roller end of each lever to adjust the tension.

1,074,871. HUMIDOR. CLARENCE H. KELSEA, Lynn, Mass. Filed Mar. 11, 1912. Serial No. 683,038. (Cl. 131—30.)



1. In a humidor, the combination with a closed receptacle for containing water, of a wick tube extending therefrom, a wick in the wick tube and extending into the receptacle, said wick tube having a lateral opening through which a portion of the wick is exposed, and a controller fitting the wick tube and movably mounted thereon and by which the area of said opening may be varied.

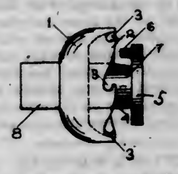
2. The combination with a jar or casing having an open top, of an article-holding rack adapted to be received in the casing, a water-containing receptacle suspended from the rack, a wick tube leading from said receptacle and extending above the rack and provided with an opening, a wick in said tube, and a controller to vary the size of the opening.

3. In a humidor, the combination with a jar or casing having an open top, of a cover for said top, a water-containing receptacle, a wick tube communicating therewith and provided with an opening, a wick in said wick tube, a portion of which is exposed through the opening, an article-holding rack associated with the wick tube and adapted to be received within said jar, and means connecting said cover with said rack.

4. In a humidor, the combination with a jar or casing having an open top, of an article-holding rack to be received within the casing, a water-containing receptacle secured thereto, a wick tube leading to said receptacle and provided with an opening, a wick in said tube, and a controller for varying the size of said opening.

5. In a humidor, the combination with a jar or casing having an open top, of a cigar-holding rack to be received within the casing, a water-containing receptacle sustained by said rack, a wick tube extending from said receptacle, a wick within said tube, a cover for the receptacle, and a stem secured to said cover and having a limited telescopic engagement with the wick tube.

1,074,872. WIRE-STRAINER. JOHN JOSEPH KEPPEL, Dunedin, New Zealand, assignor of one-half to Samuel Alexander Lyttle, Outram Otago, New Zealand. Filed Mar. 20, 1911. Serial No. 615,674. (Cl. 24—71.3.)



A wire strainer comprising a one piece cup-shaped body having undercut wire engaging teeth formed in its rim and a drum projecting from within said cup; means for engaging a fence wire with the drum comprising a flange on the end of said drum, spaced above said ratchet teeth, and a pin projecting from the inner face of said flange over said drum and having its lower end spaced above said ratchet teeth, a portion of said drum being cut away beneath said pin, substantially as described.

1,074,873. PHONOGRAPHIC RECORD. ISIDOR KITSEE, Philadelphia, Pa., assignor to The Cort-Kitsee Co., a Corporation of New York. Filed Sept. 2, 1911. Serial No. 647,380. (Cl. 181—17.)



1. The method of producing a phonographic master record, which consists in first recording the sound waves on a suitable plate, removing portions of the plate to define the lines of record, then applying to the plate an adherent coating to bridge the openings formed by the removal of said portions and to provide a base for the completed record, and finally removing the bottom of the plate.

2. The method of producing a phonographic master record, which consists in first recording the sound waves on a suitable plate, subjecting the plate to the action of an etching agent whereby to remove portions of the plate to define the lines of record, then applying to the plate an adherent coating to bridge the etched-out portions and to form a base for the completed record, and finally removing the bottom of the plate.

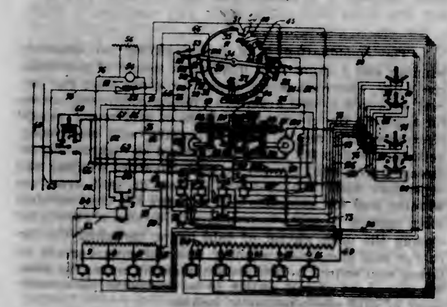
3. The method of producing a phonographic master record, which consists in first recording the sound waves on a suitable plate, etching out the portions of the plate between the lines of record, then applying to the plate an adherent coating to bridge the etched-out portions, and finally removing the bottom of the plate.

4. The method of producing a phonographic master record, which consists in first recording the sound waves on a suitable plate with an etch-resisting material, etching out the portions of the plate between the lines of record, then applying to the plate an adherent coating to bridge the etched-out portions and to form a base for the completed record, and finally removing the bottom of the plate.

5. The method of producing a phonographic master record, which consists in depositing on a plate, capable of being etched, lines of record formed of an etch-resisting material, subjecting the plate to the action of an etching agent whereby the portions between said record lines are removed, then applying to the plate an adherent coating to bridge over the etched-out portions and finally removing the bottom of the plate.

[Claim 6 not printed in the Gazette.]

1,074,874. CONTROL SYSTEM FOR ELECTRIC MOTORS. JOHN H. KLINCK, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 26, 1910. Serial No. 540,212. (Cl. 172—179.)



1. In a control system, the combination with a plurality of electric driving motors, independently operated switches for controlling the motor circuits and a master switch for governing the operation of the switches, of a pilot motor for the master switch and remote means for controlling the operation of said pilot motor, said master switch being adapted to mechanically couple the driving motors together; to supply electrical energy to said motors successively; to disassociate the motors upon the application of energy to one of them and to govern the speed of both motors.

2. In a control system, the combination with a driven member, a motor operatively connected thereto, an auxiliary member, a second motor operatively connected to the auxiliary member and a clutch for coupling the members together, of electro-responsive means for actuating the clutch; accelerating said second motor; disassociating the members and accelerating the first named motor.

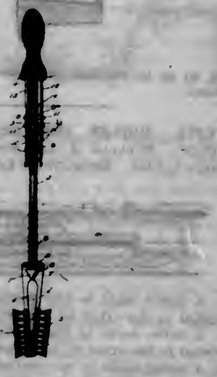
3. In a control system, the combination with a driven shaft, a motor operatively connected thereto for producing relatively high rotative speeds, an auxiliary shaft, a clutch for coupling the shafts together, a second motor operatively connected to the auxiliary shaft for producing relatively low speeds, of a plurality of independently operated switches for controlling the motors, a master switch for governing the switches and a clutch, and a pilot motor for operating the master switch.

4. In a control system, the combination with a driven shaft, a motor operatively connected thereto for producing relatively high rotative speeds, an auxiliary shaft, a clutch for coupling the shafts, a second motor operatively connected to the auxiliary shaft for producing relatively low speeds, of a plurality of independently operated switches for controlling the motors, a master switch for governing the switches and a clutch, a pilot motor for actuating the master switch and a plurality of simple switching stations for controlling the action of the pilot motor.

5. In a control system, the combination with a driven member, two motors adapted to be successively accelerated to gradually increase the speed of the driven member, of electro-responsive means for electrically and mechanically disassociating one only of the motors from the system during the entire period of retardation of the driven member.

[Claims 6 and 7 not printed in the Gazette.]

1,074,875. BOTTLE-CLEANING BRUSH. GEORGE KNOKE, Richmond, Va. Filed June 25, 1912. Serial No. 705,813. (Cl. 141—7.)

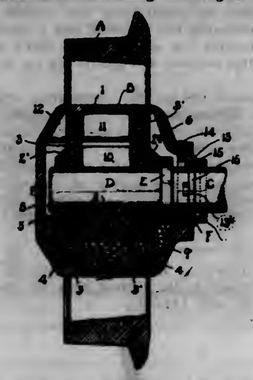


A device of the class described comprising a tubular member having a slot formed therein, a handle secured to one end of the tubular member, means slidably mounted within the tubular member and contacting with the movable members for actuating the same, a pin carried by said means and extending through the slot in said tubular member, a runner carried by said pin, depending retaining devices carried by said handle, the said runner embracing the said tubular member and said depending retaining devices and adapted to interlock with said retaining devices thereby holding the slidably mounted means in adjusted position.

1,074,876. SELF-LUBRICATING WHEEL. FRANK G. KOEHLER, St. Louis, Mo. Filed Oct. 9, 1911. Serial No. 653,593. (Cl. 64—26.)

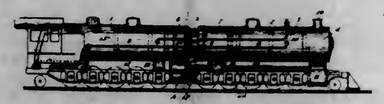
A self lubricating wheel cast in one piece and comprising a hub forming an oil reservoir, said oil reservoir having a cylindrical wall and inner and outer end walls, a journal bearing within said oil reservoir, annular webs connecting said journal bearing to said cylindrical wall and dividing said oil reservoir into three compartments, a lubricant elevating fin 12 extending entirely across the outer compartment and joining the outer wall of said reservoir to one of said annular webs, a lubricant elevating fin 11 extending entirely across the middle compartment, said journal bearing having a radial outwardly flaring delivery duct 10 extending entirely across said middle compartment and located directly opposite to the fin 11, the said inner wall being provided with a screw threaded journal receiving opening, and a ring in said opening forming a guard element adapted to prevent the escape of lubricant and also serving to hold the wheel in position, said ring being composed of externally screw threaded segments each of which is provided with a

semicircular groove for the reception of a packing collar 16, and means for interlocking said segments with each



other so as to position their screw threads in matching relation.

1,074,877. BOILER FOR ARTICULATED LOCOMOTIVES. WILLIAM J. LEIGHTY, Topeka, Kans. Filed July 28, 1910. Serial No. 574,300. (Cl. 105—17.)



1. A boiler made in two sections, one section being articulated to the other by a movable joint connection.

2. A boiler made in two sections, one section being articulated to the other by a two part movable joint flue.

3. A boiler made in two sections, a coupling member secured to each of said sections, said coupling members being articulated by a movable joint.

4. A boiler made in two sections, means intermediate of said sections, the interior diameter of said means being substantially the same as the interior diameter of said boiler sections whereby the boiler sections may have independent movement.

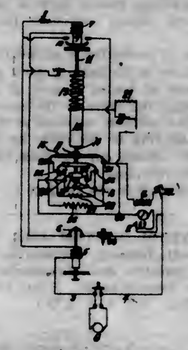
5. A locomotive boiler made in two sections disposed one in advance of the other, and an articulated flue whose interior diameter is substantially the same as the interior diameter of said sections and attached at its opposite ends thereto to constitute the coupling member.

[Claims 6 to 36 not printed in the Gazette.]

1,074,878. ELECTRIC-CURRENT CONTROLLER. HARRY WARD LEONARD, Bronxville, N. Y. Filed Mar. 24, 1906. Serial No. 307,831. (Cl. 172—179.)

1. The combination of an electric motor having a shunt field winding, electro-responsive means comprising a movable element for controlling the current delivered to the armature of said motor, said electro-responsive means being dependent upon the electrical action of said armature and responsive to a change in current different as regards strength of current from that carried by said armature and connected to cause itself to be automatically deenergized by movement of said element, a switch for closing the circuit of said electro-responsive means, a switch for closing the main circuit of said motor armature and for also closing the circuit of said shunt field winding, and mechanical means relating said first named switch to said electro-responsive means for causing movement of said last named switch to be dependent upon the movement of the movable element of said electro-responsive means.

2. The combination of a motor having an armature winding and a shunt field winding, an electro-responsive device by means of which said field winding is energized and said electro-responsive device is energized by current different as regards strength of current from that passing through said armature winding and dependent upon the electrical action of said armature, a switch for closing the main circuit of said armature winding and for closing the circuit of said shunt field winding, mechanical means relating said switch to said electro-responsive device for causing movement of said switch to be dependent upon movement of said electro-responsive device, and means whereby said electro-responsive device controls a current supplied to said armature winding and automatically deenergizes itself.



3. The combination of a motor having an armature winding and a shunt field winding, a source of electromotive force, electromagnetic means for controlling the current delivered to said armature winding comprising means for applying the electromotive force of said source to said electromagnetic means and for causing said electromagnetic means to carry a current different as regards current strength from that carried by said armature winding and dependent upon the electrical action of said armature winding and for automatically reducing the electromotive force applied to said electromagnetic means, a switch for closing the main circuit of said motor including the circuit of said shunt field winding, and mechanical means relating said switch to said electromagnetic means for causing movement of said switch to be dependent upon movement of said electromagnetic means.

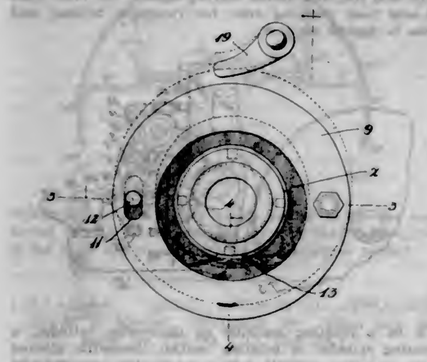
4. The combination of a source of electromotive force, an electric motor, an electro-responsive controlling device, means for connecting said device in series with the armature of said motor across said source for controlling acceleration of the motor, and means for connecting said device with the armature of said motor for controlling the retardation of the motor.

5. The combination of a source of electromotive force, an electric motor, an electro-responsive controlling device, means for connecting said device in series with the armature of said motor across said source for automatically controlling the motor during acceleration, and means for connecting said device with the motor armature for controlling the motor during retardation.

[Claims 6 to 44 not printed in the Gazette.]

1,074,879. SPEED-GOVERNOR. WILLIAM J. A. LONDON, Hartford, Conn., assignor to The Terry Steam Turbine Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 4, 1911. Serial No. 663,713. (Cl. 121—112.)

1. In a governor, the combination of a rotating power shaft, a governor ring surrounding said shaft and positively driven thereby and having a portion at one side of said shaft heavier than a portion at the opposite side thereof, means centering said governor ring relative to said shaft during normal rotation, means whereby the rotation of said shaft beyond a predetermined speed may cause said governor ring to move eccentrically of said shaft, a regulating mechanism operable by said eccentric movement of said governor ring, and means for varying the position of said centering means relative to said governor ring whereby said ring may be conditioned for eccentric movement at varying speeds of rotation of said power shaft.



2. In a governor, the combination of a rotating power shaft, a governor ring surrounding said shaft and positively driven thereby and having a portion at one side of said shaft heavier than a portion at the opposite side thereof, means at the lighter side thereof counteracting said heavier portion and centering said ring relative to said shaft during normal rotation, means whereby the rotation of said shaft beyond a predetermined speed may cause said governor ring to move eccentrically of said shaft, a regulating mechanism operable by the eccentric movement of said governor ring, and means for varying the position of said counteracting and centering means relative to said governor ring whereby said ring may be conditioned for eccentric movement at varying speeds of rotation of said power shaft.

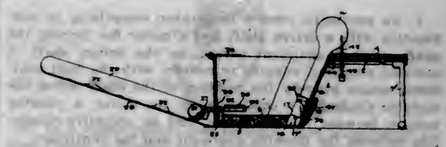
3. In a governor, the combination of a rotating power shaft, a governor ring surrounding said shaft and positively driven thereby and having a portion at one side heavier than a portion at the opposite side, means whereby the rotation of said shaft beyond a predetermined speed may cause said governor ring to move relative to said shaft, a regulating mechanism operable by the relative movement of said governor ring, and means opposing the relative movement of said governor ring up to a predetermined speed of rotation and adjustable in position relative to the heavier side thereof whereby said governor ring may be conditioned for relative movement at varying speeds of rotation of said power shaft.

4. In a governor, the combination of a rotating shaft, a governor ring surrounding said shaft and positively driven thereby and having a portion at one side heavier than a portion at the opposite side, means whereby the rotation of said shaft beyond a predetermined speed may cause said governor ring to move relative to said shaft, a regulating mechanism operable by the relative movement of said governor ring, spring means engaging the governor ring at a side opposite its heavier portion and opposing the relative movement of said governor ring up to a predetermined speed of rotation, and means whereby said spring means may be adjusted relative to said heavier portion of said ring to thereby condition said governor ring for relative movement at varying speeds of rotation of said power shaft.

5. In a governor, the combination of a rotating power shaft, a part rotating with said shaft, a governor ring surrounding said shaft carried by said rotating part and having a limited movement relative thereto and to said shaft, said ring having a portion at one side of said shaft heavier than a portion at the opposite side, means whereby the rotation of said shaft beyond a predetermined speed may cause said governor ring to move relative to said shaft, a regulating mechanism operable by said relative movement of said governor ring, a spring engaging said governor ring at a side opposite its heavier portion and opposing the relative movement of said governor ring up to a predetermined speed of rotation of said power shaft, and means for adjusting said spring at different positions relative to the heavier portion of said governor ring whereby said ring may be conditioned for relative movement at varying speeds of rotation of said power shaft.

[Claim 6 not printed in the Gazette.]

1,074,880. GOLF-PRACTICE MACHINE. PATRICK H. LYNCH, New York, N. Y. Filed Oct. 23, 1912. Serial No. 727,309. (Cl. 46—4.)



1. In an apparatus of the character described, in combination, an indicator, a projectile, and means connected thereto adapted to guide the projectile to the indicator when the projectile is moved in line with said indicator.

2. In an apparatus of the character described, in combination, an indicator, a projectile comprising a coil spring shaft adapted to operate the indicator, and means for holding a portion of said shaft in stationary position.

3. In an apparatus of the character described, in combination, an indicator, a frame, a coil spring one end of which is fixed to the frame, a ball carried by the free end of the spring, and a flexible nonelastic device independently connecting the ball and frame.

4. In an apparatus of the character described, in combination, an indicator, a frame, a coil spring one end of which is affixed to the frame, a ball carried by the free end of the spring, and a flexible nonelastic device independently connecting the ball and frame, a portion of the flexible nonelastic device being embedded in the ball.

5. In an apparatus of the character described, in combination, an indicator, a frame, a coil spring, means connecting one end of the coil spring and the frame, and means to fix the position of a portion of said spring.

[Claims 6 to 33 not printed in the Gazette.]

1,074,881. DRY VISCOSE IN A GRANULAR, SOLUBLE, AND STABLE CONDITION AND PROCESS OF PREPARING THE SAME. HANS LYNCKE, Berlin, Germany; Sophie Lyncke heiress of said Hans Lyncke, deceased. Filed Apr. 16, 1908. Serial No. 427,392. (Cl. 23—24.)

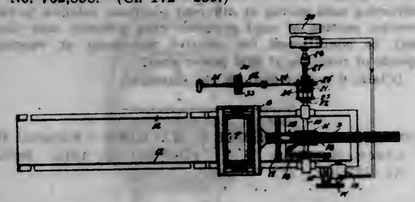
1. A process of preparing dry viscose in a granular, soluble, and stable condition, such process consisting in kneading the crude undissolved xanthate with an alcohol, separating it from the liquid and then drying it.

2. A process of preparing dry viscose in a granular, soluble, and stable condition, such process consisting in kneading the crude undissolved xanthate with ethyl alcohol, separating it from the liquid and then drying it.

3. A process of preparing dry viscose in a granular, soluble, and stable condition, such process consisting in kneading the crude undissolved xanthate with an alcohol, separating it from the liquid and then drying it in a vacuum.

4. As a new article of manufacture dry viscose, in a hard and stable condition being free from water and forming clear viscose solutions in dilute soda lye even after storing for months.

1,074,882. REVERSING MECHANISM FOR ROLL-RAMMING APPARATUS. HARRY P. MACDONALD, Montclair, N. J., assignor to The Smead & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Original application filed Jan. 22, 1912, Serial No. 672,645. Divided and this application filed Apr. 22, 1913. Serial No. 762,898. (Cl. 172—239.)



1. An automatic control mechanism comprising in combination with a driven shaft and a motor for turning the shaft, a fixed abutment carried on the driven shaft, a movable abutment adapted to contact with the fixed abutment, means whereby the rotation of the shaft moves the movable abutment, a controller for the motor, a yielding member between the abutments, and an operative connection between the movable abutment and the controller.

2. An automatic reversing mechanism comprising in combination a threaded driving shaft and a motor for turning the shaft, a controller, an operating shaft for the controller, a pair of spring abutments on the driving shaft, a floating member on the threaded portion of the driving shaft and adapted to contact with the abutments, and a connection between the floating member and the controller shaft.

3. An automatic reversing mechanism comprising in combination with a threaded driving shaft and a motor for turning the shaft, a controller, an operating shaft for the controller, a pair of abutments on the driving shaft, a floating member on the threaded portion of the driving shaft and adapted to contact with the abutments, and a flexible connection between the floating member and the controller shaft.

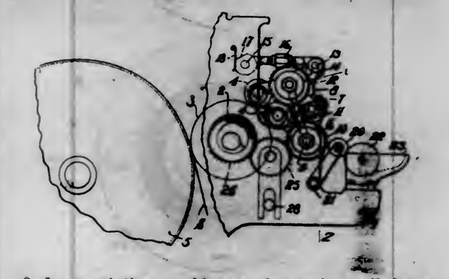
4. An automatic control mechanism comprising in combination with a driven shaft and a motor, a fixed abutment on the driven shaft and rotatable therewith, a movable abutment adapted to contact with the fixed abutment, one of said abutments having a yielding engagement means, a controller for the motor, means whereby the rotation of the shaft moves the movable abutment, and operative connection between the movable abutment and the controller.

5. An automatic reversing mechanism comprising in combination with a threaded driving shaft and a motor for turning said shaft, a controller, an operating shaft for the controller, a relatively fixed abutment rotating with the shaft, a floating member on the threaded portion of the driving shaft adapted to contact with the fixed abutment, a second member loosely mounted on the shaft, a connection between said second member and the controller shaft, and a slip connection between the floating member and the second member whereby the floating member is free to move longitudinally of the shaft but is prevented from rotating therewith until it engages with the fixed abutment.

1,074,883. ADJUSTABLE INKING-GEAR. CALVIN MARTIN, Peabody, Mass., assignor to Carter Ticket Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 23, 1912. Serial No. 679,352. (Cl. 101—71.)

1. In a printing machine, an impression cylinder, a printing cylinder in printing contact therewith, pivoted arms adjustable relative to said printing cylinder and carrying rotatable inking mechanism, a rod connecting said arms, a pair of adjustable arms carrying hooks at their free ends adapted for engagement with said connecting rod, and means for yieldingly holding said hook carrying arms in operative or inoperative position.

2. In a printing machine an impression cylinder, a frame, a printing cylinder journaled therein in printing contact with said impression cylinder, arms swung from said frame and carrying suitable inking mechanism, a transverse rod fast on said arms, a pair of parallel arms, carrying hooks at their free ends adapted for engagement with said rod, and means bearing against the inner ends of said hook carrying arms for yieldingly holding said arms in desired position.



3. In a printing machine an impression cylinder, a printing cylinder in printing contact therewith, pivoted arms carrying suitable inking mechanism eccentrically mounted therein, a transverse rod fast on said arms, a pair of parallel arms disposed at right angles to said transverse rod and carrying hooks at their free ends adapted for engagement over said rod, flattened bosses formed on the inner ends of said hook carrying arms, and springs cooperating with said bosses for yieldingly holding said arms in desired position.

4. In a printing machine, an impression cylinder, a printing cylinder adapted for printing contact therewith and adjustable toward and from said impression cylinder, inking mechanism adjustably supported relative to said printing cylinder, a rod disposed transversely relative to the supports of said inking mechanism, a pair of arms adjustable relative to said transverse rod and adapted for engagement with said rod near each end thereof, said arms having their inner ends formed as flattened bosses, and springs yieldingly engaging said bosses to hold said arms in desired position.

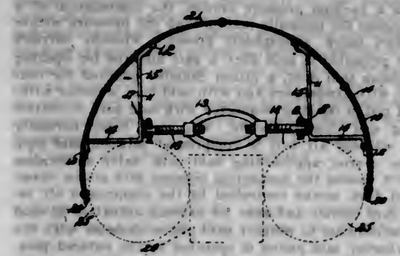
1,074,884. WIRE-SPLICER. ENOCH MARTIN, Snyder, Tex. Filed Sept. 30, 1912. Serial No. 723,248. (Cl. 140—118.)



A wire splicing tool, including a wire terminal receiving spindle, two oppositely disposed cranks for rotating the same, and a wire guide and mandrel rotatably mounted upon the spindle for receiving the loop of one terminal during the rotation of the spindle and the transverse rotation of the tool to form the connecting loop, said wire guide and mandrel consisting of two spaced terminals rotatably mounted upon the spindle and having a loop engaging portion at the outer ends thereof for retaining a loop of one strand relatively to a strand to connect thereto.

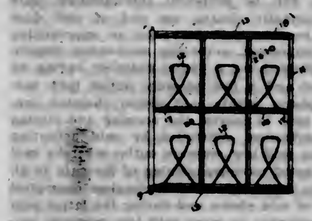
1,074,885. MOLD. FRANK P. MARTIN, Williamsburg, Kans. Filed Mar. 20, 1912. Serial No. 685,042. (Cl. 25—32.)

A mold comprising a flexible sheet member, flexible bands secured to said member and disposed adjacent the terminal ends thereof, a plurality of elbows secured to each of said bands, said elbows having arms of material length adapted to rest upon supports of varying widths,



threaded rods and a turn buckle connected thereto connected to said elbows, adapted to vary the configuration of the sheet and consequently of the structure molded.

1,074,886. CREDIT-ACCOUNTING APPLIANCE. HOMER E. MASSEY, Springfield, Mo. Filed Nov. 25, 1912. Serial No. 733,484. (Cl. 129—34.)



1. A bill-holding leaf for a credit accounting appliance having hollow perforated strips at right angles to the upright hinged edge of the leaf and wire clips having hooked ends inserted into the hollow strips through the perforations of said strips.

2. A bill-holding leaf for credit accounting appliances having hollow longitudinally tapering strips at right angles to the upright hinged edge of the leaf, the tapering strips having their smallest projections at said hinged edge of the leaf.

3. The combination, of a bill-holding leaf, hollow strips secured to the leaf at right angles to the upright hinged edge of the leaf, the top walls of all but the highest of said strips being perforated, and wire clips having hooked ends, said ends being inserted through said perforations into the strips.

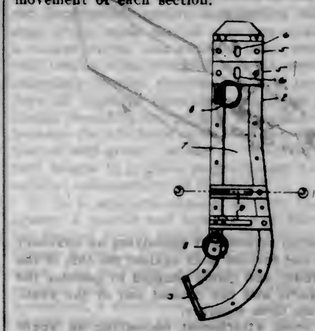
4. The combination, of a bill-holding leaf, hollow strips secured to the leaf at right angles to the upright hinged edge of the leaf, the top walls of all but the uppermost of said strips being perforated, wire clips having hooked ends inserted through said perforations into the strips, and division strips parallel with the hinged edge of the leaf.

5. The combination, of a bill-holding leaf, hollow strips secured to the leaf at right angles to the upright hinged edge of the leaf, the top walls of all but the uppermost of said strips being perforated, wire clips having hooked ends inserted through said perforations into the strips, and division strips having ends entering the top and bottom ones of said first strips and passing through the intermediate strips.

[Claim 6 not printed in the Gazette.]

1,074,887. HORSE-COLLAR. ELLIS MATHIS, Farmington, Ill. Filed Oct. 23, 1912. Serial No. 727,302. (Cl. 54—18.)

1. In a horse collar, two sections, each comprising an open frame, a flexible body forming a facing co-extensive substantially with the complete area of each section, elongated openings in the upper portion of said sections, bars transverse of the lower portion of said sections, and means adapted for connection with the elongated openings in the upper portion of the sections and with the bars on the lower portion thereof, arranged to permit independent movement of each section.



2. In a horse collar, two sections, each comprising an open frame, a flexible body forming a facing co-extensive substantially with the complete area of each section, a plurality of elongated openings in the upper portion of said sections, bars transverse of the lower portion of said sections, a yoke connecting the upper portion of said sections by means of said openings in a manner to permit free movement thereof, and a strap connecting the lower ends of the sections in a relation to permit free movement of the latter.

1,074,888. SHOE-DRIER. JAMES WILLIAM MCIVER, Houston, Tex. Filed Jan. 29, 1913. Serial No. 745,022. (Cl. 34—26.)



1. In a shoe drier, a Y-shaped member, the arms of which are adapted to fit within the shoe upper so as to contact at their ends with the sole, and the body of which is hollow and opens through the crotch.

2. In a shoe drier, a Y-shaped member, the arms of which are adapted to fit within the shoe upper so as to contact at their ends with the sole, and a body of which is hollow and opens through the crotch, and a guard terminally engaged to the said member above one arm to hold the shoe upper out of contact with the said arm.

3. In a shoe drier, a Y-shaped member, the arms of which are concaved, and the body of which is hollow and opens through the crotch.

4. In a shoe drier, a Y-shaped member, the arms of which are concaved, and the body of which is hollow and opens through the crotch, and a guard terminally secured to the said member above one arm to hold the shoe upper out of contact with the said arm.

5. In a shoe drier, a sleeve having the upper portion cut away at its outer end, and a concaved plate secured to the sleeve and diverging from the cut away portion.

[Claim 6 not printed in the Gazette.]

1,074,889. AUXILIARY HANDLE FOR SHOVELS. EDWARD B. MOORE, Newark, Ohio. Filed Nov. 5, 1912. Serial No. 729,706. (Cl. 55—116.)



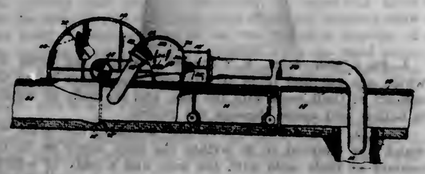
1. A shovel or scoop attachment embodying an auxiliary handle having one end beveled to fit against the side of the shovel or scoop handle, and clamp adapted to embrace the shovel or scoop handle and the beveled end of the auxiliary handle to clamp them together.

2. A shovel or scoop attachment embodying an auxiliary handle having one end beveled and concaved to fit against the side of the shovel or scoop handle, and a clamp secured over the said end of the auxiliary handle and adapted to fit over the shovel or scoop handle so as to embrace the said end of the auxiliary handle and the shovel or scoop handle to retain them firm relative to each other.

3. A shovel or scoop attachment embodying an auxiliary handle having one end beveled to fit against the side of a shovel or scoop handle, a clamp secured over the said end of the auxiliary handle and including cheeks to straddle the shovel or scoop handle, and draft members connecting the edges of the cheeks to clamp them over the shovel or scoop handle.

4. A shovel or scoop attachment embodying an auxiliary handle having one end beveled and concaved to fit against the side of the shovel or scoop handle, a clamp bent from a blank of sheet metal, doubled to form a back and cheeks, the back being secured over the said end of the auxiliary handle and the cheeks being designed to straddle the shovel or scoop handle, the edges of the cheeks being offset toward each other to provide flanges, and draft members connecting the flanges.

1,074,890. PNEUMATIC-CARRIER SYSTEM. FRANK W. NELSON, Chicago, Ill. Filed July 17, 1911. Serial No. 638,973. (Cl. 243—12.)



1. In a vacuum pressure system, the combination of a duct, means for normally maintaining the pressure within said duct below atmospheric pressure whereby carriers will be propelled in said duct, a gate adapted for opening and closing said duct, a piston chamber adapted for connection with atmosphere and with said duct, a piston within said piston chamber connected with said gate to control opening and closing thereof, said gate being normally closed whereby air will be compressed between said gate and the carrier approaching said gate, valve mechanism normally closing the connection between said piston chamber and duct, and means controlled by the compressed air between said carrier and gate for causing actuation of said valve mechanism to connect said piston chamber with the duct whereby said piston is operated by the reduced pressure to cause opening of said gate to allow the carrier to pass.

2. In a vacuum pressure system, the combination of a duct, means for normally maintaining the pressure within said duct below atmospheric pressure whereby carriers will be propelled in said duct, a gate adapted for opening and closing said duct, a piston chamber adapted for connection with atmosphere and with said duct, a piston within said piston chamber connected with said gate to control opening and closing thereof, said gate being normally closed whereby air will be compressed between said gate and the carrier approaching said gate, valve mechanism normally closing the connection between said piston chamber and duct, means controlled by the compressed air between said carrier and gate for causing actuation of said valve mechanism to connect said piston chamber with the duct whereby said piston is operated by the reduced pressure to cause opening of said gate to allow the carrier to pass, and additional valve mechanism controlled by the movements of said piston for causing closure of said connection between the duct and piston chamber after an initial movement of said piston whereby further movement of said piston will be retarded.

3. In a vacuum pressure system, the combination of a duct, means for reducing the pressure within said duct whereby carriers will be propelled therethrough, gate mechanism for normally closing one end of said duct whereby the air between said gate and an approaching carrier will be compressed, actuating mechanism responsive to such compressed air, a piston chamber having an atmospheric outlet and a low pressure outlet both normally closed, a piston within said piston chamber connected with said gate to control the opening and closing thereof, valve mechanism controlled by said actuating mechanism to open said low pressure outlet whereby said piston will be actuated to cause opening of the gate to allow the carrier to pass, and valve mechanism controlled by the movement of said piston and during the latter part of such piston movement to close said low pressure outlet whereby the final movement of said piston is retarded.

4. In a pneumatic carrier system, the combination of a carrier duct through which carriers pass, a gate at the end of said duct, a suction connection with said duct in advance of said gate, the section of said duct between said gate and suction connection being normally subjected to suction effect but the air in said section being compressed upon entrance therein of the carrier, a housing open to atmosphere at one end and connected at its other end with said duct section in which the air is compressed by the moving carrier, a piston disk within said housing, a semi-cylindrical drum, a piston disk within said drum connected with said gate, a valve housing extension from said drum, a partition dividing said valve housing into a vacuum passageway and an atmosphere passageway, a pipe connecting said vacuum passageway with said suction connection with the main duct, a valve in said atmosphere passageway and a valve in said suction passageway, said valves being operatively connected with the first mentioned piston disk, said first mentioned piston disk being normally in position to cause opening of the valve in the atmosphere compartment and closure of the valve in the suction compartment, compression in said first mentioned piston disk housing upon passage of the carrier through the duct section between the gate and suction connection causing movement of the piston disk toward the atmosphere passageway and closure of the valve in the atmosphere passageway and opening of the valve in the suction passageway whereby the second mentioned piston disk is subjected to suction effect to cause opening of said gate to allow the carrier to pass.

5. In a vacuum pressure system, the combination of a duct, means for normally maintaining the pressure within said duct below atmospheric pressure whereby carriers will be propelled in said duct, a gate adapted for opening and closing said duct, a piston chamber adapted for connection with atmosphere and with said duct, a piston within said piston chamber connected with said gate to control opening and closing thereof, said gate being normally closed whereby air will be compressed between said gate and the carrier approaching said gate, valve mechanism normally closing the connection between said piston chamber and duct, means controlled by the compressed air between said carrier and gate for causing actuation of said valve mechanism to connect said piston chamber with the duct whereby said piston is operated by the reduced pressure to cause opening of said gate to allow the carrier to pass, and means controlled by the piston during the latter part of its movement to effect closure of said connection between the duct and piston chamber whereby further movement of said piston will be retarded.

[Claim 6 not printed in the Gazette.]

1,074,891. TOOL-HANDLE. JOHN L. OSGOOD, Buffalo, N. Y. Filed Jan. 19, 1912. Serial No. 672,155. (Cl. 145—61.)

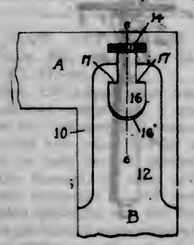


1. A wooden tool handle having a hole in one end to receive the tang of a tool, said handle having a narrow annular recess formed therein around said hole and between the walls of the same and the outer surface of the handle, and a coiled wire reinforcement in said recess, said reinforcement extending at least approximately from end to end of said hole, substantially as described.

2. A wooden tool handle having a hole in one end to receive the tang of a tool, said handle having a narrow annular recess formed therein around said hole and between the walls of the same and the outer surface of the handle, and a plurality of reinforcing members inserted in said recess each of which comprises a helical coil of wire, said coils being separated by intervening spaces, substantially as described.

3. A wooden tool handle having a hole in one end to receive the tang of a tool, said handle having a narrow annular recess formed therein around said hole and between the walls of the same and the outer surface of the handle, a coiled wire reinforcement in said recess, and a ferrule on the end portion of the handle, said ferrule extending over and closing the end of said recess, substantially as described.

1,074,892. TAKE-DOWN SQUARE. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 27, 1912. Serial No. 680,151. (Cl. 33—114.)



1. In a separable square, an arm having a transverse extension forming in connection therewith the elbow portion of the square, said extension having a shallow undercut longitudinal groove, a second and separate arm having a tongue fitting and slidable lengthwise in said groove, said tongue being provided adjacent the extremity thereof with a shoulder, a locking panel, and a transverse pivot for said panel carried by said first arm at a point outside said groove and mounting said panel so that it swings into and out of engagement with said shoulder in a plane perpendicular to the plane of the square, the bottom of said groove having an opening therethrough affording access to said panel from the opposite face of the square; substantially as described.

2. In a separable square, an arm having a transverse extension forming in connection therewith the elbow portion of the square, said extension having a shallow undercut longitudinal groove terminating short of the outer edge of the main part of said arm, a second arm having a tongue fitting and slidable lengthwise in said groove, said tongue being provided with an opening affording two oppositely located shoulders, and a panel having shoulders at opposite sides for engagement with said first named shoulders and pivoted on said first arm at a point between the aforesaid outer edge thereof and the termination of said groove, said panel being movable in line with said tongue in a plane perpendicular to the plane of the square; substantially as described.

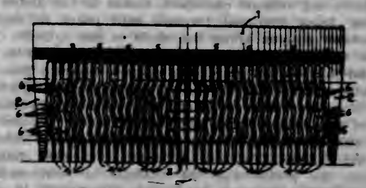
3. In a separable square, an arm having an undercut groove, a second and separate arm having a corresponding beveled tongue slidable lengthwise in said groove, said tongue having a shouldered opening extending through the same, and said first arm having an opening adapted to register with said first named opening when the parts are assembled, a shouldered locking panel adapted to lie within and conform to the registering openings with its opposite faces flush with the opposite faces of the square, and a pivot on which said panel is pivoted, carried by and lying in the plane of said first arm; substantially as described.

4. In a separable square, an arm having a transverse extension forming in conjunction therewith the elbow portion of the square, said extension having an undercut groove in the face thereof, and said arm being provided with a shouldered opening in the grooved portion thereof, a second and separate arm having a tongue fitting said groove and provided adjacent its free extremity with a shouldered opening adapted to register with the first shouldered opening when the parts are assembled; and a shouldered locking panel pivoted on one of said arms to swing in a plane perpendicular to the plane of the square and arranged to lie within and conform to the registering openings; substantially as described.

5. In a square, an arm having an undercut groove, a second and separate arm having a correspondingly beveled tongue or extension slidable lengthwise in said groove, said tongue having a shouldered opening extending completely through the same, a shouldered locking panel adapted to lie within and conform to said opening, and a pivot pin on which said locking panel is pivoted, inserted in an opening at one edge of said first arm; substantially as described.

[Claim 6 not printed in the Gazette.]

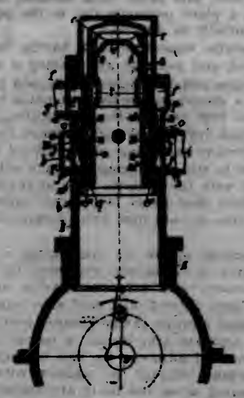
1,074,893. COMB. FREEMAN PEARCE, Niagara Falls, Ontario, Canada. Filed Oct. 16, 1912. Serial No. 726,073. (Cl. 132—16.)



A comb comprising a back, end teeth extending from said back and being straight throughout their length, an intermediate tooth extending from said back and being straight throughout its length, and locking teeth between said intermediate and end teeth, each of said locking teeth extending straight from said back parallel to said intermediate tooth for a portion of its length and being then carried to one side of the longitudinal axis of the inner end portion and crimped with the crimped portions being entirely positioned upon one side of the longitudinal

axis of the inner end portion of the teeth and having the outer end portion return to a position in alinement with the inner end portion and carried parallel to said intermediate tooth whereby the longitudinal axes of the inner and outer end portions of the locking teeth will be positioned in alinement, and whereby the intermediate crimped portions of the teeth will be entirely positioned to one side of the longitudinal axes of the inner and outer end portions.

1,074,894. TWO-STROKE CYCLE EXPLOSION-MOTOR. FRANCOIS PILAIN, Lyon, France. Filed Dec. 31, 1912. Serial No. 739,500. (Cl. 123—40.)



1. In a two stroke cycle explosion motor the combination of a cylinder having common intake and exhaust ports, a piston working in said cylinder adapted to cover and uncover said ports, an inlet chamber and an exhaust chamber exteriorly of said cylinder, a vacuum chamber between the piston and cylinder, a reciprocatable member adapted to place said ports alternately in communication with said inlet and exhaust chambers and means controlled by said reciprocatable member whereby part of the burned gases in the cylinder are passed into said vacuum chamber.

2. In a two stroke cycle explosion motor the combination of a cylinder having common annularly disposed intake and exhaust ports, a piston working in said cylinder adapted to cover and uncover said ports, an inlet chamber and an exhaust chamber interiorly of said cylinder, a reciprocable sleeve surrounding the cylinder adapted to place said ports alternately in communication with said inlet and exhaust chambers, means on the piston for causing gases admitted through said ports to assume an annular column along the walls of the cylinder, and means whereby burned gases may be exhausted from the cylinder in a central descending column separate from the incoming column and through the piston and said ports.

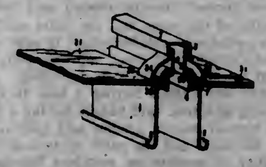
3. In a two stroke cycle explosion motor the combination of a cylinder having common annularly disposed intake and exhaust ports, an inlet chamber and exhaust chamber exteriorly of said cylinder, a vacuum chamber between the piston and the cylinder, a reciprocatable sleeve adapted to place said ports alternately in communication with said inlet and exhaust chambers, means on the piston for causing gases admitted through said ports to assume an annular column along the walls of the cylinder, means whereby burned gases may be exhausted from the cylinder in a central column separate from the incoming column and through the piston and said ports and means controlled by the aforesaid reciprocatable sleeve whereby part of said burned gases may be passed into said vacuum chamber and subsequently discharged therefrom into the exhaust chamber.

4. In a two stroke cycle explosion motor the combination of a cylinder having common inlet and exhaust ports and comprising two concentric members providing an annular space between same, a piston working in said cylinder adapted to cover and uncover said ports, an inlet chamber and an exhaust chamber exteriorly of said cylinder, a sleeve reciprocatable in the annular space between the cylinder members said sleeve provided with means for alternately placing said ports in communication with the inlet and exhaust chambers.

5. In a two stroke cycle explosion motor the combination of a cylinder having common inlet and exhaust ports and comprising two concentric members separated to provide an annular space between same, a piston working in said cylinder adapted to cover and uncover said ports, inlet and exhaust means exteriorly of said cylinder, a sleeve reciprocatable in the space between the cylinder members, a bridge member and a ring on said sleeve adapted to control the passage through said ports in relation to said inlet and exhaust means.

[Claims 6 and 7 not printed in the Gazette.]

1,074,895. GREENHOUSE CONSTRUCTION. ROY I. RAPP, Bloomfield, N. J. Filed Dec. 12, 1910. Serial No. 596,853. (Cl. 108—16.)



In greenhouse construction, in combination, an integral hollow metallic arched sash bar, each side of the arch being provided with intermediate shoulders inclined to the adjacent portion of the arch, parallel concave clip retaining channels intermediate the upper and lower portions of the arch, each end of the arch being formed with an upturned portion providing a condensation trough, and spring clips each having a flat portion adapted to press against the article to be held, and each comprising arms for engaging said retaining channels.

1,074,896. ROTARY GAME APPLIANCE. BERTIN ROSENFELDER, Schwenningen, Germany. Filed Jan. 21, 1913. Serial No. 743,405. (Cl. 46—56.)



1. A rotary game appliance comprising a handle; a fixed part thereon; and a rotary part associated with the fixed part and provided with a contact periphery by which it may be rotated, one of said parts bearing figures.

2. A rotary game appliance comprising a handle; a rotatable disk on the handle having a cushioned edge; a fixed part coöperating with the disk to indicate their relative angular position; and means for stopping the rotation of the disk.

3. A rotary game appliance comprising a rotary disk provided with a cushioned edge, a series of figures and a series of teeth; a fixed indicator on the handle and

adapted to indicate any one of said figures; and movable means adapted to engage said teeth.

4. A rotary game appliance comprising a handle; a fixed disk secured to the upper end of the handle and provided with an aperture; a rotary disk mounted on the handle beneath the fixed disk and provided with a peripheral groove and a series of figures adapted to register with said aperture; a tire in said groove; a toothed disk secured to the rotary disk; a spring pressed pawl pivoted to the handle and adapted to engage between said teeth.

5. A rotary game appliance comprising a spindle formed into a handle at its lower end; a fixed disk secured to the upper end of said spindle and provided with an aperture; a slide for closing said aperture; a lateral arm on said spindle; a rotary disk mounted on the spindle between the arm and the fixed disk and provided with a crown surrounding the fixed disk and having a peripheral groove, the rotary disk being also provided with an annular series of numbers any one of which numbers may register with said aperture; a tire in said groove; a toothed disk secured to the lower face of the rotary disk; a spring pressed pawl mounted on said arm and adapted to engage said teeth; and a spring adapted to engage said teeth.

[Claim 6 not printed in the Gazette.]

1,074,897. HULL FOR VESSELS. PHILIP J. J. SAUPE, Peoria, Ill. Filed Sept. 5, 1912. Serial No. 718,640. (Cl. 114—57.)



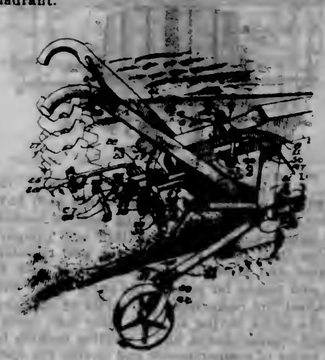
1. A vessel hull formed at the prow into a substantial knife edge extending and comprehending the portion of the prow beginning at its forward and uppermost part and extending rearwardly and downwardly on a gradual curved line to substantially the bottom of the hull in advance of the widest portion thereof as shown, and an outturned portion along the full length line above described to form an abrupt baffle offset substantially as described and shown.

2. A vessel hull formed at the prow into a substantial knife edge extending and comprehending the portion of the prow beginning at its forward and uppermost part and extending on a gradual curved line to substantially the bottom of the hull, an abrupt out-turn along the full line above described to form an abrupt offset, and a baffle board on either side of the prow and positioned along the depressed line and at the beginning of the upturned part, substantially as described.

1,074,898. PLOW ATTACHMENT. KARL SCHULTE, Woodwardville, Md. Filed Apr. 25, 1912. Serial No. 693,057. (Cl. 97—44.)

1. In a plow, the combination with a support, of a harrow attachment comprising a rearwardly extending tongue, means for clamping said tongue to said support, a harrow operating arm supported by said tongue, harrow disks carried by said harrow operating arm, a tension operating arm secured to said rearwardly extending tongue, a lever connected to said harrow operating arm and said tension operating arm for throwing said arms to an inoperative position, a supporting wheel, a spring interposed between said supporting wheel and said tension operating arm, said tension means carried by said support and engaging said spring for holding said spring and wheel parallel with said support.

2. A harrow attachment for a plow comprising a connecting tongue, a clamp for securing the same to a support of a plow, said tongue provided with a downwardly extending portion terminating into a rearwardly extending neck, a substantially U-shaped socket carried by the rear end of said neck, arm supporting links carried within said socket, a quadrant interposed between said links and extending upwardly, a harrow supporting crank arm connected between said links upon one side of said quadrant, a tension supporting crank arm secured between said links upon the opposite side of said quadrant, an operating link pivotally secured to said tongue, latch means associated therewith for engaging said quadrant and holding said link and crank arms in an inoperative position, laterally extending arms associated with said last-mentioned link, and connecting links engaging said laterally extending arms and crank arms for raising the same to an inoperative position when said latch means is swung upon said quadrant.



3. A harrow attachment of the class described comprising a tongue, a clamp for connecting said tongue to a plow beam, said tongue terminating in a U-shaped supporting pocket, a quadrant supported by said pocket, a link connected to said tongue, an operating lever associated with said link, a latch carried by said lever, coöperating with said quadrant for holding said link in a set position, crank arms connected to said substantially U-shaped pocket, laterally extending arms connected to said link, depending ears carried by each of said laterally extending arms, connecting members carried by said crank arms, and connecting links engaging said ears of said laterally extending arms, and said connecting members for throwing said crank arms to an inoperative position when said lever is thrown upwardly upon said quadrant, and a harrow disk associated with one of said crank arms.

4. A harrow attachment for a plow comprising a rearwardly extending tongue, means connecting said tongue to a plow beam, a quadrant carried by said tongue, a lever carried by said tongue and working upon said quadrant, laterally extending crank arms carried by said tongue and pivotally secured thereto and capable of having a vertical swinging movement, harrow disks associated with one of said crank arms, tension spring means carried by the other crank arm for facilitating the raising of said harrow disks to an inoperative position, means for engaging said other crank arm and supporting the same above the ground, laterally extending arms carried by said lever, links connecting said laterally extending arms with said crank arms and causing said crank arms to be raised vertically when said lever is raised, and said laterally extending arms provided with overhanging ends for engaging said links whereby said links will be forced downwardly when said lever is lowered and said crank arms will be thrown to their operative position.

5. A harrow attachment of the class described comprising a rearwardly extending tongue, a lever pivotally secured thereto, crank arms carried by said tongue and capable of having vertical movement, harrow disks secured to one of said crank arms, said crank arm which supports said harrow disks extending rearwardly, the other crank arm constituting a spring tension supporting arm and provided with an upwardly extending portion, said upwardly extending portion engaging a substantially V-shaped spring, an idler wheel engaging said spring, and said spring normally exerting an upward

pressure upon said upwardly extending end of said last-mentioned crank arm.

[Claims 6 and 7 not printed in the Gazette.]

1,074,899. WHEEL-TIRE. CHARLES LOUIS SCHWARZ, Philadelphia, Pa. Filed Jan. 29, 1912. Serial No. 674,018. (Cl. 152—9.)

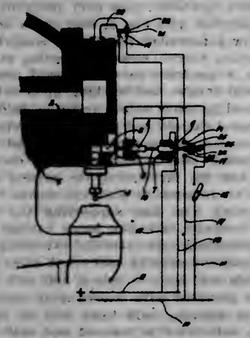


1. A wheel tire composed of two annular members formed with a plurality of compartments each having an open inner side, an annular yielding member between said annular members, cores seated within said compartments and having their inner sides abutting said annular yielding member and laterally movable against said yielding member, and means for locking the parts to the wheel..

2. A wheel tire comprising two series of compartments, each of the latter having an open inner side, cores seated within said compartments, and a yielding member between the said series of compartments and closing the open inner sides thereof with the inner sides of said cores abutting said yielding member and laterally movable against said yielding member.

3. A wheel tire composed of two annular members formed with a plurality of compartments, yielding members between and supporting said annular members extending circumferentially around the wheel, cores seated within said compartments, and means for locking the parts to the wheel.

1,074,900. MEANS FOR OPERATING PUNCH-GAGS. WILLARD T. SEARS, Hartford, Conn., assignor of one-half to John V. W. Reynders, Steelton, Pa. Filed Mar. 10, 1913. Serial No. 753,271. (Cl. 164—104.)



1. The combination with the gag of a punch-press, of a motor for moving said gag into operative relation, a second motor for moving said gag into inoperative position, manually-operable means for rendering one of said motors effective, and automatic means for rendering the other motor effective.

2. The combination with the gag of a punch-press, of a motor for moving said gag into operative position, a second motor for moving said gag into inoperative position, manually-operable means for rendering the first mentioned motor effective and automatic means for rendering the second motor effective.

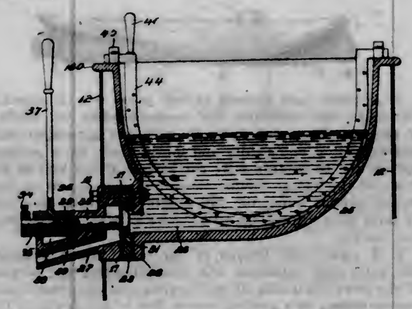
3. The combination with the gag of a punch-press, of an electric motor for moving said gag into operative position, a second electric motor for moving said gag into inoperative position, manually-operable means for effecting the energization of one of said motors, and automatic means for effecting the energization of the other of said motors.

4. The combination with the gag of a punch-press, a plurality of solenoids cooperative with said gag, manually-operable means for effecting the energization of one of said solenoids to move the gag in one direction, and automatically operative means for effecting the energization of the other solenoid to move said gag in the opposite direction.

5. The combination with the gag of a punch-press, a plurality of solenoids, a core member connected with said gag, the cores of said solenoids being mounted upon said core member, and means for effecting the energization of said solenoids in predetermined order.

[Claims 6 to 9 not printed in the Gazette.]

1,074,901. MELTING AND CASTING POT. THOMAS C. SHEEHAN, Jersey City, N. J., assignor, by mesne assignments, to Automatic Furnace Company, New York, N. Y., a Corporation of New York. Original application filed Dec. 7, 1906, Serial No. 346,749. Divided and this application filed Mar. 8, 1907, Serial No. 361,271. Renewed Mar. 20, 1913. Serial No. 755,786. (Cl. 22—6.)



1. A melting pot comprising a hemispherical bottom and an open top having an outwardly extending top flange, and provided with a mixing or puddling device consisting of a semicircular metallic strip having transverse perforations and substantially fitting said bottom, and provided with outwardly extending pivots at the top resting on said flange, and a handle projecting up from one of the pivots.

2. In a casting apparatus, the combination of a melting pot having a depressed outlet trough, a valve seat movably mounted adjacent to the mouth of said trough, a pouring spout mounted on the valve seat, and means for detachably securing the spout and seat on the mouth of the pot.

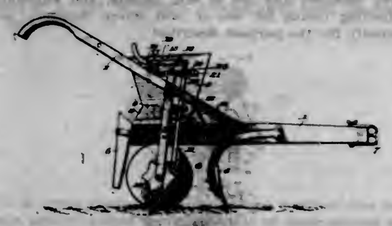
3. In a casting apparatus, the combination of a melting pot having a depressed outlet trough, a valve seat movably mounted adjacent to the mouth of said trough, a pouring spout mounted on the valve seat, means for detachably securing the spout and seat on the mouth of the pot, and heat resisting packings located between the valve seat and the mouth of the trough on one side and the pouring spout on the other.

4. In a casting apparatus, the combination of a melting pot having a depressed outlet trough, a valve seat, a valve for said seat, the stem of said valve having a screw-thread, means for preventing the valve from turning, and a nut for said screw-thread.

5. In a casting apparatus, the combination of a melting pot having a depressed outlet trough, a valve seat, a valve for said seat, the stem of said valve having a screw-thread, means for preventing the valve from turning, a nut for said screw-thread, a handle for operating said nut, and means for preventing longitudinal motion of the nut.

[Claim 6 not printed in the Gazette.]

1,074,902. FERTILIZER-DISTRIBUTER. SIMEON R. SIKES, Ocilla, Ga. Filed July 14, 1913. Serial No. 778,956. (Cl. 111—33.)



1. A fertilizer distributer including a ground wheel, a tiltable hopper operative by impact to discharge its contents, a spur wheel rotating with the ground wheel, an arm carried by the hopper for engagement with the spur wheel, a spring to return the hopper to normal position after each operation thereof by the spur wheel, means to suddenly arrest the return movement of the hopper and to develop a shock by virtue of which material is discharged from the hopper, and means for adjusting the position of said arm relatively to the spur wheel and thereby varying the throw of the hopper.

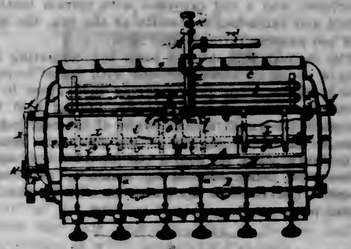
2. A fertiliser distributer including a ground wheel, a tiltable hopper operative by impact to discharge its contents, a spur wheel rotating with the ground wheel, an arm pivoted on the hopper for engagement with the spur wheel, a spring to return the hopper to normal position after each operation thereof by the spur wheel, means to suddenly arrest the return movement of the hopper and to develop a shock by virtue of which material is discharged from the hopper, a handle pivotally mounted at the upper end of the arm and a slotted bracket carried by the hopper and through which the handle projects, the handle having rack teeth which normally engage a wall of the slot of said bracket and lock the arm against movement on its pivot.

3. A fertilizer distributer including a ground wheel, a hopper having tiltable movement whereby it is operative to discharge its contents, a spur wheel rotating with the ground wheel, an arm pivotally connected to the hopper for engagement with the spur wheel, a handle pivotally mounted at the upper end of the arm and a slotted bracket carried by the hopper and through which the handle projects, the handle having rack teeth which normally engage a wall of the slot of said bracket and lock the arm against movement on its pivot.

4. A fertilizer distributer including a ground wheel, a hopper from which material is periodically discharged during the rotation of the ground wheel, an arm controlling the discharge of material from the hopper, a spur wheel for engagement with the arm, the arm being pivotally mounted, a handle pivotally mounted at the upper end of the arm and a slotted bracket through which the handle projects, the handle having rack teeth which normally engage a wall of the slot of said bracket and lock the arm against movement on its pivot.

1,074,903. VACUUM-DRIER. OLIVER S. SLEEPER, Buffalo, N. Y., assignor to The Buffalo Foundry & Machine Company, Buffalo, N. Y., a Corporation of New York. Filed June 6, 1910, Serial No. 565,315. Renewed May 12, 1913. Serial No. 767,189. (Cl. 127—18.)

1. A vacuum drier comprising a drying chamber, a drum rotatable in said chamber, and means for feeding liquid to said drum comprising a pan having a bottom, front and rear side walls arranged at opposite longitudinal edges of the bottom said front wall stopping short of the periphery of the drum while the rear wall engages the periphery of the same, and end walls arranged at the opposite transverse edges of the bottom and engaging with the periphery of the drum.



2. A vacuum drier comprising a drying chamber, a drum rotatable in said chamber, and means for feeding liquid to said drum comprising a pan arranged below the drum and adapted to support the liquid in position for the lower part of the drum to dip into the same, a manifold provided with a plurality of nipples opening into said pan, and a rocking support for said pan and manifold having its axis on one side of said manifold.

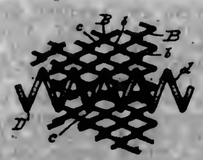
3. A vacuum drier comprising a drying chamber, a drum rotatable in said chamber, and means for feeding liquid to said drum comprising a pan arranged below the drum and adapted to support the liquid in position for the lower part of the drum to dip into the same, a manifold provided with a plurality of nipples opening into said pan, a rock shaft arranged on one side of the manifold, and a plurality of arms secured to said shaft and supporting said pan and associated parts.

4. A vacuum drier comprising a drying chamber, a drum rotatable in said chamber, and means for feeding liquid to said drum comprising a pan arranged below the drum and adapted to support the liquid in position for the lower part of the drum to dip into the same, a rock shaft provided with arms supporting said pan, a liquid supply conduit having a hollow swing arm which turns concentrically with said shaft, and a manifold connected with said swing arm and having a plurality of nipples connected with said pan.

5. A vacuum drier comprising a drying chamber, a drum rotatable in said chamber, and means for feeding liquid to said drum comprising a pan arranged below the drum and adapted to support the liquid in position for the lower part of the drum to dip into the same, a rock shaft provided with arms supporting said pan, a liquid supply conduit having a hollow swing arm which turns concentrically with said shaft, and a manifold having two sections which have their inner opposing ends connected with opposite sides of said swing arm and each of which is provided with a plurality of nipples which are connected with said pan.

[Claims 6 to 14 not printed in the Gazette.]

1,074,904. MESH BAG AND METHOD OF MAKING THE SAME. CYRIL A. SMITH, Attleboro, Mass. Filed Feb. 21, 1913. Serial No. 749,801. (Cl. 150—28.)

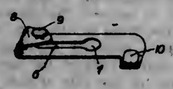


1. In a mesh bag, the combination with the frame, of a body portion comprising front and back walls integral with each other and provided with a fold at the junction of the front and back walls, and fixed at their upper

portions to the frame, said walls comprising a plurality of wires parallel with each other and vertically disposed and comprising a series of spiral loops interengaging the loops of the adjacent wires and forming parallel rows of apertures, and a rod provided with spirals located in said fold and extending the width of the bag, the spirals of said rod passing through apertures.

2. The method of making a mesh bag consisting in arranging a series of wires provided with spiral loops side by side with the loops interengaging each other to form a rectangular strip of metal fabric, folding said fabric intermediate its length to form walls of the bag, engaging a frame to the upper margins of the walls, and inserting into the fabric along the fold a rod provided with spirals, said insertion being effected by manually rotating the said spiral rod through apertures formed by the interengaging loops of the wires.

1,074,905. LEVER-BUTTON. EZRA B. SMITH, Chicago, Ill. Filed Feb. 13, 1913. Serial No. 748,135. (Cl. 24—40.)



1. A device of the character described, comprising a plate having one end bent back upon itself to form an ear spaced apart from the body of the plate, a button carried by said ear and said plate having an elongated keyhole slot extending along the same from a point approximately beneath said button.

2. A device of the character described, comprising a plate having one end folded back to form an ear separated from the body of the plate, a button on said ear, a shoulder projecting from the opposite end of the plate on the same side as the ear, and the plate having therein a keyhole slot extending from a point approximately beneath the button to a point considerably removed from the opposite end of the plate.

3. A device of the character described, comprising a plate having one end bent back upon itself to form an ear spaced apart from the body of the plate, a fastener carried by said ear and said plate having an elongated keyhole slot extending along the same from a point approximately beneath said fastener and narrower at the end beneath the ear than at the other end.

4. A device of the character described, comprising a plate having one end folded back to form an ear separated from the body of the plate, a fastener on said ear, a shoulder projecting from the opposite end of the plate on the same side as the ear, and the plate having therein a slot extending from a point approximately beneath the fastener to a point considerably removed from the opposite end of the plate.

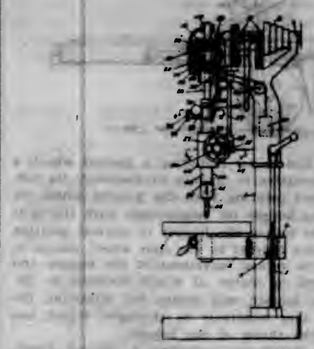
5. A device of the character described comprising a body member having an elongated slot extending lengthwise thereof, a projecting button on one side of the body member near one end of the slot, and a lateral projection on said side of the body member at some distance removed from the button.

[Claims 6 and 7 not printed in the Gazette.]

1,074,906. DRIVING AND FEEDING MECHANISM IN METAL-WORKING MACHINERY. AUGUSTUS M. SOSA, Cincinnati, Ohio, assignor of one-half to August F. Herbsleb, Cincinnati, Ohio. Filed Sept. 6, 1910. Serial No. 580,692. (Cl. 77—32.)

1. In a driving and feeding mechanism for metal working machinery employing a tool for cutting work, the combination of a work-holder, a tool-holder, a train of mechanism comprising a driving member and a plurality of driven members having reacting connection between them for driving the same, operative driving connection between one of said driven members and one of said holders, and operative feeding connection between the other of said driven members and one of said holders.

2. In a driving and feeding mechanism for metal working machinery employing a tool for cutting work, the combination of a work-holder, a tool-holder, a train of mechanism comprising a driving member and a plurality of driven members having reacting connection between them for driving the same, operative driving connection between one of said driven members and one of said holders, operative feeding connection between the other of said driven members and one of said holders, and adjustable controlling means for one of said driven members, substantially for the purpose described.



3. In driving and feeding mechanism for metal working machinery employing a tool for cutting work, the combination of a tool-holder and a work-holder, a driving element for one of said holders, a feeding element for one of said holders, an epicyclic gear-train comprising a driving member and a pair of driven members, operative connection between said driving element and one of said driven members, and operative connection between said feeding element and one of said driven members.

4. In a driving and feeding mechanism for metal working machinery employing a tool for cutting work, the combination of a work holder, a tool-holder, a train of mechanism comprising a driving member and a plurality of driven members having reacting connection between them for driving the same, operative driving connection between one of said driven members and one of said holders, operative feeding connection between the other of said driven members and one of said holders, and a power-relieving device for one of said driven members, substantially for the purpose described.

5. In driving and feeding mechanism for metal working machinery employing a tool for cutting work, the combination of a tool-holder, a work-holder, means for causing rotary movement between said holders, means for causing linear movement between said holders, a train of mechanism comprising a driving member and a plurality of driven members having reacting effect upon one another, operative connection between one of said driven members and said means for causing rotary movement between said holders, and operative connection between the other of said driven members and said means for causing linear movement between said holders, substantially for the purpose described.

[Claims 6 to 25 not printed in the Gazette.]

1,074,907. CLOSURE. HENRY SPENGLER, New York, N. Y., assignor to Alfred Lissmann, Brooklyn, N. Y. Filed June 5, 1911, Serial No. 631,267. Renewed June 22, 1912. Serial No. 705,312. (Cl. 215—9.)

1. A bottle closing cap comprising a resilient disk having a central bulged portion capable of being sprung into two reverse positions, the bulge being on one side of a plane when one of the two positions is assumed, and on the other side of the plane when the other position is assumed, and fingers integral with said central portion and depending from the periphery thereof at one side of said central portion in circular arrangement, said fingers being separated from each other, the free ends of said fingers, when the bulge is sprung away from the fingers, moving toward the center of the circle on which they are arranged, and, when the bulge is sprung into its second position or toward the fingers, moving away from the center of said circle.



2. A bottle closing cap comprising a resilient disk having a central bulged portion capable of being sprung into two reverse positions, the bulge being on one side of a plane when one of the two positions is assumed, and on the other side of the plane when the other position is assumed, and fingers integral with said central portion and depending from the periphery thereof at one side of said central portion in circular arrangement, said fingers being separated from each other, the free ends of said fingers, when the bulge is sprung away from the fingers, moving toward the center of the circle on which they are arranged, and, when the bulge is sprung into its second position or toward the fingers, moving away from the center of said circle, there being an upstanding peripheral flange on that side of the disk away from the fingers, the edges of said flange being in a plane beyond that of the bulge when the latter is sprung into position away from the fingers.

3. A cap for bottles or the like having a central portion and separated fingers depending therefrom and integral therewith, said central portion having a permanent set causing it to bulge outward when said fingers are in gripping position, said fingers being movable from the gripping position by pressing the bulge inward, the material of the cap being resilient so that the central portion tends to spring to its outward bulged position when brought approximately thereto, whereby the cap is capable of reuse after being used and released.

4. A cap for bottles or the like consisting of a single piece of sheet metal having a central portion and a series of fingers, said separate fingers being integrally connected with the central portion, and normally adapted to occupy inward or clamping positions to engage the bottle mouth, and said central portion having a permanent set causing it to bulge to one side of the plane of its connection with the fingers, and adapted to spring said fingers outwardly away from their clamping positions when the central portion is moved in the direction of said plane, and said central portion being resilient and capable of springing from said plane to an extreme position away from said plane, and said fingers being connected to said central portion and being adapted to spring toward their inward or clamping positions when the central portion springs to its outermost position.

1,074,908. SHUTTLE FOR WEFT-REPLENISHING LOOMS. EDWARD S. STIMPSON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Continuation of application Serial No. 522,814, filed Oct. 16, 1909. This application filed Sept. 12, 1912. Serial No. 719,956. (Cl. 139—27.)

1. A loom shuttle having a weft-carrier holding spring composed of a single piece of annealed cold rolled spring chrome steel of uniform thickness bent into shape with a doubled shank for connection with the shuttle, jaws for grasping the weft-carrier, and bows connecting the shank and jaws, the shank being wider than any part of the jaws, each curved bow gradually narrowing on its upper edge only from the shank to its jaws, and each jaw increased in width on its upper edge only toward its free end.



2. A loom shuttle having a weft-carrier holding spring composed of a single piece of spring chrome steel bent into shape with a doubled shank for connection with the shuttle, jaws for grasping the weft-carrier, and bows connecting the shank and jaws, the shank being wider than any part of the jaws, each bow gradually narrowing on its upper edge only from the shank to its jaw, and each jaw increasing in width toward its free end.

3. A loom shuttle having a weft-carrier holding spring composed of a single piece of spring steel bent into shape with a doubled shank for connection with the shuttle, and jaws for grasping the weft-carrier, the shank being wider than the jaws.

4. A loom shuttle having a weft-carrier holding spring comprising grasping jaws having vertical recesses in their inner faces, and each jaw having on its upper inner edge a spreading bevel above said recesses, said bevel being doubly inclined, that is to say, inclining continuously downwardly from near the free edge of the jaw toward the base thereof until its maximum depth is reached in the vicinity of the upper edge of the innermost vertical recess and also inclining inwardly from the top of the jaw downward; whereby said bevel directs an incoming weft-carrier toward the vertical recesses of its jaw.

5. A loom shuttle having a weft-carrier holding spring comprising grasping jaws having vertical recesses in their inner faces, and each jaw having on its upper inner edge a spreading bevel above said recesses, said bevel being doubly inclined, that is to say, inclining continuously downwardly from near the free edge of the jaw toward the base thereof and also inclining inwardly from the top of the jaw downward.

[Claim 6 not printed in the Gazette.]

1,074,909. SUITCASE-LOCK. ELMER B. STONE, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 7, 1913. Serial No. 752,746. (Cl. 70—16.)



1. A face plate having a recess for a lock case, a flange extending therearound, a lock case located in said recess and having lugs projecting beyond the sides thereof, and tongues extending from said flange and bent over said lugs to hold the lock case in place.

2. A face plate having a flange extending therearound and a recess located therein at such distance from the flange as to provide shoulders between said recess and flange, a lock case located in said recess and having lugs resting upon said shoulders, and tongues extending from said flange and bent over on to said lugs to hold the lock case in place.

3. A face plate having a recess for a lock case, a flange extending therearound and located at a distance from said recess to provide shoulders at opposite ends thereof, a lock case located in said recess and having lugs at opposite sides resting upon said shoulders and against said flange, and tongues extending from said flange and bent over on to said lugs to hold the lock case in place.

4. A face plate having a flange extending therearound and integral therewith, a lock case located within said flange and having lugs projecting therefrom, and tongues extending from said flange and bent over said lugs to hold the lock case in place.

5. A face plate having a flange extending therearound and integral therewith, a lock case located within said flange and held from lengthwise movement therein and having lugs, tongues extending from said flange and bent over said lugs to hold the lock case in place, and means for holding the lock case against lateral movement.

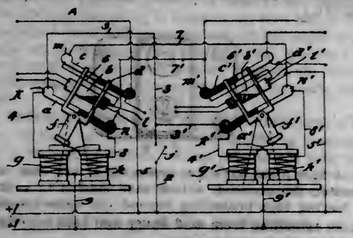
1,074,910. FASTENER FOR PURSES AND BAGS. THOMAS TIGHE, Claremorris, Ireland. Filed Nov. 30, 1912. Serial No. 734,333. (Cl. 70—116.)



1. In fasteners for purses, bags and the like, of the type in which a pair of knobs are mounted rigidly upon the lips of a hinged frame so as to grip together when the latter is closed, a member projecting from one of the knobs and depressible against a spring within the same adapted to engage automatically in a recess in the other knob and to lock the two together when the frame is closed.

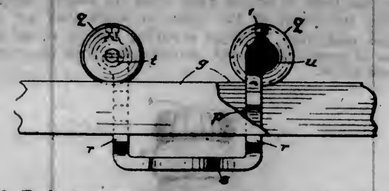
2. In fasteners of the type described, a knob consisting of a pair of hemispheres one of which is rigidly fixed on the frame and the other is slidably mounted upon its companion so that one part of its edges can project beyond that of the latter, a spring located in a recess between the two hemispheres adapted to cause the said part of the edge normally to project and a second knob rigidly mounted on the opposite frame jaw having an indentation adapted to receive the aforesaid normally projecting part and thus to lock the two knobs together until released by the ordinary twisting action of thumb and finger.

1,074,911. CIRCUIT-CHANGER. EDUARD UNVERRICHT, Hamburg, Germany, assignor to Dr. Paul de Chapeaurouge, Hamburg, Germany. Filed May 23, 1911. Serial No. 629,002. (Cl. 175—281.)



In a device of the character described, a pair of like circuit changers arranged at a distance from each other, each of said circuit changers comprising an electromagnetic device and a plurality of circuit closing means operable thereby, electric connections between said electromagnetic devices and circuit closing means, and means for sending electric energy through either of said electromagnetic devices whereby the circuit closing means pertaining to the energized electromagnetic device are operated to close the circuit of the other electromagnetic device, said circuit including a selected number of circuit closing means of both of said circuit changers, one of which circuit closing means is closed for a limited period only after the energizing of the first mentioned electromagnetic device.

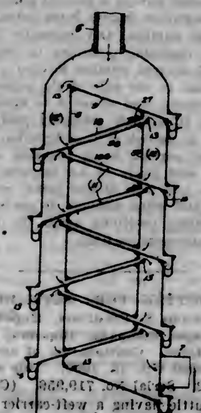
1,074,912. TOOL-CARRIER FOR STONE-DRESSING MACHINES. WILBUR H. VAN SICKEL, Philadelphia, Pa., assignor to Thos. H. Dallett Co., a Corporation of New Jersey. Original application filed Feb. 20, 1912, Serial No. 678,781. Divided and this application filed Nov. 28, 1912. Serial No. 733,023. (Cl. 125—6.)



1. Tool carrying means comprising a pair of arms spaced apart, two pairs of wheels, axles on which the wheels are mounted, the wheels adapted to travel on the arms, a tool carrier comprising a yoke whose opposite arms each extend between the wheels of a pair, said arms being sleeved on the axles, the part of each axle upon which a wheel is mounted being eccentric to the part of the axle on which the yoke is sleeved, said yoke having outwardly projecting guiding parts provided with guiding surfaces adapted to the inside faces of the arms and outwardly projecting guiding parts adapted to the lower edges of the arms, and means to adjustably secure the axles in the positions to which they are turned.

2. Tool carrying means comprising a pair of arms spaced apart, two pairs of wheels, axles on which the wheels are mounted, the wheels adapted to travel on the arms, a tool carrier comprising a yoke whose opposite arms each extend between the wheels of a pair, said arms being sleeved on the axles, the part of each axle upon which the yoke is sleeved having an encircling groove and being eccentric to the part of the axle on which a wheel is mounted, and a set screw carried by the yoke arms and engaging said groove, said yoke having outwardly projecting guiding parts adapted to the inside faces of the arms and outwardly projecting guiding parts adapted to the lower edges of the arms.

1,074,913. GAS-CLEANER. BRUCE WALTER, Pittsburgh, Pa., assignor of one-half to George H. Smith, Aspinwall, Pa. Filed Feb. 8, 1909. Serial No. 476,613. (Cl. 48—135.)



means for providing on said surfaces a constantly flowing sheet of water in contact with the gas and flowing in opposite direction to the movement of the gas, and means for carrying off the water from each inclined surface independently.

2. A gas cleaner comprising a casing provided with a continuous series of zig-zag passages vertically arranged therein and forming an unobstructed passage for gas, means supplying a sheet of water on the bottom of each passage entirely below the gas therein and an outlet carrying off the water from each of said inclined surfaces immediately and independently, substantially as described.

3. A gas cleaner comprising a casing having a zig-zag gas passage from top to bottom and composed of upwardly inclined passages in series in zig-zag fashion, means for continually supplying a sheet of the water on the bottoms of each of said inclined passages and extending at its lower end out of the zone of the flowing gas and a gas tight passage and discharge receptacle for the water on each one of said surfaces, substantially as described.

4. In a gas cleaner, the combination with an inclined plate forming part of a gas passage, a water seal outlet from the same, and a supply pipe adapted to feed a sheet of water on the plate, the said pipe having a narrow slit outlet for the water, and means to clean the said outlet without interrputing the flow of water.

5. A gas cleaner comprising a casing having unobstructed gas passages formed by inclined plates having each an independent means to drain water therefrom said casing being open to admit free circulation of air under the surface of the gas passage.

1,074,914. BLACKING-BOX CASE. ALFRED WARD, Port Huron, Mich. Filed Nov. 18, 1912. Serial No. 732,154. (Cl. 15—1.)



1. A blacking box case comprising a body having in one end a compartment, a polish box supporting tray removably engaged with said compartment, tray supporting rods having a sliding engagement with said body whereby the tray is supported in an operative position when drawn from said compartment, a cover hingedly connected with said tray, and means whereby the cover is automatically swung to open and closed positions when the tray is drawn out and pushed back into said compartment.

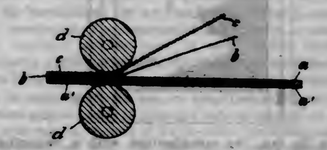
2. A blacking box case comprising a body having in one end a compartment, a polish box supporting tray removably engaged with said compartment, means to support the tray when withdrawn from said compartment, a cover plate hinged to said tray, cover opening rods slidably mounted on said body and having a loose connection at their outer ends with said cover, knobs carried by the inner ends of said rods and combined guide members and stops to receive and guide said rods and to form stops with which the knobs on the ends of the rods are engaged when the tray is drawn out of the compartment whereby the rods will swing the cover upwardly to an open position, said cover being closed by the engagement therewith with the end of the body when the tray is pushed back into said compartment.

3. A device of the character set forth comprising a body having a compartment with an open end, a tray to slide into and out of the compartment, a cover for the tray, and means actuated by the movement of the tray to lift the cover when the tray is drawn out of the compartment.

4. A device of the character set forth comprising a body having a compartment with an open end, a tray to slide into and out of the compartment, a cover hinged to the tray and means actuated by the movement of the tray, whereby the cover will be lifted when the tray is drawn out of the compartment.

5. A device of the character set forth comprising a body having a compartment with an open end, a tray to slide into and out of the compartment, a cover hinged to the tray, and actuating rods for the cover connected at one end to it adjacent its hinge, the opposite ends of the rod being connected to the body.

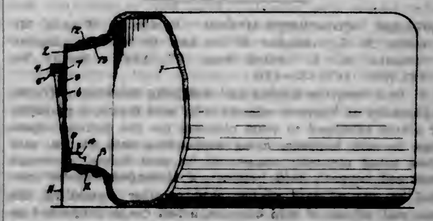
1,074,915. PROCESS OF PRODUCING LINCRUSTA, LINOLEUM, OR LIKE DIAPERED-LIKE CLOTH. CARL GEORG ERNST WERNER, Bremen, Germany, assignor to Bremer Linoleumwerke Delmenhorst, Delmenhorst, Germany, a Society. Filed Sept. 22, 1909. Serial No. 519,021. (Cl. 154—25.)



1. The hereindescribed process of diapering and embossing linoleum or like material in a cloth-like effect, which consists in first placing a cloth facing over the show-side of a base of the linoleum or like material, then arranging a diapering tissue on the cloth facing and simultaneously subjecting the two to pressure upon the said show-side of the base, and finally stripping the superimposed cloth facing and tissue from the surface of the base.

2. The hereindescribed process of diapering and embossing in the same operation, linoleum or equivalent material in a cloth-like effect, which consists in placing a facing of linen over the show-side of the base of the linoleum or like material, then arranging a diapering tissue of jute on the linen facing and simultaneously subjecting the two to pressure upon the said show-side of the base, and subsequently stripping the superimposed linen and jute from the surface of the base.

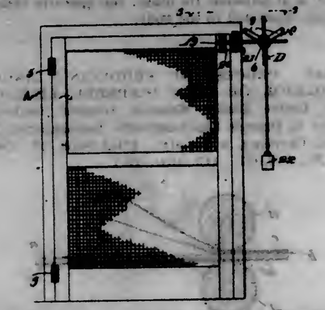
1,074,916. MOUSE-TRAP. JOHN G. WIESEN, Milwaukee, Wis. Filed Mar. 11, 1912. Serial No. 683,082. (Cl. 43—24.)



In a device of the described class, the combination of a transparent receptacle open at one end and provided with a threaded collar, a threaded sleeve adapted to fit on said collar, a plate having a horizontal lower edge terminating on the same plane with the lower side of said receptacle adapted to close the open end of said receptacle, said plate being provided with a rectangular aperture, a plurality of vertical bars pivotally suspended at their upper ends independently on each side from the upper side of said opening, a plurality of steel bars for the reception of the lower ends of said bars, a plurality of U-shaped bushings, said bushings between each pair of vertical bars, said plate being rigidly connected with the front

end of said receptacle and adapted to prevent said transparent receptacle from rolling, all substantially as and for the purpose specified.

1,074,917. FLY-FAN. JOHN W. WILLIAMS, Dixon, Tex. Filed May 22, 1912. Serial No. 699,024. Renewed Mar. 27, 1913. Serial No. 757,257. (Cl. 230—7.)



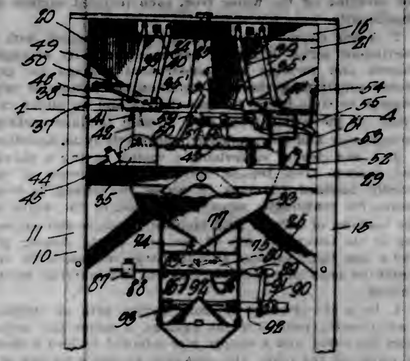
1. In a fly fan, the combination with a swinging door and its casing, of a fan including a drum supported on the casing for rotation, a roller carried by the outer face of the door and disposed adjacent the outer edge thereof, a roller carried by the casing and disposed intermediate the first mentioned roller and the hub, an operating cord wrapped around the drum and having one end trained over the first mentioned roller and under the second mentioned roller, and having its extreme end fixedly connected to the door, and a weight carried by the other end of said cord.

2. In a fly fan, the combination with a swinging door and its catch, the door at its upper outer corner being formed with an opening, of a fan including a drum supported on the casing for rotation, a roller carried by the door and disposed intermediate the opening thereof and the fan, a roller carried by the casing and disposed intermediate the drum and the first mentioned roller, an operating cord wrapped around the drum and having one end trained under the second mentioned roller and over the first mentioned roller, the cord thence extending through the opening of the door and having its end connected to the inner face of the door in spaced relation to the opening, and a weight carried by the other end of the cord.

1,074,918. CONCRETE-MIXER. ELMER E. WILLIS, Minetto, N. Y., assignor of one-half to Alph St. Amont, Minetto, N. Y. Filed Sept. 27, 1912. Serial No. 722,730. (Cl. 73—170.)

1. In a concrete mixing and weighing machine, a frame, a plurality of hoppers supported by said frame, a plurality of plates arranged to form closures for the delivery openings in said hoppers, arms supporting said plates, said arms being pivotally supported by said frame, a trough arranged beneath said hoppers, a U-shaped member carried by one of said plates, said member straddling the rear wall of one of said hoppers, a bell crank supported by said frame, a chain connecting said bell crank with the other of said troughs, and a link connection between said bell crank and one of said plates.

2. In a concrete mixing and weighing machine, a plurality of stationary hoppers, a plurality of pivoted troughs arranged beneath said hoppers, a receiving hopper arranged below said troughs, a second set of pivoted troughs arranged below the receiving hopper, said troughs having a connection whereby the same will dump consecutively, [illegible] a concrete mixing and weighing machine, a plurality of hoppers, a plurality of stationary troughs arranged to receive material from said hoppers and means actuated by said troughs for closing the delivery openings in said hoppers, a receiving hopper arranged below said troughs, a deflector arranged beneath said receiving hopper and a plurality of pivoted troughs arranged below said deflector, said troughs dumping consecutively.



4. In a concrete weighing and mixing machine, a plurality of stationary hoppers, a receiving hopper, means for delivering the material to said receiving hopper in predetermined quantities, said means including troughs arranged to dump consecutively and a plurality of troughs receiving the material from said receiving hopper.

5. In a concrete mixing and weighing machine, a plurality of stationary hoppers, a plurality of troughs arranged beneath said hoppers, a receiving hopper, a plurality of weighted troughs arranged beneath said receiving hopper, said troughs being provided with stops adapted to limit their downward movement.

1,074,919. CORNER-POST FASTENER. ERNEST H. WOELFFEL, Point Pleasant, W. Va., assignor to West Virginia Malleable Iron Co., Point Pleasant, W. Va. Filed Jan. 27, 1913. Serial No. 744,468. (Cl. 5—55.)

1. A device of the class described, comprising a reversi-



ble socket member secured to a post by a bolt passing through the post and socket member, and a tapered forked hook member adapted to straddle the bolt, said hook member having an integral socket for receiving the end of a side rail, and an upwardly extending extension for receiving an end rail.

2. A device of the class described comprising a reversible tapered socket member secured to the post, and a tapered hook member adapted to enter the socket, a socket formed integral with the hook member for receiving a side bar, an upwardly extending member formed integral with the hook, and an angle iron end rail secured to the upwardly extending member for receiving the ends of the springs.

1,074,920. PNEUMATIC CLEANER. ERNEST E. YANGELL, Chicago, Ill. Filed Dec. 28, 1912. Serial No. 738,993. (Cl. 15—60.)

1. In an acetylene generator, a carbid chamber and a generating chamber, in combination with mechanism for automatically feeding carbid into water, consisting of an expansible diaphragm, a diaphragm casing fastened to the roof of said carbid chamber, a rod passing tightly through the center of said diaphragm, a feed-checking nut screwed upon the top portion of said rod, a weight upon its top adapted to give the required gas pressure, a longitudinal groove in its body adapted to engage a point to prevent rotary motion of said rod when said nut is turned, a valve-stem pivotally suspended from the end of said rod just below said diaphragm, a guard to protect said valve-stem from carbid, a stop to save said diaphragm from the downward strain of said weight, and a conical stopper attached to the lower end of said valve stem and adapted to close and open the mouth of the carbid chamber as said diaphragm is forced upward or depressed.

2. In an acetylene generator, a carbid chamber, a generating chamber, adapted to be surrounded by a body of water, which is in free communication with the water within said generating chamber, and provided with an air-intake trap to prevent the water level within the generating chamber rising higher than that outside, in combination with mechanism for automatically feeding carbid into water, consisting of an expansible diaphragm, a diaphragm casing fastened to the roof of said carbid chamber, a rod passing tightly through the center of said diaphragm, a feed-checking nut screwed upon the upper portion of said rod, a weight upon its top, a longitudinal groove in its body engaging a point to prevent rotary motion of said rod when said nut is turned, a valve-stem pivotally suspended from the end of said rod just below said diaphragm, a guard to protect said valve-stem from carbid, a stop to save said diaphragm from the downward strain of said weight and a conical stopper attached to the lower end of said valve-stem and adapted to close and open the mouth of the carbid chamber as said diaphragm is forced upward or depressed.

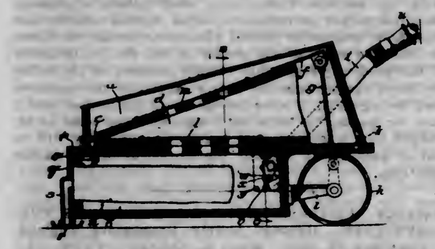
3. In an acetylene generator, a carbid chamber, a generating chamber, an expansible diaphragm, a diaphragm casing fastened to the roof of said carbid chamber, a rod passing tightly through the center of said diaphragm, a feed-checking nut screwed upon the upper portion of said rod, a weight upon its top, a longitudinal groove in its body engaging a point to prevent rotary motion of said rod when said nut is turned, a valve-stem pivotally suspended from the end of said rod just below said diaphragm, a guard to protect said valve-stem from carbid, a stop to save said diaphragm from the downward strain of said weight, a conical stopper attached to the lower end of said valve-stem and adapted to close and open the mouth of said carbid chamber as said diaphragm is forced upward or depressed, in combination with an automatic feed check, consisting of a hollow-end cylinder sliding on said valve stem and adapted to close the mouth of said carbid chamber on the inside thereof, and a lug fixed upon said valve-stem at such point that when said conical stopper closes the mouth of the carbid chamber, said lug holds said automatic feed-check cylinder in its highest position, and when said weight forces said conical stopper into its lowest position, said automatic feed-check cylinder rests with its circumferential edge upon the inner surface of the carbid chamber around the mouth thereof automatically closing it.

4. In an acetylene generator, a generating chamber provided with an air-intake trap, a carbid chamber and a feed-stopping device, consisting of a rod, an expansible diaphragm collared tightly upon said rod, a casing to support said diaphragm, a valve-stem pivotally attached to said rod just below said diaphragm, a conical stopper attached to the lower end of said valve-stem, and a nut on the top of said rod, which is adapted, when screwed down, to keep the mouth of said carbid chamber closed by holding said conical stopper firmly therein.

5. In an acetylene generator, a carbid chamber and mechanism for feeding carbid into water, in combination with a generating chamber provided with an air-intake trap, a conical bottom and communicating with an external body of water by means of a pipe connection with the lowest point of said conical bottom, whereby splashing is prevented from lack of water in said generating chamber.

[Claims 6 to 9 not printed in the Gazette.]

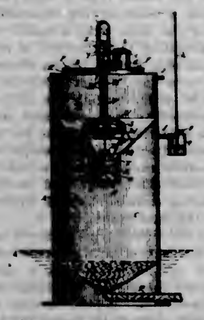
tion with the suction producing device; a roller in driving relation to the suction producing device in both the forward and backward movement of the cleaner, said nozzle and roller moving upon the surface to be cleaned in the operation of the cleaner; a valve for admitting air to the suction producing device independently of the portion of the nozzle engaging the surface to be cleaned; and a handle connected with the cleaner through the intermediation of the valve and operating to close the valve when pushing the machine forwardly and to open the valve when pulling the machine rearwardly.



2. A hand operated pneumatic cleaner including a suction producing device; a suction nozzle in communication with the suction producing device; a roller in driving relation to the suction producing device in both the forward and backward movement of the cleaner, said nozzle and roller moving upon the surface to be cleaned in the operation of the cleaner; a valve for admitting air to the suction producing device independently of the portion of the nozzle engaging the surface to be cleaned; and means operating upon the valve to close it when the cleaner is being pushed forwardly and to open it when the cleaner is being pulled rearwardly.

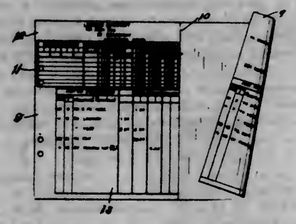
3. A hand operated pneumatic cleaner including a suction producing device; a suction nozzle in communication with the suction producing device; a roller in driving relation to the suction producing device in both the forward and backward movement of the cleaner, said nozzle and roller moving upon the surface to be cleaned in the operation of the cleaner; and mechanism for removing a part of the load from the suction producing device in the rearward movement of the cleaner.

1,074,921. ACETYLENE-GENERATOR. EDMUND R. ANGELL, Derry, N. H. Filed Jan. 17, 1911. Serial No. 603,178. (Cl. 48—53.3.)



1. In an acetylene generator, a carbid chamber and a generating chamber, in combination with mechanism for automatically feeding carbid into water, consisting of an expansible diaphragm, a diaphragm casing fastened to the

1,074,922. ACCOUNT-BOOK. CHARLES E. ARNOLD, Hartford, Conn. Filed Oct. 22, 1912. Serial No. 727,238. (Cl. 11—19.)

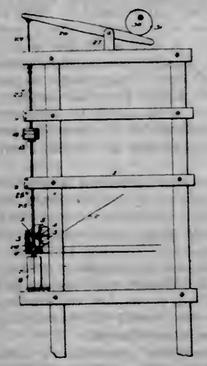


1. In an account sheet, a bill section including a bill heading and a ruling for an account on the same sheet, and an account section having a ledger ruling immediately underlying and in registration with the heading of the bill section.

2. In an account sheet, a bill section having a heading at one end and an account ruling at the opposite end and an account section having an account ruling a duplicate of that of the bill section and immediately underlying the ruling section and in registration therewith, and a ledger account ruling immediately underlying the heading of the bill and in registration therewith, the bill section and account section being separable one from the other.

3. In an account sheet, a bill section having a heading at one end including a blank for designating the account and an account ruling at the opposite end, and an account section having an account ruling a duplicate of that of the bill section and immediately underlying the ruling of the bill section and in registration therewith and a ledger account ruling immediately underlying the heading of the bill and in registration therewith and with a blank space over the ledger heading and immediately underlying and in registration with the blank space on the bill heading for the name designating the account.

1,074,923. MACHINE FOR PACKING DYNAMITES AND OTHER HIGH EXPLOSIVES INTO SHELLS. HENRY AUCHU, Emporium, Pa. Original application filed July 26, 1910, Serial No. 573,993. Divided and this application filed Nov. 28, 1910. Serial No. 594,552. (Cl. 86—20.)

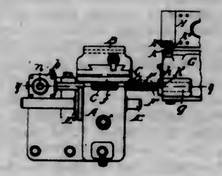


1. In a shell packing or filling machine, the combination with a machine frame, of a shell holder, a packer or tamper slidably mounted on said frame, operating means for said packer, a set collar adjustable lengthwise of the packer or tamper and positioned to engage the frame and limit the entry of the packer in a shell held by said shell holder, means for operating the packer or tamper, and a cam adapted to coöperate with said means to operate the packer or tamper, said cam and means being relatively so arranged that they cease to coöperate with each other when the shell is filled.

2. In a shell packing or filling machine, the combination with a shell holder, of a reciprocating packer or tamper, a lever operatively connected thereto, and a cam adapted to operate the lever, the cam and lever being so related that when the shell is filled, the cam and lever will be out of coöperative relation.

3. In a shell packing or filling machine, the combination with the machine frame, of a shell holder, a slidably mounted packer or tamper, a collar carried thereby and adjustable lengthwise thereof adapted to engage the frame to limit the entry of the packer in the shell, a plurality of independently removable weights mounted on the collar by which the pressure the packer applies to the explosive may be regulated, a lever for operating the packer, and a cam for moving the lever, said cam and lever being so arranged that when the shell has been loaded they will be out of engagement whereby the movement of the packer will stop.

1,074,924. CROSS-SLIDE OF LATHES OF THE TURRET TYPE. HERBERT AUSTIN, Bromsgrove, England. Filed Mar. 23, 1912. Serial No. 685,681. (Cl. 29—39.)



1. In a lathe of the turret type, a turret saddle slidable along the lathe bed, a tool-carrying cross-slide for operating transversely of the lathe axis, a saddle carrying such slide and itself carried by the lathe bed, a spindle carried by the cross-slide saddle, a rack of the cross-slide, means whereby said spindle is genred with said rack, a shaft which is parallel with the lathe bed, bevel gear through the medium of which said spindle is operated by such shaft and said slide thereby operated in one direction, and means for operating said slide in the opposite direction which comprise, a pinion of said spindle, a toothed rack which is slidably mounted in relation to the cross-slide saddle and meshes with said pinion and is moved endwise by the turret saddle and thereby operates the said pinion.

2. In a lathe of the turret type, a turret saddle slidable along the lathe bed, a tool-carrying cross-slide for operating transversely of the lathe axis, a saddle carrying such slide and itself carried by the lathe bed, a vertical spindle carried by the cross-slide saddle, means whereby said spindle operates said cross-slide, a shaft which is parallel with the lathe bed, bevel gear through the medium of which said spindle is operated by such shaft and said slide thereby operated in one direction, and means for operating said slide in the opposite direction which comprise, a pinion of said spindle, a toothed rack which is slidably mounted in relation to the cross-slide saddle and meshes with said pinion and is moved endwise by the turret saddle and thereby operates the said pinion.

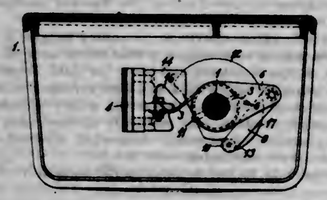
3. In a lathe of the turret type, a turret saddle slidable along the lathe bed, a tool-carrying cross-slide for operating transversely of the lathe axis, a saddle carrying such slide and itself carried by the lathe bed, a spindle carried by the cross-slide saddle, means whereby said spindle operates said cross-slide, means for operating said spindle and thereby operating said slide in one direction, means for operating said cross-slide in the opposite direction which comprise, a pinion of said spindle, a rack which is slidably mounted in relation to said cross-slide saddle and meshes with said pinion and is moved endwise by the turret saddle and thereby operates said pinion, an abutment which is carried by the turret saddle and means whereby said abutment will be automatically brought into the path of the last-mentioned rack when it is intended that a movement of the turret saddle shall move the said rack.

4. In a lathe of the turret type, a turret saddle slidable along a lathe bed, a tool-carrying cross-slide for operating transversely of the lathe axis, a saddle carrying such slide and itself carried by the lathe bed, a spindle carried by the cross-slide saddle, means whereby said spindle operates said cross-slide, a pinion of said spindle, a rack which is carried entirely by the cross-slide saddle and is slidable in relation thereto and meshes with said pinion and is moved endwise by the turret saddle as a result of an abutment of the turret saddle coming against the end of the rack and thereby imparting to the rack the movement in one direction only of the turret saddle, and means whereby the spindle is operated in the reverse direction and itself operates the rack and returns it.

5. In a lathe of the turret type, a turret saddle slidable along the lathe bed, a tool-carrying cross-slide for operating transversely of the lathe axis, a saddle carrying such slide and itself carried by the lathe bed, a spindle carried by the cross-slide saddle, means whereby said spindle operates said cross-slide, a pinion of said spindle, a rack which is slidably mounted in relation to said cross-slide saddle and meshes with said pinion and is moved endwise by the turret saddle and thereby operates said pinion, an abutment which is carried by the turret saddle and means whereby said abutment will be automatically brought into the path of the last-mentioned rack when it is intended that a movement of the turret saddle shall move the said rack.

[Claims 6 to 9 not printed in the Gazette.]

1,074,925. CONTROLLER FOR ELECTRIC MOTORS. ROBERT FRIEDERICH BAERLOCHER, Manchester, England, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1910. Serial No. 541,798. (Cl. 172—179.)



1. A controller for electric motors provided with means for automatically returning the movable member to a predetermined position when the controller handle is released during one portion of its range of travel, a cam carried by said movable member for effecting a storage of power in said returning means, and a latch for cooperation with said cam to lock the returning means and release said movable member therefrom at the end of said portion of the range of travel.

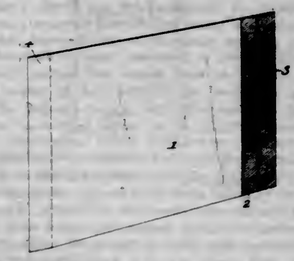
2. A controller for electric motors having its drum shaft provided with spring return mechanism, means carried by said shaft for storing power in said return mechanism during a portion of the range of travel of said drum shaft, and a device coöperating with said means to lock said return mechanism and release said shaft therefrom.

3. In a controller, the combination with a rotatable member, of a spring adapted to move said member to its off position, means carried by said rotatable member and detachably connected to said spring for storing power therein during a portion of the forward range of movement of said member, and a device for detaching the spring from said means and coöperating with said means to hold the spring in such detached relation during further forward movement of said member.

4. In a controller, the combination with a drum shaft and a spring adapted to return said shaft to its off position, of a set of links loosely supported by said shaft and connected to one end of said spring, a cam on the shaft for engaging said links and a latch adapted to coöperate with said cam to render the spring ineffective for a portion of the range of movement of said shaft.

5. In a controller, the combination with a drum shaft and a set of links loosely mounted thereon, of a retracting spring for said links, a notched cam keyed to the shaft and engaging said links to store power in said spring during a portion of its range of movement, and a latch for coöperating with the cam to hold the spring and links against operative movement for the remainder of said range of movement.

1,074,926. PAPER TUBE AND METHOD OF MAKING THE SAME. CHARLES S. BIRD, Walpole, Mass. Filed July 11, 1912. Serial No. 708,843. (Cl. 93—94.)



1. The method of making waterproof paper tubes, which consists in treating a sheet of paper with an inert filler applied to one face thereof; bringing the sheet into tubular form with said treated face outermost; and finally, waterproofing the same.

2. The method of making waterproof paper tubes, which consists in treating a sheet of paper with an inert filler applied to one face thereof; bringing the sheet into tubular form with said treated face outermost; burnishing it; and finally waterproofing the same.

3. The method of making waterproof paper tubes, which consists in coloring a section of a sheet of paper; filling one face of such colored section with an inert filling; bringing the sheet into tubular form with the filled face outermost; burnishing the same, and finally waterproofing the tube.

4. The method of making waterproof paper tubes, which consists in producing a colored strip along one side of a sheet of paper; treating such portion with an inert filler to produce a filled face or surface, forming the sheet into a tube with the filled face outermost; burnishing the same; and finally waterproofing the tube.

5. The method of making waterproof paper tubes, which consists in producing a colored strip along one side of a sheet of paper; treating such portion with a surface filler composed of clay and glue; rolling the sheet into tubular form with the treated face outermost; burnishing the outer face of the tube; and finally waterproofing the same.

[Claims 6 to 9 not printed in the Gazette.]

1,074,927. HOLDER FOR PENCILS, PENS, &c. JAMES H. BOYE, Chicago, Ill., assignor to The Boye Needle Company, Chicago, Ill. Filed Nov. 11, 1912. Serial No. 730,638. (Cl. 24—12.)

1. A device of the character set forth, comprising a shank having a forwardly-curved lower extremity, a pencil-holder attached to said shank near its upper end and projecting in front of said shank, and a pair of piercing-prongs disposed adjacent the rear surface of said shank and having their upper end portions rigidly secured to the upper end portion of said shank, the point-

portions of said prongs being separated from the curved extremity of said shank by an acute angle, whereby the device may be readily applied to a garment and may be removed without injury to the garment.



2. A device of the character set forth, comprising a shank having its lower end curved forwardly and having its upper portion equipped on its forward side with a pencil-holding loop, a U-shaped member disposed close to the rear surface of said shank and having downwardly-extending sharpened extremities and an upper web portion, and lugs securing the upper portion of said U-shaped member rigidly to the upper portion of said shank, said sharpened extremities being separated from the curved lower end of said shank by an acute angle, whereby the device may be readily applied to a garment and may be removed without injury to the garment.

3. A device of the character set forth, comprising a shank having its upper portion equipped with a pencil-holding member and having its lower extremity curved forwardly, said shank provided above its lower extremity with slots, and a U-shaped member secured at its web portion to the upper end of said shank and affording prongs, said prongs having curvatures engaging in said slots.

4. A device of the character set forth, comprising a shank having its upper portion equipped with a pencil-holding member and having its lower extremity curved forwardly, said shank provided above its lower extremity with a slot, and a piercing-prong disposed against the rear surface of said shank and having its upper portion rigidly secured to the upper portion of said shank, said piercing-prong having a forwardly struck curvature engaging in said slot and having its point portion separated from the curved extremity of said shank by an acute angle.

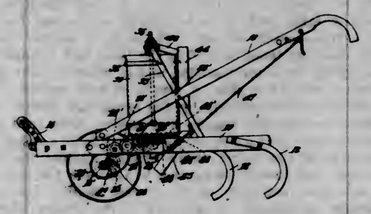
1,074,928. ELECTRIC HEATING ELEMENT. TREVOR M. CAVEN, Milwaukee, Wis., assignor to A. J. Lindemann & Hoverson Co., Milwaukee, Wis. Filed Aug. 1, 1911. Serial No. 641,824. (Cl. 219—64.)



An electric heating element comprising a plate of refractory material provided with recesses in its face, a solidified plastic insulating filler of high thermal conductivity for the plate recesses, the same forming a homogeneous mass with relation to said plate, a coiled resistance element embedded within the plastic insulation, and a metallic surface plate in cohesive relation with the plate and insulation.

1,074,929. FERTILIZER-DISTRIBUTER. EUGENE MACON COLE, Charlotte, N. C. Filed June 14, 1911. Serial No. 633,093. (Cl. 111—15.)

1. In a fertilizer distributer, a receptacle mounted for rotation, a bottom member adapted to slide within and to rotate with the receptacle, a feed screw movable with said bottom, means engaged by the screw during its rotation in the receptacle for shifting the screw and the bottom vertically, and a stationary spacing element extending over the receptacle.



2. In a fertilizer distributer, a receptacle mounted for rotation, a bottom member adapted to slide within and to rotate with the receptacle, a feed screw movable with said bottom, means engaged by the screw during its rotation in the receptacle for shifting the screw and the bottom vertically, a stationary spout extending downwardly from the upper end of and adjacent the receptacle, and a stationary scraper above the receptacle for directing material into the spout.

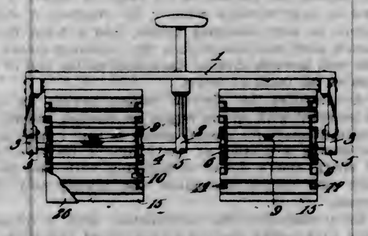
3. In a fertilizer distributer, a rotary hopper, a bottom arranged within said hopper, said bottom being capable of a rotary and a vertical movement, means carried by said hopper for imparting rotary movement to said bottom, means for imparting a vertical movement to said bottom and means actuated by said bottom when at the limit of its movement in one direction to discontinue its vertical movement.

4. In a fertilizer distributer, a rotary hopper, a bottom arranged within said hopper, said bottom being capable of a rotary and a vertical movement, means carried by said hopper for imparting rotary movement to said bottom, means for imparting a vertical movement to said bottom and relatively movable means actuated by said bottom when at the limit of its upward movement to discontinue its vertical movement.

5. In a fertilizer distributer, a rotary hopper, a bottom arranged within said hopper, a key arranged interiorly of said hopper, said bottom being formed with a key-way arranged to register with said key, means for imparting rotary movement to said hopper, to rotate and vertically advance said bottom and a plurality of pivotally supported interiorly screw threaded jaws embracing said screw.

[Claims 6 to 10 not printed in the Gazette.]

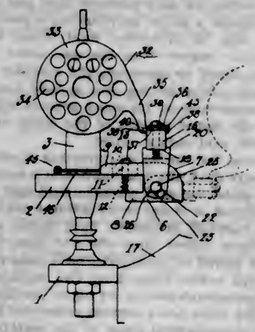
1,074,930. STALK-CUTTER. EUGENE MACON COLE, Charlotte, N. C. Filed Feb. 14, 1912. Serial No. 677,421. (Cl. 55—61.)



1. A stalk cutter comprising a frame; bearings carried by the frame; a shaft mounted in the bearings; a tube journaled for rotation on the shaft, hubs secured to the tube; plates surrounding the tube and abutting against the hubs; means for connecting the plates with the hubs; and blades connecting the plates and coöperating with the tube to hold the plates and the hubs in spaced relation.

2. In a device of the class described, a rotatable member comprising spaced heads having peripheral notches; cutting blades resting in the notches; brackets secured to the heads between the notches and having inwardly projecting arms, the terminal arms of adjacent brackets being supported upon opposite sides of a blade; and securing elements engaging said arms and said blade.

1,074,931. SEPARATING DEVICE. NARCISSE N. S. DAUDELIN, Fall River, Mass. Filed Jan. 2, 1913. Serial No. 730,681. (Cl. 118—16.)



1. In a separating device, the combination with the ring rail, of blocks comprising curved rear end portions, and interspaced forwardly extending arms embracing the ring rail, one of said arms being provided with an oblong slot, screws in the ring rail passing through said slots, heads upon the screws of greater diameter than the breadth of the slots, studs upon the bodies of the blocks, brackets comprising horizontal plates, and arms disposed at right angles to the plates provided with openings to loosely receive the studs, a separator bar upon the horizontal portion of the bracket provided with a longitudinal opening, and a screw in the horizontal portion of the bracket passing through the opening, a head upon the screw of greater diameter than the width of the opening, and separator blades fixed to the bar.

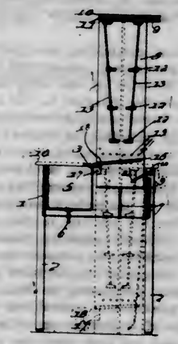
2. In a separating device, the combination with the ring rail, of blocks fixed to the rear portion of the ring rail and provided with curved rear end portions gradually increasing in radii toward the bottoms of the blocks to form a stop for the downward travel of the separator bar, studs upon the sides of the blocks, brackets comprising horizontal portions, and downwardly directed arms integral with the horizontal portions, said arms being of less length than the length of the greater radii of the curved portions of the blocks, a separator bar fixed to the brackets, and separator blades fixed to the bar.

3. In a separating device, the combination with a ring rail, of blocks fixed to the rear of the ring rail, studs upon the sides of the blocks, lateral lugs upon the ends of the studs, brackets comprising horizontal plates and integral downwardly extending arms, each arm being provided with an opening through which passes the stud, and provided with a cavity extending from said opening, a separator bar fixed to the horizontal portions of the brackets, and separator blades mounted upon the bar.

1,074,932. APPLIANCE TO FACILITATE THE WASHING AND DRYING OF DISHES. RICHARDSON W. DICKENSON, Sioux Falls, S. D. Filed May 2, 1912. Serial No. 694,768. (Cl. 45—17.)

1. In combination with a table having a dish washing tank, a vertically moving dish supporting rack, means for raising and lowering the dish supporting rack, and means for supporting same in its raised position, said supporting means comprising a drain board adapted to engage one edge of the dish washing tank.

2. In combination with a table having a dish washing tank, a dish supporting rack movable vertically with respect thereto, means for raising and lowering said dish supporting rack, a plurality of dish supporting shelves, a drain board below the shelves and adapted to overlie the dish washing tank when the dish supporting rack is in the elevated position, and discharge the water draining from said dishes to the dish washing tank.

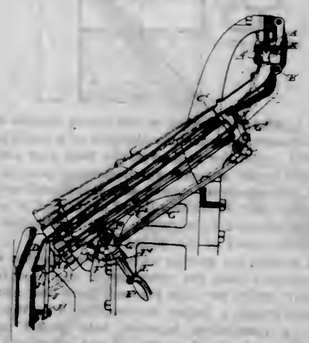


3. In combination with a table having a dish washing tank, a dish supporting rack movable vertically with respect thereto means for raising and lowering the rack, and means for supporting the rack in its raised position, said supporting means comprising a drain board engaging one edge of the dish washing tank when said tank is in its elevated position.

4. In combination with a table having a dish washing tank, a dish supporting rack movable vertically with respect thereto, said dish supporting rack being provided with means to convey the water from said dishes to the dish washing tank substantially as described.

5. In combination with a table having a dish washing tank, a dish supporting rack carried thereby, and vertically movable with respect thereto, and means for supporting the dish supporting rack in its raised position, said supporting means comprising a drain board adapted to convey water from said dish supporting rack to said dish washing tank.

1,074,933. TYPOGRAPHICAL COMPOSING-MACHINE. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 2, 1912. Serial No. 668,880. (Cl. 199—7.)



1. In a typographical composing machine, the combination of distributing mechanism, assembling devices, a plurality of magazines movable to bring a selected one into operative relation to the assembling devices, and an in-

dependent single throat moved conjointly with the magazines to connect the distributing mechanism with the magazine in operative position.

2. In a typographical composing machine, the combination of distributing mechanism, assembling devices, a plurality of magazines movable to bring a selected one into operative relation to the assembling devices, and an independent throat movable to connect the distributing mechanism with the magazine in operative position, together with means for moving the magazines and the throat conjointly.

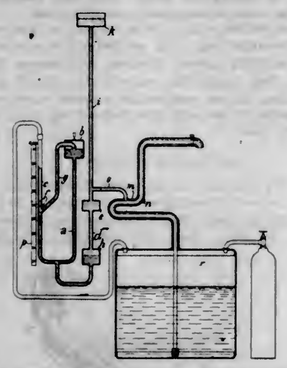
3. In a typographical composing machine, the combination of distributing mechanism, assembling devices, a plurality of magazines movable in one direction to bring a selected one into operative relation to the assembling devices, and a single throat automatically and conjointly moved in the opposite direction to connect the distributing mechanism with the magazine in operative position.

4. In a typographical composing machine, the combination of distributing mechanism, assembling devices, a pivotally mounted series of magazines movable to bring a selected one into operative relation to the assembling devices, and a single pivotally mounted throat moved conjointly with the magazines to connect the distributing mechanism with the magazine in operative position.

5. In a typographical composing machine, the combination of distributing mechanism, assembling devices, a pivotally mounted series of magazines movable in one direction to bring a selected one into operative relation to the assembling devices, and a pivotally mounted throat automatically and conjointly moved in the opposite direction to connect the distributing mechanism with the magazine in operative position.

[Claims 6 to 14 not printed in the Gazette.]

1,074,934. SYSTEM OF STORING AND CONVEYING INFLAMMABLE AND OTHER LIQUIDS. HERMANN VON EICKEN, Friedenau, Germany. Filed Nov. 16, 1912. Serial No. 731,706. (Cl. 220—121.)



1. In a system for storing or conveying liquids with the aid of a pressure fluid, the combination of a container having a safety outlet for said pressure fluid and adapted to contain said liquid, a jacket surrounding a portion of said container, a connection between said jacket and said safety outlet, and a body of sealing liquid contained in said connection and adapted to normally close said outlet, but to open it in the event of the jacket's leaking.

2. In a system for storing or conveying liquids with the aid of a pressure fluid, the combination of a container having a safety outlet for said pressure fluid and adapted to contain said liquid, a jacket surrounding a portion of said container, a connection between said jacket and said safety outlet, a body of sealing liquid contained in said connection and adapted to close or open said outlet, and a body of pressure-exerting liquid filling said jacket and resting on the sealing liquid to normally close said outlet.

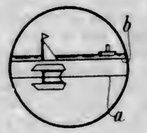
3. In a system for storing or conveying liquids with the aid of a pressure fluid, the combination of a container having a safety outlet for said pressure fluid and adapted to contain said liquid, a jacket surrounding a portion of said container, a body of protective fluid filling said jacket under a pressure different from the one under which the liquid is to be stored or conveyed, a connection between said safety outlet and said jacket, and a body of sealing liquid contained in said connection, said sealing liquid being normally held by the pressure from the jacket and by the pressure acting on the liquid to be stored or conveyed, in a position in which it closes said safety outlet.

4. In a system for storing or conveying liquids with the aid of a pressure fluid, the combination of a container having a safety outlet for said pressure fluid and adapted to contain said liquid, a jacket surrounding a portion of said container, a body of protective fluid filling said jacket under a pressure higher than the one under which the liquid is to be stored or conveyed, and a holder for a sealing liquid, said holder having two upright branches, one of which communicates at its upper portion with the said jacket while the upper portion of the other branch communicates with said safety outlet.

5. In a system for storing or conveying liquids with the aid of a pressure fluid, the combination of a container having a safety outlet for said pressure fluid and adapted to contain said liquid, a jacket surrounding a portion of said container, a body of protective fluid filling said jacket under a pressure higher than the one under which the liquid is to be stored or conveyed, and a holder for a sealing liquid, said holder comprising two upright branches one of which communicates at its upper portion with said jacket while the other has a member connected at its upper end with the pressure-fluid space of the container and another member connected at its upper end with the discharge end of the safety outlet.

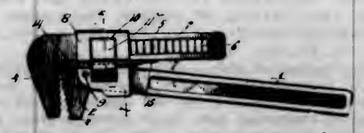
[Claims 6 to 9 not printed in the Gazette.]

1,074,935. COINCIDENCE-TELEMETER. OTTO EPPENSTEIN, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Nov. 15, 1912. Serial No. 731,602. (Cl. 88—3.)



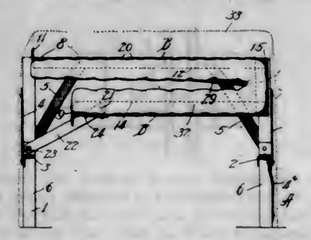
In a coincidence telemeter two objective systems, an ocular system, a measuring device and means for presenting in the field of vision of the said ocular system a total image-field comprising three single image-fields following each other in a direction perpendicular to that of the base-line, the two outer ones of which are each filled by an erect image and the inner one of which contains an image contiguous to one of the said erect images in a straight line parallel to the base-line, which straight line is a line of coincidence, these contiguous images belonging to opposite ends of the base-line and having the same magnification and the image-points of the erect image contiguous to the line of coincidence, forming this line, being visible also in the other erect image.

1,074,936. PIPE-WRENCH. WILLIAM R. EVANS, Smiths Basin, N. Y. Filed Mar. 5, 1912. Serial No. 681,782. (Cl. 81—103.)



A device of the kind described comprising a fixed jaw and a movable jaw, a handle formed integrally with each jaw, the handle of said movable jaw being set with its edge opposed to that of said fixed jaw, a cant spring secured upon one edge of the fixed jaw handle, a yoke surrounding said handles and being fulcrumed upon said fixed jaw, said cant spring bearing against the adjacent edge of the movable jaw handle to bias its forward end in contact with said fixed jaw, a rack countersunk longitudinally on each side of the movable jaw handle and having its teeth disposed perpendicularly to the adjacent edge of the fixed jaw handle, two dogs having toothed portions projecting through the sides of said yoke and into the said racks, pivots mounted on said yoke upon which said dogs are fulcrumed, and springs engaging said dogs arranged to cause said toothed portions to mesh with said racks and to simultaneously support the movable jaw handle.

1,074,937. COMBINATION COUCH AND BED, &c. ANTON G. EYLES, Cedar Rapids, Iowa, assignor to A. G. Eyles Chair Company, Cedar Rapids, Iowa. Filed Apr. 17, 1911. Serial No. 621,622. (Cl. 5—49.)

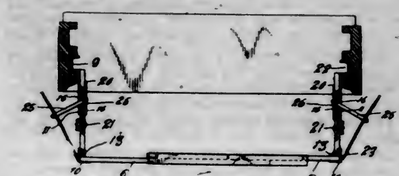


1. In a structure of the character set forth, the combination of a main frame comprising end-standards having legs and a surmounting cross member, longitudinal bars joining said legs and braced thereto, an intermediate bed section having end members securely joined pivotally to the front portions of said end-standards beneath said cross members, a front bed section having arms pivotally connected with the end members of the intermediate bed section, a rear bed section having arms pivotally joined at their front ends to the end members of the intermediate bed section, forwardly and upwardly inclined links pivotally connected at their rear ends with the rear portions of said end-standards and pivotally connected at their front ends with the rear portions of the end members of the rear bed section, and studs carried by said links and adapted to support the rear portion of the rear bed section in the folded condition of the structure.

2. In a structure of the character set forth, the combination of a main frame comprising end-standards having legs and a surmounting cross member, longitudinal bars joining said legs and braced thereto, an intermediate bed section having end members securely joined pivotally to the front portions of said end-standards beneath said cross members, a front bed section having arms pivotally connected with the end members of the intermediate bed section, a rear bed section having arms pivotally joined at their front ends to the end members of the intermediate bed section, forwardly and upwardly inclined links pivotally connected at their rear ends with the rear portions of said end-standards and pivotally connected at their front ends with the rear portions of the end members of the rear bed section, studs carried by said links and adapted to support the rear portion of the rear bed section in the folded condition of the structure, and stops carried by the rear portions of the upper parts of said end-standards and adapted to support the swinging edge portion of the front bed section in inverted position.

1,074,938. WINDOW-SCREEN. RICHARD S. FOSTER, New York, N. Y. Filed Oct. 26, 1911. Serial No. 656,914. (Cl. 20—40.)

1. The combination with a vision obstructing screen, of a support hinged to each end thereof in position to fold flat over the face and within the area of said screen and into rigid engagement with the back so as to assume a position transversely thereof, and casement-engaging members carried by the support.



2. The combination with a screen, of a support therefor comprising a pair of laterally-extending members in pivotal connection with the screen, linkage after the analogy of a toggle connecting such members, a guide for the pivot connecting the links together, and a compression-spring located in the guide and engaging the toggle for forcing the said members apart.

3. The combination with a screen, of a support at the end thereof comprising a pair of laterally-extending members, a pair of links pivoted to said members and to each other, a guide for the pivot connecting the links, said pivot being in the form of a set screw.

4. A window screen, a pair of laterally directed supports movably carried thereby, and grooved casement-engaging members mounted upon supports for seating in the sash ways of the casement and affording a seat for a screen frame.

5. The combination with a window screen, of a pair of supports carried thereby, each comprising a pair of laterally-extending members and links connecting the members of each pair so that when said members are in position upon the casement and the said members are caused to move one toward the other, the lower edge of the screen will be lowered, and when said members are caused to recede one from the other, the lower portion of the screen will be raised, whereby when the screen is in position and the window is at its position of maximum opening, there will be a minimum of lap of the screen over the window and the window sill, and when the window is at its minimum of opening there will be the maximum amount of lap over the sash and the sill.

[Claim 6 not printed in the Gazette.]

1,074,939. ATTACHMENT FOR VIOLIN-PLAYERS. CARL F. FREDRIKSON, Chicago, Ill. Filed May 17, 1912. Serial No. 697,907. (Cl. 46—69.)

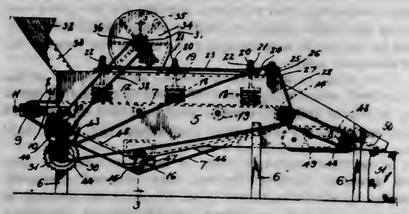


1. A device for violin players comprising a leather felt lined band; a plurality of elongated weights secured at

their ends to said band and having recesses in their inner sides, and a strap extending through said recesses for securing said band to the wrist portion upon the arm of a player, substantially as described.

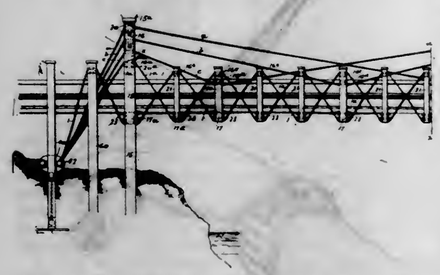
2. A device for violin players comprising a flexible band having a transverse slot therein; a plurality of weights secured to said band and having recesses in their inner sides, said recesses forming a channel; a strap connected to one end of said band and passing through said transverse slot and through said channel; and a buckle connected to the other end of said band and adapted for engagement with the free end of said strap, substantially as described.

1,074,940. NUT-CLEANING MACHINE. STEPHEN A. FREER, El Monte, Cal. Filed Jan. 23, 1912. Serial No. 672,913. (Cl. 146—14.)



A nut cleaning device, comprising a housing, an endless conveyer supported therein, said conveyer formed of a flexible metallic structure provided with transverse bars adapted to embrace and support a nut in operative position thereon, a hopper for delivering nuts to said conveyer, a plurality of pivotally mounted brushes adapted to oscillate in the path of said conveyer and frictionally engage said nuts, a plurality of rolls mounted in the path of and supporting said conveyer intermediate of said brushes whereby the nuts are lifted from engagement with the conveyer and turned to be engaged on their opposite surfaces by the next succeeding brush, a fan connected to said housing, a discharge belt to receive the nuts as they are cleaned, a hopper to receive the material brushed from the nuts, and means to drive said conveyer and fan, and reciprocate said brushes simultaneously.

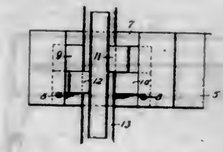
1,074,941. BRIDGE CONSTRUCTION. HOWARD FRIEND, Lexington, Okla., assignor of one-half to Edgar J. Keller, Lexington, Okla. Filed Dec. 21, 1908. Serial No. 468,552. (Cl. 14—191.)



1. In a suspension bridge of the character described, the combination with the end tower posts, the primary and the secondary intermediate posts; of a plurality of main suspension cables independently supported from the end towers, each of which cables supports one of said primary intermediate posts, other cables engaging said end tower posts that also engage the upper and lower ends of all of the intermediate posts, their connection with the lower ends of said intermediate posts being movable for equalizing the expansion and contraction of said other cables.

2. In a suspension bridge of the character described, the combination with the end tower posts, the primary and the secondary intermediate posts, the supplemental cables that engage the end tower posts and that sustain the intermediate tower posts, and vertically movable bearings in the lower ends of the main tower posts and the intermediate posts under which the supplemental cables pass and engage; of saddle blocks fixedly held on the primary intermediate posts between the upper and lower ends thereof, saddle blocks fixedly held in the upper ends of the end tower posts, a plurality of main cables that engage the blocks in the end tower posts and pass under the fixedly held saddle blocks on the primary intermediate posts, and means for anchoring the ends of all of said cables.

1,074,942. RAILWAY-TIE AND RAIL-FASTENER. EDWARD W. GATES, Roanoke, Va. Filed Mar. 18, 1913. Serial No. 755,177. (Cl. 238—5.)



1. The combination with a railway tie provided at each end with a transverse rail-receiving recess each of which is undercut at its sides, of a rail fastener at each recess consisting of a pair of plates each of which plates extends across the recess in position to support the rail and is firmly secured at its ends in said undercuts at opposite sides of the rail and each plate being provided with an upwardly extending clip and the said clips of each pair of plates facing one another to firmly engage the opposite base flanges of a rail, and means substantially as described for holding each pair of plates in place in its respective recess.

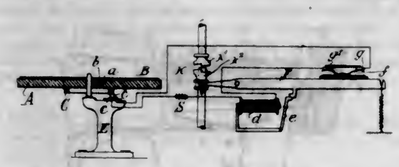
2. The combination with a railway tie provided with a transverse undercut recess at each rail location each recess having a ledge extending across it at one edge of the tie, of a rail fastener for each recess consisting of two plates fitted to slide laterally into said recess and extending across the recess with the ends thereof in the opposite undercut portions and each having an upwardly extending clip adapted to receive the flange of a railway rail, the clips of each pair of plates being arranged at opposite sides of the recess and the plates adapted to support the rail between the clips, and a vertically removable screw bolt traversing each recess at the side of the plates opposite said ledge for holding said plates in place.

3. A railway tie provided at its ends with transversely extending undercut recesses obstructed at one edge of the tie by a ledge extending across the recess and provided at the other edge with vertical holes in the portions overhanging the sides of the recesses through which holes securing devices may be passed to obstruct the recess at that edge of the tie, each said recess being adapted to receive the base of a railway rail and a pair of clip-bearing plates, for holding the rail in place.

1,074,943. AUTOMATIC CLUTCH RUNNING KINEMATOGRAPHS AND PHONOGRAPHS SYNCHRONOUSLY. LÉON GAUMONT, Paris, France, assignor to Société des Etablissements Gaumont, Paris, France. Filed Mar. 14, 1911. Serial No. 614,429. (Cl. 88—16.2.)

1. In a device of the character described, the combination of a clutch adapted to lock a kinematograph mechanism against operation, and means controlling the operation of said clutch to release said kinematograph mechanism comprising an electric circuit, an electro-magnet in said circuit, and a talking machine having a record carrier and a device upon said carrier for closing said electric circuit.

2. In a device of the character described, the combination of a clutch adapted to lock a kinematograph mechanism against operation, and means controlling the operation of said clutch to release said kinematograph mechanism comprising an electric circuit, an electro-magnet in said circuit, and a talking machine having a record carrier, means upon said carrier for indicating the position for a sound record thereon, and a device upon said carrier for closing said electric circuit.

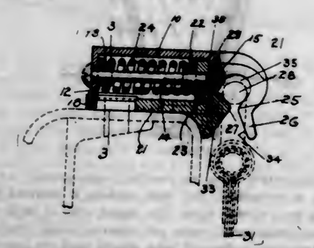


3. In a device of the character described, the combination of a clutch adapted to lock a kinematograph mechanism against operation, and means controlling the operation of said clutch to release said kinematograph mechanism comprising an electric circuit, an electro-magnet in said circuit, and a talking machine having a record carrier, a sound record upon said carrier, means upon said carrier and sound record for securing a position of said sound record upon said carrier with relation to a particular point upon said sound record, and a device upon said carrier bearing a determined relation to said indicating means for closing said electric circuit.

4. In a device of the character described, the combination of a clutch adapted to lock a kinematographic mechanism against operation and means controlling the operation of said clutch to release said kinematograph mechanism comprising an electric circuit, an electro-magnet in said circuit, and a talking machine having a record carrier and a sound record upon said carrier, and having means for securing a predetermined position of said sound record upon said record carrier, said means being opposite the beginning of the sound undulations of said sound record, and means for closing said electric circuit.

5. In a device of the character described, the combination of a clutch adapted to lock a kinematographic mechanism against operation and means controlling the operation of said clutch to release said kinematograph mechanism comprising an electric circuit, an electro-magnet in said circuit, and a talking machine having a record carrier and a sound record upon said carrier, and having means for securing a predetermined position of said sound record upon said record carrier, and means for closing said electric circuit, said means being opposite the beginning of the sound undulations of said sound-record.

1,074,944. VESTIBULE-CURTAIN FASTENER. WILLIAM R. GEESEY, Altoona, Pa. Filed Apr. 2, 1912. Serial No. 688,109. (Cl. 105—266.)

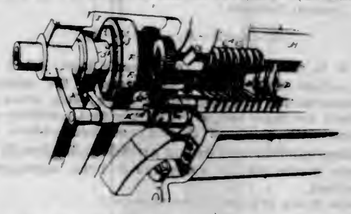


1. A vestibule curtain fastener, comprising a base member having a guideway and an upstanding lug provided with an opening, a casing member having end walls one of which has a hole, and the other of which has a screw threaded socket, a hook having a shoulder formed integral with the casing, a pendent guide projection also carried by the casing member and adapted to slide in the guideway in the base member, a pin adapted to hold the casing and base members slidably together, and a spring for holding the said sections in operative relation.

2. A vestibule curtain fastener, comprising a base member and a casing member, said base member having a guideway, an upstanding lug having an opening, and further provided with an outwardly projecting keeper shoulder, the said casing member having end walls one of which is provided with a hole and the other with a threaded socket, a pendent guide member on the casing adapted to slide in the guideway, a shouldered hook integral with the casing and cooperating with the keeper shoulder on the base member to form a closure, a pin adapted to be screwed into the threaded socket on the casing member and slidably pass through the opening on the lug on the base member to slidably hold the base and casing members together, and spring means for cushioning the sliding members.

3. A vestibule curtain fastener, comprising a base member having a guideway and provided with attaching means, a fastening receiving lug on said member, a fastening element, a casing member including a hook, and provided with guide means, said casing member adapted to be detachably and slidably connected to the base member by said fastening element being inserted through the said fastening receiving lug, and spring means for holding the casing section in an operative position.

1,074,945. MATRIX-DISTRIBUTING MECHANISM. RALPH M. GROVE, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 20, 1911. Serial No. 667,881. (Cl. 199—7.)



1. In a distributing mechanism, a feed screw fixed against end motion, a driving gear connected to the screw to turn and move laterally thereon to a limited extent, and a stop device actuated by the lateral motion of the gear.

2. The distributer screw, the driving gear mounted to move spirally in relation to the screw, a clutch controlling member actuated by the lateral movement of the gear, and a spring tending to resist the independent movement of the gear, whereby resistance to the rotation of the screw is caused to move the gear and trip the clutch.

3. The distributer screw and the laterally movable gear connected thereto by the slot and pin, in combination with the driving clutch and the clutch-releasing devices actuated by the side motion of the gear.

4. In a distributing mechanism, a feed screw and driving connections therefor, said connections including two connected gears one arranged to rotate and move laterally in relation to the other, and a spring tending to resist said relative lateral movement.

5. In combination, the screw, the gear thereon, the spiral connection between said parts, the driving clutch connected with the gear, the rock shaft having the arm to throw the clutch out of action, the latch to hold the rock shaft, and spring connections tending to hold the parts in normal operative positions.

[Claims 6 to 16 not printed in the Gazette.]

1,074,946. AZO DYE. PETER HAUPTMANN, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Apr. 30, 1912. Serial No. 694,255. (Cl. 8—1.)

1. As new products, basic disazo dyestuffs containing 2.4-dioxyquinolin as end component, which dyestuffs after

being dried and pulverized are from red to brown powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly red to brown shades fast to water and to light, substantially as described.

2. As new products, basic disazo dyestuffs containing 2.4-dioxyquinolin as one end component, and the radical of an aromatic base as the other end component, which dyestuffs after being dried and pulverized are from red to brown powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly red to brown shades fast to water and to light, substantially as described.

3. As new products, basic disazo dyestuffs containing 2.4-dioxyquinolin as one end component, and the radical of benzylpyridin as the other end component, which dyestuffs after being dried and pulverized are from red to brown powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly red to brown shades fast to water and to light, substantially as described.

4. As new products, basic disazo dyestuffs containing 2.4-dioxyquinolin as one end component, and the radical of benzylpyridin as the other end component, which dyestuffs after being dried and pulverized are from red to brown powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly red to brown shades fast to water and to light, substantially as described.

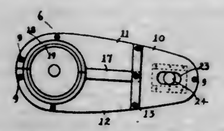
5. As a new product the basic azo dyestuffs containing 2.4-dioxyquinolin as end component, and having the following general formula:

"$R-N=N-R_1-N=N-R_2$."

where R is the radical of an aromatic base, R_1 an aromatic nucleus of the benzene series, and R_2 the radical of 2.4-dioxyquinolin, which dyestuffs after being dried and pulverized are from red to brown powders, yielding upon reduction with stannous chlorid and hydrochloric acid aminodioxyquinolin and dyeing artificial silk directly red to brown shades fast to water and to light, substantially as described.

[Claim 6 not printed in the Gazette.]

1,074,947. CHAIN-CASING FOR AUTOMOBILES. HARRY C. HEATH, San Francisco, Cal. Filed July 24, 1912. Serial No. 711,346. (Cl. 74—56.)



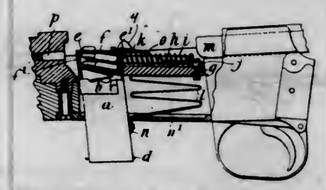
1. A chain casing for automobiles comprising a main housing having one open side, side plates for said housing to close the open side thereof, and means for removably securing said plates to the main housing, substantially as described.

2. A chain casing for automobiles comprising a sheet metal main housing, a removable side therefor formed in three parts, means to secure said parts to the main housing and to each other, and a brace connected with the opposite edges of the main housing and along which the three plates abut, substantially as described.

3. A chain casing for automobiles comprising a sheet metal casing having one side open, three plates forming a closure for the open side of said housing and secured thereto, and a packing ring carried by two of said plates to prevent the escape of lubricant from said housing, substantially as described.

4. A chain casing for automobiles comprising a sheet metal main housing having one side open, plates secured to the open side of said housing and forming a closure therefor, a packing ring carried by said plates, a sprocket wheel within the housing, and rings carried by the sprocket wheel to coöperate with the packing ring to prevent the escape of lubricant from the housing, substantially as described.

1,074,948. MAGAZINE FOR MINIATURE AMMUNITION FOR RIFLES. ERNEST JAMES HISCOCK, Hythe, England. Filed Dec. 30, 1912. Serial No. 739,367. (Cl. 42—18.)



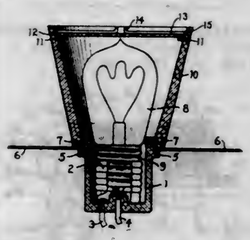
1. A magazine for miniature ammunition for a converted bolt rifle provided with a plunger for pushing the cartridges from the magazine designed to be operated by the bolt and adapted to be depressed to allow the bolt to pass over it, substantially as described.

2. In a magazine for miniature ammunition for converted bolt rifles the combination with a case or chamber for containing the ammunition, of a body part fixed to the said case, a plunger sliding in the body part and designed to be acted upon by the bolt of the rifle for pushing the uppermost cartridge through the case, a spring for supporting the body and case and means whereby the bolt of the rifle when pushed forward will push in the said plunger and depress the magazine, substantially as, and for the purpose, described.

3. A magazine for attachment to bolt rifles converted for use with miniature ammunition, comprising a case for containing the cartridges, a spring supported body-part fixed to the said case, a spring plunger adapted to pass through the top of the case and an inclined part to engage the breech-bolt to depress the magazine, after the cartridge has been forced out by the plunger, substantially as described.

4. The combination with a magazine for attachment to bolt rifles converted for use with miniature ammunition of a lug on the magazine designed to eject the empty cartridge case when the bolt is withdrawn, substantially as described.

1,074,949. ELECTRIC LAMP. ALBERT G. HOBAN and RALPH L. MARQUIS, Dayton, Ohio. Filed Dec. 10, 1912. Serial No. 735,927. (Cl. 240—92.)



1. In an electric sign, an electric lamp socket, an electric lamp, a receptacle for said socket, a conical shield adapted to be screwed upon the upper end of said receptacle to surround said lamp, an annular ledge projecting from the interior surface of said shield near its outer end, a colored glass resting upon said ledge to color the light emitted by the lamp, and a split ring the outer circumferential portion of which rests within an annular recess in the shield and the inner circumferential portion of which bears upon the glass to hold the latter firmly upon the ledge, substantially as described.

2. In an electric sign, an electric lamp, an electric lamp socket, a receptacle in which said socket is inclosed, a supporting plate, an aperture in said plate to receive the receptacle, an annular flange projecting from the upper, outer surface of said receptacle and adapted to bear against the plate, said receptacle having a circumferential threaded portion above said flange, said threaded portion extending beyond the plate when the flange is in contact with it, a conical shield surrounding said lamp, said shield having its end of smallest diameter threaded to receive the threaded portion of said receptacle, and a removable colored glass disposed in the outer end of said shield to color the light emitted by the lamp, substantially as described.

1,074,950. CULTIVATOR. HENRY C. HOWELL, Speermoore, Okla. Filed Apr. 16, 1913. Serial No. 761,543. (Cl. 97—31.)



1. A cultivator of the class described comprising a frame consisting of a pair of runners, front and rear arches secured to said runners, side straps secured at their forward ends to the forward ends of the runners and inclined upwardly toward their rear ends to be secured to the rear arch, the free ends of said straps being designed to form bearings, a shaft mounted for partial rotation in said bearing, cultivating mechanisms mounted in connection with said shaft, and means for manually actuating said shaft.

2. In a cultivator, a frame comprising a pair of runners, front and rear arch members, each consisting of angular plates secured to the inner and outer faces of the runners, and bracing plates adjustably secured to the upper portions of said pairs of angular plates, side straps secured to the forward ends of said runners and inclined upwardly toward their rear ends to be secured to the rear arch member, the rear ends of said straps extending beyond the rear arch designed to form bearings, a shaft mounted for partial rotation in said bearings, cultivating mechanisms in connection with said shaft, and means for the manual actuation of said shaft.

1,074,951. SIDE PLANE FOR BOATS. JOHN D. HUNT, Jr., Alexandria Bay, N. Y. Filed Oct. 1, 1912. Serial No. 723,340. (Cl. 114—66.5.)



1. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs decreasing in depth from rear to front.

2. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of said plane, and a bottom plate covering said ribs and grooves forming air and water pockets between said plates.

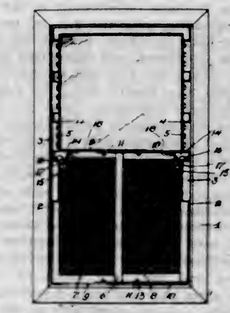
3. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of said plane, and a bottom plate covering said ribs and grooves forming air and water pockets between said plates, said pockets being open at their rear ends.

4. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of such plane, a bottom plate covering said ribs and grooves forming air and water pockets between said plates, and openings through said upper plates and communicating with said pockets.

5. A side plane for boats comprising a horizontally disposed plate extending out from the boat hull, said plate having a flat upper surface and having its lower surface provided with ribs forming grooves between the same, said ribs tapering toward the rear end of such plane, a bottom plate covering said ribs and grooves forming air and water pockets between said plates, said pockets being open at their rear ends, and openings through said upper plates and communicating with said pockets.

[Claims 6 to 14 not printed in the Gazette.]

1,074,952. WINDOW-SCREEN. PAUL ILLES, Cleveland, Ohio. Filed Oct. 11, 1912. Serial No. 725,142. (Cl. 156—38.)

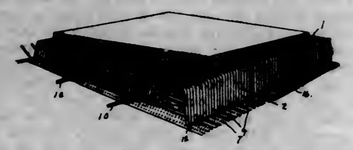


1. In combination a pair of oppositely disposed channel-shaped guides adapted to be secured to a window frame and provided with stops, a screen formed of adjustable sections and extending into said guides, means arranged at the top and bottom of said sections for adjustably connecting the sections together, each of said sections at its upper end enlarged to provide bearing plates, and spring pressed pawls carried by said bearing plates and adapted to engage the stops of said guides for supporting said screen when vertically adjusted.

2. In combination a pair of oppositely disposed channel-shaped guides adapted to be secured to a window frame and provided with notches and stops, a vertically movable screen extending into said guides and having each upper corner enlarged to provide a bearing plate, spring pressed pawls pivotally connected to said bearing plates and adapted to engage in said notches and further engaging said notches for supporting the screen when adjusted vertically, and handles carried by said pawls to facilitate the shifting thereof to release the screen.

3. In combination a pair of oppositely disposed channel-shaped guides provided with apertured lugs for the passage of holdfast devices to secure the guides to a window frame, each of said guides in proximity to certain of its lugs provided with stops and between the stops and lugs formed with notches, a screen slidably mounted in said guides formed of a pair of adjustable sections, said screens extending into said guides, each of said sections at its top formed with an enlargement to constitute a bearing, and spring pressed pawls carried by the bearings and adapted to engage in the notches or the stops for supporting the screen in vertically adjustable position.

1,074,953. CONCRETE FLOOR CONSTRUCTION. JULIUS KAHN, Detroit, Mich., assignor to Trussed Concrete Steel Company, Detroit, Mich., a Corporation of Michigan. Filed Jan. 5, 1912. Serial No. 669,627. (Cl. 72—70.)



1. In a concrete floor construction, the combination of reticulated metal-lath, a series of sheet-metal forms lying parallel to each other on the lath and having serrated lower edges which serrations engage in and interlock with the meshes of the lath, reinforcing bars in the spaces between the forms, and concrete extending over the molds to form a slab and between the forms to form joists.

2. In a concrete floor construction, the combination of reticulated ribbed-metal-lath, a series of sheet-metal forms comprising transversely corrugated sides and tops and having serrated lower edges engaging and interlocking with the meshes of the lath, said forms lying parallel to each other on the lath transversely to the ribs of the lath, concrete extending over the tops of the forms and into the spaces between them, reinforcing bars in the concrete between the forms, and supporting wires extending through the ribs of the lath and up into the concrete.

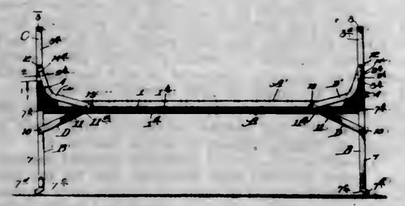
3. In a concrete floor construction, the combination of reticulated metal-lath extending over the area to be spanned, a series of sheet-metal molds formed with transversely corrugated sides and tops lying parallel to each other on the lath and having their lower edges formed with teeth to engage in and interlock with the meshes of the lath, caps extending over the ends of the forms and formed with transversely corrugated tops, ends and sides, concrete extending over and between said forms, and reinforcing bars in the concrete between said forms.

4. Sheet-metal floor molds consisting of transversely corrugated sides and tops, the metal at the lines of juncture of the sides and tops being forced outward from the bottoms of the concave parts to form lines of stiffening ribs.

5. Sheet-metal floor molds consisting of transversely corrugated sides and tops reinforced by integral lines of stiffening ribs at the lines of juncture of the sides and tops.

[Claims 6 to 8 not printed in the Gazette.]

1,074,954. FOLDING COT. MARTIN S. KARPEN, Chicago, Ill. Filed Apr. 24, 1913. Serial No. 763,302. (Cl. 5—9.)

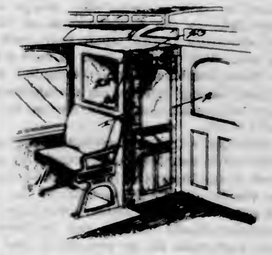


1. In a structure of the character set forth, the combination of a bed-frame, folding standards mounted on the end portions thereof, folding legs connected with the end portions of said frame, links pivotally connected with said legs and slidably connected with the side members of said frame, and elbow-links pivotally connected with said standards and with the inner ends of said first named links.

2. In a structure of the character set forth, the combination of a bed-frame, standards foldably mounted on the end portions thereof, legs foldably connected with the end portions of said frame, link mechanism connecting said standards, frame and legs, whereby the legs will be automatically actuated in the operations of folding and unfolding the standards, locking plungers mounted on the bed-frame, and cam devices on the folding standards adapted to retract the locking plungers in the operation of unfolding the structure.

3. In a structure of the character set forth, the combination of a bed-frame equipped at its corners with upwardly projecting members, standards pivotally connected with said members, said standards and said members provided with locking perforations adapted to register in the extended position of the structure, locking plungers mounted on the bed-frame and co-acting with said locking perforations, legs pivotally connected with the corner portions of the bed-frame, links pivotally connected with said legs and slidably connected with said bed-frame, and links pivotally connected with said standards and with said first-named links.

1,074,955. SIGNAL-LOCK. DAN J. KAVANAGH, New Martinsville, W. Va. Filed Apr. 25, 1912. Serial No. 693,150. (Cl. 40—66.)



A signaling device of the character described comprising in combination with a casing and a bracket plate arranged in spaced relation to said casing; bearing sleeves upon said casing and bracket plate respectively, a tubular housing seated at its ends in said bearing sleeves, a rod longitudinally movable through said housing and sleeves, a second bearing sleeve formed upon the bracket plate, a shaft mounted to rotate therein and provided with a signaling semaphore on one of its ends, a spring to yieldingly hold said shaft against rotation, means connecting the opposite end of said shaft to one end of the longitudinally movable rod, an operating lever fulcrumed adjacent one of its ends within said casing, and a connection between said lever and the other end of said rod to move said rod and rotate the semaphore-carrying shaft, substantially as and for the purpose specified.

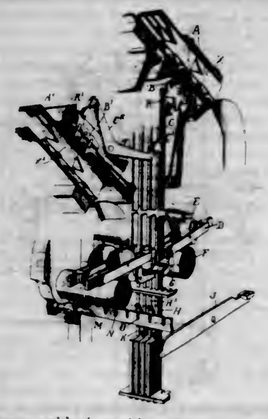
1,074,956. TYPOGRAPHICAL MACHINE. DAVID S. KENNEDY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 22, 1913. Serial No. 743,475. (Cl. 199—7.)

1. In a typographical machine, the combination of a plurality of magazines for the type or matrices, and means whereby at a single operation type or matrices may be delivered in one quantity from one of the magazines or in another quantity from another of the magazines, at will.

2. In a typographical machine, the combination of two magazines for the type or matrices, and means whereby type or matrices may be delivered either conjointly from one of the magazines or singly from the other, at will.

3. In a typographical machine, the combination of a plurality of magazines each provided with escapements, common actuating devices therefor, and means whereby

the said devices may be adapted to actuate either one number of escapements in one magazine or a different number of escapements in another magazine, at will.

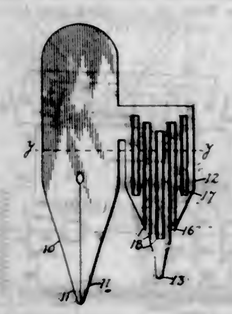


4. In a typographical machine, the combination of two magazines each provided with escapements, common actuating devices therefor, and means whereby the said devices may be adapted to actuate either pluralities of escapements conjointly in one of the magazines or single escapements individually in the other magazine, at will.

5. In a typographical machine, the combination of a plurality of magazines for the type or matrices, each provided with escapements and locking means to hold said escapements out of action, actuating devices for said escapements, and means to connect said actuating devices together when the escapements of a selected magazine are in action; whereby the type or matrices may be delivered in one quantity from one of the magazines or in another quantity from another of the magazines, at will

[Claims 6 to 8 not printed in the Gazette.]

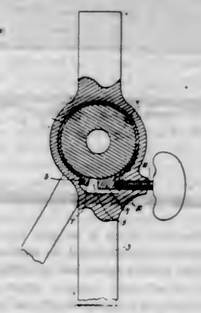
1,074,957. WRITING-PEN. EVERETT H. KETCHUM, Jamestown, N. Y. Filed Jan. 10, 1913. Serial No. 741,162. (Cl. 120—115.)



1. In a pen of the class described, the combination with the pen of a fountain portion attached thereto, a plurality of parallel open-ended and closed slots extending lengthwise of said fountain portion, said slots having burs along the sides of said slots and on the inner side of said fountain portion to support said fountain portion at a spaced distance from said pen to form ink passages therebetween.

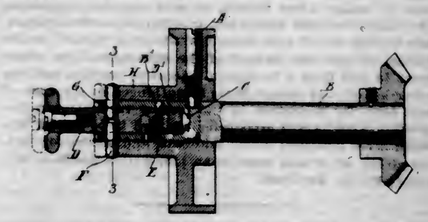
2. In a pen of the character described, the combination of a wing portion bent from side of said pen, a feeding point on said inner portion of said pen, a spaced distance from the writing point of said pen; said wing portion having a plurality of slots, irregular burs on the sides of said slots and adjacent to said pen to form seeping channels therebetween for the ink and to hold said wing portion at a spaced distance from said pen.

1,074,958. LOCK-JOINT FOR WIND-SHIELDS. ALEXIS KRAH, New Haven, Conn., assignor to The English and Mersick Co., New Haven, Conn., a Corporation. Filed Apr. 19, 1913. Serial No. 762,253. (Cl. 21—148.)



A lock joint comprising a casing having a circular chamber and a recess opening out of said chamber, a hub located in said chamber than which it is smaller in diameter, a spring band surrounding the hub, said band provided at opposite ends respectively with a hook-lug and a bearing-lug extending into said recess, and a screw entering the recess in line with said bearing-lug, the inner end of the screw bearing against said bearing-lug whereby said band may be contracted.

1,074,959. CLUTCH MECHANISM. JULIUS W. KREILING, Chicago, Ill., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Feb. 19, 1913. Serial No. 749,339. (Cl. 192—9.)



1. The clutch member comprising in combination two relatively-adjustable parts, one of said parts being provided with a transverse rotatably-mounted coupling pin.

2. The clutch member comprising in combination two relatively-adjustable parts, one of said parts being provided with a transverse rotatably-mounted cylindrical coupling pin, and the other part being formed so as to be engaged and actuated by said pin.

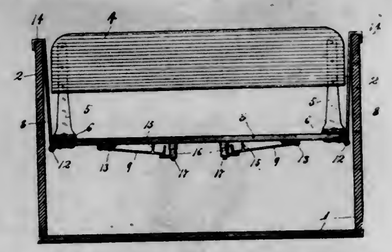
3. The clutch mechanism comprising in combination, the adjustable element D provided with the transverse rotatably-mounted coupling pin F, and the member A formed with the shoulders J adapted to be engaged by said pin.

4. The clutch mechanism comprising in combination, the shaft B, the longitudinally-adjustable element D, the transverse rotatably-mounted coupling pin F carried thereby, and the member A formed with the shoulders J adapted to be engaged by said pin.

5. The clutch mechanism comprising in combination, the shaft B formed with the recess C and the notches G, the longitudinally-adjustable element D mounted in said recess, the transverse rotatably-mounted pin F carried by

the element D and having its ends located in said notches, and the member A formed with the shoulders J adapted to be engaged by said pin.

1,074,960. WAGON-SEAT. LOUIS A. LARSON, Osakis, Minn. Filed Apr. 12, 1913. Serial No. 760,638. (Cl. 21—42.)



1. The combination with a wagon box, of a seat, and two sets of hanger arms secured to said seat for supporting the same from said wagon box in different vertical adjustments, one set of said hanger arms being hinged to the bottom of said seat, inward of the ends thereof, for movement to and from a horizontal operative position and the other set of said hanger arms being hinged to the ends of said seat, for movement to and from a vertical operative position, substantially as described.

2. The combination with a wagon box, of a seat, two sets of hanger arms secured to said seat for supporting the same from said wagon box in different vertical adjustments, one set of said hanger arms being hinged to the bottom of said seat, inward of the ends thereof, for movement to and from a horizontal operative position and the other set of said hanger arms being hinged to the ends of said seat, for movement to and from a vertical operative position, and means for locking either set of said arms in an inoperative position, substantially as described.

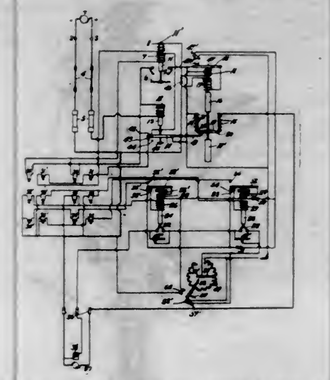
3. The combination with a wagon box, of a seat, two sets of hanger arms secured to said seat for supporting the same from said wagon box in different vertical adjustments, one set of said hanger arms being hinged to the bottom of said seat, inward of the ends thereof, for movement to and from a horizontal operative position and the other set of said hanger arms being hinged to the ends of said seat, for movement to and from a vertical operative position, said hanger arms being adapted to be turned into inoperative positions under said seat, and means for locking either set of said arms in an inoperative position, substantially as described.

1,074,961. MOTOR-CONTROLLING MEANS. HARRY WARD LEONARD, Bronxville, N. Y. Filed July 22, 1907. Serial No. 384,989. (Cl. 172—179.)

1. An electric motor having a field winding energized independently of its armature current, electro-magnetic means for controlling the variation of current in said field winding, said means comprising a plurality of independently movable resistance controlling members, and two controlling devices for controlling said means to cause increase and decrease of current in said field winding respectively.

2. An electric motor having a field winding energized independently of its armature current, a plurality of steps of resistance in series with said field winding, electromagnetic switches for controlling each of said resistances respectively, and means for selectively controlling said switches.

3. A motor having a field winding energized independently of its armature current, an automatic switch adapted to establish both the armature and the field circuit of the motor, means for controlling the current in the armature circuit, an electro-magnetic device for controlling the current in said field winding separately from said armature controlling means, and two contact devices for controlling said electro-magnetic device to cause increase and decrease of current in said field winding respectively.

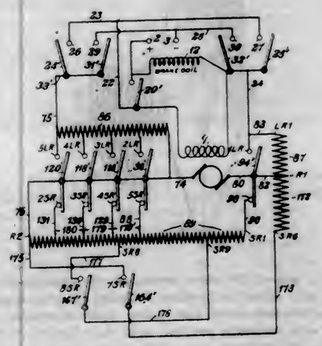


4. A dynamo electric machine having a field winding energized independently of its armature current, a plurality of steps of resistance in series with said field winding, a plurality of coöperating electro-magnetic switches controlling said resistances respectively, and means for selectively controlling said switches.

5. The combination of an electric motor having a field winding energized independently of its armature current, a main switch and a resistance controlling contact device in series with each other and with the motor armature, said device having a movable element adapted to successively control a plurality of contacts, said switch and device each having two electroresponsive windings for controlling their movement, one of said windings in each case being for moving the movable element and the other of said windings being for holding said element.

[Claims 6 to 25 not printed in the Gazette.]

1,074,962. AUTOMATIC CIRCUIT-CONTROLLING SYSTEM FOR ELECTRIC ELEVATORS AND THE LIKE. NILS O. LINDSTROM, Nutley, N. J., assignor to Alonzo B. See, New York, N. Y. Filed Oct. 18, 1911. Serial No. 655,341. (Cl. 172—152.)



1. An electric control system comprising a motor, means to supply current thereto, connections with said motor constituting a dynamic brake circuit, means for substantially immediately removing the dynamic brake as a whole, and automatic means for gradually applying said dynamic brake while said motor is still adapted to receive current.

2. An electric control system comprising a motor, means to supply current thereto, connections with said motor constituting a dynamic brake circuit, said connections including a plurality of resistances, means for substantially immediately removing the dynamic brake as a whole after starting, and automatic means for gradually applying said dynamic brake while said motor is still adapted to receive current, said automatic means including switches adapted to cut said resistances successively out of said circuit.

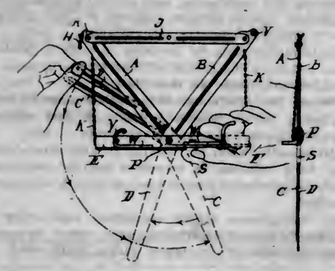
3. An electric elevator control system comprising a motor, connections with said motor constituting a dynamic brake circuit, automatic means for substantially immediately removing the dynamic brake as a whole, a line resistance in circuit with said motor, said means also being adapted to cut out said line resistance from said motor circuit and automatic means for gradually applying said dynamic brake when slowing down.

4. An electric elevator control system comprising a motor, connections with said motor constituting a dynamic brake circuit, means for substantially immediately removing the dynamic brake as a whole, an electro-magnetic appliance and connections thereto for controlling said dynamic brake removing means, a line resistance in circuit with said motor, said means also being adapted to cut out said line resistance from said motor circuit, and automatic means for gradually applying said dynamic brake when slowing down.

5. An electric elevator control system comprising a motor, connections with said motor constituting a dynamic brake circuit, means for substantially immediately removing the dynamic brake as a whole, an electro-magnetic appliance and connections thereto for controlling said dynamic brake removing means, a line resistance in circuit with said motor, said means also being adapted to cut out said line resistance from said motor circuit, automatic means for gradually applying said dynamic brake when slowing down, and means co-acting with said automatic means for gradually introducing line resistance when slowing down.

[Claims 6 to 28 not printed in the Gazette]

1,074,963. PORTABLE REST FOR CARRYING BOOKS, PAPERS, AND THE LIKE. DALE MARSHALL, Cheltenham, England. Filed Feb. 15, 1912. Serial No. 677,880. (Cl. 45—59.)



1. The combination, in a folding writing or reading rest to be supported and carried by the user, with several strips pivoted at a common center, of means for locking two of the strips in extended position, of means for attaching at the outer extremities of these two strips a cord to be carried over the user's shoulders, of means for connecting to the said two strips other two strips departing from the common center and angular in form to constitute a ledge, and of two struts pivoted at the common center and splayed apart to be rested against the user's body, substantially as described and for the purpose specified.

2. The combination, in a folding writing or reading rest to be supported and carried by the user, with several strips pivoted at a common center, of means for locking two of the strips in extended position, of telescopically extensible parts on these two strips, of means for attaching at the outer extremities of these two strips a cord to be carried over the user's shoulders, of means for connecting to the said two strips other two strips departing from the common center and angular in form to constitute a ledge, and of two struts pivoted at the common center and splayed apart to be rested against the user's body, substantially as described and for the purpose specified.

3. The combination, in a folding writing or reading rest to be supported and carried by the user, with several strips pivoted at a common center, of means for stiffening and locking two of the strips in extended position, of means for attaching at the outer extremities of these two strips a cord to be carried over the user's shoulders, of means for connecting to the said two strips other two strips departing from the common center and angular in form to constitute a ledge, and of two struts pivoted at the common center and splayed apart to be rested against the user's body, substantially as described and for the purpose specified.

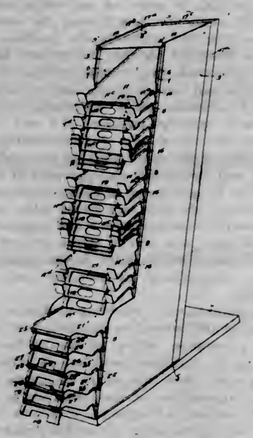
1,074,964. ACCOUNT-CABINET. BERT C. MAXWELL, Canton, Ohio. Filed Jan. 31, 1908. Serial No. 413,622. (Cl. 45—2.)

1. An apparatus of the class described, comprising a frame having side members, a series of superposed trays arranged between said side members, each tray pivotally connected to said side members by a pivot extending through said side members, and a back for the frame having forward extensions arranged to conceal from view the ends of said pivots.

2. An apparatus of the class described, comprising a frame having side members, each longitudinally grooved near its rear edge and having a longitudinal series of pivot apertures through said grooved portion, a series of superposed trays arranged between said side members, each tray carrying a pivot which extends at either end through one of said pivot apertures in the side frame member, and a back fitted to said side frame members and arranged to conceal from view the ends of said pivots extending therethrough.

3. In an apparatus of the class described, a series of superposed tiltably mounted trays, each tray having a bottom wall, a downward extending front section arranged to overlap the downward extending section of the tray beneath it, and upward extending sections at either side of said downward extending section, said upward extending sections arranged to overlap the corresponding sections of the tray above them in the series.

4. A sheet metal tray for an apparatus of the class described, having a bottom wall and a name display section, the latter being vertically scored near either side, and having its portions on the outside of said scored lines raised, and the portion between said scored lines depressed, the depression deepening from the bottom of said scored lines to the top thereof.



5. A sheet metal tray for an apparatus of the class described, having a bottom wall and a name display section, the latter being vertically scored near either side, and having its portions on the outside of said scored lines raised, and the portion between said scored lines depressed, and an opening through said depressed portion.

[Claim 6 not printed in the Gazette.]

1,074,965. EXTRACTOR AND CAPSULE SYRINGE. JOHN LOONER MCCLELLAN, Rockford, Wash. Filed Aug. 16, 1912. Serial No. 715,421. (Cl. 128—25.)



An extractor and capsule syringe comprising in combination, a cylindrical structure, a piston and piston rod for said cylindrical structure, a cap closing one end of said structure but permitting passage of said piston rod exteriorly of the latter, and a nozzle base for the other end of said cylindrical structure, including a cap portion, tubular extension having its duct in communication with the interior of said cylindrical structure, and a jacketing wall for said cap portion and tubular extension, adapted for the introduction of fluid thereabout, substantially as and for the purpose set forth.

1,074,966. ESTERS OF DIALKYLAMINOFORMIC ACID. GEORG MERLING, Elberfeld, and HUGO KÖHLER, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 16, 1912. Serial No. 726,065. (Cl. 23—24.)

1. As new products aryl esters of dialkylamino-formic acid having the formula

$$\begin{matrix} R' \\ R' \end{matrix}\!\!>\!N\!-\!COOR$$

in which R′ means alkyl and R an aryl group which are decomposed by saponification with caustic alkali into dialkyl amin, carbonic acid and a phenol.

2. As new products aryl esters of dimethyl amino-formic acid having the formula

$$\begin{matrix} CH_3 \\ CH_3 \end{matrix}\!\!>\!N\!-\!COOR$$

in which R means aryl which are decomposed by saponification with caustic alkali into dimethyl amin, carbonic acid and a phenol.

3. As new products the dialkylamino formic acid phenol esters having the formula

$$\begin{matrix} R' \\ R' \end{matrix}\!\!>\!N\!-\!COOC_6H_5$$

in which R′ means alkyl which are decomposed by saponification with caustic alkali into a dialkyl amin, carbon dioxid and phenol.

4. As a new product the dimethylamino formic acid phenyl ester having the formula

$$(CH_3)_2N\!-\!COOC_6H_5$$

which is decomposed by saponification with caustic alkali into dimethyl amin, carbon dioxid and phenol.

1,074,967. PROCESS OF PRODUCING BETA-METHYL-GAMMA-OXYBUTYLDIMETHYLAMIN. GEORG MERLING, Elberfeld, and HUGO KÖHLER, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 16, 1912. Serial No. 726,066. (Cl. 23—24.)

1. Process for producing beta-methyl-gamma-oxybutyl-dimethylamin, which process consists in first converting beta-acetyl-trimethylenetetramethyldiamin into beta-acetylallyldimethylamin by treating it with a dilute acid and then reducing the beta-acetyl-allyl-dimethylamin thus produced, substantially as described.

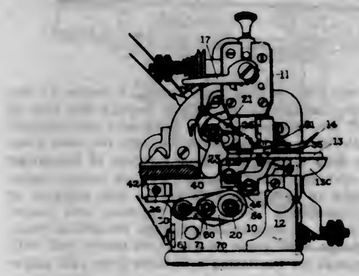
2. Process for producing beta-methyl-gamma-oxybutyl-dimethylamin, which process consists in first converting beta-acetyl-trimethylenetetramethyldiamin into beta-acetylallyldimethylamin by treating it with dilute sulfuric acid and then reducing by means of sodium amalgam the beta-acetyl-allyl-dimethylamin thus produced, substantially as described.

3. The sub-process which comprises converting beta-acetyl-trimethylenetetramethyl-diamin into beta-acetyl-allyl-dimethylamin by treating it with a dilute acid.

1,074,968. FEEDING MECHANISM FOR SEWING-MACHINES. JOSEPH M. MERROW, Hartford, Conn. Filed Nov. 3, 1910. Serial No. 590,487. (Cl. 112—8.)

1. In combination, in a sewing machine, a differential feeding mechanism including two feed dogs one of which is provided with a tooth having a fabric engaging portion arranged reversely to the feeding teeth to engage and retard the fabric pushed forward by the companion feed dog, a presser foot coöperating with the feed dogs and means for actuating the said feed dogs.

2. In combination, in a sewing machine, a differential feeding mechanism including two feed dogs one of which is provided with a tooth having a fabric engaging portion arranged reversely to the feeding teeth to engage the goods fed thereto by the companion feed dog and facilitate the gathering or condensing thereof of the goods and also with a fabric engaging portion substantially corresponding to the feed teeth to assist in feeding the goods, a presser foot coöperating with the feed dogs, and means for actuating the feed dogs.



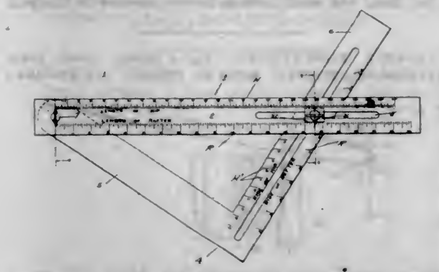
3. In combination in a sewing machine, a differential feeding mechanism including a plurality of feed dogs each having a feeding surface, a presser foot having a recessed sole with which the said feeding surfaces coöperate, means interposed between two of the feeding surfaces and partaking of the movements thereof and coöperating with the presser foot sole whereby the gathering or condensing of the goods is facilitated, and means for actuating the feed dogs.

4. In combination, in a sewing machine, a differential feeding mechanism including two feed dogs one arranged to retard the feeding action of the other, the retarding dog having a tooth having a fabric engaging edge arranged reversely with relation to the feeding teeth and a surface extending in a plane substantially parallel with the plane of movement of the goods, a presser foot coöperating with the feed dogs and means for actuating the feed dogs.

5. In combination, in a sewing machine, a differential feeding mechanism including two feed dogs one of which has a tooth provided with an edge at its forward end to engage the goods and retard the feeding action of the companion feed dog and with a similar edge at its opposite end to assist in feeding the goods, a flat surface intermediate the edges, a presser foot coöperating with the feed dogs and adapted to clamp the goods between itself and the flat surface, and means for actuating the feed dogs.

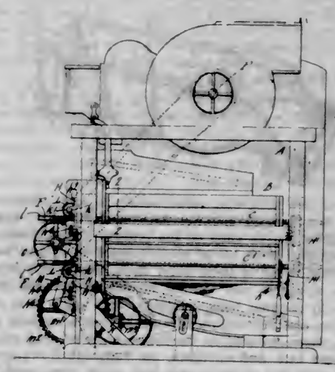
[Claims 6 to 11 not printed in the Gazette.]

1,074,969. COMBINED BEVEL AND SQUARE. WILLIAM MOORE, Irondale, Wash. Filed Jan. 31, 1910. Serial No. 541,178. (Cl. 73—80.)



A device of the character described comprising a square, a stock composed of companion side pieces receiving said square therebetween, said stock being pivoted at a fixed point to said square and provided with scales on one side starting from the fixed pivot point, the other blade of said square being formed with a longitudinal slot, the free end portion of said stock being formed with a longitudinal slot, blocks slidably engaged in the slots of the companion side pieces of said stock and carrying indicators associated with the graduations aforesaid, and a clamping bolt connecting said blocks and engaged in the slot of said square.

1,074,970. CLEANER FOR SEPARATOR-SCREENS. THEODORE F. MORSE, Silver Creek, N. Y., assignor to Huntley Manufacturing Company, Silver Creek, N. Y. Filed Dec. 26, 1911, Serial No. 667,597. Renewed Mar. 5, 1913. Serial No. 752,251. (Cl. 130—15.)



1. In a separator, the combination of a cleaner for the screens, comprising a plurality of brushes arranged in opposite parallel rows, a supporting shaft centrally located between said rows of brushes, means for pivotally securing said brushes to said shaft, and means for reciprocating said shaft, substantially as set forth.

2. In a separator, the combination of a cleaner for the screens comprising a plurality of brushes arranged in opposite parallel rows, means for connecting together the brushes for each row, a supporting shaft arranged centrally between the rows, means for pivotally securing said brush connecting means to said shaft, and means for reciprocating said shaft, substantially as set forth.

3. In a separator, the combination of a cleaner for the screens comprising a plurality of brushes arranged in opposite parallel rows, a connection for the brushes of each row to which the brushes of that row are independently pivoted to swing toward and from the screen, a supporting shaft arranged centrally between the rows, means for supporting said brush connections from said shaft, and means for reciprocating said shaft, substantially as set orth.

4. In a separator having oppositely inclined screens, the combination of a cleaner for the screens comprising a plurality of brushes for said screens, supporting means arranged centrally between and common to the brushes for the oppositely inclined screens, means for securing said brushes to said supporting means, and means for reciprocating said supporting means, substantially as set forth.

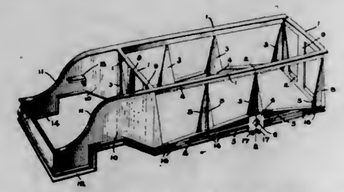
5. In a separator having oppositely inclined screens, the combination of a cleaner for the screens comprising a plurality of brushes for each screen, a supporting shaft arranged centrally between the oppositely inclined screens, means for pivotally securing the brushes for the opposite screens to said shaft to swing toward and from the screens, and means for reciprocating said shaft, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

1,074,971. WAGON. GEORGE W. MYERS, Philadelphia, Pa. Filed Feb. 11, 1913. Serial No. 747,588. (Cl. 21—7.)

1. As a new article of manufacture, a wagon body comprising two trussed channel bars spaced apart, channel

bars connecting the ends of the trussed channel bars, uprights integral with all of said channel bars and having longitudinal webs on their outer faces, angle bars integral with the uprights and located at the upper ends of the latter, said channel bars, uprights, and angle bars forming an integral rectangular frame having a smooth inner surface, plates secured to the inner faces of said channel bars, angle bars and uprights, and an undercut front portion integral with the channel bars and angle bars, substantially as described.



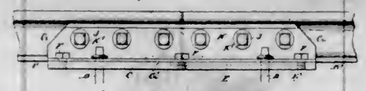
2. As a new article of manufacture, a wagon body comprising two trussed channel bars spaced apart, channel bars connecting the ends of the trussed channel bars, uprights integral with all of said channel bars, and having longitudinal webs on their outer faces, angle bars integral with the uprights and located at the upper ends of the latter, said channel bars, uprights, and angle bars forming an integral rectangular frame having a smooth inner surface, plates secured to the inner faces of said channel bars, angle bars and uprights, an undercut front portion integral with the channel bars and angle bars, said front portion having channels throughout its lower edge forming continuations of the trussed channel bars, substantially as described.

3. As a new article of manufacture, a wagon body comprising two trussed channel bars spaced apart, channel bars connecting the ends of the trussed channel bars, uprights integral with all of said channel bars, and having longitudinal webs on their outer faces, angle bars integral with the uprights and located at the upper ends of the latter, said channel bars, uprights, and angle bars forming an integral rectangular frame having a smooth inner surface, plates secured to the inner faces of said channel bars, angle bars and uprights, an undercut front portion integral with the channel bars and angle bars, said front portion having channels throughout its lower edge forming continuations of the trussed channel bars, and integral inwardly projecting flanges throughout the lower edge of said front portion, substantially as described.

4. As a new article of manufacture, a wagon body comprising two trussed channel bars spaced apart, channel bars connecting the ends of the trussed channel bars, uprights integral with all of said channel bars and having longitudinal webs on their outer faces, angle bars integral with the uprights and located at the upper ends of the latter, said channel bars, uprights, and angle bars forming an integral rectangular frame having a smooth inner surface, plates secured to the inner faces of said channel bars, angle bars and uprights, an under cut front portion integral with the channel bars and angle bars, integral blocks in the trussed channels having angular openings therein, and axle stubs having angular enlargements at their ends welded in the said openings, substantially as described.

1,074,972. RAIL-JOINT. ANDREW J. NEAFIE, Boonton, N. J. Filed Dec. 12, 1912. Serial No. 736,273. (Cl. 239—5.)

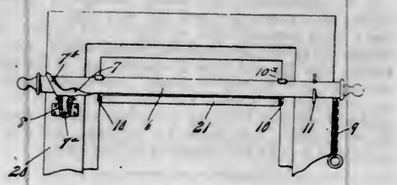
1. In a rail-joint, a base-plate having the upper face at one end of its central longitudinal portion higher than the other and integral with such plate, and having a hole in the lower portion, a shim of insulating material applied upon such low portion and extending beyond the line of abutment of the rail-ends, a pin of insulating material rigid with and extending from the lower face of said shim and engaged in said hole, angle-plates secured to said base-plate at the side margins of the latter, insulating cheek-pieces between said angle-plates and sides of such rail-ends, bolts extending transversely through said angle-plates, cheek-pieces and rail-ends, and annular insulating bushings in said angle-plates for receiving said bolts.



2. In a rail-joint, a base-plate having a recess at one end extending longitudinally thereof beyond the line of abutment of the rail-ends, means rigid with and depending from said shim and extending through the base plate to hold the shim against movement, a shim of insulating material matching to and received in said recess, angle-plates secured to said base-plate at the side margins of the latter, insulating cheek-pieces between said angle-plates and sides of such rail-ends, bolts extending transversely through said angle-plates, cheek-pieces and rail-ends, and means for insulating said bolts from said angle-plates.

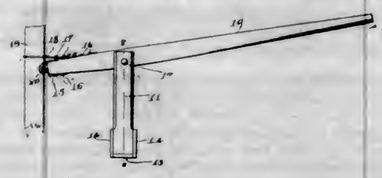
3. In a rail-joint, a base-plate having a recess at one end extending longitudinally thereof beyond the line of abutment of the rail-ends, and having a hole in such recess, a shim of insulating material matching to and received in said recess, a pin rigid with and depending from said shim received in said hole, angle-plates secured to said base-plate at the side margins of the latter, insulating cheek-pieces between said angle-plates and sides of such rail-ends, bolts extending transversely through said angle-plates, cheek-pieces and rail ends, and means for insulating said bolts from said angle-plates.

1,074,973. SHADE AND CURTAIN-POLE SUPPORT. JOHN NEUBERGER and JAMES F. HINES, Cleveland, Ohio. Filed Apr. 17, 1913. Serial No. 761,741. (Cl. 156—22.)



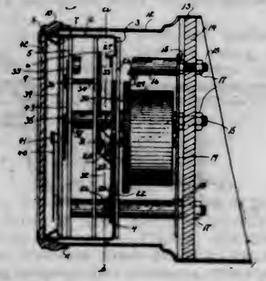
The combination of a socket piece adapted for attachment to one side of a window casing, a plate having a depending pivot pin fitting in the socket, a pole attached to the plate, and shade holding fixtures secured to the pole.

1,074,974. POST-PULLER. ELIAS OLSON, Jewell, Iowa. Filed July 31, 1912. Serial No. 712,557. (Cl. 57—104.)



In a post extractor, the combination with the supporting frame, of a lever carried in said supporting frame, a U-shaped member engaged over one end of said lever, said U-shaped member having a plurality of spaced hooked members upon its upper face, a post engaging member formed on the end thereof, and a post encircling ring removably engaging said spaced hook members.

1,074,975. KEYLESS AUTOMOBILE-CLOCK. WILSON E. PORTER, New Haven, Conn., assignor to The New Haven Clock Co., New Haven, Conn., a Corporation. Filed Jan. 11, 1913. Serial No. 741,398. (Cl. 58—46.)



1. In a keyless clock, the combination with a movement having one or more circular movement-plates, of a rotary winding-and-setting member carrying an internal gear and having bearing upon one or more of the said plates of the clock.

2. In a keyless clock, the combination with a movement having a plurality of circular movement-plates, of a rotary winding-and-setting member provided with an internal gear and having bearing on a plurality of the said circular plates.

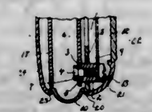
3. In a keyless clock, the combination with a movement having a circular front movement-plate and a circular intermediate movement-plate, of a rotary winding-and-setting member carrying an internal gear and having bearing upon the said circular front movement-plate and circular intermediate movement-plate.

4. In a keyless automobile clock, the combination with a movement having one or more circular movement-plates, of a rotary winding-and-setting member having bearing upon the said plates, a bezel mounted upon the forward end of the said member for operating the same, and an internal gear located at the rear end of the said member for co-action with the winding and the setting trains of the movement.

5. In a keyless automobile clock, the combination with a clock movement having one or more circular movement-plates, of a rotary winding-and-setting member having bearing upon one or more of the said plates and provided with an internal gear for coaction with the winding and the setting trains of the movement, a bezel mounted upon the forward end of the said member for operating the same, and a circular clock-case body having its forward edge inserted under the rear edge of the said bezel.

[Claims 6 to 8 not printed in the Gazette.]

1,074,976. WATCH. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Mar. 19, 1913. Serial No. 755,540. (Cl. 58—88.)



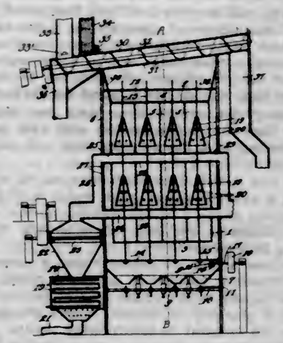
1. In a watch, the combination with a case provided with positioning-holes, of a movement provided with positioning-pillars predetermined in position with respect to the said positioning holes through which the said pillars pass and in which they fit to accurately position the movement with respect to the case, and fastening-screws passing through the case into the movement for fastening the case and movement together.

2. In a watch, the combination with a case provided with positioning-holes, of a movement provided with positioning-pillars predetermined in location with respect to the said holes through which they pass for accurately positioning the movement in the case, and a dial fastened directly to the projecting ends of the said pillars, whereby it is positioned with respect to the movement.

3. In a watch, the combination with a case-body formed with a front flange provided with positioning-holes, of a watch-movement the front plate of which is provided with forwardly projecting positioning-pillars passing through the said holes for accurately positioning the movement in the case, and a dial applied to the projecting outer ends of the said pillars for securing it to the movement in predetermined position with respect thereto.

4. In a watch, the combination with a case-body having a front flange formed with positioning-holes and perforated for the passage through it of fastening-screws, of a watch-movement having front and rear movement-plates, forwardly projecting positioning-pillars mounted in the said front movement-plate and passing through the said positioning-holes in the said flange, movement-pillars mounted in the said front movement-plate, fastening screws passing through the perforations in the said flange and entering the outer ends of the said pillars for securing the movement to the case, and screws passing into the rear end of the said movement-pillars for securing the rear movement-plate thereto.

1,074,977. GRAIN-DRIER. PETER PROVOST, Milwaukee, Wis. Filed Dec. 27, 1912. Serial No. 738,954. (Cl. 34—34.)



1. A grain drier including a casing having parallel upwardly extending flues, air distributing pipes extending transversely through and opening into the flues, and means for directing heated air into the pipes and flues.

2. A grain drier including a casing having parallel upwardly extending flues, air distributing means extending transversely of and opening into the flues, and means for directing heated air into said distributing means and flues.

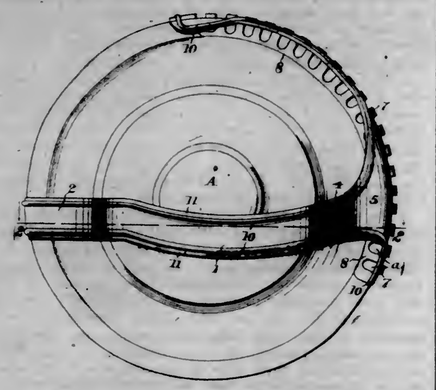
3. A grain drier including upwardly extending flues, grain agitating means therein, and means for directing heated air into the upper and lower portions of the flues.

4. A grain drier including upwardly extending flues, hollow conical agitating means therein having apertures, and means extending through the flues and under the respective agitating means for directing heated air into the flues.

5. A grain drier including upwardly extending flues, hollow agitating means within the flues, rods connecting said means and extending within the flues and beyond one end thereof, crank shafts connected to the rods, and means for intermittently actuating the shafts to reciprocate the rods and agitating means.

[Claims 6 to 10 not printed in the Gazette.]

1,074,978. POT-LID. EVA RELYEA, Poughkeepsie, N. Y. Filed Dec. 8, 1911. Serial No. 664,587. (Cl. 53—8.)



1. The combination with a lid, of a shield made of sheet metal comprising a curved plate having a base flange bent at right angles with a plurality of integral fingers stamped out of said flange and held parallel thereto, an integral handle-forming section extending downward from near one end of said plate and then continuing parallel with said base flange and terminating in a downwardly bent end ending in a recurved lip, said lip being removably held below said lip and between said base flange and fingers.

2. As a new article of manufacture, a lid attachment made of sheet metal comprising a curved portion forming a shield having a base flange bent at right angles with a plurality of integral fingers stamped out of said flange and held parallel thereto, an integral handle-forming section extending downwardly from near one end of said shield and then continuing parallel with said base flange and terminating in a downwardly bent end ending in a recurved lip.

3. As a new article of manufacture, a lid attachment comprising a shield made of sheet metal ending in a recurved securing flange, a handle forming portion extending from said shield at the edge opposite said flange and terminating in a recurved lip.

4. As a new article of manufacture, a device of the character described comprising a curved shield made of sheet metal having a base flange bent at an angle to said shield with a plurality of integral fingers stamped out of said flange, an integral handle-forming section extending from said shield strengthened by means of edge beads said handle section terminating in a recurved lip.

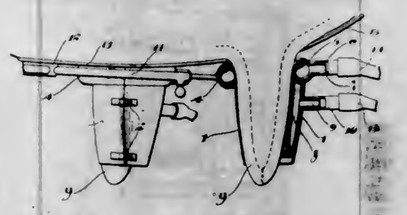
5. A device of the character described made of sheet metal and comprising a narrow strip bent at one end to form a recurved securing lip and at the other end ending in an enlarged curved shield, extending transversely to the handle, said enlarged shield ending in a flange from which extend integral fingers said flange and fingers adapted to be used clasped upon the edge of the lid.

1,074,979. MILKING APPARATUS. OTTO GEORGE RIESKE, Beaver Dam, Wis., assignor to Albert J. Euchenhofner, Indianapolis, Ind. Filed Jan. 18, 1912. Serial No. 671,881. (Cl. 31—95.)

1. A teat cup having an elastic pneumatic teat choking ring, and an elastic pneumatic teat squeezing pad, the latter operating to press the teat laterally to one side of the axis of said ring.

2. A teat cup having an elastic pneumatic teat choking ring, and an elastic pneumatic teat squeezing pad, the latter operating to press the teat laterally to one side of the axis of said ring, and a rigid casing containing said ring and pad, a portion of said casing affording a wall against which the teat is pressed by the said pad.

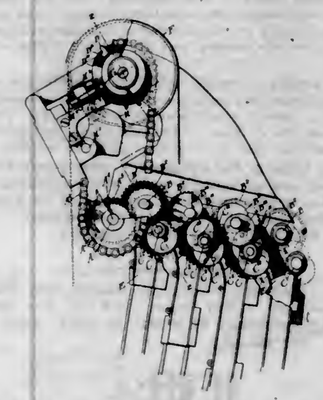
3. A teat cup having an elastic pneumatic teat choking ring, and an elastic pneumatic teat squeezing pad, the latter operating to press the teat laterally to one side of the axis of said ring, and automatic means for producing air pressure independently in the said choking ring and squeezing pad.



4. A teat cup having an elastic pneumatic teat choking ring, and an elastic pneumatic teat squeezing pad, the latter operating to press the teat laterally to one side of the axis of said ring, in combination with automatic means for producing air pressure independently in the said choking ring and squeezing pad, timed and arranged first to produce a relatively high pressure in said choking ring, and later a relatively low pressure in said squeezing pad.

5. A teat cup having an elastic pneumatic teat choking ring, and an elastic pneumatic teat squeezing pad, the latter operating to press the teat laterally to one side of the axis of said ring, in combination with automatic means for producing air pressure in said ring and pad, the former ahead of the latter.

1,074,980. TYPOGRAPHICAL COMPOSING-MACHINE. JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 1, 1912. Serial No. 687,691. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of synchronously operated rotary members, operating means therefor, with means independent of the operating means and carried by the respective members to contact and prevent their rotation whenever their rotary synchronism is disturbed.

2. In a typographical machine, the combination of a plurality of synchronously operated rotary distributing devices, with means connected thereto and arranged to engage when the rotary synchronism is interrupted and thus to arrest the rotary movement of the said devices.

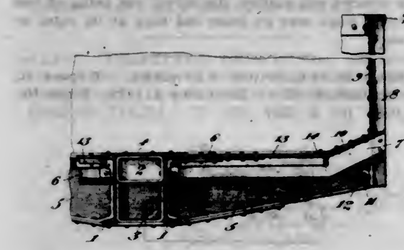
3. In a typographical machine, the combination of a plurality of synchronously operated rotary distributing devices with coöperating means carried by the respective devices to arrest their rotary movement when their rotary synchronism is interrupted.

4. In a typographical machine, the combination of a plurality of synchronously operated rotray distributing devices, with eccentric means carried thereby to arrest their rotary movement when the synchonous operation is interrupted.

5. In a typographical machine, the combination of a plurality of synchronously operated rotary distributing devices, with coöperating eccentric means carried by the respective devices, the said eccentric means being mounted to clear each other normally but to contact and lock when the synchronous operation is interrupted.

[Claims 6 to 28 not printed in the Gazette.]

1,074,981. CAR CONSTRUCTION AND ARRANGEMENT OF DROP-DOORS AND OPERATING MECHANISM. RALPH V. SAGE, Westmont borough, Pa. Filed June 20, 1913. Serial No. 774,852. (Cl. 105—14.)



4. In a railway car of the class described, a plate girder side the lower portion of which is downwardly and inwardly inclined, a plurality of cross bearers extending transversely of the car, the outer ends of which are upwardly inclined and secured to the inclined portion of the plate girder aforesaid, a plurality of stakes attached to the car side and extending below the ends of the cross bearers, and a plurality of journal bearings mounted on the lower portions of said stakes below said inclines and adapted to revolubly support an operating shaft.

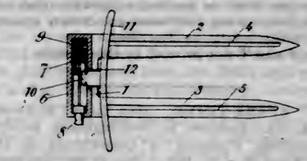
2. In a railway car of the class described, a plate girder side the lower portion of which is downwardly and inwardly inclined and provided with a horizontal marginal edge, the inclined portion being adapted to form a shedding plate and the edge a closure for the end of the swinging car-door, a plurality of cross bearers extending transversely of the underframing, the outer ends of which are upwardly inclined and secured to the inclined portion of the plate side, a plurality of stakes secured to the car side and extending below the ends of the cross bearers, a plurality of journal bearings secured to the lower portions of the said stakes, a door operating shaft mounted in said bearings extending longitudinally of the said car, and means actuated by said shaft for opening and closing the car doors.

3. In a car of the class described, a plurality of cross bearers, each comprising a flanged member extending transversely of the car underframing and having an upwardly inclined end portion secured to the car side, a plurality of stakes attached to the car side and extending below the outer end of said cross bearers, and a brace extending from the lower end of each of said stakes to the intermediate portion of the corresponding cross bearer.

4. In a railway car of the class described, a center sill, plate girder sides, a plurality of doors hinged to the center sill, the lower portion of said plate girder side being downwardly inclined and having a marginal edge portion adapted to contact with and form a closure for the ends of said doors, a plurality of side stakes secured to the outer side of the plate girder and extending below the ends of the said cross bearers, a plurality of journal bearings mounted on the lower portions of said stakes, a door operating shaft mounted in said bearings and means actuated by said shaft for opening and closing the doors.

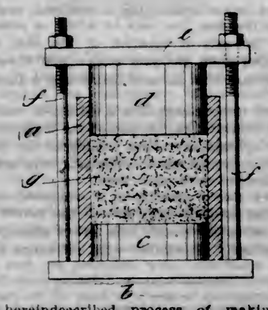
5. In a railway car of the class described, the combination with the center sills, the side plate girders and drop doors hinged to the sills thereof, of a plurality of cross bearers extending from said sills to and attached to the plate girder sides, the outer ends of the said cross bearers being upwardly inclined, the lower portion of said plate girder being correspondingly inclined and secured to the inclined ends of the said cross bearers, each of said cross bearers being provided with a floor strip extending lengthwise thereon and projecting over the edges of the same, stakes secured to and projecting below the car sides, a plurality of journal bearings secured to the lower ends of the said stakes, a door operating shaft mounted in said bearings, and means actuated by said shaft adapted to operate, open, close and lock said doors.

1,074,982. HAT ATTACHMENT. JAKOB SAUTER, Neuhausen, Switzerland. Filed Apr. 7, 1913. Serial No. 759,540. (Cl. 132—25.)



A hat-attachment, comprising in combination a comb having two teeth each of which has a longitudinally disposed slot, the part joining the two teeth being fashioned into a sleeve which is closed at one end and open at the other and having an aperture at one side, an angle plate having downwardly projecting members and a projection, said members being guided in the aforesaid slots and the projection extending through the said aperture, a spring influenced plunger within the sleeve and adapted to engage with the projection on the angle plate, and means to move the plunger against the pressure of the spring and to disengage it from the projection, all substantially as described and shown.

1,074,983. PROCESS OF MAKING ARTIFICIAL STONE AND PRODUCT OBTAINED THEREBY. SIEGMUND SBOROWITZ, Berlin, Germany, assignor to Deutsche Kunit-Gesellschaft M. B. H., Stralau, near Berlin, Germany. Filed July 3, 1912. Serial No. 707,542. (Cl. 106—24.)



1. The hereindescribed process of making artificial stone which consists in mixing a finely comminuted amorphous raw material with a binder dissolved in a solved agent of high volatility for forming a dough, subjecting the mass to moderate pressure and heat, repressing and reheating said mass and finally quickly cooling it off, substantially as described.

2. The hereindescribed process of making artificial stone which consists in mixing finely comminuted ashes with a binding medium dissolved in a highly volatile solvent agent into a dough, subjecting the mass to moderate pressure and heat, repressing and reheating said mass and finally rapidly cooling it off, substantially as described.

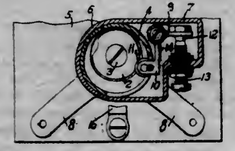
3. The hereindescribed process of making artificial stone which consists in mixing a finely comminuted amorphous raw material with a mineral dye and a binder dissolved in a highly volatile solvent agent, subjecting the mass to moderate pressure and heat, repressing and reheating said mass and finally chilling the same, substantially as described.

4. The herein described process of making artificial stone which consists in mixing finely comminuted ashes with a mineral dye and a binder dissolved in a highly volatile solvent agent, subjecting the mass to moderate pressure and heat, repressing and reheating said mass, and finally chilling it, substantially as described.

5. The hereindescribed process of making artificial stone which consists in mixing finely comminuted amorphous raw material with a mineral dye and a mineral fibrous material and a binder dissolved in a highly volatile solvent agent, subjecting the mass to moderate pressure and heat, repressing and reheating said mass and finally quickly cooling it off, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,984. SPARK-TIMER. HAROLD M. SCHEIBE, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 8, 1911. Serial No. 659,220. (Cl. 123—166.)



1. A spark timer comprising a rotatable cam, and a switch member actuated thereby and adjustable bodily in eccentric-relation with respect thereto.

2. A spark timer comprising a rotatable cam having a plurality of recesses but being otherwise of cylindrical contour, and a pivotally mounted switch member that is actuated by the cam and is adjustable bodily about an axis that is eccentric with respect to the axis of rotation of the cam.

3. A spark timer comprising a rotatable cam, a sleeve surrounding the cam, the axis of which is eccentric with respect to the axis of rotation of the cam, a movable frame mounted upon the said sleeve, and a switch member pivotally mounted in said frame and actuated by the cam.

4. A spark timer comprising a rotatable cam, a circuit making and breaking switch one of the members of which is actuated by said cam, and a support for said switch that is rotatively adjustable about said cam upon an axis which is eccentric to the cam axis.

5. A spark timer comprising a rotatable cam, and a circuit making and breaking switch the movable member of which is actuated by said cam and is also eccentrically and independently adjustable with reference to the cam axis.

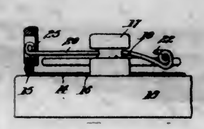
1,074,985. HOSE-SUPPORTER. CLARENCE F. SMITH, Racine, Wis. Filed Oct. 23, 1911. Serial No. 656,229. (Cl. 24—261.)

A hose supporter, comprising an elongated piece of spring material bent spirally to form a curved garment slot of at least half the diameter of the spiral, the curved side walls of which are adapted to yieldingly clamp a fabric placed therebetween, the inner end of the piece of material being bent inwardly at an angle toward the axis of the curve to form a rounded end portion and a diverging outlet to the slot and the outer end of the material



being bent outwardly to form a diverging entrance mouth with a rounded end portion, the curved slot being of less width at a point near its inner end than at its outer or inner ends.

1,074,986. SEAT-CUSHION RETAINER. WATSON R. SMITH, Jackson, Mich. Filed July 2, 1913. Serial No. 777,088. (Cl. 5—29.)



1. The combination of a cushion and the support upon which the cushion rests, a cushion provided with an opening at its front, a plate carried by the cushion provided with an aperture, means carried by the support for projection through the apertured plate, and means engageable with the means which projects through the apertured plate to fasten the latter means against accidental withdrawal through the aperture of said plate, said fastening means being accessible through said opening at the front of the cushion to manually operate the same.

2. The combination of a cushion and the support upon which the cushion rests, a cushion provided with spaced openings at its front, spaced plates carried by the cushion each provided with an aperture, buttons carried by the support for projection through the apertured plates, each button having a neck portion, and a spring arm engageable with the neck portion of each button with each arm having one end arranged adjacent one of the openings in the front of the cushion whereby the arms are accessible through the openings at the front of the cushion to move the same into and out of engagement with the neck portions of the corresponding buttons so as to fasten and unfasten the cushions to the buttons.
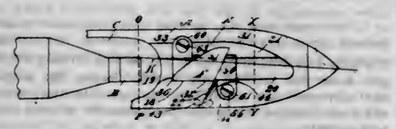
3. The combination of a spring structure and a support on which the structure rests, said structure including a base frame provided with an opening, springs mounted on the base frame, a plate secured to the lower convolution of one of the springs and provided with a central opening, a button secured to said support and which is received by the opening in said plate, the button having a neck portion, a spring arm having connection with the spring to which said plate is secured and adapted to engage the neck of said button, the outer extremity of the spring arm lying in the opening of the base frame so that it may be moved into and out of coöperative relation with the neck of said button.

4. The combination with a spring structure and a support on which the spring structure rests, the spring structure including a base frame provided with spaced openings in its forward side, springs mounted on the base frame, plates secured to the springs arranged opposite the openings in the base frame, the plates each having fingers adapted to embrace the lower convolutions of such springs so as to secure the plates thereto, each plate having a central opening, buttons secured to said support and received by the openings in said plates, said buttons each having a neck, and a spring arm having connection with each of the springs to which said plates are secured and which engage the necks of said buttons, the free extremities of said spring arms lying in said openings of the base frame.

5. The combination of a cushion and the support upon which the cushion rests, the cushion including a base frame provided with an opening, an apertured plate carried by the cushion, means secured to the support adapted to extend through the aperture of said plate, and an arm arranged to operatively connect with said button to fasten and retain the cushion on the support against sliding movement off of the support, and having a part arranged adjacent the opening in the base frame whereby the arm may be operated through the opening in the base frame to move it into and out of operative connection with said button.

[Claims 6 and 7 not printed in the Gazette.]

1,074,987. THREADING DEVICE FOR SHUTTLES. ISAAC SNOW, Lawrence, Mass., assignor of one-half to Harry Clough, Lawrence, Mass. Filed Jan. 10, 1913. Serial No. 741,294. (Cl. 139—46.)



1. In a shuttle, the combination of a wooden body having a bobbin recess and a threader recess from which a slot and eye extend through the side, with a threader which fits into the threader recess and which has a barrel and vertical side walls, of which the side wall adjoining the shuttle eye has a slot which connects with an eye both of which register with the slot and eye in the wooden body and said side wall being extended upward and bent over beyond the top edge of the other side wall forming a top guide plate which slopes from the back forward away from the shuttle eye and from the front backward to a point adjoining the slot in the threader, and means for fastening the threader in place as described.

2. In a shuttle, the combination of a wooden body having a bobbin recess and a threader recess from which a slot and eye extend through the side, with a threader which fits into the threader recess and which has a barrel and vertical side walls of which the side wall adjoining the shuttle eye has a slot which connects with an eye both of which register with the slot and eye in the wooden body said side wall being extended upward and bent over forming a top guide plate which slopes from the back forward away from the shuttle eye and from the front backward to a point adjoining the slot in the threader, said top guide plate terminating in a hook which extends over and beyond the top edge of the other side wall which is curved from each end upward toward a point adjoining said hook and is beveled on the outside, and means for fastening the threader in place as described.

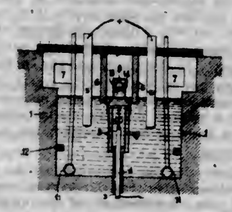
3. In a shuttle, the combination of a wooden body having a bobbin recess and a threader recess formed to receive a threader and extended forward from the bottom and which has a longitudinal ridge on one side and connects on the other side with a slot and eye which extend through the side, with a threader which fits into the threader recess and which has a barrel and vertical side walls of which the side wall adjoining the shuttle eye has a slot which connects with an eye both of which register with the slot and eye in the wooden body and said side wall being extended upward and bent over beyond the top edge of the other side wall forming a top guide plate which slopes from the back forward away from the shuttle eye and from the front backward to a point adjoining the slot in the threader, and means for fastening the threader in place as described.

4. In a shuttle, the combination of a wooden body having a bobbin recess and a threader recess from which a slot and eye extend through the side, with a threader which fits into the threader recess and which has a barrel and vertical side walls of which the side wall adjoining the shuttle eye has a slot which connects with an eye, both of which register with the slot and eye in the wooden body and said side wall being extended upward and bent over and downward beyond the top edge of the other side wall forming a top guide plate which slopes from the back forward away from the shuttle eye and from the front backward to a point adjoining the slot in the threader, and means for fastening the threader in place as described.

5. In a shuttle, the combination of a wooden body having a bobbin recess and a threader recess from which a slot and eye extend through the side, with a threader which fits into the threader recess and which has a barrel and vertical side walls of which the side wall adjoining the shuttle eye has a slot which connects with an eye both of which register with the slot and eye in the wooden body and said side wall being extended upward and bent over beyond the top edge of the other side wall forming a top guide plate which slopes from the back forward away from the shuttle eye and from the front backward to a point adjoining the slot in the threader, together with a backward extension of the side wall which has the eye bent at right angles and curved over and down to form a deflector plate, and an extension of the other side wall opposite the deflector plate provided with downwardly raking teeth, and means for fastening the threader in place as described.

[Claims 6 and 7 not printed in the Gazette.]

1,074,988. APPARATUS FOR ELECTROLYSIS OF FUSED ALKALI CHLORIDS. EWALD STEINBUCH, Monthey, Switzerland, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Aug. 23, 1910. Serial No. 578,554. (Cl. 204—21.)



1. In an apparatus for obtaining molten alkali metal and chlorin by the electrolysis of a molten mass containing alkali chlorid, the combination of an anode and of a cathode with two horizontally juxtaposed chambers for collecting separately the products of the electrolysis and with partitions separating as well the said chambers as the said anode and cathode, which are all capable of resisting attack by the electrolyte, are made of metal at their parts coming into contact with the molten alkali metal and of a mineral substance at their parts coming into contact with chlorin, in order that they can also resist attack by the products of electrolysis coming into contact with them and are provided with interstices filled with molten electrolyte at their parts which serve to prevent a recombination of the said products of electrolysis and are in the field of the main current, so that at these parts they are permeable to the lines of current without discharge of ions, while the remaining massive parts of the said partitions are so arranged relatively to the anode and the cathode that they are substantially not subjected to the action of the electric current, the specified parts of the apparatus being arranged in such a manner that the

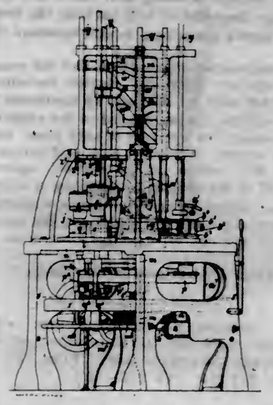
molten alkali metal collected in one of the said chambers remain insulated from the cathodic parts.

2. In an apparatus for obtaining molten alkali metal and chlorin by the electrolysis of a molten mass containing alkali chlorid, the combination of an anode and of a cathode with two horizontally juxtaposed chambers for collecting separately the products of the electrolysis and with substantially vertical partitions separating as well the said chambers as the said anode and cathode which are capable of resisting attack by the electrolyte, are made of metal at their parts coming into contact with molten alkali metal and of a mineral substance at their parts coming into contact with chlorin, in order that they can also resist attack by the products of electrolysis coming into contact with them and are provided with interstices filled with molten electrolyte at their parts which serve to prevent a recombination of the said products of electrolysis and are in the field of the main current, so that at these parts they are permeable to the lines of current without discharge of ions, while the remaining massive parts of the said partitions are so arranged relatively to the anode and the cathode that they are substantially not subjected to the action of the electric current, the specified parts of the apparatus being arranged in such a manner that the molten alkali metal collected in one of the said chambers remains insulated from the cathodic parts.

3. In an apparatus for obtaining molten alkali metal and chlorin by the electrolysis of a molten mass containing alkali chlorid, the combination of an anode and of a cathode with two horizontally juxtaposed chambers for collecting separately the products of the electrolysis, with heating resistances and additional electrodes for melting the electrolyte by alternating current and with partitions separating as well the said chambers as the anode and the cathode, which are capable of resisting attack by the electrolyte, are made of metal at their parts coming into contact with molten alkali metal and of a mineral substance at their parts coming into contact with chlorin, in order that they can also resist attack by the products of electrolysis coming into contact with them and are provided with interstices filled with molten electrolyte at their parts which serve to prevent a recombination of the said products of electrolysis and are in the field of the main current, so that at these parts they are permeable to the lines of current without discharge of ions, while the remaining massive parts of the said partitions are so arranged relatively to the anode and the cathode that they are substantially not subjected to the action of the electric current, the specified parts of the apparatus being arranged in such a manner that the molten alkali metal collected in one of the said chambers remains insulated from the cathodic parts.

4. In an apparatus for obtaining molten alkali metal and chlorin by the electrolysis of a molten mass containing alkali chlorid, the combination of an anode and of a cathode with two horizontally juxtaposed chambers for collecting the products of the electrolysis, with heating resistances and additional electrodes for melting the electrolyte by alternating current and with substantially vertical partitions separating as well the said chambers as the cathode and anode, which are capable of resisting attack by the electrolyte, are made of metal at their parts coming into contact with molten alkali metal and of a mineral substance at their parts coming into contact with chlorin, in order that they can also resist attack by the products of electrolysis coming into contact with them and are provided with interstices filled with molten electrolyte at their parts which serve to prevent a recombination of the said products of electrolysis and are in the field of the main current, so that at these parts they are permeable to the lines of current without discharge of ions, while the remaining massive parts of the said partitions are so arranged relatively to the anode and the cathode that they are substantially not subjected to the action of the electric current, the splendid parts of the apparatus being arranged in such a manner that the molten alkali metal collected in one of the said chambers remains insulated from the cathodic parts.

1,074,989. MACHINE FOR MAKING PAPER AND LIKE CUPS. EGBERT ARTHUR STRATTON, London, England, assignor to Mansell, Hunt, Catty & Company Limited, London, England. Filed Mar. 5, 1913. Serial No. 752,161. (Cl. 93—60.)



1. In a machine for turning over the borders of cups formed from plaited disks of material, a turning-over plunger, a turning-over socket, a second turning-over plunger, a second turning-over socket, means for displacing said plungers into and from said sockets and means for effecting relative transverse displacement of said plungers and sockets.

2. In a machine for plaiting disks of material into cup-shaped form and for turning over the borders thereof, a plaiting plunger, a plaiting socket, a turning-over plunger, a turning-over socket, means for displacing said plungers into and from said sockets and means for effecting relative transverse displacement of said plungers and sockets.

3. In a machine for plaiting disks of material into cup-shaped form, and for turning over the borders thereof, a plaiting plunger, a plaiting socket, a turning-over plunger, a turning-over socket, a second turning-over plunger, a second turning-over socket, means for displacing said plungers into and from said sockets and means for effecting relative transverse displacement of said plungers and sockets.

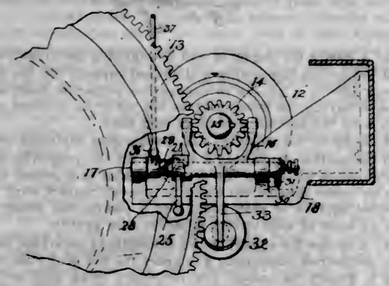
4. In a machine for turning over the borders of cups formed from plaited disks of material, a two-part plunger, an ejector in said two-part plunger, a two-part socket, a second two-part plunger, an ejector in said second two-part plunger, a second two-part socket, means for displacing said plungers into and from said sockets, means for effecting relative transverse displacement of said plungers and sockets and means for protruding said ejectors.

5. In a machine for plaiting disks of material into cup-shaped form and for turning over the borders thereof, a plaiting plunger, an ejector in said plaiting plunger, a plaiting socket, a two-part plunger, an ejector in said two-part plunger, a two-part socket, means for displacing said plungers into and from said sockets, means for effecting relative transverse displacement of said plungers and sockets and means for protruding said ejectors.

[Claims 6 and 7 not printed in the Gazette.]

1,074,990. STARTER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM R. STRICKLAND, Cleveland, Ohio, assignor to The Peerless Motor Car Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 5, 1912. Serial No. 669,552. (Cl. 123—179.)

1. In combination with an internal combustion engine, a starter comprising a motor, power transmitting devices between the motor and engine, mechanism for shifting one of said power transmitting devices, said mechanism being under the control of the operator to establish the driving relation between the motor and engine and including a member adapted to be shifted by the operator, and means for breaking operative connection between said member and the movable power transmitting device when said member is shifted to a position to establish driving relation between the motor and engine.



2. In combination with an internal combustion engine, a starter comprising a motor, power transmitting devices between the motor and engine comprising two members, one of which is movable into and out of engagement with the other, a starter-controlling member adapted to be shifted by the operator to start the engine, connecting means between said controlling member and said movable member of the power transmitting devices, and means for disconnecting said starter controlling member from the movable member of said power transmitting devices, when said controlling member is shifted to establish driving relation between the motor and engine.

3. In combination with an internal combustion engine, a starter comprising a motor, power transmitting mechanism between the motor and engine comprising two members, one of which is movable into and out of engagement with the other, a starter-controlling member adapted to be shifted by the operator, connecting devices between said member and the movable member of the power transmitting mechanism for establishing driving relation between the engine and motor, and means for disconnecting said starter-controlling member from the power transmitting mechanism when the driving relation is established.

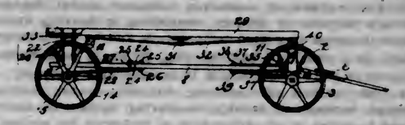
4. In combination with an internal combustion engine, a starter comprising a motor, power transmitting mechanism between the motor and engine comprising two members, one of which is movable into and out of engagement with the other, a starter-controlling member adapted to be shifted by the operator, to establish driving relation between the engine and motor, means for rendering said starter-controlling member ineffective when the driving relation is established, and means independent of said first named means for interrupting the driving relation between the engine and motor after the engine is started.

5. In combination with an internal combustion engine, a starter comprising a motor, power transmitting mechanism between the motor and engine comprising two members one of which is movable into and out of engagement with the other, a starter-controlling member adapted to be shifted by the operator to start the engine, means for operatively connecting said controlling member with said movable member of the power transmitting mechanism, and means for preventing said connection being established when the engine is in operation.

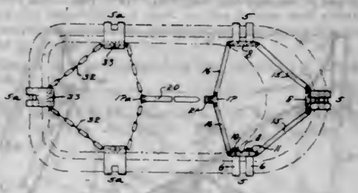
[Claims 6 to 12 not printed in the Gazette.]

1,074,991. HARROW-TRUCK WAGON. FREDOLPH N. SUNDBERG, Galva, Ill. Filed Sept. 27, 1912. Serial No. 722,704. (Cl. 21—19.)

A rear truck for wagons, comprising an axle, wheels journaled thereon, a sandboard supported by said axle, a reach in engagement with said sandboard, means for connecting the axle and sandboard, hounds disposed between said axle and board, brackets connecting the hounds to the axle, and rods engaged with said brackets, their rear portions extended vertically through said board and extending a slight distance therebeyond for the purpose described.



1,074,992. CARRIER. FREDERICK WILLIAM SWIFT, Wappingers Falls, N. Y. Filed Sept. 26, 1912. Serial No. 722,468. (Cl. 57—109.)



1. A device for carrying bath-tubs, comprising two reversely arranged and co-acting sets of jaws constructed so as to hook over the edges of a tub, each set including an end jaw and oppositely located side jaws, diagonally disposed tension members connected with said hooks so as to cross the top of the tub, and a central means for tightening the tension members so as to clamp the jaws against the edges of the tub at all points of contact.

2. A device for carrying bath-tubs, comprising jaws constructed and arranged to hook over the edge of a tub at both ends and at the sides, tension members connected therewith and arranged to pull inward on all of the jaws, means for tensioning said members so as to seat the jaws, and handles at the ends of the device projecting downwardly from the end jaws whereby the tub can be carried when turned over on one side.

3. A device for carrying bath-tubs, comprising two sets of jaws each having parallel hooks constructed and arranged in pairs so as to take over the edge of the tub, a retaining member connecting the hooks in each pair, tension members connecting the jaws of each set through the hook retaining members, and means for connecting the tension members of both sets and drawing the same tight so as to seat the jaws.

4. A device for carrying bath-tubs, comprising two sets of hooked jaws, each set including an end jaw and oppositely located side jaws constructed and arranged to take over the edge of a tub at one end and at the sides, diagonal tension members connecting the end jaw of each set with the side jaws thereof, central tightening means, and tension members connecting the side jaws of each set with each other and with said tightening means.

5. A device for carrying bath-tubs, comprising hooked jaws constructed and arranged to take over the edge of a bath-tub at the ends and sides, tension members pivotally connected with said jaws and crossing over the top of the tub, means acting on said tension members to draw the jaws into place, and handles also held in place at the ends of the tub by said tension members and means.

[Claims 6 and 7 not printed in the Gazette.]

1,074,993. METHOD OF RENDERING INSUFFICIENTLY-DUCTILE METALS DUCTILE. CARL TRENZEN, Cologne-Braunsfeld, Germany. Filed June 17, 1913. Serial No. 774,270. (Cl. 207—10.)

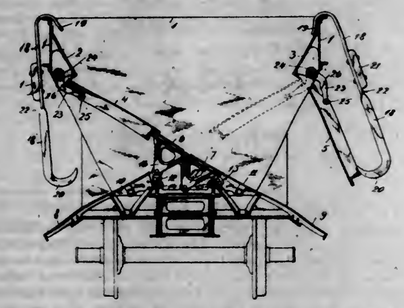
1. The method of rendering insufficiently ductile metals ductile, through increase in density, consisting in heating the metal in amorphous condition to a high tem-

perature and at the moment when, as a result of said heating, it would pass to the crystalline state subjecting it to considerable pressure.

2. The method of rendering tungsten metal ductile, through increase in density, consisting in heating amorphous tungsten to a high temperature and at the moment when, as a result of said heating, it would pass to the crystalline state subjecting it to considerable pressure.

3. The method of rendering tungsten metal ductile, through increase in density, consisting in heating amorphous tungsten in an atmosphere of hydrogen for approximately ten minutes to a temperature of about 950° C. and then subjecting it to considerable pressure.

1,074,994. DUMP-CAR ATTACHMENT. HOWARD VAN SCOY, Chicago, Ill., assignor to Goodwin Car Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 24, 1911. Serial No. 645,790. (Cl. 105—185.)

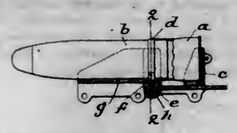


1. The combination with a receptacle of the kind described, having a side door suspended therefrom by a hinge which allows the door to open outward under pressure of the material discharged from the receptacle, of a holder for said door comprising a portable bar designed to be placed in a substantially vertical position in the path of the door and to be swung out thereby, suspending means at the upper end of said bar adapting it to be thrown into engagement with the receptacle at any desired point along the same, engaging means at the lower end of the bar whereby it is enabled to catch the door by its lower edge, and a weight on the bar adjusted to offset partially the force of impact of the door thereon and cause the bar to swing back in time for its engaging means to grasp the said lower edge of door as the latter starts to return to normal position.

2. The combination with a hopper-like receptacle having a drop side door hung therefrom by a hinge holding the door at some distance below its upper edge, so that when it is opened by the material discharged from the receptacle the door will have its upper and lower parts swinging in opposite directions on a relatively fixed point of oscillation, of a holder for said door including a portable bar designed to be placed in a substantially vertical position in the path of the door pushed out by the discharged material and to receive the impact thereof, an upper hook on said bar adapting it to be thrown at any desired point into engagement with the top portion of the receptacle, a lower hook on the bar arranged to catch the lower edge of the outswung door, and a weight on the bar partly resisting the force of impact thereon from the door and operating to swing back the bar at a greater rate of speed than that of the door on the rebound.

1,074,995. MEANS FOR ALTERING THE CHARGES IN CARTRIDGES FOR GUNS. KARL VÖLLER and EMIL MÜLLER, Dusseldorf, Germany, assignors to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed Jan. 4, 1913. Serial No. 740,178. (Cl. 86—1.)

1. A device for engaging and disengaging cartridge cases and projectiles comprising a support for the projectile having a groove to engage the projectile band said groove having its lower portion cut away to prevent contact with the beveled surface of said band.

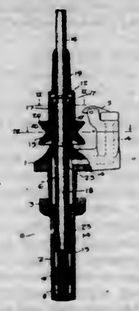


2. A device for engaging and disengaging cartridge cases and projectiles comprising a U-shaped support for the projectile having a groove to engage the projectile band said groove having its lower portion cut away to prevent contact with the beveled surface of said band.

3. A device for engaging and disengaging cartridge cases and projectiles comprising a support for the projectile having a groove to engage the projectile band said groove having its lower portion cut away to prevent contact with the beveled surface of said band, and a reinforcing flange on the exterior of said casing adjacent said groove.

4. A device for engaging and disengaging cartridge cases and projectiles comprising a support for the projectile having a groove to engage the projectile band said groove having its lower portion cut away to prevent contact with the beveled surface of said band, and an opening extending from the bottom of the groove through the support.

1,074,996. SPINDLE. GEORGE M. WHITIN, Whitinsville, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed May 7, 1912. Serial No. 695,617. (Cl. 118—19.)



1. A self-contained, self-balancing spindle comprising a bolster case having an upstanding rigid boss surrounded by a spindle-whirl, a self-adjusting bolster having direct alining contact with the bore of such boss above and below the plane of the whirl, and counterbored at the top to provide a spindle clearance within such bolster and within the boss, in combination with a whirl-supporting spindle-blade having upper and lower metal to metal bearings upon such bolster, the said upper spindle bearing being of less vertical extent than the said alining bearing of the bolster and intersected by the plane of the whirl.

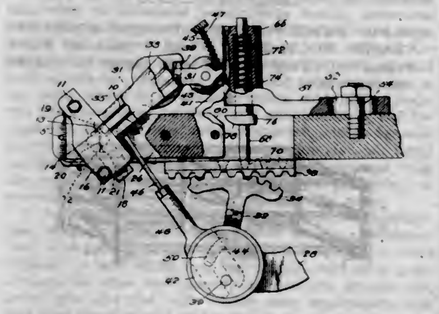
2. A self-contained self-balancing spindle comprising a bolster-case having an upstanding rigid tubular boss surrounded by a spindle whirl, a self-adjusting bolster mounted within the case and boss below the top of the latter and having positive alining bearing upon the bore of such boss, such bearing being intersected by the plane of the whirl, in combination with a whirl-supporting spindle-blade journaled in metal to metal contact with the upper and lower bearings on the interior of the bolster, the uppermost of its bearings being of less vertical extent than the said alining bearing and being also intersected substantially at its middle by the plane of the whirl, the said whirl being driven onto the spindle blade and spaced a distance equal to two or more diameters of the spindle blade from the said uppermost bearing.

3. A self-contained, self-balancing spindle comprising a rigidly supported bolster-case having an upstanding rigid boss surrounded by a spindle whirl, a metal bolster self-adjustingly supported and contained within the case and boss and having direct bearing contact on the bore of such boss above and below the plane of the whirl adapted for positively alining said bolster with the axis of the spinning ring, such bolster being internally bored, and thereby providing a foot-step bearing for the spindle, a clearance for the spindle above such bearing, and an upper bearing for the spindle extending upward from said clearance to a point below the top of the bolster, whereby said bearing terminates below the upper end of said alining bearing, in combination with a spindle blade supported in metal to metal contact with the said upper and foot-step bearings of the bolster and having said whirl thereon.

4. A self-contained, self-balancing spindle comprising a rigidly supported bolster-case having an upstanding rigid boss surrounded by the spindle whirl, a self-adjusting metal bolster within the case and boss in direct bearing contact on the bore of the latter above and below the plane of the spindle band, such bolster being provided with a foot-step bearing for the spindle, and a clearance space above such bearing, and also with an upper spindle bearing intersected by the plane of the spindle band, in combination with a spindle having a blade supported in metal to metal contact with the said interior bearings in such bolster, said blade having a diameter in the region of its engagement with the upper of said bearings, which equals or is greater than one-third of the length of said bearing.

5. In a self-contained, balancing spindle having a bolster case provided with an oil reservoir and an upstanding rigid boss, a self-adjusting spindle bolster therein having its top below the top of the boss and internally bored to provide a foot step and an upper spindle bearing, and counterbored at the top to provide an open spindle clearance above the upper spindle bearing, a longitudinal channel formed on the exterior of the bolster intersecting the said counterbored clearance space whereby the oil therein may pass to the said oil reservoir, and one or more perforations in the lower part of the bolster for admitting oil to the spindle below the said upper bearing.

1,074,997. LOCKING DEVICE FOR TACK-RACEWAYS. ANTHONY WITT, Danville, Va. Filed Aug. 18, 1910. Serial No. 577,778. (Cl. 1—18.)



1. In a machine of the class described, tack separating mechanism, operating means therefor, a movable raceway having a plurality of tack conducting channels, and means controlled by the separating mechanism to lock and unlock the raceway.

2. In a machine of the class described, a movable raceway provided with a plurality of channels, a separating device, and means controlled thereby for holding the raceway stationary during operations of the separating device and releasing it between such operations.

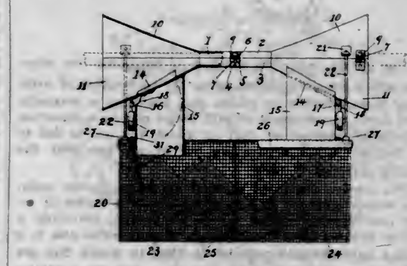
3. In a machine of the class described, a movable raceway provided with channels, a separating device provided with a slot, actuating means therefor, a movable edge rest, means for moving said raceway and said edge rest simultaneously to present either of said channels opposite said slot, and means controlled by said separating mechanism for locking the raceway against movement during movement of the separating device.

4. In a lasting machine, a raceway provided with channels, a separating mechanism, an edge rest arranged to be moved into and out of operative position, means whereby movement of the edge rest shifts the raceway relatively to the separating mechanism, and means controlled by said separating mechanism whereby the edge rest is held from movement during the operation of the separating mechanism.

5. In a lasting machine, a tack block, a driver, means for supplying different kinds of tacks, means for separating either of the kinds one at a time and presenting them to the tack block, means for reciprocating the tack block, an edge rest arranged to be shifted, means operated by shifting the edge rest for changing the tack supplying means from one kind to the other, and means locking the edge rest from movement when the tack block is in its position for presenting a tack to the driver and arranged to be moved to unlocking position by the backward movement of the tack block.

[Claims 6 to 8 not printed in the Gazette.]

1,074,998. RAT-TRAP. WILLIAM J. G. YOUNG, Baltimore, Md. Filed Nov. 15, 1912. Serial No. 731,460. (Cl. 43—24.)



1. In a rat trap for attachment to hawsers or cables of vessels, the combination of two funnels with their larger or flared ends facing in opposite directions, a tubular sleeve adapted to encircle the hawser or cable and connecting the smaller ends of said two funnels—and both the said funnels and connecting sleeve comprising two sections which are separable longitudinally; a hinge connecting the two sections of each funnel at one side of its flared end; means at the opposite side of the flared ends of each funnel to hold the two sections closed; a cage sustained below the said two funnels, and trap openings in each funnel both trap openings communicating with said cage.

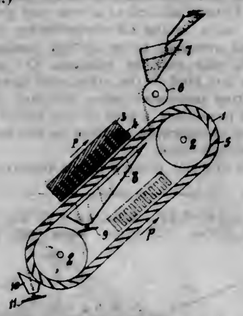
2. In a rat trap for attachment to hawsers or cables of vessels, the combination of a funnel and sleeve to encircle the hawser or cable and said funnel provided in its flaring side with a trap-opening, 14, normally closed; a cage sustained below said funnel and the top of the cage provided with an entrance hole which has a spring-hinged door, 29, that opens inwardly; a chute, 15, having its upper end attached to the funnel and around the said trap-opening therein and the lower end of the chute projecting through the said entrance hole in the cage and holding the said spring-hinged door to its open position, for the purpose set forth.

3. In a rat or vermin trap for hawsers or cables of vessels the combination with an upper sleeve section; an upper cone-member at each end of the sleeve section; a lower sleeve section; a lower cone-member at each end of the lower sleeve-section; means for holding said sleeve and cone members in register about a hawser or cable; a trap in each lower cone-member and a cage below the traps.

4. In a rat or vermin trap for hawsers or cables of vessels the combination with an upper sleeve section; an

upper cone-member at each end of the sleeve section; a lower sleeve section; a lower cone-member at each end of the lower sleeve section; means for pivotally connecting the upper and lower members; means for locking the sleeve and cone members about a hawser or cable; a trap in each lower cone member; a chute below each trap and a cage beneath the chutes.

1,074,999. METHOD AND APPARATUS FOR MAGNETIC SEPARATION. OSCAR ALFRED ZANDER, Stockholm, Sweden. Filed Feb. 9, 1911. Serial No. 607,643. (Cl. 83—71.)



1. The herein described method of magnetic ore separation which consists in arranging ore in a series of overlapping spaced layers or strata and traveling a magnetic field of force transversely of said series and in a direction substantially parallel to that in which the ore is fed to form the layers for separating out of the ore body the magnetic particles thereof.

2. The herein described method of magnetic ore separation which consists in arranging ore in a series of inclined overlapping spaced layers or strata, traveling a magnetic field of force transversely of said series and in a direction substantially parallel to that in which the ore is fed to form the layers whereby the magnetic particles in said ore are separated out of the ore body by traveling upward, and removing the non-magnetic particles by gravity.

3. In ore separating mechanism, the combination with a series of overlapping supports, of means for feeding ore to said supports and means for producing a field of magnetic force and traveling the same in a direction transverse to the said supports and substantially parallel with the direction of feed of the ore.

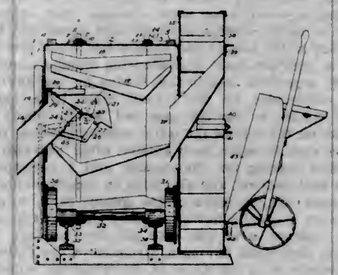
4. In a magnetic ore separator, the combination with a series of fixed inclined overlapping supports, of means for feeding the ore downwardly on to said supports and means for producing and traveling a magnetic field of force in a direction transverse to said supports and substantially parallel with the direction of feed of the ore.

5. In a magnetic ore separator, the combination with a casing having a body of substantially still water therein, of a series of overlapping supports in said casing, means for feeding ore downwardly on to said supports and means for producing and traveling a magnetic field of force in a direction transverse to said supports and substantially parallel with the direction of feed of the ore.

1,075,000. CONCRETE-MIXER. THEODORE AHLBORN, Waterloo, Iowa, assignor to The Waterloo Cement Machinery Corporation, Waterloo, Iowa. Filed May 14, 1912. Serial No. 697,289. (Cl. 83—73.)

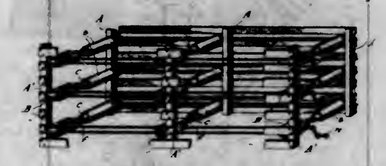
1. In combination, a rotatable drum having reception and delivery ports, and mixing-blades secured to the inner wall of said drum, spaced apart, and said blades being bent near one end to form a short trough near that end, the blades being arranged to alternate the long ends with the short ends of the troughs about the drum.

2. In combination, a rotatable drum having reception and delivery ports, and mixing-blades projecting inwardly on its inner cylindrical wall, spaced apart, said blades being bent near one end to form a short trough near that end, the blades being arranged to alternate the long ends with the short ends of the troughs about the drum, the part of each blade at its angle being of a different width from the other parts of the blade to deliver successively therefrom into oppositely located zones of the drum.



3. In combination, a rotatable drum having a delivery orifice, a tiltable chute mounted within said drum, a fixed chute mounted without said drum and having one end extended through the delivery-orifice of the drum and adapted to receive materials from the adjacent end of the tiltable chute when the latter is tilted toward it, and a deflecting body fixed across the upper inner end of the fixed chute and adapted to close the gap between itself and the adjacent end of the tiltable chute when the latter is tilted back to deliver materials into the drum, said deflecting-body having rearwardly directed projecting blades located over the lateral edges of the tiltable chute and inclined toward the chute, and adapted to coöperate with the said deflecting-body in conveying materials into said chute which are deposited thereon by the drum while in rotation.

1,075,001. BRACE FOR USE IN PACKING BOXES AND CRATES IN RAILWAY-CARS. CHARLES BACON, Fresno, Cal. Filed Dec. 26, 1912. Serial No. 738,780. (Cl. 105—15.)

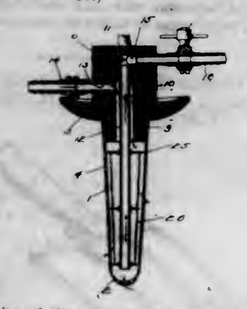


1. In a brace for clamping boxes in a car, the combination of a sleeve *b*, an adjustable extension *d* sliding therein, a screw in the end of said extension terminating with a bevel cog pinion which engages a bevel cog wheel, *h*, a shaft fastened to said bevel cog wheel having a crank at one end thereof, a support extending beyond the periphery of the bevel cog wheel and having bearings for said shaft and screw, all substantially as described.

2. In a brace for clamping boxes in a railway car, a plurality of screws working in tubes attached at one end to a base, each screw having a bearing working in a support B, a cog pinion attached to the end of said screw and engaging with a cog wheel *h*, a common shaft connecting said cog wheels *h*, and passing through bearings in support B, all substantially as described.

3. The combination of a track running parallel to the comb of the roof of a railway car, a carriage running upon such track, a brace suspended from said carriage by means of a hinge, said brace consisting of two parallel frames running crosswise in such car, said frames being connected by a plurality of screws one end of which screws into a base attached to one side of such frame, the other end of which terminates with a cog wheel, and near said end rests in a bearing in a head attached to the other frame, and means for turning such cog wheel, all substantially as described.

1,075,002. SURGICAL INSTRUMENT. JOSEPH BANDIERI, Cincinnati, Ohio. Filed Jan. 11, 1912. Serial No. 670,594. (Cl. 174—89.)



1. In a device of the character described, the combination, with an annular cannula having a perforated outer wall, of a central tube in said cannula and forming with said outer wall an annular space, a liquid supply connection communicating with said annular space, electrodes mounted within said annular space in the path of the liquid discharged therethrough, means for supplying electric energy to said electrodes, and means for withdrawing through said central tube at a point beyond said electrodes the liquid so supplied through said annular space.

2. In a device of the character described, the combination, with an elongated hollow body having perforated walls, of a tube extending through said body from a point within and adjacent to one end to a point without the other end thereof, and forming with the wall of said body an annular space, the end of said tube being open at the point where it terminates within said hollow body, and the passageway between said annular space and the open end of said tube being obstructed, electrodes supported within said annular space, means for admitting liquid to said annular space at the point removed from the open end of said tube, and means for permitting or preventing the escape of liquid through said tube.

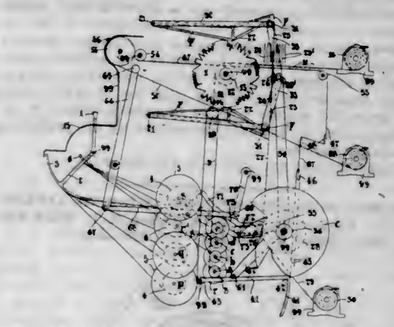
3. In a device of the character described, the combination, with an elongated hollow body having a perforate wall, of a tube extending through said body from a point adjacent to and within one end of said body to a point without the other end thereof, the first end of said tube being open and the walls of the tube imperforate, and said tube forming with said hollow body an annular space or chamber, means for supplying liquid to said annular space at a point removed from the open end of said tube, obstructing means in said annular space between said liquid inlet means and the open end of said tube and adapted to divert outwardly through the perforations of the cannula wall the entering liquid, electrodes within said annular space in the path of the liquid current, and means for supplying electric energy to said electrodes.

4. In a device of the character described, the combination, with an elongated perforated body having one end substantially closed, of a laterally extending disk secured about the open end of said body, a block removably secured to the larger end of said body, an axial tube projecting from said block to a point adjacent the closed end of said body, means for supplying liquid through said block to the annular space between said body and said tube, electrodes carried by said tube in the path of said incoming liquid, connections carried by said block for conveying electric current to said electrodes, and means for withdrawing said liquid from the outer end of said tube.

5. In a device of the character described, the combination with a hollow elongated body having a closed end, the sides and closed end of said body being formed with perforations, of a block secured to the larger end of said body and having an axial recess, a tube carried by said block and projecting through said recess and extending substantially to the closed end of said body, the end of said tube being open and the walls of said tube being spaced from those of the recess, means for supplying liquid to the base of said recess whereby the same may be discharged into the annular space between said body and said tube, electrodes in such annular space, terminal connections carried by said block, and means for withdrawing liquid from the outer end of said tube.

[Claims 6 to 8 not printed in the Gazette.]

1,075,003. CALCULATING-MACHINE. MARK BARR and EDWARD RUSSELL CLARKE, London, England, assignors, by direct and mesne assignments, to The Autokal Syndicate Limited, London, England. Filed Mar. 26, 1910. Serial No. 551,717. (Cl. 235—81.)



1. In a calculating machine the combination of a series of primary templets disposed in groups, means for positioning each group in accordance with the partial products of sums determined by setting means, feelers adapted to ascertain the amounts represented by the positioned primary templets, a series of secondary templets disposed in groups, means for adding the amounts ascertained by the primary feelers and for positioning the secondary templets in accordance with the resultant sums so ascertained and means for setting a series of answer wheels in accordance with the amounts represented by the positioned secondary templets.

2. In a calculating machine the combination of a series of primary templets disposed in groups, means for positioning each group in accordance with the partial products of sums determined by setting means, feelers adapted to ascertain the amounts represented by the positioned primary templets, a series of secondary templets disposed in groups, a series of pulley groups each group being composed of one or more pulleys each connected to a primary templet feeler and a pulley connected to a group of secondary templets, a series of tapes the ends of which are fixed, each tape passing around all the pulleys in a group and means for setting a series of answer wheels in accordance with the amounts represented by the positioned secondary templets.

3. In a calculating machine the combination of a series of primary templets disposed in groups each group adapted to be positioned by means of a tape on the end of which is a pulley, a tape passing over each of these pulleys and having each end connected to a rotatable device, means for rotating each such device to an extent to the value of an operated key, a series of keys, means for feeling the pri-

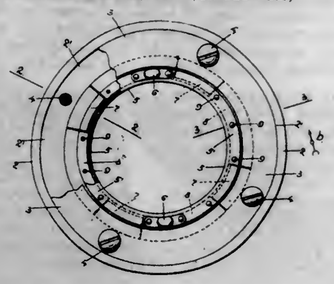
mary templets when positioned, means for adding together the amounts ascertained by the feelers and means for communicating the result so obtained to a series of answer wheels.

4. In a calculating machine the combination of a series of primary templets disposed in groups, means for positioning each group in accordance with the partial products of sums determined by setting means, feelers adapted to ascertain the amounts represented by the positioned primary templets, a series of secondary templets disposed in groups, feelers adapted to ascertain the amounts represented by the positioned secondary templets, means for adding the amounts ascertained by the primary feelers and for positioning the secondary templets in accordance with the resultant sums, a series of answer wheels, pulleys connected to certain of the answer wheels, tapes connecting certain secondary feelers to their corresponding answer wheels and other tapes severally running over answer wheel pulleys and serving to connect certain secondary feelers so as to add the amounts ascertained by them and cause the corresponding answer wheels to be set in accordance with the result of such addition.

5. In a calculating machine the combination of a series of primary templets disposed in groups, each group adapted to be positioned by means of a tape on the end of which is a pulley, a tape passing over each of these pulleys and having each end connected to a rotatable device, means for rotating each such device to an extent proportional to the value of an operated key, a series of keys, feelers adapted to ascertain the amounts represented by the positioned primary templets, a series of secondary templets disposed in groups, means for adding the amounts ascertained by the primary feelers and for positioning the secondary templets in accordance with the resultant sums and means for setting a series of answer wheels in accordance with the amounts represented by the positioned secondary templets.

[Claims 6 to 11 not printed in the Gazette.]

1,075,004. RING SPINNING OR TWISTING APPARATUS. HERBERT G. REEDE, Pawtucket, R. I. Filed Nov. 6, 1912. Serial No. 729,711. (Cl. 118—11.)



1. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotatable ring or traveler, to rotate within said stationary ring, and movable friction members, intermediate said stationary ring and said movable ring or traveler, said movable friction member connected with, and rotating positively with said rotatable ring or traveler.

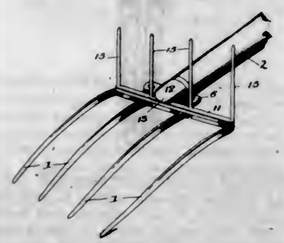
2. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotatable ring or traveler, to rotate within said stationary ring, and movable supporting and friction member, intermediate said stationary ring and said movable ring or traveler said movable supporting and friction members connected with, and rotating positively with said rotatable ring or traveler.

3. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotatable ring or traveler, to rotate within said stationary ring, and movable friction members connected with and rotating positively with said rotatable ring or traveler.

4. In ring spinning or twisting apparatus, the combination with a stationary ring having a recessed inner edge, and a second stationary ring having a recessed inner edge, and removably attached to said first mentioned ring, of a rotatable ring, or traveler extending within said two rings, and having a recess or recesses in its periphery, and movable friction members or devices extending within said recess or recesses in said rotatable ring, and also extending within the recessed inner edges of said first mentioned stationary rings.

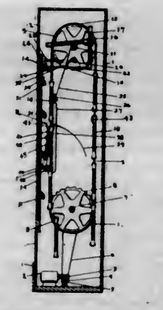
5. In ring spinning or twisting apparatus, the combination with a stationary ring, having a recessed inner edge, and a second stationary ring having a recessed inner edge, and removably attached to said first mentioned ring, of a rotatable ring or traveler extending within said two rings, and having a recess or recesses in its periphery, and movable friction members or devices connected with said rotatable ring and extending within said recess or recesses in said rotatable ring, and also extending within the recessed inner edges of said first mentioned stationary rings.

1,075,005. COMBINED HOOK AND FORK. EDWARD H. BIEL, Randolph, Wis. Filed Apr. 15, 1913. Serial No. 761,230. (Cl. 55—2.)



The combination with a pitching fork, its handle, and its ferrule, of a detachable hook having a head provided with tines, a clamp, and a connection between the clamp and the hook head, said hook head engaging the fork head and having a concavity receiving the outer end of the ferrule back of the fork head and said clamp embracing the ferrule and abutting the rear part of the fork head.

1,075,006. DISPLAY DEVICE. ALFRED F. BIPPUS, HERBERT KEMPTHORN, and GEORGE J. PASCOE, Toledo, Ohio. Filed Apr. 5, 1912. Serial No. 688,639. (Cl. 40—32.)



1. A display device comprising an endless belt, a freely swingable suspended carrier slidably pivoted thereon and catch means effecting the sliding of the carrier to reverse said carrier.

2. A display device comprising an endless belt, an invertible carrier loosely mounted thereon, carrier inversion means embodying a catch mechanism including a yieldable carrier engaging seat effective to engage and retard the carrier during the inversion thereof.

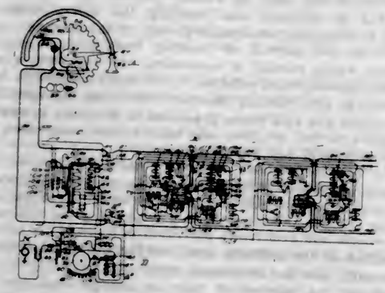
3. A display device comprising an endless belt, a driving device for the belt, a wheel over which said belt passes, a suspended carrier, mounting means for suspending said carrier on said belt, said mounting means permitting movement of the carrier longitudinally of the belt, means to move the carrier longitudinally of the belt, and impact take-up means adjacent said wheel engaging the suspended carrier for retarding the carrier in its travel longitudinally of the belt.

4. A display device comprising a traveling carrier, a support slidably mounting said carrier, and carrier inversion means including a movable catch for engaging and retarding the carrier during said inversion.

5. A display device comprising a carrier, a driving device for the carrier, said carrier being capable of longitudinal movement relatively to the driving device, there being means to move the carrier longitudinally of the driving device, and catch mechanism including a movable seat, and means for resisting movement of said seat as the carrier in moving longitudinally of the driving device is received by said seat to effect quiet travel of the carrier in said movement.

[Claims 6 to 10 not printed in the Gazette.]

1,075,007. TELEPHONE SYSTEM. JOHN G. BLESSING, Chicago, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 21, 1911. Serial No. 655,950. (Cl. 179—18.)



1. In a telephone system, an automatic switch having motion in one plane to select groups and motion in an intersecting plane to find a line in a selected group, and means including a relay for controlling the operation of said switch, said relay having a pair of armatures, the operation of one of said armatures being sluggish as compared with the operation of the other of said armatures.

2. In a telephone system, an automatic switch, means including a relay for controlling the operation of said switch, a plurality of armatures for said relay, and means for preventing one of said armatures from coming in contact with the magnet of said relay, whereby said armature is quick acting as compared with the other of said armatures.

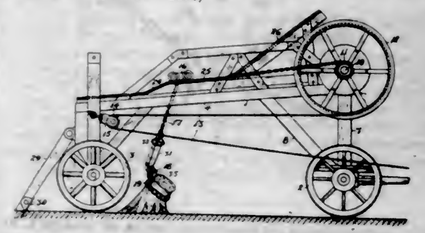
3. In a telephone system, an automatic switch, means including a relay for controlling the operation of said switch, a plurality of energizing windings for said relay, means for energizing said windings over a line circuit in series, a plurality of armatures for said relay, means for rapidly interrupting said line circuit, means whereby one of said armatures responds to said interruptions, and means for maintaining the other of said armatures in attracted position during the transmission of said impulses.

4. In a telephone system, an automatic switch, means including a relay for controlling the operation of said switch, said relay having a plurality of armatures, independent magnetic circuits for said armatures, means for transmitting a series of impulses, means whereby one of said armatures vibrates in synchronism with said impulses, and means for maintaining the other of said armatures in operated position during the transmission of said impulses.

5. In a telephone system, an automatic switch, means including a relay for controlling the operation of said switch, a plurality of energizing windings for said relay, a plurality of armatures controlled by said relay, said armatures having independent magnetic circuits, means for transmitting a series of impulses through said energizing windings, means whereby one of said armatures vibrates in synchronism with said impulses, and means for maintaining the other of said armatures energized during the transmission of said impulses.

[Claims 6 to 11 not printed in the Gazette.]

1,075,008. STUMP-EXTRACTOR. EDMUND P. BODEN, Santa Clara, Cal. Filed Feb. 9, 1911. Serial No. 607,543. (Cl. 57—103.)



1. A stump extractor comprising a vehicle having front and rear wheels, and capable of rearward movement, a longitudinal track carried thereby sloping upwardly from the rear to the front end, a carriage on said track, power-multiplying means supported on said vehicle at the front end of the track, a chain provided with means for attachment to a stump and suspended from said carriage, a chain connecting said carriage with the load end of said power-multiplying means, and a cable extending from the power end of said power-multiplying means to a point in front of the vehicle.

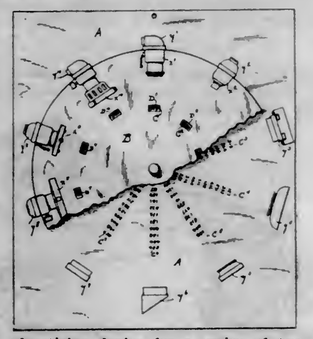
2. A stump extractor comprising a vehicle, an upwardly sloping longitudinal track carried thereby comprising in order, a rear portion of small slope, a comparatively steep portion, upon which the carriage travels to take up the slack in the chain, a succeeding portion of small slope, and a forward steep terminal portion, a carriage on said track, a device constructed for attachment to a stump and carried by said carriage, a power-multiplying device supported upon said vehicle at the end toward which said track slopes upwardly, means for operating said power-multiplying device, and a connection therefrom to said carriage.

1,075,009. ADVERTISING DEVICE. FRANK V. BURTON, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 15, 1911. Serial No. 644,202. (Cl. 40—70.)

1. An advertising device for a series of articles with interchangeable parts comprising a member having representations thereon of one part of each of the series of articles and a separate member having representations thereon of another part of each of the series of articles, said members being movable with relation to each other to bring one part of any of the series of articles into predetermined relation to the coöperating part of any of the series of articles, in combination with a series of identification marks for each combination of the coöperating parts and means for displaying the particular mark for each combination when said coöperating parts are brought into predetermined relation to each other.

2. An advertising device for a series of articles with interchangeable parts comprising a placard having arranged in a circle thereon one part of each of the series of articles, and a disk pivoted on said placard within said circle and having peripherally represented thereon, the coöperating parts of said series of articles, in com-

bination with a series of columns of identification marks on said placard, one for each representation thereon, said disk being perforated to form a series of sight apertures corresponding in number to the parts peripherally represented thereon and spaced radially different distances from the pivotal center of the disk corresponding to the radial spaces between the identification marks in each column on the placard, substantially as and for the purpose described.



3. An advertising device for a series of two-part fittings having interchangeable parts, said device comprising a base placard and a disk rotatably mounted thereon, said placard having arranged thereon in a circle outside said disk representations of one part of each of said series of fittings, while said disk has arranged thereon at its periphery representations of the other part of each of said series of fittings in coöperating position, whereby any one part of said series of fittings may be brought into register with any one of the coöperating parts of said series, in combination with identification marks for various combinations of coöperating parts, and means for displaying the same when said parts are in register.

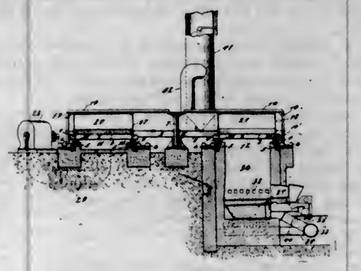
1,075,010. SHIRT. CHARLES H. CASEBOLT, St. Louis, Mo. Filed Dec. 20, 1911. Serial No. 666,981. (Cl. 2—94.)



A garment including in combination, a body portion, a short length sleeve secured on said body portion, a tab secured to said body portion on top of the shoulder and extending out over a portion of said short length sleeve and provided in its outer portion with a means of attachment, and a full length sleeve adapted to be slipped entirely over said short length sleeve and to contact around the sleeve with the body portion of the garment, said full length sleeve being provided with means at its upper extremity for securing it to the garment by the attaching means carried by the tab.

1,075,011. METHOD OF TREATING ORES AND THE LIKE. NIELS C. CHRISTENSEN, Jr., Salt Lake City, Utah. Filed Mar. 26, 1913. Serial No. 757,002.. (Cl. 75—134.)

1. In the method of treating metalliferous ore, the steps which consist in moistening the crushed ore with a solution containing at least one reagent adapted to react with the ore, roasting the ore, condensing the volatilized products and acid fumes generated in the roast in another portion of the above referred to solution, and leaching the metal from the ore with said last mentioned portion of said solution.



2. In the method of treating metalliferous ore, the steps which consist in moistening the crushed ore with a solution containing at least one of the common chlorids, condensing the volatilized products and acid fumes generated in the roast in another portion of the above referred to solution and leaching the metal from the ore with the last mentioned portion of the solution.

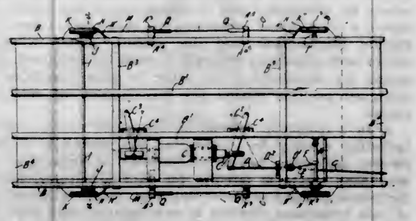
3. In the method of treating metalliferous ore, the steps which consist in moistening the ore with a relatively concentrated solution of a reagent adapted to react with the ore, roasting the ore, condensing the volatilized products and acid fumes generated in the roast in another portion of the solution, and leaching the metal from the ore with said last mentioned portion.

4. In the method of treating metalliferous ore, the steps which consist in moistening the ore with a relatively concentrated solution containing at least one of the common chlorids, roasting the ore, condensing the volatilized products and acid fumes generated in the roast in another portion of the solution, and leaching the metal from the ore with said last mentioned portion.

5. In the method of treating metalliferous ore, the steps which consist in moistening the ore with a portion of a solution containing a reagent in an inactive state adapted to react with the ore, roasting said ore, condensing the volatilized products and acid fumes generated in the roast with another portion of said first mentioned solution, and leaching the metal from the ore with said last mentioned portion of said solution.

[Claims 6 to 19 not printed in the Gazette.]

1,075,012. MECHANISM FOR OPERATING WHEEL-BRAKES BY HAND FOR RAILWAY PURPOSES. ROBERT FRANCIS COLBORNE, Strathfield, near Sydney, New South Wales, Australia. Filed Oct. 20, 1911 Serial No. 655,742. (Cl. 188—24.)



1. In a hand operating brake attachment of a vehicle having wheel brakes mechanically operated through the medium of a brake cylinder and associated levers combined with a connecting rod, sheave, and looped chain, a set of shafting and grooved wheels arranged in pairs on each side of the railway vehicle, comprising a through shaft, spring hangers for adjustably suspending said shaft, grooved wheels secured to the shaft and rotating therewith, a short spindle secured to and supported in a rigid hanger, a grooved wheel running freely on said spindle, an actuating shaft having a grooved free wheel combined with a gapped collar thereon, a fixed drum and an angle hanger supporting said shaft, endless ropes connecting each pair of wheels, and, wheel shields covering each wheel, substantially as described.

2. A wheel shield, consisting of a casing splayed and flanged for attachment to hanging supports, pierced centrally to receive the wheel shaft, and, upper and lower wood guides and stiffeners pierced to receive the wheel rope, substantially as described.

3. As a rope attachment for operating grooved wheels, a handle consisting of a tubular outer casing, a recoil spring located within said casing, seating collars, sleeve pieces arranged externally against said collars, and, externally screwed nuts fitting into tubular casing against the collars, and sliding on sleeve pieces, as described.

4. In mechanism employed for operating wheel brakes of railway vehicles, an actuating shaft carrying a free grooved wheel combined with a gapped collar, a screw thread on said shaft, a traveling nut thereon, spring washers on one side of the nut, a standard and a winding crank secured to the shaft and rotating with it, and securing collars fixed on the ends of said shaft, substantially as described.

5. In combination with an actuating shaft, fixed hanging supports for the actuating shaft, consisting of a drum having a centrally situated bore to receive the shaft, and a peripheral surface adapted to be in contact with a movable gripper, and a hanger bored to receive the shaft and having an angled part forming a seating surface for a traveling nut, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,075,013. APPARATUS FOR MECHANICALLY OPERATING MUSICAL INSTRUMENTS. HENRY CHARLES COLDMAN, Lewisham, and CHRISTOPHER FREDERICK WEBB, Lee, England. Filed Nov. 23, 1912. Serial No. 733,085. (Cl. 84—168.)



1. In apparatus for mechanically operating musical instruments, the combination with a series of striking pneumatics, of a plurality of reducing valves for variably controlling the operation of said pneumatics, each valve being associated with a different section of said series of pneumatics, and means common to more than one of said valves for moving the latter to different extents to cause successive pneumatics of the series to act with progressively varying force from one end of the series toward the other.

2. In expression mechanism for mechanically operating musical instruments, the combination with a series of striking pneumatics, of a plurality of reducing valves for variably controlling said pneumatics each valve controlling different pneumatics of the series, and means common to more than one of said reducing valves for effecting a graduated control thereof to cause the striking pneumatics of the series to act with progressively increasing or decreasing force from one end of the series toward the other.

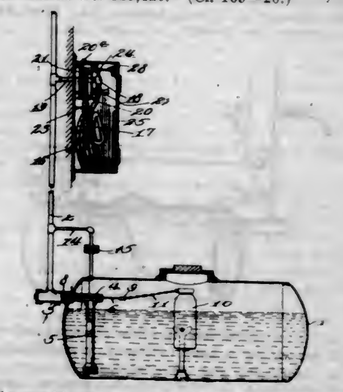
3. In apparatus for mechanically operating musical instruments, the combination with a series of striking pneumatics, of a plurality of reducing valves for variably controlling the operation of said pneumatics, each valve being associated with a different section of the said series, and a displaceable bar common to more than one of said valves for moving the latter to different extents to cause successive pneumatics of the series to act with progressively varying force from one end of the series toward the other.

4. In apparatus for mechanically operating musical instruments, the combination with a series of striking pneumatics, of a plurality of reducing valves for variably controlling the operation of said pneumatics, each valve controlling different pneumatics of the series, and an angularly displaceable bar common to more than one of said valves for moving the latter to different extents to cause the series of pneumatics controlled thereby to act with different degrees of force from one of said series toward the other.

5. In expression mechanism for mechanically operating musical instruments, the combination with a series of striking pneumatics, of a plurality of reducing valves for variably controlling said pneumatics, each valve controlling different pneumatics of the series, and pneumatic means common to more than one of said reducing valves for moving the latter to different extents, to cause successive pneumatics of the series to act with progressively varying force from one end of the series toward the other.

[Claims 6 to 20 not printed in the Gazette.]

1,075,014. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Sept. 24, 1909. Serial No. 519,420. (Cl. 169—20.)



1. The combination with a line of hose, a distributing pipe connected thereto and a fire extinguisher system including chemical mixing means, of a cabinet inclosing the line of hose and provided with a movable normally closed door and means mechanically connected to the door and positively actuated thereby when the door is opened to govern the operation of the chemical mixing means.

2. The combination with a line of hose, a distributing pipe connected thereto and a fire extinguisher system including pressure controlled means for causing the flow of a fire extinguishing agent through the distributing pipe of a line of hose connected to the distributing pipe and having a nozzle, a piston head on the nozzle and a cylinder inclosing the piston head and providing for the creation of a suction influence in the distributing pipe to cause the operation of the system consequent to the withdrawal of the nozzle from the cylinder.

3. The combination with a line of hose, a distributing pipe connected thereto and a fire extinguisher system including means operable consequent to a fall of pressure in the distributing pipe for causing the flow of a fire extinguishing agent through the distributing pipe, of a valve arranged at the connection of the distributing pipe and the hose, a cabinet inclosing the hose and the valve

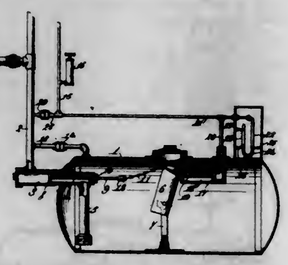
and having a movable normally closed door and means provided on the door for positively opening the valve consequent to the opening of the door.

4. The combination with a line of hose, a distributing pipe connected thereto and a fire extinguishing system including means operable consequent to a fall of pressure in the distributing pipe for causing the flow of a fire extinguisher agent through the distributing pipe, of a valve arranged at the connection of the distributing pipe and the hose, a cabinet inclosing the hose and the valve and having a movable normally closed door, means provided on the door for opening the valve consequent to the opening of the door, a cylinder in the cabinet to receive the nozzle of the hose, and a piston head fitted on the nozzle and disposed in the cylinder to develop a suction influence in the line of hose and distributing pipe consequent to the withdrawal of the nozzle.

5. The combination with a line of hose, a distributing pipe connected thereto and a fire extinguisher system including a tank with which the distributing pipe communicates, and an acid bottle arranged to discharge its contents into the tank, the line of hose having a nozzle, of a cylinder in which the nozzle is normally fitted, and means associated with the nozzle and coöperating with the cylinder for causing a suction influence in the line of hose and the distributing pipe consequent to the withdrawal of the nozzle from the cylinder, the said influence acting to cause the discharging operation of the acid bottle.

[Claim 6 not printed in the Gazette.]

1,075,015. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Nov. 29, 1909. Serial No. 530,468. (Cl. 169—24.)



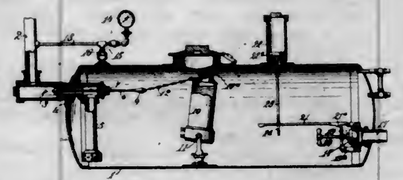
1. In a fire extinguisher system, the combination with a tank containing a body of liquid, a distributing pipe leading therefrom, and fire extinguisher agent supply means including a movable pressure operated controlling element arranged in the tank, the tank and the distributing pipe serving to contain elastic fluid under pressure, and the fluid in the tank becoming active when the fluid in the distributing pipe is exhausted to produce the operative movement of the element, and additional optionally operable means exterior to and independent of the tank for immediately developing an elastic fluid pulsation to produce the operative movement of the element.

2. In a fire extinguisher system, the combination with chemical mixing means including an acid bottle of means for maintaining a dominant elastic fluid pressure, means for maintaining a servient elastic fluid pressure which operates automatically and positively to cause the acid bottle to discharge its contents when the dominant pressure is reduced and additional optionally operable means for developing a fluid pressure pulsation to cause the acid bottle to discharge its contents.

3. In a fire extinguisher, an acid bottle forming a part of chemical mixing apparatus and an overflow chamber associated with the acid bottle into which an excess mixture incident to the absorption of moisture by the acid may drain.

4. In a fire extinguisher, an acid bottle forming a part of chemical mixing apparatus and a jacket surrounding the acid bottle and open at its upper end, the jacket providing an overflow chamber into which an excess mixture incident to the absorption of moisture by the acid may drain.

1,075,016. STATIONARY FIRE-EXTINGUISHER-SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Nov. 29, 1909. Serial No. 530,469. (Cl. 169—24.)



1. In a fire extinguisher system, in combination, a distributing pipe, primary fire extinguisher agent supply means consisting of a chemical mixing apparatus, secondary fire extinguishing agent supply means, means for producing a chemical mixing operation and means operable by the developed pressure incident to the mixing operation to provide for an operation of the secondary means, and consisting of a cylinder communicating with the tank, a plunger having a single operative stroke axially of the cylinder and operative connections between the plunger and the secondary supply means.

2. In a fire extinguisher system, in combination, a distributing pipe, a service pipe, a valve controlling the service pipe, chemical mixing apparatus, means for causing a chemical mixing operation, and means normally holding the valve closed and directly operable by the developed pressure incident to the generation set up by the chemical mixing operation to release the service pipe valve and to thereby provide for the opening thereof.

3. In a fire extinguisher system, the combination with chemical mixing means and operating means therefor, of a service pipe, a valve controlling the same, a latch lever normally holding the valve closed, and an element movable by the pressure developed incident to the chemical mixing operation to operate the latch lever to release the valve and to thereby provide for the opening thereof.

4. In a fire extinguisher system, the combination with a fluid driven piston, a service pipe, a valve therefor, a pivoted member carrying the valve, a latch lever normally engaging the pivoted member to hold the valve closed, and operatively connected with the piston, and means for developing an elastic fluid impulse to drive the piston.

5. In a fire extinguisher system, a chemical mixing tank, secondary fire extinguisher agent supply means, a cylinder fitted to the tank in endwise communication therewith, and a plunger movable axially of the cylinder by the developed pressure incident to the chemical mixing action and operative in a single stroke to provide for an operation of the secondary supply means.

[Claims 6 and 7 not printed in the Gazette.]

1,075,017. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Nov. 29, 1909. Serial No. 530,470. (Cl. 169—24.)

1. A stationary dry pipe fire extinguisher system including a tank and a distributing pipe communicating therewith, an overturning acid bottle in the tank, a piston cylinder in the tank and in communication with the distributing pipe, and a pressure operated piston movable in the cylinder and having means for latching engagement with the bottle.

2. A stationary dry pipe fire extinguisher system including a tank and a distributing pipe communicating therewith, a pipe or tube in the upper portion of the tank and also communicating with the distributing pipe, a piston cylinder connected to the end of the pipe or tube in the tank, an acid bottle pivotally mounted in the tank and a pressure operated piston fitted and movable in the cylinder and having means for latching engagement with the acid bottle.

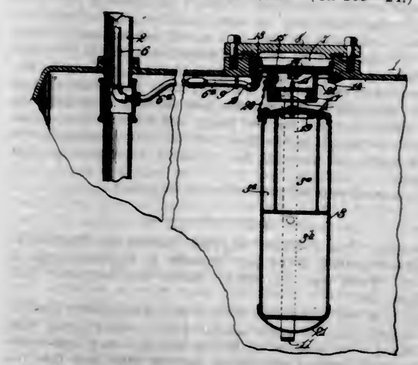
3. A stationary dry pipe fire extinguisher system including a tank and a distributing pipe communicating therewith, a pipe or tube in the upper portion of the tank and also communicating with the distributing pipe, a piston cylinder connected to the end of the pipe or tube in the tank, a movable mechanical element in the tank and forming a part of fire extinguisher agent supply means and a pressure operated piston fitted and movable in the cylinder and having means for latching engagement with the element.

4. A stationary dry pipe fire extinguisher system including a tank, a distributing pipe communicating therewith, an acid bottle pivotally mounted in the tank, a pressure operated element in the tank having means for latching engagement with the acid bottle and a cylinder communicating with the distributing pipe and in which the element works.

5. A stationary dry pipe fire extinguisher system including a tank, a distributing pipe communicating therewith, an acid bottle pivotally mounted in the tank and having a recess at one side thereof, a pressure operated latch within the tank for engagement in the recess to normally hold the acid bottle against overturning movement and a cylinder communicating with the distributing pipe and in which the latch works.

[Claims 6 to 10 not printed in the Gazette.]

1,075,018. CHEMICAL-MIXING FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed June 15, 1910. Serial No. 567,048. (Cl. 169—24.)



1. In a chemical mixing fire extinguisher system, a tank containing an alkaline solution, an acid bottle, a piston operable by a pneumatic impulse and having means to control the discharging operation of the acid bottle, a piston cylinder, a frame carrying the acid bottle, the piston, and the piston cylinder and removably supported in the tank, a distributing pipe leading from the tank, and a pipe whereby said cylinder may communicate with said distributing pipe when the frame is supported in the tank.

2. In a chemical mixing fire extinguisher system, a tank containing an alkaline solution, an invertible acid bottle, a piston latch normally holding the acid bottle in its upright position and operable by a pneumatic impulse to disengage the acid bottle, a cylinder for the piston latch, a frame carrying the acid bottle, the piston latch and the cylinder and removably supported in the tank, a distributing pipe leading from the tank, and a pipe whereby said cylinder may communicate with said distributing pipe when the frame is supported in the tank.

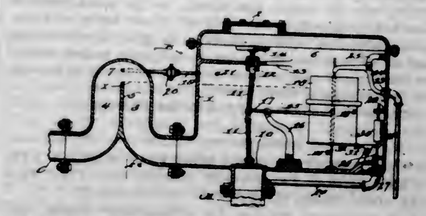
3. In a chemical mixing fire extinguisher system, a tank containing an alkaline solution, a distributing pipe communicating with the tank, a pipe section arranged in the distributing pipe and having a branch which projects laterally from the distributing pipe into the tank, an acid bottle, a piston operable by a pneumatic impulse and which governs the discharging operation of the acid bottle, a piston cylinder having means removably associated with the branch and for putting the cylinder into communication with the branch, and a frame carrying the acid bottle, the piston and the cylinder and removably supported in the tank.

4. In a chemical mixing fire extinguisher system, a tank containing an alkaline solution, an invertible acid bottle, a piston latch normally holding the acid bottle in its upright position and operable by a pneumatic impulse to disengage the acid bottle, a cylinder for the piston latch, a projection extending across the top of the cylinder and having a socket at one end thereof and a duct extending between the socket and the cylinder, a pipe section arranged in the distributing pipe and having a branch which projects laterally from the distributing pipe into the tank and terminates in an upturned end portion over which the socket may be fitted, and a frame carrying the acid bottle, the piston latch and the cylinder and removably supported in the tank.

5. In a chemical mixing fire extinguisher system, a tank containing an alkaline solution, an invertible acid bottle, a piston latch normally holding the acid bottle in its upright position and operable by a pneumatic impulse to disengage the acid bottle, a cylinder for the piston latch, a projection extending across the top of the cylinder and having a socket at one end thereof and a duct extending between the socket and the cylinder, the piston of the piston latch having a projection to engage in and seal the mouth of the duct when the piston latch is in its uppermost position, a pipe section arranged in the distributing pipe and having a branch which projects laterally from the distributing pipe into the tank and terminates in an upturned end portion over which the socket may be fitted, and a frame carrying the acid bottle, the piston latch and the cylinder and removably supported in the tank.

[Claims 6 and 7 not printed in the Gazette.]

1,075,019. DRY-PIPE WATER-SERVICE FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed June 15, 1910. Serial No. 567,049. (Cl. 169—23.)



1. A dry-pipe fire extinguisher system including a water service pipe, a distributing pipe and a closed casing inter-

posed between the water service pipe and the distributing pipe and communicating with said pipes, the distributing pipe and the casing serving to confine air under pressure, means for maintaining the pressures of the air in the distributing pipe and in the casing at equal degrees, a valve arranged in the casing and which, in a normal position, closes the water service pipe, the casing being partially filled with a body of liquid which separates the air in the casing from the air in the distributing pipe and provides for the expansion of the air in the casing, when the air in the distributing pipe is suddenly exhausted, means for latching the valve in its closed position, and a float supported by the body of liquid and operable consequent to the shifting of the latter when the air in the casing expands to disengage the valve latching means.

2. A dry-pipe fire extinguisher system including a water service pipe, a distributing pipe and a closed casing interposed between the water service pipe and the distributing pipe and communicating with said pipes, the distributing pipe and the casing serving to confine air under pressure, means for maintaining the pressures of the air in the distributing pipe and in the casing at equal degrees, a valve arranged in the casing and which, in a normal position, closes the water service pipe, a pair of toggle links, one of which is pivoted to the valve and the other of which is pivoted in the casing, the toggle links being normally set slightly off a dead center and maintaining the closed position of the valve, a latch lever which engages the toggle links and maintains the normal relation thereof, a body of liquid which separates the air in the casing from the air in the distributing pipe and provides for the expansion of the air in the casing when the air in the distributing pipe is suddenly exhausted, and a float supported by the body of liquid and operable consequent to the shifting of the latter when the air in the casing expands to engage the latch lever and cause the latter to release the toggle links.

3. A dry-pipe fire extinguisher system including a distributing pipe, a water service pipe, a casing interposed between the pipes and in communication therewith, a valve in the casing and normally closing the water service pipe, the casing being partially filled with a body of liquid which is shiftable by a pneumatic impulse whereby its level in the casing is lowered, and means operable consequent to the shifting of the body of liquid to provide for the opening of the valve.

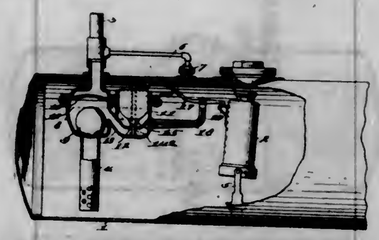
4. A dry-pipe fire extinguisher system including a distributing pipe, a water service pipe, a casing in communication with the water service pipe, a siphon casting in communication with the casing and the distributing pipe, a valve in the casing and normally closing the water service pipe, the casing and the siphon casting being partially filled with a body of liquid which is shiftable by a pneumatic impulse whereby its level in the casing is lowered, and means operable consequent to the shifting of the body of liquid to provide for the opening of the valve.

5. A dry-pipe fire extinguisher system including a distributing pipe, a water service pipe, a casing interposed between the distributing pipe and the water service pipe and in communication with said pipes, a valve in the casing and normally closing the water service pipe, the casing being partially filled with a body of liquid whereby air spaces are afforded on the distributing pipe side and the casing side of said body, a by-pass pipe connecting the air spaces and having an air passageway of "pin-hole" diameter, the body of liquid being shiftable by a pneumatic impulse whereby its level in the casing may be lowered and means set in operation consequent to the lowering of the level of the body of liquid to provide for the opening of the valve.

[Claims 6 to 21 not printed in the Gazette.]

1,075,020. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT LEE COONEY, Atlanta, Ga. Filed June 15, 1910. Serial No. 567,050. (Cl. 169—24.)

1. A stationary dry-pipe fire extinguisher system comprising a tank, a distributing pipe communicating therewith, the tank containing a body of liquid which is shiftable by a pneumatic impulse, a mechanical element which is movable to provide for the supplying of a fire extinguisher agent to the distributing pipe, a float supported by the body of liquid and operatively movable consequent to the shifting of the latter and a latch normally engaging the mechanical element and operatively connected to the float whereby the descent of the latter causes the disengagement of the latch.



2. A stationary dry-pipe fire extinguisher system comprising a tank, a distributing pipe communicating therewith, the tank containing a body of liquid which extends into the distributing pipe and is shiftable by a pneumatic impulse, a mechanical element which is movable to provide for the supplying of a fire extinguisher agent to the distributing pipe, a float supported by the body of liquid and operatively movable consequent to the shifting of the latter and a latch normally engaging the mechanical element and operatively connected to the float whereby the descent of the latter causes the disengagement of the latch.

3. A stationary dry-pipe chemical mixing fire extinguisher system comprising a tank, a distributing pipe communicating therewith, the tank containing an alkaline solution, a chamber in the tank which contains a body of liquid shiftable by a pneumatic impulse and is in communication at its lower end with said distributing pipe, an acid bottle, and mechanism operable consequent to the shifting of the body of liquid in the chamber to produce the discharging operation of the acid bottle.

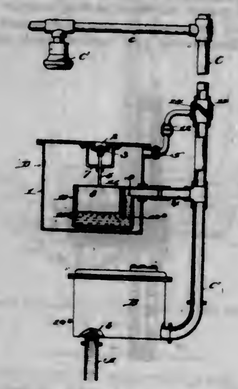
4. A stationary dry-pipe chemical mixing fire extinguisher system comprising a tank, a distributing pipe communicating therewith, the tank containing an alkaline solution, a chamber in the tank which communicates with the distributing pipe and also with the tank, the chamber containing a body of liquid shiftable by a pneumatic impulse, an acid bottle, and mechanism operable consequent to the shifting of the body of liquid in the chamber, to produce the discharging operation of the acid bottle.

5. A stationary dry-pipe chemical mixing fire extinguisher system comprising a tank, a distributing pipe communicating therewith, the tank containing an alkaline solution, a chamber in the tank which communicates with the distributing pipe and also with the tank, the chamber containing a body of liquid shiftable by a pneumatic impulse, an invertible acid bottle, a float supported by the body of liquid in the chamber and movable consequent to the shifting of said body of liquid and a latch lever operatively connected to the float and normally engaging the acid bottle to prevent the inverting movement of the latter.

[Claims 6 to 9 not printed in the Gazette.]

1,075,021. DRY-PIPE WATER-SERVICE FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Apr. 22, 1911. Serial No. 622,653. (Cl. 169—28.)

1. In a dry pipe water service fire extinguisher system, in combination, a water service pipe, a distributing pipe provided with a valve controlled outlet, a dry pipe valve interposed between the water service pipe and the distributing pipe, the distributing pipe containing an elastic fluid under pressure which normally restrains the operation of the dry pipe valve and the operation of the latter being consequent to a reduction of the pressure in the distributing pipe, means operable consequent to the opening of the valve in the distributing pipe for venting pressure from said distributing pipe concurrently with and independently of the venting of pressure at said open distributing pipe valve, the means being connected to the distributing pipe at one side thereof and a check valve located in the distributing pipe in advance of the means.



2. In a dry pipe water service fire extinguisher system, in combination, a water service pipe, a distributing pipe provided with a valve controlled outlet, a dry pipe valve interposed between the water service pipe and the distributing pipe, the distributing pipe containing an elastic fluid under pressure which normally restrains the operation of the dry pipe valve and the operation of the latter being consequent to a reduction of the pressure in the distributing pipe, a casing arranged at one side of the distributing pipe, a connection between the casing, a partition defining two communicating liquid chambers within the casing, a body of liquid partially filling the two chambers, the casing receiving pressure from the distributing pipe, means for preventing the pressure in the casing from passing to any appreciable extent into the distributing pipe when the pressure in the latter is reduced consequent to the opening of the valve in the distributing pipe whereby the pressure in the casing at such time shifts the body of liquid, the casing having a vent opening, a valve head normally closing the vent opening, and means operable consequent to the shifting of the body of liquid for causing the valve head to uncover the vent opening, the pressure in the distributing pipe passing through the casing and through the vent opening when the latter is uncovered.

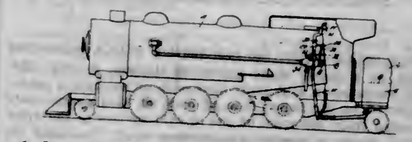
3. In a dry pipe water service fire extinguisher system, in combination, a water service pipe, a distributing pipe provided with a valve controlled outlet, a dry pipe valve interposed between the water service pipe and the distributing pipe, the distributing pipe containing an elastic fluid under pressure which normally restrains the operation of the dry pipe valve and the operation of the latter being consequent to a reduction of the pressure in the distributing pipe, a casing at one side of the distributing pipe, the casing having two liquid containing chambers communicating only at their lower ends, a float in one of the chambers, a connection leading from the other chambers to the distributing pipe, the casing having a vent opening, a valve head operatively connected to the float and held to normally close the vent opening and a second connection between the casing and the distributing pipe, the second connection being located in advance of the first connection and containing a fixed diaphragm having a "pin-hole" aperture.

4. In a dry pipe water service fire extinguisher system, in combination, a water service pipe, a distributing pipe provided with a valve controlled outlet, a dry pipe valve interposed between the water service pipe and the distributing pipe, the distributing pipe containing an elastic fluid under pressure which normally restrains the operation of the dry pipe valve and the operation of the latter being consequent to a reduction of the pressure in the distributing pipe, a casing located immediately in advance of the dry pipe valve and having a vent opening, an auxiliary valve normally closing the vent opening, means operable consequent to a reduction of pressure in the distributing pipe for causing the auxiliary valve to uncover the vent opening, and a connection through which the pressure in the distributing pipe passes into the casing when the vent opening of the latter is uncovered.

5. In a dry pipe water service fire extinguisher system, in combination, a water service pipe, a distributing pipe provided with a valve controlled outlet, a dry pipe valve interposed between the water service pipe and the distributing pipe, the distributing pipe containing an elastic fluid under pressure which normally restrains the operation of the dry pipe valve and the operation of the latter being consequent to a reduction of the pressure in the distributing pipe, a casing located immediately in advance of the dry pipe valve and having a vent opening, an auxiliary valve normally closing the vent opening, means operable consequent to a reduction of pressure in the distributing pipe for causing the auxiliary valve to uncover the vent opening, a connection through which the pressure in the distributing pipe passes into the casing when the vent opening of the latter is uncovered, and a check valve located in the distributing pipe in advance of said connection.

[Claim 6 not printed in the Gazette.]

1,075,022. CHEMICAL-FEEDER. JOSEPH H. COOPER, Paola, Kans., assignor to Dearborn Drug & Chemical Works, Chicago, Ill., a Corporation of Illinois. Filed July 8, 1912. Serial No. 708,145. (Cl. 210—19.)



1. In combination, a pair of water feeding devices, each of said water feeding devices having a suction end and a delivery end, a chemical tank, pipes connecting the suction ends of the water feeding devices with the chemical tank, and a check valve in each of said pipes arranged to be held closed when the water feeding device associated with the other pipe is in operation, the check valve in each of said pipes being held closed by the vacuum produced by the water feeding means associated with the other pipe, substantially as described.

2. In combination, a pair of injectors, a chemical tank, pipes connecting each of said injectors with said chemical tank, and a normally open check valve in each of said pipes adapted to close when the injector associated with the other pipe is in operation, the check valve in each of said pipes being closed by the vacuum produced by the injector associated with the other pipe, substantially as described.

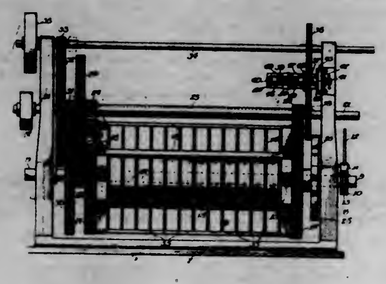
3. In combination, a chemical tank, water-feeding means for a boiler, a pipe between said tank and said water-feeding means, said pipe communicating with an induction tube entering said tank at a point above the surface of the liquid therein and terminating below the surface of the liquid therein, said induction tube being provided with a valve at its submerged end, said valve being mounted upon one end of a slender rod extending longitudinally of the induction tube and being free to vibrate upon said rod to prevent incrustation of said valve, and means carried by the other end of said rod for regulating said valve, all substantially as described.

4. A chemical tank for a feed water treating system comprising a casing, an induction tube carried by said cas-

ing entering the same at a point above the normal liquid level therein and terminating below the normal liquid level, said induction tube being provided with a valve at its submerged end to regulate the passage of chemical therethrough, said valve being mounted upon the end of a slender rod extending longitudinally of the induction tube and so being adapted to vibrate to prevent the accumulation of sediment, said valve being beveled at the top thereof, substantially as described.

5. In combination, a pair of injectors, a chemical tank provided with an induction tube entering said chemical tank at a point above the normal liquid level therein and terminating below the normal liquid level, said induction tube provided with a T-connection, and pipes connecting the suction ends of the injectors with said T-connection, the flow of chemical to said injectors being controlled by the vacuum produced in the respective injectors, substantially as described.

1,075,023. SPRING-MOTOR. VIRGIL W. CREECH, Mason City, Iowa. Filed Oct. 18, 1912. Serial No. 726,432. (Cl. 185—37.)
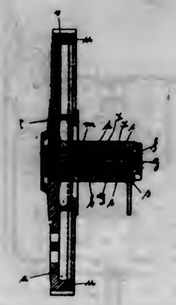


In a spring motor, the combination with a supporting frame, of a power shaft journaled thereon, a gear rotatably mounted on said shaft near each of its ends, a spider connected to the inner face of each of said gears, slats extended from the arms of one of said spiders to the arms of the other, a power transmitting shaft journaled on the supporting frame in parallelism with the power shaft, a sleeve or hollow shaft surrounding said power transmitting shaft, another power transmitting shaft journaled on the supporting frame in parallelism with the first named transmitting shaft, a train of gears uniting the power shaft, power transmitting shafts and hollow shaft, a series of springs coiled around the power shaft side by side and fixed at one of their ends to said shaft and connected at their other ends to said drum, means connected to the power shaft for turning the same to wind up the springs thereon, a gear mounted on each of the power transmitting shafts near one of the ends thereof and adjustable means mounted on the supporting frame and extended between the last named gears and adapted for alternate engagement with said last named gears to stop and regulate the movements of the aforementioned gearing.

1,075,024. LINE SETTING AND CASTING MACHINE. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 12, 1910. Serial No. 581,533. (Cl. 199—13.)

1. In a line setting and casting machine in combination a rotating pin, a mold wheel being provided with a water duct and secured to the rotating pin, said pin having two perforations and being provided with a closing part having also two perforations, the adjoining surfaces of the closing part and of the pin having annular recesses, in which the perforations open and means for pressing the pin and the closing part against each other, the adjoining surfaces of the pin and the closing part being of conical shape.

2. In a line setting and casting machine in combination a rotating pin, a mold wheel being provided with a water duct and secured to the rotating pin, said pin having two perforations and a conical recess and being provided with a closing part having also two perforations and a conical joint surface fitting into the said conical recess the adjoining conical surfaces having annular recesses into which the said perforations open and means for pressing the pin and the closing part against each other.



3. In a line setting and casting machine in combination a rotating pin, a mold wheel being provided with a water duct and secured to the rotating pin, said pin having two perforations and a conical recess and being provided with a closing part, having conical joint surfaces fitting into the said conical recess and leaving between them intervals into which the said perforations open, said closing part also being provided with perforations opening into said intervals and means for pressing the pin and the closing part against each other.

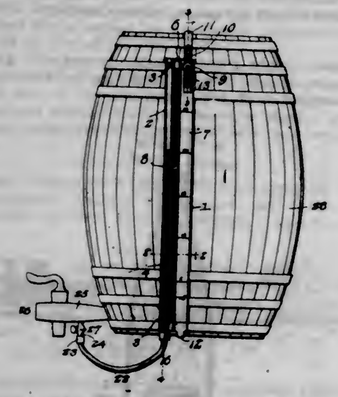
4. In a line setting and casting machine in combination a rotating pin, a mold wheel being provided with a water duct and secured to the rotating pin, said pin having perforations and a conical recess and being provided with a closing part having conical joint surfaces fitting into the said conical recess, said closing part also being provided with corresponding perforations, the adjoining surfaces of the pin and the closing part being provided with an annular circuit, into which one of the perforations opens and means for pressing the pin and the closing part against each other.

5. In a line setting and casting machine in combination a rotating pin, a mold wheel being provided with a water duct and secured to the rotating pin, said pin having two perforations and a conical recess and being provided with a closing part, having a conical joint surface fitting into the said conical recess and a recess into which one of said perforations open, said closing part also being provided with corresponding and communicating perforations and means for pressing the pin and the closing part against each other, the perforations in the closing part being arranged so that their outer ends open in a direction at right angles to the axis of the pin.

[Claims 6 to 10 not printed in the Gazette.]

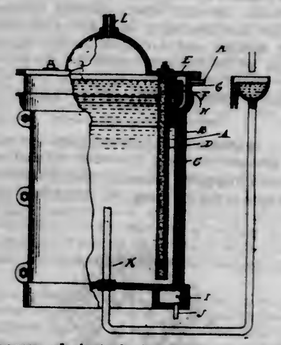
1,075,025. LIQUID-GAGE. PETER DRAUTZBURG, Cincinnati, Ohio. Filed Mar. 21, 1913. Serial No. 756,000. (Cl. 73—54.)

A gage comprising a tube holder constructed from a single piece of metal stamped in its main length to provide a tube receiving channel, a tube mounted in the channel, a seat closing the bottom of the channel, the said tube having an intake end offset from the seat and then extended downwardly therefrom, a nipple located at the lower end of the tube, a coupling for advancing the nipple against one edge of the tube, the tube holder having a graduated portion extending throughout the length of the tube chan-



nel, and a hose extending from said nipple and provided at one end with a coupling device.

1,075,026. PROCESS OF ELECTROLYSIS. HOWARD M. DU BOIS, Detroit, Mich. Filed Apr. 11, 1910. Serial No. 554,605. (Cl. 204—58.)



1. The process of electrolysis, which comprises flowing the electrolyte from the anode compartment through a gas-proof seal into the cathode compartment, and thence across the electrolytic field within a space between the diaphragm and the cathode.

2. The process of electrolysis, which comprises maintaining constant freedom of communication between the anode and cathode compartments, and a constant flow of liquid across the electrolytic field within a space between the cathode and the porous diaphragm.

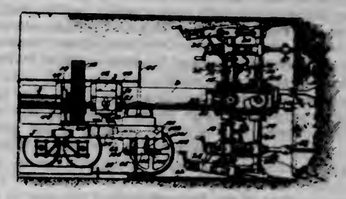
3. The process of electrolysis, which comprises maintaining a constant pressure on the electrolyte in the anode compartment, and a flow of liquid across the electrolytic field within a space between the porous diaphragm and the cathode, with a constant discharge of the cathode liquor.

4. The process of electrolysis, which comprises constantly feeding in electrolyte into the anode compartment, in by-passing a portion of the electrolyte around the porous diaphragm, and in maintaining a flow of the liquid across the electrolytic field from the point of said bypass with a constant discharge of the cathode liquor.

5. The process of electrolysis, which comprises flowing the liquid across the electrolytic field within a space between the diaphragm and the cathode.

[Claims 6 and 7 not printed in the Gazette.]

1,075,027. TUNNELING-MACHINE. NORMAN EBBLEY, Wallace, Idaho. Filed Apr. 26, 1910. Serial No. 557,667. (Cl. 125—14.)



1. In a rock-drilling machine, the combination of a drill and a hammer, means for revolubly supporting said tools and means for simultaneously operating the same to cut a channel in rock and to batter down the portions of rock so weakened.

2. In a rock-drilling machine, the combination of a revoluble head, a drill and a hammer mounted on said head, and means for operating said tools during the revolution of said head to cut a channel in rock and batter down the rock so weakened.

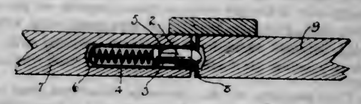
3. In a rock-drilling machine, the combination of a revoluble head, a drill and a hammer mounted on said head, and means for simultaneously operating said tools to cut a channel in rock and to batter down the portions of rock so weakened.

4. In a rock-drilling machine, the combination of a revoluble head, a drill and a hammer mounted on said head and adapted to revolve together with said head, adjusting means for said drills and hammers in planes passing through the axis of rotation of said head, and means for operating said tools during the rotation of said head to cut a channel in rock and to batter down the portions of rock so weakened.

5. In a rock-drilling machine, the combination of a revoluble head, a drill and a hammer supported on said head and means for simultaneously operating said tools during the revolution of said head to cut a channel in rock and batter down the portions of the rock so weakened.

[Claims 6 to 13 not printed in the Gazette.]

1,075,028. SPRING-LATCH. CHARLES L. FROST, Grand Rapids, Mich. Filed Jan. 17, 1913. Serial No. 742,610. (Cl. 70—119.)



1. A latch comprising a tubular housing closed at one end, a bolt slidable in said housing, having an extended groove, a spring behind the bolt engaging the closed end of the housing and yieldably thrusting the bolt outward, and a portion of the wall of the housing struck into the said groove to limit the movement of the bolt.

2. A latch comprising a tubular housing closed at one end, a cylindrical bolt slidable therein, and also having an extended annular groove adapted to project from the housing, the projecting end thereof being conical or rounded, a spring behind said bolt engaging the closed end of the guide and serving to yieldably thrust the bolt outward, and a portion of the wall of the said housing struck into the said groove in the bolt.

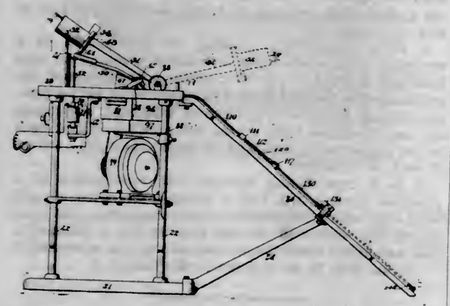
3. A latch comprising a tubular housing closed at one end, a spring actuated bolt slidable in said housing and having an elongated annular groove, a portion of the wall of the said housing being struck into the said annular groove to limit the movement of the bolt and an outturned flange surrounding the open end of the housing.

4. A latch comprising a rectangular hollow case provided with an opening through its forward side and a corresponding recess in the inner surface of the opposite side, said recess being in alinement with said opening, a tubular housing inserted through said opening in the body and into the said recess, a spring actuated plunger slidable in said housing, and a portion of the wall of said housing being struck outward to engage the inner surface of the forward wall of the case to retain the housing in place.

5. A latch comprising a hollow rectangular case having a circular opening through its forward wall and a corresponding recess in the inner surface of the opposite wall, a tubular housing open at its rear end and inserted through the said opening and into the said recess, a portion of the said housing being struck outward to engage the inner surface of the forward wall of the case to retain the housing in position, a bolt slidable in said housing, and a spring behind the bolt engaging the rear end of the same and seating against the bottom of the said recess to yieldably thrust the plunger outward.

[Claims 6 to 9 not printed in the Gazette.]

1,075,029. MACHINE FOR FEEDING TYPE. HARRY C. GAMMETER, Bratenahl, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Feb. 14, 1910. Serial No. 548,680. (Cl. 101—203.)



1. In a machine of the character described, the combination of a hopper, a chute for receiving the discharge thereof and having an upwardly opening trough which is substantially V-shaped with a closed bottom at its upper portion and presents a pair of separated ribs with an opening between them near its lower portion, said separated ribs being at a steeper inclination that the closed bottom.

2. In a machine of the character described, the combination of a chute, means for discharging type onto the same, said chute having near its bottom a pair of separated ribs and having a retarder to allow the type body to swing downwardly between the ribs.

3. In a machine of the character described, the combination of a hopper and a chute for receiving the hopper discharge and provided with a progressively narrowing trough adapted to centralize the type and bring them into proper alinement, and a retarder at the narrow portion of the trough.

4. In a machine of the character described, the combination of a hopper, an upwardly opening inclined chute adapted to receive the hopper discharge and formed with a progressively narrowing trough, and separated ribs in its narrow portion, there being a pair of depressions in the upper surface of the ribs.

5. In a machine of the character described, the combination of a chute adapted to convey type by gravity, a channel for receiving and confining type properly conveyed in the chute, means for receiving type improperly conveyed, and an air blast arranged to act transversely of the chute on such improperly conveyed type, and remove them without disturbing the properly conveyed type.

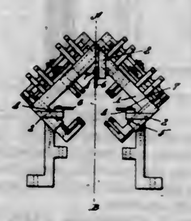
[Claims 6 to 27 not printed in the Gazette.]

1,075,030. NON-REFILLABLE BOTTLE. ANDREW GERMAN, Sumner, Wash. Filed May 28, 1912. Serial No. 700,216. (Cl. 215—105.)



A bottle having a bell bottom and a channel arranged transversely in the lower side of the bell bottom and having overhanging walls, the bell bottom being further provided with a tubular portion projecting from the inner end of the channel through one side of the bell bottom and into the bottle, the said tubular portion forming a filling opening and also forming a shoulder at the outer end of the filling opening and arranged in the channel, and a plastic plug in the channel, compacted against the shoulder at the outer end of the filling opening and held in place by the overhanging walls of the channel.

1,075,031. PINEAPPLE-CENTERING ATTACHMENT. HENRY GABRIEL GINACA, Honolulu, Hawaii, assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii. Filed Nov. 14, 1912. Serial No. 731,378. (Cl. 146—6.)



1. In a pineapple centering attachment, means to automatically center the fruit, and means carried by said attachment but independent of the centering means to incise the outer portion of the fruit simultaneously with the movement of the fruit through the said attachment, the bottom of each incision being parallel with the axis of the fruit.

2. In a pineapple centering device of the kind described, means to center the fruit and means independent of said first-named means for incising the outer portion only of the fruit while the fruit is moved through said centering device, the bottom of the incision being parallel with the axis of the fruit.

3. In a pineapple centering attachment, the combination of means to center the fruit, and means independent of said first-named means to incise longitudinally the outer portion only of the fruit during the centering operation, the bottom of the incision being parallel with the axis of the fruit.

4. In a pineapple centering attachment, the combination of means to automatically center the fruit, means for supporting a knife within the frame of the attachment, said knife being independent of said first-named means and means for adjusting the position of said knife with respect to the axis of the attachment.

5. In a pineapple centering device, a frame, means to center the fruit, lugs carried by said frame, a bar adjustably secured to said lugs, and a knife attached to said bar and adapted to incise the outer portion of the fruit, said knife being independent of said fruit centering means.

1,075,032. TROLLEY-WIRE CROSSING, SWITCH, AND THE LIKE. SAMUEL S. GOLDMAN, St. Louis, Mo. Filed Apr. 24, 1912. Serial No. 692,883. (Cl. 191—37.)



1. A trolley-crossing or the like comprising a pair of intersecting trolley tracks substantially V-shaped in cross section, the apices of said tracks being presented downwardly and each of said tracks having opposite widened flat oblique side faces for directly receiving the oblique faces of a pair of substantially cone-shaped trolley wheels, and a substantially pyramidal portion at the point of intersection, and common to both of said tracks and having pairs of flat oblique faces lying in the same plane with, and forming continuations of, the flat oblique side faces of both said tracks, each of said tracks adjacent said pyramidal portion being provided with oppositely-disposed flat oblique faces extending outwardly directly from the base of the adjacent oblique faces of said pyramidal portion and forming therewith substantially V-shaped channels, substantially as and for the purposes stated.

2. A trolley crossing or the like comprising a trolley track substantially V-shaped in cross section and having its apex presented downwardly, an elongated sleeve fixed to said track and extending parallel with and directly below the apex thereof, said sleeve being adapted to lengthwise removably receive therein a trolley wire end, and means adapted to engage said trolley wire end to removably secure the same in said sleeve; substantially as described.

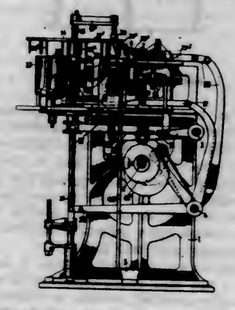
3. In a trolley crossing or the like, a body portion comprising a trolley track provided with a longitudinally extending elongated slot, an elongated sleeve fixed on the under side of said track and communicating with said slot, said sleeve being adapted to lengthwise removably receive therein a trolley wire end, a wedge-housing on the upper side of said trolley track and opposite to, and communicating through said slot with said sleeve, said wedge-housing being provided with a vertically widened slot in alinement with said first-mentioned slot, and wedge members adapted to fit in said slots and engage with said trolley wire end and said housing to removably secure the same in said sleeve; substantially as described.

4. A trolley-crossing or the like comprising intersecting trolley-tracks substantially V-shaped in cross section, each of said tracks being provided at its apex at its outer ends with longitudinally-extending elongated slots, sleeves on the apex of each of said tracks communicating with said slots and adapted to receive trolley-wire ends, wedge-housings on the reverse side of said tracks and opposite said sleeves, and wedge-members adapted to fit in said slots and impingingly engage with said trolley-wire ends and said housings; substantially as described.

5. A trolley-crossing or the like comprising intersecting trolley-tracks substantially V-shaped in cross section, each of said tracks being provided at its apex at its outer ends with longitudinally-extending elongated slots, sleeves on the apex of each of said tracks communicating with said slots and adapted to receive trolley-wire ends, wedge-housings on the reverse side of said tracks and opposite said sleeves and provided with slots extending therethrough and in alinement with said track-slots, and wedge-members adapted to fit in said slots and impingingly engage with said trolley-wire ends and said housings; substantially as described.

[Claims 6 to 10 not printed in the Gazette..]

1,075,033. MACHINE FOR FOLDING WRAPPERS AROUND RECTANGULAR TABLETS. FREDERICK GROVER, Leeds, England, assignor to The Forgrove Machinery Company Limited, Leeds, England. Filed Oct. 11, 1912. Serial No. 725,122. (Cl. 93—2.)



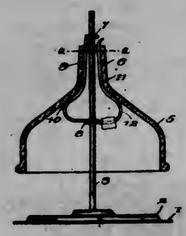
1. In machines of the type specified for folding wrappers around rectangular tablets, and in which a wrapper and tablet are supported above an opening formed between the forward projecting end of the lid of a trough, and a plate carried on the table of the machine through which opening said wrapper and tablet are forced to turn two opposite sides of the wrapper in a vertical direction, the combination with an upper plunger adapted to bear upon the said tablet, a lower plunger of narrow oblong rectangular cross section to support said wrapper and tablet above said opening, and means for effecting the vertical reciprocations of said upper and lower plungers, of a forked reciprocating slide moved in one direction to force the partially wrapped tablet into said trough and to permit the said lower plunger to rise to its upper position for supporting another tablet and wrapper before the forked reciprocating slide is moved in the opposite direction, and means for reciprocating the said forked slide.

2. In machines of the type specified for folding wrappers around rectangular tablets and in which a wrapper and tablet are supported above an opening formed between the forward projecting end of the lid of a trough and a plate carried on the table of the machine through which opening said wrapper and tablet are forced to turn two opposite sides of the wrapper in a vertical direction; the combination with a lower plunger of narrow oblong rectangular cross section to support said wrapper and tablet above said opening, an upper plunger of similar cross section to contact with the upper surface of said tablet and force said wrapper and tablet through said opening, the major dimensions of said cross sections of said plungers being arranged at right angles to one another, and means for effecting the vertical reciprocations of said plunger; of a forked reciprocating slide moved in one direction to force the partially wrapped tablet into said trough and to permit the said lower plunger to rise to its upper position for supporting another tablet and wrapper before the forked reciprocating slide is moved in the opposite direction, and means for reciprocating the said forked slide.

1,075,034. ANIMAL-TRAP. JOHN HEBERLING, Rochester, N. Y. Filed Oct. 2, 1912. Serial No. 723,506. (Cl. 43—19.)

1. An animal trap comprising a support having a shoulder, a rotatable chambered member adapted to be sup-

ported on the shoulder of said support and to become disengaged therefrom by a rotary action, and baiting means carried by the chambered member and supporting the bait in such a manner that upon an attack by an animal the chambered member is rotated and disengaged from the support.



2. An animal trap comprising a base, a post extending upwardly from the base and provided with a shoulder, a rotatable cup-like member carrying a portion adapted to be supported upon the shoulder and to drop out of cooperation with the shoulder and permit the cup-like member to coöperate with the base to provide a chamber, upon a rotary movement of said cup-like member, and baiting means coöperating with the cup-like member for effecting the dropping of said member.

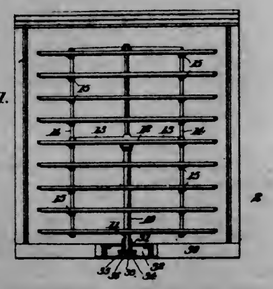
3. An animal trap comprising a base, a post extending upwardly from the base and provided with a shoulder, a rotatable cup-like member having a centrally arranged opening through which the post extends, means carried by and rotatable with said cup-like member for coöperating with the shoulder on the post in order to support the cup-like member in spaced relation to the base but adapted, when the said cup-like member is rotated to become disengaged from the shoulder, to permit the cup-like member to drop into coöperation with the base, and baiting means coöperating with the cup-like member for effecting such dropping.

4. An animal trap comprising a supporting post provided with a shoulder, a rotatable cup-like member having a centrally arranged reduced portion open at its outer end, and means removably arranged within the cup-like member and having a portion coöperating with a shoulder on the post, said means being provided with a bait engaging device within the cup-like member.

5. An animal trap comprising a supporting post having a shoulder thereon, a chambered member, and a member supporting the chamber member and having a ring surrounding the post and adapted to rest on the shoulder, and a bait supporting arm extending from said member.

[Claims 6 to 8 not printed in the Gazette.]

1,075,035. DISPLAY-RACK. SOLOMON HIMMEL, Baltimore, Md. Filed Sept. 3, 1912. Serial No. 718,420. (Cl. 211—16.)



1. As an improvement in display racks a rotatable member, horizontally disposed supporting bars carried thereby, supporting clips engaging said supporting bars, and rods supported above said bars by said clips.

2. As an improvement in display racks, a rotatable member, supporting bars carried thereby, supporting clip members having resilient portions removably engaging said bars, and rods removably supported above said bars by said clip members.

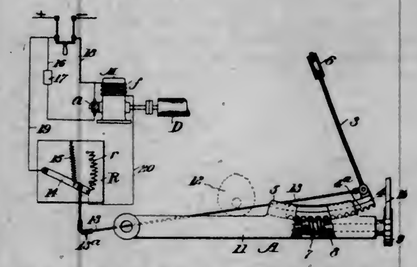
3. As an improvement in display racks, a rotatable member, supporting bars carried thereby, supporting clip members removably engaging said bars, said clip members being provided with resilient fingers, and rods supported by said fingers.

4. As an improvement in display racks, a rotatable member, supporting bars carried thereby, supporting clip members having resilient arms removably engaging said bars, said clip members being also provided with resilient fingers, and rods supported by said fingers.

5. As an improvement in display racks, a rotatable member, brackets carried by said member and provided with elongated bearing portions, supporting bars parallel with and resting upon said bearing portions, supporting clips engaging said bars, and rods supported above said bars by said clips.

[Claims 6 to 11 not printed in the Gazette.]

1,075,036. SPEED-CONTROLLER FOR SPINNING-FRAMES. WILLIAM T. HOLMES, Baltimore, and GEORGE H. WHITTINGHAM, Pikesville, Md., assignors to Monitor Manufacturing Company, Baltimore, Md., a Corporation of Maryland. Filed Oct. 3, 1910. Serial No. 585,043. (Cl. 118—24.)

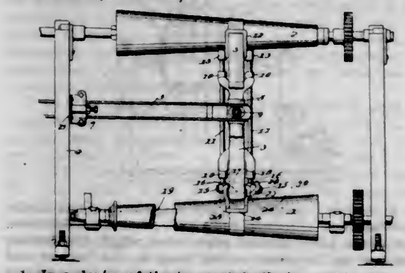


1. The combination with the drum shaft of a spinning machine, and the builder mechanism comprising a builder arm and a part adjustable thereon toward the fulcrum of the arm to shorten the throw of the ring-rail as the bobbins build up, of an electric motor for driving the drum shaft, a controller for the motor comprising a contact member biased toward one of its extreme positions and a flexible connection extending from said part to approximately the pivotal axis of the arm and thence to said member, whereby the latter may be moved to its other extreme position by the movement of said parts.

2. The combination with the drum shaft of a spinning machine, and the builder mechanism comprising a builder arm and a part adjustable thereon toward the fulcrum of the arm to shorten the throw of the ring-rail as the bobbins build up, of an electric motor for driving the drum shaft, said motor having shunt field windings, a rheostat for the shunt field circuit, said rheostat having a contact member biased toward one of its extreme positions, a flexible connection extending from said part to approximately the pivotal axis of the arm and thence to said member, whereby the latter may be moved to its other extreme position by the movement of said part.

3. The combination with the drum shaft and builder arm of a spinning machine, of a slide on said arm, means for gradually adjusting said slide toward the fulcrum of the arm as the bobbins build up, an electric motor for driving the drum shaft, a speed controller for said motor comprising a contact member, biased toward its high-speed position, and a flexible connection extending from the slide to the pivotal axis of the arm and thence to said member.

1,075,037. BELT-SHIPPER FOR SPEEDER-CONES. JOHN JACKSON, Pawtucket, R. I., assignor to H. & B. American Machine Company, Pawtucket, R. I., a Corporation of Maine. Filed June 19, 1912. Serial No. 704,538. (Cl. 64—4.)



1. In a device of the type set forth, in combination with a pair of cones and a belt connecting same, a horizontal sliding bar located in the space between the cones, a vertical bracket carried by the bar and having its ends forked, a pair of vertical rods slidingly engaged with the forked ends of the bracket, an upper belt fork secured to the upper ends of said rods, a bracket rigidly connected to the lower ends of the rods, a bowl carried by the bracket and carrying a roller, a guide on which the roller rides, said guide having the same inclination as that of the cones, a lower belt fork pivoted at its ends to the bracket at the lower ends of the rods, and an adjustable bracket carried by the last named bracket and having a finger for engagement with the lower belt fork to limit downward movement of the latter.

2. A device for shipping belts of speeder cones, including an upper and a lower belt guide, means to connect said guides to cause simultaneous movement thereof, and means to vertically slide the connecting means of the guides as same are moved along the lengths of the cones to cause the guides to always have the same relative spaced distances from the cone peripheries.

3. In a device of the type set forth, in combination with the belt of the speeder cones, belt guides located adjacent each one, a vertically sliding device rigidly connecting said belt guides to effect positive simultaneous movement of said guides and means to slide said device when the same is moved longitudinally of the cones to enable the belt guides to always maintain the same relative spaced distances from the respective cones.

4. In combination with the belt of the speeder cones, a vertically slidable device having a rigid belt guide at its upper end and a pivoted guide at its lower end, and means to slide said device as the same is moved lengthwise of the cones.

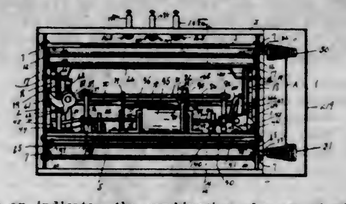
5. In a device of the type set forth, in combination with a pair of cones and a belt connecting same, a horizontal sliding bar, a bracket carried by the bar, an upper and a lower belt fork, a connection between said forks slidingly carried by said bracket, and a stationary guide having the same inclination as that of the cones engaged with said connection.

[Claims 6 and 7 not printed in the Gazette.]

1,075,038. INDICATOR. OSCAR S. JONES, Utica, N. Y. Filed Oct. 8, 1912. Serial No. 724,526. (Cl. 40—59.)

1. In an indicator, the combination of a set of wheels having projections, a curtain having signals displayed thereon, turned by said wheels, a ratchet, a sector pawl for actuating said ratchet to turn said wheels in one direction, whereby to display a given set of signals, a ratchet, a pawl for actuating said ratchet to turn said wheels in the reverse direction, whereby to display said set of signals in the reverse order, and sector cams for actuating said pawls.

2. In an indicator, the combination of a set of wheels having projections, a curtain actuated by said wheels, signals displayed on said curtain, ratchet wheels, pawls for actuating said ratchet wheels to turn said wheels having said projections, sector cams for actuating said pawls, and electrical means for actuating said cams.



3. In an indicator, the combination of a set of wheels having projections thereon, a curtain movable in opposite directions by said wheels, a ratchet, a pawl for turning said ratchet, whereby to move said wheels in one direction, a second ratchet, a pawl for turning said ratchet, whereby to move said wheels in the reverse direction, sector cams for actuating said pawls, solenoids for actuating said cams, and means for limiting the degree of turn of said wheels.

4. In an indicator, the combination of a set of wheels having projections thereon, a curtain actuated by said wheels, a ratchet wheel, a pawl for actuating said ratchet wheel, whereby to turn said wheels to move said curtain in one direction, a ratchet, a pawl for actuating said ratchet to turn said wheels in the reverse direction, sector cams for actuating said pawls, solenoids for actuating said cams, a tooth and notched wheel for limiting the degree of turning of said wheels, and star cams for releasing said tooth from said notched wheel.

5. In an indicator, the combination of wheels having projections thereon, a curtain actuated by said wheels, a ratchet wheel, a pawl for actuating said ratchet wheel, whereby to turn said wheels in one direction, a ratchet wheel, a pawl for actuating said ratchet wheel, whereby to turn said wheels in the reverse direction, means for limiting the degree of turn of said wheels, and a star cam for releasing said means.

[Claims 6 to 17 not printed in the Gazette.]

1,075,039. SQUEAK-PREVENTER FOR SHOES. IRVING L. KEITH, Haverhill, Mass. Filed May 7, 1913. Serial No. 766,101. (Cl. 36—1.)



1. In combination with two portions of a shoe having engaging surfaces, a frangible envelop disposed between said surfaces and having a powder therein adapted to prevent rubbing contact of said surfaces when liberated from the envelop, substantially as described.

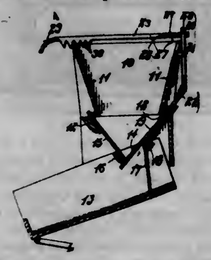
2. In combination with two sole-portions of a shoe arranged one directly on the other, a flat, frangible envelop, of relatively small area to that of said sole portions, arranged therebetween in the middle portion thereof, said envelop having a suitable quantity of squeak-preventing powder therein adapted to be liberated from the envelop when ruptured, substantially as described.

3. In combination with two superimposed, contacting sole-portions of a shoe, an envelop disposed between said portions, having a squeak-preventing powder therein, and adapted to permit the powder to escape therefrom when said sole portions are bent, substantially as described.

1,075,040. POTATO-PLANTER HOPPER. THOMAS J. KELLY, Fosston, Minn. Filed Dec. 12, 1912. Serial No. 736,363. (Cl. 111—33.)

1. A hopper having opposite slots in the walls, a vibratory trough pivotally connected at one end to and registering with the bottom of said hopper, a pair of opposing downwardly inclined agitator plates pivotally connected to said trough and slidably fitting in said slots, and a cut-off valve slidably fitted in said hopper above said agitator plates.

2. The combination of a hopper, a cut-off valve slidably fitted in said hopper, a push rod extending longitudinally of said hopper and having notches in the lower edge adapted to engage with the top edge of one wall of said hopper, a rod extension on said push rod remote from said notches, a rock lever pivoted intermediate its ends



on the top edge of the opposite end wall of said hopper, a pivotal connection between said slide valve and the lower end of said rock lever, said rod extension loosely fitting through an opening formed in the upper end of said rock lever, and a helical spring carried on the outer end of said rod extension and bearing against the outer face of said rock lever.

1,075,041. BALL-SLINGER. FREDERICK B. KIRKNESS, Newark, Del. Filed Mar. 24, 1913. Serial No. 756,618. (Cl. 124—1.)

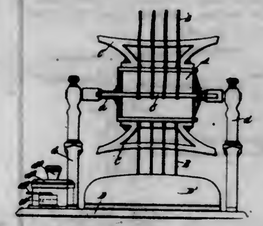


1. The herein described ball slinger comprising a handle provided at its outer end with a longitudinal slot of liberal width producing two fork arms, each weakened on its outer side and dished on its inner side at its extremity to produce a pocket for holding the ball, and an adjustable device for drawing the fork arms toward each other at a point below where they are weakened.

2. The herein described missile slinger comprising a handle having normally spaced resilient arms at its outer end, each dished on its inner face at its extremity and complementing the opposite dished face to produce a pocket, and a screw through said arms for adjusting them toward each other.

1,075,042. BEATING APPARATUS FOR CARPETS, FURS, AND THE LIKE. CHARLES MARTIN KOSMINSKI, Marylebone, London, England. Filed July 16, 1912. Serial No. 709,704. (Cl. 15—8.)

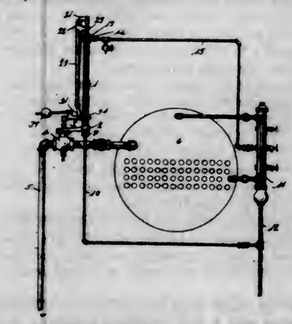
1. Beating apparatus comprising a rotating drum, a plurality of sets of independent flexible beating strips on the said drum, and radially projecting vanes on the drum, over which the said flexible beating strips lap during rotation, which vanes are made with their outer edges of concave form to prevent the flexible strips flying off at the sides of the beater.



2. A beating apparatus comprising a rotatable drum, flexible beating strips and radial vanes on the said drum, which vanes have concave edges over which the beating strips lap, an inclosing casing open at the bottom and means for applying suction to the interior of the casing to remove the dust raised by the beating strips.

3. A beating apparatus comprising a rotatable drum, flexible beating strips and radial vanes on the said drum, which vanes have concave edges over which the beating strips lap, an inclosing casing open at the bottom, a tubular operating handle for the casing, a suction nozzle opening at the lower edge of the casing and communicating with the said tubular handle, and means for applying suction through the handle for the removal of dust directly it is raised by the beater.

1,075,043. AUTOMATIC BOILER-FEED REGULATOR. WILLIAM F. KRICHBAUM, Newark, N. J., assignor to Foster Engineering Company, a Corporation of New Jersey. Filed Aug. 5, 1911. Serial No. 642,489. (Cl. 236—13.)



1. In a boiler feed regulator, the combination of a base adapted to be secured to the boiler feed valve, an expansion tube projecting upward from said base, guide rods at opposite sides of said expansion tube, a cap for said expansion tube having arms slidably engaging said guide rods, a yoke connecting said guide rods above said cap, a bell-crank lever fulcrumed on said yoke with one arm extending between the guide rods transversely of the end of the expansion tube and adjacent thereto the other arm of the bell-crank projecting downward longitudinally of the expansion tube, a second yoke on said guide rods near the base, a second bell-crank fulcrumed on said yoke with one arm connected to said downwardly projecting arm of the first-mentioned bell-crank, and means for connecting the other arm of the second bell-crank to the boiler feed valve to open and close the same as the expansion tube varies in length.

2. In a boiler feed regulator, the combination of a base adapted to be secured to the boiler feed valve, an expansion tube projecting upward from said base, guide rods at opposite sides of said expansion tube, a cap for said expansion tube having arms slidably engaging said guide rods, a yoke connecting said guide rods above said cap, a bell-crank lever fulcrumed on said yoke with one arm extending between the guide rods transversely of the end of the expansion tube and adjacent thereto the other arm of the bell-crank projecting downward longitudinally of the expansion tube, a second bell-crank fulcrumed on said yoke with one arm connected to said guide rods, a second yoke on said guide rods, a second bell-crank fulcrumed on said second yoke with one arm connected to the other arm of the first-mentioned bell-crank, and means for connecting the other arm of the second bell-crank to the boiler feed valve to open and close the same as the expansion tube varies in length.
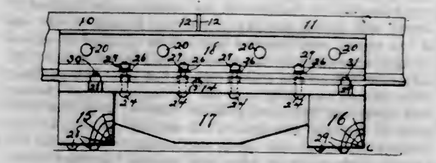
3. In a boiler feed regulator, the combination of a base adapted to be secured to the boiler feed valve, an expansion tube projecting upward from said base, guide rods at opposite sides of said expansion tube, a cap for said expansion tube having arms slidably engaging said guide rods, a yoke connecting said guide rods above said cap, a bell-crank lever pivoted to said yoke with one arm extending between the guide rods transversely of the end of the expansion tube and adjacent thereto the other arm of the bell-crank projecting downward longitudinally of the expansion tube, and means for connecting said last-mentioned arm of the bell-crank to the boiler for the valve to open and close the same as the expansion tube varies in length.

4. In a boiler feed regulator, the combination of a base, an expansion tube projecting upward from said base, guide rods at opposite sides of said expansion tube, a cap for the expansion tube slidably engaging said guide rods, a bell-crank lever pivotally connected to said guide rods with one arm extending transversely of the end of the expansion tube adjacent thereto and the other arm projecting downward longitudinally of the expansion tube, and means for connecting said last-mentioned arm of the lever to the boiler feed valve to open and close the same as the expansion tube varies in length.

5. In a boiler feed regulator, the combination with an expansion tube, and means for connecting said tube to a boiler at the normal water level therein, of a bell-crank lever having one arm extending transversely of said tube adjacent its end, a stud connected to said end of the expansion tube and adapted to be adjusted longitudinally of said tube by rotation, said stud having an extremity rotatably engaging the arm of the bell-crank lever so as to permit adjustment of the stud, means for connecting the other arm of the bell-crank lever to the boiler feed valve to open and close the same as the expansion tube varies in length, and means for supporting said parts.

[Claims 6 to 9 not printed in the Gazette.]

1,075,044. RAIL JOINT AND CHAIR. WILLIAM H. LESH, Des Moines, Iowa. Filed Nov. 8, 1911. Serial No. 659,565. (Cl. 239—2.)

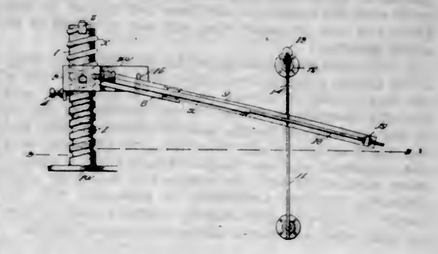


1. A rail joint, comprising, in combination, abutting ends of rails, a trussed chair adapted to be supported at its ends and supporting abutting end portions of the rails, angle splice bars on opposite sides of and overlapping the joint between said rails, bolts connecting middle portions of said splice bars through the webs of said rails, said bolts formed with shoulders adapted to hold the splice bars in spaced relations to the rails, said rails formed with longitudinal slots loosely receiving said bolts, and bolts connecting marginal portions of said splice bars to the chair and passing loosely through the base flanges of the rails.

2. A rail joint, comprising, in combination, abutting ends of rails, a suitable support therefor, fish-plates on opposite sides of and overlapping the joint between said rails, and bolts fitting snugly in holes in said fish-plates and passing through longitudinal slots in the webs of the rails, said bolts formed with shoulders adapted to limit movement of said fish-plates toward the webs of the rails, whereby said rails may expand or contract in any direction without damage to said connecting bolts.

3. A rail joint, comprising, in combination, abutting ends of rails, a trussed chair supporting end portions of said rails, angle splice bars mounted on opposite sides of and overlapping the joint between said rails, bolts connecting said splice bars through the webs of the rails, said webs formed with slots adapted loosely to receive said bolts, and bolts connecting said splice bars to said chair through the base flanges of the rails, said base flanges formed with slots loosely receiving said bolts, said splice bars being spaced by said bolts laterally and vertically from said rails.

1,075,045. TUBE-COILING MACHINE. JOSEPH E. LEWIS, Baltimore, Md. Filed Dec. 5, 1912. Serial No. 735,048. (Cl. 153—67.)



1. In a tube-bending machine, in combination, a spirally grooved rotatable former, a metallic frame inclosing said former and arranged to travel backward and forward on said former, it being automatically propelled by engagement with the groove in the former, a grooved bending shoe pivoted on one side of said frame, the groove in the shoe always registering with the groove in the former at the bending point, and a mandrel attached to and traveling with the bending shoe, as described.

2. In a tube-bending machine, in combination, a spirally grooved former, a metallic frame inclosing said former on four sides and provided with adjustable bearing screws disposed to engage the spiral groove in said former, a grooved bending shoe pivoted on one side of the frame, and means to adjust said shoe to the proper angle and clamp it securely in position, and a mandrel and mandrel holder.

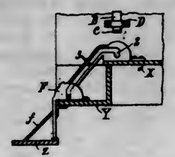
3. In a tube-bending machine, in combination, a spirally grooved former, a metallic carriage applied to said former and automatically guided and controlled by it, a grooved bending shoe pivoted beneath and on one side of said carriage and thus adapted for lateral adjustment relative to the former, and a flexible mandrel supported on said shoe, as described.

4. In a tube-bending machine, in combination, a spirally grooved rotatable former, a grooved bending shoe held adjacent to the former at the bending point where the tube receives its initial bend, a mandrel holder attached to said shoe and movable with the same, and means causing relative motion between the bending shoe and the former in a plane parallel to the surface of such former, as described.

5. In a tube-bending machine, the combination with a spirally grooved rotatable former, of a carriage adapted to traverse said former, the same comprising a frame that surrounds the former, adjustable means connected with said frame and bearing in the groove and adapted to travel in the same, a grooved tube guide pivoted on said frame, and means for securing it at any desired lateral inclination to the axis of the former, as described.

[Claim 6 not printed in the Gazette.]

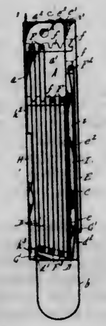
1,075,046. LOCKER AND SNOW-GUARD FOR REMOVABLE CAR-STEPS. JEROME N. MARQUETTE, Binghamton, N. Y. Filed June 30, 1913. Serial No. 776,641. (Cl. 105—88.)



1. In a lock and snow guard for removable car steps, a rod extending into a foot projection, said rod having hinged connection with the under side of a platform trap of a vestibule car, said foot projection being over and in alinement with the hanger of said step, a guide mounted on the car body or step end, said rod passing through said guide; a vertical shield mounted on said step hanger and having an upper projecting shoulder conforming in alinement with the hangers of said step and adapted to slide above and over the same when said step is moved to its closed position.

2. In a lock and snow guard for removable car steps, a rod having a hinged connection with the inner end of the hinged trap of the car platform, a horizontal lever pivotally mounted on the face of the car body at the end of the car step and having pivotal connection with said rod, the free end of said lever being in alinement with and extending over the hanger of said step; a vertical shield mounted on said step hanger and having an upper projecting shoulder conforming in alinement with the hanger of said step and adapted to slide above and over the same when said step is moved to its closed position.

1,075,047. TOWEL-HOLDER. HOWARD C. MCDONALD, Buffalo, N. Y. Filed Apr. 29, 1912. Serial No. 693,825. (Cl. 167—3.)



1. In a disinfecting towel holder, the combination of a substantially closed disinfecting chamber having openings through which an endless towel may pass into and out of the chamber, and a generator for supplying a gaseous disinfecting agent in said chamber, substantially as set forth.

2. In a disinfecting towel holder, the combination of a substantially closed disinfecting chamber having openings through which a towel may pass into and out of the chamber, rollers adapted to guide the towel in a sinuous course through said chamber, and a device which generates a gaseous disinfecting agent in said chamber, substantially as set forth.

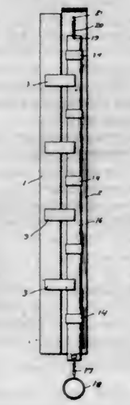
3. In a disinfecting towel holder, the combination of a substantially closed disinfecting chamber having openings through which a towel may pass into and out of the chamber, and a disinfecting device adapted to contain a disinfecting agent and having means for heating said disinfecting agent to produce a gas therefrom in said disinfecting chamber, substantially as set forth.

4. In a disinfecting towel holder, the combination of a substantially closed disinfecting chamber having openings through which a towel may pass into and out of the chamber, means for supplying a disinfecting agent in said chamber, a deodorizing chamber, and guide means whereby the towel may be caused to pass through the deodorizing chamber after leaving the disinfecting chamber, substantially as set forth.

5. In a disinfecting towel holder, the combination of a substantially closed disinfecting chamber having openings through which a towel may pass into and out of the chamber and a deodorizing chamber through which the towel may pass after leaving the disinfecting chamber, a device in said disinfecting chamber adapted to contain a disinfecting agent, and means for heating said disinfecting agent to produce a gas therefrom in said disinfecting chamber, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

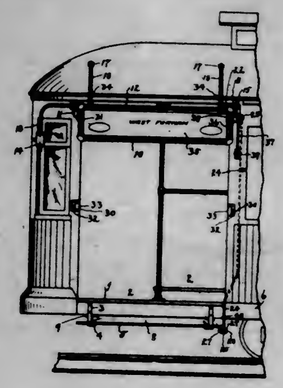
1,075,048. CORSET-FASTENER. WILLIAM J. MCLEAN, Everett, Mass. Filed May 17, 1913. Serial No. 768,307. (Cl. 24—205.)



1. In combination with a corset a fastener comprising steels secured to the ends of the corset, clasps secured to one of said steels, angular projections formed at one end of the clasps, said angular projections adapted to extend through apertures in the other of said steels, a bar slidably mounted on the second mentioned steel intermediate the steel and the clasp, said bar having apertures therein, said apertures being adapted to register with the apertures in the steel and receive the ends of the angular projections formed on the clasp, and beveled surfaces on the angular projections on said clasps thereby forming catches, whereby when the pull is exerted on the bar the clasps are forced outwardly.

2. In combination with a corset, a clasp comprising steels secured to the ends of the corset, clasps secured to one of said steels, angular extensions formed at the ends of the clasps, said angular extensions being adapted to extend through apertures in the other of said steels, U-shaped members secured to the face of the second mentioned steel, a bar slidable between the U-shaped members and the steel, said bar having apertures therein adapted to register with the apertures formed in the steel, and beveled surfaces formed in the ends of the projections formed on the clasps, said beveled surfaces adapted to cooperate with the longitudinally slidable bar and thereby release the clasps when the bar is moved downwardly.

1,075,049. COMBINATION DOORWAY AND STEP CLOSURE FOR STREET-CARS. MARTIN METER, Omaha, Nebr. Filed Apr. 11, 1912. Serial No. 690,009. (Cl. 105—88.)



1. In combination, a vehicle provided with a doorway, a pivotally mounted step below the doorway, a gate disposed adjacent to the doorway and mounted exteriorly of the car; an actuating-rod connected with the gate and step, said rod being longitudinally-movable to cause coincident swinging movements of the step and gate, alternately, in directions toward and opposed to each other, and a controlling-rod connected with the gate and car for maintaining the gate in a vertical position during its swinging movements.

2. The combination in a passenger car having a doorway, a pivotally mounted step below the doorway, a pair of lifting-arms mounted above the doorway and adapted to have swinging movements transversely of the car, a gate hingably supported by the lifting-arms, and means connecting the lifting-arms with the step so that during one of their movements the gate will move upwardly, the step having a downward swinging movement.

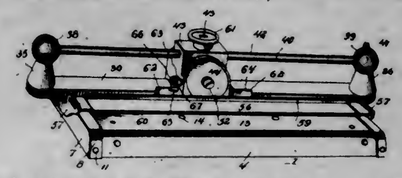
3. In combination, a vehicle provided with a doorway, a pivotally mounted step below the doorway; a horizontal shaft mounted above the doorway, said shaft being provided with transversely-disposed lifting-arms and adapted to have a reciprocatory rotary movement; a gate provided with supporting-arms having their terminals hingably mounted upon the terminals of said lifting-arms, and means connecting the shaft with the step so that a movement of said shaft in one direction will cause the gate and step to move toward each other.

4. In combination, a car having a doorway, a pivotally mounted step below the doorway; a horizontal shaft adapted to have a reciprocatory rotary movement and provided with a pair of transversely-disposed lifting-arms and a weighted arm; a gate supported by said lifting-arms; devices connecting the shaft with the step so that a movement of the shaft in one direction will cause the gate to move upwardly, the step having a downward swinging movement, the weighted arm of the shaft tending to sustain the gate and step stationary after they have been moved.

5. The combination in a passenger car having a doorway, a pivotally monnted step below the doorway, lifting-arms mounted above the doorway and adapted to have swinging movements transversely of the car in an arc of substantially 180 degrees, a gate hingably supported by the lifting-arms, and means connecting the lifting-arms with the step so that during one of their movements the gate will move downwardly, the step having an upward swinging movement.

[Claims 6 to 16 not printed in the Gazette.]

1,075,050. LETTER-OPENING MACHINE. MERRICK A. MIHILLS, Highland Park, Ill. Filed Sept. 6, 1912. Serial No. 718,992. (Cl. 164—77.)



1. A letter opening machine comprising a base having a rack, a guide bar and a ledger plate, the latter having one edge presented to and spaced from one side of the guide bar, in combination with a cutter comprising a block mounted for longitudinal movement on the guide bar, a rotary cutter wheel carried by the block and a gear also carried by the block, connected to the cutter wheel to turn the latter and engaging the said rack and gage plates connected to and movable with the block and mounted for movement toward and from the ledger plate and guide bars.

2. A letter opening machine comprising a base having a rack, a guide bar and a ledger plate, the latter having one edge presented to and spaced from one side of the guide bar, in combination with a cutter comprising a block mounted for longitudinal movement on the guide bar, a rotary cutter wheel carried by the block and a gear also carried by the block, connected to the cutter wheel to turn the latter and engaging the said rack, and a gage plate movable toward and from the ledger plate and guide bar, said gage plate having arms bearing against and pivotally connected to the ends of said block and springs bearing on said arms to frictionally hold the gage plate in adjusted position.

3. In a machine of the class described, the combination of a base having a ledger plate, a guide rod mounted on the base and axially movable, means to hold the guide rod in adjusted position, a block mounted on the guide rod for longitudinal movement and for axial or angular adjustment therewith, and a cutter wheel carried by the block and adapted to be set at the required adjustment to the ledger plate by the angular adjustment of the block and guide rod.

4. In a machine of the class described, a base, a ledger plate thereon, a guide bar on the base, opposite the ledger plate, a head mounted for longitudinal movement on the guide bar, a rotary cutter carried by the head and to coact with the ledger plate, and a presser bar pivotally mounted on the base, above the ledger plate and opposite the guide bar, said presser bar having limited vertical movement for the purpose set forth.

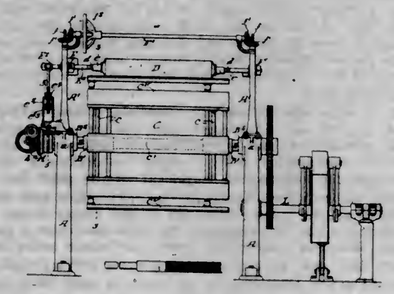
5. In a machine of the class described, a base, a guide bar thereon, a head mounted for longitudinal movement on said guide bar, a rotary cutter carried by the head and operating on one side of the guide bar, and a ledger plate mounted on the base and adjustable toward and from said side of the guide bar.

[Claims 6 to 9 not printed in the Gazette.]

1,075,051. REEL FOR WINDING PAPER. GUYON MILLER, Downingtown, Pa., assignor to Downingtown Manufacturing Company, Downingtown, Pa., a Corporation of Pennsylvania. Filed Apr. 19, 1912. Serial No. 691,904. (Cl. 242—63.)

1. The combination in a machine for winding paper, of a reel made of a series of retractable segments: a device bearing upon the paper wrapped around the reel; a shaft carrying the device; an arm on the shaft; a brake lever connected to the arm; a drum loosely mounted on the reel shaft and provided with a gear; and means for retracting the segments geared to the drum so that, when the brake is applied to said drum, the gear mechanism connected with the drum will be thrown into action and will retract the segments of the reel.

2. The combination in a machine for winding paper, of a reel made of a series of retractable segments having toothed spokes; a roller arranged to bear upon the paper wrapped upon the reel; a rock shaft mounted on the frame of the machine and having arms supporting said roller; an arm secured to one end of the shaft; a brake lever connected to the arm; a driving shaft upon which the reel is mounted; a drum loosely mounted on the driving shaft and adapted to be held by the brake lever; a beveled gear wheel on the drum; a bearing on the driving shaft; two shafts geared together and mounted on the bearing; one shaft having a gear wheel meshing with the beveled teeth on the drum and the other shaft having a worm; a worm wheel; a long pinion on which the worm wheel is mounted and meshing with the teeth on the spokes of the reel so that when motion is imparted to the pinion, the reel will be retracted.

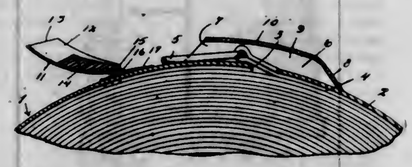


3. The combination in a machine for winding paper, of a frame; a driving shaft mounted on the frame; a reel mounted on the driving shaft and having adjustable segments, said segments having toothed spokes; a long pinion meshing with the teeth of the spokes and located within the driving shaft; a rock shaft having arms; a presser roll carried by the arms and resting upon the paper on the reel and having an arm at one end; a brake lever pivoted to the frame and adjustably connected to said last mentioned arm; a drum loose on the main shaft and against which the brake lever is arranged to bear; a bearing secured to the shaft; two shafts geared together and mounted in the bearing; an annular row of teeth on the drum; a beveled wheel on one of the shafts meshing with the teeth of the drum; a worm on the other shaft; a worm wheel with which the said worm meshes; said worm wheel being mounted on said elongated pinion extending through the center of the power shaft upon which the reel is mounted and meshing with the teeth of the spokes of the reel.

4. The combination in a machine for winding paper, of a frame; a hollow shaft mounted thereon; a reel mounted on the shaft and consisting of a series of segments and toothed spokes; an elongated pinion extending through the shaft and meshing with the teeth on the spokes and having at one end a worm wheel; a bearing frame secured to the shaft; two short shafts geared together and mounted in the bearing frame; a worm on one shaft meshing with the worm wheel on the pinion; a beveled gear wheel; a drum loosely mounted on the hollow shaft and having an annular set of beveled teeth with which the beveled gear wheel meshes; a rock shaft; arms on the rock shaft; a drum mounted to turn freely in said arms and resting upon the paper as it is raised; an arm at one end of the rock shaft; a screw rod extending from the arm; a brake lever bearing upon the first named drum and pivoted to the frame; a yoke connected to one arm of the brake lever; nuts on the screw rod; and a spring located between the yoke and the lower nut so that there is a yielding connection between the rock shaft and the brake lever.

5. The combination in a paper reeling machine, of a power shaft; a retractable reel thereon; a rock shaft; arms on the rock shaft; a roller carried by the arms and arranged to bear upon the paper as it is reeled; said shaft having a counterbalance arm; an adjustable weight thereon for balancing the roller; means for retracting the reel; and mechanism connecting the retracting mechanism with the rock shaft so that as the paper lifts the roller and rocks the shaft, the reel will be retracted.

1,075,052. TAPE-LINE PROTECTOR. JOHN JOSHUA MILLER, San Diego, Cal. Filed Feb. 7, 1913. Serial No. 746,939. (Cl. 73—49.)



1. The combination with a tape casing having a slot formed in the peripheral wall thereof, of a housing extending over said slot and being open at one end, and a cover hinged to said casing and adapted to close the open end of the housing, whereby the free end of the tape is protected and foreign matter excluded from the slot.

2. The combination with a cylindrical tape casing having a slot formed in its peripheral wall, of a tape line adapted to run through said slot and provided upon its free end with a loop, a housing secured to said peripheral wall and covering the slot, a cover pivoted to the casing and adapted to close the open end of the housing, and means for retaining the cover in its open or closed position.

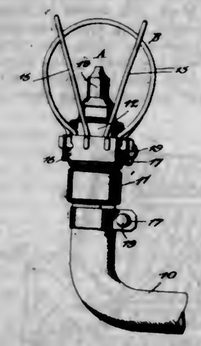
3. The combination with a tape casing having a slot formed in one wall, of a housing projecting over said slot and open at one end, a cover having a top wall and side walls, the cover forming when in its closed position, a continuation of the housing, a reinforcing block secured within said cover, a pintle passing through said block and secured to the casing, a projection formed upon the pivoted end of the cover, and a flat metal spring adapted to be engaged by said projection, whereby the cover is retained in its open or closed position.

4. The combination with a tape casing having a slot formed in the peripheral wall thereof, of a housing extending over said slot and being open at one end, and a cover hinged to said peripheral wall for the purpose of closing the open end of the housing, whereby foreign matter is excluded from the interior of the casing.

5. The combination with a tape casing having a slot formed in one wall thereof, of a housing extending over said slot and open at one end, a pivoted cover adapted to close the open end of the housing, and spring means for retaining the cover in its open or closed position.

1,075,053. SANITARY DRINKING-FOUNTAIN. ISHAM S. MOORE, Runge, Tex. Filed June 3, 1912. Serial No. 701,371. (Cl. 137—110.)

A sanitary drinking fountain comprising a tubular member having one end reduced to form a nozzle and its other end interiorly threaded and a cage secured to said member and inclosing the nozzle end thereof, said cage comprising a plurality of U-shaped wire members having their ends extending in the same general direction and the intermediate portions of certain of said U-shaped members intersecting each other, said U-shaped members being further arranged in pairs with the members of each pair disposed in outward divergence with respect to the nozzle, whereby an uninterrupted opening is left above the nozzle, and a clamping collar mutually connecting the free ends of said members and engaged over the tubular member whereby the U-shaped wire members are disposed in inclosing relation to the nozzle.



1,075,054. GOLF-CLUB ATTACHMENT. EDWARD GEORGE MORLEY, Malvern, Melbourne, Victoria, Australia. Filed Feb. 10, 1913. Serial No. 747,418. (Cl. 46—4.)



1. Improvements relating to golf club attachments, consisting in the combination of a finger stop and grip provided with a semi-circular longitudinal foundation surface and having an upper flange and a lower flange, a downwardly inclined extension projecting from said stop and grip between said flanges and forming a finger gullet, and means for fixedly securing the stop and grip to the golf club.

2. Improvements relating to golf club attachments, consisting in the combination of a finger stop and grip provided with a semi-circular longitudinal foundation surface and having an upper flange and a lower flange, a downwardly inclined extension projecting from said stop and grip between said flanges and forming a finger gullet, and means for adjustably securing the stop and grip to the golf club.

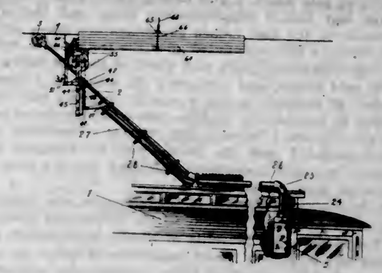
3. Improvements relating to golf club attachments, consisting in the combination of a stop and grip having longitudinal semi-circular foundation surface, an upper flange and a lower flange to said stop and grip, an inclined extension projecting from said stop and grip between said flanges and forming a finger gullet, a band securing said stop and grip to the golf club, and a retention screw passing through said band.

4. Improvements relating to golf club attachments, consisting of the combination of a finger stop and grip provided with a longitudinal semi-circular foundation surface and having an upper flange and a lower flange, a downwardly inclined extension projecting from said stop and grip between said flanges and forming a finger gullet, a strap securing said stop and grip to the golf club, lugs projecting from said strap, and a holding screw passing through said lugs.

5. Improvements relating to golf club attachments, consisting of the combination of a divided finger stop and grip each section being provided with a semi-circular foundation surface and having an overhanging finger separator provided with upper and lower finger beds, and means for securing the stop and grip to the golf club.

[Claims 6 to 11 not printed in the Gazette.]

1,075,055. STREET-INDICATOR FOR ELECTRIC CARS. JAMES E. MORTON, Dallas, Tex. Filed Jan. 13, 1913. Serial No. 741,612. (Cl. 40—46.)



1. In a street indicator for electric cars, the combination with a casing mounted within a car and provided with a window, of a ribbon contained in said casing and adapted to travel longitudinally before the window, a plurality of letters being equidistantly carried by the ribbon, each of which letters is singly visible through the window in a certain position of the ribbon, a wheel rotatably mounted upon the upper extremity of the trolley pole of the car, a device mounted upon the trolley wire, entering into engagement with said wheel as the car passes beneath said device, and subjecting the wheel to a certain amount of rotation, a means establishing a relation between said wheel and said ribbon such that the said rotation of the wheel actuates the ribbon through a certain amount of travel, and causes a certain letter to appear before the window, a spring opposing the travel of the ribbon actuated by said wheel, and tending to normally maintain the ribbon in a position such as to expose a blank portion of its surface through said window, a dog normally engaging the wheel serving to temporarily hold the wheel in a displaced position, a tripping arm carried by said dog, and means mounted upon the trolley wire for engaging said tripping arm and temporarily releasing the dog from engagement with the wheel.

2. In a street indicator for electric cars, the combination with a casing mounted within a car and provided with a window, of a ribbon contained in said casing and adapted to travel longitudinally before the window, a plurality of letters being equidistantly carried by the ribbon, each of which letters is singly visible through the window in a certain position of the ribbon, a toothed wheel rotatably mounted upon the upper extremity of the trolley pole of the car, a rack of teeth mounted upon the trolley wire and adapted to be engaged by the teeth of said wheel as the car passes beneath said rack, thereby subjecting said wheel to a certain amount of rotation, means of establishing a relation between said wheel and said ribbon such that the said rotation of the wheel actuates the ribbon through a certain amount of travel, and causes a certain letter to appear before the window, a spring opposing the travel of the ribbon actuated by said wheel, and tending to normally maintain the ribbon in a position such as to expose a blank portion of its surface through said window, a dog normally engaging said wheel serving to temporarily hold the wheel in a displaced position, a tripping arm carried by said dog, and means mounted upon the trolley wire for engaging said tripping arm and temporarily releasing the dog from engagement with the wheel.

3. In a street indicator for electric cars, the combination with a casing mounted within a car and provided with a window, of a ribbon contained in said casing and adapted to travel longitudinally before the window, a plurality of letters being equidistantly carried by the ribbon, each of which letters is singly visible through the window in a certain position of the ribbon, a pair of drums upon which the ribbon's end portions are respectively carried, a spring acting upon one of said drums, impressing upon it a tendency to wind up the ribbon, a supplemen-

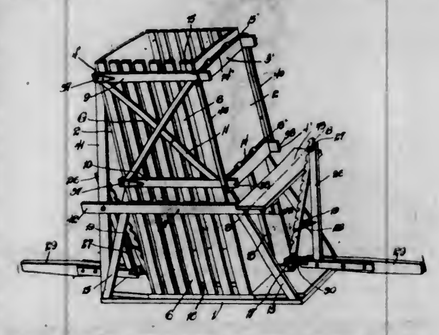
tary drum correlated with the other drum first mentioned, a wheel rotatably mounted upon the upper extremity of the trolley pole of the car, a supplementary drum rigidly carried by said wheel, a wire having one extremity secured to the last named supplementary drum and the other extremity to the first named supplementary drum within said casing, a device mounted upon the trolley wire, entering into engagement with said wheel as the car passes beneath said device, and subjecting the wheel to a certain amount of rotation, a dog normally engaging the wheel serving to temporarily hold the wheel in a displaced position of rotation, a tripping arm carried by said dog, and means mounted upon the trolley wire for engaging said tripping arm and temporarily releasing the dog from engagement with the wheel.

4. In a street indicator for electric cars, the combination with a casing mounted within a car and provided with a window, of a plurality of ribbons contained in said casing and adapted to travel longitudinally before the window, a plurality of letters being equidistantly carried by each ribbon, the letters carried by any ribbon being singly visible through the window in a certain position of said ribbon, a plurality of wheels rotatably mounted upon the upper extremity of the trolley pole of the car, a device mounted upon the trolley wire, entering into engagement with certain of said wheels as the car passes beneath said device, and subjecting the wheel to various amounts of rotation, means establishing a relation between each wheel and one of said ribbons, such that the rotation of the wheel actuates the correlated ribbon through a certain amount of travel and causes a certain letter to appear before the window, springs opposing the travel of the ribbons actuated by said wheels, and tending to normally maintain all of the ribbons in a position such as to expose a blank portion of their surfaces through the window, a dog normally engaging the wheels, serving to temporarily hold the wheels in a displaced position of rotation, a tripping arm carried by said dog, and means mounted upon the trolley wire for engaging said tripping arm and temporarily releasing the dog from engagement with the wheels.

5. In a street indicator for electric cars, the combination with a casing mounted within a car and provided with a window, of a plurality of ribbons mounted within said casing and adapted to travel longitudinally before said window, a plurality of letters being equidistantly carried by each ribbon, and each of the letters carried by any ribbon, being singly visible through the window in a certain position of said ribbon, a plurality of toothed wheels rotatably mounted upon the upper exremity of the trolley pole of the car, a plurality of toothed racks mounted upon the trolley wire and adapted to be engaged by certain of said wheels, as the car passes beneath the said device and thereby subject such wheels to a certain amount of rotation, means establishing a relation between each wheel and one of said ribbons such that the said rotation of the wheel actuates the correlated ribbon through a certain amount of travel causing a certain letter to appear before the window, a spring opposing the travel of each ribbon produced by said rotation of the correlated wheel, and tending to normally maintain the correlated ribbon in a position such as to expose a blank portion of its surface to the window, a dog normally engaging the teeth of the wheels serving to temporarily hold the wheels in a displaced position to which they are brought through engagement with said racks of teeth, a tripping arm carried by the said dog, means mounted upon the trolley wire for engaging said tripping arm and temporarily releasing the dog from engagement with the toothed wheels, and means for producing a gradual displacement of the dog from its inoperative to its operative position after any displacement from the wheels.

1,075,056. BALING-PRESS. JOSEPH W. NICHOLAS, Freestone, Tex. Filed Nov. 1, 1912. Serial No. 729,088. (Cl. 100—6.)

1. In a baling press, a press box having gates, a head block supported detachably on the box, a follower having arms extending through the side walls of the box, said side walls being provided with vertical slots, ratchet bars connected pivotally with the arms of the follower, pairs of levers fulcrumed on and extending beyond the side edges of the head block, trip means to support said levers in extended position, link bars suspended from said levers and having grooves in which the ratchet bars are slidably arranged, said link bars having pivoted links engaging the ratchet bars, and bifurcated levers fulcrumed on the link bars and having pivoted links engaging the ratchet bars.



2. In a baling press of the character described, a press box having slotted side walls, a follower having arms extending through the slots, a head block loosely supported on the press box, levers fulcrumed on the head block and having arms projecting beyond the side edges thereof, pivoted keepers to engage the inwardly extending arms of the levers, a hand lever fulcrumed intermediate the keepers, links connecting said hand lever with the keepers, link bars supported on the projecting arms of the levers and having grooved faces, ratchet bars pivotally connected with the arms of the follower and fitted slidably in the grooves of the link bars, and means connected with the link bars to engage the ratchet bars and to move said ratchet bars step by step in an upward direction.

1,075,057. PNEUMATIC SAND-RAMMER. SAMUEL OLDHAM, Philadelphia, Pa., assignor to George Oldham & Son Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 16, 1913. Serial No. 768,001. (Cl. 121—11.)

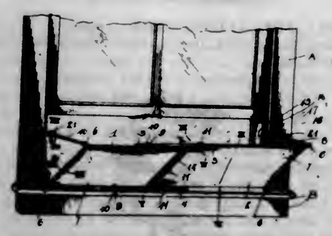


1. In a tool of the character stated, a cylinder having ports at a distance from its ends to form cushion-chambers, a plain cylindrical piston reciprocable in said cylinder, a valve-chamber at the upper end of said cylinder having a small-diameter portion having its end open to constant live-air pressure and a closed large-diameter portion, and a valve fitted to slide in said chamber-portions and controlling the air-supply to both ends of the cylinder, said cylinder and valve-chamber having a duct extending from the bottom of the large-diameter chamber-portion to a point in the cylinder adapted to be uncovered by the lower end of the piston when approaching the end of its up-stroke to connect the live-air supply in the lower end of the cylinder with the large-diameter valve-chamber portion to raise the valve therein.

2. In a tool of the character stated, a cylinder having a relief port in its upper portion and permanently open to the atmosphere, a plain cylindrical piston reciprocable in said cylinder, and a valve controlling the air-supply to both ends of said cylinder and having a small-area piston exposed to constant live-air pressure and an opposite large-area piston, said relief port being adapted to be uncovered by the upper end of the piston when the latter approaches the lower portion of its down-stroke to connect the large-area valve-piston to the atmosphere, said large-area piston having communication with the cylinder through a port arranged in the latter to be uncovered by the piston when approaching the end of its up-stroke to admit the live-air supply in the lower end of the cylinder to said large-area valve-piston to raise the same.

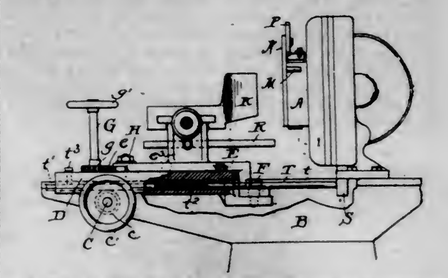
3. In a tool of the character stated, a cylinder having a relief port in its upper portion and permanently open to the atmosphere, a piston reciprocable in said cylinder, a valve-chamber formed with a large-diameter portion communicating with the live-air supply and with the upper portion of the cylinder and also connected at its bottom with the cylinder through a port opposite the relief port and through a port arranged to be uncovered by the piston when approaching the end of its up-stroke, said valve chamber also formed with an intermediate portion having communication with the atmosphere and an upper small-diameter portion constantly open at its upper end to the live-air supply and having a port communicating with the lower portion of the cylinder, and a valve having a small-diameter upper piston fitted to slide in the upper chamber-portion to control said latter port, and having its upper face constantly exposed to the live-air supply and a large-diameter lower piston connected to said upper piston by a reduced neck and fitted to slide in the large-diameter chamber-portion to control the live-air port and the port communicating with the upper portion of the cylinder.

1,075,058. WINDOW RAIN-SHIELD. CHARLES P. ORTH, Kewanee, Ill. Filed Jan. 31, 1913. Serial No. 745,432. (Cl. 98—31.)



In a rain shield and ventilator for windows, frame sections adjustable longitudinally between the vertical sides of the window and including upper and lower eye portions, screws extending from the side bars of the window frame and receiving the lower eyes of the frame sections, bars pivotally mounted in the upper eyes of the frame sections, eye-members secured to the vertical sides of the window above the plane of the screws, means on the bars having detachable engagement with the eye-members, guards carried by the frame sections, and means on the guards having detachable connection with said bars.

1,075,059. GEARED DIE-STOCK. HERMAN W. OSTER, Cleveland, Ohio, assignor to The Oster Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 1, 1911. Serial No. 663,332. (Cl. 10—89.)



1. In a geared die stock, the combination of a rotatable die head carrying adjustable dies, and means for moving said dies toward and from the work, with a carriage movable toward and from said die head, movable pipe jaws upon said carriage, an arm adjustably secured to said carriage and adapted to be moved by the carriage into a position to be engaged by the die moving means, and a spring actuated carriage retracting device adjustably secured to the carriage and adapted to engage a fixture just before said arm by its action causes the retraction of the dies.

2. In a geared die stock, the combination of a carriage on which are pipe holding jaws, with a carriage-retracting device mounted on said carriage and comprising two alined rods and an intermediate spring, and means for adjustably fixing the rear rod to said carriage, and a fixture with which the front end of the front rod may engage.

3. In a geared die stock, the combination of a carriage on which are pipe holding jaws and in which is a longitudinally extended hole which extends from its front end rearward, two rods and an intermediate spring connected with both rods, which parts are disposed in said hole with the front end of the front rod projecting, means for adjustably fixing the rear rod against movement in said hole, and a fixture against which the projecting end of the front rod may engage.

4. In a geared die stock in combination with a rotatable head which turns on a horizontal axis, a carriage movable horizontally toward and from said head, a pipe support pivoted on said carriage on a vertical axis which intersects the horizontal axis of the die head, mechanism for swinging said pipe support upon its pivot, mechanism for holding the pipe support in fixed position upon the carriage, two jaws mounted on said pipe support, and means for simultaneously moving said jaws toward and from each other.

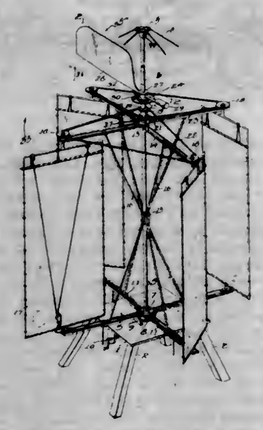
1,075,060. WINDMILL. JOHN O'TOOLE, Los Angeles, Cal. Filed June 10, 1912. Serial No. 702,654. (Cl. 170—25.)

1. A wind mill having a stationary shaft, a rotating frame, feathering wind blades and a tail vane; and means whereby the tail vane is automatically locked to the shaft under the action of the rotating frame and wind blades and automatically unlocked by the action of the wind.

2. A wind mill having a supporting frame, a non-rotatable shaft mounted upon the supporting frame, a rotatable frame mounted upon the shaft, feathering wind blades mounted in the rotatable frame, a tail vane for adjusting the feathering of the wind blades, and a ratchet mechanism for locking the tail vane to the shaft under the action of the rotatable frame and allowing the tail vane to rotate by the action of the wind so as to adjust the feathering of the wind blades to the direction of the wind.

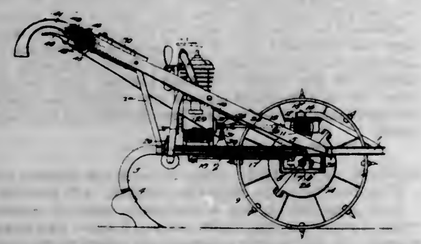
3. In a wind mill, a supporting frame, a stationary shaft mounted upon the supporting frame; guys holding the shaft vertical and against rotation, a frame rotatably mounted upon the shaft, a crank shaft mounted upon the supporting frame and connected by bevel gears to the rotatable frame, feathering blades mounted in the ro-

tatable frame, sprocket gears mounted upon the spindles of the feathering blades, chains connecting the sprocket gears, a pawl wheel fixed upon the shaft, a pawl carried by the shaft sprocket gears and in position to engage the teeth of the pawl wheel, a tail vane rotatably mounted upon the shaft and a connection between the tail vane and the pawl, forming a means whereby the tail vane is automatically locked to the shaft by means of the pawl under the action of the mill, and a means whereby the pawl is thrown out of engagement with the pawl wheel and the tail vane is automatically unlocked from the shaft by the action of the wind.



4. In a wind mill having a main shaft, a rotatable frame, feathering wind blades and a tail vane, and means whereby the tail vane is locked against rotation by the action of the mill and unlocked by the action of the wind.

1,075,061. MOTOR-PLOW. JOSEPH NICHOLAS PARKER, Bedford City, Va. Filed Sept. 7, 1912. Serial No. 719,131. (Cl. 21—114.)



1. In a motor plow, a frame, sliding bearing blocks mounted in the forward part of the frame, an axle mounted in the said blocks, traction wheels on the axle, a gear casing disposed concentrically on the axle between the wheels and pivoted to the frame, gearing in said casing, a clutch for connecting the gearing with the axle, a motor on the frame for operating the gearing, and means for swinging the axle.

2. In a motor plow, a frame, handles secured to the frame, sliding bearing blocks mounted in the forward part of the frame, an axle mounted in the bearing blocks, traction wheels on the axle, a gear casing disposed concentrically on the axle between the wheels and pivoted to the frame, gearing in the casing, a clutch for connecting the gearing with the axle, a motor on the frame for operating the gearing, and means for swinging the axle from one of the plow handles.

3. In a motor plow, a frame, handles secured to the frame, sliding bearing blocks at the forward part of the frame, an axle mounted in the bearing blocks, traction wheels on the axle, a gear casing disposed concentrically on the axle between the wheels and pivoted to the frame, gearing in the casing, a clutch between the gearing and axle, a motor on the frame for operating the gearing, means for swinging the axle from a handle of the plow, and means for throwing the wheel operating mechanism out of gear.

4. In a motor plow, a frame, handles secured to the frame, sliding bearings at the forward part of the frame, a pivoted bar, links connecting the bar with the bearing blocks, an axle mounted in the bearings, traction wheels on the axle, a gear casing disposed concentrically on the axle and pivoted to the frame, gearing in the casing, a clutch for connecting the gearing with the axle, a motor on the frame for operating the gearing, and means connected with one end of the axle for swinging the same from a handle of the plow.

5. In a motor plow, a frame, handles on the frame, one of the handles having a pivoted section, sliding bearings at the forward end of the frame, an axle mounted in the bearings, a gear casing concentric with the axle and pivoted to the frame, gearing in the casing for operating the axle, a motor for operating the gearing, traction wheels on the axle, and a connection between the axle and the pivoted section of the handle.

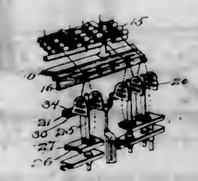
[Claims 6 to 15 not printed in the Gazette.]

1,075,062. DEFLECTOR. THOMAS T. PEDDY, Bienville, La. Filed July 19, 1912. Serial No. 710,464. (Cl. 98—21.)



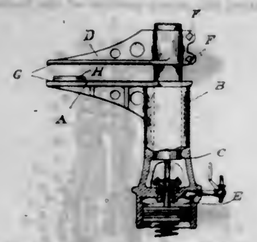
A deflector for the purpose stated, comprising a flat base provided with a slot therein, a concavo-convex body extending outwardly from the base, a keeper plate adapted to be fixedly attached to a car window frame and to be received in the slot in the base of the deflector, an outwardly offset deflector retaining lip formed integrally with one end of the keeper plate, and a turn button pivotally mounted on said keeper plate and also adapted to pass through said slot and to project at one end beyond the opposite end of the keeper plate from the retaining lip thereof, both of said lips being adapted to engage the outer face of the deflector base and lock the same to the frame.

1,075,063. SEPARATOR-GUARD. ARTHUR W. PITTS, Bonham, Tex. Filed July 5, 1912. Serial No. 707,929. (Cl. 118—16.)



In a device of the class described, a yarn winding device, an upper yarn guiding device, a bar located below the latter, yarn separators carried by the bar, means for securing the separators to the bar, said securing means permitting of the adjustment of the separators and projecting laterally from the front of the bar, between the separators, and means extending from each separator to the adjacent separator and serving to partly support the separators and to guide the yarn away from the securing means.

1,075,064. CUTTING APPARATUS. DANIEL N. PRIME, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 16, 1907. Serial No. 393,195. (Cl. 164—23.)



1. In a machine of the class described, the combination of a double edge cutting die, a presser plate arranged to engage one edge of said die and force the other edge through stock, and a die block of approximately the same degree of hardness as said cutting die.

2. A reversible cutting die in combination with a die block and a presser block of approximately the same hardness as said die, said presser block being arranged to engage one cuiting edge of said die and force the other through stock supported on said block.

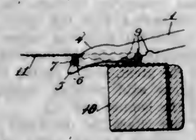
3. A reversible cutting die having blunt cutting edges in combination with a die block and a die engaging member of approximately the same hardness as said die.

4. The combination with a die block of hard metal and a reversible cutting die, of a presser block of hard metal arranged to engage one cutting edge of the die to force the other edge through stock upon the die block.

5. The combination with a die block of hard metal and a reversible die having blunt cutting edges upon its opposite sides, of a die engaging member of hard metal arranged to engage the cutting edge on one side of the die for forcing the cutting edge on the other side of the die through stock on the die block.

[Claims 6 to 10 not printed in the Gazette.]

1,075,065. BED-SPRING TIGHTENER. JOSEPH F. PRYOR, Eugene, Oreg. Filed Mar. 15, 1913. Serial No. 754,416. (Cl. 39—54.)



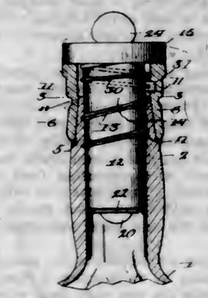
1. A bed spring tightener, comprising a series of lever arms arranged in a common plane, and a yoke to which all of said lever arms are attached, said arms being provided with notches located in alinement throughout the series, and adapted to receive a detachable rod.

2. A bed spring tightener, comprising a series of lever arms arranged in a common plane, and a yoke to which all of said lever arms are attached, said arms being provided with notches located in alinement throughout the series and adapted to receive a detachable fulcrum rod.

3. A bed spring tightener, comprising a series of lever arms arranged in a common plane, and a yoke to which all of said lever arms are attached, said arms being provided with alining notches in opposite faces thereof adapted to receive a pair of rods.

1,075,066. NON-REFILLABLE BOTTLE. ROGER ROSADA, Guatemala, Guatemala. Filed Nov. 30, 1912. Serial No. 734,288. (Cl. 215—103.)

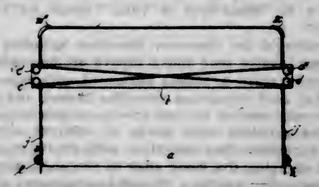
1. The combination of an interiorly threaded bottle neck, a collar fixed against turning about said neck and extending above the same and having an interior inclined groove and a seat depending therefrom and also having beveled teeth on its upper edge, an exteriorly threaded plug arranged in and engaging the thread of the neck and having a tortuous passage for liquid, and also having a flange on its upper portion and an upright groove in its side below said flange, a coiled spring surrounding the upper portion of the plug and bearing against the under side of the flange thereof, a catch carried by said spring and disposed in the said groove of the plug and also disposed in the said seat of the collar, and a spring strip connected with and spaced from the under side of the plug flange and having a detent arranged to ride over and seat between the plug teeth.



2. The combination of an interiorly threaded bottle neck, a collar fixed against turning about said neck and extending above the same and having an interior inclined groove and a seat depending therefrom, an exteriorly threaded plug arranged in and engaging the thread of the neck and having a tortuous passage for liquid and also having a flange on its upper side and an upright groove in its side below said flange, a coiled spring surrounding the upper portion of the plug and bearing against the under side of the flange thereof, and a catch carried by said spring and disposed in the said groove of the plug and also disposed in the said seat of the collar.

3. The combination of an interiorly threaded bottle neck having flat portions on its outer side extending downward from its mouth, a collar arranged on said neck and having a weakened portion and interior flattened portions opposed to the said flattened portions of the neck and also having an interior inclined groove and a seat depending therefrom, and further having beveled teeth on its upper edge, an exteriorly threaded plug arranged in and engaging the thread of the neck and having a tortuous passage for liquid, and further having a flange on its upper portion and an upright groove in its side below said flange, a coiled spring surrounding the upper portion of the plug and bearing against the under side of the flange thereof, a catch carried by said spring and disposed in the said groove of the plug and also disposed in the said seat of the collar, and a spring strip connected to the underside of the plug flange and having a detent adapted to engage the teeth of the neck.

1,075,067. SELF-GUIDING ARRANGEMENT FOR PARALLEL RULERS AND THE LIKE. SOZONT SANDURSKYJ, Vienna, Austria-Hungary. Filed Jan. 18, 1912. Serial No. 671,900. (Cl. 33—15.)



1. In self-guiding arrangements for parallel rulers and the like, the combination of a drawing board and a ruler,

a guiding wire having its ends fixed to the board, guide devices supported near the ends of said ruler for said wire, said wire being crossed between said guide devices, and guide devices on said board adapted to receive a loop of said wire carried around a portion of said board.

2. In self-guiding arrangements for parallel rulers and the like, the combination of a drawing board and ruler, a guiding wire having its ends fixed to the board, sheaves supported near the ends of said ruler, inclined pivots on said ruler for supporting said sheaves at such an inclination as to carry portions of the said wire from the edge of the board and beneath the surface of the latter to the higher level at which said wire passes to and fro across the board, said wire being crossed between said sheaves, and guide devices on said board adapted to support a loop of said wire extending from said sheaves to and along one edge of said board.

3. In self-guiding arrangements for parallel rulers and the like, the combination of a drawing board and a ruler, a guiding wire having its ends fixed to the board, and sheaves supported near the ends of said ruler and adapted to receive and pass said wire from a level higher than the surface of said board to a level lower than the surface of said board, said wire proceeding from its fixed ends along the side edges of the board to said sheaves and crossing between said sheaves and finally passing in a loop lying around the said edges and along another edge of said board.

4. In self-guiding arrangements for parallel rulers and the like, comprising in combination a drawing board, a guiding wire having its two ends fixed to corners of the board, a ruler, and two pairs of inclined sheaves on said ruler one pair near each end, one sheave of each pair being adapted to receive an end portion of said wire which extends along the adjacent side edge of said board below the surface thereof and to transmit said wire to a higher level above said board, said wire being crossed between said sheaves, the other member of each pair then receiving said wire from the higher level and transmitting it to the lower level to form a loop around one edge of said board.

5. In self-guiding arrangements for parallel rulers and the like for drawing boards, comprising a ruler and a drawing board, a pair of inclined sheaves mounted on each end of said ruler, a guiding wire having one of its ends connected to one corner of the board at the bottom thereof, the other end being connected to the other bottom corner, said wire extending from one of the connections around one of the sheaves of one pair, then crossing the ruler and around one of the sheaves of the other pair, then around the other two corners of the board at the upper edge thereof, then down around the second sheave of the first pair, then across to and around the second sheave of the second pair, said wire in its passage from the second sheave of the first pair to the second sheave of the second pair crossing the other wire extending from one sheave to the other sheave of the two pairs, said wire then passing from the second sheave of the second pair to the other fastening device, the wire when passing from the sheaves to the fastening devices and to the upper corners of the board extending from points above the surface of the board to points below the surface of the board.

[Claims 6 to 8 not printed in the Gazette.]

1,075,068. RADIATOR-VALVE. FRANK L. SHELL, Deadwood, S. D. Filed Sept. 4, 1912. Serial No. 718,525. (Cl. 137—4.)

1. A valve of the character described including a casing having a valve seat and a groove or depression surrounding the same, a bonnet connected with the casing, a partition shell depending from the bonnet and having its lower edge seated in said groove or depression, said shell being provided with ports at different elevations therein, a packing ring seated in said groove or depression and engaging the lower edge of the shell, the lower valve stem section having a threaded engagement with the bonnet, an upper valve stem section extending through the bonnet and cap and adjustably connected with the lower valve stem section, a handle connected with the upper valve stem section, packing elements within the cap and bearing against and surrounding the stem, and a spring arranged between and acting to press said packing elements against the crown portion of the bonnet and cap.



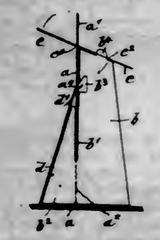
2. A valve of the character described including a casing having a valve seat and a groove or depression surrounding the same, a bonnet connected with the casing, a partition shell depending from the bonnet and having its lower edge seated in said groove or depression, said shell being provided with ports at different elevations therein, a packing ring seated in said groove or depression and engaging the lower edge of the shell, the lower valve stem section having a threaded engagement with the bonnet and provided with a non-circular socket, a valve having a gasket portion to engage the valve seat, said valve being connected with said lower valve stem section and adjustable thereby to uncover the ports in the shell, an upper valve stem section having a non-circular portion engaging the socket in the lower valve stem section, a handle connected with the upper valve stem section, and means for indicating the extent of adjustment of the handle and valve.

3. A valve of the character described including a casing, a partition therein having ports at different elevations, a bonnet carrying said partition, a cap connected with the bonnet, a valve controlling the ports in the partition, a lower valve stem section carrying the valve and having a threaded engagement with the bonnet, an upper valve stem section extending through the bonnet and cap and adjustably connected with the lower valve stem section, a handle connected with the upper valve stem section, packing elements within the cap and bearing against and surrounding the stem, and a spring arranged between and acting to press said packing elements against the crown portion of the bonnet and cap.

4. A valve of the character described including a casing, a partition therein having ports at different elevations, a bonnet carrying said partition, a cap connected with the bonnet, a valve controlling the ports in the partition, a lower valve stem section carrying the valve and having a threaded engagement with the bonnet, and also having a non-circular socket, an upper valve stem section extending through the bonnet and cap and having a non-circular portion engaging the socket in the lower valve stem section, a handle connected with the upper valve stem section, packing elements within the cap and bearing against and surrounding the stem, and a spring arranged between and acting to press said packing elements against the crown portion of the bonnet and cap.

1,075,069. DISPLAY DEVICE. JULIEN STRANDBAS, New York, N. Y., assignor to The Seiter & Kappes Lithographing Co., New York, N. Y., a Corporation of New York. Filed Oct. 31, 1912. Serial No. 728,833. (Cl. 46—37.)

1. A display-device, comprising a main-piece, a stay having an inclined front-portion, said main-piece and stay being connected by means of interlocking slits respectively in their upper and lower parts, a holding piece hinged to the inclined front-portion of the stay, a top-piece applied to the upper part of the main-piece, and means for interlocking the holding piece and the top-piece with the main-piece and stay.



2. A display-device, comprising a main-piece, a stay composed of an inclined front-portion and a higher rear-portion, said main-piece and stay being provided with interlocking slits for being placed at right angles to each other or in folded position adjacent to each other, a holding piece hinged to the inclined front-portion of the stay and provided with a tongue extending through a slit in the upper front-portion of the main-piece and into a recess in the stay, and a top-piece having a transverse slit for being placed over the upper portion of the main-piece, and means for interlocking said top-piece with the upper rear-portion of the stay.

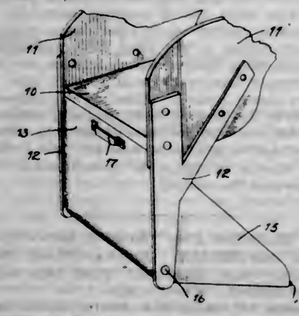
3. A display-device, comprising a main-piece, a stay interlocking by slits with the main-piece, said stay being formed of a rear-portion having a recess and a lug at its upper end, and a front-portion having an inclined edge, a holding piece hinged to the inclined edge of the front-portion of the stay and provided with a tongue extending through a slit of the main-piece into the recess of the rear-portion of the stay, and a top-piece provided with a transverse slit fitting over the upper end of the main-piece and a longitudinal slit interlocking with the lug of the rear-portion of the stay.

4. A display-device, comprising a main-piece having an upper portion of reduced width provided with shoulders, a stay for supporting said main-piece, a top-piece resting on said upper portion and provided with a transverse slit, and means for locking the top-piece to the upper end of the stay.

5. A display-device, comprising a main-piece having an upper portion of reduced width provided with shoulders, a stay for supporting said main-piece and provided with a locking lug at the upper end, a top-piece resting on said shoulders and provided with a transverse slit and a rear-slit at right angles to the transverse slit and adapted to interlock with the lug on the stay.

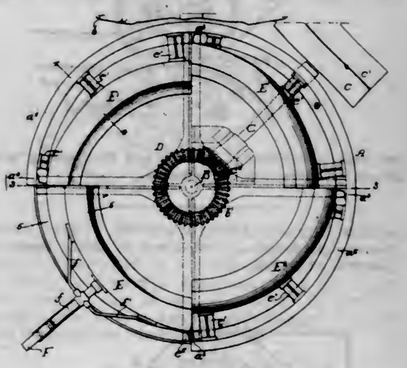
[Claims 6 to 9 not printed in the Gazette.]

1,075,070. AUXILIARY CAR-STEP. OLE SYVERSON, Minot, N. D. Filed Mar. 17, 1913. Serial No. 754,960. (Cl. 105—86.)



An auxiliary step for railway coaches comprising depending brackets carried by the lowermost of the flight of coach steps, a shaft carried by the lower ends of the brackets, a step including a riser, a tread and side guards pivotally mounted on the shaft, the riser and tread meeting at an obtuse angle, and a stop carried by the said bottommost step for engagement by the riser and tread of the auxiliary step, whereby the weight of the step will be below the center of its pivot when in either open or closed position to prevent accidental movement thereof, and a handle carried by the auxiliary step.

1,075,071. APPARATUS FOR MIXING MATERIALS. CHARLES W. THOMAS, Lindenwold, N. J. Filed Mar. 12, 1908. Serial No. 420,596. (Cl. 83—73.)



1. The combination in a mixing apparatus of a table; a series of elongated concave plows mounted around the table with their ends immediately adjacent each other so as to inclose a space above the same; said plows being arranged eccentrically as regards the table; with means for driving the table relatively to the plows.

2. The combination of a table; a plurality of elongated longitudinally concave plows arranged in a continuous series around the table with each end of each plow immediately adjacent a radial line of said table passing through the end of an adjacent plow; and means for turning the table relatively to the plows.

3. The combination of a table; a series of concave plows arranged with said table to form a container; and means for turning the table relatively to the plows; one of said plows being movable to provide a discharge opening for the container.

4. The combination of a table; a series of concave plows inclosing a space above said table; means for turning the table relatively to the plows; with means for moving one of the plows parallel to the plane of the table to provide a discharge opening for the space inclosed by the plows.

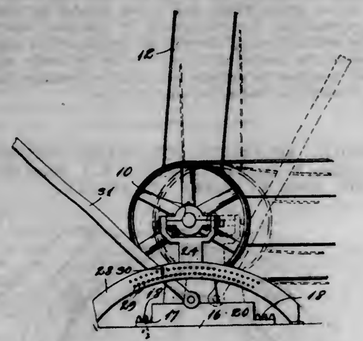
5. The combination of a rotatable table; a series of stationary plows forming a wall around the space above the table; said plows having their inner faces curved; means for driving the table; and means for shifting one of the plows to allow the escape of material from the table by centrifugal action.

[Claims 6 to 13 not printed in the Gazette.]

1,075,072. BELT-TIGHTENER. JOHN C. TODD, Lawrenceburg, Tenn. Filed Dec. 21, 1911. Serial No. 667,113. (Cl. 64—52.)

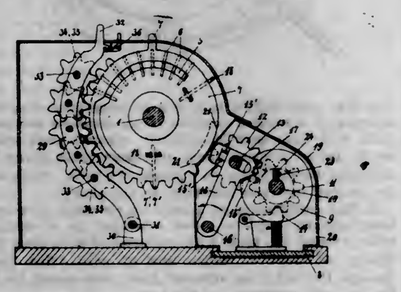
In a belt tightener, a pedestal, a pulley shaft carried thereby, said pedestal having an integral gear case on one side at the bottom, said gear case being open at the bottom, said gear case being formed with guide flanges, a bed plate having guideways receiving said flanges and having a rack exposed through the bottom of said gear case, a pinion concealed within said gear case and meshing with said rack, a shaft projecting through said pinion and

through the sides of said gear case, a lever carried by said shaft and extending upwardly along the side of said



gear case, a stationary member, and interlocking means between said lever and said member.

1,075,073. CALCULATING-MACHINE. FRANZ TRINKS, Brunswick, Germany. Filed Jan. 4, 1913. Serial No. 740,206. (Cl. 235—79.)



1. In a calculating machine, the combination with setting members arranged in sets in different portions of the machine, and registering members coöperating therewith, of mechanism to connect corresponding setting members for common operation.

2. In a calculating machine, the combination with setting members arranged in sets in different portions of the machine, and registering members coöperating therewith, of mechanism adapted to be thrown out of operation to connect corresponding setting members for common operation.

3. In a calculating machine, the combination with setting members arranged in sets in different portions of the machine, and registering members coöperating therewith, of mechanism to connect corresponding setting members for common operation in opposite directions.

4. In a calculating machine, the combination with setting members arranged in sets in different portions of the machine, and registering members coöperating therewith, of mechanism adapted to be thrown out of operation to connect corresponding setting members for common operation in opposite directions.

5. In a calculating machine, the combination with setting members arranged in sets in different portions of the machine, and registering members coöperating therewith, of mechanism to connect corresponding setting members for common operation, said mechanism being adapted for operation in both directions.

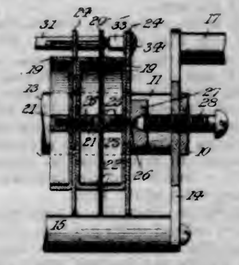
[Claims 6 to 10 not printed in the Gazette.]

1,075,074. FLOAT. WERT R. UCHTMANN, Boston, Mass., assignor of one-half to Ole M. Dahl, Boston, Mass. Filed July 1, 1912. Serial No. 706,874. (Cl. 9—18.)



A float comprising in combination, a frame composed of jointed side bars and end bars connected into substantially rectangular form, the upper faces and the lower faces of said bars being respectively in the same planes, a transverse seat extending between and attached to said side bars substantially remote from the ends of said bars, a buoyant support extending transversely of the frame at one end thereof, a pair of propelling wheels respectively mounted upon the side bars adjacent said seat and having feathering blades, and operating handles extending into proximity to said seat.

1,075,075. ELECTRIC SPARK-GAP. REINHOLD H. WAPPLER, New York, N. Y., assignor to Wappler Electric Manufacturing Company, New York, N. Y. Filed Mar. 13, 1913. Serial No. 753,893. (Cl. 250—38.)



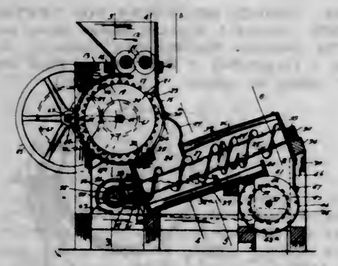
1. An electric spark gap composed of a plurality of sparking cell-units, each unit comprising a disk and a pair of outwardly opening cup-shaped members secured thereto, mutually opposed projections arranged centrally within said members, and centrally perforated insulating disks intermediate the cell-units.

2. An electric spark gap composed of a plurality of sparking cell-units, each unit comprising perforated conductive disks and a pair of outwardly extending cup-shaped members secured to said conductive disks, mutually opposed projections arranged centrally within said members, centrally perforated insulating disks intermediate the cell-units, and a short-circuiting rod adapted to engage the perforations of the conductive disks.

3. An electric sparking gap composed of a pair of conductive flanking disks, one of which is perforated, an inwardly extending contact on the other disk arranged opposite the perforations of the other disk, perforated conductive intermediate disks arranged between the flanking disks, cup-shaped members secured to both sides of the intermediate disks, inwardly extending cup-shaped members secured to the flanking disks, mutually opposed projections within the cups, perforated insulating disks intermediate the open ends of said members, and a short-circuiting rod adapted to engage the perforations of the conductive disks and the contact.

1,075,076. MACHINE FOR TEASING AND CLEANING FIBROUS MATERIALS. STEPHEN WARE, Hornsby, New South Wales, Australia. Filed May 11, 1912. Serial No. 696,746. (Cl. 13—18.)

1. A machine for teasing and cleaning fibrous materials comprising a pair of beating or batting chambers each containing a rotatable beater drum, a screw conveyer intermediate of said chambers for delivering material from the one to the other of said chambers, and means carried within said conveyer coöperating with the screw thereof to equalize the delivery of material from the one to the other of said chambers.

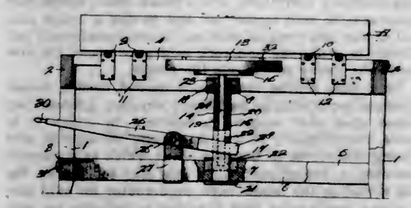


2. A machine for teasing and cleaning fibrous materials comprising a pair of beating or batting chambers each containing a rotatable beater drum, a screw conveyer intermediate of said chambers for delivering material from the one to the other of said chambers, and rotatable members carried within said conveyer coöperating with the screw thereof to regulate the delivery of material from the one to the other of said chambers.

3. The combination of a pair of cylindrical perforated beating or batting chambers each containing a slatted beater drum, with a screw conveyer or elevator interposed between said chambers, the screw of said conveyer having a mutilated second thread and the casing thereof comprising a series of longitudinally disposed rollers and an outer cylindrical cover perforated on the underside, the said drums and conveyer-screw being geared together by suitable gearing.

4. The combination of a pair of cylindrical beating or batting chambers each containing a slatted beater drum, with a screw-conveyer contained within a cylindrical casing, the screw of said conveyer having a mutilated second thread.

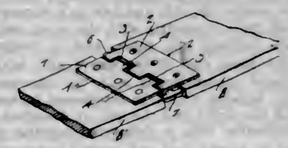
1,075,077. CATAFALQUE. EDWARD F. WATKINS, Covington, La. Filed Mar. 6, 1913. Serial No. 752,530. (Cl. 45—26.)



In a catafalque, the combination of a supporting structure having a longitudinally disposed bar and a pair of transversely disposed bars, said first and second named bars provided with registering apertures; a post mounted to have vertical movement through said apertures, and formed with a central bore; rollers journaled on said structure and adapted to support the casket; a table; a shaft revolubly mounted in the bore of said post and supporting the table; a bracket mounted on said longitudinally disposed bar; rollers mounted on said vertically movable post; and a lever fulcrumed on said bracket and engaging with the rollers mounted on the post, said lever adapted for raising the post to bring the table into supporting engagement with the casket for turning the latter.

1,075,078. BELT-COUPLING. WILLIAM S. WILKINSON, Aurora, S. D. Filed Nov. 14, 1912. Serial No. 731,444. (Cl. 24—33.)

The combination with the meeting edges of a belt, of a coupler connected thereto and composed of two hinge sections each having parallel attaching plates, the latter being narrower than the width of the belt whereby the edges of the belt are exposed beyond the plates, hinge loops connecting said plates and laterally spaced a greater distance than the width of said loops, a pintle removably engaged with said loops and having a laterally projecting



lug on one end and an elongated head on its opposite end, the opposite ends of which head are adapted to be turned into binding and yielding engagement with the unprotected connected ends of the belt, whereby the pintle is prevented from turning and the head thereof protected by the thickness and edges of the belt.

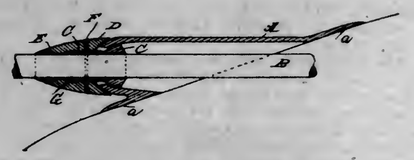
1,075,079. COUPLING FOR CABLE-SECTIONS. SAMUEL A. ARMSTRONG, Niles, and PYRL T. AUMEND, Warren, Ohio. Filed Aug. 14, 1912. Serial No. 715,099. (Cl. 173—268.)



1. A coupling for cable sections comprising two annular members designed to be affixed to the cable sections near the ends thereof, said annular members having outwardly flared portions, a sleeve through the ends of which the outwardly flared portions of said annular members may pass, said sleeve having screwed thereon detachable end seats for the outwardly flared portions of said annular members, which latter have threaded portions which project beyond the ends of the sleeve, and nuts on said threaded portions for locking the annular members to the sleeve.

2. A coupling for cable sections comprising two annular members designed to be affixed to the cable sections near the ends thereof, said annular members having outwardly flared portions, a cylindrical sleeve, into the ends of which said outwardly flared portions may be inserted and withdrawn, end caps detachably screwed on said sleeve and having inwardly projecting portions forming seats for the outwardly flared portions of said annular members, which latter on their inner faces at points inclosed by the sleeves, are designed to be secured to the cable sections, said annular members also having threaded portions projecting through said end caps and nuts on said threaded portions.

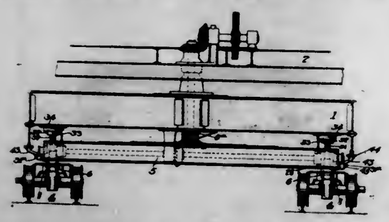
1,075,080. STUFFING-BOX AND BEARING FOR SHAFTS OF MARINE PROPELLERS. HENRY DOUGLAS BACON, Bath, Me. Filed Sept. 12, 1912. Serial No. 719,948. (Cl. 115—34.)



1. The improved stuffing-box and bearing for a propeller shaft, comprising a shaft-support or housing having lateral flanges adapted for attachment to a boat-hull and its outer end constructed in conical form, a sleeve bearing adapted to receive the shft and having a hemispherical head formed on lines concentric with the outer end of the housing which incloses the same, and a locking nut screwed on the outer end of the sleeve and having its inner face formed concentrically with the adjacent conical end of the housing which is interposed between the conical head of the sleeve and the nut, as described.

2. The combination with a chambered housing adapted to be attached to a boat hull and having a conical outer end, a sleeve bearing having a hemispherical head formed on lines concentric with the inner and outer sides of the end of the housing, a locking nut screwed on the sleeve and having its inner face formed concentrically with the adjacent end of the housing and the spherical head of the sleeve bearing, and a fair-water nut also screwed on the sleeve bearing and tapered toward its outer end on lines coinciding with the outer side of the locking nut, as described.

1,075,081. EQUALIZING SYSTEM FOR STEAM-SHOVELS AND THE LIKE. SVANTE ROBERT WILLIAM MATTSSON BAGER, Milwaukee, Wis. Filed Feb. 17, 1913. Serial No. 748,936. (Cl. 105—32.)



1. The combination with a machine of the class described mounted directly on two rear four-wheeled trucks, of two front four-wheeled trucks, an equalizer beam supported by said front trucks, the forward portion of the machine being supported by the beam intermediate the ends thereof.

2. The combination with a machine of the class described mounted directly on two rear four-wheeled trucks, of two front four-wheeled trucks, an equalizer beam supported by said front trucks, a center bearing intermediate the ends of said beam adapted to support the forward portion of the machine.

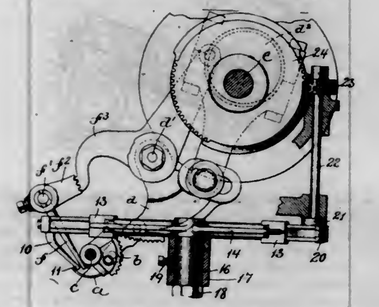
3. The combination with a machine of the class described, of four four-wheeled supporting trucks two of which directly support one part of the machine, an equalizer beam supported by the two other trucks, the remaining part of the machine being supported on said equalizer beam.

4. A support for machines of the class described, comprising four four-wheeled trucks, an equalizer beam supported by two of the same, the machine being supported directly on the other two trucks and on the said equalizer beam.

5. In a machine of the class described, provided with four four-wheeled supporting trucks, the combination with two of the trucks, of an equalizer beam supported thereby, one portion of the machine being supported by the intermediate portion of the beam.

[Claims 6 to 17 not printed in the Gazette.]

1,075,082. LOOPER MECHANISM FOR SEWING-MACHINES. HARRIE A. BALLARD, Boston, Mass., assignor to The Boylston Manufacturing Company, Boston, Mass., a Corporation of New Jersey. Filed Dec. 26, 1907. Serial No. 408,034. (Cl. 112—20.)



1. In a sewing machine, a curved needle and a looper mechanism comprising a looper, a sliding looper bar from which said looper projects laterally, a support in which said bar is mounted to slide and having a pivot between its ends, and means rotatable about an axis substantially parallel to said pivot and connected to the end of said bar for reciprocating it and rocking said support about its pivot to cause the looper to encircle the needle.

2. In a sewing machine, a curved needle, a looper mechanism comprising a looper, a sliding looper bar, a support pivoted between its ends and having separated guides for said bar, and a crank rotatable about an axis transverse to said bar and connected to the end of said bar for rocking said support about its pivot and sliding said bar relatively thereto to cause the looper to encircle the needle so as to lay the loop thereon.

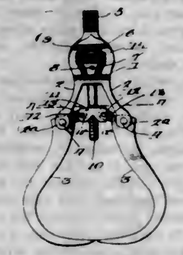
3. In a sewing machine, a curved needle and a looper mechanism comprising a pivoted yoke having guides at its ends, a looper bar mounted to slide in said guides on said yoke, a looper attached to one end of said bar and projecting laterally therefrom, and a crank shaft whose axis is transverse to said looper bar and having a crank connected to the qther end of said bar to reciprocate said bar relatively to said yoke and rock said yoke about its axis to cause the looper to encircle the needle.

4. In a shoe sewing machine, a barbed needle, looper mechanism comprising an oscillatory support, a looper bar mounted upon said support in bearings in which it is movable longitudinally of its own length, the axis of said bar being transverse to the axis about which said support is movable, a looper carried by said bar for laying the needle thread in the needle barb, an actuator for said bar, and means for causing said actuator to describe an endless path about an axis substantially parallel to the axis about which said support is movable, said actuator and bar having contiguous faces whereby the bar is reciprocated longitudinally and laterally to cause the looper to encircle the needle.

5. In a sewing machine, a curved needle, a looper mechanism comprising a looper, a looper bar, a support for slidingly supporting said looper bar, a pivot for said support, a crank arranged transversely to and connected to said looper bar for sliding it and rocking said support, and an eccentric sleeve for said pivot, whereby said looper may be adjusted with respect to said needle substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

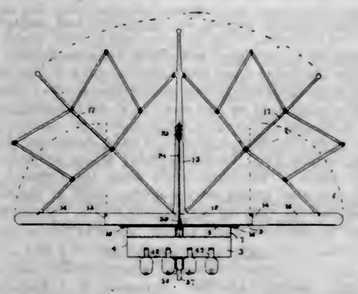
1,075,083. CALIPERS. MICHAEL BENOVSKY, Chicago, Ill. Filed Apr. 30, 1913. Serial No. 764,716. (Cl. 33—28.)



1. The herein described calipers including a flattened stock provided with a transverse opening and formed with downwardly extending arms and also with an upwardly projecting finger piece, an axially disposed adjusting screw arranged between the arms and formed with a spindle which is journaled in the stock and passes through the opening thereof, an adjusting nut arranged within the opening and rigidly applied to the spindle, a cross head having a threaded engagement with the adjusting screw, legs upon the before mentioned arms, and lateral arms projecting from the legs and having a pivotal connection with the cross head.

2. The herein described calipers including a transversely flattened stock formed with a transverse opening, and also provided upon opposite sides thereof with transversely extending finger receiving depressions, the said stock being formed with downwardly extending arms and also with an upwardly projecting finger piece, an axially disposed adjusting screw arranged between the arms and formed with a reduced spindle which is journaled in the stock and passes through the before mentioned opening thereof, an adjusting screw arranged within the opening and rigidly applied to the spindle, the sides of the adjusting screw being exposed within the before mentioned finger receiving recesses on opposite sides of the stock, a cross head having a threaded connection with the adjusting screw, legs pivotally mounted upon the arms of the stock, and lateral arms projecting from the legs and pivotally connected to the cross head.

1,075,084. MUSIC-LEAF TURNER. CHARLES BERGREN, Duluth, Minn. Filed Feb. 24, 1912. Serial No. 679,548. (Cl. 84—17.)



1. A music leaf turner, comprising a body-portion, concentric shafts mounted in said body-portion, an arm carried by each shaft and adapted to turn the leaves of music, horizontally pivoted keys within the body-portion, means for oscillating said arms, two links pivotally connected to the operating means one on each side of each key, and a pawl pivoted to each key and adapted to operate one link on the first downward movement thereof, and the other link on the second depression thereof, whereby the leaves of music are turned back and forth by the same key.

2. A music leaf turner comprising a body portion, concentric shafts mounted in said body-portion, an arm carried by each shaft above the body-portion, a gear carried by each shaft within the body portion, segments meshing with said gears, horizontally pivoted keys within the body portion, two links connected to a cross-arm connected to each segment and extending on opposite sides of each key and a pawl carried by the key and adapted to engage one of the links on its first downward movement or depression and the other link on the second depression thereof, whereby the leaves of the music are turned back and forth by the same key.

3. A music leaf turner, comprising a body portion, concentric shafts mounted therein, arms carried by the upper end of each shaft, a gear carried by the lower end of each shaft within the body portion, segments meshing with said gears, horizontally pivoted keys within the body portion two links connected to a cross arm connected to each segment and extending on opposite sides and pivoted to the keys, and a pawl pivoted to the key and adapted to engage one link on the first downward movement or depression thereof, and the other link on the second depression thereof, whereby the leaves of music are turned back and forth by the same key.

4. A music leaf turner, comprising a body portion, a series of concentric shafts mounted in the body portion, a leaf turning arm carried by the upper end of each shaft, a gear carried by the lower end of each shaft within the body portion, a segment pivotally mounted in the body portion and meshing with the gears, a key for each segment and an automatic means carried by the key for reversing the direction of movement of the segment upon the second depression of the key.

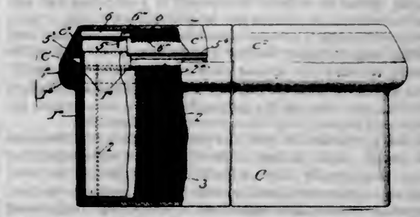
5. A music leaf turner comprising a body portion, concentric shafts mounted in said body portion, an arm carried by each shaft above the body portion, a gear carried by each shaft within the body portion, pivoted segments within the body portion and meshing with the gears, a horizontally pivoted key in the body portion for each segment, an operated connection between each segment and a key and automatic means carried by the key for moving the segment in the reverse direction upon the second depression of the key.

[Claims 6 to 11 not printed in the Gazette.]

1,075,085. WORKING WITH HYDROGEN UNDER PRESSURE. CARL BOSCH and FRANZ LAPPE, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 5, 1913. Serial No. 771,899. (Cl. 23—21.)

In the process of working with hydrogen under increased pressure and at a raised temperature, interposing an atmosphere of nitrogen gas between the hydrogen and the hot pressure-sustaining wall of the reaction vessel.

1,075,086. BURIAL-CASKET. LAFAYETTE T. BOW and DOCTOR B. VERNON, Ardmore, Okla. Filed Jan. 14, 1913. Serial No. 741,936. (Cl. 72—6.)



1. In a casket, the combination of a metallic box, a cylinder of wire netting attached to said box near the up-

per edge thereof, wire netting on the exterior of the box below said cylinder, and a concrete layer covering the exterior surfaces of the box below said flange and inclosing said netting and said cylinder, substantially as described.

2. In combination, a metallic box, a metallic flange attached to said box adjacent the upper edge thereof, a cylinder of wire netting attached to said box below said flange, and a coating of concrete covering and inclosing the cylinder and the exterior of the box below said flange.

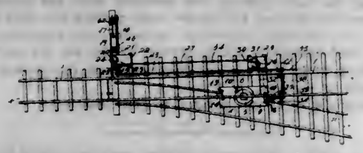
3. In combination, a metallic box, a metallic flange attached to said box near the upper edge thereof, a wire attached to the exterior of the box below said flange, wire netting attached to the wire, a cylinder of wire netting attached to said box below said flange, a coating of concrete covering and inclosing the wire cylinder, and netting on the exterior of the box below said flange.

4. For a casket, a metallic cover having depending sides and ends and an outwardly projecting flange on the lower edges thereof, longitudinally disposed ribs on the upper surface of said cover, transversely disposed ribs within the cover, wire netting extending over said ribs and the top of cover, and a concrete coating inclosing said netting and covering the exterior surface of the top except the said flange.

5. In a casket, the combination of a box, a cylinder of netting attached to said box near the upper edge thereof, and netting attached to the exterior of the box below said cylinder, a concrete coating inclosing said cylinder and netting, a cover having a projecting flange on its lower edge, a concrete coating covering the exterior surface of said box, and a concrete seal covering said flanged portions after the cover is placed on the box, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,075,037. FROGLESS SWITCH. JOHN OSCAR BOWMASTER, Rockhill Furnace, Pa. Filed Oct. 31, 1912. Serial No. 728,901. (Cl. 104—119.)



1. In a switch, the combination with the main and switch rails whose contiguous ends are separated, a supporting plate underlying said ends and projecting beyond them, and segmental guides secured upon said plate and spaced from each other at their extremities; of a swinging rail section coacting with said contiguous ends, a circular plate whose edges engage said guides, an integral extension from this plate passing between the spaced ends of the guide and underlying said rail-section, and means for securing the latter upon said extension.

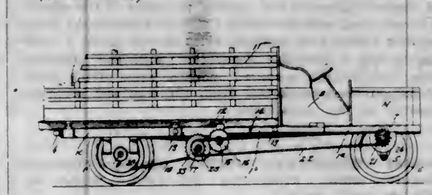
2. In a frogless switch, the combination with the switch actuating mechanism the main and switch rails whose contiguous ends are separated where these rails would cross, a supporting plate underlying said ends, and segmental guides secured to said plate; of a swinging rail section loosely disposed between said contiguous ends, a turn table comprising a circular plate whose edges engage said guides, and integral lateral extensions from said plate passing between the spaced ends of the guides and underlying said rail section, lugs on such extensions and plate engaging the base of the rail-section, and connections between said section and the actuating mechanism.

3. In a frogless switch, the combination with the main and switch rails having their contiguous ends separated where they would cross, a swinging rail section between said separated ends, the switch points, and the switch-operating mechanism including a relatively long hand lever pivoted at one end to a base and carrying a plate near its handle; of a pivotal support for said rail section, connections between the operating mechanism and rail section for swinging the latter, a spring-retracted bolt for locking said section in either of its extreme positions, a rock shaft lying alongside said hand lever and having laterally projecting and relatively short crank arms so disposed as to be struck by said plate when the hand lever is thrown to either extreme position, and connections between said rock shaft and bolt.

4. In a frogless switch, the combination with the main and switch rails having their contiguous ends separated where they would cross, a swinging rail section between said separated ends, the switch points, and the switch-operating mechanism including a relatively long hand lever pivoted at one end to a base and carrying a plate near its handle; of a pivotal support for said rail section, connections between the lever and rail section for swinging the latter, a spring retracted bolt for locking said section in either of its extreme positions, a rock shaft lying alongside said hand lever and having laterally projecting relatively short crank arms so disposed as to underlie the plate and the hand lever in either extreme position, said arms having loops near their outer end and the plate being perforated to overlie said loops, staples adapted to be engaged by the loops and perforations and to receive a lock, and connections between said rock shaft and bolt.

5. In a switch, the combination with the swinging rail section and switch points, a hand lever pivoted at one end to a base and carrying a plate near its other end, a rod pivotally connected with the lever near the pivot of the latter, and connections between said rod and the rail section and points; of a lock for said section, a rock shaft lying alongside said lever and connected with said lock, and relatively short crank arms projecting from said rock shaft at right angles to the plane in which said lever moves and underlying such lever, the tips of these crank arms being depressed, for the purpose set forth.

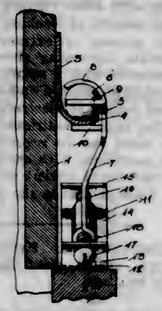
1,075,088. MOTOR-VEHICLE. JAMES WESLEY BRUCE, Ozark, Ohio. Filed Sept. 17, 1912. Serial No. 720,883. (Cl. 21—114.)



A motor vehicle having an extensible and collapsible frame and including front and rear trucks with which the front and rear portions of said frame are associated, a motor supported in the front truck and having a driven shaft, a shaft supported transversely on the rear truck, a counter shaft also supported on the rear truck, intermeshing gears on the shaft and the counter shaft, means for transmitting motion from the shaft to the hind axle, means for transmitting motion from the driven shaft of the motor to the counter shaft of the hind truck when the frame is extended, and gear wheels on the driven shaft of the motor adapted to mesh with the gear wheels on the counter shaft of the rear truck when the frame is collapsed.

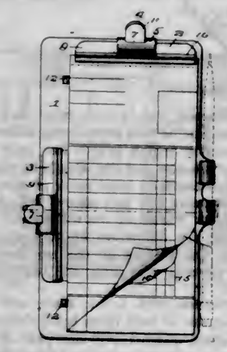
1,075,089. DOOR-HANGER. CHARLES P. CHAMBERLIN and FREDERICK MILLER, Calgary, Alberta, Canada. Filed Dec. 17, 1912. Serial No. 737,328. (Cl. 16—91.)

In a door hanger, the combination of a trough-shaped track, a ball arranged to travel therein, a hanger having upper and lower relatively offset portions, the lower portion being arranged below the track and the upper portion out of the plane of the track, said upper portion having a curved extremity overhanging the track and resting on the ball, means for connecting the lower end of the hanger with a door, a centrally disposed stop finger formed from a portion of material displaced from the



hanger and projecting therefrom beneath the track, and retaining arms formed from portions displaced from the hanger and bent inwardly from the opposite sides thereof to extend horizontally on opposite sides of the ball.

1,075,090. MANIFOLDING CHECK-HOLDER. EMMA F. COATES, Chattanooga, Tenn. Filed June 18, 1912. Serial No. 704,335. (Cl. 11—23.)



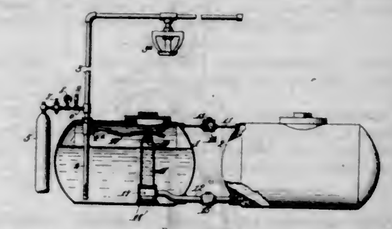
1. The combination with a back board substantially rectangular, of a clip located at one end of the back board and stops equally spaced from one side of the back, and a second clip carried by the back between the line of the stops and the edge of said side.

2. The combination with a back board substantially rectangular, having stops extending upwardly from the surface of the back and equally spaced from one side, of a clip located at one end of the back substantially midway between the stops and the other side of the back board, and a second clip carried at the first mentioned side of the back disposed between the stops and the adjacent edge of the back.

3. The combination with a back board substantially rectangular, of a clip located at one end of the back board, a line of stops located along one side of the back board, and a second clip carried by the back board on said side and located outside the line of stops.

1,075,091. STATIONARY FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Nov. 20, 1909. Serial No. 530,467. (Cl. 169—24.)

1. A fire extinguisher system including means for maintaining two bodies of elastic fluid at normally balanced degrees of pressure, means for supplying a fire extinguishing agent, a supply system through which the agent flows, a valve operable whereby the degree of pressure of one body may be initially reduced and means whereby the other pressure by virtue of its expansive nature becomes active upon the initial reduction of the first pressure to cause the operation of the fire extinguisher agent supply means.



2. A fire extinguisher system including means for separately maintaining two bodies of elastic fluid at normally balanced degrees of pressure and for maintaining a body of liquid, a piping system through which the liquid may flow, a valve operable to reduce the pressure of one of the bodies and means operable by the influence of the expansive force of the other body to develop further pressure which causes the body of liquid to flow through the piping system.

3. A chemical mixing fire extinguisher system including means for maintaining two bodies of elastic fluid, gas generating means, a supply system receiving gas from the generating means, means operable whereby the degree of pressure of one fluid body may be initially reduced, means whereby the other fluid body becomes active by virtue of its expansive nature upon the initial reduction of the pressure of the first fluid body to cause the operation of the generating means, and means for maintaining the degrees of the pressures of said fluid bodies normally equal.

4. A fire extinguisher system including means for separably maintaining two bodies of elastic fluid, a piping system having an elastic fluid under pressure therein, said system being in open communication with the space in which one of the bodies of elastic fluid is confined, a distributing valve in the piping system upon the opening of which the pressure of the fluid in the space with which the piping system communicates is initially reduced, the other body of fluid being unbalanced and becoming active upon the initial reduction of the pressure of the first body, means operable when the other body of fluid becomes active upon the initial reduction of the pressure of the first body to cause the supply of fire extinguishing agent to the piping, and means for maintaining the pressures of the bodies normally equal.

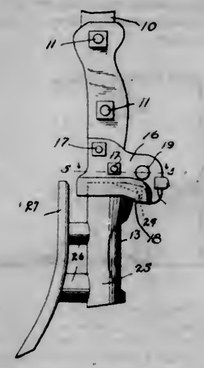
5. A fire extinguisher system including means for separably maintaining two bodies of elastic fluid, means whereby one body of fluid may flow into the space occupied by the other body when the degree of pressure of the latter is reduced, a piping system in open communication with the last named body, a distributing valve in the piping system upon the opening of which the degree of pressure of the last named body is reduced, means operable to put additional pressure in the piping system when one body of fluid flows into the space occupied by the other upon the reduction of the degree of pressure of the latter when a distributing valve is opened, and means for maintaining the degrees of the pressures normally equal.

[Claims 6 to 15 not printed in the Gazette.]

1,075,092. ATTACHMENT FOR RIDING-CULTIVATORS. WALTER O. CREEK, Arcadia, Ind. Filed Dec. 27, 1912. Serial No. 738,918. (Cl. 97—11.)

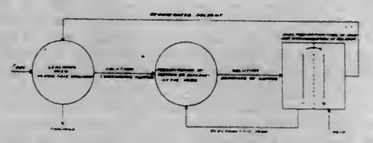
1. The combination with spaced attaching members having a base portion and a depending stem of circular cross section; of a casing carried by the base and having an under-cut part, a worm shaft journaled in the casing,

a sleeve mounted on the stem and provided with a gear in mesh with the worm shaft and implement member carried by the sleeve.



2. A riding cultivator standard including its attaching member having a base portion and a stem, a casing removably attached to the base portion and having side walls, one of said walls being removable, a worm gear journaled in said walls, a sleeve mounted on the stem and having a projecting gear supported in the casing and in mesh with the worm gear and a shovel removably secured to the sleeve.

1,075,093. CYCLIC PROCESS OF EXTRACTING METALS FROM CUPRIFEROUS MATERIALS. ALBERT DAVID, Brooklyn, N. Y., assignor to Midland Ores and Patents Co., New York, N. Y., a Corporation of Maine. Filed July 9, 1913. Serial No. 778,166. (Cl. 204—15.)



1. The cyclic process of extracting metals from cupriferous materials, which consists in leaching the material with a solution containing a ferric salt, precipitating the dissolved copper by electrolytic iron, electrolyzing the spent solution under conditions to precipitate iron in highly reactive form and to regenerate the solvent, and repeating these operations with other charges of material, utilizing said regenerated solvent as leaching agent.

2. The cyclic process of extracting metals from cupriferous materials, which consists in leaching the material with a solution containing ferric chlorid, precipitating the dissolved copper by electrolytic iron, electrolyzing the spent solution under conditions to precipitate iron in highly reactive form and to regenerate the solvent, and repeating these operations with other charges of material, utilizing said regenerated solvent as leaching agent.

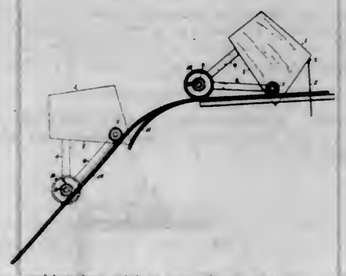
3. The cyclic process of extracting metals from cupriferous materials containing silver, which consists in leaching the material with a solution containing a ferric salt and a solvent of silver chlorid, precipitating the dissolved copper by electrolytic iron, electrolyzing the spent solution under conditions to precipitate iron in highly reactive form and to regenerate the solvent, and repeating these operations with other charges of material, utilizing said regenerated solvent as leaching agent.

4. The cyclic process of extracting metals from cupriferous materials containing silver, which consists in leaching the material with a solution containing ferric chlorid and sodium chlorid, precipitating the dissolved copper by electrolytic iron, electrolysing the spent solution under conditions to precipitate iron in highly reactive form and to regenerate the solvent, and repeating these operations with other charges of material, utilising said regenerated solvent as leaching agent.

5. The cyclic process of extracting metals from cupriferous materials containing silver, which consists in leaching the material with a solution containing a ferric salt, a solvent of silver chlorid and a free acid, precipitating the dissolved copper by electrolytic iron, electrolyzing the spent solution under conditions to precipitate iron in highly reactive form and to regenerate the solvent, and repeating these operations with other charges of material, utilizing said regenerated solvent as leaching agent.

[Claims 6 to 8 not printed in the Gazette.]

1,075,094. DUMPING-CAR. PATRICK F. DUNDON, San Francisco, Cal. Filed Oct. 19, 1912. Serial No. 726,705. (Cl. 214—8.)



1. In combination with a car, front and rear pairs of wheels therefor, one of said pairs being differential wheels, inclined rails upon which travel one pair of wheels of the differential wheels, and the wheels at the other end of the car, and substantially level pairs of rails, on the same level, of which pairs the last named wheels travel upon one, and the other wheels of the differential wheels travel upon the other, the diameters of said wheels and their distances from the bottom of the car having such proportion that, when so traveling, the bottom of the car is tilted forward.

2. In combination with a car, front and rear pairs of wheels therefor, one of said pairs being differential wheels, inclined rails upon which travel one pair of wheels of the differential wheels, and the wheels at the other end of the car, and substantially level pairs of rails, on the same level, of which pairs the last named wheels travel upon one, and the other wheels of the differential wheels travel upon the other, the last-named pair commencing at a different level from the first-named pair.

3. In combination with a body of a car, front wheels and rear differential wheels therefor, inclined rails upon which travel the smaller wheels of the differential wheels and the front wheels, and substantially level pairs of rails, at the same level, of which pairs the front wheels travel on one, and the large wheels of the differential wheels travel upon the other, the diameters of said wheels and their distances from the bottom of the car having such proportion that, when so traveling, the bottom of the car is tilted forward.

1,075,095. DOOR-OPERATING DEVICE. THOMAS A. FABRIN, Aurora, Ill. Filed Oct. 1, 1912. Serial No. 723,453. (Cl. 39—94.)

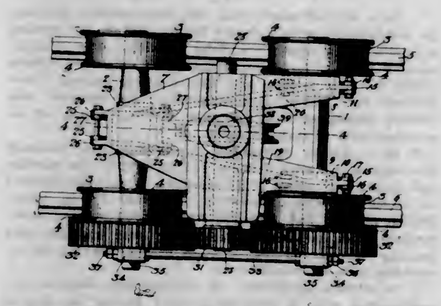
1. In combination a track, wheels mounted upon the track, a door located in a different plane from the track and wheels and supported thereby, means for preventing tilting of the door consisting of a track and wheel, a third track mounted upon the wheels supported upon the first mentioned track and receiving movement therefrom, and a second door connected with the third track.

2. In combination transversely spaced tracks having a horizontal and fixed arrangement, two doors, a bar having connection with one of the doors, a plurality of load-sustaining wheels mounted upon said bar and arranged to travel upon one of the tracks, another wheel mounted



upon said bar and arranged to travel upon the other one of the tracks to steady the door and prevent tilting thereof, a third track supported upon the before mentioned load-sustaining wheels, and connecting means between the other one of the doors and the said third track.

1,075,096. COMPENSATING-TRUCK. WALTER FERRIS, Milwaukee, Wis. Filed Feb. 17, 1913. Serial No. 748,947. (Cl. 105—243.)



1. A truck of the class described comprising front and rear axles, a supporting frame mounted at three points directly on said axles, bearing boxes associated with the frame at the points of support of said frame, bearing blocks in said boxes, and bearing caps encircling the under side of the axle beneath said bearing blocks and secured to said frame.

2. A truck for large portable machines comprising front and rear axles, a supporting frame in which one axle is journaled at two points in the length of said axle and in which the second axle is journaled at a point intermediate the ends of the axle, and a center bearing socket on said supporting frame to be engaged by a suitable bearing on the machine body.

3. A truck of the class described comprising front and rear axles, traction wheels carried thereby, a supporting frame supported at three points directly on said axles, a shaft journaled in said supporting frame, a sprocket secured to said shaft and located centrally of the truck, and driving connections between said shaft and said traction wheels.

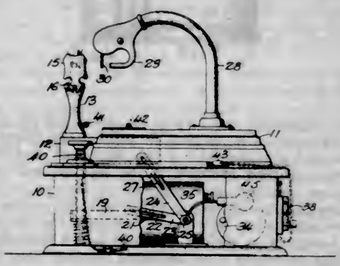
4. A truck of the class described comprising front and rear axles, traction wheels carried thereby, a supporting frame supported at three points directly on said axles, a shaft journaled in said supporting frame, a sprocket secured to said shaft and located centrally of the truck, a pinion secured to one end of said shaft, the two traction wheels adjacent said pinion having relatively wide flanges, said flanges being toothed and meshing with said pinion.

5. A truck of the kind described comprising front and rear axles, traction wheels secured thereto, relatively wide flanges on two of said wheels, said flanges being toothed, a supporting frame mounted at three points directly on said axles, a shaft journaled in said frame, a sprocket secured to said shaft located centrally of the truck, a pinion on said shaft meshing with said toothed flanges, and means to prevent said axles from turning relatively to each other in a horizontal plane.

1,075,097. WATERPROOF COMPOSITION. NATALE FORNI, Santa Rosa, Cal. Filed Nov. 18, 1911. Serial No. 661,146. (Cl. 134—39.)

The improved waterproof composition, consisting of burnt lime one hundred parts, crude linseed oil seventy parts, and water in due proportion to effect the slaking of the lime together with sulfur twenty-five parts, as described.

1,075,098. CIGAR LIGHTER AND CUTTER. ALFRED GRAY, New York, N. Y. Filed Apr. 26, 1912. Serial No. 693,322. (Cl. 175—296.)



A cigar lighter comprising a cabinet, a drawer slidably mounted in said cabinet, a fluid container within said drawer, a standard mounted on said drawer and formed with a central longitudinal opening, said opening connecting with said fluid container, a wick extending through said opening in said standard and into said fluid container, a plunger and a bell crank lever mounted in said cabinet, said plunger being connected by a link to one of the arms of said bell crank lever, a pin projecting from said drawer and engaging the other arm of said bell crank lever, a hollow arm mounted on said cabinet and formed with a head having a snuffer plate normally resting on the top of said wick, said head being formed with a contact finger and arranged to engage the contact finger of said standard, said contact fingers being connected with opposite poles of a battery, and a switch interposed between said battery and said contact fingers.

1,075,099. DISPENSING-CAN. HENRY W. J. GRUETTNER, Vallejo, Cal. Filed May 15, 1912. Serial No. 697,481. (Cl. 220—89.)

1. A dispensing can having a bottom and provided at the top with projecting means for preventing the can from being set up in an inverted position upon a supporting surface, and a cup provided with a side discharge opening and slidable through the bottom of the can to project it exteriorly and interiorly of the same and to carry the discharge opening below and above the bottom of the can to open and close the said cup, the latter being adapted to drop by gravity to its open position when the can is lifted from a supporting surface and being automatically forced inwardly and returned to its closed position when the can is placed upon a supporting surface.

2. A dispensing can provided in its bottom with an ovate aperture and having at its top projecting means for preventing the can from being placed in an inverted position upon a supporting surface, an ovate cup open at the top and provided at the outer side with a discharge open-

ing and slidable through the said aperture to project it interiorly and exteriorly to carry its discharge opening above and below the bottom of the can to close and open the cup, said cup being adapted to drop by gravity to its open position when the can is lifted from a supporting surface and being automatically returned to its closed position when the can is placed upon a supporting surface.



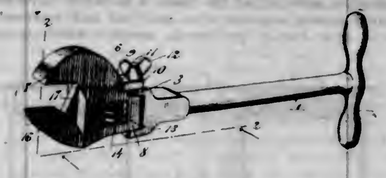
3. A dispensing can having an insert bottom provided with an aperture, a cup open at the top and closed at the bottom and provided with a side discharge opening, said cup being slidably mounted in the aperture and adapted to project interiorly and exteriorly of the cup to arrange its discharge opening above and below the bottom of the can and adapted to drop by gravity when the can is lifted from a supporting surface and to be forced inwardly automatically to return it to its closed position when the can is placed upon a supporting surface, and means for limiting the inward and outward movement of the cup, the bottom of the cup lying between the planes of the bottom and the bottom edge of the can when the cup is in its closed position.

4. A dispensing can provided with an insert bottom forming an exterior bottom space or recess above the plane of the bottom edge of the can, said bottom being provided with an aperture, a cup open at the top and having a side discharge opening and slidable through the aperture in the said bottom to carry its discharge opening above and below the same to open and close the cup, said cup being adapted to drop by gravity to its open position when the can is lifted from a supporting surface and being automatically returned to its closed position when the can is placed upon a supporting surface, and a spring arm pivoted to the bottom of the can in the said space or recess and arranged to engage the bottom of the cup for holding the latter in its closed position.

5. A dispensing can having a bottom provided with an aperture, a cup open at the top and provided with a side discharge opening and having top and bottom outwardly extending stop flanges, said cup being slidable through the aperture of the bottom to carry the discharge opening above and below the same to open and close the cup and adapted to drop by gravity to an exteriorly projecting position when the can is lifted from a supporting surface and being automatically moved inwardly to its closed position when the can is placed upon a supporting surface, and a washer surrounding the aperture of the bottom at the lower face thereof and arranged to be engaged by the bottom stop flange.

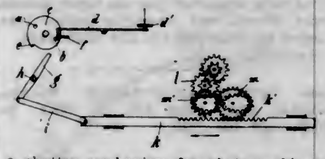
1,075,100. WRENCH. RICHARD P. HABEL, Sturgis, S. D. Filed Aug. 28, 1912. Serial No. 717,580. (Cl. 81—58.)

A wrench including a handle having a bifurcated end, a head having an integrally formed sleeve arranged within the bifurcated portion of the handle, a washer having a bifurcated end coacting with the head, a headed threaded member passing through the arms provided by the bifurcated handle, the sleeve and the washer, a thumb nut for



the threaded member, and the said head carrying a stationary and a movable jaw.

1,075,101. SHUTTER-OPERATING MECHANISM FOR PHOTOGRAPHIC CAMERAS. REINHOLD HEIDECKE, Brunswick, Germany, assignor to Voigtlaender & Sohn, Aktiengesellschaft, Brunswick, Germany, Brunswick, Germany, a Corporation of Germany. Filed Dec. 31, 1912. Serial No. 739,507. (Cl. 161—26.)

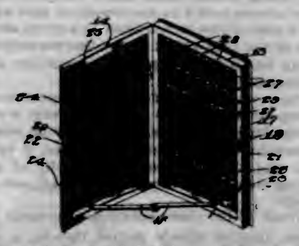


1. In a shutter mechanism for photographic cameras, the combination with a device taking part in the opening and closing movements of the shutter, of a member adapted to be thrown into coöperation with said device, rotary braking means, and transmission gearing intermediate and operatively connecting said member and braking means, said transmission gearing having an increasing ratio of transmission.

2. In a shutter mechanism for photographic cameras, the combination with a device taking part in the opening and closing movements of the shutter, of a member adapted to be thrown into coöperation with said device, rotary braking means, and elliptical transmission gearing intermediate and operatively connecting said member and braking means, said transmission gearing having an increasing ratio of transmission.

3. In shutter mechanism for photographic cameras, the combination with a member operable during the closing movement of the shutter, of retarding mechanism comprising a brake, and means for transmitting movement from said member to said brake at an increasing ratio of transmission.

1,075,102. FLY-TRAP. JOHN W. HODGES, Westpoint, Nebr. Filed Sept. 21, 1912. Serial No. 721,612. (Cl. 43—22.)

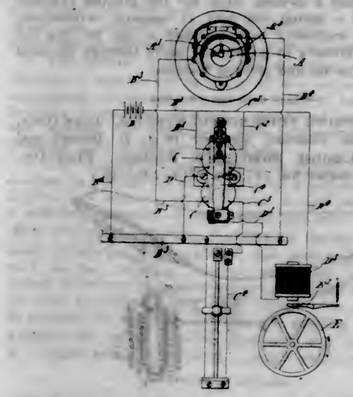


1. A screen door provided with an opening, a receptacle removably mounted in said opening and comprising inner and outer sections hinged together, a locking plate carried by one of said sections and passing through a recess formed in the other of said sections, said plate being provided with a slot registering with a socket in the second section, and

catches carried by said door and engaging said receptacle to hold the same in place, one of said catches passing through the alined slot and socket to hold the sections of said receptacle in a closed position.

2. A device of the character described comprising a body portion provided with an opening, a receptacle removably mounted in the opening of said body, said receptacle comprising a pair of pivotally connected members, a flange formed upon one of said members for limiting the movement of said device through the opening in said body portion, a plate secured to one of said members and having its free end portion provided with a slot, the other of said members being provided with a recess through which said plate passes and with a socket positioned in alinement with the slot in said plate when said members are in a closed position, and a securing plate pivoted to said body portion, whereby the turning of said plate will cause its free end to be passed through said slot into said pocket for holding said members in a closed position and for holding said device in the opening of said body portion.

1,075,103. APPARATUS FOR INDICATING THE DIRECTION WHENCE SOUND TRAVELS. THOMAS GERALD HODGKINSON, county of Chester, England, and WILLIAM HODGKINSON, Calcutta, India. Filed July 31, 1911. Serial No. 641,515. (Cl. 181—.5.)



1. In apparatus for determining the direction whence sound comes, the combination with a vibratory diaphragm of two vibratory electrical contact members normally in contact whereof one vibrates with the diaphragm and the other is resiliently supported in relation thereto so as to be set in vibration thereby, two electrical circuits adapted to produce opposed but normally balanced effects upon a part exposed to the action of both and whereof one circuit includes the contact between the said two vibratory contact members, and means controlled by the apparatus for ascertaining the point toward which the apparatus is directed when the diaphragm is vibrated, substantially as set forth.

2. In apparatus for determining the direction whence sound comes, the combination with a plurality of vibratory diaphragms each provided with two vibratory electrical contact members normally in contact whereof one vibrates with the diaphragm and the other is resiliently supported in relation thereto so as to be set in vibration thereby and means whereby each diaphragm is arranged to be excited by sound waves coming from one direction only, of a plurality of movable indicator members, a driving member operatively connected with all the indicator members and that is constantly moved when the apparatus is in use, means for holding each indicator member normally stationary such means being operatively connected with a part exposed to the action of both of two electrical circuits adapted to exert thereon opposed but normally balanced effects and of which one circuit includes the contact between the said two vibratory contact members in such a manner that when the contact is vibrated the indicator member is released and permitted to move under the action of the single driving member, substantially as set forth.

3. In apparatus for determining the direction whence sound comes, the combination with a plurality of vibratory diaphragms each provided with a pair of vibratory electrical contact members normally in contact whereof one vibrates with the diaphragm and the other is resiliently supported in relation thereto so as to be set in vibration thereby and means whereby each diaphragm is arranged to be excited by sound waves coming from one direction only, of a plurality of movable indicator members, a driving member that has frictional engagement with all the indicator members and is constantly moving when the apparatus is in use, a plurality of detents one for each indicator member that normally hold the indicator members stationary, and operative connection between each detent and a part exposed to the action of both of two electrical circuits adapted to exert thereon opposed but normally balanced effects and of which one circuit includes the contact between one of the said pairs of vibratory contact members one detent being allotted to each diaphragm whereby any one diaphragm when vibrated withdraws the corresponding detent from its indicator member and permits the latter to be moved by the driving member, substantially as set forth.

4. In apparatus for determining the direction whence sound comes, the combination of, a vibratory glass diaphragm, an electrical contact whereof one element is carried by the glass diaphragm and vibrates therewith and the other takes the form of a resilient tongue whose end is opposed to the first element, a part exposed to the action of both of two electrical circuits adapted to exert thereon opposed but normally balanced effects and of which one circuit includes the contact between the said two vibratory contact members and means controlled by the apparatus for ascertaining the point toward which the apparatus is directed when the diaphragm is vibrated substantially as set forth.

5. In apparatus for determining the direction whence sound comes, the combination of, a vibratory glass diaphragm, an electrical contact whereof one element is carried by the glass diaphragm and vibrates therewith and the other takes the form of a resilient tongue whose end is opposed to the first element, an arm to carry the resilient tongue that is pivoted about an axis parallel to the plane wherein the diaphragm lies, a differential screw operative between the arm and its support, a part exposed to the action of both of two electrical circuits adapted to exert thereon opposed but normally balanced effects and of which one circuit includes the contact between the said two vibratory contact members and means controlled by the apparatus for ascertaining the point toward which the apparatus is directed when the diaphragm is vibrated substantially as set forth.

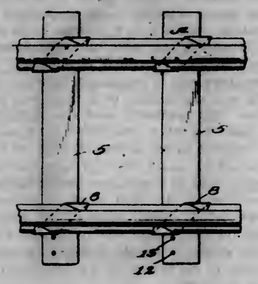
[Claim 6 not printed in the Gazette.]

1,075,104. RAILROAD-TRACK. FRANCIS K. HOLMESTED, Quinnimont, W. Va. Filed Dec. 12, 1912. Serial No. 736,451. (Cl. 238—5.)

1. The improvement in railroad tracks herein described comprising a tie, rail fasteners disposed on opposite extremities of and normally extending diagonally over the top of the tie, one fastener being normally fixed and the other pivoted on the tie, both fasteners having inwardly and reversely bent ends to provide angular rail flange engaging and embracing members which respectively project beyond opposite sides of the tie when both fasteners are in normal rail securing positions, and a releasable catch for automatically locking the pivoted fastener in its normal position.

2. The combination of a metal tie having a flat top, rail fasteners on opposite extremities thereof, one fastener being normally fixed to extend transversely in a diagonal plane across the tie and the other fastener centrally pivoted on the tie, both fasteners being normally disposed in

diagonal planes relatively to the tie and having inwardly and reversely bent extremities to form rail flange engaging and embracing members, the bent extremities of the fasteners being respectively projected beyond opposite sides of the tie when the fasteners are in normal positions to give extended bearings for the rail flanges, the pivoted fastener having an opening therethrough in addition to the opening for the pivot thereof, and releasable catch means having a projection to engage the opening in and lock the pivoted fastener in normal position.



3. The combination of a metal tie, rail fasteners on opposite extremities of the top of the tie, and normally disposed in reverse diagonal planes relatively to the tie, the one fastener being fixed and the other fastener pivoted to the tie, each fastener primarily consisting of a rectangular metal plate and having the ends bent inwardly and reversely relatively to the plate to form rail flange embracing members which respectively project beyond the opposite sides of the tie when the fasteners are both in normal position, and releasable catch means for automatically locking the pivoted fastener in normal position.

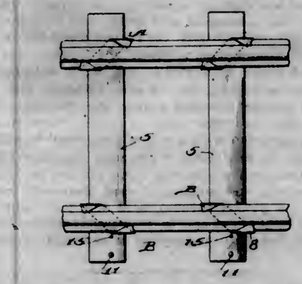
4. The combination of a metal tie, rail fasteners on opposite extremities thereof, one fastener being normally fixed on the tie and extending transversely across the latter in a diagonal plane and the other fastener centrally pivoted on the tie, both fasteners having inwardly and reversely bent extremities to form rail flange engaging and embracing members, and rail sections removably engaging the fasteners, the fixed fastener being associated with the one rail section by swinging the tie thereunder and the pivoted fastener caused to engage the other rail section by turning said latter fastener on the tie, both rail fasteners being in diagonal planes relatively to the top of the tie when engaging the rail sections.

5. The combination of a tie, fasteners on opposite extremities thereof having rail engaging means, one fastener being permanently fixed on the tie and the other fastener pivoted on the tie, and readily releasable means for automatically locking the pivoted fastener when turned to a predetermined position on the tie.

1,075,105. RAILROAD-TRACK. FRANCIS K. HOLMESTED, Quinnimont, W. Va. Filed Feb. 28, 1913. Serial No. 751,377. (Cl. 238—5.)

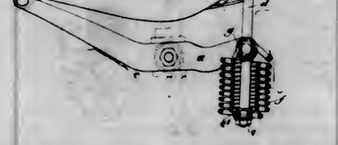
1. The combination of a tie, fasteners on opposite extremities thereof having rail engaging means, one fastener being normally fixed on the tie and the other fastener pivoted on the tie, both fasteners when in rail engaging position having an inward convergence in diagonal relation to the tie, and readily releasable means for automatically locking the pivoted fastener when turned to a predetermined position on the tie.

2. The combination of a tie, fasteners on opposite extremities thereof having rail engaging means, one fastener being normally fixed on the tie and the other fastener pivoted on the tie, rail sections engaging the fasteners, the fixed fastener being associated with the one rail section by swinging the tie thereunder and the pivoted fastener caused to engage the other rail section by turning said latter fastener on the tie, both rail fasteners being disposed in converging diagonal planes relatively to the top of the tie when engaging the rail sections, and readily releasable means for automatically locking the pivoted fastener when turned to a converging plane relatively to the fixed fastener.



3. The combination of a metal tie, rail fasteners on opposite extremities of the tie provided with rail engaging means, one fastener being fixed and the other fastener pivoted to the tie, the pivoted fastener and the portion of the tie adjacent thereto having openings therein adapted to register, and a locking latch for the pivoted fastener consisting of a spring rod bent at opposite extremities, the one bent extremity being secured to the tie and the other bent extremity in position to move through the said openings in the tie and pivoted fastener.

1,075,106. SPRING SUPPORTING SYSTEM. JOHN HOLT, Birmingham, England, assignor to J. B. Brooks and Company Limited, Birmingham, England. Filed Dec. 16, 1912. Serial No. 737,098. (Cl. 208—15.)

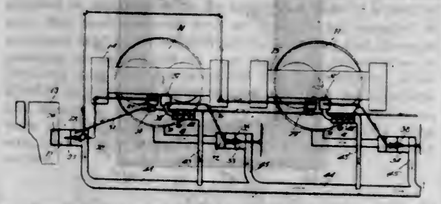


1. The combination, with a base, and a body disposed thereabove and provided with a depending thrust rod; of a spring system for supporting said body comprising a close-coiled, primary tension spring and an auxiliary, open-coiled spring whose coils are separated in their free condition, said springs being connected together at one end to said base and at the other end to said thrust rod and being mutually balanced, the auxiliary spring normally maintaining the primary spring in an extended condition and acting so as to oppose the closing of the primary spring beyond its normal extended condition.

2. The combination, with a base, and a body disposed thereabove and provided with a depending thrust rod; of a spring system for supporting said body comprising a close-coiled, primary tension spring and an auxiliary, open-coiled spring arranged one within the other and connected together at their upper ends to said base, said rod projecting axially through said springs and having the lower ends of the latter connected together to its lower end.

1,075,107. METHOD OF GRINDING AND SMOOTHING GLASS. WILLIAM L. KANN, Pittsburgh, Pa. Filed Oct. 26, 1912. Serial No. 727,978. (Cl. 51—11.)

1. The method of grinding and smoothing plate glass which consists in placing the rough glass in a grinding apparatus, supplying new coarse sand and water to said apparatus until a sufficient quantity of such sand has been supplied to effect the rough grinding of the glass, circulating the used sand through an apparatus for separating the slimes and back to the grinding apparatus, whereby finer grinding may be effected, and repeating this operation with the same original batch of sand until the same is reduced to a fine grade and the glass is provided with a comparatively smooth surface.

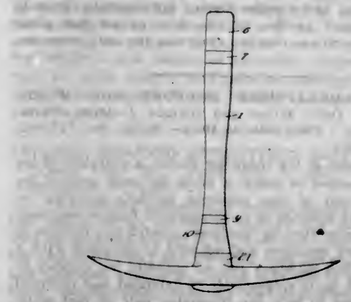


2. The method of grinding plate glass which consists in placing the rough plates of glass in a grinding apparatus, feeding new coarse sand and water to said apparatus until a sufficient quantity of such sand has been supplied to effect the rough grinding, circulating the used sand away from and back to the grinding apparatus repeatedly, and in the course of each cycle separating out the slimes and the finer particles of sand, whereby the rough and smooth grinding of the glass may be completed with a single and the same batch of sand.

3. The method of grinding and smoothing glass which consists in placing the rough glass in a suitable grinding mechanism, circulating water and sand to and from the grinding mechanism repeatedly, separating out the slimes and grading the remaining sand while maintaining a constant head or pressure of water.

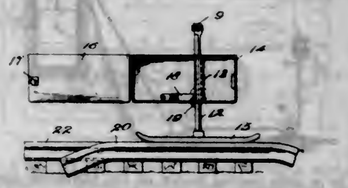
4. The method of grinding and smoothing glass which consists in placing the rough glass in a grinding machine, feeding new coarse sand and water to said machine until a sufficient quantity of such sand has been supplied to effect the rough grinding, shutting off the supply of new sand, circulating water and the used sand away from and back to the grinding machine repeatedly, and in the course of each cycle separating out the slimes and grading the finer particles of sand while maintaining a fixed head or pressure of water to facilitate the grading of the sand whereby the entire grinding operation may be completed in a single machine and with a single batch of sand.

1,075,108. TOOL-HANDLE. CHARLES B. KELLER, Tipton, Mo., assignor of one-half to W. F. Quigley, Tipton, Mo. Filed Mar. 8, 1911. Serial No. 613,122. (Cl. 145—79.)



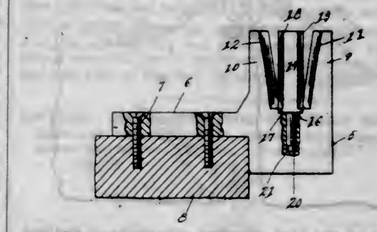
In combination with a tool having an opening therein, a handle comprising an attaching head formed with a projection thereon, said projection being provided with spaced parallel grooves centrally split to form spring fingers, said projection being provided with a recess therein, a wedge member arranged in said recess and having a flange for engagement with the end of the projection and the outer face of the tool adjacent the opening, and a rod passed through said handle and screwed into the wedge member substantially as and for the purpose described.

1,075,109. SIGNAL. DAVID I. KELLY, New York, N. Y. Filed Jan. 28, 1913. Serial No. 744,714. (Cl. 246—14.)



In combination with a vehicle having a signal, a vertically movable shoe carried by the vehicle, means operatively connecting the shoe with the signal a member fixed in the path of the vehicle and projecting into the path of the shoe, the shoe being free to return to a normal position after being displaced therefrom by contact with said member, a strip movably mounted on said member, and adapted to be projected beyond the edge thereof into the path of movement of the shoe, means of moving said strip, and a lock mounted upon the vehicle and adapted to retain the shoe in an abnormal position after it has been displaced from its normal position by contact with the strip.

1,075,110. CUTLERY-SHARPENER. THOMAS M. KLUSEWITZ, Baltimore, Md. Filed May 14, 1913. Serial No. 767,736. (Cl. 76—88.)



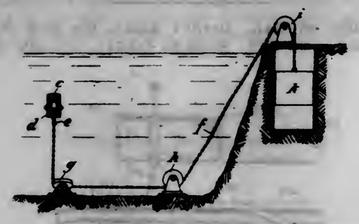
A sharpening device of the character described, comprising a rectangular body having a centrally positioned recess opening upon its upper edge and providing spaced arms, the opposed edges of said arms being beveled in opposite directions and diverging outwardly, a sharpening bar having a longitudinally projecting stem formed on its inner end, the body being provided with a longitudinal opening to receive said stem, said bar having a rectangular base and having its side edges beveled in opposite directions above said base, the body being recessed to receive the base.

1,075,111. TOWING DEVICE FOR SHIPS. RICHARD KOSS, Münster, Westphalia, Germany, assignor to Siemens-Schuckert Werke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Filed Feb. 4, 1913. Serial No. 746,226. (Cl. 115—8.)

1. In a ship towing device of the character described, the combination with a flexible rail mounted upon the water bed; of means attached to said rail for imparting permanent longitudinal tension thereto.

2. In a ship towing device of the character described, the combination with a flexible rail articulated for horizontal flexure and mounted upon the water bed; of means attached to said rail for imparting permanent longitudinal tension thereto.

3. In a ship towing device of the character described, the combination with a flexible rail mounted upon the water bed, of means for permanently imparting a longitudinal tension to said rail, said rail having a cross-section resulting in approximately even rigidity in all directions.

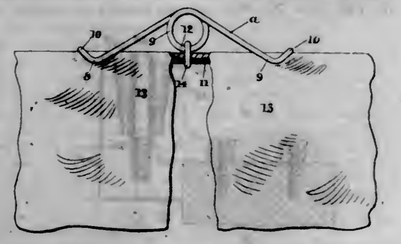


4. In a ship towing device of the character described, the combination of a flexible rail for the tug-boat, with means for permanently imparting a longitudinal tension to said rail and yielding joints for said rail, said rail having a cross-section resulting in approximately even rigidity in all directions.

5. In a ship towing device of the character described, the combination of an inverted U-shaped flexible rail for the tug-boat, with means for permanently imparting a longitudinal tension to said rail and a filling for the open parts of the rail, said filling consisting of a material which resists tension and pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,075,112. CLOTHES-PIN. JOHN B. LACKIE, Winnipeg, Manitoba, Canada. Filed Aug. 15, 1911. Serial No. 644,094. (Cl. 24—139.)

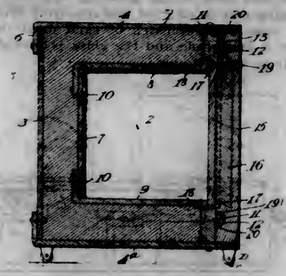


A device of the kind described comprising a resilient wire member, said member consisting of two diverging U-shaped arms, a coil formed laterally of the terminals of one of said U-shaped arms, the legs of both of said arms being substantially in alinement, a coil integral and in alinement with said first-named coil formed laterally of the latter upon the terminals of said second-named arms, offset portions angularly formed upon the outermost ends of said U-shaped arms, the innermost surface of said alining coils being in line with the inner edges of the loop portions of said angular offsets, and a link loosely engaging said coils.

1,075,113. SAFE. DAVID LITTLEJOHN and WALTER M. MITCHELL, St. Joseph, Mo. Filed Aug. 23, 1912. Serial No. 716,641. (Cl. 109—1.)
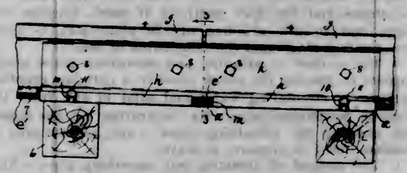
1. A safe comprising a body portion, a shell inclosing the sides and rear thereof, a top for the shell having side and end flanges that overlap the rear and sides and are fastened to the shell, a base for the shell having end and side flanges that overlap the rear and sides and are fastened to the shell, and a door for the safe hinged to the shell.

2. A safe comprising a body portion, a lining for the interior thereof provided with a frame that overlaps the front surface of the body, said overlapping portion being provided with an outstanding laterally projecting ledge, said ledge having its top and side portions provided with a groove, a base for the body provided with openings in



alinement with the groove, and a door provided with a groove adapted to receive said ledge.

1,075,114. RAIL-JOINT FOR RAILWAYS. JAMES M. MAHER, Fremont, Nebr. Filed Oct. 25, 1912. Serial No. 727,696. (Cl. 239—6.)

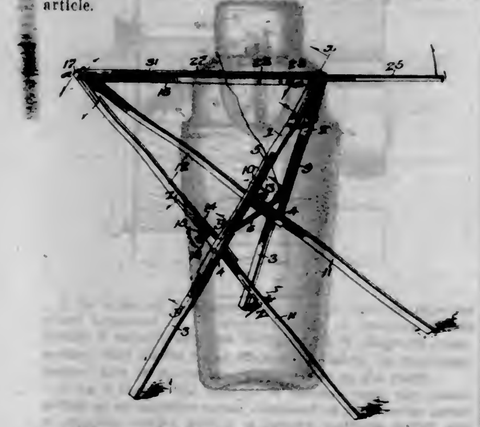


The combination with a pair of rails each comprising a horizontal base flange and a vertical web, of a pair of co-acting fish plates, one of said fish plates comprising a vertical portion lying alongside of said vertical webs, a horizontal portion bearing upon the top of and bent about the edge of one side of said base flange, and being continued under said flange and terminating in an upturned edge at the opposite side of said base flange, the other of said fish plates comprising a vertical portion lying alongside the vertical webs on the opposite side of said rail, and a portion resting upon the top of the base of the flange of said side of said rail with its edge abutting the edge of the upturned portion of the first named fish plate, the first named fish plate having spike receiving grooves formed therein at the point where it is bent about the edge of the base flange, the upstanding portion of the first named fish plate and the terminating edge of the last named fish plate having alining spike receiving grooves formed therein, and a recess formed intermediate the ends of the upturned portion of the first named fish plate adapted to receive a tool for removing the rail when desired.

1,075,115. COLLAPSIBLE SUPPORT FOR WORK-TABLES. OTTO MAIER and GEORGE J. METZ, Philadelphia, Pa. Filed Oct. 4, 1912. Serial No. 723,842. (Cl. 20—83.)

1. In a device of the character stated, a plurality of leg members arranged in pairs, a pivot for each pair of leg members, a pair of foot members movably mounted on each pivot and adapted to be extended to form a continuation of the respective leg members, a latch bar pivoted to one of said leg members and adapted to interlock with a pair of said foot members and an opposite leg member to maintain said parts respectively in extended and diverged position, means to lock the remaining pair of foot members in extended position, a bar pivoted to one pair of said leg members, and means to adjustably connect said bar with the remaining pair of leg members, all of said parts being adapted to fold together and form a compact, portable article.

2. In a device of the character stated, a pair of main leg members, a pair of auxiliary leg members secured together at one end, a pin for each main leg member forming a pivotal support for the free end of said auxiliary member, a pair of foot members movably mounted on each pin and adapted to form a continuation of the respective leg members, a bifurcated end formed on each foot member, a latch bar pivoted to one of said leg members and adapted to interlock with the bifurcated ends of a pair of said foot members and also an opposite leg member to maintain said parts respectively in extended and diverged position, means carried by each remaining leg member to interlock with the bifurcated end of a foot member, a bar pivoted to the outer ends of said auxiliary leg members, and means to adjustably connect said bar with the outer ends of the main leg members, all of said parts being adapted to fold together to form a compact, portable article.

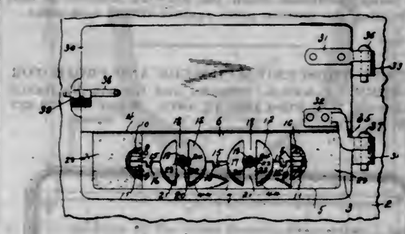


3. In a device of the character stated, a pair of main leg members, each having a longitudinal slot therein, a pair of auxiliary leg members secured together at one end, a pin for each main leg member and forming respectively a pivot for the free ends of said auxiliary members, a pair of foot members movably mounted on each pin and adapted to form a continuation of the respective leg members, a bifurcated end formed on each foot member, a latch bar pivoted to one of said main leg members and adapted in one position to seat in said leg member slot and in another position to interlock with the bifurcated ends of a pair of said foot members and also with said slot in the other main leg member, locking means carried by each auxiliary leg member adapted to interlock with the bifurcated ends respectively of the remaining foot members, a bar pivoted to the outer ends of said auxiliary leg members, and means to adjustably connect said bar with the outer ends of said main leg members, all of said parts being adapted to fold together to form a compact, portable article.

1,075,116. HEATING APPARATUS. LINN W. MILLIS, Kansas City, Mo. Filed Nov. 8, 1911. Serial No. 659,128. (Cl. 158—8.)

1. In a heating apparatus, a furnace having a feed opening, and a burner extending through but not filling the feed opening and having at its inner end a discharge opening and at its outer end provided with air and fuel inlets, and provided with a flat upper side and a guard at its inner end extending inwardly and downwardly from its upper side across said discharge opening.

2. In a heating apparatus, a furnace having a feed opening, a burner extending through the feed opening and having at its inner end a discharge opening and at its outer end air and fuel inlets, the vertical thickness of the burner being less than the height of the feed opening, a transverse sealing device mounted on the top of the burner, and a door for closing the feed opening above the burner and when closed being disposed in front of said sealing device.

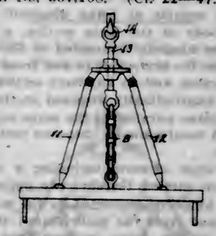


3. In a heating apparatus, a furnace having a feed opening, a burner extending through said opening and having at its inner end a discharge opening, and at its outer end having air and fuel inlets, the vertical thickness of the burner being less than the height of the feed opening, a transverse sealing device inwardly and outwardly adjustable on the upper side of the burner, and a door for closing the feed opening above the burner and disposed when closed in front of said sealing device.

4. In a heating apparatus, a furnace having a feed opening, a burner extending through but not filling the feed opening and having at its inner end a discharge opening and at its outer end air and fuel inlets, and having a guard extending inwardly and downwardly across the discharge opening, and a door for closing the feed opening above the burner.

5. In a heating apparatus, a furnace having a feed opening extending through one side thereof, a burner extending through the feed opening and having an opening discharging into the furnace, the burner having a vertical thickness less than the height of the feed opening and provided with a guard extending across its discharge opening, a door for closing the feed opening above the burner, and filling material below the door and between the burner and one side of the feed opening.

1,075,117. MECHANISM FOR DRAWING PATTERNS. EDGAR H. MUMFORD, Philadelphia, Pa. Filed Apr. 23, 1910. Serial No. 557,108. (Cl. 22—47.)



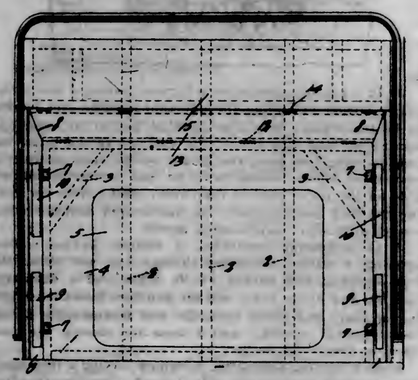
1. In a device for drawing patterns, a flexible lifting member adapted to draw the pattern, and means co-operating therewith as the flexible member becomes taut for transferring the center of oscillation of such flexible member from its point of attachment to the pattern to a point higher up, whereby all of the said lifting member below such higher point becomes a part of a rigid pattern carrier.

2. The combination with a pattern plate of a flexible lifting member therefor and brace means supported thereon and adapted to engage the pattern plate at a plurality of points removed from the point of attachment of the lifting member.

3. A device for drawing patterns comprising a flexible member, and a plurality of brace rods arranged thereabout and pivoted near their intersection therewith, said rods engaging the pattern plate and holding it against tilting movement.

4. A device for drawing patterns comprising a flexible drawing member adapted to be attached to the pattern plate and a plurality of brace rods arranged thereabout and pivoted near their intersection therewith, the said rods being positioned when the drawing member is taut and holding the pattern plate against tilting movement.

1,075,118. PROSCENIUM-CLOSURE AND PROJECTOR-SCREEN. JAMES A. O'BRIEN and GEORGE N. HEALD, Lewiston, Me. Filed Mar. 12, 1913. Serial No. 753,837. (Cl. 46—70.)



1. A proscenium closure, including a main section, two oppositely disposed sections hingedly connected thereto for movement to and from the main section, said hinged sections being capable of being disposed at an oblique angle to the body of the main section, and a longitudinally disposed section hingedly connected to the upper edge of the main section for movement to and from the upper edge of the hinged sections.

2. A proscenium closure, including a main section, two oppositely disposed sections hingedly connected thereto for movement to and from the main section, said hinged sections being capable of being disposed at an oblique angle to the body of the main section, a longitudinally disposed section hingedly connected to the upper edge of the main section for movement to and from the upper edge of the wing section, and an auxiliary section hingedly connected to the longitudinally disposed section and for disposition in a plane parallel to the main section when the side wings and longitudinally disposed sections are in coactive relation.

3. A proscenium closure, including a main frame, a projector screen carried thereby, two oppositely disposed wing sections hingedly connected to the main section for movement to and from the main frame, the upper edges of said wing section being inclined from the rear upwardly to the front edge thereof, and a longitudinally disposed wing section hingedly connected to the upper edge of the main section for movement to and from the upper edge of the wing sections the same when in engagement with the inclined edges thereof, being disposed at an oblique angle to the main section.

4. A proscenium closure, including a main section, a projector screen carried thereby, two oppositely disposed wing sections hingedly connected to the main section for movement to and from the main frame, the upper edges of said wing sections being inclined from the rear upwardly to the front edge thereof, a longitudinally disposed wing section hingedly connected to the upper edge of the main section for movement to and from the upper edge of the wing section, the same when in engagement with the inclined edges thereof, being disposed at an oblique angle to the main section, and an auxiliary longitudinally disposed section hingedly connected to the longitudinally hinged section and disposed to remain in a plane parallel to the plane of the main section.

5. A proscenium closure having a plurality of hinged sections connected to the respective side edges and top edge, the top section constituting a means for elevating and lowering the closure into and out of proscenium closing position.

[Claims 6 and 7 not printed in the Gazette.]

1,075,119. LIQUID MIXER, SHAKER, AND JUICE-EXTRACTOR. LOUIS IRVING REICHNER, Atlantic City, N. J. Filed May 31, 1913. Serial No. 770,871. (Cl. 31—63.)



1. A device of the character stated, comprising a tumbler or body-portion, a tapering top adapted to be detachably secured to the upper end of said body-portion and provided with a neck at its contracted end, a strainer in the inner end of such neck, and a tapering juice-extractor secured with its base against said strainer to project into said top.

2. A device of the character stated, comprising a tumbler or body-portion, a tapering top adapted to be detachably secured with its flaring end to the upper end of said body-portion and formed with a neck at its contracted end, a strainer secured in the inner end of said neck, and a tapering juice-extractor detachably secured with its open base to said strainer to project into said top and having convergingly curved arms T-shaped in cross section.

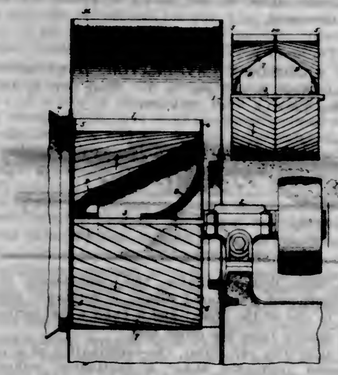
3. A device of the character stated, comprising a tumbler or body-portion, a tapering top adapted to be detachably secured to the upper end of said body portion and provided with a neck at its contracted end, a strainer in the inner end of such neck, a tapering juice-extractor secured with its base against said strainer to project into said top, and a cap adapted to detachably close said neck.

4. A device of the character stated, comprising a tumbler or body portion, a tapering top adapted to be detachably secured with its flaring end to the upper end of said body-portion and formed with a neck at its contracted end, a strainer secured in the inner end of said neck, a tapering juice-extractor detachably secured with its open base to said strainer to project into said top and having convergingly curved arms T-shaped in cross-section, and a cap adapted to detachably close said neck.

5. A device of the character stated, comprising a tumbler or body portion, a cover adapted to be detachably secured to the upper end of said body-portion and formed with a neck, a detachable cover for said neck, a strainer secured in the inner end of said neck, and an open and tapering juice-extractor secured in proximity to said strainer within said cover.

[Claim 6 not printed in the Gazette.]

1,075,120. IMPULSE-FAN. CHARLES W. ROGERS, Chicago, Ill., assignor to The Mathis Brothers Company, Chicago, Ill., a Corporation of Indiana. Filed July 5, 1912. Serial No. 707,809. (Cl. 230—11.)



1. In a fan of the impulse or turbine type, an impeller wheel composed of an annular series of impeller blades having a narrow uniform width and a V shape in cross-section, said blades being disposed obliquely to the longitudinal axis of the wheel, substantially as set forth.

2. In a fan of the impulse or turbine type, the combination of an impeller wheel composed of an annular series of impeller blades having a narrow uniform width and a V shape in cross-section, said blades being disposed obliquely to the longitudinal axis of the wheel, and a conical deflector arranged in the central cavity of the impeller wheel, substantially as set forth.

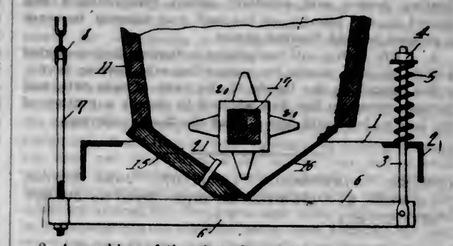
3. In a fan of the impulse or turbine type, the combination of an impeller wheel composed of an annular series of impeller blades having a narrow uniform width and a V shape in cross-section, said blades being disposed obliquely to the longitudinal axis of the wheel, and a conical deflector arranged in the central cavity of the impeller wheel and arranged to revolve therewith, substantially as set forth.

4. In a fan of the impulse or turbine type, the combination of an impeller wheel composed of an annular series of impeller blades having a narrow and uniform width, said blades being disposed obliquely to the longitudinal axis of the wheel, and a conical deflector arranged in the central cavity of the impeller wheel and having a hyperbolic form in longitudinal section, substantially as set forth.

5. In a fan of the impulse or turbine type, the combination of an impeller wheel composed of an annular series of impeller blades having a narrow and uniform width, said blades being disposed obliquely to the longitudinal axis of the wheel, and a conical deflector arranged in the central cavity of the impeller wheel and having a hyperbolic form in longitudinal section and arranged to revolve with said wheel, substantially as set forth.

1,075,121. FERTILIZER-DISTRIBUTER. ELISHA ROTRAMEL, Grayville, Ill. Filed Mar. 6, 1913. Serial No. 752,516. (Cl. 111—34.)

1. A machine of the class described including a hopper, revolnble agitating means therein, a hinged bottom section, a support therefor, yielding means for holding one end of the support normally in a predetermined position, and adjustable means for holding the other end of the support.



2. A machine of the class described including a hopper, agitating means therein, a hinged bottom closure, a supporting element extending thereunder, yielding means engaging one end of said element to hold it normally in a predetermined position, and adjustable means for raising and lowering the other end of said element to adjust the closure toward or from closed position.

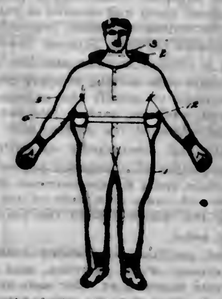
3. A machine of the class described including a hopper having a hinged closure at the bottom thereof, a supporting element extending under and normally contacted by the closure, yielding means engaging one end of said element for holding it normally in a predetermined position, and adjustable means engaging the other end of said element for raising and lowering the same to produce a movement of the closure relative to the hopper.

4. A machine of the class described including a hopper having a hinged closure at the bottom thereof, a yieldingly supported hanger, a supporting element pivotally connected to the hanger and extending under and normally contacted by the closure, and adjusting means connected to the other end of said element for shifting it vertically to open or close the closure.

5. A machine of the class described including a hopper having a hinged closure constituting a portion of the bottom thereof, a spring supported hanger, a strip pivotally connected to the hanger and extending under and contacted by the closure, and means connected to the other end of the strip for adjusting it vertically to open or close the closure.

[Claims 6 and 7 not printed in the Gazette.]

1,075,122. LIFE-SAVING DEVICE. JAMES SCARLETT, Seattle, Wash. Filed Mar. 20, 1913. Serial No. 755,740. (Cl. 9—20.)



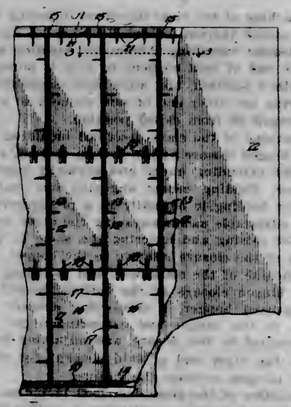
1. A life saving suit of increasing thickness from the top to the bottom thereof, and a floating device in the upper part of said suit adapted to space part of the suit from the body of the wearer.

2. A life saving suit comprising a floating device carried within the suit, means for holding said device to the suit, and a flexible member hinged to the suit from the interior thereof adapted to cover a portion of said floating device.

3. A life saving suit comprising a floating device carried within the suit, means for securing said floating device to the suit, and auxiliary means for supporting said floating device, said auxiliary means comprising a flap hinged to the interior of the suit and adapted to cover a portion of said floating device.

4. A life saving suit comprising a floating device carried within the suit, means for supporting said floating device, a flap hinged to the inside of the back of said suit, and means formed on the flap adapted to engage a portion of the suit to hold said flap around the floating device.

1,075,123. FIREPROOF PARTITION. JOHN SCHEAS, Louisville, Ky. Filed Dec. 29, 1910. Serial No. 598,893. (Cl. 72—46.)



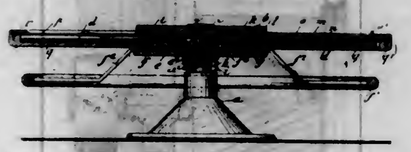
1. A fire-proof partition comprising vertically disposed tension members stretched between the floor and ceiling, said tension members being securely fastened to the floor and ceiling and being adapted to be twisted to produce the desired tension, a plurality of plates of plaster board disposed between adjacent tension members, clips for securing the vertical edges of the said plates to the tension members, each of said clips embracing a tension member and the opposite vertical faces of a plate, and a plurality of clips for retaining the horizontal edges of said plates in alinement.

2. A fire-proof partition comprising a plurality of tension members spaced apart and secured at their upper and lower ends to the ceiling and floor, respectively, plasterboard plates disposed between adjacent tension members, clips embracing a tension member and the side edges of adjacent plates, said clips serving to space the plates from the tension members to permit the entrance of plaster therebetween, and retaining devices laid between the adjacent horizontal edges of the plates, said devices comprising upwardly and downwardly extending fingers to hold the adjacent edges of superposed plates in alinement and space said edges apart for the entrance of plaster, and a coating of plaster upon each side of the plates, said plaster entering the spaces around the plates to form a firm mechanical bond.

3. A fire-proof partition comprising tension members stretched transversely of the partition, said tension members being securely fastened at their ends at the edges of the partition and adapted to be twisted to produce the required tension, a plurality of plates of plaster board disposed between adjacent tension members, clips for securing edges of the said plates to the tension members, each of said clips embracing a tension member and the opposite vertical faces of a plate, and a plurality of clips for retaining adjacent edges of said plates in alinement.

4. A fire-proof partition comprising tension members disposed transversely of the partition and composed of a plurality of strands of wire twisted in opposite direction from the center of said members, means for securely fastening the ends of the said tension members at the edges of the partition whereby the tension upon the said members may be increased by twisting the strands of the said members, a plaster board disposed on edge between adjacent tension members, a plurality of U-shaped clips embracing the tension members and opposite sides of said plate, a similar plate disposed adjacent the said plate, and a retaining device laid between the edges of the said plates and having oppositely projecting fingers adapted to engage opposite sides of said plates to retain the said plates in alinement.

1,075,124. SLIDE-DISK CALCULATOR. JOHN ADOLPH SCHEIBLI, West New York, N. J. Filed Oct. 8, 1912. Serial No. 724,614. (Cl. 235—84.)



1. In a slide disk calculator, the combination of a pair of superposed graduated disks; a rotatable crown connected to one of the disks; and a hand wheel connected to and remote from the other disk.

2. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to the other disk and in a different plane therefrom.

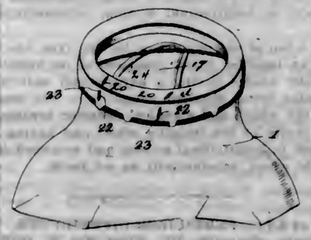
3. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to the other disk and in a different plane therefrom, said crown and wheel being separated a considerable distance from each other.

4. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to and remote from the other disk, said crown and disk being disposed in widely separated parallel planes.

5. In a slide disk calculator, the combination of a stand; a pair of rings both rotatable on said stand; a pair of disks carried by the rings respectively; a crown connected to one disk; and a hand-wheel connected to the ring on which the other disk is carried.

[Claims 6 to 24 not printed in the Gazette.]

1,075,125. JAR-CAP. EDWARD D. SCHMITT, Baltimore, Md., assignor to Pure Food Process Company, Baltimore, Md., a Corporation of Maryland. Filed May 10, 1912. Serial No. 696,528. (Cl. 215—83.)



1. A jar cap having a closing member formed with a gasket holding channel adapted to receive the lip of the jar, a securing rim formed with a channel to receive the channel portion of the closing member, said securing rim being provided with an opening lever integral with the lower edge of the inner wall of the channel of the securing rim, by which a part of the securing rim may be twisted off to unlock the seal.

2. A jar cap having a closing member formed with a gasket holding channel to receive the lip of the jar and a securing rim formed with a channel adapted to receive the channel portion of the closing member, said securing rim being provided with notches between which the metal thereof is adapted to be twisted apart, and an opening lever integral with the lower edge of the inner wall of the securing rim whereby a portion of the rim may be twisted out between the notches for unlocking purposes.

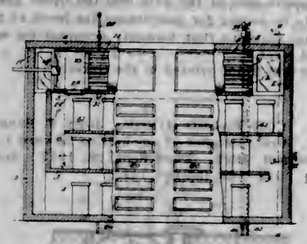
3. A jar cap having a closing member formed with a gasket holding channel, the inner wall of which is inclined inwardly, and adapted to receive the lip of the jar, and a securing rim formed with a channel, the outer wall of which is extended to form a locking flange and the inner wall inclined to fit the inner inclined wall of the closing member, and an opening lever integral with the lower edge of the inner wall of the securing rim, by which part of the securing rim may be twisted off to unlock the seal.

4. A jar cap having a closing member formed with a gasket holding channel, the inner wall of which is inclined inwardly and adapted to receive the lip of the jar, and a securing rim formed with a channel, the outer wall of which is extended to form a locking flange and the inner wall inclined to fit the inner wall of the closing member, said rim being provided with notches between which the metal of the rim is adapted to be torn and an opening lever integral with the lower edge of the inner wall of the securing rim, whereby the rim between the notches may be twisted apart for unlocking purposes.

5. A closure for jars or bottles comprising a closing member having an inner annular wall, a securing rim fitting over the annular wall of said closing member, and an opening lever integral with the lower edge of the annular wall of the securing rim, and extending across the upper face of the closing member, wherewith a part of the securing rim may be twisted off to unlock the seal.

[Claims 6 to 8 not printed in the Gazette.]

1,075,126. REFRIGERATING-MACHINE. JOHN JACOB SCHRADE, Waco, Tex. Filed Dec. 11, 1912. Serial No. 736,173. (Cl. 62—6.)



1. A device of the character specified, comprising a casing, vertical partitions dividing the casing into a central and lateral compartments, horizontal partitions in each of the lateral compartments, the alternate partitions being spaced from each end of the casing, a vertical plate connecting the rear ends of the said partitions, the intermediate partition being spaced from the plate and connected to the front end of the casing, a cylinder in each lateral compartment above the uppermost partition, the vertical partitions extending only to the cylinders, a head in each of the cylinders at the front end, a diaphragm in each cylinder near the rear end thereof, a plurality of flue pipes in each cylinder extending through the head and diaphragm, and means for circulating a refrigerant through each cylinder around the pipes.

2. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, and means for circulating a refrigerating fluid through the cylinders around the flue pipes.

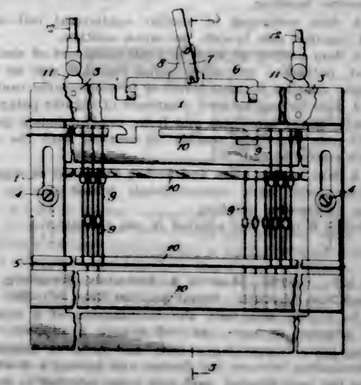
3. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, means for circulating a refrigerating fluid through the cylinders around the flue pipes, and baffle plates arranged in horizontal spaced relation below each cylinder for constraining the air to pass backward and forward in the compartment and to finally reach the fan.

4. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, means for circulating a refrigerating fluid through the cylinders, around the flue pipes, and means for constraining the air from the fan to travel backward and forward in each lateral compartment.

5. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, means for causing air to circulate through the flue pipes, and means for heating the cylinder.

[Claim 6 not printed in the Gazette.]

1,075,127. PILE-FABRIC LOOM. NATHANIEL MARCUS SHINN, Philadelphia, Pa., assignor to Robert Dornan and Thomas Benton Dornan, Philadelphia, Pa., composing The Firm of Dornan Brothers. Filed Feb. 4, 1913. Serial No. 746,162. (Cl. 139—23.)



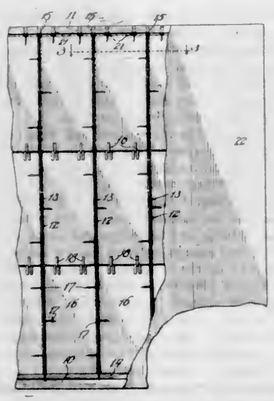
1. In combination, in a pile-fabric loom, means combined directly with the heddle mechanism for changing the relationship of two sets of warp threads so that either set may become pile-forming threads and the other set will become stuffer threads, and harness connections in common for both sets of warp threads.

2. In combination, in a pile-fabric loom having a heddle-controlling frame controlling two sets of warp threads, means coöperative with such frame for changing the

3. A life saving suit comprising a floating device carried within the suit, means for securing said floating device to the suit, and auxiliary means for supporting said floating device, said auxiliary means comprising a flap hinged to the interior of the suit and adapted to cover a portion of said floating device.

4. A life saving suit comprising a floating device carried within the suit, means for supporting said floating device, a flap hinged to the inside of the back of said suit, and means formed on the flap adapted to engage a portion of the suit to hold said flap around the floating device.

1,075,123. FIREPROOF PARTITION. JOHN SCHEAS, Louisville, Ky. Filed Dec. 29, 1910. Serial No. 599,893. (Cl. 72—46.)



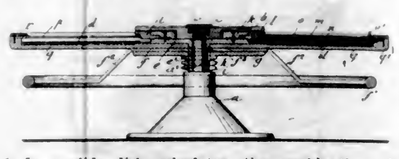
1. A fire-proof partition comprising vertically disposed tension members stretched between the floor and ceiling, said tension members being securely fastened to the floor and ceiling and being adapted to be twisted to produce the desired tension, a plurality of plates of plaster board disposed between adjacent tension members, clips for securing the vertical edges of the said plates to the tension members, each of said clips embracing a tension member and the opposite vertical faces of a plate, and a plurality of clips for retaining the horizontal edges of said plates in alinement.

2. A fire-proof partition comprising a plurality of tension members spaced apart and secured at their upper and lower ends to the ceiling and floor, respectively, plasterboard plates disposed between adjacent tension members, clips embracing a tension member and the side edges of adjacent plates, said clips serving to space the plates from the tension members to permit the entrance of plaster therebetween, and retaining devices laid between the adjacent horizontal edges of the plates, said devices comprising upwardly and downwardly extending fingers to hold the adjacent edges of superposed plates in alinement and space said edges apart for the entrance of plaster, and a coating of plaster upon each side of the plates, said plaster entering the spaces around the plates to form a firm mechanical bond.

3. A fire-proof partition comprising tension members stretched transversely of the partition, said tension members being securely fastened at their ends at the edges of the partition and adapted to be twisted to produce the required tension, a plurality of plates of plaster board disposed between adjacent tension members, clips for securing edges of the said plates to the tension members, each of said clips embracing a tension member and the opposite vertical faces of a plate, and a plurality of clips for retaining adjacent edges of said plates in alinement.

4. A fire-proof partition comprising tension members disposed transversely of the partition and composed of a plurality of strands of wire twisted in opposite direction from the center of said members, means for securely fastening the ends of the said tension members at the edges of the partition whereby the tension upon the said members may be increased by twisting the strands of the said members, a plaster board disposed on edge between adjacent tension members, a plurality of U-shaped clips embracing the tension members and opposite sides of said plate, a similar plate disposed adjacent the said plate, and a retaining device laid between the edges of the said plates and having oppositely projecting fingers adapted to engage opposite sides of said plates to retain the said plates in alinement.

1,075,124. SLIDE-DISK CALCULATOR. JOHN ADOLPH SCHEIBLI, West New York, N. J. Filed Oct. 8, 1912. Serial No. 724,614. (Cl. 235—84.)



1. In a slide disk calculator, the combination of a pair of superposed graduated disks; a rotatable crown connected to one of the disks; and a hand wheel connected to and remote from the other disk.

2. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to the other disk and in a different plane therefrom.

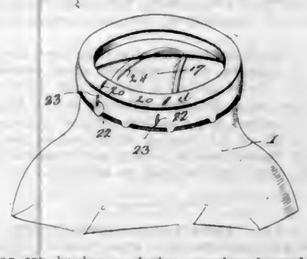
3. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to the other disk and in a different plane therefrom, said crown and wheel being separated a considerable distance from each other.

4. In a slide disk calculator, the combination of a pair of superposed graduated disks; a continuous rotatable crown secured to one disk; and a continuous hand wheel secured to and remote from the other disk, said crown and disk being disposed in widely separated parallel planes.

5. In a slide disk calculator, the combination of a stand; a pair of rings both rotatable on said stand; a pair of disks carried by the rings respectively; a crown connected to one disk; and a hand-wheel connected to the ring on which the other disk is carried.

[Claims 6 to 24 not printed in the Gazette.]

1,075,125. JAR-CAP. EDWARD D. SCHMITT, Baltimore, Md., assignor to Pure Food Process Company, Baltimore, Md., a Corporation of Maryland. Filed May 10, 1912. Serial No. 696,528. (Cl. 215—83.)



1. A jar cap having a closing member formed with a gasket holding channel adapted to receive the lip of the jar, a securing rim formed with a channel to receive the channel portion of the closing member, said securing rim being provided with an opening lever integral with the lower edge of the inner wall of the channel of the securing rim, by which a part of the securing rim may be twisted off to unlock the seal.

2. A jar cap having a closing member formed with a gasket holding channel to receive the lip of the jar and a securing rim formed with a channel adapted to receive the channel portion of the closing member, said securing rim being provided with notches between which the metal thereof is adapted to be twisted apart, and an opening lever integral with the lower edge of the inner wall of the securing rim whereby a portion of the rim may be twisted out between the notches for unlocking purposes.

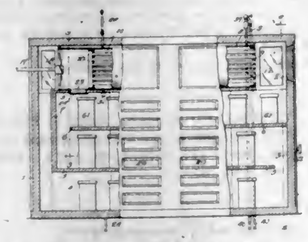
3. A jar cap having a closing member formed with a gasket holding channel, the inner wall of which is inclined inwardly, and adapted to receive the lip of the jar, and a securing rim formed with a channel, the outer wall of which is extended to form a locking flange and the inner wall inclined to fit the inner inclined wall of the closing member, and an opening lever integral with the lower edge of the inner wall of the securing rim, by which part of the securing rim may be twisted off to unlock the seal.

4. A jar cap having a closing member formed with a gasket holding channel, the inner wall of which is inclined inwardly and adapted to receive the lip of the jar, and a securing rim formed with a channel, the outer wall of which is extended to form a locking flange and the inner wall inclined to fit the inner wall of the closing member, said rim being provided with notches between which the metal of the rim is adapted to be torn and an opening lever integral with the lower edge of the inner wall of the securing rim, whereby the rim between the notches may be twisted apart for unlocking purposes.

5. A closure for jars or bottles comprising a closing member having an inner annular wall, a securing rim fitting over the annular wall of said closing member, and an opening lever integral with the lower edge of the annular wall of the securing rim, and extending across the upper face of the closing member, wherewith a part of the securing rim may be twisted off to unlock the seal.

[Claims 6 to 8 not printed in the Gazette.]

1,075,126. REFRIGERATING-MACHINE. JOHN JACOB SCHRADE, Waco, Tex. Filed Dec. 11, 1912. Serial No. 736,173. (Cl. 62—6.)



1. A device of the character specified, comprising a casing, vertical partitions dividing the casing into a central and lateral compartments, horizontal partitions in each of the lateral compartments, the alternate partitions being spaced from each end of the casing, a vertical plate connecting the rear ends of the said partitions, the intermediate partition being spaced from the plate and connected to the front end of the casing, a cylinder in each lateral compartment above the uppermost partition, the vertical partitions extending only to the cylinders, a head in each of the cylinders at the front end, a diaphragm in each cylinder near the rear end thereof, a plurality of flue pipes in each cylinder extending through the head and diaphragm, and means for circulating a refrigerant through each cylinder around the pipes.

2. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, and means for circulating a refrigerating fluid through the cylinders around the flue pipes.

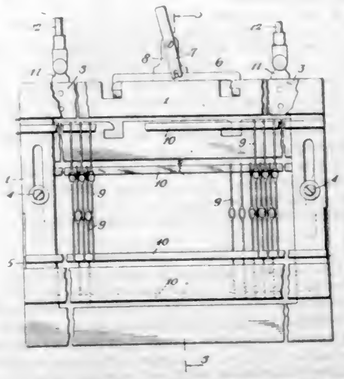
3. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, means for circulating a refrigerating fluid through the cylinders around the flue pipes, and baffle plates arranged in horizontal spaced relation below each cylinder for constraining the air to pass backward and forward in the compartment and to finally reach the fan.

4. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, a fan at the rear end of each cylinder, for delivering a blast through the cylinder, means for circulating a refrigerating fluid through the cylinders around the flue pipes, and means for constraining the air from the fan to travel backward and forward in each lateral compartment.

5. A device of the character specified, comprising a casing having a central and lateral compartment, a cylinder at the top of each lateral compartment, a head at the front end of each cylinder, a diaphragm near the opposite end, flue pipes in each cylinder extending through the head and diaphragm, means for causing air to circulate through the flue pipes, and means for heating the cylinder.

[Claim 6 not printed in the Gazette.]

1,075,127. PILE-FABRIC LOOM. NATHANIEL MARCUS SHINN, Philadelphia, Pa., assignor to Robert Dornan and Thomas Benton Dornan, Philadelphia, Pa., composing The Firm of Dornan Brothers. Filed Feb. 4, 1913. Serial No. 746,162. (Cl. 139—23.)



1. In combination, in a pile-fabric loom, means combined directly with the heddle mechanism for changing the relationship of two sets of warp threads so that either set may become pile-forming threads and the other set will become stuffer threads, and harness connections in common for both sets of warp threads.

2. In combination, in a pile-fabric loom having a heddle-controlling frame controlling two sets of warp threads, means coöperative with such frame for changing the

relationship of the two sets of warp threads so that either set may become pile-forming threads and the other set stuffer threads.

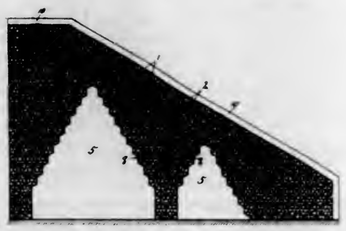
3. In combination, in a pile-fabric loom, two heddle frames and sets of heddles, each controlling a set of warp threads, harness connections in common for these two heddle frames, and means for interchangeably shifting the relationship of such heddle frames relatively to the harness connections to interchange the functions of the heddle frames and of the threads controlled by them so that the threads of one set become pile-forming threads and the threads of the other set become stuffer threads, and vice versa.

4. In combination, in a pile-fabric loom, a master heddle-controlling frame, a plurality of heddle frames movably mounted on the master frame, heddles carried thereby, and means for separately locking such heddle frames against movement relatively to the master frame.

5. In combination, in a pile-fabric loom, a master heddle-controlling frame, two heddle frames movably mounted on the master frame, heddles carried thereby, and means for locking either one of the heddle frames against movement relatively to the master frame.

[Claims 6 to 8 not printed in the Gazette.]

1,075,128. DAM. THEODORE H. SKINNER, Oneida, N. Y. Filed Mar. 8, 1910. Serial No. 548,059. (Cl. 61—24.)



1. A dam composed of similar cell units of regular polygonal cross-section bound together side to side, one upon another without extra supports or forms during progressive building.

2. A dam composed of similar equilateral cell units bound together side to side, one upon another.

3. A dam having an arch or vault composed of similar, regular, polygonal cell units bound together side by side one upon another without forms or preconstructed centers.

4. A dam having an arch composed of regular polygonal cell units of the same size and form, cementitiously joined side to side one upon another in courses, with the cells of each course alined.

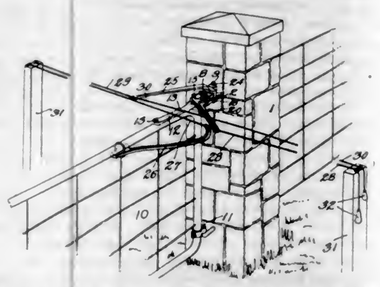
5. A dam having piers and arches composed of regular, polygonal cell units, cementitiously joined side to side during progressive building.

[Claims 6 to 10 not printed in the Gazette.]

1,075,129. GATE. MARCUS A. STICKLEY, Strasburg, Va. Filed Nov. 11, 1912. Serial No. 730,770. (Cl. 39—14.)

1. In a gate structure, the combination of a bearing plate adapted to have one end engage a support, said bearing plate comprising a body and pendent flanges, a bolt extending between the flanges and having a head engaging the ends thereof, said bolt being adapted to be extended through the support engaged by the bearing plate, and gate actuating means journaled on the bearing plate.

2. In a gate structure, the combination of a bearing plate adapted to have one end engage a support, said bearing plate comprising a body having pendent flanges and lips depending from the flanges and bent toward each other, a bolt extending between the flanges and dimensioned to be retained against dislocation from between the flanges by engagement with said lips, the said bolt being adapted to extend beyond the bearing plate and into supporting engagement with the support engaged by the bearing plate, and gate actuating means journaled on the bearing plate.



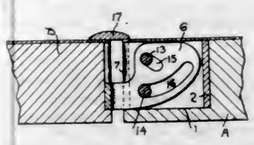
3. In a gate structure, the combination of a bearing plate, supporting means therefor, journal pins extending from the bearing plate, intermeshing gears journaled on said pins, a lever for each of said gears, each lever being connected with its respective gear for actuating the same, and gate shifting means disposed between one of the levers and its gear and connected with the lever and gear for being actuated thereby.

4. In a gate structure, the combination, with a pivotally mounted gate, of intermeshing gears journaled adjacent the gate, a lever connected to each of the gears, one of the levers being disposed to extend in the direction toward one side of the gate and the other lever being disposed to extend toward the other side of the gate when the gate is closed, and gate actuating means disposed between one of the levers and its gear and connected to be operated by said levers and gears.

5. In a gate structure, the combination, with a pivotally mounted gate, of intermeshing gears journaled adjacent the gate, a lever connected to each of the gears, one of the levers being disposed to extend in a direction toward one side of the gate and the other lever being disposed to extend toward the other side of the gate when the gate is closed, and gate actuating means connected to be operated by said gears, one of the gears being adapted to be inverted for disposing its respective lever at the relatively opposite side of the gate and the other gear being adapted to be swung for positioning its lever at the side of the gate opposite that formerly occupied by said last mentioned lever.

[Claims 6 to 9 not printed in the Gazette.]

1,075,130. CONCEALED HINGE. JOHN F. STREBERGER, Detroit, Mich., assignor of one-half to Edward L. Ackerman, Detroit, Mich. Filed Sept. 28, 1912. Serial No. 722,811. (Cl. 16—105.)



1. The combination with a door-post provided with a mortise and a door provided with a molding on and protruding over the edge of the door adjacent the door-post, of a hinge-arm attached to the door and provided with a segmental slot, the said hinge-arm adapted to hold the edge of the door adjacent the face of the door post when the door is closed, a pin in said mortise and protruding through the segmental slot, and means for compelling the hinge-arm to take a course with respect to the pin which is prescribed so as to cause the hinge-arm to gradually thrust the door out from the door-post during the entire opening of the door, whereby the clearance of the molding in relation to the side of the door-post is gradually increased, substantially as described.

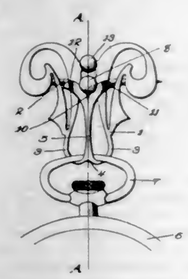
2. A concealed hinge, having in combination with a frame provided with a mortise, a knuckle-pin plate provided with a pair of pins adapted to be located in said mortise, a swinging arm provided with a pair of slots in which the pins engage and adapted to be held in said mortise by the knuckle-pins, the said slots being arranged with respect to each other so that when the swinging arm swings out upon the pins, the radius of the arm is extended, whereby a door or other member swinging on said arm is thrust out with respect to the frame, substantially as described.

3. A concealed hinge, having in combination, a frame provided with a mortise, a mortise casing having a countersunk portion and a main recess, a knuckle-pin plate having a face portion that can be fastened to the mortise casing at the countersunk portion and a swinging arm pivoted on a pin of the knuckle pin plate and held in the main recess of the mortise casing by the same, substantially as described.

4. A concealed hinge, having in combination with a body, provided with a mortise, a casing therefor, a knuckle pin plate adapted to lie in horizontal position therein and provided with a pair of pins held in vertical position in said casing, a hinge arm and a door attached thereto, the said hinge arm adapted to rest on the floor of the casing and provided with a pair of slots in which the pins engage, the said pins and slots being positioned so as to act only as guides for the swinging arm in swinging and to increase the radius of the swinging arm in its outward swing, substantially as described.

5. The combination with a vehicle-body provided with a door-post having a mortise therein and a door provided with a molding that projects beyond the edge of the door adjacent the door-post, of a hinge-arm fastened to the door and partially located in the mortise, the hinge arm having a segmental slot and a second slot arranged angularly in relation to the first-mentioned slot, and a pair of pins located in said mortise and secured therein, one pin protruding through each slot, the said pins and slots being arranged with respect to one another so as to increase the swinging radius of the hinge-arm as the door opens out, whereby the clearance between the molding and vehicle-body is increased, substantially as described.

1,075,131. CHATELAINE-BROOCH OR THE LIKE. TOBIAS A. TOBIASSON, Irvington, N. J., assignor to Crane & Theurer, a Corporation of New Jersey. Filed Oct. 8, 1912. Serial No. 724,542. (Cl. 24—4.)



1. The combination with a body portion having a tongue bowed outwardly therefrom to form a hook with its free end returned adjacent to said body portion, of a projection on said body portion forming at its side an undercut recess and having outside said recess an overhang outwardly sloping away from said recess, said projection being positioned so that said tongue will normally lie with its extremity extending past the nose of said overhang either in the recess or outside the overhang and said extremity can be snapped from one position to the other by springing the bowed portion of the hook.

2. The combination with a body portion having a tongue bowed outwardly therefrom to form a hook and having its free end returned adjacent to said body portion and normally forced toward the same by resiliency, of a projection on said body portion forming at its side next the attachment of said tongue to the body portion an undercut recess and having outside the same an overhang outwardly sloping away from said recess, said projection being positioned so that the extremity of the tongue will normally lie against the slope of the overhang and the resiliency of said bowed tongue will enable said extremity to be snapped into and out of said recess.

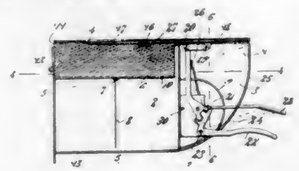
3. The combination with a body portion having a tongue bowed outwardly therefrom to form a hook on its front and having its free end returned adjacent to said body portion in front of the same and normally forced rearwardly toward the same by resiliency, said tongue having a transverse edge at its extremity, of a projection on said body portion in alinement with said tongue and forming at its side next the attachment of said tongue to the body portion an undercut recess adapted to receive said transverse edge of the tongue to hold the tongue against the body portion, said projection providing a slanting surface over which said transverse edge can be slid by pressure on said tongue to insert said transverse edge into said undercut recess.

4. The combination with a body portion having a tongue bowed outwardly therefrom to form a hook and having its free end returned adjacent to said body portion and cleft in a plane perpendicular thereto, of a ball projecting from said body portion in the cleft of said tongue and adapted to be resiliently engaged thereby.

5. The combination with a body portion having a tongue forming a hook and returned at its free end adjacent to said body portion and having diverging lips, of a projection on said body portion adapted to lie between said diverging lips and having an undercut recess to receive the same.

[Claims 6 and 7 not printed in the Gazette.]

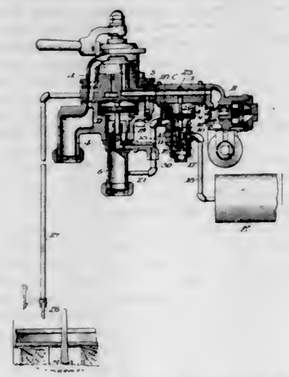
1,075,132. CAR-TICKET HOLDER. ADOLPH WESTENSEE, Galva, Iowa. Filed Aug. 23, 1912. Serial No. 716,700. (Cl. 206—40.)



1. A ticket holder, comprising a casing having outer and inner walls with intervening spaces, the inner walls forming a ticket compartment, a spring pressed follower plate in said compartment, a finger lever connected with said plate, springs arranged in the said spaces at opposite sides of said compartment acting on the follower plate, a ticket ejecting slide, a gear segment lever operatively connected with said slide, a spring acting on said segment lever to urge the slide outward, and a finger lever geared to the segment lever.

2. A ticket holder, comprising a casing having outer and inner walls with intervening spaces, the inner walls forming a ticket compartment, a spring pressed follower plate in said compartment, a finger lever connected with said plate, springs arranged in the said spaces at opposite sides of said compartment acting on the follower plate, a ticket ejecting slide movable toward and away from a discharge opening in the casing, a finger lever for operating said slide, and a gage plate adjustable relatively to said opening for varying the size thereof.

1,075,133. TRAIN CONTROL. JAMES E. WILLIAMS and WILLIAM L. WILLIAMS, Willimantic, Conn. Filed Apr. 23, 1913. Serial No. 763,048. (Cl. 188—1.)



1. In an automatic air brake, the combination with an engineer's brake valve and a feed valve in communication with each other, and means for closing said communication between said brake valve and feed valve upon the reduction in brake pipe pressure.

2. In an automatic air brake, the combination with an engineer's brake valve and a feed valve, of a valve for controlling the communication between the brake valve and feed valve, and means for closing said valve to be actuated upon the reduction in brake pipe pressure for closing said communication.

3. In an automatic air brake, the combination with an engineer's brake valve and a feed valve, of a valve for controlling the communication between the brake valve and feed valve, and means for closing said valve to be actuated upon the reduction in brake pipe pressure for closing said communication, said means operating upon the recharging of brake pipe pressure for actuating said valve to open communication between the brake valve and feed valve.

4. In an automatic air brake, the combination with a brake valve and a feed valve, of a valve for controlling the communication between the brake valve and feed valve, a piston connected to said vale adapted to be actuated upon the reduction in brake pipe pressure for operating the valve for closing said communication between the feed valve and brake valve.

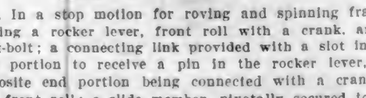
5. In an automatic air brake, the combination with an engineer's brake valve and a feed valve, of a valve casing located between said brake valve and feed valve and in communication therewith, valves in said casing for closing the communication between the brake valve and feed valve, a piston chamber and a valve chamber in said casing, a piston mounted in said piston chamber and connected to the valves, means for connecting the piston chamber to the brake pipe of the engineer's brake valve whereby upon the reduction of brake pipe pressure, the pressure in the piston chamber will be reduced and the piston caused to move by the pressure exerted from the valve chamber for causing the valves to close communication between the brake valve and feed valve, and a valve actuated by said piston in the valve chamber for permitting the air pressure in said valve chamber to escape to atmosphere.

1,075,134. DISAZO DYESTUFFS AND PROCESS OF MAKING SAME. ERNST ZEHNTNER, Basel, Switzerland, assignor to Dye Works, formerly L. Durand, Huguenin & Co., Basel, Switzerland. Filed Dec. 10, 1912. Serial No. 735,963. (Cl. 8—1.)

1. The herein described process for the manufacture of disazo dyestuffs consisting in combining the tetrazo derivative of benzidin-2:2′-disulfonic acid with ortho-oxy-carboxylic acids of the benzene series.

2. The herein described process for the manufacture of disazo dyestuffs consisting in combining 1 molecule of the tetrazo derivative of benzidin-2:2′-disulfonic acid with two molecules of salicylic acid.

3. As new products the described disazo dyestuffs being alkali salts of the products corresponding to the general formula



(In which R stands for the radical of an ortho-oxy-carboxylic acid of the benzene series) suitable for the purposes of dyeing as well as for cotton printing, constituting in dry state yellow powders easily soluble in water, dyeing wool and chromium mordanted cotton yellow tints, remarkably fast to soap, soda, chlorin, light and washing.

4. As a new article of manufacture the described disazo dyestuff derived from benzidin-2:2′-disulfonic acid and salicylic acid, suitable for the purposes of dyeing as well as for cotton printing and constituting in dry state a yellow powder easily soluble in water, dyeing wool vivid yellow tints and mordanted cotton bright yellow tints remarkably fast to soap, soda, chlorin, light and washing.

1,075,135. COMPOSITION OF MATTER FOR MAKING BRIQUETS OF FRAGMENTS OF METAL. CHARLES G. ALTON, Hartwell, Ohio. Filed Mar. 8, 1912. Serial No. 682,537. (Cl. 75—73.)

1. A composition of matter consisting of fragments of metal, Portland cement, hydrated lime, and a filler.

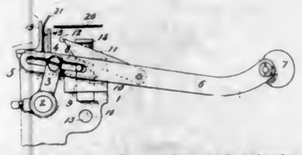
2. A composition of matter consisting of fragments of ferruginous metal, Portland cement, hydrated lime and a sharp filler.

3. A composition of matter consisting of iron borings, Portland cement, hydrated lime and an angular sided filler.

4. A composition of matter for briqueting composed of iron borings, Portland cement, hydrated lime and sand.

5. A composition of matter for making briquets, consisting of approximately iron borings 95%, and 5% of a binder made of two-thirds Portland cement, two-fifteenths hydrated lime, and one-fifth sharp sand, all proportions determined by weight.

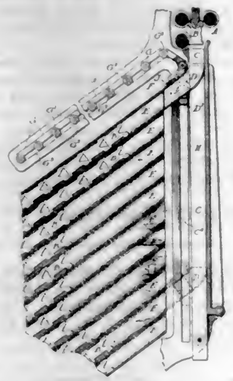
1,075,136. STOP-MOTION FOR COTTON ROVING AND SPINNING FRAMES. BUTLER AMES, Lowell, and ARTHUR HARRISON, Dracut, Mass. Filed Jan. 15, 1913. Serial No. 742,177. (Cl. 118—17.)



1. In a stop motion for roving and spinning frames, having a rocker lever, front roll with a crank, and a lock-bolt; a connecting link provided with a slot in one end portion to receive a pin in the rocker lever, the opposite end portion being connected with a crank in the front roll; a slide member, pivotally secured to the rocker lever and in movable engagement with the slot in the connecting link; a lifting member, pivoted to the said link; the slide member and the lifting member having engaging surfaces so that a movement of said members toward each other, will cause the lifting member to engage the lock bolt, and cause it to release suitable mechanism to stop the machine.

2. In a stop motion for roving and spinning frames, having a rocker lever, front roll with a crank, and a lock-bolt; a connecting link provided with a slot in one end portion to receive a pin in the rocker lever, the opposite end portion being connected with a crank in the front roll; a slide member pivotally secured to the rocker lever and in movable engagement with the slot in the connecting link; a lifting member, pivoted to the said link; said slide member being provided with a cam surface to engage the lifting member, and designed so that a movement of said members toward each other, will cause the cam to raise the lifting member into engagement with the lock-bolt, and cause it to release suitable mechanism to stop the machine.

1,075,137. TYPOGRAPHICAL COMPOSING-MACHINE. ROBERT O. BOARDMAN, Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 16, 1912. Serial No. 671,464. (Cl. 199—7.)



1. In a typographical composing machine, the combination of distributing mechanism, a plurality of magazines, a common passageway leading from said distributing mechanism to said magazines, and a throat or deflector mounted in said passageway to direct the type or matrices into a magazine, the said throat or deflector being movably mounted so that it may be brought into registry with any selected magazine.

2. In a typographical composing machine, the combination of distributing mechanism, a plurality of magazines, a common passageway leading from said distributing mechanism to said magazines, and a throat or deflector mounted in said passageway to direct the type or matrices into a magazine, the said throat or deflector being movable as a whole relatively to the distributing mechanism and so as to register with any selected magazine.

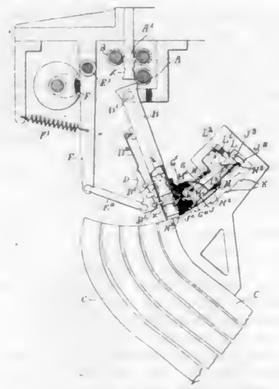
3. In a typographical composing machine, the combination of distributing mechanism, a plurality of superposed magazines, a vertical passageway leading from said distributing mechanism to said magazines, and a throat or deflector mounted in said passageway to direct the type or matrices into a magazine, the said throat or deflector being movable in a vertical direction to register with any selected magazine.

4. In a typographical composing machine, the combination of distributing mechanism, a plurality of magazines, and a throat or deflector to receive type or matrices from the distributing mechanism and deliver them to a magazine, the said throat or deflector being mounted so that it may be moved past the entrances of the several magazines to register with any selected one thereof, together with means to shut off the entrances of the magazines which are located between the selected one and the distributing mechanism.

5. In a typographical composing machine, the combination of distributing mechanism, a plurality of magazines, and a throat or deflector to receive type or matrices from the distributing mechanism and deliver them to a magazine, the said throat or deflector being mounted so that it may be moved past the entrances of the several magazines to register with any selected one thereof, together with flexible means connected to the throat or deflector to shut off the entrances of the magazines which are located between the selected one and the distributing mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,075,138. TYPOGRAPHICAL MACHINE. ROBERT OTIS BOARDMAN, Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Sept. 11, 1912. Serial No. 719,821. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines adapted to contain different fonts of type or matrices, distributing mechanism to separate the type or matrices according to letter regardless of font, and a movable device common to the several magazines and adapted to deliver the separated type or matrices into one magazine or another according to font, the said device being controlled in its movement by the form of the type or matrices.

2. In a typographical machine, the combination of a plurality of magazines adapted to contain different fonts of type or matrices, a single distributing mechanism to separate the type or matrices according to letter regardless of font, and an intermediate movable throat or conductor to receive the separated type or matrices and deliver them into one or another of the magazines according to font, said conductor being controlled in its movement by the form of the type or matrices.

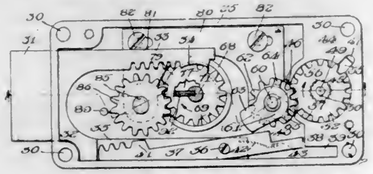
3. In a typographical machine, the combination of a plurality of magazines adapted to contain different fonts of type or matrices, distributing mechanism to separate the type or matrices according to letter regardless of font, a movable intermediate throat or conductor to receive the type or matrices and deliver them into one or another of the magazines, and means controlled by the form of the type or matrices to move the conductor.

4. In a typographical machine, the combination of a plurality of magazines adapted to contain different fonts of type or matrices, distributing mechanism to separate the type or matrices according to letter regardless of font, and a movable device common to the several magazines and adapted to connect with one magazine or another so as to deliver the type or matrices of corresponding font thereto, the said device being controlled as to such connection by the form of the type or matrices.

5. In a typographical machine, the combination of a plurality of magazines for the type or matrices, a single distributing mechanism, and an intermediate movable conductor or holder wherein the type or matrices are temporarily stored and from which they are subsequently delivered to one or another of the magazines according to their font.

[Claims 6 to 10 not printed in the Gazette.]

1,075,139. LOCK. BRUCE BORLAND, Chicago, Ill. Filed Feb. 8, 1906, Serial No. 300,074. Renewed Mar. 13, 1913. Serial No. 754,127. (Cl. 70—70.)



1. In a permutation lock, a secondary tumbler having a predetermined operative position, a primary tumbler geared into the secondary tumbler and capable of moving the same to said predetermined position by its own motion to another predetermined position, the primary tumbler being provided with differently positioned steps one of which is engaged by the key ward according to the length of the key ward, and means for disengaging the secondary tumbler from the primary tumbler so that the predetermined position of the primary tumbler may be changed and the secondary tumbler reëngaged.

2. In a permutation lock, a plurality of secondary tumblers having a common predetermined operative position, a primary tumbler geared into each secondary tumbler and capable of moving the same to said predetermined position by its own motion to another predetermined position, the said primary tumbler being provided with differently positioned steps one of which is engaged by the key ward according to the length of the key ward, and means for simultaneously disengaging all of the secondary tumblers from the primary tumblers so that the predetermined positions of the primary tumblers may be changed and the secondary tumblers reëngaged.

3. In a lock, the combination with a bolt and a locking dog therefor, of means to release the dog, and key-operated tumblers to coöperate with the dog to retract the bolt.

4. In a lock, the combination with a bolt and a locking dog therefor, of means to release the dog, and key operated gears for communicating motion to the dog to retract the bolt.

5. In a lock, the combination with a bolt and locking dog therefor, of tumblers, and key operated gears to first turn the tumblers into position to permit of the unlocking of the dog and then retract the bolt by coöperating with the dog, and means to release the dog.

[Claims 6 to 25 not printed in the Gazette.]

1,075,140. LOCOMOTIVE BLOWER AND STACK. REGINALD MOORE BOWMAN, Baltimore, Md. Filed Oct. 30, 1912. Serial No. 728,658. (Cl. 110—150.)



1. A device of the character described, comprising steam actuated mechanism for producing an air draft for the double purpose of facilitating combustion and lifting smoke, steam actuated mechanism for the sole purpose of lifting smoke, and means controllable by variations in steam tension for shifting a supply of steam from one of said mechanisms to the other.

2. A device of the character described, comprising a smoke stack, a nozzle directed thereinto for aspirating an air current therein, a second nozzle disposed adjacent to said stack for lifting smoke therefrom, pipes leading to said nozzles respectively, valve mechanism connected with said pipes and controllable by variations in steam pressure for automatically opening one of said pipes and closing the other, and means for admitting steam to said valve mechanism.

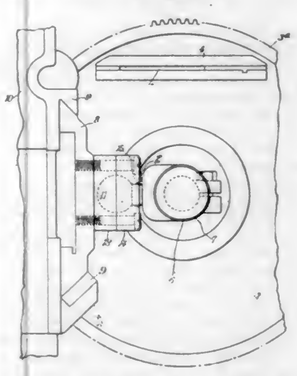
3. A device of the character described, comprising a smoke pipe, a nozzle extending thereinto for the double purpose of producing an air draft therein and of ejecting smoke therefrom, a second nozzle disposed adjacent to said smoke stack for lifting smoke discharged from the latter, pipes leading to said nozzles respectively, a double valve connected to said pipes for opening and closing said pipes as a unit, an automatic valve connected with said pipes and adapted to maintain one of said pipes closed and the other open, and means for applying steam pressure to said valve mechanism.

4. A device of the character described, comprising a smoke stack, a nozzle directed thereinto, another nozzle located outside of said smoke stack, pipes leading to said nozzles respectively, valve mechanism common to both of said pipes and controllable by variations in steam pressure for the purpose of opening one pipe while closing another depending upon the degree of steam pressure to which said valve mechanism is subjected, and means for directing steam into said valve mechanism.

5. A combination of a smoke stack, mechanism for creating an air draft therein, mechanism independent of said air draft for lifting smoke from said smoke stack automatically, valve mechanism provided with a movable valve member for maintaining one of said mechanisms active while the other is idle, said valve mechanism being controllable selectively by differences in steam pressure, and means for subjecting said valve mechanism to steam pressure.

[Claim 6 not printed in the Gazette.]

1,075,141. MOLD-CARRIER OF MACHINES FOR CASTING PRINTING-BARS. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 13, 1911. Serial No. 638,282. (Cl. 199—13.)



1. In a typographical composing machine, the combination of a mold and supporting means therefor, the said supporting means comprising a universal joint, so that the mold may rock about a plurality of intersecting axes in order to insure its tight contact with the other casting devices.

2. In a typographical casting machine, the combination of the frame, the mold carrier, and a universal joint connection between them to permit the mold carrier to rock or tilt.

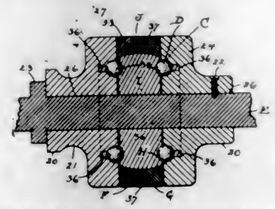
3. In a machine for casting printing bars, the combination of mold wheel; mold wheel bearing; mold for the printing bar; mold wheel slide; stem fast on the mold wheel bearing; and a loose connection between the stem and the mold wheel slide, adapted to allow the mold wheel to be rocked as operative contact between it and the row of matrices, is being made.

4. In a machine for casting printing bars, the combination of mold wheel; mold wheel bearing; mold for a printing bar; mold wheel slide; stem fast on the mold wheel bearing; and a ball and socket joint between the said slide and stem.

5. In a typographical casting machine, the combination of the mold wheel, the mold wheel slide, and a universal joint between the wheel and slide.

[Claims 6 and 7 not printed in the Gazette.]

1,075,142. DIFFERENTIAL COUPLING DEVICE. JOSEPH H. DEMING, Middletown, Conn., assignor of one-half to Oscar Nelson, Middletown, Conn. Filed Oct. 5, 1912. Serial No. 724,058. (Cl. 74—34.)



1. A mechanical movement comprising a pair of end members, rotatively mounted, and having each a series of notches and a middle member positioned between the said end members, and provided with a raceway, a set of balls in the said raceway and engaged with the said notches, and serving as means for interconnecting the said end members, and the said end members having their axes in alinement.

2. A differential coupling device comprising a middle member rotatively mounted, a pair of end members, the said middle member provided with a raceway in a plane in parallelism with the axis, balls in the said raceway, said balls at the lateral ends of the said raceway exposed beyond the end faces of the said middle member, and the said end members provided each with a set of notches arranged concentric with the said axis and suitable for engaging with the said balls at the lateral ends of the said raceway, and a retaining device on the ends of the said middle member and serving to retain the said balls in the raceway.

3. A differential coupling device comprising a middle member and a pair of end members, a coupling device operatively interconnecting the said end members and comprising a set of balls and a raceway therefor, and a portion of the said balls being exposed beyond the lateral end faces of the said middle member, means attached to the said middle member for retaining the said balls in the said raceway.

4. A differential coupling device comprising a middle member and a pair of end members rotatively mounted, the said end members provided each with a set of notches arranged concentric with the axis, the said middle member comprising a hub portion, a raceway on the outer periphery of the said hub portion concentric with a radius, balls in the said raceway, and means for retaining the said balls in the said raceway.

5. A differential coupling device comprising a middle member and a pair of end members rotatively mounted, the said end members provided each with a set of notches arranged concentric with the axis, the said middle member comprising a hub portion having a raceway on the outer periphery concentric with a radius, balls in the said raceway, and means for housing the said balls in the said raceway, said means comprising a ring portion positioned exterior to the said hub portion.

[Claims 6 to 9 not printed in the Gazette.]

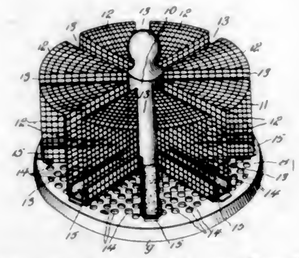
1,075,143. PROCESS OF PRODUCING WHITE LEAD. EDWIN EUSTON, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,097. (Cl. 134—75.)

1. The hereindescribed process of producing white lead consisting in the admixture of precipitated basic lead carbonate containing less than 11.3 per cent. carbon dioxid with precipitated basic lead carbonate containing more than 11.3 per cent. carbon dioxid in proportions to form a pigment containing approximately 11.3 per cent. to 14.5 per cent. carbon dioxid.

2. The process of manufacturing white lead, consisting first, in precipitating, by carbon dioxid gas from basic lead acetate solution, maintained alkaline, basic carbonate of lead containing less than 11.3 per cent. carbon dioxid, second, in separately precipitating, by carbon dioxid gas from a basic lead acetate solution, eventually acid, carbonate of lead containing more than 11.3 per cent. carbon dioxid, and third, in mixing the said two products, in proportions to form a pigment containing 11.3 per cent. to 14.5 per cent. carbon dioxid.

3. The process of manufacturing white lead consisting, first in precipitating basic carbonate of lead by carbon dioxid gas from basic lead acetate solution, maintained alkaline, second, separately forming a precipitate by carbon dioxid gas from basic lead acetate solution, eventually acid, and third, mixing the two products thus obtained in proportions to form a pigment containing 11.3% to 14.5% carbon dioxid.

1,075,144. TOASTER. FREDERICK A. GREARSON, Barre, Vt. Filed Nov. 6, 1912. Serial No. 729,882. (Cl. 53—5.)



1. A bread toaster comprising a base, flame directing and toast receiving compartments arranged upon the base, said compartments being formed from a single piece of reticulated material, U-shaped plates for the toast compartments, and each of the said plates being provided with a coating of fire proof material.

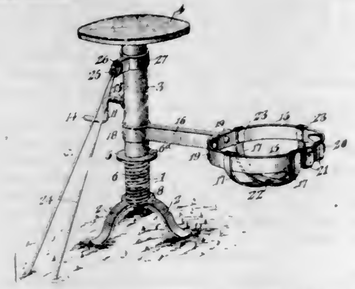
2. In a bread toaster, a flanged base provided with openings, a reticulated member secured to the base, the said member being bent to provide continuous sides provided with alternating tops and bottoms, the bottoms being arranged upon the base and adjacent the openings thereof, substantially U-shaped plates arranged upon the bottoms, means provided by the plates for retaining the plates upon the bottoms, and each of the plates having a coating of fire proof material.

3. In a bread toaster, a base having a continuous peripheral flange, said base having a central post, said base being further provided with openings, a mesh, said mesh being also connected with the base, and being bent to provide continuous side walls having consecutive tops and bottoms, the tops being arranged above the openings in the base, and the bottoms being arranged upon the nonperforated portion of the base, and flanged plates for the bottoms.

1,075,145. MILKING-STOOL. LOUIS HANSON, Cottonwood, Idaho. Filed Mar. 17, 1913. Serial No. 755,004. (Cl. 31—13.)

1. A milking stool comprising a vertical standard, a seat having a tubular member slidable on the standard, a spring mounted on the standard and arranged to yieldably support the tubular member and adapted to move the same upwardly on the standard, means for securing the tubular member in its adjustment, and a milk pail support arranged at a point between the seat and the lower end of the standard.

2. A milking stool comprising a vertical standard provided at its lower end with legs, a tubular member slidable on the standard and provided at its lower end with a flange, a coiled spring mounted on the lower portion of the standard and fitting against the said flange, a screw carried by the tubular member and arranged to engage the standard, and a milk pail support mounted on the tubular member.



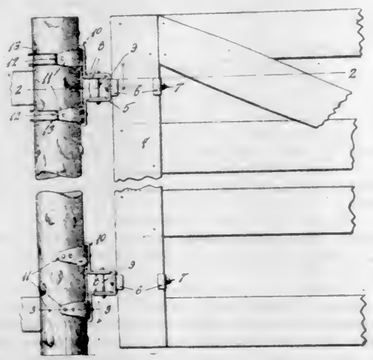
3. A milking stool including a vertical standard, a horizontal arm consisting of a single continuous strip of metal bent centrally to form a collar to receive and slide on the said standard, the side portions of the strip being fitted together and the terminals of the strip being bent outwardly, and a basket comprising a band fitted against and secured to the terminals of the said strip, and crossed supporting strips forming the sides and bottom of the basket and secured to the said band.

4. A milking stool including a seat, upright supporting means for the seat, a milk pail support or holder carried by the said supporting means, and an adjustable brace or prop arranged at an inclination and provided at its upper end with a collar adjustably embracing the seat supporting means.

5. A milking stool including a seat, upright supporting means for the seat, a milk pail support or holder carried by the said supporting means, an inclined brace or prop composed of upwardly converging sides and an eye connecting the upper terminals of the sides, and a collar adjustably embracing the seat supporting means and provided with a projecting ear or portion having an opening into which the said eye is linked.

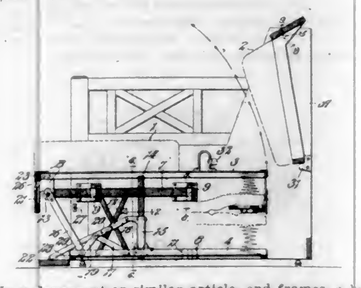
[Claim 6 not printed in the Gazette.]

1,075,146. HINGE. JOHN W. HAYES, Bayle City, Ill. Filed Dec. 9, 1912. Serial No. 735,706. (Cl. 16—40.)



The improved gate-hinge member, comprising a U-shaped hinge-member, a pair of yokes, a bolt for uniting the hinge member and yokes, a second hinge member constructed of a single piece of strap iron, means for pivotally connecting the hinge-members, a pair of metallic straps secured to the second hinge-member, loops at the free ends of said straps, and bonds for securing said straps to a post

1,075,147. FOLDING DAVENPORT. GUILFORD W. HENRY, St. Louis, Mo. Filed Jan. 13, 1913. Serial No. 741,738. (Cl. 5—51.)



1. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame which extends under the lower edge of said back when the davenport is closed, horizontally movable slides that carry said mattress-supporting means, open guiding members on the end frames in which said slides are mounted, and removable devices for preventing said slides from jumping out of said guiding members.

2. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame having a seat portion on one side thereof and a vertically movable frame that lies under said swinging frame when the davenport is closed, said mattress-supporting means projecting rearwardly beyond the lower edge of said back when the davenport is closed, mechanism for automatically raising and lowering said vertically movable frame when the swinging frame is opened and closed, vertically disposed guides on which said vertically movable frame travels, and means for enabling both frames of the mattress-supporting means to be moved horizontally toward and away from said back.

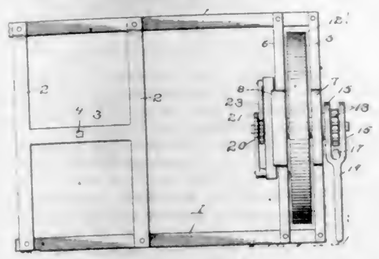
3. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame having a seat portion on one side thereof and a vertically movable frame that lies under said swinging frame when the davenport is closed, said mattress-supporting means projecting rearwardly beyond the lower edge of said back when the davenport is closed, mechanism for automatically raising and lowering said vertically movable frame when the swinging frame is opened and closed, horizontally movable members on the end frames which carry the mattress-supporting frames and the mechanism for operating same, and vertically-disposed guides on said members for the vertically movable frame.

4. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising two horizontally disposed superimposed sections which normally project rearwardly under the lower edge of said back when the davenport is closed, a horizontally movable structure on the end frames, means for pivotally connecting the top section of the mattress-supporting means to said structure, vertically disposed guides on said structure on which the lower section of the mattress-supporting means travels, and means for raising and lowering said lower section when said top section is swung into and out of operative position.

5. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising two horizontally disposed superimposed sections which normally project rearwardly under the lower edge of said back when the davenport is closed, a horizontally movable structure on the end frames separate and distinct from said sections, means for pivotally connecting the top section of the mattress-supporting means to said structure, vertically disposed guides on said structure on which the lower section of the mattress-supporting means travels, means for raising and lowering said lower section when said top section is swung into and out of operative position, and means on said structure that supports said top section when the davenport is closed.

[Claims 6 to 11 not printed in the Gazette.]

1,075,149. MOVING SIGN. JOHN B. HUTCHINSON, Grand Rapids, Mich. Filed Dec. 2, 1911. Serial No. 663,604. (Cl. 40—30.)



1. In a running gear for vehicles, a traction wheel, a stub axle upon which said wheel is journaled, a vertical rack bar, a pinion rigid with said axle and adapted for engagement with the rack bar, and means for rotating said axle, whereby the same may be raised or lowered with respect to said rack bar.

2. In a running gear of the character described, a traction wheel, a stub axle upon which said wheel is journaled, a pinion rigid with said axle, a rack bar engaged by said pinion, means for rotating the axle, whereby the same may be raised and lowered with respect to said rack bar, and means for locking the axle against rotation.

3. In a device of the character described, a running gear for wheeled vehicles having spaced-apart bars, inverted U-shaped portions intermediate of their ends, one of the legs of each of said U-shaped portions provided with a rack bar, a stub shaft, gear pinions secured to said stub shaft and meshing with said rack bars, a traction wheel journaled on said stub shaft, and means to rotate said shaft to adjust it relatively to said cross bars.

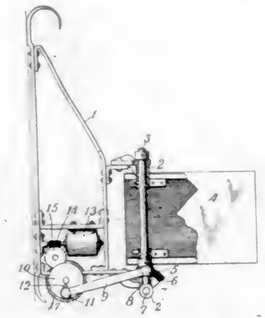
4. In a device of the character described, a running gear for wheeled vehicles, bars spaced apart, inverted U-shaped portions in said bars intermediate of their ends, one of the legs of each of said U-shaped portions being provided with a rack bar, a stub shaft, pinions secured to said stub shaft and meshing with said rack bars, the traction wheel journaled on said stub shaft, a pinion secured to said stub shaft, a lever having one of its ends bifurcated and the arms thereof formed with longitudinal slots slidably engaging the stub shaft, said arms of the bifurcated portion inclosing the last mentioned pinion, a lug extending from said lever between the arms of the bifurcated portion and adapted to engage between the teeth of said pinion, ratchet wheels secured to said stub shaft, the teeth of said ratchet wheels pointing in opposite directions, and pawls engaging said ratchet wheels.

5. In a device of the character described, a frame, traction wheels supporting the same, stub axles upon which said traction wheels are journaled, vertical rack bars rigid with the frame, pinions rigid with said axles, means for holding the pinions in engagement with the rack bars, levers for rotating said axles, and means for locking the axles against rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,075,149. MOVING SIGN. JOHN B. HUTCHINSON, Grand Rapids, Mich. Filed Dec. 2, 1911. Serial No. 663,604. (Cl. 40—30.)

1. An oscillatory sign including in combination a bracket, upper and lower journal bearings secured to and



extending outwardly from the bracket, a vertical shaft journaled in said bearings, a horizontally disposed rock shaft journaled in the lower bearing, a triangular prism having three vertical plane sides and along one of its vertical edges secured to said vertical shaft, a beveled pinion secured to said vertical shaft, a segmental beveled gear fixed to the rock shaft to mesh with said beveled pinion on the vertical shaft, an arm on the rock shaft to actuate the same to oscillate the vertical shaft and swingingly oscillate said triangular prism, and means to operate said arm.

2. An oscillatory sign including in combination a bracket, upper and lower journal bearings secured to and extending outwardly from the bracket, a vertical shaft journaled in said bearings, a horizontally disposed rock shaft journaled in said lower bearing, a triangular prism having three vertical plane sides and along one of its vertical edges secured to said vertical shaft, a beveled pinion secured to said vertical shaft, a segmental beveled gear fixed to the rock shaft to mesh with said beveled pinion on the vertical shaft, an arm on the rock shaft to actuate the same to oscillate the vertical shaft and swingingly oscillate said rectangular prism, and means carried by the bracket and operatively connected to said arm to actuate the latter.

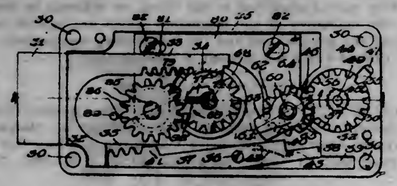
3. An oscillatory sign including in combination a bracket, upper and lower bearings secured to and extending outwardly from said bracket, a vertically disposed oscillatory shaft carried by said bearings and spaced from the bracket, a display device consisting of a triangular prism having three vertical planes and mounted on said shaft at one of its vertical edges, and means for oscillating the shaft to swing the triangular prism backwardly and forwardly on opposite sides of the vertical shaft toward and away from said bracket.

1,075,150. HAMMOCK-SUPPORT. HARLEY H. JONES, Medford, Mass., assignor to Frank C. Fellows, Medford, Mass. Filed Oct. 17, 1912. Serial No. 726,232. (Cl. 5—32.)

1. The combination with a horizontal rod; of a pair of legs at the end thereof; means for holding the tops of said legs secured to the rod; a base member pivotally connected with one of said legs and adapted to extend across to the other; a headed projection extending from the other leg; an undercut notch in the base member adapted to receive said projection; and means for locking said projection in said notch.

2. The combination with a horizontal rod, of a pair of legs at the end thereof, said legs being pivotally connected together near the top; means for holding said legs secured to said rod, when the lower ends of said

1,075,129. LOCK. BRUCE BORLAND, Chicago, Ill. Filed Feb. 8, 1906, Serial No. 300,074. Renewed Mar. 13, 1913. Serial No. 754,127. (Cl. 70—70.)



1. In a permutation lock, a secondary tumbler having a predetermined operative position, a primary tumbler geared into the secondary tumbler and capable of moving the same to said predetermined position by its own motion to another predetermined position, the primary tumbler being provided with differently positioned steps one of which is engaged by the key ward according to the length of the key ward, and means for disengaging the secondary tumbler from the primary tumbler so that the predetermined position of the primary tumbler may be changed and the secondary tumbler reëngaged.

2. In a permutation lock, a plurality of secondary tumblers having a common predetermined operative position, a primary tumbler geared into each secondary tumbler and capable of moving the same to said predetermined position by its own motion to another predetermined position, the said primary tumbler being provided with differently positioned steps one of which is engaged by the key ward according to the length of the key ward, and means for simultaneously disengaging all of the secondary tumblers from the primary tumblers so that the predetermined positions of the primary tumblers may be changed and the secondary tumblers reëngaged.

3. In a lock, the combination with a bolt and a locking dog therefor, of means to release the dog, and key-operated tumblers to coöperate with the dog to retract the bolt.

4. In a lock, the combination with a bolt and a locking dog therefor, of means to release the dog, and key operated gears for communicating motion to the dog to retract the bolt.

5. In a lock, the combination with a bolt and locking dog therefor, of tumblers, and key operated gears to first turn the tumblers into position to permit of the unlocking of the dog and then retract the bolt by coöperating with the dog, and means to release the dog.

[Claims 6 to 23 not printed in the Gazette.]

1,075,140. LOCOMOTIVE BLOWER AND STACK. REGINALD MOORE BOWMAN, Baltimore, Md. Filed Oct. 30, 1912. Serial No. 728,658. (Cl. 110—150.)



1. A device of the character described, comprising steam actuated mechanism for producing an air draft for the double purpose of facilitating combustion and lifting smoke, steam actuated mechanism for the sole purpose of lifting smoke, and means controllable by variations in steam tension for shifting a supply of steam from one of said mechanisms to the other.

2. A device of the character described, comprising a smoke stack, a nozzle directed thereinto for aspirating an air current therein, a second nozzle disposed adjacent to said stack for lifting smoke therefrom, pipes leading to said nozzles respectively, valve mechanism connected with said pipes and controllable by variations in steam pressure for automatically opening one of said pipes and closing the other, and means for admitting steam to said valve mechanism.

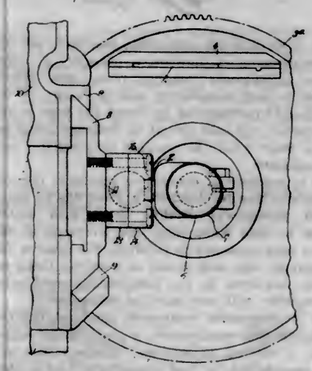
3. A device of the character described, comprising a smoke pipe, a nozzle extending thereinto for the double purpose of producing an air draft therein and of ejecting smoke therefrom, a second nozzle disposed adjacent to said smoke stack for lifting smoke discharged from the latter, pipes leading to said nozzles respectively, a double valve connected to said pipes for opening and closing said pipes as a unit, an automatic valve connected with said pipes and adapted to maintain one of said pipes closed and the other open, and means for applying steam pressure to said valve mechanism.

4. A device of the character described, comprising a smoke stack, a nozzle directed thereinto, another nozzle located outside of said smoke stack, pipes leading to said nozzles respectively, valve mechanism common to both of said pipes and controllable by variations in steam pressure for the purpose of opening one pipe while closing another depending upon the degree of steam pressure to which said valve mechanism is subjected, and means for directing steam into said valve mechanism.

5. A combination of a smoke stack, mechanism for creating an air draft therein, mechanism independent of said air draft for lifting smoke from said smoke stack automatically, valve mechanism provided with a movable valve member for maintaining one of said mechanisms active while the other is idle, said valve mechanism being controllable selectively by differences in steam pressure, and means for subjecting said valve mechanism to steam pressure.

[Claim 6 not printed in the Gazette.]

1,075,141. MOLD-CARRIER OF MACHINES FOR CASTING PRINTING-BARS. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 13, 1911. Serial No. 638,282. (Cl. 199—13.)



1. In a typographical composing machine, the combination of a mold and supporting means therefor, the said supporting means comprising a universal joint, so that the mold may rock about a plurality of intersecting axes in order to insure its tight contact with the other casting devices.

2. In a typographical casting machine, the combination of the frame, the mold carrier, and a universal joint connection between them to permit the mold carrier to rock or tilt.

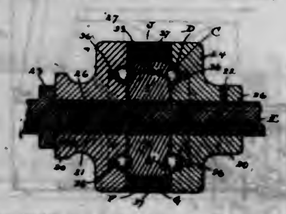
3. In a machine for casting printing bars, the combination of mold wheel; mold wheel bearing; mold for the printing bar; mold wheel slide; stem fast on the mold wheel bearing; and a loose connection between the stem and the mold wheel slide, adapted to allow the mold wheel to be rocked as operative contact between it and the row of matrices, is being made.

4. In a machine for casting printing bars, the combination of mold wheel; mold wheel bearing; mold for a printing bar; mold wheel slide; stem fast on the mold wheel bearing; and a ball and socket joint between the said slide and stem.

5. In a typographical casting machine, the combination of the mold wheel, the mold wheel slide, and a universal joint between the wheel and slide.

[Claims 6 and 7 not printed in the Gazette.]

1,075,142. DIFFERENTIAL COUPLING DEVICE. JOSEPH H. DEMING, Middletown, Conn., assignor of one-half to Oscar Nelson, Middletown, Conn. Filed Oct. 5, 1912. Serial No. 724,058. (Cl. 74—34.)



1. A mechanical movement comprising a pair of end members, rotatively mounted, and having each a series of notches and a middle member positioned between the said end members, and provided with a raceway, a set of balls in the said raceway and engaged with the said notches, and serving as means for interconnecting the said end members, and the said end members having their axes in alinement.

2. A differential coupling device comprising a middle member rotatively mounted, a pair of end members, the said middle member provided with a raceway in a plane in parallelism with the axis, balls in the said raceway, said balls at the lateral ends of the said raceway exposed beyond the end faces of the said middle member, and the said end members provided each with a set of notches arranged concentric with the said axis and suitable for engaging with the said balls at the lateral ends of the said raceway, and a retaining device on the ends of the said middle member and serving to retain the said balls in the raceway.

3. A differential coupling device comprising a middle member and a pair of end members, a coupling device operatively interconnecting the said end members and comprising a set of balls and a raceway therefor, and a portion of the said balls being exposed beyond the lateral end faces of the said middle member, means attached to the said middle member for retaining the said balls in the said raceway.

4. A differential coupling device comprising a middle member and a pair of end members rotatively mounted, the said end members provided each with a set of notches arranged concentric with the axis, the said middle member comprising a hub portion, a raceway on the outer periphery of the said hub portion concentric with a radius, balls in the said raceway, and means for retaining the said balls in the said raceway.

5. A differential coupling device comprising a middle member and a pair of end members rotatively mounted, the said end members provided each with a set of notches arranged concentric with the axis, the said middle member comprising a hub portion having a raceway on the outer periphery concentric with a radius, balls in the said raceway, and means for housing the said balls in the said raceway, said means comprising a ring portion positioned exterior to the said hub portion.

[Claims 6 to 9 not printed in the Gazette.]

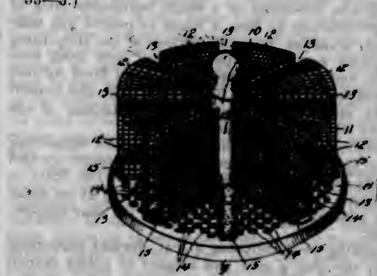
1,075,143. PROCESS OF PRODUCING WHITE LEAD. EDWIN EUSTON, St. Louis, Mo. Filed Apr. 28, 1913. Serial No. 764,097. (Cl. 134—75.)

1. The hereindescribed process of producing white lead consisting in the admixture of precipitated basic lead carbonate containing less than 11.3 per cent. carbon dioxid with precipitated basic lead carbonate containing more than 11.3 per cent. carbon dioxid in proportions to form a pigment containing approximately 11.3 per cent. to 14.5 per cent. carbon dioxid.

2. The process of manufacturing white lead, consisting first, in precipitating, by carbon dioxid gas from basic lead acetate solution, maintained alkaline, basic carbonate of lead containing less than 11.3 per cent. carbon dioxid, second, in separately precipitating, by carbon dioxid gas from a basic lead acetate solution, eventually acid, carbonate of lead containing more than 11.3 per cent. carbon dioxid, and third, in mixing the said two products, in proportions to form a pigment containing 11.3 per cent. to 14.5 per cent. carbon dioxid.

3. The process of manufacturing white lead consisting, first in precipitating basic carbonate of lead by carbon dioxid gas from basic lead acetate solution, maintained alkaline, second, separately forming a precipitate by carbon dioxid gas from basic lead acetate solution, eventually acid, and third, mixing the two products thus obtained in proportions to form a pigment containing 11.3% to 14.5% carbon dioxid.

1,075,144. TOASTER. FREDERICK A. GREARSON, Barre, Vt. Filed Nov. 6, 1912. Serial No. 729,882. (Cl. 53—5.)



1. A bread toaster comprising a base, flame directing and toast receiving compartments arranged upon the base, said compartments being formed from a single piece of reticulated material, U-shaped plates for the toast compartments, and each of the said plates being provided with a coating of fire proof material.

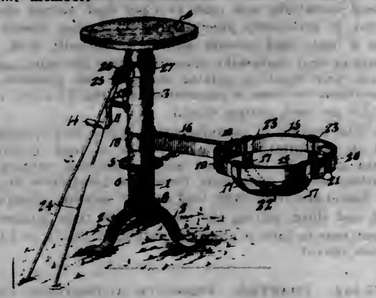
2. In a bread toaster, a flanged base provided with openings, a reticulated member secured to the base, the said member being bent to provide continuous sides provided with alternating tops and bottoms, the bottoms being arranged upon the base and adjacent the openings thereof, substantially U-shaped plates arranged upon the bottoms, means provided by the plates for retaining the plates upon the bottoms, and each of the plates having a coating of fire proof material.

3. In a bread toaster, a base having a continuous peripheral flange, said base having a central post, said base being further provided with openings, a mesh, said mesh being also connected with the base, and being bent to provide continuous side walls having consecutive tops and bottoms, the tops being arranged above the openings in the base, and the bottoms being arranged upon the nonperforated portion of the base, and flanged plates for the bottoms.

1,075,145. MILKING-STOOL. LOUIS HANSON, Cottonwood, Idaho. Filed Mar. 17, 1913. Serial No. 755,004. (Cl. 31—13.)

1. A milking stool comprising a vertical standard, a seat having a tubular member slidable on the standard, a spring mounted on the standard and arranged to yieldably support the tubular member and adapted to move the same upwardly on the standard, means for securing the tubular member in its adjustment, and a milk pail support arranged at a point between the seat and the lower end of the standard.

2. A milking stool comprising a vertical standard provided at its lower end with legs, a tubular member slidable on the standard and provided at its lower end with a flange, a coiled spring mounted on the lower portion of the standard and fitting against the said flange, a screw carried by the tubular member and arranged to engage the standard, and a milk pail support mounted on the tubular member.



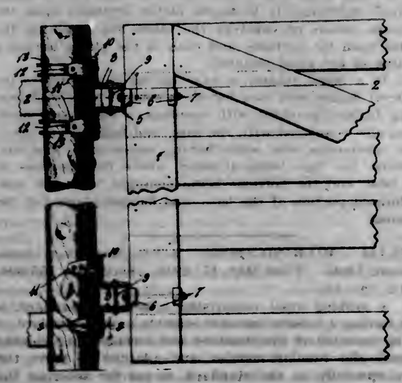
3. A milking stool including a vertical standard, a horizontal arm consisting of a single continuous strip of metal bent centrally to form a collar to receive and slide on the said standard, the side portions of the strip being fitted together and the terminals of the strip being bent outwardly, and a basket comprising a band fitted against and secured to the terminals of the said strip, and crossed supporting strips forming the sides and bottom of the basket and secured to the said band.

4. A milking stool including a seat, upright supporting means for the seat, a milk pail support or holder carried by the said supporting means, and an adjustable brace or prop arranged at an inclination and provided at its upper end with a collar adjustably embracing the seat supporting means.

5. A milking stool including a seat, upright supporting means for the seat, a milk pail support or holder carried by the said supporting means, an inclined brace or prop composed of upwardly converging sides and an eye connecting the upper terminals of the sides, and a collar adjustably embracing the seat supporting means and provided with a projecting ear or portion having an opening into which the said eye is linked.

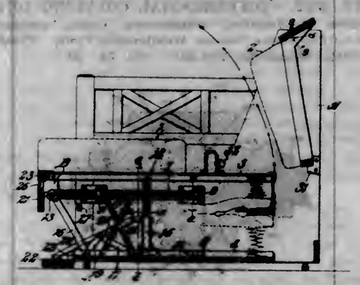
[Claim 6 not printed in the Gazette.]

1,075,146. HINGE. JOHN W. HAYES, Bayle City, Ill. Filed Dec. 9, 1912. Serial No. 735,706. (Cl. 16—40.)



The improved gate-hinge member, comprising a U-shaped hinge-member, a pair of yokes, a bolt for uniting the hinge member and yokes, a second hinge member constructed of a single piece of strap iron, means for pivotally connecting the hinge-members, a pair of metallic straps secured to the second hinge-member, loops at the free ends of said straps, and bonds for securing said straps to a post.

1,075,147. FOLDING DAVENPORT. GUILFORD W. HENRY, St. Louis, Mo. Filed Jan. 13, 1913. Serial No. 741,738. (Cl. 5—51.)



1. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame which extends under the lower edge of said back when the davenport is closed, horizontally movable slides that carry said mattress-supporting means, open guiding members on the end frames in which said slides are mounted, and removable devices for preventing said slides from jumping out of said guiding members.

2. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame having a seat portion on one side thereof and a vertically movable frame that lies under said swinging frame when the davenport is closed, said mattress-supporting means projecting rearwardly beyond the lower edge of said back when the davenport is closed, mechanism for automatically raising and lowering said vertically movable frame when the swinging frame is opened and closed, vertically disposed guides on which said vertically movable frame travels, and means for enabling both frames of the mattress-supporting means to be moved horizontally toward and away from said back.

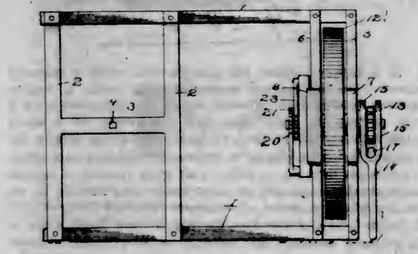
3. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising a swinging frame having a seat portion on one side thereof and a vertically movable frame that lies under said swinging frame when the davenport is closed, said mattress-supporting means projecting rearwardly beyond the lower edge of said back when the davenport is closed, mechanism for automatically raising and lowering said vertically movable frame when the swinging frame is opened and closed, horizontally movable members on the end frames which carry the mattress-supporting frames and the mechanism for operating same, and vertically-disposed guides on said members for the vertically movable frame.

4. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising two horizontally disposed superimposed sections which normally project rearwardly under the lower edge of said back when the davenport is closed, a horizontally movable structure on the end frames, means for pivotally connecting the top section of the mattress-supporting means to said structure, vertically disposed guides on said structure on which the lower section of the mattress-supporting means travels, and means for raising and lowering said lower section when said top section is swung into and out of operative position.

5. In a davenport or similar article, end frames, a back, a mattress-supporting means comprising two horizontally disposed superimposed sections which normally project rearwardly under the lower edge of said back when the davenport is closed, a horizontally movable structure on the end frames separate and distinct from said sections, means for pivotally connecting the top section of the mattress-supporting means to said structure, vertically disposed guides on said structure on which the lower section of the mattress-supporting means travels, means for raising and lowering said lower section when said top section is swung into and out of operative position, and means on said structure that supports said top section when the davenport is closed.

[Claims 6 to 11 not printed in the Gazette.]

1,075,149. MOVING SIGN. JOHN B. HUTCHINSON, Grand Rapids, Mich. Filed Dec. 2, 1911. Serial No. 663,604. (Cl. 40—30.)



1. In a running gear for vehicles, a traction wheel, a stub axle upon which said wheel is journaled, a vertical rack bar, a pinion rigid with said axle and adapted for engagement with the rack bar, and means for rotating said axle, whereby the same may be raised or lowered with respect to said rack bar.

2. In a running gear of the character described, a traction wheel, a stub axle upon which said wheel is journaled, a pinion rigid with said axle, a rack bar engaged by said pinion, means for rotating the axle, whereby the same may be raised and lowered with respect to said rack bar, and means for locking the axle against rotation.

3. In a device of the character described, a running gear for wheeled vehicles having spaced-apart bars, inverted U-shaped portions intermediate of their ends, one of the legs of each of said U-shaped portions provided with a rack bar, a stub shaft, gear pinions secured to said stub shaft and meshing with said rack bars, a traction wheel journaled on said stub shaft, and means to rotate said shaft to adjust it relatively to said cross bars.

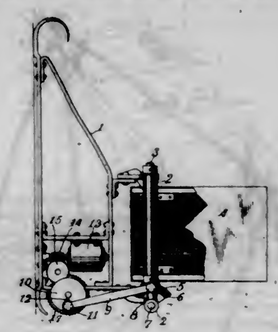
4. In a device of the character described, a running gear for wheeled vehicles, bars spaced apart, inverted U-shaped portions in said bars intermediate of their ends, one of the legs of each of said U-shaped portions being provided with a rack bar, a stub shaft, pinions secured to said stub shaft and meshing with said rack bars, the traction wheel journaled on said stub shaft, a pinion secured to said stub shaft, a lever having one of its ends bifurcated and the arms thereof formed with longitudinal slots slidably engaging the stub shaft, said arms of the bifurcated portion inclosing the last mentioned pinion, a lug extending from said lever between the arms of the bifurcated portion and adapted to engage between the teeth of said pinion, ratchet wheels secured to said stub shaft, the teeth of said ratchet wheels pointing in opposite directions, and pawls engaging said ratchet wheels.

5. In a device of the character described, a frame, traction wheels supporting the same, stub axles upon which said traction wheels are journaled, vertical rack bars rigid with the frame, pinions rigid with said axles, means for holding the pinions in engagement with the rack bars, levers for rotating said axles, and means for locking the axles against rotation.

[Claims 6 and 7 not printed in the Gazette.]

1,075,149. MOVING SIGN. JOHN B. HUTCHINSON, Grand Rapids, Mich. Filed Dec. 2, 1911. Serial No. 663,604. (Cl. 40—30.)

1. An oscillatory sign including in combination a bracket, upper and lower journal bearings secured to and



extending outwardly from the bracket, a vertical shaft journaled in said bearings, a horizontally disposed rock shaft journaled in the lower bearing, a triangular prism having three vertical plane sides and along one of its vertical edges secured to said vertical shaft, a beveled pinion secured to said vertical shaft, a segmental beveled gear fixed to the rock shaft to mesh with said beveled pinion on the vertical shaft, an arm on the rock shaft to actuate the same to oscillate the vertical shaft and swingingly oscillate said triangular prism, and means to operate said arm.

2. An oscillatory sign including in combination a bracket, upper and lower journal bearings secured to and extending outwardly from the bracket, a vertical shaft journaled in said bearings, a horizontally disposed rock shaft journaled in said lower bearing, a triangular prism having three vertical plane sides and along one of its vertical edges secured to said vertical shaft, a beveled pinion secured to said vertical shaft, a segmental beveled gear fixed to the rock shaft to mesh with said beveled pinion on the vertical shaft, an arm on the rock shaft to actuate the same to oscillate the vertical shaft and swingingly oscillate said rectangular prism, and means carried by the bracket and operatively connected to said arm to actuate the latter.

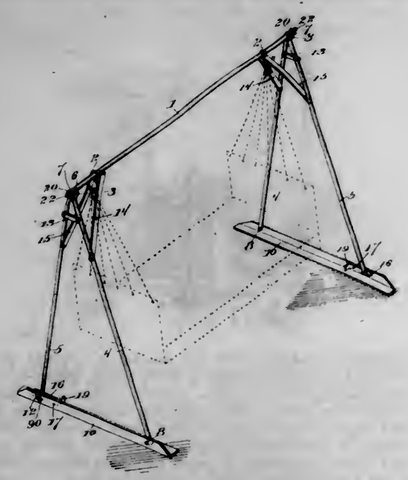
3. An oscillatory sign including in combination a bracket, upper and lower bearings secured to and extending outwardly from said bracket, a vertically disposed oscillatory shaft carried by said bearings and spaced from the bracket, a display device consisting of a triangular prism having three vertical planes and mounted on said shaft at one of its vertical edges, and means for oscillating the shaft to swing the triangular prism backwardly and forwardly on opposite sides of the vertical shaft toward and away from said bracket.

1,075,150. HAMMOCK-SUPPORT. HARLEY H. JONES, Medford, Mass., assignor to Frank C. Fellows, Medford, Mass. Filed Oct. 17, 1912. Serial No. 726,232. (Cl. 5—32.)

1. The combination with a horizontal rod; of a pair of legs at the end thereof; means for holding the tops of said legs secured to the rod; a base member pivotally connected with one of said legs and adapted to extend across to the other; a headed projection extending from the other leg; an undercut notch in the base member adapted to receive said projection; and means for locking said projection in said notch.

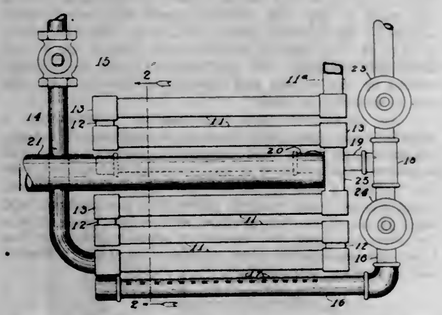
2. The combination with a horizontal rod, of a pair of legs at the end thereof, said legs being pivotally connected together near the top; means for holding said legs secured to said rod, when the lower ends of said

legs are spread and the upper ends brought together with the rod between; a base member pivotally connected with one of said legs; a headed pin projecting laterally from



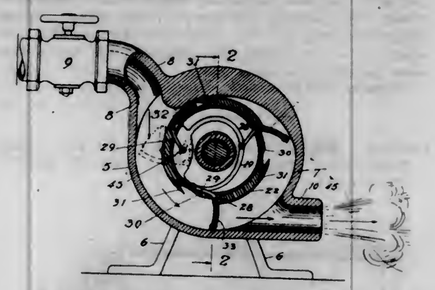
the other leg; an undercut notch in the base member adapted to receive said pin; and a hook pivotally connected to the base member and adapted to hold said pin.

1,075,151. SUPERHEATING STEAM-GENERATOR. PETER JORGENSON, Chicago, Ill. Filed Oct. 3, 1912. Serial No. 723,681. (Cl. 122—41.)



A super-heating steam generator including a plurality of superimposed groups of conduits, each group comprising a plurality of rows of conduits arranged in superimposed relation, the conduits of the respective rows of each group being arranged in staggered relation, the adjacent rows of the respective groups being spaced apart a distance in excess of the spacing of the conduits of any one group, the conduits of each group and of each row of each group being in communication, and the conduits of the upper row of the lower group being in communication with the conduits of the lower row of the upper group, means for delivering water to the lower row of conduits of the lower group, an outlet communicating with the upper row of the upper group, and means arranged beneath each group and fed from a common source for heating the conduits of that particular group only.

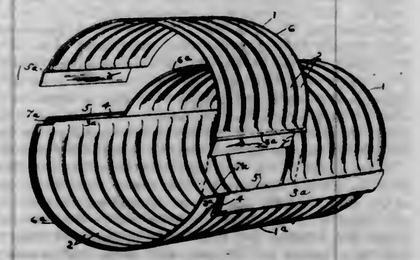
1,075,152. ROTARY ENGINE. PETER JORGENSON, Chicago, Ill. Filed Feb. 12, 1913. Serial No. 747,859. (Cl. 121—87.)



1. In a rotary engine, the combination with a suitably mounted cylinder having communication with a supply of motive fluid and an exhaust outlet and provided with a cavity having its peripheral wall convolute, of a shaft rotatably journaled in the cylinder and having means for the transmission of power, a sleeve surrounding said shaft and extended into the cylinder and fixed thereto, a hollow rotor rotatably mounted on said sleeve and having in its outer periphery a series of recesses extended from end to end thereof, said rotor also having at the front edge of each of said recesses an opening, each of said recesses having intermediate its edges a depression, a plate fixed on the sleeve near each end of the rotor and each having a cam groove on its inner surface, a series of wing pistons pivotally mounted on the rotor at one of the edges of the recesses and adapted to normally lie in said recesses, a trap pivotally mounted on the rotor at the opposite edge of each of the recesses thereof and having its front and rear edges tapered, an arm extended from each of the wing pistons through said openings in the rotor, and a cross-rod on the inner portion of each of said arms having its ends engaging the said cam grooves.

2. In a rotary engine, an automatically expanding wing piston consisting of two plates spaced apart in parallelism and having extended from one of the edges of said plates an arm provided with a cross-rod at its free end, one of said plates having on its inner surface a longitudinally extended rib, a bar movably mounted between the said plates at their edges opposite said arm, a spring interposed between said bar and said rib, said bar having near its ends a pin projecting from each side thereof, and a bar interposed between said plates at each end thereof and each having an oppositely inclined slot through which said pins are extended.

1,075,153. SHEET-METAL DRAIN-PIPE. WILLIAM N. KLOTZ, Canton, Ohio, assignor to The Canton Culvert Company, Canton, Ohio, a Corporation of Ohio. Filed Sept. 4, 1908. Serial No. 451,655. (Cl. 61—9.)



1. A sheet-metal pipe including a series of sections having one of each opposing side edges twice folded to form a wedge groove in which the other one is entered.

2. A transversely-curved and annularly-corrugated pipe section having one side edge flattened and twice folded to form a wedge groove and the other flattened to form a tongue.

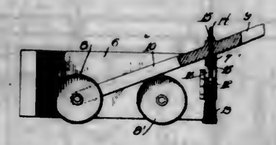
3. A transversely-curved annularly-corrugated pipe section having one side edge flattened and shaped to form a wedge groove and the other flattened to form a tongue.

4. A transversely-curved annularly-corrugated sheet-metal pipe section having its side edges flattened and one side edge twice folded on itself to form a clamping groove.

5. A transversely-curved annularly-corrugated sheet-metal pipe section having its side edges flattened and one side edge twice folded on itself to form a wedge groove.

[Claims 6 to 8 not printed in the Gazette.]

1,075,154. SNOW-REMOVER. GEORGE H. MANSFIELD, Canton, Ohio. Filed Feb. 1, 1913. Serial No. 745,665. (Cl. 37—35.)



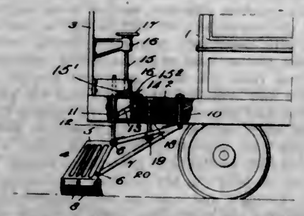
1. A V-shaped scraper including forwardly converging wings or side members, a cross bar spacing and connecting the rear ends of the wings, wheels whereby the scraper is supported with the lower edges of the wings clear of the ground, and a ground engaging brush connected with the cross bar for vertical adjustment.

2. A scraper comprising forwardly converging wings or side members, a pair of wheels arranged tandem between the wings to support the latter with their lower edges clear of the ground, a cross bar connecting and spacing the rear ends of the wings, and a ground engaging brush connected with the cross bar.

3. A scraper comprising forwardly converging wings or side members, a pair of wheels arranged tandem between the side members to support the latter with their lower edges clear of the ground, a cross bar spacing and connecting the rear ends of the side members, a handle secured on the cross bar, said handle being extended downwardly and forwardly between the side members and bifurcated to accommodate the wheels, and a pin supporting the front wheel and extending through the handle to secure the latter.

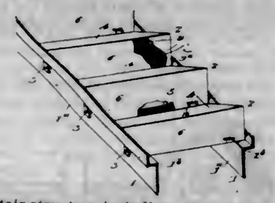
4. A scraper comprising forwardly converging wings or side members, a cross bar spacing and connecting the rear ends of the side members, wheels whereby the scraper is supported with the lower edges of the wings clear of the ground, a handle secured on the cross bar, a brush guided for vertical movement between the wings, and means for securing the brush at various adjustments.

1,075,155. STREET-CAR FENDER. THOMAS W. MCKIERNAN, Pottsville, Pa. Filed Apr. 8, 1913. Serial No. 759,761. (Cl. 105—254.)



In combination with a car body, a fender pivotally connected to the body, a shaft journaled upon the body and provided with a member having a cam groove, a rod pivoted to the fender and having a roller located in said groove.

1,075,156. METALLIC STAIR STRUCTURE. JOHN T. NESDALL, New York, N. Y., assignor to Hampden L. Johnstone, Glen Ridge, N. J. Filed Aug. 2, 1911. Serial No. 641,965. (Cl. 189—43.)



1. A stair-structure including, as components, a stringer and a combined riser and tread, said riser being provided at its ends with angulated end-portions bent at approximately right angles to and extending away from the faces of the riser and in parallelism with each other and with the stringers and having their upper edges underlying and engaging the lower face of the tread approximately throughout its width to support the same.

2. A stair-structure including, as components, a plurality of stringers, and a combined riser and tread, said riser being provided at its ends with angulated end-portions bent at approximately right angles to and extending away from the faces of the riser and in parallelism with each other and with the stringers and having their upper edges underlying and engaging the lower faces of the tread approximately throughout its width to support the same.

3. A stair-structure including, as components, a plurality of stringers, a combined riser and tread, said riser being provided at its ends with angulated end-portions bent at approximately right angles to and extending away from the faces of the riser and in parallelism with each other and with the stringers and having their upper edges underlying and engaging the lower faces of the tread approximately throughout its width to support the same, and interengaging means carried by the stringers and end-extensions to effect an interlocking of the riser and tread to the stringers.

4. A stair-structure including, as components, a pair of stringers, and a series of stair-units, each of which includes a combined riser and tread, the riser being provided at its ends with angulated end-portions or wings bent at approximately right angles to and extending away from the faces of the riser and in parallelism with each other and with the stringers and having their upper edges formed non-integral with, and extending in an approximately horizontal direction and along, the lower face of the tread and in immediate contact therewith to support said tread.

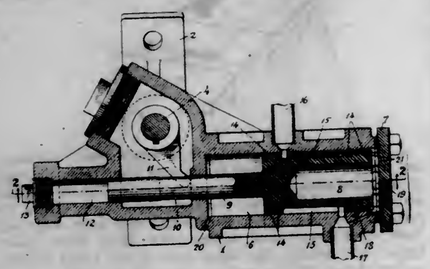
5. A series of stair-components, one of which includes supporting stringers provided with stair-securing means, and another of the components including a series of stair-units, each of which comprises a one-piece tread and riser, one of which carries extensions bent to form end-pieces extending in parallelism with each other and with the stringers, said end-pieces being formed non-integral with said other unit and extending in an approximately horizontal direction and along the lower face of said other unit and in direct contact therewith to support the same, said end pieces also carrying means adapted to coöperate with the stair-attaching means on the stringers.

[Claims 6 to 15 not printed in the Gazette.]

1,075,157. AUTOMATIC COMBINED DAMPER AND DRIFTING-VALVE. HENRY B. OATLEY, Flushing, N. Y., assignor to Locomotive Superheater Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 19, 1913. Serial No. 762,251. (Cl. 121—14.)

1. In a steam engine, the combination of a casing provided with valve chamber, a slidable piston provided with a peripheral groove within said chamber, a damper operatively connected with said piston to move the same in one direction and tending to remain normally closed, a

steam pipe between valve chamber and boiler always open into the groove, and a second steam pipe between valve chamber and engine cylinder, always open to one end of the piston but closed to the groove except when the damper is closed, pressure of steam against the piston end and the force due to the damper acting oppositely to one another.

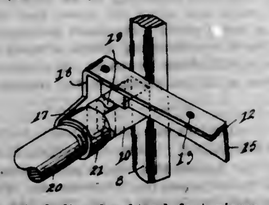


2. In a steam engine, the combination of a casing provided with valve chamber, a slidable piston provided with a peripheral groove within said chamber, a damper directly connected with said piston to move the same in one direction and tending to remain normally closed, a steam pipe between valve chamber and boiler always open into the groove, and a second steam pipe between valve chamber and engine cylinder, always open to one end of the piston but closed to the groove except when the damper is closed, pressure of steam against the piston end and the force due to the damper acting oppositely to one another.

3. In a steam engine, the combination of a valve chamber, a hollow slidable piston open at one end and provided with a peripheral groove within said chamber, a damper directly connected to said piston so as to move therewith, a pipe between boiler and valve chamber which opens only into the groove, and a second pipe between valve chamber and engine cylinder opening into the groove when the damper is closed and closed to the groove when the damper is open said second pipe having a by-pass always open into the open end of the piston.

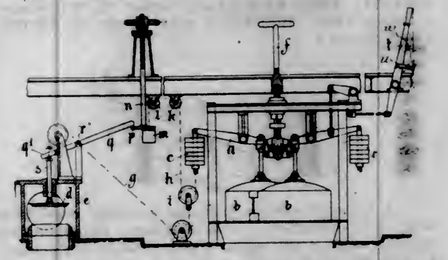
4. In a steam engine, a casting adapted to be bolted to the boiler and provided with bearings to take a damper shaft and also with a cylindrical valve chamber, a slidable piston having an operating rod for connection to said damper shaft and a peripheral groove, a pipe between boiler and valve chamber which opens only into the groove, a second pipe between valve chamber and engine cylinder opening into the groove when the damper is closed and closed to the groove when the damper is open said second pipe having a by-pass always open into the end of the valve chamber opposite said operating rod.

1,075,158. BEDSTEAD. HENRY JOHN QUINCY, Brooklyn, N. Y., assignor of one-half to Frederick J. Quincy, Brooklyn, N. Y. Filed July 19, 1913. Serial No. 779,988. (Cl. 5—55.)



A bedstead including head and foot pieces, supporting blocks formed upon the same and extending toward the transverse center of the bedstead, said blocks being rectangular in shape and formed with vertical sockets opening upon the outer faces thereof, a spring supporting frame including end bars which rest upon the supporting blocks, side pieces formed upon the extremities of the end bars and engaging the outer faces of the supporting blocks, said side pieces extending below the supporting blocks and projecting longitudinally beyond the inner ends thereof, projections formed upon the side pieces for reception within said sockets, internally threaded sockets rigid with the inner faces of the side bars and abutting against the ends of the supporting blocks, and side bars threaded into said last mentioned sockets to connect the end bars.

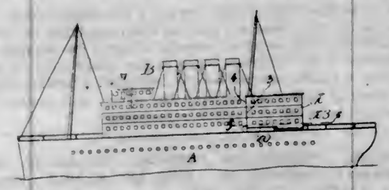
1,075,159. GAS-CONTROLLING MEANS FOR REGENERATIVE FURNACES. WILHELM REITMEISTER, Siegburg, Germany. Filed Feb. 6, 1913. Serial No. 746,569. (Cl. 75—124.)



1. In a gas reversing valve, having a gas stop valve controlled thereby: means transmitting the movements of the reversing valve to the gas stop valve and including an interposed pulley block, means to adjust said pulley block, and means to positively connect said adjusting means to the gas stop valve for closing the latter.

2. In a gas reversing valve, having a gas stop valve controlled thereby, a rope at one end connected to the gas stop valve, a free pulley connected to the other end of the said rope, a rope guided around the said free pulley, and connected to the reversing bell, a weight loading said rope, a spindle to adjust said weight, and a lever connecting said adjusting spindle to the spindle of the gas stop valve for closing the latter.

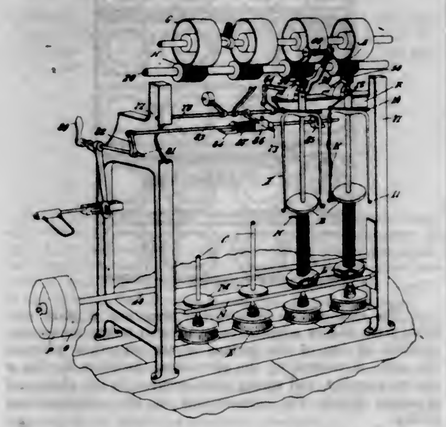
1,075,160. VESSEL. CARL R. SEAQUIST, Sister Bay, Wis. Filed Oct. 11, 1912. Serial No. 725,234. (Cl. 9—12.)



1. A vessel provided with normally communicating fore and aft cabin sections, the fore section being secured to the deck of the vessel, the aft section having adjustable engagement with the vessel, means for closing communication between the sections at the period of separation of the aft section from the deck, apertured keepers rising from the deck and arranged wholly without the plane of the aft section and disposed adjacent the corners thereof, a controlling shaft carried by the aft section, and rods connected with the controlling shaft and lying without the sides of the aft section and movable to engage in the keepers, so as to hold the aft sections operatively associated with the deck and fore section, respectively, and means for holding the controlling shaft normally against movement so as to effect confinement of the rods in the keepers.

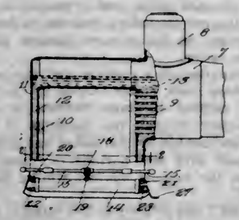
2. A vessel having its cabin provided with a fixed fore portion and a detachable aft portion, keepers rising from the deck of the vessel and disposed immediately at the corners of the aft section, a controlling shaft carried by the aft section and provided at its ends with fixed disks, rods eccentrically mounted upon the disks and adapted to be projected into the keepers, a rack member, a lever carried by the shaft, and means on the lever operable to engage the rack member, so as to hold the shaft normally against movement.

1,075,161. DEVICE FOR HANDLING BROKEN ENDS. ABRAHAM G. SNIDER, Lawrence, Mass. Filed May 28, 1910. Serial No. 563,932. (Cl. 118—12.)



In a stop motion for drawing boxes, a plurality of delivery rolls, a plurality of spools each covered with tenacious material and each so carried by a rocker arm as to be in frictional contact with one of the delivery rolls, said rocker arms which are each pivoted to the frame of the machine, a pivot shaft, a plurality of arms fixed thereto each connected with a rocker arm, a trigger arm carried by the pivot shaft, a spring actuated shipper rod, and a collar carried thereby at such a point as to engage the trigger arm.

1,075,162. AUTOMATIC MUD-DRUM FOR BOILERS. ALEXANDER FRANKLIN SHREVE, Hoisington, Kans., assignor of one-half to Gilbert Seite, Hoisington, Kans. Filed May 6, 1913. Serial No. 765,776. (Cl. 122—393.)



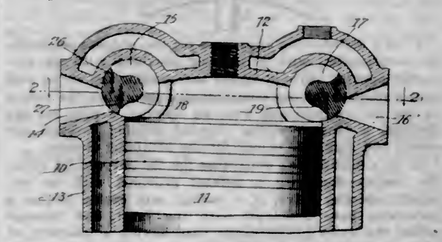
1. A device of the character described comprising a boiler, a mud ring communicating therewith, a mud drum connected with said mud ring for receiving mud therefrom, means for venting said mud drum in order to convey into said mud drum material deposited in said mud ring, and means for opening said drum in order to discharge said material therefrom.

2. In a mud drum the combination of a hollow member provided with discharge valves for water, and also discharge valves for mud or sediment, a revoluble shaft extending into said hollow member, and baffle plates mounted upon said revoluble shaft and movable relatively to said hollow member.

3. The combination of a mud drum having the general form of a longitudinal cylinder, a pipe connected with said cylinder midway between the ends thereof in order to deliver into said mud drum deposits of mud or sediment, a plurality of baffle plates located within said drum, each plate provided with a lip bent to an angle relatively to the general axis of said drum, the baffle plates in half of said cylinder having their said lips bent in one direction and the baffle plates in the other half of said cylinder having their said lips bent in another direction for the purpose of promoting equality of distribution of material deposited within said cylinder, means for venting said cylinder in order to draw thereinto material precipitated in a boiler, and means for opening said cylinder in order to discharge said material.

4. A mud drum comprising a longitudinal hollow member having the general form of a cylinder, a revoluble shaft extending axially into said hollow member, a plurality of baffle plates mounted upon said revoluble shaft, each baffle plate being provided with a lip having a comparatively straight edge, said baffle plates being so arranged that the straight edges of said lips are arranged substantially in a common plane so that when said shaft is turned into a predetermined angular position, a clear space will be formed at the bottom of said cylinder, and means for venting said cylinder at the bottom thereof in order to discharge material deposited within said space.

1,075,163. INTERNAL-COMBUSTION ENGINE. NAPOLEON B. SIMPSON, Foxboro, Mass., assignor of forty-nine one-hundredths to Marshall T. Davidson, Brooklyn, N. Y. Filed Aug. 23, 1912. Serial No. 716,769. (Cl. 123—81.)



1. In an internal combustion engine, a cylinder, a valve chamber communicating with the interior of said cylinder, a port adapted to communicate with said valve chamber, a valve for closing said port and comprising a portion having a surface in the form of a surface of revolution fitting the interior of said chamber, and a stem formed integral with said portion, said portion having slots therein extending in the direction of the axis of said stem as and for the purpose described.

2. In an internal combustion engine, a cylinder, a cylindrical valve chamber communicating with the interior of said cylinder, a port adapted to communicate with said chamber, a valve fitting on the interior of said chamber and adapted to close said port, a stem for said valve, and means for holding said stem against lateral movement, said valve having a slot extending in the direction of the axis of the stem whereby the portion of the valve fitting said chamber is held against the same by the elasticity of the material of which the valve is made.

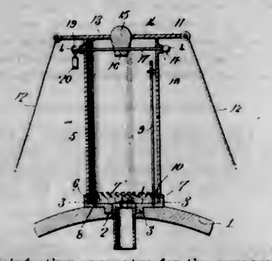
3. In an internal combustion engine, a cylinder, a cylindrical valve chamber communicating with the interior of said cylinder, a port adapted to communicate with said chamber and a valve for closing said port, said valve having a stem and a seat portion, the latter fitting the wall of said chamber, and slots cut in the seat portion of the valve and extending longitudinally thereof, whereby the seat portions are sprung against the wall of said chamber by the elasticity of the material of which the valve is made.

4. In an internal combustion engine, a valve chamber having a port in communication therewith, and a valve for said port having a seat portion, in the form of a surface of revolution fitting said chamber, said valve having a plurality of slots extending in the direction of the axis thereof and arranged in staggered relation, whereby said seat portion is sprung against the wall of said chamber by the elasticity of the material of which the valve is made.

5. In an internal combustion engine, a valve chamber having a port in communication therewith, and a valve for said port, having a cylindrical seat portion fitting said chamber, and adapted to be rocked on the axis of said seat portion, said valve having slots in its surface on opposite sides of the valve and arranged in staggered relation.

[Claim 6 not printed in the Gazette.]

1,075,164. DISINFECTING APPARATUS. FELIX J. SMITH, Findlay, Ohio. Filed Aug. 28, 1912. Serial No. 717,588. (Cl. 167—3.)



1. In a disinfecting apparatus for the purpose set forth, the combination with a member provided with an outwardly opening valve, a casing surrounding the valve, said casing adapted for the reception of a germicide, the casing having its top provided with an opening, a plug for the opening, a plug retaining element passing through the casing and plug, and a lock for the retaining element.

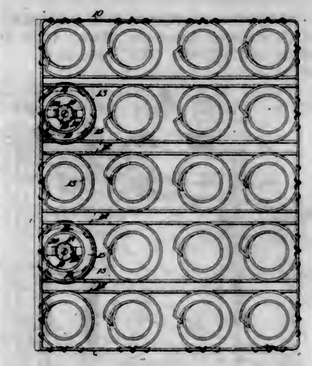
2. In a disinfecting apparatus for the purpose set forth, the combination with a member provided with an outwardly opening valve, of a casing, said casing having a removable base connected with the vault, and through which the valve projects, the base having a plurality of concentrically arranged depressions, one side of the casing being provided with inturned eyes, a rod passing through the eyes and adapted to engage with one of the depressions of the base to lock the casing to the base, the top of the casing being closed and being provided with a central opening, a plug for the opening, and a securing element, said casing being adapted to receive a germicide.

3. In a disinfecting apparatus of the class set forth, the combination with a member having an outwardly opening valve, a casing, a base for the casing having a central opening for the valve and removably secured to the member, means for locking the casing to the base, the said casing having its top provided with an opening, and a removable member for closing the opening, said casing adapted to receive a germicide.

4. In a disinfecting apparatus of the class set forth, the combination with a member having an outwardly opening valve, a casing, a flanged base for the casing, said base being centrally provided with an opening for the reception of the valve, a gravity locking member arranged within the casing and adapted to co-act with the base for retaining the casing upon the base, retaining rods connected with the top of the casing, said top being provided with an opening, and a closure for the opening, the said casing adapted to receive a germicide.

1,075,165. SEAT-CUSHION RETAINER. WATSON R. SMITH, Jackson, Mich. Filed July 2, 1913. Serial No. 777,087. (Cl. 5—29.)

1. The combination of a spring structure embodying a frame, springs mounted on the frame and a support for the structure, of a plate having fingers adapted to engage a lower convolution of one of the springs and provided with a central opening, spring arms carried by the plate and projecting over the opening, and a button secured to the support and adapted to pass through the opening of the plate and yieldably engaged by said spring arms.



2. The combination of a spring structure, a plate provided with fingers adapted to be secured to the lower convolution of one of the springs of the structure whereby the plate is carried by the structure, the plate having a central opening, and spring arms secured to the plate and arranged within the convolutions of the corresponding spring.

3. The combination of a spring structure and the support on which the structure rests, a plate provided with fingers adapted to be secured to the lower convolution of one of the springs of the structure, said plate having a central opening, a button secured to said support and adapted to project through the opening in said plate, and means carried by the plate and arranged within the spring to operatively engage the button and hold the spring structure against sliding movement off of said support.

4. The combination of a spring structure and the support on which the spring structure rests, plates provided with fingers adapted to embrace the lower convolutions of two of the springs of the structure whereby the plates are carried by the structure, each plate having an opening, spaced buttons secured to said support and adapted to project through the openings in said plates, and spring arms secured to each plate and arranged to operatively connect with the corresponding buttons to fasten and retain the structure on the support against sliding movement off of the latter.

5. The combination of a cushion and the support upon which the cushion rests, plates carried by the cushion and provided with central openings, buttons on the support adapted to project through the openings of said plates, and spring arms carried by the plates and adapted to operatively connect with said buttons to fasten and retain the cushion on the support against sliding movement off of the support.

[Claims 6 and 7 not printed in the Gazette.]

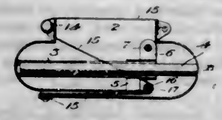
1,075,166. BRICKLAYER'S GAGE-LINE. WILLIAM O. SMYTH, Brilliant, Ohio. Filed June 26, 1912. Serial No. 705,996. (Cl. 72—132.)



1. A line block, comprising arms set at a right angle to each other, one of said arms being provided in its face with line grooves at different elevations, and a cross groove connecting the first-mentioned grooves.

2. A line block, comprising a segmental body having an open center, and arms projecting from said body and set at a right angle to each other with their bearing faces terminating in the open center of the body, one of said arms having a line groove extending the entire length of its bearing face, a transverse line groove intersecting the first-mentioned groove and extending to one of the side faces of the arm, and cord fastening means on said block.

1,075,167. TEMPORARY BINDER. EDWARD J. SONNENBURG, Riverside, Cal. Filed Jan. 22, 1912. Serial No. 672,679. Renewed Aug. 26, 1913. Serial No. 786,800. (Cl. 129—41.)



1. A temporary binder comprising two members movably connected together, contractible sleeves connected to one of the members and rods connected to the other member adapted to be received in the ends of the contractible sleeves, and means for clamping the contractible sleeves to the rods for locking the members against movement.

2. A temporary binder comprising two members movably connected together, contractible sleeves connected to one member, rods connected to the other member and received in the contractible sleeves, clamps engaging the contractible sleeves, and means for actuating the clamps whereby the contractible sleeves will be caused to engage the rods for locking the members against movement.

3. A temporary binder comprising two members movably connected together, contractible sleeves connected to one member, rods connected to the other member and received in the contractible sleeves, clamps engaging the contractible sleeves, a screw-threaded shaft engaging the clamps, and means for operating the shaft whereby the clamps are caused to engage the contractible sleeves and cause the sleeves to engage the rods for locking the members against movement.

4. A temporary binder comprising two members movably connected together, and flexible means for holding the leaves connected to one member and passing about the other whereby the members will maintain the flexible means taut at all periods.

5. A temporary binder comprising two members movably connected together, and flexible means for holding the leaves having the ends thereof connected to one of the members and said means being in engagement with the other member whereby the members will maintain the flexible means tuat at all periods.

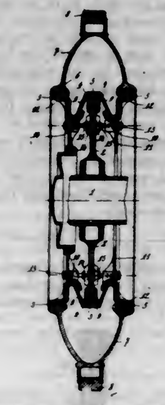
[Claim 6 not printed in the Gazette.]

1,075,168. ELASTIC ROAD-WHEEL. JACOBUS SPYKER, Amsterdam, Netherlands. Filed Aug. 13, 1910. Serial No. 576,945. (Cl. 152—46.)

1. An elastic road wheel comprising in combination, a hollow outer wheel chamber containing compressed air, an inner wheel, a flexible band between and connected with the two wheels, and fixed supporting partitions on the outer wheel engaging with the flexible band whereby the inwardly directed displacements are limited but not the outwardly directed displacements.

2. An elastic road wheel comprising in combination, a hollow outer wheel compressed air chamber, an inner wheel, a flexible band containing inwardly directed pockets and connecting the two wheels, and fixed recessed partitions on the outer wheel to engage with the pocketed flexible band for the purpose described.

3. An elastic road wheel comprising in combination, a hollow outer wheel compressed air chamber, an inner wheel, a pocketed band connecting the two wheels adapted to flex at the center portion, and fixed recessed partitions on the outer wheel for the purpose described.

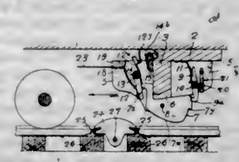


4. An elastic road wheel comprising in combination, a hollow outer wheel compressed air chamber, an inner wheel, a flexible pocketed band connecting the two wheels, fixed recessed partitions on the outer wheel engaging the band, and means for connecting the partitions together.

5. An elastic road wheel comprising in combination, a hollow outer wheel compressed air chamber, an inner wheel, a flexible pocketed band connecting the two wheels, fixed recessed partitions on the outer wheel engaging the band, means for connecting the partitions together, the outer edges of the partitions serving to connect the outer edges of the band to the outer wheel.

[Claims 6 and 7 not printed in the Gazette.]

1,075,169. RAILROAD SIGNALING DEVICE. ANDREW STADLER, Altoona, Pa., assignor of one-half to Albert W. Beckman, Altoona, Pa. Filed Nov. 20, 1912. Serial No. 732,452. (Cl. 246—14.)



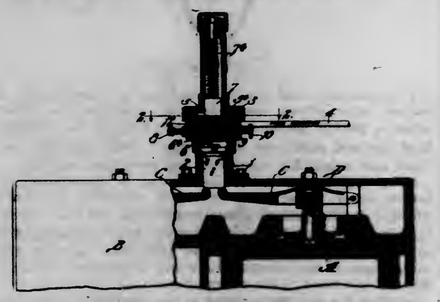
1. In an electric switch, a support, a lever pivotally mounted on said support, one end of said lever being provided with a notch, the opposite end of said lever constituting a cam member, a spring actuated locking dog arranged to enter said notch, a rock arm arranged to be engaged by said cam portion, a pair of fixed contacts, a spring contact carried by said rock arm and arranged to engage both of said fixed contacts, and a spring for holding said rock arm against the cam portion of said lever.

2. In an electric switch, a support, a plurality of levers pivotally mounted on said support, one end of each of said levers being provided with a notch, the opposite end of each of said levers constituting a cam member, a spring-actuated locking dog for each lever arranged to enter the notch in its lever, a rock arm arranged to be engaged by the cam portion of each of said levers, a spring contact carried by each rock arm, a pair of fixed contacts for each spring contact arranged to be engaged by the latter, springs for holding said rock arms against the cam portions of their individual levers, and means for simultaneously engaging all of said locking dogs that are in locking position for unlocking said levers.

3. In an electric switch, a support, a plurality of levers pivotally mounted on said support, one end of each of said

levers being provided with a notch, the opposite end of each of said levers constituting a cam member, a spring-actuated locking dog for each lever arranged to enter the notch in its lever, a rock arm arranged to be engaged by the cam portion of each of said levers, a spring contact carried by each rock arm, a pair of fixed contacts for each spring contact arranged to be engaged by the latter, springs for holding said rock arms against the cam portions of their individual levers, means for simultaneously engaging all of said locking dogs that are in locking position for unlocking said levers, said last named means comprising a rock shaft extending transversely of said locking dogs, an individual rock arm for each dog carried by said rock shaft and arranged to engage the dog, and means for rotating the rock shaft.

1,075,170. PRESSURE-CONTROLLING DEVICE. GEORGE F. STEEDMAN, St. Louis, Mo. Filed Nov. 22, 1912. Serial No. 732,862. (Cl. 230—24.)



1. In a pressure-controlling device, the combination of a packingless piston that is adapted to actuate a member which it is desired to control, a supply port leading to the cylinder in which said piston moves, a diaphragm valve for controlling said port and which is adapted to be unseated automatically when the pressure that is being regulated reaches and exceeds a certain degree, thereby causing the pressure to enter said cylinder and act on the piston therein, and means whereby a greater area of said valve is presented to the action of the pressure medium after the valve has been unseated than is presented to the action of said pressure medium when the valve is seated, thereby causing the valve to remain open and thus cause the pressure to act on said piston until the pressure has dropped to a greater degree proportionally than the rise in pressure which caused the valve to open.

2. A pressure-controlling device provided with a packingless piston that is reciprocatingly mounted inside of a cylinder, a controlled member which said piston acts upon, said piston having a beveled surface, and a coöperating beveled surface on the interior of the cylinder so as to form a tight joint between the piston and the cylinder when the piston is at the end of its pressure stroke.

3. A pressure-controlling device provided with a packingless piston that acts on a member which it is desired to control, the head of the piston on which the operating medium acts being of greater diameter than the body portion of the piston, a cylinder having two portions of different diameters in which the head and body portions of the piston fit, a beveled surface at the junction of the two portions of the piston, and a beveled seat on the interior of the cylinder on which the beveled surface of the piston acts when it is at the end of its stroke in one direction.

4. A pressure-controlling device comprising a valve chamber and a cylinder, a packingless piston in said cylinder adapted to operate on a member which causes the pressure being controlled to build up, said piston having a beveled surface that rests on a beveled surface inside of the cylinder, means for admitting the pressure being controlled to said valve chamber, a port that establishes communication between said chamber and cylinder, a diaphragm valve arranged over said chamber for governing the flow of the pressure medium through said port, a raised annular valve seat on the bottom of said chamber surrounding said port and normally covering a portion of said valve which is presented to the action of the pressure medium when the valve is open, and a spring for seating the valve.

1,075,171. PROCESS FOR THE MANUFACTURE OF 2-PHENYLQUINOLIN-4-CARBOXYLIC ACID. ALBRECHT THIELE and GEORG WICHMANN, Berlin, Germany, assignors to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Filed July 1, 1912. Serial No. 706,987. (Cl. 23—24.)

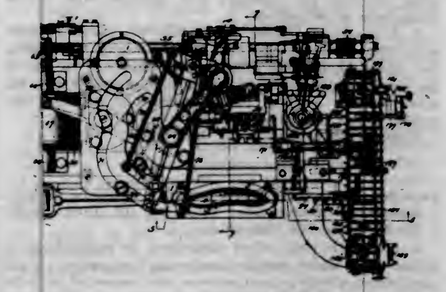
1. The herein described process of manufacturing 2-phenylquinolin-4-carboxylic acid, which consists in boiling an alcoholic solution of benzylidin anilin, then gradually adding pyroracemic acid to the boiling solution and isolating the product of reaction, substantially as described.

2. The herein described process of manufacturing 2-phenylquinolin-4-carboxylic acid, which consists in boiling an alcoholic solution of benzylidin anilin, then gradually adding pyroracemic acid to the boiling solution, further heating the mixture of reaction, and isolating the product thus formed, substantially as described.

3. The herein described process of manufacturing 2-phenylquinolin-4-carboxylic acid, which consists in dissolving anilin and benzaldehyde together in alcohol, boiling the alcoholic solution, then gradually adding pyroracemic acid to the boiling solution and isolating the product of reaction, substantially as described.

4. The herein described process of manufacturing 2-phenylquinolin-4-carboxylic acid, which consists in boiling an alcoholic solution of benzylidin anilin, then gradually adding an equal molecular quantity of pyroracemic acid to the boiling solution, and isolating the product of reaction, substantially as described.

1,075,172. CIGAR-MACHINE. OLUF TYBERG, New York, N. Y., assignor to Rufus L. Patterson and George Arents, Jr., New York, N. Y. Filed Aug. 27, 1901. Serial No. 73,409. (Cl. 131—5.)



1. The combination with a cutting bed having a knife, of a reciprocating carriage, a coöperating cutting device carried thereby, a lever, connections between the lever and the carriage, a crank, connections between the lever and the crank, a gear for operating the crank, and means for intermittently driving the gear, substantially as described.

2. The combination with a cutting bed having a knife, of a reciprocating carriage, a coöperating cutting device carried thereby, a lever, connections between the lever and the carriage, a crank, connections between the lever and the crank, a gear for operating the crank, means for intermittently driving the gear, and means for locking the gear when it is not being driven, substantially as described.

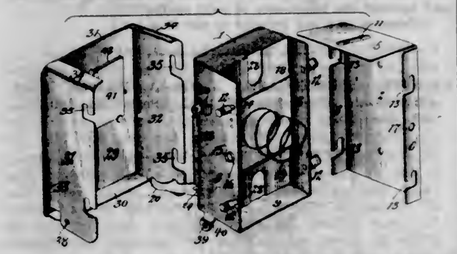
3. The combination with a cutting bed having a knife, of a reciprocating carriage, a coöperating cutting device carried thereby, a lever connected to the carriage, a crank, a gear for operating the crank, a disk having a cut-away portion, a segment mounted on the disk opposite said cut-away portion, and a shoe moving with the gear and arranged to bear upon the disk except at the cut-away portion, substantially as described.

4. The combination with a cutting knife, of suction holding means on each side of the knife, and means whereby the suction on one side of the knife may be controlled independently of the suction on the other side of the knife.

5. The combination with a knife of die form, of suction holding means located on the interior of the knife, suction holding means located on the exterior of the knife, and means for independently controlling the suction holding means, substantially as described.

[Claims 6 to 80 not printed in the Gazette.]

1,075,173. CARD-DELIVERING DEVICE. CHARLES A. VIDINGHOFF, Buffalo, N. Y. Filed Sept. 23, 1912. Serial No. 721,836. (Cl. 211—29.)



1. A card delivering device comprising a casing adapted to hold a pack of cards and having a fixed section composed of a rear wall, a top and two side walls, and a removable section having a front wall, a bottom and two side walls adapted to engage with the side walls of the fixed section, said top being separated from the front wall by an intervening space in the assembled position of the parts to form an outlet for the cards, means for removing said cards successively from the pack through said outlet, and means for detachably connecting the fixed and removable sections of the casing comprising bayonet slots arranged in the side walls of the fixed section and adapted to receive coupling pins on the side walls of the removable section.

2. A card delivering device comprising a casing adapted to hold a pack of cards and having a fixed section composed of a rear wall, a top and two side walls, and a removable section having a front wall, a bottom and two side walls adapted to engage with the side walls of the fixed section, said top being separated from the front wall by an intervening space in the assembled position of the parts to form an outlet for the cards, means for removing said cards successively from the pack through said outlet, and means for detachably connecting the fixed and removable sections of the casing comprising bayonet slots arranged in the side walls of the fixed section and adapted to receive coupling pins on the side walls of the removable section and a catch arranged on one side wall of the removable section and engaging with an opening in the adjacent side wall of the fixed casing section.

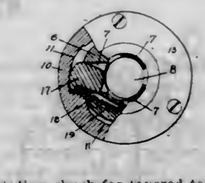
3. A card delivering device comprising a casing adapted to receive a pack of cards and provided with an outlet for said cards, and means for feeding said cards successively from said pack through said outlet comprising a rock lever pivoted on the front wall of said casing and provided on its inner arm with a feed pin which is movable in a slot in the front wall of the casing and adapted to engage successively with the edge of the foremost card of the pack and push the same through said outlet.

4. A card delivering device comprising a casing adapted to receive a pack of cards and provided with an outlet for said cards, means for feeding said cards successively from said pack through said outlet comprising a rock lever pivoted on the front wall of said casing and provided on its inner arm with a feed pin which is movable in a slot in the front wall of the casing and adapted to engage successively with the edge of the foremost card of the pack and push the same through said outlet, and a guide on the front wall of the casing for the inner arm of said lever.

5. A card delivering device comprising a casing adapted to receive a pack of cards and provided with an outlet for said cards, means for feeding said cards successively from said pack through said outlet comprising a rock lever pivoted on the front wall of said casing and provided on its inner arm with a feed pin which is movable in a slot in the front wall of the casing and adapted to engage successively with the edge of the foremost card of the pack and push the same through said outlet, and a spring pressed follower adapted to engage with the rear side of said pack of cards and provided with a slot adapted to receive the feed pin of said lever.

[Claims 6 to 12 not printed in the Gazette.]

1,075,174. CHUCK. VERNER J. WAHLSTROM, Brooklyn, N. Y., assignor to Wahlstrom Tool Company, New York, N. Y., a Corporation of New York. Filed Mar. 28, 1913. Serial No. 757,433. (Cl. 29—124.)



1. In a rotating chuck for tapered tool shanks, the combination with movable tapered jaws, of a spring pressed rotary member operable by hand against the action of its spring while the chuck is rotating and having cam surfaces for operating the jaws to clamp a tool shank, and means for limiting relative axial movement of the chuck and a tool shank clamped therein to prevent the tapered shank under operating pressure from wedging the jaws against the cam surfaces with force sufficient to prevent hand operation of said member.

2. In a rotating chuck for tapered tool shanks, the combination with radially movable tapered jaws, of a spring pressed rotary member operable by hand against the action of its spring while the chuck is rotating and having cam surfaces for operating the jaws to clamp a tool shank, and an abutment carried by the chuck for limiting relative axial movement of the chuck and a tool shank clamped therein and resting against the abutment to prevent the tapered shank under operating pressure from wedging the jaws against the cam surfaces with force sufficient to prevent hand operation of said member.

3. In a rotating chuck for tapered-tool shanks, the combination with radially and axially movable tapered jaws, of a spring pressed rotary member operable by hand against the action of its spring while the chuck is rotating and having cam surfaces for operating the jaws to clamp a tool shank, and an abutment carried by the chuck for limiting relative axial movement of the chuck and a tool shank and the jaws clamping the latter to prevent the tapered shank under operating pressure from wedging the jaws against the cam surfaces with force sufficient to prevent hand operation of said member.

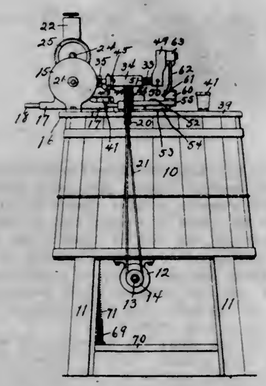
4. In a rotating chuck for tapered tool shanks, the combination with a chuck body having radial slots opening into a central aperture, of jaws shorter than and radially and axially movable in said slots, a spring pressed rotary member surrounding the chuck body and operable by hand against the action of its spring while the chuck is rotating and having cam surfaces for operating the jaws to clamp

a tool shank, and an abutment at the inner end of the central aperture for limiting relative axial movement of the chuck body and a tool shank and the jaws clamping the latter to prevent the tapered shank under operating pressure from wedging the jaws against the cam surfaces with force sufficient to prevent hand operation of said member.

5. In a rotating chuck for tapered tool shanks, the combination with a chuck body having radial slots opening into a central aperture, of jaws shorter than and radially and axially movable in said slots, a spring pressed rotary and axially movable member surrounding the chuck body and operable by hand against the action of its spring while the chuck is rotating and having cam surfaces for operating the jaws to clamp a tool shank, and an abutment at the inner end of the central aperture for limiting relative axial movement of the chuck body and a tool shank and the jaws clamping the latter and the member operating the jaws to prevent the tapered shank under operating pressure from wedging the jaws against the cam surfaces with force sufficient to prevent hand operation of said member.

[Claims 6 to 12 not printed in the Gazette.]

1,075,175. DRIVING MECHANISM FOR WASHING-MACHINES. ORLA H. WATKINS, Clinton, Iowa, assignor to himself, J. A. Kelly, and W. J. Kelly, Clinton, Iowa. Filed Apr. 1, 1912. Serial No. 687,894. (Cl. 74—50.)



1. A driving mechanism, comprising a suitable support, a device to be driven journaled in said support, a motor on said support, a gear case on said support, a worm gear in said case, driving connections between the motor and worm gear, a shaft mounted for rotation and rectilinear reciprocation on said support, detachable connections between said shaft and worm gear, crank connections between said shaft and the device to be driven, a spring acting to move said shaft in one direction, and cam lever devices acting to move said shaft against the resistance of the spring.

2. In a driving mechanism, a support having a stationary and a movable member, arched hinges connecting said members, bearings on the stationary member, a shaft loosely mounted in said bearings, a crank on said shaft, a spring between said bearing and crank, a set collar on said shaft, and cam lever devices connected to the movable member and acting between said set collar and bearing whereby the shaft may be moved rectilinearly against the force of said spring.

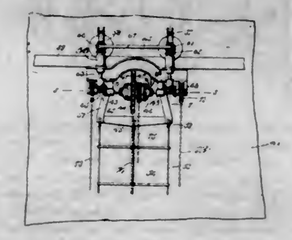
3. In a driving mechanism, a support comprising a stationary element and a second element hingedly connected to the stationary element, a device to be driven associated with said second element, a shaft to drive said device and supported from said first element, gearing for driving said shaft, and connections operated by the second element when the latter is moved on its hinges for disconnecting said gearing and said shaft.

4. In a driving mechanism, a support comprising a stationary element and a second element hingedly connected to the stationary element, a device to be driven associated with said second element, an axially movable shaft to drive said device and supported from said first element, gearing for driving said shaft, the axial movement of the latter providing for its connection with or its disconnection from said gearing, and connections controlled by the second element when the latter is moved on its hinges for producing an axial movement of said shaft.

5. In a driving mechanism, a support comprising a stationary element and a second element hingedly connected to the stationary element, a device to be driven associated with said second element, an axially movable shaft to drive said device and supported from said first element, gearing for driving said shaft, the axial movement of the latter providing for its connection with or its disconnection from said gearing, and connections controlled by the second element when the latter is moved on its hinges for producing an axial movement of said shaft, the connections comprising a spring which gives the shaft a thrust in one direction and a cam lever connected to the second element and which gives the shaft a thrust in the opposite direction and against the resistance of said spring.

[Claims 6 to 8 not printed in the Gazette.]

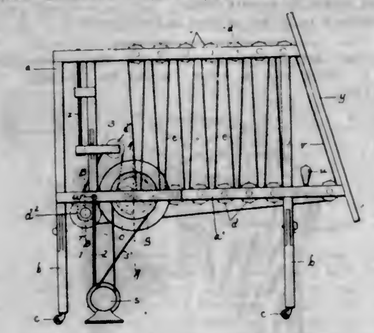
1,075,176. FIRE-ESCAPE. JAMES A. WEAVER, Miles City, Mont. Filed July 16, 1912. Serial No. 709,733. (Cl. 228—30.)



1. The combination with a track adapted to be mounted in horizontal relation to and upon the wall of a building at a point elevated from the ground, of a pair of spaced hangers, track wheels journaled on the hangers and movable upon the track, a yoke connected with the hangers whereby the latter are free to rotate, bearings integral with the yoke, a shaft journaled in one pair of the bearings, driven connections between the said shaft and the track wheels and journaled in the other bearings, loose pulleys supported by the shaft, clutch heads loosely keyed to the shaft for longitudinal movement thereon and engageable with the pulleys, means for moving the clutch heads into and out of engagement with the said pulleys, a ladder suspended from the yoke, and endless flexible members for operating the last-named means and extended the entire length of the ladder.

2. The combination with a track adapted to be mounted in horizontal relation to and upon the wall of a building at a point elevated from the ground, of a pair of spaced hangers, track wheels journaled on the hangers and movable upon the track, a yoke connected with the hangers whereby the latter are free to rotate, bearings integral with the yoke, a shaft journaled in one pair of the bearings, driven connections between the said shaft and the track wheels and journaled in the other bearings, loose pulleys supported by the shaft, clutch heads loosely keyed to the shaft for longitudinal movement thereon and engageable with the pulleys, means for moving the clutch heads into and out of engagement with the said pulleys, a ladder suspended from the yoke, endless flexible members for operating the last-named means and extended the entire length of the ladder, and means for rotating the pulleys when engaged with or disengaged from the clutch heads.

1,075,177. ILLUMINABLE ADVERTISING DEVICE. FRANK JOS. WEBER, Fond du Lac, Wis. Filed Mar. 23, 1912. Serial No. 685,872. (Cl. 40—32.)



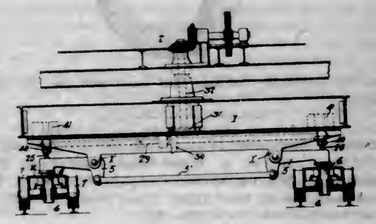
1. In an illuminable advertising device comprising a series of rollers and an endless band traveling on said rollers, the combination of a driven rotating member; a coupler carried by said driven member; a disk revolubly mounted on an axis coincident to that of the driven member, said disk provided with means on its periphery, located equi-distant from each other, for engagement by said coupler; means for transmitting motion to one of said band rollers, such means operated by said disk; means whereby said coupler is periodically disengaged for an interval from said disk; and an electric lamp for illuminating the band, the poles of the circuit of which lamp are connected with said coupler and the coupler disengaging means, whereby the lamp is energized while said disk is at rest and extinguished while said disk is rotating.

2. In an illuminable advertising device comprising a series of rollers and an endless band traveling on said rollers, the combination of a driven rotating member; a spring-controlled yielding pin carried by said driven member; a disk revolubly mounted on an axis coincident to that of the driven member having grooves in its periphery, located equi-distant from each other, for engagement by said pin; means for transmitting motion to one of said band rollers, such means operated by said disk; means whereby said pin is periodically disengaged for an interval from said disk; and an electric lamp for illuminating the band, the poles of the circuit of which lamp are connected with said pin and with said disengaging means, whereby the lamp is energized while said disk is at rest and extinguished while said disk is rotating.

3. In an illuminable advertising device comprising a series of rollers and an endless band traveling on said rollers, the combination of a driven rotating member; a spring-controlled yielding pin carried by said driven member; a disk revolubly mounted on an axis coincident to that of the driven member having grooves in its periphery, located equi-distant from each other, for engagement by said pin; means for transmitting motion to one of said band rollers, such means operated by said disk; a cam arranged concentric with said disk, whereby said pin is disengaged from said disk, periodically, for an interval; and an electric lamp for illuminating the band, the poles of the circuit of which lamp are connected with said pin and with said cam, whereby the lamp is energized while said disk is at rest and extinguished while said disk is rotating.

4. In an illuminable advertising device comprising a series of rollers and an endless band traveling on said rollers, the combination of a driven rotating member; a coupler carried by said driven member; a disk revolubly mounted on an axis coincident to that of the driven member, said disk provided with means on its periphery, located equi-distant from each other, for engagement by said coupler; means for transmitting motion to one of said band rollers, such means operated by said disk; means whereby said coupler is periodically disengaged for an interval from said disk; and an electric lamp for illuminating the band, the poles of the circuit of which lamp are connected with said coupler and with said fixed cam, whereby the lamp is energized while said disk is at rest and extinguished while said disk is rotating.

1,075,178. EQUALIZING SYSTEM FOR STEAM-SHOVELS AND THE LIKE. LEWIS WEHNER, Madison, Wis. Filed Feb. 17, 1913. Serial No. 748,937. (Cl. 105—32.)



1. In a machine of the class described, provided with four supporting trucks, the combination with the two supporting trucks at one end of the machine, of a direct flexible mechanical connection between said trucks, said connection adapted to permit one of the trucks to move upward and the other to move simultaneously downward with relation to the machine body.

2. The combination with a machine of the class described, mounted directly upon two rear trucks, of two front supporting trucks, and compensating mechanism disposed between said front trucks and the forward portion of the machine.

3. The combination with a machine of the class described, mounted directly on two rear trucks, of two front trucks, an equalizer system comprising bell-crank levers and an intermediate reach rod supported by said front trucks, and connections between the respective bell-crank levers and the forward portion of the machine.

4. The combination with a machine of the class described, of four supporting trucks two of which directly support one part of the machine, an equalizer system comprising connected bell-crank levers supported by the other two trucks, and connections between said bell-crank levers and the other part of the machine.

5. The combination with a machine of the class described, of four supporting trucks two of which directly support one part of the machine, an equalizer system comprising two bell-crank levers and an interposed reach rod, center bearing connections between each of said bell-crank levers and one of the other trucks, and means for connecting said bell-crank levers with the other part of the machine.

[Claims 6 to 13 not printed in the Gazette.]

1,075,179. LARIAT-NOOSE CLIP. ANDREW E. WESTBERG, Five Creeks township, Clay county, Kans. Filed Aug. 28, 1912. Serial No. 717,463. (Cl. 24—241.)

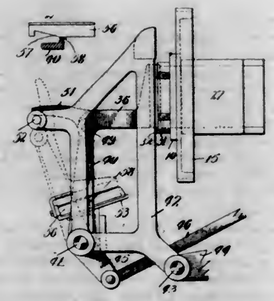
The combination with a lariat, of a noose clip adapted to be attached to the noosed end thereof, said clip including a pair of clip jaws, each of said jaws being provided with a terminal aperture, said aperture being adapted to receive the terminal of said lariat, a hook-shaped pawl pivoted to the first of said jaws, a locking dog pivotally attached to the second of said jaws and adapted to co-

operate with said pawl in locking said clip jaws in closed position, and a spring carried by the second of said clip



jaws for normally holding said pawl and dog in locking relation.

1,075,180. SLUG-DELIVERY FOR SLUG-CASTING MACHINES. HENRY A. WISE WOOD, New York, N. Y., assignor to Wood & Nathan Company, New York, N. Y., a Corporation of New York. Filed Sept. 28, 1907. Serial No. 394,955. (Cl. 199—9.)



1. In a linotype casting machine, the combination with a slug casting mold, of an ejector, a vertical trimming knife located in position to receive the slugs from the mold, and a pair of grippers for receiving the slugs from the knife, said knife having a rest at the lower edge thereof for supporting the slugs received from the mold while being gripped by the grippers.

2. In a linotype casting machine, the combination with a slug casting mold, of an ejector, a pair of trimming knives located in position to receive the slugs from the mold, and grippers for gripping the slugs after they pass the knives, one of said knives being laterally adjustable and the other having a rest at the lower edge thereof for supporting the slugs in position to enter the grippers.

3. The combination with a mold for casting slugs, of a pair of vertical trimming knives located in position to receive the slugs from the mold and trim the same as they are discharged from the mold, grippers beyond the knives, and a rest near the bottom thereof on which the slugs are supported when passing from the knives to the grippers.

4. In a delivery mechanism, the combination of a pair of trimming knives, a movable member, a pair of jaws located on the movable member, one of said jaws being pivotally mounted and having a stud projecting forwardly therefrom, and a stationary stop located in the path of the stud so as to engage said stud when the jaw moves toward the knives to swing said jaw away from the other jaw.

5. In a delivery mechanism, the combination of a stationary trimming knife, a delivery gripper movable toward and from said knife, a pair of jaws on said gripper, one of said jaws being pivoted and having a projection, a spring for forcing said pivoted jaw to closed position, and an adjustable stop mounted in stationary position adjacent to said knife for engaging said projection when the delivery gripper moves up to said knife.

[Claims 6 to 21 not printed in the Gazette.]

1,075,181. HEAD-SCARF. GRACE S. ZICK, New York, N. Y. Filed Oct. 1, 1910. Serial No. 584,823. (Cl. 2—118.)



1. A head-scarf comprising two sections of different length attached to each other by their middle inner-edge portions, the longer section being adapted to cover the wearer's hat and having wide free ends adapted to tie under the chin and hold down the sides of the hat-brim, the shorter section being substantially crescent-shaped and adapted to protect the wearer's hair and the under side of the hat-brim and to substantially encircle the head inside of said hat-covering section, and means for securing together the free ends of said crescent-shaped section at the back of the head.

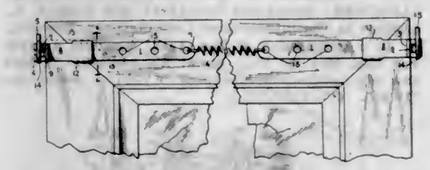
2. A head-scarf comprising two sections of different length attached to each other by their middle inner-edge portions, the longer section being adapted to cover the wearer's hat and having free ends adapted to be secured together under the chin, the shorter section being adapted to underlie the lower side of the hat-brim inside of the hat-covering section and provided with free flaps adapted to be tucked under the latter and around the edge of the hat-brim, and means for connecting the free ends of said shorter section at the back of the head.

3. A head-scarf comprising two sections of different length attached to each other by their middle inner-edge portions, the longer section being adapted to cover the wearer's hat and having wide free ends adapted to tie under the chin, the shorter section being adapted to encircle the head inside of the hat-covering portion and having means for connecting its ends at the back of the head, said scarf having elastic face-framing edges provided with complemental fastener members on the respective sections at the points where they cross each other for drawing the sides of the hat-covering portion close in to the face.

4. A head scarf comprising a head-encircling portion having one edge shaped to fit around the head of the wearer and provided with means for connecting its ends at the back of the head, and a hat-covering portion connected with said head-encircling portion and having free ends projecting beyond the side edges of the latter and adapted to be tied under the chin of the wearer, the rear edges of said hat covering portion being formed with a recess and having complemental separable fastening devices adapted to connect the sides of said recess.

1,075,182. COMBINED SHADE-ROLLER AND CURTAIN-POLE SUPPORT. GILBERT E. ALPHIN, Mount Olive, N. C. Filed May 19, 1913. Serial No. 768,648. (Cl. 156—23.)

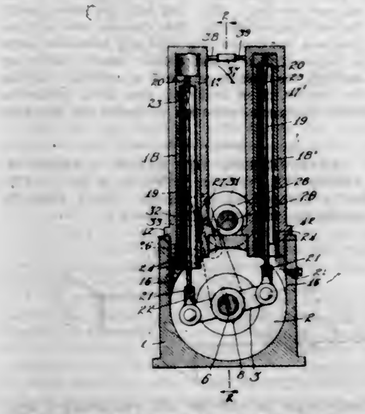
1. In a combined shade roller and curtain pole support, a pair of frame engaging members comprising bars having in their inner ends series of apertures and having their outer ends bent inwardly to form sockets, tongues struck out of said bars, with their free ends pointed to form frame engaging barbs, a spring having its ends engaged with the apertures in the inner ends of said frame engaging members whereby the latter are held in yielding engagement with the window frame, shade roller supporting brackets having a sliding frictional engagement with the bars of said frame engaging members and curtain pole supporting brackets pivotally engaged with the sockets on the ends of said frame engaging members.



2. In a combined shade roller and curtain pole support, a pair of frame engaging members comprising bars, means on the outer ends thereof to engage the outer edges of a window frame, a spring to yieldingly connect the inner ends of said frame engaging members whereby the latter may be engaged with window frames of different widths, reversible shade brackets comprising plates having on their outer ends right angular lugs provided with rectangular apertures to receive the pintles of the shade roller, flanges formed on the opposite edges of the inner ends of said plates and bent to form guides to receive the frame engaging members, said plates having their outer ends bent inwardly beyond from said guides to form a frictional engagement with the frame engaging members.

3. In a combined shade roller and curtain pole support a pair of frame engaging members comprising bars, lugs formed on the outer ends of said bars, barbs formed on said lugs, a spring to yieldingly connect the inner ends of said bars, shade roller brackets slidably engaged with said bars and a coupling plate adapted to be secured to a double window frame and having in its ends apertures to receive the barbed lugs on the ends of the frame engaging members when the supports are applied to a double window.

1,075,183. GAS-PUMP. CHARLES A. ANDERSON, Chicago, Ill. Filed June 9, 1909. Serial No. 501,028. (Cl. 230—27.)



1. In a gas pump, the combination with a gas-tight walking beam chamber, of a pair of elongated gas cylinders mounted above said chamber, a hollow elongated piston in each of said cylinders, each of said pistons being of nearly the same length as the cylinders, sealed at their upper ends and open at their lower ends, a piston rod in each of said pistons and extending into the walking-beam chamber, a rock shaft journaled in said latter chamber, a walking-beam carried thereby and operatively connected to each of said rods, a driving shaft, operative connection between the rock shaft and the driving shaft, means for supplying gas to and venting it from the respective cylinders at points above the upper ends of the pistons and from a source independent of the walking-beam chamber, said parts being so arranged that the pressure above the pistons in each cylinder is alternately raised and lowered above a substantially constant pressure in the walking-beam chamber.

2. In a gas pump, the combination with a gas-tight walking-beam chamber, of a pair of relatively narrow elongated gas cylinders mounted above said chamber, a piston in each of said cylinders, each piston being of nearly the same length as its cylinder, sealed at its upper end and open at its lower end, a walking-beam mounted in said walking-beam chamber, a piston rod for each piston, said rods being of relatively small diameter, connected at one end to the walking-beam and also to the upper closed end of the respective pistons, the upper end of said rod having an integral flexible part to permit flexing of the rod upon the actuation of the walking-beam, means for actuating said walking-beam, and means for admitting gas to the upper end of each cylinder from a source independent of the walking-beam chamber, and means for venting gas from each cylinder.

3. In a gas pump, the combination with a gas-tight walking-beam chamber, of a pair of gas cylinders, a piston for each cylinder, a journal block seated in one side of said walking-beam chamber, a socket member formed at the opposite side of said chamber, a rock shaft having one end engaging the socket member, and having its opposite end extending out through the journal block, a walking-beam keyed to said rock shaft within said chamber, a washer mounted on the rock shaft and interposed between the walking-beam and the adjacent face of the journal block, means for maintaining a substantially uniform gas pressure within the walking-beam chamber, means for applying end pressure on said rock shaft tending to automatically force the washer into engagement with the journal block to prevent any leakage of gas through the journal block, and operative connections between the pistons and the ends of said walking-beam.

4. In a gas pump, the combination with a gas-tight walking-beam chamber, of a pair of gas cylinders mounted above said chamber, a piston in each of said cylinders, each of said pistons being sealed at the upper ends and open at their lower ends, a piston rod in each of said pistons, a walking-beam mounted in said walking-beam chamber, operative connections between the piston rods and the walking-beam, means for actuating said walking-beam, means for admitting gas at relatively low pressure to the respective cylinders at their upper ends from a source independent of the walking-beam chamber, and means for venting gas from the upper ends of the cylinders at relatively high pressure; there being at all times a substantially uniform pressure in the walking-beam chamber that is intermediate said low and high pressures.

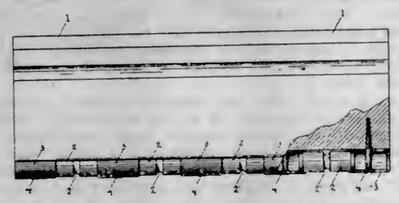
5. In a gas pump, the combination with a gas-tight sealed chamber, having gas therein at substantially uniform pressure, of a pair of gas cylinders, pistons for each cylinder, an actuating member seated in said sealed chamber, operative connections between said actuating member and each piston, means for supplying gas at relatively low pressure to the upper end of each of said cylinders at points above the pistons, means for venting gas at relatively high pressure from each of said cylinders, the pressure on said sealed chamber being at all times intermediate said high and low pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,075,184. THREAD-GUIDE FOR THREAD-BOARDS OF TWISTING OR SPINNING MACHINES. HERBERT G. BEEDE, Pawtucket, R. I. Filed Nov. 6, 1912. Serial No. 729,775. (Cl. 118—16.)

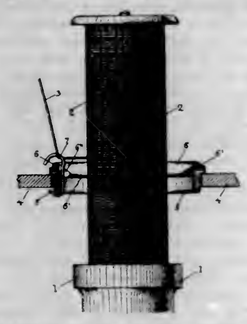
1. The combination with the front edge of a thread board, having a recess or groove therein, of a series of

thread guides extending along said edge in said recess, said thread guides made separate, and of cylindrical shape in cross section, and having a peripheral groove or recess therein, and a series of attaching devices for said thread guides, to receive the ends of said guides, and detachably secure the same to the thread board.



2. The combination with a thread board, of thread guides, made in sections, and means for detachably securing said thread guides to the thread board, said means comprising tubular sections to receive the ends of the thread guides, and means for securing said tubular sections to the thread board.

1,075,185. RING SPINNING OR TWISTING APPARATUS. HERBERT G. BEEDE, Pawtucket, R. I. Filed Nov. 6, 1912. Serial No. 729,776. (Cl. 118—11.)



1. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotary ring on said stationary ring, and a plurality of devices, made separate from and movably connected with said rotary ring, to rotate therewith, and have frictional engagement with said stationary ring.

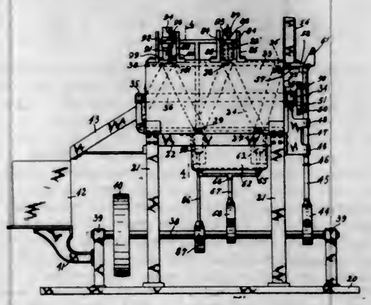
2. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotary ring mounted to rotate on said stationary ring, and a plurality of devices, made separate from and movably connected with said rotary ring, to rotate therewith, said devices, through centrifugal action as said rotary ring rotates, moving outwardly to produce frictional contact with said stationary ring.

3. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotary ring on said stationary ring, said rotary ring having a lip or flange thereon extending within said stationary ring, and a plurality of devices made separate from but movably connected with said rotary ring, to rotate therewith, said devices, as said rotary ring rotates, moving outwardly to produce frictional contact with said stationary ring.

4. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotary ring on said stationary ring, and a plurality of devices, made separate from and movably connected with said rotary ring, to rotate therewith, and have frictional engagement with said stationary ring, said devices held in proper position relative to said rotary ring, by extending in a notch or recess on the inner edge of said rotary ring.

5. In ring spinning or twisting apparatus, the combination with a stationary ring, of a rotary ring on said stationary ring, and a plurality of devices, made separate from and movably connected with said rotary ring, to rotate therewith, and have frictional engagement with said stationary ring, said devices held in proper position relative to said rotary ring, by extending in a notch or recess on the inner edge of said rotary ring, and having a hook shaped upper end to extend over the upper edge of the rotary ring, and a hook shaped lower end to extend over the lower edge of the stationary ring.

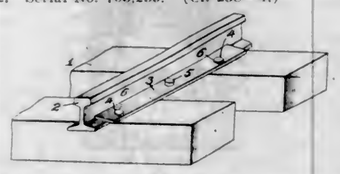
1,075,186. PROCESS OF MANUFACTURING BOTTLE-CLOSURES. ALEXANDER BOGDÁNFFY, New York, N. Y., assignor to The International Cork Company, Brooklyn, N. Y., a Corporation of New York. Original application filed May 29, 1912, Serial No. 700,453. Divided and this application filed Sept. 9, 1912. Serial No. 719,495. (Cl. 113—112.)



1. In a process for the manufacture of bottle closures of the cap variety which consists, first, in applying adhesive material to the inner face of the head of a cap positioned with its open end downward, second, placing a thin disk into the metallic cap, third, applying adhesive material to the exposed face of said disk with the cap positioned with its open end downward, fourth, depositing a sealing disk into the cap on top of said disk, and fifth, subjecting the assembled closure to pressure to unite the elements thereof.

2. In a process for the manufacture of bottle closures of the cap variety which consists, first, in applying adhesive material to the inner face of the head of a cap positioned with its open end downward, second, inverting said cap and placing a thin disk into the same, third, bringing the said cap with the disk therein into position with its open end downward and applying adhesive material to the exposed face of said disk, fourth, inverting the said cap with the disk therein and depositing a sealing disk into the cap on top of said disk, and, fifth, subjecting the assembled closure to pressure to unite the elements thereof.

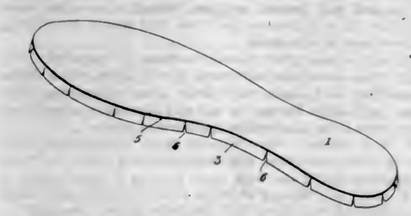
1,075,187. ANTICREEPER FOR RAILS. CHARLES W. BREED, Chicago, Ill., assignor to The P. & M. Co., Chicago, Ill., a Corporation of Illinois. Filed June 22, 1912. Serial No. 705,259. (Cl. 238—4.)



1. An anti-creeper for railroad rails comprising a member welded to the upper side of the rail base and extending over a plurality of ties, in combination with suitable means for preventing relative longitudinal movement of said member with respect to said ties.

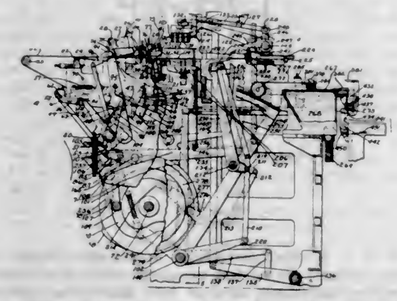
2. An anti-creeper for railroad rails comprising a flat bar welded to the upper surface of one of the rail base flanges, said bar extending over a plurality of ties and extending laterally beyond the rail base, said bar having openings adjacent the outer edge of the rail base for the reception of spikes.

1,075,188. INSOLE. JOHN BUCKLEY, Lynn, Mass. Filed May 2, 1911. Serial No. 624,583. (Cl. 36—43.)



An insole provided with a body portion and a guiding flange adapted to be turned to an angular position with respect to said body portion, a score or groove extending about said body portion at the base of said guiding flange and formed by a cut substantially normal to the upper face of said body portion, said guiding flange having a plurality of slits and notches severing said flange and extending from the score or groove to the edge of said flange, substantially as described.

1,075,189. CIGAR-MACHINE. BERNHARD T. BURCHARDI, New York, N. Y., VICTOR E. HANSEN, Elizabeth, N. J., and HARRY S. MARSH, New York, N. Y., assignors to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed July 8, 1911. Serial No. 637,473. (Cl. 131—42.)



1. In an automatic mechanism for making long filler cigars, the combination with means for forwarding a mass of long filler, of filler measuring means, means for separating measured amounts of filler from the mass, bunch making devices, means for transferring measured amounts of filler to the bunch making devices, a shaper constructed to simultaneously hold a plurality of bunches, a wrapping mechanism, and transferring devices for effecting the transfer of the bunches from the bunch making mechanism to the shaper and from the shaper to the wrapping mechanism.

2. In an automatic mechanism for making long filler cigars, the combination with filler measuring means, of means for forwarding a mass of long filler, devices whereby the measuring means controls the operation of the forwarding means, means for separating measured amounts of filler from the mass, bunch making devices, means for transferring measured amounts of filler to the bunch making devices, a shaper constructed to simultaneously hold a plurality of bunches, a wrapping mechanism, and transferring devices for effecting the transfer of the bunches from the bunch making mechanism to the shaper and from the shaper to the wrapping mechanism.

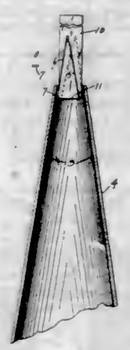
3. In an automatic mechanism for making long filler cigars, the combination with means for feeding a mass of long filler, of filler measuring means, bunch rolling mechanism, means for separating measured amounts of filler from the mass and transferring them to the bunch rolling mechanism, a binder cutting mechanism, means for automatically transferring the binders from the cutting mechanism to the rolling mechanism, and a wrapping mechanism to which the bunches are automatically transferred from the rolling mechanism.

4. In an automatic mechanism for making long filler cigars, the combination with means for forwarding a mass of long filler, filler measuring means, means for separating measured amounts of filler from the mass, a bunch rolling mechanism, means for transferring measured amounts of filler to the bunch making devices, a binder cutting mechanism, means for automatically transferring the binders from the cutting mechanism to the rolling mechanism, a shaper constructed to simultaneously hold a plurality of bunches, a wrapping mechanism, and transferring devices for effecting the transfer of the bunches from the bunch making mechanism to the shaper and from the shaper to the wrapping mechanism.

5. In an automatic mechanism for making long filler cigars, the combination with a bunch rolling mechanism, of means for automatically supplying filler thereto, a binder cutting mechanism, means for automatically transferring the binders from the cutting mechanism to the rolling mechanism, and a wrapping mechanism to which the rolled bunches are delivered.

[Claims 6 to 78 not printed in the Gazette.]

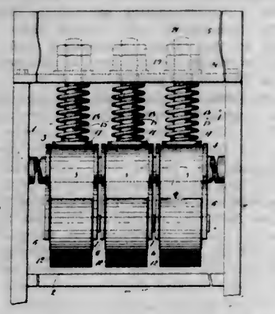
1,075,190. TAG-HOLDER. DANIEL F. BYRNES, Delavan, Wis., assignor of one-half to Wallace B. Tyrrell, Delavan, Wis. Filed Apr. 3, 1913. Serial No. 758,541. (Cl. 40—11.)



1. A tag holder for bobbins formed of resilient wire comprising a triangular central member having a horizontal base and two side members converging at their upper ends, two side arms diverging downwardly and outwardly and terminating in angular bends, all of said parts being formed integrally, said angular bends being adapted to impinge against and support said holders from the inner walls of a bobbin.

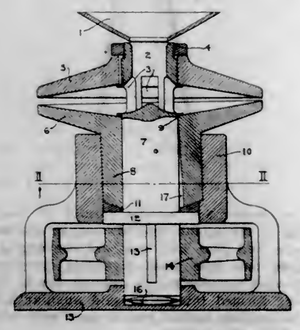
2. The combination with a bobbin or cone of a tag holder formed of resilient wire comprising a triangular central member having a horizontal base and two side members converging at their upper ends, two side arms diverging downwardly and terminating in outward angular bends, all of said parts being formed integrally, the horizontal base of said triangular member being curved laterally so as to form a support for the lower end of a tag, as the latter is held by the opposing sides of said triangular member.

1,075,191. PRESSURE-ROLL FOR PLANERS. ALFRED L. BYTHER, Bangor, Me. Filed July 27, 1911. Serial No. 640,887. (Cl. 144—250.)



In a planing machine, a pressure roll having a series of roller sections or units, each of said sections or units having a pivoted roll carrier and a roll borne by said carrier, each of said rolls borne by the carrier comprising a cylinder fixed to the carrier, an annular bearing wheel loosely arranged upon the cylinder, a series of roller bearings interposed between said wheel and said cylinder on which said wheel may turn around the cylinder, a rod to which said carriers are pivotally secured whereby they may turn thereon, a fixture located above said carriers and a bar pivotally secured to each one of said carriers and extending upwardly to pass loosely through said fixture and project beyond the same, each of said bars having a collar thereon, compression springs arranged upon said bars between their collars and said fixture, and retaining and adjusting means arranged upon the projecting ends of said bars above said fixture and bearing against the same.

1,075,192. DISK PULVERIZER. THOMAS W. CAPEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Feb. 20, 1911. Serial No. 609,552. (Cl. 83—10.)



1. In a crusher, a shaft, means for rotating said shaft, a disk fixed to said shaft, and a second disk adjacent said first disk and surrounding said shaft at a portion thereof intermediate said rotating means and said first disk, said disks being inclined relative to each other and being free from structural discharge obstructing elements adjacent their peripheries.

2. In a crusher, two crushing disks mounted with their axes at an angle to each other and having a crushing chamber between them, means for rotating one of said disks on its axis, said rotating means extending through and in direct engagement with the mid-portion of the other of said disks.

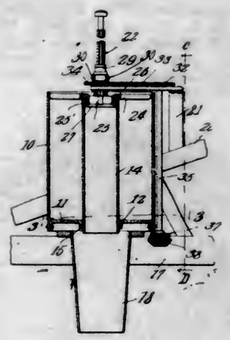
3. In a crusher, two disks, a cylindrical journal portion extending directly and concentrically from the mid-portion of each of said disks, said journal portions being on the same sides of the said disks in their assembled relation, and said journal portions having intersecting axes, bearings for said journal portions, and means for driving at least one of said disks.

4. In a crusher, two rotatable disks, a concentric journal portion associated with each of said disks, and a frame supporting said disks with their axes intersecting each other, said disks having an annular discharge passage entirely free from obstruction by movable parts.

5. In a crusher, two rotatable disks, a concentric journal portion associated with each of said disks, a frame supporting said disks with their axes at a slight angle to each other, and bearing surfaces associated with said disks and rotatable therewith for transferring the crushing reaction of one disk to the back of the other disk, said disks having an annular discharge passage entirely free from obstruction by movable parts.

[Claim 6 not printed in the Gazette.]

1,075,193. FERTILIZER-DISTRIBUTER. EUGENE MACON COLE, Charlotte, N. C. Original application filed June 14, 1911, Serial No. 633,093. Divided and this application filed May 17, 1912. Serial No. 697,990. (Cl. 111—15.)



1. In a fertilizer distributer, a stationary hopper, a spout mounted for vertical movement within said hopper, a rotary distributing member said distributing member being formed with a collar arranged to extend within said spout, a feed screw secured to said distributing member and means for imparting movement to said feed screw, the movement thus imparted causing the rotary movement of the distributer and the vertical movement of said spout.

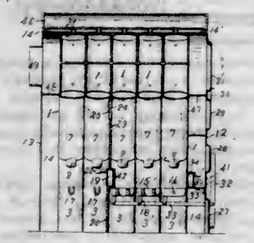
2. In a fertilizer distributer, a stationary hopper, a spout mounted for vertical movement within said hopper, a stationary spout arranged below the first mentioned spout and in register with the same, a feed screw, a rotary distributer mounted on said feed screw said distributer receiving a plurality of curved radially extending arms, a boss formed integral with said distributer, said boss extending within said vertically movable spout, said spout being movable vertically, a gear keyed on said screw, a plurality of pivotally supported screw threaded jaw members capable of imparting a vertical movement to said screw.

3. In a fertilizer distributer, a stationary hopper, a spout for vertical movement within said hopper, a stationary spout arranged below the first mentioned spout and in register with the same, a feed screw, a rotary distributer mounted on said feed screw, said distributer receiving a plurality of curved radially extending arms, a boss formed integral with said distributer, said boss extending within said vertically movable spout, a gear keyed on said screw, and a plurality of pivotally supported screw threaded jaw members capable of imparting vertical movement to said screw, said screw being smooth adjacent one of its ends.

4. In a fertilizer distributer, a stationary hopper, a cylindrical member mounted for vertical movement within said hopper and means movable with said spout for depositing the material arranged within said hopper in said spout.

5. In a fertilizer distributer, a stationary hopper, a vertically movable cylindrical member arranged within said hopper, a rotatably supported vertically movable distributing member movable with said spout, said member being formed with a plurality of radially extending arms arranged to distribute the material arranged in said hopper in said spout.

1,075,194. SECTIONAL BOILER. MARCY A. COOK, Peoria, Ill.; Mary A. Cook executrix of said Marcy A. Cook, deceased. Filed Feb. 20, 1906, Serial No. 301,983. Renewed Jan. 17, 1912. Serial No. 671,564. (Cl. 122—225.)



1. A sectional boiler comprising upright sections arranged side by side, each section consisting of a substantially circular hollow wall, water legs tangentially connected with the substantially circular hollow wall, for supporting same, upright tubular partitions connecting upper and lower portions of the substantially circular hollow wall forming segmental flue openings, and hollow partitions intermediate of the said upright tubular partitions for forming other flue openings.

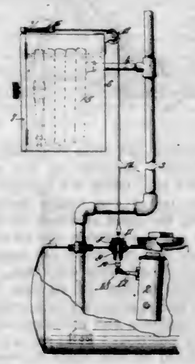
2. A sectional boiler comprising upright sections arranged side by side, said sections being provided with matching fire box openings near the base thereof, matching magazine openings above and communicating with the fire box openings, matching segmental flue openings at each side of the magazine openings, and matching flue openings above the magazine openings.

3. A sectional boiler comprising upright sections arranged side by side, said sections being provided with matching ash pit and fire box openings, matching magazine openings above and communicating with the fire box openings, and matching flue openings at the sides of and above the magazine openings, a closure at each end of the series of sections provided with walls arranged to direct the products of combustion from the fire box to and through the flue openings, the closure at one end of the boiler being provided with a fire box opening on line with and communicating with the fire box, and a magazine opening above the fire box opening, on line with and communicating with the magazine.

4. A sectional boiler, comprising upright sections arranged side by side, said sections being provided with matching ash pit and fire box openings, matching magazine openings above and communicating with the fire box openings, said magazine openings being of less width than the fire box openings and having the lateral walls thereof diverging downwardly to the fire box, matching segmental flue openings at each side of the magazine opening, and matching flue openings above the magazine openings, a closure for the rear end of the sectional boiler provided with an inclosure on the inner face thereof communicating with the flue openings above the magazine openings and having a smoke outlet therefrom, and a closure for the front end of the sectional boiler provided with an inclosure on the inner face thereof communicating with all the flue openings, said front closure being provided with a fire box opening on line with and communicating with the fire box opening in the sectional boiler, and a magazine opening above the fire box opening on line with and communicating with the magazine opening in the sectional boiler.

5. In a sectional boiler, the combination of a plurality of upright sections arranged side by side, said sections being provided with matching fire box and ash pit openings, matching magazine openings above and communicating with the fire box openings, and matching flue openings at the sides of and above the magazine openings, end closures for the series of boiler sections adapted to direct the products of combustion from the fire box to and through the flue openings, and a wall intermediate of the end closures, for stopping off the ash pit and fire box opening in the series of boiler sections, said intermediate wall being provided with a portion projecting into the magazine opening for stopping off the magazine opening.

1,075,195. CHEMICAL-MIXING FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed June 15, 1910, Serial No. 567,051. Renewed July 30, 1913. Serial No. 782,139. (Cl. 169—24.)



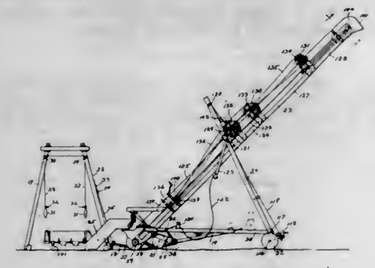
1. A stationary fire extenguisher system consisting of a tank containing solution, an acid bottle pivotally mounted in the tank and arranged to overturn by gravity, a gland fitted in the tank and having a flaring bore, and means for normally preventing the discharging operation of the acid bottle and including a stem slidable axially of the gland, the stem resting by gravity in a normal position and having a frusto-conical portion to conformably fit in the flaring bore, the surfaces of the frusto-conical portion and of the flaring bore being ground to provide a gas-tight seal against the escape of pressure when the stem is in its retracted position, and an arm pivoted on the acid bottle for horizontal swinging movement and having its free end formed for engagement by the stem.

2. A stationary fire extinguisher system consisting of a tank containing solution, an acid bottle arranged to discharge its contents into the tank, a gland fitted in the tank and having a flaring bore, means for normally preventing the discharging operation of the acid bottle and including a stem slidable axially of the gland, the stem resting by gravity in a normal position, and having a frusto-conical portion to conformably fit in the flaring bore, the surfaces of the frusto-conical portion and of the flaring bore, being ground to provide a gas-tight seal against the escape of pressure when the stem is in its retracted position, a distributing pipe leading from the tank, a hose coupled to the distributing pipe, a cabinet inclosing the hose and having a normally closed door, and a cord having an end connected to the latch and an end

associated with the door whereby movement of the latter to its open position pulls the cord and retracts the stem.

3. A stationary fire extinguisher system consisting of a tank containing solution, an acid bottle arranged to discharge its contents into the tank, a latch stem for governing the discharging operation of the acid bottle, a distributing pipe leading from the tank, a hose coupled to the distributing pipe, a cabinet inclosing the hose and having a normally closed door, and a cord having an end connected to the latch stem and an end associated with the door whereby movement of the latter to its open position pulls the cord and retracts the stem.

1,075,196. COMBINATION PORTABLE ELEVATOR AND WAGON-DUMP. CHARLES W. COTTEW, Sheridan, Ill. Filed Apr. 20, 1908, Serial No. 428,291. Renewed Feb. 15, 1913. Serial No. 749,061. (Cl. 214—12.)



1. In a device of the class described, an elevator, a wagon dump, means mounted on the elevator whereby said elevator and said dump are operated simultaneously from a common motor and means mounted on the elevator for varying the speed at which the dump moves with relation to the speed at which the elevator moves while both the elevator and the dump are operating.

2. In a device of the class described, a truck provided with four traction wheels, an elevator mounted on said truck, a wagon dumping device comprising a derrick and a rope or cable separate and disconnected from said truck capable of being positioned at any angle to said elevator and means mounted on said truck to exert a pull on said rope or cable.

3. In a device of the class described, a truck, a wagon dump separate and disconnected from said truck comprising a derrick and a rope or cable, means mounted on said truck for exerting a pull on said cable and a brace connecting said derrick and said pulling means along which said rope or cable extends.

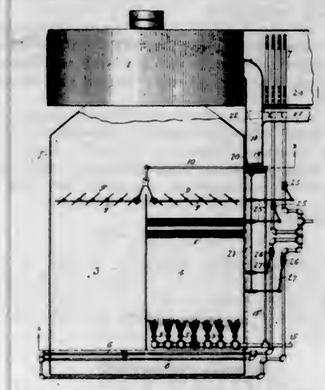
4. In a device of the class described, a cable pulling mechanism, a wagon dumping device comprising a cable to operate the same, a coupling cable connecting the said pulling mechanism and the cable on said dumping device and a jointed strut brace having one end flexibly connected to said pulling mechanism and the other end flexibly connected to said dumping device.

5. In a device of the class described, a truck or wagon, an elevator mounted on said truck, a wagon dumping device separate and disconnected from said truck comprising a cable, a cable pulling device mounted on said truck and a brace connecting said dumping device and said pulling device along which the cable extends.

[Claims 6 to 19 not printed in the Gazette.]

1,075,197. AIR-CONDITIONING APPARATUS. STUART W. CRAMER and WILLIAM B. HODGE, Charlotte, N. C.; said Hodge assignor to said Cramer. Filed Feb. 10, 1911. Serial No. 607,849. (Cl. 98—43.)

1. A humidifier comprising a casing, means for producing a current of air through the casing, means comprising a sectionally controlled spraying device for varying the moisture content of said air, and a humidity controlling device for successively actuating the valves connected to said spraying device.



2. A humidifier comprising a casing, a spraying device, means for producing a current of air through the casing, two thermo-expansive members for variably controlling the moisture to said current of air, and means for continuously supplying said thermo-expansive members with air from a selected source other than that supplied to the spraying device.

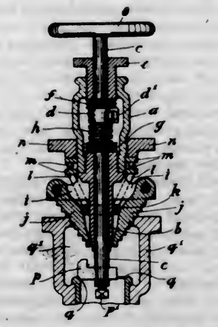
3. A humidifier comprising a casing, means for producing a current of unsaturated air through the casing, means for saturating a greater or less proportion of the unsaturated air, and a humidity controlling device to vary the said proportion.

4. A humidifier comprising a casing, means for producing a current of unsaturated air through the casing, means for saturating a greater or less proportion of the unsaturated air, and two thermo-expansive members for varying the said proportion.

5. A humidifier comprising a casing, means for producing a current of unsaturated air through the casing, means for saturating a greater or less proportion of the unsaturated air, means for varying the temperature of the mixed air, and a regulating device for controlling the percentage of saturation and the temperature of the mixed air.

[Claims 6 and 7 not printed in the Gazette.]

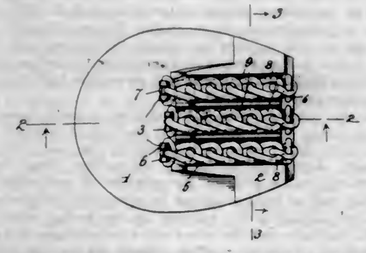
1,075,198. MACHINE FOR FACING OR REFACING VALVE-SEATS AND FOR LIKE PURPOSES. WILLIAM CROCKATT, Glasgow, Scotland. Filed Aug. 16, 1912. Serial No. 715,353. (Cl. 90—12.5.)



1. In a device of the character stated, the combination of a rotatable spindle adapted to carry a tool, a sleeve member on the spindle, stepped arms pivoted on said sleeve member, a forcing member located between the stepped arms and said sleeve member and below the pivotal points of said pivoted arms, actuating means on said sleeve member located above the pivotal point of the stepped arms, and connections between said actuating means and said forcing means, adapted to depress said forcing means and directly force the stepped arms outwardly.

2. A machine of the character described having, in combination, a rotatable spindle with a cutter thereon, a sleeve member on the spindle, arms projecting laterally from the member, stepped arms loosely pivoted from said projecting arms, a collar slidably mounted on said sleeve member, a ring member located between the stepped arms and said sleeve member, arms on said ring member contacting with said slidable collar above the pivotal connection of said stepped arms and means on said sleeve member adapted to depress said ring member without turning the same and directly force the stepped arms outward.

1,075,199. HORSESHOE-PAD. DANIEL CRUICE, New York, N. Y., assignor to Jacob M. Ehrlich, New York, N. Y. Filed Dec. 2, 1911. Serial No. 663,623. (Cl. 168—28.)



1. A horse shoe pad comprising a sole, a bar secured to the sole having releasable fastening means at its ends, a heel pad on the underside of the sole below the bar, and a ground-contacting anti-slip member on the underside of the heel pad connecting with said releasable fastening means.

2. A horse shoe pad comprising the combination of a sole, a bar secured to the sole having releasable fastening means at its ends, a heel pad on the underside of the sole below the bar, and a chain on the underside of the heel pad connecting with said releasable fastening means.

3. A horse shoe pad comprising the combination of a connected sole and heel, a bar extending through the heel of the pad provided with fastening means at its ends, and a ground-contacting anti-slip member on the underside of the heel connecting with said fastening means.

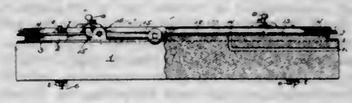
4. A horse shoe pad comprising the combination of a connected sole and heel, a bar extending through the heel provided with fastening means at its ends, consisting of hooks and spring tongues coöperating therewith to normally obstruct the opening into the hooks, and a ground-contacting anti-slip member on the underside of the heel of the pad having links at its ends connecting with said hooks.

5. A horseshoe pad comprising a connected sole and heel, releasable fastening means carried by the sole on opposite sides of the pad, and an anti-slip member extending across and underneath the pad and secured at its ends to the respective fastening means.

[Claims 6 and 7 not printed in the Gazette.]

1,075,200. MOUNTING FOR RAILROAD-RAILS. WILLIAM P. DAVIES, Bellevue, Ky., assignor to Edna B. Davies, Bellevue, Ky., and Grace I. Balnum, Carthage, Ohio. Filed Aug. 11, 1913. Serial No. 784,126. (Cl. 238—5.)

1. The combination with a foundation member, of cushioning means for a rail thereon, said cushioning means comprising relatively movable members forming an air chamber between them, means securing the lower member of the cushioning means to the foundation member, and means for supplying said air chamber with air.



2. The combination with a concrete foundation member, of cushioning means thereon, said cushioning means comprising telescoping members forming an air chamber between them, an air duct in the foundation member and communicating with said air chamber, the upper member of said cushioning means adapted to support a rail, and yielding means for raising said upper member of said cushioning means.

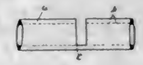
3. The combination with a foundation member, of cushioning means mounted thereon, said cushioning means comprising relatively movable members forming an air chamber between them, a duct in the foundation member and communicating with said air chamber, yielding means for raising the movable member of said cushioning means, and a strip mounted in the bottom of said air chamber and constituting a valve for said duct.

4. Cushioning means for railroad rails, comprising relatively movable members forming an air chamber between them, means for securing the lower member to a foundation, means for supplying air to said air chamber, and yielding means for raising the upper member.

5. Cushioning means for railroad rails, comprising relatively movable telescoping members forming an air chamber between them, means for rigidly securing the lower member to a foundation, the upper member adapted to receive a rail, the lower member having an air inlet, a valve normally closing said inlet, and yielding means for raising the upper member.

[Claims 6 and 7 not printed in the Gazette.]

1,075,201. METHOD OF MAKING U-SHAPED PIPE-BENDS. PETER ESCH, Dusseldorf, Germany, assignor to Schmidt'sche Heissdampf Gesellschaft, M. B. H., Cassel, Germany, a Corporation of Germany. Original application filed Sept. 22, 1910, Serial No. 583,171. Divided and this application filed May 1, 1913. Serial No. 764,771. (Cl. 29—148.)



1. The method of making pipe bends which consists in removing an incomplete ring from a length of tube so as to produce two legs united by a bridge piece, bending said legs in a plane perpendicular to the bridge piece, and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

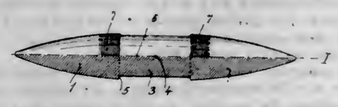
2. The method of making pipe bends which consists in removing an incomplete ring from a length of tube so as to produce two legs united by a bridge piece, bending said legs symmetrically to said bridge piece in a plane perpendicular thereto, and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

3. The method of making U-shaped pipe bends which consists in removing an incomplete ring from a length of tube so as to produce two legs having squared ends and united by a bridge piece, bending said legs substantially parallel to one another in a plane perpendicular to the bridge piece, and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

4. The method of making U-shaped pipe bends which consists in removing an incomplete ring from a length of tube so as to produce two legs having squared ends and united by a bridge piece, bending said legs in a plane perpendicular to the bridge piece, and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

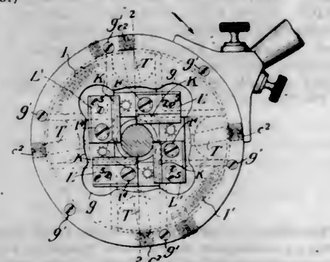
5. The method of making U-shaped pipe bends which consists in making two parallel transverse cuts nearly through a length of tube and removing the incomplete ring thereby formed so as to produce two legs having squared ends and united by a bridge piece, bending said legs symmetrically in a plane perpendicular to the bridge piece until substantially parallel with one another, and then uniting the open edges of a cup-shaped or hollow cap to the edges of the bridge piece and adjacent legs, substantially as and for the purpose described.

1,075,202. PROJECTILE. TERJE AANENSEN FIDJELAND, Fostvedt, Iveland, near Christiansand, Norway. Filed July 11, 1912. Serial No. 708,784. (Cl. 102—26.)



A projectile consisting of two conoidally pointed symmetric end portions (1, 2) and a long cylindrical middle portion (3) of a diameter somewhat less than the base of said end portions, all three parts constituting one single homogeneous piece of a symmetrical shape longitudinally as well as cross-sectionally.

1,075,203. SCREW-CUTTING DIE-HEAD. HENRY L. FISHER, Waynesboro, Pa., assignor to Landis Machine Company, Waynesboro, Pa., a Corporation of Pennsylvania. Filed Aug. 28, 1908. Serial No. 450,769. (Cl. 10—99.)



1. A die head comprising a flanged sleeve, a body yieldingly secured thereto so as to have end motion thereon, a casing movable on the body and controlled in said end motion, a tangential chaser or cutting tool secured on said body so as to have radial motion thereon, means for feeding said chaser tangentially in the direction of its length to compensate for wear or breakage, connecting means between the chaser and the casing whereby relative movement of the casing and the body will produce relative radial movement between the chaser and the body for opening and closing the die, and means for producing relative adjustment between the casing and the chaser independently of the body to determine the line or circle of the cut in the work.

2. A die head comprising supporting means, a body movable on said supporting means, a casing movable on the body, a plurality of tangential chasers secured so as to have radial travel on the body, a separately adjustable actuating connection between each chaser and the casing whereby movement of the casing with respect to the body produces simultaneously radial movement of the chasers on the body for opening and closing the die, means for adjusting each chaser individually and tangentially in the direction of its length to compensate for wear or breakage, and means for individually locking each chaser when so adjusted to maintain such adjustment constant with respect to the casing.

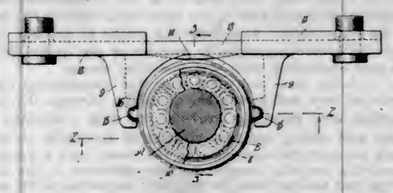
3. A die head comprising a support, a body movable on the support, a casing, a plurality of chaser slides fitted to the body so as to have radial movement thereon, separately and individually adjustable actuating means connecting each chaser slide with the casing whereby movement of the casing with respect to the body will produce simultaneous radial movements of the chaser slides to open and close the die, a chaser having parallel longitudinal serrations or cutting teeth secured tangentially to the line of cut of each slide, means for separately and individually feeding each chaser on its slide tangentially in the direction of its length, and means for locking each chaser to its slide.

4. A die head comprising a support, a body movable thereon, a ring casing movable on the body, chaser slides fitted to have radial motion on the body, a chaser tangentially secured on each slide so as to have tangential motion thereon in the direction of its length, separately and individually adjustable means connecting each slide with the ring casing and adapted when said casing is moved on the body to produce a thrust upon each slide and lock it in position, means controlled in the movement of the body on the support to unlock the casing and the slides, means for separately and individually feeding each chaser lengthwise on its slide, and means for individually locking the chasers to their slides.

5. A die head comprising a support, a body movable thereon, a ring casing rotatable on the body, a plurality of chaser slides fitted to travel radially on the body, an individually adjustable actuating connection from each slide to the casing whereby the relation of each slide to the other and to the casing can be separately determined, means for adjusting the position of the casing with respect to the body and the slides so as to determine a fixed and definite reciprocal relation among the several slides and between them and the body, for each extreme position of the casing on the body, a chaser tangentially held on each slide, means for individually adjusting each chaser along its tangent in the direction of its length, and means for locking each chaser to its slide when so adjusted.

[Claims 6 to 65 not printed in the Gazette.]

1,075,204. JOURNAL-BEARING. JAMES R. FLEMING, Scranton, Pa. Filed Nov. 9, 1911. Serial No. 659,268. (Cl. 64—54.)



A journal bearing, comprising a base plate provided with two spaced depending brackets, each having on its inner face at the lower end a groove leading out through one end of the bracket and terminating short of the other end of said bracket, said base plate being provided between the brackets with a spherical boss forming a bearing, and a cylindrical bearing box tapering toward its ends and provided on opposite sides at its longitudinal center and midway between the ends with elongated lugs having curved outer edges and fitting in the grooves of the brackets, whereby the bearing may be inverted and will be held so as to be free to rock without noise and danger of breakage incident to the separation of the bearing and base plate.

1,075,205. SPINDLE. CHARLES S. FOSTER, Central Falls, R. I., assignor to Fales & Jenks Machine Co., a Corporation of Rhode Island. Filed Dec. 1, 1911. Serial No. 663,202. (Cl. 118—27.)



1. The combination with the bolster case, having a flanged or enlarged portion, and an external screw thread below the flanged portion, and an external screw thread above the flanged portion, and a spindle having a whirl thereon, said whirl having an inwardly extending integral lip or flange at its lower end, of a removable locking nut, having an internal screw thread adapted to be screwed onto the thread on the bolster case, above the flanged portion, and having an external lip or projection thereon, on one side, at its upper end, to extend over the inwardly extending lip or flange on the whirl, and prevent the whirl and spindle from being raised and detached from the bolster case, until the locking nut is removed from the bolster case.

2. The combination with the bolster case, having a flanged or enlarged portion, and an external screw thread below the flanged portion, and an external screw thread above the flanged portion, and a spindle having a whirl thereon, said whirl having an inwardly extending integral lip or flange at its lower end, of a removable locking nut, having the opposite edges at its lower part straight, to correspond with the straight edges on the bolster case, and having an internal screw thread, adapted to be screwed onto the thread on the bolster case, above the flanged portion, and having an external lip or projection thereon, on one side, at its upper end, to extend over the inwardly extending lip or flange on the whirl, and prevent the whirl and spindle from being raised and detached from the bolster case.

1,075,206. METHOD OF PRESERVING TEXTILE ARTICLES. AMELIA FOWLER, Boston, Mass. Filed Feb. 1, 1913. Serial No. 745,598. (Cl. 2—187.)

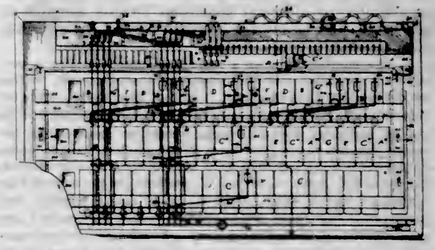


1. The method of preserving textile articles consisting in disposing the article to be preserved in its natural arrangement on a strengthening member, in incorporating the article and the strengthening member in an enveloping mesh of thread, said mesh being formed of open stitches passing through said article and strengthening material at frequent intervals to define regular comparatively small areas of said article and strengthening member.

2. The method of preserving multi-colored textile articles consisting in disposing the article to be preserved in its natural arrangement on a strengthening member of neutral color, in incorporating the article and the strengthening member in an enveloping mesh of thread of colors locally matching the color of said article, said mesh being formed of open stitches passing through said article and strengthening member at frequent intervals to define regular comparatively small areas of said article and strengthening member.

3. The method of preserving multi-colored textile articles consisting in disposing the article to be preserved in its natural arrangement on a suitable strengthening member, in incorporating the article and the strengthening member in an enveloping mesh of thread of colors locally matching the color of said article, said mesh being formed of open stitches passing through said article and strengthening member at frequent intervals to define regular comparatively small areas of said article and strengthening member.

1,075,207. OCTAVE-COUPLER FOR ACCORDIONS. JOSEPH GALLEAZZI, San Francisco, Cal. Filed Sept. 13, 1911, Serial No. 649,113. Renewed Aug. 25, 1913. Serial No. 786,639. (Cl. 84—1.)



1. The combination of a sounding board having a row of openings therethrough, valves for closing said openings, a row of key levers, actuator rods, devices for transmitting motion from the key levers to the actuator rods, devices on the actuator rods for actuating said valves, a series of longitudinal rock shafts, each rock shaft having two arms, a device on each actuator rod located to engage one of said arms, devices each carried by one of said valves and located to be engaged and actuated by the other arm of one of said rock shafts, a second series of longitudinal rock shafts, each having two arms, and projections from the key levers, each located to engage and actuate one arm of said rock shafts, the other arm of said rock shaft, when the shaft is rocked, being located to engage and actuate an actuator rod different from that directly actuated by said lever.

2. The combination of a sounding board having a row of openings therethrough, valves for closing said openings, a row of key levers, actuator rods, devices for transmitting motion from the key levers to the actuator rods, devices on the actuator rods for actuating said valves, a series of longitudinal rock shafts, each rock shaft having two arms, a device on each actuator rod located to engage one of said arms, devices each carried by one of said valves and located to be engaged and actuated by the other arm of one of said rock shafts, a second series of longitudinal rock shafts, each having two arms, projections from the key levers, each located to engage and actuate one arm of said rock shafts, the other arm of said rock shaft, when the shaft is rocked, being located to engage and actuate an actuator rod different from that directly actuated by said lever, and means for shifting said first series to render them inoperative when desired.

3. The combination of a sounding board having a row of openings therethrough, valves for closing said openings, a row of key levers, actuator rods, devices for transmitting motion from the key levers to the actuator rods, devices on the actuator rods for actuating said valves, a series of longitudinal rock shafts, each rock shaft having two arms, a device on each actuator rod located to engage one of said arms, devices each carried by one of

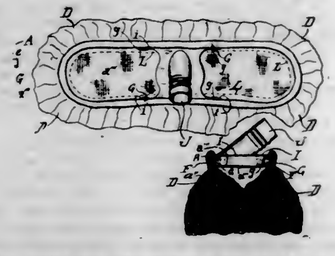
said valves and located to be engaged and actuated by the other arm of one of said rock shafts, a second series of longitudinal rock shafts, each having two arms, projections from the key levers, each located to engage and actuate one arm of said rock shafts, the other arm of said rock shaft, when the shaft is rocked, being located to engage and actuate an actuator rod different from that directly actuated by said lever, and means for shifting said second series to render them inoperative when desired.

4. The combination of a sounding board having a row of openings therethrough, valves for closing said openings, a row of key levers, actuator rods, devices for transmitting motion from the key levers to the actuator rods, devices on the actuator rods for actuating said valves, a series of longitudinal rock shafts, each rock shaft having two arms, a device on each actuator rod located to engage one of said arms, devices each carried by one of said valves and located to be engaged and actuated by the other arm of one of said rock shafts, a second series of longitudinal rock shafts, each having two arms, projections from the key levers, each located to engage and actuate one arm of said rock shafts, the other arm of said rock shaft, when the shaft is rocked, being located to engage and actuate an actuator rod different from that directly actuated by said lever, and means for shifting both series to render them inoperative when desired.

5. The combination of a sounding board having a plurality of parallel rows of openings therethrough, valves for controlling said openings, a row of key levers, actuator rods extending over said sounding board transverse to the row of openings therethrough, operative connections between said actuator rods and corresponding valves, operative connections between said key levers and corresponding actuator rods, a series of devices, each operatively related to one of said valves to be actuated thereby and operatively connected with another valve to operate the same when so actuated, and a second series of devices, each operatively connected with one of said key levers to be actuated thereby, and operatively connected with an actuator rod to operate the same when so actuated.

[Claim 6 not printed in the Gazette.]

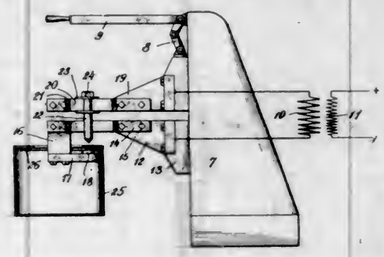
1,075,208. FLOOR-POLISHER. MEAD E. GOODHUE, Chicago, Ill. Filed Feb. 11, 1913. Serial No. 747,666. (Cl. 15—13.)



The combination of a frame made of wire bent in a given plane, fabric adapted to form a support for fibers, fibers secured to said fabric and transversely across it, said support and fibers secured on said frame with said fibers interposed between said wire and said fabric, a base provided with a handle socket secured between the sides of said frame, with said fabric and fibers interposed between the frame and said base, and the flaps of said fabric which are on the inner side of the wire of said frame attached together in substantially horizontal planes.

1,075,209. WELDING-MACHINE. JAMES H. GRAVELL, Philadelphia, Pa., assignor to Hale and Kilburn Company, Philadelphia, Pa., a Corporation of Delaware. Filed Jan. 17, 1913. Serial No. 742,578. (Cl. 219—4.)

1. A welding machine comprising a support, a pair of terminals mounted thereon between which the work is gripped and between which the current passes through the work, and means for moving one of said terminals bodily in a vertical direction upon said support, one of said terminals being so shaped that it extends laterally from the support and then backwardly toward the support, and the other terminal having a member thereon which coacts with the backwardly extending portion of the first-named terminal through the work, substantially as set forth.



2. A welding machine comprising a support, a pair of terminals mounted thereon between which the work is gripped and between which the current passes through the work, one of said terminals being so shaped that it extends laterally away from said support and then backwardly toward the support, and a member mounted on the other terminal, adjustable lengthwise thereof and extending in proximity to said backwardly extending portion of the first-named terminal, substantially as set forth.

3. A wielding machine comprising a support, a pair of terminals mounted thereon between which the work is gripped and between which the current passes through the work, one of said terminals being so shaped that it extends laterally away from said support and then backwardly toward the support, and a member mounted on the other terminal and projecting through an opening in the portion of the first-named terminal extending from the support and in proximity to the backwardly extending portion thereof, substantially as set forth.

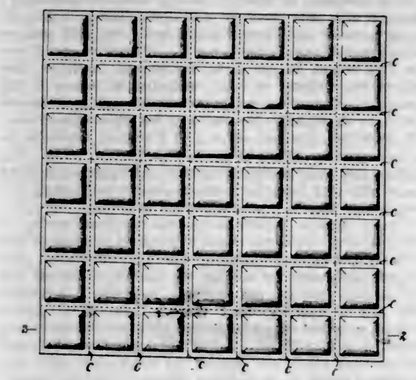
4. A welding machine comprising a support, a pair of terminals mounted thereon, a transformer whose secondary is connected to said terminals, and means for moving one of said terminals bodily in a vertical direction upon said support, one of said terminals being so shaped that the welding current flows therethrough in one direction away from said support and then in the opposite direction toward the support to the point of engagement of the terminal with the work and the other terminal being adapted to coact with the first-named terminal through the work at said point of engagement with the work, substantially as set forth.

5. A welding machine comprising a transformer, two terminals connected to the secondary of the transformer and adapted to grip the work between them, one of said terminals being so shaped that the welding current flows therethrough in one direction and then in the opposite direction to the point of engagement with the work, a member on the other terminal projecting through an opening in the first-named terminal and in proximity to the point of engagement thereof with the work, and means for moving said terminals toward and away from each other, substantially as set forth.

[Claim 6 not printed in the Gazette.]

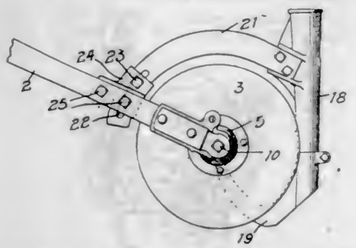
1,075,210. LIQUID-IMPREGNATING DEVICE. GEORGE EDWARD HEYL, London, and FREDERICK JOHN ALLEN, Wanstead, England. Filed Dec. 3, 1912. Serial No. 734,726. (Cl. 68—11.)

1. An article for domestic use, comprising a layer of material required for the impregnation, in proportionate quantities, of a relatively considerable volume of liquid, and two inclosing adherent sheets of protective material, the triple layer being perforated with rows of apertures adapted to facilitate the detachment of a determined portion of the article from the remainder.



2. A flat article for domestic use, comprising a layer of blue coloring-matter required for the proportionate coloration of a relatively considerable volume of water for laundry purposes, and two inclosing adherent sheets of blotting-paper texture, the said flat article being perforated with rows of apertures adapted to facilitate the detachment from the remainder of a determined quantity of the blue coloring-matter.

1,075,211. COMBINED DISK DRILL AND HARROW. HARRY C. HOWE, Owatonna, Minn., assignor to Owatonna Manufacturing Company, Owatonna, Minn., a Corporation. Filed Nov. 27, 1906. Serial No. 345,367. (Cl. 111—11.)



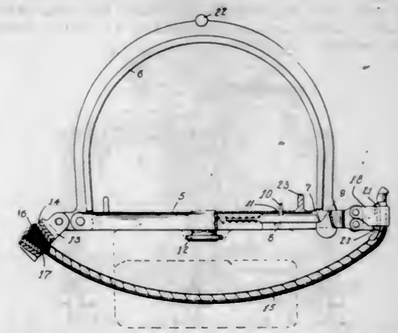
A device of the character described comprising a drag-bar, a disk rotatably mounted on the rear end of the drag-bar, a boot at the rear of the disk, and a curved bar connecting the boot and drag-bar and having an adjustable connection with the drag-bar at the front of the disk to permit a vertical adjustment of the boot in the arc of a circle, substantially as described.

1,075,212. MAIL-BAG RING. WILLIAM H. JONES, Manhattan Beach, Cal., assignor to Universal Mail Dispatcher Company, Los Angeles, Cal., a Corporation of California. Filed Jan. 29, 1913. Serial No. 744,925. (Cl. 105—231.)

1. A clutch for ropes comprising a clutch loop and a clutch bar pivotally mounted to a common base with the loop above the bar, the bar being shorter than the loop and having a face that extends into and through the loop.

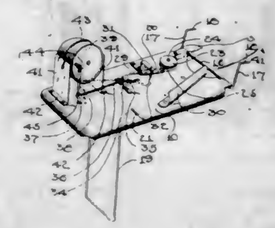
2. In a mail bag ring a clutch for ropes comprising a clutch loop and a clutch bar pivotally mounted to a common base with the loop above the bar, the bar being shorter than the loop and having a face that extends into and through the loop.

3. A mail bag ring comprising a base bar having an aperture near one end thereof; a bail pivotally secured to the base bar and having its free end provided with a notch and adapted to pass through the aperture in the base bar; a spring locking latch mounted in said base bar to lock said bail; rope attaching means secured to said bail; and a rope clutch mounted on the end of the base bar opposite to the end to which the bail is pivotally secured.



4. A mail bag ring comprising a base bar having a slit and an aperture therethrough near one end; a bail having a notch in one end thereof pivotally mounted on the base bar at the end opposite the aperture; a spring operated latch mounted on the base bar at the aperture therein, said latch having a lug extending through the slit in the base bar; a lug having a transverse tapered aperture therein pivotally mounted on the end of the bail; a rope in said aperture; a tapered screw in the end of said rope; and a rope clutch mounted on the end of the base bar having the aperture therein, said clutch comprising a clutch loop, pivotally secured to said base bar and a clutch bar pivotally secured to said base bar at a point below the pivot of the loop, said bar being shorter than the loop and having a face extending through the loop.

1,075,213. FIRE-LIGHTER. WILLIAM M. KLOEB, Girard, Kans. Filed Jan. 27, 1913. Serial No. 744,475. (Cl. 161—14.)

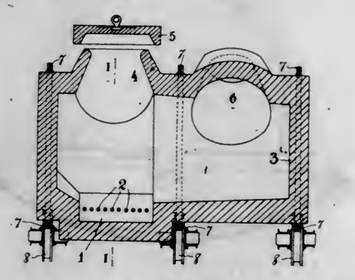


1. A fire lighter comprising a base plate, a coil spring carried by said base plate, match holding means at the free end of said coil spring, a pivot bearing carried by said base plate, a hook pivotally mounted intermediate its length in said pivot bearing and having its hooked end passing through an opening formed in said base plate and positioned in alinement with a second opening whereby the hooked end may pass through said base plate and engage said match carrying means to hold the same in a set position, a clock carried by said base plate, and flexible means connecting said hook with the alarm shaft of said clock for rocking said hook to release said match carrying means at a predetermined time.

2. A device of the character described comprising a base plate, a shaft rotatably connected with said base plate and having its ends formed into hooks adapted to

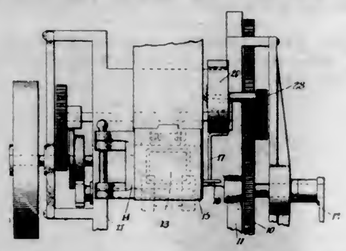
connect said base plate with a grate, a supporting member having its arms terminating in feet pivotally connected with said base plate, match holding means carried by said base plate, match igniting means carried by said base plate, and means carried by said base plate for releasing said match holding means at a predetermined time.

1,075,214. TILTING FURNACE FOR SMELTING PYRITES AND SULFUR ORES. EMIL KNUDSEN, Mühlbach, Austria-Hungary. Filed Apr. 12, 1913. Serial No. 760,654. (Cl. 75—3.)



A tilting furnace of the Bessemer type for smelting pyrites and sulfur ores, comprising a tilting body portion having a sump, twyers arranged to direct a blast into the sump, a hearth on which the material is charged at the side of said sump and twyers, and inclined toward the sump, said furnace having two angularly displaced openings, one over the sump and the other over the hearth and a closure for the opening over the sump.

1,075,215. KINETOSCOPE. JEAN A. LE ROY, New York, N. Y. Original application filed Mar. 21, 1908, Serial No. 420,623. Divided and this application filed July 29, 1911. Serial No. 641,230. (Cl. 88—19.4.)



1. In a motion picture projecting machine having a light aperture: a shutter movably mounted in front of the aperture; a rotatable shaft; centrifugal members carried by said shaft; a shell adapted to oscillate upon said shaft and mounted about said centrifugal members to be engaged thereby; and engaging means connected to said shell and disconnected from said shutter but adapted to engage the same.

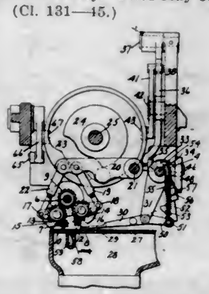
2. In a motion picture projecting machine having a light aperture: a shutter movably mounted in front of the aperture; a rotatable shaft, and a disk mounted thereon; centrifugal pieces pivotally connected to said disk; a shell adapted to oscillate upon said shaft and mounted about said centrifugal pieces to be engaged thereby; and an arm connected to said shell and disconnected from said shutter but adapted to engage the same.

3. In a motion picture projecting machine having a light aperture: a shutter movably mounted in front of the aperture; a rotatable shaft, and a disk mounted thereon; centrifugal pieces pivotally mounted on said disk and near the circumference thereof; a shell adapted to oscillate upon said shaft and mounted about one end of same and about the said centrifugal pieces to be engaged thereby and providing a bearing for the end of said shaft; means to hold said shell on said shaft; and an arm connected to said shell and disconnected from said shutter but adapted to engage the same.

4. In a motion picture projecting machine having a light aperture: a shutter movably mounted in front of the aperture; a rotatable shaft; frictional engaging means carried by said shaft; a shell adapted to oscillate upon said shaft and mounted about said frictional means to be engaged thereby; an arm extending laterally from said shutter; and an arm depending from said shell adapted to engage the said laterally extending arm only when the shell is oscillated in a predetermined direction.

5. In a motion picture projecting machine having a light aperture; a shutter movably mounted in front of the aperture, and an arm extending laterally therefrom; centrifugal mechanism for moving the shutter to permit the light to pass through the aperture, including a rotatable shaft and a disk mounted thereon, centrifugal pieces pivotally mounted on said disk and near the circumference thereof, a shell adapted to oscillate upon the said shaft and mounted about one end of the same and about the centrifugal pieces to be engaged thereby; a collar extending inwardly from said shell and fitting over the end of said shaft; a washer, and a screw passing therethrough into the end of said shaft to hold the shell in place upon the same; an arm depending from said shell adapted to engage the said laterally extending arm of the said shutter only when the shell is moved in a predetermined direction; and means carried by said shaft and engaging the operating mechanism of the kinetoscope.

1,075,216. CIGAR-WRAPPING MECHANISM. WILLIAM S. LUCKETT, East Orange, N. J., assignor to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed May 31, 1906. Serial No. 319,410. (Cl. 131—45.)



1. The combination with a wrapping mechanism, of a wrapper presenting device, a wrapper controlling device operating on the wrapper between the presenting device and the wrapping mechanism, and means for moving the controlling device lengthwise of the wrapping mechanism during the wrapping operation.

2. The combination with a wrapping mechanism, of a suction wrapper presenting device, a wrapper controlling device operating on the wrapper between the presenting device and the wrapping mechanism, and means for moving the controlling device lengthwise of the wrapping mechanism during the wrapping operation.

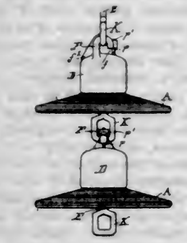
3. The combination with a wrapping mechanism, of a wrapper presenting device, a wrapper controlling plate operating on the wrapper between the presenting device and the wrapping mechanism, and means for positively moving the plate lengthwise of the wrapping mechanism during the wrapping operation.

4. The combination with a wrapping mechanism, of a suction wrapper presenting device, a wrapper controlling plate operating on the wrapper between the presenting device and the wrapping mechanism, and means for positively moving the plate lengthwise of the wrapping mechanism during the wrapping operation.

5. The combination with a wrapping mechanism, of a wrapper presenting device, a wrapper controller operating on the wrapper between the presenting device and the wrapping mechanism, means for moving the controller into and out of operative position, and means for positively moving it lengthwise of the wrapping mechanism during the wrapping operation.

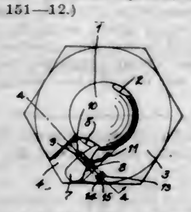
[Claims 6 to 11 not printed in the Gazette.]

1,075,217. HIGH-VOLTAGE INSULATOR. MARSHALL P. MAXWELL, Brooklyn, N. Y. Filed July 12, 1911. Serial No. 638,122. (Cl. 173—318.)



An insulator unit, comprising a metal cap, an insulator secured therein, said cap having a vertically-disposed, inverted hook-member on its upper end open at one side, the inverted portion of said hook-member having an aperture substantially vertically disposed over the cap, and a gravity-operating pin mounted in the aperture of said vertical hook-member and slidable toward and from the exterior of the cap and adapted to close the open side of said hook-member.

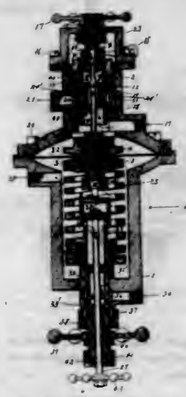
1,075,218. NUT-LOCK. ANTONY MAZUR and PAUL MUDRAK, Natalie, Pa. Filed Apr. 24, 1913. Serial No. 763,462. (Cl. 151—12.)



The combination with a bolt having longitudinal grooves formed therein, of a nut thereon having a recess in its outer face, a pawl pivotally connected in the recess, a bore formed in the nut and opening into the recess, a second bore formed in the nut and intersecting with the first named bore to provide a shoulder, a resilient latch connected to the pawl and adapted for operation in the first named bore, a hook carried by the latch and adapted to engage said shoulder to hold the pawl in engagement with one of the grooves of the bolt, and means for swinging the pawl from engagement with the bolt when the hook is disengaged from the shoulder.

1,075,219. REGULATOR. WILLIAM MILES MILLER and SWAN ALBERT SHIPP, Los Angeles, Cal. Filed May 2, 1912. Serial No. 694,743. (Cl. 236—6.)

1. In a regulator, the combination of a cylinder having a recess therein, a piston-valve arranged in the cylinder and provided with a longitudinal opening therethrough, a rod passing freely through said longitudinal opening and having the end portion thereof fitted in said recess, said rod provided with an opening therethrough, a pin slidably and rotatively arranged in said rod, and a pin arranged at right angles to the first mentioned pin and connected with said piston-valve and passing freely through the opening in said rod.



2. In a regulator, the combination of a casing, a flexible diaphragm therein, a cylinder provided with a threaded shank, a piston-valve in the cylinder, said cylinder and piston valve provided with adjacently disposed passageways, means operatively connecting the piston-valve with the diaphragm, a yoke affixed on the casing, a handwheel provided with an internally threaded hub fitted on said shank and bearing rotatively in the yoke, and a hand lever affixed on said shank for angularly adjusting the cylinder at will, substantially as set forth.

3. In a regulator, the combination of a flexible diaphragm, a casing thereon, a spring to resist movement of the diaphragm, a cylinder arranged within said spring, means for connecting the cylinder with the diaphragm, a sleeve adapted to bear against the spring, a fitting threaded in the sleeve and extending through the casing, a hollow piston threaded in the fitting and extending into the cylinder and provided with openings adjacent to the cylinder, a rod passing through the fitting and connected with the hollow piston, and handles on the fitting and the rod.

4. In a regulator, the combination of a flexible diaphragm, a casing thereon, a spring in the casing, means including a fitting rotatably mounted on the casing and adapted to permit adjustment of the spring, a cylinder arranged within the spring, means for flexibly connecting the cylinder with the diaphragm, a hollow piston extending into the cylinder and provided with openings adjacent to the end of the cylinder, and means mounted on the fitting and adapted to permit manual adjustment of the hollow piston at will.

5. The combination of a flexible diaphragm, casings for steam and oil disposed on opposite sides of the diaphragm, cylinders arranged in said casings, piston-valves extending into said cylinders, rods connected with said diaphragm, means flexibly connecting said piston-valves with said rods, means adapted to permit relative longitudinal adjustment of said piston-valves and cylinders, and means adapted to permit relative angular adjustment of the piston-valve and cylinder in the steam casing, substantially as and for the purposes set forth.

[Claim 6 not printed in the Gazette.]

1,075,220. GLASS-DRAWING BAIT. JOHN E. MILLIREN, Falls Creek, Pa. Filed Jan. 2, 1912. Serial No. 668,991. (Cl. 43—17.1.)

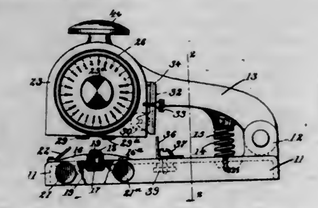
1. A glass drawing bait comprising a body portion having an annular receiving chamber provided with an opening at the lower portion of the bait and having a plurality of oppositely disposed shoulders adapted to form a support for the glass article.

2. A glass drawing bait comprising a body portion having an annular glass receiving chamber provided with a lower opening and having a plurality of oppositely dis-



posed shoulders provided with upwardly extending ledge portions, the shoulders being adapted to form a support for the glass article.

1,075,221. CHECK-PROTECTOR. GEORGE H. PEMBROKE, New Brunswick, N. J., assignor to Marcus H. Horton, Brooklyn, N. Y. Filed Dec. 17, 1912. Serial No. 737,178. (Cl. 101—57.)



1. An apparatus of the character described comprising a base, a movable member mounted thereon, means for maintaining said movable member normally in an elevated position, an adjustable printing member mounted upon said movable member, inking means engaging said adjustable printing member and serving to hold the same to its adjusted position, a support upon said base below said printing member, and inking means disposed upon said support and coöperating with said printing member to print a legend or statement upon both sides of a check when said movable member is depressed, substantially as specified.

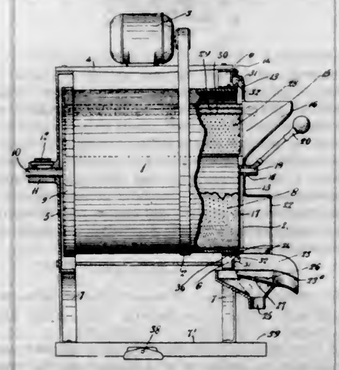
2. An apparatus of the character described comprising a base, a movable member mounted thereon, spring means for maintaining said movable member normally in an elevated position, a printing roller revolubly mounted in said movable member, an inking roller adjustably mounted in said movable member and engaging said printing roller, guides arranged upon the underside of said movable member below said printing roller, a support on said base below said printing roller, and inking means disposed upon said support and coöperating with said printing roller to print a legend or statement upon both sides of a check when said movable member is depressed, substantially as specified.

3. An apparatus of the character described comprising a base, an arm pivotally secured at one end to said base, spring means for maintaining said arm normally in an elevated position, a hollow head secured to the free end of said arm, a printing roller revolubly mounted in said head, indicating means carried by said head, an inking roller adjustably mounted in said head and engaging said printing roller, guides upon the underside of said head below said printing roller, a support arranged on said base below said printing roller, and inking means disposed upon said support and coöperating with said printing roller to print a legend or statement upon both sides of a check when said head is depressed, substantially as specified.

4. An apparatus of the character described comprising a base, an arm pivotally secured at one end to said base spring, means for maintaining said arm normally elevated, a hollow head carried by the free end of said arm, a shaft supported in said hollow head, a printing roller arranged within said hollow head and secured to said shaft, an indicating dial secured to said roller shaft without said head, means for rotating said printing roller and dial, a spring support secured to said head, an inking roller carried by said spring support and engaging said printing roller, means for adjusting the tension with which said inking roller bears upon said printing roller, a pair of longitudinal guides secured upon the underside of said head below the center of said printing roller, said base having a recess arranged therein opposite the interval between the longitudinal guides on the underside of said head, a resilient support arranged in said recess, a pair of rollers mounted in said base, an inking ribbon having its opposite ends secured to said rollers and extending over said resilient support, and means for actuating said rollers, substantially as specified.

5. An apparatus of the character described comprising a base, an arm pivotally secured at one end to said base spring, means for maintaining said arm normally elevated, a hollow head carried by the free end of said arm, a shaft supported in said hollow head, a printing roller arranged within said hollow head and secured to said shaft, an indicating dial secured to said roller shaft without said head, means for rotating said printing roller and dial, a spring support secured to said head, an inking roller carried by said spring support and engaging said printing roller, means for adjusting the tension with which said inking roller bears upon said printing roller, a pair of longitudinal guides secured upon the underside of said head below the center of said printing roller, said base having a recess arranged therein opposite the interval between the longitudinal guides on the underside of said head, a removable bar disposed within said recess, a resilient face secured to the upper side of said bar, a pair of rollers mounted in said base, means for actuating said rollers, an inking ribbon having its ends secured to said rollers and its intermediate portion extending over said removable bar, and an adjustable stop arranged upon said base to the rear of said removable bar, substantially as specified.

1,075,222. PEELER. ROBERT POWELL, Cincinnati, Ohio. Filed Mar. 20, 1911. Serial No. 615,554. (Cl. 146—14.)



1. In a peeler, a rotatable cylindrical casing, having a central bearing at the closed end of said casing, and a peripheral bearing at the open end and burred surfaces on the inside of said casing, a supporting frame at each end of said casing, and a cover plate at one end of said casing provided with an inlet and an outlet, substantially as and for the purposes set forth.

2. In a peeler, a horizontally disposed cylindrical rotating casing having a solid wall, a supporting frame for said casing, a means for rotating said casing, said casing being closed at one end and open at the other end, and a stationary cover for said open end, substantially as set forth and for the purposes specified.

3. In a peeler, a horizontally disposed cylindrical casing, means for rotating same, said casing being closed at one end and open at the other, a stationary end cover for said open end, and a stationary separator mounted inside of said cylindrical casing, substantially as and for the purposes set forth.

4. In a peeler, a horizontally disposed cylindrical casing adapted to be rotated and closed at one end, and journaled at the closed end thereof, end support frames, an end cover at the open end of said casing fastened to said supporting frame, an inlet and outlet in said end cover and a separator mounted on said end cover and projecting inside said cylindrical casing, substantially as and for the purposes set forth.

5. In a peeler, a horizontally disposed cylindrical casing adapted to rotate, one end of said casing being closed and the other end open, a flange provided on the open end of said cylindrical casing, said flange being curved outwardly and backwardly, supporting frames for said cylindrical casing, a flange mounted on one of said supporting frames adjacent the annular flange of the cylindrical casing, said flange on said supporting frame being bent to form a gutter at its free end, said bent portion extending under the curved portion of the annular flange mounted on the cylindrical casing, substantially as and for the purposes set forth.

[Claims 6 to 11 not printed in the Gazette.]

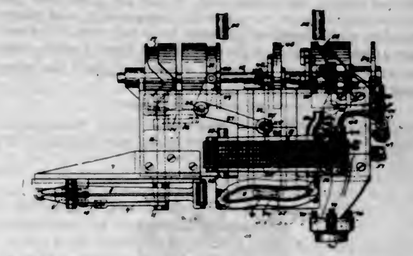
1,075,223. BUCKLE. JOHN PRAETZ, Brooklyn, N. Y.; Joseph J. Praetz, New York, N. Y., and John A. Praetz, Brooklyn, N. Y., executors of said John Praetz, deceased, assignors to John Praetz, Inc., a Corporation of New York. Filed Dec. 13, 1909. Serial No. 532,786. (Cl. 24—191.)



A buckle comprising a rectangular frame having two spaced-apart cross-bars, the rear end of said frame being offset from the main portion thereof to form a becket, a lever of substantially reverse curve configuration mounted on the cross-bar adjacent the front end of said frame and rotatable thereabout, said lever comprising a sheet metal body portion sharply bent back upon itself, the two members of said lever having rounded and oppositely disposed portions therein constituting bearings for said cross-bar, the sharply bent portion of said lever being adapted to closely approach the front end of said frame and coöperate therewith to form the strap clamping part of the buckle, the other ends of said lever being adapted for the permanent attachment of a strap end, of the same width as the body of the strap, the rotation of said lever being limited by the cross-bar adjacent the rear end of said frame, the front end of the lever being at all times spaced from the front end of the frame, and the rear end of the lever being at all times spaced from the becket, substantially as described.

1,075,224. WRAPPING-MACHINE. SYDNEY I. PRESCOTT, New York, N. Y., assignor to International Cigar Machinery Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 6, 1904. Serial No. 201,861. (Cl. 131—45.)

1. The combination with a wrapping mechanism, of a wrapper presenting means, a carrier in which said means is mounted to rotate, devices for rotating said wrapper presenting means to deliver the wrapper, means for giving the carrier an angular movement, and means for giving the wrapping mechanism a traversing movement, substantially as described.



2. The combination with a wrapping mechanism, of a wrapper presenting belt, means whereby the wrapper is secured to the belt, a carrier in which said belt is rotatably mounted, means for rotating the belt, means for giving the carrier an angular movement, and means for giving the wrapping mechanism a traversing movement, substantially as described.

3. The combination with a wrapping mechanism, of a perforated wrapper presenting belt, a suction mechanism acting through the perforations to secure the wrapper to the belt, a carrier in which the belt is rotatably mounted means for rotating the belt, and means for producing during the wrapping operation a relative movement between the belt and the wrapping mechanism which is the resultant of an angular movement of one of these members and a traversing movement of the other, substantially as described.

4. The combination with a wrapping mechanism, of a perforated wrapper presenting belt, a suction mechanism acting through the perforations to secure the wrapper to the belt, a carrier in which the belt is rotatably mounted means for rotating the belt, means for giving the carrier an angular movement during the wrapping operation, and means for giving the wrapping mechanism a traversing movement during the wrapping operation, substantially as described.

5. The combination with a wrapping mechanism of a suction belt wrapper presenting mechanism located beneath the wrapping mechanism, and means for causing the belt to travel beneath the wrapping mechanism to present the wrapper to the wrapping mechanism, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

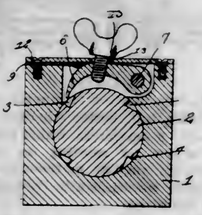
1,075,225. SCREW GRIPPER AND DRIVER. CHRISTOPHER S. REAMY, Los Angeles, Cal. Filed Jan. 13, 1913. Serial No. 741,889. (Cl. 145—52.)



A device of the class specified, comprising a hollow casing having one end portion thereof provided with shoul-

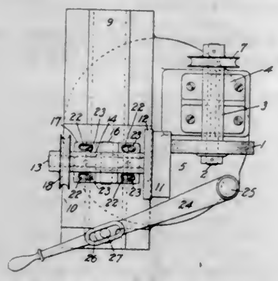
ders, a handle secured to the other end portion of the casing and provided with an opening substantially in alinement with the casing, a rod slidably arranged in the casing and adapted to extend through the opening in the handle, fingers having one end portion thereof secured to the rod within the casing and having the other end portion thereof adapted to normally spring apart, said fingers provided with shoulders adapted to co-act with the shoulders on the casing to move the fingers toward each other, and a projection on the casing adapted to limit the movement of the rod.

1,075,226. NUT-LOCK. MIKE SCHOTSCH, Youngstown, Ohio. Filed Mar. 10, 1913. Serial No. 753,342. (Cl. 151—12.)



In a nut-lock the combination with a nut having therein a recess opening into the bore of the nut and a notch communicating with said recess, and a bolt having therein longitudinal grooves; of a pawl pivoted in the recess of the nut and adapted to engage one of the grooves in the bolt, said pawl having therein a threaded passage, a spring secured in the notch of the nut and having its free end bearing on said pawl whereby the latter is held in operative engagement with the bolt, a protecting plate secured to the nut over the recess and pawl therein, said plate having a slot arranged in alinement with the threaded passage of the pawl, and a pawl operating screw adapted to be inserted through the slot in said plate and screwed into the threaded passage of the pawl whereby the screw is removably engaged with the pawl and provides a means for releasing and holding the pawl out of engagement with the bolt.

1,075,227. MACHINE FOR TRUING HONING-WHEELS. THOMAS C. SHEEHAN, Jersey City, N. J., assignor to Durham Duplex Razor Company, New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,722. (Cl. 125—6.)



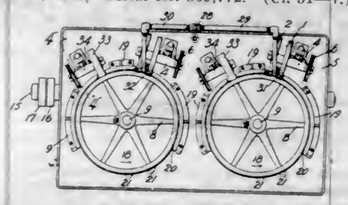
1. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

2. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

3. In a machine for truing honing wheels, the combination with a grinding wheel operating in fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means including a lever for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

4. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a stud carried by the fixture, a series of screws engaging the fixture for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and a lever fulcrumed on the table and engaging the stud for moving the fixture past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

1,075,228. GRINDING-MACHINE FOR RAZOR-BLADES. THOMAS C. SHEEHAN and JOHN E. DREW, Jersey City, N. J., assignors to Durham Duplex Razor Company, New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,772. (Cl. 51—7.)



1. In a machine for grinding razor blades, the combination with a grinding wheel, of a rotating turret provided with pins for engaging a perforated blade to forward it past the grinding wheel, and a concavo stationary guide adjacent and concentric with the periphery of the turret.

2. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, of a grinding wheel projecting into the channel, and means for forwarding a blade through the channel.

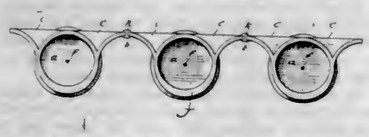
3. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and a movable member, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

4. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade, temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and a movable member having a series of pins adapted to engage a perforation in a blade, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

5. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and an endless movable member having a series of pins adapted to engage a perforation in a blade, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

[Claims 6 to 13 not printed in the Gazette.]

1,075,229. WINGED-PIER QUAY-WALL. HARRY C. SMITH, Manila, Philippine Islands. Filed Sept. 9, 1912. Serial No. 719,412. (Cl. 61—31.)



1. I claim a hollow pier with closed bottom and capable of being floated in water, and having two attached wings, the whole forming one of two or more units which when placed in line with extremities of wings joined form a continuous retaining wall or quay wall.

2. I claim the hollow cylindrical pier with a closed bottom and capable of being floated in water, and having two attached wings in the form of half arches the whole forming one of two or more units which when placed in line with extremities of wings joined form a continuous retaining wall or quay wall, all substantially as set forth.

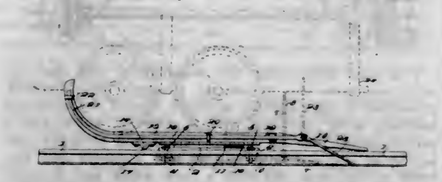
3. I claim the hollow pier with closed bottom and capable of being floated in water, and having two attached wings and two or more brackets or webs joined to the wings and pier, the whole forming one of two or more units which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

4. I claim the hollow cylindrical pier having an inverted hollow cone closing the bottom and two wings attached to the cylinder, the whole capable of being floated in water and forming a unit two or more of which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

5. I claim the hollow cylinder with closed bottom and capable of being floated in water, and having a circular ring forming an annular enlargement at the bottom of the cylinder, and two attached wings, the whole forming a unit two or more of which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,075,230. TURN-TABLE. JOHN L. SMITH, Wartburg, Tenn., assignor to George F. Lyman, Harriman, Tenn. Original application filed May 15, 1911, Serial No. 627,338. Divided and this application filed May 2, 1913. Serial No. 765,047. (Cl. 104—19.)



1. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, a turning body on said base, and rails on said body, substantially as described.

2. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, a turning body on said base, and rails and stop mechanism on said body, substantially as described.

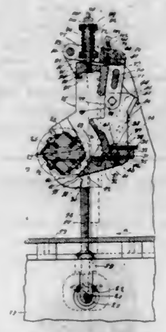
3. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, turning a body on said base, rails on said body and stop mechanism applied to said rails, substantially as described.

4. In a structure of the nature described, the combination of a base adapted to rest on a track, means for locking the base to said track, a turning body on said base, rails on said body, and stop mechanism applied to said rails, said stop mechanism being movable into and out of the path of the wheels of cars traversing said rails, substantially as described.

5. In a structure of the nature described, the combination of a base adapted to rest on a track, means for locking the base to said track, a turning body on said base, rails on said body, stops pivoted to the ends of said rails, and means for moving the stops into and out of the path of the wheels of a car moving on said rails, substantially as described.

[Claims 6 to 29 not printed in the Gazette.]

1,075,231. CHIP-BREAKER FOR PLANING-MACHINES. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Original application filed Feb. 1, 1913, Serial No. 745,096. Divided and this application filed June 6, 1913. Serial No. 772,110. (Cl. 144—243.)

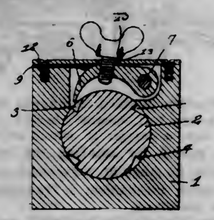


1. In a wood planing machine, the combination of a chip-breaker for a rotary cutter-head, a right-line guide at each end of said chip-breaker for guiding said chip-breaker in a right-line movement, and a plurality of integral yokes pivoted respectively at the four corners thereof to each other and to said housing and said chip-breaker, the said pivotal connections of said respective yokes being located in planes parallel to the direction of feeding movement of the stock past said chip-breaker which are adjacent to the respective ends of the stock-contacted face of said chip-breaker, whereby said yokes and said chip-breaker are maintained parallel, for the purposes described.

2. In a wood planing machine, the combination with a frame, an upper cutter-head housing, a cutter-head journaled therein in its forward portion, means for adjusting said housing up and down on said frame, said housing comprising a cross-girt extending crosswise of the machine, a chip-breaker having a stock-contact portion extending under said cross-girt toward said cutter-head, right-line guiding means for said chip-breaker on said housing, and pressure means for said chip-breaker com-

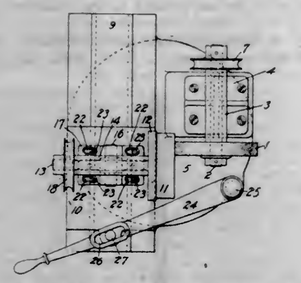
ders, a handle secured to the other end portion of the casing and provided with an opening substantially in alinement with the casing, a rod slidably arranged in the casing and adapted to extend through the opening in the handle, fingers having one end portion thereof secured to the rod within the casing and having the other end portion thereof adapted to normally spring apart, said fingers provided with shoulders adapted to co-act with the shoulders on the casing to move the fingers toward each other, and a projection on the casing adapted to limit the movement of the rod.

1,075,226. NUT-LOCK. MIKE SCHOTSCH, Youngstown, Ohio. Filed Mar. 10, 1913. Serial No. 753,342. (Cl. 151—12.)



In a nut-lock the combination with a nut having therein a recess opening into the bore of the nut and a notch communicating with said recess, and a bolt having therein longitudinal grooves; of a pawl pivoted in the recess of the nut and adapted to engage one of the grooves in the bolt, said pawl having therein a threaded passage, a spring secured in the notch of the nut and having its free end bearing on said pawl whereby the latter is held in operative engagement with the bolt, a protecting plate secured to the nut over the recess and pawl therein, said plate having a slot arranged in alinement with the threaded passage of the pawl, and a pawl operating screw adapted to be inserted through the slot in said plate and screwed into the threaded passage of the pawl whereby the screw is removably engaged with the pawl and provides a means for releasing and holding the pawl out of engagement with the bolt.

1,075,227. MACHINE FOR TRUING HONING-WHEELS. THOMAS C. SHEEHAN, Jersey City, N. J., assignor to Durham Duplex Razor Company, New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,722. (Cl. 125—6.)



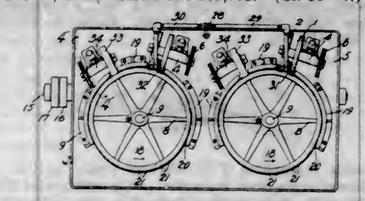
1. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

2. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

3. In a machine for truing honing wheels, the combination with a grinding wheel operating in fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a series of screws for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and means including a lever for moving the fixture on the slideway past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

4. In a machine for truing honing wheels, the combination with a grinding wheel operating in a fixed position, of a table supporting the grinding wheel, a slideway formed in the table adjacent and parallel with the axis of the grinding wheel, a fixture arranged to slide on the slideway, a stud carried by the fixture, a series of screws engaging the fixture for holding a honing wheel assembled with its operating mechanism on the fixture and in contact with the grinding wheel, and a lever fulcrumed on the table and engaging the stud for moving the fixture past the grinding wheel whereby the face of the honing wheel is trued by the grinding wheel.

1,075,228. GRINDING-MACHINE FOR RAZOR-BLADES. THOMAS C. SHEEHAN and JOHN E. DREW, Jersey City, N. J., assignors to Durham Duplex Razor Company, New York, N. Y., a Corporation of New York. Filed June 30, 1910. Serial No. 569,772. (Cl. 51—7.)



1. In a machine for grinding razor blades, the combination with a grinding wheel, of a rotating turret provided with pins for engaging a perforated blade to forward it past the grinding wheel, and a concave stationary guide adjacent and concentric with the periphery of the turret.

2. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, of a grinding wheel projecting into the channel, and means for forwarding a blade through the channel.

3. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and a movable member, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

4. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade, temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and a movable member having a series of pins adapted to engage a perforation in a blade, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

5. In a machine for grinding razor blades, the combination with a guide having a curved channel adapted to support a normally flat blade temporarily bent to conform to the curvature of the channel, said channel being formed by a stationary member and an endless movable member having a series of pins adapted to engage a perforation in a blade, of a grinding wheel projecting into the channel, and means for moving the movable member to forward a blade through the channel.

[Claims 6 to 13 not printed in the Gazette.]

1,075,229. WINGED-PIER QUAY-WALL. HARRY C. SMITH, Manila, Philippine Islands. Filed Sept. 9, 1912. Serial No. 719,412. (Cl. 61—31.)



1. I claim a hollow pier with closed bottom and capable of being floated in water, and having two attached wings, the whole forming one of two or more units which when placed in line with extremities of wings joined form a continuous retaining wall or quay wall.

2. I claim the hollow cylindrical pier with a closed bottom and capable of being floated in water, and having two attached wings in the form of half arches the whole forming one of two or more units which when placed in line with extremities of wings joined form a continuous retaining wall or quay wall, all substantially as set forth.
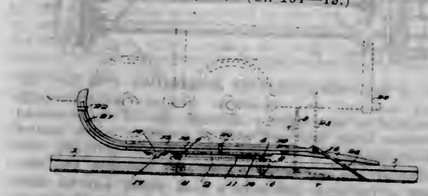
3. I claim the hollow pier with closed bottom and capable of being floated in water, and having two attached wings and two or more brackets or webs joined to the wings and pier, the whole forming one of two or more units which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

4. I claim the hollow cylindrical pier having an inverted hollow cone closing the bottom and two wings attached to the cylinder, the whole capable of being floated in water and forming a unit two or more of which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

5. I claim the hollow cylinder with closed bottom and capable of being floated in water, and having a circular ring forming an annular enlargement at the bottom of the cylinder, and two attached wings, the whole forming a unit two or more of which, when placed in line with extremities of wings joined, form a continuous retaining wall or quay wall, all substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,075,230. TURN-TABLE. JOHN L. SMITH, Wartburg, Tenn., assignor to George F. Lyman, Harriman, Tenn. Original application filed May 15, 1911. Serial No. 627,338. Divided and this application filed May 2, 1913. Serial No. 765,047. (Cl. 104—19.)



1. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, a turning body on said base, and rails on said body, substantially as described.

2. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, a turning body on said base, and rails and stop mechanism on said body, substantially as described.

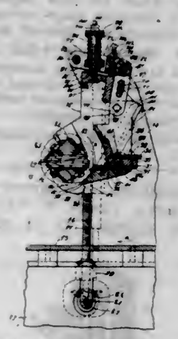
3. In a structure of the nature described, the combination of a base adapted to rest on track rails, means for locking the base to said track rails, turning a body on said base, rails on said body and stop mechanism applied to said rails, substantially as described.

4. In a structure of the nature described, the combination of a base adapted to rest on a track, means for locking the base to said track, a turning body on said base, rails on said body, and stop mechanism applied to said rails, said stop mechanism being movable into and out of the path of the wheels of cars traversing said rails, substantially as described.

5. In a structure of the nature described, the combination of a base adapted to rest on a track, means for locking the base to said track, a turning body on said base, rails on said body, stops pivoted to the ends of said rails, and means for moving the stops into and out of the path of the wheels of a car moving on said rails, substantially as described.

[Claims 6 to 29 not printed in the Gazette.]

1,075,231. CHIP-BREAKER FOR PLANING-MACHINES. PETER A. SOLEM, Cincinnati, Ohio, assignor to J. A. Fay & Egan Company, Cincinnati, Ohio, a Corporation of West Virginia. Original application filed Feb. 1, 1913, Serial No. 745,696. Divided and this application filed June 6, 1913. Serial No. 772,110. (Cl. 144—243.)



1. In a wood planing machine, the combination of a chip-breaker for a rotary cutter-head, a right-line guide at each end of said chip-breaker for guiding said chip-breaker in a right-line movement, and a plurality of integral yokes pivoted respectively at the four corners thereof to each other and to said housing and said chip-breaker, the said pivotal connections of said respective yokes being located in planes parallel to the direction of feeding movement of the stock past said chip-breaker which are adjacent to the respective ends of the stock-contacted face of said chip-breaker, whereby said yokes and said chip-breaker are maintained parallel, for the purposes described.

2. In a wood planing machine, the combination with a frame, an upper cutter-head housing, a cutter-head journaled therein in its forward portion, means for adjusting said housing up and down on said frame, said housing comprising a cross-girt extending crosswise of the machine, a chip-breaker having a stock-contact portion extending under said cross-girt toward said cutter-head, right-line guiding means for said chip-breaker on said housing, and pressure means for said chip-breaker com-

prising a plurality of interpivoted integral yokes, said yokes extending integrally crosswise of said housing, one end of said interpivoted yokes pivoted to said housing and the other end of said interpivoted yokes pivoted to said chip-breaker, and said yoke arranged above and across the rear of said cross-girt, for the purpose specified.

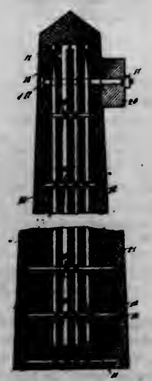
3. In a wood planing machine, the combination with a cutter-head housing comprising a cross-girt of angle form, of a chip-breaker comprising a chip-breaker foot extending under said cross-girt, means for causing right-line movement of said chip-breaker, integral double-link yokes pivoted respectively at the four corners thereof to each other and to said housing and chip-breakers, and respectively extending substantially parallel with the sides of the angle of said cross-girt, and spring resistance means for resisting the raising of said chip-breaker operatively located between said cross-girt and the one of said yokes pivoted to said housing.

4. In a wood planing machine, the combination with a cutter-head housing comprising a cross-girt of angle form, of a chip-breaker comprising a chip-breaker foot extending under said cross-girt, means for causing right-line movement of said chip-breaker, integral double-link yokes pivoted respectively at the four corners thereof to each other and to said housing and chip-breaker, and respectively extending substantially parallel with the sides of the angle of said cross-girt, spring resistance means for resisting the raising of said chip-breaker operatively located between said cross-girt and one of said yokes, and an adjustable stop on said last-named yoke located in line with the side of the angle of said cross-girt parallel to the other of said yokes.

5. In a wood planing machine, the combination of an upper cutter-head housing, a cutter-head journaled in the forward portion of said housing, said housing comprising a cross-girt, a chip-breaker whose chip-breaking portion extends under said cross-girt toward said cutter-head, right line guiding means for said chip-breaker on said housing, a pair of integral yokes extending integrally crosswise of said housing and pivoted together adjacent to said cross-girt, one of said yokes arranged above said cross-girt and pivoted to the forward upper portion of said housing, and the other of said yokes extending downwardly in rear of said cross-girt and pivoted to said chip-breaker, for the purpose specified.

[Claims 6 to 10 not printed in the Gazette.]

1,075,232. REINFORCED-CONCRETE POLE. HARRY SUMMERFIELD STOUT, Ceredo, W. Va. Filed Dec. 19, 1912. Serial No. 737,625. (Cl. 72—82.)



1. In a reinforced concrete pole, a skeleton comprising a central member having exterior lateral ribs, a plurality of rings varying in size concentric with said central member, and a plurality of binding means from each of said rings to said ribs and a plurality of binding means from each of said rings to the following ring, said binding means and said rings forming substantially a cone-shaped cage about said central member, and a series of superposed cone-shaped cages within said first-mentioned cone shaped cage.

2. In a reinforced concrete pole, a skeleton comprising a central member having exterior lateral ribs, a plurality of rings, each consecutive ring changing in diameter and all concentric with said member, and a plurality of binding means from each of said rings to said ribs and a plurality of binding means from each of said rings to the following ring, said binding means and said rings forming substantially a cone-shaped cage about said central member, and a series of superposed cone cages within said first-mentioned cone cage.

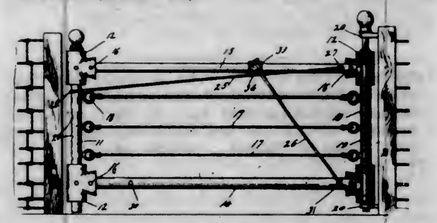
3. In a reinforced concrete pole, a skeleton comprising a central vertical tubular member, having ribs on its exterior lateral surface, a plurality of rings each consecutive changing ring in diameter, concentric with said central member and normal to it, the distance between said consecutive rings being gradually changed, and means associated with said ribs on said central member and said rings, to maintain said rings normally concentric to said central member and at a predetermined distance.

4. In a reinforced concrete pole, a skeleton comprising a central vertical tubular member having reinforcing ribs on its exterior surface, and near its upper end means adapted to support an object, a plurality of rings each consecutive ring changing in diameter, concentric with said central vertical tubular member and normal to it, the distance between said consecutive rings being gradually changed, and means associated with said ribs and said consecutive rings to maintain said rings normal and concentric to said central vertical tubular member and at a predetermined distance.

5. In combination a skeleton comprising a central exteriorly laterally ribbed tubular member, a plurality of horizontal rings each consecutive ring changing in diameter and all concentric with said central tubular member, said rings consecutively changing in distance between each other, and the change in distance between any two consecutive rings being inversely to their diameters, means for connecting said rings to said central tubular member, and for maintaining said rings concentric with said central tubular member and at a predetermined distance, and a concrete body incorporating said skeleton uniformly and centrally and having sides corresponding in number with the ribs on said central tubular member, and means provided near the upper part of said tubular member and projecting out of said concrete body adapted to support an object.

[Claims 6 to 8 not printed in the Gazette.]

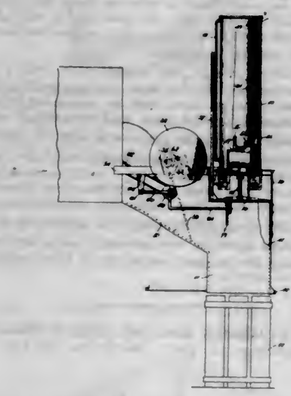
1,075,233. ADJUSTABLE GATE. JAMES E. VAN DEVENTER and LAFE SWANK, Anderson, Ind., assignors to Dwiggins Wire Fence Company, Anderson, Ind., a Corportion of Indiana. Filed Mar. 8, 1912. Serial No. 682,465. (Cl. 39—18.)



1. A gate comprising the combination with two upright members, two transverse members each pivotally connected to said upright members, one of the aforesaid members being provided with a series of holes, and a pivotal support of an oblique tension rod pivotally connected at one end with one of said members and provided at the other end with a hook which may be made to engage any of said holes, and an oppositely oblique tension rod pivoted to one of said members and adjustably attached to another of said members, one end of the first tension rod being nearer both the pivotal support and the upper transverse member than is the other.

2. A gate comprising the combination with two upright members, two transverse members each pivotally connected to said upright members, and a pivotal support, of two oppositely oblique tension rods each pivotally connected at one end to one of the aforesaid members and adjustably connected at the other end to another of said members, the adjustable connection of that one of the tension-members having its higher end nearer the pivotal support than its lower end being by a hook which engages the coöperating member non-slidably.

1,075,234. STEAM COTTON-BALING TAMPER. JACKSON LAMAR WALKER, Crafton, Tex. Filed Mar. 14, 1911. Serial No. 614,306. (Cl. 100—25.)



1. In a cotton baling tamper, a hopper having a yielding member, a pressure cylinder, a piston in the cylinder and carrying a presser head, means including a slide valve for controlling the admission of a motive agent to the pressure cylinder, a pivoted lever with which the slide valve is connected, means for pivotally connecting the lever with the yielding member of the hopper, a member carried by the presser head, and means for operating the lever from the member of the presser head.

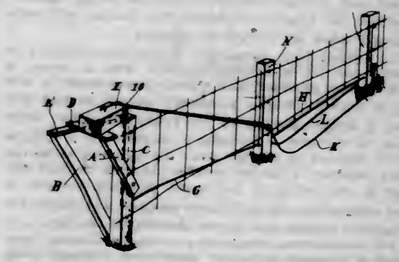
2. In a cotton baling tamper, a hopper having a yielding member, a pressure cylinder, a piston in the cylinder and carrying a presser head, means including a slide valve for controlling the admission of a motive agent to the pressure cylinder, a pivoted lever having a cam at one end and connected at its other end with the yielding member of the hopper, a pivoted connection between the lever and slide valve, a member carried by the presser head, and a roller carried by the member of the presser head and adapted to engage the cam of the said lever.

3. In a cotton baling tamper, a hopper having a yielding member provided with a rod, a pressure cylinder, a piston in the cylinder and carrying a presser head, means including a slide valve for controlling the admission of a motive agent to the pressure cylinder, a pivoted lever having a cam head at one end and connected with the slide valve, a catch pivoted to the other end of the lever and engaging the rod of the yielding member, a rod carried by the presser head, and a roller carried by the said rod and adapted to engage the cam head of the lever.

4. In a cotton baling tamper, a hopper, a reciprocating presser head, a feeding mechanism embodying a crank shaft and reciprocating push arms connected therewith, a driving mechanism operatively connected with the crank shaft through a driven pulley, a pivoted lever pivoted at one end in which the pulley is mounted intermediate of the ends of said lever, a pivoted and spring pressed lever having its free end extending in the path of the presser head, and a yielding connection between the said levers.

5. In a cotton baling tamper, a hopper, a reciprocating presser head, a crank shaft, push arms mounted on the crank shaft, a pulley on said crank shaft, a pivoted lever, pivoted to the hopper and a driven pulley mounted in the lever intermediate of the ends thereof and adapted to engage the pulley of the crank shaft, a pivoted and spring pressed lever mounted on the hopper at right angles to the first lever and having its free end extending in the path of the presser head, a pin connecting the free end of the lever carrying the pulley with the other lever, and a spring on the pin between the levers.

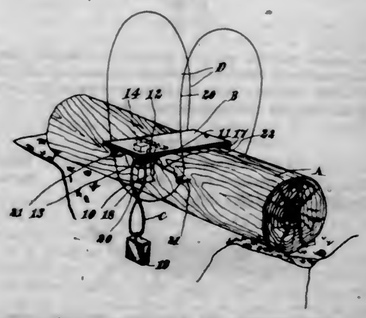
1,075,235. DEAD-FALL TRAP. SAMUEL WIEHL, Sisters, Oreg. Filed Oct. 3, 1912. Serial No. 723,722. (Cl. 43—27.)



1. In a dead fall trap, a dead fall weight, a plurality of supporting struts and a plurality of levers extending across said struts and resting one on the other, a trip pin supporting the last lever, said last lever constituting a supporting means for said weight, a trip line connected to said trip pin and trapping means operated by the weight.

2. A dead fall trap comprising two spaced struts having two loose levers, each having one end resting on one of the struts and one of the levers having one end resting on the other lever, a trip pin supporting the free end of one of the levers, a trip line connected to the trip pin and a weight supported by one of the levers and trapping means operated by a fall in the weight, as and for the purpose specified.

1,075,236. ANIMAL-TRAP. SAMUEL WIEHL, Sisters, Oreg. Filed Oct. 3, 1912. Serial No. 723,723. (Cl. 43—27.)



1. An animal trap comprising a log, detaining loops adapted to descend thereover, a catch device for holding the loops in raised position, a detent member adapted to hold the catch device in set position, and a foot-board

adapted to actuate the detent member to release the catch device and means for causing said loops to descend when the catch device is released.

2. An animal trap comprising a log, eyes situated in the sides thereof, detaining loops slidable in said eyes adapted to descend over the log, a support provided with a recess, a trigger member located in the recess adapted to hold the loop in raised position, a detent member adapted to hold the trigger in the recess and a foot-board adapted to actuate the detent member to release the trigger and means for causing said loops to descend when the trigger is released.

3. An animal trap comprising a log, eyes situated in the sides thereof, detaining loops slidable in said eyes adapted to descend over the log, a support provided with a recess, a trigger member provided with a projection located in the recess adapted to hold the loops in raised position, a detent member provided with a notch adapted to hold the trigger in set position and a foot-board provided with a ridge adapted to tilt the detent member and release the trigger and means for causing said loops to descend when the trigger is released.

4. An animal trap comprising a log, eyes situated in the sides thereof, a support provided with a recess, a trigger member provided with a projection located in said recess, a pendant member releasably secured to said projection, a weight secured to the pendant member, loops slidable in the eyes comprising a single strip of pliable material adapted to descend over the log secured to the pendant member, a detent member adapted to hold the trigger in the recess, a foot-board pivotally secured to the log adapted to tilt the detent member and means for securing the trigger and detent member to the log.

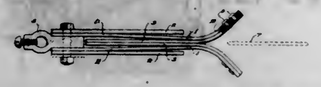
5. An animal trap comprising a log, detaining loops adapted to descend thereover comprising a single strip of pliable material, a catch device for holding the loops in raised position, a detent member adapted to hold the catch device in set position, a fulcrum element secured to the log and a foot-board loosely pivoted to the fulcrum element adapted to actuate the detent member to release the catch device and means for causing said loops to descend when the catch device is released.

1,075,237. PREVENTIVE INTERCOURSE-APRON. SAMUEL WIEHL, Sisters, Oreg. Filed Oct. 3, 1912. Serial No. 723,724. (Cl. 119—143.)



An apron for the purpose specified of flexible material having one edge inserted between the wool of the animal and sewn thereto, and to hang downwardly, substantially as and for the purpose specified.

1,075,238. ELECTRICAL SWITCH. OZRO N. WISWELL, Snoqualmie, Wash. Filed July 12, 1911. Serial No. 638,219. (Cl. 175—282.)



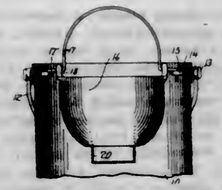
1. A jaw member for electrical switches comprising two spring-like members secured together at one end with their faces in contact, one of said members being secured at its opposite end to a support and the other constituting the contact member, said members being differently curved to normally hold their major part separated, and adapted to have said normally-separated parts brought gradually into contact as the switch passes over the contact member.

2. In an electric switch, in combination, a base, a pair of spring arms secured at one end to said base and projecting therefrom in the same direction but in separated relation, a spring arm secured to and with a side surface in contact with the inner surface of the outer end of each of said first-mentioned arms, the arms so connected being given an initial curvature acting to separate them as they extend away from their point of union when unrestrained but permitting bringing said surfaces into contact by the pressure of the movable member of the switch in closing.

3. A jaw member for electric switches comprising two spring-like arms secured together at one end with side faces in close contact, the secured ends of said arms being curved to normally slightly diverge their free portions away from their secured ends, the free end of one of said arms being longer than the other, and means for securing said extended end to a support.

4. In an electric switch, the combination with a base, of spring arms secured to the base and projecting in the same direction from the base but in separated relation, guard bars secured to the base and extending outside of and alongside said spring arms and slightly diverging from the normal or unrestrained position of the spring arms, a second pair of spring arms, each secured to the inner surface of the outer ends of the first mentioned spring arms and extending backward therebetween, the connected spring arms being curved to normally diverge away from their point of connection, said inner set of arms serving as the contact members of the complemental part of the switch.

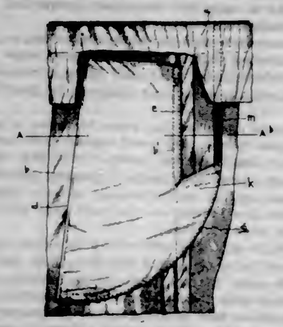
1,075,239. PLUMBER'S KIT. FRANK AUTY, New York, N. Y. Filed Mar. 12, 1913. Serial No. 753,745. (Cl. 126—239.)



1. The herein described kit comprising a casing having an open top, a pair of supports secured in said casing adjacent its top, a bail pivoted to said supports on the outside of the casing, said supports including a pair of eyes on the inside of the casing, a melting pot adapted to be supported within the casing and comprising a bail having outwardly extending horizontal portions terminating in ends extending downwardly through said eyes, and means on the outside of the casing to supply a portable source of heat through one wall thereof to said melting pot.

2. The herein described kit comprising an upright casing adapted to constitute a furnace or support, having an open upper end, and also serving as a container for the usual tools and equipment of a workman, a pair of supports secured to said casing adjacent its top, said supports being stationary and including a pair of eyes within the casing, a melting pot having upwardly extending ears, a bail for the same including outwardly extending horizontal portions extending through said ears and terminating in downward extensions seated in said eyes whereby the melting pot is supported and the bail maintained upright, said casing having an opening on one side adjacent the bottom of the melting pot, and heat applying means operative through said opening upon said melting pot.

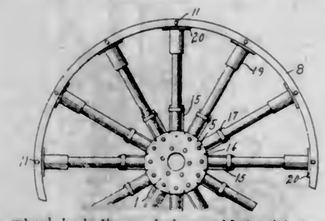
1,075,240. SAFETY-POCKET FOR TROUSERS. JOHN BARRETT, Montreal, Quebec, Canada. Filed Nov. 20, 1912. Serial No. 732,553. (Cl. 2—15.)



1. The combination with a pair of trousers of a side pocket having an integral sub-pocket extending rearwardly from the lower portion of the rear edge of the main pocket and at an acute angle to the upper portion of said rear edge and supplemental supporting means for said sub-pocket.

2. The combination with a pair of trousers, of a side pocket having a sub-pocket extending rearwardly from the lower portion of the rear edge of the main pocket and at an acute angle to the upper portion of the said rear edge and a strap supporting the sub-pocket.

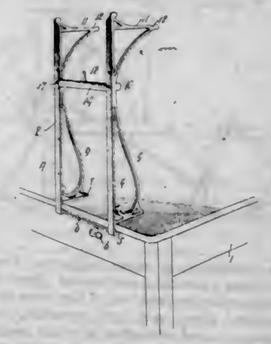
1,075,241. WHEEL. THOMAS L. COOK, Logan, Okla. Filed May 7, 1913. Serial No. 766,161. (Cl. 152—47.)



1. A wheel including a hub provided with an annular groove to form spaced side walls, radial sectional spokes having their inner ends loosely secured between said walls, a felly having a plurality of recesses in which the outer ends of the spokes are pivotally secured, plates secured to the inner side of the felly and encircling the outer sections of the spokes, coil springs mounted upon the outer sections of the spokes, and disposed between the outer ends of the inner sections and said plates, and a guard member adapted to inclose said springs and having an annular flange formed upon the outer end thereof adapted to be loosely secured to the inner side of the felly, said guard having its inner end mounted upon the outer end of the inner sections of the spokes to entirely inclose said springs, as and for the purpose set forth.

2. A wheel including a hub having an annular groove forming spaced side walls, a plurality of sectional spokes having their inner ends loosely secured between said side walls, V-shaped springs arranged between the inner ends of the spokes, said springs having their intermediate portions arranged between the side walls, securing pins arranged across the groove in the hub to hold the springs in position, clamping members removably securing the ends of the springs to the spokes, a felly having a plurality of recesses in which the outer ends of the spokes are to be secured, plates secured to the felly and adapted to encircle the outer ends of the spokes, coil springs mounted upon the outer sections of the spokes and disposed between the outer ends of the inner sections and the plates, a guard member having an annular flange formed upon the outer end and adapted to be loosely secured to the felly, the inner end of said guard member being movably mounted upon the outer end of the inner section to entirely inclose the coil spring upon the outer section.

1,075,242. CANISTER-SUPPORT. ARMAND H. CUREAU, Tarrytown, N. Y. Filed Sept. 3, 1912. Serial No. 718,245. (Cl. 211—6.)



1. A canister support comprising a pair of side frames, means at the lower ends of said frames for securing the support in position, arms projecting from the upper ends of said frames and having bearing recesses in their upper edges, and a cross bar connecting said frames together below said arms, said bar having an upward-extending stud projecting centrally therefrom.

2. The combination of a canister having trunnions extending from the opposite sides thereof and a bearing also mounted on the side of said canister, and a support for engaging said trunnions, said support also having means for engaging said bearing to prevent the canister from swinging.

3. A canister support comprising a pair of frames having incurved fronts, said frames having means at the top for engaging and supporting a canister, a cross bar connecting said frames, said bar also having means for engaging the canister to prevent the same from swinging, and a pair of lugs carried by the frames to cover the ends of the bar.

4. A canister support comprising a pair of posts each having a foot extending laterally therefrom and having one end bent over to extend parallel with said foot, a bar connecting said bent-over ends together, a clamp passing through said bar to hold the support in position when mounted, and a bar connecting said posts together above said first-named bar.

5. A canister support comprising a pair of side frames, means at the lower ends of said frames for securing the support in position, arms projecting from the upper ends of said frames and having bearings therein adjacent their outer ends, and a cross bar for connecting said frames together below said arms, said cross-bar having means for engaging a canister projecting therefrom to prevent the canister from swinging from said bearings.

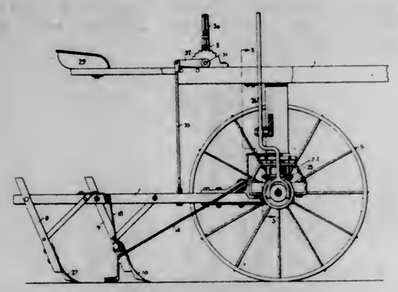
[Claim 6 not printed in the Gazette.]

1,075,243. CULTIVATOR. JOHN B. DENHAM and GROVER VANCE, Sandford, Ind., Filed Feb. 15, 1913. Serial No. 748,588. (Cl. 97—45.)

1. In a wheeled cultivator, a beam, an arm pivoted to the forward part of the beam and extending rearwardly, a blade extending at right angles from the free end of the arm to cut transversely of a plant row, a spring normally holding the blade in its operative position, and means for operating said arm.

2. In a cultivator, a wheel supported frame, a beam, an arm pivoted to the forward end of the beam and extending rearwardly, an adjustable blade secured to and extending

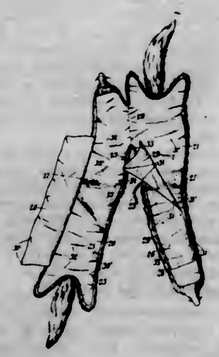
at right angles from the free end of the arm to cut transversely of a plant row, a spring normally holding the blade in its operating position and means for reciprocating said arm.



3. In a cultivator, a wheel supported frame, a beam secured to and extending rearwardly from the axle, an arm pivoted to the forward end of the beam on an approximately vertical pivot, said arm extending rearwardly, a blade secured to and extending at right angles from the free end of the arm, a spring having one end secured to the beam, and its other end to the said arm, and means for reciprocating said arm.

4. In a cultivator, a wheel supported frame, a cultivator beam secured to the axle, a pivoted and spring pressed arm mounted on the beam, the arm having its forward end offset and provided with a depending projection at the end of the offset portion, a blade secured to the free end of the arm and projecting laterally therefrom, and a ratchet-like wheel engaging the projection of said arm to reciprocate the same.

1,075,244. CONVERTIBLE FUR PIECE. GEORGE EPSTEIN, New York, N. Y. Filed Oct. 23, 1912. Serial No. 727,339. (Cl. 2—59.)



1. The herein described fur piece comprising a plurality of complete pelts connected permanently together at one end for use as a scarf and means to temporarily secure the adjacent free edges of the pelts together as a continuation of the aforesaid permanent connection, whereby the fur piece may be used as a muff.

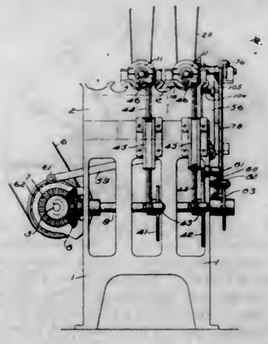
2. The herein described fur piece comprising a plurality of complete pelts connected permanently together at one end, means to secure the adjacent free edges of the pelts together as a continuation of the aforesaid connection, and linings for the individual pelts providing additional protecting means to span the temporary connection between the pelts, substantially as set forth.

3. The herein described fur piece comprising a plurality of pelts connected together at their inner edges for the purposes set forth, said pelts each being provided with a pocket projecting inwardly and downwardly from its outer edge.

4. The herein described fur piece including a pelt having a head and a tail, said head having eyes, and means to fasten the head and tail ends of the pelt in folded position, said means comprising fasteners, certain members of which are the eyes aforesaid and the other members of which are secured to the pelt adjacent the tail, substantially as set forth.

5. The herein described convertible fur piece comprising a plurality of pelts connected together, each pelt having a head with eyes, the fur piece being foldable so as to bring the tails upon the inside, means to secure the piece in folded position, said securing means comprising sets of snaps, the eyes of the several heads aforesaid constituting members of said snaps and the other members thereof being secured permanently adjacent the tail ends of the pelts, and additional securing means adjacent the edges of the piece to secure the tails within the folded piece.

1,075,245. HANDLE-TURNING MACHINE. WILLIAM C. FARNUM, Fitchburg, Mass., assignor of one-half to Henry E. Cowdrey and Charles F. Cowdrey, Fitchburg, Mass. Filed Jan. 10, 1912. Serial No. 670,398. (Cl. 144—46.)



1. In a machine of the character described, the combination of a machine bed having guideways, head stocks mounted for longitudinal movement toward and from each other on said ways, a swinging frame between the head stocks, a slide mounted on said swinging frame, a roughing knife mounted to rock transversely of said slide, a finishing knife mounted to move with the slide, means for rocking the roughing knife transversely and for raising the slide, and means for swinging the frame.

2. In a machine of the character described, the combination of means for supporting and rotating a blank, a form or pattern, a knife carrier stationary with respect to movement longitudinally of the blank and resting on said form or pattern, a curved roughing knife mounted on the said carrier, and means for rocking the curved roughing knife toward either end of the blank and in the plane of its curvature to present different portions of its cutting edge to different longitudinal portions of the blank during the roughing operation.

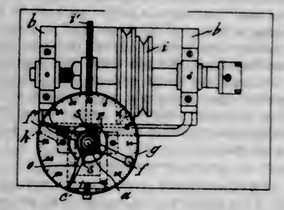
3. In a machine of the character described, the combination of means for supporting a blank in fixed position and rotating the same, a knife carrier, a roughing knife having a transversely curved cutting edge and mounted on said carrier, a pattern, and means for rocking the knife carrier upon said pattern during the cutting action of the knife to vary the position of the cutting edge.

4. In a machine of the character described, the combination of head stocks for supporting a blank between them, means for rotating a blank held between the head stocks, a knife carrier, a roughing knife having a transversely curved cutting edge and mounted on the carrier, means for rocking the knife transversely during its cutting action to bring different cutting edge portions of the knife into cutting relation with different longitudinal portions of the blank, and means for moving the knife bodily in the plane of its rocking movement as it is rocked.

5. In a machine of the character described, the combination of head stocks for supporting a blank between them, means for rotating a blank held between the head stocks, a knife carrier having sliding movement in a direction transversely of the blank, a roughing knife having a transversely curved cutting edge and mounted on the carrier, means for rocking the knife transversely during its cutting action to bring different cutting edge portions of the curved knife into cutting relation with different longitudinal portions of the blank, and a pattern for controlling bodily movement of the knife toward and from the axis of the blank as it is rocked.

[Claims 6 to 25 not printed in the Gazette.]

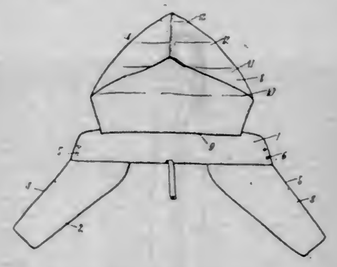
1,075,246. LATHE. JOSEF FEIGE, Ludwigsdorf, Germany. Filed May 23, 1912. Serial No. 699,195. (Cl. 90—56.)



1. In a lathe, the combination, with the head stock, of a pedestal swingingly mounted at its foot on the head stock; a vertical worm shaft in said pedestal, a worm mounted on said shaft; a worm wheel fixed on the head stock shaft and engaged by said worm for rotating the head stock shaft step-by-step; a horizontally disposed graduated disk mounted on the upper end of the pedestal; a main indicator attached to the worm shaft and having its end disposed over the graduations of the main disk; means for rotating the worm shaft; a limiting indicator capable of being adjusted in advance of the main indicator and to limit the movement thereof; and means for rigidly securing the limiting indicator to the main indicator so that they move together.

2. In a lathe, the combination, with the head stock, of a pedestal swingingly mounted at its foot on the head stock; a vertical worm shaft in said pedestal; a worm mounted on the said shaft; a worm wheel fixed on the head stock shaft and engaged by said worm for rotating the head stock shaft step-by-step; a main horizontally disposed graduated disk mounted on the upper end of the pedestal; a main indicator attached to the worm shaft and having its end disposed over the graduations of the main disk; means for rotating the worm shaft; an auxiliary indicator arranged diametrically opposite to the main indicator, a limiting indicator capable of being adjusted in advance of the main indicator, and means for rigidly securing the limiting indicator to the main indicator so that they move together.

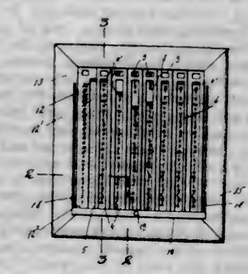
1,075,247. HOOD AND NECK-PROTECTOR. FRANK PAUL FIORI, New York, N. Y. Filed Jan. 30, 1912. Serial No. 674,249. (Cl. 2—59.)



1. In a device of the character described, a neck encircling member, a pair of chest protectors connected with said neck encircling member and extending from the ends thereof at such an angle that when the ends of said neck encircling member are brought together the edges of said chest protectors will meet, means for holding the ends of said neck encircling member together, a folding hood secured to the inner side of the upper edge of said neck encircling member, said hood being adapted to be folded so as to extend when in a folded position from near the upper edge of said neck encircling member to near the lower edge thereof, and a retaining member for holding said hood in place while in a folded condition.

2. In a device of the character described, a muffler formed with a neck portion, a foldable hood connected to the neck portion and adapted to be folded over on to the neck portion and to extend substantially parallel with the neck portion, and an encircling binding strip connected at one end to the neck portion and removably secured at the opposite end to the neck portion for clamping said hood while in its folded position to said neck portion intermediate the length of the hood.

1,075,248. APPLIANCE FOR EDUCATIONAL, AMUSEMENT, AND ADVERTISING PURPOSES. ABRAHAM I. GANCHER, New York, N. Y. Filed Feb. 23, 1911. Serial No. 610,309. (Cl. 35—9.)



1. In a spelling device, a board having a plurality of parallel furrows on one face, a corresponding number of endless bands rotatably guided around said board, and a guard for each band removably engaged in said furrows.

2. In an educational appliance of the character described, a board, a plurality of endless bands rotatably guided around said board and arranged adjacent and parallel to one another, said bands bearing legends, a projecting member on each band and a slide extending across the bands and adapted when moved longitudinally of the bands to engage the said projecting members of the displaced bands, and return the latter to the starting position.

1,075,249. WOVEN TUBULAR TIE. JAMES CORNELL GAYNOR, Paterson, N. J. Filed Sept. 12, 1912. Serial No. 719,942. (Cl. 139—72.)



1. A strip of woven fabric comprising a plurality of tightly woven or taffeta portions extending transversely of the strip from one edge to the other, and a woven tubular tie arranged between each pair of said tight or taffeta portions, said ties extending parallel with said tight or taffeta portions and being woven with a double portion at the center and with more than a double portion at the ends whereby a filling structure is provided at the ends.

2. A strip of woven tubular ties, each of said ties extending transversely of the strip and each tie in the weaving being formed with a single tubular portion at the central or neck portion of the tie and with tubular portions and lining portions between the neck portion of the tie and the edges of the strip, said lining portions being superimposed on the tubular end portions of the tie, said lining portions having a selvage edge at each end, and each of said ties having a selvage edge at each of the ends.

3. A strip of woven tubular ties, each of said ties extending transversely of the strip and each tie in the weaving being formed with a single tubular portion at the central or neck portion of the tie and with tubular end portions and lining portions between the neck portion of the tie and the edges of the strip, said lining portions being superimposed on said tubular end portions and each of said ties having a selvage edge at each end thereof.

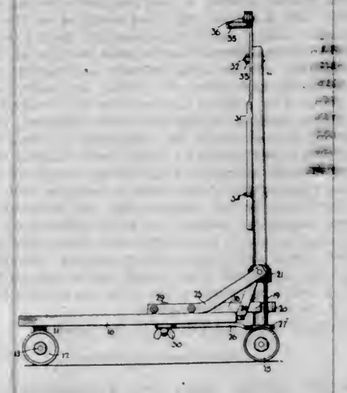
4. A strip of woven tubular ties, each of said ties extending transversely of the strip and each tie in the weaving being formed with a single tubular portion at the central or neck portion of the tie and with tubular end portions and woven lining portion between the neck portions of the tie and the edges of the strip, said lining portions being superimposed on said tubular end portions each of said ties having selvage edges at each end and said filling portions having a selvage edge at each end of the tie.

5. In a weave of the class described, a plurality of spaced tightly woven portions extending transversely of the strip being woven, a transversely arranged tubular portion positioned between each of said tightly woven portions, the position of the tubular portions transversely of the strip causing the ends of the tubular portion to be formed with a selvage edge, and an extra woven lining arranged between each of said tightly woven portions so as to lie adjacent said tubular portions, said lining being superimposed on the end portions of said tubular portion, said lining, being formed with a selvage edge adjacent the selvage edge of the strip being woven.

[Claims 6 and 7 not printed in the Gazette.]

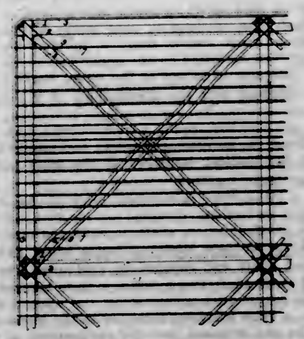
1,075,250. COASTING DEVICE. DAVID GINGOLD, New York, N. Y. Filed Dec. 9, 1912. Serial No. 735,653. (Cl. 21—191.)

1. In a coasting device, the combination of a platform, an extension secured upon the front end of the platform, said extension having at its front end a vertical notch and stops on opposite sides thereof, a front axle, a standard rigidly connected to said axle, a brace extending upwardly from said extension, a yoke journaled on a horizontal axis in said braces, the standard being journaled in said yoke, means normally maintaining said standard in a vertical position and extended into said notch in the extension, means to rotate the standard, and a block rigidly secured to the standard and adapted to coöperate with said stops.



2. In a coasting device, a platform, means to support the platform including a front axle, a standard rigidly connected to the front axle, a collar secured to the standard and having a flange at its lower end, a yoke journaled upon said collar and resting normally upon said flange, means extending from the platform and supported upon said yoke whereby the front end of the platform is normally supported upon the front axle, means to rotate the standard for steering purposes, and means coöperating with the said yoke to maintain the standard in normal operative position.

1,075,251. REINFORCED-CONCRETE FLOOR. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. M. System Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1912. Serial No. 688,898. (Cl. 72—71.)



1. In a reinforced concrete floor, the combination of a series of outer columns, a series of horizontal beams connecting said columns, horizontal chords or carrier members disposed outside of said horizontal beams and attached to and having bearing on the outer portions of the columns, a series of longitudinal rods or wires attached to said carrier members and overlapping the horizontal beams to constitute the skeleton center of the floor, and a mass of concrete inclosing said rods and carrier members to form the body of the floor.

2. In a reinforced concrete floor, the combination of a series of outer columns, a series of horizontal beams connecting said columns, upper and lower horizontal chords or carrier members disposed outside of said horizontal beams and attached to and having bearing on the outer portions of said columns, upper and lower series of longitudinal rods or wires attached to said carrier members and overlapping the horizontal beams to constitute the skeleton center of the floor, and a mass of concrete inclosing said rods and carrier members to form the body of the floor.

3. In a reinforced concrete floor, the combination of a series of outer columns, a series of horizontal beams connecting said columns, a series of longitudinal rods or wires supported at their ends and overlapping the horizontal beams and continuous between the same to constitute the skeleton center of the floor, diagonal chords or carrier members arranged in crossed relation and attached at their ends to diagonally disposed columns, said diagonal chords having the form of flattened links the end loops of which embrace said columns and a mass of concrete inclosing said rods and diagonal members to form the body of the floor.

4. In a reinforced concrete floor, the combination of a series of outer columns, a series of horizontal beams connecting said columns, upper and lower series of longitudinal rods or wires supported at their ends and overlapping the horizontal beams and continuous between the same to constitute the skeleton center of the floor, upper and lower diagonal chords or carrier members arranged in crossed relation and attached at their ends to diagonally disposed columns, said diagonal chords having the form of flattened links the end loops of which embrace said columns and a mass of concrete inclosing said rods and diagonal members to form the body of the floor.

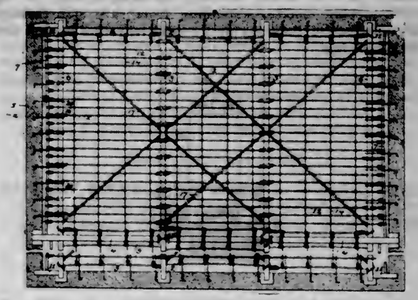
5. In a reinforced concrete floor, the combination of a series of outer columns, a series of horizontal beams connecting said columns, a series of longitudinal rods or wires supported at their ends and overlapping the horizontal beams and continuous between the same to constitute the skeleton center of the floor, diagonal chords or carrier members arranged in crossed relation and attached at their ends to diagonally disposed columns, said diagonal chords having the form of flattened links the end loops of which embrace said columns and a mass of concrete inclosing said rods and diagonal members to form the body of the floor, said longitudinal rods or wires being attached to the diagonal members at points of intersection.

[Claims 6 to 10 not printed in the Gazette.]

1,075,252. REINFORCED-CONCRETE FLOOR. GEORGE M. GRAHAM, Chicago, Ill., assignor to G. M. System Co., Chicago, Ill., a Corporation of Illinois. Filed Sept. 11, 1911. Serial No. 648,806. (Cl. 72—71.)

1. A reinforced concrete floor, comprising marginal transverse beams, transverse chords or tension members supported at their ends in adjacent parallel relation to said beams, a series of longitudinal rods or wires attached in spaced relation to said chords, longitudinal chords or tension members attached at their ends to the outer ends of the transverse beams, a series of transverse rods or wires attached in spaced relation to said longitudinal chords, and a mass of concrete inclosing said rods, chords and beams to form the floor.

2. A reinforced concrete floor, comprising marginal transverse beams provided at their ends with lateral supporting means, transverse chords or tension members supported at their ends by the lateral supporting means of said beams, a series of longitudinal rods or wires attached in spaced relation to said chords, longitudinal chords or tension members attached at their ends to the outer ends of the transverse beams, a series of transverse rods or wires attached in spaced relation to said longitudinal chords, and a mass of concrete inclosing said rods, chords and beams to form the floor.



3. A reinforced concrete floor, comprising marginal transverse beams upper and lower transverse chords or tension members supported at their ends in adjacent relation to said beams, upper and lower series of longitudinal rods or wires attached in spaced relation to said chords, upper and lower longitudinal chords or tension members attached at their ends to the outer ends of the transverse beams, upper and lower series of transverse rods or wires attached in spaced relation to said longitudinal chords, and a mass of concrete inclosing said rods, chords and beams to form the floor.

4. A reinforced concrete floor, comprising marginal transverse beams, transverse chords or tension members supported at their ends in adjacent parallel relation to said beams, a series of longitudinal rods or wires attached in spaced relation to said chords, longitudinal chords or tension members attached at their ends to the outer ends of the transverse beams, a series of transverse rods or wires attached in spaced relation to said longitudinal chords, a series of intermediate transverse beams adapted to form intermediate supports for the rods or wires aforesaid, and a mass of concrete inclosing said rods, chords and beams to form the floor.

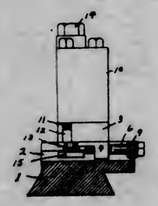
5. A reinforced concrete floor, comprising marginal transverse beams, upper and lower transverse chords or tension members supported at their ends in adjacent parallel relation to said beams, upper and lower series of longitudinal rods or wires attached in spaced relation to said chords, upper and lower longitudinal chords or tension members attached at their ends to the outer ends of the transverse beams, upper and lower series of transverse rods or wires attached in spaced relation to said longitudinal chords, a series of intermediate transverse beams adapted to form intermediate supports for the rods or wires aforesaid, and a mass of concrete inclosing said rods, chords and beams to form the floor.

[Claims 6 to 22 not printed in the Gazette.]

1,075,253. TOOL-HOLDER. SVEN E. GREEN, Bristol, Conn. Filed Nov. 20, 1912. Serial No. 732,579. (Cl. 82—37.)

1. In a device of the class specified a longitudinally movable member having a transverse slot, a tool holder base mounted thereon having a lug adapted to travel in said slot, said lug being in threaded engagement with a bolt secured to said longitudinally movable member, whereby said tool holder base is moved laterally as desired and an upright locking member extending from said slot through said tool holder base having its head traveling in said slot.

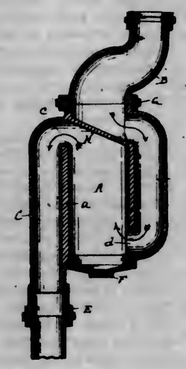
2. In a device of the class specified a longitudinally movable member having a transverse slot enlarged at the bottom thereof, a tool holder base mounted thereon having a lug adapted to travel in said slot, said lug being in threaded engagement with a bolt secured to a plate on said longitudinally movable member, whereby said tool holder base is moved laterally as desired and an upright locking member extending from said slot through said tool holder base having its head traveling in said slot with said lug.



3. In a device of the class specified a longitudinally movable member having a transverse slot, a tool holder base mounted thereon having a lug traveling in said slot, means for transversely moving said base on said slot and a locking member having its head traveling in said slot.

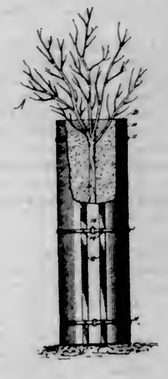
4. In a device of the class specified a longitudinally movable member having a transverse slot, a tool holder base mounted thereon having a lug traveling in said slot, means for transversely moving said base on said slot and a locking member having its head traveling continually at a pre-determined distance from said lug in said slot.

1,075,254. LIQUID-TRAP. PETER D. HAY, Detroit, Mich., assignor to Detroit Sanitary Supply Company, Detroit, Mich. Filed May 5, 1910. Serial No. 559,551. (Cl. 182—12.)



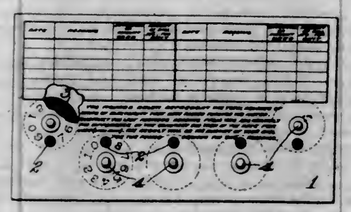
A lavatory trap, having in combination, a deep barrel, an inclined partition across the barrel near the top dividing the barrel into an upper and lower chamber, a lead-around conduit of considerably less diameter than the barrel and cast integral with the barrel, said lead-around conduit leading from the upper chamber to the outside of the barrel there paralleling and lying contiguous to the barrel and leading into the lower chamber at the side and flush with the bottom thereof, an outlet conduit of substantially the same bore as the lead-around conduit, cast integral with the said barrel and leading from the side of the barrel at the extreme top of the lower chamber and paralleling the said barrel contiguous thereto, and a goose-neck having an inlet opening of substantially the same bore as the said conduits and enlarging to a bore coincident to the bore of the barrel, the said enlarged end of the goose neck having a swiveling coupling with the barrel at its top, whereby the swiveling goose-neck provides a large range of adjustability for the trap and also affords an air trap to break siphonic action, substantially as described.

1,075,255. TREE-PROTECTOR. CHARLES I. HELM, Phoenix, Ariz. Filed Apr. 2, 1913. Serial No. 758,332. (Cl. 47—38.)



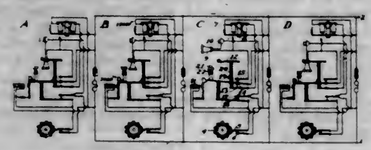
A protector, comprising a sheet adapted to be bent into substantially cylindrical form, a cleat applied to one vertical edge of the sheet, a second cleat secured a distance from the opposite edge of the sheet leaving the projecting edge to underlie the first-mentioned edge, and bands on said sheet, the bands being secured adjacent to the ends thereof to the mentioned cleats, one projecting end of each band carrying a loop and the other projecting end of each band being in hook form and adapted to engage in said loop, so that in the fastened position of the protector the cleats will be spaced apart and afford clearance, for the convenient fastening and unfastening of the protector.

1,075,256. METER-READING CHART. BENJAMIN O. HUTCHISON, Upper Alton, Ill. Filed Feb. 28, 1907. Serial No. 359,850. (Cl. 40—70.)



A meter reading chart comprising a perforate card, a plurality of indicator disks mounted thereon, numbers on the card located about the periphery of said disks, a pointer on each disk in opposition to said numbers, numbers on the reverse of and located about the periphery of each of said disks and registering with the perforations in the card said perforations located in a straight line.

1,075,257. TELEPHONY. MORTON L. JOHNSON, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1911. Serial No. 643,337. (Cl. 179—17.)



1. A telephone exchange system including a party telephone line extending from a plurality of telephone stations to an exchange; magnets at the party line stations serving normally to lock the telephones thereat out of circuit relation with the line; polarized relays at the telephone stations for establishing circuit through the aforesaid magnets to permit the association of the telephones with the line; a source of uni-directional current normally in such circuit relation with the line as to cause the energization of the polarized relays; switching devices at the stations for closing circuit through said relays and said source of current; and means at the exchange for changing the direction of current flow to render the polarized relays unresponsive at those stations that do not have use of the line.

2. A telephone exchange system including a party telephone line extending from a plurality of telephone stations to an exchange, at which exchange mechanism is provided for automatically effecting extension of said telephone line; mechanism at the telephone stations for effecting the operation of the line extending mechanism at the exchange; magnets at the party line stations serving normally to prevent the effective operation of the mechanism at the telephone stations that is employed to initiate the automatic extension of the line; relays at the telephone stations for establishing circuit through the aforesaid magnets to permit of the line extension at the exchange; and means at the exchange for preventing and permitting of the energization of said relays.

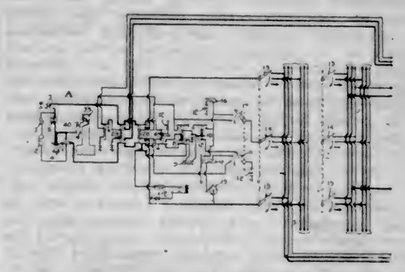
3. A telephone exchange system including a party telephone line extending from a plurality of telephone stations to an exchange, at which exchange mechanism is provided for automatically effecting extension of said telephone line; mechanism at the telephone stations for effecting the operation of the line extending mechanism at the exchange; magnets at the party line stations serving normally to prevent the effective operation of the mechanism at the telephone stations that is employed to initiate the automatic extension of the line; polarized relays at the telephone stations for establishing circuit through the aforesaid magnets to permit of the line extension at the exchange; a source of uni-directional current normally in such circuit relation with the line as to cause the energization of the polarized relays; switching devices at the stations for closing circuit through said relays and said source of current; and means at the exchange for changing the direction of current flow to render the polarized relays unresponsive at those stations that do not have use of the line.

4. A telephone exchange system including a party telephone line extending from a plurality of telephone stations to an exchange; magnets at the party line stations serving normally to lock the telephones thereat out of circuit relation with the line; relays at the telephone stations for establishing circuit through the aforesaid magnets to permit the association of the telephones with the line; and means at the exchange for preventing and permitting the energization of said relays, there being apparatus at the party line stations for governing the latter means.

5. A telephone exchange system including a party telephone line extending from a plurality of telephone stations to an exchange; magnets at the party line stations serving normally to lock the telephone thereat out of circuit relation with the line; polarized relays at the telephone stations for establishing circuit through the aforesaid magnets to permit the association of the telephones with the line; a source of uni-directional current normally in such circuit relation with the line as to cause the energization of the polarized relays; switching devices at the stations for closing circuit through said relays and said source of current; and means at the exchange for changing the direction of current flow to render the polarized relays unresponsive at those stations that do not have use of the line, there being apparatus at the party line stations for governing the latter means.

[Claims 6 and 7 not printed in the Gazette.]

1,075,258. TELEPHONY. MORTON L. JOHNSON, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 4, 1912. Serial No. 734,865. (Cl. 179—7.)



1. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange at some of which stations are located devices requiring operation by calling subscribers after responses by called subscribers in order to complete connection between calling and called subscribers, there being means at the subscribers' stations coöperating with these devices and operable by responding called subscribers; link connectors at the exchange for uniting lines in conversation; switching mechanism associated with said link connectors for breaking telephonic connection between calling and called stations for telephonic current impressed upon calling lines at calling stations; electro-magnetic mechanism governed by the aforesaid devices at calling stations equipped therewith in coöperation with the aforesaid means at stations of responding called subscribers for operating said switching mechanism and completing connection between calling and called stations; additional operator controlled link connectors for establishing connection between calling and called stations independently of the devices requiring operation by calling subscribers after responses by called subscribers; means whereby calling subscribers may have telephonic connection with an operator independently of his device requiring operation in precharged or prepaid connections; and electro-magnetic switching mechanism for automatically connecting the additional link connectors with calling lines.

2. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange at some of which stations are located devices requiring operation by calling subscribers in order to complete connection between calling and called subscribers; link connectors at the exchange for uniting lines in conversation; switching mechanism associated with said link connectors for breaking telephonic connection between calling and called stations for telephonic current impressed upon calling lines at calling stations; electro-magnetic mechanism

operated by the aforesaid devices at calling stations equipped therewith for operating the switching mechanism to complete connection between calling and called stations; additional operator controlled link connectors for establishing connection between calling and called stations independently of the devices requiring operation by calling subscribers after responses by called subscribers; means whereby calling subscribers may have telephonic connection with an operator independently of his device requiring operation in precharged or prepaid connections; and electro-magnetic switching mechanism for automatically connecting the additional link connectors with calling lines.

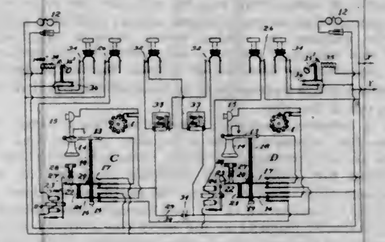
3. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange at some of which stations are located devices requiring operation by calling subscribers after responses by called subscribers in order to complete connection between calling and called subscribers, there being means at the subscribers' stations coöperating with these devices and operable by responding called subscribers; link connectors at the exchange for uniting lines in conversation; switching mechanism associated with said link connectors for breaking telephonic connection between calling and called stations for telephonic current impressed upon calling lines at calling stations; electro-magnetic mechanism governed by the aforesaid devices at calling stations equipped therewith in coöperation with the aforesaid means at stations of responding called subscribers for operating said switching mechanism and completing connection between calling and called stations; additional operator controlled link connectors for establishing connection between calling and called stations independently of the devices requiring operation by calling subscribers after responses by called subscribers; means whereby calling subscribers may have telephonic connection with an operator independently of his device requiring operation in precharged or prepaid connections; means whereby the operator may supervise uncharged connections between calling and called stations; and electro-magnetic switching mechanism for automatically connecting the additional link connectors with calling lines.

4. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange at some of which stations are located devices requiring operation by calling subscribers in order to complete connection between calling and called subscribers; link connectors at the exchange for uniting lines in conversation; switching mechanism associated with said link connectors for breaking telephonic connection between calling and called stations for telephonic current impressed upon calling lines at calling stations; electro-magnetic mechanism operated by the aforesaid devices at calling stations equipped therewith for operating the switching mechanism to complete connection between calling and called stations; additional operator controlled link connectors for establishing connection between calling and called stations independently of the devices requiring operation by calling subscribers after responses by called subscribers; means whereby calling subscribers may have telephonic connection with an operator independently of his device requiring operation in precharged or prepaid connections; means whereby the operator may supervise uncharged connections between calling and called stations; and electro-magnetic switching mechanism for automatically connection the additional link connectors with calling lines.

5. A telephone exchange system including telephone lines extending from subscribers' stations to an exchange at some of which stations are located devices requiring operation by calling subscribers after responses by called subscribers in order to complete connection between calling and called subscribers, there being means at the subscribers' stations coöperating with these devices and operable by responding called subscribers; link connectors at the exchange for uniting lines in conversation; switching mechanism associated with said link connectors for breaking telephonic connection between calling and called stations for telephonic current impressed upon calling lines at calling stations; electro-magnetic mechanism governed by the aforesaid devices at calling stations equipped therewith in coöperation with the aforesaid means at stations of responding called subscribers for operating said switching mechanism and completing connection between calling and called stations; additional operator controlled link connectors for establishing connection between calling and called stations independently of the devices requiring operation by calling subscribers after responses by called subscribers; means whereby calling subscribers may have telephonic connection with an operator independently of his device requiring operation in precharged or prepaid connections; and electro-magnetic switching mechanism for automatically connecting the aforesaid link connectors with calling lines.

[Claims 6 to 8 not printed in the Gazette.]

1,075,259. TELEPHONY. MORTON L. JOHNSON, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1911, Serial No. 643,342. Renewed June 19, 1913. Serial No. 774,701. (Cl. 179—17.)



1. A telephone exchange system including telephone lines extending from telephone substations to an exchange where a common battery is located and which is provided with mechanism for automatically extending the telephone lines, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in telephonic circuit with the party line and at that time serving to break the telephonic connection between the party line stations; a polarized magnet at the other party line station in high resistance bridge of the party line controlled by said switching mechanism serving to prevent the telephone at the party line station companion to that having said switching mechanism from becoming connected with the party line when the telephonic connection between the party line stations is broken; switching mechanism for establishing and breaking the bridge containing said polarized magnet, the common battery at the exchange normally having circuit relation with the party line that will enable the polarized magnet to respond when included in circuit with said common battery; and means for reversing the common battery in its connection with the party line when the party line has been extended.

2. A telephone exchange system including telephone lines extending from telephone substations to an exchange where a common battery is located and which is provided with mechanism for automatically extending the telephone line, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in telephonic circuit with the party line and at that time serving to break the telephonic connection between the party line stations; a polarized magnet at the other party line station in high resistance bridge of the party line controlled by said switching mechanism serving to prevent the telephone at the remaining party line station from becoming connected with the party line when said telephonic connection with the party line is established; switching mechanism for establishing and breaking the bridge containing said polarized magnet, the common battery at the exchange normally having circuit relation with the party line that will enable the polarized magnet to respond when included in circuit with said common battery; and means for reversing the common battery in its connection with the party line when the party line has been extended.

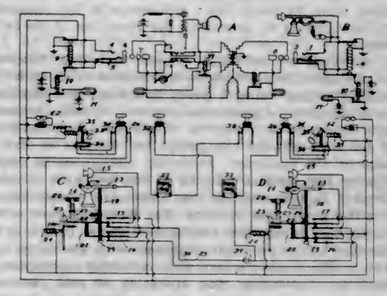
3. A telephone exchange system including telephone lines extending from telephone substations to an exchange where a common battery is located and which is provided with mechanism for automatically extending the telephone lines, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in telephonic circuit with the party line and at that time serving to break the telephonic connection between the party line stations; a polarized magnet at the other party line station in high resistance bridge of the party line controlled by said switching mechanism serving to prevent the telephone at the remaining party line station from becoming connected with the party line when said telephonic connection with the party line is established; switching mechanism for establishing and breaking the bridge containing said polarized magnet, the common battery at the exchange normally having circuit relation with the party line that will enable the polarized magnet to respond when included in circuit with said common battery; and means for reversing the common battery in its connection with the party line when the party line has been extended.

4. A telephone exchange system including telephone lines extending from telephone substations to an exchange where a common battery is located and which is provided with mechanism for automatically extending the telephone lines, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism at one of the party line stations adapted in one condition of use to take part in establishing the telephonic connection between the party line stations that is independent of the exchange and in another condition of use to permit of the connection of the associate telephone with the party line; a polarized magnet at the other party line station in high resistance bridge of the party line where this switching mechanism is controlled for preventing that operation of said switching mechanism that will permit the association of the associate telephone receiver with the party line; means at the remaining party line station for governing the operation of the latter means; switching mechanism for establishing and breaking the bridge containing said polarized magnet, the common battery at the exchange normally having circuit relation with the party line that will enable the polarized magnet to respond when included in circuit with said common battery; and means for reversing the common battery in its connection with the party line when the party line has been extended.

5. A telephone exchange system including telephone lines extending from telephone substations to an exchange where a common battery is located and which is provided with mechanism for automatically extending the telephone lines, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism at one of the party line stations adapted in one condition of use to take part in establishing the telephonic connection between the party line stations that is independent of the exchange and in another condition of use to permit of the connection of the associate telephone with the party line; a polarized magnet at the other party line station in high resistance bridge of the party line where this switching mechanism is controlled for preventing that operation of said switching mechanism that will permit the association of the associate telephone receiver with the party line; means at the remaining party line station for governing the operation of the latter means; switching mechanism for establishing and breaking the bridge containing said polarized magnet, the common battery at the exchange normally having circuit relation with the party line that will enable the polarized magnet to respond when included in circuit with said common battery; and means for reversing the common battery in its connection with the party line when the party line has been extended, there being a switch hook at the station where the aforesaid switching mechanism is located which serves to place said switching mechanism in condition to enable the establishment of telephonic connection between the party line stations that is exclusive of the exchange and which switch hook permits the connection of the associate telephone with the party line when said switching mechanism is free to effect this connection.

[Claims 6 to 10 not printed in the Gazette.]

1,075,260. TELEPHONY. MORTON L. JOHNSON, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 10, 1911, Serial No. 643,341. Renewed July 25, 1913. Serial No. 781,255. (Cl. 179—31.)



1. A telephone exchange system including telephone lines extending from telephone substations to an exchange, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in telephonic circuit with the party line and at that time serving to break the telephonic connection between the party line stations; and mechanism controlled by said switching mechanism serving to prevent the telephone at the party line station companion to that having said switching mechanism from becoming connected with the party line when the telephonic connection between the party line stations is broken.

2. A telephone exchange system including telephone lines extending from telephone substations to an exchange, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in tele-

phonic circuit with the party line; and mechanism controlled by said switching mechanism serving to prevent the telephone at the remaining party line station from becoming connected with the party line, when said telephonic connection with the party line is established, and preserving such telephonic connection established between party line stations to the exclusion of the exchange.

3. A telephone exchange system including telephone lines extending from telephone substations to an exchange, one of said lines being a party telephone line extending from a plurality of party stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism for connecting the telephone at one of the party line stations in telephonic circuit with the party line; and mechanism serving to prevent the telephone at the remaining party line station from becoming connected with the party line, when said telephonic connection with the party line is established, and preserving such telephonic connection established between party line stations to the exclusion of the exchange.

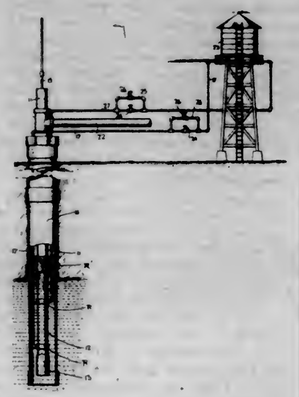
4. A telephone exchange system including telephone lines extending from telephone substations to an exchange, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism at one of the party line stations adapted in one condition of use to take part in establishing the telephonic connection between the party line stations that is independent of the exchange and in another condition of use to permit of the connection of the associate telephone with the party line; means at the station where this switching mechanism is located for preventing that operation of said switching mechanism that will permit the association of the associate telephone receiver with the party line; and means at the remaining party line station for governing the operation of the latter means.

5. A telephone exchange system including telephone lines extending from telephone substations to an exchange, one of said lines being a party telephone line extending from a plurality of party line stations to said exchange; circuit connections whereby telephonic communication may be held between the party line stations to the exclusion of the exchange; switching mechanism at one of the party line stations adapted in one condition of use to take part in establishing the telephonic connection between the party line stations that is independent of the exchange and in another condition of use to permit of the connection of the associate telephone with the party line; means at the station where this switching mechanism is located for preventing that operation of said switching mechanism that will permit the association of the associate telephone receiver with the party line; and means at the remaining party line station for governing the operation of the latter means, there being a switch hook at the station where the aforesaid switching mechanism is located which serves to place said switching mechanism in condition to enable the establishment of telephonic connection between the party line stations that is exclusive of the exchange and which switch hook permits the connection of the associate telephone with the party line when said switching mechanism is free to effect this connection.

[Claims 6 to 26 not printed in the Gazette.]

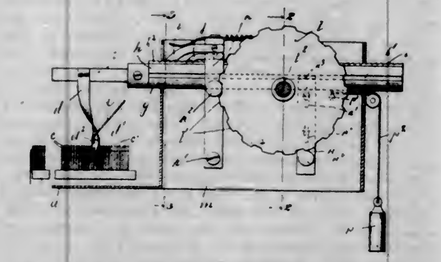
1,075,261. WELL-CLEANING DEVICE. JOHN FRANKLIN KILBURN, El Paso, Tex., assignor of one-half to George E. Wallace, El Paso, Tex. Filed Feb. 27, 1913. Serial No. 750,986. (Cl. 103—80.)

1. In a device of the class set forth, the combination of a working barrel, a foot valve therein, a plunger and sucker valve above the foot valve, and means to deliver fluid under high pressure into and through different parts of the working barrel and into the region of the respective valves, said fluid delivering means including longitudinal passageways formed in and through the wall of the working barrel and communicating with the interior thereof just above said valves and tubes tapped into the ends of said passageways.



2. In a device for cleaning wells, the combination with pump mechanism including a pump casing and a working barrel connected thereto, of means for delivering fluid under high pressure to and through the wall of the working barrel, said fluid delivering means including a pipe leading down into the well on the outside of the pump casing, and a plurality of valves to control the passage of high pressure fluid therethrough, substantially as set forth.

1,075,262. KNITTING-MACHINE. MAX KOHLSDORF, Brooklyn, N. Y. Filed Dec. 16, 1912. Serial No. 736,906. (Cl. 66—33.)

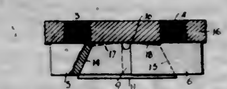


1. In a knitting machine, the combination with the knitting needles, of a device for forming barrier stitches, comprising a guide directed toward the knitting needles and adapted to feed an auxiliary thread in form of a coil around each individual knitting needle.

2. In a knitting machine, the combination with the knitting needles, of a device for forming barrier stitches, comprising a guide having an auxiliary thread directed toward the knitting needles and means for imparting to said guide a swinging motion and a motion transversely to the knitting needles, whereby the said guide will be caused to feed its thread around each individual knitting needle.

3. In a knitting machine, the combination with the knitting needles, of a device for forming barrier stitches comprising a guide having an auxiliary thread directed toward the knitting needles, a member carrying said guide, means for imparting a rocking movement to said member and for feeding the latter transversely to said knitting needles.

1,075,263. HORSESHOE-CALK. WILLIAM I. MILLER and JESSE W. MILLER, Red Wing, Minn. Filed Dec. 6, 1912. Serial No. 735,254. (Cl. 168—42.)

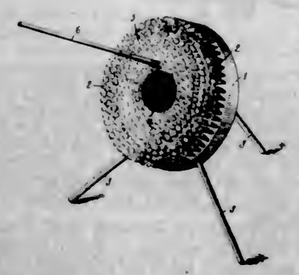


1. In a horseshoe calk, a pair of rotatable members threaded into a horseshoe, each of said members being formed with a slotted portion extending toward the opposite member and also extending from the bottom of the calk toward the horseshoe, each of said slots being beveled at the end, the bevel extending from the bottom of the calk toward the horseshoe, and a strip of material having beveled ends positioned in said slots, and acting on said beveled ends of said slots, whereby the strip is properly fitted in position and acts as a lock for preventing the rotation of the rotatable members.

2. In a horseshoe calk, a pair of rotatable members formed with vertical, longitudinal facing slots, each of said slots having a beveled end extending from the bottom of the rotatable member toward the horseshoe, and a hardened strip of material arranged into said slot and connecting said rotatable members, said hardened strip being formed of a thin sheet with beveled ends co-acting with the beveled ends of said slots, said strip of hardened material being formed with a notch acting as a key-receiving portion for permitting a key to force said strip of material out of said slot.

3. In a horseshoe calk, a pair of rotatable members removably connected with a horseshoe, each of said members being formed with a body extending on opposite sides of the securing point thereof, one side of each of said rotatable members being formed with a slot extending from the bottom toward the horseshoe, and each of the slots being formed with a beveled end, and a strip of hardened material conforming substantially with the shape of both of the slots, for connecting said rotatable members, said beveled ends causing said strip of hardened material to properly fit notwithstanding a slight difference in size between the same and said slot.

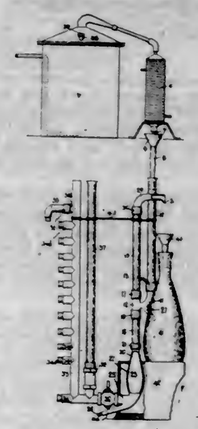
1,075,264. TABLE-ARCHERY. JOHN MORRISON, Jr., Glens Falls, N. Y. Filed Sept. 14, 1912. Serial No. 720,362. (Cl. 124—15.)



1. The combination of a base suitably supported in position, one side of the base being provided with a large number of closely positioned projections such as bristles, the bristles at the central portion of the base being much darker than at the surrounding portions, whereby the appearance of a target is presented, with a dart, the end of which is provided with a number of projecting elements such as bristles, the elements on the ends of the darts being adapted to be closely engaged between the projections on the target when the dart is hurled at the target, whereby the parts are held relatively to each other.

2. The combination of a base suitably supported in position, one side thereof being provided with a large number of closely positioned projecting bristles, the bristles being disposed substantially parallel with each other, and having target markings thereon, and a dart having a number of projecting bristles.

1,075,265. APPARATUS FOR RECEIVING, SEPARATING, AND FILTERING OILS. EUGÈNE MOULIÉ, Jacksonville, Fla. Filed Jan. 25, 1913. Serial No. 744,149. (Cl. 210—5.)



1. An apparatus of the class described, a separating tube having an opening, a receiving tube having a terminal extending through the opening, and upward in the separating tube, the separating tube having a horizontally disposed terminal above the opening, outlet means connected with the separating tube below the opening therein, and an outlet for the receiving tube adjacent the separating tube.

2. In an apparstus of the class described, a vertical separating tube having an enlarged portion forming a chamber intermediate of its terminals, a receiving tube opening into the interior of the separating tube, and having a terminal extending upwardly in the separating tube, a horizontal outlet for the top of the separating tube, and an outlet for the receiving tube adjacent the separating tube.

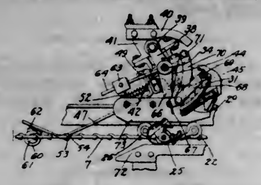
3. In an apparatus of the class described, a vertical separating tube having an enlarged portion forming a chamber intermediate of its terminal, a receiving tube opening into the interior of the separating tube above the chamber, a vertical tube connected with the bottom of the separating tube, and having a plurality of outlets disposed at different levels.

4. In an apparatus of the class described, a vertical separating tube having an enlarged portion forming a chamber intermediate of its terminals, a receiving tube opening into the interior of the separating tube above the chamber, a vertical tube connected with the bottom of the separating tube, and having a plurality of outlets disposed at different levels, and a valve for cutting off communication between the separating tube and the third tube.

5. In an apparatus of the class described, a vertical separating tube having an enlarged portion forming a chamber intermediate of its terminals, a receiving tube opening into the interior of the separating tube, and having a terminal extending upwardly in the separating tube, and a vertical tube connected with the bottom of the separating tube and having a plurality of outlets at different levels.

[Claims 6 to 15 not printed in the Gazette.]

1,075,266. DEFIBRATING-MACHINE. ARTHUR P. O'BRIEN, Mount Vernon, and JOHN A. ALLEN, New York, N. Y.; said Allen assignor to said O'Brien. Filed July 5, 1912. Serial No. 707,673. (Cl. 13—18.)



1. A defibrating machine provided with a plurality of stationary stalk supports, forwarding means spaced from the support, and means including a plurality of movable members selectively actuated by the forwarding means and coöperating one with each support for consecutively transferring stalks from the supports to the forwarding means.

2. A defibrating machine provided with a plurality of stationary feed tables, forwarding means spaced from the tables, and means including a plurality of movable members selectively actuated by the forwarding means and coöperating with the tables to consecutively advance stalks along said tables and transfer them to the forwarding means.

3. A defibrating machine provided with a plurality of stationary feed tables, forwarding means spaced from the tables and operative in planes lying at an angle to the planes of the tables, and means including a plurality of movable members selectively actuated by the forwarding means and coöperating with the tables to consecutively advance stalks along said tables and transfer them to the forwarding means.

4. A defibrating machine provided with a plurality of inclined stationary tables, forwarding means spaced from and under-running the feed tables in horizontal planes, and means coöperating with the table to consecutively advance stalks along said tables and transfer them to the forwarding means.

5. A defibrating machine provided with a stalk support, forwarding means spaced from the support, and means including an oscillating sector coöperating with the forwarding means and support for transferring a stalk from the support to the forwarding means.

[Claims 6 to 41 not printed in the Gazette.]

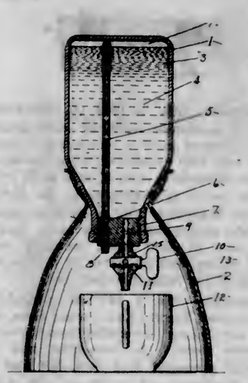
1,075,267. VAPORIZER FOR FUMIGATING, PERFUMING, AND THE LIKE. WILLIAM LOVELL ODDEY, Eltham, England. Filed Oct. 20, 1911. Serial No. 655,764. (Cl. 167—3.)



1. In a vaporizer, in combination, a container for the substance to be vaporized, a hollow absorbent block therein adapted to be surrounded by said substance, the said block having a reservoir formed therein, and a source of heat positioned within the said hollow block.

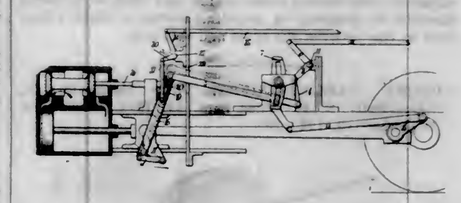
2. In a vaporizer, in combination, a container adapted to contain the substance to be vaporized, a reticulated protector positioned above said container, a hollow absorbent block inclosed within said container and said protector whereby the lower portion of the block will be surrounded by the substance and the upper portion of the block will be exposed to the air, and a source of heat positioned within said hollow block.

1,075,268. DISCHARGER FOR BOTTLES. CLARENCE C. OLIPHANT, Lockport, N. Y., assignor to William H. Earl, Lockport, N. Y. Filed Apr. 6, 1910. Serial No. 553,886. (Cl. 31—85.)



The combination in a liquid holding vessel of a discharger, consisting of a stopper separately holding a tube with an air inlet passage, and a stop-cock with a discharge passage, said tube being adapted to reach from the bottom of said vessel, and projecting through said stopper, said stopper being composed of porcelain or similar sanitary and noncompressible material and surrounded and held in said vessel by means of a compressible gasket.

1,075,269. VALVE-GEAR. CHARLES B. PIRIE, McCook, Nebr., assignor of one-half to Alexander G. Pirie, Wymore, Nebr. Filed Mar. 7, 1912. Serial No. 682,171. (Cl. 121—98.)



1. In a valve gear having reversing means, a combination lever having a slot, a valve stem, means slidably disposed in the slot for operating the valve stem, a radius rod articulated to the combination lever, means for operating the radius rod, a cross head link articulated to the combination lever and adapted to be articulated to a cross head arm, and means operable independently of the reversing means for moving the combination lever to change the lead.

2. In a valve gear, a combination lever, a valve stem, means by which the combination lever is adapted to operate the valve stem, a radius rod articulated to the combination lever, means for operating the radius rod, a cross head link articulated to the combination lever and adapted to be articulated to a cross head arm, and a link articulated to the combination lever for moving the combination lever independently of the means for operating the radius rod.

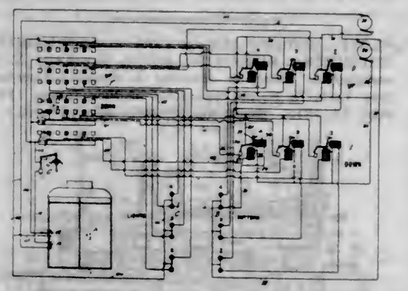
3. In a valve gear, a combination lever having a slot, a rock shaft, two arms secured to the rock shaft, a member mounted on one of the arms and slidably disposed in the slot in the combination lever, a valve stem articulated to the other arm on the rock shaft, a radius rod articulated to the combination lever, means for operating the radius rod, a cross head link articulated to the combination lever, and adapted to be articulated to a cross head arm, and a link articulated to the combination lever for moving the combination lever relatively to the means for operating the radius rod to change the lead.

4. In a valve gear, a combination lever having a slot, a valve stem, means slidably disposed in the slot for operating the valve stem, a radius rod articulated to the combination lever, means for operating the radius rod, a cross head link articulated to the combination lever and adapted to be articulated to a cross head arm, a rock shaft, two arms on the rock shaft, a link connecting one of the arms on the rock shaft with the combination lever, a screw, a screw member meshing with the screw, and a rod connecting the screw member with the other arm for moving the combination lever independently of the means for operating the radius rod.

5. In a valve gear, a combination lever, a valve stem, means connecting the valve stem with the combination lever, a radius rod articulated to the combination lever, means for operating the radius rod, a cross head link articulated to the cross head lever and adapted to be articulated to a cross head arm, and a link articulated to the combination lever for moving the combination lever relatively to the means for operating the radius rod to change the lead.

[Claims 6 to 11 not printed in the Gazette.]

1,075,270. ELEVATOR SIGNALING APPARATUS. THOMAS PORTER, New York, N. Y., assignor of one-half to Robert W. Beardsice, New York, N. Y. Filed Apr. 17, 1913. Serial No. 761,728. (Cl. 177—336.)



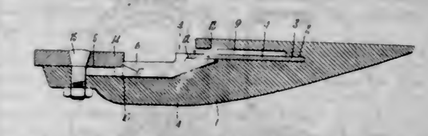
1. In an elevator signaling system, the combination of a push button circuit, a car signal circuit controlled thereby, a resetting circuit for opening the signal circuit, and an automatically-actuated device maintaining the resetting circuit open while the car is in motion, and adapted to close the resetting circuit when the car stops at a floor from which the signal circuit was controlled.

2. In an elevator signaling system, the combination of a push button circuit, a signal circuit controlled by the push button circuit, a resetting circuit for opening the signal circuit when a car has stopped to answer the signal, and an automatic transfer switch controlling said resetting circuit by the motion of the car, said switch being open while the car is in motion, and including means whereby the switch closes when the car stops.

3. In an elevator signaling system, the combination of a push button circuit, a signal circuit controlled by the push button circuit, a resetting circuit for opening the signal circuit when a car has stopped to answer the signal, an automatic transfer switch controlling said resetting circuit by the motion of the car, said switch comprising relatively movable contacts, and a speed responsive device for holding the contacts separated when the car is in motion, and for engaging the contacts when the car stops.

4. In an elevator signal system, the combination of a car, a hoisting mechanism therefor, and an automatic transfer switch controlled by the speed of the hoisting mechanism, with a push button circuit, a signal circuit controlled thereby, and a resetting circuit held open by the said transfer switch while the car is in motion, and adapted to close when the car stops, whereby the signal circuit is opened or reset.

1,075,271. FASTENER FOR LEDGER-PLATES. GEORGE E. RODMAN, Sunnyside, Wash. Filed Feb. 7, 1912. Serial No. 675,983. (Cl. 56—43.)



1. In a device of the character described, a guard formed with a socket and a longitudinally arranged channel, a ledger plate fitting into said socket and overlapping said channel, said ledger plate being formed with a notch having a beveled wall, a finger bar, and a locking lever fitting in said channel formed with an overhanging projection having an under cut fitting said beveled wall of said notch, said locking lever being formed with a projection fitting beneath the part of the ledger plate overlapping said channel whereby the outer edge of said ledger plate is locked in position, said locking lever extending beneath said finger bar whereby the same is held rigidly in said channel.

2. In a device of the character described, a guard formed with a socket and a longitudinally arranged channel, a ledger plate fitting into said socket and overlapping part of said channel, the overlapping portion of said ledger plate being formed with a beveled wall, a finger bar rigidly secured to said guard and overlapping part of said channel, and a locking lever positioned in said channel formed with a notch fitting the edge of said finger bar whereby part of the locking lever projects beneath the finger bar and is clamped by the finger bar firmly to said guard, said locking lever being also formed with an extension fitting into that part of said channel adjacent said socket, and an overhanging projection having a beveled undercut fitting the beveled wall of said ledger plate whereby the ledger plate is held rigidly in said socket.

3. In a device of the character described, a guard formed with a socket and a longitudinally arranged channel, a ledger plate fitted into said socket and overlapping said channel, said ledger plate being formed with a notch in the overlapping portion, a finger bar, and a locking lever fitting into said channel, said locking lever being formed with a notch at one end into which said finger bar projects whereby the locking lever is held rigidly in said channel, said locking lever being also formed with a lug near the end opposite said notch, said lug having an overlapping portion, said lug being adapted to fit into the notch in said ledger plate and overlap the walls thereof whereby the ledger plate is positively clamped in position.

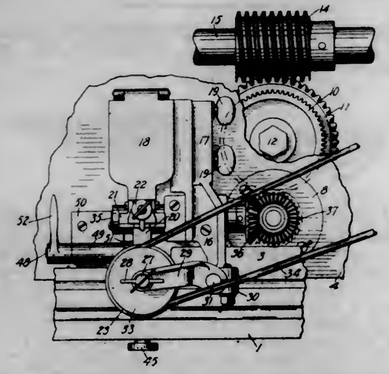
1,075,272. PASTING MECHANISM FOR CIGARETTE-MACHINES. ELBERON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 19, 1912. Serial No. 715,715. (Cl. 131—43.)

1. The combination with a cigarette rod forming mechanism, of a rotating shaft, a pasting mechanism swingable on the shaft in and out of operative position, and means including the rotating shaft for driving the pasting mechanism.

2. The combination with a cigarette rod forming mechanism, of a rotating shaft, a pasting mechanism swingable on the shaft in and out of operative position, means including the shaft for driving the pasting mechanism, and means for adjusting the pasting mechanism with respect to the cigarette rod forming mechanism.

3. The combination with a cigarette rod forming mechanism, of a rotating shaft, a pasting mechanism swingable

on the shaft in and out of operative position, means including the shaft for driving the pasting mechanism, and means for adjusting the pasting mechanism in two directions with respect to the cigarette rod forming mechanism.

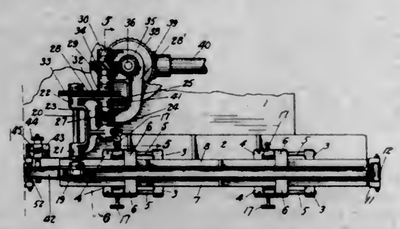


4. The combination with a cigarette rod forming mechanism, of a rotating shaft, a pasting mechanism swingable on the shaft in and out of operative position, means including the shaft for driving the pasting mechanism, means for adjusting the pasting mechanism with respect to the cigarette rod forming mechanism, and means for locking the pasting mechanism in adjusted position.

5. The combination with a cigarette rod forming mechanism, of a rotating shaft, a pasting mechanism swingable on the shaft in and out of operative position, means including the shaft for driving the pasting mechanism, means for adjusting the pasting mechanism in two directions with respect to the cigarette rod forming mechanism, and means for locking the pasting mechanism in adjusted position.

[Claims 6 to 12 not printed in the Gazette.]

1,075,273. CIGARETTE-ROD-FORMING MECHANISM. ELBERON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 4, 1912. Serial No. 723,830. (Cl. 131—43.)



1. In a cigarette rod forming mechanism, the combination with a trough having side walls and a stationary bottom and adapted to form a runway for a strip of wrapping paper otherwise unsupported and also adapted to receive a shower of tobacco on and above the wrapping paper, of means beyond and coöperating with the trough for forming the wrapping paper and the tobacco thereupon into a continuous rod.

2. In a cigarette rod forming mechanism, the combination with a trough having rabbeted side walls and a stationary bottom and adapted to form a runway for a strip of wrapping paper otherwise unsupported and guided by the wall rabbets and also adapted to receive a shower of tobacco on and above the wrapping paper, of means beyond and coöperating with the trough for forming the wrapping paper and the tobacco thereupon into a continuous rod.

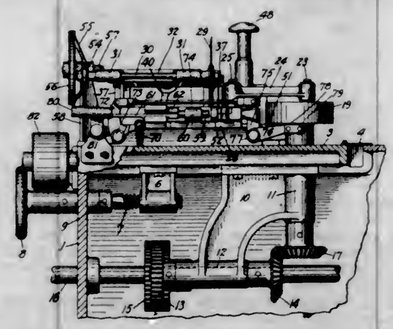
3. In a cigarette rod forming mechanism, the combination with a trough having hinged side walls and a stationary bottom and adapted to form a runway for a strip of wrapping paper otherwise unsupported and also adapted to receive a shower of tobacco on and above the wrapping paper, of means for locking the side walls in operative position, and means beyond and coöperating with the trough for forming the wrapping paper and the tobacco thereupon into a continuous rod.

4. In a cigarette rod forming mechanism, the combination with a trough having hinged and rabbeted side walls and a stationary bottom and adapted to form a runway for a strip of wrapping paper otherwise unsupported and also adapted to receive a shower of tobacco on and above the wrapping paper, of means for locking the side walls in operative position, and means beyond and coöperating with the trough for forming the wrapping paper and the tobacco thereupon into a continuous rod.

5. In a cigarette rod forming mechanism, the combination with a trough having a pair of side walls and a stationary bottom and adapted to form a runway for a strip of wrapping paper otherwise unsupported and also adapted to receive a shower of tobacco on and above the wrapping paper, each of said side walls having a pair of transversely extending arms, pintles upon which the wall arms are slidable and rotatable, means for locking the side walls in operative position, and means beyond and coöperating with the trough for forming the wrapping paper and the tobacco thereupon into a continuous rod.

[Claims 6 to 14 not printed in the Gazette.]

1,075,274. CUT-OFF MECHANISM FOR CIGARETTE-MACHINES. ELBERON D. SMITH, Brooklyn, N. Y., assignor to American Machine & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 16, 1912. Serial No. 720,465. (Cl. 131—43.)



1. In a cigarette machine, the combination with a bed, of a cigarette rod forming mechanism supported by the bed, a cut-off mechanism supported by the bed and coöperating with the cigarette rod forming mechanism, and means for producing a relative bodily movement of the cigarette rod forming mechanism and the cut-off mechanism to vary the coöperative relation of said mechanisms.

2. In a cigarette machine, the combination with a bed, of a cigarette rod forming mechanism supported by the bed, a cut-off mechanism supported by the bed and coöperating with the cigarette rod forming mechanism, and means for producing a relative bodily movement of the cigarette rod forming mechanism and the cut-off mechanism to vary the coöperative relation of said mechanisms while they are in operation.

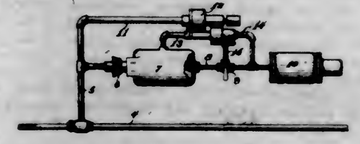
3. In a cigarette machine, the combination with a bed, of a cigarette rod forming mechanism supported by the bed, a cut-off mechanism supported by the bed and having a shearing device coöperating with the cigarette rod forming mechanism said shearing device having a to-and-fro movement with respect to the cigarette rod forming mechanism, and means for producing a relative bodily movement of the cigarette rod forming mechanism and the cut-off mechanism as a whole to vary the coöperative relation of said mechanisms.

4. In a cigarette machine, the combination with a bed, of a cigarette rod forming mechanism supported by the bed, a cut-off mechanism supported by the bed and coöperating with the cigarette rod forming mechanism, means for producing a relative bodily movement of the cigarette rod forming mechanism and the cut-off mechanism to vary the coöperative relation of said mechanisms, and means for producing a transverse adjustment of the cut-off mechanism while said cut-off mechanism is in operation.

5. In a cigarette machine, the combination with a bed, of a cigarette rod forming mechanism supported by the bed, a cut-off mechanism supported by the bed and coöperating with the cigarette rod forming mechanism, means for producing a relative bodily movement of the cigarette rod forming mechanism and the cut-off mechanism to vary the coöperative relation of said mechanisms while they are in operation, and means for producing a transverse adjustment of the cut-off mechanism while said cut-off mechanism is in operation.

[Claims 6 to 17 not printed in the Gazette.]

1,075,275. LOAD-BRAKE APPARATUS. WALTER V. TURNER, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Wilmerding, Pa., a Corporation of Pennsylvania. Original application filed Apr. 1, 1904, Serial No. 201,167. Divided and this application filed Oct. 8, 1906. Serial No. 338,031. (Cl. 188—11.)



1. A valvular mechanism for automatic air brakes comprising in combination an auxiliary reservoir, a train pipe, a brake cylinder, means whereby the reduction of auxiliary reservoir pressure is terminated short of full equalization, a valve casing having a passage for establishing communication between said auxiliary reservoir and said train pipe, means operative under variations in train pipe pressure to control said passage and permit back-flow from the auxiliary reservoir to the train pipe whereby to reduce auxiliary reservoir pressure, and augment the pressure of the train pipe, substantially as described.

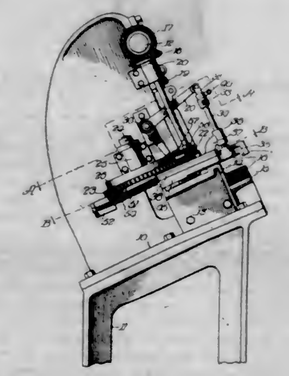
2. An automatic load brake mechanism for air brakes comprising in combination an auxiliary reservoir, a train pipe, a brake cylinder, and a valvular device provided with a passage to permit back flow from the auxiliary reservoir to the train pipe, means actuated by train pipe pressure to control said passage, and means supplementary to the triple valve for throttling the flow of air from said auxiliary reservoir to said brake cylinder.

3. In automatic air brake mechanism, the combination with an auxiliary reservoir, a train pipe and a triple valve device, of a passage to permit a back flow from the auxiliary reservoir to the train pipe and a valve actuated by pressure from the train pipe and adapted in one position to permit a back flow of pressure from the auxiliary reservoir to the train pipe and in another position to prevent a flow of pressure from the train pipe to the auxiliary reservoir.

4. A valvular mechanism for automatic air brakes, comprising in combination, an auxiliary reservoir, a train-pipe, a valve casing having a passage for establishing communication between said auxiliary reservoir and said train-pipe, and a valvular device for controlling said passage, having an abutment for actuating said valvular device, balanced between train-pipe pressure and the pressure of a special or supplemental reservoir additional to the auxiliary reservoir, and so constructed as to normally prevent a flow from the train pipe to the auxiliary reservoir, and when moved by increased train pipe pressure, to permit back-flow from the auxiliary reservoir to the train-pipe for the purpose of reducing reservoir pressure, and augmenting the pressure of the train-pipe, substantially as described.

5. In automatic air brake mechanism, the combination with an auxiliary reservoir, a train pipe and a triple valve device, of a passage to permit a back flow from the auxiliary reservoir to the train pipe and a valvular device normally closing the passage and preventing a flow from the train pipe to the auxiliary reservoir and adapted, on an increase of train pipe pressure to be moved thereby to a position to permit a back flow from the auxiliary reservoir to the train pipe.

1,075,276. FEEDING MECHANISM. MATTHEW J. WELLING, Chicago, Ill., assignor of one-half to John Howard McElroy, Chicago, Ill. Filed Mar. 5, 1913. Serial No. 752,039. (Cl. 164—21.)



1. In a feeding device, the combination with a rotating shaft parallel to the axis of the press, a cam carried by the shaft, and means for rotating the same; of a bell-crank lever having a vertical arm coöperating with the cam, and a horizontal arm; a tube supported from the horizontal arm, and means for guiding the tube.

2. In a feeding device, the combination with a rotating shaft parallel to the axis of the press, a cam carried by the shaft, and means for rotating the same; of a bell-crank lever having a vertical arm coöperating with the cam, and a horizontal arm carrying a cross-head; tubes sliding in said cross head, means for guiding the tubes; and friction devices interposed between the cross-head and the tubes, for the purpose described.

3. In a feeding device, the combination with a rotating shaft parallel to the axis of the press; a cam carried by the shaft, and means for rotating the same; of a horizontally sliding hook-member coöperating with the cam, and a spring to return the hook member.

4. In a feeding device, the combination with a rotating shaft parallel to the axis of the press, two cams carried by the shaft, and means for rotating the same; of a bell-crank lever having a vertical arm coöperating with one of the cams, and a horizontal arm; a tube supported from the horizontal arm, means for guiding the tube; a horizontally sliding hook-member coöperating with the other cam, and a spring to return the hook member.

5. In a feeding device for punch-presses, the combination with a rotating shaft parallel to the axis of the

press, a cam carried by the shaft, and means for rotating the cam; of a horizontal spring-pressed plunger extending through the frame of the press, a rock shaft at right angles thereto extending through the frame of the press, an arm on said rock-shaft engaged by the rod near the axis of the rock-shaft, and a kick-off arm depending from said rock-shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,075,277. METALLIC WELL-BUCKET. FRED ZIEGEL, Brookhaven, Miss., assignor of one-half to Oscar Henry Hartman, Brookhaven, Miss. Filed Sept. 12, 1911. Serial No. 648,856. (Cl. 103—35.)



1. In combination with a bucket or the like, of a handle constructed of a single strip of wire, said wire having its ends bent to provide hooks and the wire being centrally bent to provide an eye, a loop, said loop being constructed of a single strand of wire, the loop being provided with extending parallel arms which project through the eye, the said arms having their extremities bent in opposite directions, and a washer surrounding the arms and arranged between the eye and the oppositely inclined portion of the said arms.

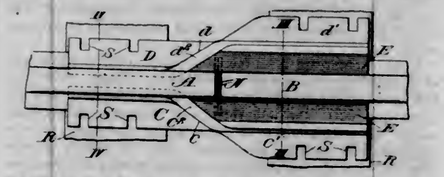
2. A metallic well bucket having an open top and a bottom, the top being provided with a continuous outturned lip, metallic bands surrounding the bottom, one of said metallic bands having one of its edges received within the lip, a handle comprising a bail passing through openings in this band and through openings within the bucket, a wooden bottom for the bucket, and one of said bands being arranged upon the bucket to surround the portion of the bucket provided with a wooden bottom, all substantially as and for the purpose set forth.

3. A metallic bucket comprising a cylinder having open ends having one of its edges outturned to provide a continuous lip the lower edge of which being spaced from the bottom and a valve expansible bottom for the lower open end of the bucket, bands which are concavo-convex in cross section, one of which being arranged upon the buckets to surround its valve bottom, the second of which being received within but extending beyond the lip of the bucket and contacting with both the lip and bucket, the last mentioned bands and buckets being provided with diametrically oppositely disposed registering openings, a handle comprising a bail having inturned ends passing through the openings and adapted to sustain the band against displacement within the lip.

1,075,278. INSULATED RAIL-JOINT. RANSLOE BOONE ABBOTT, Harrisburg, Pa. Filed Apr. 9, 1913. Serial No. 759,961. (Cl. 239—5.)

1. In an insulated rail joint, the combination with the rails, of a connecting plate having a base flange corresponding to the base of one rail and an upright portion fitting below the head of said rail, the plate also having an offset portion spaced away from the other rail, insulating material in the space between said offset portion of the plate and the last mentioned rail, means for securing the plate to the rails, and a filling block below the base flange of the offset portion of the plate.

2. In an insulated rail joint, the combination with the rails, of a connecting plate having a base flange corresponding to the base of one rail and an upright portion fitting below the head of said rail, the plate also having an offset portion spaced away from the other rail, the base flange of the offset portion of the plate having notches in its edge to receive spikes for fastening to a tie, insulating material in the space between said offset portion of the plate and the last-mentioned rail, means for securing the plate to the rails, and a filling block below the base flange of the offset portion of the plate, said block having notches in its edge registering with the notches in the base flange of the plate for the purpose specified.

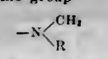


3. In an insulated rail joint, the combination with the rails, of a connecting plate having a portion fitted below the head of one rail, an offset portion extending away from said rail, and a portion arranged at the side of the other rail and spaced therefrom, insulating material in the space between the last-mentioned portion of the plate and the last mentioned rail, the offset portion of the plate having a recess in its upper edge to permit clearance for the flanges of the wheels on rolling stock, and means for securing the plate to the rails.

4. In an insulated rail joint, the combination with the rails, of a connecting plate having a portion fitted below the head of one rail, an offset portion extending away from said rail, and a portion arranged at the side of the other rail and spaced therefrom, insulating material in the space between the last mentioned portion of the plate and the last mentioned rail the offset portion of the plate having a recess in its upper edge to permit clearance for the flanges of the wheels on rolling stock, and a downwardly extending reinforcing portion at its lower edge for the purpose specified, and means for securing the plate to the rails.

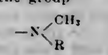
1,075,279. ARSINIC ACIDS AND PROCESS OF MAKING THE SAME. LORENZ ACH, Mannheim, and ALBERT ROTHMANN, Heidelberg, Germany, assignors to C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany, a Firm. Filed Mar. 31, 1913. Serial No. 758,068. (Cl. 23—24.)

1. The process of preparing compounds containing arsenic which comprises subjecting an aromatic compound of arsenic containing the group



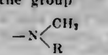
in the para position, where R is a monovalent radical, to the action of a nitrating reagent.

2. The process of preparing compounds containing arsenic which comprises subjecting an aromatic compound of arsenic containing the group



in the para position, where R is a monovalent radical, to the action of a mixture of concentrated sulfuric acid and concentrated nitric acid.

3. The process of preparing compounds containing arsenic which consists in subjecting an aromatic compound of arsenic containing the group



in the para position, where R is a monovalent radical, to the action of a mixture of concentrated sulfuric acid and concentrated nitric acid under the influence of heat.

4. The process of preparing compounds containing arsenic which consists in subjecting an aromatic compound of arsenic containing the group



in the para position, where R is a monovalent radical, to the action of a mixture of concentrated sulfuric acid and concentrated nitric acid under the influence of heat, and then cooling and treating with ice.

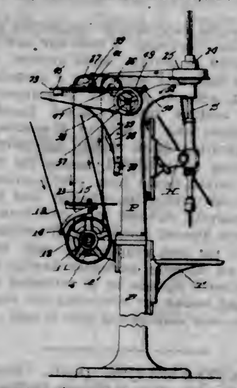
5. The process of preparing compounds containing arsenic which comprises subjecting an aromatic compound of arsenic containing the group



in the para position to the action of a nitrating agent.

[Claims 6 to 9 not printed in the Gazette.]

1,075,280. GEARING. HARDING ALLEN, Barre, Mass. Filed Sept. 22, 1905. Serial No. 279,641. (Cl. 74—21.)



1. In a construction of the class described, the combination of a vertical shaft to be driven, a horizontal driving shaft at right-angles with but in a different plane from the vertical shaft, a double-faced driving pulley on the horizontal shaft, a double-faced pulley on the vertical shaft, a quarter-turn belt, two idle pulleys, and automatically operating means for adjusting the idle pulleys to guide and tension the belt so that the belt may run on either face of the driving and driven pulleys, whereby four speed changes may be secured.

2. In a construction of the class described, the combination of a driving pulley, a pulley to be driven, a quarter-turn belt, two idle pulleys, means for simultaneously shifting the idle pulleys to adjust the belt tension, and means whereby the idle pulleys will automatically assume the proper position as they are adjusted.

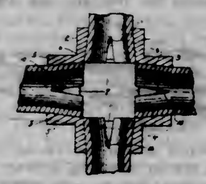
3. In a construction of the class described, the combination of a driving pulley, a pulley to be driven, a quarter-turn belt, two idle pulleys, a movable plate supporting said idle pulleys, means for moving the plate to shift the idle pulleys and adjust the belt tension, and means whereby the idle pulley which directs the side of the belt which passes from the driven to the driving pulley will be automatically turned so that it will properly guide the belt.

4. In a drill, the combination of a horizontal driving shaft and driving pulley, a vertical spindle, a pulley thereon to be driven, a quarter-turn belt, two idle pulleys, a movable plate carrying said idle pulleys, a lead-screw, a hand-wheel located in position to be operated from the same side of the machine as the spindle to adjust the belt tension, and bevel gears connecting the hand-wheel to the lead-screw.

5. In a construction of the class described, the combination of a driving pulley, a pulley to be driven, two idle pulleys, and means for automatically controlling the angular position of one of the idle pulleys so as to properly receive the belt thereon.

[Claims 6 to 31 not printed in the Gazette.]

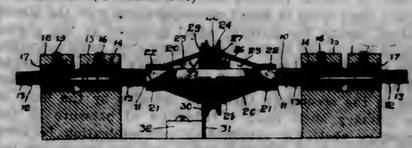
1,075,281. PIPE-FITTING. DAVID G. ANDERSON, Columbus, Ohio, assignor of one-half to Gilbert R. Kittle, Columbus, Ohio. Filed Mar. 29, 1913. Serial No. 757,545. (Cl. 180—36.)



1. As a new article of manufacture, a pipe-fitting having an arm formed with a tapered bore and provided with an outwardly pointing wedge extending laterally inward into the said bore from the side wall thereof and supported from end to end along its inner edge by the said wall and free at its point and base, whereby a slotted pipe inserted into the bore will be expanded by the wedge and thus fastened to the fitting.

2. As a new article of manufacture, a pipe-fitting having an arm formed with a tapered bore, and a plurality of oppositely located outwardly pointing wedges extending laterally inward from the side walls of the said bore, whereby a slotted pipe inserted into the bore will be expanded by the wedges and thus fastened to the fitting.

1,075,282. ROTARY WIRE-STRAIGHTENER. JOHN J. CONLON, Derby, Conn. Filed Mar. 24, 1913. Serial No. 756,381. (Cl. 153—37.)



1. A straightener of the character described, comprising a driving wheel, a bushing eccentrically mounted therein through which the wire is passed and means for imparting axial rotation to the bushing.

2. A straightener of the character described, comprising a driving wheel, a sleeve eccentrically mounted in said wheel and carrying a pinion, a bushing in said sleeve through which the wire is passed and a fixed internal gear engaged by said pinion.

3. A straightener of the character described, comprising a shaft having holes in its ends, non-rotating tubes in said holes, bushings in said tubes, a driving wheel carried by the shaft, a rotary bushing mounted eccentrically in said wheel and means for imparting rotation to the bushing.

4. A straightener of the character described, comprising a shaft having holes in its ends, non-rotating tubes about which the shaft is mounted to rotate, bushings in said tubes, a driving wheel carried by the shaft, a rotary bushing mounted eccentrically, in said wheel, means for imparting rotation to the bushing, and a rotating slotted guide by which the wire is conducted to the rotary bushing.

5. A straightener of the character described, comprising a shaft having holes in its ends and slots with inclined bottoms intersecting said holes, non-rotating tubes about which the shaft is mounted to rotate, fixed bushings in said tubes, a driving wheel carried by the shaft, a rotary bushing mounted eccentrically in said wheel, means for imparting rotation to the bushing and a guide secured

to the shaft and having a slot intersecting the slot in the shaft by which the wire is conduced to the rotary bushing in threading up.

[Claims 6 to 12 not printed in the Gazette.]

1,075,283. PRESSURE-CONTROLLED FIRE-EXTINGUISHER SYSTEM. ROBERT L. COONEY, Atlanta, Ga. Filed Jan. 28, 1910, Serial No. 540,661. Renewed Aug. 23, 1913. Serial No. 786,347. (Cl. 169—24.)



1. In a chemical mixing fire extinguisher system, in combination, a system of piping, primary and secondary shells, the secondary shell being in direct communication with the piping system, means for putting equal pressure in the piping system and in both of the shells, chemical mixing means in the primary shell and means normally restrained against operation by the normal pressure in the secondary shell and operable by the fluid in the primary shell upon a reduction of pressure in the secondary shell for causing the operation of the chemical mixing means.

2. In a fire extinguisher system, in combination, a system of piping, primary and secondary shells, the secondary shell being in direct communication with the piping system, means for putting equal pressure in the piping system and in the shells and means normally restrained against operation by the normal pressure in the secondary shell and operable by the fluid in the primary shell upon a reduction of pressure in the secondary shell for increasing the pressure in the primary shell.

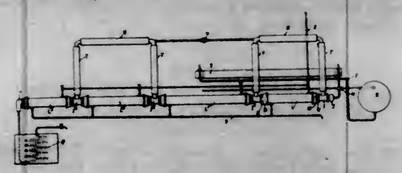
3. In a fire extinguisher system, in combination, a system of piping, primary and secondary shells, the secondary shell being in direct communication with the piping system, means for putting equal pressure in the piping system and in the shells, the primary shell communicating with the system through the secondary shell and means normally restrained against operation by the normal pressure in the secondary shell and operable by the fluid in the primary shell upon a reduction of pressure in the secondary shell for establishing communication between the primary shell and the system and for increasing the pressure in the primary shell.

4. In a chemical mixing fire extinguisher system, in combination, a system of piping, primary and secondary shells, the secondary shell being in direct communication with the piping system, means for putting equal pressure in the piping system and in the shells, the primary shell communicating with the system through the secondary shell, an invertible acid bottle in the primary shell and a member movably mounted in the secondary shell and normally held by the fluid therein in position to shut off communication between the primary shell and the piping system and operable by the fluid in the primary shell, when the pressure in the secondary shell is reduced, to cause the overturning of the acid bottle and to establish communication between the primary shell and the secondary shell.

5. In a chemical mixing fire extinguisher system, in combination, a system of piping, primary and secondary shells, the secondary shell being in direct communication with the piping system, means for putting equal pressure in the piping system and in the shells, a pipe connection affording direct communication between the secondary shell and the primary shell, an invertible acid bottle in the primary shell, the secondary shell having a barrel communicating with the pipe connection and having also an opening at one end thereof, and a plunger in the secondary shell and provided with a stem extending through said opening, said plunger being normally held in the secondary shell against the end of the barrel and being operable by the pressure of the fluid in the primary shell when the pressure in the secondary shell is reduced, to establish communication between said shells and to cause the overturning of the acid bottle.

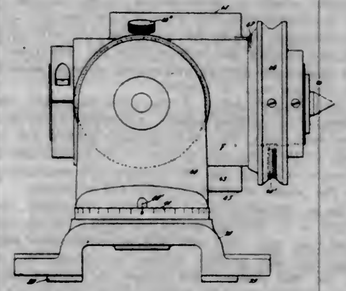
[Claims 6 to 16 not printed in the Gazette.]

1,075,284. APPARATUS FOR MAKING DIACETONE ALCOHOL. CYRENIUS WALTER CROCKETT, Passaic, N. J., assignor to Alco Deo Company, a Corporation of New Jersey. Filed Sept. 16, 1912. Serial No. 720,534. (Cl. 23—24.)



An apparatus for continuously converting acetone into di-acetone alcohol combining, a reservoir having a supply inlet and adapted to contain liquid acetone, a converter tank connected therewith containing a granular insoluble catalytic agent, adapted partially to polymerize concentrated liquid acetone into a mixed liquid composed in part of acetone and in part of di-acetone alcohol, a series of evaporating units, means for maintaining the same temperature in each unit, means for continuously conveying the mixed liquid from said converter tank in succession through said units, whereby said mixed liquid may be progressively enriched to a predetermined degree in its di-acetone alcohol content, a di-acetone condenser connected with the last evaporating unit, having a delivery outlet, an acetone condenser having a drain enabling the recovered acetone to be retreated in said converter tank, and means for conveying the vapors of acetone evolved in each evaporating unit to said condenser.

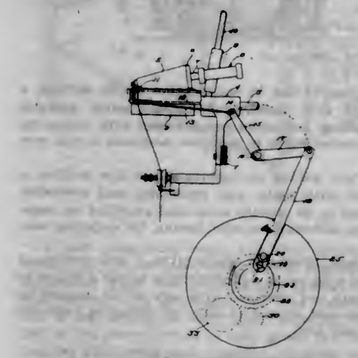
1,075,285. CUTTER-SETTING DIAL. ADOLPH L. DE LEEUW, Cincinnati, Ohio, assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 27, 1913. Serial No. 770,171. (Cl. 51—7.)



1. A mechanism of the nature disclosed combining a table, a base member mounted on said table, a head vertically pivoted to said base member, a head-spindle horizontally journaled in said head, a dial provided by said spindle and providing graduations adapted to be registered with an indicator on said head to enable said spindle to be definitely rotated through the exact clearance angle desired for a cutter, means for chucking a cutter on said spindle, a grinding wheel, means for moving said table to bring the grinding surface of said wheel at right angles to a line passing through the axis of said spindle and through the peripheral cutting edge of one of the teeth of said cutter, and a tooth-rest adapted to be adjustably positioned to maintain between each tooth in succession and said table the relation predetermined by means of said dial.

2. A mechanism of the nature disclosed combining a grinding wheel, a table, an arbor rotatably supported on said table and adapted initially to carry a cutter in such relation to the grinding surface of said wheel that a line passing through the axis of said arbor and through the tip of the peripheral edge of a tooth will be perpendicular to the adjacent grinding surface, a head stock, an arbor-supporting member rotatably mounted in said head-stock, graduations between said member and said head-stock adapted to enable the arbor and cutter to be turned directly through a predetermined clearance angle, a tooth-rest adjustable into a definite relation with said table adapted to maintain the aforesaid relation between said tooth and table, and means for moving said table vertically longitudinally and transversely with relation to said grinding surface.

1,075,286. TRAVERSE MECHANISM FOR WINDING-MACHINES, &c. GEORGE W. FOSTER, Lowell, Mass. Filed May 19, 1909. Serial No. 496,971. (Cl. 74—14.)



1. In combination, traverse-devices, traverse-mechanism comprising essentially an arm with which the said traverse-devices are connected, and two actuating cranks of different radii, rotating concentrically, the said arm being in sliding engagement with the crank of greater radius and bodily carried around by said crank in the rotation of the latter, and its inner end being in pivotal engagement with the crank of less radius and carried around thereby, and the arm being shifted lengthwise by such crank and the point of connection of the traverse-devices being thereby given reciprocal movement within a narrow elongated path.

2. In combination, traverse-devices, and traverse-mechanism comprising essentially two actuating cranks of different radii, rotating concentrically, an arm, and a wrist-pin carried by the said arm and operatively connected to the said traverse-devices, the said arm in sliding engagement with the crank of greater radius and bodily carried around by said crank in the rotation of the latter, and its inner end being in pivotal engagement with the crank of less radius and carried around thereby, the arm being shifted lengthwise by the latter crank and the wrist-pin being thereby given reciprocal movement within a narrow elongated path.

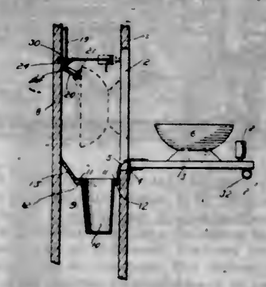
3. In combination, traverse-devices, a wrist-pin carrier, a wrist-pin on the said carrier operatively connected with the said traverse-devices, two cranks rotating concentrically, of different radii, the said arm being in sliding engagement with the crank of greater radius and bodily carried around by the latter in its rotation, and one end of the carrier being pivotally engaged with the crank of less radius and carried around thereby, the carrier being also shifted lengthwise by such crank and the wrist-pin being given reciprocal movement in a narrow elongated path, and means for rotating said cranks continuously in opposite directions.

4. In combination, traverse-devices, a wrist-pin operatively connected with the said devices, a wrist-pin-carrier, a rotating crank with which the said wrist-pin-carrier is engaged, a second rotating crank with which the said wrist-pin-carrier is in sliding as well as pivotal engagement, and devices for revolving said second crank around the same center as the first crank and permuting the same as it is revolved.

5. In combination, traverse-devices, a rotatable actuator in operative connection with the said traverse-devices, a rotating crank with which the said actuator is engaged, a second rotating crank with which the said actuator is in sliding as well as pivotal engagement, and devices for revolving said second crank about the same center as the first crank and permuting the same as it is revolved.

[Claims 6 and 7 not printed in the Gazette.]

1,075,287. CUSPIDOR. DAVID MILES HAYWORTH and ELBERT VICTOR PUTNAM, Chicago, Ill. Filed Jan. 22, 1910. Serial No. 539,521. (Cl. 4—40.)



1. The described device consisting of a casing having an opening thereinto, a removable receptacle, a spring controlled door for said opening, a cuspidor on said door, a spray pipe in said casing, a valve therein, a piston rod connected to said valve, a piston on the free end thereof, and a piston cylinder on said door adapted to engage said piston.

2. The described device consisting of a casing having an opening thereinto, a removable receptacle, a spring controlled door for said opening, a cuspidor on said door, a spray pipe in said casing, a valve therein, a piston rod connected to said valve, a piston on the free end thereof, and a piston cylinder on said door adapted to engage said piston, said rod adapted to operate said valve, a valve stem connecting said valve and said rod, said stem being spring controlled.

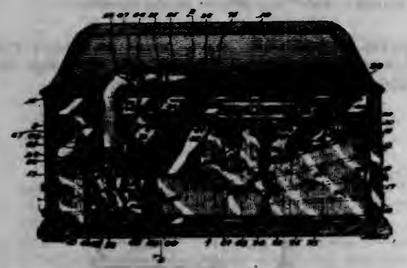
3. The described device consisting of a casing having an opening thereinto, a removable receptacle, a spring controlled door for said opening, a cuspidor on said door, a spray pipe in said casing, a valve therein, a piston rod connected to said valve, a piston on the free end thereof, and a piston cylinder on said door adapted to engage said piston, said rod adapted to operate said valve, a valve stem connecting said valve and said rod, said stem being spring controlled, said rod having sliding movement on said stem.

4. A device of the kind described comprising a casing having an opening, a door in said opening movable to a horizontal position, a spring mounted on the outer wall of the casing and normally holding said door shut, a water supply pipe mounted on the back wall of said casing and having a forwardly inclined jet offset, a bowl on said door movable within range of said offset, a valve in said offset, an arm carried by said valve exteriorly of said offset and having an upper elongated slot, a rod pinned in the slot of said arm and having a disk at its free end, said back wall formed with a socket, a horizontally disposed cup on said door, and a spring in said socket engaging said rod to hold its disk in the path of move-

ment of said cup when the door is closed, said cup engaging the disk to cause said arm to open said valve.

5. The described device consisting of a casing, having an opening thereinto, a receptacle, a spring controlled door for said opening, a cuspidor on said door, a spray pipe in said casing, a valve therein, a rod connected to said valve, means for supporting the free end of said rod, a valve stem connecting said valve and said rod, said stem being spring controlled and a guard for said receptacle.

1,075,288. TALKING-MACHINE. ELDRIDGE R. JOHNSON, Merion, Pa., and JOHN C. ENGLISH, Camden, N. J., assignors to Victor Talking Machine Company, a Corporation of New Jersey. Filed Oct. 8, 1910. Serial No. 585,975. (Cl. 181—3.)



1. In a talking machine, the combination with a horizontal turn-table, of a sound reproducer, a stylus operatively connected to said reproducer, a sound conduit, a hollow sound conveying arm communicating with said reproducer and pivotally connected to and communicating with said conduit and operative to be swung with respect thereto in a substantially vertical plane by engagement of said stylus with a record on said support to direct the point of said stylus in a straight line.

2. In a talking machine the combination with a horizontal turn-table, of a sound reproducer provided with a stylus, sound amplifying means, a hollow sound conveying arm communicating with said reproducer and pivotally connected to and communicating with said amplifying means, and operative to be swung with respect thereto in a substantially vertical plane by engagement of said stylus with a record on said support to direct the point of said stylus in a straight line radial to the axis of rotation of said record.

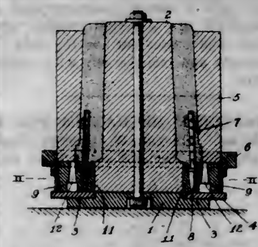
3. In a talking machine, the combination with a horizontal turn-table, of a sound reproducer, a stylus operatively connected to said reproducer, a sound conduit, a hollow sound conveying arm communicating with said reproducer, and pivotally connected to and communicating with said conduit and operative to be swung with respect thereto in a substantially vertical plane by engagement of said stylus with a record on said support to direct the point of said stylus in a straight line parallel with the plane of movement of said arm.

4. In a talking machine, the combination with a sound reproducer, of a stylus needle carried thereby, a swinging arm arranged to oscillate in a vertical plane, a hollow connector between said arm and reproducer, movable with respect to said swinging arm, and means to maintain said hollow connector in a horizontal plane, said arm being coöperative with a sound record, to direct the point of said stylus needle in a straight line radial to said record simultaneously with the vertical oscillations of said arm.

5. In a talking machine, the combination with a sound reproducer, of a stylus needle operatively connected therewith, and arranged to engage a sound record disk, a sound conveyer, comprising a swinging arm arranged to oscillate in a vertical plane, a hollow connector pivoted thereto, and arranged to connect said sound reproducer therewith, and means to maintain said hollow connector in horizontal position, said arm being arranged to cooperate with said record disk to direct the point of the stylus needle in a straight line radial to the axis of said disk simultaneously with the swinging movement of said arm.

[Claims 6 to 29 not printed in the Gazette.]

1,075,289. CORE-BOX. JAMES W. L. KERR, West View, and CHARLES V. NEESON, Pittsburgh, Pa., assignors to Lawrenceville Bronze Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 8, 1912. Serial No. 689,268. (Cl. 22—13.)

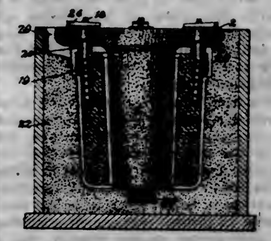


1. A core box, having in combination a side portion, a base provided with seats, and independently movable blocks arranged in said seats and provided with means for supporting venting pipes in different positions in the core box.

2. A core box, having in combination, a side portion, a base provided with seats, and removable and reversible blocks adapted to fit in said seats and provided on opposite sides with differently located means, for engaging vent pipes.

3. A core box, having in combination, a side portion, a base provided with seats, and removable blocks adapted to fit in said seats and provided with sockets for supporting the vent pipes and located at different distances from the axis of the core box.

1,075,290. MOLD FOR HOLLOW ARTICLES. JAMES W. L. KERR, West View, and CHARLES V. NEESON, Pittsburgh, Pa., assignors to Lawrenceville Bronze Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 8, 1912. Serial No. 682,384. (Cl. 22—131.)



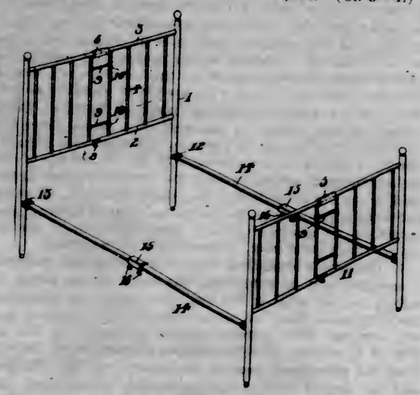
1. A sand mold, having in combination a drag having the matrix and a seat for the cope formed therein, a baked sand cope supported in said seat and closing said matrix, and a baked sand core formed independent of but suspended from said cope.

2. A sand mold, having in combination a drag having a matrix and a seat for the cope formed therein, a baked sand cope supported in said seat and closing said matrix, a baked sand core, core suspending means consisting of hollow anchors provided with perforated tubular extensions embedded in the core, and adapted to extend through openings in the cope, and means for detachably securing the anchors in position.

3. A sand mold, having in combination a drag having a matrix and a seat for the cope formed therein, a cope formed of baked sand supported in said seat and closing said matrix, a central core secured to the cope and having its lower end resting on a seat formed in the drag, and an annular core detachably suspended from the cope.

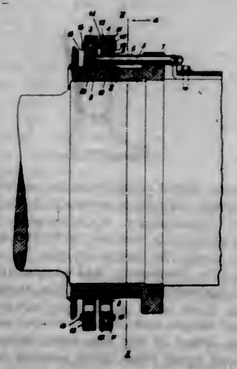
4. A sand mold, having in combination a drag having a matrix and a seat for the cope formed therein, a baked sand cope supported in said seat and closing said matrix, a core formed integral with the cope and having its lower end resting in a seat formed in the closed end of the matrix, and a core detachably secured to the cope.

1,075,291. BED. ISTVAN KERTESZ, New York, N. Y. Filed Apr. 17, 1913. Serial No. 761,806. (Cl. 5—4.)



A bed comprising head and foot pieces, each piece formed of two sections, each section consisting of a post, upper and lower transverse bars projecting from the post and vertical rods connecting the bars together, the lower bar of one section of each piece extending into the lower bar of the other section of each piece, and means for connecting said lower bars together, coupling means for connecting the upper bar of a section of one piece to the upper bar of the other section of said piece, means for connecting the innermost rod of the section of one foot piece to the innermost rod of the section of the other foot piece, and rails connecting the posts to said head and foot pieces.

1,075,292. COLLECTOR-RING FOR DYNAMO-ELECTRIC MACHINES. ALBERT KINGSBURY, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 28, 1909. Serial No. 509,967. (Cl. 171—211.)



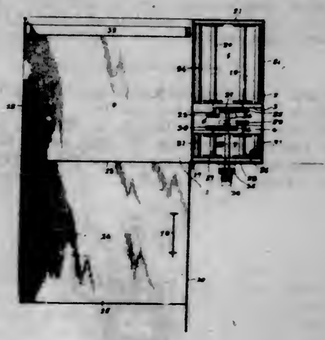
1. A collector ring for dynamo-electric machines comprising a metal body ring having an integral annular projection and a pair of contact rings seated on the body ring and clamped together upon said annular projection.

2. A collector ring for dynamo-electric machines comprising a metal body ring having an integral annular projection of dovetail section and a pair of segmental contact rings seated on the body ring and clamped together upon said annular projection.

3. A collector ring for dynamo-electric machines comprising a metal body ring having a peripheral projection and a pair of segmental contact rings removably secured together and to said peripheral projection.

4. A collector ring for dynamo-electric machines comprising a segmental body ring having tangential clamping bolts between segments and provided with an annular projection having lateral flanges, and a pair of segmental contact rings the adjacent surfaces of which are notched to register with the flanges on said annular projection, and transverse clamping bolts for securing the two contact rings to each other and to said annular projection.

1,075,293. SHEET OPERATING AND DISPLAY MECHANISM. EARL W. LANFORD, Spartanburg, S. C. Filed Mar. 19, 1912. Serial No. 684,778. (Cl. 40—93.)



In a device of the class described, the combination of two pairs of strip or sheet operating and display rollers, arranged with one roller of each pair in line with one roller of the other pair, said pairs of rollers being spaced apart, end for end, and said rollers being provided at their opposing ends with gears, the gears of the rollers of each pair being out of line with each other, a tubular operating shaft mounted for rotation and also for longitudinal movement and having a gear which may be engaged with either of the gears of one pair of rollers, and an operating shaft mounted for rotation and longitudinal movement in the tubular shaft and having a gear which may be engaged with either of the gears of the other pairs of rollers.

1,075,294. AIR-VALVE FOR RADIATORS. FRED W. LEUTHESSER, Chicago, Ill. Filed May 19, 1913. Serial No. 768,568. (Cl. 237—19.)

1. In an air valve for radiators, the combination of a casing, a float within the casing, an air vent in the upper end of the casing, a valve carried by the float and controlling said vent, an attaching axially bored nipple on the casing, a siphon drain tube split at its inner end and spread apart at this point to provide a spring fork adapted to engage the inner wall of the casing at the point of juncture of the inner wall of the nipple and the inner wall of the casing and upon opposite sides of the bore through the nipple, said tube being flattened at its forked end to provide a relatively unrestricted air space around the forked end, substantially as described.

2. In an air valve for radiators, the combination of a casing, a float within the casing, an air vent in the upper end of the casing, a valve carried by the float and controlling said vent, an attaching axially bored nipple laterally extending from the casing, a siphon drain tube split at its inner end and spread apart at this point to provide a spring fork adapted to engage the inner wall of



the casing at the juncture of the inner wall of the nipple and the inner wall of the casing, said forked end being configured to have its cross sectional dimension decreased and increased in the opposite direction, whereby the same cross-sectional area is maintained throughout the tube and whereby a relatively unrestricted air space is provided about the forked end, substantially as described.

1,075,295. ELECTROMETALLURGICAL PROCESS OF REDUCING METALLIC OXIDS. DORSEY A. LYON, Palo Alto, and EDWIN R. COX, Jr., Heroult, Cal. Original application filed Apr. 13, 1909, Serial No. 489,718. Divided and this application filed Feb. 1, 1910. Serial No. 541,347. (Cl. 204—63.)



1. The herein described improved process for reducing a metallic oxid by subjecting the same to the action of carbon and an electric current, comprising the following essential steps: first, preheating the ore by subjecting said ore to the action of a current of hot products of combustion derived from the subsequent heating of the ore; second, charging said ore, mixed with carbon in suitable proportions, into a suitable reducing stack or furnace; third, subjecting said charge to the heat of a flame above the surface thereof, formed by feeding jets of air above said surface; fourth, reducing said metallic oxid by the action of the carbon charged therewith and the resultant gases generated in the ore body during its passage through the stack, and finally, subjecting the charge so treated to heat, generated by an electric current, sufficient to melt the resultant metal, substantially as described.

2. The herein described improved process for reducing a metallic oxid by subjecting the same to the combined action of carbon and an electric current, comprising the following essential steps: first, preheating the ore by subjecting said ore to the action of a current of hot products of combustion derived from the subsequent heating of the ore; second, charging said ore, mixed with carbon in suitable proportions, into a suitable reducing stack or furnace; third, subjecting said charge to the heat of a flame above the surface thereof, formed by injecting air above said surface in quantity only sufficient to combine with a portion of the carbon monoxid; fourth, reducing said metallic oxid by the action of the carbon charged therewith and the resultant gases generated in the ore body in its passage through the stack, and finally, subjecting the charge so treated to heat, generated by an electric current, sufficient to melt the resultant metal, substantially as described.

3. The herein described improved process for reducing a metallic oxid by subjecting the same to the combined action of carbon and an electric current, comprising the following essential steps; first, preheating the ore by subjecting said ore, admixed with suitable fluxing materials, to the action of a current of hot products of combustion derived from the subsequent heating of the ore; second, charging said ore, mixed with carbon in suitable proportions, into a suitable reducing stack or furnace; third, subjecting said charge to the heat of a flame above the surface thereof formed by injecting air above said surface; fourth, reducing said metallic oxid by the action of the carbon charged therewith and the resultant gases generated in the ore body during its passage through the stack, and finally, subjecting the charge so treated to heat, generated by an electric current, sufficient to melt the resultant metal and slag, substantially as described.

4. The herein described improved process for reducing a metallic oxid by subjecting the same to the action of carbon and an electric current, comprising the following essential steps: first, preheating the ore by subjecting said ore, admixed with suitable fluxing materials, to the action of a current of hot products of combustion derived from the subsequent heating of the ore; second, charging said ore, mixed with carbon in suitable proportions, into a suitable reducing stack or furnace; third, subjecting said charge to the heat of a flame above the surface thereof produced by feeding air above said surface in quantity sufficient to combine with a portion only of the carbon monoxid produced by reduction, the remainder of said carbon monoxid being utilized to partially reduce the ore as well as to preheat it; fourth, completely reducing said metallic oxid by the action of the carbon charged therewith and the resultant gases generated in the ore body during its passage through the stack, and finally, subjecting the charge so treated to heat, generated by an electric current, sufficient to melt the resultant metal and slag, substantially as described.

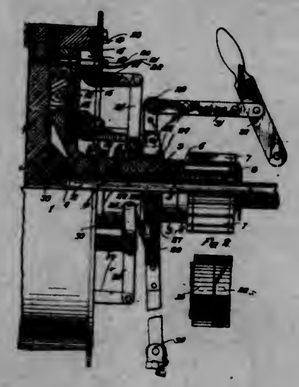
1,075,296. TROUSERS-SHIELD. ARTHUR B. MCCALL, Springfield, Ill. Filed May 31, 1912. Serial No. 700,900. (Cl. 24—72.)



1. A trousers shield comprising in combination, a resilient holding strip adapted to embrace the leg of the wearer substantially horizontally with respect to the length thereof, a substantially vertical stiffening strip adapted to be disposed along the inside of the leg of the wearer, means pivotally connecting said strips at points at one side of the longitudinal centers of the strips, and a shield cover in the form of a quadrangle having two opposite sides of equal length and one side longer and another side shorter than either of the two equal sides, the apices of the longer and equal sides being secured to those ends of the strips which are farthest apart from each other, and the apices of the shorter and equal sides being secured to those ends of the strips which are nearest each other to hold the vertical strip in place and dispose the greater area of the cover inwardly and forwardly about the leg and the lesser area outwardly about the leg, substantially as described.

2. A trousers shield comprising in combination, a resilient holding strip adapted to embrace the leg of the wearer substantially horizontally with respect to the length of the leg, a substantially vertical stiffening strip adapted to be disposed along the inside portion of the leg of the wearer, means pivotally connecting said strips at points at one side of the longitudinal centers of said strips, and a four pointed shield cover so proportioned as to dispose its points at the ends of said strips, said points being secured to the ends of said strips to hold the same in predetermined relation with respect to each other, and the remainder of said shield cover being free from connection with said strip, substantially as described.

1,075,297. AUTOMATIC CLUTCH-RELEASE. DAVID C. MCCAN, Los Angeles, Cal. Filed May 27, 1912. Serial No. 700,101. (Cl. 192—7.)



1. The combination with a shaft and a pulley mounted thereon, of a sleeve loosely mounted on said shaft and provided with friction means, a pinion on said sleeve, a cam hub slidable on said sleeve, means connected to and controllable by the movement of said cam hub to cause said friction means to engage said pulley, and means to automatically move said cam hub on said sleeve to cause said friction means to disengage from said pulley when the speed of the pinion is less than that of the pulley.

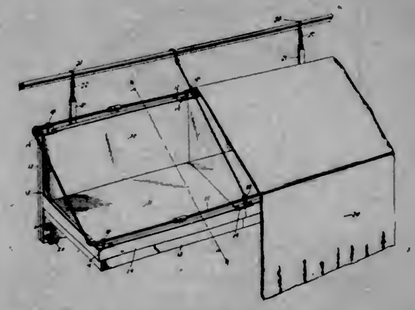
2. The combination with a shaft and a pulley mounted thereon, of a sleeve loosely mounted on said shaft and provided with friction means, a cam hub loose on said sleeve and connected with said pulley, means controllable by said cam hub to cause said friction means to be bound with said pulley, a cam ring rigid on said sleeve, and means to simultaneously move said cam hub in engagement with said cam ring and said frictional means in engagement with said pulley.

3. The combination with a shaft and a pulley mounted thereon, of a sleeve loose on said shaft and provided with friction means, a driven element on said sleeve, a cam ring rigid on said sleeve, a cam hub loose on said sleeve and arranged for engagement with said cam ring, said cam hub beind provided with means to actuate said friction means for locking said cam hub and said sleeve with said pulley, and means to move said cam hub on said sleeve.

4. The combination with a shaft and a pulley mounted thereon, of a sleeve loosely mounted on said shaft, a plurality of blocks on said sleeve, a pinion on said sleeve, a ring to move said blocks in engagement with said pulley to frictionally lock said sleeve on said pulley, a clutch hub slidable on said sleeve and provided with means to operate said ring, a lever to operate said clutch hub, and means mounted on said sleeve to cause the friction of said blocks to be relieved from said pulley when the revolution of said gear is stopped.

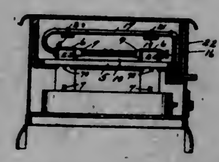
5. The combination with a shaft and a pulley mounted thereon, of a sleeve loosely mounted on said shaft and provided with a plurality of blocks, a cam ring mounted on and rotatable with said sleeve, a pinion on said sleeve, a ring to frictionally bind said blocks on said pulley, a clutch hub to coöperate with said cam ring loosely mounted on said sleeve and provided with means to actuate said friction ring, and a lever to move said clutch hub in engagement with said cam ring and to control said friction ring actuating means.

1,075,298. PORTABLE WARDROBE. FREDERIC F. MCGUIRE, Saginaw, Mich. Filed Mar. 30, 1911. Serial No. 618,020. (Cl. 45—118.)



In a wardrobe, the combination with a shelf and a backboard extending thereabove, of a rectangular frame having one side connected to the top edge of the backboard and being inclined downward therefrom and having its other side connected to the outer edge of the shelf and thereby supporting the shelf rigidly with relation to the backboard, the ends of the rectangular frame extending past the ends of the shelf, and a curtain secured to the top of the downwardly inclined frame so as to form a roof over the shelf and an envelop for the space under the shelf.

1,075,299. HYDROCARBON-OIL BURNER. ZENAS L. MELICK, Pueblo, Colo., and ED F. DUNN, Oklahoma, Okla. Filed Feb. 11, 1913. Serial No. 747,763. (Cl. 158—13.)



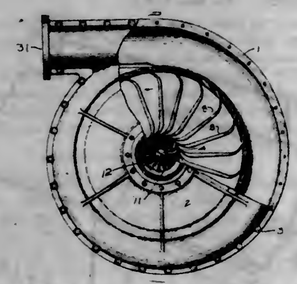
1. A hydrocarbon oil burner comprising a burner-pipe, air shafts therefor, a trough extending across each shaft, a second trough beneath the first named troughs and into which they empty, a drip pan under the burner pipe and troughs, means to vaporise the fuel, and water vats in proximity of the burner-pipe for treating the flame.

2. A hydrocarbon oil burner comprising a burner pipe, air shafts therefor, a vaporiser, deflectors, a depressed receptacle running beneath the burner pipe, and a drip pan beneath said receptacle.

3. A hydrocarbon oil burner, comprising a burner pipe, air shafts therefor, a vaporizer, deflectors, a depressed receptacle running through the device and under the burner pipe, a drip pan beneath said receptacle, and a vat secured to each air-shaft for holding water to be heated by the flame from the burner-pipe so that said heated water may vaporize the flame.

4. A hydrocarbon oil burner comprising a burner-pipe, air shafts therefor, a vaporizer, deflectors, troughs in the air shafts, a trough into which said troughs empty, a drip pan beneath the last mentioned trough, and a vat secured to each air-shaft for holding water to be heated by the flame from the burner pipe so that the heated water may vaporize the flame.

1,075,300. CENTRIFUGAL COMPRESSOR. SANFORD A. MOSS, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Dec. 10, 1904. Serial No. 236,373. (Cl. 230—11.)



1. In a centrifugal compressor for elastic fluids, the combination of a casing, a rotating impeller mounted therein which is provided with radially disposed vanes having outwardly diverging passages between them, which vanes and passages confine the fluid and simultaneously impart velocity to the fluid and compress it by reducing its volume, directing vanes arranged to direct the incoming fluid against the inner ends of the impeller vanes, an annular nozzle located in the plane of the impeller which surrounds the outer ends of the vanes and is provided with tangential partitions and walls that decrease the velocity of the fluid to a predetermined small amount, and also further decrease the volume and increase its density before discharging it, and a conduit that surrounds the nozzle and receives fluid from it and retains the same in its compressed state.

2. In a centrifugal compressor, the combination of a rotating element which is provided with vanes shaped to simultaneously impart velocity to the fluid and compress it, directing vanes which direct the incoming fluid against the inner ends of the vanes on the rotating element in a direction perpendicular to the axis of rotation, a shield which assists in directing the incoming fluid and prevents it from striking that portion of the wheel within the inner ends of the vanes, a nozzle which surrounds the outer ends of the vanes and is provided with walls that decrease the velocity of and also the volume of the fluid and increase its density and temperature, and a discharge conduit which receives fluid directly from the nozzle and retains it in its compressed state.

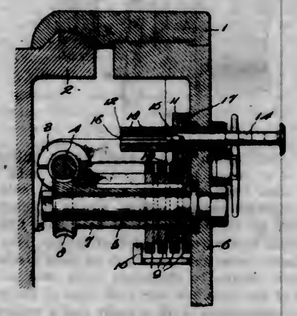
3. In a centrifugal compressor for elastic fluid, the combination of an impeller which is provided with radial passages that gradually increase in cross-sectional area toward the point of discharge and simultaneously impart velocity to the fluid and compress it, a casing for the impeller, an annular nozzle that closely surrounds the impeller, is located in the plane thereof and receives the elastic fluid discharged by it, thin partitions in the nozzle that extend tangentially toward the periphery of the impeller and form passages of definite size and shape for directing the fluid streams, the said passages enlarging gradually on the discharge sides by an amount sufficient to reduce the velocity of the fluid to a small value, at the same time compress it and increase its density, which compression is added to that due to the impeller, a conduit that surrounds the nozzle and receives the fluid from all of said passages and holds it in a compressed state, and a means for reducing the tendency of the fluid to cause eddies as it enters the impeller.

4. In a centrifugal compressor, the combination of a rotary vane-carrying element, a casing therefor, means for directing the incoming fluid into the receiving ends of the vane spaces of the rotating element, an annular nozzle which surrounds the rotating element and is located in the plane of said element, straight walled partitions in the nozzle extending in the direction of flow of the fluid to form passages, each passage being provided with a restricted throat and posterior diverging walls which compress the fluid and reduce the velocity thereof and increase its density and temperature prior to discharging it, a plurality of means that coöperate with the rotary vanes to direct the incoming fluid thereto, and a conduit which receives the fluid after it is discharged by the passages, at the same time preventing it from expanding.

5. In a centrifugal compressor, the combination of a rotating element, vanes or blades thereon which extend radially and have their ends curved forward to discharge the fluid with high velocity relative to the impeller, stationary vanes for directing the passage of fluid into the vane spaces of the rotating element, which are also curved at the ends, the discharge ends of the directing vanes being surrounded by the receiving ends of the rotating vanes, a nozzle having a passage which expands from the throat to the discharge end, and a conduit receiving fluid from the discharge end of the nozzle.

[Claims 6 to 11 not printed in the Gazette.]

1,075,301. ATTACHMENT FOR SCREW-CUTTING LATHES. ARVID J. PETERSON, Greenfield, Mass. Filed Sept. 25, 1912. Serial No. 722,304. (Cl. 82—23.)



1. An attachment for screw-cutting lathes comprising a bushing rotatably mounted on the lathe carriage, a worm wheel on said bushing in mesh with the lathe lead screw, a series of differently notched index disks slidably splined on said bushing, a finger on the split lock nut of the lead screw, and means for shifting said several notched disks into position for locking engagement by said finger when the split lock nut is closed in engagement with the lead screw.

2. An attachment for screw-cutting lathes comprising a bushing rotatably mounted on the lathe carriage; connections to the lathe lead screw for rotating said bushing, an integral series of differently notched index disks slidably splined on said bushing, a finger rigidly connected to the split nut of the lead screw, and adjustable means for shifting said series of notched disks to bring any desired disk into position for locking engagement by said finger when the split nut is closed on the lead screw.

3. An attachment for screw-cutting lathes comprising a bushing rotatably mounted on the lathe carriage, connections to the lathe lead screw for rotating said bushing, an integral series of differently notched index disks slidably splined on said bushing, a finger rigidly connected to the split nut of the lead screw, adjustable means for shifting said series of notched disks to bring any desired disk into position for locking engagement by said finger when the split nut is closed on the lead screw, and automatic means for accurately positioning said notched disks and locking the latter in their several adjusted positions.

1,075,302. FLYING-MACHINE. RUBINO PLASTINO, New York, N. Y. Filed May 18, 1911. Serial No. 628,137. (Cl. 244—12.)



1. In an aeroplane, the combination of a body, lateral sustaining planes on each side of said body, longitudinal guide-ways, a central sustaining plane movable longitudinally in said guide-ways, and means for moving said central plane in said guide-ways, whereby the center of resistance and thereby the angle of incidence of said central plane may be varied, said central plane having auxiliary planes at both ends, and means for varying the angle of incidence of said planes independent of the variation of said central plane.

2. In an aeroplane, the combination of a body, lateral sustaining planes on each side of said body, longitudinal guide-ways, a central sustaining plane movable longitudinally in said guide-ways, and means for moving said central plane in said guide-ways, whereby the center of resistance and thereby the angle of incidence of said central plane may be varied, said central plane having an auxiliary plane at an end, and means, fixed upon the main framework of the machine and permitting movement of said central plane, for varying the angle of incidence of said plane independent of the variation of said central plane.

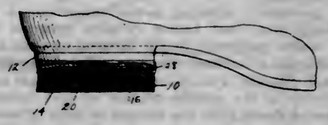
3. In an aeroplane, the combination of a body, lateral sustaining planes on each side of said body, and a central longitudinally extending sustaining plane, said lateral sustaining planes being pivoted longitudinally of the body, and means for adjusting the lateral inclination of said lateral planes, said means comprising wires attached to said lateral planes at different transverse points and a series of pulleys of different diameters around which said wires pass, the diameters of said pulleys being proportioned to the amount of run or take-up in the several wires when the lateral planes are moved.

4. In an aeroplane, the combination of a body, lateral sustaining planes on each side of said body, and a central longitudinally extending sustaining plane, said lateral sustaining planes being pivoted longitudinally of the body, and means for adjusting the lateral inclination of said lateral planes, said means comprising wires attached to each side of one of said lateral planes at different transverse points and running over pulleys to corresponding points on the other sides of the other of said lateral planes, the pulleys over which the wires from one side of one of the planes pass being of different diameters proportioned to the amount of run or take-up in the several wires when the lateral planes are moved, and means for moving said pulleys of different diameters simultaneously.

5. In an aeroplane, the combination of a body, lateral sustaining planes on each side of said body, and a central longitudinally extending sustaining plane, said lateral sustaining planes being pivoted longitudinally of the body, and means for adjusting the lateral inclination of said lateral planes, said means comprising wires attached to each side of one of said lateral planes at different transverse points and running over pulleys to corresponding points on the other sides of the other of said lateral planes, the pulleys over which the wires from one side of one of the planes pass being of different diameters proportioned to the amount of run or take-up in the several wires when the lateral planes are moved, and a worm and worm-wheel for moving said pulleys of different diameters, said pulleys being movable together.

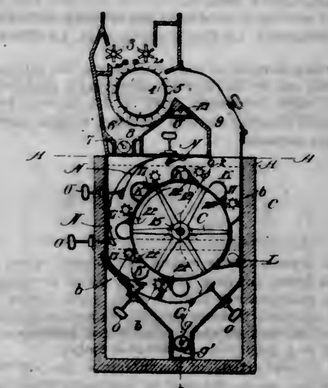
[Claims 6 to 15 not printed in the Gazette.]

1,075,303. INTERCHANGEABLE RESILIENT HEEL. HENRY P. ROBERTS, Boston, Mass., assignor, by mesne assignments, to Albert A. Ormsbee, Charles S. McCall, and George Greene, Taunton, Mass. Filed Nov. 13, 1912. Serial No. 731,212. (Cl. 36—36.)



The combination of a plate adapted to be affixed to the heel of a shoe, said plate being substantially rectangular, of substantial area, and having an extension in the direction of the longitudinal median line of the shoe and toward the rear of the heel, each corner of said plate and the end of said extension having an ear, a resilient heel arranged to fit said shoe heel and provided with a series of recesses arranged to receive said ears, said resilient heel being also provided with a plurality of parallel passages communicating with said recesses, and a removable member having a plurality of prongs arranged to enter and completely fill the passages in said resilient heel and to frictionally engage the walls of said passages, said ears being also arranged to engage said prongs, substantially as described.

1,075,304. PNEUMATIC CLEANING DEVICE. CECIL L. SAUNDERS, Hot Springs, Ark. Filed Sept. 14, 1910. Serial No. 582,059. (Cl. 13—7.)



1. A pneumatic cleaning device comprising a casing, a rotatable perforated hollow cylinder mounted in said casing, means for supplying heated gas to the surface of such cylinder, means connected to the interior of such cylinder for producing a suction therein, an exhaust chamber mounted in proximity to the exterior surface of such cylinder for withdrawing fibers from the surface of such cylinder, and means for preventing the material to be cleaned from entering such chamber.

2. A pneumatic cleaning device comprising a casing, a rotatable perforated hollow cylinder mounted in said casing, means for supplying heated gas to the surface of such cylinder, means connected to the interior of such

cylinder for producing a suction therein, an exhaust chamber mounted in proximity to the exterior surface of such cylinder for withdrawing fibers from the surface of such cylinder, and a blade secured to said chamber and in close proximity to said cylinder for preventing the material to be cleaned from entering such chamber.

3. A pneumatic cleaning device comprising a casing, a rotatable perforated hollow cylinder mounted in said casing, means connected to the interior of such cylinder for producing a suction therein, an exhaust chamber mounted in proximity to the exterior surface of such cylinder for withdrawing fibers from the surface of such cylinder, means for preventing the material to be cleaned from entering such chamber, and means for removing the cleaned material.

4. A pneumatic cleaning device comprising a casing, a rotatable perforated hollow cylinder mounted in said casing, means connected to the interior of such cylinder for producing a suction therein, baffle plates arranged about said cylinder, a series of exhaust chambers mounted in proximity to the exterior surface of such cylinder for withdrawing fibers from the surface of such cylinder, and means for preventing the material to be cleaned from entering such chambers.

5. A pneumatic cleaning device comprising a casing, a rotatable perforated hollow cylinder mounted in said casing, means connected to the interior of such cylinder for producing a suction therein, adjustable baffle plates arranged about said cylinder, a series of exhaust chambers mounted in proximity to the exterior surface of such cylinder for withdrawing fibers from the surface of such cylinder, and means for preventing the material to be cleaned from entering such chambers.

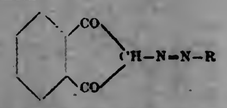
[Claims 6 to 9 not printed in the Gazette.]

1,075,305. AZO DYES AND PROCESS OF MAKING THE SAME. OTTO SCHMIDT, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Sept. 19, 1911. Serial No. 650,216. (Cl. 8—1.)

1. The process of producing azo coloring matter by combining a negatively substituted diazo compound with a 1.3-diketo-hydro-inden body.

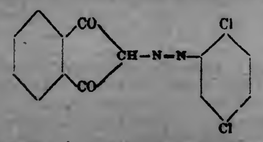
2. The process of producing azo coloring matter by combining diazotized 2.5-dichlor-anilin with 1.3-diketo-hydro-inden.

3. As new articles of manufacture the azo coloring matters which can be obtained by combining a negatively substituted diazo compound with a 1.3-diketo-hydro-inden body, which coloring matters contain a residue corresponding to the formula



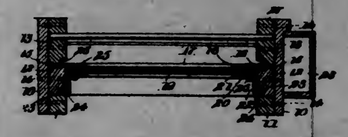
where R is an aromatic residue and consist, when dry, of yellow to brown powders, yield from yellow to orange solutions in concentrated sulfuric acid, yield yellow to red lakes of excellent fastness against the action of light, and on reduction with stannous chlorid and hydrochloric acid give rise to a negatively substituted amin.

4. As a new article of manufacture the azo coloring matter which can be obtained by combining diazotized 2.5-dichlor-anilin with 1.3-diketo-hydro-inden, which coloring matter possesses a constitution corresponding to the formula:



consists, when dry, of a yellow powder, yields an orange-red solution in concentrated sulfuric acid, yields a green-ish yellow lake of excellent fastness against the action of light, and which upon reduction with stannous chlorid and hydrochloric acid gives rise to 2.5-dichlor-anilin.

1,075,306. WINDOW-SASH. ENSLEY C. SHEPHERD, Mineral Point, Wis. Filed Jan. 27, 1912. Serial No. 673,862. (Cl. 189—76.)



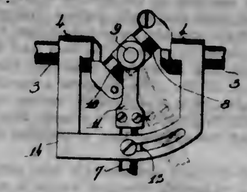
The combination with a window pane; of elastic packing strips resting on the faces of said pane adjacent the edges thereof, a flat rectangular frame member having its sides projecting beyond the lateral edges and having portions overlapping the pane and resting on the packing on one side of said pane, a second frame member having its side portions Z-shaped in cross section, one leg of each side resting on the respective side portion of the remaining packing, the space between the frame members at the outer edges of the latter being open and unrestricted, and fastenings passing transversely through the overlapping portions of said frame members and transversely of the pane and spaced outwardly from the edges of the latter.

1,075,307. EXPLOSIVE-ENGINE. JOHN JOEL SHIVELY, Washington, D. C. Filed May 26, 1910. Serial No. 563,654. (Cl. 123—78.)



In an explosive engine, a cylinder and its complemental ports, two pistons arranged within said cylinder one above the other and whereof the lower is operated by the explosion, a crank-shaft operatively connected with the lower or power piston, a disk carried by said crank-shaft and provided with teeth for a quarter of its circumference, a crank shaft carrying the upper piston, means for transmitting motion from said disk to the upper crank shaft for effecting a downward movement of the upper piston, and a counter-balance weight on said last-named crank-shaft to promptly lift the upper piston as soon as the disk becomes idle.

1,075,308. MECHANICAL MOVEMENT. CLARENCE F. SKINNER, Newark, N. J., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 18, 1905, Serial No. 241,598. Renewed Oct. 19, 1907. Serial No. 398,264. (Cl. 74—5.)



1. In a mechanical movement, a rotary shaft having a portion standing at an angle to the axis of rotation of said shaft, an oscillatory shaft adapted to rotate about its longitudinal axis, said shaft having an angular relation to the rotary shaft, and a swivel connection between said oscillatory shaft and the angular portion of the rotary shaft, said oscillatory shaft being adjustably mounted to vary the angular relation between it and the rotary shaft.

2. In a mechanical movement, a rotary shaft having a portion standing at an angle to its axis of rotation, a sleeve or bearing member loosely mounted on the angular portion of the shaft, and an oscillatory shaft adapted to turn about its longitudinal axis and pivotally connected to said sleeve or bearing member, said oscillatory shaft being adjustable to vary the angular relation between it and the rotary shaft.

3. In a mechanical movement, a rotary shaft having a portion extending at an angle to its axis of rotation, a sleeve or bearing member loosely mounted on said angular portion, said sleeve or bearing member having a trunnion, and an oscillatory shaft having an angular relation to the rotary shaft, said oscillatory shaft having a hub loosely mounted on said trunnion, a bearing for said oscillatory shaft, and means for adjusting said bearing to vary the angle between the oscillatory shaft and rotary shaft.

4. In a mechanical movement, a rotary driving shaft having a bearing portion standing at a fixed angle to its axis of rotation, an oscillatory shaft adapted to turn about its longitudinal axis and having an angular relation to the rotary shaft, and a swiveled connection between said oscillatory shaft and the angular bearing portion of the rotary shaft, and means to vary the character of the oscillatory motion of the oscillatory shaft without changing the rotary motion of the rotary shaft.

5. In a mechanical movement, a rotary shaft having a portion standing at an angle to its axis of rotation, a sleeve or bearing member loosely mounted on said angular portion, said sleeve or bearing member having a trunnion, and an oscillatory shaft having an angular relation to the rotary shaft, said oscillatory shaft having a hub loosely mounted on said trunnion, and being adjustable to vary the angular relation between its axis and that of the rotary shaft.

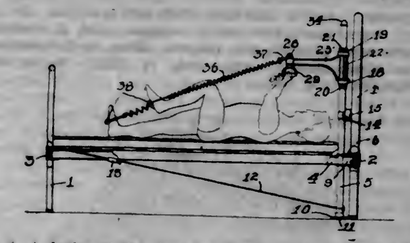
[Claims 6 to 10 not printed in the Gazette.]

1,075,309. EXERCISING APPARATUS. MARK J. SULLIVAN, Chicago, Ill. Filed Mar. 30, 1912. Serial No. 687,338. (Cl. 46—69.)

1. A standard adapted to be attached to a bed at the head thereof, arms swingingly engaged thereon and adjustable as to height above the bed, and a hand grip at the extremity of each arm.

2. In a device of the class described a standard adapted to be detachably engaged at the head of a bed and supported upon the floor, bracket arms connected with said standard to swing horizontally above the bed, a hand grip at the extremity of each of said arms, and means for adjusting the arms simultaneously as to height.

3. A device of the class described embracing a standard adapted to be inserted in advance of the head rail of a bed and rest upon the floor, a clamp engaging the standard to the head rail of the bed, means engaging the upper end of the standard with the head of the bed to hold the same from lateral movement, a cable engaged at the lower end of the standard and adjustably engaged in tension around the foot rail of the bed, bracket arms adjustably and swingingly engaged on the standard and adapted to swing horizontally over the bed, and means attaching a horizontal bar to the outer end of said bracket arms.

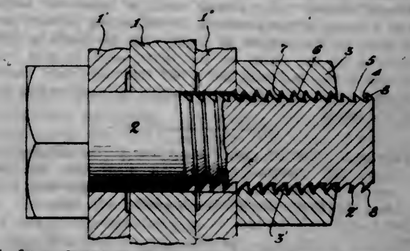


4. A device of the class described embracing a standard adapted to rest upon the floor, a padded foot piece for the standard, a clamp adapted to engage the standard to the head rail of a bed, a clamp for engaging the standard to the head of the bed above the rail, swinging bracket arms adapted for adjustment horizontally over the bed, a hand grip engaged on the under end of each, an eye at the outer end of each bracket arm, a horizontal bar adapted for engagement through said eyes at its ends and acting to space the hand grips apart, and means adjusting said bracket arms as to height above the bed.

5. A device of the class described embracing a standard adapted to be supported upon the floor, means for engaging the same at the inner side of a bed, a cable for engaging the foot thereof with the foot rail of the bed, swinging arms adjustably secured on the standard and adapted to extend over the bed, a hand grip on each, and foot and leg exercising means adapted for engagement on the outer end of said arms and embracing each a resilient band and a stirrup on the outer end of the band.

[Claims 6 to 14 not printed in the Gazette.]

1,075,310. NUT-LOCK. MELCHIOR C. ULRICH, Seattle, Wash., assignor of sixteen one-hundredths to George B. Dunn and thirty-three one-hundredths to George W. Korte, Seattle, Wash. Filed Apr. 22, 1913. Serial No. 762,861. (Cl. 151—22.)



1. In a device of the character described, a threaded bolt member, and a threaded nut member, the point only of the thread of one of said members normally engaging the thread of the other member and adapted to bend to bring a portion of its threaded face in contact with the thread of the last mentioned member.

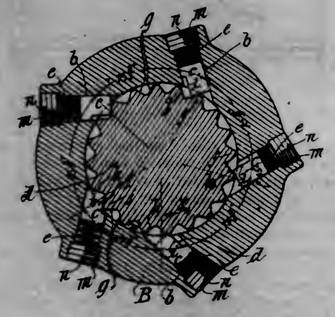
2. In a device of the character described, a threaded bolt member, and a threaded nut member, the point only of the thread of one of said members normally engaging the side face of the thread of the other member.

3. In a device of the character described, a threaded bolt, and a threaded nut therefor, the thread of one of the aforesaid elements being provided with a concaved

face arranged in advance and a convex face in rear of the thread of the other of said elements.

4. In a device of the character described, a threaded bolt element, and a threaded nut element therefor, the thread of one of the aforesaid elements being adapted to present a greater bearing surface for the interlocking thread of the other of said elements when the latter are restrained from advancing toward one another.

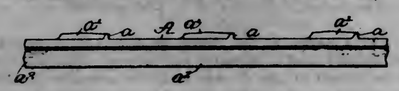
1,075,311. PAWL-AND-RATCHET MECHANISM. JOHN L. BECK, Springfield, Mass., assignor to B. F. Perkins and Son, Incorporated, Holyoke, Mass., a Corporation of Massachusetts. Filed July 14, 1911. Serial No. 638,528. (Cl. 74—16.)



1. A ratchet mechanism comprising a shaft having a series of terminal teeth, the opposite faces of which are inclined in a common direction and the confronting faces of which are right angular to each other, a collar adapted to be reversed on the shaft and provided with a series of inclined sockets, and a series of spring pressed pawls in said sockets and adapted to co-act with the teeth in either position of the collar on the shaft and when the shaft is rotated in either direction, each of said pawls having a flat end face and a flat side face right angular to each other, and adapted to engage the confronting faces of the teeth.

2. A ratchet mechanism comprising a shaft having a series of radial terminal teeth, the opposite faces of which are inclined in a common direction and the confronting faces of which are right angular to each other, a collar slidably positioned on the shaft and adapted to be reversed thereon and formed with a series of sockets, and a series of independently acting spring pressed pawls slidable in the sockets to co-act with the teeth in either position of the collar on the shaft, each of said pawls having a flat end face and a flat side face right angular to each other, and adapted to engage the confronting faces of the teeth.

1,075,312. TIE-PLATE. WILLIAM L. DE REMER, Chicago, Ill. Original application filed June 18, 1908, Serial No. 439,159. Divided and this application filed Aug. 23, 1909. Serial No. 514,083. (Cl. 238—2.)



1. A tie-plate for rails comprising a body portion having near one end a transverse shoulder which is substantially vertical to said body portion and which forms a supporting surface for one side of the rail base and having a boss integral with said body portion and at an angle to the plane of the shoulder and extending adjacent to the line of the edge of the rail base, which boss has a spike hole with walls arranged to support the back and sides of the shank of a spike and is inclined upwardly from the hole toward said end of the plate to form a backing for the head of the spike, said body-portion having near its other end a boss provided with a spike hole.

2. A tie-plate for rails comprising a body-portion having near one end a transverse shoulder which is substantially vertical to said body portion, and which forms a supporting surface for one side of the base of a rail, and having a boss integral with said body portion and at an angle to the plane of the shoulder, which boss has a spike hole with walls arranged to support the back and sides of the shank of a spike and is inclined upwardly from the hole toward said end of the plate to form a backing for the head of the spike, said body-portion having at its other end a boss which is provided with a spike hole and which at its inner end, toward the rail, is inclined to the body portion.

3. A tie-plate for rails comprising a body portion having near one end a transverse shoulder which is substantially vertical to said body portion and which forms a supporting surface for one side of the base of the rail, and also having a pair of bosses provided with spike holes and arranged to support the shank of the spike as to more than half of its circumference and to back the head thereof, said shoulder connecting said bosses, and said body portion having near its other end a second pair of bosses integral with such body portion and having spike holes.

4. A tie-plate for rails comprising a body portion having near one end a transverse shoulder which is substantially vertical to said body portion, and which forms a supporting surface for one side of the base of the rail, and also having a pair of bosses integral with said body portion and with said shoulder and extending at an angle to the plane of the shoulder, said shoulder being located between said bosses, said body portion having near its outer end a second pair of bosses integral with such body-portion and having spike holes, said first-named bosses being inclined on their top faces to correspond with the inclined under faces of the heads of screw spikes and being arranged to surround and thereby brace the spike shanks below such heads, and the last-named bosses being inclined on their inner sides to the body-portion.

5. A tie-plate bar or blank from which a series of tie-plates is formed and which has on one face a series of transverse shoulders and extended bosses arranged adjacent and at an angle to the shoulders whereby when the blank is severed through the bosses separate tie-plates will be formed each with a transverse shoulder at one side, bosses adjacent thereto and corresponding bosses at the other end of the plates; substantially as described.

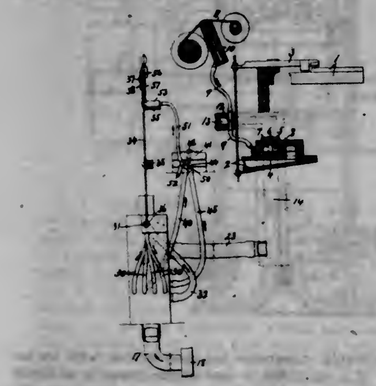
[Claims 6 to 8 not printed in the Gazette.]

1,075,313. SELF-PLAYING MUSICAL INSTRUMENT. LEWIS B. DOMAN, Elbridge, N. Y., assignor to Amphion Piano Player Company, Elbridge, N. Y., a Corporation of New York. Filed Aug. 24, 1904. Serial No. 221,995. (Cl. 84—168.)

1. In a self-playing musical instrument, an expression-controlling mechanism including an expression pneumatic and a plurality of separate resistance pneumatics, each having separate connection with the first named pneumatic, in combination with an air exhaust device in communication with the first named pneumatic, a valve actuated by the expression pneumatic to control such communication means to connect each of the resistance pneumatics to said exhaust device, one at a time for producing a step-by-step gradation of expression, and manually controlled pneumatic means for actuating said valve independently of the expression pneumatic.

2. In a self-playing musical instrument, the combination with an air-exhaust device and an exhaust-chamber of the playing action, of an expression pneumatic in the connection between the exhaust-device and said chamber, an accenting pneumatic within and actuated by the expression pneumatic, a series of separate pneumatics adapted to resist the collapse of the first named pneumatic, means for placing said separate pneumatics, one by one, in communication with the exhaust device, and separate actuating means for the accenting pneumatic.

3. In a self-playing musical instrument, the combination with an air exhaust device and an exhaust chamber in communication therewith, of separately operable pneumatics one within the other, and actuated by the suction from the exhaust device to control such communication, a series of separate pneumatics adapted to resist the action of one of the first named pneumatics, and additional means for placing said separate pneumatics in communication, one by one, with the exhaust device.

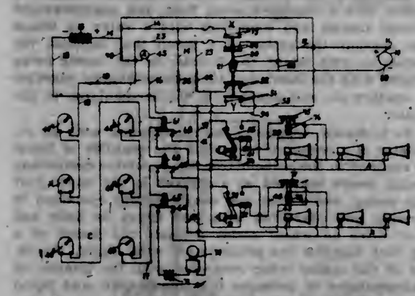


4. In a self-playing musical instrument, separately operable expression governing pneumatics, one within the other, and an exhaust device in communication therewith, in combination with separate resistance devices connected to one of said pneumatics to oppose its collapse.

5. In a self-playing musical instrument, separately operable expression governing pneumatics, one within the other, and an exhaust device in communication therewith, in combination with separate pneumatics connected to the outer pneumatic to oppose its collapse, and means to deflate said separate pneumatics individually and collectively.

[Claims 6 to 33 not printed in the Gazette.]

1,075,314. ELECTRIC FIRE-ALARM SYSTEM. JOHN L. FLAGG, Hackensack, and FORD T. TOWERS, Hawthorne, N. J., assignors to Watson-Electric Co., Paterson, N. J., a Corporation of New Jersey. Filed June 7, 1913. Serial No. 772,275. (Cl. 178—50.)



1. In an alarm signal system, the combination with a preferred source of energy, an alternate source of energy, a normally closed signal circuit, permanently connected to the alternate source, of a normally open alarm circuit, means for connecting the alarm circuit to one or the other of said sources of energy and means dependent upon the interruption of the signal circuit for closing the alarm circuit.

2. In an alarm signal system, the combination with a preferred source of energy, an alternate source of energy, a normally closed signal circuit permanently connected to the alternate source, of a normally open alarm circuit, means for connecting the alarm circuit to one or the other of said sources of energy, means dependent upon the interruption of the signal circuit for closing the alarm circuit and a voltage equalizing resistance adapted to be interposed between said sources of energy.

3. In an alarm signal system, the combination with a preferred source of energy, an alternate source of energy, a normally closed signal circuit permanently connected to the alternate source, a plurality of signal boxes or stations in said circuit, each of which is adapted to temporarily interrupt the circuit, of a normally open alarm circuit, a plurality of alarm devices in multiple circuit relation therein, a normally open switch in the alarm circuit, means for connecting the alarm circuit to one or the other of said sources of energy and means dependent upon the interruption of the signal circuit for actuating said switch to close the alarm circuit.

4. In an alarm signal system, the combination with a preferred source of energy, an alternate source of energy, a normally closed signal circuit permanently connected to the alternate source, a plurality of signal boxes or stations in said circuit, each of which is adapted to temporarily interrupt the circuit, of a normally open alarm circuit, a plurality of alarm devices in multiple circuit relation therein, a normally open switch in the alarm circuit, a change-over switch for connecting the alarm circuit to one or the other of said sources of energy, means dependent upon the energization of said preferred source of energy for actuating the change-over switch to connect the alarm circuit to the preferred source, and means dependent upon the interruption of the signal circuit for closing the alarm circuit.

5. In an alarm signal system, the combination with a preferred source of energy, an alternate source of energy, a normally closed signal circuit permanently connected to the alternate source, a plurality of signal boxes or stations in said circuit, each of which is adapted to temporarily interrupt the circuit, of a normally open alarm circuit, a plurality of alarm devices in multiple circuit relation therein, a normally open switch in the alarm circuit, a change-over switch for connecting the alarm circuit to one or the other of said sources of energy, a magnet coil for holding the change-over switch in a position to connect the alarm circuit to the preferred source of energy, an electro-magnet for closing said normally open switch to complete the alarm circuit and a relay switch dependent upon an interruption of the signal circuit for energising the closing coil of the normally open switch and completing the alarm circuit, the electro-magnet associated with the change-over switch being connected across the preferred source of energy.

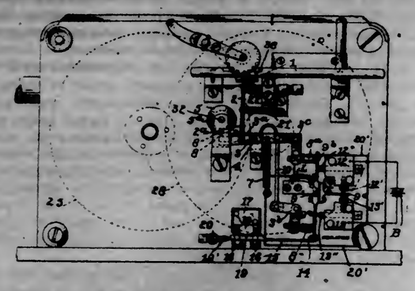
[Claims 6 to 13 not printed in the Gazette.]

1,075,315. AUTOMATIC TRANSMITTER FOR TELEGRAPHIC SYSTEMS. JOHN GELL, London, England, assignor to The Gell Telegraphic Appliances Syndicate, Ltd., London, England. Filed Jan. 24, 1911, Serial No. 604,487. Renewed Feb. 21, 1913. Serial No. 750,042. (Cl. 178—46.)

1. In apparatus of the class described, a frame, a star feed wheel, transmitting pins, a cam, a main key action comprising spring pressed pivoted members carrying the pins, subsidiary members pivotally mounted, and connected with the main key members, said subsidiary members having hammers, and a secondary key operated by said hammer, substantially as described.

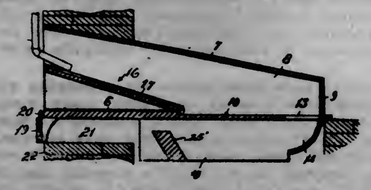
2. In combination in apparatus of the class described, a star-feed-wheel, transmitting pins, a cam, a main key action comprising spring pressed pivoted members carrying the pins and subsidiary members pivoted intermediate of their length, links connecting the adjacent ends of the subsidiary levers with the pin carrying members, said subsidiary members having hammer portions at their ounter or distant ends, and a secondary key operated by said hammer portions substantially as described.

3. In combination the main and secondary key actions, a jockey roller, an arm carrying the same, screws for adjustably holding the arm and a screw for forcing the



arm longitudinally to adjust the jockey roller in relation to the secondary key or to form a stop for the adjustment of the arm in the opposite direction, substantially as described.

1,075,316. HYDROCARBON-BURNER. CHARLES J. BECKER, Los Angeles, Cal. Filed Nov. 12, 1912. Serial No. 730,904. (Cl. 158—91.)



1. In a burner, a rectangular shell comprising a base, a top, sides and a rear end, its forward end being approximately square, its rear end being substantially half the vertical dimensions of the front end, an opening through the base at its rear end, a downwardly projecting wall on each side and extending forwardly from the opening to form a duct from said opening, the base of the burner having a series of holes alongside of each wall, and means for supplying fuel to said shell.

2. In a burner, a rectangular shell, open at its forward end, provided at its rear end with a down duct which projects forwardly below the bottom, two parallel longitudinal walls leading from the duct, a series of holes alongside of each wall, and means at the forward end of said shell to give admission to the space below the bottom of the shell.

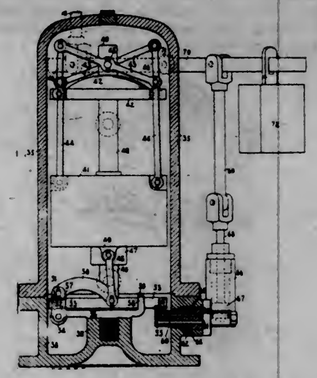
3. In a burner, a rectangular shell having its front end open, the bottom along the rear half of the shell being depressed and provided with a down duct for the hydrocarbon gases at the rear end of the shell, and having holes through the bottom on both sides of its medial line, and means for supplying liquid fuel to the depressed bottom.

4. In a burner, a rectangular shell having its front end open, the bottom along the rear half of the shell being depressed and provided with a down duct for the gases of combustion, and a removable induction plate for the liquid fuel adapted to rest in the open end of the shell.

5. In a burner, a rectangular shell having an open end, the bottom of said shell being depressed along the rear half of the shell, the rear end of the bottom having a down duct through the bottom for the hydrocarbon vapors, a channel for conveying the vapors forwardly beneath the bottom, the bottom having a plurality of holes alongside of and forwardly of the down duct, and a removable oil inlet plate in the shell to convey oil to the rear end of the shell.

[Claims 6 and 7 not printed in the Gazette.]

1,075,317. HYDRAULIC APPARATUS. CARL WIGTEL, New York, N. Y., assignor to The Watson-Stillman Company, New York, N. Y., a Corporation of New Jersey. Filed May 31, 1912. Serial No. 700,567. (Cl. 103—86.)



1. In hydraulic apparatus the combination with an accumulator of a regulator to control the quantity of liquid to be supplied to the accumulator, the regulator comprising a casing, and a counterweighted float contained therein and connected with a valve on whose action depends the action of a pump that supplies the accumulator with liquid, the interior of the casing being connected with the interior of the accumulator by passages that conduct air and liquid from the accumulator to the regulator.

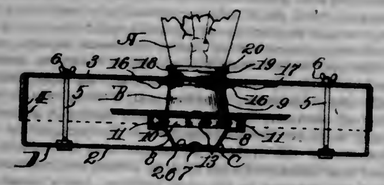
2. In hydraulic apparatus the combination with high pressure and low pressure accumulators having communicating air-chambers, of a regulator to control the quantity of liquid to be supplied to the low pressure accumulator, the regulator comprising a casing and a counterweighted float contained therein and connected with a valve on whose action depends the action of a pump that supplies the low pressure accumulator with liquid, the interior of the casing being connected with the interior of the low pressure accumulator by passages that conduct air and liquid from this accumulator to the regulator.

3. In hydraulic apparatus the combination with an accumulator of a regulator to control the quantity of liquid to be supplied to the accumulator, the regulator comprising a casing, and a combined solid float and counterweight contained therein and connected with a valve on whose action depends the action of a pump that supplies the accumulator with liquid, the interior of the casing being connected with the interior of the accumulator by passages that conduct air and liquid from the accumulator to the regulator.

4. In hydraulic apparatus the combination with an accumulator of a regulator to control the quantity of liquid to be supplied to the accumulator, the regulator comprising a casing, levers mounted on a support in the upper part of the casing, and a float and counterweight contained in the casing and connected with said levers by links and with a valve on whose action depends the action of a pump that supplies the accumulator with liquid, the interior of the casing being connected with the interior of the accumulator by passages that conduct air and liquid from the accumulator to the regulator.

5. In hydraulic apparatus the combination with an accumulator of a regulator to control the quantity of liquid to be supplied to the accumulator, the regulator comprising a casing, a post fast in the base of the casing and extending nearly to the top thereof, levers mounted on said post near its upper end, and a float and counterweight surrounding said post and connected with said levers by links and with a valve on whose action depends the action of a pump that supplies the accumulator with liquid, the interior of the casing being connected with the interior of the accumulator by passages that conduct air and liquid from the accumulator to the regulator.

1,075,318. LAMP-SOCKET. THEODOR R. WILLWERSCHEID, St. Paul, Minn. Filed Sept. 27, 1911. Serial No. 651,631. (Cl. 173—339.)

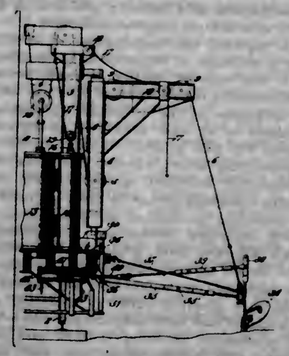


1. A support for an incandescent lamp, comprising in combination, a housing formed in two coöperating parts, a socket within said housing mounted on one of said parts by a spider having an opening between the same and said socket to prevent moisture from collecting between the base of said socket and said housing, said socket extending through the other of said parts for the reception of a lamp, and having a shoulder within said second housing part tapering away from said socket to form an uninterrupted thin edge adjacent the inner wall of said second housing part to close the aperture therein and adapted to gather moisture therefrom and direct it away from said socket and lamp.

2. In a support for an incandescent lamp, comprising, a housing formed in two parts, a spider like socket mount attached within said housing to one of its parts and having arms extending toward the other of its parts, a lamp socket detachably secured to the arms of said mount and extending through the other housing part for the reception of a lamp, and electric conductors for the lighting of said lamp attached to the base of said socket and being spaced by said mount away from the housing parts thereby preventing short circuiting in said housing by moisture.

REISSUES.

13,623. DITCHING-MACHINE. BENJAMIN BOWMAN, Springfield, Mo. Filed Dec. 13, 1912. Serial No. 736,639. Original No. 1,003,028, dated Sept. 12, 1911, Serial No. 524,409. (Cl. 37—22.)

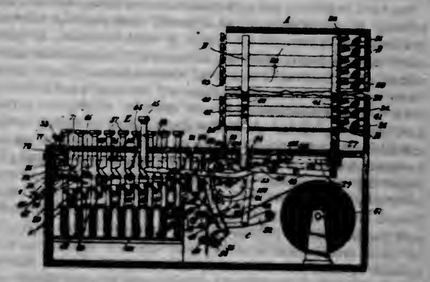


1. In a ditching machine, the combination of a wheeled supporting structure, an implement connecting bar connected to said structure and extending laterally therefrom, said bar being composed of telescopically engaged sections, means for adjustably connecting said sections, a longitudinally extensible steering bar arranged in a plane above said connecting bar, means connected to the inner end of said steering bar for projecting or retracting it, and implement raising and lowering means mounted on said structure.

2. In a ditching machine, the combination of a wheeled supporting structure, an implement connecting bar connected to said structure and extending laterally therefrom, means for varying the length of said bar, a longitudinally extensible steering bar arranged in a plane above said connecting bar, a horizontally arranged cylinder on said supporting structure, a piston operable in said cylinder and connected with the inner end of said steering bar, and an operating fluid for said piston under the control of the operator for projecting and retracting said steering bar.

3. In a ditching machine, the combination of a wheeled supporting structure, an implement connecting bar connected to one side of said structure and extending laterally therefrom, means for varying the length of said bar, a draft cable connected at one end to said structure at a point in advance of said connecting bar and adapted to be connected at its other end to the implement to be operated, a steering bar composed of telescopically engaged sections provided with means for adjustably connecting them, means for connecting one end of said bar to an implement to be guided, projecting and retracting means connected with the other end of said bar, and means for raising and lowering an implement.

13,624. REGISTER. CHARLES F. FOGG, New York, N. Y., assignor, by mesne assignments, to Automatic Bookkeeping Register Company, a Corporation of Delaware. Filed Mar. 30, 1910. Serial No. 552,473. Original No. 883,306, dated Mar. 31, 1908, Serial No. 365,101. (Cl. 235—2.)



1. In a register the combination of a filing device comprising a plurality of independently movable members adapted to be severally opened or closed, a recording mechanism, means adapted to close and lock any of said movable members which may be open upon the actuation of said recording mechanism, controlling means whereby said locking means may be rendered inoperative as to all members of said filing device, and main actuating means whereby said recording mechanism is actuated and any of said filing devices are closed and locked.

2. In a register, the combination of a filing device comprising a plurality of independently movable members, means normally locking all members of said device in the closed position, a recording mechanism, controlling means whereby the locking device may be rendered inoperative to permit the opening of any member of said filing device, main actuating means, whereby said recording mechanism is actuated, and said controlling means is restored to normal, and means under the control of said main actu-

ating mechanism whereby any member of said filing device is held open until said mechanism is operated and is closed by the operation of said main actuating mechanism.

3. In a register, the combination of a filing device comprising a plurality of independently moving members, means normally locking all members of said device in the closed position, a recording mechanism, a clerk's key adapted to release the locking means for said device to permit any member of said device to be opened, main actuating means whereby said recording mechanism is actuated and said key and said locking means are restored to normal, and means under the control of said main actuating mechanism whereby said device is held open until said mechanism is operated, and is caused to close by the operation of said actuating mechanism.

4. In a register, the combination of a filing device comprising a plurality of independent sliding drawers, means common to all of said drawers normally locking same in the closed position, a recording mechanism, controlling means whereby said locking device may be rendered inoperative to permit the opening of any of said drawers, main actuating means whereby said recording mechanism is actuated and said controlling means is restored to normal, and means under the control of said actuating mechanism whereby any drawer opened, is held open until said mechanism is operated, and is closed by the operation of said mechanism.

5. In a register, the combination of a filing device comprising a plurality of superposed independent sliding drawers, an abutment on each of said drawers, a vertically sliding plate adapted to normally engage the abutments on all of said drawers simultaneously, and to be simultaneously disengaged from all of said abutments to permit the withdrawal of any drawer, means actuating said plate to cause such disengagement, a recording mechanism, main actuating means whereby said recording mechanism is actuated, whereby said first mentioned means is restored to normal to relock said drawers, and means under the control of said actuating mechanism whereby any drawer opened is held open until said mechanism is operated, and is closed by the operation of said mechanism.

6. In a register, the combination of a filing device comprising a plurality of superposed independent sliding drawers, an abutment on each of said drawers, a vertically sliding plate adapted to normally engage the abutments on all of said drawers simultaneously, and to be simultaneously disengaged from all of said abutments to permit the withdrawal of any drawer, means actuating said plate to cause such disengagement, a spring drum mechanism connected by straps to each said drawer whereby said drawer is adapted to be automatically closed, a recording mechanism, main actuating means whereby said recording mechanism is actuated whereby said first mentioned means is restored to normal to relock said drawers, and supplemental locking means adapted to be actuated by said mechanism whereby any drawer opened is held opened against the tension of its spring until said mechanism is operated, and said supplemental locking means are actuated to permit said springs to close said drawer by the actuation of said mechanism.

7. In a register, the combination of a filing device comprising a plurality of superposed independent sliding drawers, an abutment on each of said drawers, a vertically sliding plate adapted to normally engage the abutments on all of said drawers simultaneously, and to be simultaneously disengaged from all of said abutments to permit the withdrawal of any drawer, means actuating said plate to cause such disengagement, a spring drum mechanism connected by straps to each said drawer whereby said drawer is adapted to be automatically closed, a recording mechanism, main actuating means whereby said recording mechanism is actuated whereby said first mentioned means is restored to normal to relock said drawers, and supplemental locking means consisting of vertically moving lock bars having a plurality of cam surfaces therein adapted to be engaged by the abutments on the drawers to permit said drawers to be opened and cause said bars to drop behind said abutments to lock the drawers in the open position, a cross bar connecting said bars and connected to the main actuating mechanism whereby any drawer opened is held open until said mechanism is operated and is permitted to close under its spring when said mechanism is operated, to make a record.

8. In a register the combination of a filing device comprising a plurality of superposed independent sliding drawers, an abutment on each drawer, a vertically sliding plate adapted to normally engage the abutments on all of said drawers simultaneously, and to be simultaneously disengaged from all of said abutments to permit the withdrawal of any drawer, means actuating said plate to cause such disengagement, spring controlled means whereby said drawers may be automatically closed, a recording mechanism including type members, means setting same, inking means and a hammer, supplemental locking means consisting of vertically moving lock bars having a plurality of cam surfaces therein adapted to be engaged by the abutments on the drawers to permit said drawers to be opened and cause said bars to drop behind said abutments to lock the drawers in the open position, and a cross bar connecting said bars, a main operating lever pivotally connected to said cross bar, and a link connection between said cross bar and said hammer whereby any drawer opened is held open by said supplemental lock bars until said lever is operated, and is permitted to close under its spring simultaneously with the actuation of said hammer.

9. In a register, the combination of a plurality of independently movable normally closed and locked filing devices, a recording mechanism, a clerk's key whereby all said filing devices may be simultaneously unlocked, means actuated by said key whereby said recording mechanism will be locked against movement until said key has been operated to unlock said devices, means whereby any filing device opened will be held open until the recording mechanism has been actuated, means adapted to close any opened filing device with the actuation of said recording mechanism, and main actuating means whereby any opened recording mechanism is actuated and said filing device is closed and all said filing devices are locked.

10. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated and main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal.

11. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated and main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal.

12. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, means whereby said recording mechanism is actuated and said key and said locking means are restored to normal, and means under the control of said main actuating mechanism whereby any opened member of said device is held open until said mechanism is operated, and is caused to close by the operation of said actuating mechanism.

18. In a register, the combination of a filing device comprising a plurality of independent sliding drawers, means common to all of said drawers normally locking same in the closed position, a recording mechanism, controlling means whereby said locking device may be rendered inoperative to permit the opening of any of said drawers, a total adder actuated in unison with, and by the same mechanism actuating, said recording mechanism, main actuating means whereby said recording mechanism is actuated and said controlling means is restored to normal, and means under the control of said actuating mechanism whereby any drawer opened, is held open until said mechanism is operated, and is closed by the operation of said mechanism.

19. In a register, the combination of a plurality of independently movable normally closed and locked filing devices, a recording mechanism, a clerk's key whereby said filing devices may be unlocked, means actuated by said key whereby said recording mechanism will be locked against movement until said key has been operated to unlock said devices, means whereby any filing device opened will be held open until the recording mechanism has been actuated, means adapted to close any opened filing device with the actuation of said recording mechanism, a total adder actuated in unison with, and by the same mechanism actuating, said recording mechanism, and main actuating means whereby said recording mechanism is actuated and any opened filing device is closed and all said devices are locked.

20. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened, is held in the open position until the recording mechanism has been actuated, a total adder actuated in unison with, and by the same mechanism setting, said recording mechanism, and main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal.

21. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, a total adder actuated in unison with, and by the same mechanism setting, said recording mechanism, and main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal.

22. In a register, the combination of a filing device comprising a plurality of superposed, independent, sliding drawers, a lock member carried by each drawer, a record-

drawers, a lock member carried by each drawer, a recording mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said unlocking means in their operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism has been actuated, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, a lock whereby said clerk's key may be held against movement to prevent the operation of the machine.

13. In a register the combination of a filing device comprising a plurality of independently movable members adapted to be severally opened, a recording mechanism, means adapted to close and lock any of said movable members which may be open upon the actuation of said recording mechanism, controlling means whereby said last named means may be rendered inoperative, a total adder actuated in unison with and by the same mechanism setting said recording mechanism, and main actuating means whereby said recording mechanism is actuated and said first named locking means is actuated to close and lock any open movable member of the filing device.

14. An account register in which is comprised a series of drawers for containing credit bills; a series of digit keys; a series of printing wheels; a series of total adding wheels; means for moving the printing wheels and total adding wheels in unison, means for restoring the printing wheels to normal after an imprint has been taken therefrom, means normally locking all said drawers, actuating means coöperating with said last named means whereby all of said drawers may be simultaneously unlocked, means acting on each of said drawers, whereby they are adapted to close automatically, and main actuating means adapted to make an impression from said printing wheels and cause the printing wheels, the digit keys and the drawers to return to their normal position.

15. In a register, the combination of a filing device comprising a plurality of independently movable members, means normally locking all members of said device in the closed position, a recording mechanism, controlling means whereby the locking device may be rendered inoperative to permit the opening of any member of said filing device, a total adder actuated in unison with, and by the same mechanism actuating, said recording mechanism, main actuating means, whereby said recording mechanism is actuated, and said controlling means is restored to normal, and means under the control of said main actuating mechanism whereby any opened member of said filing device is held open until said mechanism is operated and is closed by the operation of said main actuating mechanism.

16. In a register, the combination of a plurality of independently movable normally closed and locked filing devices, a recording mechanism and main actuating means, with means whereby any of said filing devices may be unlocked to be opened manually, means whereby when once unlocked, any of said filing devices which is open is maintained in this condition until the actuation of the recording mechanism by the main actuating means, and means controlled by said main actuating means whereby any opened member of said device is closed and all said members are locked.

17. In a register, the combination of a filing device, comprising a plurality of independently movable members, means normally locking all members of said device in the closed position, a recording mechanism, a clerk's key adapted to release the locking means for said device to permit any member of said device to be opened, a total adder actuated in unison with, and by the same mechanism actuating, said recording mechanism, main actuating

ing mechanism, means adapted to close each drawer upon the actuation of the recording mechanism, locking means common to all said drawers and adapted to normally engage the lock member on each drawer, a clerk's key and connecting levers whereby said drawers may all be simultaneously unlocked, means holding said clerk's key and said locking means in the operative position until the recording mechanism has been actuated, means setting said recording mechanism, connections between said clerk's key and said setting means whereby said means are locked against movement until said drawers have been unlocked, means whereby any drawer opened is held in the open position until the recording mechanism, has been actuated, a total adder actuated in unison with, and by the same mechanism, setting said recording mechanism, main actuating means whereby said recording mechanism is actuated, and said mechanism, said drawers, said locking means and said clerk's keys are all restored to normal, and a lock whereby said clerk's key may be held against movement to prevent the operation of the machine.

23. In a register, the combination with printing wheels, of a plurality of segmental gears actuating same, means controlling the quantity of movement of said gears comprising a plurality of series of digit keys, a plurality of sliding plates, a cam plate having a cam slot therein, inclosing a pin on its digit key, a restoring spring acting on each key, whereby the key restores said sliding plate to normal, means carried by said segment adapted to engage any sliding plate moved from normal, and main actuating means adapted to secure an imprint from said wheels and restore all said parts to normal.

24. In an account register, a series of digit keys; a series of printing wheels; a series of total adding wheels; and means for moving the printing wheels and adding wheels in unison, in combination with a series of drawers each provided with a closing spring and with means for holding it in an open position, and a single key adapted to actuate the printing mechanism, adding mechanism, and release the drawer holding mechanism.

25. In an account register, a series of digit keys; a series of independent, horizontally movable bars superposed one above the other and arranged to be moved by said keys, each of said bars having an abutment near its inner end, in combination with a segmental gear, a vertically movable bar carried by the segment, and independent means for moving said segment in opposite directions.

26. In an account register, a series of digit keys; a series of independent, horizontally movable bars, superposed one above the other and arranged to be moved by said keys, each of said bars having an abutment near its inner end, in combination with a segmental gear, a vertically movable bar carried by the segment and printing wheels adapted to be rotated by said segment.

27. In an account register, a series of rows of digit keys; a series of rows of independent, horizontally movable bars superposed one above the other, each of said bars having an abutment near its inner extremity, in combination with a series of segmental gears, each of said gears being provided with a vertically movable bar; a series of printing wheels arranged to be moved by the segmental gears, and a series of total adding wheels arranged substantially as shown and described.

28. In an account register, the combination with a key, and a horizontally movable bar connected to said key, of a segmental gear carried by a slotted hub loosely mounted on a shaft; a carrying shaft; a slotted hub; a pin projecting from said shaft into the slot of the hub; means for drawing the toothed segment downward, and means for partially rotating said shaft.

29. In an account register, a segmental gear carried by a slotted hub loosely mounted on a shaft; a carrying shaft; a slotted hub a pin projecting from said shaft into the slot of the hub; means for drawing the segmental gear downward and means for partially rotating said shaft.

30. In an account register, a segmental gear carried by a slotted hub loosely mounted on a shaft; a carrying shaft; a slotted hub a pin projecting from said shaft into the slot of the hub; means for drawing the segmental gear downward; means for variably limiting its downward movement and means for returning the segment to its initial position.

31. In an account register, a vertically movable digit key; a horizontally movable stop-plate adapted to be actuated by said key; a perforated locking-plate through which the key-bars passes, and a segmental gear the downward movement whereof is controlled and regulated by the stop-plate and the locking-plate.

32. In an account register, a segmental gear carried by a slotted hub loosely mounted on a shaft; a carrying shaft; a slotted hub; a spring for pulling said gear downward, and means for limiting the downward movement of said segmental gear, in combination with a master key-lever provided with means for raising the segmental gear to its initial position when depressed.

33. In an account register, a shaft provided with a pin, a slotted hub loosely mounted on the shaft, a segmental gear carried by said hub, a crank attached to said shaft, a hook carried thereby, a master key-lever and a pawl pivoted in the same arranged to engage the hook and be released therefrom when the master key-lever is raised.

34. In an account register, the combination with a segmental gear bearing a link provided with an abutment the link and the abutment of a horizontally moving plate having a cam plate, and a digit key-bar connected therewith and controlling the movement of the movable plate and segmental gear.

35. In an account register, the combination with a series of digit key-bars, each provided with a beveled projection and step at one edge and a beveled projection on the opposite edge, of a slotted locking-plate through which each key-bar passes; means for controlling the movements of the locking-plate; printing wheels, and independent, horizontally movable bars connected to the key-bars and adapted to control the printing wheels.

36. In an account register, a perforated locking-plate; digit key-bars passing through the perforations in the locking plate; a pawl arranged to engage a slot in the locking-plate; means for releasing said pawl, and means for locking said pawl against any movement.

37. In an account register, locking-plates provided with slots therein; a series of pawls mounted on a shaft over said locking-plates; a series of connected actuating springs at the rear of the locking-plates, and means for holding the pawls out of engagement with the slots, and for causing them to automatically engage therewith.

38. In an account register, the combination with a series of keys and key-plates, and a series of credit-bill drawers, of a series of locking-plates provided with slots therein; a series of pawls mounted on a shaft over said locking-plates; a series of connected actuating springs at the rear of the locking plates, and means for holding said pawls out of engagement with the slots, and for causing them to automatically engage therewith.

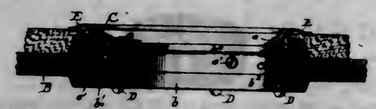
39. In an account register, a series of drawers for holding credit-bills; springs for automatically returning said drawers to a closed position after being opened; slotted bars adapted to hold a drawer against closing when opened, recording mechanism, and a master key-lever connected to said slotted bars and to the recording mechanism.

40. In an account register, a series of rows of independent digit keys; independent, superposed, horizontally movable plates, each controlled by one of said keys; a locking-plate provided with a projection at its inner extremity, and a segmental gear adapted to be released from engaging said projection by the depression of any key in a row.

41. In an account register, the combination with the digit keys, the horizontally movable bars controlled thereby, and the locking-plate therefor, of a segmental rack bearing a link having thereon an abutment arranged to pass through a slot in the edge of a key-plate, or engage with said plate, substantially as shown and described.

42. In an account register, a row of digit keys and a digit key plate; means for locking all the other keys in a row against movement when one of the keys has been depressed, and a segmental gear the movements whereof are controlled by the locking means, and limited by the digit key-plate.

13,625. WALL-SAFE. HARVEY C. LOWRIE, New York, N. Y.; John M. Lowrie, New York, N. Y., administrator of said Harvey C. Lowrie, deceased. Filed Aug. 26, 1910. Serial No. 579,191. Original No. 915,979, dated Mar. 23, 1909, Serial No. 464,086. (Cl. 109—4.)



1. The combination with a wall safe adapted to be embedded in a wall, said safe having an opening, of a door frame attachable to the safe after the safe is embedded in a wall, and a finish rim engaging said frame and independently adjustable toward and from the safe.

2. The combination with a wall safe or receptacle having an opening formed therein, of a door-casing removably secured thereto, and a trim surrounding said casing, said trim being adjustable toward and from the safe independently of said door-casing.

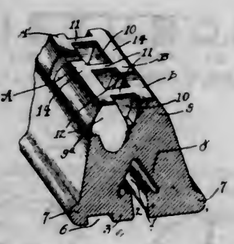
3. The combination with a wall safe or receptacle having an opening formed therein, a door-casing removably mounted in said opening, and a trim adjustably mounted between said casing and the wall of said opening.

4. The combination with a wall safe or receptacle having an opening formed therein, a door-casing removably mounted in said opening, a trim adjustably mounted between said casing and the wall of said opening, and means for locking said trim in its adjusted position.

5. The combination with a wall safe or receptacle having an opening formed therein, of a trim having a rearwardly projecting flange telescoping in said opening and a door-casing mounted within said flange and removably secured to said safe.

6. The combination with a wall safe or receptacle having an opening formed therein, of a trim having a rearwardly projecting flange telescoping in said opening, a door-casing mounted within said flange and removably secured to said safe, and means carried by said casing for clamping said flange against the wall of said opening.

13,626. VEHICLE-TIRE. MAX CYRUS OVERMAN, New York, N. Y. Filed June 3, 1913. Serial No. 771,554. Original No. 1,057,083, dated Mar. 25, 1913, Serial No. 658,459. (Cl. 152—1.)



1. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose having portions removed therefrom extending deeply up into it from the tread which weaken it under the apex portion of the V-shaped opening and give it lateral flexibility under the side walls of the tire, said removed portions further extending up under said side walls in the form of frequently occurring transverse spaces which give the nose longitudinal as well as increased lateral flexibility.

2. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose portion having a deep longitudinal groove extending up into it from the tread under the apex portion of the longitudinal opening, the sides of said groove being connected at intervals by transverse webs and each half of said nose portion having frequently occurring transverse spaces which extend up under the side walls of the tire from the tread and the sides of the tread groove.

3. A new article of manufacture, a cushion tire which is hollow by means of a longitudinal opening having a V-shaped transverse section whose base is at the flange-engaged portion of the tire and whose apex extends toward the tread well below said flange-engaged portion, said tire having thick upright side walls at the sides of said opening and a deep nose portion extending across the apex of said opening and across the lower ends of said walls, said nose portion having a bottom with a wide ground-contact delivering the vertical thrusts from the tread well under said side walls, said nose portion having a deep longitudinal groove extending up into it from the tread under the apex portion of the longitudinal opening, the sides of said groove being connected at intervals by transverse webs and each half of said nose portion having frequently occurring transverse spaces which extend up under the side walls of the tire from the tread and the sides of the tread groove, the spaces in one half of the nose being staggered relative to the spaces in the other half, and the aforesaid webs being located between consecutive spaces.

4. A hollow cushion tire comprising the combination of flange-free, thick, substantially straight side walls which steeply converge toward the tread inclosing between them the longitudinally extending tire-hollow of a small triangular cross section, said combination further comprising a wide, deep, substantial nose portion extending across the hollow of the tire in firm supporting ground-contact under said walls, the legs of said tire from tread to rim supporting the load by their vertical compression with accompanying thickening but without bending collapse, and the outline of the compressed tire remaining substantially like the uncompressed tire, said nose being longitudinally deeply weakened providing laterally flexible halves under said walls, and said halves being transversely deeply weakened, making each of them longitudinally flexible.

5. A hollow cushion tire comprising the combination of flange-free walls containing the hollow of the tire between them and supporting the load by their vertical compression with accompanying thickening but without bending collapse, and a wide, deep, substantial nose portion extending horizontally across the hollow of the tire in firm supporting ground-contact under said walls, said nose being longitudinally deeply weakened providing laterally flexible halves under said walls, and each half being transversely deeply weakened making said halves longitudinally flexible, said halves also, like the walls, supporting the load by their vertical compression with accompanying thickening but without bending collapse.

6. A hollow cushion tire comprising the combination of flange-free walls containing the hollow of the tire between them and supporting the load by their vertical compression with accompanying thickening but without bending collapse, and a wide, deep, substantial nose portion extending horizontally across the hollow of the tire in firm supporting ground-contact under said walls, said nose being longitudinally deeply weakened providing laterally flexible halves under said walls, and each half being transversely deeply weakened making said halves longitudi-

nally flexible, said halves also, like the walls, supporting the load by their vertical compression with accompanying thickening but without bending collapse, said transverse weakenings extending up more deeply than the longitudinal weakening and substantially to the lower ends of the walls of the tire.

7. A hollow cushion tire comprising the combination of flange-free walls containing the hollow of the tire between them and supporting the load by their vertical compression with accompanying thickening but without bending collapse, and a wide, deep, substantial nose portion extending horizontally across the hollow of the tire in firm supporting ground-contact under said walls, said nose being longitudinally deeply weakened providing laterally flexible halves under said walls, and each half being transversely deeply weakened making said halves longitudinally flexible, said halves also, like the walls, supporting the load by their vertical compression with accompanying thickening but without bending collapse, said transverse weakenings extending up more deeply than the longitudinal weakening and substantially to the lower ends of the walls of the tire, said transverse weakenings extending through the sides of the nose portion but only do so near the tread.

8. In a rubber vehicle tire, a deep nose portion possessing deep lateral and longitudinal flexibility by having frequent deep upright alternating spaces extending into it from the sides and tread to the middle of the nose where said spaces widen toward each other, said widened portions extending in end to end arrangement longitudinally around the tire; and being separated by transversely extending tread webs.

9. In a rubber vehicle tire, a deep nose portion possessing deep lateral and longitudinal flexibility by having frequent deep upright alternating spaces extending into it from the sides and tread to the middle of the nose where said spaces widen toward each other, said widened portions extending in end to end arrangement longitudinally around the tire; and being separated by transversely extending tread webs, said spaces being extra deep under the side portions as distinguished from the middle portion of the tire.

DESIGNS.

44,715. JEWEL-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 2, 1913. Serial No. 777,096. Term of patent 3½ years



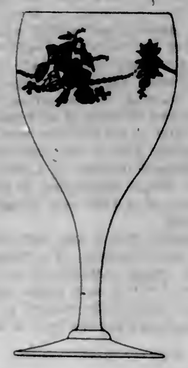
The ornamental design for a jewel case as shown.

44,716. ARMBAND. ROSWELL A. MOORE, Waterbury, Conn., assignor to Waterbury Buckle Company, a Corporation of Connecticut. Filed Apr. 28, 1913. Serial No. 762,171. Term of patent 7 years.



The ornamental design for an arm band, as shown.

44,717. GLASS VESSEL. GEORGE TRUOG, Jr., Cumberland, Md., assignor to Seneca Glass Company, Morgantown, W. Va., a Corporation of West Virginia. Filed Aug. 11, 1913. Serial No. 784,262. Term of patent 7 years.



The ornamental design for a glass vessel, as shown.

44,718. CHILD'S BLOUSE. LUCYLE DUVALL ZELL, Baltimore, Md. Filed July 21, 1913. Serial No. 780,404. Term of patent 7 years.



The ornamental design for a child's blouse as shown.

TRADE-MARKS

PUBLISHED OCTOBER 7, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 56,141. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) THE WORCESTER ROYAL PORCELAIN COMPANY LIMITED, Worcester, England. Filed May 3, 1911.



Particular description of goods.—Table and Ornamental Dishes, Plates, and Bowls.
Claims use since January, 1863.

Ser. No. 57,083. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE FISTUPOLE COMPOUNDING CO., Latham, Ill. Filed June 16, 1911.

FISTUPOLE

Particular description of goods.—A Remedy for Fistula, Poll-Evil, Old Sores, and Swellings.
Claims use since May 15, 1911.

Ser. No. 58,580. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) SOCIETÀ ANONIMA ITALIANA GIO. ANSALDO ARMSTRONG & Co., Genoa and Rome, Italy. Filed Sept. 8, 1911.



No claim being made to the words "Accacio Cementato Brevetti Ansaldo Genova."
Particular description of goods.—Armor-Plates and Iron and Steel.
Claims use since Apr. 29, 1911.

Ser. No. 60,167. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CURT HUGO HEINIG, Cassel, Germany. Filed Dec. 11, 1911.

Mokasan

Particular description of goods.—Chicories, Roasted Grain for a Food Drink, and Roasted Ground Fruits for a Food Drink.
Claims use since Jan. 17, 1911.

Ser. No. 61,882. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Insulated Cables, Electrical Apparatus, Being Telephone or Telegraph Apparatus, Cells and Batteries, Electric Conductors and Cables, Electric Lamps, Insulators, Electric Switches, Junction Distribution and Switch Boxes, Electric Conduits, Terminals, and Trolley-Wires; Crossover, Branch Crossing, and Straight Through-Boxes and Sleeves; House Connecting-Boxes, End Sleeves, Distribution and Supply Boxes, Electric Bells, Electric-Cable Ducts, Hangers, and Grips, Supporting-Poles for Electric Aerial Lines, Electric Insulators Made of Ebonite, Gutta-Percha, Balata, Mica, Glass, Porcelain, Stoneware, Asphalt, Concrete, Cement, Clay, Slag, Lava, and of Mixtures of Any Such Substances; Electric Bonds and Brushes, Dynamo-Segments, Sparking Plugs, Lightning-Arresters, Lightning-Conductors, Spools in Connection with Electric Apparatus, Electric Fuses, Electrical Collectors and Distributers, Switchboards, and Switching Devices, Transformers, Dynamos, and Electric Motors, Commutator-Brushes, Insulating Material Composed of India-Rubber, Gutta-Percha, and Balata or Mixtures Hereof Either Alone or Mixed with Waxes, Oils, Grease, Resin, Tar, Pitch, or Asphalt, Accumulator-Boxes.
Claims use since 1870.

Ser. No. 61,885. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Wire, Wire Strands, Bars, Rods, Plates, and Sheets Made of Steel, Iron, Copper, Bronze, and All other Base and Precious Metals and Alloys; Base and Precious Metals in All Shapes, Cast, Rolled, Drawn, and Pressed; Corrugated Metal Sheets, Perforated Metal Sheets; Copper, Brass, Bronze, and Tin Goods, Being Cubes, Blocks, Rings, Rolls, Cases, Sleeves, Joints, and Vessels; Lead, Lead-Foil, Lead Shot; Bearing Metal; Tin, Tin-Foil; Hard Spelter; Metal Balls, Castings for Electrical Installations.
Claims use since 1870.

Ser. No. 62,859. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE RICKERSBERG BRASS COMPANY, Cleveland, Ohio. Filed Apr. 12, 1912.

Rick-Quick

Particular description of goods.—Quick-Action Faucets, Basin-Cocks, Bib-Cocks, Sink-Cocks, Bath-Tub Faucets, and Stop and Waste Cocks.
Claims use since June, 1910.

Ser. No. 63,517. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE HOLBROOK MFG. CO., Jersey City, N. J. Filed May 13, 1912.

SAPONAIRE

Particular description of goods.—Soap Powder for Scouring and Cleaning Purposes.
Claims use since about March, 1883.

Ser. No. 64,000. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOOSE GREASE CO., Greensboro, N. C. Filed June 5, 1912.



No claim being made to the exclusive use of the words "Mother's Joy."
Particular description of goods.—A Salve.
Claims use since 1909.

Ser. No. 64,563. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AUTRAN & ARDISSON, Paris, France. Filed July 3, 1912.

VENI-VIGI

Particular description of goods.—Perfumery.
Claims use since Mar. 20, 1911.

Ser. No. 64,578. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) METALL-INDUSTRIE SCHÖNEBECK ACTIEN-GESELLSCHAFT, Schönebeck, Germany. Filed July 5, 1912.



Consists of the representation of the upper parts of an older and a younger man, no claim being made to the word "Mentor."
Particular description of goods.—Type-Writers and Their Parts.
Claims use since May 1, 1910.

Ser. No. 65,033. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANATEE FRUIT CO., Palmetto and Tampa, Fla. Filed Aug. 1, 1912.

F&P

Particular description of goods.—Oranges and Grape-Fruit.
Claims use since 1900.

Ser. No. 65,445. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PARK PHARMACY, Fitchburg, Mass. Filed Aug. 27, 1912.

AURA

Particular description of goods.—Cold-Cream, Hair-Tonic, and Cough Mixtures.
Claims use since Aug. 1, 1910.

Ser. No. 66,137. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN H. BROWER, New York, N. Y. Filed Oct. 4, 1912. Under ten-year proviso.

LA UNION

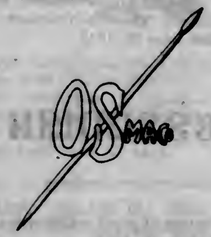
Particular description of goods.—Wheat-Flour.
Claims use since February, 1869.

Ser. No. 67,340. (CLASS 39. CLOTHING.) PHILIP SCHLESSEL, New York, N. Y. Filed Dec. 11, 1912.

NYDC

Particular description of goods.—Ladies' Dresses.
Claims use since May 1, 1912.

Ser. No. 67,549. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) OSCAR SCHLEGEL MFG. CO., New York, N. Y. Filed Dec. 21, 1912.



Particular description of goods.—Bronze Powders, Gilding and Burnishing Sizes, Dry Colors, Lacquers, Enamels, Thinners and Reducers, Varnishes, Stains, and Prepared Paints.
Claims use since Jan. 1, 1909.

Ser. No. 67,634. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) THE KLINGENSTEIN COMPANY, Los Angeles, Cal. Filed Dec. 30, 1912.



No claim being made to the exclusive right to the words "The Home of Quality."
Particular description of goods.—Pipes.
Claims use since Oct. 1, 1912.

Ser. No. 67,922. (CLASS 33. GLASSWARE.) SCHOTT & GEN., Jena, Germany. Filed Jan. 14, 1913.

Durobax

Particular description of goods.—Raw Glass for Optical Manufacture, Laboratory Glass Vessels, Glass Tubes, Glass Rods, Glass Plates, and Lamp-Glasses.
Claims use since April, 1912.

Ser. No. 68,285. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES MACDONALD, New York, N. Y. Filed Feb. 3, 1913.



Consisting of a composition profile picture of a female draped as a nun.
Particular description of goods.—Shampoo Preparations, Perfumes, Sachets, and Toilet Waters.
Claims use since June 28, 1912.

Ser. No. 68,935. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) J. W. DUNFORD, Atlanta, Ga. Filed Mar. 8, 1913.



Particular description of goods.—Dry, Paste, and Ready-Mixed Paints.
Claims use since Feb. 6, 1913.

Ser. No. 69,303. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) RICH-STIX DRY GOODS COMPANY, St. Louis, Mo. Filed Apr. 15, 1913.

MONARCH

Particular description of goods.—Knitted, Netted, and Woven Shoulder-Scarfs and Shawls.
Claims use since Jan. 1, 1885.

Ser. No. 70,128. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NATIONAL REMEDY COMPANY, Boston, Mass. Filed Apr. 30, 1913.

B. & M.

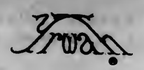
Particular description of goods.—A Medicinal Preparation to be Applied Externally for Tuberculosis, Rheumatism, Lumbago, Neuralgia, Neuritis, Bronchitis, Peritonitis, Coughs, Catarrh, Headache, Head-Colds, Asthma, Hay-Fever, Soreness of Muscles, Chest, or Throat; Cuts, Bruises, Sprains, Scalds, Burns, Sunburn, Lameness, Stiff Joints, Bunions, Chilblains, Sore, Tired, or Calloused Feet; and Bites of Poisonous Insects.
Claims use since Oct. 15, 1912.

Ser. No. 70,315. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) GENERAL COMPOSING COMPANY, GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany. Filed May 9, 1913.

Samson

Particular description of goods.—Cutting-Machines, Automatic Forming and Cutting-Off Machines, Shapers, Milling-Machines, Planers, Lathes, Automatic Lathes, Screw-Slotting Machines, Surface-Grinding Machines, Chucks, and Parts of These Machines.
Claims use since Feb. 2, 1909.

Ser. No. 70,345. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DESPESSAILLES & CIE., Paris, France. Filed May 10, 1913.



Particular description of goods.—Electrical Switches, Circuit-Breakers, Automatic Circuit-Breakers, Safety-Fuses, Combined Fuses and Switches, Cut-Outs, Devices for Automatically Putting in Service a New Fuse When a Fuse is Blown, and Devices for Automatically Closing an Auxiliary Circuit When the Main Circuit Becomes Broken.
Claims use since Feb. 26, 1913.

Ser. No. 70,544. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y. Filed May 21, 1913.



Particular description of goods.—Toilet-Paper.
Claims use since Apr. 18, 1912.

Ser. No. 70,670. (CLASS 39. CLOTHING.) MYSTIC RUBBER COMPANY, Medford, Mass. Filed May 26, 1913.



Particular description of goods.—Bathing-Caps, Babies' Diapers, Aprons, and Rain-Coats of Rubber or Rubber Substitutes.
Claims use since Dec. 16, 1912.

Ser. No. 70,763. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MUSOLINO & BERGER, Boston, Mass. Filed May 29, 1913.



Particular description of goods.—Macaroni.
Claims use since Feb. 20, 1913.

Ser. No. 71,092. (CLASS 17. TOBACCO PRODUCTS.) MESSUDIAH TURKISH TOBACCO COMPANY, INC., New York, N. Y. Filed June 13, 1913.

MESSUDIAH

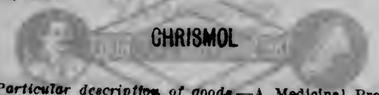
Particular description of goods.—Cigarettes.
Claims use since Feb. 18, 1913.

Ser. No. 71,101. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CORONA KID MANUFACTURING COMPANY, Portland, Me., and Boston, Mass. Filed June 14, 1913.



Particular description of goods.—Leather Made of the Skins of Goats, Colts, Calves, Cows, and Steers.
Claims use since May 8, 1913.

Ser. No. 71,146. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALLEN & HANBURYS, LIMITED, London, England. Filed June 17, 1913.



Particular description of goods.—A Medicinal Preparation for Human Use in the Treatment of Constipation, Colitis, Mucous Colitis, Inflammatory Conditions of the Large Bowel, Painful Hemorrhoids, and Irritable or Inflammatory Conditions of the Respiratory Tract.
Claims use since Feb. 7, 1913.

Ser. No. 71,307. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES KERNS, Logansport, Ind. Filed June 23, 1913.



The portrait shown being fanciful, no claim being made for use of the term "Trade-Mark."
Particular description of goods.—Liniment, Cough-Syrup, Ointment, and Remedies for Rheumatism, La Grippe, and Diseases of Females.
Claims use since June 20, 1913.

Ser. No. 71,388. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY, Richmond, Cal. Filed June 26, 1913.

CALOL

Particular description of goods.—Lubricating Oils and Greases, Refined Oil, and Gasolene.
Claims use since June 11, 1913.

Ser. No. 71,394. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) ATLAS POWDER COMPANY, Wilmington, Del. Filed June 27, 1913.

VIGORITE

Particular description of goods.—Dynamite.
Claims use since Jan. 1, 1913.

Ser. No. 71,406. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) HOYNES SAFETY POWDER CO., Cleveland, Ohio. Filed June 27, 1913.

HOYNESITE

Consisting of the word "Hoynesite."
Particular description of goods.—Powders for Blasting and other Purposes.
Claims use since Oct. 1, 1911.

Ser. No. 71,456. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BLYTH & PLATT, LIMITED, Watford, England. Filed July 1, 1913.



Particular description of goods.—Boot-Polish, Boot-Cream, a Cleaning Preparation for White Shoes, Belts, Helmets, and the Like, Metal-Polish, and Harness-Polish.
Claims use since the year 1903.

Ser. No. 71,507. (CLASS 32. FURNITURE AND UPHOLSTERY.) C. A. COOK CO., Cambridge, Mass. Filed July 3, 1913.



No claim is made to the exclusive right to use the words "Cook Quality, Cambridge, Mass., C. A. Cook Co." and the representation of a type-writer chair.
Particular description of goods.—Type-Writer Chairs and Desk Chairs and Stools.
Claims use since Jan. 1, 1908.

Ser. No. 71,517. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LYMA VERGASERFABRIK DIETZ UND COMPAGNIE, Dresden-A., Germany. Filed July 3, 1913.

Doefra

Particular description of goods.—Carbureters for Explosion-Engines.
Claims use since Feb. 6, 1913.

Ser. No. 71,589. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) SUNSET PAINT CO., Los Angeles, Cal. Filed July 7, 1913.



Particular description of goods.—Ready-Mixed Paints.
Claims use since 1912.

Ser. No. 71,621. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MANNING, BOWMAN & Co., Meriden, Conn. Filed July 9, 1913.

MAHOGANITE

Particular description of goods.—Imitation Wood.
Claims use since September, 1912.

Ser. No. 71,641. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PISO COMPANY, Warren, Pa. Filed July 10, 1913.



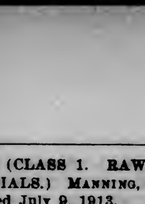
The signature shown being a facsimile of the signature of E. T. Haseltine.
Particular description of goods.—A Remedy for Coughs and Colds.
Claims use since 1870.

Ser. No. 71,681. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ROSE GREENWALD, Dinuba, Cal. Filed July 14, 1913.

Rose Greenwald

The trade-mark being a facsimile of my signature.
Particular description of goods.—An Automobile-Polish.
Claims use since Dec. 1, 1912.

Ser. No. 71,707. (CLASS 2. RECEPTACLES.) J. C. DOWD & Co., New York, N. Y. Filed July 15, 1913.



Particular description of goods.—Pin-Trays, Puff and Powder Boxes, Vanity-Boxes, Salve-Boxes, Hat-Pin Holders, Tooth-Brush Holders, and Clock-Holders, All Made of Celluloid.
Claims use since October, 1907.

Ser. No. 71,743. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) EVANS-SMITH DRUG CO., Kansas City, Mo. Filed July 16, 1913.

"GOLDEN FLEECE"

Particular description of goods.—Whisky.
Claims use since June, 1881.

Ser. No. 71,765. (CLASS 39. CLOTHING.) MARION SHOE COMPANY, Marion, Ind. Filed July 16, 1913.



The picture shown being that of J. W. Little, no claim being made to the exclusive use of the picture of the shoe.
Particular description of goods.—Men's and Boys' Leather Shoes.
Claims use since Mar. 1, 1912.

Ser. No. 71,837. (CLASS 48. MALT EXTRACTS AND LIQUORS.) DAVID NICHOLSON GROCER COMPANY, St. Louis, Mo. Filed July 18, 1913. Under ten-year proviso.



Particular description of goods.—An Extract of Malt.
Claims use since Jan. 1, 1886.

Ser. No. 71,861. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MACHENBACH IMPORTING CO., New York, N. Y. Filed July 19, 1913.

Mico

Particular description of goods.—Embroideries.
Claims use since June 1, 1913.

Ser. No. 71,863. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed July 19, 1913.

TEA ROSE

Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.
Claims use since the year 1876.

Ser. No. 71,868. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. C. ATKINS & COMPANY, Indianapolis, Ind. Filed July 21, 1913.

ATLA

Particular description of goods.—Machine-Knives Used in and Forming Operative Parts of Cutting-Machines of Various Kinds.
Claims use since July 19, 1912.

Ser. No. 71,874. (CLASS 39. CLOTHING.) CHARLES LAVINE, New York, N. Y. Filed July 21, 1913.

"Youngsea"

Particular description of goods.—Outer Coats, Suits, Dresses, and Skirts.
Claims use since 1906.

Ser. No. 71,893. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) F. H. STRONG COMPANY, New York, N. Y. Filed July 22, 1913.

Ulax

Particular description of goods.—A Laxative.
Claims use since July 14, 1913.

Ser. No. 71,897. (CLASS 38. PRINTS AND PUBLICATIONS.) THE UNION-LEADER PUBLISHING CO., Manchester, N. H. Filed July 22, 1913.

THE OBSERVANT CITIZEN.

Particular description of goods.—The Name of a Newspaper Department or Column of a Serial Publication.
Claims use since July 18, 1908.

Ser. No. 71,913. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE IMPERIAL MERCHANDISE CO., Perry, Ohio. Filed July 23, 1913.



Particular description of goods.—Jar-Rings.
Claims use since about June 1, 1913.

Ser. No. 71,919. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed July 23, 1913.



Particular description of goods.—Varnishes.
Claims use since June, 1912.

Ser. No. 71,920. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed July 23, 1913.



Particular description of goods.—Dry Paints, Paste Paints, and Ready-Mixed Paints.
Claims use since June, 1912.

Ser. No. 71,952. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) KETCHAM & MCDOUGALL, New York, N. Y. Filed July 24, 1913.

M K & D

Particular description of goods.—Sewing-Thimbles Made of Precious Metal.
Claims use since the month of August, 1892.

Ser. No. 71,993. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL-ACME MANUFACTURING COMPANY, Cleveland, Ohio. Filed July 26, 1913.



Particular description of goods.—Metal-Working and Automatic Multiple-Spindle Screw-Machines.
Claims use since Feb. 6, 1912.

Ser. No. 71,996. (CLASS 17. TOBACCO PRODUCTS.) STANDARD CIGAR COMPANY, INCORPORATED, Wilmington, Del., and Norristown, Pa. Filed July 26, 1913.

HIVULTO



Particular description of goods.—Cigars.
Claims use since January, 1913.

Ser. No. 72,073. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Drill-Steel.
Claims use since Oct. 18, 1912.

Ser. No. 72,074. (CLASS 21. ELECTRICAL APPARATUS, MACHINES AND SUPPLIES.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Friction-Tape for Insulation; Dry-Cell Batteries, Fuses, and Fuse-Wire.
Claims use since Oct. 18, 1912.

Ser. No. 72,076. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Scorifiers, Muffles, Clay and Metal Assay Furnaces, Clay Die-Hardening Furnaces, Gasolene, Crude-Oil, and Gas Burners.
Claims use since June 25, 1913.

Ser. No. 72,079. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE MINE AND SMELTER SUPPLY CO., Denver, Colo., and New York, N. Y. Filed July 31, 1913.

MASSCO

Particular description of goods.—Crucibles, Levels, and Assay-Balances.
Claims use since June 25, 1913.

Ser. No. 72,110. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INTERNATIONAL HARVESTER COMPANY OF NEW JERSEY, Chicago, Ill. Filed Aug. 1, 1913.

D1739

Particular description of goods.—Guard-Plates for Mowers.
Claims use since January, 1904.

Ser. No. 72,124. (CLASS 2. RECEPTACLES.) CALVIN M. ANKENY, Somerset, Pa. Filed Aug. 2, 1913.



C.M.A.

The portrait being that of the applicant.
Particular description of goods.—Crates.
Claims use since July 26, 1913.

Ser. No. 72,257. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. C. TRUAX & COMPANY, Toledo, Ohio. Filed Aug. 9, 1913.

Un-GRO-CO

Particular description of goods.—Can-Openers.
Claims use since June 1, 1913.

Ser. No. 72,318. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HIRSCH BROTHERS, Milwaukee, Wis. Filed Aug. 13, 1913. Under ten-year proviso.

ANGLE SIEVE

Particular description of goods.—Grain-Separators, Fanning-Mills, and Grain-Cleaning Machines.
Claims use since Sept. 1, 1894.

Ser. No. 72,365. (CLASS 15. OILS AND GREASES.) STROHMEYER & ARPE COMPANY, New York, N. Y. Filed Aug. 15, 1913.



Particular description of goods.—Mineral Wax.
Claims use since Feb. 1, 1913.

Ser. No. 72,427. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Aug. 19, 1913.

FAUN

Particular description of goods.—Envelops.
Claims use since June 1, 1913.

Ser. No. 72,527. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) THE GOVERNOR AND COMPANY OF ADVENTURERS OF ENGLAND TRADING INTO HUDSON'S BAY, Winnipeg, Canada. Filed Aug. 26, 1913.



No claim being made to the words "Hudson's Bay Company Incorporated 1670."
Particular description of goods.—Whisky.
Claims use since the 1st day of January, 1900.

Ser. No. 72,602. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Aug. 30, 1913.

NELA

Particular description of goods.—Dry Cells, Brushes for Dynamo-Electric Machines, and Arc-Light Carbons.
Claims use on dry cells and arc-light carbon since Aug. 15, 1913; on brushes for dynamo-electric machines since Aug. 18, 1913.

Ser. No. 72,822. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Sept. 12, 1913.

HOT SHOT

Particular description of goods.—Dry Cells.
Claims use since Feb. 28, 1911.

Ser. No. 72,847. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) RUSSELL PLAYING CARD CO., Milltown, N. J., and New York, N. Y. Filed Sept. 13, 1913.

Aristocrat

Particular description of goods.—Playing-Cards.
Claims use since September, 1911.

TRADE-MARKS

REGISTERED OCTOBER 7, 1913.

93,624. SWEETENED CONDENSED MILK. AMERICAN MILK COMPANY, Chicago, Ill.
Filed January 27, 1913. Serial No. 68,132. PUBLISHED JULY 29, 1913.

93,625. PREPARATIONS FOR IMPROVING AND DYEING HAIR, DENTIFRICE, FACIAL CREAM, AND TOILET WATERS. BARCLAY & BARCLAY, New York, N. Y.
Filed May 28, 1913. Serial No. 70,709. PUBLISHED AUGUST 5, 1913.

93,626. CALENDAR AND COLLECTION OF MOTTOS. BARSE AND HOPKINS, New York, N. Y.
Filed June 12, 1913. Serial No. 71,051. PUBLISHED JULY 29, 1913.

93,627. COSMETIC POWDER, COSMETIC PASTES, AND PREPARATIONS FOR THE HAIR. P. BEIERSDORF & CO., Hamburg, Germany.
Filed March 18, 1913. Serial No. 69,150. PUBLISHED AUGUST 5, 1913.

93,628. WOOD-ALCOHOL. BERRY BROTHERS, Detroit, Mich.
Filed March 29, 1913. Serial No. 69,406. PUBLISHED AUGUST 5, 1913.

93,629. DRIED FRUITS AND RAISINS. CHARLES G. BONNER, Fresno, Cal.
Filed May 15, 1913. Serial No. 70,430. PUBLISHED AUGUST 5, 1913.

93,630. PREPARATION FOR RESTORING THE NATURAL COLOR TO THE HAIR. R. G. EDWARDS, London, England.
Filed June 4, 1913. Serial No. 70,852. PUBLISHED AUGUST 5, 1913.

93,631. COFFEE. J. A. FOLGER & COMPANY, Kansas City, Mo.
Filed March 29, 1913. Serial No. 69,418. PUBLISHED AUGUST 5, 1913.

93,632. SALVES. FURST SALVE CO., Beech Creek, Pa.
Filed June 19, 1912. Serial No. 64,262. PUBLISHED AUGUST 5, 1913.

93,633. REMEDY FOR THE TREATMENT AND REMOVAL OF GALL-STONES. CARL HAEFNER, Washington, Pa.
Filed May 10, 1910. Serial No. 49,636. PUBLISHED AUGUST 5, 1913.

93,634. CERTAIN PREPARATION FOR INCREASING WEARING PROPERTIES OF FABRICS. MENDES H. HECHT, Baltimore, Md.
Filed September 23, 1912. Serial No. 65,942. PUBLISHED JUNE 3, 1913.

93,635. CRACKERS AND BISCUITS. JOHNSON BISCUIT COMPANY, Sioux City, Iowa.
Filed May 10, 1913. Serial No. 70,353. PUBLISHED JULY 29, 1913.

93,636. SALVE, FACE-CREAM, LAXATIVE TABLETS, AND REMEDIES FOR CERTAIN DISEASES. WLADYSLAW JORDAN, Chicago, Ill.
Filed August 5, 1912. Serial No. 65,107. PUBLISHED AUGUST 5, 1913.

93,637. LINIMENT FOR RELIEVING ACHES AND PAINS. JOSEPH A. KIMBALL, New York, N. Y.
Filed November 1, 1912. Serial No. 66,662. PUBLISHED AUGUST 5, 1913.

93,638. TIRE-FILLERS. OSWALD MOWAT MACKIE, Brantford, Ontario, Canada.
Filed February 3, 1913. Serial No. 68,284. PUBLISHED JULY 29, 1913.

93,639. ICE-CREAM CONES. WALTER MCLAREN, Dayton, Ohio.
Filed May 6, 1913. Serial No. 70,264. PUBLISHED JULY 29, 1913.

93,640. GRAHAM FLOUR. NASHVILLE ROLLER MILLS, Nashville, Tenn.
Filed April 10, 1913. Serial No. 69,708. PUBLISHED AUGUST 5, 1913.

93,641. CANDIES. PARK & TILFORD, New York, N. Y.
Filed March 20, 1913. Serial No. 69,211. PUBLISHED JULY 29, 1913.

93,642. PREPARATION FOR DRIVING OR KEEPING AWAY MOSQUITOS. POTTER & ROZIENE, Phoenix, Ariz.
Filed September 11, 1912. Serial No. 65,689. PUBLISHED AUGUST 5, 1913.

93,643. TUNA MOLASSES. REYES Y VELASCO, Zacatecas, Mexico.
Filed February 17, 1913. Serial No. 68,581. PUBLISHED JULY 29, 1913.

93,644. CERTAIN NAMED FOODS. ROWNTREE AND COMPANY, LIMITED, York, England.
Filed July 16, 1912. Serial No. 64,767. PUBLISHED JULY 29, 1913.

93,645. OLIVE-OIL. P. SASSO E FIGLI, Oneglia, Italy.
Filed October 1, 1912. Serial No. 66,072. PUBLISHED AUGUST 5, 1913.

93,646. ANTISEPTIC. FRANZ SCHWERZ, Charlottenburg, Germany.
Filed April 14, 1913. Serial No. 69,786. PUBLISHED AUGUST 5, 1913.

93,647. ICE-CREAM. HARRY L. SCOTT, Baltimore, Md.
Filed May 3, 1913. Serial No. 70,221. PUBLISHED JULY 29, 1913.

93,648. ORANGES, GRAPE-FRUIT, AND TANGERINES. SOUTH FLORIDA GRAPEFRUIT CO., Piney Point, Fla.
Filed April 26, 1913. Serial No. 70,084. PUBLISHED JULY 29, 1913.

93,649. OINTMENT FOR THE PREVENTION OF CERTAIN DISEASES IN MAN AND ANIMAL. HARRISON E. STROUD, Los Angeles, Cal.
Filed February 10, 1913. Serial No. 68,444. PUBLISHED AUGUST 5, 1913.

93,650. FOOD DRINK. DR. A. WANDER, A-G., Berne, Switzerland.
Filed March 12, 1913. Serial No. 68,983. PUBLISHED AUGUST 5, 1913.

93,651. OLEOMARGARIN. WILKINSON, GADDIS & COMPANY, Newark, N. J.
Filed March 6, 1913. Serial No. 68,882. PUBLISHED AUGUST 5, 1913.

93,652. REMEDY FOR CERTAIN NAMED DISEASES. JOHANN A. WÜLFING, Berlin, Germany.
Filed February 19, 1913. Serial No. 68,629. PUBLISHED AUGUST 5, 1913.

93,653. BREAD. YOUNG & SWAIN BAKING CO., San Francisco, Cal.
Filed April 4, 1913. Serial No. 69,606. PUBLISHED JULY 29, 1913.

LABELS

REGISTERED OCTOBER 7, 1913.

17,255.—*Title:* "ANTISEPTIC FRENCH LILAC TOILET WATER." (For Toilet Water.) WILLIAM D. P. AIMS, Jr., Philadelphia, Pa. Filed September 2, 1913.

17,256.—*Title:* "JUSTRITE OVERALLS." (For Overalls and Work-Clothes.) THE COX BLODGETT DRY GOODS COMPANY, Wichita, Kans. Filed June 10, 1913.

17,257.—*Title:* "BALL TOSSER." (For a Corn Confection.) LOUIS W. GERTENRICH, Chicago, Ill. Filed June 10, 1913.

17,258.—*Title:* "HAND LOTION." (For a Hand-Lotion.) GRACE COMPANY, Cleveland, Ohio. Filed September 11, 1913.

17,259.—*Title:* "VARIETY MINTS." (For Candy.) GEO. HAAS & SONS, San Francisco, Cal. Filed May 13, 1913.

17,260.—*Title:* "ROYAL BLUE CERTIFIED." (For Talking-Machine Needles.) F. C. HENDERSON COMPANY, Boston, Mass. Filed August 1, 1913.

17,261.—*Title:* "BUTTER SCOTCH CHIPS." (For Candy.) THOS. F. HENRY, Sapulpa, Okla. Filed July 24, 1913.

17,262.—*Title:* "KORN-KAKE." (For Corn-Cake.) INDEPENDENCE BISCUIT COMPANY, Independence, Kans. Filed September 6, 1913.

17,263.—*Title:* "LAUTZ NAPHTHA SOAP POWDER." (For a Soap Powder.) LAUTZ BROS & CO, Buffalo, N. Y. Filed August 26, 1913.

17,264.—*Title:* "LAUTZ NAPHTHA SOAP POWDER." (For a Soap Powder.) LAUTZ BROS & CO, Buffalo, N. Y. Filed August 26, 1913.

17,265.—*Title:* "LA MARQUET POUDRE DE RIZ." (For a Toilet Powder.) CHARLES LONDONER, New York, N. Y. Filed June 2, 1913.

17,266.—*Title:* "LUCAS SILO PAINT." (For Paint.) JOHN LUCAS & CO., INC., Philadelphia, Pa. Filed September 20, 1913.

17,267.—*Title:* "AUTO-INSCRIBED." (For Music-Rolls.) NATIONAL MUSIC ROLL CO., St. Johnsville, N. Y. Filed August 21, 1913.

17,268.—*Title:* "R K P BRAND." (For Pickles.) PACIFIC PRESERVE CO., San Francisco, Cal. Filed September 15, 1913.

17,269.—*Title:* "BALMACAAN." (For Men's and Young Men's Overcoats and Rain-Coats.) SAMUEL W. PECK & Co., New York, N. Y. Filed August 9, 1913.

17,270.—*Title:* "IRON CITY." (For Beer.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed September 22, 1913.

17,271.—*Title:* "EDDIE'S EVERLASTING BLACK DYE." (For a Liquid Dye.) EDWARD J. REILLY, Baltimore, Md. Filed September 5, 1913.

17,272.—*Title:* "EL CETUS." (For Cigars.) THE SHELBY CIGAR CO., Shelby, Ohio. Filed July 25, 1913.

17,273.—*Title:* "TO THE LADY OF THE HOUSE: THIS IS A FREE SAMPLE OF 'SEVEN HERBS.'" (For a Medicinal Compound.) EDWARD L. D. TURNER. Mansfield, Mass. Filed September 2, 1913.

PRINTS

REGISTERED OCTOBER 7, 1913.

3,381.—*Title:* "'IVY' CORSET." (For Corsets.) CORSET H COMPANY, Worcester, Mass. Filed April 11, 1913.

3,382.—*Title:* "TIGER." (For Cycle-Cars.) WILLIAM A. DE SCHAUM, Detroit, Mich. Filed August 8, 1913.

3,383.—*Title:* "'KAYSER' LEATHERETTE GLOVES." (For Gloves.) JULIUS KAYSER & CO., New York, N. Y. Filed June 7, 1913.

3,384.—*Title:* "'KAYSER' LEATHERETTE GLOVES." (For Gloves.) JULIUS KAYSER & CO., New York, N. Y. Filed June 7, 1913.

3,385.—*Title:* "THE PRESIDENT UNION SHIRT SUIT." (For Union Suits.) PRESIDENT SHIRT CO., Baltimore, Md. Filed August 23, 1913.

3,386.—*Title:* "TOBACCO THAT ANSWERS EVERY QUESTION." (For Smoking-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed September 3, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

ELLIS *v.* BOYCE *v.* BURCHENAL.

Decided September 10, 1913.

INTERFERENCE—MOTION TO DISSOLVE—PATENTABILITY—AFFIDAVITS.

Affidavits filed in support of a motion to dissolve the interference on the ground that the issue is not patentable *Held* properly refused consideration.

ON PETITION.

FOOD PRODUCT.

Mr. C. L. Parker for Ellis.

Messrs. Betts, Sheffield, Bentley & Betts and *Messrs. Hodges & Hodges* for Boyce.

Mr. Alfred M. Allen and *Messrs. Byrnes, Townsend & Brickenstein* for Burchenal.

EWING, *Commissioner:*

This is a petition by Ellis that the Primary Examiner be advised that certain affidavits filed in this interference are admissible.

The interference involves a patent granted to Ellis and the applications of Boyce and Burchenal. Ellis is the junior party. His patent was granted inadvertently during the pendency of the other applications. He filed a motion to dissolve on the ground that the other parties had no right to make the claims and also on the ground that the issue is not patentable in view of certain specified patents and publications. Prior to the hearing affidavits were filed by Ellis in support of his motion. Each of these affidavits alleges the identity of certain compounds and, further, that, in the opinion of the affiant, since the publication of the British patent to Norman the use of one of these compounds in place of another does not constitute invention. The British patent referred to is one of the references cited in the motion papers.

In my opinion the Examiner was clearly right in refusing to consider these affidavits. In so far as they set up facts upon which to base a rejection they are entitled to no consideration, since, as pointed out in the decision of *Horton* v. *Leonard* (155 O. G., 305) and in the prior decision of *Barratt* v. *Swinglehurst*, (144 O. G., 818,) rejection of a claim cannot be based upon affidavits. The argument that the affidavits are admissible as explaining terms and materials is without force. If the references are rendered pertinent only by the statements made in these affidavits, then the rejection on such references would be in reality based on testimony without giving the applicants an opportunity to rebut the same or to cross-examine the witnesses.

It is contended on behalf of Ellis that *Horton* v. *Leonard* is not in point, because the affidavits there referred to related to the right of one of the parties to make the claims and not to the question of patentability. In reply to this argument it is noted that in *Horton* v. *Leonard* transmission of the motion was refused by the Examiner of Interferences on the authority of *Barratt* v. *Swinglehurst*, and it was attempted by the appellant to distinguish the two cases on the ground that in *Barratt* v. *Swinglehurst* the affidavits related to patentability of the issue, whereas in *Horton* v. *Leonard* they related to the question of the right to make the claims. The statement of the Assistant Commissioner in the latter decision as to the change of practice following the decision of the court of appeals in *Podlesak & Podlesak* v. *McInnerney* (120 O. G., 2127; 26 App. D. C., 399) related to that point.

The question whether a motion of a patentee to dissolve an interference on the ground that the issue is not patentable should be refused transmission has not been considered.

The petition is denied.

EX PARTE VESEY.

Decided September 17, 1913.

APPLICATION—PROSECUTION—ABANDONMENT.

Where the Examiner in response to a request that he suggest the form of claim which he would consider proper stated that the case stood under a previous rejection, that he could not suggest claims and called attention to Rules 77 and 171, *Held* that the year in which action should be taken ran from the previous Office action, and the attorney's statement that he noted the date of the last Office letter on his list, but did not understand what the Examiner's reference to the rules meant, is insufficient to show that the delay in the prosecution of the application was unavoidable, and the application *Held* abandoned.

ON PETITION.

COAT AND HAT LOCK.

Mr. A. J. O'Brien for the applicant.

EWING, *Commissioner:*

This is a petition from the action of the Examiner refusing to enter an amendment and holding the application abandoned.

In the third action on the case, dated May 11, 1912, the Examiner rejected the claims upon the references and for the reasons noted in the previous

Office letter. On May 27, 1912, the applicant requested the Examiner to offer suggestions as to the form of the claim he would consider proper or to suggest a claim as a sample. On June 29, 1912, the Examiner responded to this action as follows:

This case stands under rejection of May 11, 1912. The Office cannot suggest claims; it can act only on claims presented.

Attention is called to Rules 77 and 171.

On June 12, 1913, an amendment was presented, which the Examiner refused to enter on the ground that the application was abandoned, and the present petition was filed July 21, 1913.

It is contended by the attorney that he did not understand the letter of June 29, 1912, as a holding that the year in which he should take action ran from May 11, 1912, since it was not specifically so stated. He admits, however, that he did not look up Rules 77 and 171, to which his attention had been called, but assumed that they referred to the statement that the Office could not suggest a claim.

The action of May 27, 1912, was clearly not such action as the condition of the case required, since it did not in any way expedite the prosecution thereof. The Examiner's letter of June 29, 1912, merely called attention to this, and obviously this letter was not such an action as gave the applicant a year from the date thereof to present a responsive action.

The affidavit of the attorney's assistant is clearly insufficient to show that the delay in the prosecution of the application was "unavoidable" within any meaning of that word. He states that he noted the action of June 29, 1912, upon the list kept in his office, but made no notation as to the year for action running from May 11, 1912. If he did not understand what the Examiner's reference to Rules 77 and 171 meant, it was clearly his duty to have examined these rules, although his own action of May 27, 1912, and the Examiner's action of June 29, 1912, were sufficient to have indicated that the year ran from May 11, 1912.

The petition is denied.

EX PARTE AMERICAN TALC COMPANY.

Decided September 26, 1913.

1. LABELS—FALSE AND DECEPTIVE STATEMENTS THEREON—REGISTRATION REFUSED.

Where a label contains a statement which is *prima facie* false and deceptive, the Examiner should refuse to register the same on that ground unless the applicant can show that, in fact, the statement is not deceptive.

2. SAME—SAME—"CURE"—NOT NECESSARILY MISLEADING.

A statement on a label that the article upon which the label is used is a "cure" for certain specified ailments does not necessarily render the label deceptive.

3. SAME—SAME—SAME.

The fact that a label for talcum powder contains a statement that such powder is for the relief and cure of all irritation of the skin, sunburn, perspiration, etc., *Held* to afford no ground for refusing to register the same.

ON APPEAL.

LABEL FOR POWDERED TALC.

Mr. A. O. Orne for the applicant.

FRAZIER, *First Assistant Commissioner:*

This is an appeal from the refusal of the Examiner of Trade-Marks to register the label presented in this case on the ground that it bears a misleading and deceptive statement.

The label bears the following statement:

This delightful toilet preparation contains silicate of magnesia, a mineral antiseptic and curative, improved by the addition of boracic acid and borax, and enriched by a delicious perfume.

For the relief and cure of all irritations of the skin, sunburn, tired and aching feet, perspiration, etc., and for use after shaving and bathing.

As a toilet powder for ladies' and babies' use it is unexcelled.

No objection is made to the first paragraph, specifying the ingredients of the compound.

The second paragraph is held by the Examiner to be misleading because—

it is regarded as misleading and deceptive to claim that a toilet powder will cure the affections specified.

In this action the Examiner refers to *ex parte Barclay & Barclay*, (135 O. G., 217.)

Registration of this label is sought under the act of June 18, 1874, relating to registration of prints and labels, defining the meaning of the words "engraving, cut and print" in the Copyright Act, as there applied to pictorial illustrations or works connected with the fine arts. It further directs that prints and labels designed to be used for any other articles of manufacture may be registered in the Patent Office, but shall not be entered under the copyright law.

There is nothing in this act which prohibits registration of this label on the ground specified. The rejection is based upon the ruling in *ex parte Barclay & Barclay, supra*. It appears that this decision, defining the practice in such cases, arose out of the requirements of the pure food law, administered by the Bureau of Chemistry in the Department of Agriculture, and under the provision of that law relating to misbranding. No provision of that law covers or is intended to cover the registration of labels in the Patent Office. The authority for the practice of refusing registration of labels as containing matter held to be deceptive and misleading rests upon the comity between two departments of the Government.

A number of cases appear to have been brought under the misbranding clause of this law, and one *United States* v. *Johnson*, 169 O. G., 702; 221 U. S., 488) reached the Supreme Court.

That case involved precisely the same question as raised here—namely, an allegation that a label bearing a false statement as to the curative or therapeutic effect of a drug or medicine on which the label is used falls under the misbranding clause of the law. The Supreme Court reversed the lower court, deciding that there was clearly no warrant under the pure-food law for holding that statements of this nature, relating to the effects that might be produced by the medicine or drug, or any statement predicated upon the opinion of an expert could not be held to be a misbranding such as that contemplated by the statute. That law, the Court said, covered under its misbranding provision a false and misleading statement of fact concerning the ingredients composing the drug or medicine or other composition.

The practice of the Department of Agriculture appears to have been founded on the broad principle that the purchasing public should be protected against fraud and deception, whether based upon statements of fact or predicated upon an opinion. Whether based upon the one or the other, if false and fraudulent, the effect upon the public would be the same. The Patent Office has followed that practice in applying the law, as a matter of comity, to labels and prints presented for registration in this Office; but it should be observed that as a prerequisite to invoking this doctrine the statement must be false and misleading. This is the postulate upon which the Supreme Court proceeded in reaching its decision in *United States* v. *Johnson, supra*. It does not necessarily inhibit all statements regarding the curative or therapeutic effect of such article, nor could it well in equity extend so far. There may be cases, it is evident, where such statements are not false and fraudulent, even where they refer to the curative or therapeutic effect of the article to which they are attached. When such is the case, it seems obvious that this Office is not warranted in refusing the registration merely because the label bears some statement relative to the curative effect of the article.

This conclusion is emphasized by the action of the Congress, following the decision of *United States* v. *Johnson, supra*, in amending the Pure Food Act of June 30, 1906, under date of August 23, 1912, wherein, under section 8, it defines the meaning of the term "misbranded" as used in the statute. It is provided in the third clause thereof, in the case of drugs:

Third. If its package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein, *which is false and fraudulent.*

It is evident that under this clause, introduced by amendment into the law for the express purpose of covering cases discussed in the decision of the Supreme Court above cited in all cases where the word "cure" or any words of similar import be used, as in the present case, the law would denominate the same as misbranding only where the statement itself is known or shown to be false and fraudulent.

In the present case it is noted that the statement objected to says:

For the relief and cure of all irritations of the skin, sunburn, tired and aching feet, perspiration, etc.

This statement is designed to appeal to the purchasing public. The language itself is simple and plain. It states the effect following the use of the article for a specific, not a generic, disease or trouble of the skin. It seems clear that no one would be misled or deceived by the meaning or intended meaning of the language. It does not say nor does it suggest under any ordinary interpretation of the language that the article will cure all irritations of the skin without regard to the nature.

Following the usual interpretation of language so used it carries to the mind, first, the fact that it will relieve and cure all irritations of the skin, such as sunburn; second, tired and aching feet; third, perspiration, etc. Where a generic statement, such as "all irritations," is followed by a number of specific illustrations, the ordinary meaning thereof restricts the generic statement to irritations of the character shown by the different kinds stated. In this case it does not appear that there is any intention to make a false statement or misleading statement to the effect that the article will cure any other irritations than those specified or of a similar nature. It would not be understood to mean, for example, that the article cures or will cure eczema, scrofula, and a variety of other skin eruptions and diseases, etc. Hence the only question remaining is whether or not this article will cure sunburn, tired and aching feet, perspiration, etc., and all like irritations. The Office does not appear to be in a position to contradict the truth of this statement. Therefore it cannot rightly hold the same to be false or deceptive.

It may be that in many cases statements are *prima facie* false and deceptive. It is proper under such circumstances to object to the registration of the prints or labels on such grounds.

It is likewise proper for the applicant for registration to show, if he can, that the statement is not false and misleading. He has that right under the pure food law, as amended. He should not be deprived of that right in a proceeding, arising in a different department of the Government, founded, not upon a specific provision of the law relating to the administration of that department, but upon the comity that should prevail between the two departments.

The matter is simply a question of fact, to be determined, as all other facts, by such evidence as will satisfy the Office one way or the other. If the Examiner has reasonable ground to believe that such a statement is false and fraudulent, he may refuse registration for that reason, subject to rebuttal by the applicant; but it is clear that the mere presence of the word "cure" on the label, in the connection here shown, is not sufficient to justify a refusal of registration.

It has been suggested that the charge of "misbranding" in cases like this may be relieved by substituting the word "remedy" for "cure." It is not seen that this change would alter the meaning of the phrase to any extent. *Webster's New International Dictionary* defines "cure" as "to heal; to restore to health; cause to recover; to make well." It gives as synonyms "heal, remedy." It defines "remedy" as—

that which relieves or cures a disease; in medicine, an application which puts an end to disease and restores health.

It gives as synonyms "cure; restorative * * * relief, etc."

It is not easy to discern any real difference between the meanings of the two words. Hence the substitution of one for the other would not alter the meaning of a phrase in which either might be used.

As the refusal to register the label is directed solely to the use of the word "cure" in the connection shown, for the foregoing reasons the Examiner's decision is reversed.

ADJUDICATED PATENTS.

(U. S. D. C.) The Hamm patent, No. 651,782, for a signal-lamp, construed and *Held* valid, but not infringed. *Adams & Westlake Co.* v. *Peter Gray & Sons*, 206 Fed. Rep., 303.

(U. S. D. C.) The Siemund patent, No. 967,578, for an installation for electric welding, claim 2 *Held* void for lack of patentable invention. *Siemund* v. *Enderlin*, 206 Fed. Rep., 283.

(U. S. D. C.) The Siemund patent, No. 967,579, for a method of electric welding, *Held* void as not for a patentable process and for prior use. *Siemund* v. *Enderlin*, 206 Fed. Rep., 283.

Trade-Mark Law of Salvador—Correction.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 29, 1913.

The following translation of the decree of June 30, 1913, with relation to the trade-mark law of Salvador is republished to correct an error appearing in article 3 of the translation published in the OFFICIAL GAZETTE September 23, 1913.

THOMAS EWING,
Commissioner.

[From *Diario Oficial*, San Salvador, Friday, July 4, 1913.—Translation.]

LEGISLATIVE POWER.

The National Assembly of the Republic of Salvador, *Considering:* that the present tariff for the registry of trade-marks does not provide adequate remuneration for the excessive labor occasioned by the numerous requests presented to the Patent Office for registry; also that the greater number of these requests are from factories established abroad, those of the country being few in number; and besides that it is neither just nor equatative that the small or few factories of the country should pay the same fee that is paid by the large factories abroad, to the consequent detriment of the national industries, it is proper, and the time has now come, to protect the interests of the home industries in view of the exclusive privilege which our trade-mark law now in force concedes to those who register their trade-marks, as well as to compensate for the double work occasioned the office charged with this duty; *Therefore*, in the exercise of the faculties which the Constitution confers upon it, having considered the opinion of the Supreme Court of Justice, *decrees:*

ARTICLE 1. To add to article 15, after the words: "and a certification of the solicitud" the words: "on stamped paper costing five pesos."

ART. 2. To add to article 33 the following sentence: "For any other certification that is issued in addition to those referred to in articles 15 and 27, there shall be paid in fiscal stamps a fee of five pesos."

ART. 3. To substitute the word "twenty-five" for the word "ten" in article 34.

ART. 4. Article 35 is amended as follows: "The fees for the registry of each trade-mark are: for the foreign, ten pesos; for the domestic, five pesos; in addition thereto they will pay an annual impost of five pesos for the foreign and two pesos for the domestic for each trade-mark registered and for the period of duration of the privilege which has been granted. The receipts issued by the General Treasury for the payment of the annual imposts shall be presented to the Patent Office every five years; if the said receipts are not presented the office will revoke the privilege.

"For the registry of the trade-mark transfer in the proper books, in accordance with article 8, the person interested shall pay the same fees as noted in the first part of the section next preceding."

ART. 5. Article 36 is amended as follows: "If the certifications mentioned in articles 33 and 34 are printed on ordinary paper, there must be affixed thereto a fiscal stamp for the total value of the fees equal to the value of the stamped paper, in accordance with this law.

"Whenever a stamp is used it must be canceled with the seal of the Patent Office."

ART. 6. The present decree will have the force of law from the date of its publication.

Given in the Chamber of Sessions of the Legislative Power National Palace, San Salvador, on the 19th day of June, nineteen hundred and thirteen.

JOAQUIN BONILLA,
President.
CLAUDIO OCHOA,
1st Secretary.
LAZARO MENDOZA,
2nd Secretary.

National Palace: San Salvador, June 30, 1913.
Therefore, let it be published.

C. MELÉNDEZ,
Secretary of State in the Offices Gobernacion, Fomento and Beneficencia.

SAMUEL LUNA.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

Frank Wright & Bro., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 8,231, registered May 17, 1881, to Frank Wright & Bro., of Washington, D. C., and a notice of such declaration sent by registered mail to said Frank Wright & Bro. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank Wright & Bro., their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

John B. Daniels, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Radio Company, of 1518 West Pico street, Los Angeles, Cal., for registration of a trade-mark and trade-mark registration No. 43,229, registered August 23, 1904, to John B. Daniels, of 673 Vanderbilt avenue, borough of Brooklyn, New York, N. Y., and a notice of such declaration sent by registered mail to said John B. Daniels at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said John B. Daniels, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C. September 23, 1913.

Oliver J. Freeman, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 23,706, registered March 28, 1893, to Oliver J. Freeman, of 1883 North Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Oliver J. Freeman at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Oliver J. Freeman, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

THE
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ISSUE OF OCTOBER 14, 1913.

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Designs	24	No. 44,719 to No. 44,742, inclusive.
Trade-Marks	140	No. 93,654 to No. 93,793, inclusive.
Labels	1	No. 17,274.
Prints	None.	
Reissues	2	No. 13,627 to No. 13,628, inclusive.
Total	860	

TO RESIDENTS OF THE UNITED STATES.

States	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	1	1	North Carolina	5	.....
Arizona	2	.....	North Dakota	.....	.....
Arkansas	2	.....	Ohio	47	11
California	42	6	Oklahoma	9	.....
Colorado	8	1	Oregon	7	.....
Connecticut	20	2	Pennsylvania	55	8
Delaware	.....	.....	Rhode Island	4	3
Florida	4	1	South Carolina	2	.....
Georgia	5	1	South Dakota	.....	.....
Idaho	5	.....	Tennessee	1	1
Illinois	71	10	Texas	19	1
Indiana	19	7	Utah	.....	.....
Iowa	14	2	Vermont	3	1
Kansas	6	.....	Virginia	3	.....
Kentucky	5	2	Washington	5	2
Louisiana	2	.....	West Virginia	3	.....
Maine	.....	1	Wisconsin	18	2
Maryland	6	1	Wyoming	.....	.....
Massachusetts	40	10			
Michigan	29	2	Alaska, District of	.....	.....
Minnesota	7	.....	Canal Zone	3	.....
Mississippi	2	1	District of Columbia	5	.....
Missouri	29	4	Hawaii Territory	.....	.....
Montana	2	.....	Philippine Islands	.....	.....
Nebraska	4	.....	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	2	.....	U. S. Navy	.....	.....
New Jersey	35	4			
New Mexico	.....	.....	Total to residents of the United States	641	125
New York	89	39			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	2	.....	Mexico	1	.....
Austria-Hungary	4	3	Netherlands	1	.....
Belgium	.....	.....	Newfoundland	.....	.....
Bermuda	.....	.....	New South Wales	.....	.....
Brazil	.....	.....	New Zealand	1	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	9	1	Queensland	.....	.....
Chile	.....	.....	Roumania	.....	.....
China	.....	.....	Russia	2	.....
Colombia	.....	.....	Scotland	1	.....
Costa Rica	.....	.....	South Australia	.....	.....
Cuba	2	.....	Spain	.....	.....
Denmark	1	.....	Sweden	2	.....
Dutch East India	1	.....	Switzerland	3	.....
England	7	3	Transvaal, South Africa	.....	.....
France	9	2	Victoria	.....	.....
Germany	28	7	Wales	.....	.....
India	1	.....			
Italy	1	.....	Total to residents of foreign countries	76	16
Japan	.....	.....			
Java	.....	.....			

Delayed Applications.

(ORDER NO. 2,075.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 8, 1913.

It is hereby ordered that the Examiners shall hereafter make special every application which has been pending for fifteen years or longer and every application purporting to be a division or a continuation of an application filed more than fifteen years ago and that after January 15, 1914, no amendment or other paper presented by or on behalf of the applicant in any such application shall be entered without having been first called to the personal attention of the Commissioner.

(Signed) THOMAS EWING,
Commissioner.

Correspondence by Mail.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 5, 1913.

Notice is hereby given to attorneys and others transacting business with the Patent Office that all mail-matter arriving at the Washington post-office up to the hour of closing business at the Patent Office each day will be entered as received on that day.

THOMAS EWING,
Commissioner.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 11, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 25	July 30	821
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	June 2	Aug. 2	695
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Sept. 13	Sept. 29	226
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 18	Aug. 21	746
167	5. Bookbinding; Harvesters; Jewelry; Music.	June 24	July 21	638
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 26	July 30	905
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 5	July 28	1079
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 13	Aug. 16	1003
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors; Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Apr. 19	Aug. 28	748
235	10. Carriages and Wagons	May 21	July 30	1173
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 4	Sept. 2	348
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	June 3	June 18	1621
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 6	Aug. 5	723
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 2	Sept. 12	570
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Apr. 8	July 14	1627
109	16. Radiant Energy; Telegraphy; Telephony.	May 8	July 12	561
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Aug. 13	Sept. 11	337
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 8	Sept. 8	262
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 5	Aug. 20	674

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 11	Sept. 4	249
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 19	June 21	717
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	June 30	July 19	461
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Aug. 1	Aug. 4	471
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Aug. 12	Aug. 18	582
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Aug. 11	Sept. 15	252
106	26. Electricity, Generation; Motive Power.	May 5	June 19	646
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 13	Aug. 27	507
65	28. Internal-Combustion Engines	June 20	July 17	880
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	June 2	May 27	777
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 21	Sept. 19	264
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 16	July 14	454
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	May 26	Aug. 18	476
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	July 11	Aug. 1	468
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	July 23	July 30	607
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	June 23	Sept. 11	828
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	July 9	July 8	1075
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Feb. 28	June 9	968
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	May 12	July 9	977
321	39. Water Distribution	July 2	Aug. 7	537
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article-Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 26	Aug. 11	1060
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Aug. 16	Aug. 27	478
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 8	May 21	982
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 13	Aug. 22	291

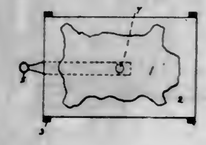
Oldest new case, Feb. 28; oldest amended, May 21.
Total number of applications awaiting action..... 29,784

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 16	Sept. 11	942
	Designs	Sept. 9	Sept. 20	172
	Labels and Prints	Sept. 25	Sept. 30	55

PATENTS

GRANTED OCTOBER 14, 1913.

1,075,319. PROCESS FOR DRYING HIDES. WILLIAM H. ALLEN, Detroit, Mich. Filed Jan. 31, 1913. Serial No. 745,319. (Cl. 34—24.)



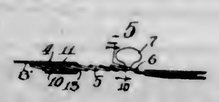
1. The process of drying fibrous material which consists in stretching the same while wet on a flat plate and causing moisture-absorbing fluid to pass over the same from the center outward.

2. The process of drying fibrous material which consists in stretching the same while wet on flat plates, stacking the plates parallel to each other and close together, and conducting currents of moisture-absorbing material to substantially the middle of the plates so that it will pass out between the plates in all directions.

3. The process of drying fibrous material which consists in stretching the same while wet on a flat plate and then absorbing the moisture from the material by a proper fluid, beginning at substantially the center of the fibrous material and then continuing toward the edges.

4. The process of drying hides which consists in stretching the hide on a flat plate, placing the plate adjacent another which is of substantially the same size and spaced a short distance from it, and conducting a current of air to the middle of the hide so the middle of the hide will dry first and the drying of the hide will continue toward the edges which will adhere to the plate until dried.

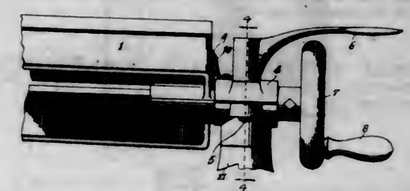
1,075,320. METALLIC LACE. PAUL G. BACHMANN and ARTHUR F. HENKE, Chicago, Ill. Filed Jan. 27, 1913. Serial No. 744,313. (Cl. 24—268.)



1. A device of the class described comprising a clasp member embracing a top plate stamped to afford a slotted end wall, and a base plate which is approximately parallel with, and spaced a short distance from said top plate, a downwardly directed hook integral with said top plate, a guide flange on each side of said downwardly directed hook, and a relatively long metallic member coiled and flattened to afford a strong resilient lace extending through the slot in said clasp member and normally engaged by said downwardly directed hook.

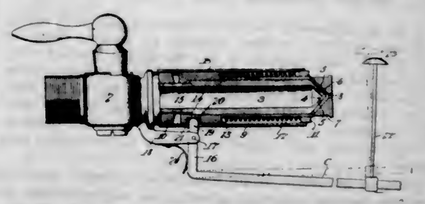
2. In a device of the class described a clasp member embracing a top plate, a resilient base plate connected therewith by means of an integral slotted wall, a hook integral with one of said plates, guide flanges on each side thereof, and a resilient member extending through the slot and engaged between said guide flanges by said hook and adapted for free adjustment inwardly but normally held from outward adjustment by said hook.

1,075,321. MACHINE ELEMENT. MELVIN D. BALDWIN, Grand Rapids, Mich. Filed June 15, 1912. Serial No. 703,886. (Cl. 51—7.)



A machine element of the class described, comprising a tilting table mounted on trunnions, a split bearing for one of the said trunnions, a clamping bolt in said bearing to clamp the split bearing upon the trunnion, a hand lever attached to the clamping bolt, a hand wheel fixed to the trunnion, an arc-shaped graduated dial attached to one end of the table concentric with its axis, an index mounted on a trunnion bearing adjacent to the dial to indicate the angle to which the table is tilted.

1,075,322. AUTOMATIC CUT-OFF FOR GAS-RANGES. CLIFFORD BARGAMIN, Newport News, Va., assignor to The Sentinel Automatic Gas Appliance Co., New Haven, Conn. Filed Nov. 23, 1912. Serial No. 733,227. (Cl. 126—52.)



1. The combination of a gas cock having an internally and externally threaded boss, a nozzle engaging the internal thread of the boss, a valve of tubular form slidably mounted on the nozzle, a casing engaging the external thread of the boss and surrounding the valve, a spring disposed within the casing and extending around the valve to seat the latter, and means engaging the valve for opening the same against the tension of the spring.

2. The combination of a gas cock, a nozzle connected therewith, a valve of tubular form slidably mounted on the nozzle, a casing surrounding the valve and having a slot, a lever fulcrumed on the cock and having one end extending into the slot of the casing to engage the valve, a utensil-engaging device connected with the lever, and means within the casing and acting on the valve to close the same.

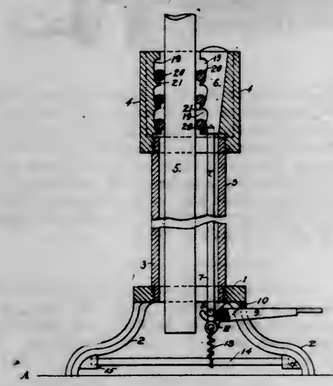
3. The combination of a burner, a gas cock, a nozzle tube connected with the cock, a casing connected with the cock, a valve slidably mounted on the nozzle tube and arranged within the casing, a spring in the casing and operating on and surrounding the valve to close the same, and a device connected with the valve and operating

in opposition to the spring to open the valve when the device is depressed by the placing of a cooking utensil over the burner.

4. The combination of a gas cock, a nozzle tube thereon having an outlet port, a tubular valve slidably mounted on the nozzle and having a portion for closing the said port of the nozzle, a tubular casing around the valve, a spring surrounding the valve and disposed in the casing with one end engaged with the valve to close the same and means connected with the valve for opening the same.

5. The combination of a nozzle tube having an outlet port, a tubular valve slidably mounted thereon and having a portion for opening and closing the said port, said valve and nozzle having portions at their inner ends adapted to engage each other when the valve is open to prevent the back flow and escape of gas, a spring for closing the valve, and a utensil actuated device connected with the valve for opening the same.

1,075,323. ADJUSTABLE STAND. ISRAEL BENJAMINS, Brooklyn, N. Y. Filed May 24, 1912. Serial No. 699,561. (Cl. 45—111.)



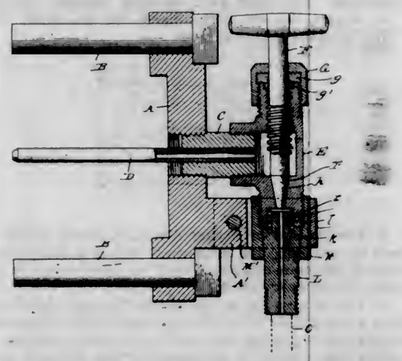
1. In an adjustable stand for figures a column carrying a fitting having a vertical opening, an inclined plane at one side of said opening, a key in sliding contact with said inclined plane, sets of transverse and receding grooves in the sides of said key and of said opening facing each other, rollers in said grooves, means for keeping said rollers in place, a movable post held in adjustable position by and between said rollers and means for actuating said key.

2. In an adjustable stand for figures a column carrying a fitting having a vertical opening, an inclined plane at one side of said opening, a key in sliding contact with said inclined plane, sets of transverse and receding grooves in the sides of said key and of said opening facing each other, rollers in said grooves, side plates attached to said fitting and adapted to keep said rollers in place, a movable post held in adjustable position by and between said rollers and means for actuating said key.

3. In an adjustable stand for figures a column carrying a fitting having a vertical opening, an inclined plane at one side of said opening, a key in sliding contact with said inclined plane, sets of transverse and receding grooves in the sides of said key and of said opening facing each other, rollers in said grooves, a movable post held in adjustable position by and between said rollers, a reach rod secured to said key, a tensile spring pulling on said reach rod downwardly and a foot lever adapted to lift the same.

4. In an adjustable stand for figures a pedestal, a hollow column supported by it and carrying a fitting having a vertical opening, an inclined plane at one side of said opening, a key in sliding contact with said inclined plane, sets of transverse and receding grooves in the sides of the key and of the opening facing each other, rollers in said grooves, a movable post held in adjustable position by and between said rollers, a reach rod secured to said key, a bar secured to said pedestal, a tensile spring having one end attached to said bar and the other end pulling on said reach rod downwardly and a foot lever adapted to lift said reach rod.

1,075,324. VALVED CONNECTION FOR ROCK-DRILLS. SANFORD W. BROTHERS, Denver, Colo. Filed Feb. 3, 1911. Serial No. 606,411. (Cl. 255—49.)



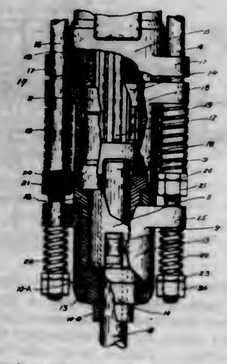
1. The combination with a rock drill head having a central threaded port and a lug projecting at one side of the port, of a nipple mounted in the port and a valve carried thereby, said valve provided with a recess at its inlet end, an inlet fitting for said valve comprising a tapered swivel nipple having a central elongation projecting within a recess in the valve body, a spring encircling the elongation and in contact with the walls of the recess, a coupling engaging the valve body and having a seat for the tapered nipple; and a clip carried by the lug and cooperating with the coupling to lock the parts in position.

2. The combination with a rock drill head having a central threaded aperture, and a lug projecting at one side of said aperture, of a nipple mounted in the aperture, a valve body mounted on the nipple and having a valve stem arranged transversely to said nipple, a swivel nipple and coupling connecting said nipple with the valve body and a clip inclosing said coupling and connected with the lug on the drill head whereby the coupling and valve body are securely held in position, substantially as described.

1,075,325. LOCKING-CHUCK FOR ROCK-DRILLS, &c. SANFORD W. BROTHERS, Denver, Colo. Filed Feb. 24, 1913. Serial No. 750,273. (Cl. 78—44.5.)

1. In a locking chuck for drills, etc., the combination with the cylinder, inner and outer heads, yieldingly supported in relation to each other and in relation to said cylinder, of inner and outer chuck members having alined passages therein for the drill shank and transverse enlargements of said passages for the reception of lugs on the drill shank, and means whereby the inner and outer chuck members may be held with said transverse enlargements out of alinement with each other.

2. In a chuck for rock drills, etc., the combination with the yieldingly supported inner and outer head members one slidably mounted on the other, of an inner chuck member having a drill socket with transverse enlargements and rotatably mounted in the inner head member, an outer chuck member rotatably mounted between the ends of the inner and outer head members and having a drill shank opening therein with transverse enlargements adapted to aline with the transverse enlargements in the inner chuck member, and coöperating lugs and recesses on the proximate faces of the chuck members whereby they are locked in proper relative positions to lock and retain the drill or release the same.



3. In a chuck mechanism for rock drills, the combination with the cylinder, a head yieldingly supported in the end of said cylinder and a supplemental head yieldingly supported on the first mentioned head, of an inner chuck member rotatably mounted within the head and having a drill shank socket extending therethrough said socket having transverse enlargements for the reception of lugs on the drill, and an outer chuck member having an opening therethrough for the drill shank, with transverse enlargements for the passage of said lugs, said outer chuck member being held between the outer ends of the two heads and projecting beyond the same for the application of a wrench, and lugs and recesses on the proximate faces of the inner and outer chuck members for holding said members in definite angular relation to each other for locking or releasing the drill.

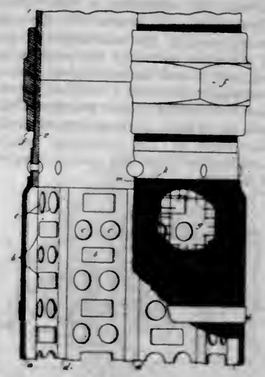
4. In a chuck mechanism for rock drills, the combination with a cylinder, inner and outer head members slidably mounted longitudinally with relation to each other, clamping rods and springs for yieldingly retaining said head members independently of each other, of inner and outer chuck members rotatably mounted in the inner and outer head members respectively, said chuck members having alined passages therethrough for the reception of the drill head, said passages having transverse enlargements for the reception of lugs on the drill head, and the proximate faces of the chuck members being provided with locking lugs and recesses for retaining the chuck members in proper angular relation to each other for locking or releasing the drill.

5. In a chuck for rock drills, the combination with longitudinally yielding inner and outer head members, and inner and outer chuck members rotatably mounted in said inner and outer head members and embodying means whereby the drill may be held or released by relative angular movement of the chuck members, of clamping rods having reduced end portions, and springs and adjusting nuts for the inner head member mounted on the portion of the rod of larger diameter, and springs and adjusting nuts for the outer head member mounted on the portions of the rod of the smaller diameter.

[Claims 6 and 7 not printed in the Gazette.]

1,075,326. TUBE-WELL. THOMAS ARCHIBALD MILLER BROWNLIE, Amritsar, India. Filed May 18, 1912. Serial No. 698,208. (Cl. 166—7.)

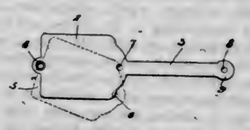
1. A strainer comprising a tube formed from sheet metal, said tube being provided with longitudinally disposed outwardly projecting convolutions, the sections of the tube between the convolutions lying in the arc of a circle, the upper end of the tube throughout its circumference lying in the arc of a circle, the radius of which is equal to the radii of the intervening arcuate sections of the tube and straining material located over and against the outwardly protruding convolutions.



2. A well strainer comprising a tube formed from sheet metal and having longitudinally disposed outwardly projecting convolutions, the sections of the tube between the said convolutions lying in the arc of a circle, the upper edge of the tube about its circumference describing a circle, the radius of which is equal to the radii of the arcuate sections of the tube, straining material located over and against the outwardly protruding convolutions and a hoop surrounding the straining material.

3. A well strainer comprising a tube having longitudinally disposed outwardly projecting convolutions with intervening perforated sections, the inner edges of the said convolutions approximately meeting each other and a straining material located over and against the outer portions of the convolutions.

1,075,327. SEAL. GEORGE M. BROWNING, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,633. (Cl. 40—21.)

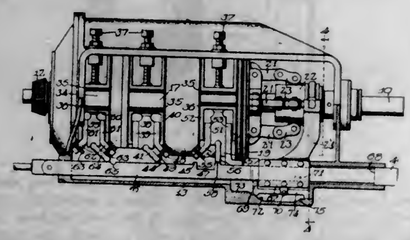


In a device of the class described, a body, a tang secured to said body, a transparent shield pivotally connected to said body and means for permanently securing the free end of said shield, said body and the free end of said tang together, said tang being formed into a loop which may be secured to an article.

1,075,328. TRANSMISSION-GEARING. GEORGE W. BULLEY, Chicago, Ill., assignor to The Mercury Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 3, 1912. Serial No. 701,146. (Cl. 74—34.)

1. In a transmission gearing, the combination of a driving shaft, a driven shaft, mechanism for imparting motion from the driving to the driven shaft embodying a plurality of clutching or gripping devices each having a movable element for effecting a clutching or gripping action, a forwardly and backwardly movable actuating member having means for successively operating said elements at different points in its path of movement in one direction, and a braking mechanism also embodying a movable element for effecting a braking action, said actuating member also having means for operating the last recited element to effect a braking action at points in the path of movement of the actuating member intermediate the points of operation of the first recited means.

2. In a transmission gearing, the combination of a driving shaft, a driven shaft, mechanism for imparting motion from the driving to the driven shaft embodying a plurality of clutching or gripping devices each having a movable element for effecting a clutching or gripping action, a forwardly and backwardly movable actuating member having means for successively operating said elements at different points in its path of movement in one direction, and a braking mechanism also embodying a movable element for effecting a braking action, said actuating member also having means for operating the last recited element to effect a braking action at points in the path of movement of the actuating member in both directions and intermediate the points of operation of the first recited means.



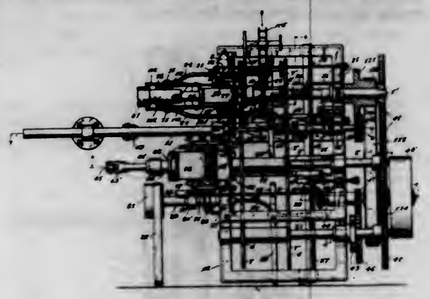
3. In a transmission gearing, the combination of a driving shaft, a driven shaft, mechanism for imparting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means, each having a movable element which when moved effects connection between the driving and driven shafts, each of said gripping or clutching means also embodying a swinging element, a frame or casing, an actuating slide movably supported by the latter and having means for engaging and shifting said elements at different points in the path of movement of the slide for effecting a gripping or clutching action, and means for preventing the operation of one of the said clutching or gripping means when the slide is moved in the opposite direction.

4. In a transmission gearing, the combination of a driving shaft, a driven shaft, mechanism for imparting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means, each having a movable element which when moved effects connection between the driving and driven shafts, each of said gripping or clutching means also embodying a swinging element, a frame or casing, an actuating slide movably supported by the latter and having means for engaging and shifting said elements at different points in the path of movement of the slide for effecting a gripping or clutching action, means for preventing the operation of one of the said clutching or gripping means when the slide is moved in the opposite direction, and one or more yielding stops for each of the said swinging elements.

5. In a transmission gearing, the combination of a driving shaft, a driven shaft, mechanism for imparting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means, each having a movable element which when moved effects connection between the driving and driven shafts, each of said gripping or clutching means also embodying a swinging element, a frame or casing, and an actuating slide movably supported by the latter and having means for engaging and shifting said element at different points in the path of movement of the slide for effecting a gripping or clutching action, one of said swinging elements being disposed to operate its clutching means at certain points in the path of movement of the slide in each of its forward and backward movements of the slide, and others of the swinging elements operating to effect a clutching action of its respective clutching means during one direction of movement only of the slide.

[Claims 6 and 7 not printed in the Gazette.]

1,075,329. PAPER-RECEPTACLE-MAKING APPARATUS. FRANK W. BURPEE, Bellingham, Wash. Filed Nov. 13, 1911. Serial No. 660,156. (Cl. 93—55.)



1. In a machine of the character described, means for supporting an open ended receptacle, a closure forming device, a closure inserting device, means supporting said closure inserting device for movement into the receptacle, means for directing a closure from said forming device into the path of said inserting device, a crimping means, and means for operating said crimping means for action on the closure subsequently to its being positioned by said inserting device.

2. In a machine of the character described, means for supporting an open ended receptacle, a closure inserting device, means for advancing and retracting said device, a crimping device, means for moving said crimping device to and from the receptacle held by said first means, and a second device for inserting a closure in the receptacle subsequently to active operation of said crimping device.

3. In a machine of the character described, means for supporting an open ended receptacle, a crimping means, means for inserting a closure into the receptacle and holding the same for action thereon by said crimping means, and a second means for inserting a closure in the receptacle subsequently to active operation of said crimping means.

4. In a machine of the character described, means for supporting an open ended receptacle, means supported for movement into the receptacle through one end thereof for positioning and holding a closure in the opposite end of said receptacle, means for securing the closure in the receptacle, means for operating said last named means while the closure is held by said first named means, and another means for inserting a closure into the receptacle subsequently to active operation of said second named means.

5. In a machine of the character described, means for supporting an open ended receptacle, a closure inserting means supported for movement into a receptacle held by said first means, means for operating said closure inserting means to position and hold a closure in the receptacle, a crimper supported for rotary and endwise movements, means for shifting said crimper toward the closure subsequently to the positioning of the latter in the receptacle, a second closure inserting means, and means for operating said second closure inserting means to insert a closure into the receptacle subsequently to active operation of said crimper.

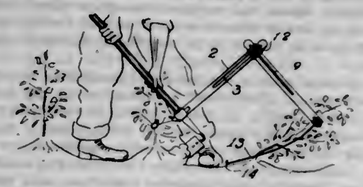
[Claims 6 to 28 not printed in the Gazette.]

1,075,330. ATTACHMENT FOR HOES. GUNNARD CARLSON, Rockford, Ill. Filed Dec. 2, 1912. Serial No. 734,515. (Cl. 55—5.)

1. As an attachment for a hand hoe, a pair of longitudinally slotted links secured together, one of said links being secured to the hoe handle and a curved link secured to the other slotted link.

2. As an attachment for a hand hoe, a pair of links secured together, one of said links being secured to the hoe handle and a curved link secured to the other link.

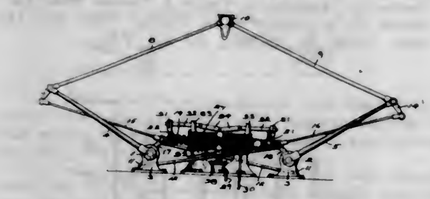
3. As an attachment for a hand hoe, a pair of longitudinally slotted links adjustably secured together, one of said links being secured to the hoe handle and a curved link secured to the other slotted link.



4. As an attachment for a hand hoe, a pair of longitudinally slotted links secured together, one of said links being secured to the hoe handle and a curved link secured to the other slotted link and adjustable with relation to the first slotted link.

5. As an attachment for a hand hoe, a pair of longitudinally slotted links secured together, one of said links being secured to the hoe handle and the other link being adjustable with relation to said hoe handle and a curved link secured to the last mentioned link.

1,075,331. PANTOGRAPH-TROLLEY. FRANK E. CASE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 11, 1907. Serial No. 406,058. (Cl. 191—65.)



1. A pantograph trolley comprising movable upper and lower members and horizontally disposed springs, means for supporting said springs independent of the movable trolley members, and rods connecting said springs with the upper members of said trolley.

2. A pantograph trolley comprising parallel shafts on which the movable members of said trolley are mounted, loose rock arms on said shafts, rods connecting said arms with the upper members of said trolley, and horizontal springs connected at one end with said arms.

3. A pantograph trolley comprising movable members and springs, a cylinder, pistons therein connected with said springs, means for locking said pistons when said springs have been put under tension, and means for simultaneously releasing said pistons.

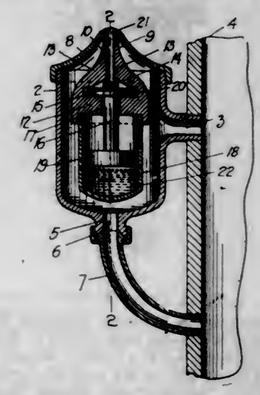
4. A pantograph trolley comprising movable members and lifting springs, a cylinder, pistons therein connected with said lifting springs, and links pivotally connected to said pistons and adapted to hold them apart when said springs have been put under tension.

5. A pantograph trolley comprising movable members and lifting springs, a cylinder, pistons therein connected with said lifting springs, means for locking both of said pistons when said springs have been put under tension, and means for simultaneously releasing said pistons in order to lower said trolley.

[Claims 6 and 7 not printed in the Gazette.]

1,075,332. AIR-VALVE. JAMES M. CHAMBERS, Twin Falls, Idaho, assignor of two-thirds to John M. Maxwell and Charles O. Longley, Twin Falls, Idaho. Filed Oct. 15, 1912. Serial No. 725,839. (Cl. 237—19.)

1. An air valve of the character described comprising a housing open at its upper end and having means for the connection of its interior with a radiator or the like, a cover removably connected with the housing to close its open end and having an outlet, a mercury vessel spaced from the interior surface of the housing, a body of mercury in said vessel, a connection by which said vessel is detachably suspended from the cover, and which has a valve seat in communication with said outlet, a valve adapted to engage said valve seat to close the outlet and normally suspended from said connection, and a float disposed in said vessel and connected with said valve to move the same into engagement with the valve seat, when lifted by the expansive action of the said body of mercury.



2. An air valve of the character described comprising a housing open at its upper end and having means for the connection of its interior with a radiator or the like, a cover removably connected with the housing to close its open end and having a central aperture, a yoke connected in the said aperture and having an air-passage extending through the same, a mercury vessel detachably suspended from said yoke in spaced relation to the interior surface of the housing, a valve adapted to control the flow of fluid from the interior of the housing into the said passage by engagement with the mouth thereof, said valve being normally, loosely suspended from said yoke beneath the said mouth, a body of mercury in said vessel, and a float disposed in said vessel and connected with said valve to move the same in engagement with said mouth when lifted by the expansive action of said body of mercury.

3. An air valve of the character described comprising a housing having an aperture and means for the connection of its interior with a radiator or the like, a yoke connected in said aperture and having a passage for the outlet of fluid from the interior of the housing and, opposite to the mouth of said passage, a seat for the suspension of a valve, a valve adapted to close said passage by engagement with its mouth, a disk connected with said valve, and normally resting upon said seat, the said yoke being constructed to admit fluid within the housing, to the said seat for action upon the said disk, a mercury vessel suspended from the yoke in spaced relation to the interior surface of the housing, a body of mercury in said vessel, and a float in said vessel, connected with said valve for moving the same in engagement with the mouth of said passage, when lifted by expansion of the said body of mercury.

1,075,333. WIRE-SPLICER. FRANCIS R. CLARK, Bedford, Iowa. Filed Dec. 9, 1912. Serial No. 735,780. (Cl. 140—122.)

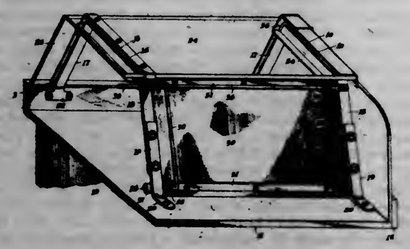
1. In a device of the character described, the combination with a handle, a circular head formed integral with the handle and provided with a similar shaped opening, a plate secured to the head and provided with a circular recess, a circular body having an enlarged head formed upon one end and arranged within said recess, a ratchet

portion formed on said body, a pivoted pawl adapted to engage the ratchet portion whereby turning movement of the handle will rotate the body, said body being provided upon one side with a flattened face having a transverse groove formed therein, a gripping member provided with a rib adapted to engage within said groove, said gripping member being provided with an elongated opening, and a screw bolt passing through said opening and engaging with the body whereby the gripping member is adjustably secured to the body.



2. In a device of the character described, the combination of a handle, a circular head formed at one end of the handle and provided with a similar shaped opening, a plate secured to one side of the head and provided with a circular recess, a circular body member having an enlarged head formed at one end thereof and disposed within said recess, said body member being provided upon one side with a flattened face having a transverse groove formed therein, a gripping member provided with a rib adapted to engage within said groove, said gripping member being provided with an elongated opening, a screw bolt passing through said opening and engaging with the body whereby the gripping member is adjustably secured to the body, and means for engaging the angularly bent end of a wire whereby the rotation of the handle will twist said end about the body portion of another wire.

1,075,334. SHOW-CASE. WILLIAM H. COBB, Sharon Hill, Pa. Filed Apr. 16, 1913. Serial No. 761,410. (Cl. 211—25.)



1. In a show case or counter guard, a door comprising a plate, rods supported from said plate and extending a short distance above the surface thereof, and means carried by a stationary portion of the structure engaged by said rods to form a guide and support for the door.

2. In a show case or counter guard, a door comprising a plate, stiffening bars secured to said plate and extending longitudinally thereon, rods mounted in said stiffening bars and extending transversely a short distance above the surface of the plate, and means carried by a stationary portion of the structure engaged by said rods to form a guide and support for the door.

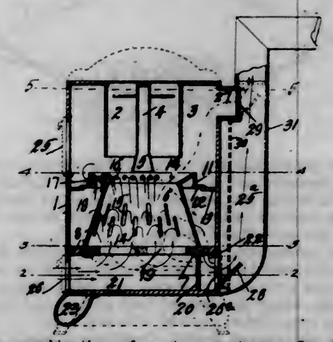
3. A show case or counter guard comprising a series of spaced frames, glass panels mounted on the top and one side of said frames, and a door for closing the other side comprising a plate, rods supported from said plate and extending above the surface thereof a short distance therefrom, and a member secured to said frames and engaged by said rods to form a guide and support for the door.

4. A show case or counter guard comprising a series of spaced frames, glass panels mounted on the top and one side of said frames, tie rods extending between said frames and secured thereto near the top thereof, and a door for closing the other side of the structure comprising a plate, rods supported from said plate and extending above the surface thereof a short distance therefrom, said rods engaging the tie rods to form a guide and support for the door.

5. A show case or counter guard comprising a series of spaced frames, glass panels mounted on the top and one side of said frames, and a door for closing the other side comprising a plate, rods supported from said plate and extending above the surface thereof a short distance therefrom, a member secured to said frames and engaged by said rods to form a guide and support for the door, and an additional guide and support for the door comprising horizontally extending bars secured to the inner portions of the frames near the top thereof.

[Claim 6 not printed in the Gazette.]

1,075,335. SOFT-COAL BURNER. PROCTOR P. COOLEY, Peoria, Ill., assignor to Culter & Proctor Stove Co., Peoria, Ill., a Corporation of Illinois. Filed Nov. 18, 1910. Serial No. 593,066. (Cl. 126—74.)



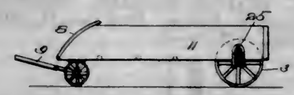
1. The combination of a stove casing, a flue having openings communicating with the casing near the top and bottom thereof, a fire pot comprising an upper flared portion and a lower frusto-conical portion, the lower part of said frusto-conical portion being perforated and the flared portion provided with a plurality of perforations, and means for closing either one of the flue openings, whereby the products of combustion may be made to pass either upwardly through the fire pot and out through the upper flue opening, or to pass through the perforations in the fire pot and out through the lower flue opening.

2. The combination of a stove casing, a flue having openings communicating with the casing near the top and bottom thereof, a fire pot having a frusto-conical portion and an upper outwardly flared portion, the lower part of said frusto-conical portion having a plurality of elongated slots arranged in staggered relation, said outwardly flared portion having a plurality of openings therein, and means for closing either one of the flue openings, whereby the products of combustion may be made to pass either upwardly through the fire pot and out through the upper flue opening or to pass through the perforations in the fire pot and out through the lower flue opening.

3. The combination of a stove casing, a flue having openings communicating with the casing near the top and bottom thereof, a fire pot comprising an upper flared portion and a lower frusto-conical portion, the lower part of said frusto-conical portion being perforated and the flared portion provided with a plurality of perforations, all of said perforations being located toward the front portion of the casing, and means for closing either one of the flue openings, whereby the products of combustion may be made to pass either upwardly through the fire pot and out through the upper flue opening, or to pass through the perforations in the fire pot and out through the lower flue opening.

4. The combination of a stove casing, a flue having openings communicating with the casing near the top and bottom thereof, a fire pot comprising an upper flared portion and a lower frusto-conical portion, the lower part of said frusto-conical portion being perforated and the flared portion being provided with a plurality of perforations, a flange depending from said outwardly flared portion and provided with perforations, and means for closing either one of the flue openings, whereby the products of combustion may be made to pass either upwardly through the fire pot and out through the upper flue opening or to pass through the perforations in the fire pot and flange and out through the lower flue opening, when the upper flue opening is closed.

1,075,336. CONVERTIBLE VEHICLE. GEORGE M. CUSTER, Mattoon, Ill. Filed May 20, 1911. Serial No. 628,417. (Cl. 21—96.)



1. A vehicle body having a bottom, fixed side members rising therefrom and hinged side members adapted to fold against the under side of the bottom or into vertical alinement with the fixed side members.

2. A vehicle body having side members with curved front ends and a concavo-convex dash pivotally mounted for coöperation therewith.

3. A vehicle body comprising a bottom, rigid side members rising therefrom and having curved forward ends, a concavo-convex hinged dash and a reversibly mounted tail-gate.

4. A vehicle body comprising a bottom, rigid side members rising therefrom and having curved forward ends, a concavo-convex hinged dash, a reversibly mounted tail-gate, and means for holding the latter in either of its positions.

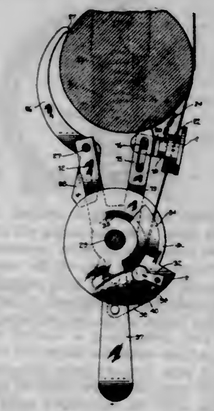
5. A vehicle body comprising a bottom, rigid side members rising therefrom, a hinged dash, a hinged tail-gate and hinged side members adapted to be thrown into vertical alinement with the first-named side members.

[Claims 6 to 9 not printed in the Gazette.]

1,075,337. WIRE-STRETCHER. PHILIP C. DEAN, Roscoe, Mont. Filed May 1, 1912. Serial No. 694,519. (Cl. 30—55.)

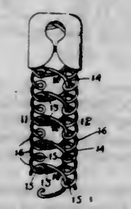
1. A stretcher comprising a frame, a clutch carried by said frame, a movable member mounted in said frame, a clutch mounted upon said movable member, a rocker shaft passing through said movable member and having one end engaging said clutch, a handle mounted in said frame and connected to said rocker shaft, said handle being adapted to move said movable member and to rotate said rocker shaft to move said last-mentioned clutch into and out of operative position.

2. A stretcher comprising a frame, a clutch carried by said frame, a disk rotatably mounted in said frame, a clutch mounted upon said disk, a rocker shaft passing through said disk, a spring carried by said rocker shaft and adapted to engage said clutch, a handle pivotally mounted in said frame, and a link connecting said handle with said rocker shaft whereby the movement of said handle will rotate said disk and turn said crank shaft to bring said spring into and out of engagement with said last-mentioned clutch.



3. A stretcher of the character described comprising a frame having upper and lower bars, pins connecting said bars, a clutch mounted upon one of said pins, a plate mounted upon the other of said pins, a clutch carried by said plate, a shaft passing through said plate and adapted to throw said last mentioned clutch into and out of operative position, a lever pivotally mounted upon one of said bars, a link connecting said lever with said shaft, and a hook carried by said frame.

1,075,338. WIRE CORSET-STAY. HARRY B. DOWNER, Bridgeport, Conn. Filed Feb. 24, 1913. Serial No. 750,119. (Cl. 2—76.)

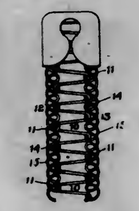


1. A corset stay comprising a relatively large central coiled strand and relatively small side coiled strands, the coils of said strands being extended to form eyes and alternate eyes of the side strands engaging successive coils of the central strand and the coils of said strands being flattened into substantially the same plane.

2. A corset stay comprising a relatively large central coiled strand having its coils extended to form eyes and intermediate portions, and relatively small side coiled strands having their coils extended to form eyes and intermediate portions, alternate eyes of one side strand engaging successive eyes of the central strand and alternate eyes of the other side strand engaging intermediate portions of the central strand, leaving alternate eyes of the side strands disengaged.

3. A corset stay comprising a central coiled strand and side coiled strands each composed of a single wire, alternate coils of each side strand being interlocked with successive coils of the central strand and the coils of said side strands being flattened to substantially the same plane as the coils of the central strand.

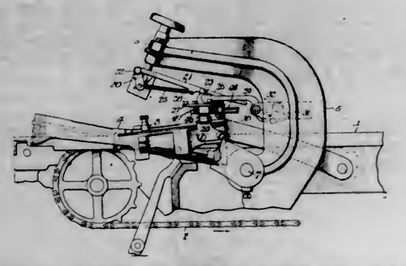
1,075,339. WIRE CORSET-STAY. MOSES MOODY DOWNER, Bridgeport, Conn. Filed Feb. 24, 1913. Serial No. 750,102. (Cl. 2—76.)



1. A corset stay comprising a central strand of wire bent into zigzag form with the loops all arranged in the same plane, and side strands each composed of a single wire formed into coils, each loop of the central strand being interlocked with a coil of a side strand, and the coils of said side strands being flattened to substantially the same plane as the loops of the central strand.

2. A corset stay comprising a central strand of wire bent into zigzag form with the loops all arranged in the same plane, and side strands each composed of a single wire formed into coils, alternate coils of each side strand being interlocked with the successive loops of the central strand on the sides contiguous to said coils.

1,075,340. ADDRESSING-MACHINE. JOSEPH S. DUNCAN, Chicago, Ill. Filed Mar. 24, 1911. Serial No. 616,750. (Cl. 101—1.)



1. In an addressing machine, the combination of a platen comprising a fixed section and a movable section, said movable section being pivotally mounted on the fixed section to move toward and from the plane of the operating face of said fixed section, and means for actuating said movable section.

2. A platen for an addressing machine, comprising a platen head, and a plurality of platen sections carried thereby for effecting an impression from a printing form, one of said sections being fixed and another being pivotally mounted thereon to move toward and from the printing face of said fixed section.

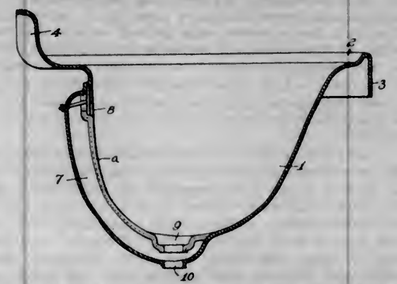
3. In an addressing machine, the combination of a platen comprising a plurality of sections for effecting an impression from a printing form, one of said sections being pivotally mounted on an adjacent section, and means for automatically moving said pivotal section into the plane of said adjacent section at predetermined intervals.

4. A sectional platen for an addressing machine comprising a relatively fixed section, a relatively movable section, yielding means for normally retaining said movable section in an inoperative position, and means for positively moving said section into operative position against the force of said yielding means.

5. A platen for an addressing machine comprising a fixed section, a relatively movable section pivotally mounted on said fixed section and yieldingly sustained in inoperative position, and means for automatically moving said movable section into operative position.

[Claims 6 to 24 not printed in the Gazette.]

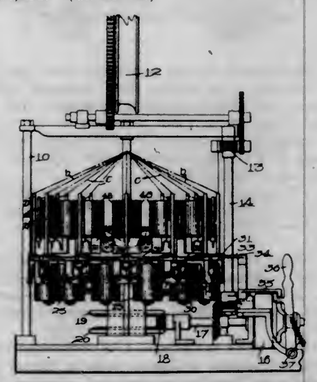
1,075,341. BASIN. WILLIAM A. DUNLAP, Pittsburgh, Pa. Filed May 27, 1912. Serial No. 699,899. (Cl. 4—1.)



1. A basin, sink, etc., formed of sheet metal and provided with overflow and discharge openings, and having its wall bent to form a tubular conduit connecting said openings.

2. A basin, sink, etc., formed of sheet metal and provided with overflow and discharge openings, and having its wall bent to form a tubular conduit connecting said openings, the basin and conduit having all interior and exterior surfaces covered by a continuous coating of enamel.

1,075,342. BRAIDING-MACHINE. BERNHARD S. F. ELL, Engelholm, Sweden. Filed June 16, 1910. Serial No. 567,231. (Cl. 28—4.)



1. In a machine of the character described, the combination of a shaft and hub mounted to rotate on the same axis, in opposite directions, a series of shafts parallel with the axis of said shaft and hub and rotatable with the hub, means for rotating said series of shafts on their axes, a series of thread carriers, means connected with said shafts and rotatable about the shaft for reciprocating the thread carried radially, a series of spools rotatable with the hub, a second series of spools, a series of shafts perpendicular to the axis of the hub rotatable with the first named shaft, and means mounted on the last named shafts for moving the second series of spools.

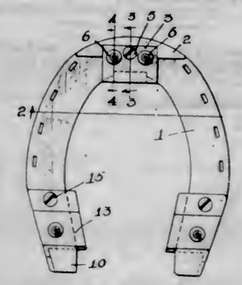
2. In a machine of the character described, the combination of a pair of disks rotatable in opposite directions, a series of shafts on each disk, each shaft having means thereon for receiving a rotary motion from the other disk, a series of thread carriers movably mounted on one of the disks and connected with the shafts thereon to be reciprocated radially thereby, a series of spool carriers mounted to rotate with the disk on which the thread carriers are mounted, a second series of spool holders, and means on the shafts on the other disk for moving said spool holders with that disk.

3. In a machine of the character described, the combination of a pair of disks rotatable in opposite directions, a circular rack on each disk, a series of shafts on each disk, each shaft having a pinion thereon meshing with the rack on the other disk, a series of thread carriers movably mounted on one of the disks and connected with the shafts thereon to be reciprocated radially thereby, a series of spool carriers mounted to rotate with the disk on which the thread carriers are mounted, a second series of spool holders, and means on the shafts on the other disk for moving said spool holders with that disk.

4. In a machine of the character described, the combination of a shaft and hub mounted to rotate on the same axis, means for rotating said shaft and hub in opposite directions, a series of shafts parallel with the axis of said shaft and hub and rotatable with the hub, means for rotating said series of shafts on their axes, a series of thread carriers, means connected with said shafts and rotatable about the shaft for reciprocating the thread carriers radially, a series of spools rotatable with the hub, a second series of spools, a circular rack carried by said hub, a series of shafts perpendicular to the axis of the hub rotatable with the first named shaft, gears thereon meshing with said rack, and means mounted on the last named shafts for moving the second series of spools.

5. In a braiding machine, the combination of a rotary set of spool holders arranged in a circle, a second set of spool holders arranged in a circle concentric therewith, a rotary member adapted to rotate on the same axis as the first named set of spool holders and in the opposite direction, a series of members carried by said rotary member and each rotatable on its own axis, and having means for carrying the second set of spool holders around with them, a series of thread carriers movable radially, said series of members each having a passage through which a thread carrier can pass, and means for bringing said passages into position to receive the thread carriers when the thread carriers approach them.

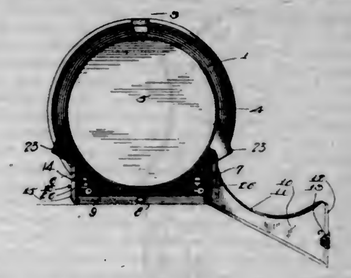
1,075,343. HORSESHOE. IVAN ENGSTROM and JOHN BLOOM, Chicago, Ill. Filed Sept. 22, 1911. Serial No. 650,679. (Cl. 168—32.)



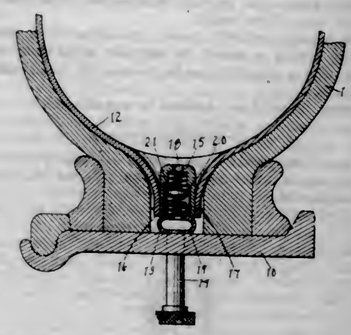
A calk block embracing a flat plate, a lug integral therewith and extending outwardly therefrom, a horse shoe having a recess in the rear edge, an integral recessed toe calk at the forward edge, said calk block adapted to engage within said recess, and removable calks inserted through said calk blocks.

1,075,344. HEATER FOR DRINKING-FOUNTAINS. HARRY L. FISHER and EDWIN M. S. FISHER, Muscatine, Iowa. Filed Dec. 21, 1912. Serial No. 738,060. (Cl. 126—350.)

In a device of the class described, the combination with a body, a lamp housing carried by the rear end of said body, a flue means positioned upon each end of said housing, a lamp positioned within said housing and provided with a plurality of burners, a heat reflecting plate provided with a bowed portion which is adapted to conform to the contour of said body, the outer portion of said bowed portion being provided with laterally extending portions provided with transversely extending slots, said burners passing up through said slots for supporting said plate at a distance from said body for reflecting heat upon said body as it circulates within said housing.



1,075,345. PNEUMATIC TIRE. FREDRICK C. FEIKER, Racine, Wis. Filed Apr. 1, 1912. Serial No. 687,805. (Cl. 152—22.)



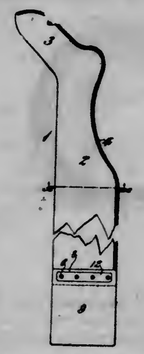
1. A pneumatic tire, comprising an outer casing, a series of expansible air cells contained therein, an air tube, and double seated check valve connections between the air tube and the several air cells for closing the connection upon a material reduction of air pressure on either side thereof to prevent the exhaust of air pressure from the air tube to a punctured air cell or from an air cell to the air tube.

2. A pneumatic tire, comprising an outer casing, a series of rubber bags forming air cells within the outer casing, an air tube having a valved nipple air pump connection, threaded nipples on the air tube forming valve seats, valve casings threaded on the nipples and having valve seats, valves within the valve casings, springs on opposite sides of the valves for normally holding them off of their seats, said valve casings having connection with the several air cells and said valves being adapted for closing against one or the other of the valve seats upon a material reduction of air pressure on either side thereof to prevent the exhaust of air from the air tube to a punctured air cell or from an air cell to the air tube.

1,075,346. HOSIERY-FINISHING BOARD. GEORGE T. FLICK, Philadelphia, Pa., assignor to Otto Schwegler, Philadelphia, Pa. Filed Sept. 14, 1912. Serial No. 720,324. (Cl. 223—19.)

1. A hosiery finishing board consisting of a metal sheet, and a handle detachably connected therewith.

2. A hosiery finishing board consisting of a metal sheet, and a handle of heat resisting material connected therewith.



3. A hosiery finishing board having a single groove on one side in proximity to its rear edge and extending from the leg portion to the end of the toe portion.

4. A hosiery finishing board consisting of a thin metallic sheet conforming to the shape of the stocking and having a single groove in its side substantially parallel with the rear edge of the board.

5. A hosiery finishing board consisting of a sheet of material having a groove in one side adapted to receive a seam, and a grasping handle detachably connected with said board.

[Claims 6 and 7 not printed in the Gazette.]

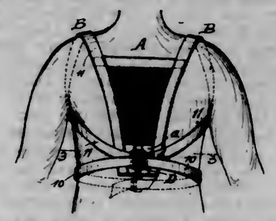
1,075,347. BLOW-OUT HOLDER. FRANK FOURT, Fairfield, Iowa. Filed Sept. 7, 1912. Serial No. 719,253. (Cl. 152—24.)



A blow-out holder of the class described formed from a blank of material comprising a main flap, an intermediate narrower flap, and an outer flap wider than said intermediate flap and narrower than said first mentioned flap, said flaps being folded so as to have said last-mentioned flap fit between said intermediate flap and said first-mentioned flap, said first-mentioned flap extending beyond the edge of the other flaps and constituting a sealing cap for said blow-out holder as the same fits around the inner tube of a tire, the side edges of said flaps after the same have been folded being provided with eyelets, said flaps being stitched together along the adjacent ends of said blow-out holder, and lacing means passing through said eyelets for securing the blow-out holder around the inner tube of a tire.

1,075,348. SELF-LOCKING BODY-BRACE. LEWIS A. FRITSCH, Cincinnati, Ohio. Filed Dec. 7, 1912. Serial No. 736,413. (Cl. 128—3.)

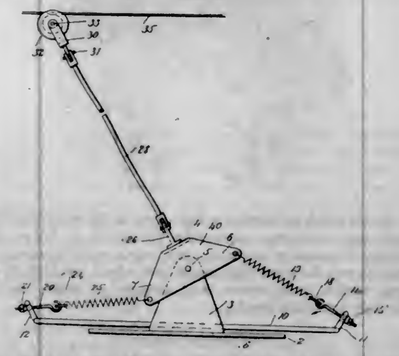
1. In a body-brace, the combination of a brace proper, straps for the same adapted to pass forwardly from the brace over the shoulders, rearwardly to it below the arms and forward again on the same side of the body, without crossing each other, a locking fitting secured to the brace in the median line thereof and adapted to engage each strap between its ends so as to maintain the adjusted tension in that part of the straps which extends over the shoulders and back to said fitting and to limit it to that part, and closing fitting to hold those parts of the straps to each other which pass from said locking fitting around the abdomen to the front.



2. In a body-brace, the combination of the brace proper, a locking fitting comprising two spaced bars secured to the lower part of the brace and in the median line thereof, straps extending from the upper part of it forwardly over the shoulders and back again to said locking fitting and around the bars thereof, one strap around one bar and the other around the other bar and, without crossing each other, in opposite directions beyond them to permit individual manipulation of each of these straps for adjusting the tension in each which is held thereafter by the bars of said locking fitting, one bar holding the tension in one strap and the other bar holding the tension in the other strap and a closing fitting to hold the ends of the straps to each other after having been passed around the abdomen.

3. In a body-brace, the combination of the brace-proper, two holding straps for the same secured to the upper part thereof and each comprising a shoulder-engaging portion and a belt-forming portion, a locking fitting provided in the median line of the brace, comprising two spaced strap-engaging members, one for each strap, and adapted to hold the shoulder-engaging portions of the straps each to the tension to which it has been adjusted, and a closing fitting to hold the belt-forming portions of the straps to each other and in place around the abdomen without being affected by the tension in the shoulder-engaging portion of the straps.

1,075,349. TROLLEY. JOHN GAY, Jordanville, N. Y. Filed Oct. 29, 1912. Serial No. 728,432. (Cl. 191—70.)



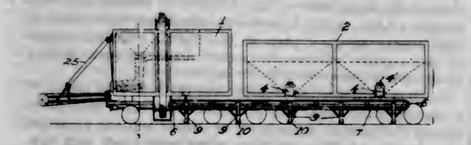
1. In a trolley, the combination, with a base provided with a pair of upwardly projecting bearings, of a bracket formed of a crosspiece having substantially triangular plates at its ends the middle parts of which are pivoted to the said bearings, the lower angle portions of the said plates forming arms upon opposite sides of the pivot, a plate secured to the middle part of the bracket and arranged radially of its pivot, two parallel rods pivoted to the said plate, a trolley harp pivoted to the said rods and provided with a trolley sheave which is

movable laterally of the bracket and which is maintained constantly in parallel longitudinal and vertical planes, a frame secured to the base and projecting beyond the said arms, and tension springs arranged in pairs and secured between the ends of the arms and the corresponding ends of the frame, at each end of the frame, all the said springs being in tension simultaneously and operating to elevate the said rods whether arranged for normal forward travel or the reverse.

2. In a trolley, the combination, with a base provided with a pair of upwardly projecting bearings, of a bracket formed of a crosspiece having substantially triangular plates at its ends the middle parts of which are pivoted to the said bearings, the lower angle portions of the said plates forming arms upon opposite sides of the pivot, a plate secured to the middle part of the bracket and arranged radially of its pivot, two parallel rods pivoted to the said plate, a trolley harp pivoted to the said rods and provided with a trolley sheave which is movable laterally of the bracket and which is maintained constantly in parallel longitudinal and vertical planes, a frame secured to the base and projecting beyond the said arms, equalizing bars having their middle parts pivotally connected to the opposite ends of the frame, and tension springs arranged in pairs and secured between the ends of the arms and the corresponding ends of the equalizing bars at each end of the frame, all the said springs being in tension simultaneously and operating to elevate the said rods whether arranged for normal forward travel or the reverse.

3. In a trolley, the combination, with a stationary support adapted to be secured to a car, of a bracket pivoted to the said support and free to tilt longitudinally of the car, said bracket having arms at its ends which project longitudinally on each side of its pivot, a plate secured to the middle part of the bracket and arranged radially of its pivot, two parallel rods pivoted to the said plate, a trolley harp pivoted to the said rods and provided with a trolley sheave which is movable laterally of the bracket and which is maintained constantly in parallel longitudinal and vertical planes, and tension springs secured to the said arms and to each end portion of the support, all the said springs being in tension simultaneously and operating to elevate the said rods whether arranged for normal forward travel or the reverse.

1,075,350. APPARATUS FOR MIXING AND DISTRIBUTING CONCRETE, &c. JOHN F. GARRETTY, Seattle, Wash. Filed May 29, 1905. Serial No. 262,912. (Cl. 193—1.)



1. The combination of a vehicle containing mechanism for operating on materials, and a plurality of bunkers to hold a reserve supply of said materials connected to said mechanism by a feeding apparatus, and a conveying means for supplying said bunkers with said materials consisting of an elevator having means for variously directing its discharge into any of said bunkers and of a horizontal conveyer adapted and arranged to travel longitudinally with and propelled by said vehicle and projecting longitudinally outward from the side and beyond the end of said vehicle to and beyond the sources of supply of said materials arranged adjacent to the line of travel of said conveyer, the inner end of said conveyer being attached to said vehicle and the outer portion having independent wheeled support and being free and clear from all other parts of the apparatus and occupying a plane close to the ground with its receiving parts lower than the sources of supply of said materials, the supplying capacity of said conveying means being largely in excess of the feeding capacity of the apparatus connecting the bunkers and mechanism for operating on materials, and a means for simultaneously moving and operating said vehicle and said conveying means.

2. The combination of a vehicle containing mechanism for operating on materials, and a plurality of bunkers to hold a reserve supply of said materials connected to said mechanism by a feeding apparatus, and a conveying means for supplying said bunkers with said materials consisting of two elevators correspondingly arranged on opposite sides of said vehicle, each elevator having a means of variously directing its discharge into any of said bunkers and two horizontal conveyers each connected with an elevator and extending parallel with one another and adapted and arranged to travel longitudinally with and propelled by said vehicle and projecting longitudinally outward from the side and beyond the end of said vehicle to and beyond the sources of supply of said materials, said sources of supply being arranged adjacent and superior to said conveyers, the inner ends of said conveyers being attached to said vehicle and the outer portions having independent wheeled support and being free and clear from all other parts of the apparatus and occupying a plane close to the ground with their receiving parts lower than the sources of supply of said materials, the supplying capacity of said conveying means greatly exceeding the feeding capacity of said apparatus connecting the bunkers to the mechanism for operating on said materials, and a means for simultaneously moving and operating said vehicle and its mechanism and said conveying means.

3. The combination of a vehicle containing mechanism for operating on a plurality of materials, and a plurality of bunkers to hold reserve supplies of said materials connected to said mechanism by feeding apparatus, and a means for supplying said bunkers with said materials, while said vehicle is traveling, from a succession of supply vehicles successively arranged in a position along the line of progress of said first vehicle, consisting of a conveying means adjustably adapted to discharge into any of the bunkers with a horizontal receiving conveyer adapted and arranged to travel longitudinally with and propelled by said first vehicle and projecting outward therefrom along the side and beyond the end thereof to and beyond said supply vehicles, said supply vehicles being arranged adjacent and superior to said conveyer, the inner end of said conveyer being attached to said first vehicle and the outer portion having independent wheeled support and being free and clear from all other parts of the apparatus, and occupying a plane close to the ground with its receiving parts lower than the discharge outlets of said supply vehicles.

4. The combination of a vehicle containing mechanism for operating on a plurality of materials, and a plurality of bunkers to hold reserve supplies of said materials connected to said mechanism by feeding apparatus, and a means for supplying said bunkers with said materials, while said vehicle is traveling, from a succession of supply vehicles successively arranged in a position along the line of progress of said first vehicle, consisting of a conveying means adjustably adapted to discharge into any of the bunkers with a horizontal receiving conveyer adapted and arranged to travel longitudinally with and propelled by said first vehicle and projecting outward therefrom along the side and beyond the end thereof to and beyond said supply vehicles, said supply vehicles being arranged adjacent and superior to said conveyer, the inner end of said conveyer being attached to said first vehicle and the outer portion having independent wheeled support and being free and clear from all other parts of the apparatus, and occupying a plane close to the ground with its receiving parts lower than the discharge outlets of said supply vehicles, and said succession of supply vehicles, gravity discharging and having means for restraining and regulating said discharge and successively arranged in position along the line of progress of said first vehicle, with their discharge outlets superior to said horizontal receiving conveyer.

5. The combination of a vehicle containing a mechanism for operating on a plurality of materials and a plurality of bunkers to hold reserve supplies of said materials connected to said mechanism by feeding apparatus, and a means for supplying said bunkers with said materials, while said vehicle is traveling, from a plurality of supply vehicles arranged along the line of travel of said first vehicle, consisting of two duplicate sets of conveying means correspondingly arranged on opposite sides of said first vehicle, each set having means for variously directing its discharge into any of the bunkers, and each having a horizontal receiving conveyer adapted and arranged to travel longitudinally with and propelled by said first vehicle and projecting outward therefrom along the side and beyond the end thereof to and beyond said supply vehicles, said supply vehicles being arranged adjacent and superior to said conveyer, the inner end of said conveyer being attached to said first vehicle and the outer portion having independent wheeled support and being free and clear from all other parts of the apparatus and occupying a plane close to the ground with its receiving parts lower than the discharge outlets of said supply vehicles.

[Claims 6 to 20 not printed in the Gazette.]

1,075,351. COOLING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. LESLIE S. HACKNEY, St. Paul, Minn. Filed May 31, 1912. Serial No. 700,656. (Cl. 123—171.)



1. The combination with a combustion engine having a plurality of cylinders inclosed within an air casing and provided with an air inlet passageway at one end and an outlet port at the other, of a fan adjacent to the inlet passageway, a second fan adjacent to said outlet port, said fans being adapted to cause a circulation of air through said casing, and baffle-plates within the casing extending from the sides thereof to alternate cylinders of said engine for directing the current of air between and about said cylinders and from one side of the casing to the other.

2. The combination with a combustion engine having a plurality of cylinders and inclosed within an air casing provided with an air inlet passageway at one end and an air outlet port at its other end, of a plurality of horizontal flanges on each of said cylinders, a fan adjacent to said inlet passageway and a second fan adjacent to said outlet port, said fans being adapted to cause a circulation of air through said air casing and perforated baffle-plates within the casing extending from the sides thereof to alternate cylinders of said engine adapted to divert the main current of air from one side of the casing to the other and to permit a lesser current of air to pass directly through said casing.

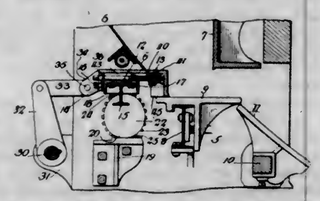
3. The combination with a combustion engine having a plurality of water-jacketed cylinders in communication with a source of water supply and inclosed within an air casing provided with an air inlet passageway and an air outlet port, of flanges on said cylinders, a power driven fan adjacent to the inlet passageway, a second power driven fan adjacent to said outlet port and baffle-plates within the casing extending from the sides thereof to alternate engine cylinders, said fans being adapted to cause a rapid circulation of air through said casing for cooling said source of water supply and said cylinders.

4. The combination with a combustion engine having a plurality of water-jacketed cylinders in communication with a source of water supply and inclosed within an air casing provided with an air inlet passageway and an air outlet port, of a power driven fan adjacent to the inlet passageway, a second casing beneath said hood and communicating with said outlet port, a second power driven fan in said casing and baffle-plates within said first mentioned casing extending from the sides thereof to alternate engine cylinders, said fans being adapted to cause a rapid circulation of air through said casing.

5. The combination with a combustion engine having a plurality of water-jacketed cylinders in communication with a source of water supply and inclosed within an air casing provided with an air inlet passageway at one end and with an air outlet port at its other end, of a plurality of horizontal flanges on each of said cylinders, a fan adjacent to said inlet passageway and a second fan adjacent to said outlet port, said fans being adapted to cause a circulation of air through the casing and perforated baffle-plates within said casing extending from the sides thereof to alternate cylinders of said engine.

[Claim 6 not printed in the Gazette.]

1,075,352. FEEDING DEVICE FOR FURNACES. JOSEPH HARRINGTON, Riverside, Ill. Filed Mar. 7, 1912. Serial No. 682,159. (Cl. 110—109.)



1. In a furnace, the combination of a reciprocating beam, a plurality of pusher sections arranged in laterally abutting relation along said beam and provided with a front flange and a rear stop, each of said sections embracing said beam between the said front flange and rear stop and having sliding contact therewith, and means associated with each of said pusher sections, adapted to afford a variable degree of lost motion between the section and the beam during the forward movement of the latter.

2. In a furnace, the combination of a reciprocating beam, a plurality of pusher sections arranged in laterally abutting relation along said beam, each of said sections embracing a horizontal top wall having a downwardly facing bearing surface in contact with said beam, a vertical front flange and a stop adapted to engage the rear margin of the beam, and means associated with each of said pusher sections adapted to afford a variable degree of lost motion between the section and the beam during the forward movement of the latter.

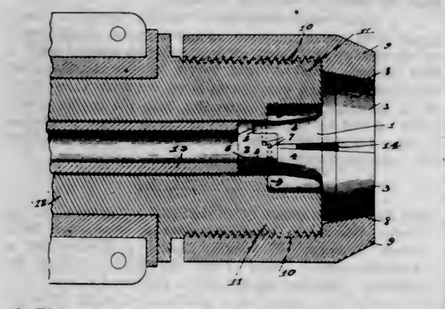
3. In a furnace, the combination with a feed plate, of a reciprocating beam located adjacent to said feed plate within the furnace, a plurality of pusher sections arranged in laterally abutting relation along said beam and supported in sliding engagement upon said beam, each of said sections embracing a horizontal top wall, having a downwardly facing bearing surface in contact with said beam, a vertical front flange in sliding contact with said feed plate and a stop adapted to engage the rear margin of the beam, and adjustable means associated with each of said pusher sections adapted to afford a variable degree of lost motion between the sections and the beam during the forward movement of the latter.

4. In a furnace, the combination of a reciprocating beam, a plurality of pusher sections arranged in laterally abutting relation along said beam, each of said pusher sections embracing a horizontal top wall, a vertical front flange, a stop adapted to engage the rear margin of the beam, and longitudinal ribs extending downwardly from said top wall, adapted to have sliding engagement with said beam, and adjustable means adapted to afford lost motion between the section and the beam during the forward movement of said beam.

5. In a furnace, the combination of a reciprocating beam, a plurality of pusher sections arranged in laterally abutting relation along said beam, each of said sections being provided with a downwardly depending front flange and a rear stop, ribs extending longitudinally between said front flange and rear stop and in sliding engagement with said beam, and means associated with each of said sections adapted to afford a variable degree of lost motion between the section and the beam during the forward movement of said beam.

[Claims 6 to 14 not printed in the Gazette.]

1,075,353. CHUCK. HARRY E. HELMS, Kenosha, Wis. Filed Jan. 27, 1912. Serial No. 673,813. (Cl. 29—112.)



1. The combination with a chuck holder, of a chuck head seated in said holder, a plurality of clamping jaws, each having an enlarged segmental clamping portion and a reduced shank portion, pivotal connection between each shank portion and the chuck head, the outer faces of said segmental clamping portions being beveled, a collet surrounding the jaws and acting to force the jaws into closed position when the latter are thrust forwardly, an annular resilient member seated within said shank portions and acting radially to force the jaws apart when the end thrust on the chuck head is released, and a spindle for axially thrusting the jaws forwardly into engagement with said collet.

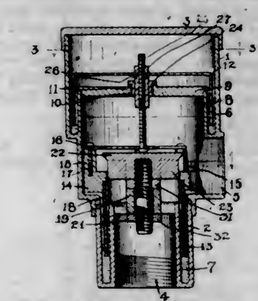
2. The combination with a chuck holder, of a chuck head seated in said holder, a plurality of clamping jaws, each having an enlarged segmental clamping portion and a reduced shank portion, pivotal connection between each shank portion and the chuck head, the outer faces of said segmental clamping portions being beveled, a collet surrounding the jaws and acting to force the jaws into closed position when the latter are thrust forwardly, an annular resilient member having spring action radial of its axis for forcing the jaws apart when the end thrust on the chuck head is released, and a spindle for axially thrusting the jaws forwardly into engagement with said collet.

1,075,354. GAS-REGULATOR. CHARLES W. HENSON, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,214. (Cl. 50—28.)

1. A pressure equalizing valve comprising a casing, an adjustable closure therein, an apertured boss in the casing, a movable liquid sealed seat in the casing adapted to seat on the closure, and a stem slidable in the boss and supporting the closure adapted for adjustment to vary the distance through which the seal must move to close upon the closure.

2. In a device of the class described a casing provided with an inlet and outlet and having a channel therein adapted to receive a sealing fluid, an apertured boss in the casing, a stem slidable therein, a closure on the stem, a cup having its edge sealed in the channel, means movable therewith adapted to seat on the closure, and means for adjusting the stem thereby varying the adjustment of the closure.

3. In a device of the class described a casing provided with an inlet and an outlet and having a channel therein adapted to receive a sealing fluid, a cup having its edge sealed in the channel, a seat in the casing, means connecting the seat and the cup, a threaded stem in the casing, an apertured boss adapted to receive the stem, a closure secured to the stem above the boss, an extension removably secured to the casing, a sealing channel in the extension, and a cylinder having one of its ends sealed in the channel in the extension and the other end secured to the seat affording a seal to prevent leakage within the casing.

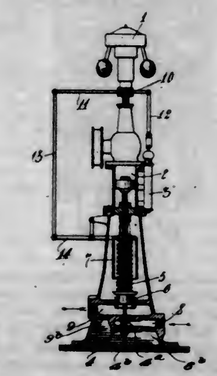


4. In a device of the class described a casing having a channel therein adapted to contain sealing fluid, an extension removably secured to the casing adapted extensions of varying sizes to be secured thereto also provided with a channel to receive a sealing fluid, a cup having its flange extending into the channel in the casing, a cylinder extending into the passage in the extension, a seat movable with the cylinder and connected with the cup, and a closure adjustably secured in the casing to be engaged by the seat.

5. In a device of the class described a casing having a channel therein adapted to contain sealing fluid, an extension removably secured to the casing whereby extensions of varying sizes may be secured thereto, also provided with a channel to receive a sealing fluid, a cup having its flange extending into the channel in the casing, a cylinder extending into the passage in the extension, a seat movable with the cylinder and connected with the cup, and a closure secured in the casing to be engaged by the seat and adjustable to limit the extreme movement of said cup and seat.

[Claims 6 to 14 not printed in the Gazette.]

1,075,355. APPARATUS FOR REGULATING THE PRESSURE ON A GRINDING-STONE. CARL ARVID JOHNSON, Stockholm, Sweden. Filed Sept. 11, 1912. Serial No. 719,711. (Cl. 50—35.)

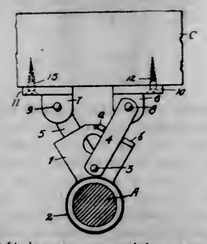


1. In an apparatus for regulating the pressure on a grinding stone the combination of a reducing valve, a

centrifugal speed regulator connected thereto, a hydraulic cylinder having a piston, a pilot valve for the cylinder, an operative connection between the regulator and the pilot valve, and an operative connection between the piston and the reducing valve, all arranged for joint operation so that the reducing valve may act independently of the regulator.

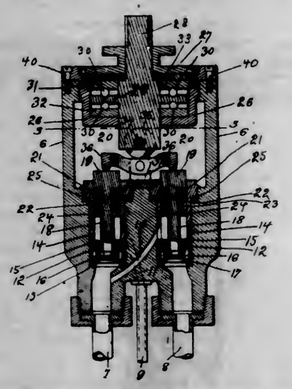
2. In an apparatus for regulating the pressure on a grinding stone the combination of a reducing valve, a centrifugal speed regulator connected thereto, a hydraulic cylinder having a piston, a pilot valve for the cylinder, links and levers connecting the regulator with the pilot valve and with the piston, and a springy connection between the piston and the reducing valve, all so arranged that a motion of the piston will restore the pilot valve to a normal position independently of the regulator.

1,075,356. PIPE OR SHAFT HANGER. JAMES E. JONES, Richmond, Ind. Filed Jan. 31, 1913. Serial No. 745,337. (Cl. 248—31.)



A pipe or shaft hanger comprising a pentagon-shaped body, a ring-like head adapted to surround a pipe or shaft and formed integral with the body, a pair of changeable legs each contacting with an opposite face of the body and each secured thereto at their inner ends by a rivet or the like common to both legs, lugs formed on the body to prevent the legs from turning on said rivet or the like, a foot attached to the outer end of each leg, and means for attaching each foot to a supporting element.

1,075,357. BRAKE-VALVE. ARTHER E. KIRKLEY, North Augusta, S. C. Filed Apr. 25, 1913. Serial No. 763,619. (Cl. 188—7.)



1. A brake valve comprising a casing having a plurality of ports therein, and an oil chamber in said casing, a valve controlling each of said ports and having heads projecting into the chamber, a rocker in the chamber, adapted to bear on either of said heads to open the corresponding valve, and means extending into the chamber to oscillate the rocker.

2. A brake valve comprising a casing having ports in the lower part thereof and an oil chamber in the upper part, valves controlling said ports and projecting into said chamber, a recessed cap on the chamber, an operating spindle extending through the cap and into the chamber, bearings in the recess in the cap for the spindle, operating connections in said chamber, between the spindle and the valves, and a bonnet on the cap, inclosing the bearings.

3. A brake valve comprising a casing having a plurality of ports therein, a valve controlling each of said ports, a rocker mounted in the casing and adapted to bear against either of said valves to operate the same, an operating spindle extending into the casing, and a projecting member carried by the spindle and adapted to bear upon the rocker to oscillate the same.

4. A brake valve comprising a casing having a plurality of ports therein, a valve controlling each of said ports, an annular rocker mounted in the casing and adapted to bear against either of said valves to operate the same, said rocker having cam surfaces on opposite sides thereof, an operating spindle extending into the casing, and a roller carried by the inner end of the spindle and adapted to bear against either of said cam surfaces, to oscillate the rocker and open either valve.

1,075,358. GARMENT-SUPPORTER. CHARLES A. LATIONS, Worcester, Mass., assignor to Worcester Metal Goods Company, Worcester, Mass., a Corporation of Massachusetts. Filed June 26, 1912. Serial No. 706,082. (Cl. 24—191.)



A buckle comprising a frame provided with a free upper toothed edge, said frame having a single slot near its lower edge and provided with outwardly projecting teeth at the upper edge of said slot and a clamping lever pivotally mounted on said frame and having teeth disposed below the free upper toothed edge of the frame and above the slot in the latter.

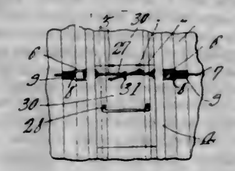
1,075,359. LIFE-SAVING APPARATUS. JOSEPH LE BLANC, Gladstone, Mich. Filed Nov. 8, 1912. Serial No. 730,298. (Cl. 115—41.)



1. A device of the character described comprising a floating deck, spaced buoyant members underlying the deck, brackets secured to the sides of the deck and extending therebelow and having portions embracing said buoyant bodies, a bearing connecting the embracing portions of the bracket with each other and forming a brace between said buoyant bodies, a second bearing underlying the deck and alined with the first bearing, propelling means located between the buoyant bodies and supported by said alined bearings and including a section adjustable relatively of the lower surface of said buoyant bodies, and means for moving the section.

2. In a device of the character described, the combination with a pair of spaced air tight compartments comprising floats, of another air tight compartment supported above said floats and constituting a deck normally arranged above the surface of the water, and adapted to also act as a float in case of injury to either of the lower compartments, said deck compartment extending laterally to the outer edges of the lower floats and forwardly beyond said floats.

1,075,360. SILO. WILLIAM HERMAN LUDWIG, Vesper, Wis. Filed July 24, 1911. Serial No. 640,354. (Cl. 20—1.4.)



1. A silo including a door frame having a portion outstanding from the silo wall, lugs bearing against the sides of the outstanding portion of the frame, means extending through the frame for tying the lugs thereto, and a hoop having its ends adjustably engaging the respective lugs.

2. A silo having a door opening, lugs secured to the silo wall adjacent opposite sides of the opening, a hoop having its ends connected to the lugs, and a tie and spacing element connecting the lugs, spanning the door opening, and arranged in the same horizontal plane with the hoop.

3. The combination with a silo having a door frame, of stems extending through said frame, a hoop section bearing downwardly on and detachably engaging the stems to tie them together, and constituting a ladder rung, and another hoop section adjustably connected to said stems, said sections and stems constituting an endless hoop.

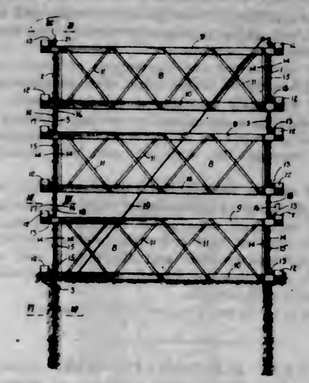
4. The combination with a silo having a door frame, of stems extending through the frame, a hoop section connected to and liftable out of engagement with the stems and extending across the door opening to tie the stems together, said section constituting a ladder rung, lugs engaged by the stems, and a hoop section adjustably connected to the lugs, said sections, lugs and stems forming an endless hoop.

1,075,361. COFFER-DAM. FREDERIC J. MACISAAC, New York, N. Y. Filed June 26, 1913. Serial No. 775,831. (Cl. 61—22.)

1. A cofferdam comprising inner and outer walls composed of interlocking metal sheets, some of the sheets of both walls having vertical slots cut therein between adjacent interlocking joints, and tension members extending between the inner and outer walls and through the slots in said walls.

2. A cofferdam comprising inner and outer walls each composed of vertical sheets suitably joined together, some of the sheets of both walls having vertical slots therein between the joints, and tension members extending between the inner and outer walls and through the slots therein for bracing the walls.

3. A cofferdam comprising inner and outer walls each composed of vertical sheets suitably joined together, some of the sheets of both walls having vertical slots therein between the joints, and tension members extending between the inner and outer walls and through the slots therein for bracing the walls, said tension members carrying transverse members for engaging the sheets on the outside thereof.

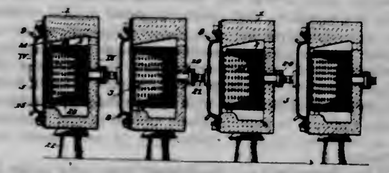


4. A cofferdam comprising inner and outer walls each composed of vertical sheets suitably joined together, some of the sheets of both walls having vertical slots therein between the joints, and tension members extending between the inner and outer walls and through the slots therein for bracing the walls, said tension members carrying transverse members for engaging the sheets on the outside thereof, and said transverse members being sufficiently long to extend over the joints adjacent the slots through which the corresponding tension members pass.

5. A cofferdam comprising inner and outer walls composed of interlocking metal sheets, some of the sheets of both walls having vertical slots cut therein between adjacent interlocking joints, and tension members extending between the inner and outer walls and through the slots in said walls, said tension members carrying transverse members for engaging the sheets on the outside thereof, and said transverse members being sufficiently long to extend over the joints adjacent the slots through which the corresponding tension members pass.

[Claims 6 to 18 not printed in the Gazette.]

1,075,362. ELECTROLYTIC CELL. CLARENCE W. MARSH, Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York N. Y., a Corporation of New York. Filed Apr. 10, 1911. Serial No. 620,024. (Cl. 204—58.)



1. A cell for the electrolysis of alkali salt solutions, comprising an anode compartment open at one side only, a substantially vertical pervious cathode and diaphragm disposed across said opening, and an anode connection extending horizontally through the wall of the cell opposite said cathode.

2. A plurality of cells for the electrolysis of alkali salt solutions, each comprising an anode compartment open at one side only, a substantially vertical pervious cathode and diaphragm disposed across said opening, and an anode connection extending horizontally through the wall of the cell opposite said cathode, in combination with electrical connections extending between the anode of each cell and the cathode of the adjacent cell in series.

3. A series-unit for the electrolysis of alkali salt solutions, comprising a plurality of vertically superposed cell-

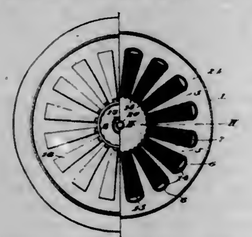
units, each cell-unit having an anode compartment open at one side only, a substantially vertical pervious cathode and diaphragm disposed across said opening, and an anode connection extending horizontally through the wall of the cell opposite said cathode.

4. In a system for the electrolysis of alkali salt solutions, a plurality of series-units, each comprising a plurality of vertically superposed cell-units, each of said cell-units having a substantially vertical pervious cathode and diaphragm, and an anode connection extending horizontally through the wall of said cell opposite said cathode.

5. In a system for the electrolysis of alkali salt solutions, a plurality of series-units, each comprising a plurality of vertically superposed cell-units having a common body, each of said cell-units having a substantially vertical pervious cathode and diaphragm, and an anode connection extending horizontally through the wall of said cell opposite said cathode.

[Claims 6 to 12 not printed in the Gazette.]

1,075,363. ELECTROLYTIC CELL. CLARENCE W. MARSH, Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Jan. 15, 1912. Serial No. 671,189. (Cl. 204—58.)



1. An electrolytic cell comprising concentric anode and cathode compartments, a pervious cathode and diaphragm separating said compartments, said cathode and diaphragm flexed or bent to provide recesses in open lateral and end communication with the anode compartment, and anodes disposed in said recesses.

2. An electrolytic cell comprising concentric anode and cathode compartments, a pervious cathode and diaphragm separating said compartments, said cathode and diaphragm flexed or bent to provide substantially radial recesses in open lateral and end communication with the anode compartment, and anodes disposed in said recesses.

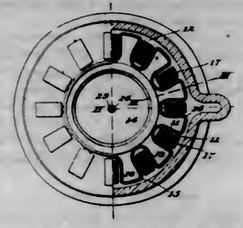
3. An electrolytic cell comprising concentric anode and cathode compartments, a pervious cathode and diaphragm separating said compartments, said cathode and diaphragm flexed or bent to provide recesses in open lateral and end communication with the anode compartment, anodes disposed in said recesses, and means for maintaining a constant level of electrolyte in said anode compartment.

4. An electrolytic cell comprising concentric anode and cathode compartments, a pervious cathode and diaphragm separating said compartments, said cathode and diaphragm flexed or bent to provide substantially radial recesses in open lateral and end communication with the anode compartment, anodes disposed in said recesses, and means for maintaining a constant level of electrolyte in said anode compartment.

5. An electrolytic cell comprising concentric anode and cathode compartments, a pervious cathode and diaphragm separating said compartments, said cathode and diaphragm flexed or bent to provide correlated recesses communicating respectively with the anode and cathode compartments, the recesses communicating with the anode compartment being in open lateral and end communication therewith, and anodes disposed in the recesses which communicate with said anode compartment.

[Claims 6 to 13 not printed in the Gazette.]

1,075,364. ELECTROLYTIC CELL. CLARENCE W. MARSH, Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Jan. 15, 1912. Serial No. 671,190. (Cl. 204—58.)



1. An electrolytic cell comprising a central cathode compartment, an anode compartment surrounding said cathode compartment, a pervious cathode and diaphragm between said compartments, said cathode and diaphragm flexed or bent to provide recesses communicating with said anode compartment, and anodes disposed in said recesses.

2. An electrolytic cell comprising a central cathode compartment, an anode compartment surrounding said cathode compartment, a pervious cathode and diaphragm between said compartments, said cathode and diaphragm flexed or bent to provide substantially radial recesses communicating with said anode compartment, and anodes disposed in said recesses.

3. An electrolytic cell comprising a central cathode compartment, an anode compartment surrounding said cathode compartment, a pervious cathode and diaphragm between said compartments, said cathode and diaphragm flexed or bent to provide recesses communicating with said anode compartment, anodes disposed in said recesses, and means for maintaining a constant level of electrolyte in said anode compartment.

4. An electrolytic cell comprising a central cathode compartment, an anode compartment surrounding said cathode compartment, a pervious cathode and diaphragm between said compartments, said cathode and diaphragm flexed or bent to provide recesses extending radially outward and communicating with the cathode compartment, and anodes located in said anode compartment between the walls of said recesses.

5. An electrolytic cell comprising a central cathode compartment, an anode compartment surrounding said cathode compartment, a pervious cathode and diaphragm between said compartments, said cathode and diaphragm flexed or bent to provide recesses extending radially outward and communicating with the cathode compartment, the upper and lower walls of said recesses presenting non-conducting surfaces, and anodes located in said anode compartment between the walls of said recesses.

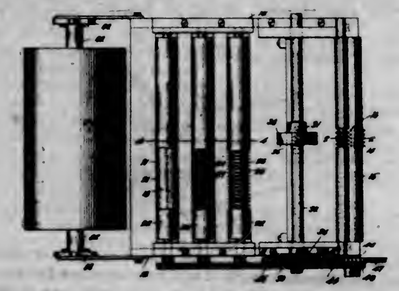
[Claims 6 to 8 not printed in the Gazette.]

1,075,365. ELECTRIC-LAMP ATTACHMENT. WILLIAM PINKNEY MCNEEL, San Antonio, Tex. Filed Apr. 23, 1912. Serial No. 692,587. (Cl. 219—49.)



A lamp socket rheostat including a body of insulation provided with a recess in one wall thereof, a reduced exteriorly threaded lamp socket engaging boss carried upon the upper end thereof, a metal cap inclosing the same, a concentrically disposed rod extending through the body from end to end, the upper end being insulated from the metal cap, a metal casing inclosing the body and sealing the recess, the lower end of the same being constricted and threaded to receive the threaded end of a lamp, a metal socket fitted concentrically within the constricted end of the metal casing and insulated therefrom and also from the concentric rod, a resistance coil disposed within the recess, one terminal of the coil being electrically connected to the metal socket of the constricted portion of the casing, and three conductors one interposed between the metal socket engaging cap and the resistance, the second between the resistance and the metal lamp engaging socket and the third directly connecting the cap and socket.

1,075,366. MACHINE FOR PRINTING MASTER-SHEETS FOR TYPE-WRITER OPERATORS, &c. JOHN MCTAMMANY, Stamford, Conn. Filed Feb. 7, 1912. Serial No. 676,143. (Cl. 101—126.)

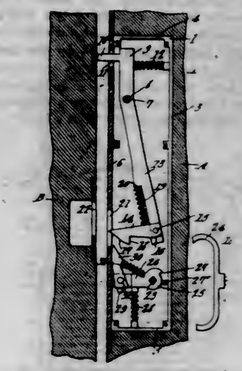


1. A machine of the character stated comprising a feed roll having feeding projections for positively engaging feed perforations in a sheet moved thereby, a plurality of rotary printing couples between the members of which the sheet is moved by the feed roll, said couples being adapted to conjointly print spaced characters and elongated lines on the sheet, and gearing connecting the printing couples and connecting the feed roll with the printing couples, to determine the relationship of the characters and the printed lines to the feed perforations in the sheet.

2. A machine of the character stated comprising a feed roll having feeding projections for positively engaging feed perforations in a sheet moved thereby, a rotary printing couple the members of which are arranged at opposite sides of the path of a sheet moved by the feed roll, the printing characters differing from each other in the direction of the axis of rotation of the printing couple and being duplicates in the plane of rotation, sheet punching mechanism, and operating mechanism having means for intermittently rotating the feed roll and printing couple members in unison, and for operating the punching mechanism while the said feed roll and couple members are at rest, the said mechanism being organized to cause a predetermined relation between the printed matter on the sheet and the perforations therein.

3. A machine of the character stated comprising a feed roll having feeding projections for positively engaging feed perforations in a sheet moved thereby, a rotary printing couple, the members of which bear on opposite sides of the sheet, the printing characters differing from each other in the direction of the axis of rotation of the printing couple and being duplicates in the plane of rotation, sheet punching members between which the sheet is drawn by the feed roll, one of said members being fixed and the other movable, a continuously rotated driving shaft, connections between the shaft and the movable punching member whereby the latter is reciprocated, and a train of gearing connecting the driving shaft with the feed roll and with the members of the printing couple, and adapted to move the said feed roll and couple members in unison, said train being provided with an intermittent feed motion for intermittently rotating the feed roll and printing couple members, and timed to hold the sheet stationary while the punching members are operating.

1,075,367. SLIDING-DOOR LATCH. GEORGE W. MERRITT, San Antonio, Tex. Filed July 8, 1913. Serial No. 777,928. (Cl. 70—102.)



1. In a device of the character described, a case, a movable member therein adapted to be actuated when the case approaches an object, a latch pivoted to the said member and being projected thereby, a manually operable member within the case, and a trip connected with the last mentioned member and coöperating with the latch to release the same when in projected position.

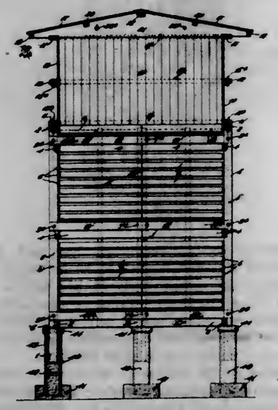
2. In a device of the character described, a case, including a face plate, a movable member mounted within the case and adapted to be actuated when the face plate approaches an object, a latch pivoted to the said member and projectable through the face plate when the said member is actuated, a manually operable member disposed within the case, and a spring pressed trip carried by the last mentioned member and working along the face plate to coöperate with the latch.

3. In a device of the character described, a case, a movable member disposed therein and adapted to be actuated when the case approaches an object, the case including a face plate, a pivoted latch carried by the said member projectable through the face plate when the said member is actuated, a manually operable rocker disposed within the case and having an arm projecting toward the face plate, and a spring pressed trip pivoted to the free end of said arm with its free portion working along the face plate to coöperate with the latch.

1,075,368. PORTABLE BUILDING STRUCTURE. ADOLPH MILLER, St. Louis, Mo., assignor to The Miller Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 3, 1912. Serial No. 718,273. (Cl. 20—2.)

1. In a system of portable building construction, separable wall sections having provision for coupling them together at their vertical margins, and additional separable sections adapted for both floor and wall construction in conjunction with and also without the coöperation of said first-mentioned sections, said second-mentioned sections having provisions for coupling them together and for attachment to said first mentioned sections, said first-mentioned sections having means intermediate of the height thereof for supporting said second-mentioned sections in horizontal relation thereto independently of the attaching means.

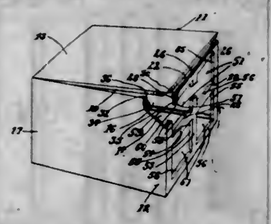
2. In a system of portable building construction, separable wall sections having provision for coupling them together at their vertical margins, and additional separable sections adapted for both floor and wall construction in conjunction with and also without the coöperation of said first-mentioned sections, said second-mentioned sections having provision for coupling them together at their sides and ends, said first-mentioned wall sections having provision intermediate of the height thereof for interchangeable attachment with said second-mentioned sections through the end coupling provision thereof and having means for supporting the ends of said second-mentioned sections in the region of but independently of the attaching means when said second-mentioned sections are used in floor construction, said second-mentioned sections being adapted to be set on edge on top of said first-mentioned sections to constitute a superposed wall, the contiguous edge portions of the coöperating sections having provision for coupling them together.



3. In a system of portable building construction, separable wall sections, and additional separable sections adapted for both floor and wall construction, said second-mentioned sections having marginal cleats along two opposite sides and middle cleats extending beyond the ends thereof, said first-mentioned sections having marginal uprights and cross connecting members at the upper ends and near the lower ends thereof and also intermediate said upper and lower members, said sections also having intermediate uprights located to one side of the middle corresponding to the thickness of the end extensions of the middle cleats of said second-mentioned sections so as to overlap coöperatively in one manner with the extension at either end of one of said second-mentioned sections and having provision intermediate of the height thereof for attachment to the respective extensions in the region of the cross connecting members of said first-mentioned sections, said cross connecting members being arranged and adapted to support the ends of said second-mentioned sections in horizontal relation thereto independently of the means of attachment between the middle cleat extensions of said second-mentioned sections and the intermediate uprights of said first-mentioned sections, the marginal uprights of said first-mentioned sections having provision for attaching said sections together edgewise to constitute a common wall and also at right angles to each other at the corner of two walls, the marginal cleats of said second-mentioned sections having provision for attaching said sections together edgewise and also for attaching them to the upper cross members of said first-mentioned sections when set on edge thereon to constitute a superposed wall section, and the end extensions of said middle cleats of said second-mentioned sections having provision for attachment to each other when said sections are used for side walls.

4. In a system of portable building construction, separable wall sections having provision at their vertical margins for coupling them together in a plane and also when arranged at right angles to each other, and additional separable sections adapted for both floor and wall construction in conjunction with and also without the coöperation of said first-mentioned sections, said second-mentioned sections having provision at their sides for coupling them together when arranged in a plane, and having extensions at their ends adapted to be secured to said first-mentioned sections when said second-mentioned sections constitute a floor, said end extensions being also adapted to be secured together when the sections are stood vertically on their sides, and the coupling provision at the sides of said second-mentioned sections being adapted to coöperate with similar provision at the tops of said first-mentioned sections when placed thereon to constitute a superposed wall section.

1,075,369. FILING-CASE. PAUL S. MILLICE, Hamilton, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y., a Corporation of New York. Filed Aug. 17, 1911. Serial No. 644,707. (Cl. 45—2.)



1. A metal filing case built up of a pair of sheet-metal body-members, each of said body-members having an end and two sides integral with each other, one of said body-members horizontally disposed and the other of said body-members vertically disposed, and locking means between the adjacent edges of said body-members.

2. In a metal filing case, a sheet-metal front wall provided with drawer-openings having sheet-metal ribs therebetween, said ribs extending at right angles with relation to each other and being integral with each other and being integral parts of said front wall, said ribs having sheet-metal flanges integral therewith extending rearwardly and forming walls of said openings.

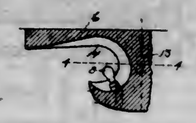
3. In a metal filing case, a sheet-metal front wall provided with drawer-openings having sheet-metal ribs therebetween, said ribs extending at right angles to each other and being integral with each other and being integral parts of said front wall, said ribs respectively having separated sheet-metal flanges integral therewith extending rearwardly and forming rearwardly opening channels which cross each other at the adjacent corners of adjacent openings, and a reinforcing strip located in one of said channels and across another of said channels which crosses said last-named one of said channels.

4. A sheet-metal front for a filing case struck up from a blank provided with openings, wings formed at the edges of said openings by diagonal cuts at the corners of said openings, said wings being bent rearwardly for forming walls for said openings whereby sheet-metal ribs are formed between adjacent openings, and said sheet-metal ribs and walls being integral portions of said sheet-metal front.

5. In a metal filing case, the combination of a body comprising a body-member having a drawer-opening formed therein, the bottom wall whereof is formed by an inwardly extending flange integral with said body-member, and a sheet-metal shelf having a drawer-supporting portion, the lateral edges of said shelf being upturned for forming flanges spaced from said body and which form the sole support of said drawer-supporting portion of said shelf intermediate of the ends of said shelf, said drawer-supporting portion and said upturned lateral edges forming a drawer-receiving channel, the front edge of said shelf provided with a reverse bend terminating in a return-bend forming a groove in which said inwardly extending flange is clamped, and means for securing the rear of said shelf to said case.

[Claim 6 not printed in the Gazette.]

1,075,370. LIGHTING-FIXTURE. OTTO H. MOHR, Kentfield, Cal., assignor to Mobrilite Company, a Corporation of California. Filed Oct. 5, 1912. Serial No. 724,096. (Cl. 240—1.)



1. A lighting fixture comprising a shell having a curved inner surface, ribs dividing said shell into cavities and conforming in shape to the curvature of the inner surface of the shell, a lamp arranged in each cavity and a ledge arranged adjacent said lamps extending in front of and concealing said lamps.

2. A lighting fixture comprising a shell having a rounded interior surface terminating in an outwardly extending top wall, an outwardly and upwardly extending ledge of less length than the top wall arranged below and spaced apart from said wall, lamps arranged behind said ledge and ribs on the inner surface of said shell conforming to the curvature thereof.

3. A lighting fixture comprising a shell of opaque material, a ledge arranged longitudinally along one side of the shell, lamps arranged in the shell below said ledge, and a rib extending transversely of the shell intermediate between the lamps, the height of said rib decreasing as it departs from said lamps.

4. A lighting fixture comprising a shell of opaque material, lamps arranged within the shell adjacent one side, a ledge overlying said lamps, the inner faces of said ledge and said side being substantially concentric with said lamps, the base of the shell being inclined upwardly from the base of said side and terminating in a smooth curve at the opposite side, and a central rib of less height than the depth of the shell arranged intermediate between the lamps and at right angles to said side, the height of the rib gradually decreasing as it departs from said side.

5. A lighting fixture comprising a structure having an outwardly and downwardly extending top wall, an outwardly and upwardly curved bottom wall, joining the top wall in a smooth curve, ribs extending from said bottom wall and terminating in said top wall, and lamps arranged between said ribs behind said bottom wall.

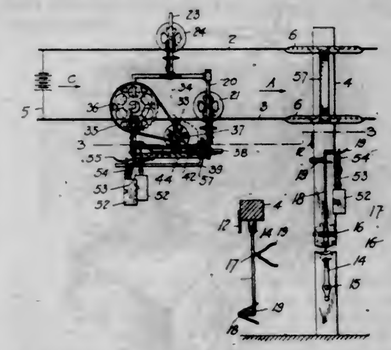
[Claims 6 to 12 not printed in the Gazette.]

1,075,371. AUTOMATIC PARCEL-CARRIER. WILLIAM L. NELSON, Boss, Mo. Filed Oct. 2, 1912. Serial No. 723,623. (Cl. 104—146.)

1. In apparatus of the class described, a pair of aerial tracks supported one above the other, a carriage composed of a frame and an upright post thereon, a wheel on said frame supported on one of said tracks, a motor on said carriage having a driving connection with said wheel, a sleeve rotatably and longitudinally slidably mounted on said post, a wheel on said sleeve, supported upon the other track, a parcel receptacle, and means on said carriage to removably hold the same.

2. In apparatus of the class described, a track, a motor propelled carriage supported thereon, an endless carrier on said carriage, a trip-operated device to intermittently move said carrier, a parcel-receptacle having a link for connection with said carrier, a means on said carriage to receive said link when discharged over an end of said carrier, and a contrivance disposed adjacent the track and adapted to remove said receptacle from the said means by arresting its movement with the carriage.

3. In apparatus of the class described, a track, a motor propelled carriage supported thereon, an endless carrier on said carriage, a trip-operated device to intermittently move said carrier, a parcel-receptacle having a link for connection with said carrier, prongs extending rearwardly from said carriage to receive said link when discharged over the rear end of the carrier, and a contrivance disposed adjacent the track and adapted to remove said receptacle from the said prongs by arresting its movement with the carriage.



4. In apparatus of the class described, a track, a motor-propelled carriage supported thereon, an endless carrier on said carriage, a trip-operated device to intermittently move said carrier, a parcel-receptacle having a link for connection with said carrier, prongs extending rearwardly from said carriage to receive said link when discharged over the rear-end of the carrier, and an arm disposed near the track in the path of said link and adapted to remove said receptacle from said prongs by entering said link.

5. In apparatus of the class described, a track, a motor-propelled carriage supported thereon, a toothed endless carrier on said carriage, a trip-operated device to intermittently move said carrier, means on said carriage adapted to retain parcels after they are discharged from the carrier, a parcel-receptacle having means for suspending it from said retaining means and between the teeth on said carrier, and a contrivance disposed adjacent the track and adapted to remove said receptacle from the said retaining means by arresting its movement with the carriage.

[Claims 6 to 11 not printed in the Gazette.]

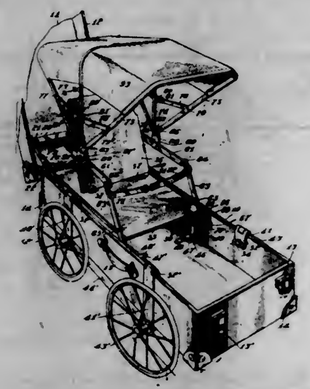
1,075,372. GO-CART. ELLSWORTH B. OVERSHINER, Chicago, Ill. Filed Nov. 13, 1911. Serial No. 660,029. (Cl. 21—83.)

1. In a device of the character described, the combination of a box having a fixed vertical wall with a free upper edge, running gear, and hinging connections between the running gear and the interior surface of said vertical wall below said upper edge, said hinging connections constructed for extension over said upper edge for positioning of said gear below the lower edge of the vertical wall.

2. In a device of the character described, the combination of a box having a vertical wall, running gear, and connections between the gear and the interior surface of the vertical wall, said connections including pivoted parts for extension over one edge of said wall, one of said parts being of a length to extend from its point of pivotal connection to the other part, adjacent the edge of said vertical wall, to a point beyond the other edge of said wall to position the gear beyond said other edge.

3. In a device of the character described, the combination of a box, having fixed vertical side walls, each said wall having an upper edge free and unobstructed, a running gear comprising a connected pair of fore and aft

wheels, one pair on each side of the box, hinges near the front and rear of said box secured to the interior surfaces of said side walls below the edges thereof, each said hinge having a pivotal point adjacent the wall to which the hinge is secured and a second pivotal point for extension of said hinge over the said unobstructed edge of said walls to permit the wheels carried thereby to be unfolded without said vertical walls, and means to retain said running gear in unfolded position.



4. In a device of the character described, the combination of a box, a running gear comprising a connected pair of fore and aft wheels, one pair on each side thereof, hinges connecting each pair of wheels of the box for movement from within the box to operating position, and a spring operated latching means mounted within the box and extending through a perforation in a wall thereof for engagement of said running gear to retain said wheels in operative positions.

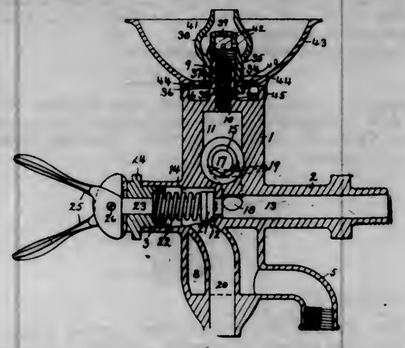
5. In a device of the character described, the combination of a box, a running gear, means for movably securing said gear to the box structure, whereby said gear may be folded into the box and attachably moved therefrom to operative positions, and means for securing said gear in said operative position comprising a spring-pressed pin extending from the interior of the box and a perforated member on the running gear for automatic engagement by said pin.

[Claims 6 to 10 not printed in the Gazette.]

1,075,373. DRINKING-FOUNTAIN. GEORGE M. PAGE, Haydenville, Mass., assignor to The Haydenville Company, Haydenville, Mass., a Corporation of New Jersey. Filed Mar. 15, 1912. Serial No. 683,935. (Cl. 137—11.)

1. A drinking fountain comprising a casing having at the top a supply nipple and an annular waste chamber surrounding the base of said nipple, said nipple rising from the floor of said chamber, and said casing also having a supply passageway which opens into said nipple and a waste passageway which opens into said chamber through the floor of the same, a valve for said supply passageway, a nozzle provided inside with a hood mounted on said nipple, and a waste bowl mounted on the upper end of said casing and opening into said waste chamber.

2. A drinking fountain comprising a casing having at the top a supply nipple and an annular waste chamber surrounding the base of said nipple, said nipple rising from the floor of said chamber, and said casing also having a supply passageway which opens into said nipple and a waste passageway which opens into said chamber through the floor of the same, a valve for said supply passageway, a waste bowl mounted on the upper end of said casing and opening through the bottom thereof into said chamber, and a nozzle provided inside with a hood screwed on to said nipple above said bottom of said bowl to hold the latter in place.



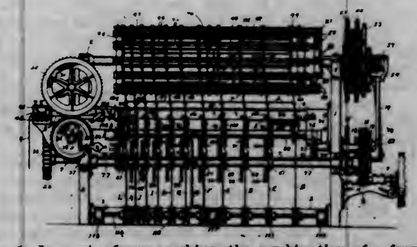
3. A drinking fountain comprising a casing having at the top an externally screw-threaded supply nipple and an annular waste chamber surrounding the base of said nipple, and said casing also having a supply passageway which opens into said nipple and a waste passageway which opens into said chamber, a valve for said supply passageway, a waste bowl, having a screw-threaded bottom opening to receive the threaded part of said nipple and a flange to fit around the upper terminal of said casing, mounted on the latter and opening through the bottom thereof into said chamber, and an internally screw-threaded nozzle provided inside with a hood screwed on to said nipple above said bottom of said bowl.

4. The combination, in a drinking fountain, with a casing bored to form a supply passageway therein and provided with an integral nipple at the top into which opens such passageway, of a chambered nozzle having at its base a neck portion that is mounted directly on said nipple, and provided in the chamber therein with an integral hood that opens at the bottom into said nipple and laterally into said chamber, said hood being larger in diameter than the orifice in the top of said nozzle.

5. The combination, in a drinking fountain, with a casing having a supply passageway therein and provided with a screw-threaded nipple at the top which opens into such passageway, said nipple having a seat at its lower end, of a regulating screw and a set-screw in said nipple, such screws having longitudinal passages in their peripheries for the water to pass through and a chambered nozzle mounted on such nipple and provided in the chamber therein with a hood that opens at the bottom into such nipple and laterally into said chamber.

[Claim 6 not printed in the Gazette.]

1,075,374. WIRE-FENCE MACHINE. WILLIAM N. PARRISH, Richmond, Ind. Filed Sept. 9, 1912. Serial No. 719,429. (Cl. 140—12.)



1. In a wire-fence machine, the combination of a frame, a bed-plate extending across the front of the frame, a plurality of vertically disposed and horizontally revoluble twisters located in front of the bed-plate, a twister-block for each of said twisters, said twister blocks being secured to the bed-plate, means for operating all of said twisters continuously in one direction, a tracker-bar disposed along above said twisters and connected by said twister blocks to the bed-plate, means for shooting a stay-wire through the tracker-bar, and means for removing the stay-wire from the tracker bar and bringing it to position to be engaged by the twisters, all substantially as shown and described.

2. In a wire-fence machine, the combination of a frame, a bed-plate extending across the forward part of the frame, a plurality of vertically disposed twisters, a twister-block for each twister, the twister-blocks being secured to the face of the bed-plate, means for revolving all of the twisters continuously in one direction, a tracker-bar carried by the bed-plate and extending along above all of the twisters, means for shooting stay-wires through said tracker-bar, means for removing the stay-wires from the tracker-bar and bringing them to position to be engaged by the twisters, and means for causing the twisters to successively engage the stay-wires and to form ties therewith around each of the line wires, all substantially as shown and described.

3. In a wire-fence machine, the combination with a suitable frame having a bed-plate disposed horizontally thereacross, a plurality of twister-blocks secured along to the face of the bed-plate, a twister carried by each twister-block, each of the intermediate twisters being mounted to revolve horizontally, means for revolving all of the twisters continuously in one direction, a tracker-bar also carried by said twister-blocks and extending along above each of said twisters, said tracker-bar being composed of two plates, one of which is movable with relation to the other, there being a channel located between said plates and extending from end to end thereof, means for shooting stay-wires through said channel, means for removing the stay-wire from said channel and bringing it into contact with the several twister heads successively, means for severing the stay-wires, and means for advancing the finished product and the line-wires, substantially as set forth.

4. A wire fence machine including with a suitable frame, a bed-plate extending across the front of the frame, a plurality of vertical twisters carried by the bed-plate, a cam-arm for raising and lowering each intermediate twister, a foot operated by each cam-arm for bringing the stay-wire to position to be engaged by the twisters, a tracker-bar for guiding the stay-wire across the twisters, means for shooting the stay wires through said tracker bar, a shaft extending across the machine, a cam-wheel for each twister, all of said cam wheels being mounted on said shaft but each being timed differently from the others, means for operating said shaft and the twisters by power, and means for advancing the finished product, all substantially as shown and described.

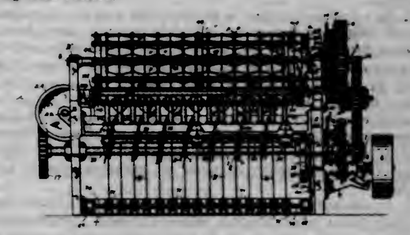
5. A wire fence machine comprising in combination a suitable frame, a bed-plate extending across the frame, twister-blocks carried by the bed-plate, a vertically disposed twister revolubly mounted in each twister block, a twister shaft extending across below the bed plate, gears connecting each of the twisters to said shaft, a cam shaft extending across longitudinally of the machine, cam-wheels secured on the cam-shaft cam-arms connecting said cam wheels to the respective twisters, a tracker-bar disposed across in front of the bed-plate, means for shooting stay-wires through said tracker-bar, means for automatically withdrawing the stay-wires from the tracker-bar and bringing them to position to be engaged by the twisters, means for severing the stay-wire, and means for advancing the line wires, all substantially as shown and described.

[Claims 6 to 8 not printed in the Gazette.]

1,075,375. WIRE-FENCE MACHINE. WILLIAM N. PARRISH, Richmond, Ind. Filed Jan. 31, 1913. Serial No. 745,308. (Cl. 140—9.)

1. In combination with a wire fence machine having means for forming a double twist at each intersection of the line-wires and the stay-wires, a pair of rollers between which the product passes as it leaves the twisting means and adapted to hold the first portion of each twist while the second portion thereof is being formed.

2. In combination with a wire fence machine having means for forming a double twist at each intersection of the line-wires and the stay-wires, a pair of rollers between which the product passes as it leaves the twisting means and adapted to hold the first portion of each twist while the second portion thereof is being formed in a reverse direction to that of the first portion of the twist, and a bulldozer over which the product passes after leaving said rollers.



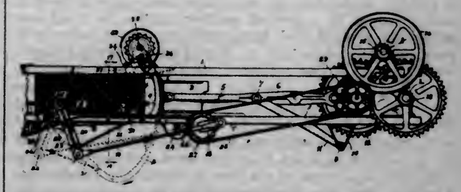
3. In combination with a wire fence machine having means for uniting the line-wires and the stay-wires of fencing by means of a double twist at each intersection thereof, one portion of each twist being the reverse of the other portion thereof, resilient means for holding the first formed portion of each twist while the second portion is being formed, and means for changing the pressure of said holding means upon the fencing.

4. In combination with a wire fence machine having means for uniting the line-wires and the stay-wires by means of double twists of the stay-wire around the line-wire at each intersection thereof, one portion of each twist being turned the reverse of the other portion thereof, means for holding the portion first formed while the other portion thereof is being formed, and said holding means also being adapted to press both portions of each twist tightly into contact with the line wire around which it is formed.

5. In combination with a wire fence machine having a series of twisters for uniting the line-wires and the stay-wires, and a bulldozer for advancing the product and forming lateral crimps therein, a pair of rollers adapted to grip the fencing between said twisters and the bulldozer for justifying the product, and means for adjusting said rollers forward or backward, and means for changing the tension of said rollers with relation to each other.

[Claims 6 to 8 not printed in the Gazette.]

1,075,376. AUTOMATIC BALING-MACHINE. THOMAS S. PEARSON and THEODORE M. CONNER, Kokomo, Ind., assignors of one-third to John B. Dougan, Richmond, Ind. Filed Sept. 23, 1912. Serial No. 721,961. (Cl. 100—20.)



1. In a baling machine having a bale forming chamber and a plunger operative in said chamber, means for locating a plurality of wires around the bale being formed, a twister mechanism for connecting the ends of the wires, means for operating the twisters in proper sequence, said means including a clutch on each side of the machine; each clutch comprising a dog 39 having an outwardly ex-

tending finger F, which extends beyond the periphery of the clutch, said dog being provided with an oblong aperture G therethrough which loosely surrounds the shaft on which the clutch is mounted, the pivot 40 on which the dog is adapted to swing within the limits of said slot, a lug H extending out from the inner face of the dog, a sprocket wheel 27 mounted on said shaft, a roller 41 located near the periphery of said sprocket and adapted to engage the lug H when the dog is swung in one direction, a spring 42 for returning the dog to its normal position; means for actuating the clutch, and means for connecting the clutch to the twisters, all substantially as shown and described.

2. In a baling machine, a cincher disk and a cutter disk spaced apart and integrally united by a stem, there being notches formed in the periphery of each disk with spaces between each two of the notches the notches on one disk being in alinement with the notches of the other disk, means for operating said disks the distance of one space at each revolution of the twister-wheel, the twister-wheel operating continuously, and a twister mechanism operated by said twister-wheel and adapted to unite the two ends of a single length of wire, all substantially as set forth.

3. In an automatic baling machine having means for forming bales with binding wires disposed therearound, a twister mechanism for each wire comprising a support having a head, a core extending through the head, a cutting disk and a cincher disk formed integral with each other and revolubly mounted on the upper end of the core, a gear wheel revolubly mounted on the lower end of the core, a twister block integral with said gear wheel and located therebelow with its lower face located even with the lower end of said core, a major hook extending down from one side of said block, a minor hook extending down from the end of the core, a twister-pin extending down from the end of the core, said minor hook and twister-pin being located on opposite sides from the center of the core, a twister wheel, means carried by the twister-wheel for operating said gear-wheel, the minor hook, the cutter-disk and the cincher disk in proper relations to each other, substantially as set forth.

4. In an automatic baling machine having means for forming bales with binding wires disposed around the bale being formed, a twister mechanism for each wire and comprising a support having a head, a core projecting through the head, a cutting-disk and a cincher-disk formed integral with each other and revoluble on the upper portion of said core, a gear-wheel revoluble on the lower portion of said core, a twister-block carried on the lower face of said gear-wheel, a collar rotatably mounted on the core at a point above said gear-wheel; a major hook extending down from said twister-block, a minor hook extending down through the core and adapted to be operated by said collar, a twister-pin extending down from said core, a twister-wheel for each twister mechanism and having means for operating said cincher-disk, the cutting-disk, the major hook, and the minor hook, all in progressive succession substantially as set forth.

5. In an automatic baling machine having means for forming bales with binding wires extending therearound, a twister mechanism for each wire comprising a head, a core disposed in a vertical position within the head and extending upward and downward above and below said head, a cutter-disk and a cincher-disk formed integral with each other and revolubly mounted on the upper portion of said core, a gear-wheel revolubly mounted on the lower end of the core, a twister-block carried by said twister gear-wheel, a collar rotatably mounted on the core above said gear-wheel, a major twister-hook carried by and extending down from said block and located to one side from the center of the core, a twister-pin rigidly connected to and extending down from the lower end of the core, a minor hook extending down from the lower end of the core and adapted to swing laterally by the rotation of said collar, a cutting-knife adapted to operate in shearing contact with said cutting-disk, a twister-wheel for each twister mechanism and having a gear on one portion thereof adapted to engage with said gear-wheel, a cam carried by the twister-wheel for operating said collar, a cam carried by the twister-wheel for operating said knife, means carried by the twister wheel for operating said cutter-disk and the cincher-disk, a cincher for coacting with the cincher-disk, and a needle for each wire and adapted to carry the wire and deliver it to the cincher, all substantially as shown and described.

[Claim 6 not printed in the Gazette.]

1,075,377. AUTOMOBILE WHEEL HELP. FRANCIS V. PHILLIPS, Orlando, Fla. Filed June 11, 1913. Serial No. 773,021. (Cl. 104—45.)



1. A device of the character described comprising a strip of flexible material having a relatively narrow end adapted to enter a rut under a wheel, and having marginal edges inclined outwardly toward the wider opposite end, the wider portion of the strip being adapted to be flexed laterally by the wheel to cause the strip to enter the rut.

2. A device of the character described comprising a strip of flexible material having a relatively narrow end adapted to enter a rut under a wheel and having its marginal edges inclined outwardly toward the wider or opposite end, the wider portion of the fabric being reinforced or stiffened and being adapted to be flexed laterally by the wheel to cause the strip to enter the rut.

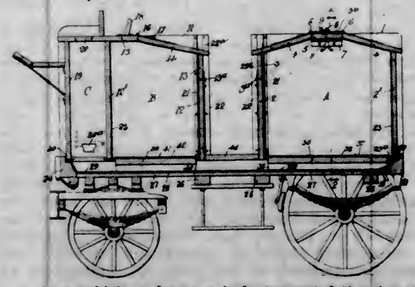
3. A device of the character described comprising a strip of flexible material and anchoring means secured to one end thereof and adapted to be driven in the ground.

4. A device of the character described comprising a strip of flexible material and anchoring means secured to one end thereof, said strip having a relatively narrow opposite end.

5. A device of the character described comprising a strip of flexible material having a relatively narrow end and marginal edges gradually inclined outwardly toward the opposite end, and an anchoring device secured to the wider end adapted to be driven into the ground.

[Claim 6 not printed in the Gazette.]

1,075,378. WAGON. JOHN C. RAUM and JOHN J. RAUM, Baltimore, Md. Filed Apr. 30, 1912. Serial No. 694,116. (Cl. 21—7.)



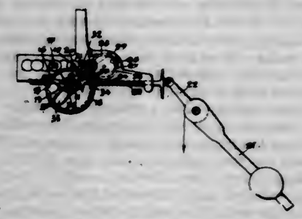
1. In a vehicle, a frame, a body supported thereby, such body comprising side walls, removable end walls and a cover, said cover comprising a cross bar and a pair of doors hinged thereto and adapted to rest upon said removable end walls, and means for detachably connecting said cross bar directly with the side walls of the body.

2. In a vehicle, a frame, a body supported thereby, and comprising side and end walls, a cross bar extending between said side walls, an eye bolt secured to each side wall and projecting through said cross bar, keys adapted to engage said eye bolts to hold said cross bar in position, and hinged doors secured to said cross bar and constituting a cover for said body.

3. In a vehicle, a body comprising a pair of independent sections spaced apart, each of said sections being made up of side and end walls, the adjacent end walls of said sections being entirely removable, and the side walls of each section lying in the same plane, and removable gates adapted to extend between the corresponding side walls of each section so as to fill the space between them, and thus render the wall at each side continuous, whereby, when said adjacent end walls are removed, and said gates inserted, said body is converted into a single compartment.

4. In a vehicle, a frame, a pair of body sections carried thereby and spaced apart, each of such sections comprising side and end walls, the side walls of each section lying in the same plane, a pair of guide ways formed on the inside of each side wall of each section and adapted to receive the adjacent end walls thereof, another pair of guide ways formed at the adjacent ends of the side walls of each section, and a pair of gates adapted to fit within the last mentioned guide ways of each section so as to form a continuous wall at each side of the body, whereby, when the adjacent end walls are removed, a single continuous body compartment is formed.

1,075,379. COUNTING DEVICE OF AUTOMATIC WEIGHING APPARATUS FOR GRANULAR IRREGULARLY-RUNNING MATERIAL. MICHAEL EDUARD REISERT, Hennef-on-the-Sieg, Germany, assignor to The Firm of Hennefer Maschinenfabrik C. Reuther & Reisert mit beschrankter Haftung, Hennef-on-the-Sieg, Germany. Filed Jan. 6, 1913. Serial No. 740,475. (Cl. 73—177.)



1. A counting device for use in automatic weighing apparatus for granular material moving irregularly, comprising a train of number carrying disks, the disks for the lower numbers (say units and tens) adapted to move independently from the rest of the number disks, a ratchet mechanism adapted to rotate the number disks of higher denominations, means to rotate the disks for the lower numbers and means to increase the throw of the said ratchet mechanism, when the disks of the lower denomination move beyond a predetermined position.

2. A counting device for use in automatic weighing apparatus for granular material moving irregularly, comprising a train of number carrying disks, the disks for the lower numbers (say units and tens) adapted to move independently from the rest of the number disks, a ratchet mechanism adapted to rotate the number disks of higher denomination, and a second ratchet mechanism adapted to rotate the number disks of lower denomination and means to increase the throw of the first named ratchet mechanism, when the disks of the lower denomination move beyond a predetermined position.

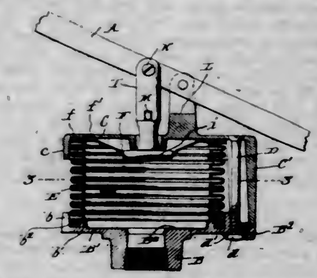
3. A counting device for use in automatic weighing apparatus for granular material moving irregularly, comprising a train of number carrying disks, the disks for the lower numbers (say units and tens) adapted to move independently from the rest of the number disks, a ratchet mechanism adapted to rotate the number disks of higher denomination, a weighted lever pivoted to a fixed part of the apparatus, a pin on the receptacle constituting the balance scale, the pin being adapted to rotate the weighted lever on the descent of the receptacle, means connected with the weighted lever to operate the ratchet mechanism, when the receptacle descends, means to rotate the disks for the lower numbers and means to increase the throw of the said ratchet mechanism, when the disks of the lower denomination move beyond a predetermined position.

4. A counting device for use in automatic weighing apparatus for granular material moving irregularly, comprising a train of number carrying disks, the disks for the lower numbers (say units and tens) adapted to move independently from the rest of the number disks, a ratchet mechanism adapted to rotate the number disks of higher denomination, a weighted lever pivoted to a fixed part of the apparatus, a pin on the receptacle constituting the balance scale, the pin being adapted to rotate the weighted lever on the descent of the receptacle, means connected with the weighted lever to operate the ratchet mechanism, when the receptacle descends, a second ratchet mechanism adapted to rotate the disks for the lower numbers, means to increase the throw of the first named ratchet mechanism, when the disks of the lower denomination move beyond a predetermined position.

5. A counting device for use in automatic weighing apparatus for granular material moving irregularly, comprising a train of number carrying disks, the disks for the lower numbers (say units and tens) adapted to move independently from the rest of the number disks, a ratchet wheel adapted to rotate the number disks of the higher denomination, a pawl adapted to engage the teeth of the ratchet wheel, means adapted to operate the pawl and means to change the throw of the means operating the pawl, these changeable means being adapted to be locked in position and to be released, when the number disks of lower denomination move beyond a predetermined position.

[Claims 6 to 9 not printed in the Gazette.]

1,075,380. PRESSURE-GOVERNED REGULATOR. DWIGHT S. RICHARDSON, New York, N. Y. Filed Oct. 28, 1912. Serial No. 728,211. (Cl. 60—2.)



1. In a regulator such as described, the combination with a bottom plate having the pressure supply connection therein, a peripheral flange and lugs extending beyond said flange, a top plate having a peripheral flange and downwardly extending legs adapted to seat on the lugs of the bottom plate, said top plate having also a central opening and a lever support at one side of said opening, and means for rigidly connecting the top and bottom plates together, of an expansible vessel mounted between the top and bottom plates, said vessel having a corrugated peripheral wall, an inwardly dished top, and having its lower edge permanently connected with the bottom plate within the peripheral flange, a plunger extending through the opening in the top plate and having an enlarged head loosely mounted in the dished portion of the vessel, and a lever pivotally connected with the plunger and lever support, respectively.

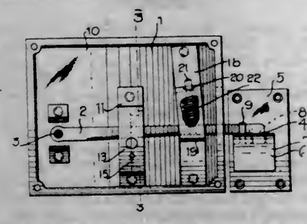
2. In a regulator of the type described, the combination with a bottom plate having the pressure supply connection

therein, two upwardly projecting peripheral flanges forming a groove between them, the outer flange being of greater height than the inner flange and lugs projecting beyond said flanges, a top plate having a peripheral flange and downwardly extending legs seated on the lugs on the bottom plate, said top plate having a central aperture and a lever support at one side of said aperture, and means for rigidly connecting the top and bottom plates to form an inclosing casing, of a vessel mounted within said casing and having a corrugated peripheral wall and inwardly dished top, the lower edge of said vessel being permanently united to the bottom plate by a body of soft metal confined between the peripheral flanges, a plunger having an enlarged head resting in the dished top of the vessel and projecting through the opening in the top plate and a lever pivotally connected with the plunger and lever support, respectively.

3. In a regulator of the type described, the combination with the bottom plate having the pressure supply connection therein, the top plate spaced from the bottom plate, rigidly connected thereto, and having a central opening with a transverse enlargement, and an upwardly extending lever support, of an expansible vessel having its lower edge permanently connected with the bottom plate and having its upward expansion limited by the top plate, a plunger having an enlarged head resting on said vessel, the stem of said plunger extending upwardly through the opening in the top plate and having a transversely projecting lug thereon, whereby the parts may be assembled by passing said stem and lug through the opening and its enlargement, a lever pivotally mounted in the lever support, and a pivotal connection between said lever and plunger arranged to position the lug at one side of the transverse enlargement of the stem opening, whereby the downward movement of the plunger will be limited by the coöperation of the lug with the top plate.

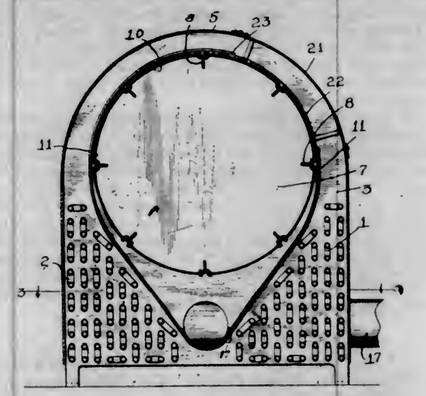
4. In a regulator of the type described, the combination with the bottom plate having the pressure supply connection therein and upwardly extending peripheral flanges forming a groove between them, the outer flange being of greater height than the inner flange, there being peripheral lugs equally spaced on the outer side of the outer flange, a top plate having a downwardly extending peripheral flange and legs integral with the top plate seating on the lugs on the bottom plate, said legs and flanges forming a substantially cylindrical confining chamber with wide spaces between the legs and between the flanges, and bolts extending through the legs for rigidly connecting the top and bottom plates, of a cylindrical vessel located within the flanges and between the plates, the peripheral wall of said vessel being transversely corrugated and with its lower edge permanently confined in the groove between the flanges on the bottom plate, a plunger resting on said vessel and extending loosely through the top plate, and an operating lever pivotally connected with said plunger.

1,075,381. LOCK. JOHN H. ROBERTSON, Granby, Mo. Filed June 2, 1913. Serial No. 771,268. (Cl. 70—102.)



In a lock, a casing, a latch bar pivotally mounted in the casing and having an upstanding pin mounted thereon, an angularly bent and shouldered guide strap having an aperture through one of its shoulders and being secured to the casing in such manner as to embrace the lock bar and the major portion of said pin between its shoulders and to receive the upper end of said pin through its aperture, and a compression spring coiled around said pin and having its lower end seated on the latch and its upper end seated against the apertured shoulder.

1,075,382. DRYING-TUMBLER. RICHARD ROOST, Chicago, Ill., assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed May 27, 1910. Serial No. 563,712. (Cl. 34—5.)



1. A drying tumbler embracing a horizontal, rotative cylinder having perforated walls, a stationary metallic casing inclosing the same and fitting closely thereto above the middle of the cylinder and extending well below the cylinder, an exhaust pipe connected in the casing below the cylinder, steam coils surrounding the bottom half of said casing, a jacket or housing inclosing the coils and casing, and partly open at the bottom, an opening in the top of the casing whereby the heated air from the coils is drawn through the cylinder and downwardly to the exhaust pipe and means rotating the cylinder.

2. The combination with a rotative cylinder having perforated side walls, of ribs extending longitudinally of the cylinder on the inner side thereof, a sheet metal casing fitting closely to the cylinder above the middle thereof and extending below the cylinder to afford an exhaust chamber, an exhaust pipe communicating with the chamber, means exhausting the air therefrom, steam coils arranged below the casing and cylinder and extending upwardly to near the middle thereof, a metallic housing inclosing the structure as a whole and partly open at the bottom, and a door common to the housing and casing near the top thereof and affording access to the cylinder.

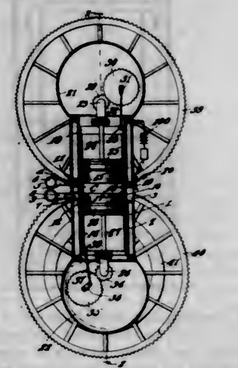
3. A drying device embracing a rotative perforated cylinder, a relatively tight casing surrounding the same provided with a close fitting door, steam coils partly surrounding the casing, a housing inclosing the whole except at the bottom, a door in the side wall of the casing, a part secured thereon serving as a door for the casing and an exhaust pipe communicating with the casing.

4. A drier embracing a housing, substantially air tight except at the bottom, a casing therein affording a circulating space on all sides thereof, steam coils filling the space between said casing and housing, to approximately half the height thereof, a perforated receptacle in the casing for the articles to be dried, an exhaust pipe connected in the casing below the receptacle, an exhaust fan connected therewith, said casing having an opening directly above the receptacle and a door common to both the housing and casing and affording access to the receptacle.

5. An exhaust drier embracing a perforated movable receptacle for turning clothes, an exhaust chamber inclosing the same, an exhaust pipe and pump communicating with said exhaust chamber near the bottom, heating coils disposed around the chamber, a housing inclosing the whole except at the bottom, said exhaust chamber having an opening in the top thereof whereby the hot air from the coils is drawn down through said receptacle and chamber by said exhaust pump.

[Claims 6 to 26 not printed in the Gazette.]

1,075,383. INTERNAL-COMBUSTION ENGINE. RICHARD C. ROSE, Osceola, Ark. Filed July 15, 1912. Serial No. 709,511. (Cl. 123—188.)



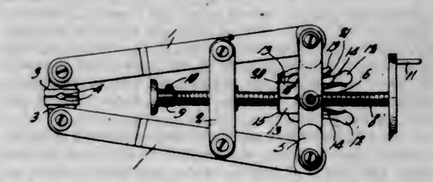
1. An internal combustion engine, having a cylinder open at both ends and provided with an intake and an exhaust port upon one side centrally thereof, a pair of oppositely disposed power pistons mounted in the cylinder and coupled for simultaneous movement and to provide a central combustion chamber in the cylinder, two concentric sleeve valves mounted for sliding movement within the cylinder and about the pistons, the outer sleeve valve having two ports for registration with the respective intake and exhaust ports of the cylinder, while the inner cylinder has a single port for registration with either one of the ports of the outer sleeve valve, means for operably connecting the outer sleeve valve to one power piston, and means for operably connecting the inner sleeve valve to the other power piston.

2. An internal combustion engine, having a cylinder open at both ends and provided with an intake and an exhaust port upon one side centrally thereof, a pair of oppositely disposed power pistons mounted in the cylinder, two crank shafts, one to each power piston, means for operably connecting both crank shafts for coöperation, said power pistons providing a centrally disposed combustion chamber within the cylinder, two concentric sleeve valves mounted for sliding movement within the cylinder and about the pistons, the outer sleeve valve having two ports for registration with the respective intake and exhaust ports of the cylinder, while the inner cylinder has a single port for registration with either one of the ports of the outer sleeve valve, means for operably connecting the outer sleeve with one of the crank shafts, and means for operably connecting the inner sleeve valve with the other crank shaft.

3. An internal combustion engine having a cylinder, a power piston mounted for reciprocation therein, two concentric sleeves slidably mounted within the cylinder and about the power piston, the outer sleeve valve being provided with an elongated slot therethrough, a spark plug connected to the inner sleeve valve and slidable in the elongated slot of the outer sleeve valve, a contact terminal carried by the outer end of the spark plug, and a stationary spring contact disposed in the path to be engaged by the outer terminal of the spark plug as the inner sleeve valve is reciprocated.

4. An internal combustion engine having a cylinder open at both ends, said cylinder having an intake and an exhaust port upon the same side centrally thereof, a pair of oppositely disposed power pistons mounted therein and coupled for simultaneous movement and to provide a centrally disposed combustion chamber in the cylinder, two concentric sleeve valves mounted for sliding movement within the cylinder and about the pistons, the outer sleeve being provided with two ports for registration with the respective intake and exhaust ports of the cylinder, and with an elongated slot upon the diametrically opposite side from the ports, the inner sleeve being provided with a single port for registration with either one of the ports of the outer sleeve valve, a spark plug mounted in the inner sleeve and slidable in the elongated slot of the outer sleeve, a terminal post carried by the outer end of said spark plug, a stationary terminal of an electrical ignition circuit disposed in the path to be engaged by the outer terminal of the spark plug, means for operably connecting the outer sleeve with one of the power pistons, and means for operably connecting the inner sleeve to the other power piston.

1,075,384. WOODWORKING-CLAMP. EMIL K. F. SEIDEL, El Paso, Tex. Filed May 13, 1913. Serial No. 767,424. (Cl. 144—297.)



1. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, an internally threaded block operating on the shaft and connected to the pair of links, means for releasing the block from the shaft, and means for rotating the shaft.

2. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, and threaded blocks secured to the levers for engaging the shaft.

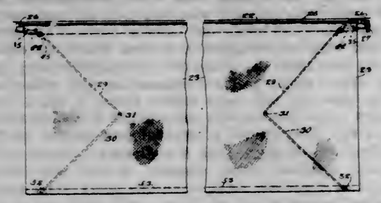
3. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, and means for locking the threaded blocks together.

4. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting link, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, and a spring catch carried by one of the threaded blocks and engaging the other of the threaded blocks.

5. A clamp comprising two arms, a link connecting said arms intermediate their ends, jaws on one end of the arms, a pair of links connecting the opposite ends of the arms, a threaded shaft operating through the intermediate connecting links, a block slidably mounted on the shaft, levers pivoted to the block, threaded blocks secured to the levers and engaging the shaft, a spring catch carried by one of the threaded blocks and engaging the other threaded block, and a pivoted lever engaging the free end of the catch.

[Claims 6 to 10 not printed in the Gazette.]

1,075,385. AWNING. HENRY SMITH, Chicago, Ill. Filed Dec. 11, 1912. Serial No. 736,111. (Cl. 156—44.)



1. An awning-arm comprising a pair of folding sections, a bracket having upper and lower downwardly projecting wings, an outwardly inclined pivot pin pivotally mounted at its upper end in the upper wing of the bracket, a plate adjustable on the lower wing of the bracket and in which the lower end of the pin is mounted, and a pivotal connection between the pin and the inner end of the inner section of the arm.

2. An awning-arm comprising a pair of folding sections, a bracket having upper and lower downwardly projecting wings, an outwardly inclined pivot pin pivotally mounted at its upper end in the upper wing of the bracket, a plate adjustable on the lower wing of the bracket and in which the lower end of the pin is mounted, and an adjustable connection between the pin and the inner end of the inner section of the arm.

3. An awning-arm comprising a pair of folding sections, a bracket having upper and lower downwardly projecting wings the latter of which has a longitudinal slot, an outwardly inclined pivot pin pivoted at its upper end in the upper wing of the bracket, a plate on the lower wing of the bracket and in which the lower end of the pin is mounted, an arm on the plate projecting through the slot of the lower wing, an adjusting bolt on the bracket engaging the arm, and a pivotal connection between the pin and the inner end of the inner section of the arm.

4. An awning-arm comprising a pair of folding sections, a bracket having upper and lower downwardly projecting wings the latter of which has a longitudinal slot and a downturned end, an outwardly inclined pivot pin pivoted at its upper end in the upper wing of the bracket, a plate on the lower wing of the bracket and in which the lower end of the pin is mounted, an arm on the plate projecting through the slot of the lower wing, an adjusting bolt in the end of the lower wing of the bracket engaging the arm, and a plate pivoted on the pin and adjustably connected to the inner end of the inner section of the arm.

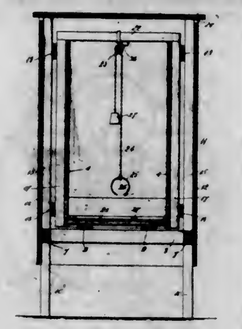
5. An awning-arm comprising a pair of folding sections, a bracket, a pivot pin adjustably mounted on the bracket and outwardly inclined toward its top end, and a plate pivoted on the pin and adjustably connected to the inner end of the inner section of the arm.

[Claims 6 to 14 not printed in the Gazette.]

1,075,386. DEVICE FOR ELECTROCUTING ANIMALS. HUNTINGTON SMITH, Dedham, Mass. Filed Feb. 3, 1912. Serial No. 675,380. (Cl. 175—311.)

1. In an electrocuting apparatus for animals, a cage consisting in part of an insulated receptacle having at the bottom thereof a floor of some electric-conducting material forming a terminal of an electric circuit, means forming another terminal of said circuit within said cage, the same comprising a movable attachment of some conducting material attachable to an animal within the cage to be in electrical contact therewith and permit freedom of movement of the animal within the cage, and other connections in circuit with said floor and movable attachment, respectively, whereby an electric current may be applied to an animal standing on said floor and held by said movable attachment.

2. In an electrocuting apparatus for animals, a cage comprising in part an insulated receptacle having an opening therein, and inside said cage separate terminals forming part of an electric circuit and arranged whereby an animal inside said cage has contact respectively therewith, a door closing the opening into said receptacle, other connections in circuit with said terminals, and means whereby the circuit may be completed only after closing said door.



3. In an electrocuting apparatus for animals, a cage comprising in part an insulated receptacle having an opening therein, and inside said cage separate terminals arranged whereby an animal inside said cage has contact respectively therewith, a door closing the opening into said receptacle, wires adapted to form a part of a high tension electric circuit connecting, respectively, inside said cage with said terminals, contact members forming a part of a low tension circuit in electrical connection with said high tension circuit whereby a current may be completed through said high tension circuit upon completing said low tension circuit, and means whereby said low tension circuit may be completed through said members only after closing said door.

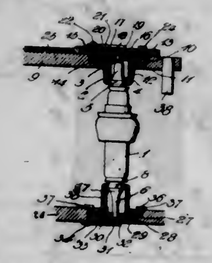
4. In an electrocuting apparatus for animals, a cage comprising in part an insulated receptacle having at the bottom thereof a floor of some electric-conducting material, a flexible leash of some electric-conducting material arranged inside the cage and extending into said receptacle to be attachable to an animal to be in electrical contact therewith, the said leash and floor being adapted to form a part of an electric circuit.

5. In an electrocuting apparatus for animals, a cage comprising in part an insulated receptacle having at the bottom thereof a floor of some electric-conducting material, a leash of some electric-conducting material having on the end thereof a collar attachable to an animal, said collar having on the inside thereof a contact-making member in electrical connection with said leash, a pulley over which said leash is adapted to run, a weight carried by the other end of said leash, and wires adapted to form a part of an electric circuit connecting respectively with said pulley and said floor.

[Claims 6 and 7 not printed in the Gazette.]

1,075,387. BALANCE-STAFF FOR WATCHES. TEOFIL SOKOLOWSKI, St. Louis, Mo., assignor of one-half to Edward F. Maritz, St. Louis, Mo. Filed July 11, 1912. Serial No. 708,920. (Cl. 58—140.)

1. In combination, a face plate provided with an opening having the wall thereof provided with an annular shoulder, a bottom plate having an opening, a staff having an annular groove at a point removed from each end thereof and that portion outwardly with respect to the groove tapering and merging in a reduced terminus to provide a pivot, a flanged protecting sleeve mounted against said shoulder and projecting from said face plate and extending into the groove at the upper end of the staff, a flanged protecting sleeve seated in and projecting from the bottom plate and extending into the groove at the lower end of the staff, a pair of jewels abutting against the flanged end of each sleeve, one of said jewels being provided with an opening for the passage of a pivot and the other of said jewels having a socket for the reception of the pivot, said sleeves coöperating with said plates for maintaining the staff in position.



2. A balance wheel staff for watches having its ends reduced to form pivots, upper and lower balance wheel supporting plates having apertures therein, upper and lower hole jewels arranged in said apertures and adapted to receive the ends of said pivots, cap jewel holders engaged with said hole jewels, cap jewels arranged in said holders and adapted to form thrust bearings for the ends of the pivots, an upper centering collar arranged in the aperture of said upper support, an upper holder centering ring arranged in said collar, and a jewel holder spring secured at one end to said centering collar and at its other end to said upper cap jewel holder, said spring spanning said centering ring and adapted to engage and yieldingly support the cap jewel holders in place.

3. A balance staff for watches having its ends reduced to form pivots, annular enlargements formed on the inner ends of said pivots, said enlargements being beveled above and below to form sharp annular shoulders, balance wheel supporting plates having apertures therein, jewels yieldingly secured in said apertures to receive said pivots, whereby the staff is yieldingly and revolubly supported, pivot protecting sleeves having flanged outer ends engaged with and secured in the apertures of said plates, whereby said sleeves are supported in position to encircle said annular shoulders and to hold the pivots of the staff against lateral movement in any direction forming a bearing with which the sharp annular shoulders on the enlargements of the pivots are engaged when the balance wheel shaft is jarred in a lateral direction.

4. A balance wheel staff for watches having its ends reduced to form pivots, balance wheel supporting plates having apertures therein, hole jewels arranged in said apertures and adapted to receive the ends of said pivots, cap jewel holders engaged with said hole jewels, cap jewels arranged in said holders and adapted to form thrust bearings for the ends of the pivots, a jewel centering collar arranged in the aperture of one of said supports, a centering ring arranged in said collar, a V-shaped jewel holder spring secured at one end to said centering collar and having its arms engaged with said cap jewel holder, whereby the latter and the pivot supporting jewels are yieldingly held in position.

1,075,388. SKYLIGHT CONSTRUCTION. JEFFERSON D. THOMPSON, Washington, D. C. Filed Jan. 18, 1912. Serial No. 671,809. (Cl. 108—16.)

1. In a sky-light construction, the combination with a plurality of purlins, of a plurality of astragals supported on said purlins, each astragal being formed of a number of sections fastened at their upper ends each to a purlin and slidable freely at their lower end within the upper ends of the sections below.

2. In a skylight construction, the combination with a plurality of purlins, of a plurality of astragals supported on said purlins, each astragal being formed of a number of sections fastened at their upper ends each to a purlin and slidable freely at their lower ends within the upper ends of the sections below, and chairs or clips secured to the upper ends of the sections and to the purlins, each chair in position to support the free slidable end of an astragal section.



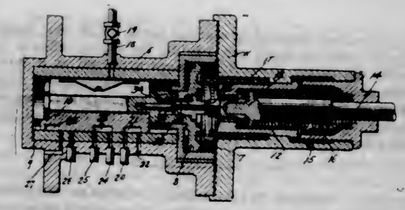
3. In a skylight construction, the combination with a plurality of purlins, of a plurality of astragals supported on said purlins, each astragal being formed of a number of sections each slidable freely at their lower ends within the upper ends of the sections below, a chair or clip fixed on the upper end of each section having a seat supporting the free end of the section above, and means for fastening the chairs to the purlins.

4. In a skylight construction, the combination with a plurality of purlins, of a plurality of astragals supported upon said purlins, each astragal comprising a plurality of overlapping independently movable sections, and a clip or chair secured on one end of each section and fastened to a purlin, each chair having a seat for the free overlapping end of the adjacent section.

5. In a skylight construction, the combination of a plurality of purlins, of a plurality of astragals supported on said purlins, each astragal comprising a number of overlapping independently movable sections, a clip or chair secured on the upper end of each section and fastened to a purlin, each chair having a seat within which the free lower end of the overlapping section may slide longitudinally and rock in a vertical plane, plates of glass each yieldingly supported at its side edges by a section of adjacent astragals and free to move and rock with said sections independently of other sections and plates, and means for holding the plates on the supporting sections.

[Claims 6 to 19 not printed in the Gazette.]

1,075,389. EMPTY AND LOAD BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 14, 1912. Serial No. 677,612. (Cl. 188—11.)



1. In an empty and load brake, the combination with a valve mechanism having positions for empty and load braking and subject on one side to fluid under pressure, of a manually operated device for effecting the movement of said valve mechanism to its different positions and means controlled by said device for equalizing the fluid pressures on opposite sides of said valve mechanism.

2. In an empty and load brake, the combination with a valve having positions for empty and load braking and a piston subject on one side to fluid under pressure for operating said valve, of a manually operated device for controlling the operation of said piston and a valve operated by said device for controlling the equalization of fluid under pressure to the opposite side of said piston.

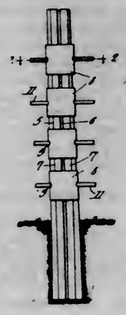
3. In an empty and load brake, the combination with a valve having positions for empty and load braking, a piston subject on one side to fluid under pressure for operating said valve, and an equalizing valve for controlling communication from one side of the piston to the opposite side, of a manually operated device for controlling the operation of said piston and adapted in the empty position to maintain said equalizing valve open.

4. In an empty and load brake, the combination with a valve having positions for empty and load braking, a piston subject on one side to fluid under pressure for operating said valve, and an equalizing valve for controlling communication from one side of the piston to the opposite side, of a manually operated device for controlling the operation of said piston and adapted in the empty position to maintain said equalizing valve open and in the load position to permit said valve to close.

5. In an empty and load brake, the combination with a valve having a position for empty and a position for load braking, a piston, subject on one side to fluid under pressure and on the opposite side to the pressure of a chamber, for operating said valve, and a valve for effecting the equalization of fluid pressures on opposite sides of said piston, of a valve for venting fluid from said chamber to effect the movement of said piston and adapted in its closed position to open the valve for equalizing the fluid pressures on opposite sides of said piston.

[Claim 6 not printed in the Gazette.]

1,075,390. FENCE-POST. JOSEPH WELFLE, Hamler, Ohio. Filed Mar. 3, 1913. Serial No. 751,851. (Cl. 256—55.)

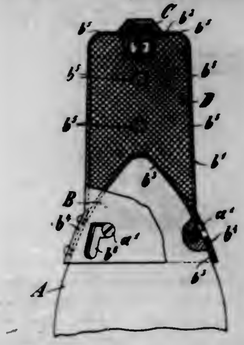


A fence post embodying a sheet metal blank bent longitudinally into a shell and having its edges reflexed to provide oppositely projecting flanges arranged at a large obtuse angle relative to each other, and sheet metal clips having slotted ends to receive wires and forming tongues adapted to be bent over the flanges, the edges of the flanges being adapted to be dented by the wires.

1,075,391. PROJECTILE WITH VISIBLE TRAJECTORY. KARL WIESER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Jan. 25, 1913. Serial No. 744,224. (Cl. 102—29.)

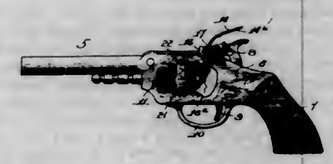
1. In a projectile carrying a charge for tracing its trajectory; a housing for said charge constructed to be easily detachable from the point of the projectile; the external shape of said housing being such, that the trajectory will remain practically unchanged if the projectile is fired with or without said charge from a gun with the identical propelling charge and the same elevation.

2. In a projectile carrying a smoke producing charge for tracing its trajectory; a housing for said charge comprising a base conforming in shape to the point of the projectile, a body slightly tapered forward and orifices in the side of said body to emit the smoke from the burning charge fixedly attached to said base and a top carrying a fuse; L-shaped slits in the housing and studs in the point of the projectile registering with said slits for



easily detaching the housing from the projectile; the shape of said housing being such that the trajectory will be practically unchanged, under otherwise similar firing conditions, whether the projectile carries the housing or not.

1,075,392. TOY PISTOL. CHARLES A. BAILEY, Cromwell, Conn. Filed Jan. 11, 1912. Serial No. 670,596. (Cl. 42—57.)



1. A toy-pistol having a casing the opposite sides of which are cut away below the anvil against which the hammer strikes and one of the sides having a vertical slot at one side of the anvil, a roll of fulminate-tape mounted in the casing and the outer end thereof passed over the anvil, and a hammer for exploding the caps against said anvil, substantially as shown and described.

2. A toy-pistol having openings through opposite sides below the anvil against which the hammer strikes, and one of the sides having a vertical slot at one side of the anvil, a roll of fulminate-tape mounted in the pistol with its outer end passed up over the anvil, and engaging shoulders bearing lightly against the edge of the tape to press it against the anvil, together with a hammer for exploding the caps, substantially as shown and described.

3. A toy-pistol having a casing a side of which is cut away, a pin projecting from the opposite side of the casing into the latter, a roll of fulminate-tape mounted in said casing on said pin and having its outer end passed up over the anvil, and a strip of spring metal pivoted to the side of the pistol above the opening to bear against the outer end of the pin and engage the side of the pistol at the lower end of the opening; together with a hammer for the pistol to explode the fulminate-caps against the anvil, substantially as shown and described.

1,075,393. TOY PISTOL. CHARLES A. BAILEY, Cromwell, Conn. Filed June 17, 1912. Serial No. 704,205. (Cl. 42—57.)

1. A toy-pistol having an anvil against which the hammer strikes, a chamber in the pistol in front of and below the anvil, an opening leading from the chamber out at the lower part of the pistol above the trigger-guard, a passage leading from the lower part of the pistol to the anvil and open at one side, and a retaining-lip at the upper end of the open side of the passage; together with a hammer for exploding the caps against the anvil.

2. A toy-pistol made in two sections to provide an anvil and a chamber in front of and below said anvil, with an



opening for the chamber at the lower part of the pistol, one of the sections having an offset portion forming a feed-passage below the anvil, said feed-passage being open at one side, a lip above the open side of the feed-passage, and a hammer for exploding the caps against the anvil, substantially as shown and described.

1,075,394. DETACHABLE TAB FOR COLLARS. CHARLES PENRUDDOCKE BAND, Toronto, Ontario, Canada. Filed Mar. 29, 1912. Serial No. 687,077. (Cl. 2—67.)



1. In a collar of the stand-up turn-down type having a neck band and an outer turned down fold, a pocket formed in the turned down fold, and a tab having a loop thereon adapted to be removably inserted within said pocket.

2. A collar comprising a neck band and an outer turned down fold, a pocket formed between said neck band and said outer turned down fold, and a tab detachably secured to said pocket.
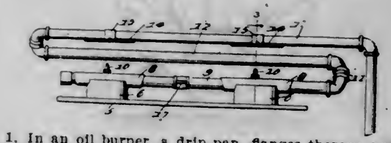
3. A collar of the stand up turn down type having detachable tabs on the outer edge adapted to fit beneath the vest of the wearer.

1,075,395. RACK. NORMAN C. BEEGLE, Pen Argyl, Pa. Filed Feb. 13, 1913. Serial No. 748,160. (Cl. 45—13.)



A rack of the class described comprising a plurality of telescopically connected sections, a plurality of supporting legs pivotally connected to the lowermost section, a tubular member detachably connected to the uppermost section, said tubular member being provided with furcations, shafts supported by the furcations and having their ends terminating in hooks, flanged members supported by the shafts, and garment supporting loops connected to the ends of the flanges of said members, as and for the purpose set forth.

1,075,396. OIL-BURNER. LOUIS BOATWRIGHT, Paducah, Ky. Filed July 9, 1913. Serial No. 778,057. (Cl. 158—63.)



1. In an oil burner, a drip pan, flanges thereon and extending therefrom to form air channels, said flanges having recesses in their upper edges forming seats, troughs in the seats, a burner pipe supported in the troughs, burners applied to the burner pipes and in communication with the interior thereof, means for supplying fuel to the burner pipe, said means comprising lengths of fuel pipes parallel with the burner pipe, and deflecting shields suspended from one of the said supply pipes in position to deflect the heat from the burners to the other of the said fuel supply pipes whereby the fuel delivered to the burner pipe is vaporized.

2. In an oil burner, a drip pan, troughs, means for supporting the troughs above the drip pan, a burner pipe in the troughs, said burner pipe having nipples forming burners, fuel feed pipes parallel with each other and with the burner pipe, said burner pipe and fuel feed pipes being on different planes, and combined shields and deflectors suspended from one of the fuel pipes over the said burners and adjustable to deflect the heat for vaporizing the fuel delivered by the said fuel pipes.

1,075,397. AMUSEMENT APPARATUS. LOUIS CLAUDE JOSEPH BOURACIER, Balham, London, England. Filed Dec. 3, 1912. Serial No. 734,761. (Cl. 104—111.)



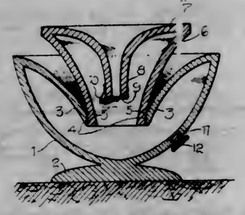
1. In an amusement device of the class described the combination with a plurality of track sections, one section being arranged above the other, a hinged section secured to one of said tracks and adapted to swing down in engagement with the other track, a counterbalancing weight coöperating with said hinged section of said track for normally holding the same in a horizontal position, a lever secured to an adjacent track, a car adapted to travel upon said tracks and engage said lever for automatically swinging said hinged section of said track to its normal position after a car has been removed therefrom.

2. In a device of the class described the combination with a plurality of track sections, one of said sections provided with a hinged section, an operating lever carried by the other track, link members connected to said operating lever and said hinged section for automatically returning the same to its normal position after a weight has been removed therefrom.

3. In an amusement device of the class described the combination with a plurality of tracks, one track being arranged above the other, the upper track being provided with a hinged door, a car adapted to travel upon said upper track and move upon said door whereby said car may be discharged from said upper to said lower track, a returning lever pivotally secured to said lower track, a trigger suspended below said lower track, and

lever means connected to said trigger and door for returning said door to its normal position after a weight has been removed therefrom.

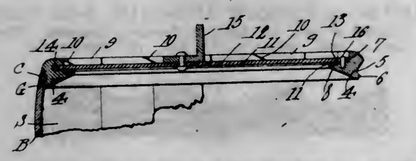
1,075,398. CUSPIDOR. MINNIE A. BROWN, Saltillo, Miss., assignor of one-half to J. W. Jones, Saltillo, Miss. Filed Mar. 24, 1913. Serial No. 756,582. (Cl. 4—38.)



1. A receptacle having a depending inner wall, a cover secured in the depending wall and having a flared upper end, the edge of which is above and inwardly of the upper edge of the receptacle, forming a chamber between said receptacle and cover, and means for closing the cover.

2. A device of the character described comprising a receptacle having an outer wall and an inner wall depending from the upper edge of the outer wall and spaced therefrom, a cover for the receptacle provided with a depending wall removably engaged in the lower end of the depending wall of the receptacle, forming a chamber between the inner wall of the receptacle and the wall of the cover, a tubular depending throat within the cover and formed by a continuation of the inner wall of said cover, the upper end of the cover being above and inwardly of the upper edge of the receptacle, and means for closing the lower end of the throat.

1,075,399. BARREL-HEAD. REDDEN O. CARTER, Sanderson, Fla. Filed Apr. 23, 1912. Serial No. 692,639. (Cl. 217—76.)

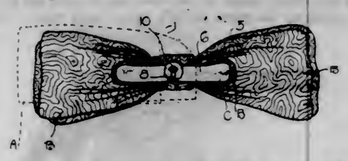


A barrel closure embodying a rim seatable in the chine of a barrel and having a primary and a secondary rabbet and a series of lips over-hanging and parallel with the primary rabbet and arranged relatively close together, one of the ends of each of the lips being beveled, a gasket fitting in the secondary rabbet flush with the primary rabbet, a flat head having series of flat peripheral lips arranged relatively close together, the latter lips being designed to pass between the former lips, to seat in the primary rabbet, and being designed to swing tightly under the former lips, the periphery of the head resting on the gasket, and stops secured in the primary rabbet adjoining the unbeveled ends of certain of the former lips.

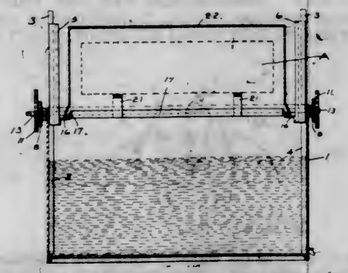
1,075,400. NECKTIE-HOLDER. FRANK CATUOGNO, New York, N. Y. Filed Mar. 5, 1913. Serial No. 752,189. (Cl. 24—56.)

1. A device of the character described comprising a necktie engaging plate, a clamping plate having its intermediate portion offset and secured to the first mentioned plate, a U-shaped button engaging member having one of its arms secured to the outer face of the first mentioned plate, the opposite arm of said button engaging member being bifurcated and arranged over the offset portion of said clamping plate, as and for the purpose described.

2. A device of the character described comprising a necktie engaging plate, a clamping plate having its intermediate portion offset for engagement with said necktie engaging plate, and a U-shaped engaging member having one of its arms secured to one face of the first mentioned plate intermediate of its ends, the opposite arm of said button engaging member extending over the offset portion of said clamping plate, as and for the purpose described.



1,075,401. DEMONSTRATING DEVICE. HUGH D. CLARK, Columbus, Ohio. Filed June 24, 1912. Serial No. 705,499. (Cl. 35—12.)



1. A demonstrating device comprising a tank for fluid, a hood-like member adapted for disposition in said tank, means for reciprocating said member in said tank, and means for supporting an article above the level of the lower edge of said member.

2. A demonstrating device comprising a tank for fluid, a hood-like member mounted to reciprocate within said tank, means for reciprocating said member and means for supporting an article above the level of the lower edge of said member.

3. A demonstrating device comprising a tank for fluid, a hood-like member resembling a burial vault mounted to reciprocate within said tank, means for reciprocating said member and brackets for supporting a casket above the level of the lower edge of said member.

4. A demonstrating device comprising a tank for fluid, a supporting shelf, a hood-like member carried by said shelf, means for reciprocating said shelf, and means for supporting an article above the level of the lower edge of said member.

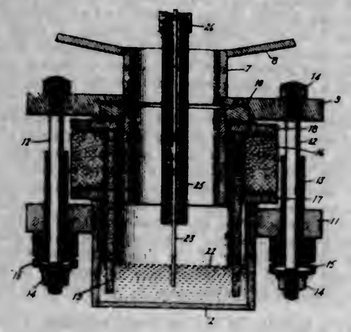
5. A demonstrating device comprising a tank for fluid, a supporting shelf, a hood-like member carried by said shelf, means for locking said member on said shelf, means for reciprocating said shelf and means for supporting an article above the level of the lower edge of said member.

[Claims 6 to 8 not printed in the Gazette.]

1,075,402. VAPOR ELECTRIC DEVICE. FRANCIS P. COFFIN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 25, 1913. Serial No. 744,059. (Cl. 171—253.)

1. In a vapor electric device, a main evacuated metal arc chamber, a mercury cathode, a metal chamber therefor, vacuum-tight insulation between said chambers, and a lining of refractory material for said cathode chamber, said lining overlapping the insulation separating said chamber from the main arc chamber.

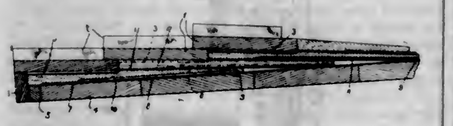
2. In a vapor electric high powered rectifier, a main evacuated metal chamber, a mercury cathode, a metal chamber therefor opening into said main chamber, vacuum-tight insulation between said chambers, and a refractory insulating sleeve interposed between said insulation and the active surface of the cathode.



3. A vapor electric device comprising communicating evacuated metallic chambers, at least one anode in one of said chambers, and a mercury cathode in the adjoining chamber, a vacuum-tight insulating seal between said chambers at a point removed from said cathode, a barrier of insulating material lining the cathode chamber overlapping with said seal and inclosing the active portion of the cathode and a wall of metal confining the arc.

4. In a vapor electric device, a main evacuated metal container, a communicating metal chamber, an easily vaporizable cathode therein, vacuum-tight insulation between said chambers, a sleeve of refractory material confining the active portion of said cathode, and arc-directing means projecting from said main chamber, and projecting into said sleeve.

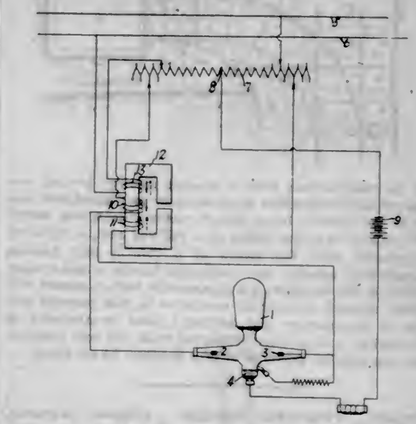
1,075,403. CONCRETE-SHINGLE MOLD. FREDERICK B. COLE, Longbeach, Cal. Filed Jan. 23, 1913. Serial No. 743,827. (Cl. 25—118.)



1. In a shingle forming mold of the character described, the combination of a series of mold boards adapted to be placed one above the other in overlapping engagement, a plurality of cleats secured to the upper surface of said boards and adapted to limit their overlapping engagement, a series of creasing members secured to the lower surface of said boards to form creases in the shingles, and means to separate the successive courses of shingles thereby permitting said courses to be formed before the preceding courses have set or hardened.

2. A shingle forming mold of the character described comprising a series of boards having on their upper sides cleats adapted to form supports for the boards of the successive molds, creasing strips secured to the lower sides of said boards and adapted to form creases in the shingles to represent cracks between the shingles, of the mold boards from the courses formed by the preceding boards, and shingle fastening rods adapted to be secured at their upper ends to the roof and to be embedded in the courses of shingles when the latter are formed thereby independently fastening the courses of shingles to the roof.

1,075,404. IMPEDANCE DEVICE FOR USE WITH CURRENT-RECTIFIERS. FRANK CONRAD, Swissvale, and YASUDIRO SAKAI, East Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 10, 1912. Serial No. 670,526. (Cl. 171—253.)



1. The combination with current-rectifying apparatus, of an inductive device having two windings respectively traversed by alternate half waves of the alternating current to be rectified and another winding traversed by both half waves of said current, the flux produced by the latter winding alternately supplementing those produced by the other windings.

2. The combination with current-rectifying apparatus, of an inductive device having two windings respectively traversed by alternate half ways of the alternating current to be rectified and another winding traversed by both half waves of said current.

3. The combination with a transformer, and current rectifying apparatus supplied therefrom, of an inductive device having windings respectively included in connections between the transformer and the rectifying apparatus and a winding in the primary circuit of the transformer, the flux produced by the said winding alternately supplementing those produced by the other windings.

4. The combination with a transformer, and current rectifying apparatus supplied therefrom, of an inductive device having windings respectively included in connections between the transformer and the rectifying apparatus and a winding in the primary circuit of the transformer.

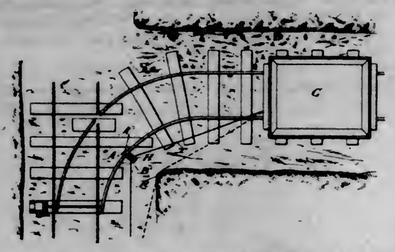
5. The combination with current-rectifying apparatus having anodes and a cathode, and a transformer having an intermediate point of its winding connected to the cathode of the rectifying apparatus, and other points connected to its anodes, of an inductive device having windings respectively included in the connections to the anodes and a third winding traversed by the primary current of the transformer, the flux produced by the said winding alternately supplementing those produced by the other two windings.

[Claims 6 to 8 not printed in the Gazette.]

1,075,405. CABLE-SAVING DEVICE. JOHN DAILEY and DOMINICK BERTOLINO, Hepzibah, W. Va. Filed July 5, 1913. Serial No. 777,574. (Cl. 104—18.)

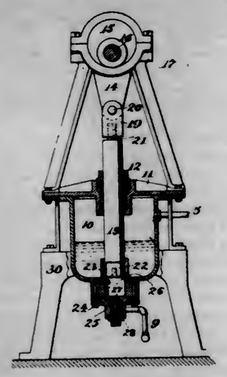
1. In combination with a bracket member having portions which are parallel to each other and apertured, one end of the member being bent to form a hook and adapted to engage over the flange of a railway rail, a plate for engagement with the flange of a rail, means for holding said plate against said member, a bolt passing through

registering apertures in the parallel portion of the member, and a roller journaled upon said bolt, as set forth.



2. In combination with a bracket member having portions which are parallel to each other and apertured, one end of the member being bent to form a hook and adapted to engage over the flange of a railway rail, a plate for engagement with the flange of a rail, a bolt passing through said member and plate and having a head countersunk in the member, a nut upon the bolt, a second bolt passing through registering apertures in said parallel portions of the member and having a head countersunk in the member, and a roller journaled upon the bolt intermediate the parallel portions of said member, as set forth.

1,075,406. PUMPING DEVICE. JOSEPH DAVIDSON, East Point, Ga., assignor of one-half to American Machine & Manufacturing Company, a Corporation of North Carolina. Filed Mar. 23, 1912. Serial No. 685,710. (Cl. 103—75.)

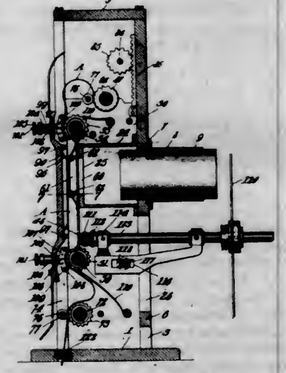


1. In a machine of the character described, the combination of an inclosed receiver provided at the top with a stuffing-box having a gland acting as a guide and at the bottom with a cylinder extending above and below the lowest part of the interior of the receiver said cylinder having constantly open ports through its side walls adjacent to the bottom of the receiver and an eduction port opening from the bottom of the cylinder, a check valve in said eduction port to permit the discharge from the cylinder but prevent back flow thereto, a vertical plunger forming a close sliding joint through the stuffing-box and gland and having its lower part guided in the cylinder, said plunger shaped to be capable of being withdrawn from the cylinder through the stuffing-box and its gland without opening the receiver, and power devices arranged above the receiver and its stuffing-box and jointed to the upper end of the plunger for reciprocating the plunger, the gland of the stuffing-box taking the lateral and oblique thrust of the plunger due to the operation of the power devices.

2. In a machine of the character described, the combination of an inclosed receiver provided at the top with a stuffing-box having a gland acting as a guide and at the bottom with a cylinder extending above and below the lowest part of the interior of the receiver said cylinder having constantly open ports through its side walls adjacent to the bottom of the receiver and an eduction port opening from the bottom of the cylinder, a check valve in said eduction port to permit the discharge from the cylinder but prevent back flow thereto, a vertical plunger forming a close sliding joint through the stuffing-box and gland and having its lower part guided in the cylinder, said plunger shaped to be capable of being withdrawn from the cylinder through the stuffing-box and its gland without opening the receiver, a head adjustably screwed upon the upper end of the plunger, a transverse shaft, an eccentric secured to the shaft, an eccentric strap operated by the eccentric and hinged to the head and by which the plunger is reciprocated, the adjustment between the head and the plunger arranged to adjust the distance from the bottom of the plunger to the axis of the shaft whereby the lower end of the plunger may be adjusted in respect to the closeness of its approach to the bottom of the cylinder.

3. In a machine of the character described, a receiver for fluid having a guiding stuffing-box at its upper part combined with a cylinder fitting through the bottom part of the receiver and extending up into the same and having transverse openings through its side walls adjacent to the bottom of the receiver, a cylinder head bolted to the bottom of the cylinder and to the receiver and having a valve controlled eduction port, a cylindrical plunger guided through the stuffing-box at the top of the receiver and having a packing ring around its lower end and guided in the cylinder, and power devices above the receiver and stuffing-box for reciprocating the plunger.

1,075,407. MOVING-PICTURE MACHINE. OLIVER P. M. DAVIS, Bedford, Ind. Filed Apr. 5, 1911. Serial No. 619,127. (Cl. 88—16.)



1. A machine of the class described including a combined guide and supporting structure, a housing connected to the structure and having an exposure window therein, film guide rollers connected to said housing, means for yieldingly pressing the edge portion of a film upon the rollers.

2. In a machine of the class described the combination with a supporting structure having an exposure window, of anti-friction devices connected to the structure and adjacent the window, means for holding the edge portion of a film upon said devices, and fixed guide devices for holding the film against lateral movement while passing the window.

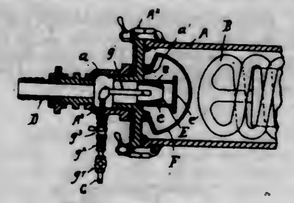
3. A machine of the class described including a supporting structure having a window, parallel guide strips connected to the structure and arranged at opposite sides of the window, outstanding guide ribs upon the strips for holding a film against lateral movement, anti-friction devices carried by said strips, and means for yieldingly clamping the edge portions of a film upon said anti-friction devices and holding them between the ribs.

4. In a machine of the class described, a supporting structure having a window, a structure mounted on the supporting structure, a backing plate carried by the second structure, guide strips connected to the supporting structure and lapping the backing plate, anti-friction devices carried by the guide strips, and yielding means for clamping the edge portions of a film upon said anti-friction devices, said backing plate having an elongated slot through which the window is constantly exposed.

5. A machine of the class described including a fixed supporting structure, a second structure carried thereby, said fixed structure having a window, anti-friction devices arranged adjacent opposite sides of the window, means for holding a film against lateral movement upon said devices, an apertured door movably connected to said second structure, and yielding means carried by the door for pressing the edge portions of a film upon the anti-friction devices.

[Claims 6 to 10 not printed in the Gazette.]

1,075,408. COMBINED COOLER AND CARBONATOR FOR LIQUIDS. HENRY E. DECKEBACH, Cincinnati, Ohio. Filed Jan. 2, 1909. Serial No. 470,454. (Cl. 209—14.)

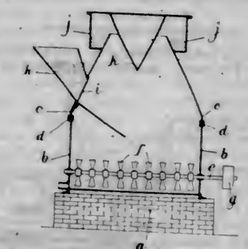


1. In combination in a carbonator for liquids, a cylindrical casing having an inlet port, a sprayer head mounted on the interior of the casing over the port, a liquid delivery pipe communicating with the port, a nozzle communicating with the port, a perforated baffle plate in front of said nozzle and inclosed by the sprayer head, a gas pipe projecting into said fluid delivery pipe and terminating in the nozzle and a perforated disk over the end of the pipe.

2. A carbonator and cooler for liquids, comprising a cylindrical casing, a liquid agitating and cooling coil located therein, a carbonator head having a liquid inlet port and removably secured to the casing, a nozzle secured to the head over the liquid inlet port, a liquid inlet pipe communicating with the liquid inlet port, a gas inlet pipe having a perforated disk over the end of said pipe, located within the liquid inlet pipe and projecting into the nozzle, a perforated baffle plate located near the opening of the nozzle, and a perforated sprayer head secured to the carbonator head and inclosing the liquid inlet port, the gas inlet pipe, the nozzle and the perforated baffle plate.

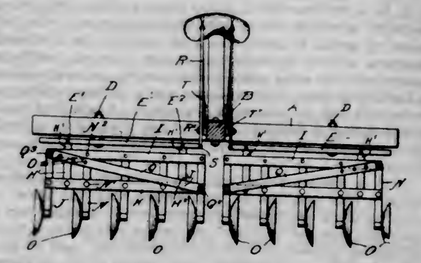
1,075,409. TREATMENT OF ORES. NICOLAS HENRI MARIE DEKKER, Paris, France. Filed Sept. 15, 1911. Serial No. 649,549. (Cl. 75—18.)

The process for the treatment of ores of the character described, which consists in mixing with the dry ore in a closed container, a reagent comprising a metallic sulfate and concentrated sulfuric acid, maintaining the temperature of the mixture above normal to preserve liquefaction of the reagent, agitating the mass until the non-metallic ore constituents are dispelled, adding water to



the residue to form a solution, and separating the metals from the solution thus formed.

1,075,410. DISK CULTIVATOR. LEWIS A. DRUMMOND, Preston, Minn. Filed Apr. 29, 1913. Serial No. 764,403. (Cl. 55—81.)



A disk harrow apparatus comprising, in combination with a harrow frame, a horizontally swinging lever pivotally mounted upon the frame, bars pivoted to said lever, a harrow disk frame comprising two parallel bars with disk carrying knees pivotally connecting the same and to one of which parallel bars said bar which is pivoted to the lever has pivotal connection, a diagonally disposed bar pivoted at its inner end to the inner one of said disk carrying knees and to one of said parallel bars and at its outer end adjustably connected to the outermost of said knees and to the other of said bars, and means for swinging said lever, as set forth.

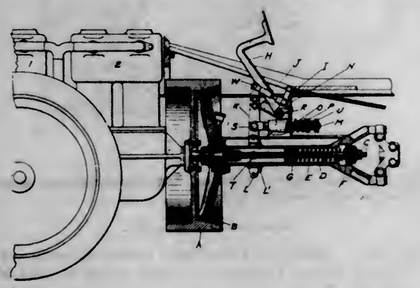
1,075,411. HEDDLE. CARL ENGER, Mülheim-on-the-Rhine, Germany, assignor to Felten and Guilleaume-Lahmeyerwerke Actien Gesellschaft, Mülheim-on-the-Rhine, Germany. Filed Aug. 5, 1910. Serial No. 575,804. (Cl. 139—14.)



A heddle consisting of two round wires twisted together above and below the loop for the warp-thread, such loop being furnished with a split eye also formed of round

wire of substantially the same thickness as that of the wires before referred to; the said split eye being forced into the loop, wherein it is retained by its own resilience.

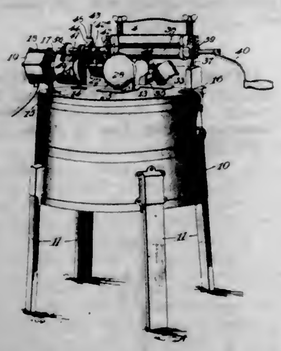
1,075,412. CLUTCH. JUSTUS B. ENTZ, Philadelphia, Pa. Filed Aug. 11, 1905. Serial No. 273,745. (Cl. 192—8.)



1. In a friction clutch, the friction surfaces, one being movable into and out of frictional engagement with the other, a spring to apply pressure between the frictional surfaces, a lever to move one of said frictional surfaces away from the other against the pressure of said spring, a floating fulcrum for said lever and a spring tending to move said fulcrum against the pressure of said first mentioned spring, a pedal and connections adapted to operate the outer end of said lever, substantially as shown and described.

2. In a friction clutch, the friction surfaces one being movable into and out of engagement with the other, a lever to move one of said surfaces out of engagement, a pedal and link connection to the end of said lever, a floating spring pressed fulcrum intermediate the ends of said lever, and a spring opposing the motion of the opposite end of said lever and tending to force the movable clutch member to bring the frictional surfaces into engagement.

1,075,413. OPERATING MECHANISM FOR WASHING AND WRINGING MACHINES. RALPH B. GOODRICH, Cincinnati, Ohio, assignor to The Eagle Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 23, 1909. Serial No. 519,125. (Cl. 74—50.)



1. In operating mechanism of the character described, the combination with an oscillatory driven member, of a rotary driven member, an oscillatory motor, gearing connecting the motor with the oscillatory driven member, and gearing connecting the motor with the rotary driven member, said latter gearing including means for transforming oscillatory motion to rotary motion, and means for alternately connecting the rotary driven member and oscillatory member to, and disconnecting them from, the motor.

2. In operating mechanism of the character described, the combination with an oscillatory driven member, of a rotary driven member, an oscillatory motor, gearing connecting the motor with the oscillatory driven member, gearing connecting the motor with the rotary driven member, said latter gearing including means for transforming oscillatory motion to rotary motion, and means for alternately connecting the rotary driven member and oscillatory member to, and disconnecting them from, the motor.

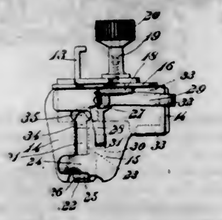
3. In operating mechanism of the character described, the combination with an oscillatory motor having a driving shaft, of an oscillatory driven member geared to the shaft, ratchet wheels journaled on the driving shaft, dogs mounted on the shaft and alternately acting on the ratchet wheels, and a rotary driven member geared to and continuously receiving motion from the ratchet wheels.

4. In operating mechanism of the character described, the combination with a base and a movable element associated therewith, of a driven member mounted on the movable element, a motor mounted on the base and detachably engaged gears connecting the motor and driven member and carried respectively by the base and movable element, said gears automatically disengaging when the movable element is moved.

5. In operating mechanism of the character described, the combination with a base, a movable element carried thereby, of a motor, a driven member, and means automatically operable by the movable element to effect the connection and disconnection of the motor and driven member.

[Claims 6 to 16 not printed in the Gazette.]

1,075,414. SEWING-MACHINE BRAIDER OR CORDER. HUBERT M. GREIST and EMANUEL J. BOYLER, New Haven, Conn., assignors to The Greist Manufacturing Company, a Corporation of Connecticut. Filed Apr. 6, 1912. Serial No. 688,906. (Cl. 112—3.)



1. A sewing machine braider or corder consisting of two plates having flanges or lips to provide between them a guiding passage, one of the said plates being slidingly mounted relative to the other, combined with a bell-crank adjusting lever suitably pivoted to one of said plates and having a lip engaging the other of said plates, so as to be adapted to slide the adjustable plate laterally relative to the fixed plate in such a manner as to maintain the said flanges or lips in parallel relation to each other in all positions of adjustment.

2. A sewing machine braider or corder consisting of two plates having flanges or lips to provide between them a guiding passage, one of the said plates being adjustably mounted relative to the other, combined with a bell-crank adjusting lever suitably attached to one of said plates and having a portion engaging the other of said plates, so as to be adapted to move the adjustable plate laterally relative to the fixed plate, one arm of said adjusting lever being provided with a spring loop engaging portions of both of said plates and thereby serving to maintain them and said lever in any desired positions of adjustment.

3. A sewing machine braider or corder consisting of two plates having flanges or lips to provide between them a guiding passage, one of the said plates being slidingly mounted relative to the other, combined with a bell-crank adjusting lever suitably pivoted to one of said plates and

having a lip engaging the other of said plates, so as to be adapted to slide the adjustable plate laterally relative to the fixed plate in such a manner as to maintain the said flanges or lips in parallel relation to each other in all positions of adjustment, said slidable plate having a spring lip overlying said passage and provided with an upturned end beneath which a braid or cord may be drawn into the said guiding passage.

4. A sewing machine braider or corder consisting of two plates having flanges or lips to provide between them a guiding passage, one of the said plates being adjustably mounted relative to the other, combined with a bell-crank adjusting lever suitably attached to one of said plates and having a portion engaging the other of said plates, so as to be adapted to move the adjustable plate laterally relative to the fixed plate, one arm of said adjusting lever being provided with a spring loop engaging portions of both of said plates and thereby serving to maintain them and said lever in any desired positions of adjustment, and said adjustable plate having a spring lip overlying said passage and provided with an upturned end beneath which a braid or cord may be drawn into the said guiding passage.

5. The combination with a presser foot, of a braider or corder comprising a normally fixed part or plate, means for adjustably securing said fixed plate or part directly to the shank of the said presser-foot so that it may be adjusted laterally on said shank in a plane transverse to the feed of the work and to the position of the needle, and an adjustable plate which may be moved laterally relative to said fixed plate, said plates being provided with vertical lips or flanges serving as side walls of a guiding passage the width of which may be varied by moving the said adjustable plate laterally relative to said fixed plate, and means for holding the said adjustable plate in any desired position relative to said fixed plate.

[Claim 6 not printed in the Gazette.]

1,075,415. COMPENSATION DEVICE FOR VEHICLE SUSPENSION. RENÉ GUILLERY, Aubervilliers, France, assignor to Société des Etablissements Mallcet et Blin, Aubervilliers, France. Filed Mar. 25, 1913. Serial No. 756,757. (Cl. 21—97.)



1. In a funicular compensating device for the suspension systems of vehicles, the combination with hangers on the frame, of double levers pivoted to the said hangers for supporting with one of their arms and, by means of shackles, the corresponding ends of the springs, cables connecting respectively the other arms of the double levers arranged on one and the same side of the vehicle, and means for connecting together the said cables.

2. In a funicular compensating device for the suspension systems of vehicles, the combination with hangers on the frame, of double levers pivoted to the said hangers for supporting by means of shackles the corresponding ends of the springs, cables arranged longitudinally of the frame and having their ends secured to the arms of the double levers arranged on one and the same side of the vehicle, and means for connecting together the longitudinal cables transversely of the frame.

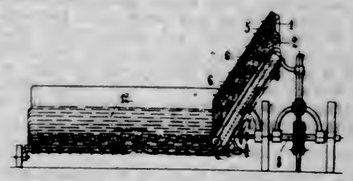
3. In a funicular compensating device for the suspension systems of vehicles, the combination with hangers on the frame, of double levers pivoted to the said hangers for supporting by means of shackles the corresponding ends of the springs, cables arranged longitudinally relatively to the frame and having their ends secured to the arms of double levers arranged on one and the same side of the vehicle, guide pulleys for each of the cables so as to form loops which are arranged transversely of the frame, pulleys adapted to maintain the loops properly stretched and adjustable means for connecting together the said tension pulleys.

4. In a funicular compensating device for the suspension systems of vehicles, the combination with hangers on the frame, of double levers pivoted to the said hangers for supporting by means of shackles the corresponding ends of the springs, tables arranged longitudinally relatively to the frame and having their ends secured to the arms of double levers arranged on one and the same side of the vehicle, guide pulleys for each of the cables, adapted to form loops arranged transversely of the frame, a bracket for each of the said guide pulleys, tension pulleys arranged at either side of the longitudinal plane of symmetry of the frame for maintaining the loops of the cables properly stretched, shackles for the said pulleys and a turn-buckle between the said shackles.

5. In a funicular compensating device for the suspension systems of vehicles, the combination with hangers on the frame, of double levers pivoted to the said hangers for supporting by means of shackles the corresponding ends of the springs, cables arranged at either side of the frame and having their ends secured to the arms of double levers arranged at the same side of the vehicle, guide pulleys for each of the cables adapted to form loops arranged transversely of the frame, brackets secured to the frame, pins pivoted to the said brackets adapted to support guide pulleys having grooves arranged in the direction of the corresponding section of the cable, fixed pulleys arranged at either side of the longitudinal plane of symmetry of the frame, for the purpose of maintaining the loops of the cables suitably stretched, shackles for the said pulleys, and a turn-buckle between the said shackles.

[Claim 6 not printed in the Gazette.]

1,075,416. THRESHING-MACHINE. GEORGES ERHARD MARIE GUY-BERNARD DE SALABERRY, Fossé, France. Filed June 23, 1910. Serial No. 568,436. (Cl. 130—27.)

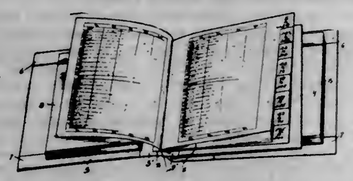


In a threshing machine, the combination of a machine frame, an inclined stationary frame supported on the rear part of machine frame and having rods supported thereon, a reciprocating frame slidably mounted in the machine frame in close proximity to the stationary frame and movable in a plane parallel thereto, gratings on said reciprocating frame, upper and lower pairs of inclined parallel shafts journaled in the end of said stationary and reciprocating frames, means for turning the lower shafts in opposite directions, pulleys on said shafts, belts passed over the pulleys of corresponding shafts of each pair, a conveyer terminating near the lower shaft, a crank-shaft below the reciprocating frame, links connecting the crank-shaft and said reciprocating frame, and means for rotating the crank-shaft.

1,075,417. BOOK-SIGNATURE, PAMPHLET, &c. GEORGE D. HART, Chicago, Ill. Filed July 1, 1912. Serial No. 706,933. (Cl. 11—17.)

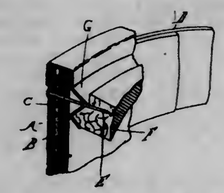
The combination with a book, of a supplemental signature therefor, consisting of a plurality of leaves, a paster-strip secured intermediate its edge to extend along the rear edge of said signature and permanently fastened to the latter by the same stitching which binds the signa-

ture-leaves together, an adhesive coating applied to the outside of said paster-strip, and the free edges of said



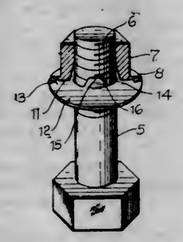
paster-strip laid flat against the inside of said book and directly secured to the latter by said adhesive coating.

1,075,418. REINFORCED PACKAGE. HENRY C. HERR, Detroit, Mich., assignor, by mesne assignments, to Fiber Barrel Machinery & Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 25, 1910. Serial No. 594,074. (Cl. 229—3.)



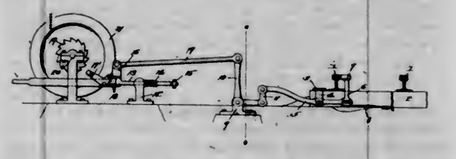
In a package, the combination with a body formed of a plurality of plies of flexible material wound together, of heads within the end portions of said body, several of said plies being formed of fibrous material of comparatively heavy stock, and one of the plies comprising metallic reinforcing bands of comparatively light gage metal wound intermediate said several plies and completely covered thereby, each of said bands being positioned to overlap its respective head and extend within the body beyond the head whereby shearing of the body adjacent the head is prevented, and said ply also including a connection between the bands inclosed by fibrous plies, the latter being cemented together intermediate the bands in the area not covered by said connection.

1,075,419. NUT-LOCK. ELMER E. HICKERSON, McComb, Ohio, assignor of one-half to Floyd Anderson, McComb, Ohio. Filed Mar. 1, 1913. Serial No. 751,564. (Cl. 151—19.)



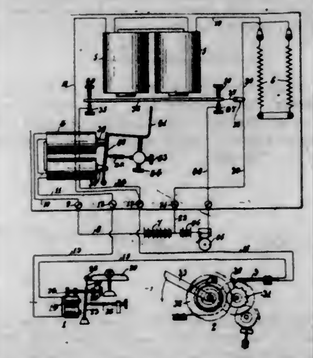
The combination with a bolt, of a nut having a threaded bore for engagement upon the bolt, said bore being flared at one of its ends, a washer plate having a central opening to receive the bolt shank and spring lugs extending from the edge of said opening at diametrically opposite points and provided upon their opposed faces with teeth extending longitudinally of the bolt shank, said lugs being engaged by the wall of the flared end of the bore in the nut when the nut is threaded into engagement with the washer plate to force the teeth upon said lugs into biting engagement with the threads on the bolt shank, and coengaging means upon the washer plate and the nut to lock the same together.

1,075,420. RAILROAD TRACK-MOTOR. EDGAR W. HOOVER and JOHN A. COLEMAN, Danville, Ky. Filed Oct. 24, 1912. Serial No. 727,599. (Cl. 185—33.)



A device of the kind described comprising a power shaft, a ratchet arranged thereupon, a reciprocating rod, a pawl pivotally carried by said rod and adapted to operatively engage said ratchet upon movement of the rod in one direction, a spring adapted to move the rod in the other direction, and means operated by the passage of car wheels for moving the rod in the direction in which the pawl operatively engages the ratchet wheel.

1,075,421. ELECTRIC SIGNALING SYSTEM. RICHARD M. HOPKINS, New York, N. Y., assignor to The American District Telegraph Company, a Corporation of New Jersey. Filed Jan. 27, 1913. Serial No. 744,825. (Cl. 178—50.)



1. The combination with a normally closed signaling circuit, of a source of electrical energy adapted in the normal condition of the circuit to supply a relatively small current; a signal instrument in the circuit responsive only to a relatively large current; a current changer operating to vary the current in said circuit and thereby operate the signal instrument; normally energized electromagnetic means arranged when deënergized to operate the current changer; automatic means for restoring the current changer to normal condition after the sending of a signal, and a switch instrument controlling said electromagnetic means.

2. The combination with a normally closed signaling circuit, of a source of electrical energy adapted in the normal condition of the circuit to supply a relatively small current thereto, a signal instrument in the circuit responsive only to a relatively large current, means including an electromagnetically actuated switching device for increasing the current in the circuit, and electromagnetic means for automatically restoring the current changer to normal condition after the sending of a signal.

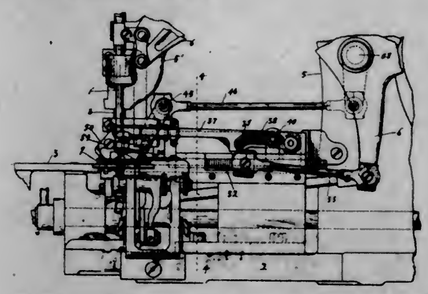
3. The combination with a normally closed signaling circuit, of a source of electrical energy adapted in the normal condition of the circuit to supply a relatively small current; a signal instrument in the circuit responsive only to a relatively large current; a current changer operating to vary the current in said circuit and thereby operate the signal instrument; electromagnetic means for operating the current changer comprising a high resistance magnet in the normally closed signal circuit for holding the current changer in normal position and a low resistance restoring magnet for returning the current changer to normal position; and a switch instrument controlling said electromagnetic means.

4. The combination with a normally closed signaling circuit, of a source of electrical energy adapted in the normal condition of the circuit to supply a relatively small current; a signal instrument in the circuit responsive only to a relatively large current; a current changer operating to vary the current in said circuit and thereby operate the signal instrument; electromagnetic means for operating the current changer comprising a high resistance magnet for holding the current changer in normal position and a low resistance restoring magnet having a slow acting armature arranged to mechanically move the current changer into normal position; and a switch instrument controlling said electromagnetic means.

5. The combination with a normally closed signaling circuit, of a source of electrical energy adapted in the normal condition of the circuit to supply a relatively small current; a signal instrument in the circuit responsive only to a relatively large current; a current changer operating to vary the current in said circuit and thereby operate the signal instrument; electromagnetic means normally on closed circuit for operating the current changer comprising a maguet in the normally closed signal circuit for holding the current changer in normal position and a restoring magnet for returning the current changer to normal position; and an automatically operating make-and-break signal transmitter in the signal circuit and controlling said electromagnetic means.

[Claims 6 to 17 not printed in the Gazette.]

1,075,422. TRIPLE-SEAM-SEWING MACHINE. ROBERT R. HUGHES, Jr., Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed Apr. 15, 1912. Serial No. 690,803. (Cl. 112—24.)



1. In a sewing machine the combination of means for folding in one direction the edge of a piece of work lengthwise, and automatically movable means independent of said first means for folding the said folded edge in the opposite direction also lengthwise.

2. In a sewing machine, the combination of means for folding together in juxtaposition the edges of several plies of material and independent and automatically operative means for infolding the so folded edges and comprising means movable transversely of the line of travel of the material.

3. In a sewing machine, the combination of means for folding the edge of the work and means for infolding such folded edge and comprising means movable transversely of the line of travel of the work and also movable with the work, and means for imparting thereto such movements.

4. In a sewing machine, the combination of means for folding the edge of the work and means for infolding such folded edge lengthwise of the previously folded edge and comprising a movable foot, and means for automatically reciprocating said foot in the direction of the travel of the work toward and from the needle.

5. In a sewing machine, the combination of means for folding the edge of the work lengthwise and means for infolding such folded edge lengthwise and comprising a movable foot, means for reciprocating said foot toward and from the needle, and means for shifting said foot transversely of its plane of reciprocatory movement.

[Claims 6 to 56 not printed in the Gazette.]

1,075,423. TELEPHONE HAND SET. ROY R. IRELAND, East Orange, and ALBERT F. F. GILSON, Closter, N. J., assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Apr. 1, 1913. Serial No. 758,214. (Cl. 179—103.)



1. In a telephone hand-set, the combination with a transmitter and a receiver, of a supporting member therefor having a back portion and two end portions, a cover therefor forming with said supporting member a complete inclosure, and spring mounting blocks carried by said supporting member.

2. In a telephone hand-set, the combination with a transmitter and a receiver, of a supporting member therefor comprising a metal stamping having a back portion and two end portions, spring mounting blocks carried by said back portion, and a cover comprising a stamped member forming with said back portion and said end portions a complete inclosure for said spring mounting blocks.

3. In a telephone hand-set, the combination with a transmitter and a receiver, of a support therefor comprising a metal stamping having a back portion and two end portions, spring mounting blocks carried by said back portion, and a metal stamping comprising a top portion and two side portions completing with said support an inclosure for said mounting blocks.

4. In a telephone hand-set, the combination with a transmitter and a receiver, of a supporting member therefor bent intermediate its ends to form three sides of an inclosure, a cover for completing said inclosure, switch springs, a mounting block therefor located within said inclosure, and externally controlled means for operating said switch springs.

5. In a telephone hand-set, the combination with a transmitter and a receiver, of a support therefor bent intermediate its ends to form the bottom and two ends of an inclosure, a removable cover therefor forming the top and two sides of said inclosure, switch springs, a supporting block therefor mounted upon said transmitter and receiver support, and a plunger member for operating said springs flexibly supported upon the interior of said cover and extending therethrough.

[Claim 6 not printed in the Gazette.]

1,075,424. ROCK-DRILL. CORWILL JACKSON, Madison, Wis., assignor to General Electric Company, a Corporation of New York. Filed May 31, 1910. Serial No. 564,042. (Cl. 255—69.)



1. A percussion drill steel having a continuous spiral conveyer provided with integral lugs projecting outwardly from the conveyer edges, and a cutting bit of greater diameter than the diameter of the said conveyer, the diameter of the integral lugs being greater than that of the conveyer.

2. A percussion drill steel having a continuous spiral conveyer provided with integral radial stirring lugs upon the conveyer edges, and a cutting bit of greater diameter than the diameter of said conveyer, the diameter of the integral lugs being greater than that of the conveyer.

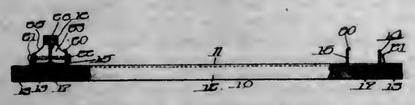
3. A percussion drill steel having a cutting bit and a continuous spiral conveyer provided with integral lugs provided with faces whose edges are substantially at right angles to the axis of the drill projecting outwardly from the conveyer edges and extending to approximately the diameter of the cutting bit.

4. A twist percussion drill steel continuous spiral conveyer which is provided with integral stirring lugs projecting outwardly from the conveyer edges and whose cutter is greater than the diameter of the conveyer, the diameter of the lugs being greater than that of the conveyer.

5. A twist percussion drill steel having a bit and conveyer flanges provided with outwardly projecting cutting lugs having their leading faces disposed transversely to the spiral flanges and whose cutter is greater than the diameter of the conveyer flanges, the diameter of the lugs being greater than that of the flanges.

[Claim 6 not printed in the Gazette.]

1,075,425. RAILWAY METAL TIE AND RAIL-FASTENING. FRANK JAGER, Chicago, Ill. Filed Jan. 3, 1913. Serial No. 739,964. (Cl. 238—5.)



1. The combination of a metallic tie body having rail seating portions intermediate its ends, and provided with a lug or projection at each side of a rail seating portion in engagement with the base flange of a rail and extending upwardly in a substantially parallel relation with each other to permit ready seating of the rail, and a rail head supporting brace seated and secured between each of the said lugs or projections and the sides and base of the rail.

2. A fastening for flanged rails consisting of a metallic tie body having rail base retaining lugs at each side of the rail seating portion and upset in parallelism, a rail brace interposed between one side of the rail and a lug and seated on the rail flange to extend upwardly in supporting engagement with the rail head, and a clamping element detachably connecting the brace with said base retaining lug all coöperating to hold the rail against displacement.

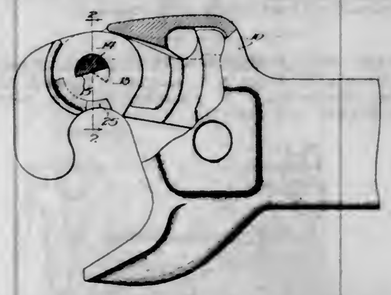
3. A fastening for flanged rails consisting of a metallic tie body having rail base engaging upset lugs at either side of the rail seating portion, and a rail head supporting brace seated on the rail flange and wedging between a lug and the rail side, said brace further having a portion of its upper rail head supporting face inclining downwardly from the head to engage with an inwardly bent portion of one of the lugs, all so arranged to permit the ready positioning of rails, substantially as described.

4. A railway tie body having a horizontal web forming rail seating portions, rail-base engaging inner and outer lugs formed from rail seating portions and extending upwardly in substantially parallel relation, said outer lugs having reinforcing portions angularly disposed thereto and extending upwardly from the web, thereby preventing rail displacement or spreading of the lugs; substantially as described.

5. As an article of manufacture a railway tie body of commercial iron, the horizontal web of which provides seating portions for rails, and rail holding lugs of an inverted U shape formed from the said web seating portions to leave a tapered integral bridging strip in rail seats, said integral strip forming part of the rail support; substantially as described.

[Claim 6 not printed in the Gazette.]

1,075,426. CAR-COUPLING AND PIVOT-PIN THEREFOR. ROBERT E. L. JANNEY, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,571. (Cl. 213—65.)

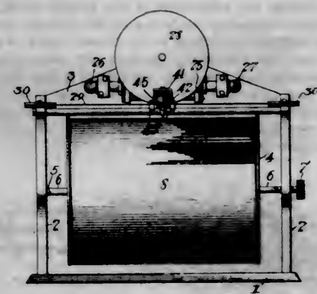


1. In a car coupler, the combination of a coupler head having knuckle attaching lugs, a knuckle, said lugs and knuckle having registering perforations, the perforation through said knuckle being substantially semi-circular, and a pivot pin having for at least a portion of its length a cross-section conforming to the area of the perforation in said knuckle, substantially as described.

2. In a car coupler, the combination of a coupler head having knuckle attaching lugs, a knuckle, said lugs and knuckle having registering perforations, the perforation through said knuckle being substantially semi-circular and having its major axis substantially in line with the longitudinal axis of said head, and a pivot pin having for at least a portion of its length a cross-section conforming to the area of the perforation in said knuckle, substantially as described.

3. A car coupler including a coupler head having knuckle attaching lugs, a knuckle, said lugs and knuckle having registering perforations, the width of the knuckle perforation transversely of the head being less than the width of said perforation longitudinally of the head, a combined draft and pivot pin conforming in shape to and fitting snugly in the perforation of the knuckle, and means to relieve strains from the pin transversely of the coupler, substantially as and for the purpose described.

1,075,427. RECORDING-METER. PAUL LANHAM, Lanham, Md. Filed Nov. 16, 1912. Serial No. 731,768. (Cl. 234—20.)



1. A meter comprising a recorder, a fluid column variable with the force to be measured, a contact positively movable into and out of said fluid column, and electrical mechanism controlled by the movement of withdrawal of said contact in the fluid column for operating said recorder.

2. A meter comprising a recorder including a moving record sheet and a marking device reciprocating across said sheet, a column of liquid variable with the variations in the force to be measured, a contact movable into and out of said liquid column in synchronism with said marking device, and electrical mechanism controlled by the movement of said contact for operating said marking device.

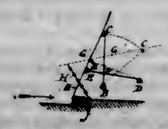
3. A meter comprising a recorder including a moving record sheet and a marking device reciprocating across said sheet, a column of liquid variable with the variations in the force to be measured, a contact movable periodically into and out of said liquid column, and electrical means operable during the movement of the contact from a point of immersion below the surface of the liquid column and the point of emersion of said contact for effecting an actuation of said recorder.

4. A meter comprising an electrically conductive column of liquid variable with the variations in the force to be measured, a recorder, an electric circuit including the liquid column controlling the recorder, and a contact in said circuit positively movable into and out of said liquid column and operable upon leaving the liquid in said column to actuate the recorder.

5. A meter comprising an electrically conductive column of liquid variable with the variations in the force to be measured, a recorder, an electric circuit normally retracting the record making element of the recorder, a second circuit including the liquid column, a contact in said second circuit movable into and out of said liquid column and operable upon leaving the liquid in said column to actuate the recorder.

[Claims 6 to 10 not printed in the Gazette.]

1,075,428. CROSS-HUNG SELF-BALANCING SLUICE OR VALVE GATE. GUSTAVE LARSON, Buenos Aires, Argentina. Filed Mar. 23, 1912. Serial No. 685,830. (Cl. 61—47.)

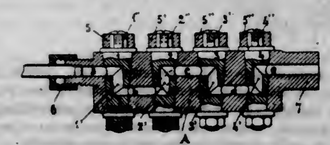


1. In a sluice gate structure, the combination of a sluice way provided with a gate abutment, a sluice gate, rods on the down stream side of the gate disposed in crossed relation and having their ends pivotally connected with the gate, and pivotal mountings for the remaining ends of the rods adapted to be fixed in a given position, the crossing or point of intersection of said rods being at all times below the center of gravity of said gate, substantially as described.

2. In a sluice gate structure, the combination of a sluice way provided with a gate abutment, a sluice gate, rods on the down stream sides of the gate and disposed in cross relation and having their ends pivotally connected with the gate, and pivotal mountings for the remaining ends of the rods adapted to be fixed in a given position, the crossing or point of intersection of said rods being at all times below the center of gravity, and means for limiting the opening movement of the gate, substantially as described.

3. In a sluice gate structure, the combination of a sluice way provided with a gate abutment, a sluice gate, rods disposed in crossed relation and having their ends pivotally connected with the gate, and pivotal mountings for the remaining ends of the rods adapted to be fixed in given positions, the crossing or point of intersection of said rods being at all times below the center of gravity of the gate, substantially as described.

1,075,429. STOP-COCK FOR MOTOR-VEHICLES. JEAN MAZUEL, Paris, France. Filed Feb. 3, 1913. Serial No. 746,056. (Cl. 137—7.)



1. In a stop cock, the combination with a unitary cock casing, of a plurality of non-contiguous cock plugs, a common bore controlled by said cock plugs, a common datum on the cock casing, and a plurality of signs on each of said cock plugs of which one sign is selected by its relation to said datum to denote the open position of its cock plug said signs constituting a series combination which can be broken up by rotating said cock plugs out of their open positions whereby in order to open said cock it is necessary to rotate each of said cock plugs into a position in which the series of signs on said cock plugs reproduce in their relation to said datum the combination which denotes that all the cock plugs and therefore the stop cock is open.

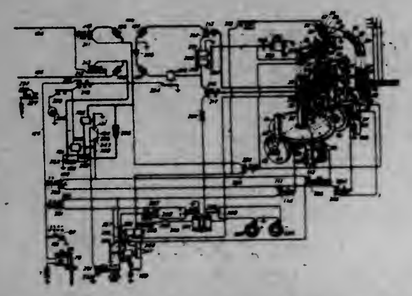
2. In a stop cock, the combination with a unitary cock casing, of a plurality of non-contiguous cock plugs, a common bore controlled by said cock plugs, a common datum on the cock casing, a member revolubly adjustable on the projecting end of each of said cock plugs and bearing a plurality of characters, and means for fixing each of said members in the position on its cock plug in which any selected character on that particular member denotes in its relation to said common datum that its cock plug is open.

3. In a stop cock, the combination with a unitary and longitudinally-extending cock casing of a plurality of non-contiguous cock plugs and a common bore composed of Z-shaped portions in said cock plugs and straight portions in the cock casing, a common datum line on the cock casing, a member revolubly adjustable on the projecting end of each of said cock plugs and bearing a plurality of characters, and means for fixing each of said members in the position on its cock plug in which any selected character on said member denotes in its relation to said common datum that its cock plug is open, the Z-shaped portions of the common bore preventing the insertion of a wire through same for the purpose of ascertaining the open positions of said cock plugs.

4. A combination stop-cock, consisting of a unitary member having a continuous passageway extending longi-

tudinally therethrough and having also a plurality of transverse valve-seats intersecting said passageway, and a rotary plug-valve fitted into each seat and having a stem at its outer end and having also a transverse opening adapted to register with said passageway, and a radially-adjustable block secured upon each stem and presenting a plurality of characters or symbols, the correspondingly-located characters or symbols on the respective blocks being in a straight line.

1,075,430. TELEPHONE-EXCHANGE SYSTEM. FRANK R. MCBERTY, New Rochelle, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 23, 1910. Serial No. 573,517. (Cl. 179—27.)



1. The combination with a selector, a test circuit therefor, means for closing said test circuit during two periods to make a double test, and mechanism for controlling said selector adapted to respond in a different manner to current flow in said circuit during said two periods.

2. The combination with a selector, a test circuit therefor and a responsive device included in said circuit, of an apparatus controlled in two modes by said responsive device, means for closing said test circuit, and means for governing the mode of control of said apparatus by said responsive device.

3. The combination with a selector, a test circuit therefor and a responsive device included in said circuit, of an apparatus controlled by said responsive device, means for maintaining said test circuit closed during several periods, and means operating to change the mode of control of said apparatus by said responsive device in one of said periods.

4. The combination with a selector, a test circuit therefor and two responsive devices included in said circuit, of an apparatus jointly controlled by said responsive devices, means for maintaining said test circuit closed during several periods, and means operating to vary the mode of control of said apparatus by said responsive devices in said periods.

5. The combination with a selector, a test circuit therefor and two responsive devices included in said circuit, each of said devices being responsive to current of a particular characteristic, of an apparatus controlled jointly by said responsive devices, means for closing said test circuit, and means adapted to change the mode of control of said apparatus by said responsive devices.

[Claims 6 to 25 not printed in the Gazette.]

1,075,431. AUTOMATIC REPEATING FIREARM. ADOLPHUS C. MCCLURE, Keithville, La. Filed Dec. 17, 1912. Serial No. 737,307. (Cl. 42—3.)

1. An automatic repeating firearm, having a receiver, a barrel, a magazine, a trigger, a breech block slidably mounted in the receiver for an alined movement to and from the barrel, a plurality of hingedly connected members constituting a lock for the breech block and a means for retracting and projecting the same connected to the breech block and mounted within the receiver, said members being flexed due to the effect of the recoil of an exploding cartridge upon the breech block, a spring propelled hammer, a cartridge elevator mounted in the receiver and operably connected to the breech block, manually operable means for flexing the hinged members to retract the breech block, means disposed in the path of and above the hinged members for engaging and flexing the same during the retraction of the breech block, manually operable means for rendering of the elevator inactive during the manual retraction of the breech block, a spring actuated lock for rendering inactive the manually controlled flexing means, manually controlled means for actuating said lock to permit the actuation of the breech block flexing means, and means for locking the elevator in cartridge receiving position operable after the last cartridge has been delivered to the barrel.



2. An automatic repeating fire-arm, having a receiver, a barrel, a magazine, a trigger, a slidable breech block in the receiver, a hammer carried by the breech block, a firing pin, an L-shaped sear for holding the hammer set, one terminal of the sear being movable transversely of the receiver, and a sear lock for moving the transversely movable terminal of the sear into and out of the path of the trigger.

3. An automatic repeating fire-arm, having a receiver, a barrel, a magazine, a trigger, a slidable breech block in the receiver, a hammer carried by the breech block, a firing pin, an L-shaped sear for holding the hammer set, one terminal of the sear being movable transversely of the receiver, and a pivoted sear lock for moving the transversely movable terminal of the sear into and out of the path of the trigger.

4. An automatic repeating fire-arm, having a receiver, a barrel, a magazine, a trigger, a slidable breech block in the receiver, a hammer carried by the breech block, a firing pin, an L-shaped sear for holding the hammer set, one terminal of the sear being movable transversely of the receiver, a sear lock for moving the transversely movable terminal of the sear into and out of the path of the trigger, manually operated means for retracting the breech block, and a lock therefor operably connected to the sear lock.

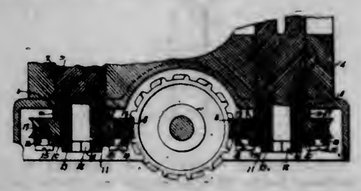
5. An automatic repeating fire-arm, having a receiver, a barrel, a magazine, a trigger, a slidable breech block in the receiver, a hammer carried by the breech block, a firing pin, an L-shaped sear for holding the hammer set, one terminal of the sear being movable transversely of the receiver, a pivoted sear lock for moving the transversely movable terminal of the sear into and out of the path of the trigger, manually operated means for retracting the breech block, and a lock therefor released when the sear is locked and locked when the sear is unlocked.

[Claims 6 to 12 not printed in the Gazette.]

1,075,432. ROTARY VALVE FOR EXPLOSIVE-ENGINES. CYRUS E. MEAD, Dayton, Ohio, assignor to The Mead Engine Company, Dayton, Ohio, a Corporation of Ohio. Filed Oct. 6, 1911. Serial No. 653,100. (Cl. 121—97.)

1. In an explosive engine having a valve chamber, a valve mounted in said chamber and having movement about a longitudinal axis, a driving member mounted exteriorly on said engine independently of said valve and having its axis substantially coincident with the axis of said valve, and an operative connection between said driving member and said valve.

2. In an explosive engine, having a valve chamber, a valve mounted in said chamber and having movement about a longitudinal axis, a driving member mounted on said engine independently of said valve and having its axis substantially coincident with the axis of said valve, and an adjustable connection between said driving member and said valve.



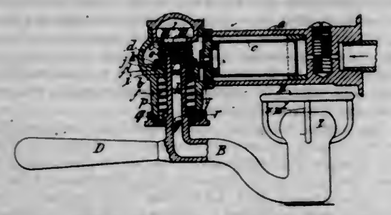
3. In an explosive engine having a valve chamber, a valve rotatably mounted in said chamber, a rotatable driving member having its axis substantially coincident with the axis of said valve, a fixed support for said driving member supported exteriorly on said engine, and a connection between said driving member and said valve.

4. In an explosive engine having a valve chamber, a valve rotatably mounted in said chamber, a rotatable driving member, a fixed support for said driving member carried by said engine, and an adjustable connection between said driving member and said valve.

5. In an explosive engine having a valve chamber, a valve rotatably mounted therein, a hollow stud rigidly secured to said engine in alinement with said valve chamber, a driving member rotatably mounted on said stud, a stem rigidly secured to said valve and extending loosely through said hollow stud, and a connection between said stem and said driving member.

[Claims 6 to 14 not printed in the Gazette.]

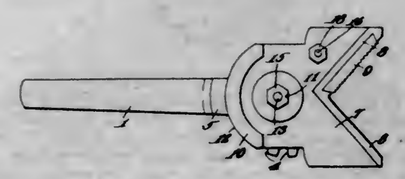
1,075,433. SANITARY DRINKING-FOUNTAIN. HENRY J. MILNER, Chicopee, Mass., assignor, by direct and mesne assignments, to Milner Manufacturing Company, a Corporation of Massachusetts. Filed Apr. 26, 1911. Serial No. 623,383. (Cl. 137—11.)



1. In a sanitary drinking fountain, a chambered casing having a water inlet, a pipe having a delivery nozzle at its one extremity and having its other extremity threaded and screw engaged in the casing, bodily movable on the line of the axis of its screw threaded part under the revoluble movement of such part, having its end portion protruding into the chamber in the casing, and having a water inlet opening at such protruding part, an inverted cup shaped valve inclosing the protruding extremity of the threaded pipe and seating on a wall of the casing for closing communication between the casing chamber and the water inlet in the pipe, and a member adjustable on the protruding end portion of the pipe and having a lost motion relation to the cup shaped valve.

2. In a sanitary drinking fountain, a chambered casing having a water inlet, a pipe having a delivery nozzle at its one extremity and having its other extremity angularly and vertically extended, formed with threads and screw engaged in the casing, having its end portion protruding into the chamber in the casing, having a water inlet port opening at the side of such protruding part, and having a screw plug adjustably engaged in its upper end, an inverted cup shaped valve inclosing the protruding extremity of the threaded pipe and seating on a wall of the casing for closing communication between the casing chamber and the said port in the pipe, and a spring for downwardly forcing the valve.

1,075,434. WRENCH. HERMAN MOON, Grove City, Pa., assignor of one-half to W. M. Dight, Grove City, Pa. Filed May 23, 1913. Serial No. 769,540. (Cl. 81—69.)



1. A wrench comprising a handle with a head portion, said head portion provided with a central slotted aperture and a plurality of peripheral notches, side plates formed with jaws at the front ends thereof, bits secured to said jaws, a spacing bolt secured to the upper portion of said side plates, a chain secured thereto, a cross pin secured to the free end of said chain adapted to fit within said notches.

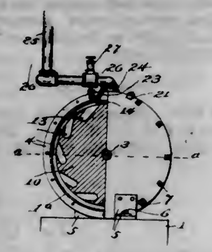
2. A wrench comprising a handle, a bifurcated head portion therefor, said head portion provided with a slotted aperture therein and a plurality of peripheral notches, side plates formed with jaws at the front end thereof, and a cam surface at the rear thereof, a cross bar secured to said handle adapted to contact with said cam-like surface of said side plates, a pivot pin extending between said side plates and through said slotted aperture, a chain secured to said plates, a cross pin secured to said chain adapted to engage in said notches.

3. A wrench comprising a handle, a cross bar at one end thereof, a head portion secured to said cross bar, said head portion provided with a slotted aperture and a plurality of peripheral notches therein, side plates formed with jaws at the front ends thereof and a cam-like surface at the rear ends thereof, a pivot pin extending between said side plates and adapted to hold the same in spaced relation, said pivot pin extending through said slotted aperture, said rear cam surface of said side plates adapted to contact with said handle cross bar, a chain secured to said side plates, a cross pin secured to the free end of said chain, adapted to engage said peripheral notches.

4. In a device of the class described, the combination of a handle, a cross bar at one end thereof, a bifurcated head portion secured to said cross bar, said head portion provided with a central slotted aperture and a plurality of peripheral notches therein, side plates formed with jaws at the front ends thereof and a cam-like surface at the rear ends thereof, said cam-like surface adapted to contact with said handle cross bar, said side plates provided with a pivot pin extending therebetween adapted to hold the same in spaced relation, said pin extending within and slidably engaging the walls of said slotted aperture, a spacing bolt secured to the upper extremity of said side plates, a chain secured to said spacing bolt, a cross pin secured to the free end of said chain adapted to engage said peripheral notches.

5. A wrench comprising a handle with a head, said head provided with outwardly extending shoulders, said head provided with slotted grooves therein, side plates including wrench jaws pivotally and slidably secured to the said head, said side plates provided with a cam-like surface contacting with the overhanging shoulders of said head, and a flexible element secured to said side plates and detachably secured to said head.

1,075,435. ROTARY ENGINE. JESSEY B. NEELEY and ROY E. NEELEY, Bighill, Ky. Filed July 8, 1913. Serial No. 777,839. (Cl. 121—56.)



1. In a rotary engine, the combination with a shaft, a fixed casing, and means upon which the shaft and the casing are mounted, of a double piston secured to the shaft within the casing, and having reverse pockets, a steam chest head secured to the casing and having steam ports leading to the pockets for revolving the piston in either direction, and means connecting the head with the piston for centralizing the latter with the head.

2. In a rotary engine, the combination with a shaft, a fixed casing, and means upon which the shaft and the casing are mounted, of a piston secured to the shaft within the casing and having two sets of pockets, a steam chest head secured to the casing and having steam ports leading to the respective pockets for revolving the piston in either direction, and a yoke secured to and depending from the head between the sets of pockets so as to divide the piston centrally and to centralize the piston with the head.

3. In a rotary engine, the combination with a shaft, a fixed casing and means upon which the shaft and the casing are mounted, of a piston having a central hub and a set of peripheral pockets on each side of the hub, a steam chest head secured to the periphery of the casing and having a projection fitting the hub space between the sets of pockets, and a yoke secured to the head so as to permit the hub to revolve in the yoke.

4. In a rotary engine, the combination with a casing, a piston revoluble in the casing and having a central hub, and a set of steam pockets in the periphery of the piston on each side of the hub, of a steam chest head secured to the periphery of the casing in contact with the piston and having steam ports leading to the pockets, and means for revolubly hanging the piston from the head comprising a yoke secured to the head and extending around the piston hub.

5. In a rotary engine, the combination with a pocketed piston having a central hub, and a fixed casing for the piston, of a steam chest head having flanges secured to the casing, induction pipes secured to and discharging through the flanges into the pockets for revolving the piston in both directions, and a yoke extending around the hub and secured to the said flanges for connecting the piston with the head.

[Claim 6 not printed in the Gazette.]

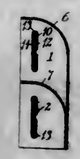
1,075,436. ELECTRIC HEATER. WALTER O. PEALE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Mar. 13, 1911. Serial No. 614,235. (Cl. 219—34.)

1. An electric heater comprising a plurality of heater units disposed one above another, and a heat reflector for each unit disposed one above another.

2. An electric heater comprising a plurality of horizontally disposed heater units located one above another, and a plurality of heat reflectors therefor.

3. In an electric heater, the combination with a plurality of parallel heater units, of a heat-reflecting wall between the units of each pair.

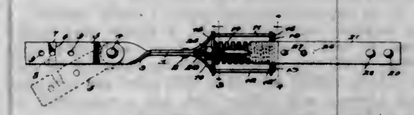
4. In an electric heater, the combination with a plurality of horizontally disposed heater units arranged one above another, of a heat-reflector for each unit adapted to prevent the heat thereof from influencing the above adjacent unit.



5. An electric heater comprising a plurality of horizontally disposed heater units arranged one above another, a curved back plate extending upwardly and forwardly over the uppermost heater unit to form a reflector therefor, a similar plate extending upwardly and forwardly over the adjacent lower heater unit, and suitable end plates to which said curved plates are attached.

[Claim 6 not printed in the Gazette.]

1,075,437. EMERGENCY DRAW-BAR. DANIEL J. PHALEN, Mason City, Iowa. Filed Feb. 24, 1913. Serial No. 750,387. (Cl. 213—61.)



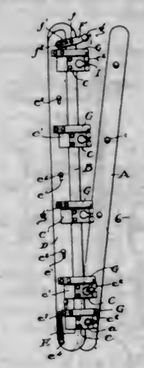
1. The herein described emergency draw bar comprising a shank member formed of a piece of strap metal bent into a substantially rectangular frame at one end of this member and having its two stretches converging from the frame into contact with each other and twisted, a rivet connecting said contacting stretches beyond said twist, and a coupling device at the other end of this member; draft plates movably mounted within said frame, an expansive spring between them; and a yoke member composed of two strap metal arms having their inner ends formed into bolts passing through the innermost draft plate and their outer ends pierced with alined holes, bolts removably passing through the latter for the purpose set forth, and stops secured to the inner faces of said yoke-arms and abutting normally against the outer face of the front draft plate.

2. The herein described emergency draw bar comprising a shank member formed of a piece of strap metal bent into a substantially rectangular frame at one end of this member and having its two stretches converging from the frame into contact with each other and twisted, a rivet connecting said contacting stretches beyond said twist, and a coupling device at the other end of this member; draft plates movably mounted within said frame, an expansive spring between them; and a yoke member composed of two strap metal arms passing the outermost draft plate and having their inner ends slidably connected with the innermost, and means for connecting the outer end of this member with a car.

1,075,438. AUTOMATIC FASTENER. ADOLPH E. POLLOCK and LOUIS ROSENBERG, New York, N. Y., assignors of one-third to Richard Franklin, New York, N. Y. Filed July 27, 1912. Serial No. 711,787. (Cl. 24—205.)

1. In a fastener of the class described, the combination with two members, studs on one member, and keepers on the other member, of a slidable releasing bar, and a series of yieldable latches movable with the releasing bar, said latches being separately spring actuated and free to yield individually to the entrance of the studs into the keepers without imparting movement to the releasing bar.

2. In a fastener of the class described, the combination with two members, studs on one member, and keepers on the other member, of separate latches yieldable individually to the pressure of the separate studs for permitting said studs to successively engage with the keepers, and releasing means for disengaging the latches simultaneously from the studs, said yieldable latches acting to admit the studs into the keepers without imparting movement to the releasing means.



3. In a fastener of the class described, the combination with two members, studs on one member, and keepers on the other member, of a releasing bar, and separate spring-actuated latches pivotally supported on the releasing bar, said latches being yieldable individually to the entrance of the studs into the keepers and without imparting movement to the releasing bar.

4. In a fastener of the class described, the combination with two members, studs on one member, and keepers on the other member, of a releasing bar, and separate latches supported on the releasing bar independently of either of said members, said latches being yieldable individually to the entrance of the studs into the keepers and without imparting movement to the releasing bar, whereby the studs may be engaged successively with the keeper.

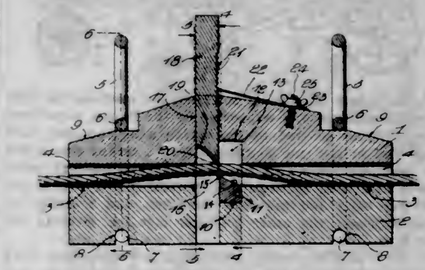
5. In a fastener of the class described, the combination with two members and a series of studs on one member, of a series of keepers on the other member, said keepers having guides at one end thereof and open ended slots, a slidable member fitting in the guides of said keepers, a series of arms on the slidable member, separate latches pivoted to the arms and positioned to close the open ends of the slots in the keepers, and means for operating the slidable member.

[Claim 6 not printed in the Gazette.]

1,075,439. CABLE-CUTTING DEVICE. WILLIAM T. QUINLIN, Coalinga, Cal., assignor of one-half to Harry W. Bedford, Coalinga, Cal. Filed Feb. 20, 1913. Serial No. 749,719. (Cl. 164—94.)

1. In a cable cutting device, a lower member having a longitudinal groove in its upper face, a transverse recess in said face across said groove, and an upright passage through its body alongside said recess and opening into the groove, an upper member having a longitudinal groove in its lower face, a transverse recess in said face registering with that in the lower member, and an upright passage through its body registering with the passage in said lower member, and means for clamping said members together; combined with a stationary bit lying in the lowermost recess with its upper end projecting into the uppermost recess and notched in its upper edge in line with said grooves, its notched portion being beveled to provide cutting edges, and a movable bit slidably mounted in said uppermost passage and having a cutting edge adapted to be moved across that of the stationary bit.

2. In a cable cutting device, the combination with a body having a longitudinal passage for the cable, a recess for the fixed bit, and a passage for the movable bit; of a spring pawl secured at one end to said body and with its yielding extremity projecting over said passage, and the movable bit mounted in such passage and provided with ratchet teeth engaging the movable end of said pawl, for the purpose set forth.

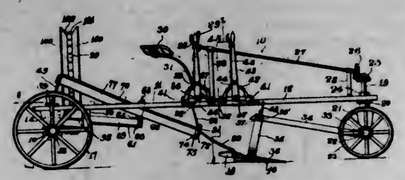


3. In a device for cutting wire cables, a body comprising separable sections having therein grooves adapted to register when said sections are brought together in operative engagement and to form a cable receiving passage, combined clamping devices and handles comprising frames having inwardly turned lugs forming the open lower sides of the frames and adapted to be engaged with one of the members of the device, cross bars arranged in said frames and adapted to be engaged with the opposing member of the device whereby said members are clamped together in operative engagement, a stationary cutting bit carried by one of said members, a movable cutting bit having a sliding engagement with the other member and adapted to co-act with said stationary member for severing the cable confined between the members of the device, and means to prevent the rebounding of the movable cutting bit.

4. In a cable cutting device a body comprising upper and lower blocks having in their engaging sides longitudinal grooves adapted to register when said blocks are brought together and to thereby form a cable receiving passage, said lower block having in its lower side transverse grooves and in its upper side a bit receiving recess and a passage, said upper block having in its lower side a recess adapted to register with the bit receiving recess of the lower block and having therein a bit receiving passage adapted to register with the passage in said lower block, clamping members adapted to be engaged with the ends of said blocks and with the grooves in the lower side of the lower block, a stationary cutting bit engaged with the registering recesses in said upper and lower blocks, said bit having therein a V-shaped notch the walls of which are beveled to form cutting edges, a movable cutting bit slidably engaged with the passage in said upper block and having its lower end curved and beveled to form a cutting edge which co-acts with the cutting edge of the stationary bit, and means to prevent the rebounding of the movable cutting bit.

5. In a device for cutting wire cables, a body comprising separable members having therein grooves, which when the members are brought together, register and form a cable receiving passage, means to clamp said sections in operative engagement around the cable, a stationary bit carried by one of said members, a movable cutting bit carried by the other member and adapted to co-act with said stationary bit to sever the cable confined between said members, ratchet teeth formed on said movable cutting bit, and a spring pawl adjustably secured to an adjacent part of the device whereby the free end of the pawl will be engaged with said teeth thereby preventing the rebounding of the bit when forced inwardly to sever the cable.

1,075,440. BEET-HARVESTER. EDWARD S. RAMSEY, Chance, Mont. Filed May 1, 1912. Serial No. 694,387. (Cl. 55—9.)



1. In a beet harvesting machine, the combination with a frame, a driven axle supported by the frame, plow members, a frame secured to the driven axle, conveyer belts supported in the last mentioned frame, means connecting the conveyer belts with the axle for rotating such belts, guides extending between the forward end of one of the conveyer belts and the plow members, and a cutter located adjacent the other conveyer belt for severing the beet tops.

2. In a beet harvesting machine, the combination with a frame including a wheeled axle, a swinging frame carried by the wheeled axle, shafts journaled in the swinging frame, means rotatably connecting the shafts with the axle, a plurality of conveyer belts mounted in the swinging frame and operated by the shafts, one of said belts being located below the other and at an angle thereto, and a beet topping knife located beneath the belts for severing the beet tops and releasing the beets from the conveyer belts.

3. In a beet harvester, the combination with a frame, a wheeled axle for the frame, a plow, beet guides carried by the plow, a swinging frame carried by the axle, conveyer belts mounted upon the swinging frame and rotatably connected to said axle, one pair of said belts being arranged at an angle to the other pair of belts, a cutter located adjacent one pair of the belts for severing the beet tops and permitting the release of the beets from the belts.

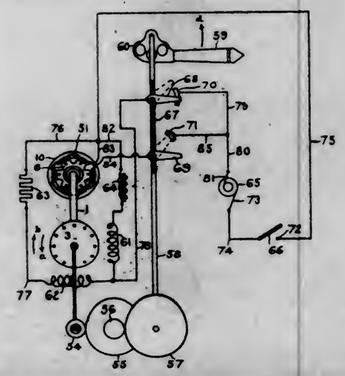
4. In a beet harvester, the combination of a frame, a plow carried thereby, a swinging frame, pairs of conveyer belts carried by the swinging frame, one of said pairs of belts being arranged at an angle to the other pair, whereby the beets lifted by one pair of belts will be transferred to the other pair of belts, and means rotatably connecting the belts with the axle.

5. In a beet harvester, the combination with a frame, of a pair of plows therefor, guides carried by the plows, an inclined belt conveyer for receiving the beets from the guides, a second belt conveyer arranged beneath the first mentioned conveyer and at an angle thereto, means for driving the conveyer belts, a beet top cutter adjacent the lower conveyer and adapted to sever the beet tops and release the beets from the conveyer and an elevator for receiving the released beets.

1,075,441. ELECTROMAGNETIC RETAINING DEVICE. GERRET REKERS, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Mar. 31, 1911. Serial No. 618,197. (Cl. 172—239.)

1. In an electro-magnetic retaining device, a field of magnetic material, an armature of magnetic material, a body adapted for rotation in either direction, means connected with said body adapted for causing relative rotation between said armature and field only when said body is rotated in one direction, and means to produce a magnetic flux between said armature and field to prevent said relative rotation, said field of magnetic material and said armature formed so that there is an intervening body of air at all times between said armature and field.

2. In an electro-magnetic retaining device, a field of magnetic material, an armature of magnetic material, a body, adapted for rotation in either direction, means for rotating said body in one direction, an element adapted for oscillation, means substantially rigidly connected with said body for causing said element to move in one direction; said element operable by gravity in the other direction to cause said body to rotate in the other direction, means connected with said body adapted for causing relative rotation between said armature and field only when said body is rotated in said other direction by said oscillating member, and means to produce a magnetic flux between said armature and field to prevent said relative rotation, said field of magnetic material and said armature formed so that there is an intervening body of air at all times between said armature and field.



3. In an electro-magnetic retaining device, a field of magnetic material, an armature of magnetic material, a body, adapted for rotation in either direction, means for rotating said body in one direction, an element adapted for oscillation, means substantially rigidly connected with said body for causing said element to move in one direction; said element operable by gravity in the other direction to cause said body to rotate in the other direction, means connected with said body adapted for causing relative rotation between said armature and field only when said body is rotated in said other direction by said oscillating member, and means to produce a magnetic flux between said armature and field to prevent said relative rotation, said field of magnetic material and said armature formed so that there is an intervening body of air at all times and solely between said armature and field.

4. In an electro-magnetic retaining device, a field of magnetic material, an armature of magnetic material, a body adapted for rotation in either direction, means for rotating said body in one direction, an element adapted for oscillation, means substantially rigidly connected with said body for causing said element to move in one direction, means connected to said oscillating element adapted when said element is fully oscillated in one direction to render inert the means for rotating said body in one direction, said element operable by gravity in the other direction and when so acting through the substantially rigid connection causing said body to rotate in the other direction, means connected with said body adapted for causing relative rotation between said armature and field in proximity one to the other when said body is rotated in said other direction by said oscillating member, and means rendered active by the oscillation of said element to its full extent in one direction by the rotation of said body in said first named direction to produce a magnetic flux between said armature and field to prevent said relative rotation and thus hold said element in its oscillated position, said armature and field being separated solely by an intervening body of air at all times.

5. In an electro-magnetic retaining device: a field of magnetic material; coils on said field; an armature of magnetic material rotatable in proximity to the said fields being separated therefrom at all times by an intervening body of air solely; an electric motor comprising an armature and a field of magnetic material having coils thereon; a shaft bearing both the said armatures; a source of current included in a circuit of which the field coils of the electric motor form a part, and in another circuit of which the coils on the first mentioned field form a part; a circuit controller common to both of said circuits; a second circuit controller included in the circuit including the field coils of the electric motor; a third circuit controller included in the circuit including the coils on the first mentioned field; an oscillatable element; connections from said shaft to said oscillatable element whereby when the common circuit controller and the said second circuit controller are in closed position current flows from the source of current to the electric motor, rotates the electric motor armature, turns the shaft, and so oscillates the oscillatable element; the said second circuit controller being moved by the oscillatable element to open position when the oscillatable element has been fully oscillated thus cutting off current to the electric motor whereupon the armature stops rotating; the third mentioned circuit controller being moved to closed position by the oscillatable element when the oscillatable element reaches the fully oscillated position whereby current flows from the source through the first mentioned field coils and a magnetic flux is generated in the first mentioned field of magnetic material which holds the said oscillatable element in moved position; said oscillatable element oscillated in another direction by gravity and through its connection causing both armatures to rotate backwardly when the common circuit-controller is in open position.

[Claim 6 not printed in the Gazette.]

1,075,442. HOE. ERNEST F. ROWLEY, Birmingham, Ala. Filed Oct. 15, 1912. Serial No. 725,895. (Cl. 55—98.)



1. In a hoe, a corrugated stem, and rays diverging therefrom, said stem and rays being positioned below the upper edge of the blade, and the blade being provided with notches adjacent to the corrugated stem.

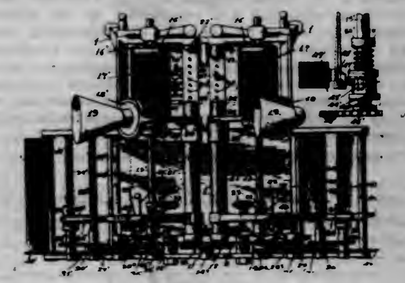
2. In a hoe, a blade having a corrugated reinforcement including a stem, and rays diverging therefrom, and a shank member including a similarly corrugated portion positioned adjacent to and welded upon the blade.

3. In a hoe, a blade having a corrugated reinforcement including a stem and rays diverging therefrom, said blade being trimmed to form notches adjacent to the corrugated stem, and a shank member having a similarly corrugated portion positioned adjacent to and welded upon the blade, said shank portion being provided with socket forming wings engaging the notches of the blade.

4. A hoe composed of two separate pieces, namely, a blade member and a shank member, said blade member having a corrugated reinforcement forming a stem and a plurality of rays diverging therefrom adjacent to the upper edge thereof, and said shank member having a similarly corrugated portion positioned adjacent to and welded upon the blade member, said shank member being also provided with wings bent rearwardly and curved transversely to form a handle receiving socket.

1,075,443. ANNUNCIATING MEANS FOR CASH-REGISTERS. GUSTAV F. W. SCHULTZE, Oakland, Cal. Filed May 9, 1912. Serial No. 696,122. (Cl. 235—7.)

1. In a coin annunciator for cash registers, the combination with the registering keys of a cash register, of a record having recorded thereon for annunciation coin indications, of means coacting therewith for announcing said indications, electrical connections between said means and the respective registering keys of a cash register for automatically shifting the position of the announcing means relative to the record in accordance with the sum represented by the operated register key, means for bringing the same to a positive state of rest on the announcement of the sum recorded in the register, and for restoring the announcing means to normal position.



2. In a coin annunciator for cash registers, the combination with the registering keys of a cash register, of a record having recorded thereon for annunciation coin indications, of means coacting therewith for announcing said indications, electrical connections between said means and the respective keys of a cash register for automatically shifting the announcing means relative to the record upon the operation of a register key, means for limiting the movement of the annunciator relative to the record in accordance with the value of the operated register key, means for bringing the annunciator to a positive state of rest on the announcement of the sum represented by the operated register key, and means for restoring the announcing means to normal position.

3. In a coin annunciator for cash registers, the combination with the registering keys of a cash register, of a record having recorded thereon for annunciation coin indications, of means coacting therewith for announcing said indications, electrical connections between said means and the respective keys of the cash register, means controlled by said electrical connections for automatically shifting the annunciator relative to the record upon the operation of a register key, means for limiting the movement of the announcing means relative to the record in accordance with the value of the operated register key, means for bringing the annunciator to a positive state of rest on the announcement of the sum represented by the operated register key, and means for restoring the annunciating means to its normal position.

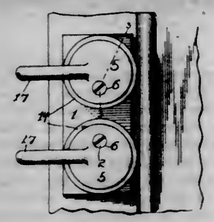
4. In a coin annunciator for cash registers, the combination with the register keys of a cash register, of a record associated with the dollar registering keys of a cash register and a record associated with the cents registering keys of a cash register, said records having respectively recorded thereon for annunciation coin indications of dollars and coin indications of cents, of means coacting with each of said records for announcing said indications, electrical connections between each of said announcing means and their respective keys of a cash register; means controlled by said electrical connections for automatically shifting the announcing means relative to their respective records upon the operation of the respective register keys, means for limiting the movement of the announcing means relative to their respective records in accordance with the value of the operated register keys, means for bringing the announcing means to a positive state of rest, means for causing announcement of the sum represented by the operated dollar register key, means operatable upon the completion of the said announcement for causing the announcement of the

sum represented by the operated cents register key, and means for returning said announcing means to their normal positions.

5. In a coin annunciator for cash registers, the combination with the registering keys of a cash register, of a record having recorded thereon for annunciation coin indications, of means coacting therewith for announcing said indications, electrical connections between said means and the respective registering keys of a cash register, means controlled by said electrical connections for automatically shifting the position of the announcing means relative to the record in disengagement therefrom and in accordance with the sum represented by the operated register key, means for throwing the announcing means and the record in engaged relation for the announcing of the sum represented by the operated register key, means for disengaging the announcing means and the record upon the completion of the announcement of the sum, and means for returning the announcing means to its normal position.

[Claims 6 to 12 not printed in the Gazette.]

1,075,444. SASH-HOLDER. THOMAS J. STARKEY, Cozad, Nebr. Filed Oct. 11, 1912. Serial No. 725,347. (Cl. 16—19.)

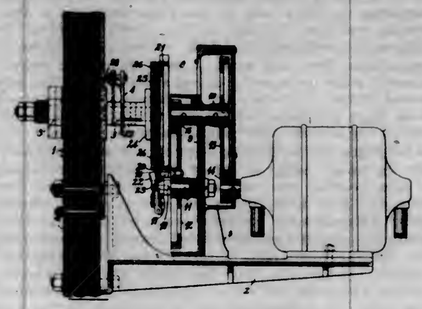


A sash holder comprising a plate, a pair of circular flanges formed thereon, said flanges having shoulders formed thereon, securing devices passable through the plate and being surrounded by the said flanges, a disk adapted for coöperation with each of said flanges, said disks having formed upon their inner faces eccentrically arranged slotted flanges adapted to surround the securing devices, a spring having its coils surrounding each securing device and its arms passing through the slotted flanges, one of said arms engaging the shoulder of the first named flange and its other arm engaging one end wall of the flange of the slotted flange, rubber disks secured to the inner faces of the first named disks for engaging the window frame, handles carried by the first named disks being operable to disengage the rubber disks from engagement with the window frame when said handles are forced toward each other, said springs serving to force the rubber disks in engagement with the window frame when the handles are released.

1,075,445. CONTROLLER FOR ELECTRIC MOTORS. HALFDAN A. STEEN, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 3, 1910. Serial No. 536,160. (Cl. 172—179.)

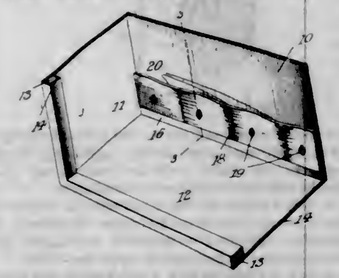
1. In a controller for electric motors, the combination with coöperating stationary and movable contact members, of an electric driving motor for the movable contact member, and an interposed driving connection comprising a gear wheel operatively connected to the movable member, a tooth-engaging means for locking the gear wheel against movement, and a single means operated by the electric motor to successively displace the tooth-engaging means and turn the gear wheel through a small angle.

2. In a controller for electric motors, the combination with a slab or face plate of insulating material, a set of stationary contact members thereon and a coöperating movable contact member, of an electric driving motor for the movable member, and an interposed driving connection comprising a gear wheel operatively connected to the contact member, means for locking the gear wheel, a continuously operating motor and a single means operated by said motor to intermittingly release the gear wheel and move it through a slight angle at each rotation of the driving motor.



3. In a controller for electric motors, the combination with a slab or face plate of insulating material, a set of stationary contact members thereon and a coöperating movable contact member, of an electric driving motor for the movable member, of an interposed driving connection comprising a gear wheel secured to and insulated from the movable contact member, a pawl for normally preventing rotation of the gear wheel, a rotatable member having a projection for withdrawing the pawl and moving the gear wheel through a slight angle at each rotation of said member, and reducing gearing between the motor and the rotatable member.

1,075,446. BOX FOR PLUMES AND SIMILAR ARTICLES. JACOB A. STEIN, New York, N. Y. Filed June 21, 1912. Serial No. 704,981. (Cl. 206—65.)

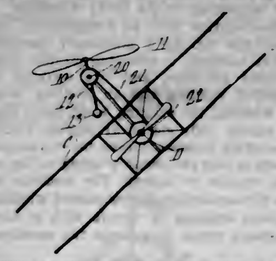


A box of the character described, provided with a bottom, an end wall having a flap that overlies the bottom and is provided with a plurality of transverse corrugations, and fasteners that secure said flap to said bottom intermediate said corrugations, whereby a series of normally open, plume-stem receiving pockets is formed between said bottom and flap.

1,075,447. EQUILIBRATOR FOR FLYING-MACHINES. EDWIN D. STEVENSON, Wadsworth, Ohio. Filed Jan. 15, 1913. Serial No. 742,290. (Cl. 244—25.)

1. The combination with an aeroplane, of a pendulum controlled helicopter supported above the center of said aeroplane and adapted to swing relative thereto, said helicopter being normally positioned to rotate in a horizontal plane, and means for rotating the helicopter in any position in which it may be supported relative to the aeroplane structure.

2. The combination with an aeroplane, of an equilibrator including a helicopter supported above the center thereof at a point fixed with relation to the frame of the aeroplane, weighted means for holding the helicopter normally in a horizontal plane of movement, and means for rotating the helicopter while the machine is in flight.



3. An equilibrator for aeroplanes including an upwardly extending shaft mounted for movement about a point fixed relative to the frame of the aeroplane and above the center of said frame, weighted means for holding said shaft normally vertical, a lifting wheel revoluble with the shaft, and means for rotating the shaft and wheel while the aeroplane is in flight.

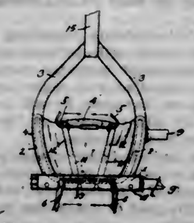
4. The combination with an aeroplane, of an equilibrator including a structure fixedly mounted on the frame of the aeroplane and extending upwardly from the center thereof, a shaft mounted to swing relative to the upper portion of said structure, weighted means for holding the shaft normally vertical, an elevating wheel revoluble with the shaft, and means for rotating the shaft and wheel while the aeroplane is being propelled forward and independent of the angle of the shaft relative to the aeroplane frame.

1,075,448. STAKE-HOLDER. LEVI TEEGARDEN, Knapp, Wis. Filed Apr. 18, 1911. Serial No. 622,013. (Cl. 105—173.)



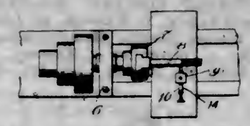
The combination with a car having transverse beams, of plates carried by and projecting beyond said beams, a movable bottom and side member pivotally mounted to swing between each pair of plates, a shaft passing through said plates and beams, and chains pivotally connected to said movable bottom and side member and adapted to wind on said shaft adjacent said beams.

1,075,449. BREAST-HOLDER. JOHANNA VACEK, Vienna, Austria-Hungary, assignor to Hugo Bruckner, Berlin-Schöneberg, Germany. Filed Aug. 4, 1910, Serial No. 575,521. Renewed Aug. 11, 1913. Serial No. 784,202. (Cl. 2—73.)



In a breast holder, a suitable frame-work provided with a lining (4) for engaging the breast, means (5—6) adjusting said lining at its upper and lower margins and independently of each other, a plurality of pockets (11) carried by said lining and extending intermediate the upper and lower margins thereof, and a plurality of resilient strips (12) relatively shorter than said pockets and movable therein to be positioned at portions of said pockets to attain a desired contour of the lining and adjustable at the will of the user.

1,075,450. CUTTING-TOOL. WILLIAM J. VAN OSDEL, Chicago, Ill., assignor of one-half to Ray L. Eddy, Chicago, Ill. Filed July 1, 1911. Serial No. 636,444. (Cl. 29—96.)



1. In a tool for cutting screw-threads, the combination of a tool mounting, a holder having transverse slots therein, said mounting having a free sliding movement in said holder, whereby said mounting may be yieldingly held projected from the rear of the holder to permit a yielding movement of the tool during the cutting operation, substantially as described.

2. In a tool for cutting screw-threads, the combination of a tool mounting, a holder having transverse slots therein, said mounting having a free sliding movement in said holder, and said mounting terminating in a hand piece against which the operator presses during the cutting operation, whereby the mounting is projected from the rear of the holder and the tool held in yielding engagement with the work by manual pressure, substantially as described.

3. In a tool for cutting screw-threads, the combination of a tool mounting, a holder having transverse slots therein, said mounting having a free sliding movement in said holder, and means for enabling the mounting to be held in projected position from the rear of the holder, whereby a yielding of the tool is permitted during the cutting operation, substantially as described.

4. In a tool for cutting screw-threads, the combination of a tool mounting, a holder in which said mounting has a free sliding movement, means permitting said mounting to be held projected from the rear of the holder by a resilient pressure, whereby said tool is held in yielding engagement with the work, an adjustable member for limiting the projection of the tool mounting, and a scale to indicate the amount of projection of said mounting, substantially as described.

5. In a tool for cutting screw-threads, the combination of a tool mounting, a holder in which said mounting has a free sliding movement, a threaded stem on the front end of the mounting, a rotatable member on said stem for limiting the sliding movements of the mounting, said member being provided with a collar marked to provide a micrometer scale, and said holder having an index member for said scale, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

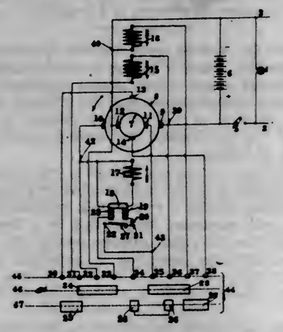
1,075,451. HINGE. FRIDOLIN WEBER, Wagenhausen, Switzerland. Filed May 26, 1913. Serial No. 770,007. (Cl. 16—106.)



A hinge comprising a leaf having on one of its edges a knuckle, and a second leaf having a pintle projecting in

said knuckle, screws for fixing said leaves to their respective parts, said screws passing through said knuckle, a hole in one of said knuckles adapted for the insertion of one of said fixing screws into one of said knuckles and adapted to serve for lubricating said pintle.

1,075,452. DYNAMO-ELECTRIC MACHINE. HANS WEICHSEL and SAMUEL T. WEBSTER, St. Louis, Mo., assignors to Wagner Electric Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed June 15, 1912. Serial No. 703,828. (Cl. 171—315.)



1. The combination with an accumulator, of a dynamo electric machine having a stationary member provided with a shunt winding, a revolving member provided with two commuted windings, two working brushes for each commuted winding and an exciting brush for one commuted winding, means for connecting the commuted windings and the shunt winding to the accumulator in parallel circuits to operate the machine as a motor, and means for connecting the commuted windings in series and the shunt winding in circuit with a working brush and an exciting brush to operate the machine as a generator.

2. The combination with an accumulator, of a dynamo electric machine having a stationary member provided with two shunt windings, a revolving member provided with two commuted windings, and two working brushes and an exciting brush for each commuted winding, means for connecting the commuted windings and the shunt windings to the accumulator in parallel circuits to operate the machine as a motor, and means for connecting the commuted windings in series and each shunt winding in circuit with a working brush and an exciting brush to operate the machine as a generator.

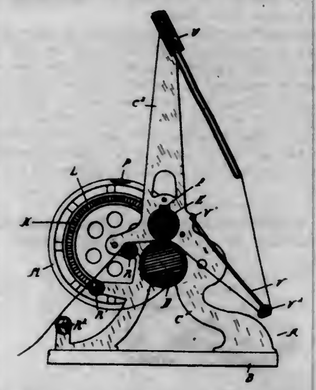
3. The combination with an accumulator, of a dynamo electric machine having a stationary member provided with two shunt windings and a series winding, a revolving member having two commuted windings, and two working brushes and an exciting brush for each commuted winding, means for connecting the commuted windings and the shunt windings to the accumulator in parallel circuits to operate the machine as a motor, means for connecting the commuted windings in series and for connecting each shunt winding in circuit with an exciting brush and a working brush to run the machine as a generator, and a switch operated by a current generated by the machine for connecting the series winding in circuit with the accumulator.

4. The combination with an accumulator, of a dynamo electric machine having a stationary member provided with two shunt windings and a series winding, all coaxially disposed, a revolving member having two commuted windings, and two working brushes and an exciting brush for each commuted winding, means for connecting the commuted windings and the shunt windings to the accumulator in parallel circuits to operate the machine as a motor, means for connecting the commuted windings in series and for connecting each shunt winding in circuit with an exciting brush and a working brush to run the machine as a generator, and a switch operated by a current generated by the machine for connecting the series winding in opposition to the shunt windings.

5. The combination with an accumulator, of a dynamo electric machine having a stationary member provided with a shunt winding, a revolving member provided with two commuted windings, and two working brushes for each commuted winding and an exciting brush for one commuted winding, the exciting brush being displayed substantially ninety (90) electrical degrees from the corresponding working brushes, means for connecting the commuted windings and the shunt winding to the accumulator in parallel circuits to operate the machine as a motor, and means for connecting the commuted windings in series and the shunt winding in circuit with a working brush and an exciting brush to operate the machine as a generator.

[Claim 6 not printed in the Gazette.]

1,075,453. LACE MEASURING AND REREELING MECHANISM. HAROLD G. WESLEY, Adrian, Mich. Filed Oct. 10, 1912. Serial No. 724,899. (Cl. 73—9.)



1. A lace or delicate-fabric measuring machine, comprising a manually-operable roll, a coöperating presser roll, and means for preventing the clinging of the fabric to said rolls through electrical attraction.

2. A lace or delicate-fabric measuring machine, comprising a measuring roll and coöperating roll between which the fabric is passed, means for manually operating said rolls, and means operating with slight tension on the fabric for disengaging the latter from said rolls.

3. A lace or delicate-fabric measuring machine, comprising a pair of driven rolls between which the fabric is passed, means operating with slight tension upon the fabric for passing the same to and disengaging it from said rolls.

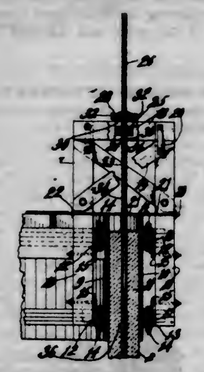
4. A lace or delicate-fabric measuring machine, comprising a pair of driven rolls between which the fabric is passed, a measurement indicator operated by one of said rolls, means operating with slight tension upon said fabric for paying out the same to said rolls, and means also operating with slight tension on the fabric for disengaging the same from the rolls.

5. In a lace or delicate-fabric measuring machine, the combination with a pair of driven rolls between which the fabric is passed, of a measurement indicator operated by one of said rolls, and driven means for removing the fabric from said rolls.

[Claims 6 to 8 not printed in the Gazette.]

1,075,454. MEANS FOR CONSTRUCTING CONCRETE WALLS. ALLEN D. WHIPPLE, Milwaukee, Wis. Filed May 29, 1911. Serial No. 630,142. (Cl. 25—131.)

1. Means for constructing concrete walls, comprising forms spaced apart, elevating frames positioned above the forms and having depending uprights which are fastened to the forms, sectional vertically extending guide tubes positioned between the forms and adapted to remain in and reinforce the wall constructed between said forms, threaded blocks carried by the elevating frames, rods threaded through the blocks and having reduced portions which extend into the tubes and shoulders which rest on the upper ends of the tubes, and means for turning the rods to elevate the forms.



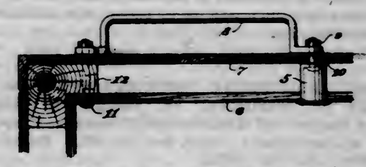
2. Means for constructing concrete walls, comprising forms spaced apart, elevating frames positioned above the forms and having depending uprights which are fastened to the forms, sectional vertically extending guide tubes positioned between the forms and adapted to remain in and reinforce the wall constructed between said forms, threaded blocks carried by the elevating frames, rods threaded through the blocks and having reduced portions which extend into the tubes and shoulders which rest on the upper ends of the tubes, and a rotating member loosely surrounding the rod and having a key which enters the longitudinal groove.

3. Means for constructing concrete walls, comprising forms spaced apart, elevating frames positioned above the forms and having depending uprights which are fastened to the forms, sectional vertically extending guide tubes positioned between the forms and adapted to remain in and reinforce the wall constructed between said forms, threaded blocks carried by the elevating frames, rods threaded through the blocks and having reduced portions which extend into the tubes and shoulders which rest on the upper ends of the tubes, said rods having longitudinal grooves formed therein, socketed members loosely surrounding the rods and having keys which enters the longitudinal grooves, and a member inserted into one of the sockets of the socketed members for turning said members and the rods engaged thereby.

4. Means for constructing concrete walls, comprising forms spaced apart and provided with outer horizontally extending reinforcing timbers, sectional vertically extending guide tubes positioned between the forms and adapted to remain in and reinforce the wall constructed between said forms, elevating frames positioned above the forms and having upright portions which are fastened to the forms and the reinforcing timbers, said frames having upper transverse timbers connecting the uprights and spaced a distance apart, threaded blocks fastened to and positioned between the transverse timbers of the frames, rods threaded through the blocks and having reduced portions and shoulders, the reduced portion of each rod being of sufficient length to extend through one tube and into the adjacent tube, said rods having longitudinal grooves formed therein, and turning members surrounding the rods and positioned above the transverse timbers and having keys which enter the longitudinal grooves.

5. Means for constructing concrete walls, comprising forms spaced apart and provided with outer horizontally extending reinforcing timbers, sectional vertically extending guide tubes positioned between the forms and adapted to remain in and reinforce the wall constructed between said forms, elevating frames positioned above the forms and having upright portions which are fastened to the forms and the reinforcing timbers, said frames having upper transverse timbers connecting the uprights and spaced a distance apart, threaded blocks fastened to and positioned between the transverse timbers of the frames, rods threaded through the blocks and having reduced portions and shoulders, the reduced portion of each rod being of sufficient length to extend through one tube and into the adjacent tube, said rods having longitudinal grooves formed therein, washers surrounding the rods and interposed between the rod shoulders and the tube ends, said washers adapted to be left in position on the tubes and other tubes to rest thereon, and turning members surrounding the rods and positioned above the transverse timbers and having keys which enter the longitudinal grooves.

1,075,455. LADDER AND HANDHOLD FOR RAILWAY-CARS. WILLIAM E. WINE, Wilmington, N. C., assignor to The Wine Railway Appliance Company, a Corporation of Ohio. Filed June 27, 1912. Serial No. 706,191. (Cl. 105—195.)

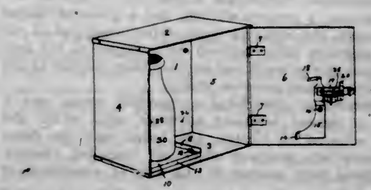


1. The combination with an inner wall and an outer wall spaced apart and a device to be secured thereto, of fastening means comprising a washer adapted to engage the inner wall and the inner surface of the outer wall and means engaging said device and said washer.

2. The combination with an inner wall and an outer wall spaced apart and a device to be secured thereto, of fastening means comprising a washer adapted to engage one of said walls and the adjacent surface of the other wall and a bolt engaging said washer and said device.

3. The combination with an inner wall and an outer wall spaced apart and a device to be secured to the exterior of the outer wall, of fastening means consisting of a socket washer having a hollow cylindrical body and a perforated disk at one end adapted to rest against the outer wall and having a flange at its other end adapted to rest against the inner wall and a bolt extending through the perforation in the disk with its head resting against the disk and a nut on the other end of the bolt.

1,075,456. BOX. JOHN R. WINTER, Detroit, Mich., assignor to Detroit Utensil Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 22, 1911. Serial No. 650,795. (Cl. 232—41.)



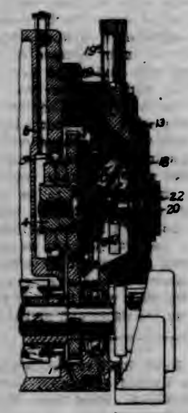
1. In a box, the combination of a body, a door hinged thereto, a trap-platform hinged at its rear end in said body and having an upwardly extending projection near its front edge, a spring to normally hold the trap-plat-

form in an inclined position, a lever pivoted to said door and having a finger at its upper end projecting outward through a slot in the door and having a finger at its lower end adapted to extend adjacent the projection on the trap-platform when the same is in its lowest position, a locking-bolt slidably mounted on the door of the box and having a finger extending through a slot in the lever whereby movement of the lever will withdraw the bolt, and a spring to move the bolt to locking position.

2. A box comprising sides, back, top, bottom and a door hinged to one side, a trap-platform pivotally mounted within the box, locking mechanism mounted on the door, said door provided with a key-hole wherethrough a key may be inserted to release the locking mechanism, and a lever mounted on the door and provided with a manually-operable projection whereby the lever may be actuated independently of the key to unlock the door, said trap-platform adapted to swing down to engage and prevent the operation of the lever.

3. A box comprising a body and a door hinged thereto, a key-operated lock for said door, comprising a bolt, guides for the same and a spring, to move the bolt to locking position, said bolt having an inwardly projecting finger, a lever pivoted on the door and having a slot through which said finger extends and a projection extending through a slot in the door by means of which the lever may be swung and the bolt withdrawn, and a trap-platform mounted in the body and movable into the path of the lever to prevent its movement, said slot in the lever being of such length as to permit the withdrawal of the bolt by a key.

1,075,457. ELECTRICAL DISTRIBUTER. JAMES L. ADAMS, Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Nov. 16, 1911. Serial No. 660,688. (Cl. 123—167.)



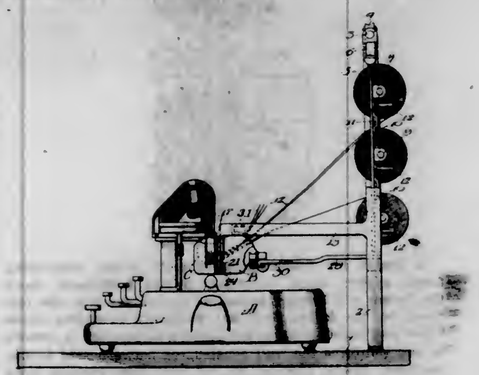
1. A distributer comprising a plurality of spaced terminal members, a revoluble brush, and a pressure spring for said brush, the engaging faces of the brush and of the terminal members being inclined with respect to the axis of revolution of the brush and substantially normal to the force exerted by said pressure spring.

2. A distributer comprising a revoluble brush, and a plurality of spaced terminal members with which the brush is adapted to engage, the brush and the faces of the terminal members that are engaged thereby being inclined with respect to the axis of revolution of the brush.

3. A distributer comprising a rotatable member, a brush carried by the said member and inclined with respect to its axis of rotation, a cover for the rotatable member having an inclined inner face against which the said brush bears but also extended laterally beyond the brush, and a plurality of spaced terminal members carried by the cover also having inclined faces corresponding to the inclined face of the cover and adapted to be engaged by the brush.

4. A distributer comprising a rotatable member, a brush carried by the said member and inclined with respect to its axis of rotation, a cover for the rotatable member having an inclined inner face against which the said brush bears, and a plurality of spaced terminal members carried by the cover also having inclined faces corresponding to the inclined face of the cover and adapted to be engaged by the brush.

1,075,458. TYPE-WRITER ATTACHMENT. ENGLAND J. BARKER, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,941. (Cl. 197—134.)



1. The combination with a typewriting machine having a reciprocal carriage, of a stationary frame adjacent thereto, a rack movable on said frame in which a roll of paper is supported, ribbon-spools journaled on said frame, and devices on said carriage for rotating said spools.

2. The combination with a typewriting machine having a reciprocal carriage, of a stationary frame adjacent thereto, a rack movable on said frame in which a roll of paper is supported, ribbon-spools journaled on said frame, actuating levers connected to said ribbon-spools, and devices on said carriage that engage said levers as the carriage approaches the end of its movement.

3. The combination with a typewriting machine having a reciprocal carriage, of a stationary frame adjacent thereto, a rack movable on said frame in which a roll of paper is supported, ribbon-spools journaled on said frame, and arms on said carriage for rotating said spools.

4. The combination with a typewriting machine having a reciprocal carriage, of a stationary frame adjacent thereto, a rack movable on said frame in which a roll of paper is supported, ribbon-spools journaled on said frame, actuating levers connected to said ribbon-spools, and arms on said carriage that engage said levers as the carriage approaches the end of its movement.

5. The combination with a typewriting machine having a reciprocal carriage, of a stationary rectangular frame mounted independent thereof, a movable rack in which a roll of paper is journaled traversing the upper member of said frame, ribbon-spools carried by said frame, and devices on said carriage that rotate said spools as the carriage approaches the end of its movement.

[Claims 6 to 14 not printed in the Gazette.]

1,075,459. SHOVEL. CHARLES M. BOWMAN, Lebanon, Pa. Filed Dec. 2, 1912. Serial No. 734,610. (Cl. 55—14.)

1. A shovel of the character described comprising a blade, a tubular handle forming a reservoir, a coupling to connect said blade and reservoir and arranged adjacent to said blade and inner end of said reservoir pumping mechanism within said coupling and means on the exterior of the coupling whereby said pumping mechanism may be actuated by the hand gripping the lower end of the handle to eject the contents of the reservoir into said blade.



2. A shovel of the character described comprising a blade having a shank, a hollow handle adapted to form a reservoir, a socket to connect said blade with said hollow handle, a fluid conducting and discharge pipe to connect said socket with the blade of the shovel, a pumping mechanism arranged in said socket and adapted to be operated by the hand gripping the inner end of the shovel handle whereby the contents of the hollow handle is pumped therefrom and forced through said fluid conducting pipe into the blade of the shovel.

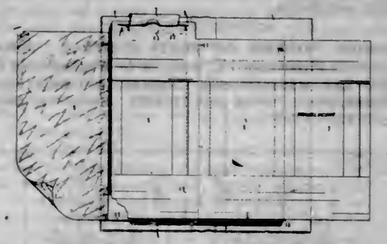
3. A shovel of the character described comprising a blade, a tubular handle adapted to form a reservoir, a socket to connect the inner end of said tubular handle with said blade, a cap arranged on the outer end of said handle and having therein a filling opening, a vented plug to close said opening, said plug having a check valve to normally close the vent therein, a fluid conducting pipe to connect said socket with the blade of the shovel and a pumping mechanism arranged in said socket and adapted to pump the contents from said tubular handle through said fluid conducting pipe into the blade of the shovel.

4. A shovel of the character described comprising a blade, a tubular handle adapted to form a reservoir, a socket to connect said handle with said blade, said socket having therein a pump chamber and inlet and discharge valve chambers, check valves arranged in said valve chambers, a fluid conducting pipe to connect said discharge chamber of the socket with the shovel blade, and a pump piston operatively mounted in said pump chamber of the socket whereby the contents of the tubular handle are pumped therefrom and forced through said discharge pipe into the blade of the shovel.

5. A shovel of the character described comprising a blade having a shank, a tubular handle adapted to form a reservoir, a socket to connect said handle with the shank of the shovel blade, said socket having therein a pump chamber and inlet and discharge valve chambers, said chambers communicating respectively with the hollow handle and with said pump chamber, a plug arranged in the outer end of said inlet valve chamber, spring projected check valves arranged in said chambers whereby they are normally closed, a fluid conducting pipe connected at one end with said discharge valve chamber and extending forwardly through the shank and inner end of the shovel blade and into engagement with the inner portion of the bottom of the shovel, said fluid conducting pipe having in its outer end discharge apertures, a pump piston slidably mounted in said pump chamber, a spring to retract or force said piston outwardly in said chamber, a piston rod connected with said piston, and a head on the outer end of said piston rod adapted to be engaged by the hand which grips the inner end of the handle whereby said pump piston is projected inwardly against the pressure of said spring and is thereby operated to pump the contents of said tubular handle therefrom and to force said contents through the fluid conducting pipe and into the blade of the shovel.

1,075,460. MANIFOLDING DEVICE. EDWARD CARNEY, Glendale, N. Y., assignor to Eastern Sales Book Company, Glendale, N. Y., a Corporation of New York. Filed Apr. 14, 1911. Serial No. 620,979. (Cl. 11—23.)

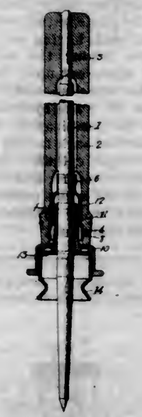
1. A manifolding device comprising an integral sheet of durable material adapted to be folded to place portions thereof in superposed relation, one of said durable portions being relatively opaque and another of said durable portions translucent.



2. A manifolding device comprising an integral sheet of durable material adapted to be folded to place portions thereof in superposed relation, one of said durable portions being relatively opaque and another of said durable portions oiled to render it translucent.

3. A manifolding device comprising, in combination a pile of sheets of durable material divided into sections, the sections of each sheet being integral with each other, one of said durable sections of each sheet being relatively opaque and another of said durable sections oiled to render it translucent relative to said opaque section, each sheet adapted to be folded to place said opaque section in superposed relation to said oiled section, said oiled sections being similarly disposed in the pile, and material adapted to be interposed between said opaque and oiled section of each sheet when superposed to transfer impressions to each.

1,075,461. SPINNING-SPINDLE. CHARLES H. CHAPMAN, Winchester, Mass., assignor to Chapman Gravity Spindle Company, Winchester, Mass., a Corporation of Maine. Filed Jan. 5, 1910. Serial No. 536,565. (Cl. 118—31.)

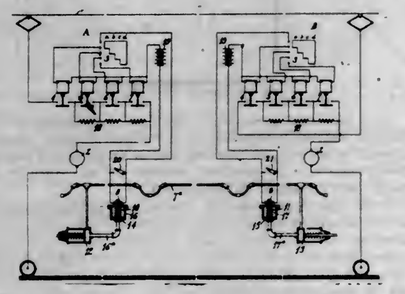


1. A spindle, a whirl-base having its shank or upper portion counterbored and a chamber in its lower end, and a disk and whirl arranged in said chamber, said whirl-base adapted to be securely attached to the spindle by the upper end of its shank and the disk.

2. A spindle, a whirl-base having its shank counterbored and a disk at the lower end of said counterbore, said whirl-base securely attached to the spindle by the upper end of its shank and the said disk, combined with a bobbin-holder, securely attached to the spindle above the whirl-base and sleeving the counterbored shank of the whirl-base and adapted to engage the lower end of a bobbin.

3. A spindle, a whirl-base constructed with two spindle-engaging elements to fit the spindle at two points one of which is above and the other below the bottom rest for the bobbin and out of contact with the spindle between said points.

1,075,462. SYSTEM OF TRAIN CONTROL. JOHN L. CROUSE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 21, 1910. Serial No. 598,522. (Cl. 172—179.)



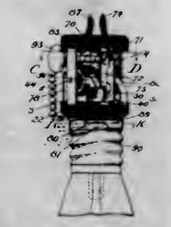
1. In a train, the combination with two independently controlled railway vehicles each having a system of air brakes, and an air pipe line connection between the two systems, of means having operative dependence upon the application of the air brakes from either vehicle for automatically applying energy to the other vehicle.

2. The combination with two electrically independent railway vehicles, each having an electric propelling motor and a braking system, and means forming a communication between the braking systems, of automatic means on one locomotive having operative dependence upon the application of the brakes in the train for supplying energy to the electric propelling motor thereof.

3. In a train, the combination with two independently controlled vehicles each having an airbrake cylinder, of a train connection joining the airbrake cylinders, and means operatively dependent upon the pressure in the airbrake cylinders for simultaneously supplying energy to both vehicles when the brake cylinders are exhausted.

4. In a train, the combination with two electrically independent locomotives each having an electric propelling motor and an airbrake cylinder, of a train connection joining the airbrake cylinders, and a switch on each locomotive which is opened when compressed air is supplied to the corresponding brake cylinder and is closed when the air is exhausted therefrom.

1,075,463. LAMP-SOCKET. JOHN DARBY, Summit, N. J. Filed Mar. 12, 1910. Serial No. 548,832. (Cl. 173—354.)



1. A lamp socket including in combination opposed socket heads, a controller rotatably supported intermediately and transversely thereof, a conducting piece at one end of the controller, a conducting piece at the other end of the controller, circuit connections therefor, an actuating lever for the controller, through which the controller support passes, said lever being located intermediately, the ends of the controller and being pivoted at one side of said controller and extending past the controller, a fixed pawl on said lever, and a connection from the free end of said lever extending outside the socket.

2. A lamp socket including in combination two socket heads, a rotatable controller arranged intermediately and transversely thereof, a conducting piece at each end of the controller, a contact piece connected to one branch of the line circuit supported from one of said socket heads and a contact piece connected to a lamp terminal supported on the other socket head, the conducting piece at one end of the controller making and breaking the circuit between said two contact pieces, a contact piece connected to the other branch of the line circuit and supported from one of said socket heads, and a contact piece connected to the other lamp terminal and supported from the other socket head from the last-mentioned contact piece, the conducting piece at the other end of the controller making and breaking the circuit between said two last-mentioned contact pieces, an actuating lever for said controller mounted eccentrically of the controller, said lever traveling to and fro across the center of rotation of the controller.

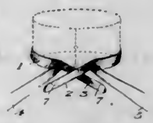
3. A lamp socket including in combination a rotatable shaft, a ratchet rotating therewith and slidable along the shaft, a controller piece rotatable with said shaft, a lever mounted eccentrically to said controller and having a pawl engaging said ratchet, and means for allowing said ratchet to move along its shaft to permit the free passage of the pawl in one direction and to cause it to actuate the ratchet in the opposite direction.

4. A lamp socket including in combination a rotatable controller shaft, a controller rotatable with the shaft, a ratchet rotatable with and slidable along the shaft, a pawl mounted eccentrically of said shaft for actuating the ratchet when traveling in one direction, the ratchet sliding on the shaft when the pawl passes in the opposite direction.

5. A lamp socket including in combination a rotatable controller shaft, a controller rotatable with the shaft, a ratchet rotatable with the shaft and slidable thereon, a pawl carrying member pivoted eccentrically of said shaft through which the shaft passes, and a spring pressing the pawl member and ratchet together.

[Claims 6 to 14 not printed in the Gazette.]

1,075,464. NECKTIE. CHARLES W. T. DAVIES, New York, N. Y. Filed June 5, 1912. Serial No. 701,838. (Cl. 2—11.)

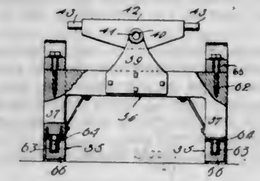


1. A necktie having a knot-portion and also a band provided with two free ends, said free ends extending beyond the location of said knot-portion of the band and of such length that they are adapted to be disposed crosswise of each other and to permit the tips thereof being tucked up between the collar and shirt to hold the band in position.

2. A necktie having a knot-portion and also a band provided with two free ends, said free ends extending beyond the location of said knot-portion of the band and of such length that they are adapted to be disposed crosswise of each other, said free ends having an oblique, transverse line of stitching defining a suitable folding line and being reinforced at their tips, whereby the reinforced tips may be tucked or inserted between the collar and the shirt to hold the band in position.

3. A necktie having a neckband provided with two free ends, said free ends being of such length that they are adapted to be disposed crosswise of each other and to have their tips tucked up between the collar and shirt to hold the neckband in position, a detachable tying member, and means upon said neckband for retaining said tying member in proper position.

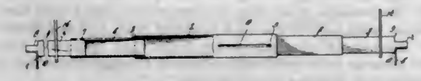
1,075,465. SELF-PROPELLED SLEIGH. ANDREW J. DENNEY, Cambridge, Idaho. Filed Aug. 5, 1912. Serial No. 713,389. (Cl. 21—47.)



1. In a device of the character described, the combination of a body supporting frame, and rear supporting and driving runners operatively mounted thereon; of a front supporting member comprising a supporting frame of inverted U shape, the depending ends of which form bearing posts, front runners having upper and lower bars pivotally mounted on the upper and lower ends of said posts, a link connection between the front ends of the front runners whereby they may be turned in unison, and operating mechanism connected to the front runners to guide said sleigh.

2. In a sleigh of the character described, a front runner supporting frame of inverted U shape, the depending ends of which form bearing posts, front runners having upper and lower bars to receive said post between them, upper pivots passed vertically through the upper bars and into said posts, lower pivots on the bottoms of said posts and mounted in sockets in the lower bars of the front runners, a link connection between the front ends of the front runners whereby they may be turned in unison, and operating mechanism connected to the front runners for guiding said sleigh.

1,075,466. SHADE-BRACKET. LEE R. DONOVAN, Marysville, Pa. Filed May 14, 1912. Serial No. 697,211. (Cl. 156—23.)



1. An adjustable curtain support holder consisting of a plurality of sleeves telescopically mounted in another sleeve, two arms provided with shoulders for the reception of an ordinary curtain roller support, said arms mounted in each end sleeve of the first named plurality of sleeves, and means for securing said curtain support holder to a window frame.

2. In a device of the character described, a tubular member provided with longitudinal extending slots, a plurality of sleeves in telescopic engagement with said tubular member, pins carried by said sleeves, said pins adapted to project into said slots, a plurality of arms in telescopic engagement with said sleeves and brackets carried by each of said arms for supporting a curtain pole for the purpose described.

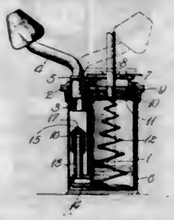
3. In a device of the character described, a tubular member provided with longitudinal extending slots, sleeves in telescopic engagement with said tubular member and provided with pins adapted to project into said slots, each of said slots provided with longitudinal extending cut out portions, a plurality of arms slidable within said sleeves and provided with lugs adapted to project into said cut out portions and brackets carried by all of said arms for supporting a curtain pole for the purpose described.

4. An adjustable curtain support holder consisting of a plurality of sleeves telescopically mounted in another sleeve, said first named sleeve provided with pins adapted to travel in slots in said second named sleeve, an arm telescopically mounted in each end sleeve of the plurality of sleeves, shoulders upon said arms adapted to receive an ordinary shade roller support, and means attached to the window casing adapted to support said sleeve and said arms.

5. An adjustable curtain support holder consisting of two sleeves telescopically mounted within another sleeve, pins mounted on said first named sleeves adapted to travel in slots in said second named sleeve, an arm telescopically mounted in each of said first named sleeves, shoulders formed upon said arms, extensions upon said arms, said shoulders and said extensions adapted to securely hold an ordinary shade roller support, pins mounted upon said arms adapted to travel in slots in said first named sleeves, and brackets secured to the window frame, said brackets provided with cut-out portions adapted to receive said extensions whereby said arms and said sleeves are supported adjacent a window.

[Claim 6 not printed in the Gazette.]

1,075,467. ATOMIZER. FRANK C. DORMENT, Detroit, Mich., assignor to Wireless Vibrator Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 5, 1913. Serial No. 759,212. (Cl. 128—2.)



An atomizer comprising an outer holder permanently closed at one end, a cover closing the other end, a cylinder secured at the upper end in an opening of the cover and closed at the lower end, a cap removably secured in the upper end of the cylinder, a piston for the cylinder, a piston stem extending through a guide opening in the cap, an apertured boss extending from the lower part of the cylinder, a jet pipe secured in the boss and directed toward the nipple tube, a nipple seated on the jet pipe, and an aspirator tube bent between the ends and secured on the nipple with jet orifices in the bend alined with the nipple, the lower open ends of the aspirator tube being adjacent the lower end of the holder.

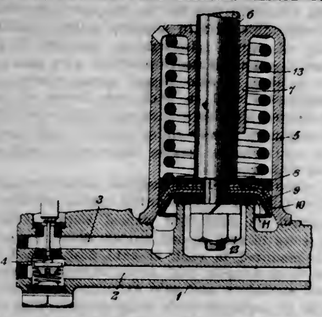
1,075,468. PISTON-PACKING. HENRY R. EDGECOMB, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Feb. 3, 1910. Serial No. 541,714. (Cl. 121—108.)

1. A piston head comprising one or more dished pliable washers, the outer annular portions of which are inclined to the central portions thereof, and the edges of which are beveled, and one or more dished resilient reinforcing washers nested within and of slightly less diameter than the pliable washers.

2. A piston head comprising one or more dished pliable washers, the outer annular portions of which are inclined to the central portions thereof and the edges of which are beveled, and one or more resilient dished reinforcing washers nested within the pliable washers.

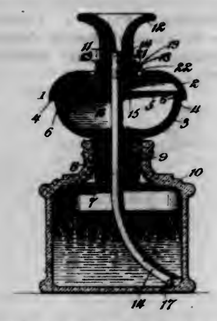
3. A piston head comprising one or more dished pliable washers, the outer annular portions of which are inclined

to the central portions thereof and the edges of which are beveled, one or more resilient dished reinforcing



washers nested within the pliable washers, and plates between which the said washers are clamped.

1,075,469. PNEUMATIC ATTACHMENT FOR INK-RECEPTACLES. HENRY T. EMEIS, San Diego, Cal. Filed Feb. 14, 1912. Serial No. 677,457. (Cl. 120—64.)



1. A pneumatic attachment for ink receptacles including a casing provided with a depending tube adapted to be inserted in the opening of a stopper or other closure, an elastic diaphragm arranged within and extending across the casing, a depressible cup having a tubular shank slidable through the upper portion of the casing and supported by the elastic diaphragm, and a flexible tube passing through the diaphragm and the depending tube of the casing and having its upper end extending into the tubular shank of the cup, said flexible tube being of a length to extend to the bottom of the ink receptacle.

2. A pneumatic attachment for ink receptacles including a casing divided horizontally at an intermediate point between its top and bottom to form upper and lower sections, which are connected together at their edges, the lower section being provided with means for connecting it with an ink receptacle, a substantially horizontal diaphragm consisting of a sheet of material extending across the casing and having its marginal edges held between the connected edges of the upper and lower sections, a cup having a shank slidable through the upper section of the casing and located above and supported by the diaphragm, and a tube connected with the shank of the cup and passing through the diaphragm and the lower section of the casing and adapted to extend into the ink receptacle.

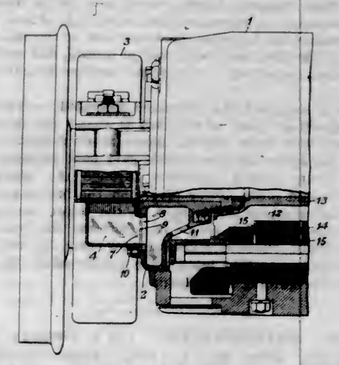
3. A pneumatic attachment for ink receptacles including a casing divided horizontally at an intermediate point between its top and bottom to form upper and lower sections having their peripheral edges fitted together, the lower section being provided with a depending tube to fit an apertured stopper or other closure, and the upper section being provided with an opening, an elastic diaphragm consisting of a sheet of material stretched across the casing and secured between the connected edges of the upper and lower sections, a cup having a tubular shank slidable through the opening of the upper section of the casing and supported by the elastic diaphragm an inflexible tube connected with the tubular shank of the cup and passing through the diaphragm and through the tube of the casing and adapted to project into an ink receptacle.

4. A pneumatic attachment for ink receptacles including a casing, an elastic diaphragm therein, a depressible cup slidable in the casing and supported by the diaphragm, a tube connected with the cup and adapted to extend into an ink receptacle, and means for retaining the cup in a depressed position for maintaining ink in the said cup.

5. A pneumatic attachment for ink receptacles including a casing, an elastic diaphragm therein, a tube, a depressible cup supported by the diaphragm and connected with the tube, and a locking device carried by the casing and arranged to hold the cup in a depressed position for maintaining ink in the said cup.

[Claims 6 and 7 not printed in the Gazette.]

1,075,470. RAILWAY-MOTOR VENTILATION. JOSEPH D. FORBER, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Sept. 12, 1910. Serial No. 581,729. (Cl. 172—286.)



1. The combination with a railway motor provided with a bearing housing having an inlet port and outlet ports for the passage of air into the motor, of a gear case associated with said motor and provided with a compartment or chamber having an outlet port that registers with the housing inlet port, and a conduit through which air is forced into the gear case chamber.

2. The combination with a railway motor, of a gear case having an air chamber in open communication with the interior of said motor and means for introducing air from a ventilating system into said air chamber.

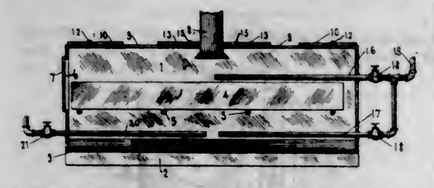
3. The combination with a railway motor having a bearing housing provided with inlet and outlet ports, and a gear case provided with a compartment or chamber adapted to deliver air from a ventilating system to the bearing housing.

4. The combination with a railway motor provided with a bearing housing having inlet and outlet ports, of a gear case provided with a compartment having an outlet port connected to the housing inlet port, and a supply pipe of a ventilating system connected to the inlet port of the gear case compartment.

5. The combination with a railway motor provided with a bearing housing, and a gear case, of a chamber interposed between said gear case and said bearing housing and provided with an inlet port, and a supply pipe of a ventilating system connected to said inlet port.

[Claims 6 and 7 not printed in the Gazette.]

1,075,471. SANITARY CLOSET. JOHN H. FOSTER, Colorado, Tex. Filed June 24, 1912. Serial No. 705,380. (Cl. 110—9.)

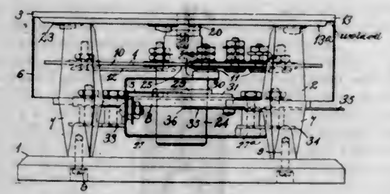


1. In a sanitary closet, the combination of, a casing having a trough formation at its bottom and provided with seat apertures in its top, a plurality of rollers extending transversely of the casing between its top and bottom, a receptacle mounted on the rollers under the seat apertures of the casing, means for introducing oil over the receptacle and into the trough, and means for introducing water into the trough formation of the casing under the receptacle.

2. In a sanitary closet, the combination of, a casing having a trough formation at its bottom and provided with seat apertures in its top, a plurality of rollers extending transversely of the casing between its top and bottom, a receptacle mounted on the rollers under the seat apertures of the casing, means for introducing oil over the receptacle and into the trough, means for introducing water into the trough formation of the casing under the receptacle, a vent pipe passing up through the top of the casing and having an inlet over the receptacle, and closures for the seat apertures of the casing.

3. In a device of the character described, the combination with a rectangular casing having apertures in its top, of a vertical vent flue communicating with said casing, a removable receptacle centrally mounted within the casing, a plurality of rollers transverse of the casing upon which said receptacle is supported, a trough integral with the bottom of the casing extending longitudinally beneath the receptacle, a means for discharging oil into said receptacle, a means for discharging oil into the trough, and a means for discharging water into the trough.

1,075,472. ELECTRICALLY-HEATED STOVE UNIT. WILLIAM S. HADAWAY, Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed June 28, 1909. Serial No. 504,929. (Cl. 219—37.)



1. An electric heating device comprising a stationary base or support, stationary contact members secured thereto, a heater element, a plurality of contact members electrically connected to said element, a movable contact-bearing arm adjustably mounted on the base, and a pair of bridging contact members secured to and insulated from the contact-bearing arm, said bridging contact members being adapted to form an electrical connection between the contact members on the base and the contact members connected to the heater element.

2. An electrical heating device comprising a stationary base or support, a heater element removably secured thereto, one set of stationary contact members connected to the heater element, a second set of stationary contact members mounted on the base, and a movable bridging contact member adapted to sweep over both sets of stationary contact members.

3. An electric heating device comprising a stationary base or support, a heater element removably secured thereto, stationary contact members respectively connected to the heater element and secured to the stationary base, and adjustable means for electrically connecting the two sets of contact members.

4. An electric heating device comprising a stationary base or support, a heater element, two sets of stationary contact members respectively connected to the heater element and secured to the base or support and movable contact arms adjustably secured to the base or support for electrically connecting the two sets of contact members.

5. An electric heating device comprising a stationary base or support, a pair of stationary contact members secured thereto and constituting the terminals of the device, a heater element, a plurality of contact members electrically connected to said element, a movable contact-bearing arm adjustably mounted on the base and a pair of U-shaped contact members secured to and insulated from the extremities of said arm, said U-shaped members being adapted to form an electrical connection between the terminal contact members on the base and the contact members of the heating element.

[Claim 6 not printed in the Gazette.]

1,075,473. ELECTRIC SOLDERING-IRON. WILLIAM S. HADAWAY, Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 10, 1911. Serial No. 620,172. (Cl. 219—28.)



1. An electric soldering iron comprising a tapered receptacle open at the outer end, a suitable handle secured to said receptacle, a heater unit of substantially tubular form disposed within said receptacle, and a tapered member of good heat-conducting material adapted to be driven into said heater unit, whereby pressure upon said unit is produced.

2. In an electric soldering iron, the combination with a tapered shell, and a tubular heater unit fitted therein, of a tapered working member adapted to be secured within said shell and to effect a pressure on said heater unit.

3. In an electric soldering iron, the combination with a tapered shell and a heater unit removably disposed therein, of a member of good heat-conducting material adapted to be forced into said shell in intimate contact with said heater unit and to maintain a pressure thereon.

4. In an electric soldering iron, the combination with a tapered receiving member, a heater unit removably disposed therein and a soldering tip fitted tightly within said heater unit, of wedging means for securing said tip in position and for exerting a considerable pressure on said heater unit.

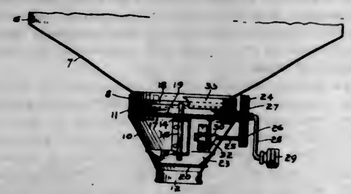
5. In an electric soldering iron, the combination with a supporting member having a tapered receiving chamber, a thin heater unit adapted to line said chamber, and a soldering tip disposed within said chamber and adapted to make intimate contact with said heater unit, of wedging means for holding said tip in position and for maintaining a pressure on said heater unit.

[Claims 6 to 14 not printed in the Gazette.]

1,075,474. SIFTER FOR FLOUR-BINS. HARRY A. HALL, Newcastle, Ind., assignor to The Hoosier Manufacturing Company, Newcastle, Ind., a Corporation of Indiana. Filed June 2, 1913. Serial No. 771,350. (Cl. 83—60.)

1. The combination with a flour bin having a bottom outlet and a hopper leading thereto, of a sifter-body removably secured to the bin, a shaft-holder mounted in the

sifter-body, a sieve-basket, a shaft on which the sieve-basket is mounted, said shaft being removably secured in said holder, a hand crank, and means operated by the crank for oscillating said sieve-basket.



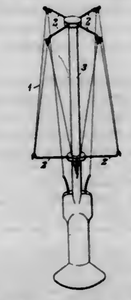
2. The combination with a flour bin having a bottom outlet and a hopper leading thereto, of a sifter-body removably secured to the bin, a plate within the sifter-body extending diametrically thereof, shaft supporting means on said plate, a circular sieve-basket, a vertical shaft concentrically of the basket to which the basket is secured, said shaft being supported by the shaft supporting means of said plate, a hand crank, and means operated by the crank for oscillating said sieve-basket.

3. The combination with a flour bin having a bottom outlet and a hopper leading thereto, of a sifter-body removably secured to the bin, a sieve-basket removably mounted within the sifter body, a yoke depending from the sieve-basket, a hand crank, a second crank passing through the yoke and having means to contact with the yoke to oscillate the sieve-basket when the shaft is rotated and a gear means connecting the last shaft with the crank shaft.

4. The combination with a flour bin having a bottom outlet and a hopper leading thereto, of a sifter-body secured to the bin, a sieve-basket mounted within the sifter-body, a yoke depending from the sieve-basket, a horizontal shaft passing through the yoke, means on the shaft to contact with the yoke and oscillate the sieve-basket when the shaft is rotated, a second shaft having a hand crank and gear means between the two shafts.

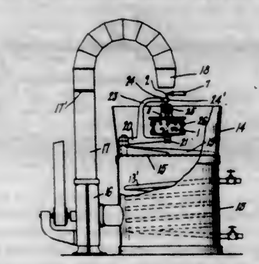
5. The combination with a flour bin having a bottom outlet and a hopper leading thereto, of a sifter-body removably secured to the bin, a vertical shaft removably secured within the sifter-body, a circular sieve-basket supported by said shaft, a yoke depending from the sieve-basket, a shaft passing through the yoke and having an eccentric wheel between the members of the yoke, a hand crank shaft and gears connecting the hand crank shaft with the shaft which passes through the yoke.

1,075,475. INCANDESCENT LAMP. ROBERT H. HENDERSON, East Orange, N. J., assignor to Westinghouse Lamp Company, a Corporation of Pennsylvania. Filed Feb. 3, 1911. Serial No. 606,428. (Cl. 176—39.)



The method of manufacturing an incandescent lamp which consists in applying a filament to a support having a hook to receive the filament and a guard for the hook, and then removing the guard.

1,075,476. MEANS FOR DRYING ARTICLES OF JEWELRY. ARTHUR W. HUTCHINS, Cranston, R. I., assignor of one-half to William Ely, Providence, R. I. Filed Nov. 23, 1910. Serial No. 593,829. (Cl. 34—26.)



1. An article of the character described comprising a central post provided with a suitable handle, a woven wire body portion mounted to revolve upon said post, a series of inclined blades upon the exterior of said body portion, a series of posts and a series of hooks upon said body portion arranged and adapted to hold articles of jewelry.

2. The combination, with an air blast drying machine, of a plurality of containers for holding articles of jewelry mounted to revolve therein and means for moving said containers to operative and inoperative position.

3. The combination, with the drying chamber of an air blast drying machine, of two containers mounted to revolve therein, means for moving each of said containers to operative and inoperative positions, one of said containers being arranged and adapted to be in operative position while the other container is in inoperative position.

4. The combination, with the drying chamber of an air blast drying machine, of a standard mounted therein, a movable bracket mounted on said standard, and a revolving container removably mounted in said bracket.

5. The combination, with the drying chamber of an air blast drying machine, of a removable standard mounted therein, two movable brackets mounted on said standard, and a container mounted to revolve on each of said brackets.

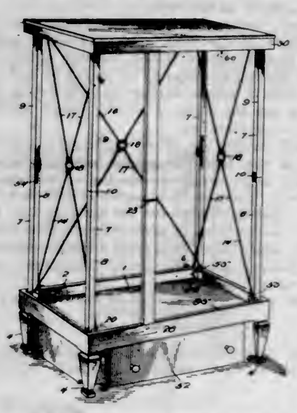
[Claims 6 to 8 not printed in the Gazette.]

1,075,477. HYDROMETRIC EGG-DETECTOR. WILLIAM H. HUTCHINSON, Rochester, N. Y. Filed May 4, 1912. Serial No. 695,187. (Cl. 99—6.)



An egg detector comprising a hollow body portion formed of separate cup-shaped sections held together by a separate ring disposed interiorly of the sections, a holder formed of wire attached to one section, a neck formed on the upper section, a tubular scale member secured to said neck, and a removable cover at the upper end of the tubular scale member, said scale member being provided with graduations adapted to coöperate with the surface of a liquid in which the instrument is submerged.

1,075,478. KNOCKDOWN WARDROBE. ELTON N. JOHNSON, Harrison Valley, Pa. Filed June 29, 1912. Serial No. 706,769. (Cl. 45—118.)



1. A portable wardrobe comprising a hollow base, a top adapted to form therewith a closed receptacle, separable hinge members detachably connecting said top and base, folding frame members detachably connected with said top for supporting the same when said top is disconnected from said base, said frame members when folded being received within said base, and a fabric covering for inclosing said frame members.

2. A portable wardrobe comprising a hollow base, sockets secured to said base, a top adapted to form with said base a closed receptacle, separable hinge members connecting said top and base, folding uprights received in said sockets and detachably connected with said top for supporting the same when said top is disconnected from said base, said uprights when folded being received within said base, and a fabric covering inclosing said uprights.

3. In a portable wardrobe, a frame comprising a base, a top, and folding uprights detachably connected with said top for supporting the same from said base, inclined braces detachably connected to the corners of said frame, and a fabric covering inclosing said uprights.

4. In a portable wardrobe, a frame comprising a base, a top, and folding uprights detachably connected with said top for supporting the same from said base, inclined braces detachably connected to the corners of said frame, each of said braces comprising a central ring and links extending from said ring to the corners of said frame and having means for detachable connection therewith, and a fabric covering inclosing said uprights.

5. A portable wardrobe comprising a base, sockets carried by said base and provided with flanges, a top, folding uprights received in said sockets and detachably connected with said top for supporting the same from said base, diagonal braces detachably connected at their upper ends to the corners of said top and provided at their lower ends with hooks engaging said flanges, and a fabric covering inclosing said uprights.

1,075,479. GALVANIC CELL. MORDUCH L. KAPLAN, Brooklyn, N. Y. Filed May 20, 1913. Serial No. 768,870. (Cl. 204—38.)

1. A galvanic cell containing as a depolarizing agent sesquihydrated manganese peroxid.

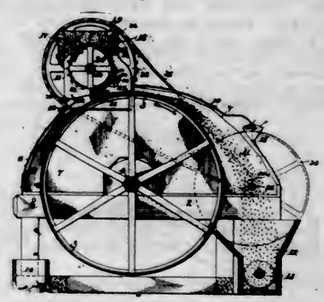
2. A galvanic cell containing as a depolarizing agent hydrated manganese peroxid characterized by being a fine powder, dense and of dark blue color.

3. A process for obtaining hydrated manganese peroxid suitable for use as a depolarizer in a galvanic cell, comprising the oxidation of manganese carbonate.

4. A process for obtaining hydrated manganese peroxid suitable for use as a depolarizer in a galvanic cell, comprising the oxidation of manganese carbonate by a solution of a permanganate.

5. A process for obtaining hydrated manganese peroxid suitable for use as a depolarizer in a galvanic cell, comprising the oxidation of insoluble salts of manganese.

1,075,480. SEED-CLEANING MACHINE. ALFRED D. KENNEDY, Greenville, S. C., assignor of one-half to American Machine & Manufacturing Company, a Corporation of North Carolina. Filed Mar. 5, 1913. Serial No. 752,028. (Cl. 130—18.)



1. In a seed cleaning machine, a large rotating separating drum, combined with a small feed cylinder having projections arranged above the separating drum, a hopper for supplying seeds to the upper portion of the feed cylinder, an adjustable feed apron extending under the feed cylinder and axially pivoted thereto, and means for adjusting the feeding end of the apron in the plane of rotation of the separator drum, whereby the seed may be delivered to the separating drum at various positions in advance of a vertical plane through its axis.

2. In a seed cleaning machine, a large rotating separating drum, combined with a small feed cylinder having projections arranged above the separating drum, a hopper for supplying seeds to the upper portion of the feed cylinder, an adjustable feed apron extending under the feed cylinder and axially pivoted thereto, and means for adjusting the feeding end of the apron in the plane of rotation of the separator drum, and spring supports for the feed apron to enable the apron to yield should hard substances of large size find their way between the feed cylinder and apron, whereby the seed may be delivered to the separating drum at various positions in advance of a vertical plane through its axis.

3. In a seed cleaning machine, a large rotating separating drum, combined with a small feed cylinder having projections arranged above the separating drum, a hopper for supplying seeds to the upper portion of the feed cylinder, a yielding back to the hopper to normally prevent seed passing freely between the cylinder projections and hopper back but which yields for the passage of large foreign hard substances, an adjustable feed apron extending under the feed cylinder and axially pivoted thereto, and means for adjusting the feeding end of the apron in the plane of rotation of the separator drum, whereby the seed may be delivered to the separating drum at various positions in advance of a vertical plane through its axis.

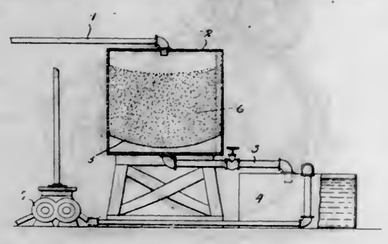
4. In a seed cleaning machine, the combination of a separating drum, a feeding cylinder above and in advance of the vertical center of the separating drum, a hopper above the feeding cylinder and having a spring supported

yielding back, a feed apron extending under the feeding cylinder and yieldingly movable away from the cylinder to permit the passage of objectionable foreign objects, a casing for the separating drum open adjacent to the feeding cylinder and extending down in front of and back of the separating drum, whereby the seed passes to the back of the separating drum and the foreign heavy articles pass to the front of the separating drum.

5. In a seed cleaning machine, the combination of a large separating drum, feeding means above the drum and above its rising surface to supply seed to the drum, a casing extending over the drum and comprising side plates connected by hoods over the front and back portions of the drum and terminating upon each side of the feeding means therefor, and a chaff and dust vent provided with a valve arranged in the rear hood to allow the escape of dust and chaff while the seed are passing downward between the drum and rear hood.

[Claims 6 to 8 not printed in the Gazette.]

1,075,481. PROCESS FOR REFINING AND PURIFYING OILS. DAVID F. LASHER, Orange, Tex. Filed Sept. 15, 1910. Serial No. 582,260. (Cl. 196—26.)



1. The process of filtering liquids consisting in passing the liquid through the ashes of rice hulls.

2. The process of refining petroleum consisting in treating it with acid and alkali, washing it to remove the acid and alkali, and then running the washed petroleum through rice hull ashes.

1,075,482. DOLL. ELLA DOLBEAR LEE, Chicago, Ill. Filed Jan. 3, 1913. Serial No. 740,060. (Cl. 46—40.)



1. A doll made from a plurality of blanks connected at a point adjacent the waist line so as to provide two movable spaced surface engaging and supporting projections simulating the legs of the doll, one projection being formed with a laterally projecting portion to prevent sidewise tilting movement while both, when separated coact to prevent forward and rearward tilting movement.

2. A doll made from a plurality of blanks connected together at a point intermediate the ends thereof, each of said blanks having formed and projecting from the lower edge thereof a portion simulating a leg, the foot of one of the legs being extended outwardly to provide a longer supporting base than the foot of the other leg, and said legs being disposed for separation to form spaced supports for the doll.

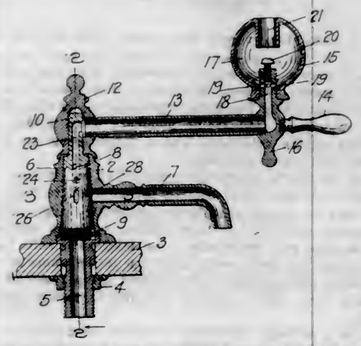
3. A doll made from a plurality of blanks, each of said blanks having formed and projecting from the lower edge thereof a portion simulating a leg, the foot of one of the legs being extended outwardly to provide a longer supporting base than the foot of the other leg, said blanks being connected together down to a point adjacent the waist line so that the portion below the waist and the legs may be moved to and from each other to change the relative position of the feet.

4. A doll, having two blanks forming the front and rear portions of the head, arms and body, and a single leg, said blanks being attached together at the waist line to permit the leg portions to be moved to and from each other to form a spaced support for the doll and the foot portion of one leg being of greater length than the foot portion of the other leg.

5. A doll, having two blanks forming the front and rear portions of the head, arms and body and a single leg, said blanks being attached together at the waist line to permit the leg portions to be moved to and from each other to form a spaced support for the doll, the foot portion of one of the blanks being of greater length than the foot portion of the other blank to provide a longer supporting base and to prevent sidewise tilting movement of the doll when in upright position.

[Claims 6 and 7 not printed in the Gazette.]

1,075,483. FAUCET. PETER J. LINDGREN, Denver, Colo. Filed Jan. 31, 1912. Serial No. 674,443. (Cl. 137—109.)



1. A faucet comprising a body having an inlet and an outlet, a valve in said body, and a bubbling cup, said valve having, internally, separate passages respectively in communication with said inlet and said cup, and in its exterior surface, ports connecting with the respective passages, one of said ports being disposed to register with said outlet, and the said body having a by-pass for establishing communication between said ports.

2. A faucet comprising a body having an inlet and an outlet, a valve in said body, and a bubbling cup, said valve having internally, separate passages respectively in communication with said inlet and said cup, and in its exterior surface, a pair of ports connected with one of said passages and a third port connected with the other passage, the said third port and one of said pair of ports being disposed to register with said outlet, and the said body having a by-pass for establishing communication between said third port and the other port of said pair.

1,075,484. ARC-LAMP ELECTRODE. GEORGE M. LITTLE, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Jan. 5, 1907. Serial No. 351,019. (Cl. 176—136.)

1. An electrode containing ferric material and a silicate of an alkaline metal.

2. An electrode containing a metallic oxid and a silicate of an alkaline metal.

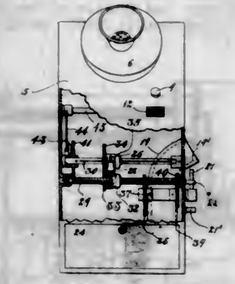
3. An electrode containing a conducting metallic oxid and a silicate of an alkaline metal.

4. An electrode containing iron oxid and a silicate of an alkaline metal.

5. An electrode containing iron oxid and potassium silicate.

[Claim 6 not printed in the Gazette.]

1,075,485. TELEPHONE PAY-STATION. GEORGE A. LONG, Hartford, Conn., assignor to The Gray Telephone Pay Station Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 19, 1912. Serial No. 678,661. (Cl. 179—7.)



1. A telephone pay station comprising a signal, means for locking said signal against action, an indicator, manually operable means for releasing said signal and for also operating said indicator, and independent manually operable means for also operating said indicator.

2. A telephone pay station comprising a telephone transmitter, an audible signal to transmit sounds through said transmitter, means for locking said signal against action, an indicator, manually operable means for releasing said signal and for also operating said indicator, and independent manually operable means for also operating said indicator.

3. A telephone pay station comprising a signal, means for normally preventing action of said signal, an indicating device, manually operable means for moving said indicating device in one direction and for also releasing said signal, and independent manually operable means for moving said indicating device in the opposite direction.

4. A telephone pay station comprising a signal, an indicating device, manually operable means for moving said indicating device in one direction, and independent manually operable means for moving said indicating device in the opposite direction, one of said manually operable means being adapted to effect the action of said signal.

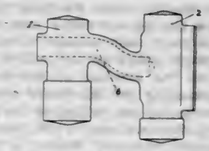
5. A telephone pay station comprising a signal, means for normally preventing action of the signal, an indicating device, manually operable means for advancing said indicating device and for also releasing the signal, and independent manually operable means for retracting said indicating device and for also effecting the operation of said signal.

[Claims 6 to 17 not printed in the Gazette.]

1,075,486. PUMP OR MOTOR CYLINDER AND METHOD OF MAKING THE SAME. CHARLES MATTHEWS MANLY, Freeport, N. Y. Original application filed July 19, 1911, Serial No. 639,464. Divided and this application filed Jan. 28, 1913. Serial No. 744,749. (Cl. 103—59.)

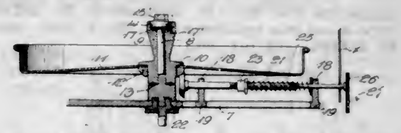
1. As a new article of manufacture, a forged steel cylinder and valve chamber connected by an integral bored passage-way.

2. As a new article of manufacture, a forged steel cylinder and valve chamber connected by an integral bored passage-way, said passage-way extending from the top of the cylinder to a point on the valve chamber offset therefrom.



3. A pump or motor cylinder comprising a forged steel bored cylinder with a side port at its outer end, a forged steel bored valve chamber parallel with said cylinder and connected therewith by an integral curved passage way connecting said end port of the cylinder with a middle port of the valve chamber, the said passage way being bored and having a configuration resulting from boring the passage way while straight and subsequently curving the same by bending.

1,075,487. MOVING-PICTURE MACHINE. LEWIS W. MERKEL, Allentown, Pa., assignor of one-fourth to John J. Hanlon and one-fourth to Harry G. Scheldon, Allentown, Pa. Filed Sept. 9, 1912. Serial No. 719,498. (Cl. 88—18.7.)



1. A moving picture machine, a reel box, a film tray revolubly mounted therein, a friction gear fixedly connected to the tray, a revolubly and slidably mounted shaft connected with and driven by the film feeding mechanism of the machine, a friction gear on said shaft to engage the friction gear on the tray, and a spring to yieldingly hold the friction gear on the shaft in operative engagement with the gear on the tray.

2. In a moving picture machine, a reel box, a film supporting tray revolubly mounted therein, a film holding cone having a reduced inner end to receive the tray and having a flange engaged with the inner side of the bottom of the tray, a combined threaded clamping nut and friction gear having a threaded engagement with the reduced end of the cone whereby the tray is rigidly fastened thereto, a revolubly mounted tray operating shaft connected to and driven by the film feeding mechanism of the machine, a friction gear mounted on said shaft and having an operating engagement with the combined nut and friction gear on said cone and tray, whereby these parts are revolved as long as said shaft is driven by said film feeding mechanism and whereby when said mechanism is stopped said shaft and the gear thereon will also be stopped and thereby exert a retarding action on the gear of the tray to gradually stop the movement of the latter.

3. In a moving picture machine, a reel box, a film supporting tray revolubly mounted therein, a friction gear fixed on said tray, a tray operating shaft revolubly and slidably mounted in said reel box, a friction gear fixed on said shaft, a spring to yieldingly hold the friction gear on the shaft in operative engagement with the gear on the tray whereby as long as said shaft is driven the tray will be revolved and whereby when said shaft is stopped and held, the frictional engagement of the gear thereon with the gear on the tray will gradually stop the latter.

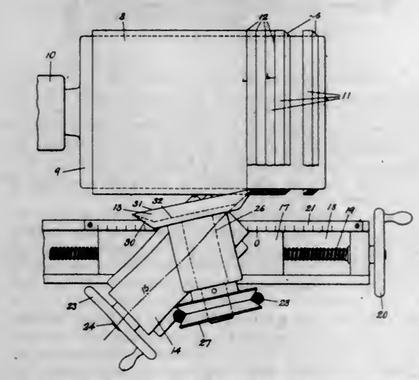
4. In a moving picture machine, a reel box, a film supporting tray revolubly mounted therein, a film supporting member projecting from said tray, film guiding rollers to receive and guide the film when unwound from the tray, a pair of tension rollers, a pivotally mounted roller

supporting bar adapted to revolubly support said rollers in operative position to receive the film from said guide rollers, a spring engaged with said roller supporting bar whereby the latter is held in position to maintain the film at the proper tension when fed from the tray and whereby should the film be fed faster than the same is delivered from the tray, said tension rollers and their supporting bar will be rocked by the pull of the film to momentarily shorten the distance of the travel of the film thereby compensating for the faster feeding of the mechanism and preventing the jerking of the film.

5. In a moving picture machine, a reel box, a film supporting tray revolubly mounted therein, a film holding cone having a flange engaged with the bottom of the tray, a combined clamping nut and friction gear having a threaded engagement with the cone, a shaft connected to and driven by the film feeding mechanism of the machine, a friction gear mounted on said shaft, and means for pressing it yieldingly into operating engagement with the combined nut and friction gear.

[Claim 6 not printed in the Gazette.]

1,075,488. GASKET-CUTTING APPARATUS. JOSEPH MERRITT, Hartford, Conn., assignor, by direct and mesne assignments, of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York, and one-fourth to William A. Lorenz and one-fourth to William H. Honiss, Hartford, Conn. Original application filed Mar. 20, 1906, Serial No. 307,005. Divided and this application filed May 6, 1907. Serial No. 372,062. (Cl. 164—69.)



1. A cutter provided with an annular blade having a smooth, sharp and thin circular edge, both side faces of which are inclined to a substantial degree away from a right angle relation to the axial center of the cutter, whereby the cutter is adapted to perform its cutting action in a direction substantially oblique to the said axial center.

2. A cutter provided with a central stem and with an outwardly flaring blade having its inner and outer surfaces of decided and substantially conical contours, and meeting in a sharp smooth circular edge concentric with the stem.

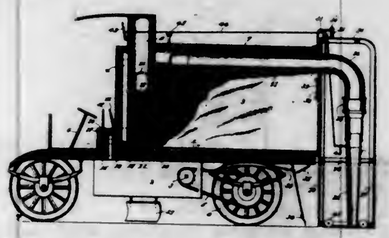
3. A circular rotary cutter having a flat web merging into a flaring annular blade, the inner and outer faces of which flare to a substantial degree from a right angular relation to the axial center of the cutter and converge to a sharp, thin, circular edge extending in the general direction of its cutting action.

4. A cutter provided with a central stem and having a circular cutter blade extending outwardly from the stem, at first at substantially right angles with the stem, and then flaring at an acute angle with the stem, the two sides of the flaring portion being of differing conical contours converging to a cutting edge substantially concentric with the stem, and means for effecting the cutting action of the blade in the general direction of the flaring portion of the cutter.

5. Means for cutting acute angled gaskets from a tube or gasket material, having in combination means for supporting the tube, and a conical cutter supported at one side of the tube with its axis disposed at an angle with the longitudinal center of the tube, and having its cutting blade flared in substantial coincidence with the desired acute angle of the cut, the said blade having its circumferential extension disposed in substantial coincidence with that portion of the circumferential wall of the tube which is penetrated by the cutter.

[Claims 6 to 22 not printed in the Gazette.]

1,075,489. STREET-CLEANER. THOMAS H. MURRAY, JAMES P. MURRAY, and EDWARD S. NEILAN, New London, Conn. Filed Sept. 11, 1912. Serial No. 719,896. (Cl. 15—17.)



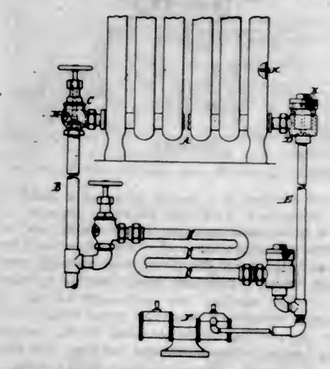
1. In a street cleaner, a truck, a closed receptacle mounted thereon, a suction pump arranged to discharge in the receptacle, said receptacle having a screened exhaust opening, a suction head connected to the pump and a hood surrounding the suction head and covering the exhaust opening, means for supporting the hood upon the ground, and means to resiliently hold the same in engagement with the ground.

2. In a street cleaner, a truck, a closed body mounted thereon and having an exhaust opening, a partition dividing the body into separate compartments, a suction pump arranged in one compartment, means for driving said suction pump, a suction head connected to the pump, a hood surrounding and connected to the suction head, means for supporting the hood upon the ground, means for resiliently holding the hood in engagement with the ground, and means for raising the head and hood against said holding means.

1,075,490. VACUUM STEAM-HEATING SYSTEM. MILLARD P. OSBOURN, Merchantville, N. J., assignor to Warren Webster & Company, a Corporation of New Jersey. Filed Mar. 2, 1908. Serial No. 418,676. (Cl. 237—9.)

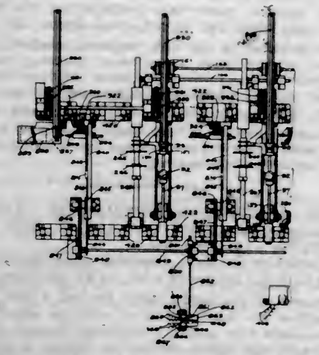
1. The herein described method of operating a vacuum system of steam heating which consists, in supplying steam to a plurality of radiators or coils and independently regulating or shutting off the supply of said steam in accordance with the requirements, simultaneously therewith maintaining a partial vacuum in a return pipe and exhausting thereby the air and water of condensation from the plurality of radiators and each of them, and automatically admitting air from the room outside of the return pipe to the radiators or coils and each of them immediately when the internal pressure therein becomes lowered below atmospheric pressure approximately equal to the pressure in the return pipe adjacent to said radiators or coils.

2. The herein described method in a heating system of preventing back circulation from the return pipe into the heating unit and resulting noise from back lash, which consists in normally maintaining a differential in pressure within the heating unit and return at all times during the operation of the heating system whereby the circulation will be from the supply pipe through the heating unit into the return, varying the steam supply to any extent desired to vary the heating effect of the heating unit, and preventing a reversal of the differential in pressure between the heating unit and return by automatically admitting air from the atmosphere outside of the return pipe into the heating unit immediately after reducing or shutting off the steam supply thereto to maintain an internal pressure in said heating unit adjacent to the return equal to or greater than the pressure in the return.



3. The herein described method of preventing back lash in a vacuum steam heating system employing return valves between the radiators and vacuum return pipe, which consists in lowering the internal pressure in the radiator by hand control of the steam supply thereto until it is below atmospheric pressure and then automatically checking the further lowering of the pressure on the inlet side of the return valve by admitting air into the radiator from the atmosphere outside of the return pipe, whereby the internal pressure within the radiator shall not be permitted to become lower than the internal pressure of the return pipe adjacent to the radiator, and drawing any surplus air so admitted to the radiator into the return pipe after the radiator has cooled to maintain the pressure in the radiator when cold approximately the same as that in the return pipe.

1,075,491. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J. Filed May 3, 1909. Serial No. 493,596. (Cl. 164—117.)



1. A machine for operating upon structural shapes including in combination means for piercing the shape, means for alining the shape relatively to said piercing means, means for progressing and locating the shape relatively to said piercing means, and means for supplying a shape to said progressing means.

2. A machine for operating upon structural shapes including in combination, means for piercing the shape, means for alining a shape relatively to said piercing means, means for supplying a shape to the alining means, and operating means for the alining means, controlled by said supplying means.

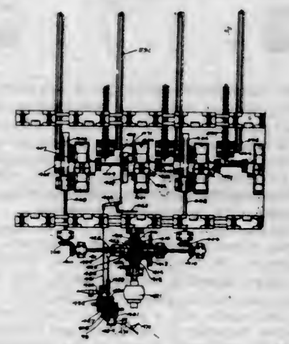
3. A machine for operating upon structural shapes including in combination means for piercing the shape, means for alining the shape relatively to said piercing means, means for supplying a shape to the alining means, and means controlled by the supplied shape for controlling the alining means.

4. A machine for operating upon structural shapes including in combination means for piercing the shape, means for alining a shape relatively to said piercing means, and means for supplying a shape to the alining means, said supplying means comprising a part wherein the shape is mechanically moved, and another part wherein it is moved by gravity.

5. A machine for operating upon structural shapes including in combination means for piercing the shape, means for supplying a shape to the machine, means for engaging a supplied shape and progressing it toward the piercing means, and means for controlling said engaging and progressing means, said controlling means being operated by the supplied shape.

[Claims 6 to 138 not printed in the Gazette.]

1,075,492. METAL-WORKING MACHINE. THEODORE P. PAYNE, Newark, N. J. Filed Oct. 22, 1909. Serial No. 523,974. (Cl. 164—87.)



1. A machine for operating upon structural shapes including in combination tool-equipped means for operating upon the shape, means for progressing the shape relatively to the tool-equipped means, means for supplying a shape to the progressing means, and means for transferring a shape from the supplying means to the progressing means and supporting the shape while it is being progressed by the progressing means.

2. A machine for operating upon structural shapes including in combination tool-equipped means for operating upon the shape, means for progressing the shape relatively to the tool-equipped means, means for supplying a shape to the progressing means, and means for transferring a shape from the supplying means to the progressing means and supporting the shape by rolling contact while it is being progressed by the progressing means.

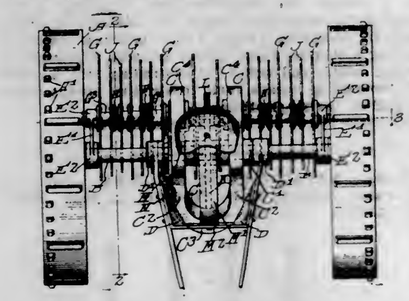
3. A machine for operating upon structural shapes including in combination tool-equipped means, means for progressing the work longitudinally relatively thereto, and means which bring the work to the progressing means and hold the work in position while it is being progressed by the progressing means.

4. A machine for operating upon structural shapes including in combination tool-equipped means, means for progressing the work, means for supplying the work in a side wise position to the progressing means and for supporting it while it is progressed in an endwise direction by the progressing means to bring the different parts into coöperative relation with the tool-equipped means.

5. A machine for operating upon structural shapes including in combination tool-equipped means, progressing means, and means for supporting the work during progression, said supporting means comprising a plurality of members which are movable relatively to each other in one direction to permit a portion of the work to pass therebetween and in the opposite direction to pass into supporting relation with another portion of the work, said supporting means not progressing with the work.

[Claims 6 to 114 not printed in the Gazette.]

1,075,493. AGRICULTURAL PULVERIZER. DARIUS T. PHILLIPS, Chicago, Ill. Filed June 15, 1912. Serial No. 703,771. (Cl. 55—85.)



1. In an agricultural pulverizer of the class described, a traveling wheeled support in combination with a plurality of pulverizing members mounted thereon, and adapted to be directly actuated by contact with the earth over which the machine travels, and a plurality of independent positively driven cutter members axially alined with said pulverizing members and coöperating therewith to reduce the earth to pulverized condition.

2. In an agricultural pulverizer of the class described, a traveling wheeled carriage, and a common shaft supported thereby, in combination with a plurality of pulverizing disks mounted on said shaft, and adapted to be directly actuated by contact with the earth over which the machine travels, and a plurality of independent rotary cutter means mounted on said shaft and connected to and adapted to be positively driven by the supporting wheels of the machine.

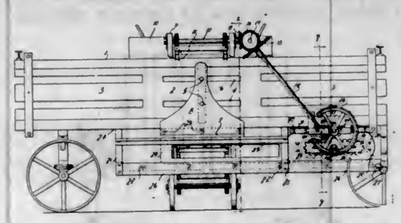
3. In an agricultural pulverizer of the class described, a supporting frame having supporting wheels, in combination with a series of pulverizing members mounted on said frame and connected to and positively driven by said supporting wheels, and an independent series of pulverizing members axially alined with and interposed between said positively driven members and adapted to be actuated by direct contact with the earth over which the machine travels.

4. In an agricultural pulverizer of the class described, a supporting frame having supporting wheels and a connecting axle, in combination with a series of pulverizing cutters mounted on said frame and connected to and positively driven by said supporting wheels, an independent series of interspersed pulverizing members alined with said cutters and adapted to be actuated by direct contact with the earth over which the machine travels, a common shaft supporting said cutters and members, and a yoke swingingly carried by said axle and supporting said shaft for simultaneously raising said series of pulverizing members and cutters out of contact with the ground when the machine is traveling from place to place.

5. An agricultural pulverizer having a group of idly rotating pulverizer members and an interspersed group of positively driven pulverizer members axially alined therewith.

[Claims 6 to 13 not printed in the Gazette.]

1,075,494. BALING-PRESS. WILLIAM R. POTTER, Buckhoits, Tex. Filed Apr. 21, 1913. Serial No. 762,517. (Cl. 100—5.)



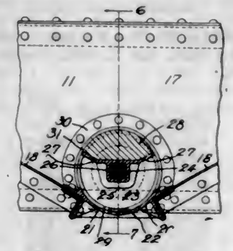
1. The combination in a baling press, of a press frame having a press box arranged between opposed baling chambers, a press head working in the press box, a carrier mounted to reciprocate under the frame and having positive connection with the press head through the side of the press frame, transverse rollers carried by the carrier and bearing against the underside of the press frame, hangers suspended from the press frame, a channel member supporting the lower ends of the hangers, a link having reciprocating movement between the hangers and confined thereby against lateral displacement, the carrier being fixed on one end of the link, transverse rollers journaled in the channel member and supporting the link, angular guide bars mounted on the hangers at their outer sides and receiving the carrier, an operating head mounted on the link, supports mounted on the underside of the press frame and receiving the link head therebetween, rollers journaled between the supports and against which the head bears, and means for imparting a reciprocatory motion to the link head.

2. The combination in a baling press, of a press frame having a press box arranged between opposed baling chambers, a press head working in the press box, a carrier mounted to reciprocate under the frame and having positive connection with the press head through the side of the press frame, transverse rollers carried by the carrier and bearing against the underside of the press frame, hangers suspended from the press frame, a channel member supporting the lower ends of the hangers, a link having reciprocating movement between the hangers and confined thereby against lateral displacement, the carrier being fixed on one end of the link, transverse rollers journaled in the channel member and supporting the link, angular guide bars mounted on the hangers at their outer sides and receiving the carrier, an operating head mounted on the link, supports mounted on the underside of the press frame and receiving the link head therebetween, rollers journaled between the supports and against which the head bears, means for imparting a reciprocatory motion to the link head, a gearing connected with the link head, a support for said gearing mounted on the press frame, and means for transmitting motion to said gearing.

1,075,495. CAR-DUMPING MECHANISM. NATHANIEL S. REEDER, Chicago, Ill. Filed July 22, 1910. Serial No. 573,360. (Cl. 105—185.)

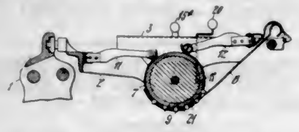
1. A device of the class described comprising the combination with the hopper of a car, of an apertured mouth plate secured at the lowest point thereof, a pair of side plates within the hopper integral with the mouth plate, flanges on said side plates, a revoluble member mounted between said side plates within the flanges, a shaft for said member, and means for rotating said shaft and member to open or close the hopper.

2. In a dump car, a plurality of hoppers, a curved apertured mouth plate at the bottom of each hopper, side plates within the hoppers, circular flanges on said plates continuous with the mouth plate, revoluble members between the side plates having circular side plates engaging said flanges, radial webs between the side plates of the



revoluble member, a filler block between said webs, shafts connecting the revoluble members, and means for rotating the shafts to operate the revoluble members simultaneously.

1,075,496. TYPE-WRITING MACHINE. FRANK A. ROBINSON, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 10, 1912. Serial No. 702,682. (Cl. 197—127.)



1. In the paper feed mechanism of a typewriting machine, a rotatable platen having work-carrying studs thereon arranged at uniform intervals to engage similarly arranged perforations in a work sheet, said studs being placed in an arc extending part way only, around the platen, whereby a part of the circumference of the platen is left unobstructed for the free insertion of a work sheet.

2. In the paper feed mechanism of a typewriting machine, the combination of a rotatable platen having work-carrying studs thereon arranged at uniform intervals to engage similarly arranged perforations in a work sheet, said studs being placed in an arc extending part way only, around the platen, whereby a part of the circumference of the platen is left unobstructed for the free insertion of the work sheet, and means to hold the work sheet against the platen for a sufficient portion of the circumference thereof to be always engaged by said studs.

3. In the paper feed mechanism of a typewriting machine, the combination of the rotatable platen having work-carrying studs thereon arranged at uniform intervals to engage similarly arranged perforations in a work sheet, said studs being placed in an arc extending less than half the way around the platen, whereby the greater part of the circumference of the platen is left unobstructed for the free insertion of a work sheet, and releasable means to hold the work sheet against the platen or a sufficient portion of the circumference thereof to be always engaged by the studs.

4. In the paper feed mechanism of a typewriting machine, a rotatable platen having two rows of work-carrying studs thereon arranged at uniform intervals to engage similarly arranged perforations in a work sheet, said studs being placed in parallel arcs extending part way only, around the platen, whereby a part of the circumference of the platen is left unobstructed for the free insertion of a work sheet.

5. In the paper feed mechanism of a typewriting machine, the combination of a rotatable platen having work-carrying studs thereon arranged at uniform intervals to engage similarly arranged perforations in a work sheet, said studs being placed in an arc extending part way only, around the platen, whereby a part of the circumference of the platen is left unobstructed for the free insertion of a work sheet, and a stop for arresting said platen when said studs are in accessible position, so that a work sheet may be caught upon them.

[Claims 6 to 18 not printed in the Gazette.]

1,075,497. ELECTRIC SOLDERING-IRON. EDWARD E. ROSE, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 10, 1911. Serial No. 620,174. (Cl. 219—28.)



1. An electric soldering iron comprising a receptacle, a heater unit disposed therein as a lining, a tubular member for securing said heater unit in position and maintaining a pressure thereon, and a removable soldering tip having a tapered end seated in a correspondingly tapered socket in said tubular member and frictionally held therein.

2. An electric soldering iron comprising a holder having a tapered recess therein, a thin heater unit constituting a lining for said recess, a tubular member located within said heater unit under compression and having a tapered interior, and a soldering tip frictionally held in said interior.

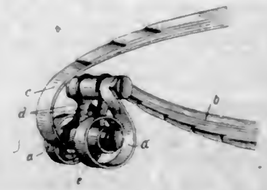
3. In an electric soldering iron, the combination with a supporting member having a tapered receiving chamber, and a tubular heater unit fitted therein, of a tapered sleeve of good conducting material located within said heater and making intimate contact therewith and a removable soldering tip frictionally secured within said tapered sleeve.

4. In a soldering iron, the combination with a tapered receptacle, a tubular heater disposed therein, and a tapered sleeve member located within said heater and exerting pressure thereon, of a removable plug tip having a greater taper than said sleeve member and frictionally held within said sleeve member.

5. In an electric soldering iron, the combination with a supporting member having a tapered receiving chamber and a transverse key-way at the base thereof, a thin incased heater unit disposed in said chamber as a lining therefor, and a tapered sleeve member fitted within said heater unit to effect a considerable pressure thereon, said sleeve member being permanently secured to said supporting member and provided with a centrally disposed tapered recess, of a soldering tip frictionally held in said recess and having a portion which projects through said recess into coöperative relationship with said transverse keyway.

[Claim 6 not printed in the Gazette.]

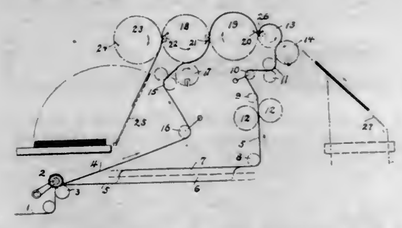
1,075,498. CONNECTING MEANS FOR SPRINGS IN VEHICLES AND THE LIKE. JACQUES MINETTE DE SAINT MARTIN, Paris, France. Filed Oct. 10, 1912. Serial No. 725,015. (Cl. 21—50.)



1. In vehicles, scroll spring shackles for connecting the bearing springs, in which the inner end of one of the coils of the scroll is connected to the upper bearing spring while the end of the outer or upper coil of the scroll is connected to the lower bearing spring of the vehicle.

2. Flexible shackles for connecting the ends of vehicle bearing springs, in combination with a lower connecting pin and plates having a longitudinal slot through which the lower connecting pin freely slides.

1,075,499. PRINTING-MACHINE. LOUIS A. SCHMIDT, New York, N. Y., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Apr. 9, 1909. Serial No. 488,824. (Cl. 101—120.)



1. The combination with means for forwarding a plurality of webs at the same speed, said webs having been printed on a rotary printing mechanism the printing cylinders of which have their printing surfaces arranged thereon so that the columns run around the cylinders, whereby the webs are imprinted with columns parallel to the run thereof, of a collecting cylinder for collecting sheets cut from one of the webs, and means for removing a section from one of the webs before collection, whereby a product having a number of pages in a multiple of two may be formed.

2. The combination with means for forwarding a plurality of webs at the same speed, the webs bearing printed matter the columns of which are parallel to the run of the webs of a collecting cylinder for collecting sheets cut from the webs, means for removing a section from one of the webs before collection, whereby the cylinder is caused to collect a product the pages of which are not a multiple of four, and a longitudinal folder which receives the product from the cylinder.

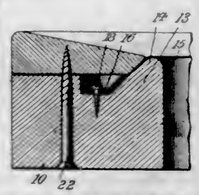
3. The combination with means for forwarding a web, said web having been printed on a rotary printing mechanism the printing cylinders of which have their printing surfaces arranged thereon so that the columns run around the cylinders, whereby the web is imprinted with columns parallel to the run thereof, of means for slitting the web, means for thereafter advancing both parts of the web at the same time, means for transferring a part of the web sidewise, a collecting cylinder for collecting sheets from both parts of the web, and means for removing a section from one of the parts prior to collection, whereby a product may be formed the pages of which are not a multiple of four.

4. The combination with means for forwarding and slitting a web, the web bearing printed matter the columns of which are parallel to the run of the web, of means for thereafter advancing both parts of the web at the same speed, means for transferring a part of the web sidewise, a collecting cylinder collecting sheets from both parts of the web, means for removing a section from one of the parts prior to collection, whereby a product may be formed the pages of which are not a multiple of four, and a longitudinal folder which receives the product from the cylinder.

5. The combination with a collecting cylinder, of means for directing a web thereto, a pair of cutting cylinders, means for directing a web to said cylinders, said webs bearing printed matter the columns of which are parallel to the run of the webs, a transfer cylinder located between the collecting cylinder and one of the pair of cutting cylinders, sheet taking devices on one of the cutting cylinders arranged to take alternate sections of the product formed by the cutting cylinders, sheet taking devices on the transfer cylinder arranged to forward the remainder of the product formed by the cutting cylinders to the collecting cylinder, and means for delivering the sections taken by the cutting cylinder out of the machine.

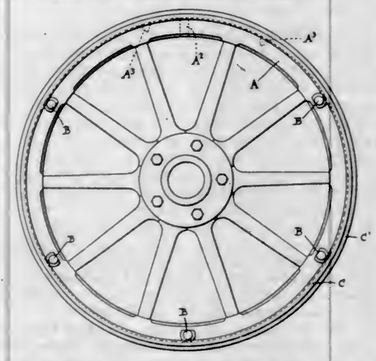
[Claims 6 to 9 not printed in the Gazette.]

1,075,500. CHAIR-SEAT. WALTER D. SCHMITS, New York, N. Y. Filed Apr. 8, 1913. Serial No. 759,605. (Cl. 155—4.)



A chair seat comprising a seat frame having a groove, and an upwardly extending rounded ledge located between said groove and the frame-opening, a chair bottom extending over the ledge into the groove, a clamping ring seated within the groove and engaging the chair bottom, and a covering frame having an upper inclined face that gradually approaches its lower horizontal face from the outer toward the inner edge of the frame, the inner edge of the covering frame abutting against the outer wall of the ledge, while the inclined upper face of said covering frame is flush with the rounded top of the ledge.

1,075,501. DEMOUNTABLE RIM FOR PNEUMATIC TIRES. ROBERT P. SCOTT, Cadiz, Ohio. Filed Mar. 14, 1911. Serial No. 614,476. (Cl. 152—21.)



1. A demountable rim comprising a wheel having a frusto conical periphery, a cylindrical wheel rim loosely fitting and projecting beyond the large base circle of the wheel periphery, a wedge-ring secured to the inner surface of the rim abutting against the smaller base of the wheel periphery along a narrow circumferential line, and lateral pressure devices, mounted on the felly, for forcing the wedge-ring laterally against the wheel, substantially as described.

2. A demountable rim comprising a wheel having a frusto conical periphery; a cylindrical wheel rim fitting the larger base of the wheel periphery; grooves in said rim; a ring secured to the inner surface of the rim taking against the smaller base of the wheel periphery; and screw disks having cutaway segments, for engaging and exercising lateral pressure upon the rim-grooves, and shafts for the screw disks laterally traversing the felly, substantially as described.

3. A demountable rim comprising a wheel; a wheel-rim removably mounted thereon having grooves; screw-disks, engaging the rim-grooves, having cutaway segments and

mounted on the side face of the wheel; and operating shafts for the screw disks laterally traversing the wheel, substantially as described.

4. A demountable rim comprising a wheel having a frusto conical periphery; a cylindrical wheel rim which has secured thereto a wedge-ring which contacts with the wheel periphery along a smaller base circle and is provided with a set of grooves; and screw disks, having cutaway segments, on the side face of the wheel, with shafts laterally traversing the wheel, coöperating with the rim-grooves to force the parts together, substantially as described.

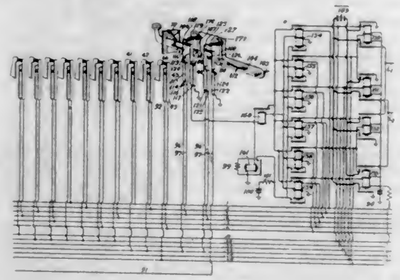
1,075,502. COMMUTATOR FOR DYNAMO-ELECTRIC MACHINES. THOMAS S. SCOTT, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Dec. 14, 1908. Serial No. 467,463. (Cl. 171—211.)



1. A commutator comprising a plurality of bars or segments and a plurality of clamping rings therefor, each of which comprises convolutions of wire, a sheet metal casing for the wire and an insulating casing for the sheet metal.

2. A commutator comprising a cylindrical bushing, a plurality of bars or segments mounted thereon and insulated therefrom and a plurality of composite clamping rings each of which comprises convolutions of wire, a metal armor therefor and an insulating jacket for the metal armor.

1,075,503. TELEGRAPH-TRANSMITTER. CHARLES E. SCRIBNER, Jericho, Vt., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Continuation of application Serial No. 648,351, filed Sept. 8, 1911. This application filed Nov. 28, 1911. Serial No. 662,843. (Cl. 178—69.)



1. In an apparatus of the class described, a series of switches, key controlled means for momentarily actuating a predetermined one of said series of switches, a selector also actuated by the key controlled means for actuating a second predetermined one of said series of switches.

2. In an apparatus of the class described, a series of switches, means for automatically operating selected ones of said series of switches in predetermined succession in response to a single initial act, said means including a key for momentarily actuating a predetermined one of said series of switches, an interval determining device also controlled by said key, and a selector operated by the return of the interval determining device to normal to actuate a second predetermined one of said series of switches.

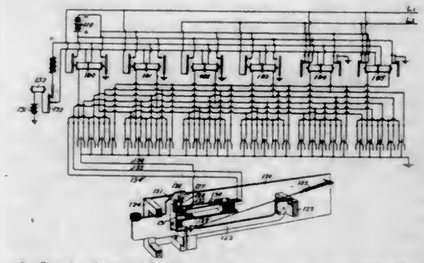
3. In an electrical impulse transmitter, the combination with a series of switches, of means for successively operating predetermined groups of said series of switches, said means including a key operated device for momentarily actuating a predetermined group of said series of switches for sending an electrical impulse to line, an interval determining device controlled simultaneously with the group of switches and operating, on its return to normal, a second group of the said series of switches, whereby a second electrical impulse is sent to line, and the duration of the interval between impulses is automatically determined.

4. In an electrical impulse transmitter for automatically sending a succession of impulses to line as the result of a single contact operating action of a key, a circuit including an interval-relay, a current control relay and a key operated interval contact, the operation of the interval contact momentarily energizing the interval relay and current control relay, whereby an electrical impulse is sent to line, the deënergization of said interval relay completing a circuit to again energize said current control relay whereby a second electrical impulse is sent to line.

5. In an electrical impulse transmitter, a key, a current-control relay, an interval relay, means controlled by said key for momentarily energizing both of said relays, a reënergizing circuit for said current control relay arranged to be completed through a back contact of said interval relay upon the recovery of the latter from its momentary excitation, whereby said current control relay is automatically operated a second time.

[Claims 6 to 23 not printed in the Gazette.]

1,075,504. TELEGRAPH-TRANSMITTER. CHARLES E. SCRIBNER, Jericho, Vt., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Nov. 28, 1911, Serial No. 662,846. Renewed Aug. 14, 1913. Serial No. 784,792. (Cl. 178—69.)



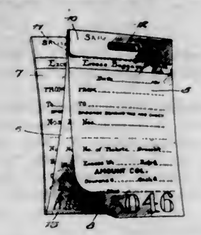
1. In an electrical impulse transmitter, the combination of a plurality of electromagnetic current control means, key operated means for selectively operating a group of said current control means, and a transfer relay operating to cause the successive energization of the selected group of current control means.

2. In an electrical impulse transmitter for transmitting a series of characteristic impulses, the combination of a series of current control means, one for each characteristic impulse, means for simultaneously selecting a group of the current control means, and electromagnetic means for causing the successive operation of said selected current control means.

3. In an electrical impulse transmitter, the combination of a plurality of current control means, means for simultaneously selecting a predetermined group of said current control means, a source of current controlled by said current control means, and electromagnetic means for causing the successive operation of the selected group of current control means to send a combination of impulses from said source of current to a main line.

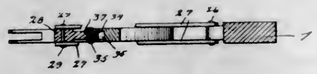
4. In an electrical impulse transmitter, the combination of two main line conductors, a source of current adapted to be intermittently connected to said main line conductors, current control relays, and means for selectively operating said current control relays in pairs, a transfer mechanism for shifting the control of said source of current from one to the other of said selected pair of current control relays.

1,075,506. EXCESS-BAGGAGE CHECK. GRANVILLE J. SINGLETON, Westville, Okla. Filed Aug. 24, 1912. Serial No. 716,929. (Cl. 40—27.)



A baggage check comprising a paper strip folded upon itself to produce an agent's stub, a passenger's check and a strap check normally lying in superposed relation, the agent's stub extending over the face of the passenger's check and being connected thereto at one of its ends, a reinforcing strip equivalent in width to the width of said paper strip and extending arounu one of the folds thereof and upon the agent's stub and the passenger's check and adhesively secured thereto, said agent's stub being provided with a line of perforations at one of the longitudinal edges of the reinforcing strip whereby the stub may be detached, the end portion of said stub remaining connected to the passenger's check and to said reinforcing strip, said paper strip at the other fold thereof being provided with a line of perforations whereby the strap check may be detached from the passenger's check.

1,075,506. VISE. GEORGE W. SMITH, Cloverdale, Ind. Filed Mar. 19, 1913. Serial No. 755,437. (Cl. 81—25.)



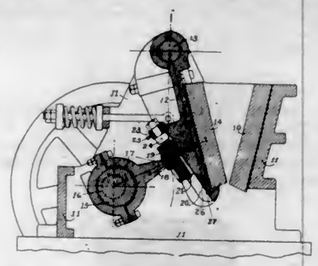
1. A vise comprising a frame, a jaw formed on said frame, a movable jaw pivoted upon said frame, links pivoted at one end upon said frame, an arm pivoted between the other ends of said links and provided with a cam slot, a transverse pin extending across a recess formed in said movable jaw and adapted to be engaged by said cam slot, a foot lever pivoted upon the frame, a link connecting said foot lever with said arm; and means for maintaining the movable jaw in desired positions.

2. A vise comprising a stationary frame provided with a jaw, a movable jaw, a foot lever for actuating said movable jaw, and means for locking said foot lever in desired positions, said means comprising a pawl pivoted on said lever and adapted to engage teeth formed on said frame, and a rocker member pivoted upon said foot lever and connected with said pawl, said pawl being adapted to be gravity operated for engaging said teeth, and movable out of engagement therewith by said rocker arm.

3. A vise comprising a frame provided with a stationary jaw, a movable jaw, a foot lever for operating said movable jaw, means for maintaining said foot lever in desired positions, said means comprising a pawl pivoted upon said foot lever and adapted to engage teeth formed on said frame, and means for releasing said pawl, said means comprising a rocker arm pivoted upon said foot lever and connected with said pawl by a pin movable in a slot in said pawl, said pawl being gravity operated to engage said teeth, and said rocker arm being adapted to be swung toward said frame for moving said pawl out of engagement with said teeth.

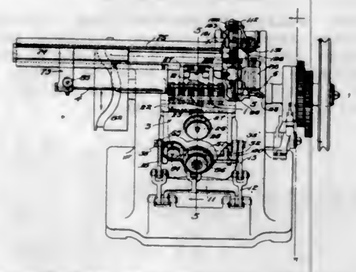
1,075,507. ROCK-CRUSHER. THOMAS L. SMITH, Milwaukee, Wis. Filed Nov. 6, 1911. Serial No. 658,675. (Cl. 83—53.)

In a rock crusher, a stationary jaw and a movable jaw arranged with a tapering space therebetween through which the rock passes by gravity as it is crushed, a shaft above the receiving end of said space movably supporting said movable jaw, a bearing block on the side of said movable jaw opposite its crushing surface and near its discharge end, means for adjusting said bearing block along said jaw to or from its discharge end, and an eccentric shaft and sleeve thereon for actuating said movable jaw,



said sleeve and bearing block having a rocking engagement with each other, the path of adjustment of said bearing block being inclined to the shortest distance between the center of the eccentric shaft and the crushing surface of the movable jaw and converging with said crushing surface toward its discharge end.

1,075,508. MACHINE FOR LACING SHOE-UPPERS. WILLARD A. SMITH, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 17, 1910. Serial No. 544,337. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, devices for simultaneously passing a series of loops of lacing cord through the eyelet holes of a shoe upper, and mechanism for successively forming the loops, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, devices for simultaneously passing a series of loops of lacing cord through the eyelet holes of a shoe upper, mechanism for successively forming the loops, and means for securing the lacing, substantially as described.

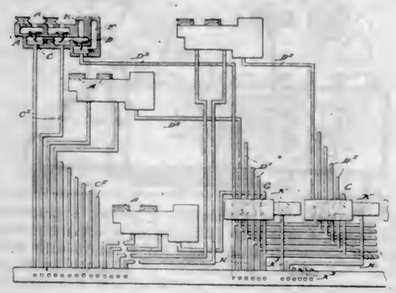
3. A machine for lacing shoe uppers, having, in combination, devices for presenting a series of loops of lacing cord in position to be passed through the eyelet holes of a shoe upper, mechanism for successively forming the loops, and means for passing a locking cord through the loops, substantially as described.

4. A machine for lacing shoe uppers, having, in combination, devices for presenting a series of loops of lacing cord in position to be passed through the eyelet holes of a shoe upper, mechanism for successively forming the loops, means for passing a locking cord through the loops, and means for securing together the ends of the cord, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, a series of looper needles arranged to pass a series of loops of lacing cord through the eyelet holes of a shoe upper, means coöperating therewith to successively form a series of loops in the lacing cord, means for passing a locking cord through the loops, and means for securing the lacing, substantially as described.

[Claims 6 to 34 not printed in the Gazette.]

1,075,509. AUTOMATIC MUSICAL INSTRUMENT. WILLIAM HENRY SMITH and FRANK WILLIAM GUNTON, London, England. Filed Dec. 7, 1908. Serial No. 466,223. (Cl. 84—168.)



1. In an automatic apparatus for playing a musical instrument, the combination with a tracker, sources of normal and excess pressure, pneumatics for each note operated through said pressures, conduits from said tracker to said pneumatics, of a pressure controlling pneumatic, a conduit therefrom terminating in a diaphragm chamber, a tracker conduit terminating in said chamber, a flexible diaphragm covering both conduits and actuated through said tracker conduit, and a pneumatic for controlling a group of diaphragms operated from the tracker and arranged to condition said diaphragm for operation through said tracker conduit.

2. In an automatic apparatus for playing a musical instrument, the combination with a tracker, sources of normal and excess pressure, pneumatics for each note operated through said pressures, conduits from said tracker to said pneumatics, of a pressure controlling pneumatic, a conduit therefrom terminating in a diaphragm chamber having an air inlet and a vacuum inlet, a tracker conduit terminating in said chamber, a flexible diaphragm in said chamber covering both of said conduits, and a pneumatic for controlling a group of diaphragms operated from the tracker and arranged to close said inlets alternately and to condition said diaphragm for operation through said tracker conduit whereby said pressure controlling pneumatic may be operated.

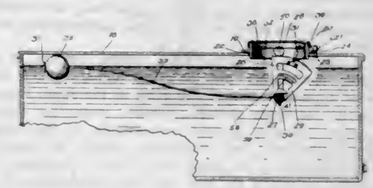
3. In an automatic apparatus for playing a musical instrument, the combination with a tracker, sources of normal and excess pressure, pneumatics for each note operated through said pressures, and conduits from said tracker to said pneumatics, of a plurality of pressure controlling pneumatics, a plurality of diaphragm chambers, conduits from said pressure controlling pneumatics terminating in said chambers, a plurality of tracker conduits terminating in said chambers, a flexible diaphragm in each chamber, each diaphragm covering a pressure controlling conduit and a tracker conduit, and a pneumatic for controlling a group of diaphragms operated from the tracker and arranged to condition a diaphragm for operation through its tracker conduit.

4. In an automatic apparatus for playing musical instruments, the combination of a series of pressure controlling pneumatic conduits (one for each note) grouped into sets, a diaphragm chamber for each set, said conduits of each set terminating in said chamber, a tracker conduit appropriated to each of said pressure controlling conduits of each set, said tracker conduits terminating in said diaphragm chamber, a plurality of flexible diaphragms in said chambers, each diaphragm covering a pressure controlling conduit and a tracker conduit, and a pneumatic for controlling a group of diaphragms in each diaphragm chamber arranged to determine the air pressure therein.

5. In an automatic apparatus for playing musical instruments, the combination of a series of pressure controlling conduits (one for each note) grouped into sets, a diaphragm chamber for each set, a tracker conduit appropriated to each pressure controlling conduit, the tracker conduits of each set terminating in the diaphragm chamber for said set, said pressure controlling conduits terminating in their diaphragm chambers, a plurality of flexible diaphragms in each diaphragm chamber, each diaphragm covering a pressure controlling conduit and a tracker conduit, a plurality of pneumatics each controlling a group of diaphragms in each diaphragm chamber, and a pneumatic conduit for each of said pneumatics leading to the tracker.

[Claims 6 to 8 not printed in the Gazette.]

1,075,510. LIQUID-LEVEL INDICATOR. ROBERT C. SMITH, Oak Park, Ill. Filed May 11, 1911. Serial No. 626,545. (Cl. 73—82.)



1. In combination, a tank, a shaft supported in said tank, a float arm extending from said shaft, a float on said arm, a gear segment on said shaft, a pinion meshing with said segment, a shaft for said pinion extending beyond the tank, a pointer on said pinion shaft, a dial associated with said pointer, a second pointer carried by said segment, and an exposed dial associated with said second pointer.

2. In combination, a tank having an opening in the top thereof, an annular fitting in said opening, supporting arms extending downwardly from said fitting, a shaft mounted in said supporting arms, a float arm extending from said shaft, a float on said arm, a gear segment on said shaft, a pinion meshing with said segment, a shaft for said pinion extending beyond the tank, a pointer on said pinion shaft, a dial associated with said pointer, a second pointer carried by said segment and extending upwardly into said fitting, a dial associated with said second pointer in said fitting, and a glass top for said fitting.

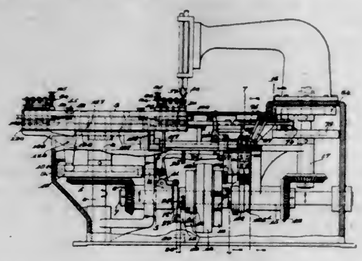
3. In combination, a tank, a shaft supported in said tank, indicating mechanism associated with said shaft, a V-shaped wire float arm extending from said shaft, a hollow ball with a walled diametrical opening passed over the end of said arm, and a cotter pin holding said ball in place.

4. In combination, a tank having an opening in the top thereof, an annular fitting in said opening, an oscillating shaft supported by said fitting, a float arm in the form of two wires extending from said shaft, a float at the end of said wires, a dial case rigidly carried with said fitting, and a pointer in said case mechanically connected with said shaft.

5. In combination, an annular fitting for attachment to the top of a tank having an opening, a tube secured to and extending radially from said fitting, a shaft mounted in said tube, a dial case carried on the end of said tube, a pointer mounted upon said shaft in said dial case, a float arm connected with the other end of said shaft which extends into said fitting, and a float carried by said float arm.

[Claims 6 to 12 not printed in the Gazette.]

1,075,511. MACHINE FOR LACING SHOE-UPPERS. WILLARD A. SMITH, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 5, 1908. Serial No. 414,304. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, mechanism for inserting lacing in the eyelet holes of uppers to connect the sides of the upper together, a plurality of upper carriers, means for bringing the upper carriers successively to the lace inserting mechanism, and mechanism for operating the lace inserting mechanism to lace together the sides of the upper, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, mechanism for inserting lacing in the eyelet holes of uppers to connect the sides of the upper together, a plurality of upper carrying devices, means for bringing the upper carrying devices successively to the lace inserting mechanism, and mechanism thrown into operation by the bringing of an upper to the lace inserting mechanism for operating the lace inserting mechanism to lace together the sides of the upper, substantially as described.

3. A machine for lacing shoe uppers, having, in combination, mechanism for inserting lacing in the eyelet holes of uppers to connect the sides of the upper together, an upper carrying device, devices on the upper carrier for locating the pairs of eyelet holes in the upper, and means for bringing the locating devices into register with the lace inserting mechanism, substantially as described.

4. A machine for lacing shoe uppers, having, in combination, mechanism for inserting lacing in the eyelet holes of uppers to connect the sides of the upper together, a carrier, a plurality of upper carriers on the carrier each provided with devices for locating the pairs of eyelets of the upper, and mechanism for operating the carrier to bring the upper carriers successively to the lace inserting mechanism, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, mechanism for inserting lacing in eyelet holes of an upper successively, devices for engaging and locating the pairs of eyelets of an upper, and means for bringing the pairs of eyelet holes successively to the lace inserting mechanism, substantially as described.

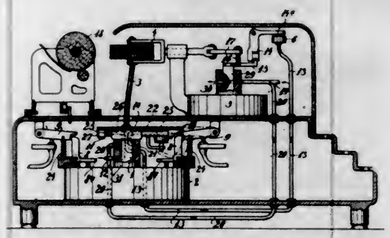
[Claims 6 to 38 not printed in the Gazette.]

1,075,512. PNEUMATIC TYPE-WRITER. MAX SOBLIK, Dresden-Klotzsche, Germany, assignor to Soblik Schreibmaschinen Gesellschaft mit beschraenkter Haftung, Duesseldorf, Germany, a Corporation of Germany. Filed Feb. 18, 1913. Serial No. 749,082. (Cl. 197—15.)

1. In a pneumatic typewriter, a platen, a first pneumatic motor, a type barrel adapted to be rotated thereby, a second pneumatic motor adapted to move said barrel toward the platen, and means for controlling said motors.

2. In a pneumatic typewriter, a platen, a first pneumatic motor, a type barrel adapted to be rotated thereby, a second pneumatic motor adapted to move said barrel toward the platen, a valve operatively connected to the first motor, a movable member controlled by said valve, and means actuated by said movable member for controlling the second motor.

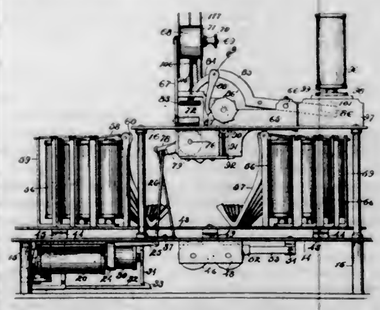
3. In a pneumatic typewriter, a platen, a first pneumatic motor, a type barrel adapted to be rotated thereby, a second pneumatic motor, adapted to move said barrel toward the platen, a valve operatively connected to the first motor, a first movable member controlled by said valve, means actuated by said first movable member for controlling the second motor, a second movable member, controlled by the second motor, and means actuated by said second movable member for controlling the first motor.



4. In a pneumatic typewriter, a platen, a first pneumatic motor, a type barrel adapted to be rotated thereby, a second pneumatic motor adapted to move said barrel toward the platen, a plurality of movable abutments surrounding the first motor, pawls adapted to engage the abutments and sustain them in their raised position, means controlled by the abutments for arresting the first motor, and pneumatic means controlled by the second motor for tilting the pawls and thereby releasing the abutments.

5. In a pneumatic typewriter, a platen, a first pneumatic motor, a type barrel adapted to be rotated thereby, a second pneumatic motor adapted to move said barrel toward the platen, a plurality of abutments surrounding the first motor, pawls engaging the abutments, means coacting with the abutments for arresting the first motor, a valve operatively connected to the first motor, a movable member controlled by said valve, means actuated by said movable member for controlling the second motor, and means controlled by the second motor for tilting the pawls and thereby releasing the abutments.

1,075,513. ELECTRIC RECORDING INSTRUMENT. ALFRED LOUIS SOHM, Los Angeles, Cal., assignor to The Sohm Electric Signal & Recording Company, Spokane, Wash., a Corporation of Arizona. Filed July 26, 1910. Serial No. 574,000. (Cl. 234—41.5.)



1. An electric recording instrument, comprising a frame, a time printing mechanism adapted to print the time and other suitable designations across a paper web, a set of type printing bars at each end of the frame below the time printing mechanism, electrically-operated, and adapted to print on a paper web on line with and at one end of the time print.

2. An electric recording instrument, comprising a time printing mechanism adapted to print the time and other suitable designations across a paper web, a set of type printing bars below said mechanism, electrically-operated, and means for shifting said bars laterally or parallel with the line of the print of the time printing mechanism, said type bars being adapted to print on the paper web in line with and at one end of the time print.

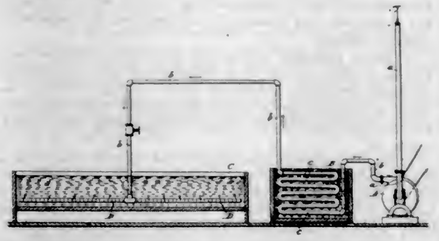
3. An electric recording instrument comprising a time-printing mechanism, having below said mechanism two sets of oppositely-disposed type bars electrically operated adapted to print on a paper web in line with the print of the time-printing mechanism, said type bars being mounted to move laterally by electrical means.

4. An electric recording instrument, comprising a base having thereon a carriage which has a shifting motion laterally, said carriage having thereon a set of type printing bars, the printing types of which radiate through a common point, and electro-magnets on said base and an armature on the carriage coöperating with said magnets, whereby the carriage may be shifted in either direction a limited distance.

5. An electric recording instrument, comprising a base having centrally two pairs of magnet coils oppositely-disposed, a laterally-movable carriage on said base having an armature which projects down between the poles of the two pairs of magnets, type printing bars operatively mounted on said carriage, and means for normally holding said armature midway between the poles of the magnets, said magnets operating to shift the carriage laterally in either direction.

[Claims 6 to 17 not printed in the Gazette.]

1,075,514. PROCESS OF TREATING CREAM AND SIMILAR SUBSTANCES. FRANKLIN H. STANLEY, Cleveland, Ohio, assignor to Stanley Patents Company, a Corporation of Delaware. Filed Dec. 21, 1907. Serial No. 407,609. (Cl. 31—66.)



1. The herein described process of treating cream and similar substances, which consists in subjecting such substances to oxygen during the development of the lactic acid germs.

2. The herein described process of treating cream and similar substances, which consists in adding to the cream a starter containing a sufficient proportion of lactic acid germs, and then impregnating the mass with oxygen during the development of the lactic acid germs.

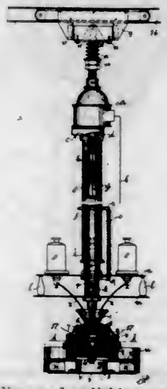
3. The herein described process of treating cream or similar substances, which consists in determining and insuring a sufficient proportion of lactic acid germs therein, and then impregnating the substances with oxygen during the development of such lactic acid germs, and therefore imparting to the substances the desired degree of aroma and flavor.

4. The herein described process of treating cream and similar substances, comprising first inoculating the same with a colony of lactic acid bacteria, and then applying oxygen thereto for a sufficient period to impart to the substances the desired degree of aroma and flavor.

5. The process of treating cream and similar substances, consisting first in inoculating the cream with lactic acid bacteria to a proper degree, and then impregnating with oxygen in the form of air, and continuing such impregnation for a proper period to give the desired degree of aroma and flavor.

[Claim 6 not printed in the Gazette.]

1,075,515. WOOD GRINDING AND POLISHING MACHINE. JOSEF STEINGÄSSER and EMIL GOTTESLEBEN, Mayence, Germany. Filed Feb. 21, 1913. Serial No. 749,880. (Cl. 51—13.)



1. A wood grinding and polishing machine comprising in combination, an electromotor suspended by means of a universal link, a square-sectioned downward extension on the motor shaft, a pipe rigidly connected to the motor casing so as to inclose said extension, another pipe loosely guided within the rigid pipe and engaging the square extension of the motor shaft so as to be rotated by the latter while it allows of simultaneous longitudinal movements, a shaft secured to the lower end of the inner pipe so as to project through the outer pipe, a sleeve rotatably held on said latter shaft, a spring acting on said sleeve and on the outer pipe for holding the inner pipe normally in its highest position, a tool held in the lower end of the latter shaft so as to allow of universal movement, and means connected to said sleeve for manipulating the tool while in movement.

2. A wood grinding and polishing machine, comprising in combination, an electromotor suspended by means of a universal link, a square-sectioned downward extension on the motor shaft, a pipe rigidly connected to the motor casing so as to inclose said extension, another pipe loosely guided within the rigid pipe and engaging the square extension of the motor shaft so as to be rotated by the latter while it allows of longitudinal movements, a shaft connected to the lower end of the inner pipe, a spherical body secured to the end of said latter shaft, a shell held by said body so as to allow of universal movement, diametrically opposite screws connected to the body and guided in vertical slots in the shell so as to compel the latter to participate in the rotary movement of the body, a plate secured to said shell a polishing disk connected by means of springs to said plate and provided with perforations, means for feeding polishing liquid through the body to the disk, a socket connected to the upper surface of the disk so as to receive the liquid and confine the same to the perforated portion of the disk, means for holding the inner pipe normally entirely within the outer pipe, and means for extending the inner pipe and for manipulating the tool.

3. A wood grinding and polishing machine, comprising in combination, an electromotor having a longitudinally extensible shaft, a pipe rigidly connected to the motor casing so as to inclose said shaft, a tool connected to the lower end of the shaft so as to allow a universal movement, a rigid shaft connected to the motor casing oppo-

site the rotatable shaft, a block having an upwardly tapering slot, said rigid shaft being pivoted to the block so as to move within the slot, a cage to which the block is pivoted so as to move in a plane at right angles to the movement of the rigid shaft, and a helical spring encircling the rigid shaft and abutting against the block and against a nut on the shaft, substantially as and for the purpose set forth.

1,075,516. WRENCH. ROBERT W. STURDY, Stephenson, Mich., assignor of one-half to Cassius W. McEwan, Omaha, Nebr. Filed May 13, 1912. Serial No. 696,933. (Cl. 81—127.)



A wrench comprising a pair of jaws having sliding engagement with each other, one of said jaws comprising a pair of spaced side walls between which the other of said jaws travels, said last named jaw having a rack formed upon its rear face, an operating handle, a segmental pinion carried by said handle, trunnions projecting beyond the side faces of said pinions, and arcuate slots formed in the said spaced side walls in which said trunnions engage, movement of the handle to open the jaws causing the pinion acting with one of the teeth of the rack as a fulcrum to move out of engagement with said rack to which end said arcute slots are arranged eccentric to said fulcrum.

1,075,517. ELECTRICAL HEATER ELEMENT AND METHOD OF MAKING THE SAME. HAROLD B. TAYLOR, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 13, 1909. Serial No. 522,482. (Cl. 219—74.)



1. A resistance element comprising a heat conducting sheath having a continuous unbroken outer surface and an insulated high-resistance conductor maintained at a minimum thickness within said sheath by the walls thereof.

2. A resistance element comprising a heat-conducting sheath having a continuous unbroken outer surface, and an insulated high-resistance conducting ribbon inclosed within said sheath and maintained at a minimum thickness by the walls thereof.

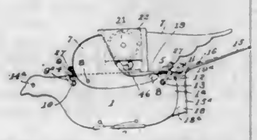
3. A resistance element comprising a heat-conducting sheath having a continuous unbroken outer surface and an insulated high-resistance conducting ribbon having a plurality of lateral slots cut alternately in opposite edges to form a zig-zag current-conducting path therethrough and maintained under compression at a minimum thickness within said sheath.

4. An electric heater comprising a heat-conducting sheath, a resistance ribbon and telescoping insulating strips inclosing said ribbon, said strips and ribbon being inclosed within said sheath and maintained at a minimum thickness by the walls thereof.

5. The method of forming an electrical heater element which consists in threading an insulated conductor through a metal tube and then subjecting the assembled parts to high pressure.

[Claim 6 not printed in the Gazette.]

1,075,518. ARTIFICIAL BIRD-TARGET. EDWARD E. THRESHER, Aurora, Ohio. Filed Jan. 11, 1909. Serial No. 471,600. (Cl. 124—16.)



1. An artificial bird-target, comprising a traveling trolley carrier, an artificial laterally-expansible bird-target body normally carried in a flying position, and means for disengaging and changing the position of said bird-target from a flying to a "dead position" when said target body is contacted by the impact of a missile-shot.

2. An artificial bird-target, comprising a traveling carrier, an artificial laterally expansible bird-target normally carried thereby in a flying position, means for detaching said bird-target from its flying position when struck by a missile-shot and independent suspending means for causing said bird-target to assume a "dead position" when detached from its flying position.

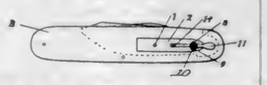
3. In an artificial bird-target, a target-body comprising expansible parts connected to each other and conforming in their outline and contour to the outline and contour of the bird represented, and a traveling carrier for supporting said target body in a flying position when the parts are expanded, and a movable tail member in coöperative relation thereto.

4. In an artificial bird-target, a traveling carrier comprising a trolley-wheel and housing and a carrier plate, laterally-extensible actuating bolts carried thereby, expansible latching-bolts connected to said actuating-bolts, and an operating-bolt for manually extending said actuating-bolts.

5. In an artificial bird-target, the combination with a target-body comprising two laterally expansible parts pivotally connected at their lower edges and provided with a carrier receiving-opening; of a traveling carrier provided with latching mechanism and laterally-extensible actuating-bolts interposed between said laterally-expansible parts and independent connecting means for suspending said target-body in a "dead position" when detached from said latching mechanism.

[Claims 6 to 12 not printed in the Gazette.]

1,075,519. KNIFE. CARL W. TILLMANNS, Utica, N. Y., assignor to Utica Cutlery Company, Utica, N. Y., a Corporation. Filed Apr. 24, 1912. Serial No. 692,816. (Cl. 30—10.)



1. In a knife, the combination with a blade recessed to receive locking means holding the blade in open and in closed position, such locking means, a swinging lever operatively connected with the locking means in one position bearing on the handle to lift said locking means out of locking position and means locking said lever in reverse position.

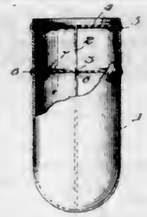
2. In a knife, the combination with the handle and blade, of a blade-lock, a lever pivotally mounted on said lock and having a shoulder to bear on the handle and lift the lock out of engagement in one position of the lever and a means locking said lever in its reverse position to lie against the handle.

3. In a knife, the combination with a handle, a blade and a spring adapted to swing the blade out of the handle, and means whereby to lock the blade in open and closed position, of means whereby to release said locking means and a spring member adapted to secure the releasing means close against the handle when the blade is in either locked position.

4. In a knife of the character described, the combination with means for locking the blade in open and closed position, of a lever adapted to manipulate such means, the said lever being swingable toward either end of the knife, in the open or closed position of the blade lying against the handle and in the other position forming a lever for the release of the blade-locking means.

5. In a knife, the combination of a blade, means engaging and locking the blade in open and in closed position, a swinging lever operatively connected with said means in one position of which lever it operates to release the said locking means, and a second locking means bearing on said lever and holding it in its inoperative position.

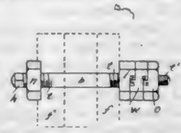
1,075,520. PIN-GUARD. CHARLES H. UPTON, La Grande, Oreg. Filed Sept. 18, 1912. Serial No. 721,021. (Cl. 24—155.)



1. A pin guard comprising a tubular body having one end closed and the other end open and a plurality of spaced grooves or beads in the wall thereof, flat spiral springs having their outer coils arranged in and supported by said grooves, and a shaft or rod secured to the central portions of said springs and engaging the closed end of the tubular body.

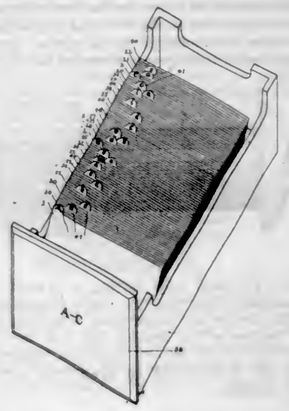
2. A pin guard comprising a tubular body having one end closed and the other end open, a flat spiral spring arranged in said body at the open end thereof and having its inner end turned at right angles to the plane of the spring and extending longitudinally of the body and engaging the closed end thereof, and a second spiral spring within said body spaced from the first spring and having its inner end secured to said longitudinally extending portion of the first spring.

1,075,521. NUT-LOCK. ELMER VALENTINE, Byesville, Ohio. Filed Apr. 16, 1913. Serial No. 761,531. (Cl. 151—16.)



A headless bolt comprising larger and smaller parts, one square end, and three sets of threads, two sets being right hand threads and one set a left hand thread, on which are held three nuts with threads to correspond with the three threads on the bolt, respectively the two adjacent nuts on the right and left threads being formed with interlocking shoulders, which are drawn together and locked by means of said right and left hand threads when the bolt is turned in the proper direction, substantially as described and shown.

1,075,522. INDEX. CHARLES B. VAN DYKE, Muskegon, Mich. Filed Apr. 1, 1912. Serial No. 687,928. (Cl. 129—16.)



1. In an expansible and contractible alphabetical index, a series of separable indexing members severally displaying a letter of the indexed words in such conventional position thereon as to indicate the numerical order of such letter in such words.

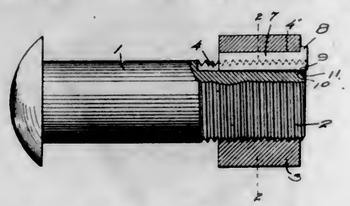
2. In an expansible and contractible alphabetical index, a series of separable indexing members displaying letters of the indexed words thereon and arranged in sets, the displayed letters of the first set of such members indicating by their position on said members that such letters are the first letters of the indexed words, the displayed letters' position on the second set being to the right of the displayed letters' position on the first set to indicate that such displayed letters of the second set follow in the indexed words the displayed letters of the first set, the third set's displayed letters' position being to the right of the displayed letters' position on the second set to indicate that such displayed letters on the third set follow in the indexed words the displayed letters of the second set, and so on through the sets of indexing members composing the series, whereby the words may be indexed with absolute exactness.

3. In an expansible and contractible alphabetical index, a series of separable indexing members arranged in sets and displaying letters of the indexed words thereon, some such members displaying combinations of the consecutive letters of the indexed words sufficient to index with absolute accuracy all indexed words therein and arranged in sets, the displayed letters of the first set of such members indicating by their position on said members that such letters are the first letters of the indexed words, the second set's displayed letters' position on the second set being to the right of the displayed letters' position on the first set to indicate that such displayed letters of the second set follow in the indexed words the displayed letters of the first set, the third set's displayed letters' position being to the right of the displayed letters' position on the second set to indicate that such displayed letters on the third set follow in the indexed words the displayed letters of the second set, and so on through the sets of indexing members composing the series, whereby the words may be indexed with absolute exactness.

1,075,523. NUT-LOCK. HENRY VATEBHAUS, Cooks, Mich. Filed Jan. 24, 1912. Serial No. 673,184. (Cl. 151—8.)

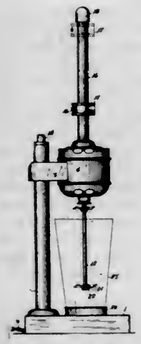
A nut lock comprising a bolt having a longitudinal groove in its threaded end, said groove being of greater depth at its outer end than at its inner end, a nut adapt-

ed to be screwed on the bolt and provided with a longitudinally disposed groove of constant depth and width in the wall of the opening in the nut, a key having its shank rectangular in cross section and adapted to be inserted in the grooves of the bolt and nut when registered and having a head adapted to lie against the outer face of the nut, and a transversely arranged tooth on the under



face of the key, said tooth having a forward curved face and a rearward plain face, the angle formed by the meeting of the curved and plain faces being adapted to bite into the bottom of the wall of the bolt, the shallowness of the inner end of the slot having a tendency to force the inner end of the shank up against the nut and wedge the parts together.

1,075,524. MIXING APPARATUS. WILLIAM S. VEACO, Berkeley, and THOMAS J. BENNETT, San Francisco, Cal. Filed Sept. 26, 1912. Serial No. 722,521. (Cl. 31—63.)



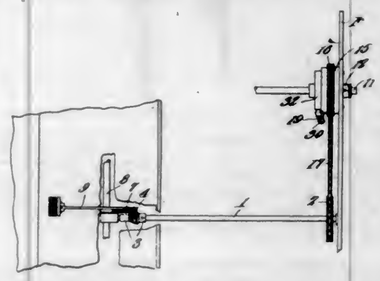
1. In a mixing apparatus of the class described, the combination with a supporting standard, an electrically operated motor secured thereto and provided with a rotating armature, a tubular shaft supporting said armature, electrical connections between said armature and a source of electric energy, a shaft adjustably mounted in said tubular armature shaft and adapted to rotate therewith, an agitator secured to the lower end of said shaft, means for adjusting said shaft relative to said armature, and devices for retaining said shaft in its adjusted position.

2. In a mixing apparatus of the class described, the combination with a supporting standard, an electrically operated motor secured thereto and provided with a rotating armature, a tubular shaft supporting said armature, electrical connections between said armature and a source of electric energy, a shaft adjustably mounted in said tubular armature shaft and adapted to rotate therewith, an agitator secured to the lower end of said shaft, and means for adjusting said shaft relative to said armature.

3. In a mixing apparatus of the class described, the combination of a supporting standard, an electrically operated motor carried thereby and provided with a rotating armature, electrical connections between said armature and a source of electric energy, a switch for controlling the flow of current into said armature, a tubular shaft supporting said armature, a shaft adjustably mounted within said tubular shaft and adapted to rotate therewith, a guide tube extended upwardly from said motor and adapted to receive the upper end of said shaft, a bearing for said shaft adjustably mounted within said guide tube, means for adjusting said last mentioned shaft relative to said tubular armature shaft, and an agitator mounted on the lower end of said adjustable shaft and adapted to rotate therewith.

4. In a mixing apparatus of the class described, the combination of a tubular supporting standard, an electrically operated motor carried at the upper end thereof and provided with a rotating armature, electrical connections between said armature and a source of electric energy and said connections extended within said tubular standard, a switch in said standard for controlling the flow of current into said armature, a tubular shaft supporting said armature, a shaft adjustably mounted within said tubular shaft and adapted to rotate therewith, a guide tube extended upwardly from said motor and adapted to receive the upper end of said shaft, a bearing for said shaft adjustably mounted within said guide tube, means exteriorly of said guide tube and connected to said bearing for adjusting said last mentioned shaft relative to said tubular armature shaft, and an agitator mounted on the lower end of said adjustable shaft and adapted to rotate therewith.

1,075,525. ENGINE-STARTER. ELISHA FORD WELLS, Miami, Fla., assignor of one-third to Smiley M. Tatum and one-third to Marcus A. Milam, Miami, Fla. Filed May 27, 1911. Serial No. 629,759. (Cl. 123—185.)

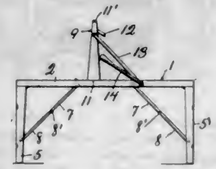


1. An engine starter including a revoluble clutch member having an annular flange, a clutch carrying element, a clutch member pivotally mounted on said element and straddling and normally out of engagement with the flange, a driving element, means for rotating said driving element, and a connection between said driving element and the pivoted clutch member for shifting said member into frictional engagement with the flange to rotate the two members in unison, and means coöperating with the clutch carrying element for automatically locking said driving element against rotation in one direction.

2. An engine starter including a revoluble clutch member having an annular flange, a clutch carrying element mounted for rotation in one direction, means for locking said element against rotation in the opposite direction, a clutch member pivotally mounted on said element and straddling but normally out of engagement with the flange, a revoluble driving element at one side of said clutch carrying element, a connection between said driving element and the pivoted clutch member, and speed multiplying means under the control of the operator for actuating said driving element to shift the pivoted clutch member into frictional engagement with the annular flange.

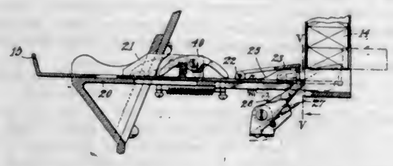
3. The combination with an engine shaft, of a disk secured thereto and having an annular flange, a combined bearing and locking disk held against rotation, a clutch carrying disk mounted for rotation, coöperating means upon said clutch carrying disk and the bearing and locking disk for holding the clutch carrying disk against rotation in one direction, a driving disk mounted for rotation and surrounding the bearing and locking disk, a pivoted clutch member carried by the clutch carrying disk, a link connection between said member and the driving disk, and means under the control of the operator for actuating the driving disk to shift the pivoted clutch member into frictional engagement with the flange and to rotate the clutch carrying disk relative to the bearing and locking disk.

1,075,526. COMBINED BENCH AND WRINGER-SUPPORT. ALBERT WEYENBERG, West De Pere, Wis. Filed Jan. 30, 1913. Serial No. 745,212. (Cl. 68—35.)



A device of the class described comprising a frame consisting of side and end bars, legs hingedly connected to the side bars, a shaft arranged transversely of the frame and journaled in the side bars, arms connected to the ends of the shaft, a wringer support comprising uprights having their upper ends connected by a bar, said arms being pivotally connected near the upper ends of the uprights, a lever fixed to one end of said shaft and adapted to swing the arms whereby the uprights are shifted from the center of the side bars to the ends thereof.

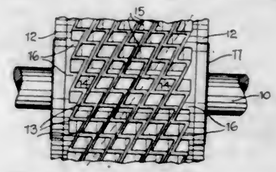
1,075,527. VENDING-MACHINE. FREDERICK C. WHITMORE, New York, N. Y., assignor to Display Vending Co., a Corporation of New York. Filed Dec. 18, 1911. Serial No. 666,818. (Cl. 194—93.)



In a machine of the character set forth, the combination of a slidably mounted plunger having a coin receiving opening therein and a smaller opening in the rear thereof, a spring actuated dog pivotally secured to the frame of the machine, said dog having at its front end a toe and a heel adapted to simultaneously enter the openings in the plunger, a double ended trip dog pivotally mounted at its center on the frame and having the ends of its arms normally resting upon the upper surface of the plunger, a tripping cam formed upon and projecting above the upper surface of the plunger and adapted for engagement with the rear arm of said last named dog, whereby the forward end of the same is adapted to be forced into the coin receiving opening of the plunger, said dogs being oppositely located, one in advance of the other and arranged above the plunger, and means for automatically holding the plunger when forced inwardly and releasing the same when the coin is deposited from the plunger thereby permitting the latter to assume its normal position.

1,075,528. ELASTIC-FLUID TURBINE. FRANK J. WILKE, Little Rock, Ark. Filed Feb. 14, 1913. Serial No. 748,496. (Cl. 121—56.)

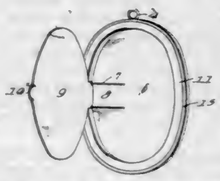
1. In an elastic fluid turbine, the combination with a casing having a pair of inlet openings at opposite ends thereof, and an outlet opening disposed intermediate the same, said casing being also provided with arcuate spaces communicating respectively with said inlet openings, said spaces also having communication with the main compartment at regular intervals therearound; of a rotor mounted within the main compartment of the casing having a plurality of radial vanes formed thereon to conduct the pressure toward the axial center of the rotor, the inner ends of said radial vanes being provided with exhaust openings.



2. A rotor of the class described comprising a core member, a plurality of disks mounted thereon, said disks being radially offset to provide vanes and the vanes of adjacent disks engaged with one another to provide a plurality of radial pockets, said vanes forming the walls of said pockets being provided with exhaust openings at their inner ends.

3. A rotor of the class described comprising a core member, a plurality of disks arranged thereon, each of said disks being radially offset and the portions of adjacent disks intermediate the offsets engaged with one another, to form a plurality of radial pockets, the opposed walls of said pockets being provided with exhaust openings at their inner ends, and means to retain the disks in proper relation to one another.

1,075,529. LOCKET. PAUL A. WILLEMIN, Providence, R. I. Filed Sept. 23, 1912. Serial No. 721,914. (Cl. 63—19.)



1. In a locket, a body of cup-shape, a disk in the body having an integral spring tongue, a cover having a T-shaped actuating member engaged with said spring tongue, a rim member seating on the disk, the wall of said body having an opening, and a ring-shaped staple having its legs inserted through said opening and bent outwardly from each other to engage the wall of said body, the edge of said body wall being turned over to engage the rim member, said rim member having an opening which receives the shank of the actuating member, and the ends of the actuating member being engaged under the rim member.

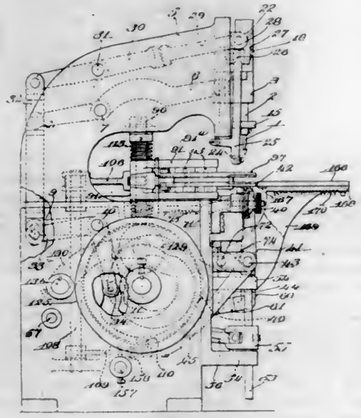
2. In a locket, a cup-shaped body, a spring disk in the body, a ring-like rim member having an opening in its inner circumference, and a cover for engagement with the inner circumference of the rim member having an actuating member which is received in said opening and engages said spring disk, the peripheral edge of the body being bent over to engage said rim member.

3. In a locket, a cup-shaped body, a disk in the body having a spring tongue, a ring-like rim member concave in cross section on the disk, and a cover for engagement with the rim member having means to engage said tongue and means to form hinge pintles, said rim member providing sockets to receive said pintles, the free edge of the body being rolled over to engage the rim member.

4. In a locket, a body, a spring disk in the body, a ring-like flanged rim member seating on the disk, a cover for engagement with the inner circumference of the rim mem-

ber having a projecting member for engagement with the spring disk, and having means hingedly connected to the rim member, the edge of the body being bent over the flange of the rim member.

1,075,530. MACHINE FOR LACING SHOE-UPPERS. EBASTUS E. WINKLEY, Lynn, Mass. Filed Nov. 18, 1907. Serial No. 402,574. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, means for automatically engaging and locating the eyelets, and independent means for inserting a lacing therein, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, means for automatically engaging and locating successive eyelets, and independent means for inserting a lacing in the eyelets, substantially as described.

3. A machine for lacing shoe uppers, having, in combination, means for inserting a lacing in the eyelets successively, and automatic feeding means engaging an eyelet in advance of the one so operated upon and acting to feed it into position to receive the lacing, substantially as described.

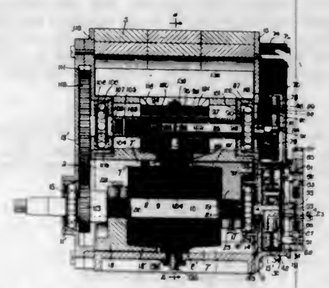
4. A machine for lacing shoe uppers, having, in combination, means for forming a series of stitches in a succession of eyelets, and automatic means for engaging the eyelets successively and feeding the engaged eyelet into stitch receiving position, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, means for forming a series of chain stitches in a succession of eyelets, and means for automatically engaging the eyelets successively and feeding the engaged eyelet into stitch receiving position, substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

1,075,531. MAGNETO IGNITION DEVICE. HOWARD H. WIXON, Chicago, Ill., assignor to Stromberg Motor Devices Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 4, 1910. Serial No. 547,190. (Cl. 123—140.)

1. In a magneto-generator, a non-magnetic base-portion, a pair of magnetic side-portions secured to said base-portion and forming pole-pieces, a non-magnetic top-portion secured to said pole-pieces and provided with a longitudinal opening, said four portions constituting a hollow frame-work, magnets in contact with said pole-pieces, a stationary generator winding arranged within said frame-work, an unwound armature rotatable within said frame-work and having extensions passing over the periphery of the winding for reversing the magnetic flux through said winding, an interrupter carried on the framework at one end and operated by the armature shaft, a distributer also carried on the framework at the same end, an operating shaft for said distributer passing through the opening in the top-portion of said framework, and a gear connection between said two shafts at the other end of such framework.



2. In a magneto-generator for ignition purposes, the combination of a framework, magnets supported thereby, a pair of end-plates secured to said framework, a distributer and an interrupter mounted one above the other upon one of said end-plates, a generator-winding between said magnet ends, a rotatable armature having extensions passing over the periphery of the winding for reversing the magnetic flux through said winding, a shaft on which said armature is mounted, said shaft operating the interrupter, a second shaft for operating the distributer, and gearing at the other end-plate for connecting said shafts together.

3. In a magneto-generator, the combination of a magnetic field-frame, a generator-winding disposed therein, a rotatable armature for reversing the magnetic flux through said winding, a shaft for said armature journaled in the ends of said field-frame, a radial arm secured to one end of said shaft, a plurality of contacts disposed in proximity to said arm, a casing in which said contacts are mounted to be actuated by said arm, a rotatable base-plate carried by the field-frame concentrically with the armature axis, and means for securing locking engagement between said casing and said base-plate when the casing is placed in position on the magneto, said means permitting ready removal from the casing.

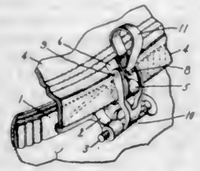
4. In a magneto-generator having a field-frame, a generator-winding and an armature, the combination of a rotatable base-plate mounted in one end of the field-frame concentrically with the armature axis, a pair of lugs extending axially from said base-plate, a cylindrical casing provided with openings for receiving said lugs when the casing is inserted in place on the magneto, whereby engagement is secured between the casing and the base-plate to permit radial adjustment of the casing and ready removal thereof from the magneto, a plurality of circuit-contacts carried by said casing, and an interrupter-arm operated by the armature shaft for actuating said contacts.

5. In a magneto-generator, a non-magnetic base-portion, a pair of magnetic side-portions secured to said base-portion and forming pole-pieces, a non-magnetic top-portion secured to said pole-pieces and provided with a longitudinal opening, said four portions constituting a hollow framework, magnets in contact with said pole-pieces, a stationary generator winding arranged within said framework, an unwound armature rotatable within said framework for reversing the magnetic flux through said winding, an interrupter carried on the framework at one end and operated by the armature shaft, a distributer also carried on the framework at the same end, an operating shaft for said distributer passing through the opening in the top-portion of said framework, and a gear connection between said two shafts at the other end of such framework.

portion thereof, said contact-ring engaging one of said contact members, and a gear connection between said shafts.

[Claims 6 and 7 not printed in the Gazette.]

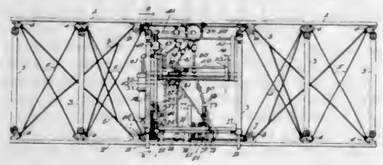
1,075,532. ARC-LAMP. JAMES J. WOOD, Fort Wayne, Ind., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1910. Serial No. 583,388. (Cl. 240—115.)



1. In combination, a support, an inclosing globe, a member secured to said globe, a U-shaped member, the legs of which are pivoted to said support and provided with similarly arranged openings, a depending latch mounted on a bar received in said openings, and a leaf spring secured to said bar and said yoke, the U-shaped member being so arranged as to pass the dead center when lifted in position and said bar being adapted to be suspended within said openings whereby said globe is yieldingly held in position against said base.

2. In combination, a support, an inclosing globe, a member secured to said globe, a yoke pivoted to said base having elongated openings, a bar received in said openings and adapted to rest in one end of the opening when said yoke is lowered, a latch pivoted on said bar adapted to engage said globe member, and a spring secured to said yoke and to said bar, the whole being so arranged that said bar is yieldingly suspended within said openings from said spring when said yoke is lifted.

1,075,533. FLYING-MACHINE. ORVILLE WRIGHT and WILBUR WRIGHT, Dayton, Ohio, assignors to The Wright Company, a Corporation of New York. Filed Feb. 10, 1908. Serial No. 415,105. (Cl. 244—29.)



1. In a flying machine, the combination, with an aeroplane constituting a supporting-surface and operable means for maintaining the balance thereof, of a vane adapted, as the machine advances, to be actuated by air currents, and means controlled by said vane when so actuated for operating said balancing mechanism.

2. In a flying machine, the combination, with an aeroplane constituting a supporting-surface and operable means for controlling the balance thereof, of a movable horizontal vane adapted to be actuated by air currents whenever the course of the machine varies from the plane of said vane, and means controlled by said vane for operating said balancing mechanism.

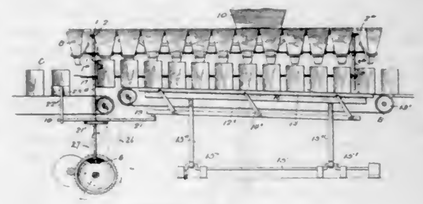
3. In a flying machine, the combination, with an aeroplane constituting a supporting-surface, and an adjustable rudder for maintaining the balance thereof, of a movable vane operatively connected to said rudder and adapted to be actuated by air currents.

4. In a flying machine, the combination, with an aeroplane constituting a supporting-surface, and an adjustable horizontal rudder for maintaining the fore and aft balance thereof, of a movable vane adapted to be actuated by air currents, and means controlled by said vane for operating said rudder.

5. In a flying machine, the combination, with an aeroplane constituting a supporting-surface, and an adjustable horizontal rudder for governing the inclination thereof, of a movable horizontal controlling vane adapted to be actuated by air currents which strike its upper or its lower side according as the angle of said currents to said aeroplane is less or greater than the angle of said vane to said aeroplane, and means controlled by said vane for operating said rudder.

[Claims 6 to 42 not printed in the Gazette.]

1,075,534. CARTON-FILLER. MARSELIUS T. ASH, Brooklyn, N. Y., assignor to William H. Owen, New York, N. Y. Filed Feb. 7, 1912. Serial No. 676,046. (Cl. 226—9.)



1. In a carton filler, the combination with a traveling conveyer for carrying a plurality of cartons, of a plurality of traveling buckets adapted to be successively charged with contents for said cartons, an adjustable inner wall in each bucket, means for successively adjusting the position of said walls while the buckets are being charged, and means for successively discharging the contents thereof into said cartons, substantially as described.

2. In a carton filler, the combination with a traveling conveyer for carrying a plurality of cartons, of a plurality of traveling buckets adapted to be successively charged with contents for said cartons, an adjustable inner wall in each bucket, means for successively adjusting the position of said walls while the buckets are being charged, a gate carried on a pivoted arm for normally closing each bucket, an inclined bar for tripping said arm and opening the gate to discharge the contents of the buckets into the cartons, substantially as described.

3. In a carton filler, the combination with an endless chain carried on sprocket wheels, means for driving said wheels, an endless belt for conveying cartons mounted on drums beneath said chain and on a relatively inclined plane from said endless chain, means for driving said belt timed with said chain, a plurality of automatically dumping buckets carried on said chain, a bin for charging said buckets with contents, an endless chain timed with said first mentioned chain and belt intermediate of the said chain and belt provided with a plurality of pivoted fingers, an adjustable bar for regulating the cubic capacity of each bucket while being charged with contents from said bin, a tripping bar for dumping the contents of the buckets while in registering relation with the cartons on the belt, a vertically adjustable support for said endless conveyer, and a reciprocating plunger for vibrating said conveyer and cartons to compact the contents of the cartons, substantially as described.

4. In a carton filler, the combination with a traveling conveyer for carrying a plurality of cartons, and means for filling said cartons, of conveyers for delivering empty cartons adjacent to said traveling conveyer, an oscillating arm for shifting the empty cartons from said delivery conveyers into position for adjustment on said traveling conveyer, and an eccentric timed with the action of the filling means for operating said oscillating arm, substantially as described.

5. In a carton filler, the combination with a traveling carrier for carrying a plurality of cartons, of a plurality of traveling buckets adapted to be successively charged with contents for said cartons, an adjustable inner wall hinged at the top of each bucket, a lever for adjusting the position of said walls while the buckets are being charged, adjustable means for operating said lever for positioning the inner walls, and means for successively discharging the contents of the buckets into the cartons, substantially as described.

1,075,535. FEEDING MECHANISM. HARVEY C. BAKER, Chicago, Ill. Filed Oct. 10, 1912. Serial No. 725,054. (Cl. 164—117.)



1. A feeding mechanism of the class described comprising reciprocatory work-engaging means adapted to engage and feed the work only when moved in one direction; a reciprocatory element operating at substantially right angles to said work-engaging means having an inclined surface adapted upon reciprocatory movement of said element to effect operative movement of said work-engaging means; means for frictionally engaging the work to overcome inertia when said work is fed by said work-engaging means; and means for effecting the return movement of said work-engaging means, substantially as described.

2. A feeding mechanism of the class described comprising a frame; work-engaging means mounted to reciprocate in said frame; means mounted for reciprocatory movement in said frame in a direction at substantially right angles to the direction of movement of said work-engaging means, said last mentioned means having inclined cam surfaces adapted upon reciprocation to effect operative movement of said work-engaging means; resilient means for effecting return movement of said work-engaging means; threaded means for adjusting the position of said work-engaging means in said frame relative to the work engaged; and means for adjusting the position of said second mentioned means relative to said work-engaging means, substantially as described.

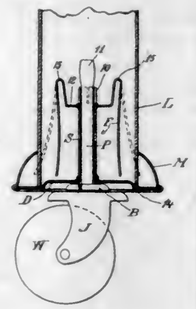
3. A feeding mechanism of the class described comprising a frame adapted for attachment to a punch press bed or the like; work-engaging means mounted for horizontal reciprocation in said frame; actuating means mounted for vertical reciprocation in said frame, said actuating means having inclined cam surfaces adapted when moved downwardly to engage against said work-engaging means to move the latter in one direction in said frame; resilient means for effecting return movement of said work-engaging means; adjustable stops for determining the amplitude of oscillation of said work-engaging means; and means for adjusting said actuating means to determine the lower terminal of movement thereof, substantially as described.

4. A feeding mechanism of the class described comprising a frame adapted for attachment to a punch press bed or the like; a carrier mounted for horizontal reciprocation in said frame; a work-engaging member adjustably mounted on said carrier adapted to engage and feed the work only whil moving in one direction; adjustable stops for said carrier; actuating means mounted for vertical reciprocation in guides provided in said frame, said actuating means having inclined surfaces adapted to engage against said carrier for imparting operative movement thereto; and resilient means for effecting return movement of said carrier, substantially as described.

5. A feeding mechanism of the class described comprising a frame adapted for attachment to a punch press bed or the like; a carrier mounted for horizontal reciprocation in said frame; a work-engaging member adjustably mounted on said carrier adapted to engage and feed the work only while moving in one direction; adjustable stops for said carrier; actuating means mounted for vertical reciprocation in guides provided in said frame, said actuating means having inclined surfaces adapted to engage against said carrier for imparting operative movement thereto; resilient means for effecting return movement of said carrier; and means in said frame for frictionally engaging the work passing therethrough to overcome inertia when the work is fed by said work-engaging means, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,075,536. CASTER. ADOLPH BALLENBERG, New York, N. Y., assignor to Universal Caster & Foundry Company, New York, N. Y., a Corporation of New Jersey. Filed Sept. 21, 1909. Serial No. 518,821. (Cl. 16—4.)



1. In combination with a caster wheel, jaws and pintle, a pintle supporting sleeve, a leg supporting disk and a leg mount secured to said sleeve, said leg mount extending upward and adapted to surround a tubular leg above the end thereof, and a spring member surrounding the sleeve horizontally and secured near the upper end of the said sleeve and having depending spring wings adapted to act outward against the interior of the tubular leg and extending down within the leg mount, the free ends being surrounded and protected by the leg mount when out of the leg.

2. In a caster for tubular legs and in combination with a caster wheel, jaws and pintle, a leg support and leg mount centered upon the pintle and a spring pintle-retaining and centering member surrounding and centering the upper end of the pintle and having downwardly-extending and outwardly-acting free spring arms, the lower ends of which extend within and are encircled by the leg mount.

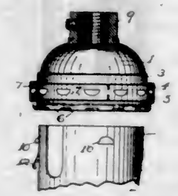
1,075,537. NITROAMINOPHENYLARSINIC ACID. LUDWIG BENDA, Frankfort-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Nov. 6, 1912. Serial No. 729,754. (Cl. 23—24.)

As a new product, the nitroaminophenylarsinic acid containing the atom groups AsO_3H_2, NO_2, NH_2, in the 1 : 2 : 4 position, crystallizing in the form of orange-colored needles, difficultly soluble in water, alcohol, diluted mineral acid, readily soluble in alkalis and sodium acetate, assuming when heated to about 240° C. a dark color and melting at a temperature of about 258° C. with decomposition.

1,075,538. DINITROPHENYLARSINIC ACID. LUDWIG BENDA, Frankfort-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Nov. 6, 1912. Serial No. 729,871. (Cl. 23—24.)

As a new product, the dinitrophenylarsinic acid containing the atom groups NO_2, NO_2, and AsO_3H_2 in 1 : 3 : 4 position, forming needles which are readily soluble in water and alcohol, said acid being readily soluble in alkalis and sodium acetate and melting at 199–200° C.

1,075,539. CASING FOR INCANDESCENT-ELECTRIC-LAMP SOCKETS. CARL H. BISSELL, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 18, 1911. Serial No. 609,350. (Cl. 173—362.)



1. A casing for incandescent electric lamp sockets comprising a shell member having a peripheral projection, and a resilient locking member and a cap member having an internal shoulder for coöperating with said projection, and a notched edge for permitting the passage of the projection and for coöperating with the locking member, substantially as and for the purpose described.

2. A casing for incandescent electric lamp sockets comprising a shell member and a cap member, one being formed with an internal annular groove and provided with a ring in the groove formed with inwardly projecting shoulders struck therefrom, the end portion of the other member extending into the first-named member and having substantially rigid peripheral shoulders for interlocking with the shoulders of the ring, and the members having successive axial and partial rotary movements for interlocking said shoulders, substantially as and for the purpose specified.

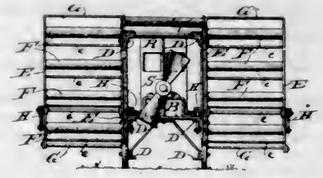
3. A casing for incandescent electric lamp sockets comprising a cap having an annular portion for receiving the end portion of the shell member, and an edge for coöperating with said shell member, and an offset annular portion intermediate the first-named annular portion and said edge, said offset annular part having inwardly extending projections, and a shell member having a plain marginal edge portion for entering the first-named annular portion, and having a peripheral projection coacting with said projections and having a yielding tongue coöperating with the edge portion of the cap, substantially as and for the purpose specified.

4. A casing for incandescent electric lamp sockets comprising a shell member and a cap member, the cap member being formed with an internal cylindrical portion and an offset portion between said cylindrical portion and the lower end of the cap, the offset portion forming an annular groove, a ring fitted within the groove and formed with shoulders struck therefrom projecting into the groove and spaced apart at intervals, the shell member being provided with substantially rigid peripheral shoulders spaced apart for interlocking with the first-mentioned shoulders, the upper end portion of the shell member being designed to fit into the cylindrical portion of the cap member, and the members having successive axial and partial rotary movements for moving the upper end portion of the shell member into said cylindrical portion of the cap member, and carrying the shoulders of the shell member between the shoulders of said ring and into interlocking engagement therewith, substantially as and for the purpose described.

5. A casing for incandescent electric lamp sockets, comprising a shell member and a cap member, the cap member being formed with an intermediate cylindrical portion and an offset-portion between the cylindrical portion and the lower end of the cap, the off-set portion forming an annular groove, shoulders associated with the cap member and projecting into the groove, the shoulders being spaced apart, the shell member being provided with substantially rigid peripheral shoulders for interlocking with the shoulders of the cap member, the upper end portion of the shell being designed to fit into the cylindrical portion of the cap member, and the members having successive axial and partial rotary movements for moving the upper end portion into the cylindrical portion of the cap member and carrying the shoulders of the shell member above the shoulders of the cap member and into interlocking engagements therewith, the cap member being provided with internal notches at its lower end and the shell portion being provided with a catch for entering into a notch, said catch being in the form of a spring tongue, substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,075,540. AIRSHIP. JOHN W. BOUGHTON, Philadelphia, Pa. Filed Feb. 9, 1912. Serial No. 676,604. (Cl. 244—14.)



1. In an airship, a frame, a stationary vertical plane thereon, a horizontal plane pivotally mounted on said vertical plane, an auxiliary frame movable on said vertical plane and means for raising and lowering said auxiliary frame.

2. In an airship, a frame, a stationary vertical plane thereon, a horizontal plane pivotally mounted on said vertical plane, an auxiliary frame movable on said vertical plane, means for raising and lowering said auxiliary frame, and means pivotally connecting said horizontal plane with the auxiliary frame.

3. In an airship, a central frame, stationary vertical planes mounted thereon, horizontal planes pivotally mounted on said vertical planes, auxiliary frames movable on said vertical planes, said horizontal planes being pivotally connected with the auxiliary frames and transversely extending planes to the rear of said vertical planes.

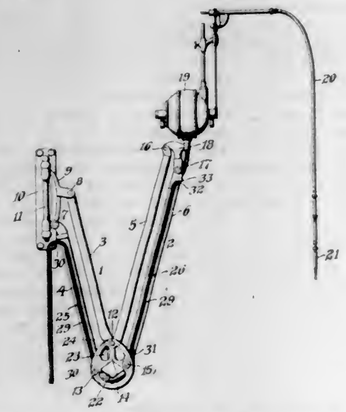
4. In an airship, a central frame, stationary vertical planes mounted thereon, horizontal planes pivotally mounted on said vertical planes, auxiliary frames movable on said vertical planes, said horizontal planes being pivotally connected with the auxiliary frames and transversely extending planes to the rear of said vertical planes, and means for raising and lowering said auxiliary frames.

5. In an airship, a frame, a plane centrally disposed thereon, vertical planes in advance of the central plane

and upon opposite sides of the frame and horizontal planes mounted on said vertical planes.

[Claims 6 to 8 not printed in the Gazette.]

1,075,541. BRACKET. ARTHUR W. BROWNE, Prince Bay, N. Y., assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 2, 1911. Serial No. 652,271. (Cl. 248—3.)



1. An adjustable wall bracket for supporting an electric motor and including, in combination, a wall plate, a main section composed of parallel members pivoted to said wall plate, and a forearm section composed of parallel members, the said sections being pivotally connected to each other and one of the members of each of the said sections being provided with a longitudinal channel having a continuously open side for the reception and support of an electric conductor, the said channel at its point of greatest width being substantially equal to the diameter of the said conductor and the mouth of the said channel being of less width.

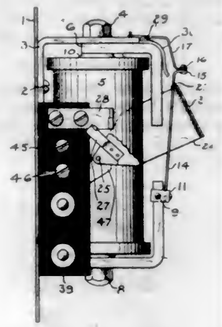
2. An adjustable wall bracket including, in combination, a wall plate, a main section composed of parallel members pivoted to said wall plate and a forearm section adapted to support an electric motor at its outer extremity, each of the said sections or a part thereof being provided with a channel the mouth of which is narrower than the main portion thereof, and the outer end of the forearm part being provided with a portion which overhangs the outer end of the channel in said part.

3. An adjustable wall bracket including, in combination, a wall plate, a main section pivoted to said wall plate, and a forearm section the inner end of which is pivoted to the outer end of the said main section and which is adapted to support an electric motor at its outer extremity, each of the said sections or a member thereof being provided with a channel the walls of which are undercut and the said sections or members thereof having notches in their sides which communicate with the said channels, which channels are adapted to receive an electric conductor.

4. A bracket for supporting a motor, which bracket is provided with a longitudinal channel in one of its sides adapted to receive and support an electric conductor which conductor is retained in position in said channel by its side walls and the side of said channel being open from end to end whereby the conductor may be inserted laterally therein at any point without disconnecting the same from the motor or other part to which it may be connected.

5. An adjustable wall bracket for supporting the electric motor of a dental engine, including in combination a wall plate, a main section composed of parallel members pivoted to said wall plate, and a forearm section also composed of a similar number of parallel members, said sections being pivotally connected, the lower member of each section being provided with a longitudinal channel having a continuously open side for the reception and support of an electric conductor, the opening in the side of said channel being of a width less than the greatest width of said channel and less than the diameter of said electric conductor, the proximate ends of each of said lower members being prolonged above and beyond the ends of said channels, with formation of a solid pivot-supporting portion, whereby an electric conductor received within the channeled portions of the two members may be led below the prolonged pivot-supporting ends of said channeled members, where said conductor passes from the channel of one member to the channel of the other member.

1,075,542. TRAIN-ANNUNCIATOR. STANLEY CHARLES BRYANT, Chicago, Ill., assignor to Bryant Zinc Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 3, 1911. Serial No. 612,095. (Cl. 177—330.)



1. In an annunciator, in combination, a source of current, an electromagnet, a normally open circuit including said source of current and said electromagnet, means interposed in said open circuit adapted to close said open circuit, an armature pivoted at one end in proximity to the electromagnet, a pivoted vane having a conspicuous and two inconspicuous positions placed in proximity to the said armature, said vane having a hook shaped projection attached thereto adapted to engage the free end of the armature when said armature is not under the influence of said electromagnet, said hook and armature being so constructed that said vane is released when said armature is attracted by the closing of said open circuit, thus causing the vane to drop into its conspicuous position, a solenoid, a normally open circuit including said solenoid and including said source of current, means to close said last named circuit, a core adapted to be attracted by said solenoid when energized, said core adapted to contact with said vane when it is in said conspicuous position and said core adapted when attracted to move said vane into an inconspicuous position, an audible alarm, a normally open circuit including said source of current in which said audible alarm is included and means actuated by said vane in its conspicuous position to close said last named circuit and thus cause said alarm to sound, a magnetic material attached to said vane, said magnetic material adapted to be attracted and held by said electromagnet when the said vane is lifted to said inconspicuous position after being released by said armature, and adapted to release said vane so that said hook will be caught by said armature and held in the other inconspicuous position when said first named circuit is broken.

2. In an annunciator, an audible and a visual alarm, means to sound said audible alarm, means to hold and release said visual alarm, means to cause the audible alarm to cease and the visual alarm to disappear while said second mentioned means are in the same condition as when the visual alarm is displayed, a magnetic material carried by said visual alarm adapted to co-act with said second named means to prevent the sounding of the audible alarm and the release of the visual alarm while said second named means are in the same condition as when the visual alarm is displayed.

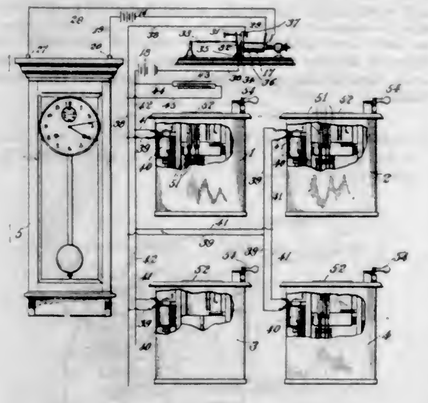
3. In an annunciator, a normally silent audible alarm and a normally undisplayed visual signal, means to hold and release the visual signal, means controlled by the display of the visual signal to sound the audible alarm, means to return the visual signal to undisplayed position and cause the audible alarm thereby to become silent, means adapted to co-act with said first named means while said first named means are in the same condition as when the signal is displayed to retain the visual signal in undisplayed position, said means including a magnetic material attached to said visual signal.

4. In an annunciator, a normally silent audible alarm and a normally undisplayed visual signal, means to hold and release said visual signal, electrical means to return said visual signal to undisplayed position, electrical means coöperating with said first named means to thereafter hold said visual signal in undisplayed position while said first named means continue in the same condition as when the signal is displayed, said last named electrical means including a magnetic armature carried by said visual signal.

5. In an annunciator, a normally undisplayed visual signal, said visual signal having two undisplayed positions and a displayed position, said visual signal normally being in one of said undisplayed positions, means including an electromagnet to cause the display of said visual signal, means to return the visual signal to the other said undisplayed position, and means consisting of magnetic material attached to said visual signal co-acting with said electromagnet to retain said visual signal in said other undisplayed position.

[Claims 6 to 10 not printed in the Gazette.]

1,075,543. TIME-RECORDER. JAMES W. BRYCE, Brooklyn, N. Y. Filed Sept. 21, 1908. Serial No. 454,130. (Cl. 234—43.)



1. The combination of a plurality of elapsed time recording devices, separate operating means for actuating the recording mechanism of each device, controlling means in each device for controlling the extent of operation of its operating mechanism, and a master clock adapted to control the controlling mechanism of each device so as to cause them to operate in synchronism with each other.

2. The combination of a plurality of elapsed time recording machines, a recording mechanism in each machine for making an initial record upon a card or other suitable record surface, recording mechanism in each machine for making a final record upon such card, means adapted to be actuated by an initial record made upon a card to control the extent of movement of the recording mechanism for making the final record, a master clock, and means in each machine for also coöperating with the control of the movement of the recording mechanism for making the final record, adapted to be controlled by the master clock to cause them to control the final time recording means in the different machines in synchronism with each other.

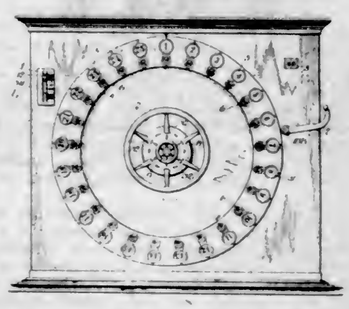
3. The combination of a time recording device adapted to make a mark upon a card, a card, another time recording device adapted to receive and be controlled in its time recording operation by such a mark on the card, and a master clock adapted to control such time recording devices to cause them to operate in synchronism with each other.

4. The combination of a time recording device adapted to make a preliminary mark upon a card, a card, another time recording device adapted to receive and be controlled in its time recording operation by such a preliminary mark on the card to cause it to complete the time record, and a master clock adapted to control such time recording devices to cause them to operate in synchronism with each other.

5. The combination of a plurality of elapsed time recording devices adapted to coöperate with each other in making elapsed time records, and a master clock adapted to control such elapsed time recording devices to cause them to operate in synchronism with each other, whereby the time recording devices may be used interchangeably for making elapsed time records.

[Claims 6 to 11 not printed in the Gazette.]

1,075,544. TIME-RECORDER. JAMES W. BAYCE, Brooklyn, N. Y. Filed May 11, 1909. Serial No. 495,207. (Cl. 234—46.)



1. In an elapsed time indicating machine the combination of elapsed time indicating mechanism, a device integral with the machine, adapted to be set in accordance with the time of an operation of the machine and, when thus set to affect the extent of movement of the elapsed time indicating mechanism in a subsequent operation of the machine, a clock movement and means, controlled by the clock movement, for setting the said device in accordance with the time of an operation of the machine.

2. In a time indicating machine a device integral with the machine, adapted to be set to indicate the time of an operation of the machine, and to remain set until some subsequent operation, and adapted at such subsequent operation to affect the extent of movement of the time indicating mechanism.

3. In an elapsed time indicating machine a series of devices integral with the machine and each adapted to be set to indicate the time of an operation of the machine

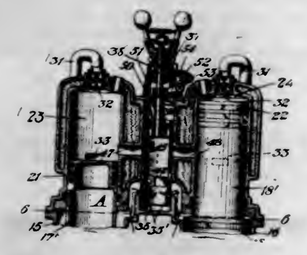
and to remain set until some subsequent operation, and adapted at such subsequent operation to affect the extent of movement of the elapsed time indicating mechanism.

4. In an elapsed time indicating machine the combination of elapsed time indicating mechanism, a series of devices integral with the machine, each adapted to be set in accordance with the time of an operation of the machine and, when set, to affect the extent of movement of the elapsed time indicating mechanism, and clock-controlled means for setting any of the said devices in accordance with the time of an operation of the machine.

5. In an elapsed time indicating machine the combination of elapsed time indicating mechanism, a series of time devices, each adapted to be moved into operative position to be set and, when thus set, adapted to affect the extent of movement of the elapsed time indicating mechanism, a clock movement and means controlled thereby for setting any of said devices, when moved into operative position, in accordance with the time of an operation of the machine.

[Claims 6 to 63 not printed in the Gazette.]

1,075,545. EXPLOSIVE-ENGINE. JOSEPH F. BUHR, Detroit, Mich., assignor, by mesne assignments, to Herman B. Strate and Joseph F. Buhr, Detroit, Mich. Filed Feb. 7, 1911. Serial No. 607,059. (Cl. 123—71.)



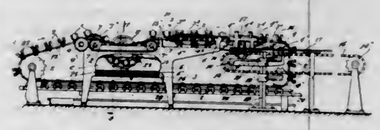
1. In a gas engine, the combination with an engine cylinder, and a pressure-gas supply therefor, of a gas-measuring device interposed between said cylinder and said supply, and comprising an inclosed chamber of predetermined capacity, and means for connecting said chamber with the gas-supply and said cylinder, alternately, and means for varying the receiving capacity of said chamber.

2. In a gas engine, the combination with an engine cylinder, and a pressure-gas supply therefor, of a gas-measuring device interposed between said cylinder and said supply, and comprising an inclosed chamber of predetermined capacity, and means for connecting said chamber with the gas-supply and said cylinder alternately, and a false head movable within said chamber for varying the receiving capacity of said chamber.

3. The combination with a pair of spaced cylinders, each comprising a working section and a gas-compressing section, of conduits for connecting the compression section of one cylinder with the working section of the other cylinder, and vice versa, and a device in both of said conduits for completing and interrupting the same alternately, a governor for moving said device to establish direct communication between said compressing sections for controlling the amount of gas passing through said device.

4. The combination with a pair of spaced cylinders, each comprising a working section and a gas-compressing section, of conduits for connecting the compressing section of one cylinder with the working section of the other cylinder, and vice versa, and a device in both of said conduits for completing and interrupting the same alternately, and means for varying the receiving capacity of said device.

1,075,546. CONVEYER. FRANK W. BURPEE, Bellingham, Wash. Original application filed Aug. 2, 1911, Serial No. 641,940. Divided and this application filed Dec. 20, 1911. Serial No. 669,123. (Cl. 193—8.)



1. In a machine of the character described, an endless flexible carrier supported for movement, said carrier having one section of its length swiveled at each end, a work holder fixed to the swiveled section of said carrier, and means for adjusting the swiveled section of said carrier during movement of the latter.

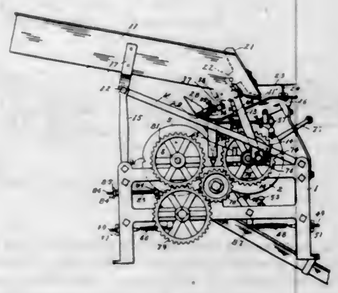
2. In a machine of the character described, an endless flexible carrier composed of link sections and swivel coupling sections arranged between said link sections and connecting the same, means supporting said carrier for movement, work holders fixed on the link sections of said carrier, and means for adjusting the link sections of said carrier by and during movement of the latter.

3. In a machine of the character described, an endless flexible carrier supported for movement and provided with a swiveled section, a work holder on the swiveled section of said carrier means for adjusting the swiveled section of said carrier by and during movement of the latter, said means comprising a track arranged in the path of said section and spaced angular lugs on said work holder engaging under said track.

4. A conveying mechanism comprising a carrier, a work holder supported on said carrier for angular adjustment, said work holder comprising spaced concaved seats open at one side for removal of the work therefrom, means for adjusting said work holder during movement of said carrier to bring the work to a vertical position, and means for removing the work from said work holder when the work is in vertical position.

5. A conveying mechanism comprising a carrier, a work holder supported on said carrier for angular adjustment, said work holder comprising spaced end seats open at one side for removal of the work therefrom, means for adjusting said work holder during movement of said carrier to different angular positions, and means for removing the work through the open sides of the seats of said work holder.

1,075,547. FRUIT-PITTING MACHINE. JEROME CALDWELL, Los Angeles, Cal. Filed June 1, 1910. Serial No. 564,516. (Cl. 146—6.)



1. In a fruit pitting machine, the combination with a pair of reversely rotating cutting disks adapted to cut into opposite sides of descending fruits, of a pair of pendant fingers the free ends of which are adapted to guide fruits between said disks, means tending to move the free ends of said fingers toward said disks, means holding said fingers in fixed relation to each other, and adjustable means to limit the approach of one of said fingers toward said disks.

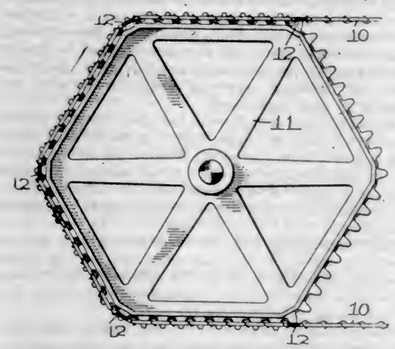
2. In a fruit pitting machine, a pair of reversely rotating cutting disks adapted to cut into opposite sides of descending fruits, a spreader disk inclined with relation to the path of said fruits, an arm having a rotary adjustment upon an axis extending lengthwise thereof, said arm also being pivoted and having an oscillatory movement on its pivot, and an adjustable stop to limit said oscillatory movement, said spreading disk being carried by the free end of said arm to encounter and separate the pulp from the descending fruits.

3. In a fruit-pitting machine, a pair of reversely rotating cutting disks adapted to cut into opposite sides of descending fruits, a spreader disk inclined with relation to the path of the descending fruits, a rock shaft, a socketed member carried by said shaft, and a supporting arm for said spreader disk, said arm being seated in and adapted to turn axially with respect to said socketed member to adjust said spreader disk.

4. In a fruit pitting machine, a pair of cutting disks, means for supporting and reversely rotating said disks to draw fruits downwardly therebetween, and a pivoted guiding member mounted to swing toward and from the discharge end of said chute and inclined in the reverse direction to the inclination of said chute to conduct the fruits squarely between said disks, said guiding member being centrally slitted to straddle said disks.

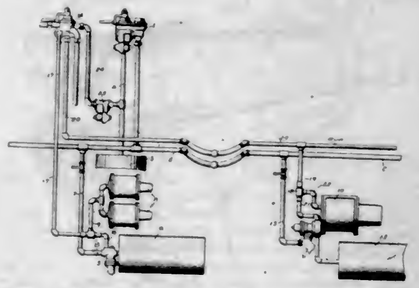
5. In a fruit pitting machine, a pair of coöperating cutting disks, means to support said disks and rotate the same in opposite directions to draw fruits downwardly therebetween, spreading devices on opposite sides of said disks to remove the pulp from the descending fruits, arms on which said spreading devices are mounted, a rock shaft to which said arms are fixed, a member fixed to said shaft, said member having an operating arm and a stop arm, a spring connected with said operating arm to yieldingly hold said spreading devices in the path of the descending fruits, and an adjustable stop screw against which said stop arm is normally held by said spring.

1,075,548. CONVEYER. OSBORN H. CILLEY, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed Sept. 13, 1911. Serial No. 649,136. (Cl. 193—4.)



In a conveyer, the combination of polygonal sprockets having equally spaced teeth along their flat sides and one tooth at each angle, a pair of sprocket chains located thereon at the pitch lines thereof and engaging said teeth, cross slats connecting said chains, the distance between two slats being equivalent to the length of one side of each sprocket and to the sum of the lengths of a plurality of links of the chain, the chains being located so that the slats will come at the angles of the sprockets, and a continuous endless metallic apron connected directly to all of the slats on both sides thereof on the pitch line of the sprockets, whereby the apron is supported solely from the sprocket wheels and there is no slack therein when the apron passes over said supporting sprocket wheels.

1,075,549. COMBINED AUTOMATIC AND STRAIGHT-AIR BRAKE. JOHN W. CLOUD, London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 24, 1910. Serial No. 563,058. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with an automatic brake equipment for the engine and tender, of an independent brake valve for controlling the tender brake and a cock for independently controlling the engine brake.

2. In a fluid pressure brake, the combination with an automatic brake apparatus for the engine and for the tender, of an independent brake valve for controlling the tender brake and a cock for independently controlling the engine brake and having a position for connecting up the engine brake to be operated with the tender brake by manipulation of the independent brake valve.

3. In a fluid pressure brake, the combination with an automatic brake system on the engine and tender and an engineer's brake valve for controlling the automatic brakes, of an independent brake valve for controlling the brakes on the engine and tender and a cock for independently controlling the engine brakes and having a position adapted to connect the engine brake for simultaneous operation with the tender brake upon manipulation of the independent brake valve.

4. In a fluid pressure brake, the combination with a train pipe and a brake equipment on the engine, tender, and cars operating upon a reduction in train pipe pressure to apply the brakes, of a straight air pipe and a brake valve adapted to control the pressure in the straight air pipe to apply the brakes on the train and a cock for independently controlling the brakes on the engine.

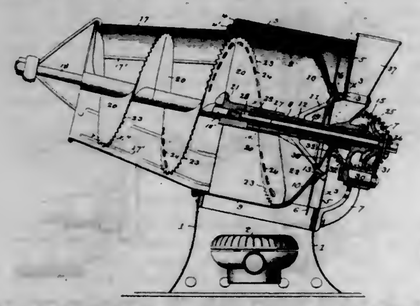
5. In a fluid pressure brake, the combination with an automatic brake equipment on the engine and an automatic brake equipment on the tender, of a straight air pipe connected to the tender brake cylinder, a brake valve for controlling the pressure in said straight air pipe, an independent pipe connected to the engine brake cylinders and a cock for controlling the pressure in said independent pipe.

[Claims 6 to 8 not printed in the Gazette.]

1,075,550. CORN-POPPER. CHARLES CRETORS, Chicago, Ill. Filed Jan. 15, 1912. Serial No. 671,366. (Cl. 53—4.)

1. In an apparatus for popping corn, the combination of a revoluble popping vessel having a discharge opening at its rear end, a non-revoluble gate closing said discharge opening, a spiral conveyer arranged longitudinally in said popping vessel, a heater casing inclosing said vessel, a heater arranged in said casing, means for supporting the popping vessel and conveyer in operative relation, and means for imparting rotation to the popping vessel and conveyer.

2. In an apparataus for popping corn, the combination of a supporting frame, a revoluble popping vessel having a filling and a discharge opening at its rear end, a stationary hopper connecting with said filling opening, a non-revoluble gate carried by the supporting frame and closing said discharge opening, a spiral conveyer arranged longitudinally in said popping vessel, a heater casing inclosing said vessel, a heater arranged in said casing, means for supporting the popping vessel and conveyer in operative relation, and means for imparting rotation to the popping vessel and conveyer.



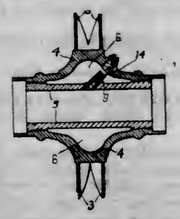
3. In an apparatus for popping corn, the combination of a popping vessel, a spiral conveyer arranged longitudinally in said vessel and having a series of radial prongs at its margin, a heater casing inclosing said vessel, a heater arranged in said casing, means for supporting the popping vessel and conveyer in operative relation, and means for imparting rotation to the popping vessel and to the conveyer.

4. In an apparatus for popping corn, the combination of a popping vessel, a forward extension on said vessel of a truncated cone form and open at its forward end, a spiral conveyer arranged longitudinally in said vessel and extension and having a series of radial prongs at its margin, a heater casing inclosing said vessel, a heater arranged in said casing, means for supporting the popping vessel and conveyer in operative relation, and means for imparting rotation to the popping vessel and to the conveyer.

5. In an apparatus for popping corn, the combination of a popping vessel, a spiral conveyer arranged longitudinally in said vessel and having a series of radial prongs at its margin and a series of orifices in adjacent relation to said prongs, a heater casing inclosing said vessel, a heater arranged in said casing, means for supporting the popping vessel and conveyer in operative relation, and means for imparting rotation to the popping vessel and to the conveyer.

[Claims 6 to 11 not printed in the Gazette.]

1,075,551. LUBRICATOR FOR VEHICLE-WHEELS. LÉON D'AMOURS, Trois Pistoles, Quebec, Canada. Filed Apr. 19, 1912. Serial No. 691,949. (Cl. 64—26.)



1. In combination with a wheel, a sleeve provided with a bore, a shell mounted thereon and spaced therefrom to form a lubricant chamber, a perforated tube mounted in said bore and extending partially across the lubricant chamber toward said shell, a wick in said tube, means for keeping said wick extended, and means for regulating said wick extending means.

2. In combination with a wheel, a sleeve provided with a bore, a shell mounted thereon and spaced therefrom to form a lubricant chamber, a perforated tube mounted in said bore and extending partially across the lubricant chamber toward said shell, a wick in said tube, means for keeping said wick extended, and means for regulating said wick extending means, a coil spring within said tube and embedded in said wick, and a plug threaded into one end of said tube and bearing against said spring.

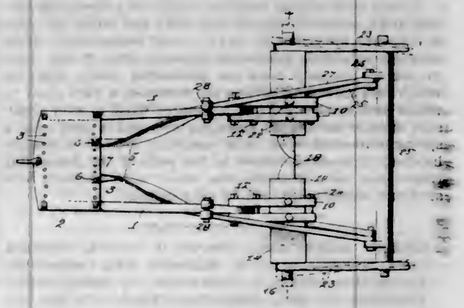
1,075,552. WOOD PRODUCT. JUDSON ALBERT DE CEW, Montreal, Quebec, Canada. Filed Jan. 22, 1912. Serial No. 672,760. (Cl. 99—12.)

1. A wood product consisting of a fibro-cellular body treated with a mixture of waste sulfite liquor and oil.

2. The herein described product consisting of a fibro-cellular body impregnated with a mixture of waste sulfite liquor, oil and a soluble salt.

3. The herein described product consisting of a fibro-cellular body impregnated with an emulsion of waste sulfite liquor, creosote oil, and a soluble salt.

1,075,553. COTTON CULTIVATOR AND CHOPPER. DOCK B. DOWDELL, Redbird, Okla. Filed Mar. 25, 1913. Serial No. 756,745. (Cl. 97—45.)



1. In a machine of the character described the combination with a pair of beams, and a clevis-head in which one end of the beams is adjusted laterally, of a pair of stocks in which the other end of the beams is adjusted vertically, a runner attached to each stock and having a lateral adjustment in the said head, and means for securing the said parts in such adjustments.

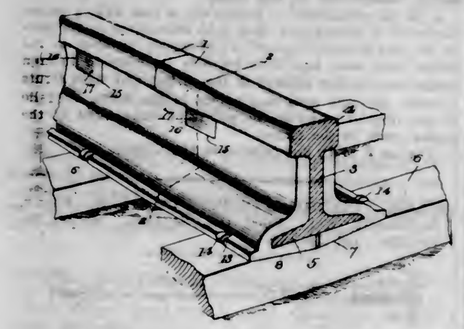
2. In a machine of the character described the combination with a pair of beams, and a clevis-head in which one end of the beams is adjusted laterally, of a pair of stocks in which the other end of the beams is adjusted vertically, a pair of horizontal cutters adjustably secured lengthwise in the stocks, and means for adjusting the cutters.

3. The combination with the beam stocks, of a pair of over-lapping cutters, casings extending through the stocks for holding the cutters, means for adjusting the casings lengthwise so as to vary the relative position of the cutters, and means for operating the cutters.

4. The combination with cultivator beams, and cultivator handles pivotally mounted thereon, of a clamping stock for each beam and adjustable vertically thereon, a pair of longitudinal cutters, a casing adjustable longitudinally in each stock, and cutter-holders cushioned in the casings and having a stem projecting through one end of the casings and through said handles, so that the cutters may be retracted by operating the handles.

5. The combination with the plow beams, and handles pivotally mounted thereon, of a clamping stock adjustable vertically on each beam and comprising a pair of parallel plates having an opening therethrough, removable casings fitting the openings, a holder within each casing and having a stem projecting through one end of the casings and through the handles for retracting the holders, a cutter secured to each holder and projecting through the other end of the casings, and springs contained within the castings for ejecting the cutters.

1,075,554. RAIL-JOINT. ALBERT C. ERNEST, Hubbard, Tex., assignor of one-third to D. M. Roberts, Cooledge, Tex., and one-third to B. H. McDaniel, Hubbard, Tex. Filed July 27, 1912. Serial No. 711,819. (Cl. 239—11.)



1. In a rail joint, rails to be joined, chairs disposed against the rails and having notches in their upper edges the walls of which notches are beveled, and a block carried by each rail and having beveled heads fitting in the openings in the chairs.

2. In a rail joint, rails to be joined, chairs disposed against the rails, the rails having each a slot and the chairs being formed with openings, the walls of which are beveled, and a block removably disposed in the slot of each rail and having beveled heads removably fitting in the openings in the chairs.

3. In a rail joint, rails to be joined, chairs disposed against the rails, the rails each having a slot extending beneath its tread and the chairs being formed in their upper edges with notches having beveled side and bottom walls, and a block disposed in the slot of each rail and having inwardly beveled heads fitting the notches in the chairs.

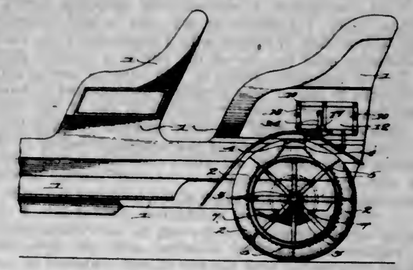
4. In a rail joint, rails to be joined, chairs disposed against the rails and each including a flange resting against the web of the rails and formed in its upper edge with notches having beveled walls, each rail being formed with a slot in its web extending beneath its tread, and a block disposed in the slot of each rail and having a plane upper side extending beneath the bottom of the rail tread and provided at its ends with outwardly beveled heads fitting the notches in the flanges of the rail chairs.

5. In a rail joint, companion chairs having base flanges extending toward each other and having horizontally disposed upper faces for supporting the base flanges of the rails to be joined and having oppositely inclined under faces.

[Claims 6 and 7 not printed in the Gazette.]

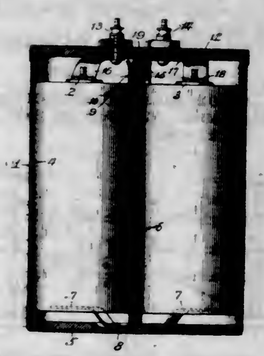
1,075,555. INDICATING DEVICE FOR VEHICLES. MILDRED FELIX, New York, N. Y. Original application filed Apr. 28, 1906, Serial No. 314,261. Divided and this application filed Feb. 23, 1907. Serial No. 358,801. (Cl. 101—62.)

1. A device for identifying vehicles having a driving shaft and wheels driven thereby, comprising a detachable plate mounted on one of said wheels, a reservoir containing a fixative and mounted in the body of said vehicle, a by-pass from said reservoir, a port adapted to register with said by-pass, an ejector nozzle communicating with said port, a shaft, means for driving said shaft from said driving shaft, means controlled by the actuation of said shaft for causing said port to register with said by-pass, and means for discharging the fixative from said ejector nozzle onto said plate.



2. A device for identifying vehicles having a driving shaft and wheels driven thereby, comprising a detachable plate mounted on one of said wheels, a reservoir containing a fixative and mounted in body of said vehicle, a by-pass from said reservoir, a port adapted to register with said by-pass, an ejector nozzle communicating with said port, a shaft, a star-wheel on said shaft adapted to be driven by the movement of said driving shaft, gearing controlling the discharge of the fixative from said reservoir through said by-pass and a second gear on said shaft adapted to actuate said last mentioned gearing.

1,075,556. BATTERY. WILLIAM H. FENOUGHTY, Belleville, Ill., assignor to American Carbon & Battery Company, a Corporation of Missouri. Filed May 12, 1913. Serial No. 766,976. (Cl. 204—52.)



1. A container shaped to receive a pair of dry cells, a conductor contacting with the bottom of each of said cells and terminating near the top thereof in a contact device, a hinged cover for said container, terminals carried thereby, a pair of plates positioned on said cover to establish connection with suitable electrodes of said cells when the cover is swung into closed position, and a cross connecting plate also carried by said cover and effective when the cover is closed to place said cells in series across said terminals by connecting one inner electrode with a conductor contacting with the bottom of the adjacent cell.

2. The combination of a weather proof metal container having a hinged cover, said container being divided into a pair of compartments and insulated to receive and hold a pair of dry cells, a conductive member whereon each cell rests, said members extending upward to the top of said partition and terminating in a contact device, a cross connecting member carried by said cover and operative when the cover is closed to connect one of said contact

devices with the center electrode of an adjacent cell, terminals carried by said cover and contact plates positioned to connect said cells in series across said terminals when the cover is swung into closed position.

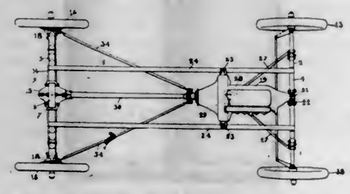
3. In combination, a weather proof container having a hinged cover, a plurality of dry cells in said container and each resting in contact with a conductive strip which terminates near the top of the cell in a contact blade, a pair of terminals carried by said cover, a spring plate connected to one of said terminals and adapted to swing into contact with a center electrode of one of said cells, a plate connected with the other terminal and positioned to contact with the blade of the conductor leading to the bottom of the adjacent cell, and a cross connection carried by said cover and positioned to establish contact between adjacent cells when the cover of the container is closed.

4. The combination of a container divided into a plurality of compartments, a dry cell in each compartment, a resilient contact strip whereon each cell rests, said strips terminating near the top of said container in suitable contact devices, a cover for said container, terminals carried by said cover, resilient metal strips carried by said cover and positioned to contact respectively with the center electrodes of said cells, one of said strips being positioned to serve as a cross connection between said cells, and a third metal strip carried by said cover and permanently in connection with one of said terminals.

5. A container for dry batteries comprising a weather proof oblong envelop having a hinged cover and a non-conductive lining, a partition dividing said envelop into two compartments wherein dry cells may be received and protected, a metal strip for each compartment with which the outer electrode of the cell may contact, the upper ends of said strips being shaped to form contact clips, a pair of terminals carried by said cover and three metal strips carried by the insulating lining of said cover, one of said strips serving as a cross connection between said cells when the cover is closed and the other strips serving to connect said terminals respectively with the appropriate electrodes of said cells.

[Claims 6 and 7 not printed in the Gazette.]

1,075,557. AUTOMOBILE CONSTRUCTION. HENRY FORD, Detroit, Mich. Filed July 21, 1909. Serial No. 508,779. (Cl. 21—90.)



1. In an automobile, front and rear axles, a frame, springs each articulated at the ends to one of the axles and rigidly secured to the frame between the said ends, and struts whose outer ends are secured to the axles near the ends thereof and whose inner ends are pivotally connected to the frame in substantially the vertical plane of the points of attachment of the springs thereto.

2. In an automobile, a front axle, a rear axle, a frame having transverse members, springs each rigidly secured to the medial portion of a transverse member and articulated at both ends to an axle near the extremities thereof, and struts from the outer portions of the axles secured at their inner ends by a pivotal connection to the frame in substantially the vertical plane of the spring connection thereto.

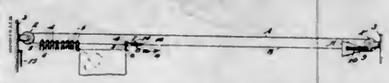
3. In an automobile, a front axle, a rear axle, a frame, transverse members therein above each axle, springs each articulated at its ends to the end portions of an axle and rigidly secured at its middle to the central portion of an adjacent transverse member, and struts each secured at one end to the outer portion of an axle and at the other attached to the frame by a pivotal connection in substantially the vertical plane passing through the points of attachment of the springs to the frame.

4. In an automobile, a front axle, a rear axle, a frame, a transverse member therein over each axle, a spring between each axle and adjacent transverse members articulated at its ends to the axle and rigidly secured at its middle to the adjacent member, and struts whose outer ends are each secured to the outer portion of an axle and whose inner ends are secured to the frame by pivotal connections at points in substantial alinement with the spring connections of the frame.

5. In an automobile, a front axle, a rear axle, a frame thereover, a spring over each axle articulated at its ends to the end portions thereof, a transverse member on the frame over each axle bent between its ends to form a spring seat rigidly secured to the spring, and rigid struts between the axle ends and points in the frame that lie in the vertical plane of the points of attachment of the spring seats to the frame.

[Claims 6 to 12 not printed in the Gazette.]

1,075,558. CLOTHES-HANGER. GEORGE W. FOUKE, Sacramento, Cal. Filed Oct. 8, 1912. Serial No. 724,629. (Cl. 68—3.)



1. A clothes hanger consisting of an endless line, pulleys around which the line passes, a series of hangers on the line, a catch adjacent one of the pulleys, means on one of the hangers for engagement by the catch, and means on the line for throwing the hanger in and out of engagement with the catch.

2. The combination in a clothes hanger of an endless line, spaced pulleys on which the line is carried, spring jaws adjacent one of the pulleys, a series of traveling hangers on the line one of which is adapted to be engaged by the jaws, means for connecting clothes to the hangers to suspend them on one lead of the line, and means on the line for throwing the hanger in and out of engagement with the jaws.

3. In a clothes line and hanger, a pair of spaced pulleys, an endless line carried thereon, a series of loose pulleys on the lower lead of the line, means for suspending clothes from said loose pulleys by which adjacent pulleys will be connected, means for automatically engaging the outermost loose pulley to hold it against movement, and means on the line for releasing said pulley.

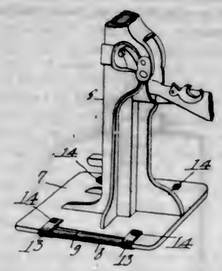
4. In a clothes line and hanger, a pair of spaced pulleys, an endless line carried thereon, a series of loose pulleys on the lower lead of the line, means for suspending clothes from said loose pulleys by which adjacent pulleys will be connected, a disk carried by the outermost loose pulley, means for automatically engaging the disk to hold the outermost pulley against movement, and means on the line for moving the disk into its engaged position and for releasing it therefrom.

1,075,559. ROLLER FOR RAILWAY-TRACK JACKS. WILLIAM R. FUNK and CHARLEY F. FUNK, Archer City, Tex. Filed Jan. 15, 1913. Serial No. 742,299. (Cl. 57—15.)

1. A jack having a foot, a portion of one edge of the foot being cut away, a roller fitting in the cut away portion, and U-shaped clips embracing the ends of the roller and having their ends secured to the upper and lower faces of the foot.

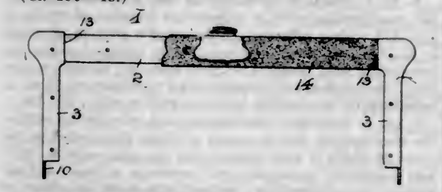
2. A jack having a foot, a portion of one edge of the foot being cut away and the cut away portion having a step at each end, a roller fitting in the cut away portion and having its ends bearing against the steps, and U-shaped clips straddling the said edge of the said foot, and having their arms secured to the upper and lower faces

of the foot, the bends of the clips embracing the ends of the roller and overlapping the said edge of the foot beyond the ends of the roller.



3. A jack having a foot, a portion of one edge of the foot being cut away, a roller fitting in the cut away portion, the cut away portion having a bearing at each end for the respective end of the roller, and clips secured to the foot and embracing the ends of the roller.

1,075,560. BAG-FRAME. FREDERICK GOERTZ, Newark, N. J., assignor to Aug. Goertz & Co., a Corporation of New Jersey. Filed Feb. 2, 1911. Serial No. 606,137. (Cl. 190—49.)



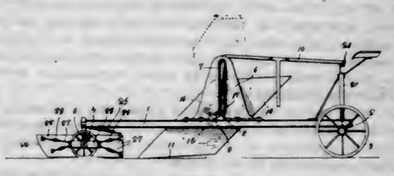
1. A bag-frame section comprising a separate main or central member, a flange extending at a right angle from one of the long marginal edge-portions of said member, said flange terminating at points removed from the marginal end-portions of said member, and separate leg-members, a flange extending at a right angle from one of the long marginal edge-portions of each leg-member, each leg-member having an end-portion overlapping an end-portion of said main or central member, and the flange of each leg-member extending around the marginal end-portion of the main or central member and in contact therewith, the flange of each leg-member having a horizontally disposed flange-portion overlapping and registering with the end-portion of the flange of said main or central member and in contact therewith, and means for rigidly securing said overlapping portions of the said main or central member and said leg-members together to provide a complete frame-section.

2. A bag-frame section comprising a separate main or central member, and separate leg-members, each leg-member having an end-portion overlapping an end-portion of said main or central member, and means for rigidly securing said overlapping portions together to provide a complete frame-section, said overlapping portions of the main or central member and said leg-portions providing the frame-sections with shoulders forming a depressed surface extending over the entire outer face-portion of the said central member, and a covering of flexible material in said depressed face-portion.

3. A bag-frame section comprising a separate main or central member, a flange extending at a right angle from one of the long marginal edge-portions of said member, and separate leg-members, a flange extending at a right angle from one of the long marginal edge-portions of each leg-member, each leg-member having an end-portion overlapping an end-portion of said main or central member, and means for rigidly securing said overlapping portions together to provide a complete frame-section, said overlapping portions of the main or central member and said leg-portions providing the frame-section with shoulders forming a depressed surface extending over the entire outer face-portion of the said central member, and a covering of a flexible material in said depressed face-portion.

4. A bag-frame section comprising a main or central member, and leg-members, said leg-members having their outer metal surfaces exposed, and said main or central member and the leg-members at the corners of the frame-section being provided with shoulders forming a depressed surface upon the outer face-portion of the said central member, and a covering of flexible material in said depressed face-portion.

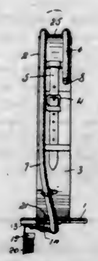
1,075,561. SCOOP. MICHAEL J. GOGARTY, Brooklyn, N. Y. Filed Mar. 22, 1912. Serial No. 685,475. (Cl. 37—33.)



1. In combination, a wheel frame, a double ended scoop pivotally mounted thereon and arranged for vertical movement on the frame, a lever for raising the rear end of the scoop, whereby the front end will be brought into engagement with the ground and bodily raised thereby to reverse the scoop, and means carried by the lever for locking the scoop in operating position.

2. In combination, a rectangular frame, slotted brackets mounted thereon, a scoop body pivotally mounted and slidably connecting the brackets, a lever pivoted to the bracket, means carried by said lever for locking the scoop in operative position, means carried by the lever for raising the scoop, whereby the forward end will engage the ground and thereby be automatically elevated and reversed, and means for locking the lever with the locking means thereon in operative position.

1,075,562. SPRAYING DEVICE. FRANK B. GRAHAM, Kansas City, Mo. Filed July 5, 1910. Serial No. 570,360. Renewed May 29, 1913. Serial No. 770,795. (Cl. 119—145.)



1. In a spraying device, a vessel for containing fluid and having an opening for discharging the fluid upon the copulatory organ of a male animal, a valve controlling said opening, and means including a flexible net adapted to conform in shape to said organ and operative thereby for actuating said valve.

2. In a spraying device, a vessel for containing fluid and having a discharge opening through which fluid may be discharged upon the copulatory organ of a male animal, a valve controlling said opening, a movable member for actuating the valve and having a U shaped portion with the arms horizontally disposed, and a flexible device sus-

pended from said U shaped portion and adapted to conform to the shape of and be moved by said organ for moving said movable member.

1,075,563. METAL FILAMENTS. CHARLES A. HANSEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 9, 1906. Serial No. 325,192. (Cl. 176—132.)

1. A squirtable mixture for the manufacture of lamp filaments consisting of an oxid of tungsten, starch, glycerin and glucose.

2. The process which consists in heating lamp filament material containing an oxid of tungsten and carbon in a reducing atmosphere at low pressure to reduce the oxid and eliminate the carbon, and in then heating to a higher temperature in an inert environment to consolidate the material.

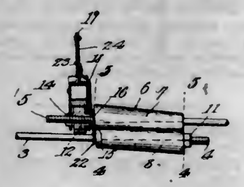
3. The process which consists in heating threads comprising a mixture of carbonaceous material and an oxid of tungsten in a reducing atmosphere under low pressure to reduce the oxid and eliminate carbon and then heating to a higher temperature in an inert environment to consolidate the tungsten.

4. The process which consists in heating a plurality of threads comprising an oxid of tungsten and a carbonaceous binder in hydrogen at low pressure and then heating at a high temperature in a vacuum.

5. The process which consists in heating filamentary bodies comprising an oxid of tungsten and carbonaceous material in a hydrogen atmosphere at low pressure at a temperature of about 1200° C., and then heating to a temperature of about 2200° C. in a substantial vacuum.

[Claim 6 not printed in the Gazette.]

1,075,564. DEVICE FOR TIGHTENING SILO-HOOPS. JOSEPH HANSON and LESLIE M. FOOTE, Inwood, Iowa. Filed Aug. 24, 1912. Serial No. 716,936. (Cl. 217—95.)

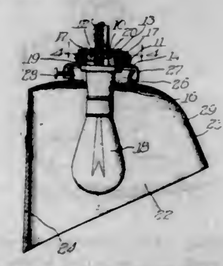


In a device of the class described, a hoop; a casing in which the ends of the hoop are received; means for securing one end of the hoop in the casing; a ratchet nut threaded on the other end of the hoop and bearing against the casing; a lever fulcrumed on the ratchet nut; a pawl on the lever and coöperating with the ratchet nut; and a spring engaged in its intermediate portion with the nut, one end of the spring being connected with the lever and the other end of the spring being connected with the first specified end of the hoop for sliding movement longitudinally of said end.

1,075,565. COMBINED ILLUMINATING AND ADVERTISING DEVICE. GUSTAV A. HARTER, Chicago, and JOHN C. SMITH, Oak Park, Ill.; said Harter assignor to Robert H. Rice. Filed Sept. 7, 1909. Serial No. 516,481. (Cl. 240—103.)

1. In a combined illuminating and advertising device, the combination with a source of light, of a reflector, the front of which is substantially flat and permeable to light, and means for supporting said reflector so that said flat surface is substantially vertical, the back and sides of said reflector being provided interiorly with a reflecting surface, the back being shorter than the front for the purpose specified.

2. In a combined illuminating and advertising device, the combination with a source of light, of a reflector composed of transiucent, vitreous material, a portion of which is covered by a substantially opaque coating and a portion of which is exposed so as to provide an illuminated advertising surface.



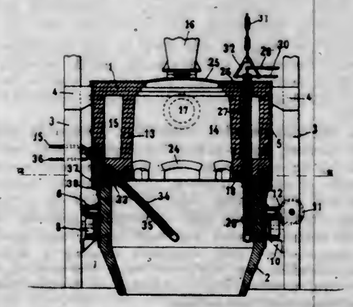
3. In a combined illuminating and advertising device, the combination with a source of light, of a reflector composed of transiucent, vitreous material, a portion of which is covered by a substantially opaque coating, a portion of which is exposed so as to provide an illuminated advertising surface, said surface being substantially flat and of greater vertical dimension than the portion of the reflector opposite thereto.

4. In a combined illuminating and advertising device, the combination with a reflector, a portion of which is provided with a reflecting surface and a portion of which is substantially flat and permeable to light, of means for supporting said reflector so that said flat surface is vertical, and means for supporting an incandescent lamp in substantially a vertical position within said reflector.

5. In a combined illuminating and advertising device, the combination with a source of light, of a reflector, the front of which is substantially flat and permeable to light, and means for supporting said reflector so that said flat surface is substantially vertical, the back and sides of said reflector being substantially opaque and provided interiorly with reflecting surfaces, the back being shorter than the front for the purpose specified.

[Claims 6 to 8 not printed in the Gazette.]

1,075,566. GAS-PRODUCER. JAMES A. HERRICK, New York, N. Y. Original application filed July 10, 1911, Serial No. 637,615. Divided and this application filed Aug. 7, 1911. Serial No. 642,622. (Cl. 48—63.1.)



1. In a gas producer, in combination, a casing provided with a fixed upper section and a revoluble lower section, an annular chamber located in the upper section and spaced from the side walls thereof to provide a mixing chamber, said chamber being open at its lower end, a plurality of castings embedded in the wall of the upper section at the lower end thereof, said castings provided with horizontally spaced inwardly extending integrally formed members which support both walls of said chamber, means for connecting together said castings whereby a substantially continuous metallic ring is formed about the lower end of said upper section, and means for conducting water through all of said castings.

2. A gas producer comprising two independent concentric casings, one above the other and relatively rotatable, the upper casing having an interior lining from top to bottom thereof, said lining having an interior diameter less than that of the lower casing, so that said lining overhangs the interior of the lower casing, a metallic ring at the bottom of the lining for supporting the same, said supporting ring being carried at the lower end and interiorly of the upper casing, said lining and said ring providing a straight-away opening for a poker or the like wherein a poker or the like may be held rigid against lateral movement.

3. A gas producer comprising two independent concentric casings, one above the other, the upper casing having an interior lining from top to bottom thereof, said lining having an interior diameter less than that of the lower casing, so that said lining overhangs the interior of the lower casing, a cover extending over the upper casing and its lining, a metallic ring at the bottom of the lining for supporting the same, said supporting ring being carried at the lower end and interiorly of the upper casing, said cover, said lining, and said ring providing a straight-away opening wherein a poker or the like may be held rigid against lateral movement.

4. A gas producer comprising a casing having a cover portion, and a hollow lining of refractory material supported interiorly of the casing, said hollow lining having an opening at its lower end to the interior of the casing and an opening to the exterior of the casing, and a ventilated support for said hollow lining, having portions beneath both walls of said lining and leaving the opening into the chamber substantially unobstructed, said lining and said ring being further provided with registering openings through which a poker may be inserted.

5. A gas producer comprising two independent concentric sections one above the other and relatively rotatable, the upper section having a mounting for a poker in one of its walls, and said upper section having at its lower end a metallic member extending inwardly and providing an aperture in registry with said poker mounting, whereby a poker may be inserted through the said mounting and through the opening in said inwardly extending member and down into the lower section and held rigid against lateral movement.

[Claims 6 and 7 not printed in the Gazette.]

1,075,567. ROPE-GRIP DEVICE. GEORGE R. HILL, Portland, Oreg. Filed Dec. 28, 1910. Serial No. 599,657. (Cl. 24—134.)



1. In a rope-grip device, a block channeled centrally and vertically for the reception of a hoisting-rope, and also having transverse channels opening from said central channel through the sides of said block; a dog with a serrated edge loosely fitting into each of said transverse channels; the serrated edges of said dogs serving as clamps to secure the rope in a fixed vertical position between said dogs when the hoisting power is released from said rope; pivotal bearings on which said dogs rotate; one end of said pivotal bearings projecting beyond one side of the block; said projecting portions being threaded; posts attached to and laterally projecting from points on the dogs remote from the serrated edges; means attached to said posts to prevent accidental release of said dogs; a transverse plate detachably fastened to one side of the block; thumb nuts on the threaded projecting portion of the bearings to secure said transverse plate to the block, and means to attach the block to a scaffolding.

2. In a rope-grip device, a block channeled centrally and vertically for the reception of a hoisting-rope, and also having transverse channels opening from said central channel through the sides of said block; a dog with a serrated edge loosely fitting into each of said transverse channels; the serrated edges of said dogs serving as clamps to secure the rope in a fixed position between said dogs when the hoisting power is released from said rope; pivotal bearings on which said dogs rotate; one end of said pivotal bearings projecting beyond the sides of the block; posts fastened to and projecting from points on the dogs at the opposite side of the pivotal bearings from the serrated edges of said dogs; a chain connecting said posts; said chain serving to prevent the dogs from accidental release; a transverse plate detachably fastened to one side of the block; thumb nuts operating on the projecting ends of the pivotal bearings to secure and release said transverse plate, and means to attach the block to a scaffolding.

3. In a rope-grip device, a block channeled centrally and vertically for the reception of a hoisting-rope, and also having transverse channels opening from said central channel through the sides of said block; a dog with a serrated edge loosely fitting into each of said transverse channels; the serrated edges of said dogs serving as clamps to secure the rope in a fixed position between said dogs when the hoisting power is released from said rope; pivotal bearings on which said dogs rotate; one end of said pivotal bearings projecting beyond the sides of the block; posts fastened to and projecting from points on the dogs at the opposite side of the pivotal bearings from the serrated edges of said dogs; eyes in said posts; a chain with one end thereof permanently secured to one of said eyes and the other end detachably fastened to the opposite eye; said chain serving to prevent the dog from accidental release; a transverse plate detachably fastened to one side of the block; thumb nuts operating on the projecting ends of the pivotal bearings to secure or release said transverse plate for the purpose of inserting or removing a hoisting-rope, and means to attach the block to a scaffolding.

1,075,568. COMBINATION MOP-HOLDER AND RAKE. HORACE H. HINKLE, Grandfield, Okla. Filed Feb. 10, 1913. Serial No. 747,463. (Cl. 7—1.)

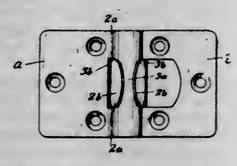


1. In a device of the character described, a frame attachable to a handle having a row of teeth disposed at right angles with the frame, and a second frame pivoted to the aforesaid frame and having a row of complementary teeth disposed at right angles with the last mentioned

frame, the last mentioned frame being reversible so that the respective rows of teeth may project toward each other, or in order that the last mentioned frame may rest against the former frame with the respective rows of teeth in parallel planes.

2. In a device of the character described, a frame attachable to a handle and having a row of teeth, and a second frame pivoted to the aforesaid frame and having a complementary row of teeth, the latter frame being reversible and longitudinally adjustable so that the respective rows of teeth may project toward each other, or in order that the latter frame may rest against the bottom of the former frame with the respective rows of teeth in parallel planes, the teeth of the latter frame being shorter than those of the former frame.

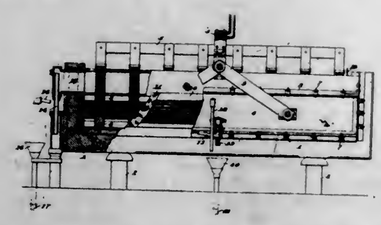
1,075,569. HINGE. JACOB P. HOLTZHOUSER, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 24, 1913. Serial No. 756,281. (Cl. 16—11.)



1. In a hinge of the character described, a leaf and a pintle formed integrally therewith by rolling over one edge of the leaf upon itself, a recess adjacent the pintle and arranged centrally of the leaf, a second leaf having near one edge thereof a pair of upstanding and oppositely curved projections forming a longitudinally slotted knuckle, and stop shoulders of substantial breadth on said leaf at either end of said knuckle.

2. In a device of the character specified, a leaf having formed as an integral part thereof a pintle by rolling over one edge of the leaf, bending said rolled-over portion out of the plane of the leaf and aperturing said leaf adjacent the pintle; a knuckle leaf having integral, upwardly extending and convergingly curved members with their upper edges spaced slightly from one another to form a longitudinally slotted knuckle; said pintle adapted to have a sliding fit through said knuckle, and a stop on said pintle to prevent its being passed wholly through said knuckle.

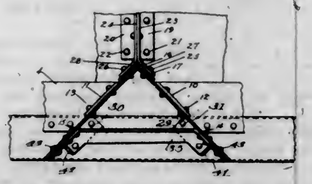
1,075,570. ELECTROLYTIC CELL. ALBERT H. HOOKER, Niagara Falls, N. Y., assignor to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Feb. 26, 1912. Serial No. 679,897. (Cl. 204—58.)



1. A high-amperage cell for the electrolysis of alkali-chlorid solutions, comprising an insoluble anode, a permeable cathode and an interposed diaphragm in contact with said cathode, said electrodes being approximately vertically disposed, the horizontal dimension of the cathode being in excess of six and one-half times its vertical dimension, as and for the purposes set forth.

2. A high-amperage cell for the electrolysis of alkali-chlorid solutions, comprising an insoluble anode, and a plurality of permeable cathodes with interposed diaphragms in contact therewith, said electrodes being approximately vertically disposed, the aggregated horizontal dimensions of the cathodes being in excess of thirteen times the vertical dimension of one of said cathodes.

1,075,571. HOPPER-CAR. FRANK L. IRWIN and JOHN E. TESSEYMAN, Columbus, Ohio, assignors to The Ralston Steel Car Company, Columbus, Ohio, a Corporation of Ohio. Filed May 26, 1911. Serial No. 629,710. (Cl. 105—185.)

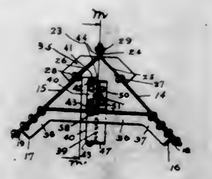


1. In a hopper car having a center sill, a cross hood formed of sloping oppositely inclined sheets secured at their ends to the center sill and the sides of the car and abutting along their upper edges, and a ridge member extending continuously from side to side of the car and applied to the apex of said crosa hood.

2. In a hopper car having a center sill, a cross hood formed of sloping oppositely inclined sheets secured at their ends to the center sill and the sides of the car and abutting along their upper edges, and a ridge member extending continuously from side to side of the car and applied to the apex of said cross hood, and an inside side stake applied at its lower end to said ridge member and secured thereto and to said cross hood sheets.

3. In a hopper car having a center sill, a cross hood formed of sloping oppositely inclined sheets secured at their ends to the center sill and the sides of the car and abutting along their upper edges, and a ridge member extending continuously from side to side of the car applied to the apex of said cross hood to reinforce said cross hood longitudinally, and a bracing member disposed within said cross hood and united at its ends to the sides of said cross hood to afford reinforcement thereto transversely.

1,075,572. HOPPER-CAR. FRANK L. IRWIN and JOHN E. TESSEYMAN, Columbus, Ohio, assignors to The Ralston Steel Car Company, Columbus, Ohio, a Corporation of Ohio. Filed May 26, 1911. Serial No. 629,711. (Cl. 105—185.)

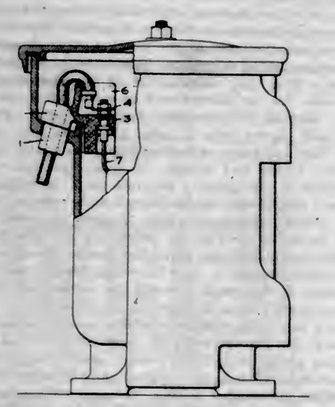


1. In a car having a center sill, a cross hood formed of sloping side sheets, a brace member within said hood secured at its ends to said sloping side sheets, and a reinforcing diaphragm within said hood secured to the center sill, the brace member and the side of the car, and a tension member applied to the center sill and said diaphragm.

2. In a car having a center sill and cross hood formed of sloping side sheets spaced apart at their upper edges, a brace member placed transversely in said hood and applied at its ends to said sheets, and a reinforcing diaphragm within said hood superposed upon said brace member and secured thereto and to said center sill.

3. In a car having a center sill, a cross hood formed of sloping side sheets spaced apart at their upper edges, a transverse brace member in said hood having its ends downwardly divergent and applied to said sheets near their lower edges, and a reinforcing diaphragm arranged longitudinally of said hood and bearing upon said brace member and being secured thereto and to said center sill.

1,075,573. TRANSFORMER BUSHING AND TERMINAL BOARD. SVEND E. JOHANNESEN, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 6, 1912. Serial No. 675,782. (Cl. 247—13.)



1. A combined terminal board and bushing for electrical transformers comprising a projecting bushing portion adapted to project through the wall of the transformer casing and an extension therefrom provided with terminals for connection to the transformer windings and the external lead or leads and with means for interconnecting the windings and the lead or leads as required.

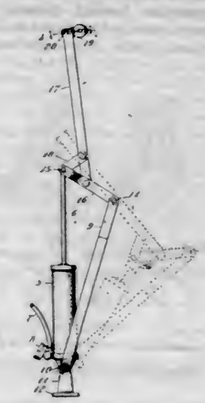
2. The combination with a transformer casing having an opening in the wall thereof, of a combined terminal board and bushing comprising a bushing portion projecting outward through the opening in the casing wall, an extension therefrom extending toward the center of the casing and having a shoulder engaging the wall of the casing in proximity to the opening therethrough, and terminals for connection to the transformer windings and the external lead or leads and means for interconnecting the same, mounted on said extension.

3. The combination with a transformer casing provided with an opening in the wall thereof, of a combined terminal board and bushing comprising a bushing portion projecting outward through the opening in the casing wall, an extension therefrom extending toward the center of the casing and having a shoulder, substantially surrounding the bushing portion and engaging the wall of the casing in proximity to the opening therethrough, and terminals for connection to the transformer windings and the external lead or leads and means for interconnecting the same, mounted on said extension.

1,075,574. PUMP. WILLIAM A. JOHNSON, Chicago, Ill. Filed Sept. 14, 1912. Serial No. 720,313. (Cl. 230—27.)

1. In a pump having a cylinder and a piston rod, the combination of a fulcrum lever, a part to bear on the supporting plane, pivotal connections permitting pivotal movement of the cylinder and fulcrum lever with respect to each other and to the plane of support, an operating handle-lever pivoted upon the fulcrum lever beyond the end of the cylinder, and a connection between said handle lever and the piston rod.

2. In a pump having a cylinder and piston rod, the combination of fulcrum levers on opposite sides of the cylinder extending above and below the free end of the cylinder, and pivotally supported at their lower ends, said cylinder arranged to pass between said fulcrum levers, and a handle lever pivoted to the extremities of the fulcrum levers, said handle lever having connection with the piston rod off-set from the line between the handle and the fulcrum point of the handle lever whereby complete depression of the handle lever forces the pump cylinder through between the fulcrum levers to fold up the pump.



3. In a pump the combination of a foot base, a cylinder and a piston rod, a fulcrum lever, said cylinder and fulcrum lever pivoted with respect to each other and to said base and said fulcrum lever extending upward beyond the cylinders, a handle lever pivotally connected to the extremity of the fulcrum lever, and between its ends pivotally connected to the piston rod.

4. In a pump, the combination of a cylinder and piston rod, a base for foot engagement to hold the structure upon the plane of support, a pair of fulcrum levers, a handle lever pivoted to the upper end of said fulcrum levers, and pivotally connected between its ends to the piston rod, and pivotal connections between the cylinder, fulcrum lever, and base whereby the cylinder and fulcrum levers may move pivotally with respect to each other and to the base.

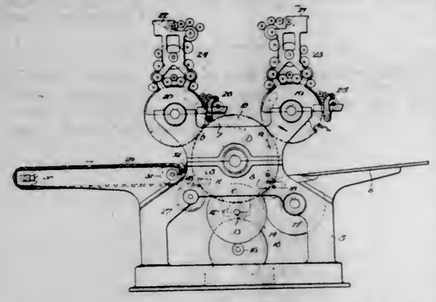
5. In a pump, the combination of a base, a cylinder pivotally movable thereon, a piston rod, fulcrum levers pivotally movable with respect to the base and pump, and a handle structure pivoted between the fulcrum levers and the piston rod, said handle structure including a handle lever, said base being shaped for coaction with the end of said handle lever to hold it in position when the structure is folded.

[Claims 6 and 7 not printed in the Gazette.]

1,075,575. PLANOGRAPHIC-PRINTING PRESS. ROBERT TAYLOR JOHNSTON, Scotch Plains, N. J. Filed Dec. 18, 1911. Serial No. 666,356. (Cl. 101—89.)

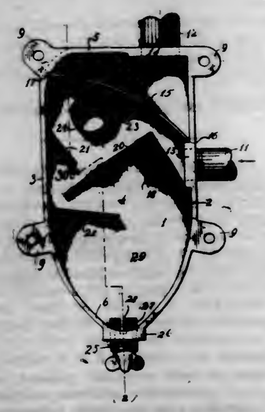
1. In a printing press, the combination of a paper carrying cylinder having its circumference divided into an odd number of sections, a feeding and impression cylinder for delivering paper to said sectional cylinder, a stripper and delivery roll, and a pair of plate cylinders adapted to coöperate throughout a portion of their circumference with said sectional cylinder, said feeding and plate cylinders being constructed to revolve with respect to the sectional cylinder at a ratio of 3 to 2 whereby the individual sections of said sectional cylinder are brought alternately into coöperative relation successively with the feeding cylinder and the plate cylinders, and said stripper roll being constructed to revolve at a ratio of 3 to 1 with respect to the sectional cylinder and adapted to coöperate with alternate sections only of the sectional cylinder.

2. In a printing press, the combination of a paper carrying cylinder having its circumference divided into an odd number of sections, a feeding and impression cylinder having a circumference equal to the length of two of said sections, a pair of plate cylinders of substantially the same circumference as the feeding cylinder, each of said plate cylinders having an operative portion and an inoperative portion, and a delivery cylinder equal in circumference to the length of one of said sections, each of said plate cylinders, feeding cylinder and delivery cylinder being constructed and arranged to coöperate with the various sections of the paper carrying cylinder in alternation.



3. In a printing press, the combination of a paper carrying cylinder divided into an odd number of sections, a feeding and impression cylinder for delivering paper to the alternate sections of said paper carrying cylinder, a plurality of plate cylinders each having an inoperative portion and an operative portion adapted to coöperate with alternate sections of said paper carrying cylinder, and a stripper and delivery device provided with grippers arranged to withdraw the sheets of paper from alternate sections of the paper carrying cylinder and deliver the same away from said cylinder.

1,075,576. COMBINED FILTER AND SEDIMENT-TRAP. OTTO F. KADOW, Cleveland, Ohio, assignor of one-third to John B. Hull and one-third to Harold E. Smith, Cleveland, Ohio. Filed June 14, 1906. Serial No. 321,596. (Cl. 210—5.)



1. In a filter, the combination of a casing having an inlet and an outlet, a screen interposed between said inlet and outlet, means additional to the screen for imparting rotary movement to the water on the inlet side of the screen, and means providing a dead water chamber in said casing on the inlet side of the screen for the reception of sediment, substantially as specified.

2. In a filter, the combination of a casing having an inlet below the top thereof, an outlet through the upper portion thereof, a screen extending between said inlet and outlet and separating the same, and a chamber in the lower portion of said casing communicating with the inlet side of said screen through a tortuous passageway, substantially as specified.

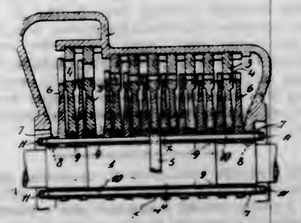
3. In a filter, the combination of a casing having an inlet in the body thereof below the top and an outlet through the upper portion thereof, a screen extending across the casing between the inlet and the outlet, said casing having a chamber extending below and adjacent the screen, a chamber in the lower portion thereof, and a chamber intermediate of the first mentioned chambers and communicating therewith, substantially as specified.

4. In a filter, the combination of a casing having an inlet below the top thereof and an outlet from the upper portion thereof, an upwardly inclined screen extending across said casing from a point above the inlet, an upwardly inclined plate extending from below the inlet toward the screen and having its upper end spaced from said screen, a downwardly inclined plate extending from the upper end of the last mentioned plate toward the wall of the casing opposite the inlet, a plate extending downwardly from the wall of the casing opposite the inlet toward the last mentioned plate and spaced therefrom, and a cylindrical member or boss extending transversely across the casing in the space between the screen and the two last mentioned plates, substantially as specified.

5. In a filter, the combination of a casing having an inlet below the top thereof, an upwardly inclined screen extending across said casing from a point above the inlet, an upwardly inclined plate extending from below the inlet toward the screen and having its upper end spaced from said screen, a downwardly inclined plate extending from the upper end of the last mentioned plate toward the wall of the casing opposite the inlet, a plate extending downwardly from the wall of the casing opposite the inlet and toward the last mentioned plate and having its lower end spaced therefrom, a plate below the last mentioned plates and extending downwardly from the wall of the casing opposite the inlet, and a cylindrical member or boss extending transversely across the casing in the space between the screen and the second and third plates, substantially as specified.

[Claims 6 to 15 not printed in the Gazette.]

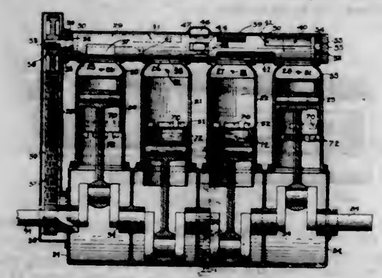
1,075,577. ROTOR CONSTRUCTION. FRANK W. KENNEDY, Trenton, N. J., assignor to De Laval Steam Turbine Company, New York, N. Y., a Corporation of New Jersey. Filed Feb. 17, 1913. Serial No. 748,917. (Cl. 121—58.)



1. A rotor construction comprising in combination a shaft, a ring secured thereto, rotor members mounted on said shaft, said rotor members and fixed ring provided with one or more registering bolt-apertures, and one or more through bolts passing through said bolt-apertures and provided with means for pressing the several rotor members together against said fixed ring, whereby the frictional engagement of said members with each other and with the fixed ring, supplemented if occasion arises by the keying action of such through bolt or bolts, secures the several rotor members against rotation with respect to said shaft.

2. A rotor construction comprising in combination a shaft, a ring secured thereto, rotor members mounted on said shaft, said rotor members and fixed ring provided with one or more registering bolt-apertures, and one or more through bolts passing through said bolt-apertures and provided with means for pressing the several rotor members together against said fixed ring, whereby the frictional engagement of said members with each other and with the fixed ring, supplemented if occasion arises by the keying action of such through bolt or bolts, secures the several rotor members against rotation with respect to said shaft, the said rotor members comprising also end rings through which the said bolt or bolts pass, and keys securing said end rings against rotation with respect to said shaft.

1,075,578. INTERNAL-COMBUSTION ENGINE. FREDERICK O. KILGORE, Somerville, Mass. Filed Dec. 28, 1911. Serial No. 668,287. (Cl. 123—80.)

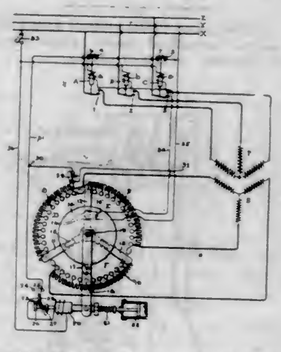


1. In a motor of the character described, in combination, a cylinder provided with a gas inlet port at one end and with gas outlet and air inlet ports in its body portion, a crank case with which said cylinder communicates, a piston reciprocating in said cylinder and controlling the gas outlet and air inlet ports in said body portion, a crank shaft in said crank case, means to connect said piston with said crank shaft, a valve casing having a port registering with the gas inlet port of said cylinder, a hollow rotary valve provided with a gas inlet port and with a gas outlet port, and with an external passage non-communicating with the interior of the hollow valve, the gas outlet port and the external passage of said hollow rotary valve being arranged to register with the gas inlet port of said cylinder in the rotation of said valve, a pipe connecting said crank face with said valve casing and coöperating with the external passage in said rotary valve to admit air from the crank case into the cylinder, an auxiliary exhaust port in said valve casing with which said external passage coöperates to connect the same with the said cylinder, and means to connect the rotary valve with said crank shaft, substantially as described.

2. In a motor of the character described, in combination, a cylinder provided with a gas inlet at its upper end and with an exhaust port in its body portion, a crank case with which said cylinder communicates, a piston reciprocating in said cylinder and controlling the said exhaust port, a crank shaft in said casing, means to connect said piston with said crank shaft, a valve casing having a port registering with the gas inlet port of said cylinder, a hollow rotary valve located in said casing and provided with a gas inlet port and with a gas outlet port, and with an external passage non-communicating with the interior of said valve, the gas outlet port of said hollow rotary valve in the rotation of the latter registering with the gas inlet port of the cylinder on the downward stroke of the piston to draw explosive mixture therein from the hollow rotary valve, and the external passage of the said valve being connected with the gas inlet port of the cylinder and with the crank case to admit air under pressure into the cylinder from the said crank case on the second down-stroke of said piston, and means to rotate said hollow valve, substantially as described.

3. In a motor of the character described, in combination, a cylinder provided with a gas inlet port at its upper end and with an exhaust port in its body portion, a crank case with which said cylinder communicates, a piston reciprocating in said cylinder and controlling the said exhaust port, a crank shaft in said casing, means to connect said piston with said crank shaft, a valve casing having a port registering with the gas inlet port of said cylinder, a hollow rotary valve located in said casing and provided with a gas inlet port and with a gas outlet port, and with an external passage non-communicating with the interior of said valve, the gas outlet port of said hollow rotary valve in the rotation of the latter registering with the gas inlet port of the cylinder on the downward stroke of the piston to draw explosive mixture therein from the hollow rotary valve, and the external passage of said valve being connected with the gas inlet port of the cylinder to admit air into the cylinder on the second down stroke of the said piston, and means to rotate said hollow valve, substantially as described.

1,075,579. MOTOR-STARTER. CHARLES D. KNIGHT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 12, 1908. Serial No. 462,218. (Cl. 172—289.)



1. The combination with an alternating current motor, of means for controlling the same comprising a primary circuit closing device, an impedance for the secondary circuit, an electro-magnetic device for gradually reducing said impedance by a movement in one direction and connections established upon the failure of voltage whereby the device is automatically moved in the same direction to insert impedance upon the restoration of voltage.

2. The combination with a polyphase motor, of means for controlling the same comprising a primary circuit closing device, an impedance for each phase of the secondary circuit, a controlling member having a varying element for each impedance, an electro-magnetic device for moving said member in a direction to reduce the impedance, a switch for stopping said member at the limit of its movement, and connections established upon the failure of voltage whereby the member is moved in the same direction to insert the impedance upon the restoration of voltage.

3. The combination with a polyphase motor, of means for controlling the same, comprising a primary circuit closing device, an impedance for the secondary circuit having concentrically arranged sections, one for each phase, a controlling member having an arm for each section, an electromagnetic mechanism for moving said member in a direction to reduce the impedance, means for stopping said member when it reaches the end of a section, and

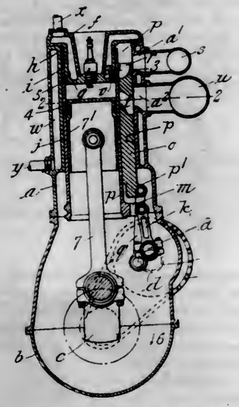
connections established upon the opening of the primary circuit by failure of voltage whereby said mechanism is energized to continue the movement of each arm to the next section upon the restoration of voltage.

4. The combination with a polyphase motor, of means for controlling the same comprising a primary circuit closing device, an impedance for the secondary circuit having concentrically arranged sections one for each phase, a controlling member having an arm for each section, an electromagnetic device for moving said member in a direction to reduce the impedance, a switch for stopping said member when it reaches the end of a section and a shunt around said switch arranged to be closed upon the opening of the primary circuit by failure of voltage to continue the movement of each arm to the next section upon the restoration of voltage.

5. The combination with a polyphase motor, of means for controlling the same comprising a primary circuit closing device, an impedance for the secondary circuit having concentrically arranged sections one for each phase, a controlling member having an arm for each section, an electromagnetic device for moving said member in a direction to reduce the impedance, a switch for stopping said member when it reaches the end of a section, a shunt around said switch arranged to be closed upon the opening of the primary circuit by failure of voltage to continue the movement of each arm to the next section upon the restoration of voltage and connections whereby the primary circuit cannot be closed until the controlling arms are at the beginning of a section.

[Claim 6 not printed in the Gazette.]

1,075,580. INTERNAL-COMBUSTION ENGINE. HARRY AUSTIN KNOX, Springfield, Mass. Filed July 16, 1912. Serial No. 709,638. (Cl. 123—188.)



In an internal combustion engine, the combination of a cylinder having a channel or groove formed in the bore of the cylinder and extending the entire length of said bore, a sleeve in movable contact with the inside surface of said cylinder, a piston in movable contact with the inside of said sleeve, a valve member movable in said channel in contact with a part of the external surface of said sleeve, a port in the sleeve through which the inlet and exhaust gases pass, an exhaust passage in the valve member adapted to form a communication with the port in the sleeve and with the exhaust port in the cylinder during the exhaust stroke of the piston, an inlet port in the valve member adapted to form a communication with the port in the sleeve and with the inlet port in the cylinder during the in-take or suction stroke of the piston and, connecting rods directly connecting the lower ends of said sleeve and valve member with cranks on the eccentric shaft, means for imparting motion to the sleeve, eccentric shaft, and the slide valve.

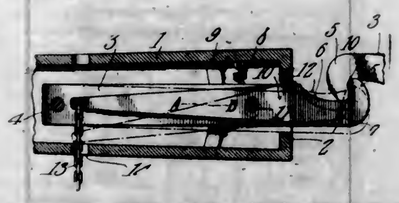
1,075,581. ANHYDRID OF SALICYLIC ACID AND PROCESS OF PREPARING THE SAME. EDUARD KOPETSCHNI, Mannheim, Germany, LADISLAUS KARCZAG, Szolnok, Austria-Hungary, and OTTO FODOR, Berlin, Germany; said Fodor assignor to Paul Karczag, Szolnok, Austria-Hungary. Filed Apr. 8, 1913. Serial No. 759,797. (Cl. 23—24.)

1. The process of producing an anhydrid of salicylic acid, consisting in subjecting salicylic acid chlorid to treatment to split off therefrom hydrochloric acid.

2. The process of producing an anhydrid of salicylic acid, which consists in treating salicylic acid chlorid with re-agents reacting therewith to split off therefrom hydrochloric acid and separating the anhydrid formed.

3. The herein described product consisting of an anhydrid of salicylic acid, the same being readily soluble in ether, acetone, glacial acetic acid, ethyl acetate, benzol, melting between 90° and 100°, and converted by boiling with aniiin into salicylaniiid.

1,075,582. CAR-COUPLING. SAMUEL V. LAUGHINGHOUSE, Grifton, N. C. Filed Mar. 3, 1910. Serial No. 547,094. (Cl. 213—49.)



A car coupler including a draw bar having an opening at one end, an arm extending through the opening and into the draw bar, the inner end of said arm being pivotally connected to the draw bar, a coupling head at the outer end of the arm, a spring within the draw bar and connected to the arm and draw bar for holding said arm normally pressed against one side wall of the opening in the draw bar, a lever fulcrumed upon the arm at a point between the pivot of said arm and the opening in the draw bar, the outer end of said lever being positioned normally at one side of the coupling head, and means connected to the inner end of the lever for swinging said lever about its pivot, said lever when operated by said means constituting means for successively swinging against one side wall of the opening in the draw bar and shifting the pivoted arm away from said side wall thereby to move the coupling head and the active end of the lever simultaneously in opposite directions to uncouple the head.

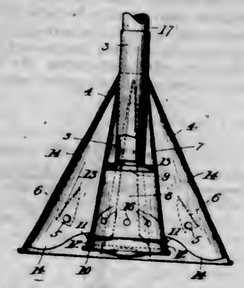
1,075,583. MOLTEN BATH AND MEANS FOR COATING IRON ARTICLES THEREWITH. HERMAN J. LOHMANN, Jersey City, N. J., assignor to The Lohmann Company, a Corporation of New York. Filed Feb. 1, 1911, Serial No. 605,944. Renewed Aug. 21, 1913. Serial No. 786,009. (Cl. 75—1.)

The process of maintaining in a homogeneous condition for an indefinite length of time, a bath comprising lead and zinc in a molten condition, which process consists in adding a small proportion of mercury to the bath, substantially as herein described.

1,075,584. CLOTHES-POUNDER. JOHN LUETZ, West Pullman, Ill. Filed Mar. 15, 1913. Serial No. 754,477. (Cl. 68—5.)

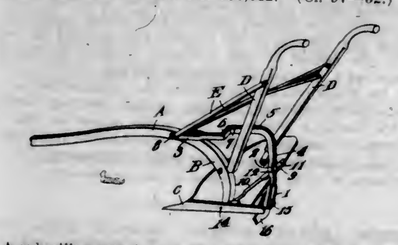
A clothes pounder comprising a conical shell provided with a handle, a central tube within said shell, forming a soap holder, a plurality of spaced tapered chambers located between the tube and shell, said chambers comprising curved walls the outer sides of which are in contact with the inner surface of the shell and the inner spaced edges

of which are secured to the central tube, the shell having openings through the same, at the spaces between the



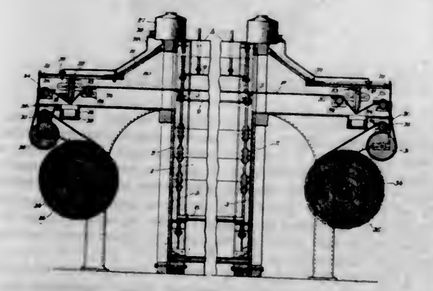
chambers, and the central tube having openings through the same, from the soap holder into said chambers.

1,075,585. SUBSOIL ATTACHMENT FOR PLOWS. WILLIAM R. MATHIS, New Boston, Tex., assignor to Mathis Subsoiler Attachment Company, New Boston, Tex. Filed Mar. 11, 1913. Serial No. 753,612. (Cl. 97—32.)



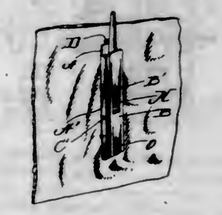
A subsoiling attachment for plows, including a standard formed in a single length of metal folded at its center to produce an elongated loop and an eye spaced from and above the loop, there being a forwardly extending arm integral with the standard and terminating in a fork made up of the terminals of the strip, said arm being offset adjacent the fork, a laterally offset brace for attachment to the lower end of a plow standard, one end of said brace being extended through the eye, and means for adjustably connecting the brace to the eye.

1,075,586. PROCESS OF DRYING. GEORGE H. MAY, Newburgh, N. Y., and WILLIAM M. GROSVENOR, Grantwood, N. J. Filed Aug. 17, 1909. Serial No. 513,253. (Cl. 34—24.)



The improved method of drying coated sheets and the like carrying volatile organic solvents, which consists in causing the sheet to move through a drying medium during the drying operation, simultaneously causing the drying medium to circulate about the sheets, the drying medium being partially saturated with the organic solvent vapors to be removed before it comes into contact with the sheet, and heated to a temperature below the boiling point of the solvent, the temperature and saturation being so adjusted relatively to one another so that premature surface drying of the coating is prevented, and whereby the movement of the medium causes the body of the sheet and coating to become gradually heated and the vapors to be driven off gradually to prevent blistering, bubbles and pinholes.

1,075,587. NAIL-SET HOLDER. WILLIAM HENRY MCKEEN, Goldfield, Nev. Filed Aug. 27, 1908. Serial No. 450,573. (Cl. 24—3.)



1. A holder comprising two plates intermediately pivoted together and spaced apart at the pivot to permit the insertion of an article between said plates past their pivot, resilient fingers struck up from said plates and extending toward each other and toward the pivot above the same, and another resilient finger struck up from one plate below the pivot and extending inwardly in the same direction as the other fingers, all for the purposes specified.

2. In a device of the character described, a bottom plate, provided with longitudinal upstanding flanges, a top plate provided with longitudinal upstanding flanges, the flanges of the top plate telescoping within the flanges of the bottom plate, pivot pins passing through the telescoping flanges of the two plates, spring tongues carried by each of the plates and disposed above the pivot pin, the free ends of the spring tongues abutting against each other, and an additional spring tongue carried by the top plate and disposed below the pivot pins, said additional spring tongue projecting into the space between the top and bottom plates, substantially as described.

3. A holder comprising two plates intermediately pivoted together and spaced apart at the pivot to permit the insertion of an article between said plates past their pivot, resilient members extending inwardly from said plates above the pivot and normally holding them in a spread apart or open position, and an inwardly extending resilient member mounted on one of said plates below the pivot and adapted to bring said plates to a substantially parallel position when an article is inserted and pushed down between them.

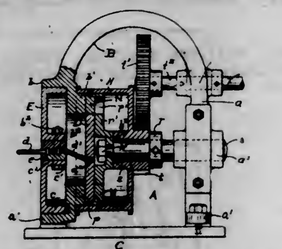
4. A holder comprising two plates pivoted together and spaced apart to permit the insertion of an article between them, the pivotal point of the said plates being below their longitudinal center, opposing resilient members struck out from the plates on one side of the pivot and engaging each other to maintain the upper ends of the plates in distended relation, and another resilient member struck out from one of the said plates on the opposite side of the said pivot, the opposing members extending toward the pivot and the resilient member on the opposite side of the pivot extending from the pivot, whereby the said members are adapted to engage the article for retaining the same within the holder, substantially as described.

5. A holder comprising two plates intermediately pivoted together and spaced apart at the pivot to permit the insertion of an article between them, means above the pivot for normally holding one extremity of the said plates apart, and a resilient finger struck out from one

of the said plates below the pivot, whereby the two plates are brought to a substantially parallel position when an article is inserted and pushed down between them, substantially as described.

[Claim 6 not printed in the Gazette.]

1,075,588. MULTIPLE-DRILL MACHINE. JOHN MCLELLAN, Providence, R. I. Filed Nov. 23, 1911. Serial No. 661,903. (Cl. 77—23.)



1. In a multiple-spindle drilling machine of the general character described, the combination with a stationary front head or holder, and a suitably mounted power-driven member eccentrically movable with respect to the holder and provided with transverse holes, of a separable or two-part stationary drill-holder proper removably mounted centrally in said head having a plurality of intersecting transverse and longitudinal grooves formed in the joint or meeting faces thereof, and a plurality of laterally off-set drills having fixed thrust-collars, the latter being mounted in said longitudinal grooves and having other portions of the drill revolubly seated in said transverse grooves and in the holes of the said eccentrically movable member, for the purpose set forth.

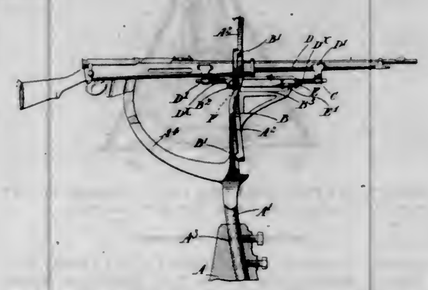
2. In a multiple-spindle drilling machine, the combination with a stationary front head or holder, and drills mounted therein having the inner ends of their shanks offset from the axes of the drills, of a stationary supporting spindle, a power driven drive member mounted to revolve thereon concentrically with respect to the holder, said member including a pulley having an interior partition, the front face of which is provided with an eccentric recess, a crank disk mounted for movement in said eccentric recess and having openings to receive the inner ends of said drill shanks, and a disk on said supporting spindle received in the rear face of said partition.

1,075,589. APPARATUS FOR RIFLE, GUNNERY, AND LIKE PRACTICE. FRANK MITCHELL, London, England, assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I., a Corporation of Rhode Island. Filed Feb. 1, 1908, Serial No. 413,799. Renewed Apr. 7, 1913. Serial No. 759,571. (Cl. 124—15.5.)

1. In target-practice apparatus the combination with an aiming device of a "planetary" member associated therewith, a substantially spherical surface bearing having as its center a point on the target aimed at, and means whereby the "planetary" member when moved is constrained to follow such surface.

2. In target-practice apparatus the combination of a "planetary" member, a substantially spherical surface bearing having as its center a point on the target aimed at, means whereby the "planetary" member when moved is constrained to follow such surface, a gun or aiming device connected with said "planetary" member, an indicator and means whereby the indicator is moved when the proper angular relation between the aiming device and the "planetary" member is disturbed.

3. In target-practice apparatus the combination of a "planetary" member, a substantially spherical surface bearing having as its center a point on the target aimed at, means whereby the "planetary" member when moved is constrained to follow such surface, an indicator movable with the "planetary" member and adapted to keep in constant relation thereto when the arm is true, an aiming device connected to said "planetary" member and connections between the aiminig device and the indicator so arranged that the relations between the indicator and the "planetary" member are disturbed when the aim is untrue.

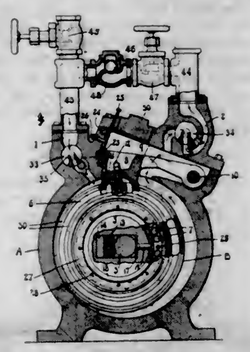


4. In a target practice apparatus, the combination with an aiming device of a planetary member attached to the aiming device, a support therefor and sliding means connecting the member to its support and adapted to constrain the motion of such planetary member so that it sweeps out a substantially spherical surface.

5. In target-practice apparatus the combination of a substantially spherical guiding surface bearing having as its center a point on the target aimed at and a "planetary" member unattached to said surface but moving over it and kept in contact with it by gravity.

[Claims 6 to 10 not printed in the Gazette.]

1,075,590. ROTARY ENGINE. GEORGE F. MOORS, Cincinnati, Ohio. Filed Aug. 23, 1912. Serial No. 716,633. (Cl. 121—94.)



1. In a rotary engine, a cylinder having inlet and exhaust ports, supply and exhaust pipes communicating with said ports, a throttle valve in said supply pipe, a fluid conductor forming a by-pass between said supply and exhaust pipes, said by-pass being in communication with the supply pipe at a point between said throttle valve and said inlet port, and a valve in said by-pass for preventing the fluid in the supply pipe from flowing through said by-pass.

2. In a rotary engine, a cylinder having inlet and exhaust ports, supply and exhaust pipes communicating with said ports, a throttle valve in said supply pipe, a fluid conductor forming a by-pass between said supply and exhaust pipes, said by-pass being in communication with the supply pipe at a point between said throttle valve and said inlet port, a check valve in said by-pass for preventing the fluid in the supply pipe from flowing through said by-pass, and a valve for closing said by-pass to prevent fluid from passing therethrough in either direction.

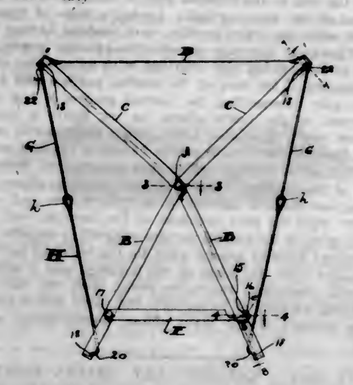
3. In a rotary engine, a cylinder, and a piston in said cylinder, the said piston comprising an eccentric, a ring surrounding said eccentric, antifriction rollers between said eccentric and ring, a contractible circular raceway member forming a lining for said ring, said raceway member having inclined end edges separated from each other and also having perforations for the reception of a device whereby the raceway members may be contracted to permit its removal from said ring.

4. In a rotary engine, a cylinder, a piston in said cylinder, an abutment housing, an abutment arranged in said housing and connected with the piston so as to oscillate in response to movements of said piston, packing between said abutment and a wall of said abutment housing, a presser plate in said housing for compressing said packing and a means for adjusting said presser plate operable from the exterior of said housing.

5. In a rotary engine, a cylinder, a piston in said cylinder, an abutment housing, an abutment arranged in said housing and connected with the piston so as to oscillate in response to movements of said piston, packing between said abutment and a wall of said abutment housing, a presser plate in said housing for compressing said packing; said presser plate being formed with a slot, a bolt passing through said slot and connecting the presser plate to said housing, and a screw for adjusting said presser plate passing through said housing.

[Claims 6 and 7 not printed in the Gazette.]

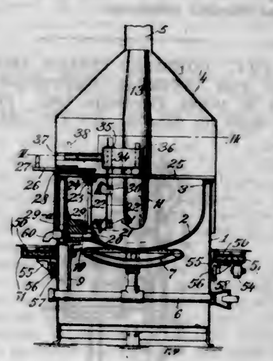
1,075,591. FOLDING STOOL. REUBEN D. MORGAN, Cleveland, Ohio. Filed Nov. 4, 1911. Serial No. 658,471. (Cl. 155—32.)



1. In a folding stool, the combination with a rod, of two inverted U-shaped seat-frames having the lower ends of their side members rotatably mounted on said rod, one of said seat frames being slightly smaller than the other and adapted to telescope within the larger one, a flexible seat extending between and attached to said seat frames, two U-shaped leg frames having the upper ends of their side members rotatably mounted on said rod, one of said leg frames being smaller than the other leg frame, but larger than the larger seat frame and adapted to telescope into the larger leg frame and over the larger seat frame when the said frames are rotated toward each other, means for securing the leg frames together to hold them at the proper angle for supporting the stool and means for locking the seat frames to said leg frames, for the purpose set forth.

2. In a folding stool, the combination of a rod, two inverted U-shaped seat frames having the lower ends of their side members rotatably mounted on said rod, one of said seat frames being smaller than the other seat frame and adapted to telescope into the larger seat frame, when said frames are rotated on said rod toward each other, two U-shaped leg frames having the upper ends of their side members rotatably mounted on said rod, one of said leg frames being smaller than the other leg frame and adapted to telescope into the larger leg frame when said leg frames are rotated on said rod, said seat frames and said leg frames having such relative proportion that the seat frames when telescoped can in turn telescope within the telescoped leg frames, a flexible seat extending between and attached to said seat frames, means for locking the seat frames to the leg frames and means for securing the leg frames together, said means comprising a bar pivotally secured to one of said leg frames, the other leg frame being provided with a notch in the outer edge thereof and said bar having a pin adapted to fit into the said socket.

1,075,592. MELTING-FURNACE. THOMAS W. MORRELL, Bloomfield, N. J. Filed July 14, 1909. Serial No. 507,496. (Cl. 75—186.)



1. In combination, a melting pot, and a stirrer therein, acting to force the upper part of the contents of the pot downwardly and the lower part thereof upwardly.

2. In combination, a melting pot, and a stirrer therein comprising a pair of blades, one of said blades acting to force the contents of the pot upward and the other blade acting to force the same downward.

3. In combination, a melting pot, and a stirrer movable therein including a pair of propeller blades, said blades having opposite pitches.

4. In combination, a melting pot, and a stirrer therein comprising a stirrer bar, blades thereon, and an oscillating arm supported above said pot and carrying said bar.

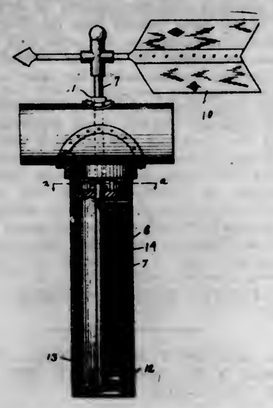
5. In combination, a melting pot, and a stirrer therein oscillating about a vertical axis, and movable through but a portion of a revolution only.

[Claims 6 to 17 not printed in the Gazette.]

1,075,593. AUTOMATIC CHIMNEY-SWEEP. LEROY R. MORRIS, Longbeach, Cal. Filed Dec. 11, 1911. Serial No. 665,068. (Cl. 98—4.)

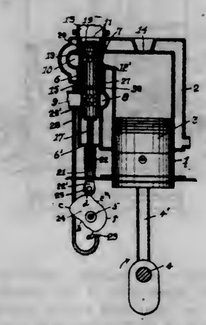
In a chimney cleaning apparatus: the combination of a chimney; a vertical shafting centrally suspended within said chimney; means for supporting said shafting; a wind vane rigidly attached to the top end of said shafting; guide wheels attached to said shaft at intervals within

said chimney; and non-combustible bristles arranged longitudinally along said shafting adapted to come in contact



with all portions of said flue while said shaft is being revolved one complete revolution.

1,075,594. COMBINED INTAKE AND EXHAUST VALVE FOR INTERNAL-COMBUSTION ENGINES. GEORGE W. MOSER, Perrysburg, Ohio. Filed Feb. 19, 1912. Serial No. 678,699. (Cl. 123—188.)



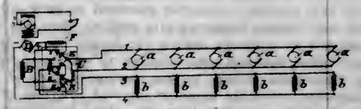
1. The combination with the main cylinder, piston and crank shaft of an internal combustion engine, said main cylinder having a side port in its top end portion, of a valve cylinder open at its upper end, and having an outlet port in its top end portion connected with the side port of the main cylinder, and an intake port centrally of its length adapted to be connected to a carbureter, a tubular valve piston closed at its ends, and having an outlet port in its top end portion adapted to be registered with the outlet port of the valve cylinder, and having an end portion above the outlet port adapted to close the outlet port of the valve cylinder, and a port in the central portion adapted to register with the intake port of the valve cylinder when the outlet port of the valve piston is registered with the outlet port of the valve cylinder, a cam shaft connected to the crank shaft and adapted to be revolved thereby at one half the speed of the crank shaft, a cam on the cam shaft, and means operatively connecting the valve piston with the cam, said cam being adapted to reciprocate the valve piston in the valve cylinder relative to the stroke of the piston of the main cylinder, substantially as set forth.

2. The combination with a main cylinder, piston, crank shaft and exhaust pipe of an internal combustion engine, of a valve cylinder having an annular groove enlargement of its bore at its top end portion connected by a side port to the top end portion of the main cylinder, and connected at its top end to the exhaust pipe, an annular groove enlargement of its bore at its central portion and a side intake port intersecting the central groove, a cam shaft connected to the crank shaft as set forth, a cam on the cam shaft, a tubular valve piston reciprocable in the valve cylinder, said valve piston having a top end portion adapted to close the top annular groove from the exhaust pipe, a series of port openings adjacent to the top end portion adapted to be brought into and out of register with the top annular groove, and a series of ports in its central portion adapted to register with the central annular groove when the top series of ports are in register with the top annular groove, and a stem operatively connecting the valve piston with the cam, said cam being adapted to reciprocate the valve piston, relative to the strokes of the main piston, substantially as set forth.

3. The combination with the main cylinder, piston and crank case of an internal combustion engine, of a valve cylinder having an intake port adapted to be connected to a carbureter, an outlet port connecting it with the top end portion of the main cylinder, and an oil pipe connecting the cylinder with the crank case, a tubular valve piston reciprocable in the valve cylinder having ports simultaneously registerable respectively with the intake and outlet ports of the valve cylinder, said valve piston being provided with an annular groove adapted to be registered with the oil pipe, when the ports of the piston are in register with the ports of the cylinder and having a port into the bore of the valve piston diametrically opposite the oil pipe.

4. The combination with the main cylinder, piston, crank shaft and exhaust pipe of an internal combustion engine, of a valve cylinder having its upper portion provided with a bore of increased diameter, an annular groove enlargement at its top end portion connected by a side port to the top end portion of the main cylinder, and connected at its top end to the exhaust pipe, a bushing in the upper portion of the valve cylinder, having a bore of equal diameter with the lower portion, said bushing having a series of ports at intervals opposite the annular groove, said valve cylinder being also provided with an annular groove enlargement of its bore at its central portion and a side intake port intersecting the central groove, a cam shaft connected to the crank shaft, as set forth, a cam on the cam shaft, a tubular valve piston reciprocable in the valve cylinder, said valve piston having a top end portion provided with packing rings, and adapted to close the ports of the bushing, a series of port openings adjacent to the top end portion adapted to be brought into and out of register with the port openings of the bushing, and a series of ports in its central portion adapted to register with the central annular groove when its top series of ports are in register with the ports of the bushing, and a stem operatively connecting the valve piston with the cam, said cam being adapted to reciprocate the valve piston relative to the strokes of the main piston, substantially as set forth.

1,075,595. ELECTRICALLY-DRIVEN RAILLESS TRAINS. WILHELM ADOLF THEODOR MÜLLER, Berlin-Steglitz, Germany. Filed Nov. 4, 1908. Serial No. 461,078. (Cl. 172—8.)



1. In an electrically driven vehicle having a plurality of driving wheels, electric motors to drive separately the respective wheels, said motors comprising a group of armatures supplied by one pair of mains and a group of motor fields supplied by a second pair of mains, and means connecting said current source with said motors in such a manner that one pair of said mains is connected in series with the other pair.

2. In an electrically driven vehicle having a plurality of driving wheels, electric motors to drive separately the respective wheels, a source of current, and means connecting said current source with said motors in such a manner that a group of motor armatures is connected in series with a group of motor fields, the armature of each motor being connected in series with its field.

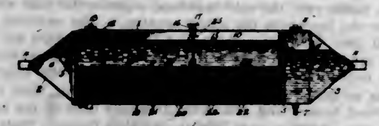
3. In an electrically driven train, a plurality of vehicles, a plurality of electric motors on said vehicles to drive separately the respective driving wheels thereof, a source of current on one of said vehicles, circuit connections with said current source connecting permanently the motor armatures in one group and the motor fields in another group, and a commutator to close said circuit connections and to connect said groups in series.

4. In an electrically driven train, a plurality of vehicles, a plurality of electric motors on said vehicles to separately drive the respective driving wheels thereof, a source of current on one of said vehicles, circuit connections with said current source permanently connecting the motor armatures in one group and the motor fields in another group, a braking resistance, and a commutator to close said connections and to connect said groups in series, said commutator being operative to disconnect the armature group from the current source and connect it with said braking resistance.

5. In an electrically driven train, a plurality of vehicles, a plurality of electric motors on each of said vehicles to separately drive the respective driving wheels thereof, a current source on one of said vehicles, circuit connections to connect said current source with the motor armatures and fields in such a manner that the armatures are permanently connected in one group and the fields in another group, and means to inter-connect said groups, with the current flowing through the motor armatures in either direction.

[Claims 6 and 7 not printed in the Gazette.]

1,075,596. CARBURETER FOR MOTOR-CYCLES AND OTHER PURPOSES. CHARLES H. MYERS, Buffalo, N. Y. Filed Feb. 24, 1910, Serial No. 545,775. Renewed Mar. 7, 1913. Serial No. 752,786. (Cl. 48—159.)



1. A carbureter for motor cycles and other purposes comprising an elongated casing having an air flue of substantially the same length as the casing and extending along one side thereof, a series of superposed holding devices for volatile liquid each elongated in the direction of the length of the casing and provided with air directing channels extending transversely of said holding devices, the lowermost of said devices extending into the air flue with the corresponding ends of the air channels of said lowermost holding device also extending into the air flue, and an outlet for enriched air at the side of the casing remote from the air flue.

2. A carbureter for motor cycles and other purposes comprising an elongated body or casing having at one side a longitudinally arranged partition of a length substantially that of the interior of the body and extending from the top of the body toward the bottom thereof but terminating short of the latter with the space between the partition and the adjacent side of the body constituting an air conduit, a holder for volatile liquid coextensive with the bottom of the body and underriding the air conduit throughout the length thereof, said holder being provided with transverse partitions dividing the holder into a series of transverse air channels, which channels extend into the air conduit formed by the first named partition, a series of superposed holders for volatile liquid arranged in staggered relation within the space between the partition and the opposite side of the body or casing and above the bottom of the holder, the said superposed holders communicating at alternately opposite sides to provide a tortuous passage from the air conduit, an air inlet near the outer end of the air conduit, and an outlet for enriched air at the side of the body remote from the partition and communicating with the passage above the uppermost holder for volatile liquid.

3. A carbureter for motor cycles and other purposes comprising an elongated body or casing having a longitudinally arranged partition near one side and of substantially the same length as the interior of the body, said partition extending from the top of the body toward the bottom thereof but terminating short of the latter, a holder for volatile liquid co-extensive with the bottom of the body and underriding the partition and provided with means for dividing the air passing thereover into a series of air currents movable transversely of the body, a series of superposed holders for volatile liquid above the bottom holder and arranged in staggered relation between the partition and the opposite side of the body, said holders communicating at alternately opposite sides to provide a tortuous passage from the air conduit and each divided into a series of air channels, and an elongated chamber above and along one side of the topmost of the holders for volatile liquid and in communication therewith, said chamber being provided with an outlet for the enriched air.

4. A carbureter for motor cycles and other purposes comprising an elongated body with tapered ends, a partition within the body dividing the same into longitudinal chambers, controllable means for establishing and cutting-off communication between the chambers, holders for volatile liquid in one chamber, each holder being provided with absorbent material for the volatile liquid and with partitions dividing the holder into numerous compartments for the absorbent material, and also constituting air channels, means for admitting air to the holders for volatile liquid, means for the escape of carbureted air after traversing said holders, and partitions in the body near the ends thereof for establishing chambers in said ends independent of the chambers formed by the first named partition.

5. A carbureter for motor cycles and other purposes comprising an elongated body with tapered ends, a partition dividing the body into chambers, one of which constitutes a storage chamber for volatile liquid, holders in the other chamber for volatile liquid, said holders being provided with absorbent material and partitions dividing each holder into numerous air channels, controllable means for permitting the flow of volatile liquid from the storage chamber to the second named chamber, a division wall within the body member in spaced relation to one of the tapered ends and separating both chambers from the said tapered end of the body member to constitute a third chamber for the storage of lubricant, and means for the introduction of lubricant into and its removal from the last named chamber.

[Claims 6 to 10 not printed in the Gazette.]

1,075,597. MIXER FOR GASEOUS FLUIDS. CHARLES H. MYERS, Buffalo, N. Y. Filed Feb. 24, 1910, Serial No. 545,776. Renewed Mar. 7, 1913. Serial No. 752,787. (Cl. 48—180.)

1. In a device for the purpose described, a gas tube, an air tube surrounding the gas tube and provided with notches at one end constituting ports, the gas tube and air tube communicating, a damper on and rotatable about the air tube and provided with matching notches constituting ports, a closure for the end of the air tube and of the damper remote from the end provided with the notches, a closure for the notched ends of the air tube and damper movable toward and from the first named closure to lock the damper against rotation and to release it to rotation in accordance with the direction of movement of the second named closure, and means for supporting the closures.

2. In a device for the purpose described, an air tube having ports at the lower end, a damper rotatable on the

air tube and provided with matching ports, and a gas tube interior to and concentric with the air tube and provided with ports intermediate of the length of the said air tube, and an adjustable member mounted on the gas tube and adjustable in the direction of the longitudinal axis thereof into clamping relation to the damper, said adjustable member constituting a closure for the lower ends of the air tube and damper.



3. The combination of a gas tube having ports, a supply coupling communicating with the upper end of the gas tube, an air tube arranged concentric with the gas tube and spaced therefrom and provided with ports, a damper rotatably fitted on the air tube and provided with ports adapted to register with the ports in the air tube, and a nut fitted on the gas tube and bearing against the lower ends of the air tube and the damper to clamp the same against the coupling on the upper end of the gas tube.

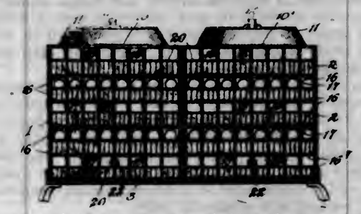
4. The combination of a coupling, a plate secured within the same, a gas tube centrally fitted to the plate and communicating with the interior of the coupling, and provided with ports at an intermediate point of its length, an air tube spaced from the gas tube and concentric with the same and having ports at its lower end, a damper or regulating sleeve fitting the air tube closely and provided with ports registering with the ports of the air tube, a nut threaded on the gas tube and adapted to bear against the lower ends of the damper and air tube, and a milled head on the damper by which it may be rotated.

5. The combination of a coupling, a gas tube centrally fitted to and communicating with the interior of the coupling and provided with ports, an air tube spaced from the gas tube and concentric with the same and having ports at its lower end, a damper or regulating sleeve fitting the air tube closely and provided with ports registering with the ports of the air tube, a nut threaded on the gas tube and adapted to bear against the lower ends of the damper and air tube, and means provided on the damper by which it may be rotated.

[Claim 6 not printed in the Gazette.]

1,075,598. CARBURETER FOR HOUSEHOLD AND OTHER USES. CHARLES H. MYERS, Buffalo, N. Y. Filed Feb. 24, 1910, Serial No. 545,774. Renewed Mar. 8, 1913. Serial No. 753,074. (Cl. 48—146.)

1. In a carbureter for household and other uses, twin housings each provided with receptacles for volatile liquid, said receptacles being disposed in superposed order and each containing absorbent material with a free air space overlying the exposed surface of the absorbent material, the air space of one receptacle communicating at one end with the corresponding end of the air space of the next receptacle in order, a hood at the air inlet end of each casing, a hood at the outlet end of each casing, a branched air pipe communicating with both air inlet hoods, a branched pipe communicating with both air outlet hoods, a valve in the air inlet pipe movable to connect either hood with the air inlet pipe at will, separate valves in the branches of the air outlet pipe and independent filling means individual to the respective casings.



2. In a carbureter for household and other uses, the combination of a housing having an air inlet opening at one end and an outlet opening at the opposite end, a hood over each opening, an inlet pipe to one opening, an outlet pipe to the other opening, means for supplying a volatile liquid to the housing, and a series of superposed pans within the housing and having their ends inclined inward and downward from the end walls of the housing, each pan being co-extensive with the internal cross sectional area of the housing, and absorbent material within each pan having its exposed surface stopping short of the edges of the walls of the pan, the space above the absorbent material being free and unobstructed and the pans each at one end having passages leading into the space between the walls of the housing and the inclined ends of the pans.

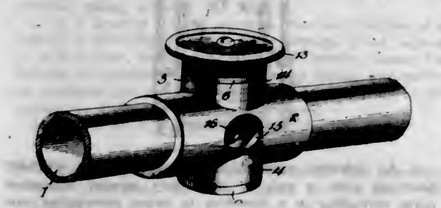
3. A carbureter for household and other uses provided with a housing having an inlet at one end and an outlet at the other, and a series of superposed pans within the housing each of co-extensive area with the internal cross sectional area of said housing and having its opposite ends inclined inward and downward from the walls of the housing, each pan having one inclined end perforated and containing absorbent material having its exposed surface stopping short of the outer edge of the pan, the pans defining a tortuous and otherwise free passage from the inlet of the housing to the outlet thereof.

4. The combination of a housing having an air inlet opening at one end and an outlet opening at the opposite end, hoods over the said openings, a gas outlet pipe rising from the hood over the outlet opening, a pipe entering the hood over the inlet opening and adapted to admit air under pressure thereto, a series of superposed pans within the housing each of coextensive area with the internal cross sectional area of said housing and having their ends inclined inward and downward from the ends of the housing, the alternate pans having passages through their opposite inclined ends, absorbent material within the said pans coextensive in area therewith and stopping short of the tops of the respective pans to provide free air passages over said absorbent material, and means for supplying volatile liquid to said absorbent material.

5. The combination of a housing having an air inlet at one end near its bottom, and a gas outlet at its opposite end at its top, superposed pans within the housing each having the outer edges of its sides and ends in contact with the respective side and end walls of the housing, the ends of the pans being inclined downward and inward from the end walls of the housing and the opposite ends of alternate pans being perforated near their upper edges, perforated partitions disposed longitudinally in the several pans and of equal height therewith whereby to support the superposed pans, absorbent holders within the pans having their upper surfaces below the perforations in the ends of the pans, transverse rods secured in the pans and bearing upon said absorbent holders, and means for supplying volatile liquid to said holders.

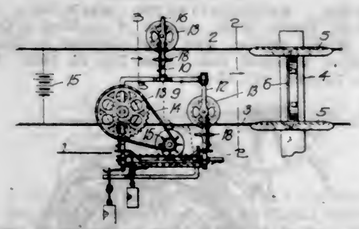
1,075,599. MIXER. CHARLES H. MYERS, Buffalo, N. Y. Filed Feb. 24, 1910, Serial No. 545,779. Renewed Mar. 8, 1913. Serial No. 753,076. (Cl. 137—26.)

1. A mixer comprising a body member provided with alined passages and an intermediate valve casing with oppositely disposed ports therethrough on a line perpendicular to the alined passages and communicating with the atmosphere, and a hollow valve adapted to the valve casing and provided with oppositely disposed ports each of less diameter than the inner diameter of the valve and communicating one with the other through the hollow interior of the valve, said valve being movable at will to bring the ports and the passages through the body member into operative relation simultaneously to any desired extent.



2. The combination of a body member having oppositely disposed means for coupling pipes thereto and provided at an intermediate point with a valve casing having oppositely disposed ports therethrough on a line at right angles to the line of the pipe connecting means, a hollow cylindrical valve rotatably mounted in the valve casing and provided with diametrically opposite ports opening into the interior of the valve and adapted to register with the ports in the valve casing or the ends of the body member adapted to receive pipes, or with both at will, the said valve being provided with a head adapted to engage one end of the valve casing, a stem extending through and having an angular engagement with the head of the valve, a cap secured to the lower end of the stem, and bearing against the corresponding end of the valve and casing, and means on the stem for rotating the valve.

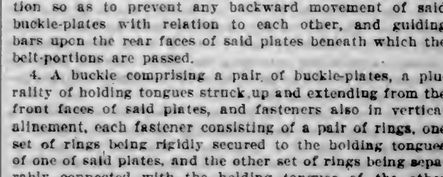
1,075,600. DERAILMENT-GUARD. WILLIAM L. NELSON, Boss, Mo. Original application filed Oct. 2, 1912, Serial No. 723,623. Divided and this application filed Jan. 8, 1913. Serial No. 740,762. (Cl. 104—146.)



1. The combination with a track-rail and a support therefor, of a carrier having a wheel for operative engagement with said rail, a rotary, toothed guard-wheel on said carrier extending continuously past the periphery of the first-mentioned wheel in sufficiently close proximity to a face thereof to prevent the passage of said rail between them, and having a multilateral hub, the said support including means adapted to cause a rotary movement of the said guard-wheel by engagement with its teeth during movement of the carrier past said support, and a tension-device engaging a side of said hub to yieldably hold the guard wheel against accidental rotation, and having a reciprocating movement along the same.

2. The combination with a track-rail and a support therefor, of a carrier having a wheel for operative engagement with said rail, a rotary, toothed guard-wheel on said carrier extending continuously past the periphery of the first-mentioned wheel in sufficiently close proximity to a face thereof to prevent the passage of said rail between them, and having a multilateral hub, the said support including means adapted to cause a rotary movement of the said guard-wheel by engagement with its teeth during movement of the carrier past said support, a tension device engaging a side of said hub, to yieldingly hold the guard-wheel against accidental rotation, and an eccentric movable with the said wheel of the carrier about its axis of rotation, in operative connection with said device to impart a reciprocating movement thereto.

1,075,601. BUCKLE. TERRENCE O'BRIEN, Newark, N. J., assignor to L. A. Myers, Jr., Inc., a Corporation of New Jersey. Filed Nov. 18, 1909. Serial No. 528,660. (Cl. 24—208.)



1. A buckle comprising a pair of buckle-plates, a plurality of holding tongues struck up out of said plates and extending from the front faces of said plates, said tongues being arranged in vertical alinement, and ring-shaped fasteners also in vertical alinement, said fasteners being rigidly secured to the holding tongues of one of said plates and separably connected with the holding tongues of the other plate, each buckle-plate being formed with a vertically disposed marginal edge-portion, the vertically disposed marginal edge-portions of the two buckle-plates, when said buckle-plates are hooked together being in such close juxtaposition, so as to prevent any backward movement of said buckle-plates with relation to each other.

2. A buckle comprising a pair of buckle-plates, a plurality of holding tongues struck up out of said plates and extending from the front faces of said plates, said tongues being arranged in vertical alinement, said fasteners also in vertical alinement, said fasteners being rigidly secured to the holding tongues of one of said plates, and separably connected with the holding tongues of the other plate, each buckle-plate being formed with a vertically disposed marginal edge-portion, the vertically disposed marginal edge-portions of the two buckle-plates, when said buckle-plates are hooked together, being in such close juxtaposition so as to prevent any backward movement of said buckle-plates with relation to each other, and means upon the rear faces of said plates for the attachment of the end-portions of a belt to said plates.

3. A buckle comprising a pair of buckle-plates, a plurality of holding tongues struck up out of said plates and extending from the front faces of said plates, said tongues being arranged in vertical alinement, and ring-shaped fasteners also in vertical alinement, said fasteners being rigidly secured to the holding tongues of one of said plates, and separably connected with the holding tongues of the other plate, rods upon the rear faces of said plates for the attachment of the end-portions of a belt to said plates, each buckle-plate being formed with a vertically disposed marginal edge-portion, the vertically disposed marginal edge-portions of the two buckle plates, when said buckle-plates are hooked together, being in such close juxtaposition so as to prevent any backward movement of said buckle-plates with relation to each other, and guiding bars upon the rear faces of said plates beneath which the belt-portions are passed.

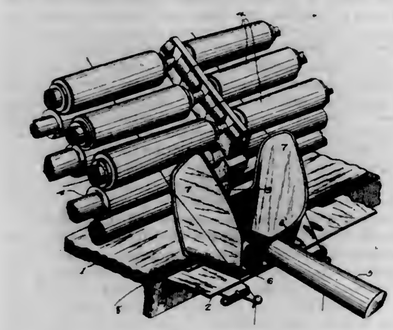
4. A buckle comprising a pair of buckle-plates, a plurality of holding tongues struck up and extending from the front faces of said plates, and fasteners also in vertical alinement, each fastener consisting of a pair of rings, one set of rings being rigidly secured to the holding tongues of one of said plates, and the other set of rings being separably connected with the holding tongues of the other plate, each buckle-plate being formed with a vertically disposed marginal edge-portion, the vertically disposed marginal edge-portions of the two buckle plates, when said

buckle-plates are hooked together, being in such close juxtaposition so as to prevent any backward movement of said buckle-plates with relation to each other, substantially as and for the purposes set forth.

5. A buckle comprising a pair of buckle-plates, a plurality of holding tongues struck up and extending from the front faces of said plates, and fasteners also in vertical alinement, each fastener consisting of a pair of rings, one set of rings being rigidly secured to the holding tongues of one of said plates, and the other set of rings being separably connected with the holding tongues of the other plate, each buckle-plate being formed with a vertically disposed marginal edge-portion, the vertically disposed marginal edge-portions of the two buckle plates, when said buckle-plates are hooked together, being in such close juxtaposition so as to prevent any backward movement of said buckle-plates with relation to each other, and means upon the rear faces of said plates for the attachment of the end-portions of a belt to said plates.

[Claim 6 not printed in the Gazette.]

1,075,602. SPINNING-FRAME TOOL. LUKE H. ROONEY, New Bedford, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Jan. 17, 1913. Serial No. 742,555. (Cl. 118—7.)



1. An instrument for cleaning spinning and like machines comprising a handle and two separated wing portions adapted to be thrust between adjacent lines of the thread or yarn and forming a protected space therebetween to receive the hand of the operator.

2. An instrument for cleaning the drawing rolls of spinning and like machines comprising a base adapted to be removably held upon the roller-beam or thread-guide rail and having opposed upstanding wing portions affording protected access to the drawing rolls between the lines of yarn issuing therefrom.

3. An instrument for use in cleaning spinning, twisting and like machines comprising a receptacle and two separated members on opposite sides thereof adapted to be removably held between adjacent lines of thread or yarn and affording a protected space in which to operate on parts above or beyond the said receptacle.

4. An instrument for use in cleaning spinning and like machines adapted to be removably held against a fixed part of the machine and provided with yarn-engaging means adapted for enlarging the space between adjacent lines of the thread or yarn, thereby providing enlarged access to parts beyond the same.

5. An instrument of the kind described comprising a portion adapted to rest removably on the roller-beam or thread-guide rail of a spinning or like machine and upstanding, relatively inclined wing members adapted to engage and spread apart two adjacent lines of the thread or yarn, thereby providing enlarged operating space between such lines in which the operator can insert his hand.

[Claims 6 and 7 not printed in the Gazette.]

1,075,603. INTERNAL-COMBUSTION ENGINE. ARNOLD FREIHERR VON SCHMIDT, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 8, 1912. Serial No. 669,988. (Cl. 123—73.)



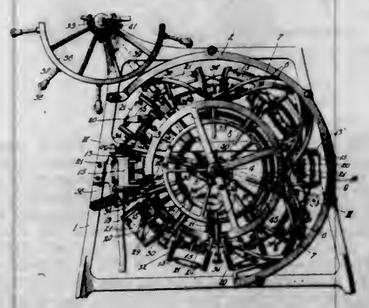
1. An internal combustion engine having a cylinder provided with a pair of oppositely located admission ports extending in a direction to cause scavenging currents to flow upwardly along the cylinder walls, and also having other admission ports which direct scavenging currents toward the center of the cylinder.

2. In an internal combustion engine, a cylinder having a tangentially arranged admission port which acts to direct a scavenging current along the cylinder walls, and another admission port which directs a scavenging current toward the central portion of the cylinder.

3. In an internal combustion engine, a cylinder having opposite tangentially arranged admission ports which direct scavenging currents along the cylinder walls, and other admission ports which direct scavenging currents toward the central portion of the cylinder.

4. In an internal combustion engine, a cylinder having opposite tangentially arranged admission ports which direct scavenging currents along the cylinder walls, and other admission ports which direct scavenging currents toward the central portion of the cylinder, the last named ports lying between the first named ports and opposite the exhaust ports of the cylinder.

1,075,604. SAUSAGE-LINKING MACHINE. JOHN SHIER, Detroit, Mich., assignor of one-third to Crystal S. Wright, Detroit, Mich., and one-third to Charlotte Button, Mansfield, Ohio. Filed Dec. 26, 1912. Serial No. 738,549. (Cl. 17—6.)



1. In a sausage linking machine, the combination of a plurality of holders for sausage links, means for rotating each holder upon its longitudinal axis, and carrying means for moving the holders longitudinally.

2. In a sausage linking machine, the combination of a plurality of holders, a rotatable carrier upon which said holders are carried, means for rotating said holders to twist the casing of the sausages between the links, said holders being arranged to permit the sausage casing to move toward the axis of the carrier and provide a slack in the casing between the holders.

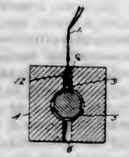
3. In a sausage linking machine, the combination of a rotatable holder, a clamp carried by said holder to receive a sausage link, means for rotating said holder with said clamp thereon to twist the sausage casing, and means for moving the holder to carry the casing lengthwise.

4. In a sausage linking machine, the combination of a rotatable carrier wheel, a plurality of holders for sausage links carried by said wheel adjacent to its periphery, means for turning the wheel, and means for turning each holder during the rotation of the wheel to twist the sausage casing between the holders.

5. In a sausage linking machine, the combination of a carrier, a plurality of holders for sausage links carried by said carrier, means for moving the carrier, means for turning the holders to twist the sausage casing, and means for pinching the casing between the adjacent ends of the holders to divide the sausage into links.

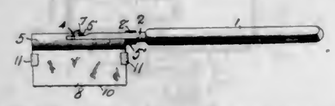
[Claims 6 to 21 not printed in the Gazette.]

1,075,605. NUT-LOCK. MORECZ SIMON, East Chicago, Ind. Filed Jan. 23, 1913. Serial No. 743,735. (Cl. 151—6.)



The combination with a bolt formed with a plurality of longitudinally extending grooves, of a nut threaded thereon formed with an aperture extending from one of its lateral faces to its central opening and with an alined cavity opening into said central opening and communicating with an aperture that extends to the opposite lateral face of the nut, a spring-pressed dog disposed in said cavity for locking engagement with the grooved portion of the bolt and a flexible member engaging said spring-pressed dog and passing through the last named aperture.

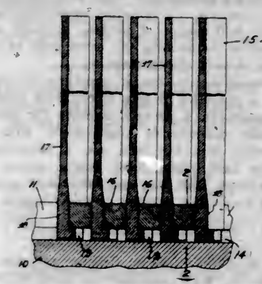
1,075,606. SAFETY-RAZOR. VICTOR W. SIPES, Pittsburgh, Pa., assignor to Jacob S. Gary, Dayton, Ohio. Filed Aug. 7, 1911. Serial No. 642,755. (Cl. 30—12.)



In a safety razor, the combination with a uniformly flat and thin blade having a guard slidably applied thereto, of a blade holder, and a handle pivotally attached thereto, said blade holder comprising a bar having a longitudinally disposed slit formed in the under side thereof and within which one edge of the blade is fitted, the upper side of said bar having its surface flattened from one end to and terminating beneath an over-projecting lug formed upon the holder at about midway its length, and said handle comprising a handle portion proper and an integral shank, said shank portion being flattened upon its blade holder connecting side and terminating in a lug projecting beneath and by which the same is adjustably attached by a pivot to said over-projecting lug of the holder bar, said holder, during use, adapted to be adjusted upon its pivot and so retained by frictional engagement with the handle shank to suit the convenience of the operator.

1,075,607. BLADING. JOHN E. SNYDER, Swissvale, Pa., assignor to The Westinghouse Machine Company, a Corporation of Pennsylvania. Filed Mar. 21, 1912. Serial No. 685,225. (Cl. 121—57.)

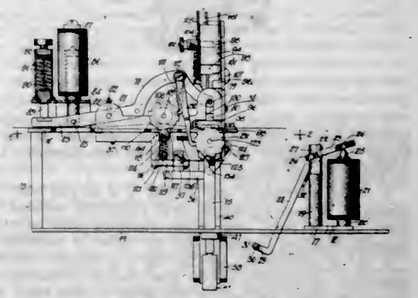
1. A turbine blade comprising a body portion, a considerable length of which is symmetrical in shape and the root portion of which is thickened for a length of the blade sufficient to permit a part of the thickened portion to extend beyond the surface of the blade-holding element when the blade is in place, and a projection at the root end of the blade which extends at right angles to the body portion of the blade.



2. A turbine blade comprising a body portion, a considerable length of which is symmetrical in shape and the root portion of which is thickened for a length of the blade sufficient to permit a part of the thickened portion to extend beyond the surface of the blade-holding element when the blade is in place, and a projection at the root end of the blade which extends at right angles to the body portion of the blade, said projecting portion being of less width than the width of the blade.

3. In combination with a blade-holding element having a groove therein, blades in the groove and packing pieces between the blades, each blade comprising a relatively thick root portion extending beyond the packing pieces, the rest of the blade being of uniform thickness from the thickened portion to the end of the blade and of less thickness than the root of the blade.

1,075,608. RECORDING SYSTEM AND APPARATUS. ALFRED L. SOHM, Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill., a Corporation of Arizona. Filed July 17, 1911. Serial No. 638,866. (Cl. 234—41.5.)



1. In a recording system, a magnetically operated integrating device comprising a plurality of digits members, contact mechanism for each digits member of said integrating device, a printing machine comprising a plurality of electromagnetic devices each having an actuating type bar, and circuits for said electromagnetic devices controlled by said contact mechanism.

2. In a recording system, a plurality of printing electromagnets, contact mechanism arranged to shift the connections of the circuits of each electromagnet to the next, and time controlled means for operating said contact mechanism.

3. In a recording system, a plurality of printing electromagnets, a plurality of contacts respectively connected with said electromagnets, a contact member movable from

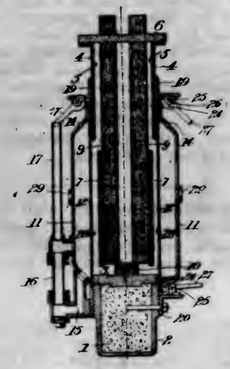
one contact to another to interchange the connection to said electromagnets, and time controlled means for moving said contact member.

4. In a recording system, a plurality of printing electromagnets, a plurality of contacts respectively connected with said electromagnets, a contact member movable to make consecutive engagement with said contacts, a source of current, a switch, a conductor connecting said contact member with said source of current through said switch, and a conductor connecting the other side of said source of current with said electromagnets.

5. In a recording system, a plurality of printing electromagnets, a plurality of sets of contacts connected with said electromagnets, a contact member for each set movable to make consecutive engagement with said contacts, a spring jack for each set, a selecting plug for connection in said spring jack, and a source of current connected between said plug and said electromagnets.

[Claims 6 to 17 not printed in the Gazette.]

1,075,609. ELECTROLYTIC CELL. GEORGE W. STONE, Niagara Falls, N. Y., assignor to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Mar. 6, 1911, Serial No. 612,477. Renewed July 18, 1913. Serial No. 779,874. (Cl. 204—58.)



1. In an electrolytic cell, a body of concrete having external metallic reinforcing members, said body having an anode compartment provided with a substantially non-pervious interior facing.

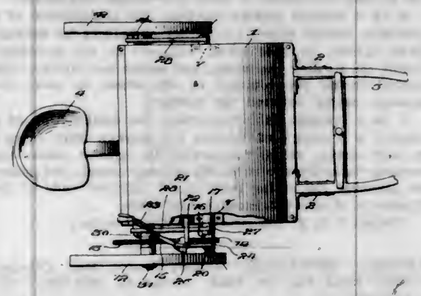
2. In an electrolytic cell having a U-shaped body and separable cathode-chambers, bars extending between the arms of said body, and means engaging said bars and cathode-chambers for retaining the latter in position.

3. In an electrolytic cell having a U-shaped body and separable cathode-chambers, side plates extending between the upper portions of the arms of said body, bars extending between the arms of said body and supporting said side plates, and means engaging said bars and cathode-chambers for retaining the latter in position.

4. In an electrolytic cell having a U-shaped body and separable cathode-chambers, metallic frame-members secured to said body and surrounding said cathode-chambers, and means engaging said frame-members and cathode-chambers for retaining the latter in position.

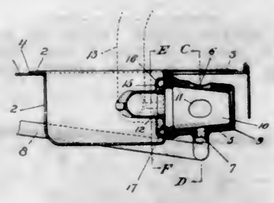
5. In an electrolytic cell having a U-shaped body and separable cathode-chambers, metallic frame-members constructed of angle-bars secured to said body and surrounding said cathode-chambers, and means engaging said frame-members and cathode-chambers for retaining the latter in position.

1,075,610. COTTON-STALK KNOCKER. THEODORE G. STRICKLAND, Cordell, Okla. Filed Oct. 26, 1912. Serial No. 727,998. (Cl. 55—118.)



In a device of the character described, the combination with a main frame, of a stalk knocking reel journaled within said frame, links pivotally connected to each side of said frame, axles extending laterally from said links and formed integral therewith, ground wheels carried by said axles, the free ends of said links having segmental slots formed therein, bolts carried by said main frame and mounted for adjustment within said slots, and means for operatively connecting one of said ground wheels with said reel substantially as described.

1,075,611. FAUCET-CLOSURE FOR CANS. DANIEL B. TAMAGNO, New York, N. Y., assignor to Lydie Tamagno, New York, N. Y. Filed Feb. 5, 1913. Serial No. 746,256. (Cl. 221—26.)



1. A can closure adapted to be mounted in a wall of a can and comprising a countersunk well, a projection laterally therefrom constituting a valve member, a valve plug turning therein and a spout carried by the plug and by which the latter is operated, the spout being disposed within the well when in non-pouring position and adapted to swing outward to pouring position in a direction at an angle to the line in which contents of the can are discharged.

2. A can closure adapted to be mounted in a wall of a can and comprising a countersunk well, a hollow tapered valve member extending from a wall of the well and having therein two ports, a vent pipe connected to one of said ports, a hollow tapered valve plug fitting and turning in said valve member and having in its wall an external channel opening to the well and also a port adapted to register with the other port in said valve member, and a pouring spout secured to and communicating with its interior, said spout being depressed within the well when in non-pouring position and adapted to swing outward to pouring position in a direction at an angle to the line in which contents of the can are discharged.

1,075,612. MEANS FOR FASTENING ELECTRIC-LAMP SOCKETS. WILLIAM C. TREGONING, Cleveland, Ohio, assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio, a Corporation. Filed June 5, 1911. Serial No. 631,312. (Cl. 173—339.)



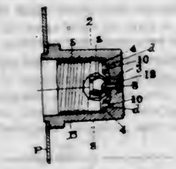
1. An electric lamp socket provided with an enlargement about its base, and a metallic yoke turned edgewise in its engaging portion which rests upon the onter edge of said enlargement and having ends with holes adapted to be fastened to a base.

2. A lamp socket and a unitary engaging member constructed to slip over the socket and tighten upon the base thereof, said member having opposite depressed ends provided with holes for fastening screws and sides turned edgewise adapted to engage about the socket.

3. A lamp socket and a supporting plate having a hole in which said socket is entered and open slots oppositely from said hole, in combination with a fastening member sleeved over the said socket and secured by screws through said slots.

4. A fastening device for lamp sockets consisting of a yoke made of sheet metal and having two sides turned edgewise and flat extremities on a different plane provided with perforations, said sides having straight bottom engaging edges, and bent outward between their ends to conform to the shape of the socket.

1,075,613. SOCKET AND TERMINAL CONNECTION FOR ELECTRIC LAMPS. WILLIAM C. TREGONING, Cleveland, Ohio, assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio, a Corporation. Filed June 5, 1911. Serial No. 631,313. (Cl. 173—339.)



1. An electrical socket, a terminal therein provided with two oppositely projecting arms having lugs on one side, a shell having bottom portions provided with holes adapted to be engaged by said lugs, and means to tighten said terminal on the socket and thereby fasten said shell.

2. In electric lamps, a socket and a shell therein having a transverse opening through the bottom thereof and flat bottom portions at the sides of said opening, in combination with a substantially T-shaped terminal engaging said bottom portions and a screw to fasten said terminal in the socket.

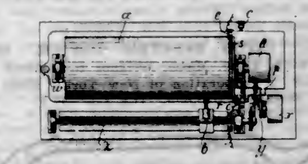
3. An electric socket and a partially divided shell therein having two flat bottom portions oppositely provided each with a hole, in combination with a terminal having lateral arms with lugs on one side adapted to enter said holes and prevent rotation of said shell and a screw to lock said terminal in place.

4. An electric socket having a central post, a substantially T-shaped terminal having its arms extending laterally from the base of said post and a shell adapted to make electrical contact with said arms and held in place thereby and a screw entered from the inside of said shell binding said terminal in place through said socket.

5. An electrical socket having a post centrally in its top, a terminal of substantially T-shape having a recess engaged about the base of said post and arms extending oppositely therefrom, a shell engaged beneath said arms and a screw fixing said terminal in place.

[Claim 6 not printed in the Gazette.]

1,075,614. IMAGE-TRANSMITTING TELEGRAPH. LUDWIG TSCHÖRNER, Vienna, Austria-Hungary. Filed June 27, 1910. Serial No. 569,149. (Cl. 178—310.)



1. In an apparatus for telegraphically transmitting and reproducing images, the combination of a transmitter and a receiver in circuit, said transmitter alternately making and breaking the circuit, and said receiver comprising a receiving surface, reproducing means adapted to act on said receiving surface, and means producing relative movement between said receiving surface and reproducing means, the making and breaking of said circuit alternately actuating said reproducing means and said movement-producing means.

2. In an apparatus for telegraphically transmitting and reproducing images, the combination of a transmitter and a receiver in circuit, said transmitter alternately making and breaking the circuit, and said receiver comprising a receiving surface, reproducing means adapted to act on said receiving surface, and means producing relative movement between said receiving surface and reproducing means, an electromagnet intermittently actuating said reproducing means and said movement-producing means with the making and breaking of the circuit by the transmitter.

3. In an apparatus for telegraphically transmitting and reproducing images, the combination of a transmitter and a receiver, in circuit, sid transmitter alternately making and breaking the circuit, and said receiver comprising a receiving surface, reproducing means adapted to act on said receiving surface, and means producing relative movement between said receiving surface and reproducing means, said reproducing means and said movement-producing means being actuated by the making and breaking of the circuit, and auxiliary means making and breaking the circuit synchronously with the making and breaking of the circuit by said transmitter and synchronously operating said movement-producing means.

4. In an apparatus for telegraphically transmitting and reproducing images, the combination of a transmitter and a receiver in circuit, said transmitter comprising a surface having conducting and non-conducting portions thereon, and a contact-device bearing upon said surface and making and breaking the circuit, and said receiver comprising a receiving surface, reproducing means adapted to act on said surface, and means producing relative movement between said receiving surface and reproducing means, said reproducing means and said movement-producing means being actuated by the making and breaking of the circuit, and auxiliary means comprising contact rings having conducting and non-conducting segments thereon corresponding to the conducting and non-conducting spaces on the transmitter surface, and contact-devices contacting with said rings, said contact-devices coming in contact with the conducting or non-conducting segments respectively when the contact-device of the transmitter is on the non-conducting or conducting spaces of the trans-

mitter surface, whereby the circuit is made and broken and the movement-producing means of the receiver is synchronously moved with the movement between said transmitter contact-device and transmitter surface.

5. In an apparatus for telegraphically transmitting and reproducing images, the combination of a transmitter and a receiver in circuit, said transmitter making and breaking the circuit, and said receiver comprising a receiving surface, reproducing means adapted to act on said receiving surface, and means producing relative movement between said receiving surface and reproducing means, the making and breaking of said circuit actuating said reproducing means and said movement-producing means, the movements of the movement-producing means taking place after each movement of the reproducing means.

[Claims 6 to 11 not printed in the Gazette.]

1,075,615. VAPOR ELECTRIC DEVICE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 3, 1911. Serial No. 618,659. (Cl. 176—47.)



1. In a mercury vapor device, an outer envelop, an open and inner envelop, coöperating electrodes, at least one of which projects into the inner envelop, means for tilting the device to strike an arc between said electrodes, and means at one of the electrodes for preventing the arc from being started in the space between the inner and outer envelops.

2. In a vapor electric device, an outer envelop, an inner tube in communication therewith, an anode and a liquid cathode therefor, the inner envelop being constructed at one or both of its ends to form an insulating barrier when the tube is tilted to break the continuity of the electric circuit through the liquid outside the inner tube at one electrode before contact is established with the other electrode by the stream of flowing liquid.

3. In a vapor electric device, coöperating electrodes, one at least of which is mercury, a double-walled receptacle, one end at least of which extends downwardly to form a pocket for the mercury electrode and leading-in conductors for said electrodes, the conductor at the mercury electrode projecting through an opening in the inner wall through which the mercury bodies inside and outside the wall are in communication, the upwardly extending end portion of said inner wall forming a barrier to interrupt electrical contact when the device is tilted of the outer body of mercury before contact is established by the mercury stream with a coöperating electrode.

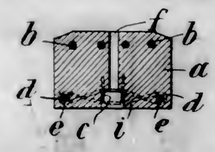
4. In a vapor electric device, an outer envelop, an open envelop inclosed thereby, coöperating electrodes, at least one of which consists of mercury for the inner envelop, leading-in conductors therefor, the space intervening between the two envelops being proportioned at a mercury electrode so that when the tube is tilted the mercury in the intervening space will break electric contact with the leading-in conductor before electrical contact is made with an electrode of opposite polarity.

5. In a mercury vapor device, an outer envelop, an inner tube located therein and spaced apart therefrom, electrodes therefor one of which consists of mercury, said inner tube only having a trough-shaped channel at the bottom through which mercury may flow.

[Claim 6 not printed in the Gazette.]

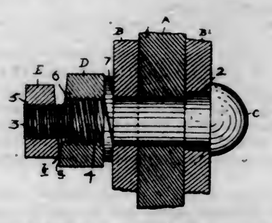
1,075,616. RAILWAY-SLEEPER. OSKAR ERNST WETZER, Hersbruck, Germany. Filed May 26, 1913. Serial No. 769,968. (Cl. 238—3.)

A railway cross tie comprising in combination a concrete member provided with recesses therein, a plurality of series of reinforcing members embedded in said concrete and following the contour thereon, one of said series being at the upper edge of said tie, the other of said series being at the lower edge of said tie, the lower series having wire



spikes thereon, a relatively heavier bar at the lower portion of said tie and provided with apertures registering with the recesses in the tie to receive the rail bolts, and wire loops connecting said bar and said lower reinforcing member.

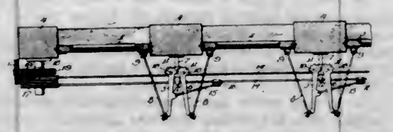
1,075,617. NUT-LOCK STRUCTURE. CHARLES E. WHITEHEAD, Bellevue borough, Pa. Filed May 22, 1913. Serial No. 769,128. (Cl. 151—16.)



1. A nut-lock structure comprising a bolt with an end having two adjacent threaded portions of different diameters, the outer portion being of the less diameter and provided with threads of less pitch than those of the other threaded portion, and a pair of nuts adapted respectively to be screwed onto said two threaded portions and having their adjacent faces obliquely inclined and when said nuts are in their locked position the maximum of the inner nut being positioned in the rear of the maximum of the outer nut, for the purpose described.

2. A nut-lock structure comprising a bolt with an end having two adjacent threaded portions of different diameters, the outer portion being of the less diameter and provided with threads of less pitch than those of the other threaded portion, a pair of nuts adapted respectively to be screwed onto said two threaded portions and having their adjacent faces obliquely inclined and when said nuts are in their locked position the maximum of the inner nut being positioned in the rear of the maximum of the outer nut, and means for exerting a resilient outward force upon said inner nut, for the purpose described.

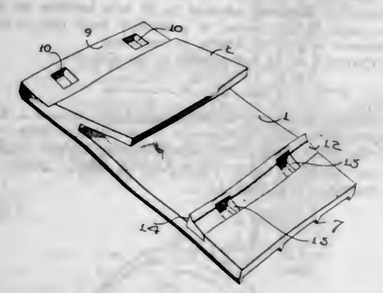
1,075,618. MECHANISM FOR OPERATING WINDOWS IN SERIES. JOHN WHITEHEAD, Chicago, Ill., assignor to The Payson Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 3, 1910. Serial No. 584,986. (Cl. 16—28.)



1. As an article of manufacture, the combination with a bracket, of two arms pivoted thereon, said arms being normally nearly parallel and provided with intermeshing, segment-gears, brace rods pivoted to the free ends of said arms, and an operating rod pivoted to one of said arms, whereby both of said arms may be operated by a movement of said rod transversely with respect to the normal position of said arms, said operating rod at its free end being provided with means for securing the same to an operating cable.

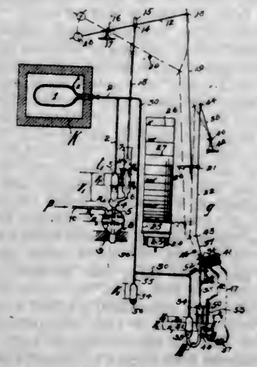
2. The combination with two windows provided with swinging sashes, of a bracket mounted between said windows, arms pivoted upon said bracket, said arms projecting substantially at right angles to said windows and being provided with intermeshing, segment-gears, a brace rod extending from the free end of each of said rods to the corresponding window-sash, an operating rod secured to one of said arms, a cable to which said operating rod is connected, and means for operating said cable.

1,075,619. TIE-PLATE AND RAIL-SUPPORTER. REUBEN ABBOTT, Lawrence, Mass. Filed Nov. 30, 1912. Serial No. 734,339. (Cl. 238—2.)



In combination with a rail, a tie plate of the class described comprising a body, a rail engaging lip formed upon said body, said body provided with a transversely extending groove having a beveled side, a lip fitting in said groove, said lip provided with an incline top and with a beveled side and a vertical side, said beveled side of said lip fitting under the beveled side of said plate for preventing said lip from upward movement, said beveled side being of an even height, said vertical side bearing against the flange of said rail and being of the same height as the thickness of said rail flange, whereby said plate, lip and flange will present a smooth surface upon their upper faces for allowing any foreign object to slide thereover without injury to said lip, and means for holding said lip in position.

1,075,620. MEASURING APPARATUS. MAX ARNDT, Aix-la-Chapelle, Germany. Filed Dec. 16, 1911. Serial No. 666,264. (Cl. 234—20.)



1. The combination with means for entrapping a volume of gas, of means for placing this volume of gas under pressure, a manometer in communication with this volume of gas and a parallel motion device actuated by the manometer, and a recording element moved from its recording surface by said parallel motion device by the measuring pressure produced.

2. The combination with means for periodically entrapping the volume of air, of means to place the entrapped air under pressure, a manometer communicating with the air entrapped and containing a liquid whose level is varied by the varying volume of said air, a float in said manometer, a parallel motion device actuated by the float and a recording element moved into operative position by said float.

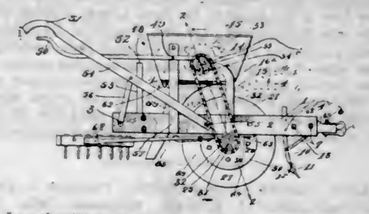
3. The combination with means for periodically entrapping a definite volume of gas; of means to place said volume under pressure, a manometer controlled by the pressure of said volume of gas, a parallel motion device operated by the manometer, and a recording element moved from its recording surface by said parallel motion device.

4. The combination with means for periodically entrapping a definite volume of gas; of means for placing said gas under pressure, a liquid manometer controlled by the pressure of said volume of gas, a float operated by the manometer, a recording element, a parallel motion device actuated by the float to remove said element from its recording surface in any position of said element relatively to said surface.

5. The combination with means for periodically entrapping a definite volume of gas; of means for placing said volume of gas under pressure, a manometer actuated by pressure of said gas, a recording element, a manometer for actuating said element and controlled by said gas, a second manometer actuated by said gas, a parallel motion device actuated by said second manometer for removing the recording element from its recording surface.

[Claims 6 to 9 not printed in the Gazette.]

1,075,621. COMBINATION FERTILIZER-DISTRIBUTER AND COTTON-SEED PLANTER. RICHMOND HAMU BARRETT and CLAUDE RAY, Noxapater, Miss. Filed Dec. 23, 1912. Serial No. 738,288. (Cl. 111—7.)

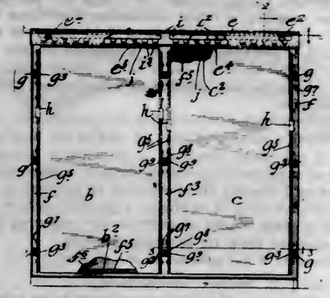


1. In a fertilizer distributer and planter, a lower frame, said frame including longitudinal side beams, a hopper spaced above said frame, a system of bracing bars between the frame and the hopper, comprising a forward set of bars and the rear set of bars, each connecting the longitudinal beams and the hopper, one of the bars of the forward set including an additional bar integral therewith, bent under and secured to the hopper, said hopper including an agitator, the lower ends of two of the forward brace bars having extensions, a drive shaft mounted in said extensions and including a drive wheel, and connections between said drive shaft and the agitator.

2. In a fertilizer distributer and planter, a lower frame, said frame including longitudinal side beams, a hopper spaced above said frame, a system of bracing bars between the frame and the hopper, comprising a forward set of bars and the rear set of bars, each connecting the longitudinal beams and the hopper, one of the bars of the forward set including an additional bar integral therewith, bent under and secured to the hopper, said hopper including an agitator, the lower ends of two of the forward brace bars having extensions, a drive shaft mounted in said extensions and including a drive wheel, and connections between said drive shaft and the agitator, and means for throwing the agitator in and out of gear with said connections.

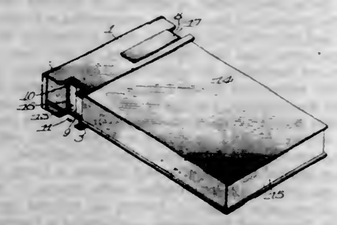
3. In a fertilizer distributer and planter, a lower frame, a hopper spaced above said frame, a system of brace bars connecting the hopper to the frame, a drive shaft mounted in bearings of two of the brace bars including a drive wheel, an agitator arranged in the hopper including a shaft pivoted at one end and provided with a gear at the other end, which other end is free to rise and lower, a stub shaft journaled in bearing of two of the brace bars, a sprocket on said stub shaft having connections with said drive shaft, a gear on said stub shaft, with which the gear of the agitator shaft meshes, and a lever pivoted to the hopper and connected to the free end of the agitator shaft, said lever adapted to be manually actuated to hold the two gears in and out of mesh.

1,075,622. AIR-TIGHT DOOR FOR CABINETS. HARRY F. BEERS, New York, N. Y., assignor of one-half to John E. Nicholson, New York, N. Y. Filed July 24, 1912. Serial No. 711,339. (Cl. 20—19.)



The combination with a door frame and a door mounted so as to be movable laterally toward or from the door frame, a plate movable longitudinally of the door, having longitudinal slots, engaging pins projecting from the edge of the door in the plane of the door, a lever pivoted on one of the pins and pivoted to a link pivoted at its other end to said plate, said plate having inclined slots opening out of one edge of the plate and fixed lock plates on the door frame, having fingers engageable with the inclined slots, the lever being so arranged that all the pivots may be brought into line when the inclined slots are at their limit of movement, to lock the door in closed position.

1,075,623. LOOSE-LEAF BINDER. CHARLES L. BENJAMIN and HENRY J. WIEGAND, Milwaukee, Wis. Filed Nov. 2, 1908. Serial No. 460,778. (Cl. 129—18.)



1. An extensible loose leaf binder having extensible members fitting into rectangular notches in opposite edges of the leaves, said extensible members at all times engaging all sides of the notches in each leaf to positively hold the leaves in alinement.

2. An extensible loose leaf binder, comprising a pair of substantially parallel plates, each of said plates being provided at opposite ends with pairs of angularly disposed tongues adapted to fit into notches in opposite edges of the leaves, the tongues of said plates being arranged to interfit to positively hold the leaves in alinement when the binder is extended.

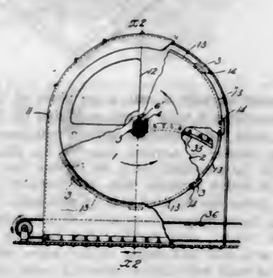
3. An extensible loose leaf binder, comprising a pair of substantially parallel plates, each of said plates being provided at opposite ends with pairs of angularly disposed tongues adapted to fit into notches on opposite sides of the leaves, the tongues of said plates being arranged to interlock and to positively hold the leaves in alinement when the binder is extended, said plates being also provided at opposite ends with notches, the notches in said plates being in alinement.

4. An extensible loose leaf binder provided at opposite ends with extensible substantially rectangular posts formed in longitudinal sections having their outer surfaces flush with one another and each section forming a part of each face of its respective post.

5. An extensible loose leaf binder, comprising a pair of interfitting members provided at opposite ends with interfitting portions adapted to fit into notches on opposite sides of the leaves to positively hold the leaves in alinement when the binder is extended.

[Claims 6 to 13 not printed in the Gazette.]

1,075,624. BEET-CUTTING MACHINE. ROBAH J. BINKLEY, Chino, Cal., assignor of three-tenths to Edward W. Page, Chino, Cal., and three-tenths to Robert A. Steps, Los Angeles, Cal. Filed Nov. 4, 1912. Serial No. 729,406. (Cl. 146—11.)



1. In combination, a revoluble drum adapted to hold beets, and said drum having its axis of rotation substantially horizontal, corrugated knives mounted around the internal periphery of said drum, and corrugated guide bars for said knives, said guide bars being also mounted around the internal periphery of said drum, and the crests of the guide bar corrugations being substantially alined with the crests of the knife corrugations, so that substantially U-shaped shreds may be cut.

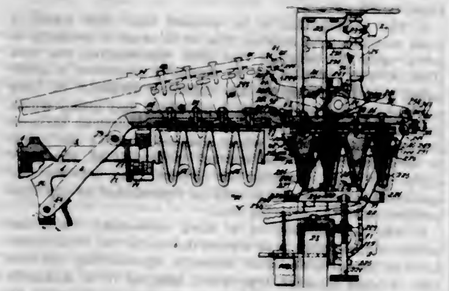
2. In combination, a revoluble drum adapted to hold beets, said drum having its axis of rotation substantially horizontal, corrugated knives mounted around the internal periphery of said drum, corrugated guide bars for said knives, said guide bars being also mounted around the internal periphery of said drum, the crests of the guide bar corrugations being substantially alined with the crests of the knife corrugations so that substantially U-shaped shreds may be cut, and a stationary apron in said drum for holding said beets substantially quiet with the drum.

3. In combination, a revoluble drum adapted to hold beets, said drum having its axis of rotation substantially horizontal, corrugated knives mounted around the internal periphery of said drum, corrugated guide bars for said knives, said guide bars being also mounted around the internal periphery of said drum, the crests of the guide bar corrugations being substantially alined with the crests of the knife corrugations, so that substantially U-shaped shreds may be cut, and said corrugated guide bars being adjustably mounted with respect to the knife edges so that the thickness substantially of each individual shred may be controlled, and a stationary apron in said drum for holding the beets substantially quiet in the drum.

4. In a beet cutter, rotatably mounted knives and guide-bars, said knives and guide-bars being alternately placed with respect to each other, corrugations on said knives and guide-bars, the corrugations of the knives being alined with the corrugations of the guide-bars, and projections on said guide-bars adapted to extend beneath the corrugations of said knives.

5. A guide-bar for rotary beet cutters, said guide-bar having transverse corrugations, said guide-bar being beveled along both longitudinal sides, and projections from the side of said bar adapted to secure the uniform cutting of cossettes.

1,075,625. ICE-CREAM-CONE MACHINE. FREDERICK A. BRUCKMAN, Portland, Oreg. Filed July 20, 1912. Serial No. 710,549. (Cl. 107—58.)



1. In a machine of the class described, bodily movable molding devices adapted to be moved from one position to another, each of said devices including female mold members and cores therefor, a core carrier for said cores, a dipping tank relatively stationarily located at a given loading place, means for transferring the cores from the female mold members into the dipping tank and back again to charge the molding devices with batter, said transferring means including an oscillatable arm, an elongated device carried by said arm to engage said core carrier as said molding devices approach, arrive at and leave, the loading position, and means for oscillating said arm.

2. In a machine of the class described, bodily movable molding devices adapted to be moved from one position to another, each of said devices including female mold members and cores therefor, a core carrier for said cores, a dipping tank relatively stationarily located at a given loading place, means for transferring the cores from the female mold members into the dipping tank and back again to charge the molding devices with batter, said transferring means including an oscillatable arm, an elongated device carried by said arm to be engaged by said core carrier as said molding devices approach, pass and leave, the loading position, and means for oscillating said arm, together with means for pivotally supporting said dipping tank, and means coöperative between said tank and arm for moving said tank toward the cores to maintain the cores centralized in the tank while being dipped.

3. In a machine of the class described, bodily movable molding devices adapted to be moved from one position to another, each of said devices including female mold members and cores therefor, a core carrier for said cores, a dipping tank relatively stationarily located at a given loading place, means for transferring the cores from the female mold members into the dipping tank and back again to charge the molding devices with batter, said transferring means including an oscillatable arm, an elongated device carried by said arm to be engaged by said core carrier as said molding devices approach, pass and leave, the loading position, and means for oscillating said arm, said tank including a dipping bottom pocket for each core, and a ring around the mouth of each pocket, means for supplying batter to said tank around said rings, and means for lifting said rings to permit the batter to flow into said pockets.

4. In a machine of the class described, bodily movable molding devices adapted to be moved from one position to another, each of said devices including female mold members and cores therefor, a core carrier for said cores, a dipping tank relatively stationarily located at a given loading place, means for transferring the cores from the female mold members into the dipping tank and back again to charge the molding devices with batter, said transferring means including an oscillatable arm, an elongated device carried by said arm to be engaged by said core carrier as said molding devices approach, pass and leave, the loading position, and means for oscillating said arm, together with means for pivotally supporting said dipping tank, and means coöperative between said tank and arm for moving said tank toward the cores to maintain the cores centralized in the tank while being dipped, said tank including a dipping bottom pocket for each core, and a ring around the mouth of each pocket, means for supplying batter to said tank around said rings, and means for lifting said rings to permit the batter to flow into said pockets.

5. In a machine of the class described, bodily movable molding devices adapted to be moved from one position to another, each of said devices including female mold members and cores therefor, a core carrier for said cores, a dipping tank relatively stationarily located at a given loading place, means for transferring the cores from the female mold members into the dipping tank and back again to charge the molding devices with batter, said transferring means including an oscillatable arm, an elongated device carried by said arm to be engaged by said core carrier as said molding devices approach, pass and leave, the loading position, and means for oscillating said arm, said arm oscillating means including a rock shaft, a clutch member fixed to said shaft, a shiftable clutch member loose on said shaft, means for applying a force to said shiftable clutch member by which said member may be oscillated, means for shifting said shiftable clutch member, and means holding said shifting means inoperative save when said arm is in its initial position.

[Claims 6 to 16 not printed in the Gazette.]

1,075,626. SYNCHRONIZING DEVICE. JAMES W. BRYCE, Brooklyn, N. Y. Filed Oct. 19, 1907. Serial No. 398,171. (Cl. 234—43.)



1. The combination of driving mechanism, driven mechanism driven by and in a predetermined unison with the driving mechanism, means for operatively disconnecting

and reconnecting the driving and driven mechanism, and means for bringing the driven mechanism again into the same predetermined unison with the driving mechanism, irrespective of the length of time of such disconnection.

2. The combination of a clock movement, indicating mechanism driven by the clock movement in synchronism with it, means for operatively disconnecting and reconnecting the clock movement and the indicating mechanism, and means for bringing the indicating mechanism again into synchronism with the clock movement, irrespective of the length of time of such disconnection.

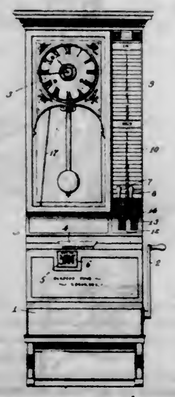
3. The combination of a clock movement, time recording mechanism driven synchronously by the clock movement, means for operatively disconnecting the clock movement and time recording mechanism, and means for operatively reconnecting them and bringing the time recording mechanism again into synchronism with the clock movement, irrespective of the length of time of such disconnection.

4. The combination of a clock movement, a time recording type wheel driven by the clock movement in synchronism therewith, means for operatively disconnecting the clock movement and the type wheel and for locking the latter, and means for unlocking the type wheel and operatively reconnecting it with the clock movement and for moving it again into synchronism with the clock movement, irrespective of the length of time of such disconnection.

5. The combination of a motor, mechanism driven thereby in unison therewith, a differential gearing in the connections between the motor and the driven mechanism adapted normally to have its differential acting features inoperative and to merely connect on one side with the motor and on the other side with the driven mechanism so as merely to transmit motion from one to the other, means for locking and unlocking the driven mechanism, means for rendering the differential gear operative in its differential features so as to permit the continued motion of the motor without imparting the same to the driven mechanism and to actuate the synchronizer, a synchronizer normally locked and adapted to be freed when the differential gear becomes operative, and means for returning the synchronizer to its original or an equivalent position when the driven mechanism is again unlocked and thereby bringing the driven mechanism again into unison with the motor.

[Claims 6 to 23 not printed in the Gazette.]

1,075,627. TIME-RECORDER. JAMES W. BRYCE, Brooklyn, N. Y. Filed Jan. 17, 1908, Serial No. 411,224. Renewed Apr. 11, 1911. Serial No. 620,461. (Cl. 234—43.)



1. The combination of elapsed time indicating mechanism controlled in its movement one way by a clock movement, and means adapted to be manually operated for moving such indicating mechanism in the other direction to cause the indicating mechanism to indicate the difference in time between two operations.

2. The combination of elapsed time indicating mechanism, a clock movement for moving the same in one direction and means, manually operated, for moving the indicating mechanism in the other direction, whereby the elapsed time indicating mechanism will be caused to indicate the elapsed time between two operations of the machine.

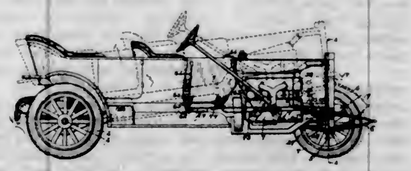
3. The combination of an elapsed time type wheel, a clock movement for moving the type wheel in one direction to cause it normally to represent the true time, means adapted to be manually operated to move the type wheel backward a distance representing an earlier operation of the machine, whereby the elapsed time type wheel will be moved so as to bring upon the printing line type representing the time that has elapsed since such earlier operation.

4. The combination of an elapsed time type wheel, a clock movement for driving it so as to cause it normally to bring upon the printing line type representing the true time, a lever adapted to be manually operated, a graduated scale representing the different divisions of time represented by type on the type wheel and along which the lever is adapted to be moved and connections between the lever and the type wheel adapted to move the latter in accordance with the manual movement of the lever along the scale, whereby the elapsed time between two operations of the machine will be represented by the type brought upon the printing line.

5. The combination of a clock movement, hour and minute elapsed time type wheels driven by the clock movement in one direction and normally representing the true time, a lever for each type wheel adapted to be manually operated, a graduated scale for each lever containing divisions of time represented by the type on the corresponding type wheel and along which scale the said lever is adapted to be moved and connections between each lever and its type wheel, whereby a movement of either lever will move the corresponding elapsed time type wheel backward in accordance with the movement of the lever over the scale, whereby the type wheels after such manual operation of the levers, may have type representing the elapsed time between two operations of the machine brought upon the printing line.

[Claims 6 to 43 not printed in the Gazette.]

1,075,628. AUTOMOBILE. AUGUSTUS W. CRANE, Kalamazoo, Mich. Filed June 3, 1912. Serial No. 701,124. (Cl. 21—90.)



1. In an automobile, the combination of an internal combustion engine, an automobile body and the usual carrying wheels front and rear on suitable axles; suitable springs comprising a transverse elliptic spring on the forward axle; an upright double rack structure with open space at the center secured to the said transverse spring; gear devices comprising suitable pinions disposed to mesh with said racks; a gear case embracing the same secured to a cross bar of the frame; a connection from the automobile engine for driving one of the pinions to elevate the body of the vehicle through coaction with the said rack; locking means to lock the parts against movement and retain the vehicle body in an elevated position; driving connections from a pinion to said engine; means for releasing the lock to permit the vehicle body to descend and impart power by the meshing of the driving pinion with the said rack for imparting to the engine its initial movement; means for throwing said engine actuating means out of gear after the engine starts; electric switch devices disposed in the ignition circuit of said engine with trip means disposed to be actuated by the movement of the parts to automatically break the ignition circuit when the predetermined elevation is reached; a locking means for the gear in its normal position; a brake means for controlling the descent of the body; automatic means comprising an auxiliary cylinder and piston connected with the combustion chamber of an engine cylinder for automatically throwing the piston to throw the starter mechanism out of gear; and an actuated lever for controlling the parts, coacting substantially as described for the purpose specified.

2. In an automobile, the combination of an internal combustion engine, an automobile body and the usual carrying wheels front and rear on suitable axles; suitable springs comprising a transverse elliptic spring on the forward axle; an upright double rack structure with open space at the center secured to the said transverse spring; gear devices comprising suitable pinions disposed to mesh with said racks; a gear case embracing the same secured to a cross bar of the frame; a connection from the automobile engine for driving one of the pinions to elevate the body of the vehicle through coaction with the said rack; locking means to lock the parts against movement and retain the vehicle body in an elevated position; driving connections from a pinion to said engine; means for releasing the lock to permit the vehicle body to descend and impart power by the meshing of the driving pinion with the said rack for imparting to the engine its initial movement; means for throwing said engine actuating means out of gear after the engine starts; electric switch devices disposed in the ignition circuit of said engine with trip means disposed to be actuated by the movement of the parts to automatically break the ignition circuit when the predetermined elevation is reached; a locking means for the gear in its normal position; a brake means for controlling the descent of the body; automatic means comprising an auxiliary cylinder and piston connected with the combustion chamber of an engine cylinder for automatically throwing the piston to throw the starter mechanism out of gear; and an actuated lever for controlling the parts, coacting substantially as described for the purpose specified.

3. In an automobile, the combination of an internal combustion engine, an automobile body and the usual carrying wheels front and rear on suitable axles; suitable springs comprising a transverse elliptic spring on the forward axle; an upright double rack structure with open space at the center secured to the said transverse spring; gear devices comprising suitable pinions disposed to mesh with said racks; a gear case embracing the same secured to a cross bar of the frame; a connection from the automobile engine for driving one of the pinions to elevate the body of the vehicle through coaction with the said rack; locking means to lock the parts against movement and retain the vehicle body in an elevated position; driving connections from a pinion to said engine; means for releasing the lock to permit the vehicle body to descend and impart power by the meshing of the driving pinion with the said rack for imparting to the engine its initial movement; means for throwing said engine actuating means out of gear after the engine starts; electric switch devices disposed in the ignition circuit of said engine with trip means disposed to be actuated by the movement of the parts to automatically break the ignition circuit when the predetermined elevation is reached; a locking means for the gear in its normal position; a brake means for controlling the descent of the body; automatic means comprising an auxiliary cylinder and piston connected with the combustion chamber of an engine cylinder for automatically throwing the piston to throw the starter mechanism out of gear; and an actuated lever for controlling the parts, coacting substantially as described for the purpose specified.

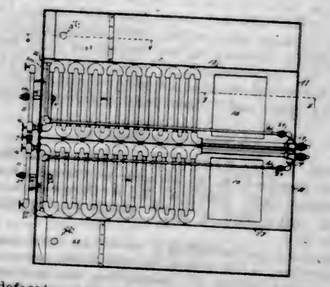
4. In an automobile, the combination of an internal combustion engine, an automobile body and the usual

carrying wheels front and rear on suitable axles; suitable springs comprising a transverse elliptic spring on the forward axle; an upright double rack structure with open space at the center secured to the said transverse spring; gear devices comprising suitable pinions disposed to mesh with said racks; a gear case embracing the same secured to a cross bar of the frame; a connection from the automobile engine for driving one of the pinions to elevate the body of the vehicle through coaction with the said rack; locking means to lock the parts against movement and retain the vehicle body in an elevated position; driving connections from a pinion to said engine; means for releasing the lock to permit the vehicle body to descend and impart power by the meshing of the driving pinion with the said rack for imparting to the engine its initial movement; means for throwing said engine actuating means out of gear after the engine starts; electric switch devices disposed in the ignition circuit of said engine with trip means disposed to be actuated by the movement of the parts to automatically break the ignition circuit when the predetermined elevation is reached; a locking means for the gear in its normal position; a brake means for controlling the descent of the body, and an actuated lever for controlling the parts, coacting substantially as described for the purpose specified.

5. In an automobile, the combination of an internal combustion engine, an automobile body and the usual carrying wheels front and rear on suitable axles; suitable springs comprising a transverse elliptic spring on the forward axle; an upright double rack structure with open space at the center secured to the said transverse spring; gear devices comprising suitable pinions disposed to mesh with said racks; a gear case embracing the same secured to a cross bar of the frame; a connection from the automobile engine for driving one of the pinions to elevate the body of the vehicle through coaction with the said rack; locking means to lock the parts against movement and retain the vehicle body in an elevated position; driving connections from a pinion to said engine; means for releasing the lock to permit the vehicle body to descend and impart power by the meshing of the driving pinion with the said rack for imparting to the engine its initial movement; means for throwing said engine actuating means out of gear after the engine starts; electric switch devices disposed in the ignition circuit of said engine with trip means disposed to be actuated by the movement of the parts to automatically break the ignition circuit when the predetermined elevation is reached; and an actuated lever for controlling the parts, coacting substantially as described for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,075,629. DEFECATOR. MILTON B. CRESSWELL, Des Moines, Iowa. Filed Nov. 25, 1911. Serial No. 662,440. (Cl. 127—9.)

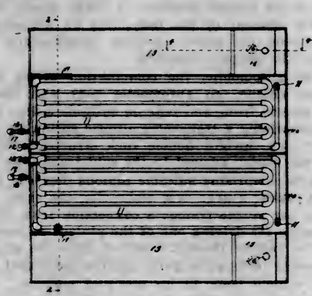


1. A defecator, comprising a tank, a partition dividing said tank into a boiling compartment and a dead-chamber, an opening in said partition, an inclined baffle plate at the forward end of said dead-chamber, a steam coil in the forward portion of said boiling chamber, and a valve-

controlled steam pipe leading from said coil along one wall of said boiling compartment and opposite to the opening in said partition and formed with rearwardly directed jet openings.

2. A defecator, comprising a tank, a partition dividing said tank into a boiling compartment and a dead-chamber, an opening in said partition, a steam coil in the forward portion of said boiling compartment, a steam pipe leading from said coil along one wall of said tank and opposite to the opening in said partition, and an auxiliary steam pipe leading forwardly within said boiling compartment above the first steam pipe, said auxiliary pipe formed with a transverse arm at the forward end of the tank, said arm being formed with jet openings directed rearwardly across said steam coil.

1,075,630. FINISHING-EVAPORATOR. MILTON B. CRESSWELL, Des Moines, Iowa. Filed Nov. 25, 1911. Serial No. 662,441. (Cl. 127—9.)



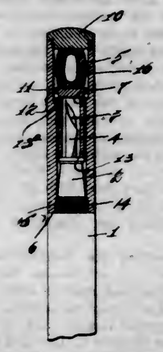
1. A syrup finisher, comprising a boiling tank, a steam coil therein, a skimming tank adjacent to said boiling tank, an opening between said tanks, a baffle plate in said skimming tank, and a bar longitudinally of said opening and slightly above the bottom thereof.

2. A syrup finisher, comprising an open boiling tank, valve-controlled steam pipes therein, a skimming tank alongside of said boiling tank, said skimming tank having its bottom elevated relative to the bottom of the boiling tank, a valve-controlled outlet from said boiling tank, an opening between said boiling tank and skimming tank, said opening reaching to the bottom of said skimming tank, and a bar longitudinally of and slightly spaced above the bottom of said opening.

3. A syrup finisher, comprising an open boiling tank, valve-controlled steam pipes therein, a skimming tank alongside of said boiling tank, said skimming tank having its bottom elevated relative to the bottom of the boiling tank, a valve-controlled outlet from said boiling tank, an opening between said boiling tank and skimming tank, said opening reaching to the bottom of said skimming tank, a bar longitudinally of and slightly spaced above the bottom of the opening, an inclined baffle plate in said skimming tank, and a drain leading from said skimming tank.

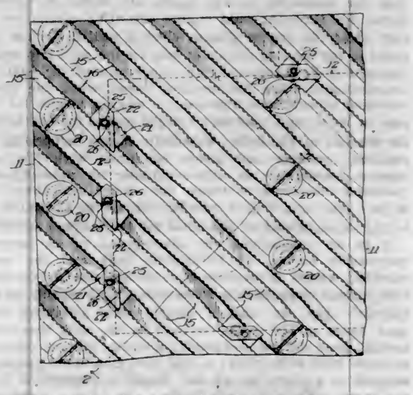
1,075,631. NON-LEAKING FOUNTAIN-PEN. HARRY B. DODS, Brooklyn, N. Y., assignor to Diamond Point Pen Company, New York, N. Y., a Corporation of New York. Filed Nov. 4, 1912. Serial No. 729,234. (Cl. 120—42.)

A fountain pen including a barrel, an outer cap engaging the barrel, a pen section secured to the barrel and normally housed within the closing cap, the interior of the outer cap beyond the terminal pen section being circumferentially enlarged and an auxiliary cap having a flange coöperating with the enlarged portion of the outer cap, said auxiliary cap covering the pen section, and pressure means engaging the outer cap and auxiliary cap, the length of the auxiliary cap normally holding the flange thereof spaced from the lower margin of the enlargement of the outer cap when the parts are in normal position,



whereby the pressure means will operate to maintain a sealing juncture by the auxiliary cap and pen section until the outer cap is practically separated from the barrel.

1,075,632. PLATE REGISTERING AND CLAMPING DEVICE. MICHAEL ANDREW DROITCOUR, Oak Park, Ill., assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 25, 1912. Serial No. 705,778. (Cl. 101—169.)



1. Plate registering and clamping means including a grooved base, the groove having one of its walls marginally rabbeted, a ribbed member seated in the rabbet against the wall of the groove, a securing device mounted in the base with its head taking over and engaging the free edge of the member in said groove to secure the same in place, and a clamp within said groove and provided with means to engage said ribbed member, substantially as described.

2. Plate registering and clamping means including a grooved base, the groove having its bottom wall marginally rabbeted, a ribbed member seated in the rabbet against the side wall of the groove, a securing device mounted in the base with its head taking over and engaging the upper edge of the member to secure the same in place, a clamp disposed within the groove, and means carried by the clamp and arranged to engage the ribbed member, substantially as described.

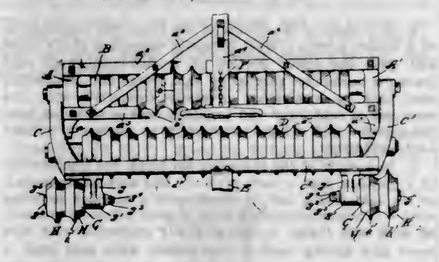
3. Plate registering and clamping means including a base provided with parallel grooves, the grooves having their bottoms marginally rabbeted, a ribbed member seated in each of the rabbets against the adjacent sides of a pair of grooves, a securing device mounted in the base between the pair of grooves with its head taking over and engaging the upper edges of the adjacent members to secure the same in place, clamps disposed within the grooves, and means carried by the clamps and engaging the ribbed member, substantially as described.

4. Plate registering and clamping means including a base provided with a series of parallel grooves, the grooves having their bottoms marginally rabbeted along each side, a pair of ribbed members having their lower edges seated within the rabbets of each groove, a securing device comprising screws mounted in the base between each pair of contiguous grooves with its head provided with a depending flange taking over and engaging the upper edge of the adjacent members in said grooves to secure the same in place, a clamp disposed within each of the grooves, and means carried by the clamp in engagement with the ribs of the members, substantially as described.

5. Plate registering and clamping means, including a grooved base provided upon its wall with ribs, a clamp disposed within the groove, a pair of screws carried by the clamp and rotating in a common plane, the thread of one of the screws in mesh both with the other screw and with the ribs and the other screw provided with driving means, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,075,633. IMPLEMENT ATTACHMENT. WILEY J. DUNHAM, Berea, Ohio, assignor to The Dunham Company, Berea, Ohio. Filed Sept. 3, 1912. Serial No. 718,207. (Cl. 55—77.)



1. An implement attachment comprising the combination with an implement; of a pulverizer gang, having a plurality of disks, pivotally mounted upon opposite ends of said implement so as to have independent vertical movement, a bracket fixedly secured to said gang and projecting laterally beyond one end thereof, and a pulverizing disk rotatably mounted upon such bracket, and laterally of both said bracket and said implement, the said disk being disposed in complementive operative alinement with respect to said gang.

2. An implement attachment comprising the combination with a pulverizer gang having a plurality of primary disks; of a member movably connected to the outer side thereof so as to have independent vertical movement, an outer side bracket secured to said member, and a secondary pulverizing disk supported upon such bracket and disposed laterally of said gang and of the plane of the corresponding outer edge of said implement, the said disk being furthermore spaced in corresponding operative alinement with respect to the proximate end disk of said gang.

3. An implement attachment comprising the combination with a pulverizer gang having a plurality of laterally alined contiguous disks; of a bracket secured at one end of said gang and projecting outwardly with respect thereto and beyond said gang, and a plurality of similar auxiliary disks mounted for movement upon said bracket and beyond said gang, such auxiliary disks being likewise contiguous and disposed in continuing operative alinement with respect to the proximate end disk of said gang.

4. An implement attachment comprising the combination with a pulverizer gang having a plurality of laterally alined primary disks; of a downwardly projecting bracket attached to said gang and provided with an opening, an axle horizontally supported in said opening and projecting laterally of said gang, and a plurality of similar and auxiliary disks rotatable upon said axle, the inner surface of the inner of said auxiliary disks being disposed in the same plane as the outer surface of the corresponding end one of said primary disks.

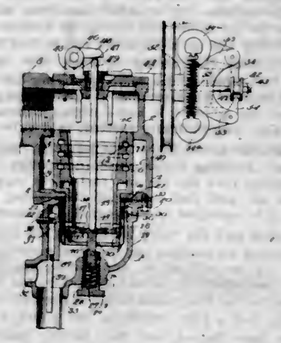
1,075,634. PROCESS FOR THE PRODUCTION OF REFRACTORY, ELECTRICALLY-CONDUCTING MOLDED BODIES. GEORG EGLY, Treptow, near Berlin, Germany, assignor to Gebrueder Siemens & Co., Lichtenberg, near Berlin, Germany, a Copartnership. Filed June 25, 1912. Serial No. 705,829. (Cl. 204—62.)

1. The process for producing refractory electric conductors which consists in heating a mixture of carbon and silicon in an atmosphere of carbon monoxid to obtain SiCO and in heating the SiCO in the presence of carbon to reduce the SiCO to SiC.

2. The process of producing an electric conducting body which consists in mixing silicon and carbon together in suitable quantities with a binder, in molding the body of said mixture, in heating said body in the presence of an oxid of carbon, and in subsequently heating the resultant product to a higher temperature.

3. The process of producing an electric conducting body which consists in molding the body of a plastic mixture of silicon and carbon, in heating said body to at least 1400° C. in the presence of an oxid of carbon to transform the mixture to SiCO + C and in subsequently heating the SiCO to at least 1600° C. to reduce the SiCO to SiC.

1,075,635. CARBURETER. WARREN ELKIN, Winchester, Ky. Filed Oct. 20, 1910, Serial No. 588,128. Renewed Jan. 16, 1913. Serial No. 742,473. (Cl. 123—123.)



1. A carbureter comprising a main casing having at one end an outlet for attachment to an engine, a valve casing arranged within the main casing, said valve casing being reduced at the end remote from the outlet of the main casing, and having the said end closed, the main casing having an annular air chamber encircling the valve casing, and an annular fuel chamber encircling the reduced portion, a substantially cylindrical valve fitting within the valve casing and having a reduced portion fitting within the reduced portion of the valve casing, said valve and valve casing having air inlets normally registering with each other, and registering with the air chamber, and having fuel inlet passages adjacent to the fuel chamber of the main casing and normally registering with each other, a double screen arranged between the fuel chamber and the fuel inlet passages a spring normally holding the valve with the inlet passages in register with the inlet passages of the valve casing, a governor having means for connecting the same with a rotating part of the engine, and a connection between the governor and the valve for moving the said valve longitudinally of the casing against the

resistance of the spring to partially close the air and fuel passages, said main casing having an outlet at its lower end for permitting the escape of the excess fuel.

2. A carbureter comprising a valve casing having an outlet for the mixture, a valve fitting within the casing and movable longitudinally thereof, said valve having annular series of air inlets and the casing having annular series of air inlets adapted to register with the inlets of the valve, said valve having an annular series of fuel inlets and the casing having an annular series of fuel inlets adapted to register therewith and on the opposite side of the air inlets from the outlet of the casing, a spring normally holding the valve in position, whereby the inlets thereof register with the inlets of the casing, a governor adapted to be operated by the engine, and a connection between the governor and the valve for moving the said valve against the resistance of the spring, said casing having an annular air chamber encircling the valve adjacent to the air inlets and having an annular fuel chamber encircling the valve adjacent to the fuel inlets, and a ring encircling the casing between the fuel chamber and the fuel inlets of the valve, said ring having ports, said fuel chamber having an outlet and a valve controlling the outlet.

3. A carbureter comprising a valve casing having an outlet for the mixture, a valve fitting within the casing and movable longitudinally thereof, said valve having annular series of air inlets and the casing having annular series of air inlets adapted to register with the inlets of the valve, said valve having an annular series of fuel inlets and the casing having an annular series of fuel inlets adapted to register therewith and on the opposite side of the air inlets from the outlet of the casing, a spring normally holding the valve in position, whereby the inlets thereof register with the inlets of the casing, a governor adapted to be operated by the engine, a connection between the governor and the valve for moving the said valve against the resistance of the spring, said casing having an annular air chamber encircling the valve adjacent to the air inlets and having an annular fuel chamber encircling the valve adjacent to the fuel inlets, and a ring encircling the casing between the fuel chamber and the fuel inlets of the valve, said ring having ports.

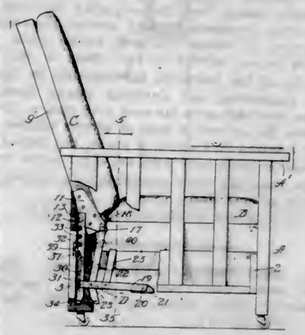
4. A carbureter comprising a valve casing having an outlet for the mixture, a valve fitting within the casing and movable longitudinally thereof, said valve and casing having air inlets, and fuel inlets normally registering with each other, yielding means normally holding the valve in such position that the air and fuel inlets thereof register with the air and fuel inlets of the casing, a governor adapted to be operated by the engine, a connection between the governor and the valve for moving the said valve, the casing having an annular air chamber encircling the valve adjacent to the air inlets, and having an annular fuel chamber encircling the valve adjacent to the fuel inlets, a screen encircling the casing between the fuel chamber and the inlets, and a ring encircling the screen and engaging the outer face thereof, said ring having openings for admitting the fuel to the screen.

1,075,636. CHAIR. ANTON G. EYLES, Cedar Rapids, Iowa. Filed Aug. 12, 1910. Serial No. 576,824. (Cl. 155—28.)

1. In a chair of the character set forth, the combination of a frame, a pivoted seat, levers pivoted on said frame, seat-carrying members mounted on said levers, a back pivoted directly to the frame, links connecting said levers with said back below and in front of the pivot thereof, and a locking-bar for the back connected with one of said levers.

2. In a chair of the character set forth, the combination of a frame, a pivoted seat, a back pivoted directly to the frame, levers pivoted on said frame, seat-carrying members mounted on said levers, links connecting said levers with said back below and in front of the pivot thereof, a locking-bar for the back connected with one of said levers, and a rock-shaft equipped with means for releasing said locking-bar.

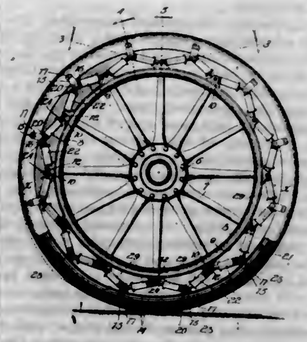
3. In a chair of the character set forth, the combination of a frame comprising side-members, a tiltably mounted seat, levers pivotally connected at their front ends with said side-members a short distance in front of the rear end of the chair-frame, a back pivoted on said frame and having its side-members equipped with plates extending downwardly and forwardly in front of the pivot, links pivotally connected at their upper ends with said plates and pivotally joined near their lower ends to said levers, springs connected with said links and tending to hold the chair-back in the upright position, and a locking-bar pivotally connected with the rear end of one of said levers.



4. In a chair of the character set forth, the combination of a frame, a seat, a lever pivotally connected at its front end with the lower portion of a side-member of said frame, a back-pivot carried by said frame and supporting said back, a locking-bar pivotally connected with the rear end of said lever and provided with a series of locking-notches, and a hand-operated lever serving to release said locking-bar.

5. In a chair of the character set forth, the combination of a frame, a seat, a back pivotally and detachably mounted on said frame and equipped with a member provided with a laterally-projecting stud, a lever pivotally connected with said frame, a link pivotally connected with said lever and having hooked engagement with said stud, a locking-bar pivotally connected at one end with said lever and releasable engaging means on the seat, and a locking-bar releasing-device mounted on the frame.

1,075,637. SPRING VEHICLE-WHEEL. WILLIAM H. FAHRNEY, Chicago, Ill. Filed Nov. 14, 1912. Serial No. 731,445. (Cl. 152—8.)

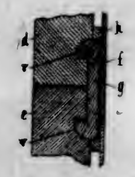


1. In a spring vehicle-wheel, the combination with a wheel-center, of an annular band-spring about the rim in spaced relation thereto, spring-housings pivotally connected at staggered intervals respectively with the band-spring and rim and extending in a plane parallel with the plane of the wheel plungers pivotally connected at staggered intervals respectively with the rim and band-spring and working in the housings, and compression springs confined in the housings about the plungers, said housed springs forming a zig-zag circumferential series in the space separating the rim and band-spring.

2. In a spring vehicle-wheel, the combination with a wheel-center, of an annular band-spring about the rim in spaced relation thereto, a series of clips about the rim and a series of clips about the band-spring in staggered relation to those about the rim, pivot-pins on the clips, spring-housings having arms on one end at which they are pivotally supported on said clip-pins on the band-spring and rim in succession and extending in a plane parallel with the plane of the wheel plungers working in said housings and having heads on their outer ends at which they are pivotally supported on the clip-pins on the rim and band-spring in succession to extend between the housing-arms thereon, and compression-springs confined in the housings about the plungers, said housed springs forming a zig-zag circumferential series in the space separating the rim and band-spring.

3. In a spring vehicle-wheel, the combination with a wheel-center, of an annular band-spring about the rim in spaced relation thereto, spring-housings pivotally connected at staggered intervals respectively with the band-spring and rim, plungers having nuts on their inner ends and pivotally connected at staggered intervals respectively with the rim and band-spring and working in the housings, and compression springs about the plungers between the nuts on the ends thereof and the plunger receiving end of the housings, said springs forming a zigzag circumferential series in the space separating the rim and band-spring.

1,075,638. MANUFACTURE OF ARMOR-PLATING. ERNST FISCHER, Dietrichsdorf, near Kiel, Germany. Filed Mar. 18, 1912. Serial No. 684,496. (Cl. 114—12.)



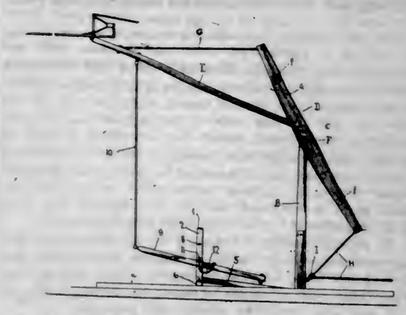
1. The combination with two abutting armor plates each provided with an undercut recess, said recesses being arranged outside the critical zone of the hardened material of said plates, and metal cast in said recesses and in the free space between both recesses at the back of both plates for connecting the plates.

2. The combination with two abutting armor plates each provided with an undercut recess, said recesses being arranged at the back of the adjacent armor plates outside the critical zone of the hardened material of said plates, and metal cast in said recesses and in the free space between both recesses at the back of both plates for connecting the plates.

3. The combination with two abutting armor plates each provided with an undercut recess said recesses being arranged at the back of the adjacent armor plates outside the critical zone of the hardened material of said plates, a chill forming the back of said armor plates and the outside wall to be protected by said armor plates, and metal cast in said recesses and the chill, said cast metal connecting both adjacent plates.

4. The combination with two abutting armor plates each provided with an undercut recess, said recesses being arranged at the back of the adjacent armor plates outside the critical zone of the hardened material of said plates, a shrunken clamp cast behind said adjacent plates having hooks anchoring in said undercut recesses of the plates, both adjacent plates being connected by said clamp.

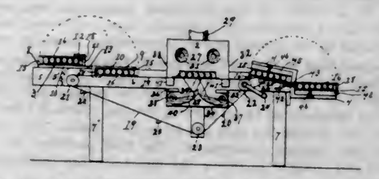
1,075,639. RADIUS-JACK. CLIFFORD A. FLEMING, Huntsville, Mo. Filed Apr. 8, 1912. Serial No. 689,281. (Cl. 212—52.)



1. A radius jack comprising a supporting base, laterally spaced uprights, a bar mounted to move vertically between said uprights, means for limiting the upward movement of said bar, and a radius rod swiveled on one end of said bar and adapted to be connected at its other end with the swinging arm of a hoisting machine.

2. A radius jack comprising laterally spaced uprights connected at their upper ends and provided with registering pairs of longitudinally spaced apertures, laterally extending bars connected with the lower ends of said uprights for securing them rigidly to a supporting surface, a bar loosely connected at one end to one of said laterally extending bars and extending between said spaced uprights with its front end projecting beyond said uprights, adjustable means for regulating the upward movement of said bar, and a radius rod swiveled at one end of the free end of said last mentioned bar and adapted to be connected at its other end with the swinging arm of a hoisting apparatus.

1,075,640. EGG-CANDLER. WILLIAM W. FOSTER, San Diego, Cal. Filed Nov. 4, 1912. Serial No. 729,247. (Cl. 99—6.)



1. An egg candler comprising a frame, a conveyer belt mounted to travel longitudinally in said frame, a dark box mounted on said frame over said belt, provided with armholes and light excluding sleeves, said belt being adapted to carry a filler of eggs in the filler into said dark box, an eye shield mounted on the top of said dark box, a reflector mounted under said dark box and lamps mounted at the side of said reflector, said lamps and said reflector being adapted to radiate light through the eggs in the filler conveyed into said dark box.

2. An egg candler, comprising a frame, a reversible filler platen for receiving a case filler full of eggs mounted in said frame, a perforated opaque cover and bottom plate for placing over the filler which forms the bottom of the filler after reversal, each egg in the filler resting in a perforation of said cover and bottom plate, a dark box mounted on said frame, provided with armholes and light excluding sleeves, means for conveying a filler of eggs into said dark box, and illuminating means mounted on said

frame so arranged that light radiates through the perforations of said cover and bottom plate, the eggs in the case filler, and said dark box, to the eyes of the operator.

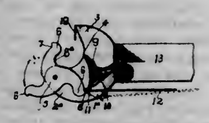
3. In an egg candler, a frame, a platen for receiving a filler of eggs, a perforated opaque plate so placed that the perforations thereof register with the eggs in the filler, a casing mounted in said frame, transluminating means in said casing and reversible means for facilitating the transfer of said filler of eggs to an egg case.

4. An egg candler, comprising a frame, a reversible egg filler platen, a perforated cover and bottom plate for initially placing over the filler as a cover and forming a bottom for the filler after reversal on said platen, so placed that each perforation of said platen registers with an egg in the filler and the egg rests in the perforation, a casing mounted in said frame, means for conveying a filler of eggs into and through said casing, a terminal reversible egg filler receiving platen mounted in said frame, whereby a board bottom is applied to the filler, said cover and bottom plate is removed, and all the eggs in the filler may be transferred into a fresh filler simultaneously.

5. In an egg candler, a frame, a casing mounted in said frame and comprising a dark box and an illuminating box, said dark box being adapted to receive a filler full of eggs, and provided with armholes to admit the hands of the operator and light-excluding sleeves and curtains.

[Claim 6 not printed in the Gazette.]

1,075,641. AUTOMATIC CAR-COUPLING. JOSEPH GIROUX, Cowans, Quebec, Canada. Filed Dec. 6, 1912. Serial No. 735,203. (Cl. 213—15.)



1. In a device of the character described, two draw heads, interlocking members rotatably mounted therein and adapted to prevent lateral movement of the draw heads, spring pressed means for preventing reverse rotation of the said members, means for releasing the members, and spring means for throwing the members into interlocked position.

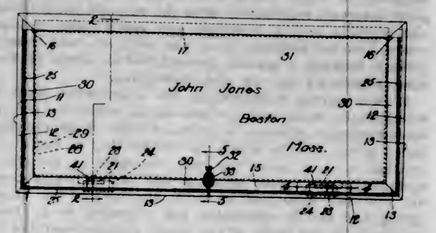
2. In a device of the character described, two draw heads having horizontally bifurcated toes and forked heels connected by an inward curve, interlocking members rotatably mounted in the toes and adapted to overlap the heel portions of the draw heads, spring pressed blocks pivotally mounted in the heads and adapted to engage the interlocking members so as to prevent reverse rotation thereof, means for raising the said blocks so as to release the members, and springs attached to the heel portions of the heads and adapted to throw the members into interlocked position.

3. In combination in a device of the character described, two draw heads having horizontal bifurcated toe portions, interlocking members rotatably mounted in the said toe portions and comprising curved radial arms connected to a common center and to such length and curvature that when in interlocked position, the other arm of each member overlaps the opposite draw head, spring pressed means for preventing reverse rotation of the said members, spring means for throwing the members into interlocked position, and means for releasing the interlocked members.

1,075,642. STERLING SILVER. EDWARD D. GLEASON, New York, N. Y., assignor to Frank John Roesler, Brooklyn, N. Y. Filed Dec. 31, 1912. Serial No. 739,455. (Cl. 75—1.)

Sterling silver containing from .900 to .925 silver, alloyed with from .75 to .100 copper and boron.

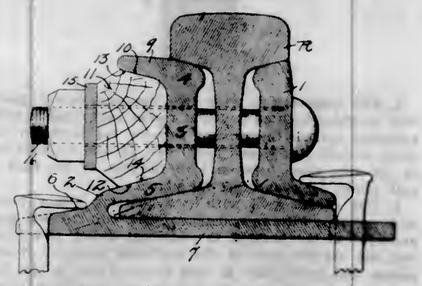
1,075,643. RECEPTACLE-CLOSURE. JOHN K. GOWEN, Somerville, Mass. Filed Jan. 23, 1913. Serial No. 743,751. (Cl. 220—9.)



1. The combination with a receptacle provided with an inturned flange formed from sheet metal and disposed about the mouth thereof oblique to the sides of said receptacle, of a closure provided with a rim formed of sheet metal and disposed at an angle substantially corresponding to the angle of said flange, a portion of said rim at one side of said closure being partly detached adapted to engage the inner face of said flange the remaining portion thereof engaging the outer face of said flange, and tongues formed adjacent the opposite side of said closure from said partly detached portion by partly detaching portions of the material constituting said flange, said tongues adapted to engage slots in said rim to secure said closure to said receptacle.

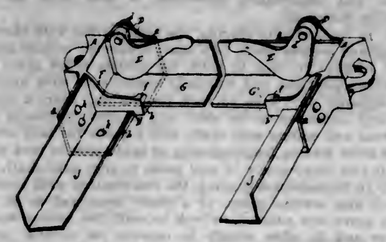
2. The combination with a receptacle provided with a flange formed of sheet material arranged about the mouth of said receptacle, of tongues projecting laterally from said flange, a closure provided with a rim corresponding with said flange having slots adapted to receive said tongues and secure said closure to said receptacle, and a flap on said rim adapted to be turned back therefrom to conceal said tongues.

1,075,644. RAIL-JOINT. JAMES A. GREER, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Feb. 23, 1912. Serial No. 679,404. (Cl. 239—6.)



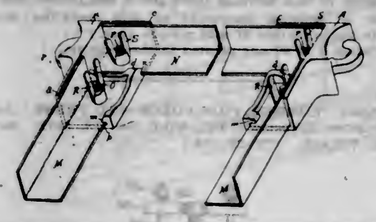
A rail joint including the rails and oppositely arranged joint bars, one of the joint bars having a longitudinal channel extending the full length of its outer side and comprising an upright side member provided at its top edge with a laterally projecting reinforcing flange and formed at the bottom with an integral horizontal rail-supporting base section of greater width than the rail bases and having a projecting spiking part beyond one edge of the rail flanges, a compressible filler member closely registering in the channel of said bar beneath the reinforcing flange thereof and projecting a distance beyond the said flange, and a bolt-engaged washer plate bearing against the outer projecting part of the compressible filler.

1,075,645. CORNER-BLOCK FOR IRON AND BRASS BEDS. FREDERIC V. GRIESMAN, Albany, N. Y. Filed Mar. 19, 1913. Serial No. 755,276. (Cl. 5—55.)



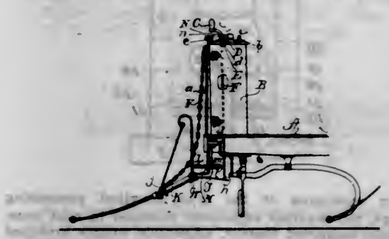
Corner blocks for a brass or iron bed, comprising a casting having two sides and one end at right angles to each other; an eccentric lever pivoted to the end piece of the casting; an angle iron; a foot piece on said casting adapted to engage the top of the angle iron.

1,075,646. CORNER-BLOCK FOR IRON AND BRASS BEDS. FREDERIC V. GRIESMAN, Albany, N. Y. Filed Mar. 19, 1913. Serial No. 755,277. (Cl. 5—55.)



A corner block comprising a casting formed of side, end and bottom pieces at right angles to each other; a flange along a portion of the edge of the bottom piece provided with two grooves at right angles to each other therein; an angle bar; bolts adapted to pass through said casting and angle bar, with nuts for said bolts.

1,075,647. CONTROLLER-CRANK FENDER-OPERATOR. EDWIN GUTHRIE, Washington, D. C. Filed July 3, 1912. Serial No. 707,541. (Cl. 105—250.)



1. In a controller crank fender operator, the combination with a pivoted fender, of releasable supporting devices constructed to support the fender, a vertical shaft, and a hand crank having a main portion movable relatively to a portion immovably engaging said shaft, the said fender-supporting devices having a member arranged in the path of and constructed to be operated by the main portion of said crank whereby the fender is released and the front portion of the fender is permitted to swing downwardly.

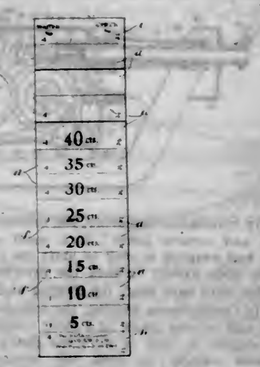
2. In a controller crank fender operator, the combination with a pivoted fender, of releasable supporting devices constructed to support the fender, a vertical shaft, a hand crank having a main portion movable horizontally circularly relative to a portion immovably engaging said shaft, a fixed stop arranged to arrest the movement of the said portion of the crank engaging said shaft, and the said fender-supporting devices having a member arranged in the path of and constructed to be actuated by the said main portion of the crank whereby the fender is released and the front portion of the fender is permitted to swing downwardly.

3. In a controller crank fender operator, the combination with a pivoted fender, of releasable supporting devices constructed to support the fender, a vertical shaft, a hand crank having a main portion movable horizontally circularly relative to a portion immovably engaging the said shaft, a fixed stop arranged to arrest the movements of the said portion of the crank engaging the shaft, and connecting means arranged to connect the said portions of the crank whereby the said portions may be moved together, the said connecting means being constructed to allow the movement of said main portion with respect to the portion engaging the said crank, and the said fender-supporting devices having a member arranged in the path of the main portion of the crank and constructed to be actuated thereby to release the said devices and fender and the front portion of the fender is permitted to swing downwardly.

4. In a controller crank fender operator, the combination with a pivoted fender, of releasable supporting devices constructed to support the fender, a vertical shaft, a hand crank having a main portion movable horizontally circularly relative to a portion immovably engaging said shaft, a fixed stop arranged to arrest the movements of the said portion of the crank engaging the shaft, and a spring connected with the said portions of the crank whereby the said portions may be moved together, the said spring being constructed to yield to excess pressure allowing said portions of the crank to separate, and the said fender-supporting devices having a member arranged in the path of and constructed to be actuated by the main portion of the crank whereby the said supporting devices and fender are released and the front portion of the fender is permitted to swing downwardly.

5. In a controller crank fender operator, the combination with a pivoted fender, of releasable supporting devices constructed to support the fender, a vertical shaft, and a hand crank provided with a projecting lug and a portion engaging said shaft, the said fender-supporting devices having a movable member arranged in the path of said lug and constructed to be moved by the lug whereby the fender is released and the front portion of the fender is permitted to swing downwardly.

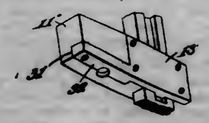
1,075,648. WAITER'S CHECK. ELI A. HAWK, Minneapolis, Minn. Filed Dec. 6, 1911. Serial No. 664,209. (Cl. 11—15.)



A waiter's check made up of coupons numbered in an increasing order of succession and comprising an auxil-

iary coupon, additional to the main series of coupons, having a given purchasing value equal to the order of increase in the value of said coupons, whereby, when the check is severed between coupons, the value indicated on the lowest coupon will equal the value of the highest coupon on the other section plus the value of the auxiliary coupon, the said auxiliary coupon being located at one end of the check adjacent to the coupon of lowest value, and the said coupons having identical identifying means.

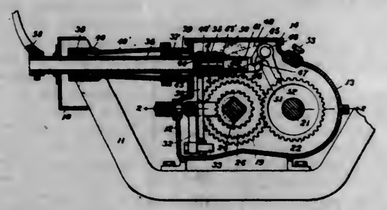
1,075,649. COMBINATION WRENCH AND PIPE-CUTTER. ALFRED HILL, Cathlamet, Wash. Filed Feb. 13, 1913. Serial No. 748,170. (Cl. 81—175.)



1. In a device of the character described, a stock having a jaw at one end, a movable jaw embodying a solid block having a cheek fitting one side of the stock and forming a shoulder, a cheek fitting the other side of the stock and abutting against the said shoulder, the cheeks abutting at the edges of the stock, means for securing the cheeks together at the edges of the stock, and an actuating rod in screw-threaded engagement with the stock and having one end swiveled to the said block, the said end engaging snugly within the block.

2. In a device of the character described, a stock having a jaw at one end, a movable jaw embodying a solid block having a cheek fitting one side of the stock and forming a shoulder, a cheek fitting the other side of the stock and abutting against the said shoulder, the cheeks abutting at the edges of the stock, means for securing the cheeks together at the edges of the stock, an actuating rod in screw threaded engagement with the stock and having a circumferential groove at its inner end, the block having a lower rabbet extending away from the shoulder and the last mentioned cheek having an extension fitting in the rabbet, the rabbet and extension having complementary notches to embrace the inner end of the actuating rod, and the inner end of the actuating rod engaging snugly within the block.

1,075,650. TRANSMISSION-GEARING. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 25, 1909. Serial No. 524,461. (Cl. 74—58.)



1. In transmission gearing, the combination with change speed and reverse gears; of a shaft connected to said gears and adapted to rock to shift the change speed gears and to slide axially to rock the reverse gear, and means movable with said shaft for rocking and sliding the same.

2. In transmission gearing, the combination with change speed and reverse gears, of a shaft connected to said gears and adapted to rock to shift the change speed gears and to slide axially to rock the reverse gear, a lever directly connected to said shaft for operating the same and arranged to move in the same direction as the shaft, and a guide for said lever constructed to prevent transverse movement of said lever during change speed movement and longitudinal movement of said lever during reverse movement.

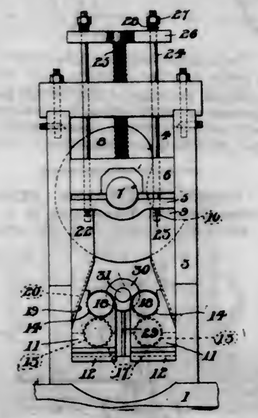
3. In transmission gearing, the combination with change speed and reverse gears, of a shaft connected to said gears and adapted to rock to shift the change speed gears to different positions and manually operable to slide axially in opposite directions to rock the reverse gear, a lever directly connected to the shaft and movable therewith for rocking and sliding said shaft, and a guide for said lever, said lever moving longitudinally of said guide to rock said shaft and transversely of said guide to slide said shaft.

4. In transmission gearing, the combination with change speed and reverse gears, of a shaft connected to all of said gears and adapted to rock to shift the change speed gears and to slide axially to operate the reverse gear, means for rocking and sliding said shaft, and means for locking said reverse gear in inoperative position during the rocking movement of said shaft.

5. In transmission gearing, the combination with a support, alined driving and driven shafts, a counter shaft, gears on said shafts some of which are movable thereon to effect various speeds, and a pivotally supported reversing gear, of an operating shaft mounted in said support transversely of said gear shafts, connections by which a rocking movement of said operating shaft effects the operation of said movable speed gears, and connections by which an endwise movement of said operating shafts effects the operation of said reverse gear.

[Claims 6 to 20 not printed in the Gazette.]

1,075,651. COMBINATION FORGE AND PRESS. JOHN KILDUFF, Johnstown, Pa. Filed Dec. 18, 1912. Serial No. 737,486. (Cl. 29—35.)

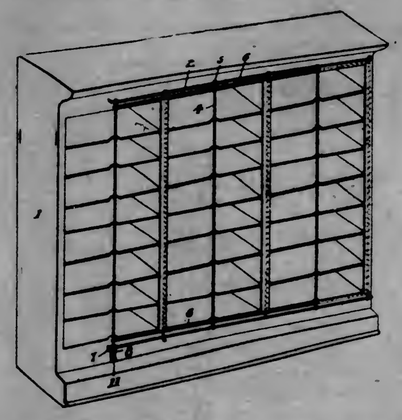


1. An apparatus of the type described comprising housings, roll bearings adjustably arranged in said housings, rolls supported thereby, adjustable wedges arranged in the openings of said housings for shifting said bearings, and a roll adjustably and revolubly supported by said housings and having a longitudinal compound curved recess formed in the periphery thereof presenting a longitudinal shoulder.

2. An apparatus of the type described comprising housings, roll bearings adjustably arranged in said housings, rolls supported thereby, adjustable wedges arranged in the openings of said housings for shifting said bearings, a roll adjustably and revolubly supported by said housings and having a longitudinal compound curved recess formed in the periphery thereof presenting a longitudinal shoulder, and means adjacent to said housings for operating upon the side of a piece of material passed between said rolls.

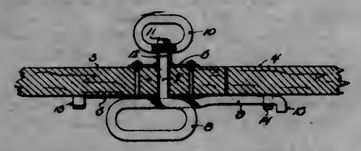
3. In a combined forge and press, housings, adjustable bearings arranged in the openings of said housings, sets of rolls revolubly supported by said bearings, wedges arranged in the openings of said housings and movably connected to said bearings, means supported by said housings for adjusting said wedges, and a revoluble and adjustable roll supported by said housings above the first mentioned rolls, said roll having a longitudinal recess formed therein presenting a shoulder.

1,075,652. LOCKING DEVICE FOR SHELVES. HENRY KLEBER, Jr., Pittsburgh, Pa. Filed Sept. 9, 1912. Serial No. 719,393. (Cl. 211—27.)



A locking device for shelving comprising a frame including a pair of longitudinally extending bars, and a series of spaced horizontal bars having their ends extending through said longitudinal bars and further having their ends provided with openings whereby the frame can be shiftably supported upon longitudinal tracks, one of said end bars having an apertured ear whereby said bar can be connected by a lock for securing the frame from movement.

1,075,653. DOOR-LATCH. BARNEY H. KLISTER and PETER VANDEHEY, Wrightstown, Wis. Filed Apr. 11, 1913. Serial No. 760,489. (Cl. 70—49.)



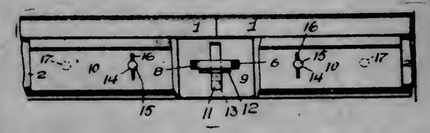
1. A latch comprising a bolt-member consisting of a rod bent to form a hand-loop and crossed arms, the arms being approximately at a right-angle one to the other; bearing plates on one of the arms for attachment to opposite sides of a door, a handle in detachable connection with the arm that extends through said plates, and a keeper-member for the other of said arms, the keeper being attachable to a suitable support.

2. A latch comprising a bolt-member consisting of a rod bent to form a hand-loop and crossed arms, the arms being approximately at a right-angle one to the other; bearing plates on one of the arms for attachment to opposite sides of a door, a handle in detachable connection with the arm that extends through said plates, a compensating sleeve on the arm carrying the detachable handle between said handle and the adjacent bearing plate, and a keeper-member for the other of said arms, the keeper being attachable to a suitable support.

3. A latch comprising a bolt-member consisting of a rod bent to form a hand-loop and crossed arms, the arms being approximately at a right-angle one to the other and one of these arms bent outward at an end thereof to form a stop-lug, bearing-plates on the other of said arms for attachment to opposite sides of a door, a handle in detachable connection with the arm that extends through said plate, and a keeper member for the arm having the stop-lug, the keeper being attachable to a suitable support.

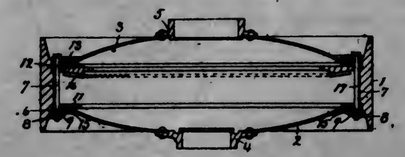
4. A latch comprising a bolt-member consisting of a rod bent to form a hand-loop and crossed arms, the arms being approximately at a right angle one to the other; bearing plates on one of the arms for attachment to opposite sides of a door and one of the plates provided with a rest upon which to swing said bolt member out of working position, a handle in detachable connection with the arm that extends through said plates, and a keeper-member for the other of said arms, the keeper being attachable to a suitable support.

1,075,654. RAIL-JOINT. LOUIS KNAAK, McDonald, Pa. Filed Jan. 30, 1913. Serial No. 745,197. (Cl. 239—11.)



A rail joint comprising a splice bar adapted to be positioned at the side of a pair of rails and having its inner face centrally formed with a flat elongated tongue adapted to extend through the webs of the rails, said splice bar further having its inner face formed with cylindrical pins adapted to project through the webs of the rails, a splice bar adapted to be positioned against the opposite side of said rails and having its outer face formed centrally with an enlargement of a width to overlap the base flanges of the rails, said enlargement formed with a longitudinally extending rectangular opening for the passage of said tongue, said pins projecting through the last mentioned splice bars, means for locking said pins in position, a wedge extending through said tongue and engaging said enlargement, means for locking the wedge in position, and said last mentioned splice bar having its inner face formed with cylindrical pins adapted to extend through the webs of the rails and terminate adjacent the first mentioned splice bar.

1,075,655. WHEEL. KARSTEN KNUDSEN, Grand Rapids, Mich., assignor, by direct and mesne assignments, to Electric Wheel Co., (Associates,) Springfield, Mass. Original application filed May 24, 1912, Serial No. 699,583. Divided and this application filed Jan. 6, 1913. Serial No. 740,337. (Cl. 21—69.)



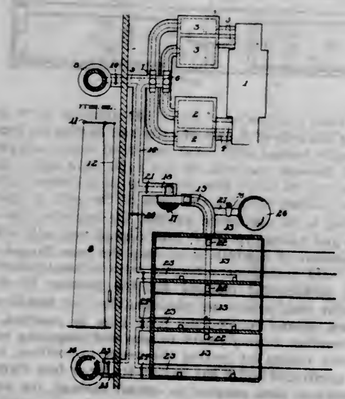
1. The combination, in a motor wheel, with a wheel rim, a cover plate, and bolts and nuts securing said plate to said rim, of a lock-ring adapted to fit into a space between the peripheral edge of said plate and adjacent portions of said rim, and clamping means on said bolts between said plate and nuts and arranged to bear on said plate and on the exposed edge of said ring.

2. The combination, in a motor wheel, with a wheel rim, a cover plate, bolts and nuts for securing said plate to said rim, a lock-ring wedge-shaped in cross-section and adapted to fit into a space between the outer edge of said plate and adjacent portions of said rim, and a plurality of clamps on said bolts between said plate and nuts, each of said clamps bearing at its outer terminal on the exposed wide edge of said ring and having at its opposite terminal a flanged part to bear on said plate.

3. The combination, in a motor wheel, with a rim having an interior projection, and front and back plates, said plates being adapted to embrace said rim projection, of bolts passing through said plates inside of said projection, wedging means for one of said plates, and clamping and fastening means for said bolts and wedging means.

4. The combination, in a motor wheel, with a rim having an interior projection, front and back plates, and an annular rack, said plates with said rack being adapted to embrace said rim projection, of bolts passing through said plates and rack inside of said projection, wedging means for one of said plates, and clamping and fastening means for said bolts and wedging means.

1,075,656. STEEL-FOUNDRY PLANT. CARL W. A. KOELKEBECK, Cleveland, Ohio. Filed July 29, 1907. Serial No. 386,103. (Cl. 34—46.)



In a steel plant, in combination with an open hearth furnace and drying ovens, a plurality of stacks, means of common communication with both stacks from the furnace, means to cut off one or both stacks from direct communication with the furnace, a flue connecting the furnace with the drying ovens, and having means of communication through said ovens with one of said stacks, an exhausting and forcing fan intermediate the furnace and ovens, and valve means to control the passage of the products of combustion through said flue, ovens and stacks or any of them, substantially as described.

1,075,657. DETECTION DEVICE FOR BOTTLES. MATHIAS KROMPIGEL and JOHN HRADISKY, Brier Hill, Pa. Filed Mar. 8, 1913. Serial No. 753,024. (Cl. 215—60.)

The combination with a bottle having a neck provided with an annular offset portion and an annular interior shoulder, of a tweezer-like shiftable member arranged in said bottle neck and having oppositely disposed extensions normally supported upon the shoulder of said neck and adapted when said member is shifted to engage under the breast or body of said bottle, and heads carried by the ends of said member and normally extending into the offset portion of said bottle neck and adapted when said member is shifted to engage said annular shoulder, and contact with each other said heads having flat confronting faces



and beveled edges, the beveled edges forming openings when said heads contact.

1,075,658. PUMP. MARK LANG, Taft, Cal. Filed Sept. 27, 1912. Serial No. 722,746. (Cl. 103—80.)



1. A pump, having a plunger receiving barrel, a liner sleeve mounted in the barrel, and having lock receiving apertures in its walls, two locking springs for the sleeve secured to the barrel and having projections upon their free ends for insertion through the apertures of the sleeve, a standing valve mounted in the lower end of and carried by the liner sleeve, a plunger mounted in the liner sleeve and capable of engaging the projections of the springs to release the springs and bodily carry the liner sleeve and standing valve therewith when lifted out of the barrel, and co-acting means carried by the plunger and the standing valve to insure the removal of the standing valve with the plunger.

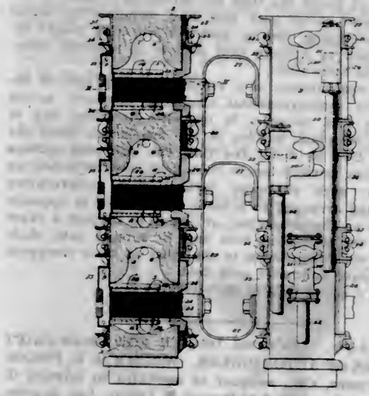
2. A pump, having a plunger receiving barrel, a liner sleeve mounted therein and having diametrically disposed slots near its upper end, a plurality of springs having their lower ends connected to the barrel, the upper free ends being provided with projections to extend through the slots to retain the liner sleeve seated within the barrel, a standing valve mounted in the lower end thereof and carried by the liner sleeve, a plunger mounted for reciprocation within the liner sleeve, a sucker rod for actuating the plunger, co-acting means carried by the plunger and the standing valve to retain the standing valve relatively to the plunger and to permit the proper reciprocatory movement of the plunger, said plunger being so constructed that when moved abnormally upward it engages and moves outwardly the projections of the springs to release the springs from the liner sleeve and permit the bodily removal of the liner sleeve and standing valve through the medium of the plunger and sucker rod.

1,075,659. SPINEL FIRE-BRICK. CHARLES ALFRED MANKAU, St. Petersburg, Russia. Filed July 5, 1910. Serial No. 570,399. (Cl. 106—9.)

1. A firebrick composed of refractory materials and a binding material therefor comprising a small percentage of spinel.

2. A firebrick composed of refractory materials and a binding material therefor comprising a small percentage of spinel, the proportion of spinel being from three to six per cent. of that of the refractory materials.

1,075,660. ELECTROLYTIC CELL. CLARENCE W. MARSH, Greenwich, Conn., assignor to Hooker Electrochemical Company, New York, N. Y., a Corporation of New York. Filed Apr. 18, 1913. Serial No. 762,045. (Cl. 204—58.)



1. In an electrolytic cell of the class described, a cell-body having therein a plurality of superposed chambers for electrolyte, each of said chambers provided with opposite lateral openings for receiving the electrodes.

2. In an electrolytic cell of the class described, a symmetrical cell-body having therein a plurality of superposed chambers for electrolyte, each of said chambers provided with opposite lateral openings for receiving the electrodes, all of said openings being of like form and area, whereby the several electrodes are mutually interchangeable.

3. In an electrolytic cell of the class described, a cell-body having a chamber for electrolyte provided with opposite lateral openings, a pervious cathode and diaphragm adapted to cover one of said openings and extending into said chamber at a plurality of points, and a composite anode structure adapted to cover the other of said openings, the individual anodes projecting into said chamber between the cathode extensions.

4. In an electrolytic cell of the class described, a symmetrical cell-body having a chamber for electrolyte provided with opposite lateral openings of like form and area, a perforated cathode and diaphragm adapted to cover one of said openings and extending into said chamber at a plurality of points, and a composite anode structure adapted to cover the other of said openings, the individual anodes projecting into said chamber between the cathode extensions, and said anode and cathode structures being mutually interchangeable.

5. In a cell of the class described, a cell-body having a plurality of superposed chambers for electrolyte, opposite lateral openings for each chamber, a pervious cathode and diaphragm adapted to cover one of the openings of each chamber and extending thereinto at a plurality of points, and a composite anode structure adapted to close the other opening of each said chamber, the individual anodes projecting into said chamber between the cathode extensions.

[Claim 6 not printed in the Gazette.]

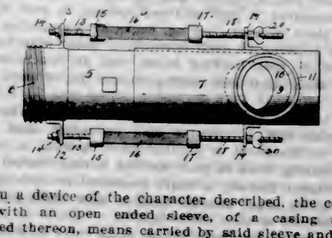
1,075,661. LEAD ALLOY. CHARLES P. MCCONNELL, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 27, 1912. Serial No. 717,274. (Cl. 75—1.)

1. An alloy composed of 93.25 to 96.75 per cent. lead, 3 to 6 per cent. antimony, and .25 to .75 of one per cent. tin.

2. An alloy composed of, approximately, 95 per cent. lead, 4.5 per cent. antimony, and .5 of one per cent. tin.

3. As an article of manufacture a thin metallic tape for winding electrical conductors composed of an alloy of approximately 95 per cent. lead, 4.5 per cent. antimony and .5 of one per cent. of tin.

1,075,662. AUTOMATIC CONTROLLING-VALVE. EDWARD K. MCKINLEY, Jefferson City, Mo., assignor of one-half to Lucien E. Pippenger, Jefferson City, Mo. Filed Apr. 3, 1913. Serial No. 758,697. (Cl. 50—14.)



1. In a device of the character described, the combination with an open ended sleeve, of a casing slidably mounted thereon, means carried by said sleeve and engaging a groove formed in said casing to prevent turning of said casing with relation to said sleeve, an outlet pipe leading from the port of said casing and an adjustable spring connection between said casing and said sleeve which resists sliding movement of said casing with relation to said sleeve.

2. In a device of the character described, the combination with an open ended sleeve, of a casing having a closed end slidably disposed upon said sleeve, there being registering ports formed in said casing and said sleeve, an outlet pipe leading from the said port of the casing, diametrically opposed brackets carried by the sleeve, diametrically opposed brackets carried by the casing, and adjustable spring means supported from said brackets which resist endwise movement of the casing with relation to the sleeve.

1,075,663. COMPOSITION OF MATTER. PERCY BRAUBACH MEERBOTT, Secaucus, N. J., assignor to John T. Stanley, New York, N. Y. Filed Oct. 21, 1912. Serial No. 726,891. (Cl. 8—2.)

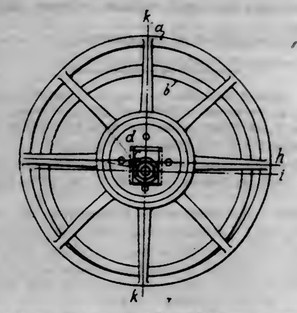
1. A bleaching compound, consisting of perborate of soda and boric acid.

2. A bleaching compound, consisting of perborate of soda and any mild, inorganic acid in solid form which is soluble in water, and which will not destroy fiber.

1,075,664. VEHICLE-WHEEL. AXEL HERMAN MILLER, Chicago, Ill. Filed Apr. 17, 1912. Serial No. 691,489. (Cl. 21—151.)

1. In a wheel, the combination with an inner member and a shaft to which it is fixed, of an outer member with an annular rim carrying the weight of said inner mem-

ber, a circular disk in the center of such outer member, and a bearing block for such shaft eccentrically arranged in such disk.



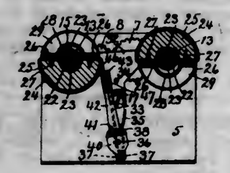
2. In a wheel, the combination of an outer member with an annular rim, a circular disk on which said outer member is mounted, a parallel-sided opening in such disk, a bearing block in such opening, a shaft journaled in such bearing block, and an inner member fixed to such shaft and resting on the rim of such outer member.

3. In a wheel, the combination of an outer member with an annular rim, a circular disk on which said outer member is journaled, a parallel-sided opening in such disk, a bearing block in such opening, engaging its parallel sides and free to slide in such opening, a shaft with its end journaled in such bearing block, and an inner member fixed to such shaft and resting on the rim of such outer member.

4. In a wheel, the combination of an outer member with an annular rim, a circular disk on which said outer member is journaled, a parallel-sided opening in such a disk, a bearing block in such opening having limited vertical movement therein, a shaft journaled in such bearing block, and an inner member fixed to such shaft and resting on the rim of such outer member.

5. In a wheel, the combination of an outer member with an annular rim, a circular disk on which said outer member is journaled, an anti-friction bearing between such parts, a parallel-sided opening in such disk, a bearing block in such opening, a shaft journaled in such bearing block, and an inner member fixed to such shaft and resting on the rim of such outer member.

1,075,665. STROPPER. CLARENCE M. MOORE, Mittineague, Mass. Filed Sept. 7, 1912. Serial No. 719,046. (Cl. 51—16.)



1. The combination, in a stropper, with a suitably mounted shaft, and means to revolve said shaft, of a stropping device mounted on said shaft to revolve therewith, and internal fixed and movable members, having diagonal abutting ends and the movable member being spring pressed toward the fixed member, to cause said device to reciprocate on said shaft.

2. The combination, in a stropper, with a suitably supported shaft, and means to revolve said shaft, of a fixed sleeve outside of said shaft, a second sleeve mounted on said shaft and arranged to revolve therewith and to reciprocate thereon, the ends of said sleeves being abutted and formed to produce a longitudinal movement on the part of said second sleeve as it revolves with said shaft, a stropping member, supporting means for said stropping member, such supporting means being rigidly attached at one end to said second sleeve and being loosely mounted at the other end on said first-mentioned sleeve, and a spring arranged to maintain the adjacent ends of the two sleeves in engagement.

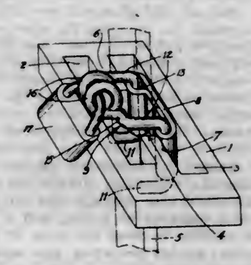
3. The combination, in a stropper, with a pair of suitably journaled non-reciprocating shafts, a train of gears arranged to drive said shafts in opposite directions, and revoluble and reciprocating stropping devices mounted on said shafts, of cams secured to said shafts, a suitably mounted rocker in the paths of said cams, a resilient member carried by such rocker and having parts which extend beyond or below the rocker, a suitably mounted oscillatory keeper, said keeper being engaged by said extending parts of said resilient member and operated thereby, and a blade holder adapted to be connected with said keeper.

4. The combination, in a stropper, of a pair of approximately semi-cylindrical stropping members, means to revolve such members in opposite directions and to cause the stropping surface of one member to leave the stropping field at about the time the stropping surface of the other member enters such field, and reciprocating means for such stropping devices, such reciprocating means being arranged to actuate said devices in opposite directions at the same time.

5. The combination, in a stropper, with a pair of approximately semi-cylindrical stropping members, means to revolve such members in opposite directions and to cause the stropping surface of one member to leave the stropping field at about the time the stropping surface of the other member enters such field, and reciprocating means for such stropping devices, such reciprocating means being arranged to actuate said devices in opposite directions at the same time, of means to support a razor blade in the stropping field and to actuate said blade from one stropping device to the other as their stropping surfaces leave and enter such field.

[Claim 6 not printed in the Gazette.]

1,075,666. LOCKING DEVICE FOR GEAR-SHIFT LEVERS OF AUTOMOBILES. WILLIAM H. E. PENDLETON, Venice, Cal., assignor of one-third to Edward G. Kuster and one-third to Russell B. Carter, Los Angeles, Cal. Filed May 31, 1912. Serial No. 700,903. (Cl. 74—39.)



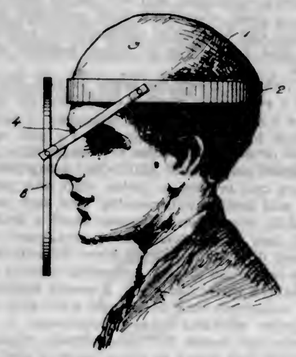
1. The combination, with the slotted member of an H-slot type of gear shift, its central bar and the gear shift lever thereof, of a locking device having a tie-plate adapted for edgewise insertion into one of the main slots of the slotted member, said plate being of greater length than the neutral slot, and means carried by said plate to embrace at the same time both the central bar and the gear shift lever, and a lock to lock said means to hold said lever in the neutral position.

2. The combination, with the slotted member of an H-slot type of gear shift, its central bar and the gear shift lever thereof, of a locking device having a tie plate adapted for edgewise insertion into one of the main slots of the slotted member, said plate being of greater length than the neutral slot, means carried by said plate to embrace at the same time both the central bar and the gear shift lever, and a lock to lock said means to hold said lever in the neutral position, said plate having a downward extension to guard against the same being tilted out of the neutral position.

3. The combination, with the slotted member of an H-slot type of gear shift, its central bar and the gear shift lever thereof, of a locking device adapted to embrace said lever to hold the same in the neutral position, said locking device comprising a link and arms pivoted to said link to engage opposite sides of said central bar of said slotted member to retain said locking device in the operative position, said arms each having a straight central portion that forms a pivot, said link being adapted for edgewise insertion into one of the slots of the gear shift to prevent lateral movement of the locking lever toward that side when the locking device is in the operative position.

4. The combination, with the slotted member of an H-slot type of gear shift, its central bar and the gear shift lever hereof, a tie plate, two locking members each having an intermediate portion swiveled to one end of said tie-plate, each of said members having a locking arm, and a lock to secure said locking arms together against opposite sides of said gear shift lever, each of said locking members having also an arm adapted to underlie the central bar of an H-slot type of gear shift when the locking device is in the locked position.

1,075,667. FACE-SHIELD. THOMAS J. POWERS, Steubenville, Ohio. Filed Jan. 18, 1913. Serial No. 742,914. (Cl. 2—149.)



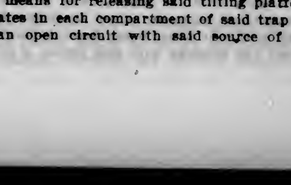
1. In a device for the purpose set forth comprising a supporting element, a pair of suspension elements, a shield, means for pivotally connecting said suspension elements respectively to the shield and supporting element, said suspension elements bent upon themselves to provide frictional grips engaging with said means for maintaining said suspension elements and shield in an adjusted position.

2. A device for the purpose set forth comprising a supporting element, a face shield, means for pivotally connecting said suspension elements to said supporting elements, and means for pivotally connecting said suspension elements to said shield, said suspension elements bent upon themselves to provide frictional gripping loops engaging the means for pivotally connecting said suspension elements to the shield whereby the latter is maintained in an adjusted position.

3. A device for the purpose set forth comprising a supporting element, suspension elements, means for pivotally connecting the suspension elements to the supporting element, said suspension elements having their lower ends bent upon themselves to provide loops, screws extending through said loops for pivotally connecting said loops to said shield, said loops provided with frictional gripping means engaging with the heads of the screws for maintaining the shield in the position to which it has been adjusted.

4. A device for the purpose set forth comprising a supporting element, suspension elements, means for pivotally connecting the suspension elements to the supporting element, said suspension elements having their lower ends bent upon themselves to provide loops, screws extending through said loops for pivotally connecting said loops to said shield, said loops provided with frictional gripping means engaging with the heads of the screws for maintaining the shield in the position to which it has been adjusted, said suspension elements having their upper ends provided with means engaging with the supporting element for maintaining the suspension elements adjustable at an angle with respect to the supporting element.

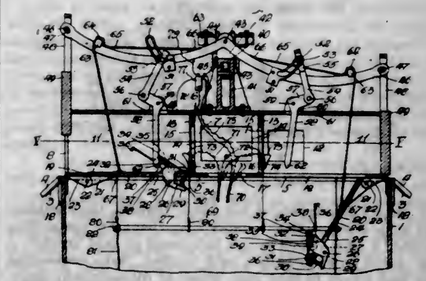
1,075,668. PLANTER. JOHN F. REEDER, Loraine, Tex. Filed Jan. 13, 1913. Serial No. 741,720. (Cl. 111—11.)



1. In an agricultural implement, the combination with a frame, a front plow and a shovel to the rear thereof, a bail terminating in arms and suitably supported, shovels carried by said arms, a bail on said arms, and a shovel carried thereby.

2. In an agricultural implement, the combination with a frame, a front plow and a shovel to the rear thereof, a bail terminating in arms and suitably supported, shovels carried by said arms, a bail on said arms, a shovel carried thereby, said bails being oppositely disposed, and means securing one of said bails to the plow standard.

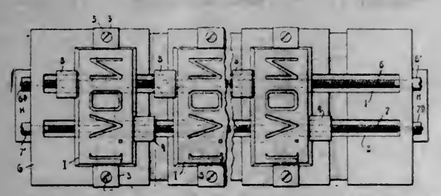
1,075,669. ELECTRIC RAT-TRAP. JOSEF REGECZI, Gary, Ind. Filed Mar. 22, 1912. Serial No. 685,599. (Cl. 43—34.)



1. In a rat trap, the combination with a suitable source of electrical energy, a tank containing water, and gang planks leading to the upper edges of said tank, of a trap structure supported by the upper edges of said tank and having branch compartments, rock levers pivotally mounted upon the top of said structure, doors carried by the ends of said rock levers and adapted to alternately close two branch compartments of said trap structure, a releasable tiltable platform arranged in each branch compartment of said trap structure and adapted to be lowered by the weight of a rodent to deposit the rodent into said tank, means for releasing said tilting platforms and contact plates in each compartment of said trap and normally in an open circuit with said source of electrical energy.

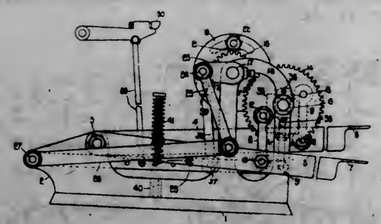
2. In a rat trap, the combination with a receptacle containing water, of a trap structure supported by the upper edges of said receptacle and having radiating branch compartments formed therein, rock levers pivotally mounted upon the top of said trap structure, doors carried by the ends of said rock levers and adapted to alternately close opposite branch compartments of said trap, releasable tiltable platforms arranged in the compartments of said trap, releasing means for said tiltable platforms, and connections between said tiltable platforms and said rock levers whereby said tiltable platforms when released will be lowered by the weight of a rodent simultaneously with the closing of said door and will precipitate the rodent into said tank.

1,075,670. ATTACHMENT FOR PRINTING-PRESSES. JAMES G. ROBERTSON, St. Louis, Mo. Filed Dec. 7, 1911. Serial No. 664,346. (Cl. 101—183.)



An attachment, comprising a shaft, carriers fixed to the shaft, bearers also fixed to the shaft, a segmental bed, mounted on the carriers, having longitudinal grooves and transverse inverted T-grooves, and provided with clamp members secured to the bearers, slidable plate holders in the longitudinal grooves, setting screws working in the plate holders, and end plate holders consisting of lower inverted T-sections, upper T-sections, and draw screws.

1,075,671. TRIPPING DEVICE FOR POWER-PRESSES. JAMES HENDERSON RODGERS and WILLIAM JOHN SPENCE, Hamilton, Ontario, Canada. Filed Apr. 6, 1912. Serial No. 689,090. (Cl. 74—81.)



1. In a tripping device for power presses, the combination with a supporting member comprising an upstanding bracket, a pair of foot levers fulcrumed to said bracket, a gear wheel journaled upon said bracket, links connecting said foot levers to said gear wheel at diametrically opposite points, a pinion mounted for rotation upon said bracket and meshing with said gear wheel, auxiliary levers, means connecting said pinion to said auxiliary levers and adapted to create operative connection therewith after each foot lever has been moved downward a certain distance, a press releasing member and means connecting one of said auxiliary levers to the press releasing member.

2. In a tripping device for power presses the combination of, a press releasing member, a supporting member furnished with an upstanding bracket, a pair of foot levers fulcrumed to said bracket and adapted for alternate depression, a gear wheel, a pinion, links connected to said foot levers and to said gear wheel at diametrically opposite points, said gear wheel being journaled in bearings on said bracket and meshing with said pinion, a loose disk on the pinion shaft, a disk rigidly secured on the pinion shaft and adapted for operative connection with said loose disk after said fixed disk has been moved a certain distance, by the depression of either foot lever, auxiliary levers and means connecting one of said auxiliary levers to the press releasing member.

3. In a tripping device for power presses, the combination with a supporting member, of a pair of foot levers fulcrumed thereon, and adapted for alternate depression, an oscillatory gear wheel, links connected to said gear wheel at diametrically opposite points, said links being also connected to said levers, a pinion with which said gear wheel meshes, a shaft upon which said pinion is mounted, a disk fast upon said shaft, a disk loose upon said shaft and having a lost motion connection with the first named disk, an auxiliary lever fulcrumed upon the supporting member, a press controlling element, means connecting the loose disk with the press controlling element and a crank and pitman connection between the pinion shaft and said auxiliary lever.

4. In a tripping device for power presses, the combination with a supporting member comprising an upstanding bracket, of a pair of foot-levers fulcrumed to said bracket and adapted for alternate depression; a pair of links, a gear wheel to which said links are connected at diametrically opposite points, said gear wheel being journaled in bearings on said bracket, a pinion shaft and pinion journaled on said bracket and meshing with said gear wheel, a disk rigidly secured on the pinion shaft, a disk loose on said shaft and having lost motion engagement with the first named disk, an auxiliary lever fulcrumed on said bracket, a crank and pitman connection between said auxiliary lever and the pinion shaft, a second auxiliary lever, a pitman connecting said last named lever with said loose disk, a press releasing element connected to the last named lever and means for automatically returning said auxiliary and foot levers to raised position after each depression.

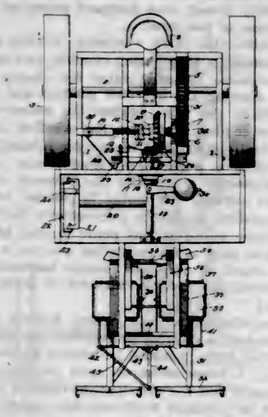
5. In a tripping device for power presses, the combination with a supporting member comprising an upstanding bracket, of a pair of foot levers fulcrumed to said bracket and adapted for alternate depression; a pair of links, a gear wheel to which said links are connected at diametrically opposite points, said gear wheel being journaled in bearings on said bracket, a pinion shaft and pinion journaled on said bracket and meshing with said gear wheel, a disk rigidly secured on the pinion shaft, a disk loose on said shaft and having lost motion engagement with the first named disk, an auxiliary lever fulcrumed on said bracket, a crank and pitman connection between said auxiliary lever and the pinion shaft, a second auxiliary lever, a pitman connecting said last named lever with said loose disk, a press releasing element connected to the last named lever and means for automatically returning said auxiliary and foot levers to raised position after each depression and an air brake for retarding the return of the foot levers on their upward stroke.

1,075,672. COTTON-CHOPPER. ALBERT F. ROOT, Red Fork, Okla. Filed Apr. 23, 1912. Serial No. 692,740. (Cl. 97—46.)

1. A cotton chopper comprising a wheel mounted frame, a blade mounted upon the frame for rotation about an axis, a weight connected with the blade and adapted to hold the same above the axis when inactive, means for operating the blade from the supporting wheels, and means for interrupting the operative connection between the blade and the wheels.

2. A cotton chopper comprising a wheel mounted frame, a blade mounted on the frame for rotation about an axis, means for holding the blade in an elevated position with relation to the axis when inactive, means for operating the blade from the supporting wheels, a brake and means for simultaneously applying the brake and interrupting the operative connection between the blade and the wheels.

3. A cotton chopper comprising a wheel mounted frame, a shaft journaled thereon and carrying a blade, a wheel journaled upon the frame and operatively connected with the supporting wheels and operatively connected with the shaft, a clutch member engageable with the wheel, lever mechanism operatively connected with the clutch member, and a brake adapted to operate upon the wheel and connected with said lever mechanism.



4. A cotton chopper comprising a wheel mounted frame, a shaft journaled thereon, a blade carried by said shaft, a clutch member movably mounted upon the frame and engageable with the wheel, means for rotating the clutch member from the supporting wheels, a spring acting upon the clutch member and normally holding the same toward the wheel, a lever fulcrumed upon the frame, and a brake pivoted upon the frame and engageable with the wheel and operatively connected with the lever.

1,075,673. JEWELRY. ALEXANDER SEGMAN, New York, N. Y. Filed Nov. 16, 1912. Serial No. 731,702. (Cl. 63—17.)



1. An article of jewelry comprising a ring, a plate normally set within a recess provided therefor in the inner surface of the ring, and revoluble means for adjusting the said plate to position to vary the effective size of the ring.

2. An article of jewelry comprising a ring, a plate normally set within a recess provided therefor in the inner surface of the ring, means for guiding said plate to maintain the same in alinement with the plane of the ring while being adjusted to position, and revoluble means for adjusting the said plate to position to vary the effective opening of the ring.

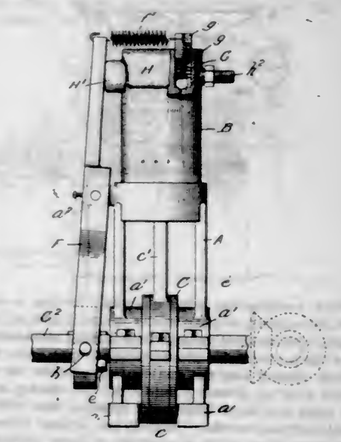
3. An article of jewelry comprising a ring, a plate normally set within a recess provided therefor in the inner surface of the ring, a setting, and revoluble means connected with the setting and operated thereby for adjusting the said plate to position to vary the effective opening of the ring.

4. An article of jewelry comprising a ring, a plate normally set within a recess provided therefor in the inner surface of the ring, revoluble means for adjusting the plate to position to vary the effective opening of the ring, and a pair of pins connected to the said plate and extending into apertures provided therefor in the body of the ring to maintain the said plate in position relatively to the ring while being adjusted to place.

5. An article of jewelry comprising a ring, a plate normally set within a recess provided therefor in the inner surface of the ring, a screw threaded shank swiveled at one end to the said plate, and a pair of pins connected to and projecting from the said plate and adapted to enter and slide within recesses provided therefor in the body of the ring to maintain the said plate in position relatively to the ring while being adjusted to place.

[Claim 6 not printed in the Gazette.]

1,075,674. AIR-PUMP. FRANK E. TEN EYCK, Boston, Mass. Filed Jan. 8, 1912. Serial No. 670,102. (Cl. 230—24.)



1. In a pump of the class described, the combination with the piston operating devices adapted to be loosely mounted on an actuating shaft, a clutch for connecting said shaft and the piston operating devices, a lever for operating said clutch, an air pressure piston connected with said pump for operating the said lever by the pressure within the pump cylinder and its connections.

2. In a pump of the class described, the combination with the piston actuating devices adapted to be loosely mounted upon an actuating shaft, a clutch for connecting and disconnecting said shaft and said piston actuating devices, a lever for operating said clutch, a spring connected to said lever normally holding the clutch in inoperative position and an air pressure piston connected with the pump cylinder to move the lever against the force of said spring.

3. In a pump of the class described, the combination with the cylinder and piston, of actuating means for said piston, comprising a hollow shaft or sleeve, an eccentric secured thereto, the said hollow shaft or sleeve being adapted to be loosely mounted on a shaft of an independent motor mechanism, a clutch member secured to said sleeve, a clutch member adapted to be mounted upon the actuating shaft to turn therewith but slide longitudinally thereof, a lever for moving said clutch member, and pressure means connected with the pump cylinder to move said lever.

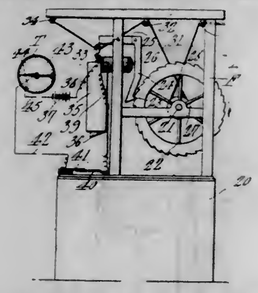
4. A pump of the class described for use in connection with an explosive engine, comprising a pump cylinder formed integrally with one of the cylinders of the engine, a piston in the pumping cylinder, piston actuating mechanism loosely engaging a straight portion of a shaft of the engine, a clutch for connecting the piston actuating mechanism to said shaft, a pressure cylinder and piston, and connections between the pressure piston and said clutch.

5. A pump of the class described comprising a pump cylinder and piston, piston actuating mechanism adapted to loosely engage an actuating shaft, a clutch for con-

necting said piston actuating mechanism with said shaft, including a movable clutch member, a collar connected therewith and provided with trunnions, a lever for actuating said clutch member provided with resilient arms having apertures therein to engage said trunnions, a pressure cylinder, a piston therein and connections between said piston and said lever.

[Claim 6 not printed in the Gazette.]

1,075,675. AUTOMATIC WATER CUT-OFF. SAMUEL O. THOMPSON, Maxton, N. C., assignor of forty one-hundredths to Rufus M. Williams, Maxton, N. C. Filed Nov. 4, 1912. Serial No. 729,541. (Cl. 137—35.)



1. The combination with a casing having a pressure fluid inlet conduit, a distributing conduit, and an overflow conduit; a valve stem mounted for sliding movement within the casing, a valve mounted upon said stem between the inlet conduit and the distributing conduit for controlling the flow of pressure fluid into the casing, a second valve upon the stem interposed between the distributing conduit and the overflow conduit, one of said valves being closed when the other is opened; a lever operably disposed above the upper end of the stem; and a pivoted trigger disposed in the path of the lever and normally engaging the same to hold the overflow conduit valve closed and the admitting valve open; of a thermostatically controlled means for releasing the trigger to permit the closure by pressure of the valve between the inlet conduit and the distributing conduit and the opening of the valve between the distributing conduit and the overflow conduit.

2. The combination with a casing having a pressure fluid inlet conduit, a distributing conduit, and an overflow conduit, a valve stem mounted for sliding movement within the casing, a valve mounted upon said stem between the inlet conduit and the distributing conduit for controlling the flow of pressure fluid into the casing; a second valve upon the stem interposed between the distributing conduit and the overflow conduit, one of said valves being closed when the other is opened; a lever operably disposed above the upper end of the stem; and a pivoted trigger disposed in the path of the lever and normally engaging the same to hold the overflow conduit valve closed and the admitting valve open; of a thermostatically controlled means for releasing the trigger to prevent the admitting valve to close and the overflow valve to open, including a source of electrical energy, a thermometer, an electromagnet, and a circuit including the source of electrical energy, the pointer of the thermometer and the electromagnet.

3. The combination with a casing having a pressure fluid inlet conduit, a distributing conduit, and an overflow conduit, a valve stem mounted for sliding movement within the casing, a valve mounted upon said stem between the inlet conduit and the distributing conduit for controlling the flow of pressure fluid into the casing; a second valve upon the stem interposed between the distributing conduit and the overflow conduit, one of said valves being closed when the other is opened; a lever operably disposed above the upper end of the stem; a pivoted trigger disposed in the path of the lever and normally engaging the same to hold the overflow conduit valve closed and the admitting valve open; of a thermostatically controlled means for releasing the trigger to permit the admitting valve to close and the overflow valve to open, a thermometer, an electromagnet, a circuit including the source of electrical energy, the pointer of the thermometer and the electromagnet, and a switch in said circuit normally closed, and disposed so as to be opened upon the release of the lever.

4. The combination with a casing, having a pressure fluid inlet conduit, a distributing conduit, and an overflow conduit, a pressure actuated valve for closing the inlet conduit and opening the overflow conduit and means for normally holding the valve against the pressure so as to open the inlet conduit and close the overflow conduit; of a thermostatically controlled means for releasing the last means, including a weight controlled motor, an electromagnet, an armature lock under the influence of the electromagnet for holding the motor in normal condition, a source of electrical energy, a thermometer having an indicating pointer, an adjustable point carried by the thermometer in the path of its indicating pointer, a circuit including the source of electrical energy, indicating pointer of the thermometer and the adjustable point, and the electromagnet.

5. The combination with a casing having a pressure fluid inlet conduit, a distributing conduit, and an overflow conduit, a valve stem mounted for sliding movement within the casing, a valve mounted upon said stem between the inlet conduit and the distributing conduit for controlling the flow of pressure fluid into the casing; a second valve upon the stem interposed between the distributing conduit and the overflow conduit, one of said valves being closed when the other is opened; and means for normally holding the stem with the first mentioned valve open and the second mentioned valve closed; of a thermostatically controlled means for releasing the last means including a weight controlled motor, an electromagnet, an armature lock under the influence of the electromagnet for holding the motor in normal condition, a source of electrical energy, a thermometer having an indicator pointer, an adjustable point carried by the thermometer in the path of its indicating pointer, and a circuit including the source of electrical energy, indicating pointer of the thermometer, the adjustable point, and the electromagnet.

[Claim 6 not printed in the Gazette.]

1,075,676. LAND-ROLLER. GEORGE TROMPETER, Clearwater, Kans. Original application filed Mar. 1, 1912, Serial No. 680,952. Divided and this application filed Sept. 3, 1912. Serial No. 718,357. (Cl. 55—77.)



1. The combination with a main frame, of a packing roller mounted thereon and consisting of a series of disks having beveled edges, the disks being in contact at their sides and the alternating disks being of different diameters.

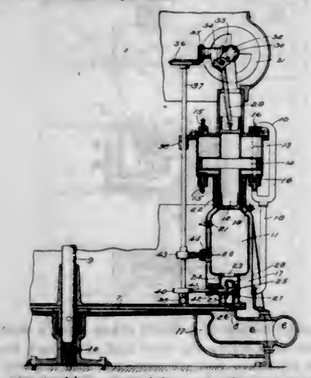
2. The combination with a main frame, of a packing roller mounted thereon and consisting of a series of disks having beveled edges, the alternating disks being of different diameters, and a plurality of scrapers secured to and depending from the frame and extending between the larger disks and having notched edges to engage the peripheries of the smaller disks.

1,075,677. GAS-TURBINE. NATHANIEL B. WALES, Boston, Mass. Filed Aug. 21, 1912. Serial No. 716,199. (Cl. 60—4.)

1. A gas turbine comprising a turbine and a plurality of impulse generators each of which is independently actuated by its explosion pressure.

2. A gas turbine comprising a turbine and a plurality of independent, self-actuated impulse generators.

3. A gas turbine comprising a turbine and a plurality of independent impulse generators in operative connection therewith; each of said generators comprising a combustion chamber and means for compressing the fluid supplied to said combustion chamber, said compressing means being operated by the pressure generated in said combustion chamber after each explosion.

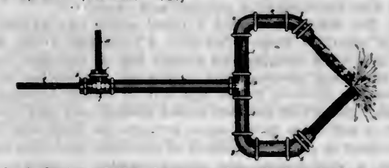


4. A gas turbine comprising a turbine and a plurality of independent, self-actuated impulse generators; each of said generators comprising a combustion chamber and means for delivering to said chamber fluid under pressure.

5. A gas turbine comprising a turbine in combination with a plurality of independent, self-actuated impulse generators; each of said generators comprising means for generating intermittent impulses by the explosion of a fluid under pressure.

[Claims 6 to 13 not printed in the Gazette.]

1,075,678. HYDROCARBON-BURNER. WILLIAM T. WALL, Houston, Tex. Filed Nov. 15, 1912. Serial No. 731,509. (Cl. 158—75.)



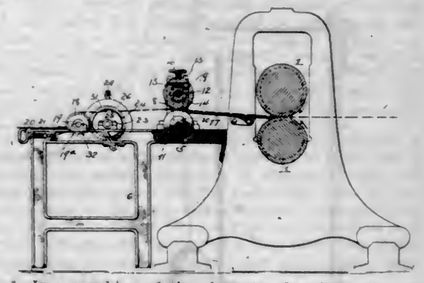
1. A device of the character described including a fluid pipe and a fuel pipe arranged concentrically within same, said pipes communicating at a common point with a common conducting pipe the discharge end of the fuel pipe projecting into the conducting pipe and being free, and a plurality of discharge nozzles carried by said common conducting pipe, said nozzles converging toward a common point and having a plurality of openings therein.

2. A device of the character described including a mixing chamber, a fluid conductor communicating therewith, a fuel conductor arranged concentrically with respect to said fluid conductor and within the same and being of approximately the same length, the inner end of said fuel conductor being free and projecting within said mixing chamber, a plurality of discharge nozzles carried by the mixing chamber and converging to a common point.

3. A device of the character described composed of a mixing chamber, a plurality of discharge nozzles carried by the mixing chamber and converging toward a common point, said nozzles having a plurality of openings therein a steam pipe communicating with said mixing chamber, a fuel pipe arranged concentrically within the steam pipe and having its inner end free, said free end projecting into the mixing chamber, and means securing the steam pipe and fuel pipe in a fixed position relative to each other.

4. A device of the character described, composed of a mixing chamber, a plurality of discharge outlets carried by the mixing chamber and converging to a common point, a discharge nozzle secured upon the free end of each outlet, each nozzle having a plurality of discharge openings, a steam pipe communicating with the mixing chamber, a fuel pipe arranged concentrically within the steam pipe and having its inner end free, said free end projecting into the mixing chamber, and a bushing in the steam pipe through which said fuel pipe extends and by means of which it is secured in place relative to the steam pipe.

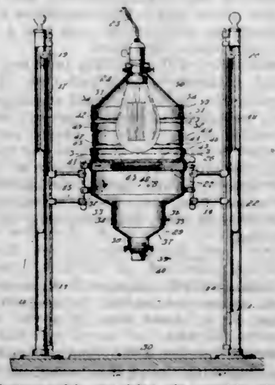
1,075,679. MACHINE FOR SLITTING AND WINDING SHEET METAL. HENRY J. WHITE, Morristown, N. J.; assignor to T. M. Duche & Sons, New York, N. Y. Filed July 16, 1912. Serial No. 709,744. Renewed Aug. 29, 1913. Serial No. 787,396. (Cl. 164—65.)



1. In a machine of the character described, the combination framework and rolls adjacent to one end thereof, of a winding mandrel mounted on said frame, a gear rotatable with said mandrel, a counter-shaft, a gear on said counter-shaft and meshing with the mandrel gear, a pulley loose on the counter-shaft, adjustable friction devices connecting said pulley with the counter-shaft, slitters mounted on the frame-work intermediate of the rolls and the winding mandrel, and an inclined guide extending from said rolls to the slitters.

2. In a machine of the character described, the combination with rolls and slitting means, of a winding mandrel, bearings for said mandrel, one of said bearings comprising a hinged journal box, a latch for normally holding said journal box in place, driving means for the mandrel, and means interposed in the driving means for controlling the speed of the mandrel.

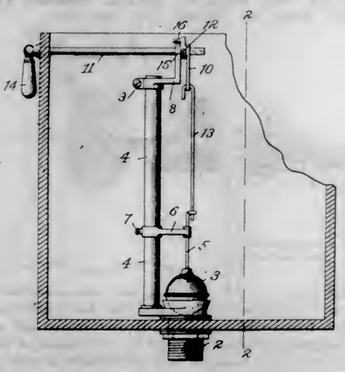
1,075,680. PHOTOGRAPHIC-PRINTING MACHINE. JOHN N. ANDERSON, Chicago, Ill. Filed Mar. 23, 1911. Serial No. 616,399. (Cl. 88—24.)



In a photographic machine, in combination, a table, standards rising from the table, a vertically adjustable

lantern carried by the standards and having a downwardly opening light emitting aperture, a lens carrier adapted to be removably applied to the aperture, and a plate holder seat located above the aperture and adapted to permit the unobstructed passage of light therethrough when unoccupied by a plate, whereby the machine may be interchangeably used for making enlargements or for contact printing.

1,075,681. VALVE-OPERATING APPARATUS FOR FLUSHING-TANKS. FRANK W. BAMFORD, Trenton, N. J., assignor to John Maddock & Sons, a Corporation of New Jersey. Filed Aug. 29, 1911. Serial No. 646,641. (Cl. 4—5.)



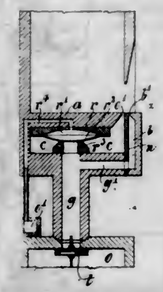
1. The combination with a flushing tank of rectangular cross section and the usual stand pipe and discharge valve in the bottom thereof, of a shaft extending lengthwise of the tank from the interior thereof and through the end wall thereof, a bearing for the inner end of said shaft on the stand pipe, connections from the inner end of the shaft to the discharge valve adapted to trip said valve on a partial rotation of the shaft in either direction, and a depending crank handle mounted on said shaft outside of the tank.

2. The combination with a flushing tank and the usual standpipe and discharge valve in said tank, of an adjustable bearing piece mounted on the upper end of said standpipe and provided with a perforation to form a journal bearing and shoulders forming stops on either side of such journal bearing, a crank connected to the valve and journaled in said bearing, and provided with a projection adapted to engage said shoulders, and means for oscillating said crank, said means comprising a shaft extending through the walls of the tank and a depending lever on the outer end of said shaft.

3. The combination with a flushing tank and the usual standpipe and discharge valve in said tank, of an angle piece mounted on the upper end of said standpipe and provided with a perforation to form a journal bearing and shoulders forming stops on either side of such journal bearing, a crank connected to the valve and journaled in said bearing, and provided with a projection adapted to engage said shoulders, and means for oscillating said crank, said means comprising a shaft extending through the walls of the tank and a depending lever on the outer end of said shaft.

1,075,682. ORGAN-PIPE. ROBERT Y. BARROWS, Rutherford, N. J., assignor of one-half to George H. Harman, Glen Ridge, N. J. Filed Nov. 30, 1912. Serial No. 734,283. (Cl. 84—22.)

1. The combination of a labial organ pipe, a wind-chest, a wind-inlet connecting the pipe and chest and branching after it leaves the chest into two air passages, and a valve to open and close one of the passages, said organ pipe having two slits of unequal lengths each of which is adapted to discharge a sheet of air to cause the pipe to speak, the valve-controlled passage communicating with the longer slit, and the other passage communicating with the shorter slit, whereby when the wind-inlet is opened to the wind-chest, the pipe speaks from one or both slits according as the valve is closed or open.



2. The combination of a labial organ pipe, a wind-chest, a wind-inlet connecting the pipe and cheat and branching within the pipe into two air passages, and a valve within the pipe to open and close one of the passages, said pipe having two slits each of which is adapted to discharge a sheet of air to cause the pipe to speak, one of the said passages communicating with one of the slits, and the other of said passages communicating with the other slit.

3. The combination of a labial organ pipe, a wind-chest, a wind-inlet connecting the pipe and chest, a valve within the pipe to close the delivery-end of the wind-inlet, said wind-inlet having a passage which leads therefrom at a point between the wind-chest and said valve, and said pipe having two slits each of which is adapted to discharge a sheet of air to cause the pipe to speak, one of said slits being in communication with the said delivery end of the wind-inlet and the other of said slits being in communication with the wind-inlet through said passage.

4. The combination with a labial organ pipe having a single mouth, a single wind-inlet, a block and a cap, the cap and block forming the normal slit of the pipe, and the cap being provided with a passage terminating in a second slit parallel to the first slit, of means forming a passage connecting the first named passage and said wind-inlet, a puff-valve in the space between the block and the wind-inlet to close the opening of the wind-inlet into said space, a wind-supply, and means forming a passage to operatively connect the valve with the wind-supply.

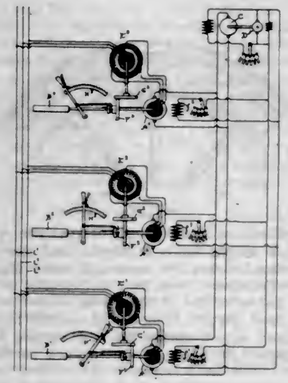
5. The combination with an organ pipe having a single mouth, and a slit adapted to deliver a sheet of air across said mouth, of a block forming one edge of the slit, and a single wind-inlet delivering into the space underneath the block, a pneumatic valve located within the space underneath the block and adapted to cut off communication between the wind-inlet and said space, and means to actuate said valve in order to open and close the same at will.

[Claim 6 not printed in the Gazette.]

1,075,683. ELECTRIC-MOTOR DRIVE. CHARLES C. BATCHELDER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 23, 1909. Serial No. 503,790. (Cl. 172—237.)

1. In combination, a plurality of motors, a set of alternating-current busses, frequency changers connected in circuit between said busses and said motors, and means for driving said frequency changers from said motors at slightly different relative speeds.

2. In combination, a plurality of direct-current motors adapted to be driven at slightly different speeds and having alternating current connections, a source of direct-current supplying said motors, a set of alternating-current busses, frequency changers connected between said busses and said motors, and means whereby said frequency changers may be driven at slightly different relative speeds.



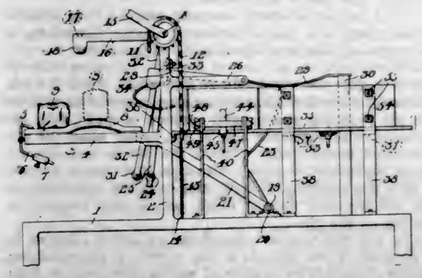
3. In combination, a plurality of direct-current motors adapted to be driven at slightly different speeds and having alternating-current connections, a source of direct-current supplying said motors, a set of alternating-current busses, frequency changers connected between said busses and said motors, and means for driving said frequency changers from said direct-current motors at slightly different relative speeds.

4. In combination, a plurality of motors, a set of alternating-current busses, frequency changers connected in circuit between said busses and said motors, and variable speed mechanisms for driving said frequency changers from said motors either in a forward of a backward direction.

5. In combination, a plurality of direct-current motors adapted to be driven at slightly different speeds and having alternating-current connections, a source of direct-current supplying said motors, a set of alternating-current busses, frequency changers connected between said busses and said motors, and means whereby said frequency changers may be driven either in a forward or a backward direction.

[Claim 6 not printed in the Gazette.]

1,075,684. WRAPPING-MACHINE. PHILIP J. BAUR, Pittsburgh, Pa. Filed Apr. 17, 1913. Serial No. 761,825. (Cl. 93—2.)



1. In a bread wrapping machine, a platform adapted to support a loaf of bread partially inclosed by a wrapper, side flap fingers adapted to fold side flaps of the wrapper and shift a partially wrapped loaf of bread, coöperating top and bottom flap fingers adapted to produce top and bottom flaps, and a heating apparatus adapted to receive a partially wrapped loaf of bread and complete wrapping and sealing the same.

2. In a bread wrapping machine, a platform adapted to support a loaf of bread partially inclosed by a wrapper, side flap fingers adapted to fold side flaps of the wrapper and shift a partially wrapped loaf of bread, coöperating top and bottom flap fingers adapted to produce top and bottom flaps, a heating apparatus adapted to receive a partially wrapped loaf of bread and complete wrapping and sealing the same, and means including a hand operated rock shaft for imparting movement to all of said fingers.

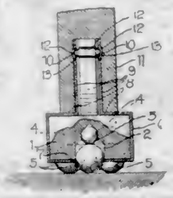
3. In a bread wrapping machine, a platform adapted to support a loaf of bread partially inclosed by a wrapper, side flap fingers adapted to fold side flaps of the wrapper and shift a partially wrapped loaf of bread, coöperating top and bottom flap fingers adapted to produce top and bottom flaps, a heating apparatus adapted to receive a partially wrapped loaf of bread and complete wrapping and sealing the same, means including a hand operated rock shaft for imparting movement to all of said fingers, and means including retractile springs for restoring said rock shaft and all of said fingers to a normal position.

4. In a bread wrapping machine, a table adapted to support a loaf of bread partially inclosed by a wrapper, a heating and sealing apparatus in alinement with said table, side flap fingers movable above said table for producing flaps at the ends of said wrapper, coöperating top and bottom flap fingers for producing top and bottom flaps in said wrapper, and means carried by said side flap fingers for shifting the wrapped article into said heating apparatus to produce a final flap.

5. In a bread wrapping machine, a table adapted to support a loaf of bread partially inclosed by a wrapper, a heating and sealing apparatus in alinement with said table, side flap fingers movable above said table for producing flaps at the ends of said wrapper, coöperating top and bottom flap fingers for producing top and bottom flaps in said wrapper, means carried by said side flap fingers for shifting the wrapped article into said heating apparatus to produce a final flap, and means including a hand operated rock shaft for imparting movement to all of said fingers.

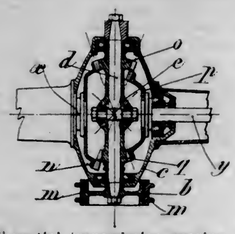
[Claims 6 to 8 not printed in the Gazette.]

1,075,685. BALL-CASTER. SILAS W. BENNETT, Somerville, Mass. Filed June 4, 1913. Serial No. 771,708. (Cl. 16—45.)



A ball caster comprising a body having sockets in the bottom face thereof, bearing balls mounted in said sockets to protrude beyond the lower face of said body, a shell applied to said body to entirely inclose the sides and body thereof, the bottom of said shell being provided with openings receiving the protruding portions of said balls therethrough, said openings being of smaller diameter than the diameter of said balls to retain the latter in position in said body, arms formed on the upper edge of said shell and bent across the upper face of said body to retain the shell in position thereon, and extensions formed on the last mentioned bent arms and projecting upwardly therefrom to provide means for securing the device to an object.

1,075,686. DIFFERENTIAL MECHANISM OF AUTOMOBILE VEHICLES. MICHEL BERTHIER, Lyon, France, assignor to La Société Nouvelle de la Buire Automobiles, Lyon, France. Filed May 28, 1912. Serial No. 700,172. (Cl. 74—34.)

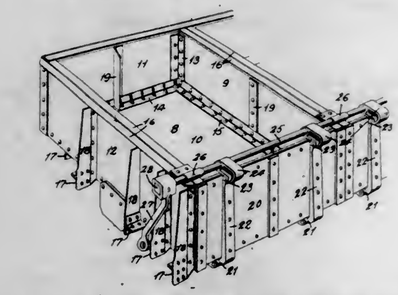


1. In a differential transmission gearing, the combination with a shaft, driving gears on said shaft, axle members on opposite sides of said shaft, driven gears on said axle members adapted to mesh with the aforesaid gears, a casing inclosing said gears, a brake drum on one end of said shaft outside the casing and means for applying frictional pressure to the periphery of said drum.

2. In a differential transmission gearing, a main shaft and gears thereon, a casing inclosing said gears, a brake device on said shaft outside said casing, and speed reducing gearing coacting with said shaft within the casing.

3. In a differential transmission gearing, the combination with a shaft, driving gears on said shaft, axle members on opposite sides of said shafts, driven gears on said axle members adapted to mesh with the aforesaid gears, a casing inclosing said gears, a brake drum on one end of said shaft outside the casing, means for applying frictional pressure to the periphery of said drum, and speed reducing gearing coacting with said shaft within the casing.

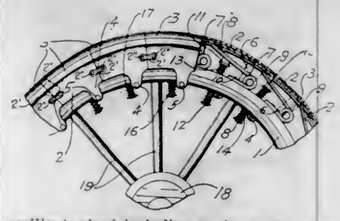
1,075,687. DUMP-CAR. DAVID E. BLAIR, Montreal, Quebec, Canada. Filed Sept. 8, 1909. Serial No. 516,875. (Cl. 105—191.)



A car body comprising a continuous fixed side, internal transverse girders supported at the approximate centers of their lower edges, a floor, and means connecting said side and said floor to said transverse girders, whereby said floor and side are supported from said girders.

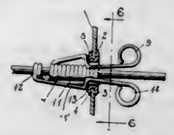
1,075,688. SPRING-WHEEL. HENRY BOARDMAN, Des Moines, Iowa. Filed Mar. 29, 1913. Serial No. 757,680. (Cl. 152—8.)

1. A resilient wheel including an inner rim, a sectional outer rim, a spring for each section and having an inclined portion between the inner and outer rims while the inner end of the spring is bent back upon itself and secured to the inner rim and the outer end of the spring is bent at an angle to the inclined portion thereof and secured to the outer rim section, the bent back portion of the spring being inwardly of the adjacent section of the outer rim, a rod adjustably secured to the inclined portion of each spring and extended through the inner rim, and equalizing springs mounted upon each rod and bearing against the inner and outer faces of the inner rim.



2. A resilient wheel including an inner rim, a sectional outer rim, a spring for each section and having an inclined portion between the inner and outer rims, the inner end of the spring being bent and secured to the inner rim while the outer end of the spring is bent at an angle to the inclined portion thereof and secured to the outer rim section, a second spring for each section having an inclined portion inwardly of the inclined portion of the first spring, the inner end of the second spring being bent at an angle and secured upon the inner end of the first spring while the outer end of the second spring is secured against the outer end of the first spring, connections between the springs of each section, a rod loosely connected to the inclined portion of each second spring and extended through the inner rim, and equalizing springs mounted upon each rod and bearing against the inner and outer faces of the inner rim.

1,075,689. HAT-PIN RETAINER. JOHN BOLAND, Culebra, Canal Zone. Filed Nov. 25, 1912. Serial No. 733,451. (Cl. 132—25.)



1. A hat pin retainer adapted to be inserted in an opening in the crown of a hat and comprising a pin receiving element adapted to pass through said opening in the hat, a stop at one end of said element to engage one side of the hat, a yielding stop member carried by said element and adapted to spring into engagement with the opposite side of the wall of the hat, whereby the retainer will be held in position and means carried by said element and coacting therewith to grip the pin inserted in it and thereby retain the pin in said element.

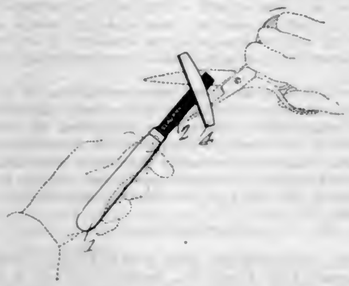
2. In a hat pin retainer, an eyelet adapted to be secured in the crown of a hat, a retaining member comprising a pin receiving element adapted to be engaged with the pin, a stop arranged at one end of said pin receiving element and to engage the outer side of said eyelet when the pin is inserted therethrough, yielding stop members carried by said pin receiving element and adapted to spring into engagement with the inner side of the eyelet when the pin is inserted therethrough whereby the pin is held against lateral movement in either direction, and means carried by said pin receiving element and co-acting therewith to grip the pin and thereby firmly secure said element in position on the pin.

3. A hat pin retainer comprising an eyelet adapted to be secured in one side of a hat crown, a pin retaining member formed from a piece of spring wire bent to form a pin receiving coil having at one end a laterally projecting stop loop adapted to be engaged with the outer side of said eyelet when the pin and coil are inserted therethrough, a spring arm formed on one end of the wire and having therein an offset shoulder to engage the inner side of the eyelet, a pin gripping member comprising coils formed in the other end of the wire and adapted to be sprung into alinement with the pin receiving coil and to receive and grip the pin when inserted through the latter thereby holding the retainer in its adjusted position on the pin, a spring arm bent from the wire after forming said gripping coils, said arm having an offset shoulder also adapted to engage the inner side of the eyelet, said eyelet engaging shoulders co-acting with said stop loop to hold the retaining member in engagement with the eyelet and the pin in position in the crown of the hat, and handles formed on the outwardly projecting extremities of the ends of the wire to retract said stop shoulders whereby the retaining member and pin may be disengaged from the eyelet in the hat.

4. A hat pin retainer comprising a pin receiving coil to enter an opening in the crown of a hat, means connected with said coil to engage the opposite sides of the wall of a hat crown to retain said coil in position, a pin gripping coil movable into and out of longitudinal alinement with the pin receiving coil, and a spring arm connecting said coils.

5. A hat pin retainer comprising a pin receiving element, a pin locking element adapted to receive the pin and to be moved into and out of longitudinal alinement with said pin receiving element, means connecting said elements for movement with respect to each other and holding them normally out of alinement, a stop carried by said pin receiving element, a removable catch carried by the pin receiving element and spaced from said stop whereby the latter and the catch are adapted to detachably fasten the device to a supporting structure.

1,075,690. SCISSORS-SHARPENER. THOMAS F. BUCK, Newark, N. J. Filed Apr. 26, 1913. Serial No. 763,870. (Cl. 51—7.)



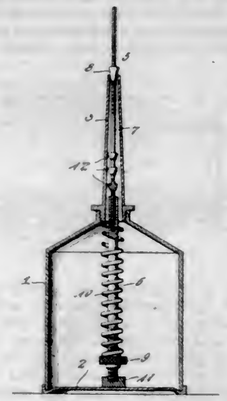
1. A scissors sharpener comprising a rod and a guide having a curved upper edge secured to the rod.

2. A scissors sharpener comprising a rod and a guide having a curved upper edge secured diagonally across the face of the rod.

3. A scissors sharpener comprising a rod and a guide having a curved upper edge adjustably secured to the rod, said guide being of greater width than the rod.

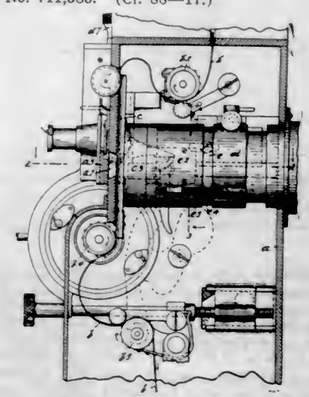
1,075,691. OIL-CAN ATTACHMENT. LOUIS H. BURCHETT, Cashion, Okla. Filed Mar. 21, 1912. Serial No. 685,255. (Cl. 221—43.)

An oil feeding attachment for cans comprising a sectional stem the sections of which are connected for longitudinal adjustment, one of said sections having screw threads near its outer end, said end beyond said threads being reduced and provided with smooth faces, an inverted cone shaped valve adjustably mounted on the threaded portion of said stem section, a nut mounted on the free end of the other section and adjustable thereon, and a coiled spring mounted on said last mentioned section and adapted to bear at one end on said nut by means of which



the tension thereof is varied, and a cushioning element secured to the terminal of said stem section.

1,075,692. KINETOSCOPE-PROJECTOR. FRANCIS B. CANNOCK, New York, N. Y. Filed July 25, 1912. Serial No. 711,383. (Cl. 88—17.)



1. In a projector provided with a light aperture and a strip of film passed thereover; a movable film-trap door, a movable lens mount, an element on said door and carried thereby, and a coacting element on said mount and carried thereby, said elements serving to prevent the film from entering between said door and mount.

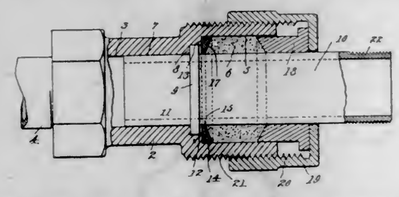
2. In a projector provided with a light aperture and a strip of film passed thereover; a movable film-trap door, a movable lens mount, a tube carried by said door, and a coacting tube carried by said mount, said tubes jointly preventing the film from passing between said door and mount.

3. In a projector provided with a light aperture and a strip of film passed thereover; a film-trap door, a lens, and a spring-actuated, telescopic, casing extending from said door to said lens and permitting the movement of each.

1,075,693. SWIVEL TUBE-COUPLING. HUGH CASSIDY, Brooklyn, N. Y. Filed Mar. 27, 1912. Serial No. 686,609. (Cl. 137—34.)

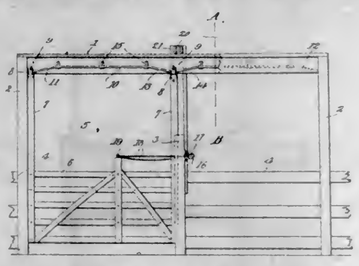
A swivel coupling having a body with an enlarged bore, said bore having a washer-seat at the bottom thereof, said

body having a reduced bore, and a counterbore forming a recess and a collar seat at the bottom thereof, a tubular nipple lying in said enlarged bore having a collar lying in said recess, said collar being wholly received within said recess, said nipple having a tubular neck received neatly in said reduced bore and preventing lateral movement of



said nipple in said enlarged bore, a packing in said enlarged bore, a rigid packing washer on said washer-seat projecting inwardly over said recess to retain said collar and relieving said collar of the thrust of the packing, a gland extending into said enlarged bore to compress the packing against said packing washer, and a coupling member for forcing said gland against said packing.

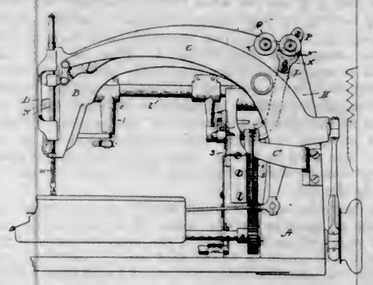
1,075,694. GATE-OPERATING MECHANISM. HENRY CONDELL and PAUL E. CONDELL, Troy, Idaho. Filed Sept. 30, 1912. Serial No. 723,254. (Cl. 39—30.)



The combination with a gate, of upstanding posts, an intermediate post, a housing connecting the upper end portions of the posts, a one-piece track extending longitudinally within the housing and having downwardly inclined end portions and downwardly converging intermediate portions, those portions of the track between the downwardly converging intermediate portion and the downwardly inclined end portions being horizontal, wheels connected to the gate and normally in engagement with one of the end inclined portions and one of the intermediate inclined portions whereby the gate is held in either open or closed position, and flexible means for imparting an initial impulse to the gate to move the wheels upwardly along the adjacent inclined portions and to impel them along the horizontal portions to the opposed inclined portion to either open or close the gate.

1,075,695. THREAD-CONTROLLING MECHANISM FOR SEWING-MACHINES. DANIEL W. COREY, St. Louis, Mo., assignor to Union Special Sewing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 3, 1904. Serial No. 211,030. (Cl. 112—4.)

1. In a sewing machine, the combination of a work support, a presser foot and stitch-forming mechanism, including a needle, means for vibrating said needle laterally to form cross stitching, means for suspending the lateral vibrations of said needle, whereby a line of stitching may be produced which is substantially in line with one of the rows of needle punctures in the cross stitching, and a slack thread-forming finger located entirely at one side of the path of the needle, when forming the straight line of stitching and between the extreme lateral positions of the needle when making the cross stitching, whereby the cross threads are laid over said thread finger.

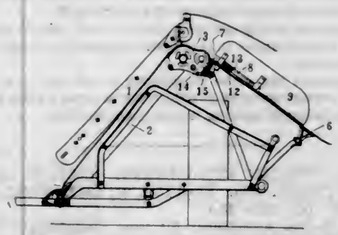


2. In a sewing machine, the combination of a work support, a presser foot, a slack thread forming finger, stitch forming mechanism including a needle, means for vibrating said needle, whereby a stitch is formed first on one side and then the other of said finger and zig-zag stitches produced, means for suspending the vibrations of said needle whereby the needle forms stitches on one side of said finger and straightaway stitching produced, a tension device, and means operating in connection with said tension device for decreasing the tension on the needle thread when forming the stitches on first one side and then the other of said finger.

3. In a sewing machine, the combination of a work support, a presser foot, a slack thread forming finger, stitch forming mechanism, including a needle, means for vibrating said needle whereby zigzag stitches are formed across said thread finger, means for suspending the vibrations of said needle, whereby a straight line of stitching is formed at one side of said stitch finger, a constant tension device and an auxiliary tension device, means operated by the means for causing the vibration of the needle for releasing the auxiliary tension when producing zigzag stitching.

4. In a sewing machine, the combination of stitch forming mechanism including a needle, means for vibrating the same laterally, devices for controlling the lateral movement of the needle, a tension device comprising tension disks, means for decreasing the tension including an arm, a fork adjustably carried thereby and adapted to enter between the disks of the tension, substantially as described.

1,075,696. HEADBOARD FOR HARVESTERS. GEORGE L. COTTER, Rock Island, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Feb. 9, 1912. Serial No. 676,561. (Cl. 56—36.)

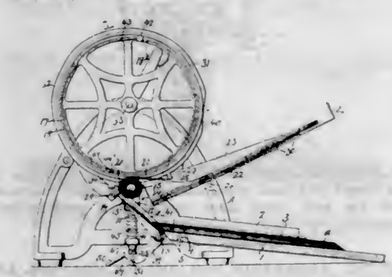


1. In a harvester-binder, the combination of an elevator, a binder-deck, a support pivotally secured on the elevator-frame and having a portion extending over the binder-deck and substantially parallel therewith, said portion having a tapering angular end, a casting secured to the headboard and movable on the support, and a casting

secured to the headboard and having an angular socket with which the angular end of the headboard support engages.

2. In a harvester-binder, the combination of an elevator, a binder-deck, a support pivotally secured on the elevator-frame and having a portion extending over the binder-deck, a headboard carried by said portion and adapted to swing over the binder-deck, a sector rigidly secured to the lower part of the support, a spring on the support and engaging with the sector, projections on the elevator-frame, and a projection on the sector to engage with either of the projections on the elevator-frame to limit the swing of the headboard.

1,075,697. APPARATUS FOR SEPARATING, FEEDING, AND DELIVERING SHEETS. EDWIN A. COX, Newark, N. J. Filed Jan. 25, 1911. Serial No. 604,604. (Cl. 101—36.)



1. In apparatus for separating, feeding and delivering sheets, two coacting rotary printing elements, separate supports one above the other at one and the same side of said elements toward which their meeting faces travel, an abutment against which the sheets are fed by hand from one of said supports, and oscillating means for pressing said sheets from the abutment against the opposite side of one of the rotary elements whereby they are successively fed upon the other support.

2. In combination with a rotary printing element and an underlying presser roll coacting therewith, supports one above the other at the front side of the rotary elements toward which their meeting faces travel, an abutment against which the sheets are fed by hand from the lower support, and oscillating means for pressing the sheets from said abutment against the rear side of the presser roll, whereby sheets are carried between and printed by the printing couple and returned printed side up upon the upper support.

3. In combination with coacting rotary elements disposed one above the other, separate sheet supports one above the other at the front side of said elements toward which their meeting faces travel, an inclined guide extending from the lower support toward the rear side of the lower rotary element across which the sheets are adapted to be initially advanced one by one by hand, and means controlled by one of the rotary elements for operating said guide to press the advance end of the sheet against the lower element, whereby said sheet is carried between said elements and returned upon the upper support.

4. In combination with a rotary printing couple, separate sheet supports one above the other at one and the same side of said elements toward which their meeting faces move, a movable guide extending from the lower support to a point in proximity to one of the elements of the printing couple and across which the sheets on the lower support are adapted to be advanced one by one by hand from the lower support between the guide and said coacting element, and means controlled by one of the elements of the printing couple for operating said guide to press the sheet against the adjacent rotary element whereby said sheet is carried between the elements of the printing couple and thereby delivered printed side up upon the upper support.

5. Apparatus for separating, feeding and delivering sheets comprising a printing drum and a feed roll, and actuating means therefor, a receiving tray at one side of the feed roll, an alining abutment at the opposite side of the feed roll against which the sheets are fed by hand one by one, a press plate separate from the drum for pressing the advance end of the sheet from said abutment and against the feed roll and means for oscillating said press plate.

[Claims 6 to 9 not printed in the Gazette.]

1,075,698. COMBINED FRAMING AND HANDLE FOR TOILET ARTICLES. ROBERT R. DEBACHER, Hoboken, N. J. Filed Oct. 26, 1911. Serial No. 656,911. (Cl. 45—98.)



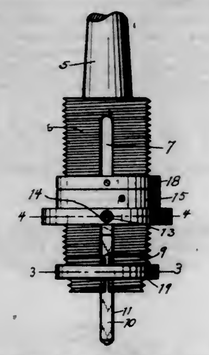
1. A combined removable framing handle for toilet articles consisting of a single piece of spring material formed to engage the edge of an article and having free ends whereby the said device may be spread open for receiving the article and then closed about the same, a bracing block located between the handle portions of the framing at the juncture of the body portion of the framing and handle, the said block being wedge shaped so that it will be forced inwardly as the combined framing and handle is closed, thus cramping the article in place, means for securing the block in its cramping position and independent means for securing the combined framing and handle in closed position.

2. A combined removable framing and handle for toilet articles consisting of a single piece of spring material formed to engage the edge of an article and having free ends whereby the said device may be spread open for receiving the article and closed about the article, a bracing block located between the handle portions of framing and the handle and movable toward and away from the article to be held, the said block being grooved to engage both the front and the back of the article and tapered so that the closing of the combined framing and handle will cramp it against the article and a single means for securing the block in its cramping position and for holding the combined framing and handle in its closed position.

1,075,699. DRILL-CHUCK. THOMAS DECHNIK, South Chicago, Ill. Filed Oct. 17, 1912. Serial No. 726,222. (Cl. 29—114.)

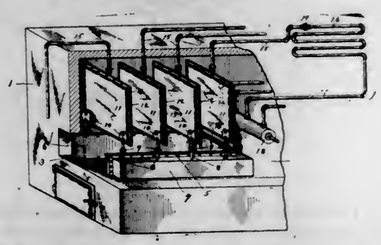
In combination, a shank having a longitudinal slot therein and tapering threads on its lower end; a drill in said slot, said drill being rectangular in cross section and of a thickness to snugly fit the sides of said slot; integrally

formed shoulders on said shank in the lower end of said slot engaging the edges of said drill; and a collar threaded



on the tapered threads of said shank removably securing said drill in said slot, substantially as described.

1,075,700. HOT-WATER HEATER. BENJAMIN G. DOLL, Lancaster, Pa. Filed Jan. 19, 1912. Serial No. 672,118. (Cl. 122—225.)

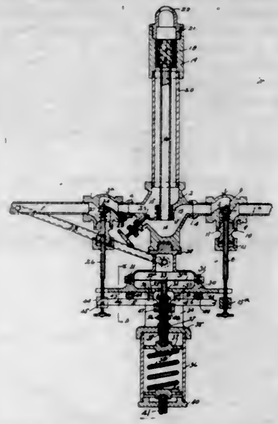


In a hot water heater of the class described, the combination with a furnace having a combustion chamber, of a main water heating compartment arranged in said furnace, said main water heating compartment being U shaped in cross-section and a multiple of water heating chambers mounted in said combustion chamber, above the fire and transversely to the main water heating compartment, each of said chambers independently connected to said water heating compartment.

1,075,701. FUEL-CONTROLLING DEVICE. LOUIS AUGUSTUS DRAGO, Seattle, Wash. Filed Oct. 14, 1912. Serial No. 725,639. (Cl. 236—6.)

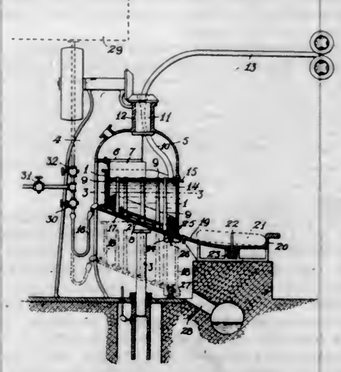
1. The combination with the steam and oil inlet valves and diaphragm of an oil burner, of a spring-pressed stem centrally connected to the diaphragm and adapted to vibrate therewith, an adjustable recessed collar upon said stem, levers connected with the said valves and adapted to hook over the annular edge formed by the said recess, racks fixed with respect to the frame of the burner, and pinions which coöperate with the said racks and form movable fulcrums for the said levers, whereby varying movements thereof are permitted as the diaphragm is vibrated, and safety locks adapted to limit the movement of said valves.

2. The combination with the steam and oil inlet valves and diaphragm of an oil burner, of a spring-pressed stem centrally connected to the diaphragm and adapted to vibrate therewith, an adjustable cupped collar upon said stem, levers connected with said valves and adapted to hook over the edge of the cupped portion of said collar, racks fixed with respect to the frame of the burner, pinions which coöperate with said racks and form movable fulcrums for said levers, whereby varying movements thereof are permitted as the diaphragm is vibrated, and



safety catches which are adapted to spring out over the said levers and lock them against retrograde movement when the said levers have completed a predetermined travel.

1,075,702. APPARATUS FOR COILING, COATING, AND COOLING WIRE RODS. VICTOR E. EDWARDS, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Original application filed Oct. 5, 1908, Serial No. 456,143. Divided and this application filed Dec. 1, 1909. Serial No. 530,845. (Cl. 29—81.)



1. The combination in an apparatus for coiling rods, of a framework, a plate depending from said framework, a coil supporting plate held by said depending plate, a water receptacle normally inclosing said coil supporting plate, and means for lowering said receptacle below the plane of said coil supporting plate.

2. The combination in an apparatus for coiling rods, of a stationary framework, a coil supporting plate held by said framework, a water receptacle inclosing said plate, means supported by said receptacle for centering the coil formed on said plate, and means for vertically reciprocating said receptacle to allow for the sidewise removal of the coil from said plate.

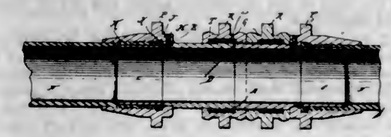
3. The combination in an apparatus for coiling rods, of a coil-supporting plate, a movable water receptacle inclosing said plate, means for supplying a current of water to said receptacle, and means for automatically discharging the water from the receptacle when the latter is removed from the coil-supporting plate.

4. The combination in an apparatus for coiling rods, of a coil supporting plate, a water receptacle inclosing said plate, means for supplying water to said receptacle, means for lowering said water receptacle below the plane of said plate, and means for automatically removing water from said receptacle by its downward movement.

5. The combination in an apparatus for coiling rods, of a stationary coil supporting plate, a water receptacle inclosing said plate, means for supplying a current of water to said receptacle, means for lowering said receptacle below the coil supporting plate, and a rotating laying tube having its delivery end inclosed in said water receptacle when the latter is in its raised position.

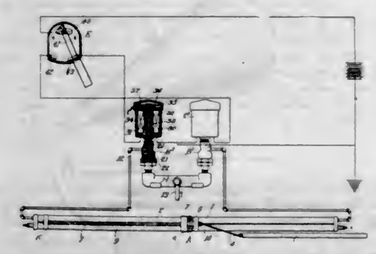
[Claims 6 to 14 not printed in the Gazette.]

1,075,703. COUPLING. WILLIAM S. EUBANK, Richmond, Va. Filed Apr. 10, 1913. Serial No. 760,120. (Cl. 137—28.)



In a coupling, the combination with the ends of a hose, clamping thimbles having interior corrugations, contiguous annular recesses and interior screw threads, packings in said recesses, coupling sleeves having reduced threaded portions engaging the threads of the thimbles and having shouldered portions formed with screw threads, fastening screws for securing the thimbles rigidly to said coupling sleeves, coupling collars having flanges to engage the shouldered portions of said coupling sleeves and having threaded portions to engage the threads upon the shouldered portions of said sleeves; and expansion rings bearing against the inner faces of the ends of the hose, covering the packings in the recesses of the thimbles and abutting against the coupling sleeves.

1,075,704. ELECTROMAGNETIC CONTROL OF PNEUMATIC DOOR-MOTORS. THOMAS FARMER, Jr., Albany, N. Y., assignor to Consolidated Car Heating Company, Albany, N. Y., a Corporation of West Virginia. Filed June 1, 1912. Serial No. 700,981. (Cl. 39—94.)



1. A double-acting fluid pressure door operating device comprising a motor, a source of fluid pressure having branches communicating with each end of the motor, a magnetic valve controlling each branch and provided with an exhaust, and an electric circuit including the valves and a controlling switch having separate contacts connected with the respective valves, and an independent contact connected with both valves whereby one valve may be open to exhaust and the other valve closed to exhaust but open to admit pressure to the motor, or the circuit opened to place both valves in position to exhaust.

2. A double acting fluid pressure door operating device comprising a motor, a source of pressure supply connected to each end of the motor, separate valves controlling the admission of pressure to the ends of the motor and provided with exhausts, and an electric circuit including the valves and a controlling switch having separate contacts connected with the respective valves, and an independent contact connected with both valves whereby one valve may be open to admit pressure to one end of the motor and the other valve open to exhaust, or both valves open to exhaust.

3. A double acting door motor comprising a fluid pressure motor, separate means controlling the admission of pressure to each end thereof and provided with pressure exhausts, and an electric circuit including said controlling means, and a switch having separate contacts connected with the respective valves, and an independent contact connected with both valves whereby the pressure may be independently admitted to either end of the motor, or the controlling means placed at the exhaust to prevent pressure being admitted to the motor.

4. In a double acting door operating device, the combination with a fluid pressure motor, a source of pressure supply for each end thereof, separate valves controlling the admission of pressure to the ends of the motor, and provided with exhausts, and an electric circuit including the valves and a controlling switch having separate contacts connected with the respective valves, and an independent contact connected with both valves whereby one valve may be open to admit pressure to the motor and the other valve open to exhaust, or both valves open to exhaust.

5. In a double acting door operating device, the combination with a fluid pressure motor, and a source of pressure supply for each end thereof, of a separate valve for controlling the admission of pressure to each end of the motor and for exhausting the pressure, and an electric circuit including the valves and a controlling switch having separate contacts connected with the respective valves, and an independent contact connected with both valves whereby one valve may be opened to admit pressure to the motor and the other opened to exhaust, or both valves opened to exhaust to permit manual operation of the doors.

1,075,705. STEAM-ENGINE MOUNTING FOR GEARED LOCOMOTIVES. LEWIS E. FREIGHTNER, Lima, Ohio, assignor to Lima Locomotive Corporation, Lima, Ohio, a Corporation of Ohio. Filed July 25, 1913. Serial No. 781,066. (Cl. 121—14.)

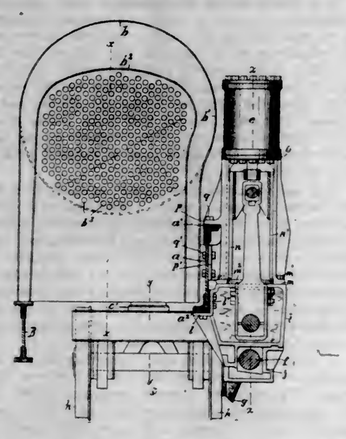
1. In a geared locomotive, the combination, with two side-frames and a longitudinal boiler supported removably thereon, of vertical engines projected upward by the side of the boiler and supported wholly upon one of the side-frames to permit the removal of the boiler from the frames without disturbing the engines.

2. In a geared locomotive, the combination, with two side-frames and a longitudinal boiler supported removably thereon, of a longitudinal crank-shaft having bearings at one side of the frames and vertical engine-cylinders attached to one of the side-frames above the crank-shaft and wholly clear from the boiler to permit the ready removal of the boiler from the frames.

3. In a geared locomotive, the combination, with two side-frames, trucks supporting the frames and having the truck-wheels supplied with gearing, and a locomotive boiler supported removably upon the frames, of a crank-shaft with bearings at one side of the frames, vertical engines projected upwardly at the side of the boiler firebox, and brackets attached to one of the side-frames and supporting the engines and crank-shaft thereupon.

4. In a geared locomotive, the combination, with two side-frames and a longitudinal boiler supported removably thereon, of a crank shaft, a bracket upon one of the

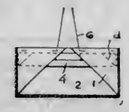
side-frames with bearings for the crank-shaft, a bracket attached solely to the said side-frame with steam-cylinder supported thereon, and crosshead guides connecting the steam-cylinder and the crank-shaft bracket.



5. In a geared locomotive, the combination, with a longitudinal boiler, of a main frame including a girder at one side of the boiler, a longitudinal crank-shaft with bracket having bearings therefor and attached to the lower edge of the said girder, steam-cylinders with brackets supporting the same upon the upper edge of said girder, and crosshead-guides connecting the said cylinders and crank-shaft bracket.

[Claims 6 to 9 not printed in the Gazette.]

1,075,706. COLLAPSIBLE BOX. ALEXANDER A. FORDON, Detroit, and GEORGE LEWELLYN MORRISON, Hudson, Mich. Filed Nov. 29, 1912. Serial No. 733,990. (Cl. 229—41.)



1. A collapsible box comprising a rectangular blank, having parallel scorings forming the bottom and the sides of the box and forming portions intervening between the sides that are scored obliquely and which form gussets that fold into the box, means for fastening the folded gussets to some of the sides, the said sides to which the gussets are folded having oblique scorings which allow the said sides to collapse and separate reinforcing strips reciprocable between the bottom of the collapsible sides and the top of the collapsible sides, the said reinforcing strips being slidable between the scored sides and the gussets that are fastened thereto, substantially as described.

2. A collapsible box comprising a bottom, sides, triangular gussets connecting two of the sides to the other two sides and folded in and fastened to such two other sides, the said sides to which the gussets are fastened being scored to allow them to collapse, separate reinforcing strips reciprocable between the collapsible sides and the adjacent gussets and a cord fastened to one reinforcing strip passing through a perforation in the collapsible side and over the box to the adjacent side where it passes through a perforation and is connected to the other reinforcing strip on the opposite side whereby the reinforcing strips when at the bottom of the sides do not interfere with the collapsing of the sides but when drawn up by the cord they prevent their collapsing, substantially as described.

1,075,707. PULVERIZING-MILL. WILLIAM C. FOX, San Francisco, JOSEPH P. BEM, Berkeley, and FRANCIS M. SPONOGLE, Oakland, Cal.; Lewis J. Fox administrator of said William C. Fox, deceased. Filed Oct. 8, 1912. Serial No. 724,572. (Cl. 83—9.)



1. In a pulverizing mill, the combination of an inclined drum, a series of rolls arranged to roll in contact with the inner surface of the drum, means connecting adjacent rolls to prevent their contact with each other, and a series of smaller rolls each arranged to roll in contact with two of the rolls of the first-named series, and out of contact with each other.

2. In a pulverizing mill, the combination of an inclined drum, a series of rolls arranged to roll in contact with the inner surface of the drum, means connecting adjacent rolls to prevent their contact with each other, a series of small rolls each arranged to roll in contact with two of the rolls of the first-named series, and of such relative size that they are out of contact with each other, and a series of still smaller rolls each arranged to roll in contact with two of the second-named series, and of such relative size that they are out of contact with each other.

3. In a pulverizing mill, the combination of an inclined drum, and a plurality of series of rolls arranged within said drum parallel with its axis, the rolls of the different series being of different diameters, links connecting and spacing apart the largest rolls, said largest rolls rolling in contact with the inner surface of the drum, small rolls rolling in contact with said inner surface and also in contact with the largest rolls, each of the series of next largest rolls rolling in contact with two of the largest rolls.

1,075,708. TALKING-MACHINE. REINHOLD FROMHOLZ, Borhagen, Germany. Filed Oct. 12, 1910. Serial No. 586,812. (Cl. 181—3.)



In a talking machine, a support, a sound arm thereon having lateral motion only, a flange on the outer end of said arm, a sound box provided with a neck eccentrically positioned thereon and adapted to be received directly by said arm, and a pin provided with a head on the back of said sound box, said head adapted to engage the edge of said flange to lock said box thereto and allowing rotation of said box on said arm.

1,075,709. MANUFACTURE AND USE OF FERROSO-FERRIC OXID. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany. Filed Mar. 4, 1911. Serial No. 612,200. (Cl. 75—17.)

1. In the manufacture of ferroso-ferric oxid, the process which comprises calcining mill scale in an oxidizing atmosphere.

2. In the manufacture of ferroso-ferric oxid, the process which comprises calcining mill scale in an oxidizing atmosphere and subjecting the product to a purifying operation to remove impurities.

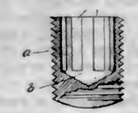
3. In the manufacture of ferroso-ferric oxid, the process which comprises calcining mill scale in an oxidizing atmosphere and subjecting the product to a purifying operation to remove impurities, said purifying operation comprising a magnetic separation.

4. In the manufacture of ferroso-ferric oxid, the process which comprises calcining mill scale by an oxidizing flame.

5. The process which comprises calcining mill scale in an oxidizing atmosphere, purifying the calcined product and admixing the product with a powdered reducing metal.

[Claims 6 to 8 not printed in the Gazette.]

1,075,710. SET-SCREW OR THE LIKE. DWIGHT S. GOODWIN, Waterbury, Conn., assignor to Oscar S. Fitzsimons, Waterbury, Conn. Filed Jan. 7, 1911. Serial No. 601,402. (Cl. 85—41.)



1. A rotating member having a socketed outer end provided with several recesses each of which has a concentric outer wall and inwardly converging end walls, the latter being arranged in planes that cross each other between each respective recess and the axis of the said member, whereby the said inwardly converging end walls have a tendency to contract the said socketed outer end when acted upon by suitable operating means.

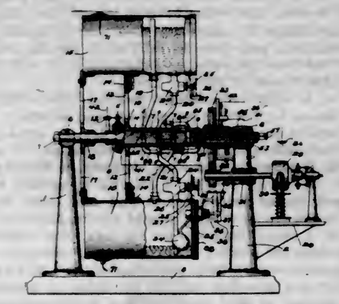
2. A set screw having a solid inner end and a socketed outer end and suitable for use with an operating member having a plug end adapted to fit the said socketed outer end, the said socketed outer end having several recesses with concentric outer walls and inwardly converging end walls arranged in planes that cross each other between each respective recess and the axis of the screw.

3. The herein described set screw having a general cylindrical body and a socketed outer end provided with recesses in the wall thereof, each of the said recesses having end walls inclined inwardly in planes passing between the said recess and the axis of the said screw, whereby the said inclined end walls have a tendency to contract the said socketed end when acted upon by suitable operating means.

1,075,711. SUCTION AND COMPRESSION APPARATUS. CHARLES D. HAEUSLER, Kressbronn, Bodensee, Germany. Filed Feb. 27, 1913. Serial No. 751,088. (Cl. 230—16.)

1. An apparatus of the character described, comprising two receptacles normally stationary with one receptacle positioned above the other, means for directing liquid from one receptacle into the other, and means controlled by the level of liquid in one receptacle for reversing the positions of the receptacles, substantially as described.

2. An apparatus of the character described, comprising two liquid receptacles, means for directing liquid from one receptacle into the other, and automatic means for reversing the flow of liquid, substantially as described.



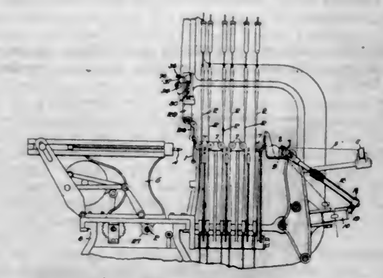
3. An apparatus of the character described, comprising a support, two receptacles secured to the support, automatic means for turning the support, a cock providing rotary mounting for said support, and said cock controlling the flow of liquid from one receptacle to the other, substantially as described.

4. An apparatus of the character described, comprising a support, two receptacles secured to the support, automatic means for turning the support, a cock providing rotary mounting for said support, pipes connecting the inner and outer portions of said receptacles with the cock, and means in certain of said pipes controlling the flow of fluid therethrough, substantially as described.

5. An apparatus of the character described, comprising a support, two receptacles secured to the support, a cock providing rotary mounting for said support, said cock controlling the flow of liquid from one receptacle to the other, and means automatically controlled for reversing the receptacles when the liquid in one receptacle reaches a pre-determined level, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,075,712. WARP-REPLENISHING MACHINE. EDGAR F. HATHAWAY and CHARLES LEA, Boston, Mass., assignors to American Warp Drawing Machine Company, a Corporation of Maine. Filed Oct. 30, 1911. Serial No. 657,629. (Cl. 139—94.)



1. In a warp replenishing machine, the combination with a needle of a needle carriage movable on said machine, warp holding means across which said needle carriage travels, said warp holding means including warp holding clamps, a separating shaft, and a separating device engaging said threads, said shaft moving with said needle carriage and subject to the tension of said threads, a bracing member for said shaft fixed relatively to the warp clamps, and means for automatically disengaging said brace member on the approach of said separating device.

2. In a warp replenishing machine, the combination with a needle of a needle carriage movable on said machine, warp holding means across which said needle carriage travels, said warp holding means including warp holding clamps, a separating shaft and a separating device engaging said threads, said shaft moving with said needle carriage and subject to the tension of said threads, and a brace member for said shaft.

3. In a warp replenishing machine, the combination with means for holding a series of loom elements in general parallel arrangement, selecting devices, driving members for said selecting devices, extending in general parallel relation to said loom elements, a thread-placing device, means for causing a relative movement between the said thread-placing device and said loom elements, and bracing means for one of said driving members.

4. In a warp replenishing machine, the combination with means for holding a series of loom elements in general parallel arrangement, selecting devices, driving members for said selecting devices, extending in general parallel relation to said loom elements, a thread-placing device, means for causing a relative movement between the said thread-placing device and said loom elements, means for bracing a driving member against deflection, and means for automatically disengaging said bracing means.

5. In a warp replenishing machine, the combination with a loom element selecting device, a driving shaft therefor, bracing means for said shaft, and means for automatically disengaging said bracing means.

[Claims 6 to 17 not printed in the Gazette.]

1,075,713. ELECTRODE. JOSEPH L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 1, 1912. Serial No. 694,514. (Cl. 176—134.)

1. An electrode containing carbon, an earth metal titano-fluorid and an alkaline titano-fluorid.

2. A carbon electrode containing from five to fifty per cent. of an earth metal titano-fluorid and less than fifteen per cent. of an alkaline titano-fluorid.

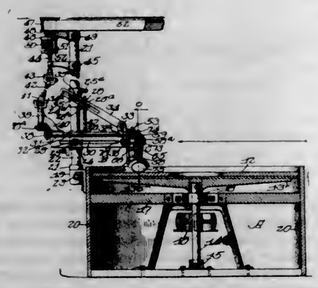
3. An electrode composed of from five to fifty per cent. of an earth metal titano-fluorid, less than fifteen per cent. of an alkaline titano-fluorid, and carbon.

4. An electrode containing substantially thirty per cent. of an earth metal titano-fluorid, one per cent. of an alkaline titano-fluorid, and carbon.

5. An electrode composed of an earth metal titano-fluorid, an alkaline titano-fluorid and carbon.

[Claims 6 to 8 not printed in the Gazette.]

1,075,714. GLASS-GRINDING MACHINE. AUGUST W. HORNIG, Chicago, Ill. Filed Dec. 11, 1912. Serial No. 736,054. (Cl. 51—11.)



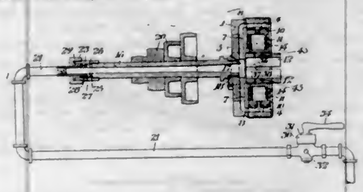
1. In a glass grinding machine, a rubbing bed and casing therefor, an upstanding post on said casing, an arm on said post reaching in over said rubbing bed, a shaft on said arm extending the length thereof and parallel thereto, a swiveling arm pivoted on the inner, free end of said shaft, and adjustably held at the free end of said first named arm, a shaft in said swiveling arm, bevel gears on both of said shafts meshing into each other, means for rotating said first named shaft, a chuck on the free end of the shaft in said swiveling arm, and means for establishing a partial vacuum between said chuck and a plane surface placed thereagainst.

2. In a glass grinding machine, a rubbing bed and casing therefor, an upstanding post on said casing, an arm on said post reaching in over said rubbing bed, a swiveling arm at the free end of said first named arm and maintained in adjustable relationship thereagainst, a shaft mounted longitudinally of said swiveling arm, there being an interior longitudinal channel within said shaft for a portion of its length and radial openings therefrom to the exterior of said shaft, a hollow sleeve having stuffing boxes at both ends encircling said shaft, there being a chamber within said sleeve registering with said openings, a pipe communicating with said chamber, a stop cock on said pipe, a chuck at the lower end of said shaft, and means for rotating said shaft.

3. In a glass grinding machine, a rubbing bed and casing therefor, an upstanding post on said casing, an arm on said post reaching in over said rubbing bed, means on said post adapted for vertical adjustment of said arm, a shaft on said arm extending the length thereof and parallel thereto, a swiveling arm pivoted on the inner, free end of said shaft, and adjustably held at the free end of said first named arm, a shaft in said swiveling arm, bevel gears on both of said shafts meshing into each other, means for rotating said first named shaft, a chuck on the free end of the shaft in said swiveling arm, and means for establishing a partial vacuum between said chuck and a plane surface placed thereagainst.

4. In a glass grinding machine, a rubbing bed and casing therefor, an upstanding post on said casing, a sleeve on said post, means for vertically adjusting said sleeve, a longitudinally slotted arm held in adjustable contact with said sleeve, said arm reaching in over said rubbing bed, means for adjustably bracing the free end of said arm against said adjusting means, a shaft on said arm extending the length thereof and parallel thereto, a swiveling arm pivoted on the inner, free end of said shaft, and adjustably held at the free end of said first named arm, a shaft in said swiveling arm, bevel gears on both of said shafts meshing into each other, means for rotating said first named shaft, a chuck on the free end of the shaft in said swiveling arm, and means for establishing a partial vacuum between said chuck and a plane surface placed thereagainst.

1,075,715. FLUID-ACTUATED LATHE-CHUCK. HARLAN M. LUDWICK, Parkesburg, Pa. Filed May 1, 1913. Serial No. 764,930. (Cl. 29—107.)

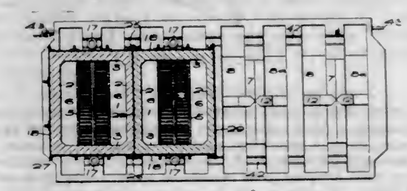


1. In a lathe chuck, the combination with a casing having a central recess and two diametrically opposed cylindrical piston chambers having a common axis extending transversely with respect to the axis of rotation of said chuck, an axial port at the rear of said casing, and passageways leading from said port to said chambers; of pistons respectively mounted to reciprocate in said chambers; piston rods respectively connected with said pistons and extending radially with respect to said casing; jaws respectively secured at the ends of said piston rods in opposition to each other; springs tending to separate said jaws when released; a hollow shaft connected with said casing; means on said shaft whereby it may be rotated; a stationary fluid pressure conduit in axial alinement with said shaft; a hermetical coupling for said shaft and said conduit permitting relative rotation thereof; and valve means controlling said conduit.

2. The combination with a chuck casing having a plurality of cylindrical piston chambers, extending transversely with respect to the axis of rotation of said chuck, and a gage opening; of pistons respectively mounted to reciprocate in said chambers; jaws respectively operatively connected with said pistons; a variable gaging means including a stop head extending between said jaws, having means engaging said gage opening; and means for supplying and exhausting compressed fluid with respect to said chambers.

3. The combination with a chuck casing having a plurality of piston chambers, extending transversely with respect to the axis of rotation of said chuck; of pistons respectively mounted to reciprocate in said chambers; jaws respectively operatively connected with said pistons; and means for supplying and exhausting compressed fluid with respect to said chambers.

1,075,716. GAS-PRODUCER. JAMES K. LYONS, Pittsburgh, and JAMES B. HARDIE, Crafton, Pa. Filed Jan. 2, 1909. Serial No. 470,486. (Cl. 48—69.)



1. A gas generator comprising a chamber, a longitudinal ridge-form grate therein, a water seal chamber underneath the grate with its longitudinal axis parallel to the longitudinal axis of the grate, a wall located underneath the grate parallel thereto and dividing the water seal basin, a cross wall dividing said water seal basin, and grate bearers supported on said cross wall.

2. A gas generator comprising a chamber, a longitudinal ridge-form grate therein, a water seal basin underneath the grate and arranged with its longitudinal axis parallel to the longitudinal axis of the grate and extending beyond the end walls of the chamber, a wall underneath the grate parallel thereto and dividing the water seal basin, wall supports extending across said water seal basin, and grate bearers supported by said wall supports.

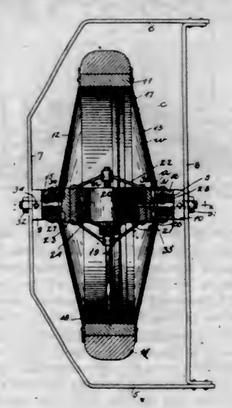
3. A gas generator comprising a chamber, a longitudinal grate extending from end to end of said chamber and being of ridge-form, a water seal basin underneath said grate arranged with its longitudinal axis parallel thereto, a ridge wall underneath the grate and parallel thereto and dividing the water chamber longitudinally, a cross wall dividing said water seal basin, and grate bearers supported on said cross wall and leaving open spaces between themselves and the longitudinal wall.

4. The combination of a series of gas generators arranged in battery each provided with a grate extending across the same and with free spaces at the sides of the grate and having a water seal basin below the grate, the ends of said water seal basins extending beyond the end walls of the chambers, a wall located underneath each grate and parallel thereto and dividing the water seal basin, and blowers entering the chambers underneath the grates and at the ends thereof, the longitudinal axes of said grates and water seal basins being parallel and substantially at right angles to a line connecting the centers of the generators.

5. The combination of a series of gas generators arranged in battery and each provided with a grate extending across the same with a free space at each side of the grate and a water seal basin below the grate and extending beyond the end walls of the chamber, a wall located underneath each grate and parallel thereto and dividing the water seal basin, the longitudinal axes of the grate and water seal basins being parallel and substantially at right angles to the line connecting the centers of the generators, and a wall dividing each water seal basin and extending substantially at right angles to the axes of the grates.

[Claims 6 and 7 not printed in the Gazette.]

1,075,717. WHEEL STRUCTURE. RODERICK MACRAE, Chicago, Ill. Filed Feb. 26, 1912. Serial No. 680,096. (Cl. 172—287.)



1. In a power driven vehicle, the combination with the wheel structure having bearing hubs, a structure within said wheel structure forming a seat and having axle stubs extending therefrom into said hubs, and a motor adjustably and detachably mounted on said seat and having driving connection with the wheel structure.

2. In a power driven wheel, the combination with the wheel structure having bearing hubs, of an axle structure having a body part within said wheel and having axle ends extending outwardly through said hubs to form bearings for said wheel structure, said axle ends being adapted for rigid connection with a vehicle body, an electric motor within said wheel having its field frame adjustably and detachably seated on the axle structure body part and supported thereby, and driving connection between the motor and the wheel structure.

3. In a power driven vehicle wheel, the combination with the wheel structure having bearing hubs, of an axle structure having an annular body part within the wheel forming a supporting inclosure and having axle ends extending outwardly through said bearing hubs and adapted for rigid connection with a vehicle body, and a driving motor detachably secured within said annular supporting inclosure and having driving connection with said wheel structure.

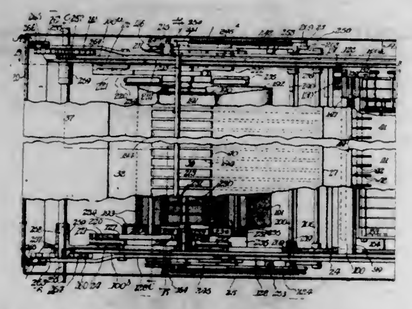
4. In a power driven vehicle wheel, the combination with the wheel structure having bearing hubs, of an axle structure expanded within the wheel structure to form an annular supporting band and having ends extending through said hubs to form bearing surfaces therefor and a motor detachably and adjustably supported within said band and having driving connection with the wheel structure.

5. In a power driven vehicle wheel, the combination with the wheel structure having bearing hubs, of an axle structure having a part within the wheel deflected to form a seating pocket and having its ends extending through said hubs to provide bearing surfaces therefor, a motor seated on said deflected axle part within the wheel struc-

ture, and a member engaging with said motor structure and secured to the axle structure for clamping said motor in place on the axle structure.

[Claim 6 not printed in the Gazette.]

1,075,718. VOTING-MACHINE. JOHN HOWARD MCELROY, Chicago, Ill. Filed Oct. 17, 1910. Serial No. 587,360. (Cl. 235—54.)



1. In a device of the class described, an interlocking element consisting of a metal disk and stem, the stem provided with means for engaging an interlocking strap, and the disk having a bearing aperture at its center, an outer cam ring, and intermediate semi-annular recesses.

2. In a device of the class described, the combination with a rod, of a plurality of interlocking elements strung thereon and each consisting of a metal disk and stem, the stem provided with means for engaging an interlocking strap, and a disk having a bearing aperture at its center through which the rod passes, an outer cam ring, and intermediate semi-annular recesses, said stems being alternated, and resetting rods in the semi-annular recesses, substantially as described.

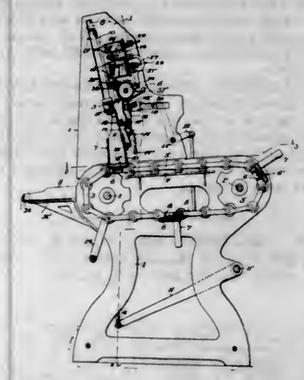
3. In a device of the class described, the combination with a rod, of a series of interlocking elements strung thereon, each consisting of a metal disk and stem, the stem provided with means for engaging an interlocking strap, and the disk having a bearing aperture at its center on the rod, an outer cam ring, and intermediate semi-annular recesses, abutment members having stems at right angles to the stems on the interlocking elements, channels for the abutment-member stems, and engaging members for said abutment-member stems.

4. In a device of the class described, the combination with a vertical rod, of plural series of interlocking elements strung thereon, each consisting of a metal disk and stem, the stem provided with means for engaging an interlocking strap, the alternate stems being pointed in opposite directions, and the disk having a bearing aperture at its center through which the rod passes, an outer cam ring, and intermediate semi-annular recesses abutment members interposed between said series and similar to the interlocking elements but having the stems at right angles to those of said interlocking elements, channels for the abutment-member stems, and engaging members coöperating with said channels and abutment-member stems to form single and multi-candidate groups.

5. In a device of the class described, the combination with a vertical rod, of plural series of interlocking elements strung thereon, each consisting of a metal disk and stem, the stem provided with means for engaging an interlocking strap, the alternate stems being pointed in opposite directions, and the disk having a bearing aperture at its center through which the rod passes, an outer cam ring, and intermediate semi-annular recesses, abutment members interposed between said series and similar to the interlocking elements but having the stems at right angles to those of said interlocking elements, channels for the abutment-member stems, engaging members coöperating with said channels and abutment-member stems to form single and multi-candidate groups, resetting rods passing through the semi-annular recesses, and means for swinging said resetting rods about the central rod as a center to reset the interlocking elements.

[Claims 6 to 40 not printed in the Gazette.]

1,075,719. VESSEL-LABELING MACHINE. GEORGE L. MEYER, Milwaukee, Wis. Filed Nov. 18, 1912. Serial No. 732,121. (Cl. 216—13.)



1. A labeling machine comprising a continuously driven endless conveyer having rows of individual vessel-holders thereon, a fixed vessel-holder tray having a row of apertures through which the holders are adapted to travel, a cam-actuated cross-head disposed above the conveyer having teeth adapted to be raised and lowered relative to said holders, whereby the aforesaid vessel holders are caused to travel through the teeth interstices when the latter are lowered, cam-actuated correlated gluing means and label-carrying means arranged to engage the cross-head, teeth when the latter are lifted, whereby labels are caused to adhere to the aforesaid teeth transversely of their interstices, a label-affixer, cam-actuated means in connection therewith for causing an initial longitudinal movement of the label-affixer in advance of the forward travel of the holders and co-incident to the labels being freed from engagement with the holders, and means in connection with the label-affixer for shifting the same transversely at the end of its forward movement, whereby clearance of the vessel-holders is effected.

2. A labeling machine comprising a driven endless lagged conveyer, rows of individual vessel-holders secured to the lags, a fixed vessel-holding tray having a row of apertures through which the vessel-holders are adapted to travel, a pair of vertically disposed runways above one stretch of the conveyer, a cam-actuated cross-head mounted in the runways, teeth depending from the cross-head, a fixed glue-pot having a roller mounted therein arranged in juxtaposition to the line of travel of the cross-head, a label-carrying frame disposed above the glue-pot, a glue-distributing roller in operative connection with the label-carrying frame, an actuating cam for the label-carrying frame and glue-distributing roller, a yoke-bar, label-affixing means carried by the yoke-bar, cam-controlled means for reciprocating the yoke-bar along the line of travel of the vessel-holders, means for imparting a transverse movement to the yoke-bar, and fixed wiper-wings having ends extending into line of travel of the aforesaid vessel-holders.

3. A labeling machine comprising a continuously driven endless conveyer having rows of individual vessel-holders thereon, a fixed vessel-holder tray having a row of apertures through which the holders are adapted to travel, a cam-actuated cross-head disposed above the conveyer having teeth adapted to be raised and lowered relative to said holders, whereby the aforesaid vessel holders are caused

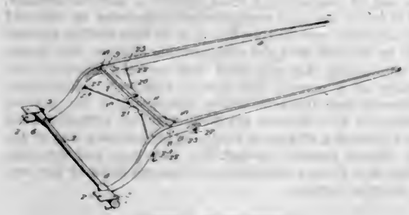
to travel through the teeth interstices when the latter are lowered, cam-actuated correlated gluing means and label-carrying means arranged to engage the cross-head teeth when the latter are lifted, whereby labels are caused to adhere to the aforesaid teeth transversely of their interstices, a longitudinally movable label-affixer normally disposed in the path of travel of the holders, and means in connection with the label-affixer for shifting the same transversely of the path of travel of said holders, whereby clearance of the aforesaid vessel-holders is effected after a label-affixing operation.

4. A labeling machine comprising a driven endless conveyer, rows of individual vessel-holders secured to the conveyer, a fixed vessel-holding tray having a row of apertures through which the vessel-holders are adapted to travel, a pair of vertically disposed runways above one stretch of the conveyer, a reciprocative cross-head mounted in the runways, teeth depending from the cross-head, a fixed glue-pot having a roller mounted therein arranged in juxtaposition to the line of travel of the cross-head, a label-carrying frame disposed above the glue-pot, a glue-distributing roller in operative connection with the label-carrying frame, actuating means for the label-carrying frame and glue-distributing roller, a yoke-bar, label-affixing means carried by the yoke-bar, actuating means for reciprocating the yoke-bar along the line of travel of the vessel-holders, means for imparting a shift movement to the yoke-bar, whereby the same is cleared from the path of travel of said vessel-holders, and wiper-wings having ends extending into the line of travel of the aforesaid vessel-holders.

1,075,720. MANUFACTURE OF ALIMENTARY PRODUCTS. PHILIPP MÜLLER, Vilbel, Germany, assignor to Heinrich Finkelstein and Ludwig F. Meyer, Berlin, Germany. Filed Jan. 20, 1912. Serial No. 672,472. (Cl. 99—11.)

The herein described process of manufacturing a milk food low in salts and sugar but with a normal fat and casein content especially adapted as a food for infants, consisting in precipitating the curd mass from a given quantity of skim milk, adding fat to this precipitated curd mass and mixing the curd mass and the fat with milk from which the fat has been removed and water, the volume of each of these added ingredients being substantially equal to one half of the volume of the skim milk from which the curd mass is precipitated, substantially as and for the purpose described.

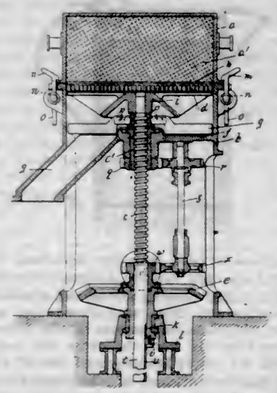
1,075,721. COMBINED CONVERTIBLE VEHICLE POLE AND SHAFTS. DAVID B. PATE and JACK LION SPEARS, Hornbeck, La. Filed Sept. 3, 1912. Serial No. 718,282. (Cl. 21—91.)



1. A draft rigging having a draft bar, shafts adapted to be arranged as such or to be combined to constitute a pole or tongue, braces detachably connected to the draft bar adapted for direct connection at both ends to the shafts if the latter are spaced apart and used as shafts and for connection to the draft bar for bracing the shafts if said shafts are brought together for use as a tongue or pole.

2. A draft rigging having a draft bar, shafts adapted to be arranged as such or to be combined to constitute a pole or tongue, a pair of hooks on each shaft, and releasable braces adapted to engage one of each set of hooks when the shafts are brought together for use as a tongue, said braces at the other end being then connected to the draft bar, and extending from one hook of each shaft to another hook of the other shaft when the shafts are spaced apart for use as such, whereby the shafts are then interbraced.

1,075,722. APPARATUS FOR COMMINUTING CALCAREOUS SALTPETER, POTASSIUM OR MAGNESIUM CHLORID, AND THE LIKE. HARRY PAULING, Cologne, Germany, assignor, by mesne assignments, to Southern Electro-Chemical Company, a Corporation of New Jersey. Filed May 20, 1912. Serial No. 698,552. (Cl. 214—1.)



1. The combination with an invertible mold in which is cast a block to be cut, of a stationary supporting frame adapted to receive an overturned mold, block comminuting means disposed on the frame and adapted to advance into said mold, collecting and delivering means carried by the frame adapted to collect and deliver at one point particles cut from the block, and clamping means on the frame for engagement with the mold, said means being detachable from the mold whereby the mold may be quickly removed from the frame and other molds substituted therefor.

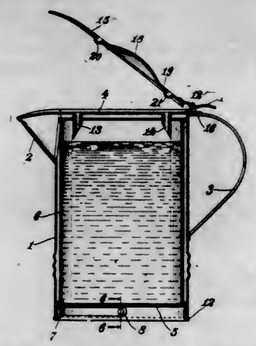
2. The combination with a mold in which is cast a block to be cut, a supporting frame adapted to receive the mold in overturned position, clamps carried on the frame detachably engaging the mold whereby other molds may be readily substituted therefor, block cutting means on the frame adapted to advance into the mold, and block-particle collecting and delivering means carried by the frame.

1,075,723. COMBINED CAN CONTAINER AND PERFORATOR. LEO H. PELTASON, St. Louis, Mo. Filed Feb. 17, 1913. Serial No. 748,783. (Cl. 65—61.)

1. A receptacle of the character described having a closed top and an open bottom, a pouring nipple and an air-inlet nipple projecting downwardly from the top of the receptacle adapted to perforate a can inserted into the receptacle, a closure for the bottom of the receptacle, and a hinged cover for the top of the receptacle having depending bosses which close said nipples when said cover is closed.

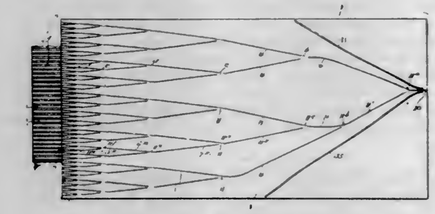
2. A receptacle of the character described having a closed top and an open bottom, a pouring nipple and an air-inlet nipple projecting downwardly from the top of the receptacle adapted to perforate a can inserted into the receptacle, a closure for the bottom of the receptacle, a hinged cover for the top of the receptacle having depending bosses which close said nipples when said cover is closed, and means carried by the hinge for opening and closing said cover.

3. A receptacle of the character described having an open bottom, a pouring spout, a handle, and a top which closes the upper end of same and said pouring spout, a removable closure for the bottom of the receptacle, means carried by the top for perforating a can inserted into the receptacle adapted to permit the discharge of the contents of the can, a cover hinged to the handle and having means for closing said perforating means when said cover is closed, and means borne by the hinge for opening and closing said cover.



4. A receptacle of the character described having a closed top and an open bottom, a closure for said open bottom, spaced hollow pouring means and air-inlet means projecting downwardly from said closed top, a hinged cover for the receptacle, and means rigidly connected to, and extending inwardly from the cover and bodily movable therewith for projection into and out of the upper ends of the interiors of each of the respective pouring and air inlet means, whereby the cover in its opening and closing movements automatically and simultaneously completely opens and closes each of the pouring and air-inlet means.

1,075,724. DISTRIBUTING-MACHINE. WILLIAM J. POOLE, Los Angeles, Cal. Filed Mar. 28, 1911. Serial No. 617,482. (Cl. 101—203.)



1. A slotted type holder for holding lines of type in the respective slots, a series of destination tracks for receiving the respective characters of type, means for guiding type from said type holding means to the respective destination tracks, means for causing type to move off from the type holder to said guiding means, means for positively moving type simultaneously along in a plurality of said type guiding means, and means for moving the type holder bodily laterally of said guiding means to bring rows of type successively into register with said guiding means.

2. A type holder for holding lines of type, a series of destination tracks for the respective characters of type, a single track for receiving type from the type holder, a plurality of tracks branching from the single track to the first named tracks, and switch means at each junction controlled by each type independently of the switch means at the other junctions for guiding the type onto a definite track at each junction of branch tracks, whereby each type is guided to its proper destination.

3. A type holder for holding lines of type, a single track for receiving type from the type holder, tracks branching from the single receiving track to form a series of tracks for the respective characters of type, switches at the junctions of the tracks, and means controlled by each type slightly in advance of each switch for causing said switch to occupy a definite position independently of the position of the other switches before the type reaches said switch and thereby cause the type to travel a definite path to its destination.

4. A slotted type holder for holding lines of type in the respective slots, a single track for receiving type from the type holder, tracks branching from the single receiving track to form a series of tracks for the respective characters of type, means for positively moving type along simultaneously in a plurality of said tracks, switches at the junctions of the tracks, means controlled by each type slightly in advance of each switch for causing said switch to occupy a definite position before the type reaches it and thereby cause the type to travel a definite path to its destination, means for pushing each line of type from the type holder, and means for moving the type holder bodily to bring the lines of type therein successively into register with said single receiving track.

5. A single receiving track, a series of destination tracks, tracks branching from the single receiving track to the several destination tracks, switches at the junctions of the tracks, means on each type for controlling each switch independently of the others and causing the type to travel on a definite track at each branch to carry it to its proper destination track, and type moving means for moving the respective type along the tracks from the receiving track to the destination tracks.

[Claims 6 to 18 not printed in the Gazette.]

1,075,725. GARMENT-CLASP. GEORGE E. PRENTICE, New Britain, Conn. Filed June 29, 1912. Serial No. 706,570. (Cl. 24—258.)

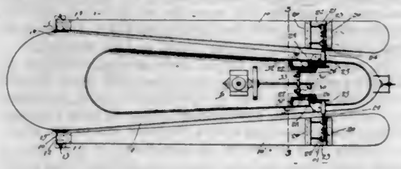


A cast off comprising a fixed member, a movable member, and a lever, the said lever pivotally mounted on the said fixed member, and having one arm having sliding engagement by one end with the said movable member, and means for connecting the said fixed and movable members permitting of a pivotal and also a relatively longitudinal movement and the said means comprising a flat bearing portion on one member provided with an elongated hole and a plurality of fingers on the other member, one of the said fingers passing through the said hole and the ends of the said fingers engaged with the two sides of the said flat bearing portion.

1,075,726. BOAT. HENRY B. PROSSER, Chicago, Ill. Filed July 22, 1912. Serial No. 710,873. (Cl. 114—66.5.)

1. The combination with a power boat hull, of hydroplanes generally parallel with said hull and on opposite sides thereof, pivotally connected at their front ends at points on the bow-end of the hull above the water-line thereof, and means for vertically adjusting the rear ends of said planes with respect to the hull varying distances below or above said water-line.

2. The combination with a power boat hull of a pair of longitudinal hydroplanes each pivotally connected with the hull above the water line at its bow-end, independently movable members connected with the hull acting on the rear ends of the plates to depress either of them below the water line, and a part associated therewith movable to depress both in unison.



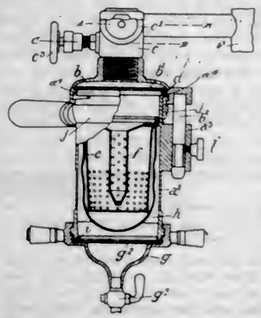
3. The combination with a power boat hull of a pair of hydroplanes pivotally secured to the sides of the hull at their front ends and having their rear ends free for vertical displacement, a bracket for each hydroplane adapted to be carried by the adjacent edge of the hull and adapted to carry an operating means for the respective hydroplane, and a manually operable means carried by each of said two brackets for operation of that hydroplane which is associated with the respective bracket.

4. The combination with a power boat hull of a pair of hydroplanes, one on each side of said hull extending from near the bow of the boat to approximately the stern of the hull each said plane being arranged for vertical displacement of the rear end, means to move each plane for vertically displacing its stern end, and means for effecting preliminary adjustment of the front ends of the planes to different heights with respect to the hull.

5. The combination of a power boat hull tapering from its bow to its stern, hydroplanes pivoted to the sides of said hull near its bow at points above the water-line thereof, the inner edges of said hydroplanes inclining inwardly similarly to the taper of the hull, and the outer edges being substantially parallel, and means near the rear ends of said planes for varying the inclination thereof with respect to the hull.

[Claim 6 not printed in the Gazette.]

1,075,727. APPARATUS FOR MAKING COFFEE. AUGUSTE REICHERT, Geneva, Switzerland. Filed Nov. 7, 1911. Serial No. 658,990. (Cl. 53—3.)



1. An apparatus for making coffee, comprising a body member, a support therefor, a connection for securing the body member to the support, a projection depending from the said support, and means associated with the said body member and into which the said projection passes so that by the said projection and means, the said body member, when disconnected from its support, is movable longitudinally and is also adapted to swing laterally.

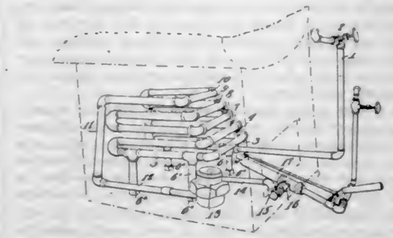
2. In an apparatus for making coffee, the combination with the boiler and the three-way cock connected thereto, of a body member, a support therefor secured to the said three-way cock, a removable bottom connected to the said body member, a cock connected in the removable bottom, a connection for securing the body member to the said support, a projection depending from the said support, and means associated with the said body member and into which the said projection passes so that by the said projection and means, the said body member, when disconnected from its support, is movable longitudinally and is also adapted to swing laterally.

3. In an apparatus for making coffee, the combination with a steam boiler and a three-way cock connected thereto by which hot water or steam may be conveyed to the apparatus and the interior of the apparatus may be connected with the atmosphere, of a body member, a support therefor secured to the said three-way cock, a ring connected to the upper end of the said body member and adapted therewith to make a bayonet joint, and means for supporting the said body member when disconnected from the said support and upon which means the said body member is movable longitudinally and also adapted to swing laterally in its upright position when so disconnected from the said support.

4. In an apparatus for making coffee, the combination with a steam boiler and a three-way cock connected thereto by which hot water or steam may be conveyed to the apparatus and the interior of the apparatus may be connected with the atmosphere, of a body member, a support therefor secured to the said three-way cock, means whereby the body member may be connected to and disconnected from the said support, a pin secured to and depending from the said support, a lug on the said body member having an aperture therein through which the said pin passes, and means for limiting the longitudinal movement of the said body member and lug on the said pin.

5. In an apparatus for making coffee, the combination with a steam boiler and a three-way cock connected thereto by which hot water or steam may be conveyed to the apparatus and the interior of the apparatus may be connected to the atmosphere, of a body member, a support therefor secured to the said three-way cock, a ring connected to the upper end of the said body member and adapted therewith to make a bayonet joint, a pin secured to and depending from the said support, a lug on the said body member having an aperture therein through which the said pin passes, and means for limiting the longitudinal movement of the said lug and body member on the said pin.

1,075,728. STEAM-GENERATOR FOR OIL-BURNERS. PETER ROOT, Eureka, Cal. Original application filed June 9, 1911, Serial No. 632,254. Divided and this application filed Mar. 21, 1913. Serial No. 756,048. (Cl. 122—248.)



1. A steam generator including a plurality of U-shaped tubular members, said members being of different lengths and communicating to form a single coil, a valved water supply pipe leading to the lowest member, a pipe connected to the upper member for directing the steam generated within the coil away from the coil, and a plurality

of combined sediment collecting and supporting legs in communication with the lowermost member of the coil and forming a support for the coil.

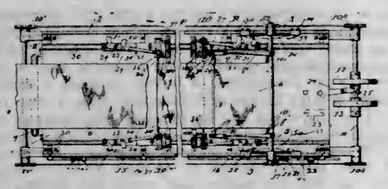
2. A steam generator for burners of heavy crude oil, including a coil composed of a plurality of superposed U-shaped members of varying sizes, the lowermost being the largest, a water supply pipe connected to one terminal of the lowest member, a steam conducting pipe leading from a terminal of the uppermost member and at the opposite side of the coil to the water supply pipe, and a plurality of combined sediment collecting and supporting legs in communication with the lowermost member of the coil and forming a support for the generator.

3. A steam generator coil for vaporizing heavy crude oil, comprising a plurality of varying sized U-shaped members connected together, four vertical pipes connected to the lowermost member and in communication with the same to receive the sediment from the coil, and a removable cap for the lower end of each vertical pipe.

4. A steam generator coil, having a plurality of superposed U-shaped members, and four vertical pipes, each pipe having the upper end connected to and in communication with the lowest member of the coil to provide a sediment receptacle for the generator.

5. A steam generator for oil burners and for insertion within the fire box of a steam boiler or the like, including a coil composed of plurality of members connected at one end to a water supply and having a steam conduit at the other end, and a plurality of sediment collectors connected to and in communication with the coil and forming the supporting legs for the generator.

1,075,729. CLOTH-PILING MACHINE. JACOB B. ROSENSTEIN, Cleveland, Ohio. Filed Feb. 3, 1911. Serial No. 606,347. (Cl. 223—3.)



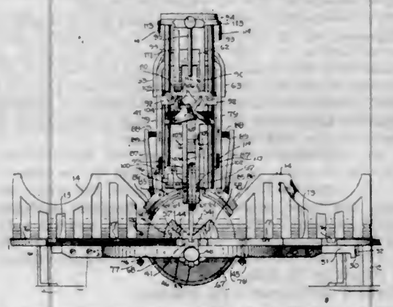
1. In a cloth piling machine, a table, a cloth carrying device reciprocable thereon, means in said carrier for placing said cloth under tension, a pair of fingers at each end of the machine, one pair adapted to engage the cloth alternatly with the other pair, a combined hinged and swinging arm to which each finger in each pair is secured, guides arranged to hold each finger in a transverse position relatively to the edge of the cloth, one of said guides inclined to permit the finger to be withdrawn laterally therefrom, a cam adapted to raise each swinging arm and a device adapted to cause each finger to fall vertically by gravity, and engaging devices upon said carriers and swinging arms, whereby said carriers are caused to operate each pair of said arms alternately, and means for reciprocating said carrier.

2. In a cloth piling machine, the combination of a table, a reciprocating carrier thereover, pivoted arms adjacent to the path thereof, cams on each side of the table and at each end thereof, the said cams arranged on the carrier and arms and adapted to engage and swing the arms in opposite directions as said carrier reciprocates, a stationary cam adapted to raise one end of each arm, a horizontal finger pivotally secured to each arm, guides in which said fingers move, one set of said guides being inclined to permit of laterally swinging said arms, and a swinging plate at the top of each inclined guide, said plate provided with an opening, adapted to permit the finger in said guide to fall vertically by gravity.

3. In a cloth piling machine, in combination, a table, a pair of horizontally swinging arms at one end of the table, one arm at each side thereof, a similar pair of arms at the other end of the table, a carrier on each side of the table reciprocable on said machine, arm operating cams on said carriers and corresponding cams on said arms, said cams on said arms arranged on both sides of the pivotal point thereof, a cam for raising one end of each arm, a horizontal finger pivotally secured to the outer end of each arm, and means raised by said finger for temporarily retaining the same in an elevated position until the end of the arm has swung inwardly, the said retaining means permitting the finger to fall vertically.

4. In a piling device for a cloth folding machine, in combination with a swinging arm, operating cams thereon arranged one at each side of the pivotal point, a hinged outer end to the arm, a horizontal finger having a hinged outer end and supporting spring therefor, means for pivotally securing said finger in the outer end of said arm, a vertical front guide for the finger, an inclined rear guide therefor, and a hinged plate provided with an opening, said plate raised by said arm as it rises, said opening in said plate permitting the said arm to fall by gravity as the arm moves inwardly.

1,075,730. MITER-BOX. JOHN T. ROSS, Blanca, Colo., assignor of one-half to John S. Rouse, Canon City, Colo. Filed Feb. 17, 1913. Serial No. 748,958. (Cl. 143—88.)



1. In a miter box having an angle indicator, a support pivotally mounted thereupon, an arm permanently secured at one end to said support, a bracket adjustably secured to the opposite end of said arm, a saw guide comprising a pair of parallel rods adjustably mounted within said bracket, means mounted in the lower extremities of said rods for guiding the saw, and means mounted upon said saw guide for holding the saw in a raised position.

2. In a miter box comprising an angle indicator and saw guide adjustably mounted thereupon, said saw guide comprising a stationary member, a pair of arms extending from each of said members, gripping blocks mounted between said arm, a pair of annular-shaped members mounted upon said arms, for holding the same in an open position, and a coil spring connecting said angular members for holding said arms in a closed position when the angular members have been released, substantially as described.

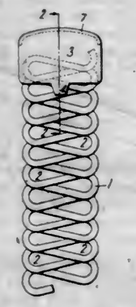
3. A miter box comprising a base, an arm pivotally mounted upon said base adapted to swing in a horizontal plane, an angle indicator mounted upon said arm, a dial ring encircling said arm and adapted to swing in a vertical plane, links slidably mounted upon the periphery of said dial, spring actuated pawls for holding said links upon said dial, and lugs extending from said links and adapted to rest upon said base to prevent rotation of said dial, substantially as described.

4. A miter box comprising a base, an angle indicator mounted thereupon and adapted to swing in a horizontal plane, a ring mounted upon said base and adapted to swing in a vertical plane, a pair of arms extending from said ring, an angle indicator mounted upon said ring, links mounted upon the periphery of said ring and adapted to engage said base, pawls pivotally mounted upon said arms and adapted to engage the said links, arms extending from said pawls, means mounted between the opposite extremities of said arm and the arms mounted upon said pawls for holding the same into engagement with said links, a saw guide supported upon the first mentioned arms and said first mentioned angle indicator, substantially as described.

5. In a miter box having an angle indicator, a support mounted thereon, an arm secured at one end to said support, an adjustable bracket secured to the opposite end of the arm, a saw guide comprising a pair of rods adjustably mounted within said bracket, saw guiding means mounted in the lower ends of the rods, and means mounted upon said saw guiding means for retaining the saw in raised position.

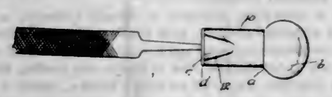
[Claims 6 to 10 not printed in the Gazette.]

1,075,731. TIP FOR GARMENT-STAYS. DAVID SCHULER, Kerrtown, Pa., assignor to The Spirella Company, Meadville, Pa., a Corporation of Pennsylvania. Filed Sept. 9, 1910. Serial No. 581,159. (Cl. 2—76.)



A garment stay comprising wire bent to form a series of loops or eyes and crossing portions, and a tip therefor comprising a substantially rectangular metal plate bent on itself to form two substantially rectangular leaves lying in parallelism and connected at one edge only, said leaves being each provided with an edge prong and being formed of sheet metal of sufficient strength and rigidity to firmly grasp the opposite side faces of the stay body, and being pressed tightly together with the stay body therebetween to be retained frictionally thereon, said prongs being bent inwardly between the said crossing portions but not extending completely through the body of the stay, thereby forming a stay tip having a smooth surface and free from projections.

1,075,732. TOOL-HANDLE. DON J. SCOTT, New Britain, Conn. Filed Sept. 17, 1912. Serial No. 720,768. (Cl. 145—61.)



1. As a new article of manufacture, a tool handle comprising a pair of similarly shaped thin flat members of elastic material, provided with shanks and pads, said members being arranged face to face, means for permanently securing said members together at their shanks, said securing means being provided with expansion spaces centrally of the ends of said shanks.

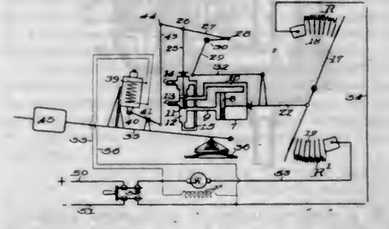
2. As a new article of manufacture, a handle comprising a pair of thin flat handle members of elastic fibrous material, oppositely-arranged face to face, a non-elastic clamping band encircling the shanks of said handle members and fixedly secured thereto to clamp the edge portions thereof securely together, the central portions of said handle members at the end of the shank being free for lateral displacement to permit of the insertion of the tang of a tool.

3. As a new article of manufacture, a handle comprising a pair of thin flat handle members of elastic fibrous material, bowed longitudinally and arranged oppositely, and fixed means for clamping the edges of the shanks of said members securely together face to face, the central portion of the shanks at the end being free for lateral displacement upon the insertion of the tang of a tool.

4. As a new article of manufacture, a handle formed of two leaves having pads and shanks, and oppositely bowed from end to end, fixed means at the edges of the shanks for drawing them together and securing them in position, the central portions of the shanks at the end being free for lateral displacement upon the insertion of the tang of a tool.

5. As a new article of manufacture, a handle comprising a pair of thin flat handle members of elastic material fitted together, a non-elastic binding clamp folded around one side of the shanks of said members and with its edges lapped onto the other side, the edges of said binding clamp flaring outwardly toward the ends of the shank, and a corresponding tapering offset formed in the other side of said clamp to permit of the lateral displacement of the handle members centrally at the end of the shank.

1,075,733. PRESSURE-OPERATING DEVICE. ARTHUR SIMON, Milwaukee, Wis., assignor to The Cutler Hammer Mf'g. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Nov. 4, 1909. Serial No. 526,187. (Cl. 172—288.)



1. The combination with a pressure actuated device of a pressure controlling valve therefor, an operating member for said valve, means mechanically connecting said valve with said operating member, but permitting movement of either relative to the other and an electromagnet adapted when energized to control said means to prevent relative movement between said operating member and said valve, and when deënergized to cause said valve to move to a predetermined position.

2. The combination with a pressure actuated device of a pressure controlling valve therefor, an operating member for said valve, a solenoid mounted upon said operating member, a mechanical connection between said operating member and said valve controlled by said solenoid, said solenoid when energized actuating said connections to bring said valve and said operating member into a fixed relation to cause movement of the latter to be directly imparted to the former, and when deënergized to actuate said valve through said connections independently of said operating member.

3. The combination with a pressure actuated device, of a pressure controlling valve therefor, an operating member for said valve, a solenoid carried by said operating member, connections between said operating member and said valve, including a member pivoted to said operating member, said solenoid having a plunger connected to said pivoted member to control the connections between said valve and said operating member.

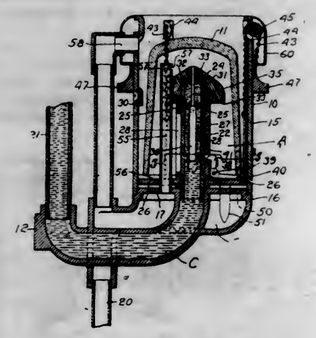
4. The combination with a pressure actuated device, of a pressure controlling valve therefor, a pivoted operating

lever for said valve, connections between said valve and said operating lever, including a member pivoted to said operating lever, and a solenoid carried by said operating lever and having a plunger connected to said pivoted member.

5. The combination with a pressure actuated device, of a pressure controlling valve therefor, a pivoted operating lever for said valve, a solenoid carried by said lever, a member pivoted upon said lever, one end of said member being connected to the plunger of said solenoid, and the other end thereof being operatively connected to said valve, said solenoid, when energized, being adapted to hold said pivoted member in a fixed relation to said operating lever, and, when deënergized, to cause said pivoted member to move said valve into a predetermined position irrespective of the position of said operating lever.

[Claims 6 to 12 not printed in the Gazette.]

1,075,734. WASHING APPARATUS. JOHN R. SMITH, Bradford, Mass., assignor of one-half to himself, and one-half to Herman E. Beede, Hyde Park, Mass. Filed Mar. 3, 1911. Serial No. 612,061. (Cl. 141—3.)



1. In a washing apparatus, a cleansing chamber, a water supply pipe centrally thereof, means to supply water thereto, a sliding member on said pipe to receive and support a vessel to be washed, and means exterior of said chamber for moving said sliding member.

2. In a washing apparatus a cleansing chamber, a water pipe centrally thereof connected to a source of water supply and adapted to direct water to the interior of a vessel to be washed, a sliding member on said pipe to receive and support a vessel to be washed, mechanism exterior to said chamber for moving said sliding member upward and means adjacent to said central pipe and adapted to siphon the water from the interior of said vessel to be washed.

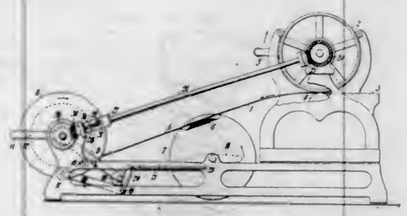
3. In a cleansing apparatus, a cleansing chamber, a tubular member centrally thereof, means for supplying water to said member, a vessel support slidingly mounted upon said tubular member, a conduit adjacent to said tubular member and terminating near the bottom of the vessel to be cleansed, means exterior to said cleansing chamber for raising and lowering said vessel support, and means to limit the vertical movement of said vessel support.

4. In a washing apparatus, a cleansing chamber, a tubular member centrally thereof, and having orifices to permit water to issue therefrom to the said cleansing chamber; means to supply water to said tubular member, a sliding valve on said tubular member, having slots adapted to register with the orifices in the tubular member when the valve is intermediate of limiting means therefor; a vessel support on said valve, means for limiting said valve in either direction, and means exteriorly of said cleansing chamber for raising said valve.

5. In a washing apparatus, a cleansing chamber, a tubular member centrally thereof, having orifices to permit water to issue therefrom to the interior of said cleansing chamber; means to supply water to said tubular member, a sliding valve on said tubular member, having slots adapted to permit water to issue from said orifices in the said tubular member when said valve is intermediate of limiting means therefor; a vessel support on said valve, means for limiting said valve in either direction, means exterior to said cleansing chamber for raising said valve, and locking mechanism interposed between said valve and said tubular member to lock said valve in the raised position.

[Claims 6 to 8 not printed in the Gazette.]

1,075,735. STENCILING-MACHINE. JACOB SOKOLOV, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed June 28, 1912. Serial No. 706,334. (Cl. 101—112.)



1. In a stenciling machine, a stencil cylinder, a spool mounted adjacent thereto, said spool carrying a ribbon or web of absorbent material upon which the stenciled sheets fall, a reel for rolling thereon the web together with the stenciled sheets, and means for laterally shifting the web with reference to said spool and reel whereby reverse rotation of the spool discharges the stenciled sheets from the reel.

2. In a stenciling machine, a stencil cylinder, a spool mounted adjacent thereto, said spool carrying a ribbon or web of absorbent material upon which the stenciled sheets fall, a reel for rolling thereon the web together with the stenciled sheets, and an arm for lifting the web whereby reverse rotation of the spool discharges the stenciled sheets from the reel.

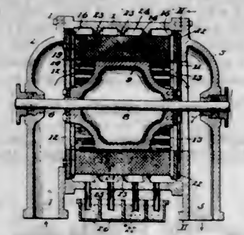
3. In a stenciling machine, a stencil cylinder, a spool mounted adjacent thereto, said spool carrying a ribbon or web of absorbent material upon which the stenciled sheets fall, a reel for rolling thereon a web together with the stenciled sheets, an adjustable arm for lifting the web whereby reverse rotation of the spool discharges the stenciled sheets from the reel, and means for holding the arm in adjusted position.

4. In a stenciling machine, a stencil cylinder, a spool mounted adjacent thereto, said spool carrying a ribbon or web of absorbent material upon which the stenciled sheets fall, a reel rotated from the cylinder for rolling thereon the web together with the stenciled sheets, means for uncoupling said rotating means, and means for laterally shifting the web with reference to said spool and reel whereby reverse rotation of the spool discharges the stenciled sheets from the reel.

5. In a stenciling machine, a stencil cylinder, a spool mounted adjacent thereto, said spool carrying a ribbon or web of absorbent material upon which the stenciled sheets fall, a reel rotated from the cylinder for rolling thereon the web together with the stenciled sheets, means for uncoupling said rotating means, and an arm for lifting the web whereby reverse rotation of the spool discharges the stenciled sheets from the reel.

[Claims 6 to 14 not printed in the Gazette.]

1,075,736. APPARATUS FOR SEPARATING LIQUID PARTICLES FROM GASES. ADOLF SPIEGEL, Grube Messel, near Darmstadt, Germany, assignor to Gewerkschaft Messel, Grube Messel, near Darmstadt, Germany. Filed Mar. 8, 1911. Serial No. 613,156. (Cl. 48—134.)



1. In combination, a casing, a revolving member carrying longitudinally-arranged spaced screens, and gas-inlet and outlet conduits directly opening into the ends of the spaces between said screens, said conduits and spaces providing unbroken longitudinal passages.

2. In combination, a circular casing, a revolving member carrying a circular series of longitudinally-arranged spaced radial screens, and gas-inlet and outlet conduits directly opening into the ends of the spaces between said screens, said conduits and spaces providing unbroken longitudinal passages.

3. In combination, a casing, a revolving set of longitudinally-arranged spaced screens of fine wire, gas-inlet and outlet conduits communicating with the spaces between said screens, and means for rapidly moving said screens transversely to the current of gas, whereby their wires are brought into intimate contact with all portions of the gas, momentarily collect the fine particles suspended therein, and then throw them outward toward said casing.

4. In combination, a casing comprising an annular body and end-plates with gas-inlet and outlet conduits, and a drum journaled axially in said casing and carrying an annular series of longitudinally-arranged spaced radial screens, said screens extending into proximity to said end-plates, said conduits and the spaces between said screens providing unbroken longitudinal passages.

5. In combination, a casing comprising an annular body and end-plates with gas-inlet and outlet ports, a drum journaled axially in said casing, apertured disks fixed on the ends of said drum adjacent to said end-plates, and a series of spaced screens, having their planes parallel to the path of the gas, stretched between said disks.

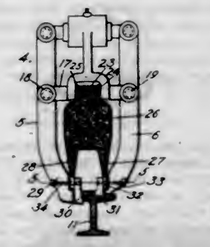
[Claims 6 to 8 not printed in the Gazette.]

1,075,737. STOVEPIPE-JOINT. WILLIAM H. STEPHENSON, Marion, Ind. Filed Sept. 19, 1912. Serial No. 721,204. (Cl. 126—308.)



A stove-pipe joint comprising two pipe sections telescopically united, one end of the inner section being curved over constituting a flange directed downwardly and bearing resiliently in engagement with the inner circumference of the other pipe section, and a band clamped about one end of the outer pipe section and having a portion curved upon itself forming a flange directed toward the first flange bearing resiliently against the outer cylindrical circumference of the inner pipe section, thus holding the two pipe sections in adjusted positions.

1,075,738. REPAIRING RAILWAY-RAILS. ELIHU THOMSON, Swampscott, Mass. Filed May 26, 1913. Serial No. 769,949. (Cl. 219—3.)



1. The method of repairing and restoring worn surfaces of railway rails which consists in laterally pressing and raising a portion of the rail toward its tread by applying pressure to the outer side of the rail head and maintaining undisturbed the inner or wheel flange engaging surface of the rail head.

2. The method of repairing and restoring worn surfaces of railway rails which consists in laterally pressing and raising metal by applying pressure to a restricted area of the outer side of the rail head and supporting a relatively greater area of the inner or wheel flange engaging surface of the rail in the line of application of such lateral pressure for preserving unaltered the said surface.

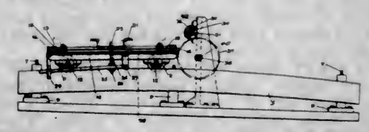
3. An apparatus for repairing the worn section of a railway rail head having, in combination, means for heating the section of the rail head, and means for laterally pressing and raising the heated section having provision for maintaining undisturbed the original inner line of the rail head.

4. An apparatus for repairing the worn section of a railway rail head having, in combination, means for heating the section of the rail head, an anvil, a pressure tool, and means for forcing together the pressure tool and anvil.

5. An apparatus for repairing the worn section of a railway rail head having, in combination, electrodes engaging both sides of the rail section, one of said electrodes constituting an anvil for maintaining the inner line of the rail head undisturbed and the other electrode constituting a pressure tool, and means for forcing the pressure tool toward the anvil to restore metal to the worn surface of the rail head.

[Claims 6 to 10 not printed in the Gazette.]

1,075,739. PLANING-MACHINE. OSKAR F. THORN, Chicago, Ill., assignor of one-third to Gustaf Hultgren, Chicago, Ill. Filed June 26, 1912. Serial No. 705,992. (Cl. 144—178.)

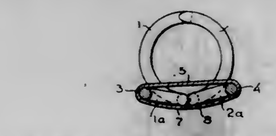


1. The combination with a truck, of a support mounted to slide thereon; and a clamp on said truck adapted to secure work on said support and also secure said support to said truck, substantially as described.

2. The combination with a truck, of a work support mounted to slide transversely thereon; means limiting the sliding motion in one direction of said work support on

said truck and providing a pivotal point upon which said work support is swung from a horizontal to vertical positions and a clamp on said truck adapted to secure work on said support and secure said support to said truck.

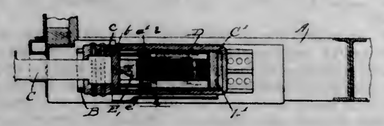
1,075,740. LOOSE-LEAF BINDER. RICHARD M. WATSON, Detroit, Mich. Filed Nov. 9, 1912. Serial No. 730,310. (Cl. 129—29.)



1. A loose-leaf binder, having in combination, a base plate of sheet metal having the sides of the metal bent back to substantially meet at the back, thereby forming channel bearings on either side and a closure at the back for the base of the binder, and the said metal being also arranged for fastening to the binder, clips or half rings for holding the leaves and bearings therefor, one bearing journaled in each channel bearing and both bearings meeting in a toggle, substantially as described.

2. A loose-leaf binder, having in combination, a base plate of sheet metal having the sides of the metal adapted to be bent back to substantially meet at the back of the base of the binder, thereby forming channel bearings on either side, the said side portions of the metal being notched to form alternate notches 12^a and lugs 13, clips or half rings for holding the leaves, bearings for the clips or half rings, one bearing journaled in each channel bearing and both bearings meeting in a toggle, and a fabric F having two rows of slots that allow the fabric to fit over the lugs when the latter are in upright position, the said lugs being adapted to impinge upon the fabric when bent down and thereby with the fabric forming a complete closure at the back of the base of the binder, substantially as described.

1,075,741. DRAFT-RIGGING. JAMES MILTON WAUGH, Chicago, Ill. Filed Oct. 10, 1908. Serial No. 457,050. (Cl. 213—64.)



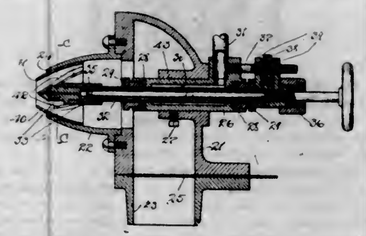
1. In a draft rigging the combination with the draw bar yoke and follower blocks inserted therethrough to bear respectively against the front and rear stops, of a spring casing slidably supported in said yoke and bearing at one end against one of the follower blocks, an abutment block bearing against the other follower block and extending into the casing, a plurality of groups of flat, thin spring plates arranged within the spring casing, each group movably supported in the casing and the groups separated alternately at the middle and ends and guide flanges integral with the abutment block and extending into the casing on opposite sides of the spring groups.

2. In a draft rigging the combination with a draw bar yoke of a chamber, having a central longitudinal channel in the lower wall to receive the yoke therein, a much smaller spring casing constructed to provide a guide portion to fit in the channel and shoulders to rest on the lower wall, spring friction plates arranged in groups in the casing, concave and convex bearing blocks separating the groups of spring plates alternately at their ends and their middles and an abutment block fitted in one end of the small spring casing and guide flanges thereon extending into said casing on each side of the spring groups.

3. In a device of the class described a casing having reentrant angles at the corners thereof providing internal and external guides, spring plates adapted to fit in the casing and an abutment block adapted to fit in the end of the casing.

4. In a device of the class described a casing having an integral end wall curved on its inner side, spring plates therein, concave and convex spacing members dividing the springs into groups, a bearing block curved on one end adapted to fit in the casing and guide members integral therewith extending into the casing on each side of the spring groups.

1,075,742. BURNER. JACOB WEINTZ, Cleveland, Ohio. Filed Dec. 12, 1912. Serial No. 736,296. (Cl. 158—76.)



1. In a burner, the combination of a casing having an inlet; a main nozzle, circular in cross-section and gradually contracting toward its mouth, communicating with the inlet; an axially adjustable tube secured to the casing and extending into the main nozzle; a valve for controlling the passage through the tube; and a supplementary nozzle secured to the tube and surrounding the end thereof, the supplementary nozzle substantially conforming in shape with the main nozzle and its mouth being smaller than the mouth of the main nozzle.

2. In a burner, the combination of a casing having an inlet; a main nozzle, circular in cross-section and gradually contracting toward its mouth, communicating with the inlet; an axially adjustable tube secured to the casing and extending into the main nozzle; a screw rigidly secured to the casing; a nut secured to the tube and engaging the screw; a needle valve for controlling the passage through the tube; and a supplementary nozzle secured to the tube and surrounding the end thereof, the supplementary nozzle substantially conforming in shape with the main nozzle and its mouth being smaller than the mouth of the main nozzle.

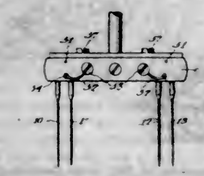
3. In a burner, the combination of a casing having an inlet; a main nozzle, circular in cross-section and gradually contracting toward its mouth, communicating with the inlet; an axially adjustable tube secured to the casing and extending into the main nozzle; a valve for controlling the passage through the tube; and a supplementary nozzle secured to the tube and surrounding the end thereof, the supplementary nozzle substantially conforming in shape with the main nozzle and being formed interiorly with a plurality of substantially helical vanes, its mouth being smaller than the mouth of the main nozzle.

4. In a burner, the combination of a casing having an inlet; a main nozzle contracting toward its mouth and communicating with the inlet; a sleeve secured in the casing and formed with a chamber having an inlet; a tube axially slidable in the sleeve and formed with holes in the portion of its wall within the chamber, the tube extending into the main nozzle; a valve for controlling the passage through the tube; and a supplementary nozzle secured to the tube and surrounding the end thereof, the supplementary nozzle contracting toward its mouth and the latter being smaller than the mouth of the main nozzle.

5. In a burner, the combination of a casing having an inlet; a main nozzle contracting toward its mouth and communicating with the inlet; a sleeve secured in the casing and formed with a chamber having an inlet; a tube axially slidable in the sleeve and formed with holes in the portion of its wall within the chamber, the tube extending into the main nozzle; a valve for controlling the passage through the tube; a screw rigidly secured to the sleeve; a nut secured to the tube and engaging the screw; a needle valve for controlling the passage through the tube; and a supplementary nozzle secured to the tube and surrounding the end thereof, the supplementary nozzle contracting toward its mouth and the latter being smaller than the mouth of the main nozzle.

[Claim 6 not printed in the Gazette.]

1,075,743. NEEDLE-CLAMP. RUSSEL G. WOODWARD, Waukegan, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed May 25, 1908. Serial No. 434,746. (Cl. 112—37.)



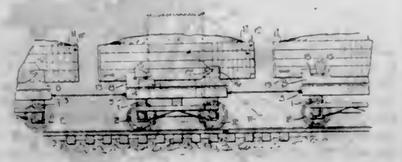
1. A needle clamp including in combination, a supporting member, a plurality of needles, said supporting member having sockets for said needles, a pivoted block located between said needles, means for causing said block to yieldingly grip one of said needles, and means for positively locking both of said needles to said supporting member.

2. A needle clamp including in combination, a supporting member having a slot formed therein, a plurality of needles, a block located in said slot between said needles, means for yieldingly pressing said block against one of said needles for temporarily holding the same in said slot, and means for clamping the other needle against the yielding block and the yielding block against the first named needle, whereby both of said needles are positively held in said supporting member.

3. The combination of a needle bar, a needle head carried thereby, needle, an adjustable plate for determining the vertical position of said needle, means for temporarily clamping said needle in said needle head, and means for positively clamping the needle therein.

4. The combination of a needle head, having a slot in its outer end, and a needle socket at the inner end of said slot, a needle adapted to be seated in said socket, a block pivoted in said slot and means for causing said block to yieldingly engage said needle, a second needle engaging a seat in the opposite side of said block from the first needle, and a screw threaded into the end of said slot and engaging said second needle for clamping said needles to the needle head.

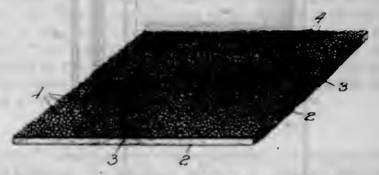
1,075,744. DUMPING-CAR. ROBERT G. WORK, Homer City, Pa. Filed June 14, 1913. Serial No. 773,725. (Cl. 105—190.)



1. A device of the class described including a wheeled truck having a platform, a circular track arranged centrally upon said platform, a carriage mounted upon the platform and provided with a plurality of circularly arranged rollers, adapted to run upon said track, a second set of rollers arranged at each end of the carriage, and a body member mounted upon the second set of rollers for sliding and tilting movement.

2. A device of the class described including a wheeled truck, having a platform, a circular track mounted upon said platform, a carriage having centrally arranged rollers adapted to run upon said track, whereby the carriage may be readily rotated, a pivot pin carried by the platform and engaging said carriage, a second set of rollers arranged at each end of the carriage, a body member slidably mounted upon the second set of rollers, spaced ears arranged at one end of the carriage, said ears being provided with an open ended slot, spaced lugs carried by the body and normally arranged within said slots, and a second set of ears arranged at the opposite end of the carriage and adapted for engagement with one of the lugs, upon the tilting movement of the body.

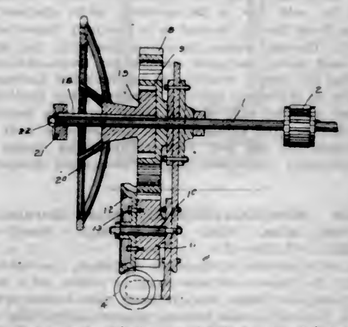
1,075,745. ROOFING MATERIAL. STEPHEN G. WRIGHT, Oak Park, Ill. Filed Apr. 4, 1912. Serial No. 688,561. (Cl. 154—51.)



1. Roofing composed of sheet water-proof material having its weather-surface composed of particles of "greenstone," with oil, for the purpose set forth.

2. Roofing composed of sheet material coated with water-proofing material of the character described and a surface of particles of "greenstone," with oil, partially embedded in said coating, for the purpose set forth.

1,075,746. POWER-TRANSMISSION MECHANISM. JOHN YOUNG, Chillicothe, Ohio. Filed Apr. 13, 1912. Serial No. 690,627. (Cl. 74—7.)

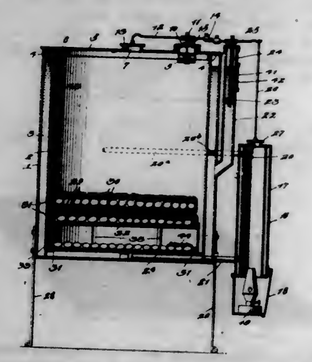


1. Power transmission mechanism comprising a driven shaft, a gear wheel idly mounted on said shaft having an internal clutch face, a clutch member on said shaft and slidable thereon into engagement with said clutch face, a hand wheel carried by said member for directly rotating said shaft when said clutch is out of engagement with said clutch face, a supplemental gear meshing with said first gear, and hand operated means for rotating said supplemental gear to rotate said shaft when said clutch member is in engagement with said clutch face.

2. Power transmission mechanism comprising a driven shaft, a gear wheel idly mounted on said shaft having an internal clutch face, a clutch member splined to said shaft and loosely slidable thereon into engagement with said clutch face, a hand wheel integrally formed with said

member for directly rotating said shaft when said clutch is out of engagement with said clutch face, a supplemental gear meshing with said first gear, a worm wheel carried by said supplemental gear, a worm meshing with said worm gear, and hand operated means for rotating said worm to rotate said shaft when said clutch member is in engagement with said clutch face.

1,075,747. SEMIFIRELESS INCUBATOR. CYRUS W. ZIMMER, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,653. (Cl. 119—42.)



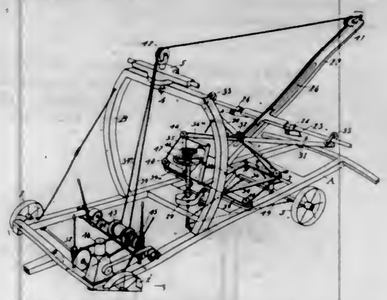
An incubator comprising an outer casing, an inner casing spaced from the latter to provide a water space between the sides and bottoms of the same, a vertical pipe disposed outside of the outer casing and having the lower end thereof communicating with said water space intermediate the upper and lower ends thereof, said pipe extending to a point above the top of the outer casing and adapted to contain water to the same height as that in the water space, means to heat and maintain circulation in said water space including a heater, and a flue in connection therewith disposed beyond the outer casing, a damper for said flue, a thermostatic wafer disposed in said pipe from the top thereof to be partially immersed in the water therein, means in connection with the upper end of said wafer and said damper for thermostatically regulating the latter, whereby to regulate the heating of the water in the water space, a removable top applied to the upper ends of said casings, said top being provided with a damper, and additional means carried by said top and actuated by the heat units in the inner casing for thermostatically regulating the last mentioned damper.

1,075,748. SHOCK-GATHERER. HARRY ZIMMERMAN, St. Paul, Minn. Filed July 8, 1911. Serial No. 637,468. (Cl. 214—2.)

1. In an apparatus of the class described, the combination with the framework and carrying wheels, of a beam having rotatable hinge support upon said framework to swing in horizontal and vertical planes, a pivotally supported gatherer frame slidable upon said beam, a gathering fork having hinge support upon said gatherer frame, and means for sliding said gatherer frame outwardly upon said beam and releasing said fork.

2. In an apparatus of the class described, the combination with the framework carried upon carrying wheels, of a beam supported upon said framework to swing in horizontal and vertical planes, a similarly supported gatherer frame slidable upon said beam, a gathering fork having hinge support upon the outer end of said gatherer frame, means for holding said fork in extended position as said beam is horizontally rotated upon its support, and manually actuated means for releasing said fork.

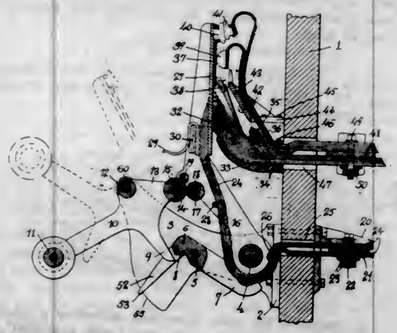
3. An apparatus of the class described, comprising a framework supported upon carrying wheels, a beam having hinged rotatable support upon said framework whereby to swing in horizontal and vertical planes, a gatherer frame slidable upon said beam and supported to swing in horizontal and vertical planes with said beam, a fork carried by said gatherer frame, means for normally locking said fork in extended position, and means for simultaneously raising said beam and sliding said gatherer frame outwardly thereon.



4. In an apparatus of the class described, the combination with a frame supported upon carrying wheels, a beam having hinge rotatable support upon said frame, an upwardly extending framework portion, a gatherer frame pivotally supported at one end upon said upwardly extending framework portion and having slidable support upon said beam, a gathering fork carried by the free end of said gatherer frame, and means for simultaneously raising said beam and sliding the free end of said gatherer frame outwardly thereon for the purpose set forth.

5. In an apparatus of the class described the combination with its framework, carrying wheels and driving mechanism, of an upwardly extending portion carried by said framework, a beam rotatably supported upon said framework, a gatherer frame having pivotal support at one end upon the upward extension of said framework, a cross bar carried by said gatherer frame and slidably supported on said beam, a fork carried by the free end of said gatherer frame, means for normally locking said fork in extending position, and means operated from the driving mechanism of the machine for simultaneously raising said beam and sliding the free end of said gatherer frame outwardly thereon.

1,075,749. CIRCUIT-BREAKER. CHARLES C. BADEAU, Bethlehem, Pa., assignor to Roller-Smith Company, a Corporation of New York. Filed Aug. 11, 1908. Serial No. 447,980. (Cl. 175—268.)



1. A circuit controlling device comprising a base, a terminal thereon, a flexible resilient circuit controlling member extending from said terminal and having a portion

bent to form a single turn magnet coil, said member being laminated throughout its entire length in a direction at right angles to a vertical plane, and a magnet core inclosed by said bent portion.

2. A circuit controlling device comprising a flexible member formed of a plurality of superposed laminæ laminated in a direction at right angles to a vertical plane, said member having a portion bent to form a single turn magnet coil and another portion divided into groups arranged to make fixed contact with one or more intermediate conductors, and a magnet core embraced by said bent portion.

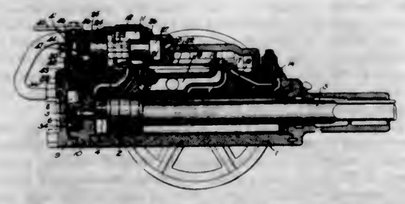
3. A circuit opening device having in combination a movable member, said movable member comprising a flexible strip forming a magnet coil, one end of said strip being adapted for connection with one circuit terminal and the other extending to the making and breaking part of the circuit opening device, a fixed yieldable main contact member adapted for direct connection with the other circuit terminal and being continuous through the main support, a magnet core, and means whereby a predetermined current through said magnet coil causes said flexible member to open the circuit.

4. A magnetically releasable spring-operated circuit controlling device comprising a base, a single flexible resilient circuit controlling member extending from a terminal mounted on said base and having a portion bent to form a single turn magnet coil and a spring, and said member being laminated throughout its entire length in a direction at right angles to a vertical plane, a magnet core inclosed by said bent portion, means for holding said flexible member in circuit controlling position, and means controlled by the magnet for releasing said member to permit it to move out of said position upon passage of a predetermined current.

5. A circuit opening device comprising a flexible strip containing a plurality of laminæ, the laminæ at one end of said strip being divided into groups adapted to be clamped about an intermediate conductor to make electrical connection therewith, the other end of said strip being movable relatively to the other circuit terminal, a core, a magnet coil around said core and formed integrally with said flexible strip, a mechanism for holding said strip in circuit closing position, and an armature operated by said magnet for controlling said mechanism to open the circuit.

[Claims 6 to 8 not printed in the Gazette.]

1,075,750. DIRECT-ACTING ENGINE. ALBERT BALL and THOMAS OFFICER, Claremont, N. H., assignors to Sullivan Machinery Company, Claremont, N. H., a Corporation of Maine. Filed Aug. 30, 1907. Serial No. 390,750. (Cl. 121—10.)



1. In a direct-acting, fluid-pressure engine, the combination with a cylinder, a piston and main valve controlling the same, of a differential pressure-actuated device for moving the main valve, a reversing valve actuated by the main piston for admitting pressure to or exhausting the same from the larger area of said pressure-actuated device, and a manually operable throttle valve for the exhaust from said pressure-actuated device.

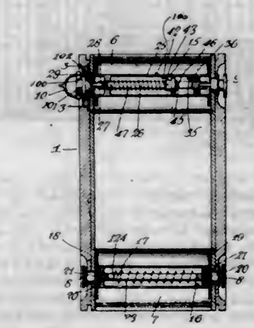
2. In a direct-acting, fluid-pressure engine, the combination with a cylinder, a piston and main valve controlling the same, of a differential, pressure-actuated device for moving the main valve, a reversing valve actuated by the main piston for admitting pressure to or exhausting the same from the larger area of said pressure-actuated device, and manually operable means for throttling the pressure admitted to or the exhaust from the larger area of said pressure-actuated device.

3. In a direct-acting, fluid-pressure engine, the combination with a cylinder, a piston and main valve controlling the same, a pressure-actuated, valve-moving means, a reversing valve for said pressure-actuated, valve-moving means, said reversing valve being operated by movement of the main piston, and a pair of throttle valves controllable by the operator of the machine for retarding the movement of the main controlling valve in either direction.

4. In a direct acting, fluid-pressure engine the combination with a cylinder, a piston and a main valve controlling the same and pressure fluid means for operating the main valve, reversing means for said pressure actuated means operated by piston movement, and manually operable means for throttling the pressure supply to or exhaust from said pressure actuated means.

5. In a direct acting, fluid-pressure engine the combination with a cylinder, a piston and a main valve controlling the same, a pressure-actuated, valve-moving means, a reversing valve for said pressure-actuated, valve-moving means, said valve being operated by movement of the main piston, a throttling valve for retarding the escape of the exhaust from the valve-moving means and thereby the movement of the main, controlling valve, a handle for said throttle valve, and means for holding said handle in any one of a series of finely graduated positions.

1,075,751. MEANS FOR CONVERTING AN ORDINARY ROLL-FILM CAMERA INTO A FOCAL-PLANE-SHUTTER CAMERA. JOHN BARBERIE, Upper Montclair, N. J. Filed Feb. 8, 1913. Serial No. 747,113. (Cl. 95—57.)



1. In a camera of the type having pockets, and roll supporting bearings for film rolls in the pockets and a winding key, a focal plane shutter including winding rolls and associated actuating mechanism and restraining mechanism, said rolls being demountably mounted in said pockets, and means operable from outside of the camera for releasing the restraining mechanism.

2. In a camera of the type having pockets and roll supporting bearings for film rolls in the pockets, and a winding key, a focal plane shutter including winding rolls and spring actuating mechanism carried by one roll and restraining mechanism carried by the other roll, said rolls being demountably mounted in said pockets, and means separable from the roll carrying the restraining mechanism and operable from outside of the camera for releasing the restraining mechanism.

3. In a camera of the type having pockets and roll supporting bearings for film rolls in the pockets, and a winding key, a focal plane shutter including winding rolls and associated spring actuating mechanism and restraining mechanism, said rolls being demountably mounted in said pockets, and means operable from outside of the camera

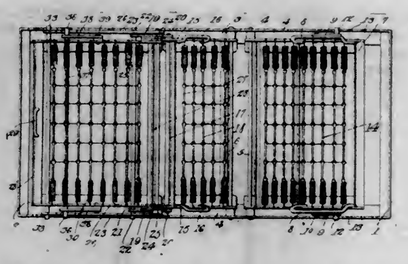
for releasing the restraining mechanism, one of the rolls of the shutter being detachably connected with the winding key and the restraining release means.

4. In a camera of the type having pockets and roll supporting bearings for film rolls in the pockets, and a winding key, a focal plane shutter including winding rolls and spring actuating mechanism associated with one roll and axially movable restraining mechanism associated with the other roll, and means operable from outside of the camera and operatively connected with the axially movable restraining mechanism to release said mechanism.

5. In a camera of the type having pockets and roll supporting bearings for film rolls in the pockets, and a winding key, a focal plane shutter including winding rolls and a flexible curtain connecting the rolls, a tension device associated with one of the rolls for winding the curtain on the roll when the tension is relaxed, restraining mechanism associated with the other roll, said roll being operatively connected with the winding key, and both rolls demountably mounted in said pockets, and means detachably connected with the roll having the restraining mechanism and operable from outside the camera for releasing said mechanism.

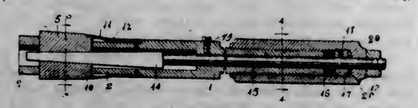
[Claims 6 to 9 not printed in the Gazette.]

1,075,752. INVALID-BED. JOSEPH A. BARTHOLME, Baltimore, Md. Filed Feb. 21, 1913. Serial No. 749,961. (Cl. 5—12.)



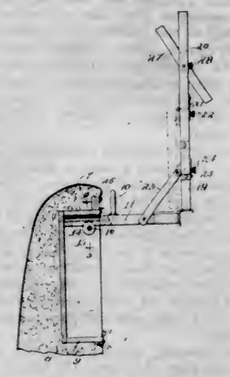
An invalid support, including a frame, a back section adjustably mounted thereto, a seat and leg supporting member hingedly connected to the frame and composed of two hinged sections, an auxiliary brace disposed for coaction with the frame and the junction of the two hinged sections in flexed relation to each other, and a second auxiliary brace for engagement with the lower section of the two sections and the first auxiliary brace, and to maintain the lower section adjusted relatively to the first auxiliary brace.

1,075,753. EXPANDING TOOL-HOLDER. JOSEPH H. BASTIAN and AXEL W. NORDGREEN, Moorhead, Minn. Filed Jan. 3, 1913. Serial No. 740,071. (Cl. 153—82.)



A tool holder of the class described comprising a tubular stock having radial slots near its outer end and peripheral grooves alining with said slots, the inner end of said stock being externally reduced and threaded and its bore being reduced, bits mounted loosely in said slots and having notches in their outer edges, leaf springs secured at their outer ends in said notches and at their inner ends in said grooves, an expander having a tapering head within the larger portion of the bore of said stock and a cylindrical shank within the smaller portion thereof, said shank having a longitudinal groove, a set screw through the stock loosely engaging said groove, a tubular internally threaded socket engaging said threaded portion of the stock and having its rear end closed except by a hole through which said shank passes, a collar adjustably mounted on said shank within the socket, and a nut on the shank in rear of the closed end of said socket, the whole constructed for the purpose set forth.

1,075,754. WIND-SHIELD. PETER J. BERNARD and JOSEPH BOYLE, Chicago, Ill. Filed Dec. 2, 1912. Serial No. 734,528. (Cl. 21—148.)



1. In a device of the class described, a casing having one side thereof swingingly and inwardly slidably secured thereto, a foldable wind shield comprising a plurality of hinged sections pivotally secured to the swinging edge of said casing side and adapted when folded to lie entirely within said casing, and means for locking said wind shield in extended position when unfolded, substantially as described.

2. In a device of the class described, a casing having one side thereof swingingly and inwardly slidably secured thereto, a foldable wind shield pivotally secured to the swinging edge of said casing side and adapted when folded to lie entirely within said casing, and means for locking said wind shield in extended position when unfolded, substantially as described.

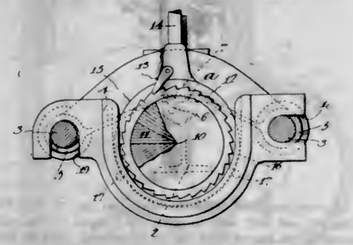
3. In a device of the class described, a casing having one side thereof swingingly and inwardly slidably secured thereto, means for sustaining said casing side horizontally of the casing, a foldable wind shield pivotally secured to the swinging edge of said casing side and adapted when folded to lie entirely within said casing, and means for locking said wind shield in extended position when unfolded, substantially as described.

4. In a device of the class described, a casing having one side thereof swingingly and inwardly slidably secured thereto, means for equalizing the inward sliding movement of the said casing side, a foldable wind shield pivotally secured to the swinging edge of said casing side and adapted when folded to lie entirely within said casing, and means for locking said wind shield in extended position when unfolded, substantially as described.

5. In a device of the class described, a casing having one side thereof swingingly and inwardly slidably secured thereto, means for equalizing the inward sliding movement of said casing side, means for sustaining said casing side horizontally of the casing, a foldable wind shield pivotally secured to the swinging edge of said casing side and adapted when folded to lie entirely within said casing, and means for locking said wind shield in extended position when unfolded, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,075,755. MEANS FOR FORMING PARALLEL FACES ON THE ENDS OF RAILS, &c. WALTER BREWITT, Essen-on-the-Ruhr, Germany, assignor to The Firm of Th. Goldschmidt, Essen-on-the-Ruhr, Germany, a Firm composed of Karl Goldschmidt and Hans Goldschmidt. Filed Oct. 24, 1910. Serial No. 588,759. (Cl. 90—12.)



1. A cutting device comprising a rotary disk having oppositely facing lateral cutting faces and a peripheral journal surface, means for supporting said disk peripherally for turning movement, and means for imparting driving impulse to said disk.

2. A cutting device comprising a rotary member having oppositely facing lateral cutting faces and a peripheral journal surface, means for supporting said member peripherally for turning movement, and means for imparting driving impulse to said member.

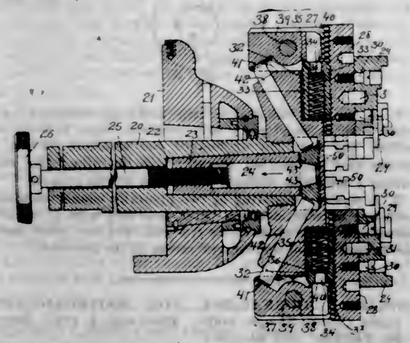
3. A cutting device comprising a rotary disk having oppositely facing lateral cutting faces and an intermediate peripheral journal surface, means for supporting said disk peripherally for turning movement, and means for imparting driving impulse to said disk.

4. A cutting device comprising a rotary member having oppositely facing lateral cutting faces and a peripheral journal surface, means for supporting said member peripherally for turning movement, and means for engaging said member circumferentially for imparting driving impulse thereto.

5. A cutting device comprising a rotary member having oppositely facing lateral cutting faces and also having a circuit of peripheral teeth, means for supporting said member peripherally for turning movement, and means for engaging said teeth and turning the cutter.

[Claims 6 to 17 not printed in the Gazette.]

1,075,756. CHUCK. WILLIAM LE ROY BRYANT, Springfield, Vt. Filed Oct. 22, 1910. Serial No. 588,427. (Cl. 29—130.)



1. In a chuck, a rotatable chuck body, a pair of independent radially movable jaws, an equalizer for transmitting power at separated points to said jaws respectively, and means for transmitting power to said equalizer at a point between said points.

2. In a chuck, a pair of independent radially movable jaws, an equalizer adapted to rock about a fulcrum for transmitting differential movement to said jaws at points separated from its fulcrum, and means for transmitting power to said equalizer substantially at its fulcruming point to move said equalizer bodily, and thereby move said jaws.

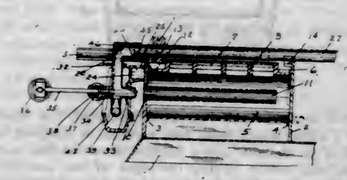
3. In a chuck, a chuck body, a plurality of pairs of independent radially movable jaws, and means for moving the jaws into engagement with the work, comprising a plurality of rocking equalizers movable bodily thereby and arranged about a common center, each equalizer being arranged to effect the operation of both jaws of a pair, and means for actuating said equalizers.

4. In a chuck, a chuck body, a plurality of pairs of independently movable jaws arranged to move radially of said chuck body, a rocking equalizer for each pair of jaws, and a controller for simultaneously actuating all of said equalizers and thereby effecting the simultaneous differential actuation of all of said jaws.

5. In a chuck, a chuck body, a plurality of pairs of independently movable radial jaws, an equalizer for each pair of jaws, intermediate power-transmitting devices engaged with each equalizer at separated points for transmitting power to the respective jaws of the associated pair, and means for simultaneously moving said equalizers, while permitting them to rock to equalize the pressure on the jaws.

[Claims 6 to 11 not printed in the Gazette.]

1,075,757. SOLDERING-FURNACE. EDWARD T. BURGESS, Columbus, Ohio. Filed Apr. 27, 1912. Serial No. 693,713. (Cl. 158—65.)



1. A soldering furnace comprising a burner, a fuel supply conduit, an element connecting said conduit and said burner, a valve structure for said burner carried by said element, a pilot light valve structure carried by said element, and a priming cup beneath said element and constructed to intercept and upwardly direct the flame from said pilot light valve.

2. A soldering furnace comprising a burner, a fuel supply conduit, a right angular element formed of a vertical and a horizontal leg connecting said conduit and said burner, a valve structure for said burner carried by the vertical leg of said element, a pilot light valve structure carried by the horizontal leg of said element, a priming cup beneath the horizontal leg of said element, and an extended upwardly directed wall on said cup against which the pilot light valve structure is adapted to direct a flame to cause it to be deflected.

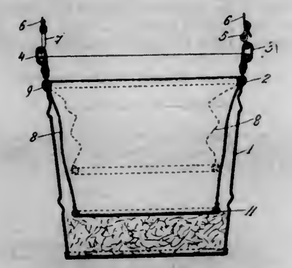
3. A soldering furnace comprising a burner, a supply conduit for said burner, a valve structure for said burner, a pilot light valve structure, a priming cup beneath said last valve structure, and an extended upwardly directed wall on said cup against which said pilot light valve structure is adapted to direct a flame to cause it to be deflected.

4. A soldering furnace comprising a burner, a framework surrounding said burner, a casting of pocket form carried by the front of said framework and in communication with said burner through an aperture in the framework, said casting having slots in its front and top walls, the front wall of said framework being provided with another aperture forming a continuation of the slot in the top wall of said casting, a valve structure for said

burner, a pilot light valve structure, and means for directing the flame from said pilot light valve in proximity to the slots in the side of said casting.

5. A soldering furnace comprising a burner, a framework surrounding said burner, a casting of pocket form carried by the front of said framework and in communication with said burner through an aperture in the framework, said casting having slots in its front and top walls, the front wall of said framework being provided with another aperture forming a continuation of the slot in the top wall of said casting, a valve structure for said burner, a pilot light valve structure, a priming cup beneath said pilot light valve structure, and an extended upwardly directed end wall on said priming cup against which the pilot light valve is adapted to direct a flame to cause it to be deflected toward the slots in the side of said casting.

1,075,758. FEED-BAG FOR ANIMALS. GEORGE A. BURNHAM, Cliftondale, Mass., assignor of one-half to Thomas Howe, New York, N. Y. Filed May 6, 1911. Serial No. 625,528. (Cl. 119—65.)



1. In a device of the character described, the combination of a rigid water-tight feed receptacle, adapted to be secured to an animal, and a flexible sleeve within said receptacle, said sleeve having its edges at one end detachably secured to said receptacle, the other end of said sleeve being un-secured to said receptacle, there being a clearance between the unsecured end of said sleeve and the side walls of said receptacle.

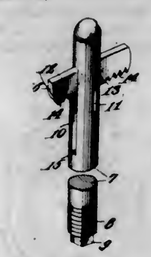
2. In a device of the character described, the combination of an imperforate feed receptacle, adapted to be secured to an animal, a flexible sleeve within said receptacle, said sleeve having its edges at one end detachably secured to said receptacle, the other end of said sleeve being unsecured to said receptacle, and a ring at the end of said sleeve which is unsecured to said receptacle, there being a clearance between the unsecured end of said sleeve and the side walls of said receptacle.

3. In a device of the character described, the combination with a water-tight sheet metal feed receptacle, of a flexible sleeve therein, said receptacle having a groove in its side walls, a spring ring adapted to engage in said groove and secure one end of said sleeve to said receptacle, and a ring secured to the other end of said sleeve, the last mentioned ring being of less diameter than the internal diameter of said receptacle.

4. A combined feed bag and water bucket comprising a rigid, imperforate container, a tapering sleeve of flexible material adapted to fit within said container, means for holding the small end of said sleeve distended, while leaving it free to swing laterally, and means for detachably locking the large end of said sleeve to the walls of said receptacle, substantially as described.

5. In a feeding device for animals, the combination with a sheet metal feed receptacle, of a flexible sleeve within said receptacle, said sleeve being open at both ends, having its upper end detachably secured to the walls of said receptacle and its other end free of said receptacle.

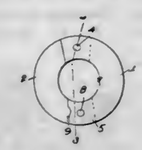
1,075,759. HEADLESS BOLT. ALBERT E. BURRIDGE, Hummelstown, Pa. Filed Aug. 7, 1912. Serial No. 713,830. (Cl. 85—3.)



1. In combination with a bolt having a longitudinal opening at one end and longitudinal slots at the sides of the opening, a bar fitting in the opening, and a pin carried by the bar and terminally engaging in said slots, one end of the bar being overbalanced, the bar and bolt having coöperating portions for constraining the bar to swing open in one direction, that edge of the bar which swings innermost being beveled and toothed adjoining the ends of the bar, the beveled portions facing in the same direction, as and for the purpose described.

2. The combination of a vertical bolt having a longitudinal opening at its upper end and longitudinal slots at the sides of the opening, the upper end of the opening being flat and arranged at right angles to the axis of the bolt and the lower end of the opening being diagonal, a bar fitting in the opening, and a pin carried by the bar nearer its lower end than its upper end and terminally engaging in the slots, the upper end of the bar being curved about the pin as a center to lie snugly under the upper end of the opening and the lower end of the bar being diagonal to seat on the lower end of the opening, the shortest edge of the bar being beveled and toothed adjoining the ends of the bar and the longest edge being straight and designed to seat against the upper end of the opening, the beveled portions facing in the same direction.

1,075,760. WASHER. JOSEPH F. BUTLER, Gordon, Tex., assignor of one-half to John L. Cunningham, Palo Pinto, Tex. Filed Feb. 8, 1913. Serial No. 747,056. (Cl. 85—51.)

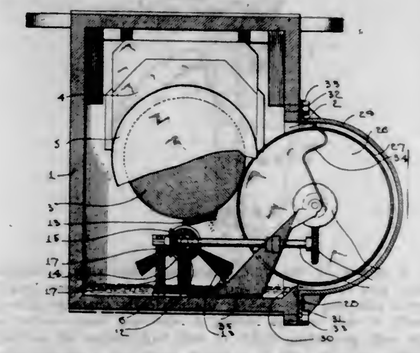


1. A washer comprising two half-ring members provided with recessed ends, said members being pivoted together, the free end of one of the members having a groove and perforation therein, and the other free end having a stud and rounded portion to fit the groove.

2. A washer consisting of two pivotally connected members, one of said members being provided with a concave recess and perforation at its free end, and the other member having a stud and convex recess in its free end.

1,075,761. JOURNAL-BOX FOR RAILROAD-CARS. JACOB CARON, Nampa, Idaho. Filed Jan. 4, 1913. Serial No. 740,209. (Cl. 64—24.)

1. A lubricating device of the class described comprising a base plate having an angularly extending end, upwardly extending brackets carried by said angularly extending end, a shaft carried by the upper ends of said brackets, a worm screw carried by said shaft, a friction disk carried by said shaft and capable of having lateral movement thereon, a brush carried by said plate, and means coöperating with said brush and friction wheel for imparting rotary movement thereto.



2. A lubricating device of the class described comprising a base plate, upwardly extending brackets carried by said plate, a shaft carried by the outer ends of said bracket, said shaft provided with a longitudinally extending key, a friction wheel carried by said shaft and keyed thereto by means of said key and capable of having lateral movement thereon, a worm screw carried by said shaft, a main driving shaft extending transversely of said plate and carrying a worm wheel at its outer end, said worm wheel meshing with said worm screw, a brush carried by said plate, and means carried by said brush and main driving shaft for imparting rotary movement to said brush as said friction wheel is rotated.

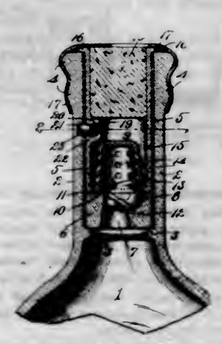
3. In a device of the class described, the combination with a journal box, a lubricating device carried thereby comprising a base plate, a friction wheel carried by said base plate, said journal box provided with a side opening, a closure cap for said opening, and springs carried by said closure cap and engaging said plate for holding said lubricating device in a set position within said journal box.

4. In a device of the class described, the combination with a journal box provided with a side opening, a lubricating device positioned within said journal box and capable of being removed through said side opening, said lubricating device comprising a base plate having an angularly extending end, upwardly extending inclined brackets carried by said end, a brush carried by said plate, a friction wheel carried by said brackets, means coöperating with said brush and wheel for imparting rotary movement to said brush, said friction wheel having rotary movement, a closure cap closing said side opening, and springs carried by said cap and engaging the upper ends of said brackets for holding said lubricating device in a set position within said journal box.

5. In a device of the class described the combination of a journal box, said journal box provided with an oil retaining flange upon one side thereof, said box also provided with a side opening adjacent said oil retaining flange, a plurality of vertically extending ribs extending transversely of said journal box, each rib provided with an overhanging flange near the rear end thereof, a lubricating device positioned within said journal box and comprising an elongated plate fitting under said overhanging flanges, and said overhanging flanges extending approximately one-half the width of said plate, and a closure for said side opening.

1,075,762. LIQUID-CONTAINER. EPHRON CATLIN, Jr., St. Louis, Mo., assignor of one-half to Huntington Smith, Jr., St. Louis, Mo. Filed Oct. 31, 1912. Serial No. 728,866. (Cl. 215—69.)

1. The combination with the outlet passage of a container, of a valve support within said outlet passage, a guard provided with an imperforate top, a valve resting upon said valve support, projections on said valve extending between said support and said guard, oblique passages whose outer ends are lower than their inner ends opening through the side wall of said guard, a tube in said outlet passage encircling said guard, and elements locking said tube in position, substantially as specified.



2. The combination with the outlet passage of a container, of a stationary support mounted in said passage, a guard above said stationary support, a valve above said support, projections on said valve engaging said stationary support, means preventing said valve from entering said guard, a tube encircling said guard and forming a space between said tube and said guard, passages through the wall of said guard arranged to discharge the contents of said container into said space, and elements locking said tube within said outlet passage of the container, substantially as specified.

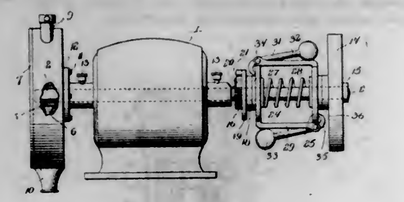
3. The combination with the outlet passage of a container, of a valve within said outlet passage, means supporting said valve in an oblique position, an inverted cup-shaped guard above said valve and having an imperforate top, oblique passages through the side wall of said guard, an abutment in said guard below said passages preventing movement of said valve into said guard when the container is inverted, and a lock device mechanically locking said guard within said outlet passage, substantially as specified.

4. The combination with the outlet passage of a container, of a support in said passage having a dished recess in its upper side, a valve resting in said recess and having one edge pivoted above said support, an inverted cup-shaped guard seated on said support, said guard being provided with an imperforate outer end wall, passages extending obliquely outwardly and downwardly through the side wall of said guard, means preventing movement of said valve beyond a substantially horizontal position when the container is inverted, a tube in said outlet passage encircling said guard, a lock device holding said tube within said outlet passage of the container, and a layer of elastic material between said tube and said outlet passage, substantially as specified.

5. The combination with the outlet passage of a container, of a support in said passage having an enlarged recessed valve seat in its upper side, a valve seated in said valve seat, projections on said valve resting on the upper side of said support, an inverted cup-shaped guard in said passage provided with an imperforate outer end, passages opening obliquely downwardly and outwardly through the wall of said guard, means retained in position by said guard to prevent movement of said valve beyond a horizontal position when the container is inverted, and a seal encircling said outlet passage and holding said guard in position within said outlet passage, substantially as specified.

[Claim 6 not printed in the Gazette.]

1,075,763. IGNITION AND STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. LOREN E. CLARK, Meadville, Pa. Filed Feb. 7, 1913. Serial No. 746,865. (Cl. 123—149.)



1. The combination with an internal combustion engine, of ignition mechanism for the same comprising a rotary electric generator, a friction wheel loose on the shaft of the generator, a friction clutch automatically controlled by the speed of said shaft operating to throw said friction wheel and shaft into and out of driving engagement, and a motor independent of the engine for driving the shaft of the generator preparatory to the driving action of the friction wheel.

2. The combination with an internal combustion engine, of ignition mechanism for the same comprising a rotary electric generator, a friction wheel loose on the shaft of the generator, a clutch including a speed governor automatically controlled by the speed of said shaft operating to throw said friction wheel and shaft into and out of driving engagement, a motor independent of the engine for driving the shaft of the generator preparatory to the driving action of the friction wheel, the governor embodying a pair of frame members in spaced relation to each other and slidable on said shaft, one of said members being movable into and out of engagement with a friction face on said wheel, an expansion spring for spreading said frame members apart, and governor arms acting to press said members toward each other.

3. The combination with an internal combustion engine, of ignition mechanism for the same comprising a rotary electric generator, a friction wheel loose on the shaft of the generator, a clutch including a speed governor automatically controlled by the speed of said shaft operating to throw said friction wheel and shaft into and out of driving engagement, and a motor independent of the engine for driving the shaft of the generator preparatory to the driving action of the friction wheel, the governor embodying a pair of frame members in spaced relation to each other and slidable on said shaft, one of said members being movable into and out of engagement with a friction face on said wheel, an expansion spring for spreading said frame members apart, governor arms acting to press said members toward each other, a ratchet wheel on said shaft, a pawl carrier normally loose on said shaft and adapted to be engaged by one of said frame members, and a pawl on said carrier.

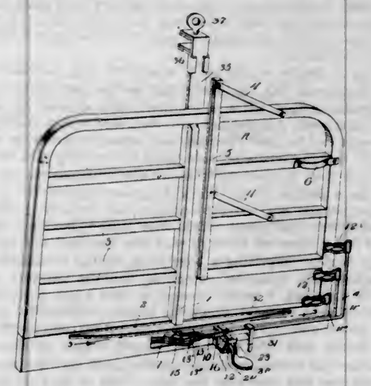
4. The combination with an internal combustion engine, of ignition mechanism for the same comprising a rotary electric generator, a friction wheel loose on the shaft of the generator, a clutch including a speed governor automatically controlled by the speed of said shaft operating to throw said friction wheel and shaft into and out of driving engagement, and a motor independent of the engine for driving the shaft of the generator preparatory to the driving action of the friction wheel, the governor embodying a pair of frame members in spaced relation to each other and slidable on said shaft, one of said members being movable into and out of engagement with a friction face on said wheel, an expansion spring for spreading said frame members apart, governor arms acting to press said members toward each other, a ratchet wheel on said shaft, a pawl carrier normally loose on said shaft and adapted to be engaged by one of said frame members, and a reversible pawl on said carrier.

1,075,764. FEED-BAG. JOSEPH CONRADI, St. Louis, Mo. Filed Aug. 9, 1911. Serial No. 643,089. (Cl. 119—66.)



A device of the kind described comprising a flexible bag, two cylindrical castings of substantially even length with said bag disposed at diametrically opposite points, each of said castings having a relatively large sector of its body projecting inside of said bag, means for holding said casing in said last-named positions, a plunger disposed in each casing a head formed on each plunger mounted in said casing, and a spring coiled around said plunger in each casing.

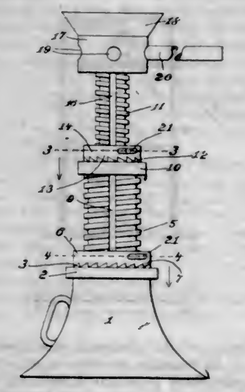
1,075,765. MUSIC-LEAF TURNER. SAMUEL J. COOK, Kansas City, Mo. Filed Sept. 17, 1912. Serial No. 720,837. (Cl. 84—135.)



In a device of the class described, a frame, a shaft supported on the front side of the frame, a plurality of arms pivoted on the shaft, each having a crank extending radially with respect to the shaft, spring means connected with the cranks for actuating the arms successively in one direction, leaf holding devices associated with the arms, a handle connected with one of the arms which is outermost when the arms are in normal position before being released, and lugs extending rearwardly from the handle carrying arm and accommodating between them the remaining arms to enable said arms to be simultaneously turned against the tension of the springs.

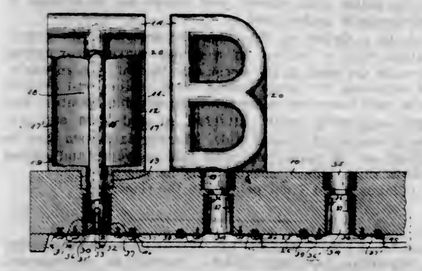
1,075,766. LIFTING-JACK. JOHN CORYELL, Coryell, Mich. Filed Apr. 1, 1912. Serial No. 687,833. (Cl. 57—44.)

1. In combination, a base, a screw threaded into the base, a second screw threaded into the first screw, a lever connected to the second screw, and means to alternately and automatically lock one screw and permit the rotation of the other screw upon a reciprocating movement of the lever.



2. In combination, a base, a screw threaded thereinto, a second screw threaded into the first screw and having its threads running in opposite directions to the threads of the first screw, a lever connected to the second screw, and opposite ratchet connections between the first screw and the base and between the second screw and the first screw.

1,075,767. ELECTRIC SIGN. FRANK R. CRANE, Jr., Chicago, Ill., assignor, by direct and mesne assignments, to Crane Electric Specialty Company, a Corporation of Illinois. Filed Jan. 22, 1913. Serial No. 743,456. (Cl. 40—130.)



1. In an electrical sign, the combination of a supporting base having a plurality of pockets in its upper side, letter structures each having a neck for engaging in said pockets, said base having openings in its bottom one to each of said pockets, lamps adapted to be inserted into said letter structures through said openings and pockets, a plug for each lamp receiving the lower end thereof and adapted to engage tightly in the respective opening to securely hold the lamp in position in its structure, circuit terminals for each lamp, and current supply contacts for said terminals.

2. In an electrical sign, the combination of a supporting base having vertical openings therethrough, letter structures each having a neck on its base for fitting into the upper end of one of said openings, said structures having transparent letter areas, a lamp extending through each opening and into the corresponding letter structure, a supporting base for each lamp fitting into the lower end of the respective opening, and circuit connections for said lamps.

3. In an electrical sign the combination of a supporting base having openings extending vertically therethrough, a letter structure over each opening having a supporting neck fitting into the upper end of the opening, a lamp extending through each opening and into the letter structure thereover, a supporting plug for each lamp fitting into the lower end of the opening, terminals on each plug, and supply circuit terminals on said supporting base for receiving said lamp terminals.

4. In an electrical sign, the combination of a supporting base having an opening extending therethrough, a letter structure having a neck fitting into one end of said opening, a lamp extending through said opening and neck and into said letter structure, a supporting plug for said lamp fitting into the other end of said opening, lamp terminals on said plug, and circuit terminals in said opening with which said lamp terminals engage upon insertion of the lamp.

5. In an electrical sign, the combination of a supporting base, a letter structure mounted on said base, an opening through said base leading to said structure, a lamp adapted to be inserted through said opening and into the letter structure, terminal contacts on said lamp, and circuit terminals on said base engaged by said contacts upon insertion of the lamp.

[Claim 6 not printed in the Gazette.]

1,075,768. ARC-LAMP ELECTRODE. FRANK R. CRANE, Jr., Chicago, Ill., assignor of one-third to Henry Jampolis and one-third to George N. Nelson, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 758,025. (Cl. 176—334.)

1. An electrode composed of a mixture of about 75% comminuted carbon, 12.5% soda ash, 5% iron filings, 5% metallic magnesium, and the remainder a suitable binder.

2. An electrode composed of the ingredients

Comminuted carbon or lamp black	75. %
Soda ash	12. 5%
Cast iron filings	5. %
Metallic magnesium	5. %
Clay as a binder	2. 5%

compressed together and into form.

1,075,769. FENCE-DROPPER. WILLIAM DALL, Dunedin, New Zealand. Filed Sept. 6, 1912. Serial No. 718,991. (Cl. 256—58.)



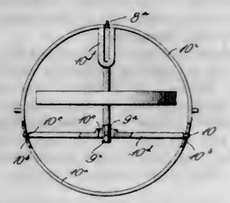
1. A resilient dropper of angle section having a bell-mouthed hook-notch for each wire formed alternately in the edges of its flanges, the portion of the edge opposite each notch being left plain, said dropper being of sufficient lightness to be sprung slightly outward by the tightening of each wire, whereby the wires are maintained taut by the sprung flanges of the dropper, and the latter is held in position by the remaining wires when any one of said wires is being tightened.

2. Fence droppers formed of thin angle section springy material, with one retaining notch formed for each wire, alternately on opposite flanges, the edges opposite each notch being plain, the said dropper being of sufficient lightness to be sprung slightly outward by the tightening of each wire, so that the wires are kept tight by the tendency of the flanges of the said dropper to return to the normal position of straightness, all substantially as set forth.

1,075,770. GYROSCOPE. EDWARD N. DARROW, Homer, Mich. Filed June 23, 1911. Serial No. 634,929. (Cl. 74—78.)

1. A gyroscope comprising a fly wheel having a normally upright axle, a frame-ring having a step-bearing

in which the lower trunnion of said axle is journaled, a guide for the upper trunnion standing in a plane at an angle to that of said ring, and a movable catch having a groove at an angle to the length of said guide and adapted to be brought into temporary engagement with said upper trunnion, for the purpose set forth.



2. A gyroscope comprising a fly wheel having a normally upright axle, a frame-ring having a bearing in which the lower trunnion of said axle is journaled, a guide for the upper trunnion standing in a plane at right angles to that of said ring, and a catch mounted movably on said frame-ring and having a head provided with a groove in its under side standing at an angle to said guide and movable into temporary engagement with said upper trunnion, for the purpose set forth.

3. A gyroscope comprising a fly wheel having a normally upright axle, a frame-ring having a bearing in which the lower trunnion of said axle is journaled, a guide for the upper trunnion standing in a plane at right angles to that of said ring, and a starting device comprising a slotted catch movably mounted on the frame-ring and having a groove adapted to engage said upper trunnion at right angles to the length of said guide, and pins in said ring loosely engaging the slots of the catch.

4. A gyroscope comprising a fly wheel having a fixed axle, a frame ring pivotally supported at diametrically opposite points, a bearing for one end of said axle carried by the ring between said points, and a guide carried by the ring opposite said bearing and having a slot for the other end of the axle extending across and to both sides of the ring.

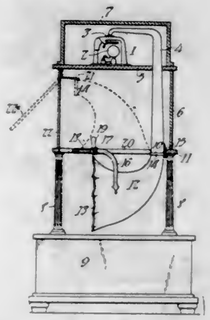
5. A gyroscope comprising a fly wheel having a normally upright axle through it, a frame pivotally supported in a normally upright plane across an unstable support, a bearing within the frame for the lower end of said axle, and a plate rigidly mounted upon and across the top of the frame and having a slot for the upper trunnion of said axle.

[Claims 6 and 7 not printed in the Gazette.]

1,075,771. PHONOGRAPH. FRANK L. DYER, Montclair, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed June 19, 1909. Serial No. 503,237. (Cl. 181—2.)

1. In a device of the character described, the combination with a phonograph reproducer of a cabinet upon which said reproducer is mounted, said cabinet being so supported as to leave an open space beneath it, a sound conveyer extending downwardly from said reproducer through said cabinet, and a horn pivotally mounted adjacent the lower side of said cabinet to swing into connection with said conveyer to form a continuation thereof and occupy the space beneath said cabinet, or to be swung about its pivot out of connection with said conveyer, and up into said cabinet, substantially as described.

2. In a device of the character described, the combination with a phonograph having a shiftable mandrel and a stationary reproducer, of a cabinet upon which said phonograph is mounted, said cabinet being so supported as to leave an open space beneath it, a stationary sound conveyer extending downwardly from said reproducer through said cabinet, a sound amplifying horn, and supporting means for said horn permitting shift thereof into operative position connecting with said conveyer in the space beneath said cabinet, or into inoperative position out of connection with said conveyer, within said cabinet, substantially as described.



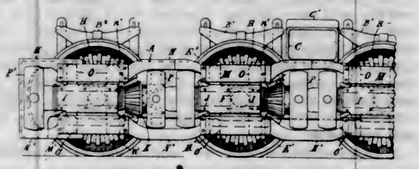
3. In a device of the character described, the combination with a phonograph reproducer, of a cabinet upon which said reproducer is mounted, said cabinet being so supported as to leave an open space beneath it, a sound conveyer extending downwardly from said reproducer through said cabinet, an amplifying horn adapted to occupy the space beneath said cabinet and connect with said conveyer, a bracket secured to said horn near the larger end thereof, and a slidable member by which said bracket is pivotally supported, adjacent the lower edge of the cabinet, substantially as described.

4. In a device of the character described, the combination with a cabinet of a sound conveyer extending through the same to the lower side thereof, a horn adapted to occupy the space beneath said cabinet and connect with said conveyer, means for so holding it in position, a pivotal mounting for said horn whereby it may be swung out of connection with said conveyer and entirely within said cabinet, and means for so holding it, substantially as described.

5. In a device of the character described, the combination with a cabinet of a sound conveyer extending through the same to the lower side thereof, a horn adapted to occupy the space beneath said cabinet and connect with said conveyer, a horizontally slidable member, and horn supporting means attached to said horn and pivotally supported by said slide, whereby said horn may be moved out of connection with said conveyer and swung within said cabinet, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,075,772. MULTIPLE-WHEELED TRUCK FOR GEARED LOCOMOTIVES. LEWIS E. FEIGHTNER, Lima, Ohio, assignor to Lima Locomotive Corporation, Lima, Ohio, a Corporation of Ohio. Filed June 12, 1913. Serial No. 773,157. (Cl. 105—227.)



1. In a multiple wheeled-truck, for geared locomotives, the combination, with side truck-frames having axles and axle-boxes movable independently therein, of a transverse shaft-box supported across the end of each axle and a shaft-section therein connected to the axle by gearing to rotate the truck-wheels thereon, means for maintaining the shaft-box at the same level as the axle, and means for connecting all the shaft-sections flexibly together to permit each axle an independent vertical movement within the truck.

2. In a multiple wheeled-truck, for geared locomotives, the combination, with the side truck-frames having axle-boxes movable independently therein, of axles fitted to sions projected outside of the same, transverse shaft-boxes carried upon such axial-extensions, and line-shaft sections journaled in the transverse boxes and geared to the said driving-wheels and connected flexibly together to operate all of such wheels simultaneously and permit each axle an independent vertical movement when passing over inequalities of truck.

3. In a multiple wheeled-truck, for geared locomotives, the combination, with side-frames having axle-boxes movable vertically and independently therein, of axles fitted to the boxes with overhung truck-wheels, and axial extensions projected outside of the same, transverse shaft-boxes carried upon such axial extensions, line-shaft sections journaled in the transverse boxes, gearing connecting the shaft-sections to the driving-wheels, and universal joints connecting such shaft-sections, whereby each axle in the truck is capable of independent vertical movement.

4 A multiple wheeled-truck, for geared locomotives, having side-frames with axle-boxes movable vertically therein and axles fitted reversibly to the boxes with overhung truck-wheels and similar axial extensions projected outside of the same at both ends of the axles, similar annular seats on the outer sides of all of the wheels, bevel-gears secured upon such seats on the wheels at one end of each axle, and transverse shaft-boxes fitted to the axial extension adjacent such bevel-gears and provided with line-shaft sections and pinions to drive the said bevel-gears.

5. In a multiple wheeled-truck, for geared locomotives, the combination, with side-frames having axle-boxes movable vertically and independently therein, of axles fitted to the boxes with overhung driving-wheels, and axial extensions projected outside of the same, transverse shaft-boxes carried upon such axial extensions, means for retaining them upon the said extensions and permitting vertical movement only of such transverse bearings, and shaft-sections journaled in the transverse bearings and geared to one another and to the driving-wheels, substantially as herein set forth.

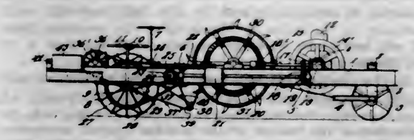
[Claims 6 to 11 not printed in the Gazette.]

1,075,773. COMPOSITION FOR HEAT-INSULATING AND THERMO-ELECTRIC PURPOSES. PIERRE FERRA, Caluire-et-Cuire, near Lyon, France. Filed Nov. 25, 1911. Serial No. 662,487. (Cl. 106—18.)

1. A homogeneous composition consisting of copper sulfid, sulfur and kaolin.

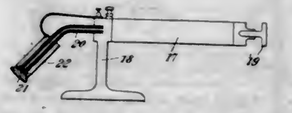
2. A composition consisting of the following substances in substantially the following proportions: copper sulfid 78 per cent., sulfur 20 per cent., and a substance having the characteristics of kaolin 2 per cent.

1,075,774. GRADING-MACHINE. CHARLES H. FOLEY, Sherman, Tex. Filed Apr. 29, 1911. Serial No. 624,056. (Cl. 37—29.)



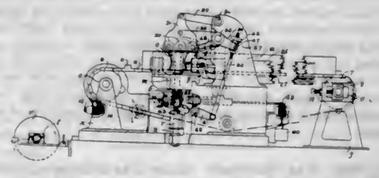
In a grading machine, a frame embodying side beams, rear driving wheels, an axle for the driving wheels adjustably connected to the respective beams, a grading drum carried by the beams in advance of the driving wheels, hangers carried by the beams, a roller of relatively smaller diameter carried by the hangers below the back of the drum and slightly below a plane tangent to the bottom of the drum, a roller of relatively large diameter carried by the beams, a conveyer belt trained over the said rollers, the said axle extending between the upper and lower runs of the conveyer belt, and means for actuating the conveyer belt and grading drum.

1,075,775. WAX-MELTING AND SEALING DEVICE. MACAIRE FOURNIER and GEORGE HENRY JACKSON, La Rochelle, France. Filed Nov. 1, 1912. Serial No. 729,043. (Cl. 219—21.)



A device of the kind described comprising in combination a handle, a heat conducting body carried by one end of the handle, another heat conducting body carried by the first named heat conducting body and connected therewith by heat conducting means, the heat conducting body named in the second place being intended to be applied upon the wax to be melted, a sealing stamp carried by the opposite end of said handle, and means for heating the said first named heat conducting body, substantially as and for the purpose set forth.

1,075,776. MACHINE FOR BARKING RAILWAY-TIES AND THE LIKE. HOPE LYLE GALLOWAY, Kilmalcolm, Scotland, assignor to Galloway, Weir & Gibson, Ltd., Glasgow, Scotland. Filed Nov. 6, 1912. Serial No. 729,724. (Cl. 144—208.)



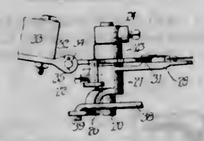
1. A machine comprising, in combination, a frame, a pair of cutters located opposite to each other and adapted to rotate in opposite directions about vertical axes, means for conveying timber to be treated between said cutters, a top pressure member adapted to make contact with the top of said timber and to rise and fall with variations in the depth thereof, and mechanism connecting said top pressure member with said cutters and adapted to raise said cutters half the distance that the said top pressure member rises.

2. A machine comprising, in combination, a frame, a pair of cutters located opposite to each other and adapted to rotate in opposite directions about vertical axes, means for conveying timber to be treated between said cutters, a top pressure member adapted to make contact with the top of said timber and to rise and fall with variations in the depth thereof, and mechanism connecting said top pressure member with said cutters and adapted to raise said cutters half the distance that the said top pressure member rises, the said cutters being provided with knives having concave cutting edges.

1,075,777. LEVER ADJUSTMENT FOR WHEEL-PLOWS. JOSEPH W. GAMBLE, Carpentersville, Ill. Filed Mar. 25, 1911. Serial No. 616,866. (Cl. 97—75.)

1. In a wheel plow, a land-side wheel and a front and rear wheel, a connection uniting said front and rear wheels, a standard upon which said front wheel is mounted, a sleeve rigidly mounted upon said standard, a sec-

ond sleeve loosely mounted upon said standard, a tongue connected to said second sleeve, means for normally maintaining said sleeves in rigid connection with each other, and means for breaking this rigid connection so that said first-mentioned sleeve can be rotated independently of said second-mentioned sleeve in order to adjust said front and rear wheels to or from the edge of the land.

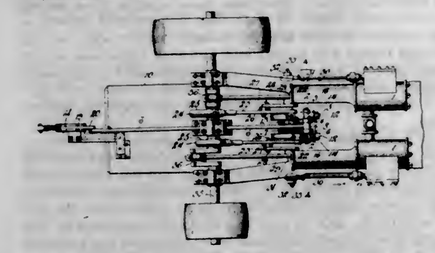


2. In a wheel plow, a land-side wheel and front and rear wheels, a connection uniting said front and rear wheels, a standard upon which said front wheel is mounted, a sleeve rigidly mounted upon said standard, a second sleeve loosely mounted upon said standard, a tongue connected to said second sleeve, a rearwardly extending hand lever connected to the said first-mentioned sleeve, and means associated with said hand lever for normally maintaining said sleeves connected with each other, means for disconnecting said sleeves, whereby said first-mentioned sleeve can be rotated by the hand lever to adjust said front and rear wheels to or from the edge of the land.

3. In a wheel plow, front and rear wheels, a standard upon which said front wheel is mounted, a sleeve fast upon said standard, a second sleeve loose upon said standard, a connecting rod connected at its rear end with said rear wheel, and adapted at its front end to be connected with either of said sleeves.

4. In a wheel plow, front and rear wheels, a standard upon which said front wheel is mounted, a sleeve fast upon said standard, a second sleeve loose upon said standard, an arc rack mounted upon said loose sleeve, an operating lever mounted upon said fast sleeve and carrying a spring finger adapted to engage with said arc rack, and means for connecting said rear wheel to either of said sleeves, together with means for disengaging said spring finger from said arc rack, whereby said operating lever can be rotated so as to adjust the angular position of said wheels.

1,075,778. VALVE-GEAR. JOHN HENRY GENTRY, Greentown, Ind. Filed Feb. 12, 1913. Serial No. 747,975. (Cl. 121—97.)



1. The combination with an eccentric rod, of a valve gear including an inverted radius link connected at its upper end with the eccentric rod, a reverse slide connected with the lower end of the radius link and forming a support for and carrying the same, and a fixed guide upon which the reverse slide is mounted.

2. The combination with an eccentric rod, of a valve gear including an inverted radius link, a guide, a reverse slide movable along the guide and connected with and supporting the radius link, and operating means connected with and adapted to move the reverse slide along the guide.

3. The combination with an eccentric rod, of a valve gear including an arcuate guide, an arcuate reverse slide movable along the guide, and an inverted radius link carried by the reverse slide and connected at its upper end with the eccentric rod.

4. The combination with an eccentric rod, of a valve gear including an inverted radius link pivoted directly at its upper end to the eccentric rod, a reverse slide carrying the radius link, means for guiding the reverse slide, and a bell crank connected with the eccentric rod for transmitting motion to a valve.

5. The combination with an eccentric rod, of a valve gear including an inverted radius link pivoted directly at its upper end to the forward end of the eccentric rod, a reverse slide connected with the lower end of the radius link and supporting the same, means for guiding the reverse slide, a link connected to the eccentric rod at a point intermediate of the ends thereof, and a bell crank for transmitting motion from the last-mentioned link to a valve.

[Claims 6 to 10 not printed in the Gazette.]

1,075,779. AUTOMOBILE-TRUCK. DWIGHT GERBER, Bellevue, Pa., assignor of one-half to William W. Keefer, Pittsburgh, Pa. Filed Aug. 22, 1912. Serial No. 716,369. (Cl. 21—20.)



1. The combination of a truck frame, a bottomless body movable longitudinally thereof, an endless conveyer beneath and constituting a bottom for the body and movable independently of the latter, conveyer moving means, and means for limiting the rearward movement of the body.

2. The combination of a truck frame, a bottomless body movable longitudinally thereof, an endless conveyer beneath and constituting a bottom for the body and movable independently of the latter, conveyer moving means, means for limiting the rearward movement of the body, and means for connecting the body to the conveyer for moving the body forwardly after it has been moved rearwardly for discharging the load.

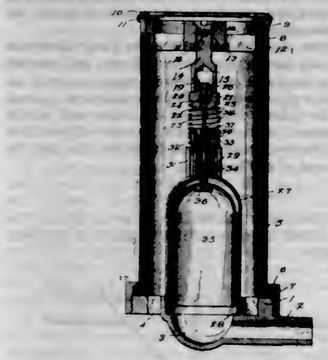
3. The combination of a truck frame, a bottomless body mounted thereon and movable longitudinally thereof for projecting a portion of the body rearwardly beyond the frame, a conveyer movable bodily longitudinally and independently of the frame and constituting a bottom for the body for moving the entire load rearwardly, the backwardly moving load causing the body to move rearwardly therewith, means for limiting the backward movement of the body, means carried by the truck for propelling the same, and means for operatively connecting the conveyer with the propelling means.

4. The combination of a truck frame, a bottomless body mounted thereon, a bottom for the body movable longitudinally of the latter for discharging the contents thereof, and means for shaking the body while the load is being discharged.

5. The combination of a truck frame, a bottomless body mounted thereon and movable longitudinally thereof, adjustable means for stopping the movement of the body for determining the length of the portion thereof projecting beyond the truck frame, a floor for the body movable longitudinally of the latter and of the frame for discharging the contents of the body through the projected portion of the latter, and means for detachably securing together the body and said bottom.

[Claims 6 to 22 not printed in the Gazette.]

1,075,780. VALVE FOR RADIATORS. EARL E. GIBBONS, Hoopeston, Ill. Filed June 17, 1912. Serial No. 704,188. (Cl. 237—19.)



1. A valve of the class described comprising a base, an expansible casing carried by said base, a jacket carried by said base, said jacket provided with an upwardly extending neck, a valve seat carried by said neck, a cap carried by said casing, an adjusting screw carried by said cap, a vertically movable head engaging said adjusting screw a spring supporting said head and holding the same in engagement with said adjusting screw, a float carried within said jacket, a valve stem passing through said valve seat and engaging said float, means carried by said valve stem for closing the passage through said valve seat, and a head carried by the upper end of said valve stem for engaging said first named head and thereby causing said float to be raised as said casing expands.

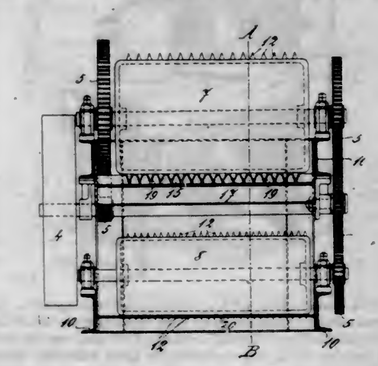
2. A valve of the class described comprising a base, an expansible casing carried by said base, a cap carried by said expansible casing, a jacket carried by said base, an adjusting screw carried by said cap, a head yieldably supported upon said jacket and engaging said adjusting screw, and a valve engaging said head, a valve seat carried by said jacket for receiving said valve and thereby closing the passage through said valve seat as said casing expands.

1,075,781. APPARATUS FOR PREPARING TINNED SHEET-IRON BOXES, &c., FOR DETINNING. HANS GOLDSCHMIDT, Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, Jersey City, N. J., a Corporation of New York. Filed Jan. 22, 1907. Serial No. 353,536. (Cl. 164—10.6.)

1. A machine for preparing tinned boxes and the like for detinning, comprising a pair of spaced compressed rolls, each roll having fixed pointed projections on its periphery extending radially therefrom, and means for preliminarily partially compressing the boxes to place them in condition to be readily gripped by said rolls, said means comprising a second pair of rolls disposed above the first pair and spaced farther apart than said first-named rolls and also provided with pointed projections on their peripheries.

2. A machine for preparing tinned boxes and the like for detinning, comprising a pair of spaced compressing rolls, each roll having fixed pointed projections on its periphery extending radially therefrom, means for preliminarily partially compressing the boxes to place them in condition to be readily gripped by said rolls, said means comprising a second pair of rolls disposed above the first pair and spaced farther apart than said first-named rolls and also provided with pointed projections on their peripheries, and means to adjust the width of the space between said last-named rolls to accommodate boxes of different sizes.

3. A machine for preparing tinned boxes and the like for detinning, comprising a pair of spaced compressing rolls, each roll having fixed pointed projections on its periphery extending radially therefrom, and means for preliminarily partially compressing the boxes to place them in condition to be readily gripped by said rolls, said means



comprising a second pair of rolls disposed above the first pair and spaced farther apart than said first-named rolls and also provided with pointed projections on their peripheries, but in less number and larger than those on the first-named pair, said last-named rolls being larger than the first and rotatable at a less rate of speed than said first-named rolls.

1,075,782. METHOD OF RAISING THE ALLOYING QUALIFICATION OF TITANIUM. HANS GOLDSCHMIDT and OTTO WEIL, Essen-on-the-Ruhr, Germany, assignors to The Firm of Th. Goldschmidt, Essen-on-the-Ruhr, Germany, composed of Karl Goldschmidt and Hans Goldschmidt. Filed Oct. 19, 1910. Serial No. 587,857. (Cl. 75—45.)

1. The method of treating a metallic bath, which consists in subjecting it to the conjoint action of aluminum and an alloy of titanium containing more than 15% of titanium.

2. The method of treating a metallic bath, which consists in subjecting it to the conjoint action of a small percentage of aluminum and an alloy of titanium containing more than 15% of titanium.

3. The method of treating a metallic bath, which consists in subjecting it to the action of an alloy of titanium containing more than 15% of titanium in combination with at least 1.5% of aluminum.

4. A method of treating a bath of iron or steel, which consists in subjecting it to the action of an alloy of titanium with aluminum containing a greater percentage of titanium than aluminum.

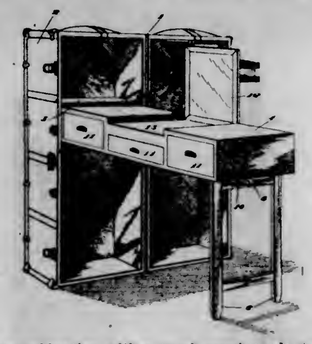
5. A method of treating a bath of iron or steel, which consists in subjecting it to the action of an alloy of ferrotitanium with aluminum containing a greater percentage of titanium than aluminum.

[Claim 6 not printed in the Gazette.]

1,075,783. TRUNK. NATHAN GOLDSMITH, Newark, N. J. Filed Oct. 8, 1912. Serial No. 724,543. (Cl. 190—11.)

1. The combination with a trunk member adapted to assume an endwise position extending upward from the floor, of a table member small enough to be contained by the trunk in closed relation to that part of said trunk member which is its lower part when the trunk member is standing upright on end, means for connecting one end of said table member to said trunk member at an upper part of the same when stood upright, legs pivoted to the other end of said table member to fold against its bottom, and

means for releasably holding said legs extended to cooperate in holding the trunk member upright when the table member is in substantially horizontal position.



2. The combination with a trunk member adapted to assume an endwise position extending upward from the floor, of a table member hingedly connected at one end to said trunk member at an upper part of the same when the trunk member is stood upright on end and adapted to swing downward into closed relation to the lower part of said trunk member, legs pivoted to the other end of said table member to fold against its bottom, and means for releasably holding said legs extended to and coöperate in holding the trunk member upright when the table member is in substantially horizontal position.

3. The combination with a trunk member adapted to assume an endwise position extending upward from the floor and having a transverse partition nearer its upper end, of a table member small enough to be contained in the lower part of said trunk member when the trunk member is stood upright on end, means connecting one end of said table member to said partition so as to swing upward to substantially horizontal position, legs pivoted to the other end of said table member to fold against its bottom, and means for releasably holding said legs extended to cooperate in holding the trunk member upright.

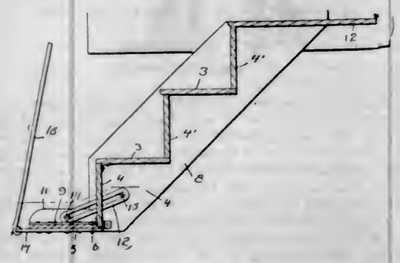
1,075,784. FLY-SWATTER. GEORGE D. HENRY, Kansas City, Mo. Filed Feb. 10, 1913. Serial No. 747,425. (Cl. 43—1.)



1. A fly swatter including a handle having a triangular end, a fabric body having the corner of each end thereof folded inwardly, said end of the handle being received between said body and each of the folded corners at one end of the body, the folded corners at the other end of the body being engaged with the folded corners of the first named end of the body, and a triangular member having flanged sides and a row of teeth at the base of the triangle, said member being engaged with one face of the inner end of the fabric body and said flanges being engaged with the opposite face of the inner end of the body, the teeth of said member engaging the fabric at points between the sides of the triangular handle.

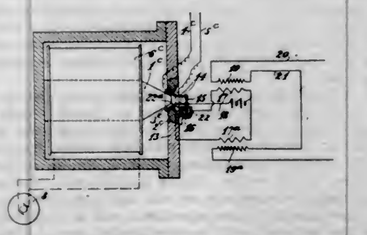
2. A fly swatter including a handle having a triangular end, a fabric body having the corner of each end thereof folded inwardly, said end of the handle being received between said body and each of the folded corners at one end of the body, the folded corners at the other end of the body being engaged with the folded corners of the first named end of the body, and means to secure the body to the triangular end of the handle.

1,075,785. SWINGING CAR-STEP. MARY A. HOFF, Vinton, Iowa. Filed July 30, 1913. Serial No. 782,095. (Cl. 105—86.)



The combination with a set of stationary car steps including a pair of side plates and a riser terminating short of said plates, of a swinging car step, hinges secured to the top of the swinging step adjacent the rear edge thereof and to the front of the riser adjacent the lower edge thereof, the opposed edges of the car step and riser being beveled, a pair of angular plates secured to the top of the swinging step adjacent the ends thereof, a pair of links, means for connecting one link to each of and riser being beveled, a pair of angular plates secured to the top of the swinging step adjacent the ends thereof, a pair of links, means for connecting ine link to each of the angular plates, a rod fixed at its ends to the side plates of the stationary steps and passing through said links, an operating rod connected at its lower end to the swinging step and means for supporting the upper end of the operating rod, an upward movement of the operating rod causing the swinging step to be moved into a vertical plane.

1,075,786. APPARATUS FOR PRODUCING AND UTILIZING MICRO MOVEMENTS IN WEAK-CURRENT TECHNICS. JONAS ALBERT JOHNSEN, Copenhagen, Denmark. Filed Apr. 11, 1911. Serial No. 620,267. (Cl. 179—171.)



1. An apparatus for producing and utilizing acoustic and similar micro displacements of a coil carrying a weak current in a concentric magnet field, comprising a magnet field constituted by strong current electro-magnets and a coil carrying a weak current, the diameter of said coil being smaller than the diameter of the core of the concentric magnet, and said core being provided with a concentration pole which closely surrounds said coil.

2. An apparatus for rendering the movements of a conductor carrying a weak current in a magnetic field capable of practical utilization comprising the combination with an electro-magnet having conical pole pieces for concentrating the lines of force of an axially displaceable conductor carrying a weak current situated in said field and connected to the ends of springs held in place at central points and constituting a reproducing device.

3. An apparatus for rendering the movements of a conductor carrying a weak current in a magnetic field capable of practical utilization comprising the combination with an electro-magnet having concave and convex cone shaped pole pieces in proximity to each other of a resiliently retained conductor carrying a weak current axially displaceable in the concentrated field induced by the said magnet poles and connected through intermediate members with a microphone.

4. An apparatus for producing and utilizing acoustic and similar micro displacements of a coil carrying a weak current in a concentric magnet field, comprising a relatively small coil and a field constituted by means of large strong current electro-magnets provided with concentration poles, and a resilient bar secured in the axis of said poles and extending transversely over said concentrated field, said coil being suspended from said bar as a freely movable body in said field.

5. An apparatus for producing and utilizing acoustic and similar micro displacements of a coil carrying a weak current in a concentric magnet field, comprising a relatively small coil and a field constituted by means of large strong current electro-magnets provided with concentration poles, a resilient bar secured in the axis of said poles and extending transversely over said concentrated field, said coil being suspended from said bar as a freely movable body in said field, and a microphone electrode also suspended from said bar as a freely movable body.

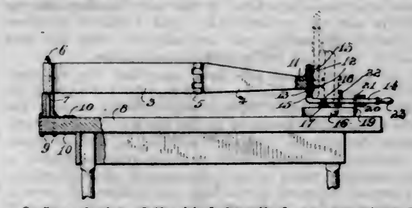
1,075,787. CONSTRUCTION OF TROLLEY INSULATED SECTIONS. ROYAL RUBBEN MILLER, Pueblo, Colo., assignor, by direct and mesne assignments, to The Miller Electric Switch Company, a Corporation of Colorado. Filed Dec. 2, 1911. Serial No. 663,594. (Cl. 191—39.)



In an insulated section for a trolley wire, as described, a clamping piece with an inclined plane constituting an approach, attached to the trolley line by opposed set screws; lips provided on said clamping piece adapted to receiving insulating material retained by bolt means; a head piece of the insulated section provided with lips adapted to receive the insulating material retained by bolt means and provided with ears usable for guying purposes and an extended element adapted to receive a wire provided with set screw means to retain the same; said insulating material disposed between the lips of said clamping piece and the lips of said head of the insulated section said insulating material provided with a groove partly to inclose the trolley line; said clamping piece and said head of the insulated section so disposed upon said insulating material as to leave a space between them, all substantially as set forth.

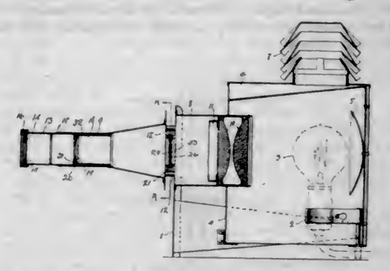
1,075,788. IRONING DEVICE. NICHOLAS OROS, Chicago, Ill. Filed May 10, 1913. Serial No. 766,692. (Cl. 68—9.)

1. In a device of the kind described, an arm pivoted to swing in a horizontal plane; a lever pivoted to the free end of said arm; a sad iron pivotally connected with said lever; and means on said sad iron engaging said lever and adapted to limit the pivotal movement of said sad iron, substantially as described.



2. In a device of the kind described, an arm pivoted to swing in a horizontal plane; a lever pivoted to the free end of said arm and having a perforation therethrough; a sad iron pivotally connected with said lever; a member carried by said sad iron and extended through said perforation; a stop on said member under said lever; and a stop on said member above said lever, substantially as described.

1,075,789. PROJECTING APPARATUS. HERBERT F. PATTON, Cleveland, Ohio. Filed July 27, 1912. Serial No. 711,810. (Cl. 88—26.)



1. In apparatus of the class described, the combination of means for holding a slide provided with a representation; an objective adapted to project the representation; means for holding another slide provided with a representation smaller than the first-named representation; and a second objective removably secured relatively to the first objective, the two objectives together being adapted to project the smaller representation.

2. In apparatus of the class described, the combination of a support; means supported by the support for holding a slide provided with a representation; an objective supported by the support and adapted to project the representation; means supported by the support for holding another slide provided with a representation smaller than the first-named representation; and a second objective removably supported by the support and adapted with the first objective, to propect the smaller representation.

3. In apparatus of the class described, the combination of a support; means supported by the support for holding a slide provided with a representation; a tube removably secured to the support; an objective mounted in the tube and adapted to project the representation; means supported by the support for holding another slide provided with a representation smaller than the first-named representation; a second tube removably fitted in the first tube; and a second objective mounted in the second tube and adapted, with the first objective, to project the smaller representation.

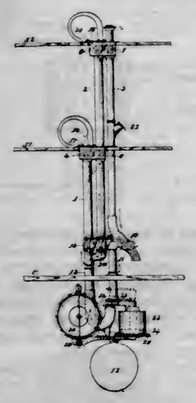
4. In apparatus of the class described, the combination of a support; a light conduit mounted on the support; a holder carried by the conduit for holding a slide provided with a representation; a tube removably fitted in the outer portion of the conduit; an objective mounted in the tube and adapted to project the representation; a sec-

end holder carried by the conduit forwardly of the first holder and adapted to hold a slide provided with a representation smaller than the first-name representation; a second tube removably fitted in the first tube between the objective and the second holder; and a second objective mounted in the second tube and adapted, with the first objective, to project the smaller representation.

5. In apparatus of the class described, the combination of a support; means secured thereto for holding an illuminator; a hood; a light conduit opening through the hood; a condenser mounted in the conduit; a transverse opening through the conduit forwardly of the condenser for holding a slide provided with a representation; a tube removably fitted in the outer portion of the conduit; an objective mounted in the tube and adapted to project the representation; a second transverse opening through the conduit intermediate the first opening and the outer conduit portion and adapted to hold a slide provided with a representation smaller than the first-named representation; a second tube removably fitted in the first tube rearwardly of the objective; and a second objective mounted in the second tube and adapted, with the first objective, to project the smaller representation.

[Claim 6 not printed in the Gazette.]

1,075,790. PNEUMATIC-DESPATCH-TUBE APPARATUS. ALBERT W. PEARSALL, Lowell, Mass., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed May 5, 1908. Serial No. 430,958. (Cl. 243—15.)



1. In a pneumatic despatch tube apparatus, a plurality of despatching and receiving stations, a plurality of normally closed transit tubes connecting said stations, means for exhausting the air from said transit tubes, a normally closed air inlet adapted to admit air to said tubes for driving carriers, and means for automatically controlling the admission of air through said inlet and means for switching said air to create a flow of the same through any of said transit tubes for driving carriers between any of said stations.

2. In a pneumatic despatch tube apparatus, a plurality of despatching and receiving stations, a plurality of normally closed transit tubes connecting said stations, means for exhausting the air from said transit tubes, a normally closed air inlet adapted to admit air to said tubes for driving carriers, means for automatically controlling the admission of air through said inlet and means for switching said air to create a flow of the same through any of said transit tubes for driving carriers between any of said stations, and means for automatically closing said inlet and cutting off the flow of air when there are no carriers in transit in said tubes.

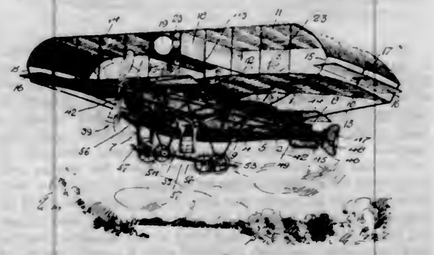
3. In a pneumatic despatch tube apparatus, a central station, a plurality of sub-stations, an independent normally closed transit tube connecting each of said sub-stations with said central station for selectively transmitting carriers from said central station to the required sub-station, a normally closed return tube connecting said sub-stations with said central station for the transmission of carriers from any of said sub-stations to said central station, connections between said transit tubes and said return tube, means for normally maintaining a vacuum in all of said tubes, a normally closed air inlet adapted to admit air to said tubes for driving carriers, and means for automatically controlling the admission of air through said inlet and for switching the flow of air through any of said transit tubes for the transmission of carriers between said central station and any of said sub-stations.

4. In a pneumatic despatch tube apparatus, a central station, a plurality of sub-stations, an independent normally closed transmission tube connecting each of said sub-stations with said central station for selectively transmitting carriers from said central station to the required sub-station, a normally closed return tube connecting said sub-stations with said central station for the transmission of carriers from any of said sub-stations to said central station, connections between said transmission tubes and said return tube, means for normally maintaining a vacuum in all of said tubes, a normally closed air inlet adapted to admit air to said tubes for driving carriers, means for automatically controlling the admission of air through said inlet and for switching the flow of air through any of said transit tubes for the transmission of carriers between said central station and any of said sub-stations, and means for timing the admission of air to the interval necessary for the transmission of the carriers.

5. In a pneumatic despatch tube apparatus, a plurality of despatching and receiving stations, a plurality of normally closed transit tubes connecting said stations, means for normally maintaining a vacuum in said transit tubes, a normally closed air inlet adapted to admit air to said tubes for driving carriers, and air-controlling means, a portion of which is adapted to be automatically operated by a fluctuation of said vacuum to admit air through said inlet and a portion of which is adapted to switch the so admitted air to any of said transit tubes for transmitting carriers between any of said stations and means located on each of said transit tubes for creating a fluctuation in said vacuum.

[Claims 6 to 14 not printed in the Gazette.]

1,075,791. AIR-CRAFT. JOHANN POBUTA, Elizabeth, N. J. Filed Nov. 11, 1912. Serial No. 730,701. (Cl. 244—14.)



1. An air craft comprising a semi-cigar shaped hollow body having its top formed with a flat platform, a deck house mounted upon said platform, straps extending around said body and secured to the deck house for maintaining the latter in position, parallel main sustaining planes arranged transversely of said body and with the lowermost plane mounted upon said deck house, means for securing said lowermost plane to said straps, a pair of rearwardly projecting propellers carried by said lowermost plane, means for driving said propellers, a fin projecting from said body at the rear thereof, a rudder connected to the stern of the body, a propeller at the bow of the body and driven from the means for operating the other propellers, a vertically disposed bearing located upon said platform in proximity to the bow and stern of said body, and a tiltable curved plane carried by each of said bearings.

ing from said body at the rear thereof, a rudder connected to the stern of the body, and a propeller at the bow of the body and driven from the means for operating the other propellers.

2. An air craft comprising a semi-cigar shaped hollow body having its top formed with a flat platform, a deck house mounted upon said platform, straps extending around said body and secured to the deck house for maintaining the latter in position, parallel main sustaining planes arranged transversely of said body and with the lowermost plane mounted upon said deck house, means for securing said lowermost plane to said deck house, tie rods for securing said lowermost plane to said straps, a pair of rearwardly projecting propellers carried by said lowermost plane, means for driving said propeller, a fin projecting from said body at the rear thereof, a rudder connected to the stern of the body, a propeller at the bow of the body and driven from the means for operating the other propellers, and bladed wheels carried at the sides of said body below said deck house and driven from the means for operating the propellers.

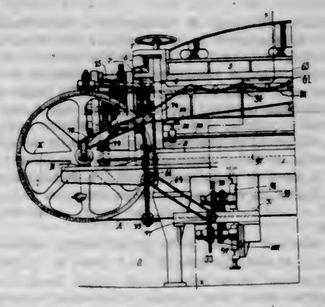
3. An air craft comprising a semi-cigar shaped hollow body having its top formed with a flat platform, a deck house mounted upon said platform, straps extending around said body and secured to the deck house for maintaining the latter in position, parallel main sustaining planes arranged transversely of said body and with the lowermost plane mounted upon said deck house, means for securing said lowermost plane to said deck house, tie rods for securing said lowermost plane to said straps, a pair of rearwardly projecting propellers carried by said lowermost plane, means for driving said propellers, a fin projecting from said body at the rear thereof, a rudder connected to the stern of the body, a propeller at the bow of the body and driven from the means for operating the other propellers, a vertically disposed bearing located upon said platform in proximity to the bow and stern of said body, and a tiltable curved plane carried by each of said bearings.

4. An air craft comprising a semi-cigar shaped hollow body having its top formed with a flat platform, a deck house mounted upon said platform, straps extending around said body and secured to the deck house for maintaining the latter in position, parallel main sustaining planes arranged transversely of said body and with the lowermost plane mounted upon said deck house, means for securing said lowermost plane to said deck house, tie rods for securing said lowermost plane to said straps, a pair of rearwardly projecting propellers carried by said lowermost plane, means for driving said propellers, a fin projecting from said body at the rear thereof, a rudder connected to the stern of the body, a propeller at the bow of the body and driven from the means for operating the other propellers, depending longitudinal partitions carried by the upper of said planes, and a reservoir suspended from the upper plane and arranged between said partitions.

5. An air craft comprising a semi-cigar shaped hollow body having its top formed with a flat platform, a deck house mounted upon said platform, straps extending around said body and secured to the deck house for maintaining the latter in position, parallel main sustaining planes arranged transversely of said body and with the lowermost plane mounted upon said deck house, means for securing said lowermost plane to said deck house, tie rods for securing said lowermost plane to said straps, a pair of rearwardly projecting propellers carried by said lowermost plane, means for driving said propellers, a fin projecting from said body at the rear thereof, a rudder connected to the stern of the body, a propeller at the bow of the body and driven from the means for operating the other propellers, and tiltable planes interposed between the ends of the main planes.

1,075,792. LEATHER-SPLITTING MACHINE. WILLIAM D. QUIGLEY, East Boston, Mass. Filed Oct. 9, 1912. Serial No. 724,799. (Cl. 69—10.)

1. A leather-splitting machine, comprising feed rolls and a splitting-blade having its edge between said rolls; the axis of rotation of one of said rolls being movable in a plane located in front of the edge of said blade and inclined to a plane including the edge and transverse axis of said blade.



2. A leather-splitting machine, comprising feed rolls and a splitting-blade having its edge between said rolls: the axes of rotation of said rolls being movable in inclined planes located in front of the edge of said blade and converging to a plane including the edge and transverse axis of said blade.

3. A leather-splitting machine, comprising feed rolls and a splitting-blade having a surface beveled to the cutting edge: the axis of rotation of one of said rolls being movable in a plane located in front of the edge of said blade and disposed at a right angle to the plane of said beveled surface.

4. A leather-splitting machine, comprising feed rolls and a splitting blade having on opposite sides surfaces beveled to the cutting edge: the axes of rotation of said rolls being located in front of the edge of said blade and in planes respectively disposed at right angles to the planes of said beveled surfaces.

5. A leather-splitting machine, comprising feed rolls, one of said rolls having its surface everywhere elastic, a splitting blade having its edge between said rolls, and means for resiliently supporting said elastic roll.

[Claims 6 to 29 not printed in the Gazette.]

1,075,793. PLATE-GLASS DEVICE. MYRON A. ROSS, Morgantown, W. Va., assignor to Pressed Prism Plate Glass Company, Morgantown, W. Va., a Corporation of West Virginia. Filed July 31, 1912. Serial No. 712,446. (Cl. 40—141.)



1. A sheet of glass of homogeneous consistency and molecular arrangement in substantially the form of plate

glass, having embossed on the surface thereof in protuberant relief a symbol composed of glass flowed in various directions and various amounts from the body of and raised from and integral with the sheet, substantially as specified.

2. A sheet of glass of homogeneous consistency and molecular arrangement in substantially the form of plate glass, having embossed on the surface thereof in protuberant relief a letter composed of glass flowed in various directions and various amounts from the body of and raised from and integral with the sheet, and formed with substantially parallel flutes to give apparent width and body to the parts of the letter, substantially as specified.

3. A sheet of rolled plate glass having embossed on the surface thereof in protuberant relief a symbol composed of glass flowed in various directions from the body of and raised from and integral with the sheet, substantially as specified.

4. A sheet of rolled plate glass having embossed on the surface thereof in protuberant relief a symbol composed of fluted glass flowed and raised from the body of the rolled sheet and integral therewith, substantially as specified.

5. A sheet of rolled plate glass having a symbol in protuberant relief embossed on one surface thereof composed of glass flowed from and integral with the body of the sheet irrespective of the formation of the other surface of the sheet, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,075,794. METHOD OF MANUFACTURING PLATE-GLASS DEVICES. MYRON A. ROSS, Morgantown, W. Va., assignor to Pressed Prism Plate Glass Company, Morgantown, W. Va., a Corporation of West Virginia. Filed July 31, 1912. Serial No. 712,447. (Cl. 49—85.)

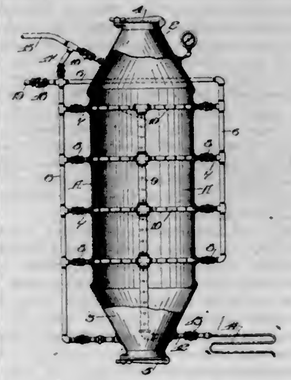


The herein described process of making figured glass sheets, which consists in first reducing a body of fluid glass to homogeneous consistency and molecular arrangement, in substantially the form of plate glass; then while the sheet is still plastic, forming a protuberant symbol upon one surface of the sheet and integral and homogeneous therewith, by reducing the thickness of the sheet and causing the glass of the body of the same to flow, for various distances and in various amounts as may be required by the irregular configuration of the symbol, in convergent directions and untimately out from the surface of the sheet to form such symbol; and at the same time forming around the symbol an area of sheet glass of substantially uniform thickness; substantially as specified.

1,075,795. METHOD AND APPARATUS FOR DIGESTING WOOD AND OTHER FIBROUS MATERIALS. JOHN CHARLES WILLIAM STANLEY, Santa Cruz, Cal., assignor, by direct and mesne assignments, to Stanley Paper Fibre Company, San Francisco, Cal., a Corporation of Arizona. Filed Jan. 6, 1911, Serial No. 601,207. Renewed Mar. 28, 1913. Serial No. 757,482. (Cl. 92—7.)

1. The process herein described for the digestion of fibrous material, said process consisting in immersing the material in a disintegrating solution; admitting a heating agent into the interior of the mass and subjecting the mass to the action of the heating agent until the mass is cooked, then draining off and condensing said solution; then admitting compressed air into the container above said mass to thereby create a pressure upon the mass in excess of that of the heating agent and to squeeze out of the mass the remaining surplus solution.

2. The process herein described for the digestion of fibrous material, said process consisting in immersing the material in a disintegrating solution; admitting a heating agent into the interior of the mass and subjecting the mass to the action of the heating agent until the mass is cooked; then draining off and condensing said solution; then subjecting the mass to pressure to drive out the surplus solution and conducting the same to a condenser.



3. The process herein described for the digestion of fibrous material, said process consisting in immersing the material in a disintegrating solution; admitting a heating agent into the interior of the mass and subjecting the mass to the action of the heating agent until the mass is cooked; then draining off and condensing said solution; then progressively cooling the mass and driving therefrom the surplus solution by successive admission of compressed air above the mass being treated.

4. The process herein described for the digestion of fibrous material, said process consisting in immersing the material in a disintegrating solution; admitting a heating agent into the interior of the mass and subjecting the mass to the action of the heating agent until the mass is cooked; then draining off and condensing said solution; and finally rapidly discharging the mass from the container by means of air-pressure admitted on top of said mass.

5. In apparatus of the character described, a container, a perforated vertical pipe centrally placed therein and other perforated pipes branching from the first pipe, means by which steam may be supplied to said pipes and into the body of the mass being treated, and a condenser connecting with the lower part of the vertical pipe and into which the solution in which the mass is submerged is drained.

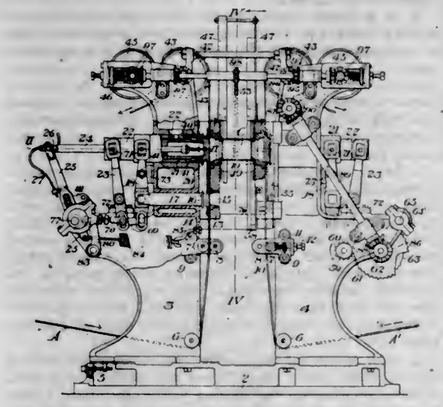
[Claims 6 to 8 not printed in the Gazette.]

1,075,796. CAP FORMING AND APPLYING MACHINE. CHARLES C. STUTZ, Norwood, Ohio, and ROBERT FLEMING ARNOTT, Upper Montclair, N. J., assignors to Isadore L. Myers, Plainfield, N. J. Filed Apr. 17, 1912. Serial No. 691,532. (Cl. 93—55.)

1. In a capping machine for paper cartons, mechanism for intermittently feeding a series of carton bodies to a predetermined station and registering with oppositely disposed female dies, mechanism for feeding a paper strip past each of the dies, and mechanism for cutting disks therefrom and forcing them through the female dies into opposite ends of the carton bodies; substantially as described.

2. In a capping machine for paper cartons, mechanism for feeding carton bodies successively to a station between two oppositely disposed tubular guiding dies, and means for simultaneously forming and forcing head blanks through said dies and into position in the opposite ends of the cartons; substantially as described.

3. In a capping machine for paper cartons, carton-holding mechanism, mechanism for simultaneously cutting two head blanks, and mechanism for simultaneously forcing said head blanks in opposite directions through hollow forming dies into the opposite ends of the carton; substantially as described.

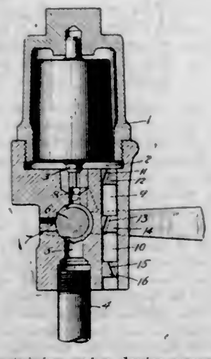


4. In a capping machine for paper cartons, carton-holding-mechanism, mechanism for feeding two strips of paper past oppositely disposed registering hollow shaping dies, and mechanism for simultaneously cutting blanks from the strips and forcing them in opposite directions through the dies into the opposite ends of the cartons; substantially as described.

5. In a capping machine for paper cartons, a pair of registering hollow shaping dies, mechanism for feeding a carton body between them, means for feeding strips of paper past the dies, mechanism arranged to cut disks therefrom, and mechanism for forcing the disks through the shaping dies into the cartons; substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,075,797. RETAINING-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1911. Serial No. 617,785. (Cl. 188—12.)



1. A pressure retaining valve device comprising a casing, a retaining valve having an air outlet, and a chamber in said outlet provided with a restricted inlet port and a restricted outlet port.

2. A pressure retaining valve device comprising a casing, a retaining valve in said casing having an outlet for the escape of fluid, and a chamber having a restricted inlet port and a restricted outlet port for the passage of fluid escaping through said outlet.

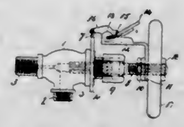
3. A pressure retaining valve device comprising a casing, a retaining valve in said casing for holding a predetermined degree of pressure in the brake cylinder and having an outlet for the escape of fluid past the retaining valve, and a chamber having a restricted inlet port and a restricted outlet port for the passage of fluid escaping past said retaining valve.

4. A pressure retaining valve device comprising a casing, a loaded retaining valve in said casing for holding a predetermined degree of pressure in the brake cylinder and having an outlet for the escape of fluid, and a series of chambers in said outlet having restricted inlet and outlet ports for permitting the escape of fluid from said retaining valve.

5. A pressure retaining valve device comprising a casing, a loaded retaining valve in said casing for holding a predetermined degree of pressure in the brake cylinder and having an outlet for the escape of fluid, and one or more chambers having staggered inlet and outlet ports for permitting the escape of fluid through said outlet.

[Claim 6 not printed in the Gazette.]

1,075,798. NEEDLE-VALVE. ALFRED WAIT, Hamilton, Ontario, Canada. Filed Jan. 13, 1913. Serial No. 741,845. (Cl. 137—4.)



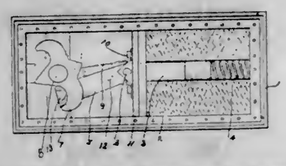
1. In a device of the character described, the combination with a valve body, of a valve stem rotative therein, lock nuts carried by said valve stem, a manually operable member carried by said valve stem, an L-shaped hanger one arm of which is clamped between said manually operable member and said lock nuts and the other arm of which lies substantially parallel with said stem, a lock nut for locking the manually operable member in clamped engagement with the hanger, an arcuate rack having notched out portions into which the valve body is expanded, said arcuate rack lying substantially parallel with said manually operable member, and a spring actuated pawl pivoted at the free end of the last named arm of the L-shaped hanger and adapted for engagement with said arcuate rack.

2. In a device of the character described, a valve body having a threaded extension, a needle valve stem threaded into said valve body, a packing nut threaded upon said threaded extension to compress packing about said stem, a collar comprising an arcuate rack, the material of the valve body being expanded into notched out portions in said collar, said rack lying substantially at right angles to said stem, a manually operable member mounted upon the outer end of said valve stem and lying substantially parallel with said arcuate rack, a clamping element upon said valve stem, an L-shaped hanger one arm of which is firmly clamped between said manually operable member and said clamping element and the other arm of which lies substantially parallel to said valve stem, parallel ears formed upon the free end of the last named arm, a pawl comprising an end adapted to engage said rack and a thumb piece lying substantially at right angles to the plane of movement of said end, and a pivot member of spring wire serving the double function of pivoting said pawl between said ears and of forcing said pawl into engagement with said rack, one end of said pivot member engaging the rear side of said thumb piece and the other end engaging a portion of said arm.

3. In a device of the character described, a valve body having a threaded extension, a needle-valve stem threaded

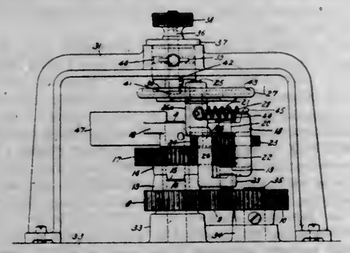
into said valve body, a packing nut threaded upon said threaded extension to compress packing about said stem, an arcuate rack threaded upon said threaded extension, a manually operable member mounted upon the outer end of said valve stem and lying substantially parallel with said rack, a clamping element upon said valve stem, an L-shaped hanger one arm of which is clamped between said manually operable member and said clamping element and the other arm of which lies substantially parallel to said valve stem, parallel ears formed upon the free end of the last named arm, a pawl comprising an end adapted to engage said rack and a thumb piece lying substantially at right angles to the plane of movement of said end, and a pivot member of spring wire serving the double function of pivoting said pawl between said ears and of forcing said pawl into engagement with said rack, one end of said pivot member engaging the rear side of said thumb piece and the other end engaging a portion of said arm.

1,075,799. CONTROLLING-CAM. CASSIUS M. WALKER, Pueblo, Colo., assignor to The Miller Electric Switch Company, a Corporation of Colorado. Filed Feb. 26, 1912. Serial No. 679,917. (Cl. 104—155.)



In an electromechanical switch device wherein is provided a solenoid; a plunger therein, with spring means for return; a throwing arm pivotally attached to said plunger; a cam piece connected by intermediate means with a switch tongue; to which is applied a controlling cam, V shaped, attached to supporting walls and disposed beneath the said throwing arm, and a boss on the underneath side of said throwing arm adapted to operate on the interior side of said V shaped controlling cam pice; all as described.

1,075,800. SPEED-CHANGING DEVICE. SIMON W. WARDWELL, Providence, R. I. Filed Oct. 3, 1910. Serial No. 585,058. (Cl. 74—34.)



1. In a speed varying device, the combination with a driving shaft and a driven shaft, and a primary train of gearing to transmit the driving action, of a secondary train of gearing and means acting through said train to modify the transmitting action of the primary train, including a stationary disk 30 having a cylindrical periphery, and a member 27 which revolves about the disk 30 and is turned thereby through engagement of an internal surface 43 of the member 27 with the cylindrical periphery of the disk 30.

2. In a speed varying device, the combination with a driving shaft and a driven shaft, and a primary train of gearing to transmit the driving action, of a secondary train of gearing and means acting through said secondary train to modify the transmitting action of the primary train, including a stationary disk 30 having a cylindrical peripbery, a member 27 revolving about the axis thereof, and means to maintain the member 27 in rolling contact with the disk.

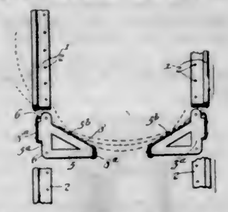
3. In a speed varying device, the combination with a driving shaft and a driven shaft, and a primary train of gearing to transmit the driving action, of a secondary train of gearing and means acting through said secondary train to modify the transmitting action of the primary train, including a stationary member, a second member revolving about the first in rolling frictional contact therewith, and means to maintain the two members in rolling contact.

4. In a speed varying device, the combination with a driving shaft, a shaft driven therefrom, and a primary train of gearing to transmit the driving action, of a member revoluble about the axis of the driving shaft and having an axis of rotation parallel with the axis of said driving shaft, a stationary disk, the axis of which coincides with that of the driving shaft, engaging the revoluble member and means to engage the revoluble member with said disk and permit different positions of the revoluble member to accommodate disks of different sizes.

5. In a speed varying device, the combination with a driving shaft, and a shaft driven therefrom, and a train of gears to transmit the driving action, inculding a gear 8 loose on the driving shaft, of a gear 17 coupled to the gear 8 and likewise loose on the driving shaft, a frame 18 secured to the driving shaft, a pinion 22, carried by the driving shaft, which meshes with the gear 17, a gear 23, and means acting through the pinion 22 and gear 23 to drive the gears 8 and 17 at a speed different from that of the driving shaft, including a revolving member with an internal cylindrical surface and a disk to turn said member by rolling contact therewith.

[Claims 6 to 8 not printed in the Gazette.]

1,075,801. TIRE-RACK. BEVERLY L. WATERS, Aurora, Ill., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Jan. 30, 1913. Serial No. 745,103. (Cl. 211—14.)

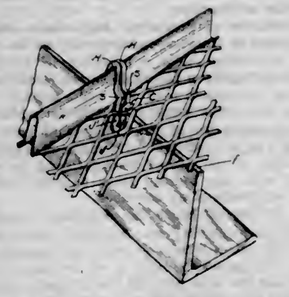


1. A tire rack comprising front and rear uprights, tire bars having faces pitching downward and toward each other to thereby afford flat surfaces for supporting tires of different diameters, said bars having marginal flanges at front and rear for stiffening them, and brackets supported upon said uprights and having oblique portions for supporting the pitched portions of said bars.

2. In a tire rack, the combination of uprights having a vertical row of apertures equidistantly spaced, a bracket for each of said uprights, said brackets each having two apertures, one above the other, and adapted to register with apertures in the uprights, whereby the brackets may be bolted to the upright at any desired elevation and be held rigidly thereon, and sheet metal plates extending from one bracket to the next at the front and rear of the rack, said plates each having a main central portion which is flat and extends obliquely downward toward the interior of the rack, said plates having flanges at the front and rear edges substantially as described.

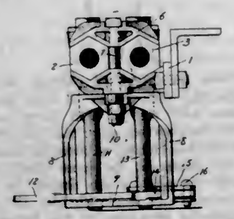
3. In a tire rack, the combination of uprights each having a vertical row of apertures equidistantly spaced, tire bars extending from one upright to the next at the front and at the rear of the rack, said tire bars being formed of sheet metal and having a central portion of substantial width terminating in depending flanges rounding lengthwise of the bar, and brackets rigidly secured to said bars at at least three points not in the same straight line, said brackets each having a plurality of apertures one above another, registering with the apertures in the uprights, whereby when the parts are fastened together the structure will be prevented from racking.

1,075,802. CLIP FOR FASTENING CERTAIN FORMS OF METALLIC LATHING TO BEAMS, GIRDERS, AND THE LIKE IN BUILDING CONSTRUCTION. HERBERT E. WHITE, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 31, 1912. Serial No. 674,621. (Cl. 72—118.)



A clip adapted to fasten a high ribbed lathing structure to a beam or other support in building construction, the said clip being composed of a piece of wire or narrow strip of metal bent double, the free end portions being still further bent to form a hook adapted to engage the crown of the lath rib, the opposite end of the clip being turned up to form a set of double jaws having on each of their sides two substantially parallel clamping members, the outer clamping members of both sides terminating in a spring acting crown portion formed by the aforesaid bending of the metal double and the inner clamping members of both sides terminating in the portion that engages the rib of the lath.

1,075,803. DEVICE FOR OPERATING CUT-OUT COCKS. ROBERT E. ADREON, St. Louis, Mo., assignor to Westinghouse Automatic Air and Steam Coupler Company, St. Louis, Mo., a Corporation of Illinois. Filed May 31, 1912. Serial No. 700,613. (Cl. 188—8.)

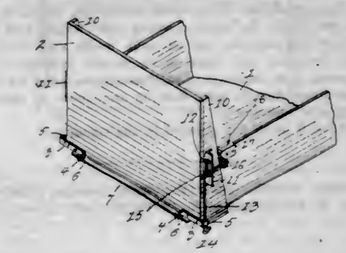


1. A device for operating train pipe cut-out cocks comprising a key-stem for operating the cock key, a lever mounted on said key-stem, and a hanger suspended beneath the car frame having side arms and a horizontal connecting plate upon which said lever is adapted to rest.

2. A device for operating train pipe cut-out cocks comprising a key-stem for operating the cock key, a lever integral with said key-stem, and a hanger provided with a horizontal member upon the upper surface of which said lever is supported.

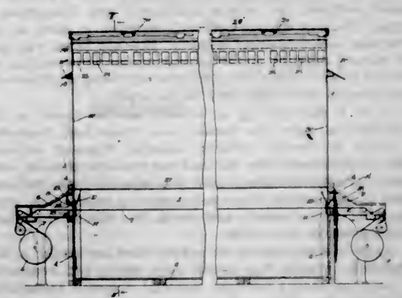
3. A device for operating train pipe cut-out cocks comprising a bracket secured to the car frame, a clamp fastened to the bracket for holding the cock casing, a key-stem for operating the train pipe cut-out cock, a hanger for supporting said key-stem, and bolts for securing said clamp to said bracket, said bolts having extensions for securing said hanger in position.

1,075,804. COMBINED END-GATE AND SCOOP-BOARD. ANTONY M. ALLEMANG, Grafton, Ill. Filed Dec. 18, 1912. Serial No. 737,510. (Cl. 21—21.)



The combination with a wagon body having battens adjacent its rear ends, of bracket members having portions engaged in the upper ends of said battens, a resilient tread plate having it opposite ends turned upwardly and adapted for engagement in the lower ends of the battens, said tread plate being adapted to be sprung into position, a scoop-board removably connected with the outer edge of the tread plate, and means carried by the bracket members for suspending the end gate for use as a scoop-board.

1,075,805. TREATING APPARATUS. JOHN ASPINWALL, Newburgh, N. Y., assignor to E. I. du Pont de Nemours Powder Co., a Corporation of New Jersey. Filed Jan. 18, 1911. Serial No. 603,288. (Cl. 34—48.)



1. A drying apparatus in which explosions are liable to occur, having side and end walls, and two roof members acting as a cover for the space bounded by said walls, said roof members being hinged or pivoted at an axis over the middle of said space, and movable upwardly to allow of the escape of gas in case of an explosion and a roof structure covering the pivoting or hinging parts.

2. A drying apparatus in which explosions are liable to occur, having inclosing walls and roof members pivoted or hinged to allow the roof members to move upwardly to allow the escape of gas in case of an explosion and a roof structure covering the pivoting or hinging parts.

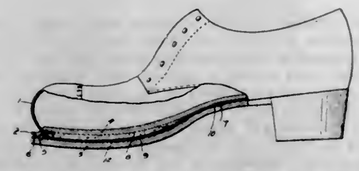
3. An apparatus in which explosions are liable to occur, having inclosing walls and a roof member hinged or pivoted to allow the member to move upwardly to permit the escape of gas in case an explosion occurs and a roof structure covering the pivoting or hinging parts.

4. An apparatus of the class described, in which explosions are liable to occur, having side walls, means whereby the material to be treated may be passed in at one part of the apparatus and removed at another part of the apparatus, and a roof structure resting on top of said walls and pivoted or hinged to allow the same to be moved upwardly by the gas pressure in case an explosion occurs, and other walls about the apparatus and roof structure extending from said last mentioned walls to said first mentioned walls and meeting the same materially below the tops of said first mentioned walls.

5. An apparatus of the class described, in which explosions are liable to occur, having side walls, and a roof structure resting on top of said walls and pivoted or hinged to allow the same to be moved upwardly by the gas pressure in case an explosion occurs, said walls having openings therein near the top and doors or covers for closing said openings.

[Claims 6 to 22 not printed in the Gazette.]

1,075,806. SHOE. DE ROY AUSTIN, Omaha, Nebr. Filed Jan. 16, 1912. Serial No. 671,529. (Cl. 36—44.)



1. In a shoe having an outsole and insole, a filler disposed between the outsole and insole and comprising a sheet of fibrous resilient material adjoining the insole, and a sheet of firm non-resilient material disposed below and secured to the sheet of resilient material, the filler being unattached to either the outsole or the insole.

2. In a shoe having an outsole and insole, a filler disposed between the outsole and insole and comprising an upper sheet of fibrous resilient material, a sheet of non-resilient moisture-proof material disposed below the sheet of fibrous resilient material, and means for securing said sheets to each other, the fibrous sheet being unattached to and free to move relatively to the insole.

3. In a shoe having an outsole and an insole, a filler disposed between the outsole and insole and comprising a sheet of fibrous resilient material disposed adjoining the insole beneath the ball and toe portions thereof, and a sheet of moisture-proof material secured upon the lower side of the resilient sheet and extending between the shank portions of the outsole and insole, the fibrous sheet being unattached to the insole.

4. In a shoe having an outsole and an insole, a filler disposed between the outsole and insole and comprising a sheet of fibrous resilient material disposed beneath the ball and toe portions of the insole, a sheet of relatively firm material disposed below said resilient sheet and extending between the shank portions of the insole and outsole, means for securing said sheets to each other, and a layer of non-adhesive material between the lower sheet and the outsole.

5. In a shoe having an outsole and an insole, a sheet of fibrous resilient material disposed beneath the ball and toe portions of the insole and unattached thereto, a sheet of firm moisture-proof material disposed below the fibrous sheet and extending between the shank portions of the insole and outsole, and means for securing said sheets together.

[Claim 6 not printed in the Gazette.]

1,075,807. METHOD OF MOLDING PHONOGRAPH-RECORDS. JONAS W. AYLSWORTH, East Orange, N. J., assignor to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Original application filed Apr. 29, 1909, Serial No. 493,053. Divided and this application filed Jan. 20, 1911. Serial No. 603,678. (Cl. 18—48.5.)

1. The process of producing duplicate sound records which consists in placing concentrically within a suitable rotatable cylindrical mold a plurality of rings of material which will not flow at the temperature at which the record mass is molded, said rings being so placed and of such diameters that the inner surfaces thereof form bearing surfaces adapted to fit a taper mandrel, introducing a measured quantity of record material into the mold and rotating the mold to form a cylindrical record of the molten or fluid material in contact with the mold surface on its outer surface and in contact with the said rings on its inner surface, and in extracting the record when formed with the rings secured to the same from the mold, substantially as described.

2. The process of producing duplicate sound records, which consists in placing concentrically within a suitable rotatable cylindrical mold a plurality of bearing rings, molding centrifugally a rotatable sound record of suitable composition in contact with the mold surface and with said rings, said rings being of a material which will not flow at the temperature at which the record mass is molded and which has a coefficient of expansion approximately equal to that of the record material, and in extracting the record with the bearing rings secured thereto from the mold, substantially as described.

3. The process of producing duplicate sound records which consists in placing concentrically within a suitable rotatable cylindrical mold a plurality of bearing rings, introducing a measured quantity of record material into the mold, forming the said material centrifugally into a cylindrical record contacting with the mold surface and having the said bearing rings secured thereto, and in extracting the record so formed from the mold, substantially as described.

1,075,808. GEAR-CASE. JAMES E. BALES, Montgomery, Ill., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill., a Corporation of Illinois. Filed Sept. 30, 1912. Serial No. 723,135. (Cl. 74—56.)



1. A gear case consisting of parallel metal sides and a metal connecting strip, each of said parts having a marginal flange and one of said parts and its flange fitting over the coöperating part and its flange, the part coming on the outside having an internal shoulder abutting the edge of the flange of the part which comes on the inside, whereby the part which comes on the inside is held from movement in one direction by said shoulder and in the opposite direction by the flange of the part which comes on the outside.

2. A gear case composed of sheet metal, the case comprising parallel sides and strips joining them and arranged at right angles thereto, the sides being turned inwardly at the edges so as to form an overlapping corner joint, the part lying on the outside having an internal shoulder abutting the edge of the coöperating part.

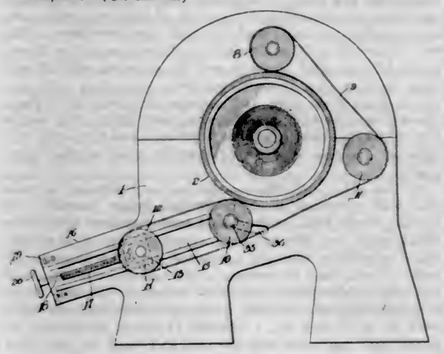
3. A gear case comprising parallel sheet metal sides and metallic strips joining them and arranged at right angles thereto, the sides being turned inwardly at the edges and the strips being correspondingly turned at the edges, so as to interfit with the sides with the strips overlapping the sides, the strips having internal shoulders abutting the inner edge of the sides.

4. A gear comprising parallel sheet metal sides and metallic strips joining them and arranged at right angles thereto, the sides being turned inwardly at the edges and the strips being correspondingly turned at the edges so as to interfit with the sides, with the strips overlapping the sides, the strips having integral shoulders formed by swaging or similar process and abutting the inner edge of the sides.

5. A gear case comprising parallel sheet metal sides and metallic strips joining them and arranged at right angles thereto, the sides being turned inwardly at the edges and the strips being correspondingly turned at the edges, so as to interfit with the sides with the strips overlapping the sides, the strips having internal shoulders abutting the inner edge of the sides, and rivets passing through both thicknesses at a point adjacent to said shoulders.

[Claims 6 and 7 not printed in the Gazette.]

1,075,809. DRYING-MACHINE. ARTHUR B. BENSON, Woodhaven, N. Y. Filed Aug. 23, 1912. Serial No. 716,697. (Cl. 34—4.)

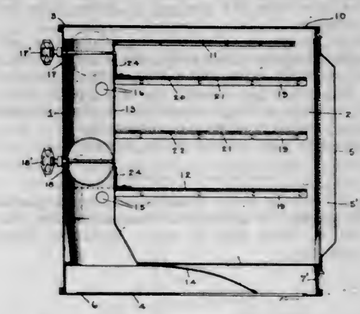


1. A drying machine of the class described, comprising a rotary heating drum, a frame provided with curved slots concentric to the axis of the heating drum, an endless carrying belt passing partially around said drum in contact therewith, end rollers around which said belt passes, means for adjusting one of said rollers to stretch the belt, and an intermediate belt directing roller arranged between the runs of the belt and having the shaft thereof mounted in said curved slots in the frame.

2. A drying machine of the class described, comprising a frame, a rotary heating drum, an endless carrying belt passing partially around said drum in contact therewith, means for stretching said belt, a worm shaft geared to said drum, a friction wheel feathered to said shaft and shiftable lengthwise thereof, a motor actuated friction disk in driving engagement with said friction wheel, and a manually controlled operating lever for shifting the friction wheel across the face of the friction driving disk.

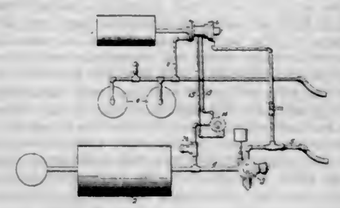
1,075,810. OVEN. VIRGINIA V. BOLLS and EDWIN R. CROOKER, Los Angeles, Cal. Filed Apr. 21, 1910. Serial No. 556,870. (Cl. 126—275.)

1. An oven comprising a casing, a partition dividing the casing into a plurality of compartments and a flue for the heating agent formed with a plurality of outlets communicating with said compartments, said partition being adjustable and carrying means for varying the discharge of the heating agent through the respective outlets of said flue according to the various adjustments of said partition.



2. An oven comprising a casing, a partition dividing the casing into a plurality of compartments and a flue for the heating agent formed with a plurality of outlets communicating with said compartments, said partition being adjustable and carrying means for varying the discharge of the heating agent through the respective outlets of said flue according to the various adjustments of said partition, and damper means in said flue above each of said outlets therein.

1,075,811. COMBINED AUTOMATIC AND STRAIGHT-AIR BRAKE. GEORGE ALBERT BOYDEN, Mount Washington, Md., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1908. Serial No. 468,946. (Cl. 188—1.)



1. In an air brake apparatus, the combination with the automatic system having a brake cylinder, a train pipe and a valve device operated by variations in train pipe pressure, of a straight air brake valve for supplying air to the brake cylinder, the automatic valve device having means for establishing communication from the straight air brake valve to the brake cylinder in service application position.

2. In an air brake apparatus, the combination with an automatic brake valve, a train pipe and an automatic valve device for applying brakes, of a manually operated valve for also controlling the application of brakes dependent on the position of said automatic valve device, and means whereby the brake cylinder pressure may be controlled by the manually operated valve when the automatic valve device moves to application position.

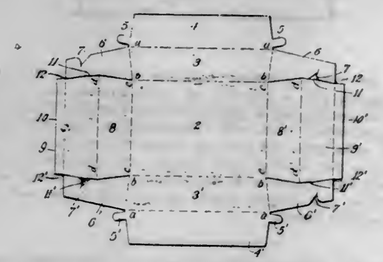
3. In an air brake apparatus, the combination with an automatic brake valve, a train pipe, an auxiliary reservoir and brake cylinder, of a straight air brake valve and a triple valve device having means for establishing communication from the straight air brake valve to the brake cylinder in service position.

4. In an air brake apparatus, the combination with an automatic brake valve, a train pipe, auxiliary reservoir, triple valve, and brake cylinder, of a straight air brake valve connected to the triple valve exhaust port, the triple valve having means in service position for establishing communication from the straight air brake valve to the brake cylinder.

5. In an air brake apparatus, the combination with a train pipe, automatic brake valve, and brake cylinder, of a straight air brake valve, and a triple valve device having means for cutting the straight air brake valve into control of the brake cylinder pressure in service applications and out of control in emergency applications.

[Claims 6 to 8 not printed in the Gazette.]

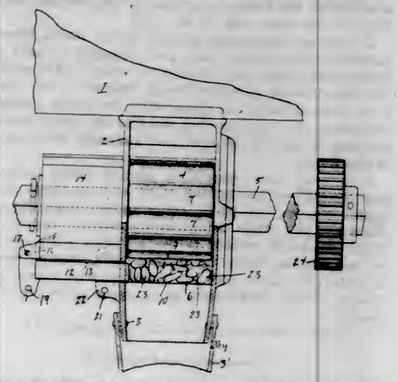
1,075,812. PAPER BOX. PETER C. BRASHEAR, Castleton, N. Y., assignor of one-half to Emmons Bryant, Castleton, N. Y. Filed May 25, 1911. Serial No. 629,271. (Cl. 229—34.)



1. As a new article of manufacture, a paper box formed from a single sheet or blank adapted to be folded to form, and comprising a rectangular bottom with side and end walls extending therefrom; each side wall comprising a side wall proper, a lateral side wall extension, projecting therefrom at each end, said extensions being reversely notched to form an interlock when the parts are brought to position, a side wall fold formed as an extension of the side wall proper, and a tab extending outwardly from each end of each side wall fold near the junction of said fold and the side wall; and each end wall comprising an end wall proper, an end wall flap, and a flap extension, the side wall extensions, when the blank is folded to form, being embraced between the end walls and end wall flaps, and the tabs of the infolded side wall folds being likewise embraced, while the end wall flap extensions bear upon the bottom and are interlocked between the bottom and the adjacent lower edges of the side wall folds.

2. As a new article of manufacture, a paper box or tray formed from a single blank or sheet adapted to be folded to form and presenting, when so folded, outwardly-flaring sides and comprising a rectangular bottom with side and end walls extending therefrom, each end comprising an end wall proper, an end wall flap, and a flap extension, the ends or margins of the end walls diverging as they recede from the bottom, and the ends or margins of the flaps converging as they extend toward the flap extensions, each of said margins being provided with a shoulder adjacent the line of fold between the end wall and end wall flap, and the flap extension being of a length substantially equal to the width of the bottom; and each side wall comprising a side wall proper, with side wall extensions projecting laterally therefrom, and a side wall fold, the lines of bend or fold between said walls and their extensions diverging from the bottom at an angle substantially equal to the divergence of the ends of the end walls aforesaid, and the ends of the side wall folds converging at a like angle toward the outer edge of the fold; and a tab extending outwardly from each end of each side wall fold adjacent the line of fold between the side wall and the side wall fold.

1,075,813. FEED MECHANISM FOR GRAIN-DRILLS. PETER BROMAN and JOSEPH OFFERMAN, Beaver Dam, Wis., assignors to Beaver Dam Mfg. Co., Beaver Dam, Wis., a Corporation of Wisconsin. Filed Feb. 5, 1912. Serial No. 675,435. (Cl. 111—17.)



1. In a grain drill, the combination of a plurality of feed chambers arranged in a horizontal series beneath the hopper of the drill, a revoluble shaft extending through apertures provided therefor in each of said feed chambers, a corrugated revoluble feed roll and a non-revoluble cylinder connected with said shaft, a slidable partition interposed between said feed roll and the opposing wall of said feed chamber, means for temporarily connecting said partition to said chamber and thereby retaining it in place beneath said feed roll when sowing small grain, and means for connecting said partition with said non-revoluble cylinder at one side of said feed chamber when sowing large grain.

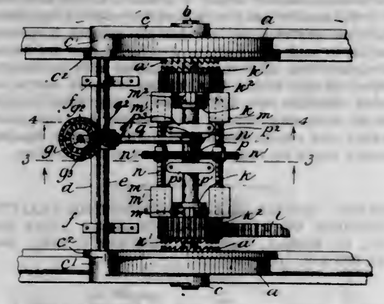
2. In a grain drill, the combination of a plurality of feed chambers arranged in a horizontal series beneath the hopper of the drill, each of said feed chambers being provided upon one side with an apertured lug, a revoluble shaft extending through apertures provided therefor in each of said feed chambers, a corrugated revoluble feed roll and a non-revoluble cylinder connected with said shaft, said non-revoluble cylinder being provided upon one side with an apertured lug, a slidable partition interposed between said feed roll and the opposing wall of said feed chamber, said slidable partition being provided upon its respective upper and lower sides with apertured lugs respectively adapted to register with the lugs of said feed chamber and slidable cylinder, a pin for connecting one of the lugs of said partition with said slidable cylinder when withdrawn from said feed chamber, and said pin being also adapted to be used for connecting the opposite lug of said partition with the lug of said feed chamber when said partition is in place beneath the feed roll, all substantially as and for the purpose specified.

1,075,814. BRAKE. PASQUALE BUDA, New York, N. Y. Filed Nov. 16, 1912. Serial No. 731,716. (Cl. 188—65.)

1. A brake for cars, etc., comprising a wedge-shaped skid, means to move the same to operative position under the wheel of the car, a depending U-shaped bracket mounted on the car, and a rod carried by the skid and disposed within the loop of the bracket and coacting therewith to limit the travel of the skid under the car wheel.

2. A brake for railway cars, etc., comprising a wedge-shaped skid having arcuate faces, its inner face being concentric with the tread of the wheel of the car, supporting means therefor mounted on the axle of the car, a rack operatively connected to the skid, a worm engaging said rack, a motor operatively connected to said worm and means to control the operation of the motor.

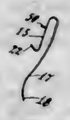
3. A brake system for cars, etc., including driving means, a driving wheel, a clutch interposed between the driving means and the driving wheel, means to actuate said clutch, a brake composed of a wedge-shaped skid, and means operatively connected to said clutch to move said brake to operative position under the wheel simultaneously with the movement of the clutch.



4. A brake system for cars, etc., including driving means, a driving wheel, a clutch interposed between the driving means and the driving wheel, means to operate said clutch, a brake comprising a wedge-shaped skid having its inner face concentric with the tread of the driving wheel, means to move said brake to operative position under the driving wheel, and power operated means operatively connected to said clutch and to said brake actuating means whereby simultaneous operation of the last named means and the clutch is effected.

5. A brake system for cars, etc., including driving means, a driving wheel, a clutch interposed between said driving means and said driving wheel, said clutch consisting of a collar mounted loosely on the axle of the car and in operative engagement with the driving means, the collar being also connectible operatively with the driving wheel, means to move the collar into engagement with the driving wheel, said means including revoluble shafts having threaded engagement with the collar, a motor operatively connected with the shafts to revolve the same, a brake consisting of a wedge-like skid, means to mount the brake in operative relation to the driving wheel, and means operatively connecting the skid to said motor whereby the former is moved to operative position under the wheel simultaneously with the operation of the clutch.

1,075,815. POCKET-CLIP. WILLIAM L. CHAPMAN, Brooklyn, N. Y., assignor to Modern Pen Company, New York, N. Y., a Corporation of West Virginia. Filed Feb. 19, 1912. Serial No. 678,595. (Cl. 24—11.)



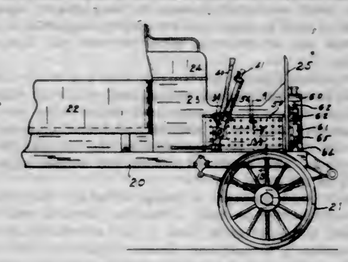
The combination of a pen, and an attaching clip, the former having a hole and a slot of uniform width, and the latter having a spring finger and a turned-over portion which terminates in a T-shaped projection and is provided with another projection adjacent to the T-shaped projection, the branching arms of the T-shaped projection engaging the undersides of the slot and the other projection being held in the hole by the spring finger, when the clip and pen are assembled.

1,075,816. AUTOMOBILE. LEMBERT W. COPPOCK, Decatur, Ind. Filed June 8, 1911. Serial No. 631,894. (Cl. 21—90.)

1. An automobile including a chassis frame, a skeleton frame at each side of the automobile extending upwardly from said chassis frame and between which the engine and associated parts are adapted to be mounted, and a body portion including side walls, a seat, and a floor in front of the seat, a portion of the side walls resting upon said chassis frame and another portion of the side wall resting upon said skeleton frames so that said body portion is readily removable.

2. An automobile including a chassis frame, a rear body portion, and a dash spaced apart and secured to the chassis frame, a vertically disposed skeleton frame secured at each side of the automobile and between the dash and rear body portion and secured upon the chassis frame and between which the engine and associated parts are adapted to be mounted, and a forward body portion including sides, a seat and a floor removably mounted upon said chassis frame and skeleton frames and between the dash and rear body portion, so that it is adapted to be lifted out of place when desired.

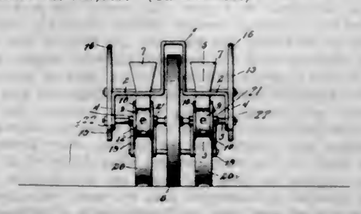
3. An automobile including a chassis frame, a skeleton



frame at each side of the automobile extending upwardly from said chassis frame between which the engine and associated parts are adapted to be mounted, a dash in front of said skeleton frames, a forward body portion having the forward part thereof mounted upon said skeleton frames and the rear portion overlapping said skeleton frames and resting upon the chassis frame, and an air inlet plate removably secured at each side of the automobile in connection with the chassis frame and said skeleton frames.

4. An automobile including a chassis frame, adapted for the engine and associated parts to be mounted on the front portion thereof, a dash mounted in connection with said frame in front of the position for said engine and associated parts and consisting of an upper portion and lateral downwardly extending portions so the engine and associated parts will be accessible from the front through said dash, and a water cooler adapted to close the opening through the dash to the engine and having at each end a vertical sleeve, removable bolts extending through said sleeve and carried by said dash, and a spring on said bolts on each side of each sleeve, whereby when one bolt is withdrawn the water cooler can be swung laterally out of the way to render the machinery accessible.

1,075,817. SEED-PLANTER. WILLIAM DAY, Hornby Island, British Columbia, Canada. Filed Jan. 21, 1913. Serial No. 743,369. (Cl. 111—32.)



1. In a seed planter, a frame having a center arch, slotted brackets extending laterally from the lower ends of the limbs of the center arch, lugs supported at the outer

ends of the brackets, a wheel carrying axle journaled in said lugs, hoppers supported slidably in the slots of the brackets, and drums supported slidably on the axle, said drums having flanges between which the lower ends of the hoppers are fitted.

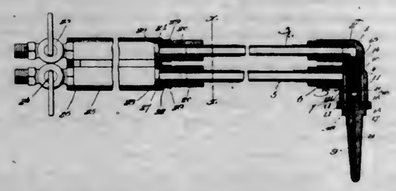
2. In a seed planter, a frame including a center arch having laterally extending brackets provided with slots, and with downturned terminal lugs, a ground wheel carrying axle journaled in the lugs, annularly flanged seed drums slidable on the axle, means for securing the drums in adjusted position, seed hoppers supported slidably on the slotted brackets, the lower ends of said hoppers being fitted between the flanges of the drums, side bars connected with the center arch, front and rear cross bars, and furrow openers and covering devices supported by the front and rear cross bars.

3. In a seed planter, a seed drum supported for rotation and for lateral adjustment and having circumferential flanges, seed receiving pockets in said drum, lugs adjustable in said pockets, and a movably supported hopper, the lower end of which is fitted between the flanges of the drum.

4. In a seed planter, a revolving shaft, a drum slidable on said shaft and having radial seed receiving pockets, and plugs adjustable therein, said drum being provided with annular flanges, a slidably supported hopper, the lower end of which is fitted between the annular flanges of the drum, and a cut-off within the hopper engaging the face of the drum.

5. In a seed planter, a frame structure including a center arch having laterally extending brackets, side bars and front and rear cross bars, a ground wheel carrying shaft, annularly flanged seed drums slidable on said shaft, means for securing the drums in adjusted position with respect to the shaft, hoppers mounted slidably on the laterally extending brackets of the center arch, the lower ends of said hoppers being fitted between the flanges of the drums, blade carrying standards laterally adjustable on the front cross bar, standards laterally adjustable on the rear cross bar and having covering devices associated therewith, and means whereby each hopper is connected with a standard in front thereof and with another standard in rear thereof, said front and rear standards being adjustable with the hopper and with the seed drum engaged thereby.

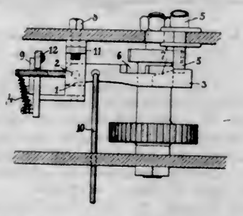
1,075,818. BLOWPIPE AND METHOD OF USING GASES THEREIN. MELBOURNE K. DUNHAM, Boston, Mass. Filed Jan. 12, 1912. Serial No. 670,785. (Cl. 158—109.)



1. The method of using oxygen and a combustible gas, such as acetylene, in a blow pipe which has a mixing chamber and a burner passage leading therefrom, which consists in delivering the acetylene gas directly into the mixing chamber from the rear and allowing oxygen held under a high pressure to expand into a chamber which is separate from but surrounds the mixing chamber and the acetylene gas passage leading thereto whereby the reduction of temperature caused by the expanding action of the oxygen gas counteracts, the heating effect produced by the flame on the acetylene gas being delivered to the mixing chamber so that the gases are delivered to the mixing chamber at somewhere near the same temperature.

2. In a blow pipe, the combination with a chambered body open at one end and having an acetylene gas duct leading into one end of the chamber which duct terminates in an interiorly screw-threaded recess in said chambered body, of an intermediate member situated in said chamber and provided at one end with an extension which is screw-threaded into said recess and at the other end with a flange which engages the end of the body and closes the open end of said chamber, that portion of said intermediate member which is situated within said chamber being smaller than said chamber whereby an annular expansion chamber of considerable volume is provided exterior to said intermediate member, means for expanding oxygen into said annular chamber said intermediate member having within it a mixing chamber and a duct leading centrally into and communicating with the acetylene gas duct, and inclined ports leading into said mixing chamber and communicating with the annular expansion chamber, and a tip removably secured to said member.

1,075,819. DEVICE FOR ARRESTING THE PLAITING-BOBBINS OF PLAITING-MACHINES. LYDIA EBELING, Jr., Barmen, Germany. Filed Dec. 7, 1911. Serial No. 664,438. (Cl. 28—4.)



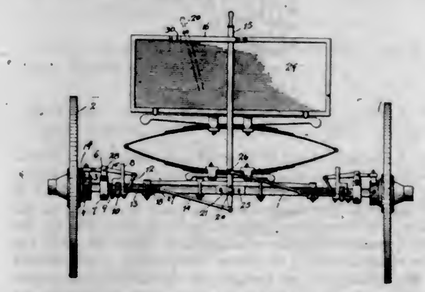
An improved device for arresting the plaiting bobbins of plaiting machines comprising in combination a catch fork for disengaging and reëngaging the bobbins with the drivers consisting of two identical horizontal arms, a vertical bearing for each arm, a pivot in each bearing around which the arm can swing in vertical direction, a support for the bearings, pivots of said bearings mounted in said support so that the bearings can turn and make the arms swing in horizontal direction, springs attached with one end to the rear ends of the arms and with the other end to said support, a triangular intermediate piece pivotally mounted upon the rear end of the support between the rear ends of said arms adapted to swing under the action of the fork arm which moves in vertical direction so that it pushes aside the other fork arm, and a shoulder at the inner surface of the front end of each fork arm for catching the bobbin, substantially as described and shown and for the purpose set forth.

1,075,820. PROCESS OF MAKNG A COMPOSITION OF MATTER. PIERRE FERRA, Caluire-et-Cuire, near Lyon, France. Filed June 10, 1912. Serial No. 702,883. (Cl. 106—18.)

A process for the production of a novel composition of matter, consisting in melting together a mixture of a metallic sulfid with sulfur and a substance having the characteristics of kaolin, cooling the resulting molten mass until solidified, reducing the solidified compound to a fine powder, compressing the said powder in molds, and subjecting the compressed compound material to a high temperature in a closed vessel.

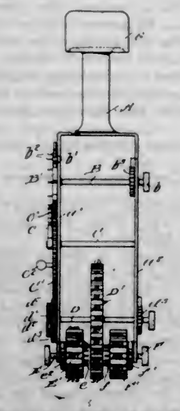
1,075,821. SHAFT-DETACHER FOR VEHICLES. JAMES L. GARVER, Wichita, Kans. Filed Mar. 29, 1912. Serial No. 687,260. (Cl. 21—75.)

1. In a shaft detacher for vehicles, a plate having a pintle perpendicular thereto, and affixed to the vehicle axle, a lever, said lever pivotally positioned on said pintle and means to hold the upper end thereof in the desired position, links pivotally affixed to said lever equidistant from the aforesaid pintle, slidable rods, said rods pivotally connected to said links which rods pivotally connect the shaft to the vehicle, and upon shifting of the aforesaid lever are withdrawn to detach the shaft from said vehicle, an axle clip having a lateral lug, said lug being provided with a hole in which are placed slidable rods aforesaid; a bar, a brake lever, pivotally connected thereto, a vertical clip extension, having a slot therein to receive one end of said brake lever and to allow it to play up and down therein and to provide against lateral movement and a shoe affixed to said lever to contact the wheel hub upon movement of the lever, links pivotally connecting said brake lever to the aforesaid slidable rod so that upon shifting the first mentioned lever the slidable rod is withdrawn from the shaft and the shoe made to contact the wheel hubs and stop the vehicle.



2. In a shaft detached for vehicles, a plate having a pintle perpendicular thereto and affixed to the axle, a lever pivotally positioned on said pintle, an axle clip having a lateral lug with a hole therein, an upward extension on said clip, said extension having a vertical rectangular opening therein, a second clip having a lateral lug and a hole in said lug, a slidable rod positioned in the holes of said clips and a link pivotally connecting said rod to the lever aforesaid and means for locking said lever in a normal position, a member affixed to the vehicle axle, a brake pivoted thereto and extending through the aforesaid rectangular opening and a link pivotally connecting the brake and the slidable rod, corrugated bands affixed to the hubs of the vehicle wheels and means for continuously holding said brake in contact with the corrugated bands.

1,075,822. DATING-MACHINE. ELI E. GREGORY, Central City, Ky. Filed June 6, 1913. Serial No. 772,073. (Cl. 101—160.)



1. In a dating machine of the character described, the combination of a frame, progressively movable day, month and year stamping wheels rotatable in the frame, an actuating member having connection with the day wheel and movable to actuate the day wheel a distance corresponding to a predetermined number of days, and a member also movable in the frame and having means whereby to limit each stroke of the actuating member.

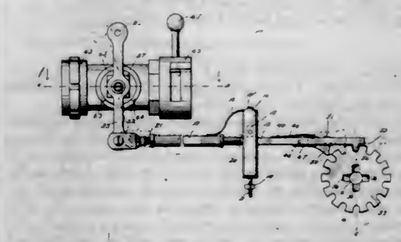
2. In a dating machine of the character described, the combination of a frame, progressively movable day, month and year stamping wheels rotatable in the frame, an actuating member having connection with the day wheel and movable to actuate the said wheel a distance corresponding to a predetermined number of days, and an adjustable member mounted in the frame and having means to control each stroke of the actuating member, said adjusting member having connection with the day actuating member whereby to cause its adjustment upon each stroke of the latter.

3. In a dating machine of the character described, the combination of a frame, progressively movable day, month and year stamping wheels, rotatable in the frame, a gear wheel having connection with the day wheel, a segment gear in engagement with the gear wheel and having a limited movement in the frame, and a controlling wheel having connection with the segment gear whereby to cause adjustment of the former, and also provided with a plurality of pins of various lengths adapted, to be brought successively in alinement with the segment gear and control the stroke of the latter.

4. In a dating machine of the character described, the combination of a frame, progressively movable day, month and year wheels rotatable in the frame, a gear wheel having connection with the day wheel, a segment gear movable in the frame and in mesh with the gear wheel, an adjustable controlling wheel mounted in the frame and having a plurality of projecting pins of various lengths adapted to be brought successively into alinement with the segment gear and control its stroke, the said controlling wheel also having a second set of projecting pins, and an arm carried by the segment gear and adapted to engage a pin of the said second set, whereby to automatically adjust the controlling wheel upon each stroke of the segment gear.

5. In a dating machine of the character described, the combination of a frame, a day stamping wheel rotatable in the frame, month and year stamping wheels rotatable in the frame upon opposite sides of the said day wheel, and each provided with a series of pins projecting inwardly therefrom toward the day wheel, a spring controlled, laterally movable pin carried by the day wheel and normally projecting toward the month wheel whereby to engage a pin of the month wheel and move the latter during each rotation of the day wheel, one of the pins of the month wheel being provided with an inclined portion for engagement with the said day wheel pin whereby to move the latter toward and in engagement with a pin of the year wheel all for the purpose described.

1,075,823. SAUSAGE-STUFFER. CARL HANKE, Hancock, Mich. Filed Feb. 3, 1912. Serial No. 675,187. (Cl. 17—6.)



1. A device of the kind described comprising a meat cylinder having a meat pressing plunger, a casing removably secured thereto and having a discharge nozzle, a valve in said casing arranged to admit and cut off the supply of

meat to said nozzle, means for simultaneously actuating said plunger and moving said valve to open position, means for preventing the actuation of said valve, and means for simultaneously retracting said plunger and moving said valve to open position.

2. A device of the kind described comprising a meat cylinder having a meat pressing plunger, a casing removably connected thereto and having a discharge spout, a rotatable valve disposed in said casing, a valve rod projecting exteriorly of said casing, a wheel for actuating said plunger and formed with a cog wheel off-set, a lever rotatably mounted upon said rod, a rod pivoted to said lever and having an integral tooth meshing with said cog, wheel offset, means for holding said tooth in engagement with the cog wheel, said tooth riding clear of said cog-wheel when said plunger is actuated whereby said valve will be open, means for holding said tooth out of engagement with said cog-wheel, said wheel being reversible to retract the plunger, and means for causing said tooth to operatively engage said cog wheel, during its reverse movement to close said valve.

3. In combination with a meat cylinder having a meat pressing plunger, a valve casing removably secured thereto and having a discharge nozzle, a rotatable valve in said casing opening and closing communication between said cylinder and nozzle, a hand operated wheel for actuating said plunger, means actuated during a part of the cycle of said wheel to rotate said valve and open and close it respectively as it moves in opposite directions, and means for holding said valve against rotation as said wheel is turned.

4. A device of the kind described comprising a meat cylinder having a meat pressing plunger, a casing removably secured to said cylinder and having a discharge spout, a valve in said casing arranged to open and close communication between said cylinder and spout, a cog-wheel having a member operatively actuating said plunger, a rod having a tooth normally meshing with said cog wheel, a yieldable tooth contiguous to said first named tooth, said cog wheel when rotating forcing said first named tooth out of mesh, means for holding said latter tooth in position to mesh with said cog wheel, said plunger being retracted during the reverse movement of said cog wheel, said cog-wheel during its reverse movement engaging said yieldable tooth to restore said other tooth to normal position, and means for holding said valve inactive as said cog wheel rotates.

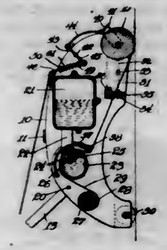
5. In combination a meat cylinder, a casing removably secured thereto, said cylinder having a meat pressing plunger, a discharge nozzle secured to said casing and having oppositely arranged openings, an annular member formed in said casing surrounding said valve and having oppositely arranged openings arranged to register with said first named openings, a lever disposed exteriorly of said casing and arranged to rotate said valve, reciprocatable means engaging said lever to cause said openings to fall in and out of register, a member rotating to actuate said plunger, means controlled by said rotatable member to actuate said last named means before the operation of said member is complete, and means for holding said valve against movement as said member rotates.

[Claims 6 to 12 not printed in the Gazette.]

1,075,824. PORTABLE WALL-PAPER HANGER. AUBREY C. HARRY, Portsmouth, Ohio. Filed Feb. 14, 1913. Serial No. 748,447. (Cl. 216—6.)

1. A machine of the class described, comprising a frame, a presser roller journaled in the forward end of the frame, and held displaceable, a paper supporting roll adapted to feed paper to the presser roller, a paste tank fixed in the frame and adapted to supply paste to one side of the paper, and means normally engaging the paper to hold the same against feeding movement and automatically shifted on displacement of the presser roll for freeing said paper.

2. A machine of the class described, comprising a frame, a presser roller journaled in the forward end of the frame, and held displaceable, a paper supporting roll adapted to feed paper to the presser roller, a paste tank fixed in the frame and adapted to supply paste to one side of the paper, means normally engaging the paper to hold the same against feeding movement and automatically shifted on displacement of the presser roll for freeing said paper, and means for directing the paper to the paste applying point of the tank.



3. A machine of the class described, comprising a frame, a presser roller journaled in the forward end of the frame, and held displaceable, a paper supporting roll adapted to feed paper to the presser roller, a paste tank fixed in the frame and adapted to supply paste to one side of the paper, means normally engaging the paper to hold the same against feeding movement and automatically shifted on displacement of the presser roll for feeding said paper, means for directing the paper to the paste applying point of the tank, and friction rollers journaled at the rear end of the frame.

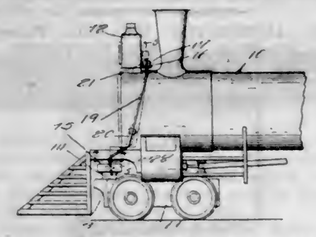
4. A machine of the class described, comprising a frame, a presser roller journaled in the forward end of the frame, and held displaceable, a paper supporting roll adapted to feed paper to the presser roller, a paste tank fixed in the frame and adapted to supply paste to one side of the paper, means normally engaging the paper to hold the same against feeding movement and automatically shifted on displacement of the presser roll for freeing said paper, means for directing the paper to the paste applying point of the tank, friction rollers journaled at the rear end of the frame, and means for tensioning the presser roller when retracted.

5. A machine of the class described, comprising a frame, a presser roller journaled in the forward end of the frame, and held displaceable, a paper supporting roll adapted to feed paper to the presser roller, a paste tank fixed in the frame and adapted to supply paste to one side of the paper, means normally engaging the paper to hold the same against feeding movement and automatically shifted on displacement of the presser roll for freeing said paper, means for directing the paper to the paste applying point of the tank, friction rollers journaled at the rear end of the frame, means for tensioning the presser roller when retracted, and a cutter mounted at the forward end of the frame and movable into operative position for severing the paper.

[Claims 6 to 8 not printed in the Gazette.]

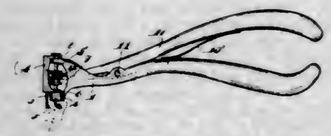
1,075,825. DIRIGIBLE HEADLIGHT. ERNST HOENISCH, Edgar, Wis. Filed Aug. 2, 1912. Serial No. 712,049. (Cl. 240—62.)

The combination with a turning headlight, an engine boiler, and a turning pilot truck, of a bracket fixed to said truck and having a horizontally disposed oblong frame extending longitudinally of and outside of one side of said truck, an upwardly extending rock lever fulcrumed intermediate at the ends on the boiler side and rockable transversely with respect to the longitudinal axis of said boiler, a roller bearing on the lower end of said lever riding longitudinally upon the inner faces of the longitudinal sides of said frame, and a horizontally disposed straight shift link connected to the upper end of said lever and to said headlight and shiftable bodily by said lever in a transverse direction with respect to the longitudinal axis of said boiler, said frame said lever and said link coacting in



swinging said headlight simultaneously with and in the same direction as said truck.

1,075,826. DENTAL TOOL. AUGUSTUS KNIGHT HOFFMAN, Benton, Wis. Filed Feb. 1, 1913. Serial No. 745,567. (Cl. 32—10.)



1. A dental tool comprising means adapted to rest upon the tooth to be operated upon; a scraping member mounted for vertical reciprocation for engagement of the tooth upon which said first mentioned means is rested; and means for reciprocating said scraping member, substantially as described.

2. A dental tool comprising means adapted to rest upon the tooth to be operated upon; means for vertical reciprocation for engagement of the tooth upon which said first mentioned means is rested; and oscillatory means for actuating said scraping member, substantially as described.

3. A dental tool comprising means adapted to rest upon the tooth to be operated upon; means for vertical reciprocation for engagement of the tooth upon which said first mentioned means is rested; and an oscillatory lever for actuating said scraping member, substantially as described.

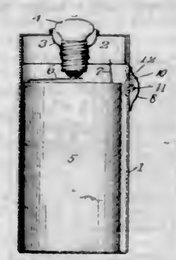
4. A dental tool comprising an elongated member one end of which is adapted to be rested upon the tooth to be operated upon; a vertically movable scraper arranged at one end of said elongated member; a guide member at said end of said elongated member; means mounted for reciprocation upon said guide member adapted when reciprocated to effect actuation of said scraper; and manually operable means engaging said last mentioned means for reciprocating the same, substantially as described.

5. A dental tool comprising an elongated member one end of which is adapted to be rested upon the tooth to be operated upon; a vertically movable scraper arranged at one end of said elongated member; a guide member at said end of said elongated member; means mounted for reciprocation upon said guide member adapted when reciprocated to effect actuation of said scraper; and an elongated oscillatory lever engaging said last mentioned means for reciprocating the same, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,075,827. PORTABLE ELECTRIC LIGHT. CONRAD HUBERT, New York, N. Y. Filed June 27, 1913. Serial No. 776,057. (Cl. 240—8.5.)

1. A circuit-closer for a portable electric light comprising, in combination, a casing having guideways for a circuit-closing member and also having a guide for a contact finger, a bodily slidable circuit-closing member mounted to slide along the guideways of the casing, and a contact finger pivoted to the circuit-closing member and projecting therefrom past the finger guide and terminating in a free contact-making end portion adapted to be shifted by the finger guide to or from contact-making position upon movement of the circuit-closing member.



2. A circuit-closer for a portable electric light comprising, in combination, a casing having guideways and having therein a guide aperture for a contact finger, a bodily slidable circuit-closing member mounted to slide along the guideways of the casing and having a manually actuatable portion at the outside of the casing, and a contact finger pivoted to the circuit-closing member at the outside of the casing and projecting through the guide aperture to the inside of the casing and terminating within the casing in a free contact-making end portion so that movement of the circuit-closing member will shift the contact-making portion of the contact finger to or from contact-making position.

3. A circuit-closer for a portable electric light comprising, in combination, a casing having guideways and having therein a guide aperture for a contact finger, a bodily slidable circuit-closing member mounted to slide along the guideways of the casing and having a manually actuatable portion at the outside of the casing, and a contact finger pivoted to the circuit-closing member at the outside of the casing and projecting through the guide aperture to the inside of the casing, the contact finger having a curved portion coöperative with the guide aperture and having a straight terminal portion adapted to lie flat against the inner surface of the casing in the retracted position of the contact finger.

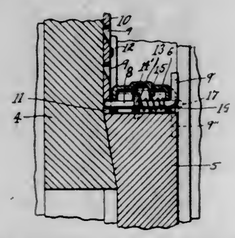
4. A circuit-closer for a portable electric light comprising, in combination, a casing having guideways and having therein a guide aperture for a contact finger, a bodily slidable circuit-closing member mounted to slide along the guideways of the casing and having a manually actuatable portion forming a housing at the outside of the casing, such housing covering the guide aperture in the casing, and a contact finger pivoted to the circuit-closing member within the housing thereof and projecting through the guide aperture to the inside of the casing and adapted to be moved to or from contact-making position by movement of the circuit-closing member to bring about coöperation of the contact finger with the walls of the guide aperture.

5. A circuit-closer for a portable electric light comprising, in combination, a casing having guideways and having therein a guide aperture for a contact finger, a bodily slidable circuit-closing member mounted to slide along the guideways of the casing and having a manually actuatable portion forming a housing at the outside of the casing, such housing covering the guide aperture in the casing, and a contact finger having a curved guiding portion pivoted to the circuit-closing member within the housing and projecting to the inside of the casing through the guide-aperture and guided thereby and the contact finger also having a straight terminal portion within the casing and adapted to lie flat against the inner surface of the casing when the contact finger is out of contact-making position, the contact finger being moved to or from contact-making position by reason of coöperation of

the curved guiding portion of the contact finger with the walls of the guide aperture upon movement of the circuit-closing member.

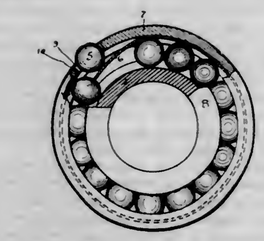
[Claims 6 to 11 not printed in the Gazette.]

1,075,828. SASH-LOCK. JOHN HUNCIKER, Evanston, Ill. Filed Jan. 24, 1913. Serial No. 743,945. (Cl. 16—143.)



A sash lock comprising a hollow casing with one side open and an inwardly extending lug on its inner side; a window sash forming a closure for said open side; a spring-pressed bolt mounted in said casing near one side thereof; a projection on one side of said bolt adapted to engage said lug to prevent displacement of said bolt in said casing and to engage said window sash to prevent complete rotation of said bolt; and lugs having rounded upper ends on the outer side of said casing adapted to lock said bolt in inoperative condition, substantially as described.

1,075,829. BALL-BEARING. OLIVER C. KNIPE, Palo Alto, Cal. Filed Mar. 27, 1911. Serial No. 617,268. (Cl. 64—36.)



1. A ball bearing provided with outer and inner concentric rings having raceways, a hardened elastic split steel ring adapted to spring inwardly for insertion of the balls and snugly fitting in one of said raceways, one of the raceways having an opening to admit balls, and a series of balls within the raceways.

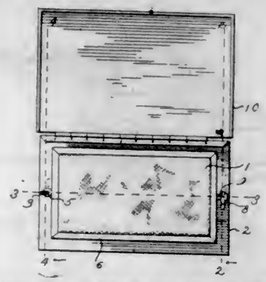
2. A ball bearing provided with outer and inner concentric rings having raceways, a hardened elastic split steel ring adapted to spring inwardly for insertion of the balls snugly fitting in the outer raceway, one of said rings having an opening to admit balls, and a series of balls within the raceways.

3. A ball bearing comprising an outer ring having a raceway and having an opening to admit the balls, a split steel ring elastically seated in said raceway to permit insertion of balls and covering said opening, an inner ring having a raceway, and a series of balls within the raceway.

4. A ball bearing comprising a hub having a grooved end integral therewith, a grooved ring within the same, and means for insertion of the balls including a split ring on which the balls track, said split ring permitting insertion of the balls after assemblage of the rings.

5. A ball bearing having a wooden hub and shell band secured thereto, said band having a grooved end to form a raceway, an inner grooved ring with coöperating raceway, and a split steel ring covering an opening to admit insertion of balls and form a track therefor.

1,075,830. ALTERNATING INK-PAD. FREDERIC X. KNOBEL, River Falls, Wis. Filed Nov. 20, 1912. Serial No. 732,569. (Cl. 101—75.)



1. In a reversible inking pad of the kind described, the combination of a block having a flat spring attached to its under face, with an inking pad which normally contacts the upper face of the block, and is adapted to be held into contact with said block by means of said spring, and means to connect the terminals of said spring with the end edges of said inking pad, said inking pad adapted to be disengaged at one of its end edges, placed into upright position, reversed and again placed in engagement with the upper face of said block.

2. In a device of the character described, the combination of a block, a reversible inking pad, a spring secured to said block, connecting members secured to the ends of said spring, and means whereby said pad may be secured to said connecting members, the pad being detachable from one of said members and adapted to swing at an angle to the block and be reversed.

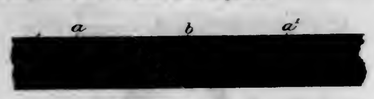
3. In a device of the character described, the combination of a block, a flat spring secured to the under face of said block, a reversible inking pad, an eye bolt swiveled to one end of said spring, means carried upon one end of said pad for pivotal connection with the eye bolt, and means carried upon the other end of said spring for clamping engagement with the other end of the inking pad, whereby said pad will be held in contact with the block.

4. In a device of the character described, the combination with a block, of a flat metal spring secured to the under face thereof, a reversible inking pad, an eye bolt swiveled to said spring, means for pivotally connecting one end of said inking pad to the eye bolt, a clamping hook connected with the other end of said spring, a turning bar projecting from one end of the inking pad for engagement by said hook, the inking pad being adapted to be swung at an angle to the block and reversed.

5. In a device of the character described, the combination with a block, of a flat metal spring secured to the under side of said block and extending longitudinally thereof, a reversible inking pad, an eye bolt swiveled adjacent one end of said spring and extending transversely through said block, means for pivotally connecting one end of the inking pad to the eye bolt, a clamping hook formed upon the other end of said spring and extending transversely through said block, and a turning bar projecting from one end of said pad for engagement by said clamping hook, the turning bar being detachable from said hook, whereby the pad may be swung at an angle to the block and reversed.

1,075,831. ELASTIC WEBBING. SAMUEL KOPS, New York, N. Y., assignor to Kops Bros., New York, N. Y., a Firm. Filed Aug. 7, 1911. Serial No. 642,826. (Cl. 139—70.)

1. An elastic webbing consisting of a substantially flat strip woven under tension of the elastic strands and a taut condition of the warp threads wherein there are elastic sections formed by suitably spacing the weft threads and intermediate non-elastic sections formed by pressing the weft threads close together.



2. A length of elastic webbing woven under tension and a taut condition of the warp threads, wherein there are elastic sections formed by suitably spacing the weft threads, and intermediate non-elastic sections formed by weaving the weft threads close together.

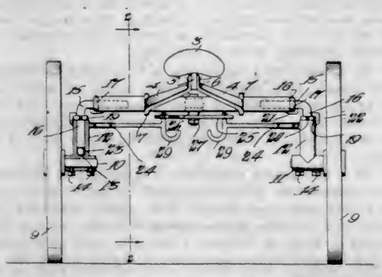
3. A length of elastic webbing woven under tension and at substantially the maximum elastic limit of the elastic strands and in which there are elastic lengths or sections at spaced intervals, with intermediate and also spaced non-elastic sections, the elastic sections being formed by spacing the weft threads and the non-elastic sections being formed by pressing the weft threads closely together.

4. A length of elastic webbing having an elastic section and a sewing section both woven with the warp threads and rubber strands at the same tension, but the weaving in the sewing section being closer than the weaving in the elastic section for the constriction of the rubber-strand-receiving channels in the sewing section, whereby the extended or stretched rubber strands in the sewing section are held against lengthwise movement therein.

5. A length of elastic webbing having an elastic section and a sewing section both woven with warp threads and rubber strands at the same tension, but having the warp and filling threads more frequently interlaced in the sewing section than in the elastic section for the constriction of the rubber-strand-receiving channels in the sewing section, whereby the extended or stretched rubber strands in the sewing section are held against lengthwise movement therein.

[Claim 6 not printed in the Gazette.]

1,075,832. CULTIVATOR. VICTOR LAUER, Stillwater, Okla. Filed May 19, 1913. Serial No. 768,487. (Cl. 97—35.)



1. A device of the character specified, comprising a tubular body frame, brackets each having a bearing intermediate its ends engaging the body frame, said brackets converging in front and in rear of the body frame, a seat connected to the converging ends in rear of the frame, a tongue connected with the brackets in front of the frame, an angle bar or rod at each end of the body frame, each of the said bars or rods consisting of two portions extending at a right angle to each other, one of the said portions of each bar or rod being received in the adjacent end of the body frame, a spindle bearing sleeve at each end of the body frame, each sleeve having an upward tubular extension for receiving the other arm of the adjacent angle rod or bar, a collar secured adjustably to each arm of each angle bar or rod, hooks on the ends of the body frame and on the upper ends of the extension for engaging outside of the adjacent collar, each of the said extensions having a lateral lug near its upper end, a cross head at the center of the body frame, a pivotal connection between the cross head at the center thereof and the body frame, each end of the cross head being longitudinally slotted, a stirrup at each end of the cross head, each stirrup having a threaded stem extending through the adjacent slot and having a laterally extending link secured to the lug of the adjacent extension, a nut engaging the stem above the cross head, a spindle in each bearing sleeve, means for preventing angular movement of the spindle with respect to the sleeve, and a wheel on each spindle.

2. A device of the character specified, comprising a tubular body frame, a seat supported by the frame in rear thereof, a tongue connected with the frame at the front thereof, an angle bar or rod at each end of the body frame, each bar or rod consisting of two portions extending at a right angle to each other, one of the said portions of each bar or rod being received in the adjacent end of the body frame, a spindle bearing sleeve at each end of the body frame, each sleeve having an upwardly extending tubular extension for receiving the other arm of the adjacent angle bar or rod, means in connection with the angle bars, the body frame and the extensions for preventing disengagement of the bars, a cross head at the center of the body frame, a hanger on the body frame to which the cross head is pivoted intermediate the ends of the cross head, a stirrup slidably connected with each end of the cross head and having a limited longitudinal movement with respect thereto, each extension having a lateral inwardly extending lug, and each stirrup having a rigid outwardly extending link connected with the lug of the adjacent extension.

3. A device of the character specified, comprising a tubular body frame, a seat supported by the frame in rear thereof, a tongue connected with the frame at the front thereof, an angle bar or rod at each end of the body frame, each bar or rod consisting of two portions extending at a right angle to each other, one of the said portions of each bar or rod being received in the adjacent end of the body frame, each sleeve having an upwardly extending tubular extension for receiving the other arm of the adjacent angle bar or rod, means in connection with the angle bars, the body frame and the extensions for preventing disengagement of the bars, a cross head at the center of the body frame, a hanger on the body frame to which the cross head is pivoted intermediate the ends of the cross head, a stirrup slidably connected with each end of the cross head and having a limited longitudinal movement with respect thereto, and a rigid connection between each stirrup and the adjacent extension.

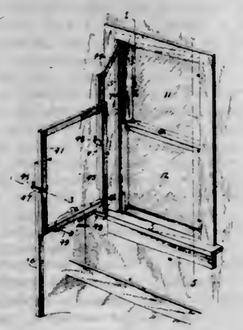
4. A device of the character specified, comprising a tubular body frame, a seat supported by the frame in rear thereof, a tongue connected with the frame at the front thereof, an angle bar or rod at each end of the body frame, each bar or rod consisting of two portions extending at a right angle to each other, one of the said portions of each bar or rod being received in the adjacent end of the body frame, a spindle bearing sleeve at each end of the body frame, each sleeve having an upwardly extending tubular extension for receiving the other arm of the adjacent angle bar or rod, means in connection with the angle bars, the body frame and the extensions for preventing disengagement of the bars, a cross head pivoted intermediate its ends to the body frame, a stirrup rigid with each extension and having a sliding connection with the adjacent end of the cross head, and a ball in each extension beneath the end of the arm of the angle bar.

5. A device of the character specified, comprising a tubular body frame, a seat supported by the frame in rear thereof, a tongue connected with the frame at the front thereof, an angle bar or rod at each end of the body frame, each bar or rod consisting of two portions extending at a right angle to each other, one of the said portions of each bar or rod being received in the adjacent end of the body frame, a spindle bearing sleeve at each

end of the body frame, each sleeve having an upwardly extending tubular extension for receiving the other arm of the adjacent angle bar or rod, means in connection with the angle bars, the body frame and the extensions for preventing disengagement of the bars, a cross head pivoted intermediate its ends to the body frame, and a stirrup rigid with each extension and having a sliding connection with the adjacent end of the cross head.

[Claim 6 not printed in the Gazette.]

1,075,833. WINDOW. ANGUS R. LE GRUE, Buffalo, N. Y., assignor of one-half to Alexander S. Fraser, Buffalo, N. Y. Filed June 20, 1911. Serial No. 634,319. (Cl. 20—57.)

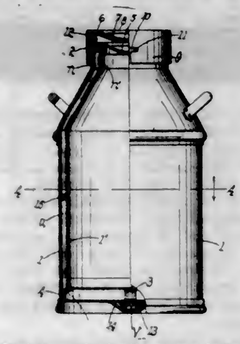


1. A rack for supporting sashes while removed from the window frame, comprising a frame adapted to be arranged at right angles to the window, a short outer foot depending from the lower edge of the rack frame adjacent to the outer vertical edge thereof and adapted to rest on the window sill, a long inner foot depending from the lower edge of the rack frame adjacent to the inner vertical edge thereof and adapted to rest on the floor, an upper retaining arm projecting upwardly and laterally outward from the upper edge of the rack frame adjacent to the outer vertical edge thereof and adapted to engage its upper end with a shoulder on the head of the window frame, and supporting arms arranged on the lower edge of the rack frame and adapted to support the window sashes on the lower edges thereof.

2. A rack for supporting sashes while removed from the window frame, comprising a frame adapted to be arranged at right angles to the window, a short outer foot depending from the lower edge of the rack frame adjacent to the outer vertical edge thereof and adapted to rest on the window sill, a long inner foot depending from the lower edge of the rack frame adjacent to the inner vertical edge thereof and adapted to rest on the floor, an upper retaining arm projecting upwardly and laterally outward from the upper edge of the rack frame adjacent to the outer vertical edge thereof and adapted to engage its upper end with a shoulder on the head of the window frame, and supporting arms arranged on the lower edge of the rack frame and adapted to support the window sashes on the lower edges thereof, said short outer foot being fixed on the rack frame, said inner long foot being vertically adjustable on the rack frame, said upper arm being vertically adjustable on the rack frame, and said supporting arms being pivoted on the rack frame to swing horizontally.

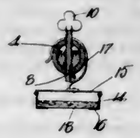
1,075,834. MILK-CAN. SAINT VRAIN LE SIEUR, East St. Louis, Ill., assignor to The Le Sieur Vacuum Can Manufacturing Company, East St. Louis, Ill., a Corporation of Illinois. Filed July 3, 1911, Serial No. 636,697. Renewed Feb. 18, 1913. Serial No. 749,279. (Cl. 62—23.)

A milk-can comprising an outer section or member, an inner section spaced from the outer section, brackets projecting from the bottom of the inner section and engaging the outer section, strips of heat-non-conducting material interposed between the brackets and the inner surface of the outer can-section, a neck for each section, a



sealing ring fixed securely in the space between the ends of the neck portions, an outer cover for the necks provided with a layer of heat-non-conducting material, and means for connecting the space between the sections with a suitable vacuum pump.

1,075,835. CIGAR-MOISTENING APPARATUS. JAMES LITCHFIELD, Kansas City, Mo. Filed Feb. 24, 1913. Serial No. 750,151. (Cl. 131—30.)



1. In an apparatus of the character described, a horizontally extending perforated pipe, strips of absorbent material supported beneath the perforations in said pipe, screws extending through the perforations in the pipe and having the portions thereof extending through the lower wall of the pipe channeled to provide water-ways, and an inlet supplying water to said pipe.

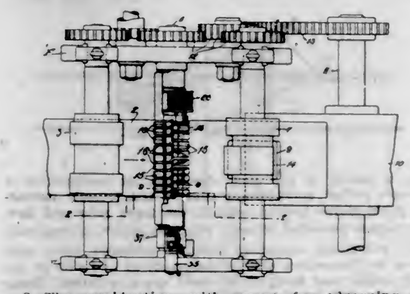
2. In a moistening apparatus, a horizontally extending water supply pipe provided with a series of water outlets, and a tray supported beneath said outlets, said tray consisting of a frame having a hook for engaging said pipe and a layer of absorbent material in the body of the frame.

3. In a moistening apparatus, a horizontally extending water supply pipe provided with a series of water outlets, a tray supported beneath said outlets, said tray consisting of a skeleton frame having a flanged bottom edge carrying a strip of absorbent material, and bars across the top of said frame, said bars carrying hooks for engaging said pipe.

1,075,836. TUBE-CUTTING MECHANISM. WILLIAM A. LORENZ, Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 18, 1912. Serial No. 671,868. (Cl. 164—68.)

1. The combination, with tube advancing and guiding devices, of means for making separated cuts along the wall of the tube, and means for shifting the said cutting means aside and repeating the cutting operation to cut the paper remaining between the first cuts.

2. The combination, with means for advancing and guiding a tube, of cutting instrumentalities for making separated perforations across the tube, and means for shifting the cutting instrumentalities laterally of the tube, and repeating the cutting operation to sever the material remaining between the said cuts.



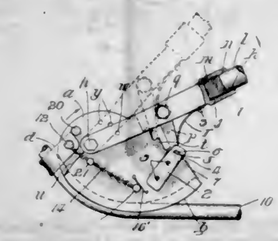
3. The combination, with means for advancing and guiding a tube, of cutting instrumentalities for making separated cuts across the wall of the tube, means for moving the said cutting instrumentalities a plurality of times into the tube wall, and means for shifting the said cutting instrumentalities aside between the strokes to pierce the tube wall at different lateral portions thereof by the successive strokes.

4. The combination, with means for advancing and guiding a paper tube, of cutting instrumentalities for making a series of separated cuts across the wall of the tube, means for repeating the cutting stroke of the said instrumentalities, and means for shifting the said instrumentalities to bring its successive cuts at two different portions of the width of the tube.

5. The combination, with means for advancing and guiding a paper tube, of cutting instrumentalities including a row of cutting teeth for making separated cuts through the paper, means for imparting successive cutting movements to the said teeth, and means for shifting said teeth to effect their cutting movements upon different portions of the width of the tube.

[Claims 6 to 21 not printed in the Gazette.]

1,075,837. PIPE-BENDING TOOL. ORAY A. MALO and FRANK H. MELAT, Michigan City, Ind. Filed Dec. 21, 1912. Serial No. 737,940. (Cl. 81—15.)



1. A pipe bending tool, comprising a forming member having a pipe-engaging surface, a pipe-engaging jaw mounted upon and movable with said forming member and adapted to hold a pipe in rigid engagement with the pipe-engaging surface of said forming member, an operating lever pivotally connected with the forming member, and a locking member connected with said lever and adapted, in the movement of said lever in one direction, to lock said forming member to said lever, said locking member being adapted in the movement of said lever in the opposite direction, to unlock said lever from said forming member and permit said lever to be moved freely with respect to said forming member and said pipe-engaging jaw.

2. In a device of the class described, the combination of a segmental forming member, a pipe-engaging jaw connected with said forming member and adapted to hold a pipe in rigid engagement with the latter, an operating lever pivotally connected with the forming member, and pawl and ratchet mechanism adapted to connect the lever in rigid relation to the forming member in the movement of the lever in one direction, and to permit the movement of the lever with respect to the forming member in an opposite direction.

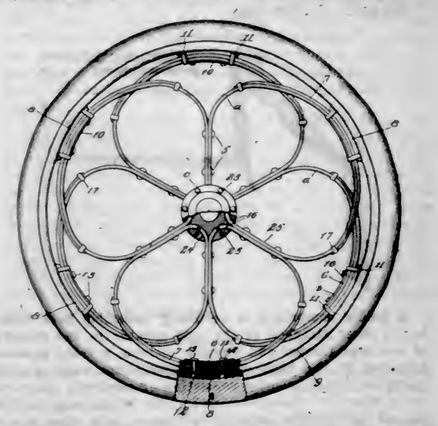
3. In a device of the class described, the combination of a forming member having a curved peripheral portion, a socket member connected with said forming member and adapted to hold a pipe in rigid engagement with the grooved peripheral portion of the forming member, an operating lever pivotally connected with the segmental forming member, a ratchet upon one of said members, and a pawl mounted upon the other of said members and adapted to engage the ratchet.

4. In a device of the class described, the combination of a forming member having a grooved peripheral portion, a socket member connected with said forming member and adapted to hold a pipe in rigid engagement with the grooved peripheral portion of the forming member, an operating lever pivotally connected with the segmental forming member, a ratchet upon one of said members, a pawl mounted upon the other of said members and adapted to engage the ratchet, and means for connecting the lever in rigid relation to the forming member in different adjusted positions with respect to the latter.

5. In a device of the class described, the combination of a forming member having a curved peripheral groove in the peripheral edge thereof, a pipe-engaging jaw mounted on the forming member and adapted to hold a pipe in rigid engagement with the peripherally grooved portion of the latter, an operating lever having forked arms pivotally connected with said segmental forming member on opposite sides thereof, a ratchet upon the segmental forming member, a pawl pivotally mounted upon the operating lever and adapted to engage the ratchet, and means for yieldingly holding the pawl in operative engagement with the ratchet.

[Claims 6 to 9 not printed in the Gazette.]

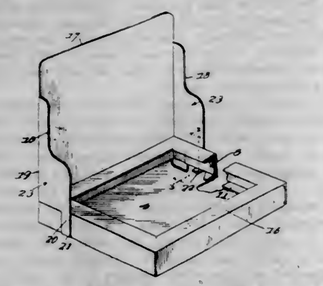
1,075,838. SPRING-WHEEL. WILLIAM L. MANN, St. Joseph, Mo. Filed May 3, 1911. Serial No. 624,756. (Cl. 152—50.)



A spring wheel including a rim, a hub formed with a plurality of curved recesses opening through the surface of the hub, immediately adjacent recesses having a common entrance opening, and a plurality of spring loops, said loops having their terminals inserted in and extending partly through adjacent recesses, the respective terminals entering the respective recesses from opposite directions, the sections of the adjacent loops being secured

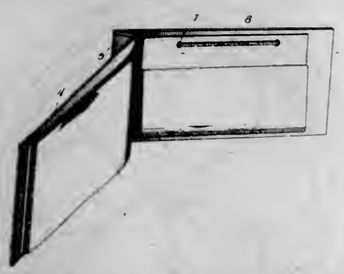
together beyond the hub, said connected sections entering the common entrance of the immediately adjacent recesses, and means for securing the loops to the rim whereby pressure upon any particular loop is through the recess formation resisted by the tension of the adjacent loop.

1,075,839. CONFECTIONERY-BOX. WILLIAM A. MATTHEWS, Baltimore, Md. Filed June 5, 1913. Serial No. 771,951. (Cl. 229—16.)



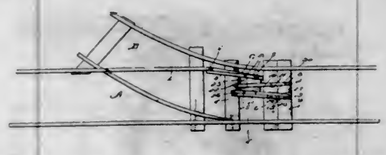
In a box, a blank having a central portion forming the bottom of the box, wings at the sides of one end of the blank adapted to be folded to form the ends of the box with extensions adapted to overlie a portion of the bottom of the box, sides integral with the central portion forming the bottom and adapted to be formed by bending the blank, a cover for the box, brackets integral with the cover and adapted to be bent at angles thereto, extensions on the bracket, each terminating in a portion extending at right angles to the said extensions, said angular portions being inserted between the extensions of the end of the box which partially overlie the bottom thereof and said bottom whereby the cover is held in elevated position.

1,075,840. LOOSE-LEAF BINDER. ABEL J. MCALLISTER, Lawrence, Kans. Filed Apr. 10, 1912. Serial No. 689,834. (Cl. 129—41.)



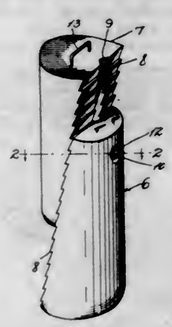
A binder comprising a relatively inflexible back member, a sheet attached to the said member in the vicinity of one edge thereof and foldable thereon, a front member attached to the back member beyond the edge of said sheet, said front member consisting of relatively inflexible parts hingedly connected together, the hinge being located beyond the foldable edge of said sheet, and other sheets detachably mounted between the back and front members and adapted to lie over the first mentioned sheet when the back and front members are closed and adapted to be spread individually over part of the first-mentioned sheet when the back and front members are open and the first-mentioned sheet is unfolded, the said first-mentioned sheet when unfolded having a greater area than the front and back members and the other sheets located therebetween.

1,075,841. SWITCH-OPERATING DEVICE. MARSHALL M. MCCOMBS, El Paso, Tex. Filed June 28, 1912. Serial No. 706,519. (Cl. 104—24.)



In a device of the class described, in combination a movable switch point, a plurality of transversely extending guide plates located beneath the track rails and having a space provided between adjacent plates, a longitudinally extending actuating member mounted upon said plates for transverse sliding movement at one side of the track center and bridging the said space, a lateral flange being provided on said switch point, an attaching plate being disposed for sliding movement within the said space between the supporting plates and having one end rigidly secured to said switch point flange and the other end rigidly secured to the base of said actuating member, and converging guide bars secured to said plates at either side of the said member and bridging the said space, the outermost of said guide bars being located above the attaching plate, the ends of said guide bars being beveled outwardly to form mouths with the ends of the actuating member which are beveled to form points, said guide bars adapted to guide a train carried operating rod into active engagement with the said member to throw the switch point, and further serving to limit the transverse movement of said member.

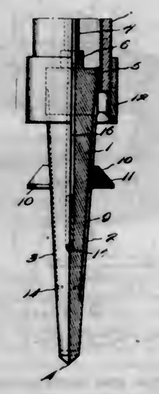
1,075,842. PIPE-PLUG. GEORGE W. MCCUTCHEN, Maricopa, Cal. Filed Nov. 18, 1912. Serial No. 732,145. (Cl. 166—13.)



1. A pipe plug, comprising a pair of approximately semi-cylindrical members having inclined diametric planes and provided with interlocking teeth thereon inclined, said planes also having longitudinally disposed and registering grooves, and means to secure said members in assembled form, whereby when force is applied to shear said securing means the projecting end of said means will slide in the groove causing the shear to guide said members.

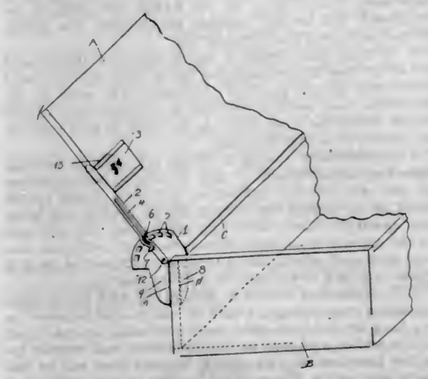
2. A pipe plug, comprising a pair of slidable members having inclined engaging faces provided with interlocking teeth, forming a cylindrical cross section when assembled, the said members having oppositely disposed projecting ends, said engaging faces also having longitudinally disposed and registering grooves intersected by a plurality of oppositely disposed threaded bores, and bolts secured in said bores to hold said members in assembled relation, said bolts being sheared under pressure to one of said members and forming guiding pins.

1,075,843. WELL-BORING DRILL. MIBBLEY T. MCKEE, Belle Valley, Ohio. Filed May 23, 1912. Serial No. 699,340. Renewed Jan. 20, 1913. Serial No. 743,204. (Cl. 255—75.)



In a well boring drill, the combination of a bit having opposed inclined faces, and provided with a straight cutting edge, said inclined faces having formed therein slots of dove-tail cross section and terminating at their lower ends adjacent the cutting edge of the bit; a pair of reaming bits having integrally formed dove-tailed heads slidably mounted in said slots; said pair of reaming bits when at the lower ends of said slots permitting of insertion and removal of the first named bit and the reaming bits through the well casing; a pair of blocks having beveled edges secured to the bit adjacent the lower terminating end of each slot permitting of insertion and removal of said reaming bits; and a pipe secured at one end to the head of the bit, said bit having a central channel communicating at one end with said pipe and having opposed distributing ports at the other end thereof, substantially as described.

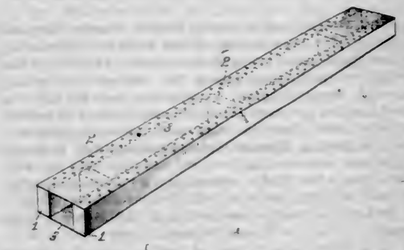
1,075,844. BOX-LID HOLDER. BENJAMIN D. MILLER, Wooster, Ohio, assignor to Emil Paumier and G. A. Hudson. Filed Dec. 5, 1910. Serial No. 595,572. (Cl. 217—61.)



1. A box lid holder comprising a body-engaging section formed of a plate having a vertically disposed slot with flanges extending from the vertical edges of the slot for engaging the body of a box, the plate having an upwardly-extending portion, a lid-engaging section having its lower end pivotally connected with the body engaging section at a point above the slot thereof, said upwardly-extending portion of the body-engaging section having spaced devices concentric with the point of pivotal connection between the sections, a latch carried by the lid-engaging section to engage the said devices for holding the sections in different relative positions of adjustment, and lid gripping members on the lid engaging section, said latch being disposed between the said members and the point of pivotal connection between the sections.

2. A box lid holder comprising a body-engaging section formed with an upwardly-extending plate, a lid-engaging section comprising an arm and members thereon for gripping the lid, a pivotal connection between the lower end of the arm and the body-engaging section at a point in line with the hinge of the lid, a latch located on the arm between the pivot and the said lid-gripping members, and projections on the said plate with which the catch is adapted to engage, the said arm being offset at the projections to pass over the same.

1,075,845. STRUCTURAL MATERIAL. JOSEPH H. MILLS, Richmond, Ind. Filed Jan. 13, 1906. Serial No. 295,961. (Cl. 20—91.)



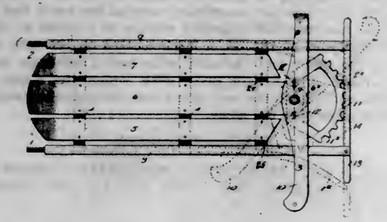
1. Structural material made to commercial forms and comprising parallel wooden strips spaced apart, and two strips of sheet metal extending across and covering two opposite edges of the wooden strips, leaving two opposite sides thereof exposed for nailing purposes, both the wooden and metal strips constituting an integral structure, and an article of commerce and said metallic strip having tongues stamped out therefrom and embedded into the wood for so securing the wooden and metallic strips together.

2. Structural material made to commercial forms and comprising two parallel wooden strips spaced apart, cross pieces for connecting the strips and spacing them, and two strips of sheet metal extending across the edges of the strips and covering the edges of the same and the cross pieces, leaving two opposite sides of said wooden strips exposed for nailing purposes, said metallic strips having substantially trapezoidal-shaped tongues stamped out therefrom and embedded within the wooden strips for securing them together, and such wooden strips and cross-pieces and metal strips constituting an integral structure and an article of commerce.

1,075,846. FLEXIBLE SLED. JOHN C. MINISH, Ridgway, Pa. Filed Sept. 16, 1912. Serial No. 720,564. (Cl. 21—94.)

1. In a flexible sled, a frame comprising top boards, supports for said top boards, runners secured to said supports, a segment pivotally secured above the central one of said top boards, a steering lever secured above said central top board, a rack bar arranged to connect the front end of the flexible runners together, said rack bar being arranged to mesh with the teeth on said segment, and means for connecting the segment and the steering lever rigidly together.

2. In a flexible sled, a pair of flexible runners, supports secured thereto, cross pieces carried by said supports, top sled boards mounted on said cross pieces, side strips also mounted on said cross pieces, the central one of said top boards being extended, a segmental gear having a portion disposed above said extension, a steering lever having a portion disposed above said central extension, a common pivot pin for said lever and said segmental gear, means for rigidly securing said lever to said gear, a rack member connected to the ends of the flexible runners, said rack member being arranged to mesh with said segmental gear, and being arranged to slide underneath the ends of said side strips.

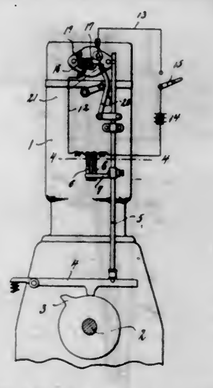


3. In a flexible sled, a pair of flexible runners, supports secured thereto, cross pieces carried by said supports, top sled boards mounted on said cross pieces, side strips also mounted on said cross pieces, the central one of said top boards being extended, a segmental gear having a U-shaped portion arranged to overlie said central extension, a steering lever disposed above said U-shaped portion, a pivot pin passing through said extension, said U-shaped portion and said steering lever for holding these parts together, means for rigidly connecting said U-shaped portion with said steering lever, a rack, and members secured to the ends of the flexible runners, said rack member being arranged to mesh with said segmental gear.

4. In a flexible sled, a pair of flexible runners, supports secured thereto, cross pieces carried by said supports, top sled boards mounted on said cross pieces, side strips also mounted on said cross pieces, the central one of said top boards being extended, a segmental gear having a U-shaped portion arranged to overlie said central extension, a steering lever disposed above said U-shaped portion, a pivot pin passing through said extension, said U-shaped portion and said steering lever for holding these parts together, means for rigidly connecting said U-shaped portion with said steering lever, a rack, and members secured to the ends of the flexible runners, said rack members being arranged to mesh with said segmental gear, said rack being guided by the engagement of the ends of the rack with the bottom portion of said side members.

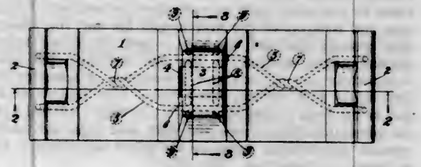
1,075,847. SPARK-CONTROLLER FOR EXPLOSIVE-ENGINES. ALBERT LOUIS MOELLER, Mishicott, Wis. Filed Mar. 18, 1911. Serial No. 615,289. (Cl. 123—157.)

Ignition means for explosive engines comprising, in combination, an engine cylinder, a stationary electrode thereon, a rocking electrode in proximity to the stationary electrode, a bushing interposed between the rocking electrode and the engine cylinder, said rocking electrode projecting beyond each end of the bushing, clamping nuts on the bushing to fasten a circuit wire thereto for conducting the electric current to or from the rocking electrode, a stop arm having a bifurcated portion to receive the outer end of the rocking electrode, a clamp screw passing through the bifurcated portion for securing the stop arm on the rocking electrode, a spring for retaining the rocking electrode in its normal position after operation of the latter, an actuating arm loosely mounted on the rocking electrode and provided with a projection adapted to engage the stop arm, a spring secured at one end to the rocking electrode and the opposite end to the actuating arm for retaining the projection on the latter normally



against the stop arm, and means to engage the actuating arm for operating the rocking electrode.

1,075,848. REINFORCED BRAKE-SHOE. JOHN J. MORSE, St. Louis, Mo. Filed Aug. 19, 1912. Serial No. 715,706. (Cl. 188—82.)



1. A brake-shoe having a pair of rods located adjacent to the back thereof, said rods being spaced apart at the middle and ends of the brake-shoe and twisted together intermediate the middle and ends of same.

2. A brake-shoe having a lug at each end thereof and a pair of rods located adjacent to the back of same, said rods being spaced apart at the middle and ends of the brake-shoe and twisted together intermediate the middle of the brake-shoe and each end lug.

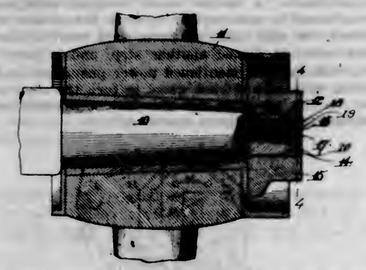
3. A brake-shoe having a lug at each end thereof and a pair of rods located adjacent to the back of same, said rods being spaced apart at the middle and ends of the brake-shoe and twisted together intermediate the middle of the brake-shoe and each lug, the ends of said rods being anchored in said end lugs.

4. A brake-shoe having a middle lug with an opening extending therethrough, a pair of rods located adjacent to the back of the brake-shoe, said rods being spaced apart at the middle and ends of the brake-shoe and being bent inwardly intermediate said middle lug and each end of the brake-shoe so that the bent parts of said rods contact with each other, and a U-shaped rod located in said middle lug and straddling the opening therein.

5. A brake-shoe having a middle lug with an opening extending therethrough, a pair of rods located adjacent to the back of the brake-shoe, said rods being spaced apart at the middle and ends of the brake-shoe and secured together intermediate said middle lug and each end of the brake-shoe, and a U-shaped rod located in said middle lug and straddling the opening therein, the ends of said U-shaped rod being embedded in the body of the brake-shoe and bearing stirrups to receive said first-mentioned rods.

[Claims 6 to 14 not printed in the Gazette.]

1,075,849. HUB ATTACHMENT. CHARLES E. PARTRIDGE, Keene, N. H., assignor of one-third to John J. Waltz, Easthampton, Mass. Filed Sept. 27, 1912. Serial No. 722,737. (Cl. 21—30.)



In combination with a vehicle axle having a reduced end slotted to form longitudinally extending split portions, provided with threads on the outer and inner faces thereof, of a nut having threaded connection with the said reduced end and engaging the threads on the outer faces of the split portions, a frusto-conical securing member for threaded connection with the said reduced end, with the threads on the securing member engaging the threads on the inner faces of the said split portions to expand the split portions and bind the same relatively to the said nut, and a contractile ring mounted in a groove in the reduced end of the said vehicle axle and adapted to extend into a recess in the said securing member to lock the said securing member on the said vehicle axle.

1,075,850. WRENCH. GEORGE BENJAMIN PERKINS, Elvins, Mo. Filed Sept. 21, 1912. Serial No. 721,537. (Cl. 81—106.)



A wrench having a shank formed with a stationary jaw and with ratchet-like teeth on its front; a positioning slide mounted on said shank and formed in its rear with a recess and provided with teeth which normally engage the teeth on the front of said shank; a yielding device one end of which is anchored in said recess and the other end of which is free and is interposed between the rear of the shank and said slide, said device being adapted and arranged to hold the teeth of said slide normally in engagement with the teeth on the front of the shank; a movable jaw formed with a recess in its rear and with a bifurcated extension which straddles said shank and is pivotally connected with said slide; and a yielding device which is anchored at one end in the recess formed in said slide and the other free end of which projects into the recess formed in the rear of said movable jaw and tends to throw the latter toward the front of the wrench.

1,075,851. POINT-CHANGING MECHANISM. PAOLO PESTALOZZA, Turin, Italy. Filed Dec. 7, 1911. Serial No. 664,449. (Cl. 104—24.)



1. In a point changing mechanism for railways, a point reciprocating member, an operating mechanism for said member actuated by the car wheels, restraining means for said mechanism and a controlling means on the car coöperating with said restraining means for releasing said mechanism; said point reciprocating member comprising a bar rigidly connecting the two points, and abutments on said bar engaging with said operating mechanism.

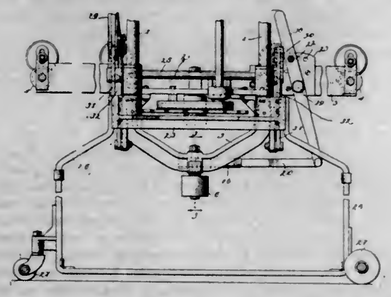
2. In point changing mechanism for railways, a point reciprocating member, an operating mechanism for said member actuated by the car wheels, restraining means for said mechanism and a controlling element on the car cooperating with said restraining means for releasing said mechanism; said restraining means comprising a spring actuated depressible member, a projection on said depressible member normally situated in the path of said controlling element when the latter is in action, a spring latch actuated by said depressible member and normally engaging with said operating mechanism to keep it inactive.

3. In point changing mechanism for railways, a point reciprocating member, an operating mechanism for said member actuated by the car wheels, restraining means for said mechanism and a controlling element on the car coöperating with said restraining means for releasing said mechanism; said operating mechanism comprising a slide contacting with said point reciprocating member, teeth oppositely situated on said slide, a star wheel located between said teeth and adapted to throw the slide in one direction when in engagement with the teeth on one side and in the opposite direction when in engagement with the teeth on the opposite side, ratchet gearing constructed to turn said star wheel in only one direction, a spring actuated rod positively connected with said ratchet gearing, a bell crank at one end of said rod, a second bell crank adapted to oscillate in a vertical plane and situated adjacent to said restraining means and constructed to normally engage therewith, an elastic connection between said two bell cranks, a stud resting on one arm of said second bell crank, said stud situated in the wheel track and normally below the level thereof, said stud being raised to contact with the car wheel by said second bell crank when released by said restraining means.

4. In point changing mechanism for railways, a point reciprocating member, an operating mechanism for said member actuated by the car wheels, restraining means for said mechanism and a controlling element on the car cooperating with said restraining means for releasing said mechanism; said point reciprocating member comprising a bar rigidly connecting the two points, and abutments on said bar engaging with said operating mechanism; said restraining means comprising a spring actuated depressible member, a projection on said depressible member normally situated in the path of said controlling element when the latter is in action, a spring latch actuated by said depressible member and engaging with the second bell crank of said mechanism; said controlling element comprising a spring actuated roller normally raised above the level of the track and levers and connections for normally operating said roller to contact with and actuate the projection on said restraining means; said operating mechanism comprising a slide contacting with the abutments on said reciprocating member, teeth oppositely situated on said slide, a star wheel located between said teeth and adapted to throw the slide in one direction when in engagement with the teeth on one side and in the opposite direction when in engagement with the teeth on the opposite side, ratchet gearing constructed to turn said star wheel in only one direction, a spring actuated rod positively connected with said ratchet gearing, a bell crank at one end of said rod, a second bell crank adapted to oscillate in a vertical plane situated adjacent to said restraining means and constructed to normally engage with said spring latch of said restraining means, an elastic connection between said two bell cranks, a stud resting on one arm of said second bell crank, said stud seated in the wheel track and normally below the level thereof, said stud being raised to contact with the car wheel by said second bell crank when released by said restraining means; whereby, on depressing said roller to contact

with said projection of said restraining means said second bell crank will be released and oscillated by means of said spring actuated rod, the first bell crank and the elastic connection between said cranks, thereby raising said stud into the path of the car wheel; whereby the car wheel will again depress said stud swinging said second bell crank in the opposite direction to be reëngaged with said spring latch and subsequently to turn said star wheel by means of the elastic connection the first bell crank and said rod and ratchet gearing in one direction, said star wheel thereby driving said slide and said bar in one direction to shift the points.

1,075,852. DOFFER. BURT A. PETERSON, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners doing business at Rockford, Ill., as Barber-Colman Company. Filed Jan. 6, 1912. Serial No. 669,765. (Cl. 118—13.)



1. In a doffer, a doffer framework, supporting means on the framework, other supporting means on the framework below the first mentioned supporting means, means for adjusting the second mentioned supporting means, and a hand lever pivoted at the side of the doffer framework, and connected at its lower end to the adjusting means.

2. In a doffer, a doffer framework, suspending means on the framework, stabilizing means on the framework below the suspending means, means for adjusting the stabilizing means, and a hand lever pivoted at the side of the doffer framework and connected to the adjusting means.

3. In a doffer, a doffer framework, suspending means and stabilizing means on the framework, a wedge arranged to adjust the stabilizing means, and a hand lever mounted on the doffer framework and operatively connected to the wedge for moving the latter.

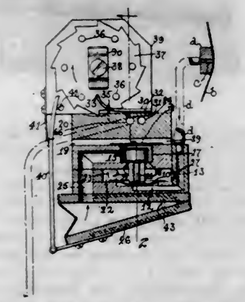
4. In a doffer, a framework comprising an upper section and a lower section slidably connected together; suspending means on the upper section; stabilizing means on the upper section below the suspending means, and a hand lever pivoted on the upper section and connected to the stabilizing means for adjusting the latter.

5. In a doffer, an upper section and a lower section slidably connected together, means for raising the upper section, a supporting roller on the upper section adapted to run upon a spinning-frame rail, and a doffer-positioning stop on the upper section below the roller and in position to contact such a rail when the roller is properly positioned above the rail.

[Claim 6 not printed in the Gazette.]

1,075,853. PLAYER-PIANO. ERIC R. PHILBLADE, Fall River, Mass., assignor to Edmund Cote, Fall River, Mass. Filed July 28, 1911. Serial No. 641,165. (Cl. 84—160.)

1. In an apparatus of the character described, in combination a main tracker board, a power pneumatic connected therewith, an auxiliary power pneumatic, mechanism operatively controlled by said auxiliary power pneumatic, an auxiliary ported board connected with said auxiliary pneumatic, a valve coöperating with said auxiliary ported board to control the operation of said auxiliary pneumatic, a ratchet wheel provided with projections arranged to open said valve when the ratchet wheel is turned one step and to release said valve when the ratchet wheel is turned another step, and a pawl connected with the first mentioned power pneumatic and cooperating with said ratchet wheel to turn the same when moved in one direction by the first mentioned power pneumatic, substantially as described.



2. In an apparatus of the character described, in combination, a main tracker board, a power pneumatic connected therewith, an auxiliary power-pneumatic, mechanism operatively controlled by said auxiliary power pneumatic, an auxiliary ported board connected with said auxiliary pneumatic, a valve coöperating with said auxiliary ported board to control the operation of said auxiliary pneumatic, a rotatable device provided with means for engaging said valve to open the same by movement of said rotatable device in one direction, and to pass out of engagement with and release said valve and permit it to be closed by further movement of the rotatable device in the same direction, and means operated by the first mentioned power-pneumatic for actuating said rotatable device to move it step by step in the same direction, substantially as described.

1,075,854. AUTOMATIC TRAIN-PIPE CONNECTOR. OLIVER K. PUTNAM, Worcester, Mass. Filed Dec. 26, 1911. Serial No. 667,754. (Cl. 188—13.)



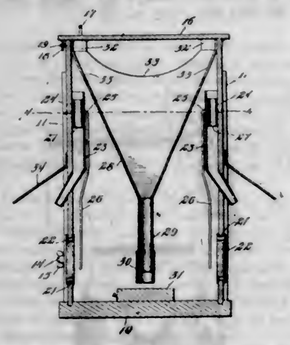
1. A train pipe connector, having a stationary casing, a spring projecting connector head slidably mounted therein, an integral jaw and a pivoted collecting and locking jaw carried by the head, and co-acting means carried by the casing and collecting and locking jaw for moving the collecting and locking jaw into locking position when the head is retracted, due to the registration thereof with a mating head of an abutting connector.

2. A train pipe connector, having a stationary casing, a spring projected connector head slidably mounted therein, an integral jaw and a pivoted collecting and locking jaw carried by the head, co-acting means carried by the casing and collecting and locking jaw for moving the collecting and locking jaw into locking position when the head is retracted due to the registration thereof with a mating head of an abutting connector, and train pipe ports carried by the integral jaw.

3. A train pipe connector, having a stationary casing, a normally projected connector head slidably mounted therein, said projector head being provided with an elongated

stationary jaw disposed to project beyond the outer face of the casing, a locking jaw pivotally connected to the head and of lesser length than the stationary jaw, said locking jaw being disposed for movement to and from the stationary jaw, the stationary jaw having upon its outer face near the end a depression while the locking jaw in its inner face has an abutment, the abutment of the mating locking jaw registering with the depression of the other mating stationary jaw, and coacting means carried by the locking jaw and the casing for moving the locking jaw into engagement with the stationary jaw of the mating connector when the connection is made and the heads are retracted.

1,075,855. AUTOMATIC POULTRY-DISINFECTOR. JAMES L. RILEY and MERRITT S. BYRD, Xenia, Ill. Filed Feb. 13, 1912. Serial No. 677,293. (Cl. 119—159.)



1. In a device of the class described, the combination with a casing provided with a series of entrances, of chutes supported within said casing and to the opposed walls thereof and projecting outwardly therefrom, over the entrances thereto, and vertically disposed containers mounted to swing within each of said chutes, actuating rods having connection with said container for swinging the same and depending within said casing adjacent the said entrances.

2. In a device of the class described, the combination with a series of entrances, chutes supported within the casing and extending exteriorly thereof over the said entrances, vertically disposed containers movably mounted within the said chutes and adapted to contain a germicidal powder, sieves on the said containers for sifting the powder therefrom when the said containers are actuated, and vertically disposed actuating rods having connection with said containers and depending in rear of and adjacent the said entrances and disposed exteriorly of said chutes.

1,075,856. PROCESS OF MAKING ROADS. JACOB S. ROBESON, Au Sable Forks, N. Y. Filed Mar. 6, 1912. Serial No. 682,014. (Cl. 94—1.)

1. In the treatment of roadways comprising clay or clay-yielding materials, the process which comprises applying small amounts of finely subdivided calcareous matter to a preformed roadway of such material and thereafter treating with a sulfite waste liquor preparation.

2. In the treatment of roadways comprising clay or clay-yielding materials, the process which comprises applying caustic lime to such roadway and thereafter treating with a sulfite waste liquor preparation.

3. In the treatment of roadways comprising clay or clay-yielding materials, the process which comprises applying small amounts of finely subdivided calcareous matter to a preformed roadway of such material and thereafter treating with a sulfite waste liquor preparation having an acid reaction.

4. In the treatment of roadways comprising clay or clay-yielding materials, the process which comprises applying a calcareous material to such roadway, and thereafter treating with an acidified sulfite waste liquor preparation.

5. In the treatment of roadways comprising clay or clay-yielding materials, the process which comprises applying a calcareous material to such roadway, and thereafter treating with an acidified sulfite waste liquor preparation containing some sodium lignosulfonate.

[Claims 6 to 8 not printed in the Gazette.]

1,075,857. PROCESS OF MAKING ROADS. JACOB S. ROBESON, Au Sable Forks, N. Y. Filed Mar. 6, 1912, Serial No. 682,013. Renewed July 23, 1913. Serial No. 780,815. (Cl. 94—1.)

1. In the treatment of roads and roadways comprising clay or clay-yielding materials, the process which comprises applying salt to such a roadway and thereafter applying a sulfite waste liquor preparation.

2. In the treatment of roads and roadways comprising clay or clay-yielding materials, the process which comprises applying salt to such a roadway and thereafter applying a preparation of concentrated waste sulfite liquor.

3. In the treatment of roads and roadways comprising clay or clay-yielding materials, the process which comprises applying salt to such a roadway and thereafter applying an acid reacting preparation of sulfite waste liquor.

4. In the treatment of roads and roadways comprising clay or clay-yielding materials, the process which comprises applying a salt to such a roadway and thereafter applying an acid reacting preparation of sulfite waste liquor substantially free of carbohydrates.

5. In the treatment of roads and roadways comprising clay or clay-yielding materials, the process which comprises applying a salt to such a roadway and thereafter applying a preparation of concentrated waste sulfite liquor containing free lignosulfonic acids.

[Claims 6 and 7 not printed in the Gazette.]

1,075,858. OILLESS SPINDLE. NICHOLAS ROMANO, Boundbrook, N. J., assignor, by mesne assignments, to The Graphite Lubricating Company, Boundbrook, N. J., a Corporation of New Jersey. Filed Aug. 5, 1912. Serial No. 713,446. (Cl. 118—21.)



1. An oil-less spindle having a supporting cup, whirl and spindle blade, a bloster bearing of fibrous material impregnated with a lubricant, a step bearing of fibrous material likewise impregnated and having a metallic plug axially arranged therein and extending from the face of the plug downward into the fibrous material, said plug having its upper end under-lying and in contact with the end of the spindle.

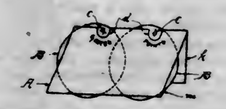
2. An oil-less spindle embodying a spindle blade, spindle bearing, whirl and supporting cup, a bolster and step bearing of hard fibrous material impregnated through and through with a lubricant of high melting point and arranged within the cup, said bolster having a tapered bearing surface fitting the taper of the spindle blade, said step bearing having a metallic plug extending into the

body of the bearing from its upper face and arranged to be frictionally engaged by the end of the spindle whereby heat will be produced to draw a lubricating film from the bolster and step to the surface of the spindle blade.

3. An oil-less spindle having a supporting cup, whirl and spindle blade, a bolster of fibrous material impregnated with a lubricant, a step bearing of fibrous material likewise impregnated and having a metallic plug concentrically arranged therein and upon which plug the spindle bears.

4. A spindle bearing embodying a bolster and step formed of fibrous material impregnated with a lubricant, said step bearing having a metallic plug embedded therein and with its end in contact with the end of the spindle whereby the spindle and plug generate sufficient heat to withdraw lubricant from the step and bolster.

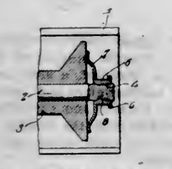
1,075,859. INDICATING DEVICE. FRANK ROSEWATER, New York, N. Y. Filed Apr. 2, 1913. Serial No. 758,403. (Cl. 235—114.)



1. In a game counter or analogous device, the combination of the apertured envelop A containing two parallel folds each provided with a series of slots arranged so that each slot shall have another slot directly opposite to it in the opposite fold, together with a series of disks of uniform diameter, each placed between two opposite slots fitted so as to bear slightly against the outer edges of the disks and each also provided with a series of characters on one or both faces so located with respect to the apertures in the envelop A as to be successively exposed to view through the apertures, isolated from the remaining characters, as the disks are made to revolve, all substantially as herein set forth and described.

2. In a game counter or analogous device, the combination of the apertured envelop A containing two parallel folds each provided with a series of slots arranged so that each slot shall have another slot directly opposite to it in the opposite fold, and with its sides *k* and *m* sealed together, together with a series of disks of uniform diameter, each placed between two opposite slots fitted so as to bear slightly against the outer edges of the disks and each also provided with a series of characters on one or both faces so located with respect to the apertures in the envelop A as to be successively exposed to view through the apertures, isolated from the remaining characters, as the disks are made to revolve, all substantially as herein set forth and described.

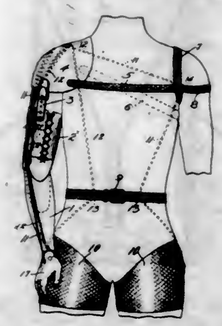
1,075,860. SEWING-MACHINE SHUTTLE. MABLE A. ROSS, Calexico, Cal. Filed Feb. 2, 1912. Serial No. 674,859. (Cl. 242—149.)



1. A stationary spool spindle having at its extreme outer end, a series of concentric grooves adapted to rotatably support a stock spool of thread, and means rotatably fitting the spindle and having a series of integral ribs formed interiorly thereof, said means being disposed at the extreme free end of the spool spindle, and the ribs thereof adapted to interchangeably fit the grooves of the spindle to hold said spool against displacement from the spindle, and a yielding portion formed integral with said means and projecting at diametrically opposite points from said means and adapted to bear directly against one end of the spool.

2. A spool spindle adapted to receive an ordinary stock spool of thread and adapted to rotatably support the spool thereon, and a split cylinder removably fitting the spindle and disposed at one end of the spool to hold the latter against displacement from the spindle, the said cylinder having formed integral and flush with its innermost extremity yielding portions, said yielding portions projecting at diametrically opposite points from the outer side of the cylinder and adapted to bear directly against one end of the spool.

1,075,861. SUSPENDER FOR ARTIFICIAL ARMS. JAMES F. ROWLEY, Chicago, Ill. Filed June 28, 1912. Serial No. 706,392. (Cl. 3—1.)



1. A suspender for artificial arms, comprising means for operating the arm and having a part adapted to be attacheed to the wearer below the waist line, and extending to the arm whereby the latter may be operated by a movement of the wearer's body.

2. An artificial arm suspender, comprising means for operating the arm and having two parts operatively connected to the shoulders of the wearer and attached to the wearer's body below the waist line at opposite sides thereof, and respectively connected to different members of the arm whereby different movements of the trunk of the wearer's body will individually operate said members.

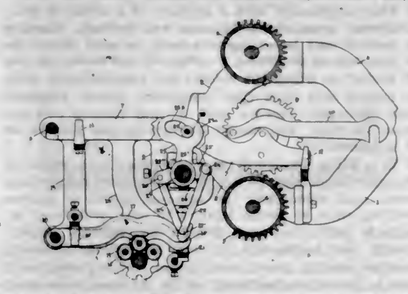
3. The combination of an artificial arm, adapted to be flexed at the wrist and at the finger knuckles, and operating means comprising parts arranged and connected for controlling the wrist and finger movements respectively, and adapted to be attached to the wearer's body below the waist line for producing the respective wrist and finger movements through different movements of the wearer's body.

4. Operating means for artificial arms, comprising two straps respectively attached to the wearer's body below the waist line, said straps running to different shoulders, and then to different members of the arm mechanism whereby the operation of said members may be individually controlled through movements of the respective shoulders.

5. An artificial arm suspender, comprising straps respectively arranged to control the wrist and finger movements, said straps extending along the arm, over the shoulder, and down the back of the wearer and being adapted to be attached at points below the waist line, one of said straps being also guided by means connected to the opposite shoulder whereby certain movements of the respective shoulders will operate the wrist and fingers.

[Claims 6 and 7 not printed in the Gazette.]

1,075,862. HEAD-MOTION FOR LOOMS. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Nov. 11, 1912. Serial No. 730,571. (Cl. 139—79.)

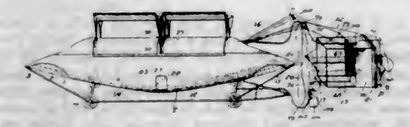


1. In a head motion for a loom, upper, and lower cylinder gears, a vibrator gear mounted on a pivotally mounted vibrator lever, and said vibrator lever, a pattern chain, two pattern indicator levers for each vibrator lever, said indicator levers operated by said pattern chain, connections intermediate said indicator levers and said vibrator lever, to positively move said vibrator lever in two directions, through the direct action of the pattern chain.

2. In a head motion for a loom, upper, and lower cylinder gears, a vibrator gear mounted on a pivotally mounted vibrator lever, and said vibrator lever, a pattern chain, two pattern indicator levers for each vibrator lever, said indicator levers operated by said pattern chain, and connections intermediate said indicator levers and said vibrator lever, to positively move said vibrator lever from one position to another, and lock the same in each position, through the action of the pattern chain.

3. In a head motion for a loom, upper, and lower cylinder gears, a vibrator gear mounted on a pivotally mounted vibrator lever, and said vibrator lever, a pattern chain, two pattern indicator levers for each vibrator lever, said indicator levers operated by said pattern chain, and connections intermediate said indicator levers and said vibrator lever, to positively move said vibrator lever in two directions, through the direct action of the pattern chain, said connections including a locking cam lever suitably supported.

1,075,863. FLYING-MACHINE. INGEMAR RYSTEDT and MELVIN STEELE, Dayton, Ohio. Filed Aug. 31, 1912. Serial No. 718,086. (Cl. 244—13.)



1. In combination with the frame or body of a flying machine, safety wings pivotally connected to opposite sides of the frame or body and adapted to be folded in overlapped relation under the frame or body, and means to turn the safety wings and cause them to be spread and extended from opposite sides of the frame or body.

2. In a flying machine, a frame or body having substantially semi tubular casings at opposite sides and lifting propellers mounted above the said casings and provided with horizontal axes and with tangential blades, the planes of rotation of said lifting propellers being substantially concentric with the said semi-tubular casings.

3. In a flying machine, a frame or body having substantially semi-tubular casings at opposite sides, lifting propellers above the said casings and provided with horizontal axes and with tangential blades, the paths of rotation of said lifting propellers being substantially concentric with the said semi-tubular casings, and dead air drums arranged on the axes of the lifting propellers and around which the latter revolve.

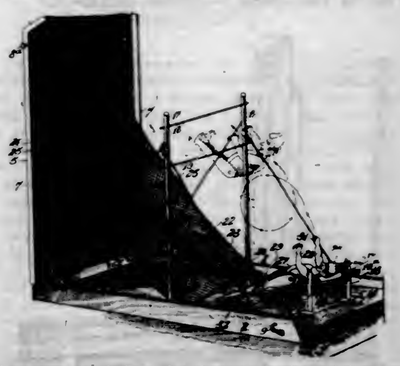
4. A flying machine of the class described having lifting propellers, a motor to operate the lifting propellers, a driving propeller, a motor to operate the driving propeller, parachute wings, devices to release the parachute wings, couplings to simultaneously throw the driving propeller out of gear and connect the shaft of the two motors together, and operating means for the said couplings, the said operating means being also connected to the parachute wing releasing devices.

1,075,864. HOSIERY. ROBERT W. SCOTT, Leeds Point, N. J., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Feb. 6, 1909. Serial No. 476,533. (Cl. 2—23.)



An article of hosiery having its toe portion composed of ribbed web cut diagonally across the wales and having the cut edges united by a seam which extends around the point of the toe.

1,075,865. TOY. JOSIAH C. SHARP, San Diego, Cal. Filed Feb. 11, 1913. Serial No. 747,686. (Cl. 46—40.)



1. A toy consisting of a base, a horizontal bar supported above the base transversely thereof, a longitudinally extended spring board on the base, and a figure supported upon the spring board and adapted to be projected toward the horizontal bar when the spring board is re-

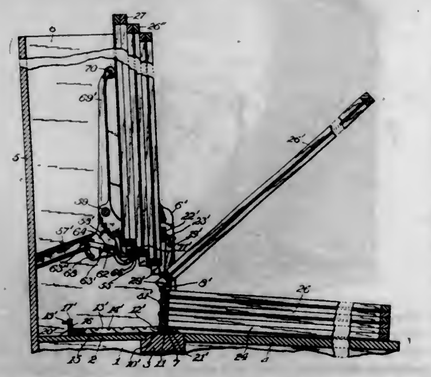
leased from tension, the said figure having means for catching onto the horizontal bar as it is projected thereover, and a net located in advance of the bar for receiving the figure when it misses the bar.

2. A toy consisting of a base, a horizontal bar supported above the base transversely thereof, a longitudinally extended spring board on the base, and a figure supported upon the spring board and adapted to be projected toward the horizontal bar when the spring board is released from tension, the said figure having means for catching onto the horizontal bar as it is projected thereover, and an elastic net for receiving the figure when it misses the bar, the said net being so mounted, relatively to the bar, whereby it causes the figure to rebound toward the said horizontal bar.

3. A toy consisting of a base that forms the bottom of a box, an upright hinged to one end of the base and which forms the top of the box when closed down, a spring board mounted on one end of the base and adapted to close down against the base when the box is closed, a horizontal bar, supports for the said bar located in advance of the spring board and removably supported upon the base, and a toy figure supportable on the spring board and adapted when the spring board is under tension and is released, for being projected toward the horizontal bar, the said figure having means for catching onto the said bar, the said bar and its supports being foldable onto the base, whereby to be inclosed in the box when the box cover is down.

4. In a toy of the character described, a box, the bottom of which forms the base of the toy, said box having a hinged cover, which forms a vertical supporting member when the parts are adjusted to the operative position, a spring board mounted on one end of the base in the longitudinal plane thereof, a horizontal bar, standards for the said bar removably supported on the base and located in advance of the spring board, an elastic net removably connected to the forward end to the base at a point between the bar and the hinged supporting member of the box, said net being connected at its rear end to the said hinged member and a toy figure consisting of a weighted trunk, arms rigidly projected from the trunk and legs pivotally connected to the trunk, said arms and legs having hook terminals for engaging the horizontal bar, the said toy figure being supportable on the spring board and adapted for being projected up to and over the horizontal bar when the said spring board is released from tension.

1,075,866. FILING APPLIANCE. ELLIS T. SILVIUS, Indianapolis, Ind., assignor to The McCaskey Register Company, Alliance, Ohio, a Corporation of Ohio. Filed Oct. 28, 1909. Serial No. 525,100. (Cl. 45—2.)



1. The combination with a support, of a series of holders, pivotal connections between the holders, whereby said holders may be swung relatively to each other, the said connections including a series of members, one for each holder, on which the holders are longitudinally movable toward and from their respective pivots, and means for moving the holders on said members.

2. The combination with a support, of a series of holders, pivotal connections between the holders, whereby said holders may be swung relatively to each other, the said connections including a series of members, one for each holder, on which the holders are longitudinally movable toward and from their respective pivots, yieldable means interposed between each of said holders and the adjacent member, and means for moving the holders on said members.

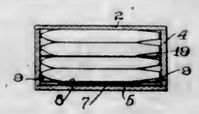
3. In a filing appliance the combination of a series of holders for supporting papers or slips, pivotal connections between each holder and the adjacent holder or holders permitting them to swing relative to each other and operating to move the lower end of the rearward holders forwardly and rearwardly, the said connections including connectors having pivots and means which permit each holder to move longitudinally of the adjacent connector, and means for moving each holder longitudinally of the adjacent connector during its operation.

4. In a filing appliance the combination of a series of holders for supporting paper or slips, pivotal connections between each holder and the adjacent holder or holders permitting them to swing relative to each other and operating to move the lower end of the rearward holders forwardly and rearwardly, the said connections including connectors having pivots and means which permit each holder to move longitudinally of the adjacent connector, and means for moving each holder longitudinally during the operation thereof when the holder is swung in one direction, and separate means for moving each holder to normal position when swung in the opposite direction.

5. A plurality of normally upright rotatable holders arranged in echelon and each movable longitudinally relatively to its rotative axis, the foremost one supporting the remaining holders, and means for automatically moving the holders longitudinally during rotative movements thereof.

[Claims 6 to 33 not printed in the Gazette.]

1,075,867. CIGAR-BOX HUMIDOR. JOHN A. SIMPSON, Chicago, Ill., assignor of one-half to Ray R. Simpson and one-half to Orville I. Simpson, Chicago, Ill. Filed Jan. 26, 1912. Serial No. 673,666. (Cl. 131—30.)

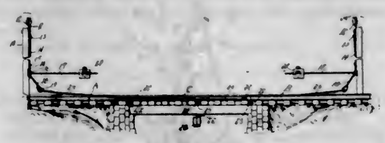


1. A cigar box, embracing side and end walls, a hinged cover, a hinged bottom having a non-absorbent lining fixed thereto, a non-absorbent plate removably disposed in the bottom of the box in spaced relation from the cover thereof and having means adjacent its side edges for permitting access of moisture to the ends of the cigars, and a removable moistening pad disposed between said lining and plate.

2. The combination in a cigar box having a hinged cover and a hinged bottom, of a non-absorbent lining for the inner surface of said bottom, a plate removably supported in spaced relation from the top of the box and having perforations along each side thereof adjacent the ends of the cigars when packed in the box, and a removable moisture pad disposed between said bottom and said plate.

3. A cigar box having a humidor in its bottom upon which the cigars are to be packed, said humidor embracing a hinged bottom for the box, a non-absorbent lining therefor, a non-absorbent plate in the box, a moisture pad positioned between said lining and said plate, and short supporting pins or projections for supporting said plate from falling inwardly when the box is empty and inverted, said plate having perforations therethrough corresponding relatively with the positions of the ends of the cigars when packed in the box.

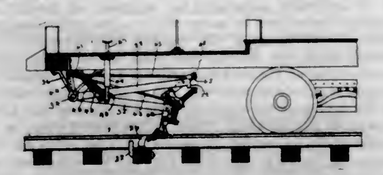
1,075,868. DANGER-SIGNAL FOR RAILWAY-BRIDGES. JOHN E. SJOMAN, Osage City, Kans. Filed Aug. 9, 1912. Serial No. 714,282. (Cl. 246—49.)



1. The combination of a bridge, an upright disposed adjacent each end of the bridge, a signal arm pivoted on each upright, a weight on each arm constantly tending to move same to danger position, a shaft journaled on each upright, lateral arms on each end of said shafts, a weight adjustably mounted on one of said lateral arms of each shaft and constantly tending to rotate said shafts in one direction, a plate fixed on each shaft between the lateral arms, a rod for each signaling arm having one end pivotally connected to each signaling arm and adapted to engage the plate on the adjacent shaft to hold the signaling arm in safe position against the influence of the weight carried thereby, and a cable engaging the bridge and connecting the other lateral arms of said shafts to hold the latter in position to support the signaling arms in safe position, said cable being adapted to be severed under predetermined conditions whereby the shafts are free to rotate under the influence of the weights on respective lateral arms thereof to release the signaling arms for movement to danger position.

2. The combination of a bridge, a semaphore signal disposed at each end of the bridge, means constantly tending to move said signals to danger position, a holding mechanism for each signal adapted to hold the latter in safe position against the influence of said means, a pair of spaced members mounted on the bridge, a plate having one end pivotally mounted between said members and depending from the bridge, the upper end of said plate being beveled and provided with a knife edge normally disposed without said members, buoyant blocks secured to the lower end of the plate and adapted to effect a swinging of the latter under the influence of a current of water beneath the bridge to move the upper end of the plate between said members and a cable passing between the upper end of said plate and said members and connecting the holding mechanisms whereby the movement of said plate under the influence of a current of water beneath the bridge will sever the cable and release the holding mechanisms.

1,075,869. SWITCH-THROWING MECHANISM FOR RAILWAY-CARS. WILLIAM L. SLATE, Fort Worth, Tex., assignor of one-half to W. C. Forbess, Fort Worth, Tex. Filed Feb. 15, 1913. Serial No. 748,679. (Cl. 104—24.)



1. A switch-throwing mechanism comprising a throw-rod operatively connected to a switch, selective levers and rods operatively connected to said throw rod, said levers having upstanding lugs, a guide rail between said lugs, and selective levers and a foot-piece operatively connected with each lever carried on a car whereby the motorman may cause either one of said lugs to actuate one of said levers.

2. A switch-throwing mechanism comprising a throw-rod operatively connected to a switch, selective levers operatively connected to said throw rod, upstanding lugs carried by said levers, and selective devices carried by the street car for actuating said lugs, said devices consisting of levers, a foot-piece connected to each lever, and a breakable actuator carried by each lever.

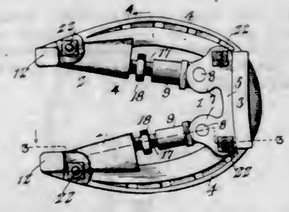
3. A switch-throwing mechanism comprising a throw-rod operatively connected to a switch, a double armed lever connected to said throw-rod, selective levers operatively connected to the arms of said lever, upstanding lugs carried by said selective levers, selective devices carried by the car normally out of the paths of said lugs including breakable actuators for engaging the lugs, and means for depressing either one of said selective devices to engage one of said lugs.

4. A switch-throwing mechanism comprising a throw-rod operatively connected to a switch, a double-armed lever connected to said throw-rod, upstanding lugs carried by said selective levers, breakable actuators, depressible levers carried by a car carrying said actuators, and a depressible foot-piece operatively connected to each lever by which a motorman on the car can depress either one of said levers.

5. A switch-throwing mechanism comprising a throw-rod operatively connected to a switch tongue, a double-armed spring-controlled lever connected to said throw-rod, selective levers operatively connected to the arms of said lever, upstanding lugs carried by said selective levers, bumpers to prevent the up-setting of said lugs and levers, actuators, depressible levers carried by a car carrying said actuators, and devices by which a motorman may depress either one of said levers.

[Claim 6 not printed in the Gazette.]

1,075,870. ICE-CREEPER ATTACHMENT FOR HORSE-SHOES. SAMUEL P. SMITH, St. Paris, Ohio. Filed Aug. 6, 1912. Serial No. 713,694. (Cl. 168—30.)



1. An ice creeper attachment for horse shoes comprising a transverse toe member arranged to fit against and extend across the front of a horse shoe at the inner edge thereof, spaced pivots carried by the toe member and located at the front of the horse shoe at opposite sides of the center thereof, separate heel members arranged to fit against the heel calks and side portions of the horse shoe, and separate spaced adjustable straining means extending longitudinally of the horse shoe and connected with the said pivots at the front of the horse shoe and extending longitudinally thereof to the heel members, said straining means being arranged between the side portions of the horse shoe, and the said heel members and the said straining means being located at opposite sides of the center of the horse shoe and providing an open central space practically the entire length of the horse shoe for the frog of the hoof, whereby the ice creeper is adapted to lie beyond the frog.

2. An ice creeper attachment for horse shoes comprising a transverse toe member arranged to engage and extend across the front of a horse shoe and fit against the inner edge thereof, separate spaced longitudinally disposed heel members arranged to engage the heel calks and sides

of the horse shoe, and separate longitudinally disposed straining devices connected with the heel members and pivoted to the toe member at opposite sides of the center thereof at the front of the horse shoe, each straining device including a screw adapted to create a pressure lengthwise of the horse shoe, said straining devices being spaced from and located between the side portions of the horse shoe and also spaced apart to provide a central frog receiving space practically the entire length of the horse shoe, whereby the ice creeper attachment is adapted to lie beyond the frog of a hoof.

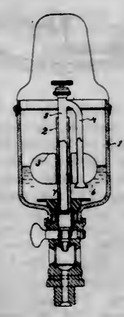
3. An ice creeper attachment for horse shoes comprising a transverse toe member arranged to bear against the toe calk of a horse shoe and extending across the front portion thereof, separate heel members arranged to fit against the heel calks of a horse shoe, and separate adjustable straining devices including longitudinally disposed screws, and tubular front sections pivoted to the toe member at opposite sides of the center thereof at the front of the horse shoe and receiving the screws, said straining devices connecting the toe member with each of the heel members and arranged between and in spaced relation with the sides of the horse shoe and also spaced from each other to provide a central open space practically the entire length of the horse shoe for the frog of a hoof, whereby the ice creeper attachment is adapted to lie beyond the frog of a hoof.

4. An ice creeper attachment for horse shoes including a toe member arranged to extend across the front portion of the horse shoe, heel members arranged to engage with the heel calks of the shoe and provided with bores, opposite tubular members pivoted to the toe member, and adjusting screws extending into the tubular members and the bores of the heel members.

5. An ice creeper attachment for horse shoes including a toe member, heel members provided with interiorly threaded bores, opposite tubular members connected with the toe member and having interior screw threads, and right and left hand threaded adjusting screws engaging the threads of the heel members and the tubular members.

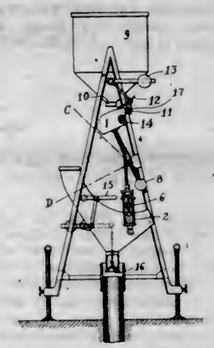
[Claim 6 not printed in the Gazette.]

1,075,871. OIL-DROP LUBRICATOR. FEODOR STABE, Lankwitz, near Berlin, Germany, assignor to Internationale Präzisions-Schmierapparate Aktiengesellschaft, Berlin, Germany, a Firm. Filed Dec. 3, 1912. Serial No. 734,729. (Cl. 184—85.)



In a lubricator, the combination of a float; and a siphon delivering device, the short leg of said siphon projecting through and secured eccentrically to said float and terminating in a mouth adapted to encounter the bottom of the lubricator and effectually prevent further flow of the lubricant or the ingress of air whereby the siphon is prevented from discharging when the lubricator empties and automatically resumes its function immediately upon the replenishment of the lubricator.

1,075,872. AUTOMATIC APPARATUS FOR WEIGHING DETERMINED ADJUSTABLE QUANTITIES OF MATERIALS. ISIDOR STEINER, Munich, Germany, assignor of one-half to Charles Zoller, New York, N. Y. Filed Aug. 31, 1911. Serial No. 647,117. (Cl. 73—178.)



1. In automatic apparatus for weighing off determined adjustable quantities of materials in a movable weighing vessel and discharging the weighed quantities at a determined point, the combination with the weighing vessel, of mechanism for influencing the movement of the weighing vessel due to the weight of the load in such a manner as to cause said vessel to move with less resistance from its position when charged into a first intermediate position, thence against a greater resistance into a second, intermediate position, and thence with much less resistance into its discharging position, and thence with still less resistance into its initial position for being charged, as set forth.

2. In automatic apparatus for weighing off determined adjustable quantities of materials in a movable weighing vessel and discharging the weighed quantities at a determined point, the combination with the weighing vessel of mechanism of the cataract cylinder type for influencing the movement of the weighing vessel due to the weight of the load in such a manner as to cause said vessel to move with less resistance from its position when charged into a first intermediate position, thence against a greater resistance into a second intermediate position, and thence with much less resistance into its discharging position, and thence with still less resistance into its initial position for being charged, as set forth.

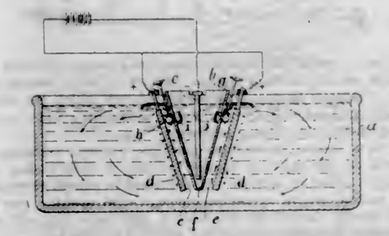
3. In automatic apparatus for weighing off determined adjustable quantities of materials in a movable weighing vessel and discharging the weighed quantities at a determined point, the combination with the weighing vessel, of mechanism of the cataract cylinder type for influencing the movement of the weighing vessel and a valve controlling the action of the cataract cylinder whereby the speed of travel of the weighing vessel in the first stage of its movement can be varied by regulating said valve for the purpose of varying the quantity of material discharged from the weighing vessel, as set forth.

4. In automatic apparatus for weighing off determined adjustable quantities of materials in a movable weighing vessel, and discharging the weighed quantities at a determined point, the combination with the weighing vessel, of mechanism of the cataract cylinder type for influencing the movement of the weighing vessel, and a valve controlling the action of the cataract cylinder whereby the speed of travel of the weighing vessel in the second stage of its movement can be varied by regulating said valve for the purpose of varying the time interval between two immediately successive discharges of the weighing vessel within determined limits at will, as set forth.

5. In automatic apparatus for weighing off determined adjustable quantities of materials in a movable weighing vessel, and discharging the weighed quantities at a determined point, the combination with the measuring vessel, of mechanism of the cataract cylinder type for influencing the movement of the weighing vessel, a receptacle containing the material to be measured adapted to charge said material into the weighing vessel an obturating device for cutting off the flow of material, from said receptacle into the measuring vessel, and means for automatically opening said obturating device on the return of the weighing vessel into its initial position, whereby the weighing vessel can be recharged anew immediately, as set forth.

[Claim 6 not printed in the Gazette.]

1,075,873. APPARATUS FOR BLEACHING AND FOR PREPARING BLEACHING, DEODORIZING, AND DISINFECTING SOLUTIONS. ORLANDO SUMNER, St. Margarets-on-Thames, England, assignor to The International Bleachers' Corporation, Limited, London, England. Filed Apr. 22, 1913. Serial No. 762,853. (Cl. 204—59.)



1. Apparatus for preparing bleaching solution comprising a tank, a tapered chamber within the tank, an opening from the tank to the chamber, an electrode in the tank and an electrode in the chamber.

2. An apparatus for preparing bleaching solution comprising a tank, a tapered chamber within the tank, an electrode in the tank, an electrode in the chamber and passages for communication between the tank and the chamber.

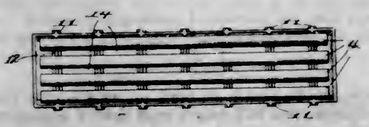
3. Apparatus for preparing bleaching solution comprising a tank, a tapered chamber within the tank, an electrode in the tank, an electrode in the chamber and an opening at the bottom of the chamber.

4. Apparatus for preparing bleaching solution comprising a tank, a tapered chamber within the tank, electrodes in the tank and electrodes in the chamber, an opening at the bottom of the chamber and an opening toward the top of the chamber for the circulation of liquid through the tank and the chamber.

5. Apparatus for preparing bleaching solution comprising a tank, a tapered chamber within the tank, an electrode in the tank, an electrode in the chamber, passages for communication between the tank and the upper part of the chamber and an opening at the bottom of the chamber.

[Claims 6 to 13 not printed in the Gazette.]

1,075,874. GRATE-BAR. EDWARD L. THOMAS, Valdosta, Ga. Filed Apr. 25, 1911. Serial No. 623,229. (Cl. 126—168.)



1. A grate bar unit comprising a cast body part having a fuel supporting portion which includes a series of openly recessed cross bars and a plurality of parallel longitudinal, circularly cross-sectioned, steel, fuel-supporting bars of uniform diameter throughout their extent, fitted loosely and independently in the recesses of the cross bars, and being removable from said body part by upward displacement.

2. A grate bar unit comprising a body part having an upper rectangular frame, and recessed cross bars connecting the side bars of the frame; a lower portion which includes side bars, an intermediate bar below the side bars, and cross bars connecting the side bars and the intermediate bar; spaced lugs integrally connecting the side bars of the frame and the last named side bars; and parallel steel fuel-supporting bars disposed longitudinally and loosely seated in the recesses of the cross bars.

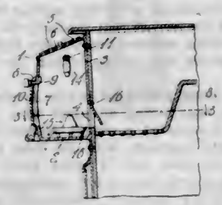
3. A grate bar unit comprising a cast body part having an upper rectangular frame and recessed cross bars connecting the side bars of the frame; a lower portion of semi-elliptic cross section and skeleton construction; spaced lugs integrally connecting the side bars of the frame and said lower portion; and parallel steel fuel-supporting bars disposed longitudinally and loosely seated in the recesses of the cross bars.

4. A grate bar unit which comprises a cast skeleton lower portion of inverted arch shape, a plurality of openly recessed cross bars joined integrally to said lower portion, and a plurality of structurally independent parallel longitudinal fuel supporting bars fitted loosely in the recesses of the cross bars, and being removable therefrom by upward displacement.

5. A grate bar unit which comprises a cast skeleton lower portion of inverted arch shape, a plurality of openly recessed cross bars joined integrally to said lower portion, and a plurality of parallel longitudinal circularly cross sectioned steel fuel supporting bars fitted loosely and independently in the recesses of the cross bars and being removable from said body part by upward displacement.

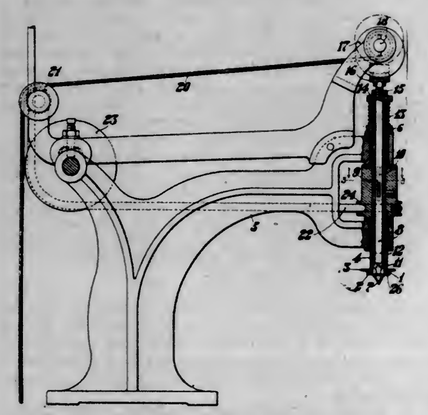
[Claim 6 not printed in the Gazette.]

1,075,875. OIL-BURNER. LORENZO S. THOMAS, Carthage, Mo., assignor to George A. Gibson, trustee. Filed Sept. 12, 1912. Serial No. 720,056. (Cl. 158—8.)



The combination with a cook stove having a draft opening at one side immediately above its grate of an oil burner comprising a hollow casing adapted to be secured to the exterior of the stove, said casing having in its outer side an opening and a door to close said opening and in its upper side draft openings, a damper to regulate said draft openings, an attaching plate forming the inner side of said body and having at its lower end a flame opening registering with the opening in the side of the stove to which the burner is applied, an inwardly projecting flame deflecting member formed on said inner side plate at the upper end of the opening therein and adapted to extend obliquely and downwardly through said opening into the stove, an oil supply pipe connected with said burner casing and having on its inner end an oil discharging nipple, and a generator removably supported on the bottom of the burner body in position to receive the oil dropped from the inner end of said supply pipe, whereby the oil is vaporized and burns in said body of the burner from which the flame is drawn through the flame passage therein and passes through the fire box of the stove.

1,075,876. CHANNEL-OPENING MACHINE. FRANK M. TRAINER, Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 18, 1911. Serial No. 621,759. (Cl. 12—30.)



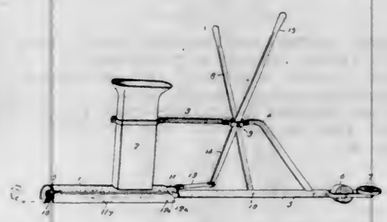
1. A channel opening machine, having in combination, a disk shaped rotary channel opening tool having a channel flap turning periphery and a sole margin engaging face substantially perpendicular to its axis of rotation and an axial bore opening through said face, a rotary sleeve on which said tool is mounted, a second channel opening tool arranged to rotate upon an axis coincident with the axis of rotation of the first tool and having an acting extremity substantially in line with its axis of rotation for engagement in the bottom of the channel and means for turning back the channel flap, a shaft supporting said second tool arranged within said sleeve, means to connect the shaft to rotate with the sleeve arranged to permit relative longitudinal movement of the shaft and sleeve and means under control of the operator for relatively moving the shaft and sleeve to project the second tool through the bore in the first tool into acting position beyond the first tool or to withdraw the second tool wholly within the bore in the first tool.

2. A channel opening machine, having in combination, a channel opening tool having an axial bore, a sleeve on which said tool is mounted, a second channel opening tool mounted to rotate coaxially with the first tool and arranged within the first tool, a shaft upon which said second tool is mounted, means for connecting said shaft and sleeve to rotate together constructed to permit a relative longitudinal movement of the shaft and sleeve, a cam for relatively moving the shaft and sleeve to project the second tool into operating position beyond the first tool, means under control of the operator for actuating the cam and a spring for maintaining the second tool normally withdrawn within the first tool.

3. A channel opening machine having, in combination, a rotary channel opening tool, a sleeve upon which said tool is mounted, a second channel opening tool arranged within said first tool, a shaft slidably mounted within said sleeve and keyed thereto supporting said second tool, a spring acting on said shaft to normally maintain said second tool wholly within said first tool, a rotatable cam arranged to act on said shaft, and manually operable means to rotate said cam and thereby project said second tool into operative position beyond said first tool.

4. A channel opening machine having, in combination, a rotary channel opening tool, a sleeve upon which said tool is mounted, a second rotary channel opening tool arranged within said first tool, a shaft slidably mounted within the sleeve and keyed thereto supporting said second tool, a spring acting on said shaft to maintain the second tool wholly within the first tool, a rotatable cam arranged to act on said shaft, a shaft upon which said cam is mounted, a flexible member wound about said shaft, and manually operable means to actuate said flexible member and thereby rotate said cam to project the second channel opening tool into operative position beyond the first tool.

1,075,877. CEMENT-TILE-MAKING MACHINE. EDWIN BRANCH TURNER, Bird City, Kans. Filed Oct. 17, 1912. Serial No. 726,227. (Cl. 25—32.)

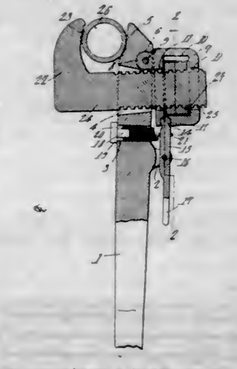


1. In a cement tile making machine, a casing forming a portion of the mold, a hopper carried by said casing, a core, a plunger having an opening through which the core extends arranged to extend through said casing and a cutter carried by one end of said core.

2. In a cement tile making machine, a casing forming a portion of the mold, a hopper carried by said casing, a plunger having an opening and arranged to extend through said casing, a core extending through said opening and a rigid cutter carried by one end of said core, the end of the cutter extending beyond the walls of the casing.

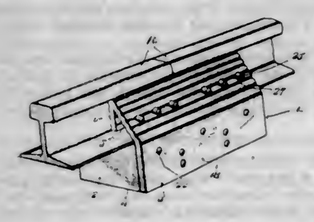
3. In a cement tile making machine, a casing forming a portion of the mold, a hopper carried by said casing, a core, a plunger having an opening or bore arranged to receive the core, said plunger being arranged to extend into said casing, and a rigid cutter carried by said core and disposed centrally of the casing, the edge of the cutter toward the plunger being curved, and the end of the cutter extending beyond the walls of the casing for forming a central slot in the walls of the tile.

1,075,878. PIPE-WRENCH. WILLIAM E. URQUHART, Elk River, Idaho, assignor of one-fifth to Clyde B. Perry, Elk River, Idaho. Filed Feb. 24, 1913. Serial No. 750,393. (Cl. 81—105.)



A wrench comprising a handle provided with a transverse opening and including a fixed jaw; a movable jaw cooperating with the fixed jaw and provided with a shank extended across the handle; a nut threaded on the shank; a casing in which the nut is engaged, the casing being pivoted to the handle; a lever fulcrumed intermediate its ends on the handle and pivotally connected at one end with the casing; a retractile spring located in the opening and terminating in an eye surrounding the lever between the fulcrum of the lever and the casing-engaged end of the lever, the eye constituting means whereby the spring may be removed from the lever and be renewed, without separating the lever from the casing or from the handle, the lever being increased in diameter between the eye and the fulcrum of the lever, thereby to prevent the eye from sliding along the lever and to prevent the spring from flexing laterally in the opening and binding against the walls in the opening when the free end of the lever is pressed; and a securing element united with the spring and bearing against the handle.

1,075,879. RAIL-JOINT. WALTER WAIDLICH, Detroit, Mich. Filed Mar. 8, 1913. Serial No. 752,942. (Cl. 239—6.)



1. In a rail joint, the combination with two co-acting rails, of a joint including a pair of elements each provided with an interlocking base upon which the rails rest, each of the said members having its outer upper edges provided with an inwardly inclined corrugated extension, said extensions having their upper edges downturned to overlie the base, the said downturned members being corrugated and adapted to be received within the fishing spaces upon the opposite sides of the rails, spacing blocks arranged between the angular and downturned members, and means for connecting the said members with the webs of the rails and with each other.

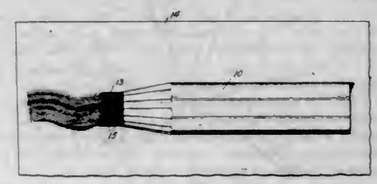
2. In a rail joint, the combination with two co-acting rails, of a joint comprising two separable members, each of said members including an enlarged base which has its upper wall of a width equaling the width of the base flanges of the rails, said bases being integrally formed with fish plates, said bases being further provided with transversely arranged recesses and spaced projections between the recesses, the walls of the projections being angular and stepped, the projecting portions of one of the base members adapted to be arranged within the recesses of the adjacent base member, and means for adjustably associating the base members.

3. In a rail joint, two rails, a joint including a base upon which the rails rest, said joint embodying a pair of separable members each including an enlarged base having a horizontally straight bearing surface, each of the base members having transverse recesses, and projections arranged between the recesses to provide tongues and grooves, the walls of the tongues being inclined and being stepped, the stepped portions being formed with longitudinally extending beads, the stepped and beaded tongues of one of the sections adapted to be inserted within the stepped and beaded walls of the coacting section, means for adjustably connecting the base members, and means for securing the fish plates with the webs of the rails.

1,075,880. PENCIL. JOHN A. WALLS, Mount Washington, Md. Filed Mar. 7, 1913. Serial No. 752,621. (Cl. 120—83.)

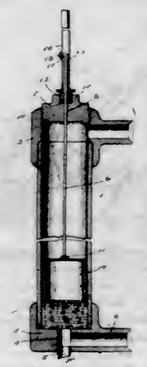
1. A pencil having a core which is nonhomogenous in cross section taken at different points.

2. A pencil core of flattened cross section and heterogeneous as regards its marking properties at different cross sectional points.



3. A pencil having a core which is nonhomogenous in any cross section, said core being composed of strips of different marking properties, whereby any erasure may be detected from the abrupt change in the progressive development of the mark produced thereby.

1,075,881. WATER-GAGE. FRANCIS W. WALRAVEN and CHARLES E. CALKINS, Las Cascadas, Canal Zone. Filed Aug. 7, 1912. Serial No. 713,866. (Cl. 72—82.)

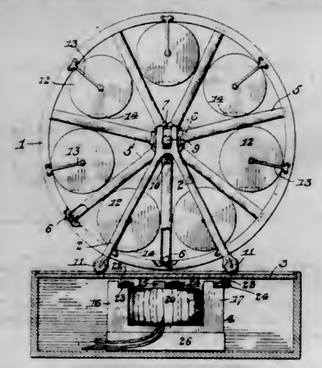


A water gage for steam boilers, comprising a cylindrical body, base and cap sections having a threaded connection therewith and provided respectively with water and steam ports, a blow-off nozzle leading outwardly from the base section, a tubular casing extending upwardly from the cap section and provided with a longitudinal slot, a float in the cylindrical body movable back and forth between the steam and water ports, a stem extending from the float upwardly within said tube and having a laterally extending extremity movable in said slot, and a sight indicator carried by the laterally extending extremity of said stem and movable along the outer face of said tube.

1,075,882. INDICATOR AND POWER DEVICE THEREFOR. WARREN E. WALTERS and MARY E. WALTERS, Los Angeles, Cal. Filed Aug. 7, 1912. Serial No. 713,796. (Cl. 172—278.)

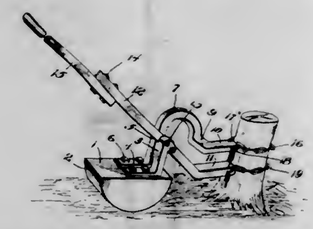
A device of the class described, comprising a movable member, a power member having a magnet formed with poles projecting therefrom, a coiled conductor surrounding one of said poles for passing a current of electricity about the same, each of said poles having kerfs in their

ends near one edge thereof, coils mounted in said kerfs and having fusible connections and means for separating



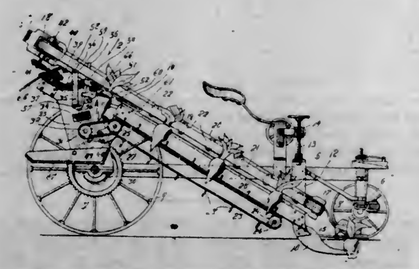
and supporting the movable member from the said power member.

1,075,883. STUMP-PULLER. ALBERT J. WARREN, Corridon, Mo. Filed Nov. 29, 1912. Serial No. 734,134. (Cl. 57—104.)



A stump puller comprising a rocking member, a pair of brackets rising from the member, a bar secured between the brackets and extending at an angle to the rocking member, a gripping device adjustably secured to the bar, and a gripping device adjustably secured to one of the brackets and disposed above the first gripping device.

1,075,884. BEET-TOPPER. JOHN A. WEAVER, Greeley, Colo. Filed Aug. 7, 1912. Serial No. 713,712. (Cl. 55—108.)



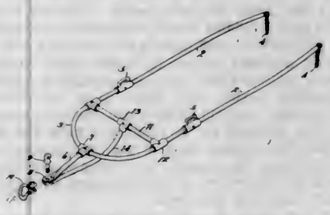
1. The combination of uprooting means, a knife, means for carrying the uprooted beets to the knife for topping purposes, and means for automatically regulating the knife to bring it into position to remove the top in a predetermined position with reference to the shoulder of the beet, said means comprising upright stems pivotally mounted, keepers vertically slidable on the stems and forming a support for the knife, and rods extending forwardly from the keepers into the path of the beets as the latter approach the knife.

2. The combination of uprooting means, a knife, means for carrying the uprooted beets to the knife for topping purposes, means for automatically regulating the knife to bring it into position to remove the top in a predetermined position with reference to the shoulder of the beet, said means comprising upright stems, pivotally mounted, keepers vertically slidable on the stems, a knife support vertically adjustable on said keepers, and rods extending forwardly from the keepers into the path of the beets, as the latter approach the knife.

3. In combination, a beet conveyer arranged to hold beets in a predetermined position, a slidable keeper, a support adjustable in said keeper, a knife mounted in said support, and bearing rods adapted to be acted upon by the shoulders of the beets as the latter are moved by the conveyer for shifting the keeper to cause the knife to act upon the beets at the proper height.

4. In combination, a beet conveyer arranged to hold the beets in a predetermined position, slidable keepers, supports adjustable in said keepers, a reciprocating knife mounted in said supports and bearing rods adapted to be acted on by the shoulders of the beets as the latter are moved by the conveyer for shifting the keepers to cause the knife to act upon the beets at the proper height.

1,075,885. SINGLE HITCH FOR ORCHARD AND VINEYARD HARNESS. WILLIAM H. WELCH, Berkeley, Cal., assignor of one-half to George Ash, Williams, Cal. Filed Mar. 13, 1913. Serial No. 753,937. (Cl. 21—36.)



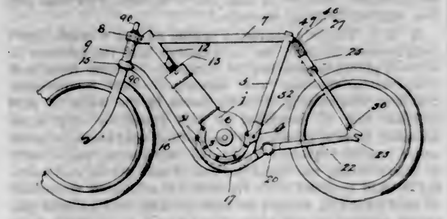
1. A hitch consisting of a pair of forwardly extending shafts connected by a curved rear portion, a brace extending transversely across the hitch at the position of the diameter of the curved rear end of the hitch, draft members connected respectively at their forward ends to the curved portion of the hitch and to said transverse brace, the rear ends of the draft members terminating evenly, and a clevis connected to the rear ends of the draft members.

2. A hitch comprising a pair of side shafts integrally connected at the rear by a curved part, devices on the shafts for connection to the harness of a draft animal, a transverse brace connecting the shafts adjacent to their intersection with the connecting curved part of the hitch, upper and lower draft members, the forward ends of which are respectively connected to the curved part of the hitch shaft and to said brace, and a clevis connected to the ends of said draft members.

3. A hitch consisting of a tubular piece bowed adjacent to its center to form an arc from which project forwardly in the plane of the arc side shafts, harness coupling devices secured on the side shafts, a brace extending transversely from the inner edges of the side shafts, a reinforced draft device with lower and upper reaches secured respectively to said transverse brace and the bow of the hitch, and a clevis secured to said draft device.

1,075,886. FRAME FOR MOTOR-BICYCLES. EDWARD Y. WHITE, San Antonio, Tex. Filed Mar. 9, 1906. Serial No. 305,152. (Cl. 21—90.)

1. The combination with the main frame, steering head and rear forks, of a front bar pivoted at the front to the head and at the rear to the main frame, and a rear bar connected to the rear fork and pivoted at its forward end to the main frame.



2. The combination with the main frame, steering head and rear forks, of a front bar pivoted at the front to the head and at the rear to the main frame, and a rear bar connected to the rear fork and pivoted at its forward end to the main frame forward of the pivotal point of said front bar.

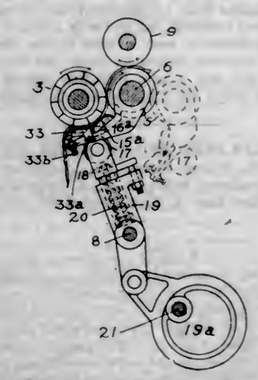
3. The combination with the main frame steering head and rear forks, of a front bar pivoted at the front to the head and at the rear to the main frame and a rear bar pivoted at the rear to the rear fork and at the front to the main frame.

4. The combination with the main frame steering head and rear forks, of a front bar pivoted at the front to the head and at the rear to the main frame and a rear bar pivoted at the rear to the rear fork and at the front to the main frame forward of the pivotal point of said front bar.

5. In a frame for motor bicycles, a triangular frame section of which the seat post and motor form a part, and a rear frame section consisting of lower bars hinged near the front of the engine, extending to the rear and adapted to receive the rear axle, and a yielding connection from said lower bars to the seat post.

[Claims 6 to 12 not printed in the Gazette.]

1,075,887. HIDE-WORKING MACHINE. ROBERT F. WHITNEY, Winchester, Mass. Filed Apr. 29, 1910. Serial No. 558,461. (Cl. 149—16.)



1. In a machine of the character described, in combination, a work roll; a bed roll having a shaft journaled in swinging arms; and a table fixed to swinging arms fulcrumed on said bed roll shaft; said bed roll and said table being movable into and out of contact with said work roll; with means for accomplishing said movements; substantially as described.

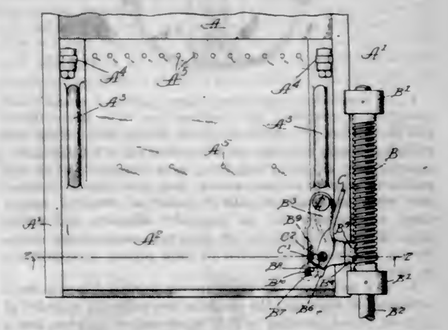
2. In a machine of the character described, in combination, a work roll; a bed roll having a shaft journaled in swinging arms; and a plurality of tables mounted on swinging arms fulcrumed on said bed roll shafts; said bed roll and said tables being movable into and out of contact with said work roll; with means for accomplishing said movements; substantially as described.

3. In a machine of the character described, in combination, a work roll, a bed roll and a table; said bed roll and said table being simultaneously movable into and out of contact with said work roll; with means for accomplishing said movements; substantially as described.

4. In a machine of the character described, in combination, a work roll, a bed roll and a plurality of tables; said bed roll and said tables being simultaneously movable into and out of contact with said work roll; with means for accomplishing said movements; substantially as described.

5. In a machine of the character described, in combination, a work roll, a bed roll, a table and a feed roll; said table being movable into and out of contact with said work roll; said bed roll being movable into and out of contact with said work roll and said feed roll; with means for accomplishing said movements; substantially as described.

1,075,888. GEARING. WALLACE B. WOLFF, Chicago, Ill., assignor to American Slicing Machine Company, Chicago, Ill., a Corporation of New York. Filed Mar. 6, 1911. Serial No. 612,498. (Cl. 74—40.)



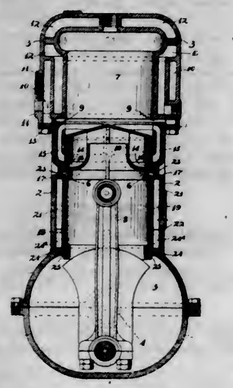
1. The combination with a feed screw and a carriage parallel therewith and adapted to be driven thereby, of a lever pivotally mounted upon said carriage about an axis at right angles to the axis of the feed screw, provided with a feed nut projecting outwardly from one side thereof and meshing with the feed screw, a stop for said lever to limit its movement away from the feed screw, said lever being also provided with a finger projecting from the end thereof into line with the stop and yielding means projecting outwardly from the end of said lever into engagement with said stop.

2. The combination with a feed screw and a carriage parallel therewith and adapted to be driven thereby, of a lever pivotally mounted upon said carriage about an axis at right angles to the axis of the feed screw, provided with a feed nut projecting outwardly from one side thereof and meshing with the feed screw, a stop for said lever to limit its movement away from the feed screw, said lever being also provided with a finger projecting from the end thereof into line with the stop and yielding means projecting outwardly from the end of said lever into engagement with said stop, a controlling lever pivoted upon said stop and in slidable and rotatable engagement with the end of said feed nut carrying lever.

3. The combination with a feed screw and a carriage parallel therewith and adapted to be driven thereby, of a lever pivotally mounted upon said carriage about an axis at right angles to the axis of the feed screw, provided with a feed nut projecting outwardly from one side thereof and meshing with the feed screw and yielding means for

forcing said feed nut into mesh with the feed screw and manually operative means for withdrawing it against the pressure of said yielding means.

1,075,889. TWO-CYCLE EXPLOSIVE-ENGINE. ELLIS J. WOOLF, Minneapolis, Minn., assignor to The Woolf Valve Gear Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Oct. 26, 1908. Serial No. 459,462. (Cl. 123—73.)



1. In a two-cycle explosive engine having a crank shaft compression chamber, the combination with the cylinder and the piston, of a shell or sleeve fitting said piston and working in said cylinder with freedom for a limited movement of said sleeve in respect to said cylinder and of said piston in respect to said sleeve, and which sleeve coöperates with the wall of said cylinder to afford a supply chest or chamber for the explosive mixture and which chest is opened to and cut off from said compression chamber by said sleeve as moved by said piston, substantially as described.

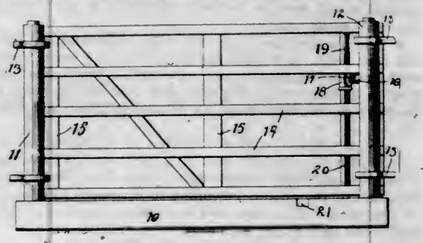
2. In a two-cycle explosive engine having a crank shaft compression chamber, the combination with the cylinder of a trunk piston opening to said compression chamber and a shell or sleeve fitting said trunk piston and working in said cylinder with freedom for a limited movement of said sleeve in respect to said cylinder and of said piston in respect to said sleeve, and which sleeve coöperates with the wall of said cylinder to afford a supply chest or chamber for the explosive mixture and which chest is opened to and cut off from said compression chamber by said sleeve as moved by said piston, substantially as described.

3. In a two-cycle explosive engine having a crank shaft compression chamber, the combination with the cylinder of a trunk piston opening to said compression chamber and a shell or sleeve fitting said trunk piston and working in said cylinder with freedom for a limited movement of said sleeve in respect to said cylinder and of said piston in respect to said sleeve, stops which determine the travel of said sleeve, and which sleeve coöperates with the wall of said cylinder to afford a supply chest or chamber for the explosive mixture and which chest is opened to and cut off from said compression chamber by said sleeve as moved by said piston and limited by said stops, substantially as described.

4. In a two-cycle explosive engine having a crank shaft compression chamber, the combination with the cylinder of a trunk piston opening to said compression chamber, a shell or sleeve fitting said trunk piston and working in said cylinder with freedom for a limited movement of said sleeve in respect to said cylinder and of said piston in respect to said sleeve, stop ledges on said cylinder which determine the travel of said sleeve, a packing ring fitted to said piston adapted to have frictional engagement with the said sleeve for moving the sleeve with the piston within the limits determined by said stop ledges and which sleeve coöperate with the wall of said cylinder to afford a supply chest or chamber for the explosive mixture and which chest is opened to and cut off from said crank shaft compression chamber by said sleeve as moved by said piston, substantially as described.

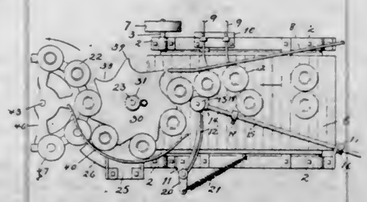
5. In a two-cycle explosive engine having a crank shaft compression chamber, the combination with the cylinder of a trunk piston separating the explosive chamber from said compression chamber and opening to said compression chamber, coöperating transfer ports in the walls of said cylinder and in the sides of said piston, a ring valve mounted on said piston and controlling said transfer ports under motion imparted thereto by said piston, and a shell or sleeve fitting the trunk portion of said piston and working in said cylinder with freedom for a limited movement of said sleeve in respect to said cylinder and of said piston in respect to said sleeve, and which sleeve coöperates with the wall of said cylinder to afford a supply chest or chamber for the explosive mixture and which chest is opened to and cut off from said compression chamber by said sleeve as moved by said piston, substantially as described.

1,075,890. GATE. JOHN C. ZOLL, Northstar, Mich. Filed Mar. 6, 1913. Serial No. 752,457. (Cl. 39—32.)



In a gate structure the combination of a sill, spaced main posts mounted on said sill, arms projecting laterally from said main posts respectively intermediate the ends of the main posts and having their outer ends threaded, one of said arms being disposed diagonally of the sill and the other arm at right angles thereto, a supplemental post rotatably engaged with the threaded ends of the diagonal arm and having its lower end seated in a groove in the sill, a second supplemental post secured to the threaded end of the other arm and having its lower end seated in a recess in the sill, and a gate including spaced horizontal slats through which the diagonal arm is engaged.

1,075,891. CAN FEED AND TRANSFER MECHANISM. CHARLES H. AYARS, Salem, N. J., assignor to Ayars Machine Company, Salem, N. J., a Corporation of New Jersey. Filed Mar. 2, 1912. Serial No. 681,282. (Cl. 193—1.)



1. In a can-feed mechanism the combination with means to convey the cans, of means for transferring the cans from the conveying means; means for arranging the cans while on the said conveying means to present them one at a time to the transfer means, and means for yieldingly operating the said transfer means.

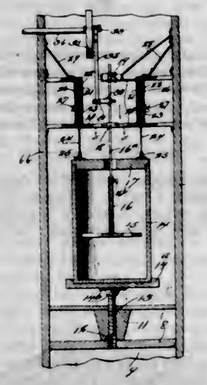
2. In a can-feed mechanism the combination with means to convey the cans, of a guide bar coacting with the conveying means; a movable guide bar also coacting with the said conveying means,—said guide bars converging at one end to direct the cans in a single line; transfer means adjacent to the converging ends of the guide bars and means for yieldingly operating the said transfer means.

3. In a can-feed mechanism the combination with means to convey the cans, of guide bars extending over the said conveying means and converging at one end; a movable arm connected to the end of one of said guide bars; transfer means adjacent to the converging ends of said guide bars and means for moving the transfer means to transfer the cans one at a time from the conveying means.

4. In a can-feed mechanism the combination with means to convey the cans, of guide bars extending over the said conveying means and converging at one end; a movable arm connected to the end of one of said guide bars; transfer means adjacent to the converging ends of said guide bars; continuously-operating driving means for the said transfer means, and means for yieldingly-connecting the driving and transfer means

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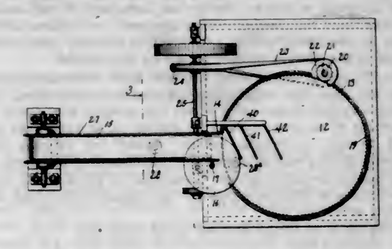
1,075,892. CHURN. WILLIAM F. BARBEE, Des Moines, Iowa. Filed Apr. 24, 1912. Serial No. 692,981. Renewed Sept. 10, 1913. Serial No. 789,172. (Cl. 31—30.)



1. In a device as set forth, a frame having a cross support, a churn including a cover adjustably mounted on the support of the frame, said frame having a cross bar and provided with brackets above the bar, said bar and the bracket having tubular connections, the cross bar having a bearing for the dasher rod of the churn, while one of said brackets is provided with an additional bearing for said dasher rod, means for holding the cover in place on the churn, said means comprising rods having pistons in said tubular connections, springs interposed between the pistons and the upper end of said tubular connection.

2. In a device as set forth, a frame having a cross support, a churn including a cover adjustably mounted on the support of the frame, said frame having a cross bar and provided with brackets above the bar, said bar and the bracket having tubular connections, the cross bar having a bearing for the dasher rod of the churn, while one of said brackets is provided with an additional bearing for said dasher rod, means for holding the cover in place on the churn, said means comprising rods having pistons in said tubular connections, springs interposed between the pistons and the upper end of said tubular connection, said tubular connections having slots, devices extending through the slots and threaded into the pistons for holding the pistons and the rods in raised positions against the action of said springs, in order to allow the cover to be removed, and means for operating the churn.

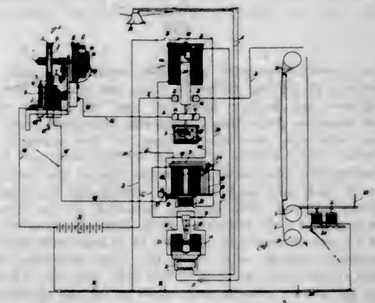
1,075,893. CONVEYER FOR BOTTLED SODA-WATER. EUGENE ROBERTS BARBER, Valdosta, Ga. Filed July 31, 1912. Serial No. 712,510. (Cl. 193—1.)



1. The combination with a rotary table, of a conveyer belt leading to the table, and a rotary disk overlapping the conveyer and table, to transfer bottles from the conveyer to the table, and said device being in contact with the belt and table and the contact serving to rotate said device.

2. In a machine for handling bottled soda water and other bottled goods, the combination of a rotary table, means for conveying bottles to the table, including a runway leading in the direction of the table, and having a bottom and sides, an endless flexible belt having its upper stretch running on the bottom of the runway and traveling in the direction of and adjacent to the table, means for actuating said belt, and a plane revolving disk overlying the belt and disposed beneath a side of the runway at the end adjacent to the table, so that any portion of the said surface may receive an advancing bottle from the runway.

1,075,894. TARGET APPARATUS FOR USE WITH KINEMATOGRAPHS. BENJAMIN WILLIAM BATES, HENRY WELDON KELLY, and DOUGLAS HAYNES CORBIN, Birmingham, England, assignors to Life Targets Limited, London, England. Filed Nov. 12, 1912. Serial No. 730,970. (Cl. 88—16.)



1. In target apparatus for use with kinematographs and the like, the combination of a picture projecting device; a target screen onto which the picture is projected; and means actuated by sound waves whereby the movement of the picture projecting device is arrested.

2. In target apparatus for use with kinematographs and the like, the combination of a picture projecting device; a target screen onto which the picture is projected; and means actuated by the sound arising from the discharge of a fire arm whereby the movement of the picture projecting device is arrested.

3. In target apparatus for use with kinematographs and the like, the combination of a picture projecting device, a target screen onto which the picture is projected; a member mounted to vibrate under the influence of sound waves; and means actuated by the vibrations of said member whereby the movement of the picture projecting device is arrested.

4. In target apparatus for use with kinematographs and the like, the combination of a picture projecting device; a target screen onto which the picture is projected; a member mounted to vibrate under the influence of the sound arising from the discharge of a fire arm; and means actuated by the vibrations of said member whereby the movement of the picture projecting device is arrested.

5. In target apparatus for use with kinematographs and the like, the combination of a picture projecting device; a target screen onto which the picture is projected; a source of electric current in circuit with apparatus on said picture projecting device; means for varying the current in said circuit under the influence of sound waves; and means actuated by the variations in the electric current whereby the movement of the picture projecting device is arrested.

[Claims 6 to 19 not printed in the Gazette.]

1,075,895. CORSET-FASTENER. VICTOR B. BERGER, Highland, Cal. Filed Aug. 9, 1910. Serial No. 576,276. (Cl. 24—205.)



The combination with a pair of separated busks, hook members projecting laterally from one end of the busk members and having lips, the lips of certain of the hook members projecting in opposite directions from other hook members, housings secured to the opposite busk member, substantially V-shaped springs arranged in the housings and adapted to engage the lips on the hook members to lock said hook members within the housings, oppositely moving rods slidably mounted in the housings and provided with elongated slots, lateral extensions carried by the springs and adapted to engage said slots and oppositely turned ends upon the rods providing finger holds at the adjacent ends of the rods, whereby when the rods are drawn toward each other all of the springs will be released from the lips of the hook members simultaneously.

1,075,896. DRILL-ROD CONNECTION. JOHN D. BOUGHNER, Yorba Linda, Cal. Filed Nov. 29, 1912. Serial No. 734,191. (Cl. 255—28.)

1. The combination of rotary-drill apparatus including a boring device and a hollow stem thereon, a crosspiece arranged in the upper part of the stem, and a cable connection, including a swivel, between the crosspiece and the boring device, substantially as set forth.

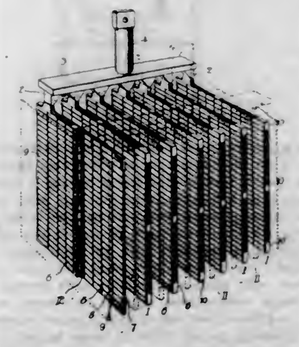
2. The combination of rotary-drill apparatus including a boring device and a hollow stem thereon, a crosspiece arranged in the upper part of the hollow stem, a cable connection, including a swivel, between the crosspiece and the boring device, and means below the crosspiece to assist in sustaining the weight of the cable, substantially as described.

3. The combination of a rotary-drill apparatus including a boring device and a hollow stem thereon, a crosspiece arranged in the upper part of the hollow stem, a cable connected to the crosspiece, hooks and eyes for joining sections of the cable, and an expansible swivel connection between the cable and the boring device.



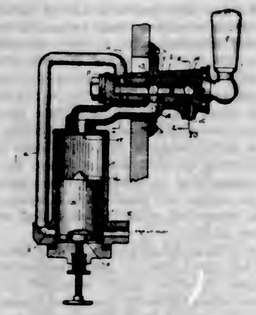
4. The combination of a rotary-drill apparatus including a boring device and a hollow stem thereon, a crosspiece in the hollow stem, a cable connected to the crosspiece, and an expansible swivel connection between the cable and the boring device, substantially as set forth.

1,075,897. ELECTRODE. RUFUS N. CHAMBERLAIN, Chicago, and SIDNEY J. HALL, Hinsdale, Ill., assignors to Gould Storage Battery Company, a Corporation of New York. Filed Dec. 6, 1912. Serial No. 735,294. (Cl. 204—29.)



A storage battery electrode of hollow construction comprising a pair of complementary perforated plates connected electrically in a substantially integral manner and disposed vertically in closely spaced parallel relation, providing a vertical interior circulation passage for electrolyte and adapted to constitute the interior portion of a circulation path when the plates are immersed below the surface of the electrolyte, in combination with active material held in and filling the perforations in said plates and adapted to facilitate ready percolation of electrolyte through said active material in charging and discharging, such percolation being induced by gravity acting upon the unbalanced inner and outer columns of electrolyte having different densities.

1,075,898. LIQUID-DISPENSING DEVICE. JOSEPH H. CHAMP and THEODORE H. SCHUTT, Cleveland, Ohio, assignors to The Bishop-Babcock-Becker Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 3, 1912. Serial No. 694,923. (Cl. 225—33.)



1. In apparatus of the class described, the combination of a measuring chamber having an inlet and an outlet at opposite ends; a member reciprocable in said chamber and normally positioned at the inlet end thereof; connections normally open for supplying under pressure the liquid to be measured to both ends of said chamber; and valve means adapted to close said connections to the outlet end of said chamber and open the latter to discharge.

2. In apparatus of the class described, the combination of a measuring chamber having an inlet and an outlet at opposite ends; a piston reciprocable in said chamber and normally positioned at the inlet end thereof; adjustable means for limiting such normal position of said piston; connections normally open for supplying under pressure to both ends of said chamber the liquid to be measured; and valve means adapted to close said connections to the upper end of said chamber and open the outlet of the latter to discharge.

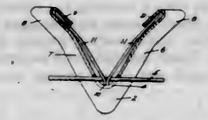
3. In apparatus of the class described, the combination of a substantially vertically disposed measuring chamber having an inlet at its lower end and an outlet at its upper end; a piston reciprocable in said chamber and normally held by gravity at the lower end thereof; connections normally open for supplying under pressure to both ends of said chamber the liquid to be measured; and valve means adapted to close said connections to the upper end of said chamber and open the outlet of the latter to discharge.

4. In apparatus of the class described, the combination of a substantially vertically disposed measuring chamber having an inlet at its lower end and an outlet at its upper end; a piston reciprocable in said chamber and normally held by gravity at the lower end thereof; an adjustable stop in the bottom of said chamber adapted to limit such normal position of said piston; connections normally open for supplying under pressure to both ends of said chamber the liquid to be measured; and valve means adapted to close said connections to the upper end of said chamber and open the outlet of the latter to discharge.

5. In apparatus of the class described, the combination of a substantially vertically disposed measuring chamber having an inlet at its lower end an outlet at its upper end; a piston reciprocable in said chamber and normally held by gravity at the lower end thereof; a valve carried by said piston and adapted to close the outlet of said chamber; connections normally open for supplying under pressure to both ends of said chamber the liquid to be measured; and valve means adapted to close said connections to the upper end of said chamber and open the outlet of the latter to discharge.

[Claims 6 to 12 not printed in the Gazette.]

1,075,899. METALLIC FENCE-POST. HUGH D. CLARK, Columbus, Ohio. Filed Mar. 17, 1913. Serial No. 754,775. (Cl. 256—48.)



1. A metallic fence post comprising an angular body portion having slots therein adapted to receive the strands of wire forming the fence, pocket formations carried by said post, and individual resilient locking wires formed with heads and legs, said heads adapted to be placed between the said body portion and said wire strands, and said legs being adapted to resiliently engage said pocket formations.

2. A metallic fence post comprising a V-shaped body portion having slots therein adapted to receive the strands of wire forming the fence, pocket formations carried by said post formed by folding back the edge portions of said V-shaped body portion, and a resilient locking wire formed with a head and legs, said head to be placed between said body portion and said wire strands, and said legs being adapted to resiliently engage said pocket formations.

3. A metallic fence post comprising a V-shaped body portion having slots in the crotch thereof, adapted to receive the strands of wire forming the fence, the edge portions of the legs of said body portion being crimped to give it a different angularity than the remainder of the legs and doubled back upon themselves to form a double thickness, and individual resilient locking wires formed with heads and legs, said heads adapted to be placed between said body portion and said wire strands, and said legs being adapted to resiliently engage the doubled-back portions of said legs.

1,075,900. BOTTLE. JOSE B. COLÓN, Greeneville, Tenn. Filed Sept. 20, 1912. Serial No. 721,503. (Cl. 215—77.)

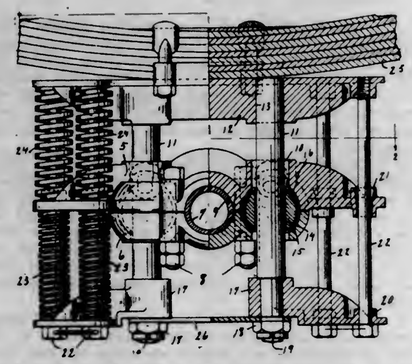


A bottle having a label receiving surface and means for protecting said surface from drippings from the bottle neck, said means including a gutter formed in the bottle above the label receiving space, the said gutter draining onto the outer surface of the bottle at points removed from the label receiving space.

1,075,901. SHOCK-ABSORBER. CARY W. CRAWFORD, Los Angeles, Cal. Filed Nov. 13, 1912. Serial No. 731,126. (Cl. 21—50.)

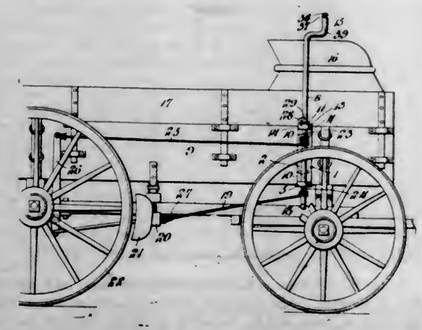
1. A shock absorber comprising an axle frame having a plurality of vertical openings extending therethrough when positioned for use and having segmental spherical chambers therein at the sides of the axle when positioned for use; segmental pierced bearing balls in said chambers;

a crown plate adapted to be secured to the body of the vehicle; guide rods secured in the crown plate and passing through holes in the axle frame, said bolts being of less diameter than the holes and also passing through the balls with a working fit; shoes having vertical holes extending therethrough secured upon the lower ends of the guide rods; bolts passing through the holes in the shoes and axle frame and into and secured to the crown plate; and rebound and shock springs secured upon said last bolts.



2. In a shock absorber the combination of an axle frame adapted to be secured upon the axle and having guiding holes extending therethrough and globular socket therein; pierced balls in said sockets; means secured to the body of the vehicle having guiding bolts and spring bolts secured thereto passing through the holes in the axle frame, said guiding bolts passing through the balls in the sockets in the axle frame; and shock and rebound springs on the spring bolts.

1,075,902. WINDLASS ATTACHMENT FOR VEHICLE-BRAKES. GEORGE PATTERSON CRUTCHFIELD, Greensboro, N. C. Filed Feb. 28, 1913. Serial No. 751,383. (Cl. 21—8.)



1. A windlass attachment for vehicle brakes including a bearing bracket comprising a vertical bar or portion adapted to fit against the outer face of the side of a wagon body or the like, an inner upper approximately L-shaped arm adapted to hook over the upper edge and fit against the inner face of the side of the wagon body or other portion of a vehicle without interfering with the use of a top box, upper and lower outwardly extending arms having vertically alined bearings, the upper bearing arm being also provided with a fixed ratchet member lying beyond the said L-shaped arms, a vertical windlass shaft removably arranged in the said bearings, a locking dog mounted on the windlass shaft above the bearing bracket and arranged to engage the ratchet member thereof, and means carried by the windlass shaft and connected with the dog for operating the same.

2. A windlass attachment for vehicle brakes including a bearing bracket provided with means for mounting it on a vehicle and having outwardly extending upper and lower arms provided with alined bearing openings, the upper arm being also provided with a fixed ratchet member, a vertical windlass shaft mounted in the bearing openings and provided with a lower depending extension and having an extended upper portion provided with a crank handle, means for connecting the lower extension of the windlass shaft at a point below the bearing bracket to a brake beam for moving the brake shoes away from the wheels, separate means for connecting the windlass shaft at a point between the upper and lower arms of the said bearing bracket with a brake for applying the same, a locking dog mounted on the windlass shaft and arranged to engage the fixed ratchet member, and operating means connected with the said dog and carried by the windlass shaft.

3. A windlass attachment for vehicle brakes comprising a bearing bracket having a fixed ratchet member, a vertical tubular windlass shaft mounted in the bearing bracket and provided with an upper crank handle consisting of vertical and horizontal portions, a locking lever pivotally mounted on and extending into the tubular windlass shaft and having its outer portion arranged to engage the said fixed ratchet member, and a yieldably mounted depressible rod extending longitudinally through the upper portion of the windlass shaft and through the crank handle thereof and having its lower end arranged to engage the locking lever, the upper end of the depressible rod being extended above the crank handle and adapted to be pressed downwardly to operate the locking lever.

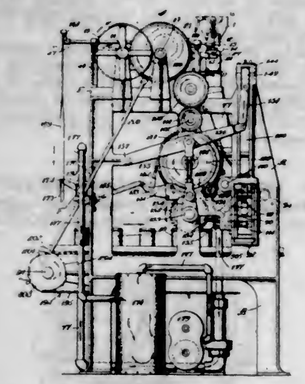
4. A windlass attachment for vehicle brakes comprising a bearing bracket having a fixed ratchet member, a tubular windlass shaft mounted in the bearing bracket and provided at its upper end with a crank handle composed of vertical and horizontal portions and having a longitudinal opening extending along one side of the vertical portion and along the underside of the horizontal portion of the crank handle, a locking lever pivotally mounted on the windlass shaft and extending into the same, a depressible operating rod arranged within the upper portion of the windlass shaft and within the crank handle thereof and composed of upper and lower upright portions and a horizontal connecting portion and extending above the crank handle and adapted to be pressed downwardly to operate the locking lever, a coiled spring arranged within the vertical portion of the crank handle and yieldably supporting the depressible rod, and a fastening device spanning the longitudinal opening and connecting the side portions of the crank handle and forming a stop for the lower end of the coiled spring.

5. A windlass attachment for vehicle brakes including a bearing bracket provided with upper and lower horizontal arms having alined bearing openings, the upper arm being also provided around its opening with an annular series of ratchet teeth and having a smooth annular portion lying between the ratchet teeth and the opening of the upper arm, a vertical windlass shaft extending through the openings of the said arms and provided at a point intermediate of its ends with a fixed collar arranged upon the said smooth annular portion of the upper arm and supporting the windlass shaft, the latter being extended above the ratchet wheel and provided at its upper end with operating means, means carried by the windlass shaft for engaging the ratchet teeth, and means for connecting the windlass shaft with a brake.

1,075,903. AUTOMATIC FILLING-MACHINE. HAYWOOD GUION DEWEY, East Orange, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Oct. 17, 1911. Serial No. 655,157. (Cl. 226—9.)

1. In a filling machine, the combination of means for segregating a predetermined quantity of material; means for filling said material into a suitable receptacle; means to exhaust the air from said receptacle; and connections controlled by said segregating means adapted to govern the air exhausting means, substantially as described.

2. In a filling machine, the combination of means for segregating a predetermined quantity of material; means for filling said material into a suitable receptacle; means to exhaust the air from said receptacle; and connections controlled by said segregating means adapted to govern both the filling and the air exhausting means, substantially as described.



3. In a filling machine, the combination of means for segregating a predetermined quantity of finely divided material; means for filling said material into a suitable receptacle; means for positioning said receptacle for receiving said material; means to exhaust the air from said receptacle after it is positioned; and connections governed by said segregating means adapted to control the filling and air exhausting operations, substantially as described.

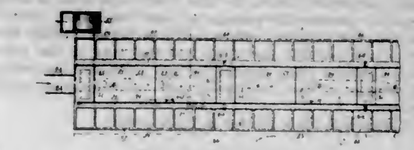
4. In a filling machine, the combination of means for segregating a predetermined quantity of finely divided material; means for filling said material into a suitable receptacle; means for positioning and sealing from the outer air said receptacle for receiving said material; means to exhaust the air from said receptacle after it is positioned and sealed, but before it is filled; and connections governed by said segregating means adapted to control the filling and air exhausting operations, substantially as described.

5. In a filling machine, the combination of means for segregating a predetermined quantity of finely divided material; means for filling said material into a suitable receptacle; means for positioning and sealing said receptacle for receiving said material; means to exhaust the air from said receptacle after it is positioned and sealed, but before it is filled; and connections governed by said segregating means adapted to control the receptacle positioning, as well as the filling and air exhausting operations, substantially as described.

[Claims 6 to 61 not printed in the Gazette.]

1,075,904. KILN. WILLIAM DRAYTON, Shawnee, Ohio. Filed Aug. 29, 1910, Serial No. 579,544. Renewed Mar. 5 1913. Serial No. 752,254. (Cl. 25—142.)

1. A kiln, comprising an elongated continuous kiln tunnel having heat confining walls; a portable carrying bed disposed to move through from end to end of said tunnel; a heat generator in open communication with said tunnel; a plurality of portable partitions arranged to divide the said tunnel into chamber sections; air circulating engines to move the air in said tunnel toward the material receiving end of said tunnel; and a duct in direct communication with the chamber section adjacent the receiving and the delivery ends of said tunnel to transfer the heated air from the section at the delivery end to the section at the receiving end of said tunnel.



2. A kiln, comprising an elongated continuous kiln tunnel having heat confining walls; a portable carrying bed embodying a plurality of separate sections flexibly connected to form a train extended through said tunnel and disposed to move from end to end of said tunnel; a heat generator in open communication with said tunnel intermediate the ends thereof; a plurality of portable partitions arranged to divide the said tunnel in chamber sections; air circulating engines to move the air in said tunnel toward the material receiving end of said tunnel; and a plurality of ducts for transferring the heated air from chamber section to chamber section adjacent in directions counter to the movement of the material under treatment.

3. A kiln, comprising an elongated continuous kiln tunnel having heat confining walls; a portable carrying bed embodying a plurality of separate sections flexibly connected to form a train extended throughout the said tunnel and disposed to move from end to end thereof; a heat generator in open communication with said tunnel intermediate the ends thereof; a plurality of portable partitions arranged to divide said tunnel in closed chamber sections; air circulating engines to move the air in said tunnel toward the material receiving end of said tunnel; a plurality of ducts for transferring the heated air from chamber section to chamber section adjacent in directions counter to the movement of material under treatment; means extensible between said bed and sides of said tunnel to prevent the passage of heat from above to below said bed; and movable plates extending between said portable partitions and the body of the tunnel, said plates being constructed and arranged to prevent the passage of heat lengthwise said tunnel between said sections.

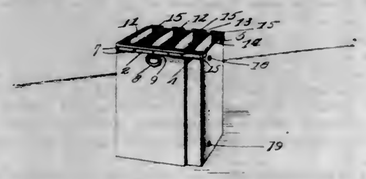
4. A kiln, comprising an elongated continuous kiln tunnel having heat confining walls; a portable carrying bed embodying a plurality of separate wheel supported trucks having each a bed for carrying material being handled, said trucks being connected to form a train extended throughout the said tunnel and disposed to move from end to end thereof; a heat generator in open communication with said tunnel intermediate the ends thereof; a plurality of portable partitions arranged to divide said tunnel in chamber sections; air circulating engines to move the air in said tunnel toward the material receiving end of said tunnel intermediate the ends thereof; ducts for transferring the heated air from chamber section to chamber section adjacent in directions counter to the movement of material under treatment; and movable plates extending between said portable partitions and the body of the tunnel, said plates being constructed and arranged to prevent the passage of heat lengthwise said tunnel between said partitions, and means extensible between the said trucks and sides of said tunnel to prevent the passage of heat from above to below the said trucks.

5. A kiln, comprising an elongated continuous kiln tunnel having heat confining walls; a portable carrying bed embodying a plurality of separate wheel supported trucks each having a bed for carrying material being handled, said trucks being connected to form a train extended throughout the said tunnel and disposed to move from end to end thereof; a gas producer heat generator in open communication with said tunnel to deliver gas for combustion in said tunnel; a plurality of portable partitions arranged to divide the said tunnel in chamber sections; air circulating engines to move the air in said tunnel toward the material receiving end of said tunnel; a plu-

rality of ducts for transferring the heated air from chamber section to chamber section adjacent in directions counter to the movement of the material under treatment; means extensible beween the said trucks and sides of said tunnel to prevent the passage of heat from above to below the said trucks; and movable plates extending between said portable partitions and the body of the tunnel, said plates being constructed and arranged to prevent the passage of heat lengthwise said tunnel between said partitions.

[Claims 6 to 9 not printed in the Gazette.]

1,075,905. DEVELOPING-TANK. JOSEPH H. DROSSER, Douglas, Ariz. Filed Sept. 25, 1912. Serial No. 722,244. (Cl. 95—96.)



1. A device of the character specified, comprising a main tank, pairs of partitions arranged transversely of the main tank, the members of each pair being spaced apart laterally from each other to form a guideway, said partitions stopping short of the top and bottom of the tank to permit the free circulation of the fluid beneath and above the partitions, a plurality of auxiliary tanks, sundry of the said tanks being arranged within the guideways, each auxiliary tank having a lateral flange at its upper end for engaging the upper edge of the main tank to limit the downward movement of the auxiliary tank, said auxiliary tanks being of lesser depth than the main tank, so that a space will be left between the bottoms thereof and the bottom of the main tank, one of the auxiliary tanks having a series of openings at each end to permit the entrance and exit of fluid from the main tank, said main tank having longitudinally extending arms at one end, each arm having a lateral inwardly extending lug at its free end, said extension and lugs forming a guideway for another auxiliary tank, said last-named auxiliary tank having an inlet opening near its bottom and an outlet opening near its top, handles on the main tank, and a cover for closing the tops of the main tank and the auxiliary tanks.

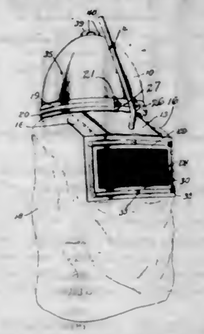
2. A device of the character specified, comprising a main tank, pairs of partitions arranged transversely of the main tank, the members of each pair being spaced apart laterally from each other to form a guideway, said partitions stopping short of the top and bottom of the tank to permit the free circulation of the fluid beneath and above the partitions, a plurality of auxiliary tanks, sundry of the said tanks being arranged within the guideways, each auxiliary tank having a lateral flange at its upper end for engaging the upper edge of the main tank to limit the downward movement of the auxiliary tank, said auxiliary tanks being of lesser depth than the main tank, so that a space will be left between the bottoms thereof and the bottom of the main tank, one of the auxiliary tanks having a series of openings at each end to permit the entrance and exit of fluid from the main tank, means at one end of the main tank for supporting one of the auxiliary tanks outside of the main tank, said last named auxiliary tank having an inlet opening at its bottom and an outlet opening at its top.

3. A device of the character specified, comprising a main tank, said main tank having a plurality of guideways for holding the auxiliary tanks in spaced relation, said main tank having means at one end for supporting another auxiliary tank ontside the main tank, auxiliary tanks in the guideways and in the supporting means, said tanks being of lesser depth than the main tank and having means for engaging the upper edge of the main tank to space their bottoms above the top of the main tank, one of the auxiliary tanks having a series of perforations at each end, and the tank in the supporting means having openings near its top and bottom.

4. A device of the character specified, comprising a main tank having a plurality of guideways for holding auxiliary tanks, said main tanks having means at one end for supporting other auxiliary tanks outside the main tank, and auxiliary tanks supported in the guideways and in the said supporting means, each of the said tanks having lateral flanges at its upper end for engaging the top of the main tank or for engaging the supporting means to support the said tank.

5. A device of the character specified, comprising a main tank having a plurality of guideways for holding auxiliary tanks, said main tank having means at one end for supporting other auxiliary tanks outside the main tank, and auxiliary tanks supported in the guideways and in the said supporting means.

1,075,906. SANITARY SAND-BLAST HELMET. WILLIAM DUNCAN and JOHN A. SPANGLER, Attica, Ind. Filed Apr. 3, 1913. Serial No. 758,625. (Cl. 128—42.)



1. A sanitary sandblast helmet, comprising a helmet body having a surrounding extension including a vizor and a front portion depending therefrom, said front portion havng a lookout opening, a cover for said opening to exclude the entrance of dust and permit objects to be visible therethrough, an apron overlapping the extension of the body and overlying a portion of the body, a clamping band for securing said apron on the body, said band having independently movable end portions, means connecting said end portions to draw the band in clamping position, and means for admitting air to the helmet body and permitting the escape of the air displaced thereby.

2. A sandblast helmet, comprising a helmet body having side extensions and a front portion having an opening, a screen covering for said opening, a washable apron secured over said extensions and having an opening alining with the openings in the front portion of the helmet, a clamping band around the lower portion of the crown of the helmet to secure the apron thereto, said crown and band having co-acting beads between which the apron is held, and means connecting the free ends of the band to draw the same together.

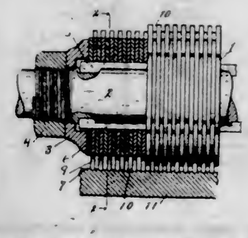
3. A sandblast helmet of the character described, comprising an aluminum helmet body having side extensions and a front portion having an opening, a screen covering for said opening, means detachably securing said screen covering in position, a washable apron secured over said extensions and having an opening alining with the opening in the front portion of the helmet, and a removable frame for securing said apron and screen around the opening to form a tight joint.

4. A sandblast helmet of the character described, comprising an aluminum helmet body having side extensions and a front portion having an opening, a screen covering for said opening, means detachably securing said screen covering in position, a washable apron secured over said extensions and having an opening alining with the opening in the front portion of the helmet, and a clamping band around the lower portion of the crown of the helmet to secure the apron thereto.

5. A sandblast helmet of the character described, comprising an aluminum helmet body having side extensions and a front portion having an opening, a screen covering for said opening, means detachably securing said screen covering in position, a washable apron secured over said extensions and having an opening alining with the opening in the front portion of the helmet, a removable frame for securing said apron and screen around the opening to form a tight joint, a clamping band securing the apron around the helmet body, said body having a vizor with side lapovers receiving the apron therein, and a headband connected interiorly to the helmet body.

[Claim 6 not printed in the Gazette.]

1,075,907. CUTTER-HEAD FOR PLANERS. JOHN C. DUNTON, Grand Rapids, Mich. Filed Mar. 14, 1912. Serial No. 683,884. (Cl. 144—237.)



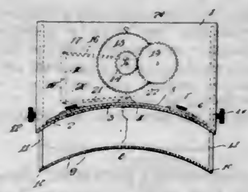
1. A planing cutter head comprising a series of disks each having radial extensions with forward chisel-like cutting edges and with spacers between such extensions greater than the circumferential dimension of the latter, the disks being so arranged with the cutting extensions of alternate disks in line with each other but opposite the spaces of the alternate disks, so that clearance grooves are formed longitudinally of the periphery of the head and also between the cutting expansions of the alternate series, the chisel edges of all the bits lying in the same peripheral circle.

2. A planing cutter head comprising a series of disks each having radial extensions with forward chisel-like cutting edges and with spacers between such extensions greater than the circumferential dimension of the latter, the disks being so arranged with the cutting extensions of alternate disks in line with each other, but opposite the spaces of the alternate disks, so that clearance grooves are formed longitudinally of the periphery of the head and also between the cutting extensions of the alternate series, the chisel edges of all the bits lying in the same peripheral circle, a shaft having spline grooves and the disks having notches for a key, the extensions and the notches being so proportioned that when the keys are engaged with the grooves in the shaft and the notches with the disks, the alternate disks must be held with their extensions opposite the spaces of the alternating disks.

1,075,908. HAIR-CUTTING MACHINE. FRANK P. DYER, St. Louis, Mo. Filed Mar. 26, 1912. Serial No. 686,457. (Cl. 30—1.)

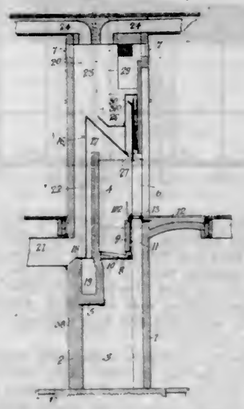
1. A hair cutting machine comprising a casing including rear, front, top and end walls, a fixed cutting blade of concavo-convexed configuration formed integral with the front wall of the casing, a reciprocating cutting blade of concavo-convexed form supported by the fixed cutting blade and movable thereon, and a combined guiding and gaging member supported by the casing and disposed below the plane of the cutting blades.

2. A hair cutting machine comprising a hollow casing including rear, front, top and end walls, a handle for the casing, a fixed cutting blade of concavo-convexed form formed with the lower free edge of the front walls and projecting at right angles thereto, a reciprocating cutting



blade of concavo-convexed form supported by the fixed cutting blade and movable thereon, a gage, a motor supported within the casing, means operatively connecting the movable cutting blade with the motor and manipulating means extending through the wall of the casing in a plane with the handle of the casing for operating said motor.

1,075,909. FIREPLACE-FURNACE. MILTON J. FARQUHAR, Wilmington, Ohio. Filed Sept. 22, 1911. Serial No. 650,853. (Cl. 126—120.)



1. A fireplace furnace comprising a fire-box, a flue set off from the fire box for carrying off the products of combustion and an independent vent flue beside the first named flue communicating with the fire-box through a restricted opening at the upper front edge of the latter and being constantly open for carrying off foul air from in front of the furnace.

2. A fireplace comprising a diving flue leading from the upper part of the fire chamber, an air heating chamber arranged to be heated by said diving flue, and a continuously open vent flue leading from the upper and forward portion of the fire chamber, whereby the cool air flowing to the upper part of the fire chamber may be conducted away by said vent flue instead of passing into said diving flue.

3. A fireplace furnace comprising a fire-box having an open front, a vent flue at one side of the firebox, and a vent box arranged over the front of the firebox and opening at its bottom into said firebox, one end of said vent box being closed and the opposite end opening into the vent flue.

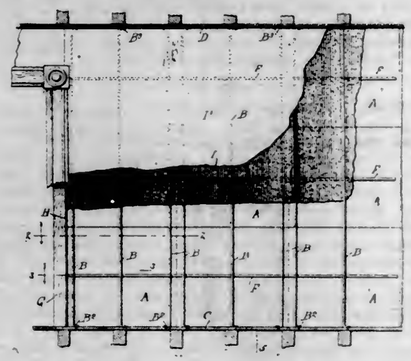
4. A fireplace furnace comprising a firebox having an open front, a vent flue at one side of the firebox, a vent box arranged over the front of the firebox and opening at its bottom into said fire-box, one end of said vent box being closed and the opposite end opening into the vent

flue, and a gate movable through the opening in the bottom of the vent box to close the front of the firebox and spaced from both the front and rear margins of said opening, whereby a portion of the latter is left unobstructed in the raised position and also in the lowered position of said gate.

5. A fireplace furnace comprising a fire-box, a fresh air chamber surrounding the same, a deflector extending across said chamber and spaced from the top of the firebox, and return air flues opening into said air chamber below said deflector, whereby said return air is held for a time close to the top of said firebox.

[Claims 6 to 11 not printed in the Gazette.]

1,075,910. FIREPROOF PARTITION. GERARD H. GERAERDTS, New York, N. Y. Filed June 17, 1913. Serial No. 774,118. (Cl. 72—46.)



1. A partition for buildings, comprising fireproof boards set on edge and abutting at their edges, vertical bars attached to the floor and ceiling of the building and in contact with the opposite faces of the set-up boards throughout their length, the said bars being provided with perforations, and longitudinal rods extending through the perforations in the said bars and held adjacent the faces of the said set-up boards.

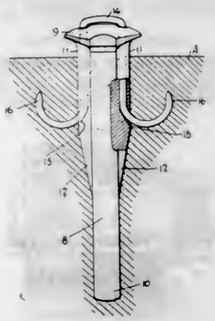
2. A partition for buildings, comprising fireproof boards set on edge and abutting at their edges, vertical bars attached to the floor and ceiling of the building and in contact with the opposite faces of the set-up boards, the said bars being arranged in pairs and the bars in each pair being opposite each other, longitudinal rods held on the said bars and extending adjacent the faces of the said set up boards, the said rods being arranged intermediate the longitudinal joints of the said set up boards, and tying means connecting the bars of a pair with each other and extending through the joints of the set up boards.

3. A partition for buildings, comprising fireproof boards set on edge and abutting at their edges, vertical bars provided at their ends with angular flanges attached to the floor and ceiling of the building, the said bars being in contact with the opposite faces of the set-up boards and arranged in pairs, the bars in each pair being opposite each other, and longitudinal rods held on the said bars adjacent the faces of the said set-up boards.

4. A partition for buildings, comprising fireproof boards set on edge and abutting at their edges, vertical bars provided at their ends with angular flanges attached to the floor and ceiling of the building, the bars being in contact with the opposite faces of the set-up boards, the said bars being provided with perforations and arranged in pairs and the bars in each pair being opposite each other, longitudinal rods extending through the perforations in the said bars and held adjacent the faces of the said set-up boards, each of the said rods being arranged approximately midway the height of a row of boards, and transverse tying means connecting the bars of a pair with each other and extending through the joints of the set-up boards.

5. A partition for buildings, comprising fireproof boards set on edge and abutting at their edges, vertical bars attached at their ends to the floor and ceiling of the building and in contact with the opposite faces of the set-up boards, the said bars being provided with perforations, longitudinal rods extending through the perforations in the said bars and held adjacent the faces of the said set-up boards, the said bars and rods forming a framework, and plaster covering the faces of the said boards and embedding the said framework.

1,075,911. RAILROAD-SPIKE. ANDRÉ F. GOBIN, New York, N. Y. Filed Jan. 22, 1913. Serial No. 743,468. (Cl. 85—23.)



1. A railway spike, comprising a conventionally-shaped body portion having integrally-formed laterally-extending fins, said fins having lengthwise passages open at both ends and terminating at the bottom with outwardly-inclined walls.

2. A railway spike, comprising a conventionally-shaped body portion having integrally-formed laterally-extending fins, said fins having lengthwise passages open at both ends and terminating at the bottom with outwardly-inclined walls, and said fins being further provided with wedge-shaped solid terminals extending below said inclined walls.

3. A railway spike, comprising a conventionally-shaped body portion having integrally-formed laterally-extending fins, said fins having lengthwise passages open at both ends and terminating at the bottom with outwardly-inclined walls, said fins having a lesser transverse dimension than said body portion.

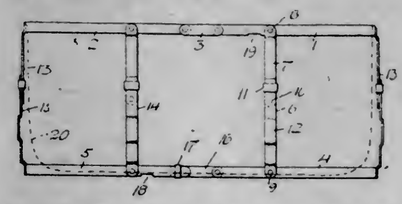
4. A railway spike, comprising a conventionally-shaped body portion; two oppositely-disposed and laterally extending fins, said fins being integrally formed with said body portion and having open-ended passages formed therein; and means formed on said body portion, extending across the path of said passages, to deflect the material through which the spike is driven, from entering said passages.

5. A railway spike, comprising a conventionally-shaped body portion having integrally-formed laterally-extending fins, said fins having lengthwise passages open at both ends and terminating at the bottom with outwardly-inclined walls; and bendable fastening devices extending through said passages and laterally from the bottom thereof.

[Claims 6 and 7 not printed in the Gazette.]

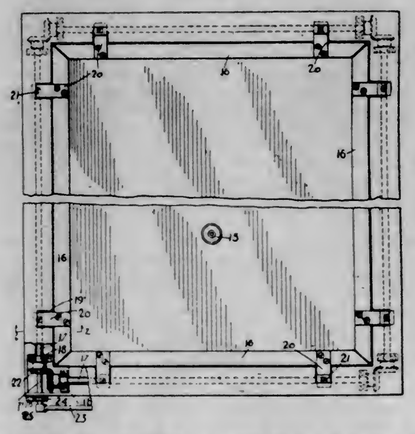
1,075,912. COLLAPSIBLE BATH-TUB. ISTVAN HELLI. Elyria, Ohio. Filed Aug. 13, 1913. Serial No. 784,577. (Cl. 4—27.)

1. A collapsible bath tub frame comprising upper U-shaped members, links pivotally connected to the ends of said members, lower U-shaped members, foldable braces connecting the sides and ends of said members, bars pivotally connected to the ends of one of said lower members, and straps for connecting said bars to the other of said lower members.



2. A collapsible bath tub frame comprising upper U-shaped members, links pivotally connected to the ends of said members, lower U-shaped members, foldable braces connecting the sides and ends of said members, bars pivotally connected to the ends of one of said lower members, straps for connecting said bars to the other of said lower members, said foldable braces having pivoted sections, straps for maintaining said sections in alinement, and a flexible receptacle adapted to be connected to said upper members.

1,075,913. BLUE-PRINT FRAME. JOHN A. HIRSCHBERG and JULIUS W. HARTLIEB, New York, N. Y. Filed Oct. 26, 1912. Serial No. 727,862. (Cl. 95—76.)

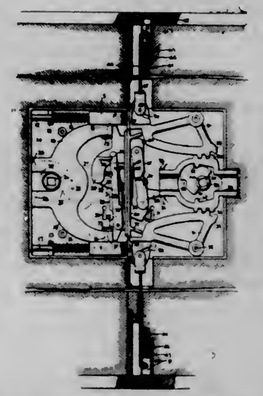


1. The herein described blue print frame comprising, in combination with a main frame and the usual printing accessories, a plurality of binding strips associated with the respective sides and ends of the frame, and means to simultaneously swing said strips through arcs of circles into or out of contact with said accessories.

2. In a blue print frame, the combination with a main frame having a flange and the usual printing accessories supported upon said flange, of a series of independently constructed binding strips associated with the respective side and end members of the main frame and adapted to coöperate with said accessories, a rock shaft journaled upon each frame member, means connecting each binding strip to the adjacent rock shaft, and means connecting the several rock shafts for simultaneous movement, substantially as set forth.

3. In a blue prine frame, the combination with a main frame having side and end members and means associated therewith for supporting work, of a plurality of independently constructed binding strips associated with the respective side and end members and operative normally adjacent the inner edges thereof, a rock shaft journaled within each of the main frame members, arms rigidly secured to each binding strip and also secured to the adjacent rock shaft, the frame members being provided with cut-outs to accommodate said arms, means connecting all of the shafts for simultaneous operation whereby the binding strips will be swung into or out of engagement with the work holding means, said shaft connecting means including beveled gears, and means to lock the binding strips in firm contact with the work.

1,075,914. LOCK. ALBERTES MARION HOBS, Grand Island, Nebr. Filed Feb. 17, 1913. Serial No. 748,854. (Cl. 70—74.)



1. A door lock comprising a casing, pivoted bolt levers mounted within said casing, a sliding plunger for operating said levers, bolts connected to said levers, a sliding stop plate having a lateral projection formed thereon, means for moving said stop plate so as to bring the lateral projection into the path of the plunger whereby the same is held against movement, a pivoted spring pressed locking lever carried upon said stop plate, said lever being formed with a plurality of notches in one edge thereof and a lug carried by said casing for engagement with the walls of said notches, substantially as described.

2. A double door lock comprising a plurality of lock casings, having alined edge openings, a plurality of bolt levers mounted within one of said casings and movable therein, locking bolts connected with said levers, means for actuating said bolt levers, a plurality of spring actuated bolts mounted in the other of said casings and adapted to project in the path of said locking levers to prevent the movement of the same, sliding stop plates positioned within said second mentioned casing, a pivotal link connecting said sliding stop plates, means for actuating said stop plates whereby said spring operated bolts may be held in their retracted or projected positions, and means for locking said stop plates.

3. A door lock comprising a casing, spring pressed bolts positioned in said casing and adapted to be projected forwardly beyond one edge thereof, inwardly projecting lugs formed upon said bolts, means engaging said lugs whereby the bolts may be drawn inwardly against the tension of their springs, sliding stop plates, a link pivotally connecting said plates, means for moving the stop plates in the path of said first mentioned means whereby the bolts may be held in their retracted positions, said sliding plates being also adapted for engagement with said lugs to hold the bolts in their extended positions, and a pivoted locking lever, carried upon one of said stop plates and adapted for engagement with the other of said plates whereby they may be held in locked position.

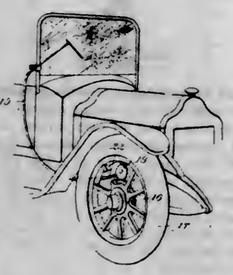
4. A door lock comprising a casing, spring pressed bolts mounted within said casing and adapted to be projected forwardly beyond the same, inwardly projecting lugs

formed upon said bolts, a sliding plate having downturned ends, engaging the forward edges of said lugs, means for actuating said sliding plate whereby the bolts may be drawn inwardly, sliding stop plates, a link pivotally connecting said plates, a pivoted locking lever having notches formed in one edge thereof, pivotally secured to one of said stop plates, a rib carried upon the other of said stop plates for engagement with the notches formed in the locking lever, means for normally holding the locking lever in engagement with said rib, and means for simultaneously disengaging said locking lever from said rib and actuating said sliding stops whereby the same may be projected into the path of said sliding plate and inwardly projecting lugs, for the purpose of locking said bolts in their extended or retracted positions.

5. A double door lock comprising a plurality of lock casings, having alined edge openings, pivoted bolt actuating levers mounted within one of said casings, means for actuating said levers, means whereby said first mentioned means may be held against movement; sliding bolts positioned in the other of said casings and adapted to be projected within the first mentioned casing, and means for locking said last mentioned bolts in their projected or retracted positions.

[Claims 6 to 12 not printed in the Gazette.]

1,075,915. WINDOW-CLEANING ATTACHMENT FOR AUTOMOBILE WIND-SHIELDS AND THE LIKE. VERNON T. HOUGHTON, Washington, D. C. Filed May 15, 1913. Serial No. 767,854. (Cl. 15—59.)



1. A device of the kind described, comprising a rotary window cleaning element, means projecting over the glass of the window to support said element in rotative contact with the glass, means to secure said first-named means in fixed position, and power operated means to continuously rotate said element.

2. A device of the kind described, comprising a hollow support adapted to project over the glass of a window, a window cleaning element associated with said support, means to secure said support in fixed position, and means in said support and operatively connected to said element to actuate the same.

3. A device of the kind described, comprising a rotary window cleaning element, a support in which said element is journaled, and means to secure said support in fixed relation to the window, said support being adjustable angularly and longitudinally in said means to permit said element to clean any desired portion of the window.

4. A device of the kind described, comprising a rotary window cleaning element, a hollow tube in which said element is journaled, means to secure said tube in fixed relation to the window so that said element may be rotated in contact with the glass of the window, and flexible driving means passing through said tube and operatively connected to said rotary element.

5. A device of the kind described, comprising a rotary window cleaning element, a support adapted to project over the glass of the window and in which said element is journaled, and means to secure said support in fixed relation to the window, said means being operable to permit said support to be swung back and forth over the window for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,075,916. PROCESS OF TREATING WASTE SULFITE LIQUOR AND COMPOUND OBTAINED THEREFROM. HENRY HICKS HURT, Covington, Va., assignor to Jacob S. Robeson, Au Sable Forks, N. Y. Filed Feb. 29, 1908. Serial No. 418,513. (Cl. 149—4.)

1. As a new composition of matter, a composition containing a compound of a sesquioxid base with the organic matters of sulfite waste liquor, said composition containing the organic matters of sulfite waste liquor in substantially their original relative ratios and of substantially their original composition.

2. As a new composition of matter, a compound of alumina with the organic matters of waste sulfite liquor, said composition containing the organic matters of sulfite waste liquor in substantially their original relative ratios and of substantially their original composition.

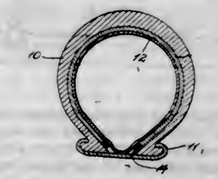
3. As a new composition of matter, a solution containing the organic matters of sulfite waste liquor in substantially their original relative ratios and of substantially their original composition, said solution being substantially free of lime and containing a dissolved sesquioxid base in the amount equivalent to the lime of unchanged sulfite liquor.

4. As a new composition of matter, a solution containing the organic matters of sulfite waste liquor in substantially their original relative ratios and of substantially their original composition, said solution being substantially free of lime and containing alumina in the amount equivalent to the lime of unchanged sulfite liquor.

5. The process of making a tanning composition which comprises reacting upon a sulfite waste liquor preparation containing the original organic matters in their normal relative ratio and of their normal character with a salt of a sesquioxid with an acid able to form insoluble lime salts, and removing the insoluble lime salt produced.

[Claims 6 to 10 not printed in the Gazette.]

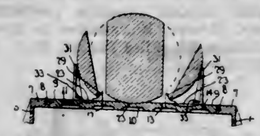
1,075,917. ADJUSTABLE SHOE FOR AUTO-TIRES. WALTER A. JACKSON and EDWARD L. SHERBONDY, Los Angeles, Cal., assignors of one-third to George W. Eno, Los Angeles, Cal. Filed Feb. 14, 1912. Serial No. 677,603. (Cl. 152—24.)



A shoe for pneumatic tires, comprising an annular body substantially tubular in form with two annular edges, and a flattened wire cable of an initial cylindrical form secured in each annular edge of the annular body, whereby when the shoe is in place in relation to a tire and air is forced therein to inflate the tire, the flattened cables are capable of yielding under pressure to permit the shoe to conform to the inner surface of the casing.

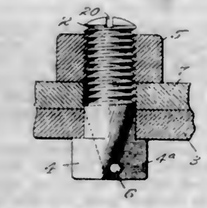
1,075,918. PORTABLE CIRCULAR SAWING-MACHINE. WILLIAM KAYLOR, Muskogee, Okla., assignor to William A. Conway, Muscogee, Okla. Filed May 27, 1912. Serial No. 699,996. (Cl. 143—52.)

A machine for sawing natural logs and determining the number of cuts according to the size of a log, comprising a supporting frame, a work supporting carriage mounted to travel on said frame and having therein longitudinally disposed slots to receive the saws, means to hold the work in place on the carriage by engaging its end faces, and means on the carriage within the planes of the outer



saws arranged to engage a slab whose curved surface does not cross said plane and prevent it from falling onto or interfering with said outer saws, such means being so proportioned as not to interfere with the placing of a larger log for action by a greater number of saws.

1,075,919. BOLT. PETER M. KLING, Elizabeth, N. J. Filed Mar. 2, 1912. Serial No. 681,128. (Cl. 85—4.)



1. A screw bolt of the character described, comprising two complementary bolt sections each having a head offset oppositely to the direction in which the head of the other section is offset, and an abutment on one of said heads located adjacent to the other head for locking said heads against movement toward each other when said bolt sections are assembled to receive the nut.

2. A screw bolt of the character described, comprising two complementary bolt sections each having a head offset oppositely to the direction in which the head of the other section is offset, and an abutment rising from one of said heads and located adjacent to the edge of the other bolt section, the edge of said section having a notch adapted to be engaged by said abutment for preventing both sections from moving axially upon each other and for locking said heads against movement toward each other when said bolt sections are assembled to receive the nut.

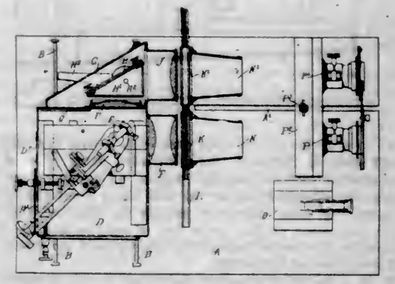
3. A screw bolt of the character described, comprising two complementary bolt sections each having a head offset to one side oppositely to the direction in which the head of the other section is offset, and each section having its cross sectional area adjacent to said head smaller than the area of the remainder of the bolt section to permit said heads when in lateral alinement to enter a hole not substantially larger than the diameter of the bolt, said heads moving away from each other when the two complementary bolt sections are assembled to receive the nut, and means for locking said heads against movement toward each other after said sections are assembled to receive the nut.

4. A screw bolt of the character described, comprising two complementary bolt sections each having a head offset substantially in the direction of the plane in which the bolt is divided into said sections and each head being offset oppositely to the other head, the diameter of each section in the direction of said plane being smaller adjacent to its head than at the remainder of the section to permit said heads when in lateral alinement to enter a hole not substantially larger than the diameter of the bolt, said heads moving away from each other in said plane when the two complementary bolt sections are assembled to receive the nut, and means on one of said heads for preventing reverse movement of said heads after the sections have been assembled to receive the nut.

5. A screw bolt of the character described, comprising two complementary bolt sections each having a head offset substantially in the direction of the plane in which the bolt is divided into said sections and each head being offset oppositely to the other head, the diameter of each section in the direction of said plane being smaller adjacent to its head than at the remainder of the section to permit said heads when in lateral alinement to enter a hole not substantially larger than the diameter of the bolt, said heads moving away from each other in said plane when the two complementary bolt sections are assembled to receive the nut, and an abutment rising from the surface of one of the heads adjacent to the other bolt section and adapted to engage the other head for preventing reverse movement of said heads after the sections have been assembled to receive the nut.

[Claim 6 not printed in the Gazette.]

1,075,920. PROJECTING APPARATUS. HUGO KRIEGER and CHARLES FRANKLIN DEWEY, New York, N. Y.; said Dewey assignor to said Krieger. Filed Apr. 23, 1912. Serial No. 692,594. (Cl. 88—24.)



1. A projecting apparatus provided with a lamp casing, a condenser lens in the front of the casing, a condenser lens in one side of the casing, a lamp in the said casing, and manually-controlled shifting means carrying the said lamp to shift the latter into full position relative to one of the said condenser lenses or into dividing position relative to both said condenser lenses for dividing the rays of light equally to both lenses.

2. A projecting apparatus provided with a lamp casing, a condenser lens in the front of the casing, a condenser lens in one side of the casing, a lamp in said casing and a horizontal swing arm provided with a post carrying the said lamp for moving the latter into full distributing position for directing the rays of light to one of the condenser lenses, or into dividing position relative to both condenser lenses for distributing the rays of light equally to both lenses.

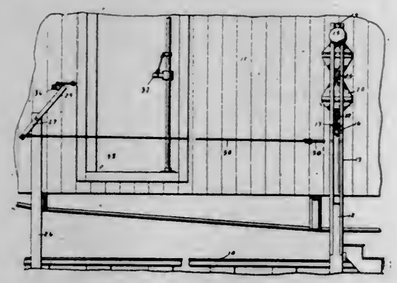
3. A projecting apparatus provided with a lamp casing, a condenser lens in the front of the casing, a condenser lens in one side of the casing, a lamp in the said casing, a horizontal swing arm within said casing and provided with a post carrying the said lamp, a slide on which the said arm is pivoted and adjustable in a longitudinal direction within the casing, and a frame adjustable in a transverse direction within the said casing and on which the said slide is mounted to slide longitudinally.

4. A projecting apparatus provided with a lamp casing, a condenser lens in the front of the casing, a condenser lens in one side of the casing, a lamp in the said casing, and manually-controlled means for adjusting the said lamp in a longitudinal or transverse direction and swinging the arc lamp on a vertical axis.

5. A projecting apparatus provided with a lamp casing, a condenser lens in the front of the casing, a condenser lens in one side of the casing, a lamp in the said casing, a horizontal swing arm within the said casing and provided with a post carrying the said lamp, a slide on

which the said arm is pivoted and adjustable in a longitudinal direction within the said casing, a frame adjustable in a transverse direction within the said casing and on which the said slide is mounted to slide longitudinally, a screw rod mounted to turn on the slide, a nut on the said frame in which screws the said screw rod, a second screw rod mounted to turn on the said frame, and a nut on the said casing in which screws the said second screw rod.

1,075,921. AUTOMATIC MAIL-CRANE. ERNEST R. LANE, Amarilla, Tex. Filed Dec. 18, 1912. Serial No. 737,735. (Cl. 105—231.)



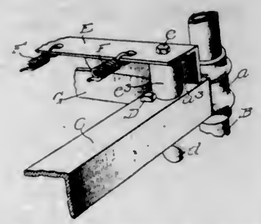
1. In a device of the class described, a post designed to stand near a railroad track, parallel arms pivoted to said post at suitable heights thereon, an extension on the upper one of said arms on the side away from the track, a weight on said extension, means for limiting the upward movement of the lower one of said arms, and also removable means for preventing the upward movement of the lower one of said arms.

2. In a device of the class described, a post designed to stand near a railroad track, parallel arms pivoted to said post at suitable heights thereon, an extension on the upper one of said arms on the side away from the track, a weight on said arm, removable means for preventing the upward movement of the lower one of said arms, yielding clamp members secured to the inner ends of said upper and lower arms for mounting mail sacks thereon, and means designed to be operated by an arm on a passing car for removing said removable means.

3. In a device of the class described, a post designed to stand near a railroad track, parallel arms pivoted to said post at suitable heights thereon, an extension on the upper one of said arms on the side away from the track, a weight on said arm, removable means for preventing the upward movement of the lower one of said arms, yielding clamp members secured to the inner ends of said upper and lower arms for mounting mail sacks thereon, means designed to be operated by an arm on a passing car for removing said removable means, said means comprising a post, an arm pivoted thereon, an extension on said arm designed to stand in the way of an outwardly extending arm on a mail car, another extension on said pivoted arm, and means for connecting said last named extension with said movable means.

4. In a device of the class described, a post designed to stand near a railroad track, parallel arms pivoted to said post at suitable heights thereon, an extension on the upper one of said arms on the side away from the track, a weight on said arm, removable means for preventing the upward movement of the lower one of said arms, yielding clamp members secured to the inner ends of said upper and lower arms for mounting mail sacks thereon, means designed to be operated by an arm on a passing car for removing said removable means, said means comprising a post, an arm pivoted thereon, an extension on said arm designed to stand in the way of an outwardly extending arm on a mail car, another extension on said pivoted arm, means for connecting said last named extension with said movable means, and a mail sack, means on each end thereof for securing said sack to said clamping devices.

1,075,922. BED-FRAME CORNER CONSTRUCTION. EVAN LARSON, Chicago, Ill., assignor to Kinney-Rome Company, Chicago, Ill. Filed Feb. 21, 1912. Serial No. 679,089. (Cl. 5—55.)



1. A bedstead corner construction comprising a side bar, an end bar resting on the side bar, fastened thereto, a leg, a corner block secured on the leg, and means including a vertical bolt for securing the side bar to the said block, said block having an open-ended slot for receiving said bolt, whereby the bolt is removable with the side bar.

2. A bedstead corner construction comprising a side bar, an end bar resting on the side bar, fastened thereto, a leg, a corner block secured on the leg, means for securing the side bar to the said block, the said block having a slot therein, and means in said slot for removably securing the side bar to the block, the means for fastening the end bar on the side bar consisting of a vertical bolt having a nut that also extenda into said slot.

3. A bedstead corner construction comprising a side bar, an end bar resting on the side bar, fastened thereto, a leg, a corner block secured on the leg, means for securing the side bar to the said block, said means comprising a vertical bolt, said block having an open-ended slot for said bolt, a lug on the top of said block, the side bar having an opening for said lug, engaged thereby when the parts are in position, and a thumb nut on the lower end of said bolt, the means for fastening the end bar on the side bar consisting of a vertical bolt with a bushing thereon between the two bars.

4. The improved bedstead corner construction, the same comprising a corner block with a slot, a side bar having means for engaging said slot, and an end bar having means for engaging said slot, substantially as shown and described.

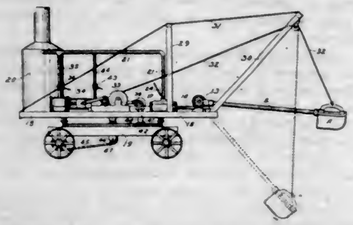
5. A bedstead corner construction comprising a post, a corner block fixed on said post, a side bar, an end bar secured to the side bar, and means for removably securing the side bar to said corner block, whereby the two bars are not separated by removal from said block, said end bar being of angle iron form with the lower edge of one flange thereof resting on the side bar, a bushing between the side bar and the other flange of the end bar, said other flange extending away from said post, and a bolt extending through said bar and bushing.

[Claim 6 not printed in the Gazette.]

1,075,923. EXCAVATING AND DREDGING MACHINE. WILLIAM R. LITZENBERG, Portland, Oreg. Filed June 29, 1911. Serial No. 636,101. (Cl. 37—14.)

1. A bucket or shovel mounted upon the end of an arm and adapted to be opened and closed by the rotative movement of a part of said arm about its longitudinal axis, said arm being pivotally mounted at its opposite end, and means for mechanically rotating a part of said arm to open and close said bucket or shovel.

2. In combination, a two-part bucket or shovel, two operating shafts pivotally mounted upon a transversely extending axis at their attached ends and connected at their opposite ends respectively with the parts of said bucket or shovel whereby a rotative movement of said shafts operates to open and close said bucket or shovel, and means for mechanically rotating said shafts in opposite directions.



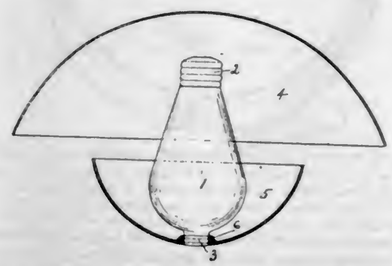
3. In combination, a two-part bucket or shovel, a supporting and operating arm therefor pivotally mounted at one end and comprising two shafts connected at their outer ends to the respective parts of said bucket or shovel, and means for mechanically rotating said shafts simultaneously in opposite directions whereby to open and close said bucket or shovel.

4. In combination, a two-part bucket or shovel, a supporting and operating arm therefor pivotally mounted at one end and comprising two shafts rotatably mounted and connected at their outer ends to the respective parts of said bucket or shovel, and means for rotating said shafts to open and close the parts of said bucket or shovel.

5. In an excavating or dredging machine, the combination with the carrying and power furnishing mechanism thereof, of a two-part arm, a two-part shovel or bucket mounted upon the end of said arm and adapted to be opened and closed by the movement of one part of said arm relative to the other part thereof, said arm being pivotally mounted and supported at its opposite end upon a transversely extending axis, operative connections at said pivotal support between the power furnishing mechanism of said machine and said arm and means for moving said arm upon its pivotal mounting.

[Claims 6 to 11 not printed in the Gazette.]

1,075,924. INCANDESCENT LAMP AND REFLECTOR. WILLIAM R. LITZENBERG, Portland, Oreg. Filed May 31, 1912. Serial No. 700,842. (Cl. 240—103.)

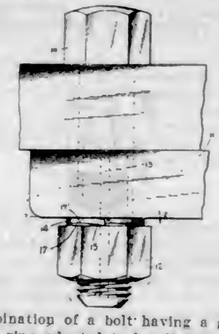


1. An incandescent lamp globe having at its outer extremity and as an integral part thereof a supporting element and a combination shade and indirect reflector supported thereby at a space therefrom.

2. In combination, an incandescent lamp having at its outer extremity a supporting element made as a part thereof, and a combination shade and indirect reflector detachably supported thereby at a space therefrom.

3. An incandescent lamp having its extremity provided with a threaded portion, and a reflector for indirect lighting detachably supported thereby.

1,075,925. NUT-LOCK. WILLIAM B. MAXWELL and GROVER C. MAXWELL, New York, N. Y., assignors of one-third to John Silvestro, New York, N. Y., and said Grover C. Maxwell assignor of one-third of the whole right to Joseph Klein, Jr., New York, N. Y. Filed Dec. 26, 1912. Serial No. 738,602. (Cl. 151—13.)

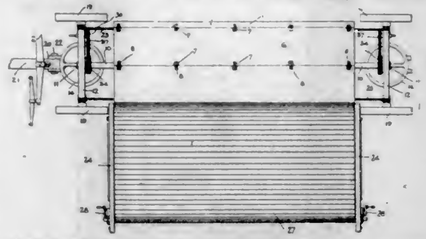


1. The combination of a bolt having a groove, a split spring locking ring adapted to be slipped along the bolt and having a tongue projecting inwardly therefrom into said groove to prevent relative rotation between the ring and the bolt, and a nut coöperating with the bolt and having a series of ratchet teeth on its inner face adjacent said ring, one free end of the split ring constituting a spring pawl deflected normally out of the plane of the ring into position to snap into the space in the rear of each of said teeth in succession to prevent unintentional reverse rotation of the nut, said ring being provided with a weakened portion between its tongue and said spring pawl.

2. The herein described locking ring for nut locks, the same being substantially flat and having a tongue projecting radially toward its center, a spring pawl projecting outwardly from the plane of the ring being provided remote from said tongue, and a portion of the ring between said pawl and said tongue being notched on its inner edge, substantially as set forth.

3. The herein described locking ring for nut locks, the same comprising a substantially flat member split on one side, the free ends of the ring being deflected oppositely from the plane of the ring and each constituting a spring pawl, said ring also having a groove-engaging tongue extending inwardly radially from the side opposite said pawls, and the ring being notched on its inner edge close to each side of said tongue between the same and the respective pawls, substantially as and for the purposes set forth.

1,075,926. DUPLEX DIRT-WAGON. NICHOLAS B. MCGHEE and ROSAL K. ACUFF, Tempe, Ariz. Filed July 19, 1912. Serial No. 710,399. (Cl. 21—20.)



A dirt wagon comprising a wheel truck having vertical parallel arches fixed on its axles, a cylindrical dirt receptacle arranged longitudinally of said truck so that it extends between the front and rear axles, the length of the receptacle being less than the distance between the front and rear wheels of the truck, a central shaft for said receptacle which is journaled in the aforesaid arches, the receptacle having a plurality of dirt-receiving chambers ex-

tending the whole length of the same and provided with side openings of the same length and having covers for closing them, and sprocket mechanism arranged between the front end of the cylinder and the adjacent arch, as described.

1,075,927. TRACK-CLEANER. ISAAC T. MERCHANT, Morven, Ga. Filed Feb. 25, 1913. Serial No. 750,674. (Cl. 104—65.)



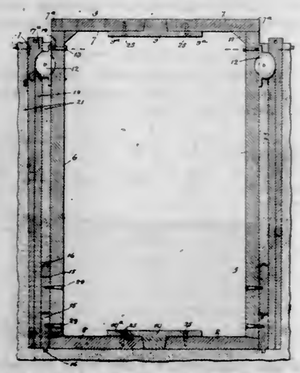
1. A track cleaner comprising a bar to be bolted to the rear bar of the base frame of the pilot and having an outwardly and rearwardly inclined end portion co-planar with said base frame and projecting obliquely across the adjacent rail, and a deflector secured to said inclined portion.

2. A track cleaner comprising a bar to be bolted to the rear bar of the base frame of the pilot and having an outwardly and rearwardly inclined end portion co-planar with said base frame and projecting obliquely across the adjacent rail, and a deflector secured to said inclined portion and with its inner side abutting the body portion of said first-named bar.

3. A track cleaner comprising a bar to be bolted to the rear bar of the base frame of the pilot and having an outwardly and rearwardly inclined end portion co-planar with said base frame and projecting obliquely across the adjacent rail, and a deflector secured to said inclined portion, said first-named bar having also an angular flange which projects forwardly from said inclined portion and engages against said rear bar.

4. A track cleaner comprising a bar adapted to be bolted to the rear bar of the base frame of the pilot and having at its ends rearwardly and outwardly inclined portions, co-planar with said base frame and projecting across the adjacent rails, and a deflector secured to each of said inclined portions and with its inner side abutting the body portion of said first named bar.

1,075,928. CONCRETE CONSTRUCTION. GEORGE FLETCHER MILLS, Cottagehill, Fla. Filed Oct. 4, 1911. Serial No. 652,726. (Cl. 25—118.)



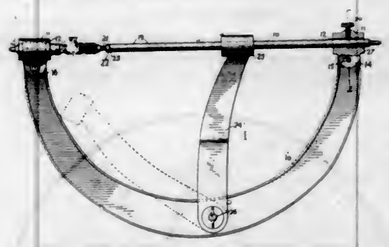
1. A knock-down frame mold, a sash pulley bracket detachably secured to the outer side of the frame mold, so that when the concrete is disposed around the frame mold and set the sash pulley bracket may be freed from the frame mold and the frame mold may be taken apart and removed with the sash pulley bracket remaining in the frame formed in the concrete by the frame mold, two adjacent removable core members, one disposed under the sash pulley bracket and spaced from the frame mold and the other extending downwardly at the side of the sash pulley bracket, two additional removable core members one disposing above the other and both detachably secured to the same side of the frame mold, as the bracket and spaced therefrom an upwardly extending peg on the upper additional core member, and a depending peg on the lower additional core member.

2. A knock-down frame mold, a sash pulley bracket detachably secured to the outer side of the frame mold, so that when concrete is disposed around the frame mold and set the sash pulley bracket may be freed from the frame mold, and the frame mold may be taken apart and removed with the sash pulley bracket remaining in the frame formed in the concrete by the frame mold, and removable mold members normally disposed downwardly from the sash pulley brackets for the purpose specified.

3. A knock-down frame mold, a sash pulley bracket detachably secured to the outer side of the frame mold, so that when the concrete is disposed around the frame mold and set, the sash pulley bracket may be freed from the frame mold and the frame mold may be taken apart and removed with the sash pulley bracket remaining in the frame formed in the concrete by the frame mold, two adjacent removable core members, one disposed under the sash pulley bracket, and spaced from the frame mold, and the other extending upwardly at the side of the sash pulley bracket, and an additional removable core member spacing one of the first-mentioned core members with the frame mold.

4. A knock-down frame mold, a sash pulley bracket detachably secured to the outer side of the frame mold, so that when concrete is disposed around the frame mold and set the sash pulley bracket may be freed from the frame mold, and the frame mold may be taken apart and removed with the sash pulley bracket remaining in the frame formed by the concrete in the frame mold, two adjacent removable core members one disposed under the sash pulley bracket and spaced from the frame mold and the other extending downwardly at the side of the sash pulley bracket.

1,075,929. MICROMETER-CALIPERS. JOSEPH H. MÜLLER, Oakland, Cal. Filed Nov. 8, 1912. Serial No. 730,157. (Cl. 73—77.)



1. A device of the class described, comprising a U frame, heads at the extremities of said frame having axial bores adapted to receive measuring points, a measuring rod in one of said bores, a reach rod associated with said frame, having a bored head, and means associated with said reach rod and frame whereby the bore of said head of said reach rod is made axially with the bores of said heads of the U frame, said bore of the reach rod being adapted to engage said measuring rod and thereby prevent the deflection of same.

2. A device of the class described, comprising a U frame, the extremities of said frame having axial bores adapted to receive measuring points, a measuring rod in one of said bores, a reach rod associated with said frame having a bored head at one end adapted to be in alinement with said axial bores of said heads, and said reach rod having the opposite end straddling the frame, and clamping means associated with said straddling end whereby said rod can be placed in predetermined positions.

1,075,930. PROTECTIVE OVERBOOT. MARGARETE W. MURRAY, St. Joseph, Mo. Filed Mar. 20, 1913. Serial No. 755,613. (Cl. 36—9.)



1. An over-boot having a high top and lined with a soft light shade material to prevent the marring and staining of an inner shoe or slipper, said boot having a fly foldable backward from the toe end to the top thereof to permit the insertion by the foot of a slipper and having a short bellows tongue closing the lower end of the fly opening, the exterior of said boot being water-proofed.

2. An over-boot comprising a rubber sole having an integral upstanding flange extending entirely around the peripheral edge thereof, a water-proof vamp and water proof quarters joined to the marginal flange providing a central front opening extending from the top of the over boot, into proximity with the toe end of the over-boot, a fly attached to one side of said opening, means for fastening the fly to the other side of said opening, a short bellows tongue secured to the boot closing the front end portion of said opening and adapted to be covered and concealed by said fly.

3. An over boot comprising a rubber sole provided with a low counter of rubber integral therewith, a water proof vamp, water proof quarters, a central opening with a fly at one side extending from the top of said boot into proximity with the toe end thereof, a short water proof bellows tongue secured to the boot completely closing the toe end portion of said central opening, and means for fastening said fly over said opening and bellows tongue.

4. An over boot comprising a rubber sole having an integral upstanding flange extending entirely around the peripheral edge thereof, a water proof vamp and water proof quarters joined to the marginal flange providing a central front opening extending from the top of the over boot into proximity with the toe end thereof, a fly attached to the boot at one side of said opening and means for fastening said fly at the opposite side of the opening.

1,075,931. SAFETY HAT-PIN. LULU MYERS, Bailey, Colo. Filed Jan. 20, 1912. Serial No. 672,342. (Cl. 24—155.)

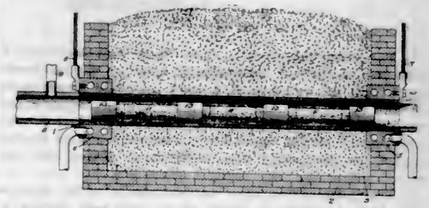


1. In a hat pin protector, the combination with a casing having a restricted opening in one end thereof, of a pair of gripping members secured at diametrically opposite points within said casing and having angularly apertured end portions, and an integral stud on each member projecting through said casing for moving the apertures of said angular portions into registry.

2. In a hat pin protector, the combination with a casing having an opening in one end thereof, of a pair of L-shaped gripping members arranged within said casing and having the long arms thereof secured at their extremities to the opposite sides of the casing, and having their short arms superimposed and each provided with an aperture, a cup shaped member arranged within said casing and above said members and provided with a central opening in alinement with the opening in said casing, and an integrally formed stud on each member adjacent said short arms projecting through openings in said casing and adapted to move the apertures in said short arms into registry as described.

3. In a hat pin fastener, the combination with a casing having an opening in one end thereof, of a relatively long and short L-shaped gripping member arranged within and secured to the opposite sides of said casing, the short arm of said members being apertured and disposed in superimposed relation, means for moving the said members toward each other, and one of said short arms being adapted to contact the opposite gripping member to provide proper registry of the apertures of said short arms.

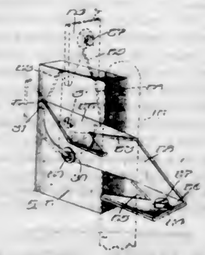
1,075,932. ARTIFICIAL STONEWARE. RICHARD F. OSBORN and JOHN ROACH, Ainsworth, Nebr., assignors of one-third to Albert A. Radtke, Chicago, Ill. Original application filed May 7, 1910, Serial No. 559,943. Divided and this application filed July 1, 1910. Serial No. 569,932. (Cl. 106—11.)



1. An artificial material of great porosity which is vitreous and anhydrous and otherwise adapted for use in the construction of drainage tile, said material being uniform and coherent in its physical structure and consisting solely of coarse native sand particles sintered together at their points of contact one with another and free from extraneous fluxing material, the original interstices of the body of sand remaining open to form sinuous water channels giving to the structure porosity and toughness, said material comprising about 93 per cent. anhydrous silica.

2. Artificial building blocks which consist entirely of native coarse sand particles sintered together at their points of contact one with another to form a coherent structure, the original interstices of the body of sand remaining open to form sinuous channels and giving porosity to the structure, said material comprising about 93 per cent. anhydrous silica and being free from extraneous binders or fluxers.

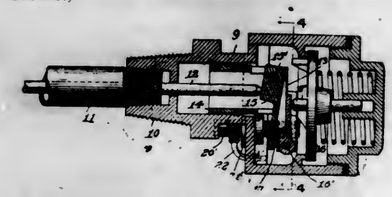
1,075,933. BROOM-HANGER. JOHN N. OVESON, Chicago, Ill. Filed Sept. 21, 1911. Serial No. 650,606. (Cl. 24—249.)



The combination with a support, of a broom-holder consisting of an upper and a lower plate occupying different vertical planes in one position of the holder and connected by a connection arranged at right angles to said

upper and lower plates, said holder pivotally mounted upon said support and having a vertical handle-opening therethrough extending partly into each of said plates, said part-openings in each of said plates being connected by a horizontal opening as wide as the maximum width across said vertical opening, said lower plate being spaced apart from said support whereby an inlet-opening for a broom-handle or the like is provided under said upper plate.

1,075,934. THERMOSTATIC VALVE. ROBERT T. PARISEN, Knoxville, Pa., assignor to Lawson Manufacturing Company, Homestead, Pa., a Corporation of Pennsylvania. Filed Dec. 13, 1912. Serial No. 736,560. (Cl. 236—5.)



1. The combination of a valve body provided with a valve seat, a valve, a thermostatic device, a support movable within the valve body, a stem rotatably mounted in the wall of the body and at its inner end having threaded connection with the support for adjusting the latter relatively to said device and valve, and means carried by the support for connecting the thermostatic device and the valve.

2. The combination of a valve body provided with a valve seat, a normally closed valve, the body having a hollow extension opposite the seating face of the valve, a thermostatic device connected to the valve body and movable within the hollow extension, a carrier within the valve body with a portion of the carrier movable in and guided by the body extension, means for adjusting the carrier, and means mounted on the carrier for operatively connecting the thermostat and valve.

3. The combination of a valve body provided with a valve seat, a valve, the body provided with a hollow extension, a thermostatic device connected to the valve body and movable within the extension, a carrier movable within the body and having a part within and guided by the body extension, coöperating levers mounted on the carrier with one lever adapted to engage the thermostatic device and another lever adapted to engage the valve, the carrier provided with a threaded socket, and a stem rotatable in a wall of the body and adapted to be rotated at the exterior of the latter, the inner portion of the stem being threaded and adapted to engage the threaded socket of the carrier.

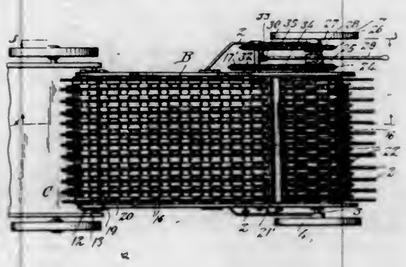
4. The combination of a valve body provided with a valve seat, a valve, a thermostatic device, an immovably held carrier, means for adjusting the carrier in the plane of movement of the thermostatic device, and means movably mounted on the carrier and adapted to multiply the adjustment movement of the carrier with said means adapted to connect the thermostat and valve.

5. The combination of a valve body provided with a valve seat, a valve, a thermostatic device, a carrier movable within the body independently of the thermostat, means on the carrier for connecting the thermostatic device and valve, and a stem extending through and having a fixed bearing in a wall of the valve body with the stem having threaded connection with the carrier.

[Claims 6 to 9 not printed in the Gazette.]

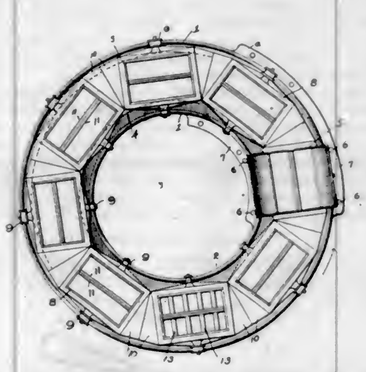
1,075,935. HAY-LOADER. CHESTER J. PATTERSON, Philadelphia, Pa. Filed Nov. 13, 1912. Serial No. 731,164. (Cl. 56—61.)

In a hay loader, a frame having a wheel carrying axle supported for rotation, a conveyer casing including inclined side members supported on the frame, a drum supported for rotation on the axle and having hubs extending through the side members of the conveyer casing, an endless conveyer guided over the drum, a sprocket wheel fixed on a hub of the drum and having a clutch member, a sprocket wheel loose on the axle and having a clutch member, a double clutch member slidable on the axle and connected



for rotation therewith, means for adjusting the double clutch member to place it in engagement with one of the clutch members of the aforesaid sprocket wheels, a counter shaft supported in parallel relation to the axle and having sprocket wheels of various diameters, and link belts connecting the last mentioned sprocket wheels with the sprocket wheels on the axle and on the hub of the drum, respectively.

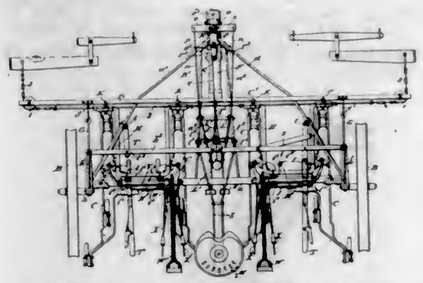
1,075,936. APPARATUS FOR MAKING CONCRETE BLOCKS. ARTHUR PELKE and FLOYD EDMOND HAYES, Mexico, Mexico. Filed Sept. 11, 1912. Serial No. 719,870. (Cl. 25—41.)



1. An apparatus for making concrete blocks comprising a circular track, a table upon which the track is supported, a stationary hopper supported on said table, a series of mold boxes provided with rollers mounted to run on said track underneath said hopper for filling the mold boxes, said table forming a bottom for the molds and said table being provided with a discharge opening located between the tracks.

2. An apparatus for molding building blocks comprising a circular track, a table on which said track is mounted, said table having a discharge opening therein between the rails, a stationary hopper mounted on the table, a series of mold boxes mounted on rollers for running on said track and adapted to discharge through the opening in the table, said boxes being open at the top and bottom and having sliding contact with the table top, partitions in said boxes and removable wedges between said partitions.

1,075,937. WHEELED CULTIVATOR. STALEY D. POOLE, Moline, Ill., assignor to Deere & Company, Moline, Ill., a Corporation of Illinois. Filed Apr. 11, 1910. Serial No. 554,622. (Cl. 97—35.)



1. A wheeled cultivator having three pivoted supporting and guiding wheels connected and adapted to operate in unison for steering purposes, one being a front pilot wheel between the lines of travel of the other two wheels, together with a pair of independent but co-acting vertically swinging foot levers having their longer arms depending from the wheeled supporting frame below the driver's seat and connected with the rear wheels and their shorter arms connected with said pilot wheel for turning said wheels through said connections.

2. A wheeled cultivator having three pivoted supporting and guiding wheels, arranged one upon each side and one in advance of and between the lines of travel of the other two, connections between the three wheels for operating them in unison, and foot-levers included in said connections, said foot-levers being pivoted on the machine frame with their longer arms depending below the driver's seat and their shorter arms upstanding and connected with the foremost wheel for turning it and the other two wheels simultaneously toward either side.

3. In combination, a wheeled supporting frame having three pivoted supporting and guiding wheels, arranged one at each side of said frame and the third wheel about midway thereof at the front, means connecting the two side wheels to adapt them to turn in unison, and means connecting said third wheel with said side-wheel-connecting means, including a pair of vertically swinging foot-levers connected with said third wheel for operating all three wheels in unison.

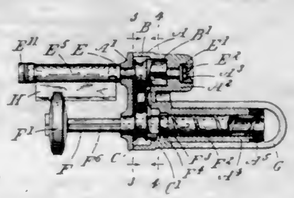
4. The combination in a cultivator of a frame mounted on three supporting and guiding wheels, each adapted to be turned toward either the right or the left and arranged one at each side of the machine and the third wheel midway the sides of the machine in advance of the other two, a pair of vertically swinging pendant foot-levers and connections between the same and said side wheels for turning the latter in unison, and connections between said foot-levers and said third wheel for turning the latter in unison with the two side wheels.

5. The combination in a cultivator of a frame having three guiding and supporting wheels arranged one at the front and one at each side, the side-wheels having uprights or standards rotatably secured to said frame and provided with crank-arms, a transverse bar connecting said crank-arms and movable lengthwise for turning the side wheels in unison, a pendant vertically swinging foot-lever and connections between the same and said transverse bar for moving the latter lengthwise, and connections between said foot-lever and said front wheel for turning the latter in unison with said side wheels.

[Claims 6 to 26 not printed in the Gazette.]

1,075,938. STROPPING AND LIKE MACHINE. ARTHUR JAMES POSTANS, Brentford, England. Filed Nov. 5, 1912. Serial No. 729,586. (Cl. 51—16.)

1. In a stropping machine, the combination of a casing constructed to provide a handle; a spindle mounted to rotate in said casing and constructed to hold the blade to be sharpened; a pulley journaled in said casing and having frictional driving engagement with the spindle; a tube mounted in the casing handle and formed with a spiral groove; a spindle mounted to rotate in said tube and having a part engaging within the spiral groove thereof whereby to reciprocate said spindle; a pulley having splined connection with said last named spindle; a buffer mounted on said spindle; and means for operating said pulleys.



2. In a stropping machine, the combination of a casing constructed to provide a handle; a spindle mounted to rotate in said casing and constructed to hold the blade to be sharpened; a pulley journaled in said casing and having frictional driving engagement with the spindle; a tube mounted in the casing handle and formed with a spiral groove, a spindle mounted to rotate in said tube and having a part engaging within the spiral groove thereof whereby to reciprocate said spindle; a collar splined on said spindle and provided with a lug; a pulley journaled on the spindle and having a lug adapted to engage with said collar lug for rotating the spindle; a buffer mounted on said spindle; and means for operating said pulleys.

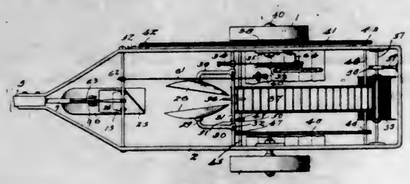
3. In a stropping machine, the combination of a casing constructed with a hollow handle; a pulley having a cylindrical extension journaled in the casing; a blade holding spindle journaled in the casing; resilient plates mounted in said cylindrical extension and having frictional driving engagement with the spindle; a tube mounted in the casing handle and formed with a spiral groove; a spindle mounted to rotate in said tube and having a part engaging within the spiral groove thereof whereby to reciprocate the spindle; a collar splined on the spindle and provided with a lug; a pulley journaled on the spindle and having a lug adapted to engage with either side of the collar lug for rotating the spindle; a buffer mounted on said spindle; an idler pulley journaled in the casing adjacent said spindle pulleys; and a belt passing through the casing and engaging with all of said pulleys for operating the same.

4. In a stropping machine, the combination of a separable casing comprising two sections, one of said sections providing recesses; a pair of spindles journaled in said casing and having portions projecting to one side thereof and disposed in parallel relation, one of said spindles constructed to hold the blade to be sharpened; a buffer mounted on the other of said spindles; a pulley journaled in one of said chambers and having frictional driving engagement with said blade holding spindle; a pulley journaled on the buffer spindle and having driving engagement therewith; means for causing the buffer spindle to reciprocate; and a belt passing through the casing and having engagement with said pulleys for operating the same.

1,075,939. BEET-HARVESTER. CORNELIUS POWLISON, Durand, Mich. Filed Sept. 7, 1912. Serial No. 719,110. (Cl. 55—107.)

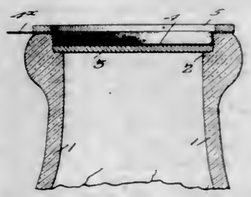
1. In a beet harvester, the combination of a sled having an opening in its floor, and side flanges to elevate it from the ground, perforated webs above the floor at the rear of the opening, a knife adjustably secured in said webs, and an obliquely extending shield located in proximity to said opening.

2. In a beet harvester the combination with a frame, of a sled having an opening in its floor, a bar pivoted to the sled and to said frame, a spring attached at an inter-



mediate point on the bar and at the end of the sled, a knife adjustably secured at the rear of said opening, and an obliquely extending shield located at the rear of the knife.

1,075,940. BOTTLE-CLOSURE. ROBERT E. REDDING, Terre Haute, Ind. Filed June 25, 1913. Serial No. 775,702. (Cl. 215—14.)



1. The combination with a bottle top having an inwardly projecting flange, of a closure disk arranged to enter the mouth of the bottle and to rest upon the flange, the edges of said closure disk being arranged to engage the walls of the mouth, a ring concentric with said disk, and a piece of fabric secured to the top of the disk and arranged to extend upwardly and laterally over the top edge of the bottle and being secured to the under side of the ring.

2. As an article of manufacture, a bottle closure comprising a central disk, a concentric ring, a piece of fabric secured to the top of said disk and to the bottom of said ring, a portion of the fabric between the disk and the ring being folded to afford slack in the material.

3. As an article of manufacture, a bottle closure comprising a central disk, a concentric ring, a piece of fabric secured to the upper surface of said disk and to the lower surface of said ring, and an extension to said fabric on one side, said extension serving as a finger hold, the remaining outer edges of the fabric being flush with the outer edges of the ring.

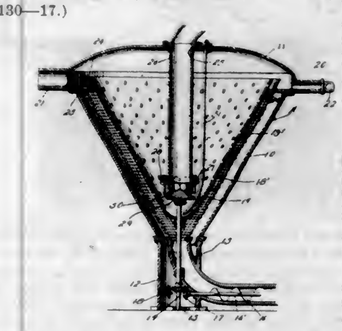
1,075,941. BELT-DRESSING APPLIER. JOHN M. REED, Atlanta, Ga. Filed Mar. 25, 1912. Serial No. 686,071. (Cl. 184—17.)



1. In a lubricating device, a reservoir, a segmental saddle communicating with the reservoir having open ends, a roller disposed within the saddle, end plates upon the ends of the saddle and a pintle extending through the end plates and serving as a journal for the roller, the end plates serving as closures for the ends of the saddle.

2. In a lubricating device, a reservoir, a saddle having communication with the reservoir and constructed to be more than half a circle in cross section and with open ends, a roller slidably insertible in the saddle from the end, end plates and a pintle serving to clamp the end plates upon the ends of the saddle and to journal the roller.

1,075,942. GRAIN-SEPARATOR. SAMUEL J. RICE, Escanaba, Mich. Filed Feb. 8, 1912. Serial No. 676,247. Renewed Aug. 12, 1913. Serial No. 784,440. (Cl. 130—17.)



1. In a grain separator, the combination of an inverted conical casing having its minor end open, an inverted conical perforated member rotatably mounted in the casing concentrically therewith in spaced relation thereto and having its major end open, means for delivering grain to the interior of said perforated member at its minor end, means for rotating said perforated member, means for effecting a blast of air transversely through the casing across the upper end of said perforated conical member, and means for discharging a blast of air into the perforated conical member at the lower end thereof.

2. In a grain separator, the combination of an inverted conical casing having its minor end open, a shaft extending through the open minor end of the casing, means for rotating said shaft, an inverted conical perforated member fixed to said shaft and disposed concentrically in the casing in spaced relation to the latter and having its major end opened, means for delivering grain to the interior of said perforated member at its lower end, means for effecting a blast of air transversely through the casing across the upper end of said perforated conical member and means for discharging a blast of air into the perforated conical member at the lower end thereof.

3. In a grain separator, the combination of an inverted conical casing having its minor end open, a shaft extending through the opened minor end of the casing, means for rotating said shaft, an inverted conical perforated member fixed to said shaft and disposed concentrically in the casing in spaced relation to the latter and having its major end open, a grain delivery pipe disposed in longitudinal alinement with said shaft and discharging into the lower end of said perforated member, a plurality of pins depending from the discharge end of said grain delivery pipe, a head fixed on said shaft and disposed within the perforated conical member at the minor end thereof, a plurality of pins carried by said head and disposed between the pins depending from the grain delivery pipe, means for effecting a blast of air transversely through the casing across the upper end of said perforated conical member, and means for discharging a blast of air into the perforated conical member at the lower end thereof.

4. In a grain separator, the combination of an inverted conical casing having its minor end open, a grain discharge pipe having one end extending into the open minor end of said casing, an inverted conical perforated member rotatably mounted in the casing concentrically therewith in spaced relation thereto and having its major end open, a conical screen disposed between the casing and the perforated member and delivering into said grain discharge pipe, means for delivering grain to the interior of said member at its minor end, means for rotating said perfo-

rated member, means for effecting a blast of air transversely through the casing across the upper end of said perforated conical member, and means for discharging a blast of air into the perforated conical member at the lower end thereof.

1,075,943. VENDING-MACHINE FOR LIQUIDS. BENJAMIN PARKS RUCKER, Charlotte, N. C. Filed Jan. 10, 1913. Serial No. 741,155. (Cl. 137—78.)



1. In a device of the character stated, a liquid containing tank, a pumping element in said tank, a casing adjacent said tank, a hose contained within said casing and adapted to be extended outside thereof, means connecting one end of said hose with the discharge of said pumping element, and means for maintaining said hose normally in inoperative position within said casing.

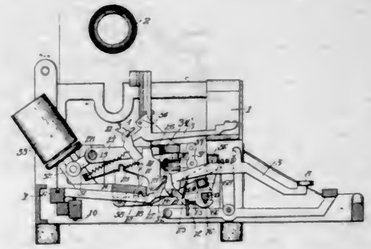
2. In a device of the character stated, a liquid containing tank, a pumping element in said tank, a casing adjacent said tank, a hose contained within said casing and adapted to be extended outside thereof, means connecting one end of said hose with the discharge of said pumping element, and means for automatically retrieving said hose after said hose has been drawn to operative position.

3. In a device of the character stated, a liquid containing tank, a pumping element in said tank, a casing adjacent said tank, a fixed sheave rotatably mounted in said casing, a hose contained within said casing passing over said sheave and adapted to be extended outside of said casing, means connecting one end of said hose with the discharge of said pumping element, and a member suspended by said hose below said fixed sheave to normally maintain said hose in inoperative position within said casing by gravity.

4. In a device of the character stated, a liquid containing tank, a pumping element in said tank, a casing adjacent said tank, a fixed sheave rotatably mounted in said casing, a hose contained within said casing passing over said sheave and adapted to be extended outside of said casing, means connecting one end of said hose with the discharge of said pumping element, and a member suspended by said hose below said fixed sheave for automatically retrieving said hose by the action of gravity after said hose has been drawn to operative position.

5. In a device of the character stated, a casing, a hose contained within said casing and adapted to be extended outside thereof, a source of liquid supply, a pumping element for said supply, means connecting one end of said hose with the discharge of said pumping element, and means for automatically retrieving said hose after said hose has been drawn to operative position.

1,075,944. TYPE-WRITING AND OTHER KEY-ACTUATED MACHINE. JOHN T. SCHAAFF, Washington, D. C. Filed Apr. 14, 1908. Serial No. 427,013. (Cl. 197—14.)



1. In a key-controlled mechanism, the combination of a key lever, an operated part, a normally inactive motor, means including a push finger controlled by the key lever for causing the motor to be actuated, means including said push finger movable independently of the movement of the key lever and operated by the motor for actuating the operated part, and means independent of said first named means for actuating the operated part directly by the key lever.

2. In a key-controlled mechanism, the combination of a key lever, a type bar, a normally inactive motor, means including a push finger controlled by the key lever for causing the motor to be actuated, means including said push finger movable independently of the movement of the key lever operated by the motor for actuating the type bar, and means independent of said first named means for actuating the type bar directly by the key lever.

3. In a key-controlled mechanism, the combination of the key lever, an operated part, a normally inactive motor, means including a push finger controlled by the key lever for causing the motor to be actuated, means actuated by said motor for moving said operated part, said last named means including said push finger and an auxiliary lever, and means independent of said first-named means for directly connecting said auxiliary lever to said key lever.

4. In a key-controlled mechanism, the combination of the key lever, a type bar, a normally inactive motor, means including a push finger controlled by the key lever for causing the motor to be actuated, means including said push finger actuated by said motor for moving said type bar, said last named means including an auxiliary lever, and means independent of said first-named means for directly connecting said auxiliary lever to said key lever.

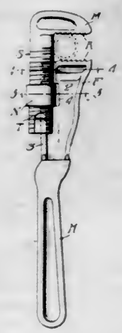
5. In a key-controlled mechanism, the combination of the key lever, an operated part, a normally inactive motor, means including a push finger controlled by the key lever for causing the motor to be actuated, means actuated by said motor for moving said operated part, including said push finger and an auxiliary lever, direct connecting means between said auxiliary lever and said key lever, said direct connection being independent of the first-named means and rendered effective or ineffective by the shifting of the key lever.

[Claims 6 to 42 not printed in the Gazette.]

1,075,945. WRENCH. JOSEPH ANTHONY SCHLEHR, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,814. (Cl. 81—101.)

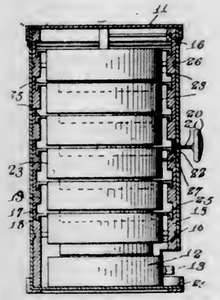
A wrench comprising a movable jaw having a tubular shank exteriorly screw threaded and longitudinally slotted along its inner side, the interior of the shank being of cylindrical shape and its lower end being open, a fixed jaw having a flattened shank terminating in a handle, the flattened portion of the shank having a deep notch cut in its rear edge, opposite laterally projecting straight ribs formed on the rear edge of the lower portion of the flattened shank and adapted to have lateral movement within the

hollow portion of the shank of the movable jaw, a nut rotatably mounted in said notch and provided with internal threads for engagement with the threads on the tubular shank of the movable jaw and lugs arranged at the



rear of the fixed jaw and projecting from the opposite sides of the flattened shank said lugs being in alinement with said ribs and having their inner faces rounded to form a fulcrum for the tubular shank of the movable jaw as and for the purposes set forth.

1,075,946. RAPID FLOUR-SIFTER. MARGARET C. SCHOCK, Waukesha, Wis. Filed Oct. 3, 1912. Serial No. 723,798. (Cl. 83—60.)

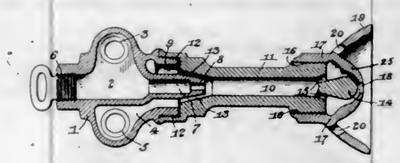


1. In a flour sifter, a receptacle, a catch tray in the bottom of the receptacle, a plurality of sieves having lateral and depending arms, and means movable within the receptacle for receiving the depending elements of said arms and permitting the sieves to be moved therewith.

2. In a flour sifter, a receptacle, a catch tray in the bottom of the receptacle, a plurality of sieves having opposite supporting arms thereon, standards within the receptacle provided with recesses for receiving said extensions and permitting them to be moved therewith, and a handle for moving said standards and thereby simultaneously agitating the sieves.

3. A sifter consisting of a receptacle, vertical supporting members secured within the receptacle and adapted for horizontal oscillatory movement therein, a series of sieves removably secured to said vertical supporting members, and means engaged with one of said supporting members for oscillating the same and thereby oscillating all of the sieves and the other supporting member simultaneously.

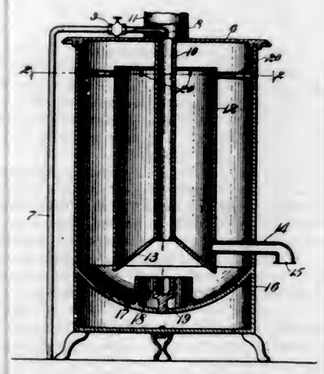
1,075,947. OIL-BURNER. JOHN SCHURS, Los Angeles, Cal. Filed Oct. 20, 1910. Serial No. 588,027. (Cl. 158—75.)



1. A burner made up of a steam and oil feeding jet portion, and having a fuel mixing chamber, a fixed spreader arranged at the outer end of said mixing chamber and formed with a rounded outer end and a removable cap having a discharge opening of less diameter than the diameter of said rounded end portion, whereby a flame is produced close to the burner.

2. A burner, comprising an oil atomizing portion, a mixing chamber portion, a spreader mounted at the discharge end of the mixing chamber portion having an outer rounded end, a removable cap mounted over the end of said spreader and having a discharge opening of less diameter than the said spreader, the said cap having a flange provided with apertures therein for controlling the admission of air to the flame.

1,075,948. OIL-STOVE. WILLIAM J. SHULTS, Osage township, Labette county, Kans. Filed Feb. 23, 1912. Serial No. 679,510. (Cl. 126—93.)

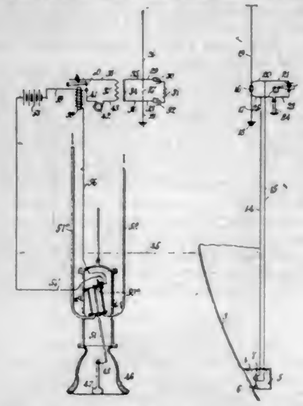


An oil stove embodying an imperforate cylindrical casing having an integral imperforate bottom and a raised integral imperforate concaved false bottom, the false bottom having an integral upstanding concentric baffle ring, a heating drum suspended concentrically within the casing and having a conical bottom of greater diameter than and overhanging the baffle ring, a down draft drip pipe passing through the drum and connected to the apex of the conical bottom, and a drip cup within the baffle ring having a shank engaging through the false bottom.

1,075,949. SIGNALING DEVICE FOR ESTIMATING DISTANCES. JAMES URIEL SMITH, Berkeley, Cal. Filed Aug. 6, 1910. Serial No. 575,895. (Cl. 250—1.)

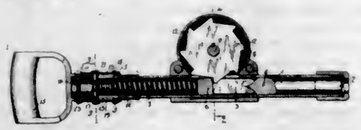
The combination of a casing, a sounding member connected with said casing, mechanism located within said casing and controllable by variations of air pressure for actuating said sounding member, a contact disposed within said casing and adapted to be opened and closed as said sounding member is actuated, an oscillator, a circuit

connected with said oscillator and with said contact for the purpose of enabling said contact to throw said oscillator into and out of action, and mechanism located at



a distant station and sensitive to electromagnetic waves radiated from said oscillator and also sensitive to sound waves emitted from said sounding member.

1,075,950. SPRING-HAMMER. ROLLYN ROBERT SMITH, Oklahoma, Okla., assignor to George Y. Bird, Pawhuska, Okla. Filed Oct. 25, 1912. Serial No. 727,753. (Cl. 78—26.)



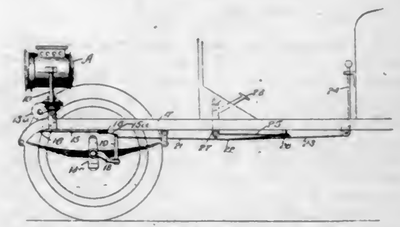
1. In a spring hammer, the combination of a casing, a movable hammer element in the casing, a spring within the casing for maintaining pressure on the movable element of the hammer, a pin extending transversely of the casing and engaging the end of the spring, the said casing being provided with slots through which the pin extends, and a sleeve surrounding the casing and engaging the pin, movement of the sleeve longitudinally of the casing varying the pressure on the said spring.

2. In a spring hammer, the combination of a casing, a movable hammer element in the casing, a spring within the casing for maintaining pressure on the movable element of the hammer, a pin adjacent one end of the spring, the said casing being provided with slots through which the pin extends, a longitudinally movable sleeve arranged concentrically with the casing, and means whereby the sleeve will be retained in the position to which it has been moved, the said pin engaging the sleeve, movement of the sleeve longitudinally of the casing bringing the said pin to different positions within the said slots, whereby the pressure on the spring is varied, the position of the sleeve relatively to the casing affording an indication of the said pressure.

3. In a spring hammer, the combination of a casing having a handle provided with a tubular extension secured on the casing, the casing and extension being provided with slots extending longitudinally thereof, a movable hammer element in the casing, a spring within the casing for maintaining pressure on the movable element by the hammer, a pin adjacent one end of the spring, the ends of the pin being positioned within the said slots, a sleeve concentric with the extension of the handle and in screw-threaded engagement therewith, the end portions of the said pin being in movable engagement with the said sleeve, whereby turning of the sleeve in order to move it longitudinally of the casing varies the pressure on the spring, the location of the sleeve relatively to the hammer affording an indication of the said degree of pressure.

4. In a spring hammer, the combination of a casing having a handle thereon, a movable hammer element in the casing, a spring within the casing for maintaining pressure on the movable element of the hammer, a sleeve movable longitudinally of the casing toward and away from the handle, means in engagement with the spring and the sleeve whereby the movement of the sleeve varies the pressure on the spring, and means whereby the sleeve will be retained in the position to which it has been moved, the position of the sleeve relatively to the handle affording an indication of the pressure on the spring.

1,075,951. SWIVEL LAMP-HOLDER. CHARLES N. SOWDEN, Guantánamo, Cuba. Filed Nov. 1, 1912. Serial No. 728,976. (Cl. 240—61.)



1. The combination with a vehicle, of a pair of lamp holders mounted to turn, connections between the respective holders and parts of the vehicle that turn oppositely when the vehicle is turned, the turning of the vehicle in one direction serving to turn one of the lamps in the direction in which the vehicle is turned, and manually controlled means connected with the holders and adapted to turn a holder in the opposite direction from the automatic turning of the other holder.

2. The combination with a vehicle, of lamp holders, means for automatically turning one holder when the vehicle is turned in one direction and for automatically turning the other holder when the vehicle is turned in the opposite direction, the automatic turning of the holders being in the direction in which the vehicle is turned, and manually-controlled means in connection with each lamp for turning the same, the manually-controlled means being operative when the automatic means of a particular lamp is idle.

3. The combination with a vehicle, of a lamp holder mounted to turn at each side of the vehicle, means for automatically turning a lamp at one side in the direction in which the vehicle turns, means for automatically turning the lamp at the other side in the opposite direction with the opposite turning of the vehicle, and manually-controlled means connected with each lamp, and operative to turn the lamp at one side in the opposite direction from the automatic turning of the other lamp.

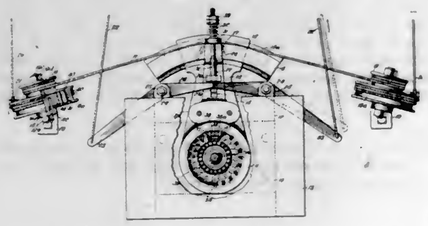
4. A lamp holder, comprising a swiveled lamp-supporting member, a curved compression spring supported beneath the lamp-supporting member and opposing the turning thereof in either direction, a stop between the ends of the curved compression spring, and an element on the lamp-supporting member movable into engagement with the spring at that side of the stop toward which the lamp supporting member is turned.

5. A lamp-holder, comprising a swiveled lamp-supporting member, a curved compression spring supported beneath the lamp-supporting member and opposing the turning thereof in either direction, a stop between the ends of the curved compression spring, an element on the lamp-supporting member movable into engagement with the spring at that side of the stop toward which the lamp-supporting member is turned, and means for changing the

location of the said stop and the corresponding position of the spring.

[Claims 6 and 7 not printed in the Gazette.]

1,075,952. SWIVEL LAMP-HOLDER. CHARLES N. SOWDEN, Guantánamo, Cuba. Filed Nov. 1, 1912. Serial No. 728,977. (Cl. 240—62.)



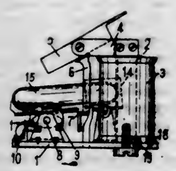
1. A lamp-supporting means, comprising a turntable, a support on which said table may turn, a block having transverse movement on said supporting member, flexible elements connected with said block and adapted for connection with parts of a vehicle, to be actuated by the latter, and a latch for establishing connection between the block and the turntable.

2. In a lamp holder, the combination with a support, a turntable on the said support, a member adapted to move transversely on said support, cords connected with said transversely moving member to actuate the same in opposite directions, a latch carried by the turntable and movable into engagement with the transversely moving member to cause said member and the turntable to move in unison, lever devices for releasing the latch, and means for operating said levers.

3. The combination in a lamp holder, of a support having an arm extending therefrom, a turntable adapted to support a lamp, a block mounted to move in an arcuate path on said arm, a latch carried by the turntable, levers extending in opposite directions and adapted to disengage the latch from the block, spring-actuated means tending to engage the latch with the block, operating cords extending in opposite directions from the block and adapted for connection with parts of a vehicle, and manually-controlled cords extending from the said levers.

4. The combination in a lamp holder, of a support, a lamp holder adapted to turn on said support, a movable member on said support, a latch device normally connecting the lamp holder with the said movable member, a manually-controlled turning means for the lamp holder, and a latch-releasing device operable to release the latch when the said manually controlled turning means is actuated.

1,075,953. ELECTRIC-LAMP SWITCH. JOHANNES A. M. TRAUS, Rotterdam, Netherlands. Filed Jan. 24, 1911. Serial No. 604,380. (Cl. 175—281.)

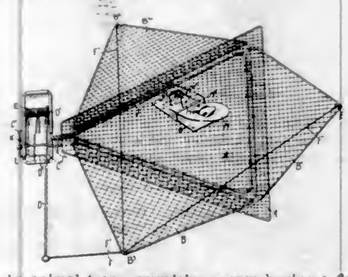


1. An electric switch comprising a cam shaft, cam-like means thereon, a toothed wheel on said shaft having teeth 90° apart, an electromagnet, an armature for the same, a two-armed pawl secured to the armature, and coöperating with three teeth of the wheel, and a liquid contact maker arranged to be operated by the cam.

2. An electric switch comprising a cam shaft, a cam thereon having maximum and minimum radii 90° apart, a toothed wheel on said shaft having teeth 90° apart, an electromagnet, an armature for the same, a two-armed pawl secured to the armature, and coöperating with three teeth of the wheel, and a liquid contact maker arranged to be operated by the cam.

3. An electric switch comprising a cam shaft, a cam thereon having maximum and minimum radii 90° apart, a toothed wheel on said shaft having teeth 90° apart, an electromagnet, a low voltage, electric supply for same, a pivoted armature for said magnet, a two-armed pawl secured to the armature and coöperating with three teeth of the wheel and a liquid contact maker arranged to be operated by the cam.

1,075,954. ANIMAL-TRAP. SAMUEL PHILLIPS VERNER, Bas Obispo, Canal Zone. Filed Dec. 21, 1912. Serial No. 737,975. (Cl. 43—19.)



1. An animal trap, comprising a cage having a flat base and sides hinged to the base at the edges thereof, the sides being arranged to swing outward and downward to lie flat on the ground, and the sides being adapted to swing upward and inward to form a pyramidal housing over the said base, a spring-pressed arm mounted to swing, flexible connections connecting the said arm with the apexes of the said cage sides, a bait holder on the said base, and a locking and releasing device for said arm, said device being controlled by the said bait holder, locking the arm in position when the trap is set and releasing the same on manipulating the bait holder to allow the arm to swing the said cage sides into a closed position.

2. An animal trap, comprising a cage having a flat base and sides hinged to the base at the edges thereof, the sides being arranged to swing outward and downward to lie flat on the ground and the sides being adapted to swing upward and inward to form a pyramidal housing over the said base, the latter having a flat extension frame, an arm mounted to swing on the said frame, a spring pressing the said arm, flexible connections attached to the free end of the said arm and extending through the apex of one of the cage sides and connecting with the apexes of the other cage sides, a bait holder on the said base, and a locking and releasing device for the said arm, said device being controlled by the said bait holder.

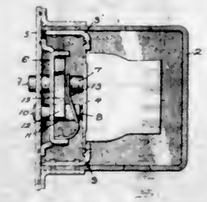
3. An animal trap, comprising a cage having a flat base and sides hinged to the base at the edges thereof, the sides being arranged to swing outward and downward to lie flat on the ground and the sides being adapted to swing upward and inward to form a pyramidal housing over the said base, an operating device outside of the base, flexible connections connected with the said operating device and extending through an opening in the apex of one of the said cage sides and connecting with the apexes of the other cage sides, a bait holder on the base, and a locking and releasing mechanism for said arm, said mechanism being controlled by the said bait holder.

4. An animal trap, comprising a cage having a flat base and hinged sides adapted to lie flat on the ground and to swing upward and inward to form a housing over the base, a pivoted and spring pressed arm, flexible connections between the arm and the sides of the cage, a bait holder on the base of the cage and having a trigger, a shaft having angular arms at its ends, one of the said arms being engaged by the trigger of the bait holder, and a hinged arm adapted to extend across the pivoted and spring pressed arm and to engage the other angular arm of said shaft.

5. An animal trap, comprising a cage having a flat triangular base and hinged triangular sides adapted to lie flat on the ground and to swing inward into engagement with each other to form a pyramidal housing, a frame at one of the corners of the base outside of the sides, a pivoted and spring pressed arm mounted in the frame, flexible connections between the arm and the apexes of the sides of the cage, a bait holder on the base of the cage and having a trigger, a shaft mounted on the base and having one end extending beyond the base, said shaft having angular arms at its ends, one of the said arms being engaged by the trigger of the bait holder, and an arm pivoted to the frame and adapted to extend across the same and the pivoted and spring pressed arm and to engage the other angular arm of the said shaft.

[Claim 6 not printed in the Gazette.]

1,075,955. DOOR-LOCK SWITCH. GILBERT WRIGHT, Schenectady, and HENRY PRICE BALL, New York, N. Y., assignors, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Feb. 19, 1908. Serial No. 416,754. (Cl. 175—282.)



1. The combination with a two-button switch, of an auxiliary push-button in line with one button of said switch, a detent for locking said auxiliary button when the switch is closed, a trip-button for releasing said detent, and independent tripping means adapted to be actuated by a door bolt.

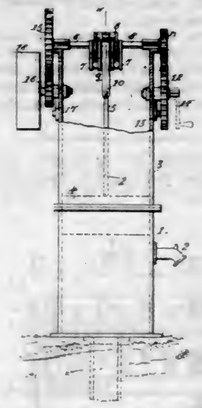
2. The combination with a two-button switch, of an auxiliary push-button in line with one button of said switch and provided with a recess, a detent spring adapted to engage with said recess, a trip-button adapted to disengage said spring from said recess, and a tripping-rod having one end adjacent to said detent spring.

3. The combination with a two-button switch, of an auxiliary push-button in line with one button of said switch, and provided with a recess, a detent spring adapted to engage with said recess, a trip-button having a beveled surface adapted to engage with said spring and disengage it from said recess, and a tripping-rod having one end adjacent to said detent spring.

4. The combination with a two-button switch, of a box for containing the same, a flush-plate for said box, a bridge secured to said plate, auxiliary push-buttons supported in said plate and bridge, a detent adapted to lock said switch closed, a spring tending to open said switch, and a tripping device capable of operation by a door bolt.

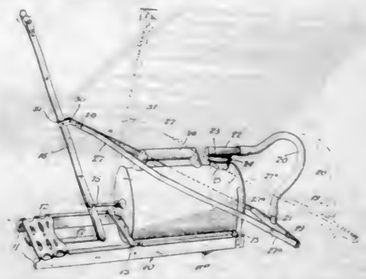
5. The combination with a two-button switch, of a box for containing the same, a flush-plate for said box, a bridge secured to said plate, an auxiliary push-button supported in said plate and bridge in contact with one of the switch buttons, a detent spring secured to said bridge and adapted to engage with said auxiliary push-button, a spring supported on said bridge and bearing upon the other switch button, a trip-button supported in said plate and bridge and having a beveled surface adjacent to said detent spring, and a tripping-rod having one end adjacent to said detent spring, and extending out through the wall of said box.

1,075,956. PUMPING ATTACHMENT. JOHN B. YORK, Spanish Fort, Tex. Filed Apr. 30, 1912. Serial No. 694,095. (Cl. 103—62.)



In combination, a pump cylinder, a piston operating therein, a piston rod rigidly connected to the piston and having its free end offset, the said offset portion forming a guide-way within the piston rod and in vertical alinement thereto, a crank shaft having a pair of alined cranks arranged on opposite sides of the said piston rod having the portion between the cranks extending through said guide-way, a member secured to the piston rod and disposed over the guide-way therein, a yoke member pivoted to the upper end of the piston rod and having its ends pivotally connected to the cranks, said crank shaft adapted to guide the piston rod, gearing carried by the shaft and a fly wheel included in the gearing.

1,075,957. VACUUM-CLEANER. JOHN B. YOUNG, North Crystal Lake, Ill. Filed Nov. 25, 1912. Serial No. 733,255. (Cl. 15—60.)



1. In a portable, hand-operated vacuum cleaner, a vacuum pump, a pump lever therefor, a nozzle connected to said pump by a flexible tube, and a rigid nozzle guiding device connecting said nozzle with said pump lever.

2. In a portable, hand-operated vacuum cleaner, a vacuum pump, a pump lever therefor, a nozzle connected to said pump by a flexible tube, and a rigid nozzle guiding device rigidly secured to said nozzle and detachably secured to said pump lever.

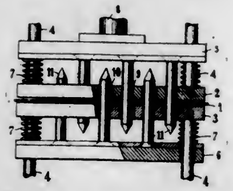
3. In a portable, hand-operated vacuum cleaner, a vacuum pump and its pump lever, a nozzle connected to said pump by a flexible tube, and a rigid nozzle guiding device rigidly secured to said nozzle and pivotally secured upon said pump lever.

4. A portable, hand-operated vacuum cleaner comprising a vacuum pump having a pump lever, a nozzle connected

to said pump by a flexible tube, a pair of bars, each secured at one end to said nozzle, and extending upward and backward alongside of the pump, said bars converging toward each other at their upper ends, and thereat detachably secured to said pump lever.

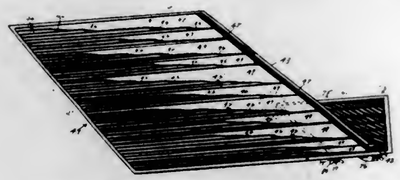
5. In a portable vacuum cleaner, a vacuum pump, an upright pump lever for operating said pump, a nozzle connected to said pump by a flexible tube, a pair of bars, having one end secured to said nozzle and the other end provided with a hook capable of being hooked upon said pump lever.

1,075,958. PROCESS OF MAKING ACCUMULATOR-PLATES. BRUNO ZYTTKOWSKI, Tempelhof, near Berlin, Germany. Filed Dec. 11, 1911. Serial No. 665,147. (Cl. 29—2.)



The process of making accumulator plates with projections adapted to receive the active mass, which consists in supporting a metal plate upon a die provided with a set of cylindrical walled perforations; and in passing a set of cylindrical punches of a less size than said perforations through said metal plate and perforations of the die, thereby drawing out the metal of the said plate in thin walled projections occupying the spaces between said punches and the walls of said perforations, and forming cylindrical tubes perpendicularly erected on the plate, substantially as described.

1,075,959. DRY CONCENTRATING APPARATUS. ARTHUR AUDET, Los Angeles, Cal. Filed Jan. 14, 1913. Serial No. 742,057. (Cl. 83—54.)



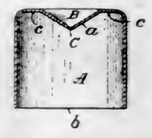
1. Apparatus of the class specified, comprising a table, means for movably mounting the table, a riffle board at the top of the table formed with a series of groups of transverse channels progressively of increased length and connected by offset channels, a longitudinal main channel connected with the groups of transverse channels, and comparatively large smooth surfaces between the groups of transverse channels, and means to reciprocate the table.

2. Apparatus of the class specified, comprising a table including an air chest and an inclined riffle board at the top of the table, said riffle board formed with groups of transverse channels progressively of increased length and connected by offset channels, a longitudinal main channel connected with the longer of the transverse channels, comparatively large smooth surfaces between the groups of transverse channels, and openings leading from the air chest and terminating at the top of the sides of said channels, plates affixed on the riffle board and provided with beveled side portions extending over the top edge of the sides of said channels, means for movably mounting the table, and means to reciprocate the table.

3. In apparatus of the class specified, a riffle board formed with a series of groups of transverse channels progressively of increased length and connected by offset channels, a longitudinal main channel connected with the transverse channels, comparatively large smooth surfaces between the groups of transverse channels, said riffle board having openings therethrough terminating at the top of the sides of the channels, substantially as and for the purposes set forth.

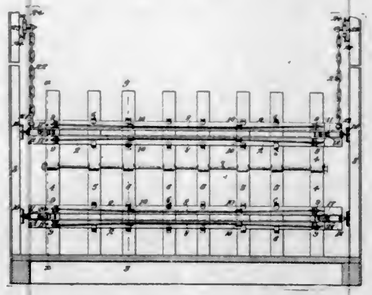
4. Apparatus of the class specified, comprising a movably mounted table including an air chest, a riffle board mounted on the table, said riffle board formed with a series of groups of transverse channels progressively of increased length and connected by offset channels, a longitudinal main channel connected with the groups of transverse channels, comparatively large smooth surfaces between the groups of transverse channels, and openings leading from the air chest and terminating at the top of the sides of the channels, plates affixed on the riffle board and provided with beveled side portions extending over the top edges of said channels, means for adjustably supporting the table and means to reciprocate the table.

1,075,960. NON-CLOGGING BURNER-TIP. FREDERIC E. BALDWIN, New York, N. Y. Filed Mar. 6, 1913. Serial No. 752,279. (Cl. 67—112.)



A non-clogging acetylene burner tip which consists of a shell the end of which surrounding the exit-orifice forms a reëntrant cone, one surface of which serves as a flame chamber, and the other surface as a conical baffle projecting against the direction of the flow, the gas exit-orifice being approximately circular in form and located at the apex of the reëntrant cone.

1,075,961. BULKHEAD FOR CARS. GEORGE CARL BOLLER and STYLES K. CLEMENT, Loomis, Cal., assignor of one-fourth to Charles H. Biemer and one-fourth to George W. Bisbee, Loomis, Cal. Filed Mar. 18, 1913. Serial No. 755,164. (Cl. 105—15.)



1. An adjustable bulkhead for cars comprising parallel beams, end slats to which the beams are rigidly attached, a series of slats carried by the beams between the end slats, and tangs on the slats engaging the beams to form a slidable connection therewith.

2. A bulkhead for cars comprising spaced parallel horizontally disposed angle-iron beams, end slats connecting the beams adjacent their ends, a series of intermediate slats, tangs on said slats slidably engaging the vertical leaf of the angle iron beams, and hinged joints formed in the slats to allow the lower portion of the slats to be swung in relation to their upper portion.

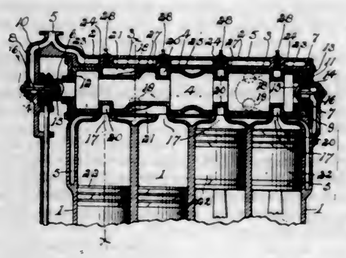
3. A bulkhead for cars comprising spaced parallel horizontally disposed angle iron beams, tension rods secured at their ends to the beams, king-posts on the beams intermediate their ends over which the tension rods pass, end slats connecting the beams adjacent their ends, a series of intermediate slats, tangs on said slats slidably engaging the vertical leaf of the angle iron beams, and hinged joints formed in the slats to allow the lower portion of the slats to be swung in relation to their upper portion.

4. An adjustable bulkhead for cars comprising parallel beams, end slats connecting the beams, intermediate slats slidably attached to the beams, means for suspending the beams, rocking frames on the ends of the beams, hooks carried by said rocking members, stationary plates formed with perforations engageable by said hooks, and means for rocking and locking said frames to exert a pull on the hooks and plates acting to move the bulkhead rearwardly.

5. An adjustable bulkhead for cars comprising parallel beams, end slats connecting the beams, intermediate slats slidably attached to the beams, means for suspending the beams, rocking frames on the ends of the beams, hooks carried by said rocking members, stationary plates formed with perforations engageable by said hooks, a threaded stem on the beams, and a nut on said stem engageable with the rocking frame and adapted to rock the latter to exert a pull on the hooks and plates when screwed on the threaded stem and cause the bulkhead to move rearwardly.

[Claims 6 to 9 not printed in the Gazette.]

1,075,962. ENGINE. FRANK E. CAIN, Detroit, Mich. Filed July 5, 1912. Serial No. 707,686. (Cl. 123—190.)



1. In an internal combustion engine, the combination of a cylinder having a portion provided with a bore forming a seat for a valve and formed with an inlet and an exhaust passage opening into said bore, and a valve member in said bore provided with an annular port-channel in constant communication with the cylinder and having a lateral extension adapted to register with said inlet and exhaust passages.

2. In an internal combustion engine, the combination of a pair of cylinders having a portion provided with a valve seat and an inlet and an exhaust passage for the two cylinders opening through said seat, a valve member engaging said seat and formed with an annular channel for each cylinder in constant communication therewith, each channel being formed with a lateral extension to register with said passages.

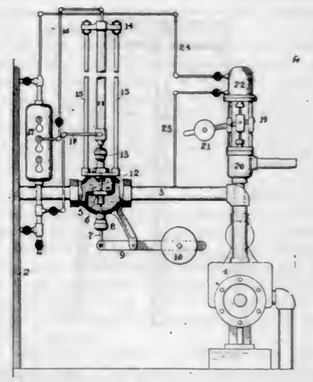
3. In an internal combustion engine, the combination of a cylinder having a portion provided with a bore forming a seat for a valve and formed with an inlet and an exhaust passage opening into said bore, and a valve member in said bore provided with an annular port-channel in constant communication with the cylinder and having a lateral extension adapted to register with said inlet and exhaust passages, said member being also formed with grooves adjacent to the edges of said channel and lateral extension thereof, and packing rings in said grooves one of which is formed with an off-set portion to fit within the groove adjacent to the edge of the lateral extension of the channel.

4. In an internal combustion engine, the combination of a pair of cylinders having a portion provided with a valve seat, and an exhaust passage for the two cylinders opening through said seat, a valve member engaging said seat and formed with an annular channel for each cylinder in constant communication therewith, each channel being formed with a lateral extension to register with said passages, said extensions being positioned at diametrically opposite sides of the valve and overlapping each other in their path of travel, and said valve being provided with grooves adjacent to the edges of said channels and the extensions thereof, and packing rings having off-set portions to engage said grooves.

5. In an internal combustion engine, the combination of a cylinder having a water jacket and a head provided with a bore forming a seat for a valve and also formed with inlet and exhaust passages opening into the bore, a hollow cylindrical valve within the bore having an annular port-channel in communication with the upper end of the cylinder said channel being formed with a lateral extension adapted to register with the inlet and exhaust passages when the valve is turned, and members at the ends of the valve provided with passages connecting the interior of the valve at its ends with the water jacket.

[Claims 6 and 7 not printed in the Gazette.]

1,075,963. BOILER FEED-REGULATOR. CHARLES MOTLEY CLARK, Chicago, Ill. Filed Nov. 6, 1909. Serial No. 526,497. (Cl. 236—13.)



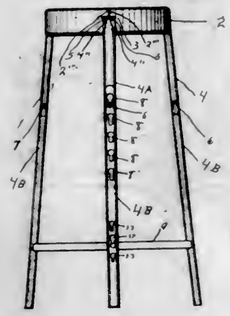
1. In a boiler feed regulator, the combination of the boiler, a feed water pipe, a check valve in said feed water pipe having a valve piece closing against the pressure of the boiler, means to force water into the feed water pipe with a pressure greater than the boiler pressure, mechanical devices operating upon the valve piece for closing it upon the seat when not otherwise restrained consisting of a rod extending into the valve body and connecting with the valve piece and a counterweighted lever outside of the body acting upon the said rod, and means operated by the level of the water in the boiler for positively moving the valve piece from its seat to open the check valve and also to regulate its closing, consisting of a plunger extending through the valve body and normally out of contact with the valve piece and a thermostatic member for moving the plunger to push the valve piece away from its seat against the action of the counterweight.

2. In a boiler feeding apparatus, the combination with a boiler and means for forcing water thereinto, of an automatic valve to control the said supply of water to the boiler consisting of a valve body divided into two chambers by a valve seat and having a stuffing box above and

below said seat, a check valve arranged to seat upon the valve seat against the pressure of the boiler, a stem extending through one of the stuffing boxes for moving the valve toward its seat, power devices outside of the valve body acting upon the stem to operate it to close the valve on its seat, a second stem independent of the valve and movable through the other of the stuffing boxes to move the valve away from its seat, and means operating under the control of the level of the water in the boiler for positively moving the second stem.

3. In a boiler feeding apparatus, the combination with a boiler and means for forcing water thereinto, of an automatic valve to control the said supply of water to the boiler consisting of a valve body divided into two chambers by a valve seat and having a stuffing box above and below said seat, a check valve arranged to seat upon the valve seat against the pressure of the boiler, a stem extending through one of the stuffing boxes for moving the valve toward its seat, power devices outside of the valve body acting upon the stem to operate it to close the valve upon its seat, said devices consisting of a pivoted lever having an adjustable weight, a second stem independent of the valve and movable through the other of the stuffing boxes to move the valve away from its seat, and means operating under the control of the level of the water in the boiler for positively moving the second stem.

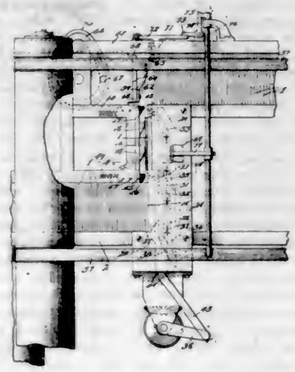
1,075,964. STOOL. CHARLES J. COLLING, Sr., Cleveland, Ohio, assignor of one-half to Joshua Elsoffer, Cleveland, Ohio. Filed Jan. 9, 1911. Serial No. 601,733. (Cl. 155—3.)



A stool of the class described comprising a seat, a band surrounding said seat, elongated orifices in said band, an inwardly extending flange provided on the upper edge of said band and engaging said seat, legs attached to said band, the upper edge of said legs extending through the elongated orifices in said band and supporting said seat, the lower portion of said legs provided with an adjustable brace member, said legs provided with means for adjusting the height of said stool all substantially as and for the purpose set forth.

1,075,965. PRINTING OR ADDRESSING MACHINE. SANFORD C. COX, Brookline, Mass., assignor to Cox Multi-Mailer Company, Augusta, Me., a Corporation of Maine. Filed Dec. 2, 1907. Serial No. 404,779. (Cl. 101—1.)

1. In a machine for the purpose described the combination of a galley for holding a supply of printing elements, means for ejecting the printing elements as required transversely from the galley, an impression plunger for elevating the printing elements directly they are ejected to a printing position, operatively connected with said ejecting means, and means also operatively connected with the said ejecting means for removing the printing elements from the said plunger at the conclusion of the impression.



2. In a machine for the purpose described the combination of a galley for holding a supply of printing elements, a galley for receiving the printing elements after they have been printed from, a lifting plunger arranged between said galleys for lifting a printing element into printing position, and ejecting means for simultaneously ejecting a printing element from the first said galley upon said plunger and from the plunger into said receiving galley.

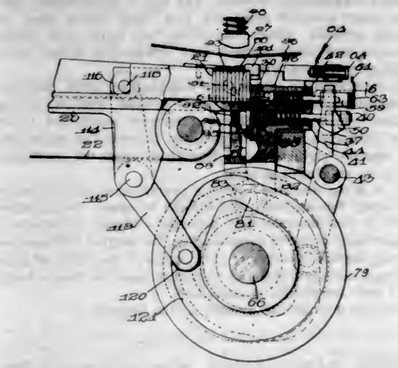
3. In a machine for the purpose described the combination of a galley for storing a supply of printing elements, a second galley for receiving the printing elements after they are printed from, ejecting means for engaging and ejecting a printing element from the first said galley to a printing position intermediate the two galleys and at the same time engaging and removing a printing element from the printing position to the said receiving galley and from the space into which the first said element is directly positioned from the supply galley, and means for producing an impression from the printing element while in said printing position.

4. In a machine for the purpose described the combination of a galley for containing a supply of printing elements, a receiving galley for receiving the printing elements after they have been printed from, said receiving galley being spaced from the first said galley to provide a printing position for the printing elements between them, an ejecting means having two lugs adapted to engage a printing element in the first said galley and a printing element at said printing position for simultaneously moving a printing element into the printing position and a printing element from the printing position into the receiving galley, and means for moving said ejecting means to cause said lugs to engage the printing elements when moving in one direction and to move out of the line of the printing elements when returning.

5. In a machine for the purpose described the combination of a galley for containing a supply of printing elements, a galley for receiving the printing elements after they have been printed from, spaced from the first galley to afford a printing position between them, an ejector having means for simultaneously engaging a printing element in the first said galley and a printing element in the said printing position, means for moving said ejector in one direction to cause it to push the printing elements endwise, and means for shifting the ejector to move the same out of the line of the printing elements when moving in the opposite direction.

[Claims 6 to 24 not printed in the Gazette.]

1,075,966. TYPE OR SLUG FEED FOR PRINTING OR ADDRESSING MACHINES. SANFORD C. COX, Chicago, Ill., assignor to Cox Multi-Mailer Company, Augusta, Me., a Corporation of Maine. Filed Oct. 1, 1908. Serial No. 455,664. (Cl. 101—1.)



1. In a machine of the class described, the combination of a galley for holding a supply of printing elements, means for extracting one of said elements to move the same into a printing position, a retainer movable into and out of the path of movement of the next adjacent element, means normally projecting said retainer into the path of movement of the said next adjacent element for holding the latter from displacement by the movement of the extracted element, and means for ejecting the extracted element after being printed from and while in a printing position.

2. In a machine of the class described, the combination of a galley for holding a supply of printing elements, a plunger for extracting one of said elements and moving the same to a printing position, means for feeding the elements to the plunger, means for ejecting the said elements after being printed from and while in a printing position and in a direction transverse to the direction of movement of the plunger, a retainer movable into and out of the path of movement of the next adjacent element, means normally projecting said retainer into the path of movement of the next adjacent element for holding the latter against displacement.

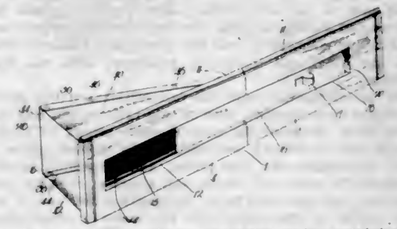
3. In a machine of the class described, the combination of a galley for holding a supply of printing elements, a plunger for extracting one of said elements and moving the same to a printing position, means for feeding the elements into a position to be engaged and moved by the plunger, said element being held from displacement with respect to the plunger by the tension of the supply of said elements, and means for ejecting said element when in a printing position and against the said holding tension after being printed from.

4. In a machine of the class described, the combination of a galley for holding a supply of printing elements, a plunger for extracting one of said elements and moving the same to a printing position, means for feeding the elements into a position to be engaged and moved by the plunger, the tension of said feeding means created upon the supply of elements coöperating with the plunger to hold the elements against displacement with respect to the plunger, means for ejecting said element while in a printing position against the said tension and after being printed from and in a direction transverse to the direction of feeding movement, and means for moving the plunger to extract the printing element and for returning the plunger after the printing element has been ejected to receive another printing element.

5. In a machine of the class described, the combination of a galley for holding a supply of printing elements, a plunger for extracting one of said elements and moving the same to a printing position, means for feeding the elements into a position to be engaged and moved by the plunger, the tension of the supply of elements coöperating with the plunger to hold said elements against displacement with respect to the plunger, means for ejecting said element while in a printing position and after being printed from and against the said tension and a common means for positively moving the plunger in both directions to extract the printing element and to return the plunger to receive another printing element after one of said elements has been ejected.

[Claims 6 to 61 not printed in the Gazette.]

1,075,967. WINDOW-VENTILATOR. WILLIAM J. DIXON, Kansas City, Mo. Filed Mar. 19, 1913. Serial No. 755,327. (Cl. 98—31.)



1. In a window ventilator, a folding strip containing a ventilating opening, and a slideway adjacent said opening, a slide movable in said slideway to regulate the size of the opening, and means operated by the folding of the strip to latch the slide in the slideway.

2. In a window ventilator, a folding strip containing a ventilating opening and a slideway adjacent said opening, a slide movable in said slideway to regulate the size of the opening, and a spring retaining member carried by one section of the strip and movable into the slideway to latch and retain the slide therein, said retaining member being adapted to be compressed into operative position by the other section of the strip when said strip is folded.

3. In a window ventilator, a strip having a ventilating opening, a flaring dust guard for protecting said opening, said dust guard comprising a strip of stiff material extending lengthwise of the opening and having one end spaced from one end of said opening and its other end hinged to the first-named strip adjacent the other end of the opening, a tapered strip of flexible material secured to each side margin of said hinged strip and at opposite sides of said opening, and yielding means tending normally to hold said flexible strips extended.

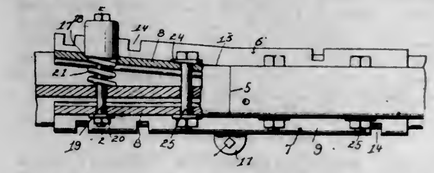
4. In a window ventilator, a folding strip formed of hinged sections, one of said sections having a ventilating opening, a flaring dust guard for said opening comprising a strip of stiff material extending lengthwise of the opening and having one end spaced from one end of said opening and its other end hinged adjacent the other end of the opening, a tapered strip of flexible material secured to each side margin of said hinged strip and at opposite sides of said opening, means tending normally to hold said flexible strip extended, and means for latching said hinged sections in folded condition with the guard collapsed between them.

5. In a car window ventilator, a pair of hinged sections, one of said sections having a ventilating opening provided with grooved sides, the other section being provided with a recess having grooves adapted to be alined with the grooves of said opening when said sections are unfolded, and a slide movable in said grooves to regulate the size of the opening and acting, when it is extended into said recess, to maintain the sections in unfolded condition.

1,075,968. RAIL-JOINT. HARRY HICKS FERRIS, Huntington Beach, Cal. Filed Jan. 25, 1913. Serial No. 744,258. (Cl. 239—6.)

1. In combination with the rail sections, of means to rigidly secure one of the rail sections upon a supporting

tie, said means including a fish plate having a base portion extending beneath the rail sections, and means arranged between said fish plate and the other rail section to yieldably hold the same in longitudinal alinement with the fixed rail section.



2. In combination with the rail sections, of fish plates arranged upon opposite sides thereof and lapping the abutting ends of the rail sections, bolts connecting said fish plates and rigidly securing one rail section therebetween, and means mounted in said fish plates and yieldably holding the other rail section in alinement with the fixed section.

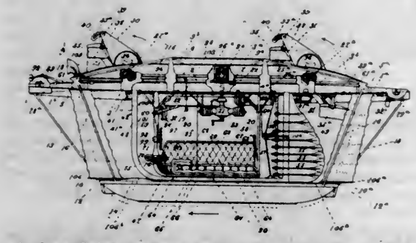
3. In combination with the rail sections, of fish plates arranged upon opposite sides of said rail sections and lapping upon the abutting ends thereof, means to rigidly secure one of the rail sections between the fish plates, a bolt connecting the fish plates and extending loosely through the other rail section, and a spring arranged upon said bolt between said latter rail section and one of the fish plates to yieldingly hold the same in longitudinal alinement with the fixed rail section.

4. In combination with the rail sections, of fish plates arranged upon opposite sides of said rail sections and lapping upon the abutting ends thereof, bolts connecting said fish plates and rigidly securing one of the rail sections therebetween, an additional bolt connecting said fish plates and extending loosely through the web of the other rail section, a coil spring arranged upon said bolt and extending through one of the fish plates, said spring bearing against the rail web to yieldingly hold the same in longitudinal alinement with the fixed rail section, and a housing for the outer end of said spring secured between the fish plate and the end of said bolt.

5. In combination with the rail sections, of means to rigidly secure one of said rail sections to a supporting tie, said means including a fish plate having a portion inclined with relation to the longitudinal axis of the other rail section and spaced from the web thereof, an abutment on the opposite side of said latter rail section, and a coil spring arranged between said inclined portion of the plate and the web of the rail to yieldingly hold the same in longitudinal alinement with the fixed rail and in engagement with said abutment.

[Claim 6 not printed in the Gazette.]

1,075,969. AERIAL VEHICLE. JAMES EDWARD FRASER, St. John, New Brunswick, Canada. Filed Aug. 31, 1908. Serial No. 451,043. (Cl. 244—16.)



1. In a flying machine having fixed, outer, longitudinal stringers and a central, longitudinal stringer supported therefrom with freedom to oscillate about its longitudinal axis.

2. In a flying machine having outer, longitudinal stringers tapered toward each end, and a central stringer also tapered toward each end and supported with freedom of oscillation about its longitudinal axis.

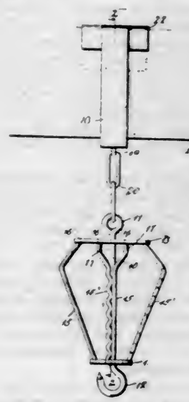
3. A flying-machine having a frame work formed with a central longitudinal member, and outer longitudinal members lying parallel therewith and being lower than the central member, struts connecting the outer and central members and being formed with transverse minor struts diagonally trussed with wire.

4. In a flying machine, the combination with the outer stringers and struts supporting the same, and the central stringer, of a dorsal stiffening member connected to the outer stringers and having means thereon for supporting the central stringer with limited freedom of oscillation about its longitudinal axis.

5. A flying machine having a central and outer stringers extending fore-and-aft, and struts, to space the stringers apart, in combination with a dorsal stiffener comprising a longitudinal member surmounting the central stringer and having thereon a series of thin bands in the form of fitted bearings, within which the central stringer is free to rotate for a part revolution as described.

[Claims 6 to 59 not printed in the Gazette.]

1,075,970. GAME-CARRIER. WILFRID G. GILLIAM, Washington, D. C. Filed Sept. 12, 1912. Serial No. 720,009. (Cl. 224—7.)



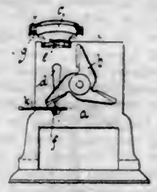
1. A device of the character described comprising a shank, upper and lower plates carried by said shank, cooperating wires connecting said plates and arranged in pairs, and means for suspending the shank from the belt.

2. A device of the character described comprising a belt engaging member, a waist band engaging member carried by the belt engaging member, a shank extending from the belt engaging member and spaced plates carried by the said shank, the lower end of the shank being formed in a hook, and game supporting means extended between said plates.

3. A device of the character described comprising a shank having its upper end formed in an eye and its lower end formed in a hook, an upper plate carried by said shank and a smaller lower plate carried by said shank, cooperating wires connected at their opposite ends to said plates and having their upper portions curved outwardly in opposite directions, said wires being arranged in pairs, one wire of each pair being crimped, and means connected with the eye for suspending the shank.

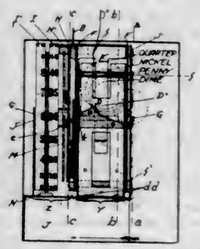
1,075,971. AUTOMATIC PENCIL-SHARPENER. EMIL GRANTZOW, Dresden, Germany. Filed Mar. 15, 1910. Serial No. 549,552. (Cl. 120—95.)

In combination with a pencil sharpening mechanism, of a chuck rotatively mounted in said mechanism and comprising a chuck body having a bore therein for insertion therethrough of a pencil, superposed grippers disposed in overlapping relation with respect to each other above said body and each having an opening therein, the lower gripper having a downwardly projecting pencil engaging portion extending into and adapted to engage a part of the bore of said body at one point and to arrest opening movement of said gripper, the upper gripper having a pencil engaging portion for engaging the pencil in opposition to said first named portion and projecting through the opening in said lower gripper and into the bore of said body to arrest opening movement of said upper gripper,



said upper gripper having an extension projecting in the direction of the pencil closing movement of said gripper, a spring interposed between said extension and said chuck body whereby said upper gripper is actuated to move its pencil engaging portion toward the engaging portion of the lower gripper, the lower gripper having an extension projecting in the direction of its movement in a direction opposite to the extension of said upper gripper, and a spring interposed between the chuck body and said lower gripper extension for moving the same and its pencil engaging portion toward the pencil engaging portion of said upper gripper, substantially as described.

1,075,972. COIN-REGISTERING MECHANISM. WILLIAM H. HALL, Cicero, Ill., assignor, by mesne assignments, to North American Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed June 6, 1911. Serial No. 631,570. (Cl. 235—100.)



1. In a coin registering machine, the combination of an oscillating drum, and a rigid stationary coin pocket mounted therein, the heads of the drum forming walls on either side of the pocket.

2. In a coin registering mechanism, the combination of a stationary coin pocket adapted to hold a coin on edge, an oscillatable member, and means disposed in operative position by engagement with a coin in said pocket and adapted to subsequently eject said coin edgewise from said pocket.

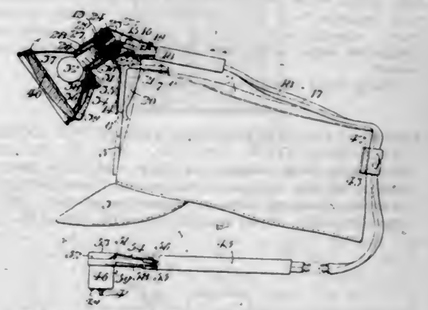
3. The combination with a coin registering mechanism, of a stationary coin pocket, an oscillating member, and an operating lever mounted on said oscillating member, said lever being adapted to engage the coins in the pocket and to be positioned thereby to engage and operate the registering mechanism.

4. In a coin registering mechanism, the combination of a stationary coin pocket, and an oscillatable drum constructed to prevent release of the coins from the pocket until said drum approaches the end of its movement.

5. In a coin registering mechanism, the combination with a stationary coin pocket, of an oscillatable member, having spaced walls forming walls for the pocket, one of said walls being provided with a slot to permit the release of coins from the pocket.

[Claims 6 to 26 not printed in the Gazette.]

1,075,973. PORTABLE ELECTRIC-LIGHTING APPARATUS. HIRAM H. HIRSCH, Philadelphia, Pa. Original application filed June 19, 1912, Serial No. 704,496. Divided and this application filed Aug. 28, 1912. Serial No. 717,456. (Cl. 240—17.5.)



1. The combination with an electric lamp; of a lamp casing inclosing said lamp and having a lens; a switch adapted to open and close an operating circuit of said lamp, including a spring tending to open said switch when released; a seat in said lamp casing behind said lens; and a glass panel fitted in said seat, normally maintaining said switch closed; whereby said circuit is broken and the lamp extinguished when said panel is broken or otherwise removed.

2. The combination with an electric lamp; of a lamp casing inclosing said lamp and having a lens; a switch adapted to open and close an operating circuit of said lamp, tending to open said circuit when released; a seat in said lamp casing behind said lens; and a glass panel fitted in said seat, normally maintaining said switch closed; whereby said circuit is broken and the lamp extinguished when said panel is broken or otherwise removed.

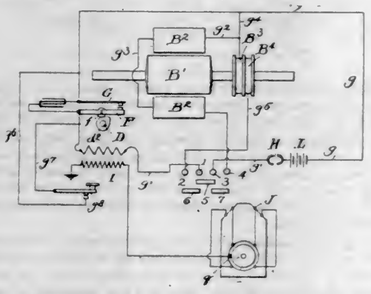
3. The combination with an electric lamp; of a lamp casing inclosing said lamp and having a transparent portion; a switch adapted to open and close an operating circuit of said lamp, including a spring tending to open said switch when released; and a frangible panel in said lamp casing behind said transparent portion, normally maintaining said switch closed; whereby said circuit is broken and the lamp extinguished when said panel is broken or otherwise removed.

4. The combination with an electric lamp; of a circular lamp casing inclosing said lamp in concentric relation therewith; a cutout spring carried by said casing at one side thereof, movable radially with respect to the axis of said lamp and casing; a spring terminal carried by said casing in registry with said cutout spring; means mechanically connecting said cutout spring and spring terminal, at one end thereof, including a screw carried by said casing and extending through them; a block of insulating material, held by said screw, insulating said spring terminal from said cutout spring; a glass panel extending in said casing transversely with respect to its axis, normally holding said cutout spring in electrical contact with said spring terminal at the free ends thereof; and means including said cutout spring and spring terminal in the lamp circuit; said cutout spring being constructed and arranged to automatically separate from said spring terminal when released by said panel; whereby said circuit is broken and the lamp extinguished when said panel is broken or otherwise removed.

5. The combination with an electric lamp; of a lamp casing inclosing said lamp; a cutout spring carried by said casing, movable radially with respect to the axis of said lamp; a terminal carried by said casing in registry with said spring; means mechanically connecting said spring and terminal, at one end thereof, including a screw carried by said casing and extending through them; a block of insulating material, held by said screw, insulating said terminal from said spring; a frangible panel extending in said casing transversely with respect to its axis, normally holding said spring in electrical contact with said terminal at the free ends thereof; and means including said spring and terminal in the lamp circuit; said spring being constructed and arranged to automatically separate from said terminal when released by said panel; whereby said circuit is broken and the lamp extinguished when said panel is broken or otherwise removed.

[Claim 6 not printed in the Gazette.]

1,075,974. DOUBLE IGNITION SYSTEM FOR INTERNAL-COMBUSTION ENGINES. DOW B. HUGHES, Cleveland, Ohio, assignor, by direct and mesne assignments, to The Citizens Savings and Trust Company, trustee, Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 20, 1909. Serial No. 529,019. (Cl. 123—118.)



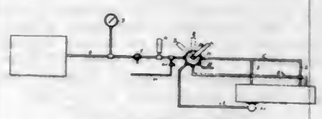
1. The combination of a battery, a mechanical current-generator having separately excited fields, electrical connections between said battery and the field of said generator, an induction coil, connections between the primary winding of said induction coil and said generator, connections between the battery and the primary winding of said induction coil, and switch mechanism for either making or breaking the connections between the battery and induction coil on the one hand, and on the other hand for at the same time breaking or making the connections between said battery and generator field, and between the generator and said induction coil.

2. The combination of a battery, a mechanical current-generator having separately excited fields, electrical connections between said battery and the field of said generator, an induction coil, connections between the primary winding of said induction coil and said generator, conections between the battery and the primary winding of said induction coil, switch mechanism for either making or breaking the connections between the battery and induction coil on the one hand and on the other hand for at the same time breaking or making the connections between said battery and generator field and between the generator and said induction coil, a centrifugal governor carried by a rotatable shaft, and means intermediate of said governor and switch mechanism for operating the latter.

3. The combination of a battery, a mechanical current-generator having separately excited fields, electrical connections between said battery and the field of said generator, an induction coil, connections between the primary winding of said induction coil and said generator, connections between the battery and the primary winding of said induction coil and switch mechanism for either making or breaking the connections between the battery and induction coil on the one hand, and on the other hand for at the same time breaking or making the connections between said battery and generator field, a make and break timing device connected in the circuit of the primary winding of the induction coil, a distributer connected in the circuit of the secondary winding of said induction coil, and means for operating said timer and distributer at proper relative speeds.

4. The combination of a battery, a mechanical current-generator having separately excited fields, electrical conections including switch mechanism between said battery and the field of said generator, an induction coil, connections between the primary winding of said induction coil and said generator, connections between the battery and the primary winding of said induction coil and switch mechanism for either making or breaking the connections between the battery and induction coil on the one hand, and on the other hand for at the same time breaking or making the connections between said battery and generator field and between the generator and said induction coil, a centrifugal governor carried by a rotatable shaft, and means intermediate of said governor and switch mechanism for operating the latter.

1,075,975. ENGINE-STARTER. JOHN HUME, Houston, Tex. Filed July 10, 1911. Serial No. 637,800. (Cl. 123—179.)



1. A device of the character described including a pressure chamber, a fluid compressor and an intake pipe therefor, a motive fluid conduit communicating with said chamber and with a motor, a mechanism operatively connected with said motor and arranged to be connected with and disconnected from the mechanism to be driven thereby, a means for forcing said mechanisms into operative connection, said means including an air cylinder, a piston reciprocating therein and a lever mounted upon a fulcrum and having one end connected to said piston and the other end connected to and actuating said first mentioned mechanism, a motive fluid conduit communicating with said first mentioned conduit and also with said air cylinder through which fluid pressure is conducted from the first mentioned conduit into said air cylinder and behind the piston reciprocating therein whereby said means is forced, by fluid pressure, to connect said driving with said driven mechanism, and a means for closing said first mentioned conduit and simultaneously disconnecting the second mentioned conduit therefrom, when said means is in one position and connecting the intake with the compressor and the compressor with both of said conduits when said means is in another position.

2. A device of the character described including a pressure chamber, a fluid compressor, an intake pipe therefor, a motive fluid conduit communicating with said chamber and with said compressor, a mechanism operatively connected with said fluid compressor and arranged to be connected with and disconnected from the mechanism to be driven thereby, a means for forcing said mechanisms into operative connection, said means including an air cylinder, a piston reciprocating therein, and a lever mounted upon a fulcrum and having one end connected to said piston and the other end connected to and actuating said first mentioned mechanism, a motive fluid conduit communicating with said first mentioned conduit and also with said air cylinder, means controlling said conduits and arranged to admit fluid pressure from said compression chamber through said conduits to said compressor and said air cylinder simultaneously whereby said compressor is actuated and simultaneously therewith fluid pressure is admitted behind said piston reciprocating in said air cylinder, operating through said lever to connect said driving with said driven mechanism, said last mentioned means being arranged so that when moved into one position it will close the first mentioned conduit and simultaneously disconnect the second mentioned conduit therefrom and when moved into another position it will connect the intake with the compressor and the compressor with both of said conduits.

1,075,976. SAFETY-RAZOR. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 10, 1913. Serial No. 753,175. (Cl. 30—12.)



1. In a safety razor, a handle portion, a blade supporting base rigidly connected thereto and provided with a forward guard edge, and an angular clamping plate extending longitudinally of said base and comprising a long arm and a relatively short resilient cam arm having a longitudinal slot therein, said clamping plate being pivotally mounted at its sides and intermediate its ends above said base and being positioned and arranged to frictionally engage the rear edge of its cam arm with the upper face of a razor blade adjacent its rear end to thereby tension said arm whereby the forward edge of said long arm is held tensioned against said razor blade adjacent its forward edge.

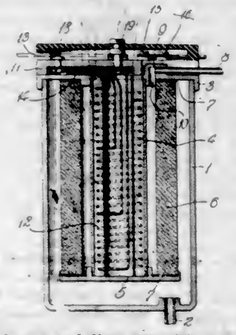
2. In a safety razor, a handle portion, a blade supporting base rigidly connected thereto and provided with a forward guard edge and with stop shoulders adjacent thereto, oppositely disposed and alined lugs extending upwardly from the sides of said base intermediate its forward and rear edges, an angular clamping plate extending longitudinally of said base and comprising a long arm and a relatively short resilient cam arm having a slot extending longitudinally thereof, said clamping plate being pivotally mounted between said lugs and above said base intermediate its forward and rear edges and being positioned and arranged to frictionally engage the rear edge of its cam arm with the upper face of a razor blade adjacent its rear end to thereby tension said rear arm whereby the forward edge of said long arm is held tensioned against said razor blade adjacent its forward edge.

1,075,977. SPRING-BED. FRANCIS S. INCO, Los Angeles, Cal. Filed Nov. 25, 1912. Serial No. 733,563. (Cl. 5—39.)



A spring bed comprising a frame consisting of longitudinal members, cross bars connecting said longitudinal members, a spring body consisting of a series of links, coil tension springs between said links and said cross bars, elastic reinforcing means along each side of said body, said reinforcing means consisting of a rope of coiled wire having its ends secured to said cross bars, a coil spring connected to said rope on the inner side thereof, a wire strand threaded through said coil spring, said coil spring and wire strand having their ends secured to said cross bars, and means for connecting said spring body to said wire strand, said means consisting of a series of links each having one end thereof secured to said spring body and the other end thereof secured to said wire strand.

1,075,978. DENTAL WATER FILTER AND HEATER. CHARLES JOERIN, Jr., and ALBERT E. JOERIN, Detroit, Mich. Filed May 5, 1913. Serial No. 766,275. (Cl. 219—19.)



1. A water heater and filter comprising an outer casing, a cap removably secured thereon, a filter member suspended from the cap and having a cylindrical bore, electrically heated means detachably secured in the bore of the filter member and an outlet pipe from the space between the heating means and the inner face of the filter, a switch controlling the supply of electricity to the heater, an insulating plate carrying the terminals and the switch of the heater and a cover detachably secured over the terminals and switch by a member of the switch.

2. A water heater and filter comprising an outer cylindrical casing, a cap removably secured thereon, a tubular filter member suspended from the cap and closed at its lower end, electrically operated heating means secured in the filter and adapted to form therewith a narrow annular space between the outer radiating wall of the heating means and the inner face of the filter, an outlet pipe in the cap leading from the said annular space, means for controlling the electrical heating means mounted in insulated relation on the cap, and a cover shielding the controlling means that is secured over the cap by a member of said controlling means.

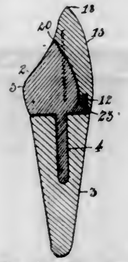
3. A water heater and filter comprising an outer cylindrical casing having an inlet pipe in its base, a cap removably secured on the upper end of the casing, a radiating tube depending from the cap, a base plate detachably secured on the lower end of the radiating member, a tubular filter member clamped between the cap and the base plate in concentric relation to the tubular member, electrical heating means contained in the tubular member, insulating plate secured on the cap, and a switch on the insulating plate controlling the electrical heating means a pivot pin for the switch and a cover detachably secured on the cap by the pivot pin.

4. A water heater and filter comprising an outer cylindrical casing having an inlet pipe in its base, a cap removably secured on the upper end of the casing, a radiating tube depending from the cap, an electrically heated resistance member secured in the tube, a base plate detachably secured on the lower end of the radiating member, a tubular filter member clamped between the cap and the base plate in concentric relation to the tubular member, a controlling switch mounted in the insulating plate and electrically connected to the heating means, terminals for the heating means mounted in the plate a removable cover over the switch and terminals with which the switch is adapted to interlock when in open position and a pivot pin for the switch that secures the cover in position.

1,075,979. TOOTH. ARTHUR M. KAEHR, Dubuque, Iowa, assignor of one-half to Frank Mindorfer, Dubuque, Iowa. Filed Feb. 1, 1913. Serial No. 745,738. (Cl. 32—9.)

1. In a device of the character described, a facing projecting above and concealing the backing and provided with openings set into the facing above the backing and in

a plane substantially parallel with the long axis of the tooth when fixed in position, said openings adapted to be engaged by headless pins of uniform size in the backing.



2. In a device of the character described, a facing provided with vertically disposed openings, extending into the incisal third of the tooth and adapted to be engaged by vertically disposed pins, means connected with the backing and adapted to engage the facing and for preventing the facing from becoming disengaged from the backing at the neck of the tooth.

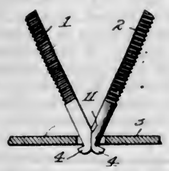
3. In a device of the character described, a backing, headless pins of uniform size throughout secured in the backing and projecting therefrom in substantially a vertical plane, in combination with the facing provided with openings set in substantially the same plane and adapted to be engaged by the pins in the backing, said facing set upon the backing with the incisal third thereof extending above the backing and means secured in the backing and adapted to engage the facing at the base and hold the facing from any movement away from the backing.

4. In a device of the character described, a facing set on a backing with its incisal third of the facing extending above the backing and provided with vertically disposed openings extending up into said incisal third beyond the backing, and said facing provided with an opening in its base, in combination with a backing provided with vertically disposed openings in substantially the same vertical plane and registering with the openings in the facing, pins set in the openings in the backing and adapted to engage the openings in the facing and be secured therein, and a lug secured to the backing and adapted to engage and be secured in the opening in the base of the facing.

5. In a device of the character described, a facing provided with vertically disposed openings, reinforcements on the rear of the facing, in combination with a backing provided with vertically disposed openings, reinforcements on the backing adapted to engage the facing between the reinforcements therein, and a plurality of pins adapted to be secured in the openings in the facing and backing and holding them together.

[Claims 6 and 7 not printed in the Gazette.]

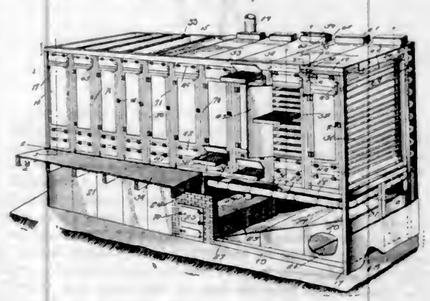
1,075,980. BOLT. PETER M. KLING, Elizabeth, N. J. Original application filed June 23, 1911, Serial No. 634,882. Divided and this application filed Mar. 2, 1912. Serial No. 681,127. (Cl. 85—4.)



1. A screw bolt of the character described, comprising two complementary bolt sections, each having a head offset substantially at right angles to the plane in which the bolt is divided into said sections, and each head being offset oppositely to the other head, the dimension of each section at right angles to the direction of said plane being smaller adjacent to its head than at the remainder of the section to permit said heads when registering to enter a hole not substantially larger than the diameter of the bolt, said heads moving away from each other when the two complementary bolt sections are assembled to receive the nut.

2. A screw bolt adapted to be locked in sheet metal, comprising two complementary bolt halves, each having a head offset to one side and oppositely to the direction in which the head of the other half is offset, the contacting surfaces of the two heads tapering away from each other toward the ends, said bolt heads when touching each other at said tapered surfaces adapted to pass simultaneously through a hole in the sheet metal not larger than the bolt diameter, said heads moving away from each other and sliding back of the sheet metal when the two complementary bolt halves are assembled to receive the nut.

1,075,981. FRUIT-EVAPORATOR. THEODORE E. KOEHLER, Mount Angel, Oreg. Filed July 17, 1912. Serial No. 710,003. (Cl. 34—39.)



1. A condenser and fruit evaporator comprising a frame having upper and lower compartments located therein, heating means disposed within the lower compartment, supporting frames slidable in the upper compartment, vertically movable trays supported within the supporting frames and means for vertically moving said trays.

2. The combination in a fruit evaporator and condenser of a frame having compartments provided therein, heating means for the lower of the compartments, said compartments being in communication, supporting frames slidable in the upper compartment, vertically movable trays mounted within the supporting frames, means for vertically moving the trays, dampers disposed adjacent the upper and lower ends of the supporting frames for controlling the passage of air therethrough and means for operating the damper.

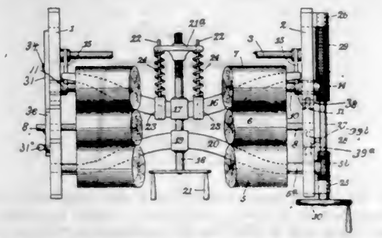
3. The combination in a fruit evaporator and condenser, of a frame having upper and lower compartments disposed therein, heating means within said lower compartment, supporting frames slidable within the upper compartment, vertically movable trays mounted within the supporting frames, means for vertically moving the trays, dampers for controlling the passage of air through said frames, condensing pipes disposed within the upper compartment and means for conducting the condensed vapor back to the heating means to be revaporized.

4. The combination in a fruit evaporator and condenser of a frame having upper and lower compartments disposed therein, heating means within the lower of the compartments, supporting frames slidable in the upper compartment, endless belts mounted within the supporting frames, and vertically movable trays supported by the endless belts.

5. The combination in a fruit evaporator and condenser of a plurality of supporting frames, means for supplying heat thereto, shafts journaled in the frames, sprocket wheels keyed to said shafts, chains passing over said sprocket wheel, angle bars connecting said chains and forming guides, trays slidable upon said guides and means for rotating the shafts and moving the trays vertically within the frames.

[Claims 6 to 8 not printed in the Gazette.]

1,075,982. MANGLE. WLADYSLAW LASOCKI, Warsaw, Russia, assignor to Mikolaj Kielisinski, Warsaw, Russia. Filed May 4, 1912. Serial No. 695,238. (Cl. 68—13.)



In a mangle the combination of a frame having a horizontal slot in each end wall thereof, a roll fixedly journaled in the end walls of the frame, a second roll displaceably journaled in the slots in the said end walls and a shaft provided with two worms, each roll carrying a worm gear meshing with one of the worms in all positions of the rolls, an intermediate roll, adapted to be frictionally driven by the former rolls, removably journaled in the frame, a slide mounted on the side of the frame having an arm, a hinged portion journaled on the other side of the frame, the hinged portion and the arm of the slide normally retaining the intermediate roll in the frame.

1,075,983. CARD FOR HOLDING ARTICLES HAVING AN ANGULAR PROFILE. RICHARD LEBENHART, Wrschowitz, near Prague, Austria-Hungary. Filed Mar. 7, 1912. Serial No. 682,259. (Cl. 211—34.)



1. A card for holding articles having a shank and a head firmly connected with the shank and projecting on two sides thereof, said card comprising a pair of flaps hinged so as to fold flat together and each having perforations adapted to register with the perforations in the other flap when the flaps are folded together, said perforations being of the shape of the transverse contour of the heads attached to the shanks of the articles, so that each of these heads can project partly through one flap and partly through the other while the shanks lie between the flaps in a plane parallel therewith.

2. A card for holding articles having a shank and a head firmly connected with the shank and projecting on two sides thereof, said card comprising a pair of flaps hinged so as to fold flat together and each having perforations adapted to register with the perforations in the other flap when the flaps are folded together, said perforations being of the shape of the transverse contour of the heads attached to the shanks of the articles, so that each of these heads can project partly through one flap and partly through the other while the shanks lie between the flaps in a plane parallel therewith, and means for securing the two flaps together in the folded condition, thereby locking the articles in place.

3. A card for holding articles of angular profile such as buttons, studs and the like having shank and head portions, comprising two flaps between which the shank of the articles is held, apertures in the flaps through which the head of the shank portion projects, and apertures in the lower portion of the flaps to enable the lower edges of the flaps to be secured together by passing therethrough the head portion of the articles.

4. A card for holding articles such as buttons, studs and the like, having a shank portion and two head portions, one of these head portions being firmly connected with the shank and projecting on two sides thereof, and the other head portion being separate from the shank, said card comprising a pair of flaps hinged so as to fold flat together and each having perforations adapted to register with the perforations in the other flap when the flaps are folded together, said perforations being of the shape of the transverse contour of the heads attached to the shanks of the articles, so that each of these heads can project partly through one flap and partly through the other while the shanks lie between the flaps in a plane parallel therewith and apertures in the flaps to enable these to be secured together in the folded condition by passing therethrough the loose head portions of the articles.

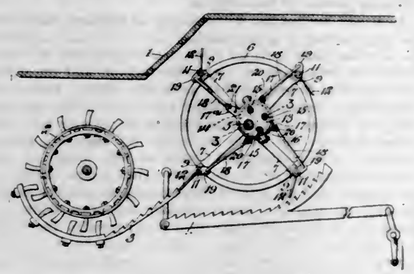
1,075,984. METAL FENCE-POST. WILLIAM MILO LEWIS, New Hartford, Iowa. Filed Jan. 16, 1913. Serial No. 742,436. (Cl. 256—56.)



1. A fence post comprising a body portion having therein transverse wire receiving slots which are cut through from the outer to the inner side of the post, said post having in its inner side above said transverse slots an outwardly and downwardly inclined guide groove and below said slots an outwardly and upwardly inclined clenching groove, the upper end of which terminates beyond the lower end of the guide groove above the slot, and tapered wire fastening pins adapted to be engaged with said guide grooves and between the inner surface thereof and the outer side of the fence wire and to be driven downwardly between the wire and the wall of the groove whereby the lower end of the pin is forcibly engaged with said clenching groove and thereby turned inwardly until the point of the pin projects beyond the lower end of the clenching groove, said point being upset into clenching engagement with the inner side of the post.

2. A fence post comprising an angle iron body having in the apex or angular corner thereof a series of transversely disposed wire receiving slots which are cut through to the inner side of the post, said post having its apex swaged outwardly above said slots to form downwardly and outwardly inclined guide grooves and, having its apex below said grooves swaged outwardly to form upwardly and outwardly inclined clenching grooves, said guiding and clenching grooves communicating with said slots, tapered wire fastening pins adapted to be engaged with said wire guiding grooves between the wires of the fence and the inner walls of the grooves whereby when the pins are driven downwardly the lower ends thereof will be engaged with said inclined clenching groove and will be thereby turned inwardly until the point of the pin projects beyond the lower end of the groove, said pointed end of the pins being upset and clenched into engagement with the inner side of the post, the tapered structure of said pins when thus driven through the guide grooves 4 and into engagement with the clenching grooves bending or kinking the wires of the fence whereby the latter are locked against longitudinal movement in the wire receiving slots of the post.

1,075,985. THRESHING-MACHINE. JOHN S. MCCALLUM, Goldfield, Iowa. Filed Feb. 13, 1913. Serial No. 748,254. (Cl. 130—22.)



1. In a threshing machine, a fork drum comprising a shaft with spaced heads thereon, a peripheral series of shafts mounted on the heads and extending parallel with the drum shaft, tines carried by the peripheral series of shafts, a rock arm on each peripheral shaft, an eccentric strap and link connections therefrom to the respective rock arms, and an eccentric block carrying the strap and encircling the drum shaft, said block having means for holding it against rotation.

2. In a threshing machine, the combination with a grate having the rear end raised, and a straw rack having the forward end lower than the rear end of the grate, of a fork drum above the straw rack and having rockable forks thereon, and means for rocking the forks into active relation to the raised rear end of the grate and to the straw rack and into trailing relation with respect to the direction of rotation of the forks as they move over the straw rack, the rear raised end of the grate and the forks being so disposed as to cause the free ends of the tines of the forks to move across the raised end of the grate in paths substantially perpendicular to the grate and with said tines in substantial alinement with the said raised end of the grate.

3. In a threshing machine, a fork drum comprising a shaft, spaced heads mounted thereon, rock shafts journaled on the peripheral portion of the drum in parallel relation to the first shaft, tines carried by the rock shafts, rock arms on the rock shafts, an eccentric block provided with means for holding it against rotation, an eccentric strap mounted on the block, and link connections between the strap and rock arms, one of the link connections being fixed to the strap.

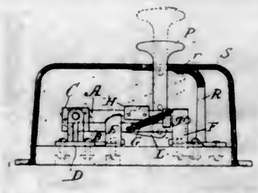
4. In a threshing machine, a fork drum provided with a peripheral series of rock shafts each provided with a rock arm, tines carried by the rock shafts, an eccentric strap and eccentric block carrying the latter and having means for holding it against rotation, and connections between the rock arms and the eccentric strap, one of said connections being fixed to the eccentric strap, and the other connections being pivoted thereto.

1,075,986. ELECTRIC SWITCH. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car-Heating Company, a Corporation of West Virginia. Filed Sept. 16, 1909. Serial No. 517,959. (Cl. 175—286.)

1. An electric switch comprising a pair of parallel blades, an inwardly projecting lateral bracket carried by each blade, an insulating block connecting the brackets, a pair of forwardly projecting ears carried by the block, and a handle pivotally connected to the ears.

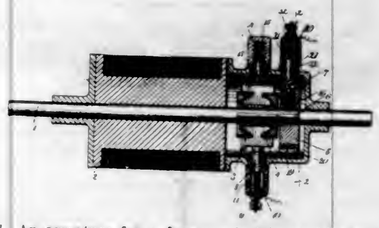
2. An electric switch comprising blades, laterally projecting brackets carried thereby, insulating means connecting the brackets, and an operating handle pivotally connected to the insulating means.

3. An electric switch comprising a base, supports carried thereby, a pair of switch blades pivotally connected to each support, each pair of blades including an upper blade and a lower blade, brackets carried by the upper blades, an insulating connection for the brackets, and an operating handle pivotally connected to the insulating connection.



4. An electric switch comprising a base, supports carried thereby, a pair of blades, each pair of blades including an upper blade and a lower blade, a bracket carried by each upper blade, an insulating connection between the brackets, a handle pivotally connected to the connection, a clip carried by each pair of blades, said clips being rigidly fastened to the upper blades and pivotally fastened to the lower blade, means for pivotally connecting the clips and the upper blades to the supports, and a resilient connection between the upper and lower blades.

1,075,987. AUTOMATIC CONTACTING DEVICE. FRANK MCMAHON, Union City, Ind., assignor of one-half to Fred. W. Schmidt, Union City, Ind. Filed May 22, 1911. Serial No. 628,688. (Cl. 171—313.)



1. An armature for a dynamo electric machine embodying a shaft, a commutator and a collector ring on the shaft, a plurality of brushes bearing on the commutator and the ring, one of the commutator brushes being in electrical circuit with the shaft, and means whereby the shaft may be placed in electrical circuit with the brush bearing on the collector ring when a predetermined speed has been reached.

2. An armature for a dynamo electric machine embodying a shaft, a commutator and a collector ring mounted on and turning with the shaft, brushes bearing on the commutator, a brush bearing on the collector ring, one of the commutator brushes being in electrical circuit with the shaft, and a centrifugal device for bringing the said collector ring into electrical communication with the shaft after a certain speed has been reached.

3. An armature for a dynamo electric machine embodying a shaft, a commutator and a collector ring turning with the shaft, one of the commutator brushes being in electrical circuit with the shaft, and a centrifugal device in electrical contact with the shaft and adapted to be brought into electrical contact with the said collector ring after a certain speed has been reached, whereby the brush bearing on the collector ring is placed in circuit with the beforementioned commutator brush.

4. An armature for a dynamo electric machine comprising a shaft, a commutator and a collector ring carried by and turning with the shaft, brushes bearing on the commutator, a brush bearing on the ring, one of the commutator brushes being in electrical circuit with the shaft, and movable means adapted to bring the shaft into electrical circuit with the said ring after a certain speed has been attained, whereby the brush bearing on the ring will be in electrical circuit with the beforementioned commutator brush.

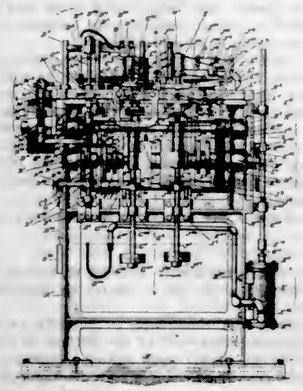
1,075,988. CONCRETE POST. CHARLES A. MELCHERT and WILLIAM D. SNYDER, Kansas City, Mo. Filed June 4, 1912. Serial No. 701,515. Renewed Sept. 8, 1913. Serial No. 788,759. (Cl. 72—82.)



1. The combination with a post body of plastic material having shelves formed integrally on one face thereof, of plates embedded in the body and in said shelves, each of said plates having a corner projecting from the post body and from one of the shelves and said corner having a slot with its lower edge lying flush with the upper face of a shelf, substantially as set forth.

2. The combination with a post body of plastic material having shelves formed integrally therewith, of a reinforcing rod extending longitudinally through the post and clamp plates embedded in said body and in the shelves and having lips on their inner ends turned back of the reinforcing rod, the projecting portions of the plates being slit, and having slots located directly above the shelves and adapted for holding fence wires thereon, substantially as set forth.

1,075,989. MACHINE FOR PRINTING AND FOR OTHER PURPOSES. WILLIAM E. NICKERSON, Cambridge, Mass., assignor to Gillette Safety Razor Company, Boston, Mass., a Corporation of Maine. Filed Feb. 16, 1906. Serial No. 301,488. (Cl. 101—83.)



1. In a machine for printing on metal, the combination of a rotatable stack-plate for holding supply stacks of metal, a printing block and means for printing on the metal, means for conveying the metal from said stack-plate to said printing-block, and means for automatically turning the stack-plate in partial rotations whereby the supply stacks of metal are brought successively into position to register with the conveying means.

2. In a machine for printing on metal, the combination of a rotatable stack-plate for holding supply stacks of metal, a printing block and means for printing on the metal, means for conveying the metal from said stack-plate to said printing block, a spindle on which said stack-plate is mounted, a friction disk rigidly secured to said spindle, a pulley loosely mounted on said spindle and on which said friction disk is made to bear and support said spindle, and means for interrupting the rotary movements of said spindle at stated intervals.

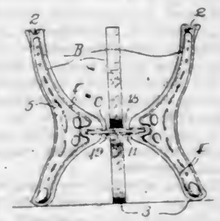
3. In a machine for printing on metal, the combination of a rotatable stack-plate for holding supply stacks of metal, a printing block and means for printing on the metal, means for conveying the metal from said stack-plate to said printing block, means for rotating said stack-plate, latch pieces on said stack-plate, a latch for engaging said latch pieces, and means for causing the operation of the latch for stopping the rotation of the stack-plate at stated intervals.

4. In a machine for printing on metal, the combination of a rotatable stack-plate for holding supply stacks of metal, a printing block and means for printing on the metal, means for conveying the metal from said stack-plate to said printing block, a spindle on which said stack-plate is mounted, a pulley loosely mounted on said spindle, a friction disk rigidly secured to said spindle and adapted to support the same and to give rotary motion thereto by bearing on said pulley, latch pieces on said stack-plate, a pivotal latch adapted to engage said latch pieces, and a pull rod and actuating connections therewith for disengaging said latch from said latch pieces at stated intervals.

5. In a machine for printing on metal, the combination of a stack-plate for holding supply stacks of metal, a printing block and means for printing on the metal, a carrying-arm mounted to move vertically and swing laterally, a suction cylinder, said carrying-arm being provided at its outer end with a suction pad having an annular recess surrounding a solid central portion and forming a suction space, and with communicating passage ways leading from said annular suction space through said carrying-arm, and by suitable means connecting with said suction cylinder, and means for causing said carrying-arm to move with adhering metal from said stack-plate to said printing block and back to the stack-plate.

[Claims 6 to 39 not printed in the Gazette.]

1,075,990. BOILER-STAND. THOMAS O'CONNELL, St. Paul, Minn. Filed May 1, 1911. Serial No. 624,448. (Cl. 248—41.)

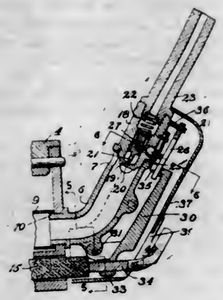


1. A boiler stand comprising a plurality of legs each having upper and lower engaging notches in fixed position and opposed to each other, and a connector having upper and lower lugs adapted to engage said notches on said leg to fix them rigidly, said lugs being positioned to adjust said legs to one size of boiler in one position of said connector and to another size of boiler in the reversed position of said connector.

2. A boiler stand comprising a plurality of leg parts in fixed position thereon having engaging notches, a connector ring adapted to carry said leg parts and having a pair of integral lugs disposed on opposite sides of said ring at different distances from the center of said stand to engage

each of said leg parts to hold it in one position in the normal position of said ring and in another position in a reversed position of said ring.

1,075,991. AUTOMATIC TEMPERATURE CONTROL FOR SELF-HEATING FLAT-IRONS. EDWIN RUUD, Pittsburgh, Pa. Filed Jan. 2, 1913. Serial No. 739,644. (Cl. 236—5.)



1. The combination of a flat iron body having the portion thereof adjacent its smoothing surface constituting the expansive element of a thermostat, means for communicating heat to said smoothing surface, a device for varying the amount of supplied heat, and a neutral thermostatic element coöperating with the first mentioned thermostatic element and operatively connected to said device for transmitting movement from the first mentioned thermostatic element to said device.

2. The combination of a flat iron body having the portion thereof adjacent its smoothing surface constituting the expansive element of a thermostat, a gas supplied burner for heating the smoothing surface, a valve for controlling the flow of gas to the burner, and a neutral thermostatic element coöperating with the first mentioned thermostatic element and operatively connected to the valve for communicating movement of the first mentioned thermostatic element to the valve for proportioning the flow of gas to the heat consuming demands upon the smoothing surface.

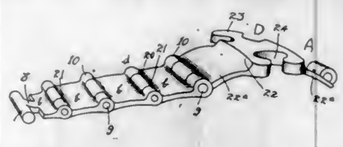
3. The combination of a flat iron body having the portion thereof adjacent its smoothing surface constituting the expansive element of a thermostat, a gas supplied burner for heating the smoothing surface, a valve for controlling the flow of gas to the burner, a spring for moving the valve in one direction, and a neutral thermostatic element coöperating with the first mentioned thermostatic element and operatively connected to the valve for moving the latter in opposition to the spring and thereby proportioning the flow of gas to the heat consuming demands upon the smoothing surface.

4. The combination of a flat iron, a gas supplied burner for heating the same, a valve casing for passing gas to the burner, the casing being formed with a valve seat, a valve movable within the casing, a lever at the exterior of the casing and operatively connected to the valve, lever operating means, and means for limiting the movement of the lever and thereby preventing the valve from fully seating.

5. The combination of a flat iron formed with a cavity adjacent its smoothing face, a neutral rod located in said cavity, heating means carried by the iron, and heat controlling means operatively connected to said rod and adapted to immediately and directly receive movement from the iron body due to expansion and contraction thereof.

[Claims 6 to 17 not printed in the Gazette.]

1,075,992. VEHICLE-TIRE. ARTHUR W. SAVAGE, Duarte, Cal. Filed Feb. 13, 1911. Serial No. 608,349. (Cl. 152—16.)



1. A vehicle tire, comprising a plurality of sections, and securing means for connecting each of said sections separately with the felly of a wheel; said securing means comprising rings fitted to the felly of the wheel and provided with spaced slotted portions; each of said sections being provided at each end with a neck fitting one of said slotted portions and with a relatively enlarged head formed to engage with the inner surface of the respective ring; there being ears upon the rings formed to engage with the necks.

2. A vehicle tire comprising a plurality of separate sections, securing means for connecting the same with a wheel of the vehicle, each of the sections being provided with a tread portion, and inter-locking means between and detachably connecting adjacent tread portions; said inter-locking means comprising inter-locking heads and recesses open at one side, the latter of which extend entirely through the tread portions.

3. A vehicle tire, comprising a plurality of separate sections, securing means for connecting the same with a wheel of the vehicle, each of the sections being provided with a tread portion, and interlocking means between and detachably connecting adjacent tread portions; said interlocking means comprising interlocking heads and recesses open at one side, the latter of which extend entirely through the tread portions and normally entirely contain the heads.

4. A vehicle tire, comprising a plurality of separate sections, securing means for connecting the same with a wheel of the vehicle, each of the sections being provided with a tread portion, and interlocking means between and detachably connecting adjacent tread portions; said interlocking means comprising interlocking heads and recesses open at one side, the latter of which extend entirely through the tread portions and normally entirely contain the heads; said interlocking heads and recesses being formed to permit relative play between the parts including the same in all directions.

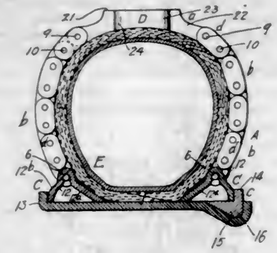
5. In a vehicle tire, a pair of separate sections, means for connecting the same with a wheel of the vehicle, and interlocking means between and detachably connecting the sections; said interlocking means comprising a head upon one section, the other section being formed with a recess to receive said head in interlocking relation; said recess being open at one side, and said head fitting said recess so as to permit relative play between said sections in all directions.

[Claims 6 and 7 not printed in the Gazette.]

1,075,993. VEHICLE-TIRE. ARTHUR W. SAVAGE, Duarte, Cal. Filed June 21, 1911. Serial No. 634,559. (Cl. 152—16.)

1. A vehicle tire, comprising a plurality of sections, and means for securing each of the sections in connection with the vehicle wheel; said means comprising slotted annuli upon the wheel, said annuli having spaced side portions, and means upon the sections fitting the spaces between the side portions of the annuli and formed to traverse said slotted portions; and adjustable seals covering said slotted portions of said annuli.

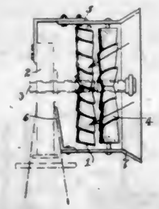
2. A vehicle tire, comprising a plurality of sections, and means for detachably securing each of the sections in connection with the vehicle wheel, said means comprising slotted annuli upon the wheel and having divergent side portions, and connection heads formed for engagement with the annuli between the divergent side portions thereof; said divergent side portions being adapted to rest upon the felly of the wheel with certain of said side portions forming with the felly a pneumatic tube seat, and holding means abutting against the other side portions of the annuli.



3. A vehicle tire, comprising a plurality of separate sections, and securing means for connecting the same with a wheel of the vehicle, each of the sections being provided with a tread portion, and interlocking means between and detachably connecting adjacent tread portions; said interlocking means comprising laterally directed hook-shaped heads and recesses receiving the same.

4. A vehicle tire, comprising a plurality of separate sections, and securing means for detachably connecting the same with a wheel of the vehicle, each of the sections being provided with a tread portion, and interlocking means between and detachably connecting adjacent tread portions; said interlocking means comprising laterally directed hook-shaped heads and recesses receiving the same, said hook-shaped heads being alternately directed oppositely throughout the continuous series of tread portions.

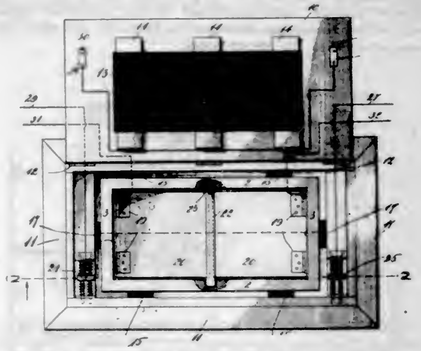
1,075,994. WINDMILL. JOSÉ SERRAMOGLIA and ENRIQUE MIDDLETON, Rosario de Santa Fé, Argentina. Filed Mar. 5, 1913. Serial No. 752,053. (Cl. 170—4.)



A wind mill, embodying therein a tower, a shaft mounted for rotation in the head of said tower, a bladed driving wheel fixed to said shaft intermediate its ends, a frame extending at right angles from the head of said tower, said frame comprising upper and lower parallel metal bars, a fan or bladed wheel secured against movement to each of said bars, said wheel having a plurality of blades thereon fewer in number than the blades on the driving wheel and curved in a direction opposite that in which the blades on the driving wheel are curved, and a flaring wind guide carried at the ends of said bars adjacent said fixed wheel and adapted to guide the wind to the latter.

1,075,995. APPARATUS FOR ELECTROCUTING ANIMALS. HUNTINGTON SMITH, Dedham, Mass. Filed Feb. 17, 1912. Serial No. 678,229. Renewed Mar. 24, 1913. Serial No. 756,563. (Cl. 175—311.)

1. In an electrocuting apparatus for animals, a cage having a receptacle of some non-conducting material, separate floor plates of some conducting material in the bottom of said receptacle with spaced adjacent edges, other connections in circuit with said plates, and a crossbar of some non-conducting material arranged above said plates adjacent the spaced edges thereof.



2. In an electrocuting apparatus for animals, a cage having a receptacle of some non-conducting material, fixtures of some conducting material secured to the ends of said receptacle, spaced floor plates of some conducting material in the bottom of said receptacle and loosely connecting with said fixtures, and other connections in circuit with said fixtures.

3. In an electrocuting apparatus for animals, a cage having a receptacle of some non-conducting material, a lid through which entrance is had to the chamber of said receptacle, separate spaced floor plates of some conducting material in the bottom of said receptacle, other connections in circuit with said plates, the same comprising in part separate electric contact-forming members adjacent said lid when in a closed position, and means carried by said lid whereby the circuit may be completed between said members when said lid is closed.

4. In an electrocuting apparatus for animals, a cage comprising in part a receptacle of some non-conducting material having an open top, an outer receptacle enveloping said inner receptacle, the same being spaced and insulated therefrom and provided with a lid covering the opening into said inner receptacle, separate spaced floor plates of some conducting material in the bottom of said inner receptacle, and other connections in circuit with said plates.

5. In an electrocuting apparatus for animals, a cage having a receptacle of some non-conducting material with an opening into the same, spaced floor plates of some conducting material in the bottom of said receptacle, connections in circuit with said plates, a lid controlling the opening into said receptacle, and a foot-operated device for controlling said lid.

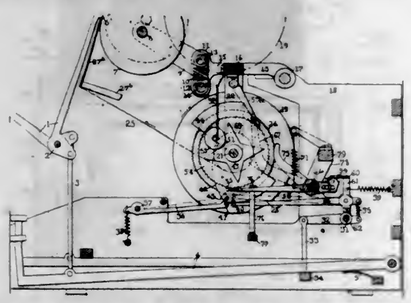
[Claim 6 not printed in the Gazette.]

1,075,996. RIBBON MECHANISM FOR TYPE-WRITERS. BURNHAM C. STICKNEY, Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 31, 1903, Serial No. 187,362. Renewed July 12, 1909. Serial No. 507,086. (Cl. 197—162.)

1. The combination of a pair of ribbon spools, a ratchet wheel for each spool, a step-by-step driving pawl for each ratchet wheel, a revoluble pawl-controller, means for revolving said pawl-controller in a single direction, and a detent for said controller; said means for revolving the pawl-controller being normally motionless during the action of said pawls, and means being provided to cause said revolving means to act only when the ribbon is paid off from either spool, to render effective the pawl of the empty spool and ineffective the pawl of the full spool.

2. The combination of a pair of ribbon spools, a driver, means for enabling said driver to turn either spool, a revoluble controller, a member upon said controller adapted for coöperation with a moving part of the machine,

whereby said controller may be turned in a single direction, ribbon-controlled means for effecting such coöperation, a star-wheel and spring which coöperate to complete the controller movement to a predetermined point, and means whereby such movement of the controller causes said driver to become disconnected from the full spool and re-connected to the empty spool.



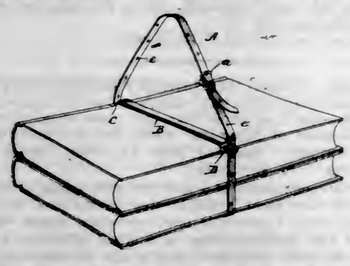
3. The combination of a key, a pair of ribbon spools, a driver under the control of said key, means for enabling said driver to turn either spool, a revoluble controller, a ratchet-wheel connected to said controller, a pawl for actuating said ratchet-wheel, ribbon-controlled means for operatively connecting said pawl to said key, a star-wheel and spring for said controller, and feed-reversing means operated by said controller.

4. The combination of a pair of ribbon spools, a ratchet wheel for each spool, a driving pawl for each ratchet wheel, a driver for said pawls, a revoluble controller having cams constructed to operate in alternation, for rendering first one pawl and then the other ineffective, and ribbon-controlled means for rotating said controller always in the same direction.

5. The combination of a key, a pair of ribbon spools, a ratchet wheel for each spool, a driving pawl for each ratchet wheel, a driver for said pawls, said driver being controlled by said key, a revoluble controller having cams constructed to operate in alternation, for rendering first one pawl and then the other ineffective, a ratchet-wheel connected to said controller, a pawl for actuating said controller ratchet-wheel, and ribbon-controlled means for operatively connecting said controller pawl to said driver.

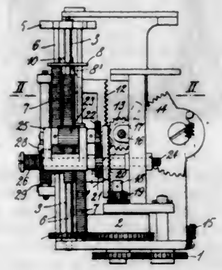
[Claims 6 to 103 not printed in the Gazette.]

1,075,997. BUNDLE OR PACKAGE CARRIER. HERBERT S. THOMAS, New York, N. Y. Filed June 8, 1909. Serial No. 500,882. (Cl. 224—55.)



A collapsible package carrier comprising a flexible strap the ends of which are free so that said strap may be looped around packages of varying sizes, an elastic clamping strap doubled upon itself and positioned within the loop of said flexible strap, two buckles connected to the respective end portions of said doubled elastic strap, said buckles being slidably fitted to the respective side portions of the flexible strap and operating to adjustably attach the respective end portions of said elastic strap to the respective side portions of the flexible strap whereby the elastic strap may be stretched and shifted to exert pressure upon the package, and coupling means for the free ends of the flexible strap, said coupling means being separate from said buckles.

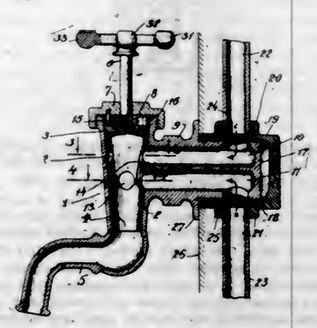
1,075,998. TACHOMETER. OTTO ABEREGG, Berne, Switzerland, assignor to Hasler A. G. vormals Telegraphen-Werkstätte von G. Hasler, Berne, Switzerland, a Corporation of Switzerland. Filed June 20, 1913. Serial No. 774,729. (Cl. 235—104.)



1. In a tachometer of the character described, the combination of a plurality of guide rods conjointly rotatable about a common axis, a cylindrical, toothed measuring piece slidable along and rotatable on each of said rods, a spring-influenced detent adapted to arrest the measuring pieces in turn, and means for intermittently rotating said guide rods about said axis.

2. In a tachometer of the character described, the combination of a plurality of guide rods conjointly rotatable about a common axis, a cylindrical, toothed measuring piece slidable along and rotatable on each of said rods, a spring-influenced arm, a cylindrical, toothed detent rotatably mounted on said arm and adapted to arrest the measuring pieces in turn, and means for intermittently rotating said guide rods about said axis.

1,075,999. FAUCET. LOUIS ABRAMOVITZ, New York, N. Y. Filed Mar. 11, 1913. Serial No. 753,546. (Cl. 137—26.)

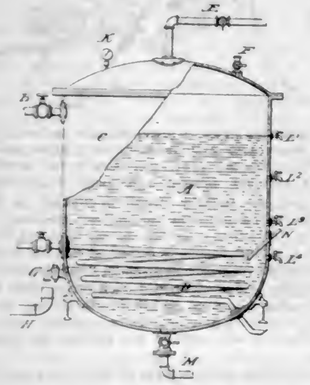


1. A faucet comprising two independent supply-ducts arranged in superposed relation and provided with a rotary plug-valve having three separated inlet ports one of which is adapted to communicate with one of said supply-ducts while the other is closed, and another with the other of said supply-ducts while the first mentioned supply-duct is closed, and the third valve-port being elongated with its central line of length arranged obliquely to the vertical and adapted to register with both of said supply-ducts simultaneously and to open both of them equally when the valve is turned in either direction and also to vary the uncovered area of the openings relatively to each other when turned in either direction, substantially as and for the purpose set forth.

2. A faucet comprising a valve-casing provided with an externally threaded lateral extension having two supply ducts communicating with the valve-chamber and the exterior of the side of said extension, an internally threaded cup-shaped fitting mounted on said lateral extension and provided with laterally projecting nipples registering with the respective supply duct openings in the side of said extension, and the valve provided with ports for coöperating with said two supply ducts, substantially as described.

3. A faucet comprising a valve-casing provided with an externally threaded lateral extension having two supply ducts arranged one above the other in the same vertical plane and communicating with the valve-chamber and the exterior of the side of said extension and closed at the outer ends, an internally threaded cup-shaped fitting mounted on said lateral extension and provided with laterally projecting nipples registering with the respective supply duct openings in the side of said extension, and the valve provided with ports for coöperating with said two supply-ducts, substantially as described.

1,076,000. PRODUCTION OF TRANSLUCENT, UNIFORMLY-COLORED PARAFFIN. JACOB v. RIJN v. ALKEMADE, Balik Papan, Borneo, Dutch East India. Filed Jan. 27, 1913. Serial No. 744,544. (Cl. 106—24.)



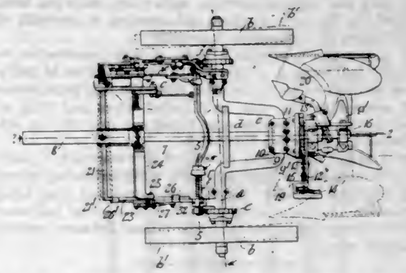
1. A process for rendering paraffin uniformly translucent, which comprises removing the air from the paraffin while molten, and maintaining the air excluded from the paraffin until cooled down to molding or casting condition.

2. A process for rendering paraffin uniformly translucent, which comprises establishing a vaccum over the paraffin while in a molten condition and maintaining said vacuum until the paraffin has cooled to molding or casting condition.

3. A process of rendering paraffin uniformly translucent, which comprises melting the paraffin by passing steam through it in a suitable container, and establishing a vacuum over the paraffin by the condensation of the steam in said container while cooling the paraffin to molding or casting condition.

1,076,001. SULKY-PLOW. LEWIS A. BUTTERFIELD, Chicopee Falls, Mass., assignor to Belcher & Taylor Agricultural Tool Company, Chicopee Falls, Mass., a Corporation of Massachusetts. Original application Filed Nov. 16, 1911. Serial No. 660,564. Divided and this application filed Mar. 16, 1912. Serial No. 684,150. (Cl. 97—27.)

1. In a reversible sulky plow, in combination with the main frame thereof, and supporting wheels secured to the ends of the main frame, a pole attached to said frame, a two-part frame having a loose connection with the main frame, and means for moving a portion of the two-part frame whereby the width of the furrow to be cut may be varied.



2. In a reversible sulky plow, a main frame, a two-part frame attached thereto, and means to move one part of the said frame to vary the width of cut of the furrow.

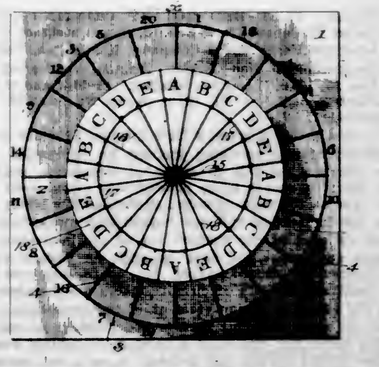
3. In a reversible sulky plow, a main frame, a two-part frame attached thereto, and means to move one part of the said frame to vary the width of cut of the furrow, whereby the pole is retained in a fixed position and one wheel is moved forward, and the other rearward.

4. In a reversible sulky plow, the combination with a single beam, two mold-boards supported thereon, the pole and beam being always in line with each other, a two-part frame, and means to shift one frame relative to each to move one supporting wheel forward and the other rearward, whereby the width of the furrow to be cut may be varied.

5. In a reversible sulky-plow, the combination with the two supporting wheels, a single beam member on which right and left-hand mold-boards are pivotally supported, a main frame, a two-part frame, one side of which is slidably connected to the main frame and pivotally connected to the main frame at its opposite side, a landing lever to move the slidably connected part of the two-part frame, whereby the supporting wheels are shifted in alternate directions to vary the width of the furrow being cut.

[Claims 6 and 7 not printed in the Gazette.]

1,076,002. REVOLVING TARGET. JAMES U. CLARKE, Philadelphia, Pa. Filed Aug. 23, 1910. Serial No. 578,538. (Cl. 124—16.)



1. In a device of the character stated, a base, a plurality of concentric rings secured thereto and forming a target space, a spindle secured to said base, a target carried by said spindle and adapted to rotate with respect to said base, means detachably securing said target to said spin-

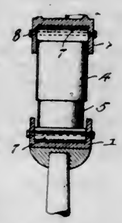
die, a plurality of subdivisions on said rotatable target, and a strip forming a plurality of subdivisions detachably secured between said concentric rings.

2. A target comprising a body of soft material, a circular wire ring and a series of radial wires extending across said ring and secured thereto, said wires and ring being secured to the body portion and forming a plurality of subdivisions in connection therewith.

3. A target comprising a body of soft material, a removable bull's-eye, a circular wire ring, a series of radial wires secured to and extending from the bull's-eye across and secured to the ring, said radial wires and ring secured to the body portion and forming a plurality of subdivisions in connection therewith.

4. A target comprising a body of soft material, a circular wire ring and a series of radial wires extending across said ring and secured thereto, said wires and ring being secured to the body portion and a plurality of indicated spaces corresponding to the spaces formed between radially arranged wires.

1,076,003. SPRING-WHEEL. WESSON J. COOK and PARDON COOK, Albany, N. Y. Filed June 2, 1911. Serial No. 630,770. Renewed Feb. 6, 1913. Serial No. 746,667. (Cl. 152—38.)

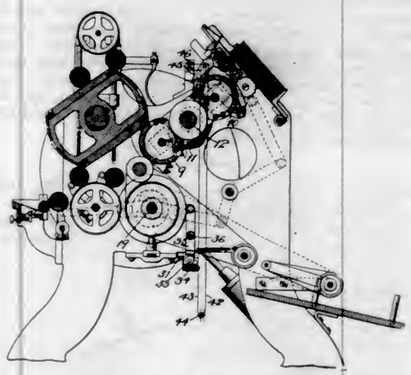


In a vehicle wheel comprising inner and outer channel rims with the channel sides facing, cushioning devices interposed between the rims, each cushioning device formed of telescoping barrels and a helical spring, the latter having eyes at its ends, the outer ends of the barrels being heavy and of such a size as to touch the inner walls of the side flanges of the rims and having their extremities made rounding, and fastenings passing transversely through the outer ends of the barrels, the side flanges of the rims and the eyes of the springs and connecting the several parts.

1,076,004. FLAT-BED ROTARY PRINTING-PRESS. HENRY B. COOLEY, New Britain, Conn., assignor to The American Paper Goods Company, Kensington, Conn., a Corporation of New Jersey. Original application filed Jan. 25, 1910, Serial No. 539,942. Divided and this application filed Nov. 11, 1910. Serial No. 591,858. (Cl. 101—111.)

1. In a printing press, a form cylinder provided with a plurality of type receiving portions, an impression cylinder provided with a plurality of impression segments for carrying sheets to be printed into engagement with the type on the form cylinder, mechanism for bodily moving the impression cylinder toward and away from the form cylinder at the moment one of the impression segments approaches the form cylinder, an electric circuit including an electro-magnet for controlling the said mechanism, and sets of circuit makers and breakers one set for each impression segment of the impression cylinder, one of said circuit makers and breakers of each set being under the control of a sheet to be printed and the other circuit maker and breaker of each set being arranged to determine the length of time the circuit shall be closed whereby the impression cylinder is moved bodily away from the form cylinder whenever an impression segment approaches the form cylinder without a sheet thereon.

2. In a printing press, a form cylinder for receiving the type, an impression cylinder for carrying a sheet into engagement with the type, mechanism for moving the impression cylinder toward and away from the form cylinder and an electric circuit including an electro-magnet for controlling said mechanism, the said electric circuit also including a circuit maker and breaker consisting of a spring actuated bridge piece pivoted to and insulated from the impression cylinder and means for forcing the bridge piece into position to close the circuit comprising a spring actuated rocking dog insulated from and carried by the impression cylinder and a cam for operating the said rocking dog against the tension of its actuating spring.

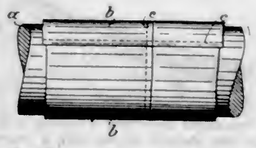


3. In a printing press, a form cylinder for receiving the type, an impression cylinder for carrying a sheet into engagement with the type, mechanism for moving the impression cylinder toward and away from the form cylinder, and an electric circuit including an electro-magnet for controlling said mechanism, the said electric circuit also including a circuit maker and breaker consisting of a spring actuated forked bridge piece pivoted to and insulated from the impression cylinder, and means for forcing the bridge piece into position to close the circuit comprising a spring actuated rocking dog insulated from and carried by the impression cylinder and a cam for operating the said rocking dog against the tension of its spring.

4. In a printing press, a form cylinder for receiving the type, an impression cylinder for carrying a sheet into engagement with the type, mechanism for moving the impression cylinder toward and away from the form cylinder and an electric circuit including an electro-magnet for controlling said mechanism, the said electric circuit also including a circuit maker and breaker consisting of a spring actuated bridge piece pivoted to and insulated from the impression cylinder and means for forcing the bridge piece into position to close the circuit comprising a spring actuated bifurcated dog insulated from and carried by the impression cylinder and a cam for operating the said dog against the tension of its actuating spring.

5. In a printing press, a form cylinder for receiving the type, an impression cylinder for carrying a sheet into engagement with the type, mechanism for moving the impression cylinder toward and away from the type, an electric circuit including an electro-magnet for controlling said mechanism, the said electric circuit being provided with exposed terminals at the surface of the impression cylinder, extended contact pieces carried by the impression cylinder and electrically connected with said terminals and with a pair of stationary terminals in position to be engaged by the said extended contact pieces, a spring actuated bridge piece insulated from and carried by the impression cylinder in position to be forced into contact with the aforesaid exposed terminals whenever a sheet to be printed fails to enter between the said bridge piece and terminals and means for forcing the bridge piece toward the said exposed terminals as the impression portion of the impression cylinder approaches the type on the form cylinder.

1,076,005. PROCESS FOR THE MANUFACTURE OF SAUSAGE-SKINS AND THE LIKE. HERMANN DEUTSCH, Szabadka, Austria-Hungary. Filed Sept. 7, 1912. Serial No. 719,168. (Cl. 99—8.)



A process for the manufacture of bags from animal intestinal membranes for holding meat, sausage meat or other articles of food, which consists in taking the skins or intestines which have been cleaned, polished and prepared in the usual manner, and stretching them while wet over a mandrel and uniting or cementing them together at their meeting edges, and when dry detaching and removing them from the said mandrel.

1,076,006. PROCESS OF PREPARING A PRECIOUS-METAL-DISSOLVING MEANS. HANS FOERSTERLING, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Original application filed Sept. 21, 1909, Serial No. 518,735. Divided and this application filed Dec. 7, 1910. Serial No. 596,138. (Cl. 75—185.)

1. A process of preparing a precious metal dissolving means consisting in forming a homogeneous solidified mixture of an alkali cyanid and an alkali halogen and dissolving the same in the presence of an oxidizing agent.

2. A process of preparing a precious metal dissolving means consisting in forming a homogeneous solidified mixture of sodium cyanid and sodium bromid and dissolving the same in the presence of an oxidizing agent.

3. A process of preparing a precious metal dissolving means consisting in forming a homogeneous solidified mixture of an alkali cyanid and an alkali halogen and dissolving the same in the presence of an acid solution of a suitable peroxid.

4. A process of preparing a precious metal dissolving means consisting in forming a homogeneous solidified mixture of sodium cyanid and sodium bromid and dissolving the same in the presence of an acid solution of a suitable peroxid.

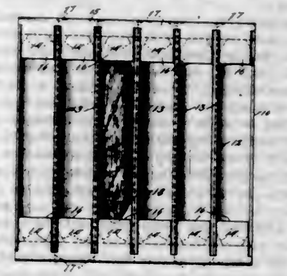
5. A process of preparing a precious metal dissolving means consisting in forming a homogeneous solidified mixture of sodium cyanid and sodium bromid and dissolving the same in the presence of an acid solution of hydrogen peroxid.

1,076,007. CIGAR-WRAPPER. ESSINGTON N. GILFILLAN, Syracuse, N. Y., assignor of fifty-one one-hundredths to John Hunter, Fulton, N. Y.; Edith G. Hanson administratrix of said Gilfillan, deceased. Filed Oct. 27, 1909. Serial No. 524,963. (Cl. 229—87.)

1. An article of the class described comprising an integral strip of stiff pasteboard provided with adjacent elongated depressions, and having edge reinforcing pieces at the extremities of the depressions, said strip being adapted to be folded upon itself with the depression in one fold opposite to those in the other for inclosing the cigars.

2. An article of the class described comprising an integral strip of stiff pasteboard provided with adjacent elongated depressions having weakened division lines between the depressions, and protecting means for the extremities of the depressions, said strip being adapted to be folded upon itself with the depressions in one fold opposite to those in the other for inclosing the cigars.

3. A wrapper for cigars comprising an integral strip of stiff material provided with adjacent elongated depressions having weakened division lines between the depressions and a reinforcing strip secured to opposite edges of the first of said strips and extending transversely across the ends of the said depressions, said reinforcing strips being provided with weakened portions coinciding with the said division lines between the depressions, the first of said strips being adapted to be folded upon itself with the depressions in one fold opposite to those in the other for inclosing the cigars.

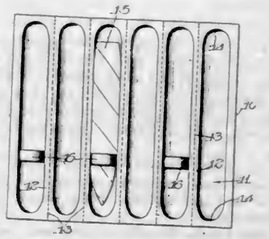


4. A wrapper for cigars comprising an integral strip of stiff material provided with adjacent elongated complementary depressions adapted to receive the cigars, and end pieces for holding the cigars centrally and preventing longitudinal movement thereof in the depressions, said strip being adapted to be folded upon itself with the depressions in one fold opposite those in the other fold for inclosing the cigars.

5. A wrapper for cigars comprising an integral strip of stiff material provided with adjacent elongated depressions adapted to receive the cigars and having weakened division lines between the depressions, and means secured to the ends of each depression for holding the cigar centrally in said depression, said strip being adapted to be folded upon itself with the depressions in one fold opposite those in the other fold for inclosing the cigars.

[Claims 6 to 12 not printed in the Gazette.]

1,076,008. CIGAR-WRAPPER. ESSINGTON N. GILFILLAN, Syracuse, N. Y., assignor of fifty-one one-hundredths to John Hunter, Fulton, N. Y.; Edith G. Hanson administratrix of said Gilfillan, deceased. Filed Dec. 18, 1909. Serial No. 533,757. Renewed July 28, 1913. Serial No. 781,688. (Cl. 229—87.)



1. A wrapper of the class described formed of sections of stiff material, each section being provided with an elongated depression, said sections being adapted to be placed against each other with the depression in one opposite the depression in the other to inclose the cigar, and means adapted to engage the cigar intermediate its ends for retaining the cigar in the depression, said means comprising a strip cut out of the body of the material and adapted to extend across the cigar.

2. A wrapper of the class described formed of sections of stiff material, each section being provided with an elongated depression, said sections being adapted to be placed against each other with the depression in one oppo-

site the depression in the other to inclose the cigar, a portion of the strip being cut out and deflected to extend across the cigar and transversely of the depression.

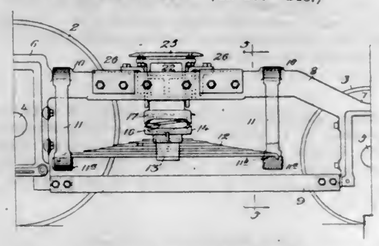
3. A wrapper of the class described formed of sections of stiff material, each section being provided with an elongated depression, said sections being adapted to be placed against each other with the depression in one opposite the depression in the other to inclose the cigar, a portion of the material forming the depression being cut out to form a strip attached at its ends to the sides of the depression, and beneath which strip the cigar is adapted to be inserted.

4. A wrapper for cigars formed of sections of stiff material, each section being provided with an elongated depression, said sections being adapted to be placed against each other with the depression in one opposite the depression in the other to inclose the cigar, a portion of the material forming the depresalon being cut out to form a strip having its ends attached to the sides of the depression, said strip being adapted to be deflected to extend transversely across the top of the depression to permit the cigar to be inserted into the depression below the strip.

5. A wrapper for cigars formed of sections of stiff material, each section being provided with an elongated depression, said sections being adapted to be placed against each other with the depression in one opposite the depression in the other to inclose the cigar, a portion of the material forming the depression being cut out to form a strip having its ends attached to the sides of the depression, said strip being adapted to be bent out of the depression to arch across the top of the depression to permit the cigar to be inserted into the depression and beneath the said strip.

[Claim 6 not printed in the Gazette.]

1,076,009. CAR-TRUCK. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 18, 1913. Serial No. 774,286. (Cl. 105—243.)



1. In a car truck, the combination with a truck frame, paired bolster-supports at each side of the truck and carried by the truck frame, longitudinally disposed springs extending between and supported by each pair of said bolster supports, other springs mounted on said first mentioned springs, and a bolster supported on the latter springs.

2. In a car truck, the combination with a truck frame, hangers, leaf springs carried by the hangers, spiral springs mounted on said leaf springs, and a bolster supported on said spiral springs.

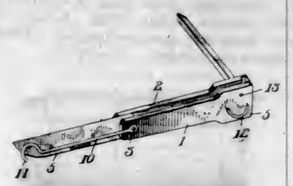
3. In a car truck, the combination with a truck frame having side bars, hangers thereon, longitudinally disposed leaf springs supported from the side bars by the hangers, springs on the leaf springs and a bolster supported on the latter springs.

4. In a car truck, the combination with a truck frame having side bars, hangers thereon, leaf springs supported by the hangers and longitudinally disposed with their arch upward, springs on the arch of the leaf springs, and a bolster supported on the latter springs.

5. In a car truck, the combination with a truck frame having side bars, hangers thereon, longitudinally disposed leaf springs supported by the hangers from the side bars, spiral springs on the leaf springs and a bolster supported on said spiral springs.

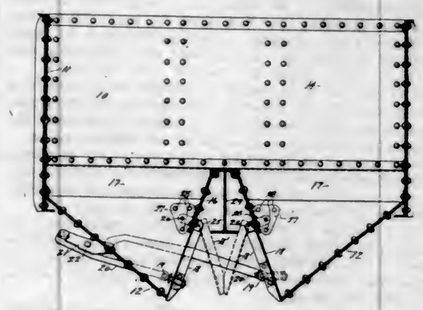
[Claims 6 to 20 not printed in the Gazette.]

1,076,010. POCKET IMPLEMENT. JOHN S. CAMERON, McKeesport, Pa. Filed Aug. 1, 1912. Serial No. 712,686. (Cl. 24—40.)



A pocket implement including a handle, a pivot projecting from one side thereof at one end, a curved seat projecting from said side at the other end thereof, a lug projecting from said side above said seat, and a button hook having one end mounted upon said pivot and its hook end adapted to be positioned in said seat and with the lug engaging the bill of the hook for maintaining said hook end in said seat.

1,076,011. DUMP-CAR. ARGYLE CAMPBELL, Chicago, Ill., assignor to Enterprise Railway Equipment Company, Chicago, Ill. Filed Dec. 6, 1911. Serial No. 664,291. (Cl. 105—185.)



1. In a dump car, the combination of a hopper having longitudinal and transverse hopper sheets, car doors associated therewith adapted to swing transversely of the car, and provided with door operating mechanism, of angular hinges secured to each door and pivoted to the transverse hopper sheets.

2. In a dump car, the combination of a hopper having longitudinal and transverse hopper sheets with hopper doors associated therewith, said doors being provided with door operating mechanism adapted to swing the same transversely of the car, and each attached to the hopper by angular hinges pivoted to the transverse hopper sheets, whereby uniform central distribution of the load from the car is secured.

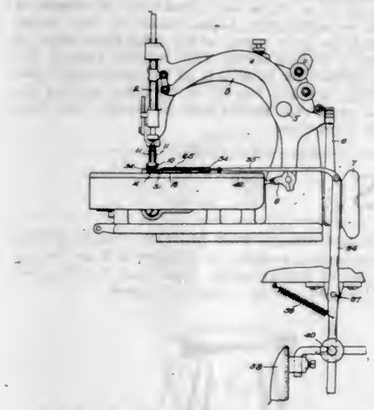
3. In a dump car, the combination of a hopper having longitudinal and transverse hopper sheets, hopper doors associated with said hopper, and provided with door operating mechanism adapted to swing said doors transversely of the car, each of said doors being attached to angular hinges, each of said hinges being pivoted to the transverse hopper sheets, whereby the said doors upon opening tend to elevate and centrally distribute the load of the car.

4. In a dump car, the combination of a hopper with openings between longitudinal and transverse hopper sheets, with hopper doors arranged longitudinally of the car, each of said doors associated with door operating mechanism, and each provided with hinges having blades substantially at right angles with the door, the said hinges being pivoted to the transverse hopper sheets, whereby upon opening the said doors elevate and centrally distribute the load.

5. In a dump car, the combination of a car body having a door opening, longitudinal and transverse hopper sheets forming said opening, a door therefor, hinges connected to the door, and hinge butts to which the hinges are pivoted, the hinge butts being secured to the transverse hopper sheets.

REISSUES.

13,627. SEWING-MACHINE CUT-OFF ATTACHMENT FOR TAPES. FRANK S. JENNINGS, Cincinnati, Ohio, assignor to Boston Machine Works Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 2, 1913. Serial No. 787,680½. Original No. 1,070,137, dated Aug. 12, 1913, Serial No. 504,965. (Cl. 112—33.)



1. In a machine for applying reinforcing tape to shoe uppers and the like, a tape cut-off device, a tape feeding device, and operating mechanism for said two devices, a device for controlling the forward movement of the cut-off device, means for automatically disengaging said controlling device from controlling relation to the cut-off device when the latter has reached the limit of its cutting movement, and means independent of the feeding device for instantly retracting the cut-off device when the latter is thus released.

2. In a machine for applying reinforcing tape to shoe uppers and the like, a tape cut-off device, a manually controlled tape feeding device, operating means to move the cut-off device in its cutting movement, tripping means to disengage said cut-off device from the control of said operating means at a predetermined point in the forward movement of the cut-off device, and automatic means beyond the control of the operator for then instantly retracting the cut-off device.

3. In a machine for applying reinforcing tape to shoe uppers and the like, a tape feeding device, a tape cut-off device, automatic means for moving the tape feeding device in a direction to feed, automatic means for returning the cut-off device, and manually operable means for simultaneously retracting the tape feeding device and moving forward the tape cut-off device, said means having a tripping connection with the tape cut-off device arranged to be operated at the end of the forward movement thereof.

4. In a machine for applying reinforcing tape to shoe uppers and the like, a tape feeding device, a tape cut-off device, and a common actuator for said two devices, including means for automatically disengaging said actuator from the cut-off device at a predetermined point in the forward movement of the latter, and thereafter leaving said actuator in control of the tape feeding device.

5. In a machine for applying reinforcing tape to shoe uppers and the like, a tape feeding device, a tape cut-off device, and a common actuator for said two devices, including an actuating dog for normally engaging and moving forward said cut-off device, tripping means for disengaging said dog from said cut-off device when the latter has performed its cutting operation, and a spring for then instantly retracting the cut-off device.

6. In a machine for applying reinforcing tape to shoe uppers and the like, a tape feeding device, a tape cut-off device, and a common actuator for said two devices, including an elbow lever provided on one arm with an actuating dog for actuating the cut-off device to cut the tape and provided on the other arm with separate fingers for alternately engaging the feeding device for moving the latter in opposite directions, tripping means for disengaging said dog from the cut-off device prior to the feeding movement of the feeding device, and automatic means for restoring the cut-off device to inoperative position.

7. In a machine for applying reinforcing tape to shoe uppers and the like, tape feeding mechanism, manual operating means positively actuating said mechanism in all the latter's movements, a tape cut-off device, connections from said cut-off device to said operating means, and means for disconnecting said connections from the cut-off device when the latter has reached the forward limit of its cutting movement.

8. In a machine for applying reinforcing tape to shoe uppers and the like, tape feeding mechanism, a tape cut-off device, and operating mechanism for, and movable with relation to, each of said two devices, having a common actuator separate from said two devices, a portion of said actuator constituting means for moving into positive engagement with the feeding device and adapted to move the feeding device when so engaged with a sudden rapid forward movement, and connections between said parts providing a time interval between the retraction of said cut-off and the beginning of the feeding movement of said feeding device.

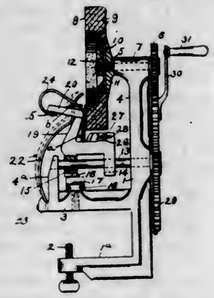
9. In a machine for applying reinforcing tape to shoe uppers and the like, a tape cut-off device, a tape feeding device, an operating mechanism for, and movable with relation to each of said devices including a common member for directly engaging both of said devices to operate the same through parts of their respective paths of movement, said member carrying means for positively moving the cut-off device in a direction to cut, means to disconnect the cut-off device from control by the operating mechanism at the completion of the operative movement of said cut-off device, and means arranged to become active after further movement of the operating mechanism for pressing forward the feeding device in a direction to feed.

10. In a machine for applying reinforcing tape to shoe uppers and the like, a guideway for the tape, a tape cut-off device movable relatively thereto, means to feed the tape, and means for moving said cut-off device having also an extending part to coöperate with said feeding means in feeding the work, at least one of said two means having a portion extending in position to be engaged by the operator, and a top plate raised above said extending portion sufficiently to maintain the work which rests over said guideway normally out of retarding engagement with said extending portion, but permitting the operator to control the feed by manually pressing the work upon said portion at will.

13,628. CUTLERY-GRINDER. HOMER E. SWEET, Portland, Oreg., assignor to The Modern Manufacturing Company, a Corporation of Oregon. Filed Apr. 8, 1912. Serial No. 689,434. Original No. 909,707, dated Jan. 12, 1909, Serial No. 433,725. (Cl. 51—7.)

1. A cutlery grinding machine comprising a frame, means for holding said frame rigidly to a support, a grind stone, a shaft upon which said grind stone is secured, a gear wheel on said shaft, a gear wheel on said frame meshing with the gear wheel on the grind stone shaft, a work holder, an arm for bearing against the blade to be ground, an adjustable gage and a set screw for securing the work holder in adjusted position.

2. In a machine of the character described, and in combination with a rotary grind stone, a work holder comprising an inclined arm to bear against the blade to be ground, an outwardly extending slotted member, and a spring secured to the frame of the machine and extending through said slotted member, and a set screw for securing said work holder in position.



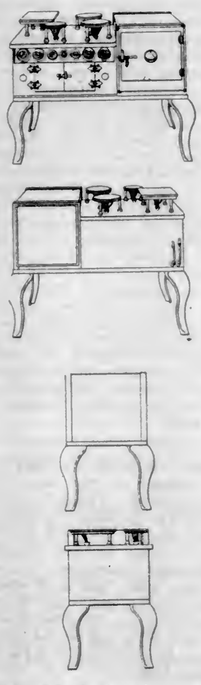
3. In a machine of the character described, and in combination with a rotary grind stone, a work holder mounted upon a shaft and provided with grooved lugs, a set screw mounted in the frame and having a head to engage the grooves in the lugs, an upwardly inclined arm for bearing against the blade to be ground, a lug 33 adapted to throw the knife to the proper bevel against the stone, an outwardly extending holding member having a slot therein, a spring secured to the frame of the machine and extending through said slot, and a curved spring secured to said slotted member.

4. In a machine of the character described, and in combination with a rotary grind stone, a work holder, means for securing said work holder in adjusted positions, an inclined arm on said work holder, an outwardly extending supporting member provided with a slot, a spring secured to the frame of the machine and extending through said slot and a curved spring blade holder secured to said supporting member and adapted to hold a scissors blade up to a grind stone, substantially as described.

5. A cutlery grinding machine comprising a frame, means for holding said frame rigidly to a support, a grind-stone, a shaft upon which said grind-stone is secured, a gear wheel on said shaft, a gear wheel on said frame meshing with the gear wheel on the grind-stone shaft, a work-holder, a forked spring arm bearing against the blade to be ground for holding it on the work-holder, and another spring arm also bearing on the blade between the members of the forked spring arm for holding the blade against the grind-stone.

DESIGNS.

44,719. ELECTRIC RANGE. JAMES I. AYER, Cambridge, Mass., assignor to Simplex Electric Heating Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Aug. 14, 1913. Serial No. 784,789. Term of patent 14 years.



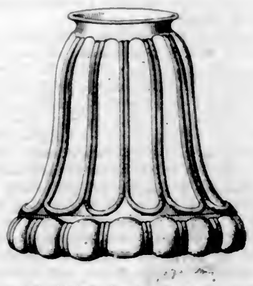
The ornamental design for an electric range as shown.

44,720. GLASS SHADE FOR LIGHTS. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., a Corporation of Pennsylvania. Filed Aug. 8, 1913. Serial No. 783,819. Term of patent 7 years.



The ornamental design for a glass shade for a light, as shown.

44,721. GLASS SHADE FOR LIGHTS. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., a Corporation of Pennsylvania. Filed Aug. 8, 1913. Serial No. 783,820. Term of patent 7 years.



The ornamental design for a glass shade for a light, as shown.

44,722. GLASS GLOBE FOR LIGHTS. KRAFT BOOTH, Philadelphia, Pa., assignor to Gillinder & Sons, Inc., a Corporation of Pennsylvania. Filed Aug. 8, 1913. Serial No. 783,822. Term of patent 7 years.



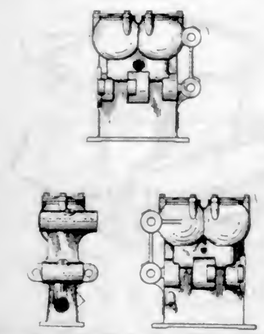
The ornamental design for a glass globe for a light, as shown.

44,723. VEHICLE-TIRE. WILLIAM W. DUNCAN, Watertown, Mass., assignor to Hood Rubber Company, a Corporation of Massachusetts. Filed Feb. 3, 1913. Serial No. 746,060. Term of patent 14 years.



The ornamental design for a vehicle tire, as shown.

44,724. PUMP-BODY. JESSE B. GARBER, Salem, Ohio, assignor to The Deming Company, Salem, Ohio, a Corporation of Ohio. Filed July 28, 1913. Serial No. 781,665. Term of patent 14 years.



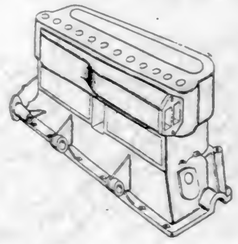
The ornamental design for a pump body, substantially as herein shown.

44,725. BLANKET OR COUCH-COVER. ADOLPH R. JACOBS, Portland, Oreg. Filed Aug. 6, 1913. Serial No. 783,414. Term of patent 7 years.



The ornamental design for a blanket or couch cover, as shown.

44,726. MULTICYLINDER-ENGINE CASTING. WILLIAM KELLY, Detroit, Mich., assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Filed May 11, 1912. Serial No. 697,830. Term of patent 14 years.



The ornamental design for a multicylinder engine casting as shown.

44,727. EMBROIDERY-ALPHABET. ALBERT LUCHINGER, New York, N. Y. Filed July 16, 1913. Serial No. 779,396. Term of patent 3½ years.



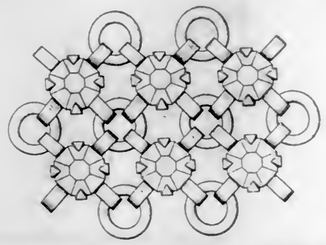
The ornamental design for an embroidery alphabet, as shown.

44,728. RECLINING-CHAIR. PIETRO V. MARTINO, New York, N. Y. Filed June 28, 1913. Serial No. 776,441. Term of patent 7 years.



The ornamental design for a reclining chair as shown.

44,729. METALLIC FABRIC. ARTHUR A. MCRAE, Attleboro, Mass. Filed June 20, 1913. Serial No. 774,875. Term of patent 7 years.



The ornamental design for a metallic fabric, as shown.

44,730. CLOTHES-LINE FASTENER. JOSEPH MURPHY, New York, N. Y. Filed July 9, 1913. Serial No. 778,222. Term of patent 7 years.



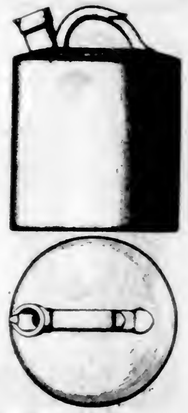
The ornamental design for a clothes line fastener, as shown.

44,731. LAMP-SHADE. LESLIE H. NASH, New York, N. Y. Filed July 24, 1913. Serial No. 781,032. Term of patent 3½ years.



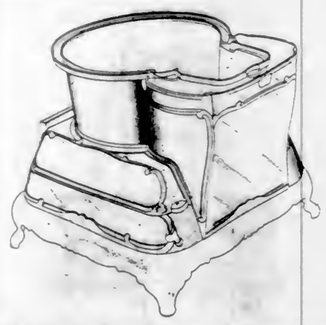
The ornamental design for a lamp shade as shown.

44,732. JUG OR SIMILAR ARTICLE. WILLIAM H. REDINGTON, Evanston, Ill. Filed Feb. 2, 1912. Serial No. 675,072. Term of patent 14 years.



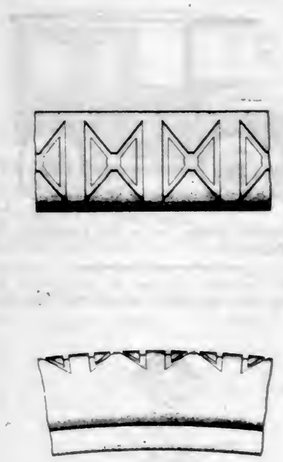
The ornamental design for a jug or similar article, as shown.

44,733. STOVE FIRE-POT SECTION AND BASE. ADOLPH A. SPECHT, Quincy, Ill., assignor to Gem City Stove Manufacturing Company, Quincy, Ill., a Corporation. Filed June 14, 1913. Serial No. 773,768. Term of patent 14 years.



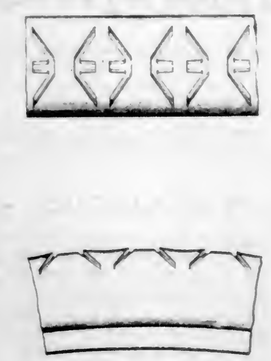
The ornamental design for a stove fire pot section and base, as shown.

44,734. TIRE. GEORGE E. STARR, San Francisco, Cal. Filed Feb. 6, 1912. Serial No. 675,872. Term of patent 14 years.



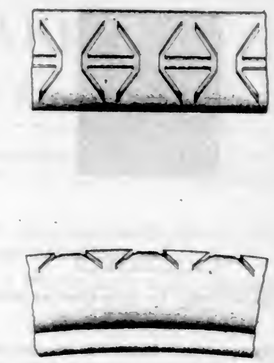
The ornamental design for a tire, as shown.

44,735. TIRE. GEORGE E. STARR, San Francisco, Cal. Filed Feb. 6, 1912. Serial No. 675,873. Term of patent 14 years.



The ornamental design for a tire, as shown.

44,736. TIRE. GEORGE E. STARR, San Francisco, Cal. Filed Feb. 6, 1912. Serial No. 675,874. Term of patent 14 years.



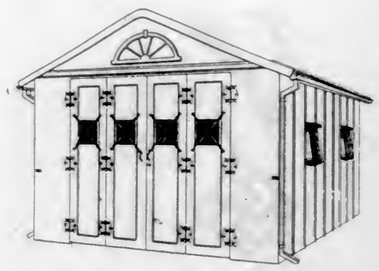
The ornamental design for a tire, as shown.

44,737. FRUIT SPOON-KNIFE. ELLEN M. STUBBS, Philadelphia, Pa. Filed Aug. 6, 1913. Serial No. 783,420. Term of patent 7 years.



The ornamental design for a fruit spoon-knife as shown.

44,738. PORTABLE STRUCTURE. WILLIAM W. TAYLOR, Montclair, N. J. Filed May 9, 1913. Serial No. 766,609. Term of patent 14 years.



The ornamental design for a portable structure, as shown.

44,739. SHEET-GLASS. JULIUS S. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Filed June 24, 1913. Serial No. 775,592. Term of patent 14 years.

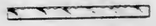




The ornamental design for sheet glass, as shown.

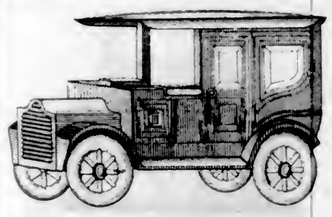
44,740. SHEET-GLASS. JULIUS S. WALSH, St. Louis, Mo., assignor to Mississippi Glass Company, St. Louis, Mo., a Corporation of Missouri. Filed June 24, 1913. Serial No. 775,593. Term of patent 14 years.





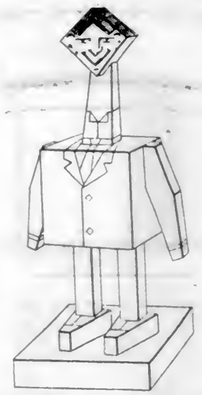
The ornamental design for sheet glass, as shown.

44,741. TOY RECEPTACLE FOR CONFECTIONS. GEORGE R. WEST, Pittsburgh, Pa. Filed Apr. 12, 1913. Serial No. 760,821. Term of patent 7 years.



The ornamental design for a toy receptacle for confections as shown.

44,742. TOY FIGURE. ROSCOE H. WHITCOMB, Yonkers, N. Y. Filed July 21, 1913. Serial No. 780,385. Term of patent 7 years.



The ornamental design for a toy figure, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 14, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 49,117. (CLASS 48. MALT EXTRACTS AND LIQUORS.) EMKEN CHEMICAL CO., New York, N. Y. Filed Apr. 15, 1910.



Particular description of goods.—A Beer-Coloring.
Claims use since January, 1890.

Ser. No. 63,539. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) KRANICH & BACH, New York, N. Y. Filed May 14, 1912.

Tri-Melodeme

Particular description of goods.—Player-Pianos and Perforated Music-Sheets.
Claims use since May 5, 1911.

Ser. No. 64,444. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HIRAM S. LAMBDIN, Peru, Kans. Filed June 27, 1912.

EUCALATUM

Particular description of goods.—A Remedy for Earache, Chapped Hands, and Eczema.
Claims use since May 1, 1911.

Ser. No. 64,990. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNO STONE, Lake Norden, S. D. Filed July 29, 1912.

Uno Stone

The words "Uno Stone" being my facsimile signature.
Particular description of goods.—A Solution Disinfectant and Antiseptic.
Claims use since June 6, 1912.

Ser. No. 65,156. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) JOSÉ CIMA Y GARCIA, Oviedo, Spain. Filed Aug. 8, 1912.



Particular description of goods.—Cider.
Claims use since 1896.

Ser. No. 66,060. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE DEAN ELECTRIC COMPANY, Elyria, Ohio. Filed Sept. 30, 1912.

REXO

Particular description of goods.—Electric Automobile-Horns and Circuit-Controllers for Electric Automobile-Horns.
Claims use since August 1, 1912.

Ser. No. 66,845. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FISHER FLOURING MILLS COMPANY, Seattle, Wash. Filed Nov. 12, 1912.



Particular description of goods.—Wheat-Flour.
Claims use since Aug. 1, 1911.

Ser. No. 67,447. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ALLAN CHEMICAL CO., Louisville, Ky., assignor, by mesne assignments, to The Oratone Company, Buffalo, N. Y., a Corporation of New York. Filed Dec. 17, 1912.

ORATONE

Particular description of goods.—Dentifrice.
Claims use since Nov. 9, 1911.

Ser. No. 68,305. (CLASS 43. THREAD AND YARN.) JACOB FRANK MERCANTILE CO., St. Louis, Mo. Filed Feb. 4, 1913.

ST L MD

Particular description of goods.—Yarns.
Claims use since Oct. 1, 1912.

Ser. No. 68,306. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JACOB FRANK MERCANTILE CO., St. Louis, Mo. Filed Feb. 4. 1913.

ST L MD

Particular description of goods.—Articles to be Used in Embroidering, as Follows: Embroidery-Thread, Linens, Doilies, Scarfs, and Centerpieces Stamped for Embroidery, Embroidery-Rings, Fancy Bags and Cushions, Beads, Embroidery-Patterns, and Embroidery-Hoops.
Claims use since Oct. 1, 1912.

Ser. No. 68,497. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID FOULIS, London, England. Filed Feb. 11, 1913.

Okayloids

Particular description of goods.—A Medicine for Gout, Rheumatism, Lumbago, and Sciatica.
Claims use since May 30, 1912.

Ser. No. 68,999. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GLAMSER VENN DRUG COMPANY, Pittsburgh, Pa., assignor to Persian Balm Company, a Firm composed of George C. Venn, George V. Daly, and John H. Daly, Pittsburgh, Pa. Filed Mar. 13, 1913. Under ten-year proviso.

PERSIAN

Particular description of goods.—A Healing Lotion or Balm for Chapped Hands.
Claims use since Oct. 1, 1880.

Ser. No. 69,637. (CLASS 37. PAPER AND STATIONERY.) A. W. FABER, Stein, near Nuremberg, and Berlin, Germany. Filed Apr. 7, 1913.

A.W. FABER "CASTELL"

The name "A. W. Faber" is hereby disclaimed.
Particular description of goods.—Lead-Pencils, Screw-Pencils, Colored Pencils, Crayon-Pencils, Artists' Crayons, Copying-Pencils, Rubber Erasers, Rubber Bands, Ink-Pencils, Rulers, Penholders, and Hand-Blotters.
Claims use since Nov. 14, 1912.

Ser. No. 69,671. (CLASS 2. RECEPTACLES.) JAMES ARTHUR ANDERSON, St. Louis, Mo. Filed Apr. 8, 1913.



Particular description of goods.—Laundry Boxes, Bags, and Cartons.
Claims use since Oct. 6, 1906.

Ser. No. 69,943. (CLASS 39. CLOTHING.) CARSON GLOVE CO., San Francisco, Cal. Filed Apr. 21, 1913.

PAR-A-MONT

Particular description of goods.—Leather Gloves.
Claims use since Sept. 6, 1912.

Ser. No. 70,258. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY COMPANY, San Francisco, Cal. Filed May 6, 1913.

Argo

Particular description of goods.—Canned Fruits, Dried Fruits, and Raisins.
Claims use since Jan. 10, 1913.

Ser. No. 70,366. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) C. M. & R. MANUFACTURING COMPANY, St. Joseph, Mo. Filed May 12, 1913.

OZOZO

Particular description of goods.—A Carbonated Tonic Beverage and Syrup and Powder for Making the Same.
Claims use since on or about the 16th day of April, 1913.

Ser. No. 70,415. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) CHARLES BRYANT, London, England. Filed May 14, 1913.

CHASBRY

Particular description of goods.—Chains of Precious Metal.
Claims use since Sept. 5, 1912.

Ser. No. 70,451. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIETE ANONYME DES ANCIENS ETABLISSEMENTS BRAUNSTEIN FRERES, Paris, France. Filed May 16, 1913.

TAM TAM
COULEUR PAILLE
MADE IN FRANCE

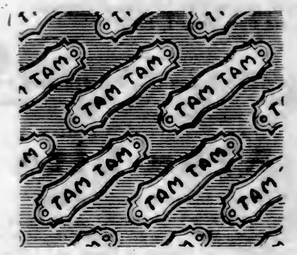
No claim being made to the right to the exclusive use of the words "Couleur Paille" and "Made in France."
Particular description of goods.—Cigarette-Papers.
Claims use since Oct. 1, 1912.

Ser. No. 70,452. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIETE ANONYME DES ANCIENS ETABLISSEMENTS BRAUNSTEIN FRERES, Paris, France. Filed May 16, 1913.

RIZ
TAM TAM
MADE IN FRANCE

No claim being made to the right to the exclusive use of the words "Riz" and "Made in France."
Particular description of goods.—Cigarette-Papers.
Claims use since Oct. 1, 1912.

Ser. No. 70,453. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) SOCIETE ANONYME DES ANCIENS ETABLISSEMENTS BRAUNSTEIN FRERES, Paris, France. Filed May 16, 1913.



Particular description of goods.—Cigarette-Papers.
Claims use since Oct. 1, 1912.

Ser. No. 70,651. (CLASS 39. CLOTHING.) BROCKTON PEOPLES SHOE CO., Brockton, Mass. Filed May 26, 1913.

THE FOOTFRIEND SHOE

The word "Shoe" not being claimed.
Particular description of goods.—Leather Shoes.
Claims use since May 21, 1913.

Ser. No. 70,862. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STROHMEYER & ARPE COMPANY, New York, N. Y. Filed June 4, 1913.

"BOUQUET" BRAND

No claim being made to the exclusive right to use the word "Brand."
Particular description of goods.—Canned Fish, Belgian Peas, and French Mushrooms.
Claims use since February, 1913.

Ser. No. 70,972. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LEONHART H. FREUND & CO., New York, N. Y. Filed June 9, 1913.

Kandyskope

The word "Kandy" being disclaimed.
Particular description of goods.—Candies.
Claims use since May 20, 1913.

Ser. No. 71,018. (CLASS 39. CLOTHING.) KOPS BROS., New York, N. Y. Filed June 11, 1913.

KOPSERVICE

Particular description of goods.—Corsets.
Claims use since June 1, 1913.

Ser. No. 71,115. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ALABASTINE COMPANY, Grand Rapids, Mich. Filed June 16, 1913.

Alba-Lite

No claim being made to the word "Alba."
Particular description of goods.—A Base in the Form of a Dry Powder, Made Up of Carbonate of Calcium and other Ingredients, for Making a Paint and a Wall Coating.
Claims use since Feb. 12, 1913.

Ser. No. 71,178. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CARL RUST, Frederick, Md. Filed June 18, 1913.

TABLE PRIDE

The two loaves of bread shown being disclaimed, the panel being shown in red.
Particular description of goods.—Bread.
Claims use since Apr. 2, 1913.

Ser. No. 71,237. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) FLEXLUME SIGN COMPANY, INC., Buffalo, N. Y. Filed June 21, 1913.

OPLEX

Particular description of goods.—Electrically-Illuminated Signs.
Claims use since August, 1912.

Ser. No. 71,286. (CLASS 2. RECEPTACLES.) BESSIE M. CHESTER, Longbeach, Cal. Filed June 23, 1913.



Consists of a fan-palm leaf and stem, the color of the trade-mark being of a palm-green tint.
Particular description of goods.—Baskets Woven Out of Dried and Bleached Palm-Leaves.
Claims use since May 15, 1913.

Ser. No. 71,370. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAN JUAN FISHING & PACKING CO., Seattle, Wash. Filed June 25, 1913.

Cherokee

Particular description of goods.—Canned Salmon.
Claims use since June 1, 1913.

Ser. No. 71,395. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed June 27, 1913.



Particular description of goods.—Molasses.
Claims use since about June 16, 1913.

Ser. No. 71,396. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed June 27, 1913.



Particular description of goods.—Molasses.
Claims use since about June 16, 1913.

Ser. No. 71,397. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed June 27, 1913.

Domino

Particular description of goods.—Molasses.
Claims use since about June 16, 1913.

Ser. No. 71,398. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed June 27, 1913.



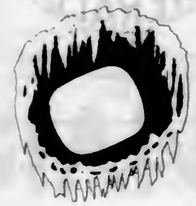
Particular description of goods.—Molasses.
Claims use since about June 16, 1913.

Ser. No. 71,422. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUTOSALES GUM AND CHOCOLATE COMPANY, New York, N. Y. Filed June 28, 1913.

FROZEN

Particular description of goods.—Chewing-Gum.
Claims use since May 1, 1913.

Ser. No. 71,423. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUTOSALES GUM AND CHOCOLATE COMPANY, New York, N. Y. Filed June 28, 1913.



Particular description of goods.—Chewing-Gum.
Claims use since May 1, 1913.

Ser. No. 71,448. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MARINETTE KNITTING MILLS, Marinette, Wis. Filed June 30, 1913.

Marigora

Particular description of goods.—Knitted Fabrics.
Claims use since June, 1912.

Ser. No. 71,526. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H. Filed July 5, 1913. Under ten-year proviso.

LANGDON 76

Particular description of goods.—Cotton Piece Goods.
Claims use since the year 1878.

Ser. No. 71,645. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ORIN EDWARD SPOONER, Boston, Mass. Filed July 10, 1913.

PEARLS OF CUBA

Particular description of goods.—Oranges, Pineapples, Lemons, Limes, and Grape-Fruit.
Claims use since 1911.

Ser. No. 71,675. (CLASS 39. CLOTHING.) SHIVERTS & SIMON, New York, N. Y. Filed July 12, 1913.

OVAL

Particular description of goods.—Boots, Shoes, Slippers, and Overshoes Made of Cloth, Rubber, or Leather, or of a Combination of These Materials.
Claims use since June 1, 1913.

Ser. No. 71,684. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. GREENFIELD'S SONS, New York and Brooklyn, N. Y. Filed July 14, 1913.

Loyalty

Particular description of goods.—Candies.
Claims use since Apr. 19, 1913.

Ser. No. 72,320. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHESTER KENT & Co., Boston, Mass. Filed Aug. 13, 1913.



Consisting of a blue panel with a white disk disposed thereon and the letter "V" in red superimposed on the letter "O," which is in blue on said disk.

Particular description of goods.—A Medicinal Tonic Preparation in Liquid Form.

Claims use since Oct. 1, 1906.

Ser. No. 72,322. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MANVILLE COMPANY, Providence, R. I. Filed Aug. 13, 1913.

Linfeel

Particular description of goods.—Napkins.

Claims use since June 1, 1913.

Ser. No. 72,323. (CLASS 32. FURNITURE AND UPHOLSTERY.) MURPHY WALL BED CO. OF CALIFORNIA, San Francisco, Cal., and New York, N. Y. Filed Aug. 13, 1913.



No claim is made to the right to the exclusive use of the words "Murphy," "In-A-Dor Bed," or "Full size bed through ordinary closet door," or to the pictorial representation of a folding bed.

Particular description of goods.—Folding Beds.

Claims use since Aug. 6, 1913.

Ser. No. 72,341. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BONETTI FRÈRES, Paris, France. Filed Aug. 15, 1913.



Particular description of goods.—An Ointment.

Claims use since May 1, 1906.

Ser. No. 72,363. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) G. ROSENTHAL, Bayonne, France. Filed Aug. 15, 1913.

VERDOL

Particular description of goods.—Dentifrices in Liquid, Powder, and Paste Forms.

Claims use since July 23, 1907.

Ser. No. 72,366. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SCHEFFER & ROSSUM COMPANY, St. Paul, Minn. Filed Aug. 15, 1913.

BBB

Particular description of goods.—Fly-Nets.

Claims use since July 1, 1908.

Ser. No. 72,367. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TOKALON, INCORPORATED, New York, N. Y. Filed Aug. 15, 1913.

SOZO

Particular description of goods.—Deodorants.

Claims use since 1908.

Ser. No. 72,369. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) J. WILCKES Co., New York, N. Y. Filed Aug. 15, 1913.

JW

Particular description of goods.—Carbon-Gas Black and Lampblack.

Claims use since July 1, 1899.

Ser. No. 72,447. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM WINFIELD SIMPSON, New Brighton, Pa. Filed Aug. 20, 1913.

PENEGUENTUM

Particular description of goods.—An Ointment Basis for Endermic Medicaments.

Claims use since about April, 1911.

Ser. No. 72,463. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. E. DERBY, M. D. INC., Dover, N. J. Filed Aug. 21, 1913.



Particular description of goods.—Laxatives.

Claims use since July 24, 1913.

Ser. No. 72,542. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) J. ADLER GILDING CO., New York, N. Y. Filed Aug. 27, 1913.



Particular description of goods.—A Waterproof Filler, Varnish, and Lacquer.

Claims use since May 20, 1912.

Ser. No. 72,544. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBANY CHEMICAL CO., Albany, Ga. Filed Aug. 27, 1913.

ZU-ZU

Particular description of goods.—A Remedy for the Treatment of Venereal Diseases.

Claims use since about January, 1888.

Ser. No. 72,549. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) COUGHLAN BROTHERS, Kansas City, Mo. Filed Aug. 27, 1913.

"Git"

Particular description of goods.—Exterminator for Bedbugs, Cockroaches, Ants, Crickets, and All other Household Vermin.

Claims use since July 28, 1913.

Ser. No. 72,599. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JULIEN GIGUET, Lyon, France, and New York, N. Y. Filed Aug. 30, 1913.

"APANET"

Particular description of goods.—Hair-Nets.

Claims use since June 1, 1913.

Ser. No. 72,600. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GUY W. JONES, Erie, Pa. Filed Aug. 30, 1913.



Particular description of goods.—Preparation for the Treatment of Blind, Bleeding, and Itching Piles.

Claims use since Aug. 14, 1913.

Ser. No. 72,611. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) HERBERT S. BERLINER, Washington, D. C. Filed Sept. 2, 1913.

The Account-o-graph

Particular description of goods.—Calculating-Machines.

Claims use since May 14, 1913.

Ser. No. 72,668. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) G. REIS & BRO., New York, N. Y. Filed Sept. 3, 1913.

TEX

Particular description of goods.—Embroidery Foundations.
Claims use since on or about the 25th day of August, 1913.

Ser. No. 72,703. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FRIED, MENDELSON & Co., New York, N. Y. Filed Sept. 6, 1913.



Particular description of goods.—Silk, Silk and Cotton, and Cotton-Mixed Fabrics.
Claims use since December, 1912.

Ser. No. 72,795. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) SOCIÉTÉ ANONYME CONSTRUCTIONS INDUSTRIELLES DIJONNAISES, Dijon, France. Filed Sept. 11, 1913.

BABY

Particular description of goods.—Automobiles.
Claims use since May 31, 1913.

Ser. No. 72,811. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SAMUEL EISEMAN & Co., New York, N. Y. Filed Sept. 12, 1913.

SURF

The trade-mark consists of the word "Surf."
Particular description of goods.—Satin, Silk, and Silk and Cotton Piece Goods.
Claims use since Aug. 28, 1913.

Ser. No. 72,819. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MICHAEL MCNAMARA, Detroit, Mich. Filed Sept. 12, 1913.

SEALERINE

Particular description of goods.—Liquid First-Coater in Wooden or Metal Packages.
Claims use since Aug. 1, 1913.

Ser. No. 72,941. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HERCULES RUBBER COMPANY, New York, N. Y. Filed Sept. 18, 1913.

LEATHERITE

Particular description of goods.—Fabric for Vehicle-Tops.
Claims use since about July 1, 1913.

Ser. No. 72,967. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) EMIL DAVID, New York, N. Y. Filed Sept. 20, 1913.

Beatrice

Particular description of goods.—Hair-Nets.
Claims use since Aug. 1, 1910.

TRADE-MARKS

REGISTERED OCTOBER 14, 1913.

93,654. WOOLEN AND WORSTED PIECE GOODS. AETNA MILLS, Watertown and Boston, Mass.
Filed June 9, 1911. Serial No. 56,962. PUBLISHED JULY 22, 1913.

93,655. LAUNDRY-WASHING MACHINES. ALTORFER BROS. COMPANY, Roanoke, Ill.
Filed May 3, 1913. Serial No. 70,194. PUBLISHED AUGUST 12, 1913.

93,656. LAUNDRY-WASHING MACHINES. ALTORFER BROS. COMPANY, Roanoke, Ill.
Filed May 3, 1913. Serial No. 70,195. PUBLISHED AUGUST 12, 1913.

93,657. COTTON CLOTH. AMERICAN LADY CORSET COMPANY, Detroit, Mich.
Filed May 15, 1913. Serial No. 70,429. PUBLISHED AUGUST 12, 1913.

93,658. SCREEN WIRE-CLOTH. AMERICAN WIRE FABRICS COMPANY, Chicago, Ill., and Clinton, Iowa.
Filed July 1, 1913. Serial No. 71,455. PUBLISHED AUGUST 12, 1913.

93,659. MONTHLY MAGAZINE. THE ANGUS COMPANY, New York, N. Y.
Filed June 7, 1913. Serial No. 70,920. PUBLISHED AUGUST 12, 1913.

93,660. RAILINGS, GATES, AND OFFICE-PARTITIONS. ART METAL CONSTRUCTION CO., Jamestown, N. Y.
Filed March 14, 1913. Serial No. 69,018. PUBLISHED AUGUST 12, 1913.

93,661. WEEKLY, SEMIWEEKLY, AND MONTHLY PAPERS AND MAGAZINES. ASSOCIATED FARM PAPERS, Chicago, Ill.; Pittsburgh, Pa., and New York, N. Y.
Filed March 5, 1913. Serial No. 68,834. PUBLISHED AUGUST 5, 1913.

93,662. ARTIFICIAL FLOWERS. AUSTRO-HUNGARIAN ART CO., INC., New York, N. Y.
Filed April 3, 1913. Serial No. 69,546. PUBLISHED JULY 29, 1913.

93,663. PHONOGRAPHS, AND REPRODUCING DEVICES CONNECTED THEREWITH. AUTOMATIC ENUNCIATOR CO., Chicago, Ill.
Filed March 11, 1912. Serial No. 62,093. PUBLISHED AUGUST 12, 1913.

93,664. TRUNKS, TRAVELING-BAGS, AND SUIT-CASES. L. S. AYRES AND COMPANY, Indianapolis, Ind.
Filed June 7, 1913. Serial No. 70,921. PUBLISHED AUGUST 12, 1913.

93,665. UMBRELLAS. L. S. AYRES AND COMPANY, Indianapolis, Ind.
Filed June 7, 1913. Serial No. 70,922. PUBLISHED JULY 29, 1913.

93,666. RIBBON. L. S. AYRES AND COMPANY, Indianapolis, Ind.
Filed June 7, 1913. Serial No. 70,923. PUBLISHED JULY 29, 1913.

93,667. COMFORTS, BLANKETS, NAINSOOK, AND LONG-CLOTH. L. S. AYRES AND COMPANY, Indianapolis, Ind.
Filed June 7, 1913. Serial No. 70,924. PUBLISHED JULY 15, 1913.

93,668. CHILDREN'S LETTER-BLOCKS. BAKER & BENNETT CO., New York, N. Y.
Filed May 3, 1913. Serial No. 70,198. PUBLISHED AUGUST 12, 1913.

93,669. DRESS-SHIELDS. MORRIS BARROW, New York, N. Y.
Filed June 18, 1913. Serial No. 71,158. PUBLISHED JULY 15, 1913.

93,670. CERTAIN REMEDIES FOR TREATMENT OF CERTAIN DISEASES. DR. BAYER ÉS TÁRSA, Budapest, Austria-Hungary.
Filed October 4, 1912. Serial No. 66,130. PUBLISHED AUGUST 12, 1913.

93,671. BLANKETS. THE BECKMAN COMPANY, Cleveland, Ohio.
Filed June 13, 1913. Serial No. 71,087. PUBLISHED JULY 15, 1913.

93,672. UMBRELLAS, PARASOLS, AND CANES. WILLIAM HENRY BEEHLER, Baltimore, Md.
Filed April 3, 1912. Serial No. 62,613. PUBLISHED AUGUST 5, 1913.

93,673. MACHINE-MADE LINEN LACES. BIRKIN & Co., Nottingham, England.
Filed February 12, 1913. Serial No. 68,512. PUBLISHED JULY 15, 1913.

93,674. ALUMINUM WARE. GEO. BORGFELDT & Co., New York, N. Y.
Filed April 26, 1912. Serial No. 63,147. PUBLISHED AUGUST 5, 1913.

93,675. ALUMINUM WARE. GEO. BORGFELDT & Co., New York, N. Y.
Filed April 26, 1912. Serial No. 63,148. PUBLISHED AUGUST 5, 1913.

93,676. HAIR-NETS. GEO. BORGFELDT & Co., New York, N. Y.
Filed June 12, 1913. Serial No. 71,041. PUBLISHED JULY 15, 1913.

93,677. HAIR-NETS. GEO. BORGFELDT & Co., New York, N. Y.
Filed June 12, 1913. Serial No. 71,042. PUBLISHED JULY 15, 1913.

93,678. HAIR-NETS. GEO. BORGFELDT & Co, New York, N. Y.
Filed June 12, 1913. Serial No. 71,043. PUBLISHED JULY 15, 1913.

93,679. HAIR-NETS. GEO. BORGFELDT & Co., New York, N. Y.
Filed June 12, 1913. Serial No. 71,044. PUBLISHED JULY 15, 1913.

93,680. EXTERNAL AND INTERNAL LINIMENT. CLYDE L. BREWER, Trinidad, Colo.
Filed April 22, 1911. Serial No. 55,905 PUBLISHED MARCH 11, 1913.

93,681. VARNISH-REMOVER. WALTER EDWIN BRICKMAN, Chicago, Ill.
Filed June 23, 1913. Serial No. 71,284. PUBLISHED AUGUST 12, 1913.

93,682. CABLES AND ROPES. BRODERICK & BASCOM ROPE COMPANY, St. Louis, Mo.
Filed June 9, 1913. Serial No. 70,966. PUBLISHED AUGUST 12, 1913.

93,683. COMPRESSION-COCKS, FAUCETS, AND METALLIC VALVES. ALBERT C. BROWN, Chicago, Ill.
Filed April 24, 1913. Serial No. 70,025. PUBLISHED AUGUST 5, 1913.

93,684. BILLIARD AND POOL TABLES, COMBINATIONS OF, AND ACCESSORIES FOR SAME. THE E. T. BURROWES COMPANY, Portland, Me.
Filed April 2, 1913. Serial No. 69,522. PUBLISHED AUGUST 5, 1913.

93,685. BLEACHED COTTON PIECE GOODS. CARSON, PIRIE, SCOTT & Co., Chicago, Ill.
Filed June 25, 1913. Serial No. 71,356. PUBLISHED JULY 29, 1913.

93,686. SUEDE LEATHER MADE FROM HAIR SHEEPSKIN. CASTLE KID Co., Camden, N. J.
Filed January 29, 1913. Serial No. 68,197. PUBLISHED JULY 29, 1913.

93,687. MAGAZINE. CHAINED LIGHTNING PUBLISHING Co., Louisville, Ky.
Filed April 21, 1913. Serial No. 69,944. PUBLISHED AUGUST 5, 1913.

93,688. LUBRICATING OILS AND GREASES. CHAPPELL OIL & GREASE Co., St. Louis, Mo.
Filed December 11, 1911. Serial No. 60,163. PUBLISHED AUGUST 12, 1913.

93,689. AUTOMOBILES, MOTOR-CYCLES, BICYCLES, MOTOR-TRUCKS, AND MOTOR-WAGONS. CHIPMAN LIMITED, New York, N. Y.
Filed March 21, 1913. Serial No. 69,218. PUBLISHED AUGUST 5, 1913.

93,690. TRAVELING-BAGS. RICHARD M. COLGATE, Jersey City, N. J.
Filed April 9, 1913. Serial No. 69,674. PUBLISHED AUGUST 12, 1913.

93,691. CLOTHES-LINES. COLUMBIAN ROPE Co., Auburn, N. Y.
Filed July 3, 1913. Serial No. 71,508. PUBLISHED AUGUST 12, 1913.

93,692. HOLLOW FLOORS OF REINFORCED CONCRETE. THE CONCRETE FLOORING COMPANY, Cleveland, Ohio.
Filed July 18, 1913. Serial No. 71,821. PUBLISHED AUGUST 12, 1913.

93,693. SEED-OATS, GRASS-SEEDS, FIELD-SEEDS, AND SEED-GRAIN. E. W. CONKLIN & SON INC., Binghamton, N. Y.
Filed April 28, 1913. Serial No. 70,090. PUBLISHED AUGUST 12, 1913.

93,694. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. C. CONRADTY, Nuremberg, Germany.
Filed March 26, 1913. Serial No. 69,349. PUBLISHED AUGUST 5, 1913.

93,695. ELECTRIC-LIGHT CARBONS AND GALVANIC CARBONS. C. CONRADTY, Nuremberg, Germany.
Filed March 26, 1913. Serial No. 69,350. PUBLISHED AUGUST 5, 1913.

93,696. AUTOMATIC EGG-COOKING APPARATUS AND PARTS THEREOF. WILL ESPY CURTIS, Chicago, Ill.
Filed May 19, 1913. Serial No. 70,485. PUBLISHED AUGUST 12, 1913.

93,697. CERTAIN NAMED VEHICLES AND PARTS THEREOF. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany.
Filed February 28, 1911. Serial No. 54,776. PUBLISHED AUGUST 12, 1913.

93,698. CERTAIN NAMED VEHICLES AND PARTS THEREOF. DAIMLER-MOTOREN-GESELLSCHAFT, Untertürkheim, near Stuttgart, Germany.
Filed September 13, 1911. Serial No. 58,657. PUBLISHED AUGUST 12, 1913.

93,699. CERTAIN NAMED PAINTS, LACS, STAINS, ENAMELS, VARNISHES, AND FILLERS. DAVIES & MEACHAM, Cleveland, Ohio.
Filed April 9, 1913. Serial No. 69,675. PUBLISHED AUGUST 12, 1913.

93,700. CERTAIN NAMED PAINTS, LACS, STAINS, ENAMELS, VARNISHES, AND FILLERS. DAVIES & MEACHAM, Cleveland, Ohio.
Filed April 19, 1913. Serial No. 69,916. PUBLISHED AUGUST 12, 1913.

93,701. CERTAIN NAMED PAINTS, LACS, STAINS, ENAMELS, VARNISHES, AND FILLERS. DAVIES & MEACHAM, Cleveland, Ohio.
Filed April 19, 1913. Serial No. 69,917. PUBLISHED AUGUST 12, 1913.

93,702. CERTAIN NAMED PAINTS, LACS, STAINS, ENAMELS, VARNISHES, AND FILLERS. DAVIES & MEACHAM, Cleveland, Ohio.
Filed May 8, 1913. Serial No. 70,295. PUBLISHED AUGUST 12, 1913.

93,703. CIGARETTE-PAPER. WILLIAM DEMUTH & COMPANY, New York, N. Y.
Filed May 28, 1913. Serial No. 70,715. PUBLISHED AUGUST 5, 1913.

93,704. REMEDY FOR ASTHMA AND HAY-FEVER. ALLEN L. EARLE, Chester Depot, Vt.
Filed July 18, 1913. Serial No. 71,823. PUBLISHED AUGUST 12, 1913.

93,705. STEEL WIRE AND WIRE STRINGS FOR PIANOFORTES AND OTHER MUSICAL INSTRUMENTS. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.
Filed March 28, 1912. Serial No. 62,465. PUBLISHED AUGUST 12, 1913.

93,706. WIRE. FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany.
Filed March 28, 1912. Serial No. 62,466. PUBLISHED AUGUST 12, 1913.

93,707. PAPER BOXES. A. FLEISHHACKER & Co., San Francisco, Cal.
Filed June 2, 1913. Serial No. 70,827. PUBLISHED AUGUST 12, 1913.

93,708. TWIST-TOBACCO AND SMOKING-TOBACCO. THE FLUHRER BROS. TOBACCO COMPANY, Boonville, Ind.
Filed April 29, 1913. Serial No. 70,114. PUBLISHED AUGUST 12, 1913.

93,709. LIQUID CHEMICAL WOOD-PRESERVER. WILLIAM D. FOSS, Centralia, Wash.
Filed March 29, 1913. Serial No. 69,425. PUBLISHED AUGUST 5, 1913.

93,710. CERTAIN NAMED ELECTRICAL SUPPLIES AND APPARATUS. GESELLSCHAFT FÜR DRAHTLOSE TELEGRAPHIE M. B. H., Berlin, Germany.
Filed February 25, 1913. Serial No. 68,721. PUBLISHED AUGUST 12, 1913.

93,711. CHAINS MADE OF BASE METAL. GIBSON'S LIMITED, Vancouver, British Columbia, Canada.
Filed June 5, 1913. Serial No. 70,878. PUBLISHED AUGUST 12, 1913.

93,712. SPRINGS FOR AUTOMOBILES AND HORSE-DRAWN VEHICLES ADAPTED TO CARRY PASSENGERS. JOHN HECTOR GRAHAM, New York, N. Y.
Filed May 16, 1913. Serial No. 70,449. PUBLISHED AUGUST 5, 1913.

93,713. CRUCIBLES AND CUPELS. GRAPHITES-MASKAR SOCIÉTÉ ANONYME, Paris, France.
Filed March 14, 1913. Serial No. 69,029. PUBLISHED AUGUST 5, 1913.

93,714. COTTON AND JUTE BAGGING. M. M. GRAVES COMPANY, Houston, Tex.
Filed June 27, 1913. Serial No. 71,405. PUBLISHED JULY 29, 1913.

93,715. REFRIGERATORS. GURNEY REFRIGERATOR COMPANY, LIMITED, Fond du Lac, Wis.
Filed June 23, 1913. Serial No. 71,296. PUBLISHED AUGUST 12, 1913.

93,716. REMEDY FOR THE TREATMENT OF BRIGHT'S DISEASE AND DIABETES. CARL HAEFNER, Washington, Pa.
Filed May 10, 1910. Serial No. 49,635. PUBLISHED AUGUST 5, 1913.

93,717. TRACING-PAPER AND TRACING-CLOTH. EGON HASSINGER, Paris, France.
Filed January 10, 1913. Serial No. 67,972. PUBLISHED AUGUST 12, 1913.

93,718. OATS AND CORN FOR SEEDING PURPOSES. ARTHUR E. HAVENS, Chicago, Ill.
Filed January 11, 1913. Serial No. 67,844. PUBLISHED AUGUST 12, 1913.

93,719. COFFEE AND TEA POTS. THE JAMES HEEKIN COMPANY, Cincinnati, Ohio.
Filed July 10, 1913. Serial No. 71,635. PUBLISHED AUGUST 12, 1913.

93,720. SYNTHETIC SAPPHIRES. L. HELLER & SON, New York, N. Y.
Filed June 10, 1913. Serial No. 70,999. PUBLISHED AUGUST 12, 1913.

93,721. CIGARS AND STOGIES. THE HIGHLAND CIGAR COMPANY, Columbus, Ohio.
Filed June 23, 1913. Serial No. 71,299. PUBLISHED AUGUST 12, 1913.

93,722. BASE-BALL BATS. J. F. HILLERICH & SON COMPANY, INCORPORATED, Louisville, Ky.
Filed May 21, 1912. Serial No. 63,685. PUBLISHED AUGUST 5, 1913.

93,723. SHEETS, PILLOW-CASES, RUGS, BLANKETS, SHAWLS, SCARFS, AND VEILS. WILLIAM HOLLINS & COMPANY, LIMITED, London, England.
Filed April 10, 1913. Serial No. 69,701. PUBLISHED JULY 29, 1913.

93,724. PREPARATION OF AN OILY NATURE FOR TREATING TEXTILE FABRICS. E. F. HOUGHTON & COMPANY, Philadelphia, Pa.
Filed December 19, 1912. Serial No. 67,494. PUBLISHED AUGUST 12, 1913.

93,725. COTTON THREAD. THE HUGHES MANFG. Co., Philadelphia, Pa.
Filed June 12, 1913. Serial No. 71,069. PUBLISHED AUGUST 12, 1913.

93,726. FUEL COMPOUND FOR EXPLOSIVE-ENGINES. THE INTER-LUBE CHEMICAL COMPANY, Cleveland, Ohio.
Filed June 2, 1913. Serial No. 70,829. PUBLISHED AUGUST 12, 1913.

93,727. CIGARS. JAYNES DRUG COMPANY, Boston, Mass.
Filed May 17, 1913. Serial No. 70,466. PUBLISHED AUGUST 12, 1913.

93,728. CIGARS. JAYNES DRUG COMPANY, Boston, Mass.
Filed May 17, 1913. Serial No. 70,467. PUBLISHED AUGUST 12, 1913.

93,729. READY-MIXED PAINTS. OLIVER JOHNSON & Co., Providence, R. I.
Filed May 17, 1913. Serial No. 70,471. PUBLISHED AUGUST 12, 1913.

93,730. TAR COLLOIDS EMPLOYED AS A SPECIFIC FOR DISEASES OF THE SKIN. DR. KERESZTY, DR. WOLF ÉS TSA. VEGYÉSZETI GYÁR R. T., Budapest, Austria-Hungary.
Filed July 25, 1912. Serial No. 64,912. PUBLISHED AUGUST 12, 1913.

93,731. CERTAIN NAMED FOODS. KLAUBER WANGENHEIM Co., San Diego, Cal.
Filed April 30, 1913. Serial No. 70,136. PUBLISHED JULY 29, 1913.

93,732. DRESS-SHIELDS. I. B. KLEINERT RUBBER COMPANY, New York, N. Y.
Filed June 17, 1913. Serial No. 71,151. PUBLISHED JULY 15, 1913.

93,733. MOTOR-VEHICLE HORNS, NOT ELECTRICALLY OPERATED. LEE TIRE & RUBBER Co., Whitemarsh township, Montgomery county, Pa.
Filed March 20, 1913. Serial No. 69,205. PUBLISHED JULY 29, 1913.

93,734. GRANULAR SWEEPING COMPOUND. THE LIGNUM CHEMICAL WORKS, Brooklyn, N. Y.
Filed January 17, 1913. Serial No. 67,970. PUBLISHED AUGUST 12, 1913.

93,735. CERTAIN NAMED PLUMBING AND STEAM-FITTING SUPPLIES. LOCKE REGULATOR COMPANY, Salem, Mass.
Filed January 18, 1913. Serial No. 67,995. PUBLISHED AUGUST 5, 1913.

93,736. RAZORS, RAZOR-BLADES, AND SHEARS. MATTHEWS & LIVELY, Atlanta, Ga.
Filed April 19, 1913. Serial No. 69,932. PUBLISHED AUGUST 5, 1913.

93,737. CANNED PORK AND BEANS IN TOMATO SAUCE. CHARLES C. MCDONALD, Elyria, Ohio.
Filed June 24, 1911. Serial No. 57,286. PUBLISHED AUGUST 5, 1913.

93,738. NON-INTOXICATING CARBONATED TONIC BEVERAGES. CARL OLIVER MCGRAW, Gadsden, Ala.
Filed July 7, 1913. Serial No. 71,569. PUBLISHED AUGUST 12, 1913.

93,739. CERTAIN NAMED FOODS. MEYER & LANGE, New York, N. Y.
Filed February 10, 1913. Serial No. 68,438. PUBLISHED JULY 29, 1913.

93,740. CERTAIN NAMED ELECTRICAL APPARATUS AND SUPPLIES. MOHAWK ELECTRICAL SUPPLY COMPANY, Syracuse, N. Y.
Filed June 23, 1913. Serial No. 71,315. PUBLISHED AUGUST 12, 1913.

93,741. BEDSPREADS AND COUNTERPANES. MONUMENT MILLS, Housatonic, Mass., and New York, N. Y.
Filed May 28, 1913. Serial No. 70,724. PUBLISHED JULY 29, 1913.

93,742. BEDSPREADS AND COUNTERPANES. MONUMENT MILLS, Housatonic, Mass., and New York, N. Y.
Filed May 28, 1913. Serial No. 70,725. PUBLISHED JULY 22, 1913.

93,743. SPARKLING TABLE-WATERS. MOUNT KISCO BOTTLING Co., INC., Mount Kisco, N. Y.
Filed June 27, 1913. Serial No. 71,409. PUBLISHED AUGUST 12, 1913.

93,744. CERTAIN NAMED CITRUS FRUITS. MT. DORA CITRUS GROWERS ASSOCIATION, Mount Dora, Fla.
Filed April 8, 1913. Serial No. 69,661. PUBLISHED JULY 29, 1913.

93,745. CRAVATS. MUELLER-CARTER NECKWEAR COMPANY, St. Louis, Mo.
Filed May 28, 1913. Serial No. 70,727. PUBLISHED JULY 15, 1913.

93,746. HAY-PRESSES. JAMES W. M. NEATHERLAND, Monticello, Miss.
Filed April 1, 1913. Serial No. 69,512. PUBLISHED AUGUST 12, 1913.

93,747. PATENT SIDE LEATHER. NEW CASTLE LEATHER Co., New York, N. Y.
Filed May 1, 1913. Serial No. 70,155. PUBLISHED AUGUST 12, 1913.

93,748. PILLOW-SHAM HOLDERS. JAMES OSWALD, Buffalo, N. Y.
Filed June 7, 1913. Serial No. 70,959. PUBLISHED AUGUST 12, 1913.

93,749. OILED CLOTH AND LINOLEUM USED AS BORDERS AND KNOWN AS WOOD-FILLERS. PALRUBA MANUFACTURING Co., Orange, N. J.; Philadelphia, Pa., and New York, N. Y.
Filed March 28, 1913. Serial No. 69,395. PUBLISHED JULY 29, 1913.

93,750. PRECIOUS-METAL COLLAR-BUTTONS. PARKS BROS. & ROGERS, Providence, R. I.
Filed May 28, 1913. Serial No. 70,730. PUBLISHED AUGUST 12, 1913.

93,751. PRECIOUS-METAL COLLAR-BUTTONS. PARKS BROS. & ROGERS, Providence, R. I.
Filed May 28, 1913. Serial No. 70,731. PUBLISHED AUGUST 12, 1913.

93,752. HOOKS AND EYES. PEET BROS., Philadelphia, Pa.
Filed June 10, 1913. Serial No. 71,005. PUBLISHED JULY 15, 1913.

93,753. WATER-SOFTENER. PHILO-HAY SPECIALTIES CO., Newark, N. J.
Filed July 25, 1912. Serial No. 64,919. PUBLISHED NOVEMBER 26, 1912.

93,754. KERCHIEFS AND HANDKERCHIEFS. J. ROBINSON & COMPANY, New York, N. Y.
Filed August 1, 1912. Serial No. 65,015. PUBLISHED MARCH 4, 1913.

93,755. SILK PIECE GOODS. THE ROEHLEN-PITTENGER SILK CO., Easton, Pa.
Filed April 30, 1913. Serial No. 70,143. PUBLISHED JULY 29, 1913.

93,756. PRINTED BOOKS, PRINTS, AND PAMPHLETS. THE ROWFANT BINDERY COMPANY, Cleveland, Ohio.
Filed May 5, 1913. Serial No. 70,251. PUBLISHED AUGUST 5, 1913.

93,757. PREPARATION FOR CLEANING LEATHER. MARCUS J. SAPERSTON, St. Joseph, Mo.
Filed May 3, 1913. Serial No. 70,222. PUBLISHED AUGUST 12, 1913.

93,758. LACES. SCHAEFFER & COMPANY, Reading, Pa.
Filed May 23, 1913. Serial No. 70,593. PUBLISHED JULY 22, 1913.

93,759. RUCHE-SUPPORTERS. JOSEPH W. SCHLOSS CO., New York, N. Y.
Filed July 10, 1913. Serial No. 71,642. PUBLISHED AUGUST 12, 1913.

93,760. MERCERIZED THREAD AND SPOOL-COTTON. SEA ISLAND THREAD CO., New York, N. Y.
Filed June 18, 1913. Serial No. 71,180. PUBLISHED JULY 15, 1913.

93,761. MERCERIZED THREAD AND SPOOL-COTTON. SEA ISLAND THREAD CO., New York, N. Y.
Filed June 18, 1913. Serial No. 71,184. PUBLISHED JULY 15, 1913.

93,762. MERCERIZED THREAD AND SPOOL-COTTON. SEA ISLAND THREAD CO., New York, N. Y.
Filed June 18, 1913. Serial No. 71,185. PUBLISHED AUGUST 12, 1913.

93,763. CORN-PLASTERS. HENRY G. SEYFARTH, Chicago, Ill.
Filed May 31, 1913. Serial No. 70,811. PUBLISHED AUGUST 12, 1913.

93,764. WINDOWS, SASHES, FRAMES, AND FIXTURES. SIMPLEX WINDOW CO., San Francisco, Cal.
Filed August 20, 1912. Serial No. 65,351. PUBLISHED AUGUST 12, 1913.

93,765. CARBONATED FLAVORED NON-ALCOHOLIC DRINKS. SIMPSON SPRING COMPANY, Easton, Mass.
Filed June 21, 1913. Serial No. 71,275. PUBLISHED AUGUST 12, 1913.

93,766. REVOLVERS, PISTOLS, AUTOMATIC PISTOLS, RIFLES AND GUNS, AND AMMUNITION. SMITH & WESSON, Springfield, Mass.
Filed April 5, 1913. Serial No. 69,625. PUBLISHED AUGUST 5, 1913.

93,767. REVOLVERS, PISTOLS, AUTOMATIC PISTOLS, RIFLES AND GUNS, AND AMMUNITION. SMITH & WESSON, Springfield, Mass.
Filed April 5, 1913. Serial No. 69,627. PUBLISHED AUGUST 5, 1913.

93,768. PEDALS FOR BICYCLES, TRICYCLES, MOTORCYCLES, AND MOTOR-TRICYCLES. THE STANDARD COMPANY, Torrington, Conn.
Filed May 17, 1913. Serial No. 70,478. PUBLISHED AUGUST 5, 1913.

93,769. PEDALS FOR BICYCLES, TRICYCLES, MOTORCYCLES, AND MOTOR-TRICYCLES. THE STANDARD COMPANY, Torrington, Conn.
Filed May 17, 1913. Serial No. 70,479. PUBLISHED AUGUST 12, 1913.

93,770. PETROLEUM PITCH. STANDARD OIL COMPANY, Whiting, Ind.
Filed June 6, 1913. Serial No. 70,916. PUBLISHED AUGUST 12, 1913.

93,771. PETROLEUM ASPHALT PRODUCED BY TREATING CRUDE OIL. STANDARD OIL COMPANY, Richmond, Cal.
Filed December 12, 1912. Serial No. 67,369. PUBLISHED AUGUST 12, 1913.

93,772. REFINED PETROLEUM FOR HEATING, LIGHTING, AND POWER PURPOSES. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed August 28, 1912. Serial No. 65,459. PUBLISHED AUGUST 5, 1913.

93,773. ARTIFICIAL EYES. STANDARD OPTICAL CO., Spokane, Wash.
Filed May 15, 1911. Serial No. 56,376. PUBLISHED AUGUST 12, 1913.

93,774. READY-MIXED PAINTS, ENAMELS, JAPANS, VARNISHES, AND VARNISH-REMOVERS. STANDARD VARNISH WORKS, New York, N. Y.
Filed April 11, 1913. Serial No. 69,728. PUBLISHED AUGUST 5, 1913.

93,775. WOOLEN CLOTH IN THE PIECE. STUDD & MILLINGTON, London, England.
Filed May 20, 1913. Serial No. 70,518. PUBLISHED AUGUST 12, 1913.

93,776. VEILINGS AND NETTINGS. THEO. TIEDEMANN & SONS, New York, N. Y.
Filed April 21, 1911. Serial No. 55,879. PUBLISHED JULY 25, 1911.

93,777. MEDICATED COTTON-BATTING FOR RHEUMATISM, NEURALGIA, AND COLDS. THE TO-KALON MANUFACTURING COMPANY, Syracuse, N. Y.
Filed May 23, 1912. Serial No. 63,752. PUBLISHED AUGUST 12, 1913.

93,778. CERTAIN KINDS OF STATIONERY, PAPER, BOOKS, BINDERS, AND HOLDERS. S. C. TOOF & CO., Memphis, Tenn.
Filed January 15, 1912. Serial No. 60,808. PUBLISHED JULY 29, 1913.

93,779. COTTON PIECE GOODS. TREMONT & SUFFOLK MILLS, Lowell, Mass.
Filed April 15, 1913. Serial No. 69,811. PUBLISHED JULY 22, 1913.

93,780. POLISHING-OIL USED FOR CLEANING AND BRIGHTENING WOODEN SURFACES. TROEGERLITH TILE COMPANY, New York, N. Y.
Filed June 10, 1913. Serial No. 71,011. PUBLISHED AUGUST 12, 1913.

93,781. YARNS FOR CERTAIN USES. BERNHARD ULMANN & Co., New York, N. Y.
Filed June 26, 1913. Serial No. 71,389. PUBLISHED AUGUST 12, 1913.

93,782. YARNS FOR CERTAIN USES. BERNHARD ULMANN & Co., New York, N. Y.
Filed June 26, 1913. Serial No. 71,390. PUBLISHED AUGUST 12, 1913.

93,783. REFRIGERATORS AND REFRIGERATING MACHINERY. UNITED REFRIGERATOR & ICE MACHINE CO., Kenosha, Wis.
Filed February 25, 1913. Serial No. 68,733. PUBLISHED AUGUST 5, 1913.

93,784. COLORING MATERIALS FOR PAINTERS' USE. VEREINIGTE CHEMISCHE FABRIKEN, LANDAU, KREIDL, HELLER & Co., Vienna, Austria-Hungary.
Filed May 29, 1912. Serial No. 63,873. PUBLISHED AUGUST 5, 1913.

93,785. INK. L. E. WATERMAN CO., New York, N. Y.
Filed April 21, 1913. Serial No. 69,982. PUBLISHED AUGUST 12, 1913.

93,786. BAKE-OVENS. WERNER & PFLEIDERER CO., Saginaw, Mich.
Filed June 23, 1913. Serial No. 71,328. PUBLISHED AUGUST 12, 1913.

93,787. TRACTION-ENGINES. WESTERN IMPLEMENT & MOTOR COMPANY, Davenport, Iowa.
Filed March 12, 1913. Serial No. 68,981. PUBLISHED AUGUST 12, 1913.

93,788. MANDOLINS. H. A. WEYMANN & SON, Philadelphia, Pa.
Filed August 1, 1912. Serial No. 65,131. PUBLISHED NOVEMBER 19, 1912.

93,789. DRY-SHAMPOO PREPARATION. AGNES M. WISEMAN, Des Moines, Iowa.
Filed April 15, 1913. Serial No. 69,814. PUBLISHED AUGUST 12, 1913.

93,790. CLOCKS. YANKEE WIZARD CLOCK COMPANY, New York, N. Y.
Filed June 28, 1913. Serial No. 71,431. PUBLISHED AUGUST 12, 1913.

93,791. NECKTIES, NECKSCARFS, AND JABOTS. THE YORKE SHIRT CO., Glens Falls and New York, N. Y.
Filed January 10, 1913. Serial No. 67,830. PUBLISHED JULY 29, 1913.

93,792. HAIR-TONICS. THE YVETTE CO., New York, N. Y.
Filed May 8, 1913. Serial No. 70,306. PUBLISHED AUGUST 12, 1913.

93,793. METAL SHEETS AND STRIPS USED AS PROTECTIVE BINDINGS AND COVERINGS. ZENITE METAL COMPANY, Indianapolis, Ind.
Filed January 31, 1913. Serial No. 68,253. PUBLISHED JUNE 17, 1913.

LABELS

REGISTERED OCTOBER 14, 1913.

17,274.—*Title:* "HOME DIAMOND." (For Base-Ball Games.) LOUIS BORKHEIM, San Francisco, Cal. Filed September 10, 1913.

DECISIONS
OF THE
COMMISSIONER OF PATENTS
AND OF
UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Sixth Circuit.

GREVER *v.* UNITED STATES HOFFMAN CO. *et al.*
UNITED STATES HOFFMAN CO. *et al. v.* LASANCE.

Decided February 14, 1913.

202 FED. REP., 923.

1. PATENTS—INVENTION—NEW RESULT.
Where a transposition of parts, accompanied by some adaptation, gets a new coaction and a new result, it may be invention.

2. SAME—SAME—EXTENT OF USE.
Where there has been extensive use and defendant has copied, patentee is entitled to the benefit of the doubt on question of utility of his change.

3. SAME—INFRINGEMENT—CONSTRUCTION OF CLAIMS.
Where a patent was granted on the contention and argument of the applicant that his device was distinguished from a prior reference in a certain particular, he cannot insist that such feature is immaterial to establish infringement.

4. SAME—VALIDITY AND INFRINGEMENT—CLOTHES-PRESSING MACHINE.
The Hoffman patent, No. 928,199, for a clothes-pressing apparatus, was not anticipated and discloses invention, also *Held* infringed by one machine and not infringed by another.

STATEMENT OF THE CASE.

Hoffman and the Hoffman Company brought, in the court below, two infringement suits based upon Patent No. 928,199, issued to Hoffman July 13, 1909, on application filed December 1, 1904, for a clothes-pressing apparatus. Grever, defendant in No. 2,374, was using a device admitted to be broadly similar to Hoffman's and his defense was that the patent was invalid. Lasance, defendant in No. 2,336, used a machine claimed to differ essentially from that of the Hoffman patent, and his defense was non-infringement. The district court adjudged the patent valid, and entered a decree against Grever; but thought the Lasance machine was outside of the patent, and in that case dismissed the bill. The defeated party in each case appeals.

The essentials of pressing clothes—moisture, heat, and pressure—are obtained in the most elementary form, by the weight of a hot iron on the upper surface of a moistened cloth interposed between the iron and the garment. Hoffman provided an apparatus having a table, or buck, upon which the garment was to be placed, and having hinged, above this buck, a presser-plate which could be raised or lowered on its hinge. The face of the presser-plate was full of fine openings, and carried, on its upper side, a steam-chamber connected with a steam-supply. The garment to be pressed is placed on the buck, the presser-plate is brought down thereon, downward force is extended through a foot-lever or other means, and, at the same time, steam, under pressure, is admitted to the chamber in the presser-plate and driven out through the fine openings onto the upper surface of the garment. The presser-plate is also independently heated, and it is claimed that the entire operation of moistening, pressing, and sufficiently drying is performed at one stroke of the depressing-pedal, and almost instantaneously.

The patent contains sixteen claims. Hoffman alleges that some of these are infringed by Lasance, and all of them by Grever. The first claim fairly expresses the broadest aspect of the claimed invention, and is all that need be quoted for the purposes of this opinion. It is:

1. In a garment pressing machine, a supporting bed for the garment, a foraminous presser plate permanently associated with and movable toward and from the upper surface of the bed, and means for projecting steam through the foraminous presser plate while the latter is in its pressing position.

Mr. W. F. Murray for Grever.
Mr. Arthur Stem for Lasance.
Mr. F. W. Cameron for United States Hoffman Co.

Before WARRINGTON, KNAPPEN, and DENISON, Circuit Judges.

DENISON, *Cir. J.*, (after stating the facts as above:)

[1, 4] As in every controversy involving validity and infringement, we must determine two questions: First, did the patentee in fact make any real advance in the art, and if so, what was its full extent? Second, applying to his contract with the Government, as summarized in his claim, the settled rules of construction, can that contract reasonably be read as granting to him such a monopoly of his actual advance as will include defendant's embodiment? So we must, in this case, as usual, first examine the state of the art and then construe the claim.

The closest earlier structure is found in a German patent to Bossen, No. 59,423, published October 19, 1891, and this presents the clear question whether Hoffman merely transposed the parts of the Bossen machine, or whether he accompanied this transposition by such a reorganization and adaptation as to invoke a new operative interrelation. As this question is decided one way or the other, the Hoffman patent is void or valid. In the Patent Office, the Primary Examiner held to the former view and persistently rejected all the broader claims; on appeal, the Board of Examiners-in-Chief adopted the latter view, and directed the patent to issue.

The Bossen device was, primarily, intended for pressing garments which had been in a dye-vat, and in order to smooth out the wrinkles, rather than for pressing garments in a tailor-shop to shape them; but this distinction is not of vital importance. Bossen had the supporting bed or buck and the superposed, hinged, heated presser-plate. The supporting-bed consisted of a plate full of fine openings, having beneath it a chamber supplied with a steam connection. The described method of operation was that the garment should be placed on the supporting-bed, the steam should be turned on from below and allowed to pass up through the openings in the surface-plate and saturate the garment, and then the heated presser-plate should be lowered and allowed to remain a few moments. As a matter of first impression, Hoffman only transposed Bossen's foraminous plate and steam-jet from the buck to the presser-head; and it is clear that neither this transposition nor an increase in the pressure or temperature of the steam used, nor a decrease in the time of steam-exposure, would, of itself, constitute invention.

We come, then, to the theory of distinction by which Hoffman was able to overrule the Primary Examiner, and which is the only clear theory of distinction presented to us. His garment to be pressed or shaped lies with its surface or nap side upward. It is this nap side with which the shaping and drying hot presser-plate comes in contact. When the steam comes from below, it must penetrate the thickness of the fabric, and of the linings, if any, and often must penetrate double thicknesses of lining and fabric, before it can reach this surface which is to be pressed; in other words, there must be measurable saturation of the whole, before the surface can be slightly moistened. When the steam comes from above and is not long continued, it will not saturate the garment, but will affect only the upper surface; and not only will this be put in the best condition to be affected by the pressing, but such operation avoids that saturation through and through, which will call for a more difficult and delayed drying than is here required. Here, the moistening is so comparatively slight that the same brief heating pressure which shapes also dries.

This is Hoffman's theory of the operation. It involved a new thought not called out in Bossen's machine or operation and not obvious therefrom. It was not merely a reversal of parts, but a discovery that, by the reversal of parts, and adaptation that was simple enough after the reason for the change was observed, he could get a new result, and that the parts so combined would coact in a different manner; and from such new coaction and such new result it follows that there was invention, and the patent is valid. (*Star Works* v. *General Co.*, C. C. A. 6, 111 Fed., 398; 49 C. C. A., 409.)

[2] Comparison of the two machines, with the aid of common knowledge as to the operation of steam and heat, does not absolutely demonstrate that the described differences are very vital, or that the novelty of the result is substantial and practical rather than vague and theoretical. We confess to some doubts on this subject. However, the patentee is entitled to the benefit of such doubts; they pertain to the question of utility; and where the device has gone into very extensive, public use, as here, and where the defendant has adopted the very construction involved, as Grever has, a doubtful question of patentable utility is foreclosed. (*Diamond Co.* v. *Consolidated Co.*, 220 U. S., 428, 440, 441; 31 Sup. Ct., 444; 55 L. Ed., 527.)

We see no necessity for deciding whether Grever infringes the narrower claims. A decree on the broadest claims, 1 and 16, will give Hoffman full relief.

[3] Lasance has a machine which is quite clearly a reversion to the type of Bossen. His steam comes into the garment from below, through the foraminous surface of his stationary supporting-bed, and it must penetrate and saturate the garment before it reaches that surface with which the superposed, hinged presser-plate comes in contact. He clearly avoids the letter of the Hoffman claim, because he has no superposed "foraminous presser plate" which is "movable toward and from the surface of the bed." At the same time, if the claim was entitled to the broadest range of equivalents and was without limitation in the prior art, there would be no difficulty in finding infringement, under the familiar rule already referred to that a mere transposition of parts will not enable an infringer to escape. It would be a natural impression to think that Lasance has followed the teachings of Hoffman, except in an immaterial particular. He has the same parts operating apparently in the same general way and producing the same final product. However, the fact is that the one particular in which Lasance has not followed the teachings of Hoffman is the very particular which Hoffman insisted was essential to build up for him an invention over Bossen, and a failure to follow in this respect is a vital failure. Hoffman cannot, at the same time, say that a reversal of parts is material when he is defending against Bossen, and of no consequence when he is attacking Lasance. This situation is within the spirit, though perhaps not within the letter, of the rule that the construction which would not anticipate cannot infringe. (*American Co.* v. *Streat*, C. C. A. 4, 83 Fed., 700, 706; 28 C. C. A., 18; *Cleveland Co.* v. *Chicago Co.*, C. C. A. 3, 135 Fed., 783; 68 C. C. A., 485.)

Some other alleged distinctions in operation between Bossen and Hoffman are pointed out in addition to the one we have discussed, and it is attempted to predicate invention on these differences, and so to avoid the claim limitation necessarily to be implied if there was only the one distinction. We are not satisfied that these additional matters have real existence, but we are saved from further study of them by another consideration. The claim of the patent, read literally, is limited to a structure having the foraminous presser-plate swinging from above. The most that can be said for complainant is that the claim is ambiguous and might receive another and broader construction. We find, then, that throughout the long arguments to the Primary Examiner, and in his presentation of the matter to the Board, Hoffman insisted that he was entitled to a patent over Bossen just because and only because he did apply his steam to the upper surface, with slight penetration, instead of from below, with saturation. The Board accepted this view and granted the patent because of this view. In other words, on the theory that there is room for more than one construction of the claim, it was solicited by Hoffman and granted by the Patent Office upon the theory, carefully expressed by both, that it had a particular meaning. It is true an argument of a solicitor in the Patent Office does not, of itself, work an estoppel; but this was not merely an argument that, for one reason or another, the application disclosed invention over the reference; it was in substance a statement that the phrases "upper surface" and "foraminous presser plate" in the claim must be construed as distinguishing the claim from a device which *did not*, and so limiting the claim to a device which *did*, apply the steam from the upper or surface side. It seems clear that, just as in any written contract the construction put upon its language by both parties at the time of its making is admissible to solve any ambiguity which may rest in the finally selected language, so, upon that principle, if upon no other, Hoffman must be confined to a construction of his claim which will not include Lasance. (*Goodyear* v. *Davis*, 102 U. S., 222, 227; 26 L. Ed., 149.)

Upon the argument, it was suggested that the Lasance machine could be used by laying the garment face down and allowing the lower member to serve as a presser-plate, thus accomplishing exactly what Hoffman did. There is no evidence that the machine ever was so used, and that method of use seems highly awkward, if not practically impossible. We do not think it necessary to consider the problem which would be presented by a machine adapted and intended to be used for practising the Hoffman idea of surface-moistening, as distinguished from saturation, but moistening the surface that is placed downward instead of that which is placed upward. The Lasance is not such a machine. It will be time enough to consider that question, if such a machine is ever built and works well enough to justify an infringement suit.

In the Lasance case, the decree below is affirmed; in the Grever case, the fourth paragraph of the decree may be modified so as to refer only to claims 1 and 16, and so modified, is affirmed. In each case, appellee will recover costs in this court.

ADJUDICATED PATENTS.

(U. S. D. C.) The Cunningham patents, Nos. 553,185, 559,790, and 556,532, for improvements in billiard or pool table pockets and conduits for balls connected therewith, *Held* invalid. *Brunswick-Balke-Collender Co.* v. *Charles Passow & Sons*, 206 Fed. Rep., 468.

(U. S. C. C. A.) The Murray patent, No. 692,535, for a spring-seat, *Held* valid and infringed. *Murray* v. *Detroit Wire Spring Co.*, 206 Fed. Rep. 465.

(U. S. D. C.) The Norton patent, No. 859,686, for a process of making metal fasteners, *Held* valid and infringed. *Acme Steel Goods Co.* v. *American Metal Fasteners Co.*, 206 Fed. Rep., 478.

(U. S. D. C.) The Norton patent, No. 956,540, for a machine for making metal fasteners, *Held* valid and infringed. *Acme Steel Goods Co.* v. *American Metal Fasteners Co.*, 206 Fed. Rep., 478.

Changes in Classification.

(ORDER No. 2,074.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 2, 1913.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In class 15, Brushing and Scrubbing, (Division XXVII,) abolish subclass—

6. **Brush and broom supports,**

the patents formerly contained therein having been placed in various subclasses in classes 91, Coating; 132, Toilet; 211, Store Furniture, and 248, Supports.

In class 88, Optics, (Division VII,) establish the following subclass and definition:

1.5. **Camera finders.**

1.5. CAMERA FINDERS. Light deflecting viewing devices attached to or used in connection with photographic cameras and having fields of view corresponding in scope to the fields of view of the camera with which they are used.

Search Classes—

88—OPTICS, subclass 2.2, Geometrical Instruments, Fiducial, and subclasses thereunder, for light deflecting finders in which auxiliary fiducial members, such as hair lines, etc., are employed.

33—GEOMETRICAL INSTRUMENTS, subclass 40, Light-ray type, and subclasses thereunder, for finders that do not deflect light.

The patents contained in this subclass have been taken from class 95, Photography, subclass 52, Cameras, Finders, abolished in Order No. 2,063.

In same class add to the definition of subclass 24, Projecting apparatus, after the word "Optics," in the first search note, the following:

subclass 1.5, Camera finders, for projecting devices of the camera obscura type, and

In the same class add to the definition of subclass 33, Telescopes, Prismatic, the following:

Search Class—

88—OPTICS, subclass 1.5, Camera finders, for viewing devices in which deflecting mirrors or prisms are embodied.

In class 217, Wooden Receptacles, (Division XL,) abolish the following subclass, with its definition:

Boxes—

Crates—

39. Poultry,

the patents formerly contained therein having been placed in appropriate subclasses in class 119, Animal Husbandry, and class 217, Wooden Receptacles.

In class 248, Supports, (Division VIII,) establish the following subclasses:

50. **Article carried.**

49. **Brush and broom.**

The patents in these subclasses have been taken from class 15, Brushing and Scrubbing, subclass 6, Brush and broom supports, hereinbefore abolished.

ERRATUM.

The following correction in the Manual of Classification, as revised to January 1, 1912, is hereby directed:

On page 21, class 5, Beds, subclasses 68, Roller, and 69, Screw-operated, in the first column, should be moved one space to the right to read under "Tighteners" above.

THOMAS EWING,
Commissioner.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyramid Drug Co., of 227 East State street, Marshall, Mich., for registration of a trade-mark and trade-mark registration No. 10,165, registered April 10, 1883, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned undeliverable, notice is hereby given that unless the said William H. Brearley, his assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Vick Chemical Co., of Greensboro, N. C., for registration of a trade-mark and trade-mark registrations of The Ozark Medicine Company, of Batesville, Ark., The L. Richardson Drug Co., of Greensboro, N. C., Columbia Drug Company, of Savannah, Ga., and trade-mark registered April 10, 1883, No. 10,165, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Brearley, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

Sarah H. Cockrell & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Scott Logan Milling Co., of Sheldon, Iowa, for registration of a trade-mark and trade-mark registration No. 13,560, registered August 10, 1886, to Sarah H. Cockrell & Co., of Dallas city, Tex., and a notice of such declaration sent by registered mail to said Sarah H. Cockrell & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Sarah H. Cockrell & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

Frank Wright & Bro., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 8,231, registered May 17, 1881, to Frank Wright & Bro., of Washington, D. C., and a notice of such declaration sent by registered mail to said Frank Wright & Bro. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Frank Wright & Bro., their assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., September 23, 1913.

John B. Daniels, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Radio Company, of 1518 West Pico street, Los Angeles, Cal., for registration of a trade-mark and trade-mark registration No. 43,229, registered August 23, 1904, to John B. Daniels, of 673 Vanderbilt avenue, borough of Brooklyn, New York, N. Y., and a notice of such declaration sent by registered mail to said John B. Daniels at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said John B. Daniels, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C. September 23, 1913.

Oliver J. Freeman, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Hedden & Eberhardt, of 14–16 East Thirty-third street, New York, N. Y., for registration of a trade-mark and trade-mark registration No. 23,706, registered March 28, 1893, to Oliver J. Freeman, of 1883 North Clark street, Chicago, Ill., and a notice of such declaration sent by registered mail to said Oliver J. Freeman at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Oliver J. Freeman, his assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

THE
OFFICIAL GAZETTE
OF THE
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ISSUE OF OCTOBER 21, 1913.

Patents	646—No.	1,076,012 to No. 1,076,657, inclusive.
Designs	37—No.	44,743 to No. 44,779, inclusive.
Trade-Marks	158—No.	93,794 to No. 93,951, inclusive.
Labels	25—No.	17,275 to No. 17,299, inclusive.
Prints	6—No.	3,387 to No. 3,392, inclusive.
Reissues	6—No.	13,629 to No. 13,634, inclusive.
Total	878	

TO RESIDENTS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	.....	North Carolina	1	3
Arizona	2	.....	North Dakota	.....	.....
Arkansas	2	1	Ohio	47	5
California	29	7	Oklahoma	8	2
Colorado	8	.....	Oregon	2	2
Connecticut	20	2	Pennsylvania	54	6
Delaware	1	.....	Rhode Island	5	1
Florida	6	1	South Carolina	1	.....
Georgia	1	.....	South Dakota	.....	.....
Idaho	1	.....	Tennessee	7	1
Illinois	62	16	Texas	16	5
Indiana	14	3	Utah	1	.....
Iowa	10	.....	Vermont	1	.....
Kansas	5	.....	Virginia	6	1
Kentucky	2	.....	Washington	8	2
Louisiana	4	1	West Virginia	4	2
Maine	.....	.....	Wisconsin	11	9
Maryland	1	3	Wyoming	1	.....
Massachusetts	44	10			
Michigan	14	5	Alaska, District of	.....	.....
Minnesota	12	3	Canal Zone	.....	.....
Mississippi	2	.....	District of Columbia	8	.....
Missouri	16	9	Hawaii Territory	.....	.....
Montana	4	.....	Philippine Islands	2	.....
Nebraska	7	.....	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	1	1	U. S. Navy	.....	.....
New Jersey	26	5			
New Mexico	1	.....	Total to residents of the United States	591	172
New York	109	66			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	.....	.....
Austria-Hungary	1	1	Newfoundland	.....	.....
Belgium	3	.....	New South Wales	1	.....
Brazil	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	16	1	Queensland	1	.....
Cape Colony	.....	.....	Roumania	.....	.....
Chile	.....	.....	Russia	.....	.....
China	.....	.....	Scotland	2	.....
Costa Rica	.....	.....	South Australia	.....	.....
Cuba	.....	.....	Spain	.....	.....
Denmark	1	.....	Sweden	1	.....
England	18	9	Switzerland	3	.....
France	3	3	Transvaal, South Africa	.....	.....
Germany	37	3	Victoria	1	.....
Guatemala	.....	.....	Wales	1	.....
India	.....	.....			
Ireland	1	.....	Total to residents of foreign countries	92	17
Italy	1	.....			
Japan	.....	.....			
Mexico	1	.....			

Executors and Administrators—Modification of Order No. 1,838.

(ORDER NO. 2,076.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 14, 1913.

Where an inventor dies after filing an application, the executor or administrator should intervene; but the allowance of the application will not be withheld nor the application withdrawn from issue if the executor or administrator does not intervene.

(Modifying Order No. 1,838, published 151 OFFICIAL GAZETTE, page 453.)

THOMAS EWING,
Commissioner.

Amendments.

RULE 73. In every amendment the exact word or words to be stricken out or inserted in the application must be specified and the precise point indicated where the erasure or insertion is to be made. All such amendments must be on sheets of paper separate from the papers previously filed, and written on but one side of the paper. Erasures, additions, insertions, or mutilations of the papers and records must not be made by the applicant.

Amendments and papers requiring the signature of the applicant must also, in case of assignment of an undivided part of the invention, be signed by the assignee. (Rules 6, 107.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 18, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	July 31	Aug. 1	802
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	June 2	Aug. 13	692
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Sept. 19	Oct. 6	238
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 18	June 2	723
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 1	July 30	637
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	June 27	Aug. 1	778
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 7	Aug. 12	1078
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	May 22	Aug. 18	1028
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	Apr. 26	Sept. 12	719
235	10. Carriages and Wagons	May 26	Aug. 8	1198
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 5	Sept. 10	339
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	June 16	June 18	1590
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	June 10	Aug. 5	716
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 2	Sept. 19	534
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Apr. 8	July 17	1629
109	16. Radiant Energy; Telegraphy; Telephony.	June 4	July 15	581
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Aug. 26	Sept. 18	296
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	July 8	Sept. 8	258
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 7	Aug. 21	650

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Aug. 15	Sept. 19	263
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	May 24	July 1	697
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 7	July 31	447
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Aug. 16	Aug. 18	546
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Aug. 14	Aug. 20	591
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Aug. 22	Sept. 19	259
106	26. Electricity, Generation; Motive Power.	May 12	June 20	637
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Aug. 25	Aug. 27	495
65	28. Internal-Combustion Engines	July 21	July 26	851
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-working; Woodworking-Tools.	June 2	June 2	764
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 21	Oct. 4	257
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 16	July 18	431
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	June 2	Sept. 8	463
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 5	Aug. 8	444
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	July 31	July 30	569
57	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	June 30	Sept. 8	811
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	July 18	July 21	1064
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Mar. 1	June 16	981
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	May 12	July 21	1022
321	39. Water Distribution	July 9	Aug. 7	514
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	June 2	Aug. 20	1064
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Aug. 25	Sept. 4	484
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	Apr. 14	June 7	972
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 21	Aug. 29	287

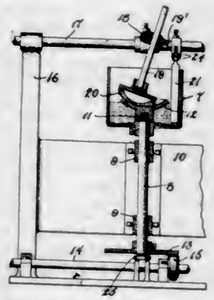
Oldest new case, Mar. 1; oldest amended, June 2.
Total number of applications awaiting action..... 29,399

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	July 16	Sept. 26	911
	Designs	Sept. 9	Sept. 20	206
	Labels and Prints	Oct. 13	Oct. 11	35

PATENTS

GRANTED OCTOBER 21, 1913.

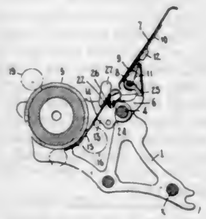
1,076,012. GLASS-GRINDING APPARATUS. JOSEPH ALLSOPP, Charleroi, Pa., assignor to The Macbeth-Evans Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 6, 1912. Serial No. 689,070. (Cl. 51—3.)



1. A glass grinding apparatus comprising in combination, a frame, a grinding mechanism rotatably mounted in the frame and having a detachable grinding disk, said mechanism being adapted to contain an abrasive mixture, a bar mounted in the frame above the grinding mechanism, a work chuck detachably secured to the bar, a dash member slidably mounted on said bar and adapted to dash abrasive on the grinding disk, and means for detachably locking the dash member in position.

2. A glass grinding-apparatus comprising in combination a frame, a rotary receptacle mounted in the frame adapted to contain an abrasive mixture, a grinding mechanism within said receptacle, a work chuck detachably carried on the frame and projecting into the receptacle, a dash member projecting into the receptacle and slidably mounted for movement toward and from the work chuck, and means for detachably locking the dash member in position.

1,076,013. TYPE-WRITING MACHINE. SEVERE J. BEAUDRY, Bridgeport, Conn., assignor, by mesne assignments, to Remington Typewriter Company, Ilion, N. Y., a Corporation of New York. Filed Mar. 30, 1912. Serial No. 687,413. (Cl. 197—142.)



1. In a typewriting machine, the combination of a platen, a paper table, a paper apron, the paper table and paper apron being spaced apart, a side edge paper gage in front of the paper apron and having a connecting member which is interposed between the paper table and apron and extends through the space between them, and means in the rear of the paper apron for supporting said gage through said connecting member for adjustment longitudinally of the platen and intermediate the ends of the paper table.

2. In a typewriting machine, the combination of a platen, a pivoted paper table, a paper apron, the paper table and paper apron being spaced apart and arranged normally substantially in alinement, a side edge paper gage in front of the paper apron and having a connecting member which is interposed between the paper table and apron and extends through the space between them, and means in the rear of the paper apron for supporting said gage through said connecting member independently of the paper table and for adjustment longitudinally of the platen and intermediate the ends of the paper table.

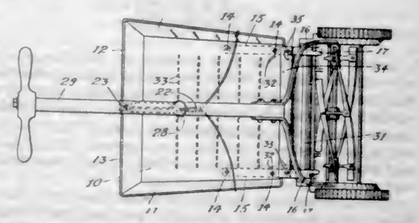
3. In a typewriting machine, the combination of a platen, a pivoted paper table, a paper apron spaced apart from said paper table, and a side edge paper gage having its contact or gaging portion arranged in front of the paper apron and being supported below the paper table and mounted for adjustment longitudinally of the platen and intermediate the ends of the paper table and fixed against movement with the paper table during the pivotal movement of the latter, the paper table being free to swing forwardly over said side edge gage.

4. In a typewriting machine, the combination of a platen, a paper table, a side edge paper gage having its engaging portion in front of and below the lower edge of the paper table, said gage being wholly supported in the rear of the platen and independently of the paper table and below the same for adjustment longitudinally of the platen and intermediate the ends of the paper table.

5. In a typewriting machine, the combination of a platen, a paper directing plate, hanger arms in the rear of the paper directing plate and by which said plate is supported, said hanger arms being apertured, a rod which extends parallel with the axis of the platen and which receives and has a sliding adjustment in the apertures in the hanger arms, and a side edge gage in front of said plate and connected with said rod.

[Claims 6 to 12 not printed in the Gazette.]

1,076,014. GRASS-CATCHER. WILLIAM BOSS, St. Paul, Minn. Filed Sept. 14, 1912. Serial No. 720,333. (Cl. 56—114.)



1. A grass catcher comprising a receptacle for grass clippings, a pair of bars secured to the bottom of said receptacle and having cleft ends for freely engaging over and under the cutter bar holder of a lawn mower, said bars being provided with an upward and downward arch

for carrying the same out of contact with the roller of the lawn mower, and a lip extended from the bottom of the receptacle and supported by the arched portion of said bars.

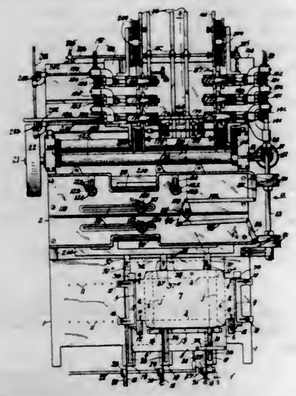
2. A grass catcher comprising a receptacle for grass clippings having a sheet metal bottom, and a series of members projecting upwardly from said bottom for preventing forward slippage of the grass clippings along said bottom when the lawn mower and receptacle is brought to a sudden stop.

3. A grass catcher comprising a receptacle for grass clippings having sheet metal bottom and side walls, and a series of members projecting upwardly from said bottom and inwardly from said walls for preventing forward slippage of the grass clippings within the receptacle when the lawn mower and receptacle is brought to a sudden stop.

4. A grass catcher comprising a receptacle for grass clippings having a sheet metal bottom, parts of said bottom being punched upwardly from below to form a series of rearwardly pointing upstanding members for preventing forward slippage of the grass clippings along said bottom when the lawn mower and receptacle is brought to a sudden stop.

5. A grass catcher comprising a receptacle for grass clippings having a sheet metal bottom, a pair of upwardly arched bars secured to said bottom and having cleft ends for freely engaging over and under the cutter bar holder of a lawn mower, a lip extended from the bottom of the receptacle and supported by the arched portion of said bars, and a series of rearwardly pointing upstanding members formed from the body of said bottom for preventing forward slippage of the grass clippings along said bottom when the lawn mower and receptacle is brought to a sudden stop.

1,076,015. CARTON FOLDING AND STITCHING MACHINE. REUBEN H. BROWN, New Haven, Conn. Filed Mar. 28, 1912. Serial No. 686,976. (Cl. 93—42.)



1. The combination in a machine of the character described comprising a carton supporting table, carton feeding mechanism, carton folding mechanism, and carton stitching mechanism, arranged in serial order to feed a carton blank from the table to the folders, fold the ends and sides down upon the main body portion, of the carton and advance the folded carton to the stitching mechanism and stitch said carton while folded.

2. In a machine of the character described, side and end folders, mechanism for alternately actuating said folders, vertically movable carton grippers adapted to guide and support a carton until it is in a position for folding and then grip and hold the carton while the side folders operate, said side folders adapted to remain in closed position against the folded sides of the carton during the operation of the end folders, means for retreating the grippers prior to the action of said end folders, vertically operating guide supports for the folded carton, combined feeding and compressing rolls, mechanism for advancing a folded carton into the bite of said rolls.

3. In a machine of the character described, carton folding mechanism comprising rock shafts carrying alternately operating side and end folders, feed and compression rolls in advance of the folding machanism, mechanism for advancing a folded carton into said rolls comprising reciprocating slide carrying carton ejectors pivotally supported thereon, means for elevating said ejector to engage a carton on its forward movement, and means for depressing the ejector on its backward movement so as to clear the folders.

4. In a machine of the character described, carton folding mechanism, combined feed and compression rolls located in advance of the folding mechanism, a reciprocating ejector for delivering a folded carton to the rolls and a guide plate for closing a central portion of a folded flap of the carton and guiding it into the rolls.

5. In a machine of the character described, comprising, in combination, automatic mechanism adapted to effect a partial advance of a carton blank, automatically operating blank ejectors, carton folding mechanism adapted to receive a blank from the ejectors, automatically operating guides adapted to support a carton located under the folding mechanism and hold said carton firmly in place during a part of the folding operation, combined feed and compression rolls located in advance of the folding mechanism, reciprocating ejectors for advancing a folded blank to the rolls, and means for guiding the same into the rolls, stitching mechanism in advance of said rolls, intermediate mechanism for advancing a folded and compressed carton to the stitching mechanism, and independently operating mechanism for accurately locating the same with respect to the stitching mechanism.

1,076,016. RAILWAY-RAIL. JAMES R. CALDER, Hamilton, Ontario, Canada. Filed Feb. 18, 1913. Serial No. 749,220. (Cl. 239—16.)

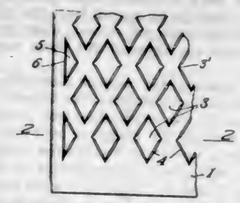


1. A two-part rail comprising a base portion having a socket formed longitudinally therein the inner face of one side wall of the socket being convexly curved; a head portion having a stem of less width than the socket and fitted therein and having one side concavely curved substantially concentric with the curve of the aforesaid wall of the socket; and a curved filling piece adapted to be fitted into the space between the said curved surfaces, the bottom of the said stem normally being above the bottom of the socket.

2. A two-part rail comprising a base portion having a socket formed longitudinally therein the inner face of one side wall of the socket being convexly curved; a head portion having a stem of less width than the socket and fitted therein and having one side concavely curved substantially concentric with the curve of the aforesaid wall of the socket; and a curved filling piece adapted to be fitted into the space between the said curved surfaces, the bottom of the said stem normally being above the bottom of the socket, and a hole being formed through the side of the base portion into the socket for the introduction of a tool to pry out the filling piece.

1,076,017. METAL TREAD. RODNEY G. CHASE, West Medford, Mass. Filed Dec. 29, 1910. Serial No. 599,799. (Cl. 20—79.)

1. A metal tread comprising a plate formed with a plurality of interstices upturned marginally to provide friction surfaces, each interstice along the margin of said plate shaped so as to position one of its upturned marginal surfaces parallel to and adjacent the edge of said plate.



2. A metal tread comprising a plate formed with a plurality of interstices upturned marginally to provide friction surfaces, each interstice along the margin of said plate being of triangular shape so as to position the upturned surface formed along the margin of its hypotenuse parallel to and adjacent the edge of said plate.

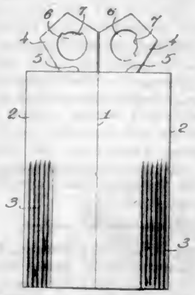
3. A metal tread comprising a plate having interstices slit substantially radially from the center thereof, and formed with marginal flanges upturned along each edge of the material between said slits.

4. A metal tread comprising a plate having interstices therein, said interstices having angular notches struck from their corners and a marginal flange upturned along each edge of the material between said notches forming upturned flat sides pyramidal flanges.

5. A metal tread comprising a plate having interstices formed therein bounded by upturned marginal flanges of truncated flat pyramidal shape, the inclined marginal flanges of the pyramid side being determined by the radials of the openings.

[Claims 6 and 7 not printed in the Gazette.]

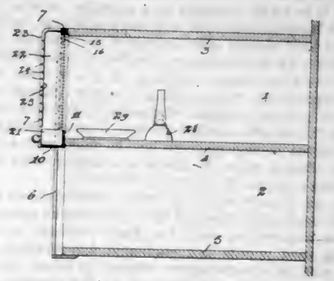
1,076,018. BOTTLE-WRAPPER. PETER T. CLARK, Roxbury, Mass. Filed Oct. 26, 1912. Serial No. 727,840. (Cl. 229—89.)



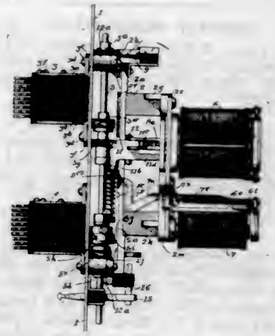
As an article of manufacture, a bottle wrapper comprising a body portion of flexible, protective material foldable longitudinally from end to end to form bottle-embracing sides, each side having at one end an extension provided with a bottle-neck-receiving aperture and a segmetal bottle-cap-engaging lip extending into the aperture from the wall thereof, the said sides being longitudinally corrugated from their opposite ends for a portion of their length, the extensions being foldable substantially at right angles to the sides and overlapped upon one another to bring the apertures into register for the reception of the bottle neck and thereby to position the lips for engagement with the lower edge of the sealing cap.

1,076,019. ELECTROCUTING INSECT-TRAP. HENRY B. CLARKE, Highland Park, Ill. Filed July 17, 1911. Serial No. 638,827. (Cl. 43—84.)

In combination, a box-like inclosure open at one side only and an electrocuting grid or screen covering said open side, said electrocuting device comprising a marginal frame mounted in ways to slide across into and out of register with the opening of said box-like inclosure, a series of electrocuting conductors forming a screen extending across said frame, suitable electrical connections for connecting every alternate conducting rod with the opposite pole of a source of electric current of large amplitude, a source of such current, means for detachably securing said electrocuting screen in position, and an openwork guard covering the exterior of said electrocuting screen.



1,076,020. AUTOMATIC SWITCH FOR TELEPHONE-EXCHANGE SYSTEMS. EDWARD E. CLEMENT, Washington, D. C., assignor to The Clement International Engineering Corporation, Camden, N. J., a Corporation of New Jersey. Filed May 17, 1910. Serial No. 561,804. (Cl. 179—27.5.)



1. In an electric switch, bank contacts, wiper contacts, a spindle carrying the wipers, means for rotating the spindle, and a non-rotating rack lying parallel to and carrying journal bearings on its ends for the spindle and adapted when moved to reciprocate the same.

2. In an electric switch, a frame, bank contacts carried on said frame and arranged in a plurality of rows, wiper contacts coöperating with the bank contacts, a spindle carrying said wipers and journaled for rotation in the frame with an electromagnet adapted to rotate the same, a rack lying parallel to and carrying journal bearings on its ends for the spindle, an electromagnet for reciprocating the rack, and means for preventing rotation of the rack, whereby rotation and reciprocation of the spindle may be accomplished, and the wipers adjusted to any desired bank contact in any row.

3. In an electric switch, a frame, bank contacts carried on said frame and arranged in a plurality of rows, wiper contacts coöperating with the bank contacts, a spindle carrying said wipers and journaled for rotation in the frame with an electromagnet adapted to rotate the same, a rack lying parallel to and carrying journal bearings on its ends for the spindle, an electromagnet for reciprocat-

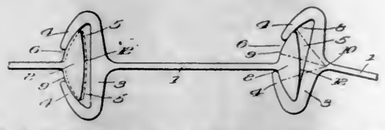
ing the rack, means on the frame for preventing rotation of the rack, and a detent coöperating with the rack to maintain the switch in position after its wipers have been set, together with a release magnet for disengaging said detent from the rack and restoring the parts to normal.

4. In an electric switch, a frame, bank contacts carried on said frame and arranged in a plurality of rows, wiper contacts coöperating with the bank contacts, a spindle carrying said wipers and journaled for rotation in the frame with an electromagnet adapted to rotate the same, a rack carrying journal bearings on the spindle and an electromagnet for reciprocating the rack, means on the frame to prevent rotation of the rack, a detent adapted to hold the spindle against reverse rotation, another detent adapted to engage teeth on the rack, and a release magnet adapted when energized to disengage said detents and restore the parts to normal condition.

5. In an electric switch, a frame, bank contacts carried on said frame and arranged in a plurality of rows, wiper contacts coöperating with the bank contacts, a spindle carrying said wipers and journaled for rotation in the frame with an electromagnet adapted to rotate the same, a rack carrying journal bearings on the spindle and an electromagnet for reciprocating the rack, means on the frame to prevent rotation of the rack, a detent adapted to hold the spindle against reverse rotation, another detent adapted to engage teeth on the rack, means on the frame to prevent reverse rotation of the spindle after reciprocation and a release magnet adapted to act upon said detents so as to first produce reverse reciprocation of the spindle from any position in which it has been set, whereby it may be disengaged from the frame detent, and then permitting reverse rotation of the spindle, to bring the wipers into zero or normal position.

[Claims 6 to 10 not printed in the Gazette.]

1,076,021. INTEGRAL SHEET-PILING. CLOUD CLIFFORD CONKLING, Buffalo, N. Y., assignor to Lackawanna Steel Company, Lackawanna, N. Y., a Corporation of New York. Filed Feb. 23, 1912. Serial No. 679,415. (Cl. 61—52.)



1. A metal sheet-piling section comprising a web, a laterally elongated head on one edge, the width of the head being substantially three times its depth, a laterally elongated flange on the other edge, and inwardly turned hooks on the ends of the flange to form a groove for the head of an adjacent section, the hooks being adapted to engage with the flattened outer surfaces of the head and the groove being similar in shape to the head but substantially larger to permit angular adjustment of the head therein substantially as described and shown.

2. An integral rolled metal sheet piling section comprising a web, a laterally elongated head on one edge of the web, a laterally elongated flange on the other edge, hooks on the ends of the flange inwardly turned to form a groove freely to receive the head of the adjacent section and permit angular adjustment of the head therein, the lateral length of the head being more than about one-third and the lateral length of the flange being more than about one-half, the length of the web.

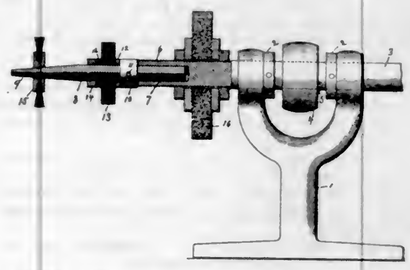
3. A metal sheet-piling section comprising a web, a laterally elongated head at one edge of the web, a laterally elongated flange at the other edge, and inwardly turned hooks on the ends of the flange to form a groove for the head of an adjacent section, the outer surfaces of the head and the inner surfaces of the hooks being substantially concentric and being flattened curves centered on a point in the web near its junction with the flange.

4. A metal sheet piling section comprising a web, a laterally elongated head on one edge thereof, a laterally elongated flange on the other edge and inwardly turned hooks on the flange edges to form a groove to receive the head of an adjacent section, said groove being similar in outline to the head but deeper, permitting the lateral surface of the head to be spaced from the inner surface of the flange of the adjacent section, when the outer surfaces of the head are adjacent the inner surface of the hooks.

5. A metal sheet piling section comprising a web, a laterally elongated head at one edge thereof, a laterally elongated flange at the other edge, and inwardly turned hooks on the ends of the flange to form in combination with the latter a groove to receive the head of an adjacent section, said groove corresponding in shape to the head but being larger to receive the same loosely.

[Claims 6 to 8 not printed in the Gazette.]

1,076,022. ATTACHMENT FOR BUFFING-LATHES. CLYDE CONNER, Marietta, Ohio. Filed Oct. 17, 1910. Serial No. 587,581. (Cl. 51—1.)

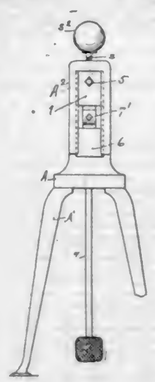


A buffing lathe comprising a forked shaped frame with suitable bearings, a shaft supported in said bearings, a pulley mounted rigidly on said shaft between said bearings, said shaft having at one end an exteriorly threaded portion, a threaded recess extending longitudinally thereof, a mandrel, exteriorly threaded at one end to engage the above mentioned recess, the other end of said mandrel having a tapering threaded extremity, a threaded cylindrical portion merging therewith, a collar extending around said mandrel and formed integral therewith, said collar separating the two threaded end portions of said mandrel, a polishing wheel upon said shaft, a polishing wheel upon the threaded cylindrical portion of said mandrel and a second polishing wheel upon the tapered extremity of said mandrel.

1,076,023. PRESS. JOHN H. CROWELL, Vineyard Haven, Mass. Filed Mar. 29, 1912. Serial No. 687,206. (Cl. 101—13.)

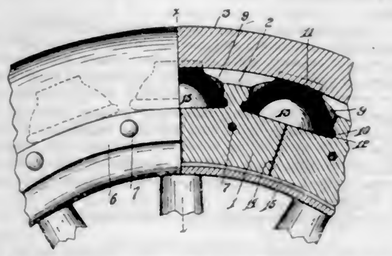
1. In a press having a table, uprights carried on said table and provided with guideways, and also with a perforated cross member connecting the upper ends of said uprights, the combination with said parts of a follower slidably fitted in said guideways, an internally threaded nut slidably fitted in said guideways and spaced a distance above said follower, a screw extending through said perforated cross member, and through said nut and connecting said nut and follower, means for locking said nut, at will, immovably in the upper portion of said guideways, and other means for actuating said screw through said nut and cross member to depress and raise said follower in the guideways.

2. In a press having a table, uprights carried on said table and provided with guideways, and also with a perforated upper cross member connecting said uprights, the combination with said parts of a follower slidably fitted in said guideways, an internally threaded nut slidably fitted in the upper part of said guideways and spaced a distance above said follower, a treadle pivotally mounted in said uprights and having its upper arm perforated and extending into the space between said nut and follower, a screw arranged for operation through said perforated cross member, internally threaded nut and perforated treadle arm, and connecting said nut and follower for united action, and means for connecting said screw to said treadle arm, and other means for binding said slidable nut upon said screw.



3. In a press having uprights provided with guideways and connected at the upper ends by a perforated cross member, the combination with said parts of an internally threaded nut slidably fitted in said guideways, a follower slidably fitted in said guideways and spaced a distance below said nut, a treadle pivotally mounted in said uprights and provided with a perforated upper arm extending into the space between said nut and follower, an externally threaded screw provided with a counterweighted operating handle, and arranged for operation through said cross member, nut and perforated treadle arm, and connecting said nut and follower for united action.

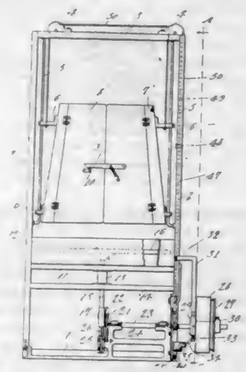
1,076,024. CUSHION-TIRE. CHARLES M. CULP, South Bend, Ind. Filed Mar. 15, 1912. Serial No. 683,919. (Cl. 152—5.)



1. A vehicle tire comprising a base portion, sockets formed in spaced relation around the periphery of said base, buffers seated in said sockets and extending normally beyond the periphery of said base, a tread portion seated upon said buffers, the latter being hollow and forming air chambers in connection with the base when seated in their sockets, and air ducts communicating with said chambers to permit ingress and egress of air to and from said chambers.

2. A vehicle tire comprising a base portion having a plurality of sockets formed in its outer face, air ducts in communication with the bottom of said sockets, yielding buffers hollowed on one side and adapted to be seated in said sockets with their hollow portions covering said air duct openings, the bottom of the sockets and buffers combined forming air chambers, and a tread portion seated upon the outer ends of said buffers and held spaced from the base portion, said buffers being entirely collapsible within their sockets when under excess pressure.

1,076,025. MACHINE FOR EVENING BROOM-CORN. HARRY H. CURTIS, Paris, Ill. Filed Feb. 6, 1913. Serial No. 746,644. (Cl. 100—31.)



1. A machine for evening broom corn including a bundle holding casing, a follower thereunder, a controlling lever, a drive element, and separate means operated by the lever for simultaneously lowering the casing toward the follower and coupling said drive element to the follower to reciprocate the follower.

2. A machine for evening broom corn, including a casing mounted for up and down movement, a follower thereunder, mechanism for reciprocating the follower, a drive element, a controlling lever, and separate means operated by the lever for simultaneously lowering the casing toward the follower and coupling said drive element to the follower actuating mechanism.

3. A machine of the class described including a frusto-conical casing having a door constituting a part of the wall thereof, means for raising and lowering the casing, and means adjacent one end of the casing for intermittently actuating the contents of the casing.

4. A machine of the class described including a casing, means for raising and lowering the casing, a follower adjacent one end of the casing and adapted to be contacted by the contents of the casing, and means for reciprocating the follower.

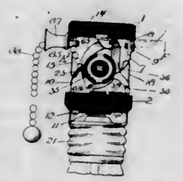
5. A machine of the class described including a frusto-conical casing open at its ends, a door constituting a portion of the wall of the casing, a follower adjacent one end of the casing and adapted to be contacted by the contents thereof, means for raising and lowering the casing relative to the follower, and means for reciprocating the follower to level the contents of the casing.

[Claims 6 to 11 not printed in the Gazette.]

1,076,026. LAMP-SOCKET. JOHN DARBY, Summit, and CLIFFORD D. MEEKER, Orange, N. J. Filed Feb. 4, 1910. Serial No. 542,078. (Cl. 173—354.)

1. A lamp socket including in combination contacts connected to the circuit, a rotatable controller for making and breaking the circuit at said contacts, a ratchet fixed to rotate with said controller, a detent piece fixed to rotate with the controller, a pawl lever and a detent lever pivotally mounted on a common mounting eccentrically to said controller, one lever passing to one side of the controller and the other passing to the other side of said controller, and means for holding the detent to the detent piece and the pawl to the ratchet.

2. A lamp socket including in combination contacts connected to the circuit, a rotatable controller for making and breaking the circuit at said contacts, a ratchet fixed to rotate with said controller, a detent piece fixed to rotate with the controller, a pawl lever and a detent lever pivotally mounted on a common mounting eccentrically to said controller, one lever passing to one side of the controller and the other passing to the other side of said controller, and a spring in tension between the detent lever and the pawl.



3. A lamp socket including in combination a rotatable controller arranged transversely of the axis of the socket, conducting pieces at each end of the controller, a branch of the circuit at either side of the socket having contacts coöperating with the conducting pieces on the controller to open and close the branches of the circuit, respectively, a ratchet and a detent piece fixed to rotate with the controller and located intermediately the conducting pieces, a pawl carrying lever and a detent lever having a common pivotal mounting eccentric to the controller and common means for holding the detent lever to the detent piece and the pawl to the ratchet wheel.

4. A lamp socket including in combination a rotatable controller arranged transversely of the axis of the socket, conducting pieces at each end of the controller, a branch of the circuit at either side of the socket having contacts coöperating with the conducting pieces on the controller to open and close the branches of the circuit, respectively, a ratchet and a detent piece fixed to rotate with the controller and located intermediately the conducting pieces, a pawl carrying lever and a detent lever having a common pivotal mounting eccentric to the controller, the detent lever passing to one side of the controller and the pawl carrying lever passing to the other side of the controller and a spring in tension between the detent lever and the pawl.

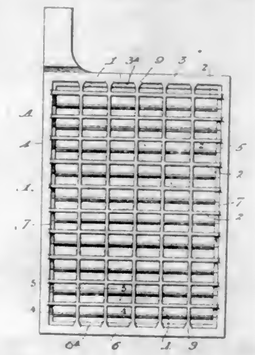
5. A lamp socket including in combination a rotatable controller arranged transversely of the axis of the socket, conducting pieces at each end of the controller, a branch of the circuit at either side of the socket having contacts coöperating with the conducting pieces on the controller to open and close the branches of the circuit, respectively, a ratchet and a detent piece fixed to rotate with the controller and located intermediately the conducting pieces, a pawl carrying lever and a detent lever having a common pivotal mounting eccentric to the controller, the detent lever passing to one side of the controller and engaging the detent piece at the side and the pawl carrying lever passing to the other side around the controller, the pawl engaging the ratchet wheel substantially opposite said pivotal mounting for the levers, and means urging said levers toward the controller.

[Claims 6 to 17 not printed in the Gazette.]

1,076,027. STORAGE-BATTERY GRID. JASPER N. DAVIS, Denver, Colo. Filed Mar. 17, 1913. Serial No. 755,010. (Cl. 204—29.)

1. In storage battery grid construction, the combination with a supporting frame, of inner active material retaining members having at their intersection with the outer supporting frame, connecting members which extend across the inner edges of the vertical members of the frame, and which are also an integral part of said frame, said frame being of less thickness than the depth of the retaining members and embedded in an insulating material.

2. In a storage battery grid, a rectangular frame having integral zigzag webs on the inner edges of its opposite side members, the apexes of which extend beyond the faces of said side members, transverse bars extending across the frame on each side thereof, which are integrally connected at their ends with the apexes of said zigzag webs, and vertical bars integral with the transverse bars and with the frame and of greater width than the thickness of the frame, said frame having a coating of insulating material.



3. In a storage battery grid, a rectangular frame, bars extending across the frame on opposite sides thereof, and in alternate order, and projections on the inner edges of the frame, integral therewith, and with the ends of the said bars, said frame being coated with an insulating material which is flush with the outer surfaces of the bars.

4. In a storage battery grid, a rectangular frame having integral upright bars of greater width than the thickness of the frame, integral zigzag webs on the inner opposing edges of the vertical members of the frame, the apexes of which project beyond the faces of said side members, and bars extending across said frame on opposite sides thereof, the ends of which are integrally connected with the apexes of said zigzag webs, said frame being embedded in an insulating material which is flush with the outer faces of said bars and fills the recesses formed by said zigzag web.

5. In a storage battery grid, a frame embedded in non-conducting material, and having integral bars extending across its opposite sides in alternate order, and from the inner opposing edges of opposite members of said frame, the outer surfaces of which are flush with the outer surface of said insulating material, bracing webs on said opposing edges, integral with the said edges and with the ends of the alternating bars, and bars at right angles to the alternating bars integral therewith, and with the frame, and of a width corresponding to the greatest depth of the frame.

[Claims 6 to 8 not printed in the Gazette.]

1,076,028. WATER-RESISTANT CEMENT AND PROCESS OF MAKING SAME. CARLETON ELLIS, Montclair, N. J., assignor to New Jersey Testing Laboratories, a Corporation of New Jersey. Filed Sept. 30, 1911. Serial No. 652,114. (Cl. 106—43.)

1. The process of making water-resistant mineral material capable of bonding on exposure, which comprises passing finely-divided dry mineral material capable of bonding on exposure, through a spray zone of a waterproofing body.

2. The process of making water-resistant mineral material capable of bonding on exposure which comprises passing finely-divided dry mineral material capable of bonding on exposure through a spray zone of a waterproofing body in a molten condition.

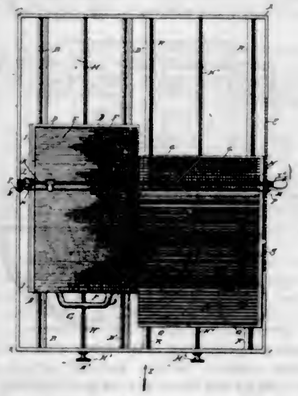
3. The process of making a water-resistant cement which comprises passing dry ground cement through a spray zone of a normally-solid organic waterproofing body in a substantially molten state.

4. The process of making a water-resistant cement which comprises maintaining in a molten state a waterproofing body containing a fatty acid, in atomizing said body to form a spray zone, and in passing cement through said zone, whereby said cement is uniformly commingled with said waterproofing body.

5. The process of making a water-resistant cement which comprises maintaining in a molten state a waterproofing body containing a fatty acid and a wax, in atomizing said body to form a spray zone, and in passing cementitious material through said zone.

[Claims 6 to 15 not printed in the Gazette.]

1,076,029. MACHINE FOR SETTING AND DISTRIBUTING PRINTING-TYPE. BENJAMIN OTTO FANSLOW, Los Angeles, Cal., assignor, by mesne assignments, to Polygraph Duplicating Typewriter Company, a Corporation of New York. Filed Apr. 8, 1907. Serial No. 367,128. (Cl. 101—130.)



1. In combination, a flat type-case mounted to move longitudinally and having transverse guideways for holding types, a movable chase held removable adjacent to the said type-case and having guideways, any one of which may be moved in register with the said type-case, and means for shifting the type from one registering guideway into the other.

2. A type setting and distributing machine provided with a removable receiver having guideways for the reception and retention of the type, and a movable flat type-case having spaced parallel guideways for holding type, the guideways of the receiver and the guideways of the type-case being adapted to be moved in register one with the other to transfer type from one guideway to the other.

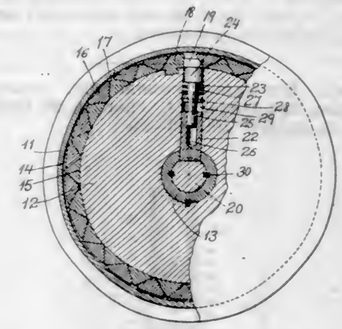
3. A type setting and distributing machine, consisting of a supporting-frame; guide-bars carried by said frame within its confines and extending longitudinally thereof; a type-container having one side open; a type-holder having one side open; the container and holder being arranged side by side within the confines of said frame and having their open sides next to each other; means on the frame, container and holder coöperating to retain the container and holder on the frame in movable relation; means for holding the holder stationary during the operation of the container; means by which the container may be moved relatively to the holder; and means for ejecting type from one to the other of said container or holder.

4. In combination with a flat frame, a type-container and a type-holder, the same being arranged in the frame in parallelism and capable of moving relatively to each other; means for retaining the holder stationary while the container is in operation; means by which to manipulate the container relatively to the holder; and said container being provided with a rack-bar, a rotatable shaft journaled in bearings on the frame and extending transversely across the latter above the container and holder, an index-block carried by said shaft, and means between the latter and the rack on the container for rotating the shaft as the container is moved relatively to the holder whereby the index-block will be moved along the shaft; and an index-bar coöperating with the index-block to prevent the latter from turning with the shaft.

5. In combination with the type-holder and type-container, a type-setting and a type-distributing mechanism comprising a horizontal bar, means for pivotally supporting the bar, means carried by the bar for engaging the type to eject the same from one to the other of the container or holder, means whereby the bar may be reversed so as to operate in opposite directions, and means whereby the said bar may be actuated, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,076,030. FRICTION-CLUTCH. EUGENE A. FORD, Uxbridge, Mass. Filed Nov. 15, 1911. Serial No. 660,474. (Cl. 192—13.)



1. A friction clutch comprising members, either or both of which is capable of rotating, said members having complemental surfaces spaced apart, wedges parallel with the axis of rotation contained between such surfaces and adapted to be crowded together and to be thereby forced oppositely into engagement with said surfaces, and means for so moving the wedges.

2. A friction clutch comprising members having separated co-axial surfaces, a series of wedging members arranged parallel to the axis of said clutch members interposed loosely between said surfaces, and means for crowding said wedging members against one another and thereby against said surfaces.

3. A friction clutch comprising two members, one of which may rotate, each having a surface co-axial with, and separated equally at all points from, a complemental surface on the other member, a series of wedges interposed between said members arranged parallel with the axis of said members and having faces adapted to bear on the faces of said members respectively, and having flanking inclined faces in contact with each other, and means for forcing said wedges together, whereby alternate wedges are crowded in opposite directions against the said members.

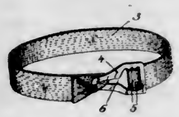
4. A clutch, comprising two members, of which one or both may rotate, having complemental surfaces, flanking an intermediate space, a series of wedges nested together loosely in such space arranged parallel with the axis of said members with their inclined sides in contact with one another and their base portions directed alternately

toward one and the other of the complemental surfaces, and an actuator movable across the said space and arranged to bear on the inclined side of one of the wedges.

5. A clutch comprising a drum or disk, and a sleeve surrounding the same, said drum and sleeve having opposed co-axial cylindrical surfaces, inclosing an annular space, a circular series of wedges loosely occupying such annular space, arranged parallel with the axis of said drum and sleeve, and an actuator movable across such space between two of the wedges.

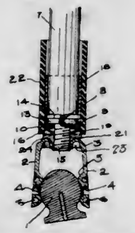
[Claim 6 not printed in the Gazette.]

1,076,031. CONTRACTING BAND FOR KNICKERBOCKERS. DOROTHY GAMBLE, New York, N. Y. Filed Jan. 2, 1913. Serial No. 739,627. (Cl. 241—8.)



A hem-contracting band for knickerbocker legs, comprising a narrow strip of elastic material having attached to one of its ends a short bodkin adapted to thread the band through the hem, said bodkin having a longitudinal slot narrowing to a point to receive and retain the material of the other end of the band after it has been inserted; substantially as described.

1,076,032. ELECTRICAL CONNECTION. PRESTON E. GILLING, East Orange, N. J. Filed July 29, 1910. Serial No. 574,518. (Cl. 173—269.)



1. An electrical connection terminal, comprising a clamping member having a threaded stem and a disk-like head larger than said stem having in its periphery a transverse slot substantially parallel to said stem adapted to receive a conductor, a ferrule slidably fitting said head and having a closed end centrally perforated to receive said stem, said ferrule wholly inclosing said head and projecting therebeyond so as to hold the conductor in its said slot, and a second clamping member screwing on said threaded stem and adapted to clamp the ferrule against the disk-like head.

2. An electrical connection terminal, comprising a clamping member having a threaded stem and a disk-like head larger than said stem having in its periphery circumferentially separated transverse slots substantially parallel to said stem and adapted to receive the branches of a bifurcated end of a conductor, a second clamping member screwing on said threaded stem and adapted to clamp the ends of said branches against said disk-like head, and a tubular member slidably fitting said head and extending beyond both ends of the same to hold said branches in said notches or grooves.

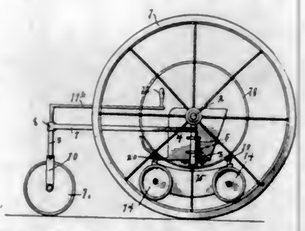
3. An electrical connection terminal, comprising a clamping member having a threaded stem and a disk-like head larger than said stem having in its periphery circumferentially separated transverse slots substantially parallel to said stem and adapted to receive the branches of a bifurcated end of a conductor, a ferrule slidably fitting said head and having a closed end centrally perforated to receive said stem, said ferrule inclosing said head so as to hold said branches of the bifurcated end of the conductor in said notches or grooves, and a second clamping member screwing on said threaded stem and adapted to clamp the ferrule against the disk-like head.

4. The combination with a terminal having a convexly rounded outer surface, of a resilient sheet-metal arm having an annular boss raised out of the plane of the arm and transversely rounded on a curve whose ends lie in said plane of the arm, said boss being of smaller diameter than the diameter of said convexly rounded outer surface and adapted to engage the same, means for engaging the opposite side of said terminal, and a conductor connected to said arm.

5. The combination with a ball terminal, of a clasp having resilient sheet metal arms adapted to grasp between themselves the said ball, said arms each having at the inner side an annular boss raised out of the plane of the arm and transversely rounded on a curve whose ends lie in said plane of the arm, said bosses being of smaller diameter than the ball terminal and adapted to engage the same at opposite sides, and a conductor connected to said clasp.

[Claims 6 and 7 not printed in the Gazette.]

1,076,033. MOTOR-VEHICLE. JOHN W. HAMM, Higginsville, Mo. Filed Apr. 1, 1911. Serial No. 618,402. (Cl. 21—90.)



A vehicle comprising an axle having a downwardly disposed offset central portion, traction wheels mounted upon the ends of the shaft and having inwardly directed flanges, guide rings carried by the spokes of the wheel, a housing beneath the central portion of the axle and having a pair of spaced shafts extending transversely therethrough, wheels journaled on the ends of the shafts and engaged with the flanges of the traction wheels, guide wheels carried by the housing and engaged with the outer faces of the rings, means for driving the pair of shafts, a seat mounted in the downwardly disposed offset central portion of the axle, a front steering wheel, means projecting from the downwardly disposed portion of the axle for supporting the steering wheel, and means for operating the steering wheel.

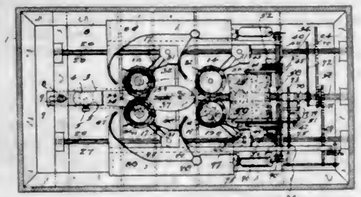
1,076,034. WALL-PAPER-MEASURING DEVICE. RAYMOND B. HARPSTER, Hepler, and JOHN J. GEES, Walnut, Kans. Filed June 7, 1912. Serial No. 702,249. (Cl. 73—9.)



1. The combination with slitting apparatus, including a platform support for rolled merchandise, a table in advance of the support, of a measuring device, including a pivotally mounted casing adapted for movement above and below the plane of the top of the table and having one of its walls formed with a slot, a revolubly mounted actuated element disposed within said casing and having its peripheral surface extended through the slot and beyond the outer face of the rear wall of the casing and adapted to contact with the roll of merchandise, the said casing having a dial thereon, a pointer contacting with the dial, means connected to the outer face of the side walls of the casing and to the table for holding the actuating element yieldingly in contact with the roll and controlling means between the actuating element and the pointer.

2. The combination with slitting apparatus, including a platform support for rolled merchandise, and a table in advance of the support having hooks along its front transverse edge, of a measuring device, said measuring device being provided with means for adjusting the same above and below the plane of the table, said means including elastic elements carried by the opposite sides of the measuring device for engagement with the hooks disposed along the front transverse edge of the table.

1,076,035. SHOE-POLISHING MACHINE. AUGUST H. R. HELLER, Pittsburgh, Pa. Filed Nov. 11, 1912. Serial No. 730,626. (Cl. 15—61.)



1. The combination with a carriage and rotatable brushes arranged thereon in pairs, means for reciprocating said carriage and rotating the brushes, means tending to move the brushes of each pair toward each other, a pair of toggle levers having divergent arms and means for actuating said levers for positively separating the brushes of one pair.

2. The combination with a carriage and rotatable brushes arranged thereon in pairs, means for reciprocating said carriage and rotating the brushes, means tending to move the brushes of each pair toward each other, a pair of toggle levers having divergent arms bearing on the brushes of one pair to positively separate them, a plunger, and a rotatable rack adapted to move said plunger to actuate the toggle lever.

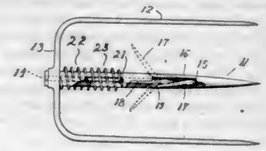
3. The combination with a pair of brushes and their supporting frames, of a toggle lever having arms bearing on said frames, means urging the brushes toward each other, and means for actuating said levers to positively separate the brushes.

4. The combination with a pair of spring pressed rotatable brushes and their supporting frames, of a toggle lever having arms bearing on said frames, a spring pressed plunger adapted to open the toggle lever, and means for moving said plunger.

5. The combination with a pair of spring pressed rotatable brushes and their supporting frames, of a toggle lever having arms bearing on said frames, a spring pressed plunger adapted to open the toggle lever, a ratchet wheel adapted to be rotated, and means on said wheel for engaging the plunger to separate the brushes.

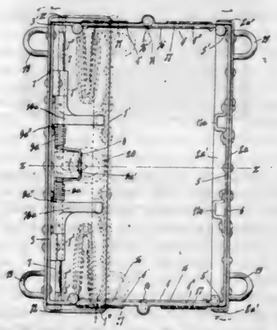
1,076,036. SPEAR. WALTER R. HEPNER and ELBERT M. VAN DYKE, Kalispell, Mont. Filed July 11, 1912. Serial No. 708,764. (Cl. 43—6.)

1. A device of the general character described, comprising a penetrating member, a longitudinally reciprocable stem carried thereby, barbs pivoted on the stem toward the outer end of the penetrating member, means on the member adapted to engage and hold the barbs in closed position when the stem is at the outer limit of its movement, means to engage and bear the barbs outwardly under inward movement of the stem, and a projecting portion on the stem to engage a body penetrated, for opening of the barbs.



2. A device of the class described comprising a head a penetrating tine, a longitudinally reciprocable member thereon resilient means to hold the member at the outer limit of its movement, means on the member to engage the surface of a penetrated body to move the member inward, and barbs outwardly of said means connected pivotally to the reciprocable member, and means to engage the barbs for opening movement under inward movement of the reciprocable member and for closing of the barbs under outward movement thereof, on the tine.

1,076,037. MAIL-BAG FASTENER. IRWIN L. HOOD, Constance, Ky., assignor of one-half to William Winkelman, Cincinnati, Ohio. Filed May 3, 1909. Serial No. 493,589. (Cl. 150—27.)

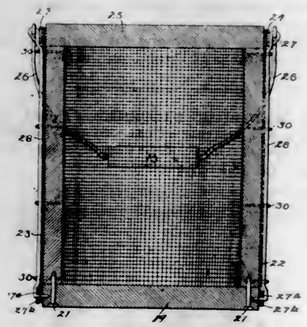


1. In a mail bag, a plate secured at one side of the mouth of the bag, keepers secured to said plate interiorly of the bag, an angular plate on the opposite side of the mouth of the bag, a shaft rotatably mounted on the interior of said angular plate and extending longitudinally thereof, hooks rigidly mounted on said shaft and adapted to move therewith, a wing fixed on said shaft and a spring adapted to exert upward pressure against said wing to normally hold said hooks in engagement with said keepers, to lock the bag, substantially as set forth and for the purposes specified.

2. In a mail bag, a plate secured to one side of the mouth of the bag, keepers secured on the inside of said plate and extending at right angles to the vertical wall of said bag, an angular plate on the opposite side of the mouth of the bag, brackets secured thereto, a shaft rotatably mounted in said brackets on the interior of said plate and extending longitudinally thereof, hooks rigidly mounted on said shaft, and adapted to rotate therewith, a wing fixed on said shaft and adapted to move therewith, helical springs surrounding said shaft and bearing against said plate and said wing to normally throw and hold said hooks into engagement with said keepers, and means to disengage said hooks from said keepers, substantially as set forth.

3. In a mail bag, a plate secured to the edge of the mouth of the bag at one side and having a flange extending inwardly therefrom, a plate secured to the edge of the mouth of the bag at the other side and having a flange projecting inwardly therefrom and adapted to extend over the flange on the opposite side when the bag is closed, keepers secured on the inner vertical side of the first mentioned plate and having their lower edges beveled, a shaft rotatably mounted on the interior of the other plate and extending longitudinally thereof, hooks rigidly mounted on said shaft and adapted to move therewith, said hooks having the recess portion upon their upper sides and being beveled at their ends to form sliding engagement with the beveled part of said keepers, and springs adapted to normally hold said hooks in locked engagement with said keepers, substantially as set forth and for the purposes specified.

1,076,038. SEED-CORN AND GRAIN CRATE. ANDREW F. HOWDEN, Skidmore, Mo. Filed Jan. 22, 1910. Serial No. 539,549. (Cl. 217—49.)



A seed receptacle comprising a solid bottom, oppositely disposed upstanding ribs carried thereby, a cylindrical foraminous wall externally surrounding said bottom and ribs and projecting above the upper ends of the ribs, a clamping band inclosing the lower end of said wall, a clamping band inclosing the upper end of said wall, oppositely disposed external reinforcing strips having spurs at their lower ends that project through the lower clamping band, the lower end of said wall, and engage said bottom, the upper ends of said strips being provided with ears, fasteners for said strips extending through the wall and engaging the ribs, a cover fitted within the projecting upper ends of the wall and seated on the upper ends of said ribs, and a bail engaging said ears.

1,076,039. COMPOUND FOR MAKING PEROXID OF HYDROGEN. CHARLES B. JACOBS, Port Chester, N. Y. Filed July 9, 1904. Serial No. 215,915. (Cl. 23—13.)

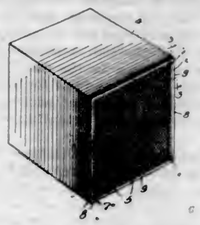
1. A solid anhydrous compound which when treated with water produces a non-caustic alkaline solution of peroxid of hydrogen.

2. A solid anhydrous compound which when treated with water produces a non-acid and non-caustic solution of peroxid of hydrogen.

3. As an article of manufacture a compound consisting of an anhydrous peroxid salt of the alkaline base of an acid of the peroxid class, which compound when treated with water produces a non-caustic alkaline solution of peroxid of hydrogen.

4. As an article of manufacture a compound consisting of anhydrous metaborate of sodium peroxid, which compound when treated with water produces a non-acid and non-caustic solution of peroxid of hydrogen.

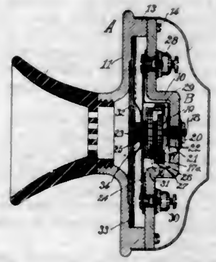
1,076,040. FIREPROOF FLOOR CONSTRUCTION. ERNEST V. JOHNSON, Chicago, Ill. Filed Dec. 9, 1910. Serial No. 596,418. (Cl. 72—68.)



1. A hollow tile having an opening therein and provided with a wire mesh closure at one end thereof and adapted to prevent liquid cement from flowing into the interior of the tile, and means for permanently securing said wire mesh closure to the tile, said means including a wedge shaped brad passing through the wire mesh closure and extending into said opening in the tile, whereby the tile with its wire mesh closure may be shipped without danger of the closure becoming displaced, substantially as specified.

2. A hollow tile having holes 8 and provided with flat wire mesh closures at the open ends thereof to prevent liquid cement from flowing into the interior of the tile at either end, said closures being secured to the tile by brads extending through the closures and seated in the holes 8 of the tile, substantially as specified.

1,076,041. TELEPHONE-TRANSMITTER. WILLIAM KAISLING, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company, a Corporation of Illinois. Filed Mar. 15, 1906. Serial No. 306,240. (Cl. 179—126.)



1. A telephone transmitter comprising a supporting frame, a granule chamber carried thereby, coöperating electrodes located in said chamber, granular resistance-varying material between said electrodes, a sound-receiving diaphragm and a spring secured to said chamber and bearing against said diaphragm whereby the vibrations of the diaphragm are transmitted to the chamber to cause corresponding variations in the resistance of said granular material.

2. A telephone transmitter comprising a supporting frame, a cup carried by said frame, a membrane covering said cup so as to form a granule chamber therewith, electrodes located in said chamber, granular resistance-varying material between said electrodes, a sound-receiving diaphragm and a spring secured to said chamber and bearing against said diaphragm whereby the vibrations of the diaphragm are transmitted to the chamber to cause a relative movement of said membrane and cup to correspondingly vary the resistance of said granular material.

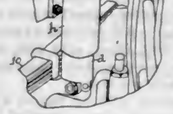
3. A telephone transmitter comprising a supporting frame, a cup carried by said frame, a membrane covering said cup so as to form a granule chamber therewith, coöperating electrodes carried by said cup and membrane respectively, granular resistance-varying material between said electrodes, a sound-receiving diaphragm and a spring secured to said chamber and bearing against said diaphragm whereby the vibrations of the diaphragm are transmitted to the chamber to cause a corresponding relative movement of said electrodes to correspondingly vary the resistance of said granular material.

4. A telephone transmitter comprising a supporting frame, a granule chamber carried thereby, said chamber having relatively movable parts, one of which is yieldingly held by said frame, suitable electrodes in said chamber, granular resistance-varying material between said electrodes, a sound-receiving diaphragm, and elastic means secured to said chamber and bearing against said diaphragm to transmit the vibrations of said diaphragm to said chamber to cause a corresponding relative movement of said chamber parts to correspondingly vary the resistance of said granular material.

5. A telephone transmitter comprising a supporting frame, a granule chamber having relatively movable parts, one of said parts being fixedly held and the other yieldingly held by said frame, suitable electrodes in said chamber, granular resistance-varying material between said electrodes, a sound-receiving diaphragm and elastic means secured to said chamber and bearing against said diaphragm to transmit the vibrations of said diaphragm to said chamber to cause corresponding relative movements of said chamber parts to correspondingly vary the resistance of said granular material.

[Claims 6 to 24 not printed in the Gazette.]

1,076,042. CUSHIONING DEVICE FOR AUTOMOBILES AND LIKE VEHICLES. FREDERICK O. KILGORE, Somerville, Mass. Filed Jan. 10, 1910. Serial No. 537,163. (Cl. 21—105.)



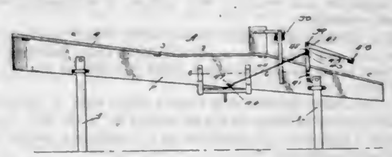
1. In an apparatus of the class described, in combination, a cylinder provided with a passage extended longitudinally thereof and having ports separated from each other for connecting said passage with the interior of said cylinder, a valve rod extended into said passage and accessible from outside of said cylinder and provided at its upper end with a valve chamber having a port capable of registering with one of the ports in said cylinder, a valve rod extended into said valve chamber and provided with a valve coöperating with said valve chamber to afford a free passage for the air through the valve chamber in one direction and to restrict the passage of air through the valve chamber in the opposite direction, and a piston in said cylinder coöperating with the ports therein, substantially as described.

2. In an apparatus of the class described, in combination, a cylinder provided with a passage extended longitudinally thereof and having ports separated from each other for connecting said passage with the interior of said cylinder, a manually operated valve coöperating with one of said ports to regulate the passage of fluid within the cylinder through said passage, and an automatically operated valve located in said passage and arranged to be bodily moved away from said manually operated valve to permit a free flow of fluid through the passage in one direction and to be bodily moved toward said manually operated valve to restrict the flow of fluid through said passage in the opposite direction, said automatic valve being guided in its movement by said manually operated valve, substantially as described.

3. In an apparatus of the class described, in combination, a cylinder provided with a passage in its walls extended from one end of the cylinder longitudinally toward the other and having ports separated from each other for connecting said passage with the interior of the cylinder, a manually operated valve extended into said passage from the lower end of said cylinder, and a valve located in said passage above the manually operated valve and guided thereby to permit a free flow of the fluid through said passage into the cylinder in one direction and to restrict the flow of the fluid in the opposite direction, and a piston in said cylinder, substantially as described.

4. In an apparatus of the class described, in combination, a cylinder provided with ports near its opposite ends, a passage connecting said ports, a piston in said cylinder, a manually operated valve extended into said passage from one end of the cylinder, and an automatically operated valve located in said passage and guided by the manually operated valve, substantially as described.

1,076,043. CAN-LABELING MACHINE. OTTO C. KING, Medford, Oreg. Filed June 22, 1912. Serial No. 705,314. (Cl. 216—43.)



1. The combination with a frame having a track formed of two inclined sections and an intermediate track, of means for supplying paste to a can passing to the intermediate section, label supporting means at the intermediate section, means for supplying paste to the over-lapping ends of the labels, a brush, and connections between the brush and the label supporting means for actuating the latter to bring the labels into position relative to the cans.

2. The combination with a frame having a track-way, of means for supplying paste to a can traveling along the track-way, a movable label carrying device arranged beyond the paste applying means, a brush and connections between the brush and the label carrying device for moving the latter to bring the label in position to be applied to the can.

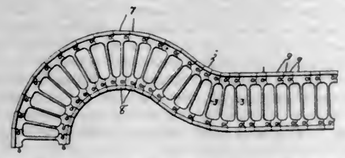
3. The combination with a frame, of a track-way therefor along which the cans are adapted to travel, a device for applying paste to the cans, a label support for the labels, means for applying paste to the ends of the labels after they have been wrapped upon the cans, said means including a paste containing receptacle, and paste applying element supplied from the receptacle, a wiping and sealing brush arranged adjacent to the paste supplying element, a movable member for removing the surplus paste from the label, and means for reciprocating the label support.

4. The combination with a supporting frame, of a track-way thereon comprising a permanent rail and an adjustable rail, a label support arranged adjacent to the track-way, an inwardly extending guide member carried by the adjustable rail above the label support for directing the cans to label receiving position, means for applying paste to the cans prior to the cans reaching the label support, and means for sealing the labels upon the cans after they pass the label support.

5. The combination with a frame of an inclined track-way, and a label support arranged beneath the track, a rocking bar arranged beyond the label support, a brush connected to the rocking bar and adapted to contact with the moving cans after they have been labeled, a rod carrying the label support, a ratchet wheel or disk engaging said rod, a pawl for actuating said ratchet, and a connecting rod extending between the pawl and the rocking bar.

[Claim 6 not printed in the Gazette.]

1,076,044. PORTABLE AND ADJUSTABLE TRACK. ALCUIN E. KINTNER, Cleveland, Ohio. Filed Oct. 14, 1912. Serial No. 725,662. (Cl. 104—45.)



1. A track comprising sections formed with integral tread portions on both ends, said tread portions being of different lengths with means for locking said sections together.

2. A track of the type set forth comprising sections connected together, the connection of said sections being such as to allow a slight play between these sections, in combination with clamp plates adapted to be placed at the meeting edges of said sections.

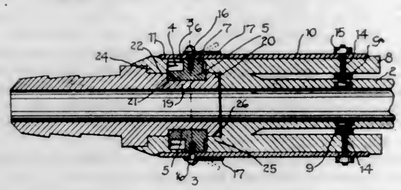
3. A section of a track formed with a tread portion on both ends united by a tie bar, a male locking portion at one side of each tread portion and a female portion at the opposite side whereby the section is adjustable and interchangeable.

4. A section of a track formed with tread portions at each end and united by a tie bar, said tread portions of one end being longer than the tread portions of the opposite end.

5. A portable section of a track formed with an integral tread portion at each end and united by a tie bar, each section adapted to be connected to a contiguous section of like construction.

[Claims 6 to 9 not printed in the Gazette.]

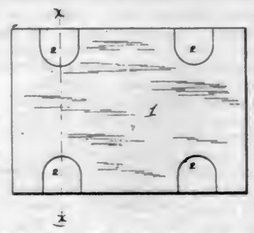
1,076,045. HOSE-COUPLING. ALVY B. LEMON and CARL C. CULVER, Alluwe, Okla. Filed Nov. 12, 1912. Serial No. 730,995. (Cl. 137—28.)



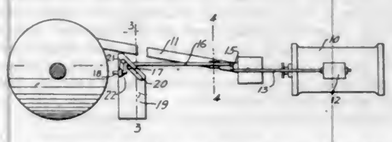
The combination in a coupling, of a pair of body portions, clamping means at the juncture of the body portions, one of said body portions having grooves therein, arms provided upon said body portions adjacent the grooves, resilient plates disposed within the grooves and engaging one body portion and the arms formed thereon, said arms extending parallel to and spaced from one end of the body portion, said body portion having recesses formed therein, said recesses being disposed in registration with alining openings provided in the arms and the resilient plates, bolts extending through the said alining openings, the heads of said bolts being disposed within the recesses in the body portion, nuts disposed upon the bolts and contacting with the resilient plates, and spacing means disposed upon the bolts between the arms and the body portion, as and for the purposes set forth.

1,076,046. REINFORCEMENT FOR PRINTING-PLATES. CHARLES M. LETZ, Chicago, Ill. Filed Sept. 30, 1911. Serial No. 652,044. (Cl. 101—169.)

A new article of manufacture comprising a printing plate having a plurality of recesses formed in the back and edges thereof, reinforcements having lips which protect the edge of the plate mounted in said recesses, said reinforcements being formed of metal which is harder than that forming the plate and means to secure said reinforcements to the plate, said reinforcements when secured in position being flush with the back and edges of the printing plate.



1,076,047. SLIDE-VALVE-OPERATING MECHANISM. HUGH L. MCDONALD, Bridgeport, Cape Breton, Nova Scotia, Canada. Filed Apr. 19, 1913. Serial No. 762,325. (Cl. 121—97.)



1. The combination with an engine slide valve and engine pitman, of a valve stem operatively connected to said valve, a pin carried by said pitman and having a sliding connection with said stem, and a stationary cam for imparting a reciprocatory movement to said stem during actuation of the stem by said pitman.

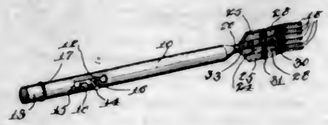
2. The combination with an engine slide valve and engine pitman, of a valve stem operatively connected to said valve, a pin carried by said pitman having a forked head loosely receiving said rod, means for journaling the free end of said rod, an offset formed in said rod, and a stationary member having a slot inclined at an angle to the horizontal receiving said offset, said slot coacting with said pin in imparting reciprocatory movement to said valve during travel of said pitman.

3. The combination with an engine slide valve and engine pitman, of a valve stem connected at one end to said slide valve and having an offset formed therein to dispose the intermediate portion of said rod in close proximity to said pitman, a pin carried by said pitman having a sliding connection with said intermediate portion of said rod, a journal for the free end of said rod, there being a second offset in said rod parallel to the first offset and disposed between the latter and said journal, a stationary member having an inclined cam slot receiving said second offset, said slot coacting with said pin in imparting reciprocatory movement to said valve during actuation of said pitman.

4. The combination with an engine slide valve and valve seat and pitman, of an angularly bent rod having its intermediate portion offset from its ends and being rotatably connected at one end to said slide valve, a journal for the opposite end of said rod, a pin carried by said pitman and having a sliding connection with said intermediate portion and said rod and thereby serving to lock said intermediate portion, and means operatively connected to said angularly bent rod for reciprocating said rod simultaneously with the rocking motion thereof, whereby to reciprocate said valve both longitudinally and laterally of the valve seat.

5. The combination with an engine valve seat and a slide valve and pitman, of a rod rotatably connected at one end to said slide valve and having its other end mounted for longitudinal and rotary motion and having its intermediate portion offset laterally from the axes of its ends, an element carried by said pitman having sliding connection with said offset portion of the rod and serving to rock said rod, and a stationary member having an inclined cam slot operatively engaging said offset portion and serving to reciprocate said rod simultaneously with its rocking motion, whereby to reciprocate said valve both longitudinally and laterally of the valve seat.

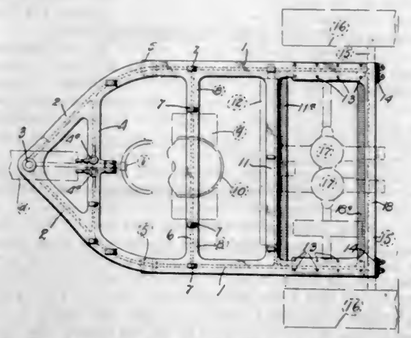
1,076,048. REVERSIBLE FORK AND RAKE. THOMAS JAMES MCINTOSH, South Lynchburg, S. C. Filed Nov. 23, 1912. Serial No. 733,199. (Cl. 55—38.)



1. In a device of the character described, a handle, a shank carried by said handle, said shank being formed from a blank comprising a body portion provided with slits leading from one end to provide a central and side strips, the central strip being bent to form a hinge ear and the side strips bent back upon the body portion to reinforce the side portion thereof, a securing arm extending from said body portion and connected with said handle, a blade hinged to said hinge ear, and means carried by said handle and connected with said blade for moving said blade.

2. An implement of the character described comprising a handle, a shank carried by said handle and provided with a hinge ear at its outer end, a blade hinged to said hinge ear, said blade being formed from a blank provided with longitudinally extending slits forming a central and side strips, said strips being bent back upon said blank to form hinge ears at the sides of said blade, and a central reinforcing strip, an eye passing through the central portion of said blade, and means carried by said handle and pivotally connected with said eye for adjusting the angle of said blade.

1,076,049. TRACTION-CULTIVATOR FRAME. WILLIAM A. MCKINNEY, St. Louis, Mo., assignor to McKinney Traction Cultivator Company, a Corporation of Georgia. Filed June 4, 1912. Serial No. 701,699. (Cl. 21—114.)



1. The herein described one-piece frame for traction cultivators comprising a pair of side rails, the forward ends of which are united, a vertically disposed bearing formed at the meeting point of the forward ends of said side rails, which bearing is adapted to receive the vertically disposed shaft forming a part of the steering mechanism, a series of transversely disposed rails integral with the side rails, and the rear ends of which side rails are divided horizontally to form bearings for the rear axle of the machine.

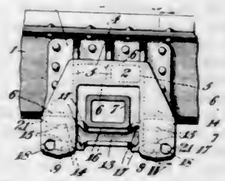
2. The herein described frame for traction cultivators comprising a pair of side rails, the forward ends of which curve upwardly and inwardly and are united at a central point, a vertically disposed bearing formed at the meeting point of the forward ends of said side rails, a series of transversely disposed rails uniting said side rails, and the rear ends of which side rails are divided horizontally to form bearings for the rear axle of the machine.

3. The herein described traction cultivator frame comprising a pair of side rails, the forward ends of which are united, the rear ends of which side rails are divided horizontally to form bearings for the rear axle of the cultivator, a transversely disposed rail connecting the rear portions of the side rails, which transversely disposed rail is provided with a rearwardly projecting, horizontally disposed bottom flange, and a series of transversely disposed rails connecting the side rails in front of the first mentioned transversely disposed rail, all of which parts are cast integral.

4. The herein described one-piece traction cultivator frame comprising a pair of side rails, the rear ends of which are divided horizontally to form bearings for the rear axle of the cultivator, the forward ends of which side rails are curved inwardly and united at a central point, a transversely disposed rail uniting the inwardly curved forward portions of said side rails, and a pair of transversely disposed rails connecting said side rails to the rear of first mentioned transversely disposed rail, all of which parts are cast integral.

5. The herein described frame for traction cultivators, comprising a pair of side rails, the forward ends of which are united at a point midway between said side rails, the rear ends of which rails are divided horizontally to form bearings for the rear axle of the cultivator, and a pair of transversely disposed rails connecting the rear portions of said side rails, which transversely disposed rails are Z-shaped in cross section.

1,076,050. CAR-COUPLING. LOUIS G. MILLER and FREDERICK C. DANKMYER, Westmont borough, Pa. Filed Apr. 17, 1913. Serial No. 761,720. (Cl. 213—42.)



1. A draw-bar centering device for railway cars comprising a carry iron, inclined ways on the carry iron resting on rollers mounted on the car, whereby the draw-bar is automatically centered.

2. In a draw-bar centering device, a buffer-block having bifurcated lower ends extending transversely of the car and a carry iron with sloping surfaces supported on rollers mounted between the bifurcated lower ends of the buffer-block.

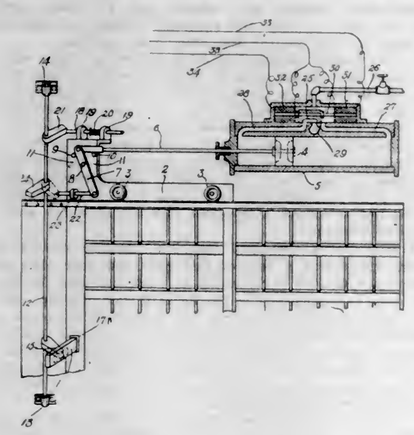
3. In a draw-bar centering device, a buffer-block and a carry iron with sloping surfaces supported on rollers mounted between the walls of the buffer-block.

4. In a draw-bar centering device, a buffer-block having bifurcated lower ends extending transversely of the car, rollers mounted between the said bifurcated ends and a carry iron provided with inclined ways formed on the ends thereof and mounted thereby on the rollers aforesaid.

5. In a draw-bar centering device for railway cars, a buffer-block mounted on the end of the car, bifurcated legs extending downwardly from the buffer-block and transversely of the car, and a carry iron with inclined ends supported on rollers mounted between the walls of the bifurcated legs.

[Claims 6 to 17 not printed in the Gazette.]

1,076,051. DOOR-OPERATING MECHANISM. DANIEL MORGAN, Aspinwall, Pa., assignor of one-half to A. H. Leslie, Hoboken, Pa. Filed Oct. 24, 1911. Serial No. 656,450. (Cl. 189—7.)



1. Door operating mechanism comprising a rock shaft having a locking bolt and locking and unlocking levers, a door having a bolt socket, a lever-operating abutment mounted on the door adapted to actuate the locking lever, a pivoted lever provided with a lever-operating abutment also mounted on the door adapted to actuate the unlocking lever, and a stationary motor connected with said lever.

2. Door operating mechanism comprising a rock shaft having a locking bolt and locking and unlocking levers, a door having a bolt socket, a lever-operating abutment mounted on the door adapted to actuate the locking lever, a pivoted lever provided with a lever-operating abutment also mounted on the door adapted to actuate the unlocking lever, limiting stops for said lever, and a stationary motor connected with said lever.

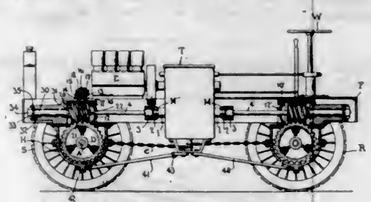
3. The combination with a movable door having a bolt opening and a door framing, of a rock shaft mounted on said framing having a bolt and locking and unlocking levers, a cushioned push bolt for one of said levers mounted on the door, a push bolt for the other of said levers mounted on the door, a lever connected with said last named bolt, and a motor for said lever mounted independent of the door.

4. The combination with a movable door having a bolt opening, of a rock shaft mounted in operative relation to the door having a bolt and locking and unlocking levers, a cushioned push bolt for one of said levers mounted on the door, a push bolt for the other of said levers mounted on the door, a lever pivotally mounted on the door and connected with said last named bolt, and a stationary motor having a reciprocable element connected with said lever.

5. The combination of a movable door having a bolt opening, a framing for said door, a rock shaft having a locking bolt adapted to engage said opening and provided with locking and unlocking levers, a cushioned push bolt for the locking lever mounted on the door and adapted to engage said lever when the door is closed, a push bolt for the unlocking lever operable to withdraw the locking bolt at the commencement of the door-opening operation, a lever connected with said last named bolt and pivotally mounted on the door, and a motor mounted independent of the door and connected with said lever, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,076,052. WORM-DRIVE FOR MOTOR-VEHICLES. WALTER S. MORTON, Harrisburg, Pa. Filed Oct. 8, 1912. Serial No. 724,670. (Cl. 21—90.)



1. In a worm drive for motor vehicles, the combination with the vehicle frame, the axle and its housing, a casing mounted on the latter, a king bolt in the frame, a pivot between the king bolt and casing, and a worm gear carried by the axle; of a hollow worm journaled within said housing and engaging said worm gear, the bore of the worm having longitudinal slots, a shaft section connected with the motor, and a ball on the extremity of said section standing beneath said king bolt and having blocks engaging said slots, for the purpose set forth.

2. In a worm drive for motor vehicles, the combination with the vehicle frame, the axle and its housing, a casing mounted on the latter, a king bolt in the frame, a pivot between the king bolt and casing, and a worm gear carried by the axle; of a tubular extension projecting from said casing, a spindle journaled therein and forked at its inner end, a hollow worm disposed within said casing and secured around the forked end of the spindle so that the fork-arms produce an internal slot, a horizontally slotted dust guard at the inner end of said casing, a shaft section connected with the motor and projecting through the slot in said dust guard, and blocks carried by its front end and engaging said slots within the worm at a point above the axle, for the purpose set forth.

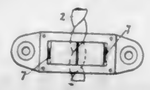
3. In a worm drive for motor vehicles, the combination with the vehicle frame, the axle and its housing, a casing mounted on the latter, a king bolt in the frame, a pivot between the king bolt and casing, and a worm gear carried by the axle; of a bearing carried by said casing, a spindle journaled in such bearing and having a forked plug at its inner end, a hollow worm engaging said worm gear and keyed around the arms of said fork, a shaft section connected at its inner end with the motor, and blocks at its front end standing over said axle and engaging the slot between the fork-arms, for the purpose set forth.

4. In a worm drive for motor vehicles, the combination with the vehicle frame, the axle and its housing, a casing mounted on the latter, a king bolt in the frame, a pivot between the king bolt and casing, and a worm gear carried by the axle; of a bearing carried by said casing, a spindle journaled therein and carrying at its inner end a plug externally flaring inward and transversely slotted to produce fork arms, said arms having key ways at right angles to the slot between them, a tubular worm standing within said casing and engaging the worm gear, its interior being flaring to fit upon said plug and its fork-arms and having key ways adapted to register with those therein, keys in the ways, a shaft section connected at its inner end with the motor, a ball at the outer end thereof standing within said worm and normally over said axle, a pin extending transversely through the ball, and blocks on the extremities of said pin sliding in the slot between the fork-arms, for the purpose set forth.

5. In a worm gear mechanism, the combination with the driven element, a worm gear thereon, a housing for said element and gear having an opening through which the latter projects, a casing secured upon the housing, and flexible connections between said casing and the frame-work of the machine; of a bearing carried by said casing, a spindle journaled therein and carrying at its inner end a plug externally flaring inward and transversely slotted to produce fork arms, said arms having key ways at right

angles to the slot between them, a tubular worm standing within said casing and engaging the worm gear, its interior being flaring to fit upon said plug and its fork-arms and having key ways adapted to register with those therein, keys in the ways, a shaft section connected at its inner end with the motor, a ball at the outer end thereof standing within said worm and normally over said axle, a pin extending transversely through the ball, and blocks on the extremities of said pin sliding in the slot between the fork-arms, for the purpose set forth.

1,076,053. APPARATUS FOR SUPPORTING WINDOW-SASHES AND THE LIKE. JOHN BAPTIST MURPHY, Cork, Ireland. Filed Feb. 26, 1912. Serial No. 679,998. (Cl. 16—114.)

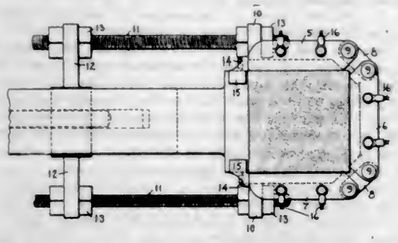


1. A window sash supporter comprising a member having helical guides, the ends of said member being rotatably mounted in a window frame, a friction member carried by the window sash, the said friction member adapted to operate on the member provided with the guides, and means carried by the friction member for retarding movement of the sash.

2. A window sash supporter comprising a member having helical guides having its ends rotatably mounted in a window frame, a device carried by the window sash, and spring pressed members in the device for retarding the rotational movement of the member having helical guides.

3. A window sash supporter comprising a member having helical guides having its ends rotatably mounted in a window frame, a hollow device carried by the window sash, gripping members supported within the member, and means for forcing the gripping members into engagement with the member having helical guides.

1,076,054. ELECTRODE-HOLDER. JOHN OBA, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 19, 1911. Serial No. 622,120¼. (Cl. 204—64.)



1. An electric furnace electrode holder comprising the combination of a fixed support, adjustable supporting plates of considerable contact area coöperating therewith and movable links connecting adjoining ends of said contact plates and maintaining the same spaced apart, and means for drawing said adjustable plates toward the fixed support whereby the inclosed space is contracted.

2. An electrode holder for electric furnaces comprising contact plates spaced apart from one another, links pivotally attached connecting adjacent ends of said plates and means for drawing said plates toward each other to contract the space inclosed thereby.

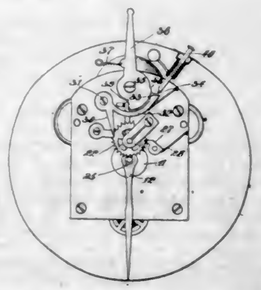
3. An electrode holder comprising the combination of a fixed support, movably supporting plates adjustable with respect to said fixed support and having a surface configuration similar to that of the electrode to be supported, connecting links movably connecting said plates but spacing the same out of contact with one another, and means for drawing said movable plates toward the fixed support, thereby contracting the space inclosed by them and exerting pressure upon the electrode.

4. An electrode holder comprising the combination of a fixed support, adjustable contact plates having a considerable surface area contacting with the electrode, links movably connecting said plates but maintaining the connected ends out of contact with each other, and means for drawing said linked plates toward said fixed support, thereby exerting pressure upon the electrode surface and electrical connections for said contact plates.

5. In an electric furnace, the combination of a fixed contact plate, movable contact plates, two of which are placed on an angle to said fixed plate, links adjustably connecting the adjacent ends of said adjustable plates, said links being of sufficient width to maintain ends out of contact with each other, lugs projecting from the adjustable plates extending at an angle to the fixed plate, and a threaded rod loosely passing through said lugs for drawing the adjustable plates toward the fixed plate, thereby contracting the space inclosed by the plates.

[Claims 6 to 8 not printed in the Gazette.]

1,076,055. TIME-CONTROL APPARATUS. AUGUSTE PACHE, New York, N. Y. Filed May 9, 1912. Serial No. 696,063. (Cl. 58—16.)

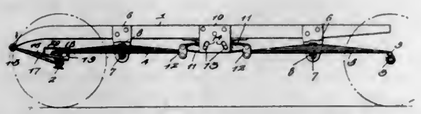


An alarm clock having an alarm spring shaft, a control device operated by said shaft, a cam on the center clock shaft, said cam having a notch, a pawl adapted to enter said notch, an arm extending from said pawl, and a finger upon the alarm hammer shaft in the path of said arm, together with a gear wheel carrying a pointer, a spur upon said cam adapted to mesh with said gear to move it the space of one tooth with each revolution, a stud upon said gear wheel, a two armed pivotal lever, one arm thereof in the path of said stud, a pivotal cam having a shoulder to restrain the alarm spring, a notch in said pivotal cam to receive a pawl on the other arm of the pivotal lever and means for setting said gear wheel whereby through the aforesaid instrumentalities the alarm spring is released at a predetermined point in the rotation of the gear wheel.

1,076,056. SPRING EQUALIZER SYSTEM. WILLIAM WIRT PITTS, Austin, Tex., assignor of one-fourth to Clara M. Pitts and one-fourth to Jennie M. Pitts, Austin, Tex. Filed Sept. 5, 1912. Serial No. 718,688. (Cl. 21—101.)

1. The combination with a motor vehicle frame, axles carried thereby, brackets depending from said frame, springs pivotally mounted at their medial portion to said brackets, the outer ends of said springs being connected to said axles, an I-beam pivotally connected to the inner ends of said springs, bearing plates depending from said frame and having alining arcuate slots formed therein and the said I-beam being pivotally mounted within said slots substantially as and for the purpose specified.

2. The combination with a motor vehicle frame, of springs fulcrumed intermediate of their ends upon said frame, one end of each spring being connected to the front and rear vehicle axles respectively, an equalizing beam, spaced fulcrum pins carried by said beam, hanger plates fixed to the frame and having means to accommodate said pins and admit of their limited movement, said pins providing independent fulcrums for the beam, and link connections between the ends of said beams and the inner ends of the respective springs.

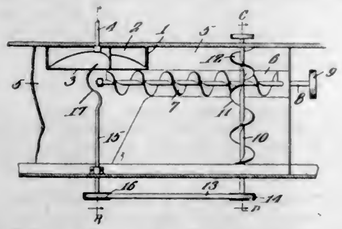


3. The combination with a motor vehicle, of a pair of springs pivotally carried thereby, a double fulcrum equalizer connecting the inner ends of said springs, the outer end of one spring being pivotally connected to the rear axle of the vehicle, the outer end of the other said spring being slidably connected to the front axle of the vehicle, lead bars pivotally connected at one end of the said frame, the opposite ends of said lead bars being permanently connected to the front axle of the vehicle and sway braces pivotally connected to the said frame and permanently connected to the front axle substantially as and for the purpose specified.

4. The combination with a vehicle frame and supporting axles therefor, of a pair of springs pivotally mounted intermediate of their ends upon the frame and connected at one of their ends to the front and rear vehicle axles respectively, a hanger plate secured to the frame and provided with spaced slots, an equalizing beam having vertical rocking movement upon said plate, spaced pins projecting laterally from the beam and disposed in said slots to limit the tilting movement of the beam, said pins providing independent fulcrums for the beam in its rocking movement, and means connecting the opposite ends of said beam to the inner ends of the springs.

5. The combination with a vehicle frame and supporting axles therefor, of spaced front and rear springs interposed between the frame and its supporting axles to yieldably prevent vertical relative movement thereof, an equalizing device connecting said springs, lead bars pivotally connected to the forward end of the frame, and secured to the front axle, a housing in which the forward end of the front supporting spring is disposed, and a roller arranged within said housing between the lead bar and said spring.

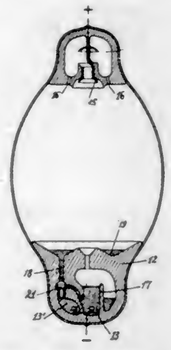
1,076,057. FEEDING ATTACHMENT FOR PNEUMATIC STACKERS. JOHN W. PLUMMER, Morrill, Nebr. Filed Oct. 22, 1912. Serial No. 727,256. (Cl. 193—21.)



1. The combination with a fan casing having a side inlet and a peripheral outlet, a revoluble fan in the casing, and a stacker tube extending from the outlet, of a corkscrew conveyer having its axis of rotation in alinement with the axis of rotation of the fan and the free end of said conveyer projecting through the inlet, for directing material into the path of the fan blades, and a worm conveyer for directing material into engagement with the corkscrew conveyer.

2. The combination with a fan casing having a side inlet and a peripheral outlet, a stacker tube extending from the outlet, and a revoluble fan within the casing, of a trough having a gutter therein leading across one side of the casing and to the inlet, a worm conveyer within the gutter, transversely extending revoluble worms for directing materials from the sides of the trough to the gutter, and a spiral revoluble above the trough and having its axis of rotation in alinement with the axis of the fan, the end of the spiral projecting through the inlet in the casing.

1,076,058. ELECTRIC VAPOR APPARATUS. EMIL PODSZUS, Rixdorf, near Berlin, Germany. Filed Oct. 4, 1909. Serial No. 520,924. (Cl. 176—42.)



1. In electric vapor arc apparatus, an envelop, electrodes in the same, one of which is vaporizable, and a chamber associated with the vaporizable electrode to retain the unvaporized portion thereof and having a restricted outlet for the discharging vapor and a return passage for the condensed vapor, whereby the vapor is forced to traverse the envelop, toward the other electrode, in a narrow jet which is independent of the form of the envelop; substantially as described.

2. In electric vapor arc apparatus, an envelop, a non-vaporizable electrode therein, a vaporizable electrode in the envelop, and a hollow body to contain the vaporizable electrode and having a restricted outlet nozzle directed toward the non-vaporizable electrode, and a return passage for the condensed vapor, whereby the vapor is forced to traverse the envelop, toward the other electrode, in a narrow jet which is independent of the form of the envelop; substantially as described.

3. In electric vapor arc apparatus, an envelop, a non-vaporizable electrode therein, a vaporizable electrode in the envelop, and a hollow body to contain the vaporizable electrode and having a restricted outlet nozzle directed toward the non-vaporizable electrode, and a return passage for the condensed vapor, whereby the vapor traverses the envelop in an endless stream; substantially as described.

4. In electric vapor arc apparatus, an envelop, a vaporizable electrode therein, a non-vaporizable electrode therein, and a hollow body of refractory material to contain the non-vaporized portion of the vaporizable electrode, said body being of greater volume than said non-vaporized portion when the apparatus is in operation and having a restricted outlet nozzle at one point and a return passage for the condensed vapor at another point; substantially as described.

5. In electric vapor arc apparatus, an envelop, a non-vaporizable electrode therein, a vaporizable electrode therein, a hollow body to contain the non-vaporized portion of the vaporizable electrode when the apparatus is in operation, and having a restricted outlet nozzle from which the vapor is discharged toward the other electrode in the form of a narrow jet, said body being also provided with a separate return passage for the condensed vapor, and a hollow body associated with the non-vaporizable electrode and into which the condensed vapor enters, said last named body having means to discharge the condensed vapor toward the aforesaid return passage of the first named body; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,076,059. DEVICE FOR FEEDING COTTON, &c. JAMES CHARLES POTTER, Pawtucket, R. I. Filed Dec. 28, 1910. Serial No. 599,771. (Cl. 13—12.)



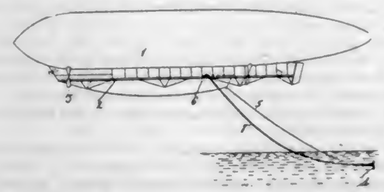
1. In a feeding mechanism, the combination of a series of traveling aprons spaced apart and contiguous thereto in the path of material passing from a contiguous apron, the travel of said aprons and the rotation of the roller in either direction being simultaneous, and means for reversing the rotation of the roller to form a delivery station, means for moving said aprons continuously in the same direction, a reversely rotatable roller situated where the aprons are spaced apart.

2. In a feeding mechanism, the combination of a series of alining traveling aprons spaced apart to form a delivery station, a reversely rotatable roller situated where the aprons are spaced apart, and contiguous thereto in the path of material passing from a contiguous apron, the travel of said aprons and the rotation of the roller in either direction being simultaneous, and automatic means to change the direction of revolution of said rollers.

3. In a feeding mechanism, the combination of a series of alining traveling aprons spaced apart to form a delivery station, a reversely rotatable roller situated where the aprons are spaced apart, and a second reversely rotatable roller contiguous to the first named roller, said rollers being on opposite sides of the path of material passing from one apron to another.

4. In a feeding mechanism, the combination of a series of traveling aprons spaced apart to form a delivery station, a reversely rotatable roller situated where the aprons are spaced apart, a second reversely rotatable roller contiguous to the first named roller, said rollers being on opposite sides of the path of material passing from one apron to another, and gearing between said rollers.

1,076,060. BALLAST DEVICE. RALPH A. D. PRESTON, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed May 27, 1912. Serial No. 700,062. (Cl. 103—69.)



1. The combination with an instrumentality designed for aerial navigation, of means adapted to depend therefrom and including an element having the functions of a pump, said element being adapted to raise fluid ballast to said instrumentality, said element being rendered active by movements of said instrumentality.

2. The combination with an instrumentality designed for aerial navigation, of means adapted to depend therefrom and to raise fluid ballast to said instrumentality, said means being rendered active for this purpose by movements of the instrumentality.

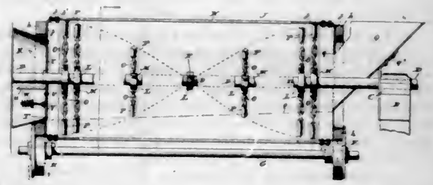
3. Means for ballasting an instrumentality designed for aerial navigation and including an element having the functions of a pump, said element being connected to said instrumentality and rendered active for this purpose by movements thereof through a fluid in the general direction of travel of the instrumentality.

4. Means for ballasting an instrumentality designed for aerial navigation and including an element having the functions of a pump, said element being connected to said instrumentality and rendered active for this purpose by movements thereof through a fluid in the general direction of travel of the instrumentality, the activity of the element providing a continuous supply to the instrumentality.

5. The combination with an instrumentality designed for aerial navigation, of means functioning as a pump and rendered active when drawn through a fluid by movements of the instrumentality, for raising a portion of the fluid to said instrumentality to serve as a ballast therefor.

[Claim 6 not printed in the Gazette.]

1,076,061. ORE-TREATING MACHINE. MITTS QUENNER, Santa Ana, Sonora, Mexico, assignor, by mesne assignments, to Quenner Dry Crusher Company, Douglas, Ariz., a Corporation of Arizona. Filed Mar. 4, 1910. Serial No. 547,379. (Cl. 83—9.)



1. In a machine for shattering rock, coal and other material, the combination with a shaft and means for driving the same at a high rate of speed, shattering projectiles having sharp longitudinal edges, a series of links constituting substantially universal connections between the projectiles and the shaft, and a surrounding member into which the material to be treated is introduced toward and from which the projectiles may be adjusted by means of the link connections, said projectiles comprising elongated members of angular cross section arranged to present one of their sharp longitudinal edges in the direction of movement of the projectiles.

2. A projectile of the character described provided with an angular longitudinally disposed relatively sharp forward edge and lateral and rearwardly extending enlargements behind said edge.

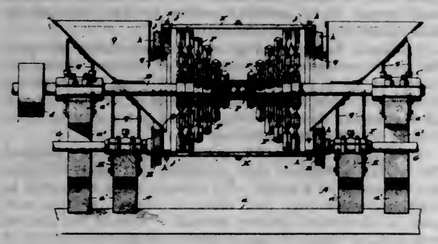
3. A projectile or hammer for a crushing or shattering mill provided with angular longitudinally disposed relatively sharp forward and rear edges, and laterally projecting enlargements behind said edges reinforcing the same.

4. A rock breaker of the character described comprising a surrounding grizzly and a plurality of oppositely disposed distinct series of projectiles, in combination with means for rotating the projectiles, substantially as described.

5. A rock breaker of the character described comprising a surrounding grizzly and oppositely disposed distinct series of projectiles, in combination with means for rotating the projectiles, and means for rotating the grizzly.

[Claims 6 to 24 not printed in the Gazette.]

1,076,062. ROCK-BREAKER. MITTS QUENNER, Nogales, Ariz., assignor to Quenner Dry Crusher Company, Douglas, Ariz., a Corporation of Arizona. Filed Jan. 24, 1911. Serial No. 604,406. (Cl. 83—11.)



1. A rock breaker of the character described comprising a surrounding grizzly and a plurality of oppositely disposed longitudinally spaced distinct series of projectiles, in combination with means for rotating the projectiles, substantially as described.

2. A rock breaker of the character described comprising a surrounding grizzly and oppositely disposed longitudinally spaced distinct series of projectiles, in combination with means for rotating the projectiles, and means for rotating the grizzly.

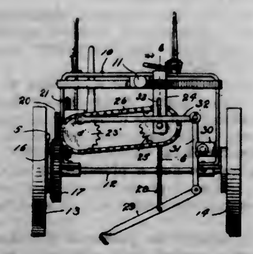
3. A rock breaker of the character described comprising a cylindrical grizzly and oppositely disposed longitudinally spaced series of projectiles, in combination with means for rotating the projectiles, each series of projectiles being distinct and arranged in spiral relation to project the material from the inlets of the grizzley toward the center thereof, and the grizzly being provided with inlets for the material at the ends thereof.

4. A rock breaker of the character described comprising a cylindrical grizzly and oppositely disposed longitudinally spaced series of projectiles, in combination with means for rotating the projectiles, each series of projectiles being arranged in spiral relation to project the material from the ends of the grizzly toward the center thereof, said grizzly having inlets at its ends for the material to be operated on, and means for rotating the grizzly.

5. A rock breaker of the character described comprising a cylindrical grizzly and a plurality of oppositely disposed longitudinally spaced distinct series of projectiles, in combination with means for rotating the projectiles, and means for rotating the grizzly in the same direction as the rotation of the projectiles and at relatively slower speed.

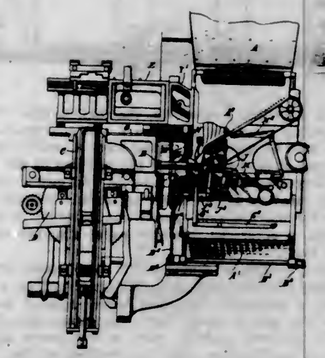
[Claims 6 to 8 not printed in the Gazette.]

1,076,063. COTTON-CHOPPING MACHINE. WILLIAM M. ROBERTS, Ink, Ark. Filed July 25, 1912. Serial No. 711,535. (Cl. 97—451.)



In a cotton chopping machine, an arched frame an axle mounted in the frame, and carrying ground engaging wheels, a bracket on one side of the frame, a pinion carried by one of the ground engaging wheels, a pinion on the bracket meshing with the wheel carried pinion, a crown gear on the shaft of the bracket carried pinion, sprocket wheels mounted to rotate transversely of the frame, a pinion on the shaft of one of the sprockets engaging the crown gear for driving the sprocket, a rock arm mounted on the frame, a link pivotally connected at one end to one end of the rock arm and at its other end to one of the sprockets, a hoe handle pivotally connected at one of its ends to the other end of the rock arm, an eccentric mounted on one of the sprockets and connected to the outer end of the hoe handle.

1,076,064. TYPOGRAPHICAL COMPOSING-MACHINE. JOHN RAPHAEL ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 24, 1912. Serial No. 673,092. (Cl. 199—7.)



1. In a typographical composing machine comprising plural letter type or matrices, the combination of the assembler provided with means to support them at a plurality of levels, and means for supporting them outside of the assembler at a corresponding plurality of levels, together with assembling devices to deliver the type or matrices to the outside supporting means at any level.

2. In a typographical composing machine comprising plural letter type or matrices, the combination of the assembler provided with means to support them at a plurality of levels, means for supporting them outside of the assembler at a corresponding plurality of levels, and assembling devices to deliver the type or matrices to the outside supporting means at any level, together with further means for transferring the outside matter to the assembler.

3. In a typographical composing machine comprising an assembler, the combination of means for supporting the type or matrices at a plurality of levels both inside and outside of the assembler, and assembling devices to deliver the type or matrices to the outside supporting means at any level, together with further means for transferring the outside matter to the inside supporting means.

4. In a typographical composing machine comprising plural letter type or matrices, the combination of the assembler provided with means to support them at a plurality of levels, means for composing them at corresponding levels outside of the assembler, means for gradually transferring the line to the assembler as it increases in length, and means for finally transferring to the assembler the outside portion.

5. In a typographical composing machine comprising plural letter type or matrices, the combination of the assembler provided with means to support them at a plurality of levels, means for composing them partly inside and partly outside of the assembler at said levels, the outside portion being less than the normal length of line, and means for moving the outside portion into the assembler.

[Claims 6 to 9 not printed in the Gazette.]

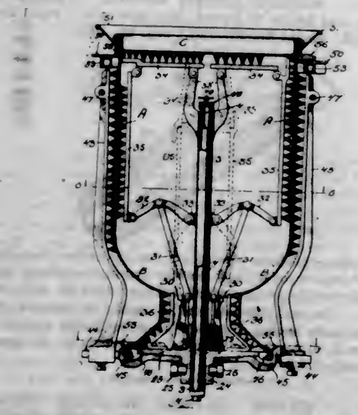
1,076,065. LEAK-PROOF STRIP FOR METAL ROOFING. KARL ROTH, Terre Haute, Ind. Filed Mar. 25, 1913. Serial No. 756,703. (Cl. 108—12.)



1. A sheet metal roof comprising a plurality of sheet metal sections, longitudinally extending corrugations formed in each section adjacent to the side edges of said sections, the overlapping adjacent edges of the sections adapted to permit the corrugations in one section to engage the corrugations in the adjacent section, a strip formed independently of said sections and adapted to lie beneath the overlapping edges of said sections, a corrugation formed in said strip to engage the corrugations in the sections, and shoulders formed of the side edges of the strip to raise said edges above the floor of the strip.

2. A sheet metal roof comprising a plurality of sheet metal sections, longitudinally extending corrugations formed parallel with the side edges of said sections, the overlapping adjacent edges of the sections permitting the corrugations in one section to register with the corrugations in the adjacent section, an independently formed strip adapted to be inserted beneath the overlapping edges of the sections, shoulders formed along the edges of the strip, and means formed in the strip to engage the corrugations in the sections for holding said strip in operative relation with said sections.

1,076,066. VESSEL-CLEANING MACHINE. DAVID S. RUNNELS, Appleton, Wis. Filed Nov. 22, 1912. Serial No. 732,871. (Cl. 141—7.)



1. A vessel-cleaning machine comprising a fluid nozzle, a rotatory sleeve mounted upon the nozzle, a head in slidable union with the sleeve, interior and exterior fixed brushes carried by the head, collapsible and expansible brushes in link connection with the head, valve-controlled water-supply means in communication with the nozzle, and means for supporting and chucking vessels to be cleaned.

2. A vessel-cleaning machine comprising a fluid nozzle, a rotatory sleeve mounted upon the nozzle, a head in slidable union with the sleeve, external fixed brushes carried by the head, collapsible and expansible brushes in link connection with the head, valve-controlled water-supply means in communication with the nozzle, and means for supporting and chucking vessels to be cleaned.

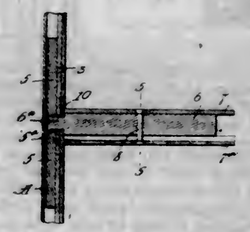
3. A vessel-cleaning machine comprising a fluid nozzle, a rotatory sleeve mounted upon the nozzle, a head in slidable union with the sleeve, internal fixed brushes carried by the head, collapsible and expansible brushes in link connection with the head, valve-controlled water-supply means in communication with the nozzles, and means for supporting and chucking vessels to be cleaned.

4. A vessel-cleaning machine comprising a bed, one or more fluid nozzles supported thereby, sleeves revolubly mounted upon the nozzles, heads revoluble with and in slidable union with the sleeves, means for adjusting the heads longitudinally of the sleeves, sectional brushes in hinge connection with said sleeves, links connecting the sectional brushes and heads, means for imparting rotation to the sleeves, a valve-controlled supply-pipe in communication with the nozzles, and means for holding vessels to be cleaned against rotation.

5. A vessel-cleaning machine comprising a bed, a stationary fluid nozzle supported thereby, a rotatory sleeve mounted upon the nozzle, a head in slidable union with the sleeve, means for sliding said head longitudinally of the sleeve, sets of brushes in hinge connection with each other and in hinge connection with the sleeve, means connecting the brushes and head, a supporting and chucking means for the vessels to be cleaned, a driving gear for the head, and a valve-controlled supply means in communication with the nozzle.

[Claims 6 and 7 not printed in the Gazette.]

1,076,067. BODY CONSTRUCTION FOR METAL FILING-CABINETS. ADOLPH H. SCHAFFERT, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 2, 1913. Serial No. 739,923. (Cl. 211—27.)



1. A file cabinet including a casing formed with sides, nut plates carried by opposite sides of the casing, oppositely arranged bolt members having a threaded engagement with the nut plates, and a tie bar secured to and connecting with bolt members.

2. A file cabinet including a casing formed with sides, bolt members projecting from the sides and formed with polygonal portions, and a channel shaped tie bar connecting the bolt members and interlocking with the polygonal portions thereof to prevent rotation and unscrewing of the bolt members.

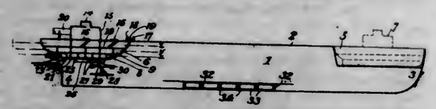
3. A file cabinet including a casing formed with sides, nut plates carried by opposite sides of the casing, bolt members having a threaded engagement with the nut plates, and a tie bar connecting the bolt members and interlocking therewith to prevent unscrewing of the bolt members.

4. A file cabinet including a casing formed with sides, nut plates carried by opposite sides of the casing, bolt members having a threaded engagement with the nut plates and formed with polygonal portions, and a tie bar connecting the bolt members and constructed to interlock with polygonal portions thereof to prevent rotation of the bolt members.

5. A file cabinet including a casing formed with sides, boxings applied to the sides, nut plates engaged by the boxings, corresponding bolt members arranged upon opposite sides of the casing and having a threaded engagement with the said nut plates, and a tie bar connecting the bolt members and having an interlocking connection therewith to prevent rotation of the bolt members.

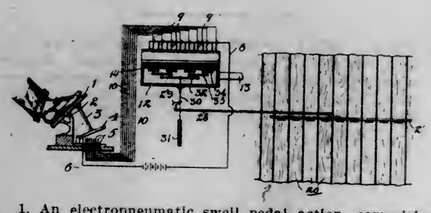
[Claims 6 to 11 not printed in the Gazette.]

1,076,068. SHIP. JOHN C. SCHLEICHER, Mount Vernon, N. Y. Filed Apr. 27, 1912. Serial No. 693,656. (Cl. 114—77.)



A ship of the class described having a depression in the deck thereof, rollers extending transversely across the outer end of said depression, the bottom of said depression being inclined downwardly at the rear of said rollers and having a longitudinal opening therein in advance of said rollers, a lever fulcrumed in one end of said opening and provided at its upper face with rollers and means for forcing the free end of said lever outwardly.

1,076,069. ELECTROPNEUMATIC SWELL-PEDAL ACTION FOR PIPE-ORGANS. ERNEST M. SKINNER, Boston, Mass. Filed Sept. 9, 1911. Serial No. 648,547. (Cl. 84—23.)



1. An electropneumatic swell pedal action, comprising a set of motors 14, a bar arranged transversely to the direction of motion caused by said motors, common to said set of motors and connected thereto, one extremity to each motor, a swell shutter having sections arranged to move collectively, and connecting means engaged with an intermediate point of said bar, and connecting said bar to said shutter substantially as described.

2. An electropneumatic swell pedal action comprising a group of motors, a group of bars, extending transversely of the direction of motion produced by the motors, certain of such bars being connected near their ends with certain of the motors, and another being connected near its ends with intermediate points on the first bars, a swell shutter provided with a series of sections connected to move together, and a tie connecting said shutter to the last-named of said bars, substantially as set forth.

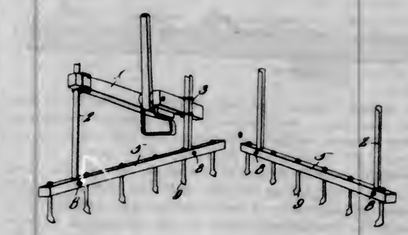
3. An electropneumatic swell pedal action comprising a swell shutter, a group of motors, connecting means engaged with all of said motors at once and with said shutter, magnets, pneumatics and valves controlling the motors independently, a group of contacts each connected in circuit with one of the magnets, and a contact piece in circuit with the magnets adapted to engage with said contacts, substantially as described.

4. An electropneumatic swell pedal action comprising a plurality of parallel circuits each provided with contacts, a contact piece arranged to successively engage said contacts to complete the circuits, magnets arranged in the respective circuits, a group of motors controlled independently of each other by said magnets, a swell shutter, motor equalizing mechanism connected with all the motors, and a tie connecting said equalizing mechanism with said shutter.

5. A pneumatic swell pedal action comprising a swell shutter, a group of motors, pneumatic means for independently controlling said motors, and a group of bars, connected to each other, and to the motors, means for connecting said bars to said shutter to move the latter in response to movements produced by said motors, and a weight connected to said bars and acting in opposition to the pressure within said motors.

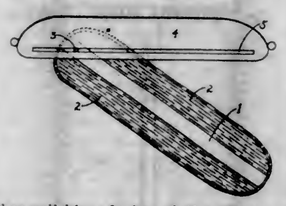
[Claims 6 to 14 not printed in the Gazette.]

1,076,070. HARROW ATTACHMENT. ALEXANDER SMITH, Goliad, Tex. Filed Aug. 17, 1911. Serial No. 644,572. (Cl. 97—44.)



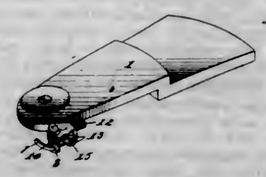
The combination with a cultivator beam, of an attachment including a beam having an obliquely disposed opening extending therethrough from the top to the bottom thereof adjacent each end, substantially V-shaped standards seated in the openings and extending upwardly therefrom, means for detachably and adjustably securing the said standards to the first mentioned beam, those portions of the standards within the openings being provided with transverse notches in the longitudinal edges thereof, obliquely disposed bolts extending through the apertured beam and intersecting the openings therein, said bolts being seated in the notches to hold the beam against movement on the standards, said bolt operating to prevent the beam from splitting adjacent the openings, and a series of harrow teeth separate from the standards and depending from and extending diagonally across the apertured beam.

1,076,071. SHOE-POLISHING DEVICE. THERON A. SMITH and LOUIS T. SMITH, San Jose, Cal. Filed Jan. 23, 1913. Serial No. 743,780. (Cl. 15—16.)



In a shoe-polishing device of the character described, the combination of a body portion having polishing pads attached thereto and provided with a pivot on each side and near the end thereof, and a casing to contain said polishing pads having a guide slot on each side thereof in which said pivots may operate, substantially as shown and described.

1,076,072. WATCH. MICHAEL SPORLEDER, Colorado City, Colo. Filed Nov. 11, 1912. Serial No. 730,631. (Cl. 58—115.)



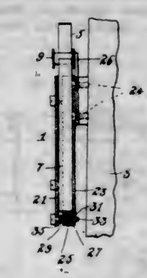
1. In combination with the balance cock or bridge of a watch or timepiece, a hook carried by said balance cock or bridge, and a hair spring having a stud adapted to be engaged by said hook and means engaging the other end of said hook to secure the hook in place and to retain the stud of the hair spring.

2. In combination with the balance cock or bridge, the hair spring connected therewith and having a stud at one end, a hook mounted in the balance cock or bridge and adapted to engage the stud carried by the hair spring and means engaging the other end of said hook to secure the hook in place and to retain the stud of the hair spring.

3. In combination with the balance cock or bridge, the hair spring connected therewith and having a stud at one end, a hook adjustably mounted in the balance cock or bridge and adapted to engage the stud carried by the hair spring and means engaging the other end of said hook to secure the hook in place and to retain the stud of the hair spring.

4. In combination with the balance cock or bridge of a watch or timepiece, a hair spring mounted in the bridge or cock and carrying a stud, means for securing the stud to the balance cock consisting of a hook for engaging the stud, a shank formed with the hook and mounted in the balance cock or bridge, and an adjusting nut carried by said shank for adjustably retaining the securing means in place.

1,076,073. BOX FOR HOLDING ROLLS OF WELT. CHARLES PETER STANBON, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 9, 1911. Serial No. 664,864. (Cl. 242—105.)



1. A box for loosely holding a roll of welt which is to be unrolled having, in combination, two flat plates forming side walls adapted to bear loosely against the sides of the roll of welt and prevent the welt from being pulled sidewise from the roll and means for adjusting said side walls to and from each other to accommodate rolls of welt of different width comprising a spring tending to move the plates in one direction relatively to each other and a screw for moving the plates in the opposite direction against the spring, substantially as described.

2. A box for loosely holding a roll of welt which is to be unrolled having, in combination, two flat plates forming side walls adapted to bear loosely against the sides of the roll of welt and prevent the welt from being pulled sidewise from the roll, one of said plates having an inwardly projecting flange forming the bottom and the other side walls of the box, and means for adjusting said plates to and from each other to accommodate rolls of welt of different width comprising a spring tending to move the plates in one direction relatively to each other and a screw for moving the plates in the opposite direction against the spring, substantially as described.

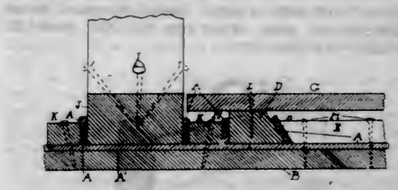
3. A box for loosely holding a roll of welt which is to be unrolled having, in combination, two flat plates forming side walls adapted to bear loosely against the sides of the roll of welt and prevent the welt from being pulled sidewise from the roll, one of said plates having an inwardly projecting flange forming the bottom and the other side walls of the box, means for adjusting said plates to and from each other to accommodate rolls of welt of different width, comprising springs mounted in recesses in the inner edge of said flange and tending to separate said plates and screws for moving said plates toward each other against the pressure of said springs, substantially as described.

4. A box for loosely holding a roll of welt which is to be unrolled having, in combination, two flat plates forming side walls adapted to bear loosely against the sides of the roll of welt and prevent the welt from being pulled sidewise from the roll, one of said plates having an inwardly projecting flange forming the bottom and the other side walls of the box, means for adjusting said plates to and from each other to accommodate rolls of welt of different width, comprising helical springs mounted in recesses in the inner edge of said flange tending to separate said plates and screws engaging both of said plates, extending through said recesses and surrounded by said helical springs for moving said plates toward each other against the pressure of the springs, substantially as described.

5. A box for loosely holding a roll of welt which is to be unrolled having, in combination, two flat plates forming side walls adapted to bear loosely against the sides of the roll of welt and prevent the welt from being pulled sidewise from the roll, one of said plates having an inwardly projecting flange forming the bottom and the other side walls of the box, and means for adjusting said plates to and from each other to accommodate rolls of welt of different width comprising a screw for affording a micrometer adjustment, substantially as described.

[Claim 6 not printed in the Gazette.]

1,076,074. SOUND INSULATION. CHARLES R. STEDMAN, Cleveland, Ohio. Filed June 10, 1912. Serial No. 702,918. (Cl. 20—1.)



1. A system of sound insulation consisting of a quilt or layer of insulating material resting upon the supporting structure, bearing strips resting upon said quilt, said bearing strips being narrowest at the top, and bond strips adapted to fit the edges of said bearing strips and nailed to the supporting structure, a strip of insulating material being placed between said edges and said bond strips, and said bond strips being thinner than said bearing strips.

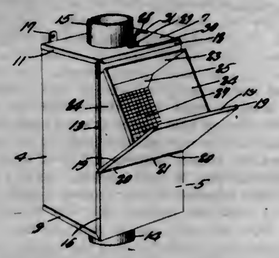
2. A system of sound insulation consisting of a quilt or layer of insulating material resting upon the supporting structure, bearing strips resting upon said quilt, said bearing strips being narrowest at the top, and bond strips adapted to fit the edges of said bearing strips and nailed to the supporting structure, a strip of insulating material being placed between said edges and said bond strips, and said bond strips being thinner than said bearing strips, a layer of said insulating material being placed under the base of partitions, said base plate being held in place by cleats nailed to the supporting structure and separated from immediate contact with said base plate and any adjacent bearing strip by insulating material substantially as described.

3. The combination with a supporting structure of a quilt or layer of insulating material A, bearing strips D having beveled edges O, bond strips E adapted to secure said bearing strips in a dovetailing manner, said bond strips and bearing strips being separated by insulating material and said bond strips being thinner than said bearing strips and nailed to the supporting structure, a finish floor resting upon and nailed to said bearing strips.

1,076,075. WATER-FILTER. EDWIN C. STEELE, Oxford, Ind. Filed Nov. 25, 1912. Serial No. 733,496. (Cl. 210—4.)

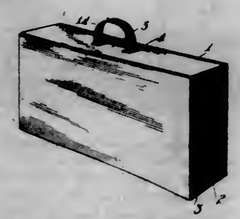
In a device of the character described, an upright square casing having an opening in its front extending from side to side, the top and bottom of the casing having spout attaching collars, a flat door hinged at an intermediate

point to the lower end of the opening so that its inner end may swing within the casing and flatly against the front below the opening, a filter receptacle including impervious sides, an impervious back and a foraminous bottom, the bottom of the receptacle being secured to the in-



ner end of the door, the sides being secured to the edges of the door and working snugly within the sides of the casing, the back of the receptacle being adapted to fit against the back of the casing and having its lower end deflected forwardly, the angle formed by the deflected portion being adapted to snap past that point of the back of the casing on a line with the lower end of the door opening.

1,076,076. FOLDING CASE. EDWIN BURNHAM STORY, North Grafton, Mass. Filed July 20, 1912. Serial No. 710,552. (Cl. 229—52.)



1. A knock-down paper box comprising a member having an opening in its uppermost side, said opening being U-shaped to form a tongue, another portion of said box having a flexible handle permanently attached thereto, said flexible handle being adapted for introduction from below so that the handle may be pulled up through said slot into useful position, said tongue coöperating with said handle to prevent accidental withdrawal of the handle through the opening.

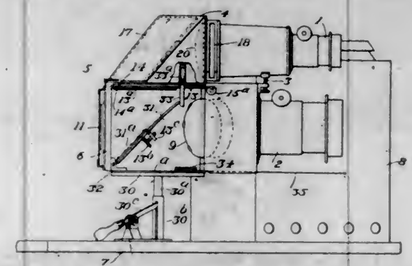
2. A knock-down case consisting of a housing member open at both ends and having a slot in its top, and a correspondingly shaped inner receptacle adapted to telescope into said housing member through an open end thereof, said members being each formed of a single blank and readily flattened out when not in use, said inner receptacle having a flexible handle adapted to project through the slot in said housing member, said housing member having an integral tongue projecting into said slot to serve as a lock for said handle.

3. A knock-down paper box consisting of a substantially rectangular housing member, said member being adapted to fold down flat for shipment, a correspondingly shaped inner receptacle adapted to telescope longitudinally into said housing member through an open end thereof with a snug fit, said inner receptacle being formed of a single paper blank and capable of ready flattening when not in use, said inner receptacle comprising a side section, top and bottom sections, end sections and means for securing the end sections in position and extensions for said end sections overlapping the front face of the inner receptacle, said inner receptacle carrying on its top section a thin flexible handle which may be in place on the receptacle when it slides into the housing member, said housing member having a slot through which said handle may be raised and a tongue carried by said housing member and projecting into said slot to serve as a stop for limiting accidental endwise movement of said inner receptacle to a distance not exceeding the width of the end extensions.

4. A knock-down case consisting of a substantially rectangular housing member open at both ends, an inner receptacle adapted to telescope into said housing member with a snug fit, said inner receptacle having end extensions overlapping the front face of said receptacle, a flexible handle carried by said inner receptacle, said housing member having an opening through which said handle may protrude, said opening being U-shaped to form a tongue coöperating with said handle to prevent accidental displacement of the inner receptacle by a distance exceeding the width of said end extensions.

5. A knock-down case consisting of a substantially rectangular housing member open at both ends, an inner receptacle adapted to telescope into said housing member with a snug fit, said inner receptacle being open along substantially all of one side, a U-shaped slot in said housing member forming a tongue, and a flexible handle carried by said inner receptacle and adapted to protrude through said slot, said handle coöperating with said tongue to form a lock preventing accidental longitudinal displacement of the inner receptacle.

1,076,077. OPTICAL PROJECTION APPARATUS. ALBERT T. THOMPSON, Brookline, Mass. Filed Mar. 20, 1913. Serial No. 755,641. (Cl. 88—26.)



1. In an optical projection apparatus, in combination, an objective lens, a holder for opaque projection-material located in line with the objective lens for direct projection, and means for directing a beam of light upon the said material, a second holder for opaque projection-material out of line with the axis of the objective lens, a mirror, and means for removably supporting said mirror in position for intercepting said beam, reflecting it upon the material applied to the latter object-holder, and reflecting the image of such material into and through the objective lens, whereby provision is made for changing or dissolving from one object to another.

2. In an optical projection apparatus, in combination, an objective lens, a holder for presenting opaque material in upright position in line with the objective lens for direct projection, and means for directing a beam of light upon the said material, a holder for presenting opaque material in horizontal position out of line with the axis of the objective lens, a mirror, and means for removably supporting said mirror in position for intercepting said beam, reflecting it upon the material applied to the latter object-holder, and reflecting the image of such material into and through the objective lens, whereby provision is made for changing or dissolving from one object to another.

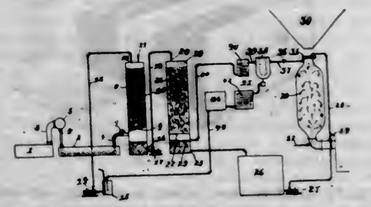
3. In an optical projection apparatus, in combination, an objective lens, a holder for opaque projection-material located in line with the objective lens for direct projection, and means for projecting a beam of light upon the said material, a second holder for opaque projection-material out of line with the axis of the objective lens, a mirror mounted and adapted to be swung from a retracted position into position for intercepting said beam, reflecting it upon the material applied to the latter object-holder, and reflecting the image of such material into and through the objective lens, and to be swung from said intercepting position to said retracted position, whereby provision is made for changing or dissolving from one object to another.

4. In an optical projection apparatus, in combination, an objective lens, a holder for presenting opaque material in upright position in line with the objective lens for direct projection, and means for directing a beam of light upon the said material, a holder for presenting opaque material in horizontal position out of line with the axis of the objective lens, a mirror mounted to swing into an inclined position in which it intercepts said beam, reflects it upon the material applied to the latter object-holder, and reflects the image of such material into and through the objective lens, and also adapted to be swung into an idle retracted position to provide for direct projection from the said upright material.

5. In an optical projection apparatus, in combination, an objective lens, a dark chamber, a holder for presenting opaque material in upright position in line with the objective lens for direct projection, and means for directing a beam of light upon the said material, a second holder for opaque material out of line with the axis of the objective lens, a mirror within the dark chamber, and means operable from outside the closed dark chamber for shifting the mirror from a retracted position into position to intercept the said beam, reflect it upon the latter material, and reflect the image of such material into and through the objective lens, and for shifting the mirror from said intercepting position into the retracted position to permit direct projection from the material applied to the holder first mentioned.

[Claims 6 and 7 not printed in the Gazette.]

1,076,078. RECLAIMING SYSTEM IN A SULFITE PULP PROCESS. CARL B. THORNE, Hawkesbury, Ontario, Canada. Filed Aug. 31, 1912. Serial No. 718,134. (Cl. 23—13.)

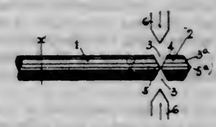


1. A reclaiming system in a sulfite process, comprising separating means for the vapors exhausting from a digester, means for condensing the separated vapors, means for cooling the condensed vapors, and means for making the cooking liquor connected to said separating means and said cooling means.

2. In a reclaiming system in a sulfite process, a receptacle connected to the upper end of a digester and having a gas outlet adjacent to its upper end and a liquor outlet at its lower end, a condenser connected with said gas outlet, a pump connected with said liquor outlet and two receptacles for making the cooking mixture, one receptacle being connected to said pump at its upper end, and the other at its lower end being connected to said condenser.

3. In a reclaiming system in a sulfite process, a separator having a gas outlet toward the upper end thereof, a liquor outlet at the lower end thereof and a fluid inlet connected to the upper end of a digester, a condenser connected to said gas outlet, a cooler connected to said liquor outlet, a pump connected to said cooler and means for making the cooking mixture formed of two receptacles, one of said receptacles being connected at its upper end to said pump and the other of said receptacles at its lower end to the said condenser.

1,076,079. ART OF MAKING HEXAGONAL NUTS. FRANK L. TIDEMAN, Brooklyn, N. Y. Filed Aug. 13, 1912. Serial No. 714,825. (Cl. 10—86.)



1. The improvement in the art or process of making hexagonal nuts, which consists in producing a blank directly from a rod or bar of round or approximately round cross-section, by lateral V-shaped incisions at the opposite sides of the rod and meeting at the center thereof, compressing and flattening the convex upper and lower cylindrical faces of the blank and at the same time forming central circular depressions in said flattened faces, then stamping the upper and lower faces to form the crowning bevel, and simultaneously punching out the central eye, and subsequently perfecting the gage of the hexagonal facets.

2. The method of producing hexagonal nuts, which consists in primarily forming directly from a round rod, by opposite V-shaped severance thereof, an approximately cylindrical blank having angular ends and approximately hexagonal outline, placing said blank in a hexagonal matrix with its angular ends fitting in opposite angles thereof, and flattening the upper and lower convex faces, stamping said upper and lower flattened faces to form a crowning bevel, and the central eye hole, then shaving the hexagonal faces to perfect gage and subsequently threading the eye.

3. In the art of making hexagonal nuts, the method which consists in producing a primary blank directly from a round or approximately round rod by oppositely directed wedge-shaped incisions that condense or upset the metal at its exterior opposite sides and stretches and parts the metal along its medial line, thereby providing a transversely cylindrical blank having obtuse wedge-shaped ends; and subsequently flattening the convex upper and lower faces and spreading laterally said cylindrical contour into a hexagonal form.

1,076,080. DISPENSING-SPOUT. WALTER W. TILGHMAN, Palatka, Fla. Filed Mar. 27, 1913. Serial No. 757,225. (Cl. 221—18.)



1. In a device of the character described, a tube, an apertured plate secured to the end of the tube and providing an exterior flange, a cup slidable over the flange and having an outlet out of registration with the apertures of the said plate, and a coil spring surrounding the tube and seated on the flange to yieldingly raise the cup against the said plate.

2. In a device of the character described, a tube, a plate attached to the end thereof and providing an exterior flange, a spring pressed cup slidable over the flange and having an outlet nozzle, the said plate having an annular series of apertures adjoining the walls of the tube, the diameter of the nozzle being relatively smaller than that of the tube and a gasket seated at the bottom of the cup and normally seatable against the plate to close the apertures therein.

3. In a device of the class described, a tube having an exterior flange at its lower end, a ring slidable on the tube adjoining the flange, packing disposed between the ring and flange, a sleeve slidable over the flange having an internal flange at its upper end, the spring disposed between the last mentioned flange and ring, a cup telescoped over the lower end of the sleeve and having an outlet, and the end of the tube having openings therein out of registration with the said outlet and normally closed by the cup.

4. In a device of the character described, a tube having an exterior flange, a ring slidable on the tube, packing disposed between the ring and flange, a cup slidable over the packing and having an outlet, the tube having openings out of registration with the said outlet and normally closed by the cup, and a spring surrounding the tube for raising the cup and seating on the said ring to compress the packing.

5. In a device of the class described, a tube having an exterior flange at its lower end, a sleeve slidable on the flange and having an interior flange at its upper end, a spring disposed between the said flanges, a cup engaged to the lower end of the sleeve and having an outlet, and the end of the tube having openings therein out of registration with the said outlet.

[Claim 6 not printed in the Gazette.]

1,076,081. CONNECTING MEANS FOR LOCOMOTIVE PILOTS AND FOOTBOARDS. SIDNEY E. TOUT, Toronto, Ontario, Canada, assignor of one-half to Edwin J. Tout, Toronto, Ontario, Canada. Filed Apr. 11, 1913. Serial No. 760,488. (Cl. 105—254.)



1. The combination with a buffer beam and pilot stays having tongues projecting therefrom of a structure having members slotted to be fitted on said tongues which project therethrough; and retaining keys passing through said tongues.

2. The combination with a buffer beam and pilot stays having tongues projecting therefrom of a structure having members slotted to be fitted on said tongues which project therethrough; plates fitted on said tongues outside the parts of said structure; and retaining keys passing through said tongues outside said plates.

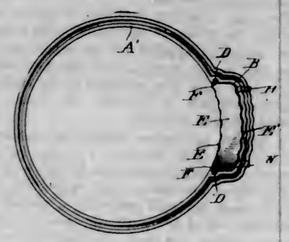
3. The combination with a buffer beam and pilot stays having tongues projecting therefrom of a structure having members slotted to be fitted on said tongues which project therethrough; plates fitted on said tongues outside the parts of said structure provided with shaft bearings; and retaining keys passing through said tongues outside said plates.

4. The combination with a buffer beam having metal tongues passed therethrough from the rear and having heads bearing against the rear side of said beam of a structure having members slotted to be fitted on said tongues which project therethrough; and retaining keys passing through said tongues.

5. The combination with a buffer beam and pilot stays having tongues projecting therefrom of a structure having members slotted to be fitted on said tongues which project therethrough; plates fitted on said tongues outside the parts of said structure; retaining keys passing through said tongues outside said plates; and filling blocks fitted on the tongues between the plates and the parts of said structure.

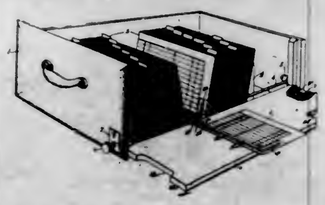
[Claims 6 and 7 not printed in Gazette.]

1,076,082. WATER-FRONT FOR FIRE-POTS OF FURNACES. BENJAMIN H. VAN AUKEN, Syracuse, N. Y. Filed July 3, 1912. Serial No. 707,539. (Cl. 126—34.)



In combination with the fire pot of a furnace having a recess formed in the wall thereof, the opposite walls of the recess having vertical grooves, a receptacle conforming to and adapted to fit within said recess and having ribs at the ends thereof engaging the grooves in the end walls of the recess, the inner surface only of the receptacle being directly exposed to the heat within the fire pot, as set forth.

1,076,083. SAFETY CARD-RECORD. WILLIAM L. VANCE, Cleveland, Ohio. Filed Nov. 18, 1912. Serial No. 732,060. (Cl. 129—16.)



1. In a safety card record, a plurality of cards provided with horizontally slotted reinforced base portions terminating in vertical slot extensions.

2. In a safety card record, a card provided with a horizontally extending guide slot at its base, said slot being provided with a looped extension at one side and a right angled extension at the other.

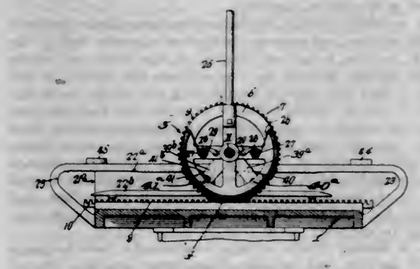
3. In a safety card record, a filing drawer, a side wall pivotally connected thereto by means of guide pins and slots at its base ends, means for locking said side wall in its closed or vertical position, and means for supporting the same in an inclined open horizontal position.

4. In a safety card record, a filing drawer provided with a pivoted side and a card retaining rod in close proximity to said pivoted side, and a plurality of cards mounted on said guide rod by means of horizontally extending guide slots terminating in slot extensions at opposite sides of said cards.

5. In a safety card record, a filing drawer provided with a pivoted side wall, a card retaining guide rod locked within said filing drawer and extending in proximity to the pivoted side of said side wall, and a plurality of cards mounted on said guide rod and provided with horizontally extending slotted base portions terminating in slot extensions at the sides of said cards.

[Claims 6 to 9 not printed in the Gazette.]

1,076,084. PROOF PRINTING-PRESS. ROBERT O. VANDERCOOK, Chicago, Ill. Filed Sept. 9, 1909. Serial No. 516,913. (Cl. 101—11.)



1. A printing press comprising a horizontal type-bed, a rocking, cylindric impression member, supporting rockers on the impression member having curved bearing surfaces concentric with the bearing surface of the impression member, upwardly facing supporting bearing surfaces formed on the bed and adapted to be engaged by the supporting rockers, yokes carried at the ends of said impression member, said impression member having rotative connection with the yokes, with its axis of rotation concentric with said rockers, pairs of rollers carried by said yokes, at least one of the rollers of each pair being laterally shiftable relatively to the impression member, downwardly facing rails located in a plane below the level of the axis of the impression member, upwardly facing rails located in a horizontal plane below the level of said downwardly facing rails and in different vertical planes from said downwardly facing rails, and means for shifting the laterally shiftable rollers into position for engagement in alternation with the downwardly and upwardly facing rails at the opposite limits of the movement of said impression member.

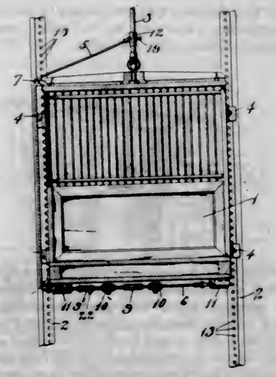
2. A printing press comprising a horizontal type-bed, a rocking, cylindric impression-member, supporting rockers on the impression-member having curved bearing surfaces concentric with the bearing surface of the impression-member, upwardly facing supporting bearing surfaces formed on the bed and adapted to be engaged by the supporting rockers, yokes rotatively carried by said rockers with their axes of rotation coincident with the axes of said rockers, said yokes being movable toward and away from said rockers, pairs of rollers carried by said yokes, a downwardly facing track located in a horizontal plane below the axis of the impression-member and adapted to engage the tops of said rollers in one movement of said impression-member, upwardly-facing tracks located in a horizontal plane below the said upwardly facing tracks and adapted to engage the bottoms of said rollers in the opposite movement of said impression-member, and means for automatically moving said yokes to bring said rollers into engagement with either set of said downwardly and upwardly facing tracks.

3. A printing press comprising a horizontal type-bed, a rocking, cylindric impression-member, supporting rockers on the impression-member having curved bearing surfaces concentric with the bearing surface of the impression-member, upwardly facing supporting bearing surfaces formed on the bed and adapted to be engaged by the supporting rockers, yokes rotatively carried by said rockers with their axes of rotation coincident with the axes of said rockers, pairs of rollers carried by said yokes, one roller of each pair being adjustable with reference to the axis of the yokes, and downwardly facing rails adapted to engage the tops of said rollers, to hold the said impression-member down to its work.

4. A printing press comprising a horizontal type-bed, a rocking, cylindric impression-member, supporting rockers formed on the impression member having curved bearing surfaces concentric with the bearing surface of the impression-member, upwardly facing supporting bearing surfaces formed on the bed and adapted to be engaged by the supporting rockers, yokes provided with hubs, bearings concentric with said rockers upon which the hubs of said yokes have rotative and endwise movement, pairs of rollers carried by said yokes, downwardly facing rails located in a plane below the axis of the impression-member and adapted to engage the tops of said rollers, upwardly facing tracks located in a plane below the downwardly facing rails and in different vertical planes from those of the downwardly facing rails, and means for shifting said yokes endwise on said bearings at the opposite limits of the movement of said impression-member.

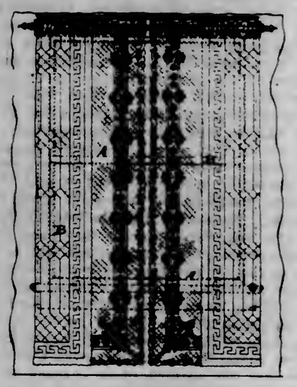
5. A printing press comprising a horizontal type-bed, a rocking, cylindric impression-member, supporting rockers on the impression-member having curved bearing surfaces concentric with the bearing surface of the impression-member, upwardly facing supporting bearing surfaces formed on the bed adapted to be engaged by the supporting rockers, yokes rotatively carried by said rockers with their axes of rotation coincident with the axes of said rockers, pairs of rollers carried by said yokes, one roller of each pair being adjustable with reference to the axis of the yokes, and downwardly facing rails adapted to engage the tops of said rollers, to hold the said impression-member down to its work.

1,076,085. SAFETY DEVICE FOR ELEVATORS. OTTO VOLZ, Omaha, Nebr. Filed May 17, 1912. Serial No. 698,043. (Cl. 187—84.)



In a safety attachment for elevators, guide members having locking surfaces, a cage disposed between the members and slidable thereagainst, a hoisting cable attached to and extending from the cage, a plurality of cables beneath the cage, movable latches located at the corners of the cage, springs for moving the latches in one direction and a cable connected with the said plurality of cables and having adjustable connection with the hoisting cable, an independent guiding element carried by the elevator cage for each of said plurality of cables, and each serving to change the direction of the cable cooperating therewith from the latch to the main cable of the safety attachment, the said plurality of cables being connected with the latches so as to normally hold them retracted under normal tension of the hoisting cable, the said bolts being adapted to engage with the locking surfaces when the bolts are projected.

1,076,086. WINDOW-FURNISHING. CHARLES C. VOSBURGH, Norwood, Ohio. Filed Oct. 21, 1910. Serial No. 588,267. (Cl. 156—10.)



A combined curtain and overdrape interior window hanging having the same general aspect on both sides of the hanging comprising a curtain portion of substantial width and an overdrape portion or side hanging of substantial width, said curtain and overdrape portions being of dissimilar appearance and of equal length, arranged side by side with parallel, longitudinal edges and contained in one piece, a plait being formed where the two portions come together, also arranged parallel to these longitudinal edges, to off-set the overdrape portion against the curtain portion.

1,076,087. FOLDING CHILD'S CARRIAGE. ANDREW T. WANNENWETSCH, Buffalo, N. Y. Filed June 8, 1912. Serial No. 702,400. (Cl. 21—83.)



1. A folding child's carriage comprising a body having a lower section, an end section rising from opposite ends of the lower section, a leg rest pivoted on the fronf end of the lower section between the end sections and having a foot rest, a back rest pivoted on the rear end of the lower section, and means for holding said leg rest and back rest in place comprising two collapsible bars each of which is adapted to rest on said seat and is composed of two sections which have their opposing ends slidably connected while their extremities are pivoted respectively to the back rest and the leg rest.

2. A folding child's carriage comprising a body having a lower section, end sections rising from opposite ends of the lower section, a leg rest pivoted on the front end of the lower section between the end sections and having a foot rest, a back rest pivoted on the rear end of the lower section, a head rest pivoted on the back rest and having a slot, and a brace pivoted on said back rest and having a pin engaging said slot.

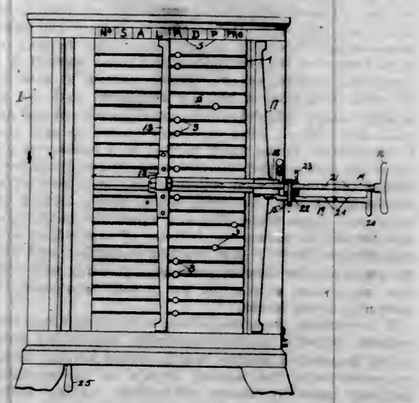
3. A folding child's carriage comprising a body having a lower section, end sections rising from opposite ends of the lower section, a leg rest pivoted on the front end of the lower section between the end sections and having a foot rest, a back rest pivoted on the rear end of the lower section and a folding handle having a cross bar and two side bars each of which is composed of two sections which have their opposing ends pivotally connected and one of which is rigidly connected with the cross bar while the other is pivoted on the body.

4. A folding child's carriage comprising a body having a lower section, end sections rising from opposite ends of the lower section, a leg rest pivoted on the front end of the lower section between the end sections and having a foot rest, a back rest pivoted on the rear end of the lower section, a folding handle having a cross bar and two side bars each of which is composed of two sections which have their opposing ends pivotally connected and one of which is rigidly connected with the cross bar while the other is pivoted on the body, means for holding the sections of each bar in an unfolded position relatively to each other, and means for holding said bars in an unfolded position relatively to the body.

5. A folding child's carriage comprising a body having a lower section, end sections rising from opposite ends of the lower section, a leg rest pivoted on the front end of the lower section between the end sections and having a foot rest, a back rest pivoted on the rear end of the lower section, a folding handle having a cross bar and two side bars each of which is composed of two sections which have their opposing ends pivotally connected and one of which is rigidly connected with the cross bar while the other is pivoted on the body, means for holding the sections of each bar in an unfolded position relatively to each other comprising a tail formed on one of said bar sections and a locking sleeve sliding on the other section and engaging with said tail, and means for holding said bars in an unfolded position relatively to the body comprising a latch pivoted on each of said bars and engaging with a projection on the body.

[Claims 6 to 11 not printed in the Gazette.]

1,076,088. VOTING-MACHINE. IRA WATERMAN, Adrian, Mich., assignor, by mesne assignments, to J. Wallace Page, Adrian, Mich. Filed Oct. 29, 1910. Serial No. 589,748. (Cl. 235—54.)



1. A voting machine having a plurality of voting columns for the tickets of the several political parties, members movable across the face of the machine into said voting columns, and means for confining said movable members against movement in either direction after arrangement by the elector in the voting column of the political party for whose candidates the elector has declared his intention of voting.

2. A voting machine having thereon vertical columns adapted to contain the names of the candidates for the several political parties, members movable on the machine into said voting columns and adapted to actuate the vote-registering mechanism, and means under the control of the inspector for confining said movable members after arrangement by the elector to the voting column of one political party.

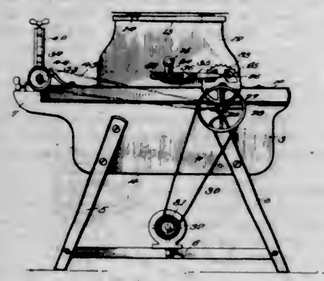
3. A voting machine having spaces thereon for the tickets of several political parties, members movable into the spaces occupied by the party tickets, said members being adapted to actuate the vote-recording mechanism, and means for restricting said movable members after arrangement by the elector to the space occupied by a single party ticket.

4. A voting machine having spaces thereon for the tickets of several political parties, members movable into the spaces occupied by the party tickets, said members being operatively associated with the vote-recording mechanism, and means impossible of manipulation by the elector for restricting said movable members after arrangement in voting position to the space occupied by a single party ticket.

5. A voting machine having spaces thereon for the tickets of several political parties, members movable into the spaces occupied by the party tickets, said members being operatively associated with the vote-recording mechanism, and means operatable by the inspector for restricting said movable members after arrangement by the elector to the space occupied by a single party ticket.

[Claims 6 to 10 not printed in the Gazette.]

1,076,089. GEARING FOR WASHING-MACHINES. JOHN I. WOODRUFF, Selinsgrove, Pa. Filed Sept. 5, 1912. Serial No. 718,776. (Cl. 74—50.)



1. A machine of the character described including a stationary support, a member hinged to the support, mechanism mounted upon the hinged member and movable therewith toward and from the stationary support, a shaft mounted on the stationary support, driving mechanism for the last named shaft and for the mechanism mounted upon the hinged member, and means whereby the driving mechanism may be disconnected from the mechanism on the hinged member and connected to said shaft by the lifting of the hinged member and disconnected from the shaft but connected with the mechanism on the hinged member by the lowering of the hinged member.

2. A machine of the character described including a stationary support, a member hinged thereto, driven mechanism supported by the hinged member, driving mechanism therefor mounted upon the stationary support, a driven shaft mounted upon the stationary support, a pulley movable into and out of operative engagement with the shaft, means connecting said pulley with the driving mechanism, and means carried by the hinged member for shifting the pulley out of operative engagement with the shaft when the hinged member is lowered and into operative engagement therewith when the hinged member is raised.

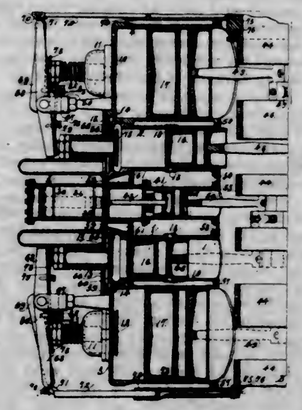
3. In a machine of the character described, a stationary support, a member hinged thereto, driven mechanism carried by the hinged member, a motor, a driven shaft mounted upon the stationary support, driven mechanism for the mechanism carried on the hinged member and operatively connected thereto when the hinged member is closed against the stationary support, a pulley operatively connected to said shaft and operatively connected to the driving mechanism, clutch members, one of which is connected to the shaft and the other of which is connected to the pulley, and a cam carried by the hinged member and disengaging the clutch members when the hinged member is lowered but permitting the engagement of the clutch members when the hinged member is raised.

4. In a machine of the character described, a stationary support, a member hinged thereto, driven mechanism carried by said hinged member, a gear wheel mounted upon the hinged member and operatively connected to the driven mechanism, a shaft mounted upon the stationary support, a spur pinion on the shaft engageable with the gear wheel on the hinged member when the latter is closed but disengageable therefrom when the hinged member is moved away from the stationary support, a motor, means for actuating the shaft from the motor, a driven shaft mounted on the stationary support, a sleeve on the shaft, a pulley carried by the sleeve, clutch members, one slidable with said sleeve and the other fixed to the shaft, a spring normally holding the clutch members in engagement, a connection between the first named shaft and the said pulley, and means carried by the free end of the hinged member engaging said sleeve when the hinged member is lowered toward the stationary member to force the clutch members out of engagement with each other but, when the hinged member is raised, permitting the clutch members to be forced into engagement with each other.

5. In a machine of the character described, a support, a transverse shaft supported thereon, a rocker arm mounted on the shaft, means connected to one end of the transverse shaft for oscillating the same, a motor detachably connected to said oscillating means, and a detachable handle operatively connected to the other end of the shaft.

[Claim 6 not printed in the Gazette.]

1,076,090. INTERNAL-COMBUSTION ENGINE. WILLIAM J. WRIGHT, Franklin, Pa., assignor to Wright Engine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Apr. 10, 1911, Serial No. 620,071. Renewed Mar. 14, 1913. Serial No. 754,356. (Cl. 123—53.)



1. The method of operating compound internal combustion engines which have high and low pressure cylinders and pistons, which consists in causing the low-pressure piston to draw air into the high pressure cylinder after the high pressure piston has completed its working stroke, and simultaneously draw the old charge from said high pressure cylinder into said low pressure cylinder; then causing said high pressure piston to compress said air while said low pressure piston is forcing said old charge out of said low pressure cylinder to atmosphere; forcing a new charge of working agent into said high pressure

cylinder before said high pressure piston has completed its compressing stroke; forcing air over the walls of said high pressure cylinder and into said low pressure cylinder before said new charge is fully compressed and ignited; igniting said new charge and subsequently admitting said ignited charge into communication with said air in said low pressure cylinder to cause both pistons to move as working pistons through a working stroke.

2. The method of operating internal combustion engines of the compound two-cycle type which have high and low pressure cylinders and their pistons; which consists in causing the low pressure piston to draw air into the high pressure cylinder after the high pressure piston has completed its working stroke, and simultaneously drawing the old charge from said high pressure cylinder into said low pressure cylinder; then causing said high pressure piston to compress said air while said low pressure piston moves on its exhausting stroke to force a part of the old charge out of said low pressure cylinder to atmosphere, then forcing a new charge of working agent into said high pressure cylinder before said high pressure cylinder has completed its compressing stroke, and causing said low pressure piston to compress a residual part of the old charge in said low pressure cylinder; then forcing air into said low pressure cylinder to unite with the residual old charge and to be compressed by said low pressure piston, before said new charge in said high pressure cylinder is fully compressed and ignited; then igniting said new charge in said high pressure cylinder to cause said high pressure piston to start on its working stroke, and permitting said low pressure piston to commence its working stroke under the influence of said compressed air and residual old charge; and subsequently throwing the high and low pressure cylinders into communication to permit the ignited new charge in the high pressure cylinder to unite with the air and residual old charge in the low pressure cylinder to cause both pistons to move through a part of their working strokes under the influence of the combined charges.

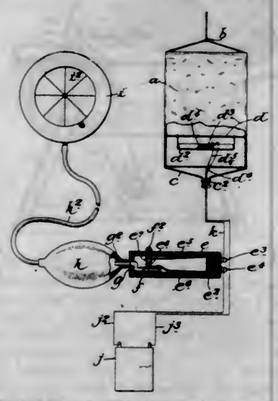
3. In an internal combustion engine, a high pressure cylinder and its piston and a low pressure cylinder and its piston, a fuel charging pump connected with the high pressure cylinder, an air charging pump in communication with the low pressure cylinder, an intercommunicating duct between the two cylinders and a valve for controlling the passage through said duct, an exhaust valve for said low pressure cylinder, a crank shaft having cranks set at an angle to one another, connecting rods between the respective cranks and the respective pistons to cause said pistons to move one in advance of the other, means for operating said fuel charging pump at a predetermined time, means for operating said air charging pump at a predetermined time, said high pressure cylinder having piston controlled ports all being arranged that said low pressure piston will draw the contents of said high pressure cylinder out of the same when said duct valve is open and when said high pressure cylinder ports are opened and simultaneously fill said high pressure cylinder with air to be subsequently compressed by the high pressure piston, said low pressure piston operating on its up stroke to exhaust more or less of the old charge to atmosphere through said exhaust valve when open, and to also compress a part of the contents of said low pressure cylinder as said low pressure piston approaches the limit of its up stroke and after said air charging pump has injected a charge of air into said low pressure cylinder, said duct valve operating means having provisions for opening said duct valve as both pistons move on their down strokes together to bring both cylinders into communication and thereby permit both pistons to operate as working pistons during a simultaneous part of their down stroke.

4. The method of operating compound internal combustion engines which have high and low pressure cylinders and their pistons, which consists in causing said pistons to move one in advance of the other, and which consists in causing said low pressure piston to draw the old charge out of the high pressure cylinder at intervals, operate in unison with the high pressure piston as a working piston at a subsequent interval, exhaust the old charge at a later interval and compress a residual charge during a still later interval; and which consists further in forcing fuel into the high pressure cylinder as said high pressure piston is traveling on its compression stroke and thereby compress said fuel in said high pressure cylinder, and forcing air over said high pressure cylinder into said low pressure cylinder as said low pressure piston begins the compression portion of its cycle.

5. The method of operating compound internal combustion engines which have high and low pressure cylinders and their pistons, which consists in causing said pistons to move one in advance of the other, and which consists in causing said low pressure piston to draw the old charge out of the high pressure cylinder at intervals, operate in unison with the high pressure piston as a working piston at a subsequent interval, exhaust the old charge at a later interval and compress a residual charge during a still later interval; and which consists further in forcing fuel into the high pressure cylinder as said high pressure piston is traveling on its compression stroke and thereby compress said fuel in said high pressure cylinder, and forcing air over said high pressure cylinder into said low pressure cylinder as said low pressure piston begins the compression portion of its cycle, and before said new charge in the high pressure cylinder has been fully compressed and ignited, then igniting said new charge in said high pressure cylinder and subsequently throwing said cylinders into communication to cause said ignited charge to unite with the residual charge and air in said low pressure cylinder to impel both pistons during a part of their working stroke.

[Claims 6 to 9 not printed in the Gazette.]

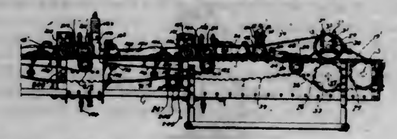
1,076,091. FLASH-LIGHT PHOTOGRAPHIC APPARATUS. CHARLES D. ALLEN, New York, N. Y. Filed June 3, 1912. Serial No. 701,115. (Cl. 177—10.)



In a flash light apparatus, a circuit closing and breaking device adapted to be held in the hand, and comprising an oblong casing one end of which is closed by a plug provided with binding posts and with spring arm terminals which extend into said casing and which are connected with said posts, an expansible bag placed between the free end of one of said terminals and the adjacent wall of the casing and adapted to force said terminal into contact with the free end of the other terminal, a screw passing through one side of the casing and bearing on the free end of said other terminal and adapted to adjust the position thereof, and a tube communicating with said bag and extending through the end of said casing opposite that closed by said plug.

1,076,092. DEFIBRATING-MACHINE. JOHN A. ALLEN, New York, N. Y., assignor to Arthur P. O'Brien, New York, N. Y. Filed Dec. 2, 1912. Serial No. 734,519. (Cl. 13—18.)

1. In a defibrating machine, the combination with a traveling feed device sub-divided and adapted to support and advance a plurality of sets of stalks the butts of each set being in transverse alinement, of a stripping mechanism comprising a stripping blade and coöperating block and a pair of co-acting traveling belts adapted to seize and forward the stalks beyond the blade and block, and operating connections whereby the sets of stalks are successively presented to the stripping mechanisms.



2. In a defibrating machine, the combination with a traveling feed device sub-divided and adapted to support and advance a plurality of sets of stalks the butts of each set being in transverse alinement, of a stripping mechanism comprising a stripping blade and coöperating block and a pair of co-acting traveling belts adapted to seize and forward the stalks beyond the blade and block, yielding means for holding the co-acting runs of the belts together, and operating connections whereby the sets of stalks are successively presented to the stripping mechanism.

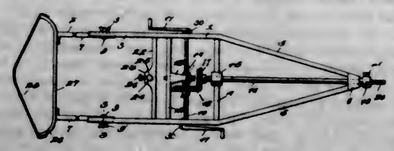
3. In a defibrating machine, the combination with a traveling feed device sub-divided and adapted to support and advance a plurality of sets of stalks the butts of each set being in transverse alinement, of a stripping mechanism comprising a stripping blade and coöperating block and a pair of co-acting traveling belts adapted to seize and forward the stalks beyond the blade and block one of said belts running over spring pressed pulleys, and operating connections whereby the sets of stalks are successively presented to the stripping mechanism.

4. In a defibrating machine, the combination with a traveling feed device sub-divided and adapted to support and advance a plurality of sets of stalks the butts of each set being in transverse alinement, of a plurality of stripping mechanisms each comprising a stripping blade and coöperating block and a pair of co-acting traveling belts adapted to seize and forward stalks beyond the blade and block at least one of said blades being arranged to scrape one side of the stalk fibers and at least one other blade being arranged to scrape the opposite side of the stalk fibers, and operating connections whereby the sets of stalks are successively presented to the stripping mechanisms.

5. In a defibrating machine, the combination with a traveling feed device sub-divided and adapted to support and advance a plurality of sets of stalks the butts of each set being in transverse alinement, of a plurality of stripping mechanisms each comprising a stripping blade and coöperating block and a pair of co-acting belts adapted to seize and forward stalks beyond the blade and block the speed of the co-acting belts of the different stripping mechanisms being different, and operating connections whereby the sets of stalks are successively presented to the stripping mechanisms.

[Claims 6 to 14 not printed in the Gazette.]

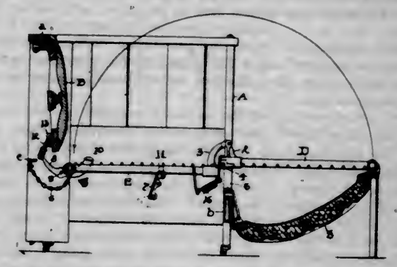
1,076,093. DRILL. ROBERT LEE BARNUM, Oakman, Ala. Filed Nov. 23, 1912. Serial No. 733,167. (Cl. 255—46.)



1. A machine of the character described, comprising a main frame and an adjustable frame, the main frame being formed of parallel bars, a transverse bar connecting said parallel bars at their forward ends, inwardly converging bars connected to the forward ends of said parallel bars, a bearing connecting the forward ends of said converging bars, a bearing mounted in said transverse bar, a transversely extending crank shaft mounted in said parallel bars, crank handles connected to the opposite ends of said crank shaft, a pinion mounted on said crank shaft, a longitudinally extending drill shaft mounted in said bearings, a pinion mounted on the inner end of said drill shaft and adapted to mesh with the pinion on said crank shaft, the inner faces of said parallel bars having longitudinal grooves formed therein, and said adjustable frame comprising a breast plate, parallel bars connected to said breast plate, said bars being adjustably mounted in the longitudinal grooves in the parallel bars of the main frame, and means for holding the main frame and adjustable frame in adjusted position, as and for the purpose described.

2. A machine of the character described, comprising a frame consisting of a pair of parallel bars converging at their forward ends, means connecting said parallel bars, a crank shaft mounted transversely in said bars, a crank handle secured to said crank shaft, a pinion mounted on said shaft, a longitudinally extending drill shaft connected to said bars, a pinion mounted on one end of said drill shaft and meshing with the pinion on said crank shaft, the rear ends of said parallel bars being formed with longitudinal grooves in their inner faces, a breast plate, forwardly projecting parallel bars connected to said breast plate, the forward ends of the last mentioned bars being slidably engaged in the longitudinal grooves in the first mentioned bars, said second mentioned bars having longitudinal slots formed therein, screws passing through the first mentioned bars and engaging in said slots in the second mentioned bars, and means engaging said screws to hold said bars in adjusted position, as and for the purpose described.

1,076,094. COMBINED BED AND SOFA. EDWARD N. BROWN, East Cleveland, Ohio, assignor to The D. T. Owen Company, East Cleveland, Ohio, a Corporation. Filed Sept. 14, 1912. Serial No. 720,317. (Cl. 5—49.)



1. The combination with a frame of a back pivoted to the upper portion of said frame; a seat pivoted to the forward portion of said frame; and levers, each pivoted at a point intermediate its length and having one of its ends engaging the free edge of said back, substantially as described.

2. In a combined bed and sofa, a seat and springs therefor to raise the rear thereof, a back supported to move forwardly into engaging relations with said seat, and means connecting said seat and back to move and hold the back in close engagement with the seat when the parts are folded.

3. In a combined bed and sofa, a pivotally supported seat frame and springs adapted to lift the same, a swinging back and a lever in actuating relations with the rear of said seat frame and adapted to engage said back and press it forward over the edge of the seat.

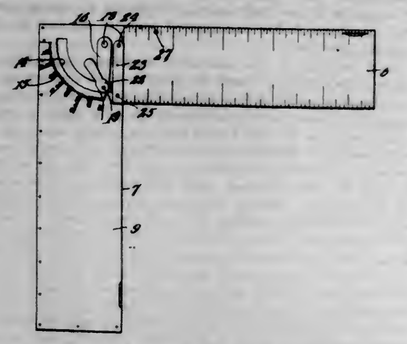
4. In a combined bed and sofa, a seat pivoted at its front and springs adapted to raise the same at the rear, in combination with a swinging back and arms adapted to support the rear of said seat provided with extension

adapted to bear against the rear of the back and force it forward over the edge of the seat.

5. A combined bed and sofa comprising a folding front frame having springs to exert a lifting action thereon, a swinging back adapted to rest over the rear edge of said frame and mechanism actuated by the said front section adapted to press against said back and hold it inward.

[Claims 6 to 9 not printed in the Gazette.]

1,076,095. SQUARE. JAMES MEADE BROWN, Roseburg, Oreg. Filed July 16, 1912. Serial No. 709,766. (Cl. 73—187.)

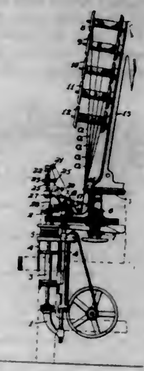


1. A square embodying a stock comprising two elongated cheek plates; an elongated tongue designed to be housed between the cheek plates; a pivot pin passing through the cheek plates and the tongue at one corner; the cheek plates having arcuate slots therein with the pivot pin as a center; a non-circular bolt fitting through the tongue and slots with its head bearing against one cheek plate, the bolt having a reduced threaded end; a pointer connected at one end to the pivot pin and at the other end to the reduced threaded end of the bolt; the other cheek plate having a protractor scale coöperating with the pointer and a nut engaging the threaded end of the bolt to lock the pointer in an adjusted position on the protractor scale.

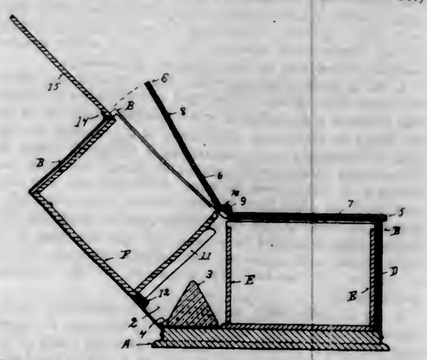
2. A square embodying a stock comprising two elongated cheek plates and shim strips secured between one of the edges and one of the ends of the cheek plates; an elongated tongue designed to be completely housed between the cheek plates; a pivot pin passing through the cheek plates and tongue at one corner; the cheek plates having arcuate slots therein with the pivot pin as a center; a non-circular bolt fitting through the tongue and slots with its head bearing against one cheek plate, the bolt having a reduced threaded end; a pointer connected at one end to the pivot pin and at the other end to the reduced threaded end of the bolt; the other cheek plate having a protractor scale coöperating with the pointer; and a tail nut engaging the threaded end of the bolt to lock the pointer in an adjusted position on the protractor scale.

1,076,096. TWISTING-MACHINE. GEORGE L. BROWNELL, Worcester, Mass. Filed Feb. 27, 1909. Serial No. 480,486. (Cl. 118—6.)

In a twisting machine for twisting a multiplicity of strands into a single strand, means for spacing the strands apart, means for cutting the spaced strands, an elevated strand roll for receiving the wet strands spaced apart, a twisting mechanism having its axis of rotation in a plane tangential to said strand roll, an interposed guide plate between said twisting mechanism and said strand roll having a series of holes for the individual strands concentric with the axis of said twisting mechanism, and means for adjusting the position of said plate between said strand roll and said twisting mechanism, whereby the angle between the axis of said twisting mechanism and the individual strands may be varied in order to vary the pitch of the twist in the twisted strand.



1,076,097. CIGAR-DISPLAY HOLDER. EDWARD BRUNHOFF, Cincinnati, Ohio, assignor to H. Traiser & Co. Inc., Boston, Mass., a Corporation of Massachusetts. Filed Mar. 5, 1913. Serial No. 752,107. (Cl. 131—30.)



1. A cigar box holder comprising a frame having a compartment to hold a cigar box in a substantially horizontal position and a compartment at one side thereof to hold a cigar box at an angle to said first box, and lids hinged to said frame over said respective boxes and opening toward each other.

2. A cigar box holder comprising a frame with transparent panels having a compartment to hold a cigar box in a substantially horizontal position and a compartment at one side thereof to hold a cigar box at an angle to said first box with a triangular compartment between adjacent faces of said respective boxes, lids with transparent panels hinged to said frame to cover and at the same time expose the contents of said boxes to view.

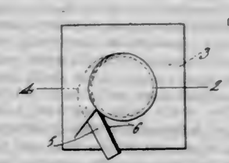
3. A cigar box holder comprising a frame having a compartment to hold a cigar box in a substantially horizontal position, a compartment at one side thereof to hold a cigar box at an angle to said first box, a compartment to contain a humidor formed between adjacent faces of said respective boxes, lids with transparent panels hinged back to back to said frame to give access to and expose the contents of said boxes to view.

4. A cigar box holder comprising a frame having a compartment to hold a cigar box in a substantially horizontal position, a compartment at one side thereof to hold a cigar box at an angle to said first box, a triangular compartment to contain a humidor formed between adjacent faces of said respective boxes, lids with transparent panels hinged back to back to said frame to give access to and expose the contents of said boxes to view, an alarm and means actuated when one of said lids is opened to sound said alarm.

5. A cigar box holder comprising a frame with transparent side panels having a compartment to hold a cigar box in a substantially horizontal position, a compartment at one side thereof to hold a cigar box at an angle to said first box, lids with transparent panels hinged to said frame back to back upon a common axis to give access to and expose the contents of said boxes to view.

[Claim 6 not printed in the Gazette.]

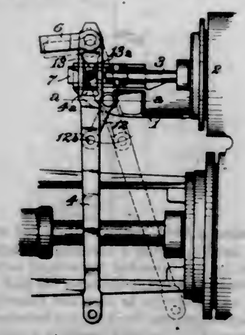
1,076,098. NUT-LOCK. JOSHUA A. BRYANT, Princeton, Cal., assignor of two-thirds to Henry Quint, Princeton, Cal. Filed Oct. 26, 1912. Serial No. 727,989. (Cl. 151—14.)



1. A nut lock comprising a bolt, a nut having an aperture extending into the outer face thereof and communicating with the threaded portion of said nut, a hook shaped key extending within said aperture and adapted to wedgedly engage the said bolt, the rear portion of said key extending beyond said nut aperture whereby the same may be driven into engagement with or disengaged from the said bolt.

2. The combination of a bolt, a nut adapted to threadedly engage the same, said nut provided with an arcuate aperture communicating with the threaded portion of said nut, a hook shaped key conforming with the outline of said nut aperture and adapted to extend therein and to wedgedly engage the side walls thereof and to wedgedly engage the said bolt to securely lock the nut against movement with relation to said bolt.

1,076,099. VALVE-GEAR. FRANCIS J. COLE, Schenectady, N. Y. Filed Feb. 24, 1913. Serial No. 750,127. (Cl. 121—98.)

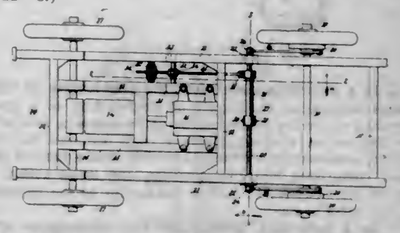


1. The combination, in a locomotive engine valve gear of the Walschaert type, of a distribution valve stem, and intermediate connections coupling said valve stem to the combination lever of the valve gear below the connection of the radius rod to said lever, with the capacity of movement of said lever transversely to that of the valve stem.

2. The combination, in a locomotive engine valve gear, of a link for reversing and changing the point of cut off, an eccentric rod coupled to and vibrating said link, a radius rod movable in said link, a combination lever coupled at one end to said rod, a combination link coupling the opposite end of said lever to a cross head, a distribution valve stem coupled to the combination lever, between the connections of the radius rod and the combination link thereto, and means for permitting movement of the combination lever transversely to that of the valve stem.

3. The combination, in a locomotive engine valve gear, of a pivoted link, an eccentric rod coupled thereto, a radius rod fitted to traverse in the link, a longitudinally slotted combination lever coupled to the radius rod, links suspending said combination lever from a fixed support, a distribution valve stem, and a die fitting the slot of the combination lever and coupled to the distribution valve stem.

1,076,100. BRAKE-OPERATING APPARATUS. EDWIN K. CONOVER, Paterson, N. J., assignor to Conover Motor Car Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 16, 1907. Serial No. 368,569. (Cl. 21—8.)



1. In a vehicle, the combination with a pair of brakes, of a shaft connected at each of its ends with one of said brakes, an operating lever, a sleeve surrounding said shaft and secured at one end to said shaft midway between the ends thereof, and means connecting the other end of said sleeve with said operating lever whereby when said lever is actuated power is applied to said shaft midway between its ends and said brakes caused to engage the wheels with equal force, substantially as specified.

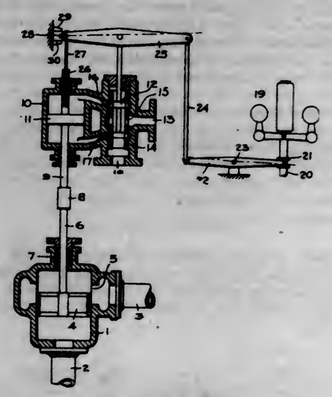
2. In a vehicle, the combination with a pair of brakes, of a transverse shaft supported upon the vehicle frame, arms secured to the outer ends of said shaft, links connecting the ends of said arms with said brakes, a sleeve surrounding said shaft having one end fixed to said shaft at a point midway between the ends thereof, and having its other end terminating adjacent to one of the ends of said shaft, a depending arm secured to the outer end of said sleeve, a short shaft supported upon the vehicle parallel to the shaft first named, an operating lever and an upwardly projecting arm secured to said short shaft, and a link connecting said upwardly-projecting arm with the depending arm on the sleeve surrounding said first named shaft, substantially as specified.

1,076,101. GOVERNING MECHANISM FOR PRIME MOVERS. EDWARD COX, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed May 6, 1912. Serial No. 695,366. (Cl. 121—112.)

1. In a governing mechanism, the combination of valve means controlling the supply of motive fluid to a prime mover, a speed governor for controlling the movements of the valve means, mechanism normally responsive to movements of the governor and of the valve means and including a plurality of movable members, and a device acting on said mechanism to change the relative position of said members and thereby modify the action of the governor on the valve means.

2. In a governing mechanism, the combination of valve means controlling the supply of motive fluid to a prime mover, a motor for actuating the valve means, a speed governor for controlling the motor, a connection between the valve means and the governor that tends to prevent

overtravel of said means, and a device acting on said connection to modify the action of the governor on the valve means.



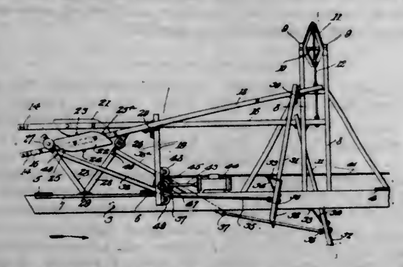
3. In a governing mechanism, the combination of valve means controlling the supply of motive fluid to a prime mover, a motor for actuating the valve means, a controller for the motor, a speed governor that actuates the controller, a connection between the valve means and the governor comprising movable members, and stops acting on one of the members to modify the action of the governor on the valve means.

4. In a governing mechanism, the combination of a valve means controlling the supply of fluid to a prime mover, a speed governor controlling the action of the valve means, a floating lever that is connected to the governor and to a part moving with the valve means, and stops for limiting the range of movement of the floating lever.

5. In a governing mechanism, the combination of a valve means controlling the supply of fluid to a prime mover, a speed governor controlling the action of the valve means, a floating lever that is connected to the governor, a connection between the lever and a part moving with the valve means, a slip-joint in the connection, and means which under certain conditions permit the valve means to move independently of the lever.

[Claims 6 to 11 not printed in the Gazette.]

1,076,102. CURRENT-MOTOR. FELIX H. CRAGO, Trident, Mont. Filed Aug. 29, 1912. Serial No. 717,804. (Cl. 170—96.)



1. In a device of the class described, a float; a pair of levers fulcrumed intermediate their ends upon the float; a walking beam fulcrumed upon the float and connected with the levers; a current-engaging member suspended from one end of each lever; and mechanism operatively connecting each current-engaging member with the other end of one lever for tilting the lever.

2. In a device of the class described, a float; a pair of levers fulcrumed intermediate their ends upon the float; a walking beam fulcrumed upon the float and connected with the levers; a current-engaging member suspended from one end of each lever; tiltable members fulcrumed upon the float; means for operatively connecting each tiltable member with one lever to swing the same; and means for operatively connecting each tiltable member with one current-engaging member.

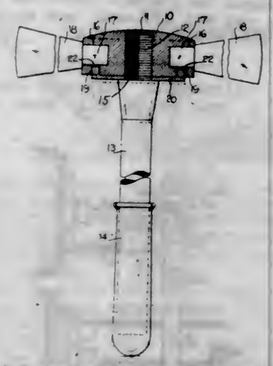
3. In a device of the class described, a float; a pair of levers fulcrumed intermediate their ends upon the float; a walking beam fulcrumed upon the float and connected with the levers; a current-engaging member suspended from one end of each lever; tiltable members fulcrumed on the float; means for operatively connecting each tiltable member with one lever; a link connected with each current-engaging member; and mechanisms for operatively connecting each link with one tiltable member.

4. In a device of the class described, a float; a pair of levers fulcrumed intermediate their ends upon the float; a walking beam fulcrumed upon the float and connected with the levers; a current-engaging member suspended from one end of each lever; mechanism operatively connecting each current-engaging member with the other end of one lever for tilting the lever; and a drive shaft journaled on the float, the drive shaft being actuable by said mechanism.

5. In a device of the class described, a float; a pair of levers fulcrumed intermediate their ends upon the float; a walking beam fulcrumed on the float and connected with the levers; a current-engaging member suspended from one end of each lever; tiltable members fulcrumed on the float; means for operatively connecting each tiltable member with one lever; a link connected with each current-engaging member; mechanism for operatively connecting each link with one tiltable member; and a drive shaft journaled on the float; the drive shaft being operatively connected with said mechanism.

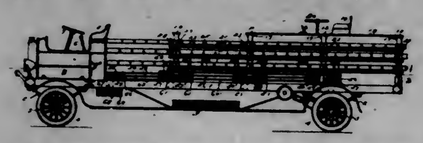
[Claims 6 to 13 not printed in Gazette.]

1,076,103. MINER'S PICK. JOHN P. CRAVEN, Elizabeth, N. J. Filed Apr. 26, 1913. Serial No. 763,901. (Cl. 125—19.)



A tool including a head having a threaded central opening therein, a handle having a threaded reduced extension for engagement in the threaded opening in said head, said extension forming a resultant shoulder on said handle, said head having a recess formed in each end thereof, removable bits having reduced stems fitted in the recesses in the opposite ends thereof, a resilient member having a central opening therein mounted on the reduced threaded extension of said handle and resting against said shoulder, said member having reduced extensions on opposite sides thereof, offset lugs formed on the extremities of said extensions for engagament in the openings in the lower face of the head, said lugs being adapted for frictional engagement with the stems disposed in the recesses in the opposite ends of the head, as and for the purpose described

1,076,104. FIRE-LADDER TRUCK. ALBERT D. CROSSLEY, Hartford, Conn., assignor of one-fourth to John J. Harty, Kingston, Ontario, Canada, and one-fourth to William P. O'Brien, Montreal, Quebec, Canada. Filed Mar. 17, 1913. Serial No. 754,911. (Cl. 21—28.)



1. A ladder truck having a frame, supports extending upwardly along the center of the frame, cross arms projecting outwardly from said supports, ladder holding carriages movable in and out on the cross arms, and means for moving the carriages on the cross arms.

2. A ladder truck having a frame, supports extending upwardly along the center of the frame, cross arms projecting outwardly from said supports, ladder holding carriages movable in and out on the cross arms, and means arranged on one side of the frame for moving the ladder carriages on that side of the center supports, and means located on the other side of the frame for moving the ladder carriages on that other side.

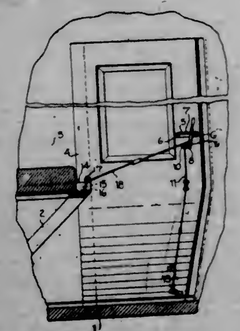
3. A ladder truck having a frame, supports extending upwardly along the center of the frame, cross arms projecting outwardly from said supports, ladder holding carriages movable in and out on the cross arms, means for holding ladders on the carriages, and means for moving the carriages on the cross arms.

4. A ladder truck having a frame, supports extending upwardly along the center of the frame, cross arms projecting outwardly from said supports, the spaces between the cross arms being unobstructed so that ladders may be placed in or removed from said spaces without endwise movement, and means for carrying the ladders into and bringing them out of said spaces.

5. A ladder truck having a frame, supports extending upwardly along the center of the frame, cross arms projecting outwardly from said supports, ladder holding carriages movable in and out on the cross arms, and means for moving the carriages outwardly and causing them to tip downwardly at the ends of the cross arms.

[Claims 6 and 7 not printed in the Gazette.]

1,076,105. LOCKING DEVICE. GEORGE H. DAUGHTREY, Arcanum, Ohio. Filed Mar. 15, 1913. Serial No. 754,622. (Cl. 70—102.)

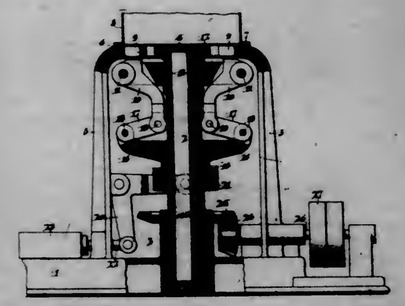


1. In a device of the character described, the combination with a body and a sliding door, of a pivotally mounted lever, adjustable rods pivotally connected to said lever and pivotally mounted engaging members connected to the outer ends of said rods whereby the manipulation of said lever will lock said door against movement.

2. In a device of the character described, the combination with a body and a sliding door, of a U-shaped loop having a rack bar formed therein, a pivotally mounted lever engaging said rack bar, adjustable rods pivotally connected to said lever, a channel iron secured to said body, and engaging members pivotally secured to the outer ends of said rods and adapted to engage the upper edge of the body and the channel iron to hold said door against movement.

3. In a device of the character described, the combination with a body and a sliding door, of a loop having a rack bar therein, a pivotally mounted lever adapted to engage said rack bar, adjustable rods secured to said lever, a channel iron carried by the body, engaging members pivotally secured to the outer ends of said rods whereby the manipulation of said lever will force said members into engagement with the upper edge of the body and the channel iron to securely hold said door against movement.

1,076,106. DEVICE FOR WELDING BARRELS. SAMUEL B. ECKERT, Devon, Pa. Filed July 1, 1912. Serial No. 706,870. (Cl. 78—85.)



1. A device for welding metal barrels or the like, including in combination a chuck for engaging one side of the parts to be welded, a head, means for giving said head and chuck relative movements of rotation, a welding roller carried by said head, and means for moving said welding roller into engagament with the opposite side of the parts to be welded from that engaged by the chuck for pressing the parts against the chuck, whereby said welding roller and chuck coöperate in welding the parts.

2. A device for welding metal barrels or the like including in combination, a vertical standard, means carried thereby for engaging the end of the barrel for supporting the same, a rotating head, a welding roller or rollers carried by said head and adapted to engage the parts to be welded, and a stationary chuck engaging the opposite side of the parts to be welded and with which said welding roller, or rollers coöperate.

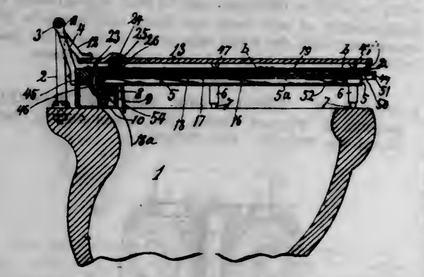
3. A device for welding metal barrels or the like including in combination, a vertical standard, means carried thereby for engaging the end of the barrel and for supporting the same, a rotating head, a welding roller or rollers carried by the head, means for moving said welding roller or rollers into contact with the flange of the head, and a stationary chuck for engaging the flange of the barrel and with which said roller, or rollers coöperate.

4. A device for welding metal barrels or the like including in combination, a vertical stationary standard, means carried thereby for engaging the end of the barrel for supporting the same, a rotating head mounted on said standard, arms pivoted to said rotating head, rollers carried by said arms, a sliding collar, devices for connecting the sliding collar with said arms for moving the rollers into and out of contact with the parts to be welded, and a stationary chuck coöperating with said welding rollers.

5. A device for welding metal barrels or the like including in combination, a supporting device, a vertical standard carried thereby, a rotating head mounted on said standard, means for rotating said head, arms pivoted to said rotating head, rollers carried by said arms, a sliding

collar mounted on said head, links connecting said sliding collar to said arm and so disposed as to move the rollers into and out of contact with the parts to be welded, standards rising from said base, and a stationary chuck carried by said last named standards, engaging the outer face of the flange of the body of the barrel and coöperating with said welding rollers.

1,076,107. SANITARY CLOSET-SEAT. ELMER O. EDWARDS, St. Paul, Minn., assignor of one-half to Andrew Noren, St. Paul, Minn. Filed Dec. 23, 1912. Serial No. 738,224. (Cl. 4—18.)



1. In a closet of the class described, the combination of a bowl, a seat hinged to rest upon the bowl and adapted to contain a pile of sheets of paper having an opening in the middle and arranged to form the top of the seat, a cover hinged to fold upon the seat, and means automatically operated by the motion of the cover on its hinges whereby the uppermost sheet of the paper pile is removed into the bowl.

2. In a closet of the class described, the combination of a bowl, a seat hinged to rest upon the bowl and adapted to contain a pile of sheets of paper, a supply of paper contained in said cover and arranged with the uppermost sheet as the surface of the seat to sit on, automatic means for raising the supply of paper to said position as fast as the supply is diminished by removing sheets from the top thereof; a cover hinged to fold upon the seat, and a mechanism actuated by the motion of the cover whereby each motion of the cover removes the uppermost sheet of the supply and passes it into the bowl.

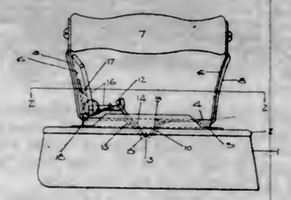
3. In a closet of the kind described, the combination of a bowl, a seat hinged to fold upon the bowl and adapted to hold a pile of paper sheets in position for sitting on same, a cover hinged to fold upon the seat, and means operated by the motion of the cover at its hinges whereby one sheet at a time is removed from the top of the pile of sheets.

4. In a closet of the kind described, the combination of a bowl, a seat hinged to fold upon the bowl and adapted to hold a pile of sheets of paper for a person to sit on, a cover hinged to fold upon the seat and the paper contained in the same, means for holding said seat and its cover connected in parallel position against accidental separation, and means operated by the motion of the cover at its hinges whereby one sheet at a time is removed from the top of the pile of sheets.

5. In a closet seat of the kind described, the combination of a bowl, a seat hinged to fold and rest upon the bowl, a pile of sheets of paper open in the middle held by the seat to form its top, a cover hinged to rest upon the seat, a toothed sector operated by the motion of the cover, and rollers rotated by the sector and arranged to act on the paper to remove each top sheet thereof into the bowl.

1,076,108. SAD-IRON HANDLE. CARL P. EICHLER, Lakewood, Ohio. Filed Oct. 7, 1910. Serial No. 585,747. (Cl. 68—26.)

1. In a device of the character described, the combination with a base formed with a downwardly depending lug having a face inclined with respect to said base and adapted to engage one side of the sad-iron element to be gripped; of a plunger reciprocably held in said base so as to be movable in a plane inclined to the face of such lug, said plunger being also oscillatory to press upwardly against the element gripped between it and such lug face.



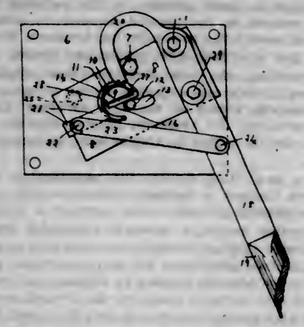
2. In a device of the character described, the combination with a base formed with a downwardly depending lug having a face inclined with respect to said base and adapted to engage one side of the sad-iron element to be gripped; of a plunger reciprocably held in said base so as to be movable in a plane inclined to the face of such lug, said plunger being also oscillatory to press upwardly against the element gripped between it and such lug face, and the engaging face of said plunger being beveled, substantially as described.

3. An interchangeable sad-iron handle, comprising a body member formed of stamped sheet metal of flattened U-shape, the central, base portion of said member being strengthened by lateral flanges and the upwardly extending arms by central beads; a handle, proper, secured between such arms; a lug struck-up from such base portion and depending downwardly, said lug being formed with a central bead that extends into said base and the inner face of said lug being inclined with respect to said base and adapted to engage one side of the sad-iron element to be gripped; and a plunger reciprocably held in said base so as to be movable in a plane inclined oppositely to the face of such lug, said plunger having its inner face beveled for engagement with the other side of said sad-iron element.

4. An interchangeable sad-iron handle, comprising a body member formed of stamped sheet metal of flattened U-shape, the central, base portion of said member being strengthened by lateral flanges and the upwardly extending arms by central beads; a handle, proper, secured between such arms; a lug struck-up from such base portion and depending downwardly, said lug being formed with a central bead that extends into said base and the inner face of said lug being inclined with respect to said base and adapted to engage one side of the sad-iron element to be gripped; and a plunger reciprocably held in said base so as to be movable in a plane inclined oppositely to the face of such lug, said plunger being struck-up from sheet metal with a boss presenting a beveled face for engagement with the other side of said sad-iron element.

5. An interchangeable sad-iron handle, comprising a body member formed of stamped sheet metal of flattened U-shape, the central, base portion of said member being strengthened by lateral flanges and the upwardly extending arms by central beads; a handle, proper, secured between such arms; a lug struck-up from such base portion and depending downwardly, said lug being formed with a central bead that extends into said base and the inner face of said lug being inclined with respect to said base and adapted to engage one side of the sad-iron element to be gripped; and a plunger reciprocably held in said base so as to be movable in a plane inclined oppositely to the face of such lug, said plunger having its inner face beveled for engagement with the other side of said sad-iron element; inwardly bent ears formed integrally on the upwardly extending arm adjacent to said plunger; and an actuating lever for the latter pivotally held in said ears.

1,076,109. SPRING-HEELING MACHINE. WILLIAM S. FOSTER, Utica, N. Y., assignor to Foster Brothers Manufacturing Company, Utica, N. Y., a Corporation of New York. Filed Sept. 28, 1912. Serial No. 722,870. (Cl. 140—103.)



1. In a spring heeling machine, a head having one side adapted to engage the inside of the lower convolution of a coiled spring, and the other side shaped as an anvil adapted to form a straightening surface for the projecting end of the spring, jaws for holding the spring upon said head, a lug adapted to press the projecting end of said spring against said anvil, said head and lug being mounted in movable relation to each other, and means for bringing said head and lug toward each other.

2. In a spring heeling machine, a head having one side adapted to engage the inside of the lower convolution of a coiled spring, and the other side shaped as an anvil adapted to form a straightening surface for the projecting end of the spring, jaws movable toward said head for holding the spring upon said head, a lug adapted to press the projecting end of said spring against said anvil, said head and lug being mounted in movable relation to each other, means adapted to move said jaws toward the head and hold the spring thereon, and means for bringing said head and lug toward each other.

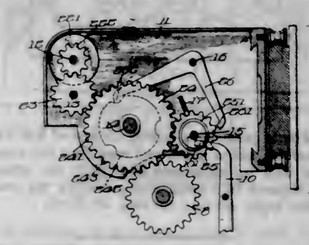
3. In a spring heeling machine, a head having one side adapted to engage the inside of the lower convolution of a coiled spring, and the other side shaped as an anvil adapted to form a straightening surface for the projecting end of the spring, jaws movable toward said head for holding the spring upon said head, a lug adapted to press the projecting end of said spring against said anvil, said head and lug being mounted in movable relation to each other, and a single lever operatively connected to move said jaws to hold the spring upon the head and then to bring said head and lug toward each other.

4. In a spring heeling machine, a stationary bed plate, a swinging plate pivotally mounted on the bed plate, a head on said swinging plate spaced from its pivoting point and having one side adapted to engage the inside of the lower convolution of a coil spring and the other side shaped as an anvil adapted to form a straightening surface for the projecting end of the spring, a lug mounted in said bed plate and extending upward through said swinging plate and in the path of said head, means for holding the spring upon said head, and means for swinging said head toward said lug and pressing the projecting end of said spring against said straightening surface.

5. In a spring heeling machine, a stationary bed plate, a swinging plate pivotally mounted on the bed plate, a head on said swinging plate spaced from its pivoting point and having one side adapted to engage the inside of the lower convolution of a coil spring and the other side shaped as an anvil adapted to form a straightening surface for the projecting end of the spring, a lug mounted in said bed plate and extending upward through said swinging plate and in the path of said head, movable jaws for holding the spring upon said head, means for operating said jaws, and means for swinging said head toward said lug and pressing the projecting end of said spring against said straightening surface.

[Claim 6 not printed in the Gazette.]

1,076,110. CALCULATING-MACHINE. HYMAN ELI GOLDBERG, Chicago, Ill., assignor to Goldberg Calculating Machine Co., Chicago, Ill. Filed Aug. 19, 1911. Serial No. 644,970. (Cl. 235—63.)



1. In a calculating machine, a totalizer containing a set of wheels comprising a series of carrier wheels and a series of intermediate carried pinions mounted therein,—each of said carrier wheels being adapted to drive its coöperating carried pinion, which in turn is adapted to drive the next higher carrier wheel,—and means for moving any of the wheels of the above set in its axial direction, to thereby disconnect a carrier wheel from the next higher carrier wheel.

2. In a calculating machine, a totalizer containing a set of wheels comprising a series of carrier wheels and a series of intermediate carried pinions mounted therein,—each of said carrier wheels being adapted to drive its coöperating carried pinion, which in turn is adapted to drive the next higher carrier wheel—and means for moving any of the carried pinions of the totalizer in its axial direction, to thereby disconnect a carrier wheel from the next higher carrier wheel.

3. In a calculating machine, a totalizer containing a set of wheels comprising a series of carrier wheels and a series of intermediate carried pinions mounted therein,—each of said carrier wheels being adapted to drive its coöperating carried pinion, which in turn is adapted to drive the next higher carrier wheel,—and means for moving the carried pinions axially, to thereby disconnect a carrier wheel from the next higher carrier wheel.

4. In a calculating machine, a totalizer containing a series of carrier wheels, a series of carried pinions,—each of said carrier wheels being adapted to drive its coöperating carried pinion, which in turn is adapted to drive the next higher carrier wheel,—one or more parallel shafts mounted in the totalizer and on which shafts the carried pinions are mounted, and means for moving the carried pinions on their shafts, to thereby break the connection between a carrier wheel and the next higher carrier wheel.

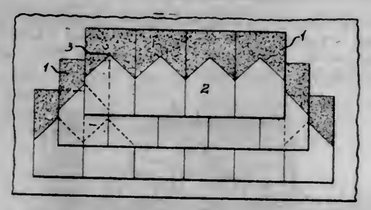
5. In a calculating machine, a totalizer containing a series of carrier wheels, a series of carried pinons,—each of said carrier wheels being adapted to drive its coöperating carried pinon, which in turn is adapted to drive the next higher carrier wheel,—a shaft mounted in the totalizer and on which the carried pinions are mounted, and means for moving the carried pinions on their shaft to thus separate them into two groups and to break the connection between a carrier wheel and the next higher carrier wheel.

[Claims 6 to 14 not printed in the Gazette.]

1,076,111. SHINGLE. FRANK HALL GRANT, Detroit, Mich. Filed Apr. 17, 1913. Serial No. 761,781. (Cl. 108—8.)

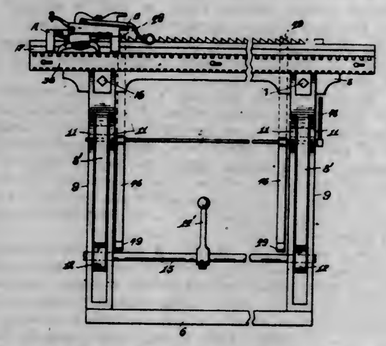
1. A shingle comprising a body, a cap formed of thin sheet metal and arranged over the lower exposed portion

of said body and having its upper end tapered to a point and embedded in the upper surface of said body, and clenching flanges formed on the side and lower end edges of the cap and embedded in the lower surface of the body of the shingle.



2. A shingle comprising a body formed of fire- and water-proof material, and a metal cap overlying the lower end of said body and its sides and end, with the upper end of said cap tapered to a point and overlying the central portion of the body, for the purpose set forth.

1,076,112. SAW-FILING MACHINE. GEORGE W. GUIN and LESTER W. GUIN, South Bend, Ind. Filed May 31, 1912. Serial No. 700,683. (Cl. 76—33.)



1. In a saw filing device, the combination of a frame, clamping members mounted on the frame to support the saw, a feed rack mounted on one of the clamping members, a carriage mounted on the clamping members, a block pivoted on top of the carriage, a dog pivotally mounted on one side of the block for engagement with the rack to hold the carriage against accidental movement, and a file carrying frame slidably mounted on top of said pivoted block and carrying a file to file the teeth of the saw during the sliding action of the file carrying frame, and which latter frame is also swingingly mounted on the block to swing the same and thereby lift the file away from the saw and operate the dog so that the carriage may be moved step by step by the swinging action of the saw carrying frame.

2. In a saw filing device, the combination of means to support the saw, a carriage slidable on the saw supporting means, a member pivoted on the carriage, a clamping member secured on top of the pivoted member, and a file carrying frame slidably and swingingly held on said pivoted member by said clamping member.

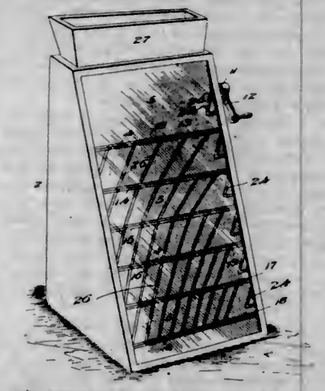
3. In a saw filing device, the combination of means to support the saw, a carriage slidable on the saw supporting means, a member pivoted on the carriage, a clamping member secured on top of the pivoted member, and a file carrying frame slidably and swingingly held on said pivoted member by said clamping member, said clamping member having parts engageable by a part of the file carrying frame to effect swinging of the pivoted member on its pivot.

4. In a saw filing device, the combination of means to support the saw, a carriage slidable on the supporting means, a member pivoted on the carriage, a feed rack on the supporting means, a two-part adjustable dog carried by the pivoted member to engage the feed rack and hold the carriage in fixed position, a file carrying frame, a member secured to the pivoted member to slidably and swingingly secure the saw carrying frame to the pivoted member and provided with projections spaced over the pivoted member, the saw carrying frame engaging the projections of the saw carrying frame securing member during upward swing of the saw carrying frame and thereby swinging the aforesaid pivoted member to operate said dog to effect a step-by-step movement of the carriage.

5. In a saw filing device, the combination of means to support the saw, a carriage slidable on the supporting means, a member pivoted on the carriage, a feed rack on the supporting means, a two-part adjustable dog carried by the pivoted member to engage the feed rack and hold the carriage in fixed position, a file carrying frame, a member secured to the pivoted member to slidably and swingingly secure the saw carrying frame to the pivoted member and provided with projections spaced over the pivoted member, the saw carrying frame engaging the projections of the saw carrying frame securing member during upward swing of the saw carrying frame and thereby swinging the aforesaid pivoted member to operate said dog to effect a step-by-step movement of the carriage, and an arm projecting from the pivoted member for engagement with the carriage to limit the upward swinging movement of the pivoted member.

[Claims 6 to 11 not printed in the Gazette.]

1,076,113. COIN-ASSORTER. EDWARD HARRALSON, Memphis, Tenn. Filed June 8, 1912. Serial No. 702,449. (Cl. 133—3.)



1. In a coin assorter, the combination with an inclined surface or chute, of coin assorting conveyers respectively provided with means for arresting coins of a given size and arranged to travel crosswise of the inclined surface or chute and so related thereto that coins which have not been arrested by a preceding conveyer may pass down said chute from one conveyer to a succeeding conveyer.

2. In a coin assorter, the combination with an inclined surface or chute, of coin assorting conveyers each having means adapted for the arrest of coins of a given size, the conveyers being arranged to travel crosswise of the inclined surface or chute and disposed in succession and having their coin arresting means adapted, successively, to arrest coins of smaller sizes gravitating down said chute from one conveyer to a succeeding one.

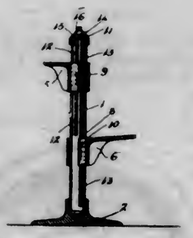
3. A coin assorter having a plurality of traveling endless belt, apron, or chain coin assorting conveyers respectively provided with means for arresting coins of a given size and arranged for the passage from one coin conveyer to succeeding coin conveyers of coins not arrested by a preceding conveyer.

4. A coin assorter having a plurality of endless traveling coin conveyers respectively having means adapted to arrest coins of a given size, said conveyers being arranged in succession beginning with the uppermost conveyer adapted to arrest coins of the largest size and ending with the lowermost conveyer adapted to arrest coins of a smaller size, the conveyers being arranged to travel in a general lateral direction, and a gravity surface or chute coöperating with said endless conveyers adapted to pass the coins in succession to another.

5. In a coin assorter, the combination with an inclined surface or chute, of a plurality of traveling coin conveyers arranged in succession, each conveyer having members spaced apart a distance sufficient to permit the passage of all coins smaller in size than those designed to be arrested by said conveyer, the conveyers being arranged one above the other in relation to the same chute and coöperating with said chute so that coins not caught by a preceding conveyer will pass down the said chute to a succeeding conveyer, and a gravity surface or chute with which the spaced members of all of the conveyers coöperate in sorting the coins.

[Claims 6 to 17 not printed in the Gazette.]

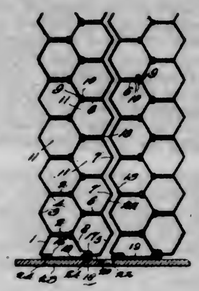
1,076,114. ADJUSTABLE SCHOOL-DESK. HIRAM HARRIS, Minneapolis, Minn. Filed Nov. 1, 1912. Serial No. 729,081. (Cl. 155—34.)



1. The combination with a tubular rigid pedestal having diametrically opposite upper and lower longitudinally extended slots, of a plug seated in the upper end of said pedestal, desk and seat supporting brackets having sleeves working telescopically on said pedestal and provided with nut blocks projecting, respectively, through said upper and lower slots and into the interior of said pedestal, a desk and seat supported, respectively, by said brackets, and parallel desk and seat adjusting screws swiveled to said cap, depending within said pedestal eccentric to the axis thereof, said screws engaging, respectively, with the nut blocks of said desk and seat supporting brackets.

2. The combination with a tubular rigid pedestal having diametrically opposite upper and lower longitudinally extended slots, of a plug seated in the upper end of said pedestal, desk and seat supporting brackets having sleeves working telescopically on said pedestal and provided with nut blocks projecting, respectively, through said upper and lower slots and into the interior of said pedestal, a desk seat supported, respectively, by said brackets, and parallel desk and seat adjusting screws swiveled to said cap, depending within said pedestal eccentric to the axis thereof, said screws engaging, respectively, with the nut blocks of said desk and seat supporting brackets, the said adjusting screws having angular heads located above said plug, and a cap applied to upper end of said pedestal and normally covering the angular head of said screws.

1,076,115. RADIATOR-CELL STRUCTURE. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor to Harrison Manufacturing Company Inc., Lockport, N. Y., a Corporation of New York. Filed Nov. 1, 1912. Serial No. 729,117. (Cl. 62—28.)



1. In a radiator, a unit comprising a pair of opposed zig-zag outer plates folded to provide partitions at their reëntrant portions, and an intermediate zig-zag division plate engaging said partitions to provide two rows of polygonal cells separated by a single thickness of metal.

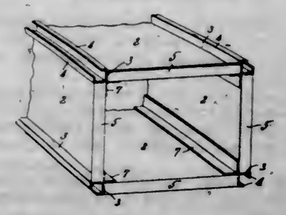
2. In a radiator, a unit comprising a pair of opposed zig-zag outer plates folded to provide partitions at their reëntrant portions, and an intermediate division plate provided with pairs of projections extending alternately from its opposite faces for engaging said partitions of the adjacent plates, thereby forming two rows of polygonal cells separated by a single thickness of metal.

3. In a radiator, a unit comprising a pair of opposed zig-zag outer plates folded to provide partitions at their reentrant portions, an intermediate zig-zag division plate engaging said partitions to provide two rows of polygonal cells separated by a single thickness of metal, and means for closing the end cells of the said rows.

4. In a radiator, a unit comprising a pair of opposed zig-zag outer plates folded to provide partitions and provided with end pockets, a zig-zag division plate engaging said partitions to provide two rows of polygonal cells separated by a single thickness of metal, and a closing strip extending within said pockets for closing the end cells of said rows.

5. In a radiator, the combination of a plurality of units each comprising a pair of opposed zig-zag outer plates folded to provide partitions at their reëntrant portions, an intermediate zig-zag division plate engaging said partitions to provide two rows of polygonal cells separated by a single thickness of metal, and means for spacing said units apart with the projecting portions of the zig-zag outer walls of the several units opposed to the reentrant portions of the zig-zag walls of adjacent units.

1,076,116. UNIT FILING-CABINET. JOHN HATFIELD, Brooklyn, N. Y. Filed June 26, 1911. Serial No. 635,413. (Cl. 45—2.)



1. The combination in a sectional cabinet, of unit sections, projections at the corners of each section which abut

and transmit directly from one to another the strains of the assembled sections, and removable means engaging said projections to lock the sections against displacement.

2. The combination in a sectional cabinet, of unit sections, a projection at the corners of each section which abuts and transmits directly from one to another the vertical and lateral strains of the assembled sections, and removable means engaging said projections to lock the sections against vertical or lateral displacement.

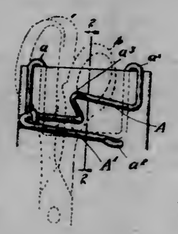
3. The combination in a sectional cabinet, of unit sections each having flanges projecting therefrom substantially in line with the walls thereof, ledges on said flanges which abut throughout the cabinet and transmit directly from one to another the strains of the assembled sections, and a ledge-engaging bar to lock the sections against displacement.

4. The combination in a sectional cabinet, of unit sections each having substantially L-shaped abutting flanges projecting vertically and laterally from the corners thereof to transmit directly from one to another the strains of the assembled sections, and an interlocking bar engaging said flanges to lock said sections against vertical and lateral displacement.

5. The combination in a sectional cabinet, of unit sections each having two offset flanges on each corner extending the length thereof and abutting like flanges on adjacent sections to transmit directly from one to another the vertical and lateral strains of the assembled sections, and an interlocking bar formed with grooves in its sides, each of said grooves engaging a pair of abutting flanges to lock the sections against displacement.

[Claims 6 and 7 not printed in the Gazette.]

1,076,117. TOOL-HOLDER. GEORGE M. HENDERSON, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,616. (Cl. 24—3.)



A tool holder comprising a wire bent to form an elongated receiving link having an entrance opening for a tool, a stop, a guide formed on one side of said link along which the tool is passed into the receiving link, said stop and guide lying in different planes thereby forming an opening through which the tool may pass sidewise into the link but cannot stop therefrom, and means for attaching said tool holder to the garment of the wearer, substantially as described.

1,076,118. COMPOUND. ELMER W. HILL, Portland, Oreg. Filed June 10, 1913. Serial No. 772,905. (Cl. 51—1.)

1. A compound composed of an oleaginous vehicle, a ground abrasive, and oxid of tin.

2. A compound, composed of an oleaginous vehicle, two grades of pulverized carborundum, and oxid of tin.

3. A compound, composed of a non-running oil, a ground abrasive mixed therewith, oxid of tin, and kerosene.

4. A valve grinding compound, composed of gum camphor, kerosene, crude oil, oxid of tin, carborundum, and a non-running oil.

5. A valve grinding compound, composed of gum camphor, kerosene, crude oil, oxid of tin, carborundum, and lard.

1,076,119. PACKING FOR STUFFING-BOXES. FREDERICK S. HIRSCHFELD, New York, N. Y. Filed Apr. 27, 1912. Serial No. 693,536. (Cl. 121—107.)



1. A packing comprised of a plurality of layers of warp strands each layer including a plurality of warp strands and a weft strand interwoven with the warp strands in separate layers thereof.

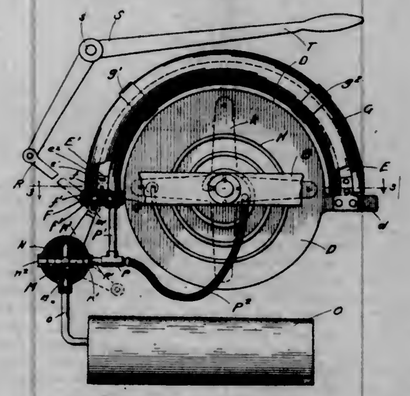
2. A packing comprised of three or more layers of warp strands each layer including a plurality of warp strands, a weft strand interwoven with certain of the warp strands in the different layers and forming the sole means for uniting said warp strands.

3. A packing comprised of a plurality of layers of warp strands each layer including a plurality of warp strands and a weft strand interwoven with the warp strands in separate layers thereof, said weft strand being disposed in planes cutting the packing at right angles.

4. A packing comprised of a plurality of strands of fibrous material, which are interwoven with each other, so as to form a plurality of strands lying substantially in planes, cutting each other at right angles.

5. A packing comprised of a plurality of strands of fibrous material laid in layers and interwoven with cross layers of strands, said cross layers of strands being arranged in planes substantially at right angles to the longitudinal axis of the packing.

1,076,120. STARTING DEVICE FOR EXPLOSIVE-ENGINES. JOHN O. HOBBS, Chicago, Ill. Filed Dec. 27, 1911. Serial No. 668,114. (Cl. 123—179.)



1. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft, means for applying fluid pressure to said crank, a fluid pressure operated clutch for locking said crank to said shaft, valve mechanism for controlling the application of fluid pressure to said crank and to said clutch, means for manually operating said valve mechanism to apply fluid pressure to said crank and to said clutch, and means automatically actuated by said crank for releasing fluid pressure therefrom and from said clutch.

2. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft comprising a curved portion extending from the outer end thereof and concentrically around said shaft, a plunger on the end of said curved portion of said

crank, a curved tube supported concentrically around said shaft within which said plunger reciprocates, a clutch for locking said crank to said shaft, and means for supplying fluid pressure to said tube and simultaneously operating said clutch to lock the crank to said shaft and for releasing fluid pressure from said tube and simultaneously operating said clutch to unlock the crank from said shaft.

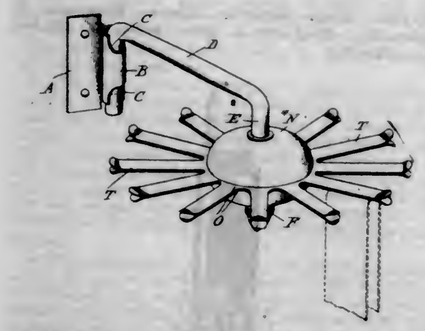
3. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft comprising a curved portion extending from the outer end thereof concentrically around said shaft, a plunger on the end of said curved portion of said crank, a curved tube supported concentrically around said shaft within which said plunger reciprocates, a fluid pressure operated clutch for locking said crank to said shaft, and means for supplying fluid pressure to said tube and simultaneously to said clutch and for releasing fluid pressure from said tube and simultaneously from said clutch.

4. In a starting device for explosive engines, the combination with a starting shaft, of a disk fixed upon said shaft, a disk loose upon said shaft located adjacent said fixed disk, a flexible clutch member rigidly secured to said loose disk and adapted to frictionally engage said fixed disk, means for applying power to said loose disk and simultaneously admitting fluid pressure to the space between said loose disk and said flexible clutch member and automatic means for discontinuing the application of power to said loose disk and simultaneously releasing the fluid pressure from the space between said flexible clutch member and said loose disk.

5. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted on said shaft, a stop, a spring tending constantly to rotate the crank in one direction against said stop, means for applying power to said crank to rotate it in the opposite direction, means for clutching said crank to said shaft simultaneously with the application of power thereto, and means actuated by said crank after it has moved a certain angular distance from the stop for disengaging said crank from said shaft and simultaneously thereto discontinuing the application of power to said crank.

[Claims 6 to 8 not printed in the Gazette.]

1,076,121. NECKTIE-HOLDER. JOHN D. HOUCK, Chicago, Ill. Filed Jan. 24, 1913. Serial No. 743,977. (Cl. 211—17.)



A necktie holder comprising an angular bracket arm, a socket having a cylindrical bearing portion which is cut away adjacent to its end and adapted to receive and hold said bracket arm from rotating, one end of the bracket arm being threaded, a bur fitted thereto, clamping members provided with central apertures therein, a shell extending through said apertures and having flanged ends engaging said members about the marginal edges of the apertures therein, disks having central apertures for the reception of said shell and held in frictional contact with each other by said members, said disks having resilient fingers which are frictionally in engagement with each other and their outer ends bent in opposite direction.

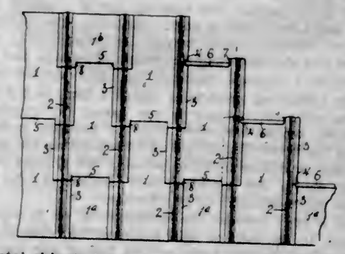
1,076,122. PROCESS OF TREATING COCOA. HENRY BLOUNT HUNTER, Norfolk, Va. Filed Oct. 11, 1912. Serial No. 725,210. (Cl. 99—11.)

1. In the process of treating cocoa, the steps which consist in mixing an aqueous fluid therewith and subjecting the mixture in a closed vessel to a temperature of between 100° and 125° centigrade and above the boiling point of said mixture for a sufficient time to bring about changes in the flavors thereof.

2. In the process of treating cocoa, the step which consists in subjecting a syrup of cocoa to a temperature of between 100° and 125° centigrade and above the boiling point of said syrup within a hermetically sealed container for a sufficient time to bring about changes in the flavors of said syrup.

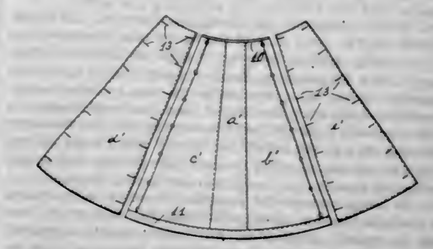
3. The process of treating cocoa, which consists in heating cocoa together with an aqueous liquid to a temperature sufficient to convert the starchy matter present in the cocoa into an emulsifying agent, but keeping the temperature as low as possible in order to bring about this result, then heating the mixture thus treated in a hermetically sealed container to a temperature of above 100° centigrade and above the boiling point thereof for a sufficient time to bring about changes in the flavors of said mixture.

1,076,123. METAL SHINGLE. OSCAR F. JACOBSON, Garfield township, Clay county, Kans. Filed Sept. 3, 1912. Serial No. 718,218. (Cl. 108—17.)



A metal shingle having one of its ends folded over and its other end folded under so that each layer may be interlocked with the layer abutting therewith, said shingle being provided with slits midway thereof which extend in from the sides thereof, the portion above said slits being adapted to engage over the turned over portion of an adjacent shingle and the portion below said slits being adapted to engage under said turned over portion of said adjacent shingle.

1,076,124. REVERSIBLE SKIRT. SIMON FELIX JUDA, New York, N. Y. Filed Oct. 2, 1912. Serial No. 723,517. (Cl. 2—42.)



A reversible skirt, comprising a main central portion having fasteners along its side margins and detachable lapping breadths having sets of complementary fasteners along their opposite margins, said complementary fasteners of the lapping breadths coöperating with the fasteners of the central portion to detachably secure the lapping breadths to the central portion, the fasteners that secure one of the lapping breadths to the central

and transmit directly from one to another the strains of the assembled sections, and removable means engaging said projections to lock the sections against displacement.

2. The combination in a sectional cabinet, of unit sections, a projection at the corners of each section which abuts and transmits directly from one to another the vertical and lateral strains of the assembled sections, and removable means engaging said projections to lock the sections against vertical or lateral displacement.

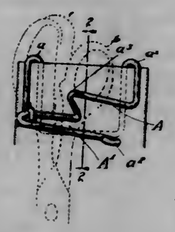
3. The combination in a sectional cabinet, of unit sections each having flanges projecting therefrom substantially in line with the walls thereof, ledges on said flanges which abut throughout the cabinet and transmit directly from one to another the strains of the assembled sections, and a ledge-engaging bar to lock the sections against displacement.

4. The combination in a sectional cabinet, of unit sections each having substantially L-shaped abutting flanges projecting vertically and laterally from the corners thereof to transmit directly from one to another the strains of the assembled sections, and an interlocking bar engaging said flanges to lock said sections against vertical and lateral displacement.

5. The combination in a sectional cabinet, of unit sections each having two offset flanges on each corner extending the length thereof and abutting like flanges on adjacent sections to transmit directly from one to another the vertical and lateral strains of the assembled sections, and an interlocking bar formed with grooves in its sides, each of said grooves engaging a pair of abutting flanges to lock the sections against displacement.

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1,076,117. TOOL-HOLDER. GEORGE M. HENDERSON, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,616. (Cl. 24—3.)



A tool holder comprising a wire bent to form an elongated receiving link having an entrance opening for a tool, a stop, a guide formed on one side of said link along which the tool is passed into the receiving link, said stop and guide lying in different planes thereby forming an opening through which the tool may pass sidewise into the link but cannot stop therefrom, and means for attaching said tool holder to the garment of the wearer, substantially as described.

1,076,118. COMPOUND. ELMER W. HILL, Portland, Oreg. Filed June 10, 1913. Serial No. 772,905. (Cl. 51—1.)

1. A compound composed of an oleaginous vehicle, a ground abrasive, and oxid of tin.

2. A compound, composed of an oleaginous vehicle, two grades of pulverized carborundum, and oxid of tin.

3. A compound, composed of a non-running oil, a ground abrasive mixed therewith, oxid of tin, and kerosene.

4. A valve grinding compound, composed of gum camphor, kerosene, crude oil, oxid of tin, carborundum, and a non-running oil.

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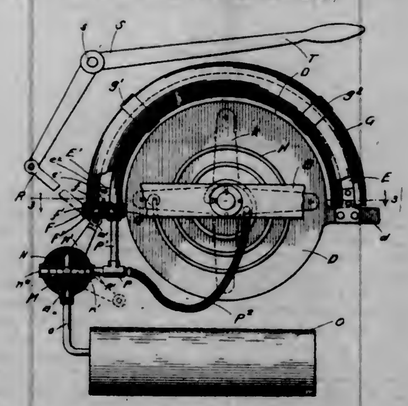
2. A packing comprised of three or more layers of warp strands each layer including a plurality of warp strands, a weft strand interwoven with certain of the warp strands in the different layers and forming the sole means for uniting said warp strands.

3. A packing comprised of a plurality of layers of warp strands each layer including a plurality of warp strands and a weft strand interwoven with the warp strands in separate layers thereof, said weft strand being disposed in planes cutting the packing at right angles.

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1. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft, means for applying fluid pressure to said crank, a fluid pressure operated clutch for locking said crank to said shaft, valve mechanism for controlling the application of fluid pressure to said crank and to said clutch, means for manually operating said valve mechanism to apply fluid pressure to said crank and to said clutch, and means automatically actuated by said crank for releasing fluid pressure therefrom and from said clutch.

2. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft comprising a curved portion extending from the outer end thereof and concentrically around said shaft, a plunger on the end of said curved portion of said crank, a curved tube supported concentrically around said shaft within which said plunger reciprocates, a clutch for locking said crank to said shaft, and means for supplying fluid pressure to said tube and simultaneously operating said clutch to lock the crank to said shaft and for releasing fluid pressure from said tube and simultaneously operating said clutch to unlock the crank from said shaft.

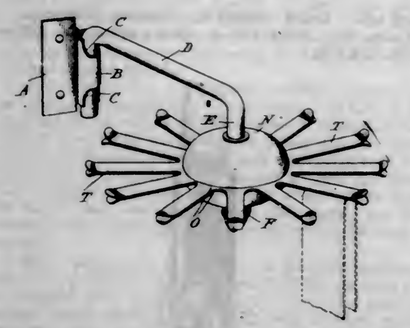
3. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted upon said shaft comprising a curved portion extending from the outer end thereof concentrically around said shaft, a plunger on the end of said curved portion of said crank, a curved tube supported concentrically around said shaft within which said plunger reciprocates, a fluid pressure operated clutch for locking said crank to said shaft, and means for supplying fluid pressure to said tube and simultaneously to said clutch and for releasing fluid pressure from said tube and simultaneously from said clutch.

4. In a starting device for explosive engines, the combination with a starting shaft, of a disk fixed upon said shaft, a disk loose upon said shaft located adjacent said fixed disk, a flexible clutch member rigidly secured to said loose disk and adapted to frictionally engage said fixed disk, means for applying power to said loose disk and simultaneously admitting fluid pressure to the space between said loose disk and said flexible clutch member and automatic means for discontinuing the application of power to said loose disk and simultaneously releasing the fluid pressure from the space between said flexible clutch member and said loose disk.

5. In a starting device for explosive engines, the combination with a starting shaft, of a crank loosely mounted on said shaft, a stop, a spring tending constantly to rotate the crank in one direction against said stop, means for applying power to said crank to rotate it in the opposite direction, means for clutching said crank to said shaft simultaneously with the application of power thereto, and means actuated by said crank after it has moved a certain angular distance from the stop for disengaging said crank from said shaft and simultaneously thereto discontinuing the application of power to said crank.

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1,076,121. NECKTIE-HOLDER. JOHN D. HOUCK, Chicago, Ill. Filed Jan. 24, 1913. Serial No. 743,977. (Cl. 211—17.)



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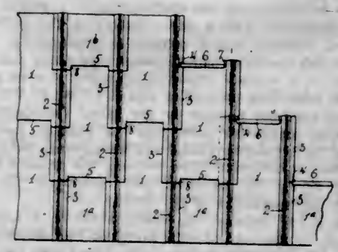
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2. In the process of treating cocoa, the step which consists in subjecting a syrup of cocoa to a temperature of between 100° and 125° centigrade and above the boiling point of said syrup within a hermetically sealed container for a sufficient time to bring about changes in the flavors of said syrup.

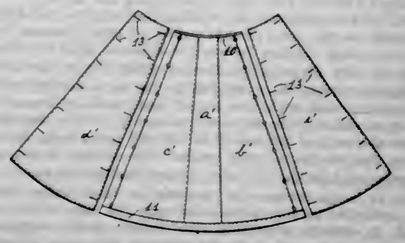
3. The process of treating cocoa, which consists in heating cocoa together with an aqueous liquid to a temperature sufficient to convert the starchy matter present in the cocoa into an emulsifying agent, but keeping the temperature as low as possible in order to bring about this result, then heating the mixture thus treated in a hermetically sealed container to a temperature of above 100° centigrade and above the boiling point thereof for a sufficient time to bring about changes in the flavors of said mixture.

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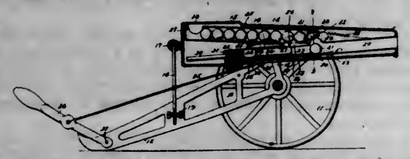
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A reversible skirt, comprising a main central portion having fasteners along its side margins and detachable lapping breadths having sets of complementary fasteners along their opposite margins, said complementary fasteners of the lapping breadths coöperating with the fasteners of the central portion to detachably secure the lapping breadths to the central portion, the fasteners that secure one of the lapping breadths to the central

portion also engaging the complementary fastness of the other lapping breadth to maintain said breadths in overlapping relation.

1,076,125. TOY CANNON. JOSEPH D. KILGORE, Homestead, Pa. Filed Apr. 1, 1913. Serial No. 758,143. (Cl. 124—13.)



1. In a toy cannon, the combination of a barrel, a projectile magazine and a neck connecting the barrel and magazine through which projectiles pass to the barrel, a feeding device in said neck for receiving projectiles one at a time and delivering them to the barrel, resilient means for normally holding said feeding device in position to receive a projectile, a spring actuated plunger in the barrel for ejecting the projectiles, means for retracting the plunger, means for tripping the retracting means and disengaging the plunger, and a loose connection between the plunger and the feeding device for positively actuating the latter through the movement of the former.

2. In a toy cannon, the combination of a barrel, a projectile magazine, and a neck connecting the barrel and magazine through which projectiles pass to the barrel, made of two sheets of metal pressed into shape and joined together in a vertical plane, a feed cup pivoted in said neck for admitting projectiles one at a time to the barrel, a spring actuated plunger in the barrel for ejecting the projectiles, means for retracting the plunger, means for tripping the retracting means and disengaging the plunger, and a lost motion connection between the plunger and the feeding device for automatically actuating the latter through the movement of the former.

3. In a toy cannon, the combination of a barrel, an extension in the rear of said barrel of like diameter, and a connecting section between the barrel and its extension of less diameter to form a guide-way, a projectile magazine above the extension in the same vertical plane therewith and with the barrel and inclined thereto, a neck connecting the forward lower end of the magazine to the rear of the barrel, a rocking feed cup in said neck for conveying projectiles one at a time from the magazine to the barrel, a plunger slidable in said barrel and extension provided with a forward stem to enter the barrel guided in said connection section, and a rearward stem guided in a hole in the head of said extension, a coil spring surrounding the rear stem for forcing the plunger forward, retracting means for the plunger, a trip for the retracting means, and a connection between the plunger and the feed cup for actuating the latter.

4. In a toy cannon, the combination of a barrel, an extension on the rear of said barrel of like diameter, and a connecting section between the barrel and its extension of less diameter to form a guide-way, a projectile magazine above the extension in the same vertical plane therewith and with the barrel and inclined thereto, a neck connecting the forward lower end of the magazine with the rear of the barrel, all of said parts being formed from two sheets of metal pressed into similar halves and connected together in their central vertical plane.

5. In a toy cannon the combination of an outer casing or shell having an opening through the side at its rear end to insert projectiles, an inner casing contained wholly within said shell and separate therefrom comprising a barrel, an inclined projectile magazine, and a neck connecting the forward end of the magazine to the rear end of the barrel, said inner casing being made of two like parts connected together in a plane passing through the axes of the barrel, magazine and the neck, a feeding device in said neck for delivering projectiles one at a time to said barrel, and an ejecting device for driving said projectiles from the barrel.

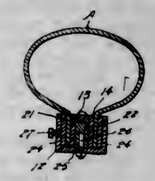
1,076,126. MOLDED ARTICLE AND PROCESS OF MAKING THE SAME. ARTHUR H. KRIEGER, Los Angeles, Cal. Filed Mar. 5, 1913. Serial No. 752,214. (Cl. 106—11.)

1. A molded article consisting of kieselguhr having its particles fritted and bound together by partial fusion of the kieselguhr.

2. A molded article consisting of a porous mass of kieselguhr having its constituent parts bound together by partial fusion of the parts in contact.

3. The process of making a molded article consisting in mixing divided kieselguhr with water to form a plastic mass, molding the same to the required shape, drying the molded mass and heating the dried product to a temperature sufficient to cause partial fusion of the contacting parts of the mass to bind said parts together.

1,076,127. AUTOMOBILE-TIRE. CHARLES KRIKAVA, Burchard, Nebr. Filed May 20, 1913. Serial No. 768,807. (Cl. 152—8.)



A resilient tire comprising a rim, plates secured against each side of the rim and provided respectively with radial recesses in their outer sides, a plurality of arch leaf springs having their ends directed outwardly in spaced relation, inwardly directed portions struck up from the ends of said springs and engaging in corresponding recesses of respective plates, annular locking plates disposed against the outer sides of the ends of said springs respectively, U-shaped members embracing the rim and locking plates, and set screws mounted in the arms of the U-shaped members and operating against the locking plates to force the latter into engagement with the spring ends.

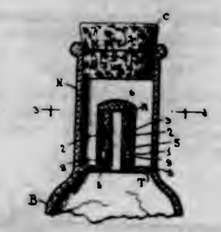
1,076,128. HOSE-NOZZLE. EDWARD KUFFERLE, St. Louis, Mo. Filed July 1, 1910. Serial No. 569,900. (Cl. 137—32.)



A hose nozzle of the character described comprising an elongated strainer housing having a correspondingly

shaped chamber, and formed with an internally screw threaded neck at one end and an internally screw threaded head at the other end, a valve housing having a screw threaded neck at one end fitting the internally screw threaded head of the strainer housing, and provided with an annular flange and an internal screw thread at the other end, a strainer of frusto-conoidal shape fitted to the annular flange, a valve supporting ring seating against the outer end of the valve housing having a screw threaded inner part fitting the internal screw thread of the valve housing and a spider formed with an annulus, a spring cut-off valve having a stem slidable in the annulus and a spring seating around the annulus between the spider and the valve.

1,076,129. NON-REFILLABLE BOTTLE. CHARLES B. H. LA BOUNTY, Tacoma, Wash. Filed Apr. 3, 1913. Serial No. 758,662. (Cl. 215—69.)



1. The combination with a cap of inverted cup-shape, and pins projecting radially inward within its bore; of a bottle having a neck rising from its upper end, and a tubular nipple rising from said end within such neck and having external spiral grooves extending from its lower end upward and provided with downwardly projecting barbs in their walls, the grooves being so disposed as to receive the pins in the cap.

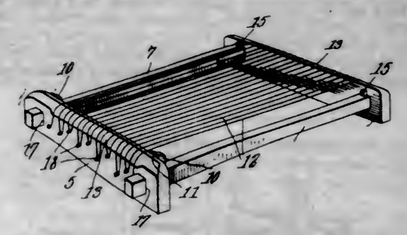
2. The combination with a cap of inverted cup-shape, and pins projecting radially inward within its bore; of a bottle having a partition across its neck, and a tubular nipple rising from and opening through said partition and having an annular groove around its base and spiral grooves extending from said annular groove to its upper end and having downwardly projecting bars in their upper walls, the last-named grooves being so disposed as to receive the pins in the cap.

3. The combination with a cap of inverted cup-shape, and pins projecting radially inward within its bore at the lower end of the latter, each pin being of U-shaped cross section; of a bottle having a neck rising from its upper end, a tubular nipple rising from said end within such neck and having an annular groove around its base and spiral grooves extending from said annular groove to its upper end and having downwardly projecting barbs, the last-named grooves being so disposed as to receive the pins in the cap.

4. The combination with a cap of inverted cup-shape, and a pin projecting radially inward within its bore and of U-shaped cross section at its inner end; of a bottle, a tubular nipple rising from it and having a spiral groove extending from its lower to its upper end and provided in its upper wall with a downwardly projecting barb.

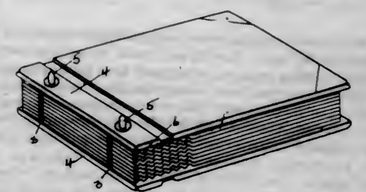
1,076,130. NOODLE-CUTTER. THOMAS LOMBARDI, McKeesport, Pa. Filed Dec. 18, 1911. Serial No. 666,456. (Cl. 107—20.)

In a noodle cutter, a frame made up of two parallel bars and two parallel supporting beams having openings receiving the ends of the said bars, and each having a series of projections along its outer face, a wire passing back and forth over the upper edges of the beams, in a plane above the bars, and around the said projections to provide a plurality of cutting strands, and means carried



by the bars for sliding one of the beams outwardly to tighten the wire.

1,076,131. LOOSE-LEAF BOOK. RICHARD LORD, Cedar Rapids, Iowa. Filed Jan. 24, 1911. Serial No. 604,337. (Cl. 129—1.)



1. In a loose leaf book, the combination of binding plates; and leaves pressed between the plates and having registering indentations and protuberances in those parts of the leaves between the plates and having corrugations lengthwise of the plates, said corrugations being in those parts of the leaves extending inwardly from the portions of the leaves between the plates.

2. In a loose leaf book, the combination of binding plates; and leaves pressed between the plates, said leaves having corrugations extending lengthwise of the plates, said corrugations being in those portions of the leaves between the plates and those subjected to flexure as the book is opened.

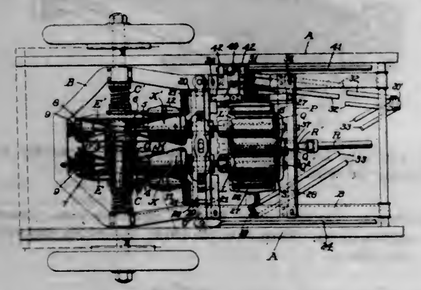
3. In a loose leaf book, the combination of binding plates; binding posts between the plates; and leaves having openings through which the posts extend pressed between the plates and having registering protuberances and indentations in those parts of the leaves along the line of the openings, and having corrugations along those parts of the leaves extending inwardly from the binding plates.

1,076,132. DRIVING MECHANISM FOR VEHICLES. ROBERT C. MANGUM, Washington, D. C. Filed June 11, 1912. Serial No. 703,048. (Cl. 74—26.)

1. In a power transmission mechanism for vehicles, and in combination with the divided axle, a beveled frictional driving disk on each part of said axle, splined on said part and under spring pressure, roller bearings loosely mounted on the two parts of said divided axle and two interior beveled wheels carried thereon, each pressed normally outward toward the adjacent disk, a pair of shafts, a pair of cone drivers thereon, said cone drivers interposed between said frictional driving disks, and beveled wheels, and movable on their shafts toward and from said driving disks on axial lines, and means for reciprocating said cones upon their shafts, substantially as described.

2. In a power transmission mechanism for vehicles, and in combination with the divided axle, a pair of beveled frictional driving disks, each splined to one part of said axle and under spring pressure, roller bearings loosely mounted on said axle parts and a pair of beveled wheels carried thereon, each pressed under spring pressure toward

the adjacent frictional disk, a pair of shafts interposed between said frictional disks and said beveled wheels, a pair of cone drivers movably mounted thereon, and a pair of shafts, a second pair of counteracting cones thereon and under spring pressure adapted to be interposed between the frictional disks and beveled wheels at a point diametrically opposite from said cone drivers, substantially as described.



3. In a power transmission mechanism for a vehicle and in combination with the divided axle, a pair of beveled frictional driving disks, each splined to a part of said axle and under spring pressure, roller bearings loosely mounted on said axle parts, and a pair of complementary beveled wheels carried thereon, each bearing outwardly under spring pressure toward the adjacent driving disk, a pair of shafts interposed between said driving disks and said beveled wheels and a pair of cone drivers mounted thereon, and a pair of shafts, a pair of coacting idle double cones thereon, each of said double cones adapted to bear inwardly on the adjacent driving cone and disk, and means for reciprocating said cone drivers on their shafts, substantially as described.

4. In a power transmission mechanism for a vehicle, and in combination with the divided axle, a pair of beveled frictional driving disks, each splined to a part of said axle and under spring pressure, roller bearings loosely mounted on said axle parts and a pair of beveled wheels carried thereon, each of said wheels bearing outwardly under spring pressure toward the adjacent driving disk, a pair of shafts interposed between said driving cones and said beveled wheels, and a pair of cone drivers movably mounted thereon, a pair of shafts, a second pair of cones movably mounted thereon counteracting said driving cones and under spring pressure adapted to be interposed between the adjacent driving disk and beveled wheel, and a pair of shafts, a pair of counteracting idle double cones thereon under spring pressure, each adapted to bear on the adjacent driving cone and disk, and means for reciprocating said cone drivers on their shafts relatively to the driving disk, substantially as described.

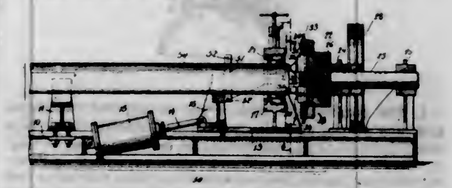
1,076,133. COMBINED NUT AND PIPE WRENCH. FELIX MANIER, Piqua, Ohio. Filed Mar. 24, 1913. Serial No. 756,549. (Cl. 81—83.)

In a pipe wrench the combination of a stationary member comprising a jaw portion having serrations, and a handle portion provided with a longitudinal slot having teeth along one edge of said slot; a movable member provided with a transverse slot, having a jaw portion provided with serrations coacting with said first-named serrations, a handle portion and a pivot portion; a pin passing through said slot and pivot portion causing the serrations of the movable member to swing angularly with respect to the serrations of the stationary member when said movable member is swung on said pin, and causing the serrations of the movable member to move bodily to and from the serrations of the stationary member when the pin of said movable member is moved up and down in said slot; a pawl having teeth adapted to engage said first-named teeth, pivoted on said pin, and adapted to swing independently of said movable member; a pin passing through said pawl and said transverse slot in the said movable



member; and a spring controlling said pawl located in said transverse slot, substantially as described.

1,076,134. PIPE-FLANGING MACHINE. JOHN H. MANNING, New York, N. Y., assignor to Crane Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 23, 1910. Serial No. 593,767. (Cl. 153—81.)



1. A pipe flanging machine comprising a forming mold adapted to fit loosely about a pipe near the end thereof, a device for holding the pipe relative to the mold in two longitudinally different fixed positions, means for successively forcing the end of the pipe against the mold when the pipe is held in its different positions relative to the mold.

2. A pipe flanging machine comprising a forming mold adapted to fit loosely about a pipe near the end thereof, a device for holding the pipe relative to the mold in different longitudinal positions, a rotatable disk opposite the end of the pipe, means carried by said disk arranged to act upon the pipe to form a flange on the end thereof while held in one of its positions and then to upset the metal in the pipe while held in another of its positions, and means for moving the holding device toward and away from said rotary disk.

3. A pipe flanging machine comprising a rotary disk mounted in a stationary bearing, a carriage movable toward and away from said disk, mechanism for forcibly actuating the carriage, a forming mold supported by the carriage adapted to fit about a pipe, means for causing the pipe to move longitudinally with the carriage; and rollers mounted upon the disk arranged to form the end of the pipe against said mold when the carriage is forced toward said disk.

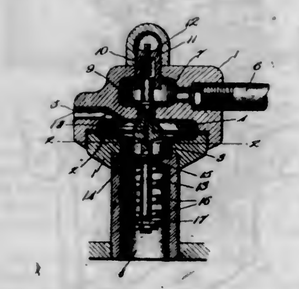
4. A pipe flanging machine comprising a rotary pipe forming device mounted in a stationary bearing, a carriage movable toward and away from said device, mechanism for actuating the carriage, a forming mold supported by the carriage adapted to fit about a pipe near the end thereof, and a holding device on the carriage arranged to hold the pipe relative to the mold in two longitudinally different fixed positions.

5. A pipe flanging machine comprising a rotary disk, mounted in a stationary bearing, a carriage movable toward and away from said disk, mechanism for actuating the carriage, a forming mold supported by the carriage

adapted to fit about a pipe, means for causing the pipe to move longitudinally with the carriage and to hold the pipe relative to the mold in different longitudinal positions; and rollers mounted upon the disk arranged to form the end of the pipe against said mold and to upset the metal of the pipe.

[Claims 6 to 23 not printed in the Gazette.]

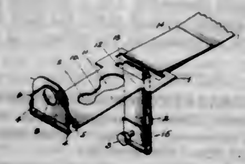
1,076,135. RETAINING-VALVE. FREDERICK E. MARTIN, Bonami, La., assignor to Security Equipment Company, a Firm composed of himself, J. Herman McMahon, De Ridder, La., and Roy F. Morse, Beaumont, Tex. Filed June 29, 1912. Serial No. 706,806. (Cl. 188—12.)



1. In an air-brake mechanism, a casing, a diaphragm dividing said casing into a pressure chamber and an exhaust chamber provided with an exhaust opening, means for placing the usual train-pipe and triple-valve exhaust pipe in communication with such pressure and exhaust chambers, respectively, a retaining valve controlling the communication of the triple-valve exhaust pipe with such exhaust chamber, and a spindle carried by said diaphragm for actuating said retaining valve, said spindle being provided with a bore opening at the opposite sides of said diaphragm and controlled by said retaining valve.

2. In an air-brake mechanism, a casing, a diaphragm dividing said casing into a pressure chamber and an exhaust chamber provided with an exhaust opening, means for placing the usual train-pipe and triple-valve exhaust pipe in communication with such pressure and exhaust chambers, respectively, a retaining valve controlling the communication of the triple-valve exhaust pipe with such exhaust chamber, a spindle carried by said diaphragm for actuating said retaining valve, said spindle being provided with a bore opening at the opposite sides of said diaphragm and controlled by said retaining valve, and a valve of less area than said diaphragm secured to said spindle for controlling communication of the train-pipe pressure with such pressure chamber.

1,076,136. HOSE-SUPPORTER. CLARA E. MATTHES, Joliet, Ill. Filed Sept. 7, 1912. Serial No. 719,116. (Cl. 24—246.)



An automatic locking hose supporter, comprising, a main-piece provided with two transverse slots at one end and a longitudinal slot near the center expanded at its ends; perforated twin lugs formed integral with the other end of said main-piece; a clasp having an opening and pivoted in said lugs; a loop-spring with ends connected to said lugs so as to press inward on said clasp; a band pendent from said main-piece with a button secured to the same, said button adapted to engage the hose and be engaged by said longitudinal slot, and lastly, by the opening in said clasp, the pressure of said spring on said clasp locking said hose around said button.

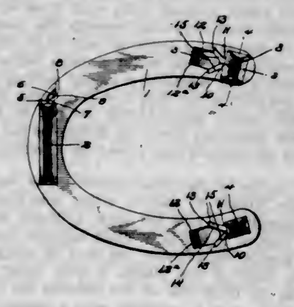
1,076,137. ALUMINUM ALLOY AND METHOD OF PRODUCING THE SAME. WILLIAM A. MCADAMS, Bay Shore, N. Y. Filed Mar. 20, 1912. Serial No. 685,035. (Cl. 75—1.)

1. An aluminum alloy composed of aluminum, zinc, silver and copper, the proportion by weight of aluminum being greater than that of the zinc, the proportion of zinc by weight being greater than that of the silver and the proportion by weight of the silver being greater than that of the copper.

2. An aluminum alloy composed of aluminum, zinc, silver and copper combined in substantially the following proportions by weight: aluminum sixty parts, zinc twenty parts, silver sixteen and one-half parts and copper five parts.

3. The method of forming an aluminum alloy composed of aluminum, zinc, silver and copper, consisting in melting the aluminum and raising to a temperature sufficiently high to cause it to show a red color, then introducing the copper and the silver, then lowering the temperature of the mass until it shows substantially no red color and then introducing the zinc and thoroughly agitating the mass.

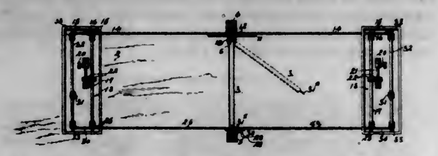
1,076,138. HORSESHOE. WILLIAM MCKEAGE, Philadelphia, PA. Filed Nov. 7, 1912. Serial No. 729,982. (Cl. 168—35.)



1. The combination with a shoe having a recess therein, dove-tailed at one end and wider at its other end forming an entrance, the side walls of said recess at the juncture of said dove-tailed portion and the wider end notched forming shoulders, of a calk, a dove-tailed tenon on the calk adapted to fit the dove-tailed portion of the recess, said tenon projecting at one end beyond the calk and split longitudinally, whereby bendable tongues are formed adapted to be bent into engagement with the said shoulders, substantially as described.

2. The combination with a shoe having a recess therein, dove-tailed at one end and wider at its other end forming an entrance, the side walls of said recess at the juncture of said dove-tailed portion and the wider end notched forming shoulders, of a calk, a dove-tailed tenon on the calk adapted to fit the dove-tailed portion of the recess, said tenon projecting at one end beyond the calk and split longitudinally, whereby bendable tongues are formed adapted to be bent into engagement with the said shoulders, said tenon having a longitudinal groove in its upper face, and a longitudinal web in the dove-tailed portion of said recess to enter said groove, substantially as described.

1,076,139. AUTOMATIC GATE-OPENING MECHANISM. JOHN MCMILLAN, Clinton, British Columbia, Canada. Filed Sept. 14, 1911. Serial No. 649,291. (Cl. 39—20.)



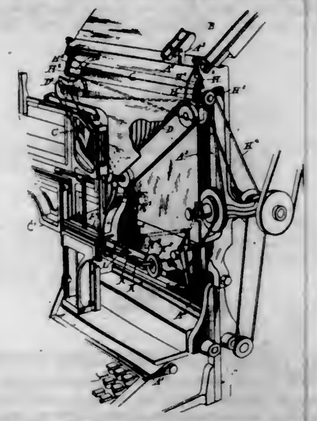
1. As a means for automatically opening a gate by the movement of an approaching vehicle, said means comprising, the combination with a gate hinged to open to either side from a mid-position across the roadway, of a pinion secured on the hinge post of the gate, a wheel segment pivotally mounted on the hinge post of the gateway the teeth of which segment mesh with those of the pinion, a rocking shaft mounted on each side of the gate in the line of the roadway said shafts being beneath the level of the road, a lever secured to each shaft and connected to the wheel segment on the post of the gateway below the fulcrum of said wheel segment, a second shaft on each side of the gate and in driving connection with the first named shaft, said second shaft having means secured to it and projecting above the level of the road surface that will be engaged by an approaching vehicle and moved toward the gate to open it, and means on each side of the gate for engaging a vehicle moving from the gate and operating the mechanism to close the gate.

2. In a device for the purpose specified, the combination with a gate hinged to open to either side from a mid-position extending across a road or railway track, a pinion secured on the hinge post of the gate, a wheel segment pivotally mounted on the hinge post of the gateway, the teeth of which segment mesh with those of the pinion, a rocking shaft supported beneath the road bed on each side of the gate, a lever on each shaft the end of which is connected to the wheel segment below the fulcrum of said wheel segment, a second rocking shaft on each side parallel to the first and in driving connection with it said second shaft having secured to it an operating lever projecting above the surface of the road and designed to be engaged and moved by a vehicle passing over it.

3. In a device of the class described, the combination with a gate, hinged to open to either side from a mid-position extending across the road, a pinion secured to the hinge post of the gate, a wheel segment mounted on the hinge post of the gateway, the teeth of which segment mesh with those of the pinion, a latch lever pivotally mounted on the latch post of the gateway the upper end of which latch lever is provided with a detent to retain the latch of the gate, a rocking shaft extending across the road beneath the level of its surface at a distance from the gate on each side of it, each rocking shaft having a lever secured at each end, means for connecting the levers respectively to the wheel segment on the hinge post and to the latch lever on the latch post of the gateway, means projecting above the road surface for engaging an approaching vehicle and rocking the shaft to move the wheel segment and latch lever, and similar means on the opposite side of the gateway for moving the wheel segment and latch lever in the opposite direction.

4. In a device of the class described, a gate hinged to open to either side of a mid-position extending across the road, a pinion secured to the hinge axis of the gate, a wheel segment mounted on the hinge post of the gateway to mesh with the pinion, a latch lever having a detent, a latch on the gate coöperating with said detent, receptacles at each side of the gate in the longitudinal direction of the road and set into the ground, two rocking shafts mounted in each receptacle, levers mounted on each of said rocking shafts, rods connecting the levers of said rocking shafts to said wheel segment and to said latch lever, an operating lever mounted on one rocking shaft in each receptacle and projecting above the plane of the roadway, supplemental shafts mounted in said receptacles and gear connected with the other of the rocking shafts, and a lever mounted on each of said supplemental shafts and also projecting above the roadway, all being arranged substantially as shown and for the purposes described.

1,076,140. TYPOGRAPHICAL MACHINE. JAMES MCNAMARA, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 5, 1912. Serial No. 701,760. (Cl. 199—7.)



1. In a linotype machine, the combination of assembling means, a channeled magazine wherein the matrices rest upon their edges, a channeled front plate, releasing means to control the delivery of the matrices from the channels of the magazine to the channels of the front plate, a constantly moving blanket or belt, and supporting rolls therefor so disposed that the stretch or flattened surface of the blanket will lie within the front plate and act upon the edges of the released type or matrices in their passage therethrough to the assembling means.

2. In a linotype machine, the combination of assembling means, a channeled magazine wherein the matrices rest upon their edges, a channeled front-plate, releasing means to control the delivery of the matrices from the channels of the magazine to the channels of the front-plate, and a constantly moving blanket located below the front-plate and onto which the matrices are delivered and whereby they are supported and accelerated in their passage to the assembling means.

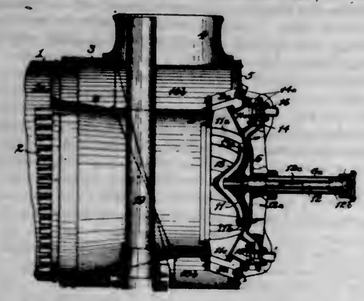
3. In a typographical machine, the combination of a line advancing device, constantly operated actuating means therefor and normally disconnected therefrom, and a movable element to effect the connection of said parts, the said element being controlled in its movement by the delivery of the type or matrices.

4. In a typographical machine, the combination of a line advancing device J, its constantly operated actuating member K normally disconnected therefrom but adapted to engage directly therewith, and a movable finger L to effect the engagement of said parts, the said finger being controlled in its movement by the delivery of the type or matrices.

1,076,141. PREPARATION OF RADIOTHORIUM. LISE MEITNER, Berlin, Germany, assignor to Dr. O. Knöfler & Co., Berlin-Plötzensee, Germany. Filed Feb. 18, 1913. Serial No. 749,229. (Cl. 204—9.)

The herein described process of preparing durable radiothorium, consisting in electrolyzing solutions containing radiothorium in large excess and no or very little thorium, and precipitating the radiothorium at the cathode.

1,076,142. DRAFT APPLIANCE FOR LOCOMOTIVES. CARL J. MELLIN, Schenectady, N. Y. Filed Jan. 11, 1913. Serial No. 741,400. (Cl. 110—162.)



1. The combination, with a locomotive boiler, of a door hinged to and closing an opening in the front of the smoke box thereof, a shaft journaled in a bearing on said door, a rotor fixed on said shaft adjacent to the inner side of said door, a plurality of turbine blades fixed on the side of the rotor adjoining said door, a plurality of centrifugal fan blades fixed on the opposite side of the rotor, and means for supplying steam to the turbine blades of the rotor.

2. The combination, with a locomotive boiler, of a fan shaft journaled in the smoke box door and having an air passage from the atmosphere to its inner end, a centrifugal fan secured thereon, and means for rotating said fan.

3. The combination, with a locomotive boiler, of a fan shaft journaled in the smoke box door and having an air passage from the atmosphere to its inner end, a centrifugal fan secured thereon, a shield fixed to and spaced apart from the inner side of said fan, and means for rotating said fan.

4. The combination, with a locomotive boiler, of a fan shaft journaled in the smoke box door and having an air passage from the atmosphere to its inner end, a centrifugal fan secured thereon, a shield fixed to and spaced apart from the inner side of said fan, ribs interposed between the centrifugal fan and the shield adjacent to the periphery of the latter and providing air vents from the space between the fan and shield, and means for rotating said fan.

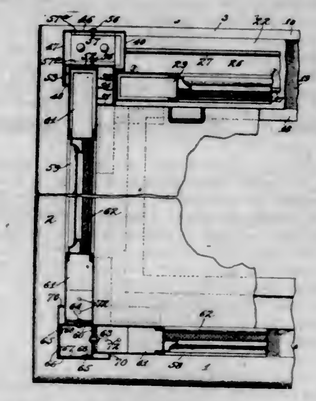
5. The combination, with a locomotive boiler, of a tubular bearing support fixed to and projecting outwardly from the smoke box door, bearing in line axially in the door and in said support, a fan shaft journaled in said bearings, a centrifugal fan secured thereon, and means for rotating said fan.

[Claims 6 to 11 not printed in the Gazette.]

1,076,143. SHOW-CASE CONSTRUCTION. ISAAC W. MILLER, St. Louis, Mo., assignor to Miller Store Fixture Company, St. Louis, Mo., a Corporation of Missouri. Filed Aug. 24, 1912. Serial No. 716,849. (Cl. 211—25.)

1. In a show case, an end panel and a front panel, the ends of said panels meeting so that their inner corners coincide, and means for securing said panels together, said means including an angle member one of whose sides is fastened to the end of the end panel and the other to the end of the front panel, and a second angle member whose sides have a sliding engagement with said first mentioned angle member and overlap and slidably engage the adjacent outer faces of said panels.

2. In a show case, an end panel and a front panel, the ends of said panels meeting so that their inner corners coincide, and means for securing said panels together, said means including an angle member one of whose sides is fastened to the end of the end panel and the other to the end of the front panel, the marginal portions of said angle member projecting beyond the outer corners of the respective panels, and a second angle member whose sides have a sliding engagement with the projecting marginal portions of said first mentioned angle member and overlap and slidably engage the adjacent outer faces of said panels.



3. In a show case, an end panel and a front panel, the ends of said panels meeting so that their inner corners coincide, and means for securing said panels together, said means including an angle member one of whose sides is fastened to the end of the end panel and the other to the end of the front panel, the marginal portions of said angle member projecting beyond the outer corners of the respective panels and being flanged, and an outer angle member whose sides are respectively arranged and adapted to slidably engage the flanged marginal portions of said first mentioned angle member.

4. In a show case, an end panel and a front panel, the ends of said panels meeting so that their inner corners coincide, and means for securing said panels together, said means including an angle member one of whose sides is fastened to the end of the end panel and the other to the end of the front panel, the marginal portions of said angle member projecting beyond the outer corners of the respective panels and being flanged, and an outer angle member whose sides are respectively arranged and adapted to slidably engage the flanged marginal portions of said first mentioned angle member, the marginal portions of said outer angle member overlapping the outer faces of the adjacent end portions of said panels and being flanged inward so that their edges slidably engage the panels.

5. In a show case, the combination of two angularly disposed side panels whose inner corners of their meeting ends coincide, said panels being connected by an angle member whose sides are respectively secured to the adjacent end faces of the panels, and an outer angle member whose sides overlap the adjacent outer side faces of the panels and are detachably secured to said first mentioned angle member.

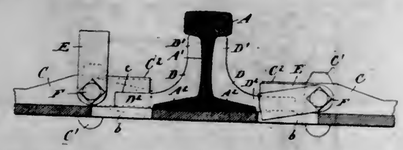
[Claim 6 not printed in the Gazette.]

1,076,144. FASTENER FOR RAILWAY-RAILS. CHARLES C. MITCHEL, Lyndhurst, N. J. Filed Nov. 29, 1912. Serial No. 733,959. (Cl. 238—2.)

1. In a device of the character set forth, a tie, a rail thereon, plates secured to said tie on opposite sides of said rail, each having an overhanging flange adjacent to said rail, a shoe on each side of said rail, each constructed to abut against the web of such rail and the under face of the head thereof, and engage beneath said flange, and pivoted gravitating means for locking said shoe in engagement with said flange.

2. In a device of the character set forth, a tie, a rail thereon, plates secured to said tie on opposite sides of said

rail, each having an overhanging flange adjacent to said rail, a shoe on each side of said rail, each constructed to abut against the web of such rail and the under face of the head thereof, and engage beneath said flange, and a latch pivotally attached to said plate and constructed to lie against said shoe to prevent its movement.

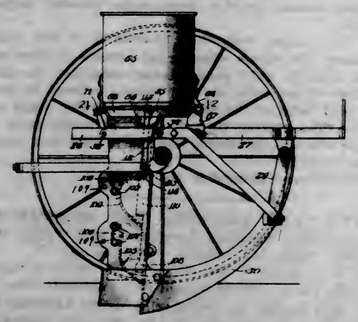


3. In a device of the character set forth, a tie, a rail thereon, plates secured to said tie on opposite sides of said rail, a rabbet on each of said plates adjacent to said rail, a shoe on each side of said rail, each constructed to match to the base, web and under face of the head of said rail and engage in said rabbet, said shoe having its outer edge inclined lengthwise to produce a wedge-like engagement with said rabbet and rail, and gravitating means for locking said shoe in such engagement with said plate to prevent releasing movements of said shoe.

4. In a device of the character set forth, a tie, a rail thereon, plates secured to said tie on opposite sides of said rail, a rabbet on each of said plates adjacent to said rail, a shoe on each side of said rail, each constructed to match to the base, web and under face of the head of said rail and engage in said rabbet, said shoe having its outer edge inclined lengthwise to produce a wedge-like engagement with said rabbet and rail, and a latch pivotally attached to said plate and constructed to lie against the rear face of said shoe to prevent releasing movements thereof.

5. In a device of the character set forth, a tie, a rail thereon, plates secured to said tie on opposite sides of said rail, each having an overhanging flange adjacent to said rail, a shoe on each side of said rail, each constructed to abut against the web of such rail and the under face of the head thereof, and engage beneath said flange, and a latch pivotally attached to said plate and constructed to lie against said shoe to prevent the withdrawal of the latter, said tie having a slot in which the free end of said latch is received and engaged.

1,076,145. CORN-PLANTER. FRANK P. MURPHEY, Decatur, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Dec. 19, 1907. Serial No. 407,111. (Cl. 111—6.)



1. In a corn planter, the combination with a horizontal rotary seed plate having a circular series of cells formed in its outer edge and adapted to receive single kernels edgewise, of a horizontal rotary agitator plate set within said series of cells and having a number of spiral ribs for forcing the seed outwardly toward said cells, and mechanism for continuously rotating said seed plate and said agitator plate in opposite directions, substantially as described.

2. In a corn planter, the combination with a horizontal rotary seed plate having a series of cells formed in its outer edge and adapted to receive single kernels edgewise, of a cap plate above said plate, a horizontal rotary agitator plate arranged between said cap plate and said seed plate and having a series of ribs for forcing the seed outwardly toward said cells, and mechanism for continuously rotating said seed plate and said agitator plate in opposite directions, substantially as described.

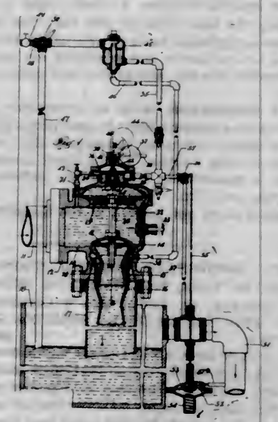
3. In a corn planter, the combination with a seed plate having a circular series of cells, of an agitator plate arranged within said circular series of cells, the upper faces of said seed and agitator plates being substantially in the same plane, said agitator plate having a number of projecting ribs on its upper face for forcing the seed outwardly toward said cells, substantially as described.

4. In a corn planter, the combination with a rotary seed plate having a series of cells in its outer edge adapted to receive single kernels edgewise, of a rotary agitator plate arranged within said series of cells, the upper faces of said seed and said agitator plates being substantially in the same plane, and said agitator plate having a series of projecting spiral ribs on its upper face for forcing the seed outwardly toward said cells, substantially as described.

5. In a corn planter, the combination with a rotary seed plate having a circular series of cells, of a rotary agitator plate arranged within said circular series of cells, the upper faces of said seed and said agitator plates being substantially in the same plane, said agitator plate having a series of spiral, projecting ribs on its upper face for forcing the seed outwardly toward said cells, and mechanism for rotating said seed and said agitator plates in opposite directions, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,076,146. VACUUM-CONTROLLED DIFFERENTIAL-LIQUID-LEVEL APPARATUS. EDWARD P. NOTES, Winchester, Mass. Filed Dec. 5, 1911. Serial No. 663,970. (Cl. 137—68.)



1. In differential septum apparatus, the combination of a movable septum, a chamber in operative relation thereto, an ejector communicating with said chamber and adapted by fluid entrainment to produce a vacuum therein, a valve controlled by said septum and normally biased to open but adapted to be closed by the operation of said ejector, and means for admitting aeriform fluid to said chamber to break the vacuum.

2. In differential septum apparatus, the combination of a movable septum, a chamber in operative relation thereto, an ejector communicating with and adapted by fluid entrainment to produce a vacuum in said chamber, means to supply an energizing fluid flow to said ejector, a vent conduit connected with said chamber, and a receptacle adapted to contain a fluctuating liquid for sealing and unsealing the inlet of said conduit.

3. In differential septum apparatus, the combination of a movable septum, a chamber in operative relation thereto, an ejector communicating with said chamber and adapted by fluid entrainment to produce a vacuum therein which unbalances the forces acting on the septum and causes movement of the latter, means for supplying a liquid to operate said ejector, and means for admitting aeriform fluid to said chamber to break the vacuum and rebalance the septum, thereby causing movement of the latter in the opposite direction.

4. In differential septum apparatus, the combination of a movable septum, a chamber in operative relation thereto and having an inlet for aeriform fluid provided with means for sealing and unsealing it, an ejector communicating with said chamber and adapted by fluid entrainment to produce a vacuum therein, and a valve controlled by said septum and normally biased to open but adapted to be closed by the operation of said ejector.

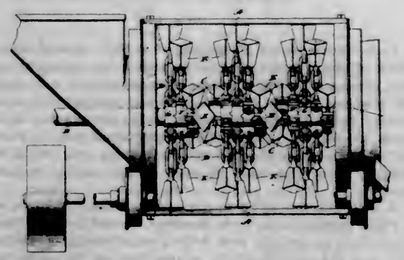
5. In differential septum apparatus, the combination of a movable septum, a chamber in operative relation thereto, an ejector communicating with, and adapted by fluid entrainment to produce a vacuum in said chamber, means to supply an energized liquid flow to said ejector, a valve controlled by the septum and controlling said flow, a receptacle for the liquid discharge through the ejector, and a vent-tube connected with said chamber and adapted to be sealed and unsealed by the liquid in said receptacle.

[Claims 6 to 14 not printed in the Gazette.]

1,076,147. PROCESS OF PREPARING A FOOD PRODUCT. FRANK PREVOST, Oakland, Cal. Filed Dec. 26, 1912. Serial No. 738,641. (Cl. 99—5.)

The herein described process of preparing a food compound consisting in separating the whites and yolks of eggs, adding sugar to said yolks, thoroughly whipping said sugar and yolks from time to time until the same become dry and reducing the resultant product to powdered form.

1,076,148. PROJECTILE FOR ROCK-BREAKERS. MITTS QUENNER, Nogales, Ariz., assignor to Quenner Dry Crusher Company, Douglas, Ariz., a Corporation of Arizona. Filed Jan. 24, 1911. Serial No. 604,405. (Cl. 83—9.)



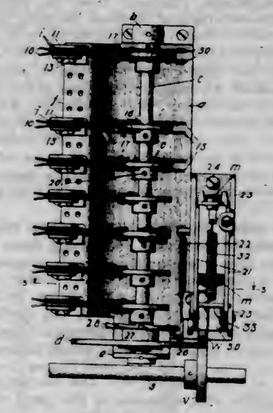
1. In a machine of the character described, a shaft, a plurality of projectiles, flexible connecting elements, and connections between said elements and the projectiles and the shaft, in combination with means for rotating the shaft and the projectiles, the projectiles being enlarged in the line of their travel and having an angular approximately radially disposed relatively sharp forward edge, substantially as and for the purpose described.

2. In a machine of the character described, a shaft, a plurality of projectiles, and flexible connections between the projectiles and the shaft, in combination with means for rotating the shaft and the projectiles, the projectiles being enlarged in the line of their travel and having an angular approximately radially disposed relatively sharp forward edge and also enlarged laterally of said edge to reinforce the same.

3. A projectile or hammer for a crushing or shattering mill of approximately bell shape from front to rear, the forward and rear portions being of angular formation to provide relatively sharp longitudinally disposed edges.

4. A projectile or hammer for a crushing or shattering mill having an enlarged outer end, an integral flattened inner end perforated to constitute a projecting eye and having the upper wall of the perforation curved, substantially as and for the purpose described.

1,076,149. AUTOMATIC ELECTROMAGNETIC SWITCH. JOHN N. REYNOLDS, Greenwich, Conn., and AMOS F. DIXON, Newark, N. J., assignors to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 5, 1910. Serial No. 585,425. (Cl. 179—27.5.)



1. In an electromagnetic switch, the combination of a rotatable shaft, disks on said shaft suitably spaced and fixed in position, segmental contacts arranged at varying circumferential points on said disks, each said contact having its advance edge curved away from its complementary contact, and a series of fixed complementary contacts, one for each segment, each such contact having its engaging terminal offset to engage a segmental contact on the surface thereof.

2. In an electromagnetic switch, the combination of a rotatable shaft, a series of pairs of fixed flat spring contacts, and a series of pairs of segmental contacts fixed on said shaft, each pair in position to engage a pair of said fixed contacts between them and to deflect them, substantially as described.

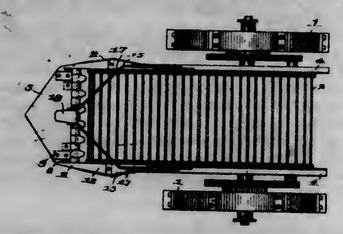
3. In an electromagnetic switch, the combination of a rotatable shaft, a series of disks fixed on said shaft, segmental contacts adjustably fixed to said disks at varying circumferential points, and suitable complementary flat spring contacts arranged to engage said contacts on the flat surface thereof.

4. In an electromagnetic switch, a rotatable shaft, disks fixed thereto, said disks having perforations at suitable points adjacent to the circumference thereof, a series of fixed contacts, a series of complementary segmental contacts, and means entering said perforations for adjustably securing said segmental contacts to said disks.

5. In an electromagnetic switch, a rotatable shaft, a series of disks thereon, segmental contacts insulatively secured to said disks, and stationary spring contacts arranged to engage said segmental contacts upon rotation of said shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,076,150. POTATO-DIGGER. WILLIAM H. RICE, Rochester, N. Y. Filed Oct. 11, 1912. Serial No. 725,182. (Cl. 55—9.)



1. A potato digger having, in combination with a shovel, sides provided with vertical rear portions and forward portions tapering to the plane of the shovel, the rear portions of the said tapered portions bulging inwardly and inclining outwardly gradually from the vertical portion and the forward tapered portions inclining outwardly.

2. In a potato digger, the combination with a shovel, of a pair of tapered pieces secured to the shovel, frame bars secured to the pieces, and side plates having forward tapered portions forming continuations of the pieces.

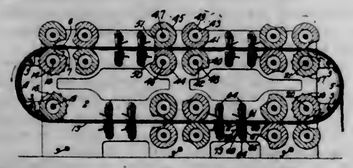
3. In a potato digger, the combination with a shovel, of a pair of tapered pieces secured to the shovel and having seats at their rear ends, frame bars secured in some of said seats so as to lie flush with faces of the pieces, and side plates supported on said frame bars and having their forward ends tapered and secured in seats of the pieces.

4. In a potato digger, a shovel, pieces secured to the opposite sides of the shovel, and having faces which gradually widen from the shovel and inclined outwardly with reference to the plane of the shovel, frame bars secured to the pieces, and vertical side plates having tapered forward ends secured to the pieces, and gradually inclining outwardly from the vertical portions thereof.

5. In a potato digger, a shovel, pieces secured to the opposite sides of the shovel and each having a forward face gradually widening rearwardly and inclining outwardly and rearwardly with reference to the plane of the shovel and a rearward face gradually widening rearwardly and inclining outwardly, each of said pieces being provided with a seat below said rearward face and with a seat in rear of said rearward face, frame bars each secured to one of the pieces in the seat below the rearward face of said pieces, and vertical side plates having tapered forward ends which gradually incline outwardly and each of which is secured in the seat at the rear of the rearward face of one of the pieces.

[Claims 6 to 8 not printed in the Gazette.]

1,076,151. DEFIBRATING-MACHINE. JAMES P. RICHARDSON, Manila, Philippine Islands, assignor to Arthur P. O'Brien, New York, N. Y. Filed Sept. 22, 1910, Serial No. 583,251. Renewed Sept. 8, 1913. Serial No. 788,760. (Cl. 13—18.)



1. In a defibrating machine, the combination with a continuously traveling forwarding gripper, of a series of auxiliary forwarding devices operating in separated fixed positions each device including two pair of coöperating rollers spaced apart and partially cut away to permit the passage of the gripper between them, and a series of scrapers one for engaging the material behind each device.

2. In a defibrating machine, the combination with a continuously traveling forwarding gripper, of a series of auxiliary forwarding devices operating in separated fixed positions each device including two pair of coöperating rollers spaced apart and partially cut away, the cut away portion of one pair being positioned to permit the passage of the gripper while the other pair is in engagement with the material, and a series of scrapers one for engaging the material behind each device.

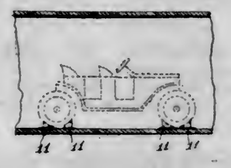
3. In a defibrating machine, the combination with a pair of endless chains, operating means for the chains, a gripper carried by the chains, a series of auxiliary forwarding devices operating in separated fixed positions in the path of the gripper each device including two pair of coöperating rollers spaced apart and partially cut away, the cut away portion of one pair being positioned to permit the passage of the gripper between them while the other pair is in engagement with the material, and a series of scrapers one for engaging the material behind each device.

4. In a defibrating machine, the combination with a forwarding gripper, of a crushing mechanism including two pair of rollers spaced apart and partially cut away the cut away portion of one pair being positioned to permit the passage of the gripper between them while the other pair is in engagement with material lying between them, an auxiliary forwarding device, and a scraper for engaging material behind the device.

5. In a defibrating machine, the combination with a forwarding gripper, of a series of auxiliary forwarding devices operating in separated fixed positions, a scraper for engaging one side of material forwarded and located behind one of the devices, and a scraper for engaging the other side of the material and located behind another of the devices.

[Claims 6 and 7 not printed in the Gazette.]

1,076,152. VEHICLE-CHOCK. FRANK RODE, Jeannette borough, Pa. Filed Mar. 26, 1913. Serial No. 756,908. (Cl. 21—8.)

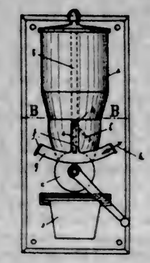


1. A vehicle chock consisting of a body formed from a blank of sheet metal bent to provide a tire-engaging portion concaved longitudinally and transversely and having the portions outside the tire-engaging portion bent downwardly to form supporting side walls, the portion of the blank at the rear end of said walls being bent inwardly at right angles to the side walls, to form rear walls, and flanges along the base of said walls having openings therein.

2. A chock for vehicles comprising a base member and a body member, the body member formed from a single blank bent to provide side walls and overlapping walls at one end, the portion of the blank between the side walls being concaved transversely and longitudinally, and rivets securing the body-portion to the base member and constituting feet for the chock.

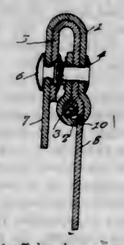
1,076,153. FEED-REGULATOR FOR COFFEE, SPICE MILLS, AND THE LIKE. PETER RUNKEL, Neuwied, Germany. Filed Oct. 19, 1911. Serial No. 655,551. (Cl. 83—44.)

A hopper having a vertical partition forming chambers therein and a valve pivoted at its upper end to the lower end of said partition and provided at its lower end with serrations or cutting projections adapted to contact with,



and to crush, material passing from said chambers between said edge and the outer wall of said hopper.

1,076,154. SUSPENDER-END. ORTON G. RUST, Springfield, Ohio. Filed Jan. 7, 1909. Serial No. 471,071. (Cl. 241—18.)

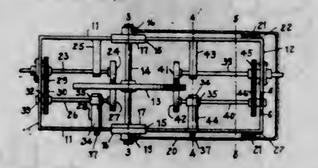


1. A one piece cast-off having a central or body portion and upper and lower end portions, the upper end portion being turned downward in front of said body portion and adapted to connect the cast-off to a suspender, the lower end portion being turned upward between said body portion and said downturned upper end portion to form a loop, said lower end portion having an aperture therein near the bottom of said loop; means for securing said upturned lower end portion to said body portion, and a supporting strap secured to said body portion between the same and said upturned lower end portion and extending downward through the aperture in said loop.

2. A one piece cast-off having a central or body portion and upper and lower end portions, the upper end portion being turned downward in front of said body portion and adapted to connect the cast-off to a suspender, the lower end portion being turned upward between said body portion and said downturned end portion to form a loop, said lower end portion having an aperture therein near the bottom of said loop, a reinforcing strip secured to said downturned end portion near the free end thereof, extending along the inner surface of said end portion and said body portion, between said upturned end portion and said body portion and having an integral extension passing through the aperture in said upturned end portion and constituting a supporting strap, and a single device for securing said upturned end portion and said combined reinforcing strip and supporting strap to said body portion.

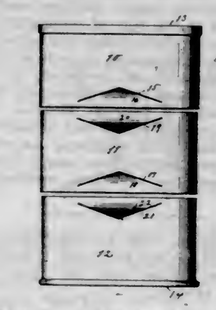
1,076,155. FRICTION TRANSMISSION MECHANISM. L D RYAN, Cortland, N. Y. Filed Nov. 20, 1912. Serial No. 732,522. (Cl. 74—26.)

1. In a device of the kind described, a frame, spaced bearings movable longitudinally of said frame, a shaft journaled in said bearings, a power transmission disk wheel splined upon said shaft, a pair of power shafts arranged on opposite sides of said disk wheel, a friction disk carried by each shaft engaging the adjacent side of said wheel, a pair of driven shafts arranged in the plane of said power shafts and disposed on opposite sides of said wheel, a friction disk on each driven shaft engaging the adjacent side of said wheel, means for shifting said transmission wheel longitudinally between said driving and said driven shafts, movable bearings supporting certain of the friction disks, and an adjusting device resiliently connected to said bearings.



2. In a power transmission device, a laterally shiftable power transmission disk wheel, a pair of power shafts arranged on opposite sides of said disk wheel and each having a friction disk connection with the adjacent side of said disk wheel, and a pressure device operatively connected to one of said shafts and constantly exerting a pressure through the instrumentality of the shaft friction disk against said disk wheel with a resultant urging of the disk wheel laterally into tight frictional engagement with the friction disk of the other shaft.

1,076,156. CONTAINER. EMIL SCHIERSE, Brooklyn, N. Y. Filed Feb. 21, 1913. Serial No. 749,778. (Cl. 229—15.)



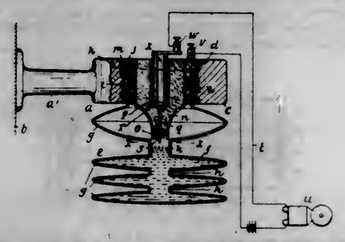
1. A container comprising a first unit having a lower upwardly extending inwardly deflected tongue, a second unit telescoped by the first unit and having an upper downwardly extending outwardly deflected tongue and a lower slot, the tongue of the first unit being adapted to interlock with the tongue of the second unit in the raised position of said first unit, while said tongue of the first unit is also adapted to engage in said slot of the second unit in the collapsed position of the units.

2. A container comprising a first unit having a lower upwardly pointing inwardly deflected tongue, a second unit having an upper downwardly pointing outwardly deflected tongue and a lower upwardly pointing inwardly deflected tongue, and a third unit having an upper downwardly pointing outwardly deflected tongue, the tongue of the first unit being adapted to be interlocked with the upper tongue of the second unit, while the lower tongue of said second unit is adapted to be interlocked with the tongue of the third unit.

1,076,157. AUTOMATIC HEAT-ALARM. JOSEPH G. SCHLOCHTNER, Brooklyn, N. Y. Filed Apr. 25, 1912. Serial No. 693,151. (Cl. 177—302.)

1. In combination, a suitable receptacle, a thermo-expansible electro-conductive fluid arranged in said receptacle, an alarm, an electric circuit including the alarm

and having a break therein and terminals at said break both depending into said receptacle to different depths, one surrounding the other and having downwardly extending teeth or serrations, substantially as described.

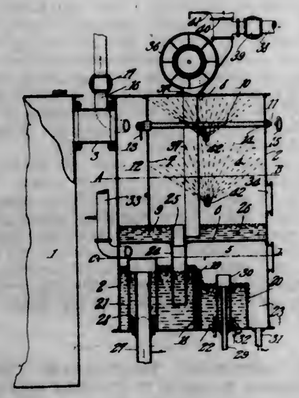


2. In combination, a suitable receptacle having an upwardly extending neck, a thermo-expansible electro-conductive fluid arranged in said receptacle, an alarm, an electric circuit including the alarm and having a break therein and terminals at said break both depending into said receptacle to different depths, one surrounding the other and having downward projections extending at least as far as the horizontal plane of the upper extremity of said neck, substantially as described.

3. In combination, a mounting, an annular metallic member forming a terminal and having an exterior hollow portion secured in the mounting and an interior depending hollow portion spaced from said exterior portion, a body of insulating material occupying the space of said interior portion, a body of cement occupying the space between said exterior and interior portions, another metallic member embedded in the body of insulating material, an alarm, an electric-circuit including the alarm and having a break therein and also having its ends at said break attached to said members, and a receptacle having a mouth embedded in said cement body, substantially as described.

4. In an apparatus of the class described, a thermo expansible electro-conductive fluid and a hollow receptacle containing said fluid, said receptacle comprising a plurality of superposed hollow disks and relatively limited tubular necks connecting said disks, substantially as described.

1,076,158. WASHER FOR PRODUCER-GAS GENERATORS. PETER G. SCHMIDT and WARREN W. GORE, Olympia, Wash. Filed Dec. 10, 1909. Serial No. 532,433. (Cl. 48—135.)



1. In a gas producing apparatus, a scrubber having means for providing a water seal therein, and a centrifugal gas washer mounted on top of the scrubber and directly communicating therewith and having a discharge or waste conduit leading into the scrubber into operative relation to the water seal.

2. In a gas producing apparatus, a scrubber, a gas washer mounted directly on top of the scrubber and directly communicating with the interior of the scrubber, a valved gas main communicating with the outlet side of the gas washer, and a valved purge pipe connected also with the outlet side of the gas washer.

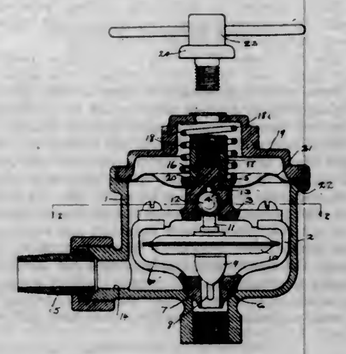
3. In a gas producer apparatus, a gas producer furnace, a scrubber adjacent thereto, a straight pipe connection between the furnace and scrubber, a partition within the scrubber extending downward from the top thereof opposite the opening communicating with the pipe connecting the scrubber with the furnace, a scraper head located in the space between the partition and the pipe connecting the scrubber to the furnace, and a scraper rod traversing the scrubber and carrying the scraper head; said rod extending to the exterior of the scrubber at a point opposite the connecting pipe between the scrubber and furnace.

4. In a gas producer apparatus, a scrubber having superposed compartments with the lower compartment provided with a series of receptables of decreasing height and one overflowing at the division wall into the next succeeding one, one receptacle communicating with the upper compartment, certain of the receptacles having combined overflow and overflow conduits for heavier fluid to cause the lighter fluids to pass from one receptacle to the other over the division wall and the last one of the series of receptacles in order, having a conduit for the escape of the overflow of lighter fluids from the preceding receptacle.

5. In a gas producer apparatus, a scrubber having superposed compartments with a diaphragm in the upper compartment separating the inlet for the gas from the outlet thereof and provided with a water seal, and a tar separating means in the lower compartment connected with the upper compartment by a conduit water sealed in the lower compartment, said lower compartment being provided with overflow receptacles for the separation of the tar from the water carrying the same.

[Claims 6 to 8 not printed in the Gazette.]

1,076,159. RADIATOR-VALVE. THEODORE H. SCHUTT, Cleveland, Ohio, assignor to The Bishop-Babcock-Becker Company, Cleveland, Ohio, a Corporation of Ohio. Filed May 31, 1912. Serial No. 700,753. (Cl. 236—10.)



1. The combination with a casing having inlet and outlet openings; of an apertured member snugly engaging said casing between such openings; a pivotally mounted thermostat; and a valve rigidly attached thereto and adapted to close the aperture in said member.

2. The combination with a casing having inlet and outlet openings; of an apertured member snugly engaging said casing between such openings; a thermostat; and a beveled stopper attached to said thermostat and ball joint means connecting said thermostat and said member.

3. The combination with a casing having inlet and outlet openings; of an apertured member snugly engaging said casing between such openings; a thermostat; a pear-shaped stopper attached to the same, and ball joint means connecting said thermostat and said member, whereby said stopper is adapted to be forced automatically into alinement and engagement with said aperture.

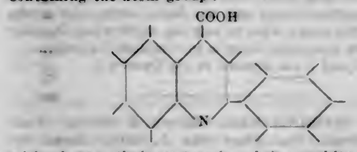
4. The combination with a casing having inlet and outlet openings; of a member having an aperture adapted to register with said outlet opening; a thermostatic valve adapted to close said aperture in said member and thereby said outlet opening upon the entrance of steam to said casing; and a flexible diaphragm mounted in said casing and attached to said member, said diaphragm being adapted to operate upon the attainment of a predetermined pressure, thereby raising said member from said outlet opening.

5. The combination with a casing having inlet and outlet openings; of a member having an aperture adapted to register with said outlet opening; resilient means adapted to retain said member normally in such register with said outlet opening; a thermostatic valve adapted to close said aperture in said member and thereby said outlet opening upon the entrance of steam to said casing; and a flexible diaphragm mounted in said casing and attached to said member, said diaphragm being adapted to operate upon the attainment of a predetermined pressure, thereby raising said member from said outlet opening.

[Claims 6 and 7 not printed in the Gazette.]

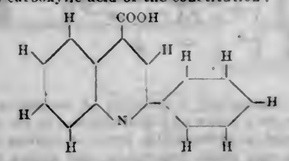
1,076,160. HEXAMETHYLENETETRAMIN SALTS OF THE α-PHENYLQUINOLIN-γ-CARBOXYLIC ACIDS. RUDOLF SCHWABE, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Oct. 21, 1912. Serial No. 727,048. (Cl. 23—24.)

1. As new products, the compounds of carboxylic acids containing the atom group:



with hexamethylenetetramin, being white crystalline bodies, readily soluble in hot alcohol, difficultly soluble in water, insoluble in ether, soluble in alkalis and in an excess of diluted hydrochloric acid, decomposing on addition of a small quantity of diluted hydrochloric acid with formation of the carboxylic acid, and having a bitter astringent taste.

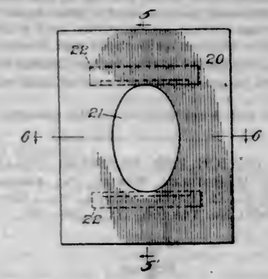
2. As a new produce, the compound of the phenyl-quinolin-γ-carboxylic acid of the constitution:



with hexamethylenetetramin, being a white crystalline body, which is readily soluble in hot alcohol, difficultly soluble in water, insoluble in ether, soluble in alkalis and an excess of diluted hydrochloric acid, separating on addition of a small quantity of diluted hydrochloric acid the α-phenyl-quinolin-γ-carboxylic acid, being of a bitter astringent taste.

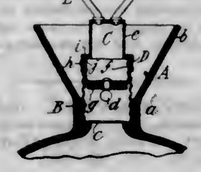
1,076,161. CARD FRAME OR MOUNT. OTTO C. SCHWARZ, Chicago, Ill. Filed Apr. 28, 1911. Serial No. 623,988. (Cl. 40—158.)

A card mount or frame comprising a mount member provided with an opening, two holding bar strips applied to one face of said member at two opposite sides of said opening and spaced apart from each other a distance less than the length of the card to be supported thereby, and provided with undercut grooves having fixed or unyielding bottoms to receive the two opposite end edges of the card



to hold the same in flat relation against the mount member, said grooves having end shoulder portions engaging the corner ends of the side edges of the card to hold the same against lateral displacement with respect to the mount member, substantially as described.

1,076,162. WATER-BOTTLE STOPPER. MAXIMILIAN CHARLES SCHWEINERT, West Hoboken, N. J., and HENRY P. KRAFT, New York, N. Y., assignors, by mesne assignments, to A. Schrader's Son, Incorporated, New York, N. Y., a Corporation of New York. Filed Feb. 26, 1906. Serial No. 302,889. (Cl. 215—58.)



1. In a water bottle stopper, a socket member, a stopper movable therein, a device engaging said socket member and adapted to retain said stopper therein and means for preventing the removal of said device when the stopper is in contact therewith, and for permitting the intentional removal thereof when the stopper is free therefrom.

2. In a water bottle stopper, a socket member, a stopper movable therein, a screw-threaded retaining member engaging said socket member and having a recess formed therein, and a lock for said retaining member acting to hold it in position on said socket member said lock comprising a spring tongue formed on said socket member and adapted to engage a recess in said retaining member.

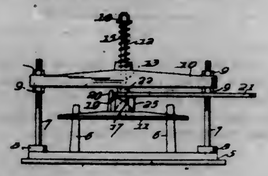
3. In a water bottle stopper, a socket member, a stopper screwing therein, a screw-threaded retaining cap for said stopper adapted to engage said socket member, said socket member being formed at its upper end with a spring tongue, and said cap being formed with a recess adapted to receive the end of said tongue, said parts being formed to prevent the disengagement of said tongue and recess when said stopper is in its uppermost position.

4. A water-bottle closure, comprising a socket having a screw-threaded tubular lower portion and a tubular upper portion of larger diameter than said lower portion, a stopper having a screw-threaded lower portion adapted to engage the screw-threaded portion of said socket, an upper portion of less diameter than said screw-threaded portion, and a shoulder between said upper and lower portions of the stopper, said socket having means thereon for engaging said shoulder to prevent detachment of said stopper from said socket.

5. A water-bottle closure, comprising a socket having a screw-threaded tubular lower portion and a tubular upper portion of larger diameter than said lower portion, a stopper having a screw-threaded sheet-metal lower portion adapted to engage the screw-threaded portion of said socket, an upper sheet-metal portion of less diameter than said screw-threaded portion, and a joint upon the outside of said portions uniting said portions, said joint constituting a shoulder between said upper and lower portions of the stopper, said socket having means thereon for engaging said shoulder to prevent detachment of said stopper from said socket.

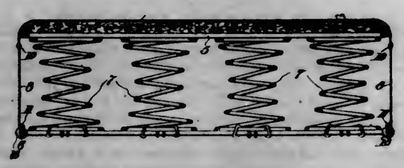
[Claims 6 and 7 not printed in the Gazette.]

1,076,163. DEVICE FOR PRESSING CIGAR-MOLDS. FREDERICK M. SHIRLEY, Warren, Pa., assignor to L. J. Betts and G. H. Betts, Warren, Pa. Filed Jan. 27, 1913. Serial No. 744,406. (Cl. 100—67.)



In a press, a base, a cross head adjustably supported above the base, said cross head having an aperture intermediately its length, a follower having a guide rod movable through the aperture of the cross head, means associated with the guide rod for yieldingly supporting the follower, a two-surface cam on the follower, a lever having members adapted to ride on said cam surfaces, shoulders associated with the cams, a lever for operating the said cams, means for limiting the movement of the lever, and lugs on the lever for engaging the cams, and shoulders for operating the follower and for retaining it in adjusted position.

1,076,164. SPRING STRUCTURE. GEORGE C. SHOEMAKER, Washington, D. C., assignor to Jackson Cushion Spring Company, Jackson, Mich. Filed Sept. 7, 1912. Serial No. 719,152. (Cl. 155—25.)

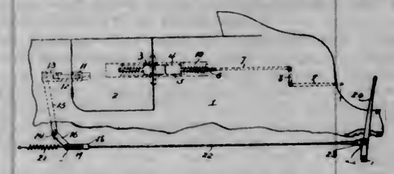


A spring structure including in combination a frame, springs mounted on the frame, a cover for the structure including a side facing, a wire inclosed in the side facing at the lower edge thereof and bent between its ends to provide projections which extend laterally outwardly through the facing and which are bendable downwardly around the frame to secure and hold the lower edge of the side facing on the upper edge of the frame against the upward tension of the springs.

1,076,165. MEANS FOR OPERATING DOORS OF VEHICLES. WILLIAM M. SIMMONS, Burlington, Iowa. Filed Aug. 30, 1912. Serial No. 717,983. (Cl. 39—91.)

1. In door operating mechanism for automobiles, the combination with a door and a brake lever, of devices connecting the door with the brake lever and tending to lock the door when the brake lever is in released position and tending to open the door when the brake lever is moved to set the brake.

2. In door operating mechanism for automobiles, the combination with a door and latch devices therefor, of a rock-shaft, connections between said rock-shaft and the door, an arm on said shaft, an operating lever, a rod connected with said lever and having sliding connection with said arm on the rock shaft for turning the latter in one direction, means for locking said lever to lock the rock shaft, and means for rocking said shaft in the other direction when the operating lever is moved rearwardly.



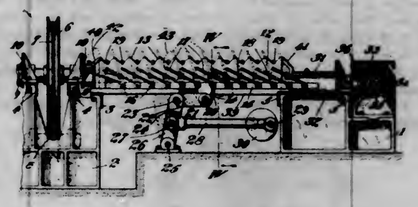
3. In door operating mechanism for automobiles, the combination with a door and a brake lever, of operating devices connecting the brake lever with the door for closing the latter, latch devices for the door, means for operating said latch devices to release the door, and a spring connected with said operating devices for opening the door when the brake lever has been moved to set the brakes.

4. In door operating mechanism for automobiles, the combination with a door and a brake lever, of a rock-shaft, an arm projecting from said shaft, lost-motion connections between said arm and the brake lever for turning said shaft in one direction, means for locking said brake lever to lock the shaft in one position, another arm on said shaft, connections between said last-mentioned arm and the door, and a spring for turning said shaft in the reverse direction when the lever is in "set" position.

5. In door operating mechanism for automobiles, the combination with a door and a brake lever, of a rock-shaft, an arm on said shaft, pivotal connections between said arm and the door, a spring connected with said arm for turning said shaft in a direction to open the door, another arm on said shaft, lost-motion connections between said last-mentioned arm and the brake lever, and means for locking the brake lever to lock the shaft when the door is closed and the brake lever is in "release" position.

[Claims 6 and 7 not printed in the Gazette.]

1,076,166. COOLING-BED. EDWIN E. SLICK, Westmont borough, Pa. Filed Mar. 5, 1913. Serial No. 752,089. (Cl. 80—42.)



1. In a cooling-bed, a plurality of stationary supports provided with a series of alined notches in the upper surfaces thereof, a corresponding series of shifters pivoted at their ends, and means for rocking and sliding said shifters, whereby a bar is advanced step by step on and over said bed.

2. In a cooling-bed, a plurality of parallel stationary supports provided with alined notches in the upper surfaces thereof, a series of shifter levers pivoted below said notches, and means for rocking said levers, whereby a bar is laterally advanced across said bed step by step.

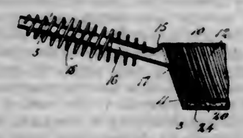
3. In a cooling-bed, a plurality of stationary supports, provided with alined notches in the upper surfaces thereof, a series of shifter levers pivoted below and corresponding to said notches, a plurality of shifter-rods to which said shifter levers are pivoted, a fulcrum between each pivot and the extremity of the corresponding lever, and means for reciprocating said shifter-rods.

4. In a cooling-bed, a series of narrow stationary supports spaced apart and provided with alined notches in the upper edges thereof, a series of shifter levers pivoted below said notches, and means for simultaneously rocking said levers, whereby a bar is laterally advanced across said bed step by step.

5. In a cooling-bed, a series of narrow stationary supports spaced apart and provided with alined notches in the upper edges thereof, a plurality of shifter levers pivoted below said notches, a series of shifter rods, reciprocably supported below said notches, to which said shifter levers are pivoted, a fulcrum between each pivot and the other extremity of the lever, and means for reciprocating said shifter-rods.

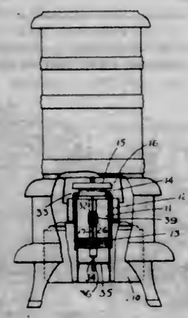
[Claims 6 to 11 not printed in the Gazette.]

1,076,167. FRYING-PAN. CHARLES W. SMITH, Grove City, Pa. Filed Oct. 31, 1912. Serial No. 728,870. (Cl. 53—7.)



In a device of the class described, the combination with an outer pan body provided with a recess, of an inner pan body arranged within the outer pan body, spaced parallel ribs formed with the outer pan body and projecting upwardly from the bottom thereof, seats formed by flattened surfaces of the said ribs and supporting the bottom of the inner pan body, chambers formed by the bottoms of the inner and outer pan bodies and by the said ribs, a filling arranged in the said chambers and lying between the said inner and outer pan bodies, and a handle formed integrally with the inner pan body and projecting therefrom, with a portion of the inner end of the said handle extending into a recess formed in the outer pan body.

1,076,168. ATTACHMENT FOR EXTINGUISHING OIL-STOVES WHEN OVERTURNED. KNUT LUDWIG STENDAHL, Bridgeport, Conn., assignor to John A. Hurley, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed Oct. 16, 1912. Serial No. 726,184. (Cl. 67—78.)



1. In an oil stove burner having a cylindrical draft tube, a frame adapted to lie within the draft tube, a closed chamber perforated on all sides and having a concave bottom carried by the frame within the draft tube, a ball therein, an extinguisher arm and a rod by which the extinguisher is carried and which normally rests upon the ball.

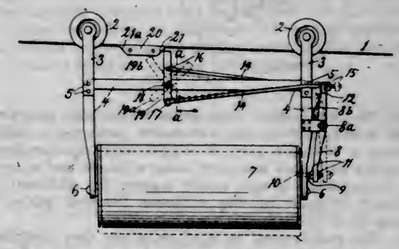
2. In an oil stove burner having a vertical cylindrical draft tube, a frame adapted to lie within the draft tube, a closed chamber perforated on all sides carried upon the frame within the draft tube and having a bottom consisting of a concave plate with a hole in its center, a ball adapted to engage the hole for the purpose set forth, an extinguisher and a rod by which the extinguisher is carried and which normally rests upon the ball.

3. In an oil stove burner having a vertical cylindrical draft tube, a frame adapted to lie within the draft tube, a closed chamber perforated on all sides carried thereby within the draft tube and having a concave bottom, a ball resting thereon, an extinguisher, a rod by which the extinguisher is carried and which normally rests upon the ball, and a spring acting to lower the extinguisher when the ball is displaced.

4. In an oil stove burner having a vertical cylindrical draft tube, a frame adapted to lie within the draft tube, an extinguisher, a spring controlled rod within the draft tube by which the extinguisher is carried, a ball normally engaged by the rod to retain the extinguisher in the raised position, and a closed chamber perforated on all sides within the draft tube having a concave bottom with a central hole adapted to be engaged by the ball, substantially as described, for the purpose specified.

5. In an oil stove burner having a vertical cylindrical draft tube, a wick tube thereabout, an air distributer and extinguisher, a spring controlled rod within the draft tube by which the air distributer and extinguisher are carried, a ball which is engaged by the rod to normally retain the air distributer and extinguisher in raised position, a closed chamber perforated on all sides within the draft tube having a concave bottom with a hole adapted to be engaged by the ball and a frame within the draft tube by which the chamber is carried.

1,076,169. LITTER-CARRIER. FRANK H. C. STOLL, Atwater, Minn. Filed Mar. 5, 1913. Serial No. 752,050. (Cl. 214—4.)

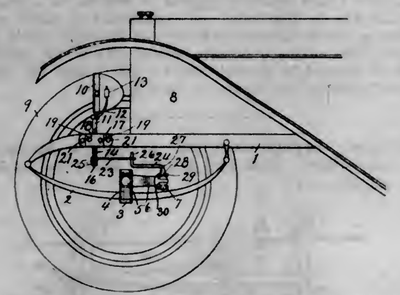


1. In a carrier of the class described, the combination of an overhead cable or track, a trip secured to the under side thereof, a frame having a longitudinal top bar with upward and downward arms at each end thereof, a grooved wheel mounted on each of the upper arms and arranged to roll on the cable, a receptacle trunnioned between the downward arms, a locking lever fulcrumed to one of the downward arms and having a broad upper end with two apertures therein, and near its lower end a prong passed through the arm of the frame and engaging the end of the receptacle, the latter having a cavity for the prong to enter, a spring arranged to hold the locking lever with said prong normally engaged; a normally vertically disposed trip lever fulcrumed on the top bar of the frame and having its upper end arranged to contact with the trip on the cable when the frame moves in either direction below the trip; two rods pivoted each with one end to the trip lever, one above and the other below the fulcrum of the lever, the other ends of said rods being slidably inserted in the apertures of the locking lever and provided with means to prevent their withdrawal therefrom and to hold the trip lever normally in vertical position.

2. In combination, a cable or like track, a trip secured thereto, a frame composed of a longitudinal top bar and arms extending upward and downward at each end there-

of, a grooved track wheel mounted on each of the upward arms and arranged to roll on the track, a receptacle trunnioned between the downward arms, a locking lever fulcrumed at one end of the frame and having a prong arranged to engage the adjacent end of the receptacle, said end having a cavity for the prong to engage, means for adjusting the prong to more or less engagement with the receptacle, a spring acting on the lever to hold the prong normally engaged; said lever having its upper end broadened and provided with two apertures; a normally vertically disposed trip lever fulcrumed to the top bar of the frame and adapted to be engaged with the trip when the frame moves in either direction along the cable, two rods pivoted each with one end to the trip lever, one above and the other below the fulcrum thereof, one at each side of the lever, and having their other ends passed one at each side of the frame and slidingly inserted in the apertures of the locking lever, and adjustable means on said rods for engaging the outer side of the locking lever to prevent withdrawal of the rods and to hold the trip lever in vertical position when the spring holds the locking lever in locked position.

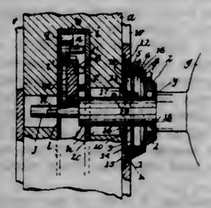
1,076,170. LAMP SUPPORTING AND OPERATING MEANS. JAMES D. STOW, Springfield, Mass. Filed Jan. 20, 1913. Serial No. 743,038. (Cl. 240—62.)



1. The combination, in a device of the class described, with a lamp-post having a threaded part, and a holder having a threaded part to receive said first-mentioned threaded part, said lamp-post being arranged and adapted to be oscillated in said holder against the frictional resistance afforded by the engaging threaded parts, of means so to oscillate said post.

2. The combination, in a device of the class described, with a holder, in the form of a threaded socket, adapted to be attached to a vehicle, and comprising separable members and means to secure such members together, and a threaded lamp-post receivable in such socket and adapted to be oscillated therein against the frictional resistance afforded by the engaging threaded parts, of means so to oscillate such post.

1,076,171. COMBINATION-LOCK. MATTEO TAMBURINI, Paterson, N. J. Filed Feb. 28, 1913. Serial No. 751,321. (Cl. 70—53.)



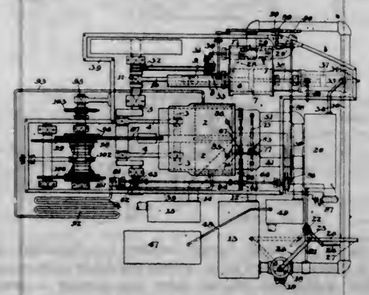
1. In combination, the case, a spindle arranged to rotate on and movable longitudinally of its own longitudinal axis in the case and having a radial bit, said case having a slot alined with the spindle and conforming substantially to the cross-sectional shape thereof in a transverse plane cutting the bit, and a bolt movable in the case longitudinally into and out of protruding relation thereto, said slot extending substantially parallel with the path of movement of the bolt and the bolt having spaced bit-abutment surfaces substantially coincident with one side of said slot and a bit-receiving recess between said surfaces substantially as described.

2. In combination, the case, a spindle arranged to rotate on and movable longitudinally of its own longitudinal axis in the case and having a radial bit, said case having a slot alined with the spindle and conforming substantially to the cross-sectional shape thereof in a transverse plane cutting the bit, a bolt movable in the case longitudinally into and out of protruding relation thereto, said slot extending substantially parallel with the path of movement of the bolt and the bolt having spaced bit-abutment surfaces substantially coincident with one side of said slot and a bit-receiving recess between said surfaces, and a tumbler movable into and out of interlocking relation to the bolt and projecting into the path of rotary movement of said bit, substantially as described.

3. In combination, the lock proper having a bolt, a rotary bolt operating spindle movable longitudinally into and out of operative relation to the bolt, a supporting plate, an indexed disk journaled in the plate, and another indexed disk journaled in the first disk, said disks having openings penetrated by and fitting the spindle and a plurality of annular spaces separated from each other and surrounding the spindle and connected by notches, and the spindle having pins adapted to pass through said notches on longitudinal movement of the spindle, substantially as described.

4. In combination, the lock proper having a bolt, a rotary bolt-operating spindle movable longitudinally into and out of operative relation to the bolt, a supporting plate having an interiorly flanged opening penetrated by the spindle, a backing disk arranged in said opening and forming with said flange an annular groove, an indexed disk journaled in said opening in the plate and having an annular flange received in said groove and itself having an interior annular groove, and another indexed disk journaled in the first indexed disk and having an annular flange received in the groove thereof, said disks having a plurality of annular spaces separated from each other and surrounding the spindle and connected by notches, and the spindle having pins adapted to pass through said notches on longitudinal movement of the spindle, substantially as described.

1,076,172. EXPLOSIVE-ENGINE. JAMES TODD, Sewickley, Pa. Filed Mar. 30, 1903. Serial No. 150,108. (Cl. 123—36.)



1. In an explosive engine, an explosive cylinder having a valve-controlled exhaust, an auxiliary cylinder connected to the exhaust for receiving the burnt gases therefrom, a piston in said cylinder, connections between said piston and a moving part of the explosive engine, a secondary exhaust for said explosive engine through which some of the spent gases may be forced by the movement of the piston, and means for controlling said exhaust, substantially as described.

2. In an explosive engine, a single-acting primary explosive cylinder having a valve-controlled exhaust, connections for supplying a mixture of air and fuel to the cylinder, means for exploding the mixture in the cylinder, a double-acting auxiliary cylinder connected to the valve-controlled exhaust, a piston in said cylinder, connections between said piston and a moving part of the explosive engine, the burnt gases from the explosive cylinder passing from the exhaust to the auxiliary cylinder, a secondary exhaust for said explosive engine through which some of the spent gases may be forced by the movement of the piston, and means for controlling said exhaust, substantially as described.

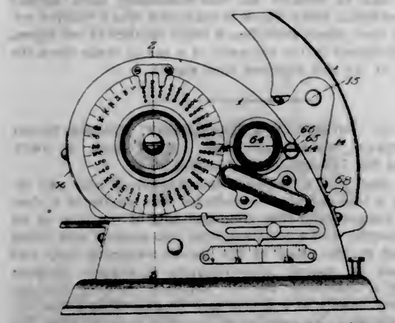
3. In an explosive engine, a single-acting primary explosive cylinder provided with a valve-controlled exhaust, connections for supplying an explosive mixture to the cylinder, means for exploding said mixture in the cylinder, a reservoir connected with the valve-controlled exhaust to receive burnt gases therefrom, an auxiliary cylinder connected to the reservoir, a piston in said cylinder, and connections between said piston and a moving part of the explosive engine, the burnt gases from the explosive cylinder passing from the reservoir to the auxiliary cylinder, a secondary exhaust for said explosive engine through which some of the spent gases may be forced by the movement of the piston, and means for controlling said exhaust, substantially as described.

4. A gas engine having a plurality of cylinders, a case inclosing the cylinders, a pump arranged to maintain a partial vacuum within said case; substantially as described.

5. In an explosive engine, an explosive cylinder having an exhaust, an auxiliary cylinder arranged to receive the burnt gases from the exhaust, a piston in said auxiliary cylinder, a valve arranged to cut off the exhaust connection to the auxiliary cylinder and open said exhaust to the atmosphere, an air compressor arranged to be actuated from a moving part of the explosive engine, a compressed air tank communicating with the air compressor, an air supply connection from the tank to the auxiliary cylinder for moving the piston in the latter, means to open and close said connections, and mechanical connections between the auxiliary cylinder piston and the explosive engine piston for starting the explosive engine; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,076,173. CHECK-PROTECTOR. LIBANUS M. TODD and CHARLES G. TIEFEL, Rochester, N. Y., assignors to G. W. Todd & Company, Rochester, N. Y., a Firm composed of George W. Todd and Libanus M. Todd. Filed May 16, 1912. Serial No. 697,679. (Cl. 101—57.)



1. In a check protector, the combination with a die and a movable platen for bringing the paper into contact with the die, of an inking roll arranged forwardly of and in spaced relation to the printing point, an actuating device, the actuating device having initial movement independently of the platen, and means controlled by the operation of the actuating device for moving the die rearwardly from the inking roll to the printing point, and subsequently operating the platen.

2. In a check protector, the combination with a rotary die holder and a series of dies on the holder, of a movable platen for bringing the paper into contact with the die holder, an inking roll arranged forwardly of and in spaced relation to the printing point, an actuating device, the actuating device having initial movement independently of the platen, and means controlled by the operation of the actuating device for rotating the die holder to move a die rearwardly from the inking roll to the printing point, and subsequently operating the platen.

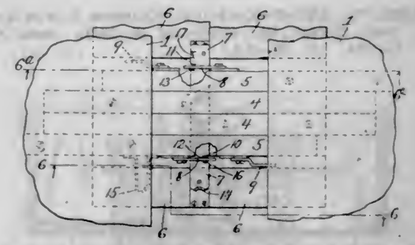
3. In a check protector, the combination with a rotary die holder, of a carrier rotatable about an axis coincident with that of the die holder, a notched surface carried by the die holder, an arm pivotally mounted on the carrier and adapted to engage said notched surface, a platen, the platen being movable upwardly into contact with the die holder to engage the paper, an actuating device, and operative connections between the actuating device and the carrier.

4. In a check protector, the combination with a rotary die holder, of an annular notched plate carried by the die holder, a carrier rotatable about an axis coincident with that of the die holder, an arm pivotally mounted on the carrier and adapted to engage said notched plate, a platen, the platen being movable upwardly into contact with the die holder to engage the paper, an actuating device, and operative connections between the actuating device and the carrier.

5. In a check protector, the combination with a rotary die holder, of an annular plate carried by the die holder and provided on its inner edge with a series of notches, a carrier rotatable about an axis coincident with that of the die holder, an arm pivotally mounted on the carrier and adapted to engage one of said notches, a platen, the platen being movable upwardly into contact with the die holder to engage the paper, an actuating device, and operative connections between the actuating device and the carrier.

[Claims 6 to 16 not printed in the Gazette.]

1,076,174. EXTENSION-TABLE LOCK. EMIL TYDEN, Hastings, Mich. Filed Oct. 14, 1909. Serial No. 522,575. (Cl. 45—112.)



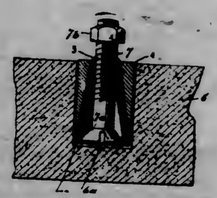
1. In an extension table which comprises a supporting member and end top members movable relatively to the supporting member toward and from each other for closing up and extension to admit fillers, in combination with such supporting member and end top members, a set of slides connecting the top members and the supporting member, comprising intermediate slides which are fast on the supporting member; and exterior or extreme slides which are fast on the end top members respectively; a bar extending across the set of slides and stopped against movement longitudinally of the supporting member; a plurality of means on each of the extreme slides of the set for engaging said bar positioned along the length of the slides at half filler width intervals and offset laterally from each other so as to travel in different paths when the slide is moved, the bar having abutments for en-

countering said engaging means alternating in a direction transverse of the sides with crossing paths for said engaging means, and means for moving the bar transversely of the slides to shift the registration of said abutments, and crossing paths with the paths of said engaging means respectively.

2. In an extension table which comprises a supporting member and end top members movable relatively to the supporting member for closing up and extension to admit fillers, in combination with such supporting member and end top members; a set of slides for extensibly connecting the top members and supporting member, comprising intermediate slides fast on the supporting member, and outer or extreme slides fast on the top members respectively, a bar mounted on the supporting member below the slides which are fast thereon for sliding transversely of the extension slides, dogs on the extreme slides positioned along the length thereof at half filler width intervals, consecutive dogs on each slide being offset laterally from each other's paths, the bars having at opposite sides of the set of slides in position for coöperating with the dogs abutments for engagement of the dogs and cam slopes affording crossing paths for the dogs, and means for shifting the bar transversely to reverse the registration of said abutments, and cam slopes with the paths of the dogs respectively.

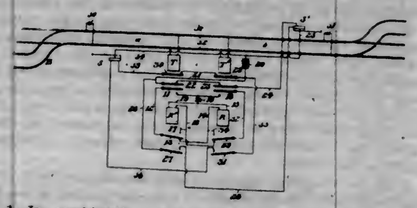
3. In an extension table which comprises a supporting member and end top members movable relatively to the supporting member for closing up an extension to admit fillers, in combination with such supporting member and end top members, a set of slides for extensibly connecting the top members and supporting member, comprising intermediate slides fast on the supporting member, and outer or extreme slides fast on the top members respectively; a bar mounted on the supporting member below the slides which are fast thereon for sliding transversely of the extension slides, dogs on the extreme slides positioned along the length thereof at half filler width intervals; consecutive dogs on each slide being offset laterally from each other's paths, the bar having at opposite sides of the set of slides in position for coöperating with the dogs abutments for engagement of the dogs, and cam slopes affording crossing paths for the dogs, the bar at one end having an upstanding arm, and a cam at the side of the adjacent slide positioned for encountering said arm at the limit of the closing movement, and adapted by such encounter to force the bar to one limit of its path of reciprocation.

1,076,175. EXPANSION-BOLT. CLARENCE B. VAN ANTWERP, Chicago, Ill. Filed Aug. 16, 1911. Serial No. 644,404. (Cl. 85—2.4.)



An expansion device comprising a one-piece cylindrical shell of ductile material, having a conical bore with its inner end inwardly flanged, a trunco-conical non-threaded plug arranged within said shell and having its inner and outer walls trunco-conical and of substantially uniform thickness throughout their length and provided with longitudinal slots extending from its inner edge for a substantial portion of the longitudinal diameter of said plug, and a bolt having a trunco-conical head, said bolt extending through said plug with the outer edges of said head engaging the inner edge of said plug and adapted to expand said plug upon the bolt being drawn inwardly relative to said plug.

1,076,176. RAILWAY SIGNALING SYSTEM. ALBERT L. VENCILL, Wilkinsburg, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Jan. 29, 1912. Serial No. 674,026. (Cl. 246—30.)



1. In combination, a stretch of railway track, signals adjacent the ends thereof for governing traffic in opposite directions through the stretch each signal being adapted to indicate danger, caution and clear, two track relays connected with the rails of the stretch and arranged to be deënergized successively by the passage of a car or train through the stretch the relay which is first deënergized remaining deënergized until after the second relay has been deënergized, means for energising said track relays, a clear indication circuit for each signal each of which circuits is controlled by both track relays, a caution indication circuit for each signal, two signal relays each for control of one of said caution indication circuits, a normal circuit for each signal relay each circuit including a back contact of one of the track relays and contacts and conductors controlled by each signal relay and operating when the signal relay is energized by the deënergization of the corresponding track relay to disconnect the other signal relay from the track relay back contact with which it is normally connected and to connect the last-mentioned back contact with the signal relay which is energized.

2. In combination, a stretch of railway track, signals adjacent the ends thereof for governing traffic through the stretch in opposite directions, two track relays connected with the rails of the stretch, one of which is deënergized while a car or train occupies one portion of the stretch and the other of which is deënergized while the car or train occupies the remainder of the stretch, the track relay first deënergized remaining deënergized until after the other relay has been deënergized, means for energizing said relays, two signal relays, a normal circuit for each signal relay each circuit including a back contact of one of the track relays, contacts and conductors controlled by each signal relay and operating when the signal relay is energized by the deënergization of the corresponding track relay to disconnect the other signal relay from the track relay back contact with which it is normally connected and to connect the last-mentioned back contact with the signal relay which is energized, and a control circuit for each signal including a front contact of the signal relay energized by the entrance of a car or train upon the stretch at the end adjacent such signal.

1,076,177. DUST-PAN ATTACHMENT. GEORGE HENRY WARTMAN, Montesano, Wash. Filed Sept. 6, 1912. Serial No. 719,029. (Cl. 65—63.)

1. A dust pan attachment constructed of wire and including a loop adapted to embrace the handle of a dust pan, a hanger extending from one side of the loop at an angle thereto, and a combined dust pan support and clamp arranged in the plane of the handle engaging loop and composed of spaced approximately U-shaped portions forming a relatively narrow entrance opening through which the handle of a broom may be passed and thus enable a broom to be introduced into and removed from the combined support and clamp, said spaced portions being adapted to yieldably engage the foot when introduced into the combined support and clamp.

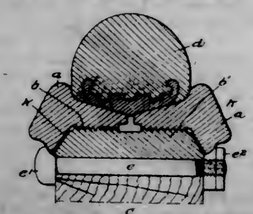
2. A dust pan attachment constructed of a single piece of material bent to form a hanger eye and oppositely bowed or curved at an angle thereto to form a handle engaging loop or clamp and crossed at a point opposite the hanger eye, the said hanger eye being arranged to project beyond the handle of a dust pan in a direction longitudinally thereof, the terminal portions of the material being oppositely bowed or bent in the plane of the handle engaging loop or clamp to form a combined support and a foot clamp.



3. A dust pan attachment constructed of a single piece of material bent to form a hanger eye and oppositely bowed or curved at an angle thereto to form a handle engaging loop or clamp and crossed at a point opposite the hanger eye, the terminal portions of the material being oppositely bowed or bent in the plane of the handle engaging loop or clamp to form a combined support and a foot clamp, the ends of the wire being substantially straight so as to lie beneath the foot and spaced apart to permit the handle of a broom to be passed between them to enable the broom to be introduced into and removed from the combined support and clamp.

4. A dust pan attachment constructed of resilient material oppositely bowed or curved to form a loop or clamp for engaging the handle of a dust pan and crossed at the bottom of the handle, the terminal portions of the material being oppositely bowed or bent in the plane of the handle engaging loop or clamp to form a combined support and foot clamp, the ends of the wire being substantially straight so as to lie beneath the foot of the operator and spaced apart to permit the handle of a broom to be passed between the ends to enable a broom to be introduced into and removed from the combined support and clamp.

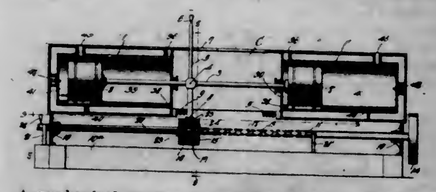
1,076,178. WHEEL OF ROAD-VEHICLES. CHARLES KINGSTON WELCH, Coventry, England. Filed June 9, 1906. Serial No. 320,946. (Cl. 152—7.)



1. A wheel for vehicles, comprising a wheel body having right and left hand threads upon opposite sides of the periphery thereof respectively, and having beveled edges, a ring threaded upon each side of said periphery having a conical outer surface, and the outer edges of the rings having flanges extending radially in opposite directions, a tire held between the outer conical surfaces and the outwardly extending flanges of said rings, and packing rings between the said inwardly extending flanges and the beveled edges of said wheel body.

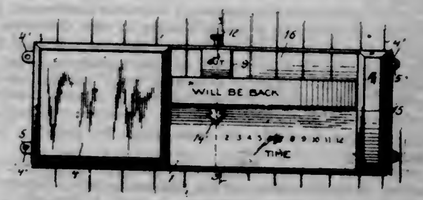
2. A wheel for vehicles, comprising a wheel body having right and left hand threads upon opposite sides of the periphery thereof respectively, and having beveled edges, a ring threaded upon each side of said periphery having a conical outer surface, and the outer edges of the rings having flanges extending radially in opposite directions, a tire held between the outer conical surfaces and the outwardly extending flanges of said rings, packing rings between the said inwardly extending flanges and the beveled edges of said wheel body, and a locking bolt passing through said wheel body and engaging against the outer surfaces of the inwardly extending flanges of said ring.

1,076,179. MECHANICAL MOVEMENT. HUGH H. WHITEHEAD, Anna Maria, Fla. Filed July 19, 1912. Serial No. 710,518. (Cl. 74—40.)



A mechanical movement, including a reciprocatory rod, a longitudinally disposed rotatable shaft mounted parallel with said rod, said shaft having two spiral grooves intermediate of its ends, an arm connected to the reciprocatory rod and extending toward the shaft, a frame carried upon one end of said arm and surrounding the shaft, two ratchet wheels mounted in said frame and having the teeth thereof disposed in opposite directions, each of said ratchet wheels being provided with a lug disposed to fit within the respective grooves of the shaft, a manually oscillated rod disposed parallel to the grooved shaft, and two oppositely disposed pawls slidably keyed upon the rod and within the frame, whereby either pawl is placed into engagement with its respective ratchet wheel for locking one wheel at a time against rotation.

1,076,180. INDICATOR. JOHN WICKLUND, Seattle, Wash. Filed Dec. 18, 1912. Serial No. 737,523. (Cl. 116—50.)

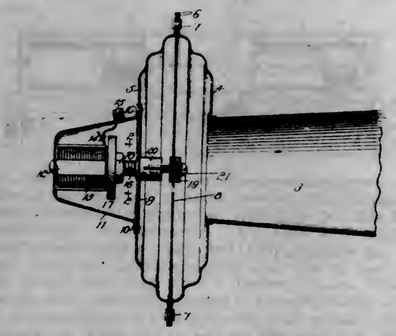


1. In a device of the character described, the combination of a horizontal elongated body portion, flanges projecting outwardly from the top and bottom edges, said body being provided near its upper edge with a longitudinal opening, a longitudinal guide rod mounted within the body, an indicating member slidably mounted upon the guide rod, said indicating member comprising an elongated body portion having ears formed at each end thereof and projecting at right angles thereto, an angular portion formed at the outer end of one of said ears, means carried by the angularly projecting portion to hold the indicating member in various adjusted positions.

2. In a device of the character described, the combination of a horizontally elongated body having flanges pro-

jecting therefrom, a guide rod mounted at the rear of said body, said body being provided near its upper edge with a longitudinal opening, an indicating member slidably mounted upon the guide rod and comprising an elongated body having angularly projecting ears formed integral at each end thereof and visible through the opening, one of said ears having an angular portion formed at the upper end, the upper flange of the body being provided with a longitudinal slot, a set screw arranged within said longitudinal slot and carried by the angular portion of said ear whereby the indicating member may be adjusted to various positions and held securely in place, said body being provided with a centrally arranged longitudinal slot and an indicating arrow formed integral with the elongated body of the indicating member and projecting through said slot upon the outer side of the body portion as and for the purpose set forth.

1,076,181. **ELECTRIC HORN.** GEORGE M. WILLIS, Chicago, Ill. Filed June 20, 1913. Serial No. 774,749. (Cl. 177—7.)



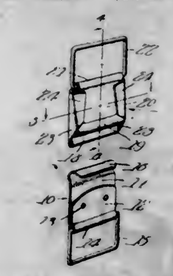
1. An electric horn comprising a casing, a sounding diaphragm, a spring diaphragm disposed behind the sounding diaphragm, a magnet disposed behind the sounding diaphragm, an armature connected with the spring diaphragm arranged to be actuated by the magnet, a central opening in said sounding diaphragm, and an impact member connected with the spring diaphragm passing freely through said opening and provided with a portion normally out of engagement with the sounding diaphragm but arranged to engage the same when the armature is actuated.

2. An electric horn comprising a sounding diaphragm, a magnet, an armature, a spring tending to hold said armature out of its attracted position, a hole in said sounding diaphragm, and an impact member mechanically connected with the armature extending freely through said opening, said impact member comprising a portion normally out of engagement with the sounding diaphragm but arranged to strike the same when the armature is actuated.

3. An electric horn comprising a sounding diaphragm, a spring diaphragm, said spring diaphragm being disposed behind said sounding diaphragm, a magnet disposed behind the spring diaphragm, an armature of relatively great mass carried by the spring diaphragm and the spring diaphragm alone, said armature being arranged to be attracted by said magnet, a central opening in said sounding diaphragm, and an adjustable screw carried by the spring diaphragm extending freely through said opening, said screw being provided with a head normally out of engagement with the sounding diaphragm but arranged to strike the same when the armature is attracted.

4. An electric horn comprising a casing, a sounding diaphragm, a spring diaphragm, a magnet disposed behind the spring diaphragm, an armature carried by the spring diaphragm and the spring diaphragm alone, arranged to be attracted by said magnet, a central opening in said sounding diaphragm, and an impact member carried by the spring diaphragm extending freely through said central opening, said impact member being provided with a portion normally out of engagement with the sounding diaphragm but arranged to strike the same when the armature is attracted.

1,076,182. **COUPLING OR CLASP FOR SUSPENDERS.** WILLIAM W. WOLFE, Brooksville, Fla. Filed Sept. 26, 1912. Serial No. 722,537. (Cl. 24—226.)



1. A two part clasp, the outer ends of which are attachable to two articles, the inner end of one part being bent back and coiled outward, and the inner end of the other part being bent into a hook adapted to engage within the convolutions of the coil.

2. A two part clasp, one part having a hook at one end, and the other part having one end bent back and coiled outwardly and having its other end bent back into engagement with the outer convolution of the coil, the sides of the latter part having flaps bent over the ends of the coil, and the edges of the latter end, the hook being adapted to engage within the convolutions of the coil.

3. A two part clasp, one part having a hook at one end, and the other part having one end bent back and coiled outwardly and having portions bent over the ends and into engagement with the outer convolution of the coil, the hook being designed to engage within the convolutions of the coil.

4. A clasp element having one end bent back and coiled outward for the reception of a hook, and having portions bent over the ends and in engagement with the outer convolution of the coil.

5. A clasp element having one end bent back and coiled outward for the reception of a hook, and having its other end bent back into engagement with the outer convolution of the coil, the said element having flaps at its sides bent over the ends of the coil and the edges of the latter end.

1,076,183. **BUTTONHOLE GUIDE-CLAMP.** JOSEPH T. AUGER, Minneapolis, Minn. Filed June 6, 1912. Serial No. 701,982. (Cl. 223—54.)



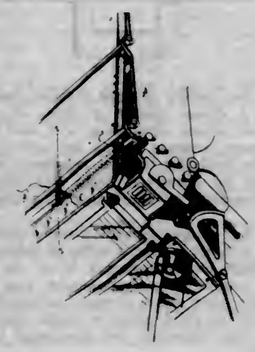
1. As a new article of manufacture, a button-hole guide clamp comprising a sheet metal cylindrical member divided longitudinally, over which the cloth is placed, and spring jaws extending parallel substantially with said member and adjacent thereto and adapted to separate to allow the insertion of the cloth between them.

2. A button-hole guide clamp comprising a tubular member, spring jaws depending upon opposite sides of said member and having their upper longitudinal edges in contact with said member, said jaws being adapted to separate and allow the insertion of the cloth between them and said member.

3. A button-hole guide clamp comprising a tubular, sheet-metal member divided longitudinally and having spring jaws formed on its longitudinal edges, said jaws extending lengthwise of said member and having their upper longitudinal edges contacting with said member, pressure on the rear portion of said jaws operating to separate them from said member and allow the insertion of the cloth to be worked between them.

4. A button-hole guide clamp comprising a tubular sheet metal member divided longitudinally and having depending flanges on its longitudinal edges, terminating in upwardly turned spring jaws which are adapted to contact with the walls of said tubular member, pressure on said flanges operating to separate said jaws, said flanges being recessed to allow the insertion of the cloth to be worked between said jaws and the walls of said member, the tension of said jaws operating to draw the cloth snugly over the curved surface of said member.

1,076,184. **TYPOGRAPHIC MACHINE.** RICHARD M. BEDELL, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed July 15, 1911. Serial No. 638,611. (Cl. 199—7.)



1. The combination of a magazine and supporting means therefor, with a movable locking device to support the magazine in normal position thereon and which when moved permits the forward removal of the magazine in its normal plane.

2. The combination of an inclined magazine and supporting means therefor, with a movable locking device to support the magazine in its inclined normal position thereon and which when moved permits the downward removal of the magazine in its normal plane.

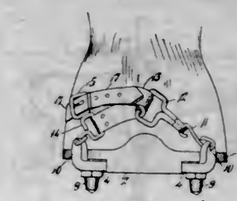
3. The combination of a magazine and supporting means therefor, with a movable locking device to support the magazine in normal position thereon and which when moved permits the forward removal of the magazine in its normal plane and from the said supporting means.

4. In combination, a magazine, the main frame, and a bar to support the magazine, together with a movable locking device to support the magazine in normal relation to the bar, and which when moved permits the forward removal of the magazine in its normal plane.

5. In combination, a magazine, the main frame, and a bar to support the magazine, together with a movable locking device to support the magazine in normal relation to the bar, and which when moved permits the removal of the magazine in its normal plane and over the said bar.

[Claims 6 to 12 not printed in the Gazette.]

1,076,185. **SUPPLEMENTAL HORSESHOE.** ABRAHAM BERNSTEIN, Cincinnati, and NATHAN BERNSTEIN, Lebanon, Ohio, assignors to The Bernstein Brothers Manufacturing Company, Lebanon, Ohio, a Corporation of Ohio. Filed July 8, 1912. Serial No. 708,135. (Cl. 168—30.)



1. A device of the character specified, comprising two bars adjustably secured together, said bars being adapted to engage a shoe secured to a horse's hoof, a strap attached to the front end of one of said bars, means whereby said strap is adapted to engage the front end of the other of said bars, a second strap attached to the rear end of one of said bars, means whereby said strap is adapted to engage the rear end of the other of said bars, and means for securing together the free ends of said straps whereby said bars may be rigidly secured to said shoe.

2. A device of the character specified, comprising two bars adjustably secured together, said bars being adapted to engage a shoe secured to a horse's hoof, a strap attached to the front end of one of said bars, means whereby said strap is adapted to engage the front end of the other of said bars, a second strap attached to the rear end of one of said bars, means whereby said strap is adapted to engage the rear end of the other of said bars, means for securing together the free ends of said straps whereby said bars may be rigidly secured to said shoe, and means whereby said second strap is prevented from contacting with said hoof.

3. A device of the character specified, comprising crossbars adjustably secured together, said bars being adapted to engage a shoe secured to a horse's hoof, a strap attached to the rear end of one of said bars, means whereby said strap is adapted to engage the rear end of the other of said bars, and means whereby the free end of said strap may be operatively connected with the front ends of said bars, whereby, upon the tightening of said strap, said bars will be rigidly secured to said shoe.

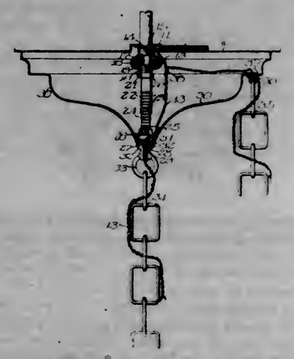
4. A device of the character specified, comprising two bars adjustably secured together, said bars being adapted to engage a shoe secured to a horse's hoof, a strap attached to the rear end of one of said bars, means whereby said strap is adapted to engage the rear end of the other of said bars, means whereby the free end of said strap may be operatively connected with the front ends of said bars, whereby, upon the tightening of said strap, said bars will be rigidly secured to said shoe, and means whereby said strap is prevented from contacting with said hoof.

1,076,186. **FASTENING DEVICE FOR ELECTRIC FIXTURES.** CARL W. BIHLER, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,825. (Cl. 240—85.)

1. In combination, an electric wall fixture dome, a fixed member in the wall, a device comprising two members one secured to the dome at its center and one to the fixed wall member slidable one within the other and non-rotatable with respect to each other, and means in connection with the two members of the device to engage one with the other.

2. In combination, an electric wall fixture dome, a fixed member in the wall, and a device comprising telescoping members non-rotatable with respect to each other having engaging portions to permit relative movement of the members in one direction but not in the other, one of the members being secured to the center of the dome and the other to the fixed member in the wall.

3. The combination with an electric wall fixture dome, of a wall stem, and interengaging telescopic members separately secured to the stem and to the inside of the dome at its center non-rotatable with respect to each other and adapted to permit the movement of the dome only in the direction of the wall.

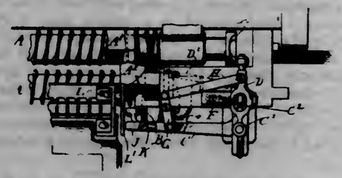


4. The combination with an electric wall fixture dome, of a fixed wall stem, and telescopic rectangular members separately securable one to the inside of the dome and the other to the stem, one of the members being provided with teeth and the other with resilient tongues to engage the teeth to allow the members to be moved in one direction with respect to each other to hold the dome non-rotatably at any distance from the wall and to permit the dome to be moved toward the wall and to prevent its retraction.

5. In an electric fixture, the combination with a dome having an aperture, of a hickey having a threaded tip to extend through the aperture, a nut with a chain suspension swivel mounted upon the said threaded tip, the said tip being provided with an opening to permit a wire to be threaded through it, and means in connection with the hickey to secure the dome to the wall or support.

[Claims 6 and 7 not printed in the Gazette.]

1,076,187. TYPOGRAPHICAL MACHINE. ROBERT O. BOARDMAN, Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed May 3, 1912. Serial No. 694,867. (Cl. 199—7.)



1. In a typographical machine, the combination of distributing mechanism, means for presenting type or matrices thereto, and devices controlled by said presenting means to arrest the action of the distributing mechanism in the event that a type or matrix is improperly presented thereto.

2. In a typographical machine, the combination of distributing mechanism, lifting means to present the type or matrices thereto. and devices controlled by said lifting means to arrest the action of the distributing mechanism in the event that a matrix is improperly presented thereto by the lifting means.

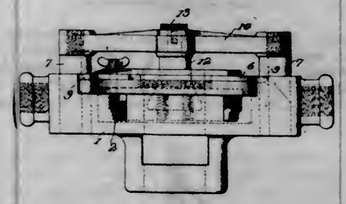
3. In a typographical machine, the combination of distributing mechanism comprising a conveying screw, means for presenting the type or matrices to the screw, and devices controlled by said presenting means to arrest the operation of the distributing mechanism in the event that a matrix is improperly presented thereto.

4. In a typographical machine, the combination of distributing mechanism comprising a conveying screw, a lifting finger to present the type or matrices to the screw, and devices controlled by said lifting finger to arrest the action of the distributing mechanism in the event that a matrix is improperly presented thereto by the lifting finger.

5. In a typographical machine, the combination of distributing mechanism, a member to present the type or matrices thereto, means for reciprocating the said member, and devices controlled by the said reciprocating means to arrest the distributing mechanism in the event that a type or matrix is improperly presented by the member thereto.

[Claims 6 to 11 not printed in the Gazette.]

1,076,188. THREAD-CUTTING TOOL. BRADFORD BORDEN, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Dec. 7, 1909. Serial No. 531,791. (Cl. 18—122.)



1. A tool for cutting tapered threads comprising, in combination, a chaser carrier, a series of raidially-arranged chasers, means coöperating with said chasers for controlling their recession during the cutting operation, and means for rendering the last mentioned means effective to enable the chasers to begin ther recession after the cutting operation has progressed to a predetermined point.

2. A tool for cutting tapered threads comprising, in combination, a chaser carrier, a series of radially-arranged chasers, a single element common to all the chasers to control the uniform recession thereof, and means cooperating with said single element arranged relatively to the chasers to allow them to begin their recession after the cutting operation has progressed to a predetermined point.

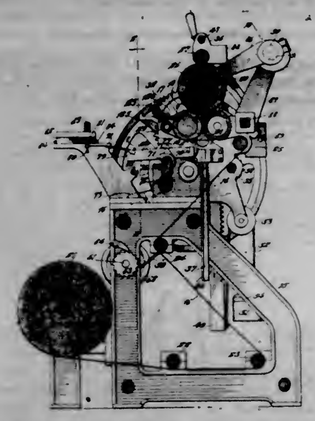
3. A tool for cutting tapered threads comprising, in combination, a chaser carrier, a series of radially arranged chasers, a single element common to all the chasers to control the uniform recession thereof, means cooperating with said single element to control the same, and means for rendering the last mentioned means effective to enable the chasers to begin their recession after the cutting operation has progressed to a predetermined point.

4. A tool for cutting tapered threads comprising, in combination, a chaser carrier, a series of radially arranged chasers, a single element common to all the chasers to control the uniform recession thereof, means coöperating with said single element to control the same, and means for acting on the last mentioned means to enable the chasers to begin their recession after the cutting operation has progressed to a predetermined point.

5. A tool for cutting tapered threads, comprising, in combination, a rotatable and longitudinally-movable chaser carrier, a series of radially arranged chasers, a chaser engaging plate rotatable with and independently of said chaser carrier, means for controlling the independent rotation of said plate, said means being rotatable with said chaser carrier, and means for acting on said last mentioned means to enable the chasers to begin their recession after the cutting operation has progressed to a predetermined point.

[Claims 6 to 23 not printed in the Gazette.]

1,076,189. SLITTING AND REWINDING MACHINE. JAMES A. CAMERON and GUSTAF BIRGER BIRCH, New York, N. Y., assignors to Cameron Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Jan. 8, 1912. Serial No. 670,007. (Cl. 164—65.)



1. A machine for slitting a web of material into strips and winding the strips into coils of uniform diameter, comprising, means for slitting the web into strips without distorting the strips from the plane of the web, and rewinding means exerting a uniform pull on the surface of all the individual coils to produce an equal pull on the web at all points laterally thereof at the plane of severance.

2. In a slitting and rewinding machine, means for severing a web of material into strips without distorting the strips out of the plane of the web, and means for rewinding the cut strips into coils of uniform diameter comprising rewinding rolls exerting a uniform driving pressure on the surface of all the coils to produce an equal pull at all lateral points on the web at the plane of its severance.

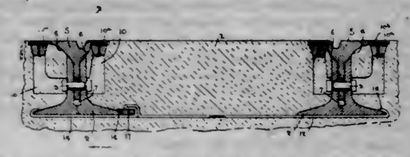
3. In a slitting and rewinding machine, means for slitting a web without distorting the slitted sections out of the plane of the web at the point of severance or laterally with relation to each other, means for rewinding the slitted sections into a plurality of coils of uniform diameter, said means consisting of a support and a plurality of rolls exerting a uniform driving pressure on the surface of all the coils so as to produce an equal pull on the web at all points laterally to prevent distortion thereof at the point of slitting.

4. A slitting and rewinding machine comprising in combination, cutting disks coöperating with a smooth-surfaced cutter roll for cutting a web into strips without distorting the strips out of the plane of severance or laterally with respect to each other, and means for rewinding the cut strips into coils of uniform diameter, consisting of an arbor on which the coils are mounted and rewinding rolls engaging with the surface of all the coils so as to exert an even pull thereon at all points laterally thereof at the plane of severance.

5. In a slitting and rewinding machine, the combination of cutting disks, a cutter roll with which the cutting disks coöperate to cut the web into strips, the said cutter roll having a surface of such hardness that it will not be cut into by the cutting disks, whereby the roll will always present a true smooth surface, and means for winding the cut strips into coils of uniform diameter, comprising a rewinding roll rotating in the same direction with the cutter roll and coöperating with the cuter roll to engage with the under surface of the coils resting thereon, and a pressure roll resting on the upper surface of the coils to hold them all in engagement with the cutter and rewinding rolls with equal pressure, whereby the pull on the web at the plane of severance will be equal at all points laterally thereof.

[Claims 6 to 29 not printed in the Gazette.]

1,076,190. RAIL AND ROAD-BED CONSTRUCTION. CHARLES W. CLARKE, Charleston, W. Va. Filed Feb. 4, 1913. Serial No. 746,155. (Cl. 104—14.)



1. In a track-rail a base having a pair of upwardly extending sections spaced apart and tapered at their upper edges, in combination with a tread rail having a web, and a wedge shaped section at the point of juncture with the web whereby said wedge section will fit between the upwardly directed extensions of the base member, and suitable means to yieldingly hold said parts together.

2. In a cushioning track-rail, the combination with a base having a pair of upwardly directed members spaced apart; a tread rail having a web to fit between said extensions on the base, a wedge-like section joining the web and tread sections together, whereby when the load is placed upon the tread rail the upwardly directed sections of the base will be caused to move apart, and suitable means to hold a pair of track-rails in true alinement with each other.

3. A resilient or cushioning track-rail comprising a base having a pair of spaced extensions upon its upper side, a tread rail having a web and a wedge-like section intermediate the tread and web, the said upwardly directed extensions being beveled on their inner sirde to fit normally against the wedge section, whereby when the load is placed upon the tread rail the wedge section will be forced downward between the contacting edges of the extensions carried by the base.

1,076,191. MAGAZINE FILM-HOLDER. SILVIO COCANARI, Vieux-Dieu, Belgium. Filed Mar. 20, 1912. Serial No. 685,000. (Cl. 95—22.)



1. The combination in a frame for handling in day-light and for exposing sensitive photographic surfaces, of an exterior case with an interior case provided with non actinic windows, said interior case containing sensitive surfaces mounted on supports with projections, said projections showing behind said non actinic windows.

2. The combination in a frame for handling in day-light and for exposing sensitive photographic surfaces, of an exterior case having an aperture, with an interior case containing sensitive surfaces, said surfaces being placed in front of deformable parallelepiped composed of four rigid surfaces connected together by a flexible material.

3. The combination in a frame for handling in day-light and for exposing sensitive photographic surfaces, of an exterior case having an aperture with an interior case containing sensitive surfaces, said surfaces being placed in front of a deformable parallelepiped composed of four rigid surfaces connected together by a flexible material, the parallelepiped being combined with a strip of flexible material fixed to the interior case to one of the vertical

surfaces of the parallelepiped, the other vertical surface of the parallelepiped being fixed to the exterior case at one end and at the other end.

4. The combination in a frame for handling in day-light and for exposing sensitive photographic surfaces, of an exterior case having an aperture, with an interior case containing sensitive surfaces mounted on supports of same length as the interior case, whose bottoms are fixed one to the other.

5. The combination in a frame for handling in day-light and for exposing sensitive photographic surfaces, of an exterior case having an aperture with an interior case containing sensitive surfaces, said surfaces being placed in front of a deformable parallelepiped composed of four rigid surfaces connected together by a flexible material, the front vertical plane of the parallelepiped supporting a sensitive surface.

[Claim 6 not printed in the Gazette.]

1,076,192. REINFORCING-BAR FOR CONCRETE AND SIMILAR STRUCTURES. WILLIAM C. CORYELL, Youngstown, Ohio. Filed May 22, 1908. Serial No. 434,371. (Cl. 72—111.)



1. A concrete reinforcing bar having a plane surfaced central body and substantially parallel isolated ribs projecting from said body and extending diagonally across one face of the bar in a general spiral direction, each rib varying regularly in cross-sectional area from a maximum near the middle of the rib to a minimum at its ends and there merging into said body.

2. A concrete reinforcing bar having a plane surfaced central body of substantially oval cross-section, the relatively flat sides of the oval lying at the top and bottom of the bar, and substantially parallel isolated ribs projecting from the upper and lower faces of said body and extending in each instance diagonally across one face of the bar in a general spiral direction, each rib varying regularly in cross-sectional area from a maximum near the middle of the rib to a minimum at its ends and there merging into the sides of said body.

3. A concrete reinforcing bar having sets of bearing faces tending to resist the longitudinal movement of the bar through the concrete, one of said sets comprising shoulders formed by the twisting of the bar, and the other of said sets being the sides of substantially parallel isolated ribs projecting from the bar and extending diagonally across one face of the bar in a general spiral direction, each rib varying regularly in cross-sectional area from a maximum near the middle of the rib to a minimum at its ends and there merging into the bar.

4. A concrete reinforcing bar having sets of bearing faces tending to resist the longitudinal movement of the bar through the concrete, one of said sets comprising shoulders formed by the twisting of the bar, and the other of said sets being the sides of substantially parallel isolated ribs projecting from the bar and extending diagonally across one face of the bar in a general spiral direction, each rib varying regularly in cross-sectional area from a maximum near the middle of the rib to a minimum at its ends and there merging into the bar, and the spirality of the ribs being equal and opposite to the twist of the bar.

5. A concrete reinforcing bar having a set of bearing faces tending to resist the longitudinal movement of the bar through the concrete, said set being the sides of substantially parallel ribs isolated from each other and extending diagonally across one face of the bar in a general spiral direction, each rib varying regularly in cross-sectional area from a maximum near the middle of the rib to a minimum at its ends and there merging into the bar.

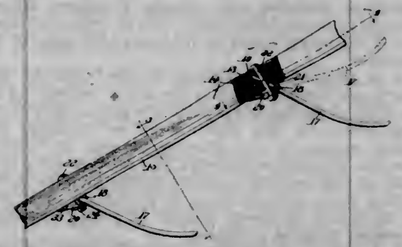
[Claim 6 not printed in the Gazette.]

1,076,193. TIME-CONTROLLED STOCK-FEEDER. CHARLES DAMINAITIS, Cleveland, Ohio. Filed Jan. 8, 1913. Serial No. 740,822. (Cl. 161—10.)



A portable stock feeder comprising a hopper having a valve at the bottom, a bail attached to the hopper for carrying the same, a clock mounted on top of the hopper, controlling connections between the clock and the valve, and extending beside the hopper, a conical spreader located under the hopper and forming a base for the feeder, and a plurality of spaced legs rigidly connected between the hopper and the inclined sides of the spreader, to support the hopper.

1,076,194. HAY-LOADER. CALVIN R. DAVIS, Chicago Heights, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Aug. 19, 1912. Serial No. 715,780. (Cl. 56—64.)



1. In a hay loader, the combination of an elevator-frame, carrying-wheels, a plurality of reciprocable longitudinally disposed rake-bars comprising channel bars having their open sides faced downward, brackets secured thereto at said open sides, rake-teeth pivotally supported by said brackets, each rake-tooth formed with a head adapted to contact the top portion of its channel bar to limit the pivotal movement of the rake-teeth, and means for operating the rake-bars in a longitudinal movement.

2. In a hay loader, the combination of an elevator-frame, carrying-wheels, a plurality of reciprocable longitudinally disposed rake-bars comprising channel bars having their open sides faced downward, rake-teeth pivotally carried by said channel bars at the open sides thereof, means extending into the channels of said bars for limiting the pivotal movement of said rake-teeth, and means for operating the rake-bars in a longitudinal movement.

3. In a hay loader, the combination of an elevator-frame, carrying wheels, a plurality of reciprocable longitudinally disposed rake-bars comprising channel-iron bars having their open side faced downward, brackets secured

to the open face of said channel-bars, rake-teeth supported by said brackets and having a portion extending into the channels of the channel-bars, and means for operating the rake-bars in a longitudinal movement.

4. In a hay loader, the combination of an elevator-frame, carrying-wheels, a plurality of reciprocable longitudinally disposed rake-bars comprising channel-iron bars having spaced depending sides and shoulders formed at the base thereof, brackets secured to said channel-iron bars and adapted to be held against said shoulder portions, rake-teeth supported by said brackets and having a portion extending into the channels of the channel-bars, and means for operating the rake-bars in a longitudinal movement.

5. In a hay loader, the combination of an elevator-frame, carrying-wheels, a plurality of reciprocable longitudinally disposed rake-bars comprising channel-iron bars having spaced sides formed with shoulders, brackets secured to the channel-iron bars, rake-teeth supported thereby, said rake-teeth being formed with shoulder portions that are held against and pivoted upon the shoulder portions of the channel-iron bars, and means for operating the rake-bars in a longitudinal movement.

[Claims 6 to 9 not printed in the Gazette.]

1,076,195. MANUFACTURE AND PRODUCTION OF A CAOUTCHOUC-LIKE MATERIAL. KONRAD DELBRÜCK and KURT MEISENBURG, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 23, 1912. Serial No. 738,280. (Cl. 23—24.)

1. The process of producing a valuable elastic caoutchouc-like substance, which comprises heating the product of autopolymerisation of beta-gamma-dimethylerythrene until the brittleness of such product has been overcome and an elastic substance obtained.

2. The process of producing a valuable elastic caoutchouc-like substance, which comprises heating under pressure the product of autopolymerization of beta-gamma-dimethylerythrene until the brittleness of such product has been overcome and a compact elastic substance obtained.

3. The process of producing a valuable elastic caoutchouc-like substance, which comprises heating to from 150 to 200° C. the product of autopolymerization of beta-gamma-dimethylerythrene until the brittleness of such product has been overcome and an elastic substance obtained.

4. The process of producing a valuable elastic caoutchouc-like substance, which comprises heating under pressure to from 150 to 200° C. the product of autopolymerisation of beta-gamma-dimethylerythrene until the brittleness of such product has been overcome and a compact elastic substance obtained.

1,076,196. SUBSTANCE SIMILAR TO CAOUTCHOUC AND PROCESS OF MAKING SAME. KONRAD DELBRÜCK and KURT MEISENBURG, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 30, 1912. Serial No. 739,408. (Cl. 106—23.)

1. The process of producing a stable caoutchouc-like substance from an unstable caoutchouc-like autopolymerization product which comprises treating the same with tannin.

2. The process of producing a stable caoutchouc-like substance which comprises treating an unstable autopolymerization product of beta-gamma-dimethylerythrene with tannin.

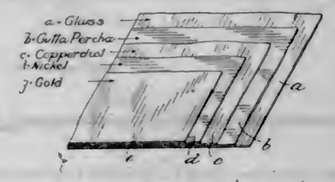
3. The process of producing a stable caoutchouc-like substance which comprises treating an unstable autopolymerization product of beta-gamma-dimethylerythrene with about 6% of its weight of tannin.

4. As a new product a stable caoutchouc-like substance comprising beta-gamma-dimethylerythrene caoutchouc and tannin.

5. As a new product a stable caoutchouc-like substance the caoutchouc-like autopolymerization product of beta-gamma-dimethylerythrene and tannin.

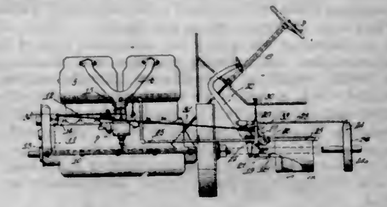
[Claim 6 not printed in the Gazette.]

1,076,197. SUBSTITUTE FOR GOLD-LEAF. FRITZ DEMEL, London, England. Original application filed May 1, 1911, Serial No. 624,227. Divided and this application filed Aug. 14, 1912. Serial No. 715,134. (Cl. 29—181.)



A substitute for gold leaf consisting of a metallic film, a layer of metal deposit thereon and a layer of gold deposit on the said layer of metal, the whole constituting an extremely thin leaf resembling gold leaf in its power of producing clear impressions with fine lines and in being so little coherent that portions which do not adhere to the surface to which the leaf is applied can be removed by a brush.

1,076,198. VACUUM-BRAKE. JAMES T. DICKSON, Los Angeles, Cal. Filed Aug. 7, 1912. Serial No. 713,896. (Cl. 188—6.)



1. In combination, an internal combustion engine having a throttle controlled intake pipe, a brake applied to a mechanism driven by the engine, a vacuum cylinder, a piston therein, and a pipe connection between the manifold and cylinder.

2. In combination, an internal combustion engine having a throttle controlled intake manifold, a brake applied to a part rotated by the engine, a vacuum cylinder, a piston therein and operatively connected to the brake, and a pipe connection between the manifold and cylinder provided with a manually operable three way valve for controlling the connection of the cylinder to the manifold or to atmosphere.

3. In combination, an internal combustion engine having a throttle controlled intake manifold, a brake for the engine, a vacuum cylinder, a piston therein, a foot lever connected with the brake and attached to the piston with a limited sliding movement with respect thereto, and suction connection between the cylinder and the intake manifold between the throttle and engine.

4. In combination, an internal combustion engine, an intake manifold, a throttle valve therefor, a brake for the engine, a vacuum cylinder and a piston therein connected with the brake, a pipe connection between the cylinder and manifold at a point between the throttle and engine, a three way valve in said pipe, and mechanical connections between the engine throttle valve and the three way valve.

5. In combination, an internal combustion engine having a throttle controlled intake, a brake operating upon the engine, vacuum operable means for actuating the brake, and connection between said means and the intake at a point between the engine and throttle.

[Claims 6 and 7 not printed in the Gazette.]

1,076,199. PACKAGE-FORMING MEANS. CHARLES W. DOHM, Chicago Heights, Ill., assignor to Paraffine Paint Company, San Francisco, Cal., a Corporation of California. Filed Apr. 24, 1911. Serial No. 622,956. (Cl. 242—68.)



1. As a means for forming a package, a hollow rotatable mandrel adapted to receive a package and supported entirely at one end, said mandrel being cut away at its free end for substantially one-half of its width and for a length substantially equal to the package, substantially as described.

2. As a means for forming a package, a hollow rotatable mandrel adapted to receive a package and supported entirely at one end, said mandrel being cut away at its free end for substantially one-half of its width and for more than one-half the length of the mandrel, substantially as described.

1,076,200. ART OF CONVERTING PHOSPHORITES. HENRY VAIL DUNHAM, Bainbridge, N. Y., assignor to Nacirema Chemical Company, a Corporation of Vermont. Filed Sept. 14, 1911. Serial No. 649,283. (Cl. 71—7.)

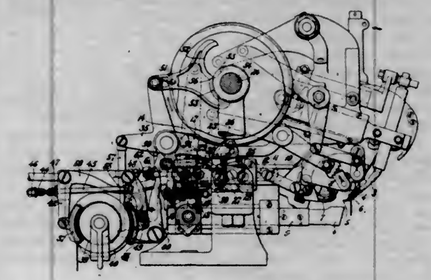
1. A process of converting the phosphoric acid of phosphate rock into the available condition in a single operation, which comprises producing an intimate mixture of phosphate rock, a salt of an alkali metal capable of converting said phosphate into a form in which it is soluble in ammonium citrate, but insoluble in water, and a sufficient amount of alumina to prevent fusion of the mixture, and then heating the mixture to substantially a white heat until said conversion is accomplished, substantially as described.

2. A process of converting the phosphoric acid of phosphate rock into the available condition in a single operation, which comprises producing an intimate mixture of phosphate rock, a fusible alkali metal salt capable of converting said phosphate into citrate-soluble, but not water-soluble condition, and a sufficient amount of a "nonflux" to prevent fusion of the mixture, and then heating the mixture to a white heat until said conversion is accomplished, substantially as described.

3. A process of converting the phosphoric acid of phosphate rock into the available condition, which comprises producing an intimate mixture of phosphate rock, a sufficient amount of a fusible alkali metal salt to convert said phosphate into a form in which it is soluble in ammonium citrate but insoluble in water, and a sufficient amount of alumina to prevent fusion of the mixture, by mixing said materials in the presence of sufficient water to produce a plastic mass, and then heating the mixture to a white heat until said conversion is accomplished, substantially as described.

4. A process of converting the phosphoric acid of phosphate rock into the available condition, which comprises producing an intimate mixture of phosphate rock, a salt of an alkali metal in amount sufficient to convert said phosphate into a citrate-soluble, but not water-soluble condition, and a sufficient amount of alumina to prevent any substantial amount of fusion of the mixture, and then heating the mixture to a white heat for about an hour.

1,076,201. WELT-GUIDE MECHANISM FOR WELT-SHOE-SEWING MACHINES. ANDREW EPPLER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 22, 1909. Serial No. 529,412. (Cl. 112—20.)



1. An inseam shoe sewing machine, having, in combination, stitch forming devices, a welt guide, means acting during the normal operation of the machine in sewing a seam to move the guide toward and from the shoe during each cycle of operations of the machine, and means for holding the guide in advanced position during at least one cycle of operations of the machine.

2. An inseam shoe sewing machine, having, in combination, stitch forming devices, a welt guide, mechanism for retracting the welt guide during each cycle of operations of the machine, and means for rendering said mechanism inoperative during at least one cycle of operations.

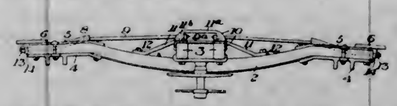
3. An inseam shoe sewing machine, having, in combination, stitch forming devices, a welt guide, mechanism including a yielding connection for retracting the welt guide during each cycle of operations of the machine, and means for preventing backward movement of the welt guide during at least one cycle of operations.

4. An inseam shoe sewing machine, having, in combination, stitch forming devices, a welt guide, a welt guide slide, mechanism including a yielding connection for retracting the welt guide slide during each cycle of operations of the machine, a cam actuated locking device to prevent movement of the slide by its actuating mechanism, a latch to hold the locking device in inoperative position, a pawl to hold the latch in inoperative position during the first movement of the locking device and means for actuating the pawl to release the latch during the first cycle of operations of the machine, whereby the latch engages the locking device during the second cycle of operations.

5. An inseam shoe sewing machine, having, in combination, stitch forming devices including a hooked needle, a welt guide, means for yieldingly forcing the welt guide toward the shoe and means for locking the welt guide while the point of the needle is passing through the work, for releasing the guide during the continued forward movement of the needle, and for again locking the guide during the retracting stroke of the needle.

[Claims 6 to 11 not printed in the Gazette.]

1,076,202. PLATFORM-GEAR FOR VEHICLES. JOSEPH EBERTT, Cleveland, Ohio. Filed June 1, 1910. Serial No. 564,437. (Cl. 21—51.)



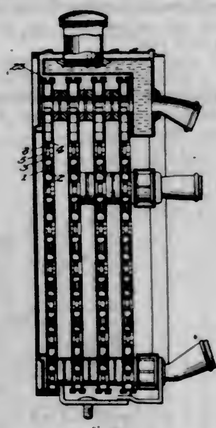
1. In a platform gear for vehicles, a trussed splinter-bar having a step-iron secured to the end portion thereof, said iron having a projecting sleeve portion formed with an oblique opening therethrough to receive the splinter-bar truss rod; substantially as described.

2. In a platform gear for vehicles, a trussed splinter-bar having a step-iron secured to the end portion thereof, said iron having a projecting sleeve portion formed with an oblique opening therethrough to receive the splinter-bar truss rod, and also having a depending lug to receive the end of the truss rod and to form a seat for the securing nut thereof; substantially as described.

3. In a platform gear for vehicles, a trussed splinter-bar, and an end iron secured thereto, said iron having an oblique projecting sleeve portion formed with an aperture therethrough to receive the splinter bar truss rod; substantially as described.

4. In a platform gear for vehicles, a transverse splinter bar having a horizontal portion at each end, each of said horizontal portions having an opening entering the same at an angle and thence extending in a more nearly horizontal direction, a plate secured to each end portion of the splinter bar and having a sleeve portion whose opening is in line with the opening in the end portion of the bar, and a truss rod having its ends extending outwardly through the respective sleeve portions and openings and having securing means at its ends seating against the ends of the bar, the end portions of said truss rod being bent after they enter the said openings to a more nearly horizontal direction, substantially as described.

1,076,203. RADIATOR. GEORGE E. FARLINGER, Detroit, Mich., assignor to Anguish Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 23, 1912. Serial No. 679,240. (Cl. 62—28.)

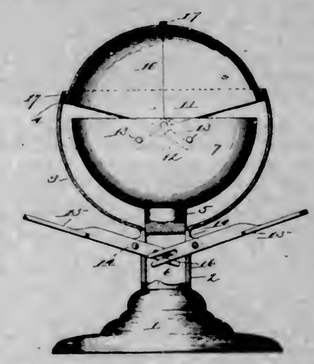


1. A hollow radiator section, comprising two spaced plate portions each formed from flat metal having a plurality of collars struck out therefrom, the collars on the one section telescoping with the collars on the other, one member of each telescoping pair being provided intermediate its ends with a shoulder, forming a spacing bearing with which the other member engages.

2. A hollow radiator section, comprising two plate members each formed from a flat sheet of metal having a plurality of collars struck out therefrom, the collars on the one section telescoping with the collars on the other and being provided with annular shoulders intermediate their ends, forming bearings upon which the free ends of the collars of the last-mentioned section rest.

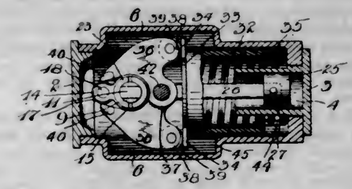
1,076,204. SANITARY CUSPIDOR. KARL FOUSEK, Austin, Tex. Filed Aug. 11, 1913. Serial No. 784,170. (Cl. 4—39.)

1. A device of the kind described comprising a standard having a receptacle thereupon, a post vertically movable in the standard, a cuspidor carried by the post, said cuspidor normally occupying a position within said receptacle, foot operated means for elevating said post, a shell divided into two portions and adapted to normally close the said receptacle, and means carried by the cuspidor for opening said shell upon rising movement of the cuspidor within the receptacle.



2. A device of the kind described comprising a standard, a semispherical receptacle carried thereby, a post vertically movable in the standard, a cuspidor carried by the post, a shell divided into two halves, each of said halves being pivotally mounted in said receptacle, said shell members being adapted to come together when in closed position and to slide within said receptacle when in open position, arms carried by said shell members, and pins carried by the cuspidor and always in engagement with said arms as and for the purpose set forth.

1,076,205. DOOR CHECK AND CLOSER. JOHN GERARD, New Britain, Conn. Filed Oct. 26, 1912. Serial No. 727,832. (Cl. 16—88.)



1. In a device of the character described, in combination, a casing, a pivot stud rotatably mounted therein and adapted for operative connection with a door to rotate with the opening and closing thereof, a checking mechanism embodying a cylinder mounted within said casing and a piston within said cylinder operatively connected with said pivot stud to reciprocate with the movement thereof, and a spring closer mechanism independent of said checking mechanism and embodying a spring mounted within said casing substantially concentric to and inclosing said checking cylinder, a sliding head substantially concentric to said cylinder and engaging said spring, and a lever member within said casing pivoted on the line of axis of said cylinder and spring and engaging said head eccentrically of said axis and arranged to be operated by the rotation of said pivot stud to move said head to tension said spring, and operated by the tensioned spring to return said lever member and stud to normal position.

2. In a device of the character described, in combination, a casing, a pivot stud rotatably mounted therein and adapted for operative connection with a door to rotate with the opening and closing thereof, a checking mechanism embodying a cylinder mounted within said casing

and a piston within said cylinder operatively connected with said pivot stud to reciprocate with the movement thereof, and a spring closer mechanism independent of said checking mechanism and embodying a spring mounted within said casing substantially concentric to and inclosing said checking cylinder, a sliding head substantially concentric to said cylinder and engaging said spring, complemental lever members mounted within said casing and operated by the rotation of said pivot stud to move said sliding head to tension said spring, and operated by the tensioned spring to return said pivot stud and door to normal position, said lever members being independently operable in opposite directions of rotation of said pivot stud.

3. In a device of the character described, in combination, a casing, a pivot stud rotatably mounted therein and adapted for operative connection with a door to rotate with the opening and closing thereof, a checking cylinder within said casing having a piston therein operatively connected with said pivot stud to reciprocate with the rotation thereof, a closer spring within said casing inclosing and substantially concentric to said checking cylinder, a cross-head abutment engaged by said spring and concentric to said checking cylinder, and a bell crank lever pivotally mounted within said casing on an axial line through the center of said casing and in operative connection with said pivot stud and cross-head whereby rotation of said pivot stud with the opening of the door operates said lever to move said cross-head to tension its spring, said spring, when tensioned, being adapted to move said lever to return said pivot stud and door to normal position.

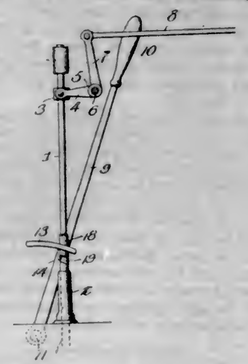
4. In a device of the character described, in combination, a casing, a pivot stud rotatably mounted therein and adapted for operative connection with a door to rotate with the opening and closing thereof, a checking cylinder within said casing having a piston therein operatively connected with said pivot stud to reciprocate with the rotation thereof, a closer spring within said casing inclosing and substantially concentric to said checking cylinder, a cross-head abutment engaged by said spring and concentric to said checking cylinder, complemental bell crank levers concentrically pivoted on an axial line through the center of said casing and having their ends in operative connection respectively with said pivot stud and cross-head abutment whereby movement of the door, and consequent rotation of the pivot stud, in either direction, will actuate one of said bell crank levers independently of the other to move said cross-head abutment to tension its spring, and whereby said spring, when tensioned, is adapted to move said lever to return said pivot stud and door to normal position.

5. In a device of the character described, in combination, a casing, a pivot stud mounted therein and adapted for operative connection with a door to rotate with the opening and closing thereof, a checking cylinder within said casing provided with a piston therein operatively connected with said pivot stud to reciprocate with the rotation thereof, a closer spring within said casing, a sliding cylindrical holder within said casing inclosing and engaged by said spring and provided with an abutment, said holder and spring being concentric to and inclosing said checking cylinder, complemental bell crank levers pivotally mounted within said casing on an axial line through the center of said casing and having their ends in operative connection respectively with said pivot stud and spring holder whereby movement of the door, and consequent rotation of the pivot stud, in either direction will actuate one of said bell crank levers independently of the other to move said spring holder to tension its spring, and whereby said spring, when tensioned, is adapted to move said lever to return said pivot stud and door to normal position.

[Claims 6 to 9 not printed in the Gazette.]

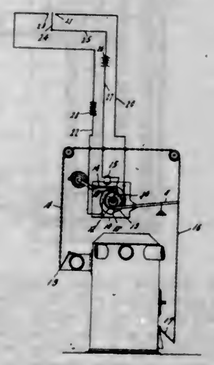
1,076,206. LEVER MECHANISM FOR GEAR-SHIFTING. CHARLES W. GERHART, Mount Holly Springs, Pa. Filed May 11, 1912. Serial No. 696,769. (Cl. 74—39.)

The combination with a gear shifting lever, of a clutch actuating mechanism including a longitudinally shiftable clutch actuating rod provided with contiguous relatively large and small circumferences, a segment carried by the gear shifting lever and provided with a slot and having enlarged openings at the opposite extremities of the slot and in communication therewith, said slot receiving the reduced circumference of the clutch shifting rod and



adapted to permit free movement of the gear shifting lever relatively to the clutch shifting rod, said openings in the segment coöperating with the enlarged portion of the clutch shifting rod to lock the lever against movement for gear shifting purposes previous to the actuation of the clutch shifting rod for releasing the clutch, and means for actuating said rod.

1,076,207. CONTROL SYSTEM. CLARENCE C. HEINZMANN, Indianapolis, Ind. Filed Oct. 11, 1912. Serial No. 725,133. (Cl. 236—4.)



1. The combination with a damper-regulating motor comprising an electromagnet, of a thermostat having high temperature and low temperature terminals, a source of electrical energy, and electrical connections between said energy source, electromagnet, and thermostat terminals, the circuit including one of said thermostat terminals having materially higher resistance than the circuit including the other of said terminals.

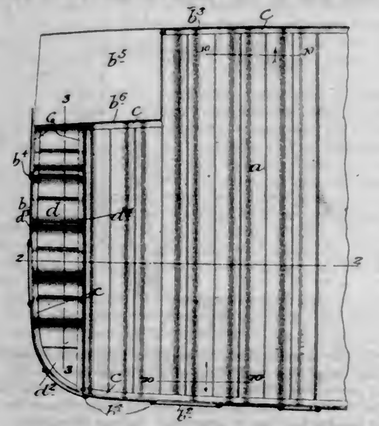
2. The combination with a damper-regulating motor comprising an electromagnet, of a thermostat comprising high temperature and low temperature terminals, a source of electrical energy, electrical connections between said electromagnet, energy-source, and thermostat terminals, and means arranged within the electrical circuit connecting the electromagnet and that thermostat terminal which will be in active circuit when the desired minimum temperature is reached, to prevent energization of said electromagnet when the voltage of the energy-source has decreased below a desired value but is still capable of operatively energizing said electromagnet through the circuit comprising the opposite thermostat terminal.

3. The combination of an electromagnetically controlled damper-regulating motor, a source of electrical energy, and a thermostat having high and low temperature terminals and controlling the connections of said source of electrical energy to the electromagnetic controlling means of said motor, the circuits respectively controlled by the two thermostat terminals being so related that a higher voltage of the source of electrical energy is required to cause the operation of the motor to produce an increase of temperature than is required to produce a decrease of temperature.

4. The combination of an electrically controlled motor, a battery, and a controlling device automatically responsive to predetermined conditions and controlling the connections of said battery to the electrically controlled motor through a plurality of alternative circuits one of which requires a higher voltage of the battery to produce operation of the motor than does another.

5. The combination of a motor, an electrically operated controlling device therefor, a source of electrical energy of variable voltage, and a controlling device automatically responsive to predetermined conditions and controlling the connections of said source to the electrically operated controlling device through a plurality of alternative circuits one of which requires a higher voltage of the source of electrical energy to produce operation of the electrically operated controlling device than does another.

1,076,208. SYSTEM OF CONSTRUCTION FOR STEEL SHIPS. SAMUEL HOLMES, Elizabeth, N. J. Filed July 1, 1912. Serial No. 706,950. (Cl. 114—78.)



1. A bulkhead construction for ships involving a main longitudinal central bulkhead and transverse bulkheads connected therewith and with the sides of the hull by a bulkhead frame construction composed of sheet metal formed into deep undulations or trough-shaped members which open in opposite directions and which are riveted to the hull, and between which and the bulkheads are placed web plates which are riveted thereto and to said bulkheads.

2. A ship the hull of which is provided with bulkheads composed of sheet metal bent to form parallel grooves or trough-shaped members which open in opposite directions and which are riveted to the deck and to the bottom of the hull and which are connected with the sides of the hull by bulkhead frames composed of sheet metal formed into deep parallel grooves or trough-shaped members, the grooves or members of the frames being at right angles to the grooves or members of the bulkheads, and said frames being riveted to the hull and being also secured to the bulkheads.

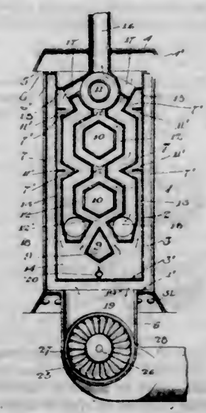
3. The here indescribed bulkheads for ships, said bulkheads comprising a central portion or member and side portions or members, the central portion being corrugated vertically to form deep trough-shaped members which open in opposite directions, and the side portions or members being corrugated horizontally to form deep trough-shaped members which open in opposite directions, said central and side portions being connected by web members riveted thereto, and said side members being secured to the hull of the ship or parts thereof by rivets arranged in continuous S-shaped lines which cross the central plane of the bulkheads.

4. The herein described bulkheads for ships, said bulkheads consisting of sheet metal and being formed from separate trough-shaped members riveted together and which open in opposite directions, said bulkheads also comprising central portions in which the trough-shaped members are arranged vertically, and side portions in which the trough-shaped members are arranged horizontally, said side members being also provided with webs which are secured thereto and to which the central members are secured, and said side members and central members being secured to the hull of the ship or parts thereof by rivets arranged in continuous S-shaped lines which cross the central plane of the bulkheads.

5. A ship provided with bulkheads composed of sheet metal and bent to form deep parallel grooves or trough-shaped members which open in opposite directions and which are secured to the hull by rivets arranged in continuous S-shaped or zig-zag lines which cross the central plane of the bulkheads, said bulkheads being also composed of separate parts which are riveted together and in some of which the grooves or troughs are horizontal and in others vertical.

[Claims 6 and 7 not printed in the Gazette.]

1,076,209. HOT-AIR FURNACE. EDWARD C. KENT, Pasadena, LLOYD GILES, Venice, and GEORGE A. LYSTER, Los Angeles, Cal., assignors, by mesne assignments, to Pacific Heating & Manufacturing Co., Los Angeles, Cal., a Corporation of California. Filed Nov. 12, 1912. Serial No. 731,040. (Cl. 126—99.)

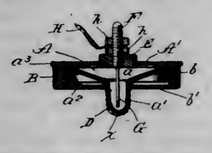


1. In a hot air furnace, an outer casing, an inner shell closed at the bottom and open at the top, and spaced at all sides and at the bottom from the outer casing to form an outer air space, a perforated top member over the space between said casing and inner shell, an air box open at the top and extending down at one side of said inner shell, said inner shell having tubular compartments extending

across said inner shell and communicating at one end with said outer air space and at the other end with said air box, outlet means communicating with the lower end of said outer air space, suction means in said outlet means for drawing air from said outer air space, a burner in the lower part of said inner shell, an outlet flue at the top of the furnace, and partition walls in said inner shell for directing the products of combustion against said tubular compartments, and into said outlet flue.

2. In a hot air furnace, an outer casing, an inner shell closed at the bottom and open at the top, and spaced at all sides and at the bottom from the outer casing to form an outer air space, an air box open at the top and extending down at one side of said inner shell, said inner shell having tubular compartments extending across said inner shell and communicating at one end with said outer air space and at the other end with said air box, outlet means communicating with the lower end of said outer air space, suction means in said outlet means for drawing air from said outer air space, a burner in the lower part of said inner shell, and an outlet flue at the top of the furnace.

1,076,210. CATAPHORIC ELECTRODE. DAVID E. KERR and HAROLD WILSON, Conneaut, Ohio. Filed Feb. 26, 1913. Serial No. 750,725. (Cl. 174—89.)

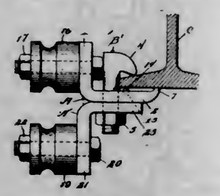


1. A cataphoric electrode, comprising a medicine container provided with a nipple adapted to enter a cavity or depression of the human body, and a cap of absorbent material covering the nipple.

2. A cataphoric electrode, comprising a medicine container provided with a nipple adapted to enter a cavity or depression of the human body, and a casing secured to the container through which the nipple extends.

3. A cataphoric electrode, comprising a medicine container provided with a nipple adapted to enter a cavity or depression of the human body, a cover for the container, a plug detachably secured to the cover, and a binding post and metallic electrode carried by the plug.

1,076,211. HANGER-BRACKET. CLARENCE C. KORNS, Johnstown, Pa. Filed June 10, 1912, Serial No. 702,821. Renewed July 23, 1913. Serial No. 780,817. (Cl. 248—32.)



1. A hanger bracket or holder comprising a clamping plate having an upturned transverse clamping jaw, a biting element on said plate in parallel relation to the jaw, a separate clamping member having a downturned clamping jaw disposed on a line between the first-named clamping jaw and the biting element, and means for holding said clamping plate and clamping member assembled.

2. A hanger bracket comprising a clamping plate bent to provide vertical and horizontal portions, a jaw upon the horizontal portion of the plate, a biting element upon the horizontal portion of the plate in spaced relation to said jaw, a bolt passing through the horizontal portion of the plate and provided with a jaw arranged on a line between the first-named jaw and biting element, and a retaining element engaging the bolt.

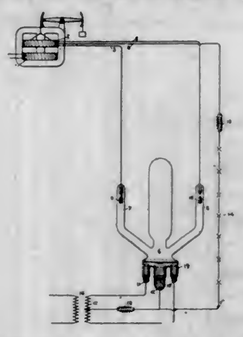
3. A hanger bracket comprising a clamping plate bent to provide vertical and horizontal portions, a jaw upon the horizontal portion of the plate, a biting element upon the horizontal portion of the plate in spaced relation to said jaw, a bolt passing through the horizontal portion of the plate and provided with a jaw arranged on a line between the first-named jaw and biting element, and clamping means for retaining the bolt and supporting an insulator thereon.

4. A hanger bracket comprising a clamping plate bent to provide vertical and horizontal portions, a jaw upon the horizontal portion of the plate, a biting element upon the horizontal portion of the plate in spaced relation to said jaw, a bolt passing through the horizontal portion of the plate and provided with a jaw arranged on a line between the first-named jaw and biting element, clamping means for retaining the bolt and supporting an insulator thereon, and means for supporting an insulator from the vertical portion of the plate.

5. A hanger bracket or holder comprising a clamping member having vertical and horizontal portions, a jaw upon the horizontal portion of said clamping member, a biting element upon the horizontal portion of said clamping member in spaced relation to said jaw, and a coacting clamping member having a coöperating jaw arranged on a line between the first-named clamping jaw and the said biting element.

[Claims 6 to 8 not printed in the Gazette.]

1,076,212. PROTECTING MERCURY-VAPOR APPARATUS. OSIAS O. KRUH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 20, 1907. Serial No. 393,815. (Cl. 176—49.)



1. The combination of a rectifier tube having main operating electrodes consisting of a cathode and anodes, starting electrodes arranged adjacent to the cathode, and an electrical conductor surrounding the cathode and the starting anodes but out of electrical contact therewith.

2. In a vapor electric device, the combination of an exhausted tube having a cathode, a starting anode located adjacent thereto, and means for preventing the cathode spot from shifting to said anode by equalizing the static stress between said cathode and anode.

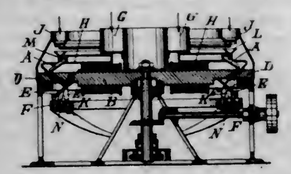
3. In a mercury vapor rectifying apparatus, the combination of a rectifier tube having main operating electrodes and starting electrodes, and electrically conducting circuits in proximity to the main negative electrode and the starting electrodes for preventing the shifting of the cathode spot from the negative electrode to either of the starting electrodes.

4. In a mercury vapor apparatus, the combination of an evacuated tube, a negative electrode, an auxiliary or starting electrode electrically connected therewith during the operation of said apparatus, and means adjacent to said negative electrode for preventing abnormal electrical discharges between the cathode and starting electrode to prevent the starting electrode from operating as a negative electrode to the exclusion of said negative electrode.

5. In a mercury vapor device, the combination of a main anode and a coöperating cathode, a starting anode having a tendency to operate as a sustained cathode by the shifting of the arc to the starting anode from the regularly operating cathode, and inductive means external to said cathode for restraining that tendency.

[Claims 6 to 10 not printed in the Gazette.]

1,076,213. ELECTROMAGNETIC SEPARATOR. ERICH LANGGUTH, Neerpelt, Belgium. Filed Apr. 26, 1912. Serial No. 693,361. (Cl. 83—71.)



1. An electromagnetic separator comprising a plurality of magnets held to rotate together and provided with operative poles of alternating opposite polarity, a feed channel held to rotate with said magnets, and a stationary magnetically induced ring located adjacent to the path of the operative magnet poles and adapted to receive the material to be treated, from the said rotary channel.

2. An electromagnetic separator comprising a rotary magnet, a feed channel held to rotate with said magnet, and a stationary magnetically induced ring located adjacent to the path of the operative magnet pole and having an upwardly facing surface adapted to receive and temporarily support the material to be treated, from said rotary channel.

3. An electromagnetic separator, comprising a rotary magnet, a stationary magnetically induced body located adjacent to the path of the operative magnet pole, means for feeding the material to be treated, to said stationary body, and a jet-producing device held to rotate with the magnet and arranged to clear the material from said body.

4. An electromagnetic separator, comprising a rotary magnet, a stationary magnetically induced body located adjacent to the path of the operative magnet pole and having an upwardly facing surface, and means for feeding the material to be treated, to said surface of the stationary body.

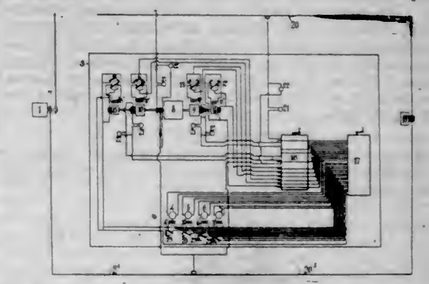
5. An electromagnetic separator, comprising a rotary magnet, a stationary magnetically induced body located adjacent to the path of the operative magnet pole, means for feeding the material to be treated, to said stationary body, and means for clearing the material from said body.

[Claims 6 to 10 not printed in the Gazette.]

1,076,214. ELECTRIC RAILWAY AND ELECTRIC-MOTOR CONTROL. HARRY WARD LEONARD, Bronxville, N. Y. Filed Mar. 25, 1908. Serial No. 423,117. (Cl. 172—179.)

1. The method of operating a railway vehicle which consists in conducting upon the vehicle low tension energy at one time, conducting upon the vehicle high tension energy at another time, applying energy on the vehicle in either case to a local circuit on the vehicle containing the armatures of the propelling motors, varying an electromotive force in series in said local circuit for controlling the energy in said circuit, and varying the circuit connections of said armatures relative to each other.

2. The method of operating a railway vehicle which consists in leading low tension energy upon the vehicle at one time, passing at least a portion of said energy through a source of electromotive force and the armature of a propelling motor, and at another time leading high tension energy upon the vehicle, transforming said high tension energy into low tension energy, passing at least a portion of said latter energy through said source and a motor armature.



3. The method of operating a motor which consists in simultaneously supplying to the motor energy from a high tension source and from a low tension source, and varying and reversing an electromotive force developed in series with the motor and with said low tension source for controlling the energy jointly supplied thereto.

4. The method of operating an electric motor which consists in geerating two electromotive forces in a local loop on the vehicle containing the motor armature, generating an exterior electromotive force, and supplying to the motor armature energy due to the the joint action of said two electromotive forces and the exterior electromotive force.

5. The method of operating a railway vehicle which consists in supplying low tension energy to the vehicle from a stationary source, supplying high tension energy to the vehicle from a stationary source, transforming said high tension energy to low tension energy, supplying energy from said source to the propelling motor armatures, controlling said armatures in either case by varying an auxiliary electromotive force in series with the motor armatures, and varying the circuit connections of said armatures relative to each other.

[Claims 6 to 26 not printed in the Gazette.]

1,076,215. PROCESS OF MAKING ACETYL-CELLULOSE PLASTIC MASSES. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,740. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of methy alcohol.

2. The proces of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of methy alcohol, the proportion of alcohol being about one to one and one-half times the camphor.

3. The proces of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of methy alcohol, the proportion of alcohol being about one to one and one-half times the camphor, and being about one-half the acetyl cellulose.

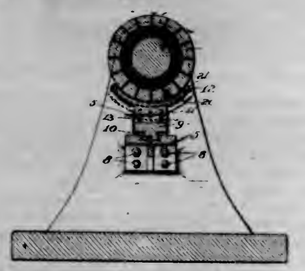
1,076,216. PROCESS OF MAKING ACETYL-CELLULOSE PLASTIC MASSES. WILLIAM G. LINDSAY, Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 27, 1911. Serial No. 662,742. (Cl. 106—40.)

1. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of ethyl alcohol, and heating.

2. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of ethyl alcohol, and heating, the proportion of alcohol being about one to one and one-half times the amount of the camphor.

3. The process of making acetyl cellulose plastic masses which comprises incorporating an acetone-soluble acetyl cellulose with camphor in the presence of a small proportion of ethyl alcohol, and heating, the proportion of alcohol being about one to one and one-half times the amount of the camphor, and being about one-half the amount of the acetyl cellulose.

1,076,217. COMMUTATOR-TRUING DEVICE. FRANK G. LUDWIG, Lockport, Ill. Filed May 31, 1913. Serial No. 771,039. (Cl. 171—211.)



1. A commutator truing device comprising a base in fixed position; guides on said base; an abrasive holder mounted on said guides; resilient elements between said abrasive holder and said base adapted to normally hold said abrasive holder in operative position; and a lock adapted to lock said abrasive holder in inoperative position, substantially as described.

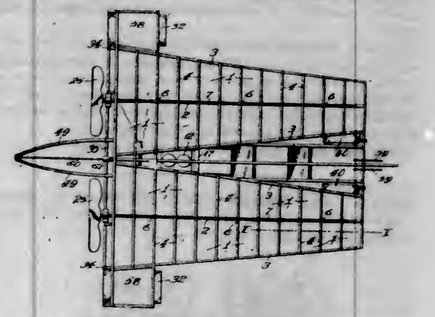
2. A commutator truing device comprising a base in fixed position; guides on said base; an abrasive holder mounted on said guides; resilient elements between said abrasive holder and said base adapted to normally hold said abrasive holder in operative position; plates carried by said base and engaging said abrasive holder, said plates being provided with perforations with inclined sides; and a locking lever pivoted on said abrasive holder, engaging the inclined sides of the perforations in said plates and adapted to lock said abrasive holder in inoperative position, substantially as described.

3. A commutator truing device comprising a base in fixed position; vertical guide pins on said base; an abrasive holder mounted on said guide pins and adapted for vertical movement; a helical compression spring around each guide pin between said base and said abrasive holder normally maintaining the latter in operative positions; plates carried by said base and engaging said abrasive holder, said plates being provided with perforations with inclined sides; and a locking lever pivoted on said abrasive holder, engaging the inclined sides of the perforations in said plates and adapted to lock said abrasive holder in inoperative position, substantially as described.

1,076,218. AEROPLANE. HARRY W. MACOMBER and FREDERICH H. D. BERGMANN, St. Louis, Mo. Filed Apr. 1, 1911. Serial No. 618,323. (Cl. 244—14.)

1. In a machine of the character described, an aeroplane comprising a plurality of overlapping sections with air inlet openings between said sections, said sections being arranged in a series in the line of flight of the machine and with their forward edges in the same horizontal plane, each of said sections having its lateral edges drooped more than the next one in front.

2. In a machine of the character described, a top plane constructed in two laterally divided portions, each portion comprising a plurality of sections inclined rearwardly and downwardly with the forward edge of all but one of the sections disposed above and spaced from the rear edge of adjacent sections.



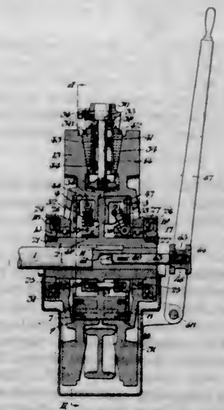
3. In a machine of the character described, an aeroplane constructed in two portions each with converging lateral edges, each portion comprising a plurality of sections inclined rearwardly and downwardly with the forward edges of the respective sections disposed above and spaced from the rear edges of the sections in front, respectively, the under surface of said sections being concaved transversely of the machine and increasing in depth from the front to the rear.

4. In a machine of the character described, the combination with a ridge beam, of two side bars spaced from and inclined toward said ridge beam rearwardly, a plurality of cross bars secured to said side bars and the top edge of said ridge beam, other cross bars secured to the side bars and the bottom edge of said ridge beam beneath the other cross bars, respectively, and a plurality of sheets of flexible material secured along their forward edges to the first said cross bars, respectively, and along their rear edges to said other cross bars.

5. In a machine of the character described, a top plane constructed in laterally separated portions elongated in the direction of flight, said portions being provided with air inlet openings exposed in the direction of flight and arranged in series from front to rear of said aeroplane.

[Claims 6 to 15 not printed in the Gazette.]

1,076,219. FLY-WHEEL. JOHN C. R. MARCH, Perth Amboy, N. J. Filed Nov. 26, 1912. Serial No. 733,714. (Cl. 74—6.)



1. The combination with a main shaft; of a sleeve having a central annular flange and two outer annular flanges upon opposite sides thereof; means rigidly connecting said sleeve with said shaft; two opposite counterpart beveled wheels normally loose on said sleeve; terminal collars on said sleeve having flanges extending transversely with respect to the axis thereof; two ball bearings for each of said wheels respectively interposed between the wheel hubs and said sleeve and between the wheel hubs and said terminal flanges; a stationary frame surrounding said shaft between said wheels; pinion shafts having screw threaded inner ends in engagement with said frame and having annular shoulders at their outer ends; clamping means arranged to secure said shafts in adjusted position; beveled pinions on said pinion shafts respectively in frictional engagement with the opposed beveled faces of said wheels; ball bearings interposed between said pinions and the heads on said shafts; whereby said pinions may be radially adjusted with respect to said main shaft; means whereby said wheels may be alternately rigidly connected with said sleeve, including two series of friction shoes arranged to slide radially upon opposite sides of said central flange between said outer flanges, collars fitted to slide axially on said sleeve upon opposite sides of said central flange, toggle levers having means arranged to vary their length and respectively pivotally connecting said collars and friction shoes, a yoke bar connecting said two collars through said central flange, a cross bar, carried by one of said collars, extending diametrically through elongated slots in said sleeve and main shaft, permitting axial movement of said collar and cross bar, a plunger fitted to reciprocate axially in said main shaft in engagement with said cross bar, and, means arranged to reciprocate said collars by said plunger, including a grooved head on said plunger, and a band lever having a stud engaging the groove in said plunger head.

2. The combination with a main shaft; of a sleeve having a central annular flange and two outer annular flanges upon opposite sides thereof; means rigidly connecting said sleeve with said shaft; two opposite counterpart beveled wheels normally loose on said sleeve; terminal collars on said sleeve having flanges extending transversely with respect to the axis thereof; a stationary frame surrounding said shaft between said wheels; pinion shafts having screw threaded inner ends in engagement with said frame and having annular shoulders at their outer ends; clamping means arranged to secure said shafts in adjusted position; beveled pinions on said pinion shafts in frictional engagement with the opposed beveled faces of said wheels; whereby said pinions may be radially adjusted with respect to said main shaft; means whereby said wheels may be alternately rigidly connected with said sleeve, including two series of friction shoes arranged to slide radially upon opposite sides of said central flange between said outer flanges, collars fitted to slide axially on said sleeve upon opposite sides of said central flange, toggle levers having means arranged to vary their length and respectively pivotally connecting said collars and friction shoes, a yoke bar connecting said two collars through said central flange, a cross bar, carried by one of said collars, extending diametrically through elongated slots in said sleeve and main shaft, permitting axial movement of said collar and cross bar, and, a plunger fitted to reciprocate axially in said main shaft in engagement with said cross bar.

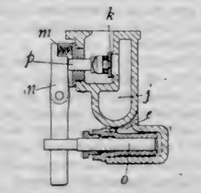
3. The combination with a main shaft; of a sleeve having a central annular flange; means rigidly connecting said sleeve with said shaft; two opposite beveled wheels normally loose on said sleeve; a stationary frame between said wheel; pinion shafts having screw threaded inner ends in engagement with said frame and having shoulders at their outer ends; clamping means arranged to secure said shafts in adjusted position; beveled pinions on said pinion shafts in frictional engagement with the opposed beveled faces of said wheels; whereby said pinions may be radially adjusted with respect to said main shaft; means whereby said wheels may be alternately rigidly connected with said sleeve, including friction shoes arranged to slide radially upon opposite sides of said central flange, collars fitted to slide axially on said sleeve upon opposite sides of said central flange, toggle levers respectively pivotally connecting said collars and friction shoes, a yoke bar connecting said two collars, and, means arranged to reciprocate said collars.

4. The combination with a main shaft; of a sleeve having a central annular flange; means rigidly connecting said sleeve with said shaft; two opposite beveled wheels normally loose on said sleeve; a stationary frame between said wheels; pinion shafts having screw threaded inner ends in engagement with said frame and having shoulders at their outer ends; clamping means arranged to secure said shafts in adjusted position; beveled pinions on said pinion shafts in frictional engagement with the opposed beveled faces of said wheels; whereby said pinions may be radially adjusted with respect to said main shaft; means whereby said wheels may be alternately rigidly connected with said sleeve, including friction shoes arranged to slide radially upon opposite sides of said central flange, collars fitted to slide axially on said sleeve upon opposite sides of said central flange, toggle levers respectively pivotally connecting said collars and friction shoes, a yoke bar connecting said two collars, a cross bar, carried by one of said collars, extending diametrically through elongated slots in said sleeve and main shaft, permitting axial movement of said collar and cross bar, and, a plunger fitted to reciprocate axially in said main shaft in engagement with said cross bar.

5. The combination with a main shaft; of a sleeve having a central annular flange; means rigidly connecting said sleeve with said shaft; two opposite beveled wheels normally loose on said sleeve; a stationary frame between said wheels; pinion shafts having screw threaded inner ends in engagement with said frame and having shoulders at their outer ends; clamping means arranged to secure said shafts in adjusted position; beveled pinions on said pinion shafts in frictional engagement with the opposed beveled faces of said wheels; whereby said pinions may be radially adjusted with respect to said main shaft; means whereby said wheels may be alternately rigidly connected with said sleeve, including friction shoes arranged to slide radially upon opposite sides of said central flange, collars fitted to slide axially on said sleeve upon opposite sides of said central flange, toggle levers respectively pivotally connecting said collars and friction shoes, means connecting said collars, and means arranged to reciprocate said collars.

[Claims 6 to 16 not printed in the Gazette.]

1,076,220. INJECTOR. RICHARD DAVID METCALFE and JAMES CROXON METCALFE, Romiley, England. Filed June 26, 1913. Serial No. 775,941. (Cl. 162—1.)



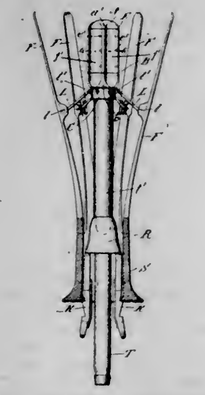
1. In injectors, in combination, a steam nozzle, a combining nozzle, a delivery nozzle, an overflow chamber, a delivery chamber, a water inlet, an overflow gap between the combining and delivery nozzles, freely opening and closing overflow means upon the combining nozzle; an overflow valve, means loading said overflow valve by the pressure in the injector delivery chamber, and means partly neutralizing said pressure, as set forth.

2. In injectors, in combination, a steam nozzle, a combining nozzle, a delivery nozzle, an overflow chamber, a delivery chamber, a water inlet, an overflow gap between the combining and delivery nozzles, freely opening and closing overflow means upon the combining nozzle, a free overflow valve upon the overflow chamber, a plunger loaded by the pressure in the delivery chamber, a lever and a rod conveying the load upon said plunger to said overflow valve and means preventing the loading of said overflow

valve until the plunger load exceeds a predetermined amount, as set forth.

3. In injectors, in combination, a steam nozzle, a combining nozzle, a delivery nozzle, an overflow chamber, a delivery chamber, a water inlet, an overflow gap between the combining and delivery nozzles, freely opening and closing overflow means upon the combining nozzle, a free overflow valve upon the overflow chamber, a plunger loaded by the pressure in the delivery chamber, a lever and a rod conveying the load upon said plunger to said overflow valve, and a spring preventing the loading of said overflow valve until the injector delivery pressure overcomes the spring resistance, as set forth.

1,076,221. DILATING-SYRINGE. ALBERT LAWRENCE MINER, Bellows Falls, Vt. Filed June 8, 1912. Serial No. 702,452. (Cl. 128—45.)



1. In a vaginal instrument, an inner liquid-induction tube, and an encompassing outer sleeve of substantially larger interior diameter than that of the exterior of the tube, flexible fingers fixedly attached to one end of said sleeve and projecting toward the discharge end of the tube, means to deflect and retract the free ends of such fingers when the tube is reciprocated longitudinally within the sleeve, and means to automatically effect engagement between said tube and sleeve and hold said fingers in desired deflected positions.

2. In an instrument of the class described, a liquid induction tube and an encompassing sleeve of interior diameter greater than that of the exterior of the tube, flexible fingers projecting from one end of the sleeve, means to deflect the fingers when the tube is drawn backward through the sleeve and spring-catches which automatically effect engagement between the sleeve and tube and hold said fingers in desired deflected positions.

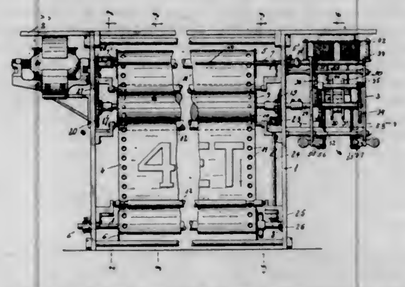
3. In an instrument of the class described, a liquid induction tube, an encompassing sleeve of interior diameter substantially greater throughout its length than that of the exterior of the tube, and provided with a flaring exterior at its rear end, flexible integral fingers projecting from the other end of the sleeve, and means to deflect the outer ends of said fingers.

4. In an instrument of the class described, a sleeve having flexible fingers rigidly fixed to and projecting from one end thereof and adapted to be spread when desired, a liquid conducting tube extending through said sleeve and having at its discharge end, a head portion provided with a series of liquid passages extending at angles in different directions away from the induction end of the tube, a base portion with liquid passages extending at angles in different directions toward said induction end, and a rotatable portion supported between said head and base and provided with liquid passages extending tangentially of said rotatable portion.

5. In an instrument of the class described, a liquid conducting tube, a sleeve encompassing the tube and provided with integral flexible fingers extending from one end thereof, means to spread the free ends of said fingers when the tube is drawn backward within the sleeve, and to retract them to cover the end of the tube when it is pushed forward, and depressions in the end of the tube to receive the ends of the fingers and thus cause them to mask the ejection end thereof and form the exterior surface of the device.

[Claim 6 not printed in the Gazette.]

1,076,222. ELECTRICAL INDICATOR. SAMUEL B. MOSCOVITZ, New York, N. Y., assignor, by mesne assignments, to National Automatic Roll Advertising Company, a Corporation of New York. Filed Aug. 28, 1907. Serial No. 390,480. (Cl. 40—53.)



1. In an exhibiting apparatus in combination, an electric motor; an exhibiting device; mechanical connections between said motor and said device for shifting said device; an automatic circuit breaker for said motor comprising a contact automatically and gradually movable to circuit breaking position and controlled by the shifting of said exhibiting device and a coöperating contact yieldingly spring pressed toward and into the path of movement of said first contact; and adjustable means for limiting the travel of said coöperating contact toward said first contact, whereby the engagement between the contacts may be broken before the complete shifting of said exhibiting device.

2. In a device of the character described, the combination with an indicating strip, of winding rollers, a feed roller, means for imparting movement to said feed roller in opposite directions, loose gears at the ends of said feed roller, ratchet wheels having reversed teeth and being connected with said feed roller, pawls secured to the loose gears and coöperative with said ratchet wheels to automatically couple either of said gears with the feed roller according to the direction of rotation of the latter, a friction coupling for each winding roller, said friction coupling permitting the latter to automatically adjust itself in speed according to the variation of its diameter, and gears transmitting movement from the feed roller to the said friction couplings, said gears being so apportioned that the speed of the winding rollers is greater than that of the feed roller, substantially as set forth.

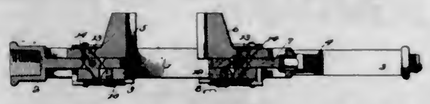
3. In a device of the character described, the combination with feed and winding rollers, and an indicating strip, of a reversible electro-motor for driving said feed roller in opposite directions, an automatically operated electro-magnet, a pair of cam disks arranged with their cam portions in reversed direction to one another, a pair of swinging pawls for said cam disks actuated simultaneously by said electro-magnet and independently from one another by the said cam disks, said pawls and cams being adapted to control the feeding of the indicating strip in the respective directions of rotation of the electro-motor, substantially as set forth.

4. In a device of the character described, the combination with feed and winding rollers and an indicating strip, of a reversible electro-motor for driving said feed roller in opposite directions, an automatically operated electro-magnet, a pair of cam disks arranged with their cam portions in reversed direction to one another, a pair of swinging pawls for said cams, actuated simultaneously by the said electro-magnet, and independently from one another by said cams, electric controllers connected with and actuated by said pawls, of which controllers, one at a time, is adapted to control the electric circuit through the motor to start and stop the latter substantially as set forth.

5. In a device of the character described, the combination with feed and winding rollers and an indicating strip, of a reversible electro-motor for driving said feed roller in opposite directions, an automatically operated electro-magnet, a pair of cams rigidly connected with the feed roller and having their cam portions reversed to one another, a pair of swinging pawls for said cams actuated simultaneously by the said electro-magnet and independently from one another by the said cams, electric controllers comprising spring actuated bars connected with and actuated by said pawls, electric contact pieces carried by said bars, adjustable contact pieces coöperating with said first named contact pieces, of which controllers, one at a time, is adapted to control the electric circuit through the motor to start and stop the latter, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,076,223. PIPE-CUTTER. IRA W. NONNEMAN, Warren, Ohio, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Oct. 29, 1912. Serial No. 728,416. (Cl. 81—191.)



1. A pipe cutting tool comprising pipe-clamping jaws between which there is a relative adjustment as the tool is being applied to a pipe, said jaws maintaining a fixed relation to each other during the cutting operation, cutting means coöperating with said jaws and means operatively connecting the same so that the jaws will be forced into engagement with the pipe by the resistance offered by the latter to the jaws, and means for adjusting the cutting means as the cutting operation progresses.

2. A pipe cutter comprising a frame having oppositely-disposed jaws between which there is a relative adjustment, means for effecting such adjustment, opposed cutters slidably mounted relatively to said jaws, and means intermediate of each jaw and its respective cutter for forcing the latter into engagement with a pipe by the resistance of the latter to the jaws.

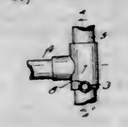
3. A pipe-cutter comprising a frame, oppositely disposed slidable jaws, cutters coöperating with said jaws, each cutter being slidably mounted on a plane paralleling the sliding movement of the jaws, means for causing the cutters to be moved in opposite direction to the jaws, and means for effecting a relative bodily movement between the jaws and the cutters.

4. A pipe-cutter comprising a frame, oppositely disposed slidable jaws, cutters coöperating with said jaws, each cutter being slidable on a plane paralleling the sliding movement of the jaws, means actuated by the resistance of the jaws in engaging a pipe for causing the cutters to be moved toward the pipe, and means for effecting a relative bodily movement between the jaws and the cutters.

5. A pipe-cutter comprising a frame, oppositely disposed slidable jaws, cutters coöperating with said jaws, each cutter being slidable on a plane paralleling the sliding movement of the jaws, levers movable on planes at right angles to the planes of movement of the jaws and cutters and in engagement with the latter for causing the cutters to be moved toward the pipe by the resistance of the pipe to the jaws, and means for effecting a relative bodily movement between the jaws and the cutters.

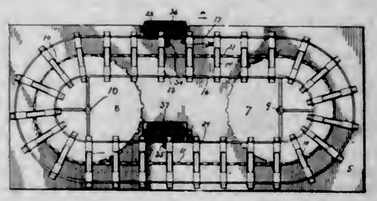
[Claims 6 to 8 not printed in the Gazette.]

1,076,224. COLLAPSIBLE BED. FREDERICK A. PALMER, Middletown, Conn. Filed July 3, 1913. Serial No. 777,160. (Cl. 5—9.)



A collapsible bed comprising head and foot sections, cross rods connecting the vertical members thereof, side rails, and sleeves to which said side rails are connected, said sleeves being slidable upon the vertical members of the head and foot sections and having notches engageable with said cross rods to lock the members against collapsing.

1,076,225. BEAN-SNIPPER. WILLIAM B. PHINNEY, Chillicothe, Ohio, assignor to The Phinney Engineering Company, Chillicothe, Ohio, a Corporation of Ohio. Filed July 26, 1909, Serial No. 509,619. Renewed Mar. 12, 1913. Serial No. 753,861. (Cl. 146—11.)



1. A machine of the character described comprising an endless carrier, a plurality of tilting buckets mounted upon said carrier and provided with slots therein and adapted to tilt in either direction from a horizontal position, means for maintaining said buckets tilted at one angle while said buckets are traveling in one direction, means for tilting said buckets at an opposite angle when they are traveling in the opposite direction, and knives adapted to pass through slotted portions of said buckets.

2. A machine of the character described comprising an endless carrier, a plurality of tilting buckets mounted upon said carrier and provided with slots therein, and adapted to tilt in either direction from a horizontal position, means for maintaining said buckets tilted at one angle while said buckets are traveling in one direction, means for tilting said buckets at an opposite angle when they are traveling in the opposite direction, knives adapted to pass through slotted portions of said buckets, doors adapted to close the ends of said buckets, and cams adapted to act upon said doors to open them at predetermined intervals.

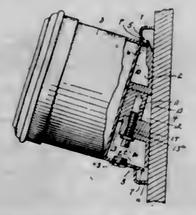
3. A machine of the character described comprising an endless carrier, a plurality of tilting buckets mounted upon said carrier and provided with slots therein, and adapted to tilt in either direction from a horizontal position, means for maintaining said buckets tilted at one angle while said buckets are traveling in one direction, means for tilting said buckets at an opposite angle when they are traveling in the opposite direction, knives adapted to pass through slotted portions of said buckets, doors adapted to close the ends of said buckets, and cams adapted to act upon said doors to open them at predetermined intervals, one of said cams acting upon the doors while

the corresponding knife is passing through the slotted portions of the buckets, and the other of said cams acting upon said doors after the knife has passed from the slotted portions of the buckets.

4. In a device of the character described, the combination with a pair of toothed wheels having their axes arranged vertically, of a chain engaged therewith, and traveling therearound, in a horizontal orbit, a plurality of tilting buckets secured to said chain and provided with slots therein, a pair of tracks adapted to tilt said buckets from one angle to the other during their passage over said tracks, said buckets comprising elongated hollow body portions open at the top, pivoted doors at each end of said body portions, and cam engaging extensions upon said pivoted doors, cams adapted to be engaged by said extensions and knives adapted to pass through slots formed in said body portions.

5. A machine of the character described comprising an endless propeller traveling constantly in a substantially horizontal plane, buckets pivotally mounted on said propeller, and adapted to receive articles to be trimmed, means for tilting the buckets alternately in opposite directions and causing the articles therein to move successively toward opposite ends of the buckets, and cutters arranged to sever said articles at the depressed ends of said buckets.

1,076,226. DASH-LOCK FOR AUTOMOBILE-CLOCKS. WILSON E. PORTER, New Haven, Conn., assignor to New Haven Clock Co., New Haven, Conn., a Corporation. Filed Mar. 19, 1913. Serial No. 755,541. (Cl. 58—53.)



1. In a dash-lock for automobile clocks, the combination with a dash-plate provided with a positioning-finger, of a clock having its case formed in its projecting rear edge with a positioning-notch to receive the said finger and provided with a base-ring larger in diameter than the said dash-plate and band and forming a housing for the said plate and the rear edge of the band when the clock is fastened to the dash, and locking means for permanently securing the clock-case to the said plate.

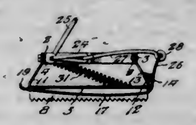
2. In a dash-lock for automobiles, the combination with a dash-plate provided with a positioning-finger and with a fastening-socket provided with a binding-screw, of a clock having its case formed in its projecting rear edge with a notch for receiving the said positioning-finger, and provided with a fastening-stud entering the said socket and bored for the reception of the said screw and the case of the clock being also provided at its rear end with a base-flange or housing larger in diameter than the dash-plate and case and serving to conceal the dash-plate and the rear edge of the case when the clock is applied to the dash.

1,076,227. PROCESS OF MAKING A FOOD PRODUCT. FRANK PREVOST, Oakland, Cal., assignor of one-half to Con Driscoll, Oakland, Cal. Filed Sept. 30, 1912. Serial No. 723,154. (Cl. 99—11.)

1. The hereindescribed process of preparing a food compound consisting in separating the whites and yolks of eggs, adding sugar to said whites and thoroughly whipping said whites and said sugar from time to time until they become dry.

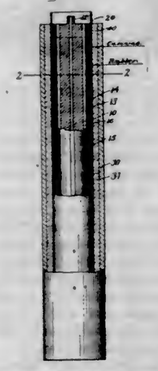
2. The hereindescribed process of preparing a food compound consisting in separating the whites and yolks of eggs, adding sugar to said whites and thoroughly whipping said whites and said sugar from time to time until they become dry and reducing the dry mass to powdered form.

1,076,228. CURRYCOMB. NATHAN W. PRICE, Columbus, Miss. Filed May 31, 1912. Serial No. 700,803. (Cl. 119—88.)



In combination, a frame including a handle ending in two bars held in parallel spaced relation, a comb plate having oppositely positioned converging securing flanges, portions of said plate being stamped out and serrated to form a plurality of combs, one of said flanges having a portion curved outward to form a pin sleeve, a pin within said sleeve, means to secure said flanges to said bars, two eye-bolts secured to one of said frame bars, a slotted cleaner plate striding said combs having bars engaging said pin and an outstanding apertured flange, a crank shaft held within said eye-bolts, having an operating lever positioned adjacent to said handle, a link extending from the crank of said shaft and engaging said aperture, and a spring extending from one of said bars and engaging said cleaner plate, as and in the manner set forth.

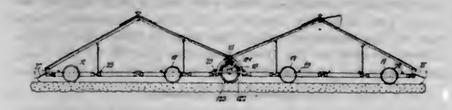
1,076,229. CORE FOR THE MANUFACTURE OF CEMENT AND CEMENT-LINED PIPES. GEORGE W. PRIEST, Newton, Mass. Filed Nov. 8, 1911. Serial No. 659,091. (Cl. 25—128.)



1. A core for cement and cement-lined pipes consisting of a rigid core-piece and a tubular open-ended covering thereon, said covering comprising a non-extensible inner tube to engage the core-piece and a yielding outer tube of substantial thickness to engage the cement and to be compressed by the cement on hardening and also permitting withdrawal of the component parts of the core, said inner and outer tubes being secured together over all to form a single-piece tubular covering, substantially as described.

2. A core for cement and cement-lined pipes consisting of a rigid core-piece having longitudinal grooves to receive strips on the covering, and a tubular open-ended cover thereon, said covering comprising an inner tube and a yielding outer tube intimately associated together throughout their length, said inner tube having rigid strips arranged on its inner side to enter the groove in the core-piece, substantially as described.

1,076,230. MOVABLE HOTHOUSE. ARTHUR PULLEN-BURRY, Sompting, Worthing, England. Filed June 30, 1913. Serial No. 776,666. (Cl. 47—27.)



1. A hot house, rails transverse to the hot house, wheels upon the hot house running on the rails, a longitudinal shaft carrying driving pinions, gearing connecting the driving pinions with the wheels, and means for driving the shaft.

2. A hot house, rails transverse to the hot house, wheels upon the hot house running on the rails, a longitudinal shaft carrying driving pinions, gearing connecting the driving pinions with the wheels, and multiplying gear for driving the shaft.

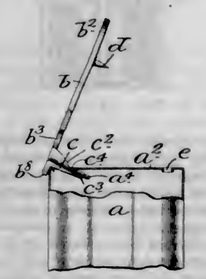
3. A hot house, rails transverse to the hot house, wheels upon the hot house running on the rails, a longitudinal shaft turning in adjustable bearings on the hot house and carrying driving pinions, gearing connecting the driving pinions with the wheels, and means for driving the shaft.

4. A hot house, rails transverse to the hot house, wheels upon the hot house running on the rails, a longitudinal shaft turning in adjustable bearings on the hot house and carrying driving pinions, gearing connecting the driving pinions with the wheels, and multiplying gear for driving the shaft.

5. A hot house, rails transverse to the hot house, wheels upon the hot house running on the rails, a longitudinal shaft carrying driving pinions gearing with toothed wheels on the wheels, and means for driving the shaft.

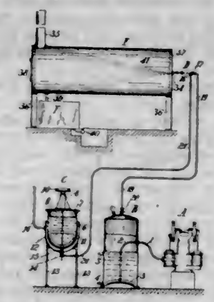
[Claims 6 and 7 not printed in the Gazette.]

1,076,231. CAN-OPENER. JAMES M. PURDY, New York, N. Y., assignor to Frederick E. Teves, Glen Cove, N. Y. Filed Mar. 19, 1912. Serial No. 684,711. (Cl. 220—67.)



A can opener comprising a main body or handle portion provided at one side and adjacent to one end with a blade which projects at right angles thereto, said blade being of crescent form in cross section and the side edges thereof being convergent to a central point, said blade being widest at the handle or body portion, and said handle or body portion being provided back of the blade with a projecting member which forms a stop to limit the distance the blade can be forced into a can, and which also forms a fulcrum on which the body or handle portion is turned backwardly after the blade is forced downwardly through the head of the can, and said handle being also provided with a prong adapted to form a vent in the head of the can when the blade is forced thereinto.

1,076,232. METHOD OF RESTORING COAGULATED ALBUMINS TO THE ORIGINAL STATE. ALBERT H. RASCHE, Charlottenburg, Germany. Filed Dec. 9, 1912. Serial No. 735,821. (Cl. 99—11.)



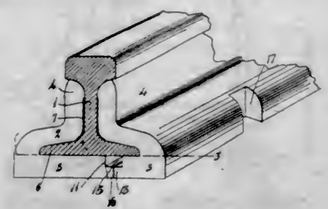
1. The herein described method of restoring coagulated albumins to the original state, which consists in mixing dry coagulated albumins or albuminous bodies with a liquid, heating and agitating the mixture so as to form an emulsion, supersaturating the heated emulsion with a chemically indifferent gas under pressure, and atomizing the warm emulsion supersaturated with a chemically indifferent gas under pressure so as to bring said albumins or albuminous bodies into solution.

2. The herein described method of restoring coagulated albumins to the original state, which consists in heating and agitating a liquid containing coagulated albumins or albuminous bodies, supersaturating the heated liquid with a chemically indifferent gas under pressure, and atomizing the warm liquid supersaturated with a chemically indifferent compressed gas so as to bring said albumins or albuminous bodies into solution.

3. A method of rendering coagulated albumins soluble which comprises treating a liquid containing said albumins in an undissolved condition with a chemically indifferent gas under pressure, under conditions to supersaturate said liquid with said gas, and thereafter atomizing said liquid by means of a chemically indifferent gas under pressure, into an open vessel.

4. A method of rendering the coagulated albuminous substances of heated milk soluble, which comprises supersaturating said heated milk with a chemically indifferent gas under considerable pressure, and atomizing said milk by means of a chemically indifferent gas under pressure, and causing said milk and gas to flow past obstructions, into an open vessel.

1,076,233. FISH-PLATE FOR RAILS. WILLIAM C. RATH, Cincinnati, Ohio. Filed July 15, 1912. Serial No. 709,374. (Cl. 236—6.)



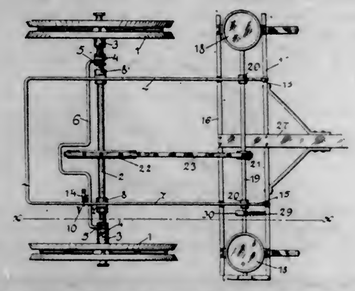
1. A reversible fish-plate comprising a base portion and a vertical clamping portion, interlocking lugs extending from said base portion, an angular extension at the end of each interlocking lug having an inclined surface at one side thereof, each base having a recess upon its inner edge between one end and the adjacent lug and each base having a recess upon its inner edge at its opposite end and

provided with a lug, in combination with a coöperating fish-plate of like construction, said plates being adapted to engage the bottom and respective sides of the end portions of the abutting rails and to interlock with each other and with said rails to clamp and hold said rails in proper and secure alinement with each other without the use of bolts, and a key adapted to enter each of said recesses horizontally and be held therein by said lug, substantially as and for the purposes set forth.

2. A reversible fish-plate comprising a base portion and a vertical clamping portion, interlocking lugs extending from said base portion, an angular extension at the end of each interlocking lug having an inclined surface on the inner side thereof, each base having a recess upon its inner edge between one end and the adjacent lug and having the lower portion of its bottom inclined downwardly at an angle to the upper portion and each base having at its opposite end a similar recess with a lug at the end of the lower portion, in combination with a coöperating fish-plate of like construction, said plates being adapted to engage the bottom and the respective sides of the end portions of the abutting rails and to interlock with each other and with said rails in proper and secure alinement with each other and a longitudinally wedge-shaped key adapted to be inserted horizontally into the recesses formed by the coöperating members and held therein by said lug, substantially as set forth and for the purposes specified.

3. A reversible fish-plate comprising a base portion and a vertical clamping portion, interlocking lugs extending from said base portion, an angular extension at the end of each interlocking lug having an inclined surface on its inner side, each base having a recess upon its inner edge between one end and the adjacent lug and having the lower portion of its bottom inclined downwardly at an angle to the upper portion, and each base having at its opposite end a similar recess with a lug at the end of the lower portion, in combination with a coöperating fish-plate of like construction, said plates being adapted to engage the bottom and respective sides of the end portions of the abutting rails and to interlock with each other and with said rails to clamp and hold said rails in proper and secure alinement with each other, and a longitudinally wedge-shaped key adapted to be inserted horizontally into the recess formed by the coöperating members and held therein by said lug, said key having an extension adapted to fit adjacent said lug and thereby provide accessible means whereby said interlocking key can be easily lifted up when it is desired to remove the key, substantially as set forth and for the purposes specified.

1,076,234. CORN AND COTTON PLANTER. MARCUS ROBINSON, SAMUEL ROBINSON, and WILLIAM A. DAVIS, Chico, Tex. Filed May 13, 1911. Serial No. 627,085. (Cl. 111—6.)



In a planter, the combination with a frame, an axle supporting the frame, seed cans carried by the frame, seed-dropping mechanism carried by the frame, a chain and sprocket connection between the axle and the seed-dropping mechanism, and ground wheels loosely mounted on the axle, of clutch hubs carried by the wheels, clutch members splined on the axle, and arranged to alternately engage the clutch hubs, a rigid yoke extending between and engaging the clutch members at its ends, said yoke having an offset portion receiving a portion of the chain and sprocket connection, said yoke being held against rotation and rotatably receiving the clutch members, bearings on the frame in which the yoke is mounted to slide, a lever pivoted on the frame and also pivoted to the yoke, and means for locking the lever in its adjusted positions.

1,076,235. CASE-HARDENING MATERIAL. HUGH RODMAN, Edgewood, Pa., assignor to Rodman Chemical Company, a Corporation of Pennsylvania. Filed May 1, 1913. Serial No. 764,880. (Cl. 148—25.)

1. As a new article of manufacture, case-hardening material consisting of small rounded masses of appreciable size.

2. As a new article of manufacture, case-hardening material consisting of small spherical masses of appreciable size.

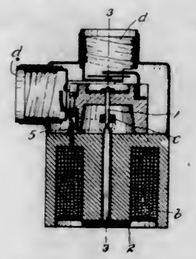
3. As a new article of manufacture, case-hardening material in the form of small rounded pebbles, each pebble consisting of finely divided material held together by a tacky binder.

4. As a new article of manufacture, case-hardening material consisting of small rounded coked masses of appreciable size.

5. As a new article of manufacture, case-hardening material consisting of small rounded masses of appreciable size having a coking interior and a non-coking exterior.

[Claims 6 to 11 not printed in the Gazette.]

1,076,236. SUPPORT FOR ELECTRICAL TAPS OR OUTLETS. JOSEPH SACHS, Hartford, Conn., assignor to The Sachs Laboratories, Incorporated, Hartford, Conn., a Corporation of Connecticut. Filed June 16, 1911. Serial No. 633,632. (Cl. 173—341.)



1. An electrical current tap, a base of magnetic material and an energizing coil therefor on which said tap is mounted and by means of which it is attached to a suitable supporting surface, and means for controlling the supply of current to said base independently of said tap.

2. A base of magnetic material, an energizing coil therefor, an electrical current tap mounted on said base, a current supply circuit for said tap and coil, means for controlling the magnet coil independent and separate from the controlling means for said tap.

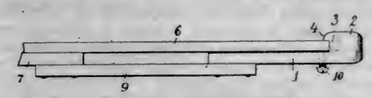
3. An electrical current tap, a base of magnetic material on which said tap is mounted, an energizing coil therefor, a supply circuit for said tap and coil, a controller for said circuit, and means for rendering said controller inoperable while the device is in use.

4. A plurality of electrical current taps, a base of magnetic material on which said taps are mounted, an energizing coil therefor, a supply circuit for said taps and coil, a switch for said circuit, an operating handle therefor, and means for controlling the operation of said switch, said means being carried by said base and inoperable when said base is attached to the supporting surface.

5. A plurality of electrical current taps, a base of magnetic material on which said taps are mounted, an energizing coil therefor, a supply circuit for said taps and coil, a switch for said circuit, an operating handle therefor, means for controlling the operation of said switch, said means being carried by said base and inoperable when said base is attached to the supporting surface, and a cut-out for said coil.

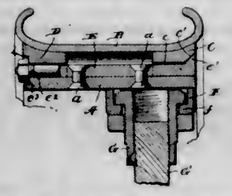
[Claims 6 to 13 not printed in the Gazette.]

1,076,237. HOLDER FOR MIRRORS AND THE LIKE. JOSEPH SARTORI, Revere, Mass. Filed Nov. 10, 1911. Serial No. 659,550. (Cl. 45—18.)



The combination with a mirror and the like, of a holder therefor comprising a plurality of blocks and means for fastening them together, said means extending over the back of such mirror, and each of said blocks being composed of fibrous material having a back portion contacting with the back of the mirror, a frontal portion or lip contacting with the face of the mirror, and a connecting portion between said back portion and frontal portion, said connecting portion comprising a recess having two angularly disposed faces laterally terminating in abutments, said recess being overhung by said frontal portion or lip.

1,076,238. DETACHABLE RIM FOR VEHICLE-WHEELS. ADOLPH SCHICK, Wheeling, W. Va., assignor to Schick Wheel and Tire Co., a Corporation of West Virginia. Filed Aug. 27, 1912. Serial No. 717,399. (Cl. 152—21.)

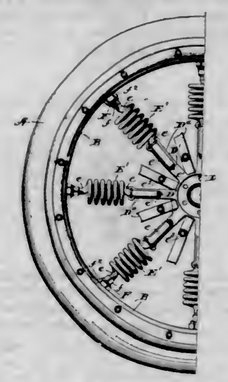


1. In a detachable rim for wheels, the combination with a fixed rim member, of a series of independently formed bolt members rigidly secured to the same at intervals, each bolt member having a locking tooth at one end, and a threaded stem at the opposite end, a rim member E, a ring interposed between the fixed rim and the rim B and having notches shaped to engage with said tooth and to embrace the bolt, a complementary oppositely disposed ring member having notches to embrace the bolt and nuts for forcing the said ring inward, and for maintaining the parts in position.

2. In a detachable rim for vehicle wheels, the combination with a metallic fixed rim, of substantially uniform thickness, a series of independently formed bolt members fitted on the outer face of the same, means for rigidly connecting the bolt members to the fixed rim, said bolt members having inclined engaging portions at one end and threaded portions at the opposite end, a rim member B, a ring having notches in which the bolt member fits and having parts for engaging said projection on the bolt member, a complementary ring member positioned and embracing the bolt member at intervals, and nuts on the bolt members for securing the parts in position.

3. In a detachable rim for wheels, the combination with a fixed rim part, of a series of transversely arranged bolts secured to the fixed rim and having at one end outstanding inclined portions and threaded opposite ends, of a rim member B, a ring member having notches in which the bolt members are fitted and having inclines engaging the inclines of said bolt members, a complementary ring having notches in which the opposite ends of the bolt members engage and nuts on the bolts for securing the parts together.

1,076,239. VEHICLE-WHEEL. ADOLPH SCHICK, Wheeling, W. Va., assignor to Schick Wheel and Tire Co., a Corporation of West Virginia. Filed Aug. 27, 1912. Serial No. 717,400. (Cl. 152—52.)



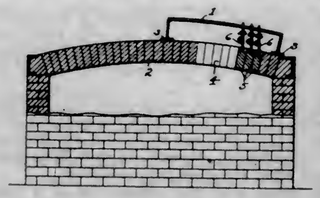
1. In a spring wheel, the combination with a rim member and a hub member, of a series of spokes connecting the two members provided with intermediate coiled portions, and with outer stem parts, said stem parts and the adjacent portions of the coils being of greater diameter than the central part of the coiled portion of the springs.

2. In a spring wheel, the combination with a rim and hub, of a series of coiled spring spokes, provided with outwardly extending stems, reinforcements for the stems of the spokes extending substantially throughout the length of the stems and the adjacent portion of the coiled part of the spoke, and means for detachably securing the spokes to the frame and hub.

3. In a spring wheel, the combination with a rim, of a hub having a series of radial laterally spaced arms at opposite sides thereof, the arms on one side being arranged intermediate the arms of the other side, each arm being provided with a depression in one face thereof forming a spoke seat, spring spokes having their inner ends secured in the seats of the said arms and having threaded outer ends, and adjustable connections between the threaded outer ends and the said rim.

4. A spoke for spring wheels having a coiled portion, and a stem part extending therefrom, and a tubular reinforcing member inclosing the stem part and a portion of the coiled part of the spoke.

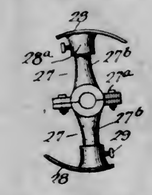
1,076,240. APPARATUS FOR CONSTRUCTING ARCHES. ARTHUR E. SCHUFFENHAUER, South Chicago, Ill. Filed Mar. 28, 1913. Serial No. 757,349. (Cl. 75—84.)



In combination with a furnace, of a supporting bar parallel with the top wall of said furnace, foot members

loosely resting on said furnace and spacing said bar thereabove; and brick supporting members depending from said supporting bar, each formed of two rods, one bent forming an eye at its lower end and a hook at its upper end and the other having its upper end passed through said eye and a head thereon above such eye, a hook bent on its lower end and its central portion bent forming a loop, substantially as described.

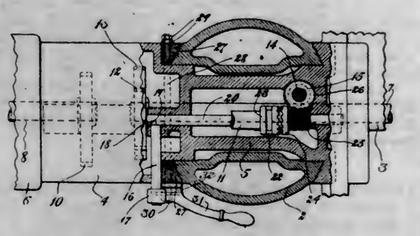
1,076,241. MOTOR-DRIVEN ROTARY EARTHWORKING-TOOL. HEINRICH F. D. SCHWAHN, Belleville, Ill., assignor to William Somerville, St. Louis, Mo. Filed Oct. 30, 1909. Serial No. 525,595. (Cl. 97—63.)



1. In a device of the character described, the combination of a rotatable shaft and a plurality of ground tilling units mounted on said shaft and rotatable therewith, each unit comprising complemental semi-circular hub sections adapted to be clamped together about said shaft and provided with rigid radially extending spokes and cutting tools provided with sockets fitting over the ends of said spokes and detachably secured thereto.

2. In a device of the character described, the combination of a rotatable shaft and a plurality of ground tilting units mounted on said shaft and rotatable therewith, each unit comprising complemental semi-circular hub sections provided with lateral flanges by which they are secured together about said shaft, and having rigid radially extending spokes and cutting tools provided with socketed bosses fitting over the ends of said spokes and detachably secured thereto, adjacent units on said shaft being arranged with their cutting tools in staggered relation.

1,076,242. RADIAL DRILL. WILLARD T. SEARS, Hamilton, Ohio, assignor to Pratt & Whitney Company, Hartford, Conn., a Corporation of New Jersey. Filed Mar. 27, 1913. Serial No. 757,129. (Cl. 77—28.)



1. In a radial drill, the combination of a vertically adjustable arm, adjusting means for said arm, clamping means for said arm, and mechanism for preventing the operation of one of said means when the other is in operation.

2. In a radial drill, the combination of a vertically adjustable arm, adjusting mechanism for said arm, clamping mechanism for said arm, and mechanism for positively preventing the operation of each of said first mentioned mechanisms when the other is in operation.

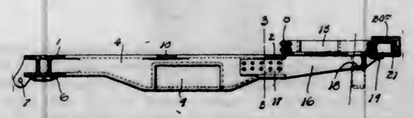
3. In a radial drill, the combination of a vertically adjustable arm, mechanism for adjusting said arm, means comprising a lever adapted on its movement, to throw said adjusting mechanism into operation, clamping mechanism for the head, means comprising a lever, adapted on its movement to set said clamping mechanism, and means cooperative with the two levers for preventing simultaneous operating movements thereof.

4. In a radial drill, the combination of a vertically adjustable arm, adjusting mechanism for said arm, mechanism including a manually operable member, adapted for throwing said adjusting mechanism into action, clamping mechanism for the head, mechanism including a manually operable member adapted on its movement to set the clamping mechanism, and means coöperative with the manually operable members for preventing simultaneously their operating movements.

5. In a radial drill, the combination of a vertically adjustable head, a clamping member, a manually operable member coöperative with said clamping member, a device between said manually operable member and clamping member, having two positions being adapted when in one of said positions to permit the setting of the clamping member by said manually operable device and when in the other position to prevent the setting of said clamping member by said manually operable member, adjusting mechanism for said arm, a manually operable member shiftable from an operative to an inoperative position and from an inoperative to an operative position, means actuated by said manually operable member for throwing the adjusting mechanism into action on the movement thereof from an inoperative to operative position and for throwing said adjusting mechanism out of action on the movement thereof from operative to inoperative position, and a connection between said second manually operable member and said device for shifting the latter into clamped non-setting position when said second manually operable device is in operative relation and for shifting said device into clamped setting relation when said second manually operable device is in operative relation and for shifting said device into clamped setting relation when said second manually operable device is in inoperative relation.

[Claims 6 and 7 not printed in the Gazette.]

1,076,243. CAR END UNDERFRAME. CHARLES S. SHALLENBERGER, St. Louis, Mo., assignor to Double Body Bolster Company, a Corporation of New Jersey. Filed Sept. 2, 1911. Serial No. 647,350. (Cl. 105—204.)



1. In a car end underframe the combination with a cast metal structure comprising a bolster, an end sill and side sills, of a cast metal platform rigidly fixed to the end sill and a separate cast metal buffer beam rigidly fixed to the platform casting.

2. The combination with a car end under frame casting, having an end sill, of a separate platform casting detachably connected to the end sill, webs on the platform casting, which webs extend beneath the end sill, and a separate buffer beam detachably connected to the platform casting.

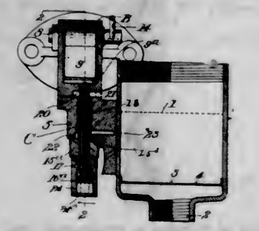
3. The combination with a car end under frame casting, having an end sill, of a separate platform casting detachably connected to the end sill, webs on the platform casting, which webs extend beneath the end sill, supports on the under frame for said webs, and a separate buffer beam detachably connected to the platform casting.

4. The combination with a car end under frame cast in a single piece, and having an end sill and center sills, of a separate platform casting detachably connected to the end sill of the under frame, webs on the platform casting, which webs extend beneath the end sill, and are attached to the center sills, and a separate buffer beam detachably connected to the platform casting.

5. The combination with a car end underframe cast in a single piece, and having an end sill and center sills, of a separate platform casting detachably connected to the end sill of the underframe, webs on the platform casting, which webs extend beneath the end sill and are attached to the center sills, supports on the center sills for said webs, and a separate buffer beam detachably connected to the platform casting.

[Claims 6 to 17 not printed in the Gazette.]

1,076,244. CARBURETER FOR INTERNAL-COMBUSTION ENGINES. RALPH SHIPMAN, Sunbury, Pa. Filed July 2, 1910. Serial No. 570,101. (Cl. 137—80.)



1. An atomizer for explosive engines comprising an outer tube having air and fuel inlet ports, an inner tube having a part fitting closely within the outer tube between said ports, and said tubes being separated above and below said part to provide spaces between the tubes, said inner tube projecting beyond the lower end of the outer tube, and a casing having means for engaging and moving the inner tube with respect to the outer tube, said casing closing the lower ends of both tubes and forming a well for the liquid fuel.

2. An atomizer for explosive engines comprising an outer air tube, a fuel tube having a threaded connection with the interior of the air tube, a casing inclosing one end of the inner tube and a spring arranged to press said casing toward the lower end of the outer tube.

3. An atomizer for explosive engines comprising an outer air tube, a fuel tube having a threaded connection with the interior of the air tube, a head upon the fuel tube, a cylindrical casing inclosing the head and having angular inner walls for engaging the faces of the head, and a spring interposed between said head and a shoulder in the casing.

4. An atomizer for explosive engines comprising an outer air tube, a fuel tube having a threaded connection with the interior of the air tube, a casing inclosing the lower end of the fuel tube and a spring arranged to press said casing toward the lower end of the air tube.

5. An atomizer for explosive engines comprising an outer air tube, a fuel tube having a threaded connection with the interior of the air tube, a casing inclosing the lower end of the fuel tube and adapted to engage and turn the latter, and a spring arranged to press said casing toward the lower end of the air tube.

[Claims 6 and 7 not printed in the Gazette.]

1,076,245. WIRE TIE FOR BAGS, BALES, BUNDLES, AND PACKAGES. JAMES S. SLOSSON, New Brighton, N. Y., assignor to Clifford L. Miller & Co., New York, N. Y. Filed Jan. 3, 1913. Serial No. 740,051. (Cl. 24—27.)

1. A wire-tie having the ends of the wire folded over straight upon the body of the tie and lying untwisted close thereto, and both of such folded ends and the body of the tie being adapted to twist together in quadruple coils.

2. A wire-tie having the ends of the wire folded over straight upon the body of the tie and lying untwisted close thereto, with open loops at the ends of the folds, and the folded portions unsecured to the body of the tie.

3. A wire-tie having the ends of the wire folded over straight upon the body of the tie and lying untwisted close thereto, with open loops at the outer ends of the folds, and the folded portions upon both ends being twisted together with the body of the wire in quadruple coils, in securing the article, and the terminals of the wire directed toward the article upon which the tie is secured.

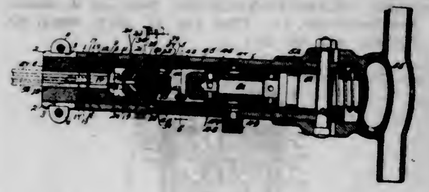


4. A wire-tie having the ends of the wire folded over straight upon the body of the tie and lying untwisted close thereto, with open loops at the outer ends of the folds and both ends of the tie including such folded portions twisted into interlocked coils, with the open loops separated sufficiently to aid the untwisting of the coils.

5. The combination, with an article to be secured, of a wire-tie looped about the article and having the ends of the wire folded over straight upon the body of the tie, and both ends of the tie including such straight folded portions being twisted into interlocked coils, with the terminals of the wire projected toward the article, and the folded ends of the tie projected outwardly to be grasped by the fingers in untwisting the tie.

[Claim 6 not printed in the Gazette.]

1,076,246. ROCK-DRILL. GRANT W. SMITH, Chattanooga, Tenn. Filed Mar. 4, 1912. Serial No. 681,537. (Cl. 121—21.)



1. In a drilling apparatus, a barrel, a drill holding chuck carried thereby, said chuck having a drill receiving bore and a chamber in communication with said bore, and means within said chamber for sealing off the escape of fluid through the chuck around the drill, said means comprising a flexible packing having a drill passage, and means holding the packing in said chamber, said packing being spaced from said holding means to leave fluid receiving pockets to receive the leaking fluid under pressure and thereby press said packing into tight sealing contact with the drill.

2. In a drilling apparatus, a barrel, a hammer piston sleeve and a hammer piston within said barrel, means for leading working fluid to said sleeve and piston to reciprocate said piston; said barrel having an exhaust chamber and an exhaust port communicating with the exhaust chamber, a tappet carrier forming a partition in said barrel to close the front end of said exhaust chamber, a tappet carried by said carrier and projecting into said exhaust chamber, a drill chuck in said barrel, said tappet having a bore to deliver into the drill and means for delivering fluid under pressure to said tappet bore.

3. In a drilling apparatus, a barrel, a hammer piston sleeve and a hammer piston within said barrel, means for leading working fluid to said sleeve and piston to reciprocate said piston; said barrel having an exhaust chamber and an exhaust port communicating with the exhaust chamber, a tappet carrier forming a partition in said barrel to close the front end of said exhaust chamber, a tappet carried by said carrier and projecting into said

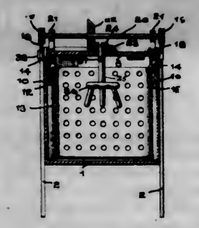
exhaust chamber, a drill chuck in said barrel, said tappet having a bore to deliver into the drill and means for delivering fluid under pressure to said tappet bore, and means for sealing off the escape of fluid around said tappet between said tappet bore and the exhaust chamber.

4. In a drilling apparatus, a barrel, a hammer piston sleeve and a hammer piston within said barrel, means for leading working fluid to said sleeve and piston to reciprocate said piston; said barrel having an exhaust chamber and an exhaust port communicating with the exhaust chamber, a tappet carrier forming a partition in said barrel to close the front end of said exhaust chamber, a tappet carried by said carrier and projecting into said exhaust chamber, a drill chuck in said barrel, said tappet having a bore to deliver into the drill and means for delivering fluid under pressure to said tappet bore, and means for sealing off the escape of fluid around said tappet between said tappet bore and the exhaust chamber, and means for sealing off the escape of fluid through said chuck around said drill.

5. In a drilling apparatus, a barrel, a hammer piston sleeve and a hammer piston within said barrel, means for leading working fluid to said sleeve and piston to reciprocate said piston; said barrel having an exhaust chamber and an exhaust port communicating with the exhaust chamber, a tappet carrier forming a partition in said barrel to close the front end of said exhaust chamber, a tappet carried by said carrier and projecting into said exhaust chamber, a drill chuck in said barrel, said tappet having a bore to deliver into the drill and means for delivering fluid under pressure to said tappet bore, and means for sealing off fluid through said chuck around said drill.

[Claims 6 to 12 not printed in the Gazette.]

1,076,247. WASHING-MACHINE. WILLIAM H. STAHL, New Berlinville, Pa. Filed Aug. 13, 1912. Serial No. 714,762. (Cl. 68—15.)

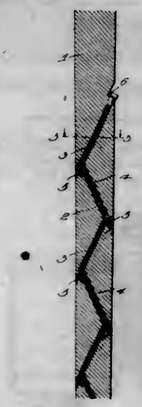


1. A washing machine comprising a receptacle, pivoted hangers in the receptacle, a basket removably supported in the free ends of the hangers, a cover on the receptacle, a rotary agitator supported in the cover, and means for imparting a swinging movement to the basket, and a rotary movement to the agitator, substantially as described.

2. A washing machine comprising a receptacle, hangers located inside the receptacle and pivotally secured at their upper ends to the side walls of the receptacle, said hangers having segmental bearings at their lower ends, a basket, trunnions on the basket supported in the bearings in the hangers, and means for swinging the basket, substantially as described.

3. A washing machine comprising a receptacle, hangers located inside the receptacle and pivotally secured at their upper ends to the side walls of the receptacle, said hangers having segmental bearings at their lower ends, a basket, trunnions on the basket supported in the bearings in the hangers, a cover on the receptacle, a rotary agitator mounted in the cover, and means for simultaneously swinging the basket and turning the rotary agitator, substantially as described.

1,076,248. TEREDOPROOF PILE. PETAR N. STANKOVITCH, Everett, Wash. Filed May 9, 1912. Serial No. 696,269. (Cl. 99—12.)

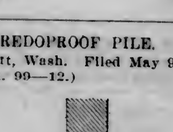


1. A method of forming a teredoproof pile which consists in boring oblique passages through a pile in opposite directions to cross cut the grain thereof, the ends of said passages being connected to form a continuous bore, and charging a preserving substance into said bore.

2. A teredoproof pile comprising a timber having oblique passages extending therethrough in opposite directions to cross cut the grain thereof, the ends of said passages being connected to form a continuous bore and said bore being filled with a timber preserving substance.

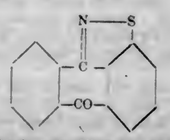
1,076,249. YELLOW WOOL-DYE OF THE ANTHRAQUINONE SERIES. PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 6, 1912. Serial No. 735,307. (Cl. 8—1.)

1. The new dyestuffs being combinations of diazotized amino-anthraisothiazole-sulfonic acids containing the radical:



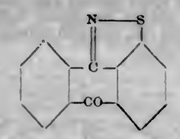
and aliphatic beta-diketones containing the radical $CH_3—CO—CH_2—CO—$, which dyestuffs are after being dried and pulverized in the shape of their alkaline salts yellow powders soluble in water with a yellow coloration; dyeing wool from acid baths fast yellow shades, substantially as described.

2. The new dyestuffs being combinations of diazotized amino-anthraisothiazole-sulfonic acid containing the radical



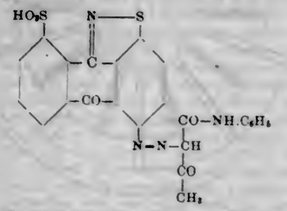
and amids of aliphatic beta-diketones containing the radical $CH_3—CO—CH_2—CO—NH—$, which dyestuffs are after being dried and pulverized in the shape of their alkaline salts yellow powders soluble in water with a yellow coloration; dyeing wool from acid baths fast yellow shades, substantially as described.

3. The new dyestuffs being combinations of diazotized amino-anthraisothiazole-sulfonic acids containing the radical



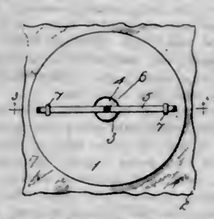
and amids of the structure $CH_3—CO—CH_2—CO—NHR$, where R is an aromatic radical, which dyestuffs are after being dried and pulverized in the shape of their alkaline salts yellow powders soluble in water with a yellow coloration; dyeing wool from acid baths fast yellow shades; substantially as described.

4. The new dyestuff having as free acid most probably the formula:



which is after being dried and pulverized in the shape of its sodium salt a yellow powder soluble in water with a yellow coloration; and dyeing wool from an acid bath yellow shades fast to light, substantially as described.

1,076,250. ADVERTISING-SIGN. CHARLES B. ULRICH, Wausau, Wis. Filed May 15, 1912. Serial No. 697,368. (Cl. 40—125.)



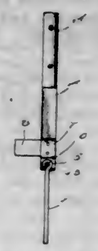
1. In combination, a support, an advertising sign having an aperture therethrough, a vacuum cup of flexible material for passing into the aperture and contacting with said support, and a spring secured to the cup for pressing the sign into engagement with said support when the cup is in place in said aperture.

2. In combination, a support, an advertising sign comprising a sheet of material adapted to receive advertising matter upon one of its faces and provided with an aperture therethrough, and a vacuum cup support passing through said aperture and contacting with said support, said sign being adapted to be engaged and supported by devices carried by said vacuum cup, thus pressing the sign into engagement with said support.

3. In combination, an advertising sign having an aperture therethrough, a vacuum cup, a spring secured to said cup, and loops upon said sign through which said spring is arranged to have sliding engagement, said cup being adapted to pass through said aperture.

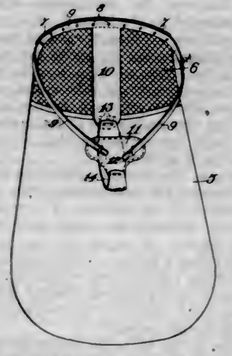
4. An advertising sign comprising a circular sheet adapted to receive advertising material on one of its faces and having an aperture through it, a supporting vacuum cup extending through said aperture, a spring fastened to said cup and engaging said sign, and bands extending from said sign and engaging said spring, and arranged so that said spring may be readily withdrawn therefrom.

1,076,251. WINDMILL ATTACHMENT. SILAS W. VAUGHT, Gorman, Tex. Filed Aug. 23, 1912. Serial No. 716,674. (Cl. 103—62.)



In combination with a wind mill and a frame for the mill, a pump provided with a sucker rod and a piston rod connected with the crank of the wind wheel that is independent of the sucker rod, of a substantially U-shaped saddle having its side arms connected with the rod of the wind wheel, said saddle having its lower member provided with an opening through which passes the end of the sucker rod, the said projecting end of the sucker rod being provided with an eye, a lever pivotally connected with the frame of the wheel, a yoke secured to one end of the lever and arranged between the arms of the saddle, said yoke having its depending side arms connected by a pivot, said pivot passing through the eye of the rod, and a flexible member connected with the free end of the lever.

1,076,252. SANITARY GARMENT-SHIELD. ANTOINETTE VOSS, Chicago, Ill., assignor to Hugo Du Brock, Chicago, Ill. Filed Sept. 19, 1912. Serial No. 721,248. (Cl. 128—5.)

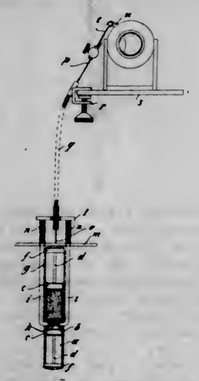


The combination of a waist-band having a depending flap intermediate its ends, a shield to which the ends of the waist-band are detachably connected, an apron detachably connected to that portion of the waist-band having the depending flap and overlapping the latter, and a detachable connection between said shield and the lower end of the flap.

1,076,253. DRIVING AND BRAKING DEVICE, OR RELEASING DEVICE, FOR PHOTOGRAPHIC SHUTTERS. CARL WEBER, Berlin-Wilmersdorf, Germany. Filed Nov. 30, 1912. Serial No. 734,235. (Cl. 161—26.)

1. In a device of the character described for controlling photographic shutters, the combination with a member operatively connected to the shutter, of a vessel containing sand, a partition dividing the vessel into two chambers, said partition having an outlet for the sand from one chamber to the other, means movable in the vessel and con-

trolled by the sand flowing from one chamber into the other, and a member attached to the former member and controlled by said means, said means being returnable into operative relation with the latter member, after the sand has flowed from one chamber to another, without removing the sand into the other chamber.



2. In a device of the character described for controlling photographic shutters, the combination with a member operatively connected to the shutter, of a vessel containing sand, a partition dividing the vessel into two chambers, said partition having an outlet for the sand from one chamber to the other, a piston in each chamber, means rotatably carrying said vessel, and a spring-pressed member slidable on said means, adapted to be controlled by the pistons in turn and attached to the former member.

3. In a device of the character described for controlling photographic shutters, the combination with a member operatively connected to the shutter, of a vessel containing sand, a partition dividing the vessel into two chambers, said partition having an outlet for the sand from one chamber to the other, a piston movable in each chamber, means rotatably carrying said vessel, and a spring-pressed member slidable on said means, adapted to be controlled by the pistons in turn and attached to the former member, each piston constituting a stopper of the chamber in which it is movable.

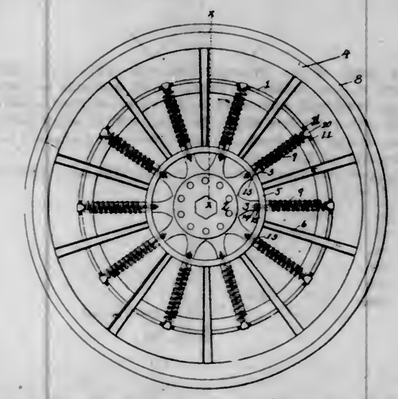
4. In a device of the character described for controlling photograph shutters, the combination with a member operatively connected to the shutter, of a vessel containing sand, a partition dividing the vessel into two chambers, said partition having an outlet for the sand from one chamber to the other, a piston in each chamber, means connecting together the two pistons, means rotatably carrying said vessel, and a spring-pressed member slidable on said means, adapted to be controlled by the pistons in turn and attached to the former member.

5. In a device of the character described for controlling photographic shutters, the combination with a member operatively connected to the shutter, of a vessel containing sand, a partition dividing the vessel into two chambers, said partition having an outlet for the sand from one chamber to the other, a piston in each chamber, a tube surrounding said vessel and connecting together the two pistons, means rotatably carrying said vessel, and a spring-pressed member slidable on said means, adapted to be controlled by the pistons in turn and attached to the former member.

[Claims 6 to 11 not printed in the Gazette.]

1,076,254. RESILIENT WHEEL. WALTER WHEELER, Des Moines, Iowa. Filed June 6, 1913. Serial No. 772,083. (Cl. 152—28.)

1. In a wheel, in combination, two series of circumferentially extending cylindrical springs, means for hanging said springs from the rim of said wheel, means for keeping said last named means in position upon said rim, a hub, spokes extending radially from said hub to said rim, a tread rim spaced apart around said wheel, inner rings, U-shaped spokes rigidly interposed between said inner rings and said tread rim, and said springs secured at their inner end to said rings.

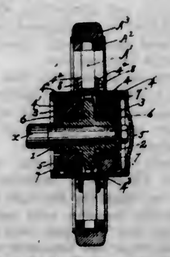


2. In combination, an inner rim, an outer rim, a hub, said inner rim being rigidly secured to said hub, a plurality of hooks, said hooks being hung upon said inner rim spaced apart, a plurality of springs suspended from the free end of said hooks, and means whereby said outer rim is supported by said springs.

3. In combination, an inner rim, said inner rim being U-shaped, an outer rim, said outer rim spaced apart from said inner rim, a hub, an inner ring on either side of said hub, said inner rim being rigidly secured to said hub, a plurality of springs suspended upon each arm of said U-shaped inner rim, said springs being spaced apart around said inner rim, means for attaching said springs to said inner rings, and spokes rigidly interposed between said inner rings and said outer rim.

4. In combination, an inner rim, said inner rim being U-shaped, an outer rim, said outer rim spaced apart from said inner rim, a hub, an inner ring on either side of said hub, said inner rim being rigidly secured to said hub, hook members, said hook members having a rocker seat, being spaced apart around said inner rim and on either side and opposite to the spokes thereof, a plurality of springs suspended from the free end of said hook members and rockingly engaged through said inner rings by means of a half-oval washer interposed between the inner surface of said inner rings and a nut screwed upon the end of said springs.

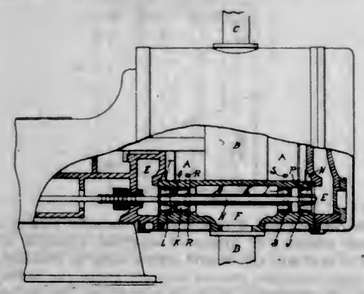
1,076,255. VEHICLE-WHEEL. EDMUND H. WHITING, Providence, R. I. Filed Mar. 3, 1913. Serial No. 751,970. (Cl. 152—43.)



1. In a vehicle wheel the combination with an axle box provided with external radially projecting arms, annular collars secured upon each end of said box and constituting flanges therefor, a cylindrical member provided with internal radially extending ribs, and with an external radially projecting rib, said member loosely surrounding said collar at one end of said box, and spaced as to itself and said internal rib a distance from said collar and box, a second cylindrical member of smaller diameter than the first member and similarly fitted upon the opposite end of said axle box, and provided with a similar internal radially extending rib, and also with an internal radially extending lug, adapted to lie in the path of the radial arms of the axle box when the said two members are united, spokes disposed between the adjacent external ribs on said members, and bolts passing through said ribs and spokes and thereby securing the whole.

2. In a vehicle wheel the combination with an axle box provided with external radially projecting arms, annular collars secured upon each end of said box and constituting flanges therefor, a cylindrical member provided with an external radially projecting rib, and also with an internal radially extending rib, said member loosely surrounding said collar at one end of said box and spaced as to itself and said internal rib a distance from said collar and box, an annular resilient ring surrounding said end of said box and disposed in the space between said internal rib and said collar, a second cylindrical member of smaller diameter than the first member and similarly fitted upon the opposite end of said axle box and provided with a similar internal radially extending rib, a similar external radially projecting rib, and also with an internal radially extending lug adapted to lie in the path of the radial arms of the axle box when said two members are united, an annular resilient ring surrounding said opposite end of said axle box and disposed in the space between said internal rib of said second member and the collar on said axle box end, spokes disposed between the adjacent external ribs on said members, and bolts passing through said ribs and thereby securing the whole together.

1,076,256. STEAM-ENGINE VALVE. EDWIN F. WILLIAMS, Erie, Pa. Filed May 13, 1913. Serial No. 767,316. (Cl. 136—2.)



1. The combination with an engine cylinder having separate inlet and exhaust ports, of inlet valves controlling the inlet ports, means to operate said inlet valves, and separate exhaust valves controlling the exhaust ports, said exhaust valves being movable with, and operated by the same means as, the inlet valves, and having lost motion with respect thereto, to delay the operation of said exhaust valves.

2. The combination with an engine cylinder having separate inlet and exhaust ports opening at the same valve seat, of separate inlet and exhaust valves controlling said ports and movable on the same seat, the exhaust valve having lost motion with respect to the inlet valve, to delay the action of the former.

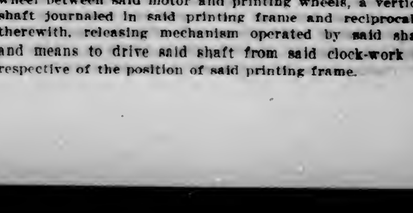
3. The combination with an engine cylinder having separate inlet and exhaust ports opening at the same valve seat, of separate inlet and exhaust valves controlling said ports and movable on the same seat, the exhaust valve having lost motion with respect to the inlet valve, to delay the action of the former and means to take up such lost motion, after the action of the exhaust valve with respect to its port.

4. The combination with an engine cylinder having separate inlet and exhaust ports, separate inlets and exhaust valves controlling said ports respectively, the exhaust valve having lost motion to delay its action with respect to the inlet valve, and means to take up such lost motion by pressure admitted from the cylinder.

5. The combination with an engine cylinder having separate inlet and exhaust ports to each end thereof, a reciprocating valve rod, inlet valves fixed to said rod and controlling said inlet ports, and exhaust valves mounted on said rod and operated thereby, and having lost motion with respect thereto, to delay the exhaust action.

[Claims 6 to 9 not printed in the Gazette.]

1,076,257. AMUSEMENT DEVICE. CLARK G. WILTZ, Chicago, Ill., assignor to Toby Rubovits, Chicago, Ill. Filed Apr. 10, 1913. Serial No. 760,125. (Cl. 46—37.)



1. In an amusement device, a flat square member divided by perpendicular lines into four quarters, and four hinged panels, each panel being hinged at one edge along one of such perpendicular lines.

2. In an amusement device, an illustrated background and four square hinged panels arranged together to cover such background, such panels being hinged in pairs along intersecting lines and each panel being adapted to fold over such background or over another panel.

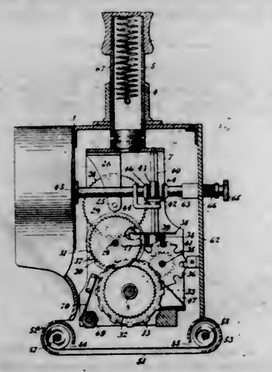
3. In an amusement device, a flat surface forming an illustrated background and divided by intersecting lines into smaller surfaces, and hinged panels of substantially the same shape and size as such smaller surfaces, each panel being illustrated on both sides and hinged at one margin along one of such intersecting lines.

1,076,258. TIME-STAMP. JULIUS ALSENZ, Palisades Park, N. J., assignor to Cushman & Denison Manufacturing Company, New York, N. Y. Filed Mar. 7, 1910. Serial No. 547,706. (Cl. 234—56.)

1. In a hand time stamp, the combination of a main frame, clock-work mounted thereon, a printing frame reciprocably mounted on said main frame, printing wheels journaled about a horizontal axis in said printing frame, a motor mounted in said printing frame to drive said wheels, all rotary connections between said motor and the said printing wheels, all of said connections being reciprocable with said printing frame and rotary releasing mechanism mounted in said printing frame and operated by said clock-work irrespective of the position of the printing frame.

2. In a hand time stamp, the combination of a main frame, clock-work mounted thereon, a printing frame reciprocably mounted in said main frame, printing wheels mounted about a horizontal axis in said printing frame, a motor mounted in said printing frame to drive said printing wheels, connections comprising a rotary escapement wheel between said motor and printing wheels, a vertical shaft journaled in said printing frame and reciprocable therewith, releasing mechanism operated by said shaft and means to drive said shaft from said clock-work irrespective of the position of said printing frame.

3. In a hand time stamp, the combination of a main frame, a printing frame reciprocably mounted thereon, rotary printing wheels journaled about a horizontal axis in the lower part of said printing frame, a motor carried by said printing frame to operate said printing wheels, all rotary connections between said motor and said printing wheels, all of said connections being journaled in said printing frame and comprising a rotary escapement wheel, a vertical shaft journaled in said printing frame, a releasing wheel carried by said shaft to coöperate with said escapement wheel, and clock-work mounted in the main frame and comprising a shaft extending into the interior of said printing frame, the said last named shaft being geared to said vertical shaft such that the latter will be continually rotated by the former.



4. A hand time stamp movable as a whole into position on a surface to be stamped and comprising in combination a main frame, a printing frame mounted to reciprocate up and down as a whole in said main frame, means for reciprocating said printing frame, a row of type wheels journaled about a horizontal axis in the lower end of said printing frame for reciprocation with said frame and adapted to print in a straight line and embodying minute and hour wheels, a motor for said hour and minute wheels mounted on said reciprocable printing frame, power-transmitting connections from said motor to said wheels, time mechanism fixedly mounted on said main frame, and connections from said time mechanism to said hour and minute wheels for controlling the turning of said wheels, said connections embodying a transmission gear rotatively connected with a vertical shaft, said shaft being longitudinally slidable through said gear and one of said last two elements being carried by and reciprocatory with the printing frame while the other is carried by the main frame.

5. A hand time stamp movable as a whole into position on a surface to be stamped and comprising in combination a main frame, a printing frame mounted to reciprocate up and down as a whole in said main frame, means for reciprocating said printing frame, a row of type wheels journaled about a horizontal axis in the lower end of said printing frame for reciprocation with said frame and adapted to print in a straight line and embodying minute and hour wheels, a motor for said hour and minute wheels mounted on said printing frame, power-transmitting connections from said motor to said wheels, time mechanism fixedly mounted on said main frame, and connections from said time mechanism to said hour and minute wheels for controlling the turning of said wheels, said connections embodying an escapement mechanism and also embodying a transmission gear rotatively connected with a vertical shaft, said shaft being longitudinally slidable through said gear and one of said last two elements being carried by and reciprocatory with the printing frame while the other is carried by the main frame.

[Claims 6 and 7 not printed in the Gazette.]

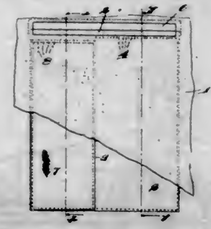
1,076,259. NON-PROJECTING HINGE. JOSEPH R. ANGELOVICH, San Francisco, Cal., assignor to Angelovich Improved Hinge Company, San Francisco, Cal., a Copartnership. Filed Jan. 14, 1913. Serial No. 742,070. (Cl. 16—109.)



1. A non-projecting hinge for hinging together two objects such as a table and an extension thereof, comprising a strap in a recess in an edge of the table and secured to said table and having an eye extending up to, but not above the surface of the table, and a strap secured to said extension having an eye extending to, but not above, the surface of the extension, and a loop having sides each engaging one of said eyes, one of said straps having a projection or finger arranged to engage the eye of the other strap to insure the parallelism of the loop with said surfaces when in the extended position.

2. A non-projecting hinge for hinging together two objects such as a table and an extension thereof, comprising a strap in a recess in an edge of the table and secured to said table and having an eye extending up to but not above the surface of the table, and a strap secured to said extension having an eye extending to, but not above, the surface of the extension, and a loop having sides each engaging one of said eyes, the extension strap-eye having an enlarged cam-shaped portion adapted to bind upon the other strap-eye when the extension is moved from its extended position, and said other strap-eye having a cavity adapted to receive said cam-shaped portion when the extension is moved into its collapsed position.

1,076,260. INSIDE COAT-POCKET. JOSEPH ARENSON, Chicago, Ill. Filed Jan. 24, 1912. Serial No. 673,176. Renewed May 24, 1913. Serial No. 769,763. (Cl. 2—15.)



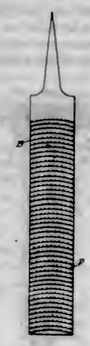
The combination with a sheet of material having a slit formed therein; of layers of material attached to the sides of said slit, one of said layers being so attached that the upper terminal thereof projects above the lower side of the slit aforesaid; stitching connecting the peripheries of said layers; and a narrowed supplemental strip attached to the outer surface of one of said aforementioned strips constituting a supplemental pocket, the opening of which is disposed below the lower side of the slit aforesaid.

1,076,261. COMPO-BOARD. MORGAN K. ARMSTRONG, Minneapolis, Minn., assignor to Bestwall Manufacturing Company, Chicago, Ill., a Corporation of Delaware. Filed June 28, 1911. Serial No. 635,782. (Cl. 106—20.)

1. A board of the kind described made of gypsum, silicate of soda, borax, and saw dust.

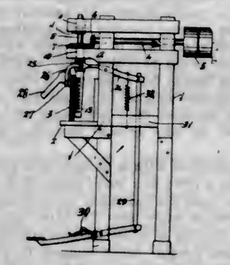
2. A board of the kind described composed of approximately seventy-five per cent. (75%) of gypsum, two and one-half per cent. (2½%) of silicate of soda, two and one-half per cent. (2½%) of borax, and twenty per cent. (20%) of saw dust.

1,076,262. FILE. JEAN BÈCHÉ, Hückeswagen, Germany. Filed Nov. 14, 1912. Serial No. 731,396. (Cl. 29—78.)



In a file having a flat body portion, primary curved teeth disposed across said body portion, said teeth having their cutting edges at the top of their vertical faces and at the inner side of their curves, said cutting edges being also transversely notched so that the notches in one primary tooth will not be in alinement longitudinally of the file with the notches in the next succeeding primary tooth and so that the inclination of a part of the notches on one side of the middle of the surface of the file will be at a different inclination from a part of those on the other side.

1,076,263. PRESS-CLOTH STRIPPER. OSCAR RUFUS BEUSSE, Atlanta, Ga. Filed May 8, 1913. Serial No. 766,319. (Cl. 100—52.)



1. In a press cloth stripper, a spindle, means for revolving said spindle, a shaft mounted in said spindle and rotating therewith, hooks on said shaft, and means for turning said shaft to reciprocate said hooks in and out of said spindle.

2. In a press cloth stripper, a spindle, means for revolving said spindle, a shaft mounted in said spindle and rotating therewith, hooks on said shaft, and means on said spindle and revolving therewith for turning said shaft to reciprocate said hooks in and out of said spindle.

3. In a press cloth stripping machine, a conical spindle, means for revolving said spindle, a series of hooks mounted in said spindle, and means for reciprocating said hooks in and out of the spindle.

4. In a press cloth stripping machine, a conical spindle, means for revolving said spindle, a shaft in said spindle, a series of hooks on said shaft, and means for turning said shaft to reciprocate said hooks in and out of the spindle.

5. In a press cloth stripping machine, a conical spindle, means for revolving said spindle, a shaft in said spindle, a series of hooks on said shaft, and means mounted on the spindle and revolving therewith, for turning said shaft to reciprocate said hooks in and out of the spindle.

[Claims 6 to 9 not printed in the Gazette.]

1,076,264. WOMAN'S OUTING-SUIT. FLORENCE BOLTON, Berkeley, Cal., assignor to William Ellery, San Francisco, Cal. Filed May 21, 1912. Serial No. 698,681. (Cl. 2—137.)



1. In a woman's one-piece outing suit, the combination of front and rear crotch pieces connected together at their inner edges and suitably shaped to cover only the inner sides of the legs and the front and rear portions of the body below the waist line, side pieces, each shaped to cover only the sides of the body above and below the waist and the outer sides of the legs, said side pieces, below the waist, being connected with the crotch pieces to form a bifurcated skirt, a front panel the edges of which are connected to the front edges of the side pieces above and below the waist line, and a rear panel the edges of which are similarly connected with the rear edges of the side pieces, one edge of one panel being detachable from the corresponding edge of the corresponding side piece.

2. In a woman's one-piece outing suit, the combination of front and rear crotch pieces connected together at their inner edges and suitably shaped to cover only the inner sides of the legs and the front and rear portions of the body below the waist line, side pieces, each shaped to cover only the sides of the body above and below the waist and the outer sides of the legs, said side pieces, below the waist, being connected with the crotch pieces to form a bifurcated skirt, but said connection of an upper portion of a crotch piece being on one side detachable, a front panel the edges of which are connected to the front edges of the side pieces above and below the waist line, and a rear panel the edges of which are similarly connected with the rear edges of the side pieces, one edge of one panel being detachable from the corresponding edge of the corresponding side piece.

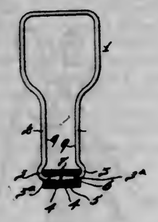
3. In a woman's one-piece suit, the combination of an outer portion made of a single thickness of cloth, and of a shape to surround the trunk and the legs of the wearer, and a crotch portion of a shape to cover only the inner sides of the legs and the front and rear of the trunk below the waist line, and connected along its upwardly extending edges to the outer portion, the lower part of said outer portion being separable edges both at front and rear to permit the garment to be used as a bifurcated skirt, and coengaging fastening devices on said separable edges for uniting them to form an ordinary skirt.

1,076,265. LOOP FOR HOSE-SUPPORTERS. SAMUEL BUYER, Yonkers, N. Y. Filed Apr. 17, 1912. Serial No. 691,540. (Cl. 24—245.)

1. A hose-supporter loop having side members provided with inwardly turned legs at the clamping end of the loop, the extremities of said legs being flattened and broader than the diameter of said legs, and a metal sleeve surrounding said legs, the sleeve having a diametrically enlarged central portion and constricted ends, and flattened extremities of the legs normally lying within the said enlarged portion of the sleeve and when spaced apart, bearing against the constricted ends thereof.

2. A hose-supporter loop, comprising yieldably connected side-members turned inwardly at their free ends to form legs, the extremities of said legs being flattened and broader than the diameter of said legs, a metal sleeve surrounding said legs, the ends of said sleeve being slightly larger than the diameter of said legs but smaller than the

flattened ends thereof, and a rubber sleeve or cushion carried by said metal sleeve, the said metal sleeve and cushion being at the clamping end of the loop.



3. A hose-supporter loop comprising yieldably connected members turned inwardly at their free ends to form legs, said members being curved adjacent said legs to form recesses, the extremities of said legs being flattened and broader than the diameter of said legs, a metal sleeve surrounding said legs, the ends of said sleeve being narrower than the flattened ends of said legs, and a rubber sleeve or cushion carried by said metal sleeve and extending into the recesses in the yieldable members of said loop, the said metal sleeve and cushion being at the clamping end of the loop.

1,076,266. RAILWAY-GATE. CALOGERO CANNOVA, Sioux City, Iowa. Filed July 13, 1912. Serial No. 709,253. (Cl. 39—35.)



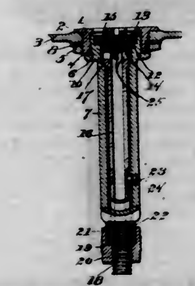
1. The combination with gates at crossings adapted to be restored by counterweights when released, of duplicate controlling devices located on opposite sides of the crossings and each comprising a slotted rail; a retractable plunger-lever pivoted therein on a vertically-movable fulcrum; means actuated by the vertical movement of said plunger-lever for closing the gates; means for holding the gates closed; means actuated by the longitudinal movement of said plunger-lever for releasing the means holding the gates closed.

2. The combination with gates at the crossings adapted to be opened by counterweights when released, of duplicate controlling devices, located on opposite sides of the crossings and each comprising a plunger-lever supported on a vertically-movable fulcrum and adapted to be depressed by trains moving toward the crossing and oscillated by trains moving from the crossings, means for retracting said plunger-lever after each vertical and longitudinal movement; a ratchet means controlled by said plunger-lever; means controlled by said ratchet means for closing the gates; means for holding the gates closed; and means for releasing the last named means.

3. The combination with gates at the crossings adapted to be opened by counterweights when released, of duplicate controlling devices located on opposite sides of the crossings and each comprising a toothed plunger adapted to be depressed by passing trains; a toothed wheel operated thereby; means for closing the gates; a flexible link between the toothed wheel and said closing means; means for holding the gates closed; and means for retracting the plunger when depressed.

1,076,267. TIRE-VALVE. FRED B. CARLISLE, Malden, Mass., assignor to Standard Auto Valve Company, a Corporation of Massachusetts. Filed July 31, 1911. Serial No. 641,399. (Cl. 152—12.)

1. The combination with a flanged base portion adapted to be secured in a tire; of a separate and complete valve member adapted to be detachably secured to said base portion, said valve member comprising a tube having an external valve seat at one end; a valve cooperating with said seat located outside of the tube and having a guide tongue extending into said tube; a spring located between said valve and said base portion; and a longitudinally moable deflating member in said tube to unseat said valve.

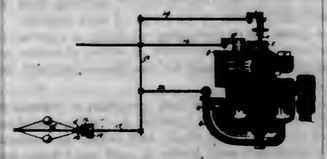


2. The combination with a flanged base portion adapted to be secured in a tire; of a valve member adapted to be detachably secured to said base portion, said valve member comprising a tube having an external valve seat; a valve coöperating with said seat and having a guide tongue extending into said tube, said guide tongue being cupped to form a spring seat; and a spiral spring located between said seat and the base portion.

3. The combination with a flanged base portion adapted to be secured in a tire; of a valve member comprising a tube having an external valve seat; a valve coöoperating with said seat and having a guide tongue extending into said tube, said guide tongue being cupped to form a spring seat; a spiral spring located between said seat and the base portion; a tubular member located in said tube and provided with a pump nipple; an annular external valve member on said tubular member coöoperating with a similar internal valve member in the main valve tube, said tubular member being provided with lateral slots in its lower end; and means for producing a longitudinal movement of said tubular member to unseat the valve and open communication between the compressed air space and the tubular member by way of said slots for the purpose of deflating.

4. The combination with a flanged base portion adapted to be secured in a tire; of a valve adapted to be detachably secured to said base portion, said valve comprising a tube having an external valve seat; a valve cooperating with said seat and having a guide tongue extending into said tube, said guide tongue being cupped to form a spring seat; and a spiral spring located between said seat and the base portion.

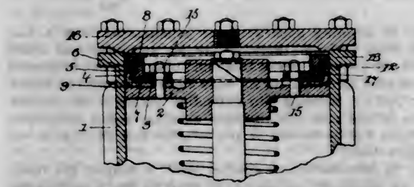
1,076,268. CARBURETER-REGULATING MECHANISM. JOHN C. CARPENTER, Houston Heights, Tex. Continuation of application Serial No. 489,982, filed Apr. 15, 1909. This application filed Oct. 12, 1912. Serial No. 725,357. (Cl. 123—123.)



1. In a device of the character described, the combination with a fuel inlet; an air inlet; a carbureting chamber connected with and receiving from said fuel and air inlets; an air valve for controlling said air inlet; a mixture throttling means; and a governing means, responsive to engine speed, adapted to operate said air valve; of a lever operatively connecting said throttling means, governing means and air valve and responsive to said throttling means and governing means so that the said lever may be operated by said throttling means, operate upon said governing means as a fulcrum, and regulate the operation of said air valve, or may be operated by said governing means, operate upon said throttling means as a fulcrum, and regulate the operation of said air valve.

2. In a device of the character described, the combination with a fuel inlet; an air inlet; a carbureting chamber connected with and receiving from said fuel and air inlets; a fuel valve for controlling said fuel inlet; a mixture throttling means; and a governing means, responsive to engine speed, adapted to operate said fuel valve; of a lever operatively connecting said throttling means, governing means and fuel valve, and responsive to said throttling means and governing means so that the said lever may be operated by said throttling means, operate upon said governing means as a fulcrum, and regulate the operation of said fuel valve, or may be operated by said governing means, operate upon said throttling means as a fulcrum, and regulate the operation of said fuel valve.

1,076,269. PISTON-PACKING. GEORGE CHRISTENSON, Jamaica, N. Y., assignor to H. W. Johns-Manville Company, a Corporation of New York. Filed Nov. 22, 1911. Serial No. 661,782. (Cl. 121—108.)



1. The combination with a piston head and a follower therefor of equal diameter, the parts being shaped to leave a circumferential recess between the piston and the follower, of a cup shaped flexible packing seated in said recess, one of the above named packing supporting elements being provided with openings to admit fluid pressure behind the packing.

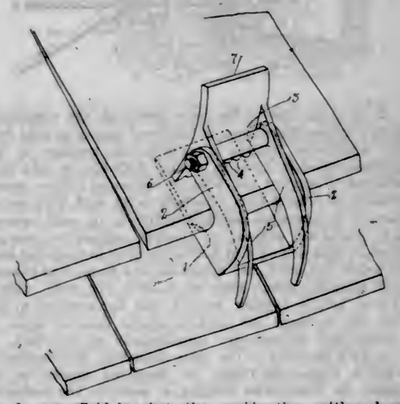
2. The combination with a piston head and a follower therefor of equal diameter, the parts being shaped to leave a circumferential recess between the piston and the follower, of a cup shaped flexible packing seated in said recess, one of the above named packing supporting elements being provided with openings to admit fluid pressure behind the packing and a discontinuous elastic packing expander ring also located in said recess behind the packing and free to expand radially independently of the piston head and follower.

3. The combination with a piston head and a follower therefor of equal diameter, the parts being shaped to leave a circumferential recess between the piston and the follower, of a cup shaped flexible packing seated in said recess, one of the above named packing supporting elements being provided with openings to admit fluid pressure behind the packing and a discontinuous elastic packing expander ring also located in said recess behind the packing, said expander ring being formed of a flat strip of spring metal bent to an L-shaped cross section with abutting ends.

4. The combination with a piston head and follower of approximately equal diameters shaped to leave a circumferential recess between the two when assembled, of a cup shaped flexible packing seated in said recess, and an expander ring formed of a strip of elastic material of approximately even thickness throughout formed with an L-shaped cross section and bent into a circle with abutting ends, seated within said cup shaped packing.

5. The combination with a piston head and follower of approximately equal diameters shaped to leave a circumferential recess between the two when assembled, of a cup shaped flexible packing seated in said recess, and an expander ring formed of a strip of elastic material of approximately even thickness throughout formed with an L-shaped cross section and bent into a circle with abutting ends, seated within said cup shaped packing, the radially projecting flange of the packing being gripped between the piston head and follower when assembled, and the radially projecting flange of the expander ring also projecting between the piston head and follower, but the latter being provided with an annular recess in which the said expander flange is loosely seated.

1,076,270. SCAFFOLDING-BRACKET. EDGAR M. CLARK, Dayton, Ohio. Filed Mar. 18, 1912. Serial No. 684,377. (Cl. 20—86.)



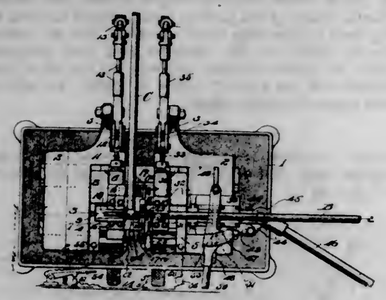
1. In a scaffold bracket, the combination, with a base-plate, of spaced brackets secured to said plate adjacent the side edges thereof, longitudinally disposed arms each fulcrumed adjacent one end upon a respective bracket, the longer end of each arm forming shingle-gripping means, and a transversely disposed plate rigidly connected to the shorter ends of the arms, and being disposed in an obtuse plane with respect to the plane of the base-plate whereby pressure exerted in one direction upon the upper portion thereof will cause the longer ends of the arms to be forced downwardly.

2. In a scaffold bracket, the combination, with a base-plate, of spaced brackets secured to said plate adjacent the side edges thereof, longitudinally disposed arms each fulcrumed adjacent one end upon a respective bracket, the longer end of each arm forming shingle-gripping means, and a transversely disposed plate rigidly connected to the shorter ends of the arms, and disposed in an obtuse plane with respect to the plane of the base-plate whereby pressure exerted in one direction upon the upper portion thereof will cause the longer ends of the arms to be forced downwardly, said plate extending below the fulcrum of the arms and having its lower edge serrated to form a gripping element.

1,076,271. WELDING-MACHINE. THEODORE E. CRECELIUS, St. Louis, Mo., assignor to Multiplex Display Fixture Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 24, 1912. Serial No. 692,947. (Cl. 219—4.)

1. In a machine of the class described, the combination with a supporting frame, of insulated means on said frame for lengthwise holding a metallic bar-member in fixed position thereon, movable means shiftable on said frame adapted to support and hold an elongated hollow metallic member in longitudinal alinement with, and with one end thereof in operative position relatively to, said bar-member, means for heating only said end of said hollow member to

soften the same, and means on said frame adapted to shift said movable means with its carried hollow member toward said bar-member to position the softened end of said hollow member upon and around said bar-member; substantially as described.



2. In a machine of the class described, the combination with a supporting-frame, of insulated means on said frame for lengthwise holding a metallic bar-member in fixed position thereon, movable means shiftable on said frame adapted to support and hold an elongated hollow metallic member in longitudinal alinement with, and with one end thereof in operative position relatively to, said bar-member, means for causing an electric current to pass only through said end of said hollow member to heat and thereby soften the same, and means on said frame and engaging said movable means adapted to shift the same with its carried hollow member toward said bar-member to position the softened end of said hollow member upon and around said bar-member; substantially as described.

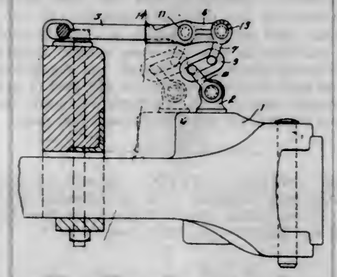
3. In a machine of the class described, the combination with a supporting-frame, of insulated means on said frame for lengthwise holding a metallic bar-member in fixed position thereon, movable means shiftable on said frame adapted to support and hold an elongated hollow metallic member in longitudinal alinement with, and with one end thereof in operative position relatively to, said bar-member, a plurality of sets of contact members on said frame, said contact-members being included in an electric circuit and being adapted to electrically contact and engage with said hollow member only at said end to cause an electric current to pass through and heat and thereby soften the same, and means on said frame and engaging said movable means adapted to shift the same with its carried hollow member toward said bar-member to position the heated and softened end of said hollow member upon and around said bar-member; substantially as described.

4. In a machine of the class described, the combination with a supporting frame, of insulated means on said frame for lengthwise holding a metallic bar-member in fixed position on said frame, movable means shiftable on said frame adapted to support and hold an elongated hollow metallic member in longitudinal alinement with, and with one end thereof in operative position relatively to, said bar-member, a pair of contact jaws on said frame, said jaws being included in an electric circuit and being adapted to releasably grip and electrically engage with said hollow member at said end thereof, a pair of coöperating contact-members on said frame also included in said circuit and adapted to removably electrically contact and engage with said hollow member at said end thereof, the circuit between said jaws and contact-members being completed through said hollow member at said end and said end thereof only being heated and softened by the electric current passing therethrough, and means on said frame and engaging said movable member adapted to shift the same with its carried hollow member toward said bar-member to position the heated and softened end of said hollow member upon and around said bar-member; substantially as described.

5. In a machine of the class described, a supporting frame, a longitudinally-slotted block on said frame, tube-supporting means slidable on said block, and means comprising a bell-crank lever pivotally mounted on said frame and a link pivotally connected to said bell-crank lever and to said supporting means and movable in the slot of said block adapted to slidably move said supporting means on said block; substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,076,272. COUPLING-ROD EXTENSION. SIMEON K. DICKERSON, Cleveland, Ohio. Filed Jan. 29, 1912. Serial No. 674,120. (Cl. 213—59.)



1. In coupling apparatus the combination with a coupler head and pin therefor and an uncoupler rod above the head having a perforated end; of an extension member perforated intermediate its ends and embracing the uncoupler rod; a securing pin extending through the perforations in the said rod and said member, and a connection between the outer end of the member and the pin in the coupler head.

2. In combination; a coupler head; a coupler pin therein; an uncoupler rod above the head having a perforation in its end; a yoke fitting over the end of the uncoupler rod; a securing pin extending through the yoke and the perforation in the uncoupler head; a connection between the two sides of the yoke and lying beneath the uncoupler rod; and a connection between the outer end of the yoke and the uncoupler pin.

3. In combination; a coupler head; a coupler pin therein; an uncoupler rod above the head having a perforation in its end; an extension member having a portion at one end embracing the uncoupler rod so that upward movement thereof with respect to the coupler rod is prevented; a securing pin extending through the extension member and the said perforation in the uncoupler rod; and a connection between the outer end of the member and the coupler pin.

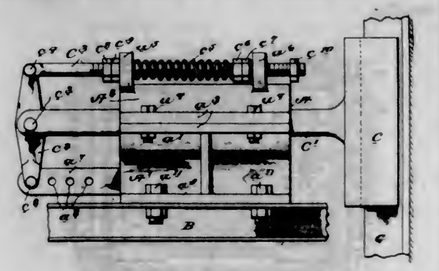
4. In combination; a coupler head; a coupler pin therein; an uncoupler rod above the head having a perforation in its end; an extension member having a portion adjacent one end extending under the uncoupler rod; a securing pin extending through the extension member and the said perforation in the uncoupler rod; and a connection between the outer end of the member and the coupler pin.

5. An extension member for an uncoupler rod comprising a yoke having perforations in the opposing sides to receive a securing pin and having adjacent one end means for connection with the coupler pin; and a connecting portion between the two sides of the yoke adjacent the other end thereof adapted to lie beneath the uncoupler rod.

[Claim 6 not printed in the Gazette.]

1,076,273. SHOE FOR ELEVATOR-GUIDES. GARLAND DUNLAP, New York, N. Y., assignor of one-half to Margaret O. Jentons, Closter, N. J. Filed Mar. 25, 1912. Serial No. 686,075. (Cl. 187—95.)

1. An elevator guide shoe comprising a removable casing formed in two separable sections with half bearings between them, a shoe having a stem mounted removably in said half bearings, lugs or guides on the upper section, a rod passing through said lugs or guides and a tension spring exterior to the casing and encircling said rod for forcing the shoe outwardly.



2. An elevator guide shoe comprising a removable casing formed in two separable sections with half bearings between them, a shoe having a stem mounted removably in said half bearings, lugs or guides on the upper section, a rod passing through said lugs or guides, a tension spring exterior to the casing and encircling said rod for forcing the shoe outwardly, and adjustable means also exterior to the casing and positively limiting the outward movement of the shoe.

3. An elevator guide shoe comprising a casing or bearing, a shoe having its stem sliding therein, a pivoted lever connected between its ends to the inner end of the stem, a sliding rod parallel with the stem and pivoted to the end of the lever opposite its fulcrum, guide lugs on the casing for said rod, and a tension spring on the rod.

4. An elevator guide shoe comprising a casing or bearing, a shoe having a stem sliding in said bearing, a lever fulcrumed at one end and pivoted between its ends to the inner end of said stem, a sliding rod pivotally connected at its inner end to the free end of said lever, guide lugs for said rod on the casing, a tension spring on the sliding rod between the said lugs, a tension nut on the rod against which the outer end of said spring bears, and a stop nut on the rod adjacent to the inner guide lug to limit the outward movement of the shoe.

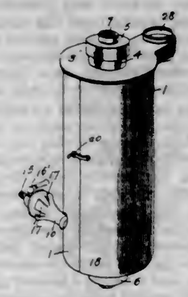
5. An elevator guide shoe comprising a casing or bearing, a shoe having a stem sliding in said bearing, a lever fulcrumed at one end and pivotally connected between its ends to the inner end of said stem, a sliding rod pivotally connected at its inner end to the free end of said lever, guide lugs for said rod, a tension spring on the rod between said lugs, a stop nut on the rod outside of the inner guide lug, and a second nut on the rod outside of the outer guide lug.

[Claims 6 to 8 not printed in the Gazette.]

1,076,274. WATER-HEATER. STUART ELLIS, Washington, D. C. Filed Nov. 23, 1912. Serial No. 733,105. (Cl. 122—15.)

1. In a heating apparatus, the combination with a water-tube provided with an inlet end and an exit end, of a reciprocable cylindrical member fitting loosely within said tube, whereby water entering the latter is spread out in a thin stream between said tube and member and thereby quickly heated, said member being provided with a vented top and being normally seated, at the opposite end thereof, at the inlet end of said tube, and heating means for said tube disposed in the region of said inlet-end thereof.

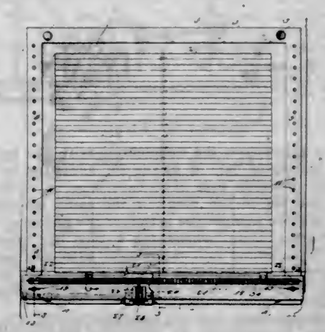
2. In a heating apparatus, the combination with a water-tube provided with an inlet end and an exit end, of a reciprocable cylindrical member loosely fitting within said tube, whereby water entering the latter is spread out in a thin stream between said tube and member and thereby quickly heated, said member being provided with a vented top and being normally seated, at the inlet end of said tube, and said member being normally seated at the inlet-end of said tube, and heating means for said tube disposed in the region of said inlet-end thereof.



3. In a heating apparatus, the combination with a water-tube, of heating means for said tube disposed toward the lower end thereof, a drum inclosing said water-tube, a door hinged to said drum, and a two-section truncated cone-shaped member disposed in said drum above said heating-means one of said sections being carried by said door and the other of said sections by said drum.

4. In a heating apparatus, the combination with a water-tube, of heating means for said tube disposed toward the lower end thereof, a drum inclosing said water-tube, a door hinged to said drum, a two-section truncated cone-shaped member disposed in said drum above said heating means, one of said sections being carried by said door and the other of said sections by said drum, and a partition disposed above said cone-shaped member and projecting into said drum from one side thereof and extending to and terminating at said water-tube.

1,076,275. AREA-FINDER APPARATUS. ARTHUR CLARICO FREEMAN, Jr., Norfolk, Va. Filed May 9, 1912. Serial No. 696,248. (Cl. 73—81.)



1. A measuring instrument comprising a transparent element having spaced parallel lines, a member movable in a direction at an angle to said lines, means for guiding said member and positively locking it at predetermined regular intervals, a measuring device movable on said member in a plane parallel with the lines on said element, and means for actuating said device.

2. An area finding instrument comprising a frame, a transparent element having spaced parallel lines thereon and adapted to be placed over the area to be measured with the lines intersecting the boundary lines of said

area, a slidable member carried by said frame and movable in a direction at an angle to said parallel lines, means for guiding said member and positively locking it at predetermined regular intervals, a measuring device movable on said member parallel with said parallel lines for measuring the distance between said boundary lines in the spaces between said parallel lines, and means for actuating said measuring device as it moves on said member.

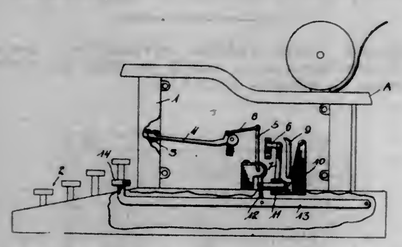
3. A measuring instrument comprising a transparent element having spaced parallel lines thereon, a bar slidable in one direction relatively to said transparent element, a registering device mounted on said bar and adapted to slide in a direction at an angle to the direction of movement of said bar, a rack on said bar, and a pinion on said registering device to engage said rack.

4. A measuring instrument comprising a supporting structure, a member movable in one direction over said structure, means for positively holding said member against accidental movement at predetermined intervals, a transparent element having spaced parallel lines and adapted to overlie the surface to be measured, a register carrier slidable on said member, a pointer upon said carrier to coact with said parallel lines, a register upon said carrier and coacting means on said register and said member for actuating the register.

5. An area finding instrument comprising a transparent sheet having spaced parallel lines thereon adapted to be placed over the surface to be measured, a frame adapted to engage said sheet and hold the sheet in fixed relation to said frame, a bar slidable in one direction on said frame, and a registering device mounted on and adapted to slide in a direction at right angles to the direction of movement of said bar and means for actuating said register to cause it to indicate the area of the surface measured.

[Claims 6 to 24 not printed in the Gazette.]

1,076,276. RELEASING MECHANISM FOR TYPE-WRITER TYPE-BARS. WILLIAM D. FRICKS, Jacksonville, Fla. Filed Oct. 9, 1912. Serial No. 724,798. (Cl. 197—27.)

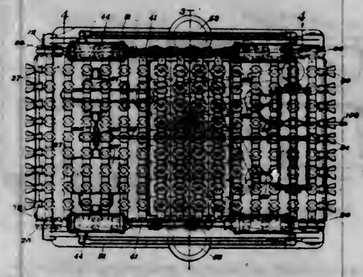


1. In a typewriter, the combination with the type bars and the universal bar, of means for actuating said universal bar whereby said type bars may be returned to normal position in the event of the same remaining in writing position against the action of the restoring means, said actuating means comprising a type bar throw arm adapted to be swung into engagement with said universal bar, a rock shaft connected to said arm, a pull lever for actuating said rock shaft, and means for actuating said pull lever.

2. In a typewriter, the combination with the type bars, of a reelase mechanism whereby said bars may be returned to normal position in the event of the same remaining in writing position against the action of the restoring means and means disposed upon the key board of the typewriter for actuating said releasing mechanism.

1,076,277. BOTTLE-WASHING MACHINE. ROCKWELL L. GALLUP, Chicago, Ill., assignor to National Bottlers Equipment Company, a Corporation of Illinois. Filed Feb. 5, 1912. Serial No. 675,484. (Cl. 141—7.)

1. In a bottle washing machine, the combination of an endless conveyer comprising parallel runs, open sockets adapted to receive the necks of bottles, carried thereby, reciprocatory washing spindles held against lateral movement in proximity to one of said runs, and means for projecting said spindles through both runs into the bottles held in the socket of the run more remote from the spindles.



2. In a bottle washing machine, the combination of an endless conveyer comprising parallel runs, open sockets adapted to receive the necks of bottles, carried by said runs, reciprocatory washing devices held against lateral movement in proximity to one of said runs, means for projecting said devices through both runs into the bottles carried by the more distant run, and means for advancing the conveyer when the spindles are in retracted position.

3. In a bottle washing machine, the combination of an endless carrier provided with bottle receiving sockets, means for alining the sockets on the two travels of said carrier, a plurality of washing spindles, and means for projecting said spindles through said alined sockets.

4. In a bottle washing machine, the combination of an endless carrier having the two travels thereof disposed in proximity to each other, a plurality of washing spindles normally disposed adjacent one travel of the carrier, and means for projecting said spindles through both travels of said carrier.

5. In a bottle washing machine, the combination of an endless carrier, means for intermittently actuating the same, a plurality of washing spindles normally disposed outside the perimeter of said carrier, and a plurality of bottle receiving sockets mounted on said carrier, said sockets being provided with slots to receive the ends of said spindles whereby to permit actuation of the carrier with the ends of the spindles disposed inside the plane of the ends of said sockets.

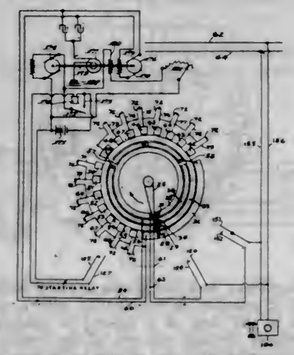
[Claims 6 to 9 not printed in the Gazette.]

1,076,278. SELECTIVE CALLING-KEY. MAURICE F. GEER and RICHARD C. LEAKE, Rochester, N. Y., assignors to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed Dec. 22, 1910. Serial No. 598,673. (Cl. 179—86.)

1. In a selective calling key, a normally inactive converter, a manually operable means for starting the normally inactive converter, an independently manually operable means for transmitting a number of impulses of electricity from said converter and means caused to act automatically by said second named means to return said first named means to unoperated position.

2. In a selective calling key, a normally inactive converter, a manually operable means for starting the normally inactive converter, an independently manually operable means for transmitting a number of impulses of electricity from said converter, means for governing the interval between impulses and the duration of impulses, and means caused to act automatically by said second named means to return said first named means to unoperated position.

3. In a selective calling key, a normally inactive converter, a manually operable means for starting the normally inactive converter, independently manually operable means for transmitting a number of impulses of electricity from said converter in one direction, then a number in the other direction, then one in the first said direction and means caused to act automatically by said second named means to return said first named means to unoperated position.



4. In a selective calling key, in combination, normally open contacts, means for closing the contacts, a pivoted member connected to said means for closing them, a spring pressed push key for operating said pivoted member, said push key and pivoted member having coöperating parts whereby said pivoted member prevents the return of said push key after being pushed, and said push key holds said pivoted member in a moved position, means for utilizing said contacts, and means for returning the pivoted member and the push keys to their original positions.

5. In a selective calling key, in combination, normally open contacts, means for closing the contacts, a pivoted member connected to said means for closing them, a spring pressed push key for operating said pivoted member, said push key and pivoted member having coöperating parts whereby said pivoted member prevents the return of said push key after being pushed, and said push key holds said pivoted member in a moved position, a source of current operatively connected to the key by the closing of said normally open contacts, manually operable means to transmit said current in impulses from the key, means acted upon by said last named means to cause a movement of said pivoted member for releasing said push key to allow it to return to unoperated condition.

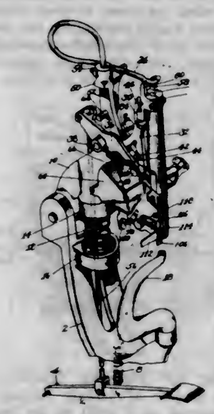
[Claims 6 to 13 not printed in the Gazette.]

1,076,279. MACHINE FOR INSERTING FASTENINGS. GEORGE GODDU, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 3, 1908. Serial No. 451,584. (Cl. 1—18.)

1. In a machine of the class described, the combination with a head provided with a driver passage, a driver, and a raceway pivoted to oscillate between a fastening receiving position and a fastening delivering position, of a fastening receiving ledge of such dimensions that it can receive a single fastening only from said raceway when said raceway is in fastening delivering position, said ledge being so located and so shaped that it will transfer said fastening into the driver passage when said passage has being cleared to receive said fastening.

2. A machine of the class described, having, in combination, a head provided with a driver passage, a stationary fastening container carried by said head, a stationary fastening-sustaining ledge adjacent to, and inclined toward, said driver passage, said ledge being constructed to receive and support by its head a single fastening only, and means for taking said single fastening from said container and depositing it upon said ledge.

3. A machine of the class described, having, in combination, a fastening raceway movable between a fastening-receiving and a fastening-delivering position, and means for moving said raceway constructed and arranged to complete suddenly the movement of said raceway into one of the before-mentioned positions as it approaches said position.



4. A machine of the class described, having, in combination, a head provided with a driver passage, a driver and a raceway pivoted to oscillate between a fastening-receiving position and a fastening-delivering position and arranged to be moved into fastening-delivering position when the driver is in its lowermost position and to be moved into fastening-receiving position as the driver is moved into its uppermost position, and means for effecting an oscillation of said raceway constructed to impart to said raceway a short, quick movement as it comes into fastening-receiving position.

5. A machine of the class described, having, in combination, a raceway movable between a fastening-receiving and a fastening-delivering position, means for effecting a gradual movement of said raceway to within a short distance of one of said positions comprising elastic means through which the moving force is transmitted to said raceway, means for checking the movement of said elastic means without checking the application of force to it whereby it is put under tension, and means for releasing the stored-up energy in said elastic means whereby the movement of said raceway into the before-mentioned position is completed suddenly.

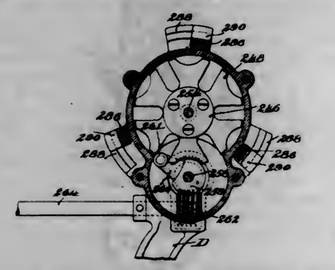
[Claims 6 to 22 not printed in the Gazette.]

1,076,280. FASTENER SUPPLYING AND DELIVERING MECHANISM. GEORGE GODDU, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed June 23, 1909, Serial No. 503,781. Divided and this application filed July 23, 1910. Serial No. 573,420. (Cl. 218—17.1.)

1. A machine for inserting fasteners, having, in combination, a hopper, fastener supplying devices within the hopper, a hopper supporting bracket, actuating means for said devices also supported by the bracket, means for disconnecting the fastener supplying devices from their actuating means, and means connecting the hopper with its bracket, permitting removal of the hopper, after such disconnection, by an angular bodily movement thereof, substantially as described.

2. A machine for inserting fasteners, having, in combination, a hopper, a raceway leading therefrom, a hopper supporting bracket, a raceway supporting bracket, a bayonet joint connection between the hopper and its bracket, and a swing bolt and nut and slot connection between the hopper and raceway bracket, substantially as described.

3. A machine for inserting fasteners, having, in combination, a hopper, a shaft within the hopper, rotary fastener supplying devices mounted on said shaft, a hopper supporting bracket, means for rotating the hopper shaft including a friction clutch having one member supported by the shaft and one member supported by the bracket, removable means connecting the bracket-supported clutch member with the shaft-supported clutch member, and a bayonet joint connection between the hopper and its bracket, substantially as described.



4. A machine for inserting fasteners, having, in combination, a hopper, a raceway leading therefrom, a picker plate mounted on a shaft in the hopper having a plurality of fastener-lifting arms, and means for rotating the picker plate intermittently to bring the lifting arms successively into position to deliver fasteners to the raceway, comprising a radially slotted wheel connected to the shaft, a crank arm having a tooth to enter said slots in succession, complemental curved surfaces on the perimeters of the wheel and crank hub to lock the shaft against movement when the crank is disengaged from the wheel, and means to rotate the crank arm continuously, substantially as described.

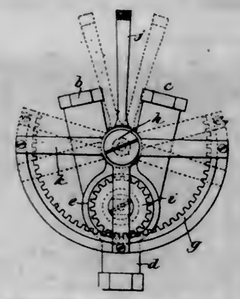
5. A machine for inserting fasteners, having, in combination, a hopper, a raceway leading therefrom, a picker plate mounted on a shaft in the hopper having a plurality of fastener-lifting arms, and means for rotating the picker plate intermittently to bring the lifting arms successively into position to deliver fasteners to the raceway, comprising a radially slotted wheel connected to the shaft, a crank arm arranged beside and overlapping the wheel having a laterally projecting tooth to enter said slots in succession, complemental curved surfaces arranged in the same plane on the perimeters of the wheel and crank hub to lock the shaft against movement when the crank is disengaged from the wheel, and means to rotate the crank arm continuously, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,076,281. VALVE. LAWRENCE B. GRAY, Boston, Mass., assignor to Hydraulic Vacuum Dredging Company, Wilmington, Del., a Corporation of Delaware. Filed Aug. 29, 1910. Serial No. 579,412. (Cl. 137—26.)

1. The combination in a valve comprising a casing *a*, having two tubular inlet branches *b* and *c*, nearly parallel, and a tubular outlet *d*, a tapering plug valve *e*, extending across the passages of said inlet branches and the outlet at their intersection, and having a screw thread at its small end, means engaged with said small end bearing on the valve casing, a gear pinion *i*, secured upon and in contacting relation with the large end of said tapering valve, a pivot *h* on the casing, a spider *k* on said pivot, comprising arms to the ends of which are secured an annular gear segment *g*, meshing with the pinion *i*, and an operating handle *j*, secured to the spider, substantially as described.

2. The combination comprising a valve casing having intersecting branches, a plug valve contained in the casing at the intersection of the branches, a pinion secured to said plug valve, an internal gear meshing with said pinion and pivotally mounted on the casing at a point relatively close to the pinion, and an operating handle secured to the internal gear, the latter having a radius more than twice as great as that of the pinion, whereby the plug may be turned through a greater angle than the handle, substantially as described.



3. A plural-way cock comprising a valve casing having a number of branches, in combination with a valve member made in the form of a tapered or conical plug inserted endwise through one side of the casing, a pinion mounted upon the large end of said valve member, a gear segment meshing with said pinion, and a pivoted holder for said gear segment having a portion which extends across the pinion, and thereby assists in retaining the valve member in the casing.

1,076,282. PACKING AND PROCESS OF MAKING SAME. WILLIAM R. HAGGART, Philadelphia, Pa. Filed June 4, 1913. Serial No. 771,573. (Cl. 121—107.)



1. A packing rectangular in cross section and composed of four sections each of which constitutes in cross-section a sector of a substantially circular roll cut longitudinally on four radial lines subtending arcs of substantially ninety degrees, said sections being united together with the straight sides of adjacent sections in alinement and the angular corners of the several sections at the several corners of the packing.

2. A packing rectangular in cross-section and composed of four sections united together each of approximately the shape in cross section of a mixed triangle whose straight sides extend at right angles to each other and form substantially one half of the adjacent surfaces of two adjacent outer sides of the packing and whose curved side extends within the packing body between said two adjacent sides, the middle portion of each section composed of layers of fabric and rubber extending in the direction of its curved side and angularly to its outer straight sides.

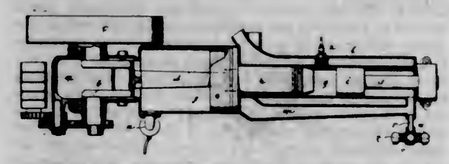
3. A packing rectangular in cross-section and composed of four sections each of which constitutes a wedge-shaped quarter section of a spiral roll of fabric coated with rubber, said sections being united together with the rectangular corners of the several sections forming the several corners of the packing and with the straight sides of adjacent sections in alinement.

4. A packing comprising four similarly shaped sections, composed of layers of fabric and rubber, adapted if separated to be fitted together to form a strip substantially circular in cross section with the layers extending approximately concentric to the axis of the circle, said sections in the finished packing being united together with their curved surfaces within the body of the packing and their eight straight sides forming the four sides of the packing.

5. A packing comprising layers of fabric and rubber, said layers being arranged in four united groups to form a packing rectangular in cross-section, the opposite edges of the layers of each group terminating along adjacent halves of adjacent sides.

[Claims 6 to 12 not printed in the Gazette.]

1,076,283. INTERNAL-COMBUSTION-ENGINE TOOL. JOHN ALLEN HEANY, Washington, D. C. Filed Jan. 27, 1912. Serial No. 673,035. (Cl. 123—7.)



1. In an apparatus of the class set forth, an engine cylinder, a power piston working therein at one end of the cylinder, a tool piston working in the other end of the cylinder, means for supplying an explosive mixture to the cylinder at a point between the pistons and for igniting the same, and means whereby the reciprocation of the power piston on its compression stroke causes the tool piston to return to initial position, said latter means embodying fluid pressure devices.

2. In combination with a two-cycle internal combustion engine embodying a power-cylinder, a power-piston and means for supplying and igniting explosive mixture and for exhausting products of combustion, of a tool piston attached to a stem extending out through one end of the power cylinder, a supplemental cylinder and piston, and a conduit connecting the forward end of the supplemental cylinder to the power cylinder between the tool-end of the power-cylinder and the tool piston.

3. In an apparatus of the class set forth, a power cylinder, a power piston, working therein, a tool piston working in the power cylinder, a supplemental cylinder of larger diameter than the power cylinder, a supplemental piston working therein and connected to the power piston, a conduit or passage connecting the supplemental cylinder to the power cylinder between the tool-end of the power-cylinder and the tool piston, a crank shaft connected to the supplemental piston and power piston, said crank shaft carrying a fly wheel.

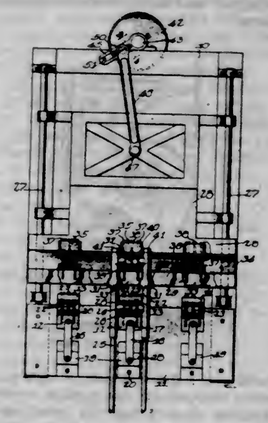
4. In an apparatus of the class set forth, an engine cylinder, a power piston and a tool piston adapted to reciprocate in opposite directions in said cylinder, a power storage means connected to said power piston and adapted to actuate the same on its compression stroke by stored up energy, and means embodying a supplemental cylinder and piston whereby the tool piston shall be returned to initial position by the action of the supplemental piston and during the compression stroke of the power piston and from the same source of stored up energy.

5. In an apparatus of the class set forth, an engine cylinder, a power piston and a tool piston adapted to reciprocate in opposite directions in said cylinder, a power storage means connected to the work piston and adapted to actuate the same on its compression stroke by stored up energy, and means whereby the tool piston shall be returned to initial position during the compression stroke of the power piston and from the same source of stored up energy, said means embodying fluid pressure devices.

[Claims 6 and 7 not printed in the Gazette.]

1,076,284. MACHINE FOR GRINDING TROMBONE-SLIDES. FRANK HOLTON, Chicago, Ill., assignor to Frank Holton & Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 13, 1912. Serial No. 677,278. (Cl. 51—54.)

1. In a machine of the class described, the combination of coöperating holding devices for respectively holding the slides of a wind musical instrument, and means for reciprocating the said holding devices, one of the holding devices being also adapted for pivotal movement during said reciprocation.



2. In a machine of the class described, the combination of coöperating holding devices for respectively holding the slides of a wind musical instrument, and adjustable means for reciprocating the said holding devices, one of the holding devices being also adapted for pivotal movement during said reciprocation.

3. In a machine of the class described, the combination of coöperating clamps for respectively holding the slide members of a wind musical instrument, said clamps being adapted for relative movement, and means for imparting such relative movement, one of the said clamps being also adapted for pivotal movement.

4. In a machine of the class described, the combination of coöperating clamps for respectively holding the slide members of a wind musical instrument, said clamps being adapted for relative reciprocating movement, and means for imparting such relative movement, one of said clamps being also adapted for another and independent movement during said relative reciprocating movement.

5. In a machine of the class described, the combination of coöperating clamps for respectively holding the slide members of a wind musical instrument, said clamps being mounted for relative reciprocating movement, and means for imparting such relative movement, one of said clamps being also mounted for free and independent pivotal movement, and during such relative movement.

[Claims 6 to 15 not printed in the Gazette.]

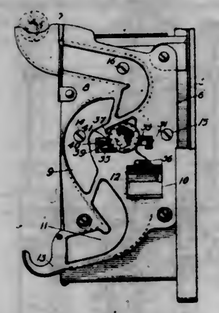
1,076,285. COIN-COLLECTOR. WILLIAM F. HOSFORD, West Chicago, Ill., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed July 30, 1912. Serial No. 712,327. (Cl. 194—16.)

1. In a telephone toll mechanism, a coin chute, supports for temporarily arresting a coin therein, circuit closing contacts actuated by a coin in said temporarily arrested position, directing means projecting into said chute, and an electromagnet for removing one of said supports and operating said directing means.

2. In a telephone toll mechanism, a coin chute, supports for temporarily arresting a coin therein, one of said supports being removable from the chute, circuit closing means actuated by a coin in its temporarily arrested position, coin directing means projecting into said chute, and an electromagnet for actuating said removable support and controlling said directing means.

3. In a telephone toll mechanism, a coin chute, circuit closing means projecting into said chute, supports for temporarily arresting a coin therein, one support being

removable from the chute and the other being operable by a coin for actuating said circuit closing means, directing means for the coin distinct from said supporting means, an electromagnet, and an operative connection between said electromagnet and said removable support and said directing means.

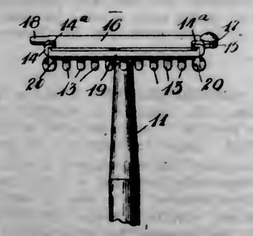


4. In a telephone toll mechanism, a coin chute; circuit closing means; supports for temporarily arresting a coin in said chute, one of said supports being removable and the other being operable by a coin in its temporarily arrested position to actuate said circuit closing means; two coin directing means both being removable from said chute; an electromagnet; and means operable by said electromagnet and connected to said removable support and directing means for actuating said removable support and controlling said directing means.

5. In a coin collector for a telephone, a coin chute, circuit closing means, two supports and two directing means projecting within said chute one of said supports being removable from the chute and the other being operable by a coin to actuate said circuit closing means, an electromagnet, and means operable by said electromagnet and connected to said removable support and directing means for removing the removable support from the chute and actuating said directing means.

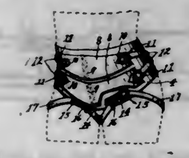
[Claims 6 to 9 not printed in the Gazette.]

1,076,286. SAFETY-RAZOR. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 11, 1913. Serial No. 753,491. (Cl. 30—12.)



In a safety razor, a handle, a blade-supporting plate rigidly connecting thereto at an angle and having a guard at its forward edge and stop shoulders adjacent said edge for a razor blade, said plate also having a longitudinally extending offset adjacent its rear edge and having integral lugs extending upwardly from its sides intermediate its forward and rear edges and overlying the upper face of said plate, the under faces of said lugs being formed with a bevel, a clamping arm pivoted at one end and adjacent its rear edge to said longitudinal offset and arranged to extend longitudinally of said plate for substantially its entire length and in a plane parallel therewith, said arm being arranged to swing toward and from the rear edge of said plate and being constructed to engage with its upper face the beveled under faces of said lugs whereby the under face of said arm may be wedged in frictional clamping engagement with the upper face of a razor blade seated over said supporting plate.

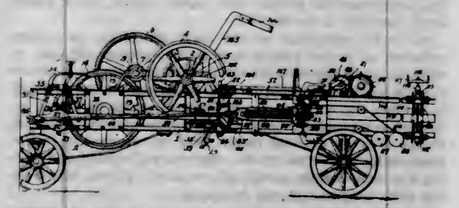
1,076,287. ABDOMINAL SUPPORTER. FRANK Z. HUSAR, Chicago, Ill. Filed May 10, 1913. Serial No. 766,675. (Cl. 2—188.)



1. A device of the kind described comprising soft flexible band; firm end portions secured to said soft flexible band; a lacing connecting said firm end portions; spaced non-elastic members extending longitudinally on and stitched to said soft flexible band only at their central portions; and straps stitched to said firm end portions and adjustably secured to the ends of said non-elastic members, substantially as described.

2. A device of the kind described comprising soft flexible band; firm end portions secured to said soft flexible band; a lacing connecting said firm end portions; spaced non-elastic members extending longitudinally on and stitched to said soft flexible band only at their central portions; straps stitched to said firm end portions and adjustably secured to the ends of said non-elastic members; two spaced reinforcing sheets secured to the lower front edge portion of said soft flexible band; a button on one end of each reinforcing sheet; a buckle on the other end of each reinforcing sheet; and a thigh strap engaging the buckle and button on each reinforcing sheet, substantially as described.

1,076,288. BALING-PRESS. GEORGE E. JACKSON, Newton, Iowa. Filed Sept. 18, 1912. Serial No. 720,956. (Cl. 100—20.)



1. In a baling press, the combination of a wire feeding arm mounted to swing bodily across the baling chamber, said arm having a curved end portion with wire holding means, a pair of links pivotally connected with said arm, one of said links projecting beyond said arm and carrying a wire guiding roller, a wire reel support beyond said link and means for swinging said links to thrust said wire carrying arm into the baling chamber and to withdraw said arm while simultaneously unwinding wire from said reel.

2. In a baling press, the combination of a vertical rock shaft, a crank arm connected to said shaft, means for swinging said crank arm, a curved link mounted to swing with said rock shaft, a second curved link pivotally mounted at the side of said first named link and having a wire carrier at its free end and a swinging wire carrying arm pivoted to the free ends of said links and having rollers for supporting and holding a baling wire, and a support for a reel to supply wire to said wire supporting arm, said reel being positioned behind said swinging links so that when the links swing forward to advance the wire carrying arm across the baling chamber, there will be slack in the baling wire and relatively little unwinding from the reel while on the return movement the outward swing of the links will unwind wire from the reel.

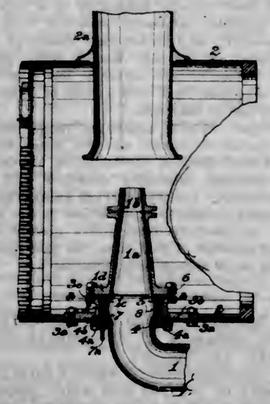
3. In a baling press, the combination of a wire feeding arm having a curved inner end, a pair of rollers carried by said curved end for receiving the baling wire between them, a pair of links pivoted to said wire feeding arm and pivotally mounted to the frame work of the press, a roller mounted near the outer end of the wire feeding arm, wire supplying means located behind said links and actuating means connecting said links to advance the wire feeding arm across the baling chamber of the press and to unwind wire from the wire supplying means on the return swing.

4. In a baling press, the combination of a frame work, a rotatable wire drum carried on either side of said frame work, wires leading rearwardly from both of said drums and extending across the baling chamber where they are twisted together, both of said drums simultaneously paying out the wire as the bale increases in size, wire twisting mechanism, collapsible wire feeding mechanism pivoted to the supporting means and adapted to swing across the baling chamber to the twisting mechanism while simultaneously collapsing and without unreeling more than a small quantity of wire from either of the drums, and means for cutting the wire after the twisting mechanism has operated.

5. In a baling press, the combination of a frame-work, a rotatable wire drum on each side of said frame work and both positioned toward the front end thereof, wires leading from said drums across the baling chamber and there twisted together, both of said drums being arranged to pay out the wire as the bale increases in size, wire twisting mechanism on one side of the frame-work, a wire feeding arm positioned to advance across the baling chamber when the bale is of full size to bring the binding wire into engagement with the twisting mechanism, pivoted links for supporting and driving said arm and means for cutting the twisted wire before the wire carrying mechanism returns to its initial position.

[Claims 6 to 23 not printed in the Gazette.]

1,076,289. JOINT FOR LOCOMOTIVE EXHAUST-PIPES. JOSHUA J. JONES, Schenectady, N. Y. Filed Apr. 2, 1913. Serial No. 758,431. (Cl. 121—109.)



1. The combination of a cylindrical thimble casing, which is open throughout the diameter of its bore at each end, and is adapted to be secured at its bottom to the inside of a locomotive smoke box, a lower exhaust pipe section fitting in said casing, with the provision of surrounding space for the reception of packing, and an upper exhaust pipe section secured detachably to, and constituting the entire upper closure of, the top of said casing.

2. The combination of a cylindrical thimble casing, entirely open at each end, and adapted to be secured at its bottom to the inside of a locomotive smoke box, a lower exhaust pipe section fitting in said casing, with the provision of surrounding space for the reception of packing, an upper exhaust pipe section secured detachably to the top of said casing, and a supporting ring, fitting in said casing, around the lower exhaust pipe section, and secured detachably to the bottom of said casing.

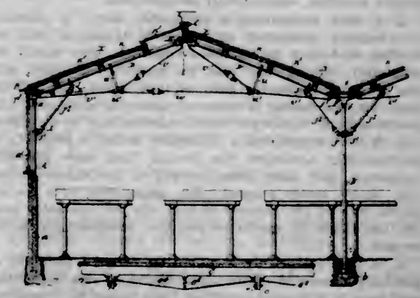
3. The combination of a cylindrical thimble casing, entirely open at each end, and having a bottom flange for attachment to the inside of a locomotive smoke box, and a top flange for attachment to an exhaust pipe section, an upper exhaust pipe section secured detachably to said top flange, a lower exhaust pipe section fitting in the casing, with the provision of surrounding space for the reception of packing, a supporting ring fitting in the casing around said lower exhaust pipe section, and a spacing gasket interposed between said ring and the bottom flange of the thimble casing.

4. The combination of a cylindrical thimble casing entirely open at each end, and adapted to be secured at its bottom to the inside of a locomotive smoke box, a lower exhaust pipe section fitting in said casing, with the provision of surrounding space for the reception of packing, an upper exhaust pipe section secured detachably to the top of said casing, a supporting ring fitting in said casing, around the lower exhaust pipe section, and secured detachably to the bottom of the casing, and a packing adjusting ring surrounding the lower exhaust pipe section above the supporting ring.

5. The combination of a cylindrical thimble casing, entirely open at each end, and adapted to be secured at its bottom to the inside of a locomotive smoke box, a lower exhaust pipe section fitting in said casing, with the provision of surrounding space for the reception of packing, an upper exhaust pipe section secured detachably to the top of said casing, a supporting ring fitting in said casing, around the lower exhaust pipe section, and secured detachably to the bottom of the casing, a packing adjusting ring surrounding the lower exhaust pipe section above the supporting ring, and adjusting screws engaging the supporting ring and bearing on the packing adjusting ring.

[Claims 6 and 7 not printed in the Gazette.]

1,076,290. BUILDING. ROBERT O. KING, Buffalo, N. Y. Filed Mar. 18, 1910. Serial No. 550,158. (Cl. 108—16.)



1. A building having a ridge, rafters arranged on opposite sides of the ridge, and a coupling having two sections which are capable of vertical rotary adjustment relatively to one another, and each of which has an upwardly projecting part connected with the ridge and a laterally projecting part connected with one of the rafters.

2. A building having a ridge, rafters arranged on opposite sides of the ridge and a coupling connecting said rafters with each other and with the ridge comprising two sections each having an upright bracket secured at its upper end to said ridge and a socket projecting laterally from the lower end of the bracket and receiving the upper

end of one of the rafters, said brackets overlapping each other transversely of the ridge, and a bolt connecting said brackets.

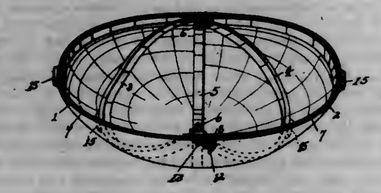
3. A building having a ridge, rafters arranged on opposite sides of the ridge and a coupling connecting said rafters with each other and with the ridge comprising two sections each having an upright bracket secured at its upper end to said ridge and a socket projecting laterally from the lower end of the bracket and receiving the upper end of one of the rafters, said brackets overlapping each other transversely of the ridge, and truss rods passing through said brackets,—one having a screw nut bearing against the outer side of one bracket and the other having a screw nut bearing against the outer side of the other bracket.

4. A building having a post, a rafter, an eave bar, a fitting comprising three sections which are connected with each other and which are also connected respectively with the eave bar, post and rafter, and an adjustable brace connecting the rafter and post.

5. A building having a post, a rafter, an eave bar, and a fitting comprising three sections which are connected with each other and which are also connected respectively with the post, rafter and eave bar.

[Claims 6 to 11 not printed in the Gazette.]

1,076,291. COLLAPSIBLE LIFE-BOAT. ANTONI J. KOLANKO, Chicago, Ill. Filed Mar. 17, 1913. Serial No. 754,833. (Cl. 9—2.)



1. A boat comprising a collapsible body; a plurality of pivotally connected substantially U-shaped ribs for holding said body in distended condition; and means for releasably locking said ribs in operative position, said ribs, when released, being adapted to be folded into coplanar position, substantially as described.

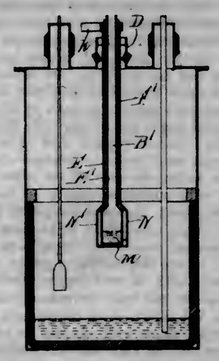
2. A boat comprising a collapsible body; a plurality of pivotally connected substantially U-shaped ribs for holding said body in distended condition; and means for releasably locking said ribs in operative position, said ribs being of graduated sizes so that, when released, the same may be folded in coplanar positions with said ribs positioned one within the other, substantially as described.

3. A boat comprising a collapsible body; a plurality of substantially U-shaped ribs having their ends pivotally connected, said body being secured to the bights of said ribs; and a spring pressed latch coöperating with the adjacent ends of the endmost of said ribs for releasably locking the latter in operative position, substantially as described.

4. A boat comprising a collapsible body; a plurality of pivotally connected substantially U-shaped ribs for holding said body in distended condition; and means for releasably locking said ribs in operative position, said ribs, when released, being adapted to be folded into coplanar position, said body being releasably connected to said ribs at said pivotal points, substantially as described.

5. A boat comprising a collapsible body; a plurality of pivotally connected substantially U-shaped ribs for holding said body in distended condition; means for releasably locking said ribs in operative position, said ribs, when released, being adapted to be folded into coplanar position; and ball-and-socket clasps releasably connecting said body to said ribs at said pivotal points, substantially as described.

1,076,292. ELECTRODE-LEAD. CHARLES A. KRAUS, Newton Highlands, and ROY D. MAILEY, Lynn, Mass. Filed June 30, 1910. Serial No. 569,695. (Cl. 176—50.)



1. In a vapor electric apparatus comprising a closed container adapted to include mercury vapor, an electrode, an electrode lead therefor consisting of a tube of highly conductive material sheathed within and without with metal resistant to the action of mercury, and a pool of mercury in the sheathed interior of said tube.

2. In a vapor electric apparatus comprising a closed container adapted to include mercury vapor, an electrode, an electrode lead therefor sealed into the container wall and composed of a core of highly conductive material, and a sheath of metal resistant to the action of mercury, the said sheath being spaced from said core where it lies adjacent to the sealing joint of the lead.

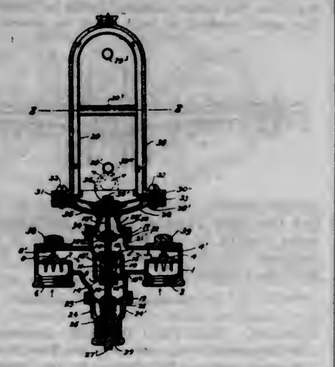
3. In a vapor electric apparatus comprising a closed container adapted to include mercury vapor, an electrode, an electrode lead therefor sealed into the container wall and composed of a core of highly conductive material, and a sheath of metal resistant to the action of mercury, the said sheath being spaced from said core where it lies adjacent to the sealing joint of the lead, the space between the core and sheath being exhausted.

4. In a vapor electric apparatus comprising a closed container adapted to contain mercury vapor, an electrode, an electrode lead therefor consisting of a tube of highly conductive material internally sheathed with metal resistant to mercury, and an external sheath of similar resistant metal, said external sheath being spaced from the highly conductive tube where it lies adjacent to the seal of the electrode lead, and a pool of mercury in the sheathed interior of said tube.

5. In a vapor electric apparatus comprising a closed container adapted to contain mercury vapor, an electrode, an electrode lead therefor consisting of a tube of highly conductive material internally sheathed with metal resistant to mercury, and an external sheath being spaced from the highly conductive tube where it lies adjacent to the seal of the electrode lead, and a pool of mercury in the sheathed interior of said tube, the said space between the tube and outer sheath being exhausted.

1,076,293. EQUALIZING-VALVE FOR WATER. JAMES J. LAWLER, Pelham, N. Y. Filed Jan. 17, 1912. Serial No. 671,641. (Cl. 236—6.)

1. In an equalizing valve for water, a valve body having separate inlets for hot and cold water, respectively, an inner chamber communicating with the said inlets, a double acting valve controlling inlet ports in said inner chamber, a superimposed water cylinder connected to said valve body and in communication with said inner chamber, an air chamber positioned in said water cylinder, open transverse tubes through said air chamber, a diaphragm closing one end of said air chamber, mechanical means for pressing said valve in an upward direction and a valve stem upon said valve having one end thereof engaging said diaphragm.

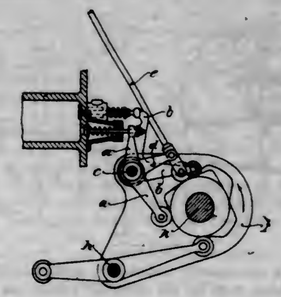


2. In an equalizing valve for hot and cold water, a double acting valve, vertically mounted in an inner chamber through which the hot and the cold water passes, an adjustable spring pressing upwardly against the valve stem of said double acting valve adapted for positioning the valve for a delivery of water at a predetermined temperature, a water cylinder having an inlet at its base and an outlet at its apex, a pipe communicating between said inner chamber and inlet, said water cylinder inclosing an air chamber, a flexible diaphragm closing one end of said air chamber, transverse water pipes through said chamber, and means centrally mounted in said diaphragm for pressing the valve stem of said double acting valve downwardly for closing off the hot water when the confined air in said air chamber is expanded.

3. In a valve device, a valve casing having an inner chamber, hot and cold water inlet chambers at opposite sides thereof and said inner chamber communicating at its bottom and top respectively with said hot and cold water inlet chamber, a vertically movable double acting valve in said inner chamber, oppositely extending stems upon said valve, an adjustable spring contacting the free end of said lower stem adapted for predeterminedly positioning the valve, a water cylinder mounted upon said casing with a bottom inlet and a top outlet, a pipe connecting said inlet and inner chamber, an air container within said cylinder, transverse water pipes through said container, a diaphragm closing the bottom of said container and the upper stem engaging said diaphragm and adapted for movement upon a change in temperature of the air in said container.

4. In a valve device, a valve casing having an inner chamber, hot and cold water inlet chambers at opposite sides thereof, and said inner chamber communicating at its bottom and top respectively with said hot and cold water inlet chambers, a vertically movable double acting valve in said inner chamber, oppositely extending stems upon said valve, an adjustable spring contacting the free end of said lower stem adapted for predeterminedly positioning the valve, said casing having a terminal bottom chamber, an adjusting plug closing the bottom of said last named chamber and a diaphragm closing the top thereof and positioning said spring therebetween, said casing also having a top chamber, a diaphragm closing said top chamber and secured substantially centrally to said upper stem, said casing provided with air ports communicating with said top and bottom chambers, a water cylinder mounted upon said casing, a bottom inlet and a top outlet for said water cylinder, a pipe connecting said inlet and inner chamber, an air container within said cylinder, transverse water pipes through said container, a diaphragm closing the bottom of said container and the upper stem engaging said diaphragm and adapted for movement upon a change in temperature of the air in said container.

1,076,294. VALVE-GEAR FOR COMBUSTION-ENGINES. PAUL ROBERT CARL LAWRENZ, Cologne, Germany. Filed Aug. 3, 1911. Serial No. 642,174. (Cl. 123—90.)



1. A valve gear for combustion engines comprising a pin, a lever for controlling the fuel valve, a lever for controlling the starting valve, a rod for controlling the inlet valve, a crank having one end connected to said rod, said levers and said crank being mounted on said pin, and means for operating said levers and said rod.

2. A valve gear for combustion engines comprising a pin, a lever for controlling the fuel valve, a lever for controlling the starting valve, a rod for controlling the inlet valve, a crank having one end connected to said rod, said levers and said crank being mounted on said pin, and a cam shaft for operating said levers and said rod.

3. A valve gear for combustion engines comprising a supporting plate, a pin mounted on said supporting plate, a lever for controlling the fuel valve, a lever for controlling the starting valve, a rod for controlling the inlet valve, a crank having one end connected to said rod, said levers and said crank being mounted on said pin, and means for operating said levers and said rod.

4. A valve gear for combustion engines comprising a supporting plate, a pin mounted on said supporting plate, a lever for controlling the fuel valve, a lever for controlling the starting valve, a rod for controlling the inlet valve, a crank having one end connected to said rod, said levers and said crank being mounted on said pin, and a cam shaft journaled in said supporting plate for operating said levers and said rod.

5. A valve gear for combustion engines comprising a supporting plate adapted to be removably attached to a bracket on the cylinder of the engine, a pin mounted on said supporting plate, a lever for controlling the fuel valve, a lever for controlling the starting valve, a rod for controlling the inlet valve, a crank having one end connected to said rod, said levers and said crank being mounted on said pin, and means for operating said levers and said rod.

[Claim 6 not printed in the Gazette.]

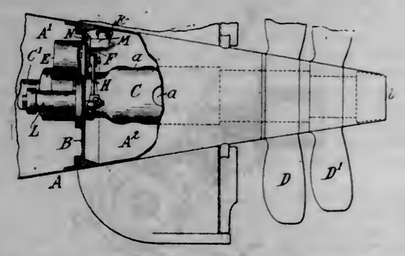
1,076,295. SINKING DEVICE FOR AUTOMOBILE TORPEDOES. FRANK M. LEAVITT, Smithtown, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Jan. 3, 1913. Serial No. 739,992. (Cl. 114—20.)

1. In an automobile torpedo, a spring-closed exhaust-valve opening from an air chamber within the shell, and means for holding said valve open when it has been opened by the escaping air to admit water to said chamber after the run to sink the torpedo.

2. In an automobile torpedo, a spring-closed exhaust-valve opening from an air chamber within the shell, and means for holding said valve open when it has been opened by the escaping air, said means adapted to be manually rendered inoperative at will.

3. In an automobile torpedo, a spring-closed exhaust valve opening from an air chamber within the shell, and means for holding said valve open when it has been opened

by the escaping air consisting of a spring-pressed dog engaging the rim of the valve and adapted to spring between it and its seat upon the opening of the valve.



4. In an automobile torpedo, a spring-closed exhaust-valve opening from an air chamber within the shell, and means for holding said valve open when it has been opened by the escaping air, consisting of a spring-pressed dog engaging the rim of the valve and adapted to spring between it and its seat upon the opening of the valve, and means for manually rendering said dog inoperative at will comprising a stop device to hold it retracted against the stress of its spring.

5. In an automobile torpedo having a transverse bulkhead with an exhaust opening through it, an exhaust valve to close said opening, a lever engaging said valve, a link connected to said lever and a spring pressing upon said link to close said valve.

[Claim 6 not printed in the Gazette.]

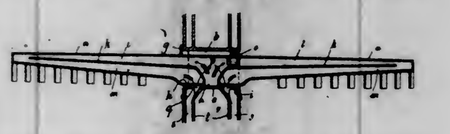
1,076,296. FISH-PLATE. ALBERT LODGE, Philadelphia, Pa., assignor of one-third to John Edward Smith, Philadelphia, Pa. Filed Apr. 18, 1911. Serial No. 621,776. (Cl. 239—9.)



In combination with meeting ends of two railway rails, of a fish plate for connecting the rail ends, said plate comprising a flat bar of a lesser width than the fishing spaces of the rails, said bar having its upper edge centrally provided with a projecting boss, the plate having bolt openings disposed adjacent the boss, bolts for the openings and connected with the rails and adapted to force the boss into tight engagement beneath the heads of the rails at the ends of the said rails, the opposite ends of the fish plate having projecting bosses of a greater height than the central projecting boss, the said plate adjacent the end bosses being provided with elongated openings, bolts passing through the openings and through the webs of the rails, and the said openings adapted to permit of the end bosses being sprung downwardly to engaging position with the heads of the rails to force the central boss more tightly into engagement, and the bolts of the elongated openings provided with securing members to prevent the lateral movement of the ends of the plate.

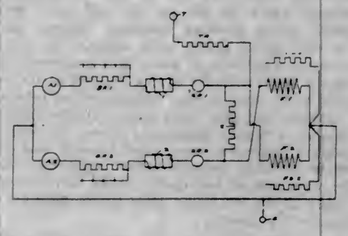
1,076,297. AGITATING DEVICE FOR ROASTING-FURNACES OR THE LIKE. MAURICE VAN MARCKE DE LUMMEN, Cologne, Germany. Filed June 11, 1912. Serial No. 702,950. (Cl. 75—143.)

In an agitating device for roasting furnaces or the like, in combination, a shaft having an inner and an outer conduit extending therethrough, an agitating arm consisting of a single hollow body, having at its lower side a central opening and two lateral openings, said body being divided by a partition into upper and lower passages in communication with one another at the ends of the agitating arm, the upper passage being in communication with the inner conduit of said shaft by means of the central



opening thereby providing an inlet for the cooling medium and the lower passage being in communication with the outer conduit of said shaft by means of the two lateral openings thereby providing an outlet for the cooling medium, substantially as described.

1,076,298. ELECTRIC BRAKE. JOSEPH N. MAHONEY, Wilkinsburg, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Apr. 20, 1908. Serial No. 428,162. (Cl. 188—36.)



1. In an electric brake apparatus, the combination with a pair of motors adapted to be connected to act as generators for supplying current to a local brake circuit and having each motor armature connected to the field of a brake magnet device connected in the armature circuit of each motor and the other motor, of means for maintaining the circuit of one motor upon failure of the other motor circuit.

2. In an electric brake apparatus, the combination with a pair of motors adapted to be connected to act as generators for supplying current to a local brake circuit and having each motor armature cross connected to the field of the other motor, of an electrical resistance interposed between each armature and its respective field, for permitting the energization of one field by current from its own armature upon the opening of the circuit of the other motor.

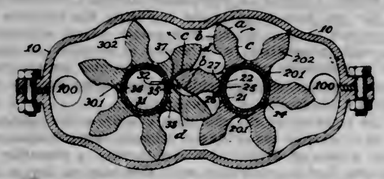
3. In an electric brake apparatus, the combination with a pair of motors adapted to be connected to act as generators for supplying current to a local brake circuit and having each motor armature cross connected to the field of the other motor, of an electrical resistance interposed across the armature leads to the field windings, normally inactive, but adapted upon the breaking of one motor circuit to form a complete circuit for the other motor and thereby maintain braking action.

4. In an electric brake, the combination with a plurality of motors adapted to be connected up to act as generators, of brake magnets and means for connecting one of said brake magnets and a variable resistance in the armature circuit of each generator.

5. In an electric brake, the combination with a plurality of motors adapted to be connected up to act as generators, of a brake magnet adapted to be connected in the armature circuit of each generator, and means for preventing excessive braking action upon reversing the direction of movement of the vehicle.

[Claims 6 to 13 not printed in the Gazette.]

1,076,299. FLUID-MOTOR. WILLIAM E. MARSHALL and MARTIN MARSHALL, Maspeth, N. Y. Filed Apr. 30, 1913. Serial No. 764,662. (Cl. 121—54.)



1. A motor, comprising two revolving shells having series of intermeshing vanes that revolve in opposite directions, each vane of one set operating in the space between the adjacent vanes of the other set, completely bridging the outer portion of such space and forming within the three a closed pressure chamber, and means for introducing fluid under pressure through the shells successively to the chambers while so closed.

2. A motor comprising two revolving shells having tubular axles provided with series of intermeshing vanes that revolve in opposite directions, each vane of one set operating in the space between the adjacent vanes of the other set, and means for introducing fluid under pressure through the tubular axles into the spaces.

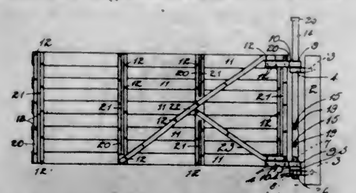
3. A motor comprising two revolving shells having tubular axles provided with series of intermeshing vanes that revolve in opposite directions, each vane of one set operating in the space between adjacent vanes of the other set, means for introducing fluid under pressure through the tubular axles into the spaces, and means within the axles for controlling the motive fluid.

4. A motor comprising two revolving shells having tubular axles provided with series of intermeshing vanes that revolve in opposite directions, each vane of one set operating in the space between adjacent vanes of the other set, means for introducing fluid under pressure through the tubular axles into the spaces, and means within the axles for reversing the supply of motive fluid to reverse the direction of rotation of the shells.

5. In a device of the character described, the combination with a cylindrical shell of radially extending vanes, each having the general shape of a gear tooth in cross section, the vanes being symmetrically disposed around a common center, and means for admitting steam between the vanes consisting of a port or ports in the shell between the bases of each pair of vanes.

[Claims 6 to 42 not printed in the Gazette.]

1,076,300. GATE. FRANK J. MATEY, Galesburg, Ill. Filed Oct. 28, 1912. Serial No. 728,203. (Cl. 39—19.)



1. Combined in a gate, a body, means on which it may have both vertical and swinging movements, and pintle-carried hinged dogs adapted to lock the said body in elevated position.

2. Combined in a gate, a body, a pintle on which it may rise, fall, and swing, and dogs hinged to said pintle and adapted to support the gate in elevated position.

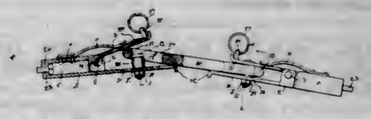
3. Combined in a gate, a body, a tubular pintle on which it may have vertical and swinging movements, said pintle provided with a slot, and a dog hinged to said pintle and adapted in one position to be forced back into the tubular portion thereof and in another position to swing outward and provide a support for the gate when it is elevated.

4. In combination with a gate body, apertured hinge members secured thereon, a tubular pintle seated loosely in the apertures in said hinge members and the latter adapted to have both vertical and swinging movements on said pintle, a dog hinged to said pintle and adapted in one position to be forced into the hollow thereof, and in another position adapted to support the gate body when it is in elevated position, and means for supporting said pintle.

5. In combination with a gate body, apertured hinge members secured thereon, a pintle seated loosely in the apertures in said hinge members and the latter adapted to have both vertical and swinging movements on said pintle, a dog hinged to said pintle and adapted to support the gate body when it is in elevated position, and means for supporting said pintle.

[Claims 6 and 7 not printed in the Gazette.]

1,076,301. AUTOMATIC-RELEASE CAR-COUPLING. JAMES HUGH MCELROY, Toronto, Ontario, Canada. Filed Oct. 18, 1912. Serial No. 726,455. (Cl. 213—50.)



1. In an automatic release car coupler, the combination with the draw-head; the substantially flat fixed jaw-member thereof provided with a pair of pierced ears projecting above the upper side thereof, and a coupling pin carried by said fixed jaw-member and projecting above the upper side thereof, of a substantially flat movable jaw-member; means whereby said movable jaw-member is hinged between said pierced ears, the said movable jaw-member designed to be spaced apart from said fixed jaw-member.

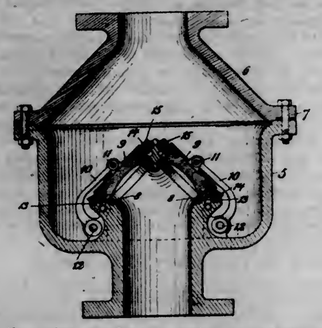
2. In an automatic-release car coupler, the combination with the draw-head; the substantially flat fixed jaw-member thereof provided with a pair of pierced ears projecting above the upper side thereof, and a coupling pin carried by said fixed jaw-member and projecting above the upper side thereof, and provided with a head which projects laterally beyond the sides thereof, and a sleeve mounted on said pin, between the head and said fixed jaw-member, the outer surface of said sleeve being flush with the sides of said head, of a substantially flat spring-pressed movable jaw-member, and means whereby said movable jaw-member is hinged between said pierced ears, the said movable jaw-member designed to be spaced apart from said fixed jaw-member.

3. In an automatic-release car coupler, the combination with the draw-head; the fixed jaw-member thereof, the front end of which terminates in a lip, and a coupling pin carried by said fixed jaw-member and projecting above the upper side thereof, of a movable jaw-member, hinged to said fixed jaw-member so that the lip of said fixed jaw-member will be positioned the desired distance in advance of the outer end of said movable jaw-member, and operating to at all times provide a clearance between the same and said fixed jaw-member.

1,076,302. VALVE. JOSEPH A. MCELROY, New York, N. Y. Filed July 16, 1910. Serial No. 572,289. (Cl. 169—23.)

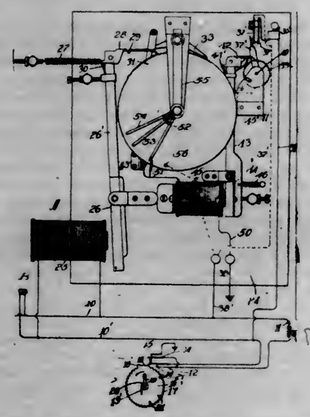
A valve for dry-pipe fire extinguisher systems comprising a casing forming a water connection at the bottom and an air connection at the top in alinement with the water connection, and an intermediate chamber; two sets of oppositely and upwardly inclined valves, each set comprising a pair of annular seats of different diameters in different parallel planes with a drainage chamber formed between the seats and between said planes, the seats in one set meeting the seats in the other set centrally in respect

to said connections and said chamber, and independent valve members, pivots therefor near the bottom of the casing and below the lower edges of any of the seats per-



mitting the valve members to swing open independently, and links swinging on said pivots and pivotally connecting with the valve members.

1,076,303. SELECTIVE SIGNALING SYSTEM. JUDSON MCFELL, Chicago, Ill. Filed Apr. 19, 1910. Serial No. 556,403. (Cl. 177—342.)



1. In a selective signaling system the combination of a line; a source of current supply therefor; a transmitter for causing signal impulses in the line; a selector apparatus, comprising a primary magnet responsive to signaling impulses in the line, a step-up device actuated thereby, a secondary magnet having an armature, an annunciator, and means operable by a plurality of movements of the secondary armature magnet to initiate the operation of the annunciator; a circuit for said secondary magnet, normally open at two points; switch means associated with the transmitter for closing one of said normally opened points following the transmission of predetermined groups or impulses; and switch means associated with the primary step-up device for closing said circuit at the other point when said step-up device is in predetermined positions.

2. In a system of the character described, the combination of a selector, comprising a primary magnet, a step-up device arranged to be advanced step-by-step in equal steps in response to impulses in the primary magnet, switching means associated with said step-up device and arranged to be closed a plurality of times, as said step-up device reaches a plurality of predetermined positions, a secondary electro-magnet, an annunciator, and means for initiating the annunciator operation in response to a plurality of energizations of the secondary magnet; a line circuit for the primary electro-magnet; a source of current supply therefor; a transmitter therein; another circuit for the secondary magnet including the switches of the primary step-up device; and switch means associated with said transmitter to be closed a plurality of times after transmission of predetermined impulse groups from said transmitter, said switching means being likewise included in the secondary magnet circuit.

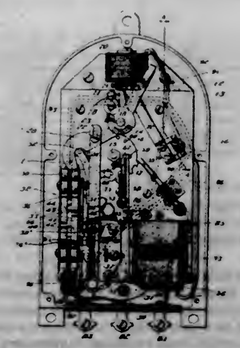
3. In a system of the character described, the combination of a selector comprising a primary electro-responsive device, a step-up device advanced thereby, a plurality of switching devices associated with said step-up device for successive closure in a plurality of positions of the step-up device, a secondary electro-responsive device, a step-up mechanism actuated thereby, an annunciator operable in response to the movement of the said secondary step-up device through a plurality of steps; a transmitter having a switch operable to transmit groups of impulses, and another switch operable for closure between said groups of impulses; a main circuit including said primary electro-responsive device and the first said transmitter switch; and another circuit including the secondary electro-responsive device, the switch means of the primary step-up device and the second said switch means of the transmitter.

4. In a selective signaling system, the combination of a line, a transmitter adapted for manipulation to transmit impulse groups constituting a plural digit number signal, and a selective device comprising a primary step-up controller advancing step by step in response to the impulse groups, and provided with electric switches successively closable by advances commensurate with digits of the signal appropriate to said selector, a secondary controller comprising an electromagnet, a circuit therefor controlled by each of said switches, and an annunciator responsive to a plurality of operations of said secondary controller, equal to the number of digits of such signal.

5. In a selective signaling system, the combination of a line, an impulse transmitter, and a selective apparatus comprising a spring-returnable step-up device, electro-responsive actuating means therefor advancing said step-up device step by step, switches closable by said step-up device at predetermined points, an electro-responsive device connected with said several switches for control by each thereof, a secondary step-up device, controlled by said secondary electro-responsive device, and means coöperating with said parts for restoring the parts to normal position upon actuation of the primary step-up device beyond the range necessary to operate the switches.

[Claims 6 to 11 not printed in the Gazette.]

1,076,304. FIRE-ALARM AND WATCH-SERVICE SIGNALING MEANS. JUDSON MCFELL, Chicago, Ill. Filed May 8, 1911. Serial No. 625,709. (Cl. 178—163.)



1. In a signaling system, connections to establish a main signaling circuit, connections to establish an emergency signaling circuit; and a transmitter comprising a signaling switch, connectible in the main signaling circuit, and means responsive to the establishment of the emergency circuit upon occurrence of predetermined conditions in the normal circuit, for automatically varying within the transmitter the wiring connections of said signaling switch to connect it in operative relations to the emergency circuit.

2. In a signaling system, the combination with a central battery and a register, connections to establish a main signaling circuit, connections closable at central station to establish an emergency circuit in the event of rupture of said main circuit, and a transmitter comprising a signaling switch, manually operable means to connect said switch in the main signaling-circuit, and means automatically operable to connect said switch in the emergency circuit when the main circuit is broken and the emergency circuit otherwise closed.

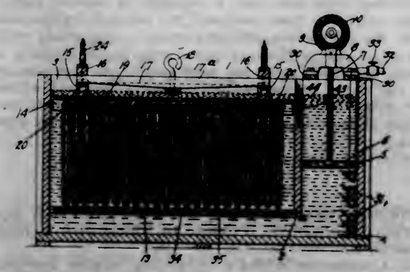
3. In a signaling system, connections to establish a main signaling circuit; connections to establish an emergency signaling circuit; and a transmitter comprising a signaling switch normally connectible for operation in the main signaling circuit, an electro-responsive device for inclusion in the emergency circuit, and means governed by the action of said electro-responsive device in the emergency circuit for automatically connecting said signaling switch to operate in the emergency circuit upon the occurrence of predetermined conditions in the normal circuit.

4. In a signaling system, the combination with a source of current supply, of a battery line wire having a return end connectible to the battery line wire to form a metallic loop; an opposite line wire from the source of supply; and a transmitter comprising a signaling switch, means to establish connection therefor between the last said line wire and the first said battery line wire for completion of a main signaling circuit, and means made effective by certain conditions in the said main signaling circuit for varying within the transmitter, the wiring connections of said switch to connect it with the return end of the first said wire, for completion of an emergency metallic signaling circuit.

5. The combination of a signal transmitter, comprising a signaling switch, motor driven operating means therefor and an electro-responsive device, connected with said switch; connections to establish a main signaling circuit including said switch and responsive device; connections including a normally open emergency circuit changer, operable to establish an emergency metallic circuit for the signaling switch; and automatic means within the transmitter controlled by the electro-responsive device for closing said emergency-circuit-changer connection to establish the emergency circuit upon rupture of the main signaling circuit for said electro-responsive device and signaling switch.

[Claims 6 to 27 not printed in the Gazette.]

1,076,305. DYEING-MACHINE. WILLIAM MCK. MORRIS, Bordentown, N. J. Filed Apr. 16, 1912. Serial No. 691,157. (Cl. 8—19.)



1. In a dyeing machine, the combination of a vat, a yarn-supporting frame, a series of yarn-carrying sticks in said frame, and a horizontal series of sticks carried by the said frame above the yarn sticks, and a flanged bar resting on said latter sticks for the purpose of keeping them in place, together with means for holding said flanged bar in place.

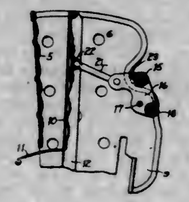
2. In a dyeing machine, the combination with a vat, of a frame for the yarn, a series of sticks in said frame having an oval cross-section and used to support the yarn, and a horizontal series of sticks carried by the said frame above the yarn sticks and used for the purpose of promoting circulation of the liquor, together with a cross-bar or rod resting on said series of sticks for the purpose of holding them in place, together with means for securing said cross-bar or rod in place.

3. In a dyeing machine, the combination with a vat, of a frame for the yarn, sticks supported in said frame, means for locking the sticks in place, a series of round sticks on the frame above the yarn sticks, said round sticks being properly spaced apart to allow a circulation of the liquor, and means for adjusting the yarn-supporting frame so that it may occupy a position higher or lower as may be required.

4. In a dyeing machine, the combination with a vat, of a frame for the yarn, sticks supported in said frame for carrying the yarn, round sticks on the frame above the yarn sticks for permitting circulation of the liquor, means for carrying the frame consisting of elongated bolts and a plurality of washers, said washers being removable so that the height of the frame may be regulated, and a division wall in the vat, having a plurality of removable slats on the upper edge for the purpose of regulating its height to correspond with the position of the yarn-supporting frame.

5. In a dyeing machine, the combination with a vat, of a frame for the yarn, a vat bottom composed of a horizontal series of sticks, a series of sticks supported in the upper part of the frame for carrying the yarn, another series of sticks on the frame above the yarn sticks, and cross sticks resting on the latter sticks for holding them in place, together with means for securing the cross sticks in place.

1,076,306. MOP-WRINGER. LUTHER C. MCNEAL, Rochester, N. Y. Filed Dec. 22, 1911. Serial No. 667,392. (Cl. 15—12.)



1. A mop-wringer having, in combination, a reciprocating compressing-member, and means for actuating said member comprising two levers pivoted intermediate their ends, links connecting the outer ends of the levers with the compressing-member, and a rod rigidly connecting the levers to cause them to rock simultaneously on their pivots, said rod being connected with the inner ends of the levers and located eccentrically with respect to their pivotal axes so as to act as a counterweight when the levers are rocked.

2. A mop-wringer having, in combination, a fixed casing comprising side-members and a front, a swinging back constituting a compressing-member, a pair of levers pivoted, respectively, to and within said side-members behind the swinging back, a rod rigidly connecting said levers, links connecting the outer ends of the levers with the swinging back, a lateral projection from the outer arm of one lever adapted to swing clear of the edge of the side-member during its operative movement but to abut against a portion thereof to act as a stop in the innermost position of the swinging back, and a hand-lever projecting upwardly

from said lateral projection whereby the mechanism may be actuated.

3. A mop-wringer having, in combination, a fixed casing comprising side-members and a front-member, a swinging back constituting a compressing-member, a pair of levers pivoted, respectively, to and within said side-members behind the swinging back, a rod rigidly connecting said levers, links connecting the outer ends of the levers with the swinging back, a lateral projection from the outer arm of one lever adapted to swing clear of the edge of the side-member during its operative movement but having a portion, of reduced diameter, adapted to coöperate, with a portion of said edge, as a stop to limit the operative movement of the mechanism, and a hand-lever, projecting upwardly from said lateral projection, whereby the mechanism may be actuated.

4. A mop-wringer having, in combination, a fixed casing comprising a front-member, and side-members provided with means for engaging the sides of a pail; a back constituting a compressing-member and mounted to swing between said side-members; a rocking member, comprising a rod with a pair of levers rigidly attached to it, located between said side-members; links connecting the outer ends of the levers with the swinging back; said rocking member being pivotally supported on a rod which rigidly connects and braces the two side-members of the casing; a lateral projection, from one end of the rocking member, adapted to swing clear of the edge of the side-member; and a hand-lever projecting upwardly from said lateral projection, whereby the mechanism may be actuated.

1,076,307. CARD GAME. CHARLES M. NICHOLSON, Buffalo, N. Y. Filed Feb. 4, 1913. Serial No. 746,130. (Cl. 46—25.)



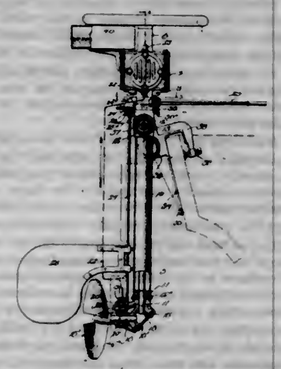
1. A pack of cards each bearing respectively one of the letters of the alphabet and also bearing a numeral corresponding to the particular sequence number in the alphabet of the letter borne by that card, the playing values of the cards being determined solely by their numbers, and the scoring value of the cards being predicated solely upon combinations of the letters borne by the cards.

2. A pack of cards each bearing respectively one of the letters of the alphabet and also bearing a numeral corresponding to the particular sequence number in the alphabet of the letter borne by that card, the playing values of the cards being determined solely by their numbers, and the scoring value of the cards being predicated solely upon combinations of the letters borne by the cards, and a final card having a number exceeding any of the numbers on the letter cards and a sign coöperating with any of the combinations of the letter cards.

1,076,308. MARINE PROPULSION APPARATUS. ADOLPH NYDEGGER, Milwaukee, Wis., assignor to Otto J. Koch, Milwaukee, Wis. Filed May 3, 1913. Serial No. 765,187. (Cl. 115—18.)

1. In a propelling apparatus for small crafts having an engine, an engine-shaft extending therefrom, an incasing sleeve for the engine-shaft, and a propeller carried by the sleeve in gear connection with said shaft; the combination of a supporting bracket having arms projecting upon opposite sides of the sleeve, a clutch-disk carried by each arm, transversely disposed clutch-hubs associated with the engine-shaft incasing sleeve adapted to register with the clutch-disks, and pivot-bolts for securing the clutch-hubs and said clutch-disks together.

2. In a propelling apparatus for small crafts having an engine, an engine-shaft extending therefrom, an incasing sleeve for the engine-shaft, and a propeller carried by the sleeve in gear connection with said shaft; the combination of a supporting bracket having arms in hinge connection the said arms projecting upon opposite sides of the sleeve, a toothed clutch-disk carried by each arm, transversely disposed toothed clutch-hubs associated with the engine-shaft incasing sleeve adapted to register with the toothed clutch-disks, and pivot-bolts for securing the toothed clutch-hubs and said toothed clutch-disks together.



3. In a propelling apparatus for small crafts having an engine, an engine-shaft extending therefrom, an incasing sleeve for the engine-shaft, and a propeller carried by the sleeve in gear connection with said shaft; the combination of a supporting bracket having arms projecting upon opposite sides of the sleeve, a plurality of toothed clutch-disks carried by each arm, transversely disposed clutch-hubs associated with the engine-shaft incasing sleeve adapted to register with a selected set of the clutch-disks, and pivot-bolts for securing the clutch-hubs and said clutch-disks together.

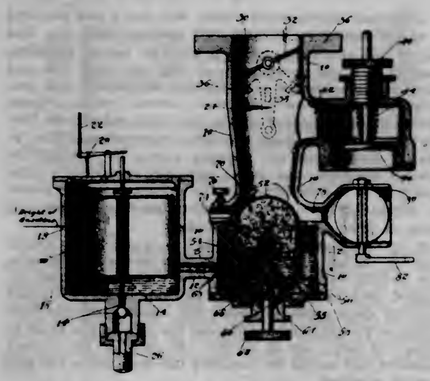
4. A self-contained propelling and steering apparatus comprising an engine-shell, a head extending therefrom, horizontally disposed toothed clutch-hubs extending from the head, a supporting bracket having arms overlapping the head, a toothed clutch-disk extending from each arm engageable with the clutch-hubs, clamping-bolts for securing the clutch-hubs and disks together, a detachable sleeve depending from the head, an engine-shaft mounted within the sleeve, a propeller suspended from the free end of the sleeve, the propeller being in gear connection with the engine-shaft, and a tiller-controlled rudder-stem in parallel relation to the sleeve.

5. A self-contained propelling and steering apparatus comprising an engine-shell, a head extending therefrom, horizontally disposed toothed clutch-hubs extending from the head, a supporting bracket comprising a pair of arms in hinge connection with each other, a hub-clamping leg extending from each arm, a plurality of toothed clutch-disks extending from each arm for selective engagement with the clutch-hubs, clamping-bolts in engagement with the arms and in threaded union with the clutch-hubs, a sleeve depending from the head having one end secured to the latter, an engine-shaft revolubly mounted within the sleeve, and a propeller suspended from the free end of the sleeve, the propeller being in gear connection with said engine-shaft.

[Claims 6 to 10 not printed in the Gazette.]

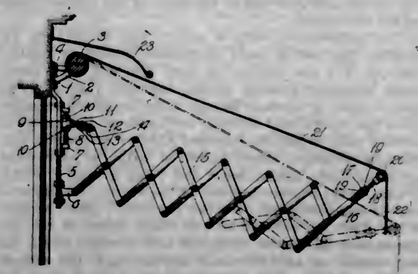
1,076,309. CARBURETER. WILLIAM PATTERSON and FRANK N. PERCIVAL, Chicago, Ill. Filed July 8, 1912. Serial No. 708,313. (Cl. 48—156.)

1. A carbureter having a carbureting chamber provided with an entrance port and an exhaust port for air passing through the mixing chamber, a perforated dome containing porous material located within the carbureting chamber where air passing through said ports passes in contact with the dome, means for adjustably compressing the porous material within the dome, means for supplying combustible material to the porous material within the dome in such a way that the combustible material is presented by the porous material to perforations in the dome adjacent to the air passing through the carbureting chamber, and a regulating valve controlling the admission of combustible material to the device adapted to maintain the level of combustible material at a selected point in the porous material as described.



2. A carbureter having a carbureting chamber, in one portion of which is located a perforated dome containing porous material, there being air inlets in the walls of the carbureting chamber immediately adjacent to said dome and an exhaust port so located that air entering the chamber passes directly from said dome and thence out of the chamber, means for adjustably compressing the porous material within the dome, means for supplying combustible material to the porous material within the dome in such a way that the combustible material is presented by the porous material to perforations in the dome adjacent to the above mentioned air passageways, and a regulating valve controlling the admission of combustible material to the device adapted to maintain the level of combustible material at a selected point in the porous material, as described.

1,076,310. AWNING. FRANK C. PENNINGTON, Detroit, Mich. Filed Feb. 7, 1913. Serial No. 746,691. (Cl. 156—42.)



1. In an awning, a base, a roller journaled thereon, lazy tongs adjustably articulated at the inner end to the base and an outer supporting member adjustably secured on the outer portion of the tongs.

2. In an awning, a base, a roller journaled thereon, lazy tongs pivoted at the inner lower end to the base, means adjustably articulating the inner, upper end to the base, and an outer supporting member adjustably secured on the outer portion of the tongs.

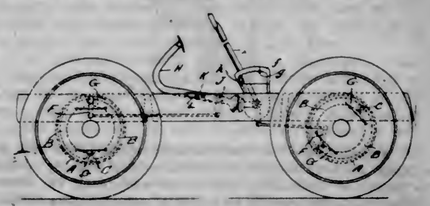
3. In an awning, a base, a roller journaled on the base, lazy tongs pivoted at the inner lower end to the base, vertically and laterally adjustable means articulating the upper inner end of the tongs to the base, and a supporting member adjustably supported on the outer end of the tongs.

4. In an awning, a base adapted to be secured near its upper end to a building, a roller journaled on the base, lazy tongs articulated at the inner end to the base adjacent the roller, adjustable for altering the inclination of the tongs, and a covering supporting member adjustably secured on the outer end portion of the tongs.

5. In an awning, a base adapted to be secured to a building, a covering roll journaled thereon, an upright member on the base, a swivel block adjustable longitudinally on the member, lazy tongs pivoted at the inner lower end to the base and articulated at the upper inner end to the block, and a covering supporting member adjustably secured on the outer end portions of the lazy tongs.

[Claims 6 and 7 not printed in the Gazette.]

1,076,311. BRAKE. HENRI PERROT, Alexandria, Scotland, assignor to Argyll Limited, Alexandria, Scotland. Filed Jan. 14, 1913. Serial No. 742,047. (Cl. 21—8.)



1. In a road vehicle, the combination with two front and two rear road wheels, of braking devices connected to each of said wheels, connections interposed between the braking devices of each front wheel and the braking devices of the rear road wheel disposed at the opposite side of the vehicle, and manually controlled means, including a one-way clutch, adapted to actuate said interposed connections and to brake all the road wheels.

2. In a road vehicle, the combination with two front and two rear road wheels, of braking devices connected to each of the wheels, connections interposed between the braking devices for one front wheel and the braking devices for the rear road wheel at the opposite side of the vehicle, connections interposed between the braking devices for the second front road wheel and the braking devices for the second rear road wheel, a lever, and devices, including a one-way clutch, connecting said lever with said connections and adapted, on movement of said lever, to transmit movement to said connections and thereby to actuate all of said braking devices.

3. In a road vehicle, the combination with front and rear road wheels, of braking devices connected to each of the road wheels, a rotatable cross shaft freely mounted on the vehicle, a second cross shaft rotatable independently of said first cross shaft, means operatively connected to said first cross shaft and to the braking devices of one of the front road wheels and the braking devices of the rear road wheel disposed at the opposite side of the vehicle in relation to said front wheel, means operatively connected to said second cross shaft and to the braking devices of the other rear road wheel and to the braking devices of the other front road wheel, and manually controlled devices adapted to actuate said shafts and relative connections.

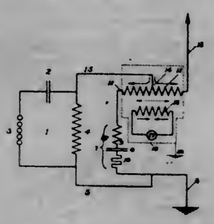
4. In a road vehicle, the combination with two front and two rear road wheels, of braking devices applied to the hub of each of said wheels, connections interposed between the braking devices of each front wheel and the braking devices of the rear road wheel disposed at the opposite side

of the vehicle, a foot lever in operative relation with said connections and adapted on its movement to actuate all of said connections, a hand lever, and means operatively connecting said hand lever with said connections.

5. In a road vehicle, the combination with two front and two rear road wheels, of braking devices connected to each of the wheels, connections interposed between the braking devices for each front wheel and the braking devices for the rear wheel at the opposite side of the vehicle, a foot lever in operative relation with said connections and adapted on its movement to actuate all of said braking devices, a second lever, and devices connecting said second lever with said connections and adapted on movement of said second lever to transmit movement to said connections and thereby to actuate all of said braking devices.

[Claims 6 to 15 not printed in the Gazette.]

1,076,312. WIRELESS DUPLEX SYSTEM. RICHARD PFUND, New York, N. Y. Filed June 4, 1910. Serial No. 565,042. (Cl. 250—9.)

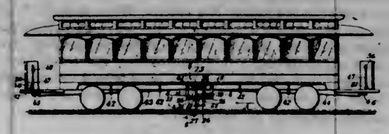


1. A system for the simultaneous transmission and reception, without mutual interference, of signals or speech by means of electromagnetic waves comprising an aerial-ground radiating circuit, an artificial non-radiating balancing circuit, an auxiliary coil in series with both the aerial-ground radiating circuit and the artificial non-radiating balancing circuit, a transmitting exciting circuit with one side connected to ground and the other side connected to the center of the auxiliary coil, a movable coil forming part of a receiving circuit in inductive relation to the auxiliary coil and both the entire receiver and the auxiliary coil contained in a grounded metallic screening case or cage.

2. A duplex system for the simultaneous transmission from and reception at one and the same station, and without mutual interference, of signals or speech by means of electromagnetic waves comprising an aerial-ground radiating circuit, an artificial non-radiating balancing circuit, an auxiliary coil in series with both the aerial-ground radiating circuit and the artificial non-radiating balancing circuit, a transmitter exciting circuit with one side connected to ground and the other side connected to the center of the auxiliary coil, a movable coil forming part of a receiving circuit in inductive relation to the auxiliary coil and both the entire receiver and the auxiliary coil screened from the rest of the aerial-ground radiating circuit, the artificial non-radiating balancing circuit and the transmitting exciting circuit.

1,076,313. RAILWAY-SWITCH-OPERATING MEANS. CARROLL PHILLIPS, Tahoka, Tex. Filed Jan. 29, 1913. Serial No. 744,941. (Cl. 104—24.)

1. In combination with a main line and a side line and a switch between the side line and the main line, and means for throwing the switch to open the side line, said means embodying contact members arranged upon both the main line and the side line, and a car having its body provided with tracks, a frame having its ends provided with rollers engaging the track, said frame being provided with depending members, substantially V-shaped shoes connected with the members, means for sliding the frame transversely of the car to bring either of the shoes into engagement with the contact members of the switch, and means for sustaining the carriage in such position.



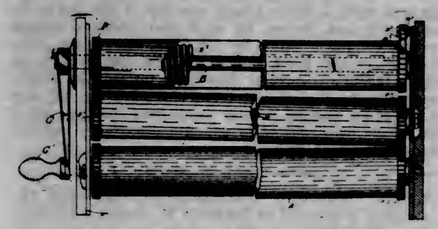
2. In combination with a main line and a side line and a switch between the main line and the side line, and means for throwing the switch, said means including contact members arranged upon both the main line and upon the side line, of a car having its under frame provided with transversely arranged grooved tracks, a frame having rollers arranged within the track, said frame having depending members provided with substantially V-shaped shoes which are disposed within the path of the contact members, and means arranged at both the front and rear of the car whereby the carriage may be moved to permit of the contact members passing between the shoes or to be contacted by the shoes.

3. In combination with a main line, a side line, a switch between the main and side lines, and means for throwing the switch, said means including contact members arranged upon both the main and the side lines, of laterally movable shoes arranged upon a car, means operative from either of the platforms of the car for moving the shoes to bring the same out of or into the path of the contact members, and means for elevating the shoes above the said contact members.

4. In a device for the purpose set forth, the combination with a main line, a side line, a switch for the main and side lines, and means for throwing the switch, said means embodying mechanism arranged upon both the main and the side lines and including contact members, of a car, spaced tracks arranged transversely below the car and secured to the car, a frame having rollers arranged upon the tracks, said frame having depending members, substantially V-shaped contact shoes secured to the depending members, a perforated strap pivotally connected with the frame, a bearing for the strap, a shaft provided with a toothed wheel engaging the perforations of the strap, bearings for the shaft, an arm upon the shaft, a rod connected with the arm, a bell crank lever connected with the rod, a pivoted lever connected with the bell crank lever, a spring actuated pawl upon the lever, a handle for operating the pawl, a segment, and said segment being provided with depressions adapted to receive the pawl and to indicate the direction of travel of the carriage when the lever is swung to bring the pawl into engagement with any of the said depressions, and the contact shoes being arranged within the path of the contact members for the switch.

5. In combination with a switch and mechanism for throwing the switch, said mechanism including contact members, of a car having its body provided with transversely arranged grooved tracks, the said tracks having elevated ends, a carriage having roller members arranged within the tracks, said carriage having depending members provided with oppositely disposed angular extensions, substantially V-shaped shoes connected with the extensions, said shoes being spaced apart and being arranged within the path of the contact member of the switch, a perforated strap loosely connected with the carriage, a guide support for the strap connected with the under frame of the car, said support having an elongated slot through which the strap passes, an anti-frictional member upon the support and adapted to contact with the strap, a shaft journaled upon the support and upon the under frame of the car, a toothed wheel upon the shaft and adapted to engage with the perforated strap, an arm connected with the shaft, a rod connected with the arm, a bell crank lever pivoted to the platform of the car and connected with the rod, a pivoted lever connected with the bell crank lever, a spring pressed pawl for the lever, a handle for operating the pawl, a segment for the pawl, said segment being provided with notches adapted to be engaged by the pawl, and the said lever adapted to swing to cause the carriage to travel in either direction upon the elevated ends of the track.

1,076,314. SPRING-MOTOR. HENRY L. PITMAN, Pineville, Ky. Filed Mar. 4, 1912. Serial No. 681,351. (Cl. 185—37.)



1. A spring motor comprising a frame, gear wheels mounted thereon and arranged in intermeshing pairs alternately upon opposite sides of the frame, each wheel having a collar projecting from the face thereof, cores supported within said collars, a spring about each of said cores and fastened to the collars of the wheels, and means for imparting rotary movement to the gear wheels, as set forth.

2. A spring motor comprising a frame, gear wheels mounted thereon and arranged in intermeshing pairs alternately upon opposite sides of the frame, each wheel having a collar projecting from the face thereof, cores supported within said collars, a spring about each of said cores and fastened to the collars of the wheels, a driving shaft journaled in the frame, a ratchet wheel fixed to said shaft, a pawl engaging the ratchet wheel, a gear wheel loosely mounted upon the driving shaft and adapted to drive said intermeshing gear wheels, a core about said shaft, and a coiled spring fastened at one end to the gear wheel upon said driving shaft and its other end secured to said ratchet wheel, as set forth.

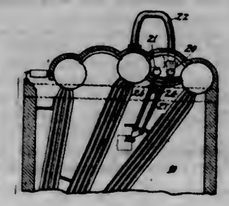
3. A spring motor comprising a frame, gear wheels mounted thereon and arranged in intermeshing pairs alternately upon opposite sides of the frame and having collars, cores engaging said collars and supported therein, a spring about each of said cores and fastened to said collars, and means for imparting rotary movement to the gear wheels, as set forth.

4. A spring motor comprising a frame, gear wheels mounted thereon and arranged in intermeshing pairs alternately upon opposite sides of the frame and having each a collar projecting from the face thereof, cores engaging said collars and supported therein, a spring about each of said cores and fastened to said collars, a driving shaft journaled in the frame, a ratchet wheel fixed to said shaft, a pawl engaging the ratchet wheel, a gear wheel loosely mounted upon the driving shaft and adapted to drive said intermeshing gear wheels, and a coiled spring fastened at one end to the gear wheel upon said driving shaft and its other end secured to said ratchet wheel, as set forth.

5. A spring motor comprising a frame, gear wheels mounted thereon and arranged in intermeshing pairs alternately and upon opposite sides of the frame and having each a collar projecting from one of its faces, cores engaging said collars and supported therein, a spring about each of said cores and fastened to said collars, a driving shaft journaled in the frame, a ratchet wheel fixed to said shaft, a pawl engaging said ratchet wheel, a gear wheel loosely mounted upon the driving shaft and adapted to drive said intermeshing gear wheels, and a coiled spring fastened at its ends to the wheels upon the driving shaft, as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,076,315. SUPERHEATER. JOHN PRIMROSE, New York, N. Y. Filed July 10, 1912. Serial No. 708,602. (Cl. 122—478.)



1. In combination with a boiler, a superheater comprising separate inlet and outlet headers located at the top for the admission and discharge of steam and arranged transversely of the said boiler, one of said headers located in front of the other as regards the passage of gases through the furnace, a distributing header at the lower end of said superheater of substantially the same length as said inlet and outlet headers, a row of superheating elements connecting the inlet header at the upper end thereof with the distributing header at the lower end, and separate superheating elements for connecting the distributing header and the outlet header, one row of said elements being located in front of the other and the individual superheating elements of each row connected to the distributing header adjacent to each other.

2. In combination with a boiler, a superheater comprising an inlet header at the top for the admission of steam to be superheated, a distributing header at the lower end thereof, substantially straight superheating elements connecting the said headers and adapted to convey the steam from the upper header to the distributing header, an outlet or discharge header for the superheated steam at the upper end thereof, and superheating elements connecting the last mentioned header with the distributing header and adapted to convey the steam from the distributing header to the said outlet header, one of said groups of superheating elements being located in front of the other and the individual superheating elements of each row connected to the distributing header adjacent to each other.

3. A superheater comprising separate inlet and outlet headers arranged substantially parallel and located one in front of the other as regards the passage of gases therethrough, a plurality of distributing headers at the lower end thereof similarly arranged, substantially straight superheating elements for connecting the inlet header with one of the distributing headers, substantially straight superheating elements for connecting the outlet header with the other distributing header, and superheating tubes for connecting the distributing headers.

4. A superheater comprising separate inlet and outlet headers at the upper end thereof, a plurality of distributing headers at the lower end thereof, superheating elements for connecting the inlet header with one of said distributing headers and for connecting the outlet header with another of said distributing headers, and superheating elements connecting said distributing headers.

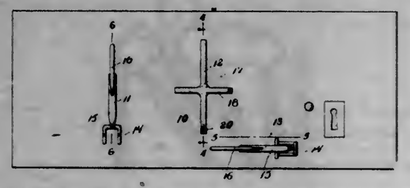
5. In a superheater comprising inlet and outlet headers at the upper end thereof separated from each other to allow for flexibility, a plurality of distributing headers at the lower end thereof having tubes connected thereto for draining the superheater, superheater elements connecting the upper and lower headers, and auxiliary superheaters connecting said distributing headers.

[Claim 6 not printed in the Gazette.]

1,076,316. APPAREL-SECURING DEVICE. WILLIAM A. PUM, Carlsbad, N. Mex. Filed Oct. 8, 1912. Serial No. 724,640. (Cl. 45—13.)

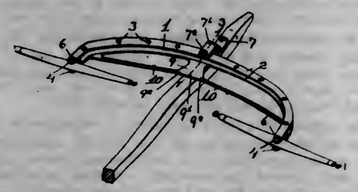
In a device of the class described, the combination with a wall, of a plurality of supporting members thereon, locking fingers movable on the wall to lock apparel on the said

supporting members, a locking member movable on the wall and adapted to be engaged by the said fingers when in closed position to retain the said fingers in locked position, a key for operating the said locking member,



means for locking the said key in position to operate the said locking member, and a spring-actuated stop member movable on the said wall to engage the said locking member and secure the same in unlocked position.

1,076,317. DOUBLETREE. JOHN A. REID, Duenweg, Mo. Filed Mar. 18, 1912. Serial No. 684,541. (Cl. 21—78.)



1. In a doubletree, an arcuate body, an arcuate lower reinforcing plate for said body, having rivet connection therewith, a short rear bearing extension, and a long front bearing extension having a front edge in rear of the ends of said plate, oblique brace rods having at their outer forward ends connection with the ends of said reinforcing plate and at their inner rear ends connection with the corners of said front extension, to include a recess wherein the horses have leg room in backing, said front edge being at the rear of said recess.

2. In a doubletree, an arcuate body, an arcuate lower reinforcing plate for said body, having rivet connection therewith, a short rear bearing extension, and a long front trapezoidal bearing extension having forwardly diverging lateral edges and a front edge in rear of the ends of said plate, oblique brace rods having at their outer diverging ends connection with the ends of said reinforcing plate and at their inner converging ends connection with the corners of said trapezoidal extension, to include a recess wherein the horses have leg room in backing, said front edge being at the rear of said recess and the outer edges of said rods merging into said front edges of the trapezoidal extension to guard said corners.

1,076,318. LOCK-SPRING SAFETY-SNAP. SAMUEL W. REYNOLDS, West Toledo, Ohio. Filed July 16, 1910. Serial No. 572,325. (Cl. 24—236.)



1. In a hook of the class described, a hook body terminating at one end in a bill, a spring tongue of sheet metal attached at one end to the hook body and having its other end in yielding contact with the inner side of the hook bill, and provided with an inwardly depressed portion forming a lug which extends longitudinally of the bill and has both ends of tapering form, said lug being spaced from the body of the hook when the tongue is seated against the bill and serving to deflect an engaged member away from the bill when moved in either direction longitudinally of the tongue.

2. In a hook of the class described, a hook body having one end of hook shape and terminating in a bill with the bill provided with a tongue seat on its inner surface and at opposite sides of its tongue seat with guard lugs which taper in opposite directions lengthwise of the body toward the hook body, a spring tongue attached at one end to the hook body and having its other end normally seating against the bill between the bill lugs, said tongue being provided at the inner side of its free end with a lug which tapers in opposite directions toward the tongue longitudinally thereof and coöperates with the bill lugs to deflect an engaged member away from the free end of the tongue when moved in opposite directions longitudinally of the hook body.

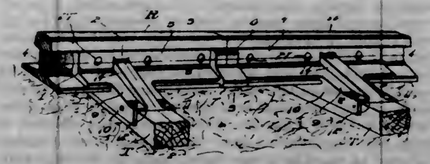
1,076,319. WRENCH. CHARLES RUSH, Pittsburgh, Pa., assignor of one-half to Benjamin M. Hanna, Pittsburgh, Pa. Filed Sept. 19, 1911. Serial No. 650,294. (Cl. 81—135.)



1. In a wrench of the class described, the combination of a main shank having a terminal jaw and a longitudinal cavity, a handle embracing and fixedly secured to the other end of said shank, a longitudinally movable jaw embracing said shank provided with a locking extension projecting into said handle and having a series of locking teeth on its inner side, a depressible locking arm within the longitudinal cavity of the main shank pivotally connected therewith adjacent to its terminal jaw, extending inwardly beyond the end of the handle and having a series of locking teeth along its front edge, and a spring adapted to normally throw the teeth of said locking arm into engagement with the teeth of the locking extension of the movable jaw, substantially as set forth.

2. In a wrench of the class described, the combination of a main shank having a terminal jaw and a longitudinal cavity having a sub-cavity provided with end shoulders for a leaf spring, a handle embracing and fixedly secured to the other end of said shank, a longitudinally movable jaw embracing said shank provided with a locking extension projecting into said handle and having a series of locking teeth on its inner side, a depressible locking arm within the longitudinal cavity of the main shank pivotally connected therewith adjacent to its terminal jaw, extending inwardly beyond the end of the handle by an integral finger extension, and having a series of locking teeth along its front edge, and a leaf spring set in said sub-cavity exerting pressure against the locking arm to hold its teeth in engagement with the teeth of the movable jaw extension, substantially as set forth.

1,076,320. RAIL-JOINT. WILLIAM T. SAPP, Hinson, Fla. Filed Mar. 18, 1913. Serial No. 755,243. (Cl. 239—9.)



1. In a rail joint, the combination with two rail ends, and ties for the ends and arranged at the opposite sides of

the meeting edges of the rail ends, a chair member having an angular side adapted to engage with one of the faces of the rail ends, said chair including transversely arranged plates which are integrally formed therewith, and which are arranged in pairs and adapted to straddle and to be secured to two of the ties and to have their upper edges arranged below the faces of the ties, connecting members for the plates, an angle bar, an interlocking connection between the angle bar and the connecting members of the plates, and means for securing the chair and angle bar to the rails and to the ties for the rails.

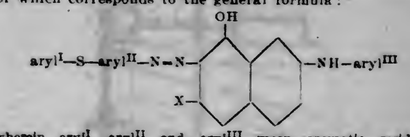
2. In a device for the purpose set forth, the combination with two rail ends and ties upon which the rails rest, of a rail joint, said joint including a chair having an angular member adapted to engage the fishing space upon one of the sides of the rails, said chair having the base of its angular member extended adjacent its ends, the said extensions being provided with integrally formed transversely arranged plates arranged in pairs, a connecting upper member for the upper edges of the plates, each of said members being provided with a longitudinally extending groove, an angle bar for the opposite faces of the rails, said bar being povided with extending tongues which are adapted to be received within the grooves of the connecting members of the plates, the said plates adapted to engage two of the ties opposite the meeting ends of the rails and to have their upper edges disposed below the faces of the ties, means for securing the joint to the ties, and means for securing the chair to the angle bar.

3. In a rail joint, the combination with two rails and ties upon which the rails rest, of a chair, said chair including an angle plate adapted to conform to and engage within the fishing space upon one side of the rails, the said angular member being centrally formed with a reinforcement which underlies and engages with the heads of the rails at the meeting ends, the said angle member having its horizontal flange extended adjacent its ends, each of the extending members having a pair of spaced plates which are disposed transversely of the angle member and arranged below said angle member, the said plates adapted to straddle the two ties opposite the meeting ends of the rails and to be secured to the sides of the tie, a connecting member for the upper edges of the ends of the plates, each of said members being provided with grooves, an angle bar for the opposite side of the joint, said angle bar having extensions adjacent its ends provided with tongues which are adapted to be received within the grooves of the connecting members of the plates, means for securing the angle bar to the ties, and means for securing the angle bar to the rails and to the chair member of the joint.

4. In a rail joint, the combination with two ties and two rails resting upon the ties and having their meeting ends disposed centrally between the ties, of a chair having an angular side shaped to conform to the fishing space of the rails upon one of the sides thereof, said angular side being centrally provided upon its outer face with a reinforcing member which is adapted to contact with the heads of the rails upon their lower faces and at the ends of the rails, the said reinforcing member having a tongue which extends beyond the longitudinal edge of said angular side and which is adapted to abut with the meeting edges of the base flanges of the rails, the said angular side being provided with extensions which project from the edge thereof adjacent the ends of the chair, reinforcing members integrally formed with the angular side and with the extensions, said extensions having laterally extending plates secured to each of the edges of the extensions, the said plates extending beyond and below the angular side of the chair and adapted to engage with and to be connected to the ties, an upper connecting member for the ends of each pair of plates, an angle bar adapted to engage within the fishing spaces of the opposite sides of the rails, said angular bar being centrally provided with a brace reinforcement terminating in a downwardly extending tongue which is adapted to engage with the edges of the base flanges of the rail ends, the said angle bar having its horizontal member adjacent its ends provided with extending tongues, the said tongues adapted to engage the connecting members of the plates, means for securing the angle bar to the ties, and means for securing the angle bar to the rail ends and to the angular side of the chair of the joint.

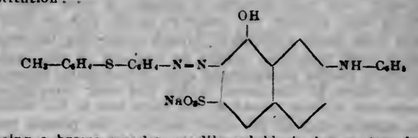
1,076,321. BROWN AZO DYESTUFFS. KARL SCHIRMACHER and HEINRICH ELVERT, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Jan. 2, 1913. Serial No. 739,881. (Cl. 8—1.)

1. As new products, the azo dyestuffs the constitution of which corresponds to the general formula:



wherein $aryl^{I}$, $aryl^{II}$ and $aryl^{III}$ mean aromatic residues and X means a sulfo group, said dyestuffs being dark-brown powders, readily soluble in water to a brown solution, dyeing wool fast brown tints, and splitting up, when treated with tin and hydrochloric acid, into p-arylamino-arylsulfid and naphthalene-2-arylamino-7-amino-8-oxy-6-sulfonic acid.

2. As a new product, the azo dyestuff of the constitution:



being a brown powder, readily soluble in hot water, dyeing wool fast brown tints, and splitting up, when treated with tin and hydrochloric acid, into para-aminophenyl-para-tolylsulfid and naphthalene-2-phenylamino-7-amino-8-oxy-6-sulfonic acid.

1,076,322. PRESERVING WOOD. WALTER SCHOELLER and WALTHER SCHRAUTH, Berlin, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Oct. 14, 1911. Serial No. 654,699. (Cl. 99—12.)

1. The process of preserving wood which comprises impregnating the wood with a solution of a substantially non-ionizable poisonous organic metal compound containing the metal joined directly to carbon, and converting such compound after impregnation into an insoluble condition.

2. The process of preserving wood which comprises impregnating the wood with an alkaline solution of a substantially non-ionizable poisonous organic metal compound containing the metal joined directly to carbon and converting such compound after impregnation into an insoluble condition.

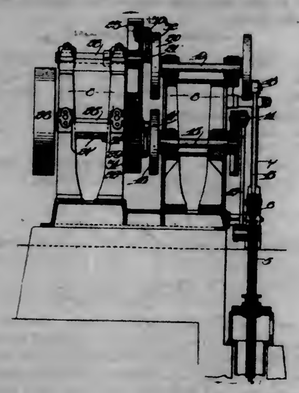
3. The process of preserving wood which comprises impregnating the wood with a solution of a substantially non-ionizable poisonous organic mercury compound containing the mercury joined directly to carbon, and converting such compound after impregnation into an insoluble condition.

4. The process of preserving wood which comprises impregnating the wood with a solution of a substantially non-ionizable poisonous organic oxy-mercuric compound containing the mercury joined directly to carbon, and converting such compound after impregnation into an insoluble condition.

5. The process of preserving wood which comprises impregnating the wood with a solution of a substantially non-ionizable poisonous aromatic metal compound containing the metal joined directly to carbon, and converting such compound after impregnation into an insoluble condition.

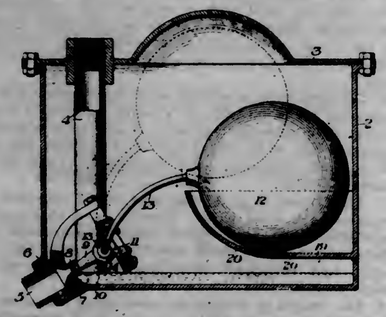
[Claims 6 to 22 not printed in the Gazette.]

1,076,323. PUMP. RALPH SPRADO, Alameda, Cal. Filed July 20, 1911. Serial No. 639,511. (Cl. 103—82.)



In a power pump head, the combination of a main frame, a pair of crank shafts each having offset end cranks journaled in the frame, a pair of telescoping plunger rods each carrying a plunger, a cross head to which each plunger rod connects, guide rods on which said cross heads reciprocate, pitmen connecting the cross heads with respective cranks on one end of said crank shafts, a pair of intermeshing gears eccentrically mounted with respect to the crank shafts, and drag links direct connected to fixed cranks on the gears and to the cranks on opposite ends of the crank shafts to the pitman connections, said plungers, cranks, shafts and fixed cranks on the gears being so positioned and arranged that the plungers have a slow up, and a quick return motion and for a portion of their travel move in the same direction, substantially as described.

1,076,324. WATER-TRAP. WERNER I. STAAF, Pittsburgh, Pa., assignor of one-half to Edward B. Tyler, Pittsburgh, Pa. Filed Mar. 21, 1912. Serial No. 685,316. (Cl. 137—103.)



1. A trap having a discharge opening, a pivoted valve for controlling said opening, a diaphragm member to which the valve is pivoted, and an actuating float connected to the valve to swing it on its pivot; substantially as described.

2. A trap having a discharge opening, a diaphragm within the trap opposite the said opening, an oscillating valve pivoted to the diaphragm, and a float connected to the valve pivot, substantially as described.

3. A trap having a discharge opening, a diaphragm supported within the trap opposite the said opening, a valve pivoted to the diaphragm, and a float having a clutch connection with the pivot of the valve, substantially as described.

4. A trap having an outlet opening, a diaphragm within the trap opposite the opening, said diaphragm having one of its surfaces exposed to the pressure of the liquid within the trap, and a valve pivoted to the diaphragm, said valve having an exposed area substantially equal to the area of the exposed portion of the diaphragm, substantially as described.

5. A trap having a discharge opening, a diaphragm opposite the said opening, a valve pivoted to the diaphragm, a float having a clutch connection with the pivot of the valve, and a receptacle for receiving and stopping the float in its lowermost position, said receptacle having an escape opening in its bottom, substantially as described.

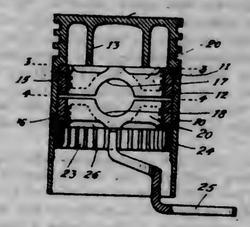
[Claims 6 and 7 not printed in the Gazette.]

1,076,325. MATERIAL FOR AUTOMOBILE BRAKE-SHOES. CONNORD O. STINEBAUGH, Seattle, Wash. Filed Mar. 8, 1912. Serial No. 682,539. (Cl. 106—38.)

1. A composition of matter formed by mixing together approximately in the proportions specified, four quarts of powdered charcoal, four quarts of Portland cement, four quarts of plaster of Paris, powdered graphite, and adding to the mixture approximately one gallon of blood and allowing the same to set substantially as described.

2. A composition of matter formed by mixing together approximately in the proportions specified, four quarts of powdered charcoal, four quarts of Portland cement, four quarts of plaster of Paris, from two to ten ounces of pulverized graphite, and adding to the mixture approximately one gallon of blood free from meaty substances, and allowing the same to set, substantially as described.

1,076,326. PISTON FOR ENGINES. GEORGE T. STRITE, Minneapolis, Minn. Filed Nov. 14, 1912. Serial No. 731,341. (Cl. 121—104.)

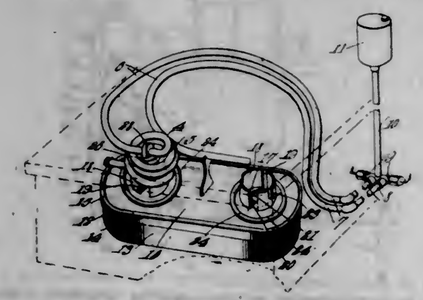


1. A piston comprising a hollow cylinder having an expanded cylindrical interior provided with transverse shoulders, a pair of cylindrical blocks within the expanded portion provided with complemental half-bearings, one of said blocks bearing against the shoulder and means for removably securing the blocks within the cylinder.

2. A piston comprising a hollow cylinder having an expanded cylindrical interior provided with transverse shoulders, a pair of cylindrical blocks within the expanded portion provided with complemental half-bearings, one of said blocks bearing against the shoulder, a piston rod, a pin in said bearings for connecting said rod and means for holding the blocks positioned in contact with said pin and against said shoulder.

3. A piston comprising a hollow cylinder, a pair of cylindrical bearing blocks within said cylinder each provided with a complemental half-bearing and an elongated aperture at right angles thereto, a pin in said bearing, a piston rod having the head thereof extending through said aperture and being connected by said pin and means for removably and adjustably holding the blocks within the piston.

1,076,327. OIL-BURNER. L. B. STROW and THOMAS E. MCMILLAN, San Antonio, Tex., assignors of one-fourth to Robert M. Biard and one-fourth to S. E. Yates, San Antonio, Tex. Filed Nov. 9, 1912. Serial No. 730,463. (Cl. 158—64.)



1. In a hydro-carbon burner, a hollow base having an opening in its top and a channel spanning the opening, and a gasifying coil over the said opening, the inner end of the coil projecting over the said opening at quadrature to the channel and having an outlet directed through the coil, the outlet being disposed above the channel in order that the fuel may drip into the channel.

2. In a hydro-carbon burner, a hollow base having an opening in its top, a collar around the opening, and a channel spanning the opening, and a gasifying coil supported by the collar and having its inner end extending diametrically through the collar at quadrature to the channel, the inner end of the coil having an outlet directed through the coil, the outlet being disposed above the channel in order that the fuel may drip into the channel.

3. In a hydro-carbon burner, a hollow base having an opening in its top, a collar around the opening and a channel in the opening communicating through the collar and being formed with a priming cup, and a gasifying coil supported by the collar and having its inner end extending diametrically through the collar, the inner end of the coil having an outlet above the priming cup and directed through the coil.

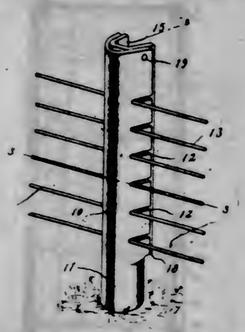
4. In a hydro-carbon burner, a hollow base having an opening in its top, a collar around the opening, and a channel extending across the opening, and a gasifying coil supported by the collar, the inner end of the coil projecting diametrically through the collar and having an outlet directed through the coil, the collar having openings at the end of the channel and the channel being enlarged below the outlet to provide a priming cup.

5. In a hydro-carbon burner, a hollow base having an opening in its top, a collar around the opening, and a channel extending across the opening, and a gasifying coil supported by the collar, the inner end of the coil projecting diametrically through the collar and having an outlet directed through the coil, the collar having openings at the end of the channel and the channel being enlarged below the outlet to provide a priming cup, the top of the base having a channel surrounding the collar and communicating with the ends of the aforesaid channel.

[Claims 6 to 9 not printed in the Gazette.]

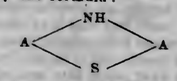
1,076,328. FENCE-POST. WILLIAM A. SWIM, Almena, Kans. Filed Aug. 31, 1912. Serial No. 718,070. (Cl. 256—52.)

As a new article of manufacture, a fence post comprising a U-shaped upright having a tubular base for insertion in the ground and having an upper portion of the upright provided with a series of horizontally arranged slots adapted to receive wires therein and support the same in spaced relation on the upright, a locking member, U-shaped in cross section and having a medially arranged longitudinally extending slot and curved longitudinally parallel flanges, spaced apart and constituting the walls of the said slot, with the said flanges engaging the wires on the upright to secure the same in the inner ends of the slots and wholly within the slots so that the said wires will lie beyond the vertical plane of the upright when the locking member is engaged therewith, and spaced integral stop lugs formed on the lower end of the locking member by cutting away the edges thereof, with the said stop lugs engaging the tubular base to support the locking member on the upright, a pin passing transversely through the upper end of the upright and the locking member, and a lip formed on the lower end of the locking member by the cut away portions thereof, with the said lip projecting downwardly beyond the stop lugs and into the tubular base of the upright.



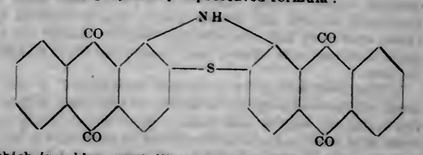
1,076,329. VAT DYE. PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Aug. 22, 1912. Serial No. 716,472. (Cl. 8—1.)

1. The herein described dianthraquinonylthiazins having most probably the formula:



in which formula A represents anthraquinone radicals substituted by sulfur in the 2-2'-positions and by the nitrogen in the 1-1'-positions which are from violet to blue crystalline powders soluble in quinolin generally with a blue coloration; being soluble in concentrated sulfuric acid with a green coloration; and dyeing cotton from the hydrosulfite vat fast blue shades, substantially as described.

2. The herein described dianthraquinonylthiazin having the following graphically represented formula:



which is a blue crystalline powder soluble in quinolin, soluble in concentrated sulfuric acid with a green coloration, and dyeing cotton reddish-blue shades, substantially as described.

1,076,330. INSULATION OF SLASHER-CYLINDERS. ALBERT WILLIAM THOMPSON, Lowell, Mass., assignor to Saco-Lowell Shops, Boston, Mass., a Corporation of Massachusetts. Filed Jan. 30, 1913. Serial No. 745,090. (Cl. 34—4.)

1. The combination in a slasher cylinder, of a rim, a head, cap screws securing said rim to said head adjacent

the peripheral edge of said head, a sheet metal casing covering said head and spaced therefrom to form an air space between said casing and said head, means for securing said casing to the heads of said cap screws, and a ring interposed between said casing and said head closing said air space around the edge thereof.



2. A slasher cylinder having a head, a fixed casing covering said head and spaced therefrom to provide an air space between said casing and said head, means for closing said air space adjacent the outer edge of said casing, said casing having also an opening therein, an annular member interposed between said casing and said head closing said opening, said member presenting also an edge against which said casing bears, and means for securing said casing to said member.

3. A slasher cylinder having a head, a cross bolt extending through said head with a nut thereon bearing against said head, a casing covering said head and spaced therefrom to provide an air space between said casing and said head, said casing having an opening therein for receiving the end of said cross bolt and nut thereon, an annular member fitted over the nut on said cross bolt and against which said casing bears, and a flanged nut secured to the projecting end of said cross bolt and engaging said casing by which the bearing thereof is maintained against said member.

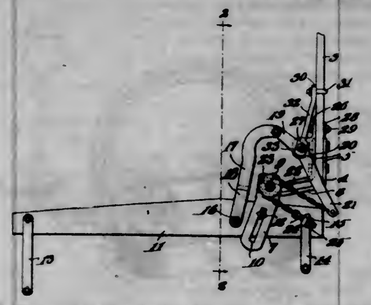
4. A slasher cylinder having a head with a manhole therein, a cover for said manhole, cap screws for holding said manhole cover in place, a casing covering said head and spaced therefrom to provide an air space between said casing and said head, said casing having an opening therein in line with said manhole, a plate covering the opening in said casing, means for securing said plate to the heads of said cap screws, and a ring interposed between said plate and said cylinder head for closing the air space between said casing and head from said manhole opening.

5. The combination in a slasher cylinder, of a rim, a head, cap screws securing said rim to said head adjacent the peripheral edge of said head, a sheet metal casing covering said head and spaced therefrom to form an air space between said casing and said head, means for closing said air space, a partition contained within said air space and dividing the same into separate closed compartments, and means for supporting said partition.

[Claims 6 to 10 not printed in the Gazette.]

1,076,331. DRAFT-EQUALIZER. VENCEL J. TICHOTA, Dodge, Nebr. Filed Nov. 30, 1912. Serial No. 734,423. (Cl. 21—76.)

1. In combination with a supporting structure including a guide, an evener bar guided at a point adjacent its fulcrum by the guide, a rocking member carried by the supporting structure, a member connecting the rocking member and the fulcrum of the evener bar, a sheave journaled to the structure, and a flexible member attached to the rocking member, trained over the sheave, and connected to the end of the evener bar adjoining the structure.



2. In combination with a supporting structure, a forwardly projecting guide secured thereto, an evener bar guided at a point adjacent its fulcrum by the guide, a sheave journaled at the rear end of the guide, a lever fulcrumed to the structure, a link connecting one arm of the lever and the fulcrum of the evener bar, and a flexible member attached to the other arm of the lever, trained over the sheave and connected to the end of the evener bar adjoining the structure.

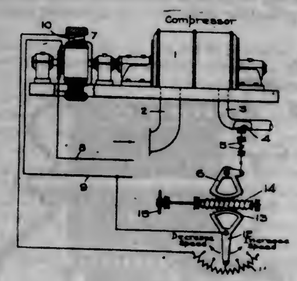
3. In combination with a plow beam, an arm secured to and projecting angularly from the forward end thereof, a forwardly projecting guide secured to the said arm, an evener bar guided at a point adjacent its fulcrum by the said guide, a sheave journaled at the rear end of the guide, a lever fulcrumed to the beam, a link connecting the fulcrum of the evener bar and one arm of the lever, and a flexible member connected to the other arm of the lever, trained around the sheave and attached to the end of the evener bar adjoining the beam.

4. In combination with a plow beam, an arm secured to and projecting angularly from the forward end of the beam, guide plates secured to the arm and projecting forwardly therefrom, the guide plates having longitudinal slots therein, an evener bar passing between the guide plates, a member carried by the evener bar at a point between its fulcrum and the beam and working through the said slots, a sheave journaled at the rear end of the guide plates, a lever fulcrumed to the beam, a link connecting the fulcrum of the evener bar and one arm of the lever, and a flexible member connected to the other arm of the lever, trained around the sheave and attached to the end of the evener bar adjoining the beam.

5. In combination with a plow beam, a doubled bar having its ends secured to the sides of the forward end of the beam and having its intermediate portion bent angularly to one side, upper and lower guide plates bearing against the edges of the bar and having lips at their rear ends overlapping the bar, a bolt passing through the guide plates and the bar, the guide plates projecting forwardly and having longitudinal slots therein, an evener bar passing between the guide plates, a member carried by the evener bar at a point between its fulcrum and the beam and working through the said slots, a sheave journaled on one end of the said bolt, a lever fulcrumed to the beam, a link connecting the fulcrum of the evener bar and one arm of the lever, and a flexible member connected to the other arm of the lever, trained around the sheave and adjustably attached to the end of the evener bar adjoining the beam.

1,076,332. GOVERNING MECHANISM FOR CENTRIFUGAL COMPRESSORS. RICHARD TRÖGER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 28, 1911. Serial No. 668,340. (Cl. 230—24.)

1. In combination, a centrifugal compressor which is subject to surging at light loads, a means for varying the output of the compressor, and a valve for regulating the amount of fluid delivered by the compressor which is actuated by the said means.



2. In combination, a centrifugal compressor which is subject to surging at light loads, a means for varying the output of the compressor, and a surge preventing valve that is located on the discharge side of the compressor and is opened responsive to said means when the output is reduced to such a small percentage of the total that surging would otherwise take place.

3. In combination, a centrifugal compressor which is subject to surging at light loads, a means for regulating the amount of work performed by the compressor, a normally closed valve which when opened prevents the load on the compressor from falling below a predetermined amount, and a lost motion connection between said means and the valve which is arranged to move the valve when the regulating means has decreased the output of the compressor to a point where surging would otherwise take place.

4. In combination, a centrifugal compressor which is subject to surging at light loads, inlet and discharge conduits therefor, a driving motor, a regulator for the motor, a normally closed valve in one of the conduits that is adapted to be opened to prevent the load on the compressor from falling below the point where surging takes place, and means that is common to the regulator and valve for moving the regulator and opening the valve against the pressure in its conduit.

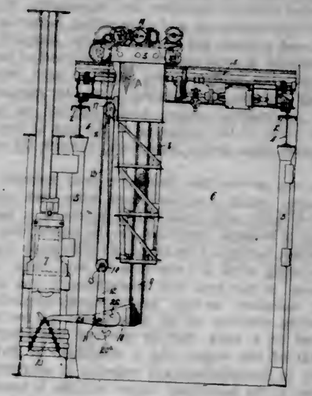
5. In combination, a centrifugal compressor which is subject to surging at light loads, inlet and discharge conduits therefor, a driving motor, a regulator for the motor, a valve in one of the conduits that is adapted to be opened to prevent the load on the compressor from falling below a predetermined minimum, a means common to the regulator and valve for actuating them, and a lost motion connection between the means and the valve.

[Claims 6 to 8 not printed in the Gazette.]

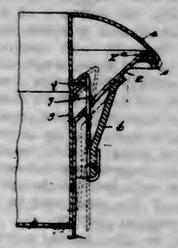
1,076,333. CRANE OR THE LIKE. CHARLES H. TUCKER, Toledo, Ohio. Filed Oct. 14, 1912. Serial No. 725,589. (Cl. 212—128.)

1. In combination, an overhead trolley, a mast depending therefrom, an article carrying member pivoted to the lower end portion of said mast for vertical swinging movements, said member having a long arm with a hook at its outer end and a short arm which is formed with a hook at its outer end and is of greater weight than the long arm to normally maintain the latter in inoperative upright position with the hook of the short arm in article carrying position, and a stop for limiting the downward swinging movements of the long arm from upright position.

2. In an overhead crane, a suspended part having bracket members projecting laterally therefrom, a pivot-pin mounted in and connecting said members, links pivotally rising from opposite ends of said pivot-pin, a shaft mounted in and connecting the upper ends of said links, sheaves carried by said shaft, means coacting with said sheaves to control the raising and lowering movements of said part, an article carrying arm mounted on said pivot-pin for vertical swinging movements and normally influenced to stand in vertical position, and when in such position to have its upper end projecting between and against different ones of the sheaves, and adapted to act against said shaft, means carried by the said bracket members for coacting with a part of said arm to limit the downward swinging movements thereof in one direction, said arm when in horizontal position being adapted to project beyond the clear space or run-way of said crane part.



1,076,334. SEAL-LOCKED CAN. EMIL TYDEN, Hastings, Mich. Filed Mar. 5, 1913. Serial No. 751,987. (Cl. 31—78.)



1. In a can or the like having a body member and a cover member which are telescoped with each other, the other of said telescoped members having its upper end diametrically enlarged to offset it from the inner member, in combination with said telescoping members, a seal lock comprising a housing mounted upon the outer side of the outer member having a vertical slide path for a seal bolt, said enlarged portion of said outer member having an aperture registering with the slide path of the housing for entrance of a seal bolt therethrough into the space between the two members at the offset portion of the outer thereof, the inner member having an upwardly-facing shoulder on the outer side exposed in said space between the two members; a seal-bolt of sheet metal having one end formed for engaging the shoulder, adapted for insertion endwise into the slide-way of the housing for such engagement, and to protrude its other end from the housing when so engaged, said seal bolt being adapted to easily break by bending back and forth at the edge of the housing slide-way beyond which it protrudes.

2. In a can or the like, having a body-member and a

cover member which are telescoped with each other, the outer of said telescoped members having its upper end flaring, in combination with said telescoping members, a seal lock comprising a housing mounted upon the outer side of the flaring portion of the outer member having a vertical slide path for a seal bolt registering with an aperture in said flaring portion for entrance of the seal bolt therethrough, the inner of said can members having an upwardly-facing exterior shoulder for engagement of a bolt against the separation of said telescoping members longitudinally, and a seal bolt of sheet metal adapted to be inserted endwise in said slide-way and formed at its inner end for engaging said shoulder, and of such length as to protrude outside the housing when so engaged, the exteriorly protruding portion being adapted to be bent across the plane of the slide-way at the end of the latter, and to break upon being bent back toward its original position.

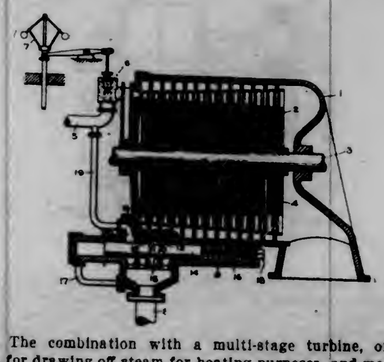
3. In a can or the like, having a body member and a cover member which are telescoped with each other, in combination with said telescoping members, a seal lock comprising a housing mounted on the outer side of the outer member, having an up-and-down slide path for a seal bolt registering with an aperture in said outer member for entrance of the seal bolt therethrough, the inner of said can members having an upwardly-extending, inwardly-facing exterior lip or flange adapted for hooking engagement of a hook bolt to prevent the longitudinal withdrawal of the cover, and a seal bolt of flat metal adapted to be inserted upward endwise in said slide-way, and formed at its inner and upper end for a hooking engagement with said lip, and of such length as to protrude outside the housing when so engaged, and adapted to be bent across the plane of the slide-way at the lower end of the latter, and to break upon being bent back toward its original position.

4. In a can or the like, having a body member and a cover member which are telescoped with each other; in combination with said telescoping members, a seal lock comprising a housing mounted upon the outer side of the outer member, having an up-and-down slide path for a seal bolt, said member having an aperture registering with said seal path for entrance of a seal bolt therethrough, the inner of said members having an exterior lip forming an upwardly and inwardly-facing sloping shoulder, a seal bolt of sheet metal adapted for sliding endwise in said slide path, having one end reflexed at an acute angle to form a hook to engage said lip, and adapted to re-act elastically into engagement therewith upon being flexed to pass said lip in the inthrust of the seal bolt, said seal being of such length as to protrude a portion from the housing when engaged with said lip, and being adapted to be bent at the end of the slide path across the plane of the same, and to break upon being bent back to its original position.

5. In a can or the like, having a body member and a cover member which are telescoped with each other; in combination with said telescoping members, a seal lock comprising a housing mounted upon the outer side of the outer of said telescoping members, having an up-and-down slide path for a seal bolt, and apertured for the entrance of such bolt therethrough to reach the inner member, said inner member having an exterior lip forming an upwardly and inwardly-facing shoulder, a seal bolt of flat metal adapted for sliding endwise in said slide path having one end provided with a sloping hook nose for hooking engagement with said lip, and adapted to re-act elastically into engagement therewith upon being flexed to pass said lip in the inthrust of the seal bolt, the slide path of the housing being adapted to admit said hooked end, and having at its upper end a slope overhanging the path of said hooked end to deflect the latter past the lip and against which the body of the seal rests when engaged with the lip, said seal being of such length as to protrude a portion from the housing when so engaged, and adapted to break upon being bent back and forth at the lower end of the housing.

[Claim 6 not printed in the Gazette.]

1,076,335. REGULATING DEVICE FOR TAPPED TURBINES. ERICH ÜBERLÄE, Grunewald, near Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 15, 1912. Serial No. 683,971. (Cl. 121—118.)



1. The combination with a multi-stage turbine, of a pipe for drawing off steam for heating purposes, and means responsive to the fluid pressure in said pipe for effecting the withdrawal of steam from one or another of the stages of said turbine.

2. The combination with a multi-stage turbine, of a pipe for drawing off steam for heating purposes, ports connecting said pipe with several of the stages of said turbine, and a valve means controlling said ports and responsive to variations of fluid pressure in said pipe.

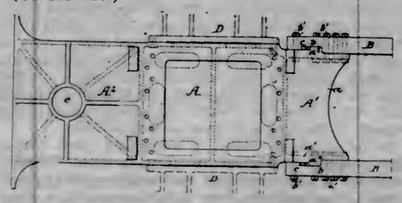
3. The combination with a multi-stage turbine, of a pipe for drawing off steam for heating purposes, ports connecting said pipe with several of the stages of said turbine, a valve controlling said ports, means biasing said valve in one direction, and means for causing the fluid pressure in said heating pipe to force said valve in the opposite direction.

4. The combination with a multi-stage turbine, of a pipe for drawing off steam for heating purposes, ports connecting said pipe with several stages of said turbine, a valve controlling said ports and responsive to variations in fluid pressure in said heating pipe, and means for preventing leakage of steam between stages of the turbine when said valve is in intermediate positions.

5. The combination with a multi-stage turbine, of a pipe for drawing off steam for heating purposes, a casing having ports communicating respectively with several stages of said turbine, a valve in said casing controlling said ports and responsive to variations in fluid pressure in said heating pipe, and outwardly opening check valves controlling said ports.

[Claims 6 to 9 not printed in the Gazette.]

1,076,336. LOCOMOTIVE-FRAME. SAMUEL M. VAUCLAIN, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Mar. 16, 1912. Serial No. 684,192. (Cl. 105—17.)



1. The combination in a locomotive, of a forward frame having a top plate and depending flanges; rearward extensions to which the side frames of the locomotive are secured; and a forward extension forming a bumper frame; with two cylinder castings mounted one on each side of the main frame, and secured to the top plate and to the side flanges of the said main portion of the forward frame.

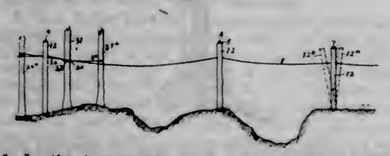
2. The combination in the forward frame of a locomotive having a main body portion consisting of a top plate and depending flanges, and ribs extending under the top plate from one flange to the other and having a forward extension, also ribbed and forming a bumper support; a rearward extension having a top plate and depending flanges shaped to receive the forward end portions of the side frames of the locomotive; means for securing said side frames to the rear extensions of the forward frame; cylinder castings mounted on each side of the body portion of the forward frame and each having a horizontal and a vertical flange; bolts passing through openings in said horizontal and vertical flanges and through openings in the top plate and flanges of the forward frame, and abutting flanges on each cylinder casting; with means for securing the two cylinder casting flanges together and to the forward frame.

3. The combination in a locomotive, of a forward frame having a top plate and depending flanges; with two cylinder castings mounted one on each side of the frame and secured to the top plate and to the side flanges of the frame.

4. The combination in a locomotive, of a forward frame having a body portion; cylinder castings secured to said portion; a rear extension of the frame having a horizontal web and a depending flange at each side; and side frames terminating at the rear of the cylinder castings and secured to the flanges of the rear extensions.

5. The combination in a locomotive, of a forward frame having a body portion; cylinder castings secured to the body portion, said frame having a rear extension consisting of a horizontal web and side flanges; a vertical rib on each side flange; side frames terminating at the rear of the cylinder castings and recessed to receive the ribs; vertical keys in the recesses; and transverse bolts securing the side frames to the flanges of the frame.

1,076,337. SUSPENDED-CABLE TRAMWAY. CHARLES H. VOGEL and GEORGE R. TAITT, Vancouver, British Columbia, Canada. Filed Jan. 22, 1912. Serial No. 672,681. (Cl. 104—146.)



1. In the intermediate supports of a suspended cable tramway, having a track cable, the combination of two compression members, means for distributing the stress of the loads independently on each compression member and means for connecting their tops, substantially as described.

2. In the intermediate supports of a suspended cable tramway, having a track cable, the combination of two compression members, means for distributing the stress of the loads independently on each compression member and means for connecting their tops, and means to prevent spreading at the lower ends.

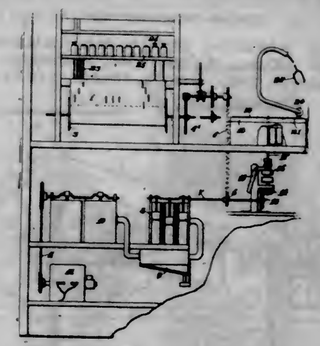
3. In the intermediate supports of a suspended cable tramway, having a track cable, the combination of two compression members each having at its top a plate having a hole, a tension member passing through each hole and sustaining the weight of the track cable, its hanger and traveling load at the tops of the above-mentioned plates.

4. In the intermediate supports of a suspended cable tramway, the combination of two compression members, a hinge composed of two leaves admitting of a rotary motion on three axes at right angles with each other for self adjustment to the tops of the compression members, a hole through each leaf and a concaved surface around the top of each hole, an eye-bolt passing through each hole and provided with a nut having a convex surface to adjust itself to the concave surfaces in the hinge leaves, a ring and a hanger, for the purpose of supporting the track cable and the moving loads upon it, substantially as described.

5. In the intermediate supports for the track cable of a suspended cable tramway, the combination of a hanger, means to secure the track cable to said hanger in a manner to prevent the longitudinal movement of the said track cable with respect to the hanger, and means to admit the track cable to maintain its alinement regardless of its angle with the said hanger.

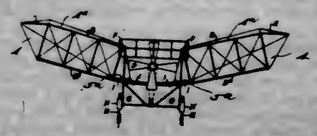
[Claims 6 to 10 not printed in the Gazette.]

1,076,338. RECORDING DEVICE. EDWIN S. VOTEY, Summit, N. J., assignor to Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed Mar. 14, 1912. Serial No. 683,692. (Cl. 164—113.)



In a note recording machine the combination with a means for feeding a sheet of paper uninterruptedly, of a die plate over which said sheet is passed, punches cooperating with the die plate to perforate the sheet of paper passed over the die plate, an independent and individual electric means for operating each punch, an electric current interrupter for each individual electric punch operating device, an electric circuit closing device pertaining to each key of a key musical instrument, a source of electricity, an electric connection from said circuit closing device to the corresponding current interrupter, an electric connection from said current interrupter to the corresponding electric punch operating device, an electric conductor from the electric punch operating device to the source of electricity, and a conductor extending from the source of electricity to the circuit closing device pertaining to the key, substantially as set forth.

1,076,339. AEROPLANE. WILLIAM FRANCIS WILES, THOMAS MACLEOD, and FREDERICK WILLIAM WILES, Brisbane, Queensland, Australia. Filed Oct. 19, 1911. Serial No. 655,483. (Cl. 244—29.)

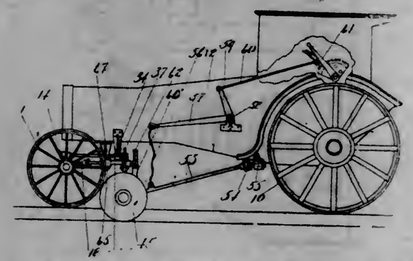


1. In an aeroplane, the combination of a main frame; bi-planes rigidly connected together and hingedly con-

nected to said main frame at either side thereof; a pair of ailerons flexibly secured to the top planes of said bi-planes; a pair of resilient arms secured to said bi-planes; cords connecting the ailerons to the main frame whereby to flex the ailerons through the elevating movement of the bi-planes; and cords connecting the ailerons with said flexible arms whereby to restore the ailerons to normal on the lowering movement of the bi-plane, substantially as described.

2. In an aeroplane, the combination of a main frame; bi-planes rigidly connected together and hingedly connected to said main frame at either side thereof; means for actuating said planes comprising sleeves slidably mounted on the main frame, sleeves slidably mounted on said bi-planes, crossed levers connecting said sleeves, and an actuating lever connected to said first-named sleeves; a pair of ailerons flexibly secured to the top planes of said bi-planes; a pair of resilient arms secured to said bi-planes; cords connecting the ailerons to the main frame whereby to flex the ailerons through the elevating movement of the bi-planes; and cords connecting the ailerons with said flexible arms whereby to restore the ailerons to normal on the lowering movement of the bi-plane, substantially as described.

1,076,340. STEERING DEVICE FOR TRACTION-ENGINES. WILBUR S. WILLIAMS, Minneapolis, Minn. Filed May 31, 1912. Serial No. 700,612. (Cl. 21—114.)



1. In combination with a traction engine provided with front steering wheels mounted on short stub axles connected to oscillate about vertical pivots in unison, a rod connected by universal joint with a rear frame member and extending obliquely to the side of the engine between the wheels thereof, a link pivoted to swing transversely of the engine to the lower end of which said rod is pivotally connected, a furrow pilot wheel journaled at the end of said rod, and means connecting said furrow pilot wheel with the steering wheels whereby lateral movements of the pilot wheel will effect corresponding oscillation of the steering wheels.

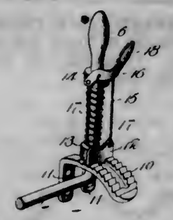
2. In combination with a traction engine provided with front steering wheels mounted on short stub axles connected to oscillate about vertical pivots in unison, a rod connected by universal joint with a rear frame member and extending obliquely to the side of the engine between the wheels thereof, a link pivoted to swing transversely of the engine to the lower end of which said rod is pivotally connected, a furrow pilot wheel journaled at the end of said rod and having a fixed angular position relative to the direction of travel of the engine, and means connecting said furrow pilot wheel with the steering wheels whereby lateral movements of the pilot wheel will effect corresponding oscillation of the steering wheels.

3. In combination with a traction engine provided with front steering wheels mounted on short stub axles connected to oscillate about vertical pivots in unison, a rod connected by universal joint with a rear frame member and extending obliquely to the side of the engine between the wheels thereof, a link pivoted to swing transversely of the engine to the lower end of which said rod is pivotally connected, a furrow pilot wheel journaled at the end of said rod and adapted to run in a furrow or along the surface of the ground, and means connecting said furrow pilot wheel with the steering wheels whereby lateral movements of the pilot wheel will effect corresponding oscillations of the steering wheels, and means for swinging said rod and link to hold the furrow wheel out of contact with the ground.

5. In combination with a traction engine having steering wheels mounted on stub axles adapted to oscillate about vertical pivots and having arms extending outwardly from said axles and connected by a transverse link, a rod having universal joint connection with a rear frame member of the engine and extending obliquely to the side of the engine between the wheels thereof, a link pivoted to swing transversely of the engine to the lower end of which said rod is pivotally connected, a furrow pilot wheel journaled at the end of said rod and adapted to run in a furrow or along the surface of the ground, a two-armed lever pivoted to swing horizontally and having one arm pivotally connected with said first named link, and a link pivotally connecting the other arm of said lever with the lower end of said rod whereby lateral swinging movements of the pilot wheel will cause corresponding oscillations of the steering wheels.

[Claims 6 to 10 not printed in the Gazette.]

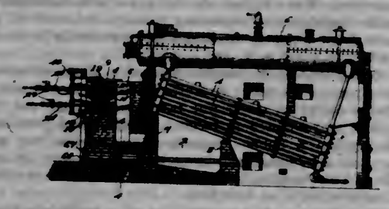
1,076,341. HAND-LEVER. WILLIAM E. J. ANDERSON, Trinidad, Colo. Filed Feb. 27, 1912. Serial No. 680,283. (Cl. 74—39.)



A brake actuating device comprising an operating lever, a collar fixed to said lever, a second collar on said lever and slidable thereon and spaced apart from the first collar, an expansion spring encircling said lever between the collars thereon, a yoke pivoted to the fixed collar, a manipulating handle on said yoke, a substantially U-shaped segment inclosing said lever, a dog carried by the second-named collar and spanning the limbs of said segment and normally in engagement therewith, and connections between said yoke and dog whereby in the operation of the manipulating handle the dog may be disengaged from the segment against the action of said spring.

1,076,342. LIQUID-FUEL FURNACE. GUSTAV AYRES, Washington, D. C., assignor to John C. Calhoun, New York, N. Y. Filed June 3, 1913. Serial No. 771,509. (Cl. 158—4.)

1. In a liquid-fuel furnace, the combination of a pan burner having a longitudinal vertical partition to provide two independent fuel chambers, means for supplying a liquid fuel to said chambers, a conduit for directing air across the surface of the liquid fuel in said chambers, shiftable means for varying the extent of such liquid-fuel surface exposed to the air, and means for independently controlling the fuel supply to either of said chambers.



2. In a liquid-fuel furnace, the combination of a fire box provided with an open top and with a front opening adjacent thereto, a damper for controlling the open top of said fire box, a pan burner extending through such front opening, means for supplying a liquid fuel to said burner, a conduit for directing air across the surface of the liquid fuel in said burner, shiftable means for varying the extent of such liquid-fuel surface exposed to the air, and a common means for simultaneously shifting said damper and shiftable means.

3. In a liquid-fuel furnace, the combination of a fire box provided with an open top and with a front opening adjacent thereto, a damper for controlling the open top of said fire box, a pan burner extending through such front opening, means for supplying a liquid fuel to said burner, a conduit for directing air across the surface of the liquid fuel in said burner, shiftable means for varying the extent of such liquid-fuel surface exposed to the air, a common means for simultaneously shifting said damper and shiftable means, and means for adjusting the relative positions of said damper and shiftable means.

4. In a boiler furnace, the combination of a fire box communicating at its lower end with the combustion chamber of said furnace, a pan burner extending through the front wall of said fire box adjacent the top of the latter, means for supplying a liquid fuel to said burner, a conduit for directing air across the surface of the liquid fuel in said burner, shiftable means for varying the extent of such liquid-fuel surface exposed to the air, and adjustable means for independently admitting air respectively to the combustion chamber of said furnace and at the rear of the bridge wall of the latter.

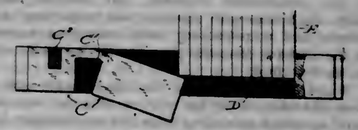
5. In a boiler furnace, the combination of an open top fire box communicating at its lower end with the combustion chamber of said furnace, a damper for controlling the open top of said fire box, a pan burner extending through the front wall of said fire box adjacent the top of the latter, means for supplying a liquid fuel to said burner, a conduit for directing air across the surface of the liquid fuel in said burner, shiftable means for varying the extent of such liquid-fuel surface exposed to the air, a common means for simultaneously shifting said damper and shiftable means, and adjustable means for independently admitting air respectively to the combustion chamber of said furnace and at the rear of the bridge wall of the latter.

[Claims 6 to 11 not printed in the Gazette.]

1,076,343. TYPOGRAPHICAL CASTING-MACHINE. AUGUSTUS A. BALL, Jr., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 26, 1911. Serial No. 667,742. (Cl. 199—13.)

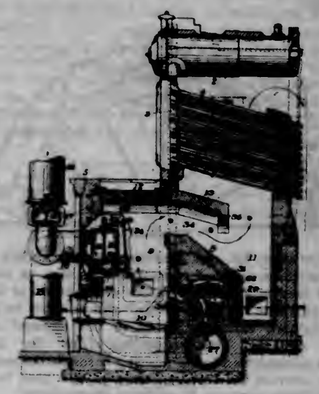
1. A mold liner consisting of an integral structure formed of fracturable material and having in one edge a permanent recess extending inwardly toward the opposite edge, thereby providing a permanent reduced portion which is yieldable whenever the liner is engaged by an ejector.

2. A mold liner consisting of an integral structure formed of fracturable material and having in one edge a permanent recess extending inwardly toward the opposite edge, thereby providing a permanent reduced portion which is yieldable whenever the liner is engaged by an ejector, said liner being provided with a transverse rib at one side of and adjacent the recess.



3. In a typographical casting machine, the mold comprising a body portion, a cap, and a mold liner consisting of an integral structure formed of fracturable material and having in one edge a permanent recess extending inwardly toward the opposite edge, thereby providing a permanent reduced portion which is yieldable whenever the liner is engaged by an ejector.

1,076,344. GAS-BURNING FURNACE. JOHN E. BELL, New York, N. Y., assignor to The Babcock & Wilcox Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 15, 1909. Serial No. 483,401. (Cl. 158—7.)



1. A gas furnace having a front combustion chamber with a rear bridge wall, an air chamber in the bridge wall, a plurality of mixing nozzles projecting forwardly through the bridge wall from the air chamber and opening into the combustion chamber, a gas supply pipe, a plurality of gas nozzles leading from the gas pipe, each extending into a mixing nozzle, a refractory arch extending rearwardly from the combustion chamber over the bridge wall, means for supplying gas to the gas supply pipe, and means for supplying air to the air chamber; substantially as described.

2. A gas furnace having a bridge wall, there being a combustion chamber in front of the bridge wall, said bridge having an air chamber extending the full length thereof and opening to the atmosphere at both ends, means for controlling the supply of air to the air chamber through said openings, openings leading forwardly from the air chamber into the combustion chamber, means for supplying gas to each opening, and a refractory arch extending rearwardly over a part of the bridge wall; substantially as described.

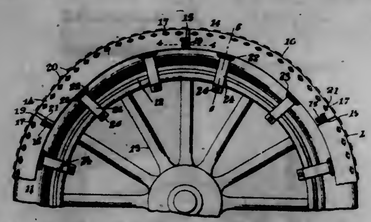
3. A gas furnace having a heating chamber, a plurality of combustion chambers, a hollow bridge wall forming an air chamber, a plurality of openings leading forwardly from the air chamber into each combustion chamber, means for supplying air to said chamber, a gas nozzle extending into each opening, and a refractory arch extending rearwardly over a part of the bridge wall and forming a throat before the gases rise into the heating chamber; substantially as described.

4. In a gas furnace, a combustion chamber having a hollow bridge wall extending the full length thereof, means for supplying air to each end of the bridge wall chamber, said chamber having openings leading forwardly into the combustion chamber, gas nozzles extending through the bridge wall chamber and projecting into said openings, and a refractory arch extending rearwardly, from the furnace chamber over the bridge wall; substantially as described.

5. A gas furnace having a heating chamber and a combustion chamber, a bridge wall having an air chamber therein, openings extending from the air chamber into the combustion chamber, gas nozzles extending through the air chamber into each opening, means to supply gas to each of the nozzles, means at both ends of said chamber to supply air thereto, together with means to regulate the flow of the air, and a rearwardly extending arch above the bridge wall arranged to give two substantially right angled passes to the air and gas within the combustion chamber before passing to the heating chamber; substantially as described.

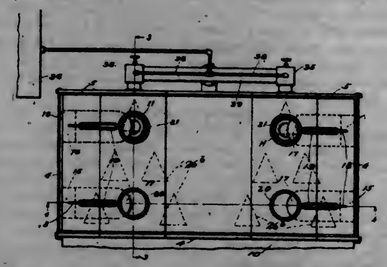
[Claim 6 not printed in the Gazette.]

1,076,345. TIRE-SHOE. ARTHUR S. BULLOCK, Aitkin, Minn. Filed Apr. 13, 1912. Serial No. 690,529. (Cl. 152—16.)



In a tire shoe, the combination with a plurality of connectible sections adapted to encircle the tire, of rectangular guide members formed on the outer faces of the said sections adjacent the ends thereof and adapted to slidably extend through elongated slots in the opposed ends of adjacent sections, pins projecting from the faces of the guide members and also passing through the said slots, and nuts carried on the free ends of the pins to retain the connectible sections in slidable engagement.

1,076,346. FURNACE. WILLIS W. CASE, Jr., Denver, Colo. Filed Apr. 15, 1913. Serial No. 761,283. (Cl. 75—186.)



1. In a furnace, the combination of a muffle chamber; heating means therefor; a muffle having a mouth and a discharge outlet; outlet means leading from said muffle chamber for carrying off the products of combustion from said muffle chamber and the heated air and gases from said muffle outlet; dampering means for said muffle chamber outlet; and an auxiliary passage leading from the mouth of said muffle chamber to said muffle chamber outlet, substantially as described.

2. In a furnace, the combination of a muffle chamber; heating means therefor; a muffle having a mouth and a discharge outlet; a muffle flue extending through the top wall of said furnace in alinement with said muffle outlet for carrying off the heated air and gases from said muffle; a muffle chamber flue extending through the wall of the furnace; and dampers in said flues, substantially as described.

3. In a furnace, the combination of a muffle chamber; heating means therefor; a muffle having a mouth and a discharge outlet; a muffle flue extending through the furnace wall and adapted to receive the discharge from said muffle outlet; a muffle chamber flue; dampers for said flues; and a by-passage leading from the mouth of said muffle and discharging into one of said flues above its damper, substantially as described.

4. In a furnace, the combination of a muffle chamber; a muffle having a mouth and a discharge outlet; outlet means extending through the wall of said furnace for carrying off the products of combustion from said muffle chamber and the discharge from said muffle outlet, the front and top outer surfaces of the furnace wall being provided with a recess extending from the mouth of the muffle chamber to said outlet means; a damper for said outlet means mounted below said top recess; and a sheathing for said furnace, the front and top walls of said sheathing forming with said recesses a by-passage leading from the mouth of said muffle chamber to said outlet means therefrom above said damper, substantially as described.

5. In a furnace, the combination of a muffle chamber formed from upper and lower sections of refractory material; heating means therefor; a muffle having a mouth and a discharge outlet; a muffle flue leading through said furnace wall from said muffle outlet; a muffle chamber flue for carrying off the products of combustion; recesses on the outer surface of said furnace wall and extending across the outer ends of said flues; a damper slidingly mounted in each of said recesses; a recess disposed at right angles to said damper recesses, on the outer face of said furnace wall and extending from the mouth of the muffle chamber to one of said flues; and a sheathing for incasing said furnace and coöperating with said latter recesses to form a passageway leading from the mouth of the muffle chamber to one of said flues on the outside of its damper, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,076,347. BROOM-HEAD HOLDER. WILLIAM M. CHRISTOPHER, Tonawanda, N. Y. Filed Mar. 29, 1912. Serial No. 687,188. (Cl. 15—19.)

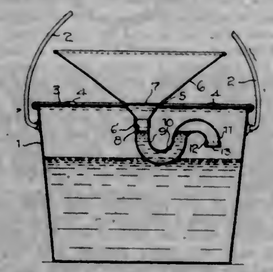


1. A broom holder consisting of spaced sheet metal clamping jaws movable toward and away from each other, arranged and adapted at one end to receive and hold a broom head therebetween and at their other end having a socket adapted to receive a handle, a spring coöperating with said jaws, a crank shaft on one of said jaws, links connecting the cranks of said shaft with the other jaw, the said jaws being provided with openings through which the links extend and a lever for operating said crank shaft, said lever and links being permanently and relatively stationarily carried by the clamping jaws inwardly from the broom receiving end of the latter, whereby a broom head may be inserted between or removed from said jaws without removing said lever and links.

2. A broom holder having spaced clamping jaws, one of which is provided with a transverse depression, a crank shaft located in said depression which constitutes a bearing and retaining means therefor, links connecting the cranks of said crank shaft with the other clamping jaw, the said jaws being provided with openings through which the links extend and a lever for said crank shaft which is adapted, when operated, to draw the clamping jaws together.

3. A broom holder having sheet metal clamping jaws, each provided with transversely arranged depressions and one of them having another depression disposed at an angle to the depression aforesaid, a combined crank shaft and handle made from a single piece of wire, the crank shaft of which lies in one of the transverse depressions which constitutes a bearing and retaining means therefor, the handle being adapted to be positioned in the angularly arranged depression aforesaid, links engaged with the cranks of the crank shaft and extending through the clamping jaws, and means engaging the links, said means lying in the transverse depression in the other clamping jaw.

1,076,348. MILKING-PAIL. HENRY C. L. CHRISTOPHERSEN, Oconto, Wis. Filed Apr. 5, 1913. Serial No. 759,125. (Cl. 31—14.)



1. A cover for milk pails comprising a plate having a funnel projecting therethrough, a pipe detachably connected to the lower end of said funnel, said pipe being formed near its free end with an annular groove, and a strainer having spring clamps adapted for engagement in said groove, as and for the purpose described.

2. A cover for milk pails or the like, comprising a plate having a funnel projecting therethrough, a strainer mounted in said funnel, and a pipe detachably connected with the lower end of said funnel, said pipe being curved to form a trap, as and for the purpose described.

3. A cover for milk pails or the like comprising a plate having a funnel projecting therethrough, a pipe detachably connected to the lower end of said funnel, said pipe being curved to form a trap, and a strainer detachably mounted upon the free end of said pipe, as and for the purpose described.

1,076,349. RUBBER-LIKE SUBSTANCE AND PROCESS OF MAKING SAME. HARRY A. CLARK and EDWIN J. LARKIN, New Orleans, La., assignors, by mesne assignments, to Charles W. Benedict, St. Louis, Mo. Filed Mar. 1, 1912, Serial No. 680,989. Renewed Nov. 21, 1912. Serial No. 732,800. (Cl. 106—23.)

1. The herein described process of producing a rubber-like substance, which consists in preparing a mixture of gelatin, water and glycerin; heating said mixture; then adding lead plaster to said mixture and heating the same; adding sulfurized linseed oil free from sulfur to the mixture thus produced and further heating the same; and finally adding a chrome salt to the mixture, substantially as described.

2. The herein described process of producing a rubber-like substance, which consists in preparing a mixture of gelatin, water and glycerin; heating said mixture; then adding lead plaster to said mixture and heating the same; adding sulfurized linseed oil free from free sulfur to the mixture thus produced and further heating the same; and finally adding sodium di-chromate to the mixture and again heating the same, substantially as described.

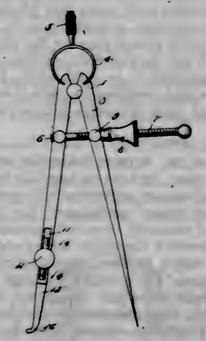
3. The herein described process of producing a rubber-like substance, which consists in first combining under the action of heat a mixture of gelatin, water and glycerin; then adding lead plaster and heating again; then adding sulfurized linseed oil free from free sulfur; and finally adding a chrome salt, and heating the mixture while under pressure, substantially as described.

4. The herein described process of producing a rubber-like substance, which consists in combining under the action of successive heatings a mixture of gelatin, water, glycerin, lead plaster, sulfurized linseed oil free from free sulfur, and sodium di-chromate, and then heating the mixture while under pressure, substantially as described.

5. The herein-described process of producing a rubber-like substance, which consists in dissolving gelatin in water, incorporating glycerin therewith, stirring and heating the mixture, adding thereto lead plaster and sulfurized linseed oil free from free sulfur while still stirring and heating the mixture, then adding sodium dichromate dissolved in molasses, and then heating the mixture.

[Claims 6 to 14 not printed in the Gazette.]

1,076,350. COMBINATION-TOOL. BERT J. COOK, Amsterdam, N. Y. Filed Nov. 16, 1912. Serial No. 731,781. (Cl. 33—22.)

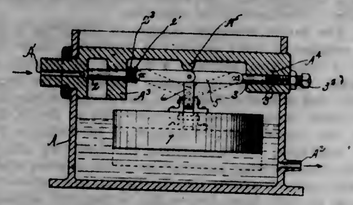


A device of the class described, comprising a pair of pivoted legs, one of which is relatively short and longitudinally slotted, the other of which is pointed, a leg revolubly mounted upon the short leg and having ribs to enter the slot and longitudinally adjustable therein, said revoluble leg being pointed on one end and having a lateral extension on the opposite end, together with means to adjust said pivoted legs.

1,076,351. POULTRY AUTOMATIC WATER-FEEDER. JOHN H. CROWELL, Vineyard Haven, Mass. Filed Nov. 1, 1911. Serial No. 658,019. (Cl. 137—104.)

1. An automatic water feeder for poultry comprising a water containing reservoir provided with a top, an inlet located above the normal water level, housings bored for journal bearings depending from said reservoir top and oppositely disposed with their bores in alinement with each

other and with said inlet, a valve seatable in said inlet and mounted in the bore of one of said housings for both reciprocating and rotary movements, a plunger similarly mounted in the bore of the opposite housing, an adjusting screw tapped longitudinally into the bore of the plunger housing, a coil spring disposed in said bore between the end of said plunger and said screw, and adapted to serve as a cushion for said plunger, a toggle member operatively connecting said valve stem and said plunger, a second coil spring surrounding said valve stem between the valve stem housing and the adjacent end of said toggle member, a float operatively connected with the knuckle of said toggle member for vertical movement therewith and arranged and adapted to rise with the rise of the water in said reservoir and close said valve, and to fall as the water level is lowered and open said valve, an outlet opening located below said inlet and the normal water level, and a distributing pipe connected with said outlet opening.

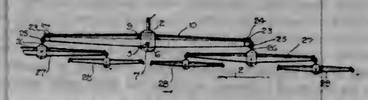


2. The combination with a water containing reservoir provided with an inlet located above the normal water level and an outlet located below said normal water level, of a valve seatable in said inlet and mounted in alinement therewith for both reciprocating and rotary movements, an adjustably cushionable plunger similarly mounted and held in permanent alinement with said valve for operation synchronously therewith, a toggle member operatively connecting said valve and plunger for conjoint synchronous movements, a float pivotally connected with the knuckle of said toggle member for vertical movement therewith, and for independent rocking movement, and arranged and adapted to be actuated by the rise and fall of the water in said reservoir to operate said toggle member to open and close the valve intermittently and automatically.

3. The combination with a water containing reservoir provided with a top, a valve controlled inlet and an outlet below said inlet, of a valve seatable in said inlet and mounted in permanent alinement therewith for both reciprocating and rotary movements, an adjustably cushionable plunger similarly mounted opposite said valve in permanent alinement therewith for synchronous conjoint movements, a toggle member operatively connecting said valve and plunger for conjoint rotating movement and alinable with said valve and plunger to close said valve, and a depending stop disposed on the reservoir top and arranged and adapted to contact with the toggle knuckle to limit the movement of said toggle member in one direction.

4. In an automatic water feeder having a water containing reservoir provided with a top and with an inlet located above the normal water level, the combination with said parts of oppositely disposed separated journal bearings depending from said reservoir top and arranged with their bores in permanent alinement with each other and with said inlet, a valve mounted in one of said bearings for both reciprocating and rotary movements, a plunger similarly mounted in the opposite journal bearing in permanent alinement with said valve and inlet, a toggle member located between said valve and plunger and operatively connecting the two for united synchronous movements, means located in said plunger bearing for adjustably cushioning said plunger endwisely, and other means interposed between one end of said toggle member and the face of said valve bearing support and arranged and adapted to assist in withdrawing said valve from its seat.

1,076,352. WHIFFLETREE. BENJAMIN F. CUMMINGS, Dryden, Okla. Filed Feb. 26, 1913. Serial No. 750,924. (Cl. 21—78.)



1. A device of the character described comprising a bar, caps consisting of a stationary section and a relatively movable section mounted upon the ends of said bar, said stationary section of each cap being formed with spaced locking tongues and the movable section of each cap being formed with recesses for the reception of said tongues, and a truss rod having its opposite ends connected to the movable sections of said caps, as and for the purpose described.

2. A whiffletree comprising a bar, a sleeve slidably mounted on said bar, said sleeve having a reduced hollow extension, a bridge piece mounted upon said bar within said extension, caps mounted upon the opposite ends of said bar, said caps comprising a stationary section and a relatively movable section, and a truss rod having its opposite ends connected to the movable sections of the caps, the intermediate portion of said truss rod bearing against the outer face of said bridge piece within the reduced hollow extension of said sleeve, as and for the purpose described.

3. A device of the character described comprising a bar, a sleeve slidably mounted on said bar, said sleeve having a reduced hollow extension, a bridge piece connected to said extension, caps mounted upon the opposite ends of said bar, and a truss rod having its opposite ends connected to said caps and its intermediate portion bearing against said bridge, whereby said truss rod is maintained in spaced relation with said bar, as and for the purpose described.

4. A whiffletree comprising a bar, a sleeve slidably mounted on said bar, a bridge piece connected to said sleeve, the opposite ends of said bar being formed with reduced extensions, sectional caps mounted on said reduced extensions, one section of each of said caps being formed with a hook, and a truss rod having its opposite ends connected to said hooks, and its intermediate portion engaged with said bridge piece, as and for the purpose described.

5. A device of the character described comprising a bar, caps comprising a stationary section and a movable section mounted upon the ends of said bar, said stationary section of each cap being formed with spaced locking tongues and the movable section of each cap being formed with recesses for the reception of said tongues, hooks formed on said movable sections, a truss rod having its opposite ends connected to said hooks, and means for spacing said truss rod from said bar, as and for the purpose described.

1,076,353. HAT-PIN. DAVID CUTLER, Baltimore, Md. Filed Mar. 8, 1913. Serial No. 752,878. (Cl. 24—150.)

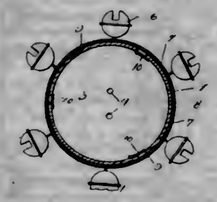
1. In a hat pin, a pointed pin proper, and a sheath which surrounds the pin proper and is susceptible of a movement longitudinally thereof, combined with a longitudinally extensible and contractible head comprising an outer shell secured to the sheath and an inner knobbed shell fastened to the pin proper, a collar which is loose on the sheath, and means to unite the collar with the inner shell, whereby in the extension of the head, the point of the pin proper is drawn into the sheath, and in the contraction of the same, is projected beyond the end of the sheath.

2. In a hat pin, a pointed pin proper, and a sheath which surrounds the pin proper and is susceptible of a movement longitudinally thereof, combined with a longitudinally extensible and contractible head comprising an outer and an inner shell which are secured respectively to the sheath and the pin proper, a collar which is loose on the sheath, and wires which unite the said collar to the inner shell, whereby in the movement of the collar longitudinally of the sheath and toward the outer shell of the head, the point of the pin proper is drawn into the



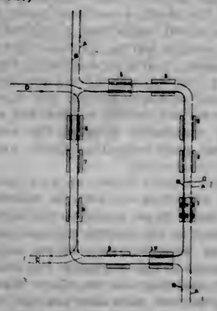
sheath, and in a reverse direction, is projected beyond the end of the same.

1,076,354. BUZZ-BALL. BESSIE E. DANIEL, Kurtz, Ind. Filed Nov. 20, 1912. Serial No. 732,604. (Cl. 46—14.)



A whirling toy comprising a hollow sphere, having diametrically opposed openings formed in the wall thereof, a centrally positioned disk mounted within said sphere and formed with a pair of spaced openings, a looped string, having each of its strands passed through the openings in the sphere, and one of its strands passed through each of the openings in said disk, a wire extending circumferentially around the periphery of the sphere, a plurality of bells secured to said wire, and a plurality of sounding reeds having their outer ends fixed in openings in the walls of the sphere.

1,076,355. RAILWAY SYSTEM AND METHOD OF HANDLING TRAFFIC. ALPHONSUS L. DRUM, Highland Park, Ill. Filed June 18, 1913. Serial No. 774,316. (Cl. 104—62.)



1. In an arrangement of the character described, in combination, a plurality of routes, a common loop for said routes adapted to handle train traffic in the same or opposite directions, and a plurality of transfer stations located about said loop adapted to be used alternately according to the direction of preponderance of traffic travel to and from said loop.

2. In an arrangement of the character described, in combination, a plurality of routes, a common loop for said routes adapted to handle train traffic in the same or opposite directions, a plurality of stations located about said loop, two of said stations being located adjacent the connecting points of the different routes, respectively, means adapting one of said latter stations to be used as a transferring station when the preponderance of traffic travel is toward said loop and means adapting the other of said latter stations to be used as a transfer station when the preponderance of traffic travel is away from said loop.

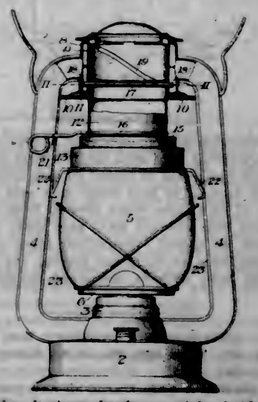
3. In an arrangement of the character described, in combination, a plurality of routes having a common terminal loop, a plurality of transfer stations about said loop adjacent the points of connection of the several routes, traffic-guiding means associated with said stations for directing traffic from one train to another at the last transfer point when the direction of traffic is toward the loop and at the first transfer point when the direction of traffic is from the loop.

4. In an arrangement of the character described, in combination, a plurality of routes, a common terminal loop comprising a pair of tracks adapted to accommodate traffic in the same direction, a transfer station in said loop comprising a pair of platforms respectively disposed upon the outer sides of the tracks and contiguous thereto, the station being free from tracks upon the outside of said platforms, an island platform positioned between said tracks and adapted to receive passengers from either, and positively disposed traffic directing means formed and adapted to positively guide all traffic toward said first two platforms and away from said island platform, whereby said first platforms are used as loading platforms and said island platform exclusively as an unloading and transfer platform.

5. In construction of the class described, in combination, a plurality of routes having adjacent portions, stations for the adjacent portions of said routes, means providing a transfer station for said routes adjacent one end of said adjacent portion when the preponderance of traffic travel is toward said adjacent portion, and means providing a transfer station for said routes adjacent the other end of said adjacent portion when the preponderance of traffic travel is away from said adjacent portion.

[Claims 6 to 9 not printed in the Gazette.]

1,076,356. TUBULAR LANTERN. ALONZO L. EDWARDS, Wheeling, W. Va., assignor to Wheeling Stamping Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Feb. 18, 1913. Serial No. 749,198. (Cl. 240—29.)



1. A tubular lantern, having a globe holder, a glass globe mounted thereon, a lower chimney section having a

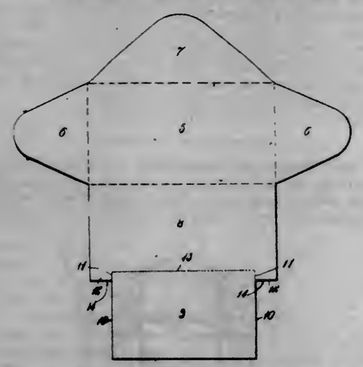
seat for the upper edge of the globe and movable vertically toward and away from the globe, an upper fixed chimney section with which the lower chimney section is telescopically engaged and which forms an upward extension of the lower section, means for rotating the lower chimney section independently of the globe and upper chimney section, and means whereby such rotation effects a vertical movement of said lower section away from the globe; substantially as described.

2. A tubular lantern having a chimney formed in telescopically engaging sections, said sections also having engaging means whereby a rotary movement of the lower section also effects a vertical movement thereof toward and away from the globe of the lantern, and means for effecting such rotary movement, the lower section having a canopy member rotatably attached thereto and formed with a seat for the upper edge of the globe; substantially as described.

3. A tubular lantern, having a globe holder hingedly mounted thereon, a glass globe supported on said holder, a lower chimney section having a seat for the upper edge of the globe and movable vertically toward and away from the globe, an upper fixed chimney section with which the lower chimney section is telescopically engaged, means for rotating the lower chimney section independently of the globe and upper chimney section, and means whereby such rotation effects a vertical movement of said lower section away from the globe; substantially as described.

4. A tubular lantern having a chimney formed in two telescopically engaging sections, said sections also having means whereby a rotary movement of the lower section also effects a vertical movement thereof, a finger piece secured to the lower section, and a catch on the lantern frame to engage and hold the finger piece; substantially as described.

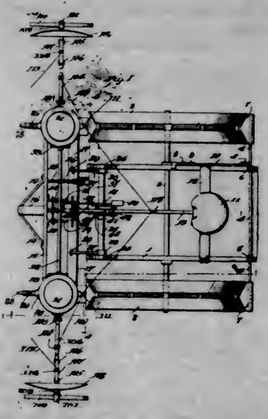
1,076,357. COMBINED LETTER-SHEET AND ENVELOP. RANKIN E. EUWER, Natrona, Pa. Filed Sept. 30, 1912. Serial No. 723,147. (Cl. 120—74.)



The combination with an envelop of a letter sheet integral at one longitudinal edge with the free edge portion of the envelop back perforated or scored on said integral edge for facilitating folding of said sheet into said envelop, the side edges of said sheet being severed from said back to said integral edge whereby when said sheet is folded into said envelop an oblong longitudinal space exists beyond said integral edge to facilitate tearing the envelop and opening the same without danger of mutilation of said sheet.

1,076,358. CHECK-ROW PLANTER. ROY I. FORRMAN, Watseka, Ill. Filed Jan. 20, 1912. Serial No. 672,268. (Cl. 111—6.)

1. In a planter, a main frame, an axle journaled transversely thereof, wheels on the axle, an auxiliary frame at the front of the main frame, a seed box at each end thereof, a runner supported by the auxiliary frame below each seed box, each runner being in front of the adjacent wheel, means on the main frame engaging the auxiliary frame for raising and lowering the auxiliary frame, dropping plates rotatable between each seed box and the runner, a normally closed dropping valve in each runner, a shaft journaled in the auxiliary frame between the seed boxes, a driving connection between each dropping plate and the adjacent end of the shaft, a sectional shaft journaled between the runners and comprising a central and end sections, each end section having its outer end journaled in the adjacent runner, an arm on each valve for opening the same, a tripping arm on each of the end sections of the shaft for engaging said arm to trip the valve, a yielding connection between the central section and each end section, a driving connection between the sectional shaft and the dropping plate operating shaft, means for supporting the central section for yielding movement toward and from the auxiliary frame, and means for rotating the central section.



2. In a planter, a main frame, an axle journaled transversely thereof, wheels on the axle, an auxiliary frame at the front of the main frame, a seed box at each end thereof, a runner supported by the auxiliary frame below each seed box, each runner being in front of the adjacent wheel, means on the main frame engaging the auxiliary frame for raising and lowering the auxiliary frame, dropping plates rotatable between each seed box and the runner, a normally closed dropping valve in each runner, a shaft journaled in the auxiliary frame between the seed boxes, a driving connection between each dropping plate and the adjacent end of the shaft, a sectional shaft journaled between the runners and comprising a central and end sections, each end section having its outer end journaled in the adjacent runner, an arm on each valve for opening the same, a tripping arm on each of the end sections of the shaft for engaging said arm to trip the valve, a yielding connection between the central section and each end section, a driving connection between the sectional shaft and the dropping plate operating shaft, and means for rotating the central section.

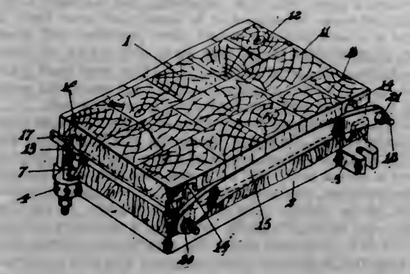
3. In a planter, a main frame, an axle journaled transversely thereof, wheels on the axle, an anxiliary frame at the front of the main frame, a seed box at each end thereof, a runner supported by the auxiliary frame below each seed box, each runner being in front of the adjacent wheel, means on the main frame engaging the anxiliary frame for raising and lowering the auxiliary frame, dropping plates rotatable between each seed box and the runner, a normally closed dropping valve in each runner, a shaft journaled in the auxiliary frame between the seed boxes, a driving connection between each dropping plate and the adjacent end of the shaft, a sectional shaft journaled between the runners and comprising a central and end sections, each end section having its outer end journaled in the adjacent runner, a connection between each end section and the adjacent valve for tripping the valve at spaced intervals, means on the central section for rotating the same, a yielding connection between the central section and each end section, and a yielding connection between the central section and the auxiliary frame.

4. In a planter, a main frame, an axle journaled transversely thereof, wheels on the axle, an auxiliary frame at the front of the main frame, a seed box at each end thereof, a runner supported by the auxiliary frame below each seed box, each runner being in front of the adjacent wheel, means on the main frame engaging the auxiliary frame for raising and lowering the auxiliary frame, dropping plates rotatable between each seed box and the runner, a normally closed dropping valve in each runner, a shaft journaled in the auxiliary frame between the seed boxes, a driving connection between each dropping plate and the adjacent end of the shaft, a sectional shaft journaled between the runners and comprising a central and end sections, each end section having its outer end journaled in the adjacent runner, a connection between each end section and the adjacent valve for tripping the valve at spaced intervals, means on the central section for rotating the same, a yielding connection between the central section and each end section, and a yielding connection between the central section and the auxiliary frame.

5. In a planter, a main frame, an axle journaled transversely thereof, wheels on the axle, an auxiliary frame at the front of the main frame, a seed box at each end thereof, a runner supported by the auxiliary frame below each seed box, each runner being in front of the adjacent wheel, means on the main frame engaging the auxiliary frame for raising and lowering the auxiliary frame, dropping mechanism below each seed box and the runner, a sectional shaft comprising a central and end sections, each end section having its outer end adjacent to a seed box, a flexible connection between the central section and each end section, a yielding connection between the central section and the auxiliary frame, a connection between each end section and the dropping mechanism for operating the same, and a measuring wheel on the central section.

[Claims 6 to 8 not printed in the Gazette.]

1,076,359. DIE-BLOCK. WILLIAM R. FORSYTH, Swampscott, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 22, 1909. Serial No. 519,059. (Cl. 164—78.)



1. A rectangular die block comprising a plurality of sections substantially rectangular in cross-section and of material softer than the cutting die, and means for clamping said sections together constructed and arranged to keep said sections constantly under spring pressure.

2. A rectangular die block comprising a plurality of sections substantially rectangular in cross-section and of material softer than the cutting die, and means for clamping said sections together comprising a spring having a bearing against one of the sides of said block and arranged to be put under tension during the clamping operation.

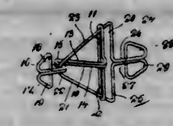
3. A rectangular die block comprising a plurality of sections substantially rectangular in cross-section and of material softer than the cutting die, and means for clamping said sections together comprising a spring through which the clamping pressure of said clamping means is transmitted to said block.

4. A rectangular die block comprising a plurality of sections substantially rectangular in cross-section and of material softer than the cutting die, and elastic means for clamping said sections together.

5. A rectangular die block comprising a plurality of sections substantially rectangular in cross-section and of material softer than the cutting die, and elastic means for clamping said sections together adjustable to vary the clamping pressure.

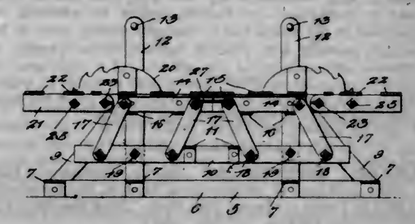
[Claims 6 to 11 not printed in the Gazette.]

1,076,360. HOOK AND EYE. ALBERT P. FULMER and FRANK M. NEBINGER, Wilmington, Del. Filed Apr. 30, 1912. Serial No. 694,065. (Cl. 24—228.)



In a hook and eye, the combination with a hook member formed of a single piece of material bent upon itself to form an elongated guide, and thence bent at a point medially of the guide and rearwardly therefrom to form a locking member, the ends of said piece of material terminating in offset attaching members, of an eye member formed of a single piece of material bent to form a wedge member, the said piece of material being then bent to form attaching members, said wedge member being adapted to be passed through the said guide to engage the said locking member and retaining the eye member in rigid and locked engagement with the hook member.

1,076,361. COMBINATION SWING AND BED. JOHN CALHOUN GOODMAN, Oklahoma, Okla. Filed Aug. 12, 1912. Serial No. 714,670. (Cl. 155—35.)

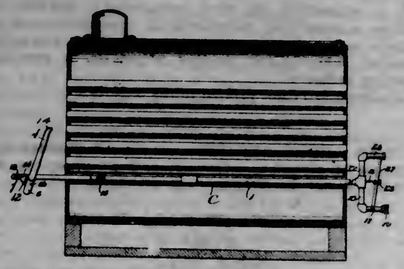


1. A combination swinging bed comprising a supporting structure, a base frame mounted therein for swinging movement, opposed seats mounted for movement upon the supporting structure, vertically disposed bars pivotally connected at one end to the seats, said bars being pivotally connected at their other end to said base frame, cross bars secured to the opposed faces of said base frame and seats, the cross bars of the seats being adapted to engage the opposite edges of said vertical bars and the cross bars of the base frame adapted to engage the opposed edges of said vertical bars when the device is used as a bed, whereby movement of the seats will be prevented.

2. A combination swinging bed comprising a supporting structure, a base frame mounted therein for swinging movement, opposed seats mounted for movement on the supporting structure, vertically disposed bars pivotally connected at one end to the seats, said bars being pivotally connected at their other end to said base frame, cross bars secured to the opposed faces of said base frame and

seats, said cross bars being adapted to engage upon the opposite edges of the vertical bars adjacent their opposite ends, whereby movement of the seats will be prevented.

1,076,362. FLUE-CLEANER FOR STEAM-BOILERS. CHARLES W. HAMILTON, Bakersfield, Cal. Filed July 19, 1912. Serial No. 710,417. (Cl. 137—97.)



1. A flue cleaner for boilers comprising a fluid feeding conduit, a nozzle adjustable angularly thereon and arranged in open communication therewith, a controlling lever at the intake end of the conduit and a rod connecting the lever with the nozzle, the said conduit having an opening therein at one side, and a valve carried by the rod and movable over the said opening on longitudinal adjustments of the rod.

2. A flue cleaner comprising a conduit having one of its ends closed and its other end provided with a fluid inlet, a handle on said fluid inlet, said conduit having a lateral passage therein, an adjustable nozzle carried by the conduit and communicating therewith and located adjacent to the closed end thereof, and means for effecting adjustment of the nozzle and including a sliding valve in the conduit movable with relation to said lateral passage on different adjustments of the nozzle.

3. A flue cleaner comprising a conduit having one of its ends closed and its other end provided with a fluid inlet, a handle on said fluid inlet, said conduit having a lateral passage therein, an adjustable nozzle carried by the conduit and communicating therewith and located adjacent to the closed end thereof, means for effecting adjustment of the nozzle and including a sliding valve in the conduit movable with relation to said lateral passage on different adjustments of the nozzle, and a fixed seat exteriorly mounted upon the conduit and operable to engage against the discharge end of the nozzle to close the same when the nozzle is projected to one position.

1,076,363. BEET-TOPPER. HENRY HARRISON, Rifle, Colo., assignor of one-fourth to Thad S. Harp and one-half to Irving L. Avery, Rifle, Colo. Filed May 29, 1912. Serial No. 700,509. (Cl. 55—107.)

1. A beet topper provided with rotatable cutters, carrying shafts therefor pivotally mounted at the ends remote from the cutters to swing toward and from each other at the cutter ends, and actuating means for the shafts between the pivoted ends thereof and the cutters.

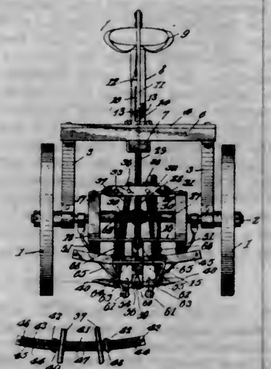
2. A beet topper provided with rotatable cutters, carrying shafts therefor pivotally mounted at the ends remote from the cutters to swing toward and from each other at the cutter ends, actuating means for the shafts between the pivoted ends thereof and the cutters, spacer means for the shafts for determining their approach, and elastic means engaging the shafts for permitting them to move apart yieldingly and constraining the shafts toward the approaching position.

3. A beet topper provided with opposed rotatable cutters, a shaft for each cutter provided with a pivotal mounting at the end remote from the cutter, elastic means engaging the shafts between the pivot ends and the cutters and tending normally to cause the cutters to approach, and drive means engaging the shafts between the elastic means and the pivoted ends of the shafts.

4. A beet topper provided with opposed rotatable cutters, a shaft for each cutter provided with a pivotal mounting at the end remote from the cutter, elastic means engaging the shafts between the pivot ends and the cutters and tending normally to cause the cutters to approach, and drive means engaging the shafts between the elastic means and the pivoted ends of the shafts, said drive means comprising a worm member on each shaft and a worm shaft engaging the worm members of both shafts.

5. In a beet topper, rotatable cutters, a shaft for each cutter at one end of which the cutter is mounted, a pivot support for the other end of each shaft, a spacing member intermediate of the shafts and determining the approach of the shafts one toward the other, elastic members one for each shaft in the path of the movement of the shafts one away from the other, and driving means for the shafts engaging the same between the elastic members and the pivot supports for the shafts.

1,076,364. HEXAGONAL CONSTRUCTION OF RADIATOR-CELLS. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor to Harrison Manufacturing Company, Inc., Lockport, N. Y., a Corporation of New York. Filed Nov. 1, 1912. Serial No. 729,118. (Cl. 62—28.)

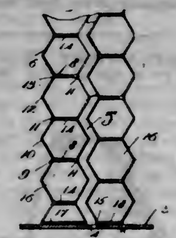


1. In radiators the combination of a plate bent on itself to form a plait, then bent outwardly and inwardly a plurality of times whereupon it is again bent upon itself to form a second plait; a second plate provided with bends and plaits similar to the first plate and having its plaits located in a staggered relation to the first mentioned plaits to form a plurality of polygonal cells; and means for securing said plates together, substantially as described.

2. In radiators the combination of a plate bent on itself to form a plait, then bent outwardly and inwardly a plurality of times whereupon it is again bent upon itself to form a second plait, said plate also provided with indentations between contiguous plaits; a second plate provided with bends, indentations and plaits similar to the first plate and having its plaits located in a staggered relation to the first mentioned plaits and entering the indentations in said first mentioned plate to form a plurality of polygonal cells; and means for securing said plates together, substantially as described.

3. In a radiator, the combination of a plurality of cell units comprising a pair of oppositely disposed plates folded to form a series of plaits and secured together with said plaits of the respective plates extending in staggered relation to partition the space between said plates into a row of polygonal cells, the cells of one unit having projecting portions adapted to coact with retreating portions between adjoining cells in the other unit to form a zig-zag water course; and means for securing said units in a spaced relation so as to form said water course, substantially as described.

4. In a radiator the combination of a pair of oppositely disposed plates so bent and located relatively to each other as to form a row of hexagonal cells separated by integral plaits extending alternately from the respective plates, the end of one of said plates bent inwardly to form a flat surface, and a supporting plate secured to said inwardly bent ends, substantially as described.



5. In a radiator the combination of a plurality of cell units comprising a pair of oppositely disposed plates so bent and located relatively to each other as to form a row of hexagonal cells separated by integral plaits extending alternately from the respective plates, the end of one of said plates bent inwardly to form a flat surface, and the said units being so located and spaced relatively to each other that the outwardly projecting angles of the cells in the one unit will be opposite the retreating angles between adjacent cells in the other unit to form a zig-zag water course, and a supporting plate secured to said inwardly bent ends, substantially as described.

1,076,365. AUTOMOBILE-JACK. CHARLES A. HART, Findlay, Ohio. Filed Apr. 5, 1912. Serial No. 688,659. (Cl. 57—15.)

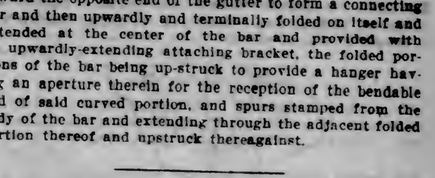
1. An automatic jack of the class described comprising a cross-bar, a fulcrum member at each end of said bar, a standard rigidly connected to said fulcrum member for movement therewith and arranged at one side thereof, and fastening means connecting each standard and cross-bar and permitting reversal thereof upon the cross-bar whereby the standards may be arranged either at the inner or outer sides of the fulcrum members.

2. An automatic jack comprising a cross bar, fulcrum members mounted thereon, standards carried by the fulcrum members, and hook bars passing through the standards and detachably engaged with the cross bar.

3. An automatic jack comprising standards, a base or fulcrum member rigidly connected to each standard at one side thereof and adapted to support the standards in tilted and vertical positions, a cross-bar, and fastening means on the standards connecting the same with the cross-bar for adjustment toward and from one another.

1,076,366. TOASTER. WILLIAM A. HENRY, Galesburg, Ill. Filed Feb. 7, 1912. Serial No. 676,058. (Cl. 53—5.)

As a new article of manufacture, a toaster comprising an upper frame formed of an integral piece of wire, the said piece of wire at the corners of the frame being bent to form supporting members, cross bars carried on the said frame, a lower frame formed of a second piece of wire, the said second piece of wire being bent at the corners to form supporting members, cross bars carried on the lower frame, a handle formed of a third piece of wire connected to the upper frame, with the forward ends of the said third piece of wire bent to encircle the lower frame formed of the second piece of wire, to permit of swinging the lower frame relatively to the said upper frame, a locking member



formed of a single piece of wire and mounted to swing on the upper frame, with the medial portion of the locking member forming an apex and adapted to engage the lower frame adjacent the end of the handle, and stop members formed by projecting a plurality of the cross bars of the lower frame beyond the front end of the lower frame, the said stop members projecting downwardly and adapted to be engaged by the upper frame when the same is swung into open position, to limit the open swinging movement of the upper frame.

1,076,367. GUTTER-HANGER. EDWIN J. HILLER, Taylorville, Ill. Filed Dec. 28, 1912. Serial No. 739,093. (Cl. 108—29.)

A gutter hanger comprising a single piece of metal provided with a curved gutter embracing portion having a loop at one end receiving the bead of the gutter, the opposite free end of the curved portion having a bendable extension thereon, the metal from the loop of said curved portion being extended downwardly and then horizontally toward the opposite end of the gutter to form a connecting bar and then upwardly and terminally folded on itself and extended at the center of the bar and provided with an upwardly-extending attaching bracket, the folded portions of the bar being up-struck to provide a hanger having an aperture therein for the reception of the bendable end of said curved portion, and spurs stamped from the body of the bar and extending through the adjacent folded portion thereof and upstruck thereagainst.

1,076,368. EXPANSION-BOLT. JOHN H. HUBLER and CLARENCE E. HENDERSON, Fremont, Nebr. Filed June 18, 1912. Serial No. 704,354. (Cl. 85—2.4.)

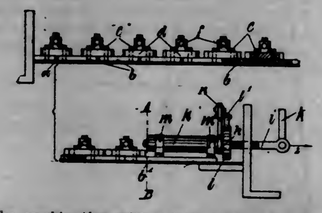
An expansion bolt, comprising an exteriorly cylindrical shell longitudinally and diametrically divided into equal sections and formed with a bore tapered throughout the major portion of the length thereof and left open at its smaller end, an expanding nut movable lengthwise of said bore and having its outer face tapered to conform to the

taper of said bore and bearing throughout its length against the inside wall of the shell sections, and diametrically opposite wedging wings on said nut which project



beyond the greatest diameter of the nut and slide between the meeting edges of the sections, said wings being wedge-shaped in longitudinal section with the inner ends toward the smaller end of the nut.

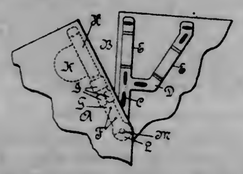
1,076,369. TAMBOUR-FRAME-OPERATING MECHANISM FOR EMBROIDERY-MACHINES. GUSTAV HÜBNER, Plauen, Germany. Filed Mar. 26, 1912. Serial No. 686,268. (Cl. 112—7.)



1. The combination with a bed plate, slidable members mounted on said bed plate for movement lengthwise thereof, other members mounted to move transverse said bed plate, coacting means operatively connecting the longitudinally movable members with the transversely movable members, said means being arranged to vary the distance between the longitudinally movable members as the transversely movable members are moved, a device for varying the movement of said longitudinally movable members and means to adjust said device.

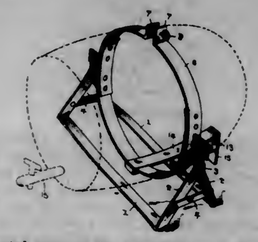
2. In the device of the kind described, a series of members movable to and from each other, means to move said members to and from each other, and means to vary said movement comprising a rotatable socket, a screw held from rotation and extending through said socket, means for securing the end member of the series to said socket, a support for said screw, a ratchet mounted on said socket and a pawl engaging said ratchet, as described.

1,076,370. GARMENT-WAIST ADJUSTER. ALBERT K. HURST, Dallas, Tex. Filed Jan. 7, 1911. Serial No. 601,339. (Cl. 24—267.)



In a placket closure, a keeper member having an offset arm and also having provision for attachment to a garment, a hook member pivoted at its lower end on the lower end of the keeper member and having provision for attachment to a garment and also arranged to swing over the face of the keeper member and its arm, keeper offsets, one arranged at the upper end of the keeper member and one arranged on the offset arm of the keeper member, said offsets being disposed radially with relation to the center of the pivot between the two members and also being equi-distant from said pivot center, and an elongated hook extending from the hook member disposed to engage either of the keeper offsets, said hook being adjustable longitudinally of the hook member.

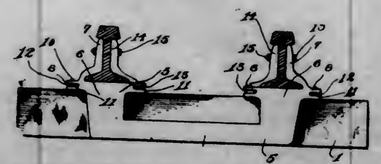
1,076,371. BARREL-SUPPORT. EARL R. HUTCHISON, Amiot, Kans. Filed Apr. 3, 1913. Serial No. 758,520. (Cl. 248—12.)



1. A pivotal support for a barrel comprising an adjustable band, flat pivots projecting diametrically from said band, and a stand for pivotally supporting said band composed of a pair of substantially U-shaped members fixed together at their free extremities, and having V-shaped notches to receive said flat pivots.

2. A pivotal support for a barrel comprising an adjustable band, a strap secured to said band having a leg for limiting the movement of the barrel, flat pivots projecting diametrically from said band, a stand for pivotally supporting said band composed of a pair of substantially U-shaped members fixed together at their free extremities and having V-shaped notches to receive said flat pivots, and means to prevent lateral displacement of said pivots within said notches.

1,076,372. RAIL-ANCHOR. HENRY JENKINS, Gillette, Wyo. Filed Nov. 12, 1912. Serial No. 730,840. (Cl. 238—4.)



1. A rail anchor consisting of rail chairs, said chairs connected by means which are adapted to engage the sides of a tie and extend to the bottom thereof, fish plates, and means for securing the anchor to the ties.

2. A rail anchor consisting of, rail chairs, said chairs connected by means which are adapted to engage the sides of a tie and extend to the bottom thereof, said rail chairs having fish plates formed integral therewith at their outer sides, fish plates, and means for securing the anchor to the ties.

3. A rail anchor consisting of, rail chairs, said chairs connected by means which are adapted to engage the sides of a tie and extend to the bottom thereof, said rail chairs provided with extensions, cut-out portions in said extensions for the reception of a spike whereby the rail anchor is securely held to the ties, fish plates adapted to engage the inner side of an ordinary T-rail, bolts adapted to connect said first named fish plates and said second named fish plates for securely holding the rails in place.

4. A rail anchor consisting of, rail chairs, said chairs connected by means which are adapted to engage the sides

of a tie and extend to the bottom thereof, said rail chairs provided with extensions, cut-out portions in said extensions for the reception of a spike whereby the rail anchor is securely held to the ties, fish plates adapted to engage the inner side of an ordinary T-rail, bolts adapted to connect said first named fish plates and said second named fish plates for securely holding the rails in place, said extensions further provided with slots for the reception of means for protecting the spikes.

5. A rail anchor consisting of, rail chairs, said chairs connected by means which are adapted to engage the sides of a tie and extend to the bottom thereof, said rail chairs provided with extensions, cut-out portions in said extensions for the reception of a spike whereby the rail anchor is securely held to the ties, fish plates adapted to engage the inner side of an ordinary T-rail, bolts adapted to connect said first named fish plates and said second named fish plates for securely holding the rails in place, said extensions further provided with slots for the reception of a piece of sheet metal bent so as to form a guard for the spikes.

[Claims 6 to 12 not printed in the Gazette.]

1,076,373. BURGLAR-ALARM. JOHN F. JENSEN, Union Hill, N. J., assignor to Martha Jensen, Union Hill, N. J. Filed July 30, 1912. Serial No. 712,254. (Cl. 116—42.)



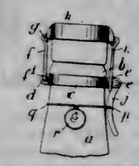
1. A burglar alarm comprising a barrel, a cartridge holder therein, a spring-pressed cartridge firing hammer movable along within the barrel, an arm projecting into the barrel, a link carried by the hammer arranged to engage said arm for holding the hammer set against the tension of its spring and a movable pin operated by pressure exerted thereon for forcing the link off the arm to release the hammer.

2. A burglar alarm comprising a barrel, a cartridge holder therein, a spring-pressed cartridge firing hammer movable along within the barrel, an arm projecting into the barrel, a link carried by the hammer arranged to engage said arm for holding the hammer set against the tension of its spring, a movable pin operated by pressure exerted thereon for forcing the link off the arm to release the hammer, and a removable handle arranged to engage the link to draw it back into engagement with the said arm for resetting the hammer.

3. A burglar alarm comprising a barrel, a cartridge holder therein, a spring-pressed cartridge firing hammer movable along within the barrel, a device for holding the hammer set against the tension of its spring, a movable pin operated by pressure exerted thereon for releasing the hammer and a flexible connection for bringing the alarm under the control of a movable part to move said releasing pin.

1,076,374. STOPPER FOR BOTTLES, JARS, AND THE LIKE. GEORGE HORATIO JONES, London, England. Filed Apr. 10, 1913. Serial No. 760,203. (Cl. 215—40.)

1. A stopper for bottles and jars, said stopper comprising a cap, a collar for extending around the neck of the vessel to be closed and divided on one side, a link pivotally connected to said cap and extending through apertures in the ends of the collar at the division and provided with a limb along which said ends can slide apart and with a closed end for holding said ends positively together in the closing of the vessel, and means for detachably connecting the other side of said collar to said cap.



2. A stopper for bottles and jars, said stopper comprising a cap, a collar for extending around the neck of the vessel to be closed and divided on one side, a link pivotally connected to said cap and extending through apertures in the ends of the collar at the division and provided with substantially parallel limbs, along one of which said ends can slide apart, and with a closed end for drawing and holding said ends of the collar positively together in the closing of the vessel, a cam-lever pivotally mounted in lugs on the other side of said collar, and an eye on said cap for engaging said cam-lever and said lugs.

3. A stopper for bottles and jars, said stopper comprising a cap, a collar for extending around the neck of the vessel to be closed and divided on one side, a link pivotally connected to said cap and extending through apertures in the ends of the collar at the division and provided with a closed end for drawing and holding said ends positively together in the closing of the vessel, a cam-lever pivotally mounted in lugs on the other side of said collar, an eye on said cap for engaging said cam-lever and said lugs, and a tooth on said cam-lever, for removing said eye from said lugs.

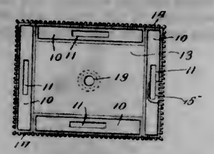
4. A stopper for bottles and jars, said stopper comprising a cap, an obturating disk in said cap, a collar for extending around the neck of the vessel to be closed and divided on one side, a closed link pivotally connected to said cap and extending through apertures in the ends of the collar at the division, said link having a closed end for holding said ends of the collar together in the closing of the vessel, a cam-lever pivoted in lugs on the other side of said collar, and an eye pivotally mounted on said cap and adapted to engage said cam-lever and said lugs.

5. A stopper for bottles and jars, said stopper comprising a cap, an obturating disk in said cap, a collar for extending around the neck of the vessel to be closed and divided on one side, a closed link pivotally connected to said cap and extending through apertures in the ends of the collar at the division, said link at its free end drawing and holding said ends of the collar together in the closing of the vessel and having substantially parallel limbs along one of which the ends of the collar can slide apart, a cam-lever pivoted in lugs on the other side of said collar, an eye pivotally mounted on said cap and adapted to engage said cam-lever and said lugs, and a tooth on said cam-lever for removing said eye from said lugs.

1,076,375. SAFETY-RAZOR. ISADORE KAUFMANN, Hoboken, N. J., assignor to William Lutter, New York, N. Y. Filed July 22, 1912. Serial No. 710,917. (Cl. 30—12.)

1. In a safety razor, a rectangular guard having each of its edges notched, elongated slots adjacent to and parallel with the central portion of each of said edges, a rectangular clamping plate having elongated lugs formed thereon to register with the slots in the guard plate, a threaded stem depending from said clamping plate to receive a handle in combination with a rectangular cutting edge comprising a set of small rectangular, interchangeable and reversible blades having each of their four edges sharpened to a cutting edge and arranged so that one

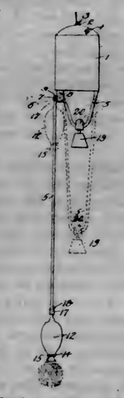
long edge of each of the blades is exposed and the short edges of two of the blades are in alinement with and form a continuation of the long cutting edge of the other two blades.



2. In a safety razor, a rectangular cutting member composed of a set of smaller reversible, elongated blades having each of their four edges sharpened, the ends of two of said blades contacting with the sides of two other blades to present a continuous rectangular cutting edge.

3. In a safety razor, a rectangular cutting member formed of a set of reversible elongated blades having each of their four edges sharpened, said blades being assembled by having one long edge of all the blades exposed and the ends of two of said blades exposed, the adjacent short ends and elongated edges presenting a continuous edge.

1,076,376. MOISTENING DEVICE. JOSEPH W. KINNEY, Goldcreek, Mont. Filed Apr. 16, 1913. Serial No. 761,551. (Cl. 137—61.)



1. In a moistening device, the combination, with a container, of a flexible tube communicating therewith and depending therefrom, a support for intermediate portions of the tube slidingly engaged by the tube, an ejector bulb connected with the tube, a weight engaging the tube between the support and the point of engagement of the tube with the container, and shiftable with respect to the tube, said weight being heavier than the ejector bulb and portions of the tube beyond the support, and a stop carried by the tube and adapted to limit the extent of possible longitudinal movement of the tube.

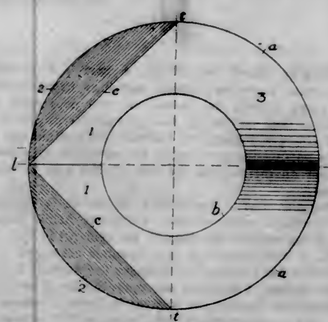
2. In a moistening device, the combination, with a container, of a flexible tube communicating therewith and depending therefrom, a support for intermediate portions of the tube slidingly engaged by the tube, an ejector bulb connected with the tube, a weight engaging the tube between the support and the point of engagement of the tube with the container, and shiftable with respect to the tube, said weight being heavier than the ejector bulb and portions of the tube beyond the support, a stop carried by the tube and adapted to limit the extent of possible longitudinal movement of the tube, and means for cushioning the stopping action of the stop.

3. In a moistening device, the combination, with a container, of a flexible tube communicating therewith and depending therefrom, a support for intermediate portions of the tube slidingly engaged by the tube, an ejector bulb connected with the tube, a weight engaging the tube between the support and the point of engagement of the tube with the container and shiftable with respect to the tube, said weight being heavier than the ejector bulb and portions of the tube beyond the support, a cut-off device for closing the tube, and means for actuating the cut-off device when the ejector bulb is elevated.

4. In a moistening device, the combination, with a container, of a flexible tube communicating therewith and depending therefrom, a support for intermediate portions of the tube slidingly engaged by the tube, an ejector bulb connected with the tube, a weight engaging the tube between the support and the point of engagement of the tube with the container and shiftable with respect to the tube, said weight being heavier than the ejector bulb and portions of the tube beyond the support, a stop carried by the tube and normally positioned at a point adjacent the ejector bulb, a pivotally mounted bell crank lever having one arm disposed to engage the tube and compress the same, the other arm extending outwardly into the path of movement of the stop and being adapted to be struck thereby for moving the lever to a position causing the first mentioned arm to compress the tube.

5. In a moistening device, the combination, with a container, of a flexible tube connected thereto and pendent therefrom, a bracket pendent from the container, a pulley sustained by the bracket, the tube being extended over the pulley, a weight slidingly engaging the tube between the pulley and point of engagement of the tube with the container, an ejector bulb connected with the free end of the tube, the weight being heavier than the bulb and the portions of the tube extending beyond the pulley, a stop for the tube carried thereby and having a cam surface, and a cut-off for the tube sustained by the pulley-sustaining bracket and having a portion disposed in the path of the cam of the stop for being actuated thereby.

1,076,377. FLYING-MACHINE. JOHN GEORGE AULSEBROOK KITCHEN, Scotforth, England. Filed Feb. 26, 1913. Serial No. 750,885. (Cl. 244—12.)



1. In flying machines, an approximately circular main supporting area with an inclosed opening laterally central therein, the rear part of said supporting area having a sharp deep depression in the upper surface along the longitudinal center line forming a keel on the underside.

2. In flying machines, an approximately circular supporting area with an opening laterally central therein, the underside of the rear part of said supporting area projecting into a keel along the longitudinal center line, the sides thereof being inwardly curved.

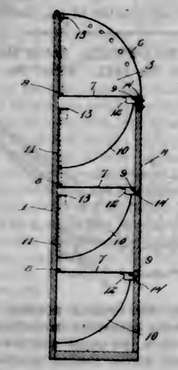
3. In flying machines, an approximately circular main supporting area with an inclosed opening laterally central therein, the rear part of said supporting area having a sharp deep depression with curved sides in the upper surface along the longitudinal center line forming a keel with concave sides on the underside.

4. In flying machines, an approximately circular main supporting area with an inclosed opening laterally central therein and a deflected leading edge margin, the rear part of said supporting area having a sharp deep depression in the upper surface along the longitudinal center line forming a keel on the underside.

5. In flying machines, an approximately circular main supporting area with an inclosed opening laterally central therein and a sharp deep depression in the upper surface along the longitudinal center line in the rear part of said surface, forming a keel on the underside and a superimposed auxiliary supporting surface in front of the transverse center line, and of approximately the same superficial area and form as the front half of the main supporting area.

[Claim 6 not printed in the Gazette.]

1,076,378. LOCKER. EDWARD J. LAWRENCE and HENRY WHITE, Flushing, N. Y. Filed Sept. 17, 1912. Serial No. 720,843. (Cl. 211—7.)



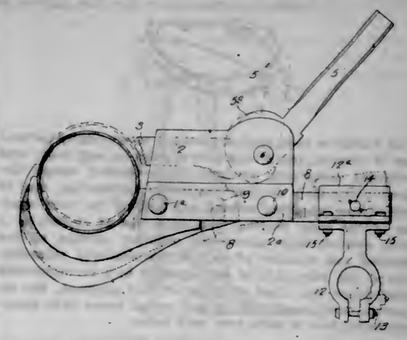
1. A device of the class described comprising a casing having an open side and end, a door closing said open side and a cover closing said open end thereof, and a plurality of partitions pivoted in said casing and spaced apart vertically and adapted to divide the same into non-communicating compartments, each partition being of a length and width equal to the similar dimensions of the casing.

2. A device of the class described comprising a casing having an open side and end, a door closing said open side and a cover closing the open end thereof, a plurality of partitions pivoted in said casing and spaced apart vertically and adapted to divide the same into non-communicating compartments, each partition being of a length and width equal to the similar dimensions of the casing and means for locking said partitions against movement.

3. A device of the class described comprising a casing having an open side and end, a door closing said open side and a cover closing the open end thereof, a plurality of partitions pivoted in said casing and adapted to divide the same into non-communicating compartments, said partitions being spaced apart vertically and each of a length and width equal to the similar dimensions of the casing and means for holding said partitions in non-compartment forming positions and in compartment forming positions.

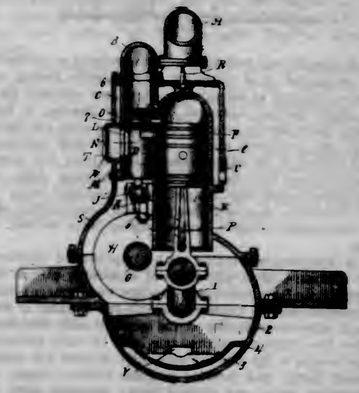
1,076,379. WRENCH FOR ROTARY WELL-DRILLS. GEORGE FRANKLIN LEBUS, Electra, Tex. Filed Mar. 8, 1913. Serial No. 752,901. (Cl. 81—53.)

1. The improved wrench comprising a jaw adapted to engage a drill pipe coupling, a frame or housing in which the hook is pivoted, a jaw which is slidable in the housing and arranged to act oppositely to the hook, an eccentric lever pivoted in the housing and serving to operate the movable jaw, and a second lever also pivoted in the housing and pivotally connected with the shank of the hook, as described.



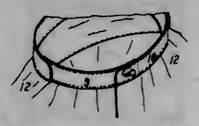
2. The improved wrench comprising a hooked jaw adapted to engage a drill pipe coupling, a housing in which it is pivoted, a second jaw which is slidable in the housing, a pivoted eccentric lever for operating the movable jaw, a second lever pivoted in the housing, the same being provided with a slot for receiving the pivot, the forward end of said lever being pivotally connected with the shank of the hook, the hook and the second lever being adapted to assume an angle to each other and to the housing and movable jaw, as and for the purpose specified.

1,076,380. INTERNAL-COMBUSTION ENGINE. CHARLES F. LEMBKE, Valparaiso, Ind. Filed Feb. 6, 1912. Serial No. 675,705. (Cl. 123—188.)



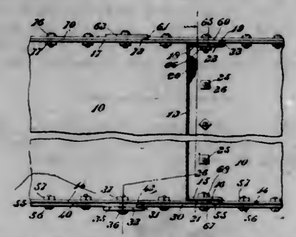
In an internal combustion engine, the combination of a cylinder having a port, a valve chamber at one side of the cylinder and in communication therewith through said port, said valve chamber having its outer end in communication with the exhaust and having an intake intermediate of its ends, and a piston valve arranged to operate in the valve chamber and having an interior space and provided in its sides with openings to register with the intake and with the said cylinder port, said valve further having an annular channel near its outer end to register with the cylinder port and said valve further having packing rings upon opposite sides of the annular channel.

1,076,381. NECKBAND OF SHIRTS, BLOUSES, AND THE LIKE. SIMS LEVER, Sydney, New South Wales, Australia. Filed Oct. 24, 1910. Serial No. 588,646. (Cl. 2—41.)



In a shirt, a body portion having a substantially vertical line of closure, and a neckband secured to said body, said neckband comprising at least three distinct strips disposed to overlap at their respective extremities, one of said strips extending around one side of the neck opening of the body portion from said line of closure to a point substantially above one shoulder portion of the garment and another of said strips similarly extending around the other side of said opening to a corresponding point above the other shoulder of said garment, the respective overlapped ends of said strips above said shoulders being free to slide over each other.

1,076,382. KNOCKDOWN OIL-TANK. OWEN WINN MALONEY, Tulsa, Okla., assignor to Maloney Tank Manufacturing Company, Tulsa, Okla., a Corporation of Oklahoma. Filed June 29, 1912. Serial No. 706,607. (Cl. 220—125.)



1. A knockdown metallic tank comprising a cylindrical body composed of a plurality of separable plates, each plate overlapping at its opposite edges two adjacent plates, said plates having outward horizontal flanges, a flange of each plate overlapping at its opposite ends the flanges of the two adjacent plates, one end of each horizontal flange having a lip swaged vertically beyond the lapping adjacent flange and forming a space between them, said overlapping edges and flanges being provided with bolt holes, packings disposed between said overlapping edges and overlapping flanges, and clamping bolts uniting said parts.

2. A knockdown metallic tank comprising a cylindrical body composed of a plurality of separable plates, each plate overlapping at its opposite edges two adjacent plates, said plates having outward horizontal flanges, a flange of each plate overlapping at its opposite ends the flanges of the two adjacent plates, one end of each horizontal flange having a lip swaged vertically beyond the lapping adjacent flange and forming a space between them, said overlapping edges and flanges being provided with bolt holes, packings disposed between said overlapping edges and overlapping flanges, a bottom having a peripheral extension underlying said outward horizontal flanges, a packing ring disposed between said peripheral extension of the bottom and said horizontal flanges, and clamping bolts uniting said parts.

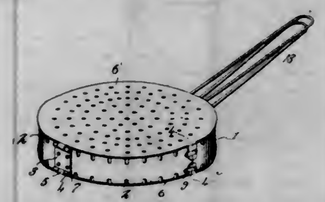
3. A knockdown metallic tank comprising a cylindrical body composed of separable plates disposed edge to edge and having respectively plain and angle-flange edges, the latter forming extension lips overlapping the adjacent plain edges and outward horizontal flanges at their bottom edges, the flanges having broadened extensions at the flanged edges of said plates and lips at the plain edges thereof which overlap said extensions, packings between said plates, means for detachably clamping said plates and packings, a bottom having a peripheral extension underlying said outward horizontal flanges, an annular packing disposed between said peripheral extension and said horizontal flanges, and means for detachably clamping said bottom, packing and flanges.

4. A knockdown metallic tank comprising a cylindrical body composed of separable plates having respectively plain and angle-flange edges, the latter forming extension lips overlapping the adjacent plain edges and outward horizontal flanges at their bottom edges, said flanges having broadened extensions at the flanged edges of said plates and lips at the plain edges thereof which overlap said extension, and means for detachably clamping said plates.

5. A body member for a knockdown tank consisting of a metallic plate having a plain side edge provided with bolt holes adjacent thereto, an angle-flange at the other side edge comprising an inward web of greater depth than the thickness of the sheet and an extended lip provided with bolt holes, and a horizontal end flange provided with bolt holes and having a swaged lip adjacent to said plain side edge and a straight extension adjacent to said angle-flange.

[Claims 6 and 7 not printed in the Gazette.]

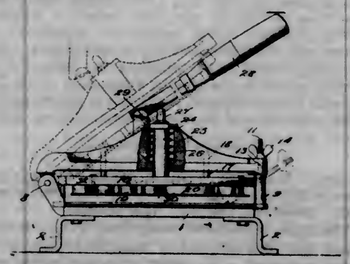
1,076,383. COOKING DEVICE. LOUIS MENDEZ, Yonkers, N. Y. Filed Dec. 28, 1912. Serial No. 739,102. (Cl. 53—57.)



1. A food holder for cooking utensils comprising an annulus provided with oppositely extending U-recesses respectively opening onto the upper and lower edges of the annulus, foraminous plates closing against the opposite sides of the annulus and extending over the open ends of the recesses and movably connected handles carried by the plates.

2. A food holder for cooking utensils comprising an annulus provided with oppositely extending circular series of U-recesses respectively open onto the upper and lower edges of the annulus, and plates hingedly mounted on the annulus and adjustable thereover so as to close the opposite sides thereof, extensions on the plates, means for holding the plates against swinging movements, and handles carried by the extensions of said plates, the extensions lying at one side of the annulus and exteriorly thereof when the plates are in closed position.

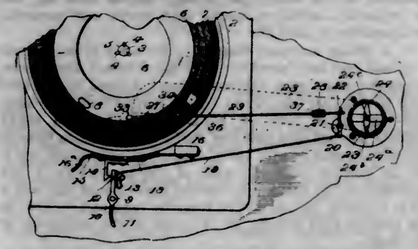
1,076,384. ALTAR-BREAD CUTTER. MARDIROS MIGHIRIAN, New York, N. Y. Filed Sept. 20, 1912. Serial No. 721,490. (Cl. 146—7.)



In a device of the character described, the combination with a die and an adjustable cutter adapted to be actuated

by a plunger and a lever, of a bearing, a lever eccentrically mounted in said bearing, said bearing having a shoulder adapted for engagement by the end of the lever when the lever is raised, whereby the swinging movement of the lever is limited as required for exerting a lifting power upon the lever.

1,076,385. AUTOMATIC STOPPING DEVICE FOR SOUND-REPRODUCING MACHINES. HENRY C. MILLER, Waterford, N. Y. Filed June 9, 1906. Serial No. 321,014. (Cl. 181—3.)



1. In a talking machine, the combination with a stylus, a record having means for pulling a brake controller, and a brake controller movable with and spaced from the stylus and adapted to be pulled by the means aforesaid on the record to apply the brake to stop movement of the record upon completion of the reproduction of a selection.

2. In a talking machine, the combination with a record carrying means, a record having brake coöperating means, a sound box having a stylus, means for supporting the sound box, a movable controller mounted on the sound box supporting means, and a brake, the latter being operated when the controller is moved by the brake coöperating means, on the record.

3. In a talking machine, the combination with a sound box having a stylus, means carrying the sound box, a record having a brake coöperating means, a controller carried by the sound box supporting means, and having movement independent of the stylus toward and from a record being reproduced to engage said brake coöperating means, and a brake, the latter being operated by the brake coöperating means after a selection is rendered.

4. In a talking machine, the combination with means for revolving a record, and an automobile brake for stopping the movement of the record at the end of the sound record grooves therein including a controller having a non-abrasive contact tip to contact with a brake coöperating device on a record, and a record having a brake coöperating device.

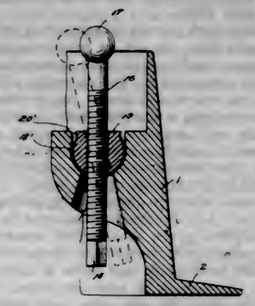
5. In a sound reproducing machine, the combination with a motor, a brake therefor, a controller and sound box having a stylus carried by a movable support, the controller being spaced from the stylus and having independent movement toward and from a record, means for releasing the brake by movement of the controller, and means carried by a record for operating the controller at the termination of a selected record.

[Claims 6 to 36 not printed in the Gazette.]

1,076,386. MANHOLE STRUCTURE. THOMAS F. O'DAY, Somerville, Mass. Filed Feb. 23, 1912. Serial No. 679,266. (Cl. 94—7.)

1. A device of the character described comprising a tubular member countersunk in a road bed, a cap supported by said member and fitting flush with the surface of said road bed, a plurality of vertically disposed rods having their upper ends in engagement with the bottom of said member, and means mounted in said tubular member for adjustably supporting said rods.

2. In combination with a tubular member countersunk in a road bed, and having a top part flush with the latter, a lid removably supported on the upper end thereof, a plurality of dish shaped recesses formed at the inner surface of said top part, a plurality of rods having spherical portions disposed in said recesses, and means for adjustably supporting said rods in said tubular member.



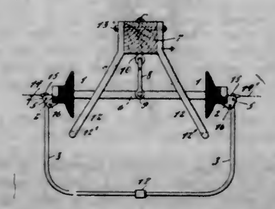
3. In combination, a tubular member countersunk in a road bed and having a top part flush with the latter, a closure removably and loosely supported at the upper end thereof and disposed flush with the surface of said road bed, a plurality of dish shaped recesses formed at the inner surface of said top part, a plurality of rods having spherical portions mounted in said recesses, lugs depending from the sides of said recesses surrounding said portions, means for adjustably supporting said rods in operative position, and means for enabling said rods to swivel laterally.

4. A device of the character described comprising a tubular member countersunk in a roadbed and having a top part flush therewith, a closure loosely fitting the upper end thereof and disposed flush with the surface of said road bed, the inner surface of said top part formed with a plurality of dish shaped recesses, a plurality of rods having enlarged heads in said recesses, lugs depending from the sides of said recesses, means for vertically supporting said rods whereby they may be vertically and diagonally adjusted, and means for holding said rods in adjusted position.

5. In combination with a tubular member countersunk in a road bed and having a top part flush therewith and formed with an exterior upper terminal flange, an inner flange surrounding an opening, a lid mounted loosely on said inner flange and adapted to fit flush with the surface of the road bed, a plurality of upright rods engaging the top of said member, means for supporting said rods mounted in said member, means for vertically adjusting said rods, and means for allowing said rods to swivel laterally.

[Claims 6 to 11 not printed in the Gazette.]

1,076,387. DISCONNECTING-SWITCH. AUGUST J. PAHL, San Francisco, Cal., assignor to K-P-F-Electric Co., a Corporation of California. Filed Aug. 13, 1912. Serial No. 714,780. (Cl. 175—280.)



1. An automatic high tension disconnecting switch comprising a normally fixed support, a spacer carried by said support and movable with respect thereto, two switch

elements connected to, and movable with respect to said spacer and means for electrically and mechanically connecting a line wire under tension to each of said elements, said elements being adapted to convey current from one of said line wires to the other when in circuit closing relationship and being normally held in said relationship by the tension in said wires.

2. An automatic high tension disconnecting switch comprising a normally fixed support, an insulating spacer carried by said support and movable with respect thereto, two switch elements connected to, and movable with respect to said insulating spacer and means for electrically and mechanically connecting a line wire under tension to each of said elements, said elements being adapted to convey current from one of said line wires to the other when in circuit closing relationship and being normally held in said relationship by the tension in said wires.

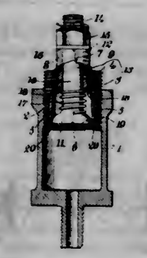
3. A high tension line wire disconnecting switch adapted to be mechanically and electrically connected to two substantially alined line wires, said switch comprising two contact parts respectively electrically connected to said line wires, means for holding said parts in circuit closing relationship by the tension in said line wires, and combined means for positively separating said parts by the tension in one of said wires when the tension in the other is slackened, and for grounding the contact connected to said slackened wire.

4. A high tension line wire disconnecting switch adapted to be mechanically and electrically connected to two substantially alined line wires, said switch comprising a fixed support, two movable contact parts respectively electrically connected to said line wires, levers for holding said parts in circuit closing relationship by the tension in said line wires, said levers being provided with means for connecting said line wires mechanically thereto, and brackets connected to said support for positively separating said contact parts upon failure of one of said wires.

5. In means for disconnecting a broken line wire from the remainder of the line, a support, an insulating spacer movably connected to said support, said spacer normally disposed in substantial alinement with the line wires and maintained under tension thereby, said spacer when under normal tension occupying a substantially determined position with respect to said support, normally closed switch elements carried by said spacer, means for connecting said elements to the line wires, and means carried by said support for moving one of said elements to its open circuit position when said spacer is displaced with respect to said support.

[Claims 6 to 10 not printed in the Gazette.]

1,076,388. GREASE-CUP PLUG. JOSEPH W. PARRISH, Nashville, Tenn. Filed Nov. 13, 1912. Serial No. 731,160. (Cl. 184—48.)

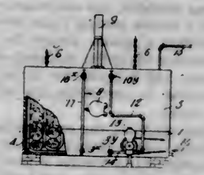


1. A grease cup plug externally threaded to screw into a grease cup and provided with an internal taper bore, a longitudinally split cylindrical wall, a head lug on said plug having flat side walls and a central hole extending into said taper bore, an expander embodying a shank slidable through said hole and keyed to the plug to prevent relative turning of said parts, a head on said shank housed within the plug and working in contact with the wall of the taper bore, a nut threaded on the shank and bearing against said lug, and a closure for the bottom of the plug.

2. A grease cup plug externally threaded to screw into a grease cup and provided with an internal taper bore, a longitudinally split cylindrical wall, a head lug on said plug having flat side walls and a central hole extending into said taper bore, an expander embodying a shank slidable through said hole and keyed to the plug to prevent relative turning of said parts, a head on said shank working in contact with the wall of the taper bore, a nut threaded on the shank and bearing against said lug, and an expansion spring encircling said shank and operating in opposition to said nut.

3. A grease cup plug externally threaded to screw into a grease cup and provided with an internal taper bore, a longitudinally split cylindrical wall, a head lug on said plug having flat side walls and a central hole extending into said taper bore, an expander embodying a shank slidable through said hole and keyed to the plug to prevent relative turning of said parts, a head on said shank working in contact with the wall of the taper bore, a nut threaded on the shank and bearing against said lug, and a plate covering the bottom of the plug bore and secured to the plug in such manner as to admit of the expansion of the plug.

1,076,389. STILL. HORACE B. PHILLIPS, Fairmont, N. C. Filed Mar. 8, 1913. Serial No. 752,907. (Cl. 203—6.)



1. In a still, a base portion comprising a rectangular box, a series of heating coils spaced apart to provide racks for the material to be treated, a cover for said base portion, a furnace carried by said cover, and means for heating the coils from the furnace.

2. In a still, a base portion comprising a rectangular box, a series of heating coils spaced apart to provide racks for the material to be treated, a cover for said base portion, a furnace carried by said cover, means for heating the coils from the furnace, said means comprising a series of coils within the furnace, and connections between the coils of the furnace and the rack coils.

3. In a still, a base portion, a series of coils carried thereby, said coils being spaced apart to provide room for the material to be treated, a cover for said base portion, and a furnace carried by said cover on the inside thereof.

4. In a still, a base portion, a series of coils carried thereby, said coils being spaced apart to provide room for the material to be treated, a cover for said base portion, a furnace carried by said cover on the inside thereof, means for carrying off the products of distillation, and means connected with said base portion for draining the latter of the liquid products of distillation.

5. In a still, a rectangular box-like base portion, a series of rows of vertically extending coils, said rows being spaced apart to form racks for the material to be treated, a box-like cover arranged to surmount said base portion, a furnace carried within said cover, pipes disposed within the interior of said furnace, said coils and said pipes being arranged to receive a circulating fluid, connections between the pipes and said coils, and a pump for circulating the fluid in said pipes and said coils.

1,076,390. COMBINATION-GARMENT. ORLISTIS M. POTTERF, Larned, Kans. Filed Jan. 14, 1913. Serial No. 741,973. (Cl. 2—144.)



1. A combination garment comprising in a one-piece suit, a shirt and drawers open throughout the front from the top to the bottom of the garment upon a median line, the back being bifurcated below the crotch, a bifurcated crotch-member closed at the crotch line and separated therebelow, and secured to the bifurcated back portion of the garment and adapted to project through said front opening, and means for securing the separate edges of the front portions of said crotch-member respectively to the opposite margins of the front portion of the garment upon the inner side of each leg, thereby forming leg closures or drawers.

2. A combination garment comprising in a one-piece suit, a shirt and drawers open throughout the front from the top to the bottom of the garment upon a median line, a bifurcated crotch-member closed at the crotch line and separated therebelow, and secured to the back portion of the garment and adapted to project through said front opening, means for securing the separated front edges of said crotch-member respectively to the opposite margins of the front portion, thereby forming leg closures or drawers, and means for adjusting the height of the crotch-member with respect to the shirt portion.

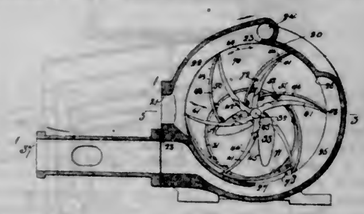
3. A combination garment, comprising in a one-piece suit, a shirt and drawers open in front upon a median line from the shirt-neck to the bottom of the drawers, a bifurcated crotch-member secured to the back of the garment from the crotch to the bottom of the garment thereby forming a completely closed garment in the rear, said crotch-member projecting through said front opening, means for securing the upper end of the projecting part of said member to the shirt portion above the crotch, the separated parts of said bifurcated crotch member overlapping the opposite margins of the front portion upon either side of the opening upon the inner side of each leg, thereby forming leg closures or drawers.

4. A garment comprising in a one-piece suit, a shirt and drawers, a crotch-member closed along the crotch line and separated therebelow, and secured to the rear portion of the garment and projecting through the crotch, and means for securing the front end of said crotch-member to the shirt portion above the crotch at different elevations to thereby adjust the height of the crotch-member.

5. A garment comprising in a one-piece suit, a shirt and drawers, open in front upon a median line from the shirt-neck to the knees, a bifurcated crotch-member closed along the crotch line and separated therebelow, and secured to the rear portion of the garment and extending into the opposite leg parts, said member projecting through said front opening, and means for securing the front end of said member to the shirt portion above the crotch.

1,076,391. ROTARY BLOWER. GEORGE L. REICHHELM, Jersey City, N. J., assignor, by mesne assignments, to P. R. Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 1, 1906, Serial No. 345,898. Renewed Jan. 30, 1911. Serial No. 606,540. (Cl. 230—30.)

1. In a blower the combination of a cylinder having a main inlet and a main outlet, cylinder heads for the cylinder, a circumferential inlet port open throughout its length with the inside of the cylinder connected with said inlet, a circumferential outlet port open throughout its length with the inside of the cylinder and connected with the main outlet, a secondary inlet port in each cylinder head connecting with the circumferential inlet port and leading into the cylinder, a secondary outlet port in each cylinder head connecting the inside of the cylinder with a secondary discharge opening, a shaft in the cylinder and concentric therewith, main blades extending from the shaft, a swinging blade hinged to each main blade, blade sectors hinged to each swinging blade, annular circular grooves in the cylinder heads eccentric with the shaft of the cylinder for the blade sectors, the relations of the positions of the annular grooves and the joints on the swinging blades for the blade sectors being such, that the portion of each swinging blade between the joint of the blade sector and the hinge with the main blade, never crosses the annular groove during the rotations of the shaft of the blower.



2. In a rotary blower the combination of a cylinder having a main inlet and a main outlet opening, cylinder heads for the cylinder, a circumferential inlet port open throughout its length with the inside of the cylinder connected with said inlet, a circumferential outlet port open throughout its length with the inside of the cylinder and connected with the main outlet, a secondary inlet port in each cylinder head connecting with the circumferential inlet port and leading into the cylinder, a secondary outlet port in each cylinder head connecting the inside of the cylinder with a secondary discharge opening, a shaft in the cylinder and concentric therewith, main blades extending from the shaft, a swinging blade hinged to each main blade, blade sectors hinged to each swinging blade, annular circular grooves in the cylinder heads eccentric with the shaft of the cylinder for the blade sectors, the relations of the positions of the annular grooves and the joints on the swinging blades for the blade sectors being such, that the portion of each swinging blade between the joint of the blade sector and the hinge with the main blade, never crosses the annular groove during the rotations of the shaft of the blower.

3. In a rotary blower the combination of a cylinder having a main inlet and a main outlet opening, cylinder heads for the cylinder, a circumferential inlet port open throughout its length with the inside of the cylinder connected with said inlet, a circumferential outlet port open throughout its length with the inside of the cylinder and connected with the main outlet, a secondary inlet port in each cylinder head connecting with the circumferential inlet port and leading into the cylinder, a secondary outlet port in each cylinder head connecting the inside of the cylinder with a secondary discharge opening, a shaft in the cylinder and concentric therewith, main blades extending from the shaft, and a secondary swinging blade extending from each main blade, forming with the main blades a working chamber on each side of each swinging blade.

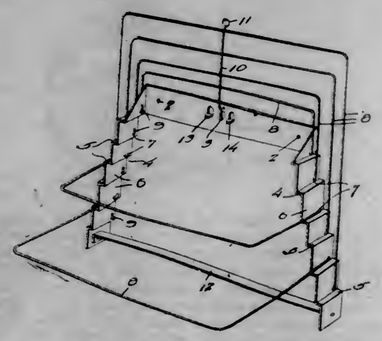
4. In a device of the character described, the combination with a cylinder having inlet and outlet ports, of a plurality of main rotating blades, means for rotating said blades, a plurality of secondary blades rotating with but movable relatively to said main blades, means for reciprocating said secondary blades relatively to the main blades during the rotation of the main blades, and means for connecting each of the spaces between said main and secondary blades alternately with the inlet and outlet ports, whereby the entire cubical contents of the cylinder is

discharged twice during each revolution of said main blades.

5. The combination with a cylinder having inlet and outlet ports, of a rotary shaft concentrically located within said cylinder, main blades extending radially from said shaft, secondary swinging blades hinged to said main blades, and means for connecting the opposite sides of each swinging blade alternately with the inlet and outlet ports, whereby working chambers are simultaneously formed on the opposite sides of each swinging blade.

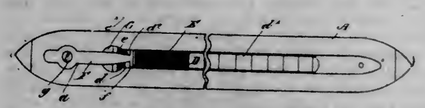
[Claims 6 to 8 not printed in the Gazette.]

1,076,392. CLOTHES-RACK. ISAAC THOMAS RICHARDSON, Toronto, Ontario, Canada, assignor of one-half to Alfred William Ruff, Toronto, Ontario, Canada. Filed Oct. 17, 1912. Serial No. 726,304. (Cl. 68—34.)



In a clothes rack, a back by which the rack is secured to a wall, sides depending from said back in a plane at right angles thereto, said sides being laterally stepped to form substantially horizontal ledges, the ledges in one side being opposite the ledges in the other side and a plurality of U shaped rails each pivotally secured at its ends to said sides respectively, slightly above opposite ledges and supported by said ledges in the down position.

1,076,393. SHUTTLE OR FILLING-CARRIER FOR LOOMS. ORREN A. SAWYER, Lowell, Mass., assignor, by mesne assignments, to Thissell Company, Portland, Me., a Corporation of Maine. Filed Oct. 25, 1909. Serial No. 524,331. (Cl. 139—27.)



1. The combination in a filling-carrier of a shuttle-body, a filling-holder, means for supporting said holder in said body and a spring for producing a substantially increased tension on the filling just before the exhaustion of said filling from said holder.

2. The combination in a filling-carrier, of a shuttle-body, a filling-holder, means for supporting said holder in said body and a metallic spring for producing a substantially increased tension on the filling just before the exhaustion of said filling from said holder.

3. The combination in a filling-carrier, of a shuttle-body, a filling-holder adapted to carry a ring or bunch of yarn and a cop of yarn separated by an uncovered space and a spring supported by said shuttle-body and arranged to press upon said uncovered space to create a tension upon yarn being unwound from said bunch after the unwinding of said cop.

1,076,394. THERMAL CIRCUIT-CLOSER. JOSEPH F. SCHEUER, Two Rivers, Wis. Filed May 5, 1913. Serial No. 765,718. (Cl. 177—303.)



1. A thermal circuit closer comprising an insulator-block attachable to a support and provided with front and rear parallel recesses, a pair of conductor-brackets in the rear recessed portion of the block for connection with electric-current distribution-wires, a spring-contact in the front recess of said block electrically connected to one of the brackets and opposed to an electric-conductor provided in connection with the other of said brackets, a front recess cover, and solder by which a fusible union is established between said contact and cover through an aperture in the latter to normally hold the former in open circuit position, the block being apertured to provide for the insertion of a retracting tool back of the aforesaid contact.

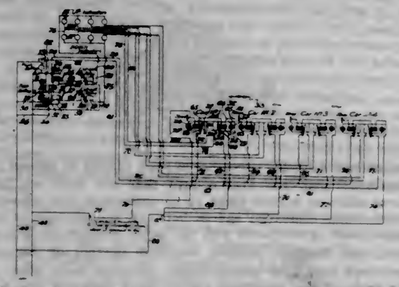
2. A thermal circuit closer comprising an insulator-block attachable to a support and provided with front and rear parallel recesses, a pair of conductor-brackets in the rear recessed portion of the block for connection with electric-current distribution-wires, waterproof material intermediate of the brackets and block, a spring-contact in the front recessed portion of said block electrically connected to one of the brackets and opposed to an electric-conductor provided in connection with the other of said brackets, a front recess cover, waterproof material interposed between the cover and block, similar material by which an aperture in the block back of the spring-contact is plugged, and solder by which a fusible union is established between said spring-contact and cover through an aperture in the latter to normally hold the former in open circuit position.

3. A thermal circuit-closer comprising an insulating-block provided with a front recess and a partitioned rear recess parallel to the one aforesaid, a pair of conductor-brackets in the rear recessed portion of the block in opposite directions from the partition for connection with electric-current distribution-wires, bracket securing screws extending from within the front recess of said block, a spring-contact fastened in said front recess of the block by one of the screws to close upon the other of said screws, a recess cover, and solder by which a fusible union is established between said contact and cover through an aperture in the latter to normally hold the former in open circuit position, the block being apertured to provide for the insertion of a retracting tool back of the aforesaid contact.

4. A thermal circuit-closer comprising a forwardly countersunk insulator-block provided with a front recess and a partitioned rear recess parallel to the one aforesaid, a pair of conductor-brackets in the rear recessed portion of the block in opposite directions from the partition for connection with electric-current distribution wires, a spring-contact in the front recess of said block electrically connected to one of the brackets and opposed to an electric-conductor provided in connection with the other of said brackets, a disk set in the countersink of the block, and solder by which a fusible union is established between said contact and disk through an aperture in the latter to normally hold the former in open circuit position, the block being apertured to provide for the insertion of a retracting-tool back of the aforesaid contact.

1,076,395. ELEVATOR SIGNAL SYSTEM. NEWTON L. SCHLOSS, New York, N. Y., assignor of one-fourth to Joseph Norden and one-fourth to Mortimer Norden, New York, N. Y. Filed Aug. 28, 1912. Serial No. 717,432. (Cl. 177—336.)

1. An elevator signal system comprising a push button on each floor, an indicating signal lamp on each floor for every car, an annunciator signal lamp for each floor in every car, means operative upon actuating a push button on any floor for closing a circuit to an annunciator lamp in every car, means operative in every car for opening the circuit so closed and simultaneously closing the circuit to the indicating lamp on the floor on which a push button was actuated, and means operative when the car is stopped at any floor in response to the signal for opening the circuit through the said indicating signal lamp.



2. An elevator signal system comprising a push button on each floor, an indicating signal lamp on each floor for every car, an annunciator lamp for each floor in every car, means operative upon actuating a push button for closing a circuit to an annunciator lamp in every car, a lamp at the push button, which is lighted when the push button is actuated and also when the aforesaid circuit is closed through the annunciator signal lamps, means operative in every car for opening the circuit so closed and simultaneously closing the circuit to the indicating lamp on the floor on which the push button was actuated, and means operative when the car is stopped at any floor in response to the signal for opening the circuit through the said indicating signal lamp.

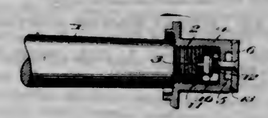
3. An elevator signal system comprising a push button on each floor, an indicating signal lamp on each floor for every car, an annunciator signal lamp in every car for each floor, a cut-in relay for each push button, a circuit closed through a cut-in relay by actuating the corresponding push button, a circuit closed through an annunciator signal lamp of every car by the armature of the said cut-in relay, means in every car for opening the circuit through the annunciator lamps and simultaneously closing the circuit through the indicating lamp on the floor where the push button was operated, and means operative when the car is stopped at any floor in response to the signal for opening the circuit through the said indicating lamp.

4. An elevator signal system comprising a push button on each floor, an indicating signal lamp on each floor for every car, an annunciator signal lamp in every car for each floor, a cut-in relay for each push button, a circuit closed through a cut-in relay by actuating the corresponding push button, a circuit closed through an annunciator signal lamp of every car by the armature of the said cut-in relay, means in every car for opening the circuit through the annunciator lamps and simultaneously closing the circuit through the indicating lamp on the floor where the push button was operated, means operative when the car is stopped at any floor in response to the signal for opening the circuit through the said indicating lamp, a lamp at the said push button, which is lighted when the push button is actuated and also when the circuit through the said annunciator signal lamps is closed.

5. An elevator signal system comprising a push button on each floor, an indicating signal lamp on every floor for each car, an annunciator signal lamp in every car for each floor, a cut-in relay for each push button, a circuit closed through a cut-in relay by actuating the corresponding push button, a circuit closed through the annunciator signal lamps in all the cars by the armature of the said cut-in relay, a circuit for each indicating signal lamp, devices for the said annunciator signal lamps in each car which when operated in any given car, open the circuit through the annunciator signal lamp in that car and simultaneously close the circuit to the indicating lamp corresponding to that car on the floor on which the button is operated and also open the circuit to all corresponding annunciator lamps in the other cars, and means operative when the car is stopped at any floor in response to the signal for opening the circuit through the said indicating signal lamp.

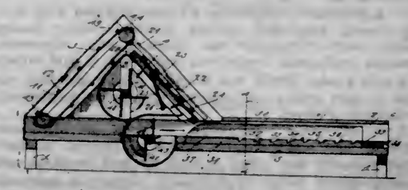
[Claims 6 to 11 not printed in the Gazette.]

1,076,396. LOCK-NUT. PETER SCHROEDER, Mishicot, Wis. Filed Apr. 4, 1913. Serial No. 758,887. (Cl. 151—6.)



A threaded member having its end provided with a transverse slot, a nut having a closed end depressed to provide a rectangular pocket which communicates with the opposite sides of the nut, the edges of the nut at said opposite sides being beveled toward the pocket, a locking element, said element including a head which is adapted to snugly fit within the pocket and having its transverse edges flared inwardly, the pocket being centrally provided with a circular opening which enters the bore of the nut, the head of the locking element having a stem which passes through the opening, the said stem being provided with a flange which is arranged within the bore of the nut, a finger arranged upon the flange and adapted to engage with the slot of the threaded element, a spring surrounding the flange and the inner wall of the bore of the nut, and the stem of the locking element being of sufficient length to permit of the withdrawal of the head of the locking element from the pocket of the nut to allow the head to be rotated and engaged by the outer face of the nut transverse of the pocket provided upon the said outer face.

1,076,397. ORE-SEPARATOR. HIRAM J. STEWART and JAMES S. TUCKER, Canton, Okla. Filed Dec. 12, 1912. Serial No. 736,436. (Cl. 83—54.)



1. The herein described trunk for ore concentrators comprising a bottom board having its upper face flat excepting for transverse grooves cut therein, the grooves having upright front walls and beveled rear walls, and fabric strips secured across said beveled walls near their juncture with said flat face; and upright sides at the edges of said board.

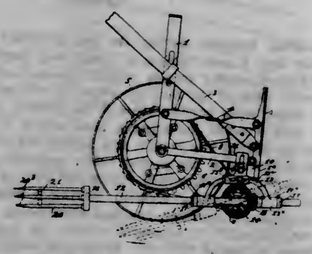
2. A dry ore separator comprising a fixed trunk having upright sides and a flat bottom with transverse grooves having upright front walls and beveled rear walls, strips of fabric secured across the beveled walls, a sheet of fabric secured across the front end of the bottom of the trunk, and means for directing a blast of air over said fabric sheet and throughout the length of said trunk.

3. In an ore separator, the combination with a trough open at both ends, and a cover for the trough, of a trunk having upright sides and a flat bottom with transverse grooves in it, strips of felt on certain walls of said grooves, the

trunk being inserted within said trough and leaving the rear end of the latter unoccupied, means for feeding a blast of air into the front end of the trough, and a tray removably located within the trough at the rear end of said trunk and having a recess in its upper face for quicksilver, for the purpose set forth.

4. The herein described trunk for ore concentrators comprising a substantially horizontal bottom board having its upper face flat excepting for transverse grooves cut therein throughout the rear portion of such board, the grooves having upright front walls and beveled rear walls, fabric strips secured across said beveled walls near their juncture with said flat face, and a fabric sheet secured across the flat face of said bottom board at its front end; and upright sides secured to the edges of said board.

1,076,398. ROTARY WEEDER AND CULTIVATOR. ARBA E. VROOMAN and HOWARD F. VROOMAN, Painesville, Ohio. Filed July 6, 1912. Serial No. 707,986. (Cl. 97—25.)



1. In a cultivator, a yoke frame, bearing brackets adjustably carried at the sides of said yoke frame, sprocket driven shafts carried by some of said bearing brackets, rotary weeder shafts carried by the other of said brackets, sprocket mechanism connected to said sprocket driven shafts, and cultivator elements carried by said rotary weeder shafts.

2. In a cultivator, a wheeled yoke frame, bearing brackets adjustably carried at the sides of said yoke frame, sprocket driven shafts carried by some of said brackets, rotary weeder shafts carried by the other of said bearing brackets, and rotary weeder elements carried by said weeder shafts.

3. A cultivator, comprising a frame provided with driving wheels, adjustable bearing brackets, rotary weeder shafts carried thereby and longitudinally adjustable, sprocket mechanism operatively connected to said wheels and said weeder shafts, and pronged weeder members carried by said shafts and adapted to revolve transversely to the line of draft.

4. A cultivator, comprising a frame provided with laterally and longitudinally adjustable bearing brackets, driving shafts and gears carried by said brackets said driving shafts being longitudinally adjustable independently of said gears, driving wheels operatively connected to said driving shafts and gears, and cultivator elements carried by some of said driving shafts.

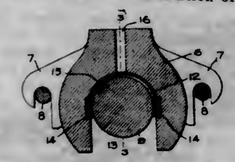
5. In a cultivator, a wheeled frame, bearing brackets adjustably carried thereby, driving shafts longitudinally adjustable in said brackets, sprocket driving mechanism for driving said shafts, means for supporting and adjusting said shafts and sprocket driving mechanism independently of each other, and rotary weeder prongs carried by said shafts at right angles to the surface being cultivated.

[Claims 6 to 9 not printed in the Gazette.]

1,076,399. THRUST-BEARING. PAUL WAGNER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 3, 1911. Serial No. 624,814. (Cl. 64—25.)

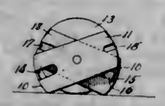
1. In a thrust bearing, the combination of a shaft having collars thereon, coöperating collars in lateral engagement with the first collars and having openings in one side to permit them to be assembled and removed, there being clearance spaces between the periphery of the shaft and the inner surfaces of the collars, means for supplying lubricant to the clearance spaces, and antifriction metal facings that are secured to the second collars to form thrust surfaces and also packing members that engage the shaft and its collars to check the flow of lubricant from the clearance spaces into said opening.

2. In a thrust bearing, the combination of a shaft having collars thereon, horseshoe-shaped collars in lateral engagement with the first collars that are open on their lower sides to permit them to be assembled and removed, there being clearance spaces between the surface of the upper half of the shaft and the inner surfaces of the collars, and metallic packing members carried by the collars and arranged diametrically opposite each other at the ends of the clearance spaces, said members engaging the shaft and its collars and closing the ends of said spaces to check the flow of lubricant therefrom, there being passages in the collars for supplying lubricant to said spaces from which it flows outwardly over the thrust receiving surfaces.



3. In a thrust bearing, the combination of a shaft having collars thereon, horseshoe-shaped collars in lateral engagement with the first collars and open on their lower sides to permit them to be assembled and removed, there being clearance spaces between the surface of the upper half of the shaft and the inner surfaces of the collars, and packing members carried by the collars that are arranged diametrically opposite each other at the ends of the clearance spaces and engage the surface of the shaft to check the flow of lubricant from said spaces, said members extending across the inner surfaces of the collars and having their ends in engagement with the faces of the adjoining shaft collars, there being passages in the collars for supplying lubricant to the clearance spaces from which spaces it flows outwardly over the thrust receiving surfaces, and grooves in the faces of the shaft collars which lead outwardly from the surface of the shaft toward the peripheries of said collars, the inner ends of the grooves being in communication with the clearance spaces.

1,076,400. COIN-PACKAGE. RALPH P. WILTON, Wrightsville, Pa. Filed June 19, 1912. Serial No. 704,660. (Cl. 133—9.)



1. A coin holder comprising a pair of opposed and pivotally connected coin receiving members, said members being similar in form and having overlapping end portions and adapted to be turned to one side of their pivotal axis, and a lug on one end of each member, the opposite end of each member having a slot therein adapted to receive the lugs of the opposite member whereby to yieldingly hold the members in opposed relation.

2. A pair of similarly formed coin-receiving members having overlapping and pivotally connected end portions, one end portion of each member having a laterally projecting lug and the opposite end portion of each member having a slot, said lugs yieldingly engaging in said slots whereby to normally hold said members in opposed relation to secure the coins therebetween, said end portions being adapted to be swung oppositely about their pivotal axis whereby to spring said lugs out of said slots, said lugs being adapted to bear against the edges of the opposite end portions of said members whereby to yieldingly hold the members to one side of the pivotal axis to admit the withdrawing of the coins from between the members.

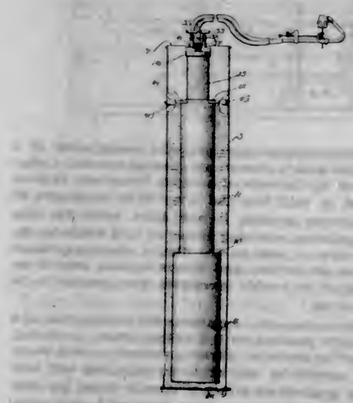
3. A coin holder comprising a pair of correspondingly formed pivotally connected coin-receiving members, each member having an inwardly extending lug at one end and a corresponding slot at its opposite end, the lugs being adapted for yielding engagement in the slots in the ends of the opposite members, one end of each member being further provided with a pair of inwardly extending spring tongues located in the opposite ends of the holder.

4. A coin holder comprising a pair of coin receiving members having overlapping pivotally connected arms, one arm of each member having an inwardly pressed lug, the opposite arm of the member having a pair of inturned spring tongues providing slots in the arm, said arms being arranged oppositely in pairs whereby the lugs are adapted for yielding engagement in the slots to retain said holder closed.

5. In a coin holder, a coin-receiving member comprising a strip of metal bent U-shape and having longitudinal slots at its bent portions, the intermediate portion of the U-member being curved transversely, one arm of the member having a pair of inwardly extending tongues, and the opposite arm of the member having an inwardly pressed lug.

[Claim 6 not printed in the Gazette.]

1,076,401. GAS-GENERATOR. THOMAS H. ARMSTRONG, Chicago, Ill., assignor to Joseph M. Bernstein and Solomon Cohen, Chicago, Ill., a Copartnership doing business at Chicago, Ill., under the firm-name and style Dearborn Novelty Company. Filed Apr. 14, 1913. Serial No. 761,022. (Cl. 48—144.)



1. In a device of the class described, the combination with a water tank, of a gas generator mounted within the lower portion of the same, a carbureter mounted within the water tank at a point above the gas generator, and a gas passage leading from the gas generator to the carbureter, whereby the water contained within the water tank serves to protect the carbureter from inequalities and variations of temperature, substantially as described.

2. In a device of the class described, the combination with a water tank, of a gas generator mounted within the lower portion of the same, a carbureter mounted within the water tank at a point above the gas generator, a gas passage leading from the gas generator upward through the carbureter to the upper end thereof, and a gas passage leading from said upper end downward into the carbureter, whereby the water within the water tank serves to protect the carbureter against inequalities or changes in temperature, substantially as described.

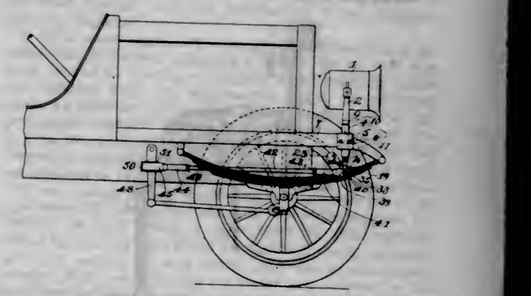
3. In a device of the class described, the combination with a water tank, of a gas generator mounted within the same, a carbureter mounted within the water tank, and a gas passage leading from the gas generator to the carbureter, whereby the water of the water tank serves to protect the gas generator from inequalities or changes in temperature, substantially as described.

4. In a device of the class described, the combination with a water tank, of an oxygen generator and a carbureter mounted within the same, and a gas passage leading from the oxygen generator upwardly to the carbureter, whereby heat liberated during the generation of the oxygen serves to heat the water of the water tank to in turn heat the carbureter and to compensate for cooling in the same due to the evaporation, substantially as described.

5. In a device of the class described, the combination with a water tank, of a gas generator mounted within the same, a carbureter mounted within the water tank, a gas passage leading from the gas generator to the carbureter, and an inclosing wall interposed between the carbureter and the water of the water tank and spaced away from the carbureter to provide an air space, whereby the water is insulated from direct contact with the carbureter, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,076,402. DIRIGIBLE HEADLIGHT. FRANK H. AUBEUF, Oneida, N. Y., assignor of one-half to Frank J. Aubeuf, Oneida, N. Y. Filed Sept. 29, 1909, Serial No. 520,091. Renewed Sept. 3, 1913. Serial No. 788,001. (Cl. 240—62.)



1. In a motor-vehicle, the combination with the body-supporting frame and the steering-means, of a pair of lamp-brackets mounted on said frame, each bracket comprising a vertical stationary sleeve, a spindle disposed rotatably within the sleeve and extending therethrough, and lamp-supporting arms secured to the upper end of the spindle, an arm connected to the lower end of the spindle of each bracket, a transverse rod having pivotal and yielding connections with the two arms, the spindle of one bracket having a supplemental arm fastened thereto, and a longitudinally extending rod having pivotal and yielding connections with the supplemental arm and steering means as set forth.

2. In a motor-vehicle, the combination with the steering-means, of a pair of suitably supported rotatable lamp-brackets, said brackets each comprising a vertically disposed stationary sleeve having a spindle journaled therein and lamp-supporting means attached to said spindle, arms extending horizontally and in corresponding directions from the two spindles and each arm formed with an angular offset provided on its end with a ball, a pair of longitudinally-slotted tubular sockets disposed axially in line and at right-angles to the arms, and having the balls of the respective arms inserted therein with the offsets passing through the slots thereof, a pair of spiral-springs

in each socket having the ball interposed therebetween, caps secured removably to the outer ends of the sockets, internally screw-threaded sleeves rigidly attached to the inner ends of the sockets, a rod having its opposite ends inserted in said sleeves, a supplemental arm secured to the spindle of one bracket and disposed at right-angles to the other arm thereof, and mechanism connecting the supplemental arm to the steering-means as and for the purpose set forth.

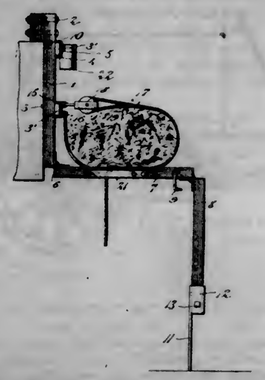
3. An attachment for vehicles including brackets mounted for rotation, arms movable with the brackets, a rod interposed between the arms, adjustable cushioning connections between the rods and arms, each of said connections including springs for yieldingly transmitting motion during the movement of the rod in either direction, and means under the control of the steering mechanism of a vehicle for actuating the brackets.

4. An attachment for vehicles including a bracket mounted for rotation, an arm movable with the bracket, a slotted casing, said arm extending into the slot and having an enlargement on the end thereof, springs within said casing at opposite sides of said enlargement, and an actuating rod connected to the casing.

5. An attachment for vehicles including a bracket mounted for rotation, an arm movable with the bracket, a slotted casing, said arm extending into the slot and having an enlargement on the end thereof, springs within said casing at opposite sides of said enlargement, means for adjusting the tension of said springs, and an actuating rod connected to the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,076,403. DEVICE FOR BINDING FODDER. COMMADORE P. BAKER, St. Catherine, Mo. Filed Feb. 7, 1913. Serial No. 746,896. (Cl. 100—31.)



1. A frame structure comprising side members having laterally extending overlapping arms, means for adjustably connecting the arms, supporting hooks at the upper ends of the side members, supporting brackets connected hingedly with the lower ends of the side members, and leg members connected hingedly with the bracket members.

2. A supporting frame having adjustably connected side members, bracket members connected hingedly with the lower ends of the side members, leg members connected hingedly with the bracket members, and means for supporting the bracket members in raised condition with respect to the frame members.

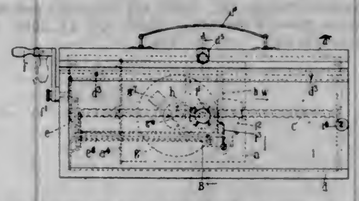
3. A frame having means whereby it may be supported on a wagon box, said frame including side members having overlapping arms and means whereby said arms are adjustably connected, bracket members connected hingedly with the lower ends of the side members of the frame, leg members connected hingedly with the bracket members, extension members connected adjustably with the leg members, and means whereby the bracket members may be supported in folded condition with respect to the side members of the frame.

4. A frame comprising side members having overlapping arms, and means whereby said arms are adjustably connected, said side members having supporting hooks at their upper ends, bracket members connected hingedly with the lower ends of the side members, means for supporting said bracket members in approximately a horizontal position approximately at right angles to the side members of the frame, a tightening rope having one end connected with the frame, a loose block having a pulley over which the tightening rope is guided, and means for connecting the block detachably with the frame.

5. A frame comprising side members having overlapping arms, and means whereby said arms are adjustably connected, said side members having supporting hooks at their upper ends, bracket members connected hingedly with the lower ends of the side members, means for supporting said bracket members in approximately a horizontal position approximately at right angles to the side members of the frame, a tightening rope having one end connected with the frame, a loose block having a pulley over which the tightening rope is guided, and means for connecting the block detachably with the frame; and means on one of the bracket members whereby the free end of the tightening rope may be secured.

[Claim 6 not printed in the Gazette.]

1,076,404. KINEMATOGRAPHIC APPARATUS. THOMAS HORACE BOLAM, West Ealing, and SIDNEY NORMAN BARNARD, Puckeridge, Ware, England. Filed Aug. 12, 1910. Serial No. 576,856. (Cl. 88—16.)



1. In kinematographic apparatus the combination of a drum, provided with a transverse opening therein, a photographic band in the form of a sheet, transverse rails or rods attached to said film and adapted to meet and fit in said transverse opening in the drum when the film surrounds the latter, retaining means on said drum for engaging said rails or rods on the film, a stationary shaft for said drum or carrier, and means moving said drum along said shaft to enable successive photographs to be taken or observed.

2. In a kinematographic apparatus the combination of a stationary shaft provided with a helical groove or thread, a film supporting drum or carrier mounted on said shaft, a projection carried by said drum for engaging said helical groove, a gear wheel attached to said drum, an elongated pinion continuously in mesh with said gear wheel and means for imparting an intermittent rotation to said elongated pinion to cause the drum to intermittently rotate and travel along said shaft.

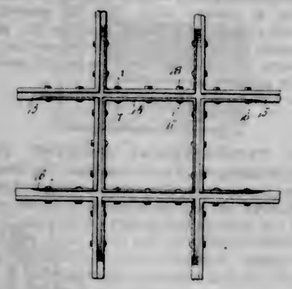
3. In a kinematographic apparatus the combination of a box or casing, a helically grooved stationary shaft means for retaining said shaft in position, a film supporting drum mounted on said shaft, bosses on said drum, a projection secured to one of said bosses to engage said helical groove, a gear wheel attached to said drum, an elongated pinion continuously in mesh with said gear wheel, a Geneva stop motion for intermittently rotating said pinion, gearing for operating said Geneva stop motion, and means carried by the apparatus whereby the latter is adapted for taking, observing, and projecting.

4. In kinematographic apparatus the combination of a stationary shaft provided with right and left handed helical grooves, a drum or carrier mounted on said shaft, a photographic film or band surrounding said drum, means carried by said drum for engaging one of the helical grooves when "taking" and for engaging the other groove when "observing", a gear wheel attached to said drum an elongated pinion continuously in mesh with said gear wheel, means for intermittently rotating said elongated pinion, and means for enabling the photographs to be taken or to appear successively in a helical path around said film or band.

5. In a kinematographic apparatus the combination of a box or casing, a lid or cover hinged thereto, a double front portion forming part of said box, interchangeable slides or covers for fitting to each part of said double front portion, interchangeable shutters for fitting between each part of said double front portion, and adapted to coöperate with said interchangeable slides or covers whereby the apparatus is adapted for taking, observing, and projecting gearing for operating said shutters, a film supporting drum or carrier mounted within said box casing and means for moving said drum to enable successive photographs to be taken or observed.

[Claims 6 to 17 not printed in the Gazette.]

1,076,405. RAILWAY-CROSSING. GEORGE O. BRISTOW, Cuero, Tex. Filed Jan. 23, 1912. Serial No. 672,907. (Cl. 104—40.)

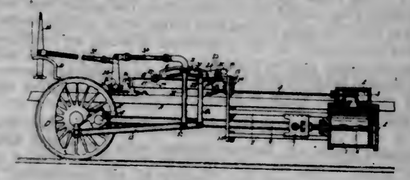


1. In a railway crossing superposed rail sections consisting of a plurality of main rails formed right angularly and in one piece and having continuous grooves extending longitudinally of the inner faces of the said rails, and auxiliary rails formed right angularly and in one piece adapted to be received in the said longitudinally extending grooves, each of the auxiliary rails having the upper faces of its terminals tapered downwardly and having the inner faces flanged, the terminals of the said flanges being curved longitudinally, and means for sustaining the auxiliary rails upon the main rails.

2. In a railway crossing superposed rail sections consisting of a plurality of main rails formed right angularly and in one piece and having continuous grooves extending longitudinally of the inner faces of the said rails, the sides of the said rails being curved to form enlarged bases, the said bases being each provided with a centrally arranged longitudinally extending depression, and auxiliary rails formed right angularly and in one piece adapted to be received in the said longitudinally extending grooves, each of the auxiliary rails having the upper faces of its terminals tapered downwardly and having the inner faces flanged, the terminals of the said flanges being curved longitudinally, and means whereby the said auxiliary rails may be shimmed to retain their bearing faces at a predetermined distance from the heads of the main rails.

3. In a railway crossing superposed rail sections consisting of a plurality of main rails formed right angularly and in one piece and having continuous grooves extending longitudinally of the inner faces of the said rails, and auxiliary rails formed right angularly and in one piece adapted to be received in the longitudinally extending grooves, each of the auxiliary rails having the faces of its terminals tapered downwardly and having the inner faces flanged, the terminals of the said flanges being curved longitudinally, the said auxiliary rails being further provided with vertically arranged elongated openings registering with openings in the main rails permitting shimming of the said auxiliary rails to retain their bearing faces at a predetermined distance from the heads of the main rails, and means passing through the elongated openings and openings in the main rails for sustaining the auxiliary rails upon the main rails.

1,076,406. STEAM-ENGINE VALVE-GEAR. WILLIAM SHERMAN BROWN, Knoxville, Tenn. Filed Mar. 24, 1913. Serial No. 756,500. (Cl. 121—98.)



1. In a steam engine valve gear, the combination of an adjustable, horizontal segment, a slide block on said segment, means for moving said block, an auxiliary crank, an auxiliary rod coupled to said crank, and two approximately upright links, each having its lower end coupled to the auxiliary rod and one having its upper end coupled to said slide block and the other having its upper end in operative relation with the distributing valve, substantially as described.

2. In a steam engine valve gear, the combination of an adjustable, horizontal segment, a slide block on said segment, means for moving said block, a bell crank in operative relation with the distributing valve, an auxiliary crank, an auxiliary rod coupled to said crank, and two approximately upright links each having its lower end coupled to the auxiliary rod and one having its upper end coupled to said slide block and the other having its upper end coupled to said bell crank, substantially as described.

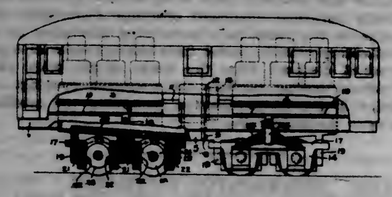
3. In a steam engine valve gear, the combination of an approximately horizontal bridge, a horizontal segment adjustable on said bridge, a slide block on said segment, means for moving said block, an auxiliary crank, an auxiliary rod coupled to said crank, and two approximately upright links, each having its lower end coupled to the auxiliary rod and one having its upper end coupled to said slide block and the other having its upper end in operative relation with the distributing valve, substantially as described.

4. In a steam engine valve gear, the combination of an approximately horizontal bridge, a horizontal segment adjustable on said bridge, a slide block on said segment, means for moving said slide block, a bell crank in operative relation with the distributing valve, an auxiliary crank, an auxiliary rod coupled to said crank, and two approximately upright links each having its lower end coupled to the auxiliary rod and one having its upper end coupled to the slide block, and the other having its upper end coupled to the bell crank, substantially as described.

5. In a steam engine valve gear, the combination of a bracket, a bell crank hinged to said bracket and being in operative relation with the distributing valve, a slide block, adjustable means for supporting said slide block, means for moving said slide block, an auxiliary crank, an auxiliary rod, and two approximately upright links each having its lower end coupled to said auxiliary rod and one having its upper end coupled to said slide block and the other having its upper end coupled to said bell crank, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,076,407. LOCOMOTIVE. HENRI G. CHATAIN, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed May 18, 1912. Serial No. 698,626. (Cl. 105—259.)



1. In a locomotive, the combination of an engine, projections that extend downwardly from the engine base and form with the base the magnet frame of an electric motor, field coils carried by the projections, a truck, an armature for the motor that is mounted on an axle of the truck and is located between said projections, and a generator driven by the engine which is adapted to supply current to the motor.

2. In a locomotive, the combination of an engine, projections which are formed integral with the engine base and are arranged in pairs to form the magnet frames of electric motors, field coils carried by the projections, a truck, armatures for the motors which are mounted on the truck axles, and an electric generator driven by the engine which is adapted to supply current to the motors.

3. In a locomotive, the combination of a cab, a truck therefor, springs interposed between the truck and cab, an engine supported by the cab and provided with integral and downwardly extending parallel projections forming magnet frames for motors, windings carried by the projections, rotors for the motors that are mounted on the truck axles and are situated between the projections, and an electric generator driven by the engine which is adapted to supply current to the motors.

4. In a locomotive, the combination of an engine that is made in two principal parts, an electric generator driven by the engine whose magnet frame unites said parts, integral and downwardly extending projections formed on the under side of each part of the engine and arranged in pairs to form magnet frames for the motors, windings mounted on the projections, a pair of trucks, one under each part of the engine, and rotors for the motors mounted on the truck axles which are situated between said projections and are adapted to receive current from the generator.

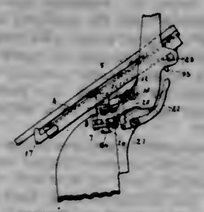
5. In a locomotive having floor sills, the combination of a prime mover supported by the sills and having integral projections that form a magnet frame, energizing coils that are carried by the projections, a motor armature situated between the projections and coils and carried by an axle, an electric generator driven by the prime mover whose magnet frame forms a unitary part of the frame of the prime mover and is adapted to supply current to the motors.

[Claims 6 to 8 not printed in the Gazette.]

1,076,408. MATRIX-SETTING AND LINE-CASTING MACHINE. HEINRICH DROEMER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 19, 1910. Serial No. 556,441. (Cl. 199—7.)

1. In a typographical machine, the combination of an interchangeable magazine arranged to be removed from the machine in a position other than its normal position therein, and a support upon which said magazine is mounted to turn horizontally from its normal position into its position of removal.

2. In a typographical machine, the combination of an interchangeable inclined magazine arranged to be removed from the machine in a position other than its normal position therein, and a support upon which the said magazine is mounted to turn about a vertical axis from its normal position into its position of removal.



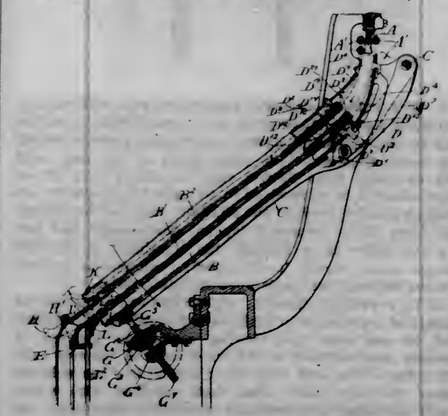
8. In a typographical machine, the combination of an interchangeable magazine arranged to be removed from the machine in a position other than its normal position therein, and a support upon which the said magazine is mounted to turn from its normal position about an axis intersecting its plane into its position of removal.

4. In a typographical machine, the combination of an interchangeable inclined magazine arranged to be removed from the machine in a position other than its normal position therein and a supporting frame therefor, the said frame being movable laterally in a horizontal direction to shift the magazine edgewise from its normal position into its position of removal.

5. In a typographical machine, the combination of an interchangeable magazine arranged to be removed from the machine in a position other than its normal position therein, and a supporting frame therefor, the said frame being mounted to turn about an axis intersecting its plane so as to move the magazine from its normal position into its position of removal.

[Claims 6 to 11 not printed in the Gazette.]

1,076,409. TYPOGRAPHICAL MACHINE. PHILIP T. DODGE, Washington, D. C., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Jan. 12, 1912. Serial No. 670,885. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines, means for rendering any selected one thereof operative, a common delivery throat for the magazines, and devices controlled by the said means for directing the type or matrices from said throat into the operative magazine.

2. In a typographical machine, the combination of a plurality of magazines, means for rendering any selected one thereof operative, a common delivery throat for the magazines, and a deflector situated within the throat and controlled by the said means for directing the type or matrices from said throat into the operative magazine.

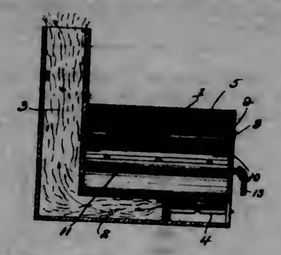
3. In a typographical machine, the combination of a plurality of magazines, means for rendering any selected one thereof operative, distributing mechanism, a common delivery throat for connecting the distributing mechanism with all the magazines, and a plurality of deflectors situated within the throat and controlled by the said means for directing the type or matrices from the distributing mechanism into the operative magazine.

4. In a typographical machine, the combination of a plurality of magazines, means for rendering any selected one thereof operative, a common delivery throat for the magazines, and devices controlled by the said means for causing the type or matrices to traverse different paths in their passage through the throat corresponding to the magazine in operation.

5. In a typographical machine, the combination of a plurality of movable magazines, and common adjustable means for delivering type or matrices to any selected one thereof, said means being controlled in its operation by the movement of the magazines.

[Claims 6 to 14 not printed in the Gazette.]

1,076,410. COMBINED CONDENSER AND FEED-WATER HEATER. MARTIN L. DUNNAM, Meridian, Miss. Filed Sept. 30, 1912. Serial No. 723,220. (Cl. 203—5.)



1. A combined condenser and feed water heater, comprising a casing closed at each end, a heating chamber therunder having a flue passing one end of the casing, a plurality of pipes in the casing leading from the air at one end to the flue at the other end, drip plates below the pipe, troughs at each side to catch the drip, means to admit the water to be vaporized, and means to lead the condensation in the troughs to the boilers.

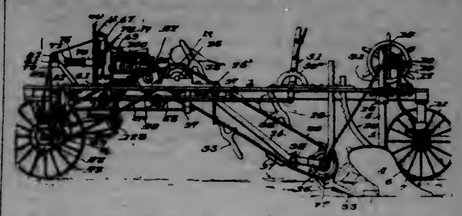
2. A combined condenser and feed water heater, comprising a casing, air cooled pipes passing therethrough, double walls about the top of the casing forming a space therebetween, means to supply water to said space, and means to lead the water from this space to the bottom of the interior of the casing, means to vaporize the water in the bottom of the casing and preheat the water in the top space by the waste heat of vaporization, means for condensing the vapor in the casing, and means for retaining the condensation within the casing until fed to the boiler.

3. A combined condenser and feed water heater, comprising a casing closed at each end, a heating chamber thereunder, a plurality of pipes in the casing passing through each end and communicating with the atmosphere, drip plates below the pipes, troughs at each side to catch the drip, means to admit water to be vaporized, means to lead the condensation in the troughs to the boilers.

4. A combined condenser and feed water heater, comprising a casing closed at each end, a heating chamber thereunder, a plurality of parallel pipes arranged in curved rows passing through each end and communicating with the atmosphere, drip plates below each row of pipes, troughs at each side to catch the drip, means to admit water to be vaporized, and means to lead the condensation in the troughs to the boiler.

1,076,411. BEET-HARVESTER. JOHN DUVAL, Grand Junction, Colo. Filed Feb. 18, 1913. Serial No. 749,147. (Cl. 55—2.)

1. The combination of ground-loosening means, means for taking beets from the ground and elevating the same, means for topping the beets so elevated, means for actuating the topping means, means for advancing the topping means incidental to the actuating thereof, and means for retracting the topping means.



2. The combination of beet-topping means, means for actuating the same, means for advancing the beet-topping means while the same are being actuated, and means for retracting the topping means subsequently to the actuating thereof.

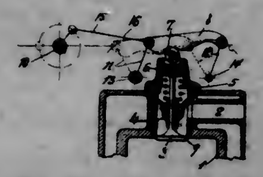
3. The combination of rotary beet-topping means, means for rotating the same, means for advancing the beet-topping means incidental to rotation thereof, and means for retracting the topping means subsequently to said rotation thereof.

4. The combination of rotary beet-topping means, means for intermittently rotating the topping means, means for advancing the beet-topping means incidental to the said rotation thereof, and means for retracting the topping means in the intervals between the said rotations thereof.

5. The combination of rotary beet-topping means, means for intermittently rotating the topping means, means for advancing the topping means incidental to said rotations thereof, means for retracting the topping means in the intervals between the rotations thereof, a cup for holding beets during the topping thereof, means for presenting beets to the topping means and the cup, and means for removing beets from the cup subsequently to the topping of the beets.

[Claims 6 to 11 not printed in the Gazette.]

1,076,412. VALVE. GUIDO FORNACA, Turin, Italy. Filed Aug. 23, 1912. Serial No. 716,581. (Cl. 123—90.)



1. The combination of a valve having a reciprocating element, and controlling means therefor, said means comprising a cam element positively reciprocating said reciprocating element, links pivoted at fixed points carrying said cam element and means for oscillating said cam element in a direction transverse to the direction of reciprocation of said reciprocating element.

2. The combination of a valve having a movable element, and controlling means therefor, said means comprising a cam member, means for oscillating said cam member in a direction transverse to the direction of movement of the said element, and links pivoted at fixed points for supporting said cam member.

3. The combination of a valve having a spring controlled, reciprocating stem, a loosely mounted element thereon, an oscillating cam member constructed to engage said element to reciprocate said stem in one direction, and parallel links supporting said cam member.

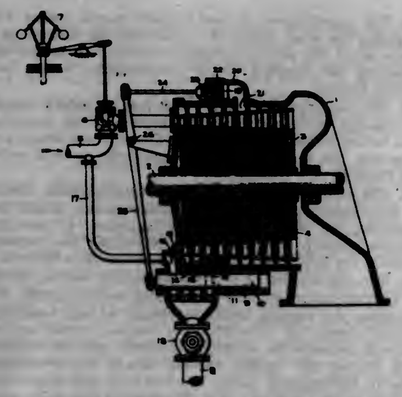
4. The combination of a valve having a reciprocating element, a roller mounted at one end of the said element, and actuating means for said element, said means comprising an oscillating cam member, links pivoted at two

points carrying said cam member, said cam member being adapted to engage said roller at certain positions.

5. The combination of a valve having a spring controlled valve stem, a roller mounted at one end of said stem, a cam member adapted to engage said roller for moving the said stem, and parallel motion links controlling the movement of said cam member.

[Claims 6 to 16 not printed in the Gazette.]

1,076,413. REGULATING DEVICE FOR TAPPED TURBINES. GEORG FORNER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 21, 1912. Serial No. 685,233. (Cl. 121—118.)



1. The combination with a turbine provided with a pipe for supplying steam for industrial purposes, of means regulating the flow of steam to such pipe and controlled by the steam pressure prevailing in a given stage of said turbine.

2. The combination with a turbine provided with a pipe for supplying steam for industrial purposes, of means for regulating the flow of steam to such pipe, and a movable abutment controlling said means and responsive to variations of pressure in a given stage of said turbine.

3. The combination with a turbine provided with a pipe for supplying steam for industrial purposes, of means for regulating the flow of steam to such pipe, a piston exposed to the steam pressure in a given stage of said turbine, and operative connections between said piston and the said regulating means.

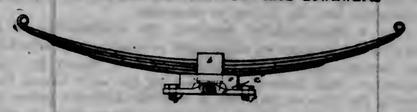
4. The combination with a turbine having a plurality of ports opening from several stages, a heating pipe, a valve for putting said pipe into communication with one or another of said ports, and a movable spring-actuated abutment exposed on one side to the pressure of the steam in a given stage of said turbine, and operatively connected with said valve.

5. The combination wth an engine having a plurality of ports communicating with stages or regions of different pressure in said engine, of a conduit for supplying steam for industrial uses, valve means for regulating the flow of steam between the ports and the conduit, and a device responsive to the pressure in a given stage or region of the engine for controlling the valve means.

[Claims 6 and 7 not printed in the Gazette.]

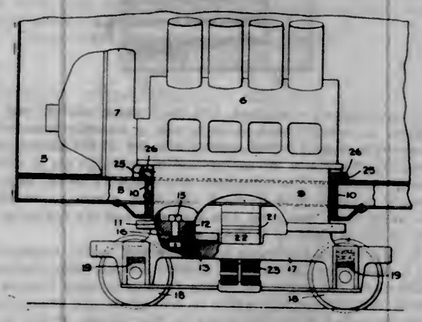
1,076,414. VEHICLE-SPRING. JEFF FROSIG and LEE W. WALSTROM, Reno, Nev. Filed Nov. 18, 1912. Serial No. 732,103. (Cl. 21—50.)

1. In a vehicle spring device, the combination, with a substantially horizontal bearing plate, and a clip-member of polygonal cross-section hinged to said plate, of a leaf-spring device extending through and held by said clip, and an integral resilient block entirely surrounding said clip-member and bearing against the bearing plate and against the leaf-spring device at each side of the clip-member, whereby the resilient block reinforces the leaf-spring device when the latter is flexed downward.



2. In a vehicle spring device, the combination, with a bearing-plate, having central lugs and a clip-member having a reduced portion arranged between the said lugs, a pintle passing through the said lugs and the said reduced portion whereby the clip-member is hinged to the bearing plate, said clip-member having a spring-receiving opening and being polygonal in cross-section, of a spring member comprising a plurality of leaf-springs passing through the opening in the clip-member and extending in opposite directions from said clip-member, and a resilient block surrounding the clip-member and provided with feet having their inner walls sloping toward the clip member, said resilient block filling the space between the spring member and the bearing plate with its feet in contact with the latter.

1,076,415. MOUNTING OF ENGINES IN MOTOR-CARS. WILLIAM H. FROST, Erie, Pa., assignor to General Electric Company, a Corporation of New York. Filed Apr. 27, 1912. Serial No. 693,612. (Cl. 105—17.)



1. In combination, a truck, a car body supported thereby, a turntable on the truck, an engine mounted on the turntable, and means for preventing the engine from turning angularly with the truck.

2. In combination, a truck, a car body supported thereby, a turntable on the truck, an engine that is seated on the turntable, and means carried by the car body for holding the engine against angular movement and permitting the truck to turn under it.

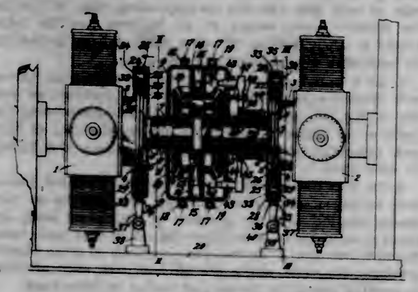
3. In combination, a truck, a spring supported bolster therefor, a car body, a bolster therefor, a center plate and pivot pin between the bolsters, a turntable carried by the truck, and an engine mounted on the turntable that straddles the body bolster.

4. In combination, a truck, a spring supported bolster therefor, a car body, a bolster therefor, a center plate and pivot between the bolsters, a turntable carried by the truck, an engine mounted on the turntable that straddles the body bolster, and means carried by the body for preventing the engine from turning angularly with the truck.

5. In combination, a truck, a car body supported thereby, a turntable mounted on the truck, an engine that is seated on the turntable and projects upward into the car, means for preventing the engine from turning with the truck, and cushions between the engine and said means.

[Claims 6 to 8 not printed in the Gazette.]

1,076,416. DRIVING MECHANISM. JOHN R. GAMMETER, Akron, Ohio. Filed Dec. 22, 1911. Serial No. 667,265. (Cl. 74—34.)



1. In a power unit for aeroplanes and the like, a pair of motors adapted to rotate in the same direction, a differential gearing and its casing, means to cause said motors to rotate in unison comprising a lug on a gear of said differential gearing, and a pin passing through an aperture in the casing of said differential gearing and adapted to be moved into and out of engagement with said lug, and means for preventing the backward rotation of either of said motors comprising roller clutches interposed between each of said motors and said differential casing.

2. In a power unit for aeroplanes and the like, a pair of motors adapted to rotate in the same direction, a beveled gear driven by each of said motors, a differential casing, a beveled pinion carried by said casing and meshing with said beveled gears, power-transmission means carried by said casing, means for preventing the backward rotation of either of said motors, and means for locking said beveled pinion against rotation to cause said motors to rotate in unison, said means including a screw-threaded member normally adapted to rotate with said casing, a second screw-threaded member, the threads on which engage those of the first-named member, and clutching means operated by movement of said second member.

3. In a power unit for aeroplanes and the like, a pair of motors adapted to rotate in the same direction, a beveled gear driven by each of said motors, a differential casing, a beveled pinion carried by said casing and meshing with said beveled gears, power-transmisison means carried by said casing, means for preventing the backward rotation of either of said motors, and means to lock said beveled pinion against rotation to cause said motors to rotate in unison, said means comprising a lug on the pinion, a pin passing through an aperture in the side of the differential casing and adapted to be moved into and out of engagement with said lug, said pin being carried by a member slidably mounted upon a sleeve projecting from the side of said differential casing, and a nut screwing on a portion of said sleeve and engaging said member.

4. In a power unit for aeroplanes and the like, a pair of motors adapted to rotate in the same direction, a gear driven by each of said motors, a differential casing, means carried by said casing meshing with said gears, power-transmission means carried by said casing, means for preventing the backward rotation of either of said motors, said means comprising a disk rotatable with each of said motors, a stationary member mounted adjacent to said disks, clutch means mounted between said rotatable disk and stationary member and acting to prevent the rotation of said disk except in one direction, the means for retaining said stationary member stationary comprising an arm projecting from said member and spring-pressed abutments engaging the sides of said arm.

5. In a power unit for aeroplanes and the like, a pair of motors adapted to rotate in the same direction, differential gearing connecting said motors, and means to cause said motors to rotate in unison comprising a lug on a gear of said differential gearing, and a pin passing through an aperture in the casing of said differential and adapted to be moved into and out of engagement with said lug.

1,076,417. COMPOSITION OF MATTER AND PROCESS OF MAKING THE SAME. BYRON B. GOLDSMITH, New York, N. Y. Filed Oct. 7, 1907. Serial No. 396,189. (Cl. 106—46.)

1. The process of producing a thermoplastic compound which consists in subjecting an albuminoid to the combined action of beta-naphthol and formaldehyde and heating and pressing the mass, substantially as described.

2. The process of producing a thermoplastic compound which consists in first uniting an albuminoid with a solid converting agent and an indurating agent, and then heating and rolling the same before the action of the indurating agent is complete, substantially as described.

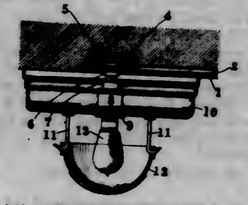
3. The process of producing a thermoplastic compound which consists in subjecting a gelatoid to the modifying action of beta-naphthol and of an indurating agent, substantially as described.

4. The process of producing a thermoplastic compound which consists in subjecting a gelatoid to the modifying action of beta-naphthol and formaldehyde, substantially as described.

5. The process of producing a thermoplastic compound which consists in intimately mixing a gelatoid with beta-naphthol and an indurating agent and subjecting the mass to heat and pressure, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

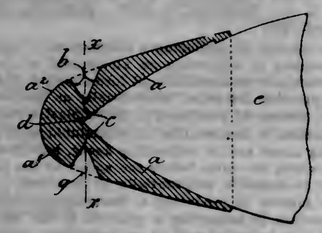
1,076,418. LIGHTING-FIXTURE. EDWIN F. GUTH, St. Louis, Mo. Filed Nov. 18, 1912. Serial No. 731,981. (Cl. 240—78.)



1. In a lighting fixture, the combination with a reflecting member having a horizontally disposed flat lower reflecting surface, of a translucent light diffusing bowl opening toward the central portion of the reflecting surface and positioned a short distance below said surface to provide free space for the passage of light between the reflecting surface and the upper edge of the bowl, the bowl opening being of smaller area than the reflecting surface, bowl suspending means attached to the upper part of the bowl, and a source of light within the bowl and near the reflecting surface, the relative position of the bowl, source of light and reflecting surface being such that all of the rays of light not passing directly from the source to the inner surface of the bowl will strike the reflecting surface and be directed downwardly thereby.

2. In a lighting fixture, the combination with suitable ceiling connections, of a lamp socket attached thereto, a canopy covering said ceiling connections and lamp socket, said canopy having a wholly flat lower surface adapted to reflect light, a translucent light diffusing bowl positioned below and opening toward the central portion of the flat reflecting surface, the area of the bowl opening being less than that of the said reflecting surface, a lamp in the lamp receptacle and extending into the bowl, means for suspending the bowl so that light passing downwardly through it will be unobstructed, the bowl, lamp and reflecting surface being positioned with relation to each other to cause substantially all the rays of light from the lamp to be directed downwardly and distributed in a diffused condition over the entire surface of a horizontal plane beneath the fixture and of greater area than the reflecting member.

1,076,419. CAP FOR ARMOR-PIERCING PROJECTILES. ROBERT ABBOTT HADFIELD, Westminster, and ALEXANDER MCKENZIE JACK and AUGUSTUS BASIL HOLT CLERKE, Sheffield, England. Filed Mar. 17, 1913. Serial No. 754,828. (Cl. 102—28.)



1. A cap, for an armor piercing projectile, having an annular groove or recess formed therein between its solid front end or head portion and its rear or body portion.

2. A cap, for an armor piercing projectile, having an annular groove or recess of V shape in cross section formed therein between its solid front end or head portion and its rear or body portion.

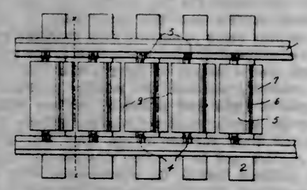
3. A cap, for a pointed armor piercing projectile, made externally mainly of ogival shape with a solid front end portion and having therein an annular groove between its front and rear portions.

4. A cap, for a pointed armor piercing projectile, made externally mainly of ogival shape with a solid front end or head portion having a rounded or convex front surface and having an annular groove or recess therein between its front end or head portion and its rear or body portion.

5. A cap, for a pointed armor piercing projectile, having an annular groove or recess formed therein between its solid front end or head portion and its rear or body portion and surrounding a solid connecting portion of the cap metal of reduced cross section located in a plane that is transverse to the axis of the cap and is adjacent to the point of the cavity in the cap designed to fit the pointed end of a projectile.

[Claim 6 not printed in the Gazette.]

1,076,420. CATTLE-GUARD. FRANCIS D. HAGAN, McKinney, Tex. Filed Mar. 8, 1913. Serial No. 752,815. (Cl. 256—15.)



1. A cattle guard member, comprising an elongated metal plate, mounted longitudinally upon a track tie, and provided with a pivotal axis parallel with said tie, the member being normally substantially horizontal at one side of the pivotal axis, and having at the other side of said axis an upstanding rib parallel with the tie, a preponderance of weight being disposed at the side of the member provided with said rib, normally producing contact between the edge of said side and the corresponding edge of the tie, the member being swung to an inclined position when weight is brought upon its horizontal portion.

2. A cattle guard member, comprising a bar spaced above a rail tie and having its extremities respectively mounted upon the base portions of the track rail, and an elongated metal plate pivoted upon said bar, a preponderance of the weight of said member being disposed at one side of the bar, normally producing contact between the edge of said side and the corresponding edge of the tie, the member being swung to an inclined position when weight is brought upon its other side, and an upstanding rib extending longitudinally of the plate.

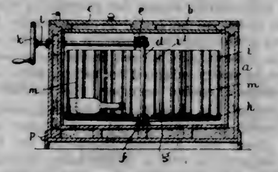
3. In a cattle guard, a plurality of elongated plates, each having a longitudinal rib and flat portions on each side of the rib, said flat portions of each plate being disposed at an angle to each other, and a plurality of bars, each pivotally supporting one of the plates and having its ends fixed.

4. In a cattle guard, a plurality of elongated plates, each having a longitudinal rib and flat portions on each side of the rib, said flat portions of each plate being disposed at an angle to each other, the rib of each plate being inclined over one of the flat plate portions so as to slightly overhang the same, and a plurality of bars, each pivotally supporting one of the plates and having its ends fixed.

5. In a cattle guard, the combination with a tie, of a bar mounted longitudinally over the tie, and an elongated metal plate hinged on said bar and having two flat portions extending from a longitudinal upstanding rib, one of said flat plate portions being inclined downward with relation to the other, the plate being hinged on the bar so that a preponderance of weight is on the side carrying the rib and the inclined portion whereby the inclined portion normally rests against the tie.

[Claim 6 not printed in the Gazette.]

1,076,421. COOLING DEVICE. HAROLD HALE, Harrow, England. Filed Sept. 16, 1912. Serial No. 720,486. (Cl. 62—14.)

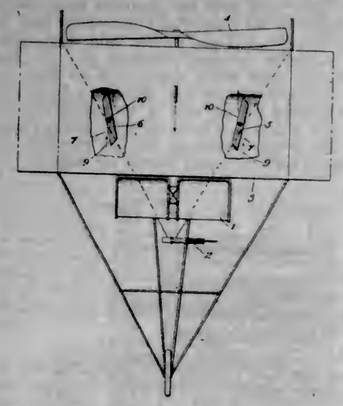


1. A cooling device including an upright casing having an opening in its top wall only, a goods carrier horizontally revoluble in said casing, means within said casing for receiving a refrigerant to cool the goods on said goods carrier and a plurality of vertical bars on said carrier, said vertical bars being arranged in a plurality of concentric series adapted to receive bottles piled in contact horizontally and radiating with their heels only separated by the thickness of the vertical bars.

2. A cooling device including an upright casing having an opening in its top wall only, a goods carrier horizontally revoluble in said casing, a plurality of concentric rings secured to the base of said carrier, means within said casing for receiving a refrigerant to cool the goods on said goods carrier and a plurality of vertical spaced bars carried by each of said rings, said bars being adapted to receive bottles piled in contact horizontally and radiating with their heels only separated by the thickness of the vertical bars.

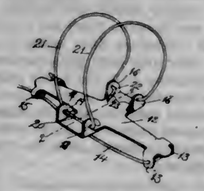
1,076,422. RADIATOR. HERBERT CHAMPION HARRISON, Lockport, N. Y., assignor, by mesne assignments, to Harrison Manufacturing Company, Inc., Lockport, N. Y., a Corporation of New York. Filed Oct. 10, 1911. Serial No. 653,926. (Cl. 244—31.)

In a machine adapted to be propelled at high speed, a radiator having vertical front and side faces extending at acute angles to the line of travel, said radiator comprising a vertical series of perforated plates extending at an acute angle rearwardly from said front face, and a



series of water tubes extending vertically in the passages between said angularly-extending plates.

1,076,423. BOW-HOLDER. FREDERICK F. HASKELL, Medford, Mass., assignor to Cambridge Novelty Company, Cambridge, Mass., a Corporation of Massachusetts. Filed June 21, 1912. Serial No. 705,083. (Cl. 24—85.)



1. A bow holder comprising a base plate provided with spaced apart ears and spaced apart detents, and a clasp formed of a single wire bent at its middle portion to form a transverse detent-engaging member and parallel resilient arches, the ends of said arches opposite said detent-engaging member being pivotally mounted in said ears, the extremities of said wire being so bent as to engage said plate to form tension-producing abutments when the detent-engaging member is in engagement with said detents.

2. A bow holder comprising a base plate provided with spaced apart ears and spaced apart detents, and a clasp formed of a single wire bent at its middle portion to form a transverse detent-engaging member and parallel resilient arches, the ends of said arches opposite said detent-engaging member being bent at right angles to form trunnions which are passed through said ears, the extremities of said wires being so bent as to engage said plate to form tension-producing abutments when the detent-engaging member is in engagement with said detents.

3. A bow holder comprising a base plate provided with spaced apart ears and spaced apart detents, and a clasp formed of a single wire bent at its middle portion to form a transverse detent-engaging member and parallel resilient arches, the ends of said arches opposite said detent-engaging member being pivotally mounted in said ears.

4. A head dress retainer comprising a body portion having laterally extending upwardly turned ears on one side and a pair of laterally extending upturned hooks on its opposite side and a ribbon retaining wire loop having two arms connected by a bridge the ends of said arms being hinged in said ears and its bridge portion being adapted to engage said hooks, and means on its lower side for releasably engaging the hair of the wearer.

1,076,424. PROCESS OF TREATING LARGE FERMENTATION VESSELS. HANS HELD, Nuremberg, Germany. Continuation of application Serial No. 524,045, filed Oct. 22, 1909. This application filed Feb. 6, 1912. Serial No. 676,115. (Cl. 204—1.)



1. In the production of large vessels suitable for use in fermenting saccharine liquids, the process which comprises forming the vessel of a cheap metal, placing an amount of electrolyte therein, which amount is materially less than the amount required to fill said vessel, rotating the vessel about its longitudinal, horizontally arranged axis while passing an electric current through said electrolyte, and making the inner wall of said vessel serve as the cathode, thus producing a coating of a metal on the inner surface of said vessel.

2. The improvement in the art of producing large vessels, which comprises insulating said vessel, placing an amount of a copper electrolyte therein insufficient to fill said vessel, together with an anode, connecting the vessel itself as the cathode, passing an electric current through the electrolyte from said anode to said vessel; rotating said vessel containing the electrolyte, and thereafter producing in like manner a second coating of a different metal.

3. The improvement in the art of producing large vessels, which comprises insulating said vessel, placing an amount of a copper electrolyte therein insufficient to fill said vessel, together with an anode, connecting the vessel itself as the cathode, passing an electric current through the electrolyte from said anode to said vessel; rotating said vessel containing the electrolyte, and thereafter producing in like manner a second coating of silver.

4. In the production of large, silver lined vessels suitable for use in fermenting saccharine liquids, the improvement consisting in placing within such vessel an amount of an electrolyte containing copper, said amount being insufficient to fill said vessel, and placing an anode within said vessel, rotating said vessel about its horizontal axis and passing an electric current through said electrolyte, from said anode to the inner wall of said vessel to electrodeposit copper thereon, and thereafter producing in like manner a second coating of silver thereupon.

1,076,425. SYRINGE. JAMES J. HOLLAND, Philadelphia, Pa. Filed Nov. 19, 1909. Serial No. 528,079. (Cl. 128—23.)



1. In a syringe, the combination with a rigid tubular stem having means at one end to engage a flexible tube

and having an annular screw threaded flange at the other end with an outwardly flared seat concentric with the passageway through said stem; of a hollow ovoid shell detachably connected with said flange, by an internal screw thread at the larger end of said shell, having ridges extending longitudinally on its external surface, and jet orifices, arranged in series longitudinally in said shell, opening through the latter tangentially with respect to its axis, through said ridges at one side thereof; a hollow sealed ovoid core inclosed by said shell in separable relation therewith, having a series of radial channels in its larger end concentric with the axis of said stem and fitted in the outwardly flared seat of the latter; and, means forming separate channels between said core and shell respectively in registry with the radial channels in said core and local to the respective series of orifices in said shell; whereby, water passing through said stem is distributed by said core in separate streams to the respective series of orifices to equalize the distribution of water throughout the circumference of said shell.

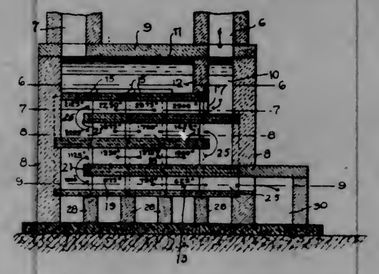
2. In a syringe, the combination with a rigid tubular stem having means at one end to engage a flexible tube and having an annular screw threaded flange at the other end with an outwardly flared seat concentric with the passageway through said stem; of a hollow ovoid shell detachably connected with said flange, by an internal screw thread at the larger end of said shell, having ridges extending longitudinally on its external surface, and jet orifices, arranged in series longitudinally in said shell, opening through the latter tangentially with respect to its axis, through said ridges at one side thereof; a hollow sealed ovoid core inclosed by said shell in separable relation therewith, having its larger end concentric with the axis of said stem and fitted in the outwardly flared seat of the latter; and, means forming separate channels between said core and shell respectively in registry with the respective series of orifices in said shell; whereby, water passing through said stem is distributed by said core in separate streams to the respective series of orifices to equalize the distribution of water throughout the circumference of said shell.

3. In a syringe, the combination with a rigid tubular stem having means at one end to engage a flexible tube and having an annular flange at the other end with an outwardly flared seat concentric with the passageway through said stem; of a hollow ovoid shell detachably connected with said flange, at the larger end of said shell, having ridges extending longitudinally on its external surface, and jet orifices, arranged in series longitudinally in said shell, opening through the latter tangentially with respect to its axis; a hollow ovoid core inclosed by said shell in separable relation therewith, having a series of radial channels in its larger end concentric with the axis of said stem and fitted in the outwardly flared seat of the latter; and, means forming separate channels between said core and shell respectively in registry with the radial channels in said core and local to the respective series of orifices in said shell, whereby, water passing through said stem is distributed by said core in separate streams to the respective series of orifices to equalize the distribution of water throughout the circumference of said shell.

4. In a syringe, the combination with a tubular stem; of an exterior ovoid shell carried by said stem and having a circumferential series of jet orifices extending through said shell; and an ovoid core in said shell, forming with said shell a series of separable channels circumferentially spaced in said shell and leading to the respective jet orifices, the outer walls of said channels being formed by said shell, and the inner walls of said channels being formed by said core; whereby, water passing through said stem is equally distributed throughout the circumference of said shell.

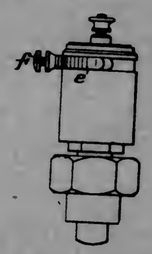
1,076,426. REGENERATOR FOR METALLURGICAL FURNACES. THEODOR LUDOLPH HOLLE, St. Louis, Mo. Filed Jan. 18, 1913. Serial No. 742,924. (Cl. 75—95.)

1. A heat regenerator for furnaces comprising a plurality of circuitous flues, means for supplying air to the alternate flues at one of their ends, said regenerator being provided with a gas receiving chamber located above said flues at one of their ends, the remaining flues opening into said chamber, a flue connecting said chamber with the furnace to supply waste gas thereto, said regenerator having a secondary chamber extending over the flues for substantially their entire length, said air flues at their upper ends opening into said chamber, a bridge wall arranged between the top wall of the regenerator and the upper wall of said flues to isolate said chambers from each other, and a flue connecting said air receiving chamber with the furnace to supply heated air thereto.



2. A heat regenerator for furnaces, comprising a plurality of circuitous flues, means for supplying air to the alternate flues at one of their ends, the upper ends of said flues opening into a common air receiving chamber, a gas receiving chamber and a flue connecting the same with the furnace to supply waste gas thereto, a bridge wall separating said gas chamber from the air chamber, the remainder of said circuitous flues being in communication at their upper ends with said gas chamber, a gas receiving flue communicating with the lower ends of said latter circuitous flues to conduct the waste gas from the generator, the gas and air traveling in opposite directions through the adjacent circuitous flues, and a flue connecting said air receiving chamber with the furnace to supply the heated air thereto.

1,076,427. TESTING INSTALLATION FOR ELECTRO-MAGNETICALLY-OPERATED SPARKING PLUGS. GOTTLOB HONOLD, Stuttgart, Germany. Filed Feb. 12, 1908. Serial No. 415,482. (Cl. 123—154.)



1. In a testing installation, the combination, with an electro-magnetic sparking plug having electrodes and a winding controlling the electrodes, of means for establishing a short circuit which will include the winding and cut out the electrode.

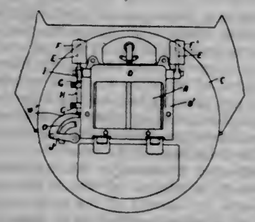
2. In a testing installation, the combination, with an electro-magnetic sparking plug having electrodes and a winding controlling the electrodes and a casing connected with the winding, of a testing wire, and a spring clip connected to the testing wire and adapted to embrace the casing to establish a short circuit which will include the winding and cut out the electrodes.

3. In a testing installation, the combination, with an electro-magnetic sparking plug comprising a cylindrical casing and having electrodes and a winding controlling the electrodes, the casing connected with the winding on the side remote from the generator, and having an annular groove in its outer surface, of a testing wire, and a spring clip connected to the testing wire and adapted to enter the groove and embrace the casing to establish a short circuit including the winding and cutting out the electrodes.

4. In a testing installation for electromagnetic sparking plugs, the combination of a plurality of sparking plugs each having a winding and an electrode controlled thereby, and means for establishing short circuits through some of the plugs which short circuits will include the windings and cut out the electrodes.

5. The combination with an electromagnetic sparking plug having electrodes, a winding controlling the electrodes, and a casing or body inclosing the winding and forming a part of its circuit, of a testing wire adapted to be connected to said casing or body to cut the electrodes out of the circuit.

1,076,428. FURNACE-FRONT. JAMES HOWDEN HUME, Glasgow, Scotland. Filed Mar. 25, 1913. Serial No. 756,709. (Cl. 110—172.)



1. In a furnace front, in combination, a furnace door hinged on a horizontal axis, a lever provided with an extension adapted to be moved toward and from the door, air supply valves, connections between said valves and said lever for imparting closing movement to the valves on movement of said lever in one direction, a balance weight tending to open the door and means operable by said lever serving in one position of the lever to lock the balance weight and thereby also lock the door.

2. In a furnace front, in combination, a furnace door hinged on a horizontal axis to open inwardly toward the furnace, a lever provided with an extension adapted to be moved toward and from the door, air supply valves, connections between said valves and said lever for imparting closing movement to the valves on movement of said lever in one direction, a balance weight tending to open the door and means operable by said lever serving in one position of the lever to lock the balance weight and thereby also lock the door.

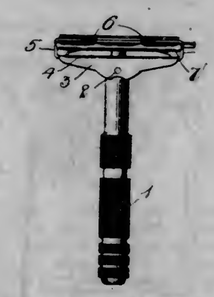
3. In a furnace front, a furnace door hinged on a horizontal axis to open inwardly toward the furnace, a renewable framing including a base piece and a shelf on which the door is carried, said shelf having a flange, valves for controlling the supply of air to said furnace, a lever controlling said valves, said lever when in position to open the valves acting to prevent the opening of the door, a base plate, the base piece of said renewable framing resting on said base plate, and packing strips on the outer face of the door adapted to engage said flange and said base piece.

4. In a furnace front, a furnace door hinged on a horizontal axis to open inwardly toward the furnace, a shelf on which the door is carried, said shelf having a flange, valves for controlling the supply of air to said furnace, a lever controlling said valves, said valves being closed when the door is open, a base plate, means associated with said base plate affording a wearing face, and differently inclined packing strips on the outer face of the door adapted to engage said flange and said wearing face.

5. In a furnace front, a furnace door hinged on a horizontal axis to open inwardly toward the furnace, a base plate, a renewable framing including a base piece resting on said base plate and a shelf on which the door is carried, said shelf having a flange, valves for controlling the supply of air to said furnace, and a lever controlling said valves, said lever when in position to open the valves acting to prevent the opening of the door.

[Claims 6 to 9 not printed in the Gazette.]

1,076,429. SAFETY-RAZOR. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Nov. 11, 1912. Serial No. 730,577. (Cl. 30—12.)

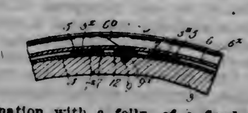


1. In a razor, the combination of a frame and a blade, said frame having portions fixed relative to one another extending on both sides of the blade and a handle in the frame, a plate located between the end of the handle and the blade, and a spring between the plate and the portion of the frame adjacent to the handle and tending to move said plate away from the handle and toward said blade and a part of the frame remote from the handle, the handle being movable relatively to the frame to exert pressure on said plate and hold the blade rigidly in place.

2. In a razor, the combination of a frame and a blade, said frame having portions extending on both sides of the blade and a handle in the frame, a plate located between the end of the handle and the blade, and a spring between the plate and the portion of the frame adjacent to the handle and tending to move said plate away from the handle and toward said blade and a part of the frame remote from the handle, the handle being movable relatively to the frame to exert pressure on said plate and hold the blade rigidly in place, said spring having a hole in its central portion so that said handle can engage said plate directly.

3. In a razor, the combination of a frame and a blade, said frame having portions extending on both sides of the blade and a handle pivoted in the frame, the end of said handle when the frame is swung into shaving position holding the blade rigidly in place, a plate located between the end of the handle and the blade, and a spring between the plate and the portion of the frame adjacent to the handle and tending to move said plate away from the handle and toward said blade and a part of the frame remote from the handle, said plate having a projection forming a thumb-piece for the depression of said plate against the action of said spring when said frame is in non-shaving position.

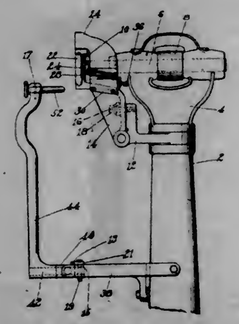
1,076,430. DEMOUNTABLE RIM. WILTON FORD JENKINS, Richmond, Va. Filed Oct. 7, 1912. Serial No. 724,315. (Cl. 152—21.)



The combination with a felly, of a fixed rim secured thereto and provided with a pair of converging lugs, and a

split, demountable rim having a pair of converging lugs disposed on the opposed ends of said split rim and arranged to engage the lugs on said fixed rim, the adjacent faces of the lugs of said fixed rim being beveled from their outer surfaces toward the body of the fixed rim, and the lugs of the demountable rim being beveled in the opposite direction to engage and be held by the beveled portions of the lugs of the fixed rim.

1,076,431. TRIMMING-MACHINE. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 3, 1910. Serial No. 585,100. (Cl. 12—87.)



1. A machine for trimming to the contour of the heel end of a last the heel portion of an insole attached to the bottom of the last comprising, in combination, a cutter, and guiding means for relatively positioning the last and cutter including a device constructed to extend between the tread face of the last and the insole and of such length and thickness as to raise the insole from the last and permit it to be trimmed by the cutter without interference between said cutter and the edge of the last.

2. A machine for trimming an insole attached to the bottom of a last comprising, in combination, a cutter, guiding means to engage the sides of the last, a device located adjacent to the cutter to extend between the bottom of the last and the insole, and means to support the insole sufficiently close to the point of operation of the cutter to hold it against any tendency to bend away from the cutter.

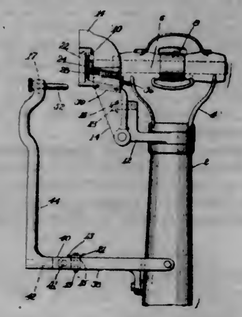
3. A machine for trimming an insole attached to the bottom of a last comprising, in combination, a driven cutter, guiding means arranged to position the last in a plurality of directions relatively to said cutter, and means for engaging the insole sufficiently close to the point of operation of the cutter to prevent it from bending away from the cutter.

4. A machine for trimming an insole attached to the bottom of a last comprising a driven cutter, means for engaging the sides of the last to position it relatively to the cutter as it is moved to present different portions of the insole to the operation of the cutter, means arranged to extend between the bottom of the last and the insole, and means located opposite to said last mentioned means to engage the outer face of the insole at a point close to the point of operation of the cutter to prevent the insole from bending away from the cutter.

5. A machine for trimming to the edge contour of the tread face of the heel portion of a last an insole attached to the bottom of the last comprising, in combination, a driven cutter constructed and shaped to trim the edge of the insole, and guiding means for positioning the last relatively to the cutter including a device shaped to hold the insole away from the bottom of the last during the trimming operation to prevent any interference between the cutter and the edge of the last.

[Claims 6 to 17 not printed in the Gazette.]

1,076,432. METHOD OF TRIMMING INSOLES. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Oct. 3, 1910, Serial No. 585,100. Divided and this application filed June 25, 1913. Serial No. 775,695. (Cl. 12—142.)



1. The method of trimming an insole attached to a last which consists in raising a portion of the insole away from the last, and trimming the raised portion of the insole to the edge contour of the tread face of the last.

2. The method of trimming an insole attached to a last which consists in gripping and holding a portion of the insole in raised position away from the last, and trimming the raised portion of the insole while so held to the edge contour of the tread face of the last.

3. The method of trimming an insole attached to a last which consists in gripping a portion of the insole close to a point opposite the margin of the tread face of the last and holding it in raised position away from the last, and trimming said portion of the insole while so held to the dimensions and the edge contour of the corresponding portion of the tread face of the last.

4. The method of trimming an insole attached to a last which consists in supporting a portion of the insole by contact with the side adjacent to the last to maintain it in raised position with respect to the last, bringing pressure to bear upon the opposite side of the insole to prevent movement of the insole with respect to the last, and trimming the raised portion of the insole to the edge contour of the tread face of the last.

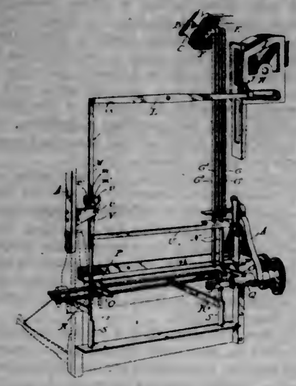
5. The method of trimming an insole attached to a last which consists in raising successively different portions of the insole away from the last, and trimming said portions of the insole while so raised to the edge contour of the tread face of the last.

[Claims 6 to 11 not printed in the Gazette.]

1,076,433. LINE-CASTING MACHINE. GEORGE P. KINGSBURY, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,651. (Cl. 199—7.)

1. In a machine of the class described, the combination of two distinct matrix releasing devices, a single finger key to control them, and a space delivering mechanism adapted to be operated after the composition of each word and arranged to shift the connection between the finger key and matrix releasing devices, substantially as described; whereby the key is enabled to actuate the two matrix releasing devices alternately.

2. In a machine of the class described, the combination of two magazine channels and escapements, two actuating reeds for the escapements, a finger key, connections through which the key controls said escapements one at a time, and a space delivering mechanism adapted to be operated after the composition of each word and arranged to shift said key connections; whereby the key is caused to deliver matrices from one channel during the composition of one word and from the other channel during the composition of the next word, and so on alternately.



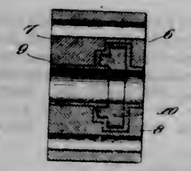
3. Two escapements and actuating means therefor comprising a single shiftable connection for operating them alternately, in combination with space delivering devices adapted to be operated after the composition of each word and arranged to shift said connection each time that a space is delivered.

4. Two escapements to deliver matrices from separate channels, actuating devices therefor, and a single means for controlling them, in combination with a space delivering mechanism adapted to be operated after the composition of each word and which shifts the said controlling means and thus effects the action of said escapements alternately.

5. In a machine of the class described, the combination of manually operable means for delivering matrices from different magazine channels, means for delivering spacers between the composed words, and connections whereby the spacer delivering means will cause the matrix delivering means when operated to deliver matrices from one channel during the composition of one word and from another channel during the composition of a succeeding word.

[Claims 6 to 8 not printed in the Gazette.]

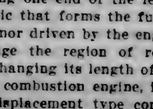
1,076,434. PACKING-BOX. GEORGE J. LEAVITT, Berlin, N. H. Filed Jan. 27, 1912. Serial No. 673,785. (Cl. 121—109.)



1. A packing box for the purpose set forth comprising a pair of sections, each of said sections being formed with semi-cylindrical depressed portions for the reception of a shaft, means for securing the sections together and upon the shaft, packing members for the semi-cylindrical depressions, the packing box being provided with a substantially L-shaped depression, the packing members being also provided with substantially L-shaped flanges which are adapted to be received within the depressions, a cross sectional L-shaped packing ring engaging within the depressions provided by the packing members, said ring comprising a plurality of sections and means for compressing the sections to bring the packing elements toward the shaft.

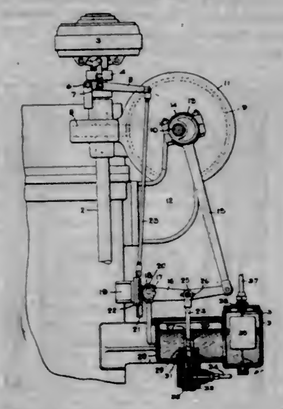
2. A packing box for the purpose set forth embodying a pair of removably connected members, means for connecting the members, means for attaching the members to a support, each of said members being provided with a semi-cylindrical depression, each of said members being further provided with semi-cylindrical grooves which register with the depressions, packing members within the grooves and the depressions, said packing members having their portions within the depressions provided with substantially L-shaped openings, a flanged ring engaging within the said openings and contacting the packing members, the said ring comprising a plurality of sections, means for loosely connecting the sections, means for compressing the sections one toward the other for regulating the packing elements, and means whereby a lubricant may be fed to the ring and to the packing elements.

1,076,435. CONCEALED DOOR-HINGE. FREDERICK A. LEDWARD, Flint, Mich. Filed Jan. 27, 1913. Serial No. 744,382. (Cl. 16—105.)



A hinge including a door member having an integral plate formed with a pivot boss and a shoulder, and a stationary member having an L-shaped slot, and a perforated plate to receive the boss, whereby the door may be held open its full width by engagement of the shoulder with the wall of the slot.

1,076,436. FUEL-PUMP FOR INTERNAL-COMBUSTION ENGINES. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 9, 1912. Serial No. 676,528. (Cl. 123—140.)



1. An internal combustion engine in combination with a pump comprising a cylinder and a reciprocating plunger having a constant length of stroke but variable region of reciprocation, a lever connected to the plunger, a driving means for vibrating one end of the lever through a fixed region, an eccentric that forms the fulcrum for the lever, and a speed governor driven by the engine for turning the eccentric to change the region of reciprocation of the plunger without changing its length of stroke.

2. An internal combustion engine, in combination with a pump of the displacement type comprising a cylinder having a lateral suction port therein, a plunger which reciprocates in the cylinder and covers and uncovers the port on each stroke, said strokes being of constant length but of varying region, a discharge valve for the pump, a lever connected to the plunger, a driving means for im-

parting strokes of constant length to the lever, an eccentric forming a fulcrum for the lever, and a speed governor driven by the engine for turning the eccentric to change the region of reciprocation of the plunger.

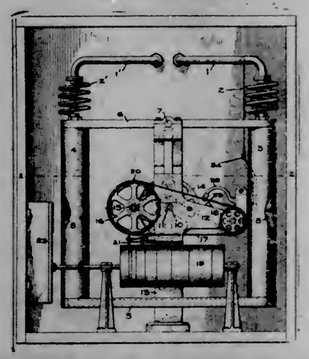
3. An internal combustion engine, in combination with a pump comprising a cylinder and a reciprocating plunger having a constant length of stroke but variable region of reciprocation, a lever, a driving means connected to one end of the lever for moving it back and forth through a fixed region, an eccentric that forms the fulcrum for the lever and is located at its opposite end, means connecting the plunger to the lever at a point between the fulcrum and point of attachment of the driving means, and a speed governor driven by the engine for turning the eccentric on its support to change the region of reciprocation of the plunger without changing its length of stroke.

4. An internal combustion engine, in combination with a pump comprising a cylinder and a reciprocating plunger having a constant length of stroke but variable region of reciprocation, a lever connected to the plunger, a driving means for vibrating one end of the lever through a fixed region, an eccentric that forms the fulcrum for the lever, a speed governor driven by the engine, and a connection between the governor and the eccentric for moving the latter angularly which includes a rack and pinion.

5. An internal combustion engine, in combination with a displacement pump comprising a cylinder and a reciprocating plunger having a constant length of stroke but variable region of reciprocation, a lever, an eccentric and rod driven by the engine and connected to the lever for vibrating it, a fulcrum for the lever, comprising an eccentric, a speed governor, gearing connecting the governor and the eccentric for turning it to change the region of vibration of the plunger, and a connection between the plunger and the lever.

[Claim 6 not printed in the Gazette.]

1,076,437. FLUID-FLOW METER. HAROLD H. MAPELSDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 16, 1909. Serial No. 507,944. (Cl. 234—17.)



1. A fluid flow meter having a substantially U-shaped mercury tube, a pivot on which the tube is mounted to tilt, mechanism for showing the quantity of fluid flowing, gearing between the pivot and said mechanism, and means responsive to changes in the static pressure of the fluid being metered that coöperate with said gearing to modify the action of said mechanism to compensate for static pressure changes.

2. A fluid flow meter having a substantially U-shaped mercury tube mounted to tilt, a pivot for the tube, a segment gear that moves with the tube about the pivot, a shaft driven by the gear, a recording mechanism, gearing between the shaft and said mechanism, and means responsive to changes in the static pressure of the fluid being metered that coöperate with the gearing to modify the action of the recording mechanism to compensate for static pressure changes.

3. A fluid flow meter having a tilting beam, mercury cups carried on the ends of the beam, a conduit connecting the cups, means for subjecting them to differential pressures created by the flowing fluid, a recording mechanism, gearing arranged in the space between the cups that is actuated by the beam and in turn actuates said mechanism, and means responsive to changes in the static pressure of the fluid being metered that coöperates with the gearing to modify the action of the recording mechanism to compensate for static pressure changes.

4. A fluid flow meter having a tilting beam, mercury cups carried on said beam, means for connecting said cups, means for subjecting them to differential pressures created by the flowing fluid, mechanism for recording the movements of said beam, means for transmitting motion from the beam to said mechanism, an arm angularly moved by said beam, a weight engaged by said arm, and a pressure-responsive device acting to vary the point of contact of said weight along said arm.

5. A fluid flow meter having a tilting mercury tube, gearing actuated by said tube, recording mechanism actuated by said gearing, a normally vertical arm rotatable by said gearing, a weight hanging adjacent to said arm, a pressure responsive device, and means actuated thereby for varying the radial distance of said weight from the axis of rotation of said arm.

[Claims 6 to 9 not printed in the Gazette.]

1,076,438. THERMO-ELECTRIC ELEMENT. ALBERT L. MARSH, Detroit, Mich., assignor to Hoskins Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 30, 1912. Serial No. 723,197. (Cl. 171—73.)

1. A positive thermo-electric element consisting of nickel and silicon.

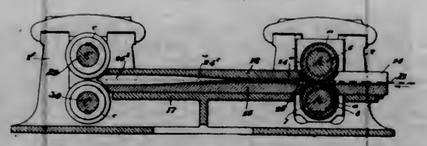
2. A positive thermo-electric element consisting of nickel and silicon, the silicon in proportion of from 3 to 5%.

3. A positive thermo-electric element consisting of nickel and silicon, with an added quantity of an auxiliary adapted to remove shortness.

4. A positive thermo-electric element consisting of an alloy of nickel and silicon, with an added quantity of manganese as an auxiliary to remove shortness.

5. A positive thermo-electric element consisting of nickel and silicon, the silicon in the proportion of from 3 to 5%, with an added quantity of manganese to remove shortness.

1,076,439. APPARATUS FOR MANUFACTURE OF METALLIC BANDS. JOHN B. MCKIBBIN, Crafton, Pa., assignor of five-sixteenths to George Wright, Jr., two-sixteenths to Samuel F. Long, and four-sixteenths to John U. Wragg, Pittsburgh, Pa. Continuation of application Serial No. 555,691, filed Apr. 5, 1910. This application filed Jan. 17, 1912. Serial No. 671,651. (Cl. 80—3.)



1. Apparatus for slitting and finishing sheet metal bands comprising slitting mechanism, edge treating mechanism, and intervening guide mechanism embodying a plurality of passes adapted to receive and continuously conduct the several strips from the slitting mechanism to the edge treating mechanism, and to gradually change the planes of the several strips through an arc of ninety degrees, the longitudinal centers of said passes being parallel—

and conforming to the lateral spacing of the slitting mechanism and edge treating mechanism, substantially as set forth.

2. Apparatus for slitting and finishing sheet metal bands comprising slitting mechanism, edge treating mechanism, and intervening guide mechanism embodying a plurality of passes adapted to receive and continuously conduct the several strips from the slitting mechanism to the edge treating mechanism, and to gradually change the planes of the several strips from horizontal to vertical, the longitudinal centers of said passes being parallel and conforming to the lateral spacing of the slitting mechanism and edge treating mechanism, substantially as set forth.

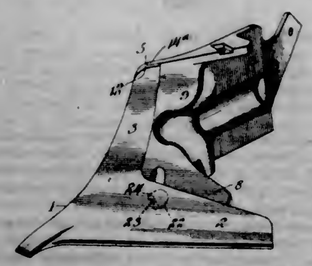
3. The combination with co-acting disks operable to divide a sheet metal blank into a plurality of strips on a horizontal plane, and a pair of edging rolls provided with vertically arranged edge-finishing passes, of intervening guiding mechanism providing a plurality of individual passes for said strips extending continuously from the slitting mechanism to the edging mechanism, and gradually changing in cross section from horizontal to vertical planes respectively, the longitudinal centers of said passes being parallel and conforming to the lateral spacing of the slitting mechanism and edge treating mechanism, substantially as set forth.

4. The combination with co-acting slitting disks operable to divide a sheet metal blank into a plurality of strips on a horizontal plane, and a pair of edging rolls provided with vertically arranged edge finishing passes spaced in conformity with the spacing of the slitted disks, of intervening guiding mechanism consisting of a lower and an upper guide-forming member, each of said members being provided with contacting faces and inner pass-forming surfaces substantially conforming to the faces and edges of the strips adapted to travel therethrough, and gradually changing from horizontal to vertical planes, and laterally spaced in conformity with the spacing of the slitting disks and edging rolls, substantially as set forth.

5. The combination with a pair of slitting rolls adapted to slit a blank longitudinally on a horizontal plane and a pair of edge treating rolls having series of vertical passes spaced in correspondence with the spacing of the slitting rolls, of guide mechanism embodying a series of intervening individual closely adjacent guiding passes for the severed blanks having an initial common horizontal plane adjacent the slitting rolls and gradually changing in spiral formation throughout their length and terminating in vertical planes adjacent the edging rolls, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,076,440. BOLTLESS PLOW-POINT. CHARLES WILLIAM MCWANE, Lynchburg, Va., assignor to Lynchburg Foundry Company, Lynchburg, Va., a Corporation of Virginia. Filed Sept. 30, 1912. Serial No. 723,178. (Cl. 97—21.)



1. In a plow of the class described, the combination with a standard having a tapered foot, said foot having its lower edge and its landside edge both beveled, of an imperforate plow point consisting of a nose, blade and shin, said blade and shin being each provided along the inner face of the same with a longitudinal flange, said flanges being angularly related to each other and diverging from a shoulder located at the rear end of the nose and defining a tapered recess to receive the foot of the standard, said flanges being undercut and engaging with the said beveled edges of the foot, and fastening means for retaining the plow point on the standard without perforating the face of the point, said fastening means engaging with the underside of the plow point in rear of the shoulder and within the said tapered recess.

2. In a plow of the class described, the combination with a standard having a tapered foot, said foot having its lower edge and its landside edge both beveled, and said beveled edges leading from a shoulder located at the extreme forward end of the standard, of an imperforate plow point consisting of a nose, a blade and a shin, said blade and said shin being each provided along the inner face of the same with a longitudinal flange, said flanges being angularly related to each other and diverging from a shoulder located at the rear end of the nose and defining a tapered recess to receive the foot of the standard, said flanges being undercut and engaging with the said beveled edges of the foot, and fastening means for retaining the plow point on the standard without perforating the face of the point.

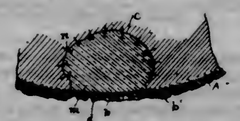
3. In a plow of the class described, the combination with a standard having a tapered foot, said foot having its lower edge and its landside edge both beveled, and said beveled edges leading from a shoulder at the extreme forward end of the standard, the landside beveled edge extending to the top of the standard, of an imperforate plow point consisting of a nose, a blade and a shin, said blade and said shin being each provided along the inner face of the same with a longitudinal flange, said flanges being angularly related to each other and diverging from a shoulder located at the rear end of the nose and defining a tapered recess to receive the foot of the standard, said flanges being undercut and engaging with the beveled edges of the foot of the standard, and fastening means for retaining the plow point on the standard without perforating the face of the point, said fastening means engaging with the underside of the plow point in rear of the shoulder and within the said tapered recess.

4. In a plow of the class described, the combination with a standard having a tapered foot, said foot having its lower edge and its landside edge both beveled, and said landside beveled edge extending to the top of the standard, of an imperforate plow point consisting of a nose, a blade and a shin, said blade and said shin being each provided along the inner face of the same with a longitudinal flange, said flanges being angularly related to each other and defining a tapered recess to receive the foot of the standard with the flanges undercut and engaging with the beveled edges thereof, the flange on the inner face of the shin extending throughout the length thereof, and fastening means for retaining the plow point on the standard without perforating the face of the point.

5. In a plow of the class described, the combination with a standard having a tapered foot, of an imperforate plow point including a blade and a shin and provided at its lower face with undercut ribs extending along the blade and the shin and forming a recess to receive the foot of the standard and interlocked with the side edges thereof, and a fastening device carried by the foot and connected with the plow point at the lower face thereof.

[Claims 6 to 24 not printed in the Gazette.]

1,076,441. TREE SURGERY. CHARLES R. MYERS, Cleveland, Ohio. Filed Nov. 15, 1912. Serial No. 731,468. (Cl. 47—36.)

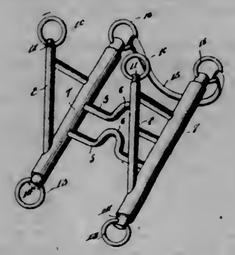


1. The method of surfacing a cement filling in a tree which consists in first coating the said filling with a dry

substance like lampblack and then applying an adhesive plastic coating over the said dry substance of a kind adapted to be pushed off by the cambium growth of the tree and shading the surface of said coating to make the same conform to the outline and appearance of the natural bark of the tree.

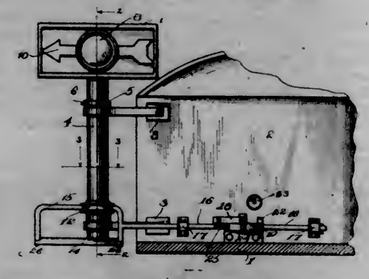
2. The method herein described of treating a diseased portion of a tree consisting, first, in removing all the decayed wood in and about the portion under treatment; then suitably sterilizing the wall of the cavity produced by such cleansing and filling the same with a cement mixture, and at last covering the exposed surface of the said filling with a frangible material finished to resemble the natural bark of the tree in color and contour and adapted to be pushed off by the cambium growth of the tree.

1,076,442. BRIDLE-BIT. WILLIAM H. NIEMANN, Litchfield, Ill. Filed Feb. 13, 1912. Serial No. 677,283. (Cl. 54—7.)



A bit including cheek frames comprising straight bars of approximately uniform diameter throughout, ring connections provided at the forward ends of said bars, choke strap connections provided at the rear ends of said bars, bit bars transversely connecting said bars and check rein bars comprising straight lengths of material connected at their forward ends to the cheek bars immediately adjacent the rein connections of said bit bars, said check rein bars extending upwardly and rearwardly at an angle to the cheek bars and terminating in rear of the bit bars, and check rein connections carried beyond the rear terminals of the check rein bars.

1,076,443. SIGNALING DEVICE FOR AUTOMOBILES. HARVEY P. NOBLE, Philadelphia, Pa., assignor of one-half to Edwin G. Ott, Philadelphia, Pa. Filed Mar. 29, 1912. Serial No. 687,041. (Cl. 240—24.)

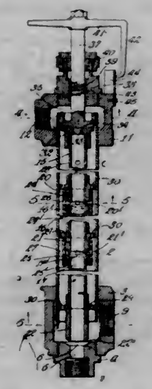


1. The combination with a vehicle, of brackets projecting to one side of the vehicle adjacent the front end thereof, a shaft mounted in said brackets, a casing on the upper end of the shaft, openings in the front and rear face of said casing, lenses in said openings, a signal light in the casing between the lenses, whereby the signal is shown both front and rear, a pinion on the lower end of the shaft, a pulley on the shaft, a rectangular frame engaging the pulley at one side of the shaft, a rack on the frame engaging the pinion on the other side of the shaft, and means for moving the frame, substantially as described.

2. The combination with a vehicle, of brackets projecting to one side of the vehicle adjacent the front end thereof, a shaft mounted in said brackets, a casing on the upper end of the shaft, openings in the front and rear face of said casing, lenses in said openings, a signal light in the casing between the lenses, whereby the signal is shown both front and rear, a pinion on the lower end of the shaft, a pulley on the shaft, a rectangular frame engaging the pulley at one side of the shaft, a rack on the frame engaging the pinion on the other side of the shaft, a foot lever, and a bar connecting said frame with said foot lever, whereby the movement of the foot lever causes the rotation of the shaft, substantially as described.

3. The combination with a vehicle, of brackets projecting to one side of the vehicle adjacent the front end thereof, a shaft mounted in said brackets, a casing on the upper end of the shaft, openings in the front and rear face of said casing, lenses in said openings, a signal light in the casing between the lenses, whereby the signal is shown both front and rear, a pinion on the lower end of the shaft, a grooved pulley on the shaft, a rectangular frame engaging in the groove of the pulley at one side of the shaft, a rack on the frame engaging the pinion on the other side of the shaft, and means for moving the frame, substantially as described.

1,076,444. MEANS FOR REGULATING STEAM-HEATING SYSTEMS. LEWIS CRAVEN OAD, Montreal, Quebec, Canada, assignor to Canadian Gold Car Heating & Lighting Company, Limited, Montreal, Canada, a Corporation of Canada. Filed Nov. 11, 1911. Serial No. 659,847. (Cl. 237—9.)



1. In combination, a steam radiator, a steam supply device, a stand pipe connected to the radiator to have the water of condensation escape therethrough, means connecting the stand pipe to the steam supply device, means whereby such stand pipe may be cut off from such steam supply device, means operable automatically by said last named means to permit the water of condensation to escape at a certain predetermined level when said stand pipe is cut off from the steam supply device, and means connecting the radiator to the steam supply independently of the stand pipe.

2. A steam radiator regulator comprising a stand pipe having a drip port, and an inlet port adapted to receive water of condensation from a radiator, a tube within the stand pipe adapted to control the escape of water of condensation therefrom, such tube comprising a series of vertically and relatively adjustable members arranged to provide passages between the ends thereof for the flow of water from the stand pipe at different levels, and means whereby such members may be adjusted relatively to each other to govern the passage therebetween.

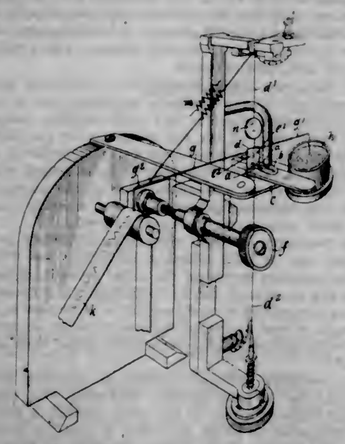
3. A steam radiator regulator comprising a stand pipe having a drip port, and an inlet port adapted to receive water of condensation from a radiator, a tube within the stand pipe adapted to control the escape of water of condensation therefrom, such tube comprising a series of vertically and relatively adjustable members arranged to provide passages between the ends thereof for the flow of water from the stand pipe at different levels, and means whereby such members may be adjusted relatively to each other to govern the passage therebetween, the bottom one of such tubes carrying a valve adapted to control the passage of the water of condensation from the stand pipe exterior to the said tube.

4. A steam radiator regulator comprising a stand pipe having a drip port and an inlet port adapted to receive water of condensation from a radiator, means connecting the stand pipe to the steam supply, means within the stand pipe for regulating the level at which the water of condensation escapes, and means actuated by a common device with the last mentioned means for cutting off the steam supply to the stand pipe when the water of condensation is escaping at a certain predetermined level.

5. In a steam radiator regulator, a tube open at its lower end and made up of a series of relatively adjustable sections having their adjacent ends formed to present valves and valve seats respectively, means whereby the said sections may be adjusted relatively to one another to move the valves toward or away from the said seats, and means to support the tube.

[Claims 6 to 11 not printed in the Gazette.]

1,076,445. ELECTROCAPILLARY CONTRIVANCE. AXEL ORLING, London, England, assignor to Orling's Telegraph Instruments Syndicate, Limited, London, England. Filed Oct. 6, 1911. Serial No. 653,194. (Cl. 178—46.)



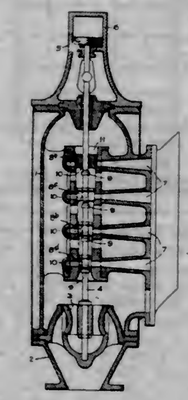
1. An electro-capillary contrivance comprising two converging capillary tubes occupied by mercury, a closed chamber containing an electrolyte into which the smaller ends of the capillary tubes are sealed and within which a pressure less than that of the atmosphere is maintained and means for transmitting electric impulses from the mercury in one tube to that in the other through the interposed electrolyte.

2. An electro-capillary contrivance comprising two converging capillary tubes occupied by mercury, a closed chamber containing an electrolyte into which the smaller ends of the capillary tubes are sealed and within which a pressure adjusted to a suitable degree less than that of the atmosphere is maintained and means for transmitting electric impulses from the mercury in one tube to that in the other through the interposed electrolyte.

3. An electro-capillary contrivance comprising two converging capillary tubes occupied by mercury, a closed chamber containing an electrolyte into which the smaller ends of the capillary tubes are sealed and within which a pressure less than that of the atmosphere is maintained and a pivoted plate whose surface makes contact with the exposed surfaces of the mercury contained in the capillary tubes and forms a portion of an electric circuit which conveys electric impulses from the mercury in one tube to that in the other through the interposed electrolyte.

4. An electro-capillary contrivance comprising two converging capillary tubes occupied by mercury, a closed chamber containing an electrolyte into which the smaller ends of the capillary tubes are sealed and within which a pressure less than that of the atmosphere is maintained, a pivoted plate whose surface makes contact with the exposed surfaces of the mercury contained in the capillary tubes and forms a portion of an electric circuit which conveys electric impulses from the mercury in one tube to that in the other through the interposed electrolyte, and means for recording the angular displacements of the said pivoted plate.

1,076,446. STEAM-REGULATOR FOR TURBINES. WILHELM PAPE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 4, 1912. Serial No. 695,151. (Cl. 121—118.)



1. A steam regulating device for elastic fluid turbines, comprising a casing, a valve mounted in and controlling the admission of steam to said casing, a plurality of regulating valves controlling the flow of steam from said casing to the turbine, and means including a common stem on which the valves are mounted for operating said valves in succession.

2. A steam regulating device for elastic fluid turbines, comprising a casing, a valve controlling the admission of steam to said casing, a plurality of regulating valves controlling the flow of steam from said casing to the turbine, means including a common stem on which the valves are mounted for operating said regulating valves in succession, and means for opening said admission valve before said regulating valves are opened.

3. The combination with a casing, of means for admitting steam thereto, a plurality of regulating valves controlling the flow of steam out of the casing, upper and lower seats for each valve carried by the casing, a cylinder adjacent the upper seat in which the portion of valve that coöperates with said seat moves so that the flow area to the upper seat remains substantially constant

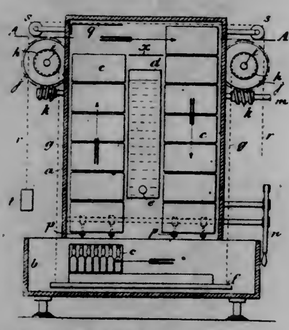
while the flow area between the lower portion of the valve and its seat varies as the valve is moved, a spindle passing through all of the valves, devices on the spindle for operating the valves in succession, and means for operating the spindle.

4. The combination with a casing, of a valve for admitting steam thereto, a plurality of regulating valves controlling the flow of steam out of said casing, a spindle passing through all of said regulating valves and connected to the admission valve, collars on said spindle for opening said regulating valves in succession, and means for operating said spindle.

5. The combination with a casing, of a valve for admitting steam thereto, a plurality of regulating valves controlling the flow of steam out of said casing, means including a common stem on which the valves are mounted for opening said valves in succession said stem being connected to the admission valve, and means for producing an unbalanced pressure on said regulating valves to cause them to close automatically.

[Claims 6 and 7 not printed in the Gazette.]

1,076,447. APPARATUS FOR STEAMING BOTTLES. ANDERS ANDERSEN PINDSTOFTE, Copenhagen, Denmark. Filed Sept. 11, 1912. Serial No. 719,863. (Cl. 167—3.)

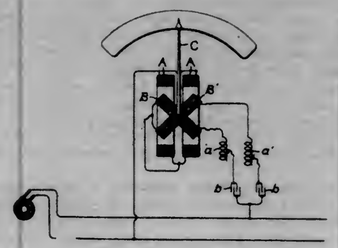


1. In apparatus for steaming of bottles, or the like, the combination of a chamber open at its bottom, baskets in which the bottles are carried through said chamber, a steam supplying device arranged in the middle of said chamber, means for holding said baskets in stack formation in said chamber; a lift arranged below said chamber and adapted to successively lift and lower said baskets to and from said stack; means for moving said lift up and down and means arranged in the top of said chamber adapted to carry the baskets from one side of said chamber to the other; substantially as described and for the purpose set forth.

2. In apparatus for heating and soaking of bottles, vessels or the like by means of steam the combination of a chamber open at its bottom, baskets in which the bottles, vessels or the like are carried through said chamber, an open steam generator arranged in the middle of said chamber, means for holding said baskets in separate stacks in said chamber; a lift arranged below said chamber and adapted to successively lift and lower said baskets to and from said stacks; means for moving said lift up and down and means arranged in the top of said chamber adapted to carry the baskets from one of said stacks to the other, substantially as described and for the purpose set forth.

3. In apparatus for heating and soaking of bottles, vessels or the like by means of steam, the combination of a chamber open at its bottom, baskets in which the bottles or the like are carried through said chamber, a steam supplying device arranged in the middle of said chamber, means for supporting the baskets in stacks on either side of said steam supplying device; said supporting means constructed for allowing a basket to be introduced into one of said stacks and to be withdrawn from the other of said stacks, respectively when the lift is raised and lowered; a lift arranged below said chamber and adapted to successively lift and lower said baskets to and from said stacks; means for moving said lift up and down and means arranged in the top of said chamber and adapted to carry the baskets from one side of said chamber to the other; substantially as described and for the purpose set forth.

1,076,448. FREQUENCY-INDICATOR. WILLIAM H. PRATT, West Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 19, 1911. Serial No. 650,226. (Cl. 171—245.)



1. A frequency indicator comprising relatively movable elements, one of said elements including two windings exerting opposing forces on the other element, means for turning the circuits of the two windings for two different frequencies, an indicator actuated by the movable element, and a scale coöperating with said indicator.

2. A frequency indicator comprising relatively movable elements, one of said elements including two windings exerting opposing forces on the other element, means for tuning the circuits of the two windings for two different frequencies, said two frequencies being respectively above and below the average frequency to be measured, an indicator actuated by the movable element, and a scale cooperating with said indicator.

3. A frequency indicator comprising relatively movable elements, one of said elements including two windings exerting opposing forces on the other element, means for tuning the circuits of the two windings for two different frequencies, said two frequencies being respectively above and below the average frequency to be measured and differing therefrom by a small fraction of the average frequency, an indicator actuated by the movable element, and a scale coöperating with said indicator.

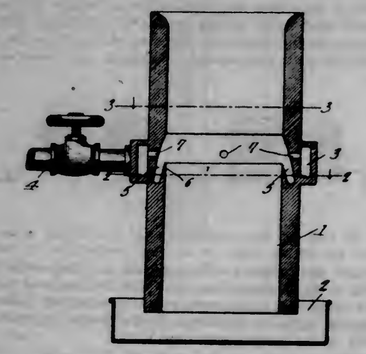
4. A frequency indicator comprising relatively movable elements, one of said elements including two windings exerting opposing forces on the other element, means for tuning the circuits of the two windings for different frequencies comprising a reactance and a condenser in series with each of said two windings, an indicator actuated by the movable element, and a scale coöperating with said indicator.

5. A frequency indicator comprising relatively movable elements, one of said elements including two windings exerting opposing forces on the other element, a reactance and a condenser in series with each of said two windings, means for adjusting the relative amounts of said reactances and condensers, an indicator actuated by the movable element, and a scale coöperating with said indicator.

[Claims 6 to 10 not printed in the Gazette.]

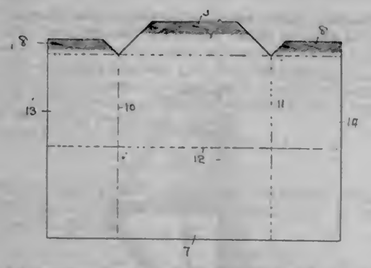
1,076,449. FLUID-HYDROCARBON BURNER. ERNEST L. REYNOLDS, Ardmore, Okla. Filed Feb. 20, 1913. Serial No. 749,692. (Cl. 158—91.)

1. A fluid hydrocarbon burner, including a vertically disposed tubular member provided intermediate of its ends with an internal fluid receiving recess provided with an upwardly inclined mouth disposed entirely within the walls of the member, and an oil distributing chamber embracing the member adjacent the recess and provided with a plurality of jet apertures in communication with the interior of the member at points above the lower rim of and within the recess.



2. A fluid hydrocarbon burner, including a tubular member open at both ends and provided intermediate of its ends with a recess formed in the inner wall thereof, the rear wall of which is inclined to provide a relatively wide mouth thereto, and an oil distributing chamber encircling the member adjacent the recess and having a plurality of jet apertures leading therefrom through the wall of the tubular member and terminating through the inclined wall of the recess.

1,076,450. STATIONERY. JOSEPH RINDSBERG, Richmond, Va. Filed Nov. 23, 1911, Serial No. 661,898. Renewed Mar. 18, 1913. Serial No. 755,257. (Cl. 120—74.)

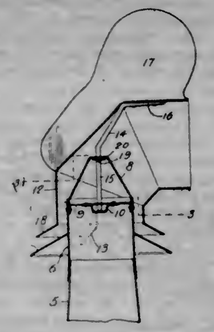


1. An envelop blank comprising a rectangular body portion, and a central flap and smaller end flaps extending from one of the longitudinal edges thereof.

2. An envelop blank comprising a rectangular body portion, a central flap and smaller end flaps extending from one of the longitudinal edges thereof, said blank being scored along the longitudinal center thereof, and also on transverse parallel lines between each of said flaps, said blank being adapted to be folded along said scores.

1,076,451. VENTILATOR. JAMES K. ROBINSON, Little Rock, Ark. Filed Apr. 1, 1913. Serial No. 758,130. (Cl. 98—3.)

1. A ventilator comprising a draft member, a flange mounted thereupon and having a substantially frusto-conical form, a cowl located adjacent said draft member and provided with a flange of substantially frusto-conical form, said last mentioned flange being spaced a little distance from said first mentioned flange, and a plurality of fins carried by said cowl and extending therefrom outwardly to the edges of said flange carried by said cowl, said fins diverging from each other for the purpose of deflecting wind relatively to said draft member and thus forcing a draft within said draft member.



2. A ventilator comprising a draft pipe, a frusto-conical flange mounted upon said draft pipe, a cowl supported by said draft pipe and free to move under control of atmospheric wind into different angular positions relatively to said draft pipe, a flange carried by said cowl and having a frusto-conical form, said last mentioned flange being spaced apart from said first mentioned flange, and a pair of fins carried by said cowl and extending outwardly to the edges of said flange carried by said cowl, said fins lying in separate planes which diverge from a point displaced from the axis of rotation of said cowl.

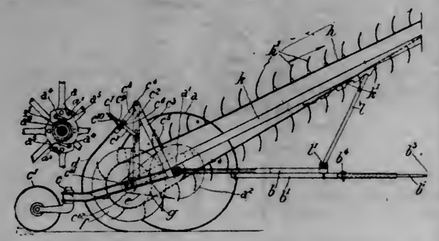
3. A ventilator comprising a draft member, a flange mounted thereupon, a cowl revolubly mounted upon said draft member, a flange carried by said cowl and disposed adjacent to said first mentioned flange so as to facilitate the blowing of wind between said flanges, and a plurality of fins engaging said flange carried by said cowl and lying in divergent planes for the purpose of concentrating a portion of atmospheric wind and directing said portion across said draft member in order to aspirate a quantity of air contained therein.

4. A ventilator comprising a draft pipe, an arch mounted thereupon, a bridge extending across said arch, a stirrup carried by said bridge, a stem engaging said arch and said bridge, a cowl carried by said stem and adapted to be shifted into different positions by the wind, a flange carried by said cowl, a flange carried by said draft pipe, and a plurality of fins carried by said cowl and engaging the flange thereof, said fins diverging for the purpose of controlling currents of atmospheric air in order to cause the latter to aspirate the air contained within said draft pipe.

1,076,452. MACHINE FOR RAKING AND LOADING MATERIALS SUCH AS HAY AND THE LIKE. JOHN ROCHAIX, Petit-Saconnex, near Geneva, and ISAAC ANKEN, Anières, near Geneva, Switzerland. Filed Aug. 23, 1911. Serial No. 645,655. (Cl. 56—61.)

1. A machine for raking and loading materials comprising in combination, a shaft, driving means therefor, a conveyer roller mounted on said shaft and adapted to rotate therewith, two rotatable screw conveyers, a rake disposed transversely to the direction of movement of the machine and extending from substantially the outer end of one screw conveyer to substantially the outer end of the other screw conveyer, said screw conveyers being mounted on said shaft and disposed one at each side of said roller for conveying the material from the ends of the rake toward the center thereof, and a conveyer arranged over the said conveyer roller for conveying the material from the central portion of the rake.

2. A machine for raking and loading materials comprising in combination, a shaft disposed perpendicular to the path of movement of the machine, road wheels, an axle therefor parallel with said shaft, driving means between said axle and said shaft, a conveyer roller mounted on said shaft and caused to rotate therewith, a rotatable propeller-like blade mounted on said shaft on each side of said conveyer roller for conveying the material from the ends of the rake toward the center thereof, a rake extending to substantially the outer ends of said blades, and an endless conveyer running over said conveyer roller for conveying the material from the center of the rake to the place of delivery.



3. In a machine for raking and loading materials, a plurality of screw members, means for rotating said screw members, a rake located transversely to the direction of movement of the machine for feeding the material to said screw members, said screw members in rotating acting to convey the material from the ends of the rake to the central portion thereof, and means for conveying the material from the central portion of the rake.

1,076,453. METHOD OF MAKING CASE-HARDENING MATERIAL. HUGH RODMAN, Edgewood, Pa., assignor to Rodman Chemical Company, a Corporation of Pennsylvania. Filed Apr. 25, 1913. Serial No. 763,527. (Cl. 148—40.)

1. The method of adapting finely divided material for use as carbonizing material, which consists in mixing the material with a binding agent and forming small masses which will maintain their identities when heated.

2. The method of adapting finely divided material, containing coking material, for use as carbonizing material which consists in mixing the material with a binding agent and forming small masses which will maintain their identities when heated.

3. The method of adapting finely divided material, containing coking coal, for use as carbonizing material, which consists in mixing the material with a binding agent and forming small masses which will maintain their identities when heated.

4. The method of adapting finely divided material for use as carbonizing material, which consists in mixing it with a binding agent and forming small masses which will coke internally only.

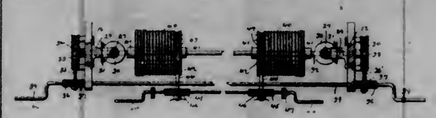
5. The method of adapting finely divided material, containing coking material, for use as carbonizing material, which consists in mixing it with a binding agent and forming small masses which will coke internally only.

[Claims 6 to 25 not printed in the Gazette.]

1,076,454. BOAT-DAVIT. JULIUS ROEVER, New York, N. Y. Filed May 21, 1912. Serial No. 698,744. (Cl. 9—22.)

1. A boat davit of the kind described comprising a framework, gear operated segments pivoted in the framework, arms pivoted to the framework and tilted by the segments, ways or slots in the arms diverging from the pivoted connection, pulleys carried in the ways and adapted to support a boat, so that the boat drops by gravity when the arms are tilted, and gear means for raising the boat.

2. A boat davit comprising a framework, geared segments pivoted in the framework, means on the segments to engage the framework and limit the movement of the segments, pivoted tilting arms carried by the segments, slots in the arms, wheels carried in the slots, tackles carried by the wheels and supporting the boat, gear mechanism for operating the segments and tilting the arms, drums having a cable connection with the tackles, worm gears for operating the drum-hooks to engage the tackle support, said hooks having rollers in alinement with an abutment on the tackle for releasing the hook by the raising of the boat, and means for raising and lowering the boat.



3. In a davit, the combination of the tilting arms and means for tilting them, of tackles constructed to run on the arms and connect with the boat, hoisting mechanism having a cable connection with the tackles, and hinged hooks connected to the boat, said hooks having rollers in alinement with an abutment on the tackle, whereby the raising of the boat releases the hook.

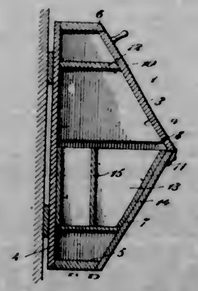
1,076,455. ALLOY. WALTER RÜBEL, Berlin, Germany, assignor to Rubel Bronze Limited, London, England. Filed June 23, 1913. Serial No. 775,359. (Cl. 75—1.)

1. An alloy consisting of iron, nickel, manganese and aluminium melted together in proportions corresponding to the multiples of their atomic weights expressed in the following formula, viz:

$$4(FeNi) + 8Al + Mn.$$

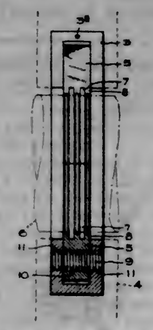
2. An alloy consisting of the following metals melted together in the following proportions by weight, viz:—iron 31 parts, nickel 32 parts, aluminium 30 parts and manganese 7.5 parts.

1,076,456. BIN. PERRY B. SCHELL, Blue Canyon, Cal. Filed Feb. 19, 1913. Serial No. 749,489. (Cl. 211—6.)



A bin comprising substantially triangular side pieces, a back piece, top and bottom pieces, a front piece inclined from the bottom pieces to the center of the side pieces, said side pieces having their front edges rabbeted above the top edge of the front piece, said side pieces provided with horizontal internal grooves, a cover piece adapted to seat in said rabbets between the top edge of the front piece and the top piece and to slide in said horizontal grooves to provide a kneading surface, and a removable receptacle freely arranged in and fitting the bin and covered by the cover piece when in position in the grooves, said receptacle adapted to be adjusted transversely of the bin.

1,076,457. LEAKAGE-REDUCING DEVICE. FRANZ SCHULTHEISS, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed May 5, 1911. Serial No. 625,192. (Cl. 121—109.)



1. In a device of the character described, the combination of a housing having recesses in its walls, a leakage reducing ring mounted in the housing, and springs that pass through the ring and enter said recesses and support the ring.

2. In a device of the character described, the combination of a housing having recesses in its walls, a leakage reducing ring mounted within the housing and free to slide therein, and a plurality of axially extending coiled springs for supporting the ring that are located in the ring and are seated in the walls of the housing.

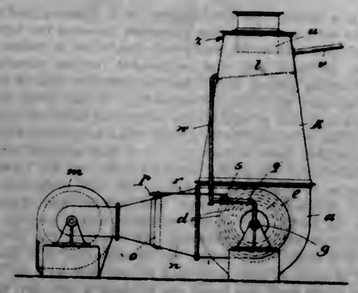
3. In a device of the character described, the combination of a housing, a leakage reducing ring mounted in the housing, and springs by which the weight of the ring is entirely supported, said springs being the sole means for centering the ring and also for preventing it from rotating.

4. In a device of the character described, the combination of a housing, a segmental leakage reducing ring mounted to slide therein, said housing and ring being provided with registering openings, and springs located in said openings which form the sole support for the segments of the ring.

5. In a device of the character described, the combination of a housing having parallel walls, a segmental ring mounted therein, and a pair of springs which extends through each ring segment into the walls of the housing, there being a clearance around each spring on opposite sides of the segment to permit the segment to move slightly from its normal position.

[Claim 6 not printed in the Gazette.]

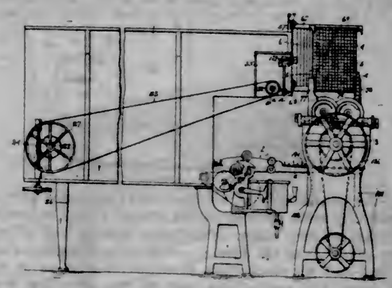
1,076,458. GAS-PURIFYING APPARATUS. WALTER SCHWARZ, Dortmund, Germany. Filed Oct. 16, 1912. Serial No. 726,133. (Cl. 48—141.)



1. In a gas purifying apparatus the combination of a gas purifying chamber into which the gas flows from the circumference toward the center, a revoluble cage of beaters closely inclosed by the casing, the beaters in said cage arranged in circles revolving alternately in opposite directions, the number of said circles depending upon the degree of purification to be obtained, a gas chamber behind said beater cage, a throttle valve in said gas chamber and a fan behind said gas chamber another valve in the water supply pipe, said valve coupled to the said throttle valve in the gas chamber and adapted to maintain a constant ratio between the gas volume and the quantity of water injected, substantially as described.

2. In a gas purifying apparatus the combination of a gas purifying chamber into which the gas flows from the circumference toward the center, a revoluble cage of beaters closely inclosed by the casing, the beaters in said cage arranged in circles revolving alternately in opposite directions, a gas chamber behind said beater cage, a throttle valve in said gas chamber and a fan behind said gas chamber, a mixing chamber containing a trough into which the gas supply pipe projects and means for producing a water seal of said gas pipe in said trough when the water injection is shut off, substantially as described.

1,076,459. APPARATUS FOR THE MANUFACTURE OF CAPSULES. BURTON W. SCOTT, Detroit, Mich., assignor, by mesne assignments, to Eli Lilly & Company, Indianapolis, Ind., a Corporation of Indiana. Filed Aug. 29, 1910. Serial No. 579,513. (Cl. 18—25.)



1. Mechanism for making capsules, comprising a dipping apparatus, a drier, a capsule assembling machine, movable mold pins arranged in pairs, each pair comprising body pins and cap pins, means for delivering said pins in pairs from the drying apparatus, means for separating the body pins from the cap pins and feeding said separated pins in independent courses through the capsule machine, and means for reassembling said pins in pairs and conveying them to the dipping apparatus.

2. Apparatus for making capsules comprising a drying machine, a capsule assembling machine, movable pin bars arranged in pairs, each pair comprising a bar having pins thereon for forming the bodies of the capsules, and a bar having pins thereon for forming the caps of the capsules, means for delivering said bars in pairs from the drying apparatus in a horizontal position, said bars being so disposed that the cap bars and the body bars shall alternate and that the pins of all of the bars shall project vertically, means for successively reversing said bars so as to cause them to occupy a vertical position with their pins projecting laterally, and means for feeding said bars so disposed to their respective guides in which they pass vertically through the capsule assembling machine.

3. An apparatus for making capsules, comprising a drier, a capsule assembling machine, movable pin bars arranged in pairs, each pair comprising a bar having body pins thereon and a bar having cap pins thereon, means for delivering said bars in pairs from the drier in a horizontal position with said bars so disposed that the cap bars and pin bars shall alternate, means for successively engaging said bars and conveying them to their respective guides on the capsule assembling machine in position to

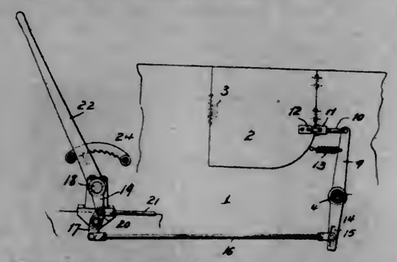
pass through said machine in the operation of making capsules.

4. Mechanism for the purpose set forth, comprising a drying apparatus, a capsule assembling machine, movable mold pins for molding the caps and bodies of the capsules, respectively, means for moving said pins through the drier collectively, and means for separating said pins at the capsule assembling machine and directing them through said machine in independent courses.

5. Mechanism for the purpoee set forth, comprising a dipping apparatus, a drier, a capsule assembling machine, movable mold pins for forming the caps and bodies of the capsules, respectively, means for receiving said pins from the dipping apparatus and carrying them through the drier collectively, means for separating the cap and body pins at the capsule assembling machine and directing them through said machine in independent courses, and means at the discharge of the capsule assembling machine for reassembling the cap and body pins and feeding them to the dipping apparatus collectively.

[Claims 6 to 11 not printed in the Gazette.].

1,076,460. DOOR-OPERATING MECHANISM. WILLIAM M. SIMMONS, Burlington, Iowa. Filed Mar. 25, 1913. Serial No. 756,779. (Cl. 39—91.)



1. The combination with a door and an operating lever, of coöperating shaft sections having limited rotary movement relatively to each other, connections between one of said shaft sections and the door, a spring for turning said shaft sections and its connections in a direction to swing the door open, and connections between the operating lever and the other shaft section for turning the latter in either direction.

2. The combination with a door and an operating lever, of alining shaft sections having overlapping shoulders and disposed to permit limited rotary movement of said shaft sections relatively to each other, connections between the operating lever and one of said shaft sections for turning the latter in both directions, connections between the other shaft section and the door, and a spring connected with said last-mentioned connections for moving the latter in a direction to swing the door open.

3. The combination with a door and an operating lever, of intermeshing shaft sections adapted to have limited rotary movement relatively to each other, connections between one of said shaft sections and the door, a spring connected with said connections for moving the latter in one direction, and connections between the operating lever and the other shaft section for moving the latter in one direction relatively to the other shaft section to unlock the door, and for moving it in the reverse direction to turn said other shaft section and effect the closing of the door.

4. The combination with a vehicle and two oppositely disposed doors, of intermeshing alining shaft section adapted to have limited rotary movement relatively to each other, an operating lever connected with the intermediate shaft section, connections between the other shaft sections and the respective doors, and spring connected with said connections.

5. The combination with a vehicle, a door therefor, and a brake lever, of intermeshing shaft sections adapted to have limited rotary movement relatively to each other, an arm on one of said shaft sections, connections between said arm and the door, a spring fixed at one end and attached at its other end to said arm, an arm on the other shaft section and connections between said last-mentioned arm and the brake lever.

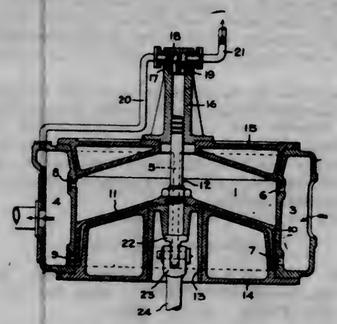
[Claim 6 not printed in the Gazette.]

1,076,461. AGRICULTURAL IMPLEMENT. PERRY W. SMITH, Paris, Mo. Filed Jan. 20, 1912. Serial No. 672,298. (Cl. 97—42.)



In a device of the class described, the combination with a frame, of a handle carried thereby, a harrowing member supported on the frame on one side of the handle, a scraping member supported on the frame on the other side of the handle, and a pulverizing wheel journaled on the frame to rotate thereon, the said wheel being arranged between the said scraping member and said harrowing member, with the said harrowing and scraping members spaced from the wheel and partially encircling the same.

1,076,462. PUMP FOR ELASTIC FLUIDS. KARL STEINBECKER, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Mar. 13, 1912. Serial No. 683,503. (Cl. 230—32.)



1. In a pump, the combination of a housing having a cylinder inlet and discharge chambers between the housing and cylinder and which surrounds the latter, a piston that has an inclined web and peripheral portion forming a double acting piston, heads for the cylinder both of which have inclined surfaces corresponding to the faces of the inclined web, one of said heads projecting into the cylinder and having a central bore, a guide that reciprocates in the bore and also forms a packing, a rod that extends through the piston into the guide, means on the rod for clamping the piston to the guide, a head on the rod, a driving connection secured to said head, and suction and discharge valves at both ends of the cylinder which convey fluid to and from said chambers and the inside of the cylinder.

2. In a multi-stage pump, the combination of a housing which is open at both ends and is provided with an inner and an outer wall, the inner one forming a cylinder, means dividing the space between the walls into an inlet and a discharge chamber, a double acting piston for the cylinder comprising an inclined web and a cylindrical peripheral portion, a head for one end of the cylinder having a wall conforming in inclination to that of one side of the piston, a head for the other end of the cylinder that projects into the piston and is provided with a wall conforming in inclination to that of the other side of the piston, said head having a central bore, a guide that snugly fits the bore and also acts as a packing, a second cylinder mounted on one of the heads of the first, the bore of which opens into the first cylinder, a rod for the first piston which also forms the piston of the second cylinder, means on the rod for clamping the first piston and the guide together, a connecting rod attached to one end of the piston rod, and valves for the cylinders.

3. In a pump, the combination of a vertically disposed housing comprising a cylinder and supply and discharge chambers, a lower head for the cylinder having an inset that projects into it and is provided with a relatively large central bore and an inclined top, a guide in said bore which in its lowest position is substantially flush with the bottom of the head, a piston that has an inclined central part or web and a downwardly extending cylindrical part which on its downward stroke extends between the cylinder and said inset, an upper head for the cylinder that has an inclined face corresponding to said web, a second cylinder mounted on the upper head, a rod that forms the piston for the second cylinder and extends freely through the first piston, said rod having a head that engages the guide, means on the rod for clamping the piston against the guide, a driving means connected to the head, and valve means for the cylinders.

4. In a multi-stage compressor, the combination of low and high pressure cylinders arranged in axial alinement, the former cylinder being mounted on the head of the latter, a piston for the low pressure cylinder having a downwardly extending annular portion and a connecting web, an inset lower head for the low pressure cylinder, a tubular guide located within the head, a head for the upper end of the cylinder that supports the high pressure cylinder, a housing for the main cylinder only which contains suction and discharge chambers that surround said cylinder, a conduit conveying fluid from the discharge chamber, a second conduit conveying fluid from said chamber to the high pressure cylinder, a rod for the low pressure cylinder that also acts as a piston for the high pressure cylinder, and admission and discharge valves for the said cylinder.

1,076,463. HOLDER FOR SHADES, REFLECTORS, AND THE LIKE. MEATON P. STEVENS, East Orange, N. J. Filed Jan. 10, 1913. Serial No. 741,147. (Cl. 240—115.)



1. In combination, a support adapted to support a lamp socket, means for supporting a shade, reflector or the like in operative relation thereto comprising spring clamping fingers mounted on the support, a member surrounding said fingers and having means to hold the fingers in clamping position, and a spring to move said means into holding relation with said fingers.

2. In combination, a support adapted to support a lamp socket, means for supporting a shade, reflector or the like in operative relation thereto comprising spring clamping fingers mounted on the support, a member surrounding said fingers and having an annular cone-surface to hold the fingers in clamping position, and a spring to move said member to place said surface in engagement with said fingers.

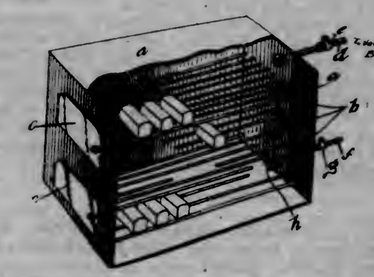
3. In combination, a support adapted to support a lamp socket, means for supporting a shade, reflector or the like in operative relation thereto comprising spring clamping fingers supported by the support, a cone member surrounding the fingers and freely reciprocable lengthwise thereof, and a spring for moving said cone into engagement with the fingers to cause them to hold a shade or reflector.

4. In combination, a support adapted to support a lamp socket, means for supporting a shade, reflector or the like in operative relation thereto comprising spring clamping fingers supported by the support, a member surrounding the fingers and freely reciprocable lengthwise thereof, cooperating means between the said member and the fingers whereby movement of the member in one direction holds the fingers in clamping position, and in the opposite direction permits the fingers to expand, and a spring for urging the said member into holding relation with the fingers.

5. In combination, a support adapted to support a lamp socket, means for supporting a shade, reflector or the like in operative relation thereto comprising spring clamping fingers mounted on the support, an annular cam surrounding said fingers to hold the fingers in clamping position, and a spring to move said cam into holding relation with the fingers.

[Claims 6 to 12 not printed in the Gazette.]

1,076,464. ART OF TREATING DOUGH OR BAKE-SHOP PRODUCTS. CHARLES STRATZ, New York, N. Y. Filed June 16, 1909. Serial No. 502,475. (Cl. 99—10.)



1. The herein described art or method of treating dough or dough products, consisting of creating a partial vacuum about the matter being treated by a continuing suction, whereby gases in the matter will be withdrawn therefrom and from about same, and impregnating said matter with a moist steam under low pressure.

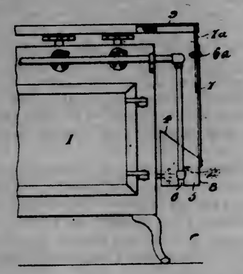
2. The herein described art or method of treating dough or dough products, consisting of creating a partial vacuum about the matter being treated by a continuing suction, whereby gases in the matter will be withdrawn therefrom and from about same, and impregnating said matter with a moist steam under low pressure, and thereafter withdrawing a portion of the steam therefrom by a suction.

3. The herein described art or method of treating dough or dough products, consisting of first creating a partial vacuum about the matter being treated by suction, whereby gases in the matter will be withdrawn therefrom and from about same, thereafter circulating wet steam under low pressure about said matter, whereby said matter will become impregnated with said wet steam, and impurities freed by the heat will be carried from about said matter, and finally removing the steam from about said matter, and withdrawing a portion thereof therefrom.

4. The herein described art or method of treating dough or dough products, consisting of first creating a partial vacuum about the matter being treated, by suction, whereby gases in the matter will be withdrawn therefrom and from about same, thereafter circulating wet steam under low pressure about said matter, and carrying therein or therewith a flavoring matter, whereby said matter will become impregnated with said wet steam, and impurities

freed by the heat will be carried from about said matter and finally removing the steam from about said matter, and withdrawing a portion thereof therefrom.

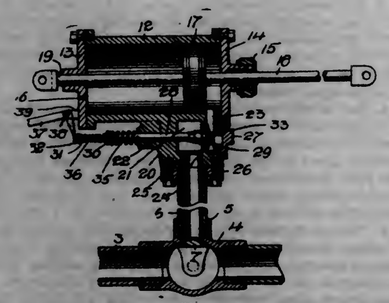
1,076,465. VALVE-PROTECTING DEVICE. HARRY BOYD TESH, Pittsburgh, Pa. Filed Dec. 7, 1912. Serial No. 735,512. (Cl. 126—42.)



1. A valve protecting device comprising a tiltable hood consisting of a top, a pair of end walls, a front wall and having an open rear and an open bottom, said end walls being notched for the mounting of the hood upon a supply pipe to house the regulating valve thereof, and a pair of vertical bars having their lower ends connected to said front wall, said hood capable of being tilted upon said pipe whereby access can be had to the valve.

2. A valve protecting device comprising a tiltable hood consisting of a top, a pair of end walls, a front wall and having an open rear and an open bottom, said end walls being notched for the mounting of the hood upon a supply pipe to house the regulating valve thereof, and a pair of vertical bars having their lower ends connected to said front wall, said hood capable of being tilted upon said pipe whereby access can be had to the valve, said top inclining downwardly from rear to front.

1,076,466. AUTOMATIC BRAKE MECHANISM. WILBER B. THOMAS, Salem, Ohio. Filed May 15, 1913. Serial No. 767,872. (Cl. 188—3.)



1. In an automatic brake mechanism, the combination with an exhaust pipe, of a cylinder, a piston head slidably mounted in said cylinder and having a piston rod adapted to be connected to a brake mechanism, a valve chest carried by said cylinder and establishing communication between said cylinder and said exhaust pipe, a shutter valve in connection with said exhaust pipe for deflecting the exhaust of said pipe into said cylinder, and means in connection with said valve chest for controlling the passage of the exhaust to and from said cylinder.

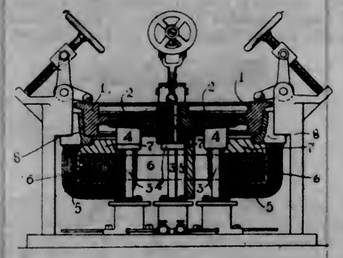
2. In an automatic brake mechanism, the combination with an exhaust pipe, of a cylinder, a piston head slidably mounted in said cylinder and having a piston rod adapted to be connected to a brake mechanism, a valve chest carried by said cylinder and establishing communication between said cylinder and said exhaust pipe, a shutter valve in connection with said exhaust pipe for deflecting the exhaust of said pipe into said cylinder, and means including main and auxiliary valves operable with said shutter valve for controlling the connection between said cylinder and said exhaust pipe.

3. In an automatic brake mechanism, the combination with an exhaust pipe, of a cylinder, a piston head slidably mounted in said cylinder and having a piston rod adapted to be connected to a brake mechanism, a valve chest carried by said cylinder and establishing communication between said cylinder and said exhaust pipe, a shutter valve in connection with said exhaust pipe for deflecting the exhaust of said pipe into said cylinder, a main valve operable in said valve chest for controlling the admission of exhaust to said cylinder, and an auxiliary valve operable in said main valve for controlling the exhaust from said cylinder.

4. In an automatic brake mechanism, the combination with an exhaust pipe, of a cylinder, a piston head slidably mounted in said cylinder and having a piston rod adapted to be connected to a brake mechanism, a valve chest carried by said cylinder and establishing communication between said cylinder and said exhaust pipe, a shutter valve in connection with said exhaust pipe for deflecting the exhaust of said pipe into said cylinder, a main valve operable in said valve chest for controlling the admission of exhaust to said cylinder, an auxiliary valve operable in said main valve for controlling the exhaust from said cylinder, and means operable in unison with said shutter valve for moving said main and auxiliary valves.

5. In an automatic brake mechanism, the combination with an exhaust pipe, of a cylinder in communication therewith, a piston head movable in said cylinder and having a piston rod adapted to be connected to a brake mechanism, a valve carried by said exhaust pipe for deflecting the exhaust of said pipe to said cylinder, and means associated with said cylinder for controlling the passage of the exhaust of said pipe to and from said cylinder.

1,076,467. METHOD OF WELDING. ELIHU THOMSON, Swampscott, Mass., assignor to Thomson Electric Welding Company, Lynn, Mass., a Corporation of Massachusetts. Filed Mar. 14, 1910. Serial No. 549,097. (Cl. 219—10.)



1. The method of uniting a metal rim or margin and its metal inclosure by so forming the edges at the points of union that when engaged they will be laterally displaced from the position they occupy with relation to one another in the finished structure, bringing them into edgewise engagement at such points, passing a heating electric current to bring the portions thereof to plastic condition at the points where they are engaged and applying lateral pressure to move the parts out of their position of relative lateral displacement toward the position they occupy in the finished structure.

2. The method of welding two pieces of metal together, consisting in so forming the edges at the points of proposed union that they may be held laterally displaced from the position they occupy with relation to one another in the finished structure when brought into engagement, bringing the two pieces into edgewise engagement at such points, passing an electric current from one to the other to heat the proposed point of union and applying lateral pressure to force the parts toward the position they are intended to occupy in the finished structure, said parts being held during the operation against displacement longitudinally or in the line of the joint.

3. The method of uniting a wheel rim and its body or center, consisting in providing them respectively with internal and external projections located in the plane of the parts and adapted to hold them laterally displaced by an edgewise engagement of said projections, passing an electric current from one to the other while they are engaged and laterally displaced and applying lateral pressure to center the body or center within the rim.

4. The method of uniting a metal rim or margin and its metal inclosure by forcing them laterally towards position where they will be in plane with one another while they are laterally displaced by the engagement of their inner and outer edges respectively and while heated to plasticity at such points of engagement.

5. The method of uniting an endless metal rim and its metal inclosure by bringing the inside of the rim and the outer edge of the inclosure into edgewise engagement laterally, passing a heating electric current across the points of engagement to bring the parts to plastic condition and forcing the inclosure laterally into position within the rim.

[Claims 6 to 14 not printed in the Gazette.]

1,076,468. BUFFING-MACHINE. FREDERICK A. THURSTON, Lynn, Mass. Filed Mar. 7, 1913. Serial No. 752,536. (Cl. 51—7.)



1. A rotary feed member for buffing machines having a yielding pad on its periphery, one portion of which is composed of substantially harder material than the other.

2. A rotary feed member for buffing machines having a yielding pad on its periphery, the portion of said pad at one side of the periphery of said roll being formed of harder material than that portion laterally adjacent thereto on the other side of the periphery of said roll.

3. A rotary feed member for buffing machines having, in combination, a holder with a block fast thereto and a pad fast to said block and curved to form an arc of a circle constituting the periphery of said rotary member.

4. A rotary feed member for buffing machines having, in combination, a holder with a segmental block fast thereto, said block having a recess in its outer face and a pad of rubber located in said recess fast to said block and curved to form an arc of a circle constituting the periphery of said rotary member.

5. A rotary feed member for buffing machines having, in combination, a holder with a segmental block fast thereto, a pad of rubber curved to form an arc of a circle constituting the periphery of said rotary member and a strip of textile material vulcanized to the inner face of said pad, said textile material fastened by adhesive material to said block.

[Claims 6 to 8 not printed in the Gazette.]

1,076,469. WELL-DRILLING APPARATUS. WILLIAM J. TRAVERS, Olinda, Cal. Filed June 3, 1912. Serial No. 701,442. (Cl. 255—4.)



1. A well drilling apparatus, comprising a casing, a cylinder at the lower end of said casing, a piston mounted to reciprocate in said cylinder, a piston rod connected to said piston, a drilling tool carried by said piston rod, said cylinder being provided with water inlet and outlet means, and valve means operated by the movement of the piston for controlling connection of the water inlet and outlet means with the cylinder to reciprocate the piston and drilling tool positively by water pressure in both directions, said valve traveling with the piston and drilling tool to shift the position of the piston stroke along the cylinder as the drilling tool descends.

2. A well drilling apparatus, comprising a casing, a cylinder at the lower end of said casing, a piston mounted to reciprocate in said cylinder, a piston rod connected to said piston, a drilling tool carried by said piston rod, said cylinder being provided with water inlet and outlet means, and valve means controlling connection of the water inlet and outlet means with the cylinder to reciprocate the piston and drilling tool positively by water pressure in both directions, said valve means being slidably mounted on the piston and operating to move in either direction by its own momentum, on arrest of the piston.

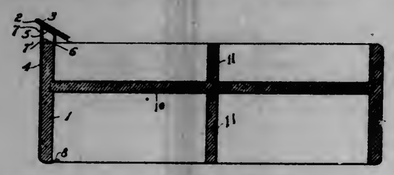
3. A well drilling apparatus, comprising a casing, a cylinder at the lower end of said casing, a piston mounted to reciprocate in said cylinder, a piston rod connected to said piston, a drilling tool carried by said piston rod, said cylinder being provided with water inlet and outlet means, and valve means controlling connection of the water inlet and outlet means with the cylinder to reciprocate the piston and drilling tool positively by water pressure in both directions, said valve means being slidably mounted on the piston and operating to move in either direction by its own momentum on arrest of downward movement of the piston, and means at the lower end of the cylinder for engaging with the valve means to prevent such operation of the valve means and thereby stop the reciprocating operation when the piston approaches close to the lower end of the cylinder.

4. In a well drilling apparatus, a casing, a cylinder connected to the lower end of said casing, a drill operating means mounted to reciprocate in said cylinder, a drilling tool carried by said drill operating means, the axis of said cylinder and the line of motion of said drilling tool being oblique to the axis of said casing to enable the drilling tool to cut a hole larger than said casing.

1,076,470. TICKET-HOLDER. BRUCE N. VAN FLEET, Portland, Me. Filed Mar. 14, 1912. Serial No. 683,965. (Cl. 40—7.)

1. A ticket holder comprising a card support and a clamp, said clamp being formed from a T-shaped metal

blank having the upper edge of its cross-piece bent over to form a transverse recess and a portion of the lower edge of said cross-piece bent inwardly across said recess to form a yielding abutment for one edge of a tray side and the lower end of the upright bent into a spring hook and adapted to engage the other edge of said side.



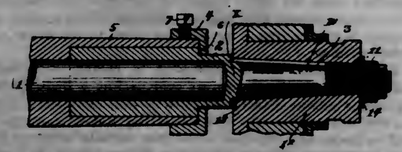
2. A ticket holder comprising a card support and a clamp having an upright piece and a cross piece, the upper edge of said cross piece bent to define a transverse recess adapted to engage an edge of a container side and portions of the lower edge of said cross piece bent across said recess to form yielding abutments for said edge of the container side and said upright piece bent at its lower end to detachably engage the other edge of the container side.

3. A ticket holder comprising a card support and a T-shaped clamp, said clamp having an edge receiving channel, the upright piece of said clamp terminating just inside of the ends of the cross piece, and spring lips turned in from the material thus left and extending transversely of the channel to form yielding abutments.

4. A ticket holder comprising a card support and a clamp engaged over the lower edge of a container side at one end and extending slightly beyond the upper edge of said container side at its other end, said clamp having its top side inclined from said extended part to form a bearing wall for the card support and having a wall bent downwardly from said inclined wall, said extended inclined and downwardly bent parts defining a transverse recess adapted to engage the upper edge of said container side, and said clamp having an edge bent inwardly across said transverse recess to form a yielding abutment for the upper edge of the container side.

5. A ticket holder comprising a card support and a clamp having a cross piece and an upright piece, the top side of the cross piece inclined to form a bearing wall for the card support, a wall bent downwardly from said inclined wall, said last named wall and the top side of the clamp head defining an edge receiving recess, the upright piece of said clamp head terminating just inside of the ends of the cross piece and spring lips turned in from the material thus left and extending transversely of said recess to form yielding abutments.

1,076,471. EMERGENCY-SPINDLE FOR AUTOMOBILES. WILLIAM HARVEY VANSKIVER, Leetonia, Ohio, assignor to Auto Machine Company, Leetonia, Ohio, a Partnership composed of Ellsworth Harrold and William Harvey Vanskiver, Leetonia, Ohio. Filed Apr. 7, 1913. Serial No. 759,284. (Cl. 21—5.)



1. In a device of the character described, the combination of a spindle consisting of a spindle portion and an integral hollow sleeve, said sleeve portion adapted to be located upon the axle of an automobile and within the fixed casing, said sleeve provided with a shouldered end, a collar adapted to be connected to the fixed casing and abut against the shouldered end of the hollow sleeve and means for securing the collar in fixed position.

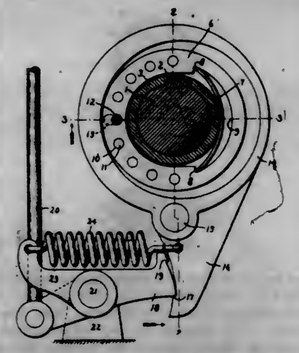
2. In a device of the character described, the combination of a spindle and an integral hollow sleeve, a fixed casing and an axle, said sleeve adapted to be located within the casing and upon a portion of the axle, a collar adapted to hold the integral spindle and hollow sleeve in fixed relationship with the fixed casing and axle and means for securing the collar upon the fixed casing.

3. In a device of the character described, the combination of a spindle and integral hollow sleeve, said hollow sleeve adapted to be located upon an axle and provided with a recess formed in its inner surface and a pin located within said recess, and means for securing the hollow sleeve in fixed position.

4. In a device of the character described, the combination of a spindle and integral hollow sleeve, said hollow sleeve adapted to be located upon an axle and provided with a recess formed in its inner surface, and a pin located within said recess and means for securing the hollow sleeve in fixed position, and a thimble located upon the screw threaded portion of the spindle and within a hub of a wheel.

5. In a device of the character described, the combination of a spindle consisting of a spindle portion and an integral hollow sleeve, said sleeve adapted to be located upon the axle of an automobile and within the fixed casing, said sleeve provided with a shouldered end, a collar adapted to be connected to the fixed casing and abut against the shouldered end of the hollow sleeve, means for securing the collar in fixed position and means for mounting a wheel upon the spindle.

1,076,472. EMERGENCY-GOVERNOR. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 6, 1912. Serial No. 675,849. (Cl. 121—112.)



1. In an emergency governor, the combination of a driving member, a ring shaped weight which surrounds the member and has a greater mass on one side of a plane passing through the axis of the member than on the other, a spring which opposes the movement of the weight in a plane perpendicular to the axis of the member, said spring being located between the weight and said driving member, and a means arranged to be actuated by said weight.

2. In an emergency governor, the combination of a driving member, a ring shaped weight which surrounds the member and has a greater mass on one side of a plane passing through the axis of the member than on the other, a flat spring whose ends are fitted into notches in the weight and whose central portion rests on the member, and a means actuated by the periphery of said weight.

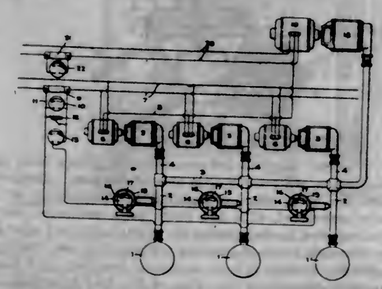
3. In an emergency governor, the combination of a driving shaft, a flanged sleeve on the shaft, a ring-shaped weight that surrounds the sleeve and is located between its flanges, said ring-shaped weight having an unbalanced mass, a recess in the weight, terminating in notches, a flat spring whose ends are seated in the notches and whose central portion rests on the sleeve for opposing the outward movement of the weight, and means actuated by the peripheral portion of the weight.

4. In an emergency governor, the combination of a driving member, a ring-shaped weight which surrounds the member and has a greater mass on one side of a plane passing through its axis than on the other, a spring opposing the movements of the weight, a ring which surrounds the weight and is moved thereby, a latch controlled by the ring, and a means that is released by the latch.

5. In an emergency governor, the combination of a driving member, a ring-shaped weight which surrounds the member and has a greater mass on one side of a plane passing through its axis than on the other, a spring opposing the movements of the weight, a ring which surrounds the weight and is rocked thereby, a projection on the ring having a shoulder, a latch arranged to engage the shoulder, a means actuated by the latch, and a spring that tends to hold the shoulder and latch in fixed relation.

[Claims 6 to 9 not printed in the Gazette.]

1,076,473. COMBINED ELECTRIC INDICATOR AND STEAM-FLOW METER. JAMES WILKINSON, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 21, 1912. Serial No. 704,999. (Cl. 73—167.)



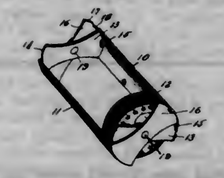
1. In a system comprising a plurality of boilers, a common header into which they feed, a flow meter for each boiler, one or more steam driven electric generators and bus bars connected with said generators, the combination with a series resistance in one of said bus bars and means for indicating the total output of said generators, of means in shunt to said resistance for indicating the share of such load which each boiler should carry, and means located adjacent to each boiler for indicating such share.

2. In a system comprising a plurality of boilers, a common header into which they feed, a flow meter for each boiler, one or more steam driven electric generators and bus bars connected with said generators, the combination with a series resistance in one of said bus bars and means for indicating the total output of said generators, of adjustable means in shunt to said resistance for indicating the share of such load which each boiler should carry, and means adjacent to each flow meter for indicating such share.

3. In a system comprising a plurality of boilers, a common header into which they feed, a flow meter for each boiler, one or more steam driven electric generators, and bus bars connected with said generators, the combination with a series resistance in one of said bus bars, of an ammeter in shunt thereto, a controllable circuit in shunt to said ammeter, and auxiliary ammeters in series therein and adjacent to the respective flow meters.

4. In a system comprising a plurality of boilers, a common header into which they feed, a flow meter for each boiler provided with a target, one or more steam driven electric generators, and bus bars connected with said generators, the combination with a series resistance in series with one of said bars, of an ammeter in shunt thereto, a circuit in shunt to said ammeter, means for regulating said circuit, a master ammeter in said circuit, and auxiliary ammeters in series therewith and adjacent to the respective flow meters, said auxiliary ammeters having needles moving concentric with the targets of said flow meters.

1,076,474. COIN-PACKAGE. WILLIAM H. YOUNG and RALPH P. WILTON, Wrightsville, Pa.; said Young assignor to said Wilton. Filed Nov. 9, 1911. Serial No. 659,453. (Cl. 133—9.)



1. A coil holder comprising diametrically opposed coin-engaging members, inwardly projecting and overlapping arms carried on the ends of the members, rivets pivotally connecting the arms at their middle portions and locking projections carried upon the ends of the outer arms and yieldingly engaging the inner arms whereby to hold the members in opposed relation, said projections also being adapted for engagement against the opposite edges of the inner arms to hold the members in offset relation whereby the coins may be supported on edge.

2. A coin holder comprising a pair of arcuate receiving members having inwardly extending and overlapping arms at their ends, said arms being pivoted together intermediate their ends, the holder having slots at its ends, the free ends of the outer arms being provided with inturned lugs yieldingly engaging in the slots whereby to hold the members in diametrically opposed position to close the holder, said arms being adapted to turn into crossed relation and hold said members in offset relation to one another whereby to open one side of the holder, said lugs being adapted for yielding engagement against the opposite edges of the inner arms to retain the holder in open position.

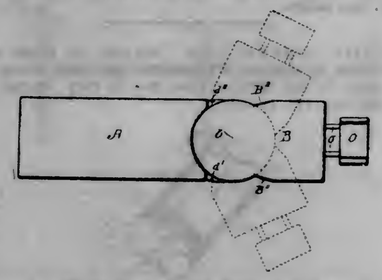
3. A coin package comprising a pair of arcuate coin receiving members, inwardly extending and overlapping arms carried on the ends of the members, said members having slots at their opposite ends, the outer arms having inturned projections on their outer ends engaging in said slots whereby to hold the members in diametrically opposed positions, and pivotal means holding the central portions of the arms together and admitting of the turning of the arms into crossed relation, said projections being adapted for engagement against the opposite member to hold the members in offset relation to one another.

4. A coin holder comprising a pair of offset members having inwardly extending crossed arms pivoted together at their central portions, said arms being reduced in width at their central portions and extending entirely across the ends of the holder to present uninterrupted outer and inner faces, and frictional locking means carried by the members for holding the same in various pivotally adjusted positions.

1,076,475. REVOLVING-LEAF TREATING-TABLE. CHESTER W. ALBRIGHT, Danville, Ill., assignor to Fred A. Daley, Chicago, Ill. Filed Jan. 26, 1911. Serial No. 604,705. (Cl. 128—16.)

1. A treating table having its top composed of a stationary leaf and a swinging leaf, said swinging leaf being pivoted so as to swing about an axis extending transversely to the plane of the table top at a point considerably removed from both ends of the swinging leaf, and a rest carried upon the outer end of the swinging leaf.

2. A treating table comprising a rigid frame, a swinging leaf resting upon one end of the frame and projecting beyond the same, said swinging leaf being pivoted so as to be movable in a horizontal plane, and a stationary leaf secured upon said frame and forming with the other leaf the top of the table, the adjacent ends of said leaves being interlocked to prevent the swinging leaf from tilting.



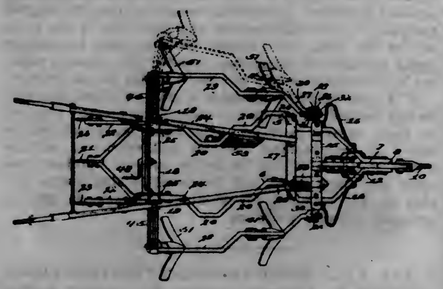
3. In a treating table, a rigid supporting frame, a leaf having one end resting upon the frame and the other end projecting beyond the same, a pivotal connection between the aforesaid leaf and the frame at a point between the ends of the leaf for permitting the leaf to swing in a horizontal plane, and a stationary leaf secured upon said frame adjacent to the inner end of the aforesaid leaf so as to form therewith the top of the table.

4. In a treating table, a rigid supporting frame, a leaf having one end resting upon the frame and the other end projecting beyond the same, a pivotal connection between the aforesaid leaf and the frame at a point between the ends of the leaf for permitting the leaf to swing in a horizontal plane, and a stationary leaf secured upon said frame adjacent to the inner end of the aforesaid leaf so as to form therewith the top of the table, said leaves being interlocked so as to prevent the swinging leaf from tilting.

5. In a treating table, a supporting frame, two leaves arranged end to end upon said frame, one of said leaves being pivoted between its ends so as to be capable of swinging in the plane of the leaves, the adjacent ends of said leaves being curved into arcs of circles having their center at the pivotal axis of the swinging leaf.

[Claims 6 to 8 not printed in the Gazette.]

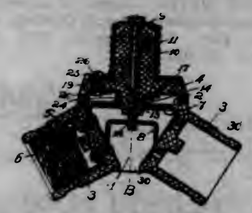
1,076,476. CULTIVATOR. CHAUNCEY R. BENEFIELD, Memphis, Tenn. Filed May 22, 1912. Serial No. 698,974. (Cl. 97—10.)



1. In a cultivator of the class specified, the combination of a main frame comprising a pair of beams, a coupling bar extending across the forward extremities of the said pair of beams, side beams or wings connected at their front extremities to the coupling bar by ball and socket joints, extensible coupling devices attached to the rear ends of the side beams or wings and the rear portion of the cultivator, handle bars connected to the pair of beams of the main frame, and adjustable draw bars also connected to the rear extremities of the side beams or wings and a portion of the handle bars.

2. In a cultivator of the class specified, the combination of a main frame comprising a pair of beams, a coupling bar extending across the forward extremities of the said main frame beams, side beams or wings attached at their front ends by universal joints to the opposite ends of the coupling bar, a frame beam extending across and secured to the rear portions of the said main frame beams, adjustable coupling bars connected to the opposite ends of the said main frame bars and the rear ends of the side beams or wings, a pair of handle bars connected to the pair of beams of the main frame and having a supporting bar attached thereto, slotted draw bars movably attached to the rear ends of the side beams or wings, means for adjustably holding the said draw bars on the supporting bar of the handle, cultivating devices attached to all of the beams, and draft means secured to the front extremities of the pair of beams of the main frame.

1,076,477. CLUSTER LAMP-SOCKET. CARL H. BISSELL, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 18, 1912. Serial No. 684,369. (Cl. 173—335.)



1. A cluster lamp socket comprising a hollow body open at one side, a cap for the open side of the body, conductors within the body, each connecting like terminals of the sockets associated with the body, feed terminals carried by the cap and having means for electrically and mechanically connecting one of the feed terminals to one conductor and thereby holding the cap and body together, and means electrically connecting the other of the feed terminals and the other conductor, the latter means including a member frictionally engaged with the other conductor, substantially as and for the purpose described.

2. A cluster lamp socket comprising a hollow body open at one side, a cap for the open side of the body, conductors located in the body and each coupling like terminals of the sockets associated with the body, one conductor being interposed between the other conductor and the open side of the body and having an opening therethrough, and central and outer feed terminals carried by the cap, the central feed terminal comprising a fastening member extending through the cap and through said opening in one conductor and being detachably connected to the other conductor for mechanically securing the cap and the body together, substantially as and for the purpose specified.

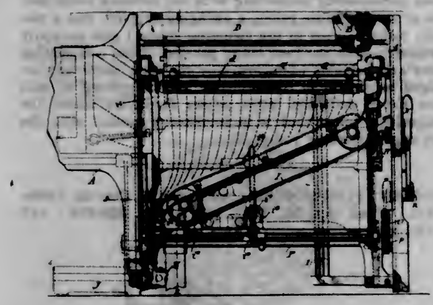
3. A cluster lamp socket comprising a hollow body open at one side, a cap for the open side of the body, conductors in the form of yokes located in the body and coupling like terminals of the lamp sockets together, one conductor extending between the other conductor and the cap and being formed with an opening, central and outer feed terminals carried by the cap, the central terminal extending through the cap and said opening of the conductor and being mechanically connected to the other conductor, and the cap being formed with an insulating projection extending through the opening of said conductor, substantially as and for the purpose set forth.

4. A cluster lamp socket comprising a hollow body of insulation open at its top, a cap for the open top of the body, conductors in the form of yokes extending across the interior of the body and connecting like terminals of the lamp sockets, one conductor being arranged above the other and formed with an opening, and central and outer feed terminals on the cap, the central terminal comprising a member extending through said opening of the upper conductor and being detachably connected to the lower conductor, and the cap being formed with a depending insulating boss surrounding said member and extending through the opening of the upper conductor, substantially as and for the purpose described.

5. An incandescent electric lamp socket comprising lamp contact terminals, feed terminals, conductors connected to the lamp contact terminals and to the feed terminals, and means including a shiftable part by which a branch electric circuit may be connected in series with the conductors or in multiple with said conductors between the feed terminals and said conductors, substantially as and for the purpose specified.

[Claims 6 to 9 not printed in the Gazette.]

1,076,478. LINE-CASTING MACHINE. ROBERT O. BOARDMAN, Grand Rapids, Mich., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Nov. 21, 1911. Serial No. 661,512. (Cl. 199—7.)



1. In a typographical machine, the combination of a plurality of magazines for the matrices, an assembler, conveying means for the matrices, and devices for guiding the matrices from a selected magazine to the conveying means, the said conveying means being adjustable to different vertical positions to correspond to the particular magazine in action.

2. In a typographical machine, the combination of a plurality of magazines for the matrices, any one of which may be brought into action at will, the carrying belt adjustable vertically to correspond to the particular magazine in action, and means for imparting motion to said belt in its different adjusted positions.

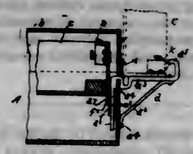
3. In a typographical machine, the combination of a plurality of magazines for the matrices, any one of which may be brought into action at will, and the carrying belt I. the said belt being adjustable to different vertical positions to correspond to the particular magazine in action.

4. In a typographical machine, the combination of a plurality of magazines for the matrices, an assembler, conveying means for delivering the matrices thereto and devices for guiding the matrices from a selected magazine to the conveying means, the conveying means being adjustable to different vertical positions to correspond to the particular magazine in action, together with a chute leading to the assembler and arranged to receive the matrices from the conveying means in any of their adjusted positions.

5. In a typographical machine, the combination of a plurality of inclined magazines, and a single series of escapements movable from one magazine to another, the lower ends of said magazines being beveled and having their beveled faces lying in the same plane in order to permit the escapements to move in a straight path.

[Claims 6 to 17 not printed in the Gazette.]

1,076,479. WARDROBE-TRUNK. FRANK R. BOLS, Somerville, Mass. Filed May 17, 1913. Serial No. 768,242. (Cl. 190—13.)



1. In a trunk provided with a removable tray with a space between one end and the end of the trunk, means consisting of a bracket located in said space adapted to be extended beyond the end of the trunk, one or more hinges attached to the tray and to the body of the trunk, whereby the tray may be elevated and swung outside the trunk upon said bracket.

2. In a trunk having a removable tray with a space between one end and the end of the trunk, means consisting of a bracket located in said space secured to the inner end of the trunk and adapted to be extended beyond and outside said end, one or more hinges attached to the tray and the trunk body, whereby the tray may be elevated on one end and swung outside the trunk upon said bracket.

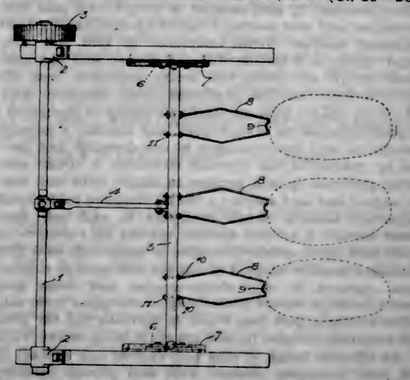
3. In a wardrobe trunk, a swinging bracket attached to the inner face of one end of the trunk body normally extending crosswise therewith but adapted to swing outwardly, one or more hinges attached to the tray and to the said end of the trunk body, whereby the tray may be elevated on one end and swung outside the trunk body upon the said bracket.

4. In a wardrobe trunk, a swinging bracket pivoted to a lug on the inner face of one end of the trunk body normally extending crosswise therewith but adapted to swing outwardly and be locked in position, a tray within the trunk, one or more hinges attached by one end to the tray and by the other end to the end of the trunk by means of which the tray when elevated may be swung outside the trunk body and supported upon said bracket.

5. A wardrobe trunk having a tray with a space between one end and the end of the trunk adapted to be elevated endwise and swung outside the trunk at one end thereof, a swinging bracket located in said space and attached to the trunk, and two or more hinges connecting the tray with the outside of the trunk, as and for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,076,480. JOLTER FOR SACKING-MACHINES. CLAUDE BORNIER, Kilbourn Siding, Quebec, Canada. Filed May 19, 1913. Serial No. 768,656. (Cl. 83—26.)

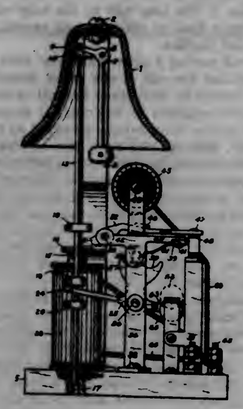


1. In a device of the character described, a crank shaft, a movable beam, connections between said beam and shaft, and yielding jolter heads carried by said beam.

2. In a device of the character described, a crank shaft, a reciprocable beam, guide ways for the opposite ends of said beam, connections between said beam and said crank shaft, and yielding jolter heads carried by said beam.

3. In a device of the character described, a crank shaft, a movable beam, connections between said shaft and beam, yielding jolter heads, and adjustable connections between said heads and said beam.

1,076,481. ELECTROMAGNETIC DEVICE. STANLEY C. BRYANT, Chicago, Ill., assignor to Bryant Zinc Company, Chicago, Ill., a Corporation of Illinois. Filed May 29, 1912. Serial No. 700,511. (Cl. 177—7.)

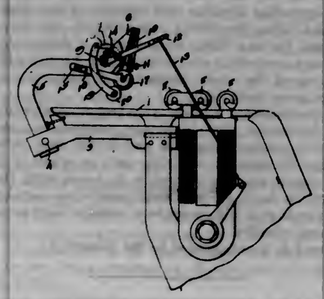


1. In an electro-magnetic device; a source of electricity, an electro-magnet in circuit with said source, a member operable by said electro-magnet in one direction and operable by gravity in the opposite direction, a circuit controller governed by said member in circuit with said electro-magnet and said source, a circuit shunting said circuit controller, means controlled by said member to open said shunt circuit, means to retain said shunt circuit open.

2. In an electric-magnetic device; a source of electricity, an electro-magnet in circuit with said source, a member operable by said electro-magnet in one direction and operable by gravity in the opposite direction, a circuit controller governed by said member in circuit with said electro-magnet and said source, a circuit shunting said circuit controller, another circuit controller in said last mentioned circuit, said member adapted to open said last mentioned circuit controller, and means energized from the source to retain said last mentioned circuit controller open.

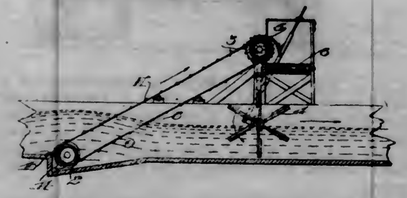
3. In an electro-magnetic device; a source of electricity; an electro-magnet in circuit with said source; a member operable by said electro-magnet in one direction and operable by gravity in the opposite direction; a circuit controller governed by said member in circuit with said electro-magnet and said source; a circuit shunting said circuit controller; another circuit controller in said last mentioned circuit; a pivoted member bearing an armature by which said other circuit controller is controlled, said first mentioned member adapted to contact said pivoted member when operated by said electro-magnet and break said shunt circuit; a second electro-magnet energized from said source having a pole face which is normally too far from said armature to move it, said armature being moved within the effective range of said pole face by the contact of said first mentioned member with said pivoted member, the pole face thereafter holding said armature in the moved position and the shunt circuit open; means to interrupt the flow of current to both of the electro-magnets.

1,076,482. INK-FOUNTAIN. ALTON B. CARTY, Washington, D. C. Filed June 21, 1913. Serial No. 774,956. (Cl. 101—79.)



In inking means, the combination of an ink plate, a form roller movable thereover, an ink fountain supported above and spaced from the plate and having a metallic roller and means for rotating said roller, a composition roller permanently contacting with the forward lower portion of said metallic roller, a swinging support, and a metallic roller carried in the swinging support and normally contacting with the rear lower portion of the composition roller and movable backwardly by the form roller and arranged to remain in contact with and be rotated by said form roller until the latter passes forwardly under the composition roller that is in permanent contact with the first-named metallic roller.

1,076,483. FISH-SCREEN. ADONIRAM J. COLLAR, Yreka, Cal. Filed Oct. 21, 1912. Serial No. 726,888. (Cl. 61—5.)

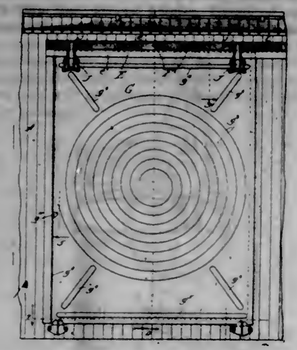


A fish screen attachment for flumes and the like, including a flume, transversely journaled flanged drums located, one beneath the surface of the flowing water, and the other above the flume and in advance of the first named drum, an endless belt fitted to said drums, means by which the drift material elevated by the belt may be transferred to the flume beyond the belt, and means to produce an intermittent movement of the belt, said means including a current wheel journaled in the flume beneath the upper belt drum, and having a crank in its shaft, a slidably guided connecting rod having a pawl pivoted to its upper end, and a ratchet wheel upon the upper drum shaft, with which the pawl engages at each reciprocation of the rod.

1,076,484. CAR-DOOR. JOSEPH F. COMEE, Chicago, Ill., assignor to Camel Company, Chicago, Ill., a Corporation of Maine. Filed Apr. 23, 1912. Serial No. 692,637. (Cl. 189—46.)

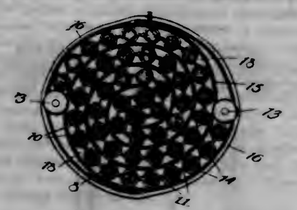
A car door, formed of a single thickness of pressed sheet steel, having a circular central portion formed with parallel curved strengthening corrugations extending from the center of the door outwardly to adjacent the edges thereof and lying in a common plane, and additional corrugations located entirely outside of and away from said

circular central portion, said additional corrugations extending approximately from side to side of the door



adjacent but spaced from its upper and lower edges and terminating short of the side edges thereof.

1,076,485. STORAGE BATTERY. WALTER A. CROWDUS, Chicago, Ill., assignor of one-half to Alfred R. Porter, Chicago, Ill. Filed July 16, 1913. Serial No. 779,325. (Cl. 204—29.)



1. A storage-battery couple comprising sheets of flexible metal provided at intervals along their lengths with interstitial tubes filled with active material, or material to be rendered active, an unbroken sheet of porous, fibrous insulating material interposed between said metal sheets, and the whole being rolled together into a body having a plurality of convolutions.

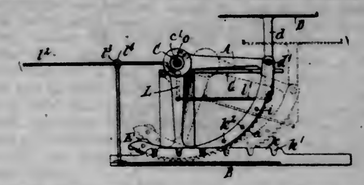
2. A storage-battery couple comprising sheets of flexible metal provided at intervals along their lengths with interstitial tubes filled with active material, or material to be rendered active, a flat-sided sheet of porous, fibrous insulating material interposed between said metal sheets, and the whole being rolled together into a body having a plurality of convolutions.

3. A storage-battery couple comprising sheets of flexible metal provided at intervals along their lengths with interstitial tubes filled with active material, or material to be rendered active, a sheet interposed between said metal sheets, of veneer-like wood rendered highly porous by removal of its resinous content, and the whole being rolled together into a body having a plurality of convolutions.

4. As a new article of manufacture, a storage-battery couple comprising sheets of flexible metal, each expanded at intervals along its length into parallel intersticial tubes projecting at opposite sides of the sheet and filled with active material, or material to be rendered active, said sheets being rolled together with porous material confined between the opposing tubular projections of the layers and producing a multiplicity of openings in the couple, and a cover sealing the bottom of the couple.

5. As a new article of manufacture, a storage-battery couple comprising sheets of flexible metal, each expanded at intervals along its length into parallel intersticial tubes projecting at opposite sides of the sheet and filled with active material, or material to be rendered active, said sheets being rolled together with porous material confined between the opposing tubular projections of the layers and producing a multiplicity of openings in the couple, and a seal of mineral wax on the bottom of the couple.

1,076,486. WEIGHING-SCALE. HARRY CUMMER, Buffalo, N. Y. Filed Aug. 7, 1906, Serial No. 329,572. Renewed Mar. 7, 1913. Serial No. 752,788. (Cl. 73—29.)



1. The combination of a supporting surface, a beam having a curved bearing tread arranged to rock on said supporting surface, means connected to said beam for supporting the article to be weighed, an indicating device, and connections between said indicating device and said beam which cause said indicating device to move in a path parallel with said supporting surface, substantially as set forth.

2. The combination of a supporting surface, a beam having a curved bearing tread arranged to rock on said supporting surface, means connected to said beam for supporting the article to be weighed, and an indicating device which is connected to said beam concentrically with said curved tread and moves therewith in a path parallel with said supporting surface, substantially as set forth.

3. The combination of a horizontal supporting surface, a beam having a curved bearing tread arranged to rock on said supporting surface, means connected to said beam for supporting the article to be weighed, and an indicating device which is mounted on said beam concentrically with said curved tread and is moved thereby in a straight horizontal path, substantially as set forth.

4. The combination of a supporting surface, a beam having a curved bearing tread arranged to rock on said supporting surface, means connected to said beam for supporting the article to be weighed, an indicating device which is movably connected to said beam concentrically with said curved tread and is moved thereby in a path parallel with said supporting surface, and means for holding said indicating device from rocking with said beam, substantially as set forth.

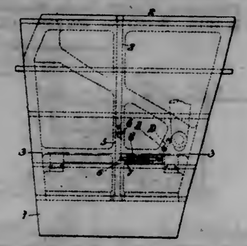
5. The combination of a supporting surface, a beam having a curved bearing tread arranged to rock on said supporting surface, means connected to said beam for supporting the article to be weighed, an axle journaled on said beam concentrically with said curved tread, and an indicating device connected to said axle, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,076,487. TYPOGRAPHICAL LINE-CASTING MACHINE. HEINRICH DEGENER, Berlin, Germany, assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed June 10, 1911. Serial No. 632,427. (Cl. 199—7.)

1. In a typographical line-casting machine the combination with a magazine frame and a magazine mounted on the said frame with a capacity for removal therefrom in its normal plane, of a locking device which allows the magazine to move forward on the magazine frame, to a limited extent, and secures it in its normal plane against a further forward movement thereon and removal therefrom until released.

2. In a typographical line casting machine the combination of a magazine frame, a magazine mounted on the said frame with a capacity for forward and backward movement thereon, the said frame together with the magazine being capable of being turned about a vertical axis, a locking device which allows the magazine to move forward on the magazine frame to a limited extent, and secures it against further forward movement thereon until released, and means effecting such release automatically during the aforesaid turning movement.



3. In a typographical line casting machine the combination of a magazine frame, a magazine mounted on the said frame with a capacity for forward and backward movement thereon, the said frame together with the magazine being capable of being turned about a vertical axis, a bar secured to the magazine, a recess in the said bar, a locking bolt movable on the magazine frame, capable of engaging the recess, and a spring operative on the bolt to effect such engagement.

4. In a typographical line casting machine the combination of a magazine frame, a magazine mounted on the said frame with a capacity for forward and backward movement thereon, the said frame together with the magazine being capable of being turned about a vertical axis, a bar secured to the magazine, a recess in the said bar, a locking bolt movable on the magazine frame, capable of engaging the recess, a spring operative on the bolt to effect such engagement, a lever operatively connected to the bolt, and an abutment with which the lever coöperates during the aforesaid turning of the magazine frame to disengage the bolt from the recess.

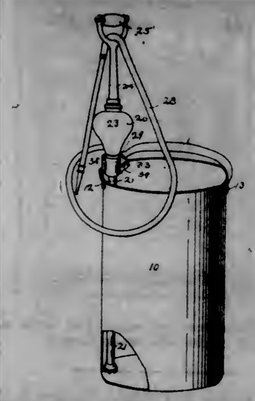
5. In a typographical line casting machine the combination of a magazine frame, a magazine mounted on the said frame with a capacity for forward and backward movement thereon, the said frame together with the magazine being capable of being turned about a vertical axis, a bar secured to the magazine, two recesses in the said bar, a locking bolt movable on the magazine frame, normally engaging one of the recesses and capable of engaging each of them in turn, a spring operative on the bolt to effect such engagement, and means adapted to automatically disengage the bolt from the recess with which it normally engages, when the magazine slides on the magazine frame.

[Claims 6 to 13 not printed in the Gazette.]

1,076,488. PUMP-HOLDER. WILLIAM L. DEMING, Salem, Ohio, assignor to The Deming Company, Salem, Ohio, a Corporation of Ohio. Original application filed June 28, 1911, Serial No. 635,878. Divided and this application filed July 12, 1912. Serial No. 708,997. (Cl. 137—67.)

1. In an apparatus of the class described, the combination of a portable tank, a rigid bail therefor, a pump having a barrel, an operating handle and a laterally directed discharge tube, said pump being adapted to stand with its barrel in the tank, a clamp for the barrel carried by the bail and consisting of a portion of the bail and a clamping plate, said clamp embracing the pump barrel and having a recess receiving the discharge tube and thereby preventing twisting of the barrel.

2. In an apparatus of the class described, the combination of a portable tank, a rigid bail therefor, a pump having a barrel, an operating handle and a laterally directed discharge tube near the top of the barrel, said pump being adapted to stand with its barrel in the tank, a clamp for embracing the barrel carried by the bail and consisting of a portion of the bail and a hinged clamping plate, a



shoulder on the pump coacting with a recess in the clamp to prevent longitudinal movement of the pump, said clamp having a recess receiving the discharge tube and thereby preventing changing of the relative position of the discharge tube.

1,076,489. ANTIFRAUD BOTTLE DEVICE. ROBERT VALLANCE DONALD, Skipton, Victoria, Australia. Filed Nov. 15, 1912. Serial No. 731,551. (Cl. 215—69.)

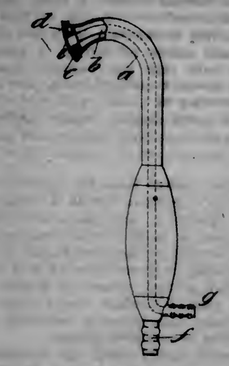


1. In combination with a bottle neck having an internal recess, a valve ring having a flange fitting said recess, an apertured dome having means for interlocking with the flange whereby the apertured dome is retained in place, a valve on the valve ring under the apertured dome, and a seat for the valve on said valve ring.

2. In a non-refillable bottle, a bottle having a neck with an annular recess forming a seat, a valve ring fitted in the recess, said valve ring having a valve seat at its inner edge, a valve engaging the seat and an inwardly extending annular flange on the ring, and an apertured dome having an annular recess to receive the annular flange of the ring whereby the said apertured dome and ring are interlockingly connected.

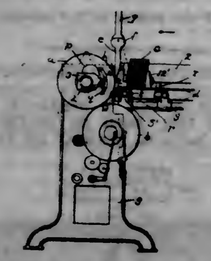
1,076,490. MASSAGE INSTRUMENT. HEINRICH DRETW, Berlin, Germany. Filed Dec. 12, 1911. Serial No. 665,333. (Cl. 128—16.)

1. A continuous-current hydraulic massage instrument comprising an outer discharge tube having a hollow annular head whose outer face is provided with a series of perforations; an inner supply tube arranged within the outer tube in spaced relation to the wall thereof and opening into said head; and a flexible diaphragm stretched against the outer face of said head to normally cover said perforations, whereby the stream of water entering said head from said supply tube will pass outwardly through said perforations, and alternately distend and collapse said diaphragm, and then pass into and through said discharge tube, and will continuously vibrate said diaphragm during such passage.



2. A continuous-current hydraulic massage instrument comprising a hollow annular mouth-piece having a series of perforations formed in its outer face; a supply tube opening into the interior of the mouth-piece; a discharge tube in communication with the central open space in said mouth-piece; and a flexible diaphragm stretched over said face in position to normally cover said perforations and said open space, whereby the stream of water entering said head from said supply tube will pass outwardly through said perforations, and alternately distend and collapse said diaphragm, and then pass into and through said discharge tube, and will continuously vibrate said diaphragm during such passage.

1,076,491. PNEUMATIC PRESS-FEEDING MEANS. JAMES DUVALL, Camas, Wash. Filed Mar. 7, 1912. Serial No. 682,302. (Cl. 101—41.)



1. The combination with a press comprising a vacuum compression cylinder and traveling means for carrying stacked material toward said cylinder, the delivery end of said carrying means being spaced from said cylinder, of feeding means comprising a suction element located above the space between said cylinder and said carrying means, a rockable pendent mouth-end suspended from such suction element between said cylinder and said carrying means, and means for moving said rockable mouth-end to and fro between the carrying means and said cylinder, said moving means timed with the action of the latter.

2. The combination with a press comprising a vacuum compression cylinder and traveling means for carrying stacked material toward said cylinder, the delivery end of said carrying means being spaced from said cylinder, of feeding means comprising a suction element located above the space between said cylinder and said carrying means, a rockable pendent mouth-end suspended from such suction element between said cylinder and said carrying means, said mouth-end formed with a bevel face turned toward the delivery end of said carrying means, and means for moving said rockable mouth-end to and fro between the carrying means and said cylinder, said moving means timed with the action of the latter.

3. In a press comprising a type-cylinder and a compression-cylinder, an endless apron for feeding the material to the latter, said apron supported at its ends by rotatable rollers, means for driving said apron consisting of a ratchet-wheel mounted on the axis of one roller; a crank pin on one end of the type-cylinder, a rod pivoted at its lower end on said crank-pin; a pawl pivoted on the upper end of said rod, said pawl consisting of a plurality of graded members resting on said ratchet wheel; and means pivotally supporting the upper end of said rod and therewith the pawl members in operative relation to the ratchet wheel.

4. In a press comprising a type-cylinder and a compression-cylinder, an endless apron for feeding the material to the latter, said apron supported at its ends by rotatable rollers, means for driving said apron consisting of a ratchet-wheel mounted on the axis of one roller; an adjustable crank pin on one end of the type-cylinder, a rod pivoted at its lower end on said crank-pin; a pawl pivoted on the upper end of said rod, said pawl consisting of a plurality of graded members resting on said ratchet wheel; and means pivotally supporting the upper end of said rod and therewith the pawl members in operative relation to the ratchet wheel.

5. In press feeding means of the character described, a rotating hollow compression cylinder provided with circumferential suction aperture or apertures, also provided with an exhaust orifice and means for connecting the latter with a suction element; a spring actuated gate controlling said exhaust orifice, said gate formed with a projecting finger, and a cam affixed to the compression cylinder, adapted to engage with the finger of said gate and open the latter during each revolution of the compression cylinder.

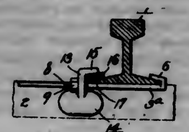
[Claims 6 and 7 not printed in the Gazette.]

1,076,492. PLAYING-CARDS. LEWELLEN A. ELY, Dayton, Ohio. Filed Mar. 4, 1910. Serial No. 547,285. (Cl. 46—25.)



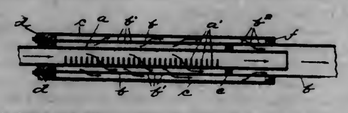
A game comprising a pack of cards, divided into a series of independent suits, a pair of said suits being provided with like matter distinguishing the same from the cards of the remaining suits, the cards of each suit having numerical values successively increasing by the single unit "one," and a plurality of controlling cards distinguishable from each other and from the cards of said suits, each controlling card being provided with a designation giving it a value depending thereon, while one card of the controlling cards has a value greater than all of the cards of the pack, but its value is destroyed by the playing, thereof in combination with certain of the cards of the suits and remaining controlling cards, and an additional card in each suit named for the full-back having its value determined by the play.

1,076,493. RAIL-ANCHOR. EDWARD J. FERGUSON, Santa Rosa, Cal. Filed Apr. 6, 1911. Serial No. 619,298. (Cl. 238—5.)



A combined rail brace and anti-creeping device including a pair of rods arranged transversely of the track and extending under the respective rails, the outer ends of the rods being hooked to engage the outer edges of the rail bases while the inner ends of the rods are threaded, a turn buckle engaging the said threaded inner ends of the tie rods, nuts threaded upon intermediate portions of the rods adjacent the inner edges of the rail bases, washer members fitted upon the rods between the nuts and the inner edges of the rail bases and formed with downwardly extending transversely disposed bearing flanges adapted to engage the tie to prevent creeping, the upper ends of the washer members being bent laterally, and wedge members interposed between the washer members and the rail bases, said wedge members being held in position by the laterally bent upper ends of the washer members and being constructed to positively engage the rails.

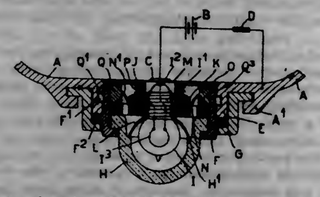
1,076,494. OPEN-EXHAUST SILENCER. CONSTANT FRANÇOIS MARIE GALAINE, Rennes, France. Filed Jan. 27, 1913. Serial No. 744,505. (Cl. 121—116.)



1. A free and silent exhaust for explosive engines, comprising an interior unobstructed tube open at its outer end and having throughout a greater part of its length lateral openings, an exterior concentric tube surrounding said interior tube and means whereby the gases passing out of the end of the interior tube create a depression within the exterior tube to draw the gases through the lateral openings in said interior tube.

2. A free and silent exhaust for explosive engines, comprising an interior unobstructed tube open at its outer end, and having throughout a greater part of its length lateral openings, an exterior concentric tube surrounding this interior tube, and an intermediate perforated tube, the interior and exterior tubes at their outer ends constituting an ejector to create a depression within the exterior tube to draw the gases through the openings in the interior and intermediate tubes.

1,076,495. ELECTRIC SAFETY-LAMP. EMIL GOTTSCHALCK, Treptow, near Berlin, LOTHAR WERNER, Berlin, and AUGUST GAST, Steglitz, Germany, assignors to The Firm of Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Filed Dec. 7, 1912. Serial No. 735,477. (Cl. 240—17.5.)



1. In an electric safety lamp, the combination of a casing, a source of current therein, a fixed contact within said casing and joined to one pole of said source of current, a metal ring to receive a lamp and joined to the other pole of said source of current, a movable metal member within said ring and normally touching said contact, a lamp having two terminals, one terminal being in contact with said ring and the other with said metal member, means tending to press said member out of connecting position, and means adapted to lock said member, when brought out of connecting position.

2. In an electric safety lamp, the combination of a casing, a source of current therein, a fixed contact within said casing and joined to one pole of said source of current, a metal ring to receive a lamp and joined to the other pole of said source of current, a movable metal member within said ring and normally touching said contact, a lamp having a circumferential and an end contact, the former being in contact with said ring and the latter with said metal member, means tending to press said member out of connecting position, and means adapted to lock said member, when brought out of connecting position.

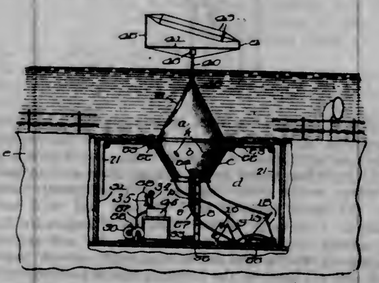
3. In an electric safety lamp the combination with a casing of a source of current therein, a contact joined to said source of current, a lamp mounted in said casing, a terminal thereon, a metal member interposed between said terminal and said contact and normally joining the same, means tending to press forward said metal member so as to break contact, means for locking said member when thus pressed forward, and a lamp globe surrounding said lamp and normally retaining said metal member in position to establish contact.

4. In an electric safety lamp, the combination of a casing, a source of current therein, a fixed contact within said casing and joined to one pole of said source of current, a metal ring to receive a lamp and joined to the other pole of said source of current, a movable metal member within said ring and normally touching said contact, a lamp having two terminals, one terminal being in contact with said ring and the other with said metal member, means tending to press said member out of connecting position, means adapted to lock said member, when brought out of connecting position, a globe covering the lamp and independent means for breaking the lamp circuit upon rupture of the globe.

5. In an electric safety lamp the combination of a casing containing a source of current, a mounting to receive a lamp, a contact on said casing within said mounting, a metal cap covering said contact and normally contacting with it, means for pressing forward said cap when free and means for locking the cap when so pressed forward.

[Claims 6 to 11 not printed in the Gazette.]

1,076,496. SIGNALING AND PASSENGER-CARRYING DEVICE FOR VESSELS. ATTILIO GROSSICH, Chicago, Ill., assignor of one-half to Stephen D. Ratkovich. Filed Mar. 23, 1912, Serial No. 685,728. Renewed Mar. 17, 1913. Serial No. 755,058. (Cl. 114—16.7.)



1. In an apparatus of the class described, the combination of a vessel having an air-tight compartment and having a recess in the wall of such compartment forming an opening communicating with the interior of the compartment, a door for said opening, means for removably securing said door in closed position, a buoy movable into and out of engagement with the recessed wall portion of such compartment and comprising in its construction a lower casing portion provided with an opening adapted to communicate with the opening of the air-tight compartment of the vessel when the buoy is in engagement with the recessed portion of the latter, a door for said opening in the buoy, an upwardly projecting flange on said door, threaded rods suspended on the inside of the buoy and in supporting engagement with said door for holding the latter in closed position, threaded securing means connected with the interior of the buoy and in threaded engagement with said rods and forming supports for the latter, and a flexible element connected with the vessel and with the buoy respectively, for lowering and permitting the upward movement of the buoy with respect to the vessel.

2. In an apparatus of the class described, the combination of a vessel having an air-tight compartment and having a conical recess in the exterior wall of such compartment forming an opening communicating with the interior of the compartment, a door for said opening, a buoy comprising in its construction a lower conical casing portion movable into and out of engagement with the recessed wall portion of the vessel compartment, and having an opening in said lower casing portion of the buoy, a door for said opening in the buoy, said door having a conical surface portion adapted to extend into said conical recess in the exterior wall of said compartment, means for removably securing said door in closed position, means for removably securing the conical casing portion of the buoy in the recessed wall portion of the vessel, a flexible element connected with the buoy and extending into and connected with the vessel, and winding mechanism connected with the flexible element, for winding and unwinding the latter, to lower and permit the upward movement of the buoy.

3. In an apparatus of the class described, the combination of a buoy comprising an upper casing portion and a lower conical casing portion forming an air-tight compartment, a vessel having a compartment formed therein, a recessed wall portion provided with an opening communicating with the interior of such compartment, adapted to receive the lower conical casing portion of the buoy, a door for said opening, a downwardly and inwardly projecting flange in the recessed wall portion, bolts slidably mounted in the conical casing portion of the buoy and movable into and out of engagement with said flange, means for moving the bolts outward into flange-engaging position, means for drawing the bolts inward to releasing position, and a flexible element connected with the buoy and with the vessel, for lowering and securing the buoy in place.

4. In an apparatus of the class described, the combination of a vessel having air-tight wall portions forming an air-tight compartment and having a cone-shaped recess in the exterior wall of such compartment, a door at the bottom end of such cone-shaped recessed wall portion, a buoy having a cone-shaped bottom portion movable into and out of the cone-shaped recess in the exterior wall of such compartment, and having an opening in the lower end of the cone-shaped bottom portion of the buoy, a door for said opening in the buoy, mechanism located on the inside of the buoy for securing the door at the lower end of the buoy in closed position, securing bolts slidably mounted in the casing of the buoy and adapted to project outward laterally therefrom into securing engagement with the recessed cone-shaped portion of the exterior wall of the compartment, springs operatively connected with said bolts and located on the inside of the buoy, a flexible element connected with each bolt, a shaft journaled in suitable bearings on the inside of the buoy, means for connecting said shaft with said flexible elements, means for rotating the shaft, to wind and unwind the flexible elements, to operate the securing bolts, signaling mechanism mounted in the buoy, a flexible cable connected with the buoy and with the vessel, respectively, and means for winding and unwinding the flexible element, to lower and permit the ascent of the buoy.

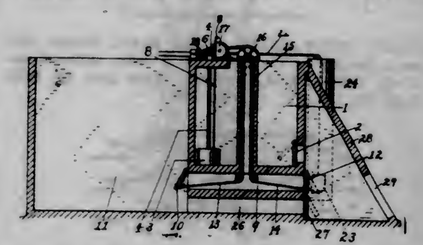
1,076,497. PROCESS FOR SEPARATING PHOSPHORIC ACID FROM NATURAL PHOSPHATES. MAXIMILIAN MATTHEUS HAFF, Ottawa, Ontario, Canada, assignor to Thomas Leopold Willson, Ottawa, Canada. Filed Apr. 4, 1912. Serial No. 688,544. (Cl. 204—64.)

1. The herein described process of obtaining phosphoric acid which comprises subjecting natural phosphate with a non-feldspathic aluminum silicate to the heat of the electric arc under such conditions as to volatilize phosphoric acid, and recovering the volatized phosphoric acid.

2. The herein described process of obtaining phosphoric acid, which comprises subjecting natural phosphate with a non-feldspathic aluminum silicate, to the heat of the electric arc under such conditions as to volatize phosphoric acid, and fixing the phosphoric acid with raw phosphate material.

3. The herein described process of obtaining phosphoric acid, which comprises subjecting sixty parts of a non-feldspathic aluminum silicate and one hundred parts of natural phosphate to the heat of the electric arc under such conditions as to volatilize phosphoric acid, and recovering the volatile phosphoric acid.

1,076,498. TIDE-MOTOR. PERLEY HALE, San Diego, Cal. Filed Jan. 24, 1913. Serial No. 743,927. (Cl. 253—5.)



1. A tide motor comprising a power reservoir; power developing means arranged to be operated by water from said reservoir; a waste reservoir; and means for directing the discharge from said power developing means into said waste reservoir or into the open sea, substantially as described.

2. A tide motor comprising a power reservoir; power developing means arranged to be operated by water from said reservoir; a waste reservoir; means for directing the discharge from said power developing means into said waste reservoir or into the open sea; and means automatically controlled by the sea level arranged to control said discharging means, substantially as described.

3. A tide motor comprising a power reservoir; power developing means arranged to be operated by water from said reservoir; a waste reservoir; means for directing the discharge from said power developing means into said waste reservoir or into the open sea; and float operating means automatically controlled by the sea level arranged to control said discharging means, substantially as described.

4. A tide motor comprising a power reservoir; an automatic valve for said reservoir arranged to permit entry of water thereto but prevent its escape; a water wheel arranged to be operated by water from said reservoir; a waste reservoir; a flume leading from said reservoir into said open sea and arranged to receive the discharge from said water wheel; a valve at each end of said flume; means for opening and closing said valves; a second flume leading from said waste reservoir to the open sea; and an automatically operating valve for said second flume adapted to permit escape of water to the sea but prevent

entry of water to said waste reservoir, substantially as described.

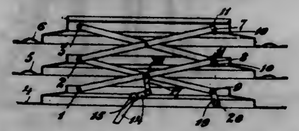
5. A tide motor comprising a power reservoir; an automatic valve for said reservoir arranged to permit entry of water thereto but prevent its escape; a water wheel arranged to be operated by water from said reservoir; a waste reservoir; a flume leading from said waste reservoir to the open sea and arranged to receive the discharge from said water wheel; a valve at each end of said flume; float controlled electrical means for opening and closing said valves; a second flume leading from said waste reservoir to the open sea; and an automatically opening valve for said second flume adapted to permit escape of water to the sea but prevent entry of water to said waste reservoir, substantially as described.

1,076,499. PROCESS FOR SEPARATING PHOSPHORIC ACID FROM NATURAL PHOSPHATE. MAXIMILIAN MATTHEUS HAFF and THOMAS LEOPOLD WILLSON, Ottawa, Ontario, Canada; said Haff assignor to said Willson. Filed Oct. 19, 1912. Serial No. 726,746. (Cl. 204—64.)

1. The herein described process of obtaining phosphoric acid which comprises subjecting natural phosphate in a fused bath with sufficient excess quantity of free silica to prevent vaporization of the lime.

2. The herein described process of obtaining phosphoric acid which comprises subjecting 100 parts of natural phosphate with 60 or more parts of silicious material to electric heat and recovering the volatilized phosphoric acid.

1,076,500. ROOF-LIGHT. ALBIN KLEIN, Erfurt, Germany, assignor to The Firm of J. A. John, Aktien-Gesellschaft, Erfurt, Nord, Germany. Filed July 13, 1912. Serial No. 709,237. (Cl. 108—31.)

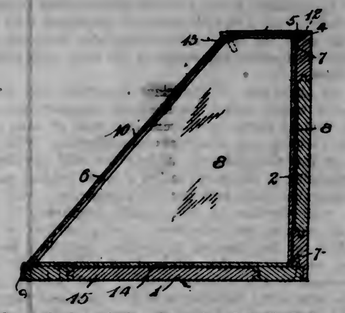


In a roof-light of the character described, the combination with a plurality of superposed louvered frames and two sets of lazy-tongs levers arranged at opposite sides of said frames for the support and adjustment of the same, of interconnected double-armed actuating levers pivoted to the base frame and provided with one long and one short arm set at a wide angle relative to each other, and links connecting the short arms of said actuating levers with the center pivot of the lower pair of lazy-tongs levers for the adjustment of the roof-light, the actuating levers being arranged so that the links occupy an upright position and move in a longitudinal direction, substantially as set forth.

1,076,501. DISPLAY-CASE. CLAUDE W. KRESS, New York, N. Y. Filed Apr. 16, 1913. Serial No. 761,429. (Cl. 211—25.)

1. In a device of the character described, a casing comprising a bottom, sides and back, the sides being shaped as truncated triangles and inclining upwardly and rearwardly from the bottom, a liner plate loosely resting upon the interior face of the bottom, an abutment member secured to said bottom adjacent its forward edge, mirror plates applied to the interior faces of the sides and back, a front for said casing of transparent material, said front being loosely seated on the bottom and sides of said casing and engaging at its lower edge with the rear face of said abutment, and a top for said casing loosely seating on the top edges of said back, sides and front.

2. In a device of the character described, in combination, a casing comprising a bottom, sides and back of opaque material, the sides being shaped as truncated triangles and inclining upwardly and rearwardly from their front edges, a liner plate of opaque material resting upon the interior face of the bottom, a retaining abutment carried exteriorly by said bottom at its forward edge, a transparent removable front having its lower edge engaging said abutment and having its side edges resting upon the upwardly and rearwardly inclining front edges of the sides of the casing, and a transparent top resting upon the upper edges of the front, sides and back of the casing and having its forward edge projecting beyond the outer face of the front of the casing, and having means for detachable engagement with the back of said casing, and means for removing the bottom liner plate from without the casing.



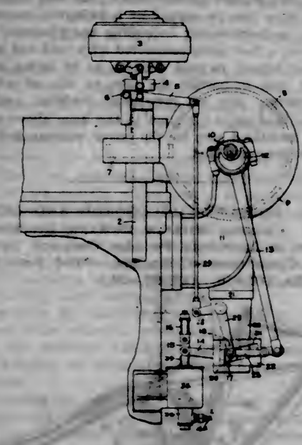
3. In a device of the character described, in combination, a casing comprising a bottom, sides and back of opaque material, the sides being shaped as truncated triangles and inclining upwardly and rearwardly from their front edges and the forward and top edges of said sides and the top edge of said back being channeled, mirror plates applied to the interior faces of the sides and back, metal strips seated in said channeled edges of said sides and back and engaging and retaining said mirror plates thereagainst, a retaining abutment carried by the bottom of said casing, a transparent removable front engaging said abutment and seated over the upwardly extending channeled edges of said sides, and a transparent top resting in the channeled upper edges of the sides and back and over the top of said front, and means for detachably holding said top relative to said back.

1,076,502. PUMP FOR SUPPLYING FUEL TO INTERNAL-COMBUSTION ENGINES. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 10, 1912. Serial No. 676,774. (Cl. 123—140.)

1. An internal combustion engine in combination with a displacement pump for supplying fuel thereto comprising a working cylinder, a port therein through which fuel enters it, a discharge valve, a plunger in the cylinder which covers and uncovers the port, a vibratory lever which is pivotally attached to the plunger for actuating it, means for imparting a stroke of constant length in an unvarying region to one end of the lever, a fulcrum for the lever in fixed relation thereto, and a governor driven by the engine for changing the position of the fulcrum to cause the plunger to vary its travel with respect to the inlet port.

2. An internal combustion engine in combination with a pump for supplying fuel thereto comprising a working cylinder, an inlet port in the side of the cylinder, a discharge valve, a plunger reciprocating in the cylinder which has a constant length of stroke but variable region of operation and covers and uncovers the port, a lever connected to the plunger, a fulcrum for the lever in fixed relation thereto, a means carrying the fulcrum, and a governor driven by the engine for changing the position of the means in accordance with the load on the engine to change the region of reciprocation of the plunger with respect to the inlet port.

3. An internal combustion engine in combination with a pump for supplying fuel thereto, comprising a working cylinder with an inlet port in the side of the cylinder, a discharge valve, a plunger reciprocating in the cylinder which has a constant length of stroke but variable region of operation, a lever pivotally connected at one end to the plunger, a driving means for imparting a vibratory movement to the lever of constant amount in a fixed region, a fulcrum for the lever, a sliding block that carries the fulcrum, a guide for the block, and a governor driven by the engine for changing the position of the block to change the region of vibration of the plunger with respect to the inlet port.



4. An internal combustion engine in combination with a pump for supplying fuel thereto, comprising a working cylinder, an inlet port in the side of the cylinder, a discharge valve, a plunger reciprocating in the cylinder which has a constant length of stroke but variable region of operation, a lever connected to the plunger for actuating it, a fulcrum for the lever, a sliding block which carries the fulcrum, means for holding the block against lateral movement, a slide which carries the block and moves it in said means, and a governor driven by the engine for adjusting the slide longitudinally.

5. An internal combustion engine in combination with a pump for supplying fuel thereto comprising a cylinder and a plunger reciprocating therein which has a constant length of stroke but variable region of operation, a lever connected to the plunger for actuating it, a fulcrum for the lever, a sliding block which carries the fulcrum, a slide which moves in a direction perpendicular to the direction of movement of the block and carries the same, and a governor driven by the engine for reciprocating the slide.

[Claims 6 to 9 not printed in the Gazette.]

1,076,503. GAME APPARATUS. WILLIAM MAIDENS, Columbus, Ohio. Filed Dec. 17, 1912. Serial No. 737,270. (Cl. 46—41.)

The herein described game apparatus comprising a shaft having a threaded portion, a base secured on the shaft, and having a surrounding upwardly extending flange or wall, a spiral helical track rising from the base and terminating at its upper end in a table, the said table having an opening through which the threaded portion of the shaft extends, a cage arranged on said table and having an opening in one side to communicate with the upper end of the track, the said cage being concentrically arranged with the shaft, a cover on the cage and through which the shaft extends and nuts on the threaded portion of the shaft and bearing one on the cover of the cage and the other under the table and clamping the cage, the cover and the table



together and, hence, supporting the upper end of the spiral helical track.

1,076,504. SUSPENDERS. FREDERICK W. MALLY, Austin, Tex., and EDWIN P. HUDSON, Des Moines, Iowa; said Mally assignor to said Hudson. Original application filed Dec. 26, 1908, Serial No. 469,217. Divided and this application filed Dec. 15, 1910. Serial No. 597,555. (Cl. 241—18.)



1. In a suspender, the combination of a looped shoulder strap, separate supporting plates independently and slidably mounted at the same altitude thereon, independent cast-offs carried by said supporting plates and adapted for opening in opposite directions, and separate tabs mounted at the same altitude in said independent cast-offs.

2. In a suspender, the combination of a looped shoulder strap, separate supporting plates independently mounted at the same altitude thereon, independent cast-offs carried by said supporting plates in superposed relations and adapted for opening in opposite directions, and separate tabs mounted at the same altitude and in superposed relations in said independent cast-offs.

1,076,505. SUSPENDERS. FREDERICK W. MALLY, Austin, Tex., and EDWIN P. HUDSON, Des Moines, Iowa; said Mally assignor to said Hudson. Filed Dec. 15, 1910. Serial No. 597,556. (Cl. 241—18.)

1. In a suspender, a plurality of integral supporting hooks extending and opening in opposite directions, said hooks arranged at the same altitude, a plurality of tabs corresponding in number with said hooks, and a cast-off strap fixed to the stem of and embracing all of said hooks, one end portion only of said cast-off strap being detachable and movable through an arc to uncover all of said hooks.

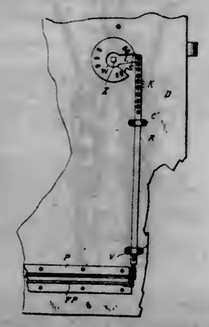
2. In a suspender, a clip formed with parallel transverse slots, one of said slots being adapted to receive a looped suspender strap, one end of said clip formed as a hook and also formed with an inner hook projecting oppositely from and in the same altitude with the first hook, a cast-off strap mounted through one of said slots and adapted to

embrace both hooks, a single button stud mounted through said cast-off strap and clip, and a button socket on said



strap adapted to engage said stud, said hooks adapted to support separate and independent tabs.

1,076,506. MEANS FOR THE OPENING OF DOORS, GATES, AND THE LIKE. DALE MARSHALL, Cheltenham, England. Filed Jan. 26, 1910. Serial No. 540,223. (Cl. 70—118.)



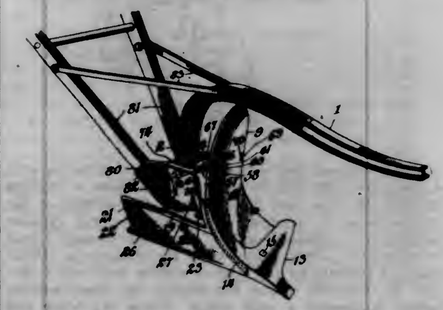
1. In a device of the character described, the combination with a door, of a latch and knob spindle for operating said latch, a lever attached to said spindle abutting against the face of said door, a washer fastened directly to said door provided with a slot within which said lever is arranged, said washer allowing a rose-plate to be fixed thereon being thicker than said lever and its slot being of a size to permit of a swinging movement of said lever, a downwardly extending rod pivotally secured to said lever, said rod abutting also against the face of said door, and a foot plate connected with said rod, substantially as and for the purpose specified.

2. In a device of the character described, the combination with a door, of a latch and knob spindle for operating said latch, a lever attached to said spindle abutting against the face of said door, a washer fastened directly to said door provided with a slot within which said lever is arranged, said washer allowing a rose-plate to be fixed thereon being thicker than said lever and its slot being of a size to permit of a swinging movement of said lever, a downwardly extending rod pivotally secured to said lever, said rod abutting also against the face of said door, and a foot plate hinged to said door and connected with said rod, substantially as and for the purpose specified.

3. In a device of the character described, the combination with a door, of a latch and knob spindle for operating said latch, a lever attached to said spindle abutting against the face of said door, a washer fastened directly to said door provided with a slot within which said lever is arranged, said washer allowing a rose-plate to be fixed thereon being thicker than said lever and its slot being of a size to permit of a swinging movement of said lever, a downwardly extending rod pivotally secured to said lever, said rod abutting against the face of said door, and a foot plate connected with said rod, said foot plate being hinged to said door so as to swing around a horizontal axis to permit the foot to slip off when said plate is swung into its lowermost position, substantially as and for the purpose specified.

4. In a device of the character described, the combination with a door, of a latch and knob spindle arranged thereon, a lever attached to said spindle, a washer fastened to said door provided with a slot within which said lever is arranged, said washer being thicker than said lever and its slot being of a size to permit of a swinging movement of said lever, a downwardly extending rod pivotally secured to said lever, a foot plate connected with said rod, said foot plate being hinged to said door so as to swing around a horizontal axis to permit the foot to slip off when said plate is swung into its lowermost position, and a forwardly inclined plate fastened to the door above said foot plate and forming a stop for the latter, substantially as and for the purpose specified.

1,076,507. BOLTLESS MOLDBOARD AND LANDSIDE PLOW. CHARLES WILLIAM MCWANE, Lynchburg, Va., assignor to Lynchburg Foundry Company, Lynchburg, Va., a Corporation of Virginia. Filed June 5, 1912. Serial No. 701,849. (Cl. 97—21.)



1. In a plow, the combination of a standard, a landside fitted against the outer face of the standard and detachably interlocked at one of its longitudinal edges with the same, said landside being provided with an integral lug or ear located at the inner face of the standard, and a substantially vertical bolt also located at the inner face of the standard and connected with the same and with the lug.

2. In a plow, the combination of a standard provided at its outer side with an undercut longitudinal flange, a landside fitted against the standard and having its upper edge detachably interlocked with the undercut flange, said landside being provided with an inwardly extending lug, and a substantially vertical bolt located at the inner face of the standard and connected with the same and with the lug.

3. In a plow, the combination of a standard provided with a longitudinal undercut flange, a landside fitted against the standard and having its upper edge engaged with the said flange and provided at its lower edge with an inwardly projecting lug or ear, and a substantially vertical bolt located at the inner face of the standard and piercing the said lug or ear and connecting the same with the standard.

4. In a plow, the combination of a standard having a longitudinal flange at its outer side and provided above the flange with a recess, a landside arranged against the standard and having its upper edge fitted against the said flange, said landside being provided with an inwardly exteading lug, and a substantially vertical bolt piercing

the lug and extending through the standard at the bottom of the said recess.

5. In a plow, the combination of a standard, a landside fitted against the outer face of the standard and detachably interlocked at one of its longitudinal edges with the said standard, and a substantially vertical bolt piercing the standard and arranged at the inner side thereof and connected with the landside and maintaining the same in its interlocked relation with the standard.

[Claims 6 to 38 not printed in the Gazette.]

1,076,508. METHOD FOR EXTRACTING ALKALI METALS IN THE FORM OF NITRATES FROM MINERALS. ANTON MESSERSCHMITT, Stolberg, Germany. Filed Mar. 1, 1912. Serial No. 680,988. (Cl. 23—22.)

1. A method for extracting alkali-metals in the form of nitrates from minerals, which comprises pulverizing the minerals which contain alkali-metals and boiling the pulverized minerals in an aqueous solution containing calcium nitrate.

2. A method for extracting alkali-metals in the form of nitrates from minerals, which comprises boiling the minerals which contain alkali-metals in an alkaline solution of calcium nitrate with the addition of caustic lime.

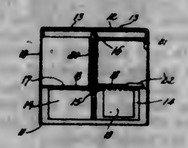
3. A method for extracting alkali-metals in the form of nitrates from minerals, which comprises pulverizing the minerals which contain alkali-metals and boiling the pulverized minerals under pressure in an aqueous solution containing basic calcium nitrate.

4. A method for extracting alkali-metals in the form of nitrates from minerals, which comprises boiling under pressure the minerals which contain alkali-metals in an alkaline solution of calcium nitrate with the addition of caustic lime.

5. A method for extracting alkali-metals in the form of nitrates from minerals, which comprises boiling under pressure the minerals which contain alkali-metals in a solution of basic calcium nitrate with the addition of caustic lime.

[Claims 6 to 9 not printed in the Gazette.]

1,076,509. DOUGH-SHAPING IMPLEMENT. EUGENE MITSCHLER, New York, N. Y. Filed Mar. 19, 1913. Serial No. 755,512. (Cl. 107—51.)

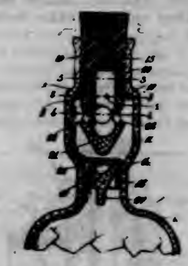


1. In an implement of the character described, the combination with a cylindrical receptacle having an open lower end, of a plurality of vertical substantially radially extending partitions therein, said partitions stopping short of the lower end of said receptacle, a corresponding number of vertical substantially radially extending vanes in said receptacle, means for holding said vanes normally against their respective partitions, and hand-operated means for causing said vanes to move away from said partitions against the action of said first mentioned means.

2. In an implement of the character described, the combination with a cylindrical receptacle having an open lower end, of a plurality of vertical substantially radially extending partitions therein, said partitions stopping short of the lower end of said receptacle, a corresponding number of vertical substantially radially extending vanes in said receptacle, a spring for holding said vanes normally against their respective partitions, and hand-operated means for causing said vanes to move away from said partitions against the action of said spring.

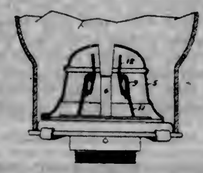
3. In an implement of the character described, the combination with a cylindrical receptacle having an open lower end, of a plurality of vertical substantially radially extending partitions therein, said partitions stopping short of the lower end of said receptacle, a disk oscillatably mounted above said partitions in said receptacle, a plurality of vertical substantially radially extending vanes attached to said disk projecting downward toward the open end of said receptacle, said vanes corresponding in number to that of said partitions, a spring fastened to said disk and said receptacle for holding said vanes normally against their respective partitions, and hand-operated means for causing said vanes to move away from said partitions against the action of said spring.

1,076,510. NON-REFILLABLE BOTTLE. GLENN H. MONTFORT and ALFRED L. BEAUCHAINE, Chattanooga, Tenn. Filed Jan. 31, 1913. Serial No. 745,479. (Cl. 215—67.)



In a non-refillable bottle, the combination with a bottle body, of a neck carried thereby, a valve loosely supported in the neck to normally close the said bottle body, a baffle member supported within the neck and consisting of an integral body having horizontal and vertical communicating passages provided for the passage of fluid when the bottle body is tilted, the said baffle member having a series of vertical vent passages and an annular groove, with the inner ends of the vent passages terminating in the said annular groove, and a locking ring having one end thereof secured to the baffle member, with the said ring normally reposing in the said groove and having portions thereof engaging the neck of the bottle body to rigidly support the baffle member therein.

1,076,511. LAMP-BURNER. LEWIS PORTER MOORE, Weldon, Ill. Filed Mar. 25, 1913. Serial No. 756,637. (Cl. 67—72.)



1. In a lamp burner having a crown member with an opening in its side, a horizontal tube extending through the opening, the tube within the crown member having openings along its length for discharging air at different points, and a wing for directing air within the crown member from the openings in the tube.

2. In a lamp burner having a crown member with an opening, a tube extending through the opening and having within the crown member openings along its length for discharging air at different points, and a wing for directing air within the crown member from the openings in the tube.

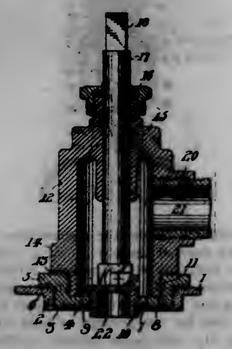
3. In a lamp burner having a crown member with an opening in its side, a horizontal tube disposed through the opening and having an opening within the crown member, and a wing on the horizontal tube disposed at the outer side of the last-mentioned opening.

4. In a lamp burner, a crown member having an opening through its side, a wick tube within the crown member, a horizontal tube disposed through the opening and having an opening in its side within the crown member, and means on the horizontal tube for directing air therefrom to and above the wick tube.

5. In a lamp burner, a crown member having an opening through its side, a wick tube within the crown member, a horizontal tube disposed through the opening and having an opening in its bottom, a depending wing from the horizontal tube at the outer side of the opening therein, and a wing extending up from the horizontal tube.

[Claims 6 to 9 not printed in the Gazette.]

1,076,512. RELIEF-VALVE. RALPH OLIVER MURPHY, Millvale, Pa. Filed Oct. 19, 1912. Serial No. 726,764. (Cl. 220—120.)

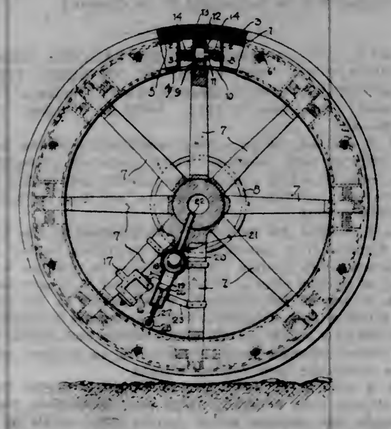


A relief valve comprising an inverted peripherally threaded cap adapted to detachably engage in the wall of a receptacle and provided with a laterally extending annular flange adapted to be seated upon the outer face of the receptacle, said cap formed with interior threads and having its bottom provided with a centrally disposed circular opening formed with a threaded wall, a valve body having one end reduced and exteriorly threaded, said end abutting against the bottom of and detachably connected to the interior threads of said cap, an outlet pipe communicating with and detachably secured to the side of said valve body, an inverted hollow peripherally threaded cylindrical plug closed at its outer end and engaging with the threads of said wall, said plug normally projecting above and below the bottom of the cap, a stem projecting into said valve body, and said stem and the outer end of the plug provided with associated means for detachably connecting the stem to the plug whereby the latter can be rotated to remove or replace it in said opening.

1,076,513. OILING ATTACHMENT FOR THE AXLES OF RESILIENT WHEELS. AL NELSON, Ripley, Tenn. Filed Nov. 12, 1912. Serial No. 730,987. (Cl. 152—28.)

1. An oiling device for spring wheels, comprising a pump cylinder provided with means whereby it may be attached to a spoke of a wheel, a container also provided with means whereby it may be attached to a spoke of a wheel and communicating with the interior of the pump cylinder, and an outwardly spring pressed piston mounted in said pump cylinder and arranged for inward actuation by pressure produced thereon by a radial yielding of the wheel structure, said cylinder being provided with a discharge passage, for the purpose specified.

2. The combination with a spring wheel, including a hub, spokes and a rim having a radially and circumferentially yielding relation to the hub, of a pump cylinder carried by the wheel and adapted to supply oil to a portion thereof, a piston mounted in said cylinder, and a piston rod connected to said piston and projecting outwardly in a radial direction from the cylinder, said piston rod being spring pressed outwardly and provided at its outer end with a roller mounted to ride upon the rim.



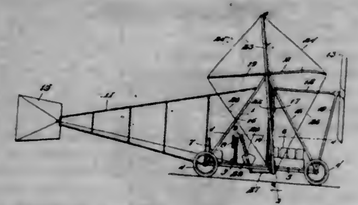
3. The combination with a spring wheel having inner and outer rims and a hub relatively movable thereto, said hub being formed with a transverse passage communicating with the interior thereof, of an oil pumping apparatus comprising a pump cylinder secured between the wheel spokes and communicating at its inner end with said passage, a piston, a piston rod adapted to be engaged by said inner rim and forced inwardly, means for holding said piston in its outermost position, an oil container communicating with said pump cylinder and means for checking the flow of oil through the cylinder in one direction.

4. The combination with a spring wheel having a hub movable relative to the wheel rim, said hub being provided with a channel communicating with the axle spindle, of an oiling apparatus comprising a pump cylinder communicating at its inner end with said channel, a ball valve positioned within said cylinder, a piston, a piston rod, a wheel journaled on the outer end of said rod for engagement with the wheel rim, whereby the piston is forced inwardly, means for returning said piston to its outermost position, an oil container and a pipe connecting said container with the pump cylinder.

5. A pump cylinder enlarged at one end, a hemispherical cap secured upon said enlarged end and forming therewith a valve chamber, said cap being formed in its outer end with an opening and having grooves upon its interior surface communicating with said opening, a ball valve positioned within said chamber, a piston, means for actuating the same, and means for feeding a fluid into said pump cylinder.

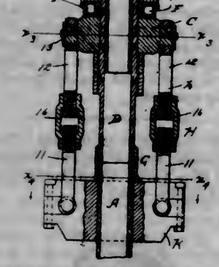
1,076,514. FLYING-MACHINE. VICTOR M. OSBORN, La Fayette, Ind. Filed Feb. 4, 1913. Serial No. 746,229. (Cl. 244—29.)

1. A flying machine including a main frame of approximately frusto-pyramidal form, a car or platform carried by said main frame, a similarly shaped independent frame pivotally connected with the vortex of said main frame for relative longitudinal tilting motion on a horizontal transverse axis, said independent frame extending above the main frame and beneath the car or platform, and wings fixed to the independent frame and mounted to tilt therewith, the said main frame and car forming a gravity controlled body operating by gravity to maintain a normal perpendicular position, and means for tilting said independent frame upon the body and holding it in tilted position.



2. A flying machine including a body, formed of a main frame having a base and uprights rising therefrom, said main frame having a head portion carrying a tractor propeller and a tail extension provided with a vertical rudder, a motor mounted upon the base in advance of the centers of gravity and pressure and in gear with the propeller, an aviator's seat mounted upon the base in rear of the centers of gravity and pressure, a controlling device upon the body for adjusting the vertical rudder, a supporting surface having a frame including side members extending down on opposite sides of the main frame and a cross piece connecting said side members and extending transversely of the main frame, said supporting surface being pivoted for a relative fore and aft motion to the uprights of the body, a controlling device upon the base of the body in proximity to the aviator's seat, a connection between the same and the cross piece of the frame of the supporting surface, and means for locking said controlling device in adjusted position.

1,076,515. ROTARY DRILL. LUTHER A. OWENS, Fellows, Cal. Filed Nov. 29, 1912. Serial No. 734,100. (Cl. 255—25.)



1. The combination, with a rotary drilling string provided with a swivel cross head and means for suspending the entirety in the drilling operation; of means connected with the swivel cross head and acting to sustain the drilling string upon failure of the means of connection between the same and the swivel cross head.

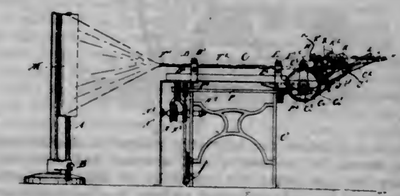
2. The combination, with a drilling string provided with a swivel cross head and means for suspending the entirety during the drilling operation; there being a swivel stem whereby the drilling string is rotatively suspended from the swivel cross head, and a collar connecting the drilling string and the swivel stem; of means normally spaced beneath said collar and co-acting with the same and with the swivel cross head to sustain the drilling string upon failure of the swivel stem.

3. The combination, with a drilling string provided with a swivel cross head and means for suspending the entirety during the drilling operation; there being a swivel stem whereby the drilling string is rotatively suspended from the swivel cross head, and a collar connecting the drilling string and the swivel stem; of means normally spaced beneath said collar and co-acting with the same and with the swivel cross head to sustain the drilling string upon failure of the swivel stem; said latter means comprising a member surrounding the drilling string beneath the collar, and adjustable means extending between the same and the swivel cross head.

4. The combination, with a rotary drilling string and a swivel cross head in connection with which the drilling string is rotatively suspended; said swivel cross head being provided with pairs of spaced lugs; of suspension means connected with one pair of said spaced lugs, and means acting to sustain the drilling string upon failure of the means normally sustaining the same, said means so acting being connected with the other pair of said lugs upon said swivel head.

5. The combination, with a rotary drilling string and a swivel cross head from which the drilling string is rotatively suspended; of means connected with the swivel cross head and acting to sustain the drilling string upon failure of the means normally sustaining the same, and suspension means for the swivel cross head, said means so acting to sustain the drilling string and said suspension means being both connected with said swivel cross head.

1,076,516. DOUBLING AND WINDING MACHINE. JOANNY PAGERIE, Paterson, N. J., assignor to Claude Crepaux, Paterson, N. J. Filed Oct. 4, 1912. Serial No. 723,854. (Cl. 26—13.)



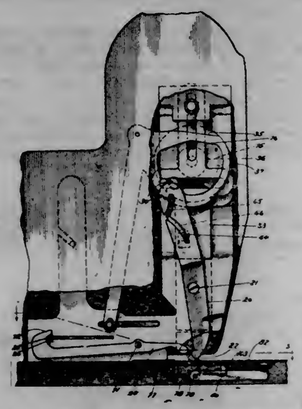
1. In a machine of the character set forth, a folder-guide having a rounded projection to initiate the fold and arranged to form a longitudinal fold in the fabric, said folder guide being disposed horizontally and having its projection at one end thereof, a supporting roller over which said folded fabric is drawn, a pressure roller above said supporting roller arranged to complete the fold, a winding device for taking up the folded fabric, a second supporting roller and an extensor-roll between said pressure roller and winding device, and means for driving the winding device and said supporting rollers.

2. In a machine of the character set forth, a folder-guide having a rounded projection to initiate the fold and arranged to form a longitudinal fold in the fabric, said folder guide being disposed horizontally and having its projection at one end thereof, a roller arranged to exert pressure on the folded fabric to complete the fold, a winding device for taking up the folded fabric, and an extensor-roll between said pressure roller and winding device.

3. In a machine of the character set forth, a folder-guide having a rounded projection to initiate the fold and arranged to form a longitudinal fold in the fabric, said folder guide being disposed horizontally and having its projection at one end thereof, a revolving supporting roller over which said folded fabric is drawn, a pressure roller above said supporting roller and arranged to press by gravity upon the folded fabric to complete the fold, a second revolving supporting roller, an extensor-roll arranged to press by gravity upon the folded fabric, and a revolving card-holder adapted to receive a card and wind the folded fabric upon the latter.

4. In a machine of the character set forth, a holder adapted to receive a vertical full-width roll of fabric, a folder-guide located at the approximate midheight of said roll and disposed horizontally relatively thereto, and formed at one end with an angular horizontal projection with a rounded end, said folder-guide arranged to form a longitudinal fold in the fabric as received from said vertical roll and to lie in said fold as the fabric traverses said guide, means for pressing the folded fabric to complete the fold, an extensor-roll for distending the folded fabric, and a winding-device for drawing the fabric from said vertical roll and winding it in the folded condition.

1,076,517. STAMP VENDING AND AFFIXING MACHINE. GEORGE L. REICHHELM, Detroit, Mich., assignor, by mesne assignments, to P. R. Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Mar. 2, 1911. Serial No. 611,884. (Cl. 216—28.)



1. In a machine for delivering stamps or similar articles, means for moistening said articles, and automatic means for preventing the operation of said moistening means, and for delivering said articles in a dry condition.

2. In a machine for delivering stamps or similar articles, means for moistening said articles, means for delivering said articles in a dry condition, and means actuated by an envelop or like package for controlling the operation of said moistening means, to prevent its movement into contact with said stamps or articles.

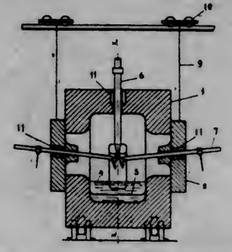
3. In a machine for delivering stamps or similar articles, means for moistening said articles, means actuated by an envelop or like package for controlling the operation of said moistening means, to prevent its movement into contact with said stamps or articles, and means actuated by said controlling means for moving the stamp to a different position when said moistening means is not operated.

4. In a machine for delivering stamps or similar articles, means for delivering said articles in a dry condition, means for moistening said articles, means for affixing said articles to an envelop or like package, means actuated by said envelop or like package for controlling the operation of said moistening means, to prevent its movement into contact with said stamps or articles, and movable means for receiving the pressure of said affixing means.

5. In a machine for delivering stamps or similar articles, means for delivering said articles in a dry condition, means for moistening said articles, means for affixing said articles to an envelop or like package, means actuated by said envelop or like package for controlling the operation of said moistening means, to prevent its movement into contact with said stamps or articles, and yieldable means for receiving the pressure of said affixing means.

[Claims 6 to 14 not printed in the Gazette.]

1,076,518. ELECTRIC FURNACE. IVAR RENNERFELT, Halmstad, Sweden. Filed Feb. 26, 1912. Serial No. 680,003. (Cl. 204—64.)



1. In an electric furnace the combination of a crucible arranged to be rotated around a horizontal axis, electrodes projected into the crucible from opposite sides, another electrode projected vertically through the side of the crucible into close proximity to the inner ends of the first said electrodes and means for adjusting the relative distance between the three inner ends of all the electrodes, the electrodes being so arranged that an arc is established from the vertical electrode to each of the other electrodes.

2. In an electric furnace the combination of a crucible arranged to be rotated around a horizontal axis, a shield at each end of the crucible, an electrode extending through each shield, another electrode extending in radial direction through the wall of the crucible, and means for adjusting the shields in vertical direction.

3. In an electric furnace the combination of a crucible arranged to be rotated around a horizontal axis, an electrode through each end of the crucible, another electrode extending vertically through the side of the crucible into close proximity to the inner ends of the first said electrodes and means for adjusting the relative distance between the three inner ends of all the electrodes, the electrodes being so arranged that an arc is established from the vertical electrode to each of the other electrodes.

4. In an electric furnace the combination of a crucible arranged to be rotated around a horizontal axis, an electrode through each end of the crucible, another electrode extending vertically through the side of the crucible into close proximity to the inner ends of the first said electrodes, means for adjusting the relative distance between the three inner ends of all the electrodes, the electrodes being so arranged that an arc is established from the vertical electrode to each of the other electrodes and means for rotating the crucible so as to vary the distance between the ends of the electrodes and the surface of the molten charge within the crucible.

1,076,519. SIGN. GEORGE J. B. RODWELL, Buffalo, N. Y., assignor to Rodwell Sign Company, Buffalo, N. Y., a Corporation of New York. Filed Apr. 14, 1910. Serial No. 555,514. (Cl. 40—140.)



1. A symbolic character comprising, in combination, a marginal portion, a sharply defined inner face portion depressed below said marginal portion and connected therewith by an outwardly flaring portion, and a coating on said face portion adapted to diffuse light and appear in strong contrast with said other portions.

2. A symbolic character comprising, in combination, a marginal portion, a sharply defined inner face portion depressed below said marginal portion and connected therewith by an outwardly flaring portion, and a coating on said face portion comprising a fine glassy substance.

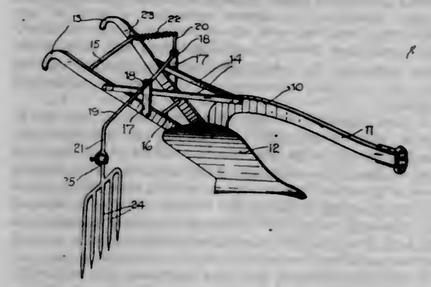
3. A symbolic character or letter comprising, in combination, a plane marginal portion, a convex central face portion, said face portion being depressed below said marginal portion and connected therewith by an outwardly flaring portion, a reflecting coating applied to said flaring portion, and means covering said face portion adapted to diffuse light and to appear in strong contrast with said other portions.

4. A symbolic character or letter comprising, in combination, a plane marginal portion, a convex central face portion, said face portion being depressed below said marginal portion and connected therewith by an outwardly flaring portion, and a coating applied to said face portion adapted to appear in strong contrast with said other portions.

5. A symbolic character or letter comprising, in combination, a plane marginal portion, and a convex central face portion, said face portion being depressed below said marginal portion and connected therewith by an outwardly flaring portion, said face portion being covered with paint and a comminuted glassy substance.

[Claims 6 and 7 not printed in the Gazette.]

1,076,520. COMBINED PLOW AND HARROW. DARIUS B. ROHRER, Fairbanks, Tex. Filed Mar. 26, 1913. Serial No. 756,956. (Cl. 97—44.)



1. The combination with a plow, of a transversely extending rock shaft connected thereto, a spring connecting one end of said shaft with the plow, and a harrow adjustably connected to the other end of said shaft, as and for the purpose described.

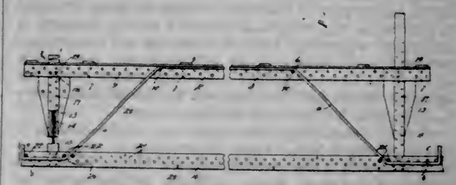
2. The combination with a plow, of a transversely extending rock shaft connected thereto, one end of said shaft being bent upwardly, and the opposite end of said shaft being bent downwardly, a spring connecting the upwardly bent end of said shaft with the plow, and a harrow adjustably connected to the downwardly bent end of said shaft, as and for the purpose described.

3. The combination with a plow having rearwardly extending handles, of vertical standards projecting from said handles, a transverse shaft journaled in said standards, means connecting one end of said shaft with said plow for yieldingly holding said shaft in one position, and a harrow adjustably connected to the other end of said shaft, as and for the purpose described.

4. The combination with a plow, of standards secured thereto, a shaft journaled in said standards, arms formed upon the opposite ends of the shaft, a spring connecting one arm with the plow and a harrow adjustable upon the other arm.

1,076,521. ROD-BENDER. ROBERT SAMPLE, San Francisco, and LEO A. FLEITZ, Oakland, Cal. Filed Apr. 2, 1913. Serial No. 758,343. (Cl. 153—16.)

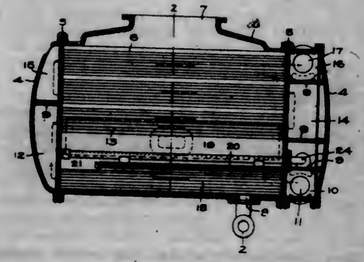
1. A rod bending apparatus comprising a relatively stationary member provided with a plurality of perforations, interchangeable dowel pins fitting said perforations and being held against movement relatively to said member, an upright back or flange extending parallel to the row of perforations, and a member having a plurality of perforations and removable, interchangeable dowel pins for insertion in said perforations, said member being adapted for parallel adjustment toward and from the first named member.



2. A reinforcing rod former comprising a relatively stationary part having a portion against which the rod is supported and said part having a series of perforations throughout its length, removable, interchangeable dowel pins fitting said perforations and forming a space between their rear edges and the front of said portion for the reception of the rod to be formed, guides on said member, and a movable beam adjusted toward and from said member and controlled by the guides, said beam having a plurality of perforations and interchangeable dowel pins removably fitting the perforations in said beam, the dowel pins of the former being adapted to act as fulcrums about which the rod to be formed may be bent.

3. A rod bender comprising a relatively stationary beam having an upwardly extending back portion along its length, perforations arranged in staggered relation in rows, interchangeable, removable dowel pins insertible in the perforations of either row for the reception of rods of different transverse proportions and for holding the same while being bent, guides projecting perpendicularly from said beam, slides movable through the guides transversely of the beam, and a rigid front beam fastened to said guides for movement parallel with relation to the first named stationary beam, said front beam having a plurality of perforations in rows and dowel pins removable and interchangeable with relation to the perforations and about which the rod to be bent may be turned, the movable front member providing for the production of reinforce rods with extended portions of different heights with relation to the central portion of the rods.

1,076,522. STEAM-CONDENSER. FREDERICK SAMUELSON, Rugby, England, assignor to General Electric Company, a Corporation of New York. Filed Feb. 7, 1910. Serial No. 542,413. (Cl. 62—26.)



1. In a condensing apparatus, the combination of a casing having a steam space therein and provided with an inlet for exhaust steam and an outlet for water of condensation, banks of tubes arranged in said space through which a cooling medium is circulated, spraying means arranged in the said steam space between adjacent banks of tubes that are spaced apart, one at least of

said banks of tubes being arranged between the spraying means and the outlet so that the water from said means and the condensed steam are cooled thereby on their way to the outlet, a partition extending partly across the casing below the spraying means and means including a pump connected to said outlet for supplying water to the spraying means.

2. In a condensing apparatus, the combination of a casing having a steam space therein and an inlet opening at the upper part of said space, banks of tubes arranged in the steam space through which a cooling medium is circulated, a spraying device arranged in the steam space between two adjacent banks of tubes that are spaced apart, a partition extending across the casing below the spraying device and provided with a passage, and means for supplying water to the spraying device.

3. In a condensing apparatus, the combination of a casing having a steam space therein, banks of tubes arranged in said space through which a cooling medium is circulated, spraying means arranged in said space between two adjacent banks of tubes that are spaced apart, a partition extending across the casing between said means and the bank of tubes immediately below it, there being an opening between one end of said partition and the adjacent end wall of the casing, and an outlet for the water of condensation arranged below said partition and adjacent to the opposite end of the casing.

4. A combined surface and jet condenser comprising a casing having a steam space therein, upper and lower banks of tubes arranged in the steam space through which a cooling medium is circulated, there being a space or region between said banks of tubes, a partition that extends across the casing above the lower bank of tubes and is provided with a passage through it, spraying means arranged throughout said region above the partition, and means for withdrawing condensed steam from the condenser and reintroducing it into the condenser through the spraying means.

5. In a condensing apparatus, the combination of a casing having a steam space therein and provided with an inlet for exhaust steam and an outlet for water of condensation, banks of tubes arranged in said space through which a cooling medium is circulated, there being a space or region extending from one end of the casing to the other between two adjacent banks of tubes, a partition extending across the casing above the lower bank of tubes and provided with a passage, spraying devices arranged throughout said region that are mounted on the partition, means for supplying water of condensation from the outlet to said devices, conduit means through which air, vapor, etc. are removed from said region, an outlet for air, vapor, etc. leading from the region to said means, and a shield for the inlet end of the last mentioned outlet.

[Claim 6 not printed in the Gazette.]

1,076,523. JACQUARD CONNECTION FOR WEAVING MECHANISMS. WALTER R. SCOTT, Philadelphia, Pa., assignor to Joseph H. Bromley, Philadelphia, Pa. Filed Mar. 17, 1910. Serial No. 549,967. (Cl. 66—6.)



1. In a machine of the character recited comprising a series of independently-movable thread-controlling jacks, constituting a set, and a jacquard machine providing a series of depending lifting hooks, of a supplemental frame adjacent the main frame of the machine adapted to operatively support the jacquard and its adjuncts in a vertical plane entirely to one side of the series of jacks and in a horizontal plane slightly above but adjacent thereto, vertically acting lifting means for each jack in the series, and horizontally-disposed connecting and actuating mechanism, with suitable guiding devices therefor, interposed between said last mentioned means and corresponding lifting hooks of the jacquard adapted to transmit the controlling movement of said hooks to the series of jacks in the set.

2. In a machine of the character recited the combination with a jacquard machine having depending lifting hooks, of means to mount it on the frame of the machine in a plane over but adjacent to and entirely to one side of the weaving instrumentalities, a plurality of independently-movable jacks, constituting a section, independent and vertically-acting lifting cords for each jack, a series of horizontally disposed wires connecting with and actuating each of the lifting cords of the several jacks in the section, a single shaft, a series of rotatable guiding devices thereon adapted to direct horizontal motion to each of said connecting and actuating wires, and other connecting and guiding devices between said series of horizontally-actuated connecting means and corresponding vertically-actuated lifting hooks of the jacquard.

3. In a machine of the character recited, a jacquard machine, means to mount it on the frame of the machine in a horizontal plane slightly over but adjacent to and entirely on one side of the weaving instrumentalities, a plurality of independently movable thread-controlling jacks constituting a series of sections, with a vertically-acting lifting cord for each jack, devices operatively connecting the lifting cords of corresponding jacks in the several sections to cause them to be actuated in sets, other devices separately imparting horizontal motion to corresponding jacks in each set of jacks, through the aforesaid connecting devices, and connecting and guiding devices between the vertically-depending needles of the jacquard and each connected set of jacks in the several sections.

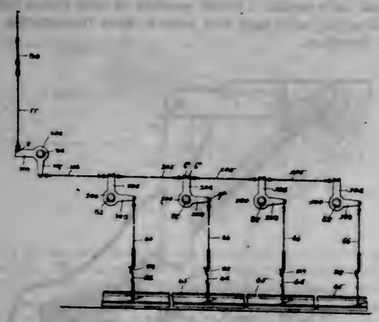
4. In a machine of the character recited, the combination with a plurality of sections of independently-movable jacks, vertically disposed lifting cords for each jack, horizontally disposed actuating means with guiding devices therefor operatively connecting the lifting cords of corresponding jacks in the several sections to actuate them in sets, a pair of jacquard machines mounted on the main frame of the machine and adjacent the weaving instrumentalities in vertical and horizontal planes entirely to one side of the jack sections, and actuating connections with guiding means therefor, interposed between corresponding lifting-hooks of both jacquards and the recited horizontal connecting and actuating devices for each of the series of connected sets of jacks in the several sections.

5. In a machine of the character recited, the combination with a jacquard mounted to provide a series of depending lifting hooks, means to mount the jacquard and its adjuncts on the end of the main frame of the machine in substantially the same horizontal plane with the weaving instrumentalities, a plurality of thread-controlling jacks, vertical and horizontal connecting and actuating devices between each jack and a lifting hook of the jacquard, said connections including a screw-threaded wire, a sleeve screwed on to said wire and provided with a head, and a member provided with an eye surrounding the sleeve and engaging said head.

[Claim 6 not printed in the Gazette.]

1,076,524. JACQUARD CONNECTION. WALTER R. SCOTT, Philadelphia, Pa., assignor to Joseph H. Bromley, Philadelphia, Pa. Filed May 31, 1910. Serial No. 564,244. (Cl. 66—6.)

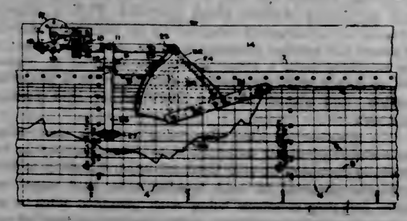
1. In a machine of the character recited, a plurality of independently movable jacks, constituting a section thereof, a shaft, a series of inverted bell crank levers each having a bored laterally extending hub and mounted thereby in spaced relation to rock on said shaft, vertically disposed lifting means between each jack and the horizontally-disposed arm of each lever, and means connecting the appropriate lifting hooks of a jacquard machine with the other and vertically-disposed arm of each corresponding lever in the series.



2. In a machine of the character recited, a plurality of independently movable jacks, constituting a set of jacks, a series of shafts over each jack in the set, an inverted bell crank lever on each shaft, provided with a bored hub adapted to be mounted thereby to rock on said shaft, vertically disposed lifting means between each jack and the horizontally-disposed arm of its corresponding lever, means between the upright arm of each contiguous lever in the series connecting the set of levers, in tandem, movable actuating and guiding means operating to impart a sidewise motion to the upright arm of the last lever in the series, and means between the lifting hooks of a jacquard machine and said movable guiding means, operating to simultaneously rock the entire series of levers in the set.

3. In a machine of the character recited, a plurality of sections of independently movable jacks, arranged to be operated in sets of corresponding jacks in the several sections, a series of shafts mounted in relatively different horizontal planes, one shaft for each section of jacks, a series of inverted bell crank levers mounted on each shaft, in spaced relation to each other, and adapted to rock on said shaft, vertically disposed lifting means between each jack in a section and horizontally-disposed arm of a corresponding lever on its shaft, means connecting the upright arm of contiguous levers in a set, in tandem, to a set of corresponding jacks in the several sections, and a series of movable guiding levers connecting the appropriate lifting hooks of a jacquard machine with the terminal member in the series of levers actuating each set of connected jacks.

1,076,525. PLANIMETER. LUCIAN A. SHELDON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 27, 1911. Serial No. 662,576. (Cl. 73—81.)



1. A planimeter comprising a tracing arm, a measuring wheel, a support on which the wheel is mounted, means connecting the support and the tracing arm so that they can move relatively to each other, and means including a cam carried by the tracing arm for varying the angular relation of the axis of the wheel and said arm.

2. A planimeter comprising a pivotally mounted tracing arm, means for supporting the pivot of said arm and guiding it in a rectilinear path, a measuring wheel, a support for the wheel that is pivotally connected to said means, and means including a cam on the tracing arm for varying the angular relation of the axis of the wheel and said arm.

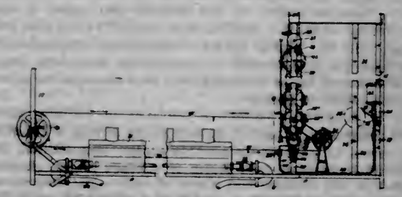
3. A planimeter comprising a carriage, means for causing the carriage to follow a definite path, a tracing arm, a measuring wheel, an arm on which the measuring wheel is mounted, means connecting the arms to the carriage so that they are angularly movable relative to each other, and a cam moved by one of said arms for controlling their angular relation.

4. A planimeter comprising a carriage, means for guiding the carriage in a rectilinear path, a tracing arm, a measuring wheel, an arm on which the measuring wheel is mounted with its axis arranged longitudinally of the arm, means connecting the arms to the carriage so that they are angularly movable relative to each other, and a cam on the tracing arm for varying the angular relation of the arms.

5. A planimeter comprising a carriage, means for guiding the carriage in a rectilinear path, a pivotally mounted tracing arm carried by the carriage, a measuring wheel, means pivotally connected to the carriage on which the wheel is rotatably mounted, and a cam on the tracing arm that acts on said means to vary the angular relation of the axis of the wheel to the tracing arm.

[Claims 6 to 13 not printed in the Gazette.]

1,076,526. WIRE COATING AND SPOOLING MACHINE. MYRON D. SHIVERICK, Albany, N. Y., assignor to William E. Milbank, Albany, N. Y. Filed Aug. 24, 1911. Serial No. 645,793. (Cl. 91—43.)



1. In a wire coating machine, an oven; means for drawing a wire under tension through said over; coating means adjacent said oven including a flattened metal tip having substantially parallel lips between which the wire passes; and means for supplying a coating liquid directly to said tip.

2. In a wire coating machine, an oven, means for drawing a wire through said oven; coating means adjacent said oven comprising a tip having a flat lip and means for supporting the wire in substantial contact with said lip; means for supplying a coating liquid directly to said tip; and means for controlling the flow of such liquid so that a thin film thereof is maintained on said lip portion.

3. In a wire coating machine, an oven; means for drawing a wire through said oven; coating means adjacent said oven comprising a tip having a flat overhanging lip and means for supporting the wire in substantial contact with said lip; means for supplying a coating liquid directly to said tip; and means for controlling the flow of such liquid so that a thin film thereof is maintained on said lip portion.

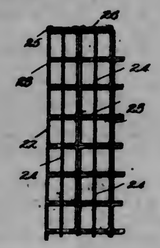
4. In a wire coating machine, an oven; means for drawing a wire under tension through said oven; and coating means including a flattened tip having substantially parallel, bent lips between which the wire passes, and a tank above and connected with said tip for supplying a coating liquid thereto by gravity, and means for supplying a coating liquid directly to said tip.

5. In a wire coating machine, an oven; means for simultaneously drawing a plurality of wires under tension

through said oven; and coating means including a plurality of flattened tips, one for each of the wires, having substantially parallel, bent lips between which the wire passes, and means for supplying a coating liquid directly to said tips.

[Claims 6 to 9 not printed in the Gazette.]

1,076,527. RADIATOR-SECTION. EMIL CARL FREDERICK STRETCHERT, Lockport, N. Y. Filed Oct. 18, 1912. Serial No. 726,511. (Cl. 62—28.)



1. A radiator unit comprising a pair of spaced strips having inwardly-open opposed hook portions along their transverse edges and registering series of transverse plaits, spacing closures secured between said opposed hook portions, and longitudinal flat plates held between said series of transverse plaits and confined against longitudinal displacement by said end closures.

2. A radiator unit comprising a pair of spaced strips having a registering series of opposed transverse plaits, longitudinal flat plates held between said series of opposed plaits, closures seated on the opposed end plaits of said registering series for spacing said plaited strips and confining said flat plates against longitudinal displacement, and hook portions formed by bending the transverse edges of said spaced strips inwardly over said closures for securing the latter in position.

3. In a radiator section, a plurality of radiator units each comprising a pair of spaced strips having a registering series of opposed transverse plaits, longitudinal flat plates held between said series of opposed plaits, closures seated on the opposed end plaits of said registering series for spacing said plaited strips and confining said flat plates against longitudinal displacement, hook portions formed by bending the transverse edges of said spaced strips inwardly over said closures for securing the latter in position, and spacing means extending longitudinally between said several units to provide water passages therebetween.

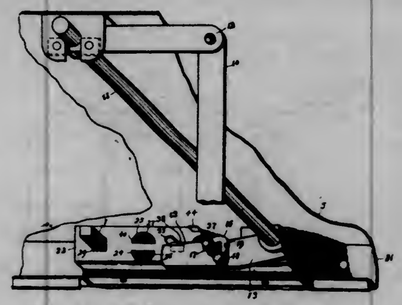
1,076,528. LOCKING DEVICE FOR DRAWERS OF CABINETS. EVERETT STUCK, Jamestown, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y., a Corporation of New York. Filed Jan. 24, 1912. Serial No. 673,241. (Cl. 70—46.)

1. In a lock for a rock shaft the combination of a rock shaft having a crank on one end thereof, a lock capable of being moved to rotate said crank against the tension of a spring, a dog for holding said crank in said rotated position.

2. In a lock for a rock shaft the combination of a rock shaft having a crank on one end thereof, a lock capable of being moved to rotate said crank against the tension of a spring, a spring pressed dog for holding said crank in said rotated position.

3. In a lock for a rock shaft the combination of a rock shaft having a crank on one end thereof, a lock capable of being moved to rotate said crank against the tension of a spring, a spring pressed dog for holding said crank in said rotated position, a pin for withdrawing said dog from contact with said crank, permitting the spring to move said crank in the reverse position.

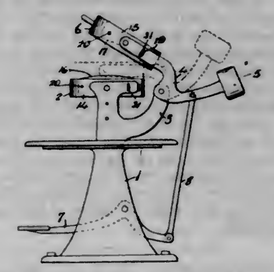
4. In a locking device, the combination of a rock shaft, a crank mounted thereon, said crank having a recess therein, a dog pivoted on said crank and movable part way across said recess, a crank movable in said recess capable of engaging with said first named crank for rotating it in one direction.



5. In a locking device, the combination of a rock shaft, a crank mounted thereon, said crank having a recess therein, a dog pivoted on said crank and movable part way across said recess, a crank movable in said recess capable of engaging with said first named crank for rotating it in one direction, and also capable of engaging under said dog for the purpose of holding said crank against rotation.

[Claims 6 to 13 not printed in the Gazette.]

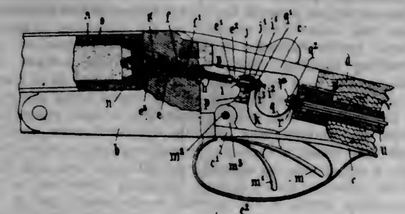
1,076,529. PRESSING-MACHINE. ROBERT TANNENBAUM and PETER REICHARDT, Cincinnati, Ohio. Filed May 7, 1913. Serial No. 766,032. (Cl. 68—9.)



1. A pressing machine comprising two pressing members, each of said members being provided with a pressing surface, one of said pressing members being longer than and projecting beyond the end of the other pressing member, said projecting portion being provided with a pressing surface, an attachment adapted to be removably secured adjacent the smaller pressing member, said attachment being provided with a pressing surface adapted to register and to co-act with the pressing surface on said projecting portion, and means for the operation of said pressing members.

2. A pressing machine comprising a base, a lower pressing member pivotally mounted in said base, a rocking arm pivotally mounted in said base, an upper pressing member pivotally mounted in said rocking arm, said upper and lower pressing members being each provided with a plurality of pressing surfaces, each pressing surface of said lower member being adapted to register and to co-act with one on the upper member, said pressing members being adapted to rotate to bring either pressing surface into operative position, means to secure said pressing members in such position, and means for the operation of said pressing members.

1,076,530. ELECTRIC FIREARM. ALEXANDRE TÉPINS, Paris, France. Filed Jan. 5, 1911. Serial No. 600,936. (Cl. 42—84.)



1. In an electric fire-arm, the combination with the butt of the gun, the trigger, and the head-piece connected to said trigger, of a source of electricity one pole of which is connected with the said head-piece, a rod in contact with said head-piece, the primer, the conductor therefor, and with which conductor the said rod is adapted to come into contact, a shutter pivoted on the butt, said shutter being in contact with the other pole of the electric source, a guard-plate, a conducting strip connected with the metallic body of the gun, and with which strip said guard-plate is connected, and a flexible metallic part adapted to be secured in the hollow of the shoulder portion of the clothing worn by the marksman and to form electric contact between the said shutter and guard-plate.

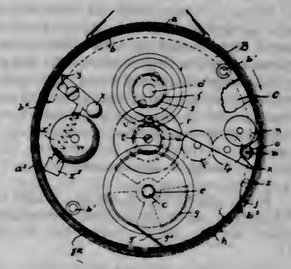
2. In an electric fire-arm, the combination with the metallic body and the butt, the trigger, and the head-piece connected with said trigger, of a slidable rod in contact with said head-piece, the primer, a conductor for the primer, and with which conductor the said rod is adapted to make contact when moved by the head-piece, a metallic element adapted to be secured to the shoulder portion of the clothing worn by the marksman, an electric battery, and electrical connections between the battery, the said metallic element, the slidable rod, the metallic body of the gun, and the primer as and for the purpose set forth.

3. In an electric fire-arm, the combination with the butt of the gun, the trigger, and the head-piece connected to said trigger, of a source of electricity one pole of which is connected with the said head-piece, the primer comprising a cup and an insulating tube and a filament adapted to be rendered incandescent under the influence of an electric current, one end of said filament being held between the conductor for said primer and the said insulating tube, a cap serving as a seating for the detonating material, between which cap and said cup the other end of the filament is tightly fixed, a shutter pivoted on the butt, said shutter being in contact with the other pole of the electric source, a guard-plate, a conducting strip connected with the metallic body of the gun, and with which strip said guard-plate is connected, a flexible metallic part adapted to be secured in the hollow of the shoulder portion of the clothing worn by the marksman and to form electric contact between the said shutter and the guard-plate, all as and for the purposes set forth.

1,076,531. APPARATUS FOR CHECKING AND RECORDING RECEIPTS AND THE LIKE. JASPER BAILEY THORN, Gillingham, England. Filed June 28, 1913. Serial No. 776,249. (Cl. 11—36.)

1. A receipt check and recording apparatus including, in combination, a pair of relatively rotatable casting members nested one within the other, a supply reel carried by the inner one of said members and itself carrying a pair of paper strips, a storing reel adapted to wind thereon one of the strips, gearing operated by the relative rotation of said members and geared with the storing reel, and feeding means for the two strips also operated from the gearing by the relative rotation of said members.

2. A receipt check and recording apparatus including, in combination, a pair of relatively rotatable casing members nested one within the other, and one of said members having cut-off means, a supply reel carried by the inner one of said members and itself carrying a pair of paper strips, a storing reel adapted to wind thereon one of the strips, gearing operated by the relative rotation of said members and geared with the storing reel, and feeding means for the two strips also operated from the gearing by the relative rotation of said members, said members, the gearing, and the feeding means being so arranged that the relative rotation of said members in one direction carries the check receipt strip to a position for engagement with the said cut-off means and at the same time winds up the recording strip, while the relative rotation of said members in the opposite direction brings fresh portions of both strips to writing position.

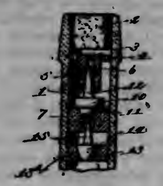


3. A receipt check and recording apparatus including in combination a pair of relatively rotatable casing members nested one within the other, a center spindle fixed to the outer of said members, a supply reel carried by the other of said members and itself carrying record and receipt strips, a storing reel for the record strip having a gear, friction rollers also carried by the member carrying the supply and record reels, a gear fast on the spindle, another gear loosely mounted on said spindle and being in mesh with the gear on the storing reel, gearing connecting one of said friction rollers with the gear loosely mounted on the spindle, means for connecting the gear fast on the spindle with the one loosely mounted thereon, and stops to limit the travel of the inner carrier.

4. A receipt check and recording apparatus comprising in combination, a cylindrical casing member provided with writing and delivery openings, a center spindle fixed to said member, a cylindrical carrier rotatably mounted on the spindle and having a limited rotary movement in the said casing, a cover secured to the rotary carrier and cylindrical casing member, a supply reel mounted on said carrier having receipt and record tapes wound thereon, means for unreeling the tapes and drawing the same over a portion of the side of the cylindrical carrier and before the writing opening in the casing member, a reel for receiving the record tape, and gearing connecting the latter reel and the means for unreeling adapted to be operated upon the rotation of the cylindrical carrier toward the delivery opening.

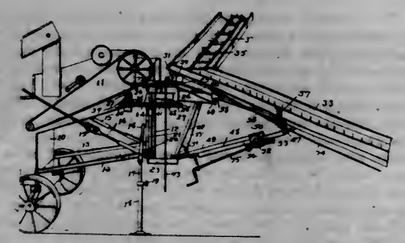
5. A receipt check and recording apparatus comprising in combination an outer cylindrical casing member having writing and delivery openings, a spindle fixed in the center thereof, a cylindrical carrier having its sides provided with slots rotatably mounted on the spindle, means for limiting the rotary movement of the carrier in the casing member, a supply reel rotatably mounted on said carrier having receipt and record tapes wound thereon, friction rollers journaled on the said carrier and adapted to draw the tapes through slots in the side thereof and over a portion of the same exposing the receipt tape through the writing opening in the casing member, a reel for receiving the record tape having a gear, gearing connecting the friction rollers with the gear on said reel, a gear fast on the spindle, and means for connecting the latter gear with the aforesaid gearing upon moving the frame in one direction and thereby removing the receipt portion of the strip from the writing opening to the delivery opening.

1,076,582. NON-REFILLABLE BOTTLE. JOSEPH TRIOLO, Brooklyn, N. Y. Filed Dec. 31, 1912. Serial No. 739,518. (Cl. 215—68.)



A device of the kind described comprising a perforated disk snugly fitting a bottle neck, an inwardly extending sleeve carried by said disk, a stem freely working in said sleeve, a valve disk carried by said stem having a cone portion, a second disk having a valve seat adapted to be engaged by said cone portion, a third disk also provided with a valve seat, a cone valve engaging said seat, and a tapering stem carried by the last mentioned valve and in permanent engagement with the inner end of the first mentioned valve.

1,076,533. SIDE CONVEYER FOR BAND-CUTTERS AND FEEDERS. ARTHUR C. VAN HOUWELING, Pella, Iowa. Filed May 1, 1911. Serial No. 624,297. (Cl. 193—16.)



1. In a device of the class described, the combination of a main frame, an upright shaft pivoted thereto, two arms extended laterally from said shaft and parallel with each other, a conveyer frame pivotally mounted on the upper arm, and a supporting leg pivotally mounted on the lower arm, said supporting leg being extended outwardly and upwardly and attached to the conveyer frame.

2. In a device of the class described, the combination of a threshing machine frame, a feeder frame, a supporting frame arranged beneath the feeder frame, braces extending from the lower end thereof to the threshing machine frame, braces extending from the upper portion of the threshing machine frame downwardly and toward the lower end of said supporting frame and being fixed thereto, the upper end of said supporting frame being attached to the feeder frame, a shaft mounted in said supporting frame and having two laterally extended arms parallel with each other, a conveyer frame mounted on the upper arm, and a supporting leg mounted on the lower arm and fixed to the conveyer frame.

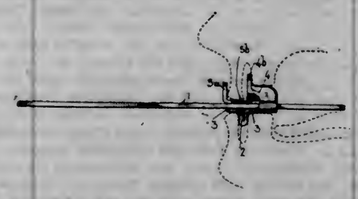
3. In a device of the class described, the combination of a threshing machine frame, a feeder frame, a supporting frame arranged beneath the feeder frame, braces extending from the lower end thereof to the threshing machine frame, braces extended from the upper portion of the threshing machine frame downwardly and toward the lower end of said supporting frame and being fixed thereto, the upper end of said supporting frame being attached to the feeder frame, a shaft mounted in said supporting frame and having two laterally extended arms parallel with each other, a conveyer frame mounted on the upper arm, a supporting leg mounted on the lower arm, and fixed to the conveyer frame, and an adjustable supporting member carried by said supporting frame and designed to rest upon and engage the ground.

4. In a device of the class described, the combination of a threshing machine frame, a feeder frame, a supporting frame arranged beneath the feeder frame, braces extending from the lower end thereof to the threshing machine frame, braces extended from the upper portion of the threshing machine frame downwardly and toward the lower end of said supporting frame and being fixed thereto, the upper end of said supporting frame being attached to the feeder frame, a shaft mounted in said supporting frame and having two laterally extended arms parallel with each other, a conveyer frame mounted on the upper arm, a supporting leg mounted on the lower arm and fixed to the conveyer frame, a lever pivotally connected to the supporting frame, a rod pivoted to the lower end of the lever, a tubular standard slidingly connected with the rod, and means for clamping the rod within the tubular standard, for the purposes stated.

5. In a device of the class described, the combination of a main frame, an upright shaft pivoted thereto, a laterally extended arm on said shaft, a bearing formed in the outer end of the arm, a sleeve rotatably mounted within said bearing, a shaft rotatably mounted within the sleeve, a sprocket wheel on the lower end of the shaft, a pinion on the upper end of the shaft, a horizontally arranged shaft on the upper end of the said sleeve, a pinion thereon in mesh with the aforesaid pinion, a conveyer frame, a conveyer therein, means for driving the conveyer from said horizontally arranged shaft, an upright shaft on said main frame, a sprocket thereon, a chain on said sprocket, and means for taking up the slack in said chain.

[Claims 6 and 7 not printed in the Gazette.]

1,076,534. DENTAL INSTRUMENT. FIRMAN TULLOCK WALLEN, Bismarck, Mo. Filed Jan. 23, 1913. Serial No. 743,738. (Cl. 32—1.)



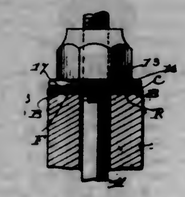
1. An instrument such as described, comprising a holder having a shoulder on the under side thereof, said shoulder being adapted to be positioned between the lower process and lip, and a slider movably mounted on the holder, having a portion adapted to be engaged by the upper process, and provided with an upstanding part adapted to lie between the upper process and lip.

2. In an instrument such as described, a holder, a slider movably mounted thereon, the slider being adapted to be positioned between the upper and lower processes and in engagement therewith, the slider having on its upper side an elevated portion provided at its outer end with an upstanding part adapted to lie between the upper process and lip.

3. In an instrument such as described, a holder, a slider movably mounted on the holder and adapted to be engaged by the upper and lower processes, the slider being provided with an upstanding part adapted to be positioned between the upper process and lip, and means for locking the slider in position on the holder.

4. An instrument such as described, comprising a holder having a shoulder on its under side adapted to lie between the lower process and the under lip, a slider removably carried thereby, the slider being adapted to be positioned between the upper and lower processes and in engagement therewith, the slider being provided with an upstanding part adapted to be positioned between the upper process and lip, and a locking device inserted between the holder and slider for maintaining such parts in engagement.

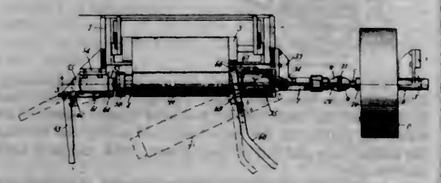
1,076,585. SPARK-PLUG FOR EXPLOSION-ENGINES. FRANK C. WALSH, Cleveland, Ohio, assignor to The Sharp Spark Plug Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 28, 1911. Serial No. 657,268. (Cl. 123—169.)



1. In a spark plug, the combination with a porcelain insulation having flat extremities and beveled edges, and an electrode passing through said insulation, of clamping means for the porcelain, said clamping means secured on said electrode, and washers introduced between said clamping means, and said insulation, said washers composed in part of annealed copper having inwardly crimped edges, and part of asbestos, the flat extremities of said insulation engaging said asbestos portion, and the beveled edges engaging the said crimped edges of the copper.

2. In a spark plug, in combination, a porcelain insulation, and an expansible electrode passing therethrough, a clamping means therefor, said insulation provided with flat extremities having beveled edges, clamping means for said electrode, and annealed expansible washers interposed between said porcelain and said clamping means, said washers provided with inwardly crimped edges engaging said beveled edges of said insulation, and asbestos rings in said copper washers engaging the flat extremities of said porcelain.

1,076,536. MANDREL FOR PAPER-WINDING MACHINES. GEORGE B. WARNER, Fitchburg, Mass., assignor to P. T. Jackson, Jr., Boston, Mass. Filed Aug. 21, 1911. Serial No. 645,282. (Cl. 93—81.)



1. In a machine for winding paper into tubes or barrels, the combination of a driving shaft, a mandrel operatively connected to and operated by said shaft, a mandrel expanding device, a mandrel carrier pivotally connected to the machine frame and carrying said mandrel to permit one end thereof to be swung away from the machine for removal of the paper tube or barrel lengthwise therefrom while still maintaining the operative connection between said mandrel and driving shaft, means to operate the mandrel expanding device to permit contraction of the mandrel as it is so swung, and means for swinging the mandrel transversely of the shaft and detaching the paper tube or barrel therefrom.

2. In a machine for winding paper into tubes or barrels, the combination of a driving shaft, a mandrel carrier pivotally connected to the machine frame to swing transversely of said shaft, a mandrel having a head mounted in said carrier, and driving connections between the mandrel and said shaft permitting the mandrel to be swung outward with the carrier while maintaining the said mandrel in operative relation with said shaft.

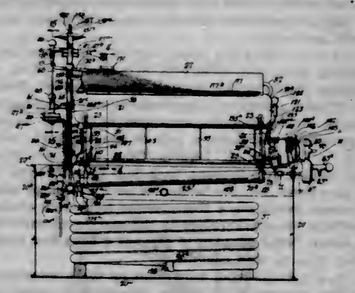
3. In a machine for winding paper into tubes or barrels, the combination of a driving shaft, a mandrel carrier pivotally connected to the machine frame to swing transversely of said shaft, a mandrel having a head mounted in said carrier, driving connections between the mandrel and said shaft permitting the mandrel to be swung outward with the carrier while maintaining the said mandrel in operative relation with said shaft, and means for detachably holding the end of the mandrel opposite said mandrel carrier.

4. In a machine for winding paper into tubes or barrels, the combination of a driving shaft, a mandrel carrier pivotally connected to the machine frame to swing transversely of said shaft, a mandrel having a head mounted in said carrier, driving connections between the mandrel and said shaft permitting the mandrel to be swung outward with the carrier while maintaining the said mandrel in operative relation with said shaft, and means movable longitudinally of the mandrel for detaching the paper tube or barrel from the mandrel.

5. In a machine for winding paper into tubes or barrels, the combination of a mandrel having a head projecting at one end of the mandrel, a mandrel carrier in which said mandrel head is rotatably mounted, a driving shaft, driving connections between the mandrel head and driving shaft for rotating the mandrel and which permits of the mandrel being swung outward with the carrier while maintaining the mandrel in operative relation with said shaft, and pivotal connections between the mandrel carrier and frame of the machine permitting it and the mandrel to be swung relatively to said shaft.

[Claims 6 to 15 not printed in the Gazette.]

1,076,537. REFRIGERATING APPARATUS. FRED W. WOLF, Jr., and HARRISON H. SOUTHWORTH, Cleveland, Ohio, assignors, by mesne assignments, to Clarence E. Mehlhope, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 673,972. (Cl. 62—6.)



1. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation comprising a member adapted to supply heat to either of said generator absorbers, said heat supply member being movable from heating position under one generator absorber to heating position under the other, devices for discharging a cooling fluid against either of said generator absorbers, adapted to be shifted by said heat supply member at a predetermined point in the path of its movement, means for moving said heat supply member from heating position under one generator absorber toward its heating position under the other generator absorber, when the temperature of the generator absorber that is being heated has reached a predetermined point, and stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point.

2. In an automatic refrigeration apparatus of the absorption type, including generator absorbers arranged in

pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, and means providing return conduits for leading the expanded fluid back to each of the generator absorbers, means for cooling and heating said generator absorbers in alternation comprising a member adapted to supply heat to either of said generator absorbers, said heat supply member being movable from heating position under one generator absorber to heating position under the other, devices for discharging a cooling fluid against either of said generator absorbers, adapted to be shifted by said heat supply member in the latter part of its movement, means for moving said heat supply member from heating position under one generator absorber toward its heating position under the other generator absorber when the temperature of the generator absorber that is being heated has reached a predetermined point, a controlling device for cutting off the heat supply intermediate the two final positions of said heat supply member, and stop mechanism for arresting the movement of said heat supply member toward the generator absorber which is being cooled when the pressure therein has not reached or passed a predetermined point.

3. In an automatic refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, means providing return conduits for leading the expanded fluid back to each of the generator absorbers, rectifying means interposed in the conduit leading from each generator absorber, means for cooling and heating said generator absorbers in alternation, a thermostatic device affected by the temperature of the fluid in the conduits leading from said generator absorbers, and means controlled by said thermostatic device acting temporarily to turn off or diminish the heat supply when the fluid passing from said rectifier pipes reaches a predetermined temperature below the final temperature intended to be obtained in either of said generators.

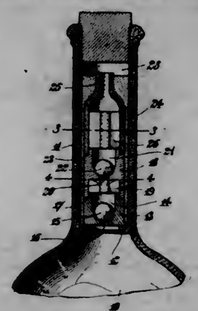
4. In a refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, means providing return conduits for leading the expanded fluid back to each of the generator absorbers, a pair of spaced check valves located in the conduit leading from each generator absorber adapted to prevent back-flow therethrough, a suction pipe located in the bottom of each generator absorber, and means providing a free passage from each conduit intermediate the check valves to the associated suction pipe, said means being adapted to prevent a back-flow from said suction pipe to said conduit.

5. In a refrigerating apparatus of the absorption type, including generator absorbers arranged in pairs, means providing conduits for leading the generated fluid from each of said generator absorbers, means providing return conduits for leading the expanded fluid back to each of the generator absorbers, a pair of spaced check valves located in the conduit leading from each generator absorber adapted to prevent back flow therethrough, a by-pass leading from said last-named conduit intermediate said check valves, suction pipes located in the bottoms of said generator absorbers, and means connecting each by-pass with an associated suction pipe.

[Claims 6 to 11 not printed in the Gazette.]

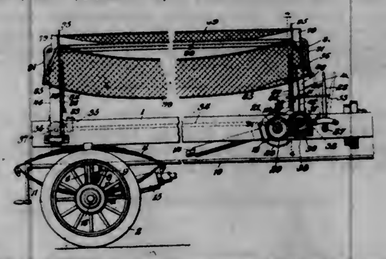
1,076,538. NON-REFILLABLE BOTTLE. WALTER A. WOODHULL, Monroe, and CHARLES R. WOODHULL, Newburgh, N. Y. Filed Dec. 18, 1912. Serial No. 737,482. (Cl. 215—68.)

In a non-refillable bottle, the combination with a bottle body including a neck, of a valve section supported within the neck and including a valve chamber, a valve loosely supported in the valve chamber and normally closing an opening from the bottle body to the valve chamber, an upper tubular section arranged within the said neck and terminating at its upper end in a reduced tubular spout, an intermediate section provided with a valve chamber and disposed within the neck to lie between the said upper and lower sections and engaging the same, a second valve in the valve chamber of the intermediate section and normally closing a passage connecting the first



valve chamber with the second valve chamber, and a plurality of cruciform stop members, one arranged between the lower section and the said intermediate section and the other lying wholly within the upper section and supported therein by the said intermediate section.

1,076,539. EXTENSION-TOWER. JOHN L. ACKLEY, Penn Yan, N. Y. Filed Feb. 26, 1912. Serial No. 680,035. (Cl. 227—6.)



1. An extension tower comprising a series of telescoping elements each inner one being provided with a rack bar in front of the rack bar of the next larger element, an actuating pinion for the rack bars, and means for moving the pinion into and out of engagement with the rack bars successively.

2. An extension tower comprising a series of telescoping elements, each inner one being provided with a rack bar in front of the rack bar of the next larger element, an actuating pinion for the rack bars, and means for moving the pinion into and out of engagement with the rack bars successively, the teeth of a rack bar at what constitutes the lower end thereof approaching the teeth of the next succeeding rack bar which said first-named rack bar overlies.

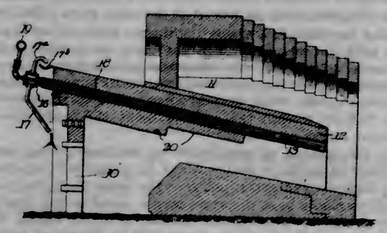
3. An extension structure comprising a series of telescoping members each provided with a rack bar, the rack bar of an inner member overlying the rack bar of a next successive larger member with the teeth at the end constituting the lower end of the rack bar approaching the teeth of the rack bar which it overlies, a pinion common to all the rack bars and adapted to engage them successively, and means carried by a larger telescoping section for forcing the pinion into engagement with an underlying rack bar on passing from a preceding overlying one.

4. A telescoping extension structure comprising a relatively fixed member, other members of progressively smaller size to telescope within the fixed member, rack bars, one carried by each telescoping member and in progressively overlying relation one to the other, a pinion carried by the relatively fixed member, and means for causing the pinion to move into engagement with each underlying rack on leaving the next successive overlying rack on the projection of the telescoping member.

5. A telescoping extension structure comprising a relatively fixed hollow member, other telescoping members movable into and out of the fixed member and with relation one to the other and each provided with a rack bar with that of an inner member overlying that of the next outer member, the rack bar of an inner member having the toothed portion which constitutes its lower end approaching the toothed portion of the rack bar it overlies, a pinion carried by the relatively stationary member in position to engage the teeth of the rack bars and movable bodily in a direction substantially perpendicular to the movement of the rack bars, and means carried by each telescoping section for causing a bodily movement of the pinion into engagement with the rack bar carried by said section on its passage from the rack bar of the next preceding inner section.

[Claims 6 to 21 not printed in the Gazette.]

1,076,540. FURNACE-PORT. ANSON W. ALLEN, Birmingham, Ala. Filed Jan. 2, 1913. Serial No. 739,666. (Cl. 75—119.)



1. Cooling means for the ports of open-hearth furnaces, comprising in combination an arch, an underlying longitudinally extending metallic arch, said underlying arch being made up from a plurality of units, each unit comprising a longitudinally extending box, angular in cross section, the sides of the units being in engagement, and means for supplying cooling liquid to each unit, substantially as described.

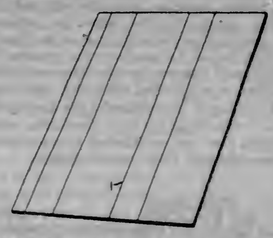
2. Cooling means for the ports of open-hearth furnaces, comprising in combination a refractory arch, a plurality of underlying, longitudinally extending water-cooling units each unit having the form of a trapezoid in cross-section, the diagonal sides of said units being in engagement whereby a metallic arch is formed, and means for supplying liquid to said units, substantially as described.

3. In a furnace, the combination with the gas and air intakes of a division wall formed at the junction of said intakes said wall being composed of upper and lower self-supporting refractory arches and an intermediate water-cooled metallic arch, said metallic arch being composed of a plurality of longitudinally extending boxes with their sides in contact, substantially as described.

4. In a furnace having gas and air ports, a division wall in the form of an arch, said arch being composed of an upper refractory, self-supporting arch, a shorter lower refractory self-supporting arch and an intermediate metallic, normally self-supporting watercooled arch, said arch being made up of a plurality of water-cooling units, whereby any one thereof may be removed and replaced, said lower arch meanwhile supporting the remainder of the units, substantially as described.

1,076,541. SHOE-STIFFENER BLANK. WILLIAM B. ARNOLD, Abington, Mass. Filed Oct. 24, 1911. Serial No. 656,864. (Cl. 36—77.)

1. A shoe stiffener blank from which the shoe stiffener may be died out without substantial loss of stock, said stiffener having three straight, beveled cut edges at one face of the blank and a fourth beveled cut edge at the opposite face, said blank having cut away corners at the ends of said fourth beveled cut edge and being otherwise substantially rectangular.

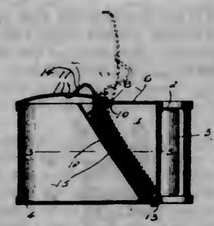


2. A shoe stiffener blank from which the shoe stiffener may be died out without substantial loss of stock, said stiffener being of general rectangular form and having three beveled cut edges at one face meeting at rectangular corners and a fourth beveled cut edge at the opposite face.

3. A shoe stiffener blank from which the shoe stiffener may be died out without substantial loss of stock, said stiffener having at one face a beveled bottom and two beveled side edges meeting at substantially rectangular corners and at its opposite face a beveled top having at its ends cut away corners merging into said beveled side edges, the amount of stock removed to form said cut away corners substantially corresponding to the amount of stock at the lower corners of the blank to produce said rectangular corners.

4. A shoe stiffener blank from which the shoe stiffener may be died out without substantial loss of stock, said stiffener having four, straight, beveled cut edges, three of said beveled edges being at one face of the blank and the fourth edge being on the opposite face.

1,076,542. BAIT-HOLDER. AUGUSTUS W. BALCH, Jr., Matamoras, Pa. Filed May 11, 1912. Serial No. 696,743. (Cl. 43—28.)

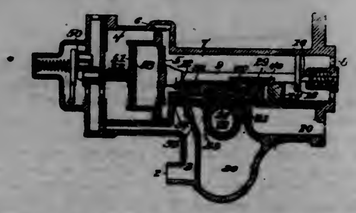


A bait receptacle having a bottom, front and rear walls, a closure hinged to the said receptacle, means secured to the rear wall of said receptacle and engaged with the central portion of said closure for normally retaining the latter in closed position, the portion of said means engaging said cover, projecting exteriorly thereof, and serving as a manipulator for said closure, and means disposed interiorly of said receptacle and in a forwardly and upwardly inclined position for guarding the first mentioned means throughout its entire length from the contents of the receptacle and preventing the same from becoming inoperative.

1,076,543. AIR-BRAKE APPARATUS. HENRY F. BICKEL, Plainfield, N. J., assignor to New York Air Brake Company, a Corporation of New Jersey. Filed June 18, 1912. Serial No. 704,285. (Cl. 188—15.)

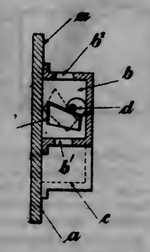
1. A triple valve for automatic air brake apparatus, comprising a piston subject to the opposing pressures of air in the train pipe, and in the auxiliary reservoir: and main

and graduating valves operated by said piston, combined with a supplementary train pipe chamber, and ports governed by said main valve whereby said chamber is cut off from communication with the train pipe and put into communication with the atmosphere when said main valve is in normal or release position, and whereby said chamber is cut off from communication with the atmosphere and placed in communicatron with the train pipe when said main valve is moved to position for causing the brakes to be applied, said communication being established before communication is established from the auxiliary reservoir to the brake cylinder, and whereby the auxiliary reservoir is placed in communication with the brake cylinder after communication has been established between the train pipe and said supplemental train pipe chamber.



2. The combination with the triple valve cylinder and piston, and main and graduating valves operated thereby; of a yielding stop which overcomes a predetermined preponderance of train pipe pressure on the triple valve piston, but is overcome by a larger preponderance, said main valve having a main exhaust cavity which establishes communication from the brake cylinder to the atmosphere when the piston is arrested by the yielding stop, and a secondary exhaust passage of relatively small capacity which connects the brake cylinder with the atmosphere when the piston has moved to overcome the said yielding stop, and a communication between said main and secondary exhaust cavities controlled by the graduating valve, substantially as and for the purpose described.

1,076,544. LOCK OR FASTENING FOR RAILWAY AND OTHER CARRIAGE DOORS AND THE LIKE. JOHN BITHELL, Newtown, England. Filed Mar. 19, 1912. Serial No. 684,897. (Cl. 105—265.)



1. In combination in railway carriages, means whereby the doors may be latched when closed, means whereby the latches may be prevented being operated to release the doors but which normally lie clear of the latches, further means which, on being operated by the wheels of the carriage, pneumatically operate the said latch-controlling means to lock the door latches, substantially as herein set forth.

2. In means for automatically locking or securing railway and other carriage doors when the train is in motion, a casing having two chambers let into the framing of the carriage doorway at a point opposite the latch of the carriage door when such door is closed, a lever within one of such chambers, and an air box in the other chamber, an axle to which both the lever and box are connected and about which they are designed to rotate, pipes opening into the chamber containing the air box, and means operated by the carriage wheels for forcing air through the chamber containing the box and thereby operating the box and with it the lever, to prevent opening of the door, substantially as herein set forth.

1,076,545. METHOD OF MAKING SEAMLESS TUBES. GEORGE H. BLAXTER, Beaver Falls, Pa. Filed Apr. 8, 1911. Serial No. 619,726. (Cl. 80—62.)

1. The method of manufacturing seamless tubing, which consists in rolling a hollow blank in a plug mill to reduce and elongate the same and free the same from scale, then rolling the same on a traveling bar in a grooved mill to further reduce the same to uniform thickness and smooth the same interiorly and exteriorly, and finally cross rolling or reeling the same to true and further smooth the same.

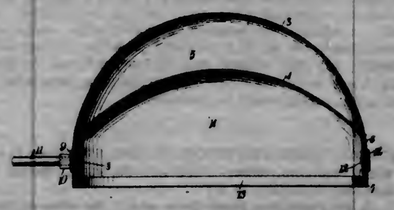
2. The method of manufacturing seamless tubing, which consists in rolling a hollow blank in a plug mill to reduce and elongate the same and free the same from scale, then rolling the same in a grooved mill on a mandrel bar traveling with the blank through said mill to further reduce the same to uniform wall thickness and produce a smooth interior surface for the tube, and finally cross rolling or reeling the tube while on said mandrel bar to thereby true and further smooth the same without the production of interior scores or ridges.

3. The method of manufacturing seamless tubing, which consists in rolling a hollow blank in a plug mill to reduce and elongate the same and free the same from scale and simultaneously pass the same over a mandrel bar, thereby preventing the formation of interior scores or ridges, then rolling the same on said mandrel bar in a grooved mill to further reduce the same to uniform wall thickness and smooth the same interiorly and exteriorly, and finally cross rolling or reeling the same while on said mandrel bar to true and further smooth the same.

4. The method of manufacturing seamless tubing, which consists in rolling a hollow blank in a continuous mill and on a mandrel bar traveling with the blank through said mill to reduce and elongate the same to substantially finished gage and length and without the production of interior scores or ridges, and then cross rolling or reeling the same while on said mandrel bar to true and further smooth the same.

5. The method of manufacturing seamless tubing, which consists in forcing a heated tubular blank between reducing means over and onto a mandrel bar, and then reducing the tube between said bar and outside reducing means, thereby preventing the formation of interior scores or ridges and finally cross rolling or reeling the tube while on said mandrel bar.

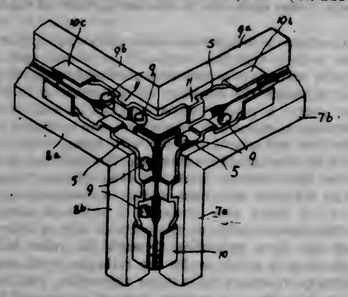
1,076,546. VALVE-FLOAT FOR CLOSET-TANKS. CHARLES M. BRENNER, Shreveport, La. Filed Aug. 19, 1911. Serial No. 644,989. (Cl. 137—104.)



1. A valve float for closet tanks, comprising a substantially semi-spherical member, and a bell-shaped member disposed within the semi-spherical member, both of said members having their open ends facing in the same direction, both of said members being imperforate and the inner member having a curved top and an approximately cylindrical body portion the outer face of which, from its open end approximately throughout its height, engages the corresponding inner face of the semi-spherical member, the said members being fastened together at their open ends and the inner member being of less depth than the outer member to form between them a hermetically sealed air chamber, the open end of the float facing downward and adapted to engage the water in the tank to form a closed water-sealed air pocket in said inner member, coacting reinforcing members disposed respectively on the inside of the inner member and the outside of the outer member at the meeting sides of said members, and a float stem connected with one of the reinforcing members.

2. A valve float for closet tanks, comprising a pair of hollow imperforate members each having an open end, one of said members being of less depth than the other member and disposed within the same, the sides of said members at the open end portion being in contact and the edges of said members at the open ends being fastened together by a lock seam to form between said members a permanently sealed air chamber, and to reinforce the said members at their open ends, the open end of the float being adapted to be closed by the water in the tank to form a closed water-sealed air pocket in said inner member, plates disposed respectively on the inside of the inner member and the outside of the outer member at the meeting sides of said members to reinforce the same, and a float stem connected with one of the outer plates.

1,076,547. SHOW-CASE. RAYMOND G. BULLOCK, Jamestown, N. Y., assignor to Art Metal Construction Company, Jamestown, N. Y., a Corporation of New York. Filed Jan. 7, 1911. Serial No. 601,479. (Cl. 211—25.)



1. The combination in a show case of a glass panel, a metallic frame therefor surrounding said panel, said metallic frame comprising a plurality of separate pieces, clips for holding said pieces together, said panel and its frame being complete in itself, a dog for engaging with said clips on each two adjacent panels to hold said panels together in position.

2. The combination in a show case of panels therefor, moldings surrounding said panels, said moldings being shaped in cross section with a base, a U-shaped channel inverted on one edge thereof, a side wall erected on the other edge thereof, said side wall having its upper edge bent in toward said inverted channel, the opening in said inverted channel being smaller than the opening between said inverted channel and said side wall, a glass plate engaging with said last named opening, a spring V-shaped plate interposed between the edge of said glass and said inverted channel.

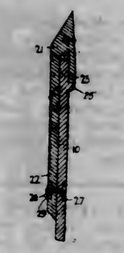
3. The combination in a show case of a panel comprising a glass, a molding engaging the edge of said glass, one edge of said molding being turned up and in toward the glass, a spring metal packing strip between the other edge of said molding and the edge of said glass, said packing strip forcing said glass over against the inturned edge of said molding, said packing strip being V-shaped in cross section and engaging with both sides of the edge of the glass.

4. The combination in a show case of a panel comprising a glass, a molding engaging the edge of said glass, one edge of said molding being turned up and in toward the glass, a spring metal packing strip between the other edge of said molding and the edge of said glass, said packing strip forcing said glass over against the inturned edge of said molding, said packing strip being V-shaped in cross section and engaging with both sides of the edge of the glass, said sheet of glass tending to spread said V-shaped packing strip as it is forced thereinto.

5. The combination in a show case of a panel comprising a glass, a molding having two upturned edges engaging the edge of said glass, packing between one edge of the molding and said glass, a spring metal packing strip between the other edge of said molding and the edge of said glass, said packing strip bearing on the end and the side of the glass and being adapted as the glass is forced thereinto to force the glass laterally against the packing strip.

[Claims 6 to 33 not printed in the Gazette.]

1,076,548. DIPPER FOR STEAM SHOVELS AND DREDGES. COOLEY BUTLER, New York, N. Y. Filed Feb. 27, 1913. Serial No. 750,988. (Cl. 37—16.)



1. The herein described dipper comprising a body having an edge notch and pairs of undercut flanges formed integrally on the inside and outside of the body structure, a tooth fitted to the dipper body in said notch and having fingers with beveled edges extending between the respective pairs of flanges and interlocking therewith, and a detachable member passing through the dipper body and a portion of said tooth, substantially as and for the purposes set forth.

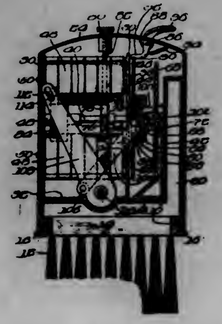
2. In a dipper, the combination of a dipper body having a front provided adjacent its cutting edge with a series of notches and pairs of undercut integral flanges adjacent said notches on the inside and outside thereof, a series of detachable teeth, each tooth adapted to be seated in a notch having a pair of fingers and embraced by said pairs of flanges, one pair of flanges having a transverse connecting rib serving as an abutment for one of the fingers, and a single removable member coöperating with the other finger and said body front serving to prevent outward longitudinal displacement of such tooth.

1,076,549. PNEUMATIC BRUSH. ISAAC CHAIMOVITSCH, Chicago, Ill. Filed Sept. 1, 1911. Serial No. 647,237. (Cl. 15—60.)

1. A device of the class described, comprising a perforated brush and cover therefor, adapted to be grasped by the hand of the user and being externally wholly unconnected with any other mechanism, a suction pumping mechanism inside said device at each end thereof, a motor between said suction devices and connecting means between the suction devices and the motor so arranged that the motor operates the suction devices alternately for the purposes set forth.

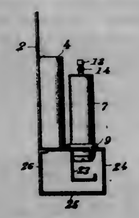
2. A device of the class described, comprising a perforated brush and cover therefor, adapted to be grasped by

the hand of the user and being externally wholly unconnected with any other mechanism, a spring driven motor inclosed within the cover, two bellows operatively connected to said motor so as to be alternately operated by it and so connected to the brush that when operated they draw dirt practically continuously from the brush into said cover, and filtering means adapted to retain dirt drawn in by the bellows within the cover, for the purposes set forth.



3. A device of the class described comprising a perforated brush, a cover adapted to be grasped by the hand of the user, suction pumping mechanism at each end of the brush, a motor device mounted within the cover between said suction devices and adapted to alternately operate said suction devices, whereby practically a continuous suction through the brush is provided, and means for temporarily retaining within the brush cover dirt sucked up by said suction devices.

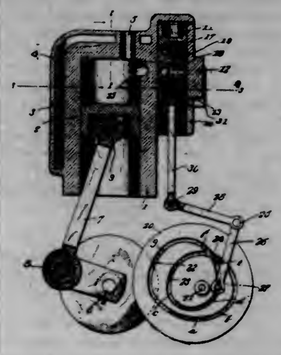
1,076,550. DENTAL-APPLIANCE HOLDER. EDWARD W. CLINCHARD, Sedro Woolley, Wash. Filed May 18, 1912. Serial No. 698,229. (Cl. 248—18.)



A holder of the class described, the body of which is formed of a sheet bent to provide a vertical supporting back, a shelf extending horizontally therefrom, a front wall extending downwardly from the front of said shelf, a bottom extending horizontally backward from said front wall, and a vertical extension connecting said bottom with said shelf in line with the vertical supporting back, the said front wall being apertured and the shelf being formed with openings therein to receive dispensing receptacles.

1,076,551. VALVE MECHANISM FOR INTERNAL-COMBUSTION ENGINES. VESTAL P. COFFIN, Boise, Idaho. Filed Feb. 3, 1912. Serial No. 675,390. (Cl. 123—188.)

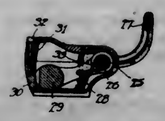
1. In a four-cycle internal combustion engine, the combination with a cylinder, reciprocatory piston and crank shaft, of a piston valve chamber communicating with the cylinder through the medium of independent inlet and exhaust ports, a piston valve working in said chamber and having independent admission and exhaust ports movable into and out of register with independent admission and exhaust ports leading into the cylinder, and mechanism for imparting a complete cycle of movement to the piston valve once only in two revolutions of the crank shaft.



2. In a four-cycle internal combustion engine, the combination with a cylinder, reciprocatory piston and crank shaft, of a piston valve chamber communicating with the cylinder through the medium of independent inlet and exhaust ports, a piston valve working in said chamber and having independent admission and exhaust ports movable into and out of register with independent admission and exhaust ports leading into the cylinder, the admission and exhaust ports of the cylinder being arranged at different elevations and the corresponding ports of the valve being also arranged at different elevations, and mechanism for imparting a complete cycle of movement of the piston valve once only in two revolutions of the crank shaft.

3. In a four-cycle internal combustion engine, the combination with a cylinder, reciprocatory piston and crank shaft, of a piston valve chamber communicating with the cylinder through the medium of independent inlet and exhaust ports, a piston valve working in said chamber and having independent admission and exhaust ports movable into and out of register with independent admission and exhaust ports leading into the cylinder, and the admission and exhaust ports of the cylinder being arranged at different elevations and the corresponding ports of the valve being also arranged at different elevations but in the reverse order to the ports of the cylinder, the ports of the valve extending through the valve body at an angle to each other, while the cylinder ports are correspondingly arranged to register therewith, and mechanism for imparting a complete cycle of movement to the piston valve once only in two revolutions of the crank shaft.

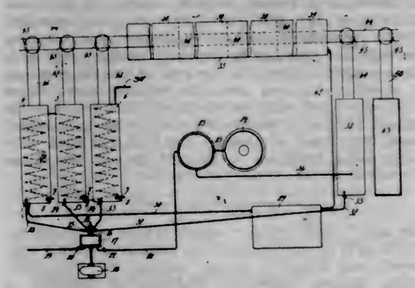
1,076,552. RAILWAY SIGNAL SYSTEM. DAVID DALE, Chicago, Ill. Filed Oct. 5, 1912. Serial No. 724,079. (Cl. 246—59.)



In an electric safety signal system for trains, the combination with a track and a vehicle adapted to travel thereon, of coacting contact members carried on said vehicle and located along said track respectively, said latter contact members each comprising a stationary support, an arm mounted to swing on a horizontal axis thereon, a contact plate carried by said arm, yielding means

arranged to coöperate with said arm to hold said plate normally in the path of the contact member carried by the vehicle, and a flexible conductor arranged to electrically connect said arm definitely to the said support at all times.

1,076,553. PROCESS FOR IMPREGNATING WOOD. LOUIS DAUTREPPE, Brussels, Belgium. Filed Mar. 15, 1913. Serial No. 754,482. (Cl. 99—12.)



1. In a process for impregnating wood, subjecting the wood successively to the action of solutions of silicate of an alkali metal having progressive degrees of concentration.

2. In a process for impregnating wood, subjecting the wood to the action of a first solution of silicate of an alkali metal, then immediately afterward to the action of a solution of silicate of an alkali metal of greater concentration and then immediately afterward to the action of a third solution of silicate of an alkali metal of a still greater concentration.

3. In a process for impregnating wood, subjecting the wood successively to the action of solutions of silicate of an alkali metal having progressive degrees of concentration, then drying said wood and subjecting said wood to the action of carbonic anhydrid.

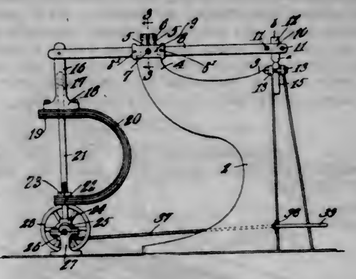
4. In a process for impregnating wood, subjecting the wood in a vacuum to the action of heat, then impregnating said wood successively by means of solutions of an alkali metal of progressive concentrations, then drying said wood and finally treating said wood with carbonic anhydrid under pressure.

5. In a process for impregnating wood, subjecting the wood in a vacuum to the action of heat, then impregnating said wood by means of the first solution of silicate of an alkali metal, subjecting said wood to the action of a pressure while it is plunged in said impregnating solution, then plunging said wood immediately afterward into a second solution of silicate of an alkali metal of a greater concentration and under pressure then plunging said wood immediately afterward into a third solution of silicate of an alkali metal of a still greater concentration and under pressure, then drying said wood at progressive temperatures and finally treating said wood with carbonic anhydrid under pressure.

[Claims 6 to 9 not printed in the Gazette.]

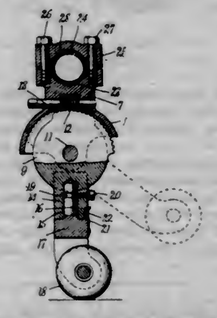
1,076,554. POWER-HAMMER. JAMES I. DEPEW, Loup City, Nebr. Filed Sept. 27, 1912. Serial No. 722,751. (Cl. 78—32.)

In a power hammer, the combination of a base, a reciprocatory lever mounted thereupon, a shaft mounted upon the base, an eccentric mounted upon the shaft, a rod provided with an eccentric strap, said eccentric strap being mounted upon the eccentric, a leaf spring having one terminal connected to the rod and the other terminal of the rod being slidably mounted through the other terminal of the spring, and a bar connected to the lever and also to the last terminal of the spring, said bar being provided with



a socket for the slidable reception of the free terminal of the rod.

1,076,555. AUTOMOBILE-JACK. JAMES T. DILLON, Greenwich, Conn. Filed Apr. 3, 1912. Serial No. 688,345. (Cl. 57—15.)



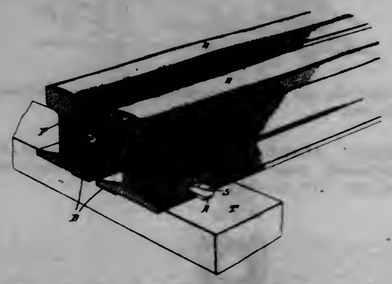
1. In a device of the character described, a body portion formed with an article-engaging portion, a clamping means for clamping said body portion in position, a substantially disk-shaped member pivotally mounted on said body portion, said disk-shaped member being formed with a rack on one edge and a radiating leg on substantially the opposite edge, a caster pivotally mounted on said leg, and a worm mounted in said body portion engaging said rack for swinging said caster from one position to another.

2. In a device of the character described, the combination with a vehicle of a body portion, means for clamping said body portion to the axle of said vehicle, a swinging member mounted on said body portion, means for swinging said member to a vertical position whereby said axle is raised and supported, a caster mounted on said swinging member, and a spring secured to said caster and frictionally engaging said swinging member for preventing rotation of the caster when the same is out of contact with the earth.

3. The combination with a vehicle formed with a pair of axles, of a jack adapted to be secured to each end of each of said axles for supporting said vehicle, each of said jacks comprising a body portion, means for rigidly clamping said body portion in position, a swinging member connected with said body portion, said swinging member being formed with a rack on one side, a worm mounted on said body portion engaging said rack for swinging said swinging member, and a caster construction mounted on said swinging member, said caster construction including a traction wheel whereby when said jacks are lowered and said vehicle is elevated said vehicle may be turned around within its own length.

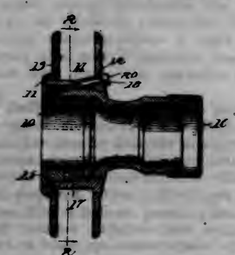
4. In a device of the character described, a body portion, means for clamping said body portion to an article to be supported, a depending apron extending from said body portion and defining a socket, a worm gear arranged in said socket and guided thereby, means for pivotally mounting said worm gear in said socket, a manually operated worm meshing with said worm gear for moving the worm gear, a depending arm extending from said worm gear, and a caster connected to said arm.

1,076,556. PROTECTING-PLATE. OTIS M. DRUSE, Omaha, Nebr. Filed Apr. 4, 1913. Serial No. 758,863. (Cl. 104—50.)



A protector for frogs of railway rails, comprising a flat resilient plate having an upper inturned portion providing a flange which is adapted to underlie the head of the rail and to exert a tension upon the underface of the rail, the plate having its lower edge beveled to provide a resilient base member which is adapted to be arranged beneath the base flange of the rail and supported upon the ties which also support the rail, and means comprising a spike adapted to engage with the lower edge of the plate for sustaining the plate against the rail.

1,076,557. DEMOUNTABLE WHEEL. THOMAS I. DUFFY, Chicago, Ill., assignor to Henry Ellsworth and Albert E. Cross, Chicago, Ill., Copartners doing business under the firm-name of Ellsworth & Cross. Filed July 1, 1910. Serial No. 569,846. (Cl. 21—31.)



1. In a demountable wheel, a hub comprising an inner member formed to receive an axle and bearings, and provided with an exterior taper, an outer or socket member fitted thereover and removable endwise therefrom in demounting the wheel, and provided with front and rear spoke flanges and with an interior tapered surface to engage throughout its length the exterior taper of the inner member, and a plurality of screw-threaded bolts having headed ends located radially exterior to the inner periphery of the said outer member, and extending through openings in said outer member and engaging screw-threaded openings in the inner member, said bolts being arranged obliquely to the axes of the hub members and crossing at a long angle the meeting tapered faces of the inner and outer members, whereby the resisting areas of said bolts against shearing stress is increased beyond the normal diameters of said bolts.

2. In a demountable wheel, a hub comprising an inner member formed to receive an axle and bearings, and provided with an exterior taper, an outer or socket member fitted thereover and removable endwise therefrom in demounting the wheel, and provided with front and rear spoke flanges and with an interior tapered surface to engage throughout its length the exterior taper of the inner member, and a plurality of screw-threaded bolts having headed ends located radially exterior to the inner periphery of the said outer member, and extending through openings in said outer member and engaging screw-threaded openings in the inner member, said bolts being arranged obliquely to the axes of the hub members and crossing at a long angle the meeting tapered faces of the inner and outer members, whereby the resisting areas of said bolts against shearing stress is increased beyond the normal diameters of said bolts.

1,076,558. HUB FOR DEMOUNTABLE WHEELS. THOMAS I. DUFFY, Chicago, Ill., assignor to Henry Ellsworth and Albert E. Cross, Chicago, Ill., Copartners doing business under the firm-name of Ellsworth & Cross. Filed Dec. 13, 1911. Serial No. 665,442. (Cl. 21—31.)



1. In a hub for a demountable wheel, an inner and an outer hub member fitted one over the other and provided with complemental interlocking parts, a rotative locking member screw-threaded to one of the hub members and engaging the other and provided with a series of ratchet teeth, a locking device, and a spring to normally hold it engaged with the ratchet teeth to prevent rotation of the locking member in the unlocking direction, said spring being arranged to exert lateral pressure on the locking device to hold said locking device in unlocking position.

2. In a hub for a demountable wheel, an inner and an outer member fitted one over the other and provided with complemental surfaces, a locking ring screw-threaded to the inner member to lock said members together, said locking ring being provided with an annular series of notches, a latch bar slidably mounted in a way in the hub and provided at one side with a shoulder adapted, when withdrawn, to engage a shoulder on the hub to hold the bar away from said notches and a spring applied to the latch bar and arranged to exert endwise and lateral pressure on said latch bar.

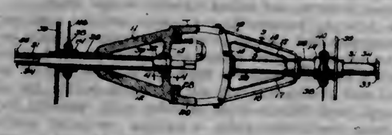
3. In a hub for a demountable wheel, an inner member and an outer member fitted one over the other and provided with complemental, engaging surfaces, and having locking means detachably fitted to one member and bearing against a shouldered part of the other member, the rear end of one of the members being provided with angularly spaced notches, and the rear end of the other member being provided with guiding and locking lugs to engage said notches, said lugs being of a length and so relationed to the locking means as to enter said notches in advance of operative engagement of said locking means with the member to which it is detachably fitted, and the locking means having guiding means which operate to guide the locking means into place as the lugs enter said notches.

4. In a hub for a demountable wheel, an inner member and an outer or socket member removably fitted thereover and adapted to be separated therefrom in demounting the wheel, a locking ring screw-threaded to the inner hub member and adapted to engage a shoulder on the outer hub member, the inner member being provided at its rear end with angularly spaced notches and the rear end of the outer member being provided with locking lugs of a length to enter said notches in advance of the screw-threaded engagement of the locking ring with the inner hub member, and the inner end of the ring having a non-screw-threaded guiding or centering surface.

5. In a hub for a demountable wheel, an inner member formed with a cone-like periphery, an outer member fitted thereover and formed with an interior surface complemental to and adapted to engage said cone-like periphery, a locking ring screw-threaded to the inner member and engaging the outer member to lock said members with their cone-like surfaces wedged together, a said outer member being provided at its rear end face with guide and locking lugs adapted to engage notches at the rear end face of the inner member, said lugs being of a length to enter said notches in advance of the screw-threaded engagement of the locking ring with the said inner member.

[Claim 6 not printed in the Gazette.]

1,076,559. AXLE FOR MOTOR VEHICLES. THOMAS I. DUFFY, Chicago, Ill., assignor to Henry Ellsworth and Albert E. Cross, Chicago, Ill., Copartners doing business under the firm-name of Ellsworth & Cross. Filed June 5, 1912. Serial No. 701,722. (Cl. 21—90.)

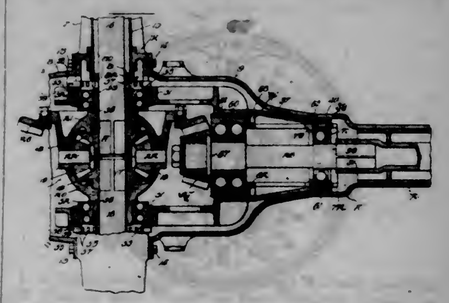


1. A vehicle axle comprising an open work, diamond shaped body, embracing upper and lower members which are separated most widely at their central portions and the ends of which terminate in sleeves, the intermediate portions of said upper and lower members being joined by integral members constituting the side walls of a gear housing, said walls being provided with openings, and tubular members fitting tightly at their inner ends in said openings of the side walls and fitting tightly at their outer ends in said sleeves.

2. A vehicle axle comprising an open work, diamond shaped body, embracing upper and lower members which are separated most widely at their central portions and the ends of which terminate in sleeves, the intermediate portions of said upper and lower members being joined by integral members constituting the two side walls of a gear housing, said side walls being provided with openings, and tubular members fitting tightly at their inner ends in said openings of the side walls and fitting tightly at their outer ends in said sleeves and extending beyond said sleeves to constitute spindles for the wheel hubs of the vehicle.

3. A vehicle axle comprising an open work, diamond shaped body, embracing upper and lower members which are separated most widely at their central portions and the ends of which terminate in sleeves, the intermediate portions of said upper and lower members being joined by integral members constituting the two side walls of a gear housing, said side walls being provided with openings, and tubular members fitting tightly at their inner ends in said openings of the side walls and fitting tightly at their outer ends in said sleeves, the upper and lower members of the diamond shaped body being laterally flanged to laterally stiffen the body.

1,076,560. GEARING. THOMAS I. DUFFY, Chicago, Ill., assignor to Henry Ellsworth and Albert E. Cross, Chicago, Ill., Copartners doing business under the firm-name of Ellsworth & Cross. Filed June 5, 1912. Serial No. 701,723. (Cl. 74—34.)



1. The combination with a chambered axle, of a differential gear and its mounting frame and bearings adapted to be inserted into and removed from the chamber as a unit, said frame being open to permit access to the gear elements.

2. The combination with a chambered axle, of a differential gear, its open, one-piece frame and bearings adapted to be inserted into and removed from the axle chamber as a unit, said one piece frame being provided with opposed screw-threaded openings, solid rings screw-threaded in said openings and bearings in said rings for the shell of the differential gear.

3. The combination with a chambered axle, of a differential gear, its frame and bearings adapted to be inserted into and removed from the axle chamber as a unit, said frame comprising laterally opposing members integral with each other to support the bearings for the shell of said gear, and bearings for said shell carried by said members and adjustable toward and from each other.

4. The combination with a chambered axle, of a differential gear, its frame and bearings adapted to be inserted into and removed from the axle chamber as a unit, said frame comprising laterally opposing members integral with each other to support the bearings for the shell of said gear, bearings for said shell carried by said members and adjustable toward and from each other and means for fixedly attaching said opposing lateral members of the frame to the chambered axle to rigidly hold said members in fixed relation.

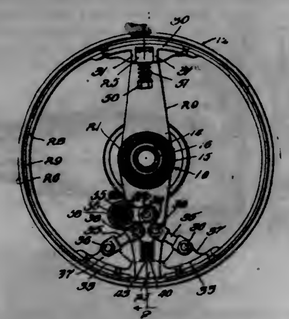
5. The combination with a chambered axle, of a differential gear, its frame and bearings adapted to be inserted into and removed from the axle chamber as a unit, said frame embracing a yoke shaped member the arms of which are integral with each other and provided in its arms with axially alined bearings for said gear.

[Claims 6 to 19 not printed in the Gazette.]

1,076,561. BRAKE MECHANISM FOR MOTOR-VEHICLES. THOMAS I. DUFFY, Chicago, Ill., assignor to Henry Ellsworth and Albert E. Cross, Chicago, Ill., Copartners doing business under the firm-name of Ellsworth & Cross. Filed June 5, 1912. Serial No. 701,724. (Cl. 21—81.)

1. Brake mechanism comprising, in combination with an axle, a brake drum mounted to rotate thereon and having a curved braking face, a single piece brake band divided at one point and adapted to be expanded against said face, a torque arm nonrotatively carried by the axle, a slidable spring held plunger carried by the torque arm and having guiding engagement therewith at the outer end of plunger, toggle links pivotally connected to said plunger radially within its guided end and to the ends of the brake band at its point of division, means for imparting

endwise movement to the plunger against the action of its spring to expand the brake band against said braking face, and anchoring means for the brake band located at a point opposite to said point of division.



2. Brake mechanism comprising, in combination with an axle, a brake drum mounted to rotate thereon and having a curved braking face, a single piece brake band divided at one point and adapted to be expanded against said face, a torque arm carried by the axle, a slidable spring held plunger carried by the torque arm and having guiding engagement therewith at the outer end of the plunger, toggle links pivotally connected to said plunger radially within its guided end and to the ends of the brake band at its point of division, means for imparting endwise movement to said plunger against the action of its spring to expand the brake band against said braking face and a fitting attached to the intermediate portion of the brake band diametrically opposite to said point of division with which one end of the torque arm has spring held movable engagement.

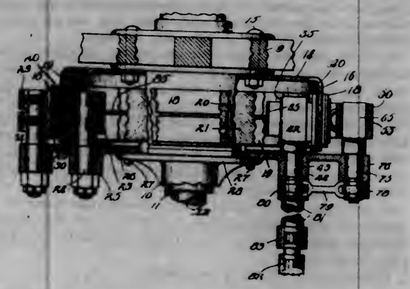
3. Brake mechanism comprising, in combination with an axle, a brake drum mounted to rotate thereon, a brake band, a torque arm carried by the axle, a slidable spring held plunger carried by the torque arm, toggle links connecting said plunger to the ends of the brake band, means for imparting endwise movement to said plunger against the action of its spring to expand the brake band and a fitting attached to the intermediate portion of the brake band with which one end of the torque arm has sliding engagement, a headed screw extending through the torque arm and having screw-threaded engagement with the fitting and a spring surrounding said screw and interposed between the screw head and the torque arm.

4. Brake mechanism comprising, in combination with an axle, a brake drum mounted to rotate thereon, a brake band, a torque arm carried by the axle, a slidable, spring held plunger carried by the torque arm, toggle links connecting said plunger to the ends of the brake band, means for imparting endwise movement to the plunger against the action of the spring to expand the brake band, a fitting attached to the intermediate portion of the brake band with which one end of the torque arm has sliding engagement, a headed screw extending through the torque arm and having screw-threaded engagement with the fitting and a spring surrounding said screw and interposed between the screw head and the torque arm, said brake band being provided in line with said screw with an opening and the outer end of the screw being shaped for engagement by a tool adapted to be inserted through said opening.

5. Brake mechanism comprising in combination with an axle, a brake drum mounted to rotate thereon, a brake band, a torque arm carried by the axle and extending between the ends of the band and provided with a head having an inwardly opening recess, a slidable plunger carried by the torque arm, a spring interposed between the plunger and the bottom of the recess, and toggle arms connecting the plunger with the ends of the brake band, the bottom of said recess comprising a screw-threaded plug of a diameter at least as great as said spring, whereby the spring may be passed through the open bottom of the recess when the plug is removed.

[Claims 6 and 7 not printed in the Gazette.]

1,076,562. BRAKE MECHANISM. THOMAS I. DUFFY, Chicago, Ill., assignor to E. C. Sales Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1912. Serial No. 728,216. (Cl. 21—8.)



1. A brake mechanism for motor vehicles comprising a drum provided with an external braking face, a brake band therearound, a slotted fitting attached to one end of said band, a fitting adjustably fixed to the other end of said band and overlapping the slotted fitting within the slot thereof, said fittings being provided with opposing faces at their overlapping parts, and a rocking contracter member between and acting directly on said faces.

2. A brake mechanism for motor vehicles comprising a drum provided with an external brake face, a brake band therearound, a slotted fitting attached to one end of said band, a fitting adjustably fixed to the other end of said band and overlapping the slotted fitting within the slot thereof, said fittings being provided with opposing faces at their overlapping parts, a rocking contracter member between and acting directly on said faces, and a spring acting on said fittings to normally hold said faces against the contracter member.

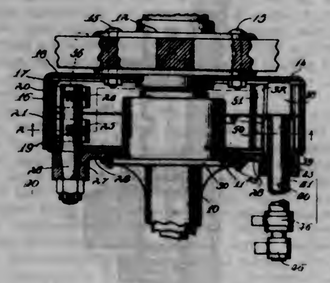
3. A brake mechanism for motor vehicles comprising a drum provided with an external braking face, a brake band therearound, a slotted fitting attached to one end of said band, a fitting overlapping the slotted fitting and provided with a screw-threaded stud, a lug attached to the other end of the brake band and having an opening through which the stud extends, with means for adjusting the stud on said lug, said fittings being provided at their overlapping parts with opposing faces and a rocking contracter member between and acting on said faces to contract the band on the braking face of the drum.

4. A brake mechanism for motor vehicles comprising a drum provided with an external braking face, a brake band therearound, a slotted fitting attached to one end of said band, a fitting overlapping the slotted fitting and provided with a screw-threaded stud, a lug attached to the other end of the brake band and having an opening through which the stud extends, with means for adjusting said stud on the lug, said fittings being provided at their overlapping parts with opposing faces, a rocking contracter member between and acting on said faces to contract the band on the braking face of the drum, and a spring to normally hold said faces of the fittings against the contracter member.

5. A brake mechanism for motor vehicles comprising a drum provided with an external braking face, a brake band therearound, a slotted fitting attached to one end of said band, a fitting overlapping the slotted fitting and provided with a screw-threaded stud, a lug attached to the other end of the brake band and having an opening through which the stud extends, with means for adjusting the stud on said lug, said fittings being provided at their overlapping parts with opposing faces, a rocking contracter member between and acting on said faces to contract the band on the braking face of the drum, a U-shaped member carried by said slotted fitting, a bolt or stud extending through said U-shaped member and into the other fitting and a spring surrounding the bolt and interposed between said U-shaped member and said other fitting.

[Claims 6 to 8 not printed in the Gazette.]

1,076,563. BRAKE MECHANISM. THOMAS I. DUFFY, Chicago, Ill., assignor to E. C. Sales Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 28, 1912. Serial No. 728,217. (Cl. 21—8.)



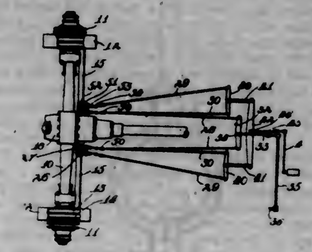
1. An internal brake mechanism for vehicles comprising, in combination with a brake drum having an internal braking face, two transversely split brake bands therein, arranged side by side each band consisting of a continuous band split at one point only and the split point of both bands coinciding, lugs attached to the ends of the said bands, and provided with parallel, opposing faces, axially alined expander members of oblong cross section between said lugs, means for separately rocking the said expander members, a fixed anchor stud, the bands being provided with loops to fit over said stud, and springs between said stud and said loops.

2. An internal brake mechanism for vehicles comprising, in combination with a brake drum having an internal braking face, two transversely split brake bands therein, arranged side by side, lugs attached to the ends of said bands, and provided with parallel, opposing faces and on their inner faces with notches, axially alined expander members of oblong cross section between said lugs, means for separately rocking said expander members and C-shaped springs engaging over said lugs with the ends thereof biting into said notches to hold the lugs against said expander members.

3. An internal brake mechanism for motor vehicles comprising, in combination with a brake drum having an internal braking face, a transversely split brake band therein, lugs attached to the ends of said band and provided with opposing parallel faces, a rocking expander member of oblong cross section between and acting on the inner faces of said lugs, with means to rock the same, and a C-shaped spring embracing said lugs, the lugs being provided on their sides opposite to the expander member engaging faces with notches to receive the ends of said spring.

4. An internal brake mechanism for motor vehicles comprising, in combination with a brake drum provided with an internal braking face, a transversely split brake band therein, lugs attached to the ends of said band and provided with opposing parallel faces, a rocking expander member of oblong cross section between and acting on said faces of the lugs, with means for rocking the same, and yielding means for holding the lugs pressed against said expander member, said lugs being riveted to the brake band, and being provided with lips which overlap the end margins of the brake band, for the purpose set forth.

1,076,564. BRAKE MECHANISM. THOMAS I. DUFFY, Chicago, Ill. Original application filed June 5, 1912, Serial No. 701,724. Divided and this application filed Oct. 28, 1912. Serial No. 728,218. (Cl. 21—8.)



1. A brake mechanism comprising two members provided with braking faces, a pair of brake elements applied to each member, actuating means connected to one of the brake elements of each pair to simultaneously set the same, and other actuating means connected to both brake elements of each pair for simultaneously setting all the brake elements, embracing equalizing means between the point of application of power and the two pairs of brake elements.

2. A brake mechanism comprising two members provided with braking faces, a pair of brake elements applied to each member, actuating means connected to one of the brake elements of each pair to simultaneously set the same, and other actuating means connected to both brake elements of each pair for simultaneously setting all the brake elements, embracing an equalizing member connected at one end to the two brake elements of one pair and at its other end to the two brake elements of the other pair, with operating means connected to the equalizing member between the ends of the latter.

3. Brake mechanism comprising two members provided with braking faces, a pair of brake elements applied to each member, actuating means connected to one of the brake elements of each pair to operate them simultaneously, embracing an evener with means to draw it forward, an equalizer bar, with means to draw it forward, and a pair of eveners connected to the ends of the equalizing bar, each of the latter eveners being connected at each end to both of the brake elements of one pair.

4. Brake mechanism comprising two members having braking faces, a pair of brake elements applied to each member, a pair of rock shafts associated with each member, each pair of the rock shafts having means to connect them to the brake elements of the associated pair, each pair of rock shafts being provided at their inner ends with crank arms, an evener connected to corresponding crank arms of each pair of shafts to simultaneously set the corresponding brake elements of both pairs, an equalizing bar, a pair of eveners, each connected to one end of said bar, and connections between each latter evener and both crank arms of the rock shafts of an associated pair.

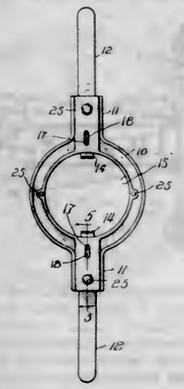
1,076,565. SPANNER-WRENCH. THOMAS I. DUFFY, Chicago, Ill., assignor to E. C. Sales Co., Chicago, Ill., a Corporation of Illinois. Filed Jan. 10, 1913. Serial No. 741,194. (Cl. 81—90.)

1. A spanner wrench comprising a central ring member and opposing spanner projections adapted to extend beyond the inner periphery of said ring member, at least one of which projections is movable inwardly and outwardly.

2. A spanner wrench comprising a central ring member, opposing spanner projections adapted to extend beyond the inner periphery of said ring member, at least one of which projections is movable inwardly and outwardly and means for limiting the inward and outward movements of said spanner projections.

3. A spanner wrench comprising a central ring member, opposing spanner projections adapted to extend beyond the inner periphery of the said ring member, at least one of

which projections is movable inwardly and outwardly, and means for releasably locking the projection in its innermost adjustment.

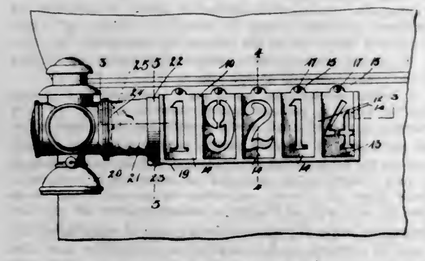


4. A spanner wrench comprising a central ring member, opposing spanner projections adapted to extend beyond the inner periphery of said ring member, at least one of which projections is movable inwardly and outwardly and a spring pressed locking device to lock the projection in its innermost position, while permitting it to be withdrawn into its outermost or inoperative position.

5. A spanner wrench comprising a central ring member, and hand bars slidable therein and provided at their inner ends with spanner projections.

[Claims 6 to 10 not printed in the Gazette.]

1,076,566. ILLUMINATED SIGN. PETER LEE FERGUSON and JOSEPH W. WHEELWRIGHT, Ogden, Utah. Filed Sept. 13, 1912. Serial No. 720,232. (Cl. 40—131.)

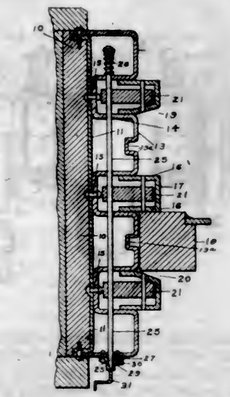


1. In combination, a hollow sign, an illuminating member for the sign, and disposed in longitudinal alinement therewith, a flexible hood circular in cross section secured to the sign and illuminating member, said hood directing the light rays from the illuminating member to the interior of the sign.

2. In combination, a hollow sign having an open end, an illuminating member for the sign disposed in longitudinal alinement with the open end thereof, and a flexible hood having one end secured to the open end of the sign and its other end secured to the illuminating member, said hood directing the light rays from the illuminating member into the open end of the sign.

1,076,567. WINDOW-FRAME. FRANK E. FRISBEE, Des Moines, Iowa. Filed Feb. 26, 1912. Serial No. 680,123. (Cl. 189—73.)

1. In a window frame, the combination of a sheet metal strip, a second sheet metal strip with its body portion spaced apart from the first and with its edges connected to the edges of the first, said second strip being formed with a number of longitudinally arranged grooves, the material at the bottom of the grooves being fixed to the material of the first strip, a series of parting stops mounted in said grooves, each parting stop being provided with arms pivotally connected to it, the upper arms being also pivoted within the grooves and the lower arms being connected to a shaft, said shaft having its bearings in the sides of the material that forms said grooves, an arm carried by said shaft and provided with a lug, a plate fixed to the window frame and having notches designed to be engaged by said lug, and a spring for yieldingly holding the shaft in position so that the lug engages said notches.



2. In a window frame, the combination of a flat sheet metal strip having its edges arranged at right angles, a second sheet metal strip formed with three longitudinally arranged grooves, the material at the bottom portions of said grooves being in engagement with the first strip and being firmly fixed thereto, the material at the bottoms of said grooves being also provided with inwardly extending lugs, a series of parting stops mounted in said grooves and each comprising a substantially U-shaped sheet metal body portion, a series of links pivoted within said parting stops at one end, their other ends being rested on the said lugs, the upper links being pivoted to the material which forms the grooves and the lower links being formed with square openings, a shaft extended through the square openings of the lower links and also extended through the sides of the material forming said grooves, and means for turning said shaft.

1,076,568. SPRING-HINGE. MOTOICHI FURUYA, New York, N. Y. Filed June 13, 1913. Serial No. 773,416. (Cl. 16—23.)



1. In a spring hinge of the class described, a pair of leaves provided with interlocking barrel portions, a pintle for said barrel portions divided into an upper section and a lower section, said upper section being secured to the barrel portion of one of said leaves and the lower section of said pintle being freely rotatable, an interlocking projection arranged on said lower section for engaging the leaf not secured to said upper section, an operating spring connecting said upper section and said lower section, whereby when said spring is under tension the leaves will tend to move in opposite directions, a sliding locking member designed to interlock with the lower section of said pintle, and an auxiliary spring acting on said locking member for causing the same to engage and lock said lower section against movement, whereby the leaves may be swung back and forth freely.

2. In a spring hinge of the class described, a pair of leaves, an upper pintle member for connecting said leaves together, a freely rotatable lower pintle member, a stop rigidly connected with said lower pintle member adapted to press against one of said leaves, a spring having its opposite ends secured to said pintle members, said second mentioned pintle members being formed with a projection, a locking member, and means continually tending to move said locking member in the path of movement of said projection.

3. In a spring hinge of the class described, a pair of leaves, each of said leaves being formed with an upper and a lower barrel member, the lower barrel member on one of said leaves being provided with a projection, an upper pintle member for connecting the upper barrel members of both of said leaves, means for rigidly connecting said upper pintle member with one of said leaves, a lower pintle member, said lower pintle member projecting through the barrel member formed with a projection, a sleeve surrounding said lower pintles formed wth a projection designed to interlock with the projection on said barrel member, said lower pintle member being formed with a projection at the lower end thereof, a spring connecting said pintle members, a locking member arranged in one of the lower barrel members, said locking member being formed with a projection designed to be moved into the path of movement of the projection arranged at the bottom of said second mentioned pintle member, a spring acting on said locking member for continually tending to move the same, and an operating member for moving said locking member out of the path of movement of the projection on said lower pintle member.

1,076,569. PLUMB-BOB. JEULEOS GAMBLLEE, Tenafly, N. J. Filed May 26, 1913. Serial No. 769,862. (Cl. 73—72.)

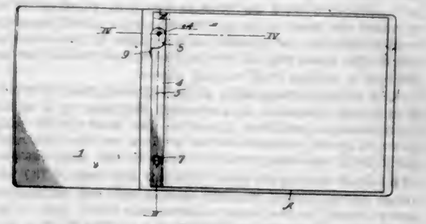


1. In a plumb bob, the combination of a two-part casing, a shell within the casing, a shaft journaled in the shell, a cord connected at one end to the shaft and wound thereupon, and means to control the winding and unwinding actions of the cord with respect to the shaft, said controlling means comprising a crown gear, a pinion in mesh with the gear, and means extending upwardly from the crown gear to control the rotation thereof from the outside.

2. In a plumb bob, the combination of a hollow casing, a shell within the casing, a shaft journaled transversely of and in the shell, a pinion connected to the shaft, a gear embracing the upper end of the shell and meshing with said pinion, a shank having a central bore extending upwardly from the said gear to the outside of the casing, a cord connected at its inner end to the shaft and extending thence outwardly through said shank, and means cooperating with the upper end of the shell to control the rotation of the shank and shaft.

3. In a plumb bob, the combination of a two-part casing having a detachable threaded connection, a shell fitted within the casing and provided with means to prevent rotation thereof within the casing, a substantially U-shaped yoke within the shell, a shaft journaled transversely in said shell and yoke, a pinion connected to the shaft, a crown gear rotatably fitted upon the upper end of the shell and meshing with said pinion, a cord connected at one end to the shaft and maintained in position thereon by said yoke, a screw threaded shank extending upwardly and axially from said crown gear and having a central bore through which said cord is extended, means at the upper end of the shank to rotate the same in one direction to wind up the cord, and means adjustable along the threaded portion of the shank and adapted to coöperate with the shell to prevent the rotation of the shank and crown gear, substantially as set forth.

1,076,570. LOOSE-LEAF HOLDER. JOHN R. HALDEMAN, Kansas City, Mo.; Hattie E. Haldeman executrix of said John R. Haldeman, deceased. Filed Sept. 30, 1912. Serial No. 723,131. (Cl. 129—23.)



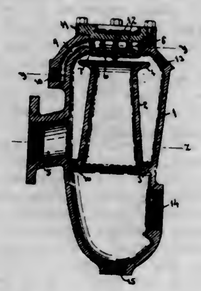
1. A loose-leaf holder consisting of a cover, binding-posts fixed at one end of said cover and having peripheral grooves near their upper ends, a retaining-strip having key-hole slots a portion of the edges of which are adapted to enter said peripheral grooves, a locking member pivoted to the binding-strip and provided at its free end with an eye adapted to snugly fit one of the binding-posts when said locking member is lowered upon the retaining-strip, and means for securing said locking member in lowered position.

2. A loose-leaf holder consisting of a cover, binding-posts fixed at one end to said cover and having peripheral grooves near their upper ends, a retaining-strip having key-hole slots a portion of the edges of which are adapted to enter said peripheral grooves, a locking member pivoted to the binding-strip and provided at its free end with an eye adapted to snugly fit one of the binding-posts when said locking member is lowered upon the retaining strip, and a detent at the free end of said locking member adapted to enter an indentation in the retaining-strip and secure said locking member in lowered position.

1,076,571. EXHAUST-SILENCER. FRANCIS G. HALL, Jr., Dansville, N. Y. Filed Feb. 1, 1911. Serial No. 605,902. (Cl. 121—116.)

1. A silencer comprising a shell divided into intercommunicating admission and exhaust chambers by a hollow

frusto-conical partition, said shell being provided with an inlet to the first chamber at or adjacent the base of said partition and an outlet from the second chamber, and means for admitting a cooling fluid at the intercommunicating point.



2. A silencer comprising a shell divided into intercommunicating admission and exhaust chambers by a hollow frusto-conical partition joined to the shell at its large end and spaced away from the shell at its small end, said shell being provided with an inlet to the first chamber at or adjacent the base of the partition and an outlet from the second chamber, and means for directing an annular stream of cooling fluid into the small end of the partition.

3. A silencer comprising a shell divided into intercommunicating admission and exhaust chambers by a hollow frusto-conical partition joined to the shell at its large end and spaced away from the shell at its small end, said shell being provided with an inlet to the first chamber at or adjacent the base of the partition and an outlet from the second chamber, an annular spray nozzle in the shell opposite the small end of the partition, and means for delivering a cooling fluid to said nozzle.

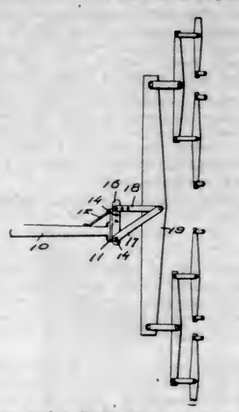
4. A silencer comprising a shell divided into intercommunicating admission and exhaust chambers by a hollow frusto-conical partition joined to the shell at its large end and spaced away from the shell at its small end, said shell being provided with an inlet to the first chamber offset from the center at or adjacent the base of the partition and an outlet from the second chamber, an annular spray nozzle in the shell opposite the small end of the partition, and means for delivering a cooling fluid to said nozzle.

5. A silencer comprising a shell divided into intercommunicating admission and exhaust chambers by a hollow frusto-conical partition joined to the shell at its large end and provided with a bell shaped mouth at its small end spaced away from the shell, said shell being provided with an inlet to the first chamber off-set from the center at or adjacent the base of the partition and an outlet from the second chamber, a chamber in the shell opposite the small end of the partition, a sprayer cap at the mouth of said chamber providing a narrow annular passageway therefrom, and an offset inlet for a cooling fluid leading into said chamber.

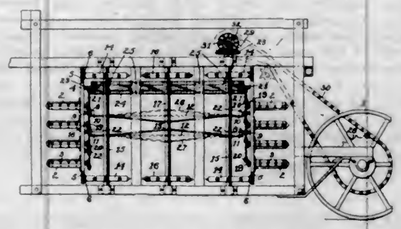
[Claims 6 to 8 not printed in the Gazette.]

1,076,572. FOUR-HORSE EVENER. ALBERT HALLSTROM, Fairmont, Minn. Filed Mar. 3, 1911. Serial No. 612,026. (Cl. 97—4.)

In a draft evener, an angle attaching bar comprising a horizontal web and a vertical web, the latter for attachment at one end to a plow beam, a clevis bar adjustably secured on said horizontal web, and provided with a plurality of adjusting openings, a pair of links secured one to one end of the clevis bar and one to the horizontal web of the attaching bar and a common securing means for the adjacent ends of said links, clevis bar, and horizontal web, and a third link secured to the opposite end of the clevis bar, last said link provided with a plurality of adjusting openings, and a draft bar to which the outer ends of the links are pivoted at the same point.



1,076,573. COTTON-PICKING MACHINE. PETER PAUL HARING, Goliad, Tex. Filed Apr. 12, 1910, Serial No. 555,050. Renewed Mar. 10, 1913. Serial No. 753,422. (Cl. 84—118.)



1. In combination in a machine of the class described, a pair of endless drums, one on each side of the longitudinal center of the machine composed of vertically movable slats, said slats being mounted for vertical movement on said chains, upper and lower chains for driving the slats, and cam tracks for giving the slats vertical movement in relation to the chains, said chains moving throughout their course in horizontal planes, substantially as described.

2. In combination in a machine of the class described, an endless drum composed of vertically movable slats bearing cotton picker arms, and means for giving one slat an upward and downward movement and the succeeding slat a reverse movement, substantially as described.

3. In combination in a machine of the class described, a pair of endless drums composed of vertically movable slats with picker arms thereon, and means for giving the slats of one drum an upward and downward movement, and for giving the opposing slats of the other drum a reverse vertical movement, substantially as described.

4. In combination in a machine of the class described, a pair of drums arranged on opposite sides of the longitudinal center of the machine, means for giving certain of the slats of one drum an upward and downward movement as they pass toward the rear, and for giving the other slats of said drum a reverse vertical movement, and means for giving vertical movements to the opposing slats of the other drum in a reverse direction to those of the first drum, substantially as described.

5. In combination in a machine of the class described, carrying chains, slats movable vertically in relation to and connected with the said carrying chains, means for giving the said slats their vertical movements, picker fingers carried by the slats and means for rotating the picker fingers as the slats are moved in relation to the chains, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,076,574. WINDING-MACHINE. ARTHUR I. HARVEY and CLAES RYDEN, Providence, R. I., assignors to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Mar. 12, 1910. Serial No. 548,967. (Cl. 242—31.)



1. In a traverse-mechanism for winding machines, the combination with a threaded bar *f*, of a thread-guide mounted on said bar, a nut *n* mounted on the bar and formed with a longitudinal slot, a bell-crank shaped pawl *p* pivoted in said slot and having two arms *p'* and *p²* with its arm *p'* adapted to engage the threads on the bar, a contact-wheel on the nut, and a sleeve *v* mounted to slide on the nut and formed with a flange *v'* having a pocket *v²* surrounding the arm *p²* and adapted to engage the latter to rock the pawl to release its arm *p'* from the bar *f*.

2. In a traverse-mechanism for winding machines, the combination with a threaded bar *f*, of a thread-guide mounted on said bar, a nut *n* mounted on the bar and formed with a flange *n²*, a contact-wheel *o* mounted on the nut adjacent the flange *n²*, a spring clip *u* sprung around the nut with its end engaging a hole in the wheel and flange, and means on the nut for engaging the threads on the bar *f*.

3. In a traverse-mechanism for winding machines, the combination with a threaded bar *f*, of a thread-guide mounted on said bar, a nut *n* mounted on the bar, said nut formed with a longitudinal slot, a pawl *p* arranged in said slot and adapted to engage the threads on the bar *f*, a wire ring *s* surrounding the nut and extending through the pawl for a pivot bearing for the latter, a spring ring *t* sprung around the nut and the pawl to normally hold the latter in engagement with the threads on the bar *f*, and a contact wheel mounted on the nut.

1,076,575. PROCESS FOR PRODUCING BETA-GAMMA-DIMETHYLERYTHRENE. FRITZ HOFMANN, KONRAD DELBRÜCK, and KURT MEISENBURG, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Original application filed May 9, 1912, Serial No. 696,160. Divided and this application filed Aug. 15, 1912. Serial No. 715,252. (Cl. 23—24.)

1. The process of producing an erythrene hydrocarbon which comprises distilling a pinacone with an amount of sulfonic acid substantially less than the amount of pinacone reacted upon.

2. The process of producing an erythrene hydrocarbon which comprises distilling a pinacone with a fraction of a per cent. of a sulfonic acid.

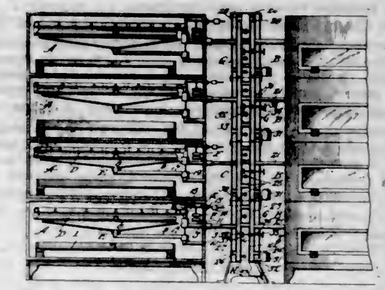
3. The process of producing an erythrene hydrocarbon which comprises distilling a pinacone with a fraction of a per cent. of a naphthalene-sulfonic acid.

4. The process of producing an erythrene hydrocarbon which comprises distilling a pinacone with a fraction of a per cent. of naphthalene-1.5-disulfonic acid.

5. The process of producing an erythrene hydrocarbon which comprises distilling a pinacone with about one tenth of one per cent. of a sulfonic acid.

[Claims 6 to 11 not printed in the Gazette.]

1,076,576. HEATING SYSTEM FOR SECTIONALIZED BROODERS AND INCUBATORS. HENRY HOHOFF, Deer Lodge, Mont. Filed Feb. 25, 1909, Serial No. 480,019. Renewed Apr. 12, 1913. Serial No. 760,816. (Cl. 237—22.)



1. In an apparatus of the class described, the combination of a structure to be heated, means therein for distributing heated air, and a heating device consisting of concentric inner, outer and intermediate flues, means for establishing communication between one end of the space between the outer and intermediate flues and the corresponding end of the inner flue, said space being open at the other end to the atmosphere, means for delivering a heating medium to the end of the inner flue corresponding to the open end of said space whereby the heating medium may pass through the inner flue and thence through the said space in the opposite direction from its passage through the inner flue, means for admitting air to the space between the inner and intermediate flues, means within the inner flue for admitting a portion of the heating medium to the air-heating space from the inner flue, and means for supplying heated air to the first-mentioned means from the space between the inner and intermediate flues.

2. In an apparatus of the class described, the combination of a structure to be heated, means therein for distributing heated air, and a heating device consisting of concentric inner, outer and intermediate flues, means for establishing communication between one end of the space between the outer and intermediate flues and the corresponding end of the inner flue, said space being open at the other end to the atmosphere, means for delivering a heating medium to the end of the inner flue corresponding to the open end of said space whereby the heating medium may pass through the inner flue and thence through the said space in the opposite direction from its passage through the inner flue, means for admitting air to the space between the inner and intermediate flues, a pipe leading through the outer and intermediate flues to supply water to the bottom of the air-heating space, means connected with the pipe for maintaining a substantially uniform quantity of water in the air heating space, and means for supplying heated air to the first-mentioned means from the space between the inner and intermediate flues.

3. The combination with an incubator, of a hot air distributing device therein, said device comprising a conduit in the incubator and extending close to the walls thereof, means connected with the conduit for supplying heated air thereto, a pipe connected with the conduit and leading to the center of the incubator, and a plurality of tubes connected with the inner end of the said pipe and extending therefrom toward the corners of the incubator, said tubes being open at their outer ends for delivering hot air to the said corners.

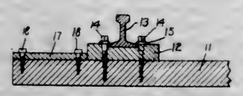
4. The combination with an incubator, of a hot air distributing device therein, said device comprising a conduit in the incubator and extending close to the walls thereof, means connected with the conduit for supplying heated air thereto, a pipe connected with the conduit and leading to the center of the incubator, a plurality of tubes con-

nected with the inner end of the said pipe and extending therefrom toward the corners of the incubator, said tubes being open at their outer ends for delivering hot air to the said corners, and cross tubes extending transversely through the conduit and open at their ends whereby air can circulate through the cross tubes.

5. The combination with an incubator, of a hot air distributing device therein, said device comprising a conduit in the incubator and extending close to the walls thereof, means connected with the conduit for supplying heated air thereto, a pipe connected with the conduit and leading to the center of the incubator, a plurality of tubes connected with the inner end of the said pipe and extending therefrom toward the corners of the incubator, said tubes being open at their outer ends for delivering hot air to the said corners, a shallow funnel-shaped device disposed under the conduit and said tubes, and a pipe leading from the funnel and communicating with the atmosphere for supplying fresh air to the incubator.

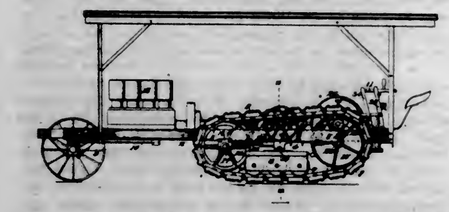
[Claim 6 not printed in the Gazette.]

1,076,577. RAILWAY-TIE. HENRY L. HOLLIS, Chicago, Ill. Filed July 25, 1910. Serial No. 573,671. (Cl. 238—1.)



The combination of two rails, a soft wooden tie plank, a hard wooden rail block near either end of the tie plank, each tie block having a shallow groove about the depth of the edge of the flange of the rails formed in its upper surface for snugly receiving the flange of one of said rails, and screw spikes each having a screw threaded shank, a filleted flange and a polygonal head screwed through the rail blocks and into the tie plank in positions such that the under side of the spike flange engages the rail flange on one side and is bedded in the upstanding portion of the rail block at all other points.

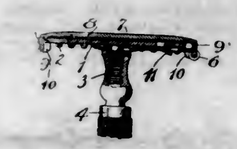
1,076,578. TRACTION-ENGINE. BENJAMIN HOLT, Stockton, Cal. Filed Feb. 18, 1913. Serial No. 749,168. (Cl. 21—114.)



The combination with a vehicle frame of front and rear sprockets supported in bearings on the frame and themselves suppporting no part of the weight of the vehicle, an endless, flexible track belt passing around and guided by the sprockets, a truck traveling on the ground run of the belt and having an extended operative face normally in a plane below the level of the sprockets whereby the latter carry no part of the weight of the load, said truck being centrally pivoted directly to the frame and capable of a limited rocking movement independent of the sprockets.

1,076,579. SAFETY-RAZOR. ERNEST N. HUMPHREY, New Britain, Conn., assignor to The Traut and Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 5, 1911. Serial No. 663,977. (Cl. 30—12.)

1. In a safety razor, the combination of two plates arranged to embrace between them a blade, interlocking means for said plates, said means being moved into interlocking position by a sliding movement of one of said plates relatively to the other in a direction parallel to the other, a member hinged to the forward one of said plates and means engaging the other of said plates and said member to prevent relative sliding movement of said two plates out of interlocking position when the same embrace a blade ready for use.



2. In a safety razor, the combination of two plates arranged to embrace between them a blade, interlocking means for said plates, said means being moved into interlocking position by a sliding movement of one of said plates relatively to the other in a direction parallel to the other, a member hinged to the forward one of said two plates and means engaging the other of said two plates and said member to prevent relative sliding movement of said two plates out of interlocking position when the same embrace a blade ready for use, said interlocking means being formed integrally with said plates.

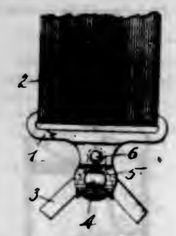
3. In a safety razor, the combination of two plates arranged to embrace between them a blade, interlocking means for said plates, said means being moved into interlocking position by a sliding movement of one of said plates relative to the other in a direction parallel to the other, a member hinged to the forward one of said two plates, and means engaging the other of said two plates and said member to prevent relative sliding movement of said two plates out of interlocking position when the same embrace a blade ready for use, and blade centering means on one of said plates.

4. In a safety razor, the combination of a keeper plate having downturned projections, a guard plate having a projection on one end, the length of said guard plate including said projection not exceeding the distance between said downturned projections, the downturned projection adjacent to the projection on the guard plate having an opening for said last named projection, a slotted plate at the rear of said guard plate permanently connected to the other downturned projection, a screw secured to the guard plate and passing through the slot in said slotted plate, and a handle on said screw adapted to clamp said slotted plate against said guard plate.

5. In a safety razor, a guard plate, a threaded shank at the back of said plate, a device arranged to screw onto said shank, a plate at the rear of said guard plate having a slot through which said shank passes, a keeper plate hinged to said slotted plate at one end of said guard plate, said guard plate and keeper plate being arranged to embrace between them a blade, interlocking means at the end of the keeper plate and guard plate opposite to the aforesaid hinged connection, said interlocking means being engageable and disengageable by a sliding movement of said guard plate relatively to said slotted plate and keeper plate, the screw threaded means mounted on said shank being arranged to clamp the slotted plate between itself and the back of the guard plate to prevent sliding movement of one plate relatively to the other.

1,076,580. GARMENT-SUPPORTER TRIMMING. ERNEST N. HUMPHREY, New Britain, Conn., assignor to Traut & Hine Manufacturing Company, New Britain, Conn., a Corporation of Connecticut. Filed Jan. 24, 1913. Serial No. 743,975. (Cl. 241—23.)

1. A metal trimming for garment supporters comprising a tubular cord guide, spaced protector plates at the front and rear faces of said guide, a stud connecting said plates and pivotally supporting said guide to oscillate therebetween, the opposing faces of said plates being concaved to correspond substantially with the curvature of said tubular guide, the lower end of one of said plates being turned inwardly beneath said cord guide to centrally position the same.



2. A metal trimming for garment supporters comprising a tubular cord guide having an upwardly curving arcuate cord channel at its base, spaced protector plates at the front and rear faces of said guide, a stud connecting said plates and pivotally supporting said guide to oscillate therebetween, the opposing faces of said plates being concaved to correspond substantially with the curvature of said tubular guide and the extremities of said plates being turned inwardly beneath the cord guide to partially enter in beneath said arcuate channel portion, whereby said guide is centrally positioned.

3. A metal trimming for garment supporters comprising a tubular cord guide having an upwardly curving arcuate cord channel at its base, an integral piece of sheet metal bent upon itself to provide spaced protector plates at the front and rear faces of said guide, a stud connecting said plates and pivotally supporting said guide to oscillate therebetween, the opposing faces of said plates being concaved to correspond substantially with the curvature of said tubular guide and the extremities of said plates being turned inwardly beneath the cord guide to partially enter in beneath said arcuate channel portion, whereby said guide is centrally positioned between said plates.

4. A metal trimming for garment supporters comprising a tubular cord guide having an upwardly curving cord channel at its base, an integral piece of sheet metal bent upon itself to provide a loop plate, and integral spaced protector plates extending therefrom and inclosing therebetween the front and rear faces of said cord guide, said guide being pivotally mounted between said plates to oscillate therebetween, the opposing faces of said plates being concaved to correspond substantially with the curvature of said tubular guide, and the extremities of said plates being turned inwardly to partially enter in beneath the arcuate channel portion of said guide, whereby the latter is centrally positioned between said plates.

1,076,581. ATTACHMENT FOR TROUSERS. MARTIN HURWITZ, Jacksonville, Ill. Filed Dec. 3, 1910. Serial No. 595,426. (Cl. 2—122.)

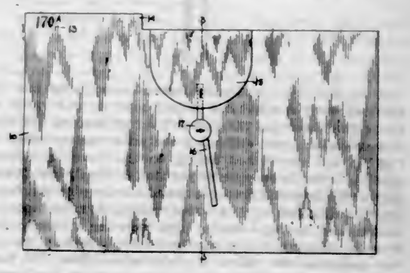


1. A trousers leg having an integral cuff formed at its lower end and centrally connected to the same, said cuff adapted to be turned interiorly or exteriorly, and means secured to the inside of said leg whereby the cuff may be secured in its interior position so as to prevent disarrangement of the same, said means further serving to protect said cuff in either position.

2. A trousers leg having an integral cuff formed at its lower end and centrally connected to the bottom of the same, said cuff adapted to be turned interiorly or exteriorly, and means for securing said cuff in its interior position to prevent disarrangement of the same comprising a shield of pliable material secured to the inner surface of the trouser leg above the lower edge of the same and adapted to overlie the cuff when in its interior position, said shield extending to a point adjacent the lower edge of the cuff in either position so as to protect the same.

3. A trousers leg having an integral cuff formed at its lower end and centrally connected to the bottom of the same, said cuff adapted to be turned interiorly or exteriorly, and a retaining shield secured within the trouser leg above the lower edge of the same and adapted to overlie the cuff when in its interior position, said shield extending to a point adjacent the lower edge of the cuff and provided with a folded bead on the outer face of its lower edge for engagement with the inner face of the cuff.

1,076,582. VERTICAL FILE-FOLDER. MALCOLM B. JACKSON, Victoria, British Columbia, Canada. Filed Dec. 18, 1912. Serial No. 737,422. (Cl. 129—16.)



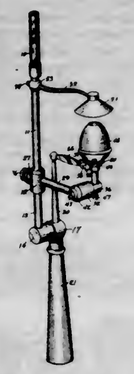
The herein described filing device comprising a folder having a stiff front panel, a rear panel, flexible means connecting said panels, said flexible means constituting a base of variable width according to the thickness of the file contents, and locking means temporarily securing the opposite edges of the panels together, said locking means comprising a flexible flap secured to one panel and extending over the edge of the opposite panel and a flexible tape adapted to be snubbed around a holder carried by the other panel.

1,076,583. CIGAR-LIGHTER. OSCAR G. KLUGEL, Indianapolis, Ind., assignor of one-half to Elmer E. Crane, Indianapolis, Ind. Filed Mar. 27, 1913. Serial No. 757,102. (Cl. 67—4.)

1. A gas cigar and pipe lighter comprising the combination with a vertical supply pipe for gas; of a barrel at the lower end thereof, a lever pivoted to the barrel and extending above and below the same, spring means carried by the barrel and acting on the lever to normally hold the lever in an upright position, a supply pipe leading outwardly from the first-mentioned supply pipe and formed at its outer end with a valve casing, a valve operating therein and having a burner pipe receiving a supply therefrom, and a connection between the burner pipe and the lever for operating the valve.

2. A gas cigar and pipe lighter comprising the combination with an upright supply pipe for gas; of a barrel at the lower end thereof, a lever pivoted to the barrel and extending above and below the same, spring means carried by the barrel and acting on the lever to normally hold the lever in an inoperative position, a supply pipe

leading outwardly from the first-mentioned supply pipe and formed at its outer end with a valve casing, a valve operating therein and having a burner pipe receiving a supply therefrom, said valve having a supply duct leading to the burner and adapted to supply a minimum amount of gas thereto when the parts are in their initial position, and a link connection between one arm of the lever and the burner, whereby when the lever is moved on its pivot against the action of the spring means aforementioned said valve will be oscillated with the burner to supply an increased amount of gas to the latter for lighting purposes.



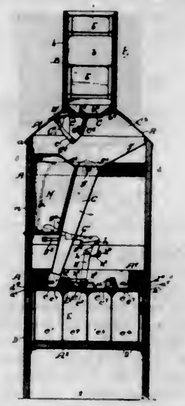
3. A gas cigar and pipe lighter comprising the combination with a suspended supply pipe for gas; of a barrel at the lower end thereof, a lever pivoted to the barrel and extending above and below the same, spring means carried by the barrel and acting on the lever to normally hold the lever in an upright position, a supply pipe leading outwardly from the first-mentioned supply pipe and formed at its outer end with a valve casing, a valve operating therein and having a burner pipe receiving a supply therefrom, a connection between the burner pipe and the lever for operating the valve, a globe surrounding the nozzle of the burner and having an opening for the passage of the blast therethrough when the burner is in lighting position, and means to limit the movement of the valve in either direction.

4. A gas cigar and pipe lighter comprising the combination with a suitably supported supply pipe for gas; of a barrel at the lower end thereof, a lever pivoted to the barrel and extending above and below the same, spring means carried by the barrel and acting on the lever to normally hold the lever in an upright position, a supply pipe leading outwardly from the first-mentioned supply pipe and formed at its outer end with a valve casing, a valve operating therein and having a burner pipe receiving a supply therefrom, a connection between the burner pipe and the lever for operating the valve, a globe surrounding the nozzle of the burner and having an opening for the passage of the blast therethrough when the burner is in lighting position, and a hook carried by the gas supply pipe first mentioned for disposal over the burner globe.

5. A gas lighter of the class described comprising a supply pipe adapted for connection with a suitable source of gas supply, a valve having communication with said supply pipe and having a longitudinal passage and a radial passage communicating therewith, said radial passage terminating in a recess normally communicating with the pipe at its free end, a vertically disposed burner nozzle communicating with the longitudinal passage of the valve and receiving a minimum supply of gas when the valve is in the position named, means for regulating the flow of gas through the pipe and passage, and means for causing the nozzle to assume a horizontal position to supply a maximum amount of gas thereto.

[Claims 6 to 10 not printed in the Gazette.]

1,076,584. FARE-BOX. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 27, 1908. Serial No. 445,499. (Cl. 232—7.)



1. The combination in a fare box, of a body portion; a removable drawer mounted in the fare box; a receptacle in the drawer; said receptacle having a sliding lid; a pivoted chute; and a carrier connecting the lid of the receptacle with the chute.

2. The combination in a fare box, of a body portion; a fare receiving section at the upper end of the box; a drawer mounted in the bottom of the box; a receptacle in the drawer; a sliding cover for the receptacle having a projecting pin; a pivoted chute having a toothed segment; a pivoted carrier located between the segment and the top of the drawer and slotted for the reception of the pin on the sliding cover; and a handle projecting through the body of the box for turning the carrier; said carrier having a bolt arranged to engage the teeth on the segment.

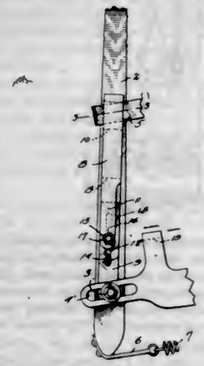
3. The combination in a fare box of a body portion; a fare receiving section at the upper end of the box; a drawer mounted in the bottom of the box; a receptacle therein; a sliding cover for the receptacle having a projecting pin; a pivoted chute having a toothed segment; a pivoted carrier located between the segment and the top of the drawer and slotted for the reception of the pin on the sliding cover; a handle projecting through the body of the box for turning the carrier; said carrier having a bolt arranged to engage the teeth of the segment; said bolt having a projection; and the box having a key hole through which a key can be inserted to withdraw the bolt to allow the chute to be operated independently of the bolt.

4. The combination in a fare box, of a body portion; a fare receiving section mounted on said body portion; means for discharging fares from the fare receiving section; a drawer having a series of compartments mounted in the body portion beneath said discharging means; a chute to receive the fares from the fare discharging means and to conduct them into any one of the said compartments; a spring for holding the chute in its normal position; a toothed segment carried by the said chute; a handle for operating the chute; and a spring bolt for engagement with said segment to prevent the backward movement of the chute.

5. The combination in a fare box, of a body portion; a fare receiving section mounted thereon; means for discharging fares from the fare receiving section into the body of the box; a drawer under the discharge means and arranged to be partially removed from the box; a receptacle mounted in the drawer; a series of compartments within the receptacle; a slide arranged to close the openings in the several compartments; a chute pivoted to the fare box and located between the fare discharging means and the drawer and arranged to move in line with any one of the compartments; means for retaining the chute in the position to which it is adjusted; and means for moving said chute in one direction; with a releasable means for preventing movement in the opposite direction.

[Claim 6 not printed in the Gazette.]

1,076,585. POWER-GAGE DEVICE FOR PICKER-STICKS OF LOOMS. FRANKLIN MILTON LAMB, North Stonington, Conn. Filed Mar. 25, 1913. Serial No. 756,735. (Cl. 139—48.)



1. In a device for the purpose specified, in combination with a lug strap, a support, a picker stick and pivot means connecting the picker stick to said support, said lug strap engaging said picker stick, a gage stick provided with an opening through which said strap extends, said gage stick provided with a plurality of arms and an intermediate slot, a gage plate extending into said slot provided with an elongated slot, a bolt passing through said arms and said elongated slot, and said gage plate connected to said pivot member.

2. In a device for the purpose specified, a support, a picker stick, a pivot bolt connecting the picker stick to said support, a gage stick member, a driving element for said picker stick connected to said gage stick member, a gage plate member, one of said members provided with a plurality of arms and an intermediate slot, the other member extending into said slot and provided with an elongated slot, a bolt passing through said arms and said elongated slot, and said gage plate member connected to said first bolt.

1,076,586. GARMENT. MAX LANGMAN, New York, N. Y. Filed Nov. 9, 1912. Serial No. 730,433. (Cl. 2—145.)

1. A garment, comprising a skirt, waist and bloomers, and having a waistband common to all, the front of the waist and the front upper portions of the skirt having continuous overlapping opening and closing flaps, and fastening devices on the said opening and closing flaps for fastening the closing flaps together, the said opening and closing flaps being located to one side of the median line of the garment, and the front middle portion of the said bloomers having overlapping opening and closing flaps, and fastening devices for fastening the said bloomer opening and closing flaps together, the said waistband having its ends terminating at the said opening and closing flaps of the said waist, and fastening means on the overlapping terminals of the said waistband.

2. A garment, comprising a skirt, waist and bloomers having a waistband integrally connecting the said parts with each other, the front of the waist and the front upper portions of the skirt and bloomers being provided with opening and closing means, the opening and closing means of the skirt, waist and waistband being continuous and located to one side of the front median line of the garment, and the opening and closing means of the said bloomers being approximately at the front median line of the garment, and terminating below the said waistband.



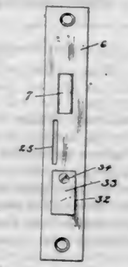
3. A garment provided with a combined skirt and bloomers underneath the skirt, the skirt and the bloomers having a waistband in common, the body of the bloomers having an opening at the rear and a closing flap on the rear of the bloomer body for opening or closing the said opening, the said closing flap being independent of the said skirt and waistband and having its upper end terminating below the said waistband.

4. A garment provided with a combined skirt and bloomers underneath the skirt, the skirt and the bloomers having a waistband in common, the body of the bloomers having an opening at the rear, and a closing flap extending integrally from the bottom edge of the said opening and adapted to open and close the same, the said closing flap being independent of the said skirt and waistband and having its upper end terminating below the said waistband.

5. A garment provided with bloomers having a front opening and closing flaps, and a waistband adapted to be opened and closed at the said opening and closing flaps, the bloomers having an approximately triangular-shaped opening at the rear, the apex of the opening being below the said waistband and the base of the opening being at the crotch, and a closing flap for the said opening and forming an integral part of the body and legs of the bloomers.

[Claim 6 not printed in the Gazette.]

1,076,587. LOCK. ISAAC LAPIDUS, Brooklyn, N. Y. Filed Aug. 21, 1912. Serial No. 716,279. (Cl. 70—46.)



1. In combination, a casing, a sliding bolt mounted therein, a rotatably mounted key cylinder having a slot therein and a bolt operating arm, a key having an aperture adapted to register with the slot in the cylinder, and means for engaging the slot in the cylinder and aperture in the key for locking the cylinder against rotation and the key against removal from the cylinder.

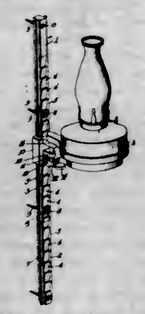
2. In combination, a casing, a sliding bolt mounted therein, a key rotatably mounted in the casing and hav-

ing an aperture and a bolt operating arm, pivoted means spring operated for engaging the aperture in the key cylinder to prevent the cylinder from rotating, means for throwing said pivoted means to inoperative position, means for locking the pivoted means in inoperative position, and means actuated on the projection of the bolt for disconnecting the locking means.

3. In combination, a casing, a sliding bolt mounted therein, a rotatably mounted key cylinder having a slot therein and a bolt operating arm, a key having an aperture adapted to register with the slot in the cylinder, means for engaging the slot in the cylinder and aperture in the key for locking the cylinder against rotation and the key against removal from the cylinder, and means for releasing the key and cylinder locking means.

4. In combination, a casing, a sliding bolt mounted therein, a key cylinder rotatably mounted in the casing and having an aperture and a bolt operating arm, pivoted means spring operated for engaging the slot in the key cylinder to prevent the same from rotating, means for throwing said means to inoperative position, means for locking the pivoted means in inoperative position, and bolt operated means for disconnecting said locking means.

1,076,588. WALL-SUPPORT FOR BRACKET-LAMPS. THEODORE LEMIRAND, Vans Harbor, Mich. Filed Jan. 11, 1913. Serial No. 741,530. (Cl. 248—3.)



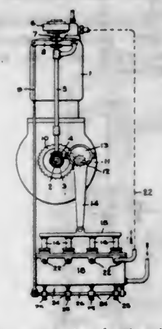
In a supporting device of the character described, a guide consisting of a ratchet bar having laterally extending flanges, a slide movable thereon, said slide having a dog engaging the ratchets and forwardly extending apertured lugs, and a lamp bracket having a spindle extending through the apertured lugs and resting on the dog to maintain the latter in ratchet engaging position.

1,076,589. INTERNAL-COMBUSTION ENGINE. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Jan. 26, 1912. Serial No. 673,543. (Cl. 123—140.)

1. An internal combustion engine in combination with a fuel pump capable of displacing on each working stroke only a fractional part of the amount of fuel required by the engine at full load and arranged to deliver one or more fractional fuel charges to the engine for each firing stroke of the latter, means for driving the pump, and a governing means that determines whether the pump shall deliver one or more of such fractional fuel charges for each firing stroke of the engine.

2. An internal combustion engine in combination with a pump for supplying fuel thereto comprising a cylinder, a plunger which is driven by the engine at a speed greater than that of said engine, said plunger displacing on each working stroke only a fractional part of the fuel required by the engine at full load, a suction valve for the pump, and a speed governor driven by the engine which controls the seating of said valve.

3. An internal combustion engine in combination with a fuel pump therefor comprising a cylinder, a plunger, a means actuated by the engine for imparting to the plunger a plurality of strokes for each firing stroke of the engine, suction and discharge valves for the pump, a speed governor driven by the engine, and a means moved by the governor which controls the action of the suction valve, said means being independent in its movements of the plunger actuating means.

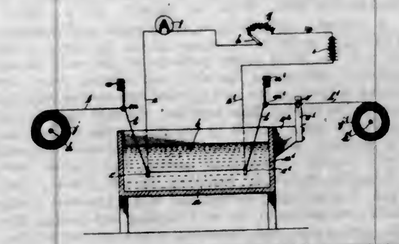


4. An internal combustion engine in combination with a pump for supplying fuel thereto which is proportioned and arranged to deliver to the engine at each pump stroke an amount of fuel substantially equal to that required for minimum load operation, means for driving the pump at such speed that at maximum load the pump will deliver to the engine for each firing stroke an amount of fuel corresponding to the load by a succession of strokes, and a speed governor that causes the pump to deliver one or more fractional charges of fuel to the engine depending upon the load.

5. An internal combustion engine in combination with a pump for supplying fuel thereto by successive strokes for each firing stroke of the engine, the amount of fuel delivered at each stroke being substantially the amount required for minimum load conditions of the engine, engine driven gearing for imparting to the pump plunger a number of strokes in excess of the number of firing strokes of the engine, suction and discharge valves for the pump, and a speed governor acting on the suction valve in a manner to cause one or more of the pump strokes to be effective in delivering fuel to the engine depending on the load.

[Claims 6 and 7 not printed in the Gazette.]

1,076,590. METHOD OF DRAWING REFRACTORY WIRES. ALFRED J. LIEBMANN, New York, N. Y., assignor to Nathan Hofheimer, New York, N. Y. Filed Feb. 21, 1913. Serial No. 749,770. (Cl. 205—21.)



1. The method of drawing refractory wires consisting in passing the refractory wire to be drawn thinner through a bath composed of a liquid hydro-carbon, rendering part of the passing wire incandescent within said hydro-carbon bath, decomposing thereby some hydro-carbon, depositing carbon on the surface of the incandescent section of the wire in form of graphite, and drawing the coated wire through a diamond die.

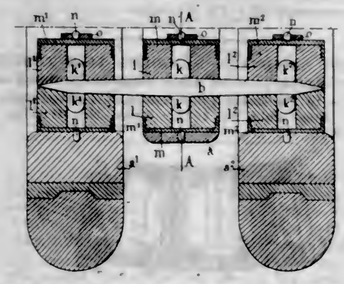
2. The method of drawing out tungsten wires or rods consisting in passing the tungsten wire to be drawn thinner through a bath composed of gasolene, rendering a portion of the passing wire incandescent within said gasolene bath, decomposing thereby some gasolene, depositing carbon on the surface of the incandescent tungsten wire in form of graphite, and drawing the coated tungsten wire through a diamond die.

3. The method of drawing out tungsten wires or rods consisting in passing the wire through a bath, making a portion of the wire within the bath part of an electric circuit and rendering said portion incandescent, depositing carbon on the surface of said wire portion in form of graphite, regulating the strength of the current as to the required thickness of the graphite coating, and drawing the coated wire through a diamond die, all in one continuous operation.

4. The method of coating a refractory wire to be drawn thinner with a graphite lubricant consisting in making a portion of the moving wire a part of an electric circuit while in a hydro-carbon bath and rendering said portion continuously incandescent, and depositing thereby carbon on the incandescent surface of the passing wire in form of graphite.

5. The method of coating a refractory wire to be drawn thinner with a graphite lubricant consisting in making a portion of the moving wire a part of an electric circuit while in a hydro-carbon bath and rendering said portion continuously incandescent, depositing thereby carbon on the incandescent surface of the passing wire in form of graphite, and regulating the strength of the current according to the required thickness of said coating.

1,076,591. WHEEL WITH MULTIPLE AND BALANCED RIMS. HENRY LOTTE, St. Jean d'Angély, France. Filed Mar. 11, 1911. Serial No. 613,721. (Cl. 152—36.)



1. In a wheel, a main rim, auxiliary rims moving laterally relatively to the main rim, beams connecting the auxiliary rims to the main rim, rubber rings interposed between the rims and the beams, and cups receiving these rubber rings.

2. In a wheel, a main rim, auxiliary rims moving laterally relatively to the main rim, beams at right angles to the planes of the rims and connecting the auxiliary rims to the main rims, rubber rings interposed between the rims and the beams, and cups fixed to the rims and receiving the said rubber rings.

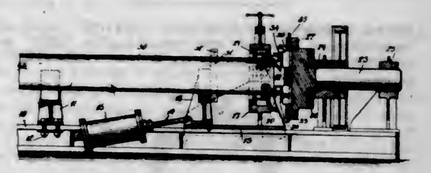
3. In a wheel a main rim, auxiliary rims moving laterally relatively to the main rim, beams connecting the auxiliary rims to the main rim, rubber rings interposed between the rims and the beams, and cups receiving these rubber rings, the beams and cups being placed at right angles to the rims.

4. In a wheel, a main rim, auxiliary rims moving laterally relatively to the main rim, beams connecting the auxiliary rims to the main rim, cups $r\ r^1\ r^2$ integral with the beams, cups $s\ s^1\ s^2$ connected to the rims, and rubber rings fitted in these cups $r\ r^1\ r^2$ and $s\ s^1\ s^2$.

5. In a wheel, a main rim, auxiliary rims, beams connecting the auxiliary rims to the main rim, bearings $t\ t^1\ t^2$ secured on the rims, cups $r\ r^1\ r^2$ integral with said beams, cups $s\ s^1\ s^2$ removably mounted on the bearings $t\ t^1\ t^2$, and rubber rings fitted in the cups $r\ r^1\ r^2$ and $s\ s^1\ s^2$.

[Claim 6 not printed in the Gazette.]

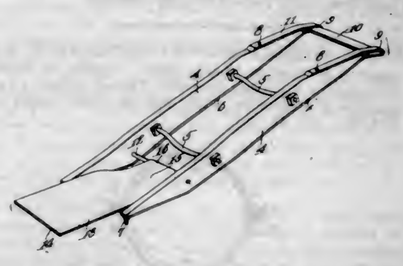
1,076,592. PROCESS OF PIPE-FLANGING. JOHN H. MANNING, New York, N. Y., assignor to Crane Company, Chicago, Ill., a Corporation of Illinois. Original application filed Nov. 23, 1910, Serial No. 593,767. Divided and this application filed May 22, 1911. Serial No. 628,824. (Cl. 153—81.)



1. The herein-described process of forming pipe flanges comprising first bending outward into a cone-like shape the metal which forms the end portion of a pipe, and second in forcing back against a mold the said cone-shaped portion of the pipe by pressure applied in a direction parallel with the axis of the pipe, and supporting the interior of the end portion thus acted upon directly opposite the point of application of the pressure to cause said pressure to upset the metal of the pipe at the bend, thus formed.

2. The herein-described process of forming pipe flanges comprising flaring the end of the pipe, pressing back against a mold the portion of the pipe thus flared, moving the flanged end thus formed relative to the mold, and again pressing the formed end back into the mold, thus upsetting the metal.

1,076,593. SKID. RICHARD P. MARTIN, Hunter, Okla. Filed July 8, 1913. Serial No. 777,930. (Cl. 57—18.)



1. A skid comprising guide rails, means extending therebetween and adapted to hold the same in spaced relation, a shaft extending between the guide rails adjacent the lower extremities thereof, an apron journaled upon the said shaft and adapted to rotate about the same as an axis, said apron formed of a sheet of wide flat material and adapted to extend at an angle to the guide rails.

2. A skid comprising spaced guide rails, a reinforcing member extending around the under edge thereof and terminating in downwardly extending claws at the lower extremities of said guide rails, a shaft extending between the guide rails adjacent the lower extremities thereof, and an apron rotatably mounted upon and secured to said shaft, extending at an angle to said guide rails and adapted to fold therebetween during the non-use thereof.

3. A skid comprising guide rails, downwardly curved strut bars extending between said guide rails and adapted to hold the same in spaced relation, reinforcing strips secured to the under edges of said guide rails and termi-

nating at their lower extremities in downwardly extending claws, a head bar extending between the said guide rails and secured thereto by the said reinforcing strips, said head bar adapted to rest upon an upper platform for the supporting of the skid, a shaft rigidly secured to and extending between the lower extremities of the said guide rails, an apron provided with a curled portion rotatably secured to the said shaft between the said guide rails adapted to guide the movements of the transported articles substantially tangential to the lower surface upon which the skid rests, said apron adapted to fold between the said guide rails during the non-use thereof.

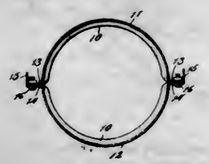
1,076,594. STREET-SPRINKLING DEVICE. STEWART MCCUTCHEON, Superior, Wis. Filed Aug. 21, 1911. Serial No. 645,133. (Cl. 137—65.)



1. A street sprinkling and flushing device, composed of a pipe circular in transverse section having openings through the wall thereof as an outlet for the water, a guard-plate for protecting the pipe, said guard plate having projecting edges constructed to rest on the surface of the street, and means for securing the guard to the pipe after the pipe has been laid in the road bed.

2. A street sprinkling and flushing device composed of a pipe circular in transverse section having openings therethrough, a guard-plate shaped to fit over the upper circumference of the pipe, said guard-plate provided with openings adapted to register with the openings in the pipe and having projecting edges constructed to rest on the surface of the street, and means for securing the guard-plate to the pipe after the pipe has been laid in such a manner that the pipe is supported by the guard-plate and is held from being pressed into the road-bed.

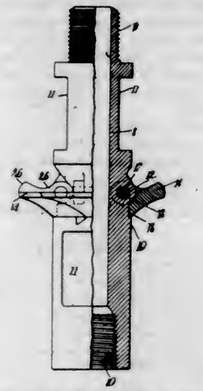
1,076,595. CORRUGATED-PIPE CONSTRUCTION. MALCOLM J. MCMARTIN, Duluth, Minn., assignor to Duluth Corrugating & Roofing Company, Duluth, Minn., a Corporation of Minnesota. Filed Mar. 20, 1909. Serial No. 484,760. (Cl. 61—9.)



1. A pipe having transverse corrugations and divided longitudinally into two sections, each of said sections being provided with flanges projecting laterally beyond the edges thereof and extending longitudinally of the sections, the flanges of one section resting flat against the respective flanges of the other section, the flanges on one section having their edges deflected at angles to their body portions to engage the edges of the respective flanges on the other section, and fastening devices passing through the flanges.

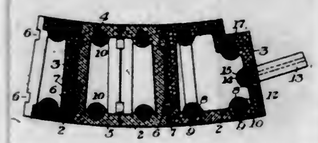
2. A pipe having transverse corrugations and divided longitudinally into two sections, each of said sections being provided with flanges projecting laterally beyond the edges thereof and extending longitudinally of the sections, the flanges of one section resting flat against the respective flanges of the other section, the flanges on one section having their edges deflected at angles to their body portions to engage the edges of the respective flanges on the other section and to project beyond the face of the last said flanges, and fastening devices removably passing through the flanges between the periphery of the pipe sections and the respective deflected edge of the flanges.

1,076,596. PUMP. HARRY MEAD, Coalinga, Cal. Filed Feb. 8, 1912. Serial No. 676,238. (Cl. 103—61.)



In a device of the character described, a pump rod, a plurality of lifting wings having radially extending sides, one set of sides having bevels which increase in width inwardly, and beveled extensions on the other set of sides for engaging the first-mentioned bevels, the beveled extensions increasing in width inwardly.

1,076,597. SILO AND BUILDING-TILE THEREFOR. JOHN MEALEY, Canton, Ohio, assignor, by mesne assignments, to The Union Trust Company of Pittsburgh, trustee. Filed July 28, 1911. Serial No. 641,162. (Cl. 72—6.)



1. A building tile for silos and the like of hollow segmental form, said tiles having closed ends and sides and an internal projection at each corner of the tile formed with vertical perforations extending therethrough to receive connecting devices; substantially as described.

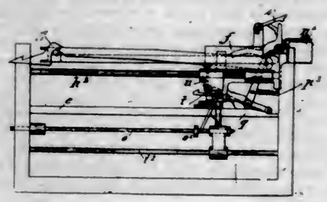
2. A building tile for silos and the like of hollow segmental form, said tiles being closed at both ends and both sides, a plurality of internal projections formed with vertical perforations extending therethrough to receive connecting devices, the sides of the tile having vertical grooves formed therein for the reception of binding material; substantially as described.

3. A silo composed of superimposed horizontal courses of tiles, each tile having a vertical opening extending therethrough, said tiles being closed at both ends and both sides, each of said tiles having formed in at least one of its sides a vertical groove registering with a similar vertical groove in an adjacent tile, bonding material within said grooves and at least four integral projections formed on each tile at the corners thereof, said projections having vertical perforations therethrough, two of the perforations in one tile registering with two perforations in the tiles in adjacent courses, the others registering with perforations in other tiles in said courses, and connecting devices in said perforations for connecting the tiles in one course with the tiles in adjacent courses; substantially as described.

4. A silo composed of superimposed horizontal courses of tiles, each tile having a vertical opening extending therethrough, the tiles of one course being in staggered relation with the tiles in adjacent courses so that there is a single air space formed by said openings between the inner and outer shells of the silo, there being a plurality of vertical perforations through the walls of each of the tiles, the perforations through the tiles in one course registering with perforations through tiles in adjacent courses, and securing devices in said perforations for securing the tiles of one course to the tiles in adjacent courses; substantially as described.

5. A silo composed of superimposed horizontal courses of tiles, each tile having a vertical opening extending therethrough, the tiles of one course being in staggered relation with the tiles in adjacent courses so that there is a single air space formed by said openings between the inner and outer shells of the silo, there being a plurality of vertical perforations through the walls of each of the tiles, the perforations through the tiles in one course registering with perforations in adjacent courses, securing devices in said perforations for securing the tiles of one course to the tiles in adjacent courses, and means for securing adjacent tiles in the same course to each other; substantially as described.

1,076,598. DEVICE FOR THE PURPOSE OF THREADING THE WARP-THREADS INTO THE HEDDLES. OTTO VON MEYENBURG, Zurich, Switzerland. Filed Apr. 22, 1910. Serial No. 557,016. (Cl. 139—94.)



1. In a device for the purpose of threading warp threads into heddle eyes, the combination with a reciprocable hooked needle, for drawing warp threads through heddle eyes, of a movable arm for guiding the needle, said arm having a forked head for engaging a heddle above and below the eye, means for placing the warp thread into the hook of the needle, and means for moving the needle to draw the thread through the heddle eye, substantially as described.

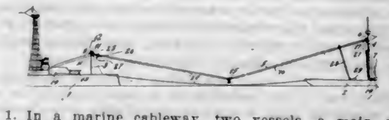
2. In a device for the purpose of threading warp threads into heddle-eyes, the combination with a reciprocable hooked needle of an arm movable in the direction of the needle and serving to guide the needle, said arm having a forked head for engaging a heddle above and below the eye, a reciprocable hooked fork adapted to receive a warp thread and to lay it on the hook of the needle and means for moving the needle to pass through the heddle eye and, when returning to draw the thread through the latter, substantially as described.

3. In a device for the purpose of threading warp threads into heddle eyes, the combination with a reciprocable hooked needle of an arm movable in the direction of the needle and serving to guide the latter, said arm having a forked head for engaging a heddle above and below the eye, means whereby said arm is vertically oscillated to place the needle point directly behind the heddle eye, a reciprocable hooked fork adapted to receive a warp thread and to lay it in the hook of the needle and means for moving the needle to pass through the heddle eye and, when returning to draw the thread through the latter, substantially as described.

4. In a device for the purpose of threading warp threads into heddle eyes, the combination with a reciprocable hooked needle, of an arm, movable in the direction of the needle and serving to guide the latter, said arm having a forked head for engaging a heddle above and below the eye, means whereby said arm is vertically oscillated to place the needle point directly behind the needle eye, means to keep back the needle until the needle point is placed directly behind the heddle eye and means for releasing the needle to pass through the eye, a reciprocable hooked fork adapted to receive a warp thread and to lay it in the hook of the needle and means for returning the needle to draw the thread through the heddle eye, substantially as described.

5. In a device for the purpose of threading warp threads into heddle eyes, the combination with a reciprocable hooked needle, of an arm, movable in the direction of the needle and serving to guide the latter, said arm having a forked head for engaging a heddle above and below the eye, catches serving to keep back the needle in its guiding arm, one part of the said forked head being formed by a plate pivoted and suitably connected with the catches and means to oscillate the said arm vertically to place the needle point directly behind the heddle eye, whereby the pivoted plate in striking the eye is turned and actuates the catches for releasing the needle to pass through the eye, a reciprocable hooked fork adapted to receive a warp thread and to lay it in the hook of the needle and means for returning the needle to draw the thread through the heddle eye, substantially as described.

1,076,599. MARINE CABLEWAY. THOMAS SPENCER MILLER, South Orange, N. J. Filed Jan. 19, 1912. Serial No. 672,156. (Cl. 214—14.)



1. In a marine cableway, two vessels, a main cable stretched between supports on said vessels, a carriage on the main cable, traversing ropes for the carriage, winding engines for said ropes respectively, and means to cause said engines to simultaneously exert pull on the ropes in opposition to each other.

2. In a marine cableway, two vessels, a main cable stretched between supports on said vessels, a carriage on the main cable, traversing ropes for the carriage, winding engines for said ropes respectively, means to cause said engines to simultaneously exert pull on the ropes in opposition to each other, and means for simultaneously increasing the pull on one rope and decreasing the pull on another rope.

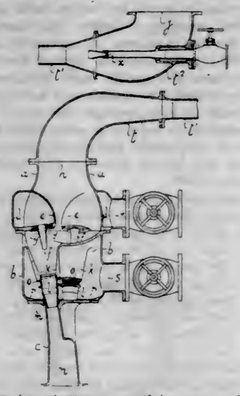
3. In a marine cableway, two vessels, a main cable stretched between supports on said vessels, a carriage on the main cable, traversing ropes for the carriage, winding engines for said ropes respectively, means to cause said engines to simultaneously exert pull on the ropes in opposition to each other, and means associated with each engine for automatically varying its tension on its rope in accordance with variations of pull on its rope.

4. In a marine cableway, two vessels, a main cable stretched between supports on said vessels, a carriage on the main cable, traversing ropes for the carriage, separate winding engines for said ropes respectively, means to cause said engines to exert simultaneously pull on the ropes in opposition to each other, and means for automatically maintaining a determined tension on the main cable.

5. In a marine cableway, two vessels, a main cable stretched between supports on said vessels, a carriage on the main cable, traversing ropes for the carriage, separate pulling means simultaneously operable on the traversing ropes in opposition to each other, and means for varying the strength of pull of said pulling means to traverse the carriage.

[Claims 6 to 20 not printed in the Gazette.]

1,076,600. WATER-JET EJECTOR. DONALD BARNS MORISON, Hartlepool, England. Filed Mar. 21, 1912. Serial No. 685,264. (Cl. 230—13.)



1. A water jet ejector comprising a receiver having a plurality of groups of jets, each group consisting of an elongated jet tube surrounded by a series of short jets, and a separate combining tube for each group of jets, substantially as described.

2. A water jet ejector comprising a receiver containing multiple water jets arranged in groups, each group of jets delivering into a separate combining tube which is surrounded by an annular water jet, each combining tube and annular water jet delivering into a discharge pipe.

3. A water jet ejector comprising a receiver containing multiple water jets arranged in groups, each group of jets delivering into a separate combining tube having one or more water jets in advance thereof.

4. A water jet ejector comprising a receiver containing multiple water jets arranged in groups, each group of jets delivering into a separate combining tube having an annular water jet in advance thereof, said combining tubes converging into one common discharge pipe.

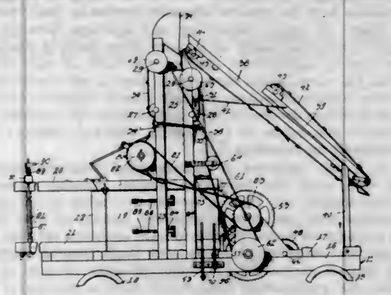
5. A water ejector comprising a receiver containing multiple water jets arranged in groups, each group of jets delivering into a separate combining tube having an annular water jet in advance thereof, said combining tubes and annular jet converging into one common discharge pipe.

[Claims 6 to 18 not printed in the Gazette.]

1,076,601. BALING-MACHINE. ROY M. MOWRY, Los Angeles, Cal., assignor of one-half to Charles A. Markwell, Los Angeles, Cal. Filed Feb. 21, 1913. Serial No. 749,937. (Cl. 100—25.)

1. In a baling machine, the combination with a body having a baling chamber formed at the end thereof; of a vertical hopper discharging into the top of said baling chamber; endless aprons forming a portion of the front and rear walls of said hopper; a spring tension plate forming a portion of the rear wall of said hopper; a plurality of spaced strips completing the front wall of said hopper; a plunger adapted to be reciprocated within said baling chamber; means working through said spaced strips for forcing material from the hopper into the path of the plunger; and means for driving said plunger, forcing means, and endless aprons.

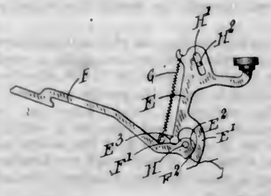
2. In a baling machine, the combination with a body having a baling chamber formed at one end thereof; of a vertical hopper discharging into the top of said baling chamber; means forming a portion of the front and rear walls of said hopper for moving the material downwardly therethrough; a plurality of spaced strips completing the forward wall of said hopper; a plurality of packer arms; links pivotally connecting the forward ends of said arms to the body; a crank shaft to which said arms are connected intermediate their ends; a plunger adapted to be reciprocated within said baling chamber; and means for actuating said first mentioned means, the packer arms, and plunger; said packer arms working between the spaced strips and serving to force material from the hopper into the path of the plunger.



3. In a baling machine, the combination with a body having a baling chamber formed at one end thereof, of a hopper discharging into the top of said baling chamber, a plunger adapted to be reciprocated within said chamber, a crank shaft to which said plunger is connected, a rearwardly extending retaining plate pivotally secured to the top of said plunger, means secured to the aligned portion of said crank shaft for supporting the rear end of the retaining plate, and means for operating said crank shaft, the retaining plate preventing material from being discharged from the hopper to the rear of the plunger.

4. A baling machine comprising in combination, a truck, a body mounted on said truck, a hopper discharging into said body, means for carrying material to the top of said hopper, means for carrying material downwardly through said hopper, a plunger adapted to be reciprocated within said baling chamber, a main drive shaft, a counter shaft geared to said first mentioned shaft, means driven by said counter shaft for actuating the first and second mentioned means, a crank shaft geared to said counter shaft, said plunger being connected to the crank shaft, packer arms adapted to force material from the hopper into said baling chamber, and means connected to the crank shaft for driving said arms.

1,076,602. TYPE-BAR MECHANISM FOR TYPEWRITERS. HIDALGO MOYA, North Evington, England, assignor to Imperial Typewriter Company Limited, North Evington, England. Filed Jan. 30, 1913. Serial No. 745,078. (Cl. 197—27.)



1. In a typewriter, the combination of a type bar pivoted on the frame of the machine, a floating bell-crank key-lever having at one end a circular enlargement which engages a segmental recess in the type-bar to operate it, a spring connecting the type-bar and key-lever, and means to positively lock the key-lever against displacement in a direction to carry the enlargement out from the recess when the type-bar is nearing the end of its stroke, for the purpose described.

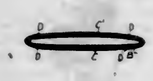
2. In a typewriter, the combination of a type-bar pivoted on the frame of the machine, a floating bell-crank key-lever having at one end a circular enlargement which engages a segmental recess in the type bar to operate it, a spring connecting the type bar and key-lever, and guiding means to prevent displacement of the key lever in a direction to carry its enlargement out from the recess in the type bar when the parts are near the position occupied at the end of the stroke and which are so disposed that they only come into operation toward the end of the stroke, for the purpose described.

3. In a typewriter, the combination of a type-bar pivoted on the frame of the machine, a floating bell-crank key-lever having at one end a circular enlargement which engages the segmental recess in the type-bar, a spring connecting the type-bar and key-lever, and an arm on the key-lever having a curved guiding surface facing the direction in which movement of the key-lever would tend to carry its enlargement out from the recess in the type-bar, the curve of this face conforming to part of a circle struck from the center of pivoting of the enlargement, said surface coöperating with a part which lies between it and the recess in the type-bar when the key-lever and the type-bar are in the positions they occupy toward the end of the stroke, for the purpose described.

4. In a typewriter, the combination of a type-bar pivoted on the frame of the machine, a floating bell-crank key-lever having at one end a circular enlargement which engages a segmental recess in the type-bar, a spring connecting the type-bar and key-lever, and an arm on the key-lever having a curved guiding surface facing the direction in which movement of the key-lever would tend to carry its enlargement out from the recess in the type-bar, the curve of this face conforming to part of a circle struck from the center of pivoting of the enlargement, the type-bar having a coöperating surface which lies between the recess and the curved guiding surface of the key-lever arm when the key-lever and type-bar are in the positions they occupy toward the end of the stroke, for the purpose described.

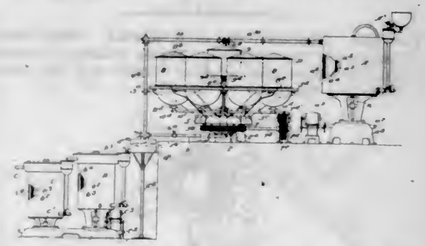
5. In a typewriter, the combination of a type-bar pivoted by one end on the frame of the machine, a floating bell-crank key-lever having that end remote from the key bifurcated, one of the forks so provided having at its ends a circular enlargement which engages the segmental recess in the type-bar and lies toward one side of the pivot therefor while the other fork lies toward the opposite side of the pivot, a spring connecting the type-bar and key-lever, the inner face of the key-lever fork which does not carry the circular enlargement being curved to an arc of a circle struck from the center of the enlargement and the type-bar being provided with a heel on the side opposite the recess so placed that as the type-bar nears the end of its stroke the said heel comes into sliding contact with the curved face on the key lever fork and prevents displacement of the key-lever in a direction which would carry the circular enlargement out from the recess, for the purpose described.

1,076,603. HOSIERY. DOMINICK O'DONNELL, New York, N. Y. Filed Oct. 21, 1912. Serial No. 726,947. (Cl. 2—23.)



A sock substantially as herein described provided with a hem at its upper edge and having within said hem at the opposite sides of the sock elastic strips each of a length less than the semi-circumference of the sock end, the said elastic strips being secured at their ends to the sock and being spaced apart at their front and rear ends, the space between the front ends of the strips being sufficient to receive the tibia of a leg in the use of the sock and the space between the rear ends of the strips being sufficient to avoid interfering with the circulation of the blood at the back of the wearer's leg, all substantially as and for the purposes set forth.

1,076,604. PASTEURIZING APPARATUS. LEROY S. PROUTS, Canton, Ohio, assignor to The Miller Pasteurizing Machine Company, Canton, Ohio, a Corporation of New Jersey. Filed Jan. 9, 1913. Serial No. 740,940. (Cl. 210—20.)



1. The combination of a base, having a vertical axial rod mounted thereon, a valve mechanism, having valve openings, supported by said rod, a liquid receiving chamber, a conduit between said chamber and the valve mechanism, a member rotatably mounted on said base, a series of vessels for holding liquid carried by said member, connections between each of said vessels and the valve openings of the valve mechanism through which the liquid flows to and from the vessel, and means for rotating the rotary member.

2. The combination of a base, having a vertical axial rod mounted thereon, a valve mechanism, including inlet and outlet ducts, supported by said rod, a receiving chamber, a conduit between said chamber and the inlet duct of the valve mechanism, a member rotatably mounted on said base, a series of vessels for holding liquid carried by said member, connections between each of said vessels and the ducts of the valve mechanism through which the liquid flows to and from the vessel, a discharge conduit connected with the outlet duct, and means for rotating the rotary member.

3. The combination with a base, of a liquid receiving chamber, a valve member formed with inlet and outlet ducts, a conduit between the chamber and the inlet duct of the valve member, a valve rotatably fitting the valve member, the said valve being formed with a series of openings each adapted to successively register with the ports of the ducts in said valve member as the valve is rotated, a member rotatably mounted on said base, a series of vessels for holding liquid carried by the rotatable member, liquid tight connections between each of said vessels and an opening in the valve through which the liquid flows to and from the vessel, means connected with the outlet duct for discharging the liquid from the vessels, and means for rotating the rotary member.

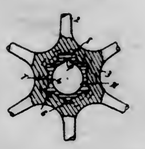
4. The combination with a base, of a liquid receiving chamber, a valve member formed with an inlet duct, a conduit between the chamber and the inlet duct of the valve member, a valve rotatably fitting the valve member, the said valve being formed with a series of openings each adapted to successively register with the port of the duct in said valve member as the valve is rotated, an annular support rotatably mounted on said base, a series of separate vessels for holding liquid carried by the rotatable support, connections between each of said vessels and an opening in the valve through which the liquid flows to the vessel, means for discharging said vessels, and means for rotating the support.

5. The combination with a base, of a receiving chamber, a valve member provided with a rim and formed with inlet and outlet ducts, the ports of which lead through the rim, a conduit between the chamber and the inlet duct of the valve member, a valve rotatably fitting the rim of the valve member, the said valve being formed with a series of openings adapted to successively register with the ports of the ducts in said valve member when the valve is rotated, a member rotatably mounted on said base, a series of vessels for holding liquid carried by the rotatable member, connections between each of said vessels and an

opening in the valve through which the liquid flows to and from the vessel, and means for rotating the rotary member, the said connections between the vessels and the valve operating to move the latter with the vessels.

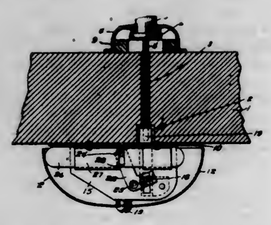
[Claims 6 to 24 not printed in the Gazette.]

1,076,605. PULLEY. HENRY P. RESTON, Oakley, Ohio, assignor to The Cincinnati Planer Company, Oakley, Ohio, a Corporation of Ohio. Filed Aug. 28, 1911. Serial No. 646,463. (Cl. 64—17.)



An article of manufacture consisting of a hard metal bushing provided with an internal key way and with flanges about its ends between which extend integral parallel ribs one of which is in radial alinement with said key way and wider than the others, and a spoked pulley of lighter metal cast upon said bushing with its spokes in radial alinement with the ribs upon the bushing, the ends of the hub of the pulley being flush with the ends of the bushing, all substantially as and for the purpose set forth.

1,076,606. BELL. JAMES LITTAUER ROYCOURT and LEONARD HORINKO, New York, N. Y. Filed Mar. 21, 1913. Serial No. 755,857. (Cl. 116—35.)



1. In a bell of the class described, a gong, a reciprocating bar moving back and forth in a rectilinear direction, said bar acting as a striker, guides for holding said bar properly in place and permitting a proper reciprocating movement thereof, said reciprocating bar being formed with a notch or opening, a pivotally mounted bell crank lever arranged adjacent said bar, a pin rigidly secured to said bell crank lever and projecting into said notch and loosely fitting therein, whereby said bell crank lever is adapted to actuate said reciprocating bar and permit a limited free movement of said bar, said bell crank lever having a slot in the opposite arm to that carrying said pin, a reciprocating thumb operated member, a pin secured to said reciprocating thumb operated member projecting into said slot whereby when said thumb operated member is moved said bell crank lever will be moved pivotally for actuating said striker and a spring acting on said reciprocating bar for resiliently maintaining the same in a predetermined position.

2. In a bell of the character described, a gong, a bar extending from near one side of said gong to the other, said bar being formed with an aperture, means for securing and guiding said bar in its reciprocatory movement, a pin projecting into said aperture and loosely fitting therein, whereby the bar has a movement independent of the pin, a pivotally mounted bell crank lever supporting said pin and actuating the same, a push rod structure connected with said bell crank lever for moving the same and a spring for resiliently maintaining said push rod structure in a predetermined position and returning the same to said position when moved therefrom, whereby said bar may be manually operated for striking one side of said gong and automatically operated by said spring for striking the opposite side of said gong.

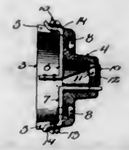
3. In a bell of the character described, a base, a bracket upstanding from said base, a gong mounted on said bracket and substantially inclosing the same, a reciprocating push rod structure moving in a plane parallel with the axis of the gong, a sliding striking bar arranged transversely of said push rod structure, a bell crank lever having one of the arms loosely connected with said push rod structure and the other arm loosely connected with said bar and a spring acting on said push rod structure for resiliently maintaining the same in a predetermined position, whereby when said push rod structure is manually operated said bar will strike one side of said gong and when the push rod structure is released said spring will cause the bar to automatically move back to the opposite position and strike the opposite side of said gong.

4. In a bell of the class described, a gong, a reciprocating bar extending from near one side of the gong to the other, the reciprocating bar having a transverse slot arranged therein, means for guiding said bar in its back and forth movement, said bar being adapted to strike alternately the opposite sides of said gong, a pin extending into the slot in said bar and loosely fitting therein, whereby said bar has a limited independent movement, a pivotally mounted bell crank lever, one arm of said bell crank lever being rigidly secured to said pin and the other arm of said bell crank lever being formed with a slot extending longitudinally of said last mentioned arm, a reciprocating operating bar extending in a direction at right angles to said first mentioned bar, a pin secured to said operating bar projecting into the slot in said bell crank lever, manually actuated means for moving said operating bar in one direction and a spring for moving said operating bar in the opposite direction, whereby when said operating bar is moved manually said reciprocating bar will strike one side of said gong and when released will strike the opposite side of said gong.

5. In a bell of the class described, a gong, a sliding striking bar designed to strike alternately opposite sides of said gong, means for loosely connecting a bell crank lever with said sliding striking bar, an operating bar, means for loosely connecting one arm of said bell crank lever with said operating bar and a spring acting on said operating bar for resiliently maintaining the same in a predetermined position whereby when said operating bar is moved manually in one direction said striking bar will strike one side of said gong and when released said spring will actuate said operating bar for causing the striking bar to strike the opposite side of said gong.

[Claim 6 not printed in the Gazette.]

1,076,607. THERMAL CIRCUIT-CLOSER. JOSEPH F. SCHEUER, Two Rivers, Wis. Filed Feb. 8, 1913. Serial No. 747,149. (Cl. 177—303.)



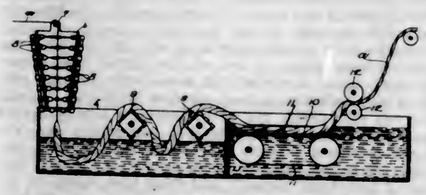
1. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall-recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof for connection with electric-current distribution-wires, a spring-contact attached to one of the conductor-plates and exposed through a play-opening provided in the front of the insulator through which the other conductor-plate is extended in the path of the contact, and a fusible-block arranged in connection with said insulator to normally hold said contact away from the opposing conductor-plate.

2. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall-recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof, binding-screws engaging the exposed ends of said plates, a spring-contact attached to one of the conductor-plates and exposed through a play-opening provided in the front of the insulator through which the other conductor-plate is extended in the path of the contact, and a fusible-block arranged in connection with said insulator to normally hold said contact away from the opposing conductor-plate.

3. A thermal circuit-closer comprising a hollow insulator attachable to a support and having wall recesses, a pair of conductor-plates secured in the insulator and exposed through said recesses thereof for connection with electric-current distribution-wires, a spring-contact attached to one of the conductor-plates and exposed through a play-opening provided in the front of the insulator, the outer end of the contact being bent at an acute angle to the remainder thereof in opposition to the other conductor plate that is also exposed through said front of the insulator; and a fusible-block arranged in connection with said insulator under the bent end of said contact that is thus normally held away from the opposing conductor-plate.

4. A thermal circuit-closer comprising a hollow insulator in the form of a shell having a forward central boss, the shell being provided with front apertures for the passage of attaching screws, conductor-plates within the shell of the insulator to which they are secured by screws engaging other apertures provided in the shell-front, there being an exposure of ends of the plates in recesses with which the wall of said shell is provided; binding-screws engaging said ends of said plates, a spring-contact attached to one of the conductor plates and exposed through a play-opening in the front of said boss through which the other conductor-plate is extended in the path of the contact, and a fusible-block seated in the aforesaid boss to normally hold said contact away from the opposing conductor-plate.

1,076,608. METHOD FOR CRAPING FABRIC. GEORGE E. SCHULTZ, Providence, R. I., assignor to Frank A. Sayles, Providence, R. I. Filed Mar. 24, 1913. Serial No. 756,360. (Cl. 26—2.)



1. That method of treating fabric to produce crape effects therein, which consists in sustaining suitable fabric in the broad at one point and permitting other portions of the fabric to hang free, and subjecting said fabric while in the broad to the action of an alkaline saturating fluid.

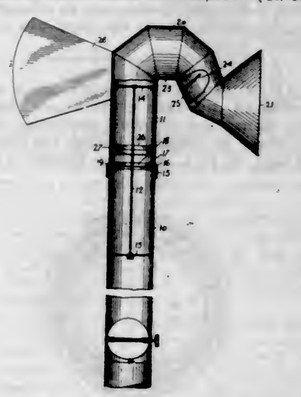
2. That method of treating fabric to produce crape effects therein which consists in sustaining fabric in the broad, progressively feeding said fabric, and progressively saturating the fabric while distended or in the broad with a solution of caustic soda.

3. That method of treating fabric to produce crape effects therein which consists in progressively feeding forward the fabric in the broad to distend the same applying to said fabric while distended a saturating detergent fluid under pressure and permitting the saturated portion of said fabric to contract and draw on itself.

4. That method of treating fabric to produce crape effects therein which consists in feeding forward a suitable fabric, distending said fabric, subjecting the distended portion of the fabric to a saturating fluid applied under pressure, and agitating said saturated fabric.

5. That method of treating fabric to produce crape effects which consists in providing a multiplicity of cross streams of detergent fluid under pressure carrying forward the fabric to be treated in the broad in a direction at an angle to the direction of said streams, straining said fabric by the weight of fluid taken by said fabric from said streams, and washing said fabric.

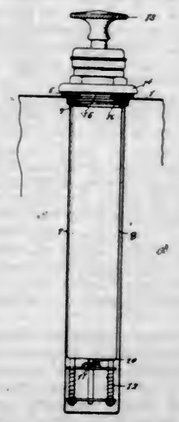
1,076,609. REVOLVING VENTILATOR. OSCAR WILLIAM SEARCY, Manila, Philippine Islands, assignor of one-half to Charles S. Banks, Manila, Philippine Islands. Filed Jan. 14, 1913. Serial No. 741,941. (Cl. 98—3.)



1. A ventilator having an intake provided with an elbow return-bent in a downward direction, a flaring mouth at the lower end of the elbow, and a crescentic, transverse barrier within the elbow on the bottom thereof and at an angle to the bottom.

2. A ventilator having a revoluble intake section formed with a downturned elbow, said elbow terminating at its lower end in a flaring mouth, the said mouth being out of register with the bend of the elbow, and a crescentic transverse barrier forming a rain stop, said barrier projecting from the bottom wall of the elbow, on the downturned portion thereof.

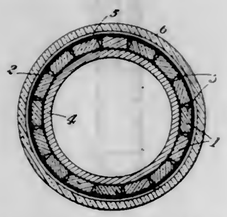
1,076,610. AIR-PUMP. LINCOLN B. SHERWOOD, Indianapolis, Ind. Filed May 27, 1910. Serial No. 563,703. (Cl. 230—27.)



An air pump, an externally screw threaded collar secured near upper end of pump cylinder, a screw-threaded

section on said collar of two diameters but of equal pitch throughout, the larger diameter joining radial flange of collar, a closed end shield of light metal surrounding said pump, an externally and internally threaded section at open end of said shield, the internally threaded section thereof matching the smaller threaded section on said collar, and the outer threaded section equaling the diameter and meeting the pitch of the larger threaded section on said collar that when the shield is assembled with the pump the external section of thread on said collar and shield present a continuous thread of even diameter and pitch and a tank provided with an internally threaded opening adapted to receive the pump and shield so assembled.

1,076,611. TUBULAR BODY SUCH AS A PIPE, HOLLOW MAST, OR THE LIKE. HANS SIEGWART, Lucerne, Switzerland. Original application filed Nov. 5, 1910, Serial No. 590,780. Divided and this application filed Sept. 20, 1911. Serial No. 650,455. (Cl. 72—54.)



1. A tubular body comprising fillets shorter than the tubular body and arranged in spaced relation end to end in rows longitudinally of the tubular body with their inner corners in adjacent rows substantially in contact and their outer corners angularly spaced, an adherent binder in the spaces between the fillets, reinforcing rods extending longitudinally in the angular spaces between the rows of fillets, and a flexible wrapping sheet surrounding and holding the layer of fillets and the rods.

2. A tubular body comprising fillets shorter than the tubular body arranged side by side with angular spaces between all adjacent parts of the fillets and end to end in spaced relation with spaces between all parts of the adjacent ends of the fillets to form a tubular layer of spaced fillets in which the fillets are completely separated from one another longitudinally of the tubular body and are angularly spaced circumferentially thereof, an adherent binder in all the spaces between the fillets, a flexible wrapping sheet surrounding and holding the layer of fillets and the binder, a reinforcing winding outside of the wrapping sheet, and a plastic layer covering the winding.

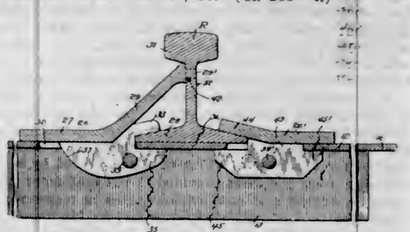
3. A tubular body comprising fillets having six plane sides, such fillets being shorter than the tubular body and arranged side by side with angular spaces between adjacent plane sides of the fillets and end to end in spaced relation with spaces between all parts of adjacent plane end surfaces to form a tubular layer of spaced fillets in which the fillets are completely separated from one another longitudinally of the tubular body and are angularly spaced circumferentially thereof, an adherent binder in all the spaces between the fillets, a woven fabric wrapping sheet surrounding and holding the layer of fillets and the binder, and a wire reinforcing winding proximate to the outside of the woven fabric wrapping sheet.

4. A tubular body comprising fillets shorter than the tubular body and arranged in spaced relation end to end in rows longitudinally of the tubular body with their inner corners in adjacent rows substantially in contact and their outer corners angularly spaced, an adherent binder in the spaces between the fillets, and reinforcing rods extending longitudinally in the angular spaces between the rows of fillets.

5. A tubular body comprising fillets shorter than the tubular body and arranged in spaced relation end to end in rows longitudinally of the tubular body with their inner corners in adjacent rows substantially in contact and their outer corners angularly spaced, an adherent binder in the spaces between the fillets, reinforcing rods extending longitudinally in the angular spaces between the rows of fillets, a flexible wrapping sheet surrounding and holding the layer of fillets and the rods, and a wire reinforcing winding proximate to the outside of the wrapping sheet.

[Claim 6 not printed in the Gazette.]

1,076,612. RAIL TIE AND ANCHOR. FRANK HARRIS STANFORD, Elizabeth, N. J., assignor, by mesne assignments, to Stanford Metal Railroad Tie Company, Elizabeth, N. J., a Corporation of New Jersey. Filed Apr. 15, 1913. Serial No. 761,217. (Cl. 238—4.)



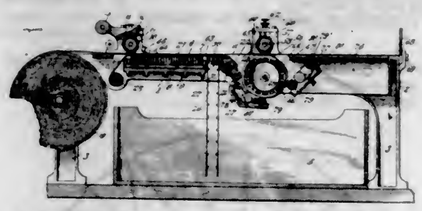
1. The herein described clamp for railways, the same comprising a plate having a pair of slots extending vertically therethrough, a clamp having a pair of toes projecting downwardly through said slots, a lip extending from each of the toes over the base flange of the rail, said toes each having a point extending beneath said plate, the clamp also including a brace extending upwardly at an angle into coöperation with the rail web and head, and a bolt extending transversely through said toes securing the clamp in position with respect to said plate.

2. The combination with the usual form of railway rail having a base flange, a vertical web and head, of a metallic tie having a pair of slots extending therethrough adjacent one edge of the base flange, means extending upwardly from the tie coöperating with the opposite edge of the base flange, a unitary rail brace and anchor having spaced toes extending downwardly through said slots and embracing spaced portions of the tie beneath the rail base flange, and also including a pair of lips in vertical alinement with said toes coöperating with the upper surface of the base flange and a brace between said lips coöperating with the upper portion of the rail, and means detachably securing said brace and anchor to the upper surface of the tie.

3. The herein described rail tie and anchor, the same comprising a substantially flat plate having pairs of slots extending downwardly therethrough adjacent a rail to be supported thereon and also having a pair of angularly disposed flanges having pairs of alined transverse holes extending therethrough beneath the plate, a pair of clamps each including a plate adapted to lie against the upper surface of the aforesaid plate, a pair of toes extending downwardly through a pair of said slots, a pair of lips adapted to extend over the rail flange, and a pair of points extending from said toes beneath said plate, and a bolt extending transversely through certain of said flange holes and through said toes to secure said clamps and rail in either of several positions with respect to the tie.

1,076,613. PRINTING-MACHINE. ERVIN E. STRAWN, Storm Lake, Iowa. Filed Mar. 26, 1912. Serial No. 686,262. (Cl. 101—11.)

1. In a printing machine, the combination of a fixed form for printing the body of a letter, a reciprocating platen movable over the form in one direction to assist in the printing of the body of the letter, independent printing means, and means connecting said platen to said independent printing means whereby the latter may be operated in the reverse movement of the platen to apply certain inserts to the body of the letter subsequent to the printing of such letter.



2. In a printing machine, the combination of a fixed form for printing the body of a letter, a reciprocating platen movable over the form in one direction to assist in the printing of the body of the letter, independent printing means, means connecting said platen to said independent printing means whereby the latter may be operated in the reverse movement of the platen to apply inserts to the body of the letter subsequent to the printing of such body, and means for rendering the last means inactive upon the independent printing means in the first movement of the platen.

3. In a printing machine, the combination of a fixed form for printing the body of a letter, a platen movable over the form in one direction to assist in the printing of the body of the letter, means for moving the sheet bearing such body subsequent to the printing thereof, independent printing means acting upon the body of the letter when the same is in motion to apply an insert thereto, means connecting said platen to said independent printing means to operate the latter, and means holding the last-named means inactive upon the independent printing means in the first movement of the platen.

4. In a printing machine, the combination of a fixed form for printing the body of a letter, a movable platen coöperative with the form to print the body of the letter, a plurality of address forms, means for moving a new address form into printing position subsequent to the movement of the platen in the printing of the body of the letter, and independent printing means operable from the movement of the platen to head the letter, apply an insert to the body of such letter, and affix a signature to the same.

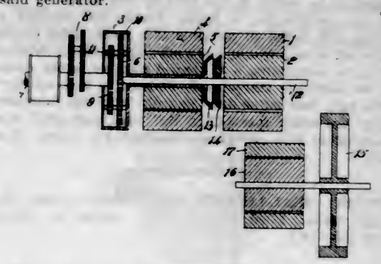
5. In a printing machine, the combination of a fixed form for printing the body of a letter, a movable platen coöperative with the form to print the body of the letter, a plurality of address forms, means for moving a new address form into printing position subsequent to the movement of the platen in the printing of the body of the letter, and independent printing means operable from the movement of the platen to head the letter, apply an insert to the body of such letter, and affix a signature to the same subsequent to the movement of the platen to print the body of the letter.

[Claims 6 to 14 not printed in the Gazette.]

1,076,614. WINDING APPARATUS. JOHN G. P. THOMAS, Holywell Vicarage, Wales. Filed June 29, 1912. Serial No. 706,670. (Cl. 172—239.)

1. In an electrical power transmission system for intermittent loads, the combination with a load shaft and driving motor, of an auxiliary electrical generator, balance gearing interconnecting said load shaft, motor and generator, and separate means for receiving or restoring excess electrical power.

2. In an electrical power transmission system, the combination of a prime motor, a load shaft, an auxiliary electrical generator, balance gearing interconnecting said motor, load shaft and generator, and a reservoir device adapted to take excess electrical power from, or restore it to, said generator.



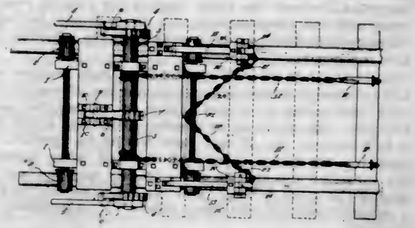
3. In an electrical power transmission system, the combination of a prime motor, a load shaft, an electrical generator, balance gearing interconnecting said shaft, motor, and generator, and a separate electrical machine adapted to take energy from or give it to said generator.

4. In an electrical power transmission system, the combination of a driving motor, a load shaft, an electrical generator, balance gearing interconnecting said motor, shaft and generator, an auxiliary electrical machine adapted to store energy kinetically, and connections between said machine and the generator.

5. In an electrical power transmission system the combination of a driving motor, a load shaft, an electrical generator, balance gearing interconnecting said motor, shaft and generator, means for receiving electrical energy from said generator or restoring such energy, and means for controlling the output of said generator.

[Claims 6 to 9 not printed in the Gazette.]

1,076,615. COMBINATION GRAB AND TIE-SPACER. WILLIAM P. TURNER, deceased, Stickney, New Brunswick, Canada, by George Carleton Turner, administrator, Florenceville, New Brunswick, Canada, assignor, by direct and mesne assignments, to Joseph A. Grant and George Fred Turner, Stickney, New Brunswick, Canada, and Fred T. Perry. Filed Nov. 20, 1912. Serial No. 732,490. (Cl. 104—16.)



1. In combination, a frame, means for movably supporting said frame on the rails of a track, tie drawing means carried by said frame, arms pivotally connected to said frame, rail grabs carried by said arms, and stop plates carried by said arms.

2. In combination, a frame, means for movably supporting said frame on the rails of a track, arms pivotally connected to said frame, rail grabs carried by said arms, and means for limiting the swing of said grabs.

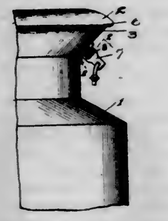
3. In combination, a frame, means for movably supporting said frame on the rails of a track, arms pivotally connected to said frame, and grabs connected to said arms, each grab comprising a U shaped member, a bar connecting the branches thereof and adapted to rest on the top of the rail, and lugs extending inwardly from the branches to engage the under face of the rail head.

4. In combination, a frame, means for movably supporting said frame on the rails of a track, arms pivotally

connected to said frame and provided with slots, rail grabs, and pivot pins extending through said grabs and adapted to be seated in the slots of said arms.

5. In combination, a frame, means for movably supporting said frame on the rails of a track, arms pivotally connected to said frame, and grabs connected to said arms, each grab comprising a U shaped member, a bar connecting the branches thereof and adapted to rest on the top of the rail, lugs extending inwardly from the branches to engage the under face of the rail head, and draft means connected to said bar at the approximate center of said grab.

1,076,616. SEAL-LOCKED CAN. EMIL TYDEN, Hastings, Mich. Filed Mar. 5, 1913. Serial No. 751,985. (Cl. 31—78.)



1. In a can or the like which comprises a body member and a cover member which are telescoped with each other, the outer of said members being flared outwardly at the upper part, in combination with said members, a seal locking device comprising a bolt and a bolt housing, one of said parts having an aperture for receiving a seal to retain the bolt at locking position, said bolt being mounted for thrusting through said flared portion for locking, the interior member having exteriorly positioned means for engagement of said bolt.

2. In a can or the like having a body member and a cover member telescoping with each other, in combination with said members, a seal-locking device comprising a bolt and a bolt housing mounted upon the outer side of the outer member, one of said parts being apertured for receiving a bolt-securing seal, the bolt being mounted for thrusting through the outer member for locking engagement with the inner member, the inner member having a circumferentially-extending upwardly-facing shoulder for such engagement.

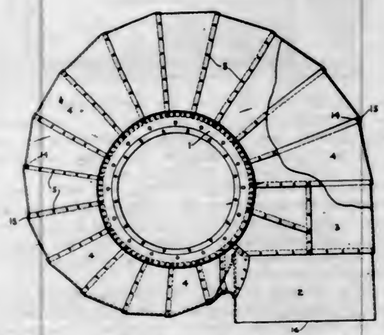
3. In a can or the like comprising a body member and a cover member telescoping with each other, in combination with said members, a seal-locking device mounted upon the outer side of the outer member comprising a bolt and a bolt housing, one of said parts having an aperture for receiving the bolt-securing seal, the bolt being mounted for thrusting through the outer of said members for engaging the inner member, and the inner member having a circumferentially-extending groove for engagement of the bolt.

4. In a can or the like comprising a body member and a cover member which is telescoped thereinto, the body member being flared at its upper part, and the cover member having a flange which overhangs the upper end of said flared portion of the body; a seal-locking device mounted upon the outer side of the body member at its said flared part, comprising a bolt and a bolt housing, one of said parts being adapted to receive a bolt-securing seal, the bolt extending through said flared portion for engagement with the cover member and being exteriorly exposed for manipulation in the housing.

5. In a can or the like, comprising a body member and a cover member which are telescoped with each other, the outer of said members being flared outwardly at the upper part, in combination with said members, a seal-locking device comprising a bolt and a bolt housing, one of said parts having an aperture for receiving a seal to retain the bolt in locking position, said bolt being mounted for thrusting through said flared portion for locking, the interior member having exteriorly positioned means for engagement of said bolt, said bolt being mounted for thrusting through said flared portion for locking, the interior member having a circumferentially-extending upwardly-facing directly transverse shoulder, and the bolt having for engagement with such shoulder a knob-like head produced by a circumferential groove back of the end, of which the wall nearest said end is sloped at an angle to the axis of the bolt approximating the angle of slope of the flare of the body.

[Claim 6 not printed in the Gazette.]

1,076,617. SPIRAL CASING. WILLIAM MONROE WHITE, Milwaukee, Wis. Filed Nov. 1, 1912. Serial No. 729,135. (Cl. 138—6.)



1. A spiral casing, consisting of a series of tubular, sheet material, transverse sections, said sections having straight line generatrices extending in the direction of flow in said casing and said sections each having at least one portion extending to the end thereof at an angle to the remainder of said section and also having straight line generatrices to facilitate the union of said sections and said spiral casing having a continuous annular inwardly directed discharge passage.

2. A spiral casing consisting of a series of tubular, sheet material, transverse sections, said sections successively decreasing in size and having straight line generatrices extending in the direction of flow in said casing and said sections each having at least one portion extending to the end thereof at an angle to the remainder of said section and also having straight line generatrices to facilitate the union of said sections and said spiral casing having a continuous annular inwardly directed discharge passage.

3. A spiral casing consisting of a series of plate steel tubular sections, adjacent sections being at an angle to each other in the plane of said casing, said sections having straight line generatrices extending in the direction of flow in said casing and each having at least one edge at said angle to the remainder of said section and also having straight line generatrices to accommodate the angularity between said sections and said spiral casing having a continuous annular inwardly directed discharge passage.

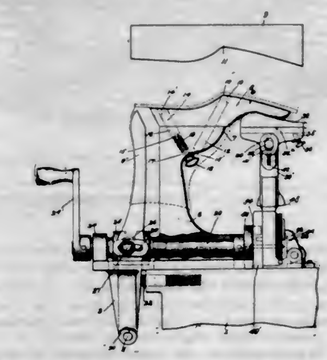
4. A spiral casing consisting of a plurality of spaced rings, and a series of sheet material sections having straight line generatrices extending in the direction of flow in said casing and having edges secured to said rings.

5. A spiral casing consisting of a plurality of spaced rings, and a series of sheet material sections having straight line generatrices extending in the direction of flow in said casing and having overlapping ends and having edges secured to said rings.

[Claim 6 not printed in the Gazette.]

1,076,618. LEVELING-MACHINE JACK. ERASTUS WOODWARD, Somerville, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 21, 1906. Serial No. 327,136. (Cl. 12—127.)

1. In a device of the character described, the combination of a laying or leveling form, a last base having a last supporting surface for engaging and supporting singly a plurality of lasts of different sizes, and last positioning and securing means arranged and extending between the last supporting surface of the base and the last placed thereon to position each last, regardless of its size, with its ball line in an invariable position with reference to the last base that the ball line of lasts of different sizes may register with the ball line of one and the same form when lasts are secured to the base.



2. In a device of the character described, the combination of a laying or leveling form, a last base adapted to support singly a plurality of lasts of different sizes, and last positioning means between the last base and a last placed thereon extending in a direction to intersect the ball line of the last when the last, regardless of its size, is connected to the last base by said means, that the ball line of lasts of different sizes may assume the same invariable position to register with the ball line of one and the same form when lasts of different sizes are singly secured to the base.

3. In a device of the character described, the combination of a laying or leveling form, a last base adapted to support singly a plurality of lasts of varying sizes with the ball line of said lasts, regardless of size, in the same position, said last base and each of said lasts being provided with complemental engaging means fixed with relation to the ball line of the lasts regardless of variations in size of the lasts that the ball line of said lasts may assume registering position with the ball line of an opposed form when any of said lasts are secured to the last base by said complemental engaging means.

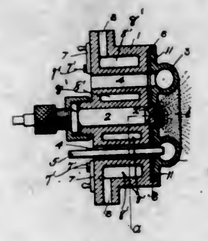
4. In a device of the character described, the combination of a last base adapted to support singly a plurality of lasts of different sizes with the ball line of said lasts in the same position, a positioning pin extending from one of said parts, in a direction to intersect the ball line of the last, regardless of its size, the other of said parts having a recess to be engaged thereby, that the ball line of a series of lasts of different sizes may assume an invariable position when the last is placed upon the last base.

5. A work support comprising a last base adapted to support singly a plurality of lasts of varying sizes, pins extending between said last base and last positioned thereon to maintain said parts in working relation, and one of said pins having its direction such as to intersect the ball line of lasts of different sizes placed upon the last base.

[Claims 6 to 36 not printed in the Gazette.]

1,076,619. INTERNAL-COMBUSTION ENGINE. LEON WYGODSKY, New York, N. Y., assignor to Wygodsky Engine Company, New York, N. Y., a Corporation of Delaware. Filed Apr. 8, 1910. Serial No. 554,136. Renewed Mar. 14, 1913. Serial No. 754,355. (Cl. 123—32.)

1. A new article of manufacture comprising a casing having an oil spraying device and a nozzle, a tubular igniting body connected to one end thereof, said casing having two passages extending longitudinally therethrough and parallel with each other, each of which is in open communication at one end with the interior of said tubular igniting body, and forming a single conduit the ends of which are located at the same end of the casing.



2. A new article of manufacture comprising a casing having an oil spraying device and a nozzle, a tubular igniting body connected to one end thereof, said casing having two passages extending longitudinally therethrough and parallel with each other, each of which is in open communication at one end with the interior of said tubular igniting body, and forming a single conduit the ends of which are located at the same end of the casing, and means for heating said igniting body.

3. A new article of manufacture comprising a casing having an oil spraying device provided with a nozzle, adapted to be inserted into an opening formed in the cylinder of an internal combustion engine, and a tubular ignition device connected to the inner end of said casing, the body of which is located out of alinement with the axis of said nozzle; and means for heating the interior surface of said ignition device.

4. A new article of manufacture comprising a casing having an oil spraying device provided with a nozzle, adapted to be inserted into an opening formed in the cylinder of an internal combustion engine, a tubular ignition device connected to the inner end of said casing, and extending around said nozzle at a short distance therefrom, and means for heating the interior surface of said ignition device.

5. A new article of manufacture comprising a casing and a tubular igniting body connected to one end thereof, said casing having two passages extending longitudinally therethrough and parallel with each other, each of which is in open communication at one end with the interior of said tubular igniting body, and forming a single conduit the ends of which are located at the same end of the casing, and valve controlling means for said conduit.

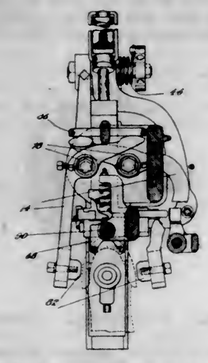
[Claims 6 to 24 not printed in the Gazette.]

1,076,620. METHOD OF ASSEMBLING PARTS OF BOOTS AND SHOES. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 15, 1906, Serial No. 330,705. Divided and this application filed Oct. 26, 1907. Serial No. 399,316. (Cl. 12—145.)

1. The method of assembling parts of boots and shoes which consists in supporting an innersole upon the bottom of a making last, arranging an upper and counter about the last in unsecured relation thereto, holding the ends of the counter against the sides of the last, then pressing the counter against the rear face of the last adjacent its tread face and against the rear edge of the innersole, pressing the counter against the face of the innersole and thereafter securing the counter to the innersole.

2. The method of securing a counter to an innersole in assembled relation upon a last which consists in holding the ends of the counter against the sides of the last, then pressing the counter against the rear face of the last ad-

jacent to the bottom of the last and pressing the innersole against the counter, and thereafter securing the counter to the innersole.



3. The method of assembling parts of boots and shoes which consists in supporting an innersole upon the bottom of a making last, arranging an upper and counter about the last in unsecured relation thereto, holding the rear of the counter in close relation to the end of the last at a point removed from the sole, pressing the sides of the counter against the sides of the last, thereafter pressing the counter against the rear face of the last at the sole edge and securing the counter to the innersole.

4. The method of assembling parts of boots and shoes which consists in arranging an upper, a molded counter and an innersole in loose relation upon a making last, pressing the flange of the counter against the face of the innersole at the extreme rear of the heel, thereafter securing the counter and upper to the rear face of the last, straining the upper over the rear edge of the last and thereafter securing the upper and counter to the innersole at the extreme rear of the heel.

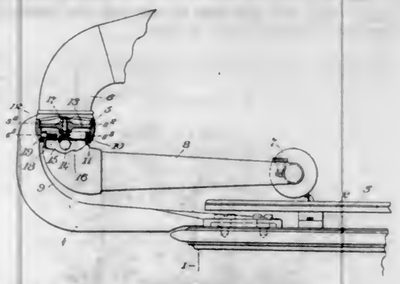
5. The method of assembling parts of boots and shoes which consists in supporting an innersole upon the bottom of a making last, arranging a lined upper and a counter about the last in unsecured relation thereto, wiping the upper and the ends of the counter forwardly along the sides of the last and holding them, securing the upper and counter to the rear face of the last, wiping the upper and counter over the edge of the last at the rear end thereof, and inserting a fastening through said upper and counter into the innersole.

1,076,621. TALKING-MACHINE. HENRY BLAKE BABSON, Chicago, Ill., and ANDREW HAUG, Caldwell, N. J., assignors, by mesne assignments, to Victor Talking Machine Company, a Corporation of New Jersey. Original application filed Mar. 7, 1905, Serial No. 248,872. Renewed Jan. 25, 1911, Serial No. 604,656. Divided and this application filed July 17, 1909. Serial No. 508,116. (Cl. 181—3.)

1. In a talking machine, the combination of a bracket formed in part as a tube and provided with an interior shoulder, a sound conveyer arranged as a continuation of said tube, and a fixed member mounted on said shoulder and supporting said sound conveyer to permit movement of said conveyer, in different planes about said fixed member as a center.

2. In a talking machine, the combination of a horn, a bracket provided with a tubular portion having an interior shoulder and forming a continuation of the horn, a sound conveyer extending from the tubular portion of said bracket, and a fixed member mounted on said shoulder and supporting the sound conveyer in suspended relation, to permit movement of said conveyer in different planes about said fixed member as a center.

3. In a talking machine, the combination of a tubular bracket provided with an interior shoulder, a sound conveyer coöperating with the said tubular bracket and forming a continuation thereof, and internal means mounted on said shoulder connecting said tubular bracket and sound conveyer in operative relation, said means being fixed with respect to said tubular portion and permitting movement of said sound conveyer in different planes.

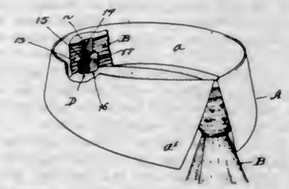


4. In a talking machine, the combination of a horn, a bracket supporting the horn, a sound conveying tube extending from the bracket and terminating in a reproducer, and a centrally disposed pin depending from the bracket and supporting the tube in a manner to permit movement thereof in planes at right angles to each other.

5. In a talking machine, the combination of a horn, a bracket supporting the horn, a sound conveyer extending from the bracket and terminating in a reproducer, a pin depending from the bracket and about the depending portion of which the sound conveyer has movement in planes at right angles to each other, and a spring co-acting with the pin.

[Claims 6 to 15 not printed in the Gazette.]

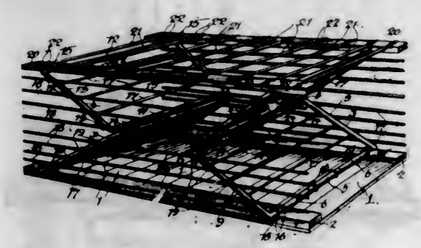
1,076,622. COMBINED COLLAR-FASTENER AND NECKTIE-GUIDING DEVICE. WILLIAM BIRDSALL, East Orange, N. J. Filed Mar. 17, 1913. Serial No. 754,687. (Cl. 24—61.)



1. As a new article of manufacture, a combined collar fastener and necktie guiding device, comprising a single strip of stiff material folded upon itself near one end to form a down-turned tongue, and between its ends doubled upon itself, and the doubled portion folded upon itself to form an upturned tongue extending toward the first named tongue, said tongues having a gap between their terminal ends; the remainder of the strip being folded down and up to form an inverted U shaped neck portion, and a U shaped hook portion, for engagement with a neckband of a shirt.

2. As a new article of manufacture, a combined collar fastener and necktie guiding device, comprising a single piece of metal, consisting of an upright portion having an inverted U bend at its top, and a companion U bend at its bottom, forming an open sided tie receiving loop, the strip being doubled back upon itself along the outer sides of the lower U bend, and folded down and up to form an inverted U bend near the middle of the upright portion, and a U bend near the bottom of the U bend at the bottom of the upright portion, substantially as and for the purpose specified.

1,076,623. FOLDABLE CRATE. EDGAR T. BOND, Chicago, Ill. Original application filed Sept. 10, 1909. Serial No. 517,011. Divided and this application filed Oct. 19, 1910. Serial No. 587,842. (Cl. 220—132.)



1. In a folding crate, the combination of four corner supports, one for each corner of the crate, each support centrally divided and jointed at the line of division to fold inwardly and each support also inwardly foldable from its lower end, and four series of strands one series for each side of the crate, each series spaced apart and carried by two of the corner supports, the four series of strands forming with the divided corner supports the four sides of the crate, substantially as described.

2. In a foldable crate, the combination of a bottom, a top, two pair of corner supports, one support of each pair at each corner of the crate, each support centrally divided and jointed at the division line to fold centrally inward and each support also inwardly foldable from its lower end, four series of strands, one series for each side of the crate, two series extending cross-wise between the corner posts, and two series extending longitudinally between the same corner posts as the cross-strands, the four series forming with the four corner posts the four sides of the crate, substantially as described.

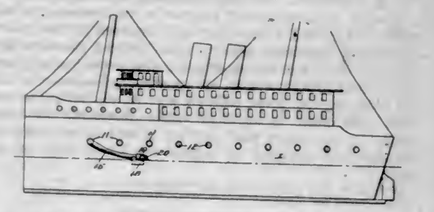
3. In a foldable crate, the combination of a bottom, a top, four supports, one support at each corner of the crate, each support centrally divided and jointed at the line of division to fold centrally inward and each support also inwardly foldable at its lower end and adapted to be raised vertically, four series of retaining eyes, one series for each support, each series spaced apart between the upper and lower ends of each support and the eyes of each series arranged in a vertical plane one above the other, two series of strands spaced apart and carried by the corner supports, and two series of strands spaced apart and carried by the retaining eyes, the four series of strands forming with the four corner supports the four sides of the crate, substantially as described.

4. In a foldable crate, the combination of a bottom, a top formed of a rigid frame and cross-strands attached to the frame, two opposite sides, each side centrally and inwardly foldable and each side pivotally mounted on the bottom, each side having at each corner a divided support, a series of eyes for each of the four supports, each series spaced equidistant apart between the ends of the support, two series of strands carried by two companion series of eyes, and two series of cross-strands spaced apart and fixedly carried by each pair of corner supports, the four series of strands forming with the divided corner supports the four sides of the crate, substantially as described.

5. In a foldable crate, the combination of two opposite sides, each side having corner supports and cross-strands carried by the corner supports, each support centrally inwardly foldable and inwardly foldable from its lower end, a series of eyes for each support with the eyes spaced apart between the upper and lower ends of the support, and a series of strands on each side and carried by the eyes, the four series of strands and the corner supports forming the four sides of the crate, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

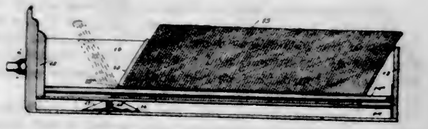
1,076,624. SHIP CONSTRUCTION. PAUL BRIONES, Bolinas, Cal. Filed Nov. 16, 1912. Serial No. 731,756. (Cl. 114—68.)



1. A ship comprising an inner and an outer hull joined together at their upper edges, the sides, ends and bottoms of said inner and outer hulls being spaced apart, said outer hull being provided above the water line with port holes surrounded by threaded flanges in combination with flexible ducts adapted to be detachably connected with said threaded flanges, said ducts being provided with floats having discharge openings.

2. A ship comprising an inner and an outer hull joined together at their upper edges, the sides, ends and bottoms of said inner and outer hulls being spaced apart, said outer hull being provided above the water line with port holes surrounded by threaded flanges, in combination with flexible ducts adapted to be detachably connected with said threaded flanges, said ducts being provided with floats having discharge openings, and outwardly opening valves for said openings.

1,076,625. CARD-INDEX HOLDER. CHARLES E. CAMPBELL, Des Moines, Iowa. Filed Aug. 29, 1910. Serial No. 579,497. (Cl. 129—31.)



1. In a device of the class described, the combination with a drawer, and a longitudinally arranged rod therein, of a base slidingly mounted within the drawer, a plate pivotally connected with the base and having an opening through which the said rod is extended, said plate being arranged to lock on the rod when inclined with its top either forwardly or rearwardly, and to be capable of longitudinal movement on the rod when in a substantially upright position.

2. In a device of the class described, the combination with a drawer, and a longitudinally arranged rod therein, of a base slidingly mounted within the drawer, a plate pivotally connected with the base and having an opening through which said rod is extended, said plate being arranged to lock on the rod when inclined with its top either forwardly or rearwardly and to be capable of longitudinal movement on the rod when in a substantially upright position, and a spring arranged to coact with the plate to yieldingly hold it either in a forwardly or a rearwardly inclined position.

3. In a device of the class described, the combination with a drawer, of a base or carriage slidably mounted in said drawer, a plate pivotally connected to said base or carriage, and a spring carried by the base to engage the plate and to yieldingly hold it either in a forwardly or rearwardly inclined position.

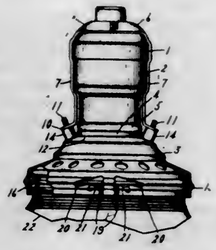
4. In a device of the class described, the combination of a base, a flat spring fixed to the base and arched at its central portion, a plate pivotally connected to the base above the arched portion of the spring and having its lower edge designed to engage the center of the arched

portion of the spring when in vertical position, said spring being designed to yieldingly hold the plate in either a forwardly or rearwardly inclined position.

5. In a device of the class described, the combination of a drawer, a longitudinal groove in the drawer, a rod within the groove, a base slidingly mounted in the groove and having upturned sides, a plate pivoted between said upturned sides and extended below the pivotal point, said plate being provided with an opening to receive the rod and said opening being of such size as to clamp the rod when said plate is inclined either forwardly or rearwardly at its upper end, and an arched spring fixed to the base and designed to engage the lower edge of the plate.

[Claim 6 not printed in the Gazette.]

1,076,626. HOLDER FOR HEAVY SHADES. WILLIAM P. CARTWRIGHT, deceased, Schenectady, N. Y., by Martha Cartwright, executrix of said William P. Cartwright, assignor to General Electric Company, a Corporation of New York. Filed Oct. 6, 1909. Serial No. 521,380. (Cl. 240—115.)



1. In combination with an incandescent lamp socket, of a supporting yoke comprising a collar adapted to rest on the cap of the socket, legs depending from said collar along the sides of the socket, and a shade-holder connected to said legs and provided with a central aperture adapted to receive and engage the lower end of the socket.

2. A shade-supporting yoke for an incandescent lamp socket, comprising two portions each having a half collar provided at one end with a hook and at the other end with an eye, the hook of one half collar adapted to engage the eye of the other half collar, nd a leg depending from each of said half collars and provided with a threaded opening.

3. The combination with an incandescent lamp socket, of a shade holder engaging the lower end thereof, and a yoke having a collar straddling the cap of said socket and provided with legs extending down the sides of said socket and adjustably attached to said holder.

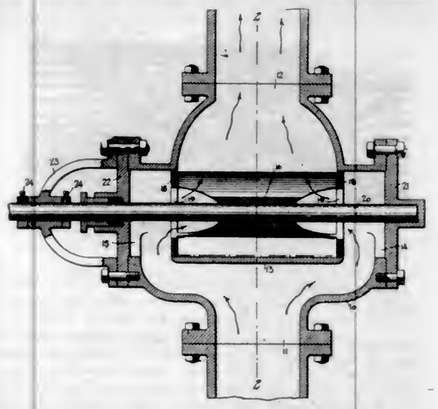
4. The combination with an incandescent lamp socket, of a yoke supported on the cap of said socket and having legs extending down the sides thereof, and a shade holder seated upon the lower end of said socket and detachably secured to said yoke.

5. The combination with an incandescent lamp socket, of a yoke supported on the cap of said socket and having legs extending down the sides thereof and provided at their lower ends with longitudinal screws, and a shade holder detachably secured to said screws by bayonet joints.

[Claims 6 and 7 not printed in the Gazette.]

1,076,627. ROTARY PUMP. BENJAMIN FRANKLIN CATHCART, Fresno, Cal. Filed Jan. 23, 1913. Serial No. 743,746. (Cl. 103—44.)

In a rotary pump, a stator having an inlet, an outlet and a cylindrical portion open at its ends and positioned intermediate the inlet and the outlet, said stator having end openings in alinement with the openings of said cylindrical portion; a uniform cylindrical rotor adapted to pass through said openings in the stator and engaging said cylindrical portion, said rotor comprising a plurality of curved blades; end flanges integral with the blades all fitting snugly into the cylindrical portion with the flanges at the ends of the cylindrical portion, said flanges closing the ends of the cylindrical portion and having central



apertures therethrough, said cylindrical portion having a lateral opening registering with the outlet of the stator; a shaft carrying said rotor; heads engaging said end openings in the stator and forming bearings for said shaft, substantially as and for the purpose set forth.

1,076,628. FRESNEL LENS. WILLIAM CHURCHILL, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y. Filed Mar. 6, 1913. Serial No. 752,425. (Cl. 240—106.)



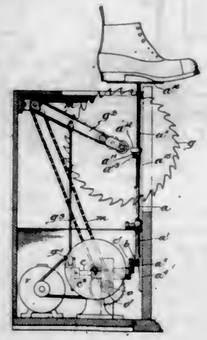
1. A Fresnel lens having its inner and outer faces each provided with a convex lenticular surface and a series of prismatic corrugations parallel thereto, the convex lenticular surface and prismatic corrugations disposed on one face of the lens being at right angles to those disposed upon its other face, substantially as set forth.

2. A Fresnel lens having its inner and outer faces each provided with a convex lenticular surface and a series of prismatic corrugations parallel thereto, the convex lenticular surface and prismatic corrugations disposed on one face of the lens being at right angles to those disposed upon its other face, and each face of the lens having different curvature and condensing power, substantially as set forth.

1,076,629. ADVERTISING DEVICE. CHARLES H. CROSS, 2d, Brookline, Mass., assignor to Regal Shoe Company, Portland, Me., a Corporation of Maine. Filed Nov. 9, 1906. Serial No. 342,758. (Cl. 35—12.)

1. The combination with divided members of an article to be exhibited, of separate supports for said members, a simulated severing device, means for moving the severing device between the members of said severed article, and means for moving said supports apart, substantially as described.

2. The combination of the divided members of a shoe, means for supporting said members side by side, combined with means for moving the parts and supports, and a simulated severing device movable into and out of position between the severed members of said shoe, substantially as described.



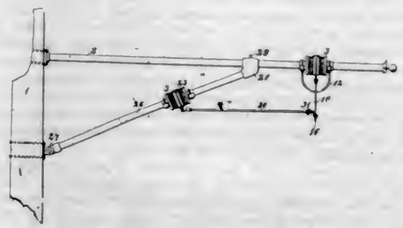
3. An apparatus of the class described embracing in its construction an article severed into two parts, two supports arranged to sustain the respective parts of said article side by side, means for moving said supports apart and turning them about to exhibit the severed faces of the said members, substantially as described.

4. A device of the class described embracing in combination two supporting devices adapted to sustain the severed members of a shoe, a simulated severing device, and means for moving said severing device in position between said supports, means for separating said supports and turning them on their axes to expose the inner faces of said severed members, substantially as described.

5. The combination of the shoe severed into two members, means for supporting the same side by side, a rotary saw, means for moving said saw into and out of position between said shoe members, and means for rotating said saw, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,076,630. SUPPORTING STRUCTURE FOR TROLLEY-CONDUCTORS. HARRY P. DAVIS and THEODORE VARNEY, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 19, 1904. Serial No. 229,178. (Cl. 191—41.)



1. An overhead structure for electric railways comprising a pole, a laterally projecting arm provided with an insulator, a detachable clamp surrounding said insulator, a messenger wire or cable loosely supported from said clamp and U-shaped guard wires or rods that project outwardly and downwardly from the supporting arm around and beneath the messenger wire or cable.

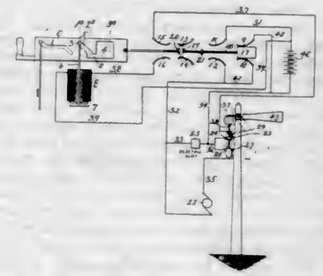
2. An overhead structure for electric railways comprising a pole, an arm projecting laterally therefrom and provided with an adjustable insulator, an auxiliary support for said arm, a messenger wire or cable supported from said insulator and U-shaped guard wires or rods extending downwardly and outwardly from the supporting arm around the messenger wire or cable.

3. In an overhead structure for electric railways, the combination with a rod or bar, of a porcelain tube having a sleeve which surrounds the rod or bar and to which the tube is cemented, said sleeve having projecting ends, clamps for fastening the projecting sleeve ends to the rod or bar, and U-shaped rods that project outwardly and downwardly from said clamping devices.

4. In an overhead structure for electric railways, the combination with a pole, an arm projecting laterally therefrom, an insulator mounted upon said arm, an auxiliary support between said arm and the pole, a messenger wire or cable detachably suspended from said insulator, a trolley conductor suspended from said messenger wire or cable, and U-shaped guard wires or rods that extend from the ends of the insulator around and beneath the messenger wire or cable.

5. In a catenary suspension for trolley wires, an arm, an insulator supported thereon, a guard for said insulator, a messenger wire supported by said insulator, a trolley wire, and means for suspending said trolley wire from said messenger wire.

1,076,631. RAILWAY-TRAFFIC-CONTROLLING SYSTEM. FRANK L. DODGSON, Rochester, N. Y., assignor, by mesne assignments, to General Railway Signal Company, Gates, N. Y., a Company of New York. Filed Mar. 27, 1903. Serial No. 149,841. (Cl. 246—53.)



1. A railway traffic-controlling system having, in combination, a traffic-controlling device, an electric motor therefor, a source of electricity, two circuits each including the motor, of which one includes the source of electricity and the other constitutes a short-circuit for the motor, and a manually-operable motor-controller having co-operating contacts interposed in said circuits and arranged to close either circuit and open the other alternatively, according to the position of the motor-controller, so as either to connect the source of electricity with the motor to operate the latter, or to disconnect the motor from the source of electricity and short-circuit the motor-terminals so as to prevent operation of the motor by cross-currents.

2. A railway traffic-controlling system having, in combination, a traffic-controlling device, an electric motor therefor, a shunt circuit for said motor, a circuit-controller mechanically connected to and movable in accordance with the traffic-controlling device, a source of electricity, a manually-operable motor-controller, connections between the source of electricity, the motor and the motor-controller constituting a motor-circuit controlled by the motor-controller and through which the movements of the traffic-controlling device are controlled, said manually-operable motor-controller having a position in which it establishes said shunt circuit, an electromagnetic locking-device coöperating with the motor-controller to prevent movements of the latter from closed-circuit position to

shunt-circuit position when the magnet of the locking-device is energized from any source, and connections between the source of electricity, the locking-device and the circuit-controller, constituting a circuit through which the magnet is energized, said circuit being closed by the circuit-controller when the traffic-controlling device is in one position, and being broken by the circuit-controller when the traffic-controlling device is moved out of said position by the motor.

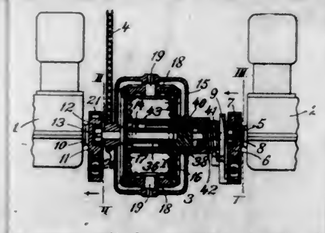
3. A railway traffic-controlling system having, in combination, a traffic-controlling device, an electric motor therefor, a shunt circuit for said motor, a circuit-controller mechanically connected to and movable in accordance with the traffic-controlling device, a source of electricity, a manually-operable motor-controller, connections between the source of electricity, the motor and the motor-controller constituting a motor-circuit controlled by the motor-controller, and through which the movements of the traffic-controlling device are controlled, said manually-operable motor-controller having a position in which it establishes said shunt circuit, an electromagnetic locking-device coöperating with the motor-controller and preventing movement of the latter from closed-circuit position to shunt-circuit position, or vice versa, when the magnet of the locking device is energized from any source, and connections between the source of electricity, the locking device and the circuit-controller constituting a circuit through which the magnet is energized, said circuit being closed by the circuit-controller when the traffic-controlling device is in one position, and being broken by the circuit-controller when the traffic-controlling device is moved out of said position by the motor.

4. A railway-traffic-controlling system having, in combination, a traffic-controlling device, an electric motor therefor, a source of electricity, a motor-circuit, an electromagnetic indicator, a circuit for said indicator, a circuit-controller mechanically connected with the traffic-controlling device and movable thereby into open-circuit position when the traffic-controlling device is moved by the motor, a manually-operable circuit-controller comprising contacts interposed in and controlling both the motor-circuit and the indicator-circuit, said contacts being arranged to close first the motor-circuit, and then the indicator-circuit, when the circuit-controller is moved from normal position, and to open first the motor-circuit, and then the indicator-circuit, when the circuit-controller is returned to normal position, locking mechanism connected with the manually-operable circuit-controller and actuated by the indicator to prevent movement of said circuit-controller from normal to opposite position, or vice versa, when the indicator is energized from any source, said indicator circuit being formed by connections between the source of electricity, the indicator and the circuit-controller and constituting a circuit through which the indicator is energized, said circuit being closed by the circuit-controller when the traffic-controlling device is in one position, and being broken by the circuit-controller when the traffic-controlling device is moved out of said position by the motor.

5. A railway traffic-controlling system having, in combination, a traffic-controlling device, an electric motor therefor, a source of electricity, a motor-circuit, an electromagnetic indicator, an indicator circuit, a circuit-controller mechanically connected with the traffic-controlling device and movable thereby into open-circuit position when the traffic-controlling device is moved by the motor, a manually-operable circuit-controller comprising contacts interposed in and controlling both the motor-circuit and the indicator-circuit, said contacts being arranged to close first the motor-circuit and then the indicator-circuit, when the circuit-controller is moved from normal position, and to open first the motor-circuit and then the indicator-circuit when the circuit-controller is returned to normal position, and controller-actuating mechanism actuated by the indicator when energized to complete the return movement of the circuit-controller to normal position after the motor-circuit has been broken and before the indicator-circuit is broken.

[Claim 6 not printed in the Gazette.]

1,076,632. DRIVING MECHANISM. JOHN R. GAMMETER, Akron, Ohio. Original application filed Aug. 22, 1912, Serial No. 716,388. Divided and this application filed Oct. 30, 1912. Serial No. 728,582. (Cl. 74—34.)



1. In a power unit for aerostats, a pair of motors adapted to rotate in the same direction, a differential gearing interposed between the driving shafts of said motors, means for preventing the backward rotation of either of said motors, and means for locking together the shafts of the motors to cause the same to rotate in unison comprising a sleeve on one of said shafts surrounding an extension of the other, and a clutch member interposed in the annular space between said sleeve and extension.

2. In a power unit for aerostats, a pair of motors adapted to rotate in the same direction, a differential gearing interposed between the driving shafts of said motors, means for preventing the backward rotation of either of said motors, means for locking together the shafts of the motors to cause the same to rotate in unison comprising a sleeve on one of said shafts surrounding an extension of the other, a split ring interposed in the annular space between said sleeve and extension, means for positively driving the same from the second shaft, and means for causing the ring to expand against the sleeve and grip the same.

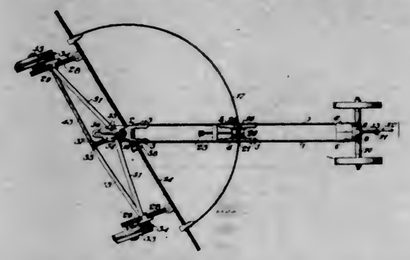
3. In a power unit for aerostats, a pair of motors adapted to rotate in the same direction, a differential gearing and a casing therefor interposed between the driving shafts of said motors, power transmission means carried by the said casing, means for preventing the backward rotation of either of said motors, means for locking together the shafts of the motors to cause the same to rotate in unison comprising a sleeve on one of said shafts surrounding an extension of the other, a split ring interposed in the annular space between said sleeve and extension, means for keying the ring to the extension, and means for expanding the ring against the sleeve including a wedge-shaped segment interposed between the adjacent edges of the ring at the split therein.

4. In a power unit for aerostats, a pair of motors adapted to rotate in the same direction, a beveled gear driven by each of said motors, a differential gearing and a casing therefor interposed between the driving shafts of said motors, power-transmission means carried by said casing, means for preventing the backward rotation of either of said motors, a clutch for locking together the shafts of the motors to cause the same to rotate in unison, unclutching means including a nut engaging a threaded portion of the differential gearing, and means for causing said nut to move with relation thereto including a brake band secured to a fixed part of the device and means for tightening the same over a part of the nut.

5. In a power unit for aerostats, a pair of driving shafts adapted to rotate in the same direction, a differential gearing and a casing therefor interposed between said shafts, power-transmission means carried by said casing, a clutch for locking together the shafts to cause them to rotate in unison, and unclutching means including a threaded member driven in unison with one of said shafts, a nut mounted on said threaded member and adapted to control said clutch, and means for causing said nut to move with relation to said threaded member including braking means secured to a fixed part of the device, and means for bringing the same into frictional engagement with said nut.

[Claims 6 to 12 not printed in the Gazette.]

1,076,633. REVERSIBLÆ IRRIGATING AND DITCHING MACHINE. SAMUEL C. HANNA, Shelby, Ohio, assignor to Frank Benjamin Zieg, Fredericktown, Ohio. Filed Nov. 15, 1909. Serial No. 528,103. (Cl. 37—49.)



1. The combination with a reach, a scraper hinged thereto, and wheels carried by the scraper, of a runner carried by the scraper and connected with the said wheels, and means connecting the wheels with the rear end of the reach, whereby the position of the wheels and runner varies with the position of the reach and scraper with respect to each other.

2. The combination with a reach and a scraper hinged thereto, of a runner hinged in rear of the scraper, and means for shifting the free end of the runner laterally, and means for adjusting the free end of the runner vertically.

3. The combination with a reach and scraper hinged thereto, and wheels carried by the scraper, of a runner hinged to the scraper and having its free end connected with the wheels, a connecting bar extending from one wheel to the other and losely connected with the reach.

4. The combination with a reach and scraper hinged thereto, the extreme rear end of the reach having a slot which extends lengthwise thereof, of segments hinged to the scraper, wheels carried by the segments, a runner hinged to the scraper, a connecting bar extending from segment to segment, braces extending from the rear end of the runner to the connecting bar, and a stud carried by the connecting bar and working in the slot in the rear end of the reach.

5. The combination with a reach and a scraper hinged thereto, of segments hinged to the scraper, levers pivoted to the segments and carrying wheels, and rods pivotally connected to the segments and adjustably connected to the reach, a connecting bar extending across from segment to segment, and a runner having hinged connection at its forward end with the scraper, and its rear end connected with said connecting bar.

[Claims 6 to 8 not printed in the Gazette.]

1,076,634. MIXING DEVICE FOR GASES. FORREST A. HEATH, Jersey City, N. J., assignor, by mesne assignments, to Homo Company of America, Philadelphia, Pa., a Corporation of Delaware. Original application filed Sept. 20, 1909, Serial No. 518,509. Divided and this application filed Jan. 14, 1910, Serial No. 538,041. Renewed Aug. 23, 1913. Serial No. 786,346. (Cl. 48—180.)



1. As a new article of manufacture for use in conjunction with a carbureter the combination of a thin, flat, hollow casing having flange portions at opposite ends and a hollow inner portion, and rotatable in the casing, a mixing element comprising a screen and a fan, the latter of which is provided with a cylindrical rim or flange within which are located the fan blades which extend radially, the screen being parallel with and secured to the fan and fitting inside of the flange.

2. An article of manufacture for use in combination with hydrocarbon engines and comprising in combination a thin, hollow flange casing having therein a revolubly mounted moving element comprising a fan and an agitating member, the fan having a cylindrical rim and fan blades within the rim and the agitating member being a screen which is parallel with the fan, extending across the fan, and in engagement with the rim portion of the latter.

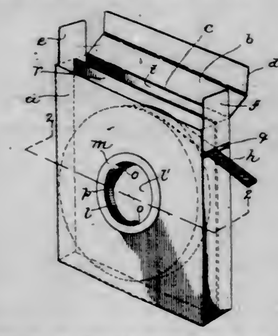
3. A mixing device having a mixing element comprising a central bearing member which permits the mixing element to rotate, a fan member and an agitating member, both of the last mentioned members being secured to the central bearing member, the fan member comprising a cylindrical rim and fan blades therein and the agitating member comprising a screen which is parallel with the fan and which passes across the end of the mixing element and which also fits the rim.

4. In an article of manufacture of the class described, the combination of a two-part casing each part of the casing having integral therewith a web and located between the webs and held in place in the casing by the webs a mixing element comprising a rotatable shaft which supports a connected fan and screen.

5. A mixing device of the class described comprising a screen and fan both mounted on a pivoted bearing, the fan comprising a plate having an upstanding flanged rim and fan blades located within the rim, the screen having its edges bent downwardly so as to fit within and engage the rim.

[Claims 6 and 7 not printed in the Gazette.]

1,076,635. HOLDER FOR WEBBING. ALBERT S. HOWARD, Providence, R. I., assignor to Smith Webbing Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Sept. 25, 1912. Serial No. 722,296. (Cl. 206—52.)



1. A holder for webbing comprising a box or case, one of the sides of which has an opening approximately in the center thereof, a roll of webbing contained within said box and including a reel center having a recess in one end located in substantial registry with said side opening of the box, a thimble or hub having a rim lying on the outer side of the box and a central portion offset through the side opening into the recess of said reel center, and means detachably securing said thimble to said center.

2. A holder for webbing comprising a box or case, one of the sides of which has an opening approximately in the center thereof, a roll of webbing contained within said box and including a tube on which the webbing is rolled, said roll being removable from the box, and when in place having one end of the tube in registry with the side opening of the box, a thimble lying in said tube end and projecting therefrom through said opening and having a lip overlying the box wall, and a spring bail having pintle ends passing through diametrically opposite openings of the thimble into engagement with the tube, serving as a

means to secure the thimble detachably to the tube and as a means to rotate the same.

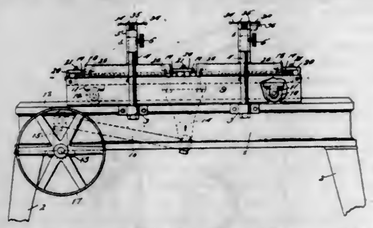
3. A holder for webbing comprising in combination a box, a roll of webbing contained within said box, a reel center upon which said webbing is rolled having a recess in its end, a member contained in said recess, extending through the adjacent wall of the box and having a part overlying such wall, and means for detachably connecting said member to the center.

4. A holder for webbing comprising in combination a box, a roll of webbing contained in said box, a tube on which the webbing is rolled, a hub having tubular walls with holes in them passing through an opening in the wall of the box and into the end of the tube, and a locking device having ends detachably passing through such holes in said tubular walls into engagement with the sides of the tube.

5. A holder for webbing comprising in combination a box having walls, one of which is provided with an opening, a roll of webbing contained in said box, a tube on which the webbing is rolled, a hub having tubular walls with holes in them passing through the opening in the wall of the box and into the end of the tube, and a locking device having ends detachably passing through such holes in said tubular walls into engagement with the sides of the tube, said locking device having a bowed central part pivotally mounted by means of its ends and adapted to be swung into the space surrounded by said tubular walls and into a position wherein it projects from the box wall.

[Claim 6 not printed in the Gazette.]

1,076,636. MACHINE FOR LAPPING BEARINGS. PETER KEIL, Elkhart, Ind., assignor of one-third to Joseph E. Cochran and one-third to E. A. Stephens, Elkhart, Ind. Filed July 22, 1910. Serial No. 573,258. (Cl. 51—4.)



1. A machine for lapping bearings which comprises a lapping member, a pressure member yieldingly holding the bearing in lapping continuous contact with said lapping member, and means for imparting relative reciprocating movement to said lapping member and bearing.

2. In a machine for lapping bearings, the combination of a stationary member and a movable reciprocating member, a lapping device mounted on one member, means carried by the other member adapted to hold a bearing against lateral displacement, and means resiliently mounted on said other member for pressing the bearing continuously against the lapping device.

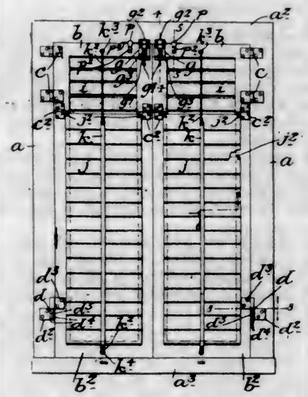
3. In a machine for lapping bearings, the combination of stationary and reciprocally movable supports, a bath of lapping emulsion, a lapping device carried by one of said supports and having its lapping surface immersed in said bath, and a pressure device carried by the other support adapted to automatically maintain a bearing with its bearing face against the lapping surface of said lapping device.

4. In a machine for lapping bearings, the combination of stationary and movable supports, a bath of lapping emulsion, a lapping device carried by one of said supports and having its lapping surface immersed in said bath, a resiliently movable pressure device carried by the other support adapted to automatically hold a bearing with its bearing face against the lapping surface of said lapping device, and means for imparting reciprocating movement to said movable support and bearing.

5. In a machine for lapping bearings, the combination with a stationary member, a movable member reciprocably mounted on said stationary member, a bath of lapping emulsion carried by one of said members, a lapping bar mounted on one of said members with its lapping surface immersed in said lapping bath, and means mounted on the other of said members adapted to hold a bearing against lateral displacement during the relative movement of said members, and resilient means for pressing the bearing against said lapping bar.

[Claims 6 to 18 not printed in the Gazette.]

1,076,637. WINDOW-SHUTTER. JOHN LOCKHART, Tarrytown, N. Y. Filed Feb. 1, 1912. Serial No. 674,742. (Cl. 20—59.)



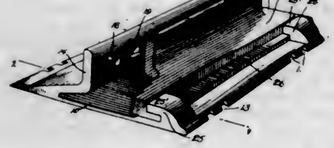
1. The combination with a window frame, of a window shutter and awning comprising a pair of top sections each hinged at two points along their outer edges to the casing, and a pair of bottom members of the same width as said top members, and each hinged to the lower edge of one of said top members, each of said lower members being provided adjacent to its lower end with a hinge member and the window casing being provided with hinge members to detachably engage the hinge members of said lower sections, the pivotal axis of each of said detachable hinges being in alinement with those of the two hinges of the adjacent upper section.

2. The combination with a window frame, of a window shutter and awning comprising a pair of top sections each hinged at two points along their outer edges to the casing, and a pair of bottom members of the same width as said top members, and each hinged to the lower edge of one of said top members, each of said lower members being provided adjacent to its lower end with a hinge member and the window casing being provided with hinge members to detachably engage the hinge members of said lower sections, the pivotal axis of each of said detachable hinges being in alinement with those of the two hinges of the adjacent upper section, and locking means on each shutter located adjacent to the hinge connection between the top and bottom sections thereof for securing the top and bottom sections in the same plane, and preventing the outward swinging of the bottom section.

3. The combination with a window frame, of a window shutter and awning comprising a pair of top sections each hinged at two points along their outer edges to the casing, and a pair of bottom members of the same width as said top members, and each hinged to the lower edge of one of said top members, each of said lower members being provided adjacent to its lower end with a hinge member and the window casing being provided with hinge members to detachably engage the hinge members of said lower sections, the pivotal axis of each of said detachable hinges being in alinement with those of the two hinges of the adjacent upper section, spring locking devices for each shutter located adjacent to the hinge connection between the top and bottom sections thereof for securing the top and bottom sections in the same plane, movable releasing devices for said locking devices and operative connections therefrom extending to points near the bottom of the shutter.

4. The combination with a window frame, of a window shutter and awning comprising a pair of top sections each hinged at two points along their outer edges to the casing, and a pair of bottom members of the same width as said top members, and each hinged to the lower edge of one of said top members, each of said lower members being provided adjacent to its lower end with a hinge member and the window casing being provided with hinge members to detachably engage the hinge members of said lower sections, the pivotal axis of each of said detachable hinges being in alinement with those of the two hinges of the adjacent upper section, each of said shutters being provided adjacent to the hinge connections between the sections thereof, with a spring hook secured to one section and adapted to engage a fixed part on the other section, a pivoted releasing device for each of said shutters having a part beneath the spring hook for disengaging it from its stationary coacting part, and a connection from said releasing device depending therefrom to a point near the bottom of the shutter.

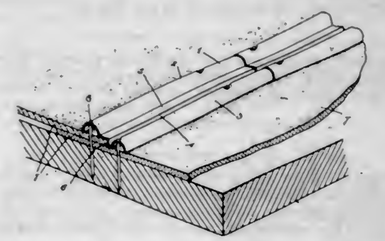
1,076,638. RAILWAY-SPLICE. CHARLES M. MILLER, Tyrone, Pa. Filed Mar. 22, 1913. Serial No. 756,237. (Cl. 239—6.)



In a railway splice, the combination of a chair member comprising a substantially flat rectangular chair proper having formed integrally therewith along one edge a rail engaging brace and having along its opposite edge upwardly and inwardly extending spaced lugs, a wedge member comprising a foot adapted to abut snugly against the ends of said lugs and having an outwardly projecting horizontal flange extending beneath said lugs and also having an integral upstanding brace member, said wedge and chair proper each being provided with a series of holes between said lugs and adapted to register each to each according to the adjustment of the wedge, the holes of one member being spaced differently from those in the other member, a pin adapted to be passed through registering holes thereof, and means coöperating with the rail web and the brace members of the devices aforesaid to prevent longitudinal displacement of the splice with respect to the rails, substantially as set forth.

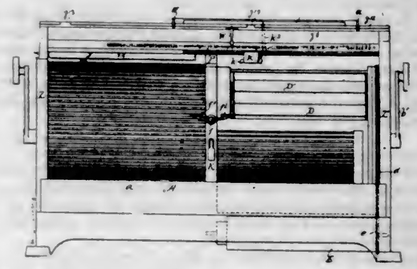
1,076,639. FASTENER FOR SHEET ROOFING MATERIAL. WALTER N. NICHOLLS and ALEXANDER W. CARMICHAEL, Toronto, Ontario, Canada. Filed Dec. 23, 1911. Serial No. 667,566. (Cl. 108—7.)

A fastener for sheet roofing material, comprising, a strip of sheet metal formed with a pair of longitudinal arched ribs extending from end to end thereof and an offset forming a longitudinal step between the ribs, one of said ribs having its outer edge adapted to engage the surface of one layer of the roofing material in a weather tight joint and the outer edge of the other rib engaging the adjacent



strip of roofing material, the stepped portion between the ribs completely covering the joint.

1,076,640. TYPE SETTING AND DISTRIBUTING MACHINE. HENRY C. OSBORN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 10, 1906. Serial No. 295,332. (Cl. 101—130.)



1. The combination of a supply mechanism formed to carry individually movable type in rows, printing mechnism including a member formed to carry individuaally movable type in rows and a platen, means for advancing a row of the type as it is being assembled or distributed, and an indicator including means for holding a representation of the matter to be assembled or distributed and cooperating means, one member of the indicator being automatically moved by the assemblage or distribution to show the character of the individual type required for assemblage into words or to be distributed from words.

2. The combination of a type holder, a follower adapted to advance with the type therein, a pointer movable according to said follower, and a copy holder adapted to hold copy in position for indication by the pointer.

3. The combination of a printing drum, a follower adapted to engage the type therein, mechanism for advancing the follower, a pointer movable with the follower, and a copy holder adapted to carry copy in position for indication by the pointer.

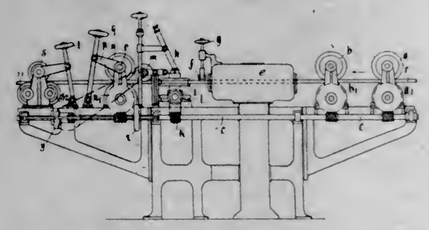
4. In a duplicating machine, the combination of supply mechanism, printing mechanism, means for transferring type from one to the other, an indicator adapted to show the character of the line of type in the supply mechanism at the transfer position and an indicator adapted to show the individual character of the type being transferred from the printing mechanism to the supply mechanism.

5. In a duplicating machine, the combination of supply mechanism having type holders in which the type are arranged in rows of the same character, printing mechanism in which the type are assembled into words or numbers, the type being adapted to be transferred from the supply mechanism to the printing mechanism and vice versa, and two indicators,—one to show the character of the different

rows of type in the supply mechanism, and the other to show the individual character of the type in a row in the printing mechanism.

[Claims 6 to 45 not printed in the Gazette.]

1,076,641. MACHINE FOR WELDING TUBES. GUSTAV OSTERMANN, Cologne-Riehl, Germany. Filed Oct. 14, 1912. Serial No. 725,667. (Cl. 78—87.)



1. In a tube welding machine, the combination of a muffle furnace, means for widening the slit in the tube to be treated, a blowpipe burner for heating the edges of the slit to a fusing heat, and welding rollers for pressing and welding together the edges of the slit.

2. In a tube welding machine, the combination of a muffle furnace, means in front of said furnace for straightening the slit in the tube to be welded, means in the rear of said furnace for widening said slit, a blowpipe burner for heating the edges thereof to a fusing heat, and welding rollers for pressing and welding the edges of the slit together.

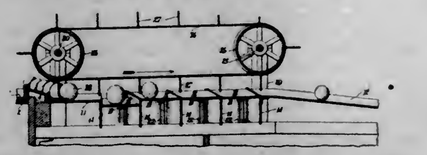
3. In a tube welding machine, the combination of a muffle furnace, means in the front of said furnace for straightening the slit in the tube to be welded, a beveled nose in the rear of said furnace for engaging said slit, a blowpipe burner for heating the edges of said slit to a fusing heat, and welding rollers for pressing and welding the edges of the slit together.

4. In a tube welding machine, the combination of a muffle furnace, means in the front of said furnace for straightening the slit in the tube to be welded, a beveled nose in the rear of said furnace for engaging said slit, said nose being rotatable and in the form of a roller having a beveled edge, a blowpipe burner for heating the edges of said slit to a fusing heat, and welding rollers for pressing and welding the edges of the slit together.

5. In a tube welding machine, the combination of a muffle furnace, means in the front of said furnace for straightening the slit in the tube to be welded, a beveled nose in the rear of said furnace for engaging said slit, a blowpipe burner for heating the edges of said slit to a fusing heat, and welding rollers for pressing and welding the edges of the slit together, said beveled nose being adjustable.

[Claim 6 not printed in the Gazette.]

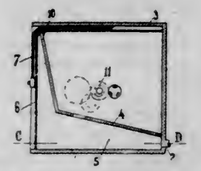
1,076,642. FRUIT-GRADING APPARATUS. ROBERT H. PEACOCK, Winterhaven, Fla. Filed Jan. 19, 1912. Serial No. 672,038. (Cl. 130—32.)



1. Apparatus of the kind described comprising a receiving pan, means for balancing the same, means for delivering articles to be graded thereto, the receiving and discharge edges of said pan extending diagonally with respect to the line of movement of said articles, and a pair of partitions arranged adjacent said diagonally-extending edges, the tops of said partitions lying flush with the top surface of said pan when the pan is in its balanced position.

2. Apparatus of the kind described comprising a receiving pan, means for balancing the same, means for feeding articles to be graded to said pan, said means comprising a belt having projections extending from its face, the receiving and discharge edges of said pan extending diagonally with respect to the direction of motion of said belt and a pair of plates or partitions on either side of said pan and extending in the same direction as said diagonal edges, said plates or partitions having their top edges registering with the top surface of the pan when the same is balanced, whereby, when the pan is tilted, the article will be engaged by one of the projections carried by the belt, and the said article will be easily discharged from the pan.

1,076,643. DISK TALKING-MACHINE. REZSÖ PREISZTER, Budapest, Austria-Hungary. Original application filed July 9, 1907, Serial No. 382,969. Divided and this application filed Sept. 29, 1908. Serial No. 455,350. (Cl. 181—3.)



1. A sound reproducing device comprising a motor, a record carrying table operated thereby, a sound box and tone arm therefor combined with a casing for and to support said parts and partitioned to form separate compartments, one of which incloses said motor, the other having an inclined wall to coöperate with the walls and partitioning of said casing to form a sound amplifier of gradually increasing cross sectional area with a sound inlet at its smaller end in communication with said tone arm, and a sound exit opening at its larger end, said motor and amplifier compartments being arranged side by side to obtain a low height of casing, substantially as and for the purpose set forth.

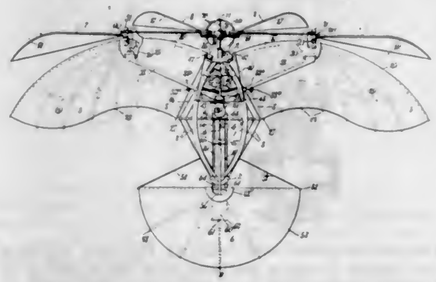
2. In a sound producing device, the combination of a hexahedral casing having a large opening in its front wall and a small opening near one of its rear upper corners; a vertical partition extending obliquely across said casing from near said small opening to near one side of said large opening; an inclined sounding board extending across the casing from a point near said small opening to the lower side of said large opening, said partition and sounding board being joined together and to the top and a side wall respectively whereby is formed a pyramidal sound funnel with which both of said openings communicate.

3. In a sound producing device, the combination of a hexahedral casing having a large opening in its front wall and a small opening near the upper rear corner; a vertical partition extending obliquely across the casing from near the small opening to near one side of the large opening; an inclined sound board extending across the casing from near the small opening to the bottom of the large opening; said partition, sounding board and the adjacent top and side walls of the casing being joined to form a pyramidal sound funnel having its small end in communication with the small opening and its large end joining said large opening; a tone arm communicating with the small opening; and a driving gear in the casing outside of the funnel.

4. In a talking machine, a sound box, a swinging sound-arm, a rotatable record support having an upright shaft, a casing, driving mechanism within said casing for the rotatable support, a partition substantially parallel to the rotating shaft of the record support dividing the casing in a plane substantially parallel to the plane of the record

support into two chambers, one of said chambers containing the driving mechanism and the other chamber forming a sound amplifier, said partition being arranged to provide with the casing said amplifier of gradually increasing cross sectional area, communicating at its smaller end with the swinging sound arm and through openings of the casing with the outer air.

1,076,644. FLYING-MACHINE. WILLIAM LAFAYETTE QUICK, New Market, Ala. Filed Feb. 9, 1912. Serial No. 676,494. (Cl. 244—20.)



1. In a flying machine, the combination of a framework, a rudder carried thereby and extending rearward therefrom, a vertical spindle to which said rudder is secured, a cross bar carried by said spindle, a pair of rods pivotally secured on the ends of said cross bar and extending forward, a seat for the aviator pivotally mounted on the framework, a horizontal cross arm pivotally mounted upon said seat, means for pivotally connecting said forwardly extending rods to the ends of said cross bar of the aviator's seat, and shoulder engaging portions secured to the cross bar on the aviator's seat to enable the rudder to be manipulated by the movement of the aviator's body.

2. In a flying machine, the combination of a framework, a pair of lifting planes pivotally secured adjacent the inner ends of their front edges to said framework, means carried by said framework and engaging said planes to hold said planes in inclined position, and means secured to the front edges of said planes adjacent the inner ends thereof and extending to a point within reach of the aviator for increasing the inclination of said planes.

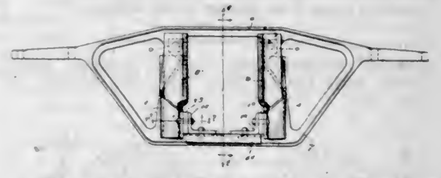
3. In a flying machine, the combination of a framework, laterally extending lifting planes pivotally secured to said framework, a lever arm for each of said lifting planes extending outwardly from said framework in position to engage the inner end of the plane and pivotally secured to the said plane at its outer end, and means for raising and lowering the inner ends of said lever arms to raise or lower the tips of the planes.

4. In a flying machine, the combination of a framework, a cross bar carried thereby, flexible means connecting the ends of said cross bar to the front and rear of said framework, lifting planes for said flying machine, means for pivotally connecting said lifting planes adjacent the inner ends of their forward edges to said framework, and a pair of lever arms secured to said flexible means forward of the cross bar and extending outward from the framework in opposite directions, each of said lever arms being connected to one of the planes at its outer end, whereby when one of the planes is struck by an unbalanced air puff disturbing the lateral stability of the machine, the frame formed by the cross bar and flexible means will likewise be tilted laterally, depressing the rear edge of the other plane and causing the said other plane to rise, owing to the increased upward reaction thereon, thus restoring the machine automatically to a level position.

5. In a flying machine, the combination of a framework, a pair of wings or main planes pivotally secured adjacent the inner ends of their forward edges to the framework, a pair of arms carried by said framework to the rear of the forward edges of the wings and extending therefrom in opposite directions, means pivotally securing the outer ends of each of said arms to one of said wings, the axis of said pivotal securing means being in line with the means for pivotally connecting the wings to the frame, and means carried by each of said arms between its ends and engaging the framework of the wings adjacent their inner longitudinal edges for increasing or decreasing the inclination thereof whereby the slope of the lower surface of each of the wings may be adjusted.

[Claims 6 to 22 not printed in the Gazette.]

1,076,645. PROCESS OF PRODUCING TRUCK-FRAMES. IVAR A. RANDEL, Chicago, Ill., assignor to McCord and Company, a Corporation of Illinois. Filed Feb. 10, 1912. Serial No. 676,798. (Cl. 29—164.)



1. The process of constructing truck side frames from flanged metal beams, which consists in cutting blanks from the intermediate portion of the web of said beam, to form top and bottom members and column webs of the frame, bending together and uniting the ends of said top and bottom members, decreasing the depth of the intermediate portion of said frame, and applying to said column webs, column guides which at their ends interlock with the top and bottom members of said frame.

2. The process of constructing truck side frames from flanged metal beams, which consists in cutting blanks from the intermediate portion of the web of said beam, to thereby form the top and bottom members and column webs of the frame, bending together and uniting the ends of the said top and bottom members, decreasing the depth of the intermediate portion of said frame, forming from blanks punched from the web of said beam, column guides having greater vertical length than the distance between intermediate portions of said top and bottom members, and applying said column guides to said column webs with their upper and lower ends interlocked with the webs of said top and bottom members.

3. The process of constructing truck side frames from commercial I-beams, which consists in entirely severing the upper and lower portions of said beams by cutting blanks from the intermediate portion thereof, to thereby form the top and bottom members and column webs with intermediate portions cut away from the latter, bending and welding together the end portions of said top and bottom members, decreasing the depth of the intermediate portion of said frame, forming from blanks cut from the web of said I-beam column guides having greater vertical length than the distance between intermediate portions of said top and bottom members, and applying said column guides to said column webs with their upper and lower ends overlapped and interlocked with the webs of the said top and bottom frame members.

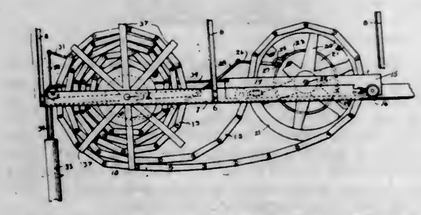
4. The process of constructing truck side frames from commercial I-beams, which consists in entirely severing the upper and lower portions of said beam by cutting blanks from the intermediate portion thereof, to thereby form the top and bottom members and column webs with intermediate portions cut away from the latter, bending and welding together the end portions of said top and bottom members, decreasing the depth of the intermediate portion of said frame and thereby bringing together the ends of the severed column webs, forming from blanks cut from the web of said I-beams, column guides having notches in their upper and lower ends, applying said column guides to said column webs with their notched ends overlapped and interlocked with the webs of said

top and bottom members, and welding said column guides to said column webs.

5. The process of constructing truck side frames from flanged metal beams, which consists in cutting blanks from the intermediate portion of the web of said beam, to thereby form the top and bottom members and column webs of the frame, bending together and uniting the ends of the said top and bottom members, decreasing the depth of the intermediate portion of said frame, forming from blanks punched from the web of said beam, column guides having guides having greater vertical length than the distance between intermediate portions of said top and bottom members, applying said column guides to said column webs with their upper and lower ends interlocked with the webs of said top and bottom frame members, and forming a spring plank saddle from a blank punched from the flange of said I-beam and applying said saddle to the lower frame member between said column guides.

[Claims 6 and 7 not printed in the Gazette.]

1,076,646. FIRE-ESCAPE. CHARLES SCHEIDEN, Denver, Colo. Filed Apr. 24, 1912. Serial No. 692,791. (Cl. 227—10.)



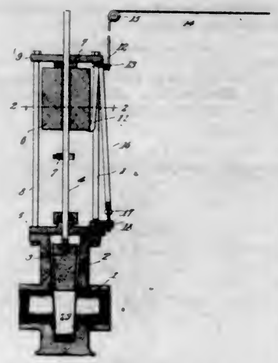
1. A fire-escape comprising an inclined track, a truck mounted to travel on said track, a pulley carried by the said truck, an endless chain mounted on said pulley, and a drum journaled at one end of the said track and around which the endless chain is adapted to be wound for supporting the latter in an in-operative position.

2. A fire-escape comprising an inclined track, a truck mounted to travel on said track, a pulley journaled upon said truck, an endless chain mounted on said pulley, a drum journaled on one end of said track and around which the endless chain is adapted to be wound when the fire-escape is in an inoperative position, means for releasing the said drum to permit the chain to be unwound therefrom and to assume a depending position from the pulley of the truck, and means for moving said truck on the said track up the incline of the latter, substantially as described.

3. A fire-escape comprising an inclined track, a drum journaled at one extremity of said track, a truck mounted to travel on said track, a pulley carried by said truck, an endless chain mounted on said pulley, the said chain being adapted to be wound around the said drum when the fire-escape is in an in-operative position, means connected in operative relation with the said drum for preventing the latter from revolving to unwind the chain therefrom, and which when released will allow the chain to unwind from the said drum and assume the depending position supported by the said pulley, and means connected with the said pulley for causing the latter to travel on the said track up the incline of the latter, substantially as described.

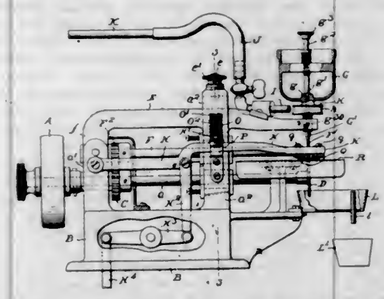
1,076,647. AUTOVALVE. CHARLES W. WELMAN, Cleveland, Ohio. Filed Sept. 3, 1912. Serial No. 718,437. (Cl. 137—35.)

In a mechanism of the class described, the combination of a valve casing, a cover secured thereto, posts secured to said cover, a platform supported thereby, a valve head, a valve stem secured thereto and extending through said cover and said platform, stops secured to said valve stem between said cover and said platform, a weight slidably mounted upon said valve stem disposed between the stops, a hook pivotally mounted upon said platform adapted to normally engage said weight to hold it in position to maintain the valve in an open position, said hook provided with a projection extending therefrom, a thermally controlled



rod secured to said cover engaging said hook projection and adapted to release said hook from said weight at an abnormal temperature, to thereby allow said weight to drop and engage said lower valve stem stop to thereby close said valve.

1,076,648. DAMPENING-MACHINE. GOTTLOB BINDER, Philadelphia, Pa., assignor, by mesne assignments, to American Laundry Machinery Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Sept. 8, 1904. Serial No. 223,692. (Cl. 68—9.)



1. In a dampening machine, in combination, an upper and a lower roll, the upper roll having a hard roughened surface, a source of water supply, and connection between said source of water supply and the roughened surface of the upper roll.

2. In a dampening machine, in combination, an upper and a lower roll, each having a hard roughened surface, a source of water supply, and connection between said source of water supply and the roughened surface of the upper roll, and a water reservoir in which the lower roll revolves.

3. In a dampening machine, in combination, dampening rolls, a supporting table, a presser lever, and presser blocks connected to said lever, each of said presser blocks having a single contacting edge adapted to contact with the article on opposite sides of the seam.

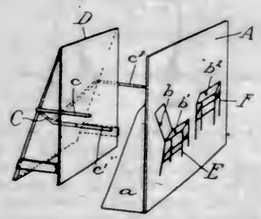
4. In a dampening machine, in combination, dampening rolls, a supporting table, a presser lever, and presser blocks connected to said lever, each of said presser blocks having a single inclined contacting edge, adapted to contact with the article on opposite sides of the seam.

5. In a dampening machine, in combination, dampening rolls, a supporting table, a presser lever, and presser blocks

connected to said lever, each block having an upwardly inclined lower surface and an inwardly inclined inner surface.

[Claims 6 to 13 not printed in the Gazette.]

1,076,649. BLACKBOARD ILLUSION DEVICE. GEORGE FELIX DE GRASSE, New York, N. Y. Filed Feb. 13, 1913. Serial No. 748,056. (Cl. 46—70.)



1. An illusion device embodying a surface on which suitable objects may be designated, and means coöperating with said surface whereby said designated objects are made to appear to perform the functions of the real objects which they represent.

2. An illusion device embodying a surface on which suitable objects may be designated, and weight sustaining devices coöperating with said surface whereby said designated objects are made to appear to perform the functions of the real objects which they represent.

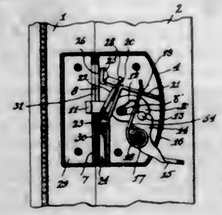
3. An illusion device embodying a blackboard on which certain objects may be drawn, and a device coöperating therewith for apparently enabling the sketched objects to perform the functions of the real objects which they represent.

4. An illusion device embodying a blackboard on which certain objects may be drawn, and weight sustaining devices coöperating therewith for apparently enabling the sketched objects to perform the functions of the real objects which they represent.

5. An illusion device embodying a blackboard on which certain objects may be drawn, and weight sustaining members concealed rearwardly of the board and adapted to be surreptitiously projected forwardly of the board so as to sustain the weight of a performer, thereby apparently enabling the performer to use the objects drawn on the board as though employing the real objects represented.

[Claim 6 not printed in the Gazette.]

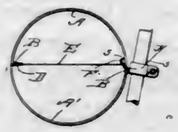
1,076,650. SASH-LOCK. LAWRENCE R. EDDY, Elizabeth, N. J. Filed Mar. 23, 1911. Serial No. 616,517. (Cl. 16—145.)



1. In a sash-lock, a main casing having an opening in its face, a bolt movably mounted in the main casing, a spring normally pressing the bolt outward through the opening in the face of the main casing, means for retracting the bolt against the action of the spring, a pivoted drop-latch having a horizontal movement therein and also a vertical movement across the opening in the face of the main casing operating when depressed in front of the bolt to hold the latter in a retracted position, a lug on said drop-latch to be projected beyond the face of the main casing when the drop-latch engages the bolt to hold the latter in its retracted position, a supplemental casing movable relative to the main casing provided with an opening to receive the head of the bolt operating to engage said lug to raise the drop-latch vertically to release the bolt when the two casings come together, and a second spring weaker than the first spring operating to move the drop-latch horizontally inward when the drop-latch is disengaged from the bolt to free said lug from the supplemental casing and said second spring also operating to depress the drop-latch across the opening in the face of the main casing in front of the bolt when the latter is retracted.

2. In a sash-lock, a main casing having an opening in its face, a bolt movably mounted in the main casing, a spring normally pressing the bolt outward through the opening in the face of the main casing, means for retracting the bolt against the action of the spring, a pivoted drop-latch in the main casing having a horizontal movement and a vertical movement across the opening in the face of the main casing operating to hold the bolt in a retracted position, a supplemental casing movable relative to the main casing operating to engage and raise the drop-latch vertically to release the bolt when the two casings come together, and a spring operating to move the drop-latch horizontally inward clear of the supplemental casing when said drop-latch is disengaged from the bolt and said spring also operating to depress the drop-latch across the opening in the face of the main casing to hold the bolt in a retracted position.

1,076,651. FOLDING BOLSTER. JEROME C. FAIRFIELD, Cambridge, Mass. Filed Apr. 22, 1912. Serial No. 692,291. (Cl. 5—33.)



1. A combined bolster and roll comprising the collapsible end frames, connecting strips and fabric covering, each end frame consisting of two sections of spring metal hinged together at their end and capable of being bowed to produce the complete circle, a cord connected to the sections at their juncture at one side, a loop arranged adjacent the joint of the sections at the opposite side, said cord having a knot adapted to engage said loop when the sections are bowed, as set forth.

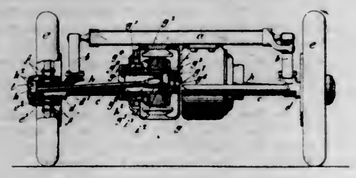
2. A combined bolster and roll comprising in combination the collapsible end sections consisting of two sections hinged together, the connecting strips, the fabric covering, the eye attached to one of the hinges, the loop arranged adjacent the opposite hinge, a cord connected to the eye and passing through the loop, one end of said loop being contracted and adapted to be engaged by a knot in the cord, and a bracket adapted to be secured to the bed post and to which the collapsible end frames are hinged, as described.

1,076,652. DRIVING MECHANISM FOR VEHICLES. ERNST GUSTAV HOFFMANN, New Rochelle, N. Y.; Alfred W. Kiddle and Amalie Mathilde Becker executors of said Hoffmann, deceased. Filed Sept. 16, 1907. Serial No. 393,048. (Cl. 21—90.)

1. In a power driven vehicle the combination of a driving wheel, a motor, a shaft connected to the armature of the motor and also to the wheel by universal couplings, and a brake mechanism applied only to the armature of the motor.

2. In a power driven vehicle the combination of a motor having an armature, a driving wheel, a yieldable connecting means between the motor and wheel, and a brake

mechanism which acts directly and only upon a member rigidly connected to the armature.



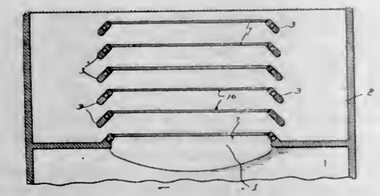
3. In a power driven vehicle the combination of a motor having an armature, a driving wheel, a shaft having a universal connection to the armature and also a universal connection to the driving wheel and a brake mechanism which acts directly and only upon a member rigidly connected to the armature.

4. In a power driven vehicle the combination of a motor having an armature, a driving wheel, a yieldable connecting means between the armature and the driving wheel and a brake mechanism adapted to coöperate with a member connected to the armature; said brake mechanism and said member both located within the casing of the motor.

5. In a power driven vehicle, the combination of a driving wheel, a hollow axle upon which the wheel is swiveled, an electric motor supported to have relative movement with the axle, a shaft between the electric motor and driving wheel operatively connecting the motor and wheel, a universal coupling at each end of the shaft, said shaft being extended into said motor in order to lengthen said shaft and reduce its oscillatory movement, and a brake mechanism which is applied only to a brake drum upon the armature of the motor.

[Claim 6 not printed in the Gazette.]

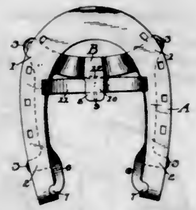
1,076,653. THEATER-STAGE. SARAH M. KEYTE, Oakland, Cal. Filed Sept. 23, 1912. Serial No. 721,869. (Cl. 46—70.)



1. A device of the class described comprising upper and lower rooms, a plurality of columns positioned in alinement upon the opposite sides of said upper room, said columns being arranged at an angle of approximately 45°, each column being spaced at a determined distance, whereby to prevent a view of the side portions of the said upper room from a position in front of said columns, scenery frames slidably mounted upon said columns for presenting a new view when so desired, said frames adapted to pass into said lower rooms when so desired.

2. A device of the class described comprising upper and lower rooms, a plurality of columns positioned in said upper room, each of said columns provided with a longitudinally extending groove, a guide plate provided with a longitudinally extending tongue, said guide plate positioned in said groove, a frame provided with a plurality of lips, said lips provided with longitudinally extending grooves, said frame slidably mounted within the grooves formed upon said columns, said lips adapted to slide upon said tongue of said plate, means carried by said columns and attached to said frame for moving said frame, said frame adapted to move down into said lower room.

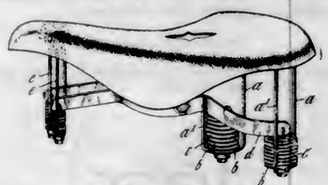
1,076,654. DETACHABLE CREEPER FOR HORSE-SHOES. HENRY FREDERICK KUHLMANN, Indianapolis, Ind. Filed Aug. 10, 1912. Serial No. 714,377. (Cl. 168—30.)



1. The combination with a shoe and a substantially U-shaped frame having bearings positioned to be received against the face of the shoe, of calks carried by the bearings, hooks on the rear of the frame engaging the shoe for holding that portion of the frame, a projection carried by the forward portion of the frame and projecting into the loop thereof, said projection having a groove formed transversely on its lower side and a straight bow-spring adapted to have its ends fitted against the upper face of the shoe on opposite sides thereof and to have its middle portion sprung into the groove whereby the spring is held against accidental displacement and the forward portion of the frame is held against the shoe.

2. The combination with a shoe and a substantially U-shaped frame constructed to fit and bear against the shoe, of calks carried by the frame, means on the rear of the frame engaging the shoe for holding that portion of the frame, a projection carried by the frame to extend into the loop thereof, said projection provided on its lower side with a transverse groove and a longitudinal groove, and a bow-spring adapted to have its ends fitted against the upper face of the shoe at opposite sides thereof and to have its middle portion sprung into the transverse groove whereby the spring is held against accidental displacement, and the longitudinal groove so positioned with respect to said transverse groove that a tool can be inserted beneath the spring to release said spring from its engagement across the projection.

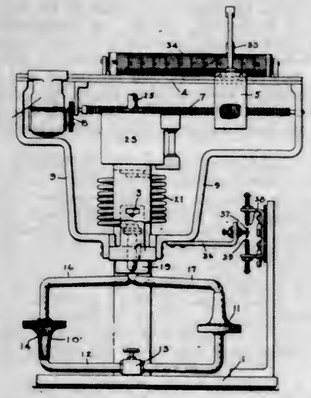
1,076,655. SADDLE FOR MOTOR-CYCLES AND THE LIKE. ALBERT EDWARD LOWENTHAL, Moseley, England. Filed Sept. 3, 1912. Serial No. 718,371. (Cl. 208—15.)



In combination with a saddle provided with a girder frame, extension springs depending from the front and rear ends of said frame, pillar hangers depending from the saddle and arranged in pairs disposed on opposite sides of the springs, and means for connecting the lower ends of the hangers to the lower ends of the springs.

1,076,656. FLUID-FLOW METER. HAROLD H. MAPELSDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 11, 1908. Serial No. 452,546. (Cl. 73—167.)

1. In a fluid meter, the combination with a tilting frame, of two communicating cups supported thereon on opposite sides of the axis of movement, a conduit connecting said cups, a volume of heavy liquid in said conduit and cups, means for subjecting said liquid to differences of fluid pressure, and a movable means for restoring the equilibrium of the frame, each of said cups decreasing in cross-section from a point of zero level, and the square of the radius at any given point being determined by a constant times the movement of said means divided by the square root of the corresponding distance of said point from the zero level.



2. In a fluid meter, the combination with a tilting frame, of two communicating trumpet-shaped cups supported thereon on opposite sides of the axis of movement, one of said cups being inverted, and both having their zero level in the same horizontal plane, a conduit connecting said cups, a volume of heavy liquid in said conduit and cups with its surface normally at the zero level, means for subjecting said liquid to differential fluid pressures, and means for restoring the equilibrium of said frame.

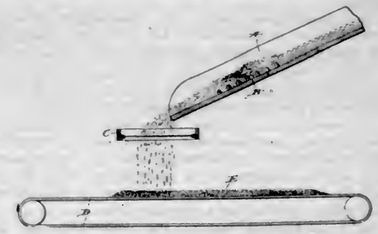
3. In a fluid meter, means for enabling the use of a record sheet of uniform scale comprising a tilting beam, a weight movable thereon, a marker actuated by the weight, two communicating trumpet-shaped cups one of which is inverted and both supported on said beam, the radius of a cup at any point depending upon a constant times the movement of the weight divided by the square root of the corresponding distance of said point from a plane of zero level, a conduit connecting said cups, a volume of heavy liquid in said conduit and cups, and means for subjecting said liquid to differential fluid pressures.

4. In a fluid meter, means for enabling the use of a record sheet of uniform scale, comprising a tilting beam, a weight movable thereon, a marker actuated by the weight, two communicating mercury cups supported on said beam on opposite sides of the fulcrum, said cups diminishing in area from a common zero level and being so arranged that the surface of the mercury in both cups is always of the same area irrespective of the degree of displacement thereof from the zero level, and means connecting said cups.

5. In a fluid meter, means for enabling the use of a record sheet of uniform scale comprising a tilting beam, two cups having a cross-section of varying radius and mounted on the beam at opposite sides of its axis of movement, a conduit connecting the cups, a body of liquid in the conduit and cups with its surface normally at zero level, means for subjecting the liquid to different fluid pressures, and means controlled by the beam for restoring the equilibrium of the said beam including a member movably mounted on the beam and a marker actuated by the member for making a record on the sheet, the square of the radius of the cups at any given point being equal to the movement of said member times its weight divided by a constant times the square root of the distance of the point from zero level.

[Claims 6 to 9 not printed in the Gazette.]

1,076,657. MANUFACTURING SLAG PRODUCTS. CARL HEINRICH SCHOL, Allendorf, Germany. Filed Apr. 28, 1913. Serial No. 764,210. (Cl. 75—146.)



1. The process of converting blast furnace slag into a foamy porous mass, which consists in adding to the slag while the same is in a molten state natural pumice.

2. The process of converting blast furnace slag into a foamy porous mass which consists in adding to the slag while the same is in a molten state material containing silicic acid and alumina.

3. The process of converting blast furnace slag into a foamy porous mass which consists in adding to the slag while the same is in a molten state, material in granular form containing silicic acid and alumina.

4. The process of converting blast furnace slag into a foamy porous mass which consists in mixing with the slag while the same is in a molten state material containing silicic acid and alumina, and subjecting the mixture to the action of water.

5. The process of converting blast furnace slag into a foamy porous mass, which consists in mixing with the slag while the same is in a molten state, material containing silicic acid and alumina; causing the mixture to flow in fine streams and subjecting the same to the action of water.

[Claims 6 to 10 not printed in the Gazette.]

REISSUES.

13,629. MECHANICAL CASHIER. EDMUND S. CHURCH, Chicago, Ill., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 1, 1913. Serial No. 764,958. Original No. 985,145, dated Feb. 28, 1911. Serial No. 228,924. (Cl. 133—2.)



1. In a mechanical cashier, the combination with money delivery devices, key actuated controlling means for said

devices, and means independent of the coins and operable after said controlling means has been operated, for rendering said delivery devices ineffective when the same are operated.

2. In a mechanical cashier, the combination of money-delivery-devices, purchase-keys, key actuated controlling-means selectively rendering the delivery-devices operative and means independent of the coin for controlling discharge of change by the delivery devices rendered operative by a purchase-key, after operation of said key.

3. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, key-actuated controlling-means for selectively rendering the delivery-devices operative to deliver change, and a plurality of keys for differentially controlling delivery of change by the delivery-devices after operation of a purchase-key.

4. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, selectively actuated by said keys into operative position, and a plurality of keys for differentially controlling delivery of the change by the delivery-devices which have been rendered operative by a purchase-key.

5. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, key-shifted actuators for said devices, and means for varying the discharge of change by the delivery-devices after operation of the actuators by a key.

6. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, shifting-means for said devices, selectively operated by the keys, means holding the delivery-devices in operative position when the keys are operated and a plurality of keys for differentially controlling the delivery of change by the delivery-devices.

7. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, key-shifted means for selectively operating the devices in one direction, springs for reversely operating the delivery-devices, means for holding the devices in operative position, and a plurality of keys for differentially controlling delivery of change by the delivery-devices.

8. In a mechanical cashier, the combination with money delivery devices, purchase keys, key actuated controlling means for said delivery devices, means operable after said controlling means has been operated for rendering said delivery devices ineffective when the same are operated, and means independent of the coin for actuating the delivery devices to discharge money.

9. In a mechanical cashier, the combination with money holders, purchase keys, money delivery devices, key actuated controlling means for said delivery devices, means for rendering said delivery devices ineffective when the same are operated, and means for operating said devices to deliver change when the means for rendering said delivery devices ineffective is operated.

10. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, key-controlled shifting-means for said devices, means for holding said delivery devices when shifted a discharge-key, and releasing-means for the ejectors, operated by the discharge-key which will cause the change to be delivered by the ejectors.

11. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, means for selectively setting the delivery-devices in operative position to deliver money, releasing-means for the delivery-devices and a discharge-key controlling the operation of the devices to deliver change.

12. In a mechanical cashier, the combination of, purchase-keys, spring-actuated money-delivery-devices controlled by said keys, a discharge-key and releasing-means for the devices operated by the discharge-key.

13. In a mechanical cashier, the combination of, purchase-keys, key-shifted money-delivery-devices spring actuated to deliver money, and a discharge-key controlling the delivery of change by the devices.

14. In a machine of the character described, the combination of, purchase-keys, key-controlled money-delivery-devices spring actuated to deliver money and a plurality of discharge-keys.

15. In a mechanical cashier, the combination of, purchase-keys, key-operated money-delivery-devices selectively controlled by said keys and a plurality of discharge-keys which will differentially operate the devices actuated by the purchase-keys to deliver the change.

16. In a mechanical cashier, the combination of, purchase-keys, key-shifted money-delivery-devices spring actuated to deliver money, and a plurality of discharge-keys controlling the delivery of change by the devices.

17. In a mechanical cashier, the combination with money delivery devices, purchase keys, key actuated controlling means for said delivery devices, a plurality of keys for differentially rendering certain of said delivery devices ineffective when the same are operated, and means for operating said delivery devices to deliver change when the keys for rendering said delivery devices ineffective are operated.

18. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, key-actuated means for selectively rendering the delivery-devices operative to deliver change and a plurality of keys, each controlling the operation of the delivery-devices to discharge money and differentially controlling delivery of change by the delivery-devices after the operation of a purchase key.

19. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, key-shifted actuators for said devices and a plurality of keys each controlling the operation of the delivery-devices to discharge money and for differentially controlling the devices to deliver change.

20. In a mechanical cashier, the combination of, purchase-keys, money-ejectors, key-controlled shifting-means for said ejectors, means for retracting the ejectors to deliver money and a plurality of discharge-keys, which when operated will effect delivery of the change and means for differentially controlling the operation of the ejectors by the purchase keys.

21. In a mechanical cashier, the combination of, money-holders, purchase-keys, ejectors, key-controlled shifting-means for said ejectors, a plurality of discharge-keys, releasing-means for the ejectors operated by the discharge-keys and means operated by said keys for differentially controlling the delivery of change by the ejectors.

22. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlling-means for said devices selectively actuated by the purchase-keys and operated by one of said keys after another key has operated the controlling-means, and so the delivery-devices will discharge change for the key last operated, and differentially operative means for varying the delivery of change.

23. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlling-means for said devices selectively actuated by the purchase-keys and operated by one of said keys after another key has operated the controlling-means and so the delivery-devices will discharge change for the key last operated, and a plurality of keys for differentially controlling the delivery of change by the delivery-devices.

24. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlling-means for said devices selectively actuated by the purchase-keys and operated by one of said keys after another key has operated the controlling-means and so the delivery-devices will discharge change for the key last operated, and a plurality of discharge-keys, each, causing operation of the delivery-devices and differential delivery of change.

25. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices controlled by the purchase-keys, means which will reset the controlling-means to correspond to one key when said key is operated after the controlling-means has been operated by another key, and a plurality of discharge-keys for causing differential operation of the delivery-device to deliver the change.

26. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, key-locks for holding said keys in operated position and lock-releasing-means operated by the purchase-keys.

27. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, key-locking-means for holding said keys in operated position and lock-releasing-means operated by the keys to release a previously operated key held by the locking-means.

28. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, key-locks for holding said keys in operated position and lock-releasing-means operated by the purchase-keys, and discharge-controlling-means for operating said devices after the keys have been operated.

29. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, selectively controlled by said keys, key-locks for holding said keys in operated position and lock-releasing-means operated by the purchase-keys to release a previously operated key and a discharge-key for causing actuation of the delivery-devices to deliver change.

30. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, key-locks for holding said keys in operated position and lock-releasing-means operated by the purchase-keys, to release a previously operated key and differentially operative means for controlling delivery of change.

31. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, key-locks holding the keys in operated position and lock-releasing means operated by the purchase-keys to release a previously operated key, and a plurality of discharge-keys for differentially controlling the delivery of change.

32. In a mechanical cashier, the combination of, money-delivery-devices, a series of purchase-keys controlling the operation of said devices, locking-means for holding the keys in operated position, lock-releasing means operated by the keys, and discharge controlling-means, also releasing the purchase-keys.

33. In a mechanical cashier, the combination of, money-delivery-devices, a series of purchase-keys controlling the operation of said devices, locking-means for holding the keys in operated position, key-releasing means operated by the keys and a plurality of discharge-keys each releasing the purchase-keys and for differentially controlling the delivery of change.

34. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, shifted by said keys, locking-means for holding said keys in operated position, and lock-releasing means operated by the purchase-keys.

35. In a mechanical cashier, the combination of, money-delivery-devices, purchase keys, key-actuated controlling-means for said devices, locking-means for holding said keys in operated position discharge-controlling-means, and lock-releasing-means operated by the purchase-keys and by the discharge controlling-means.

36. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, key-actuated controlling-means for said devices, locking-means for holding said keys in operated position, a discharge-key, and lock-releasing-means operated by the purchase-keys and also by the discharge-key.

37. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, key-actuated controlling-means for said devices, locking-means for holding said keys in operated position, a plurality of discharge-keys and lock-releasing-means operated by the purchase-keys and also by each of the discharge-keys.

38. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money controlled by the purchase-keys, locking means for holding said keys in operated position and lock-releasing-means operated by the purchase-keys.

39. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money controlled by the purchase-keys, locking-means for holding said keys in operated position, lock-releasing-means operated by the purchase-keys, and a discharge-key for controlling the actuation of the delivery-devices.

40. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money controlled by the purchase-keys, locking-means for holding said keys in operative position, lock-releasing-means operated by the purchase-keys, and a plurality of keys for differentially controlling the actuation of the delivery-devices.

41. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money, controlled by the purchase-keys, locking-means for holding said keys in operated position and lock-releasing-means operated by the purchase-keys.

42. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money controlled by the purchase-keys, locking-means for holding said keys in operated position, lock-releasing-means operated by the purchase-keys, and a discharge-key for controlling the actuation of the delivery-devices.

43. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices spring actuated to deliver money, controlled by the purchase-keys, locking-means for holding said keys in operated position, lock-releasing-means operated by the purchase-keys, and a plurality of keys for differentially controlling the actuation of the delivery-devices.

44. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlling-means for said devices controlled by the purchase-keys, locking-means for holding the keys in operated position and mechanism which will reset the controlling-means operated by a previously operated key and release said key, when another key is operated.

45. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlling-means for said devices controlled by the purchase-keys, locking-means for holding the keys in operated position, mechanism which will reset the controlling-means operated by a previously operated key, and release said key when another key is operated, and a discharge-key controlling the operation of the delivery-devices to deliver change.

46. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices controlled by the purchase-keys, key-locking-means for holding the keys in operated position, discharge-controlling-means for the change, mechanism which will reset the controlling-means and release an operated key when another key is operated, and means operated by the discharge-controlling-means which will also return the delivery-device controlling-means and the keys to normal position.

47. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices operated by the purchase-keys, key-locking-means for holding the keys in operated position, a plurality of differentially operating discharge-keys for the change, mechanism which will reset the controlling-means and release an operated purchase key when another purchase key is operated, and means operated by the discharge-controlling-keys which will also restore the delivery-device controlling-means and the keys to normal position.

48. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices actuated by said keys, mechanism whereby the controlling-means will be first restored to normal position and again operated to correspond to a purchase-key when said key is operated after the controlling-means has been actuated by a previously operated key, and a plurality of discharge-keys differentially controlling the discharge of change by the delivery-devices.

49. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices actuated by said keys, holding-means whereby the keys will be held in operated position and mechanism whereby the holding-means will be released and the controlling-means will be restored into position for the commencement of another operation when one purchase-key is operated while another key is held in operated position.

50. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices actuated by said keys, holding-means whereby the

keys will be held in operated position, mechanism whereby the holding-means will be released and the controlling-means will be restored into position for the commencement of another operation when one purchase-key is operated while another key is held in operated position, and a discharge-key for causing the operation of the delivery-devices to deliver change.

51. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices actuated by said keys, holding-means whereby the keys will be held in operated position, mechanism whereby the holding-means will be released and the controlling-means will be restored into position for the commencement of another operation when one purchase-key is operated while another key is held in operated position, and a plurality of discharge controlling-keys for differentially controlling the delivery of change.

52. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices actuated by said keys, holding-means whereby the keys will be held in operated position, mechanism whereby the holding-means will be released and the controlling-means will be restored into position for the commencement of another operation when one purchase-key is operated while another key is held in operated position, and discharge-controlling-means for the change, also operating said mechanism.

53. In a mechanical cashier, the combination of, money-delivery-devices, purchase-keys, controlling-means for said devices, actuated by said keys, holding-means whereby the keys will be held in operated position, mechanism whereby the holding-means will be released and the controlling-means will be restored into position for the commencement of another operation when one purchase-key is operated while another key is held in operated position, and a plurality of keys for differentially controlling the delivery of change and also operating said mechanism.

54. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlled by said keys, comprising ejectors and valves for controlling the delivery of money by the ejectors and means whereby the valves can be operated.

55. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, comprising ejectors and valves for controlling the delivery of money by the ejectors and means whereby the valves can be differentially operated to vary the discharge of money by the ejectors.

56. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, comprising ejectors and valves for controlling the delivery of money by the ejectors, a series of keys and differentially operating means operated by the keys and operating the valves to control the discharge of money by the ejectors.

57. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlled by said keys, comprising ejectors and normally closed valves for controlling the delivery of money by the ejectors and means whereby the valves can be operated to permit discharge of money by the ejectors.

58. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, comprising ejectors and normally closed valves for controlling the delivery of money by the ejectors and means whereby the valves can be differentially operated to control the discharge of money by the ejectors.

59. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, comprising ejectors and normally closed valves for controlling the delivery of money by the ejectors, a series of discharge keys and differentially operating means operated by the discharge-keys for operating the valves to control the discharge of money by the ejectors.

60. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising an ejector and a valve, and change-discharge controlling-means whereby the valves will be operated to cause the ejector or ejectors operated to deliver the change.

61. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising an ejector and a valve, change-discharge controlling-means whereby the valves will be differentially operated to permit the delivery-devices to deliver change.

62. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising an ejector and a valve normally positioned to prevent delivery of money and change-discharge controlling-means whereby the valves will be operated to permit delivery of money by the ejectors.

63. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising an ejector and a valve normally positioned to prevent delivery of money and change-discharge controlling-means whereby the valves will be differentially operated.

64. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising an ejector and a normally closed valve and change-discharge controlling means operating the valves to render the ejectors operative when the change is to be delivered thereby.

65. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices comprising key-shifted ejectors and valves for controlling the delivery of money by the ejectors and valve operating-means.

66. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices comprising key-shifted ejectors and valves for controlling the delivery of money by the ejectors and means for differentially operating the valves to control the delivery of change by the ejectors.

67. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, holding-means for said devices, said devices comprising spring-actuated ejectors and valves, operating-means for the valves and releasing-means which, when operated, will cause the actuation of the ejectors, and delivery of money from the valves which have been operated.

68. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, holding-means for said devices, said devices comprising spring-actuated ejectors and normally closed valves, operating-means for the valves and releasing-means which, when operated will cause the actuation of the ejectors, and delivery of money from the valves which have been operated.

69. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys and comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money and operating-means for the valves.

70. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys and comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money and a discharge-key for operating the valves.

71. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys and comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money and means for differentially operating the valves.

72. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys and comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money and a series of discharge-keys for differentially operating the valves.

73. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys and comprising money-holders, spring actuated ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money by the ejectors and operating-means for the valves.

74. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys and comprising money-holders, spring-actuated ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money by the ejectors and means for differentially operating the valves.

75. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlled by said keys and comprising money-holders, spring-actuated ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said valves covering the openings to control the delivery of money by the ejectors and a series of discharge-keys for differentially operating the valves.

76. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said ejectors being spring-pressed into position to engage the money, said valves covering the openings to control the delivery of money by the ejectors and operating-means for the valves.

77. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices comprising money-holders, ejectors, and valves, said holders having openings therein for exposing the money for engagement by the ejectors, said ejectors being spring-pressed into position to engage the money, said valves covering the openings to control the delivery of money by the ejectors and means for differentially operating the valves.

78. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys and comprising stationary money-holders having bottom-openings therein, ejectors arranged to discharge money from the holders, and valves covering the openings to control the delivery of money, said ejectors being spring-pressed into position to engage the money, actuating-means for the ejectors and operating-means for the valves.

79. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys and comprising stationary money-holders having bottom-openings therein, ejectors arranged to discharge money from the holders, and valves covering the openings to control the delivery of money, said ejectors being spring-pressed into position to engage the money, actuating-means for the ejectors, and means for differentially controlling the operation of the valves.

80. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys and comprising stationary money-holders having bottom-openings therein, ejectors arranged to discharge money from the holders, and valves covering the openings to control the delivery of money, said ejectors being spring-pressed into position to engage the money, actuating-means for the ejectors and a series of discharge-keys for differentially operating the valves.

81. In a mechanical cashier, the combination with a plurality of purchase-keys, of an ejector set in two directions by said keys.

82. In a mechanical cashier, the combination with a series of keys, of an ejector set thereby, and means for elevating the ejector to co-act with a plurality of coins.

83. In a mechanical cashier, the combination with a series of keys and an ejecting device, of means for setting said ejector by said keys, and means for adjusting the ejector to eject a plurality of coins.

84. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, one or more of said devices being adjustable to effect single or multiple delivery and a series of discharge-keys for differentially operating the devices to deliver change.

85. In a mechanical cashier, the combination with a series of keys and ejecting devices, of means for setting the ejectors by said keys, and means for differentially adjusting the ejectors to eject a plurality of coins.

86. In a mechanical cashier, the combination with a plurality of purchase-keys, of an ejector set in two different directions by said keys, and mechanism for differentially controlling the ejecting devices to deliver change.

87. In a mechanical cashier, the combination of purchase-keys, money-delivery-devices selectively controlled by said keys, mechanism for adjusting one or more of the devices for multiple delivery, a series of discharge-keys, mechanism for differentially controlling the operation of the devices to deliver change, and mechanism for differentially controlling the ejecting devices to deliver change.

88. In a mechanical cashier, the combination with a series of keys and an ejecting device, of means for setting said ejector by said keys, means for adjusting the ejector to eject a plurality of coins, and mechanism for differentially controlling the ejecting devices to deliver change.

89. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, mechanism for adjusting one or more of the devices for multiple delivery, a series of discharge-keys, and mechanism for differentially controlling the operation of the devices to deliver change.

90. In a mechanical cashier, the combination with a series of keys and ejecting devices, of means for setting the ejectors by said keys, means for differentially adjusting the ejectors to eject a plurality of coins, and mechanism for differentially controlling the ejecting devices to deliver change.

91. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, one or more of said devices being adjustable for multiple delivery, mechanism for setting the devices for multiple delivery, holding-means, and means operating the devices to deliver change when the holding-means is released.

92. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controlled by said keys, one or more of said devices being adjustable for multiple delivery, mechanism for setting the devices for multiple delivery, holding-means for the adjustable device or devices, means operating the devices to deliver change when the holding-means is released and means for differentially controlling the operation of the delivery-devices to deliver change.

93. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, one or more of said devices being adjustable for multiple delivery, mechanism operated by the keys for setting the devices for multiple delivery, holding-means and means operating the devices to deliver change when the holding-means is released.

94. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, one or more of said devices being adjustable for multiple delivery, mechanism operated by the keys, for setting the devices for multiple delivery, holding-means, means operating the devices to deliver change when the holding-means is released and means for differentially controlling the operation of the delivery-devices to deliver change.

95. In a mechanical cashier, the combination of, purchase-keys, spring-actuated money-delivery-devices controlled by said keys, one or more of said devices being adjustable for single or multiple delivery and means for controlling the actuation of said devices.

96. In a mechanical cashier, the combination of, purchase-keys, spring-actuated money-delivery-devices controlled by said keys, one or more of said devices being adjustable for single or multiple delivery and means for differentially controlling the operation of said devices to deliver change.

97. In a mechanical cashier, the combination of, purchase-keys, spring-actuated money-delivery-devices controlled by said keys, one or more of said devices being adjustable for single or multiple delivery, and a discharge-key which, when operated will cause the change to be delivered.

98. In a mechanical cashier, the combination of, pur-

chase-keys, spring-actuated money-delivery-devices controlled by said keys, one or more of said devices being adjustable for single or multiple delivery and a plurality of discharge-keys for differentially controlling the delivery of change by said devices.

99. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, one or more of said devices being adjustable to effect single or multiple delivery, valves for controlling the delivery of change by the devices, means operating the valves, and operating-means for said devices.

100. In a money delivery device, the combination with a coin holder, a sliding ejector for same, a sleeve supporting said ejector, means for differentially adjusting said sleeve and said ejector, a stop for said coins moved with said sleeve, means for adjusting said sleeve, and stop, and means for actuating said ejector.

101. In a money-delivery-device, the combination of, a coin holder, an adjustably sustained ejector, normally positioned to deliver a single coin, an adjustable stop opposing removal of contiguous coin, means for adjusting the stop and the ejector for variation of delivery of coin, and means for operating the ejector.

102. In a money delivery device, the combination with a coin holder, of an adjustable coin ejector therefor yieldingly held in position to engage the coin, a sleeve supporting said ejector to permit longitudinal movement of said ejector, a coin stop supported with and movable with said sleeve, means for raising said sleeve and stop to vary the coins ejected, and means for operating said ejector after the same has been positioned.

103. In a money-delivery-device, the combination of, a holder, an adjustably sustained ejector yieldingly held in position to engage the coin, an adjustable stop opposing removal of contiguous coins, means for adjusting the stop and the ejector for variation of the coin delivered, means for operating the ejector, and a valve for controlling engagement of the coin by the ejector.

104. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector and means operated by the keys for differentially operating said lever.

105. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device, comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector, means operated by the keys for differentially adjusting said lever and a dogging-device for holding the ejector in adjusted position.

106. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device, comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector, means operated by the keys for differentially adjusting said lever, a dogging-device for holding the ejector in adjusted position and releasing-means for the dogging-device.

107. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device, comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector, a dogging-device for holding the ejector in adjusted position and means operated by the keys for resetting the ejector to correspond to one key when said key is operated while the ejector is in adjusted position.

108. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector, a spring for actuating the ejector, means operated by the keys for setting the ejector in operated position and means for releasing the ejector for actuation by said spring.

109. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device adjustable for single or multiple delivery, comprising an ejector, means operated by the keys for adjusting said ejectors, said means comprising a lost-motion connection and a dogging-device for holding the ejector in adjusted position.

110. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device adjustable for single or multiple delivery, comprising an ejector, means operated by the keys for adjusting said ejector, said means comprising a lost-motion connection and a spring, and a dogging-device for holding the ejector in adjusted position.

111. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device adjustable for single or multiple delivery, comprising an ejector, means operated by the keys for adjusting said lever, said means comprising a lost-motion connection, a dogging-device for holding the ejector in adjusted position, and releasing-means for the dogging-device controlled by the keys.

112. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device adjustable for single or multiple delivery, comprising an ejector, means operated by the keys for adjusting said lever, said means comprising a lost-motion connection and a spring, a dogging-device for holding the ejector in adjusted position, and releasing-means for the dogging-device controlled by the keys.

113. In a money-delivery-device, the combination of, a holder, an adjustably sustained ejector, purchase-keys, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, and controlling-means for the ejector also operated by said keys.

114. In a money-delivery-device, the combination of, a holder, an adjustably sustained ejector, purchase-keys, controlling the operation of the ejector, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, actuating-means for the ejector, and means for restoring the cam-lever to normal position when the actuator is operated to eject a coin.

115. In a money-delivery-device, the combination of a holder, an adjustably sustained ejector, purchase-keys, controlling the operation of the ejector, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, a spring for actuating the ejector to discharge coin, and means for restoring the cam-lever to normal position when the actuator is operated to discharge a coin.

116. In a money-delivery-device, the combination of, a holder, an adjustable sustained ejector, purchase-keys, ejector-shifters operated by said keys, holding-means for the ejectors, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, a spring for actuating the ejector to discharge coin, and means for restoring the cam-lever to normal position when the actuator is operated to discharge a coin.

117. In a money-delivery-device, the combination of, a holder, an adjustably sustained ejector, normally held in position to eject a single coin, purchase-keys, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, and controlling-means for the ejector also operated by said keys.

118. In a money-delivery-device, the combination of, a holder, an adjustably sustained ejector, normally held in position to eject a single coin, purchase-keys controlling the operation of the ejector, an adjusting-device for the ejector comprising a cam-lever, shifted by one of the keys, and actuating-means for the ejector and means restoring the cam-lever to normal position when the actuator is operated to eject a coin.

119. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector and means operated by the keys for differentially operating said lever, said means comprising adjustable abutments.

120. In a mechanical cashier, the combination of, purchase-keys, a money-delivery-device comprising an ejector adjustable for single or multiple delivery, an adjusting-lever for the ejector, means operated by the keys for differentially operating said lever, said means comprising adjustable abutments, a dogging-device for holding the ejector in adjusted position and releasing-means for the dogging-device controlled by the keys.

121. In a money-delivery-device, the combination of, a coin-holder, an ejector, a spring for actuating the ejector, keys selectively controlling the operation of the ejector, a latch for holding the ejector in operated position and releasing-means for controlling the operation of the ejector by the spring.

122. In a money-delivery-device, the combination of, a coin-holder, a slidable ejector, keys selectively controlling the operation of the ejector, a latch for holding the ejector in one of its positions, releasing-means for controlling the operation of the ejector and means for operating the ejector.

123. In a money-delivery-device, the combination of, a coin-holder, an ejector yieldingly held in position to engage a coin in the holder, keys selectively controlling the operation of the ejector, a latch for holding the ejector in operative position, releasing-means for controlling the operation of the ejector and operating-means for the ejector.

124. In a money-delivery-device, the combination of, a coin-holder, an ejector, yieldingly held to engage the coin, a spring for actuating the ejector to deliver coin, keys for selectively controlling the operation of the ejector, a latch for holding the ejector in operative position and releasing-means for controlling the operation of the ejector.

125. In a money-delivery-device, the combination of, a coin-holder, an ejector, a valve closing the holder to prevent engagement of the coin by the ejector, said ejector being yieldingly held to engage the coin, keys selectively controlling the operation of the ejector, operating-means for the ejector, and means for operating the valves to control delivery of coin by the ejector.

126. A money-delivery-device comprising the combination of a coin-holder, an ejector, a valve closing the holder to prevent engagement of the coin by the ejector, a latch for holding the ejector in operative position, releasing-means for controlling the operation of the ejector, means for operating the ejector and means for operating the valve to control the delivery of the coin by the ejector.

127. A money-delivery-device comprising the combination, of, a holder, an ejector, a valve closing the holder, a spring for actuating the ejector, said ejector being yieldingly held into position to engage a coin, keys selectively controlling the operation of the ejector, a latch for holding the ejector in operative position, releasing-means for controlling the operation of the ejector by the actuating spring, and means for operating the valve.

128. In a money-delivery-device, the combination of, a holder, having a rest with which the lowermost coin engages, an opening through which the coin can be discharged, an ejector, a yielding detent engaging the coin adjacent said opening, and operating means for the ejector.

129. In a money-delivery-device, the combination of, a holder having a rest with which the lowermost coin engages, an opening through which the coin can be discharged, an ejector, a spring engaging the coin adjacent said opening, and operating-means for the ejector.

130. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by the keys and for coins of different denominations and a plurality of run-ways into which the coins are respectively discharged and leading to a common discharge point, said run-ways being respectively graduated to deliver the coins discharged from the different devices at the delivery point at substantially the same time.

131. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by the keys, and comprising holders in which the coin is held, a run-way in which the coin is held on its edge and means directing the coin to roll on its edge into the run-way when the same is discharged from the holder.

132. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by the keys and for coins of different denominations, mechanism for operating the devices to discharge coins from the delivery-devices, a plurality of coin run-ways into which the coins are respectively discharged and leading to a common discharge point said run-ways being formed to direct a coin so it will roll on its edge and respectively graduated to deliver the coins discharged from the devices at the delivery point at substantially the same time and means for directing the coins into the respective run-ways.

133. In a mechanical cashier, the combination of, purchase-keys, and money-delivery-devices, comprising one or more levers each having a pair of oppositely disposed pivots whereby one of the keys will swing said lever about one of its pivots and, another key will differentially swing the lever about the other pivot.

134. In a mechanical cashier, the combination of, purchase-keys, and money-delivery-devices comprising one or more levers actuated by said keys, and a pair of oppositely disposed seats for said lever whereby the lever can be pivotally operated about either of said seats.

135. In a mechanical cashier, the combination of, purchase-keys, and money-delivery-devices comprising one or more levers actuated by said keys, a pair of oppositely disposed seats for said lever whereby the lever can be pivotally operated about either of said seats, and a spring for holding said lever normally in connected relation with each of said seats.

136. In a mechanical cashier, the combination of, purchase-keys, and money-delivery-devices comprising one or more levers having a pair of oppositely disposed pivots and whereby one of the keys will swing said lever about one of its pivots and another key will differentially swing the lever about the other pivot, and a guide for each end of the lever.

137. In a mechanical cashier, the combination of, purchase-keys money-delivery-devices and mechanism for shifting the delivery-devices, comprising a plurality of levers, selectively shifted by the purchase-keys and each having a pair of oppositely disposed pivots whereby one key will swing the lever about one of said pivots and another key will shift the lever about the other pivot.

138. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, mechanism for shifting the delivery-devices, comprising a plurality of levers, selectively shifted by the purchase-keys, and each having a pair of oppositely disposed pivots whereby one key will swing the lever abont one of said pivots and another key will shift the lever about the other pivot, means for holding the delivery-devices in operative position and means for operating the delivery-devices to deliver the change when the holding-means is released.

139. In a mechanical cashier, the combination of, purchase-keys, spring-actuated money-delivery-devices, mechanism for shifting the delivery-devices comprising plurality of levers, selectively shifted by purchase-keys and having a pair of oppositely disposed pivots whereby one key will swing the lever about one of said pivots and another key will shift the lever about the other pivots, means for holding the delivery-devices in operative position and means for operating the delivery-devices to deliver the change when the holding-means is released.

140. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, mechanism selectively controlling the operation of said devices to deliver change and means for effecting delivery of a coin necessary to make proper change when the delivery-devices controlled by the keys will not cause operation of one of the delivery devices necessary to deliver the change in proper amount.

141. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, mechanism selectively controlling the operation of said devices to deliver change, and means operated by said controlling-mechanism for effecting delivery of a coin necessary to make proper change when the delivery-devices controlled by the keys will not cause the operation of one of the devices necessary to deliver the change in proper amount.

142. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively rendered operative to deliver change by said keys, mechanism for controlling the operation of said devices to deliver change, and means for independently operating a delivery-device not rendered operative by the keys when such is necessary to deliver correct change.

143. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively rendered operative to deliver change by said keys, mechanism for controlling the operation of said devices to deliver change and

means operated by said controlling mechanism, for independently operating a delivery-device not rendered operative by the keys when such is necessary to deliver correct change.

144. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively shifted into operative position by said keys, holding-means for said devices, springs for actuating said devices to deliver change, mechanism controlling the operation of the devices to deliver change and means for operating a delivery-device not shifted by the keys when another coin is necessary to make the correct change.

145. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, discharge-controlling mechanism comprising a plurality of keys for controlling the delivery of change by said devices and means operated by one of the keys of the controlling-mechanism for effecting delivery of a coin by a delivery-device not affected by the purchase-keys when a coin from said device is necessary to make the correct change.

146. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively rendered operative by said keys, mechanism, comprising a plurality of discharge-keys for controlling the delivery of change by said devices, means operated by one of said discharge-keys, for rendering a delivery-device operative which has not been rendered operative by the keys when a coin from said device is necessary to make correct change.

147. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, valves for controlling the operation of said devices to discharge money, mechanism comprising keys for controlling the operation of said valves and means operated by said mechanism for operating one of the delivery-devices to deliver a coin when necessary to make correct change.

148. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively controlled by said keys, a discharge-key for controlling the delivery of change by said devices and means operated by said discharge-key and whereby one of the delivery-devices will be operated to deliver a coin when necessary to make the proper change.

149. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices shifted into operative position by said keys to control the operation of said devices, a plurality of discharge-keys and means whereby one of said discharge-keys will operate a delivery-device not rendered operative by the keys.

150. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices selectively shifted into operative position by said keys to control the operation of said devices, means for holding the devices in operated position a plurality of discharge-keys each operating the holding-means and mechanism operated by one of the discharge-keys for setting into operative position a delivery-device not operated by the purchase-keys when necessary to make change.

151. In a mechanical cashier, the combination of, purchase-keys comprising a series for one denomination, *e. g.*, units, and a series for multiple denominations, money-delivery-devices, controlling-devices for each of said delivery-devices operated by the keys respectively, said controllers being operated independently of each other and discharge-controlling-means controlling the operation of the delivery-devices to deliver change independently of the key-operated-controllers.

152. In a mechanical cashier, the combination of, purchase-keys comprising a series for the coin-units, and a series for multiple denominations, money-delivery-devices, key-actuated controlling-means for said devices, and means for varying the discharge of change by the delivery-devices after the key-actuated controlling-means has been operated by the keys.

153. In a mechanical cashier, the combination of, purchase-keys comprising a series for the coin-units, and a series for multiple denominations, money-delivery-devices, key-actuated controlling-means for said devices, and a discharge key which, when operated, will release the devices and allow delivery of the change.

154. In a mechanical cashier, the combination of, purchase-keys comprising a series for coin-units, a series for multiple denominations, money-delivery-devices, key-actuated controlling-means for said devices and a plurality of discharge-keys for varying the delivery of change by said devices.

155. In a mechanical cashier, the combination of, purchase-keys, comprising a series for the coin-units, and a series for multiple denominations, money-delivery-devices, controlling-means for said devices selectively actuated by the purchase-keys, and means which will reset the controlling-means for one series to correspond to a key of said series when said key is operated after the controlling-means has been operated by another key of the same series.

156. In a mechanical cashier, the combination of, purchase-keys, comprising a series for the coin-units, and a series for multiple denominations, money-delivery-devices selectively controlled by said keys, key-locks for each series for holding the keys in operated position and lock-releasing-means operated by the purchase-keys of one series to release a previously operated key of the same series.

157. In a mechanical cashier, the combination of, purchase-keys, comprising a series for the coin-units, and a series for multiple denominations, money-delivery-devices controlled by the keys, mechanism for controlling the delivery of change by said devices and means operated by said controlling-mechanism for causing the operation of a delivery-device not affected by the keys when such is necessary to make proper change.

158. In a mechanical cashier, the combination of, purchase-keys comprising a series for the coin units, and a series for multiple denominations, money-delivery-devices controlled by the purchase-keys, mechanism for controlling the delivery of change by said devices comprising a key and means operated by said key for causing the operation of a delivery-device not affected by the purchase keys.

159. In a mechanical cashier, the combination of, purchase-keys, comprising a series for the coin units, and a series for multiple denominations, money-delivery-devices controlled by the keys, discharge-controlling-mechanism and means operated by said mechanism for causing the operation of a delivery-device not affected by the keys when such is necessary to make proper change.

160. In a mechanical cashier, the combination of, purchase-keys, comprising a series for the coin units, a series for multiple denominations, money-delivery-devices controlled by the keys, a series of discharge-keys operating the delivery-devices to discharge change and means operated by one of said keys for independently operating a delivery-device.

161. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controller-devices, a coin-runway, into which the coins are discharged by said devices, and leading to an exit and a discharge-key, arranged in close proximity to said exit, so the discharge-key can be operated and the coins can be received by one hand of the operator.

162. In a mechanical cashier, the combination of, purchase-keys, money-delivery-devices, controller-devices, a coin-runway, into which the coins are discharged by said devices and leading to an exit and a plurality of discharge-keys arranged in close proximity to said exit, so either of the discharge-keys can be operated, and the coins can be received by one hand of the operator.

163. In a mechanical cashier, the combination with a coin tube, of a socket for holding same, a flange on said tube, a plate over said flange, and a lock for said plate.

164. In a machanical cashier, the combination of, purchase-keys, money-delivery-devices controlled by said keys, and comprising removable coin-holders, and removable coin-receivers and a lock for securing the receivers in position to prevent removal of the coin-holders.

165. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, mechanism for controlling the discharge of change by the delivery-devices and a device for controlling the operation of said mechanism, said device being operated by the indicator-operating means to render said mechanism operative.

166. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, mechanism for differentially operating the discharge of change by the delivery-devices and a device for controlling the operation of said mechanism, said device being operated by the indicator-operating-means to render said mechanism operative.

167. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, mechanism for controlling the discharge of change by the delivery-devices and a locking-device for controlling the operation of said mechanism, said device being operated by the indicator-operating-means to render said mechanism operative.

168. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means comprising a lever, mechanism for controlling the discharge of change by the delivery-devices and a device for controlling the operation of said mechanism, said device being operated by said lever to render said mechanism operative.

169. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means comprising a lever, mechanism for differentially operating the discharge of change by the delivery-devices and a device for controlling the operation of said mechanism, said device being operated by said lever to render said mechanism operative.

170. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means comprising a lever, mechanism for controlling the discharge of change by the delivery-devices and a locking-device for controlling the operation of said mechanism, said device being operated by said lever to render said mechanism operative.

171. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, discharge-key for controlling the operation of said devices to deliver change and a device operated by the indicator-operating-means for controlling the operation of the discharge-key.

172. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, a plurality of discharge-keys for differentially controlling the operation of the delivery-devices to deliver change and a device for controlling the operation of said keys, said device being operated by the indicator-operating-means to render the keys operative.

173. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, a discharge key for controlling the operation of said device to deliver change and a locking-device for controlling the operation of the discharge-key, said device being operated by the indicator-operating-means to render the discharge-key operative.

174. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, a plurality of discharge-keys for differentially controlling the operation of the delivery-devices to deliver change and a locking-device for controlling the operation of said keys, said device being operated by the indicator-operating-means to render the keys operative.

175. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means comprising a lever, mechanism for controlling the discharge of change by the delivery-devices and a locking-device for controlling the operation of said mechanism, said device being operated by the indicator-operating means to render said mechanism operative and shifted into locking position when said mechanism is operated.

176. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, a discharge-key for controlling the operation of said devices to deliver change and a device operated by the indicator-operating-means for controlling the operation of the discharge-key and shifted into locking position when the discharge-key is operated.

177. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, a plurality of discharge-keys for differentially controlling the operation of the delivery-devices to deliver change and a device for controlling the operation of said keys, said device being operated by the indicator-operating-means to render the keys operative and shifted into locking position when either of the discharge-keys is operated.

178. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller operated by said keys, and indicator-restoring-means controlled by said keys.

179. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller operated by said keys, operating-means for the indicator and indicator-restoring-means controlled by said keys.

180. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, discharge-controlling-means, an indicator, indicator-operating-mechanism, indicator-restoring-means controlled by the keys, and a device for preventing restoration of the indicator when the discharge-controlling-mechanism is operated.

181. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, discharge-controlling-means, mechanism for holding the delivery-devices in operative position, releasing-means for said mechanism operated by the discharge-controlling-means, said releasing-means being also operated by the purchase-keys, an indicator, indicator-operating means, indicator-restoring-means, controlled by the keys and a device for preventing restoration of the indicator when the discharge-controlling-means is operated.

182. In a machine of the character described, the combination of, purchase-keys, comprising a series of keys for the coin-units, and a series of multiple denominations, money-delivery-devices controlled by the keys, an indicator for each series of keys, an indicator-controller for each indicator and indicator-restoring-means for each indicator respectively controlled by the keys of each series.

183. In a machine of the character described, the combination of, purchase-keys, comprising a series of keys for the coin-units, a series of multiple denominations, money-delivery-devices controlled by the keys, an indicator for each series of keys, an indicator-controller for each indicator, operating-means for the indicator and indicator-restoring-means for each indicator separately controlled by the keys of a series.

184. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, an indicator, an indicator-controller operated by said keys, indicator-restoring-means and a lock for holding the indicator in normal position.

185. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, an indicator, an indicator-controller operated by said keys, indicator-restoring-means controlled by said keys and a lock for holding the indicator in normal position.

186. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices, controlled by said keys, an indicator, an indicator-controller operated by said keys, operating-means for the indicator,

indicator-restoring-means and a lock for holding the indicator in normal position.

187. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller operated by said keys, operating-means for the indicator, indicator-restoring-means controlled by said keys and a lock for holding the indicator in normal position.

188. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller operated by said keys, operating-means for the indicator, indicator-restoring-means controlled by said keys and a lock operated by the indicator operating-means for holding the indicator in normal position.

189. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller operated by said keys, operating means for the indicator, comprising a lever, indicator-restoring-means controlled by said keys and a lock operated by the indicator-operating-means for holding the indicator in normal position.

190. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, means for holding the key in operated position and an operative connection between the keys and the controller whereby the controller will be held in operative position when one key is held in operative position and whereby the controller will be reset to correspond to another key when that is operated.

191. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, means for holding the key in operated position, an operative connection between the keys and the controller whereby the controller will be held in operative position when one key is held in operated position and whereby the controller will be reset to correspond to another key when that is operated and indicator-operating-means.

192. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, means for holding the key in operated position, an operative connection between the keys and the controller, whereby the controller will be held in operative position when one key is held in operated position and whereby the controller will be reset to correspond to the key last operated and an indicator-restoring-means controlled by the keys.

193. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, discharge-controlling-means and a device whereby the key and the controller will be restored to normal position when the discharge controlling-means is operated.

194. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, discharge-controlling-means, a device whereby the key and the controller will be restored to normal position when the discharge-controlling-means is operated and indicator-operating-means.

195. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, discharge-controlling means, a device whereby the key and the controller will be restored to normal position when the discharge-controlling-means is operated and indicator-restoring-means controlled by said keys.

196. In a machine of the character described, the combination of, purchase-keys, comprising a series of keys for the coin-units, and a series for multiple denominations, money-delivery-devices controlled by the keys, an indicator for each series of keys, an indicator-controller for each indicator and an operative connection between each series of keys and its controller whereby the controller will be held in operative position and whereby the controller will be reset to correspond to another key of the same series when that key is operated.

197. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller and mechanism for operating said controller, comprising a series of adjustable arms mounted to be differentially shifted by the keys.

198. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, mechanism for operating said controller comprising a series of adjustable arms mounted to be differentially shifted by the keys, and indicator-operating-means.

199. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, an indicator-controller, mechanism for operating said controller comprising a series of adjustable arms mounted to be differentially shifted by the keys and indicator-restoring-means controlled by the keys.

200. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, indicator-restoring-means for the indicator, operating-means for the indicator, releasing-means for controlling the operation of the restoring-means and a device operated by the indicator-operating-means for rendering the releasing-means operative.

201. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, indicator-restoring-means for the indicator, controlled by the keys, indicator-operating-means and a device operated by the indicator-operating-means for rendering the releasing-means operative.

202. In a machine of the character described, the combination of, purchase-keys, comprising a series for the coin-units and a series for multiple denominations, money-delivery-devices controlled by said keys, an indicator for each series, indicator-restoring-means for each indicator, and controlled by the keys, indicator-operating-means, one of said restoring-devices being also controlled by the keys of another series and a device operated by the operating means for rendering said restoring-device operative by a key of either series.

203. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, a register, register-operating-means, mechanism for controlling the discharge of change by the delivery-devices and a device for controlling the operation of said mechanism, said device being operated by the register-operating-means to render said mechanism operative.

204. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, a register, register-operating-means, mechanism for controlling the discharge of change by the delivery-devices and a locking-device for controlling the operation of said mechanism, said device being operated by the register-operating-means to render said mechanism operative.

205. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, a register, register-operating-means, a discharge-key for controlling the operation of said devices to deliver change and a device operated by the register-operating-means for controlling the operation of the discharge-key.

206. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, a register, register-operating-means, a plurality of discharge-keys for differentially controlling the operation of the delivery-devices to deliver change and a device for controlling the operation of said keys, said device being operated by the register-operating-means to render the keys operative.

207. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices, controlled by said keys, a register, register-operating-means, a plurality of discharge-keys, for differentially controlling the operation of the delivery-devices to deliver change and a locking device for controlling the operation of said keys, said device being operated by the register-operating-means to render the keys operative.

208. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, discharge-controlling-means, a register, register-advancing-mechanism controlled by the keys and a device for preventing operation of the register when the discharge-controlling-mechanism is operated.

209. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, a register, a register-controller operated by said keys, register-actuating-means, operating-means for the register whereby the actuating-means will be set into position to operate the register according to the controller and means controlled by the keys for controlling the operation of the actuating-means to advance the register.

210. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, a register, register-advancing-means, register-operating-means, a controller operated by the keys, a spring for actuating the advancing-means to advance the register, a locking-device for holding the advancing-means in operative position and releasing-means operated by the keys.

211. In a machine of the character described, the combination of, purchase-keys, comprising a series of keys for the coin-units and a series for multiple denominations, money-delivery-devices controlled by the keys, a controller for each series of keys, a register, register-advancing-means for each controller, register-operating-means, a spring for operating each actuating-means to advance the register and a separate controlling-device operated by the keys of each series for controlling the advance of the register by the actuating-means.

212. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, a register, a register-controller and mechanism for operating said controller, comprising a series of adjustable arms mounted to be differentially shifted by said keys.

213. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by said keys, an indicator, indicator-operating-means, indicator-restoring-means, a register and means operating the register to count the sale when the indicator-restoring-means is operated.

214. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices controlled by the keys, an indicator for each series of keys, indicator-restoring-means controlled by the keys, a register and register-advancing-means operated by the register-restoring-means and whereby the register will be operated to count the sale when the indicator is restored to normal position.

215. In a machine of the character described, the combination of, purchase-keys, in plural series, money-delivery-devices controlled by said keys, an indicator for each series, restoring-means for each indicator separately controlled by the keys of a series, a register and register-advancing-means and operated by the restoring-means.

216. In a machine of the character described, the combination of, purchase-keys, money-delivery-devices, means for holding the keys in operated position, means whereby an operated key will be restored to normal position when another key is operated, an indicating-device, operating-means for the indicator, and a register.

217. In a mechanical cashier, the combination with ejecting devices, of keys for setting same, means for latching the devices in set position, and means for releasing the latching means.

218. In a mechanical cashier, the combination with ejecting devices, of keys for differentially setting same, and a plurality of discharge controlling means for regulating the movement of the ejecting devices when set.

219. In a mechanical cashier, the combination with ejecting devices, of keys for setting same, and springs for giving said devices their operative stroke.

220. In a mechanical cashier, the combination with ejecting devices, of keys for setting same to operative position, means for latching the ejecting devices when set, and springs for giving the ejecting devices their operative stroke when the latching means is released.

221. In a mechanical cashier, the combination with ejecting devices, of keys for setting same to operative position, springs for giving the devices their operative stroke, and discharge-controlling means for regulating the ejecting effectiveness of the spring-actuated stroke of the ejecting devices.

222. In a mechanical cashier, the combination with ejecting devices, of means for setting said ejectors in two directions, means for latching the ejectors in any set position, and springs for giving said devices their operative stroke.

223. In a mechanical cashier, the combination with an ejecting device, of keys for setting said ejecting device to position to eject a number of coins dependent on the key depressed, means for latching the ejecting device in any set position, and means for releasing the latch.

224. In a mechanical cashier, the combination with an ejecting device, of keys for setting said device to position to eject a number of coins dependent on the key depressed, means for giving said device its operative stroke, and means for controlling the ejecting effectiveness of the operative stroke of the device.

225. In a mechanical cashier, the combination with a plurality of ejecting devices, of means for setting same to position to eject numbers of coins dependent on the key depressed, means for holding the ejecting devices in any set position to eject a number of coins dependent on the keys depressed, and means for disabling the holding means and for controlling the ejecting effectiveness of the operative stroke of the ejecting devices when the holding means is disabled.

226. In a mechanical cashier, the combination with an ejecting device, of keys for setting same in two directions, means for latching the ejector from movement in one direction, means for latching the key whereby the ejector is held from movement in another direction, and a common device for releasing said latches.

227. In a mechanical cashier, the combination with an ejecting device, of means for setting said device horizontally to operative position, means for moving said device vertically to determine the number of coins ejected, two latches for preventing reverse movement of the ejecting device in either direction, and means for releasing the latches.

228. In a mechanical cashier, the combination with ejecting devices, of keys for controlling the movement of same, coin tubes having openings which the ejecting devices are adapted to enter, and means for normally preventing access of the ejecting devices to the coins.

229. In a mechanical cashier, the combination with ejecting devices, and keys for differentially controlling same, of coin tubes having entrances for the ejecting devices, and mechanism normally preventing admittance of the ejecting devices at the tube entrances.

230. In a mechanical cashier, the combination with ejecting devices, of means for setting same to operative position, means for adjusting said devices to deliver a number of coins desired, coin holders having openings for the admission of said ejecting devices, and means normally preventing movement of the ejecting devices through the said openings.

231. In a mechanical cashier, the combination with a plurality of ejecting devices, of keys for controlling same, coin holders having openings for the admission of said ejecting devices, means normally preventing access of the ejecting devices to the coins through the openings, and keys for disabling the said preventing means.

232. In a mechanical cashier, the combination with ejecting devices, of keys for setting same to operative position, means for latching the devices in set position, coin holders having openings for the ejecting devices, means for normally preventing entrance of the ejecting

devices through said openings, and means for disabling the preventing means and releasing the latching means.

233. In a mechanical cashier, the combination with ejecting devices, of keys for setting same, coin holders having openings through which the ejecting devices are adapted to pass, means normally preventing the ejecting devices passing through said openings, and a plurality of keys for differentially disabling the preventing means.

234. In a mechanical cashier, the combination with ejecting devices, of means controlling the setting of same, means normally preventing an effective stroke of the ejecting devices when set, and means for differentially disabling the said preventing means.

235. In a mechanical cashier, the combination with ejecting devices, of keys controlling same, means preventing an effective ejecting stroke of the devices, and keys for displacing the preventing means to allow an effective stroke of the ejectors.

236. In a mechanical cashier, the combination with a series of keys, and a series of ejecting devices, of controlling means for said devices positioned by said keys, a second series of keys, and means controlled by said second series of keys for rendering certain of said ejecting devices ineffective when the same are operated.

237. In a mechanical cashier, the combination with a series of keys and ejector-controlling means set thereby, of means for latching the keys and controlling means when set, and means operated by the depression of a key for releasing the latches for the keys and controlling means.

238. In a mechanical cashier, the combination with a plurality of keys, of means for latching said keys in set position, and means comprising pivoted-tripping pawls carried by the keys, for releasing the latches.

239. In a mechanical cashier, the combination with a series of keys, and ejector-controlling devices set by said keys, of means for latching the keys and controlling devices, and means operated from the keys for releasing the key-latches and resetting the controlling devices to correspond with the depressed key.

240. In a mechanical cashier, the combination with ejecting devices, of purchase keys for differentially setting same to operative position, and means for releasing said ejecting devices and controlling the ejecting effectiveness of the operation thereof.

241. In a mechanical cashier, the combination with money-delivery devices, of purchase keys for setting same to operative position, and means for controlling the ejecting effectiveness of the delivery devices when set.

242. In a mechanical cashier, the combination with coin ejectors, of purchase keys for setting same, and a plurality of keys for differentially regulating the effectiveness of the operation of the ejectors which have been set.

243. In a mechanical cashier, the combination with ejecting devices, of purchase keys determining the setting thereof, means for varying the effectiveness of the operation of the ejecting devices when set, and means for operating the ejectors.

244. In a mechanical cashier, the combination with ejecting devices, of keys controlling same, controlling means for said devices set by the keys, means for latching the keys in set position, and means carried by said keys for releasing the latch of the controlling means.

245. In a mechanical cashier, the combination with a plurality of ejecting devices, of purchase keys, key-actuated controlling means for said devices, and means for differentially controlling the operated movement of the ejecting devices after they have been operated by the purchase keys.

246. In a mechanical cashier, the combination with a series of keys, of a stepped device positioned laterally by said keys, indicators, indicator-operating bars depending over said stepped device, and means for releasing said bars after the device has been set.

247. In a mechanical cashier, the combination with a plurality of keys, each having a rack, of means for compelling a full stroke of said keys, said means also locking the keys in depressed position, and means operated by the keys for operating said full stroke and locking means to release any depressed key.

248. In an indicating mechanism, the combination with a group of keys and a graduated element differentially positioned by said keys, of an indicator, a driving device for said indicator positioned to be obstructed by said graduated element, a spring connected to return said indicator driving device to normal position, and a latch, controlled by said keys, constructed to hold said indicator in any of its adjusted positions.

249. In a machine of the class described, the combination with a plurality of rotary shafts parallel to each other, of indicators each bearing a series of characters secured to each of said shafts for indicating upon opposite sides of the machine, the indicators upon one side of the machine being larger than those upon the other side so as to overlap each other, a series of openings in one of the overlapping indicators to enable the proper reading of the overlapping indicators, and an operating mechanism for said indicators.

250. In a cash indicating machine, the combination with a plurality of duplex indicating elements, a portion of each element being larger than the rest so as to indicate properly upon opposite sides of the machine, and an operating mechanism for said elements.

251. In a cash indicating machine, the combination with a plurality of rotary shafts parallel to each other, of indicators each bearing a series of characters secured to said shafts for indicating upon opposite sides of the machine, the indicators upon one side of the machine being larger than those upon the other side so that the characters may be read properly upon both sides of the machine.

252. In a cash indicating machine, the combination with a plurality of rotary shafts parallel to each other of indicators each bearing a series of characters secured to said shafts for indicating upon opposite sides of the machine, the indicators upon one side of the machine being larger than those upon the other side so that the characters may be read properly upon both sides of the machine, pinions secured to said shafts, and rack bars for rotating said pinions.

253. In a cash indicating machine, the combination with a differentially movable indicator bearing a plurality of characters, of a series of keys corresponding to the characters upon the indicator, a graduated element controlled by the keys for controlling the movement of said indicator, an operating shaft having a constant excursion upon each operation of the machine, and a flexible connection between said shaft and said indicator.

254. In a cash register, the combination with a differentially movable indicator bearing a plurality of characters, of a series of keys corresponding to the characters upon the indicator, a graduated plate actuated by the keys for controlling the movement of the indicator, an operating shaft having a constant excursion upon each operation of the machine, a flexible connection between the shaft and the indicator, a lock for said indicator, and means actuated by the operating shaft for releasing said lock.

255. In a cash indicating machine, the combination with a plurality of indicators for indicating dollars, dimes and cents, of a plurality of corresponding banks of keys for controlling the movement of said indicators, means for holding said indicators in any position to which they may be moved, and means controlled by each bank of keys for displacing the holding means and holding it displaced until the indicator has returned to normal position.

256. In a cash indicating machine, the combination with an indicator bearing a plurality of characters, of operating means therefor, a series of depressible keys for controlling the movement of said indicator, devices for holding the indicator in any position to which it may be moved, means for latching any key of the series in a depressed position, and means for releasing the depressed key and the indicator upon the operation of any other key in the series.

257. In a cash indicating machine, the combination with an indicator bearing a plurality of characters, of operating means therefor, a series of depressible keys for controlling the movement of the indicator, devices for holding the indicator in any position to which it may be moved, means for latching any key of the series in a depressed position, means for releasing the depressed key and the indicator upon the operation of any other key in the series, and means for releasing the depressed key without releasing the indicator.

258. In a cash indicating machine, the combination with an indicator bearing a plurality of characters, of operating means therefor, a series of depressible keys for controlling the movement of the indicator, devices for holding the indicator in any position to which it may be moved, means for latching any key of the series in a depressed position, means for releasing the depressed key and the indicator upon the operation of any other key in the series, means for releasing the depressed key without releasing the indicator, and means for preventing the operation of the last mentioned key releasing means until the operating means for the indicator has been operated.

259. In a cash registering and indicating machine, the combination with a plurality of indicators, of actuating racks therefor, an operating mechanism, flexible connections between the racks and said mechanism, a plurality of banks of keys corresponding to the indicators, graduated plates controlled by said keys, the said plates in turn controlling the actuating racks for the indicators, a registering mechanism, and racks connected to the indicator actuating racks for operating said registering mechanism.

260. In a machine of the class described, the combination with a group of keys and a graduated element differentially positioned by said keys, of an indicator, a driving device for said indicator positioned to be obstructed by said graduated element, a spring connected to return said indicator to normal position, a second spring having connections to move said indicator from normal position, means for giving said second spring greater tension than said first spring, and a latch controlled by said keys, and constructed to hold said indicator in any of its adjusted positions.

261. In a machine of the class described, the combination with an indicator, and a group of keys, with connections from said keys for controlling the differential setting of said indicator, of a ratchet disk having a deep notch and movable with said indicator, a pawl positioned to engage the teeth of said ratchet disk, devices constructed to move said pawl out of the plane of said ratchet disk, and a spring positioned to cause said pawl to engage the deep notch in said ratchet disk.

262. In a machine of the class described, the combination with a group of keys and an indicator controlled by said keys, of a spring connected to restore said indicator to normal position, separate detents for the group of keys and the indicator, connections whereby the key detent releases the indicator detent, a release key, devices actuated by said release key to control said key detent, with connections from said release key to prevent release of said indicator detent.

263. In a machine of the class described, the combination with a group of keys, and an indicator controlled by said keys, of means to restore said indicator to normal position, a detent for said indicator, a plate actuated by said keys and constructed to retain an actuated key in actuated position, connections from said key actuated plate to release said indicator detent, a release lever, devices controlled by said release lever and constructed to release said key actuated plate, and means, actuated by said plate releasing devices, to prevent actuation of said indicator detent releasing connections.

264. In a machine of the class described, the combination with two groups of keys, and indicators one for and controlled by each key group, a detent for each indicator, a plate actuated by each key group and having connections to release the detent for the corresponding indicator, and hand operated means for operating both said key actuated plates at once whereby to release both of said indicator elements.

265. In a machine of the class described, the combination with a plurality of depressible keys, of means for retaining said keys in depressed positions, an indicator differentially adjusted under the control of said keys, mechanism for latching the indicator in adjusted position, and means carried by the keys for operating the retaining means for said keys and the latching mechanism for the indicator.

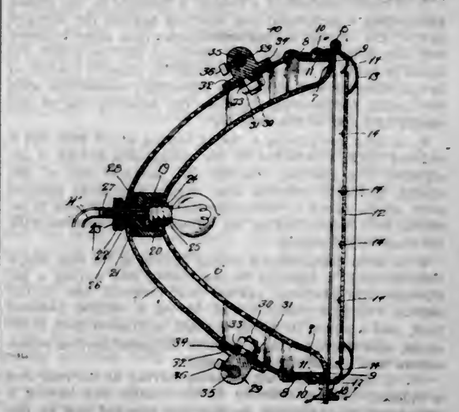
266. In a machine of the class described, the combination with a plurality of depressible keys, of means for retaining said keys in depressed positions, an indicator differentially adjusted under the control of said keys, mechanism for latching the indicator in adjusted position, means carried by the keys for operating the retaining means for said keys and the latching mechanism for the indicator, and a manipulative device for operating the retaining means, without disturbing the latching mechanism for the indicator.

267. In a machine of the class described, the combination with a plurality of depressible keys, of means for retaining said keys in depressed positions, an indicator differentially adjusted under the control of said keys, mechanism for latching the indicator in adjusted position, means carried by the keys for operating the retaining means for said keys and through the retaining means operating the latching mechanism for the indicator, a manipulative device for operating the key retaining means, and mechanism controlled by said manipulative device for preventing the operation of the indicator latching mechanism when the key retaining means is operated by the manipulative device.

268. In a machine of the class described, the combination with a plurality of keys, of a graduated element differentially adjusted thereby, registering and indicating mechanisms, an actuator for said mechanisms, and an operating mechanism having an invariable movement for imparting to the actuator an extent of movement depending upon the adjustment of the graduated element.

269. In a machine of the class described, the combination with a series of keys, of a graduated element differentially adjusted thereby, registering and indicating mechanisms, a differentially movable member having racks for actuating said registering and indicating mechanism, and an operating mechanism having an invariable movement for imparting to the movable member an extent of movement depending upon the adjustment of the graduated element whereby the registering and indicating mechanisms are actuated correspondingly by the racks carried by said movable member.

13,630. LAMP. EDGAR J. LUTWYCHE, Chicago, Ill., assignor to Charles H. Reynolds, Chicago, Ill. Filed Aug. 28, 1913. Serial No. 787,233. Original No. 1,070,383, dated Aug. 12, 1913, Serial No. 726,977. (Cl. 240—41.)



1. A lamp comprising a casing having at its rear end a centrally located reduced neck, an open front reflector in the casing and having a peripheral rim abutting against the forward end of the casing, said reflector also having a centrally located reduced neck at its rear end terminating in the space between the casing and reflector, and a tubu-

lar support connected to the reflector and extending from its neck to and through the neck of the casing, said tubular support having an adjustable connection with respect to the casing for drawing together said rim and forward end of the casing.

2. A lamp comprising a casing member having at its rear end a centrally located opening, an open front reflector member in the casing and having a peripheral rim abutting against the forward end of the casing, said reflector also having a centrally located opening at the rear thereof, spaced away from the opening of the casing, and connecting means between the rear ends of said casing and reflector for holding together the forward end of the casing and rim of the reflector, said connecting means extending through the opening in one of said members and thereat secured to said member.

3. A lamp comprising a casing member having at its rear end a centrally located opening, an open front reflector member in the casing and having a peripheral rim abutting against the forward end of the casing, said reflector also having a centrally located opening at the rear thereof, spaced away from the opening of the casing, and a tubular support connected to the reflector and extending to and through the opening in the casing, said support having an adjustable connection with the casing for drawing together the forward end of the casing and peripheral rim of the reflector.

4. A lamp comprising a casing, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and a tubular member connected to the reflector and having an adjustable connection with the casing for drawing said rim and forward end of said casing together.

5. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing having a peripheral rim abutting against the forward end of said casing, said reflector also having a reduced neck at its rear end, and a tubular member connected to said reflector at the neck thereof and extending through the neck of said casing, said tubular member being provided with means engaging the neck of the casing for holding together said rim of the reflector and forward end of the casing.

6. A lamp comprising a casing, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, a ring overlapping the joint between said rim and the casing, and having a portion which extends in front of the rim, and a tubular support connecting the center or rear ends of the casing and reflector.

7. A lamp comprising a casing, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, a ring overlapping the joint between said rim and the casing, and having a portion which extends in front of the rim, and a tubular support connected to the reflector and having an adjustable connection with the casing for drawing together the forward end of the casing and rim of the reflector.

8. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and said reflector also having a central reduced neck, and a sleeve in which the last mentioned neck is secured, said sleeve having an adjustable connection with the neck of the casing.

9. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and said reflector also having a central reduced neck, and a sleeve in which the last mentioned neck is secured, said sleeve having a reduced threaded portion which screws into the neck of the casing.

10. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and said reflector also having a central reduced neck, a sleeve in which the last mentioned neck is secured, said sleeve having an adjustable connection with the neck of the casing, a socket-piece mounted in the neck of the reflector, and a source of light mounted in the socket-piece.

11. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and said reflector also having a central reduced neck, a sleeve in which the last mentioned neck is secured, said sleeve having an adjustable connection with the neck of the casing, a socket-piece mounted in the neck of the reflector and adjustable lengthwise therein, and a source of light mounted in the socket-piece.

12. A lamp comprising a casing having at its rear end a reduced neck, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and said reflector also having a central reduced neck, a sleeve in which the last mentioned neck is secured, said sleeve being connected to the neck of the casing, a cap over the outer end of the sleeve and the neck of the casing, a socket-piece mounted in the neck of the reflector, a stem extending from the socket-piece and screwing through the cap, and a source of light in the socket-piece.

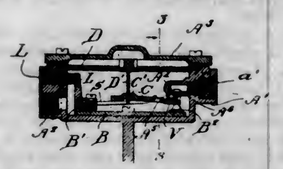
13. A lamp comprising a casing, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and a support connected to the reflector and having a screw-threaded engagement with the casing for drawing said reflector rim and the forward end of the casing together.

14. A lamp casing having an aperture, a socket-piece having a threaded stem extending through the aperture and projecting into the casing, the outer surface of the casing having a bead which extends around the base of the socket-piece, and a nut screwed on the projecting end of the stem.

15. A lamp casing having an aperture, a socket-piece having a threaded stem extending through the aperture and projecting into the casing, the outer surface of the casing having a bead which extends around the base of the socket-piece, a nut screwed on the projecting end of the stem, a washer under the nut, and a bushing in the aperture between the outer surface of the casing and the base of the socket-piece, and between the inner surface of the casing and the washer.

16. A lamp comprising a casing, a reflector in the casing and having a peripheral rim abutting against the forward end of the casing, and a ring overlapping the joint between said rim and the casing, and having a portion which extends in front of the rim into engagement therewith.

13,631. GAS-REGULATOR. WILLIAM R. PARK, Taunton, Mass., assignor to The United Injector Company, New York, N. Y., a Corporation of New York. Filed Jan. 5, 1912. Serial No. 669,650. Original No. 948,340, dated Feb. 8, 1910, Serial No. 528,052. (Cl. 50—26.)



1. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet controlled by the lever, a connection between the diaphragm and the lever, and a spring-bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and the diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums.

2. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and means to adjust the tension of the spring.

3. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a T-shaped valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-shaped spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle, and the spring-lever bearing in the former, both said points and the valve lying in the common axis of the two triangles.

4. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a spring bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and means to adjust the tension of the spring.

5. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and means to adjust the tension of the spring.

6. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm a T-shaped valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle, and the spring-lever bearing in the former, both said points and the valve lying in the common axis of the two triangles, and means to adjust the tension of the spring.

7. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a spring bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and externally accessible means to adjust the tension of the spring.

8. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and externally accessible means to adjust the tension of the spring.

9. In a gas delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a T-shaped valve controlling lever, a two-point fulcrum therefor, a valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-shaped spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle, and the spring-lever bearing in the former, both said points and the valve lying in the common axis of the two triangles, and externally accessible means to adjust the tension of the spring.

10. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a spring-bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums.

11. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums.

12. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a T-shaped valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two-points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle, and the spring lever bearing in the former, both said points and the valve lying in the common axis of the two triangles.

13. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a spring bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and means to adjust the tension of the spring.

14. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and means to adjust the tension of the spring.

15. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a T-shaped valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle, and the

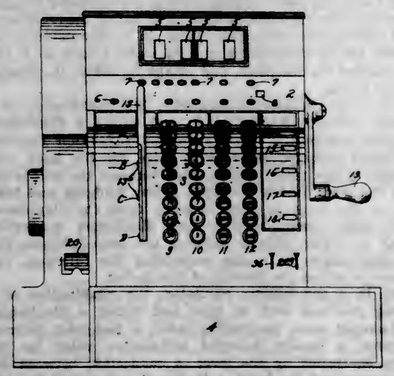
spring-lever bearing in the former, both said points and the valve lying in the common axis of the two triangles, and means to adjust the tension of the spring.

16. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, and a spring bearing on the lever to press it away from the diaphragm, said valve, spring-bearing and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and externally accessible means to adjust the tension of the spring.

17. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet controlled by the lever, a connection between the diaphragm and the lever, and a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, said valve, spring-bearing, and diaphragm connection lying in a line midway between the lever-fulcrums and at right angles to a line connecting the fulcrums, and externally accessible means to adjust the tension of the spring.

18. In a gas-delivery regulator, the combination of a casing provided with an inlet and outlet, a diaphragm, a T-shaped valve controlling lever, a two-point fulcrum therefor, a loosely mounted self-seating valve for the inlet, controlled by the lever, a connection between the diaphragm and the lever, a U-shaped spring bridging and bearing on the lever to press it away from the diaphragm, the lever-diaphragm connection and the two points of the lever fulcrum forming the points of an isosceles triangle, the bearing of the spring on the lever and the ends of the U-shaped spring forming another isosceles triangle, the lever-diaphragm bearing lying in the latter triangle and the spring-lever bearing in the former, both said points and the valve lying in the common axis of the two triangles, and externally accessible means to adjust the tension of the spring.

13,632. CASH-REGISTER. ROBERTO TAEGGI PISCICELLI, Paris, France, assignor to The National Cash Register Co., Dayton, Ohio, a Corporation of Ohio, (organized in 1906.) Filed Oct. 6, 1911. Serial No. 653,246. Original No. 872,845, dated Dec. 3, 1907, Serial No. 184,743. (Cl. 235—8.)



1. In cash registers having a cylindrical key board and sets of keys, the combination with each set of keys of a sector having a rim concentric with the cylindrical key board and fitted with holes in each of which the end of a depressed key may enter, a stepped piece rotatable about the axis of the cylindrical key board, a spring exerting tension on said stepped piece to cause the same to turn, and a lever arm rotating together with said stepped piece until its end strikes against the end of the depressed key projecting inside of the perforated rim, substantially as and for the purposes described.

2. In cash registers, the combination with the keys, and the summing mechanisms, of a stepped piece, rotatable about an axis through an angle determined by the depression of a key, and a spring actuated rod, which is permitted to move on the rotation of the stepped piece until it meets one of the steps to control the operation of the summing mechanisms, substantially as described.

3. In cash registers, the combination with the main shaft, and with each set of keys, of a partial summing mechanism, a spring actuated stepped piece free to turn about an axis, a cam keyed on the main shaft of the machine and controlling said stepped piece, a spring actuated rod, vertical guides in which the rod slides, the rod being permitted to move on the rotation of the stepped piece, until it meets one of the steps and a toothed sector permanently connected with the sliding rod and controlling the operation of the partial summing mechanism, substantially as described.

4. In cash registers, a set of partial summing apparatus, a sliding carriage on which the partial summing apparatus is mounted, the carriage being arranged to be traversed so as to bring any desired apparatus into position to be acted on, a toothed sector and a spring actuated sliding rod, with which each partial summing apparatus is permanently connected and a rotatable stepped piece, which in connection with the said sector and sliding rod controls the operation of the said summing apparatus, substantially as described.

5. In cash registers, the combination with a set of keys, of a part rotatable about an axis through an angle determined by the depression of a key, and of several partial summing apparatus, a toothed sector and a spring actuated sliding rod, with which each partial summing apparatus is permanently connected, and a carriage on which the several summing apparatus are mounted, and which can be traversed, so as to bring any desired apparatus to be acted on by the rotatable part, substantially as described.

6. In cash registers, a carriage, a shaft carried by the carriage, several partial summing apparatus having their like elements mounted together on said shaft to reduce the travel of the carriage, mechanism for controlling the operation of the summing apparatus, and means whereby the carriage can be moved to bring any desired apparatus into position to be acted on by said mechanism, substantially as described.

7. In cash registers the combination with several partial summing apparatus, toothed sectors provided with curved arms, the cams controlling the movement of the summing apparatus, a carriage on which the several partial summing apparatus are mounted, and which can be traversed, so as to bring any desired apparatus into position to be acted on by said cams, and the guides for the carriage, of brackets with shields, fastened on the guides of the carriage, whereon rest the arms of the toothed sectors which are not in correspondence with a cam, substantially as and for the purposes described.

8. In cash registers, the combination of a sliding carriage, several partial summing apparatus carried by said carriage, a fixed axle, stepped pieces mounted on said fixed axle, sliding rods controlling the movement of the partial summing apparatus, a total summing apparatus fixed to the frame of the machine, and means whereby the sliding carriage can be shifted to bring the sliding rods controlling the movement of the partial summing apparatus to be acted on into operative position between the stepped pieces and the total summing apparatus, substantially as and for the purpose described.

9. In cash registers the combination with the sets of keys of a rotatable stepped piece in correspondence with each set of keys, several partial summing apparatus, a sliding carriage on which the several partial summing apparatus are mounted, sliding rods adapted to engage the stepped pieces and controlling the movement of the several partial summing apparatus, means for maintaining

in their position of rest the sliding rods which are not in correspondence with the stepped pieces, a total summing apparatus and heads formed on the upper end of said rods, to establish a temporary connection between the total summing apparatus and the partial summing apparatus brought in the operative position, substantially as described.

10. The combination with a set of numerators provided with disks, and independent shafts on which the numerators are respectively mounted, of a device for putting simultaneously to zero the said disks, the said device consisting in the combination of toothed wheels, keyed on the shafts, on which the numerators are mounted, with like toothed wheels gearing with them in such a manner that, by turning one of the shafts, the other shafts are also caused to turn in the same direction through the same angle, substantially as described.

11. In cash registers, the combination with the several partial summing apparatus the lever for determining the department of sale, the casing provided with notches corresponding to the departments of sale, and at which the lever may be stopped, and the main shaft of the machine, of a ratchet wheel keyed on the main shaft, a fixed pin, a spring actuated lever pivoted on said fixed pin and having a tooth adapted to engage the ratchet wheel and stop the movement of the main shaft, and means for disengaging said tooth from the ratchet wheel when the lever for determining the department of sale is stopped at one of the department notches, substantially as and for the purposes described.

12. In cash registers the combination with several partial summing apparatus, of a lever for determining the department of sale, the said lever being provided with notches, a wheel, keyed on the main shaft and provided with a slot, and a spring actuated bell crank lever with toothed ends, the tooth at the end of one arm engaging the slot, when the machine is at rest, and the tooth at the end of the other arm engaging the notches and thus preventing any movement of the lever for determining the department of sale during the rotation of the main shaft, substantially as described.

13. In cash registers, the combination of the drums indicating the amount of each purchase and provided with teeth, racks gearing with the teeth on the drums, as they return to their normal position and means for withdrawing the racks from gear for the first part of their travel, substantially as described.

14. In cash registers, the combination with the summing apparatus, of rotatable stepped pieces controlling the movement of the summing apparatus, racks connected with said stepped pieces, drums indicating the amount of each purchase and provided with teeth, a shaft on which the drums are loosely mounted, spiral springs arranged in the drums and having one end fixed to the shaft and the other to the periphery of the drums, the racks gearing with the teeth on the drums as they return to their normal position, and means for withdrawing the racks from gear for the first part of their travel, the spiral springs restoring the drums to zero when the racks are out of gear with said teeth, substantially as described.

15. In cash registers, the combination with the summing apparatus, of rotatable stepped pieces controlling the operations of the summing apparatus, indicating drums, racks connected with said stepped pieces and controlling the movement of the indicating drums, the said racks being moved up and down by the movement of the stepped pieces, toothed wheels secured to the indicating drums, springs maintaining the racks in gear with said toothed wheels, cams controlling the movement of the stepped pieces and provided with projections, sliding rods provided with springs and adapted to be pushed against the racks by means of the projections on the cams to cause the racks to disengage the toothed wheels of the indicator drums while the racks move down, the projections on the cams disengaging the sliding rods when the racks are in their lowest position, thereby permitting the racks to again gear with the toothed wheels of the indicating drums, substantially as described.

16. In cash registers, the combination with the main shaft of the machine provided with a handle, and a drawer having a tooth on the back thereof, of a Y-shaped lever one arm of which rests on said tooth, a spring for holding the lever in position, thus preventing the drawer being opened when the machine is at rest, means for raising said arm and freeing the drawer when the handle of the machine is turned, a ratchet wheel on the main shaft of the machine and a hook on another arm of the Y-shaped lever, which engages the said ratchet wheel when the drawer is open, and prevents the machine acting until the drawer is shut again, substantially as described.

17. In cash registers, the combination with the sets of keys, of a sliding carriage on which are mounted several partial summing apparatus, a sliding carriage on which is mounted a paper roll for printing the duplicates of the tickets issued in separate columns, partial numerators corresponding to the different sale departments, a sliding cam acting on said partial numerators, a hand lever by means of which the above said carriages and cam are shifted in the proper position, before operating the machine, corresponding to the sale department to which the amount received belongs, a total summing apparatus adapted to act whichever of the partial summing apparatus is operated, a general numerator actuated by the same cam which actuates the partial numerators, rotatable stepped pieces in correspondence with each set of keys, toothed sectors, sliding rods and racks by means of which the said stepped pieces control the movement of the summing apparatus and of the indicators, means for preventing the operation of the machine when the hand lever determining the department of sale is not in the proper position, as when the drawer is open, means for preventing the depression of the keys during the operation of the machine and for restoring the keys in their normal positions, and means for printing and issuing tickets cut in the proper lengths, substantially as described.

18. In a machine of the class described, the combination with a plurality of totalizers each having a plurality of denominational elements, of a movable frame having a shaft mounted therein for supporting the elements in horizontal alinement and with the same denominational elements of the various totalizers grouped together, and means for moving the frame so as to bring the various totalizers into position to be actuated.

19. In a machine of the class described, the combination with a plurality of totalizers each having a plurality of denominational elements, of a movable frame having a shaft mounted therein for supporting the elements in horizontal alinement and with the same denominational elements of the various totalizers grouped together, actuators for said totalizers mounted upon the frame and movable therewith, and means for moving the frame so as to bring the various totalizers into position to be actuated.

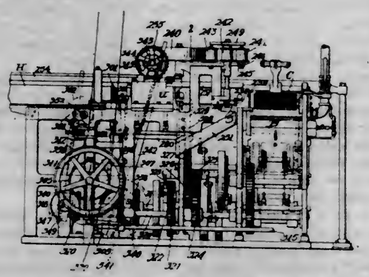
20. In a machine of the class described, the combination with a plurality of totalizers each having a plurality of denominational elements, of a movable frame having a shaft mounted therein for supporting the elements in horizontal alinement and with the same denominational elements of the various totalizers grouped together, actuators for said totalizers mounted upon the frame and movable therewith, means for moving the frame so as to bring the various totalizers into position to be actuated and differentially movable devices for determining the extent of movement of the actuators for the selected totalizer.

21. In a machine of the class described, the combination with a plurality of department totalizers each having a plurality of denominational elements, of a movable frame having a shaft mounted therein for supporting the elements in horizontal alinement and with the same denominational elements of the various totalizers grouped together, actuators for said totalizers mounted upon the frame and movable therewith, a grand totalizer for accumulating the total of all of the department totalizers, actuators for the grand totalizer, and a single set of differentially movable devices for determining the extent of movement of the actuators for the selected department totalizer and also of the actuators for the grand totalizer.

22. In a machine of the class described, the combination with a plurality of totalizers each having a plurality of denominational elements, of a movable frame having means for supporting the elements in alinement and with the same denominational elements of the various totalizers grouped together, a single set of differentially movable elements for the plurality of sets of totalizer elements, and means for moving the frame so as to bring the various totalizers into position to have their elements actuated from the differentially movable elements.

23. In a machine of the class described, the combination with a plurality of totalizers each having a plurality of denominational elements, of a movable frame having a shaft mounted therein for supporting the elements in horizontal alinement and with the same denominational elements of the various totalizers grouped together, a single set of differentially movable elements for the various totalizers, and means for moving the frame so as to bring the various totalizers into position to be actuated under the control of the differentially movable elements.

13,633. STEREOTYPE-PRINTING-PLATE-FINISHING MECHANISM. HENRY A. WISE WOOD, New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 9, 1913. Serial No. 783,988. Original application filed Mar. 12, 1900, Serial No. 8,384. Divided and application filed Mar. 14, 1903, Serial No. 147,793. Original No. 1,009,271, dated Nov. 21, 1911. (Cl. 29—21.)



1. The combination in a stereotype printing plate finishing mechanism, of saws for cutting off the edges of the plate, a conveyer for moving the plate past the saws, and cutting disks for cutting a guiding groove in the plate near each edge thereof.

2. The combination in a stereotype printing plate finishing mechanism, of saws for cutting off the edges of the plate, means for moving the plate past the saws, cutting disks for cutting a small guiding groove near each edge of the plate, and rollers or shoes for engaging these grooves to guide the plate.

3. The combination in a stereotype printing plate finishing mechanism, of saws, cutting disks turning therewith for cutting grooves in the plate, rollers for engaging underneath the edges of the plate before it passes to the saws, and rollers for engaging the grooves cut in the plate after it leaves the saws.

4. The combination in a stereotype casting and finishing mechanism, of a saw for the edge of the plate, means for moving the plate past the saw, and flexible means arranged between the casting mechanism and saw to bear on the plate to prevent the dust from passing back into the casting mechanism.

5. The combination in a stereotype casting and finishing mechanism, of saws for cutting off the edges of the plate, means for moving the plate past the saws, and flexible means bearing on the plate to prevent the dust passing back into the casting mechanism.

6. The combination in a stereotype printing plate finishing mechanism, of the arch, tools for finishing the plate when in the arch, means for moving the plate axially into the arch, and a stop for accurately determining the position of the plate in the arch.

7. The combination in a stereotype printing plate finishing mechanism, of the arch, a conveyer for moving the plate axially into the arch, an adjustable stop against which the plate is moved by the conveyer, and means for clamping and finishing the plate in the arch.

8. The combination in a stereotype printing plate finishing mechanism, of the arch, a conveyer for sliding the plate axially into the arch, means for clamping and finishing the plate in the arch, a movable stop against which the plate is brought, connections between the conveyer and stop for actuating the latter, and means for moving the plate out of the arch after it has been finished.

9. The combination in a stereotype printing plate finishing mechanism, of the arch, a clamping jaw for clamping the plate in the arch, a cam for actuating the jaw, and connections between the cam and clamping jaw including a spring arranged to cause the jaw to yieldingly engage the plate.

10. The combination in a stereotype printing plate finishing mechanism, of the arch, means for moving the plate into the arch, a clamping jaw for clamping the plate in the arch, and an extra spring guiding jaw for guiding the plate into the arch, so that the type face or edges thereof will not be marred or rubbed against the arch as the plate is moved into the same.

11. The combination in a stereotype printing plate finishing mechanism, of the arch, means for moving the plate into the arch, a clamping jaw for clamping the plate in the arch, and a spring guiding jaw arranged in the clamping jaw for accurately guiding the plate into the arch.

12. The combination in a stereotype printing plate finishing mechanism, of a water-jacketed arch, means for moving a plate into the arch, means for clamping the plate in the arch and finishing the same, and a conveyer arranged to move into the arch underneath the plate for delivering the plate from the arch.

13. The combination in a stereotype printing plate finishing mechanism, of the arch, means for moving the plate axially into the arch, a stop for determining the position of the plate in the arch, means for clamping the plate in the arch and finishing the same, means for delivering the plate from the arch, and means for operating the stop so that the same will be moved out of the way as the plate is delivered from the arch.

14. The combination in a stereotype printing plate finishing mechanism, of means for holding the plate, a knife for truing out the inside of the plate, and a roller for smoothing the plate after it has been trued.

15. In a plate finishing device, the combination of a feed device along which the plate travels, an end finishing cutter, a stop for the plate adapted to engage the surface to be finished by said cutter and arrest the plate, and means for moving the stop out of the path of said cutter.

16. In a plate finishing machine, the combination of a feed device, along which the plate travels, an end finishing cutter, a stop for the plate adapted to engage the surface to be finished by the cutter and arrest the plate, means for moving the stop out of the path of the cutter, and means for holding said plate in position while the stop is out of contact therewith.

17. A stereotype finishing apparatus comprising means for engaging a portion of a stereotype plate and positioning the plate within the finishing means, said finishing means also comprising a member which is capable of removing that portion of the plate which is engaged by the positioning means while the plate is positioned in said finishing means.

18. A stereotype finishing apparatus comprising means for engaging a portion of a stereotype plate and positioning the plate within the finishing means, said finishing means also comprising a member which is capable of removing the portion of the plate by which the said plate was positioned during the finishing operations.

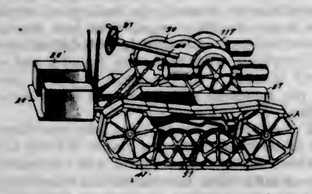
19. An apparatus for finishing stereotype printing plates comprising an arch, means for confining hot plates therein, means for trimming the edges thereof while hot, and means for simultaneously applying a cooling fluid to the arch.

20. In combination, a supporting frame, a shell mounted thereon, plate finishing mechanism, means for operatively moving said shell and plate finishing means relatively to each other, and means for supplying cooling fluid to said shell.

21. An apparatus for finishing hot semi-cylindrical stereotype printing plates comprising an arch or shell, means for confining the plate therein so that its type face will be in contact therewith, means for circulating water through the arch to cool the same, and means for finishing and shaping the plate while confined in the arch whereby its type face will be chilled during the finishing and shaping operation.

22. An apparatus for finishing hot semi-cylindrical stereotype printing plates comprising an arch or shell, means for confining the plate therein so that its type face will be in contact therewith, means for circulating water through the arch to cool the same, and means for shaving the inside of the plate and pressing the same into exact shape while confined in the arch whereby its type face will be chilled during the finishing and shaping operation.

13,634. TRACTOR. GEORGE CYRUS JETT, Gary, Ind. Filed Sept. 22, 1913. Serial No. 791,259. Original No. 1,071,427, dated Aug. 26, 1913, Serial No. 681,237. (Cl. 21—114.)



1. In a tractor or the like, the combination of a frame, a motor mounted on the frame, driving and driven shafts, a driving gear mounted on the driving shaft, a gear shaft mounted in the frame, a driven gear carried on the gear shaft and meshing with the said driving gear, spur gears *m* and *o* loosely mounted on the gear shaft and adapted to lock with the said driven gear, a differential gearing providing relative rotation to the said spur gears, traction wheels on the driven shaft, and a connection between the spur gears and the driven shaft.

2. In a tractor, the combination of a frame, a motor on the frame, a driving shaft, a driven axle, connections there-between, traction wheels mounted on the axle, a gear shaft mounted in the frame and carrying a worm gear rigidly secured thereto, and steering means comprising a steering shaft provided with a worm adapted to engage with the worm gear on the gear shaft, and differential gearing substantially as set forth and so arranged with respect to the gear shaft that on rotation of the steering shaft the traction wheels have relative movement with respect to each other.

3. In a tractor, the combination of a frame, a motor mounted in the frame, driving and driven shafts, wheels on the driven shafts, a driving gear slidably mounted on the driving shaft, a gear shaft mounted in the frame, steering means in operative engagement with the gear shaft, a driven gear on the gear shaft and meshing with the driving gear, a gear *g* rigidly secured to the gear shaft, differential gearing comprising the planetary gears *h*, *j* and *k* receiving rotative movement from the gear *g* and mounted for movement in bearings in the driven gear, a spur gear loosely mounted on the gear shaft and meshing with the gear *j*, an annular gear *n* loosely mounted on the gear shaft and engaging with the pinion *k*, compensatory sprockets having a relatively different number of sprocket teeth, and a connection between the sprockets and the driven shaft substantially as described.

4. In a tractor, the combination of a frame, driving and driven shafts, differential gearing, traction wheels on the ends of the driven shaft, a gear shaft mounted in bearings in the frame and carrying a gear *g* in operative relation with the said differential gearing, and steering means actuating the gear shaft whereby relative rotation is imparted to the traction wheels.

5. In a tractor having chain-tread members, the combination of a frame, driving and driven shafts, a differential mechanism, a compensatory connection between the differential mechanism and the driven shaft, sprocket wheels on the ends of the driven shaft engaging the chain-tread members, a gear shaft mounted in bearings in the frame and carrying a gear *g* in operative relation with the said differential mechanism, and steering means adapted to actuate the gear shaft whereby relative rotation is imparted to the chain-tread members.

6. In a motor or the like, the combination of a frame, driving and driven shafts in the frame, a differential mechanism, a connection between the driving and driven shafts, traction wheels on the ends of the driven shaft, a gear shaft mounted in bearings in the frame and carrying a gear *g* in operative relation with the said differential mechanism, a worm gear on the gear shaft, and a steering post suitably mounted in the frame and provided with a worm meshing with the said worm gear, so that on actuation of the steering post rotation is imparted to the gear shaft providing relative movement to the traction wheels with respect to each other.

7. In a tractor having endless chain-tread members; the combination of a frame, a motor in the frame, driving and driven shafts, a gear shaft mounted in the frame and rigidly carrying a gear *g*, a transmission gear revolubly mounted on the gear shaft and operatively connected with the driving shaft, planetary gears journaled in the transmission gear and actuated by the gear *g*, differential mechanism meshing with the planetary gears, sprocket wheels on the driven shaft in driving engagement with the endless chain members, steering means adapted to impart rotation to the gear shaft, and means to connect the transmission and differential mechanism with the said sprockets.

8. In a tractor, the combination of a frame, a motor in the frame, driving and driven shafts, traction wheels on the driven shaft, a gear shaft journaled in the frame and rigidly carrying a fixed gear *g* thereon, transmission gearing revolubly mounted about the gear shaft and driven from the driving shaft, steering means adapted to impart rotation to the gear shaft, a differential gearing actuated by the said gear *g* and normally locking with the transmission gearing, and means to connect the transmission and differential mechanism with the said traction wheels, so that when the transmission gear is stationary and the steering means actuated relative movement is imparted to the traction wheels.

9. In a tractor having endless chain-tread members, the combination of a frame, a motor in the frame, driving and driven shafts, a gear shaft journaled in the frame and carrying a fixed gear *g*, a transmission gear revolubly mounted on the gear shaft and operatively connected with the driving shaft, differential mechanism comprising the annular gear *n* and spur gear *l*, gear *h* meshing with the fixed gear *g*, said gear *h* being journaled in the transmission gear and carrying pinions *j* and *k* adapted to mesh with the spur gear *l* and annular gear *n* respectively, sprocket wheels on the ends of the driven shaft engaging with the endless chain member, steering means adapted to actuate the gear shaft imparting relative rotation to the gears *l* and *n*, connections between the gears *l* and *n* and the said sprocket wheels, so that when the transmission gear is stationary and the steering means actuated, relative movement is imparted to the chain tread member through the sprocket wheels thereby turning the tractor; or if the steering means is stationary and the transmission gearing has rotation in a right hand direction, the gears *l* and *n* have similar right hand movement through the locking pinions *j* and *k* so that the tractor has movement in a straight line.

10. In a tractor, the combination of a frame, a motor

in the frame, driving and driven shafts, a gear shaft journaled in the frame and carrying a rigid gear *g*, a transmission gearing revolubly mounted on the gear shaft and operatively connected with the driving shaft, differential mechanism comprising the annular gear *n* and the spur gear *l*, said annular gear and spur gear having different diameters, a planetary gear *h* having movement about its own axis and turning bodily about the gear shaft, said gear *h* engaging with the gear *g* and journaled in the transmission gearing and further provided with pinions *j* and *k* adapted to mesh with the gears *l* and *n* respectively, traction wheels on the driven shaft, steering means actuating the gear shaft and adapted to impart relative rotation to the gears *l* and *n* with respect to each other, connections between the gears *l* and *n* and the said traction wheels, compensatory gears located in the said connections and between the said last gears and the said traction wheels, all so arranged that with the steering means and gear shaft normally stationary and the power cut in, the pinions *j* and *k* lock with the gears *l* and *n* so that the traction wheels have similar rotation in the same direction.

11. In a tractor the combination of a frame-work carrying a motor mounted thereon, a driving shaft, a driving gear on the shaft, a divided driven shaft, traction members on the ends of the divided shaft, a gear shaft journaled in the frame-work provided with a rigid gear *g*, a driven gear revolubly mounted on the gear shaft and adapted to engage with the said driving gear, steering mechanism comprising means to actuate the gear shaft which in turn imparts rotation to a differential gearing, said differential gearing consisting of a spur gear *l* and an annular gear *n* revolubly mounted about the gear shaft, a planetary gear *h* carrying integral pinions *j* and *k* and having a journaled surface mounted for rotation about its own axis in a bearing in the said driven gear and turning bodily about the gear shaft, the said pinions *j* and *k* meshing with the gear *l* and annular gear *n* respectively, a connection between the gears *l* and *n* and the traction wheels, so that on actuation of the driven gear when the gear shaft is normally stationary the said pinions *j* and *k* are in locking relation with the gears *l* and *n* whereby the traction members have similar movement in the same direction, or if the transmission mechanism is stationary and the steering means actuated the tractor will turn about in its own length, or if the transmission mechanism and the steering means are both in operation at the same time the tractor has movement in a substantially oblique or circular direction.

12. In a gear for tractors, the combination of a frame, an axle journaled in the frame, traction members fast on said axle, a drive shaft having driving pinions of different diameters slidably mounted thereon but rotatable therewith, a gear shaft on the frame, different-sized gears loose on the gear shaft, an actuating gear keyed on the gear shaft in operative relation with steering mechanism, differential mechanism having pinions journaled in the webs of the said different-sized gears adapted to be actuated by rotation of the gear shaft, said differential mechanism including a spur gear *l* and an internal gear *n* loose on the shaft and meshed with the said pinions, a secondary shaft, compensating means on the secondary shaft, connections between the compensating means and the differential mechanism, and between the compensating means and the traction members.

13. In a motor car or the like the combination of a frame, a motor on the frame, a power shaft, a driven axle, a connection between the motor and the axle, traction members mounted on the axle, and steering means comprising a steering shaft provided with a worm thereon and in engagement with a worm gear mounted on a worm gear shaft, and differential gearing substantially as described and all so arranged with respect to the worm gear shaft that on rotation of the steering shaft the traction members on the ends of the axle have rotation in opposite directions with respect to each other.

14. The combination in a motor car, of a frame, a driving shaft and a driven shaft, connections there-between, traction wheels keyed on the driven shaft, and steering means comprising a steering shaft provided with friction wheels alternately adapted to peripherally contact with friction means on the driving shaft, a gear shaft 86 actuated by the steering shaft, sprockets mounted in the frame and in operative relation with the gear shaft, connections between the sprockets and the driven shaft, and means to differentiate the rotation of said sprockets whereby the traction wheels on opposing sides of the motor car will rotate in opposing directions with respect to each other.

15. In a motor car or the like, the combination of a frame, a motor mounted in the frame, driving and driven shafts, sprocket wheels on the driven shaft, chain tread members rotatable with the sprocket wheels, and transmission means comprising driving gears slidably mounted on the driving shaft but rotatable therewith, driven gears mounted for alternate engagement with the driving gears, means to engage and disengage the said gears respectively, spur gears rotatable with respect to the driven gears and having the same axis of movement therewith, compensatory sprockets engaging with the said spur gears, and connections between the sprockets and the sprocket wheels on the driven shaft.

16. In a machine of the class described, the combination of a frame, a motor mounted thereon, driving and driven shafts, wheels mounted on the driven shafts, chain tread members rotatable with the sprocket wheels and transmission means comprising the driving gears 121 and 122 slidably mounted on the driving shaft and rotatable therewith, the gears *e* and *f* located with respect to the gears 121 and 122 for alternate engagement, means to disengage the said gears respectively, back-up or reverse gears *b* and *a*, means to effect engagement and disengagement of the reverse gears with driving and driven gears, gears *m* and *o* rotatable with respect to *e* and *f* and sprockets 80 and 81 meshing with the gears *m* and *o*, connections between the sprockets and the driven shaft substantially as described.

17. In a motor car or the like, the combination of a frame, a motor mounted in the frame, driving and driven shafts, wheels on the driven shafts, and coöperating transmission and differential steering means comprising driving gears 121 and 122 slidably mounted on the driving shaft, a steering shaft mounted in suitable bearings on the frame, a gear shaft adapted to receive rotation from the steering shaft, the driven gears *e* and *f* mounted for alternate engagement with the driving gears 121 and 122 respectively, gear *g* keyed to the gear shaft rotatable therewith and engaging with the idler gear *i*, differential gearing comprising the gears *h*, *j* and *k* having journaled surfaces mounted for movement in bearings in the gears *e* and *f*, spur gear *l* loosely mounted on the gear shaft and meshing with the pinion *j*, annular gear *n* loosely mounted on the gear shaft engaging with the pinion *k*, the gears *m* and *o* loosely fitted on the gear shaft, but rigidly secured to the gears *l* and *n* respectively, compensatory sprockets respectively meshing with the gears *m* and *o* and connections between the sprockets and the driven shafts substantially as set forth.

18. In a tractor having a frame and a motor therein; the combination of a driving shaft having a friction wheel, a divided driven shaft, connections between the driving and driven shafts, traction wheels rigidly secured to the ends of the driven shaft, a gear shaft, steering means comprising a steering post operatively engaging with the gear shaft and having slight longitudinal movement in suitable bearings in the frame, said post having friction disks rigidly mounted thereon and adapted to peripherally engage with the said friction wheel, and differential means actuated by the gear shaft whereby the traction wheels on opposing sides of the tractor have relative movement with respect to each other.

19. In a tractor having a frame, and a motor therein; the combination of a driving shaft having a friction wheel, a divided driven shaft, connections between the driving and driven shafts, traction wheels rigidly secured to the ends of the driven shaft, a gear shaft, steering means comprising a steering post operatively engaging with the gear shaft and having slight longitudinal movement in threaded bearings in the frame, said post having a pair of friction disks rigidly mounted thereon and adapted to alternately engage with the said friction wheel, and differential gearing actuated by the gear shaft so that the traction wheels on opposing sides of the tractor have relative movement with respect to each other.

20. In a tractor having chain-tread members on opposing sides thereof; the combination of a frame, a motor on the frame; a driving shaft, a divided driven shaft, sprocket wheels keyed on the ends of the driven shaft and having a driving engagement with the said chain-tread members, a gear shaft provided with a fixed gear *g*, coöperating transmission and differential mechanism, the said transmission mechanism comprising driving and driven gearing and the said differential mechanism consisting of a spur gear and an annular gear adapted to receive relative rotation through planetary gearing journaled in the driving gearing, the spur and annular gears rotating in the same direction with the driving gear when the gear shaft is normally stationary, and connections between the transmission and the chain tread members.

21. In a tractor having chain-tread members on opposing sides thereof; the combination of a frame, a motor on the frame, a driving shaft, a two-part axle, sprocket wheels keyed on the ends of the axle and having a driving engagement with the said chain-tread members, a gear shaft provided with a fixed gear *g*, coöperating transmission and differential mechanism, the said transmission mechanism comprising driving and driven gearing and the said differential mechanism consisting of a spur gear and an annular gear adapted to receive relative rotation through planetary gearing journaled in the driven gearing, the spur and annular gears rotating in the same direction with the driven gear when the gear shaft is normally stationary, connections between the transmission and the chain-tread members, and steering means to actuate the gear shaft.

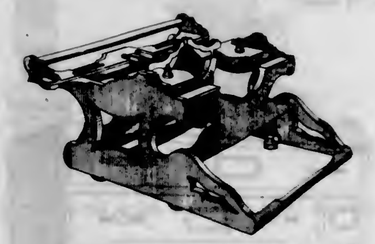
22. In a motor car or the like having a frame and a motor thereon; the combination of driving and driven shafts, traction wheels on the driven shafts, coöperating transmission and differential mechanism, a gear shaft adapted to actuate the differential mechanism, said differential locking with the transmission and having substantial similar movement therewith when the gear shaft is stationary.

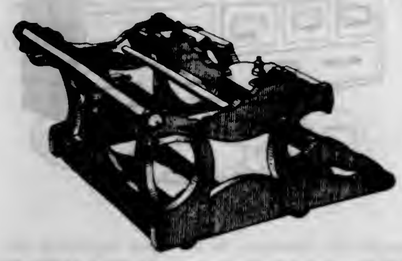
23. In a motor car or the like having a frame and a motor mounted on the frame; driving and driven shafts and connections therebetween, traction wheels on the driven shafts, co-acting transmission and differential mechanism, a gear shaft adapted to actuate the differential, said differential locking with the transmission when the gear shaft is stationary, and so arranged that when the gear shaft is actuated the traction wheels have relative movement with respect to each other.

24. In a tractor driving and driven shafts, traction members on the driven shafts, a driving gear on the driving shaft, a jack shaft journaled in the frame and adapted to receive actuation from steering mechanism, gearing driven from said driving gear with gears *l* and *n* revoluble co-axially about said jack shaft, a planetary gear carried in the driven gearing to mesh with the gears *l* and *n*, connections between the jack shaft and driven shafts, and a pinion rigid with the jack shaft and in operative relation with the said planetary gear, whereby on actuation of the steering mechanism the movement of one traction member is differentiated from the other, substantially as and for the purpose set forth.

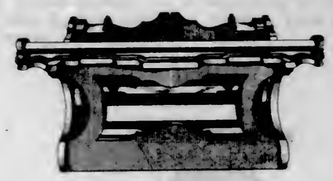
DESIGNS.

44,743. TYPE-WRITING-MACHINE FRAME. JESSE ALEXANDER, New York, N. Y. Filed July 7, 1911. Serial No. 637,360. Term of patent 14 years.



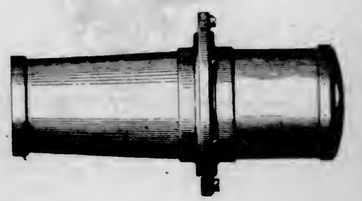


44,743.



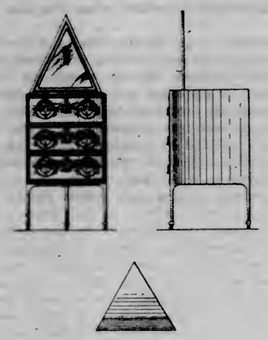
The ornamental design for a typewriting machine frame as shown.

44,744. CASING FOR SIGNAL DEVICES. EMANUEL AUFIERO, Brooklyn, N. Y. Filed July 18, 1913. Serial No. 779,865. Term of patent 7 years.



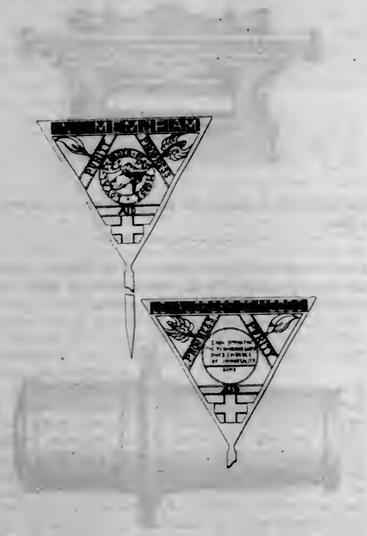
The ornamental design for a casing for signal devices as shown.

44,745. DRESSER, CHIFFONNIER, OR SIMILAR ARTICLE. SILAS L. BOUND, Cravens, La. Filed June 16, 1913. Serial No. 774,045. Term of patent 3½ years.



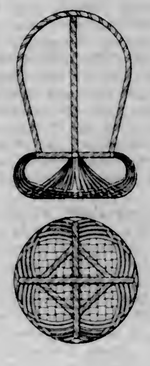
The ornamental design for a dresser, chiffonnier or similar article, as shown.

44,746. GRAVE-MARKER. HARRY T. BROCKMAN, Cleveland, Ohio. Filed June 30, 1913. Serial No. 776,704. Term of patent 7 years.



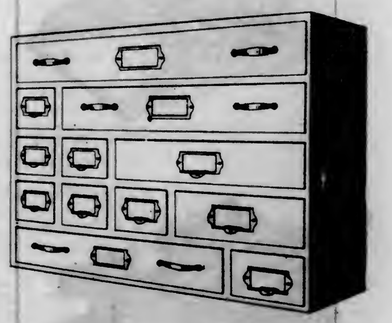
The ornamental design for a grave marker, as shown and described.

44,747. WOVEN PALM-LEAF BASKET. BESSIE M. CHESTER, Longbeach, Cal. Filed July 7, 1913. Serial No. 777,743. Term of patent 7 years.



The ornamental design for a woven palm leaf basket as shown.

44,748. FILING-CABINET. JOSEPH CLIFFORD DANDO, Philadelphia, Pa., assignor to The Dando Printing and Publishing Company, a Corporation of Pennsylvania. Filed July 18, 1912. Serial No. 710,262. Term of patent 14 years.



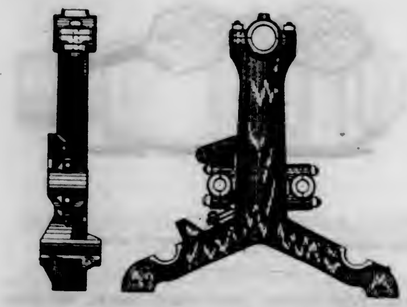
The ornamental design for a filing cabinet, as shown.

44,749. LAMP-STANDARD. MATTHEW DAVING, Pittsburgh, Pa. Filed Aug. 19, 1913. Serial No. 785,567. Term of patent 7 years.



The ornamental design for a lamp standard as shown.

44,750. CHURN-FRAME. REUBEN B. DISBROW and CARL M. CARLSON, Owatonna, Minn.; said Carlson assignor to said Disbrow. Filed Aug. 21, 1913. Serial No. 786,038. Term of patent 7 years.



The ornamental design for a churn frame, as shown.

44,751. AUTOMOBILE TIRE-SUPPORT. GRANT F. DISCHER, Milwaukee, Wis., assignor to Garage Equipment Manufacturing Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 3, 1912. Serial No. 713,196. Term of patent 7 years.



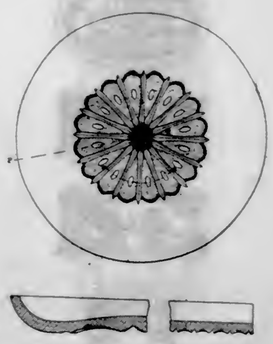
The ornamental design for an automobile tire support, substantially as shown.

44,752. CHAIR. HOMER ECKERSON, Mechanicsville, N. Y. Filed Aug. 13, 1913. Serial No. 784,615. Term of patent 7 years.



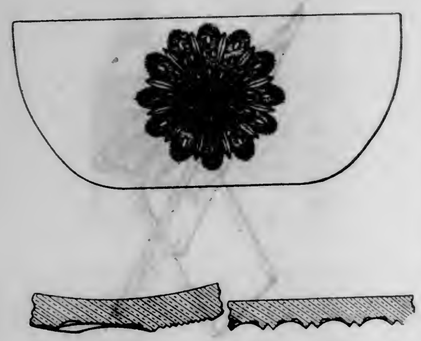
The ornamental design for a chair as shown.

44,753. CUT-GLASS DISH OR SIMILAR ARTICLE. WILLIAM P. FEENEY, Valparaiso, Ind., assignor to Pitkin & Brooks, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1913. Serial No. 783,624. Term of patent 7 years.



The ornamental design for a cut glass dish or similar article, as shown.

44,754. CUT-GLASS DISH OR SIMILAR ARTICLE. WILLIAM P. FRENEY, Valparaiso, Ind., assignor to Pitkin & Brooks, Chicago, Ill., a Corporation of Illinois. Filed Aug. 7, 1913. Serial No. 783,625. Term of patent 7 years.



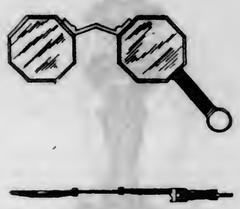
The ornamental design for a cut glass dish or similar article, as shown.

44,755. JEWEL-CASE. ALFRED J. FLAUDER, Bridgeport, Conn., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed July 10, 1913. Serial No. 778,387. Term of patent 3½ years.



The ornamental design for a jewel case as shown.

44,756. LORGNETTE. MORTIMER C. FOSTER, New York, N. Y., assignor to August Goldsmith, Mortimer C. Foster, Nathan B. Stern, and Arthur Simons, doing business as Goldsmith, Stern & Co., New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,961. Term of patent 3½ years.



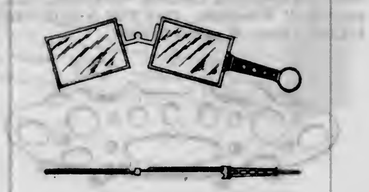
The ornamental design for a lorgnette as shown.

44,757. LORGNETTE. MORTIMER C. FOSTER, New York, N. Y., assignor to August Goldsmith, Mortimer C. Foster, Nathan B. Stern, and Arthur Simons, doing business as Goldsmith, Stern & Co., New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,962. Term of patent 3½ years.



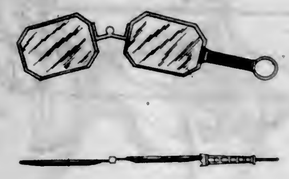
The ornamental design for a lorgnette as shown.

44,758. LORGNETTE. MORTIMER C. FOSTER, New York, N. Y., assignor to August Goldsmith, Mortimer C. Foster, Nathan B. Stern, and Arthur Simons, doing business as Goldsmith, Stern & Co., New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,963. Term of patent 3½ years.



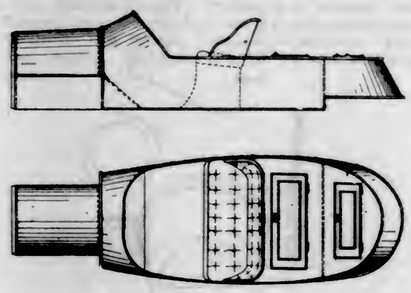
The ornamental design for a lorgnette as shown.

44,759. LORGNETTE. MORTIMER C. FOSTER, New York, N. Y., assignor to August Goldsmith, Mortimer C. Foster, Nathan B. Stern, and Arthur Simons, doing business as Goldsmith, Stern & Co., New York, N. Y. Filed Aug. 9, 1913. Serial No. 783,964. Term of patent 3½ years.



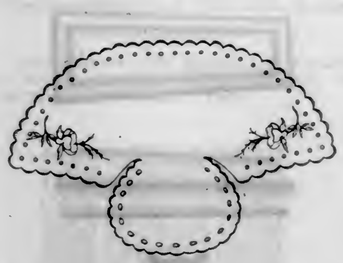
The ornamental design for a lorgnette as shown.

44,760. AUTOMOBILE-BODY. LAWRENCE E. FRENCH, Los Angeles, Cal. Filed Aug. 25, 1913. Serial No. 786,624. Term of patent 7 years.



The ornamental design for an automobile body as shown.

44,761. ONE-PIECE STAMPED CAPE AND HOOD FOR DOLLS. ROSE GROSS, New York, N. Y. Filed July 8, 1913. Serial No. 777,964. Term of patent 7 years.



The ornamental design for a one piece stamped cape and hood for dolls as shown.

44,762. GLASS JAR. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1913. Serial No. 785,402. Term of patent 7 years.



The ornamental design for a glass jar, as shown.

44,763. GLASS JAR. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1913. Serial No. 785,403. Term of patent 7 years.



The ornamental design for a glass jar, as shown.

44,764. GLASS JAR. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1913. Serial No. 785,404. Term of patent 7 years.





The ornamental design for a glass jar, as shown.

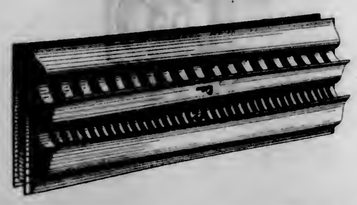
44,765. GLASS JAR. REUBEN HALEY, Beaver, Pa., assignor to United States Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Aug. 18, 1913. Serial No. 785,405. Term of patent 7 years.





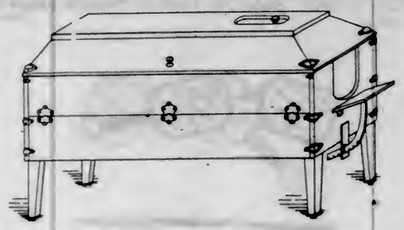
The ornamental design for a glass jar, as shown.

44,766. WINDOW-VENTILATOR. ANTHONY V. KEYROUSE, New York, N. Y. Filed Aug. 5, 1913. Serial No. 783,197. Term of patent 14 years.



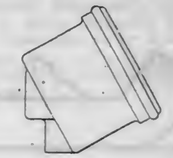
The ornamental design for window ventilator as shown.

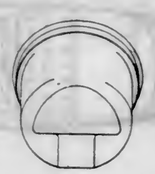
44,767. VAPOR-BATH CABINET. JOHN F. KRUSE, Denver, Colo. Filed Apr. 28, 1913. Serial No. 764,284. Term of patent 7 years.



The ornamental design for a vapor bath cabinet as shown.

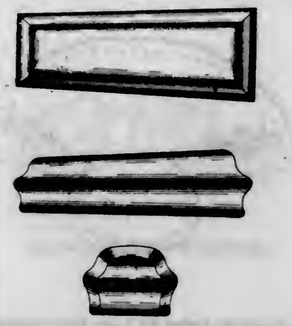
44,768. SPEEDOMETER OR ODOMETER CASING. RAY H. MANSON, Elyria, Ohio. Filed Oct. 12, 1912. Serial No. 725,525. Term of patent 7 years.





The ornamental design for a speedometer or odometer casing as shown.

44,769. BURIAL-CASKET. JOHN MARTINCSAK, New York, N. Y. Filed Aug. 5, 1913. Serial No. 783,198. Term of patent 14 years.



The ornamental design for a burial casket, as shown.

44,770. DESK. HENRY J. MEBLE, Chicago, Ill. Filed July 2, 1913. Serial No. 777,093. Term of patent 14 years.



The ornamental design for a desk as shown.

44,771. BRIDLE-CHEEK. FREDERICK C. MONIER, New Britain, Conn., assignor to North & Judd Manufacturing Company, New Britain, Conn., a Corporation. Filed Jan. 10, 1913. Serial No. 741,332. Term of patent 14 years.

The ornamental design for a bridle cheek, as shown.

44,772. LEATHER OR LIKE MATERIAL. RICHARD W. OWEN, Milwaukee, Wis. Filed Dec. 11, 1911. Serial No. 665,161. Term of patent 7 years.



The ornamental design for leather or like material substantially as shown.

44,773. STAND FOR PRINTING-PRESSES. FRANK H. QUADE, Jr., Fresno, Cal. Filed July 14, 1913. Serial No. 779,052. Term of patent 3½ years.



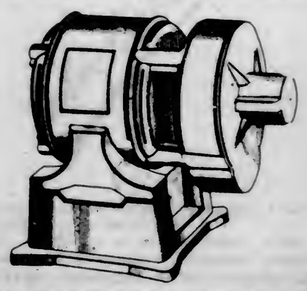
The ornamental design for a stand for a printing press, as shown.

44,774. CUT AND ENGRAVED TRANSPARENT PLATE. HENRY P. SINCLAIRE, Corning, N. Y. Filed Aug. 16, 1913. Serial No. 785,161. Term of patent 14 years.



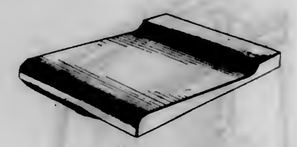
The ornamental design for a cut and engraved transparent plate, as shown.

44,775. COMBINED MOTOR-HOUSING AND GEAR-CASE. JOSEPH C. STEINER, St. Louis, Mo. Filed June 16, 1913. Serial No. 774,042. Term of patent 7 years.



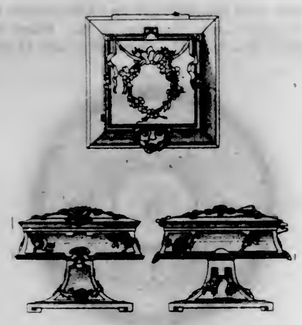
The ornamental design for a combined motor housing and gear case, as shown.

44,776. BOTTOM FOR CHAIRS OR SIMILAR ARTICLES. LEOPOLD STICKLEY, Fayetteville, N. Y. Filed July 27, 1911. Serial No. 640,944. Term of patent 14 years.



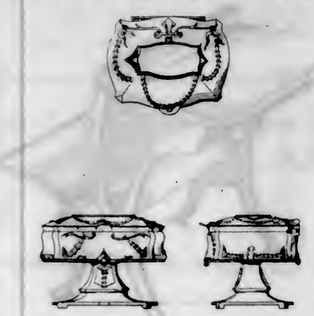
The ornamental design for a bottom for chairs or similar articles as shown and described.

44,777. JEWEL-CASE. LOUIS WEIDLICH, Bridgeport, Conn., assignor to The Weidlich Bros. Mfg. Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 15, 1913. Serial No. 761,342. Term of patent 3½ years.



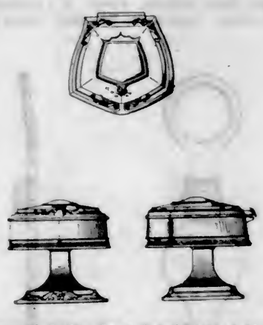
The ornamental design for a jewel case as shown.

44,778. JEWEL-CASE. LOUIS WEIDLICH, Bridgeport, Conn., assignor to The Weidlich Bros. Mfg. Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 15, 1913. Serial No. 761,346. Term of patent 3½ years.



The ornamental design for a jewel case as shown.

44,779. JEWEL-CASE. LOUIS WEIDLICH, Bridgeport, Conn., assignor to The Weidlich Bros. Mfg. Co., Bridgeport, Conn., a Corporation of Connecticut. Filed Apr. 15, 1913. Serial No. 761,347. Term of patent 3½ years.



The ornamental design for a jewel case as shown.

TRADE-MARKS

PUBLISHED OCTOBER 21, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 40,434. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) MOLLER & SCHUMANN CO., New York, N. Y. Filed Feb. 8, 1909.

HiLo

Consisting of the word "HiLo."

Particular description of goods.—Varnishes, Wood Fillers, Stains, and Enamels.

Claims use since January, 1900.

Ser. No. 35,418. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOOTH FISHERIES COMPANY, Chicago, Ill. Filed Mar. 30, 1911.



Particular description of goods.—Fresh, Salted, Smoked, Canned, and Pickled Oysters, Clams, Shrimps, Lobsters, and Fish.

Claims use since Aug. 1, 1910.

Ser. No. 57,195. (CLASS 33. GLASSWARE.) EMPIRE BOTTLE & SUPPLY COMPANY, New York, N. Y. Filed June 20, 1911.

ESSX

Particular description of goods.—Glass Milk and Cream Bottles.

Claims use since July, 1908.

Ser. No. 59,196. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) BIOGRAPH COMPANY, New York, N. Y. Filed Oct. 17, 1911.



No claim is made herein to the words "Biograph Company" and "New York."

Particular description of goods.—Moving-Picture Films, Both Positive and Negative; Mutoscope-Pictures, Positive and Negative; and Moving-Picture Cameras and Exhibiting-Machines.

Claims use since Mar. 18, 1911.

Ser. No. 61,500. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.



The name of the applicant being a facsimile of the handwriting of Richard A. Hudnut.

Particular description of goods.—Toilet Water, Perfume, Bay-Rum, Tooth-Powder, Cold-Cream, Liquid and Semiliquid Toilet Preparations to be Externally Applied for Improving the Skin.

Claims use since January, 1895.

Ser. No. 63,087. (CLASS 12. CONSTRUCTION MATERIALS.) AUSTRAL WINDOW COMPANY, Augusta, Me., and New York, N. Y. Filed Apr. 24, 1912.

AUSTRAL

Particular description of goods.—Windows.
Claims use since Mar. 15, 1912.

Ser. No. 63,184. (CLASS 6 CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE TRIMBLEINE COMPANY, Seymour, Mo. Filed Apr. 27, 1912.

TRIMBLEINE

Particular description of goods.—A Salve to be Used as an External Remedy for Inflammations or Congestions.
Claims use since about Apr. 6, 1912.

Ser. No. 64,765. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PETER RUHL, Heber, Cal. Filed July 16, 1912.



The illustration of the two horses, the man, and the words "Before" and "After" being disclaimed.
Particular description of goods.—Remedy for Sweeny, Sprains, Wire-Cuts and Open Wounds, Sore Shoulders, Shoe-Boils, Callouses, Rheumatic Pains, Fistula, Spavin and Splint, Flyblows, Mange, Stifle-Joint Lameness, and for Cracked Hands.
Claims use since June 14, 1912.

Ser. No. 64,779. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 17, 1912.



Particular description of goods.—Air-Tubes for Wheel-Tires, Tires Composed of India-Rubber, Gutta-Percha, Fibrous Substances, or Woven Fabrics; and Rubber Valves.
Claims use since 1870.

Ser. No. 65,135. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE D. GRUEN, SONS & COMPANY, Cincinnati, Ohio. Filed Aug. 7, 1912.

PREMO

Particular description of goods.—Watches.
Claims use since Apr. 15, 1912.

Ser. No. 65,989. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TRIB COMPANY, Carson, Nev. Filed Sept. 26, 1912. Under ten-year proviso.

TRIB

Particular description of goods.—Liniment.
Claims use since Mar. 15, 1890.

Ser. No. 67,881. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) HARVEY W. LAMB, Kansas City, Mo. Filed Jan. 13, 1913.

SPOT-LITE



Particular description of goods.—A Powder for Cleaning Painted or Varnished Surfaces, Marble, Glass, &c.
Claims use since Dec. 15, 1912.

Ser. No. 68,352. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) AUSTIN-WALKER SALES COMPANY, New York, N. Y. Filed Feb. 15, 1913.

BABY MINE

Particular description of goods.—Safety-Pins. The Safety-Pins on Which the Mark has Been Used are Not of the Jewelry Class. They are Inexpensive Base-Metal Pins Suitable for Pinning Diapers. Some are Gold-Plated to Prevent Corrosion, Otherwise Likely in the Use Mentioned.
Claims use since the early spring of 1912.

Ser. No. 68,576. (CLASS 34. HEATING, LIGHTING, ANR VENTILATING APPARATUS NOT INCLUDING ELECTRICAL APPARATUS.) LINDSAY LIGHT COMPANY, Chicago, Ill. Filed Feb. 17, 1913.



Particular description of goods.—Gas-Mantles.
Claims use since Dec. 23, 1912.

Ser. No. 68,634. (CLASS 15. OILS AND GREASES.) ALBERT G. BARTLETT, Los Angeles, Cal. Filed Feb. 20, 1913.



Particular description of goods.—Lubricating-Oils.
Claims use since August, 1912.

Ser. No. 69,011. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) PHILADELPHIA PILE FABRIC MILLS, Philadelphia, Pa. Filed Mar. 13, 1913.

P. P. M.
MOLETEX

Particular description of goods.—Cut-Pile Fabrics.
Claims use since Feb. 24, 1913.

Ser. No. 69,204. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) LEE TIRE & RUBBER CO., Whitemarsh township, Montgomery county, Pa. Filed Mar. 20, 1913.

"LEELAND"

Particular description of goods.—Rubber Tires, Inner Tubes, Valve-Patches, Inner Cases, and Rubber Tubing of All Descriptions.
Claims use since June 3, 1911.

Ser. No. 69,840. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) C. BRUNO & SON, INC., New York, N. Y. Filed Apr. 17, 1913. Under ten-year proviso.



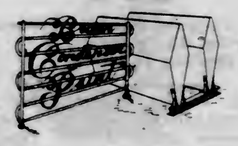
Particular description of goods.—Accordions; Altos, Eb; Altos, Circular; Altos, Bell-Front or Solo; Ballad-Horns, Banjos, Banjorines, Banjo-Mandolins, Barytones, Bb, Upright; Bass, Bb, Upright; Bass, Eb, Upright; Bass, Eb, Contra; Bass, BBb, Contra; Bassoons, Batons, Bicycle-Bugles, Bugles, Castanets, Clarinets, Concert-Horns, Concertinas, Contrabasses, Contrabass Guitars, Cornets, Cymbals, Double-Basses, Double-Bass Bows, Double-Bass Bridges, Bass Drums, Snare-Drums, Euphoniums, Fifes, Flageolets, Flutes, Flute-Swabs, Fog-Horns Not Electrically Operated, French Horns, Guitars, Harmonicas, Harp-Guitars, Hellcons, Mandolas, Mandolinettos, Mandolins and Piccolos, Post-Horns Not Electrically Operated and Signal-Horns Not Electrically Operated, Silk and Covered Strings for Banjos, Banjorines, Guitars, Harps, Harp-Guitars, Mandolins, Violas, Violins, Zithers, and Double-Basses, Tambourines; Tenors, Bb, Upright; Trombones, Violas, Violins, Violin-Bows, Violin-Bow Hair, Violin-Bridges, Violoncellos, Violoncello-Bows, and Zithers.
Claims use since 1877.

Ser. No. 70,023. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) VENEZUELA TRADING CO., New York, N. Y. Filed Apr. 23, 1913.



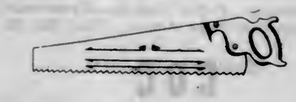
Particular description of goods.—Rubber and Gum.
Claims use since Nov. 1, 1912.

Ser. No. 70,169. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE AMERICAN PAINT & COLOR CO., Arkansas City, Kans. Filed May 2, 1913.



Particular description of goods.—A Paint for Condensers and other Metal Structures.
Claims use since Mar. 21, 1913.

Ser. No. 70,604. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WM. N. ARCHIE, Atlanta, Ga. Filed May 24, 1913.



Particular description of goods.—Dressing-Combs Made of Cotton Fiber.
Claims use since Nov. 10, 1912.

Ser. No. 70,625. (CLASS 17. TOBACCO PRODUCTS.) W. H. MEEHAN & Co., Springfield, Mass. Filed May 24, 1913.



The substantially rectangular ground within which the word "Whirler" appears being printed in red, while the border is printed in green.

Particular description of goods.—Cigars.

Claims use since March, 1911.

Ser. No. 70,692. (CLASS 37. PAPER AND STATIONERY.) GEORGE W. HUGHES, Birmingham, England. Filed May 27, 1913.



Particular description of goods.—Steel Pens.

Claims use since from about Aug. 5, 1893.

Ser. No. 70,746. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) COMPAGNIE GÉNÉRALE DES ÉTABLISSEMENTS PATHÉ FRÈRES, PHONOGRAPHE ET CINÉMATOGRAPHE, Paris, France. Filed May 29, 1913.

COK

Particular description of goods.—Kinematographic Apparatus and Films and Plates Therefor.

Claims use since July 17, 1913.

Ser. No. 70,747. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) COMPAGNIE GÉNÉRALE DES ÉTABLISSEMENTS PATHÉ FRÈRES, PHONOGRAPHE ET CINÉMATOGRAPHE, Paris, France. Filed May 29, 1913.

KOC

Particular description of goods.—Kinematographic Apparatus and Films and Plates Therefor.

Claims use since July 17, 1912.

Ser. No. 70,748. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) COMPAGNIE GÉNÉRALE DES ÉTABLISSEMENTS PATHÉ FRÈRES, PHONOGRAPHE ET CINÉMATOGRAPHE, Paris, France. Filed May 29, 1913.

COC

Particular description of goods.—Kinematographic Apparatus and Films and Plates Therefor.

Claims use since July 17, 1912.

Ser. No. 70,749. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) COMPAGNIE GÉNÉRALE DES ÉTABLISSEMENTS PATHÉ FRÈRES, PHONOGRAPHE ET CINÉMATOGRAPHE, Paris, France. Filed May 29, 1913.

PATHEGRAPHE

Particular description of goods.—Kinematographic Apparatus and Films and Plates Therefor.

Claims use since Mar. 29, 1913.

Ser. No. 70,769. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ART BRASS COMPANY, New York, N. Y. Filed May 31, 1913.

SAN-O-LA.

Particular description of goods.—Tumbler-Holders, Tumbler and Soap Holders, Tumbler and Tooth-Brush Holders, Shaving-Mug and Lather-Brush Holders, Bottle, Jar, Can, and Mug Holders, Shaving-Brush Holders, Soap-Holders, Soap and Sponge Holders, Soap and Brush Holders, Sponge-Holders, Towel-Brackets, Towel-Racks, Towel-Bars, Washcloth-Holders, Tie-Holders, Whisk-Broom Holders, Tooth-Brush Holders, Brush and Comb Holders, Toilet-Paper Holders, Newspaper-Holders, Bath, Robe, and Clothes Hooks, Shelves, Shelves and Towel-Bars, Shelves and Tumbler-Holders, Shelves, Tumbler-Holders, and Towel-Bars, Shelves, Soap and Tooth-Brush Holders, Shelves, Tumbler, Soap, and Tooth-Brush Holders, Bath-Seats, Bath-Sprays.

Claims use since Mar. 17, 1913.

Ser. No. 70,884. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST. JOHN & COMPANY, Mobile, Ala. Filed June 5, 1913.

MAGNOLIA

Consisting of the word "Magnolia."

Particular description of goods.—Cornmeal.

Claims use since May 28, 1913.

Ser. No. 71,007. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) UNGARISCHE GUMMIWAAREN-FABRIKS ACTIENGESELLSCHAFT, Budapest, Austria-Hungary. Filed June 10, 1913.

TAURIL

Particular description of goods.—Hollow and Solid Rubber Tires.

Claims use since the year 1902.

Ser. No. 71,105. (CLASS 15. OILS AND GREASES.) E. F. HOUGHTON & COMPANY, Philadelphia, Pa. Filed June 14, 1913. Under ten-year proviso.

HOUGHTON'S

Particular description of goods.—Lubricating-Oils; Lubricating-Greases; Tempering-Oils; Metal-Cutting Oils; and Wool-Oils.

Claims use since 1870.

Ser. No. 71,109. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND COMPANY, Phillipsburg, N. J., and New York, N. Y. Filed June 14, 1913.



Particular description of goods.—Steam-Turbines, Turbo-Compressors, Reciprocating Compressors, Rock-Drills, Hammer-Drills, Riveting-Hammers, Chipping-Hammers, Sand-Rammers, Rotary Drills, and Repair Parts for All Such Machines and Tools.

Claims use since October, 1908.

Ser. No. 71,226. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE J. K. ARMSBY CO., San Francisco, Cal. Filed June 21, 1913.



The dart being red in color.

Particular description of goods.—Dried Fruits.

Claims use since Aug. 17, 1912.

Ser. No. 71,235. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE EFFECTINE COMPANY, Springfield, Mass. Filed June 21, 1913. Under ten-year proviso.

Effectine

Particular description of goods.—A Medicinal Preparation for Use in the Treatment of Certain Diseases, as Rheumatism, Muscular Inflammation, Neuralgia, Headache, Sciatica, Lame Back, Strains, Stiff Joints, Sprains, Bruises, Cuts, Soreness, and Pain in the Back and Chest.

Claims use since Aug. 1, 1893.

Ser. No. 71,269. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE PERMUTIT COMPANY, New York, N. Y. Filed June 21, 1913.

PERMUTITE

Particular description of goods.—Water Purifying and Treating Materials.

Claims use since on or about June 1, 1913.

Ser. No. 71,277. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) STONEWALL COTTON MILLS, Stonewall, Miss. Filed June 21, 1913.



Which consists of the portrait of General T. J. ("Stonewall") Jackson, C. S. A.

Particular description of goods.—Cotton Sheetings, Shirtings, Drills, Osnaburgs, Ducks, Awning-Stripes, Tickings, Denims, Cheviots, Chambrays, and Colored Cotton Cloth.

Claims use since the year 1879.

Ser. No. 71,325. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANNA TAESCHNER, Berlin, Germany. Filed June 23, 1913.

Gonaromal

Particular description of goods.—A Remedy for Gonorrhea.

Claims use since Jan. 31, 1911.

Ser. No. 71,343. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) MONTGOMERY-WASHBURN COMPANY, Saugerties, N. Y. Filed June 24, 1913.



Particular description of goods.—Buggy-Aprons, Express-Wagon Aprons, Truck-Aprons, Automobile-Covers, Barge-Covers, Truck-Covers, Van-Covers, Wagon-Covers, Threshing-Machine Covers, Wagon-Machine Covers, Brick-Hack Covers.

Claims use since 1907.

Ser. No. 71,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NOVELTY CANDY CO., New York, N. Y. Filed June 25, 1913.

VIOLET TANGOS

The word "Violet" being disclaimed.

Particular description of goods.—Candy.

Claims use since June 11, 1913.

Ser. No. 71,373. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) WEEBER & DON, New York, N. Y. Filed June 25, 1913.



Particular description of goods.—Grass, Vegetable, Flower, and Farm Seeds and Bulbs.
Claims use since Feb. 1, 1913.

Ser. No. 71,506. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) J. W. BUCKLEY RUBBER CO., New York, N. Y. Filed July 3, 1913.

STEAMSHIP

The trade-mark consists of the word "Steamship."
Particular description of goods.—Rubber Tubing, Rubber Hose, Rubber and Cotton Fire-Hose, Rubber and Cotton Mill-Hose, Belting, and Machinery Packing.
Claims use since Aug. 15, 1900.

Ser. No. 71,548. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH WILLIAMS COMPANY, Sharpsburg, Pa. Filed July 5, 1913.

GOLDUST

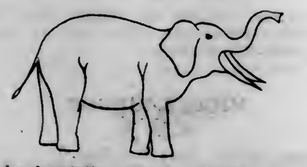
Particular description of goods.—Insecticides.
Claims use since June 21, 1913.

Ser. No. 71,551. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE AMERICAN STEEL & WIRE CO. OF NEW JERSEY, Cleveland, Ohio; Chicago, Ill.; Pittsburgh, Pa.; New York, N. Y.; Worcester, Mass., and Hoboken, N. J. Filed July 7, 1913.

SUGAR

Particular description of goods.—Sulfate of Iron
Claims use since May, 1906.

Ser. No. 71,598. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JACOB W. WALTON SONS, Philadelphia, Pa. Filed July 8, 1913.



Particular description of goods.—Combs.
Claims use since June 1, 1913.

Ser. No. 71,628. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WEISS & RAUSCHER, Leighton, Pa. Filed July 9, 1913.



We disclaim the use of the word "Gin" as a part of the trade-mark.
Particular description of goods.—Medicated Gin for Treatment of Diseases of the Bladder and Kidneys.
Claims use since Oct. 1, 1912.

Ser. No. 71,708. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) J. C. DOWD & CO., New York, N. Y. Filed July 15, 1913.



Particular description of goods.—Toilet-Combs, Pincushions, and Button-Hooks.
Claims use since October, 1907.

Ser. No. 71,786. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILHELM BENGER SÖHNE, Stuttgart, Germany. Filed July 16, 1913.

W S *Ribana*

Particular description of goods.—Woven and Knit Fabrics and Stockinet of Wool, Half-Wool, and Cotton.
Claims use since Mar. 4, 1912.

Ser. No. 71,802. (CLASS 15. OILS AND GREASES.) WEINSTOCK NICHOLS CO., San Francisco, Cal. Filed July 16, 1913.

CONGRESS

Particular description of goods.—A Lubricating-Oil.
Claims use since Apr. 1, 1913.

Ser. No. 71,803. (CLASS 15. OILS AND GREASES.) WEINSTOCK NICHOLS CO., San Francisco, Cal. Filed July 16, 1913.

EDEN

Particular description of goods.—A Lubricating-Oil.
Claims use since Apr. 1, 1913.

Ser. No. 71,824. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. G. HYDE & SONS, New York, N. Y. Filed July 18, 1913.

CRÊPETINÉ

Particular description of goods.—Silk and Cotton Piece Goods.
Claims use since June 23, 1913.

Ser. No. 71,882. (CLASS 17. TOBACCO PRODUCTS.) C. A. D. O. CO., INC., New York, N. Y. Filed July 22, 1913.

FIFTY SIX

Particular description of goods.—Cigarettes.
Claims use since March, 1913.

Ser. No. 71,962. (CLASS 39. CLOTHING.) BRONSTON BROS. & CO., New York, N. Y. Filed July 25, 1913.

SIT

Particular description of goods.—Straw Hats.
Claims use since May 10, 1913.

Ser. No. 71,998. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) A. SPAGNA AND L. CLINCO, New York, N. Y. Filed July 26, 1913.

OTELLO

Particular description of goods.—Razors.
Claims use since Dec. 1, 1912.

Ser. No. 72,044. (CLASS 39. CLOTHING.) "THE H. & W. COMPANY," Newark, N. J. Filed July 30, 1913.

HIGH SCHOOL

Particular description of goods.—Corset-Waists.
Claims use since July 16, 1913.

Ser. No. 72,080. (CLASS 39. CLOTHING.) SAUL MAYER, New York, N. Y. Filed July 31, 1913.

Crusader

The word "Crusader" and the representation of a crusader.
Particular description of goods.—Hosiery.
Claims use since Mar. 26, 1913.

Ser. No. 72,138. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MURRAY WIRE CO., Newark, N. J. Filed Aug. 2, 1913.

RAYMUR

Particular description of goods.—Resistance-Wire.
Claims use since February, 1913.

Ser. No. 72,139. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MURRAY WIRE CO., Newark, N. J. Filed Aug. 2, 1913.

TOPHET

Particular description of goods.—Resistance-Wire.
Claims use since February, 1913.

Ser. No. 72,140. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MURRAY WIRE CO., Newark, N. J. Filed Aug. 2, 1913.

APEX

Particular description of goods.—Resistance-Wire.
Claims use since February, 1913.

Ser. No. 72,183. (CLASS 39. CLOTHING.) HARRY H. CONDIT, Indianapolis, Ind., and New York, N. Y. Filed Aug. 6, 1913.

KO-ZY

Particular description of goods.—Ladies' Undervests.
Claims use since June 16, 1913.

Ser. No. 72,238. (CLASS 17. TOBACCO PRODUCTS.) WARD-YOUNG MFG. CO., Buckhannon, W. Va. Filed Aug. 8, 1913.

BUSCO

Particular description of goods.—Cigars and Stogies.
Claims use since Feb. 1, 1913.

Ser. No. 72,247. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE ENGLISH & MERSICK CO., New Haven, Conn. Filed Aug. 9, 1913.

E&M

Particular description of goods.—Automobile-Radiators
Claims use since June 19, 1913.

Ser. No. 72,284. (CLASS 38. PRINTS AND PUBLICATIONS.) THE ELECTRO IMPORTING COMPANY, New York, N. Y. Filed Aug. 11, 1913.

THE
ELECTRICAL
EXPERIMENTER

Particular description of goods.—A Monthly Magazine.
Claims use since Mar. 26, 1913.

Ser. No. 72,301. (CLASS 39. CLOTHING.) ALBAN AURICH, Hartmannsdorf, Germany. Filed Aug. 12, 1913.

Trueplex

Particular description of goods.—Gloves of Cotton, Wool, Cotton and Wool, Lisle, and Silk.
Claims use since Dec. 29, 1911.

Ser. No. 72,353. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. ET M. LANDON, Paris, France. Filed Aug. 15, 1913. Under ten-year proviso.



Particular description of goods.—Toilet Water.
Claims use since the year 1862.

Ser. No. 72,384. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PENNSYLVANIA FLEXIBLE METALLIC TUBING CO., Philadelphia, Pa. Filed Aug. 16, 1913.

PENFLEX

Particular description of goods.—Barrel-Fillers.
Claims use since May 1, 1911.

Ser. No. 72,386. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) D. M. SECHLER IMPLEMENT & CARRIAGE CO., Moline, Ill. Filed Aug. 16, 1913.

BLACK HAWK

Particular description of goods.—Manure-Spreaders.
Claims use since about Apr. 1, 1907.

Ser. No. 72,421. (CLASS 38. PRINTS AND PUBLICATIONS.) F. S. ROOT CO., Boston, Mass. Filed Aug. 19, 1913.



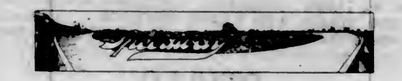
No exclusive right in the words "Business Publicity Service" being claimed.
Particular description of goods.—Printed Books, Booklets, Pamphlets, and Prints.
Claims use since Oct. 1, 1912.

Ser. No. 72,481. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID BERG DISTILLING COMPANY, Philadelphia, Pa. Filed Aug. 22, 1913.

LOHOCLA

The trade-mark consists of the word "Lohocla."
Particular description of goods.—Denatured Alcohol.
Claims use since June 11, 1913.

Ser. No. 72,484. (CLASS 39. CLOTHING.) HAVENS AND GEDDES COMPANY, Indianapolis, Ind. Filed Aug. 22, 1913.



Particular description of goods.—Negligée Shirts.
Claims use since July 30, 1913.

Ser. No. 72,506. (CLASS 32. FURNITURE AND UPHOLSTERY.) WEST DISINFECTING CO., New York, N. Y. Filed Aug. 23, 1913.

SANITOR

Particular description of goods.—Sanitary Commodes, Sanitary Box-Closets, Sanitary Vat-Closets.
Claims use since 1912.

Ser. No. 72,526. (CLASS 43. THREAD AND YARN.) COURTAULDS LIMITED, London, England. Filed Aug. 26, 1913.

ESCORTO

Particular description of goods.—Woolen, Worsted, Silk, Cotton, Mohair, and Artificial-Silk Thread and Yarn and Thread and Yarn Made of Combination of Two or More of Those Fibers.
Claims use since Nov. 15, 1912.

Ser. No. 72,532. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Aug. 26, 1913.

SIGNET

Consisting of the word "Signet."
Particular description of goods.—Polishes for Automobiles and the Like.
Claims use since Jan. 15, 1913.

Ser. No. 72,605. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM SKOLNICK, New Haven, Conn. Filed Aug. 29, 1913.



Particular description of goods.—Cream Polish for Furniture and other Varnished Surfaces.
Claims use since Aug. 15, 1913.

Ser. No. 72,636. (CLASS 39. CLOTHING.) ROBLEE-WASS SHOE COMPANY, St. Louis, Mo. Filed Sept. 2, 1913.

SLASHER

Particular description of goods.—Boots and Shoes of Leather, Canvas, Vesting, Velvet, and Satin.
Claims use since about Aug. 28, 1913.

Ser. No. 72,637. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STEEL IMPROVEMENT COMPANY, Cleveland, Ohio. Filed Sept. 2, 1913.

INFUSO

Particular description of goods.—Compounds for the Hardening of Iron or Steel.
Claims use since May 2, 1913.

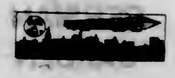
Ser. No. 72,686. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM BRANSON, Bloomington, Ill. Filed Sept. 5, 1913.

INSECTONOS



Particular description of goods.—Liquid and Powder for the Destruction of Insects.
Claims use since Nov. 28, 1898.

Ser. No. 72,699. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. BERGER & CO., New York, N. Y. Filed Sept. 6, 1913.



Particular description of goods.—A Medicated Lozenge.
Claims use since about June 15, 1913.

Ser. No. 72,707. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913. Under ten-year proviso.

CLIMAX

Particular description of goods.—Blotting-Paper.
Claims use since Jan. 1, 1887.

Ser. No. 72,708. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913.

PRINCESS

Particular description of goods.—Blotting-Paper.
Claims use since Feb. 1, 1899.

Ser. No. 72,710. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913.

IVORY

Particular description of goods.—Blotting-Paper.
Claims use since July 1, 1905.

Ser. No. 72,723. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSWALD H. KUTZNER, Santa Ana, Cal. Filed Sept. 8, 1913.



Particular description of goods.—Healing Salve.
Claims use since about Jan. 1, 1913.

Ser. No. 72,284. (CLASS 38. PRINTS AND PUBLICATIONS.) THE ELECTRO IMPORTING COMPANY, New York, N. Y. Filed Aug. 11, 1913.

THE
ELECTRICAL
EXPERIMENTER

Particular description of goods.—A Monthly Magazine.
Claims use since Mar. 26, 1913.

Ser. No. 72,301. (CLASS 39. CLOTHING.) ALBAN AURICH, Hartmannsdorf, Germany. Filed Aug. 12, 1913.

Trueplex

Particular description of goods.—Gloves of Cotton, Wool, Cotton and Wool, Lisle, and Silk.
Claims use since Dec. 29, 1911.

Ser. No. 72,353. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) A. ET M. LANDON, Paris, France. Filed Aug. 15, 1913. Under ten-year proviso.



Particular description of goods.—Toilet Water.
Claims use since the year 1862.

Ser. No. 72,384. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PENNSYLVANIA FLEXIBLE METALLIC TUBING CO., Philadelphia, Pa. Filed Aug. 16, 1913.

PENFLEX

Particular description of goods.—Barrel-Fillers.
Claims use since May 1, 1911.

Ser. No. 72,386. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) D. M. SECHLER IMPLEMENT & CARRIAGE CO., Moline, Ill. Filed Aug. 16, 1913.

BLACK HAWK

Particular description of goods.—Manure-Spreaders.
Claims use since about Apr. 1, 1907.

Ser. No. 72,421. (CLASS 38. PRINTS AND PUBLICATIONS.) F. S. ROOT CO., Boston, Mass. Filed Aug. 19, 1913.



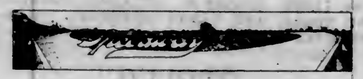
No exclusive right in the words "Business Publicity Service" being claimed.
Particular description of goods.—Printed Books, Booklets, Pamphlets, and Prints.
Claims use since Oct. 1, 1912.

Ser. No. 72,481. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID BERG DISTILLING COMPANY, Philadelphia, Pa. Filed Aug. 22, 1913.

LOHOCLA

The trade-mark consists of the word "Lohocla."
Particular description of goods.—Denatured Alcohol.
Claims use since June 11, 1913.

Ser. No. 72,484. (CLASS 39. CLOTHING.) HAVENS AND GEDDES COMPANY, Indianapolis, Ind. Filed Aug. 22, 1913.



Particular description of goods.—Negligée Shirts.
Claims use since July 30, 1913.

Ser. No. 72,506. (CLASS 32. FURNITURE AND UPHOLSTERY.) WEST DISINFECTING CO., New York, N. Y. Filed Aug. 23, 1913.

SANITOR

Particular description of goods.—Sanitary Commodes, Sanitary Box-Closets, Sanitary Vat-Closets.
Claims use since 1912.

Ser. No. 72,526. (CLASS 43. THREAD AND YARN.) COURTAULDS LIMITED, London, England. Filed Aug. 26, 1913.

ESCORTO

Particular description of goods.—Woolen, Worsted, Silk, Cotton, Mohair, and Artificial-Silk Thread and Yarn and Thread and Yarn Made of Combination of Two or More of Those Fibers.
Claims use since Nov. 15, 1912.

Ser. No. 72,582. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) RUSSIA CEMENT COMPANY, Gloucester, Mass. Filed Aug. 26, 1913.

SIGNET

Consisting of the word "Signet."
Particular description of goods.—Polishes for Automobiles and the Like.
Claims use since Jan. 15, 1913.

Ser. No. 72,605. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WILLIAM SKOLNICK, New Haven, Conn. Filed Aug. 29, 1913.



Particular description of goods.—Cream Polish for Furniture and other Varnished Surfaces.
Claims use since Aug. 15, 1913.

Ser. No. 72,636. (CLASS 39. CLOTHING.) ROBLEE-WASS SHOE COMPANY, St. Louis, Mo. Filed Sept. 2, 1913.

SLASHER

Particular description of goods.—Boots and Shoes of Leather, Canvas, Vesting, Velvet, and Satin.
Claims use since about Aug. 28, 1913.

Ser. No. 72,637. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE STEEL IMPROVEMENT COMPANY, Cleveland, Ohio. Filed Sept. 2, 1913.

DIFUSO

Particular description of goods.—Compounds for the Hardening of Iron or Steel.
Claims use since May 2, 1913.

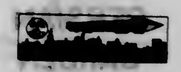
Ser. No. 72,686. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM BRANSON, Bloomington, Ill. Filed Sept. 5, 1913.

INSECTONOS



Particular description of goods.—Liquid and Powder for the Destruction of Insects.
Claims use since Nov. 28, 1898.

Ser. No. 72,699. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. BERGER & CO., New York, N. Y. Filed Sept. 6, 1913.



Particular description of goods.—A Medicated Lozenge.
Claims use since about June 18, 1913.

Ser. No. 72,707. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913. Under ten-year proviso.

CLIMAX

Particular description of goods.—Blotting-Paper.
Claims use since Jan. 1, 1887.

Ser. No. 72,708. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913.

PRINCESS

Particular description of goods.—Blotting-Paper.
Claims use since Feb. 1, 1899.

Ser. No. 72,710. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 6, 1913.

IVORY

Particular description of goods.—Blotting-Paper.
Claims use since July 1, 1905.

Ser. No. 72,723. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OSWALD H. KUTZNER, Santa Ana, Cal. Filed Sept. 8, 1913.



Particular description of goods.—Healing Salve.
Claims use since about Jan. 1, 1913.

Ser. No. 72,737. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE C. WILSON, Tyrone, Pa. Filed Sept. 8, 1913.

PERSIAN GARDEN

Particular description of goods.—Perfumery.
Claims use since about Apr. 1, 1913.

Ser. No. 72,747. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) IMPERIAL TYPEWRITER CO. LIMITED, Leicester, England. Filed Sept. 9, 1913.



Particular description of goods.—Type-Writers.
Claims use since June 22, 1912.

Ser. No. 72,748. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) IMPERIAL TYPEWRITER CO., LIMITED, Leicester, England. Filed Sept. 9, 1913.

IMPERIAL

Particular description of goods.—Type-Writers.
Claims use since June, 1906.

Ser. No. 72,771. (CLASS 37. PAPER AND STATIONERY.) STANDARD PAPER MFG. CO., Richmond, Va. Filed Sept. 10, 1913.

Bank

Particular description of goods.—Blotting-Paper.
Claims use since July 1, 1905.

Ser. No. 72,777. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BAYER COMPANY, INC., New York, N. Y. Filed Sept. 11, 1913.

LECUTYL

Particular description of goods.—A Copper Preparation to be Used in the Treatment of Tuberculosis.
Claims use since Aug. 20, 1913.

Ser. No. 72,797. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) UNION GESELLSCHAFT FÜR METALLINDUSTRIE MIT BESCHRÄNKTER HAFTUNG, Fröndenberg-a-Ruhr, Germany. Filed Sept. 11, 1913.



Particular description of goods.—Cycle Chains, Pedals, Handle-Bars, Rim-Brakes, Free-Wheel Hubs, Spokes, and Nipples.
Claims use since July 10, 1906.

Ser. No. 72,801. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AMERICAN GLUE COMPANY, Boston, Mass. Filed Sept. 12, 1913.

AMUNITE

Particular description of goods.—Sandpapers, Garnet-Papers, Emery-Papers, and Emery-Cloths.
Claims use since Mar. 15, 1913.

Ser. No. 72,824. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NEW YORK BOAT OAR COMPANY, East Orange, N. J., and New York, N. Y. Filed Sept. 12, 1913. Under ten-year proviso.

"EZEKIEL PAGE BRAND"

Particular description of goods.—Handspikes.
Claims use since on or about Apr. 1, 1883.

Ser. No. 72,828. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. WERTHEIMER & CIE., Paris, France. Filed Sept. 12, 1913.

ASHES OF VIOLET

Particular description of goods.—All Kinds of Perfumes, Face-Paints, and Rouges.
Claims use since May 22, 1913.

Ser. No. 72,835. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) A. W. COWEN & BROS., New York, N. Y. Filed Sept. 13, 1913.

SLIPPO

Particular description of goods.—Neckties, Neckscarfs, and Cravats.
Claims use since on or about Sept. 2, 1913.

Ser. No. 72,857. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM S. GODWIN, Baltimore, Md. Filed Sept. 15, 1913.

WOMANITE

Particular description of goods.—Antiseptics.
Claims use since Sept. 1, 1913.

Ser. No. 72,864. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN T. RILEY, Chicago, Ill. Filed Sept. 15, 1913.

MAJELLA'S IDEAL

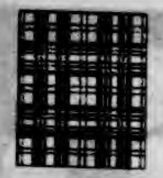
Particular description of goods.—Salve.
Claims use since Sept. 5, 1913.

Ser. No. 72,869. (CLASS 15. OILS AND GREASES.) SWAN & FINCH COMPANY, New York, N. Y. Filed Sept. 15, 1913.

LUBRICOOL

Particular description of goods.—Lubricating Oils and Greases.
Claims use since about June 12, 1913.

Ser. No. 72,888. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) CHRISTINA J. HIGLEY, New York, N. Y. Filed Sept. 16, 1913.



Particular description of goods.—Hose-Supporters.
Claims use since about May 1, 1907.

Ser. No. 72,912. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) AMERICAN SHEET & TIN PLATE COMPANY, Pittsburgh, Pa. Filed Sept. 17, 1913. Under ten-year proviso.

BESTBLOOM

Particular description of goods.—Iron and Steel Sheets and Plates and Tin and Terne Plates.
Claims use since the year 1889.

Ser. No. 72,927. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

C

Particular description of goods.—Tags.
Claims use since 1900.

Ser. No. 72,928. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

D

Particular description of goods.—Tags.
Claims use since 1905.

Ser. No. 72,929. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

E

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,930. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

EC

Particular description of goods.—Tags.
Claims use since 1907.

Ser. No. 72,931. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

G

Particular description of goods.—Tags.
Claims use since 1886.

Ser. No. 72,932. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

GC

Particular description of goods.—Tags.
Claims use since 1911.

Ser. No. 72,933. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

K

Particular description of goods.—Tags.
Claims use since 1900.

Ser. No. 72,935. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

P

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,936. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

P C

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,937. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

T

Particular description of goods.—Tags.
Claims use since 1907.

Ser. No. 72,938. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

TC

Particular description of goods.—Tags.
Claims use since 1912.

Ser. No. 72,943. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NATIONAL CAMERA COMPANY, St. Louis, Mo. Filed Sept. 18, 1913.

Naco

Particular description of goods.—Cameras.
Claims use since Jan. 10, 1913.

Ser. No. 72,965. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHATTANOOGA PLOW CO., Chattanooga, Tenn. Filed Sept. 20, 1913.

EXHIBITION

Particular description of goods.—Cane-Mills.
Claims use since some time in the year 1907.

Ser. No. 72,984. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) A. W. STEPHENS MFG. CO., Waltham, Mass. Filed Sept. 20, 1913.

ACME

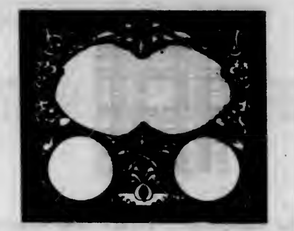
Particular description of goods.—Ice-Picks.
Claims use since on or about Apr. 1, 1913.

Ser. No. 73,010. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MIDDLETOWN MACHINE CO., Middletown, Ohio, and New York, N. Y. Filed Sept. 23, 1913.

WOOD PECKER

Particular description of goods.—Internal-Combustion Engines for Use with Kerosene, Gasolene, Gas, Distillate, Oil, Alcohol, &c.
Claims use since January, 1904.

Ser. No. 73,023. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Sept. 24, 1913.



Particular description of goods.—Toilet-Paper.
Claims use since June 14, 1897.

Ser. No. 73,024. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE DEAN ELECTRIC COMPANY, Elyria, Ohio. Filed Sept. 24, 1913.

MAXO

Particular description of goods.—Electric Automobile and Motor-Cycle Horns.
Claims use since May 15, 1913.

TRADE-MARKS

REGISTERED OCTOBER 21, 1913.

93,794. INSECT-DESTROYING PREPARATIONS. ACTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION, Berlin, Germany.
Filed April 17, 1913. Serial No. 69,838. PUBLISHED AUGUST 19, 1913.

93,795. TOILET-PAPER. ADIRONDACK TISSUE PAPER CO., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,553. PUBLISHED AUGUST 19, 1913.

93,796. TOILET-PAPER. ADIRONDACK TISSUE PAPER CO., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,554. PUBLISHED AUGUST 19, 1913.

93,797. TOILET-PAPER. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
Filed June 24, 1913. Serial No. 71,331. PUBLISHED AUGUST 19, 1913.

93,798. TOILET-PAPER. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
Filed June 24, 1913. Serial No. 71,332. PUBLISHED AUGUST 19, 1913.

93,799. CANDIES. B. ALLEGRETTI, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,649. PUBLISHED AUGUST 12, 1913.

93,800. CARAMELS AND KISSES UNDER CONFECTIONERY. AMERICAN CARAMEL CO., York, Pa.
Filed May 2, 1913. Serial No. 70,170. PUBLISHED AUGUST 12, 1913.

93,801. TYPE, SPACES, AND QUADS. AMERICAN TYPE FOUNDERS COMPANY, Jersey City, N. J.
Filed July 16, 1913. Serial No. 71,726. PUBLISHED AUGUST 19, 1913.

93,802. CANNED SARDINES AND TUNNY-FISH. M. AMIEUX & CIE., Nantes, France.
Filed August 27, 1908. Serial No. 36,989. PUBLISHED AUGUST 19, 1913.

93,803. OVERALLS AND OVERJACKETS. ANTHRACITE OVERALL MFG. CO., Scranton, Pa.
Filed May 3, 1913. Serial No. 70,193. PUBLISHED JULY 22, 1913.

93,804. WHEAT-FLOUR. ARKADELPHIA MILLING CO., Arkadelphia, Ark.
Filed May 24, 1913. Serial No. 70,605. PUBLISHED AUGUST 12, 1913.

93,805. CERTAIN NAMED CLOTHING. ARMY & NAVY CO-OPERATIVE COMPANY, Newburgh and New York, N. Y.; Philadelphia, Pa., and Washington, D. C.
Filed May 7, 1913. Serial No. 70,274. PUBLISHED AUGUST 19, 1913.

93,806. CANNED FRUITS. THE J. K. ARMSBY CO., Chicago, Ill., and San Francisco, Cal.
Filed January 8, 1913. Serial No. 67,783. PUBLISHED AUGUST 12, 1913.

93,807. ASH-RECEIVERS AND MATCH-HOLDERS. JOHN H. ASTRUCK, New York, N. Y.
Filed September 20, 1912. Serial No. 65,876. PUBLISHED AUGUST 12, 1913.

93,808. SCALES. THE AVERY SCALE COMPANY, North Milwaukee, Wis.
Filed June 21, 1913. Serial No. 71,227. PUBLISHED AUGUST 19, 1913.

93,809. BUTTER. BELLVILLE PROMOTING CO., Bellville, Tex.
Filed June 1, 1912. Serial No. 63,925. PUBLISHED AUGUST 12, 1913.

93,810. HAIR-NETS. BERG BROS., New York, N. Y.
Filed July 26, 1913. Serial No. 71,984. PUBLISHED AUGUST 19, 1913.

93,811. HAIR-NETS. BERG BROS., New York, N. Y.
Filed July 26, 1913. Serial No. 71,985. PUBLISHED AUGUST 19, 1913.

93,812. CORSETS AND CORSET-WAISTS. BIRDSEY-SOMERS CO., New York, N. Y.
Filed December 17, 1909. Serial No. 46,583. PUBLISHED JULY 29, 1913.

93,813. HAIR-NETS. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 9, 1913. Serial No. 71,604. PUBLISHED AUGUST 19, 1913.

93,814. HAIR-NETS. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 9, 1913. Serial No. 71,605. PUBLISHED AUGUST 19, 1913.

93,815. RUBBER COATS COMPOSED OF CLOTH TREATED WITH RUBBER COMPOUNDS. BOSTON RUBBER COMPANY, Boston, Mass.
Filed July 19, 1913. Serial No. 71,853. PUBLISHED AUGUST 19, 1913.

93,816. BOOTS, SHOES, PUMPS, AND SLIPPERS OF LEATHER OR CLOTH. BOYDEN SHOE MANUFACTURING COMPANY, Newark, N. J.
Filed June 14, 1913. Serial No. 71,096. PUBLISHED AUGUST 19, 1913.

93,817. LEATHER SHOES. THE BROWN SHOE CO., St. Louis, Mo., assignor to Brown Shoe Company, Inc., Millbrook, N. Y., a Corporation of New York.
Filed December 16, 1912. Serial No. 67,430. PUBLISHED JULY 22, 1913.

93,818. RUBBER TUBING, RUBBER HOSE, COMBINATION RUBBER AND COTTON HOSE, BELTING, AND MACHINERY PACKING. J. W. BUCKLEY RUBBER CO., New York, N. Y.
Filed May 13, 1913. Serial No. 70,394. PUBLISHED AUGUST 19, 1913.

93,819. CERTAIN NAMED WEARING-APPAREL FOR MEN, WOMEN, AND CHILDREN. BURBERRYS, London, England.
Filed March 23, 1912. Serial No. 62,360. PUBLISHED JULY 22, 1913.

93,820. LEATHER GLOVES. CARSON GLOVE CO., San Francisco, Cal.
Filed April 21, 1913. Serial No. 69,940. PUBLISHED JULY 15, 1913.

93,821. CHILDREN'S PETTICOATS, ROMPERS, AND DRESSES. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed August 23, 1912. Serial No. 65,390. PUBLISHED OCTOBER 29, 1912.

93,822. UNBLEACHED BUNTING. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed June 25, 1913. Serial No. 71,355. PUBLISHED AUGUST 19, 1913.

Ser. No. 72,935. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

P

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,936. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

PC

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,937. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

T

Particular description of goods.—Tags.
Claims use since 1907.

Ser. No. 72,938. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913.

TC

Particular description of goods.—Tags.
Claims use since 1912.

Ser. No. 72,943. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) NATIONAL CAMERA COMPANY, St. Louis, Mo. Filed Sept. 18, 1913.

Naco

Particular description of goods.—Cameras.
Claims use since Jan. 10, 1913.

Ser. No. 72,965. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHATTANOOGA PLOW CO., Chattanooga, Tenn. Filed Sept. 20, 1913.

EXHIBITION

Particular description of goods.—Cane-Mills.
Claims use since some time in the year 1907.

Ser. No. 72,984. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) A. W. STEPHENS MFG. CO., Waltham, Mass. Filed Sept. 20, 1913.

ACME

Particular description of goods.—Ice-Picks.
Claims use since on or about Apr. 1, 1913.

Ser. No. 73,010. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE MIDDLETOWN MACHINE CO., Middletown, Ohio, and New York, N. Y. Filed Sept. 23, 1913.

WOOD PECKER

Particular description of goods.—Internal-Combustion Engines for Use with Kerosene, Gasolene, Gas, Distillate, Oil, Alcohol, &c.
Claims use since January, 1904.

Ser. No. 73,022. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Sept. 24, 1913.



Particular description of goods.—Toilet-Paper.
Claims use since June 14, 1897.

Ser. No. 73,024. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE DEAN ELECTRIC COMPANY, Elyria, Ohio. Filed Sept. 24, 1913.

MAXO

Particular description of goods.—Electric Automo[bile] and Motor-Cycle Horns.
Claims use since May 15, 1913.

TRADE-MARKS

REGISTERED OCTOBER 21, 1913.

93,794. INSECT-DESTROYING PREPARATIONS. ACTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION, Berlin, Germany.
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Filed July 7, 1913. Serial No. 71,553. PUBLISHED AUGUST 19, 1913.

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93,797. TOILET-PAPER. ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y.
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93,799. CANDIES. B. ALLEGRETTI, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,649. PUBLISHED AUGUST 12, 1913.

93,800. CARAMELS AND KISSES UNDER CONFECTIONERY. AMERICAN CARAMEL CO., York, Pa.
Filed May 2, 1913. Serial No. 70,170. PUBLISHED AUGUST 12, 1913.

93,801. TYPE, SPACES, AND QUADS. AMERICAN TYPE FOUNDERS COMPANY, Jersey City, N. J.
Filed July 16, 1913. Serial No. 71,726. PUBLISHED AUGUST 19, 1913.

93,802. CANNED SARDINES AND TUNNY-FISH. M. AMIEUX & CIE., Nantes, France.
Filed August 27, 1908. Serial No. 36,989. PUBLISHED AUGUST 19, 1913.

93,803. OVERALLS AND OVERJACKETS. ANTHRACITE OVERALL MFG. CO., Scranton, Pa.
Filed May 3, 1913. Serial No. 70,193. PUBLISHED JULY 22, 1913.

93,804. WHEAT-FLOUR. ARKADELPHIA MILLING CO., Arkadelphia, Ark.
Filed May 24, 1913. Serial No. 70,605. PUBLISHED AUGUST 12, 1913.

93,805. CERTAIN NAMED CLOTHING. ARMY & NAVY CO-OPERATIVE COMPANY, Newburgh and New York, N. Y.; Philadelphia, Pa., and Washington, D. C.
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93,806. CANNED FRUITS. THE J. K. ARMSBY CO., Chicago, Ill., and San Francisco, Cal.
Filed January 8, 1913. Serial No. 67,783. PUBLISHED AUGUST 12, 1913.

93,807. ASH-RECEIVERS AND MATCH-HOLDERS. JOHN H. ASTRUCK, New York, N. Y.
Filed September 20, 1912. Serial No. 65,876. PUBLISHED AUGUST 12, 1913.

93,808. SCALES. THE AVERY SCALE COMPANY, North Milwaukee, Wis.
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93,810. HAIR-NETS. BERG BROS., New York, N. Y.
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93,813. HAIR-NETS. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 9, 1913. Serial No. 71,604. PUBLISHED AUGUST 19, 1913.

93,814. HAIR-NETS. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 9, 1913. Serial No. 71,605. PUBLISHED AUGUST 19, 1913.

93,815. RUBBER COATS COMPOSED OF CLOTH TREATED WITH RUBBER COMPOUNDS. BOSTON RUBBER COMPANY, Boston, Mass.
Filed July 19, 1913. Serial No. 71,853. PUBLISHED AUGUST 19, 1913.

93,816. BOOTS, SHOES, PUMPS, AND SLIPPERS OF LEATHER OR CLOTH. BOYDEN SHOE MANUFACTURING COMPANY, Newark, N. J.
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93,817. LEATHER SHOES. THE BROWN SHOE CO., St. Louis, Mo., assignor to Brown Shoe Company, Inc., Millbrook, N. Y., a Corporation of New York.
Filed December 16, 1912. Serial No. 67,430. PUBLISHED JULY 22, 1913.

93,818. RUBBER TUBING, RUBBER HOSE, COMBINATION RUBBER AND COTTON HOSE, BELTING, AND MACHINERY PACKING. J. W. BUCKLEY RUBBER CO., New York, N. Y.
Filed May 13, 1913. Serial No. 70,394. PUBLISHED AUGUST 19, 1913.

93,819. CERTAIN NAMED WEARING-APPAREL FOR MEN, WOMEN, AND CHILDREN. BURBERRYS, London, England.
Filed March 23, 1912. Serial No. 62,360. PUBLISHED JULY 22, 1913.

93,820. LEATHER GLOVES. CARSON GLOVE CO., San Francisco, Cal.
Filed April 21, 1913. Serial No. 69,940. PUBLISHED JULY 15, 1913.

93,821. CHILDREN'S PETTICOATS, ROMPERS, AND DRESSES. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed August 23, 1912. Serial No. 65,390. PUBLISHED OCTOBER 29, 1912.

93,822. UNBLEACHED BUNTING. CARSON, PIRIE, SCOTT & CO., Chicago, Ill.
Filed June 25, 1913. Serial No. 71,355. PUBLISHED AUGUST 19, 1913.

93,823. CLEANING-SOAP FOR KID GLOVES, PLUMES, SILKS, WOOLENS, AND COTTON GOODS. WILEY C. CASEY, Bloomington, Ill.
Filed June 12, 1913. Serial No. 71,054. PUBLISHED AUGUST 19, 1913.

93,824. SWEEPING COMPOUND. CHESHIRE CHEMICAL Co., Winchester, N. H.
Filed May 3, 1913. Serial No. 70,227. PUBLISHED AUGUST 19, 1913.

93,825. COAL. CLEAR CREEK COAL COMPANY, Huntington, W. Va.
Filed June 26, 1913. Serial No. 71,375. PUBLISHED AUGUST 19, 1913.

93,826. FRUIT-CAKE. COLLIN STREET BAKERY, Corsicana, Tex.
Filed February 19, 1913. Serial No. 68,616. PUBLISHED AUGUST 12, 1913.

93,827. CANNED FRUITS, CANNED VEGETABLES, COFFEE, TOMATO CATSUP, AND CANNED FISH. CONSOLIDATED GROCERY COMPANY, Tampa, Jacksonville, and Pensacola, Fla.
Filed November 27, 1912. Serial No. 67,151. PUBLISHED AUGUST 12, 1913.

93,828. CERTAIN PREPARATIONS FOR THE TREATMENT OF CERTAIN AILMENTS AND DISEASES. THE DECLAT MANUFACTURING CO., New York, N. Y.
Filed April 26, 1912. Serial No. 63,159. Renewal of No. 10,337, June 5, 1883. PUBLISHED AUGUST 19, 1913.

93,829. GLOVES AND MITTENS. THE DEMPSTER & PLACE COMPANY, Gloversville, N. Y.
Filed May 29, 1913. Serial No. 70,758. PUBLISHED JULY 22, 1913.

93,830. CERTAIN NAMED KNITTED OR TEXTILE FABRICS, CLASSIFIED AS UNDERWEAR. DESSAUER & ENGEL, Chicago, Ill.
Filed May 5, 1913. Serial No. 70,233. PUBLISHED JULY 29, 1913.

93,831. HOSIERY. THE DORMER BROTHERS CO., Cincinnati, Ohio.
Filed July 8, 1912. Serial No. 64,608. PUBLISHED JULY 29, 1913.

93,832. SOAP. DRUGGISTS' CO-OPERATIVE ASSOCIATION INC., Jersey City, N. J., and Detroit, Mich.
Filed May 26, 1913. Serial No. 70,654. PUBLISHED AUGUST 19, 1913.

93,833. HANDKERCHIEFS. SAMUEL ECKSTEIN, New York, N. Y.
Filed July 16, 1913. Serial No. 71,744. PUBLISHED AUGUST 19, 1913.

93,834. COFFEE, TEA, SPICES, AND FLAVORING EXTRACTS FOR FOODS. DWIGHT EDWARDS COMPANY, Portland, Oreg.
Filed February 28, 1913. Serial No. 68,774. PUBLISHED AUGUST 12, 1913.

93,835. COTTON AND WOOL PIECE GOODS. JOHN B. ELLISON & SONS, Philadelphia, Pa.
Filed July 11, 1913. Serial No. 71,656. PUBLISHED AUGUST 19, 1913.

93,836. TOILET SOAP. EMPIRE SOAP COMPANY, New York, N. Y.
Filed May 24, 1913. Serial No. 70,614. PUBLISHED AUGUST 19, 1913.

93,837. AUTOMOBILE-TRUCKS. FEDERAL MOTOR TRUCK CO., Detroit, Mich.
Filed February 6, 1913. Serial No. 68,347. PUBLISHED APRIL 8, 1913.

93,838. CLOTH, SILK, LEATHER, AND EIDER-DOWN BEDROOM-SLIPPERS. MARY GERTRUDE FETTERMAN, Philadelphia, Pa.
Filed October 7, 1911. Serial No. 59,032. PUBLISHED AUGUST 12, 1913.

93,839. CERTAIN NAMED FOODS. FLEMING & CHRISTIAN CO., Richmond, Va.
Filed April 8, 1913. Serial No. 69,655. PUBLISHED AUGUST 12, 1913.

93,840. MEDICINAL LOTION FOR LOST VITALITY AND NERVOUS DEBILITY. HARRY B. FOX, New York, N. Y.
Filed May 15, 1913. Serial No. 70,432. PUBLISHED AUGUST 19, 1913.

93,841. BRANDY. GAUTIER FRÈRES, Aigre, France.
Filed November 15, 1912. Serial No. 66,914. PUBLISHED AUGUST 19, 1913.

93,842. TOILET SOAP. ROBERT J. GATES, New York, N. Y.
Filed June 21, 1913. Serial No. 71,239. PUBLISHED AUGUST 19, 1913.

93,843. CORSETS. ARTHUR E. GIFFORD, Worcester, Mass.
Filed April 16, 1913. Serial No. 69,823. PUBLISHED AUGUST 5, 1913.

93,844. CANNED FRUITS AND CANNED VEGETABLES. WILLARD A. GODFREY, Watervliet, Mich.
Filed May 24, 1913. Serial No. 70,619. PUBLISHED AUGUST 12, 1913.

93,845. CORNMEAL. GROSS & COMPANY, New York, N. Y.
Filed May 24, 1913. Serial No. 70,615. PUBLISHED AUGUST 12, 1913.

93,846. COMBINATION OF FLAVORING FOR CAKE-ICINGS. S. GUMPERT & Co., New York, N. Y.
Filed January 25, 1912. Serial No. 61,014. PUBLISHED DECEMBER 3, 1912.

93,847. TOOL-STEEL. HALCOMB STEEL COMPANY, Syracuse, N. Y.
Filed July 2, 1913. Serial No. 71,482. PUBLISHED AUGUST 19, 1913.

93,848. BREAD. CHARLES HOFFMANN, New Britain, Conn.
Filed August 17, 1912. Serial No. 65,326. PUBLISHED DECEMBER 17, 1912.

93,849. ZWIEBACK AND COOKIES. HOLLAND RUSK Co., Holland, Mich.
Filed March 25, 1913. Serial No. 69,320. PUBLISHED AUGUST 12, 1913.

93,850. ZWIEBACK AND COOKIES. HOLLAND RUSK Co., Holland, Mich.
Filed March 26, 1913. Serial No. 69,354. PUBLISHED AUGUST 12, 1913.

93,851. CERTAIN NAMED GARMENTS FOR WOMEN, MEN, AND BOYS. WILLIAM HOLLINS & COMPANY, LIMITED, London, England.
Filed April 10, 1913. Serial No. 69,696. PUBLISHED AUGUST 12, 1913.

93,852. CERTAIN NAMED GARMENTS FOR WOMEN, MEN, AND BOYS. WILLIAM HOLLINS & COMPANY, LIMITED, London, England.
Filed April 10, 1913. Serial No. 69,697. PUBLISHED JULY 22, 1913.

93,853. RUBBER BOOTS, SHOES, OVERSHOES, AND RUBBER-SOLED CANVAS SHOES. HOOD RUBBER Co., Watertown, Mass.
Filed June 6, 1913. Serial No. 70,897. PUBLISHED JULY 29, 1913.

93,854. CANNED SALMON. HOONAH PACKING COMPANY, Port Townsend, Wash.
Filed November 12, 1912. Serial No. 66,875. PUBLISHED FEBRUARY 11, 1913.

93,855. SOAP. HYDROX CHEMICAL COMPANY, New York, N. Y.
Filed May 28, 1913. Serial No. 70,719. PUBLISHED AUGUST 19, 1913.

93,856. WHEAT-FLOUR. J. F. IMBS MILLING COMPANY, St. Louis, Mo., and Belleville, Ill.
Filed April 10, 1913. Serial No. 69,703. PUBLISHED AUGUST 19, 1913.

93,857. TOILET-PAPER AND WRITING-PAPER AND ENVELOPS. THE IMPERIAL MERCHANDISE Co., Perry, Ohio.
Filed July 23, 1913. Serial No. 71,908. PUBLISHED AUGUST 19, 1913.

93,858. BISCUIT. JOHNSON EDUCATOR FOOD COMPANY, Boston, Mass.
Filed January 18, 1913. Serial No. 67,993. PUBLISHED AUGUST 12, 1913.

93,859. STOCK OINTMENT OR SALVE. JAMES W. JONES, Denison, Tex.
Filed June 6, 1913. Serial No. 70,899. PUBLISHED AUGUST 19, 1913.

93,860. CANNED HAM. PAUL JÖRN, Hamburg, Germany.
Filed June 29, 1912. Serial No. 64,474. PUBLISHED AUGUST 19, 1913.

93,861. OINTMENT PREPARATION CONTAINING COLLOIDAL PALLADIUM AND PLATINUM SALTS. KALLE & Co., AKTIENGESELLSCHAFT, Biebrich-on-the-Rhine, Germany.
Filed June 6, 1913. Serial No. 70,903. PUBLISHED AUGUST 19, 1913.

93,862. UNDERWEAR. FREDERICK W. KAVANAUGH, Waterford, N. Y.
Filed May 23, 1913. Serial No. 70,586. PUBLISHED JULY 22, 1913.

93,863. STEEL IN SHEETS AND BARS OR RODS AND STEEL WIRE. KAYSER, ELLISON & Co. LIMITED, Sheffield, England.
Filed June 21, 1913. Serial No. 71,246. PUBLISHED AUGUST 19, 1913.

93,864. TOILET-PAPER. KLAUBER WANGENHEIM Co., San Diego, Cal.
Filed June 23, 1913. Serial No. 71,304. PUBLISHED AUGUST 19, 1913.

93,865. PAJAMAS, DRESS AND NEGLIGÉE SHIRTS, AND NIGHT-SHIRTS. KNOTHE BROTHERS, INC., New York, N. Y., and Baltimore, Md.
Filed May 20, 1913. Serial No. 70,508. PUBLISHED JULY 29, 1913.

93,866. PAJAMAS AND NEGLIGÉE SHIRTS. KNOTHE BROTHERS, INC., New York, N. Y., and Baltimore, Md.
Filed May 20, 1913. Serial No. 70,509. PUBLISHED AUGUST 5, 1913.

93,867. PAJAMAS, DRESS AND NEGLIGÉE SHIRTS, AND NIGHT-SHIRTS. KNOTHE BROTHERS, INC., New York, N. Y., and Baltimore, Md.
Filed May 20, 1913. Serial No. 70,512. PUBLISHED AUGUST 12, 1913.

93,868. GELATIN. CHARLES B. KNOX COMPANY, Johnstown, N. Y.
Filed March 21, 1913. Serial No. 69,232. PUBLISHED AUGUST 12, 1913.

93,869. RAZORS. F. A. KOCH & Co., New York, N. Y.
Filed July 3, 1913. Serial No. 71,516. PUBLISHED AUGUST 19, 1913.

93,870. CERTAIN NAMED FUR WEARING-APPAREL. KOHN & BAER, INC., New York, N. Y.
Filed June 18, 1913. Serial No. 71,169. PUBLISHED AUGUST 5, 1913.

93,871. CANNED VEGETABLES. KOKOMO CANNING COMPANY, Kokomo, Ind.
Filed May 24, 1913. Serial No. 70,622. PUBLISHED AUGUST 12, 1913.

93,872. MACARONI, RICE, AND KIPPERED HERRING. THE LAFFRAY & HERRMAN Co., Paterson, N. J.
Filed July 6, 1911. Serial No. 57,502. PUBLISHED AUGUST 12, 1913.

93,873. FAT-REDUCING PREPARATION FOR EXTERNAL USE. HENRY CHARLES LEDERER, Stockton, Cal.
Filed May 5, 1913. Serial No. 70,246. PUBLISHED AUGUST 19, 1913.

93,874. SOAP. ARTHUR LETTS, Los Angeles, Cal.
Filed June 21, 1913. Serial No. 71,248. PUBLISHED AUGUST 19, 1913.

93,875. BAKING-POWDER. EMANUEL F. LOMELINO, Springfield, Ill.
Filed May 5, 1913. Serial No. 70,244. PUBLISHED AUGUST 19, 1913.

93,876. WORK-SHIRTS. LONDON & HYMAN, New York, N. Y.
Filed February 25, 1913. Serial No. 68,726. PUBLISHED JULY 15, 1913.

93,877. MEN'S, WOMEN'S, AND CHILDREN'S GLOVES. MORTON G. LUCHS, New York, N. Y.
Filed June 3, 1913. Serial No. 70,845. PUBLISHED JULY 15, 1913.

93,878. MEN'S, WOMEN'S, AND CHILDREN'S GLOVES. MORTON G. LUCHS, New York, N. Y.
Filed June 3, 1913. Serial No. 70,846. PUBLISHED JULY 15, 1913.

93,879. COAL. LUMAGHI COAL COMPANY, St. Louis, Mo.
Filed May 26, 1913. Serial No. 70,668. PUBLISHED AUGUST 19, 1913.

93,880. TABLE-SYRUP. MALT FOOD PRODUCTS COMPANY, OF OSWEGO, N. Y., Oswego, N. Y.
Filed April 20, 1912. Serial No. 63,023. PUBLISHED AUGUST 12, 1913.

93,881. GLOVES. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed July 23, 1913. Serial No. 71,902. PUBLISHED AUGUST 19, 1913.

93,882. LEATHER BOOTS AND SHOES. F. MAYER BOOT & SHOE Co., Milwaukee, Wis.
Filed June 30, 1913. Serial No. 71,445. PUBLISHED AUGUST 12, 1913.

93,883. TOOTH-BRUSHES. A. J. MCDONAGH, Toronto, Ontario, Canada.
Filed June 14, 1913. Serial No. 71,110. PUBLISHED JULY 29, 1913.

93,884. WAGON-DUMPS. THE MEADOWS MFG. CO., Pontiac, Ill.
Filed November 24, 1911. Serial No. 59,940. PUBLISHED AUGUST 19, 1913.

93,885. CERTAIN NAMED FOODS. MEYER & LANGE, New York, N. Y.
Filed February 10, 1913. Serial No. 68,439. PUBLISHED AUGUST 12, 1913.

93,886. RAT AND MICE EXTERMINATOR. THE MODERN EXTERMINATOR Co., Boston, Mass.
Filed May 31, 1913. Serial No. 70,790. PUBLISHED AUGUST 19, 1913.

93,887. FOOD JELLIES, BLANC-MANGE AND CUSTARD POWDERS, AND FRUIT POWDERS. MONKHOUSE AND GLASSCOCK LIMITED, Bermondsey, London, England.
Filed November 17, 1911. Serial No. 59,770. PUBLISHED AUGUST 19, 1913.

93,888. TOILET-PAPER. ASAHEL U. MORSE, Kansas City, Mo.
Filed June 16, 1913. Serial No. 71,133. PUBLISHED AUGUST 19, 1913.

93,889. TOILET-PAPER. ASAHEL U. MORSE, Kansas City, Mo.
Filed June 16, 1913. Serial No. 71,134. PUBLISHED AUGUST 19, 1913.

93,890. COFFEE, TEA, MACARONI, AND NOODLES. MYLES STANDISH COMPANY, Providence, R. I.
Filed July 5, 1912. Serial No. 64,584. PUBLISHED AUGUST 19, 1913.

93,891. ONION SALT IN POWDERED FORM. THE NATIONAL ONION SALT COMPANY, Chicago, Ill.
Filed March 14, 1913. Serial No. 69,035. PUBLISHED APRIL 29, 1913.

93,892. ONION SALT IN POWDERED FORM. THE NATIONAL ONION SALT COMPANY, Chicago, Ill.
Filed March 14, 1913. Serial No. 69,036. PUBLISHED MAY 27, 1913.

93,893. STEEL IN BAR AND ROD FOR TOOL MANUFACTURE. JAMES NEILL & Co., Sheffield, England.
Filed June 21, 1913. Serial No. 71,250. PUBLISHED AUGUST 19, 1913.

93,894. OVERALLS, TROUSERS, AND SHIRTS. NIAGARA OVERALL & PANTS Co., Buffalo, N. Y.
Filed July 16, 1913. Serial No. 71,766. PUBLISHED AUGUST 19, 1913.

93,895. FLAVORING EXTRACTS, RICE, WHEAT-FLOUR, VINEGAR, COFFEE, SPICES, AND MUSTARD DRESSING. OKLAHOMA SUPPLY Co., Oklahoma, Okla.
Filed October 11, 1909. Serial No. 45,244. PUBLISHED JULY 30, 1912.

93,896. CANDY. OLIVER-FINNIE Co., Memphis, Tenn.
Filed May 24, 1913. Serial No. 70,628. PUBLISHED AUGUST 12, 1913.

93,897. HATS. THE ONE-PROFIT HAT COMPANY, Danbury, Conn.
Filed May 21, 1913. Serial No. 70,536. PUBLISHED AUGUST 12, 1913.

93,898. SHIRTS HAVING PERMANENTLY-ATTACHED CUFFS. OPPENHEIM, OBERNDORF & Co., Baltimore, Md.
Filed June 26, 1913. Serial No. 71,386. PUBLISHED AUGUST 12, 1913.

93,899. SOAP. O-SHU-CO SOAP COMPANY, Los Angeles, Cal.
Filed June 30, 1913. Serial No. 71,449. PUBLISHED AUGUST 19, 1913.

93,900. COARSE MEAL, A COFFEE SUBSTITUTE, AND A BREAKFAST FOOD. PARENT SEVEN GRAIN FOOD COMPANY, Los Angeles, Cal.
Filed November 20, 1912. Serial No. 67,023. PUBLISHED AUGUST 12, 1913.

93,901. CULTIVATORS. PARLIN & ORENDORFF Co., Canton, Ill.
Filed May 10, 1913. Serial No. 70,356. PUBLISHED AUGUST 19, 1913.

93,902. MEN'S AND BOYS' OVERALLS. PEERLESS OVERALL Co., Huntington, W. Va.
Filed July 16, 1913. Serial No. 71,774. PUBLISHED AUGUST 19, 1913.

93,903. CAKES AND COOKIES. PERFECTION BISCUIT Company, Fort Wayne, Ind.
Filed May 17, 1913. Serial No. 70,476. PUBLISHED AUGUST 19, 1913.

93,904. WHEAT-FLOUR. PILLSBURY FLOUR MILLS COMPANY, Minneapolis, Minn.
Filed May 6, 1913. Serial No. 70,267. PUBLISHED AUGUST 12, 1913.

93,905. HAIR-TONIC, SHAMPOO-POWDER, DENTAL CREAM, PERFUMES, AND FOOD-COLORS. J. M. PITKIN & Co., Newark, N. Y.
Filed January 17, 1911. Serial No. 53,930. PUBLISHED AUGUST 19, 1913.

93,906. FRESH APPLES AND PEACHES. POTOMAC FRUIT GROWERS CLUB, Cumberland, Md.
Filed April 17, 1913. Serial No. 69,863. PUBLISHED AUGUST 12, 1913.

93,907. BREAD. PRATT BREAD COMPANY, Boston, Mass.
Filed May 17, 1913. Serial No. 70,475. PUBLISHED AUGUST 12, 1913.

93,908. SOAP. REGESAN LTD., London, England.
Filed July 2, 1913. Serial No. 71,488. PUBLISHED AUGUST 19, 1913.

93,909. BOOTS, SHOES, AND SLIPPERS OF LEATHER, CANVAS, RUBBER, AND FELT. ROBLEE-WASS SHOE COMPANY, St. Louis, Mo.
Filed July 24, 1913. Serial No. 71,957. PUBLISHED AUGUST 19, 1913.

93,910. OLIVE-OIL. ANTONIO ROSSANO, New York, N. Y.
Filed April 13, 1912. Serial No. 62,874. PUBLISHED AUGUST 12, 1913.

93,911. CHOCOLATE AND OLIVE-OIL. SAN ANTONIO DRUG Co., San Antonio, Tex.
Filed March 8, 1913. Serial No. 68,927. PUBLISHED AUGUST 12, 1913.

93,912. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,573. PUBLISHED AUGUST 19, 1913.

93,913. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,574. PUBLISHED AUGUST 19, 1913.

93,914. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,575. PUBLISHED AUGUST 19, 1913.

93,915. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,576. PUBLISHED AUGUST 19, 1913.

93,916. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,577. PUBLISHED AUGUST 19, 1913.

93,917. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,578. PUBLISHED AUGUST 19, 1913.

93,918. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,579. PUBLISHED AUGUST 19, 1913.

93,919. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,580. PUBLISHED AUGUST 19, 1913.

93,920. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,582. PUBLISHED AUGUST 19, 1913.

93,921. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,583. PUBLISHED AUGUST 19, 1913.

93,922. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,584. PUBLISHED AUGUST 19, 1913.

93,923. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,585. PUBLISHED AUGUST 19, 1913.

93,924. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,586. PUBLISHED AUGUST 19, 1913.

93,925. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,587. PUBLISHED AUGUST 19, 1913.

93,926. TOILET-PAPER. SAUQUOIT TOILET PAPER Co., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,588. PUBLISHED AUGUST 19, 1913.

93,927. BREAD. WILLIAM SCHWARTZ, Norristown, Pa.
Filed May 14, 1913. Serial No. 70,426. PUBLISHED AUGUST 19, 1913.

93,928. LINIMENT, TOOTH-PASTE, LAXATIVE, PILLS, SALVE, AND REMEDIES FOR CERTAIN DISEASES. SCOTCH-TONE REMEDY Co., Oklahoma, Okla.
Filed November 23, 1911. Serial No. 59,873. PUBLISHED AUGUST 19, 1913.

93,929. OVERALLS, JUMPERS, AND TROUSERS. SHERMAN OVERALL MANUFACTURING Co., Sherman, Tex.
Filed September 20, 1912. Serial No. 65,886. PUBLISHED JULY 22, 1913.

93,930. CERTAIN NAMED SEEDS. ARTHUR E. SHULTZ, Olney, Ill.
Filed May 3, 1913. Serial No. 70,219. PUBLISHED AUGUST 19, 1913.

93,931. CORN-FILES. NETTIE E. SIBLEY, Springfield, Mass.
Filed June 2, 1913. Serial No. 70,833. PUBLISHED AUGUST 12, 1913.

93,932. HAIR-NETS. SILVERBERG IMPORT Co., INC., New York, N. Y.
Filed July 9, 1913. Serial No. 71,626. PUBLISHED AUGUST 19, 1913.

93,933. INCANDESCENT ELECTRIC LAMPS. SOCIETE LA MONDAINE, Paris, France.
Filed June 18, 1913. Serial No. 71,187. PUBLISHED AUGUST 19, 1913.

93,934. LAUNDRY STARCH, WAX, SIZING, AND BLEACHES FOR LAUNDRY PURPOSES. THE ALDEN SPEARE'S SONS Co., Cambridge, Mass.
Filed April 1, 1913. Serial No. 69,503. PUBLISHED AUGUST 19, 1913.

93,935. BABBITT METAL. J. D. STREETT & COMPANY, St. Louis, Mo.
Filed July 16, 1913. Serial No. 71,780. PUBLISHED AUGUST 19, 1913.

93,936. CERTAIN NAMED COATS, TROUSERS, VESTS, HATS, AND CAPS. STUDD & MILLINGTON, London, England.
Filed May 20, 1913. Serial No. 70,517. PUBLISHED AUGUST 12, 1913.

93,937. HOSIERY. TALIAFERRO & SHERWOOD, New York, N. Y.
Filed August 28, 1912. Serial No. 65,466. PUBLISHED MARCH 11, 1913.

93,938. HOSIERY AND CERTAIN NAMED KNITTED UNDERWEAR. E. M. TOWNSEND & Co., New York, N. Y.
Filed July 19, 1913. Serial No. 71,864. PUBLISHED AUGUST 19, 1913.

93,939. SUBSTITUTE FOR CHICLE. UNITED STATES CHICLE REFINING COMPANY, Newark, N. J.
Filed April 17, 1913. Serial No. 69,874. PUBLISHED AUGUST 12, 1913.

93,940. WHEAT-FLOUR. VALIER & SPIES MILLING Co., St. Louis, Mo.
Filed May 24, 1913. Serial No. 70,641. PUBLISHED AUGUST 12, 1913.

93,941. CERTAIN NAMED ACCESSORIES USED IN ATHLETIC GAMES AND SPORTS. VICTOR SPORTING GOODS COMPANY, Springfield, Mass.
Filed March 26, 1910 Serial No. 48,676. PUBLISHED DECEMBER 24, 1912.

93,942. LIQUEUR DISTILLED FROM JUNIPER-BERRIES. ROBERTO VLAHOV, Zara, Austria-Hungary.
Filed September 24, 1912. Serial No. 65,958. PUBLISHED AUGUST 19, 1913.

93,943. PAINT, VARNISH, AND CALCIMINE BRUSHES. WADSWORTH, HOWLAND & Co., INCORPORATED, Boston, Mass.
Filed May 28, 1913. Serial No. 70,739. PUBLISHED AUGUST 19, 1913.

93,944. STENCIL PRINTING AND DUPLICATING APPARATUS. JOSEPH WALLER, London, England.
Filed June 11, 1913. Serial No. 71,030. PUBLISHED AUGUST 19, 1913.

93,945. HOSIERY. WESTERN DRY GOODS Co., Seattle, Wash.
Filed June 10, 1913. Serial No. 71,009. PUBLISHED AUGUST 12, 1913.

93,946. CHEWING-GUM. W. J. WHITE CHICLE Co., Niagara Falls, N. Y.
Filed May 24, 1913. Serial No. 70,642. PUBLISHED AUGUST 12, 1913.

93,947. COMPOUND FOR CLEANING PAINT, METAL, AND GLASS. CHARLES D. WILLIAMS, Cleveland, Ohio.
Filed June 7, 1913. Serial No. 70,965. PUBLISHED AUGUST 19, 1913.

93,948. REMEDY FOR CERTAIN NAMED DISEASES AND AILMENTS. RALEIGH C. WILSON, Portland, Oreg.
Filed February 18, 1911. Serial No. 54,593. PUBLISHED AUGUST 19, 1913.

93,949. MEDICINAL PREPARATIONS FOR TREATMENT OF LIQUOR AND DRUG HABIT. JAMES P. WITT, Kansas City, Mo.
Filed April 8, 1913. Serial No. 69,669. PUBLISHED AUGUST 19, 1913.

93,950. MEN'S SUITS AND OVERCOATS. THE WONDER CLOTHES SHOP Co., New York, N. Y.
Filed June 14, 1913. Serial No. 71,114. PUBLISHED JULY 22, 1913.

93,951. UNDERGARMENTS—NAMELY, BRASSIÈRES, CORSETS, PETTICOATS, HOSIERY, AND UNION SUITS. YE LADY'S OUTFITTERIE, New York, N. Y.
Filed May 24, 1913. Serial No. 70,645. PUBLISHED JULY 22, 1913.

LABELS

REGISTERED OCTOBER 21, 1913.

17,275.—*Title:* "SUPERIORES." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed October 2, 1913.

17,276.—*Title:* "SMOKE CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed October 2, 1913.

17,277.—*Title:* "SMOKE CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed October 2, 1913.

17,278.—*Title:* "SMOKE CIGARS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed October 2, 1913.

17,279.—*Title:* "ESQUISITOS." (For Cigars.) AMERICAN LITHOGRAPHIC COMPANY, New York, N. Y. Filed October 2, 1913.

17,280.—*Title:* "TRUST FUND." (For Cigars.) W. J. ARMSTRONG COMPANY, Waseca, Minn. Filed September 11, 1913.

17,281.—*Title:* "SLICED BACON." (For Bacon.) HENRY BARNES, Brooklyn, N. Y. Filed July 21, 1913.

17,282.—*Title:* "APOLLO HOSIERY." (For Hosiery.) S. BLOCK & SON, Philadelphia, Pa. Filed June 27, 1913.

17,283.—*Title:* "SPAR EG-GET GRIT." (For Spar Grit.) THE EARTH PRODUCTS CO., Baltimore, Md. Filed September 11, 1913.

17,284.—*Title:* "COUNTRY CLUB." (For Cigars.) A. C. HENSCHEL & Co., Chicago, Ill. Filed October 3, 1913.

17,285.—*Title:* "CLEAN BILL." (For Cigars.) A. C. HENSCHEL & Co., Chicago, Ill. Filed October 3, 1913.

17,286.—*Title:* "SAN REY." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,287.—*Title:* "HAVANA TOKEN." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,288.—*Title:* "WIMO." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,289.—*Title:* "HAVANA CLUB." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,290.—*Title:* "PASS-TIME." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,291.—*Title:* "DON FERNANDO." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,292.—*Title:* "ROMOLA." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed October 3, 1913.

17,293.—*Title:* "THE STAR BORDER SALT." (For Salt.) HIGBIE SALT COMPANY, Chicago, Ill. Filed September 5, 1913.

17,294.—*Title:* "HILLS BROS.' BLUE LABEL JAPAN TEA." (For Tea.) HILLS BROS., San Francisco, Cal. Filed September 30, 1913.

17,295.—*Title:* "BUTTER TOP BREAD." (For Bread.) THE HOLLAND BAKING CO., Holland, Mich. Filed September 15, 1913.

17,296.—*Title:* "THE MESSENGER BREAD." (For Bread.) LEDER & WECHSLER, Brooklyn, N. Y. Filed September 8, 1913.

17,297.—*Title:* "ROGERS' WITCH HAZEL CREAM." (For Toilet Cream.) W. G. ROGERS, Madison, Ind. Filed August 29, 1913.

17,298.—*Title:* "SHEPARD'S HOUSE FLY DRIVER." (For a Preparation for the Extermination of Insects.) JOS. C. SHEPARD, Wilmington, N. C. Filed October 3, 1913.

17,299.—*Title:* "CAMPHO-MENTHO." (For a Remedy for Skin Diseases.) EDWARD H. WALSDORF, New Orleans, La. Filed May 8, 1913.

PRINTS

REGISTERED OCTOBER 21, 1913.

3,387.—*Title:* "OUR PLATFORM." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed September 27, 1913.

3,388.—*Title:* "MOTHER EARTH'S ADOPTED 'SUN.'" (For Incandescent Lamps.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed September 8, 1913.

3,389.—*Title:* "GREENDALE 'RED-RUG.'" (For Bricks.) HOCKING VALLEY PRODUCTS COMPANY, Columbus, Ohio. Filed September 29, 1913.

3,390.—*Title:* "GREENDALE 'RUG.'" (For Bricks.) HOCKING VALLEY PRODUCTS COMPANY, Columbus, Ohio. Filed September 29, 1913.

3,391.—*Title:* "SOFT AND SWEET." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed September 27, 1913.

3,392.—*Title:* "BROWN'S MULE CHEWING TOBACCO—BIG CUT 5¢." (For Chewing-Tobacco.) R. J. REYNOLDS TOBACCO COMPANY, Winston-Salem, N. C. Filed September 27, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE MCGILL.

Decided October 4, 1913.

APPLICATION—PROSECUTION—REJECTION FOR INOPERATIVENESS—AFFIDAVITS HELD INSUFFICIENT—REJECTION SHOULD NOT BE MADE FINAL.

Where in response to a rejection on the ground that the device was inoperative applicant filed affidavits as to certain tests, which affidavits the Examiner held insufficient to overcome the rejection, because many vital details regarding the tests described had been omitted from the affidavits, *Held* that the rejection should not have been made final, but that the Examiner should have informed the applicant specifically wherein the affidavits were insufficient and have given him an opportunity to supply the deficiency by similar affidavits.

ON PETITION.

Messrs. Mason, Fenwick & Lawrence for the applicant.

FRAZIER, *First Assistant Commissioner:*

This is a petition to the Commissioner asking for the exercise of his supervisory authority to instruct the Examiner to open the case—

and to state in what particular certain affidavits filed herein are insufficient and to permit the filing of additional affidavits if found possible to supply the deficiency.

It appears that in the official letter of June 29, 1912, the Examiner pointed out three instances tending to show that the apparatus was not operative as described. On February 10, 1913, applicant in reply presented the claims now in the case. This amendment was accompanied by an argument traversing the statements of the Examiner as to the alleged inoperative features of the apparatus, whereupon the claims were rejected March 12, 1913, on the ground that they covered an inoperative apparatus.

In response to this action applicant filed a number of affidavits of different persons intended to overcome the ground of rejection.

The Examiner in his next action held the affidavits to be insufficient, and finally rejected the claims July 19, 1913. The Examiner cites *ex parte Davidson*, (120 O. G., 2753.) Technically speaking, the Examiner's action, being the second action upon the same claims and for the same reason, could be considered a proper final rejection; but in this case, while the specific ground of rejection remained the same, such rejection for the first time gives an additional reason—namely, insufficiency of the affidavits to overcome the rejection. There is, therefore, from this point of view lacking the second action on the issue raised by the presentation of the affidavits.

Where the applicant seeks, by evidence presented in the form of affidavits, to establish the operativeness of the device, it is believed that he should be given the opportunity to point out, if he can, in reply to the Examiner's rejection for lack of sufficiency of the affidavits, wherein, in his opinion, the Examiner erred, or to supply, if he can, the deficiency. The Examiner in order to fully advise the applicant as to what the defects were should inform applicant of the specific omissions to which he refers in the general statement that—

so many vital details regarding the test described have been omitted from such affidavits that they are of but little value in determining the operativeness of the apparatus.

This statement, which forms the basis of the Examiner's refusal to accept the facts sought to be established by the affidavits, gives color to the thought that such omissions relate to the standards by which, if supplied, the Examiner might be able to determine the operativeness of the apparatus.

The Examiner holds that he regarded the affidavits in the light or as full equivalent of an argument in response to the rejection. This, however, is believed to be incorrect, especially as the affidavits are supposed to relate to the facts or matters of observation or experiment or the like intended to rebut the opinion of the Examiner that the device is not operative. They should not be treated merely in the nature of an argument for reconsideration, but rather as an endeavor to establish facts upon which an argument may be based. If they are insufficient in the matters specified—that is, the conditions under which the test was made—an opportunity should be given to applicant to supply, if he can, the deficiencies before the case is taken on appeal to the Examiners-in-Chief. That tribunal may agree with the Examiner's objections, but find difficulty in reaching its conclusion because of the omissions of the conditions under which the tests were made. It seems clear that both the Examiner and the higher tribunals should have before them all matters of fact so expressed in the affidavits as to enable them to properly pass on the sufficiency of the affidavits.

For these reasons the petition is granted to the extent that applicant may be given an opportunity to be informed by the Examiner of the conditions

omitted from the affidavits and to supply by similar affidavits the deficiencies. If he cannot supply the required elements, then the rejection may be made final, if the Examiner's judgment is not changed by whatever answer applicant may make.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

HUBBARD *v.* BERG.

Decided June 2, 1913.

Motion for rehearing denied October 8, 1913.

1. INTERFERENCE—PRIORITY—DILIGENCE.
Where B. was the first to conceive the invention and the first to reduce the same to practice, *Held* that the question of his diligence or whether he was spurred into activity by knowledge of the entry of his opponent into the field is immaterial.

2. SAME—SAME.
The decision of the Commissioner awarding priority of invention to B. affirmed.

Mr. Wm. H. Kenyon for the appellant.

Mr. A. G. Davis and *Mr. T. J. Johnston* for the appellee.

VAN ORSDEL, *J.*:

This is an appeal from the decision of the Commissioner of Patents in an interference proceeding awarding priority of invention to appellee, the senior party.

The invention in issue is defined by the Board of Examiners-in-Chief as follows:

The invention defined by the counts of this interference is a system of electrical distribution comprising a battery and booster working in parallel with a main source of electrical energy. The first three counts are not specific as to the character of the main source of electrical energy, merely defining that element as a source of current, whereas the remaining counts, 4 to 10, inclusive, specifically define the main source of current as being a "rotary converter." The chief idea of the invention appears to be the provision of a system in which the main source of current shall, for light loads, carry all of the load and charge the storage battery; in which for normal or intermediate loads the main source of current and the battery and booster shall share the load, and in which for excessive loads the main source of current shall exclusively carry the excess, the battery and booster furnishing for the excessive load, at most, only a predetermined fixed amount of current.

The following counts are sufficient to illustrate the invention for the purposes of this appeal:

1. The combination of a source of current having a main field winding, a direct-current distributing circuit, a storage battery connected across said circuit, a booster in series with said battery, and an auxiliary winding for said source in circuit with said booster, said winding acting to strengthen the main field in case of light load on the distributing circuit, but weakening said field in case of a heavy load on said distributing circuit.

6. The combination with an alternating-current supply system, of a rotary converter, a direct-current distributing system, a storage battery connected across the direct-current mains, a booster in series with said battery, and an auxiliary field winding on the rotary in circuit with said booster, said winding acting in conjunction with the main field when the battery is charging, and in opposition when the battery is discharging.

8. The combination with a rotary converter, of a storage battery adapted to operate in parallel therewith, and means for causing the rotary to carry all excess of load above a certain value.

It appears from the record that appellee conceived and disclosed his invention in November, 1904; that, while there is some evidence showing that appellant had a conception of the invention about the same time, he is limited by his preliminary statement to December, 1906, and that neither party reduced to practice except by the filing of their applications for patent—appellant's on February 10, 1909, and appellee's on September 13, 1907, upon which a patent was inadvertently issued on April 6, 1909.

Appellant contends that the device disclosed by appellee in 1904 was inoperative, in that the main source of current is a machine having a rising instead of a drooping, characteristic, and can therefore avail him nothing. All of the tribunals below, however, held that the invention disclosed was identical with that described in the application and patent. No motion to dissolve the interference was made by appellant, but the Examiner of Interferences of his own motion considered the question of the inoperativeness of the device described in appellee's patent, and decided in favor of appellant. On appeal to the Board of Examiners-in-Chief this decision was unanimously reversed, the Board being affirmed on appeal to the Commissioner. This invention involves an extremely technical science, and, at most, error is not so apparent as to warrant us in overturning not only the decisions of the two appellate tribunals of the Patent Office, but also the decision of the Primary Examiner, one skilled in the particular art to which this invention relates, who must have considered appellee's application to disclose an operative device, since he allowed it to go to patent.

It is also contended by counsel for appellant that the testimony on behalf of appellee shows that he was but the inventor of an unimportant portion of the invention, and that some undisclosed third party was the true inventor of the remainder. It is unnecessary here to determine whether or not appellant is in a position to raise this question. The Examiner of Interferences and the Commissioner both held the evidence proved conception on the part of appellee of the whole apparatus embraced in the issue, and the Board of Examiners-in-Chief evidently did not regard the question as of sufficient importance to consider it. An examination of the record convinces us that appellee's testimony establishes a *prima facie* case, which is sufficient, in the absence of any direct proof to the contrary, or any claim advanced by such third person.

It is further contended by counsel for appellant that appellee had abandoned his invention, and was only spurred to activity when he learned of appellant's entry into the field. Appellee was undoubtedly lacking in diligence, but this is not chargeable against him, since he was the first to conceive and the first to reduce to practice. We agree with the Commissioner that the facts do not show an intention to abandon the invention. Appellee turned the matter over to the patent department of the General Electric Company, by which he was employed, and to which he had assigned his patent rights. While it is true that he states the matter dropped out of his mind, yet he explains this in the same sentence by the statement that he—

knew the patent department would look after their patent situations.

Abandonment must be strictly proved, and will never be presumed. The burden of proof is on appellant. A mere delay in the filing of an applica-

tion of less than three years will not alone amount to abandonment. There seems to have been no attempt at concealment, since the invention was disclosed not only to engineers in the employ of the General Electric Company, but also to others not connected with it.

Ordinarily, the one who is the first to conceive and the first to reduce to practice is regarded as the true inventor. An exception, however, has been made in the case of *Mason* v. *Hepburn*, (13 App. D. C., 86,) relied upon by appellant, where one, although the first to conceive and reduce to practice, by concealing and suppressing his invention, was held to have abandoned it, and to be subordinated to the rights of one who entered the field in good faith as an independent inventor and was the first to give the completed invention to the world. It is the spirit and intent of the patent laws to reward the one who first gives the public the benefit of his invention in its completed form, and this will be done unless the one first to conceive, but the last to reduce to practice, is not chargeable with delay. But in this case appellant was not the first to give the invention to the world. His application for patent was not filed until nearly a year and a half after appellee's. Had appellant reduced to practice before appellee, there would be no question of his right to a patent, since appellee was not exercising diligence at the time his rival entered the field. On the other hand, had appellee made his application without knowledge of appellant's efforts, he would undoubtedly be entitled to prevail, since he was the first to conceive and the first to reduce to practice, and his want of diligence would become immaterial. But appellant contends that, where one is only spurred to activity by knowledge of the entry of another into the field, his rights become subordinated to those of the later inventor, even though the latter was not the first to reduce to practice. To sustain this contention, it would be necessary to hold that the rights of the earlier inventor become absolutely forfeited at the date he receives knowledge of the other's subsequent conception, without regard to the diligence of the latter. Thus one, because of his delay, would be totally deprived of his right to a patent for his invention—the incentive offered by the patent laws to induce him to perfect and disclose it,—at a time when there is no assurance that his rival would have a greater regard for the interests of the public. The purpose of the patent laws is to secure to the people at large, in return for a limited monopoly, the fruits of inventive genius, without unreasonable delay.

The interests of the public are therefore the primary consideration, and to these the privileges granted to inventors are secondary and subordinate. * * * On this principle the inventor is required to be diligent in reducing his conception or invention to practice; and it is usually the first who reduces to practice, and not the first who conceives, that is entitled by law to be regarded as the inventor. (*Warner* v. *Smith*, 13 App. D. C., 111.)

To hold that the earlier inventor's right is merely suspended, to be revived again in case the later is also guilty of laches, is equivalent to a ruling that one is restricted to the date, as his date of conception, when, after delay, he reënters the field and begins to perfect his invention, and that, from that time, it is a race of diligence between the two. This contention was urged in the case of *Grabowsky* v. *Gallaher*, (39 App. D. C., 548,) but was denied upon the authority of the case of *Paul* v. *Johnson*, (23 App. D. C., 187.) In the latter case, Paul was the first to conceive, but the last to reduce to practice, being chargeable with negligence. Johnson conceived before Paul reëntered the field, but was also guilty of lack of diligence until after that time. The court said:

It is urged on behalf of Paul, that even though he were lacking in diligence up to February 28, 1896, the time when he communicated with and placed the matter of his claim to invention in the hands of his counsel, he should, nevertheless, prevail, because of the alleged lack of diligence on the part of Johnson, and from which time Paul had become active. But this contention, if sustained, would contravene a well-settled principle of patent law. As well said by the Commissioner in his opinion, it is a fundamental principle of patent law that the first to reduce to practice is *prima facie* the first inventor and entitled to a patent. Prior to the act of July 4, 1836, his right was absolute and subject to no exception. It has been repeatedly held by the Supreme Court of the United States, that he is to be regarded as the inventor and entitled to the patent who first brought the machine to perfection and made it capable of useful operation. The first and only exception made to this established rule was that made by the act of Congress of July 4, 18[illegible] now embodied in section 4920, Revised Statutes of the United States, (U. S. Comp. Stat., 1901, p. 3394,) wherein it is provided that anyone sued for infringement of a patent may show "that he (the plaintiff) had surreptitiously or unjustly obtained the patent for that which was in fact invented by another, who was using reasonable diligence in adapting and perfecting the same." Nothing is said as to diligence on the part of the first to reduce to practice and no lack of diligence can be imputed to him, since he was in fact the first to give the invention to the public by a reduction to practice. The principle is well and clearly stated by Judge Taft, in delivering the opinion of the Circuit Court of Appeals of the Sixth Circuit, in the case of *Cristie* v. *Seybold*, (5 C. C. A., 33.) In that case the judge said: "The diligence of the first reducer to practice is necessarily immaterial. It is not a race of diligence between the two inventors in the sense that the right to the patent is to be determined by comparing the diligence of the two, because the first reducer to practice, no matter what his diligence or want of it, is prior in right, unless the first conceiver was using reasonable diligence at the time of the second conception and the first reduction to practice."

Appellant was neither the first to conceive nor the first to reduce to practice.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Porter patent, No. 556,317, for a derailing-switch, is void for lack of invention in view of the prior art, and especially of the Martel patent, No. 243,933. *Weir Frog Co.* v. *Porter*, 206 Fed. Rep., 670.

(U. S. D. C.) The Goulding patent, No. 655,862, for a tally-card for use in progressive-euchre contests, etc., *Held* not infringed. *McKenna* v. *Brophy*, 206 Fed. Rep., 677.

(U. S. C. C. A.) The Nolte patent, No. 859,511, for a process of constructing a concrete floor, *Held* not void on its face for lack of invention. *Ferro Concrete Const. Co.* v. *Concrete Steel Co.*, 206 Fed. Rep., 666.

(U. S. D. C.) The McKenna patents, Nos. 865,795 and 927,581, each for a tally-card for use in progressive-euchre contests, etc., *Held* not infringed. *McKenna* v. *Brophy*, 206 Fed. Rep., 677.

Disclaimer.

12,578. (Reissue.)—*Frank A. Borst*, South Bend, and *John Groscop*, Auburn, Ind. MACHINE FOR MANUFACTURING HOLLOW CONCRETE BUILDING-BLOCKS. Patent dated December 18, 1906. Disclaimer filed October 10, 1913, by the assignee, *Ideal Concrete Machinery Company*.

Enters this disclaimer—

"To that part of the claims in said specification which is in the following words, to wit:

"4. In a building-block machine, the combination of a frame, a longitudinally-movable core carried thereby; a mold supported by said frame comprising a rear side plate provided with aperture for the core, a front side plate, end plates and a base-plate, said end plates, front side plate, and base-plate adapted to be swung forward as a unit until arrested by the frame.

"5. In a building-block machine, the combination of a frame, a longitudinally-movable core carried thereby; and a mold supported by said frame comprising a rear side plate provided with an aperture for the core, a front side plate hinged to said frame, end plates, and a base-plate hinged to the front side plate, said end plates, front side plate and base-plate adapted to be swung forward as a unit until arrested by the frame.

"6. In a building-block machine, the combination of a frame, a longitudinally-movable core carried thereby, a mold supported by said frame comprising a back plate provided with an aperture for the core, end plates, a front side plate and a bottom plate, said bottom plate adapted to be swung up to vertical position and said front side plate to horizontal position to carry the molded block to discharging position.

"7. In a building-block machine, the combination of a pivotally-mounted mold formed of hinged sections, a horizontally-movable core for forming the hollow interior of the blocks, a supporting-frame on which the mold and core are mounted, and means for moving said core into and out of the mold, part of said mold being adapted to swing outward to discharge the molded block.

"8. A building-block machine consisting of a supporting-frame having a table for a hinged mold, a mold consisting of a rear side plate hinged to the rear edge of said table, a forward side plate hinged to the forward edge of said table and having a bottom plate hinged to its lower edge, and having end plates hinged to its opposite ends as shown, and a removable plate arranged adjacent to the inner face of the said forward side plate.

"9. In an apparatus of the class described, the combination of a supporting-frame, a table, a knockdown mold whose opposite sides are hinged to said table and whose outer side has bottom and end sections hinged to its lower edge and ends respectively, and means for securing these hinged sections together.

"10. In a building-block machine, a knockdown mold formed of hinged sections and consisting of a rear side plate, a base or support for the same, a front side plate or section hinged at its lower edge to said base, a base-plate hinged to the lower edge of said front side plate, end plates or sections hinged to the front side plate, a removable plate arranged adjacent to the inner face of the front side plate, and means for rigidly securing the said hinged sections together.

"11. In a building-block machine, the combination of a frame, a mold supported by said frame consisting of a rear side plate, a front side plate, end plates and a base-plate, said end plates, front side plate and base-plate adapted to be swung forward as a unit away from the back plate until arrested by the frame.

"12. In a building-block machine, the combination of a frame, a mold-box composed of a front section, a removable carrier-plate adjacent thereto and normally forming one of the side walls of the mold, a bottom section connected to the front section, a rear section, and hinged end sections; the front section being adapted to turn with the carrier-plate to horizontal position, and the bottom section being simultaneously carried to an upright position.

"13. In a building-block machine, the combination of a frame, and a mold supported by said frame comprising a back plate independently connected to the frame, end plates, a front side plate connected to the frame and a bottom plate, said bottom plate adapted to be swung up to vertical position and said front side plate to horizontal position to carry the molded block to discharging position away from the back plate.

"14. In a machine for the formation of hollow blocks from plastic material, the combination of a frame, a mold-box including a removable carrier-plate normally forming one of the side walls of the box, bottom and end plates all mounted for bodily movement to turn the carrier-plate to an approximately horizontal position with the block resting thereon, the end plates being movable to free the block from the mold and means hinged to said frame adapted to support said removable carrier-plate, the other side plate being stationary."

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 13, 1913.

Pacific Soap & Chemical Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Lautz Bros. & Co., corner of Hanover, Lake, and Lloyd streets, Buffalo, N. Y., for registration of a trade-mark and trade-marks Nos. 20,685 and 20,234, registered February 9, 1892, and October 20, 1891, respectively, to the Pacific Soap & Chemical Co., of Tacoma, Wash., and a notice of such declaration sent by registered mail to the Pacific Soap & Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Pacific Soap & Chemical Co., its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner*.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyramid Drug Co., of 227 East State street, Marshall, Mich., for registration of a trade-mark and registration No. 10,165, registered April 10, 1883, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned undeliverable, notice is hereby given that unless the said William H. Brearley, his assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner*.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Vick Chemical Co., of Greensboro, N. C., for registration of a trade-mark and trade-mark registrations of The Ozark Medicine Company, of Batesville, Ark., The L. Richardson Drug Co., of Greensboro, N. C., Columbia Drug Company, of Savannah, Ga., and trade-mark registered April 10, 1883, No. 10,165, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Brearley, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner*.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

Sarah H. Cockrell & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Scott Logan Milling Co., of Sheldon, Iowa, for registration of a trade-mark and trade-mark registration No. 13,560, registered August 10, 1886, to Sarah H. Cockrell & Co., of Dallas city, Tex., and a notice of such declaration sent by registered mail to said Sarah H. Cockrell & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Sarah H. Cockrell & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner*.

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Labels	12	No. 17,300 to No. 17,311, inclusive.
Prints	12	No. 3,393 to No. 3,404, inclusive.
Reissues	2	No. 13,635 to No. 13,636, inclusive.
Total	758	

TO RESIDENTS OF THE UNITED STATES.

States	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	2	North Carolina	3	1
Arizona	2	....	North Dakota	3	....
Arkansas	3	2	Ohio	35	12
California	24	5	Oklahoma	3	1
Colorado	6	....	Oregon	2	....
Connecticut	16	1	Pennsylvania	62	7
Delaware	....	1	Rhode Island	7	....
Florida	2	....	South Carolina	....	....
Georgia	4	....	South Dakota	5	....
Idaho	1	....	Tennessee	1	1
Illinois	59	16	Texas	5	....
Indiana	7	....	Utah	....	....
Iowa	7	1	Vermont	....	....
Kansas	6	....	Virginia	3	....
Kentucky	1	2	Washington	10	1
Louisiana	3	1	West Virginia	6	....
Maine	....	1	Wisconsin	12	2
Maryland	7	2	Wyoming	....	....
Massachusetts	34	9			
Michigan	12	2	Alaska, District of	....	....
Minnesota	11	2	Canal Zone	....	....
Mississippi	1	....	District of Columbia	4	....
Missouri	12	7	Hawaii Territory	1	....
Montana	2	....	Philippine Islands	....	....
Nebraska	7	....	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	1	....	U. S. Navy	....	....
New Jersey	33	1			
New Mexico	1	....	Total to residents of the United States	558	108
New York	141	25			

TO RESIDENTS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Mexico	....	....
Austria-Hungary	5	....	Netherlands	....	....
Belgium	2	....	Newfoundland	....	....
Bermuda	....	....	New South Wales	....	....
Brazil	....	....	New Zealand	....	....
British West Indies	....	....	Norway	1	....
Canada	16	....	Queensland	....	....
Chile	....	....	Roumania	....	....
China	....	....	Russia	....	....
Colombia	....	....	Scotland	....	....
Costa Rica	....	....	South Australia	....	....
Cuba	1	....	Spain	....	....
Denmark	2	....	Sweden	....	1
Dutch East India	....	....	Switzerland	2	....
England	15	3	Transvaal, South Africa	....	....
France	5	2	Victoria	....	....
Germany	21	1	Wales	1	....
Guatemala	2	....			
India	....	....	Total to residents of foreign countries	73	7
Italy	....	....			
Japan	....	....			

Disclaimer.

954,407.—*Charles O. Bastian* and *Albert E. Salisbury*, London, England. VAPOR ELECTRIC APPARATUS. Patent dated April 5, 1910. Disclaimer filed October 17, 1913, by the assignee, *Cooper Hewitt Electric Company*.

Enters this disclaimer—

"To those parts of the claims in said specification which are in the following words, to wit:

"24. A mercury vapor apparatus comprising an exhausted container, electrodes therein adapted to be alternately connected and disconnected within the container by good conducting material, and electro-magnetic means adapted to move the said container and thereby initiate a flow of current through the mercury vapor.

"29. A mercury vapor device comprising a movable container for mercury, electrodes therein, said container being adapted to occupy either of two positions in one of which positions it is held by gravity, and automatic means brought into action by current flow for tilting the device into the other position, whereby metallic connection between the electrodes is alternately made and broken.

"30. A mercury vapor apparatus comprising an exhausted container, electrodes therein adapted to be alternately connected and disconnected within the container by good conducting material, and automatic means adapted to move said container and thereby initiate a flow of current through the mercury vapor."

Foreign Patents.

RULE 29. The receipt of Letters Patent from a foreign government will not prevent the inventor from obtaining a patent in the United States, unless *the application on which the foreign patent was granted was filed more than twelve months prior to the filing of the application in this country, in which case no patent shall be granted in this country.*

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business October 25, 1913.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
314	1. Fences; Fences, Gates; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Aug.	Aug. 1	775
128	2. Bee Culture; Curtains, Shades, and Screens; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	June 2	Aug. 20	711
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Plastic Metal Working.	Sept. 26	Oct. 13	263
232	4. Bridges; Conveyers; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures; Traversing Hoists.	June 18	Sept. 2	741
167	5. Bookbinding; Harvesters; Jewelry; Music.	July 15	Aug. 12	614
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Liquid Coating Compositions; Medicines; Plastic Compositions; Preserving; Sugar and Salt; Substance Preparation.	July 9	Aug. 5	773
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Optics; Velocipedes.	May 19	Aug. 18	1042
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	June 2	Sept. 2	1034
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Motors, Fluid; Motors, Fluid-Current; Pumps; Wind-Wheels.	May 1	Sept. 23	688
235	10. Carriages and Wagons.	June 12	Aug. 18	1201
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Sept. 19	Sept. 22	349
322	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	June 19	June 21	1582
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Nut and Bolt Locks; Turning.	July 3	Aug. 19	704
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 12	Sept. 22	542
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastics.	Apr. 18	July 29	1615
109	16. Radiant Energy; Telegraphy; Telephony.	June 12	July 23	552
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Sept. 4	Sept. 27	287
327	18. Injectors and Ejectors; Liquid Heaters and Vaporizers; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Engines; Steam-Engine Valves.	Aug. 2	Sept. 16	234
76	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	June 16	Aug. 25	652
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Sept. 2	Sept. 24	271
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	June 7	July 9	702
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	July 16	Aug. 13	457
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Sept. 9	Aug. 28	571
144	24. Apparel; Apparel Apparatus; Sewing Machines.	Aug. 15	Aug. 26	594
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Sept. 5	Sept. 26	258
106	26. Electricity, Generation; Motive Power.	May 16	July 1	650
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Sept. 2	Sept. 9	530
65	28. Internal-Combustion Engines.	Aug. 4	Aug. 13	831
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	June 7	June 3	769
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	July 21	Oct. 8	236
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	July 16	Aug. 8	420
278	32. Carbonating Beverages; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	June 2	Sept. 12	453
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Aug. 13	Aug. 9	417
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Aug. 4	Aug. 7	546
87	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	July 9	Sept. 25	822
264	36. Driers; Geometrical Instruments; Measuring Instruments; Photography.	Aug. 6	Aug. 1	1061
107	37. Electric Lamps; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 4	June 16	996
378	38. Animal Husbandry; Earth Boring; Fishing and Trapping; Stationery; Stone-Working; Wells.	June 7	July 29	990
321	39. Water Distribution.	July 19	Aug. 21	493
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 2	Sept. 2	1072
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Sept. 2	Sept. 4	497
279	42. Electric Signaling; Railway Signaling; Signals; Electricity-Transmission to Vehicles.	May 22	June 14	972
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Aug. 25	Sept. 9	306

Oldest new case, Apr. 4; oldest amended, June 3.
Total number of applications awaiting action..... 29,273

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Aug. 1	Sept. 18	960
	Designs	Sept. 9	Sept. 20	249
	Labels and Prints	Oct. 15	Oct. 10	32

PATENTS

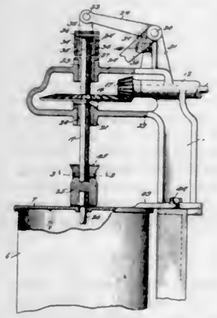
GRANTED OCTOBER 28, 1913.

1,076,658. GUN-SIGHT. CLAUD BECHDOLDT, Bonanza, Oreg. Filed May 2, 1913. Serial No. 765,110. (Cl. 42—80.)



A gun sight comprising a pair of ears rising from the barrel of the gun adjacent its extremity, a plate revolubly mounted between said ears, said ears having frictional means to hold the plate in adjusted positions, said plate having a plurality of bead sights, said ears having grooves upon their adjacent faces through which the bead sights pass.

1,076,659. DRIVING MECHANISM. GEORGE S. BLAKESLEE, Chicago, Ill. Filed July 1, 1910. Serial No. 569,917. (Cl. 74—7.)

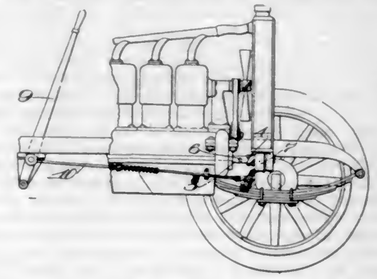


1. In a driving mechanism a vertically-movable spindle, a bearing in which said spindle is slidably and rotatably mounted, means for rotating said spindle, a rocking lever rotatably connected with the upper end portion of said spindle for moving the same vertically, and means for locking said spindle in its elevated position.

2. In a driving mechanism a vertically-movable spindle, a suitable support in which said spindle is journaled, mechanism carried by said support for rotating said spindle, a lever mounted on said support, a link rotatably connected with said spindle and pivotally connected with said rocking lever whereby said spindle may be moved vertically by operating said lever, and means for locking said spindle in its elevated position.

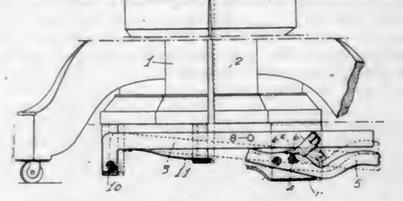
1,076,660. ENGINE-STARTING DEVICE. GEORGE J. BURKHARDT, Burlingame, Cal. Filed Oct. 2, 1911. Serial No. 652,343. (Cl. 123—185.)

An engine starting device comprising in combination a sleeve, an engine shaft upon which said sleeve is rotatably and slidably mounted, a bracket providing a bearing for said shaft, threaded members upon the exterior of said sleeve, a nut coöperating with said threaded members, a guide carried by said bracket and adapted to prevent said actuating nut from rotating, projections fixedly mounted upon said shaft, clutch teeth upon said sleeve



adapted to coöperate with said projections, and means for sliding said nut upon said guide to rotate said sleeve.

1,076,661. PEDAL-OPERATED LOCK FOR PEDESTAL-TABLES. CHARLES S. BURTON, Oak Park, Ill., assignor to Emil Tyden, Hastings, Mich. Filed Oct. 17, 1912. Serial No. 726,198. (Cl. 45—9.)



1. In a divided pedestal extension table, in combination with the two pedestal halves, two members for engagement to connect said halves, one of said members being a lever pivoted on the bottom end of one pedestal half, the other member being an abutment carried on the other pedestal half; a dog pivoted on one of said members and adapted to be engaged with the other when the pedestal halves approach and before they are closed up at the bottom, the pivot of the dog being located so that at such engagement a line from its pivot to its engaging point trends down obliquely toward the meeting plane of the pedestal halves, the lever being extended so as to protrude for engagement by the foot beyond the outer side of the pedestal half opposite that on which it is fulcrumed.

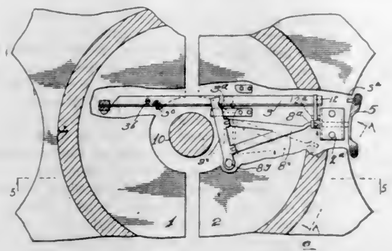
2. In a divided pedestal extension table, in combination with the two pedestal halves, two members for engagement to connect the pedestal halves, one of said members being a lever pivoted on the bottom end of one pedestal half and extending across the meeting plane and protruding beyond the outer side of the opposite pedestal half; the other member being an abutment carried by said opposite pedestal half at the bottom end; a dog pivoted

on the lever and pendant from its pivot, adapted to collide with the abutment and hang inclined there-against as the pedestal halves approach, said lever having a notch which becomes engaged with the abutment at inclined position before the pedestal halves are fully closed at the bottom, and means for stopping the downward movement of the lever when the line from the lever fulcrum to the dog pivot has passed the line from the abutment to the dog pivot.

3. In a divided pedestal extension table, in combination with the divided pedestal halves; two members for engagement to connect the pedestal halves, one of said members being a lever pivoted on the bottom end of one of said halves and extending past their meeting plane and protruding beyond the outer side of the opposite pedestal half so as to be depressed by the foot, the other member being an abutment carried by said opposite pedestal half; a second lever on which said abutment is mounted fulcrumed on said last-mentioned pedestal half between said abutment and the meeting plane of the pedestal halves, and extended so as to protrude beyond the bottom of the pedestal at the same side as the first-mentioned lever, whereby the upward movement of the abutment lifts the protruding end of said second lever; a dog pivoted to one of said members and adapted to pivotally engage the other member, and positioned for such engagement when the pedestal halves approach and before they are in contact at the bottom, and when so engaged, trending between its two pivotal connections obliquely downward and inward toward the meeting plane of the pedestal halves, and means for arresting the movement of the second lever caused by depression of the first lever when the pivotal engagement of the dog with the abutment on said second lever passes above the line from the other pivot of the dog to the pivot of the first lever.

4. In a divided pedestal extension table, in combination with the divided pedestal halves; two members for engagement to connect said halves, one being a lever pivoted on the bottom end of one of said halves and extending past their meeting plane and protruding beyond the outer side of the opposite pedestal half so as to be depressed by the foot, the other member being an abutment carried by said opposite pedestal half; a second lever on which said abutment is mounted, and a dog pivoted to one of said members and adapted to pivotally engage the other, the first lever comprising two side arms spaced apart and embraced between the two side bars, respectively, for swinging up between them from the lower side of said first lever, and the second lever being adapted to pass between the two side arms of the dog.

1,076,662. FOOT-OPERATED LOCK FOR PEDESTAL-TABLES. CHARLES S. BURTON, Oak Park, Ill., assignor to Emil Tyden, Hastings, Mich. Filed Oct. 21, 1912. Serial No. 726,853. (Cl. 45—9.)



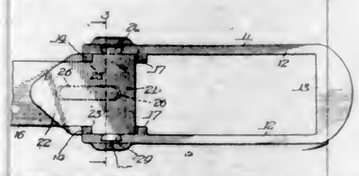
1. In a pedestal extension table, in combination with the two separable halves of the pedestal, a latch mounted upon one pedestal half below the lower end thereof and extending across the parting plane of the two halves; a lever fulcrumed on the other pedestal half and extending across the latch and adapted for engagement therewith; a rock shaft mounted on the last mentioned pedestal half, said rock shaft being provided with a pedal cross bar positioned accessibly outside the margin of the base of the pedestal, and a crank on said rock shaft operatively connected with the lever for swinging the same by the rocking of the crank shaft.

2. In a pedestal extension table in combination with two separable halves of the pedestal, a latch mounted upon one pedestal half and extending across the parting plane of the two halves; a rock shaft mounted on the other pedestal half extending in direction transverse to said parting plane and provided at its outer end with a pedal cross bar for rocking it by the foot of the operator; a crank on said rock shaft; a lever fulcrumed on the same pedestal half and operatively connected with the crank, said lever having an arm extending across the latch and adapted for engagement therewith.

3. In a pedestal extension table, in combination with the separable halves of the pedestal, a latch mounted on one pedestal half and extending across the parting plane; a rock shaft mounted on the other half having a pedal cross bar exposed outside the pedestal for rocking the same by foot; a bell-crank lever fulcrumed on the pedestal half on which the rock shaft is mounted having one arm extended in position for engagement by the latch; a crank arm on the rock shaft engaged with the other arm of the bell-crank lever for actuating the lever by rocking the shaft, said bell-crank lever being formed and pivoted for vertical movement of its crank-engaged arm simultaneously with the substantially horizontal movement of the latch-engaged arm.

4. In a pedestal extension table, in combination with the separable halves of the pedestal, a latch mounted on one half and extending across the meeting plane of said halves; a rock shaft mounted on the other pedestal half having a pedal bar exposed outside the pedestal for rocking the same by foot; a bell-crank lever fulcrumed on the pedestal half on which the rock shaft is mounted, having one arm extended in position for engagement by the latch; a crank arm on the rock shaft connected with the other arm of the bell-crank lever for actuating the lever by rocking the rock shaft; means for arresting the rocking of the shaft when the crank wrist pivot has passed the center, whereby the parts are automatically locked at that position, the rock shaft having a lever arm past which the latch is extended, said lever arm being positioned with respect to the crank arm so as to collide with the latch in the swinging of the crank arm back to unlocked position a little before the crank arm reaches the limit of said movement.

1,076,663. YOKE FOR DRAFT-GEAR. CHARLES A. CARSCADIN and GEORGE A. WOODMAN, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,840. (Cl. 213—42.)



1. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls adapted to engage the sides of the said head, one of said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the walls adjacent said removable wall, said removable wall and said adjacent walls being constructed to permit the said removable wall to be moved transversely of the adjacent walls into retaining position between said adjacent walls, and means for locking said removable wall in position.

2. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of the said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall, and means connected to said removable wall and disposed through the draw-bar and the wall opposite said removable wall for retaining said removable wall and draw-bar in position.

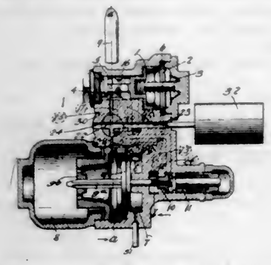
3. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall and the walls adjacent said removable wall being provided with oppositely disposed lugs for engaging the head of the said draw-bar and for engaging the said removable wall, and means for retaining the said removable wall in engagement with the lugs of the adjacent walls.

4. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging said head, one of said retaining walls being removable to permit the head of the draw bar to be inserted transversely between the retaining walls adjacent said removable wall, each of said adjacent walls being provided with an inwardly extending shoulder at its outer end and a transversely disposed abutment spaced inwardly from said shoulder in position to engage the end of the head of the draw bar, said removable wall being of appropriate dimension to engage between and with said abutments and shoulders and means for holding said removable wall in position.

5. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of the said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall, interlocking connections between said removable wall and said adjacent walls, and means for retaining said removable wall in interlocked engagement with said adjacent walls.

[Claims 6 to 8 not printed in the Gazette.]

1,076,664. FLUID-PRESSURE BRAKE. JOHN W. CLOUD, London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 18, 1911. Serial No. 639,115. (Cl. 73—151.)



1. In a fluid pressure brake, the combination with a train pipe, of a receptacle, means for establishing communication from the train pipe to the receptacle, an automatic valve mechanism for controlling communication from the train pipe to said receptacle, a chamber, means for isolating the chamber from communication with the train pipe, and a valve device subject to the opposing pressures of the train pipe and said chamber whereby the decrease of pressure on one side of said valve device will close communication from the train pipe to said receptacle.

2. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve mechanism for controlling communication from the train pipe to said receptacle, manually operated means for varying the pressure on one side of said valve mechanism for operating same to open communication for venting air from the train pipe to said receptacle, a chamber, communication from the train pipe to said chamber being closed by said manually operated means, and a valve device subject to the opposing pressures of said chamber and the train pipe for also controlling the pressure on said valve mechanism for operating same to close said communication to said receptacle.

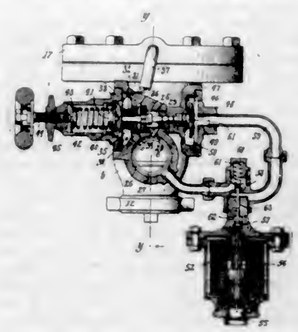
3. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for venting fluid from one side of said piston to actuate the same to open communication from the train pipe to said receptacle, a chamber, communication from the train pipe to said chamber being closed by said manually operated means, and a valve device subject to the opposing pressures of the train pipe and said chamber for controlling the release of fluid from said piston to effect the movement of said piston and valve to close said communication to said receptacle.

4. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a chamber, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for closing communication from the train pipe to the chamber and for venting air from one side of said piston to actuate the same, a valve for stopping the venting of fluid from such side of said piston, and a movable abutment subject to the opposing pressures of the train pipe and said chamber for operating said last named valve.

5. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for venting air from one side of said piston to actuate the same, a valve for controlling communication from one side of said piston to said receptacle, a chamber containing fluid at original train pipe pressure and a movable abutment subject to the opposing pressures of the train pipe and said chamber for closing the last named valve upon a predetermined reduction in train pipe pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,076,665. REGULATING-VALVE. GEORGE W. COLLIN, Bridgeport, Conn., assignor to The Collin Valve Co., Bridgeport, Conn., a Corporation of Maine. Filed Oct. 10, 1911. Serial No. 653,803. (Cl. 50—10.)



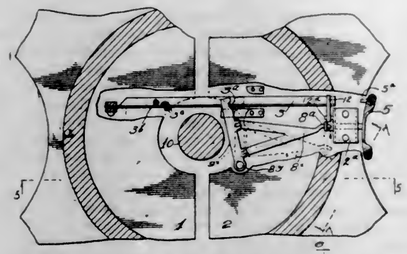
1. The combination in a regulating valve, of a valve body having a flow passage therethrough, a main valve adapted to control flow through such flow passage, fluid-pressure-operated means for operating said valve, a pilot valve controlling the action of said fluid-pressure-operated means, loading means for said pilot valve, fluid-pressure-operated means connected to the service side of the flow passage of said valve body, and arranged to oppose the

on the lever and pendant from its pivot, adapted to collide with the abutment and hang inclined there-against as the pedestal halves approach, said lever having a notch which becomes engaged with the abutment at inclined position before the pedestal halves are fully closed at the bottom, and means for stopping the downward movement of the lever when the line from the lever fulcrum to the dog pivot has passed the line from the abutment to the dog pivot.

3. In a divided pedestal extension table, in combination with the divided pedestal halves; two members for engagement to connect the pedestal halves, one of said members being a lever pivoted on the bottom end of one of said halves and extending past their meeting plane and protruding beyond the outer side of the opposite pedestal half so as to be depressed by the foot, the other member being an abutment carried by said opposite pedestal half; a second lever on which said abutment is mounted, fulcrumed on said last-mentioned pedestal half between said abutment and the meeting plane of the pedestal halves, and extended so as to protrude beyond the bottom of the pedestal at the same side as the first-mentioned lever, whereby the upward movement of the abutment lifts the protruding end of said second lever; a dog pivoted to one of said members and adapted to pivotally engage the other member, and positioned for such engagement when the pedestal halves approach and before they are in contact at the bottom, and when so engaged, trending between its two pivotal connections obliquely downward and inward toward the meeting plane of the pedestal halves, and means for arresting the movement of the second lever caused by depression of the first lever when the pivotal engagement of the dog with the abutment on said second lever passes above the line from the other pivot of the dog to the pivot of the first lever.

4. In a divided pedestal extension table, in combination with the divided pedestal halves; two members for engagement to connect said halves, one being a lever pivoted on the bottom end of one of said halves and extending past their meeting plane and protruding beyond the outer side of the opposite pedestal half so as to be depressed by the foot, the other member being an abutment carried by said opposite pedestal half; a second lever on which said abutment is mounted, and a dog pivoted to one of said members and adapted to pivotally engage the other, the first lever comprising two side arms spaced apart and embraced between the two side bars, respectively, for swinging up between them from the lower side of said first lever, and the second lever being adapted to pass between the two side arms of the dog.

1,076,662. FOOT-OPERATED LOCK FOR PEDESTAL-TABLES. CHARLES S. BURTON, Oak Park, Ill., assignor to Emil Tyden, Hastings, Mich. Filed Oct. 21, 1912. Serial No. 726,853. (Cl. 45—9.)



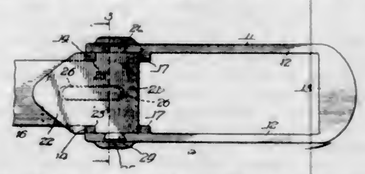
1. In a pedestal extension table, in combination with the two separable halves of the pedestal, a latch mounted upon one pedestal half below the lower end thereof and extending across the parting plane of the two halves; a lever fulcrumed on the other pedestal half and extending across the latch and adapted for engagement therewith; a rock shaft mounted on the last mentioned pedestal half, said rock shaft being provided with a pedal cross bar positioned accessibly outside the margin of the base of the pedestal, and a crank on said rock shaft operatively connected with the lever for swinging the same by the rocking of the crank shaft.

2. In a pedestal extension table in combination with two separable halves of the pedestal, a latch mounted upon one pedestal half and extending across the parting plane of the two halves; a rock shaft mounted on the other pedestal half extending in direction transverse to said parting plane and provided at its outer end with a pedal cross bar for rocking it by the foot of the operator; a crank on said rock shaft; a lever fulcrumed on the same pedestal half and operatively connected with the crank, said lever having an arm extending across the latch and adapted for engagement therewith.

3. In a pedestal extension table, in combination with the separable halves of the pedestal, a latch mounted on one pedestal half and extending across the parting plane; a rock shaft mounted on the other half having a pedal cross bar exposed outside the pedestal for rocking the same by foot; a bell-crank lever fulcrumed on the pedestal half on which the rock shaft is mounted having one arm extended in position for engagement by the latch; a crank arm on the rock shaft engaged with the other arm of the bell-crank lever for actuating the lever by rocking the shaft, said bell-crank lever being formed and pivoted for vertical movement of its crank-engaged arm simultaneously with the substantially horizontal movement of the latch-engaged arm.

4. In a pedestal extension table, in combination with the separable halves of the pedestal, a latch mounted on one half and extending across the meeting plane of said halves; a rock shaft mounted on the other pedestal half having a pedal bar exposed outside the pedestal for rocking the same by foot; a bell-crank lever fulcrumed on the pedestal half on which the rock shaft is mounted, having one arm extended in position for engagement by the latch; a crank arm on the rock shaft connected with the other arm of the bell-crank lever for actuating the lever by rocking the rock shaft; means for arresting the rocking of the shaft when the crank wrist pivot has passed the center, whereby the parts are automatically locked at that position, the rock shaft having a lever arm past which the latch is extended, said lever arm being positioned with respect to the crank arm so as to collide with the latch in the swinging of the crank arm back to unlocked position a little before the crank arm reaches the limit of said movement.

1,076,663. YOKE FOR DRAFT-GEAR. CHARLES A. CARSCADIN and GEORGE A. WOODMAN, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,840. (Cl. 213—42.)



1. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls adapted to engage the sides of the said head, one of said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the walls adjacent said removable wall, said removable wall and said adjacent walls being constructed to permit the said removable wall to be moved transversely of the adjacent walls into retaining position between said adjacent walls, and means for locking said removable wall in position.

2. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of the said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall, and means connected to said removable wall and disposed through the draw-bar and the wall opposite said removable wall for retaining said removable wall and draw-bar in position.

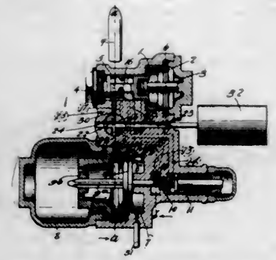
3. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall and the walls adjacent said removable wall being provided with oppositely disposed lugs for engaging the head of the said draw-bar and for engaging the said removable wall, and means for retaining the said removable wall in engagement with the lugs of the adjacent walls.

4. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging said head, one of said retaining walls being removable to permit the head of the draw bar to be inserted transversely between the retaining walls adjacent said removable wall, each of said adjacent walls being provided with an inwardly extending shoulder at its outer end and a transversely disposed abutment spaced inwardly from said shoulder in position to engage the end of the head of the draw bar, said removable wall being of appropriate dimension to engage between and with said abutments and shoulders and means for holding said removable wall in position.

5. A yoke for a draft gear comprising a body portion adapted to receive the head of a draw-bar and provided with retaining walls for engaging the sides of the said head, one of the said retaining walls being removable to permit the head of the draw-bar to be inserted transversely between the retaining walls adjacent said removable wall, interlocking connections between said removable wall and said adjacent walls, and means for retaining said removable wall in interlocked engagement with said adjacent walls.

[Claims 6 to 8 not printed in the Gazette.]

1,076,664. FLUID-PRESSURE BRAKE. JOHN W. CLOUD, London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 18, 1911. Serial No. 639,115. (Cl. 73—151.)



1. In a fluid pressure brake, the combination with a train pipe, of a receptacle, means for establishing communication from the train pipe to the receptacle, an automatic valve mechanism for controlling communication from the train pipe to said receptacle, a chamber, means for isolating the chamber from communication with the train pipe, and a valve device subject to the opposing pressures of the train pipe and said chamber whereby the decrease of pressure on one side of said valve device will close communication from the train pipe to said receptacle.

2. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve mechanism for controlling communication from the train pipe to said receptacle, manually operated means for varying the pressure on one side of said valve mechanism for operating same to open communication for venting air from the train pipe to said receptacle, a chamber, communication from the train pipe to said chamber being closed by said manually operated means, and a valve device subject to the opposing pressures of said chamber and the train pipe for also controlling the pressure on said valve mechanism for operating same to close said communication to said receptacle.

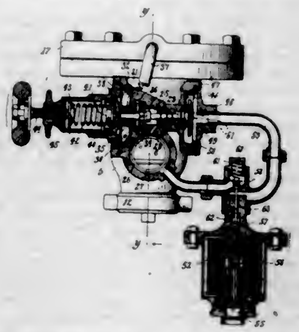
3. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for venting fluid from one side of said piston to actuate the same to open communication from the train pipe to said receptacle, a chamber, communication from the train pipe to said chamber being closed by said manually operated means, and a valve device subject to the opposing pressures of the train pipe and said chamber for controlling the release of fluid from said piston to effect the movement of said piston and valve to close said communication to said receptacle.

4. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a chamber, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for closing communication from the train pipe to the chamber and for venting air from one side of said piston to actuate the same, a valve for stopping the venting of fluid from such side of said piston, and a movable abutment subject to the opposing pressures of the train pipe and said chamber for operating said last named valve.

5. In a fluid pressure brake, the combination with a train pipe, of a receptacle, a valve for controlling communication from the train pipe to said receptacle, a cylinder, a piston therein for operating said valve, manually operated means for venting air from one side of said piston to actuate the same, a valve for controlling communication from one side of said piston to said receptacle, a chamber containing fluid at original train pipe pressure and a movable abutment subject to the opposing pressures of the train pipe and said chamber for closing the last named valve upon a predetermined reduction in train pipe pressure.

[Claims 6 to 8 not printed in the Gazette.]

1,076,665. REGULATING-VALVE. GEORGE W. COLLIN, Bridgeport, Conn., assignor to The Collin Valve Co., Bridgeport, Conn., a Corporation of Maine. Filed Oct. 10, 1911. Serial No. 653,803. (Cl. 50—10.)



1. The combination in a regulating valve, of a valve body having a flow passage therethrough, a main valve adapted to control flow through such flow passage, fluid-pressure-operated means for operating said valve, a pilot valve controlling the action of said fluid-pressure-operated means, loading means for said pilot valve, fluid-pressure-operated means connected to the service side of the flow passage of said valve body, and arranged to oppose the

action of such loading means on the pilot valve, whereby the recited structure is adapted for service as a reducing valve, and means, including distant-control means, adapted to hold said pilot valve closed against the action of said loading means, or, at will, to leave said pilot valve free for operation by said loading means and opposing fluid-pressure-operated means, whereby the recited structure is also adapted for service as a distant-controlled shut off valve.

2. The combination in a regulating valve, of a valve body having an inlet and outlet with a ported division wall therebetween, a main valve seated therein, a diaphragm above the valve, a stem having a head adjacent to the diaphragm for operating the valve, a pilot valve intermediate the valve inlet and the chamber for the diaphragm to control the initial steam pressure to the diaphragm, a second diaphragm and spring for operating the pilot valve, a port leading from the inlet to the pilot valve chamber, a third diaphragm connected to be operated by the initial pressure to close the pilot valve against the action of the regulating spring, a controlling valve intermediate said connections, and means for operating said controlling valve.

3. The combination in a regulating valve, of a valve body having an inlet and an outlet with a ported division wall therebetween, a main valve seated therein, a diaphragm above the valve, a stem having a head adjacent to the diaphragm for operating the valve, a pilot valve intermediate the valve inlet and the chamber for the diaphragm, to control the initial steam pressure to the diaphragm, a second diaphragm and spring for operating the pilot valve, a port leading from the inlet to the pilot valve chamber, a third diaphragm connected to be operated by the initial pressure to close the pilot valve against the action of the regulating spring, a controlling valve intermediate said connections, and a solenoid for operating said controlling valve.

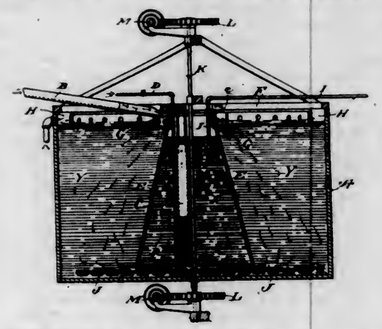
4. The combination in a regulating valve, of a valve body having an inlet and outlet with a ported division wall therebetween, a main valve seated therein, a diaphragm above the valve, a stem having a head adjacent to the diaphragm for operating the valve, a pilot valve intermediate the valve inlet and the chamber for the diaphragm to control the initial steam pressure to the diaphragm, a second diaphragm and spring for operating the pilot valve, a port leading from the inlet to the auxiliary valve chamber, a third diaphragm and case detachably connected with the valve body and connected to be operated by the initial pressure to close the pilot valve, a valve for controlling the steam to the third diaphragm, a further relief valve connected to be opened when the controlling valve is closed to drain the third diaphragm chamber, and means for operating the said controlling valve.

5. The combination in a regulating valve, of a valve body having an inlet and outlet with a ported division wall therebetween, a main valve seated therein, a diaphragm above the valve, a stem having a head adjacent to the diaphragm for operating the valve, a pilot valve intermediate the valve inlet and the chamber for the diaphragm, to control the initial steam pressure to the diaphragm, a second diaphragm and regulating spring for operating the pilot valve and having a port leading from its diaphragm chamber to the service side of the valve, a third diaphragm and case detachably connected with the valve body, pipe connections for operating said diaphragm by the initial pressure to close the pilot valve against the action of the regulating spring, controlling valves intermediate said pipe connections adapted to open and close the connection and to drain the diaphragm chamber when steam is cut off, and means for operating said valves.

[Claims 6 to 9 not printed in the Gazette.]

1,076,666. APPARATUS FOR THICKENING AND AGITATING PULP. JOHN VAN NOSTRAND DORR, Denver, Colo. Filed Sept. 9, 1912. Serial No. 719,465. (Cl. 75—86.)

1. Apparatus for thickening and agitating pulp, comprising a settling vessel, means for lifting the settled material to a higher level, means for scouring the material in the lower portion of the vessel and for moving it slowly toward the lifter, and a separator having on one side an agitating area and on the other a space for quiet settling.



2. Apparatus for thickening and agitating pulp, comprising a settling vessel having a substantially flat bottom, a separator having on one side an agitating area in which the thickened pulp circulates and on the other a space for quiet settling, and mechanical devices moving slowly in the lower part of the settling vessel for holding the settling material in suspension and for moving it slowly toward the agitating area of the separator.

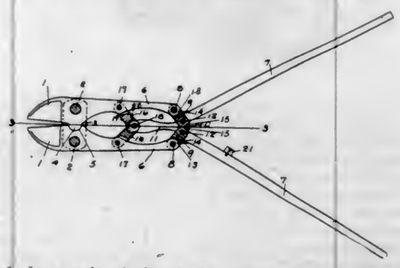
3. Apparatus for thickening and agitating pulp, comprising a settling vessel, an air lift for raising the settled material to a higher level, means for scouring the material in the lower portion of the vessel and for moving it slowly toward the air lift, and a separator having on one side an agitating area and on the other a space for quiet settling.

4. Apparatus for thickening and agitating pulp, comprising a settling vessel and a separator of truncated form open at the bottom and wider at the bottom than at the top having on one side an agitating area through which the thickened pulp circulates and on the other a space for quiet settling.

5. Apparatus for thickening and agitating pulp, comprising a settling vessel, means for lifting the settled material to a higher level, means for scouring the material in the lower portion of the vessel and for moving it slowly toward the lifters, and a series of separators in the vessel providing lifting and agitating spaces, and a space for quiet settling.

[Claims 6 and 7 not printed in the Gazette.]

1,076,667. SHEARS. JOEL FARRINGTON, Springboro, Pa., assignor to Minnie E. Sheldon, Springboro, Pa. Filed Mar. 20, 1913. Serial No. 755,618. (Cl. 81—199.)

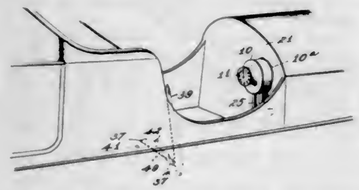


1. In a pair of shears, the combination of blades; a pivotal mounting for the blades; shanks extending from said blades; levers having their outer ends pivoted to the rear ends of said shanks; operating handles extending from the levers; a connection between the inner ends of said levers; a toggle lever between said shanks; and a connection between said first mentioned levers and said toggle lever.

2. In a pair of shears, the combination of blades; a pivotal mounting for said blades; shanks extending from said blades; levers having their outer ends pivoted to the rear ends of said shanks; operating handles extending from said levers; a connection between the inner ends of said levers; a toggle lever between said shanks; and a link connection between said first mentioned levers and said toggle lever, the links of said toggle lever being formed of curved surfaces to sustain the thrust.

3. In a pair of shears, the combination of blades; a pivotal mounting for the blades; shanks extending from said blades; levers having their outer ends pivoted on said shanks; operating handles extending from said levers; a connection between the inner ends of said levers, the levers being separately pivoted to said connection and having curved surfaces engaging as the levers are swung to sustain the thrust; a toggle lever between said shanks; and a connection between said first mentioned levers and said toggle lever.

1,076,668. TIME-REGISTER. LOUIS H. FRIEDMAN, Norfolk, Va. Filed Dec. 18, 1912. Serial No. 737,567. (Cl. 234—36.5.)



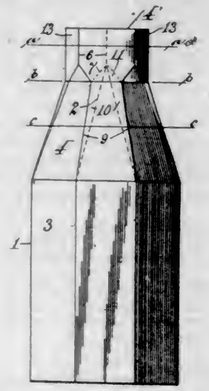
1. In a time register for motor vehicles, the combination with the control element for the motor of such vehicle, of a switch lever mounted to project into the path of movement of said control element, a timing device embodying a clock mechanism, a registry dial carried by the hour hand arbor of said clock mechanism to be rotated thereby, a pair of electro-magnets, markers connected to the armatures of said magnets to engage the registry dial when the magnets are energized, a pair of contacts arranged one on each side of said switch lever, and a source of electrical supply in circuit with said contacts and said electro-magnets.

2. In a time register for motor vehicles, the combination with the control element of the vehicle motor, of a pivotally-mounted switch lever disposed to project at one end into the path of movement of the control element, a pair of contacts disposed on opposite sides of said switch lever to be alternately engaged by said lever, a timing mechanism including a registry dial and electrically-operated marking mechanism for registering the time on said dial, a source of electrical energy for said marking mechanism, and circuits automatically closed by the switch lever when operated by said control element.

3. In a time register for automobiles, the combination with the control lever of said automobile, of a clock driven registry dial, electrically-operated marking mechanism for registering on said dial, a source of electricity for said mechanism, and circuits therefor, and a circuit closer disposed to project into the path of movement of said control lever to close the circuit with the movement of the lever in each of its directions of movement.

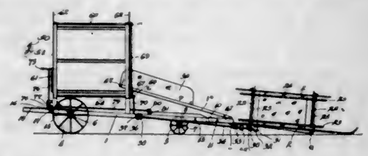
1,076,669. PAPER BOTTLE. WILLIAM GIESSEMAN and CHARLES V. CRIST, Dayton, Ohio, assignors to The Dayton Paper Bottle Company, Dayton, Ohio. Filed Aug. 12, 1912. Serial No. 714,544. (Cl. 229—3.)

A new article of manufacture, comprising a paper bottle constructed from a blank of paper cut and scored to form a body of polygonal form, said blank being provided with vertical score lines which provide for the formation of the body of the bottle, and diagonal and longitudinal score lines which provide for the formation of the tapered portion of the bottle and the neck, the vertical score lines being extended across the longitudinal score lines, and



diagonal slits extending from the upper or outermost longitudinal score line to the upper terminals of the vertical score lines and thence to the adjacent edge of the blank in line with the vertical score lines, said diagonal slits forming a series of triangular sealing folds at the intersection of the neck with the tapered portion of the bottle, substantially as described.

1,076,670. SHOCK-LOADER. OREA L. GILLILAND, Ortley, S. D. Filed July 7, 1911. Serial No. 637,327. Renewed Aug. 30, 1913. Serial No. 787,520. (Cl. 56—61.)



1. In a machine of the kind described, the combination with a wheel truck, of a pair of laterally spaced gathering devices carried in front thereof, a gathering fork adjustable vertically between and in respect to said gathering devices, means for delivering the bundles or grain rearward from said fork.

2. A machine of the kind described, the combination with a wheel truck, of a pair of laterally spaced gathering devices carried in front thereof, a gathering fork adjustable vertically between and in respect to said gathering devices, means for delivering the bundles or grain rearward from said fork, and means for carrying the bundles transversely of the machine and elevating the same for delivery at one side of the machine.

3. In a machine of the kind described, the combination with a wheel truck, of a pair of laterally spaced gathering devices including driven chains with gathering blades, working in front of said truck, a gathering fork adjustable vertically between and in respect to said gathering devices, an endless driven carrier for delivering the bundles rearward from said fork, and a transversely movable endless elevator belt receiving the bundles from the said endless carrier and delivering the same at one side of the machine.

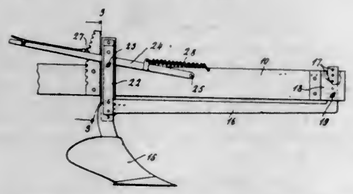
4. In a machine of the kind described, the combination with a wheel truck, of a pair of laterally spaced gathering devices including driven chains with gathering blades,

working in front of said truck, a gathering fork adjustable vertically between and in respect to said gathering devices, an endless driven carrier for delivering the bundles rearward from said fork and a transversely movable endless elevator belt receiving the bundles from the said endless carrier and delivering the same at one side of the machine, and means for vertically moving the front portion of said gathering fork.

5. In a machine of the kind described, the combination with a truck having traction wheels and steering wheels, of laterally spaced gathering frames having their rear portions connected by hinges to the front portion of the said truck frame, wheels supporting the front portions of said gathering frames, endless chains and driving means therefor mounted on said gathering frames and provided with projecting gathering blades, a gathering fork adjustable vertically between and in respect to said gathering frames, and means for vertically moving said gathering fork.

[Claim 6 not printed in the Gazette.]

1,076,671. PLOW. GEORGE E. HARRISON, Sacramento, Cal. Continuation of application Serial No. 657,288, filed Oct. 28, 1911. This application filed Oct. 31, 1912. Serial No. 728,950. (Cl. 97—30.)



1. A plow comprising a supporting frame, a plow beam carried thereby, a bracket connected to the rear end of the plow beam, a hand lever mounted on the supporting frame from which hand lever the bracket is suspended, said bracket being free to rise relative to the hand lever, locking means for the hand lever, and means for locking the bracket against rising.

2. A plow comprising a supporting frame, a hand lever mounted on said frame, a plow beam suspended at its rear end from the hand lever and free to rise with respect thereto, means for locking the plow against rising, and means for locking the hand lever.

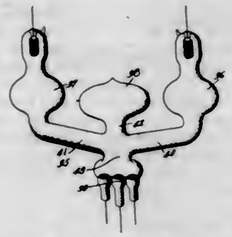
3. A plow comprising a supporting frame, a plow beam carried thereby, a bracket connected to the rear end of the plow beam and having a portion which straddles the supporting frame, a hand lever mounted on the supporting frame, from which hand lever the bracket is suspended, said bracket being free to move vertically relative to the lever, and means for locking the bracket.

4. A plow comprising a supporting frame, a plow beam carried thereby, a bracket connected to the rear end of the plow beam, a hand lever mounted on the supporting frame, abutments on the bracket between which the hand lever extends, the lower abutment being removable to permit the bracket to rise relative to the hand lever, and locking means for the hand lever.

1,076,672. VAPOR-RECTIFIER FOR HIGH-POTENTIAL CIRCUITS. JOSEPH LE ROY HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 16, 1905. Serial No. 265,600. (Cl. 176—42.)

1. A vapor electric apparatus having a cathode and a plurality of solid anodes, separate tubes for said anodes, and separate condensing chambers connected to said tubes and located directly in the path of arcs to said cathode.

2. A vapor rectifier having a vaporizable cathode, a plurality of anodes inclosed in anode tubes, and an enlarged condensing chamber between each anode and said vaporizable cathode and located directly in the path of arcs to said cathode.



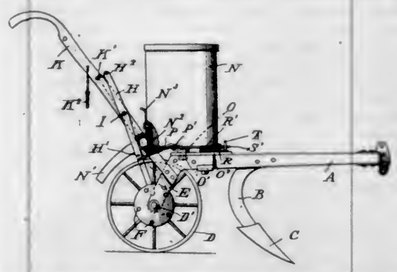
3. A vapor rectifier having solid anodes and a vaporizable cathode, a chamber surrounding said cathode, a plurality of arc tubes diverging upwardly from said chamber, a condensing chamber on each arc tube adapted to drain into said cathode chamber, and an anode tube opening into each of said arc tubes.

4. A vapor rectifier having a plurality of solid anodes and a vaporizable cathode, separate tubes for said anodes, a condensing chamber operatively related to each of said tubes to protect said anodes from condensed vapor, and means for returning the condensed vapor to the vaporizable cathode.

5. A vapor rectifier having a plurality of solid anodes and a vaporizable cathode, separate tubes for said anodes, a condensing chamber interposed between each of said anodes and said cathode to protect said anodes from condensed vapor, and means for intermittently replenishing said cathode with condensations from said condensing chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,076,673. DISTRIBUTING APPARATUS. CLAUDE HENNESSEE, Macon, Ga. Filed July 23, 1913. Serial No. 780,837. (Cl. 111—32.)



1. A fertilizer distributer comprising a beam with handles thereto and a wheel journaled in suitable bearings in said beam, an axially oscillating fertilizer receptacle mounted upon said beam, a spout fixed to the receptacle, a lever pivotally mounted upon the handle, projections upon the wheel adapted to tilt said lever as the wheel rotates, means intermediate the lever and receptacle for imparting a partial axial oscillatory movement to the receptacle in one direction, and a spring adapted to return the receptacle to its normal position, as set forth.

2. A fertilizer distributer comprising a beam with handles thereto and a wheel journaled in suitable bearings in said beam, an axially oscillating fertilizer receptacle mounted upon said beam, a spout fixed to the receptacle, a lever pivotally mounted upon the handle, projections upon the wheel adapted to tilt said lever as the wheel rotates, a link pivotally connected at one end to said lever and its other end connected to the receptacle, a spring connected to one end of the receptacle and its other end engaging a projection on the beam and adapted to be put under tension as the receptacle is oscillated in one direction, as set forth.

3. A fertilizer distributer comprising a beam with handles thereto and a wheel journaled in suitable bearings in said beam, an axially oscillating fertilizer receptacle mounted upon said beam, a spout fixed to the receptacle, a lever pivotally mounted upon the handle, projections upon the wheel adapted to tilt said lever as the wheel oscillates, a link pivotally connected at one end to said lever and its other end connected to the receptacle, a spring connected to one end of the receptacle and its other end engaging a projection on the beam and adapted to be put under tension as the receptacle is oscillated in one direction, a pin projecting from said receptacle and adapted to contact with said projection to limit the oscillatory movement of said receptacle as it returns to its normal position, as set forth.

1,076,674. SELF-LOCKING NUT. MORRIS JACOBS, New York, N. Y. Filed Oct. 19, 1909. Serial No. 523,450. Renewed Aug. 15, 1912. Serial No. 715,307. (Cl. 151—25.)



1. An integral locking member for screw-threaded nuts comprising a locking tongue adapted to engage the threads of a bolt, and a reinforcing tongue adapted to engage the base portion only of the locking tongue, the locking tongue projecting a substantial distance beyond the reinforcing tongue.

2. A locking member for screw-threaded nuts comprising a locking tongue, a reinforcing tongue extending in an opposite direction to the locking tongue contiguous thereto, and an intermediate portion uniting the bases of the said tongues.

3. The combination with a screw-threaded bolt, of a screw-threaded nut having provided therein a recess having an enlarged transversely oblong rounded portion with continuously curved side walls throughout, such recess also having a reduced throat portion forming a communication between the rounded oblong portion of the recess and the bolt receiving aperture of the nut, and a spring locking member having a securing portion conformed to the rounded contour of the side walls of the oblong rounded portion of the recess and following the contour of such side walls substantially throughout the length of such side walls and fixed in place in the recess, the locking member also having an end portion projecting through the throat of the recess and forming a spring locking tongue adapted to have locking engagement with the screw threads of the bolt.

4. The combination, with a screw-threaded bolt, of a screw-threaded nut having a recess provided therein communicating with the bolt-receiving aperture, a spring locking member in the recess having a locking portion adapted to engage the screw threads of the bolt, the nut being provided with a hole back of the locking member communicating with the recess, and a pin adapted to be driven into the hole to push the locking member toward the bolt-receiving aperture and thereby cause a firmer engagement of the locking portion with the screw threads of the bolt.

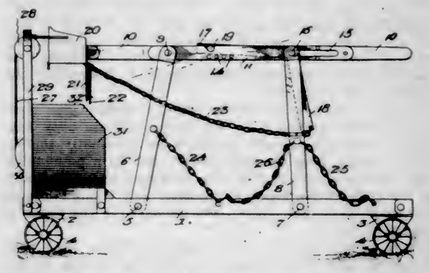
1,076,675. HOSE-SUPPORTER. ELMIRE JENNINGS, New York, N. Y. Filed Feb. 20, 1913. Serial No. 749,705. (Cl. 24—245.)

1. In a hose supporter, an elastic flap having a transverse opening, a non-elastic tape, and a flexible bar having a longitudinal slot receiving the end of the tape, the bar being insertible through the said opening with the hose.

2. In a hose supporter, a loop attachable to an elastic, a non-elastic tape, and an elastic flap having adjoining ends secured over one part of the loop, the flap having a transverse oval opening adjoining its free end, and a flexible bar having a longitudinal slot, the free end of the tape being passed through the said slot and secured upon itself.



1,076,676. DIPPER-EXCAVATOR. RUBEN JURY, Sandusky, Mich., assignor of one-third to William Wakefield and one-third to Archibald L. Gilliam, Sandusky, Mich. Filed Nov. 9, 1912. Serial No. 730,321. (Cl. 37—16.)



1. In an excavator, the combination of upright rockers mounted at different points and arranged at an angle to each other, of a dipper stem pivotally connected to both of said rockers whereby said rockers may move toward each other.

2. In an excavator, the combination of rockers mounted at different points, of a dipper stem pivotally connected to both of said rockers and also shiftably connected to one of them, and means for locking the shiftably mounted stem against movement or shifting when excavating.

3. In an excavator, the combination of rockers mounted at different points, of a dipper stem pivotally connected to both of said rockers and also shiftably connected to one of them, and means for locking the shiftably mounted stem against movement or shifting when excavating consisting of a plurality of catch members on the dipper stem and a movable latch carried by one of the rockers and adapted to engage said catch members.

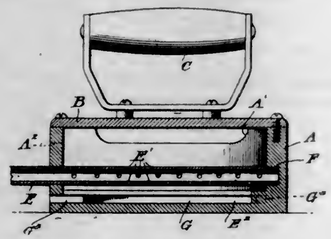
4. In an excavator, the combination of upright rockers mounted at different points, a dipper stem pivoted to both of the rockers, the rockers being relatively inclined so that they will move toward each other when falling, a dipper carried by the stem, the arrangement of the parts adapting the rockers to move toward each other when falling and to automatically set the dipper and stem in position for excavating, and means for operating the dipper to perform the excavating operation and for raising it.

5. In an excavator, the combination of upright rockers mounted at different points, a dipper stem pivoted to both of the rockers and shiftably connected to one of them, the rockers being relatively inclined so that they will move toward each other when falling, a dipper carried by the stem, locking means adapted to prevent longitudinal shifting of the stem until the parts are in a predetermined position and the dipper is substantially ready to excavate, the arrangement of the parts adapting the rockers to move toward each other when falling from a raised position to an excavating position, means adapted to act when the

dipper is in excavating position to lock its stem against longitudinal shifting, and means for operating the dipper to perform the excavating operation and for raising it.

[Claims 6 and 7 not printed in the Gazette.]

1,076,677. GAS-HEATED SAD-IRON. HARRY A. KOENIG, Philadelphia, Pa. Filed May 15, 1913. Serial No. 767,863. (Cl. 158—23.1.)



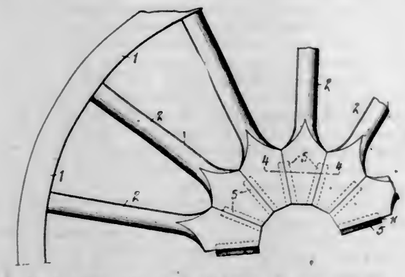
1. In a sad iron, a hollow body having a burner pipe arranged therein, the bottom of said hollow body having an air passage arranged centrally and longitudinally thereof, said central air passage having oppositely disposed forward passages communicating therewith substantially as described.

2. In a sad iron, a hollow body, a burner pipe positioned in said hollow body, the bottom of said body having a central air passage arranged longitudinally therein and extending from the rear end thereof to a point adjacent the forward end and side passages upon each side of the central longitudinal passage and communicating therewith, said side passages being open at the front as set forth.

3. In a sad iron, a hollow body, a burner pipe positioned in said hollow body, the bottom of said hollow body having a central longitudinal air passage extending from the rear end thereof to a point adjacent the forward end, and passages upon opposite sides of said central air passage, said side passages extending to the forward portion of the iron and terminating in contracted openings substantially as described.

4. In a sad iron, a hollow body having an air channel arranged centrally in the bottom thereof and extending from the rear end to a point adjacent the forward end, and side passages extending from points adjacent the forward end of the iron to points adjacent the rear end thereof, said side passages communicating with the central longitudinal channel.

1,076,678. VEHICLE-WHEEL. MARTIN D. KRESPACH and JAMES R. HAZELEY, Philadelphia, Pa., assignors to Eclipse Wheel Company, a Corporation of New Jersey. Filed Oct. 17, 1912. Serial No. 726,193. (Cl. 21—31.)

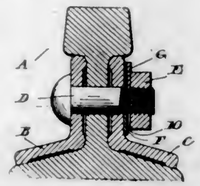


1. In a wheel, the combination of spokes having longitudinal dovetail key-ways formed in their contiguous surfaces, a removable key fitting into said key-ways, and said key having beveled edges formed thereon corresponding to the key-ways formed in two of the contiguous spokes.

2. In a wheel, the combination of spokes having dovetail key-ways formed in their contiguous surfaces, a removable key seated in said key-ways formed in two of the contiguous spokes, and a stop formed by the solid portion of the spokes at the outer end of the key-ways to limit the outward movement of the key.

3. In a wheel, the combination of spokes having dovetail key-ways formed in their contiguous surfaces, a key seated in said key-ways formed in two of the contiguous spokes, one end of the said key being rounded, a stop formed by the solid portion of the spokes at the outer end of the key-ways and said stop being rounded to correspond to the round end of the key.

1,076,679. NUT-LOCK. SAMUEL LAW KYLE, Ottawa, Ontario, Canada. Filed Jan. 25, 1913. Serial No. 744,250. (Cl. 151—24.)



1. In a nut lock and in combination, a washer having a plurality of radial grooves immediately adjacent to each other and extending for more than one quarter way around the circumference, a nut having four radial grooves extending diagonally into the corners and a tapered thread cutting locking pin adapted to extend in registering grooves on the washer and nut and to prevent relative movement between them.

2. In a nut lock and in combination, a washer having a radial groove, a bolt, a nut having a radial groove extending diagonally into the corners and a thread cutting locking pin adapted to fit the grooves in the washer and nut and to prevent relative movement between them.

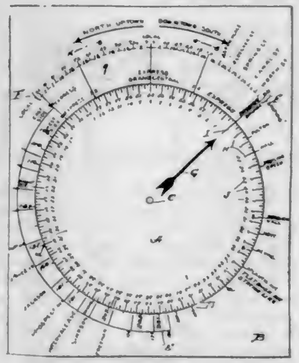
3. In a nut lock and in combination, a washer having a radial groove, a bolt, a nut having a radial groove extending diagonally into the corners and a thread cutting locking pin longitudinally channeled after the manner of a tap adapted to fit the grooves in the washer and nut and to prevent relative movement between them.

4. In a nut lock and in combination, a washer having a radial groove, a bolt, a nut having a radial groove extending diagonally into the corners and a tapered thread cutting locking pin having the point recessed and formed with a circular cutting edge, said locking pin being adapted to fit the grooves in the washer and nut and to prevent relative movement between them.

5. In a nut lock and in combination, a washer having a radial groove, a bolt, a nut having a radial groove extending diagonally into the corners and a tapered thread cutting locking pin having a squared outer end, said locking pin being adapted to fit the grooves in the washer and nut and to prevent relative movement between them.

1,076,680. COMPUTING DEVICE. GEORGE EVERSON LEONARD, Garden City, N. Y. Filed Mar. 21, 1912. Serial No. 685,389. (Cl. 235—88.)

1. In a computing device, in combination, two juxtaposed relatively movable scales, the first graduated in units of time and the second designating localities, the spaces between adjacent indicia of the second scale being proportional to time intervals; a third scale fixed relatively to the second and having indicia in common with indicia of the second scale, the spaces between adjacent indicia of the third scale being marked to designate other time intervals, whereby time intervals between localities designated on different scales may be found by adding a time interval indicated on the first scale to certain of the time intervals marked on the third scale.



2. In a computing device, in combination, two relatively fixed scales, both indicating localities, certain of the localities being common to both scales, the spaces between adjacent indicia on the first scale being proportional to time intervals, the spaces between adjacent indicia on the second scale being marked to indicate other time intervals, a third scale graduated in units of time, said third scale being juxtaposed and movable relatively to said first scale, whereby the time intervals between localities indicated on different scales may be calculated by adding intervals marked on the second scale to an interval indicated on the third scale.

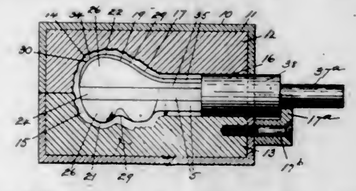
3. In a computing device, in combination, a support, a scale thereon with indicia designating localities, the spaces between adjacent indicia being proportional to time intervals, a second scale in juxtaposition to the first scale, and provided with indicia designating localities, some of the localities being common to the two scales, the spaces between adjacent indicia on the second scale being marked to indicate other time intervals, and a second support adapted to be adjustably positioned with respect to said first support, and having indicia designating time intervals, whereby the time intervals between localities indicated on different scales may be calculated by adding a time interval indicated on the second support to certain of the time intervals marked on the second scale.

4. In a computing device, in combination, a support, a scale thereon with indicia designating localities, the spaces between adjacent indicia being proportional to time intervals, a second scale in juxtaposition to the first scale, and provided with indicia designating localities, some of the localities being common to the two scales, the spaces between adjacent indicia on the second scale being marked to indicate other time intervals, and a second support adapted to be adjustably positioned with respect to said first support, and having two sets of indicia extending in opposite directions, and both designating time intervals, whereby the time intervals between localities indicated on different scales may be calculated by adding a time interval indicated on said second support to certain of the time intervals marked on the second scale.

5. In a computing device, in combination, a support, an annular scale thereon with indicia designating localities, the spaces between adjacent indicia being proportional to time intervals, a second annular scale in juxtaposition to the first scale, and provided with indicia designating localities, some of the localities being common to the two scales, the spaces between adjacent indicia on the second scale being marked to indicate other time intervals, and a disk adapted to be adjustably positioned with respect to said first support, and having adjacent its rim indicia designating time intervals, whereby the time intervals between localities indicated on different scales may be calculated by adding a time interval indicated on the disk to certain of the time intervals marked on the second scale.

[Claim 6 not printed in the Gazette.]

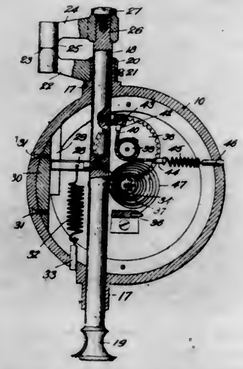
1,076,681. MOLD. LOUIS LEVINE, Northport, N. Y., assignor of one-half to Judson S. Snyder, Northport, N. Y. Filed June 13, 1912. Serial No. 703,503. (Cl. 18—45.)



1. In a device of the character described the combination with a mold composed of two separable mating parts, each part being recessed to conform to the configuration of the object to be molded, of a core composed of a plurality of segments, a number of which have correspondingly triangular faces and one or more being formed with straight parallel side faces so as to permit all of the segments to be arranged circumferentially, a plurality of stems, each having one of its ends formed upon the corresponding end of each of the segments and all of the segments and said stems having the corresponding edges thereof cut-out whereby a passage will be provided through the core when the segments and the stems are assembled, said stems being exteriorly formed so that a cylindrical extension will be provided when the segments are concentrically arranged, a cylindrical core-rod movably disposed in the passage and a cylindrical sleeve serving to removably hold the ends of the segments to the core-rod and adapted to engage said cylindrical extension and the core-rod, whereby said segments and the core-rod will be adjusted in relation to each other, and the core suitably supported in the mold by the impingement of said sleeve against the walls of the opening of the mold communicating with the recesses within the mold, and a plate secured by a removable screw to the frame of the mold, and adapted for engaging the said sleeve whereby the sleeve and said core are retained in proper position.

2. In a device of the character described, the combination with a mold, composed of two independent separable mating parts, each part being recessed to conform with the configuration of the article to be molded and having a semi-cylindrical extension to each recess communicating with the end of the part, whereby a cylindrical passage is provided in one end of said mold to communicate with the recess thereof, of a core of less size than the interior of the mold, said core being composed of a plurality of alternately arranged irregular quadrangular and rectangular segments, each having a segmental portion removed from one face thereof, whereby said segments may be assembled in compact form circumferentially around a core rod, each segment having also an extension upon one of its ends, adapted to serve as a stem for securing the segments to the core-rod, said core-rod having a threaded portion adapted to receive an interiorly threaded sleeve, said sleeve having an interiorly threaded portion of larger diameter than the portion that engages the core-rod, said interiorly threaded portion being adapted for engagement with threads provided upon the ends of the stems of said segmental core, whereby the said core is secured in assembled relation around the core-rod, and a bracket removably and adjustably secured upon the outer surface of the end wall of the mold adjacent to the cylindrical passage whereby the core-rod and segmental core may be secured in position within the mold by the engagement of said cylindrical sleeve by said bracket, substantially as shown and described.

1,076,682. PAPER-GAGE. CHARLES H. LUCAS, Waltham, Mass. Filed Dec. 5, 1911. Serial No. 664,121. (Cl. 73—105.)



1. A gage having a fixed jaw, a slide carrying another jaw to coöperate therewith, two intermeshing pinions, a pointer actuated by one pinion, connections between the other pinion and the slide for rotating the former from the latter, and three independent springs individually connected to the two pinions and the slide to actuate them in one direction.

2. A gage having a fixed jaw, a slide carrying another jaw to coöperate therewith, two intermeshing pinions, a pointer actuated by one pinion, a chain connected to the slide and to the other pinion whereby a movement of the slide in one direction is transmitted to said pinion, and three independent springs one connected to the slide, another to the chain, and the third to the pinion having the pointer, said springs being connected to act to close the jaws.

3. A gage having a fixed jaw, a slide having a jaw to coöperate therewith, said slide having two pins, a spring connecting one of said pins to a fixed point, two intermeshing pinions, a pointer actuated by one pinion, a chain for transmitting motion from the slide to one of said pinions, a spring connecting said chain with a fixed point, and an independent spring connected to the pinion carrying the pointer, said springs being connected to act to close the jaws.

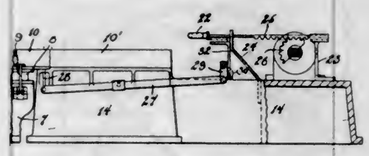
4. A gage having two coöperating members, a slide carrying one of said members, a dial, a pointer arbor having a pinion, a barrel having a pinion meshing with the pinion of said arbor, a chain connected to said barrel and to said slide, a spring for holding the slide in normal position, and a spring connected to said chain to exert a tension thereon in a direction to supplement the action of the first mentioned spring.

5. A gage having two coöperating measuring members, a slide carrying one of said members, two intermeshing pinions, a pointer actuated by one pinion, a chain connecting the slide with one of said pinions for actuating it in one direction, and three independent springs for the two pinions and the slide, all of said springs acting in one direction to close the measuring members.

[Claim 6 not printed in the Gazette.]

1,076,683. ROLL RAMMING APPARATUS. HARRY P. MACDONALD, Montclair, N. J., assignor to The Snead & Co. Iron Works, Jersey City, N. J., a Corporation of New Jersey. Filed June 28, 1913. Serial No. 776,302. (Cl. 22—40.)

1. In roll ramming apparatus the combination of a flask, a roll for ramming the sand in the flask, a movable track for supporting the roll above the flask when in operative position and lying free of the flask when in inoperative position, power mechanism for operating the roll, a control for the power mechanism, and means for locking the control automatically releasing when the track is moved to operative position.



2. In roll ramming apparatus the combination of a flask, a roll for ramming the sand in the flask, a movable track for supporting the roll above the flask when in operative position and lying free of the flask when in inoperative position, power mechanism for operating the roll, a control for the power mechanism, and means automatically moving to lock the control when the track is moved to inoperative position.

3. In roll ramming apparatus the combination of a flask, a roll for ramming the sand in the flask, a movable track for supporting the roll above the flask when in operative position and lying free of the flask when in inoperative position, and locking means for the roll automatically releasing when the track is moved to operative position.

4. In roll ramming apparatus the combination of a flask, a ramming roll, a support for the roll movable into and out of position over the flask, a platform adjacent the flask adapted to support the roll in inoperative position, and means preventing movement of the roll from off the platform, said means automatically releasing when the support is moved into operative position over the flask.

5. In roll ramming apparatus a flask, a roll adapted to ram the sand in the flask, a pair of independently movable tracks for supporting the roll over the flask, and means whereby one of the tracks cannot be moved out of operative position when the other track is in operative position.

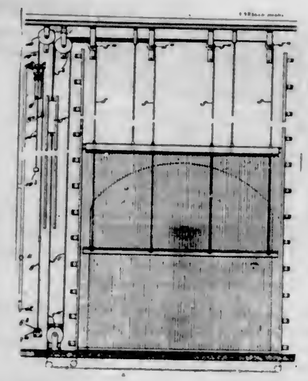
[Claims 6 to 9 not printed in the Gazette.]

1,076,684. FIRE-RESISTING CURTAIN. EDWARD H. MCCLOUD, Columbus, Ohio, assignor to The Kinnear Manufacturing Company, Columbus, Ohio, a Corporation of West Virginia. Original application filed July 2, 1904, Serial No. 215,124. Divided and this application filed Apr. 27, 1908. Serial No. 429,361. (Cl. 189—48.)

1. In combination with a curtain, door or other sliding structure, a main counterbalancing weight connected with and operating with the door, a cord independent of the main weight-suspending cord extending from said main weight and a stop thereon, a second or auxiliary weight and means for suspending the same in position to fall upon said stop to counterbalance the said main weight, and means for automatically releasing said auxiliary weight operative by a dangerous rise of temperature.

2. In combination with a curtain, door or other sliding structure, a main counterbalancing weight connected with and operating with the door, a cord extending from said main weight said cord being independent of that carrying the main weight, a second or auxiliary weight and means for suspending the same to fall in the line thereof, means for releasing said auxiliary weight and means on said auxiliary weight adapted to automatically grip and engage said cord when the auxiliary weight is released.

3. In combination with a curtain, door or other sliding structure, a main counterbalancing weight therefor, an auxiliary weight for counterbalancing the main weight, means for suspending the auxiliary weight comprising a hook lever, a duplex lever for engaging and holding the hook lever in weight-suspending position, and manually operative and electro-magnetically operative devices for releasing the duplex lever to release the hook lever and the auxiliary weight, said manually operative device containing means fusible by a dangerous rise of temperature to release the duplex lever.



4. In combination with a curtain, door or similar structure, a main counterbalancing weight therefor, an auxiliary weight for counterbalancing the main weight, means for suspending the auxiliary weight and for releasing it in case of fire, a cable passing from the main weight through the auxiliary weight, and automatically operative devices on the auxiliary weight for engaging the cable when the weight is released from the suspending device.

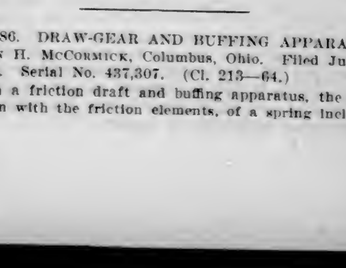
5. In combination with a curtain, door or other like structure having a main balancing weight, a cable attached thereto, a weight to engage said cable upon the occurrence of a dangerous rise of temperature, a device for suspending said weight, means for releasably engaging said device to hold the same in weight-suspending position consisting of a lever pivoted at one end to a fixed point and a second lever pivoted to the free portion of said lever, a spring to move both of said levers to cause the release of the weight suspending device, and means automatically operative by a dangerous rise of temperature to release the device for suspending the weight.

[Claims 6 to 9 not printed in the Gazette.]

1,076,685. GEARING. CURRAN C. MCCONVILLE and JULIAN P. FARNAM, Minneapolis, Minn., assignors, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 9, 1912. Serial No. 676,625. (Cl. 74—59.)

1. The combination, with a driving shaft, of a driven shaft at right angles substantially to said driving shaft, beveled pinions loosely mounted on said driving shaft, a beveled gear mounted on said driven shaft and adapted to mesh with said pinions, a clutch member for locking either one of said pinions to said driving shaft, a shaft parallel with said driving shaft, a gear secured thereon and having a driving connection with one of said beveled pinions, gears of different sizes secured to said driving shaft and gears splined on said parallel shaft and adapted to mesh respectively with the gears secured to said driven shaft, whereby said driven shaft may be revolved forward at a variable speed, and means for moving said splined gears on said parallel shaft, substantially as described.

2. A gearing comprising a driving shaft, a driven shaft, beveled pinions loosely mounted on said driving shaft, a gear secured to one of said pinions, a clutch member interposed between said pinions and adapted to lock either one of them on said shaft, a beveled gear mounted on said driven shaft and adapted to mesh with said pinions, a shaft parallel with said driving shaft, a gear secured on said parallel shaft and meshing with the gear secured to one of said pinions, gears of different sizes secured to said driving shaft, gears splined on said parallel shaft and adapted to mesh respectively with the gears secured to said driving shaft, a shifter controlling the movement of said splined gears, the movement of one of said splined gears into mesh with one of the gears secured on said driving shaft revolving said driven shaft at a faster speed than normal, and the meshing of the other splined gear with the other gear secured on said driven shaft revolving said driven shaft at a speed less than normal.



3. The combination, with a driving shaft, of a driven shaft, beveled pinions loosely mounted on said driving shaft, a beveled gear mounted on said driven shaft and adapted to mesh with said pinions, a clutch member for locking either one of said pinions on said driving shaft, a shaft parallel with said driving shaft, a gear fast thereon and having a driving connection with one of said beveled pinions, a gear secured to said driving shaft, a gear splined on said parallel shaft and adapted to mesh with the gear secured to said driven shaft, means for moving said splined gear on said parallel shaft into and out of mesh with the gear secured to said driving shaft, whereby said driven shaft may be revolved at a variable speed.

4. The combination, with a driving shaft and a transmission shaft parallel therewith, of a driven shaft, forward and reverse pinions loosely mounted on said driving shaft, a beveled gear secured on said driven shaft and adapted to mesh with said pinions, a clutch member for locking either one of said pinions on said driving shaft, a gear secured on said driving shaft, transmission gears mounted on said transmission shaft, means for operatively engaging one of said transmission gears with the gear secured to said driving shaft, the other transmission gear having a driving connection with one of said pinions, whereby said driven shaft may be revolved forward at a variable speed.

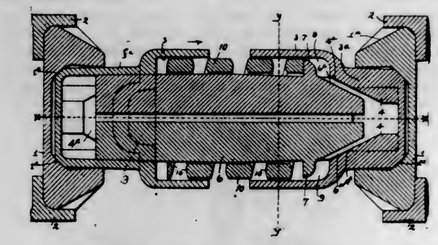
5. The combination, with a driving shaft and beveled pinions loosely mounted thereon, of a driven shaft, a gear secured thereon and adapted to mesh with said pinions, a clutch member for locking either one of said pinions on said driving shaft, gears of different sizes secured to said driving shaft, a gear secured to said transmission shaft and having a driving connection with one of said pinions, gears mounted on said transmission shaft and having means for locking them thereon and arranged to mesh with the gears secured to said driving shaft, whereby said driven shaft may be revolved forward at a variable speed.

[Claim 6 not printed in the Gazette.]

1,076,686. DRAW-GEAR AND BUFFING APPARATUS. JOHN H. MCCORMICK, Columbus, Ohio. Filed June 8, 1908. Serial No. 437,307. (Cl. 213—64.)

1. In a friction draft and buffing apparatus, the combination with the friction elements, of a spring inclosing

the friction elements and having only end contact with said friction elements, and means for pressing the contacting friction elements in opposite directions and against each other.



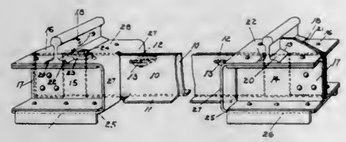
2. In a friction draft and buffing apparatus, the combination with opposite wedging devices that limit the closing movement of each other by direct contact with each other, of a plurality of intermediate friction elements engaging said wedging devices at each end and a spring resisting the movement of the contacting friction elements from opposite directions.

3. In a friction draft and buffing apparatus, the combination with opposite wedging devices, of a plurality of intermediate friction elements that normally contact with the wedging faces of one wedging device only, and a spring contacting directly with the other wedging device and all the friction elements.

4. In a friction draft and buffing apparatus, the combination with a plurality of friction elements, of means for wedging the friction elements against each other, and of followers having pivotal engagement with the wedging means.

5. In a friction draft and buffing apparatus, the combination with a plurality of friction elements, of means for pressing the friction elements against each other, and a pivotal follower.

1,076,687. RAILWAY METALLIC TIE. JOSEPH A. McCRACKEN, Altoona, Pa. Filed Dec. 7, 1911. Serial No. 664,428. (Cl. 238—5.)

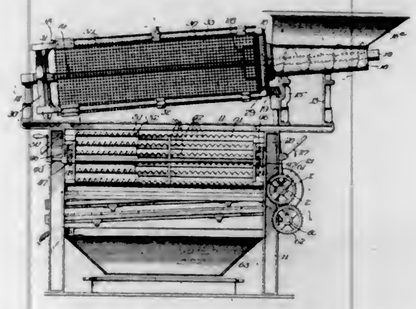


1. A metallic railway tie comprising a body including rail-supporting end portions having channel members arranged back-to-back, a longitudinal central vertically disposed stiffening member rigidly united with said channel members of the end portions, and rail securing means carried by said end portion.

2. In a metallic railway tie, the combination of flanged body portions, terminating in and with the built-up end portions of the tie, keys coöperating with key-ways in the body portion for the purpose of shifting the end portions of the tie, channeled sections, turned back to back, flanged base portions having the body portion turned upward and outward, forming the base ballast gripping portion, the ballast abutting portion, and the top or rail seat portion.

3. In combination, the elements forming a metallic railway tie, channeled side sections, a combined top rail seat and channel binding plate, flanged base portions binding the channel sections, gripping the ballast and having upwardly and inwardly turned ballast abutting portions, the body portions having the bottom flanges cut away, together with a portion of the center web, substantially as described, illustrated and claimed.

1,076,688. CORN-SILKING MACHINE. JOHN C. McINTYRE, Hoopeston, Ill., assignor to Sprague Canning Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 7, 1913. Serial No. 752,550. (Cl. 130—18.)



1. In a machine of the class described, the combination of a frame having a supporting rail, a series of collecting wires resting on the rail, a stripper bar mounted for movement longitudinally of and in contact with the wires, means to move the bar along the wires and to lift the latter off the rail, and means to prevent lateral displacement of the wires while elevated, substantially as described.

2. In a machine of the class described, the combination of a frame having a supporting rail, a series of collecting wires hingedly mounted at one end and having their free ends resting on the rail, a stripper bar slidably mounted on the series of wires, means to move the bar along the wires and to lift the latter off the rail to permit the bar to pass the rail, and means to prevent lateral displacement of the wires while elevated, substantially as described.

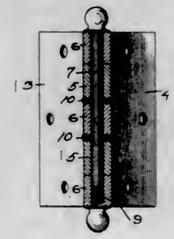
3. In a machine of the class described, the combination of a frame having a supporting rail, a guard strip provided in its lower edges with notches adjacent the upper edge of the rail, a series of collecting wires having their ends resting on the rail within the notches of the guard strip, a stripper bar slidably mounted on the series of wires, and means to move the bar along the wires and to lift the latter off the rail within the notches of the guard strip to permit the bar to pass the rail without lateral displacement of the wires, substantially as described.

4. In a machine of the class described, the combination of a frame having a supporting rail with notches in its upper edge, a guard strip provided in its lower edges with notches coinciding with the notches of the rail, a series of collecting wires hingedly mounted at one end and having their free ends resting on the rail within the notches of the rail and strip, a stripper bar slidably mounted on the series of wires, and means to move the bar on the wires and to lift the latter out of the rail notches to permit the bar to pass the rail, the notches of the guard strip serving to prevent lateral displacement of the elevated wires, substantially as described.

5. In a machine of the class described, the combination of a frame having supporting rails along its two edges, one of the rail provided with notches in its upper edge, a guard strip pivoted to swing above the notched rail and provided in its lower edges with notches coinciding with the notches of the rail, a series of collecting wires hingedly connected at one end with the second rail and having their free ends resting within the notches of the first rail, and confined within the notches of the strip, a stripper bar slidably mounted on the series of wires, means to move the bar along the wires and to lift the latter out of the rail notches to permit the bar to pass the rail, the guard strip swinging on its hinges to permit the passage of the bar above the rail while guarding the wires against lateral displacement, substantially as described.

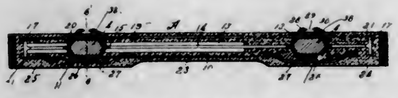
[Claims 6 to 8 not printed in the Gazette.]

1,076,689. HINGE. JAMES P. McKINNEY, Pittsburgh, Pa. Filed Oct. 4, 1910. Serial No. 585,314. (Cl. 16—107.)



A butt-hinge having washers interposed between the knuckles and in direct contact therewith, said washers being formed of phosphor-bronze.

1,076,690. CROSS-TIE FOR RAILWAYS. LAWRENCE C. MOONEY, Montgomery, Ala. Filed Mar. 13, 1913. Serial No. 754,119. (Cl. 238—3.)



1. A railroad cross-tie comprising a concrete body having a metallic strengthening member of cruciform cross-section embedded therein and extending from end to end of the tie, said member having enlarged portions formed adjacent the ends thereof and integral therewith on which the rails are seated, and a plurality of small strengthening ribs between the cruciform member and the enlarged portions.

2. A railroad cross-tie comprising a concrete body having a metallic strengthening member of cruciform cross-section embedded therein and extending from end to end of the tie, said member having enlarged portions formed adjacent the ends thereof and integral therewith of less height than said tie and extending from end to end of the tie, said member having enlarged portions formed adjacent the ends thereof and integral therewith of less height than said tie and extending from side to side thereof, said enlarged portions each having a pocket therein open on one side, cushion blocks tightly fitted in said pockets, and a rail chair on the top of each enlarged portion having a removable side.

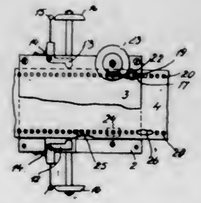
3. A railroad cross-tie comprising a concrete body having a metallic strengthening member of cruciform cross-section embedded therein and extending from end to end of the tie, said member having enlarged portions formed adjacent the ends thereof and integral therewith of less height than said tie extending from side to side thereof and flush with its top, a plurality of small strengthening ribs between the cruciform member and the enlarged portions, reinforcing bars between the enlarged portions, reinforcing rods extending through said portions from end to end of the tie and a reinforcing cradle beneath the enlarged portions.

4. A railroad cross-tie comprising a metallic strengthening member of cruciform cross-section substantially as long as the tie and having near each end an enlarged portion to support the rails, a concrete body having parallel vertical sides and parallel bottom and top wholly incasing the cruciform part of said strengthening member and the sides and bottom of the enlarged portions, the ends and tops of said portions being flush respectively with the vertical sides and top of the concrete, and a reinforcing member embedded in the thin layer of concrete beneath each enlarged portion with upwardly inclined ends extending into the body of the tie.

5. A railroad cross-tie comprising a concrete body having a metallic strengthening member of cruciform cross-section embedded therein and extending from end to end of the tie, said member having enlarged portions formed adjacent the ends thereof and integral therewith on which the rails are seated, said enlarged portions each having a pocket therein open on one side, cushion blocks tightly fitted in said pockets, and a rail chair on the top of each enlarged portion having a removable side, one of said removable sides being on the outside of one rail and the other removable side on the inner side of the other rail.

[Claims 6 and 7 not printed in the Gazette.]

1,076,691. MACHINE FOR DETECTING DEFECTS IN MOTION-PICTURE FILMS. ROGER NICOLET, Plainfield, N. J. Filed Oct. 31, 1912. Serial No. 728,933. (Cl. 73—51.)



1. An apparatus for detecting defects in a motion picture or similar film provided with one or more rows of perforations, comprising means for moving said film to be inspected, detecting means arranged to engage said film yieldably along the line of the perforations thereof, the portion of said detecting means which normally engages said film being shaped and proportioned so as not to enter a normal perforation of the film but to enter an abnormally large perforation, and indicating means arranged to be operated by the entry of such detecting means into the said abnormally large perforation.

2. An apparatus for detecting defects in a motion picture or similar film provided with two rows of perforations, one near each edge, comprising means for moving said film to be inspected, detecting means arranged to engage said film yieldably near each edge along the lines of the rows of perforations, the portion of said detecting means which normally engages said film being shaped so as not to enter a normal perforation of the film but to enter an abnormally large perforation, and indicating means arranged to be operated by the entry of said detecting means into the said abnormally large perforation.

3. An apparatus for detecting defects in a motion picture or similar film comprising means for moving the film to be inspected, and detecting means arranged to engage said film yieldably, said detecting means comprising a movably mounted detector finger, spring-actuated toward the film to be inspected, and indicating means positioned with respect to said detector finger to be out of engagement with said detector finger when the latter is resting normally on the film, but to be engaged by said detector finger when the latter moves abruptly toward the film following abrupt actuation of such finger due to a defect in the film.

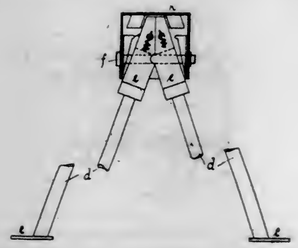
4. An apparatus for detecting defects in a motion picture or similar film comprising means for moving the film to be inspected, and detecting means arranged to engage said film yieldably, said detecting means comprising movably mounted detector fingers, arranged to engage the edges of said film, yieldably, and spring-actuated toward the film, and indicating means positioned with respect to said detector fingers to be out of engagement with said detector fingers when the latter are resting normally on the film, but to be engaged by said detector fingers when the latter move abruptly toward the film following abrupt actuation of such fingers due to a defect in the film.

5. An apparatus for detecting defects in a motion picture or similar film provided with one or more rows of perforations, comprising means for moving said film to be

inspected, detecting means arranged to engage said film yieldably along the line of the perforations thereof, said detecting means comprising one or more pivotally mounted detector fingers, the portion of said fingers which normally engages said film being shaped and proportioned so as not to enter a normal perforation of the film but to enter an abnormally large perforation and indicating means arranged to be operated by the entry of said detecting means into the said abnormally large perforation.

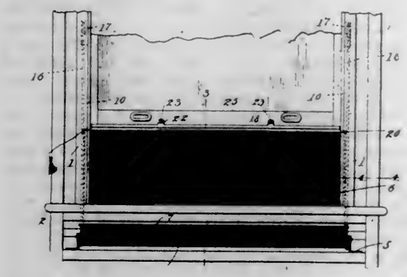
[Claims 6 and 7 not printed in the Gazette.]

1,076,692. FOLDING REST FOR FIREARMS. HERMANN NIKODEM, Hamburg, Germany. Filed Apr. 9, 1913. Serial No. 759,906. (Cl. 42—94.)



In a folding rest for firearms, in combination, a casing, legs pivotally supported thereby, means within said casing to engage the ends of said legs and force them to come together when they are moved into their inoperative positions and means within said casing to engage said legs to force them apart when they are moved into their operative positions.

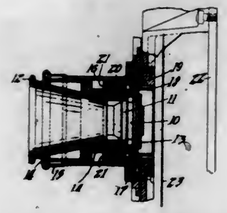
1,076,693. WINDOW-SCREEN. GEORGE W. NORTON, Flushing, N. Y. Filed Apr. 27, 1912. Serial No. 694,304. (Cl. 156—39.)



1. A casement, a sash mounted to slide therein, a screen roller, a screen wrapped on said roller and attached to said sash, said roller being connected with said sash to move when said sash moves, said roller being of a diameter such that the periphery of said roller has a reduced amount of movement with respect to said sash whereby said screen is maintained in tension when extended.

2. A casement, a window sash sliding therein, a screen attached to said sash so as to be drawn out into the window opening when said sash is raised, an endless sprocket chain attached to said sash, a sprocket wheel guiding said chain, and a roller carrying a part of said screen rolled thereupon, said roller being of slightly less diameter than the pitch diameter of said sprocket wheel, whereby said roller may pay out said screen at a slower rate than said sash moves and maintain said screen in tension.

1,076,694. CAMERA FOCUSING DEVICE. HENRY T. OLIVER, Newark, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Apr. 18, 1912. Serial No. 691,677. (Cl. 95—45.)



1. In a camera focusing device, an internally threaded tubular member adapted to be attached to the camera, an externally threaded barrel in said tubular member having the threads thereof engaging with the threads of said tubular member, a lens in said barrel, and an index device to permit the location of said barrel longitudinally in said tubular member at predetermined positions, substantially as described.

2. In a camera focusing device, an internally threaded tubular member adapted to be attached to the camera, an externally threaded barrel in said tubular member having the threads thereof engaging with the threads of said tubular member, a lens in said barrel, and a diaphragm controlling device carried by said barrel, substantially as described.

3. In a camera focusing device, a tubular member adapted to be attached to the camera, a barrel movably mounted within said tubular member, a lens in said barrel, means operated by the rotation of said barrel to adjust the longitudinal relation of said tubular member and barrel, and an index device on the periphery of said barrel to locate it in predetermined positions in its rotation within said member, substantially as described.

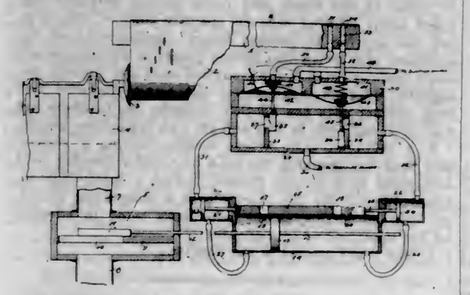
4. In a camera focusing device, a tubular member adapted to be attached to the camera, said tubular member having an opening in its side and an index mark adjacent to said opening, and a barrel, movable longitudinally within said member, said barrel having a series of index marks adapted to coöperate with the opening and index mark on said tubular member to permit the location of said barrel in predetermined longitudinal relation to said member, substantially as described.

5. In a camera focusing device, a tubular member adapted to be attached to the camera, said member being provided with internal screw threads, and having an opening in its side and an index mark adjacent to said opening and having a second index mark on the periphery thereof, an externally threaded barrel within said member having its threads engaging with the threads of said member, said barrel having a series of index marks adapted to cooperate with the opening and index mark on the said member to permit the location of the said barrel roughly in predetermined longitudinal relation to said member, and having a second series of index marks on the periphery thereof adapted to coöperate with the second index mark on said member to permit the location of said barrel in exact predetermined longitudinal relation to said member, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,076,695. AUTOMATIC TEMPO-REGULATOR. PAUL B. OLSON, Chicago, Ill. Filed Aug. 31, 1912. Serial No. 718,021. (Cl. 84—168.)

1. In automatic regulator tempo mechanism, the combination of a main cylinder, a piston for said cylinder, a throttle valve connected with said piston, an auxiliary cylinder at each end of said main cylinder and a connection connecting each auxiliary cylinder with the respective end of the main cylinder, a piston valve in each auxiliary cylinder, a tracker board and a music sheet traveling thereover, a source of fluid pressure, means controlled by the passage of the music sheet over the tracker board for controlling the connection of either auxiliary cylinder with said pressure source, movement of a piston valve in response to fluid under pressure causing connection of the respective ends of the main cylinder to receive fluid under pressure from said auxiliary cylinder whereby the piston within said main cylinder is actuated, and a slide valve actuated in common by said piston valves to control the exhaust from the respective sides of said main cylinder piston.



2. In automatic tempo regulator mechanism, the combination with a tracker board, a music sheet and a motor for driving said music sheet over the tracker board, of a throttle valve for said motor, a main cylinder having a piston connected with said throttle valve, a source of pressure, valve mechanism for controlling the connection of said pressure source with either end of said main cylinder and to either side of said piston, a pneumatic compartment closed by a diaphragm at one side connected with each one of said valves, a source of suction connected with said compartments, said compartments being connected with respective openings in said tracker board, said suction being effective in said compartments upon closure of said tracker board passageways and being ineffective upon opening of such passageways, said diaphragms when influenced by suction being moved to close the respective valve, and means for shifting the diaphragms to open the valves when the suction effect thereon is removed.

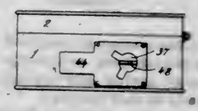
3. In automatic tempo regulator mechanism, the combination of a main cylinder, a piston within said cylinder, a throttle valve connected with said piston, an auxiliary cylinder at each end of said main cylinder and having connection therewith, a piston in each of said auxiliary cylinders, exhaust valve mechanism for said main cylinder controlled by said auxiliary cylinders and pistons, a tracker board and music sheet, and means controlled by the passage of the music sheet over the tracker board for controlling application of fluid to said cylinders for operating said main cylinder piston and thereby said throttle valve.

4. In automatic tempo regulator mechanism, the combination of a main cylinder, a piston in said cylinder, a throttle valve connected with said piston, an auxiliary cylinder at each end of said main cylinder and each auxiliary cylinder having a piston, relief valve mechanism for said main cylinder controlled by said auxiliary cylinder pistons, a source of fluid pressure, a tracker board and music sheet, pneumatic means controlled by the passage of the music sheet over the tracker board for controlling the connection of either auxiliary cylinder with said fluid pressure source, and a fluid connection from each auxiliary cylinder to the main cylinder exposed by the respective auxiliary cylinder pistons to receive fluid under pressure from said auxiliary cylinder.

5. In automatic tempo regulator mechanism, the combination of a main cylinder, a piston for said cylinder, a throttle valve connected with said piston, an auxiliary cylinder at each end of said main cylinder and each having a piston, relief valve mechanism for said main cylinder controlled by said auxiliary cylinder pistons, a source of fluid pressure, a tracker board and music sheet traveling thereover, pneumatic means controlled by the passage of the music sheet over the tracker board for controlling the connection of said fluid pressure source with either auxiliary cylinder, admission of fluid under pressure to either auxiliary cylinder causing movement of the piston therein and shifting of the relief valve mechanism for the main cylinder, and means controlled by such movement of the auxiliary cylinder pistons for connecting the main cylinder with said fluid pressure source whereby said main cylinder piston is actuated and said throttle valve adjusted.

[Claim 6 not printed in the Gazette.]

1,076,696. KEYHOLE-GUARD. KOLMEN OSWALD, New York, N. Y. Filed July 17, 1912. Serial No. 709,978. (Cl. 70—8.)



1. The combination with a member having in it an aperture and having a guide slot for a guard for said aperture, of a guard for said aperture having a flanged portion on one side of said apertured member, and having a rib projecting through said guide slot, said rib provided with an inclined face, normally in line with said aperture and adapted to be engaged by a key inserted to enter said aperture.

2. The combination with a member having in it an aperture and having a guide slot for a guard for said aperture, of a guard for said aperture having a flanged portion on one side of said apertured member, and having a rib projecting through said guide slot, said rib provided with an inclined face, normally in line with said aperture and adapted to be engaged by a key inserted to enter said aperture, and spring means tending to hold said guard in position to cover said aperture.

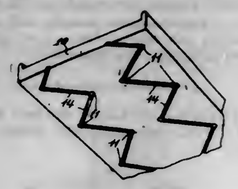
3. The combination with a member having in it an aperture and having a guide slot for a guard for said aperture, of a guard for said aperture having a flanged portion on one side of said apertured member, and having a rib projecting through said guide slot, said rib provided with an inclined face and a recessed guard plate in front of said apertured member, and having its aperture in line with the aperture of said member, and having a recess in which the said rib may work.

4. The combination with a member having in it an aperture and having a guide slot for a guard for said aperture, a guard for said aperture having a flanged portion on one side of said apertured member, and having a rib projecting through said guide slot, said rib provided with an inclined face, and a recessed guard plate in front of said apertured member and having its aperture in line with the aperture of said member, and having a recess in which the said rib may work, the inclined face of said rib being normally in line with the aperture of said guard plate, of an instrument adapted to be inserted through said apertures of said guard plate and apertured members, and having an inclined surface adapted to engage the inclined surface of said rib when so inserted, and thereby to press said guard aside.

5. The combination with a member having in it an aperture and having a guide slot for a guard for said aperture, a guard for said aperture having a flanged portion on one side of said apertured member, and having a rib projecting through said guide slot, said rib provided with an inclined face, a recessed guard plate in front of said apertured member and having its aperture in line with the aperture of said member, and having a recess in which the said rib may work, the inclined face of said rib being normally in line with the aperture of said guard plate, and a spring tending to hold said guard in line with said aperture, of an instrument adapted to be inserted through

said apertures of said guard plate and apertured members, and having an inclined surface adapted to engage the inclined surface of said rib when so inserted, and thereby to press said guard aside.

1,076,697. CREEL-BOARD. HERBERT W. OWEN, Dover, N. H. Filed Oct. 9, 1912. Serial No. 724,764. (Cl. 242—131.)



1. A device of the character described having bearings for the ends of cop skewers or spindles, the under surface of the member having said bearings being provided with guides leading to said bearings.

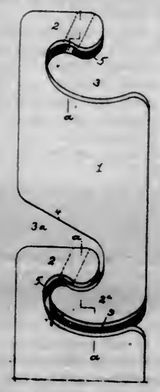
2. A substantially horizontal creel board having bearing holes, the under surface of the board being provided with guides leading to said holes.

3. A substantially horizontal creel board having holes connected by guides carried by its under surface.

4. A substantially horizontal creel board having holes connected by guide grooves carried by its under surface.

5. A creel board having holes and having its under surface provided with guide grooves connecting said holes.

1,076,698. SECTIONAL SASH-WEIGHT. NICHOLAS A. PETRY, Philadelphia, Pa. Filed Dec. 18, 1909. Serial No. 533,969. (Cl. 16—20.)



1. A sectional sash weight member having hooks whereby successive members can be pivoted together so as to swing in one plane, said hooks having lateral central points of pivotal contact, and being flared outwardly in opposite directions from said points of contact whereby the members are also free to swing in a plane at right angles to that first referred to.

2. A sectional sash weight member having hooks whereby successive members can be pivoted together so as to swing in one plane, said hooks having their pivotal contact points about midway between the front and back of each member and also about midway between the opposite sides of each member, but flaring laterally in opposite directions from such points of contact whereby the weight members are free to swing in both fore-and-aft and transverse planes.

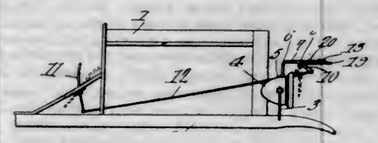
3. A sectional sash-weight member having hooks whereby successive members can be pivoted together so as to swing in one plane, said hooks having central shoulders whereby lateral displacement of the members is prevented, and having adjacent to said shoulders points of contact and being flared outwardly from said points of pivotal contact whereby the members are also free to swing in a plane at right angles to that first referred to.

4. A sectional sash weight member having hooks whereby successive members can be pivoted together so as to swing in one plane, said hooks having shoulders disposed about midway between opposite sides of the member and serving to prevent lateral displacement of the members, said hooks also having points of pivotal contact about midway between the front and back and between the opposite sides of the member, but being otherwise free from contact with one another, whereby the members are free to swing both in fore-and-aft and transverse planes.

5. A sectional sash weight member having a suspension hook for engaging the hook of another member, said suspension hook having formed therein a rearwardly inclined opening for the reception of a suspending device, the contact portion of the two hooks being in advance of the inner end of said opening.

[Claim 6 not printed in the Gazette.]

1,076,699. AUTOMOBILE LAMP ATTACHMENT. WILLIAM Q. PFAHLER, Toledo, Ohio. Filed Mar. 29, 1913. Serial No. 757,681. (Cl. 240—47.)



1. The combination with a lamp, of a shutter rotatably mounted in front of said lamp, said shutter of relatively smaller diameter than the lamp diameter, means for normally holding said shutter in a horizontal position above said lamp, means for rotating said shutter in front of said lamp and spaced a distance therefrom to allow the angularly disposed rays to be propagated therebeyond.

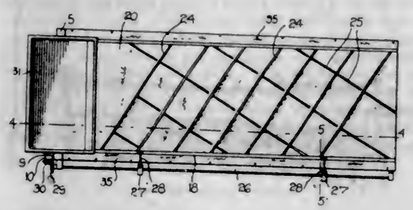
2. The combination with a lamp, of a bracket rigidly secured thereto, the free end of said bracket bifurcated and provided with an aperture extending therethrough, an arm pivotally secured to said bracket, a shutter of relatively smaller diameter than the lamp diameter rigidly secured to said arm, resilient means engaging said arm and secured to said bracket adapted to normally hold said shutter in a horizontal position above said lamp, and means for rotating said shutter in front of said lamp and spaced a distance therefrom.

3. The combination with a lamp, of a bracket secured to the top thereof and projecting in front of the same, said bracket provided with a bifurcated end having an aperture extending therethrough, a shaft journaled in said aperture, an arm rigidly secured to said shaft and adapted to rotate therewith, a shutter rigidly secured to said arm, a torsional spring disposed between said bracket bifurcations engaging said bracket and shaft to hold said shutter in a horizontal position, an actuating arm rigidly secured to said shaft, a link pivotally secured to said actuating arm, and means secured to said link for rotating the said shutter from a horizontal position to a vertical one in front of said lamp.

4. The combination with an automobile lamp, of an angle bracket rigidly secured to the upper portion thereof and extending beyond the front of the same, the free end of said bracket provided with an enlarged bifurcated portion with an aperture extending therethrough, a shaft journaled within said aperture, an arm rigidly secured to said shaft and adapted to be rotated thereby, a shutter of less diameter than the lamp diameter rigidly secured to said arm, torsional means engaging said shaft and said bracket adapted to normally hold said shutter in a horizontal elevated position out of the line of propagation of the light, an actuating arm secured to said shaft, a lever linkedly connected to said actuating arm adapted to rotate said shaft through approximately 90 degrees to thereby rotate said shutter to a vertical depending position in front of said lamp and spaced a distance there in front.

5. The combination with a pair of spaced automobile lamps, of angle brackets secured thereto projecting thereabove and in front of the same, the outer extremities of said brackets provided with bifurcated ends with apertures extending therethrough, bifurcated shutter carrying arms provided with apertures extending therethrough, a shaft journaled within said bracket apertures and rotatably supporting said arms, torsional springs disposed between said bracket and arm bifurcations to hold said shutter carrying arms in a substantially horizontal position, opaque shutters of relatively less diameter than the lamp diameters rigidly secured to said shutter carrying arms, means for limiting the rotation of said shutter carrying arms to a horizontal and vertical position, an actuating arm rigidly secured to said shaft, a lever linkedly secured to said actuating arm adapted to rotate said shaft to simultaneously rotate the shutters in front of and spaced a distance from said lamps.

1,076,700. ORE-CONCENTRATOR. FRANK PICONE, Tombstone, Ariz. Filed May 14, 1913. Serial No. 767,612. (Cl. 83—54.)

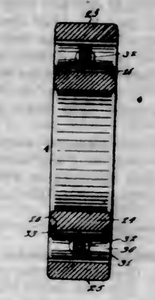


1. In an ore concentrator, a table having a plurality of parallel transversely disposed riffles upon its upper surface and a second series of riffles arranged between and extending at right angles to said first named riffles, said latter riffles projecting above the upper edges of the transverse riffles and each having one end spaced from the contiguous transverse riffle, and means for reciprocating said table.

2. In an ore concentrator, a table provided upon its upper surface with a plurality of parallel transverse obliquely disposed riffles and a second series of spaced riffles arranged between the transverse riffles and extending at right angles thereto, said latter riffles projecting above the upper edges of the transverse riffles and each having one end spaced from the contiguous transverse riffle, and means for transversely reciprocating said table.

3. In an ore concentrating machine, a supporting frame, a table mounted for transverse movement in said frame, said table having a pervious bottom, a plurality of transversely disposed parallel riffles arranged thereon, a second series of obliquely disposed riffles arranged between the transverse riffles and each having one end spaced from the contiguous transverse riffle, said latter riffles projecting above the upper edges of the transverse riffles, and both sets of riffles gradually decreasing in height from one end to the other of the table, means for forcing air upwardly through the pervious bottom of the table to cause the ore body thereon to pulsate, and means for simultaneously transversely reciprocating the table.

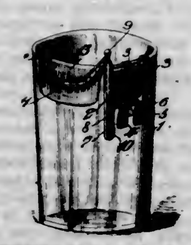
1,076,701. BEARING. MARCELLUS REID, Cleveland, Ohio. Filed Feb. 10, 1912. Serial No. 676,751. (Cl. 64—62.)



1. In a roller bearing, the combination of an inner bearing ring, a two-part cage comprising symmetrical sections each having half-pockets therein adapted to receive rollers therewithin, with inwardly projecting portions between said half-pockets adapted to abut and provide means for securing said sections together, an outer bearing ring adapted to surround the inner ring and the cage, one of said rings having beveled edges and the cage having beveled edges overhanging and coacting with the beveled edges of the ring, the cage sections being adapted for assembly from opposite sides of said bearing, substantially as specified.

2. In a roller bearing, the combination of an inner bearing ring, a two-part cage comprising symmetrical sections each having half-pockets therein adapted to receive rollers therewithin, the metal of the cage sections between said pockets being deflected inwardly to form reëntrant recesses, said recesses extending inwardly from the outer periphery of each section and having their bottoms abutting to provide means for securing said sections together, an outer bearing ring adapted to surround the inner bearing ring and the cage, the inner ring having beveled edges and the inner unbroken periphery of each cage section being beveled to overhang and coöperate with a beveled edge of said ring, the cage sections being adapted for assembly from opposite sides.

1,076,702. SANITARY ATTACHMENT FOR LIP-CONTACTS OF DRINKING VESSELS. CHARLES H. RICH, Woolrich, Pa. Filed Sept. 27, 1912. Serial No. 722,657. (Cl. 65—13.)



1. In a device of the character stated, a body portion, means for securing said body portion in position, a rod movably carried by said body portion, and a loop-shaped clip connected with said rod.

2. In a device of the character stated, a body portion, and a curved loop-shaped clip having its ends connected therewith, one side of said clip being adapted to engage the inner periphery of a vessel and the other side thereof adapted to engage the outer periphery of a vessel.

3. In a device of the character stated, a body portion, means for securing the same in position, a loop-shaped clip having its ends carried by said body portion, one side

of said clip being adapted to engage the inner periphery of a vessel and the other side thereof adapted to engage the outer periphery of a vessel, and means for causing relative movement of said clip and body portion.

4. In a device of the character stated, a loop-shaped curved clip of spring material, one side of said clip being adapted to engage the inner periphery of a vessel and the other side thereof adapted to engage the outer periphery of a vessel, and a body portion to which the sides of said loop are fixedly secured, said body portion forming a grasping handle.

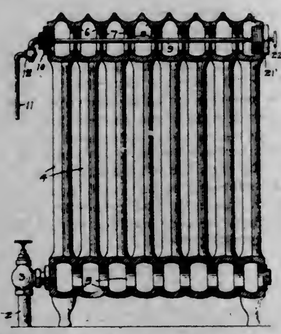
5. In a device of the character stated, a body portion having an aperture therein, a rod movable in said aperture, and a loop-shaped clip connected with said rod.

[Claims 6 to 8 not printed in the Gazette.]

1,076,703. PROCESS OF PREPARING AN OIL. EDWARD RICHTER, Plauen, Germany. Filed Oct. 16, 1912. Serial No. 726,155. (Cl. 167—9.)

The process of preparing an oily body by mixing salicylate of sodium, a hydrochlorate of quinin, ethyl-ester of the carbamic acid, adding a small quantity of water and thereupon adding a small quantity of a ten per cent. sulfuric acid, and finally again a small quantity of the sulfuric acid at a concentration of fifty per cent. and carefully heating the whole.

1,076,704. RADIATOR. AUGUST FREDRICK ROSEN, Madison, Wis. Filed May 14, 1912. Serial No. 697,163. (Cl. 237—18.)



1. A radiator comprising a plurality of sections, an expansion tube exposed to the steam within said sections and having an exhaust opening and an inlet opening communicating with said sections in series, and means for closing said inlet opening when said tube has expanded to a predetermined degree by contact with the steam in said sections.

2. A radiator composed of a series of sections and nipples connecting the sections at the bottom, nipples provided at the upper ends of said sections and having webs or walls separating one section from the adjoining one, an expansion tube passing through said webs and having one end communicating with an air relief and its other end communicating with said sections in series, a valve closing automatically the opening into said tube, said valve when open allowing air to flow into said tube, the opening into said tube being closed by said valve when said tube has expanded to a predetermined degree by the flow of steam into said sections.

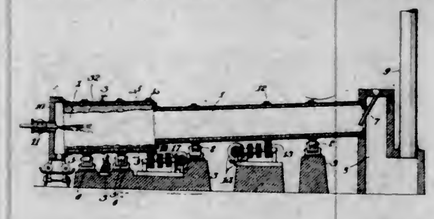
3. A radiator comprising a series of sections having ascending and descending passages therein and openings leading from one section to another to the bottom of the radiator, means separating the passages of one section from the corresponding passages of the adjoining section at the top of the radiator, an expansion tube bridging the passages of said sections and exposed to the steam flowing therethrough, said tube communicating with an air relief and with said sections, and means for closing said tube when a predetermined number of sections have been heated.

4. A radiator comprising a series of sections joined together, each section having a steam passage up one side and down on the other side of the section, means separating the passages of adjoining sections at the top of the radiator, an expansion tube communicating with an air relief and passing through said separating means and adapted to be expanded by contact with the steam and having an open end within one of said sections, the air from the sections entering said tube and flowing therethrough to said air relief, and means for automatically closing said tube when expanded to a predetermined degree, for the purpose specified.

5. A radiator comprising a series of sections joined together, each section having a steam passage up one side and down the other side of the section, one end of the passage communicating with the steam supply and the other with the adjacent section on the other side, means separating the passages of adjoining sections at the top of the radiator, an expansion tube communicating with an air relief and with said sections in series and passing through said separating means and adapted to be expanded by contact with the steam, the air from the sections entering said tube and flowing therethrough to said air relief, and means for automatically closing said tube when expanded to a predetermined degree.

[Claims 6 to 8 not printed in the Gazette.]

1,076,705. METHOD OF NODULATING MATERIALS. LEWIS P. ROSS, Standish, N. Y., assignor of one-half to Northern Iron Company, a Corporation of New York. Filed Aug. 1, 1912. Serial No. 712,700. (Cl. 75—14.)



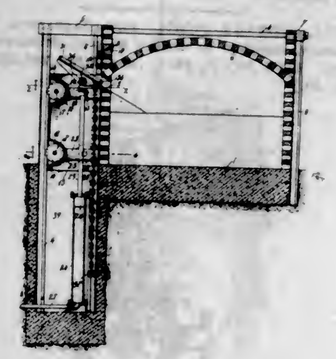
1. The method of nodulizing materials in turning kilns which consists in heating such materials and rolling the same in reverse directions so that parts thereof adhering to the kiln lining shall be deposited of such irregular thickness circumferentially as to fall by reason of its lack of side support.

2. The method of nodulizing materials in turning kilns which consists in heating said materials and rolling the same back and forth over a concave surface by oscillating said kiln so that material adhering to the kiln lining shall decrease in thickness circumferentially and fall by reason of its lack of side support.

3. The method of nodulizing materials which consists in heating the same to an adhesive condition and rolling them over a concave surface in one direction and then rolling them over said surface in the reverse direction so as to form an arch of varying thickness.

1,076,706. CHARGING APPARATUS. HARRY JOSEPH ROWE, New Kensington, Pa. Filed Aug. 24, 1912. Serial No. 716,833. (Cl. 110—101.)

1. The combination of a slidable gate closing an opening with a carrier, comprising an upper floor and a lower floor; vertical rails at the opposite side of said carrier; guide wheels mounted on the carrier engaging said rails, the lower floor having an aperture therethrough; a plunger secured to the upper floor and projecting through the said aperture in the lower floor; a cylinder receiving said plunger and adapted to enter said carrier through said aperture in the lower floor; means associated with said cylinder for reciprocating said plunger whereby said carrier when raised comes directly in contact with said gate and raises same, exposing the opening; a tiltable platform on the upper floor of said carrier; and flexible means for operating said platform toward said opening when said opening is exposed by said carrier.



2. The combination of a vertical, slidable gate closing an opening with a carrier comprising an upper and a lower floor; vertical rails at the opposite sides of said carrier; guide wheels mounted on the carrier engaging said rails, the lower floor having an aperture therethrough; a rod secured to the upper floor and projecting through said aperture in the lower floor; a piston mounted on the lower end of said rod; a cylinder receiving said piston and rod and adapted to enter said carrier through said opening in the lower floor; means for supplying and withdrawing a motive agent to said cylinder to raise and lower the said carrier, said carrier when raised coming directly in contact with said gate and raising same, exposing the opening; a tiltable platform on the upper floor of said carrier; and flexible means for operating said platform toward said opening when said opening is exposed to said carrier.

1,076,707. COMBINATION-COAT. MAURICE H. SCHILLER, Chicago, Ill., assignor to Sturm, Mayer & Company, Chicago, Ill., a Firm. Filed July 6, 1909. Serial No. 506,011. (Cl. 2—62.)



1. A coat comprising a collar and lapels with V-shaped notches separating the collar from the lapels, said collar being provided with means forming of itself a temporary predetermined fold line extending from the apex of one notch to the apex of the other notch.

2. A coat having a collar portion formed by permanently creasing the material about the neck portion of the coat, said collar portion being provided with an interlining having a slit therein adapting the collar to be temporarily creased along a line removed from the permanent crease.

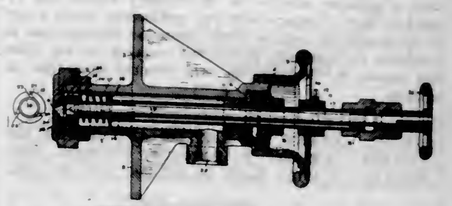
3. A coat having one layer of the material of which it is constructed permanently creased to provide a collar and lapel portion, said collar and lapel portion being provided with V-shaped notches to separate the collar from the lapel, and another layer of material provided with a slit extending between the apexes of said V-shaped notches, the edges of said slit being flexibly joined together.

4. In a combination coat, a collar and lapel portion provided with notches separating the collar from the lapels, said collar and lapel portion having an intermediate layer provided with a slit for permitting the collar to be folded along a temporary crease from one notch to the other.

5. In a coat, a portion turned back along a permanent crease, said portion being provided with a slit for permitting the collar to be folded along a temporary crease and having lapels whose upper edges form a continuation of the line of said temporary crease when the collar is creased along said slit.

[Claims 6 to 22 not printed in the Gazette.]

1,076,708. ADJUSTABLE IMPACT-ATOMIZER. ROBERT SCHORR, San Francisco, Cal. Filed May 17, 1911. Serial No. 627,866. (Cl. 137—86.)



1. In a nozzle having a housing and a discharge orifice, a central stem having a tapering valve within the housing, co-axial means within the housing having channels for the liquid and discharging inwardly within the housing adjacent to said tapering valve, a tubular valve around said stem, movable longitudinally to regulate the size of the discharge ends of said channels, means operable from the exterior of the housing for so moving said tubular valve, and means independently operable from the exterior of the nozzle to move said tapering valve relatively to said discharge ends.

2. In a nozzle having a housing and a discharge orifice, a central stem having a tapering valve within the housing, co-axial means within the housing having channels for the liquid and discharging inwardly within the housing adjacent to said tapering valve and at right angles thereto, a tubular valve around said stem, movable longitudinally to regulate the size of the discharge ends of said channels, means operable from the exterior of the housing for so moving said tubular valve, and means independently operable from the exterior of the nozzle to move said tapering valve relatively to said discharge ends.

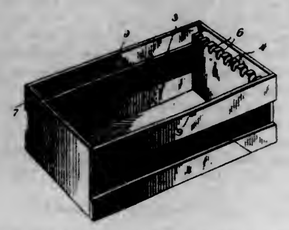
3. A fluid fuel burner comprising a casing having a fuel inlet passage, a tubular member secured to and entered in the casing, a cap for the casing having a fuel discharge orifice, said cap and tubular member forming a vortex chamber therebetween said member having a tangential inlet port to said chamber, means for simultaneously governing the size of said chamber and port, and means for controlling said discharge orifice.

4. A fluid fuel burner having a fuel supply passage, a fuel outlet opening, a vortex chamber communicating with said opening, a tangential port through which fuel is introduced to the vortex chamber, a chamber contracting member, and an independent valve controlling the fuel outlet opening.

5. A fluid fuel burner having a fuel supply passage, a fuel outlet opening, a vortex chamber communicating with said opening, a tangential port through which fuel is introduced to the vortex chamber, a chamber contracting and port controlling member, and an independent valve controlling the fuel outlet opening.

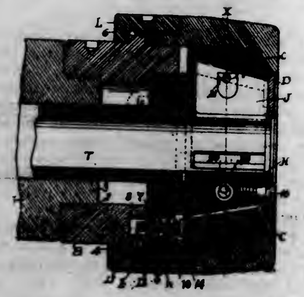
[Claim 6 not printed in the Gazette.]

1,076,709. MEANS FOR CONVEYING PRODUCTS, ESPECIALLY DRY FISH. JOSEPH SCHREPLER, Washington, D. C. Filed Mar. 27, 1912. Serial No. 686,701. (Cl. 217—36.)



In a device for the purpose set forth, a receptacle having its sides centrally provided with reticulated members, reinforcing cleats at its ends, said cleats having their upper edges notched, fish suspending rods arranged within the notches of the oppositely disposed reinforcing members, a member adapted to be received within the receptacle and to engage with the reinforcing cleats thereof to retain the rods in their respective notches and to compress the portions of the fish engaged by the rods, and means for locking the said member upon the receptacle.

1,076,710. COLLET FOR LATHES AND OTHER MACHINES. CHARLES F. SCHULTIS, Cleveland, Ohio. Filed Mar. 5, 1910. Serial No. 547,486. (Cl. 29—124.)



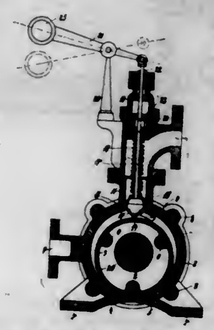
1. A collet having a jaw head with an externally tapered body and jaws therein correspondingly tapered on their outer edges, in combination with a hood about said parts, a cam segment for each jaw tapered transversely from its outer to its inner edges and between its ends and permanently fixed in said hood, and springs interposed between the inner edges of said segments and the base of said jawholder and adapted to press said holder inward.

2. A collet having a jaw supporting head provided with radially disposed slots for jaws and bores through the stock between said slots at an acute angel to the sides thereof, jaws in said slots having recesses in their sides and springs in said bores engaged in said recesses said springs bearing against one side of one jaw at one end and against the adjacent side of the adjacent jaw at the other end.

3. An adjustable collet comprising a plurality of jaws tapered outward on their outer edges, a jawholder in which said jaws are mounted correspondingly tapered on its outside, and spiral springs interposed between adjacent jaws and bearing against the sides thereof, in combination with a hood and a transversely and longitudinally tapered segment behind each jaw and fixed in said hood behind said jaws.

4. The combination of the body and hood of a collet separably united, a jaw supporting head therein and radially disposed jaws in said head, springs disposed about the axis of said head bearing at their ends against the sides of adjacent jaws, a series of separate cam segments fixed in said hood about said jaws, a spring pressed ring interposed between said segments and the base of said head and a disk ring fixed upon the face of said head outside said jaws and adapted to come within the front face of said hood.

1,076,711. ROTARY PUMP. PAUL SLESAZECK, Berlin, Germany, assignor to Gustav Pickert, Stralsund, Germany. Filed July 2, 1912. Serial No. 707,263. (Cl. 103—44.)



1. The described pump, comprising in combination, a cylindrical casing, an eccentrically arranged piston rotating about the axis of said casing and having a groove therein forward of the most eccentric part, a hollow slide bearing against said piston, substantially as, and for the purpose, set forth.

2. The described pump, comprising in combination, a cylindrical casing, an eccentrically arranged piston rotating about the axis of said casing, a hollow slide bearing against said piston, a channel in the side wall of said slide, and a channel in the casing guiding said slide opening into the casing and arranged to communicate with the channel in said slide when said slide is raised, substantially as, and for the purpose, set forth.

3. The described pump, comprising in combination, a cylindrical casing having inlet openings opposite to each other on both sides and having inlet openings in its circumference, an eccentrically arranged piston rotating about the axis of said casing, and a hollow slide bearing against said piston, substantially as, and for the purpose, set forth.

1,076,712. GEARING. HOWARD F. SNYDER, Newton, Iowa, assignor to The Maytag Company, a Corporation of Iowa. Filed Sept. 6, 1912. Serial No. 718,863. (Cl. 74—50.)

1. In a gearing mechanism, the combination of a support having a hinged member, a vertical shaft carried by said hinged member, a pinion on said vertical shaft, a guide bar on said hinged member, a rack mounted to reciprocate in mesh with said pinion and having sliding engagement with said guide bar, a bell crank mounted at the side of said support and connected to drive said rack bar, said connection being maintained when the hinged member is swung upward away from said support, a pitman connected to said bell crank and a crank shaft operatively connected to drive said pitman.

2. In a gearing mechanism, the combination of a support, a bracket carried by said support, a large gear mounted at the lower end of said bracket, a fly wheel mounted on said bracket above said gear, a pinion carried by said fly-wheel and meshing with said gear, a pitman operatively connected with said large gear, a bell crank pivoted to said bracket and pivoted to said pitman, a rack bar actuated from said bell crank, and a vertical shaft having operative connection with said rack bar.

3. In a gearing mechanism, the combination of a vertical shaft, a pinion thereon, a rack bar meshing with said pinion, a bell crank member operatively connected to reciprocate said rack bar, a pitman actuated from said bell crank, a large internal gear driven by said pitman, a small gear meshing with said large internal gear, and a fly wheel operated by said small gear.

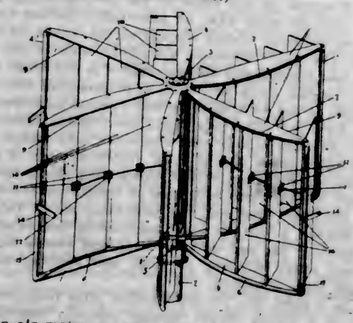


4. In a gearing mechanism, the combination of a support, a bracket at the side of said support, a shaft carried by the lower end of said support, a combined internal gear and crank disk carried on said shaft, a second shaft carried by said bracket, a fly wheel and pinion mounted on said shaft, said pinion meshing with said internal gear, a bell crank pivoted to said bracket and having a handle socket, a pitman connected between the outer end of said bell crank and said crank disk, a reciprocating rack actuated from said bell crank, and a load shaft operatively connected with said rack.

5. In a gearing mechanism, the combination of a support having a hinged member, a vertical shaft carried by said hinged member, a pinion on said vertical shaft, a guide bar on said hinged member, a rack mounted to reciprocate in mesh with said pinion and having sliding engagement with said guide bar, a bell crank mounted at the side of said support to swing in a vertical plane toward and from said vertical shaft and having pivotal connection with said rack bar, said hinged member being movable upward about its hinges to automatically disengage said rack bar from the pinion of said vertical shaft through the guiding action of said guide bar on said rack bar.

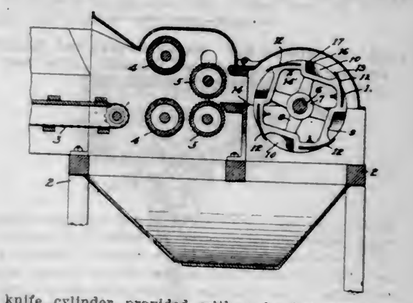
[Claims 6 to 10 not printed in the Gazette.]

1,076,713. AIR OR WATER MOTOR. WILLIAM H. SOUTHWICK, Leeds, England. Filed Feb. 7, 1912. Serial No. 676,125. (Cl. 170—36.)



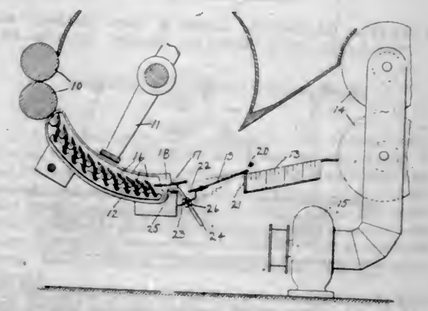
In an air motor, a vertical shaft, a plurality of rectangular shaped frames having the top and bottom bars thereof curved horizontally in arc-shape, said frames extending radially from said shaft, horizontal plate members secured to the curved top and bottom bars in said frames and extending across the chord of the arc thereof, and a plurality of pivotal vanes pivotally supported between the upper and lower curved bars and adapted to over-lap each other, and with the top and bottom plates forming air pockets.

1,076,714. KNIFE-CYLINDER. WILLIAM STANAT, Clear Lake, Wis. Filed Jan. 13, 1913. Serial No. 741,873. (Cl. 146—29.)



A knife cylinder provided with a head at each end thereof, each head having a series of peripheral recesses at intervals therein, the walls of said heads between said recesses having peripheral sockets extending tangentially therein and each provided with a rear wall forming the wall of the adjacent recess and inner and outer walls, knife blades extending from end to end of said cylinder and fitting edgewise within said sockets and braced and supported on both sides by the walls of said sockets, clamping screws mounted in one wal of said sockets and contacting with said blades to clamp them against the opposite wall of said sockets, adjusting screws mounted in the rear walls of said sockets and accessible through said recesses and engaging the rear edges of said blades for forward adjustment thereof, said sockets having end walls to engage the ends of said blades and form guides therefor, said clamping screws being adapted to clamp said blades at any point within the range of their edgewise adjustment.

1,076,715. COTTON-PICKING MACHINE. AMASA ST. ONGE, Providence, R. I. Filed Feb. 26, 1913. Serial No. 750,742. (Cl. 19—9.)



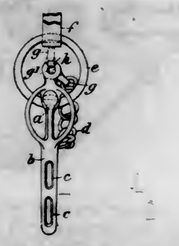
1. In a cotton picking machine, a grid, a second grid spaced therefrom, rods secured to the frame of the first grid, a fixed plate secured to the first grid, a damper plate having one end resting upon the second grid and its opposite end slidably secured to said rods, whereby the air space between said grids may be regulated.

2. In a cotton picking machine, a grid, a second grid spaced therefrom, rods secured to the frame of the first grid, a fixed plate secured to the first grid, sleeves adjust-

ably mounted on said rods, a damper plate having one end resting upon the second grid and its opposite end secured to said sleeve whereby the air space between said grids may be regulated.

3. In a cotton picking machine, a grid, a second grid spaced therefrom, depending rods secured to the frame of the first grid, a fixed plate secured to the first grid, sleeves slidably mounted on said rods, a damper plate having one end resting upon the second grid arms extending from the opposite end of said damper plate and engaging said sleeves, whereby said damper plate may be adjusted toward and from said fixed plate.

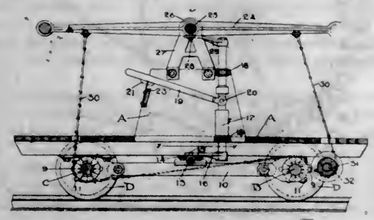
1,076,716. HORSE-BIT. FRANK SWALES and ELIZABETH SWALES, Islington, London, England. Filed May 14, 1910. Serial No. 561,380. (Cl. 54—7.)



1. A bit comprising a mouth bar, cheek bars rigidly secured to the ends of said mouth bar having their lower ends adapted to receive the curb reins, hooks pivotally connected to the upper ends of said cheek bars, cheek rings to receive the billets of a bridle pivoted in said mouth bar but adapted to turn with it, and a curb chain connecting the said hooks whereby a pull upon the reins will turn the mouth bar and rings and cause the latter to slide in the said billets.

2. A bit provided with a mouth bar and curb chain supporting parts, having reduced portions at their upper ends, chain receiving hooks pivotally connected to said parts on the inner faces thereof below said reduced portions and having their points extending outwardly into the planes of the outer faces of said parts and a curb chain engaging said hooks, the said hooks being normally held by the curb chain out of proximity to said reduced portions and being normally closed by the said supporting parts to prevent accidental disengagement of the curb chain.

1,076,717. HAND-CAR. JAMES M. TAFT, Halfway, Mo. Filed July 21, 1913. Serial No. 780,208. (Cl. 105—16.)



1. In a hand car, the combination with front and rear axles, of a sliding clutch member centrally sleeved upon each axle and having at its ends ratchet faces with oppositely inclined teeth, coacting fixed clutch members fast upon the axle on each side of the sliding clutch members and spaced apart therefrom, said fixed clutch members having teeth opposed to the teeth of the adjacent faces of the sliding clutch members, and the teeth of all of the clutch faces upon one axle being inclined in the same direction as the teeth of the corresponding clutch faces upon the other axle, a spring shifting bar engaging both of the sliding clutch members whereby to throw and hold them in spring pressed engagement with the fixed clutch members on one or the other side thereof, and means for reciprocatingly driving said sliding clutch members in opposite directions, whereby the driving power is applied to one axle as it leaves the other axle.

2. In a hand car, the combination with front and rear axles, of a pair of spaced fixed clutch members and an intermediate sliding clutch member upon each axle, the opposing clutch faces upon each axle having ratchet teeth inclined in opposite directions, but in the same direction as the teeth of the corresponding clutch faces upon the other axle, alining sprockets upon the sliding clutch members, an idler pulley having rotative and longitudinally sliding support on the outside of one of said sliding clutch members, a walking beam, a sprocket chain having its ends connected with opposite ends of the walking beam and running intermediately under the idler pulley and over the sprocket upon the adjacent sliding clutch member, and thence under the sprocket upon the other clutch member, and means for shifting the sliding clutch members and walking beam in unison whereby to throw the sliding clutch members into engagement with the fixed clutch members at one side thereof and at the same time keep the sprocket chain in alinement with said sprockets.

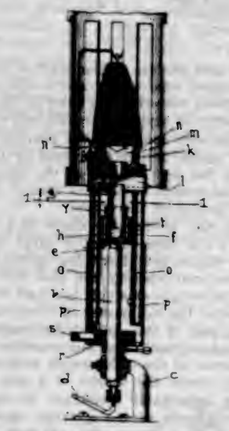
3. In a hand car, the combination with front and rear axles, of a pair of spaced fixed clutch members and an intermediate sliding clutch member upon each axle, the opposing clutch faces upon each axle having ratchet teeth inclined in opposite directions, but in the same direction as the teeth of the corresponding clutch faces upon the other axle, alining sprockets upon the sliding clutch members, an idler pulley having rotative and longitudinally sliding support at the outside of one of said sliding clutch members, a walking beam having oscillatory and transversely sliding support in the frame of the car, a sprocket chain having its ends connected with the opposite ends of the walking beam and running intermediately first under the idler pulley and over the sprocket upon the adjacent sliding clutch member, and thence under the sprocket upon the other clutch member, a transversely movable, resilient shifting bar engaging both of said sliding clutch members, and means operatively connecting said shifting bar and walking beam, whereby the same may be shifted in unison so as to throw the sliding clutch members into spring pressed engagement with the fixed clutch members at one side and to keep the sprocket chain in alinement with said sprockets.

4. In a hand car, the combination with front and rear axles, of a sliding clutch member centrally sleeved upon each axle and provided with circumferential sprocket teeth, said clutch member having at its ends ratchet faces with oppositely inclined teeth, coacting fixed clutch members fast upon the axle on each side of the sliding clutch members and spaced apart therefrom, said fixed clutch members having teeth opposed to the teeth of the adjacent faces of the sliding clutch members and the teeth of all of the clutch faces upon one axle being inclined in the same direction as the teeth of the corresponding clutch faces upon the other axle, an idler pulley having rotative and longitudinally sliding support on the outside of one of said sliding clutch members, a walking beam having oscillatory and transversely sliding support in the frame of the car, a sprocket chain having its ends connected with opposite ends of the walking beam and running intermediately first under the idler pulley and over the sprocket teeth on the adjacent sliding clutch member, and thence under the sprocket teeth on the other clutch member, a spring shifting bar engaging both of said sliding clutch members whereby to throw and hold them in spring pressed engagement with the fixed clutch members on one or the other side thereof, a vertical shaft operatively connected with said shifting bar and walking beam, and means for turning said shaft, whereby to shift said shifting bar and walking beam in unison.

5. In a hand car, the combination with front and rear axles, of a sliding clutch member centrally sleeved upon each axle and having at its ends ratchet faces with oppo-

sitely inclined teeth, coacting fixed clutch members fast upon the axle on each side of the sliding clutch members and spaced apart therefrom, said fixed clutch members having teeth opposed to the teeth of the adjacent faces of the sliding clutch members, and the teeth of all of the clutch faces upon one axle being inclined in the same direction as the teeth of the corresponding clutch faces upon the other axle, a centrally supported spring shifting bar engaging both of the sliding clutch members whereby to throw and hold them in spring pressed engagement with the fixed clutch members on one or the other side thereof, a driving connection engaging the upper side of one of said sliding clutch members and the underside of the other sliding clutch member, whereby to drive said sliding clutch members in unison in opposite directions, and means for reciprocating said driving connection.

1,076,718. VAPOR-BURNER. HAROLD SYDNEY THORNTON, Longueuil, Quebec, Canada. Filed Mar. 25, 1912. Serial No. 686,063. (Cl. 67—43.)



1. In a lighthouse burner the combination with a tubular vaporizer and a superposed mixing chamber alined therewith the mixing chamber having openings in diametrically opposite sides of the lower end thereof, a mantle supported above the mixing chamber, means whereby heat is applied to the vaporizer, and means whereby liquid hydrocarbon is supplied to the vaporizer, of an open ended horizontal air duct inclosing the contiguous ends of the vaporizer and mixing chamber and enveloping the openings in the mixing chamber and a tubular shutter having openings therein at diametrically opposite sides, such shutter rotatably inclosing the portion of the mixing chamber within the air duct and means for operating the shutter.

2. In a lighthouse burner the combination with a tubular vaporizer and a superposed mixing alined chamber therewith the mixing chamber having openings in diametrically opposite sides of the lower end thereof, a mantle supported above the mixing chamber, means whereby heat is applied to the vaporizer, and means whereby liquid hydrocarbon is supplied to the vaporizer, of an open ended horizontal air duct inclosing contiguous ends of the vaporizer and mixing chamber and enveloping the openings in the mixing chamber and a tubular shutter having openings therein at diametrically opposite sides, such shutter rotatably inclosing the portion of the mixing chamber within the air duct, means for operating the shutter and an adjustable stop limiting the movement of the shutter in one direction.

3. In a lighthouse burner the combination with a tubular vaporizer and a superposed mixing chamber alined therewith the mixing chamber having openings in diametrically opposite sides of the lower end thereof, a mantle supported above the mixing chamber, means whereby heat is applied to the vaporizer, and means whereby liquid hydrocarbon is supplied to the vaporizer, of an open ended horizontal air duct inclosing contiguous ends of the vaporizer and mixing chamber and enveloping the openings in the mixing chamber and a tubular shutter extending downwardly into and suspended upon the top of the duct, a bracket fastened to the duct, a stem projecting from the portion of the shutter above the duct and an adjusting screw carried by the bracket in the path of the stem.

1,076,719. EMERGENCY AUTOMOBILE-TIRE. LUTHER M. TICHENOR, Owensville, Ind. Filed Mar. 13, 1913. Serial No. 754,086. (Cl. 152—28.)



A split emergency tire provided with a filler and including a circular rod extending centrally therethrough, plates having threaded portions vulcanized to the interior of the opposing ends of the tire and provided with threaded connections to the opposing ends of said rod, one of said plates having a recess provided with oppositely arranged shoulders, the other plate being provided with oppositely arranged dove-tailed recesses opening upon the sides of the tire, spring retained members mounted in said dove-tailed recesses and provided with integral spring catch lugs to engage the shoulders of the opposite plates, said casing of the tire having openings registered with the dove-tailed recesses to receive an instrument whereby said members may be actuated against the tension of their springs to disconnect the spring catch lugs, the tire adjacent the ends of the dove-tailed recesses holding the spring retained members in the dove-tailed recesses.

1,076,720. HAT-PIN PROTECTOR. ANNA E. TODD, Orange, N. J. Filed Jan. 2, 1913. Serial No. 739,695. (Cl. 24—155.)

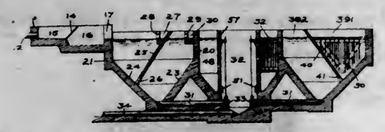


1. A hat pin protector providing a body portion, comprising material adapted to be pierced by and to grip, a hat pin, and a plurality of disks embedded in said body and spaced from each other and from the ends of said body, said disks and body adapted to receive a hat pin point therethrough for protecting the same, the outer end of said body beyond said disks being solid, the point of said pin lying wholly within the solid portion and embraced thereby.

2. A hat pin protector providing an elongated body portion, comprising material adapted to be pierced by and to grip, a hat pin, a series of resilient disks spaced from each other and from the ends of said body portion and secured in said body portion, said disks having alining openings therein for the reception of a hat pin, and said body portion provided with a bore therein at both ends of said series, for the reception of a hat pin, whereby lateral pressure will not dislodge said protector from a pin, and means

for attaching the protector to a hat, the outer end of said body beyond said disks being solid, the point of said pin lying wholly within the solid portion and embraced thereby.

1,076,721. METHOD OF PURIFYING SEWAGE OR THE LIKE. WILLIAM OWEN TRAVIS, Hampton, and EDWIN AULT, Bromley, England, assignors to Sterilization Company, a Corporation of New Jersey. Filed Sept. 13, 1910. Serial No. 581,805. (Cl. 210—18.)



1. The hereindescribed process of purifying sewage or other liquid, consisting in supplying the liquid to a reservoir, allowing a portion of the liquid to escape directly from the upper part of the reservoir, conducting another portion of the liquid from the upper part of the reservoir downward nearly to the bottom of the reservoir and then upward through the reservoir and out at its upper part, conducting the liquid escaping from the first said reservoir to a second reservoir, and repeating in said second reservoir divisional flow of the liquid in the same manner as through the first reservoir but in different proportions.

2. The hereindescribed process of purifying sewage or other liquid, consisting in supplying the liquid to a sectional tank, allowing a portion of the liquid to escape directly from the upper part of a compartment of one section of said reservoir into a compartment of a succeeding section, causing another portion of the liquid in said compartment of the first section to flow from the bottom thereof into another compartment of said first section, conducting the liquid from said second compartment of the first section to the said compartment of the second section, and repeating the divisional flow of the liquid in the said second section in a different proportion from that in the first section.

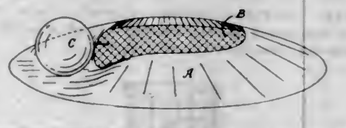
3. The hereindescribed process of purifying sewage or other liquid, consisting in supplying the liquid to a sectional tank, allowing a portion of the liquid to escape directly from the upper part of a compartment of one section of said reservoir, causing another portion of the liquid in said compartment of the first section to flow from the bottom thereof into another compartment of said first section, conducting the liquid from the upper part of both said compartments of the first section separately to similar compartments of a second section, and repeating the divisional flow of the liquid in one of the compartments of the second section.

4. The hereindescribed process of purifying sewage or other liquid, consisting in supplying the liquid to a sectional tank, allowing a portion of the liquid to escape directly from the upper part of a compartment to one section of said reservoir, causing another portion of the liquid in said compartment of the first section to flow from the bottom thereof into another compartment of said first section, conducting the liquid from the upper part of both said compartments of the first section separately to similar compartments of a second section, and repeating the divisional flow of the liquid in one of the compartments of the second section in different proportion from that in the first section.

5. The hereindescribed process of purifying sewage or other liquid, consisting in supplying the liquid to a reservoir, allowing a portion of the liquid to escape directly from the upper part of the reservoir, conducting another portion of the liquid from the upper part of the reservoir downward nearly to the bottom of the reservoir and then upward through the reservoir and out at its upper part, conducting the liquid escaping from the first said reservoir to a second reservoir consisting of a plurality of parts, allowing a portion of the liquid to escape from the top of a compartment of one part of said second reservoir into a corresponding compartment of the next succeeding part, causing another portion of the liquid in said compartment of the first part to flow from the bottom thereof into another compartment of the same part of the second reservoir, conducting the liquid from the top of said second compartment of the first part into a corresponding compartment of the second part, and repeating the divisional flow of the liquid in said second part in different proportions from that in the first part.

[Claims 6 to 19 not printed in the Gazette.]

1,076,722. DEVICE FOR PRACTISING GOLF-PUTTING. CLAUDE M. TREADWELL, London, England, assignor of one-half to Charles Bauer, London, England. Filed Oct. 6, 1911. Serial No. 653,294. (Cl. 46—4.)

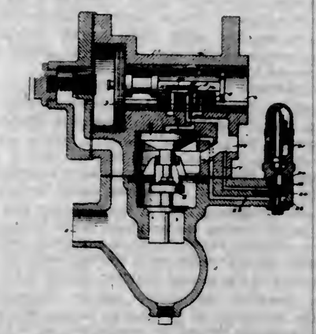


1. A putting disk for use in the practice of golf having a hollow truncated cone shape and made of thin very pliable but resilient material, the sides of the disk having insufficient rigidity to support the golf ball whereby when a golf ball rolls onto said disk the portion thereof over which the ball passes will be depressed by the weight of the ball and lie flat on the ground, the resiliency of the walls causing the disk to resume its normal shape as soon as the ball has passed off therefrom.

2. A putting disk having the shape of a hollow truncated cone with the base thereof of large diameter compared with the height, said disk being made of very pliable but resilient material whereby the disk will yield to the ground under the weight of a golf ball and will resume its normal shape after the ball passes off therefrom.

3. A putting disk of thin, pliable but resilient material having a central golf-ball-receiving aperture and inclined sides, the material of the disk having sufficient pliability to yield readily under the weight of a golf ball without presenting any appreciable resistance to the passage of the ball, the resiliency of the material causing the disk to assume its normal shape after the ball passes thereover.

1,076,723. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 19, 1909. Serial No. 503,125. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with a blow down valve, of a valve piston for controlling the outlet from the brake cylinder through said blow down valve, and normally maintaining said outlet open and

means subject to variations in train pipe pressure for supplying fluid under pressure to one side of said valve piston to cut off the communication through said blow down valve.

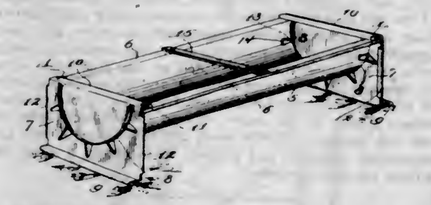
2. In a fluid pressure brake, the combination with a triple valve device subject to variations in train pipe pressure, of a blow down valve and a piston normally subject on one side to brake cylinder pressure and valve means operated thereby for controlling the outlet from the brake cylinder through said blow down valve, a spring normally maintaining said piston and valve means open and means operated by said triple valve device for admitting fluid under pressure to the opposite side of said piston to operate same and thereby said valve means to close the communication from the brake cylinder through said blow down valve.

3. In a fluid pressure brake, the combination with a triple valve device for controlling the supply of air to the brake cylinder, of a blow down valve and means operated by the flow of air from the auxiliary reservoir to the brake cylinder for closing communication from the brake cylinder through said blow down valve.

4. In a fluid pressure brake, the combination with a triple valve device for controlling the supply of air to the brake cylinder, of a blow down valve and means for controlling the outlet from the brake cylinder through said blow down valve and operated by the flow of air from the auxiliary reservoir to the brake cylinder in an emergency application for closing said outlet.

5. In a fluid pressure brake, the combination with a triple valve device having an emergency valve mechanism operated by fluid from the auxiliary reservoir for opening a train pipe vent port in an emergency application of the brakes, of a blow down valve normally open to the brake cylinder and a valve piston operated by the flow of auxiliary reservoir fluid from the emergency piston to the brake cylinder for closing communication from the brake cylinder through said blow down valve.

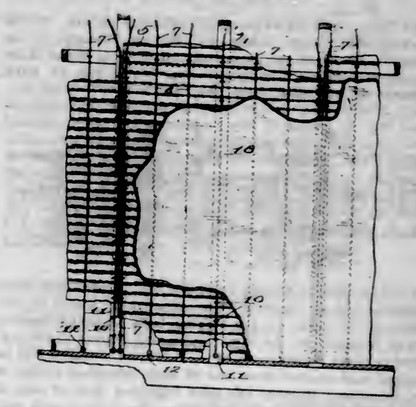
1,076,724. TROUGH. WILLIAM J. VERTREES, Bushnell, Ill. Filed Dec. 12, 1911. Serial No. 665,303. (Cl. 119—61.)



A trough comprising a body portion having slits adjacent to its ends, end walls having grooves in their inner faces in which grooves the ends of the body portion seat, and tongues punched out of the end walls outside of the grooves, said tongues projecting from the inner side of the end walls and extending along the outer surface of the body portion at the ends thereof, the free ends of the tongues passing through the slits of said body portion and being clenched on the inside thereof.

1,076,725. KEY-BASE FOR SIDE WALLS AND CEILINGS. RAYMOND D. WEAKLEY, St. Louis, Mo., assignor, by direct and mesne assignments, to Plastic Products Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 11, 1911. Serial No. 654,061. (Cl. 72—116.)

1. A covering or key base for walls and ceilings, consisting of an imperforate flat sheet having a corrugated sheet firmly secured thereon and having its corrugations exteriorly exposed, the united sheets being flexible, and wires extending across and secured against the outer portions of the exteriorly exposed corrugations of the corrugated sheet at intervals to form key ways with the said corrugations by bridging the valleys between the latter, the securement of the flat sheet and corrugated sheet relatively to each other being independent of the wires extending over the corrugated sheet.



2. A covering or key base for walls and ceilings, consisting of two flexible pieces of waterproof material secured to each other and having air spaces formed between them, the one piece being corrugated and having its corrugations exteriorly exposed, and wires extending across and fixed against said exterior corrugations of the corrugated piece and forming key means with relation to the corrugations of the latter piece, the flexible pieces of material being continuous and having the wires extending thereover solely in a longitudinal direction.

3. A covering or key base for walls and ceilings, consisting of a flexible sheet of corrugated material composed of an imperforate flat backing sheet for securement against a support and a front corrugated sheet fixed to the backing sheet, the corrugated sheet having the corrugations thereof exteriorly exposed and individual strands or key wires extending at an angle over and secured against the outer portions of the corrugations of the said corrugated sheet and bridging the valleys between the said corrugations, the key wires being secured at intervals to the flexible sheet throughout the length of the latter and primarily fixed to the sheet before the said sheet is applied to a wall or ceiling to serve solely as key means and not as fastening means for the sheet relatively to the support against which the sheet is applied.

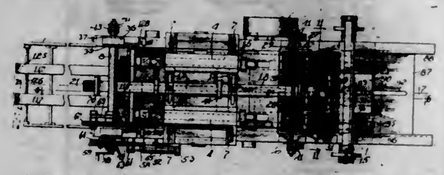
4. A covering or key base for walls and ceilings, consisting of a flat imperforate backing sheet and a front corrugated sheet secured thereto and of a waterproof character, the sheets having elongated air spaces formed between them, the corrugations of the corrugated sheet being exteriorly exposed, and key strands extending over and secured against the outer portions of the said corrugations at an angle to the latter and to the air spaces and having means engaging the same throughout their length to maintain them at fixed distances apart, the key strands being independent of the securing means of the sheets relatively to each other and of the means for securing the sheet against the support, the said strands being flexible and secured to the double sheet prior to the application of the latter to a wall or ceiling.

5. A covering or key base for walls and ceilings, consisting of a strip of flexible material having two members primarily secured to each other, one member being corrugated and having its corrugations exteriorly exposed, and key wires fixed against the outer portions of said corrugations and carried by the strip, the member having corrugations being the face member and the other member the backing for application to a support, the said key members running longitudinally of the strip at an angle to the corrugations and maintained at fixed distances apart, the

key wires being independent of the securing means for the strip relatively to the support and also of the means for securing the one member to the other.

[Claims 6 to 9 not printed in the Gazette.]

1,076,726. AUTOMATIC CONTINUOUS BOOK-TRIMMING MACHINE. THOMAS C. WELCH, Chicago, Ill., assignor, by direct and mesne assignments, to Welch Automatic Trimmer Co., a Corporation. Filed Feb. 14, 1910. Serial No. 543,843. (Cl. 164—48.)



1. In a book trimming machine, the combination with trimming means disposed at a plurality of points on the frame of the machine, the cutting beds of said trimming means disposed in the same horizontal plane, of two opposed carriers between which the book pad is adapted to be engaged and carried from one of said trimming means to the remainder thereof, the book engaging face of one of said carriers traveling in the plane of the cutting beds, and means actuating said carriers between the intervals of operation of the trimming means.

2. In a book trimming machine, a knife for trimming the front edge of a book moving in guides rigid with the frame of the machine, a cutting bed for said knife rigid with the frame of the machine, knives for trimming the ends of the book, frames in which said knives move movably mounted on the frame of the machine and adapted to be adjusted thereon, cutting beds for said knives rigid with said frames, all of said cutting beds lying in the same horizontal plane, and book carrying means movable relatively to said respective trimming knives and traveling in the plane of the cutting beds.

3. In a book trimming machine, trimming knives, frames in which said knives are movable, at least one of said frames being adjustable on the frame of the machine, a cutting bed disposed in the trimming plane of each knife, all of said cutting beds lying in a common horizontal plane and each of said knives adapted to trim a different portion of a book pad, and book presenting means movable relatively to said cutting beds and in the plane thereof.

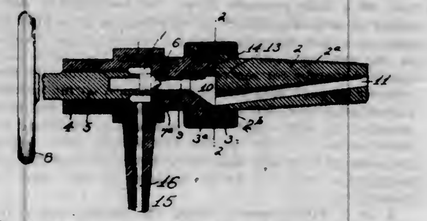
4. In a book trimming machine, a trimming knife for trimming the front edge of a book, a frame rigid with the frame of the machine in which said knife is movable, knives for trimming the ends of a book, frames in which said knives are movable, at least one of said frames being adjustable on the frame of the machine, a cutting bed for each of said knives maintained always in the trimming plane thereof, all of said cutting beds lying in the same horizontal plane, and book presenting means movable relatively to said respective cutting beds in the said horizontal plane thereof.

5. In a book trimming machine, a trimming knife mounted in a frame adjustably mounted on the frame of the machine, rotating cranks, pitmen operably connecting said cranks with said trimming knife, and universal joint connections between said pitmen and said parts connected thereby.

[Claims 6 to 29 not printed in the Gazette.]

1,076,727. GAGE-COCK. LAWRENCE P. WELFLEY, Hinton, W. Va. Filed June 14, 1913. Serial No. 773,741. (Cl. 136—3.)

1. A gage-cock comprising two parts, one part adapted to enter the boiler, the other part having a swivel connection with the first part and provided with an outlet port and a shut-off valve controlling same, one part being adapted to be rotated in relation to the other part for shutting off the steam independently of the shut-off valve, and means carried on the one part adapted to contact with the other part to limit the rotary movement of the other part after said closure has been effected, substantially as described.



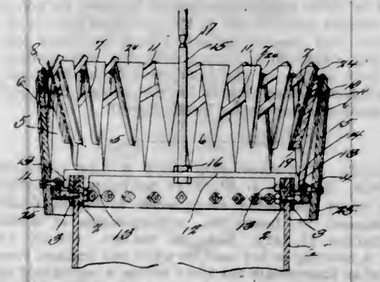
2. A gage-cock comprising in combination a pipe stem permanently secured in a boiler, a main body portion having an outlet stem, a shut-off valve therefor, said main body portion and pipe stem having a swiveled connection with each other, a central port within said main body leading from said valve and terminating in a bell-mouthed chamber, an inclined port within said pipe stem adapted to normally register eccentrically with said bell-mouthed chamber, a small built up lug formed integral with the wall of said bell-mouthed chamber, adapted to close communication between said inclined port of the stem and said bell-mouthed passage upon rotation of the body portion, and means carried by said stem portion to limit the rotary movement of said body portion after said closure has been effected, substantially as described.

1,076,728. CURTAIN-ROLLER. EDWARD E. WHITMORE, Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J., a Corporation of New Jersey. Filed Mar. 15, 1909. Serial No. 483,419. (Cl. 156—36.)



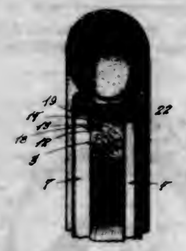
A shade roller comprising tubular sheet metal end members, and a tubular sheet metal connector member, each of the end members having an internal hollow longitudinal bead open longitudinally throughout its outer side and constituting a shade retaining seat, the connector being split longitudinally and provided at one free edge with an internal lip embracing the bead, and the other free edge of the connector overlapping the free edge of the lip and snugly fitting in the angle between the adjacent side of the end member and the bead, said connector having an expanding tendency and thereby maintaining a snug fit within the end members.

1,076,729. SILO. GEORGE P. WINSALL, Burlington, Wis. Filed Feb. 18, 1913. Serial No. 749,134. (Cl. 20—1.4.)



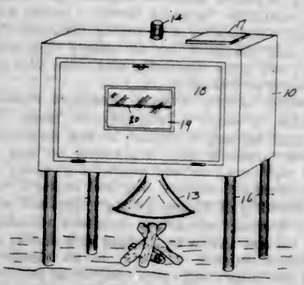
In combination, a cylindrical silo, a series of substantially triangular shaped roof sections, said sections being hinged to the side of the silo adjacent the top thereof, each section comprising two hinged parts, each part which is hinged to the silo having a bar pivoted thereto and disposed substantially transversely of the section and engaging the opposite ends of the upper hinged part of the two adjacent sections to hold the sections in open positions against closing, said bars adapted to be arranged alined with the sections to support the upper hinged parts when the sections are closed.

1,076,730. SEPARABLE RIM FOR AUTOMOBILE-WHEELS. WILLIAM M. WIRTH, St. Louis, Mo. Filed Aug. 19, 1912. Serial No. 715,830. (Cl. 152—21.)



The improved separable tire rim, comprising a fixed section in the form of a ring, a series of radial pins fixed upon the outer periphery of said section at the inner margin thereof, a separable section also in the form of a ring having in its inner marginal edge a series of inclined slots which interrupt said edge and act as placing-guides, said base section being provided with an inwardly extending recess, a toothed-rack in said recess, and a series of teeth on said separable section at a point directly opposite said recess.

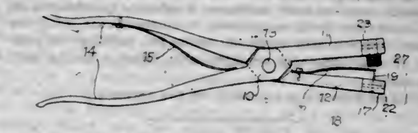
1,076,731. PORTABLE OVEN. CHARLES OSWALD WOODROW, Nelson, British Columbia, Canada, assignor of one-fourth to William McDerment, Nelson, British Columbia, Canada. Filed Apr. 24, 1912. Serial No. 693,260. (Cl. 126—275.)



1. An oven comprising an inner and outer shell forming an interior chamber surrounded by a passage, a nipple communicating with the passage at the bottom, a bell slipped into and retained by the nipple, a nipple at the top of the oven communicating with the passage, and tubular supporting legs removably carried at the bottom of the oven proportioned to be telescoped together and slipped upon the upper nipple.

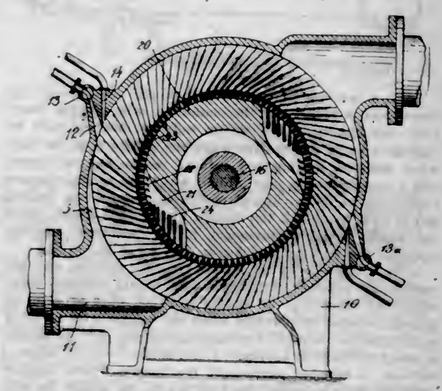
2. In an oven, an inner and outer casing providing an inner baking compartment and a surrounding passage, a nipple communicating with the bottom of the passage, a bell removably secured to the nipple, a second nipple communicating with the passage at the top of the oven, and a plurality of tubular legs removably secured to the under side of the oven and proportioned to support the oven with the bell spaced from the ground and also proportioned to be telescoped together and be secured upon the upper nipple when desired and to be packed in the inner compartment when removed from both.

1,076,732. TOOL. SAMUEL ZIMMERMAN, Seneca, Kans. Filed Mar. 15, 1913. Serial No. 754,612. (Cl. 164—121.)



A tool comprising a pair of pivoted handle bars, handles formed upon said handle bars at one end thereof, heads formed on the other ends of said bars, one of said heads being provided with a recess in its outer face and intermediate of its ends, an end bar removably connected to the outer face of said head and adapted to close the recess therein to produce a slot between the head and end bar, and a pin removably mounted in the other of the heads and adapted to project within said slot, as and for the purpose described.

1,076,733. TURBINE. EMIL ANDERSON, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 28, 1912. Serial No. 679,409. (Cl. 121—60.)



1. A turbine comprising a rotary member having impulse surfaces, means for admitting a motive fluid under pressure between said surfaces, a member provided with an expansion chamber adapted to communicate with the spaces between said surfaces, and means for varying the position of said expansion chamber with relation to the fluid admission.

2. A turbine comprising a series of corrugated blades, means for supplying a motive fluid between said blades in a generally tangential direction, and an exhaust passage communicating with the spaces between said blades, said exhaust passage being enlarged to provide an expansion space for the motive fluid.

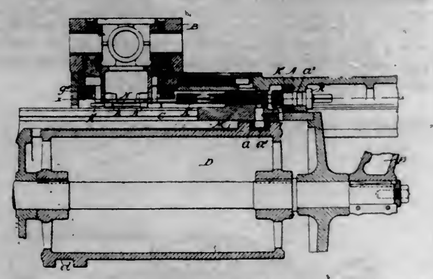
3. A turbine comprising a series of corrugated blades having spaces therebetween for the reception of a motive fluid under pressure, an annular member provided with apertures communicating with the spaces between said blades, the inner edges of said corrugated blades being curved to meet the outlet ends of said apertures, and means having an expansion recess communicating with said apertures.

4. A turbine comprising a series of rotary disks having impulse surfaces, means for supplying a motive fluid under pressure between said surfaces, an annular ring having a series of apertures communicating with the spaces between said impulse surfaces, and an adjustable member provided with a recess communicating with said apertures said recess being divided by a series of guiding and deflecting vanes arranged to return motive fluid from said recess to the spaces between said disks.

5. A turbine comprising a series of rotary disks having impulse surfaces, means for admitting a motive fluid under pressure between said surfaces, a member provided with an expansion chamber adapted to communicate with the spaces between said surfaces, means for varying the position of said expansion chamber with relation to the fluid admission.

[Claims 6 to 11 not printed in the Gazette.]

1,076,734. MACHINE OF THE TURRET TYPE FOR TURNING AND LIKE OPERATIONS. HERBERT AUSTIN, Bromsgrove, England. Filed Feb. 2, 1912. Serial No. 674,872. (Cl. 29—44.)



1. In a machine of the turret type for turning and like operations, a turret carrying saddle, a cam engaged therewith and operating the saddle endwise, part of said engagement being inoperative when the saddle is in its backward position, locking and turning means for the turret, and a cam having a face which, while the saddle remains stationary in its backward position, operates the locking mechanism to unlock the turret, and a face which, while the saddle remains stationary in its backward position, operates the turning mechanism and turns the turret.

2. In a machine of the turret type for turning and like operations, a turret carrying saddle, a cam engaged therewith and operating the saddle endwise, part of said engagement being inoperative when the saddle is in its backward position, locking and turning means for the saddle, a spindle which is carried by the saddle, and is screwed through a slidable portion of the saddle which engages with the cam whereby the position of the saddle in relation to the cam may be adjusted, screwed spindles of the locking and turning mechanisms, respectively, by which the effective length of such mechanisms may be adjusted, and said spindles gearing with the spindle for adjusting the saddle whereby, as the position of the saddle is adjusted in relation to the cam, the turret locking and turning mechanisms are adjusted in relation to the saddle.

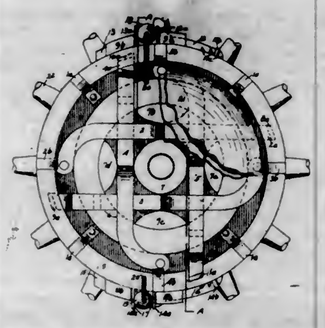
3. In a machine of the turret type for turning and like operations, a turret saddle, a saddle carrying a cross-slide, a sideway opening in the saddle of the cross-slide, a bar carried by the turret saddle and capable of moving within the opening of the cross-slide saddle as the turret saddle moves, a movable stop-piece which, as the cross-slide is moved in one direction transversely of the machine, comes across a portion of the bar and insures that the movement of the turret saddle will move the saddle of the cross-slide.

4. In a machine of the turret type for turning and like operations, a turret saddle, a saddle carrying a cross-slide, a sideway opening in the saddle of the cross-slide, a bar which passes through the opening of the cross-slide saddle, shoulders of said bar, and movable stop-pieces one of which, as the cross-slide is moved in, comes into the paths of one of the shoulders and the other of which as the cross-slide is moved out comes into the path of the other of the shoulders, whereby it is insured that the turret saddle will move the cross-slide saddle in both directions.

5. In a machine of the turret type for turning and like operations, a turret saddle, a saddle carrying a cross-slide, a sideway opening in the saddle of the cross-slide, a bar carried by the turret saddle and capable of moving within the opening of the cross-slide saddle as the turret saddle moves, a spindle mounted in the cross-slide saddle, means for turning such spindle in opposite directions, a movable stop-piece carried by the spindle and operated thereby to bring the stop-piece across a portion of said bar as the cross-slide is moved in one direction transversely of the machine, and a pinion of such spindle which gears with a rack of the cross-slide to move the slide toward and from the axis of the machine.

[Claim 6 not printed in the Gazette.]

1,076,735. WHEEL. WALKER EDMANDS BABBITT, Worcester, Mass. Filed Dec. 5, 1911. Serial No. 664,040. (Cl. 152—40.)



1. A wheel of the character described comprising, in combination, a ring; a plurality of forked levers fulcrumed thereon and forming a frame; a hub disposed in said frame and furnished with a plurality of lugs, said hub and said lugs engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

2. A wheel of the character described comprising, in combination, a ring; a plurality of levers fulcrumed thereon and forming a frame; a hub disposed in said frame and furnished with a plurality of lugs, said hub and said lugs engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

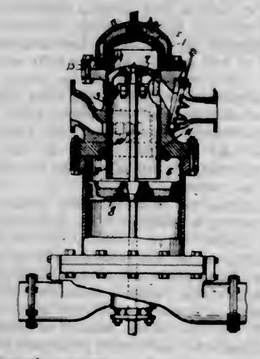
3. A wheel of the character described comprising, in combination, a ring; a plurality of forked levers fulcrumed thereon and forming a frame; a hub disposed in said frame and engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

4. A wheel of the character described comprising, in combination, a ring; a plurality of levers fulcrumed thereon and forming a frame; a hub disposed in said frame and engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

5. A wheel of the character described comprising, in combination, a ring; a plurality of forked levers fulcrumed thereon and forming a frame; a hub disposed in said frame and furnished with a plurality of lugs, said hub and said lugs engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

6. A wheel of the character described comprising, in combination, a ring; a plurality of forked levers fulcrumed thereon and forming a frame; a hub disposed in said frame and furnished with a plurality of lugs, said hub and said lugs engaging said levers; a plurality of annuli rotatably mounted on said ring and engaged by said levers; a plurality of sliding members disposed on said annuli and forming expansible chambers thereon; means disposed on said annuli for locking said sliding members; bulbs disposed in said chambers; an air supply tank disposed on said ring; and tubes connecting said bulbs with said tank; substantially as described.

1,076,736. COOLING SYSTEM FOR INTERNAL-COMBUSTION ENGINES. CHARLES WHITING BAKER, Montclair, N. J. Original application filed Mar. 20, 1912, Serial No. 685,045. Divided and this application filed July 10, 1912. Serial No. 708,575. (Cl. 123—170.)



1. An internal combustion engine comprising a cylinder and a trunk piston reciprocating therein, a second cylinder tandem with the engine cylinder providing a space into which the lower part of the trunk piston is moved in its reciprocations, a piston in said tandem cylinder and means for reciprocating the same, and means for introducing water into the space between said pistons, whereby during the reciprocations of said pistons the water will be splashed for the purposes described.

2. In an internal combustion engine, a cylinder and a trunk piston reciprocating therein, a second cylinder tandem with the gas cylinder, a piston in said second cylinder tandem with the trunk piston and reciprocating therewith, and means for supplying water to the space between the pistons whereby during such reciprocations the idle faces of said pistons and the cylinder surfaces confining the splashing water will be drenched therewith.

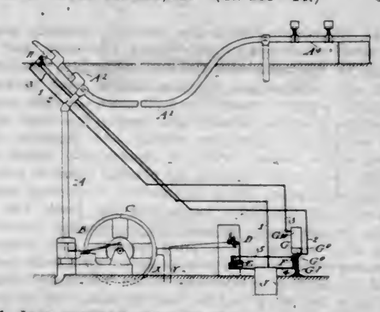
3. In a two stroke cycle internal combustion engine, a cylinder and a trunk piston reciprocating therein, a second cylinder tandem with the gas cylinder, a piston in said second cylinder and means for reciprocating the same, means for introducing water into the space between the pistons whereby during the reciprocations of the pistons the water will be splashed into the trunk piston, and packing rings at the bottom of the cylinder in which the trunk piston reciprocates to exclude the water from said cylinder.

4. In a single-acting internal combustion engine of the two-stroke cycle type, a cylinder and a trunk piston reciprocating therein, said cylinder having exhaust ports and said trunk piston adapted in its reciprocations to cover said ports, a second cylinder tandem with the gas cylinder, a piston in said second cylinder and means for reciprocating the same, and means for supplying water to the space between the pistons whereby during the reciprocations of the pistons the water will be splashed into the trunk piston for the purpose described.

5. An internal combustion engine having the cylinder thereof formed in two parts, the upper portion of the cylinder barrel being cast with the head and provided with a water jacket, and the lower portion of the barrel having inlet and exhaust passages and with no surrounding water jacket, a piston reciprocating in said cylinder, a piston tandem with said cylinder piston, and means for introducing water into the space between the two pistons, whereby during the reciprocations of the pistons the water will be splashed for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,076,737. PNEUMATIC-DESPATCH-TUBE SYSTEM. BIRNEY C. BATCHELLER, New York, N. Y. Filed July 9, 1909. Serial No. 506,670. (Cl. 243—14.)



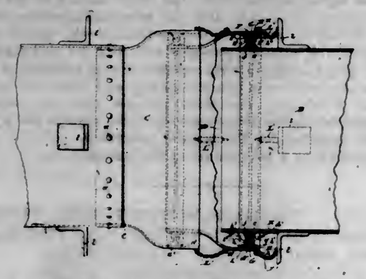
1. In a pneumatic despatch tube system, the combination with the transit tubing and a transmitter connected therewith, of an air moving motor, a valve, means adapted to be actuated by the insertion of a carrier in the transmitter for opening said valve and holding it open, a timing device controlling the operation of said motor, connections with said valve and timing device whereby fluid flows through the valve on the opening of the latter and causes the timing device to be set, and means responsive to a predetermined movement of the timing device for closing said valve.

2. In a pneumatic despatch tube system, the combination with the transit tubing and a transmitter connected therewith, of an air moving motor, a cylinder, a piston in the cylinder and tending to move toward one end thereof, said cylinder being formed with a port for admitting fluid to the cylinder to move the piston away from said one end, and being formed also with a second port adjacent the opposite end of the cylinder and traversed by the piston in its movement away from said one end, a valve, means adapted to be actuated by the insertion of a carrier in the transmitter for opening said valve and holding it open, connections whereby the opening of said valve permits pressure fluid to pass into said cylinder through said one port, means for closing said valve operated by fluid passing from the cylinder through said second port, after the piston has moved beyond it, and means responsive to the movement of said piston for stopping said motor when the piston is at said one end of the cylinder, and for maintaining said motor in operation when said piston is away from said one end of the cylinder.

1,076,738. DREDGING DEVICE (COUPLING.) EDWARD F. BERRY, New Orleans, La. Filed Oct. 29, 1912. Serial No. 728,515. (Cl. 137—34.)

1. In combination with a pipe section, a coupling member associated therewith overlapping the same, and a packing in the space between the overlapping portions of the pipe section and coupling member comprising flexible wings disposed edgewise radially of the coupling member

and occupying a spreading relation to each other to engage the surface of the member opposed thereby at correspondingly separated points, substantially as described.



2. In combination with a pipe section, a coupling member associated therewith overlapping the same, and a packing in the space between the overlapping portions of the pipe section and coupling member, said packing comprising a pair of flexible rings disposed edgewise radially of the coupling member and having free edge portions occupying a diverging relation and engaging the surface of the member which it opposes, and means on the other member for securing the packing means in place.

3. In combination with a pipe section, a coupling member associated therewith overlapping the same, and a packing in the space between the overlapping portions of the pipe section and coupling member, said packing comprising a pair of flexible rings disposed edgewise radially of the coupling member and having free edge portions ocupying a diverging relation and engaging the surface of the member which it opposes, and means on the other member for securing the packing means in place, said means comprising fastening rings between which the flexible packing rings are held.

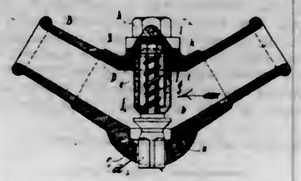
4. In combination with a pipe section, a coupling member associated therewith overlapping the same, and a packing in the space between the overlapping portions of the pipe section and coupling member, said packing comprising a pair of flexible rings disposed edgewise radially of the coupling member and having free edge portions occupying a diverging relation and engaging the surface of the member which it opposes, and means on the other member for securing the packing means in place, said means comprising relatively adjustable fastening rings between which the flexible packing rings are held.

5. In combination with a pipe section, a coupling member associated therewith overlapping the same, and a packing in the space between the overlapping portions of the pipe section and coupling member, said packing comprising a pair of flexible rings disposed edgewise radially of the coupling member and having free edge portions occupying a diverging relation and engaging the surface of the member which it opposes, and means on the other member for securing the packing means in place, said means comprising fastening rings between which the flexible packing rings are held, an edge portion of the fastening rings being offset or bent inwardly to embed in the flexible packing rings.

[Claims 6 to 21 not printed in the Gazette.]

1,076,739. STEAM-HEATING HOSE-COUPLING WITH AUTOMATIC DRAINING-VALVE PRINCIPALLY FOR RAILWAY-TRAINS. VILMOS BIRÓ, Budapest, Austria-Hungary. Filed Jan. 6, 1911. Serial No. 601,187. (Cl. 137—103.)

1. In a coupling for steam heating hoses, the combination with an elbow provided with an outlet in its bottom portion around which a valve seat is formed and with an opening in its top registering with said outlet, of a stationary valve guide held in said opening projecting downward toward said outlet, a valve shiftably arranged upon said guide, and a spring within said guide for keeping said valve off said seat in the absence of steam pressure, said guide, valve and spring being adapted to be inserted as a unit into or withdrawn from said elbow through said opening.



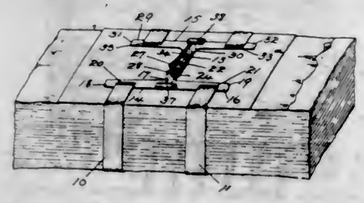
2. In a coupling for steam heating hoses, the combination with an elbow provided with an outlet in its bottom portion around which a valve seat is formed and with a screw threaded opening in the top of said elbow registering with said outlet, of a substantially cylindrical stationary valve guide provided with screw threads meshing with the threads in said opening projecting downward toward said outlet, a valve shiftably arranged upon said guide, the diameter of said valve corresponding substantially to that of said guide, a spring within said guide for keeping said valve off said seat in the absence of steam pressure, said guide, valve and spring being adapted to be inserted as a unit into or withdrawn from said elbow through said screw threaded opening, and means attached to said guide and arranged outside of said elbow for facilitating the insertion of said guide into or its withdrawal from said elbow.

3. In a coupling for steam heating hoses, the combination with an elbow provided with an outlet in its bottom portion around which a valve seat is formed and with an opening in its top registering with said outlet, of a stationary valve guide held in said opening projecting downward toward said outlet, a valve shiftably arranged upon said guide, a spring within said guide for keeping said valve off said seat in the absence of steam pressure, guiding ribs attached to said valve projecting through said outlet outside of said elbow, and means carried by said guiding ribs for drawing said valve on its seat against the action of said spring and for facilitating the rotation of said valve relative to its guide, said guide, valve and spring being adapted to be inserted as a unit into or withdrawn from said elbow through said opening.

4. In a coupling for steam heating hoses, the combination with an elbow provided with an outlet in its bottom portion around which a valve seat is formed and with an opening in its top registering with said outlet, of a substantially tubular stationary valve guide held in said opening projecting downward toward said outlet, said valve guide being provided with a disk at its bottom having a slot extending from its peripheral portion toward and beyond its center and with longitudinal recesses in its cylindrical wall, a valve stem projecting through said slot into said guide, a stop upon the upper end of said stem of a width substantially less than that of each of said recesses, a spring bearing against said stop and against the inner surface of said disk, and a valve carried by said stem, said valve having a diameter corresponding to that of said guide, said guide, valve and spring being adapted to be inserted as a unit into or withdrawn from said elbow through said opening.

1,076,740. PACKAGE-FASTENER. JOHAN F. BJURLUND, Richmond Hill, N. Y., assignor of one-half to Henry M. Lasauce, Brooklyn, N. Y. Filed Nov. 7, 1912. Serial No. 730,001. (Cl. 24—17.)

1. A device of the character described, comprising a member having a substantially T-shaped plate, the alined arms of which are connected to an object to be secured, a tubular portion formed at the free end of the third arm of the T-shaped plate, said tubular portion having a slot therethrough, a spring catch provided in the tubular portion and having a retaining seat projecting through the slot thereof, a second member having a substantially T-shaped plate, the alined arms of which are connected to an object to be secured, a tubular portion formed at the free end of the third arm of the T-shaped plate, said tubular portion being of a diameter whereby it may freely receive the tubular portion of the first member when inserted therein, and said tubular portion of the second member having a slot adapted to be registered with the slot of the tubular portion of the first member, whereby the retaining seat of the spring catch may be guided therethrough for holding the members in locked engagement when in mating arrangement.



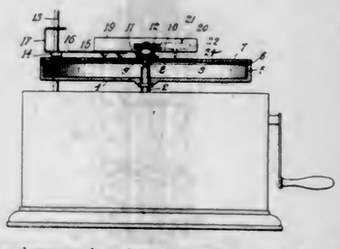
2. A device of the character described, comprising a member having a substantially T-shaped plate, the alined arms of which are connected to an object to be secured, a tubular portion formed at the free end of the third arm of the T-shaped plate, said tubular portion having a slot therethrough, spring actuated means provided in the tubular portion and having a part thereof projecting through the slot, a second member having a substantially T-shaped plate, the alined arms of which are connected to an object to be secured, a tubular portion formed at the free end of the third arm of the T-shaped plate, said tubular portion being of a diameter whereby it may freely receive the tubular portion of the first member when inserted therein, and said tubular portion of the second member having a slot adapted to be registered with the slot of the tubular portion of the first member, whereby the projecting part of the spring actuating means may be guided therethrough for holding the members in locked engagement when in mating arrangement.

3. A device of the character described, comprising a member having a plate, an arm formed thereon and having a tubular portion formed upon its free end, said tubular portion having a slot therethrough, a spring wire having one end pivotally held in the tubular portion, and having a substantially L-shaped retaining seat projecting through the slot thereof, a ring formed upon the opposite end of the wire, a second member having a plate, an arm formed thereon and having a tubular portion formed on its free end, said tubular portion being of a diameter whereby it may freely receive the tubular portion of the first member when inserted therein, and said tubular portion of the second member having a slot adapted to be registered with the slot of the tubular portion of the first member, whereby the L-shaped retaining seat of the spring wire may be guided therethrough for holding the members in locked engagement when in mating arrangement.

4. In a fastener, the combination of two mating members, said members being in the form of cylindrical tubes having open ends, and of such size that one will telescopically engage the other, a spring catch having a projecting shoulder disposed through a suitable slot provided in the side wall of the inner member, said catch being secured in the desired position by a vertically disposed pin and having a projecting arm at the rear end whereby the catch may be released, said outer member having a suitable opening provided in the wall thereof adapted for engagement with said catch, whereby the device may be secured in position as required to secure a package.

5. In a package fastener, the combination of two telescopically mating cylindrical members having open ends, each being suitably mounted on a plate, said plates being adapted to be secured to the package, the inner member of said fastener having a slot in one side thereof, a pin vertically disposed through the walls of said member and through an eye provided in a catch, said catch comprising a wire having its ends reflexively disposed within the said member, and having a projecting shoulder on one end extending through said slot and having an extended arm projecting beyond the end of said cylindrical member whereby the catch may be released, said outer member having an aperture in one side adapted for engagement with said shoulder of the catch whereby the fasteners may be secured in position as required for holding a package.

1,076,741. VIBRATING-RECORD PHONOGRAPH. DONALD M. BLISS, Orange, N. J. Filed Feb. 26, 1912. Serial No. 680,037. (Cl. 181—5.)



1. In a phonograph, a base, a shaft projecting without the base, a revoluble wooden turntable, bowl like in form, mounted on the shaft, a felt ring on the edge of the turntable whereon the outer edge of a disk record may be rested, a centering stud in the center of the turntable, a felt washer and thumb screw for the stud, whereby the disk record may be centrally held, a post projecting from the base and a swinging arm, having inertia, pivoted to the post, a hole near the free end of the arm, filled with paraffin, a recess at the lower face of the arm, a cork disk fastened therein, and a needle fastened to the cork disk, adapted to run on the record and thereby cause the record to vibrate and reproduce sound.

2. In a talking machine, the combination of a record tablet mounted to vibrate and reproduce sound, a turntable providing a resonating space therefor and a stylus adapted to trace the record line, said stylus designed to set the tablet into vibration to reproduce the sound recorded thereon.

3. In a talking machine, a turntable comprising a base and rim of resonant material and a sound record tablet supported by said table and inclosing therewith a relatively large resonating chamber designed to amplify sounds produced by the vibration of said tablet into said chamber.

4. In a talking machine, a turntable comprising a base and a rim of resonant material and a record seat of soft material surmounting said rim, and a sound record tablet supported by said table and inclosing therewith a relatively large resonating chamber designed to amplify sounds produced by the vibration of said tablet into said chamber.

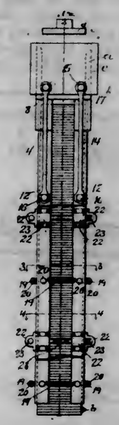
5. In a talking machine, a turntable comprising a base and a rim of resonant material adapted to support a record tablet and to inclose therewith a relatively large resonating chamber designed to amplify sounds produced by the vibration of a tablet into said chamber.

[Claims 6 to 11 not printed in the Gazette.]

1,076,742. MACHINE FOR MAKING HEEL-LOGS. WENDELL P. BOSWORTH, Brockton, Mass., assignor to Brockton Heel Company, Brockton, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1913. Serial No. 749,850. (Cl. 12—42.)

1. A heel-log-building machine comprising a rigid vertical mold open at both ends, means for pressing lifts into

and through said mold to form a heel log, elongated vertical guide bars supported below said mold and adapted to guide a heel log emerging therefrom, and means for yieldingly pressing the guide bars against the heel log, whereby breakage of the log by its own weight is prevented, the lower end of the guide formed by said bars being continuously unobstructed to permit the lower end of the log to emerge therefrom.



2. A heel-log-building machine comprising a rigid vertical mold open at both ends, means for pressing lifts into and through said mold to form a heel log, elongated vertical guide bars supported below said mold and adapted to guide a heel log emerging therefrom, and transverse contractile springs connecting the guide bars and adapted to yieldingly press their inner sides against the heel log.

3. A heel-log-building machine comprising a rigid vertical mold open at both ends, means for pressing lifts into and through said mold to form a heel log, elongated vertical guide bars supported below said mold and adapted to guide a heel log emerging therefrom, and transverse contractile springs connecting the guide bars and adapted to yieldingly press their inner sides against the heel log, the bars being provided with steady pins and sockets alternating with said springs, the steady pins of each bar being in sliding engagement with sockets on an adjacent bar.

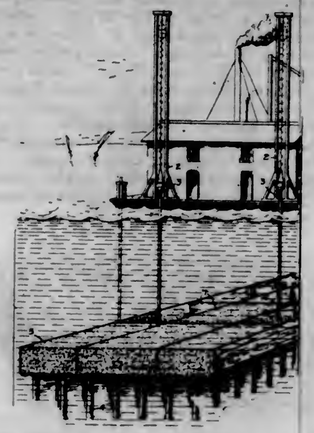
4. A heel-building machine comprising a rigid vertical mold open at both ends, means for pressing lifts into and through said mold to form a heel log, elongated vertical guide rods loosely supported below the mold and capable of independent lateral movement, and means for yieldingly pressing the guide bars against the heel log.

5. A heel-building machine compriaing a rigid vertical mold open at both ends, means for pressing lifts into and through said mold to form a heel log, elongated vertical guide rods loosely supported below the mold and capable of independent lateral movement, and means for yieldingly pressing the guide bars against the heel log, the upper ends of the bars and the lower end of the mold being provided with interlocking members adapted to prevent lateral movement of the upper ends of the bars.

[Claim 6 not printed in the Gazette.]

1,076,743. SUBAQUEOUS FOUNDATION AND STRUCTURE. WALTER BUTLER, St. Paul, Minn. Filed Mar. 26, 1912. Serial No. 686,416. (Cl. 72—77.)

1. A sub-aqueous foundation including in combination a series of piles, a form supported thereby, and having a grillage bottom, a fabric supported by said grillage bottom, and concrete filling said form, said fabric being so disposed relative to said grillage bottom that the concrete supported by the fabric passes through the grillage bottom and surrounds the head of each pile, thereby locking said piles against oscillation when said concrete has set.



2. A sub-aqueous foundation including in combination a series of piles, a form supported thereby, and having a grillage bottom composed of metal bars resting upon the upper ends of said piles, a fabric supported by said grillage bottom, and concrete filling said form, said fabric being so disposed relative to said grillage bottom that the concrete supported by the fabric passes through the grillage bottom and surrounds the head of each pile, thereby locking said piles against oscillation when said concrete has set.

3. A sub-aqueous foundation including in combination a series of piles, a form supported thereby and having a grillage bottom, a flexible fabric consisting of an upper and lower wire mesh, and an intermediate suitable textile mesh, and concrete filling said form and resting on said fabric, said fabric being so disposed relative to said grillage bottom that the concrete supported by the fabric passes through the grillage bottom and surrounds the head of each pile, thereby locking said piles against oscillation when the concrete has set.

4. A sub-aqueous foundation, including in combination a series of piles, a grillage composed of metal bars resting upon the flattened upper ends of said piles and supported thereby, a form inclosing said grillage and comprising upright side and end walls, a flexible fabric suspended in loops from said grillage bottom, said flexible fabric consisting of an upper and lower wire mesh, and an intermediate suitable textile mesh, and concrete filling said form, and extending through said grillage bottom into contact with said fabric, whereby said concrete is provided with pockets engaging and surrounding the upper end of each pile.

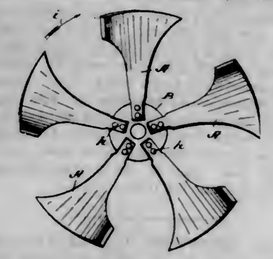
1,076,744. DEMOUNTABLE RIM FOR PNEUMATIC TIRES. COY RICHARD CANTRELL, St. Louis, Mo. Filed Nov. 23, 1912. Serial No. 733,189. (Cl. 152—21.)



In a demountable rim for pneumatic tires, a wheel having spaced apart wedge-shaped peripheral projections, a rim having peripheral wedge-shaped cavities to receive the projections on the wheel, a locking block carried by the rim, a valve stem protecting sleeve secured to said block, a plate having a pin arranged to lock the wheel and said

block against relative movements, and means for securing the plate in place, said wheel having a slot through which the sleeve is moved, substantially as shown and for the purposes stated.

1,076,745. MACHINE FOR MECHANICALLY TILLING THE SOIL. CLÉMENT CICCOLINI, Paris, France. Filed Aug. 9, 1912. Serial No. 714,265. (Cl. 97—62.)

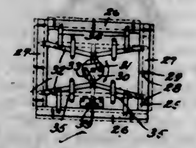


1. A revoluble cultivating implement adapted to be mounted on a hub turning on an axle parallel to the line of advance movement of the cultivator machine, and comprising radially disposed thick and heavy blades having a predetermined pitch and very much spreading toward their peripheries, each presenting a cutting edge terminated by a point like a hack at the periphery and a massive heel at the rear, said heel presenting a much twisted surface merging into the surface proper of said blade to form a mold-board.

2. A revoluble cultivating implement adapted to be mounted on a hub turning on an axle parallel to the advance movement of the cultivator machine, and comprising radially disposed thick and heavy blades having a helicoid surface, a predetermined pitch and spreading very much toward their peripheries, said blades each presenting a cutting edge terminated by a point like a hack at the periphery and a massive heel at the rear, said heel presenting a much twisted surface merging into the surface proper of said blade to form a mold-board.

3. A revoluble cultivating implement adapted to be mounted on a hub turning on an axle parallel to the line of advance movement of the cultivator machine, and comprising plane radially inclined thick and heavy blades having a predetermined pitch and spreading toward their peripheries, said blades each presenting a cutting edge terminated by a point like a hack at the periphery and a massive heel at the rear, said heel presenting a twisted surface merging into the surface proper of said blade to form a mold-board.

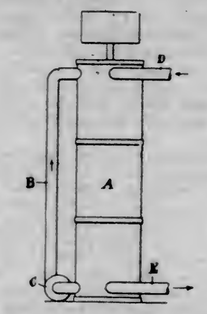
1,076,746. CONVERTIBLE CAR. JAMES M. COLEMAN, Montreal, Quebec, Canada. Filed Apr. 22, 1910. Serial No. 557,018. (Cl. 105—185.)



1. In a car of the character described, a hopper bottom, an outwardly swinging door therefor, said hopper having a recess surrounding the door opening adjacent the edges thereof, means for opening and closing said door, latch plates slidably secured adjacent the periphery of said door, toggle mechanism arranged to slide said plates simultaneously into the recess surrounding the door opening.

2. In a car of the character described, a hopper bottom, an outwardly swinging door therefor, said hopper having a recess surrounding the door opening adjacent the edges thereof, means for opening and closing said door, latch plates slidably mounted at the edges of the door, toggle levers connecting the plates on two opposite edges of the door, links connecting the plates on the two remaining edges of the door with said toggle levers, a revoluble disk and links connecting said disk with the joints of the toggle levers, whereby the plates will be simultaneously forced into the recess surrounding the door opening on the rotation of the disk.

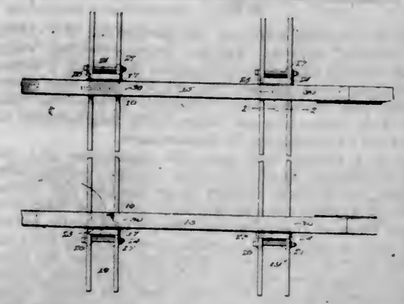
1,076,747. PROCESS OF OXIDIZING SULFITE BY MEANS OF AIR OR OTHER OXIDIZING-GAS. EMIL COLLETT, Christiania, Norway. Filed Feb. 5, 1913. Serial No. 746,352. (Cl. 23—21.)



1. The process of oxidizing sulfite by means of an oxidizing gas, which consists in supplying the gas to an oxidation system and circulating the gas through the latter, at a greater speed than it is supplied to and withdrawn from the system.

2. The process of oxidizing ammonium sulfite by means of an oxidizing gas which consists in supplying and withdrawing the gas to an oxidation system, and circulating some of the supplied gas a plurality of times through the system at a greater velocity than that at which the gas is supplied and withdrawn.

1,076,748. RAILWAY-TRACK STRUCTURE. HOWARD M. COULTER, Rifle, Colo. Filed Mar. 25, 1913. Serial No. 756,716. (Cl. 238—5.)



1. The combination of a rail comprising a head and spaced web members, and a tie for supporting the rail, said tie having transverse recesses forming seats for the web members, an upstanding web on the tie between the recesses, said web being located between the web members of the rail, and means for securing the rail against lateral and longitudinal displacement.

2. The combination of a rail comprising a head and spaced web members, and a tie for supporting the rail, said tie having transverse recesses forming seats for the web members, an upstanding web on the tie between the

recesses, said web being located between the web members of the rail, and a wedge driven into one of the recesses against the web member which seats therein, for clamping said member against the aforesaid upstanding web.

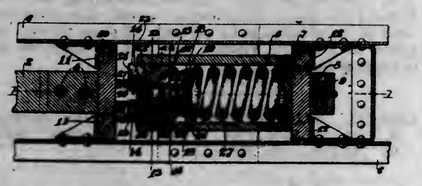
3. The combination of a rail comprising a head and spaced web members, and a tie for supporting the rail, said tie having transveare recesses forming seats for the web members, an upstanding web on the tie between the recesses, said web being located between the web members of the rail, a wedge driven into one ofthe recesses againts the web member which seats therein, for clamping said member against the aforesaid upstanding web, and a pivoted bail carried by the tie and engageable with the wedge for locking the same in the recess.

4. The combination of a rail comprising a head and spaced web members, and a tie for supporting the rail, said tie having transverse recesses forming seats for the web members, an upstanding web on the tie between the recesses, said web being located between the web members of the rail, a lug rising from the seat of one of the web members, said member having a recess in which the lug seats, and means for securing the rail against lateral displacement.

5. The combination of a rail comprising a head and spaced web members, and a tie for supporting the rail, said tie having transverse recesses forming seats for the web members, an upstanding web on the tie between the recesses, said web being located between the web members of the rail, a lug rising from the seat of one of the web members, said member having a recess in which the lug seats, and a wedge driven into the other recess against the web member seating therein for clamping said member against the aforesaid upstanding web.

[Claims 6 to 10 not printed in the Gazette.]

1,076,749. DRAFT-GEAR. JOHN F. COURSON, Pitcairn, Pa. Filed June 14, 1912. Serial No. 703,719. (Cl. 213—64.)



1. In a friction draft gear, the combination of a casing, a relatively movable drawbar, friction-creating wedge blocks having friction faces engaging the casing, a buffing block interposed between the drawbar and said wedge blocks, and a wedge block interposed between the inner end of the casing and said wedge blocks longitudinally beyond the termination of its friction faces.

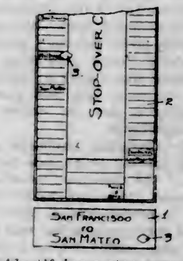
2. In a friction draft gear, the combination of a casing, a relatively movable drawbar, friction-creating wedge blocks having outer friction faces engaging the casing, inner blunt angle faces at their outer ends, and inner acute angle faces at their opposite ends longitudinally beyond the outer friction faces, a buffing block engaging the blunt angle faces of said wedge blocks and opposing the drawbar, a wedge block engaging the acute angle faces thereof, and a spring interposed between said last named wedge block and the friction-creating wedge blocks, substantially as set forth.

3. In a friction draft gear, the combination of a casing, a relatively movable drawbar, friction-creating wedge blocks engaging the casing having sets of front and rear inner opposed wedge faces and front inwardly extending retaining lips, a buffing block interposed between the drawbar and said wedge blocks and having co-acting retaining lips, a wedge block interposed between the rear wedge faces, and a spring between said wedge block and the inner end of the casing, substantially as set forth.

4. In a friction draft gear, the combination of a casing, a relatively movable drawbar, friction-creating wedge blocks having friction faces engaging the casing and rear inwardly disposed portions having inner acute angle wedge faces and front and inner blunt angle faces, a buffing block opposing the drawbar and engaging the blunt angle faces, and an acute angle wedge block interposed between and engaging the acute angle faces of the friction-creating wedge blocks, substantially as set forth.

5. In a friction draft gear, the combination of a casing, a relatively movable drawbar, friction-creating wedges blocks having friction faces engaging the casing, front inner blunt angle faces and rear inwardly disposed portions having inner acute angle wedge faces, a buffing block opposing the drawbar and engaging the blunt angle faces, an acute angle wedge block interposed between and engaging the acute angle faces of the friction-creating wedge blocks, and a spring engaging said acute angle wedge block and the rear ends of the friction-creating wedge blocks, substantially as set forth.

1,076,750. MEANS OF IDENTIFYING RAILWAY-TICKETS. PHILIP F. CUTTING, San Francisco, Cal. Filed Oct. 10, 1910. Serial No. 586,198. (Cl. 11—15.)



In a means of identifying a stop over check with a railway ticket, the combination of an appropriately designated ticket and an appropriately designated stop over check, three edges of both the check and ticket being continuous and unbroken and adapted to register when the check is superimposed on the ticket, and the check and ticket having each a plurality of punched out parts spaced from the edges thereof, the punched out parts of the ticket and those of the check being adapted to register when the ticket and check are in the said superimposed relation stated.

1,076,751. CONFECTION AND METHOD OF MAKING SAME. JAMES C. DAVIDSON, Des Moines, Iowa. Filed Mar. 27, 1911. Serial No. 617,096. (Cl. 127—4.)



1. An improved article of manufacture, comprising a portion of fruit, a syrup surrounding the same, and a chocolate coating to form a container for the syrup.

2. An improved article of manufacture, comprising a portion of fruit previously cooked in a thin syrup, a comparatively thick syrup in a liquid form surrounding the fruit, and a chocolate coating forming a container for the syrup.

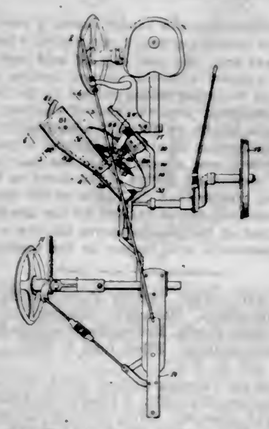
3. An article of manufacture, comprising a portion of fruit previously cooked, a syrup surrounding the portion of fruit composed of sugar cream dissolved by the fruit juices and acids, and a coating forming a container for the syrup and made of a material that will not be dissolved by fruit juices or acids.

4. The herein described method of producing confectionery which comprises first, the providing of a portion of fruit containing fruit juices having an acid element, then preparing a sugar cream and completely inclosing the fruit therein, then forming a chocolate coating over the sugar cream to retain it in moist condition and to permit the fruit juices to dissolve the sugar cream and to form a syrup flavored by the fruit juices.

5. The herein described method of making confectionery which consists in first cooking a portion of pineapple in a thin syrup, then forming a sugar cream in plastic condition and completely embedding the fruit therein, then applying a chocolate coating to the sugar cream and then permitting the fruit juices to completely dissolve the sugar cream to form a syrup flavored by the fruit juices.

[Claim 6 not printed in the Gazette.]

1,076,752. PLOW. CLINTON W. DICKINSON, La Crosse, Wis. Filed Feb. 17, 1908. Serial No. 416,263. (Cl. 97—40.)



1. In a plow, the combination of means for cutting and turning a furrow slice, a guide separate from the cutting means disposed to limit the outward movement of the slice, and a stop at the lower part of said guide and in fixed relation thereto, said stop having a surface which is angled with respect to, and projects inwardly into the slice-path to limit the turning of the slice and to guide it downwardly to the ground.

2. In a plow, the combination of means for cutting and turning a furrow slice, a guide separate from the cutting means disposed to limit the upward movement of the slice, and a stop at the lower part of said guide and in fixed relation thereto, said stop having a surface which is angled with respect to, and projects inwardly into the slice-path to limit the turning of the slice and to guide it downwardly to the ground.

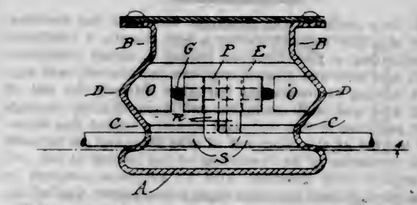
3. In a plow, the combination of means for cutting and turning a furrow slice, a guide separate from the cutting means, disposed to limit the outward and upward movement of the slice, and a stop at the lower part of said guide and in fixed relation thereto, said stop having a surface which is angled with respect to, and projects inwardly into the slice-path to limit the turning of the slice and to guide it downwardly to the ground.

4. In a plow, the combination of means for cutting and turning a furrow slice, a guide separate from the cutting means, disposed to limit the outward movement of the slice, and an inturned ledge at the bottom of said guide, disposed to arrest the slice against turning, and extending rearwardly and downwardly to direct the outer edge of the slice outwardly and downwardly.

5. In a plow, the combination of means for cutting and turning a furrow slice, a guide separate from the cutting means disposed to limit the upward movement of the slice, and an inturned ledge at the bottom of said guide, disposed to arrest the slice against turning, and extending rearwardly and downwardly to direct the outer edge of the slice outwardly and downwardly.

[Claims 6 to 21 not printed in the Gazette.]

1,076,753. COUNTERBALANCED WINDOW. JAMES S. DOYLE, New York, N. Y. Filed Jan. 29, 1907, Serial No. 354,624. Renewed May 20, 1909. Serial No. 497,329. (Cl. 16—116.)



1. The combination with a hollow metallic box girder having the exterior surfaces of the sides thereof shaped to form guides, a window sash mounted to slide in said guides, a counterweight arranged to move within said box girder, a cord connecting said counterweight and sash, a clamping device arranged and normally operating to engage said cord, and means for releasing said clamp.

2. The combination with a hollow metallic box girder having the side walls thereof shaped to form interior and exterior guide grooves, a window sash fitted to slide in the exterior grooves, a counterweight arranged to operate within the box girder and fitted to slide in the interior guide grooves, connections between the counterweight and the sash and means for clamping and releasing said connections.

3. The combination with a hollow metallic box girder having the sides thereof shaped to form interior and exterior guides, a window sash fitted to the exterior guides, a counterbalance weight arranged to operate within the box girder and fitted to the interior guides, bearing blocks carried by said counterweight, and connections between the counterweight and the sash and means for clamping and releasing said connection.

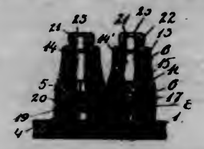
4. The combination with a hollow metallic box girder having the sides thereof shaped to form guides, a window sash fitted to said guides, a counterweight arranged to operate within the box girder, a cord connecting said counterweight and sash, and means arranged within the box girder for clamping and releasing said cord.

5. The combination with a hollow metallic box girder having the sides thereof shaped to form guides, a window sash fitted to said guides, a counterweight arranged to operate within the box girder, a cord connecting said counter weight and sash, means arranged within the box girder for clamping and releasing said cord and means extending outside of said box girder for operating said clamping and releasing means.

1,076,754. SAFETY APPLIANCE FOR ELECTRICAL INSTALLATIONS. WILLIAM F. FORCE, Flatbush, N. Y., assignor of one-half to Ernest B. Latham, Brooklyn, N. Y. Filed Jan. 24, 1912. Serial No. 673,166. (Cl. 175—277.)

1. In a device of the character described, the combination of a fuse support having a bore therein, a conductor constituting a line terminal having a socket concentric with said bore and located near one end thereof, said support having an insulating partition between the end of said bore and said conductor, and a perforation through said partition in line with said socket, a second line terminal located at the other end of said bore, and an inclosed fuse consisting of an insulating casing having at one end a metallic plug provided with an extension adapted to pass through said hole and engage said socket, and having at the other end a fuse terminal adapted to engage said second line terminal, and a fuse strip inclosed within said

casing and connected to said fuse terminal and plug, said bore fitting a part of said insulating casing closely.



2. In a device of the character described, the combination of a fuse support having a bore therein, a conductor constituting a line terminal having a socket concentric with said bore and located near one end thereof, said support having an insulating partition between the end of said bore and said conductor and a perforation through said partition in line with said socket, a second line terminal located at the other end of said bore, and an inclosed fuse consisting of an insulating casing having at one end a metallic plug provided with an extension adapted to pass through said hole and engage said socket, and at the other end a fuse terminal adapted to engage said line terminal, said second external line terminal having a contact surface lying in a plane at right angles to the axis of said bore, and said outer fuse terminal having a contact surface extending at right angles to the axis of said fuse and adapted to engage said first mentioned contact surface, part of said bore fitting said insulating casing closely.

3. In a device of the character described, the combination of a fuse support having a bore therein, a conductor constituting a line terminal having a socket concentric with said bore and located near one end thereof, said support having an insulating partition between the end of said bore and said conductor and a perforation through said partition in line with said socket, a second line terminal located at the other end of said bore and having a contact surface at substantially right angles to said bore, and an inclosed fuse having a casing within one end of which is a metallic plug having an extension adapted to pass through said hole and engage said socket and at the other end of which is a terminal adapted to engage said surface of said second line terminal, said socket and extension having engaging screw-threads.

4. In a device of the character described, the combination of a fuse casing, a metallic plug in one end thereof having an external projection, a ferrule on the other end thereof, and a fuse strip connecting said plug and said ferrule, said ferrule having a lateral projection forming a contact surface at right angles to the axis of said fuse.

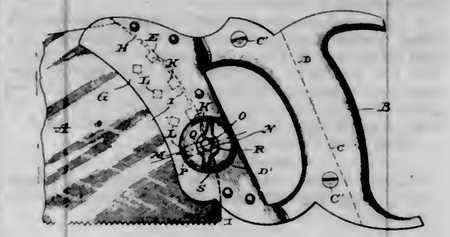
5. In a device of the character described, the combination of a fuse casing, a metallic plug in one end thereof having an external projection, a ferrule on the other end thereof, and a fuse strip connecting said plug and said ferrule, said ferrule having a lateral projection forming a contact surface at right angles to the axis of said fuse, and a cap of insulation secured to said ferrule above said lateral projection.

[Claim 6 not printed in the Gazette.]

1,076,755. HANDSAW. OLIVER C. FRAME, Pasadena, Cal. Filed Oct. 18, 1912. Serial No. 726,553. (Cl. 145—113.)

1. The combination of a saw having notches in the rear edge of its heel portion and also having holes near said notches, a handle having a recessed seat to receive the heel of the saw, said handle having openings to aline with a notch and a hole respectively in the heel of the saw, and a two-armed bolt passing through a notch and hole in the heel of the saw and through said openings in the handle, and securing means applied to one arm of said bolt.

2. The combination with a saw having notches in the rear edge of its heel portion, and having holes near said notches, of a saw having a recessed seat for the heel of the saw, said handle having an opening to aline with any of the notches of the saw heel and also having an opening to aline with any of the holes of the saw heel, a U-shaped bolt passing through the openings of the handle and a notch and hole in the saw heel, one arm of said bolt having a threaded shank, and a thumb nut on said shank and having a concave disk portion bearing against the saw handle.



3. The combination of a handle having a saw seat, having a concave bottom portion, a saw having a heel portion to engage said seat, the rear edge of said heel having a part out of parallel with the concave bottom portion of said seat, and fastening means carried by the handle and adjustably connected with the heel of the saw, to secure the saw to the handle at different adjustments.

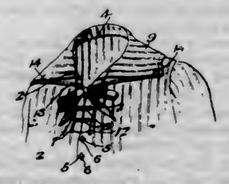
4. The combination of a handle having a concave seat for the heel of a saw, a saw having the rear edge of its heel portion convex, the radius of the curve on the heel of the saw being greater than the radius of the curve of said seat, and fastening means carried by the handle and engaging the heel of the saw to secure the saw at different angular adjustments with respect to the handle.

1,076,756. AZO DYES. ERNST FUSSENEGGER, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 7, 1913. Serial No. 772,295. (Cl. 8—1.)

1. The new azo coloring matters which can be obtained from a paranitranilin body, 2.8-amino-naphthol-3.6-disulfonic acid and phosgene, which coloring matters consist, when dry, of dark powders which are insoluble in alcohol and benzene, soluble in water yielding red solutions and in concentrated sulfuric acid yielding blue solutions, and which dye cotton red shades, and, upon reduction with stannous chlorid and hydrochloric acid give rise to a para-para-diamino-diphenyl-urea body and 1.2-diamino-8-naphthol-3.6-disulfonic acid.

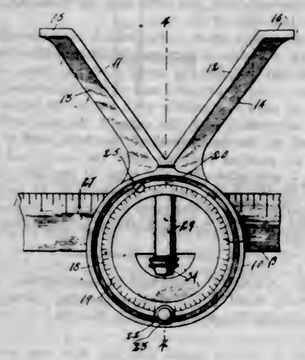
2. The new azo coloring matter which can be obtained from paranitranilin, 2.8-amino-naphthol-3.6-disulfonic acid and phosgene, which coloring matter consists, when dry, of a dark powder which is insoluble in alcohol and benzene, soluble in water yielding a red solution and in concentrated sulfuric acid yielding a blue solution, which dyes cotton red shades, and which upon reduction with stannous chlorid and hydrochloric acid gives rise to para-para-diamino-diphenyl-urea and 1.2-diamino-8-naphthol-3.6-disulfonic acid.

1,076,757. GARMENT. WILLIAM GOLDSTEIN and LOUIS GOLDSTEIN, Philadelphia, Pa. Filed Mar. 31, 1913. Serial No. 757,862. (Cl. 2—98.)



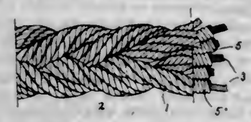
A garment having a body portion open throughout its front and a collar of soft material directly secured to said garment, said collar having integral tongues or lapels extending downwardly from each extremity and secured to and overlying the inner surfaces of the meeting portions of the garment at the front opening and said collar and lapel portions provided at suitable points with suitable fastening means, whereby said collar is adapted to be turned down to lie upon the shoulders in one position and to be folded transversely to be used as a standing collar.

1,076,758. PROTRACTOR. ROBERT C. GORBEY, Chester, Pa. Filed Jan. 20, 1909. Serial No. 473,217. (Cl. 73—115.)



An implement of the class described comprising an annular head having diverging arms and an annular seat at one side of said head and including an annular shoulder, an annular member mounted for rotation within said seat having a bearing at one side engaging the seat of the head and an annular shoulder bearing upon the shoulder of the head, said annular member having a radially extending cylindrical socket formed integrally therewith, the outer portion of said socket being slotted to form a guide way, a straight edge slidable in said guide way, a pin slidable in said socket and engaging said straight edge, and means coacting with said pin for adjustably clamping said straight edge in its guide way.

1,076,759. CABLE. THOMAS GORE, Brooklyn, N. Y. Filed Jan. 13, 1911. Serial No. 602,402. (Cl. 28—5.)

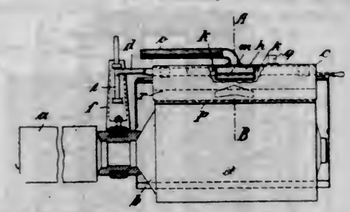


A cable comprising a plurality of strands braided together, each of said strands consisting of a core of twisted wires surrounded by a spiral wrapping and and outer covering of twisted yarn.

1,076,760. COOLING ATTACHMENT FOR ICE-MAKING MACHINES. WILHELM GRAAFF, Berlin, Germany. Filed Sept. 26, 1911. Serial No. 651,396. (Cl. 62—6.)

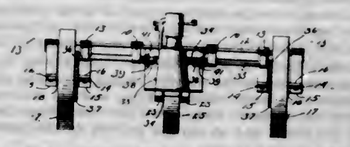
1. In a cooling attachment for ice making machines in combination a casing having a chamber for cooling liquid, and means for applying said liquid, in form of a thin film to the vessel to be cooled, air chambers in said casing, having longitudinal slits adapted to conduct the air against the vessel to be cooled, and an air supply pipe for said air chambers whereby the liquid applied to the surface of the same is made to rapidly evaporate.

2. In a cooling attachment for ice making machines in combination, a casing having a chamber for cooling liquid, air chambers in said casing adapted to conduct the air against the vessel to be cooled, an air supply pipe for said air chamber and a strip of liquid absorbing material forming the closure at the bottom of said liquid chamber, said strip transmitting the cooling liquid in a thin film over said vessel and adapted to contact with the vessel to be cooled, and means for directing an air blast against said vessel, thereby rapidly evaporating the film of cooling liquid.



3. In a cooling attachment for ice making machines having a refrigerator and an absorber, in combination, a casing having a chamber for a cooling medium, a strip of felt forming the bottom closure of said chamber, said strip being made of liquid absorbing material adapted to distribute the cooling liquid in a thin film over the vessel to be cooled, air chambers in said casing and a supply pipe therefor, said air chambers having mouth pieces for directing the air blast from said air chambers against said vessel, and a pivotal support for said attachment whereby it may be moved to a plurality of positions.

1,076,761. AGRICULTURAL IMPLEMENT. GEORGE B. GRIGGS, Douglas, Kans. Filed Aug. 7, 1912. Serial No. 713,892. (Cl. 97—30.)



In a device of the kind described, a main frame, a lateral frame on each side of the main frame and rigidly connected to the main frame, a pair of spaced depending U-shaped frames fixed at the outer end of each lateral frame, a fifth wheel including upper and lower members at the forward end of the main frame, a pair of spaced depending U-shaped frames connected to the lower member of the fifth wheel, ground wheels mounted between the frames of each pair, a steering device operatively connected to the front pair of frames and an engine bed plate depending from the main frame between the lateral frames.

1,076,762. ART OF FIREPROOFING WOOD. WILLIAM AUGUSTUS HALL, New York, N. Y., assignor to William A. Hall Lumber & Fibre Company, a Corporation of Vermont. Filed Nov. 15, 1910. Serial No. 592,591. (Cl. 99—12.)

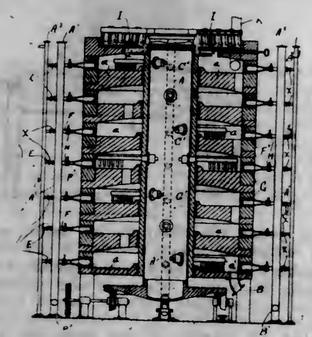
1. A fireproofing composition comprising an aqueous solution of about 12 parts of chlorid of potassium, 22 parts sulfate of magnesium, 17 parts chlorid of magnesium, and 27 parts chlorid of sodium.

2. A fireproofing composition comprising an aqueous solution of about 12 parts of chlorid of potassium, 22 parts sulfate of magnesium, 17 parts chlorid of magnesium, 27 parts chlorid of sodium, and 10 parts of phosphate of ammonia.

1,076,763. FURNACE. WILLIAM AUGUSTUS HALL, New York, N. Y. Filed Oct. 10, 1912. Serial No. 725,023. (Cl. 23—10.)

1. A furnace for decomposing pyrites or metallic sulfids comprising superposed shelves, over which the pyrites or

sulfids are caused to travel on their downward course, rotatable stirrers disposed adjacent the shelves, and connections for introducing steam and for introducing gas and air, into each of the several compartments, and independently operable means for regulating the relative amounts of steam, gas and air introduced to each of said compartments.

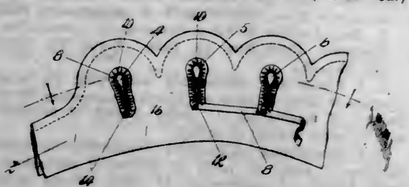


2. A furnace for decomposing pyrites or metallic sulfids comprising superposed shelves, over which the pyrites or sulfids are caused to travel on their downward course, rotatable stirrers disposed adjacent the shelves, and connections for introducing steam and for introducing gas and air, into at least a plurality of the several compartments, and independently operable means for regulating the relative amounts of steam, gas and air introduced to each of said plurality of compartments.

3. A furnace for decomposing pyrites or metallic sulfids comprising superposed shelves, over which the pyrites or sulfids are caused to travel on their downward course, rotatable stirrers disposed adjacent the shelves, connections terminating in the vicinity of and above the shelves for introducing water vapor and gas and air into the interior of the furnace, and means for controlling the supply of the steam and of the gas and air to the inlets adjacent the various shelves.

4. A furnace for decomposing pyrites or metallic sulfids comprising superposed substantially horizontal shelves, over which the pyrites or sulfids are caused to travel on their downward course, and connections for introducing steam and for introducing gas and air, into each of the several compartments, and independently operable means for regulating the relative amounts of steam, gas and air introduced to each of said compartments.

1,076,764. BUTTONHOLE-PIECE. FRANK L. HARMON, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 29, 1912. Serial No. 680,650. (Cl. 36—52.)



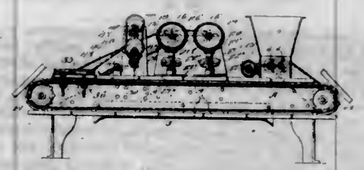
1. A buttonhole piece comprising a base material provided with a buttonhole, in combination with a reinforcing strip around the edge of the buttonhole and a series of stitches securing the strip to the base material passing through both the strip and the base material and also over the edge of the hole.

2. A buttonhole piece comprising a base material provided with a series of buttonholes in combination with a reinforcing cord laid around the edge of each buttonhole with one of the edges of the cord substantially in alinement with the edge of the hole, said cord having a width substantially greater than its thickness, and a series of stitches passing through both the base material and the cord and also over the edge of the hole whereby said stitches serve both to bind and finish the edge of the hole and also to secure the cord firmly to the base material.

3. A buttonhole piece comprising a base material provided with a series of buttonholes in combination with a reinforcing strip around the edge of each buttonhole and terminating adjacent the inner end of the buttonhole and a series of stitches securing the strip to the base material passing through both the strip and the base material and also over the edge of the hole.

4. A buttonhole piece comprising a base material 2 provided with a series of buttonholes in combination with a relatively flat reinforcing strip 8, lying upon the unexposed face of said material and extending entirely around the edge of each buttonhole with one of its edges substantially in alinement with the edge of the hole and crossing over itself at the inner end of the hole, and a series of stitches 10 passing through both the strip and the base material 2 and also over the edge of the hole, including the edge at the inner end of the hole so as to unite the crossed portions 12 of the strip 8 firmly to each other and to the base material 2, substantially as described.

1,076,765. CEMENT-SHINGLE MACHINE. JOHN D. HOFFMAN, Stratford, Ontario, Canada. Filed Jan. 17, 1912. Serial No. 671,543. (Cl. 25—99.)



1. In a machine of the character described, a supporting frame including side members having lateral flanges, an endless carrier including chains guided over said flanges, molds including frames pivotally connected with the chains and guided upon the flanges, and pallets supported upon said frames, and pallet ejectors including a pair of shafts operating in unison and having radial fingers adapted to be projected through the mold frames to lift the pallets therefrom.

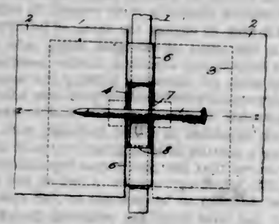
2. In a machine of the character described, a supporting frame, endless carrying means, a plurality of molds connected with said carrying means, means for supplying material to the molds and for compacting and polishing the same, and punching means supported for movement in a circular path, to and fro with reference to the molds and also for longitudinal movement at a speed timed to cooperate with the molds.

3. In a machine of the character described, a supporting frame, endless carrying means, a plurality of molds connected with the carrying means, means for supplying material to the molds and for compacting and polishing the same, and means for punching nail holes in the contents of the molds while the latter are in motion.

1,076,766. SUPPORTING DEVICE FOR PLASTER-BOARDS USED IN PARTITION CONSTRUCTION. MARVIN H. JESTER, Denver, Colo., assignor to The M. H. Jester Investment Company, a Corporation of Colorado. Filed Nov. 15, 1912. Serial No. 731,617. (Cl. 72—120.)

1. The combination with a stud, of a convertible clip for securing plaster boards thereto, comprising an abutment plate having a central longitudinal channel, and a cruciform opening extending through said plate and channel, a U-plate having one member of greater length than

the other and provided with an aperture in its extremity, and a key which passes through said aperture, the channel of said abutment plate being adapted to engage one side of said stud in one adaptation, and the stud passing through the slot in its channel when the plate is turned at right-angles, the U-plate engaging the opposite side of the stud with its key receiving end passing through the plate, the key being passed through the apertured end of said plate to clamp the ends of the plaster board to said plate.



2. A clip for clamping plaster boards to studs, comprising an abutment plate formed with a longitudinal channel, and having a cruciform opening extending through the said channel and plate, a coöperating stud-engaging U-plate one member of which is longer than the other and is apertured in its outer end, said apertured end passing through the opening in the plate, and a key which passes through the apertured end.

3. In a clip for plaster boards as specified, the combination with a stud, of a centrally channeled abutment-plate, which engages one side of said stud, having a central cruciform opening, a U-plate engaging the opposite side of the stud, one member of which extends through the opening in the abutment plate and is apertured in its extremity, and a key which is passed through said apertured extremity to clamp plaster boards to the abutment plate, said abutment plate being adapted to engage the stud in positions at right angles to each other to change the plane of its face with respect to the adjacent side of the stud.

4. In a clip as specified, the combination with a stud, of an abutment plate having integral means for engaging one side of said stud, and a central opening, a U-plate engaging the other side of the stud and having one of its members extending through the opening in said abutment plate and provided with an aperture in its extremity, and a nail which passes through said aperture, to clamp material between itself and the abutment plate.

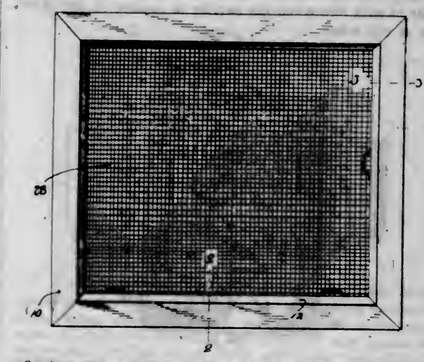
5. In a clip for plaster boards as specified, the combination with a stud, of an abutment comprising a plate formed with a longitudinal channel and having a cruciform opening extending through the channel and plate, said plate being placed upon the stud with its channel engaging the same when it is desired to position the plate back of the front face of the stud, or turned at right angles to allow the stud to pass through the slot which divides its channel when it is desired to have the plate rest against the stud, a U-plate engaging the opposite side of the stud, one member of which extends through the opening in the plate and is apertured, and a member which is passed through said aperture, to clamp the ends of plaster board to the abutment plate.

[Claims 6 and 7 not printed in the Gazette.]

1,076,767. WINDOW. CONRAD A. JOHNSON, Jamestown, N. Y. Filed Dec. 16, 1912. Serial No. 737,115. (Cl. 156—14.)

1. A sash comprising channel metal rails connected together, a bridge member connecting the legs of each channel metal rail and having a longitudinal bead of substantially circular cross section, and a locking member having a straight portion adapted to clamp the marginal edge of a screen against one of said legs and terminating in spring jaws adapted to engage with said bead.

2. A sash comprising channel metal rails connected together, each rail having one leg terminating in a substantially rightangular abutment portion, a bridge member connecting said legs and having a longitudinal bead, and a locking member having curved spring jaws adapted to engage with said bead, and having a straight portion connecting said jaws and extending obliquely along said jaws, said straight portion adapted to clamp the marginal edge of a screen against said abutment portion.



3. A sash comprising channel metal rails connected together, each rail having one leg terminating in a substantially rightangular abutment portion, a bridge member connecting said legs and having a longitudinal bead, a screen member having a marginal edge bearing against said abutment portion, a rod carried by said marginal edge and bearing against said bridge member, and a locking member having spring jaws engaging said longitudinal rib and having a portion bearing against said rod and clamping the same against said bridge member, and having a portion between said clamping portion and said jaws bearing against said screen and clamping the same to said abutment portion.

1,076,768. PROCESS OF TREATING STEEL AND STEEL ALLOYS. WILLIAM H. JONES, Munhall, and ANDREW F. MITCHELL, Homestead, Pa. Filed Feb. 4, 1911. Serial No. 606,591. (Cl. 148—37.)

1. The method of treating supercarburized steel consisting in decarburizing for a portion of the depth of supercarburization, removing a portion of the decarburized surface of the steel and then hardening the so-treated steel.

2. The method of treating steel having a supercarburized face portion, consisting in decarburizing said face portion, removing part of the decarburized face portion by machining and then hardening the so-treated steel.

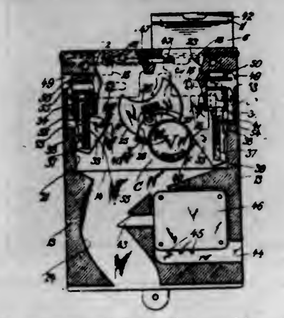
3. The method of treating supercarburized steel consisting in decarburizing for a portion of the depth of supercarburization, removing a portion of the decarburized surface of the steel by machining and then hardening the so-treated steel.

4. The method of treating steel consisting in treating steel having a fibrous portion joined integrally to a supercarburized face portion by decarburizing the supercarburized face for a portion of the depth thereof, removing the decarburized face portion by machining and then water hardening.

1,076,769. TWO-COMPARTMENT COIN-CONTROLLED VENDING-MACHINE. SAMUEL J. KELLY, White Plains, N. Y., and JOHN A. WEBSTER, Rutherford, N. J., assignors to Autosales Gum and Chocolate Company, New York, N. Y., a Corporation of New York. Filed Sept. 3, 1912. Serial No. 718,220. (Cl. 194—65.)

1. In a coin-controlled vending machine, the combination of a casing provided with two compartments, an in-

dependent lid and coin-slot for each compartment, an independent locking slide or bolt for each lid, a common actuating lever pivoted centrally with respect to said locking slides and adapted to engage the same at its upper end to move one or the other of said slides into unlocking position, a rotatable coin-carrier adapted to be manually operated in either direction and arranged to receive the coin deposited in either coin-slot, and a lug at the lower end of said lever extending into the path of the coin on the carrier, whereby the lever is rocked to unlock one or the other of said lids when the carrier is rotated in one direction or the other.



2. In a coin-controlled vending machine, the combination of a casing provided with two compartments, an independent lid and coin-slot for each compartment, an independent locking slide or bolt for each lid, a common actuating lever pivoted centrally with respect to said locking slides and adapted to engage the same at its upper end to move one or the other of the said slides into unlocking position, an adjustable retaining device associated with each locking slide for normally holding the same against unlocking movement, a rotatable coin-carrier adapted to be manually operated in either direction and arranged to receive the coin deposited in either coin-slot, each retaining device having a portion extending into the path of the coin on the carrier, so that the coin forces the adjacent retaining device into releasing position, and a lug at the lower end of said lever adapted to be engaged by the coin after the retaining device has been moved into releasing position to cause operation of said lever.

3. In a coin-controlled vending machine, the combination of a casing provided with two compartments, an independent lid and coin-slot for each compartment, an independent locking slide or bolt for each lid, a common actuating lever pivoted centrally with respect to said locking slides and adapted to engage the same at its upper end to move one or the other of said slides into unlocking position, a rotatable coin-carrier adapted to be manually operated in either direction and arranged to receive the coin deposited in either coin-slot, a lug at the lower end of said lever extending into the path of the coin on the carrier, whereby the lever is rocked to unlock one or the other of said lids when the carrier is rotated in one direction or the other, and a lug on each locking slide for obstructing the associated coin-slot against the entrance of a coin when the locking slide is in unlocking position.

4. In a coin-controlled vending machine, the combination of a casing provided with two compartments, an independent lid and coin-slot for each compartment, an independent locking slide or bolt for each lid, a common actuating lever pivoted centrally with respect to said locking slides and adapted to engage the same at its upper end to move one or the other of the said slides into unlocking position, an adjustable retaining device associated with each locking slide for normally holding the same against unlocking movement, a rotatable coin-carrier adapted to be manually operated in either direction and arranged to receive the coin deposited in either coin-slot, each retaining device having a portion extending into the path of the coin on the carrier, so that the coin forces the adjacent retaining device into releasing position, a lug at the lower end of said lever adapted to be actuated by the coin after the retaining device has been moved into releasing position, and a lug on each locking slide for obstructing the associated coin-slot against the entrance of a coin when the locking slide is in unlocking position.

5. In a coin-controlled vending machine, the combination of a casing provided with two compartments, an independent lid and coin-slot for each compartment, an independent locking slide or bolt for each lid, a common actuating lever pivoted centrally with respect to said locking slides and adapted to engage the same at its upper end to move one or the other of the said slides into unlocking position, an adjustable retaining device associated with each locking slide for normally holding the same against unlocking movement, a rotatable coin-carrier adapted to be manually operated in either direction and arranged to receive the coin deposited in either coin-slot, each retaining device having a portion extending into the path of the coin on the carrier, so that the coin forces the adjacent retaining device into releasing position, a lug at the lower end of said lever adapted to be engaged by the coin to cause operation of the lever after the retaining device has been moved into releasing position, and a key-controlled restoring member associated with each retaining device for restoring the same to normal or retaining position.

[Claims 6 to 11 not printed in the Gazette.]

1,076,770. BOTTLE-SEALING PROCESS. KARL LUDWIG KETHIL, Morgantown, W. Va. Filed Mar. 6, 1912. Serial No. 682,038. (Cl. 216—62.)
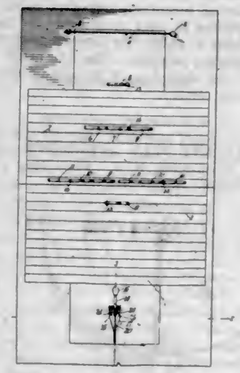


1. The herein described process which consists in applying to a receptacle, a strip having a projecting design; and applying an opaque sealing medium to the strip and to the receptacle to hold the strip upon the receptacle and to cause a distortion of the opaque medium in accordance with the design.

2. The herein described process which consists in applying to a receptacle, a strip having a design mounted thereon and applying a sealing medium to the design, to the strip and to the receptacle, to hold the design upon the strip, to hold the strip upon the receptacle, and to cause a distortion of the medium in accordance with the design.

1,076,771. GAME APPARATUS. EDWARD KRANCHER, New York, N. Y. Filed Dec. 1, 1911. Serial No. 663,225. (Cl. 46—62.)

1. Apparatus for playing the game of foot ball, comprising a board or base, a plurality of pieces representing a team of football players in line formation, each of said pieces being pivotally mounted upon said base, and means for propelling a movable member against said pieces to cause the ball to rotate the same upon their pivots and pass through said team.

2. In apparatus for playing the game of foot ball, a movably-mounted figure representing a player, means for holding said figure in a given position, and means for moving said figure against the force of said means, whereby when said means are released, the said figure will be returned to its original position with sufficient force to propel a movable member.



3. Game apparatus comprising a base or board having an aperture therethrough, said aperture being wider at one end than at the other and having a plurality of longitudinal recesses adjacent said wider end, a sliding member moving in said aperture, of a width designed to enter one of said recesses, resilient means for causing said sliding member to travel toward said recesses, means for putting said resilient means under tension and releasing the same, and a figure representing a foot ball player mounted upon said sliding member to be operated thereby.

4. Apparatus for playing the game of foot ball, comprising a base or board having an aperture therethrough, a sliding member projecting through said aperture and of less thickness than the width of said aperture, a figure representing a foot ball player carried by said sliding member, to be operated thereby, resilient means connected to said sliding member for holding the same adjacent one end of said aperture, means for putting said resilient means under stress and releasing the same, and a bar curved around said sliding member and transversely arranged with respect thereto, said bar having said resilient means movably secured thereto and being bent so as to have its ends located a slightly greater distance from the center of said sliding member when the same is held by said spring in one end of said aperture, than the central portion of said bar, whereby the end of said resilient means can work along said bar to a certain extent on each side of the center thereof, to cause the said member to be moved obliquely on its return movement.

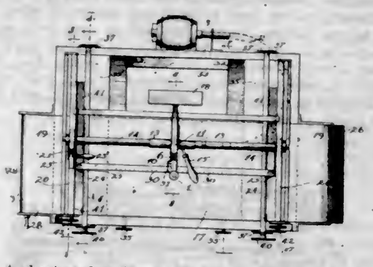
5. Game apparatus comprising a movably-mounted figure representing a player, and means for causing said figure to have bodily movement in a straight-line to propel a movable member thereby.

[Claims 6 to 8 not printed in the Gazette.]

1,076,772. PERFORATING-MACHINE. CHARLES L. LILLEBERG, Chicago, Ill. Filed July 19, 1909, Serial No. 508,445. Renewed Oct. 23, 1911. Serial No. 656,215. (Cl. 164—75.)

1. A sheet-perforating machine including a punch, driven mechanism for operating the punch, said punch and mechanism being together movable by hand over the sheet to be perforated, a guide for directing the travel of said punch and mechanism over the sheet to be perforated longitudinally of the sheet, manually controlled means permitting the punch while operating to be brought into and out of operative relation with the sheet, and means for locating the guide in differing positions transversely of the sheet, whereby a plurality of rows of perforations longitudinally of the sheet may be formed in the sheet.

2. A sheet-perforating machine including a punch movable by hand over the sheet to be perforated, a guide for directing the punch in its movement over the sheet to be perforated longitudinally of the sheet, mechanism for operating the punch in its various positions, manually controlled means permitting the punch while operating to be brought into and out of operative relation with the sheet, and means for locating the guide in differing positions transversely of the sheet, whereby a plurality of rows of perforations longitudinally of the sheet may be formed in the sheet.



3. A sheet-perforating machine including a punch, driven mechanism for operating the punch, said punch and mechanism being together movable over the sheet to be perforated, a guide for directing the travel of said punch and mechanism over the sheet to be perforated longitudinally of the sheet, manually controlled means permitting the punch while operating to be brought into and out of operative relation with the sheet, and means for locating the guide in differing positions transversely of the sheet, whereby a plurality of rows of perforations longitudinally of the sheet may be formed in the sheet.

4. A sheet-perforating machine including a punch movable over the sheet to be perforated, a guide for directing the punch in its movement over the sheet to be perforated longitudinally of the sheet, mechanism for operating the punch in its various positions, manually controlled means permitting the punch while operating to be brought into and out of operative relation with the sheet, and means for locating the guide in differing positions transversely of the sheet, whereby a plurality of rows of perforations longitudinally of the sheet may be formed in the sheet.

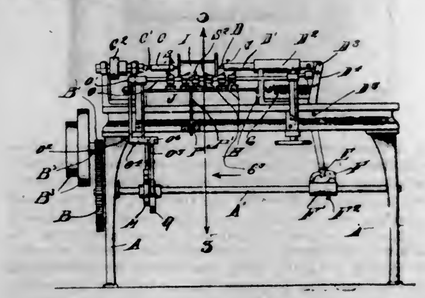
5. A sheet-perforating machine including a punch, driven mechanism for operating the punch, said punch and mechanism being together movable by hand over the sheet to be perforated, a guide for directing the travel of said punch and mechanism over the sheet to be perforated longitudinally of the sheet, manually controlled means permitting the punch to be brought into and out of operative relation with the sheet, and means for locating the guide in differing positions transversely of the sheet, whereby a plurality of rows of perforations longitudinally of the sheet may be formed in the sheet.

[Claims 6 to 36 not printed in the Gazette.]

1,076,773. APPARATUS FOR PAINTING SPOOLS. JOHN EDWARD LOCK, Sherbrooke, Quebec, Canada. Filed Sept. 12, 1912. Serial No. 720,054. (Cl. 91—41.)

1. An apparatus for painting and shellacking spools, etc., comprising a frame, a rotatable shaft journaled therein, a lathe spindle and tail stock for holding and causing a spool to rotate, a cam fixed to said rotatable shaft, a lever pivotally mounted upon the frame, an anti-friction roller journaled upon said lever and contacting with said cam, the said lever having pivotal connection with the shank of said tail stock and affording means for withdrawing the tail stock from a spool, a spring fastened to said lever for returning the same to its normal position, a rock shaft, collars fixed to the latter, brushes fastened to the collars, a paint containing receptacle adjacent to the rock shaft, a crank upon the latter, a cam fixed to the rotatable shaft, and means actuated by said cam and adapted to actuate the rock shaft, as set forth.

2. An apparatus for painting and shellacking spools, etc., comprising a frame, a rotatable shaft journaled therein, a lathe spindle and tail stock for holding and causing a spool to rotate, a cam fixed to said rotatable shaft, a lever pivotally mounted upon the frame, an anti-friction roller journaled upon said lever and contacting with said cam, the said lever having pivotal connection with the shank of said tail stock and affording means for withdrawing the tail stock from a spool, a spring fastened to said lever for returning the same to its normal position, rock shafts journaled in the frame, cams fixed to the rotatable shaft, collars fixed to said rock shafts, brushes carried by the collars, cranks fastened to each rock shaft, stub shafts, a crank arm fastened to each stub shaft and having pivotal connection each with a crank upon said rock shaft, and angle arms fastened to said stub shafts and adapted to contact with different cams upon said rotatable shaft, as set forth.

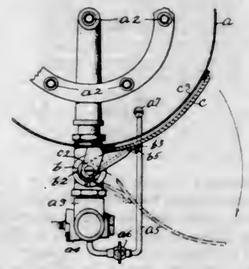


3. An apparatus for painting and shellacking spools, etc., comprising a frame, a rotatable shaft journaled therein, a lathe spindle and tail stock for holding and causing a spool to rotate, a cam fixed to said rotatable shaft, a lever pivotally mounted upon the frame, an anti-friction roller journaled upon said lever and contacting with the shank of said tail stock and affording means for withdrawing the tail stock from a spool, a spring fastened to said lever for returning the same to its normal position, rock shafts journaled in the frame, cranks fastened to each rock shaft, stub shafts, a crank arm fastened to each stub shaft and having pivotal connection with a crank upon said rock shaft, angled arms fastened one to each of said stub shafts, and an anti-friction roller journaled upon each end of an angle arm and each adapted to contact with a cam upon a rotatable shaft, as set forth.

4. An apparatus for painting and shellacking spools, etc., comprising a frame, a rotatable shaft journaled therein, a lathe spindle and tail stock for holding and causing a spool to rotate, a cam fixed to said rotatable shaft, a lever pivotally mounted upon the frame, an anti-friction roller journaled upon said lever and contacting with said cam, the said lever having pivotal connection with the shank of said tail stock and affording means for withdrawing the tail stock from a spool, a spring fastened to said lever for returning the same to its normal position, rock shafts journaled in the frame, crank arms having adjustable pivotal connections with said rock shaft, stub shafts to which said crank arms are fastened, angled arms fastened one to each of said stub shafts, an anti-friction roller journaled upon each end of an angle arm and each adapted to contact with a cam upon a rotatable shaft, and a bracket arm mounted upon the frame and a spool holder carried by said bracket arm, as set forth.

5. An apparatus for painting and shellacking spools, etc., comprising a frame, a rotatable shaft journaled therein, a lathe spindle and tail stock for holding and causing a spool to rotate, a cam fixed to said rotatable shaft, a lever pivotally mounted upon the frame, an anti-friction roller journaled upon said lever and contacting with said cam, the said lever having pivotal connection with the shank of said tail stock and affording means for withdrawing the tail stock from a spool, a spring fastened to said lever for returning the same to its normal position, rock shafts journaled in the frame, cams fixed to the rotatable shaft, collars fixed to said rock shafts, brushes carried by said collars, other cams fixed to the rotatable shaft, a paint containing receptacle adjacent to the rock shaft, and means actuated by said other cams for causing one of the shafts to rock to cause the brushes thereon to dip into said paint receiving receptacle and the other to cause the brushes upon the other shaft to spread the paint upon the spool, as set forth.

1,076,774. SAFETY GAS APPLIANCE. HERBERT J. LONG, New Brunswick, N. J. Filed May 23, 1911. Serial No. 628,976. (Cl. 126—42.)



1. In a gas burning device, a casing provided with a door, main burners therein, a gas supply pipe for said burners, a valve in said pipe, a pilot fixed in said casing and in communication with said pipe between said valve and the source of supply whereby a constant gas supply results to said pilot, and means connected with said door and valve for closing the valve upon opening the door and thus preventing the supply of gas to said main burners when the door is opened.

2. In a water heater, the combination of a combustion chamber, a door therefor, a burner within the combustion chamber, a fuel supply pipe leading to the burner, a valve for said supply pipe, a pilot normally in coöperative relation with the burner and in constant communication with a source of gas supply, and means actuated by the door for closing the valve on the opening of the door to cut off the gas supply to the burner.

3. In a heater, the combination of a combustion chamber, a door therefor, a main burner and a pilot burner within said chamber, means for supplying fuel to said burners, a valve controlling the supply of fuel to said main burner independently of the supply of fuel to said pilot burner and means actuated by the movement of the door for closing the valve upon opening the door and cutting off the supply of gas to the main burner without affecting the supply of gas to the pilot burner.

4. In a heater, a combustion chamber, a door therefor, a main burner and a pilot burner in said chamber, means for supplying fuel to said burners, a main valve for controlling the supply of fuel to said main burner, a valve for controlling the supply of fuel to said pilot burner independently of the supply of fuel to said main burner and means of connection between said door and said main valve for operating said main valve when said door is open without affecting the valve controlling the supply of fuel to said pilot burner.

5. In a heater, a combustion chamber, a main burner in said chamber, a fuel supply pipe leading thereto, a main valve in the supply pipe to the main burner, a door for said chamber, hinges for said door independent of said valve, means of connection between said door and said valve for closing said valve upon opening said door and opening said valve upon closing said door and means for igniting the fuel from said main burner within said chamber when the door is closed.

[Claims 6 to 8 not printed in the Gazette.]

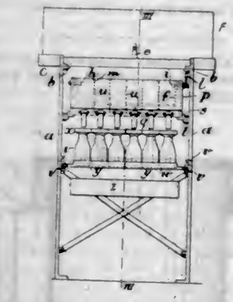
1,076,775. CURTAIN-SUPPORTING DEVICE. AUGUST LOTON, Buffalo, N. Y. Filed July 10, 1912. Serial No. 708,640. (Cl. 156—24.)



1. A device of the class described consisting of slideway plates attached to a window casing; the middle portion of each slideway plate being provided with transverse corrugations, and brackets slidably mounted in said slideway plates; each of said brackets having its inner end provided with two laterally extending corner portions and a central laterally extending portion which projects oppositely to the corner portions and has its outer end bent inwardly to form a projecting locking portion which is adapted to spring into any one of the transverse corrugations and thereby lock the bracket in its adjusted position.

2. A device of the class described consisting of slideway plates attached to a window casing; the middle portion of each slideway plate being provided with transverse corrugations and brackets slidably mounted in said slideway plates; each of said brackets having its inner end provided with two laterally extending corner portions and a central laterally extending portion which projects oppositely to the corner portions and has its outer end bent inwardly to form a projecting locking portion which is adapted to spring into any one of the transverse corrugations and thereby lock the bracket in its adjusted position, and the middle part of the locking portion being slitted and bent to extend in alinement with the remainder of the central laterally extending portion to form a projecting lip which may be conveniently grasped by the fingers to spring the locking portion out of the corrugation in which it is seated.

1,076,776. APPARATUS FOR FILLING BOTTLES AND OTHER RECEPTACLES WITH LIQUIDS. CHARLES JEFFERIES MATTHEWS and JOHN CATTELL POTTER, Eastbourne, England; said Matthews assignor to said Potter. Filed Mar. 1, 1910. Serial No. 546,705. (Cl. 226—17.)



1. In apparatus for filling a plurality of receptacles, the combination of a distributer comprising a number of compartments each fitted with delivery means, a measuring vessel pivotally mounted within said distributer and formed with a similar number of compartments each of which is appropriate to a respective one of the first-named compartments, and operating means connected with said measuring vessel and adapted for turning said measuring vessel on its pivots so as to cause simultaneous discharge of the contents of the various compartments of the measuring vessel into corresponding compartments of said distributer, substantially as set forth.

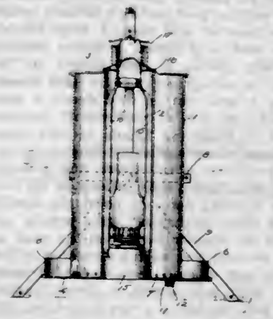
2. An apparatus for filling receptacles, comprising a liquid containing reservoir, a distributer provided with a plurality of compartments having discharge spouts, a measuring vessel pivotally mounted within the distributer and provided with a plurality of partitions and lips, and means for mounting a plurality of receptacles under said discharge spouts.

3. An apparatus for filling receptacles, comprising a liquid containing reservoir, a stationary distributer provided with a plurality of compartments having discharge spouts, a gravity controlled measuring vessel having a plurality of partitions and lips and mounted within the distributer, means for tipping said measuring vessel, and means for supporting a plurality of receptacles under the discharge spouts.

4. An apparatus for filling receptacles, comprising a liquid containing reservoir, a stationary distributer provided with a plurality of compartments having discharge spouts, a gravity-controlled measuring vessel having a plurality of partitions extending nearly to the bottom thereof and mounted within the distributer, means for tipping said measuring vessel, and means for supporting a plurality of receptacles under the discharge spouts.

5. In apparatus for filling a plurality of receptacles, the combination of a distributer comprising a number of compartments each fitted with delivery means, a measuring vessel pivotally mounted within said distributer and formed with a similar number of compartments each communicating with its neighbor or neighbors and each being appropriate to a respective one of the first-named compartments, and operating means connected with said measuring vessel and adapted for turning said measuring vessel on its pivots so as to cause simultaneous discharge of the contents of the various compartments of the measuring vessel into the corresponding compartments of said distributer, substantially as set forth.

1,076,777. POULTRY-FOUNTAIN. DANIEL L. MCCUNNINGHAM and EARL M. WILSON, Sedan, Kans. Filed May 18, 1911. Serial No. 626,936. (Cl. 119—73.)

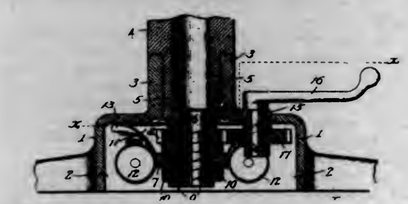


1. A device of the kind described comprising a tank, a flue centrally formed from end to end of said tank, a lamp having frictional retaining means for holding it within said flue, and a wind guard secured to said retaining means and serving as a stop to limit its movement.

2. A device of the kind described comprising a tank, a flue centrally formed from end to end of said tank, a lamp, a plurality of straps secured in axial alinement with said lamp and arranged to frictionally engage the walls of said flue to support said lamp.

3. In a device of the kind described, a water tank having a central hollow chamber, a lamp suspending device embodying a wind guard, resilient straps depending from said wind guard for engagement with the inner wall of said hollow chamber for frictionally and adjustably supporting said lamp, and means carried by the wind guard for closing the upper end of said hollow chamber.

1,076,778. CASTER MECHANISM FOR VAULTING-HORSES. PHILIP S. MEDART, St. Louis, Mo., assignor to Fred Medart Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed May 11, 1912. Serial No. 696,616. (Cl. 16—165.)



1. In a vaulting horse or buck, the combination of a supporting base formed on its underside with a recess adapted to receive a caster mechanism and having an integrally formed and centrally disposed neck which in turn is formed with a cylindrical bore open at top and bottom, and a vertical post having a reduced cylindrical shank at its lower end fitting the cylindrical bore of the aforesaid neck and adapted to provide a supporting means for a caster mechanism, the offset or shoulder of the post abutting against the upper surface of the aforesaid neck, substantially as set forth.

2. In a vaulting horse or buck, the combination of a supporting base having an open bottom cavity at its center and an annular post receiving neck on its upper surface, a vertical post having a reduced cylindrical shank fitting the bore of said neck, a fixed trunnion in axial alinement with said shank, a sleeve journaled on said trunnion and having a screw-thread on its periphery, means for imparting rotation to said sleeve, a frame having a screw-threaded hub engaging the screw-threaded periphery of the sleeve, and a series of casters carried by said frame, substantially as set forth.

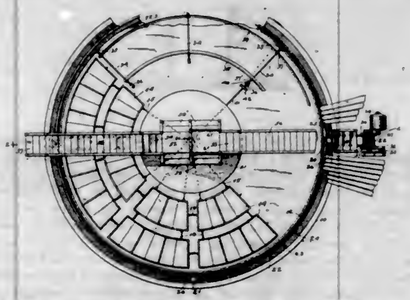
3. In a vaulting horse or buck, the combination of a supporting base having an open bottom cavity at its center and an annular post receiving neck on its upper surface, a vertical post having a reduced cylindrical shank fitting the bore of said neck, a fixed trunnion in axial alinement with said shank, a sleeve journaled on said trunnion and having a screw-thread on its periphery, means for imparting rotation to said sleeve, the same comprising a gear rim on said sleeve, a gear wheel engaging said gear rim, a countershaft carrying said gear wheel and an operating handle on said countershaft, a frame having a screw-threaded hub engaging the screw-threaded periphery of the sleeve, and a series of casters carried by said frame, substantially as set forth.

4. In a vaulting horse or buck, the combination of a supporting base having an open bottom cavity at its center and an annular post receiving neck on its upper surface, a vertical post having a reduced cylindrical shank fitting the bore of said neck, a fixed trunnion in axial alinement with said shank, a sleeve journaled on said trunnion and having a screw-thread on its periphery, means for imparting rotation to said sleeve, a frame having side wings and a sunken center carrying a screw-threaded hub engaging the screw-threaded periphery of the sleeve, and a series of casters secured to the underside of the raised side wings of the said frame, substantially as set forth.

1,076,779. AQUATIC PLEASURE STRUCTURE. JOHN A. MILLER, Homewood, Ill., and VERNON KEENAN, Cincinnati, Ohio. Filed Nov. 29, 1912. Serial No. 733,964. (Cl. 46—27.)

1. In a pleasure structure, the combination of a body of water, means for rotating said body of water about a center, and water craft supported on said body of water to travel therewith independently of said rotating means.

2. In a pleasure structure, the combination of a body of water, means for rotating said body of water to revolve about a center, means arranged in the path of the water for agitating said water, and water craft supported on said water to travel therewith and to follow the movements thereof independently of said rotating means.



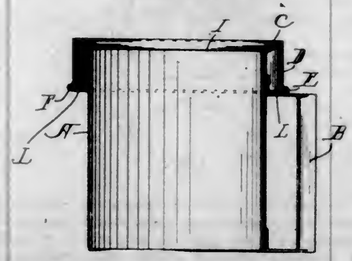
3. In a pleasure structure, the combination of a retaining structure, a body of water confined by said structure, means for rotating said structure about a center, means for causing the water within said structure to travel therewith and on account of centrifugal force to slope upwardly toward the outer edge of said structure, and passenger supporting devices adapted to travel with said water and to follow the various movements thereof.

4. In a pleasure structure, the combination of a circular carrier having a bottom wall and a surrounding side wall, a body of water confined by said walls, means for revolving said carrier about a center, baffle members on said carrier for engaging with the water to cause revolving thereof with said carrier whereby centrifugal force will cause the water to bank toward said surrounding wall, and passenger supporting craft adapted to ride on said water to follow the movements thereof.

5. In a pleasure structure, the combination of a circular carrier having a bottom wall and a surrounding side wall, a body of water confined by said walls, means for revolving said carrier about a center, baffle members on said carrier for engaging with the water to cause revolving thereof with said carrier whereby centrifugal force will cause the water to bank toward said surrounding side wall, said baffle members being adjustable, and water craft adapted to ride on said water to follow the movements thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,076,780. COMBINED MEASURE AND STOPPER. JULIUS F. PETER, St. Paul, Minn. Filed Feb. 6, 1913. Serial No. 746,435. (Cl. 31—77.)



1. A combined measure and stopper, comprising a receptacle having a wall around its upper end spaced from the side of said receptacle and connected to said side by a lip at its upper end.

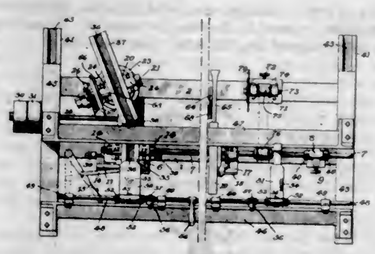
2. A combined measure and stopper, comprising, a receptacle having a stopper wall around its upper end and spaced from its side, the upper ends of said side and stopper wall being connected by an inwardly trending lip and the space between said side and stopper wall being sealed to form a dead air space, for the purposes specified.

3. A combined measure and stopper, comprising, a receptacle having a stopper wall around its upper end and spaced from its side and connected by a downwardly and inwardly extending lip for the purposes specified.

4. A combined measure and stopper, comprising, a receptacle having a cylindrical stopper wall around its upper end and spaced from its side, said wall being connected to said side by a downwardly and inwardly extending lip, and the lower edge of said wall being formed with an outwardly projecting stop shoulder, adapted to limit the insertion of the stopper wall in the neck of a receptacle.

5. A combined measure and stopper, comprising, a receptacle having a cylindrical collar D, spaced from the wall of said receptacle, and adapted to form the side of the stopper, a lip C curved downwardly and inwardly from the upper edge of said collar to the upper edge of the wall of said receptacle, and a shoulder F formed on the lower edge of said collar, said collar being turned down from said lip along and spaced from the side of said receptacle.

1,076,781. MACHINE FOR CUTTING GROOVES IN DOOR AND WINDOW STILES. FRANCIS V. PHILLIPS, Orlando, Fla. Filed July 21, 1913. Serial No. 780,281. (Cl. 144—133.)



1. In a machine of the character described, a rotary shaft having a cutter mounted thereon, a second shaft angularly adjustable with respect to the first mentioned shaft and also having a cutter mounted thereon, a work carriage movable at right angles to one of said shafts for carrying the work successively over each of said cutters, a work holder mounted on said carriage and longitudinally movable with respect thereto, and guides arranged at right angles to each of said shafts, said guides operating to control the longitudinal movements of the work holder with respect to the carriage and thereby cause the work to be presented to the successive cutters at the proper angle.

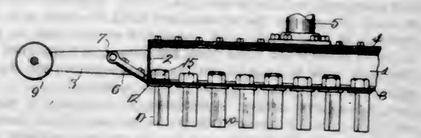
2. In a machine of the character described a longitudinally movable shaft having a rotary cutter mounted thereon, a second shaft angularly movable with respect to the first mentioned shaft and also carrying a rotary cutter, guides arranged at right angles to each of said shafts, said guides being pivotally connected together to form a continuous guide across the two shafts, a work carriage adapted to move in a right line across said shafts, and a work holder mounted on said carriage and longitudinally movable with respect thereto, the longitudinal movements of said work holder being controlled by said guides.

3. In a machine of the character described, the combination with a slidably mounted standard, of a shaft journaled therein and adapted to be longitudinally moved by movements of said standard, a rotary cutter carried by said shaft, a second standard also having a shaft journaled thereon, said last mentioned standard being movable for changing the angle of the shaft supported thereby with respect to the first mentioned shaft, a guide mounted on each of said standards at right angles to the shafts carried thereby, said guides being pivotally connected together to form a continuous guide across the two shafts, a work carriage movable across said shafts, a work holder mounted on said carriage and longitudinally movable with respect thereto, said guides operating to control the positions of the work holder with respect to the carriage, and means for moving the slidably mounted standard for changing the relative positions of said guides.

4. In a machine of the character described, a longitudinally movable shaft having a rotary cutter mounted thereon, a second shaft angularly movable with respect to the first mentioned shaft, and also carrying a rotary cutter, guides arranged at right angles to each of said shafts, said guides being pivotally connected together to form a continuous guide across the two shafts, a work carriage adapted to move in a right line across said shafts, a longitudinally movable rock shaft supported by said carriage, work supports loosely mounted on said rock shaft, clamping members secured to said shaft and adapted by a rocking movement thereof to clamp the work against said supports, a handle for rocking said rock shaft, and means connecting one of said work supports with said guides.

5. In a machine of the character described, a longitudinally movable shaft having a rotary cutter mounted thereon, a second shaft angularly movable with respect to the first mentioned shaft and also carrying a rotary cutter, guides arranged at right angles to each of said shafts, said guides being pivotally connected together to form a continuous guide across the two shafts, a work carriage adapted to be moved across said shafts, a handle for moving said carriage, a rock shaft on which said handle is mounted, said rock shaft being supported by said carriage and longitudinally movable with respect thereto, work supports loosely carried by said rock shaft, work clamping arms fixedly mounted on said shaft and adapted to clamp the work on said work supports, and means connecting one of said work supports with said guides.

1,076,782. PROCESS FOR MAKING ROADWAYS, RAILROAD-BEDS, SIDEWALKS, AND THE LIKE. MICHAEL A. POPKESS, Kansas City, Mo., assignor to Bituminized Road Company, Phoenix, Ariz., a Corporation of Arizona. Filed Oct. 28, 1908. Serial No. 459,956. (Cl. 94—6.)



1. The process of surfacing roadways and the like, which consists in simultaneously harrowing and heating below the surface the material of the roadway and then injecting a liquid binder into the heated material below the surface thereof.

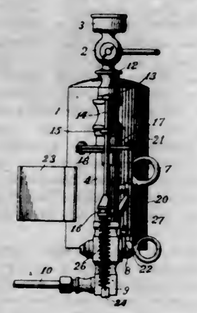
2. The process of surfacing roadways and the like, which consists in harrowing the material of the roadway, playing heat into the same from points below the surface thereof and injecting a liquid binder into the same below the surface thereof.

3. The process of surfacing roadways and the like, which consists in plowing and smoothing the roadway material, simultaneously harrowing and playing heat into the same, injecting a liquid binder below the surface of the roadway and finally smoothing and compressing the same.

4. The process of forming a waterproof, plastic surface for roadways and the like, which consists in injecting a hot, liquefied binder into the earthy material of the roadway to be paved at some distance below the surface

thereof, while maintaining the surface covered and compressed, whereby the heat is retained until an intimate mixture of the earthy material and the binder has taken place.

1,076,783. PRIMER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM J. PEESLEY, Grand Haven, Mich. Filed Jan. 13, 1913. Serial No. 741,685. (Cl. 123—180.)



1. An engine primer, comprising a reservoir, a pump communicating with the reservoir and having a spring actuated plunger, a latch to hold the plunger from operating, a stop cock in the outlet of the pump, and means for engaging the latch operated by turning the stop cock to open position.

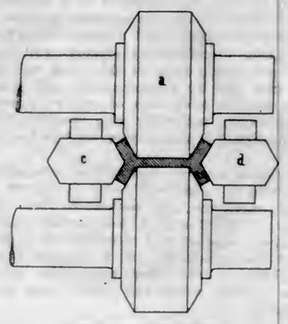
2. An engine primer, comprising a reservoir, a pump communicating with said reservoir, a spring actuated plunger in said pump, a rod outside the pump attached to the said plunger and moving therewith, a latch adapted to engage said rod to hold the plunger raised against the tension of its spring, a stop cock in the outlet of the pump, and means for disengaging the latch from the rod operated by turning said stop cock to open position.

3. An engine primer, comprising a reservoir, a pump communicating with the reservoir, a stop cock in the outlet of the pump, a spring actuated plunger to the pump, springs connected to the plunger to operate the same, a rod attached to the plunger and having a groove therein, a latch to engage the groove and hold the rod, a lever pivoted at the middle and connected at one end to the latch to remove the same from the groove, a projection on the stop cock to engage the lever and operate the same when the said cock is turned to open position.

4. An engine primer, comprising a reservoir, a pump barrel, a conduit connecting the lower end of the barrel and the reservoir, a stop cock in the conduit, a lower extension to the pump having a conduit to communicate with the engine, a stop cock in the base of the pump, a cam on said stop cock, a plunger reciprocable in the pump barrel, a spring connected to the plunger and conduit, a rod connected to the plunger at one end and having an enlargement at the other end provided with a groove, a spring connected to the rod, a latch to engage the groove and hold the plunger withdrawn from the pump barrel, a lever pivoted near the middle, a rod connecting one end of the lever to the latch and the other end of the lever engaged by the cam to release the latch from the groove whenever the cock is turned to open position.

1,076,784. PROCESS OF ROLLING BARS OR GIRDERS OF I, H, U, OR LIKE SECTION. JOHANN PUPPE, Breslau, Germany. Filed July 1, 1912. Serial No. 707,101. (Cl. 80—66.)

Process for rolling of bars or girders of the I, H and U or like sections in universal rolling mills, consisting in alternately bending out and straightening the flanges and in simultaneously rolling the web and the flanges, each in a direction transverse to its respective plane when the



flanges are bent out, and in rolling the edges of the flanges in the direction of their respective planes when the flanges are straightened out.

1,076,785. INKING-FOUNTAIN FOR PRINTING-PRESSES. JOHN E. RAIBLE, Chicago, Ill. Filed Sept. 21, 1912. Serial No. 721,508. (Cl. 101—79.)



1. The combination with the roller frame and inking fountain of a printing press, of a clamp secured to an arm of said frame; a rod on said frame extending parallel with said arm and having a V-shaped groove in its inner side; a sleeve slidable on said rod; a set screw on the inner side of said sleeve and having a conical point engaging said groove; an upstanding post on said sleeve; and a link pivoted at its lower end to said post and connected at its upper end with the ink feeding mechanism of the fountain, substantially as described.

2. The combination with the roller frame and inking fountain of a printing press, of a clamp adjustably secured to an arm of said frame; a rod on said frame extending parallel with said arm and having a V-shaped groove in its inner side, a sleeve slidable on said rod; a set screw on the inner side of said sleeve and having a conical point engaging said groove; an upstanding post on said sleeve; and a link pivoted at its lower end to said post and connected at its upper end with the ink feeding mechanism of the fountain, substantially as described.

1,076,786. METHOD OF PRESERVING PLANT-LEAVES, FLOWERS, BUTTERFLIES, AND THE LIKE. THERESE REINHERZ, Munich, Germany. Filed Mar. 3, 1913. Serial No. 751,717. (Cl. 99—8.)

The method of preserving flowers, leaves, butterflies and like specimens, which consists in applying a coating consisting of a mixture of colloid matter, oily matter, glycerin, carbonate of magnesium and Venetian turpentine.

1,076,787. FIRE-EXTINGUISHER. ARTHUR C. ROWE, New York, N. Y., assignor to A. C. Rowe & Son, New York, N. Y., a Firm composed of Arthur C. Rowe and Kenneth P. Rowe. Filed June 12, 1912. Serial No. 703,255. (Cl. 169—17.)



1. A fire-extinguisher comprising a cylinder having an opening in its outer end, a hollow plunger keyed to slide snugly in said opening and interiorly screw-threaded at its inner end, a feed-screw extending longitudinally in said cylinder and adapted to engage said screw-threads when the plunger is forced rearward, a screw-threaded sleeve surrounding said feed-screw and carrying a flange-plate, a piston-plate telescoping upon said sleeve, springs interposed between said plates, a piston-washer carried upon said piston-plate, and a plate pivoted eccentrically upon said flange-plate for preventing said sleeve and piston from turning axially in said cylinder.

2. A fire-extinguisher comprising a chamber having an opening in its outer end, a hollow plunger keyed to slide snugly in said opening and interiorly screw-threaded at its inner end, a feed-screw extending longitudinally in said chamber and adapted to engage said screw-threads when the plunger is forced rearward, a screw-threaded sleeve surrounding said feed-screw and carrying a flange-plate, a piston-plate telescoping upon said sleeve, springs interposed between said plates, and a piston-washer carried upon said piston-plate.

3. A fire-extinguisher comprising a chamber, a piston fitted therein, a feed-screw for propelling said piston, a hollow plunger fitted in the forward end of said chamber and having a threaded seat in its inner end adapted to engage the extremity of said feed-screw whereby the outlet-orifice in said plunger may be forced against or away from the end of said feed-screw.

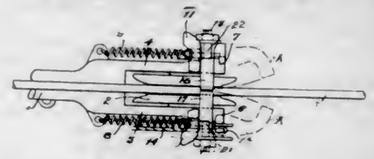
4. A fire-extinguisher comprising a cylinder having an outlet-orifice, a feed-screw extending longitudinally in said cylinder, a nut traveling along said feed-screw, a piston carried yieldingly in front of said nut, and a disk mounted eccentrically upon said nut to prevent the latter from turning axially in said cylinder.

5. A fire-extinguisher comprising a cylinder having an outlet-orifice, a feed-screw extending longitudinally in said cylinder, a nut traveling along said feed-screw, a piston carried yieldingly in front of said nut, and means to prevent said nut turning axially in said cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,076,788. TROLLEY. JOHN J. SABO, Pittsburgh, Pa. Filed Aug. 19, 1912. Serial No. 715,764. (Cl. 191—81.)

1. In combination in a trolley, a fork having inclined bearing surfaces at the sides thereof, a wheel mounted in the fork, a pair of fingers mounted on opposite sides of the fork and yieldingly held with their ends over the wire and pivoted to swing backward and laterally with their lateral faces bearing against said surfaces to release the wire when the wheel passes a cross wire, springs for holding the fingers against their inclined bearing surfaces, and means for pulling the wheel away from the wire and swinging one of the fingers to a position at the side of the wire while leaving the other finger in its normal position.



2. In combination in a trolley, a fork having inclined bearing surfaces at the sides thereof, a wheel mounted in the fork, a pair of fingers pivotally mounted on the fork with their lateral faces bearing against said inclined surfaces for swinging movement longitudinally of the wire and laterally with respect thereto, means for yieldingly maintaining the fingers in upright position, springs for holding the fingers against their inclined bearing surfaces with their ends lying over the wire, and means secured to one finger and adapted to pull the wheel away from the wire and swing the finger while leaving the other finger in its upright position.

3. In combination in a trolley, a fork having inclined surfaces at the sides thereof, a wheel mounted in the fork, a pair of pivoted fingers having inclined surfaces engaging said other inclined surfaces, means for holding the said fingers in upright position with their ends overlying the wheel, and springs carried by the fingers for yieldingly holding the inclined surfaces on the fingers against the inclined surfaces on the fork.

4. In combination in a trolley, a fork having inclined surfaces at the sides thereof, a wheel mounted in the fork, a pair of pivoted fingers having inclined surfaces engaging said other inclined surfaces, means for holding the said fingers in upright position with their ends overlying the wheel, and inclined resilient buffer members carried by the said fingers.

1,076,789. PRIMARY BATTERY. AUGUSTE L. SALTZMAN, East Orange, N. J., assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J., a Corporation of New Jersey. Filed Feb. 10, 1911. Serial No. 607,745. (Cl. 204—38.)

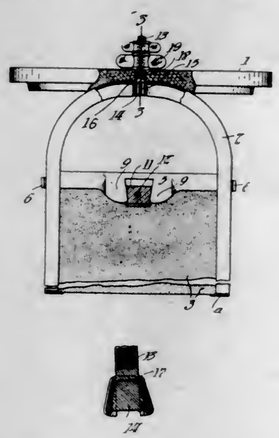
1. In a voltaic battery, the combination of a supporting hanger of sheet metal having an opening therethrough, and a supporting bolt therefor, the bolt being extended through the opening and held in place by an upset portion of the hanger, substantially as described.

2. In a voltaic battery, the combination of a U-shaped hanger, channel shaped in cross-section, and a supporting bolt therefor having a wedge shaped head, the wedge faces of the head being in engagement with the walls of the channel and held in place by upset portions of the said walls, substantially as described.

3. In a voltaic battery, the combination of a U-shaped hanger, channel shaped in cross-section, and a supporting bolt therefor having a wedge shaped head the wedge faces being grooved and in engagement with the walls of the channel, the material of the hanger being upset into intimate engagement with the grooved faces and around the edges of the same, whereby the bolt is held in place in the hanger, substantially as described.

4. In a voltaic battery, the combination with positive and negative battery plates, of supporting means therefor, comprising a hanger of sheet metal, and a supporting bolt therefor, the said bolt being secured to said hanger by an upset portion of said hanger, substantially as described.

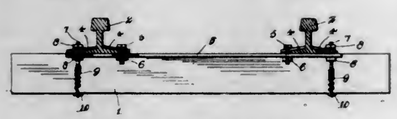
5. In a voltaic battery, the combination with positive and negative battery plates, of supporting means therefor, comprising a hanger of sheet metal, and a supporting bolt therefor, having a wedge shaped head, said bolt being



held in place by a portion of the hanger upset into engagement with and partially surrounding said head, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,076,790. RAIL-FASTENING. WILLIAM J. SCHWAB, Chicago, Ill. Filed Sept. 9, 1912. Serial No. 719,342. (Cl. 238—4.)



1. The combination with a tie and a rail mounted upon said tie, of means for fastening said rail to said tie, said means comprising a plate adapted to engage over the base of said rail; a hook member adapted to engage around said tie; and a tension spring connecting said plate and said hook member, substantially as described.

2. The combination with a tie and a pair of rails mounted upon said tie, of means for fastening said rails to said tie, said means comprising a bar arranged under and extending between said rails; means engaging the bases of said rails for fastening the same to said bar; and means for resiliently fastening said bar to said tie, substantially as described.

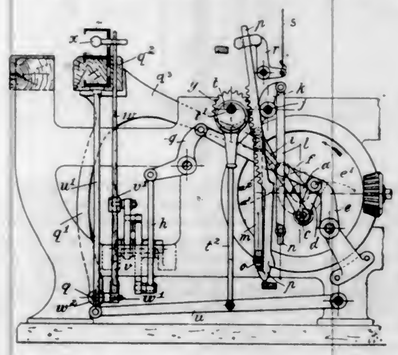
3. The combination with a tie and a pair of rails mounted upon said tie, of means for fastening said rails to said tie, said means comprising a bar arranged under and extending between said rails; means engaging the bases of said rails for fastening the same to said bar; means for resiliently fastening said bar to said tie, said last mentioned means comprising hook members engaging around said tie; and tension springs connecting the ends of said bars and said hook members, substantially as described.

4. The combination with a tie and a pair of rails mounted upon said tie, of means for fastening said rails to said tie, said means comprising a bar arranged under and extending between said rails; plates engaging the bases of said rails; bolts passing through said plates and said bars for holding said plates in clamping relation with said rail bases, said bolts engaging against the edges of said rail bases; and resilient means coöperating with said bolts for yieldingly fastening said bars to said tie, substantially as described.

5. The combination with a tie and a pair of rails mounted upon said tie, of means for fastening said rails to said tie, said means comprising a bar arranged under and extending between said rails, angular plates engaging the bases of said rails; fish plates arranged against the webs of said rails, said angular plates engaging against the outer sides of said fish plates and entering recesses provided in said sides of said fish plates; means for securing said angular plates to said bars; and tension springs connecting said bars with said tie, substantially as described.

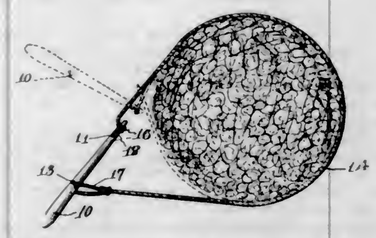
[Claim 6 not printed in the Gazette.]

1,076,791. CHANGE BOX-MOTION FOR POWER-LOOMS. GEORG SCHWABE, Bielitz, Austria-Hungary. Filed Aug. 14, 1909. Serial No. 512,773. (Cl. 139—28.)



A device of the character described, comprising a frame, a lay fulcrumed to the frame, a shuttle box and a picker stick coöperating with the lay, a shuttle box operating mechanism, a picker stick operating mechanism, means for oscillating the lay, and common means for actuating the shuttle box operating mechanism and the picker stick operating mechanism, said means permitting adjustment relatively to the lay oscillating means, whereby both the shuttle box operating mechanism and the picker stick operating mechanism may be adjusted in unison relatively to the lay oscillating means.

1,076,792. BUNDLE-TIE. WILLIAM H. SEDAM, Moores Hill, Ind. Filed Aug. 25, 1911. Serial No. 645,926 (Cl. 100—15.)

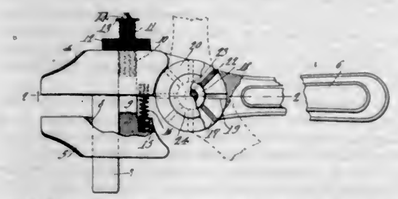


1. A bundle tie comprising a needle member of tapered formation throughout its length, the ends of said needle member being oppositely tapered, the smaller end of the needle member being provided with a transverse circular aperture having a longitudinally extending slot communicating therewith and the intermediate portion of the needle at one side coincident with one of the open

sides of the aperture and slot being provided with a transverse curved notch.

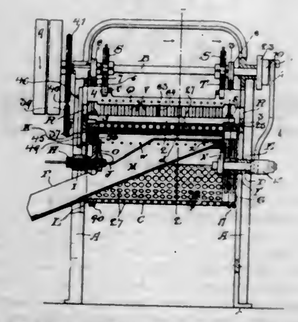
2. A bundle tie comprising a needle member of tapered formation throughout its length, the ends of said needle member being oppositely tapered, the smaller end of the needle member being provided with a transverse circular aperture having a longitudinally extending slot communicating therewith and the intermediate portion of the needle at one side coincident with one of the open sides of the aperture and slot being provided with a transverse curved notch, said needle being adapted for use in conjunction with a flexible element having a loop at one end engaged in the notch and an enlargement at its other end insertible through the aperture and held from displacement in the slot, whereby when the flexible member is compressed around a bundle and the needle moved toward the extremity of the flexible member connected with the slotted end of the needle to stretch the flexible member, said loop will automatically disengage from the notch and needle and move over the remaining end of the flexible member whereby it may be tied.

1,076,793. WRENCH. OSCAR WILLIAM SEIPEL, Columbus, Ohio. Filed Feb. 15, 1913. Serial No. 748,706. (Cl. 81—165.)



In a wrench, a pair of jaws each having a rectangular opening and an adjoining rectangular projection slidable through the opening of the other jaw, the adjoining faces of the projections being flush, the end portion of one projection being reduced and threaded, a nut engaging the said reduced and threaded end and bearing against the back of the respective jaw, and a compression spring terminally socketed in the faces of the jaws in rear of the said projections.

1,076,794. MACHINE FOR STEMMING CHERRIES. FRANK ROBBINS SMITH, Toronto, Ontario, Canada. Filed Jan. 13, 1913. Serial No. 741,657. (Cl. 130—30.)



1. In a machine of the class described, the combination with a member provided with a plurality of holes passing therethrough, each hole designed to receive a cherry at a time, of means coacting with said member to hold the stems of the cherries while the cherries are being separated therefrom; means for reciprocating said means in respect of said member; a plurality of members, each reciprocating through its associated one of said holes to unstem the cherries while the stems thereof are held by said holding means, and means for reciprocating said last-mentioned members.

2. In a machine of the class described, the combination with a member provided with a plurality of holes passing therethrough, each hole designed to receive a cherry at a time, of a plurality of members, each reciprocating through its associated one of said holes whereby the cherry therein while being pushed therethrough is separated from its stem; means for holding the stems of the cherries during unstemming, and means for operating said members and said stem-holding means.

3. In a machine of the class described, the combination with a member provided with a plurality of holes passing therethrough, each hole designed to receive a cherry at a time, of means coacting with said member to hold the stems of the cherries while the cherries are being separated therefrom; means for reciprocating said means in respect of said member; a plurality of plungers, each operating through its associated one of said holes to unstem the cherries while the stems thereof are being held by said holding-means, and each provided in its outer side with a longitudinal groove which opens through to the lower end thereof; means in which said plungers are mounted so that the grooves thereof will face toward the unstemmed fruit placed in the machine; means for reciprocating said plungers; means positioned in advance of said stem-holding means for the purpose of positioning the stems of the cherries so that their inner portions thereof will be in the path of movement of said grooves when said plungers descend, and means for separating any of the stems that may be tied.

4. In a machine of the class described, the combination with a rotary cylinder provided with a plurality of holes passing therethrough and alined both longitudinally and circumferentially in parallel rows; a frame in which said cylinder is mounted, and means for moving said cylinder at given intervals predetermined distances, of means coacting with said cylinder to hold the stems of the cherries positioned in the said holes while the said cherries are being separated therefrom; means for reciprocating said means in respect of said cylinder; a plurality of members, each operating through its associated one of said holes to unstem the cherries while the stems thereof are held by said holding means, and means for reciprocating said last-mentioned members.

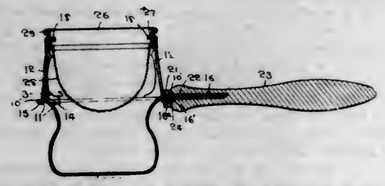
5. In a machine of the class described, the combination with a rotary cylinder provided with a plurality of holes passing therethrough and alined both longitudinally and circumferentially in parallel rows; a frame in which said cylinder is mounted, and means for moving said cylinder at given intervals predetermined distances, of means coacting with said cylinder to hold the stems of the cherries positioned in the said holes while the said cherries are being separated therefrom; means for reciprocating said means in respect of said cylinder; a plurality of members, each operating through its associated one of said holes to unstem the cherries while the stems thereof are held by said holding means; means for reciprocating said last-mentioned members; a member positioned within said cylinder and operating to prevent the unstemmed cherries from passing through the holes they occupy, and means for shifting said member so that it will be moved out of the path of movement of the cherries that are being separated from their stems.

[Claims 6 to 14 not printed in the Gazette.]

1,076,795. COFFEE AND TEA STRAINER. HENRY D. SMITH, Mansfield, Mass. Filed Oct. 12, 1912. Serial No. 725,472. (Cl. 210—16.)

1. In a coffee and tea strainer, a drip cup having a flange with oppositely disposed groups of apertures therethrough, standards having tongues fitted in the apertures of the respective groups and turned in opposite directions under the flange, each standard being curved on an arc having its axis parallel with the median line of the standard and having its free end formed into a cylindrical seg-

ment at right angles to said median line, and an oppositely apertured strainer member having its apertures in pivotal engagement with the cylindrical segment.

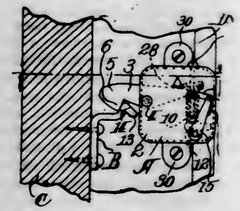


2. In a coffee and tea strainer, a flanged drip cup having opposite groups of apertures through its flange, standards having tongues in engagement with the apertures of the flange and having pivots formed at their respective free ends, a strainer member having a bead formed at its top portion and having oppositely disposed apertures in engagement with the pivots of the standards, and stop lugs formed on the standards and adapted to impinge upon the body of the strainer member for limiting the relative movement of the drip cup and the strainer member.

3. In a coffee and tea strainer, a drip cup, a strainer member, standards secured on the drip cup and pivotally connected to the strainer member, one of said standards having an elongated tongue extending laterally from its base and lying in a plane intersecting the standard along its median line, said drip cup having an apertured flange in engagement with said tongue, and a handle formed with a central aperture and with radial slots in communication with the apertures for receiving the tongue and the rim respectively.

4. In a coffee and tea strainer, a drip cup having an apertured flange, standards secured to the flange, a strainer member pivotally connected to the standards, and a handle fitted to the flange of the tea strainer, one of said standards being provided with a tongue extending from the base thereof, said tongue being curved to form a cylindrical segment, said handle being apertured for receiving said tongue.

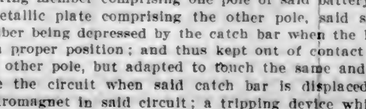
1,076,796. CATCH-LOCK. OLAF J. SUNDGAARD, St. Paul, Minn. Filed Sept. 5, 1911. Serial No. 647,680. (Cl. 70—119.)



1. In a lock for a door, a pair of locking members adapted to engage each other detachably to lock said door, one of said members being fixed rigid and the other pivotally mounted in a casing, a screw passing freely through said casing and the inner extremity of said pivoted member, a nut threaded on said screw, and a spring mounted on said screw and interposed between said nut and the inner extremity of said pivoted member; whereby when said screw is turned said spring is compressed or released to vary the tension on said pivoted member, substantially as described.

2. In a lock for a door, a casing, a pair of locking members one of said members being fixed rigid and the other being pivotally mounted in said casing, a screw passing freely through said casing and the inner extremity of said pivoted member, a nut threaded on said screw having a projection which is adapted to engage said casing to hold said nut, a spring mounted on said screw and interposed between said nut and the inner extremity of said pivoted member and a stop pivoted on the outside of said casing having a lug projecting into a slot formed therein, said lug being adapted to engage the inner end of said pivoted member to lock the same in two positions substantially as described.

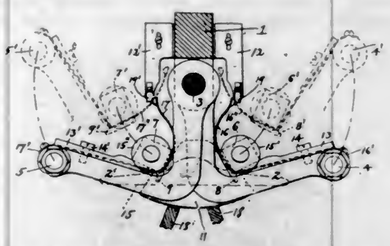
1,076,797. TRACK-GAGE AND LEVEL-BOARD. HARRY F. SUTTON, Wyoming, Pa., assignor of one-half to John McNamara, Scranton, Pa. Filed May 22, 1913. Serial No. 769,308. (Cl. 33—145.)



1. A combined track gage and level consisting of an apertured board with a level thereon, a plate fastened at one end of said board and having lateral projections adapted to engage a railway rail, a second plate with an offset therein fastened to the under edge of the board adjacent to its other end and a graduated bar passing through the aperture in the board and having teeth upon one edge thereof, a lateral extension at one end of the bar adapted to seat in said offset in said second plate through which the bar passes, a plate having a lateral extension for engagement with the teeth of said bar, and a screw for holding the last mentioned plate in an adjusted position, as set forth.

2. A combined track level and gage comprising an apertured board with a level thereon, plates fastened to the under edge of said board, one of said plates having lateral extensions, the other plate having an offset therein forming a recess, a graduated bar movable through the aperture in the board and having teeth upon one edge thereof, a plate upon the under edge of the board and having a lateral extension adapted to engage the teeth of said bar, the latter provided with a lateral extension which, when the bar is at its farthest inner throw, seats in the recess in the plate having the offset, as set forth.

1,076,798. AUTOMATIC STOPPING DEVICE FOR LACE-LOOMS. THOMAS THOMPSON, Pawtucket, R. I., assignor of one-half to William H. Smith, Pawtucket, R. I. Filed Feb. 12, 1913. Serial No. 747,982. (Cl. 66—7.)



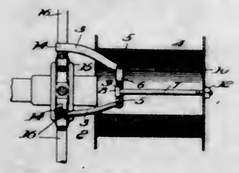
1. An automatic stopping device for lace looms consisting of a galvanic battery or other source of electricity; a spring member comprising one pole of said battery and a metallic plate comprising the other pole, said spring member being depressed by the catch bar when the latter is in proper position; and thus kept out of contact with said other pole, but adapted to touch the same and thus close the circuit when said catch bar is displaced; an electromagnet in said circuit; a tripping device which is released by said magnet when the circuit is closed and a shipper operated by said tripping device, substantially as set forth.

2. In an automatic stopping device for lace looms, a galvanic battery or other source of electricity having as one of its poles a spring and as the other a metallic plate or similar conductor, said spring being so connected with the catch bar of the loom when said catch bar is in proper position as to be out of circuit with said battery, and being so adjusted with relation to said catch bar and metallic plate as to come into electric contact with the latter and close the circuit by the displacement of the catch bar; an electromagnet in the circuit of said battery; a shipper and actuating means therefor and a tripping device actuated by said electromagnet and operating to release said shipper actuating means and shift the belt, thus stopping the loom, substantially as described.

3. In an automatic stopping device for lace looms, a galvanic battery or other source of electricity having one pole consisting of a spring and the other of a metallic plate in close proximity thereto, said spring normally being depressed and kept out of contact with said plate by the catch bar when the latter is in its proper position, but adapted to close said circuit when released by the displacement of said catch bar; a hand shipping rod forming part of said circuit between one of said poles and the battery and adapted to break the connection between such pole and the battery when said shipping rod shifts the belt from the tight to the loose pulley; an electromagnet in said circuit; a tripping device adapted to be released by said magnet when the circuit is closed and a shipper operated by said tripping device and acting to stop the loom, substantially as specified.

4. In an automatic stopping device for lace looms, a battery or other source of electricity having one pole consisting of a metallic plate and the other of a spring so depressed by the catch bar when the latter is in its proper position as to be kept out of contact with said metallic plate and adapted to come into contact with said plate and thus close the circuit when said catch bar is displaced; an electromagnet in said circuit, and a tripping device embodying a latch capable of being released by the operation of said magnet when the circuit is closed to stop the loom, substantially as set forth.

1,076,799. DRAFT ATTACHMENT FOR AUTOMOBILES. BENJAMIN URQUHART, Plainfield, N. J. Filed Nov. 7, 1910. Serial No. 591,161. (Cl. 242—95.)



1. In a draft attachment for automobile traction wheels, a plurality of arms adapted to engage the inner ends of the spokes of the wheel and extend outward therefrom, at substantially right angles to the plane of the wheel, and a drum movable longitudinally on said arms.

2. In a draft attachment for automobile traction wheels, a plurality of arms formed to constitute a cam surface and having extremities adapted to engage the inner ends of the spokes of the wheel, a drum mounted on said arms, and means for moving said drum on said arms to bind it thereto by frictional engagement with said cam surface.

3. In a draft attachment for automobile traction wheels, a drum, a spider within said drum, a plurality of arms pivotally mounted on said spider, said arms being each curved outward longitudinally and formed with a hooked extremity adapted to engage the spokes of the wheel whereby said arms collectively surround the hub, and means for moving said drum longitudinally over said arms to clamp it thereon.

4. In a draft attachment for automobile traction wheels, a drum closed at its outer end, a spider within said drum, a threaded bolt connecting said drum and spider, and having a nut bearing against the end of said drum, and a plurality of arms pivotally mounted on said spider.

5. A draft attachment for automobile traction wheels comprising a drum, a bolt extending longitudinally through said drum, means for connecting said bolt with a traction wheel at its hub, and means for binding said drum by moving it longitudinally over said bolt and connecting means.

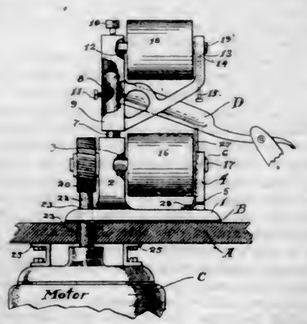
[Claim 6 not printed in the Gazette.]

1,076,800. MOP-HOLDER. AUSTIN WAYMIRE, Dayton, Ohio. Filed July 24, 1911. Serial No. 640,086. (Cl. 15—56.)



A mop-holder including a stationary-jaw, a movable-jaw having helical springs urging said movable-jaw against said stationary-jaw, a resilient core automatically retained within said helical springs, a handle for the jaws and means for operating said movable-jaw.

1,076,801. MACHINE FOR SHARPENING CUTTING INSTRUMENTS. MARVIN S. WEAVER, Johnson City, Tenn. Filed Apr. 22, 1912. Serial No. 692,280. (Cl. 51—16.)



1. In an apparatus of the nature described, the combination of two belts, two upright belt supports the upper portions of which are isolated and apart from each other and each comprising a stationary portion having horizontal bearings for a pulley and a movable section having horizontal bearings for a pulley, the stationary portion comprising a column, and said movable section having an upright socket receiving the upper end of said column, said socket being at one side of said section so that the bearings of said section are at one side of the axial line of said column, an adjusting screw extending downward through said section and bearing upon the upper end of said column, pulleys having journals in said bearings.

one of said belts being mounted on one pair and the other on the other pair of said pulleys and said pairs of pulleys being separated a proper distance to separate the adjacent faces of the belts by a blade space a little wider than blade thickness, and means for driving said pulleys for moving said adjacent faces upward, substantially as described.

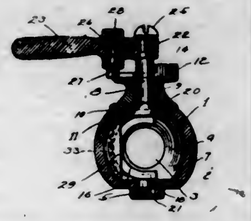
2. In an apparatus of the nature described, the combination of two belts, two upright belt supports the upper portions of which are isolated and apart from each other and each comprising a stationary portion having horizontal bearings for a pulley and a movable section having horizontal bearings for a pulley, the stationary portion comprising a column, and said movable section having an upright socket receiving the upper end of said column, said socket being at one side of said section so that the bearings of said section are at one side of the axial line of said column, an adjusting screw extending downward through said section and bearing upon the upper end of said column, pulleys having journals in said bearings, one of said belts being mounted on one pair and the other on the other pair of said pulleys and said pairs of pulleys being separated a proper distance to separate the adjacent faces of the belts by a blade space a little wider than blade thickness, and means for driving said pulleys for moving said adjacent faces upward, a bearing block in one of the bearings of said upper section, and means for raising said block, substantially as described.

3. In an apparatus of the nature described, the combination of two belts, two upright belt supports the upper portions of which are isolated and apart from each other and each comprising a stationary portion having horizontal bearings for a pulley and a movable section having horizontal bearings for a pulley, the stationary portion comprising a column, and said movable section having an upright socket receiving the upper end of said column, said socket being at one side of said section so that the bearings of said section are at one side of the axial line of said column, an adjusting screw extending downward through said section and bearing upon the upper end of said column, pulleys having journals in said bearings, one of said belts being mounted on one pair and the other on the other pair of said pulleys and said pairs of pulleys being separated a proper distance to separate the adjacent faces of the belts by a blade space a little wider than blade thickness, and means for driving said pulleys for moving said adjacent faces upward, a bearing block in one of the bearings of the upper sections, and extending upward through said section and against said block, substantially as described.

4. In an apparatus of the nature described, the combination of two belts, two upright belt supports the upper portions of which are isolated and apart from each other and each comprising a stationary portion having horizontal bearings for a pulley and a movable section having horizontal bearings for a pulley, the stationary portion comprising a cylindrical column having an upright screw seat and said movable section having an upright socket receiving the upper end of said column, said socket being at one side of said section so that the bearings of said section are at one side of the axial line of said column, a screw extending horizontally through the wall of said socket against said screw seat, an adjusting screw extending downward through said section and bearing upon the upper end of said column, pulleys having journals in said bearings, one of said belts being mounted on one pair and the other on the other pair of said pulleys and said pairs of pulleys being separated a proper distance to separate the adjacent faces of the belts by a blade space a little wider than blade thickness, and means for driving said pulleys for moving said adjacent faces upward, substantially as described.

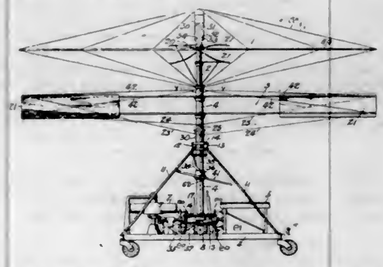
1,076,802. VALVE. TILMAN WHITE, Berkeley, Cal., assignor of two-thirds to George C. Morgan, Oakland, Cal. Filed July 26, 1912. Serial No. 711,637. (Cl. 137—7.)

A valve comprising in combination, a casing having a valve chamber with a wall of said chamber providing a spherical seat and two axially alined inlet and outlet orifices open to said chamber in the said wall, a disk like valve member having one face formed complementary to the said seat of said casing and its other face provided with an elongated groove, a valve stem extending into the said chamber of said casing with its axis of ro-



tation substantially parallel to the said groove in said valve, a semi-annular yoke carried by said stem extending into the said groove of said valve member, and a spring interposed between the periphery of said yoke and the bottom of the said groove in said valve member, substantially as and for the purpose set forth.

1,076,803. FLYING-MACHINE. JOHN NEWTON WILLIAMS, Derby, Conn. Filed July 14, 1910. Serial No. 571,948. (Cl. 244—19.)



1. In a machine of the character described, a propeller having a shaft, flexible arms and blades supported by adjustable guy wires fastened to the front and rear edge of each blade and pivoted levers fastened to the shaft to which levers the other ends of said guy wires are attached, means for operating the levers to control the pitch of said blades while the propeller revolves, and a platform supported by said propeller shaft, said lever-operating means being controlled from said platform while the machine is suspended in the air.

2. In a machine of the character described, the combination of two propellers revolving in opposite direction, at least one of said propellers having flexible arms and blades supported by adjustable guy wires fastened to the front and rear edge of each blade, pivoted levers fastened to the propeller shaft, to which levers the other ends of the said guy wires are attached and means for operating the levers to control the pitch of said blades to increase or diminish their air resistance and thereby the revolution speed of said propeller while the machine is suspended in the air by said two propellers.

3. In a machine of the character described, the combination with two propellers revolving in opposite direction at least one of said propellers having flexible arms and blades supported by adjustable guy wires fastened to the front and rear edge of each blade, pivoted levers fastened to the propeller shaft, to which levers the other ends of the said guy wires are attached and means for operating the levers to control the pitch of said blades to increase or diminish their air resistance and thereby the revolution speed of said propeller while the machine is suspended in the air by said two propellers, and to change the compass direction in which the machine travels.

4. In a flying machine, a propeller having a shaft, flexible arms and blades supported by guy wires fastened to the front and rear edge of each blade and a pivoted lever fastened to the shaft to which lever the other ends of said guy wires are attached, a sleeve slidingly disposed on said shaft and operatively connected to said lever and having a collar, a hand lever with a ring disposed on said sleeve and held in position by said collar for moving said sleeve to adjust the pitch of said blades, substantially as and for the purpose described.

5. In a machine of the character described, a propeller having a shaft and flexible arms and blades, adjustable guy wires for each blade for flexing the blades to change the pitch thereof, and supporting guy wires attached at one end to the front and rear edge of the blade, the other ends of the supporting wires being fastened to the two ends respectively of a double armed lever pivoted above the blade to the shaft for compensating the length of the supporting guy wires when said flexing guy wires twist the blade.

[Claims 6 to 12 not printed in the Gazette.]

1,076,804. NON-HEAT-CONDUCTING RECEPTACLE. CLARENCE C. WILSON, Bridgeport, Conn., assignor to The Warner Brothers Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 28, 1912. Serial No. 717,435. (Cl. 217—52.)

1. A non-heat-conducting receptacle, comprising an outer container, an inner container, a spacer frictionally engaging the inner container intermediate the ends thereof and resting against the inner walls of the outer container, and end spacers of hollow form arranged between the ends of the inner and outer containers and engaging restricted areas of both less than the opposed areas of such containers and forming air chambers between the containers, said inner container being in effect suspended by the spacers within the outer container.

2. In a non-heat-conducting receptacle including an outer and an inner container, a spacer between the ends of the containers shaped to provide a linear contact with the end of one container and a point contact with the end of the other container.

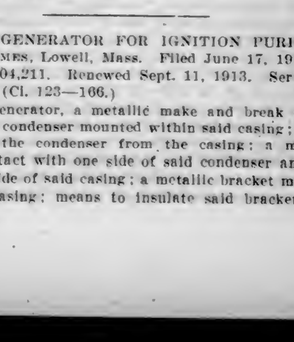
3. A non-heat-conducting receptacle, comprising an outer container, an inner container having recessed ends, expansible spacers of taper form sprung into place in the recessed ends of the inner container and adapted to contact with the end walls of the outer container, and transversely arranged spacers for supporting the inner container between the longitudinal walls of the outer container.

4. A non-heat-conducting receptacle, comprising an outer container, an inner container, transversely arranged spacers engaging the longitudinal walls of the outer container and supporting the inner container within the outer container and out of contact with its walls and with an intermediate surrounding air space, and tapering end spacers in extended superficial contact with the inner container and having only point contact with the end walls of the outer container.

5. A non-heat-conducting receptacle comprising an outer rectangular container of paper box board, a cylindrical inner container of paper box board substantially impervious to moisture, a spacer of paper box board frictionally engaging the inner container and the inner wall of the outer container and cone shaped end spacers of paper box board between the ends of the inner and outer containers, the point of the cone being adapted to contact with the inner wall of the ends of the outer container.

[Claim 6 not printed in the Gazette.]

1,076,805. SPINNING-MACHINE. WALTER H. YOUNG, Pittsfield, Mass., assignor of one-half to John Woodward, Pittsfield, Mass.; James L. Eadie, Jr., executor of said Young, deceased. Filed Nov. 4, 1912. Serial No. 729,244. (Cl. 118—30.)



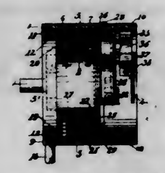
1. In a spinning machine, in combination, a plurality of yarn supplying spools, a pair of sets of delivery rolls respectively corresponding to the supply spools, spindle-carried bobbins on which the yarns are wound, twisting means between the delivery rolls and the bobbins, means for imparting continuous rotary movement to the first set of yarn delivery rolls, and means for imparting intermittent rotary movements to the second set of delivery rolls constisting of a sprocket wheel affixed on one of the rolls of said secopd set, another sprocket wheel, loosely mounted alongside the first named sprocket wheel, a sprocket chain and means for imparting a running course thereto in engagement around the loosely mounted sprocket wheel,—such chain having, at intervals in the length thereof, interally projecting members for engaging and occasionally imparting rotatitve movements to the first named, affixed, sprocket wheel.

2. In a spinning machine, in combination, a plurality of yarn supplying spools, a pair of sets of delivery rolls respectively corresponding to the supply spools, spindle-carried bobbins on which the yarns are wound, twisting means between the delivery rolls and the bobbins, means for imparting continuous rotary movements to the first set of yarn delivery rolls, and means for imparting intermittent rotary movements to the second set of delivery rolls consisting of a pair of sprocket wheels arranged in separation and both affixed on one of the rolls of such second set, another sprocket wheel, loosely mounted between said pair of affixed sprocket wheels, a sprocket chain and means for imparting a running course thereto in engagement around the loosely mounted sprocket wheel, such chain having, at intervals in the length thereof, oppositely and laterally projecting members for engaging and occasionally imparting rotative movements to the affixed sprocket wheels.

1,076,806. GENERATOR FOR IGNITION PURPOSES. BUTLER AMES, Lowell, Mass. Filed June 17, 1912, Serial No. 704,211. Renewed Sept. 11, 1913. Serial No. 789,382. (Cl. 123—166.)

1. In a generator, a metallic make and break casing, grounded; a condenser mounted within said casing; means to insulate the condenser from the casing; a metallic plate in contact with one side of said condenser and also with the inside of said casing; a metallic bracket mounted upon said casing; means to insulate said bracket from

said casing; a metallic clip member contacting the other side of the condenser and connected directly to said latter metallic bracket; and means to insulate said metallic clip member from said metallic casing.

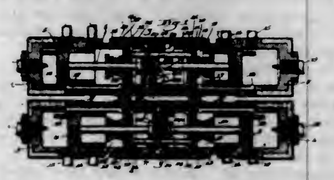


2. In a generator, a metallic make and break casing, grounded; a condenser mounted within said casing; means for insulating said condenser from said casing; a metallic plate in contact with one side of said condenser, and also with the inside of said casing; a metallic make and break lever pivotally mounted upon a metallic bracket on the inside of said metallic casing; a metallic bracket mounted upon the outside of said casing; means to insulate said bracket from said casing; a screw contact in said bracket to be engaged by the metallic make and break lever contact: a metallic clip member contacting the other side of the condenser and connected directly to the said latter bracket; and means to insulate said metallic clip from said metallic casing.

3. In a generator, a cylindrical metallic make and break casing secured to and grounded upon the metallic frame of the generator; the axis of said casing being that of the armature shaft of the generator which is designed to project into said casing; a condenser in the form of a hollow cylinder mounted within the casing and having a diameter corresponding to the inside diameter of the casing; a piece of fiber tubing to insulate the inside of said condenser; means to insulate the outside circumference of said condenser from the contacting metallic surface of the casing; a metallic ring washer contacting one side of the condenser and the inside surface of the metallic casing; a metallic ring contacting the other side of said condenser and having a clip which extends through a hole in the side of the casing; means to insulate said clip from the metallic sides of said hole; a ring of insulating material covering the exposed side of said clip ring; a metallic washer and tube combined in one member and forming with the ring washer, a condenser cover for securing the condenser in operative position within the metallic casing; a bracket on the outside of the casing connected directly to the clip ring, as by screw contact in said bracket; means to insulate the bracket from said casing; a metallic bracket on the inside of and connected to said casing; and a metallic make and break lever pivoted to said bracket to engage said screw contact.

4. In a generator, a cylindrical metallic make and break casing secured to and grounded upon the metallic frame of the generator; the axis of said casing being that of the armature shaft of the generator which is designed to project into said casing; a condenser in the form of a hollow cylinder mounted within the casing and having a diameter corresponding to the inside diameter of the casing; a piece of fiber tubing to insulate the inside of said condenser; means to insulate the outside circumference of said condenser from the contacting metallic surface of the casing; a metallic spring ring and a metallic ring washer, contacting one side of the condenser and the inside surface of the metallic casing; a metallic ring contacting the other side of said condenser and having a clip which extends through a hole in the side of the casing; means to insulate said clip from the metallic sides of said hole; a ring of insulating material covering the exposed side of said clip ring; a metallic washer and tube combined in one member and forming with the ring washer, a condenser cover for securing the condenser in operative position within the metallic casing; a bracket on the outside of the casing connected directly to the clip ring, as by screw contact in said bracket; means to insulate the bracket from said casing; a metallic bracket on the inside of and connected to said casing; and a metallic make and break lever pivoted to said bracket to engage said screw contact.

1,076,807. INTERNAL-COMBUSTION ENGINE. OLOF A. ANDERSON, Boston, Mass. Filed July 17, 1911. Serial No. 638,816. (Cl. 123—58.)



1. In an engine, the combination with a pair of oppositely-disposed cylinders separate and independent from each other, of pistons in the cylinders, a piston rod connecting said pistons, a rotary cylindrical power-transmitting member surrounding the piston rod and situated between the cylinders, said member having an interior cam groove, a collar secured to the piston rod and fitting within said cylindrical member, and a projection on the collar operating in said groove.

2. In an engine, the combination with a pair of oppositely-disposed cylinders separate and independent from each other, of pistons within the cylinders, a piston rod connecting said pistons, a rotary cylindrical power-transmitting member surrounding the piston rod and situated between the cylinders, said member having an interior cam groove, a collar secured to the piston rod and situated within said cylindrical member, a projection on the collar operating in said groove, and means situated within said cylindrical member to prevent the collar from turning.

3. In an engine, the combination with a pair of oppositely-disposed cylinders separate and independent from each other, of pistons within the cylinders, a piston rod connecting said pistons, a rotary cylindrical power-transmitting member surrounding the piston rod and situated between the cylinders, said member having an interior groove, a collar secured to the piston rod and situated within said cylindrical member, a projection on the collar operating in said groove, and stationary guide rods situated within the cylindrical member and extending through the collar and on which the latter slides.

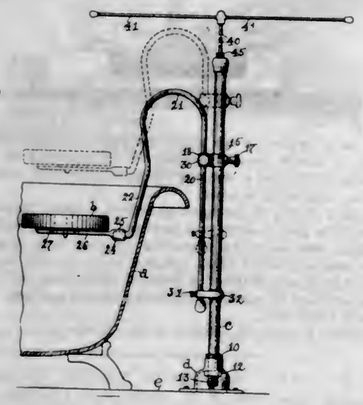
4. In an engine, the combination with a frame, of a cylinder at each end thereof, pistons in the cylinders, a piston rod connecting said pistons, a cylindrical power-transmitting member rotatively mounted on the frame and situated between the cylinders and through which the piston rod extends, said member having an interior cam groove, a collar mounted on the piston rod and provided with a projection operating in said groove.

5. In an engine, the combination with a frame, of a cylinder at each end thereof, pistons in the cylinders, a piston rod connecting said pistons, a cylindrical power-transmitting member rotatively mounted on the frame and situated between the cylinders and through which the piston rod extends, said member having an interior cam groove, a collar mounted on the piston rod and provided with a projection operating in said groove, and stationary guide rods carried by the frame and extending through the collar and on which the latter slides.

[Claims 6 to 8 not printed in the Gazette.]

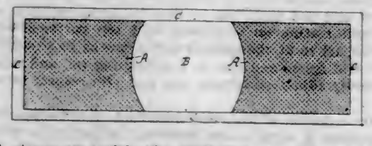
1,076,808. BATH-ROOM FIXTURE. GEORGE F. ARBURG, Revere, Mass. Filed Jan. 13, 1911. Serial No. 602,516. (Cl. 4—2.)

1. A seat support of the character described, comprising substantially parallel arms separated to permit one of said arms to be inserted down into a bath-tub, means to connect said arms at their upper ends, a seat supported by the arm capable of being inserted into the bath-tub, an upright rod, means to secure the other of said arms to said rod to turn thereon, a hollow base into which said rod is extended, a collar fast on said rod and resting on said base to turn thereon, means within the hollow base to engage the lower end of the upright rod and secure the latter against removal from the said base while permitting the said rod to be rotated, and means to secure said base in fixed position, substantially as described.



2. A seat support of the character described, comprising substantially parallel arms separated to permit one of said arms to be inserted down into a bath tub, means to connect said arms at their upper ends, a seat supported by the arm capable of being inserted into the bath-tub, an upright rod, means to secure the other of said arms to said rod, a hollow base into which said rod is extended, means to support said rod on said hollow base to turn thereon, and means within the hollow base to engage the lower end of the said rod and secure the latter against removal from said base while permitting the said rod to be rotated, substantially as described.

1,076,809. STORMPROOF VEIL. ANNIE L. BOHER, Chicago, Ill. Filed Dec. 6, 1912. Serial No. 735,273. (Cl. 2—118.)



1. As a new article of manufacture, a veil provided with a stormproof part or section set in the body of the veil.

2. As a new article of manufacture, a veil composed of part veiling fabric, and a stormproof fabric section.

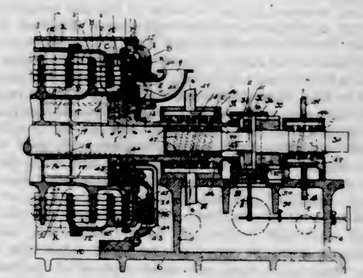
3. A veil provided with a stormproof part or section.

4. A veil, having its respective ends composed of veiling fabric connected by an insert part composed of a stormproof fabric.

1,076,810. STEAM-TURBINE. ALFRED BONOM, Paterson, N. J. Filed Jan. 24, 1913. Serial No. 743,069. (Cl. 121—58.)

1. In a turbine, the combination of a central shaft; spaced outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, the spaces between the opposing disk-faces of said interior and exterior rotors successively increasing in size from the intake to exhaust; alternating series of blades carried by such opposing disk-faces; means located at one end for retaining either of said rotors against rotation, as desired; a driving shaft at the other end; and means for connecting either of said rotors with said driving shaft, as desired.

2. In a turbine, the combination of a central shaft; spaced outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, the spaces between the opposing disk-faces of said interior and exterior rotors successively increasing in size from the respective ends of the turbine to a central transverse plane; connections for supplying pressure-fluid to the end spaces and for exhausting the same from the central spaces; alternating series of blades carried by such opposing disk-faces; and means for retaining either of said rotors against rotation, as desired.



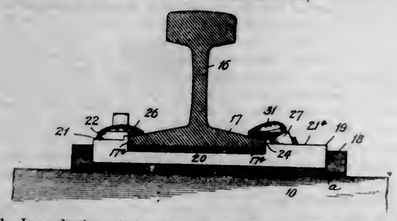
3. In a turbine, the combination of a central shaft; spaced outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, said exterior rotor being formed with tubular extensions at each end rotatably mounted on said shaft; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; a driving shaft; means adapted to connect either one end of said central shaft or corresponding tubular extension of said exterior rotor with said driving shaft, as desired; and other means adapted to retain either of said rotors against rotation, as desired.

4. In a turbine, the combination of a central shaft; spaced outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor comprising a drum having tubular end extensions rotatably mounted on said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor; alternating series of blades carried by the opposing faces of said interior and exterior rotors; a driving shaft alined with one end of said central shaft; a suitable clutch member adapted to connect either such end of said central shaft, or the corresponding end extension of said exterior rotor with said driving shaft, as desired; and another shiftable clutch member adapted to engage the other end of said central shaft, or the corresponding end-extension of said exterior rotor, as desired, and retain the same against rotation.

5. In a turbine; the combination of a central shaft; spaced, outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor comprising a drum having tubular end extensions rotatably mounted on said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor; alternating series of blades carried by the opposing faces of said interior and exterior rotors; spaced bearings at one end of the turbine, respectively supporting one end of said shaft and the corresponding end extension of said exterior rotor; and a shiftable clutch member between said bearings adapted to engage said shaft or end-extension, as desired, and retain the same against rotation.

[Claim 6 not printed in the Gazette.]

1,076,811. TIE-PLATE. DANIEL L. BRAINE, New York, N. Y., assignor to Composite Tie-Plate Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1912. Serial No. 727,535. (Cl. 238—2.)



1. In a device of the class described, the combination of a pad or cushioning member to form the direct support for a railway rail, an embracing metal frame provided with side members fitting the sides of the pad member and below its upper surface, and upper cross members tying the side members together and fitting the edges of the flanged base of the rail each provided with shouldered perforations for the railway spikes of the combination and arranged to hold them away from contacting the rail base.

2. In a device of the class described, the combination of a pad member to form the direct support for a railway rail, an embracing iron frame provided with side members fitting the sides of the pad member and below its upper surface and two upper cross members tying the side members together provided and fitting the edges of the flanged base of the railway rail each provided with a squared spike and a circular screw perforation having shoulders to keep the cut spike and screw spike from contacting the lateral edges and upper surface of the flanged base of the rail.

3. In a device of the class described, the combination of a pad or cushioning member to form the direct support for a railway rail, an embracing metal frame provided with side members fitting the sides of the pad member and below its upper surface, and upper cross members tying the side members together and fitting the edges of the flanged base of the rail each provided with shouldered perforations for the railway spikes of the combination.

4. In a device of the class described, a frame member and a block cushioning member, the frame member resting on and partially embracing the block member and provided with top cross members, said top members being spaced apart so that the inner edges thereof closely fit the base of a rail carried on said block, one of said top portions being of substantially greater width than the opposite top portion.

5. In a device of the class described, a frame member and a block cushioning member, the frame member resting on and partially embracing said block member and provided with top cross members, said top members being spaced apart so that the inner edges thereof closely fit the base of a rail carried on said block, each of said top portions being provided with a pair of spiking apertures, one of said apertures being circular in contour, and a raised shoulder surrounding said circular aperture.

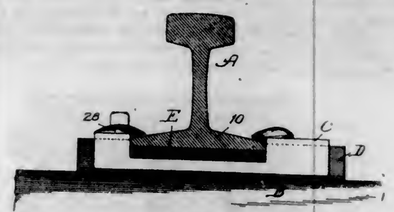
[Claims 6 to 10 not printed in the Gazette.]

1,076,812. TIE-PLATE. DANIEL L. BRAINE, New York, N. Y., assignor to Composite Tie-Plate Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1912. Serial No. 727,536. (Cl. 238—2.)

1. In a device of the class described, a main wooden block, and a non-metal wearing block fitted and operatively supported therein, said main block being adapted to be secured on a tie or sleeper and directly support a railway rail.

2. In a device of the class described, a main wooden block, and a relatively harder non-metal wearing block fitted and supported therein and adapted to directly support a railway rail and be carried by said main wooden block, said main block being adapted to be directly supported on and secured to a tie or sleeper.

3. In a device of the class described, a main wooden block centrally recessed, and a relatively harder non-metal wearing block fitting and mounted in said recess to support a railway track rail, said main block being adapted to be directly supported on and secured to a tie or sleeper.

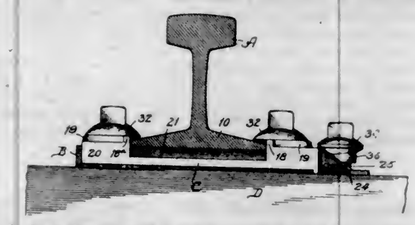


4. In a device of the class described, a main wooden block, a metal frame adapted to be mounted on said wooden block, and a wearing block fitted within and carried by said wooden block.

5. In a device of the class described, a metal frame provided with spaced apart top members and downwardly depending side members extending between said top portions, and a wooden block adapted to be carried between the sides of said frame, the sides of said frame and block being recessed or cut-away between said top portions to receive a track rail.

[Claims 6 to 8 not printed in the Gazette.]

1,076,813. RAIL-SUPPORTING DEVICE. DANIEL L. BRAINE, New York, N. Y., assignor to Composite Tie-Plate Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1912. Serial No. 727,537. (Cl. 238—2.)



1. In a device of the class described, a rail supporting pad, a metal frame member adapted to rest on said pad, said frame comprising depending sides contacting with the sides of said pad and a top portion extending between said sides and resting on said pad, said top portions being spaced apart to fit the pads of a rail, means to adjustably secure said frame and pad to a supporting tie, and means to laterally adjust said frame and pad with respect to said tie.

2. In a device of the class described, a rail-supporting pad member, a metal frame member, and means to secure said frame and rail-supporting member to a tie, said means being adapted to be operated to laterally adjust said metal frame and rail-supporting member.

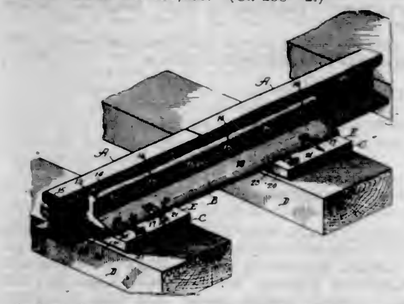
3. In a device of the class described, a metal frame, said frame being provided with spaced apart top members, each of said top portions being provided with spiking slots, whereby said frame is capable of lateral movement relative to spikes inserted therethrough.

4. In a device of the class described, a metal frame, said frame being provided with spaced apart top members to closely fit the flanged base of a railway rail, each of said top members being provided with spiking slots, each of said top members being provided with a shoulder adjacent its inner edge.

5. In a device of the class described, a metal frame provided with spaced apart top members to closely fit the flanged base of a railway rail, and a stepped base flange extending downwardly and outwardly from said metal frame at one end thereof and having a spiking slot.

[Claims 6 to 9 not printed in the Gazette.]

1,076,814. TIE-PLATE. DANIEL L. BRAINE, New York, N. Y., assignor to Composite Tie-Plate Corporation, New York, N. Y., a Corporation of New York. Filed Oct. 24, 1912. Serial No. 727,538. (Cl. 238—2.)



1. In a device of the class described, a frame provided with a top member, said frame being provided with an angular flange having one side extending upwardly from said top member, said flange being adapted to coact with a rail brace to prevent longitudinal or lateral movement thereof.

2. In a device of the class described, a frame provided with a side member and a top member, and an angular flange extending upwardly from said members at or near the intersection thereof, said flange being adapted to coact with a rail brace to prevent longitudinal or lateral movement thereof.

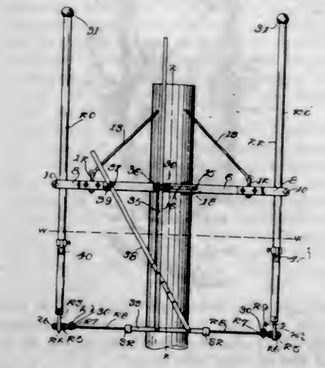
3. In a device of the class described, a frame comprising a side member, and a pair of top members, said top members being spaced apart to accommodate a rail and braces, said frame being provided with an angular flange at or near the intersection of said side member with said top members, said flanges being adapted to coact with a rail brace to prevent longitudinal or lateral movement thereof.

4. In a device of the class described, a frame, said frame being provided with a side and with a top member, an angular flange located at the intersection of the inner edge of said top portion with said side member, and a rib extending from one side of said angular flange to said top portion.

5. In a device of the class described, a frame, said frame being provided with a side and with a top member, an angular flange located at the intersection of the inner edge of said top portion with said side member, and a spike-protecting shoulder located on said top portion.

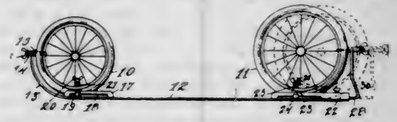
[Claims 6 to 12 not printed in the Gazette.]

1,076,815. SAW, ALEXANDER BRAZIER, Oakland, Cal. Filed Apr. 27, 1911. Serial No. 623,701. (Cl. 143—64.)



A pile cutting device comprising a supporting bar, a rod adjustably connected with said bar, a saw guide carried by said rod, a diagonal rod connected with said guide and supporting bar for regulating the angle of said guide, a saw blade passing through said guide, and operating handles for said blade carried by said bar.

1,076,816. DETACHABLE RUNNER FOR WHEELED VEHICLES. CARL A. CARLSON, Jamestown, N. Y., assignor, by direct and mesne assignments, of one-fifth to A. Frank Nelson, one-fifth to Edward R. Nelson, one-fifth to Martin Dolan, and one-fifth to John Dolan. Filed Sept. 16, 1912. Serial No. 720,476. (Cl. 21—96.)



1. A device of the class described comprising a continuous runner for the two wheels at one side of a vehicle, said runner having an upturned front end, a swivel hook slidably mounted in said front end for attaching the runner to the wheel rim of the front wheel in holding engagement, an extension slidably mounted on the upper side of the rear end of said runner and extending up behind the rear wheel, a thumb screw on said runner for holding said extension and a swivel hook slidably mounted in said extension for attaching to said rear wheel.

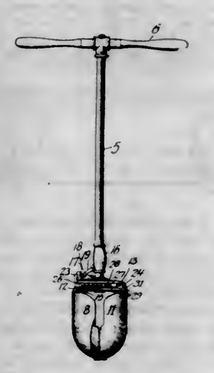
2. A device of the class described comprising a runner to extend along one side beneath the front and rear wheels, the front end of said runner extending upwardly and attached to the rim of the front wheel, an upwardly extending strip adjustably attached to the upper side of the rear end of said runner, the upwardly extending end of said strip attached to the rim of the rear wheel, channel strips attached to the upper side of said runner opposite the front and rear wheels to hold the same in place upon said runner, the sides of said channel strips having slots therein adjacent to said runner, and screw clamps in said slots in said channel strips having detachable arms to hold upon the rims of the front and rear wheels.

3. A device of the class described comprising a runner which extends beneath the front and rear wheels having an upturned front end, a hook pivotally mounted in said front end having a thumb nut to adjust the same upon the wheel rim, channel strips attached to the upper side of said front runner opposite the front and rear wheels, said channel strips having slots adjacent to said runner, clamps in said slots to engage over the wheel rim and hold the same, a plate in the rear channel strip a spaced distance above said runner and channel strips, an extension strip slidably mounted beneath said plate on said runner, a hook pivotally mounted in the upturned end of said extension strip and having a thumb nut thereon to hold said hook on the wheel rim, and a set screw in said plate in said channel strip to hold said strip in an adjusted position, substantially as and for the purpose specified.

1,076,817. EXPANSION EARTH-AUGER. FRANK H. CHASE, Chicago, Ill., assignor to Standard Earth Auger Co., Chicago, Ill., a Corporation of Illinois. Filed Dec. 8, 1909. Serial No. 531,934. (Cl. 255—65.)

1. An earth auger having a cross head, auger blades secured to the ends of the cross head by fastenings passing therethrough, a reamer applied to one side of the cross head and having a central longitudinal semi-tubular portion spanning the ends of the fastenings and provided at opposite edges with longitudinal flanges lying against the cross head, there being a longitudinal cutting-edge upon the lower flange set at an angle thereto, the semi-tubular portion of the reamer having a longitudinal series of openings, a threaded fastening carried by the cross head and engaging one of the openings to secure the reamer to the cross head, and a nut upon the threaded fastening, substantially as described.

2. A reamer blade having a central longitudinal semi-tubular portion provided with a longitudinal series of openings and with straight flat longitudinal flanges at the edges of the semi-tubular portion, and a cutting blade portion extending longitudinally at the outer edge of one of the flanges and set at an angle to the plane of the flange, substantially as described.



3. An earth auger having a cross head, an auger blade fixed to one end of the cross head, a movable auger blade mounted upon the other end of the cross head, and a reamer carried by the cross head and adjustable thereon into an inoperative position within the perimeter of the blades and into an operative position projecting beyond the fixed blade.

4. An earth auger having a cross head, a handle projecting from the middle of the cross head, a reamer fixed to one end of the cross head, a movable reamer-blade mounted on the other end of the cross head, a threaded fastening projecting from the cross head and located between the handle and the fixed blade, a nut upon the fastening, and a reamer blade upon one side of the cross head and provided with a series of openings for the reception of the threaded fastening, whereby the blade may be adjusted endwise into an inoperative position between the blades and into an operative position projecting beyond the fixed blade.

5. An earth auger comprising a cross head, auger blades carried by opposite ends of the cross head, and a reamer also carried by the cross head and adjustable endwise thereof to bring the reamer into an inoperative position between the blades and also to bring it into an operative position projecting beyond one end of the cross head.

1,076,818. PROCESS OF SWEETENING AND FERTILIZING THE SOIL. LEWIS CHEESEMAN, Glenburn, Pa., assignor to Witherbee, Sherman & Co., Port Henry, N. Y., a Corporation of New York. Filed Oct. 25, 1911. Serial No. 656,706. (Cl. 71—9.)

1. The process of sweetening and fertilizing the soil, which consists in applying thereto a composition having a base containing sulfid of barium, as its principal ingredient.

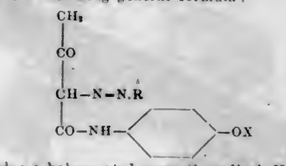
2. The process of sweetening and fertilizing the soil, which consists in using therewith barium hydrate.

3. The process of sweetening and fertilizing the soil, which consists in using therewith the alkaline earth base barium as hydrate and sulf-hydrate.

4. The process of sweetening and fertilizing the soil, which consists in applying thereto a composition comprising among its component parts barium sulfid and oxid of lime.

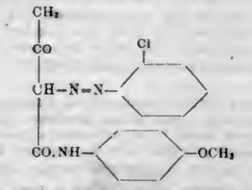
1,076,819. AZO COLORS SUITABLE FOR USE AS PIGMENTS. HEINRICH CLINGESTEIN, Mülheim, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed May 9, 1913. Serial No. 766,649. (Cl. 8—1.)

1. As new products the new dyestuffs having most probably the following general formula:



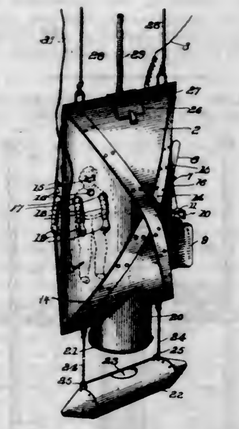
(R meaning a halogenated aromatic radical, X meaning an alkyl,) which are after being dried and pulverized yellow powders insoluble in water, soluble in concentrated sulfuric acid generally with a yellow coloration; furnishing valuable greenish-yellow color lakes resembling zinc yellow which are fast to light, substantially as described.

2. As a new product the new dyestuff derived from chloro-anilin and aceto-acetic-para-anisidid having most probably the following formula:



which is after being dried and pulverized a yellow powder insoluble in water, soluble in concentrated sulfuric acid with a yellow color; and furnishing valuable yellowish-green color lakes resembling zinc yellow which are fast to light, substantially as described.

1,076,820. DIVING APPARATUS. CHARLES F. DARSSIN, Brockton, Mass. Filed Aug. 8, 1912. Serial No. 714,099. (Cl. 61—7.)



1. A diving shield or chamber comprising a shell having the form of a right rectangular based octahedron, and reinforcing pieces extending diagonally across the sides of the shield and crossing each other.

2. A diving shield or chamber including a hollow shell, flexible connections extending from the bottom of the shell, and a ballast container connected to the flexible connections, said ballast container including a hollow cylindrical shell, open for the entrance of ballast.

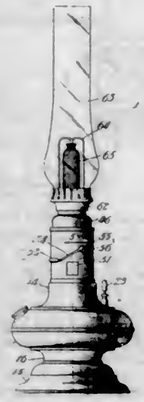
3. A diving shield or chamber comprising a hollow shell having a manhole at one end and an extension at its bottom end, a door closing the lower end of the extension, said door being provided with an observation port and a light port, and a ballast container flexibly suspended from the lower end of the shell.

4. A diving shield or chamber having approximately the form of a right rectangular based octahedron, and opposed series of bowed ribs in spaced relation disposed within the shell, bracing the same and forming a series of steps and platforms.

5. A diving shield or chamber having approximately the form of a right rectangular based octahedron, oppositely placed vertically disposed braces at the forward and rear edges of the shield or chamber, and oppositely disposed series of spaced longitudinal braces extending each from the forward brace to the rear brace, said braces being bowed at the middle to provide a central passage, said braces constituting a vertical series of steps and platforms.

[Claim 6 not printed in the Gazette.]

1,076,821. INCANDESCENT OIL-LAMP. JACOB DOORENBOS, Kalamazoo, Mich. Filed Oct. 10, 1910, Serial No. 586,237. Renewed Mar. 25, 1913. Serial No. 756,799. (Cl. 67—38.)



1. In a lamp of the character described, the combination with the outer wick-tube, of a surrounding burner-casing, an outer perforated burner-tube in the casing above said wick-tube having a plurality of combined igniter and draft openings in its lower part in a plane above the wick-tube, a damper-device sliding upon said burner-tube and adjustable thereon to the positions of uncovering, partly covering and covering said openings, and means for holding said damper-device in its said positions, for the purpose set forth.

2. In a lamp of the character described, the combination with the outer wick-tube, of a surrounding burner-casing, an outer perforated burner-tube in the casing above said wick-tube, having a plurality of combined igniter and draft openings in its lower part in a plane above the wick-tube, a damper device sliding upon said burner-tube and adjustable from the outside of the casing to the positions of uncovering, partly covering and covering said openings, and means for holding said damper device in its said positions, for the purpose set forth.

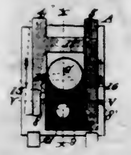
3. In a lamp of the character described, the combination with the outer wick-tube, of a surrounding burner-casing having an igniter-opening, an outer, perforated burner-tube in the casing above said wick-tube having a plurality of igniter and draft-openings in its lower part, and a damper-device sliding against said burner-tube and casing and adjustable, from the outside of the casing, to the positions of uncovering, partly covering, and covering said burner-tube openings, and of uncovering and covering said igniter-opening in the casing, substantially as and for the purpose set forth.

4. In a lamp of the character described, the combination with the outer wick-tube, of a surrounding burner-casing having an igniter-opening, an outer, perforated burner-tube in the casing above said wick-tube having a plurality of igniter and draft-openings in its lower part, a damper-device sliding against said burner-tube and casing and adjustable, from the outside of the casing, to the positions of uncovering, partly covering, and covering said burner-tube openings, and of uncovering and covering said igniter-opening in the casing, and means for holding the damper-device in each of said positions of adjustment.

5. In a lamp of the character described, the combination with the font, of an inner cylindrical, center-draft wick-tube, an outer wick-tube, an inner perforated burner-tube above the inner wick-tube closed at its upper end, an outer perforated burner-tube above the outer wick-tube open at its upper end, and a normally closed burner-casing surrounding the burner-tubes, said burner-tubes forming between them an annular initial combustion and mixing chamber and a reduced inwardly-converging annular outlet at the upper end of the chamber, said casing forming an outer draft-tube discharging into said mixing-chamber through the perforations in the outer burner-tube.

[Claims 6 to 10 not printed in the Gazette.]

1,076,822. COIN-CONTROLLED LOCK. WILLIS S. FARNSWORTH, San Francisco, Cal., assignor to Coin Controlled Lock Co., San Francisco, Cal., a Corporation of California. Filed June 20, 1912. Serial No. 704,745. (Cl. 194—59.)



1. In a coin-controlled lock, the combination of a latch bolt, a barrel for reciprocating the same, a key for turning the barrel, a pair of oppositely movable arms operable by the key, one of said arms having a limited yielding movement toward and from the other arm, and one of said arms also carrying an abutment to support a coin, coin pocket-forming means coöperating with the arms to hold the coin, and means carried by one arm to advance the coin past the abutment formed on the other arm.

2. In a coin-controlled lock, the combination with a latch bolt, of a barrel connected therewith to move the bolt, a key for operating the barrel, coin-controlled mechanism permitting of but a single complete reciprocation of the bolt on the deposit of a single coin, said mechanism including a pivoted plate connected with the barrel for sliding movement, a pocket formed with said plate, an opposed co-acting wedge-shaped abutment, between which and said sliding plate a coin is adapted to be held, and means carried by the sliding plate for advancing the coin past said abutment.

3. In a coin-controlled lock, the combination with a sliding latch bolt, of a key-operated barrel for actuating the bolt, a pair of oppositely sliding arms connected with the barrel and reciprocal thereby, means co-acting with the arms to inclose a coin pocket, said arms having a limited yielding movement toward and from each other, and means coöperating with the arms by which the key is normally held against withdrawal from the barrel.

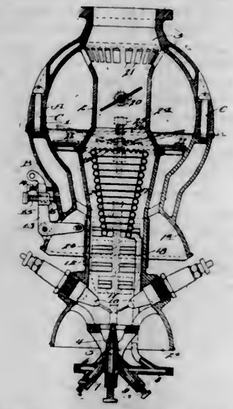
4. In a coin-controlled lock, the combination with a sliding latch bolt, of a key-operated barrel for actuating the bolt, a pair of oppositely sliding arms connected with the barrel and reciprocal thereby, means co-acting with the arms to inclose a coin pocket, said arms having a limited

yielding movement toward and from each other, means coöperating with the arms by which the key is normally held against withdrawal from the barrel, and means in conjunction with the arms whereby, upon deposit of the coin, the bolt may be projected into locked position and the key withdrawn and subsequently the bolt retracted by the key, whereupon the key assumes its normal position against withdrawal until the deposit of another coin.

5. The combination with a latch bolt, of a barrel having a lug to operate the bolt, a key to operate the barrel, and coin-controlled mechanism including a sliding coin pocket connected with the barrel to allow the latch bolt to be operated only on the deposit of a proper token.

[Claims 6 to 11 not printed in the Gazette.]

1,076,823. GAS-PRODUCER. LOUIS FRIEDMAN, New York, N. Y. Filed Feb. 13, 1912. Serial No. 677,381. (Cl. 48—107.)



1. In a gas producer, a shell subject to the suction of the engine, an oil supply communicating with said shell, electrodes in relation to the oil supply to establish an arc and ignite the mixture passing from the oil supply, a coil within said shell and through which air is caused to circulate, the coil being subject to the heat of the flame of the ignited mixture, and having air discharge openings, and a mixing chamber to which the air from the coil and the gas evolved by the ignition of the mixture passes.

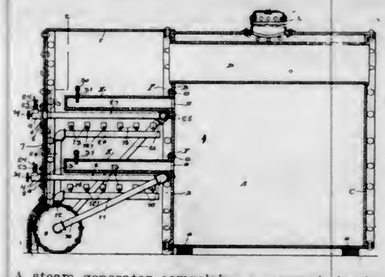
2. In a gas producer, a shell subject to the suction of the engine, an oil supply communicating with said shell, electrodes in relation to the oil supply to establish an arc and ignite the mixture passing from the oil supply, a coil within said shell and through which air is caused to circulate, the coil being subject to the heat of the flame of the ignited mixture and having air discharge openings, a mixing chamber to which the air from the coil and the gas evolved by the ignition of the mixture passes, and means for supplying additional air to the mixing chamber.

3. In a gas producer, a shell subject to the suction of the engine, a second shell in surrounding relation to said first-named shell and connected to the latter at its upper end, an extension of the first shell which forms a mixing chamber, the first shell having openings through which air drawn through the second shell passes to the mixing chamber, an oil supply communicating with the second shell, and electrodes in relation to the oil supply to establish an arc and ignite the mixture passing from the oil supply, the mixing chamber receiving the gas evolved by the ignition of the mixture.

4. In a gas producer, a shell subject to the suction of the engine, a second shell in surrounding relation to said first-named shell and connected to the latter at its upper end, an extension of the first shell which forms a mixing chamber, the first shell having openings through which air drawn through the second shell passes to the mixing chamber, an oil supply communicating with the second shell, electrodes in relation to the oil supply to establish an arc and ignite the mixture passing from the oil supply, the mixing chamber receiving the gas evolved by the ignition of the mixture, and a coil located in the first shell and through which air is caused to circulate, the coil being subject to the heat of the flame of the ignited mixture and having openings through which the air discharges to mingle with the gas which passes to the mixing chamber.

5. In a gas producer, a shell subject to the suction of the engine, a mixing chamber communicating with one end of said shell, means within said shell for developing a gas which passes to the mixing chamber, a second shell in surrounding relation to the first shell and in communication with the mixing chamber, the second shell opening to the atmosphere and passing air to the mixing chamber, an annular web bridging the space between the shells and having air openings, and flap valves spring-pressed upon the web and mounted for pivotal movement and also for vertical rectilinear movement.

1,076,824. STEAM-GENERATOR. ALFRED HACKETT, Toronto, Ontario, Canada. Filed Jan. 4, 1913. Serial No. 740,173. (Cl. 122—260.)



1. A steam generator comprising a reservoir having an opening formed in the head sheet thereof; a vaporizing pan secured to said head sheet and communicating with the reservoir through said opening; a conduit extending through and mounted in the head and back sheets of the said reservoir and positioned near the top thereof; means whereby water is supplied to said vaporizing pan; means positioned underneath said vaporizing pan for generating steam from the water therein, and a casing inclosing said vaporizing pan and said steam-generating means so that the surplus heat within said casing will escape through said conduit and superheat the steam within said reservoir.

2. A steam generator comprising a reservoir having an opening formed in the head sheet thereof; a vaporizing pan secured to said head sheet and communicating with the reservoir through said opening; a conduit extending through and mounted in the head and back sheets of the said reservoir and positioned near the top thereof; a steam dome carried by said reservoir; means whereby water is supplied to said vaporizing pan; means positioned underneath said vaporizing pan for generating steam from the water therein, and a casing inclosing said vaporizing pan and said steam generating means so that the surplus heat within said casing will escape through said conduit and superheat the steam within said reservoir.

3. In a steam generator, the combination of a reservoir provided with an opening in the head sheet thereof; a vaporizing pan secured to said head sheet over said opening; means whereby water is fed into said vaporizing pan, and a conduit positioned near the top of said reservoir and opening through and held in the head and back sheets thereof.

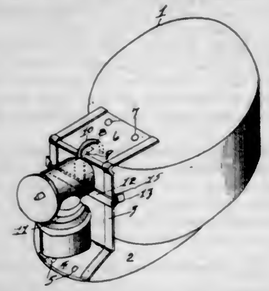
4. In a steam generator, the combination of a reservoir provided with an opening in the head sheet thereof; a vaporizing pan secured to said head sheet over said opening; means whereby water is fed into said vaporizing pan; a conduit positioned near the top of said reservoir and opening through and held in the head and back sheets thereof, and a steam dome carried by said reservoir and positioned above said conduit.

1,076,825. FOOD COMPOUND. ALEXANDER HAMILTON, Chicago, Ill. Filed Nov. 18, 1912. Serial No. 731,946. (Cl. 99—11.)

1. The herein described method of preparing a preserved food-compound adapted for the preparation of soups, which consists in crushing or comminuting bones, subjecting the comminuted particles for a predetermined time to the action of a salt solution, commingling the same with a meat constituent and drying the mass.

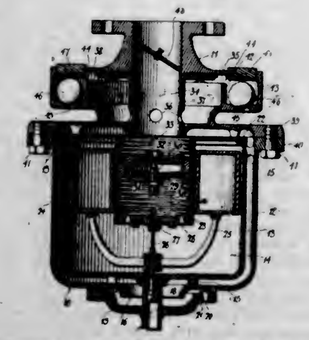
2. The herein described method of preparing a preserved food-compound adapted for the preparation of soups, which consists in crushing or comminuting bones, subjecting the particles for a predetermined time to the action of a salt solution, drying said particles, commingling the same with a meat constituent and again drying the mass.

1,076,826. PORTABLE ACETYLENE-LAMP. AUGIE L. HANSEN, Chicago, Ill., assignor to The Justrite Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1912. Serial No. 679,074. (Cl. 240—60.)



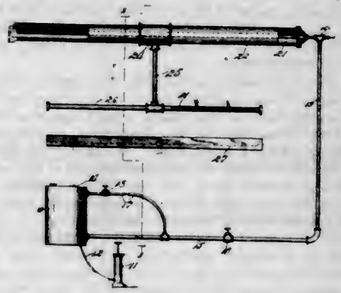
A new article of manufacture, an acetylene lamp, provided with a clamp rigidly secured to its rear wall, said clamp comprising a cross bar, the ends of which are bent inwardly and then outwardly, a vertical portion formed integral with the said cross bar terminating in a hook, the ends of the said cross bar being adapted to clamp a plate when it is interposed between them.

1,076,827. CARBURETER. ARTHUR L. HAYNES, Clyde, Kans. Filed Feb. 6, 1912. Serial No. 675,736. (Cl. 48—155.2.)



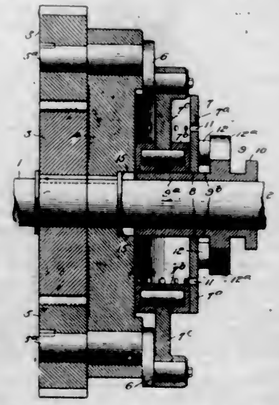
In a carbureter provided with an air intake and a mixture outlet, and having a constant level reservoir and a spraying nozzle support, a float controlled valve for regulating the gasolene level in said reservoir, a spraying nozzle mounted on said support for adjustment toward and away from the gasolene level, said spraying nozzle having its bore enlarged centrally to form an interior chamber, the lower wall of said chamber being provided with a plurality of inlet ports, and a valve carried by said spraying nozzle for controlling same.

1,076,828. OIL-BURNER. HILLORY P. INGRAM and HARRY I. INGRAM, De Ridder, La. Filed Feb. 16, 1912. Serial No. 677,950. (Cl. 158—36.)



In a device of the class described, a fluid-containing tank; a main pipe entering the tank adjacent the bottom of the tank; an auxiliary pipe forming a communication between the main pipe and the upper portion of the tank; an air pump discharging into the tank; a cut off valve in the auxiliary pipe and located adjacent the tank, the said valve being under the control of an operator; a casing; a burner below and communicating with the casing; and a valve interposed between the casing and the main pipe.

1,076,829. TRANSMISSION MECHANISM. GEORGE JACOBS, Canton, Ohio, assignor to Stewart S. Kurtz, Canton, Ohio. Filed Oct. 16, 1908. Serial No. 458,101. (Cl. 74—34.)



1. In a transmission mechanism, the combination with a driving shaft and a driven shaft, of a gear mechanism for connecting the two shafts comprising a gear carried by one of the said shafts and a plurality of pinions carried by the other shaft and each meshing with said gear, the said pinions being uniformly spaced from each other around the axes of said shafts, a fluid compression system for controlling the relative movement of said pinions and gears

including a series of compression cylinders, and pistons each operated by one of said pinions, each of said cylinders being entirely open at its compression end for the escape of fluid and said open end operating as a valve seat, and a valve mechanism for closing said open ends.

2. In a transmission mechanism, the combination with a driving shaft and a driven shaft, of a gear mechanism for connecting the two shafts comprising a gear carried by one of the said shafts and a plurality of pinions carried by the other shaft and each meshing with said gear, the said pinions being uniformly spaced from each other around the axes of said shafts, a fluid compression system for controlling the relative movement of said pinions and gears including a series of compression cylinders, and pistons each operated by one of said pinions, said cylinders being arranged radially of the shafts and their compression ends being entirely open, and a valve for closing said open ends simultaneously.

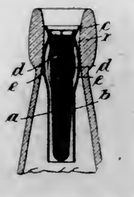
3. In transmission mechanism, the combination with a driving shaft and a driven shaft, of planetary gear mechanism connecting the two shafts, a fluid compression system for controlling the relative movement of the planetary gears including a compression cylinder having an inlet opening for the fluid, the compression end of the said cylinder being entirely open and the circumferential edge or wall at the said end forming a valve seat, and a single valve for controlling the said open end.

4. In transmission mechanism, the combination with two shafts, of a member carried by each shaft, fluid operated means for connecting the two members together, and auxiliary means for positively connecting the said two members together.

5. The combination of two shafts, one of which is driven, a member carried by each shaft, means including a plurality of compression cylinders for connecting the two members together, and means interposed between the cylinders for positively locking the two members in operative relation.

[Claims 6 to 22 not printed in the Gazette.]

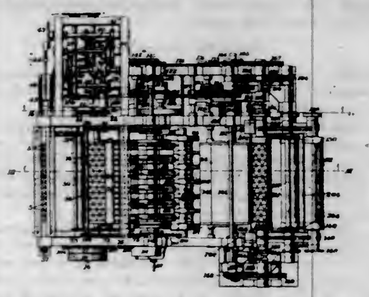
1,076,830. SAFETY-CLOSURE FOR CONTAINERS OF INFLAMMABLE LIQUIDS. MAX JASPER, Berlin, Germany. Filed Sept. 18, 1912. Serial No. 720,940. (Cl. 220—121.)



A safety closure for containers of inflammable liquids, comprising a shell having a head adapted to be seated within the neck of said container and a resilient bulged section below said head that is adapted to frictionally engage said neck, a reticulated sack depending from the shell-head into the shell, and an openwork thimble extending from the shell-head partly into the sack, said thimble constituting a guard for checking the introduction of a liquid-charging funnel, and constituting likewise exteriorly accessible means for withdrawing the closure from the container.

1,076,831. MACHINE FOR MAKING WIRE FABRIC. WILLIAM A. KILMER, De Kalb, Ill., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Nov. 29, 1909. Serial No. 530,348. (Cl. 140—9.)

1. In a wire fabric machine, the combination of a plurality of twister spindles, a reciprocating rack bar for actuating said spindles, a crank element for operating the rack bar, and a star gear for actuating the crank element; substantially as described.



2. In a wire fabric machine, the combination of a plurality of twister spindles, a reciprocating rack bar for actuating said spindles, a crank element for operating the rack bar, a star gear for actuating the crank element, a crank for actuating the star gear, and elliptical gearing for actuating the crank; substantially as described.

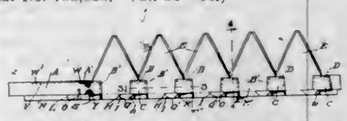
3. In a wire fabric machine, the combination of a reciprocating bobbin shifting bar, a crank member connected to operate said bar, and a star gear for operating the crank member; substantially as described.

4. In a wire fabric machine, the combination of reciprocating bobbin shifting bars, a crank member connected to operate said bars, a star gear for operating the crank member, a crank for operating the star gear, and elliptical gearing for operating the crank; substantially as described.

5. In a wire fabric machine, the combination with bobbin shifting and rotating means, of crank elements for operating such means, star gears for operating the crank elements, and a crank shaft having cranks for actuating the star gears; substantially as described.

[Claims 6 to 38 not printed in the Gazette.]

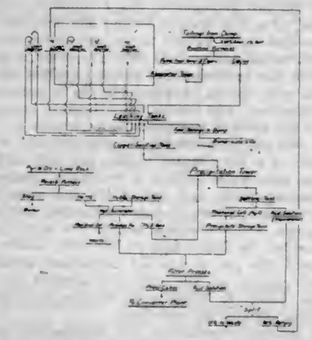
1,076,832. RIVETLESS SICKLE FOR MOWERS, &c. JAMES A. LACKEY, Ontario, Oreg. Filed Mar. 21, 1913. Serial No. 755,853. (Cl. 56—44.)



1. A rivetless sickle comprising a cutter bar having a series of recesses formed in the face thereof, the end walls of said recesses being undercut and transversely inclined, the projecting portion of the bar intermediate the recesses having undercut edges, cutter sections having shank portions which taper toward each other and are beveled, each cutter section having beveled shoulders at the inner ends of the tapering edges adapted to engage respectively the undercut edges of said projections, the shank portion of each of said sections having a notch with an inclined wall, a longitudinally-movable locking member having lateral projections with wedge-shaped ends adapted to engage the inclined walls of the notches and hold the sections in place, a resilient hook fastened at one end to said bar and adapted to engage said member to hold the same locked, as set forth.

2. A rivetless sickle comprising a cutter bar having a series of recesses formed in the face thereof, the walls of said recesses being undercut and transversely inclined, the projecting portion of the bar intermediate the recesses having undercut edges, cutter sections having shank portions having edges tapering toward each other and beveled, each section provided with beveled shoulders, said tapering edges and shoulders adapted to engage respectively the undercut edges of said projections, the shank portions of each of said sections having a notch with an inclined wall, a longitudinally movable locking member having lateral projections with wedge shaped ends adapted to engage the inclined walls of the notches and hold the sections in place, the forward edge of said bar having a groove therein with an aperture leading from one end of the groove through said bar, a resilient hook having a shank portion mounted in said groove and one end fixed to the bar with its hooked end extending through said aperture and adapted to engage a shoulder upon said locking member, to hold same from longitudinal movement in one direction, as set forth.

1,076,833. PROCESS OF EXTRACTING COPPER FROM ORE. FREDERICK LAIST, Anaconda, Mont. Filed Dec. 16, 1912. Serial No. 737,114. (Cl. 75—18.)



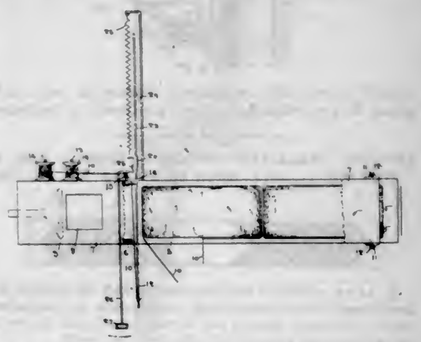
1. In the recovery of metallic copper and silver from a sulfid ore of said metals, the process of subjecting a charge of the ore to a preliminary oxidizing roast, then to a subsequent roast in the presence of salt, subjecting the resulting calcine to the action of water containing suitable proportions of sulfuric acid and salt thereby leaching the metallic salts from the ore, subjecting the resulting solution to the action of sulfureted hydrogen whereby the metals are precipitated as sulfids, and at the same time regenerating the leaching solution, and splitting the latter at the conclusion of each cycle of operations, for the purpose set forth.

2. In the recovery of metallic copper and silver from a sulfid ore of said metals, the process of subjecting a charge of the ore to a preliminary oxidizing roast, then to a subsequent roast in the presence of salt, subjecting the resulting calcine to the action of water containing suitable proportions of sulfuric acid and salt, thereby leaching the metallic salts from the ore, subjecting the resulting solution to the action of sulfureted hydrogen whereby the metals are precipitated as sulfids and at the same time regenerating the leaching solution, and returning the major portion of the regenerated leaching solution for treating fresh charges of ore.

1,076,834. WIRING MECHANISM FOR HAY-BALERS. ALEXIS L. LAMAR, Pittsburg, Kans., assignor to Lawson J. Stukey, Pittsburg, Kans. Filed Jan. 23, 1913. Serial No. 743,816. (Cl. 100—20.)

1. A device of the class described having a U-shaped guide secured adjacent the press chamber, forked pusher rods slidably mounted on said guide, a pull rod secured to said pusher rods and extending over said press chamber, and rollers secured at right angles to each other on said press chamber adjacent the forked ends of said pusher rods, said rollers adapted to guide wires into alinement with the pusher rods.

2. The combination in a baling press of a press chamber, a plunger adapted to be reciprocated therein, a lateral U-shaped guide secured near the press chamber, a pusher head slidably mounted on said guide, pusher rods secured in said pusher head and adapted to engage with tie-wires, a pull rod secured to the pusher head for actuating the same whereby the wires are passed into the path of the plunger, said puller rod extending over said press chamber, an arm secured to the press near the bottom thereof and extending laterally beyond the end of said guide, and a spring secured at one end to said arm and at the opposite end to said pusher head for normally holding the rods in an outward position.



3. An attachment for balers comprising a U-shaped guide secured adjacent the press chamber, forked pusher rods slidably mounted on said guide, a pull rod secured to said pusher rods and extending over said press chamber, rollers secured at right angles to each other on said press chamber adjacent the forked ends of said pusher rods, and adapted to guide wires into alinement with the pusher rods, and means for normally holding said pusher rods out of engagement with the wires.

4. An attachment for balers comprising a U-shaped guide secured adjacent the press chamber, rollers secured at right angles to each other on said press chamber, and approximately in the vertical plane of said guide, said rollers adapted to guide wires, and means carried by said guide for engaging the wires at a point adjacent the rollers for passing the wires into the path of the plunger.

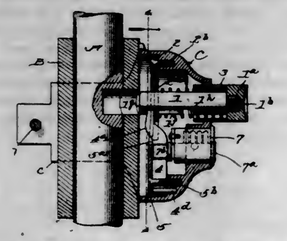
5. An attachment for balers comprising a U-shaped guide secured adjacent the press chamber, forked pusher rods slidably mounted on said guide, a pull rod secured to said pusher rods and extending over said press chamber, rollers secured at right angles to each other on said press chamber adjacent the forked ends of said pusher rods, and adapted to guide wires into alinement with the pusher rods, an arm secured to the press near the bottom thereof, and extending laterally beyond the end of said guide, and a spring secured at one end to said arm and at the opposite end to said pusher rods for normally holding the same in an outward position.

1,076,835. LOCKING DEVICE. JOHN S. LYONS, Wilkes-Barre, Pa., assignor, by direct and mesne assignments, to International Locking Device Company, a Corporation of Delaware. Filed Apr. 29, 1912. Serial No. 693,875. (Cl. 70—90.)

1. A lock comprising a bolt having parallel grooves and a locking abutment on its under side, a pair of spring locking fingers engaging the grooves of the bolt and adapted to engage the abutment to lock the bolt when projected, and devices adapted to separate the fingers to release the bolt.

2. A lock comprising a bolt adapted to be manually projected into locking position, said bolt having parallel grooves on its under side, and a locking abutment at the end of said grooves; a pair of spring locking fingers engag-

ing the grooves of the bolt and adapted to engage the abutment to lock the bolt when projected; and rotary means



adapted to separate the fingers to release the bolt; and a spring for projecting the bolt when released by the fingers.

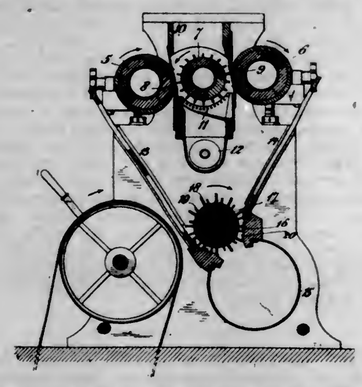
1,076,836. WALL-TIE. ORANGE F. MERWIN, Erie, Pa. Filed Mar. 11, 1911. Serial No. 613,816. (Cl. 72—103.)



1. As an article of manufacture, a wall tie formed of a sheet metal strap and having corrugations of herringbone shape converging toward the adjacent end, said tie having its opposite end adapted to be secured to a wall.

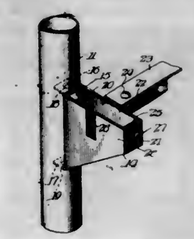
2. As an article of manufacture, a wall tie formed of a sheet metal strap and having corrugations of herringbone shape at each end, the corrugations at each end converging toward the adjacent end.

1,076,837. COTTON-GIN. IVAR MEURLING, Brooklyn, N. Y., assignor to Empire Duplex Gin Company, New York, N. Y., a Corporation of Arizona. Filed Sept. 28, 1910. Serial No. 584,167. (Cl. 13—7.)



The combination with ginning members, a hopper below said members into which lint is dropped by gravity, a lint flue adapted to have air pressure therein, a discharge throat between the constricted end of the chute and said flue having surfaces in the same cylindrical plane with the axis thereof offset toward the side of discharge, a discharge roller rotatably mounted in the throat having pins projecting radially from its surface, and elastic flexible blades projecting therefrom a greater distance than the radius of said cylindrical plane, said pins and blades being arranged to pick up the lint in the chute and discharge it into the flue, and the blades arranged to bear against the surfaces of the throat under pressure to prevent escape of air from the flue into the hopper.

1,076,838. BED-RAIL ATTACHMENT. MORRIS B. OKUN, Chicago, Ill. Filed Jan. 13, 1913. Serial No. 741,674. (Cl. 5—55.)



1. In a bed rail attachment, the combination with the corner post, of a box bracket having side and end walls, one of the end walls having upper and lower apertured tongues extending horizontally into the posts, a pin disposed within the apertures and bearing against the inner wall of the post, means engaging the pin to prevent accidental withdrawal, and means to detachably connect the side rail to the bracket, substantially as described.

2. In a bed rail attachment, the combination with the corner post, of a box bracket having side and end walls, one of the side walls having a vertically disposed upwardly opening notch, and one of the end walls having upper and lower apertured tongues extending horizontally into the posts, a pin disposed within the apertures and bearing against the inner wall of the post, means to engage beneath the pin to prevent accidental withdrawal, and means carried by the rail and adapted to engage within the notch to detachably connect the rail and bracket, substantially as described.

3. In a bed rail attachment, the combination with the corner post, of a box bracket having side and end walls, one of the side walls having a vertically disposed upwardly opening notch, and one of the end walls having upper and lower apertured tongues extending horizontally into the posts, a pin disposed within the apertures and bearing against the inner wall of the post, means to engage the pin to prevent accidental withdrawal, and means to detachably connect the rail to the bracket, said means comprising a plate corresponding in size to the interior side wall of the bracket and having an integral offset portion adapted to fit within the slot of such side wall, the extent of the offset from the plane of the plate corresponding substantially to the thickness of the bracket wall so as to accommodate the said wall between the plate and rail, and fastening means connecting the offset portion and the rail, substantially as described.

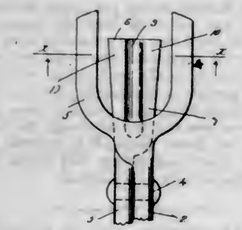
4. In a bed rail attachment, the combination with the corner post, of a box bracket having side and end walls, one of the side walls having a vertically disposed upwardly opening notch, and one of the end walls having upper and lower apertured tongues extending horizontally into the posts, a wedge pin disposed from below within the apertures of the tongues and bearing against the inner wall of the posts, means to engage beneath the head of the pin to prevent accidental withdrawal, and means to detachably connect the rail to the bracket, said means comprising a plate corresponding in size to the interior side wall of the bracket and having an integral offset portion adapted to fit within the slot of such side wall, the extent of the offset from the plane of the plate corresponding substantially to the thickness of the bracket wall so as to accommodate the said wall between the plate and rail, and fastening means connecting the offset portion and the rail, substantially as described.

5. In a bed rail attachment, the combination with the corner post, of a box bracket having side and end walls, one of the side walls having a vertically disposed upwardly opening notch, and one of the end walls having upper and lower apertured tongues extending horizontally into the posts, a wedge pin disposed from below within the apertures of the tongues and bearing against the inner wall of the posts, means to engage beneath the

head of the pin to prevent accidental withdrawal, and means to detachably connect the rail to the bracket, said means comprising a plate corresponding in size to the interior side wall of the bracket and having an integral offset portion adapted to fit within the slot of such side wall, the extent of the offset from the plane of the plate corresponding substantially to the thickness of the bracket wall so as to accommodate the said wall between the plate and rail, and fastening means connecting the offset portion and the rail, the horizontal rail portion overlying the bracket and the vertical rail portion lying alongside the bracket and covering the slot, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,076,839. TONGS. WILHELM PETER, Degraff, Ohio. Filed Jan. 6, 1913. Serial No. 740,421. (Cl. 81—3.)



1. A pair of tongs for holding a curved cultivator shovel provided with a holder bracket, said tongs comprising crossed and pivoted handles, one handle having a forked jaw adapted to straddle the holder bracket, and the other handle having a plate which is narrower than the fork of the jaw and provided with a longitudinal groove in its face, both jaw and plate being curved in the same direction and arranged parallel to and opposite to each other so as to engage with the curved shovel and being both offset to one and the same side of the center line of the handles.

2. The combination, with a pair of tongs provided with crossed and pivoted handles and opposed jaws, of a triangular link having sides of unequal length, said link being pivoted to one handle and adapted to engage with the other handle, and free to be turned around so as to clamp objects of different thickness between the jaws.

1,076,840. MANUFACTURE OF DIACIDYL AND HIGHER ACIDYLATED COMPOUNDS FROM AMINO-AZO BASES. HEINRICH REINHARDT, Biebrich, Germany, assignor to The Firm of Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Filed Sept. 9, 1912. Serial No. 719,421. (Cl. 23—24.)

1. The process of producing from amino-azo bases acidyl compounds containing at least one acidyl group more than the number of amino groups, which process consists in heating the said bases with an excess of an acidylating agent over the amount theoretically required.

2. The process of producing from amino-azo bases acetyl compounds containing at least one acetyl group more than the number of amino groups, which process consists in heating the said bases with an excess of an acetylating agent over the amount theoretically required.

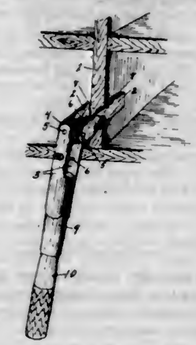
3. The process of producing from amino-azo bases acetyl compounds containing at least one acetyl group more than the number of amino groups, which process consists in heating the said bases with an excess of acetic anhydrid over the amount theoretically required.

4. As new products the acidyl compounds from amino-azo bases containing at least one acidyl group more than the number of amino groups and obtainable by heating amino-azo bases with an excess of an acidylating agent over the amount theoretically required.

5. As new products the acetyl compounds from amino-azo bases containing at least one acetyl group more than the number of the amino groups and obtainable by heating amino-azo bases with an excess of an acetylating agent over the amount theoretically required.

[Claims 6 to 10 not printed in the Gazette.]

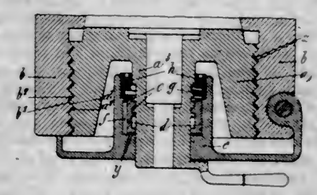
1,076,841. HOLDER OR SUPPORT FOR FOUNTAIN-PENS. CORNEIL RIDDERHOF, Los Angeles, Cal. Filed Nov. 22, 1910. Serial No. 593,660. (Cl. 24—81.)



1. In a structure of the class described, the combination of a pair of support engaging clamp members; a pair of pen engaging clamp members; a joint member having transversely-disposed clamp member engaging pins thereon; a single clamping bolt arranged through said support clamp members between its jaw and said joint member whereby said support clamp members may be clamped upon the support and upon said joint member to yieldingly support said joint member in its adjusted positions by their frictional engagement therewith; and a single clamping bolt arranged through said pen clamp members between said joint member and their jaw portions whereby said pen clamp members may be clamped upon the pen and upon said joint member to yieldingly support them in their adjusted position upon said joint member by their frictional engagement therewith.

2. In a structure of the class described, the combination of a pair of support clamp members, a pair of pen clamp members, a joint member having a plurality of clamp member pivot pins thereon, said joint member being of unequal dimensions relative to the axes of said pins, and means for detachably securing said clamp members upon said joint member to admit of the reversal of the joint member.

1,076,842. BREECH MECHANISM OF GUNS. EUGÈNE SCHNEIDER, Le Creuzot, France. Filed Nov. 27, 1911. Serial No. 662,657. (Cl. 89—20.)



1. In a gun, the combination of a breech provided with screw-threads and a breech screw provided with corresponding screw-threads, a clearance being provided between half of the contiguous and homologous faces of said threads whereby said breech screw may have a slight longitudinal movement imparted thereto when the breech is completely closed.

2. In a gun, the combination of a breech provided with screw-threads, and a breech screw provided with corresponding screw-threads, a clearance being provided between the front faces of the threads on one of said parts and the rear faces of the threads on the other of said parts when the breech is completely closed.

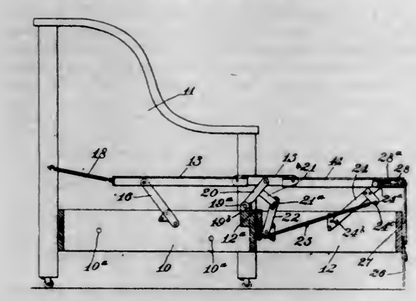
3. In a gun, the combination of a breech provided with screw-threads, and a breech screw provided with corresponding screw-threads, a clearance being provided between the front faces of the threads on the breech screw and the rear faces of the threads in the breech when the breech is completely closed.

4. In a gun, the combination of a breech provided with screw-threads and a breech-screw provided with corresponding screw-threads, a clearance being provided between half of the contiguous and homologous faces of said threads when said breech-screw is screwed home in the breech.

5. In a gun, the combination of a breech provided with screw-threads and a breech-screw provided with corresponding screw-threads concentric with the axis of said breech-screw, a clearance being provided between half of the contiguous and homologous faces of said threads when said breech-screw is screwed home in the breech.

[Claims 6 to 18 not printed in the Gazette.]

1,076,843. SOFA OR DAVENPORT BED. ALONZO G. SHARP, Columbus, Ohio, assignor to The E. M. Huise Company, Columbus, Ohio, a Corporation of Ohio. Filed July 31, 1911. Serial No. 641,404. (Cl. 5—51.)



1. In a sofa or davenport bed the combination with a stationary box frame and a seat frame hinged to the forward portion thereof, of a folding spring bed frame including a middle section, rocking standards journaled directly on the box frame and connected with said middle section, means to limit the outward movement of said rocking standards and means connected with the seat for operating said standards when the seat frame is turned outward from closed position, substantially as described.

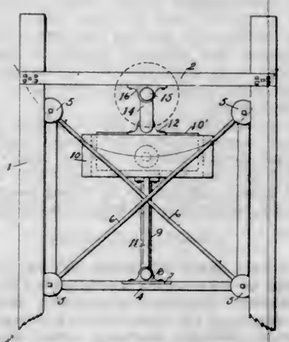
2. In a sofa or davenport bed, the combination with a box frame and a seat frame hinged to the forward portion thereof, of a folding spring bed frame including an inner section, a middle section and an outer section, rocking standards journaled on the box frame and connected with said middle section, means for supporting the outer section of said folding spring bed frame consisting of bars having a hinged connection with the seat frame and a sliding connection with said outer section and means to limit the movement of the parts in said connection, and springs operative on said bars to hold them at the limits of their movements and to release them from said limits during the operation of the seat frame, substantially as described.

3. In a sofa or davenport bed the combination with a box frame and a seat frame hinged to the forward portion thereof, of a folding spring bed frame including an inner, a middle and an outer section, rocking standards journaled on the box frame and connected with said middle section, means for supporting the outer bed section comprising arms hinged to the seat frame, and means for causing said outer section to fall toward the seat frame when the latter is raised from open position, substantially as described.

4. In a sofa or davenport bed, the combination with a box frame and a seat frame hinged to the forward portion thereof, of a folding spring bed frame including an inner, a middle and an outer section, rocking standards journaled in the box frame and connected with said middle section, means for supporting the outer bed section comprising arms hinged to the seat frame, and means for causing said outer section to fall toward the seat frame comprising springs adapted to operate to draw said rods in opposite directions during the raising of the seat, and movable catches to limit the movement of the rods with reference to the bed section when the seat is raised from open position, substantially as set forth.

5. In a sofa or davenport bed the combination with a box frame and a seat frame hinged to the forward portion thereof, a folding spring bed frame including an inner, a middle and an outer section, rocking standards journaled on the box frame and connected with said middle section, means for supporting the outer bed section comprising arms hinged to the seat frame, means for causing said outer section to fall toward the seat frame when the latter is raised from open position, drop legs on said seat and means connecting the same with the outer section of the spring bed frame operated to operate the legs by the falling of said outer spring bed frame toward the seat frame, substantially as described.

1,076,844. WAVE-MOTOR. BENNET CARROLL SHIPMAN, San Francisco, Cal., assignor to Pacific Wave Power Company, San Francisco, Cal., a Corporation of California. Filed Dec. 27, 1910, Serial No. 599,404. Renewed Mar. 25, 1913. Serial No. 756,798. (Cl. 253—8.)



1. In a wave motor, a support, a shaft carried thereby, a float, a vane depending below said float, means whereby the center of motion of said float is caused to be below the surface of the water, and means connected with said float to operate said shaft, substantially as described.

2. In a wave motor, a support, a shaft carried thereby, a float, means to cause the center of motion of said float to be below the surface of the waves, a vane extending from the float toward said center of motion, and means whereby said float will cause said shaft to rotate, substantially as described.

3. In a wave motor, a support, a shaft carried thereby, a float, means whereby the center of motion of said float is caused to lie below the surface of the wave, a vane extending downwardly from the float, means to permit the float to assume a position substantially tangent to the wave elements touching the same, and means connected with said float to rotate said shaft, substantially as described.

4. In a wave motor, a support, a shaft carried thereby, a frame slidable vertically in said support, a float, means connected with said slidable frame to cause the center of motion of said float to lie below the surface of the water, and means whereby the motion of said float will cause the rotation of said shaft, substantially as described.

5. In a wave motor, a support, a shaft carried thereby, a frame vertically slidable in said support, a float, a frame to which said float is pivoted, a downwardly extending vane below said float, means to cause the center of motion of said float and vane to lie below the surface of the water, and means whereby the motion of said float will cause the rotation of said shaft, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,076,845. RIDING BOOT AND LEGGING. NATHAN C. SHIVERICK, Omaha, Nebr. Filed Dec. 12, 1912. Serial No. 736,407. (Cl. 36—1.)



1. A leg-covering comprising a body portion of relatively stiff material, and a pliable portion for covering the inner posterior side of the calf of the leg.

2. A leg-covering for riding, comprising a pliable body portion, and means for stiffening the same throughout except in that portion which covers the inner and rearward fleshy portion of the leg below the knee.

3. A leg-covering comprising a body portion of pliable leather, and a lining-piece of stiff leather, the lining-piece extending so as to cover the leg of the wearer except that portion of the leg which is held against the side of a horse in riding.

4. A stiff-topped riding-boot having a pliable portion at the inner and rearward side of the calf of the leg.

5. A riding-boot having a relatively stiff and smooth-surfaced main leg-portion, and a relatively soft and pliable portion extending from the top toward the ankle on the inner and rearward side of the leg.

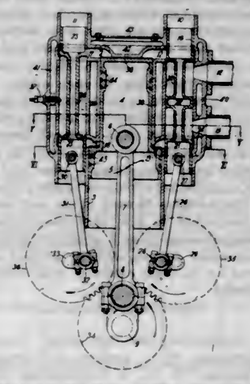
[Claim 6 not printed in the Gazette.]

1,076,846. GAS-ENGINE. EDWIN E. SLICK, Pittsburgh, Pa. Filed Oct. 26, 1911. Serial No. 656,953. (Cl. 123—71.)

1. In an internal combustion engine the combination with an expansion cylinder, an explosion chamber in which the gases are compressed, and a plurality of valve chambers having ports connected to the expansion cylinder, of balanced valves reciprocating in said valve chambers to control the opening and closing of the ports, the valves in one valve chamber co-acting therewith to form the explosion chamber and means for actuating the valves.

2. An internal combustion engine comprising separate compressing and expansion cylinders, unitary pistons operating therein and an explosion chamber in which the charges are compressed, said pistons being constructed and arranged to simultaneously compress the charges within the compressing cylinder and explosion chamber and expel the waste gases from the expansion cylinder.

3. An internal combustion engine comprising tandem compressing and expansion cylinders, tandem pistons operating therein and an explosion chamber in which the charges are compressed, said pistons being constructed and arranged to simultaneously compress charges within the compressing cylinder and explosion chamber and expel waste gases from the expansion cylinder.

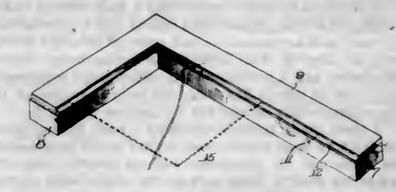


4. An internal combustion engine comprising tandem compressing and expansion cylinders, tandem pistons operating therein and an explosion chamber in which the charges are compressed, said pistons being constructed and arranged to simultaneously compress charges within the compressing cylinder and explosion chamber and expel waste gases from the expansion cylinder, and valve controlled ports connecting the explosion chamber with said compressing and expansion cylinders.

5. An internal combustion engine comprising in combination tandem compressing and expansion cylinders having trunk pistons therein, an explosion chamber in which the charges are compressed having ports communicating with the compressing and expansion cylinders, a valve chamber having valve controlled ports connected to the expansion and compressing cylinders, the valves co-acting with said valve chamber to form said explosion chamber, and means for actuating the valves.

[Claims 6 and 7 not printed in the Gazette.]

1,076,847. TYPE-PROOFING GAGE. CHARLES J. TAYLOR, Cicero, Ill. Filed Oct. 3, 1912. Serial No. 723,790. (Cl. 101—166.)



1. A proofing gage comprising a base having a plurality of arms disposed substantially at right angles to each other adapted to be laid on a flat surface, a flat guide of similar contour removably mounted on said base, said guide having provisions for engagement with two edges of a paper sheet and also being constructed to support the margins of the sheet at the engaged edges, and means for detachably retaining said guide in operative position on the base.

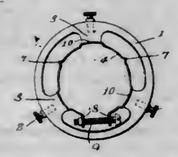
2. A proofing gage comprising a flat bottomed base having two arms extending substantially at right angles to each other, a flat member also having two arms extending substantially at right angles to each other and carrying guiding means, against which the edges of a sheet to be printed may be laid, superposed upon said base, and means including dowel pins and receiving holes therefor for detachably retaining said member in operative position on the base.

3. A proofing gage comprising a base, and a superposed guide, each comprising a pair of rigidly connected arms disposed normally relatively to each other, said guide being detachably connected to said base and each arm thereof being provided with registering means adapted to provide an abutment for an edge of a sheet of paper.

4. A proofing gage comprising a base, and a superposed guide, each comprising a pair of rigidly connected arms disposed normally relatively to each other, the guide being detachably connected to said base and each arm thereof being provided with registering means adapted to afford an abutment for an edge of a sheet of paper, and means for adjusting said registering means on the guide.

5. A proofing gage comprising a base, and a superposed guide, each comprising a pair of rigidly connected arms disposed at right angles to each other and said guide being detachably connected to said base, registering means adjustably mounted on each arm of the guide and adapted to afford an abutment for an edge of a sheet of paper, and means carried by the base whereby said registering means may be adjusted.

1,076,848. LAMP-SHADE HOLDER. SAMUEL B. VAN RANST, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Oct. 6, 1910. Serial No. 585,603. (Cl. 240—114.)



1. A lamp shade holder comprising a body having means for engaging a lamp shade, arms spaced apart intermediate of its ends, an expansible and contractile collar for engaging a support, the collar being carried by the arms, and a portion of the collar between the arms being compressed into an arc of less radius than the normal radius of the collar, and said portion being formed with a transverse corrugation projecting outwardly, a portion of the collar unprovided with a corrugation being split, and clamping means coacting with the collar on opposite sides of the split thereof, substantially as and for the purpose described.

2. A lamp shade holder comprising a body having means for engaging a lamp shade, arms spaced apart intermediate of its ends, and an expansible and contractile collar for engaging an electric lamp socket, the collar being carried by the arms, and a portion of the collar being compressed into an arc of less radius than the normal radius of the collar, substantially as and for the purpose set forth.

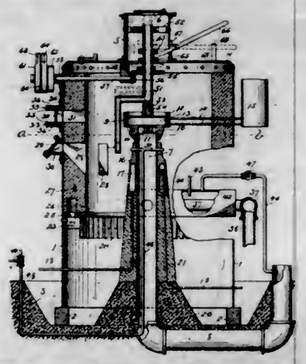
3. A lamp shade holder comprising a body having means for engaging a lamp shade, arms spaced apart intermediate of its ends, and an expansible and contractile collar for engaging an electric lamp socket, the collar being carried by the arms, and portions of the collar spaced apart being compressed into arcs of less radii than the normal radius of the collar, substantially as and for the purpose described.

4. A lamp shade holder comprising a body having means for supporting a lamp shade, arms spaced apart intermediate of its ends, and an expansible and contractile collar for engaging an electric lamp socket, the collar being carried by the ends of the arms and being fixed thereto, the portions of the collar between the arms being compressed inwardly and located in arcs of less radii than the radii of the arcs in which are located the parts of the collar joined to the ends of the arms, and means for contracting the collar on such socket, substantially as and for the purpose specified.

5. A lamp shade holder comprising a body having means for supporting a lamp shade, arms spaced apart intermediate of its ends, and an expansible and contractile collar for engaging an electric lamp socket, the collar being carried by the ends of the arms and being fixed thereto, the portions of the collar between the arms being compressed and located in arcs of less radii than the radii of the arcs in which are located the parts of the collar joined to the ends of the arms, and the compressed portions of the collar being formed with means rendering the same elastic and permitting said compressed portions to twist during the expanding of the collar on the lamp socket, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,076,849. PROCESS OF MAKING GAS. GEORGE J. WEBER, Kansas City, Mo. Filed July 10, 1908. Serial No. 442,951. (Cl. 48—207.)



1. The process consisting in providing a body of fuel comprising incandescent fuel and unignited fuel resting thereupon, and introducing air into the fuel body intermediate the ignited and unignited portions, the air at the time of its admission into the fuel having imparted to it a whirling movement, the air and resultant gaseous products being then passed downwardly and outwardly through the incandescent fuel in substantially the form of an annular flaring sheet.

2. The process consisting in providing a body of fuel comprising incandescent fuel and unignited fuel resting thereupon, and introducing mixed air and steam into the fuel body intermediate the ignited and unignited portions, the mixed air and steam at the time of admission to the fuel having imparted to it a whirling movement, the mixed steam and air and resultant gaseous products being then passed downwardly and outwardly through the incandescent fuel in substantially the form of an annular flaring sheet.

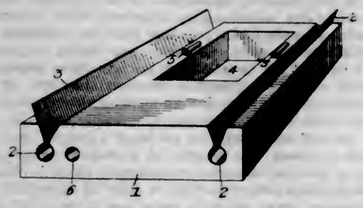
3. The process consisting in introducing air into a body of incandescent fuel and then passing the air outwardly in substantially an annular sheet, and subjecting the inner portion of the annular sheet to the action of water, which is thereby converted into steam which with the gaseous products is passed through the incandescent fuel.

4. The process consisting in introducing air into a body of fuel intermediate incandescent and unignited portions thereof, then passing the air and resultant gaseous products downwardly through the incandescent fuel in substantially the form of an annular sheet, and subjecting the inner portion of the annular sheet to the action of water, which is thereby converted into steam which with the gaseous products is passed through the incandescent fuel.

5. The process consisting in introducing air into a body of fuel intermediate incandescent and unignited portions thereof, the air at the time of its admission having a whirling movement imparted to it, then passing the air downwardly and outwardly in the form of a flaring annular sheet through the incandescent fuel, and introducing into the fuel below the point of introduction of the air and within said annular sheet water, which is thereby converted into steam which with the gaseous products is passed through the incandescent fuel.

[Claims 6 to 9 not printed in the Gazette.]

1,076,850. CARD-SUPPORT FOR DUMMY HANDS. GERTRUDE F. WEDDERBURN, Chevy Chase, Md. Filed Mar. 21, 1906. Serial No. 307,276. (Cl. 46—55.)



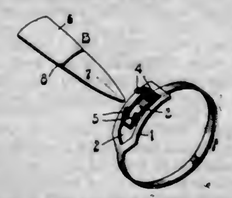
1. A card game device for enabling two players to play four handed card games, which comprises holders for two of the four card hands, each holder being provided with means adapted to engage the opposite sides of the cards at the bottom thereof so spaced apart as to allow but a limited play of the cards therein whereby the cards are maintained against accidental displacement.

2. A device for enabling two players to play four handed games such as whist, bridge, etc., provided with duplicate means for engaging, each, the cards forming a hand, each of said means adapted to engage the opposite sides of the cards at the bottom thereof so spaced apart as to allow but a limited play of the cards, whereby the cards are engaged at their lower ends only and are maintained against accidental displacement, said duplicate means being so disposed as to hold the two card hands slantwise and at an angle to the vertical.

3. A card game device for enabling two players to play four handed card games, which comprises a block having holding means for two of the four card hands, each holding means adapted to engage the opposite sides of the cards at the bottom thereof so spaced apart as to allow but a limited play of the cards therein, whereby the cards are maintained against accidental displacement.

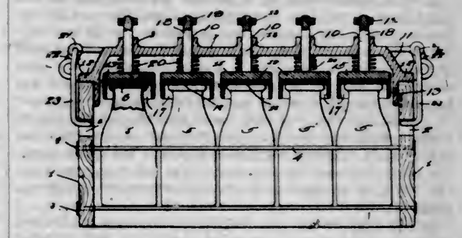
4. A card game device for enabling two players to play four handed games of cards, comprising duplicate holders, each holder being provided with slotted means adapted to engage the opposite sides of the cards at the bottom thereof so spaced apart as to allow but a limited play of the cards therein whereby the cards are maintained against accidental displacement, and each having a removable clip therein comprising an inclined support and each holder arranged to be positioned to support the series of cards forming the hand so that the same will be fully displayed to the player of the complemental or partner hand and concealed from the player of the opposing hand.

1,076,851. HOSE-CLAMP. HENRY M. WELSHANS, Sparta, Ill. Filed Apr. 26, 1912. Serial No. 693,394. (Cl. 137—28.)



A hose clamp comprising an integral encircling band having, at one end, an enlarged eye piece provided with an elongated eye and a pair of upturned hooks cut out from and integral with the sides of the eye of said eye piece and extending backwardly from the outer end of the latter, and at the other end with a tail adapted to extend through the eye of the eye piece provided with a pair of upturned hooks integral with the end of the tail, at the sides thereof, and opposing the paired hooks of the eye piece when the tail of the band is inserted in the eye of the eye piece, and a binder key.

1,076,852. COMBINED RACK AND SEAL FOR SUBMERGED MILK-CONTAINERS. EDMUND LANGWORTHY WESCOTT, Toronto, Ontario, Canada. Filed Jan. 30, 1913. Serial No. 745,114. (Cl. 126—272.)

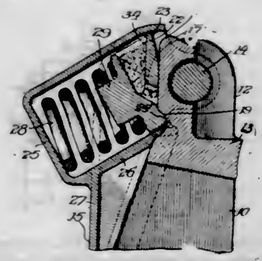


1. In a device of the class described, a frame formed of ends and longitudinal bars, a grid top having bosses projecting upwardly therefrom and orifices through said bosses, a plurality of inverted cups having stems projecting upwardly through said orifices and means for fastening said grid top to said ends.

2. In a device of the class described, a frame formed of ends and longitudinal bars, a grid top having offsets at the end of its longitudinal bars terminating in horizontal and vertical flanges forming a seat on the tops of said ends, fasteners secured to said horizontal flanges and engaging the said ends, and a plurality of inverted cups suitably secured to said grid top and engaging the bottles therebelow.

3. In a device of the class described, a frame formed of ends and longitudinal bars, a grid top having bosses projecting upwardly therefrom and orifices through said bosses, a plurality of inverted cups having stems projecting upwardly through said orifices, and resilient means exerting a downward pressure on said cups, said cups being formed to provide an air chamber protecting the tops of the bottles they encircle and cover from contact with any liquid in which the frame may be immersed in a horizontal position, and means for fastening said grid top to said ends.

1,076,853. JOURNAL-BOX LID. GEORGE A. WOODMAN, Chicago, Ill., assignor to Kirby Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 22, 1912. Serial No. 692,351. (Cl. 64—23.)



1. The combination of a journal box provided with a lug having a flat face on its forward side and provided with a shoulder at its upper edge extending beyond said flat face and provided also with a shoulder at its bottom located inwardly of said flat face, a lid pivotally connected to

said lug, a follower carried by said lid and having a flat forward face terminating in a forwardly extending shoulder at its bottom and a rounded shoulder at its top, the faces and shoulders of the follower and lug being so arranged that the lower shoulder of the follower engages the inwardly disposed shoulder at the bottom of the lug and the rounded shoulder at the top of the follower engages beneath the outwardly extending shoulder of the lug when the lid is in closed position and the lower shoulder of the follower engages the outwardly extending shoulder of the lug when the lid is in open position and means yieldingly pressing said follower against the lug.

2. The combination of a journal box provided with a lug having a flat face terminating in shoulders at its upper and lower edges, a follower carried by the lid and having a flat face adapted to contact with the said flat face of the lug and terminating in a shoulder at its lower edge adapted to engage the said shoulders of the lug, said flat faces and shoulders of the lug and follower being arranged to permit the flat face and lower shoulder of the lug to contact with the flat face and shoulder of the lid when the latter is in closed position and permit the upper shoulder of the lug and the shoulder of the lid to engage when the latter is in open position, and means for yieldingly pressing said follower against said lug.

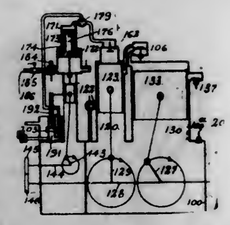
3. The combination of a journal box having a lug formed thereon, a lid pivotally connected to said lug, and provided with an open ended housing having inwardly extending shelves, a follower positioned in said housing, and having outwardly extending lugs adapted to rest upon the said shelves to support the said follower, and a spring normally pressing the said follower against the said bearing lug whereby the lid is retained in open and closed position.

4. The combination of a journal box having a lug formed thereon, said lug being provided wth a plurality of bearing faces, a lid pivotally connected to said lug, a follower slidingly mounted in said lid and provided with a bearing face adapted to engage the bearing faces of the lug, and a spring normally pressing the said follower against the said lug, said follower being provided with a recess adapted to contain a lubricant, and having an aperture through which the lubricant is supplied to the cooperating faces of the lug and follower.

5. The combination of a journal box having a lug formed thereon, a lid pivotally connected to said lug and provided with an open-ended housing, a follower positioned in said housing, means extending inwardly of the housing and engaging the said follower for supporting the follower and guiding it longitudinally of the housing, and means for pressing said follower against the lug.

[Claim 6 not printed in the Gazette.]

1,076,854. INTERNAL-COMBUSTION ENGINE. WILLIAM J. WRIGHT, Franklin, Pa., assignor to Wright Engine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Jan. 11, 1909. Serial No. 471,554. (Cl. 123—53.)



1. In an internal combustion engine, a primary cylinder and its piston, a secondary cylinder and its piston, a crank shaft with which said pistons are operatively connected to operate one in advance of the other, said high pressure cylinder having controlled air inlet ports, said cylinders having an intercommunicating duct connecting the same and a valve in said duct for controlling passage therethrough, said secondary cylinder having an exhaust port and a valve for controlling said exhaust port, a fuel pump for charging the primary cylinder with fuel, means operated from the crank shaft for actuating said fuel pump to supply fuel to said primary cylinder at a definite time during the cycle of operation of the primary piston, a valve gear for actuating said intercommunicating duct valve to throw the cylinders into communication during the common down stroke portion of the cycle of operations of said pistons and to hold said valve closed during a portion of the up strokes of said secondary piston, a valve gear for operating said exhaust valve to hold the same open during a predetermined part of the up stroke of the secondary piston and hold the same closed during the remaining part of said secondary piston up stroke, said pistons moving together in the same direction during a predetermined part of their up and down strokes, all being arranged that said secondary piston will operate as a suction pump piston during a part of its cycle of operation, as an exhausting piston during another part of its cycle of operation, as a compressing piston during a third part of its cycle of operation, and as a working piston during the remaining part of its cycle of operation.

2. An internal combustion engine that includes a primary cylinder and its piston, a secondary cylinder and its piston, a duct between said cylinders, a valve for controlling passage through said duct, a working agent inlet port for the primary cylinder and an air inlet port for the primary cylinder, an exhaust port for the secondary cylinder and an exhaust valve for controlling said exhaust port, a crank shaft having cranks set at an angle to one another, connecting rods between said pistons and said cranks, thereby causing one of said pistons to move in advance of the other, combined with a valve gear for operating said intercommunicating duct valve and another valve gear for operating said exhaust valve at predetermined intervals to cause said secondary piston to act as a pump piston for supplying the high pressure cylinder with a supporter of combustion through its air ports during a part of the cycle of operation of said secondary piston, and to cause said secondary piston during the next part of its cycle of operation to force a predetermined portion of said spent gases through said exhaust port and to compress the remainder in said secondary cylinder to be returned more or less to said primary cylinder, upon the opening of said intercommunicating duct valve, and further cause said secondary piston on the next succeeding portion of its cycle of operations to act as a working piston.

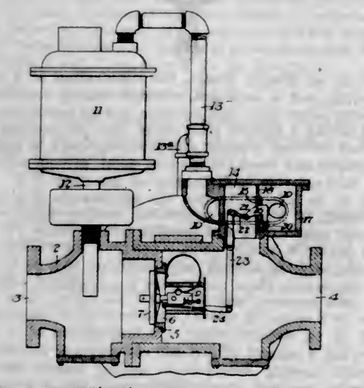
3. An internal combustion engine, a primary cylinder and its piston, a secondary cylinder and its piston, a crank shaft with which said pistons are connected to operate one in advance of the other, an intercommunicating duct between said cylinders, a valve in said duct for controlling the passage through the same, an exhaust port for said secondary cylinder, a valve for controlling said exhaust port, piston controlled air inlet ports for said primary cylinder, a valve gear for actuating said intercommunicating duct valve, and a valve gear for operating said exhaust valve, connections between said valve gear and said crank shaft to cause said valves to be opened and closed in time with the movements of said pistons to cause said secondary piston to act as a pump piston during one part of its cycle of operation for supplying a supporter of combustion to the primary cylinder through its air ports, and to act as an exhausting piston for forcing a spent charge through said exhaust valve during a further part of its cycle of operation, and a separate means for supplying a combustible agent to the primary cylinder at predetermined intervals.

4. An internal combustion engine, a primary cylinder and its piston, a secondary cylinder and its piston, a crank shaft with which said pistons are connected to operate one in advance of the other, an intercommunicating duct between said cylinders, a valve in said duct for controlling the passage through the same, an exhaust port for said secondary cylinder, a valve for controlling said exhaust port, piston controlled air inlet ports for said primary cylinder, a valve gear for actuating said intercommunicating duct valve, and a valve gear for operating said exhaust valve, connections between said valve gear and said crank shaft to cause said valves to be opened and closed in time with the movements of said pistons to cause said secondary piston to act as a pump piston during one part of its cycle of operation for supplying a supporter of combustion to the primary cylinder through its air ports and to act as an exhausting piston for forcing a spent charge through said exhaust valve during a further part of its cycle of operation and return some of said residual contents to the primary cylinder at times.

5. An internal combustion engine, a primary cylinder and its piston, a secondary cylinder and its piston, a crank shaft with which said pistons are connected to operate one in advance of the other, an intercommunicating duct between said cylinders, a valve in said duct for controlling the passage through the same, an exhaust port for said secondary cylinder, a valve for controlling said exhaust port, piston controller air inlet ports for said primary cylinder, a valve gear for actuating said intercommunicating port valve, and a valve gear for operating said exhaust valve, connections between said valve gear and said crank shaft to cause said valves to be opened and closed in time with the movements of said pistons to cause said secondary piston to act as a pump piston during one part of its cycle of operation for supplying a supporter of combustion to the primary cylinder through its air ports, and to act as an exhausting piston for forcing a spent charge through said exhaust port during a further part of its cycle of operation, and to cause said secondary piston to compress a predetermined residual part of the contents of said secondary cylinder during a still further part of its cycle of operation and return some of said residual contents to the primary cylinder at times, and to further cause said secondary piston to act as a working piston during the remaining parts of its cycle of operation.

[Claims 6 to 18 not printed in the Gazette.]

1,076,855. PROPORTIONAL METER. THOMAS B. WYLIE, Pittsburgh, Pa., assignor to Equitable Meter Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 16, 1912. Serial No. 736,943. (Cl. 73—68.)



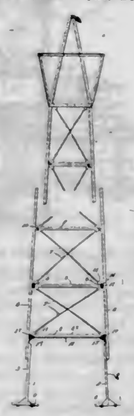
1. In a proportional meter, the combination with a direct inlet valve arranged to close in the direction of the current, said valve acting as a high pressure plate acted upon by the entering fluid, a diaphragm chamber containing a diaphragm forming a low pressure plate, a connection between the two plates, a tally-meter connected at one side to the inlet side of the meter apparatus and at the opposite side to the delivery chamber of the meter apparatus, the last named connection also communicating with the diaphragm chamber, and a valve controlling the last named connection, said valve opening in a direction opposed to the flow of gas past the valve, substantially as described.

2. In a proportional meter, a meter casing divided into inlet and delivery chambers, and a main valve controlling the communication between said chambers, of a tally-meter connected to the inlet chamber, a connection leading from the said delivery side of the tally-meter to the delivery chamber, a diaphragm chamber containing a diaphragm connected to the main valve, said chamber being also connected with the said delivery chamber of the tally-meter, and a valve controlling the flow of fluid from the tally-meter and diaphragm chamber into the delivery chamber, said valve being connected to the main inlet valve and arranged to open in a direction opposed to the flow of gas in said valve, substantially as described.

3. In a proportional meter, a meter casing divided into inlet and delivery chambers, a main inlet valve controlling the communication between said chambers, a tally-meter connected with the said inlet chamber, a valve box mounted upon the case over the said delivery chamber and communicating therewith, a connection from the delivery side of the tally-meter into said box, a valve pivoted within said box and controlling the flow of fluid through said box into the delivery chamber, said valve having an actuating connection with the main inlet valve and arranged to open in a direction opposed to the flow of gas past the valve, a diaphragm chamber also connected to the said box, a diaphragm therein, and a connection between the diaphragm and the main inlet valve, substantially as described.

4. A proportional meter having a delivery chamber, a valve box mounted thereon and communicating therewith, and a meter delivery valve pivoted in said box and controlling the flow of measured gas therethrough into the said delivery chamber, said valve being arranged to open in a direction opposed to the flow of gas, and a main valve controlling the flow of the unmeasured gas and having an actuating connection with the meter delivery valve, substantially as described.

1,076,856. STEEL TOWER. ROBERT L. ALLEN, Syracuse, N. Y., assignor to Archbold-Brady Company, Syracuse, N. Y., a Corporation of New York. Filed Dec. 13, 1910. Serial No. 597,040. (Cl. 189—19.)



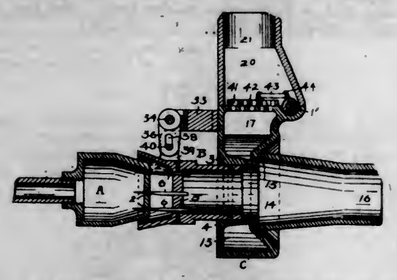
1. In an A-tower, side members, struts between the side members, one of such struts comprising L-shape angle iron members arranged with corresponding flanges extending horizontally and their other flanges extending vertically and back to back, and brackets for supporting the ends of said angle iron members and connecting the same

to the side members, each bracket being formed of angle iron and having one flange thereof secured to one of the side members and the other flange secured to the horizontal flanges of the angle iron members of the struts, substantially as and for the purpose described.

2. In an A-tower, side members formed of channel iron having their channels facing outwardly, struts extending between the side members, diagonal members connecting the ends of the struts, one of the struts comprising L-shaped angle iron members arranged with corresponding flanges extending horizontally in opposite directions and their other flanges extending upwardly and arranged back to back, brackets for supporting the ends of the struts and connecting the same to the side members of the tower, each bracket being formed of angle iron and having one flange thereof engaging the back of the contiguous side member and secured thereto, and the other flange serving as a shelf for supporting the contiguous ends of the horizontal flanges of the angle iron members of the strut, and fastening members passing through the horizontal flanges of the members of the strut and the brackets, substantially as and for the purpose specified.

3. In an A-tower, side members formed of channel iron having their channels facing outwardly, struts extending between the side members, diagonal members connecting the ends of the struts, one of the struts comprising L-shaped angle iron members arranged with corresponding flanges extending horizontally in opposite directions and their other flanges extending upwardly and arranged back to back, brackets for supporting the ends of said one of the struts and connecting the same to the side members of the tower, each bracket being formed of angle iron and having one flange thereof engaging the back of the contiguous side member and secured thereto, and the other flange serving as a shelf for supporting the contiguous ends of the horizontal flanges of the angle iron members of the strut, and fastening members passing through the horizontal flanges of the members of the strut and the brackets, the diagonal members including clevises pivoted to the vertical flanges of the angle iron members of the strut near the ends of the strut, substantially as and for the purpose set forth.

1,076,857. GAS-BURNER. JAMES B. ANDERSON, Shaler township, Allegheny county, Pa. Filed Apr. 7, 1913. Serial No. 759,334. (Cl. 158—109.)



1. In a gas-burner, a gas-chamber member having ports in the end thereof, a mixing-chamber member spaced therefrom and having a tubular boss projecting interiorly thereof, and a tubular valve-carrying member bridging the space between said gas-chamber member and said mixing-chamber member, one end of said valve-carrying member being slidably mounted in said boss.

2. In a gas-burner, a gas-chamber member having ports in the end thereof, a mixing-chamber member spaced therefrom and having a tubular boss projecting interiorly thereof, and a tubular valve-carrying member bridging the space between said gas-chamber member and said mixing-chamber member, one end of said valve-carrying member being slidably mounted in said boss, and said valve-carrying member having a flaring end adjacent said ported end of said gas-chamber member.

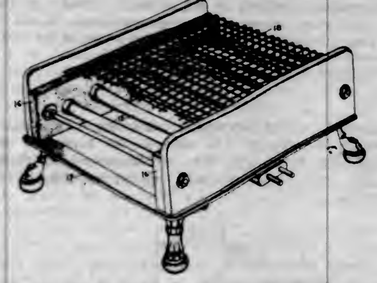
3. In a gas-burner, a gas-chamber member having a tapering end provided with ports, a mixing-chamber member spaced therefrom and having a tubular boss projecting interiorly thereof, and a tubular valve-carrying member bridging the space between said gas-chamber member and said mixing-chamber member, one end of said valve-carrying member being slidably mounted in said boss, and said valve-carrying member having a flaring end adjacent said flaring end of said gas-chamber member.

4. In a gas-burner, a gas-chamber member having ports in the end thereof, a mixing-chamber member spaced therefrom and having a tubular boss projecting interiorly thereof, and a tubular valve-carrying member bridging the space between said gas-chamber member and said mixing-chamber member, one end of said valve-carrying member being slidably mounted in said boss, said mixing-chamber member being provided with an annular air-chamber surrounding said boss.

5. In a gas-burner, a gas-chamber member having ports in the end thereof, a mixing-chamber member spaced therefrom and having a tubular boss projecting interiorly thereof, and a tubular valve-carrying member bridging the space between said gas-chamber member and said mixing-chamber member, one end of said valve-carrying member being slidably mounted in said boss, said mixing-chamber member being provided with an annular air-chamber surrounding said boss, said air-chamber having a radial inlet-port.

[Claims 6 to 8 not printed in the Gazette.]

1,076,858. ELECTRIC HEATER. WILLIAM S. ANDREWS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 12, 1908. Serial No. 438,101. (Cl. 219—63.)



1. In an electric heater, the combination of a quartz covering, and a continuous metallic heating resistance of greater length than said covering located inside the same and having a melting point lower than the melting point of said covering whereby said resistance may be raised to a temperature above its glowing point without endangering said covering, substantially as described.

2. In an electric heater, the combination of a quartz covering, a continuous metallic heating resistance of greater length than said covering located inside the same and having a melting point lower than the melting point of said covering whereby said resistance may be raised to a temperature above its glowing point without endangering said covering, and means for connecting said resistance to a source of current, substantially as described.

3. In an electric heater, the combination of a quartz covering, a support within said covering and a continuous metallic heating resistance of greater length than said covering mounted upon said support, the melting point of the said heating resistance being lower than the melting point of the covering whereby said resistance may be raised to a temperature above its glowing point without endangering said covering.

4. In an electric heater, the combination of a closed quartz covering, a support sealed within said covering and a metallic heating resistance of greater length than said covering mounted upon said support and having a melting point lower than that of said covering whereby said resistance may be raised to a temperature above its glowing point without endangering said covering.

5. In an electric heater, the combination of a quartz tube, a quartz rod within said tube, and a continuous metallic heating resistance wound upon the said rod and having a melting point lower than that of said tube whereby said resistance may be raised to a temperature above its glowing point without endangering said tube.

1,076,859. MAIL-BAG-DELIVERING DEVICE. EDWARD H. APPLEBY, Claridge, Pa. Filed Feb. 17, 1913. Serial No. 748,942. (Cl. 105—231.)



1. The described device consisting of a traveling car adapted to receive a package thrown from a moving train, suspended tracks upon which said car is mounted, a slidable basket within said car.

2. The described device consisting of a traveling car adapted to receive a package thrown from a moving train, suspended tracks upon which said car is mounted, a slidable basket within said car, shock absorbing springs on said car.

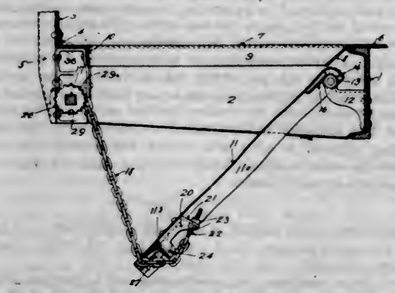
3. The described device consisting of a traveling car adapted to receive a package thrown from a moving train, suspended tracks upon which said car is mounted, a slidable basket within said car, shock absorbing springs on said car and between which said basket is mounted.

4. The described device consisting of a traveling car adapted to receive a package thrown from a moving train, suspended tracks upon which said car is mounted, a slidable basket within said car, shock absorbing springs on said car and between which said basket is mounted, a slide connected with said car.

5. The described device consisting of a traveling car adapted to receive a package thrown from a moving train, suspended tracks upon which said car is mounted, a slidable basket within said car, shock absorbing springs on said car and between which said basket is mounted, a slide connected with said car, a gate for said car adapted to be swung horizontally to receive a bag from said slide.

[Claims 6 and 7 not printed in the Gazette.]

1,076,860. DOOR ARRANGEMENT FOR DUMP-CARS. HALFDAN ASPER, Pittsburgh, Pa. Filed Apr. 21, 1910. Serial No. 556,701. (Cl. 105—14.)



1. Car door mechanism comprising in combination with a door, a rolling support for one edge of the door, a lifting shaft, and connections therefrom to the opposite edge of the door and arranged at the end of the closing movement to move said door bodily to bring its free edge over a support adjacent the door opening.

2. Car door mechanism comprising in combination with a door, a rolling support for one edge of the door, a lifting shaft, flexible connections therefrom to the door, and inter-engaging rack and gear connections between the shaft and door and arranged on the closing movement of the door to move said door bodily to bring its free edge over a support adjacent the door opening.

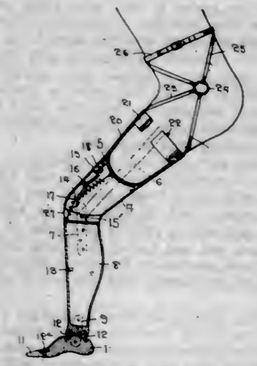
3. Car door mechanism comprising in combination with a door, a rolling support for one edge of the door, a winding shaft, flexible connections therefrom to the door, a toothed segment on the door, and a gear on the shaft arranged to engage said toothed segment at the end of the closing movement and move the door bodily.

4. Car door mechanism comprising in combination with a swinging bodily movable door, a winding shaft, flexible connections therefrom to the door, and independent means actuated from said shaft for moving and supporting the door in closed position from the shaft, said parts being arranged to cause the flexible connections to become slack when the door is fully closed.

5. Car door mechanism comprising in combination with a swinging bodily movable door, a lifting shaft, a spool or drum thereon, a chain connecting the same with the door, a gear on the shaft, and a rack member on the door arranged to be engaged by said gear on the final closing movement of the door and move the same to support said door on the shaft, the pitch line of said drum being less than the pitch line of said gear, whereby the chain becomes slack when the door is fully closed.

[Claim 6 not printed in the Gazette.]

1,076,861. ARTIFICIAL LIMB. TROY E. AUVIL, Fairmont, W. Va. Filed July 27, 1912. Serial No. 711,826. (Cl. 3—3.)



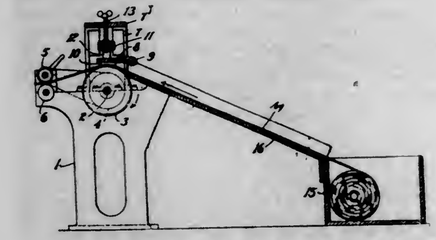
1. An artificial limb comprising a casing, a calf section pivotally secured thereto, a keeper carried by the calf section and extending above the pivotal point of said calf section and casing, a latch within said casing and adapted for engagement with said keeper for limiting the bending movement of the limb while in operation and operating means comprising a latch lever and button whereby said limiting latch may be disengaged from said keeper for allowing the limb to be bent beyond the limit obtained by engagement of the latch.

2. An artificial limb comprising a casing having an open upper end adapted to receive the stump of an amputated limb, bars secured to the sides of said casing, a calf section, bars secured to the sides of said calf section extending thereabove and pivoted to said first mentioned bars, a keeper in the lower end of said first mentioned casing at a point above the pivot of said bars, a spring connected to said calf section and casing adapted to nor-

mally hold them in alinement, and a limiting latch pivotally secured in the first mentioned casing and adapted for engagement with said keeper.

3. An artificial limb comprising a casing, a calf section pivotally secured to the casing, a latch within the casing, a keeper carried by the calf section and engaged by the latch, said casing having a recess in its outer wall, and an operating element in the recess and connected to the latch.

1,076,862. MATTING-ROUGHING MACHINE. JOHN M. BARTEAUX, Waltham, Mass., assignor to Co-operative Manufacturing Company, Waltham, Mass., a Corporation of Maine. Filed Feb. 19, 1913. Serial No. 749,325. (Cl. 51—13.)



1. A matting surfacing machine comprising a frame, a sand paper roll rotatably mounted in said frame, means for rotating said roll, a hinged presser arm pivoted above said roll, a presser pad on said arm, an adjustable follower above said arm, a pair of lead rolls in advance of said sand paper roll and having their bite below the line of contact of said sand paper roll, a delivery stall for a roll of matting and larger than the diameter thereof and positioned below the center of said sand paper roll, and an inclined guide from said stall to said sand paper roll.

2. A matting surfacing machine comprising a frame, a sand paper roll rotatably mounted in said frame, means for rotating said roll, a presser arm movably mounted above said roll, a pair of lead rolls in advance of said sand paper roll and having their bite below the line of contact of said sand paper roll and an inclined guide from said delivery to said sand paper roll.

3. A matting surfacing machine comprising a frame, a sand paper roll rotatably mounted in said frame, means for rotating said roll, a hinged presser arm pivoted above said roll, a presser pad on said arm, an adjustable follower above said arm, a pair of lead rolls in advance of said sand paper roll and having their bite below the line of contact of said sand paper roll and a delivery for a roll of matting and positioned below the center of said sand paper roll.

4. A matting surface machine comprising a frame, an abrading roll rotatably mounted in said frame, means for rotating said roll, a presser movably mounted above said roll and a pair of lead rolls in advance of said sand paper roll and having their bite below the line of contact of said abrasive roll.

1,076,863. TREATMENT OF PLASTER OF PARIS. HAL TRUEMAN BEANS, New York, N. Y. Filed Mar. 17, 1911. Serial No. 615,085. (Cl. 106—45.)

1. The process which comprises the conversion of the surface of crystallized calcium sulfate into calcium tungstate by the combination therewith of a soluble tungstate in solution.

2. The process which comprises the production of a hard water-proof surface of calcium tungstate or its substantial equivalent on hardened plaster of Paris by the chemical interaction thereof with a solution of sodium tungstate or its substantial equivalent.

3. The process of treating plaster of Paris that consists in setting the plaster of Paris into a solid mass of desired shape, making repeated applications to the surface thereof, of a solution of an alkaline tungstate adapted to combine directly with the calcium sulfate to produce a coating or surface of calcium tungstate, and burnishing the coating or surface between each application to dry and polish the calcium tungstate.

1,076,864. KNOCKDOWN BOX. BARNIM L. BEHRENDT, Newark, N. J. Filed Oct. 14, 1910. Serial No. 586,976. (Cl. 217—12.)



1. A box consisting of sides and ends, inwardly extending annular flanges on opposite sides of the box, the flanges being spaced from the top and bottom edges of the sides and ends, a bottom secured in the flanges and against the bottom edges of the sides and ends, flank cover sections adapted to be fitted between the flanges and the tops of the sides and ends and held thereby against movement except toward each other, a key-section fitting between the flank cover sections to hold them in place, and means for locking the key-section in place.

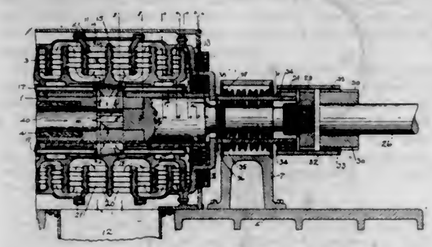
2. A box consisting of sides and ends, inwardly extending annular flanges on opposite sides of the box, the flanges being spaced from the top and bottom edges of the sides and ends, a bottom secured in the flanges and against the bottom edges of the sides and ends, flank cover sections adapted to be fitted between the flanges and the tops of the sides and ends and held thereby against movement except toward each other, a key-section fitting between the flank cover sections to hold them in place, means for locking the key-section to the flanking sections to prevent movement of the key-section perpendicularly to the top, and means for locking the key-section to the ends of the box to prevent longitudinal movement of the key-section.

3. A box consisting of side members having annular flanges extending inwardly, a bottom, ends terminating short of the flanges at the top of the side members, means for detachably securing the bottom and the ends to the flanges, a cover made of sections, the flank sections of the cover fitting under the flanges and on the top edge of the ends, and means for fastening the cover sections in place, the side members being adapted to form trays, the trays being adapted to abut and inclose the bottom, the ends and the cover sections when they are detached from the flanges and assembled.

4. A box consisting of side members having annular flanges extending inwardly, a bottom, ends terminating short of the flanges at the top of the side members, means for detachably securing the bottom and the ends to the flanges, a cover consisting of flank sections fitting under the flanges at the top of the side members, a key section to fit between the flank sections and hold them under the flanges, and means for locking the key section in its place, the side members being adapted to form trays, the trays being adapted to abut and inclose the bottom, the ends and the cover sections when they are detached from the flanges and assembled.

1,076,865. REVERSIBLE STEAM-TURBINE. ALFRED BONOM, Paterson, N. J. Filed June 12, 1913. Serial No. 773,267. (Cl. 121—58.)

1. In a turbine, the combination of a central shaft; spaced, outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; reversing gear connections between said rotors; a driving shaft; and means for connecting either of said rotors with said driving shaft, as desired.



2. In a turbine, the combination of a central shaft; spaced, outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, the spaces between the opposing disk-faces of said interior and exterior rotors successively increasing in size from the intake to the exhaust; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; reversing gear connections between said rotors; a driving shaft; and means for connecting either of said rotors with said driving shaft, as desired.

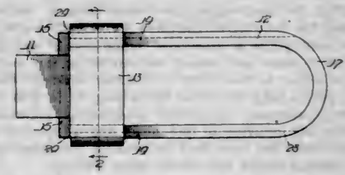
3. In a turbine, the combination of a central shaft; spaced, outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, the spaces between the opposing disk-faces of said interior and exterior rotors successively increasing in size from the ends of the turbine to a central transverse plane; connections for supplying pressure fluid to the end-spaces and for exhausting the same from the central spaces; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; reversing gear connections between said rotors; a driving shaft; and means for connecting either of said rotors with said driving shaft, as desired.

4. In a turbine, the combination of a central shaft; spaced, outwardly directed disks carried by said shaft and constituting an interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor, the spaces between the opposing disk-faces of said interior and exterior rotors successively increasing in size from the ends of the turbine to a central transverse plane; connections for supplying pressure fluid to the end-spaces and for exhausting the same from the central spaces, such supply connections including a passage in said central shaft, an annular chamber in said interior rotor having communication with such passage, and ducts leading from such chamber to the respective ends of said interior rotor; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; reversing gear connections between said rotors; a driving shaft; and means for connecting either of said rotors with said driving shaft, as desired.

5. In a turbine, the combination of a central shaft; spaced outwardly directed disks carried by said shaft and constituting an interior rotor, a section of said shaft from one end to a point within said rotor being tubular and said interior rotor having an annular chamber in communication with such tubular shaft section; pipes extending parallel with said shaft, said pipes securing the disks of said interior rotor together and providing ducts from such chamber to the respective ends of said interior rotor; an exterior rotor surrounding said shaft and carrying inwardly directed disks alternating with the disks of said interior rotor; alternating series of blades carried by the opposing disk-faces of said interior and exterior rotors; reversing gear connections between said rotors; a driving shaft; and means for connecting either of said rotors with said driving shaft, as desired.

[Claims 6 and 7 not printed in the Gazette.]

1,076,866. YOKE FOR DRAFT-GEAR. CHARLES A. CARSCADIN and GEORGE A. WOODMAN, Chicago, Ill. Filed May 28, 1913. Serial No. 770,297. (Cl. 213—42.)



1. A yoke for a draft gear comprising a body portion provided with longitudinally disposed guide-ways and open at a side to receive the head of a draw bar, and a closure formed to engage said guide-ways and to move longitudinally thereof and adapted to close said open side to retain the head of a draw bar in position.

2. A yoke for a draft gear comprising a body portion provided with longitudinally disposed guide-ways closed at their forward ends, said body portion being open at a side to receive the head of a draw bar, and a closure formed to engage said guide-ways and to move longitudinally thereof and adapted to close said open side to retain the head of a draw bar in position.

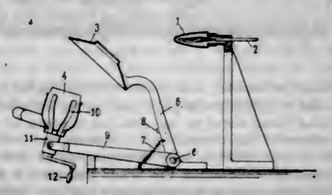
3. A yoke for a draft gear comprising a body portion provided with longitudinally disposed guide-ways open at their rear ends, said body portion being open at a side to receive the head of a draw bar, a closure formed to engage said guide-ways and to move longitudinally thereof and adapted to close said open side to retain the head of a draw bar in position, and means for limiting the forward movement of said closure.

4. A yoke for a draft gear comprising a body portion open at a side and having outwardly opening longitudinally disposed guide-ways upon opposite outer sides, and a closure having inwardly extending ribs adapted to engage in said guide-ways and to move longitudinally of said body portion into and out of closing position.

5. A yoke for a draft gear comprising a body portion provided with a longitudinally disposed rib on one face and open at a side to receive the head of a draw bar, a closure for said open side adapted to move longitudinally of said body portion and provided with a recess adapted to embrace said rib to guide said closure into and out of closing position, and means for retaining said closure in engagement with the opposite face of said yoke.

[Claim 6 not printed in the Gazette.]

1,076,867. APPARATUS FOR TREATING PIPE-BOWLS. HENRY STERLING CHAPIN, Rockville Center, N. Y. Filed May 31, 1912. Serial No. 700,578. (Cl. 131—12.)



1. Pipe treating apparatus comprising a relatively stationary burner for charring the interior of a pipe bowl and a movable guard to receive a pipe bowl and adapted to surround the burner and limit the movement of the bowl.

2. Apparatus for treating pipes comprising a burner for charring the interior of a pipe bowl and a movable device adapted to receive a pipe bowl and guide it on to the burner and a spring for automatically retracting said guide device from said burner when released.

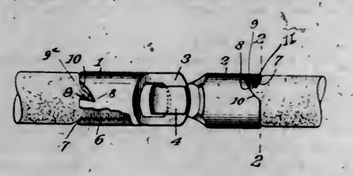
3. Pipe treating apparatus comprising a burner having a head of a size somewhat less than the interior of the bowl to be treated so as to fit into and char the interior of the bowl and thermal insulation means surrounding the base of the head and a guard for limiting the movement of the pipe bowl.

4. Pipe treating apparatus comprising a burner for charring the interior of the bowl and a device adapted to receive and guide a pipe bowl when out of engagement with the burner and means for directing the movement of said device in line with the burner whereby the bowl in the device may be moved up to and on to said burner.

5. Pipe treating apparatus comprising a burner for charring the interior of the bowl and a movable guard for receiving the bowl and preventing the edge and the outer surface of the bowl from being charred.

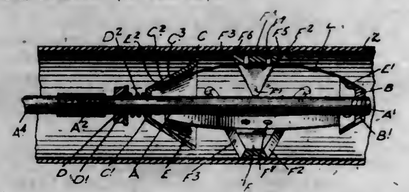
[Claims 6 to 12 not printed in the Gazette.]

1,076,868. BELT-COUPLING DEVICE. ROBERT B. CODLING, Bristol, Conn., assignor to The Bristol Company, Waterbury, Conn., a Corporation of Connecticut. Filed Oct. 5, 1911. Serial No. 652,967. (Cl. 24—123.)



A belt coupling consisting of an interiorly threaded metallic sleeve adapted to screw upon a round belt and having a notch of considerable extent circumferentially in the edge and extending into the body of the sleeve, one side of said notch being sharpened and extending rearwardly with respect to the direction of rotation whereby when the coupling is screwed upon the belt the sharpened edge will act as a cutting edge, and said notch will assist in wedging the belt into said sleeve, said sleeve also having at the other end thereof a part by which it may be attached to another coupling.

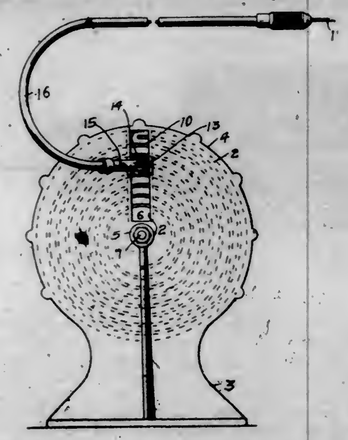
1,076,869. FLUE-CLEANER. JOHN PERCIVAL CULLON, Toronto, Ontario, Canada. Filed Apr. 10, 1913. Serial No. 760,211. (Cl. 83—64.)



1. In a flue cleaner a series of cutting blades arranged end to end in circumferentially and curved eccentric form, said blades being wider at one end and tapering to V-shape at the opposite end thereof and a support for said blades.

2. In a flue cleaner, the combination of heads with arched springs connecting the heads together, a series of cutting blades secured to the arched springs, curving circumferentially and concentrically to the cleaner, said blades being wider at one end and tapering to V-shape at the other end thereof, said blades being arranged end to end.

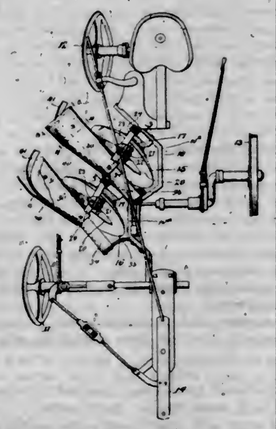
1,076,870. CONDUIT FISH-WIRE MACHINE. BENJAMIN DAHL, Minneapolis, Minn. Filed June 15, 1912. Serial No. 703,928. (Cl. 247—23.)



1. A machine of the class described comprising a stationary disk having a radial opening therein, a carriage slidable in said opening and having a guide, and a revolving fish wire carrier contiguous to said carriage, substantially as described.

2. A machine of the class described comprising a supporting frame, a disk revolubly mounted therein and having a spirally arranged groove in its surface and a wire adapted to fit within said groove, a radially moving carriage having a guide to receive the end of said wire, and a part to fit within said groove, whereby when said disk is revolved said carriage will be moved radially to unwind or re-wind the wire.

1,076,871. PLOW. FRANK E. DAVIS, La Crosse, Wis., assignor of one-half to La Crosse Plow Company, La Crosse, Wis., a Corporation of Wisconsin. Filed Oct. 28, 1907. Serial No. 399,479. (Cl. 97—40.)



1. In a plow, the combination of means for cutting and turning a furrow-slice, a guide disposed and extended to limit outward movement of the slice, and a stop having a surface which is disposed inwardly of said guide and has a surface which intersects the slice path to limit the turning of the slice and to guide it downwardly to the ground.

2. In a plow, the combination of means for cutting and turning a furrow-slice, guiding means disposed and extended to limit the upward and outward movement of the slice, and a stop having a surface which is disposed inwardly of said guide and has a surface which intersects the slice-path and to limit the turning of the slice and to guide it downwardly to the ground.

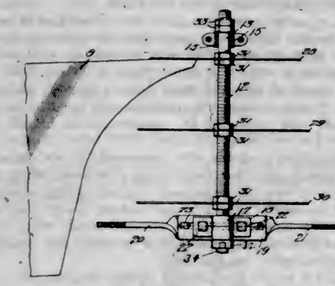
3. In a plow, the combination of means for cutting and turning a furrow-slice, a guide disposed and extended to limit outward movement of the slice, and a stop having a surface which is disposed inwardly of said guide and has a surface which intersects the slice-path to limit the turning of the slice and to guide it downwardly to the ground, said stop being extended forwardly sufficiently to arrest the slice which does not strike the guide.

4. In a plow, the combination of means for cutting and turning a furrow-slice, guiding means disposed and extended to limit the upward and downward movement of the slice, and a stop having a surface which is disposed inwardly of said guide and has a surface which intersects the slice-path to limit the turning of the slice and to guide it downwardly to the ground, said stop being extended forwardly to arrest a slice independently of the guiding-means.

5. In a plow, the combination of means for cutting and turning a furrow-slice, and a guide for limiting upward movement of the slice, said guide being separate from the cutting means and yieldingly sustained so its position with respect to the cutting and turning-means may vary.

[Claims 6 to 21 not printed in the Gazette.]

1,076,872. PLOW. GEORGE I. DE FORCE, Erie, Pa., assignor of one-third to Allen H. Smith, one-third to Lynn E. Stancliff, and one-third to Eli D. Smith, Erie, Pa. Filed Mar. 9, 1912. Serial No. 682,614. (Cl. 97—43.)



1. In combination with a plow comprising a beam and wheels for supporting the beam, and the plow attached to the beam, of a shaft arranged in front of the plow and transverse to the beam, a bar provided with a bearing for the inner end of the shaft, a substantially U-shaped bracket comprising a body and arms, the body having a longitudinal slot, a bearing block slidable on the body and provided with a bearing for the outer end of the shaft, bolts for connecting the block to the body, said bolts passing through the slot, nuts engaging the bolts for securing the block in place, means for adjustably connecting the upper end of the bar to the beam, means for adjustably connecting each arm of the bracket to the beam, said shaft being threaded, a series of three disks arranged on the shaft in spaced relation, and nuts for holding each disk in place, a nut being arranged on each side of each disk.

2. In combination with a plow comprising a beam and wheels for supporting the beam, and the plow attached to the beam, of a shaft arranged in front of the plow and transverse to the beam, a bar provided with a bearing for the inner end of the shaft, a substantially U-shaped bracket comprising a body and arms, the body having a longitudinal slot, a bearing block slidable on the body and provided with a bearing for the outer end of the shaft, bolts for connecting the block to the body, said bolts passing through the slot, nuts engaging the bolts for securing the block in place, means for adjustably connecting the upper end of the bar to the beam, means for adjustably connecting each arm of the bracket to the beam, a series of disks arranged adjustably on the shaft in spaced relation, and means for securing each disk in adjusted position.

3. In combination with a plow comprising a beam and wheels for supporting the beam, and the plow attached to the beam, of a shaft arranged in front of the plow and transverse to the beam, a bar provided with a bearing for the inner end of the shaft, a substantially U-shaped bracket comprising a body and arms, a bearing block adjustable longitudinally of the body and provided with a bearing for the outer end of the shaft, means for securing the block in adjusted position, means for adjustably connecting the bar to the beam, means for adjustably connecting each arm of the bracket to the beam, a series of disks adjustable longitudinally of the shaft, and means for securing each disk in adjusted position.

4. In combination with a plow comprising a beam and wheels for supporting the beam, and the plow attached to the beam, of a shaft arranged transversely of the beam in front of the plow, means for supporting the inner end of the shaft, means for supporting the outer end of the shaft, an adjustable connection between each of the said means and the beam, the shaft being movable laterally on the supporting means at the outer end, means for securing the end of the shaft in adjusted position, a series of spaced cutting disks adjustable longitudinally of the shaft and rotatable therewith, and means for securing each disk to the shaft.

5. In combination with a single plow having a landside and a mold board, a series of rotary cutters arranged in front of and adjacent to and above the cutting edge of the plow and with their planes approximately vertical, the said cutters being spaced apart to partially cut the furrow into strips before it is turned, and to cover approximately the width of the furrow turned, one of the said cutters being in approximate alinement with the landside of the plow, a common support for the cutters, a bracket connecting each end of the said support and the plow, and means in connection with one of the said bracwets for permitting the adjacent end of the support to be moved laterally to vary the inclination of the planes of the cutters with respect to the landside.

[Claim 6 not printed in the Gazette.]

1,076,873. MANUFACTURE OF INCANDESCENT FILAMENTS. GAËTAN DOBKEVITCH, Paris, France, assignor to Société Internationale de la Lampe Electrique O. R., Paris, France, a Corporation of France. Filed July 7, 1909. Serial No. 506,369. (Cl. 176—132.)

1. In the manufacture of incandescent filaments, the process which comprises heating a metalliferous decarburized filament in an atmosphere comprising hydrogen and ammonia.

2. In the manufacture of incandescent filaments, the process which comprises heating a filament comprising an oxid of a metal of the vanadium class in an atmosphere comprising hydrogen and ammonia.

3. In the manufacture of incandescent filaments, the process which comprises heating a filament comprising an oxid of a metal of the vanadium class in an atmosphere comprising hydrogen and ammonia and then surrounding said filament with an atmosphere of inert gases.

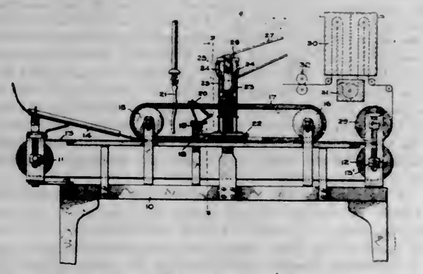
4. In the manufacture of incandescent filaments, the process which comprises preparing a filament comprising an oxid of a metal of the vanadium class, metallizing said filament and heating in an atmosphere comprising hydrogen and ammonia.

5. In the manufacture of incandescent filaments, the process which comprises preparing a filament comprising an oxid of a metal of the vanadium class, metallizing said

filament, heating in an atmosphere comprising hydrogen and ammonia and then surrounding with an atmosphere of inert gases.

[Claims 6 to 10 not printed in the Gazette.]

1,076,874. PROCESS OF MAKING INSULATING FABRIC. GUSTAVE F. DREHER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 6, 1910. Serial No. 575,887. (Cl. 19—10.)

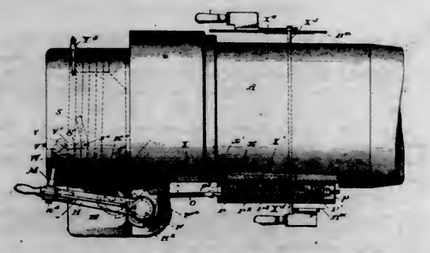


1. The process of making asbestos fabrics which consists in moistening a plurality of adjacent asbestos rovings and then brushing them to cause them to unite and form a continuous fabric.

2. The process of making asbestos fabric which consists in causing a plurality of asbestos rovings to travel adjacent each other in parallel relation, moistening said rovings, and then brushing them while in motion to cause them to unite to form a continuous fabric.

3. The process of making asbestos fabric which consists in causing a plurality of asbestos rovings to travel adjacent each other in parallel relation, moistening said rovings, brushing them while in motion to cause them to unite to form a continuous fabric, and then applying adhesive to the fabric.

1,076,875. SEMI-AUTOMATIC GUN. WILLIAM H. DRIGGS, Washington, D. C.; Mary Eddy Driggs administratrix of said William Hale Driggs, deceased. Filed Nov. 13, 1907, Serial No. 402,036. Renewed Mar. 26, 1913. Serial No. 757,048. (Cl. 89—4.)



1. In a semi-automatic gun, the combination with a horizontal sliding breech block, of a vertical main bolt pivotally mounted at one side of the gun body, an operating arm carried by said bolt and engaging in a recess in the breech block, a hand lever mounted at the upper end of the said main bolt, means for locking said hand lever to said main bolt, and releasing it therefrom when desired, an arm carried by the lower end of said main bolt, a cam arrangement carried by the cradle and adapted to engage said arm on counter recoil, means for locking said cam arrangement out of engagement with said arm when desired, and means for exerting spring pressure on said main bolt, tending to normally rock the same to the position for closing the breech, substantially as described.

2. In a semi-automatic gun, the combination with a sliding breech block, of a main bolt pivotally mounted on the gun body, an operating arm carried by said bolt and engaging the breech block, a hand lever carrying a pivoted handle and loosely mounted on said main bolt, means for locking said handle to the gun body, and operated by lifting said pivoted handle to release the hand lever from the gun body, means for simultaneously locking the lever to the main bolt, an arm on said main bolt, a cam arrangement carried by the cradle and adapted to engage said arm on counter recoil, and means for exerting spring pressure on said main bolt, tending to normally rock the same to the position for closing the gun, substantially as described.

3. In a semi-automatic gun, the combination with a sliding breech block, of a main bolt pivotally mounted on the gun body, an operating arm carried by said bolt and engaging the breech block, a hand lever carrying a pivoted handle and loosely mounted on said main bolt, means for locking said handle to the gun body, and operated by lifting said pivoted handle to release the hand lever from the gun body, means for simultaneously locking the lever to the main bolt, an arm on said main bolt, a cam arrangement carried by the cradle and adapted to engage said arm on counter recoil, means for locking said cam arrangement out by engagement with said arm when desired, and means for exerting spring pressure on said main bolt, tending to normally rock the same to the position for closing the gun, substantially as described.

4. In a semi-automatic gun, the combination with a sliding breech block, of a main bolt pivotally mounted on the gun body, an operating arm carried by said bolt and engaging in a recess in the breech block, a hand lever loosely mounted on said main bolt, a handle pivoted on said hand lever, means for locking said hand lever to the gun body, and operated by swinging said handle about its pivot for releasing the hand lever from the gun body, and independent means also operated by swinging said handle about its pivot for locking the hand lever to the main bolt, substantially as described.

5. In a semi-automatic gun, the combination with a sliding breech block, of a main bolt pivotally mounted on the gun body, an operating arm carried by said bolt and engaging in a recess in the breech block, a hand lever loosely mounted on said main bolt, a handle pivoted on said hand lever, means for locking said hand lever to the gun body, and operated by swinging said handle about its pivot for releasing the hand lever from the gun body, and independent means also operated by swinging said handle about its pivot for locking the hand lever to the main bolt, a cam arrangement carried by the cradle and adapted to engage said arm on counter recoil, and means for exerting spring pressure on said main bolt, tending to normally rock the same to the position for closing the gun, substantially as described.

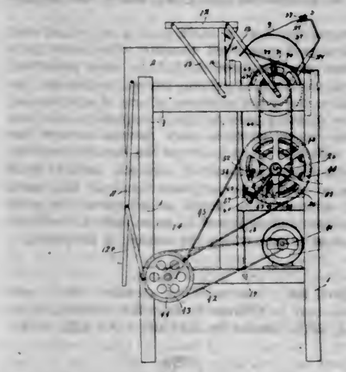
[Claims 6 to 12 not printed in the Gazette.]

1,076,876. AUTOMATIC PHOTO PRINTING-MACHINE. GLEN M. DYE, Minneapolis, Minn., assignor, by mesne assignments, to Charles E. Van Duzee, Minneapolis, Minn. Filed Aug. 7, 1911. Serial No. 642,693. (Cl. 95—73.)

1. The combination with a negative holder and a co-operating presser board, of means for intermittently moving said presser board, comprising a continuously movable driving element, a driven element, and a step-by-step movable connecting mechanism.

2. The combination with a negative holder and a co-operating presser board, of means for intermittently moving said presser board, comprising a continuously movable driving element, a driven element, a step-by-step movable connecting mechanism, and means for varying the timed action of the said intermediate mechanism.

3. The combination with a negative holder and a co-operating presser board, of means for intermittently moving said presser board to and from said negative holder, comprising a continuously running driving element, a driven element, a clutch for connecting the said driving and driven elements, and a step-by-step movable mechanism actuated by said driven element and operating the said clutch to determine the time that said presser board will be held in coöperative relation with said negative holder.

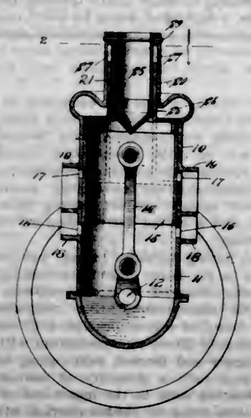


4. The combination with a negative holder and a co-operating presser board, of means for intermittently moving said presser board to and from said negative holder, comprising a continuously running driving element, a driven element, a clutch for connecting the said driving and driven elements, a step-by-step movable mechanism actuated by said driven element and operating the said clutch to determine the time that the said presser board will be held in coöperative relation to said negative holder, and means for varying the timed action of said step-by-step mechanism.

5. The combination with a negative holder and a co-operating presser board, of means for intermittently moving said presser board to and from said negative holder and comprising a continuously running driving element and driven element, of a clutch for connecting said driving and driven elements, and a clutch actuating device operative by said driving member with a timed action.

[Claims 6 to 21 not printed in the Gazette.]

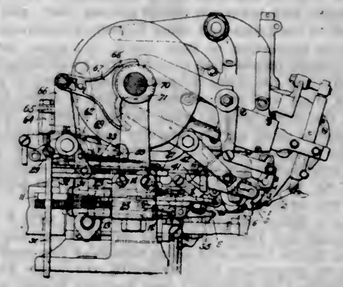
1,076,877. GAS-ENGINE. GEORGE D. EIGHMIE, New York, N. Y. Filed Sept. 15, 1910. Serial No. 582,127. (Cl. 123—73.)



1. A two-cycle gas engine adapted to have admission and exhaust respectively at its working cylinder ends, a working piston with a port through it, a tubular valve integral with said piston and open at its ends carried by said piston, a housing in which the valve operates, a valve box having a conical lower end mounted rigidly in said housing, said valve being adapted to embrace said box in its reciprocatory movement and said housing being adapted to embrace said valve.

2. A two-cycle gas engine adapted to have admission and exhaust respectively at its working cylinder ends, a working piston with a port through it, a tubular valve integral with said piston and having its upper end terminating in fingers and a housing in which the valve operates, a valve box having a conical lower end, said valve being adapted to have air-tight connection with said housing and said valve box during its reciprocatory movement and to permit admission at the bottom center piston position.

1,076,878. SEWING-MACHINE. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 27, 1911. Serial No. 640,836. (Cl. 112—20.)



1. A sewing machine, having, in combination, stitch forming mechanism, devices for severing and holding the welt at the completion of the sewing, and means for maintaining the holding devices in engagement with the welt during at least one cycle of operations of the machine at the beginning of the sewing operation, substantially as described.

2. A sewing machine, having, in combination, stitch forming mechanism, welt severing and holding devices, mechanism for actuating the devices to sever and hold the welt at the completion of the sewing operation and to hold the end of the welt during at least the initial feed of the work at the beginning of the succeeding sewing operation, substantially as described.
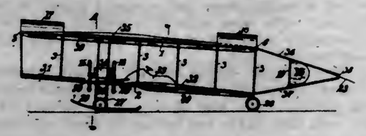
3. A sewing machine, having, in combination, stitch forming mechanism, welt severing means, welt holding devices for holding the end of the welt, mechanism for operating said means and devices to sever and hold the welt at the completion of the sewing, and means for moving the holding devices with the shoe during the initial feed of the shoe and for disengaging the holding devices from the welt after the end of the welt has been secured to the shoe, substantially as described.

4. A sewing machine, having, in combination, stitch forming mechanism, welt severing and holding devices mounted for movement with the shoe, and means for operating the devices to sever and hold the welt at the completion of the sewing operation, substantially as described.

5. A sewing machine, having, in combination, stitch forming mechanism, welt severing and holding devices mounted for movement with the shoe, means for advancing and actuating the devices to sever and hold the welt at the completion of the sewing operation, and mechanism for automatically disengaging and retracting the devices after the end of the welt has been attached to the shoe, substantially as described.

[Claims 6 to 20 not printed in the Gazette.]

1,076,879. FLYING DEVICE. BERTHOLD FLICK and PAUL REINIG, Berlin-Mariendorf, Germany. Filed June 24, 1912. Serial No. 705,433. (Cl. 244—14.)

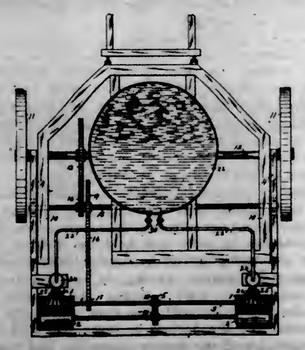


1. In a flying machine, the combination, with a frame, and upper and lower air-planes having their side edges secured to the frame, said air-planes being of relatively great length in proportion to their width; of upwardly-curved wings projecting laterally from the extreme front and rear portions of the upper air-plane, and relatively short upwardly-curved wings or extensions projecting from the upper air plane and extending longitudinally between the adjacent end portions of the aforesaid wings close to the frame, all the said wings being arranged outside the frame.

2. In a flying machine, the combination, with a frame, and upper and lower air-planes having their side edges secured to the frame and being formed of relatively great length in proportion to their width, the upper air-plane being trough-shaped and curved both longitudinally and laterally, and the lower air-plane being formed of trough-shaped front and rear sections having a space between them, the front section being curved laterally, and the rear section being curved laterally and longitudinally; of a motor provided with a propeller and secured to the frame over and in the space between the said sections, and a seat for the pilot arranged at the front end portion of the lower section.

3. In a flying machine, the combination, with a frame, and upper and lower air-planes having their side edges secured to the frame and being formed of relatively great length in proportion to their width, the lower air-plane being formed of front and rear sections having a space between them; of a motor provided with front and rear propellers and having its casing pivoted to the said frame by horizontal pivots projecting from its sides between the propellers, the said motor with its propellers being arranged in the space between the sections of the lower air-plane and being adjustable on the pivots.

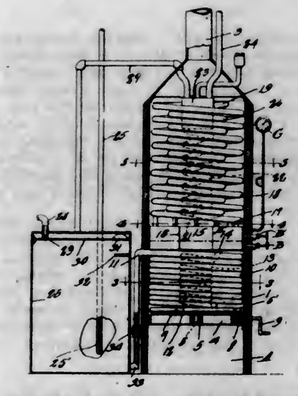
1,076,880. DISTRIBUTING APPARATUS FOR LIQUIDS. FREDERICK A. GIENCKE, Brookfield, Wis., assignor of one-half to George Reinders, Brookfield, Wis. Filed Mar. 7, 1912. Serial No. 682,199. (Cl. 137—63.)



1. Liquid distributing apparatus comprising the combination with a vehicle, a frame pivoted thereto for vertical adjustment, a set of rotary drums having netted cylindrical walls and supported by said frame with their axes substantially parallel and transverse to the line of vehicle travel, means for revolving said drums in opposite directions and with their upper surfaces, each moving toward the other, and means for supplying liquid to the upper surface of one of said drums, said frame being adapted to support said drums above a row of plants to which the liquid is to be distributed and along which the vehicle moves.

2. The combination with a vehicle, of a set of parallel rotary netted drums supported thereby with their peripheries in close proximity and with their axes extending transversely to the line of vehicle travel, means for delivering liquid to the upper surfaces of one of said drums, and means for rotating said drums in opposite directions and with their upper surfaces each moving toward the other, and at sufficient speed to throw the liquid forwardly and backwardly from their netted surfaces, each of said drums having a cylindrical peripheral wall of fine mesh wire netting, whereby the liquid is permitted to pass through the drums and delivered in an atomized condition to a row of plants along which the vehicle is propelled.

1,076,881. BOILER. FRANK GOFF, Camden, N. J., assignor of one-half to Clinton F. Shrader, Camden, N. J. Filed Oct. 4, 1912. Serial No. 723,901. (Cl. 122—249.)



1. In a boiler, an outer casing, two communicating water coils disposed to form an inner and outer fire box within the casing, a single grate forming the bottom of both fire boxes, a separator casing in direct communication with one of the coils, and approximately above the outer coil, and a plurality of communicating super-heating coils above and in direct communication with the separator casing.

2. A boiler having a fire box composed of two spaced sets of coils in communication with each other, a plurality of communicating super-heating coils located above the two spaced sets of coils, a separator casing interposed between the spaced coils and the super-heating coils and forming a communicating connecting medium therebetween, a steam supply conduit leading from the super-heating coils, and a casing surrounding all coils and the separator casing.

3. A boiler, having an outer casing, two concentrically disposed coils in the lower end of the casing, portions of said coils being disposed in close proximity to provide two concentric non-communicating compartments, both of said coils being in communication with each other; a separator casing in direct communication with one of the coils at the upper end thereof, said casing being directly above the outer coil; a plurality of concentrically disposed super-heating coils in the upper end of the casing, one of said coils being in communication with the separator casing, a steam dome in the upper end of the casing in communication with the outlet of the super-heating coils; a steam supply pipe leading from the steam dome; and a condensation pipe in communication with one of the first coils.

4. A boiler, including an outer casing, two concentrically disposed and spaced coils mounted in the lower end of the casing, the upper end of the outer coil being the supply end, the lower ends of said outer and inner coils being in communication with each other, an open ring separator casing disposed above and approximately in line with the outer coil and in communication with the upper end of the inner coil, a plurality of concentrically disposed super-heating coils mounted above the separator casing, the lower end of the outer coil being in communication with the separator casing, said coils being in communication with each other, a steam dome in communication with the upper end of the inner super-heating coil, whereby the water enters the two concentrically disposed coils and flows into the separator casing, which constitutes with the upper super-heating coils and the steam dome a receptacle for the steam generated primarily in the lower coils and the separator casing, the outer casing surrounding the super-heating coils, separator casing and the concentric coils, a steam supply conduit leading from the steam dome, and a condensation return conduit also in communication with the steam dome.

5. A boiler including an outer casing, two communicating concentrically disposed coils disposed in the lower portion of the boiler casing adjacent the firebox thereof, the outer coil provided at its top with a water supplying inlet, the inner coil being in communication with the outer coil at and from the lower end thereof; an open ring separator casing of substantially the same diameter as the outer coil disposed above the outer coil and in communication with the inner coil, three concentrically disposed coils mounted in the upper portion of the boiler above the separator casing, the outer coil of which is in communication with the separator casing, and the central coils of which are in communication with each other and the outer coil, a steam dome mounted in the top of the boiler and in communication with the inner concentric coil, and a condensation return pipe in communication with the steam dome.

1,076,882. BREAD-BOARD. ASHER GOLDEN, New York, N. Y. Filed Aug. 12, 1912. Serial No. 714,574. (Cl. 146—12.)

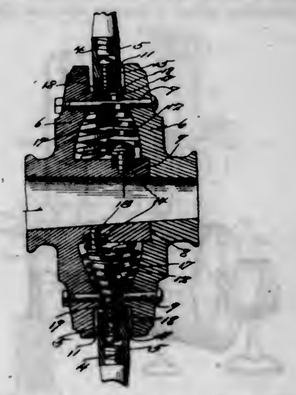


1. A slice cutting appliance comprising a supporting board and a second board at an angle thereto and having plurality of guide slots variously spaced from each other and flaring at their outer ends, one of said slots being inclined to the surface of the guide board.

2. A slice cutting appliance comprising a supporting board normally serving as a base and a guide board attached at an angle thereto, there being an inclined surface at the junction of said boards adapted to support the same in position to form a trough, and said guide board having a plurality of slots to guide a knife for cutting the material placed in the trough.

3. A slice cutting appliance consisting of two boards attached at an angle to each other, one of said boards normally serving as a base and the other of said boards having a plurality of variously spaced guiding slots, the material adjacent to the outer ends of the slots being tapered to easily guide the knife into the slots, one of these slots being inclined to the surface of the guide board and the end edges of said guide board being inclined, and an inclined surface being formed at the junction of said boards whereby they may be supported in position to form a trough.

1,076,883. SPRING WHEEL-HUB. HORACE H. HALLETT, Easton, Pa. Filed May 22, 1913. Serial No. 769,150. (Cl. 152—44.)



1. In combination, a pair of annular plates including a hub base between them, a hub ring intermediate the plates but spaced apart from them, a series of coil springs with their inner portions overlying one another connecting the hub ring and the hub base, and means for securing the plates together, the central portion of the inner face of each plate being dished, in which the contour of the arrangement of the springs is received and with which the springs contact, thereby holding the outer portion of the inner face of each plate spaced apart yieldably from the hub ring, the springs constituting means allowing the hub ring to yield annularly and laterally as well as allowing the plates to yield laterally.

2. In combination, a pair of annular plates, one including a hub base, while the other is provided with an annular recess to receive said hub base, a hub ring intermediate the plates but spaced apart from them, a series of coil springs with their inner portions overlying one another connecting the hub ring and the hub base, and means for securing the plates together, the central portion of the inner face of each plate being dished, in which the contour of the arrangement of the springs is received and with which the springs contact, thereby holding the outer portion of the inner face of each plate spaced apart yieldably from the hub ring, the springs constituting means allowing the hub ring to yield annularly and laterally as well as allowing the plates to yield laterally, said plates having annular shoulders to limit the hub ring in its vertical movement.

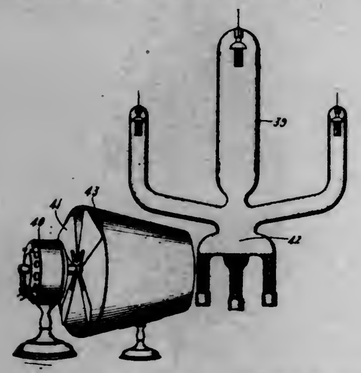
1,076,884. VAPOR-RECTIFIER FOR HIGH-POTENTIAL CIRCUITS. JOSEPH L. R. HAYDEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 25, 1905. Serial No. 284,333. (Cl. 176—43.)

1. A vapor electric apparatus having a vaporizable cathode, a cathode chamber adjacent thereto, a condensing chamber having a constricted opening, a plurality of anode tubes opening into said cathode chamber and having a substantially uniform cross-section throughout their entire length, an anode near the end of each of said tubes, said anode tubes having bends to protect said anodes from liquid mercury.

2. A vapor electric apparatus comprising an evacuated envelop containing a vaporizable cathode, means for passing current through said apparatus to said cathode, a condensing chamber operatively related to said cathode, and a body of gas-absorbing material in said condensing chamber.

3. A vapor electric apparatus comprising an evacuated envelop containing a vaporizable cathode, means for passing current through said apparatus to said cathode, a

condensing chamber operatively related to said cathode, continuously operative gas-absorbing means in said condensing chamber, and means for electrically heating said gas-absorbing means to liberate absorbed gases.

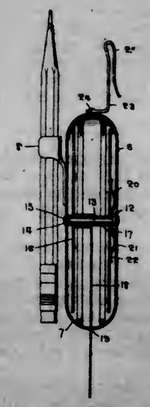


4. A vapor electric apparatus comprising an evacuated envelop containing a vaporizable cathode, means for passing current through said apparatus to said cathode, a condensing chamber operatively related to said cathode, gas-absorbing means in said condensing chamber, and means for conducting current through said apparatus from said gas-absorbing means to said vaporizable cathode.

5. A vapor electric apparatus comprising an evacuated envelop containing a vaporizable cathode and a solid anode; a condensing chamber operatively related to said cathode, and a supplemental anode of graphite in said condensing chamber, normally disconnected from the source of current and operating to absorb foreign matter in said tube.

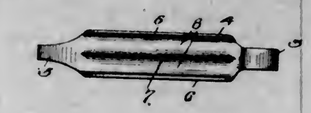
[Claims 6 to 22 not printed in the Gazette.]

1,076,885. CORD HOLDER AND DISPENSER DEVICE. CAHM C. HELMAN, Cleveland, and GEORGE W. NIXON, Canton, Ohio. Filed Oct. 9, 1912. Serial No. 724,804. (Cl. 242—146.)



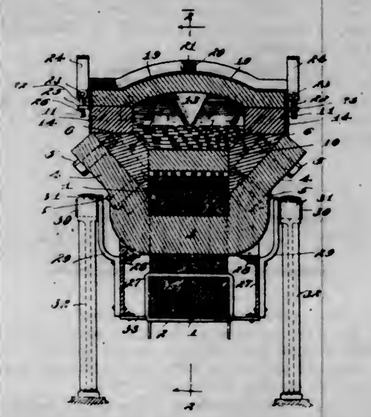
A dispensing cord holder consisting of a circular casing having a substantially flat side wall, a shaft secured at one end to said side wall and provided with a pointed bearing end, a reel mounted upon said shaft, a compound curved spring positioned on said shaft and bearing against said side wall and said reel to retard the movement of said reel on said shaft, a door hinged to said casing and provided with a bearing adapted to engage the pointed end of the shaft, and a catch carried by the casing and provided with a thread cutter and adapted to hold the door closed.

1,076,886. CHAMBER ATTACHMENT. MYRON EUGENE HORR, Vancouver, British Columbia, Canada. Filed Sept. 11, 1912. Serial No. 719,806. (Cl. 4—33.)



The hereindescribed attachment for vessels comprising an elongated plate of uniform width throughout its body portion and having a relatively narrow hooked terminal at one end projecting from one side of the plate for engagement over the edge of the vessel, and a curved supporting foot at its opposite end projecting from the opposite side of the plate with respect to said hooked terminal and being also of less width than the intermediate portion of the plate, said plate having a central longitudinal ridge substantially coextensive in length with its wider intermediate portion and upstanding curved flanges on its longitudinal edges at either side of said rib, substantially as and for the purpose set forth.

1,076,887. ELECTRIC MELTING-FURNACE. LESLIE E. HOWARD, La Grange, Ill., assignor to Simonds Manufacturing Company, Fitchburg, Mass., a Corporation of Massachusetts. Filed Feb. 6, 1909. Serial No. 476,480. (Cl. 204—64.)



1. An electric melting furnace having a multiphase transformer with a plurality of secondary circuits each formed in series partly by a permanent conductor, said secondary circuits adapted to be completed by the body of metal subjected to the action of the furnace.

2. In an electrical melting furnace, the combination of a transformer core, primary windings on said core, a trough-shaped receptacle of refractory material mounted on said core, electrode blocks extending at opposite points through the side walls of said receptacle and having inner areas in contact with material within the receptacle to be melted, and heavy conductive U-frames looping through said transformer core and connecting with said electrode blocks and forming with said electrode blocks and the material within the receptacle substantially short circuited secondary circuits.

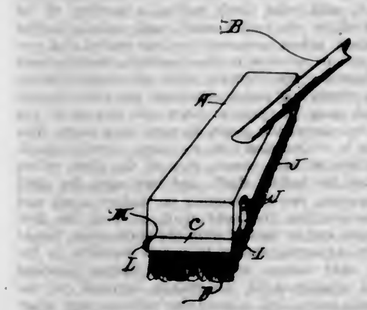
3. In an electrical melting furnace, the combination of a transformer core, primary windings on said core, a trough-shaped receptacle of refractory material mounted on said core, electrode blocks extending at opposite points through the side walls of said receptacle and having inner areas in contact with material within the receptacle to be melted, and heavy conductive U-frames looping through said transformer core and connecting with said electrode blocks and forming with said electrode blocks and the material within the receptacle substantially short circuited secondary circuits, the contact areas of the electrode blocks with the material within the receptacle being restricted whereby the heavy current flow through said secondary circuits is concentrated through the material to be melted.

4. In an electrical melting furnace, the combination of a transformer core, primary windings on said core, a trough-shaped receptacle of refractory material mounted on said core, electrode blocks extending at opposite points through the side walls of said receptacle and having inner areas in contact with material within the receptacle to be melted, heavy conductive U-frames looping through said transformer core and connecting with said electrode blocks and forming with said electrode blocks and the material within the receptacle substantially short circuited secondary circuits, and a support on which said transformer core is tiltably supported.

5. In an electric melting furnace, the combination with a tiltable support, of a solid metal series portion of a secondary circuit mounted thereon and having upwardly extending sides provided with contact blocks, a rectangular core member embracing the intermediate base portion of said secondary, a primary coil surrounding one limb of said core member, and a receptacle of refractory material surmounting said secondary and formed with apertured side walls through which said contact blocks project whereby to form contact with the material to be operated upon in said receptacle.

[Claims 6 to 8 not printed in the Gazette.]

1,076,888. HOLDER FOR CLEANERS. ISAAC G. KELLEY, Minneapolis, Minn. Filed Mar. 29, 1913. Serial No. 757,485. (Cl. 15—54.)

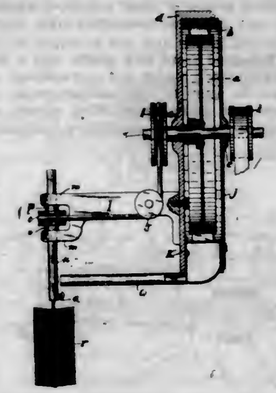


1. A cleaner holder including a head, pairs of leaf springs on each side of the head and extending beyond the same, and a cleaner engaging strip connected to each pair of springs and having stop lugs at one end and catch shoulders at the other, said strips being extended beyond their catch shoulders into flaring guides.

2. A cleaner holder including a head, pairs of leaf springs on each side of the head and extending beyond the same, and a cleaner engaging strip connected to each pair of springs and having stops at one end and catch shoulders at the other.

3. A cleaner holder including a head, pairs of leaf springs on each side of the head and extending beyond the same and a cleaner engaging strip connected to each pair of springs.

1,076,889. BOTTLE-WASHER. PAUL KEMPE, Milwaukee, Wis. Filed Apr. 14, 1913. Serial No. 761,035. (Cl. 141—7.)



1. In a bottle washer, a water wheel, a casing for said wheel having an opening in the bottom for the exhaust of water, a spindle supported outside and upon said casing, a bottle-washing brush carried by said spindle, means for applying water to the water wheel, means for driving said spindle and brush from the water wheel, means within the bottom opening of said casing for intercepting and receiving a part of the exhaust water, and means for conveying such intercepted portion of exhaust water to the bottle-washing brush.

2. In a bottle washer, a water wheel, a casing for said wheel having an opening in the bottom for the exhaust of water, a spindle supported outside and upon said casing, a bottle-washing brush carried by said spindle, means for applying water to the water wheel, means for driving said spindle and brush from the water wheel, a water intercepting cup supported by said casing within said bottom opening, said cup being smaller in size than said opening and so located therein as to leave a free space for the ready discharge of any overflow water therefrom, and means for conveying water from said cup to the bottle-washing brush.

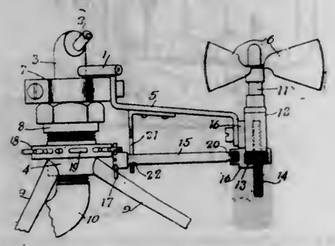
3. In a bottle washer, a water wheel, a casing for said wheel having an opening in the bottom for the exhaust of water, a vertical spindle supported outside and upon said casing, a bottle-washing brush carried by said spindle, means for applying water to said water wheel, means for driving said spindle and brsuh from the water wheel, a water intercepting cup supported by said casing within said bottom opening, and provided with a water deflecting lip, said cup being smaller in size than said opening and so located therein as to leave a free space for the ready discharge of any overflow water therefrom, and means for conveying water from said cup to the bottle-washing brush, substantially as shown and described.

1,076,890. SPRINKLER. JOHN H. KEYS, Dayton, Ohio. Filed Aug. 21, 1912. Serial No. 716,132. (Cl. 137—59.)

1. A sprinkler comprising a rotatable support, a nozzle carried by said support and communicating with a source of fluid supply, and means actuated by the fluid discharged from said nozzle, whereby either a continuous rotary movement or an oscillatory movement may be imparted to said support.

2. A sprinkler comprising a rotatable support, a nozzle carried by said support and communicating with a source of fluid supply, and means actuated by the fluid discharged from said nozzle to impart a continuous rotary movement to said support, said means including removable elements the removal of which results in the conversion of said rotary movement into an oscillatory movement.

3. In a sprinkler, a base, a rack formed by pins mounted around said base, a part of said pins being removable, a nozzle rotatably mounted on said base and having connection with a source of fluid supply, a supporting arm carried by said base and connected with said nozzle, a spreader carried by the arm and arranged in the path of the fluid discharged from said nozzle, and a driving connection between the spreader and rack adapted when all of said pins are in place to continuously rotate the nozzle, arm and spreader, and adapted when certain of the pins are removed to impart an oscillatory movement to said parts.



4. A sprinkler comprising a support having movement about a vertical axis, a nozzle carried by said support, a spreader also carried by said support, having movement about a vertical axis and arranged in the path of the fluid discharged from said nozzle, a pinion mounted on said support and driven from said rotary spreader, a rack fixed with relation to the axis of said support and arranged to be engaged by said pinion, and means to reverse the direction of movement of said support at each end of said rack.

5. In a sprinkler, a base, a segmental rack carried thereby, a support mounted on said base and having movement about a vertical axis, a nozzle carried by said support, a spreader also carried by said support and having movement about a vertical axis, a pinion mounted on said support and having bodily movement relatively thereto, means for driving said pinion from said rotatable spreader, and means arranged at the opposite ends of said rack to cause said pinion to move from one side thereof to the other side thereof, thus reversing the direction of movement of said support.

[Claim 6 not printed in the Gazette.]

1,076,891. ROTARY ENGINE. HOMER ARTHUR KING, Colton, Cal. Filed Jan. 23, 1913. Serial No. 743,856. Cl. 121—84.)



1. In a rotary engine having a rotor provided with substantially oppositely arranged pistons, a casing inclosing said rotor and having an annular steam chamber in which the pistons operate, said casing having offset casings, rocking members mounted in said offset casings and provided with radially extending arms terminating in segmental curved arms concentric with said rocking members, the offset casings having segmental passage-ways merging into the steam chamber, piston-like abutments movable in the segmental passage-ways and comprising spaced apart disks, one disk of each abutment being pivoted to each segmental curved arm, said disks having shoulders, split expansion packing rings surrounding said disks and in contact with said shoulders and provided with channel-ways, extension rings in said channel-ways, a series of annular split expansion packing rings interposed between the expansion rings of said disks and provided with retention rings to limit the expansion of the split rings, means bearing against one disk of each abutment for pressing said disk toward the pivoted disk to hold the intermediate expansion rings in place, said abutments adapted to follow in the rear of said pistons and partially into the steam chamber, and means for operating said rocking members.

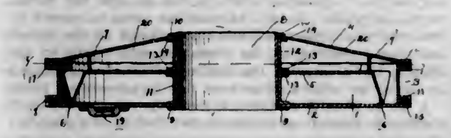
2. In a rotary engine, a cylinder casing provided with an annular steam cylinder having enlarged portions, a rotor movable in the steam cylinder and having pistons provided with channeled split piston packing rings, expansion-limiting channeled rings therefor, which together with the enlarged portions of the annular steam cylinder renders the easy passage of the pistons during the movements of the abutments, a shaft for the rotor, said casing including offset casings having segmental curved passages merging into the steam cylinder, abutments movable in the passages, said abutments comprising spaced apart disks, one disk of each abutment being pivoted to each segmental curved arm, said disks having shoulders, split expansion packing rings surrounding said disks and in contact with said shoulders and provided with channel-ways, rings in said channel-ways, a series of annular split expansion packing rings interposed between the expansion packing rings of said disks and provided with rings to limit the expansion of the split rings, means bearing against one disk of each abutment for pressing said disk toward the pivoted disk to hold the intermediate expansion rings in place, and connections between the shaft and said abutments to cause said abutments to follow at intervals in the rear of said piston as they pass.

3. In a multiple cylinder rotary engine, a plurality of casings having a solid shaft and a hollow shaft extending therethrough, said solid shaft having a portion of its length received by the hollow shaft, said casings having steam chambers, rotors mounted upon the shafts and provided with pistons movable in the chambers, steam chests interposed between the casings, ports of communication between the chests and steam chambers, set plate valves, two mounted upon the hollow shaft and two upon the solid shaft to control the steam through said ports, disk valves acting in conjunction with set plate valves to facilitate controlling of said steam, two of the disk valves mounted upon the hollow shaft, and two upon the solid shaft, coil springs, one surrounding the hollow shaft and the other surrounding the solid shaft, to hold the disk valve separated and in contact with the plate valve, means for manually adjusting the plate valves relative to the disk valves, said casings having offset casings provided with curved passage-ways, abutments operable in the curved passage-ways, and connections between said shaft and said abutment, and exhaust ports in the offset casings.

4. In a multiple cylinder rotary engine, a plurality of casings having a solid shaft and a hollow shaft extending therethrough, said solid shaft having a portion of its length received by the hollow shaft, said casings having steam chambers, rotors mounted upon the shafts and provided with pistons movable in the chambers, steam chests interposed between the casings, ports of communication between the chests and steam chambers, set plate valves, two mounted upon the hollow shaft and two upon the solid shaft to control the steam through said ports, disk valves acting in conjunction with set plate valves to facilitate controlling of said steam, two of the disk valves mounted upon the hollow shaft, and two upon the solid shaft, coil springs, one surrounding the hollow shaft and the other surrounding the solid shaft, to hold the disk valve separated and in contact with the plate valve, means for manually adjusting the plate valves relative to the disk valves, said casings having offset casings provided with curved passage-ways, abutments operable in the curved passage-ways, and connections between said shaft and said abutments to cause the abutments to follow at intervals in the rear of the pistons.

5. In a rotary engine, a casing provided with a steam chamber, a rotor having sectional pistons movable in the steam chamber, a shaft for the rotor, said casing having offset casings provided with segmental passage-ways merging into the steam chamber, sectional abutments movable in the passage-ways to accommodate themselves to the contour of said passage-ways, said sectional abutments and sectional pistons having expansion packing rings provided with rings to limit the expansion of the split rings, and connections between said shaft and said abutments.

1,076,892. GAS-BURNER. CHARLES F. KRUGH, Dormont, Pa. Filed Oct. 7, 1912. Serial No. 724,340. (Cl. 158—99.)



1. A burner consisting of a gas chamber, a baffle plate therein, and collars having flanges adapted to space said plate and the walls of said chamber apart.

2. A burner consisting of a gas chamber, a baffle plate therein, and collars having flanges adapted to space said plate and the walls of said chamber apart, the upper of said walls being perforated.

3. A burner consisting of a gas chamber, a baffle plate therein, collars having flanges adapted to space said plate and the walls of said chamber apart, the upper of said walls being perforated, and an air pipe passing through the center of said chamber.

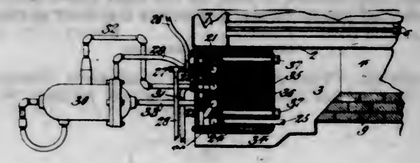
4. A burner consisting of a gas chamber having an air flue through the center thereof, said chamber consisting of upper, lower and side walls, said upper wall being perforated to form gas outlets, a baffle plate disposed in said chamber, and collars having flanges thereon adapted to support the inner part of said plate and form spacers for said walls.

5. A burner consisting of a gas chamber having an air flue through the center thereof, said chamber consisting of upper, lower and side walls, said upper wall being perforated to form gas outlets, a baffle plate disposed in said chamber, and collars having flanges thereon adapted to support the inner part of said plate and form spacers for said walls, said plate having up and down struck portions whereby it is held rigid at its outer part.

[Claim 6 not printed in the Gazette.]

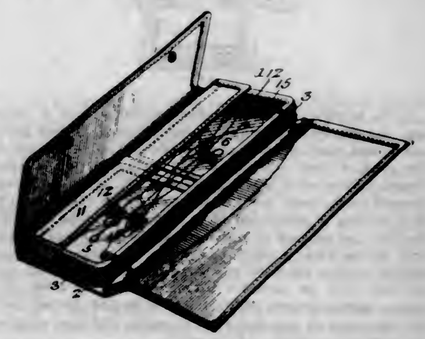
1,076,893. STEAMSHIP-FURNACE. CHARLES A. KUENZEL, Buena Vista, Colo., assignor to The Kuenzel Gas Producer & Smelter Construction Co., a Corporation of Washington. Filed Aug. 17, 1912. Serial No. 715,576. (Cl. 158—5.)

1. In an apparatus of the character stated, a retort-structure adapted to fit in the fire-door opening of a furnace and comprising a vaporising chamber, an air-heating chamber and superheating retorts, a burner extending into the furnace and connected to receive gas from said retorts, and a checker-work of firebrick and supported against the inner face of said retort-structure.



2. In an apparatus of the character stated, a furnace having a fire-door opening, a retort-structure secured to fit in and partly close the upper part of said opening and thereby form an air-inlet beneath it and constructed with air and gas heating chambers, burners extending into the furnace from said retort-structure, and a firebrick checker-work supported against the inner face of said retort-structure.

1,076,894. LEAF OR POCKET FOR FLY-BOOKS. GUSTAVE LANGBEIN, Philadelphia, Pa., assignor to F. W. Klinger & Langbein Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 27, 1912. Serial No. 738,921. (Cl. 43—28.)



1. In a leaf or pocket, a back, and a front, the latter being formed of separate sections, each section movable with respect to the back independently of each other and being secured to the back for a portion of its extent, whereby the other portion of each section is free and the free portions of each section can be curled back independently of each other.

2. In a leaf or pocket, a back, and a front, the latter being formed of separate sections, each section movable with respect to the back independently of each other and being secured for a part of its edge to said back, each with its top edge and a suitable portion of its adjacent edge free from said back, and the adjacent edges suitably separated, said front sections being formed of suitable transparent material.

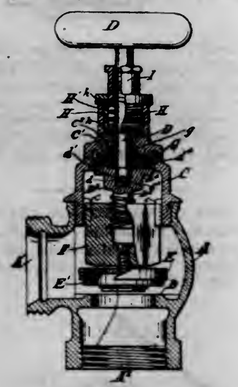
3. In a leaf or pocket, a back, and a front, the latter being formed of separate substantially rectangular sections, each section being secured along two sides thereof, to the back, whereby the other two sides of each section are free and the free portions of each section can be curled back independently of each other.

4. In a leaf or pocket, a back, and a front, the latter being formed of separate sections, each section being secured along two edges thereof to said back, each with its top edge and its adjacent edge free from said back, and the adjacent edges suitably separated, said front sections being formed of suitable transparent material.

5. In a leaf or pocket, a back, and a front, the latter being formed of separate sections, each section being

secured along two edges thereof to said back, with its top edge and its adjacent edge free and with the adjacent edges suitably separated, said front sections being formed of suitable transparent material, and a flap movably carried by said back and adapted to be inturned over the ends of said front sections, to hold the free edges thereof and to close the pockets formed between the said front sections and said back.

1,076,895. VALVE. FREDERICK LEADBEATER, Detroit, Mich. Filed June 4, 1912. Serial No. 701,484. (Cl. 137—4.)

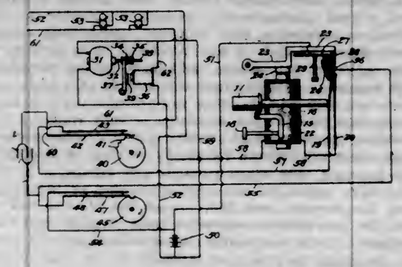


1. In a valve, a body portion provided with a valve seat, a stem for actuating the valve formed in two parts and joined together, a flange integral with one portion of the stem, a disk carried by said flange having a cone-shaped upper wall tapering toward the stem, a bonnet secured to the body portion through which the stem projects having a flange provided with an annular seat for the disk and adapted to bear against the cone-shaped upper wall of the disk to force it against the stem, a thimble having a screw-threaded engagement with the bonnet and provided with an aperture through which the stem projects, a spring housed within the thimble and sleeved upon the stem, and an adjustable nut engaging the stem adapted to regulate the tension of the spring.

2. In a valve, a body portion provided with a valve seat, a stem for actuating the valve formed of two parts and connected together by a transverse pin, a flange integral with one portion of the stem, a disk carried by said flange, a bonnet secured to the body portion through which the stem projects having an annular seat to receive the disk, a thimble sleeved on the stem and having a screw-threaded engagement with the bonnet, a spring housed within the thimble, and an adjustable nut engaging the stem adapted to regulate the tension of the spring.

1,076,896. ELECTRIC SIGNALING SYSTEM. CHARLES E. LEE, Chicago, Ill., assignor of one-half to Benjamin C. Sammons, Chicago, Ill. Filed Jan. 24, 1913. Serial No. 743,970. (Cl. 179—84.)

1. In an electric signaling-system, the combination with a signal and signal-operating electric circuit, of a plurality of circuit making-and-breaking contacts, a distinctive movable actuator for each of said contacts, a motor for moving said actuator, a separate sending-key for each of said contacts operating when moved to sending position to close the circuit to the particular contact whereby the same is caused by its actuator to make and break the circuit to the signal, means operated by the closing of said circuit by one sending-key to establish a second circuit through said contacts to the signal, and a circuit breaker movable with said actuator to break said second circuit at the end of a complete movement of said actuator, for the purpose set forth.

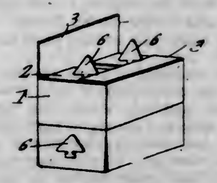


2. In an electric signaling-system, the combination with a signal and signal-operating electric circuit, of a plurality of circuit making-and-breaking contacts, a distinctive movable actuator for each of said contacts, a motor for moving said actuator, a separate sending-key for each of said contacts operating when moved to close the circuit to the particular contact whereby the same is caused by its actuator to make and break the circuit to the signal, and means operating when a signal is started to prevent any interference therewith before its completion.

3. In an electric signaling-system, the combination with a signal and signal-operating electric circuit, of a plurality of circuit making-and-breaking contacts, a distinctive movable actuator for each of said contacts, a motor for moving said actuator, a separate sending-key for each of said contacts operating when moved to close the circuit to the particular contact whereby the same is caused by its actuator to make and break the circuit to the signal, and means operated by the closing of said circuit by one sending-key to prevent the sending of interfering signals by any of the other sending-keys, for the purpose set forth.

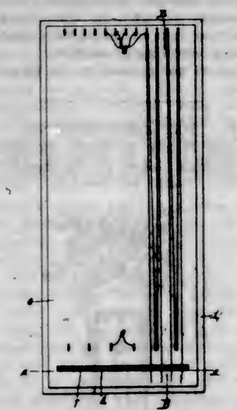
4. In an electric signaling-system, the combination with a signal and signal-operating electric circuit, of a plurality of signal-actuating, circuit making-and-breaking, contacts, a distinctive movable actuator for each of said contacts, moving means for said actuator, and a sending-device having a separate sending-mechanism for each of said contacts, each of said mechanisms comprising a movable key and a pair of sending-contacts closed by movement of the key to sending position, and locking means in said device operating to hold said sending-contacts closed and to prevent closing of any of the other sending-contacts between the beginning and ending of a complete signaling operation.

1,076,897. BOX-FASTENER. PHILIP H. LETTRÉ, Attleboro Falls, Mass. Filed Apr. 24, 1913. Serial No. 763,380. (Cl. 220—47.)



In a device of the class described the combination with a receptacle having upper and lower flaps, of a fastener comprising a base with wings extending through the under flap and bent into engagement therewith, a restricted neck projecting from said base, a head connected to said neck, the restricted notches defined by the head and base receiving the upper box flaps therein, said head bent at right angles to the said neck and into contact with the upper surface of said upper flap to securely hold said flaps in a closed position and in rigid relation.

1,076,898. SKEIN OR THREAD HOLDER. NILS MADSEN, Westville, N. J. Filed Jan. 10, 1913. Serial No. 741,153. (Cl. 206—64.)



1. In a means for holding skeins or threads of silk or other material, in combination, hooks for carrying the main body of the skein or thread, and a holder for the opposite ends of the skein or thread, said holder consisting of a central rigid part upon opposite sides of which the said opposite ends are placed, and springs for holding said ends against the sides of said central rigid part.

2. In a means for holding the ends of a skein, in combination, a rigid member consisting of a horizontal top part and a vertical side part and a spring member lying close and parallel to said rigid member, the upper end of said spring member being bent so as to facilitate the entrance of the skein between it and the rigid member.

3. In a means for holding skeins or threads, in combination, a base, a platform above and carried by said base, a holder for the opposite ends of the skein or threads comprising a central part for engaging upon its opposite sides the opposite ends of said skein or threads and springs for holding said ends in contact with said sides, a hook near the front of said platform for holding the bights of said skeins or threads, and two hooks near the rear end of said platform around which opposite sides of said skein or threads are passed before being carried to the spring operated holder at the front end of the device.

4. In a means for holding skeins or threads, in combination, a base, spring operated holders for the opposite ends of the skeins or threads carried by said base, a platform carried by said base, slotted for the passage of said spring operated holders, three hooks, one near the front and two near the rear of said platform, for carrying the body of said skein or threads, and a detachable cover carried by said base for covering said platform and the parts carried thereby.

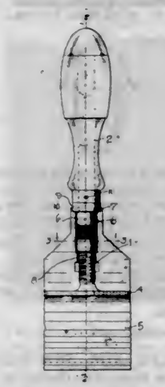
5. In a means for holding skeins or threads, in combination, a base, a spring actuated holder carried by said base for holding the ends of the skein or thread, a platform above and forming with said base a pocket for loose skeins or threads, hooks carried by said platform for carrying the body of the skein or threads the ends of which are held by said spring actuated holder, and a detachable cover adapted to rest upon said base and in connection therewith to completely inclose the holder.

1,076,899. ARTIFICIAL SKIN OR GUT ENVELOP FOR SAUSAGE-MEAT OR THE LIKE. DENIS MANIVET, Marseille, and EMILE RESSEGAIRE, Avignon, France. Filed Oct. 4, 1911. Serial No. 652,817. (Cl. 99—8.)

1. An artificial skin for wrapping sausage meat and the like characterized by being impermeable, non-hygroscopic and adapted to be applied in a dry state, said skin consisting of a body of protein material rendered preservative and insoluble in boiling water and containing a stress resisting fabric of netting embedded in said material.

2. An artificial skin or gut for enveloping sausage meat and the like comprising, an impermeable element of casein rendered preservative and insoluble in boiling water, and a stress resisting element of thread netting embedded in the first element.

1,076,900. CHISEL-GAGE. DONALD MCNEIL, Halifax, Nova Scotia, Canada. Filed Apr. 26, 1913. Serial No. 763,810. (Cl. 145—26.)



1. In a tool of the class described, a threaded shank slotted centrally at its onter end and provided with a head on the extreme outer end of one of the furcations thereof, a blade slotted from its inner end and received in the slotted end of said shank, means on said shank received in the slot of said blade for the adjustment of the latter with respect to the shank, means engaged with the inner end of said blade to prevent movement of the latter with respect to the shank, and a handle member adjustably engaged with said shank and adapted for engagement with the last referred to means to retain the parts of the device in rigid position.

2. In a tool of the class described, a threaded shank slotted at its outer end and provided with a T-head at the extreme outer end of one of the furcations thereof, a blade slotted from its inner end and received in the slot of said shank, an adjusting nut on said shank received in the slot of said blade, means engaged with the inner end of said blade to prevent the movement of the same with respect to the shank, and a handle member having an internally threaded socket engaged with said shank, said handle member, when turned on the shank for engagement with the last referred to means being adapted to retain the parts of the device in their adjusted positions.

3. In a tool of the class described, a threaded shank slotted at its outer end and having a T-head formed on the extreme outer end of one of the furcations thereof, a blade provided with a slot extending from its inner end and received in the slot of said shank, an adjusting nut on said shank received in the slot of said blade, a collar loosely applied to said shank and having notches therein receiving the inner end portions of the blade therein, and an internally threaded handle member engaged with said shank, said handle member, when turned from binding engagement with said collar being adapted to lock the parts of the device in their adjusted positions.

4. In a tool of the class described, a threaded shank slotted at its outer end and having a T-head formed on the extreme outer end of one of the furcations thereof, a blade provided with a slot extending from the inner end of the same, said blade being received in the slot of said shank, an adjusting nut applied on said shank, and received in the slot of said blade, the extreme inner end portions of said

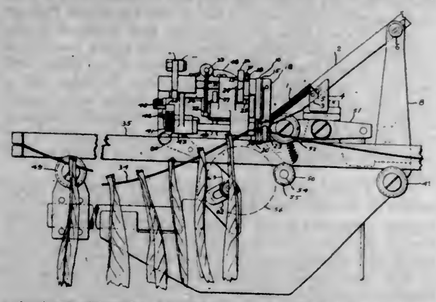
blade being provided with inwardly extending lugs to provide shoulders for engagement with the inner end of said nut, a collar loosely applied on said shank and having notches at diametrically opposite points thereon, said notches receiving therein the inner end portions of said blade, and an internally threaded handle member engaged with the inner end of said shank for binding engagement with said collar, whereby to lock the parts of the device in their adjusted positions.

1,076,901. MEANS FOR STRINGING TOBACCO-LEAVES. JOSEPH MERRITT, Hartford, Conn., assignor of one-half to Ernest Walker Smith, Hartford, Conn. Filed Mar. 24, 1911. Serial No. 616,584. (Cl. 131—21.)



A staple for hanging tobacco leaves, consisting of a U-shaped body of fine flexible metallic wire with the ends of the body turned outward and backward at acute angles with relation to the sides of the body and providing flexible barbs, the metal at the turns being beveled to facilitate the entrance of the body and barbs into the tobacco stems and the ends of the barbs being beveled in opposite directions to obstruct the withdrawal of the barbs from the stems.

1,076,902. MACHINE FOR STRINGING TOBACCO-LEAVES. JOSEPH MERRITT, Hartford, Conn., assignor of one-half to Ernest Walker Smith, Hartford, Conn. Filed Mar. 23, 1912. Serial No. 685,702. (Cl. 131—21.)



1. A machine for stringing tobacco, having means for supporting a string, mechanism for intermittently feeding the string, means for driving a staple over the string into the tobacco, mechanism for operating the driver, and means for setting into operation the feeding mechanism and driver operating mechanism when the tobacco is presented to the staple driver.

2. A machine for stringing tobacco, having means for supporting a string, mechanism for intermittently feeding the string, means for driving a staple over the string into the tobacco, mechanism for operating the driver, continuously driven mechanism, and means for connecting the continuously driven mechanism with the feeding and staple driving mechanism when the tobacco is presented to the staple driver.

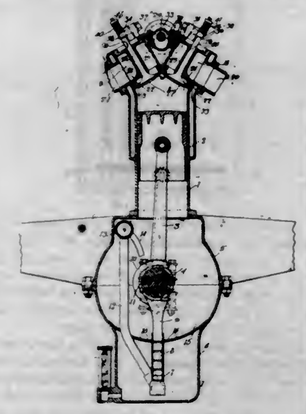
3. A machine for stringing tobacco, having means for supporting a string, mechanism for intermittently feeding the string, and means actuated by the presentation of the tobacco for setting into operation the feeding mechanism.

4. A machine for stringing tobacco, having means for driving a staple, mechanism for operating the driver, and means actuated by the presentation of the tobacco for setting into operation the driver operating mechanism.

5. A machine for stringing tobacco, having means for supporting a lath and string, mechanism for intermittently feeding the lath, mechanism for driving a staple over the string into the tobacco, mechanism for operating the driver, and means actuated by the presentation of the tobacco for setting into operation the lath feeding mechanism and driver operating mechanism.

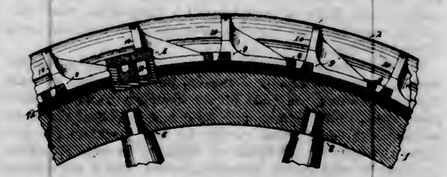
[Claims 6 to 24 not printed in the Gazette.]

1,076,903. EXPLOSIVE-ENGINE. RAYMOND C. MITCHELL and HARRY M. NEER, Springfield, Ohio, assignors to Herman Voges, Jr., Springfield, Ohio. Filed Nov. 28, 1910. Serial No. 594,433. (Cl. 123—90.)



An engine comprising a plurality of cylinders, a shaft arranged near the upper ends of said cylinders and extending longitudinally of said engine, each cylinder having an inlet port on one side of said shaft and an outlet port on the other side thereof, valves to control the respective ports, a cam mounted on said shaft adjacent to each cylinder, and a pair of bell crank levers disposed on opposite sides of the shaft and fulcrumed on the respective cylinders, said levers being arranged to rock in a plane parallel to said shaft, one arm of each lever having operative engagement with the cam and the other arm of each lever being respectively connected to one of the valves.

1,076,904. NON-SKIDDING DEVICE. WILLIS GRANT MURRAY, San Francisco, Cal. Filed Feb. 7, 1913. Serial No. 746,843. (Cl. 152—2.)



1. In a non-skid vehicle wheel, the combination with the felly having a rubber tire, of a series of rigid, yieldingly-supported road grips pivoted to said felly and each extending from its pivot toward its free end in a general direction circumferentially of the wheel, said grips having their road-engaging portions substantially flush with the normal contour or periphery of the tire.

2. In a non-skid vehicle wheel, the combination with the felly having a rubber tire, of a series of rigid yieldingly-supported road grips pivoted to said felly and each extending from its pivot toward its free end in a general direction circumferentially of the tire, their free road-engaging ends being relatively-narrow in a circumferential direction and separated from each other by relatively-wide spaces, the structure having means for preventing the projection of said free ends substantially beyond the normal periphery of the tire.

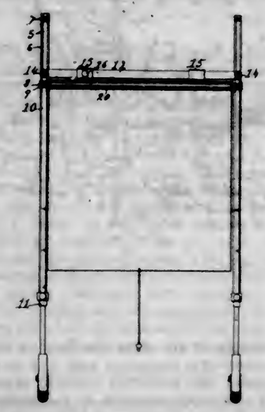
3. In a non-skid vehicle wheel, the combination of a felly formed with a circumferential channel, twin rubber tires located on opposite sides of said channel, a series of substantially L-shaped rigid grips pivotally mounted in said channel and adapted to turn in the plane of the wheel, one arm of each grip extending outwardly to a free end adjacent to the peripheral plane of the tires, and resilient means in said channel supporting said grips.

4. In a non-skid device, the combination of a series of metallic grips, said grips having on one end of their base extending trunnions as a means for movably anchoring the same, on the other end of said base extending retaining lugs as a means for limiting the action of said grips, felly bands so disposed as to retain said grips in position, a means for resiliency operating under said grips, and a means for mounting the tires on either side thereof, substantially as described and claimed.

5. In a non-skid device, a series of movably mounted metallic grips in a channeled felly and encircling the same, extended trunnions and retaining lugs at either end of said grips, metallic pocket bushings inserted in the sides of the channel adapted to receive the trunnions of one grip and provide a slot for the movement of the retaining lugs for the next grip of the series, felly bands adapted to retain the said trunnions and retaining lugs in the pockets of the bushings, an endless rubber band in the channel under the base of said grips as a means of resiliency, and a provision for mounting tires on either side of the resilient grips, substantially as described.

[Claim 6 not printed in the Gazette.]

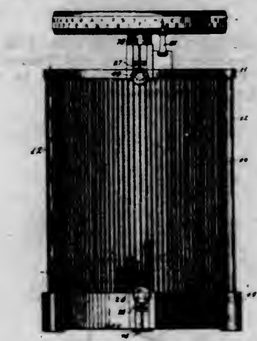
1,076,905. WINDOW-SHADE ADJUSTER. HARRY OGLESBY, Chester, Pa. Filed Mar. 22, 1913. Serial No. 756,166. (Cl. 156—27.)



1. In a window shade adjuster, two rails adapted to be secured to a window frame; two rods, each carrying a shade roller bracket and fitted to slide upon one of the said rails; a crossbar in sections adapted to slide one upon the other; means for securing the two sections together at different points, and means for securing each section rigidly yet removably to one of the said rods.

2. In a window shade adjuster, two rods, each carrying a shade roller bracket; bearings for the rods to slide in; a crossbar comprising two sections adapted to slide one upon the other; means for securing the crossbars together at different points, and means for securing the crossbar to both rods substantially as shown and described, whereby the rods and the crossbar constitute a unit to slide like a sash in bearings.

1,076,906. MECHANISM FOR STORING, ASSEMBLING, AND DISTRIBUTING TYPE. HENRY C. OSBORN, Cleveland, Ohio, assignor to The American Multigraph Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 23, 1908. Serial No. 428,834. (Cl. 101—130.)



1. The combination of two typeholders between which type may be transferred, mechanism for limiting the transfer to one type at a time, means for moving one of the typeholders to a position where the limiting mechanism does not restrict the transfer to one type at a time, whereby a whole line may be continuously transferred.

2. The combination of two typeholders adapted to be out of alinement, means for transferring type from one to the other when out of alinement, and means for bringing them into alinement to allow type to pass from one directly to the other.

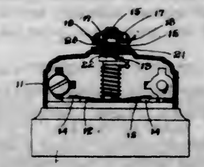
3. The combination of mechanism adapted to hold a plurality of lines of type, two typeholders, and means for feeding lines from one holder to the mechanism and from the mechanism to the other holder, one at a time, or a whole line, or a fraction thereof at a time, as desired.

4. The combination of a type case having channels down which type may descend by gravity, means for limiting the descent, mechanism for assembling type therefrom by the assistance of gravity, said mechanism being arranged to limit the transfer to a single type at a time or a line of type, and a single key for causing both operations, as desired.

5. The combination of a type case, mechanism for distributing type thereinto by the assistance of gravity, and mechanism for assembling type therefrom by the assistance of gravity, each of said mechanisms being arranged to transfer a single type at a time or a line of type, as desired.

[Claims 6 to 44 not printed in the Gazette.]

1,076,907. LOCK ATTACHMENT FOR SNAP-SWITCHES. CLARENCE D. PLATT, Bridgeport, Conn. Filed Feb. 12, 1913. Serial No. 747,912. (Cl. 175—289.)

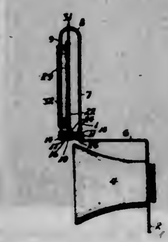


1. In a snap switch, the combination with a switch spindle, of an operating member for said spindle pro-

vided with means for engagement by a key, and a guard member loosely mounted adjacent said operating member and having a series of points projecting beyond the edge of said operating member.

2. In a snap switch, the combination with a switch spindle, of an operating member for said spindle provided with means for engagement by a key, a guard member loosely mounted adjacent said operating member and having a series of points projecting beyond the edge of said operating member, and means for holding said guard member in close engagement with said operating member.

1,076,908. ANTISEPTIC PROTECTOR FOR MOUTHPIECES. CHARLES T. PORTER and REGINALD J. OSBORNE, San Francisco, Cal. Filed June 18, 1913. Serial No. 774,358. (Cl. 179—185.)



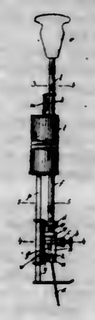
1. An antiseptic protector for mouthpieces, comprising a body portion secured upon the mouthpiece and extending forwardly, an absorbent pad secured to the rear surface of the front portion of said body, a circular apertured disk pivotally supported by the body portion and arranged in one position of its pivotal movement to be in contact with the rear surface of the absorbent pad, and a spring for pressing said disk against said pad.

2. An antiseptic protector for mouthpieces comprising a main body portion of sheet metal having a lower apertured portion arranged around the neck of the mouthpiece, a portion extending forwardly therefrom, a member extending upwardly from the front end of the forwardly extending portion, a front member extending depending from the upper portion of said first-named member, and spaced therefrom, an antiseptic pad secured upon the rear surface of said front member, a pivot bolt connecting the lower portions of said front and rear members, an apertured disk rotatable upon said pivot, and a spring coiled around the shaft and arranged to press said disk against said pad.

3. An antiseptic protector for mouthpieces comprising a main body portion of sheet metal having a lower apertured portion arranged around the neck of the mouthpiece, a portion extending forwardly therefrom, a member extending upwardly from the front end of the forwardly extending portion, a front member extending depending from the upper portion of said first-named member, and spaced therefrom, an antiseptic pad secured upon the rear surface of said front member, a pivot bolt connecting the lower portions of said front and rear members, and having an enlarged portion formed with an oblique rear shoulder, an apertured disk rotatable upon said pivot and having a forward oblique shoulder, and a spring coiled around the shaft and arranged to press said disk against said pad.

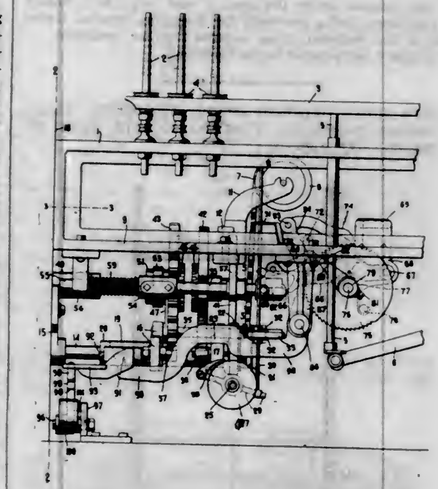
1,076,909. HAND EMBROIDERING-MACHINE. WENZEL ANTON RADOUŠ, Prague, Austria-Hungary. Filed Feb. 18, 1911. Serial No. 609,438. (Cl. 112—40.)

A hand embroidered machine having a needle support, a needle, an operating handle, a reciprocating rod sliding in the handle, and means for determining the extent of movement of the needle, such means comprising an adjustable stop, said stop having two legs, a perforation in each leg through which the rod passes, said rod having a series



of notches, there being a spring for engaging a leg of the stop with a notch on the rod.

1,076,910. TRAVERSE-MOTION FOR YARN-SPINNING APPARATUS. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Jan. 6, 1913. Serial No. 740,329. (Cl. 118—1.)



1. In apparatus of the class described, a ring-rail, an oscillating builder-arm connected with and to reciprocate the rail, primary and secondary traverse cams, separate followers for said cams, mounted on the builder-arm, the primary cam effecting a short, quick traverse of the rail, and the secondary cam effecting a longer and relatively slow traverse, a rotating cam-shaft on which the primary cam is mounted to rotate therewith, means to clutch the secondary cam to the shaft to rotate therewith, traverse-changing mechanism actuated automatically to disengage the primary cam and its follower and to render operative the said clutching means, thereby to effect active coöperation of the secondary cam with its follower, and an instrumentality to coöperate with and prevent the actuation of said mechanism until the primary traverse-cam has been in action for a predetermined period.

2. In apparatus of the class described, a ring-rail, an oscillating builder-arm connected with and to reciprocate the rail, primary and secondary traverse cams to coöperate with the builder-arm, the former to effect a short, quick traverse and the latter a longer, relatively slow traverse, of the ring-rail, a rotating shaft on which the cams are mounted, a permanent driving connection between the primary cam and the shaft, means to connect the latter and the secondary cam to rotate in unison, traverse-shifting mechanism actuated automatically to render the primary cam inactive with respect to the builder-arm and simultaneously to effect clutching of the secondary cam to the said shaft and thereby render said cam operative to actuate the builder-arm, and an instrumentality to bring about the actuation of the shifting mechanism when the primary cam has been in action for a predetermined period.

3. In apparatus of the class described, a rotatable shaft, a bunch-building cam rotatable with and slidable axially on the shaft, a main building cam loose on the shaft, clutch members on said cams, brought into coöperation by axial movement of the bunch-building cam, spring-actuated shifting means operatively connected with and to effect such axial movement of the said cam, an instrumentality, including a locking device, to release and permit the actuation of said means at a predetermined time, a builder-arm, and separate followers thereon for said cams, the actuation of the shifting means disengaging the bunch-building cam from its follower and causing oscillation of the builder-arm by coöperation of the main building cam and its follower.

4. In apparatus of the class described, a rotatable shaft, a bunch-building cam rotatable with and slidable axially on the shaft, a main building cam loose on the shaft, means governed by axial movement of the bunch-building cam to inoperative position to clutch the main building cam and the shaft, a builder-arm, separate followers thereon for said cams, spring-actuated shifting means to effect axial movement of the bunch-building cam away from its follower and to clutch the other cam and the shaft, whereby said latter cam is rendered operative to oscillate the builder-arm, a device to lock said shifting means from operation, and an instrumentality to cause the locking device to release the shifting means when the builder-arm has been oscillated by the bunch-building cam for a predetermined period.

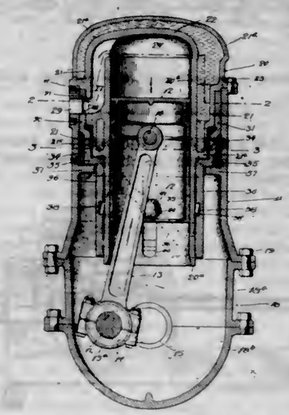
5. In apparatus of the class described, a rotatable shaft, a bunch-building cam rotatable with and slidable axially on the shaft, a main building cam loose on the shaft, means governed by axial movement of the bunch-building cam to inoperative position to clutch the main building cam and the shaft, a builder-arm, separate followers thereon for said cams, spring-actuated shifting means to effect axial movement of the bunch-building cam away from its follower and to clutch the other cam and the shaft, whereby said latter cam is rendered operative to oscillate the builder-arm, a device to lock said shifting means from operation, and an instrumentality to cause the locking device to release the shifting means when the builder-arm has been oscillated by the bunch-building cam for a predetermined period, combined with manually adjustable means to vary, through said instrumentality, the length of the operating period of the bunch-building cam.

[Claims 6 to 18 not printed in the Gazette.]

1,076,911. INTERNAL-COMBUSTION ENGINE. GEORGE R. RICH, Oak Park, Ill. Filed June 12, 1912. Serial No. 703,201. (Cl. 123—80.)

1. In an internal combustion engine, the combination of a cylinder, having an inlet port and an exhaust port, a reciprocatory piston in said cylinder, a rotatory port cover movable across said ports, and having an opening capable of registering with said ports, and operative connections for rotating the port cover in timed relation with the piston, one element of which extends through a slot in the cylinder, and directly connects the piston with the port cover.

2. In an internal combustion engine, the combination of a cylinder having an inlet port and an exhaust port, a piston reciprocable in said cylinder, a rotatory sleeve movable across said ports and having an opening therethrough capable of registering with said ports, one at a time, and motion transmitting means on the piston and sleeve, including a pin extending through a slot in the cylinder, for transforming the rectilinear motion of the piston into the rotatory motion of the sleeve.



3. In an internal combustion engine, the combination of a cylinder, having an inlet port and an exhaust port, a piston reciprocable in said cylinder, a rotatory port cover movable across said ports and having an opening therethrough capable of registering with said ports, one at a time, and motion transmitting means on the piston and sleeve, including a pin extending through a slot in the cylinder, for transforming the rectilinear motion of the piston into the rotatory motion of the port cover.

4. In an internal combustion engine, the combination of a cylinder having an inlet port and an outlet port, a piston reciprocable in said cylinder, a rotary sleeve surrounding said cylinder and movable across said ports, and having an opening capable of registering with said ports, one at a time, said sleeve being formed with a continuous zigzag, grooved cam track, extending around its inner face, and a pin carried by said piston and traveling in said cam track and operating to rotate said sleeve in timed relation to the piston.

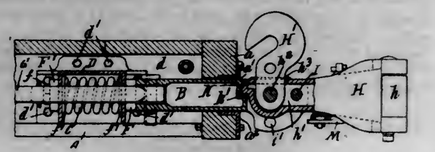
5. In an internal combustion engine, the combination of a cylinder, having an inlet port and an outlet port, a piston reciprocable in said cylinder, a rotatory sleeve movable across said ports and having an opening capable of registering with said ports, one at a time, said sleeve having a continuous undulated grooved track formed upon its inner face, and a pin carried by said piston and moving therewith in a straight line, said pin extending out through a longitudinal slot in the wall of the cylinder and traveling in said track and operating to rotate said sleeve in timed relation to the piston.

[Claims 6 to 14 not printed in the Gazette.]

1,076,912. DRAFT-GEAR FOR RAILWAY-CARS. WILLARD F. RICHARDS, Depew, N. Y., assignor to Gould Coupler Company, New York, N. Y. Filed Nov. 11, 1910. Serial No. 591,798. (Cl. 213—42.)

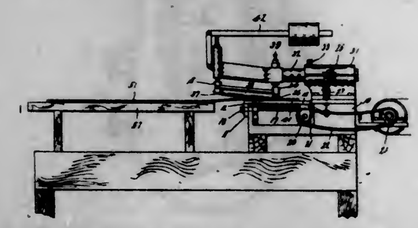
The combination of a drawbar, an automatic coupler pivoted to said drawbar to swing vertically, a hook coupler having a shank removably seated in a socket in said automatic coupler and pivoted on the pivot for the automatic

coupler to swing vertically with the automatic coupler, and means for holding said couplers rigid with the draw-



bar with either coupler in operative position, substantially as set forth.

1,076,913. BELT-SKIVER. CHRISTIAN A. SAHM, Indianapolis, Ind. Filed Aug. 24, 1912. Serial No. 716,928. (Cl. 69—13.)



1. A machine for scarfing belting, comprising a cutting knife, a work table arranged upon one side of the cutting plane of said knife, a roller carried by said work table, means for yieldingly swinging one end of said roller toward the cutting plane, a second roller arranged above and overlapping the first roller, means for adjusting said second roller axially relative to the first roller, means for swinging toward the cutting plane that end of the second roller which lies farthest from the swinging end of the first roller, and means for driving one of said rollers.

2. A machine for scarfing belting, comprising a cutting knife, a work table arranged upon one side of the cutting plane of said knife, a roller carried by said work table, means for yieldingly swinging one end of said roller toward the cutting plane, a second roller arranged above and overlapping the first roller, means for swinging toward the cutting plane that end of the second roller which lies farthest from the swinging end of the first roller, and means for driving one of said rollers.

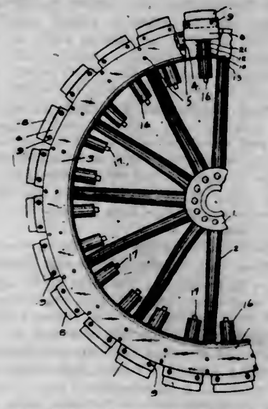
3. A machine for scarfing belting, comprising a feed roller, a pressure roller, a knife arranged in the delivery crotch between said rollers, means for independently adjusting one pair of opposite ends of said two rollers toward and from the plane of the knife, and means for permitting yielding of the other pair of opposite ends of said rollers relative to the plane of the knife.

4. A machine for scarfing belting, comprising a feed roller, a pressure roller, a knife arranged in the delivery crotch between said rollers, means for independently adjusting one pair of opposite ends of said two rollers toward and from the plane of the knife, means for permitting yielding of the other pair of opposite ends of said rollers relative to the plane of the knife, and means for adjusting said two rollers axially relatively to each other so that they may be made to overlap to a greater or less extent.

5. A machine for scarfing belting, comprising a feed roller, a pressure roller, a knife arranged in the delivery crotch between said rollers, means for independently adjusting one pair of opposite ends of said two rollers toward and from the plane of the knife, and adjustable means for permitting yielding of the other pair of opposite ends of said rollers relative to the plane of the knife.

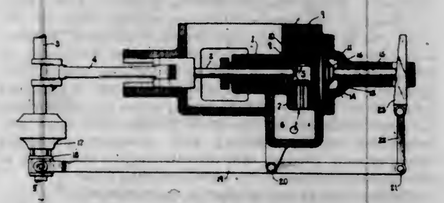
[Claim 6 not printed in the Gazette.]

1,076,914. RESILIENT WHEEL. EDWARD A. SCHLAIRET, Mount Vernon, Ohio. Filed July 31, 1912. Serial No. 712,425. (Cl. 152—31.)



A resilient vehicle wheel comprising a hub portion, spokes radiating therefrom, a rim element of channel form attached to the outer extremities of said spokes, individual inwardly extending cylinders independent of and between said spokes, each of said cylinders having an internally threaded open end, a central apertured bushing for each of said cylinders having a threaded extremity for engagement with the threaded ends of said cylinders, a shoulder on each of said bushings adapted to abut the bottom of said channeled member hereby the said cylinders are rigidly held thereon, a plurality of double-ended pistons slidably mounted in said bushings, one end of each of said pistons operating in said cylinders, the other ends slidingly operating in said channel rim element, buffers carried by the underside of each of said bushings and said last pistons, said cylinders forming an air cushion below said first piston ends, springs interposed between said second piston ends and said rim element, and thread elements removably carried by each of said second piston ends.

1,076,915. FUEL-PUMP FOR INTERNAL-COMBUSTION ENGINES. HANS R. SETZ, St. Louis, Mo., assignor to Fulton Iron Works, St. Louis, Mo., a Corporation. Filed Dec. 9, 1912. Serial No. 735,660. (Cl. 123—140.)



1. A fuel feed pump for internal combustion engines, comprising a cylinder having a measuring chamber, means operable to force liquid fuel from said measuring chamber, a diaphragm determining the capacity of said measuring chamber deflectable by pressure exerted against liquid fuel in said measuring chamber, an engine governor, and means operable by said engine governor whereby deflection of said diaphragm is prevented or controlled.

2. A fuel feed pump for internal combustion engines comprising a cylinder having a measuring chamber therein adapted to receive liquid fuel, a plunger operable to force liquid fuel from said measuring chamber, a diaphragm deflectable by pressure exerted by said plunger against liquid fuel in said measuring chamber, an engine governor, and an adjustable abutment operable by said engine governor whereby the degree of deflection of said diaphragm is controlled.

3. A fuel feed pump for internal combustion engines, comprising a cylinder having a measuring chamber formed with an opening, a yieldable diaphragm closing said opening, means operable to force liquid fuel through said measuring chamber, an engine governor, and means operable by said engine governor for limiting the movement of said diaphragm.

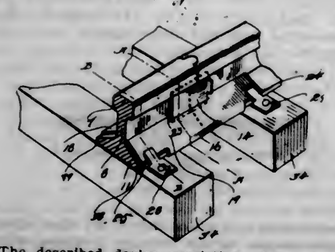
4. A fuel feed pump for internal combustion engines, comprising a cylinder having a measuring chamber, means operable to force liquid fuel from said measuring chamber, a yieldable member determining the capacity of said measuring chamber deflectable by pressure exerted against liquid fuel in said measuring chamber, an engine governor, and means operable by said engine governor whereby deflection of said yieldable member is prevented or controlled.

1,076,916. TIRE. EDWIN J. SHAUT and WILLIAM A. DUNHAM, Jackson, Mich. Filed Oct. 31, 1912. Serial No. 728,895. (Cl. 152—8.)



The herein described cushion tire comprising a flat inner metal band, a flat outer metal band provided with pairs of integral spring fingers projecting obliquely outward from its opposite edges and formed with inturned eyes at their outer extremities, parallel steel rings extending through said eyes, a multiplicity of small coiled springs standing side by side and connected at their extremities with said rings, a leather strap surrounding the series of springs and narrower than their length, a packing overlying said strap, a casing passing between said bands and around the other elements, its edges being connected, and rivets connecting the two bands and passing through said casing.

1,076,917. RAIL-JOINT. MOSES MCCORMICK SHAW, Braddock, Pa. Filed Feb. 10, 1913. Serial No. 747,333. (Cl. 239—8.)



1. The described device consisting of a pair of rails, a chair adapted to fit the base of said rails, sliding joint members connecting said rails, said chair adapted to receive the lower ends of said joint members, in recesses formed in said chair.

2. The described device consisting of a pair of rails having tongue and groove connections, sliding joint members connecting said rails, a chair adapted to fit the base of said rails and adapted to slide into position to connect the ends thereof, said chair adapted to receive the lower ends of said joint members.

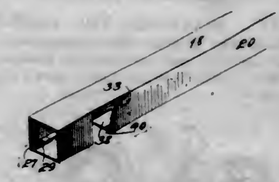
3. The described device consisting of a pair of rails having tongue and groove connections, sliding joint members connecting said rails, a chair adapted to fit the base of said rails and adapted to slide into position to connect the ends thereof, said chair adapted to receive the lower ends of said joint members, recesses formed in said chair to receive said lower ends.

4. The described device consisting of a pair of rails having tongue and groove connections, sliding joint members connecting said rails, a chair adapted to fit the base of said rails and adapted to slide into position to connect the ends thereof, said chair adapted to receive the lower ends of said joint members, recesses formed in said chair to receive said lower ends, said rails having slots with enlarged inner ends, and a single connecting member adapted to fit into said slots.

5. The described device consisting of a pair of rails having tongue and groove connections, sliding joint members connecting said rails, a chair adapted to fit the base of said rails and adapted to slide into position to connect the ends thereof, said chair adapted to receive the lower ends of said joint members, recesses formed in said chair to receive said lower ends, said rails having slots with enlarged inner ends, and a single connecting member adapted to fit into said slots, said member being shorter than the combined length of said slots whereby expansion and contraction of said rails will be accommodated.

[Claim 6 not printed in the Gazette.]

1,076,918. METAL BEDSTEAD. HERMAN SILVER, Brooklyn, N. Y., assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y., a Firm composed of David Frank and William Lies, Brooklyn, N. Y., and John Trounstine, New York, N. Y. Filed Aug. 6, 1913. Serial No. 783,275. (Cl. 5—4.)



1. An upper tubular member, rectangular in cross-section, for head and foot frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner-posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines.

2. An upper tubular member, rectangular in cross-section, for head and foot frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner-posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the ends of the sides of the horizontal portion of said member constituting projections having outer curved edges fitting said curved corners and inner straight edges engaging the upper edges of said end portions.

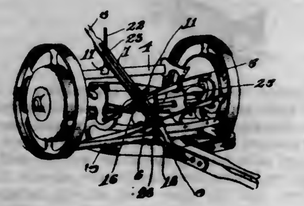
3. An upper tubular member, rectangular in cross-section, for head and foot frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner-posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the ends of the sides of the horizontal portion of said member constituting projections having outer curved edges fitting said curved corners and inner straight horizontal

edges extending entirely across and engaging the upper side and inner edges of said end portions.

4. An upper tubular member, rectangular in cross-section, for head and foot frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner-posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the ends of the sides of the horizontal portion of said member constituting projections having outer curved edges fitting said curved corners and inner straight edges engaging the upper edges of said end portions, and the ends of the lower wall of said horizontal portion having integral therewith lips bent downwardly into said vertical end portions and secured to inner surfaces thereof.

5. An upper tubular member, rectangular in cross-section, for head and foot frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner-posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the ends of the sides of the horizontal portion of said member constituting projections having outer curved edges fitting said curved corners and inner straight edges engaging the upper edges of said end portions, and the ends of the lower wall of said horizontal portion having integral therewith lips bent downwardly into said vertical end portions and secured to inner surfaces thereof and inwardly extending flanges along said straight edges of said projections where said edges engage the upper ends of said vertical end portions.

1,076,919. SHARPENER FOR LAWN-MOWERS. NICHOLAS SPECK, Monroe, Wis., assignor of one-third to Henry Johannet and one-third to James O. Fidler, Monroe, Wis. Filed June 20, 1912. Serial No. 704,872. (Cl. 76—82.)

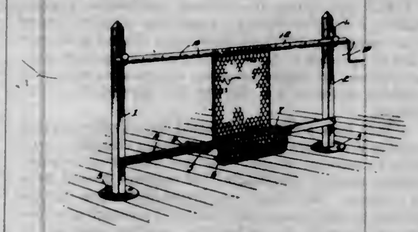


1. In a sharpener for lawn mowers, a body portion having a longitudinally disposed slot, said body portion terminating in handles, guides having threaded shanks adjustable longitudinally of the said body and vertically thereof, and a clamp for a sharpening tool adjustably secured between the walls of the slot.

2. In a sharpener for lawn mowers, a body having a longitudinally disposed slot, guides having threaded shanks extending transversely through the said slot, means for clamping the shanks at different positions of adjustment with relation to the body, a clamp for a sharpening tool comprising a block movable in the slot, said block having a transversely disposed recess forming shoulders, a sharpening tool clamped between the shoulders and the body, and means for operating the clamp for retaining the sharpening tool therein.

3. In a sharpener for lawn mowers, a body, a file supporting member carried by the body portion, a shank carried by the file supporting member, and means coöperating with the shank for adjustably securing the file supporting member in positions of adjustment, and at the same time holding the file into engagement with the body portion.

1,076,920. WINDING-MACHINE. HARRY M. SPRECHER, Ephrata, Pa. Filed Aug. 13, 1912. Serial No. 714,988. (Cl. 242—74.)



1. A winding machine, comprising a supporting frame, a winding shaft embodying a core, a tubular shell surrounding the core and movable transversely thereon, and retractable pins projecting from the core through openings in the shell and serving also as a driving medium by which the rotary movement of the core is imparted to the shell.

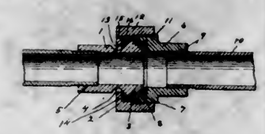
2. A winding machine, comprising a supporting frame, and a winding shaft embodying a tubular shell, a core movable within the shell, and retractable pins projecting from the core through openings in the shell, the core having a movement transversely within the shell to project and retract the pins, such transverse movement being produced by the coöperative engagement of the pins with the shell.

3. A winding machine, comprising a supporting frame, and a winding shaft embodying a tubular shell, a core movable within the shell, and retractable pins projecting from the core through openings in the shell, the core having both a partial rotative and transverse movement within the shell to project and retract the pins, such transverse movement being produced by the coöperative engagement of the pins with the shell.

4. A winding machine, comprising a supporting frame, and a winding shaft embodying a tubular shell, a core movable within the shell, and curved pins projecting from the core through openings in the shell and coöperating at their concaved sides with the shell to effect the projection of the pins beyond the outer surface of the shell.

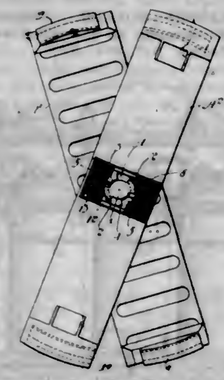
5. A winding machine, comprising a supporting frame, and a winding shaft embodying a tubular shell, a core movable within the shell, and curved pins projecting from the core through openings in the shell and coöperating at their convex sides with the shell to effect the retraction of the pins within the outer surface of the shell.

1,076,921. BALL-AND-SOCKET PIPE-UNION. WAYNE STAFFORD, Blue Ball, Pa. Filed Mar. 29, 1911. Serial No. 617,611. (Cl. 137—88.)



The combination in a pipe-union of the class described, of a socket member formed with an attaching shank, a cup-shaped ring of bearing material attached to the face thereof, a ball member engaging said ring, said ball member having a rounded head, a shank, a grooved neck interposed between the head and shank, and an encircling shoulder formed upon the head and spaced thereon to engage the end of the socket member adjacent the ring, a coupling nut threaded upon the socket member, said nut having an opening formed in one end thereof, the edges of said opening being curved to engage the grooved neck when the shoulder of the head engages the end of the socket member, and a curved packing ring within said coupling nut for engagement with the head, the outer diameter of said packing ring being less than the inner diameter of the coupling nut, whereby said packing ring automatically adjusts itself to different angles of the pipe union, and makes a tight packing at all times.

1,076,922. BRAKE-SHOE. ALFRED L. STREETER, Chicago, Ill. Filed Dec. 19, 1912. Serial No. 737,653. (Cl. 188—25.)



1. As a new article of manufacture, a brake shoe comprising separate back and wearing sections and means for detachably connecting said sections, said means comprising a stud on said wearing section, projections thereon, a hole formed in said back section to receive said stud and the projections thereon, ledges within said hole adapted for engagement by the projections on said stud, and interlocking parts on said back and wearing sections constructed and arranged for engagement and disengagement by turning said back and wearing sections relatively to each other, substantially as described.

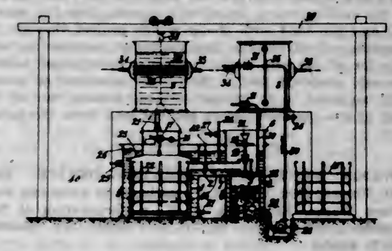
2. As a new article of manufacture, a brake shoe comprising separate back and wearing sections and means for detachably connecting said sections, said means comprising a stud on said wearing section, projections thereon, a hole formed in said back section to receive said stud and the projections thereon, ledges within said hole adapted for engagement by the projections on said stud, and interlocking tongues and grooves on said sections constructed and arranged for engagement and disengagement by turning said sections relatively to each other, substantially as described.

3. As a new article of manufacture, a brake shoe comprising separate back and wearing sections and means for detachably connecting said sections, said means comprising a stud on said wearing section, a head thereon provided with shoulders at its under side, a hole formed in said back section adapted to receive said stud and the head thereon, ledges within said hole adapted for engagement by the shoulders on said head, and interlocking parts at the ends of said back and wearing sections constructed and arranged for engagement and disengagement by turning said back and wearing sections relatively to each other, said head being provided with a key opening which is adapted to register with the key opening of the shoe when said sections are turned into line with each other, substantially as described.

4. As a new article of manufacture, a brake shoe comprising separate back and wearing sections and means for detachably connecting said sections, said means comprising a stud on said wearing sections, projections thereon, a hole formed in said back section adapted to receive said stud and the projections thereon, ledges within said hole adapted for engagement by the projections on said stud, interlocking parts on said back and wearing sections constructed and arranged for engagement and disengagement by turning said back and wearing sections relatively to each other, and stops adapted for defining full engagement of said interlocking parts, substantially as described.

5. As a new article of manufacture, a brake shoe comprising separate back and wearing sections and means for detachably connecting said sections, said means comprising a stud on said wearing sections, projections thereon, a hole formed in said back section adapted to receive said stud and the projections thereon, ledges within said hole adapted for engagement by the projections on said stud, and interlocking tongues and grooves on said back and wearing sections constructed and arranged for engagement and disengagement by turning said back and wearing sections relatively to each other, corresponding ends of said grooves being closed to form stops which define full engagement of said interlocking tongues and grooves with each other, substantially as described.

1,076,923. PROCESS OF DESICCATING. CHARLES TELLIER, Paris, France. Filed June 29, 1911. Serial No. 636,019. (Cl. 99—8.)



1. A process for desiccating fresh meat, vegetables or any other moist organic or inorganic material, which process consists in replacing the air around the material by carbon dioxid and conducting the desiccation in a vacuum as perfect as possible in presence of an absorbent of the carbon dioxid, the vacuum being maintained during the whole of the desiccating operation.

2. A process for desiccating fresh meat, vegetables or the like, which consists in withdrawing the air from contact with the meat, surrounding said meat by an atmosphere of anhydrous gas and withdrawing said gas.

3. A process for desiccating fresh ment, vegetables or the like, which consists in withdrawing the air from contact with the meat, surrounding said meat by an atmosphere of anhydrous gas and withdrawing said gas and absorbing the residual gas by an absorbent of the gas.

4. A process for desiccating fresh meat, vegetables or the like, which consists in withdrawing the air from contact with the meat, replacing said air by an atmosphere of carbon dioxid and withdrawing said carbon dioxid.

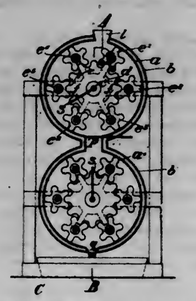
5. A process for desiccating fresh meat, vegetables or the like, which consists in withdrawing the air from contact with the meat, replacing said air by an atmosphere of carbon dioxid and withdrawing said carbon dioxid and absorbing the residual carbon dioxid by an absorbent of the carbon dioxid.

[Claims 6 and 7 not printed in the Gazette.]

1,076,924. APPARATUS FOR MANUFACTURING CHOCOLATE. OTTO THURMANN, Berlin, Germany. Filed Feb. 25, 1913. Serial No. 750,576. (Cl. 83—12.)

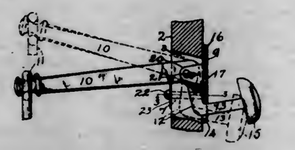
1. In a crushing mill, the combination, with a crushing chamber, of a fluted central driving roll arranged in the said chamber and provided with a driving shaft, fluted rolls provided with shafts and gearing into the central roll, stationary bearings for the end portions of the shafts to revolve in, and scraper knives secured at the ends of the central roll and extending outwardly from its shaft and overlapping the flutes of the rolls and working

in the spaces between the ends of the rolls and the ends of the crushing chamber.



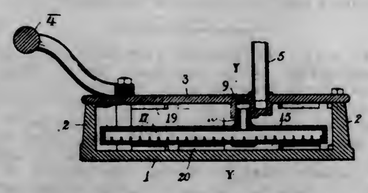
2. In a crushing mill, the combination, with a jacketed crushing chamber provided with stuffing-boxes at its ends which extend through the jacket, of a fluted central driving roll provided with a shaft which projects through two of the stuffing-boxes, fluted rolls gearing into the central roll and provided with shafts which project through the remaining stuffing-boxes, and stationary supporting bearings for all the said shafts to revolve in arranged outside the said chamber, said stuffing-boxes operating to permit fluid material to be ground without leaking out at the ends of the chamber and to prevent leak from the jacket.

1,076,925. FLUSH-TANK-OPERATING DEVICE. BERT O. TILDEN, New York, N. Y., assignor to American Sanitary Works, New York, N. Y., a Corporation of New Jersey. Filed Apr. 16, 1910. Serial No. 555,923. (Cl. 4—5.)



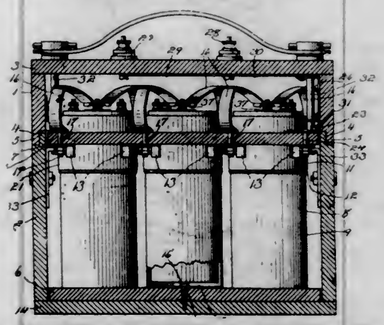
A mounting for a flush-tank operating lever, consisting of an inner plate having struck-up ears to which a lever is fulcrumed and provided with inwardly extending attaching studs located at opposite sides of said ears and fulcrum to balance the mounting and counteract the tendency of the lever to tilt laterally, the outer ends of said studs passing through said plate and being upset against its outer face, and an outer plate covering the heads of said studs and the openings in the inner plate and having its edges turned inwardly around the edge of the inner plate, substantially as described.

1,076,926. LAUNDRY-IRON. DARWIN H. TURNER, Gloucester, Mass., assignor to Eben W. Cole, Somerville, Mass. Filed Sept. 9, 1911. Serial No. 648,580. (Cl. 158—23.1.)



The combination with a laundry iron, a burner therein, and means for supplying air and gas, of a mixing chamber consisting of an elongated chamber having a central longitudinally disposed partition extending part way thereof and terminally spaced from each end of the chamber, said burner being connected with the midlength of one of the two compartments formed by said partition in said chamber, and said supplying means being connected with the midlength of the other of said compartments, whereby the intermixing of the air and gas is thoroughly accomplished.

1,076,927. BATTERY-HOLDER. GEORGE N. WATERBURY, Jr., Washington, D. C. Filed Dec. 7, 1911. Serial No. 664,398. (Cl. 204—52.)



1. A holder for dry cell electric batteries comprising a casing, said casing having a body portion and a removable top, a cage provided with means for receiving dry cell electric batteries, said cage being permanently secured to the body portion of the said casing, means on said cage for effecting electrical connections with said dry cell electric batteries, a pair of electrical spring contacts arranged on said cage and permanently connected thereto, a pair of electrical contact pieces on said top of said casing and permanently attached thereto, said electrical contact-pieces having lateral flanges at their lower ends, to engage and contact with said pair of electrical contacts on said cage when said top is applied to the body portion of the casing, suitable binding posts on said top and electrical connections between the said contact pieces on said top and the said binding posts, the whole arranged in such manner that the said electric dry cells are connected to the said binding posts when the said removable top is in position on the body of the casing and the electrical connection between the said electric dry cells and the said binding posts is broken when the said removable top is removed from the body of the casing.

2. A holder for dry cell electric batteries comprising a casing having a body portion and a removable top, a battery cage arranged in said body portion and permanently connected thereto, means on said cage for effecting electrical connections between the cells therein, a pair of electrical contacts on said cage, a pair of electrical contacts on said removable top, said last mentioned electrical contacts being provided with lateral flanges at their lower ends adapted to engage and contact with the electrical contacts on said cage when the said removable top is in position on the body portion of the casing, substantially as described and for the purposes set forth.

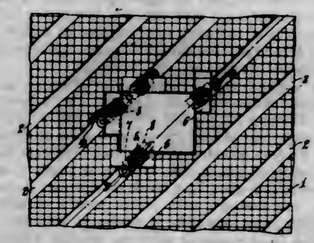
3. A holder for dry cell electric batteries comprising a casing having a body portion and a removable top, a battery cage in said body portion and permanently connected thereto, and means for effecting an electrical connection between the said cage and the said removable top when the said removable top is in position on the body portion of the casing, said electrical connection including contact-members depending from said top and having lateral flanges at their lower ends, said cage body portion being equipped with contact-members adapted to be engaged by said contact-member flanges.

4. A battery holder comprising a cage to receive electric dry cells, means for effecting an electrical connection between the zinc pole of one cell and the zinc pole of an adjacent cell, said means comprising an electrical spring contact for each cell mounted on the said cage, each electrical spring contact being provided with a longitudinal slot near the free end thereof, a longitudinal notch adjacent said longitudinal slot near the free end thereof, said contact being provided with a vertically disposed notch in the free end thereof, said longitudinal slot, longitudinal notch and vertically disposed notch being adapted to engage the zinc pole of electric dry cells of various forms and designs, substantially as described and for the purposes set forth.

5. A battery holder comprising a battery cage to receive electric dry cells, means for effecting an electrical connection between the zinc pole of one cell and the zinc pole of an adjacent cell, said means comprising an electrical arcuate spring contact mounted on said cage for each cell therein for engagement with the positive pole of each cell, each of said electrical spring contacts being provided upon its convex surface with serrations to effect an electrical contact with the positive pole of an electric dry cell.

[Claims 6 to 10 not printed in the Gazette.]

1,076,928. PLATE-HOLDING DEVICE. FOLKE W. WESTON, New York, N. Y., assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 31, 1911. Serial No. 618,050. (Cl. 101—169.)



1. In devices of the class described the combination of a base having a longitudinally extending slotted portion provided with overhanging portions adapted to be engaged by an operating and holding means in the slotted portion, operating and holding means and a plate clamping member having ear portions entering the slot whose width is not greater than the transverse dimension between the adjacent surfaces of the overhanging portions whereby when disengaged from the holding means the clamping member can be removed from the base by a transverse movement relative thereto, the holding means comprising a member that simultaneously engages under sides of the overhanging portions at opposite sides of the slotted portion.

2. In a device of the class described the combination of a base having a longitudinally extending slotted portion provided with overhanging portions having parts of screw threaded teeth thereupon, a screw threaded operating member adapted to mesh with the toothed portion, the slotted portion being so shaped and of sufficient area in cross section as to permit transverse movement of the member to cause disengagement of the teeth and member and as to permit free longitudinal movement of the member past the teeth when the teeth and screw threads are disengaged, and a plate clamping means provided with ears of such width that it can be inserted in place on the base by a transverse movement, the screw member when held in operative position relative to the hook being in engagement with the teeth of the overhanging portions at opposite sides of the slot.

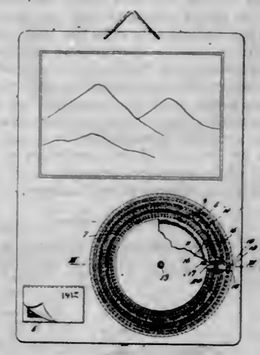
3. A device of the class described having a base provided with a longitudinally extending slotted portion to receive a screw operating means and provided with teeth, screw operating means, a plate engaging or clamping member provided with ears or lugs of such construction that they can be assembled with the base by a movement transverse to the slotted portion and a pin, the slotted portion and screw means being so proportioned that the latter can move transversely from operating position to a position where it can be slid along the slot without engagement of the screw threads with teeth on the slotted portion, the screw member having a central hole therein and the ears having holes through which the pin can pass to hold the screw in operative position, the pin and the screw member having tapered or beveled portion or portions so that when the plate engaging member is in proper position relative to the screw the latter will be drawn into operative position by passing the pin longitudinally through the holes in the lug.

4. The combination of a base provided with teeth and having a longitudinally extending slotted portion, a plate engaging member having lugs entering the slotted portion, a screw operating member constructed so as to mesh with the teeth, and a slidable pin carried in the lugs and prevented from being removed entirely therefrom by stop means, said pin arranged to hold the screw means in operative position relative to the lugs.

5. In a device of the class described the combination of a slotted base, a screw member and a plate engaging member having ears entering a slot in the base the slotted base portions having teeth with which the screw member engages, the ears constructed so that they can hold therebetween a screw member, the width of the ears being such that the plate engaging member can be removed from the base by a transverse movement relative thereto.

[Claims 6 to 8 not printed in the Gazette.]

1,076,929. COMPUTING DEVICE. JOHN WILLIAMSON, New York, N. Y., assignor of one-half to Nellie J. Mokéler, Brooklyn, N. Y. Filed Apr. 16, 1912. Serial No. 691,087. (Cl. 235—88.)



1. In a device of the character described, a plurality of stationary disks having radially arranged divisions and characters thereon increasing from zero to ninety-nine, a plurality of movable disks each movable independently of the other and each provided with divisions coincident with the divisions of the other disks and each provided with an aperture for each division by which each disk may be moved, said movable disks being provided with characters increasing in succession with the divisions, the said disks being of different diameters and the characters of the movable disks being covered by the other disks except at one point, an indicator formed by integral tongues projecting from the stationary disks, and means for fastening the stationary disks together.

2. In a device of the character described, a plurality of stationary disks having radially arranged divisions and characters thereon increasing from zero to ninety-nine, and

a plurality of movable disks each movable independently of the other and each provided with divisions coincident with the divisions of the other disks and each provided with an aperture for each division by which each disk may be moved, said movable disks being provided with characters increasing in succession with the divisions, the said disks being of gradually increasing diameters from the top to the bottom disk and the characters of the movable disks being covered by the stationary disks arranged respectively just above them except at one point.

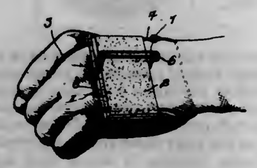
3. In a device of the character described, a plurality of stationary disks having radially arranged divisions and characters thereon, a plurality of movable disks arranged alternately of the stationary disks and each movable independently of the other and each provided with divisions coincident with the divisions of the other disks and each provided with an aperture for each division by which each disk may be moved, said movable disks being provided with characters in the divisions, the said disks being of gradually increasing diameters from the top to the bottom disk and the characters of the movable disks being covered by the stationary disks arranged respectively just above them except at one point, and an indicator formed by integral tongues projecting from the stationary disks.

4. A device of the character described, comprising supporting means, a plurality of rotatable disks superimposed on the supporting means and gradually decreasing in diameter, the disks having divisions and corresponding lines of characters thereon and certain of the disks provided with apertures at the lines of division for rotating the same, partition disks interposed between a part of the rotatable disks, a retaining disk applied over all of the disks, the partition and retaining disks having tongues extending therefrom and all secured at their ends to the supporting means, and fastening means extending centrally through the supporting means, rotatable disks, partition disks and retaining disk.

5. A device of the character described comprising supporting means, a plurality of concentric rotatable disks of different diameters, the peripheral portion of each lower disk projecting beyond the next upper one and provided with a series of radial divisions and corresponding lines of characters spaced inwardly from the edge, each of said rotatable disks also having apertures at the lines of division and arranged between the lines of characters and the edge, and stationary disks interposed between the rotatable disks and superposed upon the upper one of said latter disks, said stationary disks being also of different diameters, the one arranged immediately over each rotatable disk covering all but one of the characters on the same but leaving all of the apertures exposed.

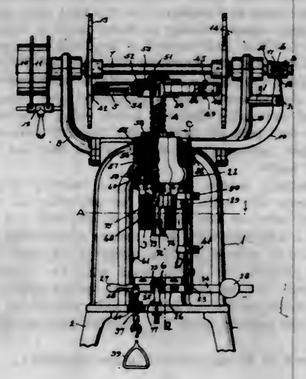
[Claims 6 to 8 not printed in the Gazette.]

1,076,930. STAMP-MOISTENER. RICHARD H. WILMER, Shandon, Ohio. Filed Sept. 11, 1912. Serial No. 719,844. (Cl. 120—75.)



A stamp moistener comprising a base plate, a pad applied thereto, a shaft mounted to oscillate between said pad and base plate and extending transversely thereof, the ends of said shaft being bent upwardly to project above the upper face of the pad, flexible connecting means between the upwardly bent ends of said shaft, and a lever arm formed from a continuation of one of the upwardly bent arms of said shaft, whereby said shaft may be rocked and the flexible connecting means raised and lowered.

1,076,931. POWER-PRESS. EDMUND W. ZEH, Newark, N. J. Filed May 29, 1912. Serial No. 700,427. (Cl. 78—35.)



1. In a press, the combination of a frame, a screw mounted in said frame, a head on one end of said screw adapted to slide in said frame, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a pivoted lever adapted to slide said shaft, a controlling lever fulcrumed upon said frame, a connecting rod between said levers, and means always tending to return said controlling lever into position to engage the elevating drive disk with the friction wheel.

2. In a press, the combination of a frame providing a slideway, a screw mounted in said frame, a head arranged in said slideway on one end of said screw, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a pivoted lever adapted to slide said shaft, a controlling lever fulcrumed upon said frame at the base thereof, a connecting rod between said levers, and a weight on said controlling lever adapted to normally hold the elevating drive disk in engagement with the friction wheel.

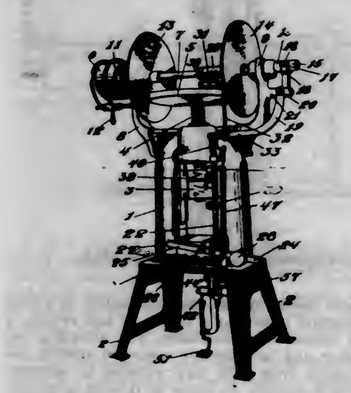
3. In a press, the combination of a frame providing a slideway, a screw mounted in said frame, a head in said slideway on one end of said screw, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a pivoted lever adapted to slide said shaft, a controlling lever fulcrumed upon said frame at the base thereof, a slidable connecting rod between said levers adjacent said sliding head, a weight on said controlling lever adapted to normally hold the elevating drive disk in engagement with the friction wheel, a dog on said connecting rod, and a stop on the sliding head adapted to engage said dog at the upper end of the stroke of said head.

4. In a press, the combination of a frame providing a slideway, a screw mounted in said frame, a head arranged in said slideway on one end of said screw, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a pivoted lever adapted to slide said shaft, a controlling lever fulcrumed upon said frame at the base thereof, a slidable connecting rod between said levers adjacent the sliding head, means for normally holding said controlling lever in position to engage the elevating drive disk with the friction wheel, means for automatically disengaging said elevating drive disk to terminate the upstroke, means for releasably holding the controlling lever in position to engage the lowering drive disk with the friction wheel, a dog on said connecting rod, and a stop on the sliding head adapted to engage said dog at the lower end of the stroke of said head.

5. In a press, the combination with a frame providing a slideway, a screw mounted in said frame, a head arranged in said slideway on one end of said screw, a friction wheel on the other end of said screw, drive disks at opposite edges of said friction wheel, a slidable shaft for said drive disks, a pivoted lever adapted to slide said shaft, a controlling lever fulcrumed upon said frame, a slidable connecting rod between said levers adjacent the sliding head, means for normally holding said controlling lever in position to engage the elevating drive disk with the friction wheel, an upper dog on the connecting rod, means for releasably holding the controlling lever in position to engage the lowering drive disk with the friction wheel, a lower dog on the connecting rod, and a stop on the sliding head adapted to engage said dogs at the upper and lower ends of the stroke, respectively.

[Claims 6 to 18 not printed in the Gazette.]

1,076,932. POWER-PRESS. EDMUND W. ZEH, Newark, N. J. Filed June 1, 1912. Serial No. 700,908. (Cl. 78—35.)



1. In a press, a frame, a screw mounted in said frame, a friction wheel fast on said screw and moving therewith, drive disks adapted to engage the edge of said friction wheel, and a brake located in the path of movement of the friction wheel and adapted to engage said friction wheel upon upward movement thereof.

2. In a press, a frame, a screw mounted in said frame, a friction wheel fast on said screw and moving therewith, drive disks adapted to engage the edge of said friction wheel, and a yielding brake located in the path of movement of the friction wheel and adapted to engage said friction wheel upon upward movement of the wheel.

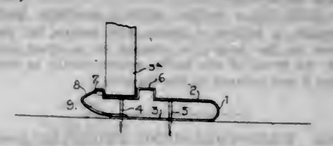
3. In a press, a frame, a screw mounted in said frame, a friction wheel fast on said screw and moving therewith, drive disks adapted to engage the edge of said friction wheel, a brake adapted to engage said friction wheel upon upward movement thereof, and means connected to said brake for stopping the press.

4. In a press, a frame, a screw mounted in said frame, a friction wheel fast on said screw and movable therewith, drive disks adapted to engage the edge of said friction wheel, and a swinging brake projecting into the path of movement of the friction wheel and adapted to engage said friction wheel upon upward movement thereof.

5. In a press, a frame, a screw mounted in said frame, a friction wheel fast on said screw and movable therewith, drive disks adapted to engage the edge of said friction wheel, a swinging brake projecting into the path of movement of the friction wheel and adapted to engage said friction wheel upon upward movement thereof, and means connected to said swinging brake for stopping the press when the brake is swung.

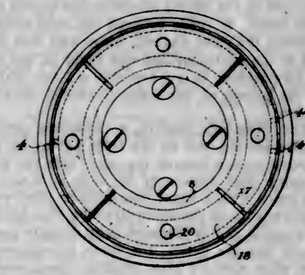
[Claims 6 to 23 not printed in the Gazette.]

1,076,933. DOOR-CHECK. WILLIAM ZINDEL, Bigelow, Ark. Filed June 16, 1913. Serial No. 774,025. (Cl. 16—79.)



An article of manufacture comprising a door check formed of a single strip of metal bent to form a loop provided with spaced off set portions on its upper face having vertical and horizontal faces, said off set portions being positioned adjacent the forward end of said loop, the forward end of the loop being beveled downwardly from the horizontal face of the forward off set portion, said forward end being bent inwardly from the downwardly beveled portion and terminating in an inwardly slotted extremity slidable longitudinally upon the lower end of the loop, securing and guiding means extending through the upper portion of the loop between the off set portions thereof, through the slot in the forward end of the loop and through the opposite end of the loop to guide the free end of said loop, and additional securing means positioned through the upper and lower portions of said loop.

1,076,984. KNIFE FOR LEATHER-SKIVING MACHINES. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 16, 1909. Serial No. 522,905. (Cl. 69—9.)



1. A knife for skiving machines, having, in combination, a cylindrical blade, a cylindrical holder within which the blade fits, an interior supporting ring fitting within the blade, a head upon which the holder and ring are rotatably mounted, an adjusting ring engaging a screw-thread on the head, and devices for securing the holder, rings and head against relative rotation, substantially as described.

2. A knife for skiving machines, having, in combination, a cylindrical blade, a cylindrical holder within which the blade fits, an interior supporting ring slotted to form expansible sectors, means for effecting axial adjustment of the blade relatively to both holder and ring, and devices for springing the sectors outward to clamp the blade against the interior of the holder, substantially as described.

3. A knife for skiving machines, having, in combination, a cylindrical blade, a cylindrical holder within which the blade fits, means for adjusting the blade and an interior clamping ring fitting within the blade and formed with sectors arranged to be forced outwardly to clamp the blade against the holder, substantially as described.

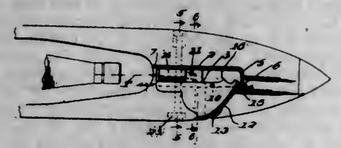
4. A knife for skiving machines, having, in combination, a cylindrical blade, a cylindrical holder within which the blade fits, a clamping ring fitting within the blade and slotted to form sectors, a blade adjusting ring within the holder back of the clamping ring, bolts connecting the holder and clamping ring and passing through the adjusting ring, a head on which the holder and clamping ring

are rotatably mounted, provided with a screw-thread engaged by a screw-thread within the adjusting ring, substantially as described.

5. A knife for a leather skiving machine, having, in combination, a holder, a blade, and means for clamping the blade to the holder so shaped as to eject the chips through the front of the knife, substantially as described.

[Claim 6 not printed in the Gazette.]

1,076,935. HAND-THREADING SHUTTLE. ROBERT N. ALLEN, Methuen, Mass., assignor to U. S. Bobbin & Shuttle Co., Providence, R. I., a Corporation of New Jersey. Filed June 19, 1912. Serial No. 704,485. (Cl. 139—46.)



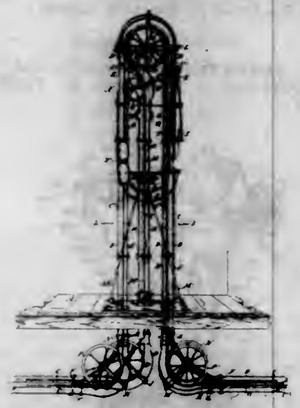
1. In a hand threading shuttle, a threading device of U-shape in cross-section, one of the sides having its outer end bent at right angles toward the other side, the second named side being bent outwardly to form a flange, said flange being formed with a finger that projects downwardly, and extends outwardly in the same direction that the right angular end extends and is disposed substantially parallel with said right angular flange, the space throughout the lengths of the sides and the right angular flange and the finger being completely open, whereby the thread can be introduced in the device by direct downward movement so as to enter the space between the said sides and the space between the right angular flange and said finger, the outer end of the second named side being curved downwardly and terminating in an eye and a hook which is spaced from the bottom of the device to permit the thread to enter the eye.

2. In a hand threading shuttle, a threading device of U-shape in cross-section, one of the sides having its outer end bent at right angles toward the other side the second named side being bent outwardly to form a flange, said flange being formed with a finger that projects downwardly and extends outwardly in the same direction that the right angular end extends and is disposed substantially parallel with said right angular flange, the space throughout the length of the sides and the right angular flange and the finger being completely open, whereby the thread can be introduced in the device by direct downward movement so as to enter the space between the said sides and the space between the right angular flange and the said finger, and thread engaging means at the lower portion of the second named side.

1,076,936. CABLE-CARRIER APPARATUS. GEORGE A. AMSDEN, Littleton, Mass., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 2, 1908. Serial No. 465,753. (Cl. 186—14.)

1. In a cable carrier apparatus, the combination of a floor, a way extending beneath the floor comprising outgoing and ingoing tracks, a carrier to travel on the way, an endless motor cable to propel the carrier along the way, a rise loop formed in the way extending at right angles from the same upward through the floor comprising closely associated narrow elongated U-shaped track-sections, a standard mounted on the floor extending toward the upper end of the rise loop, a bracket on the upper end of the standard supporting the upper end of the rise loop, means in the track-section of the outgoing member of the rise loop to deliver the carrier from the way, and means in the track-section of the ingoing member of the rise loop to admit the carrier to the way.

2. In cable carrier apparatus, the combination of a floor, a way extending beneath the floor comprising outgoing and ingoing tracks, a carrier to travel on the way, an endless motor cable to propel the carrier along the way, a rise loop formed in the way extending at right angles from the same upward through the floor comprising closely associated narrow elongated U-shaped track-sections with one of the arms of the ingoing track-section offset to a position between the arms of the outgoing track-section, a standard mounted on the floor and extending toward the upper end of the rise loop, a bracket on the upper end of the standard supporting the upper end of the rise loop, means in the track-section of the outgoing member of the rise loop to deliver the carrier from the way, and means in the offset arm in the track-section of the ingoing member of the rise loop to admit the carrier to the way.

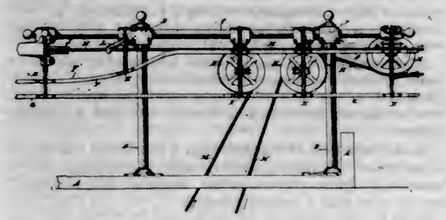


3. In a cable carrier system, the combination of a floor having an aperture therein at a station in said system, a substantially horizontal transmission way extending beneath said floor and substantially concealed thereby, an upward extension from said way adapted to guidedly direct a carrier traversing the latter up through said aperture to said station, continuously driven means for propelling said carrier along said horizontal way and up through said aperture, a part at least of said continuously driven means running through said aperture in operative relationship to said upward extension, and selective means for insuring the delivery to and stoppage of predetermined carriers only at said station, said last mentioned means including guides adapted to retain a plurality of successive carriers delivered to said station, in sequential order, said carriers being visible from the space above said floor only when substantially at the stations and being protected by said floor while in transit between stations.

4. In a cable carrier system, the combination of combined protective, concealing and supporting floor having an aperture, a station above said floor and a substantially horizontal transmission way extending beneath said floor and substantially concealed thereby, means for supporting said way from said floor, an upturned extension from said way adapted to guidedly direct a carrier traversing the latter up through said aperture to said station, continuously driven means for propelling said carrier along said horizontal way and up through said aperture in operative relationship to said upward extension, and selective means for insuring the delivery to and stoppage of predetermined carriers only at said station, said last mentioned means including guides adapted to retain a plurality of successive carriers delivered to said station in sequential order, said guides conveying the carriers delivered thereto downwardly after said carriers have upwardly traversed said extension.

5. In a cable carrier system, the combination of a combined protective, concealing and supporting floor having an aperture, a station above said floor and a substantially horizontal transmission way extending beneath said floor and substantially concealed thereby, means for supporting said way from said floor, an upturned extension from said way adapted to guidedly direct a carrier traversing the latter up through said aperture to said station, continuously driven means for propelling said carrier along said horizontal way and up through said aperture in operative relationship to said upward extension, and selective means for insuring the delivery to and stoppage of predetermined carriers only at said station, said last mentioned means including guides adapted to retain a plurality of successive carriers delivered to said station in sequential order, said guides conveying the carriers delivered thereto downwardly after said carriers have upwardly traversed said extension and being looped upwardly at the lower portions thereof to check the movement of carriers.

1,076,937. CABLE-CARRIER APPARATUS. GEORGE A. AMSDEN, Littleton, Mass., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Dec. 7, 1908. Serial No. 466,278. (Cl. 186—14.)



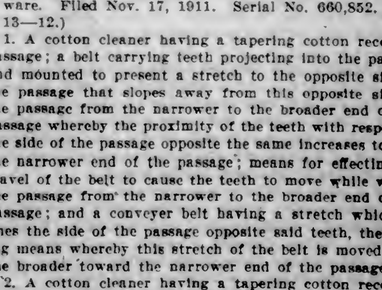
1. In a cable-carrier apparatus, a track, a carrier-propelling cable traveling with said track, guide pulleys to hold the cable to the track, and off-set pulleys between said guide-pulleys to divert the cable laterally with respect to the track and to form a bight therein leading away from the line of the track, said cable being driven from said bight.

2. In cable-carrier apparatus, forwarding and return tracks, a carrier adapted for inseparable engagement with said tracks when traversing the same, pulleys at the ends of said tracks, a cable for propelling carriers along said tracks, said cable being continuous and being looped back upon itself around said pulleys, said cable further having portions thereof angularly disposed with respect to adjacent parts of the line of travel of said cable to form a bight in the cable intermediate said pulleys, said cable being continuously driven from said bight, a plurality of revoluble devices disposed one upon each side of said bight and aiding in maintaining the same, said devices adapted further to off-set said cable to space the bight laterally with respect to one of said tracks, means coacting with the cable to free a carrier from said cable as the carrier approaches said devices, the track upon which the so freed carrier rides having provisions for permitting the separation of said carrier therefrom.

1,076,938. CORN-PLANTER. LARS A. ANFINSON, Clermont, Iowa. Filed June 3, 1912. Serial No. 701,346. (Cl. 111—6.)

1. A planter including a wheel supported main frame, a spring supported supplemental frame extending transversely thereof, seed boxes carried by the supplemental frame, a furrow opener connected to the supplemental frame and below each seed box, covering devices movable with the furrow opener, means for directing seeds from the boxes and into the furrow, and means under the control of the operator for shifting the supplemental frame downwardly against the supporting spring and relative to the main frame.

2. A planter including a wheel supported main frame, guide stems upstanding therefrom a supplemental frame mounted for vertical adjustment upon the stems, springs upon the stems and above and below the supplemental frame for yieldingly holding said supplemental frame relative to the main frame, seed holding and dropping mechanism carried by the supplemental frame, and separate means under the control of the operator for simultaneously or separately lowering the end portions of the supplemental frame relative to the main frame.



3. A planter including a wheel supported main frame, upstanding guide devices thereon, a supplemental frame mounted for sliding movement on the guide devices, a pivotal connection between said supplemental frame and the main frame, yielding means for supporting the supplemental frame above the main frame, and separate means under the control of the operator for depressing either or both sides of the supplemental frame relative to the main frame.

4. A planter including a wheel supported main frame, upstanding guide devices thereon, a supplemental frame mounted for sliding movement on the guide devices, a pivotal connection between said supplemental frame and the main frame, yielding means for supporting the supplemental frame above the main frame, separate means under the control of the operator for depressing either or both sides of the supplemental frame relative to the main frame, seed boxes mounted on the supplemental frame, and furrow opening means thereunder and carried by said supplemental frame.

5. A planter including a wheel supported main frame, upstanding guides thereon, cross heads slidably mounted on the guides, yielding means for supporting the cross heads above the frame, a supplemental frame slidably mounted within the cross heads and extending transversely of the main frame, seed dropping and covering means carried by the supplemental frame, braces pivotally connected to the main frame and the supplemental frame, and separate means on the main frame and under the control of the operator for depressing either or both of the ends of the supplemental frame relative to the main frame.

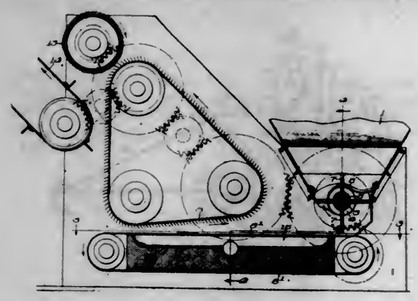
[Claims 6 and 7 not printed in the Gazette.]

1,076,939. COTTON-CLEANER. JOHN F. APPLEBY, Davenport, Iowa, assignor to Western Implement & Motor Company, Davenport, Iowa, a Corporation of Delaware. Filed Nov. 17, 1911. Serial No. 660,852. (Cl. 13—12.)

1. A cotton cleaner having a tapering cotton receiving passage; a belt carrying teeth projecting into the passage and mounted to present a stretch to the opposite side of the passage that slopes away from this opposite side of the passage from the narrower to the broader end of the passage whereby the proximity of the teeth with respect to the side of the passage opposite the same increases toward the narrower end of the passage; means for effecting the travel of the belt to cause the teeth to move while within the passage from the narrower to the broader end of the passage; and a conveyer belt having a stretch which defines the side of the passage opposite said teeth, there being means whereby this stretch of the belt is moved from the broader toward the narrower end of the passage.

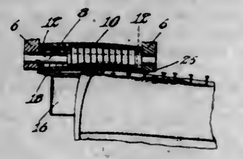
2. A cotton cleaner having a tapering cotton receiving passage provided with teeth projecting into the passage;

means for effecting the travel of said teeth while projecting in said passage from the narrower end toward the broader end of said passage, the teeth having a mounting serving to cause the proximity of the teeth with respect to the opposite side of the passage to increase toward the



narrower end of said passage; and a conveyer belt having a stretch which defines the side of the passage opposite said teeth, there being means whereby this stretch of the belt is moved from the broader toward the narrower end of the passage.

1,076,940. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 11, 1911. Serial No. 648,635. (Cl. 12—51.)



1. In a machine of the class described, a rotary beater comprising a carrier and a plurality of beating members consisting of spiral coils arranged about the periphery of the carrier and mounted to permit them to move radially with relation to the axis of the carrier.

2. In a machine of the class described, a rotary beater comprising a carrier and a plurality of beating members supported thereon, each of the said members consisting of a spiral coil connected at its ends to said carrier and the convolutions of which coil constitute resiliently connected beating elements.

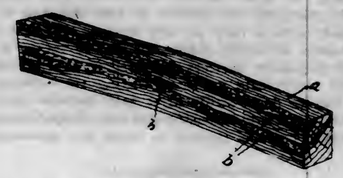
3. In a machine of the class described, a beater comprising a carrier and a plurality of beating members arranged about the periphery of the carrier, each of said members extending transversely of said periphery and consisting of a series of resiliently supported beating elements.

4. In a machine of the class described, a beater comprising a rotary carrier and a plurality of beating members connected at their ends to said carrier and arranged to be free to move between their ends radially with relation to the axis of the carrier, each of said beating members consisting of a spiral coil the convolutions of which constitute resiliently connected beating elements.

5. In a machine of the class described, a rotary beater comprising a carrier having arranged about its periphery a plurality of beating members each comprising a series of resilient beating elements extending lengthwise of the carrier, the adjacent faces of the beating elements being inclined to the direction of rotation of the carrier.

[Claims 6 to 23 not printed in the Gazette.]

1,076,941. SELF-LUBRICATING WOOD BEARING AND SURFACE. LEIGH S. BACHE, Boundbrook, N. J., assignor to Graphite Lubricating Company, Boundbrook, N. J., a Corporation of New Jersey. Filed July 6, 1911. Serial No. 637,206. (Cl. 64—19.)



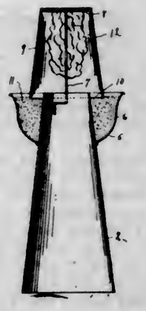
1. As an article of manufacture, a lubricated bearing of wood or the like impregnated through and through with a saturated hydro-carbon, wax, oxidized hydro-carbon and a coloring matter.

2. As an article of manufacture a lubricated bearing of wood or fiber impregnated through and through by subjecting to a hot bath containing saturated hydro-carbon, wax, oxidizing hydro-carbon and a coloring matter.

3. As an article of manufacture a lubricated bearing of wood or fiber impregnated through and through by subjecting to a hot bath containing saturated hydro-carbon, wax, oxidizing hydro-carbon, stearic acid and a coloring matter.

4. As an article of manufacture, a lubricated bearing of wood or the like impregnated through and through with a saturated hydro-carbon, wax, oxidized hydro-carbon, stearic acid and a coloring matter.

1,076,942. VAPOR-ABSORBER, SMOKE AND SOOT PREVENTER, AND HEAT-RETAINER. GEORGE H. BACKMIRE, Philadelphia, Pa. Filed Feb. 26, 1912. Serial No. 680,047. (Cl. 126—303.)

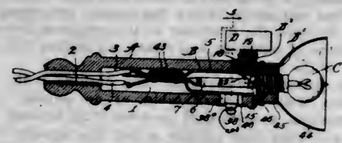


1. In a device of the character described, an extension flue, means carried by said extension flue for holding a filtering material, a cap member over-lying the extension flue, the side walls thereof being spaced from the side walls of the extension flue to form a passageway to the filtering material, a bracket secured to the extension flue and projecting upwardly therefrom for supporting the cap member, and an absorbent material carried by said bracket and inclosed by the cap member.

2. In a device of the character described, an extension flue open at both ends, the lower end adapted to fit over the flange of a stove flue, a flange secured to said extension flue in proximity to its upper end, said flange projecting upwardly and diverging from the side walls of the upper end of the extension flue producing a sand chamber adapted to hold a filtering material, a support carried by the upper end of the extension flue projecting therefrom adapted to hold an absorbent material and a cap member closed at its upper end, the lower end being of greater diameter than the upper end of the extension flue, said

lower end of the extension flue member over-lapping the upper end of the extension flue thereby forming a passage way from the extension flue to the filtering material.

1,076,943. LIGHTING AND IGNITION DEVICE. JOHN BERG, Chicago, Ill., assignor to Metal Specialties Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 18, 1912. Serial No. 720,963. (Cl. 240—54.)



1. In a device of the character set forth, the combination with a hollow handle-piece of a lamp-socket at one end thereof, a lateral socket disposed near the lamp-socket, a mounting for said sockets within the handle, circuit-closers corresponding with the two sockets and laterally projecting actuating devices for said closers.

2. In a device of the character set forth, the combination of a hollow handle-piece, a lamp-socket disposed axially thereof at one end of the handle, a lateral socket, a mounting in the handle carrying said sockets and affording a conductor, central terminals insulatingly mounted within the sockets and provided within the handle with contact members, spring contact members insulatingly carried by said mounting, and laterally projecting actuating buttons for said contact members.

3. In a device of the character set forth, the combination with a hollow handle-piece of a lamp-socket at one end thereof, a lateral socket disposed near the lamp-socket, a mounting for said sockets within the handle, circuit-closers corresponding with the two sockets, a laterally projecting push-button adapted to close the circuit corresponding with the socket, a laterally projecting push-button adapted to actuate the circuit-closer corresponding with the lamp-socket, and means for securing said last-named push-button in the circuit-closing position.

4. In a device of the character set forth, the combination of a hollow handle, a bar therein constituting a mounting and equipped at one end with a lamp-socket disposed axially of the handle and equipped laterally with a socket projecting laterally through the handle, central terminals insulatingly mounted in said sockets and equipped within the handle with contact members, circuit-closers insulatingly carried by said mounting, and push-buttons projecting laterally through the handle and adapted to press either one of said circuit-closers to the circuit-closing position.

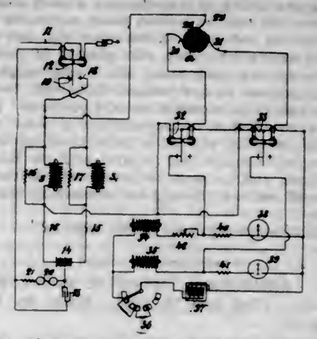
5. A device of the character described comprising a hollow handle, a metallic bar therein constituting a mounting, a lamp-socket carried by one end of said bar and disposed axially of the handle at one end thereof, a laterally extending socket carried by said bar, central terminals insulatingly mounted in said sockets and equipped within the handle with contact members, spring arms insulatingly mounted on said bar and serving as circuit-closers, and laterally projecting push-buttons adapted to move the circuit-closers to the circuit-closing position.

[Claims 6 to 11 not printed in the Gazette.]

1,076,944. TELEGRAPHIC PERFORATING-RECEIVER. HARALD BILLE, Copenhagen, Denmark. Filed Nov. 3, 1911. Serial No. 658,319. (Cl. 178—52.)

1. A telegraphic receiving apparatus comprising a tape perforator, and a constantly rotating motor and signal controlled devices acting together to actuate the tape perforator, and means whereby the signal currents will control the speed of the motor substantially as described.

2. In a telegraphic receiving apparatus, the combination of a tape perforator, a constantly rotating motor, a signal-controlled means for throwing the tape perforator into and out of operative mechanical connection with the motor, and means whereby the signal currents will cause the motor to run in synchronism with the transmitter.

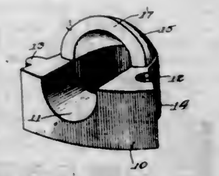


3. In a telegraphic receiving apparatus, the combination of an electric motor, a continuously rotating cam disk, a plurality of punches actuated by said disk, electromagnets operated by signal currents and adapted to select the punches for actuation and a paper strip-feed operated step by step by said motor, substantially as described.

4. In a telegraphic receiving apparatus, the combination of an electric motor, a continuously rotating cam disk, a plurality of punches actuated by said disk, electromagnets operated by signal currents and adapted to select the punches for actuation, a paper strip feed operated step by step by said motor, and means whereby the signal currents will automatically control the speed of the motor.

5. In a telegraphic receiving apparatus, a motor in combination with a synchronizing mechanism therefor comprising a switch driven by the motor, means for directing the signal currents through the switch, two relays into one or the other of which the signal currents may be directed by said switch, local circuits controlled by the respective relays for increasing and decreasing respectively the speed of the motor and means whereby during the normal speed of the motor said relays will not be actuated, substantially as described.

1,076,945. CATCH-BASIN. EDWARD C. BROWN, Chicago, Ill. Filed Jan. 15, 1913. Serial No. 742,089. (Cl. 182—10.)



1. A catch basin having an outlet, a substantially vertical wall of arcuate form having its ends secured to the wall of the catch basin, the lower edge of said wall lying in a plane beneath said outlet, and a top portion of arch shape seated on the upper edge of said wall and having an interlocking connection therewith, said arch portion having its rear side shaped to engage the wall of the catch basin at the upper side of said outlet.

2. As a new article of manufacture, a solid block adapted to be built in the wall of a catch basin and a trap comprising a portion formed integral with said block, and another portion removably mounted on the first-mentioned portion.

3. As a new article of manufacture, a block adapted to be built into the wall of a catch basin and having a recess adapted to receive an outlet pipe for the catch basin, an arcuate wall built integral with the inner side of said

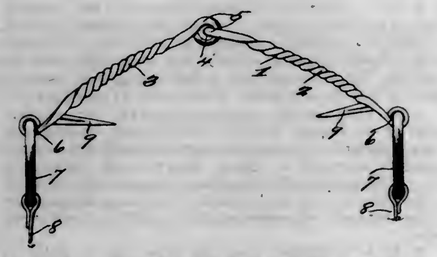
block, the lower edge of the wall lying in a plane beneath said recess, and a removable section seated on the upper part of said wall.

4. As a new article of manufacture, a block adapted to be built into the wall of a catch basin, said block having a groove in one end, a rib on the other end, and a semi-circular recess in its upper side adapted to receive an outlet pipe for the catch basin, and a trap comprising a stationary portion formed integral with said block and a portion removably mounted on said stationary portion.

5. As a new article of manufacture, a block adapted to be built into the wall of a catch basin, an approximately vertical arcuate wall integral with the inner side of said block, and an arch portion seated on the upper edge of said wall and having an interlocking connection therewith.

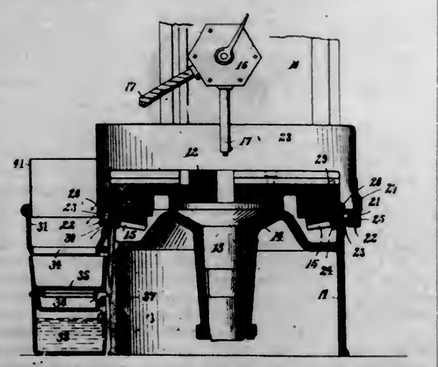
[Claims 6 to 8 not printed in the Gazette.]

1,076,946. BRIDLE-BIT. HENRY W. BROWN, Birmingham, Ala. Filed Jan. 15, 1913. Serial No. 742,118. (Cl. 54—7.)



A bridle bit comprising two sections, each section terminating in eyes at its ends, the adjacent eyes of said sections being linked together, while the eyes of the outer ends of said sections are connected to rein rings, each section having a spur adjacent its outer end, disposed at an acute angle to the section in plan view and extending partially rearwardly and directed downwardly and inwardly to grip the jaw of a horse below the teeth.

1,076,947. CUTTING-LUBRICANT ATTACHMENT FOR MACHINE-TOOLS. EDWARD P. BULLARD, Jr., Bridgeport, Conn. Filed Feb. 12, 1912. Serial No. 677,246. (Cl. 77—63.)



1. In a cutting lubricant attachment for machine tools, the combination with a rotary work carrying table, of a reservoir, a pump and pipe connections for circulating the lubricant from the reservoir to the table, and an annular drain surrounding the table to catch the lubricant and direct it back into the reservoir.

2. In a lubricant attatchment for machine tools, the combination with a rotary work carrying table, of a reservoir, a pump and pipe connections for circulating the lubricant from the reservoir to the table, a manifold chamber within the pipe connections, and an annular drain surrounding the table to catch the lubricant and direct it back into the reservoir.

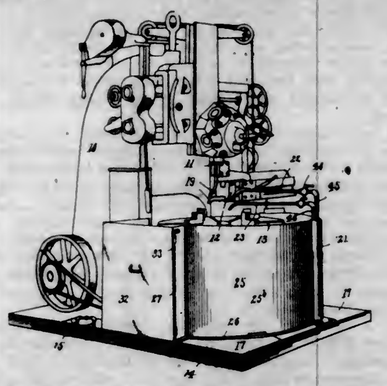
3. In a lubricant attachment for machine tools, the combination with a rotary table, of an annular ring secured thereto, a stationary grooved ring beneath the said annular ring and against which the annular ring operates, a trough to catch the lubricant as it flows from the said annular rings, a reservoir, and means for feeding the said lubricant to the table.

4. In a lubricant attachment for machine tools, the combination with a rotary table, of an annular ring secured thereto, a stationary grooved ring beneath the said annular ring and against which the annular ring operates, a trough to catch the said lubricant as it flows from the said annular rings, a reservoir and means for feeding the lubricant to the said table, and a shield extending upward from the rings and trough to deflect the lubricant and chips into the trough.

5. In a lubricant attachment for machine tools, the combination with a rotary table, of an annular ring secured thereto, a stationary grooved ring beneath the said annular ring and having outlet holes from the said grooves, a trough to catch the said lubricant as it flows from the said holes, a reservoir and means for feeding the said lubricant to the table.

[Claims 6 to 8 not printed in the Gazette.]

1,076,948. CUTTING-LUBRICANT DEVICE FOR MACHINE-TOOLS. EDWARD P. BULLARD, Jr., Bridgeport, Conn. Filed Nov. 21, 1912. Serial No. 732,633. (Cl. 77—63.)



1. An attachment for machine tools, comprising a bed, a table rotatably mounted thereon, said bed having a groove adjoining the outer edge portion of the table, and a wiper mounted upon the table to clean the said groove.

2. An attachment for machine tools, comprising a bed having a pair of upwardly disposed flanges providing a groove therebetween, a table rotatably mounted upon the bed and over the flanges, and a wiper mounted to operate in the said groove to clean the same.

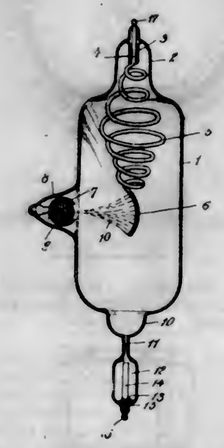
3. An attachment for machine tools, comprising a bed having a pair of upwardly disposed flanges forming a groove therebetween and provided with drainage openings, a table rotatably mounted thereon and having annular grooves in which the upper edge of the flange operates to prevent lubricant from working under the table.

4. An attachment for machine tools, comprising a bed having an inner and an outer flange, a table rotatably mounted upon the bed, and means for cleaning the space between the flanges to prevent lubricant from working under the table.

5. An attachment for machine tools, comprising a bed having upwardly disposed flanges, a table rotatably mounted thereon and having annular grooves to receive the flanges, an annular packing ring fitted on one of said flanges and in its groove in the table to prevent lubricant from working therepast.

[Claims 6 to 17 not printed in the Gazette.]

1,076,949. VALVE-TUBE. EUGENE W. CALDWELL, New York, N. Y. Filed Apr. 19, 1912. Serial No. 691,804. (Cl. 171—253.)



1. The self-regulating Villard type valve tube comprising a vacuum tube provided with a restricted anode passage and communicating small area anode chamber having an anode mounted therein, a large surface cathode mounted within said tube and comprising a cathode coil and a focusing portion in the form of a substantially spherical cathode cup, a carrier ball formed of porous fibrous asbestos impregnated with gas generating material to coöperate with the focusing portion of said cathode and a holder having a substantially spherical cavity in which said carrier ball is loosely mounted to bring different portions of the gas generating material into coöperation with the focusing portion of the cathode and to generate gas by the cathode stream produced during the discharge regulating condition of the tube.

2. The self-regulating Villard type valve tube comprising a vacuum tube provided with a small area anode chamber having an anode mounted therein, a large surface cathode mounted within said tube and comprising a focusing portion in the form of a cathode cup, a carrier ball formed of porous fibrous asbestos impregnated with gas generating material to coöperate with the focusing portion of said cathode and a holder having a substantially spherical cavity in which said carrier ball is loosely mounted to bring different portions of the gas generating material into coöperation with the focusing portion of the cathode and to generate gas by the cathode stream produced during the discharge regulating condition of the tube.

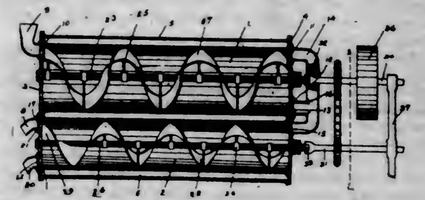
3. The self-regulating Villard type valve tube comprising a vacuum tube provided with a small area anode chamber having an anode mounted therein, a large surface cathode mounted within said tube and comprising a focusing portion, a carrier ball formed of porous material impregnated with gas generating material to coöperate with the focusing portion of said cathode and a holder having a cavity in which said carrier ball is loosely mounted to bring different portions of the gas generating material into coöperation with the focusing portion of the cathode and to generate gas by the cathode stream produced during the discharge regulating condition of the tube.

4. The self-regulating Villard type valve tube comprising a vacuum tube, an anode mounted in the tube, a large surface cathode mounted within the tube and comprising a focusing portion, a carrier impregnated with gas generating material to coöperate with the focusing portion of said cathode and a holder in which said carrier is loosely mounted to bring different portions of the gas generating material into coöperation with the focusing portion of the cathode and to generate gas by the cathode stream produced during the discharge regulating condition of the tube.

5. The self-regulating Villard type valve tube comprising a vacuum tube, an anode mounted in the tube, a large surface cathode mounted within the tube and gas generating material in the tube to coöperate with said cathode and to generate gas by the cathode stream produced during the discharge regulating condition of the tube.

[Claims 6 to 9 not printed in the Gazette.]

1,076,950. CONTINUOUS ICE-CREAM FREEZER. JOHN H. CARPENTER, Columbus, Ohio, assignor of three-fourths to James H. Noon, Columbus, Ohio. Filed Jan. 18, 1912. Serial No. 671,855. (Cl. 62—4.)



1. A continuous ice cream freezer comprising a plurality of normally completely inclosed horizontal cream receptacles, dashers in said receptacles, one of said receptacles having an inlet opening at one end, and a connecting conduit leading from the highest point in the opposite end of said last receptacle to the receiving end of the adjacent receptacle, said dashers being constructed to cause continuous forward movement of the cream from the inlet of the first receptacle to the outlet of the last receptacle.

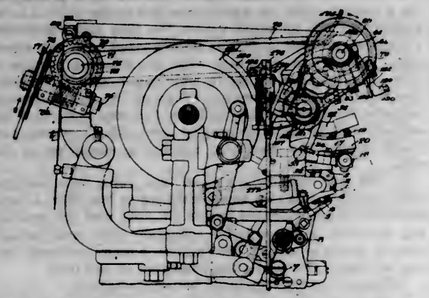
2. A continuous ice cream freezer comprising a plurality of normally completely inclosed horizontal cream receptacles, dashers in said receptacles, one of said receptacles having an inlet opening at one end, a connecting conduit leading from the highest point in the opposite end of said last receptacle to the receiving end of the adjacent receptacle, said dashers being constructed to cause continuous forward movement of the cream from the inlet of the first receptacle to the outlet of the last receptacle, and a drainage pipe leading from the lowest point of the first receptacle to the said conduit, said last receptacle having a discharge opening at the highest point in its delivery end.

3. A continuous ice cream freezer comprising a plurality of receptacles, dashers therein, a connecting pipe leading from the highest point in one of said cylinders to the other cylinder, and a drainage cut-in pipe leading from the first cylinder into said connecting pipe.

1,076,951. LOCK-STITCH SEWING-MACHINE. AUGUSTUS C. CHASE, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 10, 1909. Serial No. 495,099. (Cl. 112—24.)

1. A lock stitch sewing machine, having, in combination, stitch forming devices including a holder for the locking thread supply, a carrier for the holder stationary during the sewing and mounted for movement to carry the holder from sewing position into position to coöperate

with a thread supplying mechanism, and a thread supplying mechanism for replenishing the supply of thread in the holder, substantially as described.



2. A lock stitch sewing machine, having, in combination, stitch forming devices including a holder for the locking thread supply, a thread supplying mechanism, mechanism acting automatically to move the holder from sewing position into position to coöperate with the thread supplying mechanism and return it to sewing position, and mechanism for actuating the thread supplying mechanism to replenish the supply of thread in the holder, substantially as described.

3. A lock stitch sewing machine, having, in combination, stitch forming devices including a bobbin holder for the locking thread supply movable from sewing position into position to coöperate with a bobbin changing mechanism, and a bobbin changing mechanism, substantially as described.

4. A lock stitch sewing machine, having, in combination, stitch forming devices including a bobbin holder for the locking thread supply, a bobbin changing mechanism, mechanism acting automatically to move the bobbin holder from sewing position into position to coöperate with the bobbin changing mechanism and to return it to sewing position, and mechanism for actuating the bobbin changing mechanism to substitute a full bobbin for an empty bobbin in the holder, substantially as described.

5. A lock stitch sewing machine, having, in combination, stitch forming devices including a bobbin holder for the locking thread supply, a bobbin winding and changing mechanism, mechanism for moving the bobbin holder from sewing position into position to coöperate with the bobbin changing mechanism, and mechanism for actuating the bobbin winding and changing mechanism to transfer the empty bobbin in the holder to the bobbin winding mechanism and introduce a full bobbin into the holder, and for actuating the bobbin winding mechanism to wind a supply of thread upon the empty bobbin, substantially as described.

[Claims 6 to 23 not printed in the Gazette.]

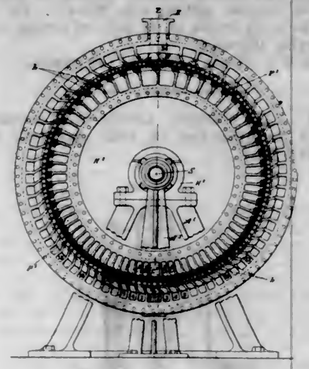
1,076,952. EXPANSIBLE-FLUID TURBINE. BENJAMIN S. CHURCH, New York, and ABRAHAM B. COX, Cherry Valley, N. Y. Filed Oct. 29, 1909. Serial No. 525,339. (Cl. 121—60.)

1. A steam turbine having steam passages through which the steam passes at a uniform velocity, part of said passages being of uniform dimensions, and intended to confine the steam while in a superheated condition, and the remaining passages of gradually increasing dimensions for the expanding saturated steam.

2. A turbine for superheated steam having part of its steam passages of uniform size and shape, and part of its steam passages of gradually increasing size and similar shape.

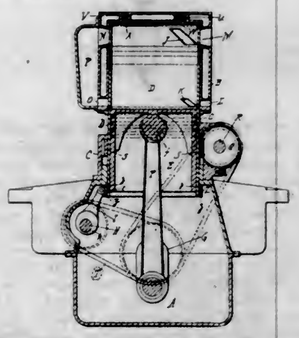
3. A turbine for superheated steam having chambers and nozzles through which the steam passes successively, part of which nozzles are of uniform size and shape, and the remainder of gradually increasing dimensions.

4. A turbine for superheated steam having chambers and nozzles through which the steam passes at a calculated velocity, part of which nozzles are of uniform dimensions for the superheated steam, and the remainder of



gradually increasing dimensions for the expanding saturated steam.

1,076,953. INTERNAL-COMBUSTION ENGINE. PHILIP S. CLAUS, Detroit, Mich. Filed May 27, 1912. Serial No. 699,869. (Cl. 123—190.)

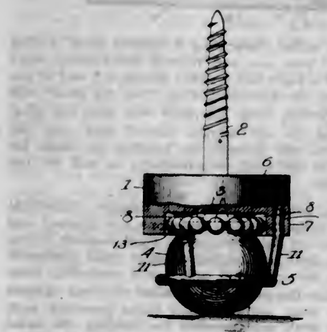


1. In an internal combustion engine, a cylinder, a second cylinder having one end closed adapted to reciprocate in the first named cylinder, ports through the wall of the first named cylinder, an aperture through the wall of the second cylinder adapted to register with said ports, a piston adapted to reciprocate in the second cylinder, and means for giving the second cylinder a movement of rotation and reciprocation whereby the motion of the second cylinder controls the passage of gas therethrough.

2. In an internal combustion engine, a cylinder, a second cylinder having one end closed adapted to reciprocate in the first named cylinder, ports through the wall of the first named cylinder, an aperture through the wall of the second cylinder adapted to register with said ports, a piston adapted to reciprocate in the second cylinder, and means for giving the second cylinder a movement of rotation and reciprocation whereby the motion of the second cylinder controls the passage of gas therethrough, the reciprocating motion of said second cylinder being timed with reference to the movement of said piston so that the residual gases shall be completely expelled at the end of the exhaust stroke.

3. In an internal combustion engine, a cylinder, a second cylinder having one end closed adapted to reciprocate in the first named cylinder, ports through the wall of the first named cylinder, an aperture through the wall of the second cylinder adapted to register with said ports, a piston adapted to reciprocate in the second cylinder, and means for giving the second cylinder a movement of reciprocation whereby the motion of the second cylinder controls the passage of gas therethrough, the reciprocating motion of said second cylinder being timed with reference to the movement of said piston so that the residual gases shall be completely expelled at the end of the exhaust stroke.

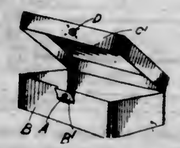
1,076,954. FURNITURE-CASTER. LAURA A. CLIMER, Chicago, Ill. Filed July 20, 1912. Serial No. 710,638. (Cl. 16—151.)



1. A furniture caster, comprising a shallow cup having an annular integral wall portion forming a short depending flange, anti-friction balls in said cup, a main ball below and engaging said series of balls, the said depending flange extending downwardly in a straight vertical line and having its lower edge terminating substantially in line with the bottom of said series of balls, whereby an open space beneath said balls is provided and the accumulation of dirt in the caster is prevented.

2. A furniture caster, comprising a shallow cup having an annular integral unbroken wall-portion forming a short depending flange, a series of balls in said cup, a main ball below and engaging said series of balls, and an annular wire retainer ring encircling said main ball below its center and provided with upwardly diverging arms having their upper ends connected to said flange.

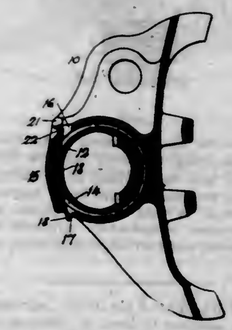
1,076,955. FASTENING OR SEALING BOXES, PACKETS, WRAPPERS, AND THE LIKE. ERNEST COLEGATE, Gillingham, England. Filed July 5, 1912. Serial No. 707,879. (Cl. 229—45.)



1. In a box, the combination with a flanged lid carrying the socket portion of a snap fastener in its flange, of a closing tag, cut out from the wall of the box, carrying the stud portion of the snap fastener and adapted to be brought against the outer surface of the flanged lid to engage the fastening member carried thereby as set forth.

2. The herein described box comprising a body and a cover, the body having a tag cut from a side wall and adapted to extend within the cover or to be deflected outwardly to permit a portion of the cover to extend beneath said tag and over the outer face of the wall from which the tag is formed at both sides of the tag, and a snap fastener having one member attached to and projecting from the inner surface of the tag and the other secured to the section of the cover that is adapted to be positioned beneath the tag.

1,076,956. BRAKE-BEAM FOR RAILWAY-CARS. SETH A. CRONE, East Orange, N. J. Filed Apr. 8, 1912, Serial No. 689,199. Renewed July 16, 1913. Serial No. 779,391. (Cl. 188—28.)



1. In a brake-beam, the combination with an adjustable brake-head having an integral closed back portion, a part of the beam on which said head is mounted, and a flexible spring key for securing said head on said part, said back portion of the head having upper and lower openings for said key inwardly from the vertical plane of the rear or back surface of said part of the beam on which the head is mounted, and said key being normally substantially straight so as to become flexed against said part when driven through the upper to the lower of said openings.

2. In a brake-beam, the combination with an adjustable brake-head having an integral closed back portion, a part of the beam on which said head is mounted, a flexible spring key for securing said head on said part, and means for detachably securing one end of said spring key, said back portion of the head having upper and lower openings for said key inwardly from the vertical plane of the rear or back surface of said part of the beam on which the head is mounted, and said key being normally substantially straight so as to become flexed against said part when driven through the upper to the lower of said openings.

3. In a brake-beam, the combination with an adjustable brake-head having an integral closed back portion, a grooved sleeve on the end of the beam on which said head is mounted, and a flexible spring key for securing said head on said sleeve and entering the groove therein, said back portion of the head having upper and lower openings for said key inwardly from the vertical plane of the rear or back surface of the groove in said sleeve, and said key being normally substantially straight so as to become flexed against said surface of said groove when driven through the upper to the lower of said openings.

4. In a brake-beam, the combination with an adjustable brake-head having an integral closed back portion, a grooved sleeve on the end of the beam on which said head is mounted, a flexible spring key for securing said head on said sleeve and entering the groove therein, and means for detachably securing one end of said spring key, said back portion of the head having upper and lower openings for said key inwardly from the vertical plane of the rear or back surface of the groove in said sleeve, and said key being normally substantially straight so as to become flexed against said surface of said groove when driven through the upper to the lower of said openings.

5. In a brake-beam, the combination with an adjustable brake-head, a part of the beam on which said head is mounted, and an independent flexed spring key bearing at its ends against the head and at an intermediate por-

tion against said part, said head and one end of said key respectively having an interengaging recess and a flange releasably latching the key to the head.

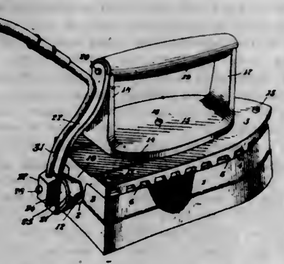
[Claims 6 to 9 not printed in the Gazette.]

1,076,957. DIE FOR FORMING TOOTH-BACKINGS. HENRY L. CRUTTENDEN, Northfield, Minn. Filed Apr. 21, 1913. Serial No. 762,511. (Cl. 113—39.)



An instrument for use in forming dental tooth backings, comprising coöperating relatively movable die-blocks connected by dowel pins and having anvil surfaces and rib-forming grooves adjacent to said anvil surfaces, the said dowel pins serving to hold said die blocks in alinement and being extended immediately adjacent to the said rib-forming grooves and serving as gage pins, substantially as described.

1,076,958. GAS-HEATED SAD-IRON. ALFRED H. DAVIES, Akron, Ohio, assignor to Benj. F. Johnson and William Ward, Cleveland, Ohio. Filed Feb. 17, 1911. Serial No. 609,220. (Cl. 158—23.1.)

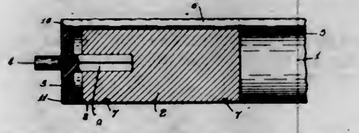


In a gas heated sad iron, in combination with a hollow iron body provided with vertical walls, one of said walls provided with a cut away portion, a cover extending across the top of the body and provided with spaced lugs adapted to rest upon the top edge of the side walls, a burner portion connected to the cover at its front and rear ends and downwardly spaced therefrom intermediate said ends, the rear end of said burner being adapted to be received into the said cut away portion and provided with an external opening at the rear end, a handle shield connected to said cover and spaced therefrom by means of spacing lugs, a handle connected to said handle shield, a mixer supporting member connected to the rear end of said handle and extending rearwardly and downwardly to a point outwardly spaced from and directly opposite said external opening, a mixer connected to said mixer supporting member and adapted to mix air and gas and project the same through said external opening into the interior of said burner and means for conducting gas to said mixer.

1,076,959. WINDING-ROLLER CONSTRUCTION. GEORGE H. DEMORE, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed Feb. 18, 1911. Serial No. 609,447. (Cl. 156—29.)

1. A winding roller comprising a tubular shell, a plug in the shell near one end thereof and terminating short of said end, and an end member arranged in said end of the shell having a rigid axle projecting from its outer side and means projecting from its inner side into the plug, substantially as and for the purpose described.

2. A winding roller comprising a tubular shell, a plug within the shell near one end thereof terminating short of said end, a rigid end member fitting the end of the shell and having an axle projecting from its outer side and means projecting from its inner side into the plug, and means associated with the shell and coacting with said member for holding the same from movement out of the shell, substantially as and for the purpose specified.



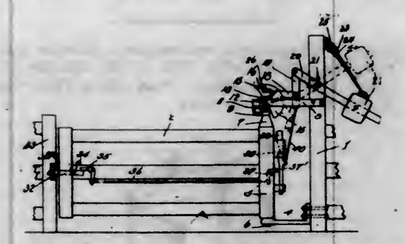
3. A winding roller comprising a tubular shell, a plug within the shell near one end thereof terminating short of said end, and a rigid end member fitting the end of the shell and having an axle projecting from its outer side and means projecting from its inner side into the plug, the shell having its end margin turned over onto the outer face of the end member for holding the same for movement out of the shell, substantially as and for the purpose set forth.

4. A winding roller comprising a tubular cylindrical shell, a plug within the shell near one end thereof and terminating short of said end, and a rigid member fitting the end of the shell and having an axle rigid therewith projecting from its outer side, and means projecting from its inner side into the plug, said member abutting against the end of the plug, and the shell being provided with means coacting with said member for holding the same from movement out of the shell and against the end of the plug, substantially as and for the purpose described.

5. A winding roller comprising a tubular shell, a plug fixed in the shell near one end thereof and terminating short of said end, and an end member located in said end of the shell and having an axle projecting from its outer side and means projecting from its inner side into the plug, the edge at said end of the shell being turned inwardly on the outer face of the end member, substantially as and for the purpose described.

[Claims 6 to 8 not printed in the Gazette.]

1,076,960. FARM-GATE. MICHAEL DILORENZO, Irondale, Wash. Filed Dec. 16, 1912. Serial No. 736,944. (Cl. 39—14.)



1. In gate-actuating mechanism, a bevel-pinion, a pair of bevel-gears in mesh upon opposite sides of said pinion, a wing rigidly connected with each said gear, a lever, a vibratile bolt pivotally mounted in said lever and adapted to make operative engagement alternately with said wings, and means to actuate said lever at a distance from the gate.

2. In gate-actuating mechanism, a bevel-pinion, a pair of bevel-gears in mesh upon opposite sides of said pinion, a wing rigidly connected with each said gear, said wings arranged to be at opposite ends of their travel when said gate is fully opened or closed, a lever, a vibratile bolt pivotally mounted in said lever and adapted to make operative engagement alternately with said wings, and means to actuate said levers at a distance from the gate.

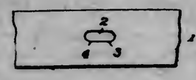
3. In gate-actuating mechanism, a bevel-pinion, a pair of bevel gears in mesh upon opposite sides of said pinion, a wing rigidly connected with each said gear, said wings arranged to be at opposite ends of their travel when said gate is fully opened or closed, a lever pivoted in the axis of said gears, a vibratile bolt pivotally mounted in said lever and adapted to make operative engagement alternately with said wings, and means to actuate said lever at a distance from the gate.

4. In gate-actuating mechanism, a bevel-pinion, a pair of bevel-gears in mesh upon opposite sides of said pinion, a wing rigidly connected with each said gear, a lever, a vibratile bolt mounted pivotally in said lever and adapted to make operative engagement alternately with said wings, a power-lever operatively connected with said lever and provided with a weight at one end, and lines extending to a distance at each side of said gate for actuating said power-lever.

5. In gate-actuating mechanism, a bevel-pinion, a pair of bevel-gears in mesh upon opposite sides of said pinion, a wing rigidly connected with each said gear, said wings arranged to be at opposite ends of their travel when said gate is fully opened or closed, a lever pivoted in the axis of said gears, a vibratile bolt pivotally mounted in said lever and adapted to make operative engagement alternately with said wings, a power-lever operatively connected with said lever and provided with a weight at one end, and lines extending to a distance at each side of said gate for actuating said power-lever.

[Claims 6 to 11 not printed in the Gazette.]

1,076,961. SPRING. WILLIAM A. DOBLE, San Francisco, Cal., assignor to Mary E. Doble, San Francisco, Cal. Filed Sept. 30, 1908. Serial No. 455,513. (Cl. 21—103.)



1. A leaf spring having a bolt hole therethrough at its central part having straight sides longitudinally of the leaf for an appreciable distance.

2. A leaf spring having a bolt hole therethrough at its central part of greater length longitudinally of the leaf than breadth, the said hole having sides parallel for some distance with the sides of the leaf.

3. A leaf spring having a bolt hole therethrough at its central part provided with straight sides parallel with the sides of the leaf and with rounded ends.

4. A spring for vehicles made up of superimposed leaves having a bolt hole therethrough at its center having straight side portions longitudinally of the spring.

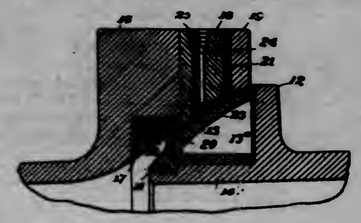
5. A leaf spring having a cutaway portion to receive fastening means at its center the said cutaway portion having greater length longitudinally of the leaf than breadth.

[Claim 6 not printed in the Gazette.]

1,076,962. NOZZLE FOR HYDRAULIC MOTORS. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed Jan. 18, 1910. Serial No. 538,643. (Cl. 138—18.)

1. In a hydraulic apparatus, the combination with a supply pipe, of a nozzle having a pivotal relation thereto, a joint between said members including spaced packing members, and means for forcing a lubricant under pressure between said packing members, for the purpose set forth.

2. In a hydraulic apparatus, the combination with a supply pipe, of a nozzle having a pivotal relation thereto, a joint between said members including a packing member, means for forcing a lubricant on said joint against one side of said packing member at a greater pressure than the water pressure on the other side of said packing member, for the purpose set forth, and means for preventing the escape of lubricant to the outside of the joint.



3. In a hydraulic apparatus, the combination with a supply pipe, of a nozzle having a pivotal relation thereto, a joint between said members including a packing member, means for forcing a lubricant on said joint at a greater pressure than the water pressure, and means for preventing escape of lubricant to the outside of the joint, for the purpose set forth.

4. In a hydraulic apparatus, the combination with a supply pipe, of a nozzle having a pivotal relation thereto, a joint between said members including a packing ring deflected in the direction of the interior of the nozzle, means for forcing a lubricant under pressure on said joints against the side of said ring away from the interior of said nozzle, for the purpose set forth, and means for preventing the escape of lubricant except under said packing ring.

5. In a hydraulic apparatus, the combination with a supply pipe, of a nozzle having a pivotal relation thereto, a joint between said members including spaced packing rings deflected in the direction of the interior of the nozzle, and means whereby a lubricant may be supplied between said members.

[Claims 6 to 9 not printed in the Gazette.]

1,076,963. HYDRAULIC REGULATING-NOZZLE. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed Jan. 18, 1910. Serial No. 538,644. (Cl. 138—18.)



1. The combination with a nozzle, of a core-piece for regulating the discharge thereof, a bushing for said core-piece, and a cup shaped packing arranged to close the joints between said core-piece and bushing and between said bushing and the body of the nozzle.

2. The combination with a nozzle, of a core-piece for regulating the discharge thereof, a bushing for said core-piece, and a packing U shaped in section, arranged to close the joints between said core-piece and bushing and between said bushing and the body of the nozzle.

3. The combination with a nozzle, of a core-piece for regulating the discharge thereof, a bushing for said core-piece, a gland coöperating with the end of said bushing, the coöperating faces of said gland and bushing being similarly shaped, and a cup shaped packing between said coöperating faces arranged to close the joints between said core-piece and bushing and between said bushing and the body of the nozzle.

4. The combination with a nozzle of a core-piece for regulating the discharge thereof, a bushing for said core-piece, a gland coöperating with the end of said bushing, the coöperating faces of said gland and bushing being shaped to form a cavity U shaped in section, and a packing

U shaped in section located in said cavity and arranged to close the joints between said core-piece and bushing and between said bushing and the body of the nozzle.

5. The combination with a nozzle, of a core-piece for regulating the discharge thereof, a removable bushing for said core-piece provided with a stop shoulder, a coöperating shoulder on the nozzle body, a gland coöperating with said bushing to hold it in place, and a cup shaped packing between the coöperating faces of said gland and bushing arranged to close the joints between said core-piece and bushing and between said bushing and the body of the nozzle.

[Claims 6 to 8 not printed in the Gazette.]

1,076,964. METAL BEDSTEAD. MAX DUNNER, Brooklyn, N. Y., assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y., a Firm composed of David Frank and William Lies, Brooklyn, N. Y., and John Trounstine, New York, N. Y. Filed Aug. 6, 1913. Serial No. 783,264. (Cl. 5—4.)

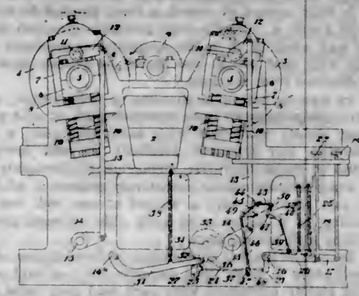


1. An upper tubular member, rectangular in cross-section, for end frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the adjacent ends of the sides of said horizontal and vertical portions of said member constituting corresponding projections having outer curved edges fitting said curved corners and inner straight edges engaging each other diagonally at the corners of said bed member.

2. An upper tubular member, rectangular in cross-section, for end frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the adjacent ends of the sides of said horizontal and vertical portions of said member constituting corresponding projections having outer curved edges fitting said curved corners and inner straight edges engaging each other diagonally at the corners of said bed member, and the adjacent ends of the lower wall of said horizontal portion and the inner walls of said vertical portions having respectively integral therewith lips bent inwardly and engaging each other.

3. An upper tubular member, rectangular in cross-section, for end frames of metal bedsteads comprising a horizontal transverse portion and vertical end portions integral therewith for connection with the corner posts of said frames, the outer wall of said member being uniform throughout and at the corners thereof on curved lines and the inner wall of said member at its inner corners being on right-angular lines, and the adjacent ends of the sides of said horizontal and vertical portions of said member constituting corresponding projections having outer curved edges fitting said curved corners and inner straight edges engaging each other diagonally at the corners of said bed member, and the adjacent ends of the lower wall of said horizontal portion and the inner walls of said vertical portions having respectively integral therewith lips bent inwardly and engaging each other and secured together along the line of the joints between the said straight edges of said projections.

1,076,965. TRIPPING MECHANISM FOR PRINTING-PRESSES. ARTHUR B. ELLEBY, Akron, Ohio. Filed Jan. 27, 1913. Serial No. 744,414. (Cl. 101—87.)



1. In a multi-cylinder press of the character described provided with means for tripping the first cylinder, said means including a manually operated rock arm and a vertically reciprocating link and with means for tripping the second cylinder, said means including a flexible rod, an attachment connecting said rock arm to said flexible rod and means upon said vertically reciprocating link for operating said attachment.

2. In a multi-cylinder press of the character described provided with means for manually tripping the first cylinder, said means including a manually operated rock arm and a vertically reciprocating link and with means for tripping the second cylinder, said means controlled by a flexible rod, flexible means connecting said flexible rod to said manually operated rock arm and a thrust collar carried by said vertically reciprocating link and adapted to contact with said flexible means.

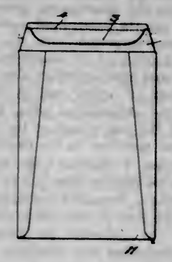
3. In a multi-cylinder press of the character described provided with means for manually tripping the first cylinder, said means including a manually operated rock arm and a vertically reciprocating link and with means for tripping the second cylinder, said means controlled by a flexible rod, means for coupling said flexible rod to said manually operated rock arm, said means comprising a link pivotally connected to said flexible rod, a foot formed upon said link, a detachable link connected to said foot, a bell crank pivotally connected to said detachable link, a third link connected to said bell crank and said manually operated rock arm and a thrust collar carried by said vertically reciprocating link and adapted to engage said foot.

4. In a multi-cylinder press of the character described provided with means for tripping the first cylinder, said means including a manually operated rock arm and a vertically reciprocating link and means for tripping the second cylinder, said means including a flexible rod, flexible means connecting said rock arm to said flexible rod and a thrust collar carried by said vertically reciprocating link and adapted to engage said flexible means when said rock arm is manually operated automatically tripping said second cylinder at a predetermined definite time after the tripping of said first cylinder.

5. In a multi-cylinder press of the character described provided with means for tripping the first cylinder, said means including a manually operated rock arm and a vertically reciprocating link and means for tripping the second cylinder, said means including a flexible rod; a link connected to said flexible rod, a foot formed upon said link, a detachable link connected to said foot, a bell crank pivotally connected to said detachable link, a third link connecting said bell crank to said manually operated rock arm, and a thrust collar carried by said vertically reciprocating link and adapted to engage said foot when said rock arm is manually depressed, causing said second cylinder to be tripped at a predetermined definite time after the tripping of the first cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,076,966. ENVELOP. JOSEPH FANFANI, New York, N. Y. Filed Sept. 12, 1912. Serial No. 719,985. (Cl. 229—76.)



1. An envelop having a pocket comprising a wall extending above the mouth of the pocket, the extending portion of the wall being of substantially the same width as said pocket, and an overturned flap formed on said wall, said flap extending inwardly toward the pocket and provided with a gummed end portion separated from the rest of the flap by a series of perforations the mouth of the pocket being below said end portion, said gummed portion being adapted to be pasted directly to a sheet which has been inserted within the envelop, whereby the sheet inserted within the envelop may be removed therefrom without tearing the same from the flap.

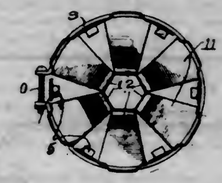
2. An envelop having a pocket comprising a wall extending above the mouth of the pocket, the extending portion of the wall being of substantially the same width as said pocket, and an overturned flap extending from said wall, spaced from the mouth of the pocket, said flap being gummed adjacent to said edge and adapted to be pasted to a sheet inserted within the envelop, whereby the sheet inserted within the envelop may be removed therefrom without tearing the same from the flap.

3. An envelop having a pocket comprising a wall extending above the mouth of the pocket, the extending portion of the wall being of substantially the same width as said pocket, and an overturned flap extending from said wall, said flap being gummed adjacent to said edge and adapted to be pasted to a sheet inserted within the envelop, the flap being substantially equal in width with the mouth of the pocket, the lateral edges of said flap being slightly reduced to conform the flap substantially to the width of the folded sheet inserted within the pocket.

4. An envelop having a pocket comprising a wall extending above the mouth of the pocket, and an overturned flap formed on said wall, said flap having a gummed end portion separated from the rest of the flap by a series of perforations, said gummed portion being located entirely above the mouth of the pocket and adapted to be pasted directly to the projecting end of a sheet which has been inserted within the envelop, the flap being of slightly narrower width than the mouth of the pocket, the lateral edges of the projecting end of said wall and the lateral edges of said flap being slightly reduced to adapt the flap and said projecting end of the wall for easy insertion within the pocket, whereby the sheet inserted within the envelop may be removed therefrom without tearing the same from the flap.

1,076,967. ICE-CREAM-CONE DISPENSER. MILAN H. FISHER, Chicago, Ill., assignor to Frank L. Tarbell, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,450. (Cl. 211—8.)

1. In a device of the class described a container having a relatively large aperture in the top thereof, a downwardly directed peripheral flange connected with said container and projecting thereinto, an inwardly directed flange on the lower end thereof, a casing adapted to rest upon said inwardly directed flange, a band secured around the exterior of the downwardly directed flange, and a series of flexible fingers secured upon said band and projecting inwardly toward a common point beneath the discharge end of said casing.



2. In a device of the class described a container, an apertured cap on the upper end thereof, a peripheral flange surrounding the aperture in said cap, and projecting downwardly into the container, an inwardly directed lip on the lower end of said flange, a casing adapted to rest upon said lip and fit within the aperture in said cap, a band secured to said downwardly projecting flange and a plurality of flexible fingers secured to said band and projecting inwardly beneath the discharge end of said casing.

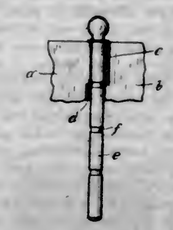
3. In a dispensing apparatus of the class described an upright container, a clamping band secured concentrically about the lower end thereof, inwardly directed slotted spring fingers threaded on said band and acting to support the nest of articles by yieldingly engaging the lowermost thereof, and a convex bearing face at the free end of each of said fingers adapted to bear against and support said articles.

4. In a dispensing apparatus of the class described an upright container, a series of independent tapered spring members curved at one end and having a slot therein, a bead turned on the other end affording a rounded contact surface, and a band threaded through said slots and secured around said container adapted to support said fingers.

5. A device of the class described embracing a container, a resilient band secured in the interior thereof, a series of flexible slotted fingers threaded thereon, having one end curved concentric with said container and an inturned lip on the opposite end adapted to contact the object supported thereby.

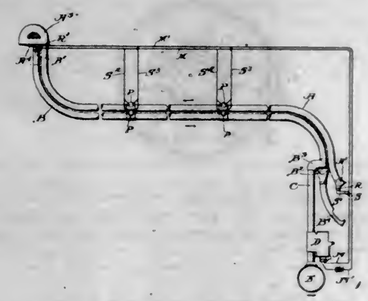
[Claim 6 not printed in the Gazette.]

1,076,968. BUTT, HINGE, AND THE LIKE. HERMAN FLEISCHER, New Britain, Conn., assignor to The Stanley Works, New Britain, Conn., a Corporation of Connecticut. Filed Mar. 24, 1913. Serial No. 756,287. (Cl. 16—107.)



In a device of the character described the combination with the leaves provided with coöperatively arranged knuckles, of a pin extending longitudinally through said knuckles to secure said leaves together, and an annular lubricant-holding channel formed in and as a part of said pin at a point coincident with one or more of the joints between adjacent knuckles.

1,076,969. PNEUMATIC-DESPATCH-TUBE APPARATUS. EDMOND A. FORDYCE, Boston, Mass., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Apr. 23, 1906, Serial No. 313,134. Renewed Mar. 13, 1908. Serial No. 420,804. (Cl. 243—6.)



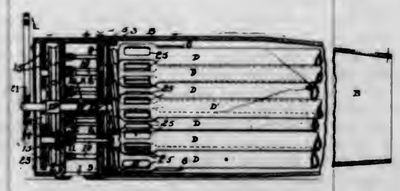
1. In a pneumatic despatch tube system, a transit tube for the transmission of carriers, an air-exhaust pipe communicating with the transit tube, a normally closed valve controlling the communication between the air-exhaust pipe and the transit tube, electrically actuated means for moving the valve to open the communication between the air-exhaust pipe and the transit tube, a source of electricity, an electric circuit extending along the transit tube and including the source of electricity and the electrically actuated means for moving the valve, a series of normally open switches interposed in the electric circuit, and a series of carrier-actuated mechanisms projecting into the path of travel of the carriers through the transit tube with each of said mechanisms connected with a switch in the electric circuit so that a carrier passing through the tube and operating through said mechanisms will successively close said switches to energize at intervals the electrically actuated means to open the valve controlling the communication between the air exhaust pipe and the transit tube.

2. In pneumatic despatch tube systems, a transit tube for the transmission of carriers, an air-exhaust pipe communicating with the transit tube, a casing interposed in the communication between the air-exhaust pipe and the transit tube, an apertured partition dividing the casing into two communicating chambers with one chamber communicating with the transit pipe and the other chamber communicating with the air-exhaust pipe, a cylinder provided with a port at its upper end communicating with the chamber in communication with the air-exhaust pipe and said cylinder having at its lower end a port leading to the outside air and said cylinder also provided with a passage leading from its lower end to the chamber communicating with the air-exhaust pipe, a valve normally closing the port at the lower end of the cylinder, a valve normally closing the aperture in the partition between the chamber in the casing, a piston in the cylinder connected with the valve controlling the aperture in the partition, an electric magnet when energized operating to open the valve controlling the port at the lower end of the cylinder to admit air to the cylinder to raise the piston to open the valve controlling the aperture in the partition to establish communication between the two chambers, an electric circuit including the magnet extending along the transit tube, a source of electricity in said circuit, a series of normally open switches interposed in the electric circuit, and a series of carrier-actuated mechanisms projecting into the path of travel of the carriers through the transit tube with each of said mechanisms connected with a switch in the electric circuit so that a passing carrier operating through said mechanisms will successively close the switches to energize the magnet at intervals during the passage of the carrier.

4. In a pneumatic despatch tube system, the combination of a transit tube, air exhausting means connected with said transit tube for effecting the transmission of carriers through the latter, mechanism normally operative to allow a carrier transmitting flow of air through said tube for a substantially determined interval of time and to automatically limit such flow of air to said time, after being initially actuated, and means actuated by a carrier in transit for re-timing said mechanism.

5. In a pneumatic despatch tube system, the combination of a transit tube, air exhausting means connected with said transit tube for effecting the transmission of carriers through the latter, mechanism normally operative to allow a carrier transmitting flow of air through said tube for a substantially determined interval of time and to automatically limit such flow of air to said time, after being initially actuated, and means actuated by a carrier in transit for re-timing said mechanism, said system having provisions for continuously admitting a substantially equable flow of air into said tube behind said carrier while the latter is in transit.

1,076,970. MULTIPLE GAS-BURNER. EDWIN E. FREDERICK, Bridgeville, Pa. Filed Dec. 5, 1912. Serial No. 735,013. (Cl. 158—106.)



1. In a multiple gas burner, a gas chamber, a casing, a plurality of bunsens mounted in said casing, said bunsens being provided with enlarged air-mixing chambers in their bases, needle valves admitting gas into said mixing chambers from said gas chamber, the stems of said needle valves extending through said chamber and protruding from the front wall thereof, means for admitting air from without said casing into said mixing chambers, and common rotary means engaging the stems of said needle valves without said chamber whereby all of said needle valves are adjusted in unison.

2. In a multiple gas burner, a common gas chamber body, a plurality of bunsens mounted on the rear wall of said body, said rear wall being provided with an equal number of tapered ports for the admission of gas to said bunsens, needles controlling said ports and extending through the said gas chamber and protruding from the front wall of said body, a rotary member, and operative connection between said rotary member and the protruding ends of said needles whereby said needle valves are adjusted in unison by the rotation of said rotary member, and a common casing mounted on said body and encircling said bunsens.

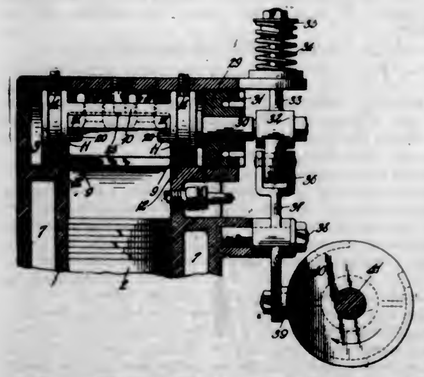
3. In a multiple gas burner, a common gas chamber body, a plurality of bunsens mounted on the rear wall of said body, said rear wall being provided with an equal number of tapered ports for the admission of gas to said bunsens, needles controlling said ports and extending through said gas chamber and protruding from the front wall of said body, a rotary member, and gears on the protruding ends of said needles and intermeshing with said rotary member whereby the rotation of said rotary member adjusts all of said needle valves in unison, and a common casing mounted on said body and encircling said bunsens.

1,076,971. TOOL-HOLDER. CHARLES GEIGER, St. Joseph, Mo. Filed Dec. 16, 1912. Serial No. 737,024. (Cl. 77—71.)



In a surgical instrument the combination with suitable operating means, of a shaft, the outer end of which is provided with a cross slot, an opposite groove and a tapered key hole, an elongated spring seated in said groove, its inner end riveted to said shaft, a tapered lock key with head rigidly fastened on the outer end of said spring and operating in said tapered key hole, a tool shank insertible in said shaft provided with a complementary key hole, a beveled tongue and an upwardly inclined channel from said tongue to said complementary key hole to guide said lock key, a ring rotating with said shaft and adapted to hold said spring and key in operative position and when moved back to release the same and permit the withdrawal of the tool shank from the shaft.

1,076,972. VALVE FOR ENGINES. ALBERT M. GILBERT, Detroit, Mich. Filed June 14, 1912. Serial No. 703,610. (Cl. 123—81.)



1. The combination with an engine cylinder having a valve seat and ports opening through said seat, of a valve controlling said ports, packing members carried by said valve, and a member exposed to and moved by the action of internal pressure in the cylinder to move said packing members and make a tight joint between said valve and seat.

2. The combination with an engine cylinder having a valve seat extending at right angles thereto and provided with ports opening through the valve seat, said cylinder communicating with said seat through one side thereof, of a valve in said seat bridging the opening into the cylinder and adapted to be turned to open and close said ports, packing members carried by the valve to engage the seat, and a member on the valve opposite the opening into the cylinder adapted to be moved by internal pressure in the cylinder to move the packing members into contact with the seat.

3. The combination with an engine cylinder having a bore extending transversely to the longitudinal axis of the cylinder and forming a seat for a valve, said cylinder being formed with ports opening through said seat, of a valve within said bore adapted to be turned therein to open and close said ports, packing members at each side of the valve to engage the bearing surface of the bore adjacent to said ports, and a wedge member carried by the valve and adapted to be moved by internal pressure in the cylinder to force said members outwardly on the valve into engagement with the said surface of the bore.

4. The combination with an engine cylinder having a valve seat and ports opening through said seat, said seat communicating with the interior of the cylinder through one side of said seat, of a valve in said seat, members on said valve movable thereon into engagement with the seat and having inclined adjacent sides, and a member, engaging said inclined sides and adapted to be moved upon the valve between said members by internal pressure within the cylinder to force said members into contact with the valve seat.

5. The combination with an engine cylinder having a valve seat and ports opening through said seat, of a valve in said seat, packing members extending along the sides of the valve to engage the seat, a wedge plate movable upon the valve to force said members into engagement with said seat, and packing strips carried by the valve in engagement with the ends of the wedge plate and packing members.

[Claims 6 to 15 not printed in the Gazette.]

1,076,973. COPPER-ALUMINUM ALLOY. EDWARD D. GLEASON, New York, N. Y., assignor to Frank John Roesler, Brooklyn, N. Y. Filed Oct. 22, 1912. Serial No. 727,107. (Cl. 75—1.)

1. An alloy consisting of boron, copper and aluminum.

2. A process consisting of fusing calcium fluorid and vitrified boracic acid and adding aluminum thereto; and, adding the mixture of said three ingredients to molten copper.

3. An alloy consisting of 90 parts copper and 10 parts of boron aluminum.

1,076,974. AUTOMOBILE ATTACHMENT. JAMES WALTER GOLDEN, Sweetbriar, N. D. Filed Dec. 18, 1912. Serial No. 737,453. (Cl. 21—90.)

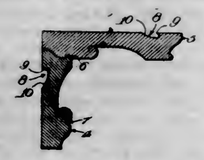


1. An automobile attachment comprising a gear casing, means for attaching same to an automobile front, and gears carried by the said casing and having shafts ex-

tended outwardly relatively in opposite directions, the extended shaft of one of the gears being provided with a squared longitudinal bore for application upon the similarly shaped extremity of an automobile fan shaft.

2. An automobile attachment comprising the combination with an automobile having an extended fan shaft, and internally threaded members upon opposite sides of the fan shaft of a gear casing having apertured side extensions and connecting members operating through said side extensions and adapted for engagement with the said internally threaded members whereby to secure the gear casing in operative position, and gears mounted within the casing and one of which is provided with an extended shaft having a squared longitudinal bore for engagement with the similarly shaped extremity of the extended fan shaft.

1,076,975. MOLDING. WILLIAM GOODROW, Chicago, Ill. Filed Dec. 26, 1912. Serial No. 738,700. (Cl. 20—74.)



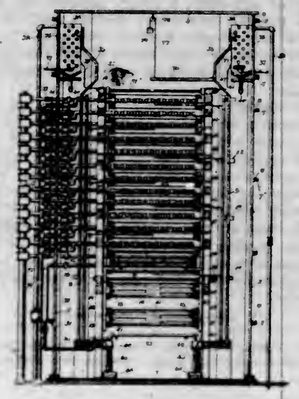
1. As a new article of manufacture, a combined molding strip and plate rail section of ornamental surface contour formed with an engaging surface extending adjacent the upper edge of the molding and constituting a portion of the surface ornamentation, said article being further formed with a complementary engaging surface adjacent its lower edge and likewise constituting a portion of the surface ornamentation, the distance between the first mentioned engaging surface and the upper edge of the back of the molding being equal to the distance between the complementary engaging surface and the lower edge of the outer surface of the molding, substantially as described.

2. As a new article of manufacture, a combined molding strip and plate rail section of ornamental surface contour formed with an engaging surface extending adjacent the upper edge and constituting a portion of the surface ornamentation and further formed with a complementary engaging surface adjacent its lower edge likewise constituting a portion of the surface ornamentation, the distance between the first mentioned engaging surface and the upper edge of the back of the molding being equal to the distance between the complementary engaging surface and the lower edge of the outer surface of the molding, a configured surface adjacent the first mentioned engaging surface and constituting a portion of the surface ornamentation and a configured surface adjacent the complementary engaging surface and forming a portion of the surface ornamentation, said two configured surfaces being arranged to mesh one with the other, substantially as described.

1,076,976. DRYING AND TREATING FABRICS AND OTHER MATERIALS. WILLIAM M. GROSVENOR, Grantwood, N. J. Filed Sept. 25, 1909. Serial No. 519,595. (Cl. 34—48.)

1. An improved drying process which consists in subjecting the material to be dried to a current of drying medium in such a manner that such drying medium is repeatedly brought into contact and removed from contact with the material and when out of contact is heated to restore the temperature lost by evaporation, and then producing condensation in the drying medium and again passing it through repeated contacts and removals accompanied by heating as before, and continuing these cycles until the material is dried.

2. An improved drying process which consists in subjecting the material to be dried to a current of drying medium in such a manner that such drying medium is repeatedly brought into contact and removed from contact with the material and when out of contact is heated to restore heat lost by evaporation, and then removing moisture from the drying medium and again passing it through repeated contacts and removals accompanied by heating as before and continuing the cycles to sufficiently dry the material.



3. An improved drying process which consists in subjecting the material to be dried moving in one direction to a current of drying medium moving in a counter direction, in such a manner that such drying medium is repeatedly brought into contact and removed from contact with the material and when out of contact is heated to restore heat lost by evaporation, and then removing moisture from the drying medium and again passing it through repeated contacts and removals accompanied by heating as before and continuing the cycles to sufficiently dry the material.

4. In an improved process for treating fabrics and other materials, circulating a suitable heated medium about the material to dry the same and then conditioning the material by subjecting the material to portions of the same medium while moist but under a condition of lesser humidity than it had on leaving the drying operation to condition the material.

5. In an improved process for treating fabrics and other materials, subjecting the material to a moist medium at a relatively high temperature, then subjecting the material to the medium at lesser temperatures and with lesser percentage of moisture, and then subjecting the material to the same medium after the medium has been cooled and a portion of its moisture removed to condition the material.

[Claims 6 to 41 not printed in the Gazette.]

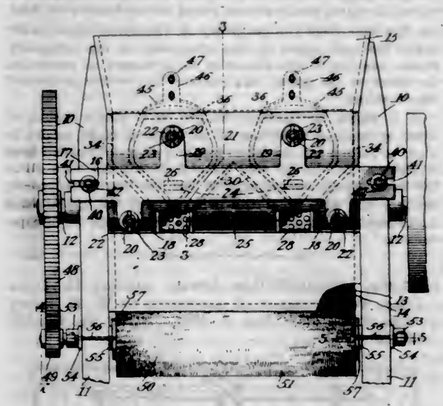
1,076,977. GARMENT-FASTENER. MARTIN B. GROUT and WILLIAM EDISON, Chicago, Ill. Filed July 27, 1910. Serial No. 574,078. (Cl. 24—245.)



1. In a garment-fastener, the combination with a socket member provided with a longitudinally extending socket, of a tongue member comprising a neck adapted to overlie the upper end of said socket member, a downward bend adapted to fit between the sides of said socket member and a forwardly extending tongue of slightly less width and of slightly greater length than said socket, said tongue being thereby adapted to be inserted through said socket with the lower end of the tongue engaging the underside of the lower end of the socket member, one of said tongue and socket members being also offset at the lower end thereof to bring the lower end of the tongue member, in addition to said downward bend thereof, between the sides of said longitudinal socket when said members are operatively associated.

2. In a garment-fastener, the combination with a socket plate provided with an opening therein, of a tongue member having a tongue of slightly greater length and slightly less width than said opening, said tongue being adapted to be inserted through said opening in the socket plate, said tongue having a bend at the base thereof and also a bend at some distance from the base to bring some portion of said tongue in addition to the base thereof up between the sides of said opening and thereby to provide two points of contact between the tongue and each side of the socket plate.

1,076,978. PULPER-BREAST. EDMUNDO GUERRERO, Antigua, Guatemala. Filed June 7, 1913. Serial No. 772,294. (Cl. 83—36.)

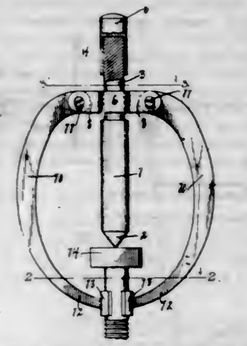


1. A pulper breast for horizontal cylinder machines, comprising a web, having a plurality of outlet openings therethrough adjacent one edge, ribs raised on the inner side of the web certain ribs extending upwardly beside the openings and diverging from the opening, being all arranged and disposed to form divergent channels in communication with and extending upwardly from each of the openings, and enlarged throat portions forming continuations of the channels opposite the direction of rotation of the cylinder and opening on the opposite edge of the web from said openings.

2. A breast for pulpers, a body adapted to be mounted in fixed relation to a movable pulper element and having stock-receiving channels, having a deep receiving portion with a bottom approximately parallel to the mean surface of the pulper element, and an inner portion abruptly decreased in depth and continuing with a lesser depth than the receiving portion for a spaced distance toward a point of discharge.

3. In a coffee pulper, a breast having stock leading channels provided with an entrance portion for a major part of their length having a bottom approximately concentric with the cylinder, terminating in an abruptly inclined surface convergent toward the cylinder, and an inner part of minimum depth also approximately concentric with the cylinder and extending for a considerable distance.

1,076,979. CENTERING-TOOL. WILLIAM F. HADDOCK, Shreveport, La. Filed Apr. 19, 1913. Serial No. 762,321. (Cl. 81—1.)



1. A centering tool comprising a block having an aperture therein, arms extending from said block, caliper arms pivotally connected to said arms, jaws carried by said caliper arms, a punch having a reduced end slidably mounted in the aperture in said block, and a head on said reduced end.

2. A centering tool comprising a block having an aperture therein, laterally extending arms connected to said block, caliper arms removably mounted to said laterally extending arms, the lower ends of said caliper arms being comparatively small, arcuated jaws of comparative length and breadth carried by the reduced ends of said caliper arms, a punch slidably mounted in the apertured block, and a head on said punch.

3. A centering tool comprising an apertured block, laterally extending arms connected to said block, caliper arms carried by said arms, means carried by said caliper arms adapted to embrace a round object, a punch having a reduced shank, said punch being slidably mounted in said apertured block between the shoulder formed by the reduced shank thereof and the outer end of said reduced shank, and a head removably mounted upon said reduced shank whereby said punch may be removed from said block.

4. A centering device comprising in combination, a punch adapted to mark the center of an elongated element, and caliper mechanism for holding such element and slidably guiding the punch in co-axial relation therewith, substantially as described.

5. A centering device comprising in combination, caliper arms for positioning a rod-like element, a head block pivotally connected with said arms, and a punch slidably guided to the said head block in co-axial relation and adapted when struck to mark the center of said rod-like element, substantially as described.

[Claim 6 not printed in the Gazette.]

1,076,980. STOP-MOTION. FRANK H. HALL, Boston, Mass., assignor to William Firth, Chestnut Hill, Mass. Filed Feb. 1, 1910. Serial No. 541,260. (Cl. 139—91.)

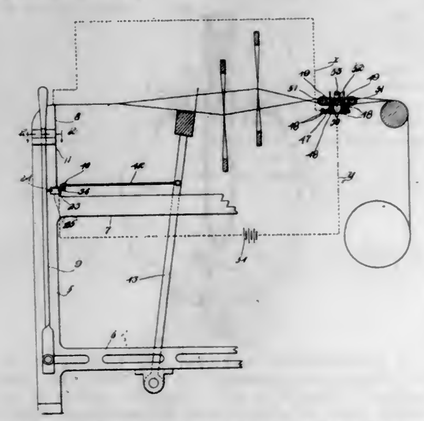
1. A stop motion comprising an electromagnet, an armature movably mounted and in contact with a pole of said magnet, and knocking off means normally movable in unison with said armature.

2. A stop motion comprising an electromagnet, an armature in constant mechanical slidable contact with a pole of said magnet, and knocking off means normally movable in unison with said armature.

3. A stop motion comprising an electromagnet, an armature movably mounted and in constant mechanical contact with a pole of said magnet, and knocking off means in releasable engagement with said armature.

4. A stop motion comprising an electromagnet, an armature movably mounted and in constant mechanical contact

with a pole of said magnet, and knock off means movably mounted with respect to said armature and in engagement therewith.



5. A stop motion comprising an electromagnet, an armature movably mounted and in constant mechanical contact with a pole of said magnet, and means for effecting the movement of said armature, said means including a knock off device.

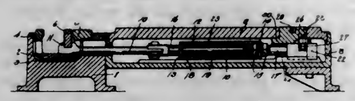
[Claims 6 to 17 not printed in the Gazette.]

1,076,981. TIRE-DEFLATING CAP. JACOB HENRY HARD, Osmond, Nebr. Filed Apr. 3, 1912. Serial No. 688,194. (Cl. 152—12.)



As an article of manufacture, a deflating device comprising a cap and an integral coaxial ring, said cap being internally threaded and the ring being internally and externally threaded and of the same internal diameter as the cap, the cap having a pin coaxial with the ring, and a second cap externally threaded for engaging within the first-named cap or within the ring, said second cap having a tubular stem provided with a transverse notch at its free end and having a radially outwardly offset flange for engaging outside of the outer threaded surface of the ring, for the purpose specified.

1,076,982. TRACK-SWITCH. MARTIN J. HENEHAN, Seattle, Wash. Filed Dec. 16, 1912. Serial No. 736,929. (Cl. 104—115.)



In combination with a switch-tongue, a reciprocative bar operatively connected with said tongue, a U-shaped frame having two legs each formed with an alined aperture, one of said legs rigidly connected to said bar, a sleeve slidable in each of said apertures formed with a flange upon the inner-side of the respective leg, a rod slidably mounted in said sleeve and provided with a stop for each of the opposite outer ends of said sleeves, a spring on said rod confined between said sleeves, a sliding block rigidly connected with said rod, and moving in a longitudinal plane therewith, said block provided with a transverse groove, an oscillating disk disposed above said block and carrying an eccentric pin to engage said groove whereby the bar is reciprocated upon manipulation of said disk.

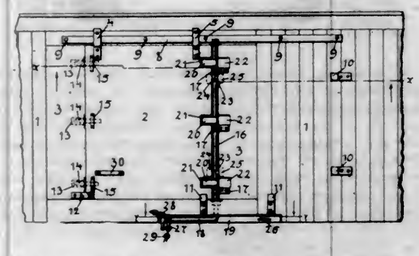
1,076,983. FASTENER. JAMES HENRY JERRIM, Finstall, Bromsgrove, England. Filed Jan. 15, 1913. Serial No. 742,207. (Cl. 85—13.)



1. A staple or fastener formed of a single length of wire, by bending a portion of the wire at right angles to itself to form a leg and forming a spirally coiled head at right angles to the said leg and having the coils all in the same plane, and a second shank or leg formed by bending the wire from the periphery of the spiral back underneath the said spiral to the other side of the periphery, thence bending it downward at right angles to itself and the plane of the spiral, and parallel to the first-mentioned leg or shank.

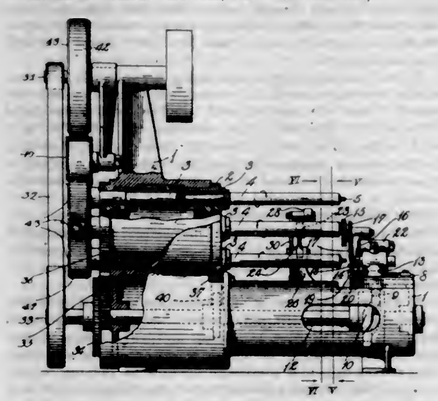
2. A staple or fastener formed of a single length of wire, by bending a portion of the wire at right angles to itself to form a leg, and then forming a spirally coiled head at right angles to the said leg and having the coils all in the same plane, and a support for the spiral formed by bending the wire from the periphery of the spiral back underneath the said spiral to the other side of the periphery.

1,076,984. FREIGHT-CAR DOOR. GEORGE H. JUDIA, Cisco, Tex., assignor of one-fourth to W. P. Pulley, Cisco, Tex. Filed Aug. 8, 1911. Serial No. 643,029. (Cl. 20—23.)



In a car operating apparatus, the combination with a car and its door-way, of a door having recesses in its outer face and depressions in its inner face and arranged to normally fit in the car door-way, the door-way of the car having marginal recesses alining with the recesses of the outer face of the door and also having cavities alining with the depressions of the inner face of the door, a rock shaft mounted vertically in the wall of the car between the recessed edge portion of the door and the door-way, arms extending laterally from the shaft and normally lying in the recesses of the door and arranged to be swung by the shaft into the recesses of the car door-way, and lugs extending from the shaft in opposed relation to the arms and normally lying in the cavities of the car door-way and arranged to be swung by the shaft into the depressions of the door.

1,076,985. COLLAPSIBLE-TUBE-FINISHING MACHINE. FRANK KNUPFER, Detroit, Mich. Filed Dec. 23, 1912. Serial No. 738,172. (Cl. 29—38.)



1. A collapsible-tube finishing machine comprising a rotatable head, tube blank receiving members journaled therein each adapted to rotate an applied blank in one direction and to release such blank when the direction of rotation is reversed, cutting off, finishing and screw-threading means with which the receiving members are brought successively into register, and means for operating the head, the members and the several means in timed relation adapted to reverse the direction of each receiving member once in each revolution of the head.

2. A collapsible-tube finishing machine comprising a main frame, a head rotatable therein, tube blank receiving members journaled in the head and adapted to revolve around its center of motion, each member being adapted to rotate an applied blank in one direction and to release such blank when the direction of rotation is reversed, means for rotating the receiving members in the head adapted to reverse the direction of rotation of each receiving member once during each revolution of the head, nipple finishing means, nipple screw threading means and cutting-off means with which the receiving members are brought successively into operative relation during each revolution of the head and mechanism for operating the parts in timed relation.

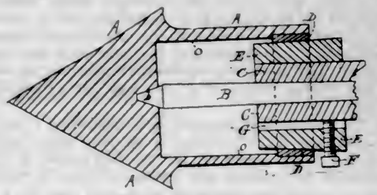
3. In a collapsible tube finishing machine, a main frame, a head rotatable therein, tube blank receiving members journaled in the head and adapted to revolve with the head around its center of motion, each member being provided with means to rotate an applied blank in one direction and to release such blank from the member when the direction of rotation is reversed, means for rotating the members adapted to reverse the direction of rotation of each member once during each revolution of the head, and means for operating the parts in timed relation.

4. A collapsible-tube finishing machine comprising a main frame, a head rotatable therein, tube-blank receiving members journaled in the head and adapted to revolve therewith around its center of motion, finishing means, screwthreading means and cutting off means with which each receiving member is brought successively into operative relation during each revolution of the head, means for intermittently arresting the head when the members are in such operative relation, means for rotating the receiving members adapted to reverse the direction of each receiving member during one period of arrest in each revolution of the head, and mechanism for operating the several parts in timed relation.

5. A collapsible-tube finishing machine comprising a main frame, a head horizontally journaled therein, tube blank receiving members journaled in the head and adapted to rotate an applied blank in one direction and to release such blank when the direction of rotation is reversed, means for rotating the head, means for rotating the receiving members adapted to reverse the direction of rotation of each once during each revolution of the head, finishing means reciprocable in the main frame adapted to be brought into operative relation with the receiving members successively, screw-threading and cutting off means on the main frame with which the receiving members are brought successively into register during each revolution of the head, means for arresting the head intermittently as the members register with the finishing and screwthreading means successively and mechanism for operating the parts in timed relation.

[Claims 6 to 12 not printed in the Gazette.]

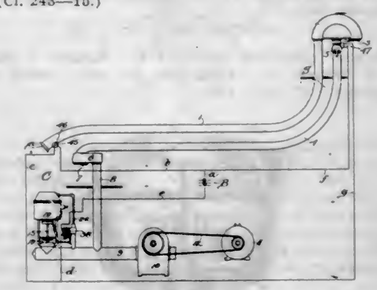
1,076,986. EQUIPMENT OF CONE-CENTERS. THOMAS H. MACK, New York, N. Y. Filed Apr. 27, 1912. Serial No. 693,705. (Cl. 82—33.)



1. In an article of the class described, the combination of a cone center having an internal bearing surface, a spindle, and a ring bushing detachably mounted upon said spindle for fitting within said bearing.

2. In an article of the class described, the combination of a cone center, a ring with a tapering internal bearing surface fitted in a fixed manner in the open end of said cone center, a ring bushing rotary in said bearing surface and itself being also tapering, and a spindle passing through and fixed to said ring bushing.

1,076,987. PNEUMATIC-DESPATCH-TUBE APPARATUS. JAMES G. MACLAREN, Harrison, N. Y., assignor to The Lamson Company, Newark, N. J., a Corporation of New Jersey. Filed Oct. 5, 1908. Serial No. 456,188. (Cl. 243—15.)



1. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers, a blower or pump, means for driving said blower or pump, a conduit connecting said transmission tube with the intake of said blower or pump provided with an air inlet adapted to normally short circuit the flow of air to said blower or pump, a normally open valve adapted to control said inlet, means for normally retaining said valve open, means adapted to be operated upon the despatching of a carrier for releasing said retaining means to permit the closure of said air valve to switch the flow of air through said transmission tube for driving said carrier therethrough, and means under the control of the vacuum in said conduit for posi-

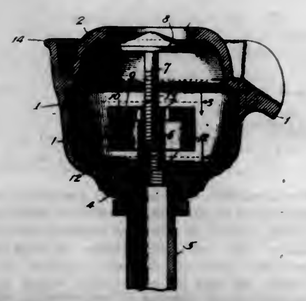
tively and abruptly opening said air valve after a predetermined interval to short circuit the flow of air through said inlet thereby relieving the load on said blower or pump, said last mentioned means including a chamber having a wall thereof movable to vary the pressure in said chamber and a valve movable through the instrumentality of said wall for abruptly changing the pressure in said chamber whereby said wall may move more freely thereafter.

2. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers, a blower or pump, means for driving said blower or pump, a conduit connecting said transmission tube with the intake of said blower or pump provided with an air inlet adapted to normally short circuit the flow of air to said blower or pump, a normally open valve adapted to control said inlet, means for normally retaining said valve open, means adapted to be operated upon the despatch of a carrier for releasing said retaining means to permit the closure of said air valve to switch the flow of air through said transmission tube for driving said carrier therethrough, means under the control of the vacuum in said conduit for timing the opening of said air valve whereby the air is short circuited through said conduit relieving the load upon said blower or pump, and means for suddenly accelerating the action of said timing means after the lapse of a determined period.

3. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers, a normally short-circuited blower or pump, means for driving said blower or pump, mechanism for causing said blower or pump to establish a carrier propelling current of air in said tube for a substantially determined period of time, said mechanism including a valve adapted to control the short-circuiting of said blower or pump, and means for closing and positively and abruptly opening said valve.

4. In a pneumatic despatch tube apparatus, a tube for the transmission of carriers, a normally short-circuited blower or pump, means for driving said blower or pump, mechanism for causing said blower or pump to establish a carrier propelling current of air in said tube for a substantially determined period of time, said mechanism including a valve adapted to control the short-circuiting of said blower or pump, a latch for normally holding said valve open, pneumatically operated means for moving said valve to its open position in which said latch may become operative and means for releasing said valve to permit it to close, said last mentioned means including an electric circuit having therein an electro-magnetic device for actuating said latch.

1,076,988. DRINKING-FOUNTAIN. PATRICK J. MADIGAN, Chicago, Ill. Filed Sept. 12, 1912. Serial No. 719,988. (Cl. 137—110.)

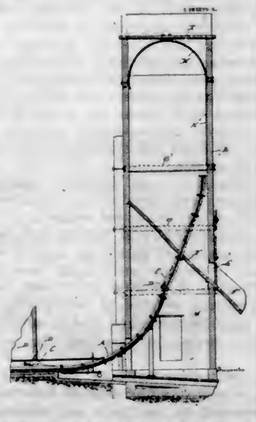


1. The combination in a drinking-fountain, of a hollow casing having an upwardly directed intake opening at the bottom and a discharge opening at the top, the walls of said casing being drawn inwardly toward said discharge opening, a central support within said casing, a hollow cylindrical deflecting hood open at the bottom, said hood being mounted upon said central support above said intake opening and provided with a plurality of openings in the top, there being a space between the bottom of said hood and that of said casing, and a disk-like deflector above said hood, said deflector having a screw-threaded stem extending through the top of said hood and tapped into said central support.

2. The combination in a drinking-fountain, of a hollow casing having therein a central support extending upwardly from the bottom, said support being surrounded by upwardly directed intake openings, the upper walls of said casing being drawn inwardly to a discharge opening at the top, a horizontal disk-like deflector arranged in close proximity to said discharge opening, said deflector having a screw-threaded stem tapped into said central support, and a hollow cylindrical hood screwed upon said stem to form a lock-nut for the latter when adjusted, said hood being open at the bottom, provided with vertical openings at the top and having a space between its bottom and that of said casing.

3. The combination in a drinking-fountain of a hollow casing having therein an upwardly directed intake opening, a central support extending upwardly from the bottom of said casing, the upper walls of the latter being drawn inwardly to a discharge opening at the top, a controlling disk having a diameter not exceeding that of said discharge opening, said disk having a screw threaded stem tapped into said central support to provide for the vertical adjustment of said disk to conform to varying water pressures and a hollow cylindrical hood located between said disk and the bottom of said casing, there being a space between the bottom of the hood and the bottom of the casing to permit a lateral outflow beneath all parts of the hood.

1,076,989. PNEUMATIC CONVEYER SYSTEM. WILLIAM MCCLAVE, Scranton, Pa., assignor to McClave-Brooks Company, Scranton, Pa., a Corporation of Pennsylvania. Filed Sept. 28, 1911. Serial No. 651,790. (Cl. 193—10.)



1. In a conveyer system, such as described, the combination with a relatively tall and narrow settling chamber having vertically disposed side walls, vertical discharge flues in the side walls and a bottom discharge for solid material with a closure for said bottom discharge, of a duct through which the material is conveyed by the pressure of the elastic fluid medium, said duct having a vertically directed discharge end located in the chamber at a point substantially midway of the height of the chamber, whereby a free and unobstructed space is left above the discharge end of the duct in which space the upward momentum of the solid material will be checked by gravity, and a space will be left below the discharge end of the duct for the reception of the solid material.

2. In a conveyer system such as described, the combination with a relatively tall and narrow settling chamber having vertically disposed side walls, vertical discharge flues in the side walls and a bottom discharge for solid material with a closure for said bottom discharge, of a duct through which the material is conveyed by the pressure of the elastic fluid medium, said duct having a vertically directed discharge end located in the chamber in proximity to one side wall and at a point substantially midway of the height of the chamber, whereby a free and unobstructed space is left above the discharge end of the duct in which space the upward momentum of the solid material will be checked by gravity, and a space will be left below the discharge end of the duct for the reception of the solid material.

3. In a conveyer system such as described, the combination with a relatively tall and narrow settling chamber having vertically disposed side walls and vertical-discharge flues in the side walls with the entrance opening thereto at an intermediate point in the height of the chamber and a bottom discharge for solid material, of a duct through which the material is conveyed by the pressure of an elastic fluid medium, said duct having a vertically directed discharge end located in the chamber in proximity to one side wall, and at a point substantially midway of the height of the chamber, and a curved deflector extending from the side wall above said duct over to the opposite side wall, whereby air currents ascending along one of the side walls will be directed to and down the opposite side wall.

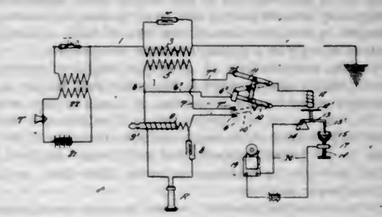
4. In a conveyer system such as described, the combination with a relatively tall and narrow settling chamber having vertically disposed side walls and vertical discharge flues in the side walls with the entrance opening thereto at an intermediate point in the height of the chamber and a bottom discharge for solid material, of a duct through which the material is conveyed by the pressure of an elastic fluid medium, said duct having a vertically directed discharge end, located in the chamber in proximity to one side wall, and at a point substantially midway of the height of the chamber, a curved deflector extending from the side wall above said duct over to the opposite side wall, whereby air currents ascending along one of the side walls will be directed to and down the opposite side wall, and a side wall protecting apron extending from the duct discharge to the lower edge of the deflector.

5. In a conveyer system such as described, the combination with a relatively tall and narrow settling chamber having vertically disposed side walls, oppositely disposed discharge flues in the side walls with their entrance openings at an intermediate point in the height of the chamber, said openings having their defining walls projecting into the chamber, whereby material gravitating in the chamber will pass without entering the opening, of a duct through which the material is conveyed by the pressure of an elastic fluid medium, said duct having a vertically directed discharge end located in the chamber in proximity to one side wall and intermediate the discharge flues, there being a free and unobstructed space both above and below said duct discharge, whereby the momentum of material blown into the chamber will be checked by gravity with a minimum scouring of the walls and a storage place provided for the reception of the solid material below the duct discharge opening.

[Claim 6 not printed in the Gazette.]

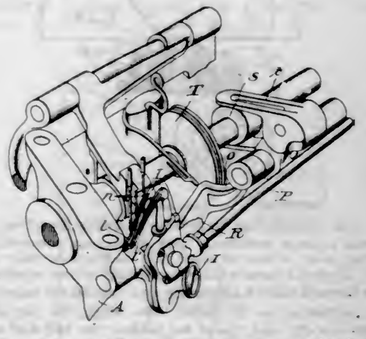
1,076,990. TELEPHONE SYSTEM. CHARLES W. MCGONIGLE, Algona, Wash., assignor to Globe Telephone Company, Seattle, Wash., a Corporation of Washington. Filed July 15, 1912. Serial No. 709,459. (Cl. 179—15.)

1. In a telephone system, the combination with the main line embracing the primary coil of a transformer, a normally incomplete circuit embracing the secondary coil of said transformer, and a telephone receiver and a condenser on said circuit, of a normally incomplete relay circuit, a signal instrument in the latter, a shunt circuit embracing the magnet of a high resistance telephone receiver, a diaphragm for this receiver, a closure for the opening in said relay circuit, operatively connected with said diaphragm, a switch adapted to be selectively employed for closing said incomplete circuit or for conductively connecting said relay circuit with the first named circuit.



2. In a telephone system, the combination with the main line embracing the primary coil of a transformer, a shunted condenser between the terminals of said primary coil, a normally incomplete circuit embracing the secondary coil of said transformer, and a telephone receiver and a condenser on said circuit, of a normally incomplete relay circuit, a signal instrument in the latter, a shunt circuit embracing the magnet of a high resistance telephone receiver, a diaphragm for this receiver, a closure for the opening in said relay circuit, operatively connected with said diaphragm, a switch adapted to be selectively employed for closing said incomplete circuit or for conductively connecting said relay circuit with the first named circuit.

1,076,991. SEWING-MACHINE. JAMES R. MOFFATT, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 5, 1906. Serial No. 299,504. (Cl. 112—5.)



1. In a sewing machine, stitch-forming mechanism including a plurality of needles arranged abreast so that the line joining them is at right angles to the line of feed, a plurality of loopers coöperating with said needles, means for oscillating said loopers into and out of the needle loops in a line diagonal to said line of feed, and means for oscillating said loopers in the direction of the line of feed, whereby said loopers are given a needle avoiding movement.

2. In a sewing machine, stitch-forming mechanism including a plurality of needles, arranged abreast so that a line joining them is at right angles to the line of feed, and a plurality of loopers coöperating with said needles, and means for oscillating said loopers into and out of the needle loops, said loopers being constructed and arranged so that in their oscillation, the points thereof move from one position entirely at one side of the needles, as viewed in the direction of feed, to a position entirely at the other side of said needles, and means for rocking said loopers whereby they are given a needle avoiding movement.

3. In a sewing machine, stitch forming mechanism including a plurality of needles arranged abreast, so that a

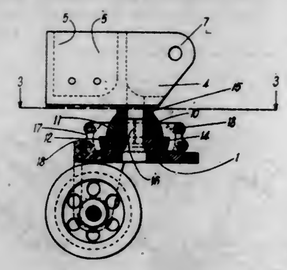
line joining them is at right angles to the line of feed, a plurality of loopers coöperating with said needles, a support for said loopers, said support being arranged on an axis diagonal to the line of feed, whereby said loopers as they move into and out of the needle loops, move in a line diagonally of said line of feed, and means for rocking said support in the direction of the line of feed, whereby said loopers are given a needle avoiding movement.

4. The combination of a looper support, bearings in which said looper support is mounted, said looper support having formed therein a bearing, a looper carrier mounted in the bearing on said looper support, said looper carrying bearing arranged at an acute angle to the axis of the bearings of the looper support, and said looper support being offset between its bearings so as to allow free oscillation of the looper carrier.

5. In a sewing machine, stitch forming mechanism, including a plurality of needles arranged abreast so that a line joining them is at right angles to the line of feed, a plurality of loopers coöperating with said needles, a carrier for said loopers, a support for said carrier, means for oscillating said carrier in a direction at an acute angle to the line of feed, whereby said loopers are moved into and out of the needle loop and means for oscillating said support for the looper carrier in a direction parallel to the line of feed, whereby said loopers are given a needle avoiding movement.

[Claim 6 not printed in the Gazette.]

1,076,992. DERRICK. JOSEPH OBSTLER, New York, N. Y. Filed Apr. 3, 1912. Serial No. 688,151. (Cl. 212—70.)

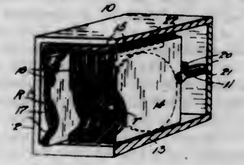


1. The combination in a derrick of a foot portion, comprising a lower stationary part having an upwardly projecting ball; a derrick-mast and boom-supporting upper part, having a downwardly projecting socket received on the aforesaid ball; a concentric wall around the base of the ball, providing an oil recess, into which the rim of the socket can dip, and means for holding the ball and socket as aforesaid, operatively together, said last-mentioned means comprising a collar in bolted together parts, which surrounds the aforesaid wall and further surrounds with bearing fit the outside of the socket.

2. The combination with a supporting member, of a derrick member thereon and a foot for the derrick member, comprising relatively movable parts secured respectively to the members, one of said parts having a ball portion and a wall surrounding the same, the other part comprising a socket that receives the ball portion and operates between the same and the wall, and means engaging both of said parts for holding them in assembled relation while permitting their relative movement.

3. The combination with a supporting member, of a derrick member thereon and a foot for the derrick member, comprising relatively movable parts secured respectively to the members, one of said parts having a ball portion and a wall surrounding the same, the other part comprising a socket that receives the ball portion and operates between the same and the wall, and a collar surrounding the wall and ball portion and bridging the joint between them.

1,076,993. RECORD-FILING CASE. EARL POOLER, Seattle, Wash., assignor of one-half to James S. Emerson, Vancouver, British Columbia, Canada. Filed Feb. 20, 1913. Serial No. 749,590. (Cl. 211—16.)

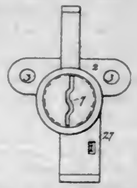


1. In a sound-record filing case, a record container comprising a sheet of flexible material formed with two leaves joined at the rear, and means secured to said leaves whereby they will be spread apart as the container is withdrawn from the case.

2. A sound-record container, comprising two leaves joined at their rear edges and provided with recesses in their front edges, and leaf-springs secured to the respective leaves and tending to retain their forward portions in open positions with respect to each other.

3. In a sound-record filing case, the combination of the case, individual record containers provided in the case, means provided on the containers for individually drawing the same outwardly to protrude from the case, means provided in the case to limit the outward movements of the various containers, and devices provided upon the respective containers whereby they are caused to open when drawn outwardly with respect to the case.

1,076,994. LOCK. WILLIAM AUGUSTUS RATCLIFF, Bellingham, Wash. Filed Sept. 9, 1912. Serial No. 719,318. (Cl. 70—6.)

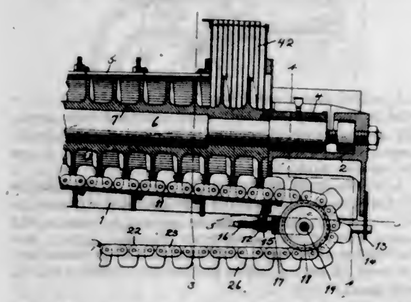


1. The combination in a lock of a casing, a cylinder revoluble within said casing, means for locking said cylinder against rotation with relation to said casing, means for locking said cylinder to the jamb of a door or the like, a key-way, projections into said key-way, a symbol-bearing register wheel, connections between said projections and said wheel, a symbol bearing key, means on said key adapted to unlock said cylinder from said casing and means on said key coöperating with said projections into said key-way whereby said wheel is caused to rotate and display a symbol corresponding to the symbol on the key.

2. The combination in a lock of a casing, a cylinder revoluble within said casing, locking pins in said casing projecting into openings in said cylinder to lock the same against rotation with relation to said casing, means for locking said cylinder to the jamb of a door or the like, a key-way in said cylinder with which said openings communicate, intermediate pins in said openings and beneath said locking pins, a second set of openings in said cylinder communicating with said key-way, pins in said openings, a register wheel, a numbered key, operative connections between said wheel and said last mentioned pins, means upon said key adapted to actuate said last mentioned pins whereby said register wheel is caused to rotate and hold in display a number corresponding to the number upon the key, and means upon said key to actuate said intermediate pins whereby said locking pins are caused to rise out of engagement with said cylinder.

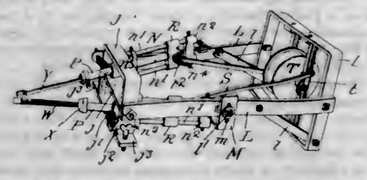
3. The combination in a lock of a casing cast in one piece, a horizontal channel through said casing, a cylinder revoluble within said channel, means for locking said cylinder to the jamb of a door or the like, a key-way in said cylinder, vertical channels in said casing communicating with said horizontal channel, channels in said cylinder communicating with said key-way and adapted to normally register with said vertical channels in said casing, intermediate short pins in said channels in said cylinder, locking pins in the upper portions of said vertical channels in said casing which normally project into the channels in said cylinder to lock the same against rotation, a second set of channels in said cylinder normally registering with the lower portions of said vertical channels in said casing and which communicate with said key-way, pins in said second set of channels in said cylinder, pins in the lower portions of said vertical channels, a register wheel, a symbol bearing key, connections between said registering wheel and said last mentioned pins and means upon said key coöperating with said last mentioned pins whereby when said key is withdrawn from said key-way said register wheel is caused to rotate and hold in display a symbol corresponding to the symbol upon said key, and means upon said key adapted to raise said intermediate pins and said locking pins.

1,076,995. SCREW-PRESS. FREDERICK P. RENNEBURG, Baltimore, Md. Filed Sept. 9, 1911. Serial No. 648,493. (Cl. 100—48.)



In a screw press the combination of a cylindric shell having at its bottom a longitudinal slot; a longitudinal channelway having a bottom and two vertical sides and attached to the shell and closing the said slot said channelway having its top open to the interior of the shell; a press-screw extending through said cylindric shell; and a series of plates projecting vertically and connected together as an endless chain and forming two stretches of such plates of which one stretch extends longitudinally of the shell and said press-screw with the plates projecting upwardly between the threads of the screw, and said stretch of the chain being supported by and sliding through the channelway.

1,076,996. GIN-SAW SHARPENER. JOHN RICE, Fort Payne, Ala. Filed Apr. 2, 1913. Serial No. 758,462. (Cl. 76—32.)



1. In a sharpener for gin saws, the combination with a frame, of two yokes connected rigidly together by side bars, angular brackets secured to said side bars, one of said brackets extending upwardly and the other downwardly therefrom, a pair of guides attached respectively to said brackets and extending through one of the yokes, means for yieldingly holding said guides at opposite sides of said yoke, and file carriers mounted to reciprocate in said guides.

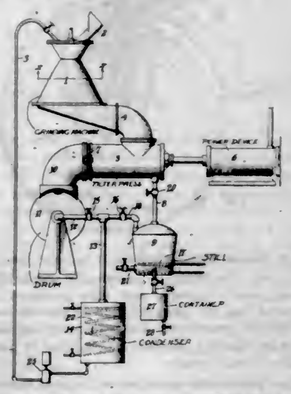
2. In a sharpener for gin saws, the combination with a frame, of a yoke mounted thereon, a guide also mounted on the frame and having a sleeve at one end projecting into the yoke, a roller bearing on said sleeve and in contact with the yoke, means for yieldingly holding said sleeve to one side of the yoke, and a file carrier mounted to reciprocate in said guide.

3. In a sharpener for gin saws, the combination with a guide consisting of parallel rods and connectors at their ends, of a cross-head slidably mounted on said rods, a file carrier secured to said cross-head and slidably mounted in the front connector, and means to reciprocate said carrier.

4. In a sharpener for gin saws, the combination with a guide, of a file carrier mounted to be reciprocated thereon, a fender detachably secured to said carrier and having an apertured crook at its outer end terminating in an offset portion, a file having one end fitted into said apertured crook and the other end secured to said carrier, the outer offset portion of said crook being adapted to throw the file out of the throat of one tooth of a saw to permit said saw at the end of the inward stroke of the carrier to be turned so as to present another tooth to said file.

5. In a sharpener for gin saws, the combination with a guide consisting of parallel rods, of a cross-head slidably mounted on said rods, and a file-carrier attached to said cross-head and adapted to be rotatably adjusted with respect thereto for the purpose specified.

1,076,997. METHOD OF EXTRACTING OILS AND FATS FROM OIL-SEEDS AND OTHER VEGETABLE RAW MATERIALS CONTAINING OILS AND FATS. ROBERT N. RIDDLE, Rahway, N. J. Filed Feb. 16, 1912. Serial No. 677,915. (Cl. 87—6.)



1. The method of extracting oils and fats from vegetable oil and fat containing substances, which consists in the subjection of such substances to alternate pressure and release of pressure to crush the same and in simultaneously subjecting the said substances to the action of a solvent.

2. The method of extracting oils or fats from vegetable oil or fat-containing substances, which consists in simultaneously introducing the said substances and a solvent into an apparatus for reducing the said substances to a finely divided state, subjecting the said substances to alternate pressure and release of pressure to reduce them to such state in such apparatus and thereafter separating the said oil or fat in solution in the solvent from the solid matter of such substances.

3. The method of extracting oil or fat from vegetable oil or fat containing substances which consists in reducing said substances to a finely divided state in the pres-

ence of a solvent, separating the oil or fat in solution in the solvent from the solid portions of the said substance, leaving the latter as a residue, and thereafter placing the said residue in a closed chamber and subjecting the same to the action of heat to remove therefrom substantially all of the remaining solvent and also subjecting said residue to the action of an inert gas to remove the last trace of solvent and the solvent being finally separated from the oil or fat solution.

4. The method of extracting oil or fat from vegetable oil or fat containing substances which consists in crushing and grinding the same to a finely divided state in the presence of a solvent to form a semi-liquid mass, separating the oil or fat and solvent solution from such mass, placing the residue in a closed chamber and subjecting to heat to drive the remaining solvent therefrom, condensing the same, and finally separating the solvent from the oil or fat solution.

5. The method of extracting oils or fats from vegetable oil or fat containing substances which consists in subjecting said substances to a crushing and grinding action in the presence of a solvent, which action includes alternate pressure and release of pressure upon the said substances, thereafter subjecting the combined mass of the said substances and the solvent to pressure to express the solution of oil or fat therefrom, applying heat to the said solution to drive the said solvent therefrom, and thereafter introducing an inert gas into the said oil or fat to remove the last trace of solvent therefrom.

[Claim 6 not printed in the Gazette.]

1,076,998. DOUBLE-DISK ATTACHMENT FOR SEED-DRILLS. OTTO GEORGE RIESKE, Beaver Dam, Wis., assignor to Albert J. Euchenhofner, Indianapolis, Ind. Filed Jan. 18, 1912. Serial No. 671,882. (Cl. 111—11.)



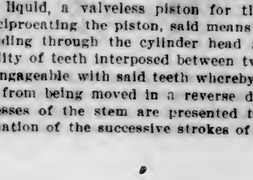
1. In a double disk attachment, a seed boot having integrally cast therewith a forwardly projecting journal lug located near its lower end, disk journals mounted on said journal lug for forward and rearward adjustments, and forwardly converging disks mounted on said journals and movable thereby on said journal lug in the planes of their initial convergence.

2. In a double disk attachment, a seed boot having integrally cast therewith a forwardly projecting journal lug located near its lower end, disk journals mounted on said journal lug for forward and rearward adjustments, forwardly converging disks mounted on said journals and movable thereby on said journal lug in the planes of their initial convergence, and the lower end of said spout being forwardly and rearwardly curved below said journal lug.

3. In a double disk attachment, a seed boot having integrally cast therewith a forwardly extended arch bar and a forwardly extended journal lug projecting respectively from the upper to the lower extremities thereof, said journal lug having forwardly converging bearing surfaces and forwardly and rearwardly adjustable disk journals, the lower end of said spout being downwardly and forwardly curved below said journal lug and forwardly converging disks mounted on said journals, and by movements of the latter, adjustable in the planes of their initial convergence.

4. In a double disk attachment, a seed boot having integrally cast therewith a forwardly extended arch bar and a forwardly extended journal lug projecting, respectively, from the upper and lower extremities thereof, said journal lug having a longitudinally extended slot, and the lower end of said spout being forwardly and downwardly curved below said journal lug, in combination with a bolt passed through the slot of said journal lug, hubs secured to said journal lug for adjustments longitudinally of the slot thereof, and forwardly converging disks journaled on said hubs, and by the said hubs and bolt, secured for forward adjustments in the planes of their initial convergence to compensate for diminution in size of the disks due to wear.

1,076,999. BOTTLE-COVER. HENRY ROHRDANTZ, Buffalo, N. Y., assignor to William C. Contant and William C. Ellison, Buffalo, N. Y. Filed July 8, 1912. Serial No. 708,099. (Cl. 215—34.)



1. A bottle cover comprising a sleeve adapted to be inserted in the neck of a bottle and provided with an upwardly projecting shank, and a lid adapted to engage with the outer end of the bottle and provided with a slot which receives said shank.

2. A bottle cover comprising a sleeve adapted to be inserted in the neck of a bottle and provided with an upwardly projecting shank, and a lid adapted to engage with the outer end of the bottle and provided with a slot which receives said shank, said shank being provided outside of said lid with a raised portion for confining the lid on said shank.

3. A bottle cover comprising a sleeve adapted to be inserted in the neck of a bottle and provided with an upwardly projecting shank, and a lid adapted to engage with the outer end of the bottle and provided with a slot which receives said shank and with a fingerpiece outside of said slot.

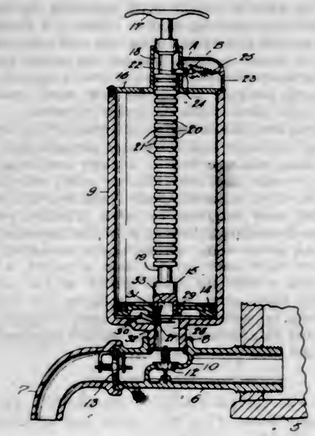
4. A bottle cover comprising a sleeve adapted to be inserted in the neck of a bottle and provided with an upwardly projecting shank, and a lid adapted to engage with the outer end of the bottle and provided with a slot which receives said shank and with a fingerpiece projecting laterally from the lid outside of its slot.

1,077,000. LIQUID-MEASURING DEVICE. CHARLES P. ROSS, Seattle, Wash. Filed Dec. 31, 1912. Serial No. 739,545. (Cl. 73—154.)

1. In apparatus of the class described, a measuring cylinder provided at one end with an inlet and discharge opening, a piston therefor, a stem terminating in a handle for operating the piston, and means engageable with the stem for preventing any reverse movement of the piston before the termination of the successive strokes.

2. In apparatus of the class described, a pump cylinder having an opening at one end for both the admission and discharge of liquid, a valveless piston for the cylinder, means for reciprocating the piston, said means comprising a stem extending through the cylinder head and formed with a plurality of teeth interposed between two recesses, and a pawl engageable with said teeth whereby the piston is prevented from being moved in a reverse direction before the recesses of the stem are presented to the pawl at the termination of the successive strokes of the piston.

3. In apparatus of the class described, a measuring cylinder, a piston therefor, a stem for operating the piston, means engageable with the stem for preventing any reverse movement of the piston before the termination of the successive strokes, and means coöperating with the aforesaid means for locking the piston against movement when the supply of liquid to the apparatus is interrupted.

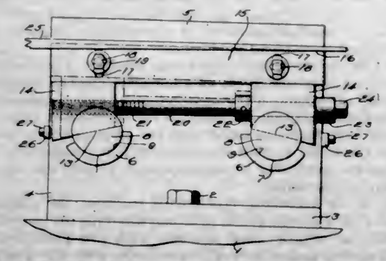


4. In apparatus of the class described, a pump cylinder, a draw-off tube connected with the cylinder, non-return valves provided in said tube for regulating the flow of liquid to and from the cylinder, a piston for the cylinder, a spring-actuated pawl, and an operating stem for the piston, said stem being formed to be engaged by the pawl to prevent reverse movement being imparted to the piston before the termination of the successive strokes.

5. In apparatus of the class described, a pump cylinder, a draw-off tube connected intermediate its length to said cylinder, spring-controlled non-return valves in said tube at opposite sides of its connection with the cylinder, a piston for the cylinder, an operating stem for the piston, said stem being provided in proximity to each of its extremities with a peripheral recess and intermediate the recesses is provided with a series of annular ridges, and a spring-controlled pawl engageable with the said ridges to prevent any reverse movement of the piston before the respective recesses are presented to the pawl at the termination of the successive strokes of the piston.

[Claim 6 not printed in the Gazette.]

1,077,001. CLAMPING DEVICE. WILLARD NELSON SAWYER, Winchendon, Mass., assignor to William M. Whitney, Winchendon, Mass. Filed Apr. 14, 1913. Serial No. 760,878. (Cl. 144—289.)



1. A clamping device comprising two opposed jaw members, wedges for moving the jaw members relatively into clamping relation, and automatically adjustable sustaining means for said wedges movable to conform to the inclination of the wedges as the jaw members are clamped upon the work.

2. A clamping device, comprising a standard having a jaw, a plurality of wedges opposed to said jaw, supports for said wedges, and loosely mounted lining between the wedges and their supports adapted to automatically conform to the inclination of the wedges.

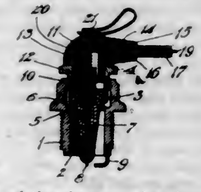
3. A clamping device, comprising a standard having an overhanging jaw, a plurality of wedges opposed to said overhanging jaw, supports for said wedges, loosely mounted lining between the wedges and their supports adapted to automatically conform to the inclination of the wedges, and means for relatively moving said wedges.

4. In a clamping device of the character described, the combination of a standard having an upper jaw, lower jaw supports projecting from the standard, a wedge sustained by each of said lower jaw supports, said supports being automatically conformable with the inclination of the respective wedges, a lower jaw operated by said wedges, and means for relatively moving the wedges.

5. In a clamping device of the character described, the combination of a standard having a fixed jaw and a movable jaw, jaw supports projecting from the standard, linings loosely sustained by said jaw supports to permit said linings to be self-adjusting in conformity with the distribution of strains thereon, a wedge sustained by each of said linings, and means for relatively moving the wedges.

[Claims 6 to 11 not printed in the Gazette.]

1,077,002. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Co., Flint, Mich., a Corporation of Michigan. Filed May 1, 1911. Serial No. 624,335. (Cl. 123—169.)



1. In a device of the character described, the combination of a casing having an open upper end, an insulating member in said casing, the terminals, and an insulating head fitting and free to turn within the upper end of said casing and adapted to receive and hold one end of an electrical conductor in proper relation to one of the terminals.

2. In a spark plug, the combination with a casing having an open upper end and an insulating member within and held by said casing, of an insulating head closing the upper end of the casing and having a lateral opening adapted to receive and hold the end of an electrical conductor, and means for detachably holding said head in place adapted to permit the free rotation of the head relatively to the casing.

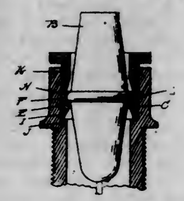
3. In a spark plug, the combination with a casing and an insulating member in said casing, of an insulating head provided with an opening to receive an electrical conductor and closing the upper end of the casing, and a member pivotally attached to the head adapted to be turned to detach said head.

4. In a spark plug, the combination with a casing and an insulating member in said casing, of an insulating head provided with an opening to receive an electrical conductor, and a yoke pivotally attached to the head and engaging the casing for detachably holding the head in place.

5. In a spark plug, the combination with a casing and an insulating member in said casing, of an insulating head free to turn upon and closing the upper end of the casing, means on the head for the attachment of an electrical conductor thereto, and a member carried by the head for yieldingly and detachably holding the head in place.

[Claims 6 to 18 not printed in the Gazette.]

1,077,003. SPARK-PLUG. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Mar. 16, 1912. Serial No. 684,116. (Cl. 123—169.)



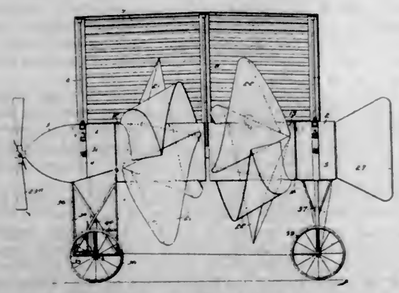
1. In a spark plug, the combination with a metallic case, of an insulator therein having an annular bead or enlargement of its body, a metallic ring surrounding said insulator and provided with a knife edge shoulder engaging and flattened against one side of said bead to form a gas-tight joint, the portion of the ring on the opposite side of said bead being peened down to secure the ring from displacement.

2. In a spark plug, the combination with an insulator having an annular bead or enlargement surrounding the body portion thereof, of a metallic ring surrounding said insulator having a knife edge shoulder flattened against one side of said bead or enlargement, the portion of said ring upon the opposite side of said enlargement being peened down to permanently secure the ring in position.

3. In a spark plug, the combination with an insulator having an annular bead or enlargement surrounding the body thereof, of a metallic ring of greater diameter than said enlargement provided with a tapering inward projection forming a knife edge bearing for one side of said enlargement, the portion of said ring upon the opposite side of said enlargement being peened down into engagement therewith, and a metallic case having clamping bearings for said ring out of alinement with said bead.

4. In a spark plug, the combination with an insulator having an annular bead or enlargement surrounding the body thereof, of a metallic ring having an inwardly projecting annular bearing for engaging one side of said bead or enlargement, and a portion upon the opposite side of said bead or enlargement being peened down, said ring being provided with a solid part integral with said portion and said projection of greater cross-section than said bead, having opposed shoulders out of alinement with said bead, for the purpose described.

1,077,004. AIRSHIP. FREDERICK SIFFERMAN, South Bethlehem, Pa. Filed Oct. 8, 1912. Serial No. 724,579. (Cl. 244—14.)

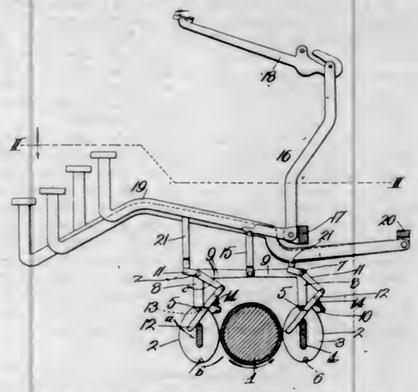


1. A flying machine including a body formed of front and rear stationary sections and a pair of intervening rotary cylinders, a shaft extending longitudinally through the body and to which one of said cylinders is fixed, a second shaft journaled on the first named shaft and carrying the other cylinder, propeller blades upon the respective cylinders, a driving propeller actuated by the first named shaft, means for oppositely rotating the shafts, arms extending from the body, and an arched sustaining surface arranged above the body and supported by said arms.

2. A flying machine comprising an elongated hollow body, including front and rear stationary sections and a pair of intervening rotary cylinders, a shaft extending longitudinally through the body and to which one of said cylinders is fixed, a second shaft journaled on the first named shaft and carrying another cylinder, a third shaft journaled on the first named shaft and carrying a driving propeller, a motor, gearing between the motor and two first named shafts for driving said shafts in opposite directions, gearing between the motor and third shaft, and spiral propeller blades upon the rotary cylinders.

3. A flying machine including an elongated hollow body comprising front and rear stationary sections and a pair of intervening rotary cylinders, a shaft extending longitudinally through the body and to which one of said cylinders is fixed, a second shaft journaled on the first named shaft and carrying the other cylinder, propeller blades upon the rotary cylinders, a driving propeller at the forward end of the body, a third shaft journaled on the first named shaft and carrying said propeller, a motor driven means within the front section of the body for driving the third shaft and for rotating the two first named shafts in opposite directions, arms extending from the body, and an arched sustaining surface arranged above the body and supported by said arms.

1,077,005. TYPE-WRITING MACHINE. JAMES F. SMATHERS, Kansas City, Mo. Filed Apr. 18, 1912. Serial No. 691,747. (Cl. 197—17.)



1. In an automatic typewriting machine, the combination with a driven roller, of a movable type-bar operating device, an elliptic wheel movable with and journaled on said device, means normally interlocked with the wheel, and means to cause the first-named means when not interlocked with the wheel to turn the latter until near its point of smallest diameter it peripherially engages the roller and is rotated thereby.

2. In an automatic typewriting machine, the combination with a driven roller, of a movable type-bar operating device, an elliptic wheel movable with and journaled on said device, an endwise movable bar interlocked with the wheel, and means to cause said bar when not interlocked with the wheel to turn the latter until it peripherally engages the roller and is simultaneously rotated and moved bodily by the latter.

3. In an automatic typewriting machine, the combination with a driven roller, of a movable type-bar operating device, an elliptic wheel movable with and journaled on said device, means normally interlocked with the wheel, a key lever, and means actuated by the key lever to cause said first-named means when not interlocked with the wheel to turn the latter until it peripherally engages the roller and is simultaneously rotated and moved bodily thereby.

4. In an automatic typewriting machine, the combination of a driven roller, a pivoted type-bar operating device, an elliptic wheel journaled on the free end of said device, and adapted for movement bodily toward and from said roller, means normally interlocked with the wheel, and means to cause the first-named means when not interlocked with the wheel, to turn the latter until it peripherally engages the roller and is rotated thereby, said pivoted device holding the wheel pressed yieldingly against the roller until the former completes a half revolution.

5. In an automatic typewriting machine, the combination of a driven roller, a movable type-bar operating device, an elliptic wheel movable with and journaled on said device, and adapted to swing with said device toward and from the roller, a bar interlocked with the wheel and normally holding the same stationary, means to withdraw said bar from its interlocked relation with the wheel, and yielding means for causing the bar as it is unlocked to turn the wheel until it peripherally engages the roller.

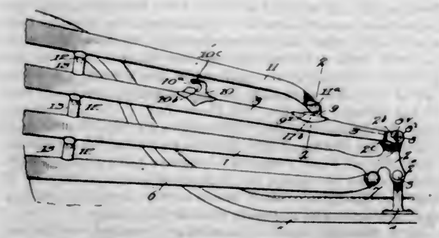
[Claims 6 to 9 not printed in the Gazette.]

1,077,006. BOLT-FASTENING. BELDIN C. SMITH, Detroit, Mich. Filed Nov. 9, 1912. Serial No. 730,386. (Cl. 21—62.)



The combination with parts to be secured together and having coincident bolt holes, of a bolt fastening comprising a bolt having a lengthwise slot at one end, a lever pivoted in such slot at a point located laterally from the longer axis of both bolt and plate and having its pivot end rounded concentrically with the pivot between points *x* and *y*, so that the lever may be turned crosswise of the bolt after the insertion of the latter through the parts to be secured together and the inner edge of the lever will then lie in contact with the adjacent surface on both sides of the bolt hole, as described.

1,077,007. VEHICLE TOP-SUPPORT. BELDIN C. SMITH and DAVID HORVITZ, Detroit, Mich. Filed Jan. 31, 1913. Serial No. 745,393. (Cl. 21—62.)

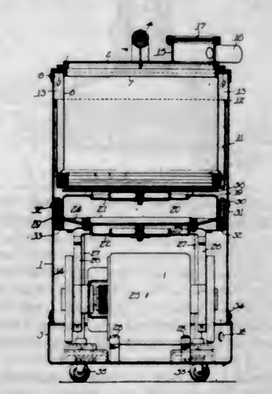


1. In a supporting device for an extension top, a bow provided with a pair of brackets, each having sockets bent at their inner ends, each bracket having an abutment portion, a second bow provided with a pin arranged to enter either of said sockets and having a pair of integral cam members, one of said cam members being arranged to engage the abutment of one of said brackets for forcing the pin into the end of the socket, and the other of said members being arranged to engage the abutment of the other of said brackets for forcing the pin into the end of its socket.

2. In a supporting device for an extension top, a bow, a bracket secured on one side of said bow and being provided with a flange on one side thereof, said bracket having a socket disposed between the flange and the bow and being provided with a portion at its inner end bent toward the bow, a second bow provided with a pivot pin arranged to enter said socket and having a pair of oblong cam members, the lines of the greater lengths of said cam members having an angular relation with one another and each of said cam members being disposed eccentrically of said pin, the turning of the pin in said socket serving to bring one of said cam members against said flange thereby crowding the pin into the bent end of the socket.

3. In a supporting device for an extension top, a bow, a bracket secured on one side of said bow and being provided with a flange on one side thereof, said bracket having a socket disposed between the flange and the bow and being provided with a portion at its inner end bent toward the bow, a second bow provided with a pivot pin arranged to enter said socket and having a pair of oblong cam members, the lines of the greater lengths of said cam members having an angular relation with one another and each of said cam members being disposed eccentrically of said pin, the turning of the pin in said socket serving to bring one of said cam members against said flange thereby crowding the pin into the bent end of the socket, and a second bracket having a socket arranged to receive the pin and being provided with an end bent away from the bow, the turning of the pin in the socket of the second bracket serving to bring the other of said cam members into engagement with the bows of the bracket thereby crowding the pin into the bent portion of the socket and locking the bow in position.

1,077,008. VACUUM-CLEANER. JOHN W. SMITH, Chicago, Ill., assignor to Howard Small and Charles A. Duren, Philadelphia, Pa. Filed June 29, 1909. Serial No. 505,058. (Cl. 230—5.)



1. In a vacuum cleaner, the combination of a casing, a base section for said casing, pump mechanism, a motor for operating the same and interposed between the base section and the pump mechanism, and a ring within the casing to which the pump mechanism is secured, the pump mechanism, motor and base section constituting a unit structure; substantially as described.

2. In a vacuum cleaner, the combination of a casing, a base section for said casing, pump mechanism, a motor for operating the same and interposed between the base

section and the pump mechanism, the pump mechanism, motor and base section constituting a unit structure, a ring within the casing to which the pump mechanism is secured, and a gasket between said ring and pump mechanism; substantially as described.

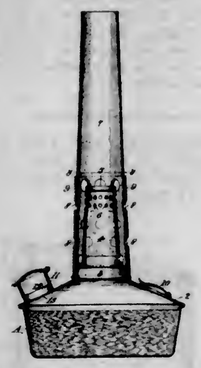
3. In a vacuum cleaner, the combination of a base section, a motor and pump mounted thereon one above the other, a casing section engaging the base section and forming a close joint therewith and also forming a close joint with the pump whereby said casing is divided by the pump into two chambers.

4. In a vacuum cleaner, the combination of a base section, a motor mounted thereon, a pump also mounted on the base section and above the motor, a casing section engaging the base section and forming a close joint therewith and also forming a close joint with the pump whereby said casing is divided by the pump into two chambers.

5. In a vacuum cleaner, the combination of a base section, a motor and pump mounted thereon one above the other, a casing section engaging the base section and forming a close joint therewith and likewise engaging the pump, packing between the pump and the casing section whereby the casing is divided by the pump into two chambers.

[Claim 6 not printed in the Gazette.]

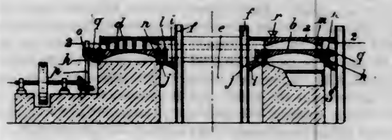
1,077,009. ORCHARD-HEATER. REGINALD G. SMITH and EARL N. PERCY, Oakland, Cal. Filed July 30, 1913. Serial No. 781,975. (Cl. 158—91.)



1. In an orchard heater, the combination of a liquid fuel containing receptacle having a close fitting cover, said cover having a gas outlet and a combusting stack in conjunction therewith, and an exterior tube carried by the cover and projecting outwardly therefrom and opening into the receptacle and with its axis pointing in the direction of the bottom of the receptacle, said tube of less length and smaller diameter than the stack whereby the up draft through the stack induces a drawn draft through the tube so that the incoming air sweeps across the surface of the oil in the receptacle.

2. In an orchard heater, the combination of a fuel containing receptacle having a close fitting cover, said cover having a stack on its exterior and opening into the receptacle, said stack provided with perforations around its base, an exterior air draft tube carried on the outside of the cover and projecting outwardly and away therefrom, and opening downwardly into the receptacle, said outwardly projecting air tube being shorter than the stack, the stack and tube constructed and arranged to create by the updraft through the stack a down-draft through the tube and into the receptacle, said tube having a regulating damper and said stack having a damper controlling the aforesaid perforations therein.

1,077,010. MECHANICAL SYSTEM FOR ROASTING SULFUROUS ORES BY A CONTINUOUS PROCESS. XAVIER DE SPIRLET, Brussels, Belgium. Filed Mar. 18, 1913. Serial No. 755,159. (Cl. 75—135.)



In a roasting furnace, a rotary annular hearth, a fixed annular roof above said hearth, a series of teeth suspended from said roof, said roof and teeth being provided with ventilating passages arranged to extend continuously through alternate portions of the roof and the teeth.

1,077,011. DEFLATING DEVICE. WILLIAM FREDRICK SPRICK, Stickney, S. D. Filed June 20, 1913. Serial No. 774,833. (Cl. 152—11.)

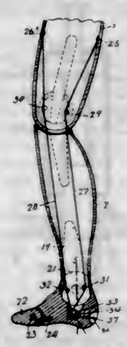


1. A deflating device for use with the air valves of pneumatic tires, comprising in combination a plunger rod having one end adapted to enter the valve casing and engage the stem of the valve to open the same, said plunger having at the other end a hook or handle, a plate having its side edges flanged intermediate its ends, the plunger rod being received between the flanges, a pivot pin pivotally connecting the plunger to the flanges, the lower end of the plate extending to approximately the lower end of the plunger and the said lower end of the plate being curved transversely and arranged with its concave face toward the plunger, said face having a series of transverse ribs or teeth facing the opposite end of the plunger and adapted to engage the threads of the valve casing to hold the plunger in place, and a plate spring secured at one end to the plate at the end remote from the teeth, said spring being curved toward the plunger and having a notch at its free end for receiving the plunger and acting normally to press the toothed end of the plate toward the plunger.

2. A deflecting device for use with the air valves of pneumatic tires, comprising in combination a plunger rod having one end adapted to enter the valve casing and engage the stem of the valve to open the same, a plate having its side edges flanged intermediate its ends, the plunger rod being received between the flanges, a pivot pin pivotally connecting the plunger to the flanges, the lower end of the plate extending to approximately the lower end of the plunger and the said lower end of the plate being curved transversely and arranged with its concave face toward the plunger, said face having a series of transverse ribs or teeth facing the opposite end of the plunger and adapted to engage the threads of the valve casing to hold the plunger in place, and a spring normally pressing the toothed end of the plate toward the plunger.

3. A deflating device comprising a plunger rod for insertion in the air valve of the pneumatic tire to engage the stem to open the valve, a plate pivoted intermediate its ends to the plunger, the lower end of the plate being curved transversely to fit the periphery of the valve casing and being provided on its inner face with teeth for engaging the threads of the casing to prevent movement of the plate away from the casing, and a spring normally pressing the toothed end of the plate toward the plunger.

1,077,012. ARTIFICIAL LIMB. JOSEPH B. STAGE, Wabeno, Wis. Filed July 11, 1913. Serial No. 778,466. (Cl. 3—3.)



1. In a device of the character described, an upper limb, a lower limb articulated with the upper limb, means for locking the lower limb rigid in relationship to the upper limb, a foot connected with the lower limb, wires connecting said foot to the upper limb for causing the upper limb to actuate the foot, guiding pins arranged in the upper limb and in the lower limb for guiding said connecting wires and means arranged in said foot for maintaining said wires under tension.

2. In a device of the character described, an upper limb, a lower limb pivotally connected with the upper limb, a foot pivotally connected with the lower limb, a pair of spaced wires extending from the upper limb through the lower limb to said foot, means for connecting the upper end of the said wires to the opposite sides of the upper limb, a plurality of means for holding said wires spaced and means for connecting the lower end of the said wires to said foot, whereby when said upper limb is moved pivotally said foot will be correspondingly moved.

3. In a device of the character described, an upper limb, a lower limb, a joint for pivotally connecting said limbs, said joint comprising a ring structure connected with one of the limbs and interlocking with the other limb, a pair of clamping plates arranged on said ring and a locking member rigidly secured to said upper limb arranged to engage and spread said plates against said ring for causing a locking action between the plates and the ring, whereby the upper and lower limbs are rigidly held together.

4. In a device of the character described, an upper limb, a lower limb jointed to the upper limb, means for locking the limbs together when pressure is brought to bear on said upper limb, said means including a socket member connected with the lower limb and overlapping the upper limb, a wedge-shaped member rigidly connected with the upper member and projecting into said socket member, and means actuated by said wedge for clamping said socket member, and means for connecting a foot structure to said lower limb.

1,077,013. PROCESS AND APPARATUS FOR CROSS-ROLLING AND EXPANDING TUBES. RALPH CHARLES STIEFEL, Ellwood City, Pa. Filed July 3, 1912. Serial No. 707,501. (Cl. 80—62.)

1. The process of cross rolling a tube which comprises progressively and simultaneously cross rolling the tube at a plurality of different portions of different diameter by a plurality of pairs of rolling bodies having progressively increasing ratios between the feeding and the rotatory rolling components and a mandrel bar having different diameters, such cross rolling spreading the metal both longitudinally and transversely at one or more of the pairs by rolling faces that are convex longitudinally, the metal advancing over the bar and in a succeeding pair being cross rolled on a larger diameter of the mandrel bar.

2. The process of cross rolling a tube which comprises progressively and simultaneously cross rolling the tube at a plurality of different portions of different diameter by a plurality of pairs of rolling bodies having progressively increasing ratios between the feeding and the rotatory rolling components and a mandrel bar having different diameters, such cross rolling spreading the metal both longitudinally and transversely at one or more of the pairs by rolling faces that are convex longitudinally, the metal advancing over the bar and in a succeeding pair being cross rolled on a larger diameter of the mandrel bar, and toward the exit of the pass smoothing the tube between substantially straight, parallel faces.



3. The process of cross rolling a tube which comprises progressively and simultaneously cross rolling the tube at a plurality of different portions of different diameter by a plurality of pairs of rolling bodies and a mandrel bar having different diameters, such cross rolling spreading the metal both longitudinally and transversely at one or more of the pairs by rolling faces that are convex longitudinally, the metal advancing over the bar and in a succeeding pair being cross rolled on a larger diameter of the mandrel bar, while allowing a restricted movement of the mandrel bar at a less rate than the tube.

4. The process of cross rolling a tube which comprises progressively and simultaneously cross rolling and expanding the tube at a plurality of different portions of its length upon a mandrel bar of progressively larger diameters at such portions and with progressively increasing ratios of feeding to rotating rolling components.

5. The process of cross rolling a tube which comprises progressively and simultaneously cross rolling and expanding the tube at a plurality of different portions of its length upon a mandrel bar of progressively larger diameters at such portions, and holding back the mandrel bar relatively to the tube while allowing it to turn freely.

[Claims 6 to 10 not printed in the Gazette.]

1,077,014. PROCESS AND APPARATUS FOR PIERCING AND ROLLING TUBES. RALPH CHARLES STIEFEL, Ellwood City, Pa. Filed July 3, 1912. Serial No. 707,502. (Cl. 80—62.)



1. The continuous process of piercing and elongating billets comprising piercing the billet by subjecting it to cross rolling between cross rolling bodies and a mandrel bar, and as the billet advances on the mandrel bar progressively and simultaneously elongating the tube and reducing the wall thickness by subjecting it to cross rolling pressure on the mandrel bar at a plurality of portions of its length between a plurality of pairs of convex cross rolling bodies with progressive increase of the ratios of feeding to cross rolling speed components.

2. The continuous process of piercing and elongating billets comprising piercing the billet by subjecting it to cross rolling between cross rolling bodies and a mandrel bar, and as the billet advances on the mandrel bar progressively and simultaneously elongating the tube and reducing the wall thickness by subjecting it to cross rolling pressure on the mandrel bar at a plurality of portions of its length between a plurality of pairs of convex cross rolling bodies with progressive increase of the ratios of feeding to cross rolling speed components, and progressively and simultaneously smoothing the exterior surface of the tube by cross rolling pressure between surfaces that are substantially parallel with the axis of the pass.

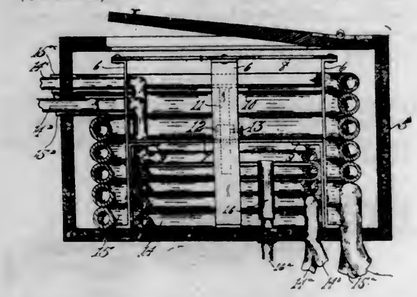
3. The continuous process of piercing and elongating billets comprising piercing the billet by subjecting it to cross rolling pressure between rolling bodies and a mandrel bar, and as the billet advances on the bar progressively and simultaneously subjecting it to cross rolling pressure by successive pairs of convex cross rolling bodies with progressive increase of the ratios of feeding to cross rolling speed components.

4. The continuous process of piercing and elongating billets comprising piercing the billet by subjecting it to cross rolling pressure between rolling bodies and a mandrel bar, and as the billet advances on the bar progressively and simultaneously subjecting it to cross rolling pressure by pairs of convex cross rolling bodies, and subjecting one or more portions of the tube to longitudinal tension by progressively increasing the feeding tendency of one or more roll pairs toward the exit end of the pass in excess of that corresponding to the decrease of cross section of the tube.

5. The continuous process of piercing and elongating billets comprising piercing the billet by subjecting it to cross rolling between cross rolling bodies and a mandrel bar, and as the billet advances on the mandrel bar progressively and simultaneously elongating the tube and reducing the wall thickness and also expanding the tube by subjecting it to cross rolling pressure on the mandrel bar at a plurality of portions of its length between a plurality of pairs of convex cross rolling bodies, and passing the tube expanded by one pair of rolls onto a larger diameter of the mandrel bar, where it is cross rolled by the succeeding pair with an increase in the ratio of feeding to cross rolling speed components.

[Claims 6 to 9 not printed in the Gazette.]

1,077,015. BEER-COOLER. FERDINAND TUREK, Cleveland, Ohio. Filed Dec. 6, 1912. Serial No. 735,250. (Cl. 62—2.)

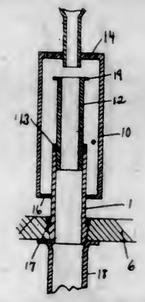


1. A cooler for liquids, comprising a box, a pipe coil therein, and an ice support comprising legs standing beside the coil, a frame connecting the upper ends of the legs, a plate supported between said legs, and a perforated tray supported by the plate above the coil and below the frame, the tray being adjustable up and down to vary its position in the box.

2. A cooler for liquids, comprising a box, inner and outer sets of pipe coils therein, legs standing between the sets of coils and removable therefrom, a plate supported by the legs, and a perforated tray supported by the plate above the inner coil and removable with the legs through the top of the box.

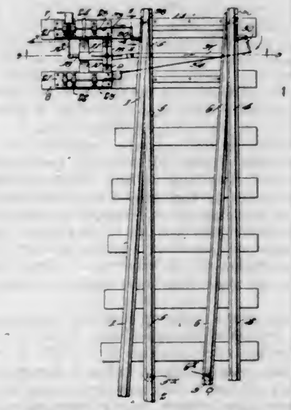
1,077,016. BEER-COOLER. FERDINAND TUREK, Cleveland, Ohio. Filed Dec. 12, 1911, Serial No. 665,204. Renewed Feb. 17, 1913. Serial No. 749,027. (Cl. 62—2.)

1. An outlet device for beer coolers or the like, comprising an outlet pipe located in the bottom of the cooler and leading to a waste pipe therefrom, a perforated casing surrounding said pipe and having a top covering the upper end thereof, and a drippings pipe supported by the top of said casing and arranged to discharge into said pipe.



2. The combination with the box of a beer cooler or the like, and a waste outlet in the bottom thereof, of a lower pipe section having a plug fitting in said outlet, an upper pipe section mounted on the lower pipe section and adjustable vertically to govern the depth of water in the box, a perforated casing surrounding said sections, and a drippings pipe extending through the top of said casing, and supported thereby in position to discharge into said adjustable section.

1,077,017. RAILWAY-SWITCH. CHARLES A. TURNER and ARA B. EDWARDS, Hamlet, N. C. Filed Aug. 22, 1912. Serial No. 716,430. (Cl. 104—25.)



1. The combination with stationary track rails and movable switch tongues for each rail, of an operating handle, means connected with said operating handle for simultaneously shifting said switch tongues, means operated by the handle for locking either of said switch tongues, said means comprising a slidable plate arranged to be moved by said handle, a lug carried by said switch tongue and arranged to project through said track rail, a slidable bar carried by said track rail and arranged to pass through said lug, and means connected with said slidable plate for operating said slidable bar.

2. The combination with stationary track rails and movable switch tongues for each rail, of an operating handle, means connected with said operating handle for simultaneously shifting said switch tongues, means operated by the handle for locking either of said switch tongues, said means comprising a slidable plate arranged to be moved by said handle, a lug carried by said switch tongue and arranged to project through said track rail, a slidable bar carried by said track rail and arranged to pass through said lug, and a bell-crank lever pivotally mounted on the outside of the rail, one end of said bell-crank lever being arranged to engage said slidable bar and the other end being pivotally connected to said slidable plate.

3. The combination with stationary track rails and movable switch tongues therefor, of an operating handle, means connected with said handle for shifting said switch tongues, a slidable plate disposed on each side of said switch stand, means connected with one slidable plate and arranged to be operated by a movement of said handle for locking one of said switch tongues, and means connected with the other slidable plate and arranged to be operated by a movement of said handle for locking the other of said switch tongues.

4. The combination with stationary track rails and movable switch tongues therefor, of an operating handle, means connected with said handle for shifting said switch tongues, a slidable plate disposed on each side of said switch stand, each of said slidable plates being provided with a slot having inclined edges arranged to be engaged by a movement of said operating handle for shifting said plates, a downward movement of said handle serving to shift the plate in one direction, and an upward movement serving to shift it in the opposite direction, and means connected with each slidable plate for locking one of said rails when the plate is shifted in one direction, and for unlocking it when it is shifted in the other.

5. The combination with stationary track rails and movable switch tongues therefor, of an operating handle, means connected with said handles for shifting said switch tongues, a slidable plate disposed on each side of said switch stand, each of said slidable plates being provided with a slot having inclined edges arranged to be engaged by a movement of said operating handle for shifting said plates, a downward movement of said handle serving to shift the plate in one direction, and an upward movement serving to shift it in the opposite direction, means connected with each slidable plate for locking one of said rails when the plate is shifted in one direction, and for unlocking it when it is shifted in the other, and spring means for locking one of said slidable plates.

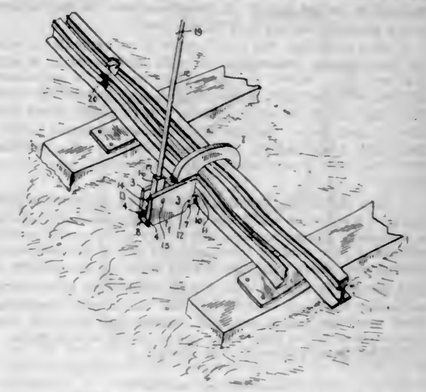
1,077,018. TROLLEY. SEGISMUNDO GARCIA VALLES, Habana, Cuba. Filed Apr. 8, 1913. Serial No. 759,672. (Cl. 191—61.)



In a trolley, a pole having a pyramidal recess in its end, and arms extending beyond said end; a wheel between said arms; an axle supporting said wheel; brushes at each side of said wheel on said axle adjacent the arms and each having a portion extending into said pyramidal recess; and pins in said recess forcing said brush portions in said recess against the sides forming the bifurcation.

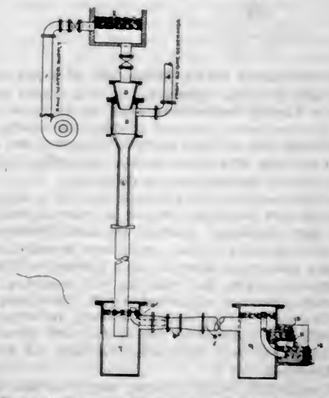
1,077,019. RAIL-STRAIGHTENING DEVICE. JOHN S. WAGNER, Red Wing, Minn. Filed Apr. 14, 1913. Serial No. 761,013. (Cl. 153—38.)

In a rail straightening device of the character described the combination of a semicircular rail gripping member, guide plates arranged in parallel relation on the inner end of said member, the former having therein oppositely disposed longitudinal grooves, a wedge slidably mounted between said plates and having a shoulder formed at its outer end, the latter being adapted to fit the part with which said wedge is engaged, longitudinal tongues formed on the sides of said wedge and adapted to engage the grooves in said guide plates, the tongue on one side of said wedge being broken away to form a recess, a stop



screw arranged in one of said guide plates and adapted to project within said recess to limit the movement of said wedge, a rack arranged on said wedge, a segmental gear pivotally mounted between said plates in a position to engage said rack, a shank formed on said gear having therein a socket and an operating lever adapted to detachably engage the socket in said shank whereby said gear may be manually operated to project and retract said wedge.

1,077,020. STERILIZER. ALBERT E. WALDEN, Baltimore, Md. Filed June 20, 1912. Serial No. 704,708. (Cl. 210—1.)



1. In a sterilizer, the combination of an aspirator, a mixing well into which the lower end of the aspirator projects, a secondary mixing well provided with weirs on the outside thereof, a pipe projecting from near the top of the secondary mixing well down into one of said weirs on the outside of said secondary mixing well, and a pipe connecting said mixing wells.

2. In a sterilizer, the combination of an aspirator, a mixing well in which the lower end of the aspirator projects, a secondary mixing well provided with weirs on the outside thereof, a pipe connecting said mixing wells and

having a contracted neck, and a pipe projecting from near the top of the first mixing well into the contracted neck of the pipe which counecta the mixing wells.

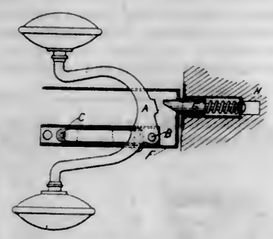
3. In a sterilizer, the combination of an aspirator, a mixing well into which the aspirator projects, a secondary mixing well provided with weirs, a pipe projecting from near the top of the said secondary mixing well down into one of said weirs, the side walls of which latter project high enough to form a seal by the overflow from the weir above, and a pipe connecting said mixing wells.

4. In a sterilizer, the combination of an aspirator, a supply tank having communication with said aspirator, a mixing well into which the aspirator projects, a secondary mixing well provided with weirs, a pipe projecting from near the top of the said secondary mixing well down into one of said weirs, the side walls of which latter project upwardly high enough to form a seal by the overflow from the weir above, and a pipe connecting said mixing wells.

5. In a sterilizer, the combination of an aspirator, a mixing well into which the lower end of the aspirator projects, a secondary mixing well provided with weirs on the outside thereof, a pipe leading from near the top of the secondary mixing well down into one of said weirs on the outside of said secondary mixing well, a pipe connecting said mixing wells and having a contracted neck, and a pipe projecting from near the top of the first mixing well into the contracted neck of the pipe which connects the mixing wells.

[Claim 6 not printed in the Gazette.]

1,077,021. DOOR-LOCK. FRANK WARCUP, Westernville, N. Y. Filed Apr. 17, 1913. Serial No. 761,820. (Cl. 70—29.)

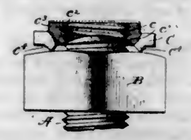


1. The combination with a sliding bolt, of a lock casing having a bolt receiving aperture, and a U-shaped releasing member having handle extensions at its outer ends, the said member being extended through the casing in a horizontal plane and in line with the sliding bolt and being pivoted at one side of a center within the casing adjacent the said bolt, all for the purpose described.

2. The combination with a sliding bolt, of a lock casing having a bolt receiving aperture at one end and side slots, a bolt releasing member extended horizontally through the side slots of the casing and having handles at its outer ends, said member being pivoted within the casing adjacent and in line with the bolt receiving aperture, a sliding member supported within the casing and carrying the pivot of the member whereby to adjust the latter within the confines of the casing side slots, and means whereby to lock the sliding member, all for the purpose described.

3. The combination with a sliding bolt, of a lock casing having a bolt receiving aperture at one end and side slots, a bolt releasing member extended horizontally through the side slots of the casing and having handles at its outer ends, said member being pivoted within the casing adjacent and in line with the bolt receiving aperture, a sliding member supported within the casing and carrying the pivot of the member whereby to adjust the latter within the confines of the casing side slots, means whereby to lock the sliding member, said last named means consisting of a spring controlled stud engageable within apertures in the sliding member and disposed over a longitudinal slot in the said member, and the casing being provided with a key frame below the sliding member and in line with its slotted opening, all for the purpose described.

1,077,022. SELF-LOCKING NUT AND PROCESS OF MAKING THE SAME. DANIEL O. WARD, Oak Park, Ill.; Nellie Lee Ward administratrix of said Daniel O. Ward, deceased. Filed Jan. 19, 1912. Serial No. 672,197. (Cl. 151—21.)



1. A self-locking nut comprising in its construction a body having a bolt-receiving aperture, and provided with helical thread portions located at unequal distances from each other and adapted to engage the helical thread of a bolt, and transverse sharp projecting edges on one face of the body, adapted to engage a nut and hold the same in fixed relation to the self-locking nut.

2. A self-locking nut comprising in its construction a body having a bolt-receiving aperture, and provided with a helical thread portion encircling the aperture and consisting of uniformly spaced convolutions, and another helical thread portion located closer to said first mentioned helical thread portion than the uniformly spaced convolutions are to each other, for holding said self-locking nut in fixed relation to a bolt, and transverse ridges provided with sharp edges on opposite sides of the threaded perforation and projecting from the face of the body, adapted to engage a nut and hold the same in fixed relation to the self-locking nut.

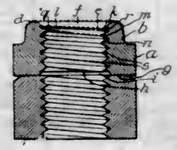
3. A self-locking nut comprising in its construction a body having a bolt receiving aperture, a boss projecting beyond an adjacent surface of the body and encircling the aperture, and a helical thread encircling the aperture, said thread comprising convolutions in the body and other convolutions in the boss and located at different distances from each other than are the convolutions in the body for holding said self-locking nut in fixed relation to a bolt, and transverse ridges provided with sharp edges on opposite sides of the threaded perforations and projecting from the face of the body, adapted to engage a nut and hold the same in fixed relation to the self-locking nut.

4. In a device of the class described, the combination of a self-locking nut member comprising in its construction a body having a bolt receiving aperture, a boss projecting beyond an adjacent surface of the body and encircling the aperture, and a helical thread encircling the aperture, said thread comprising convolutions in the main body and other convolutions in the boss located closer together than the convolutions in the body for holding said self-locking nut member in fixed relation to a bolt, transverse ridges provided with sharp edges on opposite sides of the threaded perforation and projecting from one face of the body, adapted to engage a nut and hold the same in fixed relation to the self-locking nut member, a threaded bolt in threaded engagement with said self-locking nut member, and a threaded nut in engagement with the projecting edges of the self-locking nut member and in threaded engagement with the bolt.

5. In a device of the character described, the combination of a self-locking member comprising in its construction a body having a bolt receiving aperture and provided with helical thread portions unequally spaced and adapted to engage the helical thread of a bolt, transverse ribs upon said body provided with sharp edges projecting endwise of the body and adapted to engage a nut for holding the same in fixed relation to the nut lock member, a threaded bolt in threaded engagement with said self-locking nut lock member, and a threaded nut in engagement with the edges of the nut lock member and in threaded engagement with the bolt.

[Claim 6 not printed in the Gazette.]

1,077,023. SELF-LOCKING NUT. DANIEL O. WARD, Oak Park, Ill.; Nellie Lee Ward administratrix of said Daniel O. Ward, deceased. Filed Apr. 15, 1912. Serial No. 690,780. (Cl. 151—21.)



1. A self-locking nut comprising a main body portion, having a bolt receiving aperture provided with adjacent helical thread portions encircling the aperture, the upper laps of which are disposed at a less distance from each other than the remaining laps of said thread, said main body portion encircling the aperture and projecting above the thread thereof, the projection receding away from the aperture at the closer threaded portion of the nut to the upper end of the nut.

2. A self-locking nut having a main body portion provided with a bolt-receiving aperture, and comprising in its construction a helical thread forming a plurality of convolutions or laps encircling the aperture and having their inner edges located at unequal distances from each other, the outermost lap of said thread having a side surface extending entirely therearound and outward laterally and endwise of the nut to the end thereof at an oblique angle with respect to the axis of the nut.

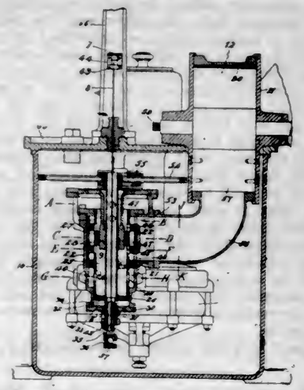
3. A self-locking nut comprising a main body portion, having a bolt receiving aperture provided with a helical thread, said main body portion being provided with non-threaded nut portions encircling the aperture and projecting beyond the thread of the latter at opposite ends of said nut, the non-threaded nut portion at the upper end of the nut being compressed to force the end lap of the thread closer to the next adjacent lap, than the other laps are to each other while leaving a projection receding away from the threaded aperture to the upper end of the nut and the other non-threaded portion being adapted to shield the bottom end lap of the thread.

4. A self-locking nut comprising in its construction a main body portion having a bolt receiving aperture and provided with a helical thread having a plurality of laps encircling the aperture, the inner edges of the upper laps of said threads being positioned at a less distance from each other than the remaining laps of said thread, the upper portion of said nut having a conical recessed end surface portion extending outward laterally of the nut at an incline beyond the bolt engaging edge of the outermost lap of the thread and to the upper end of the nut, throughout the entire length of said lap.

5. A self-locking nut comprising a main body portion provided with a boss projecting from the top thereof, said nut being provided with a bolt receiving aperture passing through the main body portion thereof and through the boss projecting therefrom, the part of said aperture passing through the upper portion of said boss being flared outwardly to the upper end of the nut, said nut being also provided with a helical thread extending through the portion of the bolt receiving aperture in the main body of the bolt, and through a portion only of the flared upper end of said aperture, the inner edges of the upper laps of said thread being disposed at a less distance from each other than the remaining laps of the thread.

[Claims 6 to 8 not printed in the Gazette.]

1,077,024. AUTOMATIC ELECTRIC REGULATOR. PHILIPPE WERNER and ERNEST JUILLARD, Châtelaine, near Geneva, Switzerland, assignors to The Firm of Ateliers H. Cuénod Société Anonyme, Châtelaine, near Geneva, Switzerland. Filed Sept. 8, 1910. Serial No. 581,020. (Cl. 171—226.)



1. An automatic electric governor, comprising a device variably movable under the influence of the circuit to be controlled, a controlling device, a cylindrical valve, a piston, means for supplying fluid under pressure to the interior of the said cylindrical valve to act against one side of the said piston, and means whereby a variable fluid pressure dependent upon the position of said device is exerted against the other side of the said piston, so that through variations in the said fluid pressure, the cylindrical valve is moved to open and close ports for the admission and exhaust of the fluid under pressure to passages for actuating the said controlling device.

2. An automatic electric governor comprising a device variably movable under the influence of the circuit to be controlled, a controlling device, a cylindrical valve, a piston, means for supplying fluid pressure to the interior of the said cylindrical valve to act against one side of the said piston, means whereby a variable fluid pressure dependent upon the position of said device is exerted against the other side of the said piston, so that through variations in the said fluid pressure, the cylindrical valve is moved to open and close ports for the admission and exhaust of the fluid under pressure to passages for actuating the said controlling device and means for preventing abnormal regulation.

3. An automatic electric governor comprising a device variably movable under the influence of the circuit to be controlled, a controller, a cylindrical valve, means for supplying fluid under pressure to the interior of said cylindrical valve, a piston connected to said cylindrical valve and having an aperture therein through which the fluid under pressure may pass from the interior of the cylindrical valve to a compartment on the opposite side of the said piston, an auxiliary valve controlling ports through which the said fluid may escape from the said compartment, the differences in pressure on the opposite sides of the said piston depending upon the extent to which the said ports are open to control the movement of the said cylindrical valve, and means actuated by the fluid under pressure through the movements of said cylindrical valve for operating the said controller.

4. An automatic electric governor comprising a device variably movable under the influence of the circuit to be controlled, a contact device, a cylindrical valve having ports therein, means for supplying a liquid under pressure to the interior of the cylindrical valve, a piston connected to the cylindrical valve and on one side of which the liquid under pressure acts, there being an aperture through the said piston through which the liquid under pressure may pass to a chamber on the other side of the

piston, an auxiliary valve controlling ports through which the liquid passes from the said compartment, means for connecting the said auxiliary valve to the first aforesaid device, and an operating device actuated by the liquid under pressure through the movements of the said cylindrical valve to operate the said contact device.

5. An automatic electric controller comprising a device variably movable under the influence of the circuit to be controlled, a contact device, a cylindrical valve having ports therein, means for supplying a liquid under pressure to the interior of the cylindrical valve, a piston connected to the cylindrical valve and on one side of which the liquid under pressure acts, there being an aperture through the said piston through which the liquid under pressure may pass to a chamber on the other side of the piston, an auxiliary valve controlling ports through which the liquid passes from the said compartment, means for connecting the said auxiliary valve to the first aforesaid device, a drum, a shaft connected to said contact device, a revoluble piston on the shaft and within the said drum, and connections from the interior of the said drum to the said cylindrical valve whereby through the movements of the said cylindrical valve the liquid under pressure is admitted and withdrawn from the said drum to actuate the rotatable piston therein and so move the said contact device.

[Claims 6 to 9 not printed in the Gazette.]

1,077,025. WATCH-FOB. RAYMOND B. WHITEHEAD, Newark, N. J., assignor to The Whitehead & Hoag Company, Newark, N. J., a Corporation of New Jersey. Filed July 3, 1912. Serial No. 707,463. (Cl. 63—18.)



1. A watch fob comprising a collet having a circumferential edge flange, a back provided with a flange adapted to engage the flange upon the collet for frictionally holding the parts together, a display device inclosed by said collet and back, said collet having a central opening, an integral tongue extending into said opening and bent backwardly upon itself, a portion of said tongue cut away to form an opening, and a flexible link extending through said opening and forming supporting means for the fob.

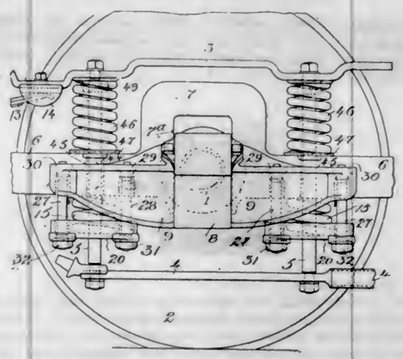
2. A watch fob comprising a collet having a circumferential edge flange, a back provided with a flange adapted to engage the flange upon the collet for frictionally holding the parts together, a display device inclosed by said collet and back, said collet having a central opening, an integral tongue extending into said opening and bent backwardly upon itself, and a flexible link connected to said tongue and forming a supporting means for said fob.

1,077,026. CAR-TRUCK. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 16, 1912. Serial No. 715,318. (Cl. 105—242.)

1. In a car truck, the combination with the axle boxes, diagonally disposed stirrups movably supported from the axle boxes, and a truck frame supported upon said stirrups.

2. In a car truck, the combination with the axle boxes, diagonally disposed stirrups movably supported from the axle boxes, a truck frame supported upon said stirrups, and springs for supporting the truck frame on said stirrups.

3. In a car truck, the combination with the axle and axle boxes, pairs of links supported at each side of the axle boxes, each pair carrying a spring seat, a spring attached to the seats, and a truck frame supported on said springs having yokes embracing the axle boxes.

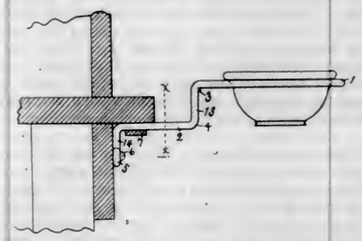


4. In a car truck, the combination with the axle, axle boxes, pairs of links pivotally supported from the axle boxes at each side thereof, a spring seat on the links, a spring on the spring seat, and a truck frame on the springs having yokes embracing the axle boxes.

5. In a car truck, the combination with the axle and axle boxes, a pair of links at each side of the axle boxes, a spring seat carried by said links, springs on said spring seats, a truck frame on said springs having yokes embracing the axle boxes, and means in the connection of said links with the axle boxes and with the spring seats for permitting a relative swinging or pivotal movement between the parts.

[Claims 6 to 25 not printed in the Gazette.]

1,077,027. ATTACHMENT FOR CABINETS. WILLIAM E. AUSTIN, Fort Worth, Tex. Filed May 27, 1912. Serial No. 699,887. (Cl. 45—75.)



An attachment for cabinets and the like consisting of a bracket horizontally disposed and composed of a single piece of resilient material forming two semi-circular members terminating on one side with horizontal arms and on the other side having a downwardly extended loop, and said arms terminating with downwardly extended portions at right angles to said horizontal portions, and then bent horizontally and extended to the cabinet, and parallel to each other and then vertically downward, a brace having a plurality of recesses for receiving said parallel arms attached to the horizontal portion of the cabinet, and screws attaching the vertical end portions of said arms to the cabinet.

1,077,028. POST-ANCHOR. PERCY TRIPP BAILEY, Newport, R. I. Filed Jan. 18, 1912. Serial No. 671,862. (Cl. 189—29.)

1. An anchoring base for posts comprising a body formed with independent identically constructed sections having longitudinally arranged corrugations, means for clamping said sections around a post in a reverse order, some of said means being arranged on each side of said post for causing a clamping or pinching action of the body against the post, and a socket member connected with each of said sections and set at such an angle to said corrugations as to pinch or clamp an anchoring arm at one point against said corrugations and at another point against the edge of said body.

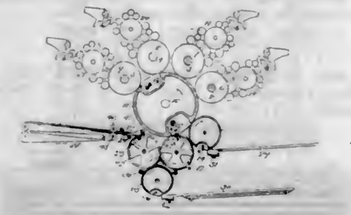


2. An anchoring base for a post comprising a body formed with longitudinally arranged corrugations adapted to fit around a post, a pair of encircling sockets arranged on said body at different angles co-acting with said corrugations for pinching or clamping anchoring arms in position, and an anchoring arm projecting through each of said sockets for frictionally engaging with said sockets on one side and said corrugations on the opposite side whereby the same is resiliently and yieldingly held in position.

3. An anchoring base for posts comprising a body formed in sections, each of said sections having corrugations arranged thereon, means extending on each side of said post for securing said sections in position, a socket member for each of said sections formed so as to extend at an angle thereto and in substantially opposite directions, an anchoring arm for each section, means for clamping said sockets to said post so as to co-act with said corrugations for resiliently pinching or clamping said anchoring arms in position.

4. An anchoring base for posts comprising a body portion formed with a centrally raised corrugation, means for clamping said body portion to a post so that the post will fit into the groove formed by said corrugation, a socket member arranged on each side of said body portion and an anchoring arm extending through each of said sockets and pressing against said corrugations for yieldingly clamping the arm in position, said corrugations projecting slightly into the path of movement of said arm.

1,077,029. SLIP-SHEET-FEEDING DEVICE FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed June 4, 1910. Serial No. 564,997. (Cl. 101—112.)



1. A sheet printing mechanism including an impression cylinder, means for feeding sheets thereto, a delivery device, reels for transferring the printed sheets from the impression cylinder to the delivery device and a cylinder for feeding slip sheets to the said reels to be associated with the printed sheets as they pass from the impression cylinder to the delivery device.

2. A sheet printing mechanism including an impression cylinder, a cylinder for feeding sheets thereto, a delivery device, means for transferring the printed sheets from the impression cylinder to the delivery device and a cylinder for feeding slip sheets to the sheet transferring means to be associated with the printed sheets as they pass from the impression cylinder to the delivery device.

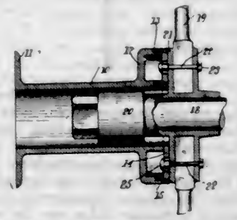
3. A sheet printing mechanism, a delivery device and a transfer device comprising two reels, one arranged to receive the printed sheet from the printing mechanism and transfer it to the second reel and the other arranged to receive a slip sheet and transfer it to the delivery device together with the printed sheet.

4. A sheet printing mechanism including an impression cylinder, means for feeding sheets thereto, a delivery device, a sheet transfer device comprising two reels one arranged to receive the printed sheet from the impression cylinder and transfer it to the second reel and the other arranged to receive a slip sheet and transfer it to the delivery device together with the printed sheet.

5. A sheet printing mechanism, means for feeding sheets thereto, a sheet delivery device, a slip sheet feeding device, and a sheet transfer device comprising two reels one arranged to receive the printed sheet from the printing mechanism and transfer it to the second reel and the other arranged to first receive a slip sheet from the slip sheet feeding device and then the printed sheet from the first named reel for transferring the slip sheet and printed sheet together to the delivery device.

[Claims 6 to 9 not printed in the Gazette.]

1,077,030. ATTACHMENT FOR AUTOMOBILES. THEODORE CLYDE BEAN, Glen Ullin, N. D. Filed Oct. 8, 1912. Serial No. 724,514. (Cl. 242—95.)



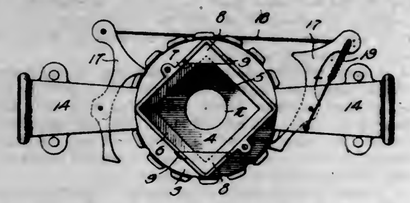
1. A device of the class described comprising, a drum having means adapted to engage the hub of a vehicle wheel, said drum having an inclosure formed at the end to be secured to the wheel, said end having a plurality of openings each having a central enlargement and end portions; and a plurality of locking members on the wheel each having a reinforcement projecting from the wheel and a head on said reinforcement, said members being so proportioned that said heads thereof pass through said central enlargement of said openings into said inclosure and the enlargements adjacent said heads fit into said end portions of said openings in said end of said drum.

2. A device of the class described comprising, a drum having means adapted to engage the hub of a vehicle wheel, said drum having an inclosure formed at the end adjacent the wheel, said inclosure being formed of an enlarged portion of the drum having a circular recess and a plate closing said circular recess, said plate having a plurality of openings each having a central enlargement and end portions, and a plurality of locking members on the wheel each having a reinforcement projecting from the wheel and a head on said reinforcement, said members being so proportioned that the heads thereof pass through said central enlargement of said openings in said plate into said circular recess and that the reinforcement adjacent said head fits into said end portions in said plate.

1,077,031. DIE-STOCK. ALBERT MILTON BERKSHIRE, Uhrichsville, Ohio. Filed Apr. 30, 1912. Serial No. 694,086. (Cl. 10—124.)

In a device of the class described, a body having a central bore, and a die receiving socket, a ratchet wheel integral with the body, a handle receiving member journaled on the body, double pawls carried by the handle receiving member and arranged on opposite sides of the ratchet wheel for connecting said handle receiving member

to the ratchet wheel, means for connecting the pawls and a single spring for holding either end of the pawls in en-



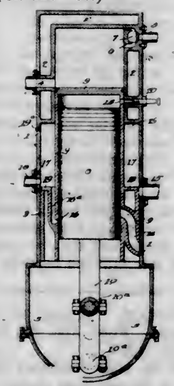
gagement with the ratchet wheel whereby the body may be rotated in either direction.

1,077,032. REVERSIBLE CUFF. SAMUEL BINSWANGER, New York, N. Y., assignor to New Columbia Shirt Company, New York, N. Y. Filed Feb. 1, 1913. Serial No. 745,709. (Cl. 2—79.)



A reversible cuff comprising a main member and an attaching member formed from a single piece of material folded upon itself, the two ends coming together at one side of the main member approximately at the center of the latter, and constituting the attaching member, the two edges of the main member being turned in so as to provide additional thicknesses of material at the extreme outer edges, and a stiffening lining for the main member the said main member and lining therein being stitched at the edges and longitudinally approximately at the center of the cuff, and the parts constituting the attaching member being stitched together close up to the main member.

1,077,033. INTERNAL-COMBUSTION ENGINE. EMIL GUSTAVE BOGUSCH, Llano, Tex., assignor of one-half to M. D. Slator, Llano, Tex. Filed Apr. 30, 1913. Serial No. 764,559. (Cl. 123—66.)



An internal-combustion engine comprising a casing provided with lateral ports for admission of the explosive mixture and for exhaust after explosion, said casing having also a spark plug and an abutment in its middle portion; two telescopic pistons and a crank shaft with which they are connected so as to reciprocate in opposite directions, the outer piston having an ignition opening in its upper portion and lateral ports in its lower portion for communication with the inlet and exhaust ports of the casing, the upper portion of the casing having a lateral air inlet and discharge, also a by-pass communicating with the discharge opening, and a rotary two-way valve arranged in said by-pass for controlling admission of compressed air into the space between the pistons for aiding in expulsion of burned gases or directing such air to the lateral discharge, the ignition opening in the outer piston being adapted in one position of said piston to register with the aforesaid by-pass, as described.

1,077,034. PROCESS OF WORKING WITH HYDROGEN UNDER PRESSURE. CARL BOSCH, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Apr. 18, 1912. Serial No. 691,731. (Cl. 23—21.)

1. The process of working with hydrogen at a temperature exceeding 450° C. and under a pressure exceeding five atmospheres, which consists in passing the hydrogen under pressure through a hot iron tube or vessel, but maintaining the temperature of the wall sustaining the pressure, at essentially between 100° and 450° C.

2. The process of working with hydrogen at a temperature exceeding 450° C. and under a pressure exceeding 5 atmospheres, which consists in passing the hydrogen under pressure through a hot iron tube or vessel containing contact material, but maintaining the temperature of the wall sustaining the pressure, at essentially between 100° and 450° C.

3. The process of producing ammonia by passing hydrogen and nitrogen at a pressure exceeding 5 atmospheres through an iron tube or vessel containing contact material at a temperature exceeding 450° C., while maintaining the temperature of the wall sustaining the pressure, at essentially between 100° and 450° C.

4. The process of producing ammonia by passing hydrogen and nitrogen at a pressure exceeding 5 atmospheres through an iron tube or vessel containing ferruginous contact agent at a temperature exceeding 450° C., while maintaining the temperature of the wall sustaining the pressure, at essentially between 100° and 450° C.

5. The process of producing ammonia by passing hydrogen and nitrogen under a pressure exceeding 5 atmospheres through a hot iron tube or vessel containing a ferruginous contact agent at a temperature exceeding 500° C., while maintaining the temperature of the wall sustaining the pressure, at between 200° and 400° C.

1,077,035. ELECTRIC WATER-HEATER. RAY COLE BOYER, Lincoln, Nebr. Filed Feb. 15, 1913. Serial No. 748,569. (Cl. 219—39.)



1. An electrical water heater comprising in part, a series of superposed coils arranged with their convolutions in horizontal alinement with respect to each coil and having an inlet and an outlet disposed in horizontal alinement, a container for the coils, said inlet and outlet extending through diametrically opposite sides of the container, electrical heat generating elements, and means for supplying current to said elements.

2. An electrical water heater comprising in part, a series of superposed coils having a common inlet and a common outlet, a container for the coils having diametrically

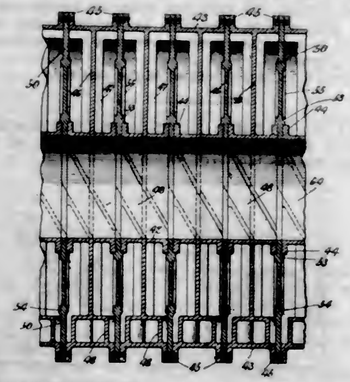
opposed recesses through which the inlet and outlet extend, a cover for the container, said cover being held against radial movement by the inlet and outlet, heat generating elements arranged between the innermost coils, heat radiating elements above and below the coils, a source of electrical energy having connection with the heat generating elements, and a switch mounted on the cover of the container for controlling the supply of current to the heat generating elements.

3. An electrical water heater comprising a series of superposed coils mounted in close proximity to each other and having an inlet and an outlet communicating with the bottom and top coils respectively and extending radially therefrom, a container for the coils, a cover for the container having a depending flange with opposed recesses through which the inlet and outlet extend, electrical heat generating elements arranged between and operating to instantaneously heat a fluid body passed through the coils, a source of electrical energy, and a multiple contact switch connected in circuit with said source and the heat generating elements for throwing one or a plurality of said elements into operation to vary the heat generation.

4. In a water heater of the class described, a container having a cover, a series of relatively flat water circulating elements mounted in the container and having a common inlet and a common outlet entering through the container, layers of metal and asbestos above and below the circulating elements, a non-conducting and heat-retaining packing surrounding said elements, and layers within the container, layers of mica between each pair of elements, and heating elements between the layers of mica.

5. In a water heater of the class described, a container having a cover, a series of relatively flat water circulating elements mounted in the container and having a common inlet and a common outlet entering through the container, layers of metal and asbestos above and below the circulating elements, a non-conducting and heat-retaining packing surrounding said elements and layers within the container, layers of mica between each pair of elements and heating elements between the layers of mica, each heating element consisting of a layer of mica interwoven with current resistance wire and adapted for connection with a source of electrical energy.

1,077,036. APPARATUS FOR AMPHIDIZING. CHARLES S. BRADLEY, New York, N. Y., assignor to Bradley Copper Process Company, Jersey City, N. J., a Corporation of New Jersey. Original application filed Aug. 31, 1909, Serial No. 515,538. Divided and this application filed Oct. 3, 1911. Serial No. 652,635. (Cl. 75—139.)



1. In apparatus of the character described, the combination with means for continuously advancing ore to be amphidized; of means for continuously returning the amphidized ore in heat conductive relation to the advancing ore.

2. In apparatus of the character described, the combination with means for continuously advancing crushed ore to be amphidized, and continuously agitating the advancing crushed ore in the presence of an amphidizing agent at an amphidizing temperature; of means for continuously withdrawing the amphidized ore in heat conductive relation to the advancing ore.

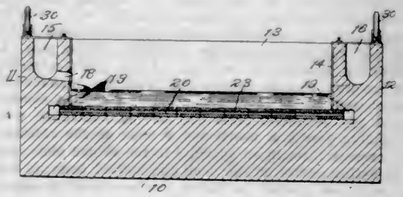
3. In apparatus of the character described, the combination with means for continuously feeding crushed ore to be amphidized; of means for continuously amphidizing the crushed ore, comprising a rotary drum subdivided into alternating advancing and returning compartments, with means for advancing the ore through the advancing compartments, and means for returning it through the returning compartments.

4. In apparatus of the character described, a rotary amphidizing drum comprising in combination a plurality of ore conducting units, a plurality of header units alternating therewith, said ore conducting units adapted to advance and return the ore through said header units, and an ore reversal unit adapted to receive the ore in one direction and return it in the other direction.

5. In apparatus of the character described, the combination with a plurality of ore conducting units having partitions separating advancing and returning compartments, with ore advancing passages leading from the advancing compartments through the return compartments, and ore returning passages leading from the returning compartments through the advancing compartments; of header units disposed between the return compartments of one ore conducting unit and the advance compartment of the next ore conducting unit, and having advancing ports through which the ore advancing passages discharge and return ports through which the ore returning passages discharge.

[Claims 6 to 9 not printed in the Gazette.]

1,077,037. CHEMICAL FILTER. CHARLES S. BRADLEY, New York, N. Y. Filed Dec. 18, 1912. Serial No. 737,455. (Cl. 75—86.)



1. A chemical filter comprising in combination a foundation, filtering medium laid on said foundation, with a substantially continuous and flat outer surface and having interior chambers for pressure and suction, whereby pressure and suction are sustained upwardly and downwardly and displacing tendency of pressure and suction thus avoided, and means for communicating pressure and suction to said interior chambers.

2. A chemical filter comprising in combination a foundation, filter bricks laid on said foundation forming a substantly continuous and flat outer surface, and having interior chambers communicating from one brick to another, whereby pressure and suction are sustained upwardly and downwardly and the displacing tendency thereof avoided, and means for communicating pressure and suction to said interior chambers.

3. A chemical filter comprising in combination a system of filter bricks formed and arranged to provide a substantially continuous and flat filtering surface, each filter brick having interior chambers in communication with the chambers of adjacent bricks for sustaining suction and pressure upwardly and downwardly, whereby the displacing tendency of the pressure or suction is substantially avoided, means for communicating pressure and suction to the interior chambers of the bricks and

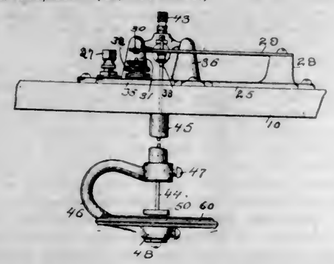
means for supplying material to be treated to the filtering surface.

4. A chemical filter comprising in combination a system of filter bricks having interior chambers for distributing pressure and suction within the individual bricks and passages providing communication from one brick to another, and means for communicating pressure and suction to said passages.

5. A chemical filter comprising in combination a foundation having a conduit therein, and filter bricks on said foundation, having interior chambers in communication with said conduit.

[Claims 6 to 14 not printed in the Gazette.]

1,077,038. AUTOMATIC CONTROLLING DEVICE FOR ELECTRICALLY-HEATED APPARATUS. BUDD WALL BRAWNER, Augusta, Ga. Filed June 30, 1911. Serial No. 636,211. (Cl. 177—128.)



In a device of the character described, a bracket, a lug carried by the bracket, a plurality of upwardly extending members forming a part of the aforesaid bracket, a laterally projecting device carried by each of said members and forming with a portion thereof a bearing, a lever, pins carried thereby arranged to be journaled in the bearings, an expanding member connected with the lever, a plate mounted adjacent to the bracket, a binding post connected with the plate, an insulated binding post mounted on the plate, an adjustable insulated contact point on the plate and connected with the insulated binding post, an upstanding member on one end of the plate, a second plate mounted on said member and extending substantially parallel with the plate first mentioned, a contact member carried by the second plate and having connection with the binding post first mentioned, a hook on the aforesaid lever passing through an aperture in the second plate, and an adjusting device on the hook and spaced from its free end, said hook guiding the end of the lever and the adjusting device bearing against the lower side of the second plate for raising the latter and separating the contact members.

1,077,039. WINDOW. EDWARD FRANK CHAFFEE, Albany, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed Jan. 14, 1905. Serial No. 241,044. (Cl. 20—52.)

1. The combination with a window frame provided with a guideway and a sash movable lengthwise of the guideway and toward and from the outer wall thereof, of a member independent of the sash and coöperating therewith for moving the latter against the outer wall of the guideway as the sash moves in one direction, and means acting on said member independently of the sash for moving the member with the sash substantially throughout the movement of the latter in an opposite direction.

2. The combination with a window frame provided with a guideway and a sash movable lengthwise of the guideway and toward and from the outer wall thereof, of a member independent of the sash and coöperating therewith for moving the latter against the outer wall of the guideway as the sash moves in one direction, and yielding means acting upon the member independently of the sash and reacting against the frame for moving the member with the sash substantially throughout the movement of the latter in an opposite direction.



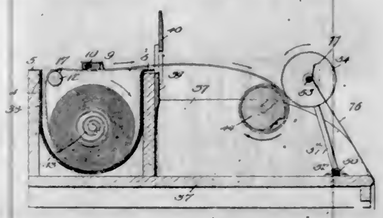
3. The combination with a window frame provided with a guideway and a sash movable lengthwise of the same and toward and from the outer wall thereof, of a member independent of the sash and coöperating therewith for moving the latter against said outer wall of the guideway as the sash moves in one direction, and yielding means acting upon the member independently of the sash and reacting against the frame and tending to move the member in a lengthwise direction against the force exerted thereon by the sash.

4. The combination with a sash frame having a guideway therein and a sash movable lengthwise and laterally of said guideway, of coacting parts assuming two relative positions in the movement of said sash, one relative position thereof tending to force the sash laterally to bind the same against a wall of the guideway in the frame, and another relative position thereof relieving the sash from such binding movement and permitting the ready movement of the sash in a reverse direction, one of said coöperating parts being carried by the sash and another of said parts being wholly supported independently of the sash and of its engagement with the coacting part and movable substantially throughout the range of movement of the sash.

5. In a window the combination, substantially as set forth, of a frame adapted to receive and hold a sash, a sash movable in the frame, a support consisting of balancing means supported on the frame, and means arranged between the sash and balancing means and provided with a part controlled by the balancing means adapted to move the sash transversely in the frame to hold it therein.

[Claims 6 to 21 not printed in the Gazette.]

1,077,040. WIRE CLOTH OR SCREEN MACHINE. OLIVER W. CHILDS, Nash, Okla. Filed May 18, 1912. Serial No. 698,140. (Cl. 73—9.)



1. A device of the character specified, comprising a cabinet having a plurality of compartments, a substantially trough shaped holder for wire cloth in each compartment, a roller journaled longitudinally of each holder and having an annular series of spurs or teeth for engagement by the cloth as it passes from the holder to rotate said roller, an indicating device at the front end of the holder, said device comprising a dial, the front end of the holder having an opening at the dial, an indicator coöperating with the dial, and a connection between the roller and the indicator for operating the same, a receptacle supported by the cabinet for receiving the individual holders, a roller journaled in front of the receptacle and having means for gripping the end of the cloth, manual means for turning the roller, a fixed cutting blade at the front of the receptacle over which the cloth passes, a movable blade pivoted at one end to the fixed blade, an indicating device, a shaft for operating said device, a toothed wheel on the shaft for engaging the cloth as it winds on the roller to rotate the shaft, a frame mounted to swing toward and from the roller to bring the toothed wheel into or out of engagement with the cloth, a spring drawing said frame toward the roller, and means for locking the frame with the wheel in engagement with the cloth.

2. A device of the character specified, comprising a cabinet having a plurality of compartments, a substantially trough shaped holder for wire cloth in each compartment, a roller journaled longitudinally of each holder and having an annular series of spurs or teeth for engagement by the cloth as it passes from the holder to rotate said roller, an indicating device at the front end of the holder, said device comprising a dial, the front end of the holder having an opening at the dial, an indicator coöperating with the dial, and a connection between the roller and the indicator for operating the same, a receptacle supported by the cabinet for receiving the individual holders, a roller journaled in front of the receptacle and having means for gripping the end of the cloth, manual means for turning the roller, an indicating device, a shaft for operating said device, a toothed wheel on the shaft for engaging the cloth as it winds on the roller to rotate the shaft, a frame mounted to swing toward and from the roller to bring the toothed wheel into or out of engagement with the cloth, a spring drawing said frame toward the roller, and means for locking the frame with the wheel in engagement with the cloth.

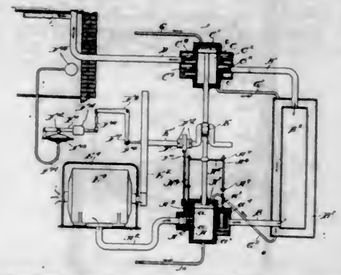
3. A device of the character specified, comprising a cabinet having a plurality of compartments, a substantially trough shaped holder for wire cloth in each compartment, a roller journaled longitudinally of each holder and having an annular series of spurs or teeth for engagement by the cloth as it passes from the holder to rotate said roller, an indicating device at the front end of the holder, said device comprising a dial, the front end of the holder having an opening at the dial, an indicator coöperating with the dial, and a connection between the roller and the indicator for operating the same, a receptacle supported by the cabinet for receiving the individual holders, a roller journaled in front of the receptacle and having means for gripping the end of the cloth, manual means for turning the roller, an indicating device, a shaft for operating said device, a toothed wheel on the shaft for engaging the cloth as it winds on the roller to rotate the shaft, a frame mounted to swing toward and from the roller to bring the toothed wheel into or out of engagement with the cloth, a spring drawing said frame toward the roller, and means for locking the frame with the wheel in engagement with the cloth.

4. A device of the character specified, comprising a cabinet having a plurality of compartments, a substantially trough shaped holder for wire cloth in each compartment, a roller journaled longitudinally of each holder and having an annular series of spurs or teeth for engagement by the cloth as it passes from the holder to rotate said roller, an indicating device at the front of the holder, and a connection between the roller and the said device for operating the same.

5. In a device of the character specified, a holder trough shaped in cross section and having a compartment at its front end, and a central opening in its front extending into the compartment, an indicating device in the said compartment, said device comprising a dial, a transparent cover for the opening, a roller journaled longitudinally of the holder and having an annular series of teeth for engagement by the cloth to rotate the roller, and a connection between the roller and the indicator for operating said indicator.

[Claims 6 and 7 not printed in the Gazette.]

1,077,041. HEATING APPARATUS. GUY B. COLLIER, Kinderhook, N. Y. Filed Aug. 7, 1906. Serial No. 329,521. (Cl. 237—1.)



1. A heating apparatus comprising fluid expanding mechanism, provided with means for heating the fluid during expansion, a fluid compressing mechanism, a conduit for the fluid between the expanding and compressing mechanisms, a governor for the expanding mechanism, and a thermostat for controlling the governor.

2. A heating apparatus comprising mechanism for expanding the fluid, mechanism for compressing the fluid, a conduit for conducting the fluid from the expanding to the compressing mechanism, a conduit for conducting the fluid from the compressing mechanism to the place of use, means for adjusting the apparatus to vary the amount of compression, a governing mechanism for governing the apparatus to maintain a substantially constant temperature at the place of use to which the fluid is conducted from the compressing mechanism.

1,077,042. BREATH DEFLECTOR OR GUARD. JOSEPH EVANS COOPER, Chicago, Ill. Filed Dec. 23, 1912. Serial No. 738,292. (Cl. 128—13.)

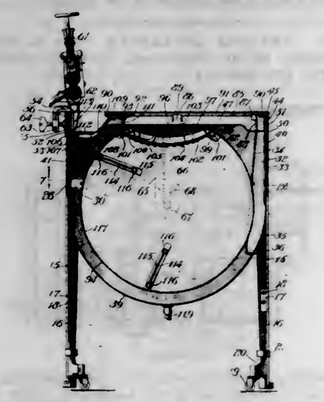


1. A breath guard comprising a tubular casing having an opening in one side wall thereof, clamping levers fulcrumed in the wall of said casing opposite said opening with their gripping ends projecting into the casing, and resilient means mounted outside said casing for forcing the clamping ends of the levers normally toward each other.

2. A breath guard comprising a tubular casing having an opening therein intermediate of its ends, longitudinally spaced levers fulcrumed on said casing with their inner ends offset inwardly to position them in close relation, said ends extending laterally into said casing from its inner face, the other ends of said levers being arranged outside said casing, and a spring arranged between said levers outside the casing for forcing their outer ends apart and their inner ends toward each other.

3. A breath guard comprising a tubular casing having an opening in one side wall intermediately of its ends, said opening extending substantially the entire width of said casing, a longitudinally curved wire loop arranged around the edge of said opening, a cross bar connected with the side members of said loop outside said casing, nose engaging levers fulcrumed on said bar and having one end extending into the casing, said inner ends being bent toward each other, and yieldable means for holding said ends in close relation.

1,077,043. CYLINDER WASHING-MACHINE. HENRY WARD DARROW, Chicago, Ill., assignor, by mesne assignments, to Fritz Muser, New York, N. Y. Filed Dec. 7, 1908. Serial No. 466,336. (Cl. 68—18.)



1. In a cylinder washing machine, a sheet metal tank in which the cylinder is inclosed having a rectangular horizontal section, inside braces around the top edges of the side walls of the tank, inside angular corner braces, and angular corner posts fitted to the corners of the tank on the outside thereof, said posts being fastened through the tank walls to the top braces and to the inside corner braces, in combination with means mounted on said tank to rotatably support the cylinder therein.

2. In a washing machine, an oscillatory drum mounted to rotate on a horizontal axis, mechanism adapted to rotate said drum alternately in opposite directions through substantially one complete rotation, two and only two longitudinal baffles within the drum, said baffles being so positioned that when the reversal of the drum takes place they are both above a horizontal plane containing the axis of the drum.

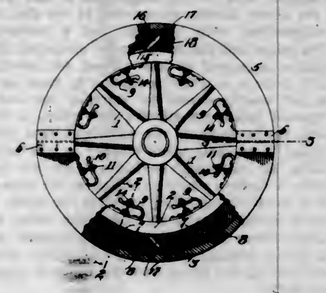
3. In a cylinder washing machine, a sheet metal tank having an open rectangular top, within which said cylinder is inclosed, flanges projecting inwardly from the inner faces of the side walls just below the top edges thereof, said flanges having their ends spaced from the front wall of the machine, and a flat sheet metal cover adapted to rest upon said flanges or be slipped down within the tank in a vertical direction between the ends of the flanges and the front wall of the tank, in combination with means carried by said tank for rotatably supporting the cylinder therein.

4. In a cylinder washing machine, a tank having a rectangular horizontal cross section and an open top, within which the cylinder is inclosed, the opposite side walls of the tank each having an internal flange extending horizontally at a little distance below the top edge of the side wall and also vertically at a little distance in from the front edge thereof, and a sheet metal cover adapted to rest upon said top flanges to close the tank or to lie in a vertical plane between the front wall and the opposed flanges, in combination with means carried by said tank for rotatably supporting the cylinder therein.

5. In a cylinder washing machine, a sheet metal tank having a rectangular horizontal section, within which the cylinder is inclosed, inside angle section corner braces fitting within the corners of the tank at the sides of one wall thereof, each of said braces having a flange spaced longitudinally from said wall, and a cover adapted to lie in a vertical plane between said wall and the flanges, in combination with means secured to said tank for rotatably supporting the cylinder therein.

[Claims 6 to 13 not printed in the Gazette.]

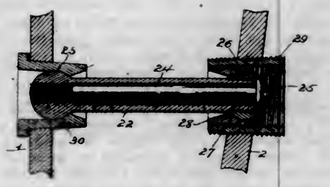
1,077,044. AUTOMOBILE WHEEL AND TIRE. GEORGE M. DAVENPORT, Keo, Ark. Filed Apr. 14, 1913. Serial No. 761,028. (Cl. 152—38.)



1. A wheel comprising a felly, a tire inclosing said felly and having oppositely arranged elongated slots, main springs interposed between the felly and the tire, auxiliary springs mounted upon the felly, a bar disposed transversely of each of the last mentioned springs, and adjusting bolts mounted at the outer ends of said bar and engaging said slots.

2. A wheel comprising a felly, a tire inclosing said felly and having oppositely arranged elongated slots, main springs interposed between the felly and the tire, auxiliary springs mounted upon the felly, a bar disposed transversely of each of the last mentioned springs, adjusting bolts mounted at the outer ends of said bar and engaging said slots, projections mounted upon the inside of said tire and yieldable pivoted dogs adapted for engagement with said projections.

1,077,045. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,667. (Cl. 85—1.5.)



1. A stay bolt comprising an outer section having an integral head, and an inner section provided at one end with a head and threaded at its opposite end, the threaded end of the inner section engaging female threads on the outer section.

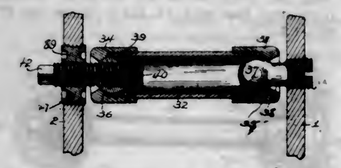
2. A stay bolt comprising an outer section carrying two spherical heads one of which is detachable, and an inner section telescoping with the outer section and provided with a head which forms an abutment for the removable head of the outer section.

3. A stay bolt comprising an outer section carrying two spherical heads one of which is integral and the other detachable and an inner section telescoping with the outer section and provided with a head which forms an abutment for the removable head of the outer section.

4. A stay bolt comprising an outer section carrying two heads one of which is detachable, and an inner section telescoping with the outer section and provided with a head resting in contact with said detachable head and shaped to complete the spherical form of the latter.

5. A stay bolt comprising an outer section provided with two heads, and an inner section provided with a head at one end and screw threaded at the other end the said screw threaded end engaging internal threads in the outer section.

1,077,046. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,668. (Cl. 85—1.5.)

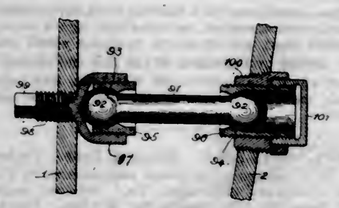


1. A stay bolt consisting of a hollow shank having a concave seat at each end, the seats being made separate from the shank, and connectors having spherical heads, the latter being within the hollow shank and resting against the concave seats.

2. A stay bolt consisting of a shank hollow from end to end and having concave seats detachably secured to the opposite ends of the shank, connectors each having a rounded head and threaded shank, the heads being within the hollow shank and bearing against the concave seats, and a threaded bushing through which one of said connector shanks passes.

3. A stay bolt comprising a hollow shank, concave seats having screw threaded connection with said shank and connectors having rounded heads for engagement with said seats, one of said heads having a screw thread connection with its connector.

1,077,047. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,669. (Cl. 85—1.5.)

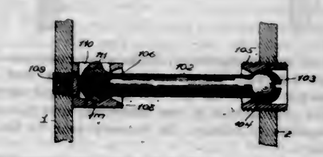


1. A stay bolt consisting of a bolt shank having a spherical head at each end thereof, threaded bushings on said shank, each bushing having a concave seat for a head, and connectors having threaded engagements with said bushings, one of said connectors having a closed outer end and a threaded shank integral with said closed end.

2. A stay bolt consisting of a bolt shank having a spherical head at each end thereof, threaded bushings on said shank each bushing having a concave seat for the head, a threaded bushing secured to one wall and having internal threads for engagement with one of the bushings on the shank, a combined cap and lock nut screwed onto said last mentioned bushing and bearing against the internally threaded bushing and a connector for connecting the bushing at the other end of the bolt to the other wall.

3. A stay bolt comprising a solid bolt shank having an upset spherical head at each end thereof, threaded bushings on said shank, each bushing having a concave seat for a head, an exteriorly threaded bushing secured to the inner wall and having internal threads for engagement with one of the bushings on the shank, a combined cap and lock nut for said connected bushings, and a connector for connecting the bushing at the other end of the bolt to the outer wall.

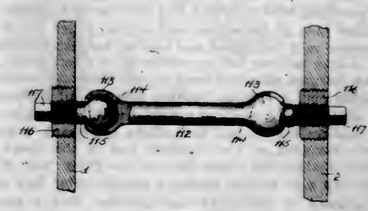
1,077,048. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,670. (Cl. 85—1.5.)



1. A stay bolt consisting of a bolt shank having a threaded end, a connector for attachment to a wall or plate, and having a recess open at one side and also at the end, the opening at the side being of size to admit the bolt head and the opening at the end being for the passage of the threaded end of the bolt shank and a bolt head threaded to engage the threaded end of the bolt shank and provided with a lug adapted to engage the walls of the recess in the connector for limiting the turning movement of the head independently of the connector.

2. A stay-bolt consisting of a bolt shank having an integral head at one end and threaded at its opposite end, a head having a threaded opening to receive the threaded end of the bolt shank, the said head having a projecting lug, a connector provided with a threaded stem for connection with a wall or plate and having a recess, open at one side to receive the head, and also having an opening at the end for the passage of the bolt shank, the construction being such that the lug on the head prevents a complete rotation of the head in the connector and a bushing for connecting the other end of the bolt shank to another wall or plate.

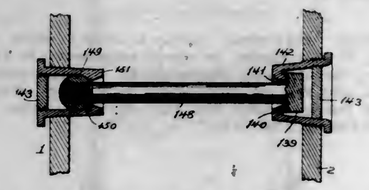
1,077,049. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,671. (Cl. 85—1.5.)



1. A stay bolt comprising connectors having rounded ends and threaded shanks, a threaded bushing on one of said threaded shanks, and a solid bolt shank having hollow heads swaged over the rounded ends of the connectors and forming ball and socket connection with said rounded ends.

2. A stay bolt comprising connectors having rounded ends and screw threaded shanks, threaded bushings on said shanks and a solid bolt shank having hollow heads swaged over the rounded ends of the connectors and forming ball and socket connection with said rounded ends.

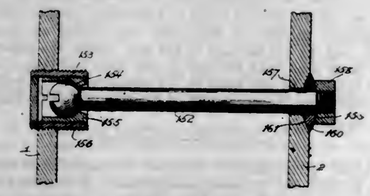
1,077,050. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,672. (Cl. 85—1.5.)



1. A stay bolt comprising tubular connectors one having a concave seat and the other a convex seat, and a bolt shank having two heads one having a concave surface to engage the convex seat in one connector, and the other a convex surface to engage the concave seat in the other connector.

2. A stay bolt comprising two tubular connectors one having a concave seat and the other a convex seat, and a bolt shank having two heads, one integral with said shank and having a concave surface to engage the convex seat in one connector, and the other head threaded to the bolt shank and spherical in shape to engage the concave seat in the other connector.

1,077,051. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,673. (Cl. 85—1.5.)



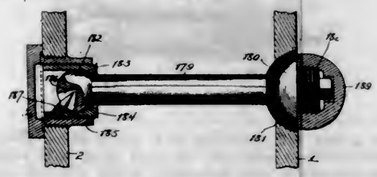
1. A stay bolt for boilers consisting of a bolt shank having a spherical head at one end, a tubular bushing secured to one wall of the boiler and having a concave seat for said head, a washer loosely mounted on the bolt shank and provided with a curved face resting in a curved seat in outer face of the other wall of the boiler and a nut secured to said bolt shank and bearing against the washer.

2. A stay bolt for boilers consisting of a bolt shank having an integral spherical head at one end and threaded at its other end, a tubular bushing adapted for attachment to a wall of the boiler and provided with an annular concave seat for the integral head of the bolt shank, a washer loosely mounted on the threaded end of the shank and bearing against the outer face of the outer wall of the boiler, the said washer having a convex outer face and a nut screwed to the shank and provided with a concave inner face adapted to bear against the curved face of the washer.

3. A stay bolt for boilers comprising a bolt shank having a spherical head at one end, a tubular bushing having an annular seat for said head, and a double convex washer loosely mounted on the other end of said bolt and a nut secured to said bolt and having a concave face to engage one face of said washer.

4. The combination with inner and outer walls of a boiler, one of said walls having a hole through same and a concave seat surrounding the hole, and a bushing mounted in the other wall and provided with an annular concave seat, of a bolt shank having a spherical head adapted to rest against the seat in the bushing, a double convex washer loosely mounted on the bolt shank and resting in the concave seat in the wall and a nut threaded onto the bolt and having a concave face bearing against one face of the double convex washer.

1,077,052. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,674. (Cl. 85—1.5.)



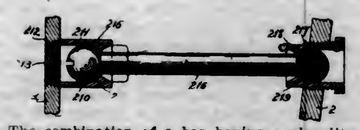
1. The combination with a bushing to be secured to one wall of the boiler, of a stay bolt consisting of a shank having an integral rounded head, a sleeve like connector on the shank and provided with an internal seat for the rounded head and external threads for its attachment to the bushing, means for limiting the relative rotary movement of the bolt and connector and means for flexibly connecting the other end of the bolt shank to the other wall of the boiler.

2. The combination with the two walls of a boiler one having a hole therein and a concave seat around the hole and the other carrying a threaded bushing, of a bolt having two rounded heads one larger than the other and adapted to rest in the concave seat in the boiler wall, the smaller head carrying a connector for attachment to the bushing in the other wall of the boiler and means for limiting the relative rotary movement between said bolt and connector.

3. A stay bolt comprising a bolt shank having two integral rounded heads one larger than the other the smaller head carrying a connector and means for limiting the relative rotary movement between said bolt and connector.

4. The combination of a bushing threaded exteriorly and internally and closed at its outer end, and a bolt having a rounded head, an externally threaded sleeve like connector carried by the shank of the bolt and having a seat against which the head of the bolt bears and means for limiting the relative rotary movement of the bolt and connector.

1,077,053. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,676. (Cl. 85—1.5.)



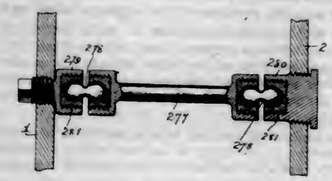
1. The combination of a bar having a plurality of recessed seats open at the top, a plurality of headed stay bolts, the heads of which are mounted in said seats and means for securing the opposite ends of said bolts to a wall of the boiler.

2. The combination of a bar having a plurality of recessed seats, a plurality of headed stay bolts, each head having a lug to limit its rotation, and means for securing the opposite ends of said bolts to a wall of the boiler.

3. The combination of a bar having a plurality of recessed seats open at the top, a plurality of headed stay bolts, each head having a lug to limit its rotation, and means for securing the opposite ends of the stay bolts to a wall of the boiler.

4. The combination of a bar secured to one wall of the boiler and having a plurality of seats, a series of bushings secured to the other wall each bushing having a seat, and a plurality of stay bolts having integral heads at one end resting in the seats in the bar, each bolt having a removable head supported against a seat in a bushing.

1,077,054. STAY-BOLT. ETHAN I. DODDS, Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Original application filed Sept. 25, 1911, Serial No. 651,051. Divided and this application filed Sept. 21, 1912. Serial No. 721,677. (Cl. 85—1.5.)

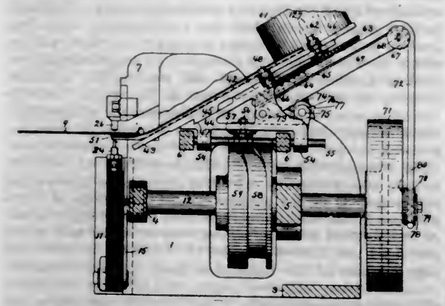


1. A stay bolt, a connector for the same, and a dumb bell-shaped link connecting one end of said stay bolt with said connector, whereby a universal joint is provided between the connector and the link and between the link and the bolt.

2. A stay bolt, connectors for the same and two dumb bell-shaped links each connecting one end of the stay bolt with a connector, whereby a universal joint is formed between the links and the connectors, and between the links and the bolt.

3. A stay bolt provided with recessed ends, a two part bushing in each recess, a dumb bell shaped link secured in each bushing and two connectors each having a loose connection with the free end of one of the links carried by the bolt shank.

1,077,055. FEEDING DEVICE. JOHN J. DOIDGE, South Framingham, Mass., assignor, by mesne assignments, to The R. H. Long Machinery Company, South Framingham, Mass., a Corporation of Connecticut. Original application filed July 9, 1909, Serial No. 506,751. Divided and this application filed Aug. 24, 1910. Serial No. 578,766. (Cl. 218—15.1.)



1. The combination, in an eyeleting machine, with a reciprocating carriage having an inclined top, of a raceway provided with a bed-plate removably mounted on said inclined top of the carriage, transverse engaging projections on said carriage and plate to hold the latter against endwise displacement in a forward direction, longitudinal engaging means, comprising a rib and groove, between said carriage and plate to hold the latter against lateral displacement, and additional fastening means, which are removable, to clamp the plate to the carriage.

2. The combination, in an eyeleting machine, of a reciprocating carriage, agitator-actuating mechanism supported by said carriage, such mechanism including a pulley, an arm attached at one end to and movable with said carriage and extending rearwardly therefrom, idlers supported at the back end of said arm, a driving pulley, and a belt passing around said pulleys and over said idlers.

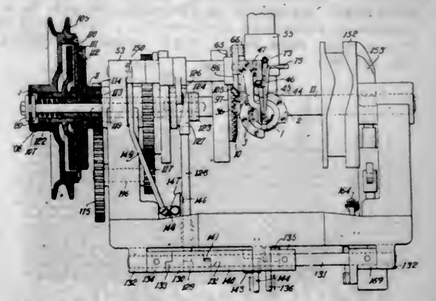
3. The combination, in an eyeleting machine, with a frame or casing, a shaft journaled in such casing, and a pulley on such shaft, of a carriage slidingly mounted in said casing, a raceway and a hopper supported by said carriage, agitator-actuating mechanism consisting in part of a shaft extending below said hopper and a gear on said shaft, a pulley provided with a pinion to mesh with said gear, such pulley and pinion being mounted on a stud also supported by the carriage, an arm attached at one end to the carriage and extending rearwardly therefrom, idlers supported at the back end of said arm, and a belt passing around said pulleys and over said idlers.

4. The combination, in an eyeleting machine, of a reciprocating carriage, agitator-actuating mechanism supported by said carriage, such mechanism including a pulley, an arm pivotally attached at one end to and movable with said carriage and extending rearwardly therefrom, idlers supported at the back end of said arm, a driving pulley, a belt passing around said pulleys and over said idlers, and means to adjust said arm on its pivot.

5. The combination, in an eyelting machine, with a frame or casing, a shaft journaled in such casing, and a pulley on such shaft, of a carriage slidingly mounted in said casing, a raceway and a hopper supported by said carriage, agitator-actuating mechanism consisting in part of a shaft extending below said hopper and a gear on said shaft, a pulley provided with a pinion to mesh with said gear, such pulley and pinion being mounted on a stud also supported by the carriage, an arm pivotally attached at one end to the carriage and extending rearwardly therefrom, idlers supported at the back end of said arm, a belt passing around said pulleys and over said idlers, and means to adjust said arm on its pivot.

[Claims 6 and 7 not printed in the Gazette.]

1,077,056. SHUTTLE-THREAD-REPLENISHING MECHANISM. FARNUM F. DORSEY, New York, N. Y., assignor to Benjamin Phillips, Lynn, Mass. Filed June 15, 1907. Serial No. 379,263. (Cl. 112—24.)



1. A sewing machine, having, in combination stitch forming devices including a holder for the locking thread supply, a bobbin holding magazine, and means for transferring a bobbin from the magazine to the holder, substantially as described.

2. A sewing machine, having in combination stitch forming devices including a bobbin holder for the locking thread supply, means for passing a loop of needle thread about the bobbin holder, a bobbin holding magazine, and mechanism operating to remove a bobbin from the holder

and to transfer a bobbin from the magazine to the holder, substantially as described.

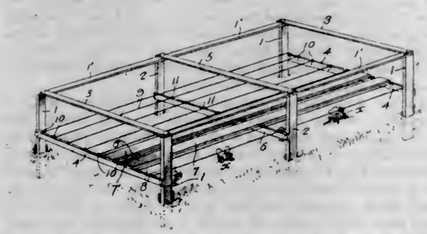
3. A sewing machine, having in combination a bobbin holder for the locking thread supply, means for passing a loop of needle thread about the bobbin holder, a bobbin holding magazine, and mechanism under the control of the operator for removing a bobbin from the holder and transferring a bobbin from the magazine to the holder, substantially as described.

4. A sewing machine, having in combination a holder for the locking thread supply open at the rear, a rotary device for passing a loop of needle thread about the holder, and mechanism operating to introduce a supply of thread through the rear of the holder, substantially as described.

5. A sewing machine, having, in combination a holder for the locking thread supply open at the rear, means for engaging and carrying a loop of needle thread around the holder, and mechanism operating to introduce a bobbin through the rear of the holder, substantially as described.

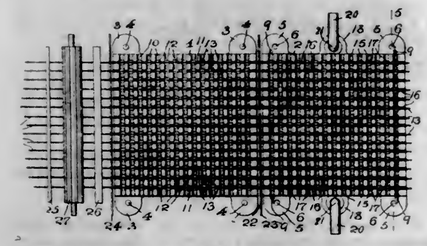
[Claims 6 to 25 not printed in the Gazette.]

1,077,057. PLANT-PROTECTOR. EDWIN R. DRAKE, De Land, Fla. Filed May 29, 1913. Serial No. 770,649. (Cl. 47—27.)



The improved plant-protector, comprising a skeleton frame including a series of posts arranged as described and end and intermediate cross-bars attached to said posts and located a short distance above the ground, parallel wires secured to and stretched between the end cross-bars and over the intermediate one and spaced apart to adapt them for supporting plants, and a series of planks resting on the three cross-bars and made of considerably less width than the space between the wires, as described.

1,077,058. METHOD OF ASSEMBLING RADIATOR-SECTIONS. FREDERICK A. FELDKAMP, Newark, N. J., assignor to Electrolytic Products Co., a Corporation of New Jersey. Filed Nov. 5, 1912. Serial No. 729,571. (Cl. 29—84.)



1. The process or method herein described of simultaneously securing a plurality of narrow strips or wires to the marginal edge-portions of a plurality of raditor-sections or units which consists in the provision of a pair of grooved or channeled and perforated plates, drawing a plurality of narrow strips or wires into and through the grooves or channels of said plates and across the perforations of said plates, arranging a plurality of radiator-sections or units between said plates with opposite marginal edge-portions of said radiator-sections or units arranged in said grooves or channels and across the perforations and the said narrow strips or wires, and passing liquid solder or tinning fluid into the perforations of said plates, and upon the exposed portions of the said strips or wires and edge-portions of the radiator-sections or units.

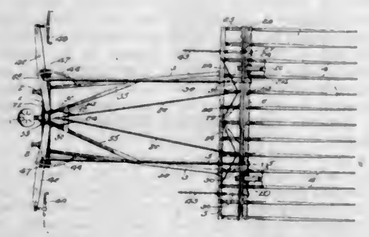
2. The process or method herein described of simultaneously securing a plurality of narrow strips or wires to the marginal edge-portions of a plurality of radiator-sections or units which consists in the provision of a pair of grooved or channeled and perforated plates, drawing a plurality of narrow strips or wires into and through the grooves or channels of said plates and across the perforations of said plates, arranging a plurality of radiator-sections or units between said plates with opposite marginal edge-portions of said radiator-sections or units arranged in said grooves or channels and across the perforations and the said narrow strips or wires, passing liquid solder or tinning fluid into the perforations of one of said plates and upon the exposed portions of the strips or wires and edge-portions of the radiator-sections or units connected with said plate, and then passing liquid solder or tinning fluid into the perforations of the other of said plates and upon the exposed portions of the strips or wires and edge-portions of the radiator-sections or units connected with said last-mentioned plate.

3. The process or method herein described of simultaneously securing a plurality of narrow strips or wires provided with U-shaped portions to the marginal edge-portions of a plurality of radiator-sections or units which consists in the provision of a pair of plates provided with laterally extending and longitudinally extending grooves or channels and formed with perforations at the crossings of said grooves or channels, and the laterally extending grooves or channels having greater depth than the longitudinally extending grooves or channels, drawing a plurality of such narrow strips or wires into and through said longitudinally extending grooves or channels and across the said perforations of said plates, arranging a plurality of radiator-sections or units between said plates with opposite marginal edge-portions of said radiator-sections or units arranged in said laterally extending channels or grooves and across said U-shaped portions of the said strips or wires and also across the said perforations, and passing liquid solder or tinning fluid into the perforations of said plates and upon the exposed U-shaped portions of the said strips or wires and edge-portions of the radiator-sections or units.

4. The process or method herein described of simultaneously securing a plurality of narrow strips or wires provided with U-shaped portions to the marginal edge-portions of a plurality of radiator-sections or units which consists in the provision of a pair of plates provided with laterally extending and longitudinally extending grooves or channels and formed with perforations at the crossings of said grooves or channels, and the laterally extending grooves or channels having greater depth than the longitudinally extending grooves or channels, drawing a plurality of such narrow strips or wires into and through said longitudinally extending grooves or channels and lodging the U-shaped portions of said strips or wires in the deeper laterally extending grooves or channels and across the said perforations of said plates, arranging a plurality of radiator-sections or units between said plates with opposite marginal edge-portions of said radiator-sections or units arranged in said laterally extending channels or grooves and across said U-shaped portions of the said strips or wires and also across the said perforations, passing liquid solder or tinning fluid into the perforations of one of said plates and upon the exposed portions of the strips or wires and edge-portions of the radiator-sections or units connected with said plate, and then passing liquid solder or tinning fluid into the perforations of the other of said plates and upon the exposed portions of the strips or wires and edge-portions of the radiator-sections or units connected with said last-mentioned plate.

5. The process or method herein described of simultaneously securing a plurality of narrow strips or wires provided with U-shaped portions to the marginal edge-portions of a plurality of radiator-sections or units which consists in the provision of a pair of plates provided with laterally extending and longitudinally extending grooves or channels and formed with perforations at the crossings of said grooves or channels, and the laterally extending grooves or channels having greater depth than the longitudinally extending grooves or channels, drawing a plurality of such narrow strips or wires into and through said longitudinally extending grooves or channels and across the said perforations of said plates, arranging a plurality of radiator-sections or units between said plates with opposite marginal edge-portions of said radiator-sections or units arranged in said laterally extending channels or grooves and across said U-shaped portions of the said strips or wires and also across the said perforations, then dipping first the one plate into a bath of liquid solder or tinning fluid and causing the fluid to flow into the perforations in said plate and around the exposed portions of the strips or wires and marginal edge-portions of said radiator-sections or units, removing the same from said bath and allowing the adhering liquid solder or tinning fluid to solidify, then dipping the other plate in the bath of liquid solder or tinning fluid and causing the fluid to flow into the perforations in said last-mentioned plate and around the exposed portions of the strips or wires and marginal edge-portions of said radiator-sections or units, and removing the same from the bath and allowing the adhering liquid solder or tinning fluid to solidify, substantially as set forth.

1,077,059. SELF-CLEANING HORSE-LIFT HAY-BUCK. RAYMOND J. FRANCIS, Gibbon, Nebr. Filed Feb. 28, 1912. Serial No. 680,511. (Cl. 56—137.)



1. A buck rake of the class described comprising a truck, a rake carried to the front of said truck, tipping means therefor, a cleaning frame carried by said rake, draft means carried by said truck, connecting means for said cleaning frame and draft means, and means for releasing said draft means from said truck and causing said draft means to reciprocate said cleaning frame upon said rake.

2. A buck rake of the class described comprising a truck, a rake carried by said truck, means for tipping said rake, a cleaning frame reciprocating upon said rake, draft means carried by said truck, and means for releasing said draft means from said truck for allowing the shifting of said cleaning frame upon said rake.

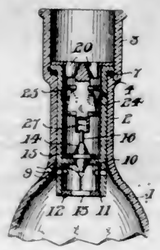
3. A buck rake of the class described comprising a truck, a rake carried in front of said truck, a cleaning frame carried by said rake, levers carried by said truck, draft trees carried by said truck, removable pivot pins carried by said truck and engaging said draft trees for preventing the bodily forward movement of said levers upon said truck, tipping rods connected to said rake and said levers, locking means connected to said tipping rods, said levers being adapted to force said cleaning frame forwardly with relation to the rake when said pivot pins are removed.

4. In a buck rake of the class described, the combination with a truck, of a rake pivotally mounted in front of said truck, cleaning means for said rake, and levers connected to said truck, tipping rods connected to said levers and rake, push rods connected to said levers and cleaning frame, detachable pivot pins carried by said truck, means for releasing said pivot pins from engagement with said levers, a guide strap coöperating with said levers and being adapted to hold the same against displacement from said truck, and means for locking the inner ends of said levers against pivotal movement about said pivot pins as centers.

5. In a buck rake of the class described, the combination with a truck, levers carried by said truck, a rake carried in front of said truck, cleaning means for said rake, tipping rods carried by said rake and connected to said levers, push rods connected to said levers and cleaning frame, releasable pivot pins carried by said truck and engaging said levers and being capable of allowing said levers to be swung upon said frame when said pins are released from said levers, and guiding means engaging said levers for limiting the movement thereof upon said truck.

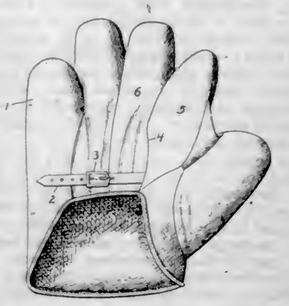
[Claims 6 to 8 not printed in the Gazette.]

1,077,060. ANTIREFILLABLE BOTTLE. JOHN GABRIELSON and KNUT KARLSTROM, Buffalo, N. Y. Filed Sept. 30, 1912. Serial No. 723,129. (Cl. 215—65.)



An anti-refillable bottle comprising the combination with a bottle neck, of a valve body arranged therein and provided intermediate its ends with a partition to constitute a valve seat, a vertically movable flanged stem valve mounted upon said seat, a valvular member fixed within the said valve body and cupped for the reception of the stem of said movable valve, and a plate secured within the inner end of the valve body and provided with a rectangular opening, that portion of the valve body below said partition provided with vertically disposed slots terminating in radially disposed recesses.

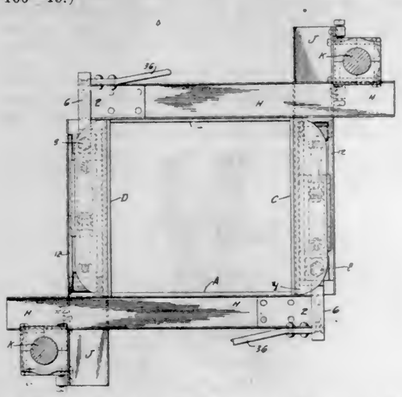
1,077,061. BASE-BALL GLOVE. JOHN GAMBLE, Philadelphia, Pa., assignor to George A. Reach, Philadelphia, Pa. Filed Aug. 26, 1912. Serial No. 717,033. (Cl. 2—195.)



1. A base ball glove, comprising a front portion and a back portion of flexible material having a cut-out portion at its inner end adjacent to the wrist, continuous finger pieces, and means for adjustably contracting the back portion above the cut-out portion substantially behind the projecting knuckles of the hand to secure the glove on the hand, substantially as described.

2. A base ball glove, comprising a front portion and a back portion of flexible material having a cut-out portion at its inner end adjacent to the wrist, continuous finger portions, and a strap and buckle on the back portion above the cut-out portion substantially behind the projecting knuckles of the hand for adjustably contracting the back of the glove to secure same on the hand, substantially as described.

1,077,062. HYDRAULIC LATCH. JAMES L. GARNETT, St. Louis, Mo., assignor to Emil A. Peterson, Appleton, Wis. Filed Dec. 5, 1912. Serial No. 735,005. (Cl. 100—19.)



1. The combination with a door, a support, a latch connected with the support and adapted to engage the door, and hydraulic means for permitting a partial movement of the latch and door preparatory to the release of the latch from the door.

2. The combination with a baling press door of a support, a member mounted to slide upon said support, a door engaging latch pivoted to said member, a cylinder mounted upon said door, a piston therein connected with said member, whereby fluid may be admitted to the piston to hold said member with the latch in door locking position.

3. The combination with a baling press door, of a support, a member mounted to slide upon said support, a latch pivoted to said member and adapted to engage the door, and hydraulic means for actuating said member to lock the latch in door engaging position.

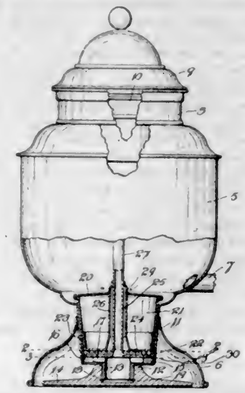
4. The combination with a latch, of a device for receiving a body of liquid in position to prevent latch release from locking position, a latch actuating member adapted to be controlled by such body of liquid, means for delivering liquid to said device, and means for permitting its gradual discharge therefrom; said latch actuating member being adapted by its movement to permit a partial opening movement of the door preparatory to the latch releasing movement.

5. The combination with a latch, of a device for receiving a body of liquid in position to prevent latch release from locking position, a latch actuating member adapted to be controlled by such body of liquid, means for delivering liquid to said device, and means for permitting its gradual discharge therefrom, said latch being movable in line with its holding pressure, and also adapted for independent movement at an angle thereto.

[Claims 6 to 10 not printed in the Gazette.]

1,077,063. PERCOLATOR. ISRAEL GEFTER, Meriden, Conn. Filed May 25, 1911. Serial No. 629,346. (Cl. 53—3.)

1. A percolator including a vessel having a depression in its bottom and also having a heating chamber opening into said depression, a raised portion in said depression forming a circulating chamber about the mouth of the heating chamber, said raised portion having inlet passages extending from the circulating chamber to the heating chamber, a fountain closing said depression and formed with an outlet passage from the heating chamber and with an inlet passage thereto, and a fountain tube to conduct fluid from the heating chamber.



2. A percolator including a vessel formed with a depression in its bottom, a heating plate having a recess, a nipple having a flanged head located in said depression, said flanged head being smaller in diameter than the depression whereby a circulating chamber is formed about the head, means for securing the heating plate to the projecting end of the nipple and thereby to the vessel, a fountain closing said depression and forming the upper wall of said circulating chamber, said fountain having inlet passages communicating with the circulating chamber and a fountain tube to conduct fluid from said heating chamber.

3. A percolator including a vessel formed with a depression in its bottom, and with a heating chamber opening into said depression, a fountain located in said depression and forming the upper wall of said heating chamber, said fountain having an inlet passage extending in a spiral direction through the fountain and within its body to conduct fluid from the vessel to said chamber, and a fountain tube to conduct liquid from said heating chamber.

4. A percolator including a vessel formed with a depression in its bottom, and with a heating chamber opening into said depression, a fountain closing said depression and overlying the heating chamber, said fountain being formed with an inclosed air chamber therein, a plate removably secured to the bottom of the fountain, said fountain and plate being constructed to provide a passage underneath said air chamber for fluid flowing from the vessel to said heating chamber, and a fountain tube to convey fluid from the heating chamber.

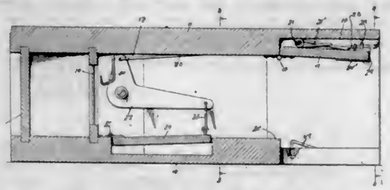
5. A percolator including a vessel formed with a depression in its bottom, and with a heating chamber opening into said depression, a fountain closing said depression and overlying said heating chamber, said fountain being formed with an inlet passage extending vertically at its center and then horizontally therethrough toward the edge thereof into said heating chamber, and a fountain tube to deliver liquid from said heating chamber.

[Claims 6 to 13 not printed in the Gazette.]

1,077,064. TRAP. WILLIAM F. HAMANN, Florence, Nebr. Filed Mar. 27, 1911. Serial No. 617,109. (Cl. 43—19.)

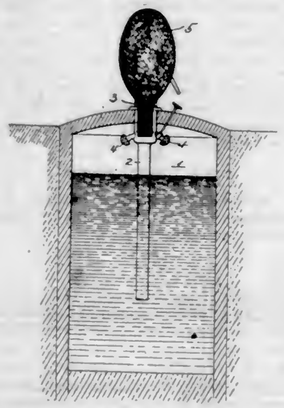
A trap including a casing, a bell crank lever pivoted at its elbow to the inner face of one of the casing side walls, a trap door pivoted to the bottom of the casing and underlying said bell crank lever, a link connecting the lower leg of said lever to the free end of said trap door, a closure

pivoted at its rear end to the top wall of said casing and rockable downwardly toward said bell crank lever into closed position, a spring interposed between said closure and said top wall operating to close said closure, and a link connected at one end to the upper leg of said bell crank lever and extending along the bottom face of the



casing top wall between said top wall and said closure, a support engaging the forward end of said link and secured to said casing, said link terminating in a hook adapted to engage over the free edge of said closure and hold said closure open, said hook being slid forwardly from engagement with said closure upon actuation of said bell crank lever by said trap door with resultant release of said closure.

1,077,065. WATER PURIFICATION. JAMES W. HAMMETT, Salama, W. Va. Filed May 20, 1913. Serial No. 768,839. (Cl. 210—1.)



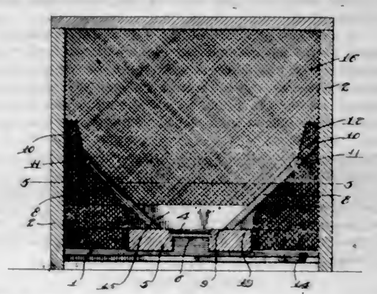
1. The combination with a well and a pump, of a spray nozzle secured to and communicating with the barrel of the pump and disposed to discharge water raised by the pump and sprinkle the same in the form of drops upon the surface of the water in the well.

2. The combination with a well and a pump to raise water in the well, of means for directing air into the well, and a spray nozzle communicating with the barrel of the pump and disposed to discharge water raised by the pump and sprinkle it in drops upon the surface of the water in the well.

1,077,066. FLY-TRAP. JOHN H. HANES, Cabool, Mo. Filed Nov. 1, 1912. Serial No. 729,052. (Cl. 43—22.)

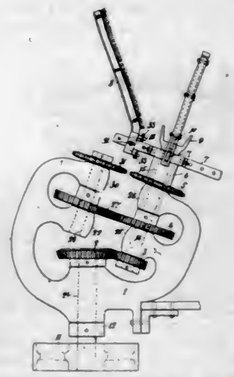
1. A trap of the class described comprises a frame provided with a base, a framework with a platform carried within said frame, inclined partitions carried within said frame provided with notches formed in their upper ends, means for supporting the base elevated by said frame, and conical entrance openings within said frame and passing through said V-shaped openings formed in said partitions whereby said conical members will be held in a firm position upon said frame.

2. A trap of the class described comprising a frame, said frame provided with a pair of vertically extending side members, a pair of horizontally extending side members, connected to the lower ends of the vertically extending side members, the lower edges of said horizontally extending side members being spaced above the lower edges of said vertically extending side members, a base carried by said frame and having its lower face positioned above the



lower edges of said horizontally extending side members, said bottom provided with a plurality of entrance openings and a discharge opening, inclined partitions partially inclosing said entrance openings and directing the flies toward the discharge opening, said partitions provided with apertured upper ends, cones positioned under said inclined partitions and extended through said apertures for admitting the flies into the trap, and a sliding door normally closing said discharge opening.

1,077,067. MACHINE FOR CLEANING SEPARATOR-DISKS. JORGEN HANSEN, Kolding, Denmark. Filed Nov. 4, 1912. Serial No. 729,465. (Cl. 141—9.)



1. A machine for cleaning the skimming disks of centrifugal cream separators, comprising two shafts one within the other, means for turning the shafts in opposite directions, two sets of adjustable brush-carrying arms between which the disks are adapted to be placed, one of said sets of brush-carrying arms being actuated from the outer shaft, the other set being removably mounted and adapted to be detachably coupled to said inner shaft.

2. In a machine for cleaning the skimming disks of centrifugal cream separators, two shafts mounted to turn one within the other, wings on the outer shaft carrying brush arms, brush arms detachably coupled to the inner shaft, means for turning the inner shaft, an intermediate shaft, a gear wheel on the inner shaft in mesh with a gear wheel on the said intermediate shaft to drive the

latter, and a chain and sprocket wheel connection between the said intermediate shaft and the said outer shaft.

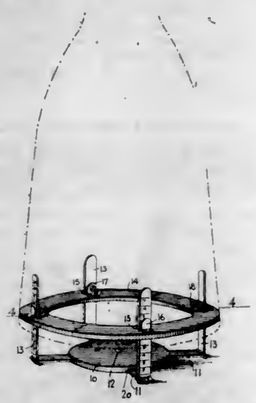
3. In a machine for cleaning the skimming disks of centrifugal cream separators, inner and outer sets of arms carrying brushes between which the disks are adapted to be placed, supports on which the outer brush-carrying arms are adjustably mounted, brackets on the said arms, and set screws carried by said brackets for adjusting the said outer brush-carrying arms to different angles according to the shape of the disks.

4. In a machine for cleaning the skimming disks of centrifugal cream separators, inner and outer sets of brushes between which the disks are adapted to be placed, the inner set of brushes comprising a number of oblique brush-carrying arms, a tube on which the arms are disposed, bracket arms, screws on the brush-carrying arms and engaging said bracket arms, and means for moving the screws in said bracket arms to adjust the said brush-carrying arms.

5. A machine of the character described, comprising inner and outer sets of radially adjustable brush-carrying arms, means for rotating the inner and outer arms in opposite directions, one set of arms being removably mounted.

[Claims 6 to 9 not printed in the Gazette.]

1,077,068. SKIRT-MARKER. EMILY ANNA HAVENS, White Plains, N. Y. Filed Feb. 12, 1913. Serial No. 747,868. (Cl. 73—48.)

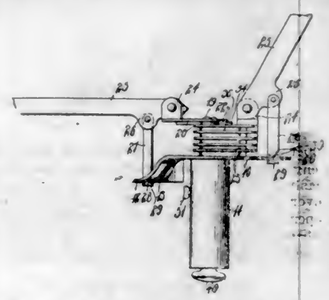


1. In a skirt marker, the combination of a base including a plurality of horizontal bars, a series of gages hinged to the outer ends of the bars, said gages being adapted to extend vertically from the bars or to be swung around and folded upon said bars, an annulus coöperating with said gages when the gages are vertical, and means to adjustably secure the annulus in fixed position with respect to the several gages.

2. In a skirt marker, the combination of a base comprising a plate and a plurality of bars pivoted together and to said plate, said bars extending horizontally outward from said plate, a series of gages extending upwardly from the outer ends of said bars, said bars and gages being adapted to swing around the center of the plate for storage purposes, a skirt engaging annulus adjustable vertically along said gages, and a series of clamps adapted to secure the annulus at the desired elevation with respect to the base.

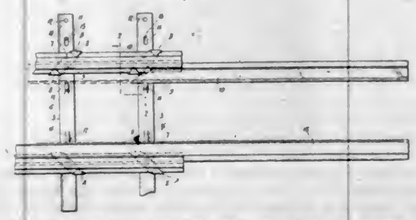
1,077,069. MUSIC-LEAF TURNER. FRITZ HOFMANN, West Hoboken, N. J. Filed Nov. 12, 1912. Serial No. 730,910. (Cl. 84—17.)

1. In a music leaf turner, a tubular support, a pivot rod in the support, a plurality of superposed plates carried by the rod, pivoted spring actuated leaf engaging arms carried by the plates, projections on the plates, a plate on the support having an upturned end, outwardly extending hook shaped spring arms on the plates, the lowermost of the spring arms engaging the upturned end of said plate, each of the other spring arms engaging the next lower spring arm, and a vertically reciprocable spring held bar having a shouldered portion to receive the spring arms successively, the upper end of the bar having an offset portion for engagement on the projections of the plates successively.



2. In a music leaf turner, a support, a vertical pivot pin in the support, a track having a curved slot eccentric with the pivot pin, one end of the track being downwardly inclined, a plurality of superposed plates mounted on the pivot pin, springs for turning the plates on the pivot pin, detents for holding the plates in one position, means for successively releasing the detents, leaf turning arms pivotally carried by the plates, and a plurality of vertically disposed links each pivoted at its upper end to one of the leaf arms, the lower end of the link having a reduced neck portion disposed in the said slot and a head portion engaging the track beneath the slot.

1,077,070. RAILROAD-TRACK. FRANCIS K. HOLMESTED, Quinnimont, W. Va. Filed Mar. 18, 1913. Serial No. 755,174. (Cl. 238—2.)



1. A railroad tie having rail engaging fasteners on opposite extremities thereof, the one fastener being fixed on the tie and the other fastener pivoted on the tie, and upwardly projecting abutments or guards disposed a suitable distance inside of the fasteners to engage portions of jumper rails.

2. In a railway track, the combination of a tie having fasteners on opposite extremities thereof with engaging means for main track rails, one fastener being fixed on the tie and the other fastener pivoted on the tie, and upwardly projecting outwardly extending abutments to engage portions of jumper rails, the said abutments rising from the tie at points inside of the fasteners and at relative distances from the latter.

3. In a railway track, the combination of a plurality of ties having fasteners on opposite extremities provided with rail engaging means, one fastener being permanently fixed on each tie and the other fastener being pivoted on each tie, guards rising from the ties inside of the fasteners and at relative distances from the latter, main track rails separably engaging the said fasteners, and jumper rails interposed between the inner portions of the main track rails and the guards to extend the track beyond the terminals of the main track rails.

1,077,071. BRUSH. ABRAHAM LINCOLN HOLTZMAN, East Orange, N. J. Filed Dec. 12, 1912. Serial No. 736,280. (Cl. 15—39.)



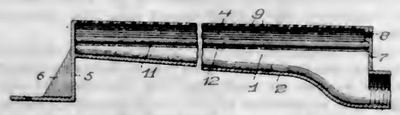
A brush, comprising a handle having an integral head provided with a recess and with a rabbet, the said head being also provided at the forward end with an integral flange, a bristle-holding plate seated on the said rabbet and having its forward end resting on the said flange, the rear end of the said plate terminating in a tongue, and a ring held on the neck of the said head and adapted to engage the said tongue and clamp the same against the neck.

1,077,072. TOWEL-HOLDER. EDWIN A. HOOD, Pierre, S. D. Filed Aug. 6, 1912. Serial No. 713,535. (Cl. 45—32.)



In a towel holder a frame having a back, a roller spaced from the back and journaled in the frame on which a towel is normally rolled, arms pivoted at their upper ends to the back of the frame, and extending downward from their pivots, a rectangular reel pivoted to the lower ends of the arms and normally disposed substantially in a vertical plane with the pivots of the arms, and means on the rectangular frame for securing the ends of a towel thereto.

1,077,073. GAS-BURNER. CHARLES HOWARD HOOK, Pittsburgh, Pa. Filed Feb. 3, 1913. Serial No. 746,011. (Cl. 158—112.)



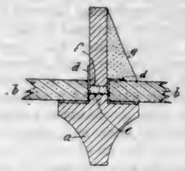
1. A gas burner comprising an elongated tapering casing having the large end thereof provided with a gas inlet connection, and an inverted V-shaped top plate forming the top of said casing and having rows of gas outlet openings formed therein with one row of openings disposed relatively to the other rows of openings for producing a suction when gas is emitted from said openings.

2. A gas burner comprising a tapering casing, an inverted V-shaped top plate forming the top of said casing and provided with gas outlet openings, a screen arranged within said casing beneath said openings, and an end plate detachably connected to said casing whereby easy access can be had to the interior of said casing for placing said screen therein.

3. As a new article of manufacture, a gas burner made of a single piece of material and embodying a casing having a V-shaped top formed with rows of gas outlet openings, one row of openings disposed relatively to the other rows of openings for producing a suction when gas is emitted from said openings; one end of said casing being closed, the other end provided with an opening and a gas inlet connection below said opening, and a removable plate for closing the said end opening.

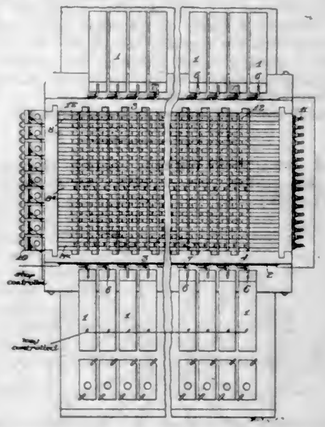
4. A gas burner comprising a casing having a V-shaped top, one end of said casing being larger than the other, means for closing said smaller end, a removable closure for said larger end, and a gas inlet connection projecting from said larger end and below said removable closure.

1,077,074. GLAZING WINDOWS AND THE LIKE AND DEVICE THEREFOR. HENRY DONALD HOPE, Birmingham, England. Filed Aug. 23, 1912. Serial No. 716,729. (Cl. 189—78.)



The combination with a window frame, of a clip for securing glass in the frame, said clip comprising a flat bendable supporting plate provided with an integral stud comprising bent portions of the plate, adjacent to one end thereof and at right angles thereto and of cylindrical form, said stud being held in an aperture in the sash bar by the edge of the glass and said glass being secured by bending over a portion of said flat plate.

1,077,075. ORGAN STOP MECHANISM. ROBERT HOPE-JONES, North Tonawanda, N. Y. Filed Dec. 27, 1910. Serial No. 599,431. (Cl. 84—59.)



1. In electrically operated musical instruments, the combination with a pivoted bar forming an electrical contact extending substantially parallel with its axis of movement, means for swinging it in a given path and a playing key controlling said means, of a stop mechanism embodying a movable member having a contact movable therewith into the path of the first mentioned contact, a stop key controlling said movable member, a playing circuit including the contacts and a sound-producing unit of the in-

strument having operating means arranged in said circuit.

2. In electrically operated musical instruments, the combination with a pivoted bar forming an electrical contact extending substantially parallel with its axis of movement, of a crank arm connected thereto, a bellows for operating the crank arm to rotate the contact in a given path, means embodying and under the control of a playing key for controlling the bellows, and a stop mechanism embodying a stop key and a movable member controlled thereby having a contact movable with the member into the path of the first mentioned contact, a playing circuit including the contacts and a sound-producing element of the instrument having operating means arranged in said circuit.

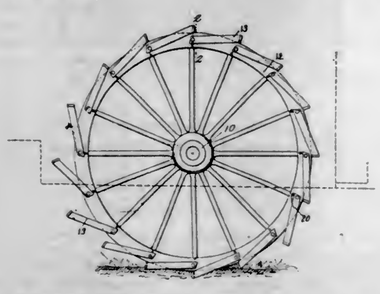
3. In electrically operated musical instruments, the combination with an electrical contact member, means for moving it in a given path and a playing key controlling said means, of a stop mechanism embodying a guide, a longitudinally movable slide bar operating therein, an electrical contact on the slide bar movable therewith into the path of the first mentioned contact, a stop key controlling the slide bar and a playing circuit including the contacts and a sound-producing element of the instrument having operating means arranged in said circuit.

4. In musical instruments, the combination with a pivoted bar forming an electrical contact extending substantially parallel with its axis of movement, means for rotating it in a given path and a playing key controlling said means, of a stop mechanism embodying a guide, a longitudinally movable slide bar operating therein transversely of the pivoted bar, an electrical contact on the slide bar movable therewith into the path of the first-mentioned contact and formed by a resilient post extending transversely of the pivoted bar, a stop key controlling the slide bar, a playing circuit including the contacts and sound-producing element of the instrument having operating means arranged in said circuits.

5. In electrically operated musical instruments, the combination with an electrical contact member, means for moving it in a given path and a playing key controlling said means, of a stop-mechanism embodying a guide, a longitudinally movable slide bar operating therein, an electrical contact on the slide bar movable therewith into and out of the path of the first-mentioned contact, a bellows at one end of the guide coöperating with the adjacent end of the bar to move it in one direction, a stop key controlling the bellows, a spring at the other end of the guide coöperating with the opposite end of the bar to return the same, a playing circuit including the contacts and a sound producing element of the instrument having operating means arranged in said circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,077,076. TRACTION-WHEEL. ALONZO HUFFMAN, Mutual, Okla. Filed Nov. 1, 1912. Serial No. 728,988. (Cl. 21—208.)

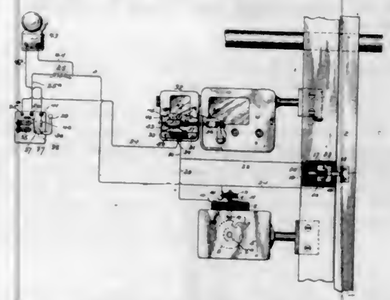


1. A traction wheel having a rim, and a plurality of independent, movable, ground-engaging members pivotally mounted upon said rim at the sides thereof, and extending across the same, said members at the lower part of the wheel gravitationally assuming projected positions and at the upper part of the wheel lying closely against the rim thereof.

2. A traction wheel having a rim, and a plurality of independent, movable, ground-engaging members associated therewith, each of said members consisting of a U-shaped element having sides and a cross-bar, said sides being pivotally secured at the sides of said rim, whereby said cross-bar extends across said rim.

3. A traction wheel having a rim, and a plurality of independent, movable, ground-engaging members associated therewith, each of said members consisting of a U-shaped element having sides and a cross-bar, said sides being pivotally secured at the sides of said rim, whereby said cross-bar extends across the rim, said cross-bar having the ends extended laterally beyond said sides, said rim being provided with stops limiting the movements of said ground-engaging members.

1,077,077. ELECTRIC PROTECTIVE DEVICE FOR SAFE AND VAULT DOORS. HERMANN HUHN and HENRY R. HUHN, Macon, Ga., assignors to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Oct. 22, 1912. Serial No. 727,196. (Cl. 161—23.)



1. The combination with a time-lock mechanism and electrically controlled protective devices, of a timing controller for the circuits of said protective devices connected with and controlled by the time lock mechanism, whereby the operation of the protective devices may be rendered inoperative for a predetermined period after the time-lock-mechanism has been set.

2. The combination with a door, time-lock mechanism, an alarm device, electric circuits for the alarm device, and circuit controllers associated with the door, of a timing controller for said circuits connected with and controlled by the time-lock mechanism, whereby the operation of the protective devices may be rendered inoperative for a predetermined period after the time-lock-mechanism has been set.

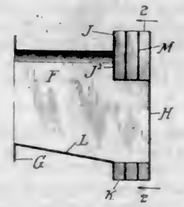
3. The combination with a closure and a time-lock mechanism therefor, for electrically-controlled alarm devices associated with the closure, and means controlled by the time-lock mechanism for rendering the alarm mechanism inoperative for a brief period after the time-lock mechanism has been set.

4. The combination with a closure and a time-lock mechanism therefor, of an alarm device, means associated with the closure for controlling the operation of said alarm device, a controller for the alarm controlling means, a connection between said controller and the time-lock mechanism for actuating the controller to render the alarm controlling means inoperative when the time-lock mechanism runs down, and means for retarding the resetting of the controller after the time-lock mechanism has been reset.

5. The combination with a closure and a time-lock mechanism therefor, of electrical protective devices associated with the closure, and a timing controller interposed in the circuits of said protective devices and mechanically connected with a movable part of the time lock mechanism, whereby the operation of the protective devices may be rendered inoperative for a predetermined period after the time-lock-mechanism has been set.

[Claims 6 to 10 not printed in the Gazette.]

1,077,078. VENTILATOR. LEE P. HYNES, Chicago, Ill. Filed Jan. 2, 1913. Serial No. 739,674. (Cl. 98—22.)



1. A ventilator comprising a main flue F and a branch flue extending transversely thereto having a series of longitudinal partitions therein.

2. A ventilator comprising a main flue F having means for securing it in horizontal position and a vertical branch flue having a series of longitudinal partitions therein.

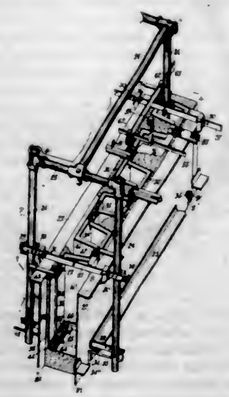
3. A ventilator comprising a horizontal main flue and a vertical branch flue partially extending into the main flue and provided with a series of longitudinally extending partitions.

4. In a ventilator, a horizontal main flue adapted to connect at one end with the compartment to be ventilated and provided at the other end with a substantially vertical wall and a branch flue connected to the main flue and provided with a series of longitudinally extending partitions.

5. A ventilator comprising a horizontal main flue open at one end and adapted to be connected to the compartment to be ventilated, and upwardly and downwardly extending transverse flues at the other end of the main flue, the upwardly extending branch being provided with a series of longitudinal partitions.

[Claims 6 to 9 not printed in the Gazette.]

1,077,079. MOLD FOR MAKING CONCRETE WALLS. EDWIN A. ISLES, New York, N. Y. Filed Jan. 27, 1910. Serial No. 540,353. (Cl. 25—131.)



1. A mold for forming concrete walls, comprising plane sections suitably and adjustably spaced opposite each other, supporting means carrying the sections in such position, independent corrugated sections positioned between the plane sections, means engaging each plane section and each corrugated section for holding them in relation to each other, thereby forming air chambers and concrete chambers, together with means carried by the corrugated sections and extending longitudinally thereof and bridging the corrugations in order to permit the said sections to be moved.

2. In combination with outer sections and inner sections forming a mold for concrete walls, of a bar having a depending arm thereon, rods engaging the inner sections and movable members engaging the depending arm and the rods whereby movement of the arm will bring the rods and the sections together.

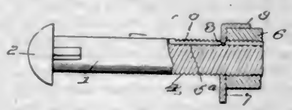
3. In combination with outer and inner wall sections forming a mold for concrete, of a member having a depending arm thereon, rods carried on adjacent portions of the inner sections, and members slidably supported at one end on the rods, and a pivotal connection between the said members and the depending arm whereby movement of the members with the arm thereon in one direction will cause the said inner sections to approach each other and be withdrawn from the wall when formed.

4. In combination with inner and outer sections forming a mold for a concrete wall, of a member positioned between adjacent faces of the inner sections and supported by the outer sections, and pivoted diagonals in sliding engagement with the inner sections and in movable engagement with the said member, whereby movement of the said member will cause the inner sections to approach each other and be withdrawn from the wall after it is formed.

5. In combination with inner and outer sections forming a mold for a concrete wall, of a transverse bar carried by the outer sections, an arm depending therefrom and positioned between adjacent faces of the inner sections, diagonal members each having one end in engagement with an inner section, the other end of each diagonal being in sliding engagement with the other section, and a link between one of the diagonals and the said depending arm, whereby upward movement of the arm will bring the inner sections closer together and away from the wall.

[Claims 6 to 8 not printed in the Gazette.]

1,077,080. COMBINATION LOCK-NUT WASHER AND BOLT. BRINKER R. JONES, Somerset, Pa. Filed Mar. 2, 1911. Serial No. 611,842. (Cl. 151—3.)



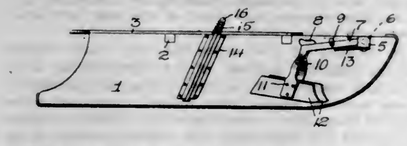
In a lock nut, a bolt having a groove extending longitudinally of the threaded end and with a plurality of depressions in the bottom of the groove, a nut engaging the bolt, a washer engaging around the bolt and having a fin directed inwardly and adapted to engage in the groove and into the depressions and with an outwardly directed wing to bend over the nut after the same has been locked at a predetermined point on the bolt, said fin being adapted to yield and successively enter the depressions as the nut is rotated and to remain in the nearest depression when the nut is located at the required point upon the bolt.

1,077,081. METHOD OF TREATING BITUMEN OR BITULITHIC MATERIALS. FREDERICH OTTO KAEMPF, Toronto, Ontario, Canada. Filed Oct. 25, 1906. Serial No. 340,485. (Cl. 106—44.)

The process of treating bitumen or bitulithic substances, which consists in pulverizing, grinding or otherwise mechanically finely dividing the same, in softening thereafter the same by the application thereto of a liquid consisting of water and a heavy oil, which oil is capable of

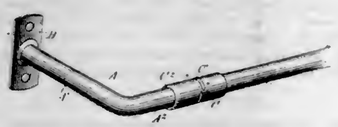
forming an emulsion with the water and is held in a finely divided state in suspension thereby, and in giving the bitumen or bitulithic substance thus treated the desired form and allowing the same to harden by permitting the water to evaporate therefrom and the oily substance to remain commingled therewith, substantially as described.

1,077,082. SLED. AUGUST KLIMENT, Noria, N. Mex. Filed Apr. 15, 1913. Serial No. 761,306. (Cl. 21—46.)



The combination with a sled provided with a transverse bar at the forward end thereof, of rearwardly extending and normally inclined foot rests having their forward ends pivotally connected to the ends of said bar and having their rear ends provided with heel sockets, said foot rests further provided intermediate their ends with oppositely disposed laterally disposed sole braces, inverted U-shaped members secured to and depending from the rear end of said foot rests and disposed at an angle relatively to the foot rests, and means secured to the ends of said bar and projecting rearwardly therefrom and engaging said foot rests for maintaining these latter normally elevated.

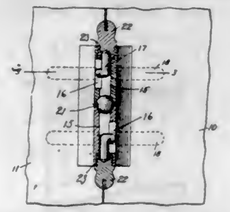
1,077,083. CURTAIN-ROD SUPPORT. JOHN KRODER, New York, N. Y. Filed June 6, 1913. Serial No. 772,059. (Cl. 156—19.)



1. A curtain rod support, comprising a supporting rod provided at its end with an external screw thread and with a struck-up lug adjacent the rear end of the screw thread, and a sleeve for the reception of the end of the curtain rod to be supported, the sleeve being provided between its ends with an internal screw thread screwing on the said exterior screw thread to permit of screwing the sleeve lengthwise on the threaded end of the said supporting rod, the sleeve when screwed in the direction away from the curtain rod having its curtain rod receiving end approximately flush with the terminal of the supporting rod, and the sleeve when screwed in the opposite direction having its receiving end extending beyond the said terminal for engagement with the curtain rod, the said sleeve being provided at one end with a terminal stop adapted to abut against the said lug to limit the screwing movement of the sleeve in one direction.

2. A curtain rod support, comprising a supporting rod provided at its ends with an external screw thread and with a struck-up lug adjacent the rear end of the screw thread, and a sleeve for the reception of the end of the curtain rod to be supported, the sleeve being provided between its ends with an internal screw thread screwing on the said exterior screw thread to permit of screwing the sleeve lengthwise on the threaded end of the said supporting rod, the sleeve when screwed in the direction away from the curtain rod having its curtain rod receiving end approximately flush with the terminal of the supporting rod, and the sleeve when screwed in the opposite direction having its receiving end extending beyond the said terminal for engagement with the curtain rod, the said sleeve having one end provided with an inwardly-turned flange forming a stop adapted to abut against the said lug to limit the outward movement of the sleeve on the said threaded end of the supporting rod.

1,077,084. HINGE. ALBERT J. KUGLER and JULES F. GODEFROY, New York, N. Y. Filed Mar. 25, 1913. Serial No. 756,645. (Cl. 16—106.)

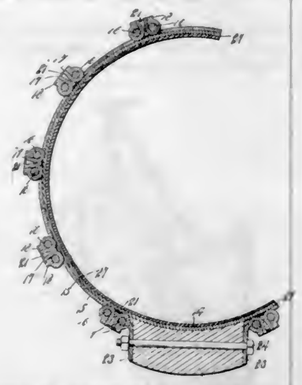


1. In a hinge, a pair of members, each comprising a body portion, a cylindrical portion, a hook, and a pair of arms, said cylindrical portion having means whereby the hooks of the other member are adapted to engage said cylindrical portion and move therein, thereby forming a pivotal connection between said members.

2. In a hinge, a pair of members, each having a body portion, a cylindrical portion, a hook, and a pair of arms, said cylindrical portion having an axial bore, a slot from the lateral surface to said bore, and through said slot the hook of the other member is adapted to enter the bore and move in same; and a cap in said bore forming a bearing for the hook in said bore.

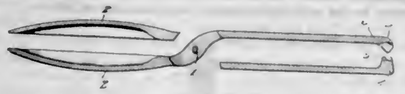
3. In a hinge, a pair of members, each having a body portion, a cylindrical portion, a hook, a pair of arms, said cylindrical portion having an axial bore, a slot from the lateral surface to said bore, and through said slot the hook of the other member is adapted to enter the bore and move in same; a cap in said bore forming a bearing for the hook in said bore; and a ball intermediate said cylindrical portions constituting a bearing for said members.

1,077,085. VEHICLE-TIRE. RICHARD L. LEACH, Honolulu, Hawaii. Filed Oct. 2, 1912. Serial No. 723,511. (Cl. 152—16.)



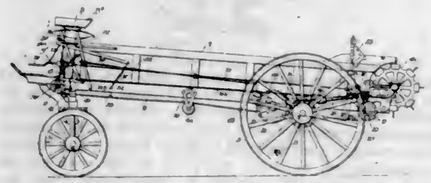
In a vehicle tire such as described; a plurality of metal plates; a plurality of circular open-centered buttons, each having a plurality of integral link extensions radially disposed and engaging the plates to secure them together, each extension passing through the opening in one of said buttons; and a plurality of rivets extending through the opening of each of said buttons and between the extensions therein, said rivets being expanded against the inner surface of said link extensions.

1,077,086. ANIMAL-FORCEPS. GEORGE LECUYER, Bartlesville, Okla. Filed Oct. 15, 1912. Serial No. 725,886. (Cl. 128—27.)



Animal forceps, comprising two snout engaging jaws, one of which is curved to partially embrace the exterior of the snout, the other snout jaw being knob-like in shape and adapted to engage the jaw bone within the snout, the knob-like jaw being formed with intersecting notches, and the curved jaw being formed with a leg holding recess in the concave face opposite the knob-like jaw.

1,077,087. MANURE-SPREADER. GUNDER G. MANDT, Moline, Ill., and MARTIN VINGUM, Stoughton, Wis., assignors to Moline Plow Company, a Corporation of Illinois. Filed Dec. 15, 1909. Serial No. 533,266. (Cl. 111—40.)



1. In a manure-spreader, a traveling load-carrying apron, ground-wheel-driven mechanism for actuating said apron toward discharging position, means for arresting the travel of said apron, apron-returning mechanism for automatically effecting return of the apron to normal position, a single mechanism-controlling device including a transverse rock-shaft, a tensioning element connected therewith and operated thereby when moved in one direction and, in its turn, operating to actuate said rock-shaft in the reverse direction, and independent actuating devices between said shaft and said apron-driving and apron-returning mechanisms.

2. In a manure-spreader, a traveling load-carrying apron, ground-wheel-driven mechanism for actuating said apron toward discharging position, automatically-operated apron-returning mechanism, means for arresting the travel of the apron and operating to actuate said automatically-operated apron-returning mechanism, a single mechanism-controlling device including a transverse rock-shaft, a tensioning element connected therewith and operated thereby when moved in one direction and, in its turn, operating to actuate said rock-shaft in the reverse direction, and independent actuating devices between said shaft and said apron-driving and apron-returning mechanisms.

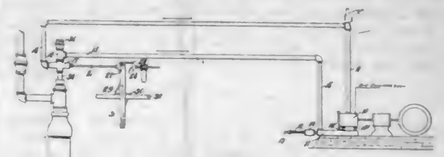
3. In a manure-spreader, a traveling load-carrying apron, ground-wheel-driven mechanism for actuating said apron toward discharging position, automatically-operated apron-returning mechanism, and automatically and manually-operated means for arresting the travel of the apron and operating to actuate said automatically-operated apron-returning mechanism and including a mechanism-controlling rock-shaft and a shaft-tensioning element connected therewith and adapted to be flexed by said shaft when actuated in one direction and operating in its turn to actuate said shaft in the opposite direction, and independent actuating devices between said shaft and said apron-driving and returning mechanism.

4. In a manure-spreader, a traveling load-carrying apron, ground-wheel-driven mechanism for actuating said apron toward discharging position, automatically-operated apron-returning mechanism, means for initiating the travel of the apron and operating to actuate said automatically-operated apron-returning mechanism, said means including a mechanism-controlling shaft and a shaft-controlling spring connecting therewith and adapted to be flexed by said shaft when rotated in one direction and in its turn to actuate said shaft in the opposite direction, a crank carried at one end of said shaft, a connection between said crank and apron-driving mechanism, and an independent actuating device between said shaft and said apron-returning mechanism, and means for controlling the actuation of said automatically-operated apron-returning mechanism.

5. In a manure-spreader, a traveling load-carrying apron, ground-wheel-driven mechanism for actuating said apron toward discharging position, automatically-operated apron-returning mechanism, means for arresting the travel of the apron and operating to actuate said automatically-operated apron-returning mechanism, means for arresting the return travel of said apron at its starting point, and safety-mechanism disposed beyond the normal return travel of the apron and adapted to be engaged by said apron when advanced beyond its normal starting position.

[Claims 6 to 30 not printed in the Gazette.]

1,077,088. APPARATUS FOR HOISTING LIQUIDS FROM WELLS. DUNCAN D. MCCALL, Houston, Tex. Filed Sept. 10, 1912. Serial No. 719,563. (Cl. 103—8.)



1. The combination of a fluid compressor having an admission tank provided with means for adjusting the pressure in said tank not exceeding the atmospheric pressure, and an apparatus of the class described comprising a cylinder, a fluid line, a liquid line, a valve interposed between said fluid line, the exhaust of said compressor and the said admission tank of said compressor, and a check valve associated with said interposed valve whereby the reduction in pressure in said fluid line may be instantly reduced to atmospheric, substantially as described.

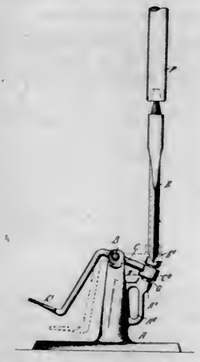
2. An apparatus of the class described, comprising a cylinder having a fluid admission and exhaust from the same fluid line at one end and a liquid admission and exhaust at the other end, a valve casing having an admission and exhaust opening for fluid and associated with said fluid line, a cylindrical slide valve inclosed in said casing and having a rod projecting through said casing, means on said rod whereby said valve is alternately displaced so as to admit or exhaust the fluid from said fluid line, and a check valve connecting said valve casing on said fluid line with the atmosphere, whereby the pressure in said fluid line, at the moment that the exhaust begins through said valve from said fluid line, falls to the atmospheric pressure, substantially as described.

3. An apparatus of the class described, comprising a cylinder having a fluid admission and exhaust from the same fluid line at one end and a liquid admission and exhaust at the other end, a valve casing having an admission and exhaust opening for fluid and associated with said fluid line, a cylindrical slide valve inclosed in said casing and having a rod projecting through said casing, said rod having a yoke, and a disk having lugs on its opposite faces and adapted to alternately engage said yoke of said rod, one of said lugs being fixed on said disk and the other relatively to the fixed lug is adjustable on the opposite face of said disk, for the purposes above described.

4. An apparatus of the class described, comprising a cylinder having a fluid admission and exhaust from the same fluid line at one end and a liquid admission and exhaust at the other end, a valve casing having an admission and outlet for a fluid and associated with said fluid

line, a cylindrical slidable valve inclosed in said casing and having at one end a rod projecting through the said casing and the other end having an axial bore facing the admission in said casing, said axial bore being provided with an outlet to the surface of said cylindrical valve, thus forming the admission part of said valve, another through bore normal to the axis of said valve and in plane with the surface outlet of said axial bore and at a predetermined distance from said outlet, said bore forming the exhaust part of the valve, and means associated with the said rod of said valve whereby the admission and exhaust parts of said valve are alternately registering the said fluid line with the admission and outlet of said valve casing, substantially as described.

1,077,089. DRILL-BIT LIFTER. MICHAEL MCCARTHY, Stewartsville, N. J. Filed Sept. 16, 1912. Serial No. 720,568. (Cl. 57—43.)



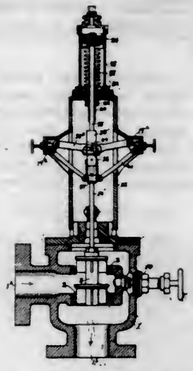
1. A drill bit lifter, comprising a portable stand having a stop, a treadle lever fulcrumed on the said stand, and a drill bit support having a head and a shank, the shank being journaled in the said treadle lever and being adapted to rest on the said stop, and the said head having a V-shaped groove on top for the reception of the cutting edge of the drill bit.

2. A drill bit lifter, comprising a portable stand having a stop, a treadle lever fulcrumed on the said stand, a drill bit support having a head and a shank, the shank being journaled in the said treadle lever and being adapted to rest on the said stop and the said head having a V-shaped groove on top for the reception of the cutting edge of the drill bit, and means for holding the said shank against removal from the treadle lever.

1,077,090. PUMP-GOVERNOR. ROBERT B. MCGOWAN, Cincinnati, Ohio. Filed June 1, 1910. Serial No. 564,464. (Cl. 103—92.)

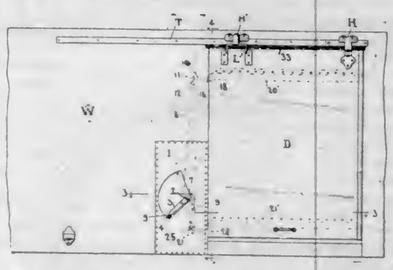
1. In a system of fluid distribution of the character indicated, in combination with a governing valve for regulating the motor force at the supply side of the system, and with mechanism for operating said valve to adjusted working limits less than the valve capacity by means of the varying head or pressure at the delivery side of the system, of auxiliary mechanism connected therewith adapted to reverse the direction of valve operation and close the valve when the decrease of resisting head or pressure passes the normal working limit as adjusted.

2. In a system of fluid-distribution of the character indicated, the combination of a piston under continuous pressure of resistance at the delivery-side, acting in one direction of the piston-movement, and continuous spring-pressure acting in the other direction, a regulating throttle-valve governing the supply of motor force at the supply-side of the system; mechanism connecting said piston and said valve in simultaneous coördinate operation between normal limits of the resisting head or pressure; and mechanism operated by said piston when the resisting pressure decreases below the normal limit to move the valve oppositely to the piston-movement and seat the valve.



3. In pump-governing apparatus, the combination of a governing piston actuated in one direction by the head or pressure of fluid supplied by said pump, and in the opposite direction by spring-pressure adjusted to a normal maximum pressure of said fluid, a throttle-valve actuated correspondingly within predetermined limits, and a divided connecting rod, normally connected as one, uniting the valve and piston, but adapted to separate and allow the throttle valve to be closed when the governing pressure falls below the proper limit.

1,077,091. DOOR-LOCKING MECHANISM. GEORGE E. MERRITT, Baltimore, Md., assignor of one-half to William N. Crisp, Baltimore, Md. Filed Apr. 12, 1913. Serial No. 760,707. (Cl. 20—23.)

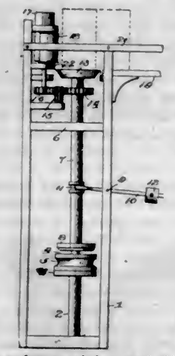


1. In a car door locking mechanism, the combination with the car wall having a door opening, a track extending along the former and over the latter and inclined inward at its front end, the door, and hangers supporting the door from said track and permitting its lateral movement relative thereto; of flanges extending across the inner face of the door near its top and bottom, hooks sliding in suitable guides and with their bills respectively engaging said flanges and their bodies having upright slots, double crank shafts whereof the inner cranks engage said slots, a rock shaft having an operating handle, a double crank on this shaft, and rods connecting its extremities with the other cranks of said crank shafts, for the purpose set forth.

2. In a car door locking mechanism, the combination with the car wall having a door opening, a track extending along the former and over the latter, the door, and hangers supporting the door from said track and permitting its lateral movement relative thereto; of flanges extending across the inner face of the door near its top and bottom, hooks sliding in guides and respectively engaging said flanges, their bodies having upright slots, double crank shafts whereof the inner cranks engage said slots, eyes mounted on the outer cranks and each eye having a tongue, a rock shaft having a handle and a double crank, rods pivoted to the extremities of said crank and each having a fork in its outer end, and a pivotal connection between said fork and one of said tongues, for the purpose set forth.

3. A door-operating mechanism consisting of a rock shaft having a crank handle and a double crank, a pair of slidable members engaging the door, a pair of fixed brackets having sleeves, a crank shaft rotatably mounted in each sleeve and having a crank at one end engaging one of said slidable members and a crank at its other end, and an eye engaging said last-named crank and pivotally connected with one of the cranks of said operating mechanism.

1,077,092. AUTOMATIC DEVICE FOR RECEIVING AND DISCHARGING CARTONS. WALTER L. MONTGOMERY, Chicago, Ill. Filed Sept. 18, 1912. Serial No. 721,097. (Cl. 193—1.)



1. In a machine for receiving and discharging containers, a normally rotating member, a balanced rotatable platform mounted to move vertically, and means associated with the platform and moving therewith for engaging the rotating member as the platform descends, and a conveying device having its upper surface in the same plane with the platform when the latter is rotated.

2. In a machine for receiving and discharging containers, a balanced platform, a normally rotating member, and means moving with the platform for engaging the rotating member as the platform is lowered, and a conveying device having its upper surface in the same plane with the platform when the latter is rotated.

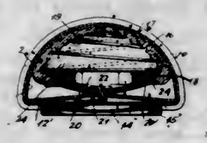
3. In a machine for receiving and discharging containers, a rotatable balanced platform adapted to move axially, a clutch member moving with the balanced platform, and a normally rotating clutch member adjacent the first mentioned clutch member, said clutches engaging as the balanced platform is moved toward the normally rotating clutch.

4. In a machine for receiving and discharging containers, a frame, a rotatable member guided in the frame, said member being adapted to reciprocate in the direction of the axis of rotation, adjustable means for balancing said reciprocable member, a normally rotating member, and means associated with the reciprocable member for engaging the rotating member as the said reciprocable member is moved downwardly.

5. In a machine for receiving and discharging containers, a frame, a tubular member associated with the frame, a normally rotating member supported at the top of the tubular member, a movable member guided in the frame and extending into the tube, means pivoted to the movable member for permitting the same to move toward the rotating member at a predetermined load, and a member secured to the movable member adjacent the rotating member for engaging the latter as the movable member moves.

[Claims 6 to 9 not printed in the Gazette.]

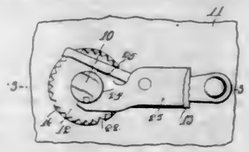
1,077,093. VANITY-BOX. LEO MORSE, New York, N. Y. Filed May 27, 1913. Serial No. 770,148. (Cl. 132—28.)



1. In a vanity box, the combination of a box proper having a bottom and upwardly projecting walls, one of said walls having an open-ended slot, a powder puff fitted and carried within said box including a shank projecting through said slot and a handle pivoted to the outer end of said shank adapted to lie against the outer surface of the slotted wall, and a cover for the box extending over said shank and handle.

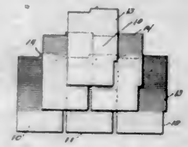
2. In a vanity box, the combination of a box proper of substantially semi-cylindrical form including one flat wall having an open-ended slot at its upper portion, a substantially hemispherical powder puff carried within said box proper, said powder puff having a shank and a ring pivoted to the outer end of the shank, said shank being adapted to project through said slot with the ring engaging the outer surface of the flat wall of the box proper, and a slidable cover for the box surrounding the powder puff and having a flat wall lying against the shank and ring aforesaid.

1,077,094. STARTING DEVICE FOR EXPLOSIVE-ENGINES. LESTER M. MOWE, Deep River, Wash. Filed Oct. 2, 1912. Serial No. 723,585. (Cl. 123—185.)



The combination with the crank shaft of an engine, a ratchet wheel fixed on said shaft, a second ratchet wheel engaged over the shaft and non-rotatably secured to a fixed part, a ring mounted on said second named ratchet wheel, pawls carried by said ring adapted to coöperate with the second named ratchet wheel to lock the ring against rotation in one direction, said ring being provided with notches at spaced points in its periphery, an operating lever adapted to rotatably engage the crank shaft, a pawl carried by said operating lever for simultaneously engaging the teeth of the first named ratchet wheel and a notch in said ring whereby the movement of said operating lever in one direction will produce a corresponding rotation of the first named ratchet wheel and the ring while an opposite rotation of said first named ratchet wheel will cause the wall of the notch of the ring in which the pawl is disposed to coöperate with said pawl and lift same out of engagement with the first named ratchet wheel.

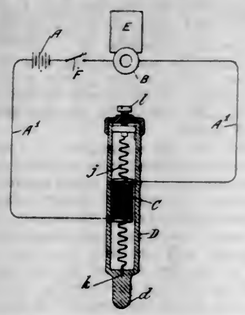
1,077,095. SHINGLE. WILLIAM S. ORTH, Dunkirk, Ohio. Filed Apr. 8, 1913. Serial No. 759,637. (Cl. 108—8.)



1. A shingle provided along two of its adjacent edges with extensions adapted to constitute guides or gages.

2. A shingle of oblong form having along two of its adjacent edges extensions, constituting guides or gages, and each extending along its edge of the shingle for a distance somewhat exceeding one-half the length of that edge.

1,077,096. APPARATUS FOR USE IN THE TREATMENT OF DEAFNESS. AUGUSTUS ROSENBERG, London, England. Original application filed July 30, 1909, Serial No. 510,463. Divided and this application filed July 27, 1911. Serial No. 640,897. (Cl. 128—10.)

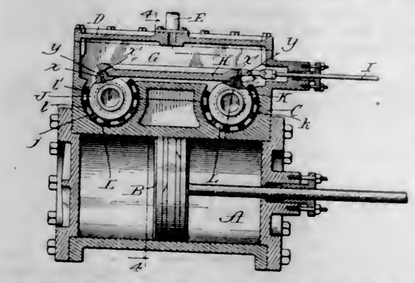


1. A device for enabling the communication to the ear of electrically-produced undulatory mechanical vibrations, consisting in the combination of a tubular casing, a length of wire fixed within and traversing said casing longitudinally, a coil of insulated wire wound about said fixed wire and forming part of the electric circuit, and a plug integral with the casing and adapted for insertion in the external auditory canal.

2. A device for enabling the communication to the ear of electrically-produced undulatory mechanical vibrations, consisting in the combination of a tubular casing, a length of bent wire fixed within and traversing said casing longitudinally, a coil of insulated wire wound about said fixed bent wire and forming part of the electric circuit, and a plug integral with the casing and adapted for insertion in the external auditory canal.

3. A device for enabling the communication to the ear of electrically-produced undulatory mechanical vibrations, consisting in the combination of a tubular casing, a length of bent wire fixed within and traversing said casing longitudinally, a coil of insulated wire wound about said fixed bent wire and forming part of the electric circuit, means for adjusting the tension of the fixed bent wire, and a plug integral with the casing and adapted for insertion in the external auditory canal.

1,077,097. STEAM-ENGINE. WILLIAM P. RUBLE, Esmond, N. D. Filed May 17, 1913. Serial No. 768,216. (Cl. 136—7.)



1. The combination with a steam cylinder and a steam chest of cylindrical valves controlling ports connecting the steam cylinder with the steam chest, roller bearings in which said valves are mounted, and a reciprocating block connected with the valves and controlling ports therein communicating with the steam chest.

2. The combination with a steam cylinder and a steam chest of cylindrical valves at opposite ends of the cylinder controlling the passage of steam from the chest to the cylinder, roller bearings in which said valves are mounted, and a reciprocating block supported by the valves connected therewith to turn the valves as it reciprocates and which opens and closes communication between the interior of said valves and the steam chest.

3. The combination with a steam cylinder and a steam chest of hollow cylindrical valves interposed between the cylinder and the chest and each of which is provided with a tooth on its exterior having a passage communicating with the interior of the valve, and a reciprocating block in the steam chest having recessed opposite ends connecting with the teeth of the valves and controlling the entrance of steam therethrough.

4. The combination with a steam cylinder and a steam chest of two hollow cylindrical valves interposed between the cylinder and the chest and each of which is provided with a tooth on its exterior having a passage communicating with the interior of the valve, and a reciprocating block in the steam chest resting on the cylindrical valve and having recessed opposite ends connecting with the teeth of the valves adapted to close the entrance of steam thereto and to separate from the teeth and thus open communication between the interior of the valves and the steam chest.

5. The combination with a steam cylinder and a main steam chest of cylindrical valves at opposite ends of the cylinder controlling the passage of steam from said chest toward the cylinder, means for actuating said valves, supplementary steam chests to which steam is admitted by way of said cylindrical valves from the main steam chest, combined admission and exhaust valves interposed between said supplemental steam chests and the steam cylinder, and link connections between said combined admission and exhaust valves and the cylindrical valves.

[Claims 6 and 7 not printed in the Gazette.]

1,077,098. MOUSE OR RAT TRAP. EDWARD F. SERESTA, Erin township, Rice county, Minn. Filed Jan. 30, 1913. Serial No. 745,241. (Cl. 43—24.)



1. A rat trap comprising a foraminous casing having an entrance end with an ingress opening at its apex, a guard cone spaced from entrance member and a sheet metal chute disposed to receive from the last mentioned ingress opening and having ears at its base secured to the end of the guard cone, a gate pivoted to the sides of the chute adjacent the ingress opening and resting with its opposite end within the chute and a foraminous guard circumscribing the chute and open at both ends.

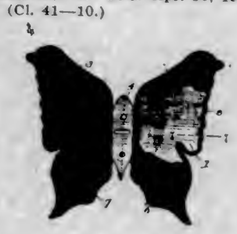
2. A rat trap comprising a foraminous casing having an entrance member with an ingress opening at its apex, a guard cone spaced from entrance member and a sheet metal chute disposed to receive from the last mentioned ingress opening and having ears at its base secured to the end of the guard cone, a gate consisting of a rebent wire disposed within the chute and having its terminals extended in opposite directions and pivotally mounted in the sides of the chute adjacent the ingress opening of the guard cone and extending beyond the sides of the chute, the opposite end portion of the gate resting upon the chute, and a foraminous guard circumscribing the chute, the guard being open at its ends.

1,077,099. GARMENT-SUPPORTER. JAMES A. SHAFER, Mathews, Va. Filed May 19, 1911. Serial No. 628,224. (Cl. 24—81.)



A garment supporter formed from a strip of relatively wide spring metal twice doubled upon itself to form two spaced gripping members of substantially inverted U-shape and of unequal length, the open ends of said gripping members extending in the same direction and the end of the strip forming the termination of the shorter length U-member being bent inwardly at right angles to partially close the entrance opening of the shorter member, said angular portion being provided with teeth on its free edge, the other end of said strip being extended beyond the open ends of the gripping members and flared outwardly away from the members, and projections on the inner faces of each gripping member, substantially as described.

1,077,100. ARTIFICIAL BUTTERFLY. FRANK SHELINE, New Kensington, Pa. Filed Apr. 30, 1913. Serial No. 764,570. (Cl. 41—10.)



1. In an artificial butterfly, a celluloid blank formed in the shape of a butterfly body and a pair of wings, color material arranged on said wings, and a wire bent so as to provide legs and a securing or mounting member said wire being interlocked with said body.

2. An artificial butterfly formed from a base having a body and a pair of wings all in one piece, said body being bent substantially centrally, a filling substance arranged in said body, a member arranged in said body beneath said filling substance formed with projecting members extending through said body for producing legs, and a mounting or securing member connected with said member.

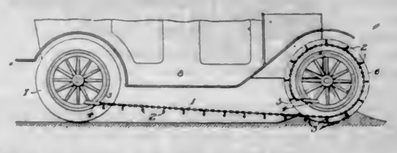
3. An artificial butterfly comprising a body, a pair of wings, a covering on the upper surface of said wings, a covering on the lower surface of said wings, a pair of bent wires having the opposite ends extending through said body and slightly diverging for producing legs, and means engaging said bent wire and constituting a securing or mounting member.

4. An artificial butterfly comprising a body, a pair of wings, a border of rubber arranged on said wings on the upper and lower surfaces thereof, a covering for the upper and lower surfaces of said wings engaging said rubber and secured thereby to said wings, and a wire entwined with said body formed with projections constituting legs.

5. An artificial butterfly comprising a body, a pair of wings, said body being bent substantially centrally for forming a substantially trough-shaped structure, a colored granular substance arranged in said trough-shaped structure, and a member arranged in said body with projecting ends which act as legs for the butterfly.

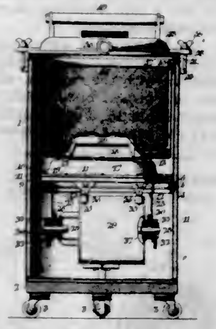
[Claim 6 not printed in the Gazette.]

1,077,101. TRACTABLE MEANS FOR MOTOR-DRIVEN VEHICLES. JOSEPH B. SMAY, Jr., Pittsburgh, Pa., assignor of one-third to William Philip Schultz and one-third to Peter J. W. Hoagland, Pittsburgh, Pa. Filed Feb. 3, 1913. Serial No. 746,076. (Cl. 21—114.)



Tractable means for motor driven vehicles comprising flexible tread chains having the ends thereof detachably connected to the forward and rear wheels of the vehicle with the chains arranged upon the periphery of the forward wheel in a manner as to be unwound therefrom by the power of the rear wheels, said chains serving as tractable means in connection with said rear wheels during their use in connection with said forward wheels.

1,077,102. VACUUM-CLEANER. JOHN W. SMITH, Chicago, Ill., assignor to Howard Small and Charles A. Duren, Philadelphia, Pa. Continuation of application Serial No. 573,599, filed July 25, 1910. This application filed Apr. 22, 1912. Serial No. 692,486. (Cl. 230—5.)



1. The combination of a casing having a vacuum chamber, a pumping unit for said vacuum chamber, a flexible diaphragm, means for connecting said flexible diaphragm to said casing, and means for connecting said diaphragm to said pumping unit, whereby said pumping unit is yieldingly supported by said casing.

2. The combination of a casing having a vacuum chamber, a pumping unit for said vacuum chamber, including a vibrating member, and means for vibrating said member, a flexible diaphragm, means for connecting said flexible diaphragm to said pumping unit, and means for connecting said flexible diaphragm to said casing, whereby said pumping unit is yieldingly supported within said casing.

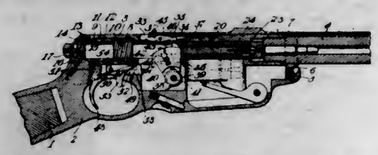
3. The combination of a casing, a diaphragm pump within the same, the diaphragm of the pump extending beyond the pump cylinder and connected to the casing to form a support for the pump.

4. The combination of a support including an annulus, a diaphragm pump, the diaphragm of which extends outside the pump chamber and is connected to the said annulus.

5. The combination of a casing, a pump and motor supported within the casing, a flexible diaphragm connecting the pump and casing and together with the pump dividing the casing into two chambers.

[Claims 6 to 9 not printed in the Gazette.]

1,077,103. FIREARM. MORRIS FORD SMITH, Philadelphia, Pa. Filed Dec. 14, 1911. Serial No. 665,709. (Cl. 42—18.)



1. In a gun, the combination with the receiver and the frame of the gun, of a recessed bolt mounted to lock the frame and receiver to each other and a breech bolt mounted to operate in the recess in said locking bolt.

2. In a gun, the combination with the receiver and the frame of the gun, of a recessed bolt mounted to lock the frame and receiver to each other, and a breech bolt mounted to operate at the extreme of its retraction movement in the recess in said locking bolt.

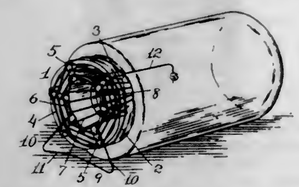
3. In a gun, the combination with the two main parts of the gun, a breech bolt movably mounted on one of said parts and a recessed locking device acting rearwardly and, mounted on said same part in position to receive in its recess said breech bolt at one of the extreme positions of said bolt.

4. In a gun adapted to be broken in its vertical longitudinal plane when taken down, a barrel carrying receiver having at its rear end a suitable socket and a spring projected locking bolt mounted in said socket and acting rearwardly in the gun in combination with the frame of the gun and a bolt retracting device mounted on the frame in line with said bolt.

5. In a gun, the combination with a frame having a recess therein, and a depressible plate mounted in said recess, in combination with the receiver, an automatically projected tubular bolt housed in the rear end of said receiver and normally impinging against said plate.

[Claims 6 to 44 not printed in the Gazette.]

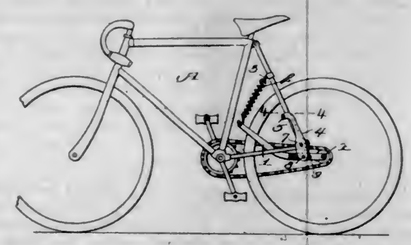
1,077,104. ANIMAL-TRAP. JOSEPH S. C. SOWAR, Brazil, Ind. Filed Feb 19, 1913. Serial No. 749,380. (Cl. 43—24.)



1. In an animal trap, a top for a jar, comprising an inner ring, radial braces connected to said ring and having angularly turned outer end portions, an outer approximately annular inclined wire screw located within and connected to said end portions, an intermediate wire filling, carried by said braces, and a circular series of inwardly and laterally extending spring wires having connection with said inner ring and provided with converging ends and bracing means.

2. In an animal trap, a top for a jar comprising an inner ring, radial braces connected to said ring and having angularly turned outer end portions, an outer approximately annular inclined wire screw located within and connected to said end portions, an intermediate wire filling coil carried by said braces, a circular series of inwardly and laterally extending spring wires having connection with said inner ring and provided with converging free ends and bracing means, and a wire base having radial arms connected to said inner ring, passing in and out between the coils of the wire filling and located at the outside and adjacent to the lower of said braces in bracing engagement therewith.

1,077,105. BICYCLE WHEEL SUSPENSION. ARCHIBALD H. STEWART, Clinton, Iowa. Filed July 13, 1912. Serial No. 709,251. (Cl. 208—94.)

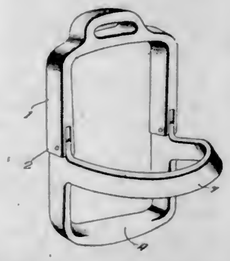


1. The combination with a bicycle frame and the wheels, of a means of connection between a fork of said frame and a wheel which comprises a yoke having an end connected to the axle of said wheel, a spring interposed between the other end of the yoke and the frame to support the former and bars rigidly and separably secured to the bars of said fork and to which the side bars of said yoke are pivoted below said fork.

2. The combination with a bicycle frame and the wheels, of a means of connection between the rear fork of said frame and the rear wheel which comprises a yoke having an end connected to the axle of said wheel, a spring interposed between the other end of the yoke and the frame to support the former, and bars rigidly and separably secured to the bars of said fork and to which the side bars of said yoke are pivoted below said fork, said side bars having offsets in advance of their pivotal connections with said rigidly and separably secured bars.

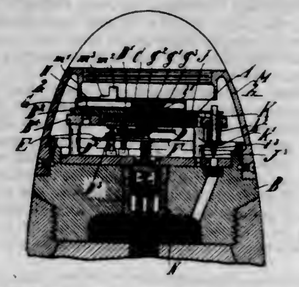
3. The combination with a bicycle frame and the wheels, of a means of connection between a fork of said frame and a wheel which comprises a yoke having an end connected to the axle of said wheel, a spring interposed between the other end of the yoke and the frame, to support the former, and bars clamped to said fork of the frame and terminating in forks which are bolted to the ends of the bars of the frame fork and to which the side bars of said yoke are pivoted below said frame fork.

1,077,106. STIRRUP. CLAUDE W. STIER, American Falls, Idaho. Filed Jan. 9, 1912. Serial No. 670,275. (Cl. 54—49.)



A stirrup comprising a bail member having at its ends spaced ears, a spring located in the space between each pair of ears, said springs having their edges flush with the back of the bail member, a foot member having an end pivoted in the space between each pair of ears and having at a point between each pair of ears, shoulders which are disposed approximately at right angles to each other about the point of pivotal connection between the members and against which the springs are adapted to bear to hold the foot member in alinement with the bail member or at a predetermined angle to the same.

1,077,107. MECHANICAL TIME-FUSE. HEINRICH THIEL, Ruhla, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed May 1, 1913. Serial No. 764,950. (Cl. 102—37.)



1. A mechanical time fuse with a clock work having a firing pin, a casing and a dome revoluble relative thereto for setting the clock work; a driving spring and a centrally located spindle actuated by said spring, a member coaxially mounted to rotate with said spindle and constructed to be axially displaced relative thereto, a safety device coacting with said driving spring for normally arresting said member until released by said safety device upon the firing of the projectile, and means coöperating with said dome for displacing said member in the axial direction, and other means actuated by said member for retaining the firing pin in cocked position.

2. A mechanical time fuse with a clock work having a firing pin, a casing and a dome revoluble relative thereto for setting the clock work; a driving spring and a centrally located spindle actuated by said spring, a member coaxially mounted to rotate with said spindle and constructed to be axially displaced relative thereto, a safety device coöperating with said driving spring for normally arresting said member, said safety device comprising a hook shaped lever in engagement with said member, said lever actuated by inertia releasing said member upon the firing of the projectile, means coöperating with said dome for displacing said member in the axial direction, and other means actuated by said member for retaining the firing pin in cocked position.

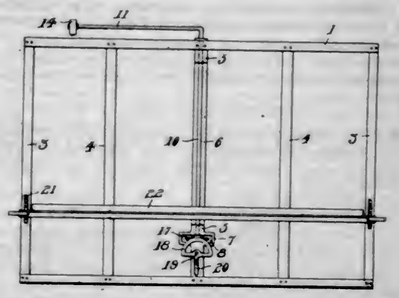
3. A mechanical time fuse with clock work having a firing pin, a casing and a dome revoluble relative thereto for setting the clock work; a driving spring and a centrally located spindle actuated by said spring, a member mounted to rotate with said spindle and constructed to be axially displaced relative thereto, a safety device cooperating with said driving spring for normally arresting said member until released by said safety device upon the firing of the projectile, and means coöperating with said dome for displacing said member in the axial direction, other means actuated by said member for retaining the firing pin in cocked position, said means comprising a spring adapted to push said member in an axial direction, an annular flange in said dome permitting slight axial displacement of said member, and a recess in said flange adapted to permit additional displacement of said member, whereby said member releases said other means.

4. A mechanical time fuse with a clock work having a firing pin, a casing and a dome revoluble relative thereto for setting the clock work; a driving spring and a centrally located spindle actuated by said spring, a member coaxially mounted to rotate with said spindle and constructed to be axially displaced relative thereto, a safety device coacting with said driving spring for normally arresting said member until released by said safety device upon the firing of the projectile, and means coöperating with said dome for displacing said member in the axial direction, other means actuated by said member for retaining the firing pin in cocked position, said other means comprising an annular collar on said member, a revoluble bolt having an arm in engagement with said collar, a radial finger on said bolt and an annular projection on said firing pin normally in engagement with said finger; whereby, on the axial displacement of said member, releasing said arm, said bolt actuated by centrifugal force will revolve, thereby releasing the annular projection and the firing pin.

5. A mechanical time fuse with a clock work having a firing pin, a casing and a dome revoluble relative thereto for setting the clock work; a driving spring and a centrally located spindle actuated by said spring, a member coaxially mounted to rotate with said spindle and constructed to be axially displaced relative thereto, a safety device coöperating with said driving spring for normally arresting said member, said safety device comprising a hook shaped lever in engagement with said member, said lever actuated by inertia releasing said member upon the firing of the projectile, means coöperating with said dome for displacing said member in the axial direction, and other means actuated by said member for retaining the firing pin in cocked position, said means comprising a spring adapted to push said member in axial direction, an annular flange in said dome permitting slight axial displacement of said member, and a recess in said flange adapted to permit additional displacement of said member, whereby said member releases said other means, said other means comprising an annular collar on said member, a revoluble bolt having an arm in engagement with said collar, a radial finger on said bolt and an annular projection on said firing pin normally in engagement with said finger; whereby on the axial displacement of said member releasing said arm said bolt, actuated by centrifugal force, will revolve thereby releasing the annular projection on the firing pin.

[Claims 6 to 12 not printed in the Gazette.]

1,077,108. MUSIC-LEAF TURNER. HENRY C. TOWNER, Bellaire, Ohio. Filed Mar. 13, 1913. Serial No. 754,079. (Cl. 84—17.)

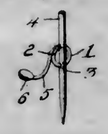


A music leaf turning device comprising a frame including a pair of parallel central bars, one arranged forwardly of the other, a shaft journaled in the bottom bar of the frame arranged between said central bars and projecting above the top bar of the frame and provided with a crank, a clasp connected to and arranged forwardly of the free end of said crank, said central bars near their lower ends offset to provide alining slots, a horizontally disposed beveled gear carried by said shaft and projecting through said slots, a segment-shaped rack pivotally connected to the front central bar and meshing with said gear, and a handle projecting from said rack.

1,077,109. SCARF-PIN. LOUIS P. WALCHER, Pittsburgh, Pa. Filed Aug. 12, 1912. Serial No. 714,601. (Cl. 24—155.)

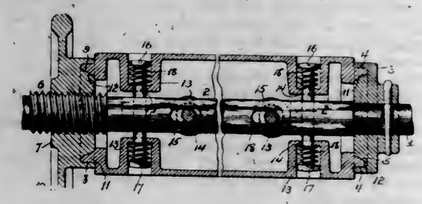
The combination with a scarf pin having the pointed end thereof provided with an opening, of a guard formed from a single piece of wire and including a body portion having one end provided with a handle and its other end bent to form a circular split loop, one half of said loop be-

ing offset and extended through said opening and the other half of said loop positioned against the periphery of the



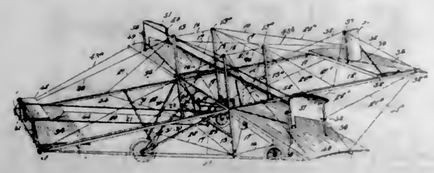
shank of the pin, the free terminus of said offset portion abutting against the shank of the pin.

1,077,110. EXPANSIBLE MANDREL. HENRY J. WHITE, Morristown, N. J., assignor to T. M. Duche & Sons, New York, N. Y. Filed July 16, 1912, Serial No. 709,743. Renewed Aug. 29, 1913. Serial No. 787,395. (Cl. 282—72.)



In an expansible winding mandrel, the combination with a shaft having elongated slots, of heads on said shaft having annular cam faces, curved segments surrounding the shaft and having cam faces at their ends to coöperate with the cam faces of the heads, means for moving one of said heads on the shaft, pockets in said segments, bolts passing transversely through the elongated slots of the shaft, each bolt terminating in pockets of diametrically opposite segments, and provided at its ends with abutments and springs located in said pockets between the abutments at the end of the bolts and the bottoms of the pockets.

1,077,111. FLYING-MACHINE. CHARLES R. WITTEMANN and ADOLPH D. WITTEMANN, New York, N. Y. Filed Apr. 18, 1910. Serial No. 555,990. (Cl. 244—29.)



1. A flying machine comprising a cruciform frame having planes at its ends, means for propelling said machine, a steering rudder, an elevating plane, and a plurality of balancing vanes arranged in vertical positions parallel to the direction of travel upon said frame and having their upper rear ends turned outwardly and forwardly, substantially as specified.

2. A flying machine comprising a cruciform frame having substantially flat planes at its several ends, means for propelling said machine, a steering rudder, an elevating plane, and a plurality of automatically operating pivoted balancing vanes arranged vertically lengthwise of said frame, and having end portions turned outwardly and forwardly, substantially as specified.

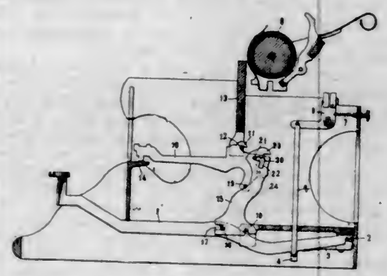
3. A flying machine comprising a cruciform frame having substantially flat planes at its several ends, a motor for propelling said machine, a steering rudder, an elevating plane, and a plurality of automatically operating vertical balancing vanes arranged upon said frame, having outwardly extending portions at their rear upper ends, substantially as specified.

4. A flying machine comprising a cruciform frame having substantially flat planes at its several ends, a motor for propelling said machine, a steering rudder, a plurality of vertical balancing vanes arranged upon opposite sides of said frame having their upper rear ends curved outwardly and forwardly, and means for adjusting said balancing vanes, substantially as specified.

5. A flying machine comprising a main frame and side frame members extending laterally therefrom, planes arranged at the ends of said main frame and side frame members, means for propelling said machine, steering and elevating means, and a plurality of vertical balancing vanes pivotally mounted and arranged parallel to the direction of travel of said machine, and each having one of its rear corners bent outwardly and forwardly, substantially as specified.

[Claims 6 to 20 not printed in the Gazette.]

1,077,112. TYPE-WRITING-MACHINE ACTION. JESSE ALEXANDER, New York, N. Y., assignor of one-half to R. F. Cochrane, Mount Vernon, N. Y., and one-half to Herbert W. Little, New York, N. Y. Continuation of application Serial No. 468,725, filed Dec. 21, 1908. This application filed Nov. 4, 1912. Serial No. 729,326. (Cl. 197—28.)



1. In a typewriter action, a hinged type bar having a downward projection to be engaged by a sub lever edge at the beginning of the printing stroke, a sub lever for engagement therewith, said type bar and said sub lever having a pin and slot connection for quick action at an intermediate part of the stroke and a pin and shoulder engagement at the end of the printing stroke to facilitate the return of the type bar.

2. In a typewriter action, a hinged type bar having a pin below and at some distance from its pivot and a second pin below and in rear of its pivot when the type bar is in the normal position of rest and a sub lever normally engaging the first pin and having an elongated slot with a shoulder at the front end thereof for engagement with the second pin in the normal position of rest and a shoulder at the rear end thereof for coacting with the second pin during the intermediate part of the printing stroke, said sub lever and said type bar having other parts which coact at the printing position.

3. In a typewriter action, a hinged type bar having a pin and a shoulder, a hinged sub lever having its front edge normally engaging said pin and carrying a pin adapted to be engaged by said shoulder at the printing position.

4. In a typewriter action, a hinged type bar having a pin and a shoulder, a hinged sub lever having a slot for engaging said pin and having a pin adapted to be engaged by said shoulder at the printing position.

5. In a typewriter action, a hinged type bar, and a hinged sub lever engaging directly with the type bar and having three points of connection with said type bar operating at the beginning, the intermediate part and the end of the stroke.

[Claim 6 not printed in the Gazette.]

1,077,113. MATERIAL FOR ROOFING, &c., AND METHOD OF PREPARING THE SAME. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by direct and mesne assignments, to Condensite Company of America, East Orange, N. J., a Corporation of New Jersey. Filed Sept. 1, 1910. Serial No. 580,058. (Cl. 106—22.)

1. As a new article of manufacture, sheets adapted for roofing or building purposes of an infusible phenolic condensation product having a stable halogen substitution product of an organic radical incorporated therewith, substantially as described.

2. As a new article of manufacture, a noninflammable sheet composed of a phenolic condensation product having a halogenized naphthalene incorporated therewith, substantially as described.

3. As a new article of manufacture, a noninflammable sheet formed of an insoluble infusible phenolic condensation product, a halogen substitution product of an organic radical, and a fibrous filling agent, substantially as described.

4. As a new article of manufacture, a noninflammable sheet formed of an insoluble infusible phenolic condensation product, a halogen substitution product of an organic radical, and a fibrous filling agent with a reinforcing net or fabric, substantially as described.

1,077,114. FLYING-MACHINE. CHARLES E. BAKER, Hamilton, Ohio. Filed Dec. 9, 1912. Serial No. 735,595. (Cl. 244—21.)



1. A flying machine comprising, a boom having its heel pivoted near the rear of the body of the machine and adapted to fold down upon the body, a parachute adapted to be folded to idle position upon the machine, a self-detaching connection between the crown of the parachute and the free end of the boom, a latch to hold the boom down in idle position, a spring to elevate the boom when its latch is released, a connection from the skirt of the parachute, a latch normally securing the free end of this connection, and means by which the aviator may release said latches, combined substantially as set forth.

2. A flying machine comprising, a boom having its heel pivoted near the rear of the body of the machine and adapted to fold down upon the body, a parachute adapted to be folded to idle position upon the machine, a fork at the free end of the boom, a loop at the crown of the parachute and adapted to detachably engage the fork, a latch to hold the boom down in idle position, a spring to elevate the boom when its latch is released, a connection from the skirt of the parachute, a latch normally securing the free end of this connection, and means by which the aviator may release said latches, combined substantially as set forth.

3. A flying machine comprising, a boom having its heel pivoted near the rear of the body of the machine and adapted to fold down upon the body, a parachute adapted to be folded to idle position upon the machine, a self-detaching connection between the crown of the parachute and the free end of the boom, a latch to hold the boom down in idle position, a helical spring secured to an extension of the heel of the boom and to a portion of the frame of the flying machine and serving to elevate the boom when its latch is released, a connection from the skirt of the parachute, a latch normally securing the free end of this connection, and means by which the aviator may release said latches, combined substantially as set forth.

4. A flying machine comprising, a boom having its heel pivoted near the rear of the body of the machine and adapted to fold down upon the body, a parachute adapted to be folded to idle position upon the machine, a self-detaching connection between the crown of the parachute and the free end of the boom, a latch to hold the boom down in idle position, a spring to elevate the boom when its latch is released, a connection from the skirt of the parachute, a latch normally securing the free end of this connection, means by which the aviator may release said latches, and a spring-latch adapted to automatically engage the erected boom and retain it in erected position, combined substantially as set forth.

5. A flying machine comprising, a boom having its heel pivoted near the rear of the body of the machine and adapted to fold down upon the body, a rest for the forward end of the boom when in normal idle position, a parachute adapted to be folded to idle position upon the machine, a self-detaching connection between the crown of the parachute and the free end of the boom, a latch to hold the boom down in idle position, a spring to elevate the boom when its latch is released, a connection from the skirt of the parachute, a latch normally securing the free end of this connection, and means by which the aviator may release said latches, combined substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,077,115. GREEN ANTHRAQUINONE DYES AND PROCESS OF MAKING THEM. OSCAR BALLY, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 5, 1913. Serial No. 771,896. (Cl. 8—1.)

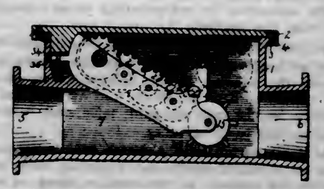
1. The process of producing coloring matters of the anthraquinone series by treating with a nitrating agent, in the presence of an organic diluent, a coloring matter which can be obtained by heating a 2.2'-dimethyl-1.1'-dianthraquinonyl compound.

2. The process of producing coloring matters of the anthraquinone series by treating with a nitrating agent, in the presence of an organic diluent, and then reducing, a coloring matter which can be obtained by heating a 2.2'-dimethyl-1.1'-dianthraquinonyl compound.

3. The hereinbefore described new coloring matters of the anthraquinone series obtainable from the product producible by heating a 2.2'-dimethyl-1.1'-dianthraquinonyl compound, which new coloring matters contain nitrogen, are insoluble in dilute acids and alkalis, are soluble in alkaline hydrosulfite yielding vats which dye cotton green shades, which shades, on treatment with strong calcium hypochlorite solution, become brown.

4. The hereinbefore described new coloring matter of the anthroquinone series obtainable by nitrating, in the presence of nitrobenzene, and then reducing, the product producible by heating 2.2'-dimethy-1.1'-dianthraquinonyl, which new coloring matter contains nitrogen, is insoluble in dilute acids and alkalis, but yields a blue-violet solution in concentrated sulfuric acid, and is soluble in alkaline hydrosulfite yielding a vat which dyes cotton green shades, which shades, on treatment with strong calcium hypochlorite solution, become brown.

1,077,116. WATER-METER. GEORGE B. BASSETT, Buffalo, N. Y. Filed Nov. 4, 1908. Serial No. 460,986. (Cl. 73—37.)



1. In a water meter, the combination with an inlet and an outlet in axial alinement and a straight current way connecting said inlet and said outlet, a measuring wheel and means to automatically expand and contract the area

of said current way mounted together in said current way, of a register and means operated by said wheel and said first mentioned means so as to automatically adapt the speed of said register to correspond with both the variable area of said current way and the variable speed of the water through said current way, substantially as and for the purpose described.

2. In a water meter, the combination with an inlet and an outlet in axial alinement and a straight current way connecting said inlet and said outlet, a measuring wheel and means to automatically expand and contract the area of said current way mounted together in said current way, a register and means operated by said wheel which registers the speed of said wheel, of a second register and means operated by said wheel and said first mentioned means so as to automatically adapt the speed of said second register to register the full flow of the water due to both the variable area of said current way and the variable speed of the water through said current way, substantially as and for the purpose described.

3. In a water meter, the combination with a current way, a measuring wheel and means to automatically expand and contract the area of said current way mounted together in said current way, of a register and means operated by said wheel and said first mentioned means so as to automatically adapt the speed of said register to correspond with both the variable area of said current way and the variable speed of the water through said current way, substantially as and for the purpose described.

4. In a water meter, the combination with a current way, a measuring wheel and means to automatically expand and contract the area of said current way mounted together in said current way, a register and means operated by said wheel which registers the speed of said wheel, of a second register and means operated by said wheel and said first mentioned means so as to automatically adapt the speed of said second register to register the full flow of the water due to both the variable area of said current way and the variable speed of the water through said current way, substantially as and for the purpose described.

5. In a water meter, the combination with a current way, a measuring wheel and means to automatically expand and contract the area of said current way mounted together in said current way, a register and positive gearing whereby said register registers the speed of said wheel of a second register and a variable friction drive driven by said gearing and automatically adjustable by said means so as to register the full flow of the water, substantially as and for the purpose described.

[Claims 6 to 19 not printed in the Gazette.]

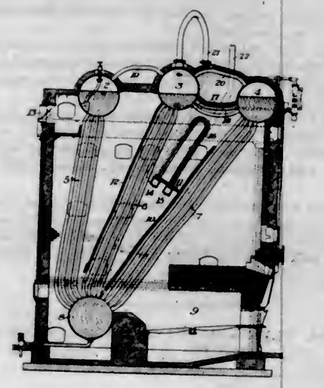
1,077,117. SUPERHEATER-BOILER. JOHN E. BELL, New York, N. Y., assignor to The Babcock & Wilcox Company, New York, N. Y., a Corporation of New Jersey. Filed May 31, 1906. Serial No. 319,457. (Cl. 122—476.)

1. The combination with a water tube boiler having a plurality of banks of vertically extending tubes in series as regards the passage of the furnace gases, separated by a baffle over which the gases flow in passing from the front bank to the next, of a superheater between said banks of tubes comprising a plurality of headers behind said baffle connected by superheating tubes extending upwardly from the headers.

2. The combination with a water tube boiler having a plurality of banks of vertically extending tubes in series as regards the passage of the furnace gases, of a baffle back of the front bank of tubes, and an inverted U-tube superheater in the rear of said baffle and between the first and second bank of tubes.

3. The combination with a water tube boiler having a plurality of banks of vertically extending tubes in series as regards the passage of the furnace gases, of a superheater between the first and second banks of tubes, said superheater comprising headers or boxes extending between the side walls of the setting and connected by superheating tubes extending upwardly therefrom.

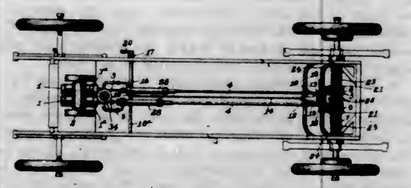
4. The combination with a water tube boiler having a plurality of banks of vertically extending tubes in series as regards the passage of the furnace gases and having at least two steam and water drums with water circulators between them, of a superheater back of the baffle for the front bank and comprising a plurality of chambers between the side walls and connected by superheating tubes extending upwardly therefrom.



5. The combination with a water tube boiler of the general Stirling type having a triangular space between the first and second banks, of an inverted U-tube superheater located in the upper portion of said triangular space, and having headers extending across from side wall to side wall and exposed to the products of combustion.

[Claims 6 and 7 not printed in the Gazette.]

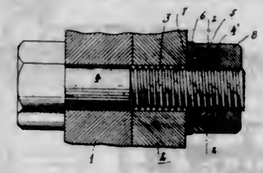
1,077,118. POWER-TRANSMITTING MECHANISM. JOSEPH E. BISSELL, Pittsburgh, Pa. Filed Mar. 20, 1909. Serial No. 484,741. (Cl. 74—54.)



1. The combination of a shaft, ratchet wheels having reversely arranged teeth secured to said shaft, the attachment of one of said wheels being resilient, a reciprocating part loosely mounted on said shaft and having teeth constructed to engage said wheels during forward and backward strokes respectively, means for preventing the backward movement of the wheel having the resilient connection to the shaft, and means for simultaneously shifting the said reciprocating part and the said wheel retaining means.

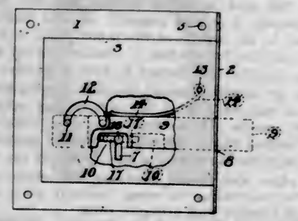
2. In a power transmitting mechanism, the combination of angularly arranged rotating crank pins, shafts, toothed disks having resilient connections to the shafts, oppositely toothed disks also connected to the shafts, arms loosely mounted to the shafts and adapted when moving in one direction to engage one set of disks and when moving in the opposite direction to engage the other set of disks, detents for preventing a backward movement of the resiliently connected disks, and means for shifting the arms from engagement with one set of disks into engagement with the other set of disks and simultaneously shifting the detents.

1,077,119. NUT-LOCK. ROBERT BIXBY, North Andover, Mass. Filed Dec. 27, 1912. Serial No. 738,875. (Cl. 151—15.)



A nut lock comprising a collar, externally and internally threaded, the threads on the exterior of said collar being run in opposition to those on the interior of the collar and of a less pitch, said collar having an annular flange dished on its under face, and a nut having an internal thread to correspond with the external thread on the collar and an internal thread of a pitch greater than the first-mentioned threads and running in a direction opposite to said first-mentioned threads, said flange being sufficiently resilient to flatten out under compression.

1,077,120. LOCK. MIKE BOLDIZS, Sterling, Ill. Filed Nov. 6, 1911. Serial No. 658,694. (Cl. 70—78.)



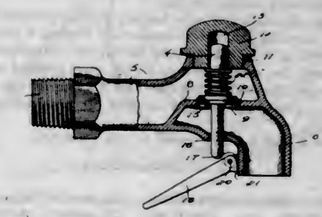
A boltage mechanism for locks comprising an upwardly movable and a longitudinally shiftable oblong bolt rectangular in cross section at any point throughout its length and having its upper face uninterrupted from end to end and its lower face in proximity to its rear end formed with a transversely extending rectangular groove of the same length as the width of the bolt, a pin projecting laterally from one side of the bolt at a point above the plane of the top wall of the groove and positioned near the inner corner of one side of the bolt and adapted to extend into a slot in the bolt casing whereby the inner end of the bolt is supported when normal and further constituting guiding means for the bolt when shifted upwardly, a downwardly extending and rearwardly projecting curved spring having its forward end fixed and its rear end turned from and normally engaging the top of the bolt for maintaining the latter in a normal position, the upward movement of said bolt being against the action of said spring, combined with a key capable of engaging the walls of the groove for moving the bolt upwardly and for further longitudinally shifting the bolt.

1,077,121. RESILIENT BALL. FRANK A. CIGOL, Paterson, N. J. Filed Nov. 16, 1911. Serial No. 660,716. (Cl. 106—23.)

1. A composition ball composed of rubber and a rubber substitute in substantially equal proportions, and weight-reducing materials combined therewith in such proportions as to reduce the specific gravity of the product to less than that of water, the said materials being respectively of granular and fibrous form, the whole being vulcanized and provided with an enameled exterior coating.

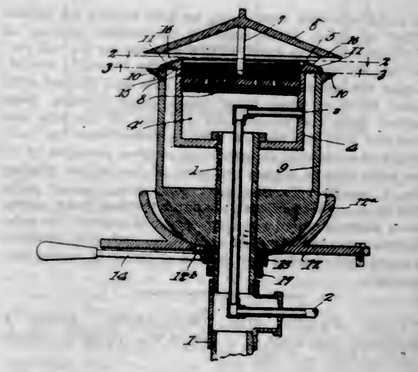
2. A composition ball composed of rubber and a rubber substitute in substantially equal proportions, and cork combined therewith in such proportions as to reduce the specific gravity of the product to less than that of water, the whole being vulcanized and provided with an enameled exterior coating.

1,077,122. FAUCET. CLINTON J. COFFMAN, East Stroudsburg, Pa. Filed Nov. 5, 1912. Serial No. 729,697. (Cl. 137—4.)



A faucet comprising a body having a discharge spout, a partition formed interiorly of the body and having an opening providing a valve seat, a valve engaging said opening and having opposed stems, one of said stems being slidably engaged in the body rearwardly of the spout and projected without the same, a removable cap mounted on the body above the opening and slidably engaged by the other stem, a coiled expansion spring acting upon the valve to normally sustain the same seated, a bearing formed on the spout at the rear thereof, a lever pivotally mounted in the bearing and arranged in the path of movement of the stem projected without the body, and a lip formed on the lever and engageable with the spout to normally hold the said lever at a rearward inclination and projected below the mouth of the said spout.

1,077,123. CRUDE-OIL BURNER. ELMER E. COMSTOCK, Fresno, Cal., assignor of one-half to John M. Hambleton, Fresno, Cal. Filed Oct. 3, 1912. Serial No. 723,799. (Cl. 158—75.)



1. In an oil burner, an outer steam cup, an inner oil cup, an oil pipe attached to the bottom of the oil cup, the steam cup being mounted on the said pipe, and a steam pipe passing through the oil pipe and through the side of the oil cup.

2. In an oil burner, an outer steam cup, an inner oil cup having a lip overhanging the rim of the steam cup, an oil pipe attached to the bottom of the oil cup, the bottom of the steam cup being adjustable on the said pipe, and a steam pipe passing through the oil pipe and through the side of the oil cup.

3. In an oil burner, an outer steam cup, an inner oil cup having an annular lip outstanding from its rim and adapted to seat on the rim of the outer cup, the top and

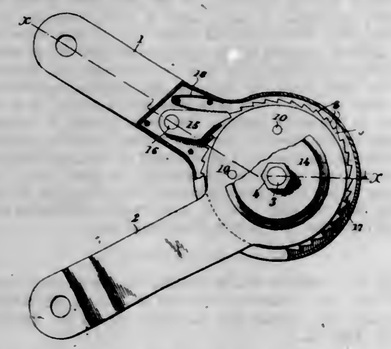
bottom of the lip being provided with series of complementary radial grooves, and a cap seatable on the said lip.

4. In an oil burner, an outer steam cup, an inner oil cup having an annular lip outstanding from its rim and adapted to seat on the rim of the outer cup, the cups being adjustable relative to each other, the top of the said lip being beveled and the top and bottom of said lip being provided with series of complementary radial grooves, and a cap adjustable above the lip.

5. In an oil burner, a base having a bowl provided with a central opening, an outer steam cup having a convexed bottom seating in the bowl and having an extension passing through the said opening, an oil pipe passing adjustably through the said extension and bottom of the steam cup, and an oil cup secured on the oil pipe within the steam cup.

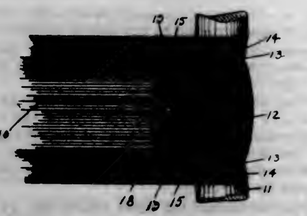
[Claims 6 and 7 not printed in the Gazette.]

1,077,124. SHOCK-ABSORBER. GEORGE H. DANGLEMAN, Philadelphia, Pa. Filed Mar. 28, 1913. Serial No. 757,405. (Cl. 21—105.)



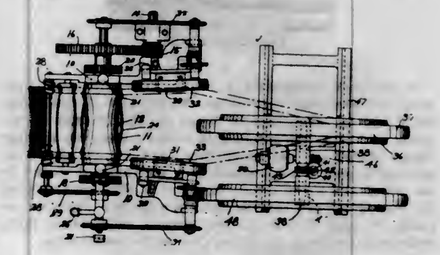
A shock absorber comprising an axle having its middle portion enlarged, parts adjacent the middle portion of non-circular form in cross section and having its end portion reduced and threaded, friction disks rotatably mounted upon the middle portion of the axle and formed with ratchet teeth at their outer edges, other friction disks mounted upon the non-circular portions of the axle and in contact with the friction disks mounted upon the middle part of such axle, an operating member provided at its sides with dogs to engage the teeth of the middle friction disks, a second operating lever comprising spaced parts which have connection with the outer friction disks, spring tension disks mounted upon the threaded ends of the axle, and nuts upon the threaded ends of the axle for confining the parts and varying the tension of the said spring tension disks.

1,077,125. FABRIC FOR TIRE-CASING. HENRY J. DOUGHTY, Edgewood, R. I. Filed Nov. 14, 1912. Serial No. 731,302. (Cl. 139—72.)



A woven tire fabric comprising a central tread portion and bead portions on each side thereof, the warp threads of said bead portions being smaller in diameter than those of the tread portions, and weft threads intersecting the warp threads of both the tread and bead portions, said tread portion presenting a looser weave than said bead portions.

1,077,126. FRICTION-CALENDER FOR TIRE FABRIC. HENRY J. DOUGHTY, Edgewood, R. I. Filed Dec. 30, 1912. Serial No. 739,232. (Cl. 91—48.)



1. A machine for coating a concavo-convex fabric comprising a friction roll shaped to have a greater peripheral speed at the middle than at the ends, a pressure roll complemental thereto, and a feed roll coöperating with said friction roll, and to which plastic material may be supplied, whereby a greater quantity of said plastic material is applied to the middle of the fabric than to the edges.

2. A machine for coating a concavo-convex fabric comprising a friction roll shaped to have a greater peripheral speed at the middle than at the ends, a pressure roll complemental thereto, a feed roll coöperating with said friction roll, means for holding a mass of plastic material at the feeding point, whereby a greater quantity of said plastic material is applied to the middle of the fabric than to the edges and means engaging the edges only of the fabric for stretching the same laterally as it is delivered from said friction and pressure rolls.

3. A machine for coating a concavo-convex fabric comprising a friction roll shaped to have a greater peripheral speed at the middle than at the ends, a pressure roll complemental thereto, a feed roll coöperating with said friction roll, and to which plastic material may be supplied, whereby a greater quantity of said plastic material is applied to the middle of the fabric than to the edges, and means for stretching the fabric before subjecting the same to the action of said friction and pressure rolls, and means for stretching the fabric as it leaves said rolls.

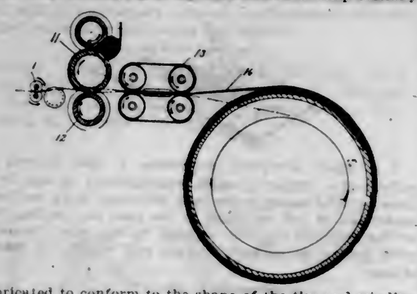
4. A machine for coating a concavo-convex fabric comprising a friction roll shaped to have a greater peripheral speed at the middle than at the ends, a pressure roll complemental thereto, a feed roll coöperating with said friction roll, and to which plastic material may be supplied, whereby a greater quantity of said plastic material is applied to the middle of the fabric than to the edges, and diverging friction belts engaging the fabric as it is delivered by said rolls.

5. A machine for coating a fabric of arched form in cross-section, comprising a friction roll of varying diameter corresponding to the cross-sectional form of the said fabric, a pressure roll complemental to said friction roll and a feed roll coöperating with said friction roll and to which plastic coating material may be supplied, whereby more plastic material is applied to the arched portion of the fabric than to the edges.

1,077,127. PROCESS OF FORMING A TIRE-CASING. HENRY J. DOUGHTY, Edgewood, R. I. Filed Jan. 3, 1913. Serial No. 739,986. (Cl. 154—12.)

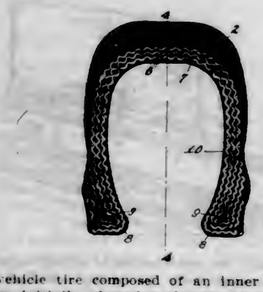
1. That process of forming tire casings which comprises impregnating a concavo-convex fabric strip with plastic material and winding the impregnated strip spirally, while heated, upon a form corresponding in shape to the said strip.

2. That process of forming a tire casing which consists in heating and impregnating with rubber a strip initially



fabricated to conform to the shape of the tire and winding said strip while still heated upon a form corresponding to the shape of the tire.

1,077,128. VEHICLE-TIRE. HENRY J. DOUGHTY, Edgewood, R. I. Filed Sept. 25, 1913. Serial No. 791,785. (Cl. 152—13.)

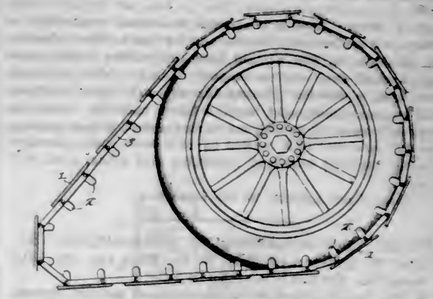


A vehicle tire composed of an inner laminated fabric portion initially shaped and rubber-impregnated in tire form, and an outer rubber tread portion, said inner laminated portion being composed of a series of circumferentially extending threads of greatest length substantially midway between the edges and a series of transversely extending threads, to retain the tire against circumferential and transverse elongation and enlargement, said two series of threads being interlaced throughout substantially the extent of said fabric portion, and presenting throughout the tread and side portions thereof rubber filled meshes of largest area at the tread and of smaller area at the marginal portions of the sides whereby the outer tread portion is anchored radially to and through the inner laminated portion by rivet-like rubber portions of graded area and the threads and rubber portions are confined from relative displacement.

1,077,129. ENDLESS TREAD FOR AUTOMOBILE-WHEELS. THEODORE DOUGLAS, New York, N. Y. Filed Apr. 23, 1912. Serial No. 692,676. (Cl. 152—17.)

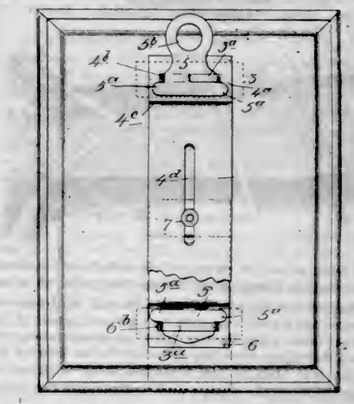
1. An endless tread attachment for automobile and vehicle wheels, the same comprising a plurality of flat shoes having lugs upon one side set in from the front and rear edges, and links connecting such shoes and pivoted to the lugs thereof to form an endless chain, the upper portion of the attachment being supported by means of the links obtaining a bracing action against the front and rear edge portions of the shoes exterior to the lugs.

2. An endless tread attachment for automobile and vehicle wheels, the same comprising a plurality of flat shoes having lugs upon one side arranged at some distance from the front and rear edges of the shoes, said lugs having tapered portions upon their inner sides to form bracing connections and to provide a seat for receiving the tire of the wheel, and links pivotally connected with the lugs and forming endless chains, the upper portion of the attachment being supported by a bracing action of the



links against the front and rear edge portions of the shoes exterior to the lugs.

1,077,130. FRAME OR EASEL. ISAAC W. ENGLAND, Passaic, N. J., assignor to Passaic Metal Ware Company, Passaic, N. J., a Corporation of New Jersey. Filed Aug. 24, 1912. Serial No. 716,847. (Cl. 40—148.)



1. A device of the character described comprising a body portion provided with a slot, a loop passing through said slot, a support having a slot receiving said loop, and a member slidably fitted within said loop against said support retaining said support upon the body portion.

2. A device of the character described comprising a body portion provided with a slot, a loop passing through said slot, a support having a slot receiving said loop, a member fitted within said loop retaining said support upon the body portion, said body portion having another slot, a loop passing through said slot, a brace having a slot receiving said loop, a member passing through said loop retaining said brace upon said body portion, and means movably connecting said brace with said support.

3. A device of the character described comprising a frame, a back secured thereto and having a slot, a fastening piece on the side of said back toward said frame and having a loop passing through said slot, a support having a slot receiving said loop, and a member passing through said loop between the latter and said support retaining said support upon said back said support having a hinge portion below said member.

4. A device of the character described comprising a frame, a back secured thereto and having a slot, a fastening piece on one side of said back and having a loop passing through said slot, a brace having a slot receiving said loop, a member passing through said loop retaining said

brace upon said back, a support connected with the frame and means movably connecting said brace with said support.

5. A device of the character described comprising a frame, a back secured thereto and having a slot, a fastening piece on one side of said back and having a loop passing through said slot, a support having a slot receiving said loop, a member passing through said loop retaining said support upon said back, a brace movably connected with said support, said brace having a slot, a loop passing through said slot and carried by said back, and a member passing through said loop retaining said brace upon said support.

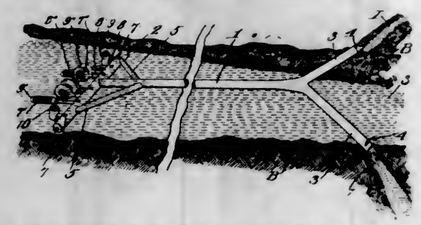
[Claim 6 not printed in the Gazette.]

1,077,131. FLOOR-SMOOTHING COMPOSITION. HILBERT W. ENGLISH, Buffalo, N. Y. Filed Dec. 28, 1912. Serial No. 739,053. (Cl. 134—1.)

1. The herein-described composition of matter, consisting of boracic acid, corn starch, soda-ash, and soapstone, substantially as described and for the purpose specified.

2. The herein-described composition of matter for smoothing rough or other floors, consisting of boracic acid one hundred pounds, corn starch 10 pounds, soapstone 10 pounds, soda-ash 5 pounds, substantially as described.

1,077,132. IRRIGATING SYSTEM. PAUL E. ERICKSON, Courtland, Kans. Filed May 7, 1913. Serial No. 766,153. (Cl. 61—34.)



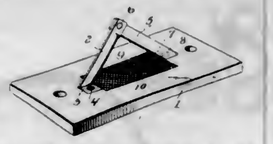
1. In a system of the character described, a longitudinal water conduit designed to extend along and at a less angle of declination than a stream, a lateral inlet pipe attached to the head of the conduit to rest on the bed of the stream, the inlet pipe having inlet openings along its length, and diverging branches attached to the foot of the conduit, the free ends of the branches being designed to rest on the banks of the stream and to discharge the water into the irrigating trunks.

2. In a system of the character described, a longitudinal water conduit designed to extend along and at a less angle of declination than a stream, a lateral inlet pipe attached at an intermediate point to the head of the conduit to rest on the bed of the stream, supplemental diagonal pipes connecting the conduit and inlet pipe, and diverging branches attached to the foot of the conduit, the free ends of the branches being designed to rest on the banks of the stream and to discharge the water into the irrigating trunks.

3. In a system of the character described, a longitudinal water conduit designed to extend along and at a less angle of declination than a stream, a lateral inlet pipe attached to the head of the conduit to rest on the bed of the stream, flexible tubings attached to the inlet pipe at intervals along its length and projecting upstream, water chambers attached to the free ends of the tubings and having screened openings, and diverging branches attached to the foot of the conduit, the free ends of the branches being designed to rest on the banks of the stream and to discharge the water into the irrigating trunks.

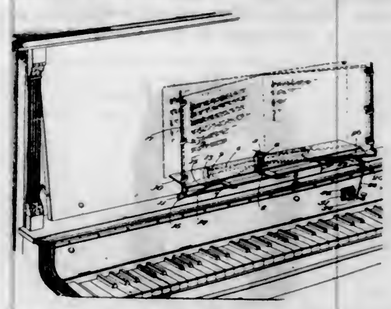
1,077,133. PENCIL-SHARPENER. ELMER F. ESTES, Lincoln, Nebr. Filed Sept. 4, 1912. Serial No. 718,475. (Cl. 120—90.)

1. A pencil sharpener comprising a base forming a guide, and a cutter arranged longitudinally of and in a plane at right angles to the base, the cutter being inclined, converging in one direction to the base and having the cutting edge on the side opposed to the base.



2. A pencil sharpener comprising a base forming a guide, and a cutter arranged longitudinally of and in a plane at right angles to the base, the cutter being inclined, converging in one direction to the base and having the cutting edge on the side opposed to the base, the said guide having an abrasive surface over which the cutter extends.

1,077,134. MUSIC-LEAF TURNER. GURNETT E. FERGUSON, Institute, W. Va. Filed Mar. 26, 1912. Serial No. 686,385. (Cl. 84—135.)



1. In a leaf turner, the combination of a fixed support, a screw inserted in said support and having a slotted head, a bracket below said head, a fastening device inserted through the slotted head into said bracket, a plurality of leaf-turning arms pivoted on said bracket, means for turning said arms, means for normally holding the arms against movement, and means for releasing said leaf-turning arms.

2. In a leaf turner, the combination of a support, a plurality of leaf-turning arms movable over the support, a trigger mounted on the support and normally in the path of the arms to hold them against said movement, a trip lever disposed below the trigger, and a link connecting the trip lever with the trigger whereby movement of the trip lever will cause the trigger to release a leaf-turning arm, said link having a spring formed therein between its ends whereby to hold the trip lever against a fixed support.

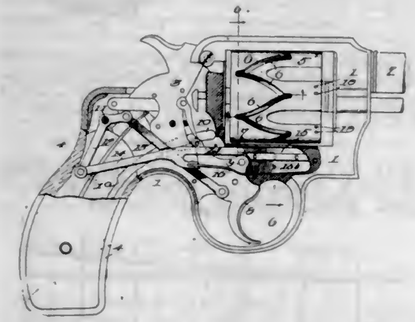
3. In a leaf turner, the combination of a support, a plurality of leaf-turning arms movable over the support, a trigger mounted upon the support and normally in the path of the arms to hold them against movement, a trip lever provided with means for frictionally engaging a piano frame below the support, and connections between the said lever and the trigger whereby movement of the lever will cause the trigger to release an arm.

4. In a leaf turner, the combination of a support, a plurality of leaf-turning arms movable over the support, a trigger mounted on the support and normally in the path of the arms to hold the same against movement, and a trip for causing the trigger to release an arm hinged to and depending from the free end of said trigger and having a resilient portion immediately adjacent its hinged connection with the trigger, said hinged connection permitting the trip to swing laterally about the longitudinal axis of the trigger.

5. In a leaf turner, the combination of a fixed support, a series of leaf-turning arms independently pivoted thereon, means for turning said arms, and a trigger mounted on the support to extend horizontally under and be

brought against the foremost arm, the rear end of the trigger being adapted to rise between adjacent arms as each arm is successively released by the trigger and the trigger being adjustable along the support.

1,077,135. MECHANISM FOR ROTATING AND LOCKING THE CYLINDERS OF REVOLVERS. EDMUNDO GUERRERO, Antigua, Guatemala. Filed June 5, 1913. Serial No. 771,867. (Cl. 42—59.)



1. In a revolver, the combination with a rotatable cylinder having a zigzag peripheral groove, a spring-actuated trigger, and intermediate mechanism comprising a pivoted lever, a rod connecting it with the trigger and a bar whose forward end is adapted for engagement with the cylinder groove, and means for guiding and supporting said rod in its reciprocations, as described.

2. In a revolver, the combination of a spring actuated trigger and a cylinder having a zigzag peripheral groove, each of whose sections is deeper at one end than at the other, the connecting section being shallowest at the junction and a shoulder formed at the termination of the shallower portion, mechanism intervening the trigger and cylinder and operatively connecting the same and consisting of a pivoted lever, a rod connecting one of its arms with the trigger and a bar pivoted to the other extremity of the lever, a guideway and a guide slot formed in the frame underneath the cylinder and adapted for receiving the free end of said bar and a projection of the same adapted to work in the cylinder groove, and a spring tending to press upward the free end of the bar for insuring constant engagement of the same with the cylinder groove, as described.

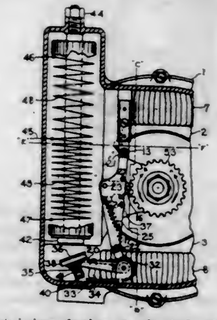
3. In a revolver, the combination of the trigger, a cylinder having a zigzag groove, a frame provided with guideways in the portion beneath the cylinder, of mechanism comprising a pivoted lever, a rod connecting it with the trigger and a cylinder-actuating bar having its forward end provided with a rod working in one of the aforesaid guideways and engaging the cylinder groove, and a spring attached to the said bar and working in the lowest guideway, as and for the purpose specified.

4. In a revolver, the combination with a solid frame and a cylinder adapted to be swung laterally for ejection of empty shells, the cylinder having a series of peripheral sockets spaced at regular intervals, and a device fixed on the frame and adapted to engage such sockets when the cylinder is swung out, as and for the purpose specified.

1,077,136. RETAINING MECHANISM. FREDERICK N. HALL, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed June 22, 1911. Serial No. 634,653. (Cl. 74—13.)

1. In a retaining device, a toothed wheel capable of rotation, a spring pressed pivoted pawl, shiftable means capable of being so placed as to prevent movement in either one of two directions in which said pawl is capable of moving, and means to move said pawl into engagement with said wheel.

2. In a retaining device, a toothed wheel adapted for rotation, a pivoted lever, a pawl pivoted on the lever, a spring held at one end by said lever and attached to said pawl at the other end adapted to resiliently resist movement on said pawl on its pivot in either direction, said lever formed with two holes, and a pin adapted to be placed in either of said holes, whereby a rotation of the pawl may be prevented in either one or the other direction, and means to move said lever so that said pawl will engage said toothed wheel, and thus prevent it from rotating in one direction.



3. In a retaining device, a pivoted wheel formed with teeth, means to move the wheel, a pivoted pawl formed with a tooth adapted to fit between the teeth of the wheel, means resiliently holding the pawl in a position whereby it may be moved into engagement with the wheel, means to move the pawl into engagement with the wheel, said wheel when turned in either direction rotating the pawl from engagement therewith, and means to prevent the pawl rotating in either one or the other direction so as to prevent the wheel rotating the pawl, and thus holding the wheel from rotation in one direction.

4. In a retaining device, a pivoted wheel formed with teeth, means to move the wheel, a pivoted lever, a pawl pivoted on the lever, means to prevent the pawl rotating in one direction, means resiliently holding the pawl from movement in the other direction, means to move said pivoted lever thereby causing said pawl to engage said wheel, said means including a resilient connection whereby said pivoted lever is moved and held resiliently.

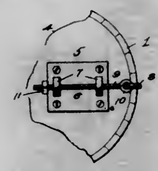
1,077,137. RATCHET-WRENCH. WILLIAM HANNING and MATTHEW NICHOLAS, Gorham, Colo. Filed Dec. 17, 1909. Serial No. 533,721. Renewed May 15, 1913. Serial No. 767,904. (Cl. 81—60.)



A ratchet wrench having a hollow head and a toothed periphery, a handle carrying pawls adapted to engage the periphery of the head, a sleeve having spiral grooves and

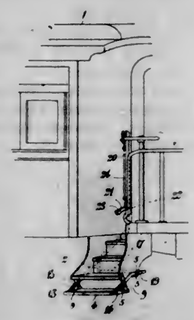
the pawls having lugs adapted to enter said grooves whereby the pawls by the adjustment of the sleeve may be alternately thrown into operative and inoperative relation with the head, each pawl having an offset at its outer extremity and the handle having a shoulder adapted to engage said offset, to relieve the pawl from strain, substantially as described.

1,077,138. COLLAPSIBLE BARREL. JOHN S. HARMON, Ashtabula, Ohio. Filed Feb. 10, 1913. Serial No. 747,342. (Cl. 217—44.)



In a collapsible barrel, the combination with a body made up of a plurality of staves having grooves in their inner sides adjacent their ends, and flexible means connecting the staves in series; of a head adapted when the body is set up to rest within the staves and occupy the grooves thereof, and a permanent connection between the head and one of the staves of the body, said connection comprising a loop straddling and connected to and extending from the end of the stave, a body fixed on the head and having an apertured lug, a bolt loosely occupying said lug, whereby the head is movable endwise on and is adapted to be swung about the bolt, said bolt having an eye at its outer end loosely receiving and adapted to swing on the loop, and securing means on the bolt at the opposite side of the apertured lug, with reference to the loop and the eye of the bolt.

1,077,139. SUPPLEMENTAL STEP FOR CARS. GEORG O. HEINRICH, Little Rock, Ark. Filed Mar. 11, 1913. Serial No. 753,554. (Cl. 105—86.)



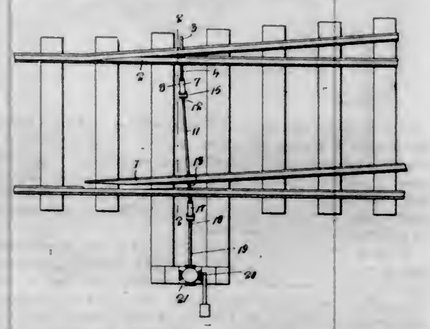
The combination with a vehicle having steps, of an auxiliary step adapted to normally lie beneath and against the lower main step, said auxiliary step having its ends provided with substantially T-shaped recesses, head members within the recesses, a link connected with each of the said headed members and pivotally connected to the lower main step, said link being centrally provided with a slot, arms pivotally connected with the ends of the auxiliary step forward of its slots, said arms having elongated openings, an oppositely headed member arranged within the openings of the arms and the openings of the links, a headed pintle arranged upon the main steps and adapted to provide a rest for the arms, one of said arms being notched to provide a pocket for one of the headed pintles when the auxiliary step is lowered, a connection between the arms, and a pivoted operating lever connected with one of the arms.

1,077,140. SUBMARINE CABLE. FRANCIS JACOB, Westcombe Park, England, assignor to Siemens & Halske A-G, Berlin, Germany, a Corporation of Germany. Filed Apr. 30, 1912. Serial No. 694,283. (Cl. 178—45.)



A submarine cable comprising in combination a plurality of conductors, an artificial self-induction load thereon, and insulation composed of balata, closely surrounding each of said conductors for the purpose specified.

1,077,141. CONNECTING-ROD FOR SWITCHES. ELIJAH F. JOHNSON, Union Mills, N. C. Filed Dec. 10, 1912. Serial No. 736,006. (Cl. 104—96.)



1. In a device of the class described, the combination with a pair of movable switch points and operating mechanism therefor, of a pair of rods connected individually to the said switch points and disposed substantially in transverse alinement, a connecting member adjustably mounted upon the adjacent ends of said rods, the said member being adapted to permit relative angular movement of the said rods, and means for connecting one of the switch points with the switch operating mechanism.

2. In a device of the class described, the combination with a pair of movable switch points and operating mechanism therefor, of a pair of rods secured individually to the said switch points and disposed substantially in transverse alinement, a connecting member mounted upon the adjacent ends of said rods, the said member being pivotally connected to one rod for movement in one plane and connected to the other rod for movement in an angularly disposed plane, and means for connecting one of said switch points with the switch operating mechanism.

3. In a device of the class described, the combination with a pair of movable switch points and operating mechanism therefor, of a pair of rods secured individually to the said switch points and disposed substantially in transverse alinement, a connecting member mounted upon the adjacent ends of said rods, the said member being pivotally connected to one rod for movement in one plane and connected to the other rod for movement in an angularly disposed plane, the said connecting member being longitudinally adjustable upon one of said rods, and means for connecting one of the switch points to the switch operating mechanism.

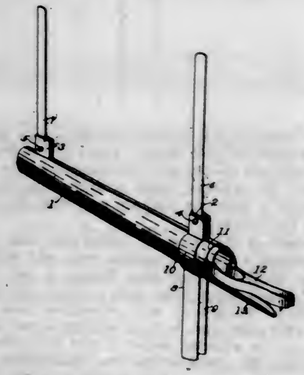
4. In a device of the class described, the combination with a pair of switch points and operating mechanism therefor, of a pair of rods secured individually to the said switch points in substantially transverse alinement,

means for connecting one of said switch points with the operating mechanism, and a connecting member including a bolt portion mounted upon the inner end of one of the said rods, a yoke portion having its extremities pivotally mounted upon the bolt portion, and a second yoke portion mounted upon the adjacent end of the coacting rod and provided with alining slots in its arms slidably receiving the curved cross portion of the first yoke portion.

5. In a device of the class described, the combination with a pair of switch points and operating mechanism therefor, of a pair of rods secured individually to the said switch points in substantially transverse alinement, means for connecting one of said switch points with the operating mechanism, and a connecting member including a bolt portion mounted upon the inner end of one of the said rods, a yoke portion having its extremities pivotally mounted upon the bolt portion, and a second yoke portion mounted upon the adjacent end of the coacting rod and provided with alining slots in its arms slidably receiving the curved cross portion of the first yoke portion, the first yoke portion being provided with an arcuate slot in its curved portion receiving the second rod.

[Claims 6 and 7 not printed in the Gazette.]

1,077,142. MARBLE-GUN. GEORGE COLVIN KENNEDY, Waterloo, Iowa. Filed Sept. 23, 1912. Serial No. 721,881. (Cl. 124—2.)



1. In combination, in a marble-gun, a conduit, a sighting-standard movably mounted thereon, means for releasably retaining said standard in a desired position relative to the conduit, one end of said conduit being cut away for a distance at its top to form a missile upholding trough under the propelling-means, and elastic propelling-means connected to the same end of said conduit along said trough.

2. In combination, in a marble-gun, a conduit, and a pair of handle-bars pivoted to opposite sides thereof and adapted to be swung up or down past the conduit to grasp said conduit between them.

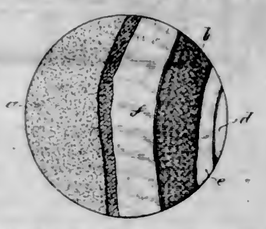
3. In combination, in a marble-gun, a conduit, a sighting-standard thereon, and handle-bars pivoted to said conduit and on opposite sides thereof and adapted to be compressed elastically against it to hold it frictionally therebetween.

4. In combination, in a marble-gun, a conduit, a sighting-standard foldably connected thereto, and a pair of handle-bars foldably connected thereto on opposite sides thereof and adapted to be brought together frictionally upon the conduit.

5. In combination, in a marble-gun, a conduit, said conduit having a pair of lugs, a sighting-standard pivoted between said lugs, a pair of handle-bars secured to said lugs and adapted to movably and frictionally seize the conduit between them when grasped, and means for securing releasably said standard in a desired position.

[Claims 6 to 16 not printed in the Gazette.]

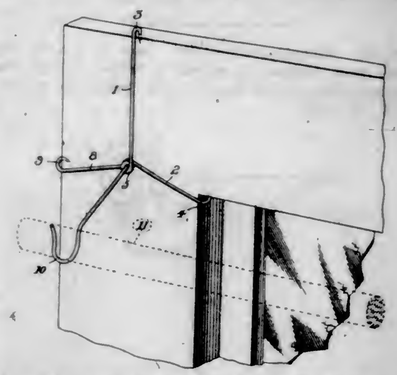
1,077,143. ABRADING-DISK. CARL KRUG, Frankfort-on-the-Main, Germany. Filed May 20, 1913. Serial No. 768,791. (Cl. 51—1.)



1. Flat abrading disk, comprising in combination with a metal disk, a layer of fabric, a layer of binding agent between said metal disk and said fabric, a layer of abrading material on said fabric, an impervious layer of a highly resilient cement interposed between said abrading material and said fabric, substantially as described and for the purpose set forth.

2. Flat abrading disk, comprising in combination with a metal disk, a layer of fabric, a layer of binding agent between said metal disk and said fabric, a layer of abrading material on said fabric, an impervious layer of highly resilient cement consisting of caoutchouc treated with bi-sulfid of carbon interposed between said abrading material and said fabric, substantially as described and for the purpose set forth.

1,077,144. CURTAIN-BRACKET. ANDREW E. KYLLONEN, Monessen, Pa. Filed June 6, 1913. Serial No. 772,148. (Cl. 156—24.)

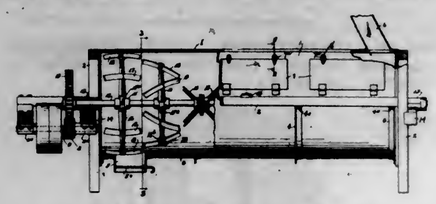


A curtain pole bracket comprising arms having hook shaped ends adapted to engage in the edges of a frame, an integral eye at the juncture of said arm, and an angle member extending through the eye of said arm and having one end thereof hook shaped to engage in the edge of a window frame and the opposite end thereof provided with a U-shaped support adapted to hold an end of a curtain pole.

1,077,145. MIXING OR BLENDING MACHINE. WILLIAM L. LAWSON, Mount Carmel, Ill. Filed May 28, 1913. Serial No. 770,307. (Cl. 99—2.)

1. In a mixing machine, a hub provided with socket members, arms removably mounted in said socket mem-

bers, and curved inner and outer float plates mounted on each of said arms and arranged at substantially right angles to each other.

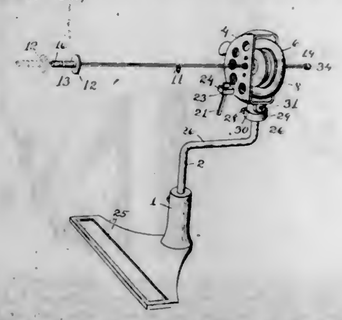


2. In a mixing machine, a driving shaft, spider members mounted thereon, and inner and outer curved float plates carried by said spider members at substantially right angles to each other and arranged in reverse spiral relation, said outer float plates being successively arranged in spaced relation to each other and being narrower than said inner float plates.

3. A mixing machine, comprising a casing having a semi-cylindrical bottom, a driving shaft in said casing, two-armed spider members removably mounted on said shaft in progressive spiral relation within said casing, outer and inner float plates carried by the arms of said spider members at right angles to each other, said outer float plates being disposed in an inclined spiral relation within and in close proximity to said semi-cylindrical bottom.

4. A mixing machine, comprising a casing having a removably mounted semi-cylindrical bottom, a driving shaft, two-armed spider members removably and adjustably mounted on said shaft in progressive spiral relation, and inner and outer float plates on each of said arms, said outer float plates being narrower than said inner float plates and being arranged in spaced relation to each other and following the spiral relation of said arms, and said inner float plates being arranged in reverse spiral relation for the purpose of conveying the material in an opposite direction to said outer float plates.

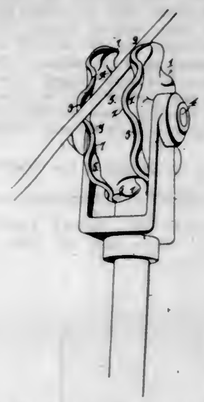
1,077,146. ERASING-MACHINE. DON M. LEMON, Boston, Mass., assignor of one-half to Ernest V. Page, Roslindale, Mass. Filed July 7, 1911. Serial No. 637,374. (Cl. 120—36.)



1. In an erasing machine, a support, a rotatable shaft having a journal bearing in said support, and provided with a longitudinal aperture, a rod passing through said aperture and fixed to rotate with said shaft, an eraser wheel upon said rod, and means for rotating said shaft, said rod being relatively long with respect to said shaft and having slidable adjustment in said aperture to project more or less beyond said shaft at either end.

2. In an erasing machine, a support, a standard carried thereby, a casing upon said standard, a shaft having journal bearings in said casing and provided with a longitudinal aperture, a slender straight rod relatively long with respect to said shaft and passing through and having sliding adjustment in said aperture to project more or less beyond the shaft at either end, said rod being fixed to rotate with said shaft and having a shoulder, an eraser wheel upon said rod, a grooved sleeve upon said rod, a nut threaded upon the end of said rod to clamp the eraser wheel between said sleeve and said shoulder, a loose handle sleeve in the groove of the first named sleeve, and means within the casing for rotating said shaft.

1,077,147. TROLLEY WHEEL OR SHEAVE. ALBERT ELLISON LINEBERG, Wilkes-Barre, Pa. Filed Feb. 26, 1913. Serial No. 750,930. (Cl. 191—63.)



1. In a wheel of the character stated, a body having an annular groove and side flanges, and a set of projections on each opposing face of said side flanges at the sides of the groove, the opposing edges of said projections being spaced apart a sufficient distance to permit entry of the wire into the groove.

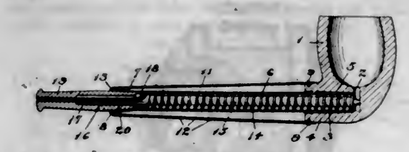
2. A wheel of the character stated comprising a body portion having a spindle receiving bore, and including a peripheral groove to form side flanges, a set of alternately arranged projections and recesses on each side flange within the groove, said projections and recesses merging with each other to form undulated side walls for said groove, the adjacent edges of said projections being located above the plane of the wire and spaced apart a sufficient distance to permit entry of the wire into the groove.

3. A wheel of the character stated comprising a body having a hub portion to receive a spindle, and having a peripheral groove with side flanges, a set of projections projecting into said groove from said side flanges at the periphery thereof, the projections on one side flange being spaced from those on the other side flange a sufficient distance to permit entry of the wire into the groove, substantially as shown and described.

4. A wheel of the character stated comprising a body having a hub portion to receive a spindle, and having a peripheral groove with side flanges, a set of projections projecting into said groove from said side flanges at the periphery thereof, the projections on one side flange being spaced from those on the other side flange a sufficient distance to permit entry of the wire into the groove, the projections on one flange being staggered with relation to those on the other flange.

1,077,148. SMOKING-PIPE. JOHN D. MAIER, Charlestown, Md. Filed Aug. 29, 1912. Serial No. 717,737. (Cl. 131—12.)

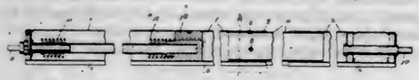
1. In a pipe, a bowl having a stummel, a smoke tube fitted in the stummel, and a perforated casing removably secured to the stummel and engaged over the end of the smoke tube for holding the same in engagement with the stummel.



2. In a pipe, a bowl having a stummel, a smoke tube fitted in the stummel, a perforated casing having an inwardly turned flange to engage over the edge of the smoke tube for holding the latter in engagement with the stummel, and a detachable locking connection between the casing and the stummel.

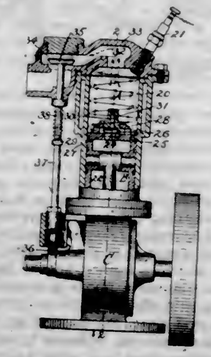
3. In a pipe, a bowl having a stummel, a smoke tube removably engaged in the stummel, a perforated casing removably connected to the stummel and engaged over the end of the smoke tube for holding the smoke tube in the stummel, a spirally grooved core arranged in the smoke tube and having a channeled extension and a mouth piece having a socket to fit the extension, said mouth piece being pivoted to fit within the smoke tube.

1,077,149. EXTENSION SPRING-ROLLER. STANTON E. MALLERY, Syracuse, N. Y., assignor to Oliver M. Edwards, Syracuse, N. Y. Filed May 29, 1911. Serial No. 630,041. (Cl. 156—36.)



An extension spring roller comprising two tubular sections having corresponding lengthwise depressions forming peripheral channels, and internal beads, or ribs, and an extension member comprising a split barrel having contiguous longitudinal edges provided with inwardly extending flanges designed to overlap each other, and curved to substantially conform to the cross-sectional shape of said beads, or ribs, said barrel being carried by one of said sections and telescoping within the other of said sections and being held in place therein by complemental indentations and depressions, substantially as and for the purpose described.

1,077,150. INTERNAL-COMBUSTION ENGINE. HERBERT MCCORNACK, West Chester, Pa. Filed Aug. 21, 1906. Serial No. 331,513. (Cl. 123—73.)



1. In an internal combustion engine, the combination with a cylinder, of a piston therein which is provided with a fuel admission passage having an open end which discharges toward the circumferential wall of the cylinder and extends in a direction oblique to a radial plane passing through the center of the mouth of the passage, whereby the fuel is directed against the inner surface of the cylinder in an oblique or tangential direction and caused to whirl in contact with the inner surface of the cylinder, means for admitting fuel to said passage when the piston nears the end of its power stroke, substantially as set forth.

2. In an internal combustion engine, the combination with a cylinder, of a piston therein which is provided with a fuel admission passage which opens toward the circumferential wall of the cylinder and extends in a direction oblique to a radial plane passing through the center of the mouth of the passage, and an axial exhaust port arranged in the head of the cylinder, substantially as set forth.

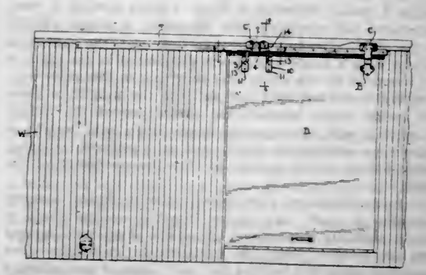
3. The combination of a cylinder, a reciprocating piston arranged therein and provided with a fuel admission port, a distributing chamber in said piston which receives the fuel from said port, and an admission passage leading from said chamber and opening into said cylinder in a direction oblique to a radial plane passing through the center of the mouth of said passage, means for admitting fuel to said passage when the piston nears the end of its power stroke, substantially as set forth.

4. The combination of a cylinder, a reciprocating piston arranged therein and provided with a fuel admission port, a free automatic admission valve controlling said port, a distributing chamber which receives the fuel from said port, and an admission passage leading from said chamber and opening into said cylinder in a direction oblique to a radial plane passing through the center of the mouth of said passage, means for admitting fuel to said passage when the piston nears the end of its power stroke, substantially as set forth.

5. The combination of a cylinder, a reciprocating piston arranged therein and provided with a fuel admission port, a distributing head which surmounts said port and which is provided with a valve chamber receiving the fuel from said port and with admission passages opening into the cylinder in a direction oblique to radial planes passing through the centers of the mouths of said passages, and a free automatic valve arranged in said chamber and controlling said port, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,077,151. CAR-DOOR HANGER. GEORGE E. MERRITT, Baltimore, Md., assignor of one-half to William N. Crisp, Baltimore, Md. Filed June 26, 1913. Serial No. 775,915. (Cl. 16—90.)

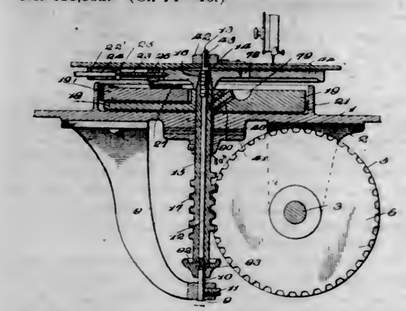


1. A car door hanger consisting of a carriage adapted to travel on a track, a pin swiveled in said carriage, a horizontally disposed plate secured to the lower end of said pin and having an upstanding stud, and a bracket of inverted U-shape whose feet are adapted to be secured to the car door, its body being disposed above said plate, pierced with an eye in which said stud is pivoted, and provided in one edge with a notch for the reception of said pin, for the purpose set forth.

2. A car door hanger consisting of a carriage adapted to travel on a track and having an upright eye, a pin swiveled

in said eye and having a head above it, a horizontally disposed triangular plate secured at one edge to the lower end of said pin and having an upstanding stud at its smaller end, and a bracket adapted to be secured to the car door, above said plate and pierced with an eye in which said stud is mounted.

1,077,152. CONTROLLING MECHANISM. HENRY C. MILLER, Waterford, N. Y. Filed Feb. 6, 1908. Serial No. 414,552. (Cl. 74—46.)



1. In combination, a stationary frame having a stationary annular flange, a motor including a revolving shaft, a plate revolving with the shaft, a weight pivoted to the plate, a second plate revolving with the shaft, and formed with a guide way, a threaded element mounted in the guide way, a nut mounted on the threaded element, a spring connected to the nut and the pivoted weight, the weight contacting with the annular flange when it is thrown out by centrifugal force, and an automatic stopping device acting on the weight to stop the movement of the shaft.

2. In combination with a frame having a stationary annular flange, a motor including a revolving shaft, a plate having a counterbalanced weight pivoted to the plate, an element which may be turned, and a spring connected to the revoluble element and the pivoted weight, the turning of the element causing the end of the spring attached thereto to be moved at an angle and thereby increase or decrease the tension of said spring, the outer edge of the pivoted weight contacting with the annular flange when said weight is thrown out by centrifugal force, and an automatic stopping device acting on the weight to stop the movement of the shaft.

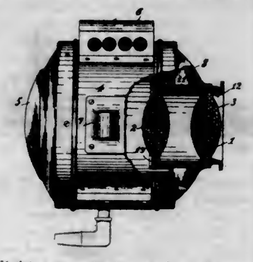
3. In combination, a frame having a stationary annular flange, a motor including a shaft, a plate having a counterbalance and revolving with the shaft, a weight pivoted to the plate, a second plate revolving with the shaft and formed with a guide way, a screw mounted in the plate, a nut mounted on the screw and traveling in the guide-way, a spring connected with the nut and the weight to place the weight under tension, the outer edge of the weight contacting with the annular flange when said weight is thrown by centrifugal force, and an automatic stopping device acting on the weight to stop the movement of the shaft.

4. In combination, a stationary annular flange, a motor including a shaft, two plates mounted on the shaft, a weight pivotally mounted on one of the plates to coöperate with the annular flange, an adjusting device on the other plate and extending beyond the outer edge of said plate, a spring connecting the adjusting device and the pivoted weight, and an automatic stopping device coöperating with the weight.

5. In combination, a frame having a flange, a motor including a revolving shaft, a governor coöperating with said shaft, and including a weight, an automatic stopping device revolving with the shaft, a connection interposed between the automatic stopping device, and the weight to force the latter into contact with the flange when the automatic stopping device is operated.

[Claims 6 to 9 not printed in the Gazette.]

1,077,153. LAMP. CHARLES G. MYERS, Cleveland, Ohio. Filed Nov. 15, 1911. Serial No. 660,326. (Cl. 240—47.)



1. In a light concentrator and projector, a condensing lens, an objective lens, and a light intercepting element at one side of one of said lenses and adapted to cut out certain rays of light from the projected field.

2. In a light concentrator and projector, an objective lens having an opaque segmental portion.

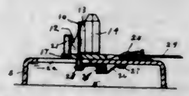
3. A lamp, comprising a casing, a source of illumination, a condensing lens and a convex lens having a portion adapted to cut out certain rays of light from the projected field.

4. In a light concentrator and projector, the combination with a lens tube provided with a condensing lens; of an objective lens having its lower portion provided with light intercepting means.

5. A lamp, comprising a casing, a source of illumination, a condensing lens, and an objective lens having an intercepting portion at one side adapted to cut off some of the direct rays of light from said condensing lens.

[Claims 6 to 9 not printed in the Gazette.]

1,077,154. CLIP-ATTACHING DEVICE. JOHN B. MULLALLY and GEORGE L. GRANT, Seattle, Wash. Filed Oct. 23, 1912. Serial No. 727,373. (Cl. 120—8.)



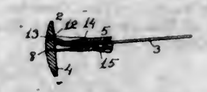
1. In a clip attaching device, the combination with a base member, of movable means associated with such base member and adapted to engage with and move a clip that is provided with an upper and a lower clamping member, guiding members associated with said base member and adapted to guide said movable means, means for spreading said clamping members of said clip in response to a movement of said slide-plate and means for receiving and guiding a plurality of such clips to such a position with relation to said movable means that said movable means may engage with the lowermost of such clips to move it into engagement with a plurality of papers to clamp them together.

2. In a clip attaching device, the combination with a suitable supporting base, of a guide structure extending upwardly therefrom and adapted to guide clips downwardly, a member movable horizontally on said supporting base to feed the lowermost of said clips along, and means associated with said supporting base for spreading the upper and lower members of such clip as it is fed along.

3. In a clip attaching device, the combination with a base member, of a movable slide-plate associated with said base member and adapted to engage with and move a clip, two guiding members secured to said base and adapted to guide said slide-plate in its movements, retractile means for moving said slide-plate in one direction, means associated with said base for separating the clamping members of a clip as said clip is moved by said slide-plate, and means for guiding clips to a point where successively they may engage with said slide-plate to be moved thereby.

4. In a clip attaching device, a base member, a guide structure extending upwardly therefrom, a plurality of clips in said guide structure, said clips having upper and lower clamping members, a member movable horizontally along the base member to feed the lowermost clip along, and means on the base member to spread the upper and lower members of each clip as it is fed along.

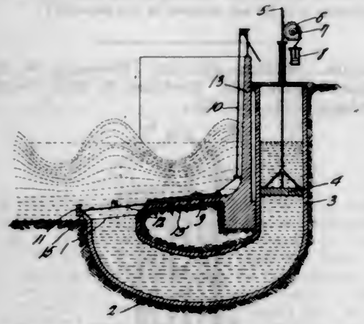
1,077,155. LADY'S HAT-PIN SHIELD. JAY M. NORWOOD, Phoenix, Ariz., assignor of one-half to Alexander Quinet, Phoenix, Ariz. Filed Mar. 28, 1913. Serial No. 757,468. (Cl. 24—155.)



1. In a hat pin guard, a head having a cam, a main stem member having an extension in line therewith pivotally mounted in said head, and a lever stem member having a fulcrum connection with said main member and at one end engagement with said cam to swing the lever member laterally of and toward and away from said main member upon turning the main member upon its pivotal extension, said members having means for clamping engagement with the pin.

2. In a hat pin guard, a head having a cam slot, a main stem member having an eccentric extension in line therewith pivotally mounted in said head, and a lever stem member having intermediately of its length a fulcrum connection with said main member and at its inner end engagement with said cam slot to swing the lever member laterally of and toward and away from the main member upon turning the main member upon its pivotal extension, said members having upon opposite sides of said fulcrum connection means for clamping engagement with the pin.

1,077,156. WAVE-MOTOR. DAVID R. OLMSTED, Council Bluffs, Iowa. Filed Jan. 3, 1913. Serial No. 740,056. (Cl. 253—3.)



1. A wave motor including a conduit curved downwardly from the bed of the body of water and thence extended upwardly to a point above the highest level of the water, a water operated power transmitting element movably mounted within the upwardly extended portion of the conduit, and an upstanding fixed structure spaced from the inlet of the conduit and constituting means for deflecting upwardly water moving thereagainst to raise the level and increase the weight of the water directly above the inlet of the conduit.

2. A wave motor including a conduit curved downwardly from the bed of the body of water and thence extended upwardly to a point above the highest level of the water, means within the upwardly extending portion of the conduit and adapted to be actuated by the water contained in the conduit, for transmitting motion to mechanism to be driven, and a continuous sea wall extended upwardly adjacent to but spaced from the inlet of the conduit and constituting an abutment for waves passing over said inlet, said sea wall being extended into the body of water at opposite sides of the inlet of the conduit and along lines diverging into the body of water.

3. A wave motor including a conduit extended downwardly from the bed of a body of water and thence upwardly to a point above the highest level of said body, that portion of the conduit below the bed of body of water being curved, a piston mounted for reciprocation within the upwardly extending portion of the conduit, and adapted to be actuated by the rise and fall of the level of the water within the conduit, a sea wall adjacent the inlet of the conduit for directing upwardly the waves moving thereagainst, and means upon the outer end of the conduit for controlling the flow of water into the conduit.

4. A wave motor including a conduit curved downwardly from the bed of the body of water and thence extended upwardly to a point above the highest level of the water, means within the upwardly extending portion of the conduit and adapted to be actuated by the water contained in the conduit, for transmitting motion to mechanism to be driven, and a continuous sea wall extended upwardly adjacent to but spaced from the inlet of the conduit and constituting an abutment for waves passing over said inlet, said sea wall being extended into the body of water at opposite sides of the inlet of the conduit and along lines diverging into the body of water, a gate valve for closing the outer end of the conduit, and means for actuating the valve.

1,077,157. SHUTTER FOR PHOTOGRAPHIC CAMERAS. ARTHUR GRAY PICKARD, Altrincham, England. Filed Oct. 19, 1912. Serial No. 726,787. (Cl. 95—57.)



1. In a roller blind shutter, the combination, with an upper blind setting wheel and a lower blind setting wheel, of means for locking the two wheels together comprising a catch on one wheel, a stud on the other wheel engageable by said catch, and a fixed block in the path of the catch by which the catch is operated to release said stud when the wheel has traveled a predetermined distance.

2. In setting and releasing mechanism for roller blind shutters, the combination, with a pair of separate setting wheels for controlling the upper and lower blinds, the upper blind setting wheel having a slot therein, of a catch pivoted to the lower blind setting wheel, a stud engageable by said catch projecting from the upper blind setting wheel through said slot to cause the wheels to rotate together, and a fixed block in the path of the catch to release the stud when the wheel has traveled a predetermined distance, to allow the other wheel to continue its rotation.

3. In a roller blind shutter, the combination, with a setting wheel for controlling and setting the upper blind,

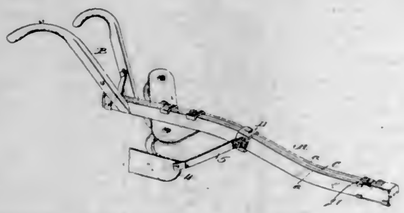
and a setting wheel for controlling and setting the lower blind, the latter being provided with a concentric slot, of a catch pivoted to the lower blind setting wheel, a stud projecting from the upper blind setting wheel through said slot, with which stud the catch engages to lock the two wheels together during the setting of the shutter, and a pawl pivoted to said lower blind setting wheel to engage the upper blind setting wheel and prevent its rotation in a backward direction independently of said lower blind setting wheel until the pawl is raised.

4. In setting mechanism for roller blind shutters, the combination, with two setting wheels to control the upper and lower blinds respectively, the upper blind setting wheel being formed with a hole and the lower blind setting wheel being formed with a series of notches, of a spring pawl pivoted to the lower blind setting wheel and projecting through said hole to successively engage said notches, and a fixed inclined piece in the path of said pawl to raise the latter and release the upper blind setting wheel, to permit the further movement of that wheel.

5. In setting and releasing mechanism for roller blind shutters, the combination, with two setting wheels to control the upper and lower blinds, respectively, and means for locking the two wheels together, of a tumbler pivoted to the lower blind setting wheel, a stud projecting from the upper blind setting wheel and engageable by said tumbler, and a pivoted lever in the path of the tumbler to arrest the rotation of the wheels.

[Claim 6 not printed in the Gazette.]

1,077,158. PLOW. ALBERT S. POE, Coldwater, Miss., assignor to A. G. Perry Plow Company, Coldwater, Miss., a Corporation of Mississippi. Filed Sept. 16, 1912. Serial No. 720,663. (Cl. 97—13.)



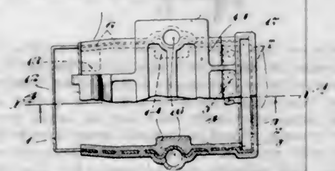
1. The combination with a plow beam, of a connection comprising a stirrup which is formed with upper and lower plates, lying against the upper and lower surfaces of said beam, and a side plate lying adjacent a side face of said beam, a bolt to connect the stirrups and the beam and having its head and nut bearing against said upper and lower plates, and a clip associated with the side plate for the detachable connection of a plow adjunct thereto.

2. The combination with a plow beam, of a connection comprising a stirrup which is formed with upper and lower plates, lying against the upper and lower surfaces of said beam, and a side plate lying adjacent and in spaced relation to a side face of said beam, the side plate having a slot which extends from an edge thereof, a bolt to connect the stirrups and the beam and having its head and nut bearing against said upper and lower plates, a clip which embraces said side plate, and a bolt which is disposed in the slot and binds the clip on said side plate.

3. The combination with a plow beam, of a connection comprising a stirrup which is formed with upper and lower plates, lying against the upper and lower surfaces of said beam, and a side plate lying adjacent and in spaced relation to a side face of said beam, the side plate having a T-shaped slot which extends from an edge thereof, a bolt to connect the stirrups and the beam and having its head and nut bearing against said upper and lower plates, a clip which embraces said side plate and has its bow portion disposed in the vertical portion of said slot, and a horizontal portion of said bolt which is disposed in the slot and binds the clip on said side plate.

4. The combination with a plow beam, of a connection comprising a stirrup which is clamped thereon and has its side portion in spaced relation to the adjacent side of the beam and provided with a T-shaped slot extending from its edge, a clip which embraces said side portion and has its bow portion disposed in the vertical portion of said slot, and a bolt which is disposed in the horizontal portion of said slot and binds the clip upon the side portion of the stirrup.

1,077,159. JOURNAL-BOX. IVAR A. RANDEL, Chicago, Ill., assignor to McCord and Company, Chicago, Ill., a Corporation of New Jersey. Filed May 17, 1913. Serial No. 768,245. (Cl. 64—10.)



1. A journal box comprising an independently formed metallic cellar and a top made fast to the cellar by the metal of the top in the forming thereof.

2. A journal box comprising an independently formed metallic cellar and a top of cast metal cast fast to said cellar.

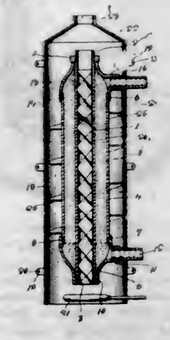
3. A journal box comprising an independently formed metallic cellar and a top of cast steel incasing the upper edges of said cellar and cast fast thereto.

4. A journal box comprising an independently formed metallic cellar and a cast steel top, said cellar and top having interlocking parts made fast with each other in the casting of the top.

5. A journal box comprising an independently formed metallic cellar, an independently formed metallic dust guard wall and a metal top made fast to said cellar and dust guard wall in the forming of the top.

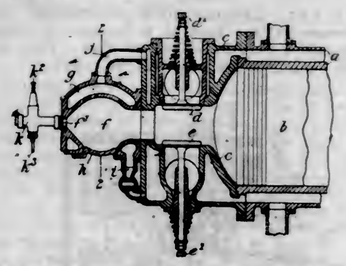
[Claims 6 to 10 not printed in the Gazette.]

1,077,160. WATER-HEATER. FREDERICK W. REESE, East Palestine, Ohio. Filed Mar. 29, 1912. Serial No. 686,986. (Cl. 122—333.)



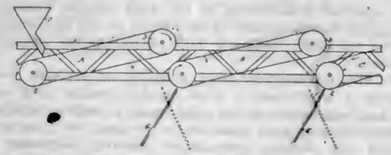
A water heater, comprising an inner pipe having both ends threaded, an outer pipe shorter in length and arranged co-axial therewith but spaced therefrom to leave an intervening annular water space, a bowl-shaped fitting connecting the lower ends of the pipes and provided with a water inlet, an inverted bowl-shaped fitting connecting the upper ends of said pipes and provided with an outlet, the said pipes and fittings forming a water jacket, a drum surrounding the water jacket and having an internal diameter greater than the external diameter of said bowl-shaped fittings, a spiral web encircling the outside of the jacket and interposed between said jacket and the inner wall of the drum, the said spiral web being attached to the drum and serving to centrally position the water jacket, and a spiral web contained within and supported by the inner pipe.

1,077,161. INTERNAL-COMBUSTION ENGINE. DAVID ROBERTS, JOHN WILLIAM YOUNG, and CHARLES JAMES, Grantham, England. Filed Dec. 4, 1911. Serial No. 663,929. (Cl. 123—30.)



In an internal combustion engine, the combination with a cylinder, a spherical vaporizer water jacketed throughout its extent except at the bottom thereof where it is provided with a hot ignition plate, a narrow neck connecting the vaporizer and the cylinder, a liquid hydrocarbon injection device connected at the outer end of the vaporizer and having its discharge aperture disposed axially of the vaporizer, the said neck and the cylinder, said neck being provided with an air inlet aperture and an exhaust aperture arranged opposite to each other, and controlling valves for said air inlet and exhaust apertures.

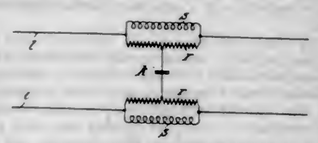
1,077,162. CONVEYING APPARATUS. ZYGMUNT RODAKOWSKI, Lemberg, Austria-Hungary. Filed July 28, 1913. Serial No. 781,615. (Cl. 193—4.)



In a conveying apparatus the combination of a frame; pulleys arranged in diagonally disposed pairs journaled on said frame; an endless conveyer belt mounted to travel on each pair of said pulleys, each of said belts having its delivery end disposed above and beyond the receiving end of its respective succeeding belt, and providing a space for the passage of material; a distributing gate swingingly mounted beneath each of said passages; and an independent driving means for each of said belts whereby the several belts may be simultaneously operated in different directions and at variable speeds, substantially as described.

1,077,163. MEANS FOR PROTECTING ELECTRIC CIRCUITS FROM EXCESSIVE RISES IN PRESSURE AND SIMILAR DISTURBANCES. REINHOLD RÜDENBERG, Charlottenburg, Germany, assignor to Siemens-Schuckertwerke, G. M. B. H., Berlin, Germany, a Corporation of Germany. Original application filed Mar. 14, 1913, Serial No. 754,314. Divided and this application filed July 16, 1913. Serial No. 779,370. (Cl. 175—30.)

1. In an electric circuit the combination with a line constituting one side of the circuit, of a concentrated inductance, and a resistance in parallel inserted in the line, and a concentrated capacity connected between said line and the other side of the circuit.



2. In an electric circuit comprising the two sides of the line, the combination with said two sides, of a concentrated inductance and a resistance in parallel inserted in one side of the line, and a concentrated capacity connected between the two said sides.

3. In an electric circuit comprising two sides of a line, the combination with said two sides, of a concentrated inductance and a resistance in parallel inserted in each side, and a concentrated capacity connected between points of said resistances located between the ends thereof.

1,077,164. MANUFACTURE OF MUSTARD. HOWARD C. RUSS, New York, ARTHUR T. BEACH, Brooklyn, N. Y., and HENRY F. KLEINFELDT, Newark, N. J., assignors to Abbe Engineering Company, a Corporation of New York. Filed Mar. 15, 1913. Serial No. 754,556. (Cl. 99—11.)

1. The manufacture of mustard by mixing together solid ingredient including mustard seed, with a liquid, and tumbling the ingredients for a prolonged period in a chamber with freely movable reducing bodies.

2. The manufacture of mustard by mixing together solid ingredient including mustard seed, with a liquid, and tumbling the ingredients for a prolonged period in a chamber with freely movable reducing bodies while preventing the escape of the mixed materials from the chamber before complete reduction.

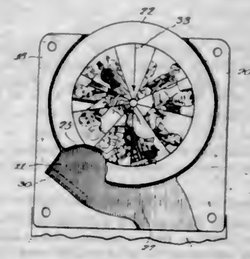
3. The manufacture of mustard by simultaneously mixing together solid ingredient including mustard seed, with a liquid, and tumbling the ingredients for a prolonged period in a chamber with freely movable reducing bodies.

4. The manufacture of mustard by simultaneously mixing together solid ingredient including mustard seed, with a liquid, and tumbling the ingredients for a prolonged period in a chamber with freely movable reducing bodies; whereby the materials are mixed and reduced and the liquid and mustard seed oil emulsified all in operation.

5. The manufacture of mustard by in one operation mixing together solid ingredient including mustard seed, with a liquid, and tumbling the ingredients for a prolonged period in a chamber with freely movable reducing bodies; and then separating the finished product from the reducing bodies.

[Claims 6 to 8 not printed in the Gazette.]

1,077,165. TOY BANK. LOUIS S. SCHWARTZ, Chicago, Ill., assignor to Toby Rubovits, Chicago, Ill. Filed Mar. 31, 1913. Serial No. 757,878. (Cl. 46—36.)



1. A toy bank including a coin receptacle and closing means therefor, such closing means comprising two flat, parallel members with a rotative disk and spacing mem-

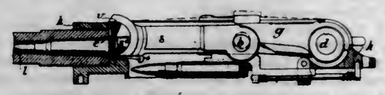
bers between them, a recess in such disk, a passage-way between such spacing members and the disk, leading into the coin receptacle, and a coin slot opening into such passage-way.

2. A toy bank including a coin receptacle and closing means therefor, such closing means comprising two flat, parallel members with a rotative disk and spacing members between them, a recess in such disk, a passage-way between such spacing members and the disk, leading into the coin receptacle, a coin slot opening into such passage-way, openings through such parallel members, and designs on the two sides of the disk arranged for exhibition through such openings.

3. A toy bank comprising two flat, parallel members secured together at their corners, with spacing members and a rotative disk between them, a curved passage-way between the edge of such disk and such spacing members, a coin bag attached to the lower edges of such parallel members, a recess in the edge of such disk, and a coin slot through one of the parallel members and into such curved passage-way.

4. A toy bank comprising two flat, parallel members secured together at their corners, with spacing members and a rotative disk between them, a curved passage-way between the edge of such disk and such spacing members, a coin bag attached to the lower edges of such parallel members, a recess in the edge of such disk, a coin slot through one of the parallel members and into such curved passage-way, openings through each of said members, and designs on both sides of the disk arranged for exhibition through such openings.

1,077,166. BREECH MECHANISM. ANDREAS WILHELM SCHWARZLOSE, Charlottenburg, Germany. Filed Mar. 8, 1913. Serial No. 753,045. (Cl. 42—3.)



1. In a breech mechanism the combination with the barrel and the breech casing; of a knuckle joint comprising front and rear members which are in alinement when the breech is closed, the front member extending up to the rear end of the barrel whereby at the moment of firing said front member directly receives the back pressure of the head of the cartridge in said barrel, and transmits said pressure directly to said rear member of the knuckle whereby the knuckle joint is broken and the members disalined, substantially as and for the purpose set forth.

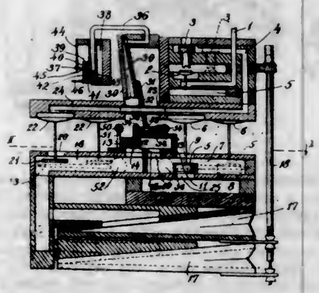
2. In a breech mechanism the combination with the barrel and the breech casing, of a knuckle joint comprising a front member and a rear member, means for connecting the rear end of said rear member with the said breech casing in such a manner as to provide a plurality of superposed axes of rotation adapted, when the mechanism is automatically open, to successively act as pivot points for said rear member, the member and casing having a plurality of juxtaposed bearing surfaces concentric with said axes, substantially as described.

3. In a breech mechanism the combination with the barrel and the breech casing, of a knuckle joint comprising a front member and a rear member, a shoulder provided on the said front member above its axis of rotation, an abutment provided on the said breech casing and adapted when the said front member swings open, to be engaged by the said shoulder and means on said shoulder arranged to engage and loosen a fired cartridge case during opening movement.

4. In a breech mechanism the combination with the barrel and the breech casing, of a knuckle joint comprising a front member and a rear member, two separate guide plates slidably mounted in said casing and pivotally connected to the front end of said front member and an extractor carried by the said guide plates and the said front member, substantially as and for the purpose set forth.

5. In a breech mechanism the combination with the barrel and the breech casing, of a knuckle joint comprising a front member and a rear member, guide plates pivotally connected to the front end of said front member and slidably mounted in the said breech casing, inwardly projecting claws provided on the said guide plates and adapted to engage the groove of the cartridge engaged in said barrel and to thus act as an extractor for same, substantially as set forth.

1,077,167. AUTOMATIC PIANO-PLAYER. JOSEPH SCHWERTNER, New York, N. Y., assignor to Heerwagen Company, a Corporation of New York. Filed Mar. 6, 1912. Serial No. 681,983. (Cl. 84—168.)



1. The combination of a plurality of striking pneumatics, a wind chest, a wind channel leading from each striking pneumatic to the wind chest, and a sliding throttling valve for each wind channel for varying the force with which the striking pneumatics operate.

2. The combination of a plurality of striking pneumatics, a wind chest, a wind channel leading from each striking pneumatic to the wind chest, a sliding throttling valve for each wind channel for varying the force with which the striking pneumatics operate, said valve varying the effective cross-section of the wind channel disproportionately to the amount of movement of the valve, and a valve for each pneumatic for controlling the operation thereof.

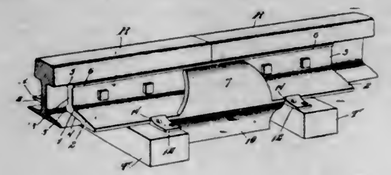
3. The combination of a plurality of striking pneumatics, a wind chest, a wind channel leading from each striking pneumatic to the wind chest, a sliding throttling valve for each wind channel for varying the force with which the striking pneumatics operate, movement of which valve in one direction causes the corresponding note to be played loudly and movement of which valve in another direction causes the corresponding note to be played softly, and automatic means for opening and closing each wind channel to the wind chest.

4. The combination of a plurality of striking pneumatics, a wind chest, a wind channel leading from each striking pneumatic to the wind chest, a throttling valve for each wind channel for varying the force with which the striking pneumatics operate, movement of which valve in one direction causes the corresponding note to be played loudly and movement of which valve in another direction causes the corresponding note to be played softly, and means for varying the limit of movement of said valves in one direction to vary the amount of accenting.

5. The combination of a plurality of striking pneumatics, a wind chest, a wind channel leading from each striking pneumatic to the wind chest, a throttling valve for each wind channel for varying the force with which the striking pneumatics operate, means for moving the valve in one direction to cause the corresponding note to be played loudly and in another direction to cause the corresponding note to be played softly, and means for varying the limit of movement of said valves in one direction to vary the volume of the relatively subdued notes.

[Claims 6 to 34 not printed in the Gazette.]

1,077,168. RAIL-JOINT. WILLIAM F. SELLERS, Gallitzin, Pa. Filed Mar. 15, 1913. Serial No. 754,505. (Cl. 239—10.)

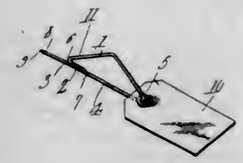


1. In a rail joint, two abutting rails, angle plates adapted to be arranged upon the opposite faces of the rails, the vertical member of each of the angle plates having a rib, the horizontal member of each of the angle plates having a curved wing which is adapted to abut against the vertical member of the plate and to underlie and engage with the rib, means for securing the angular members to the webs of the rails, and each of the angular members having a centrally arranged downwardly projecting reinforcing plate.

2. A rail joint, including a pair of rails, and comprising angular fish plates arranged upon the opposite sides of the rails and engaging within the fishing spaces of the rails, each of said plates having a resilient member exerting a tension between the vertical and horizontal elements of the said plates, and a downwardly depending curved plate arranged below each of the resilient members.

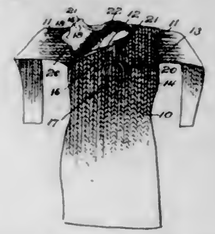
3. In a rail joint, two angular fish plates, each of the said fish plates having its lower face recessed to provide a pocket for the longitudinal edges of the base flanges of the rails, the vertical members of the fish plates being longitudinally channeled and occupying the fishing spaces of the rails, means for securing the said vertical members to the webs of the rails, curved resilient members exerting a tension between the vertical and the horizontal members of the fish plates and arranged centrally of the said plates, the horizontal members of the fish plates having their undersurfaces provided at their outer edges with downwardly extending inwardly curved plates that have their ends outturned, a cushion member arranged between and frictionally engaged by the said curved members, ties for the joint, and means for securing the joint to the ties.

1,077,169. TAG-FASTENER. FRANK G. SHUMAN, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 690,833. (Cl. 40—24.)



A tag fastener fashioned from a single piece of material bent to form a triangular head, the secondary end of the strip being overlapped upon and alined with the primary end of the strip to define a straight base for the triangle and to define a tag-holding angle at one end of the base and to define an article-holding angle at the other end of the base, the secondary end terminating in a barb projecting laterally beyond the base, and the primary end being extended beyond the article-holding angle to form an entering prong; the base presenting a straight and unobstructed area between the barb and the tag-holding angle, whereby upon a right line movement in opposite directions, the material may ride unobstructedly along the prong into the tag-holding angle, and thence back upon the barb and upon the secondary end; the alined relations of the ends affording a straight pull between the angles, and preventing transverse shifting of the ends with respect to each other.

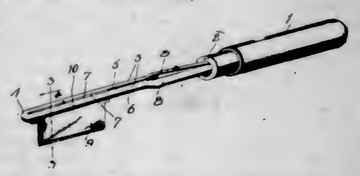
1,077,170. GARMENT. WALTER L. SIEWERS, Winston-Salem, N. C., assignor to The Maline Mills Company, Winston-Salem, N. C., a Corporation of North Carolina. Filed Dec. 26, 1911. Serial No. 667,819. (Cl. 2—144.)



1. In a garment, a body having its upper portion cut upon an upwardly extending curve from the arm pits to the neck line, flaps secured at the sleeves and extending in a continuous substantially straight line from arm pit to arm pit, and ties for securing the flaps at such straight line and also at the neck line.

2. In a body garment, an upper portion cut upon a curved line extending from the arm pits substantially to the neck line, flaps secured at the sleeves and extending with their bottom line substantially straight between the arm pits, a tie secured to the upper end of the upwardly extending body portion and adapted to engage the flaps at the neck line, and a second tie adapted to secure the flaps together adjustably at the straight line connecting the arm pits.

1,077,171. SAFETY-RAZOR-BLADE HOLDER. BENJAMIN F. STAMM, Hunt, Ill. Filed Dec. 10, 1912. Serial No. 736,034. (Cl. 30—25.)

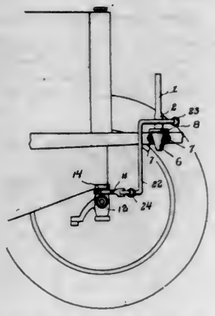


A safety razor blade holder comprising a uniformly wide strip of half-round spring metal bent or doubled upon itself at a median point, providing opposing blade clamping jaws integrally connected at one end and having their flattened surfaces in juxtaposition, and arms extending from the free ends of said jaws, said jaws being divergently arranged and adapted to normally spread apart by their resilient action, and being connected with the arms by outwardly extending oblique offsets, whereby the arms are disposed at a greater angle of divergence than the jaws, and a handle having a socket adapted to receive and engage the free ends of said arms to draw the arms and jaws together and dispose the jaws to clamp an interposed blade.

1,077,172. AUTOMOBILE-LAMP CONTROL. BENJAMIN STEPHEN and D. REED JAMES, Ambia, Ind. Filed Dec. 13, 1912. Serial No. 736,617. (Cl. 240—62.)

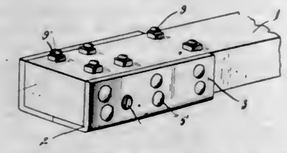
In an automobile lamp control, a lamp throwing arm, means for attaching said arm to the steering knuckle of the machine, a lamp post having a socket in the bottom thereof, an inverted cone bearing at the bottom of said post having an upwardly projecting stem which fits into the socket of the post and to which said post is fastened, an arm on said post, an inverted conical cup adapted to

be fastened to the machine frame to receive said cone bearing and lubricant, a flange retaining cap surrounding the



lamp post and screwing on top of the cup, and a connecting rod interposed between said arms.

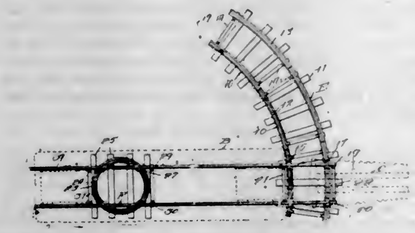
1,077,173. SHOE FOR RAILROAD-TIES. FRANK STILL, Mortonville, Pa. Filed Jan. 15, 1913. Serial No. 742,244. (Cl. 238—1.)



1. A tie having its opposite sides adjacent its ends provided with L-shaped removable shoes, said shoes having their vertical members of a height corresponding with the height of the tie, and said shoes fully covering the bottom of the tie.

2. In combination with a wooden tie, of metallic shoes for the ends of the tie, said shoes comprising two L-shaped members which have their vertical portions formed with openings, certain of which alining for the reception of securing elements, the horizontal members of the shoes adapted to underlie the tie and have their edges contact, the said horizontal members being provided with a plurality of openings, certain of which being adapted for the reception of securing elements which pass vertically through the tie, and the remaining openings serve as moisture outlets.

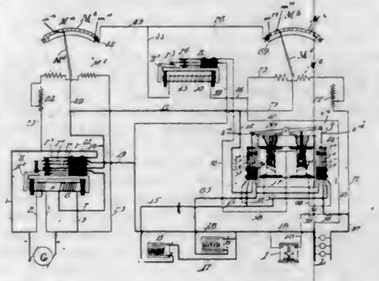
1,077,174. TURNING DEVICE FOR STEAM-SHOVELS. WILLIAM L. STRAHLEM, Middle Point, Ohio. Filed Mar. 20, 1913. Serial No. 755,749. (Cl. 104—19.)



1. In a steam shovel turning device the combination with a working track of a plural section arc shaped track extending across the working track and including spaced pairs of rails, shoes mounted on each pair of rails and provided respectively with ribs on their under sides extending between the rails of respective pairs whereby said shoes are capable of a sliding movement on said rails parallel spaced rails supported by the shoes engaged with respective pairs of spaced rails for receiving the front truck of a shovel, and a turn table between the working track and arc shaped track and including a pair of spaced circular rails disposed concentric with the spaced pairs of rails of the arc shaped track, shoes slidably mounted on said circular rails, and parallel spaced rails mounted on said shoes for receiving the rear truck of the shovel.

2. In a steam shovel turning device, the combination with a working track, of a plural section arc shaped track extending across the working track and including spaced pairs of rails, shoes slidably mounted on each pair of rails, parallel spaced rails supported by said shoes for receiving the front truck of a shovel, and a turn table between the working track and arc shaped track including a pair of spaced circular rails disposed concentric with the spaced pairs of rails of the arc shaped track, shoes slidably mounted on said circular rails and spaced parallel rails mounted on said shoes for receiving the rear truck of a shovel.

1,077,175. STORAGE-BATTERY POWER AND CHARGING EQUIPMENT. CHESTER H. THORDARSON, Chicago, Ill. Filed June 27, 1910. Serial No. 569,046. (Cl. 171—314.)



1. A plurality of storage batteries with a charging circuit and a load circuit, having switching means for switching one battery to the charging circuit and simultaneously switching another battery to the load circuit, and independently acting means directly impressed by the potential of the batteries, one operating the switching means upon a predetermined maximum potential of a battery in the charging circuit for switching the latter battery to the load circuit, and the other likewise operating the switching means upon a predetermined minimum potential of a discharging battery for switching the partially discharged battery from the load circuit to the charging circuit.

2. A plurality of storage batteries with a charging circuit and a load circuit, having means for separately connecting one battery to the charging circuit and another battery to the load circuit, means controlled by the rise of potential of the battery in the charging circuit for switching the latter battery to the load circuit, and the partially discharged battery from the load circuit to the charging circuit, and means controlled by the fall of potential of the battery in the load circuit for switching the latter battery into the charging circuit and for switching a charged battery from the charging circuit to the load circuit.

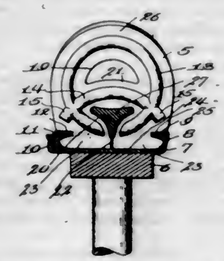
3. A plurality of storage batteries, a charging circuit and a load circuit, combined with a switch mechanism connected to the storage batteries and to the charging and load circuits to alternately switch the batteries from and to the charging and load circuits, and switch controlling devices connected in branch circuits of the charging and load circuits and each adapted to be independently actuated by variations of potential of the batteries to control its branch circuit, for the purpose set forth.

4. A plurality of storage batteries, a charging circuit and a load circuit, combined with a switch mechanism connected to the batteries and to the charging and load circuits to alternately switch the batteries from and to the charging and load circuits, and meters, one responsive to the charging circuit and the other to the load circuit adapted each to independently close a circuit to actuate said switch mechanism.

5. A plurality of storage batteries, a charging circuit and a load circuit, combined with a switch mechanism connected to the batteries and to the charging and load circuits to alternately switch the batteries from the charging to the load circuit and vice versa, and meters, one responsive to and operable upon a minimum potential of the load circuit, and the other responsive to and operable upon a maximum potential of the charging circuit, for operating said switch mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,077,176. VEHICLE-TIRE. JAMES H. TUCKER, Petersburg, Va. Filed Aug. 1, 1912. Serial No. 712,758. (Cl. 152—9.)



1. A vehicle tire comprising a plurality of independent sections having upper and lower openings therethrough with a resilient bridge between the upper and lower openings and a yielding cushion between the lower openings and the bases of the sections, the sections also having interlocking grooves and tongues respectively formed in opposite faces and partially extending inwardly over the bridges, and a retaining ring inserted through the lower openings of the sections and having its lowermost portion held elevated above the lower terminals of said sections.

2. A vehicle tire comprising a plurality of independent resilient sections having openings therethrough separated by intermediate bridges and provided with interlocking grooves and tongues respectively formed in opposite faces, a resilient cushion being formed between the lower openings and the bases of the sections, and a retaining ring inserted through the lower openings and having vertical grooves extending along opposite sides thereof into which the side walls of the lower openings are forced at intervals to prevent creeping of the tire sections.

3. A vehicle tire comprising a plurality of independent resilient sections having upper and lower openings therethrough intercepted by bridges and also provided with interlocking tongues and grooves respectively formed in the opposing faces thereof and extending over the bridges and also above the upper openings and adjacent to the lower openings, a cushion being formed between each lower opening and base of the section, a ring inserted through the lower openings of the sections, and a rim in which the bases of the sections are inserted and secured, the lowermost portion of the ring being held above and out of contact with the rim by the cushions between the lower openings and bases of the sections.

4. A vehicle tire comprising a plurality of independent resilient sections formed with upper and lower openings separated by cross bridges and also provided with interlocking tongues and grooves respectively formed in the opposing faces thereof and continuing above the upper openings and downwardly adjacent to the lower openings and also transversely of the sections over the bridges, a ring inserted through the lower openings of the sections between the lower portions of the tongues and grooves in the opposite faces of the sections and a rim in which the bases of the sections are fitted and secured, the ring having an upper transversely extended portion and a lower reduced portion supported above and held out of contact with any part of the rim.

5. A vehicle tire comprising a plurality of independent resilient sections having interlocking tongues and grooves respectively formed in the opposing faces thereof, the faces also provided with intermediate locking lugs and recesses in reverse positions on the opposite faces of the sections, a ring inserted through the lower portions of the sections below the said locking lugs and recesses, and a rim in which the bases of the sections are secured, the ring being retained in position independently of the said locking lugs and recesses.

[Claims 6 and 7 not printed in the Gazette.]

1,077,177. STORM-COAT. ANDREW J. VAGAS and MICHAEL F. VAGAS, Youngstown, Ohio. Filed Dec. 27, 1910. Serial No. 599,262. (Cl. 2—86.)



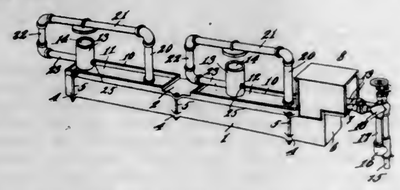
1. A coat of water-proof material provided with lapels adapted to overlap each other, a face protecting member having its lower edge secured to the under side of one of the said lapels and adapted to cover the face and front portion of the wearer's head, the upper edge of said member being disposed medially with respect to the head, a protecting member for the rear portion of the head having its lower edge secured to the inner side of the back portion of the coat, means for detachably securing the meeting edges of the said protecting members together, and an upwardly projecting neck portion of the coat adapted to inclose the lower portions of the protecting members.

2. A coat of water-proof material provided with lapels adapted to overlap each other, a face protecting member having its lower edge secured to the under side of one of the said lapels and adapted to cover the face and front portion of the wearer's head, the upper edge of said member being disposed medially with respect to the head, a protecting member for the rear portion of the head having its lower edge secured to the inner side of the back portion of the coat, means for detachably securing the meeting edges of the said protecting members together, an upwardly projecting neck portion of the coat adapted to inclose the lower portions of the protecting members, and a connecting strip detachably secured to the front edges of the said projecting portions of the coat.

1,077,178. OIL-BURNER. RALPH B. WARNER and MELVILLE L. SHROAT, Marion, Ind. Filed May 5, 1913. Serial No. 765,609. (Cl. 158—64.)

1. An oil burner including a trough-like base, a cover therefor, mixer tubes extending through said cover and

communicating with the air chamber defined by said base and cover, said cover stopping short of one end of said base allowing the ingression of air, delivery nozzles extending through the side walls of said mixer tubes and adapted to deliver gaseous fuel therein, and fuel feed pipes extending above said mixer tubes communicating with said delivery nozzles and extending through said trough-like base.



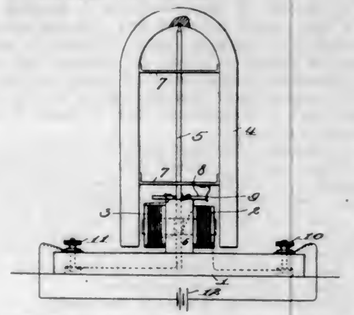
2. An oil burner including a base, a cover therefor and stopping short of the end thereof, a box-like structure communicating with the open end of said base and adapted to supply air therein, mixer tubes positioned upon said cover and communicating with the air chamber defined by said base and cover, delivery nozzles extending through the side walls of said mixer tubes and adapted to deliver gaseous fuel therein, fuel feed pipes extending above said mixer tubes communicating with said delivery nozzles and extending through the said base, said pipes communicating with a liquid supply, and regulating valves disposed within said pipes.

3. An oil burner comprising a base, a cover therefor stopping short of one end thereof, said cover and base defining an air chamber, an open-ended box-like structure communicating with the open top portion of said base and adapted to supply air therein, upstanding flanges upon the top of said cover and defining a fuel receiving pan for the initial starting of said burner, a mixer tube extending through said cover and communicating with said chamber, said mixer tube provided with an aperture extending through the side wall thereof, a delivery nozzle extending through said aperture and adapted to deliver gaseous fuel within said mixer tube, means for vaporizing liquid fuel and the supplying of the same to said delivery nozzle, and means controlling the supply of said liquid fuel.

4. In a device of the class described, a trough-like base, a cover therefor and stopping short of one end thereof, said base and cover defining an air heating chamber, a mixer tube positioned upon said cover communicating with said air chamber and provided with an aperture extending through the side wall thereof, a delivery nozzle extending through said aperture and adapted to supply gaseous fuel to the mixer tube, a fuel feed pipe passing through said cover, upward and across the upper extremity of said mixer tube and communicating with said delivery nozzle, and a deflector disposed upon said feed pipe positioned above said mixer tube, said feed pipe extending through said air chamber and provided with a liquid fuel controlling valve.

5. In a device of the class described, a trough-like base, a cover therefor and stopping short of one end thereof, said cover privided with an upstanding plate at the open portion of said base, a box-like member disposed at the open portion of said base, abutting said cover upstanding plate and adapted to supply air to the air chamber defined by said trough-like base and cover, upstanding flanges formed integral with the said cover and defining a liquid fuel receiving pan for the initial vaporizing of the fuel, a mixer tube upon said cover adjacent the one end of said pan and communicating with said air chamber, a fuel delivery nozzle extending through the side wall of said mixer tube and adapted to supply gaseous fuel therein, a vaporizing tube extending across and above the said mixer tube and adapted to vaporize the fuel passing therethrough, said vaporizing tube communicating with said delivery nozzle, and a pipe extending through said air chamber communicating with said vaporizing tube and also communicating with a suitable liquid supply.

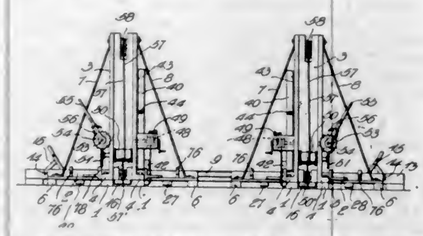
1,077,179. ELECTROMAGNETIC MOTOR. ALVIN I. V. WILSON, Atlanta, Ga., assignor of one-third to Clifford C. Hudson, East Point, Ga. Filed Aug. 18, 1910. Serial No. 577,786. (Cl. 172—36.)



1. An electro-magnetic motor comprising a stator which consists of an electro-magnet having two poles of opposite polarity, a stationary block carrying the electro-magnet, a rod arranged centrally of the block, a U-shaped permanent magnet rotatably hung from the upper end of the rod, a commutator mounted on the block and connected to one of the windings of the electro-magnet, and a brush carried by the permanent magnet for coöperation with the commutator.

2. An electro-magnetic motor comprising a stationary electro-magnet having two poles of opposite polarity, a vertical rod, a U-shaped perpendicularly arranged permanent magnet hung from the upper end of said rod for rotation in surrounding relation to the electro-magnet, a strap connecting the legs of the permanent magnet and having a guide opening through which said rod passes, a commutator electrically connected with the electro-magnet, and a brush connected to said strap for coöperation with said commutator.

1,077,180. PORTABLE AUTOMOBILE ELEVATOR. BENJAMIN F. WILSON, Hastings, Nebr. Filed Nov. 26, 1912. Serial No. 733,725. (Cl. 104—64.)



1. The herein described portable elevator composed of two units, each comprising a plurality of cross sills, a pair of parallel beams connecting them, standards rising from the intermediate sills, and elevating mechanism mounted on each unit, and a set of caster wheels carried by each unit and adapted to be borne downward into contact with the floor; combined with connecting bars detachably connecting the beams of said units, a platform of a length to extend over the sills of both units and across the space between them and of a width to stand between the uprights of each unit, and means for attaching said platform to the elevating mechanisms.

2. The herein described elevator composed of two units, each comprising a plurality of cross sills, a pair of parallel beams connecting them; standards rising from the intermediate sills, and elevating mechanism mounted on each unit; combined with connecting bars detachably connecting said units, a platform of a length to extend over the sills of both units and across the space between

them and of a width to stand between the uprights of each unit, means for attaching said platform to the elevating mechanisms, a beveled approach beneath each end of the platform adapted to stand beyond the endmost of said sills, and chock blocks adjustably mounted on the platform near its end.

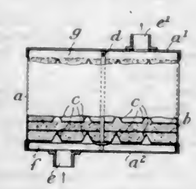
3. In an elevator, the combination with the base, a pair of U-shaped standards rising therefrom, pulleys journaled in the upper ends of said standards, pulleys journaled in said base at the lower ends of said standards, and a vertically movable platform between said standards; of ropes connected at their extremities with said platform and rove thence over said uppermost pulleys, one rope passing under both said lowermost pulleys, a windlass around whose drum said ropes are wound in opposite directions, an operating lever, a worm and worm gear mechanism connecting connecting said lever and windlass, stop bars pivoted at their upper ends to said standards and having teeth in their inner edges, springs drawing the lower ends of said stop bars outward, and means for drawing the lower ends inward.

4. In an elevator, the combination with the base, a pair of standards rising therefrom, pulleys journaled in the upper ends of said standards, pulleys journaled in said base at the lower ends of said standards, and a vertically movable platform between said standards; of ropes connected at their extremities with said platform and rove thence over said uppermost pulleys, one rope passing under both said lowermost pulleys, a windlass around whose drum said ropes are wound in opposite directions, an operating lever, a worm and worm gear mechanism connecting said lever and windlass, stop bars pivoted at their upper ends to said standards and having teeth in their inner edges, springs drawing the lower ends of said stop bars outward, fingers depending from the lower ends of said bars, a rope connected with one finger and led across to and through an eye in the lower end of the other finger, and thence back below the first-named finger, a windlass around which this rope is passed, and a hook for engaging its crank, for the purpose set forth.

5. In an elevator, the combination with a base, a pair of standards, a platform movable vertically between them, and means for raising said platform, of a pair of stop bars pivoted at their upper ends to said standards and having teeth on their inner edges adapted to engage beneath said platform, springs drawing the lower ends of said stop bars normally outward, fingers depending from their lower extremities, a rope connected with one finger and led across to and through an eye in the finger of the other bar, and thence back beneath the first-named stop bar, a windlass around whose drum said rope is wound, and a hook adapted to engage the crank-handle of said windlass, for the purpose set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,077,181. APPARATUS FOR USE BY PERSONS WORKING IN IRRESPIRABLE ATMOSPHERES OR UNDER WATER. ARTHUR THOMAS WINBORN, Crumlin, Wales. Filed Dec. 30, 1912. Serial No. 739,355. (Cl. 128—13.)



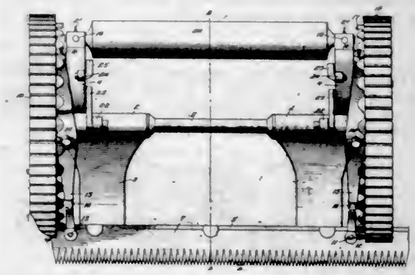
1. In an apparatus of the kind described, the combination with a casing having an inlet and outlet, of a number of superimposed perforated trays having ridges forming passages for the exhaled air and containers for a purifying agent, the ridges of one tray being at right angles to those of each adjacent tray.

2. In an apparatus of the kind described, the combination with a casing provided with a removable top and bottom, an inlet provided in said bottom and an outlet provided in said top, of a number of superposed perforated trays having ridges forming passages for the exhaled air and containers for a purifying agent, the ridges of one tray being at right angles to those of each adjacent tray, and means connecting said trays whereby the trays may all be removed from the casing at one time.

3. In an apparatus of the kind described, the combination with a casing provided with an inlet and outlet, of a number of superposed perforated trays having ridges forming passages for the exhaled air and containers for a purifying agent.

4. In an apparatus of the kind described, the combination with a casing provided with an inlet and outlet, of a number of superposed wire gauze trays having ridges forming passages for the exhaled air and containers for a purifying agent between said ridges.

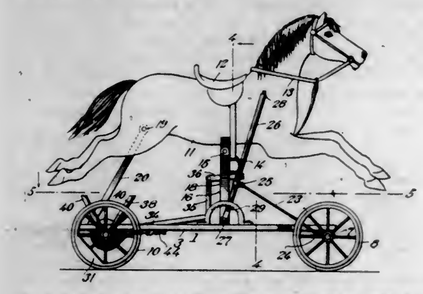
1,077,182. LAWN-MOWER. FRED YANK, Seattle, Wash. Filed Oct. 11, 1912. Serial No. 725,226. (Cl. 56—19.)



1. In a lawn mower, a frame including side members having front and rear limbs, and bearing members at the convergence of said front and rear limbs, an axle supported in the bearing members, ground wheels on the axle, said ground wheels having laterally extending corrugated flanges on the inner faces thereof, levers fulcrumed on the bearing members and engaging diametrically opposite portions of the corrugated flanges, top and bottom cutting members supported for reciprocation on the front limbs of the frame members, the top member being provided with a slot, a pin extending from the bottom member through the slot of the top member and connected pivotally with one of the levers, a pin extending from the top member and connected pivotally with the other lever, said levers being so arranged and actuated that the top and bottom cutting members will operate in opposition and a housing on the front limbs of the frame members to inclose the cutting apparatus.

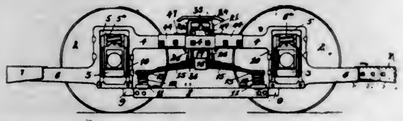
2. In a lawn mower, a frame including side members having front and rear limbs and provided with bearing members at the convergence of said limbs, a cutting apparatus including two reciprocatory members supported on the front limbs of the frame members, a roller supported adjustably on the rear limbs of the frame members, an axle supported in the bearing members, ground wheels mounted on the axle and provided with corrugated flanges on their inner faces, and levers fulcrumed on the bearing members, each lever being provided with rollers equidistant from the fulcrum thereof in engagement with the corrugated flange of the proximate ground wheel, said levers being connected with the respective members of the cutting apparatus to move said members in opposite directions.

1,077,183. VELOCIPEDE-SUPPORT. MAX ZETSCHOK, San Francisco, Cal. Filed Jan. 13, 1912. Serial No. 670,969. (Cl. 208—42.)



In a device of the character described, the combination with a velocipede having a rear propelling axle, of a support mounted upon said axle comprising hubs having internal raceways therein, ball bearings mounted in said raceways and bearings against said axle, pairs of arms projecting from said hubs at an angle to each other to form a brace support and to lift said velocipede clear of the ground, and a frame connected with said hubs to lock said device in non-operative position.

1,077,184. CAR-TRUCK. WALTER S. ADAMS, Philadelphia, Pa., assignor to The J. G. Brill Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 17, 1912. Serial No. 709,917. (Cl. 105—239.)



1. In a car truck, means for suspending a car body, consisting of a multi-part bolster comprising two elements, the one being link supported from the other and the link supported member provided with side bearings, the car supporting member straddling and being supported on and below the bottom of the other, and means for connecting the non-link supported member with the truck frame.

2. In a car truck, means for suspending a car body consisting of a multi-part bolster comprising two elements, one link-supported from and beneath the other, springs carried by the truck and means for operatively connecting the non-link-supported member with said springs.

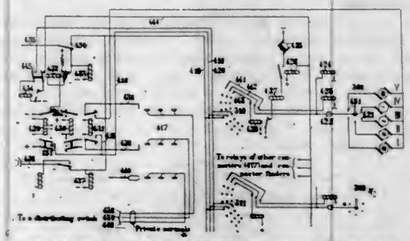
3. The combination in a truck, a truck frame, transoms, a bolster located between the transoms, springs on the truck frame, an inner bolster extending between the springs and located within the first named bolster and links pivotally supported within and on the inner bolster, their lower ends being connected with the first named bolster.

4. In a car truck, the combination with a truck frame having transoms, leaf springs longitudinally disposed and supported from the side frames, an inner bolster connecting said springs, a bolster within the transoms and straddling the said inner bolster and links supported upon the inner bolster and at their lower ends pivotally connected with the other bolster.

5. In a car truck, the combination with a truck frame having transoms, a hollow bolster between the transoms, an inner bolster within the bolster, and a spring supported at its ends from the truck frame, vertical apertures formed in the inner bolster, links passing through said apertures, pivot pins supporting the links on the inner bolster and pins pivotally connecting the hollow bolster with the lower ends of the links below the inner bolster.

[Claims 6 to 18 not printed in the Gazette.]

1,077,185. PARTY-LINE SYSTEM FOR AUTOMATIC TELEPHONE-EXCHANGES. FRITZ ALDENDORFF, Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 22, 1912. Serial No. 727,235. (Cl. 179—17.)



1. An automatic switching system comprising line selecting devices each having series of fixed contacts, movable contacts capable of being set on to any of said series of fixed contacts and on to any contact of the said series, a series selecting magnet for moving said movable contacts to any of the said series of contacts, an individual selecting magnet for selecting any individual contact of a series, ringing current selectors fewer in number than the line selecting devices and capable of selecting several kinds of ringing current, and connecting switches for connecting the ringing current selectors to the line selecting devices.

2. An automatic switching system comprising line selecting devices each having series of fixed contacts, movable contacts capable of being set on to any of the said series of fixed contacts and on to any contact of the said series, a series selecting magnet for moving said movable contacts to any of the said series of contacts, an individual selecting magnet for selecting any individual contact of a series, ringing current selectors fewer in number than the line selecting devices and capable of selecting different kinds of ringing current, connecting switches for connecting the ringing current selectors to the line selecting devices and means associated with each line selecting device for starting the operation of the said connecting switches at the time during which a said series selecting magnet operates.

3. An automatic switching system comprising line selecting devices with magnets for setting same, a current supply source for energizing said magnets, subscribers' lines, subscribers' stations, controlling devices for causing series of impulses to flow from said current supply source through the said magnets, bells at the said stations adapted to respond to different kinds of ringing current, selectors fewer in number than the said selecting devices and capable of selecting different kinds of ringing current, electrical connections between said selecting devices and said selectors and magnets for actuating said selectors that operate under the control of the same impulses of the said series of impulses as the said magnets for setting the line selecting devices.

1,077,186. APPARATUS FOR TREATING PHOTOGRAPHIC PLATES. THEODOR BÄNDER, Frankfort-on-the-Main, Germany. Filed Nov. 15, 1912. Serial No. 731,580. (Cl. 95—89.)

1. In apparatus for treating exposed photographic plates, a casing divided into a plurality of compartments, superposed plate carriers located therein, and means for sliding each carrier separately from one compartment to the other

2. In apparatus for treating exposed photographic plates, a casing divided into a plurality of compartments, superposed plate carriers located therein and slanting alternately in opposite directions, and means for sliding each carrier separately from one compartment to the other.

3. In apparatus for treating exposed photographic plates, a casing divided into a plurality of compartments, superposed plate carriers located therein, horizontally disposed means extending across the casing for supporting and guiding each carrier, and means for sliding the latter separately from one compartment to the other.

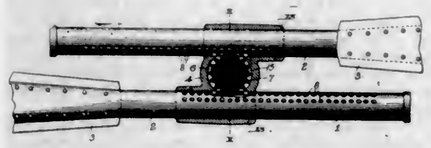


4. In apparatus for treating exposed photographic plates, a casing divided into a plurality of compartments, superposed plate carriers located therein, horizontal rods extending across the casing for supporting and guiding each carrier, and means for sliding the latter separately from one compartment to the other.

5. In apparatus for treating exposed photographic plates, a casing divided into a plurality of compartments, superposed plate carriers located therein, means for supporting and guiding each carrier, and a handle, operable from without the casing, detachably fastened to each carrier, whereby the latter can be moved separately from one compartment to the other.

[Claims 6 to 8 not printed in the Gazette.]

1,077,187. PROPELLER. JOSEPH E. BISSELL, Pittsburgh, Pa. Filed Aug. 26, 1911. Serial No. 646,244. (Cl. 170—163.)



1. In a propeller construction, the combination of a rotatable shaft, a pair of radially extensible blades rotatable with said shaft, means (increasing in strength in proportion to the speed of rotation of said shaft) for resisting the radial extension of said blades, and independent manually operable means for adjusting the inclination of said blades and for holding said blades in their adjusted position.

2. In a propeller construction, the combination of a rotatable shaft, a hub provided with a radially extensible blade, yielding connection between said hub and said shaft effective to resist the radial extension of the said blade, and independent means for adjusting the inclination of said blade substantially as described.

3. In a propeller construction the combination of a hub, a propeller blade slidably mounted within said hub, a rotatable member within said hub and engaging said propeller blade, a shaft, and yielding connection between said shaft and said rotatable member, substantially as described.

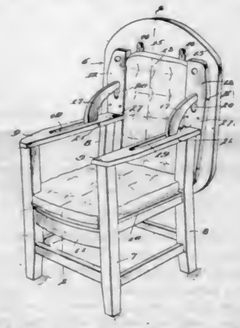
4. In a propeller construction the combination of a hub member, a pair of propeller blades slidably mounted within said hub, a rotatable sleeve mounted within said hub and provided with a plurality of teeth adapted to engage corresponding holes in said propellers, a shaft extending within said sleeve, and a spring secured to said shaft and said sleeve.

1,077,188. UNDERSHIRT AND SIMILAR GARMENT. HARRY H. CONDIT, Indianapolis, Ind., assignor of one-half to Walter W. Moyer, Ephrata, Pa. Filed Sept. 16, 1911. Serial No. 649,675. (Cl. 2—41.)



An undershirt or similar garment constructed of tubular knitted fabric and provided with integral shoulder straps, and with arm and neck openings at opposite sides thereof, the rear edge of the neck opening being approximately horizontal; an edging strip of longitudinally inelastic material extending continuously along the said rear edge and directed upwardly at its ends along the inner edges of the rear portions of said straps, said strip being attached along one entire edge to said rear edge and said inner strap edges and being adapted to extend across and fit close against the back of the wearer of the garment by reason of its inelasticity; and a pair of drawstrings secured at their rear ends to the upwardly-directed ends of said strip and led upwardly and over said straps, then downwardly and then inwardly toward each other, the free front ends of said strings being adapted to be tied together, whereby the pull exerted by said strings, when the same are tightened, upon said straps will cause the latter to move slightly inward toward each other, said strip serving to prevent said straps from slipping or spreading.

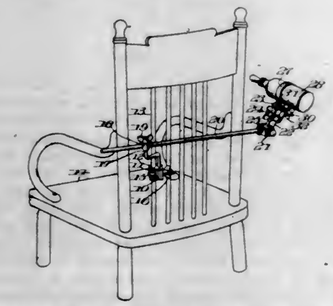
1,077,189. CONVERTIBLE FURNITURE. WILLIAM HICKS CURTICE, Louisville, Ky. Filed Mar. 14, 1913. Serial No. 754,320. (Cl. 155—6.)



A convertible article of furniture comprising fixed and movable parts, the former of which embodies a seat, front and rear pairs of legs connected thereto, and arms connected to the upper ends of said legs, said arms being formed, each, with front and rear slots, the latter of which open through the rear ends of the arms, and the rear pair of legs being formed with vertical slots which register at their upper ends with the rear slots in said

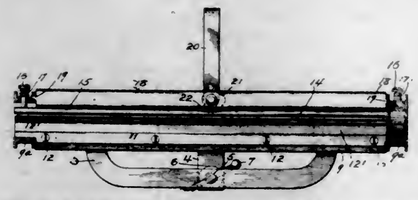
arms; a pair of spaced, parallel cleats secured to the under face of the movable part, and formed, each, with front and rear slots, said cleats being adapted to rest directly upon said arms when said movable part is in one position and to abut against the rear ends of said arms when said movable part is in its other position; a pair of main links pivoted at one end in the front slots in said cleats, and at the other end in the front slots in said arms; and a pair of auxiliary links pivoted at one end in the rear slots in said cleats and at the other end in the slots in said legs, said main links being arranged to lie in said front arm slots, and said auxiliary links to lie in said leg slots with their upper ends projecting through the rear slots in said arms, when said movable member is in the second-named position.

1,077,190. DEVICE FOR SUPPORTING CONTAINERS. ALOIS J. DEGENFELDER, Buffalo, N. Y. Filed Feb. 21, 1913. Serial No. 749,993. (Cl. 248—20.)



In a device for supporting containers, the combination with a supporting member, of means for adjustably attaching the same to a chair or the like, a bracket carried by the supporting member, a rod adjustably supported on the bracket, a holder body adapted to support the container, spring-like means for securing the container to the holder body, means for adjusting the container on the holder body, and a coupling member connecting the holder body with the said rod for permitting of an adjustment of the holder body relatively to the rod.

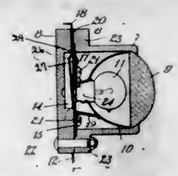
1,077,191. SAW-CLAMP. JOSEPH S. DIKEMAN, Norwalk, Conn. Filed Feb. 28, 1913. Serial No. 751,379. (Cl. 76—78.)



1. In a saw clamp, the combination with a frame, and yielding jaws to receive a saw between them, of a clamping bar pivotally mounted at its ends to rock in the frame and lying parallel with said yielding jaw, a locking cam mounted on said clamping bar in position to engage said yielding jaw, and means for operating said cam.

2. In a saw clamp, the combination with a frame, and fixed and yielding jaws to receive a saw between them, of a clamping bar having an approximately rectangular cross section, pivotally supported at its ends to rock in said frame and lying parallel with said yielding jaw, a cam mounted on said clamping bar to engage said yielding jaw, and a lever for turning said cam to lock the yielding jaw when a saw is clamped between said jaws.

1,077,192. AUTOMOBILE-LAMP. THEODORE P. DRIVER, Melrose, Mass. Filed Nov. 7, 1912. Serial No. 729,944. (Cl. 240—43.)



1. In a receptacle containing an electric lamp, the combination of a cap provided with a recess, a switch loosely contained in said recess and adapted to bear against the edge of the recess as a fulcrum, and a spring adapted to press on said switch and establish contact between said switch and the base of the lamp.

2. In a receptacle containing an electric lamp, the combination of a cap provided with a recess, a switch loosely fitting said recess, a disk of insulating material adapted to confine said switch in said recess, said disk having an opening adapted to permit contact between the base of the lamp and the body of the switch, and a spring adapted to establish such contact.

3. In a receptacle containing an electric lamp, the combination of a cylindrical main portion provided with an annular flange at one end, a cap provided with a recess adapted to be secured thereto, a switch loosely contained in said recess, and a spring adapted to establish contact between said switch and the base of the lamp, said main portion being adapted to extend through the dash board of a vehicle, and the flange adapted to be located on the inside of the dash board.

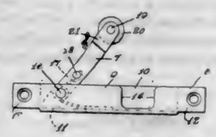
4. In an electric lamp holder, the combination of a cap of insulating material having a central circular recess on its inner face, and a radial V-shaped notch extending from said recess to the circumference of the cap, a plate of insulating material adapted to be fastened to the inner face of the cap and provided with an opening registering with the recess in the cap, a banjo-shaped switch lying in said recess and V-shaped notch, and contact means carried on the exterior of the plate but overhanging the edge thereof and adapted to rest on the extremity of the switch when the latter is in one position in the V-shaped notch, but clearing the switch when it is in other positions therein.

5. In an electric lamp holder the combination of a cap of insulating material having a central circular recess on its inner face, and a radial V-shaped notch extending from said recess to the circumference of the cap, a plate of insulating material adapted to be fastened to the inner face of the cap and provided with an opening registering with the recess in the cap, a banjo-shaped switch lying in said recess and V-shaped notch, and contact means carried on the exterior of the plate but overhanging the edge thereof and adapted to rest on the extremity of the switch when in one position in the V-shaped notch, but clearing the same when in other positions therein, together with a metal reflector, provided with a central opening adapted to receive and make contact with the side of a lamp base, means for holding said reflector in front of the plate with said opening concentric with the plate opening, and electric conductors connected one to the above mentioned contact means, and the other to the reflector.

[Claim 6 not printed in the Gazette.]

1,077,193. WINDOW-SASH HOLDER. OLIVER M. EDWARDS, Syracuse, N. Y. Filed June 5, 1911. Serial No. 631,382. (Cl. 16—54.)

1. A window sash holder comprising a support, having a side plate, the support being adapted to be secured to the window sash with the side plate substantially flush with one of the outer faces of the sash and said side plate being formed with a cutout, and a spring pressed arm carried by the support and having an offset portion at its free end extending into the cutout and bearing means carried by the portion thereof in the cutout whereby the bearing means is of maximum width and located close to the edge of the sash, substantially as and for the purpose described.



2. A window sash holder comprising a support, and a spring pressed arm pivoted to the support, the support including a side plate formed with a cutout and being adapted to be secured in the window sash with such side plate substantially flush with one of the outer faces of the sash, and the arm having an offset portion at its free end extending into the cutout, and a roller carried at the free end of such arm, so that the roller is of maximum width and is located close to the edge of the sash, substantially as and for the purpose specified.

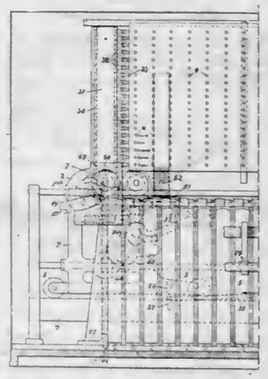
3. A sash holder comprising a plate designed to be attached adjacent its opposite ends to a sash and having a recess intermediate its ends opening out through one of its edges, a second plate pivotally connected adjacent one end to the first-named plate at a point remote from said recess, the major portion of the second plate being located contiguous to the face of the first-named plate, and said second plate having an end portion deflected into alinement with the edge of the first-named plate and arranged to enter the recess in the first-named plate in one position of the second-named plate, a pressing element carried by the second-named plate, said element having an end face located in substantially the plane of the inner face of the first-named plate, and a spring tending to force the free end of the second plate away from the first-named plate, substantially as and for the purpose described.

4. A sash holder comprising a support having substantially parallel side walls, and a connecting wall, one of said side walls having a recess therein opening out through one edge of the same and having end portions extending beyond the corresponding ends of the opposite side wall and provided with openings for the reception of means for securing the support to the sash, and a pressure member comprising side plates pivotally mounted at corresponding ends between the side walls of the support, one of said side plates having a laterally deflected part disposed in alinement with said recess and designed to occupy the same, a pressing element mounted between said deflected portion and the corresponding end of the other plate of the pressure member, and a spring interposed between the support and the pressure member for forcing the pressing element away from the support, substantially as and for the purpose specified.

5. The combination with a sash having a recess opening out through contiguous side and edge faces thereof, of a supporting plate secured to the edge of the sash at points above and below the recess therein and having an edge arranged substantially coincident with said side face of the sash, said plate having a recess therein opening out through the last-named edge thereof, a pressing element, and a carrying plate having a part arranged in the plane of the edge of the supporting plate and designed to enter the recess therein, and a major part movable within the recess in the sash, and with a face in close juxtaposition to the inner face of the supporting plate and pivotally connected thereto, and a spring tending to force the pressing element away from the support, substantially as and for the purpose set forth.

1,077,194. TICKET-PRINTING APPARATUS. FRIEDRICH ELLER, Frankfort-on-the-Main, Germany, assignor to Allgemeine Elektrizitäts-Gesellschaft, Berlin, Germany. Filed Feb. 25, 1913. Serial No. 750,553. (Cl. 101—187.)

1. In an apparatus for printing tickets or the like, a plurality of compartments, type blocks in said compartments, a printing mechanism, said printing mechanism and compartments being arranged for movement relative to each other, whereby any compartment may be brought into alinement with said printing mechanism, means associated with the printing mechanism for moving a compartment relative to the printing mechanism, a type block selecting means, and means automatically brought into operation upon the operation of said type block selecting means to first bring the selected compartment and printing mechanism into alinement and to then operate the said compartment moving means to move the selected compartment relative to said printing mechanism.



2. In an apparatus for printing tickets or the like, a plurality of type block carrying members arranged side by side, type blocks carried by said members, a printing mechanism, said printing mechanism and carrying members being arranged for movement relative to each other whereby any carrying member may be brought into alinement with said printing mechanism, means associated with the printing mechanism for moving a carrying member relative to the printing mechanism, a type block selecting means, and means automatically brought into operation upon the operation of said type block selecting means, to first bring the said carrying member and printing mechanism into alinement and to then operate the said carrier moving means to move the selected carrier relative to said printing mechanism.

3. In an apparatus for printing tickets or the like, a magazine having movable compartments, type blocks in said compartments, a printing mechanism mounted adjacent to said magazine for movement relative thereto, means carried by the printing mechanism for moving a compartment relative to the printing mechanism, a type block selecting means, and means automatically brought into operation upon the operation of said type block selecting means to first move said printing mechanism adjacent to the compartment containing the selected type block and to then operate the said compartment moving mechanism to move the selected compartment relative to said printing mechanism.

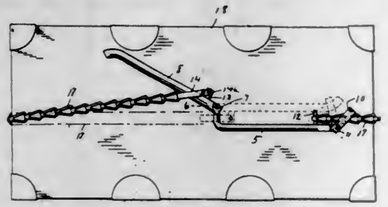
4. In an apparatus for printing tickets or the like, a magazine having movable compartments, type blocks in said compartments, a printing mechanism including a printing roller mounted adjacent to said magazine for movement relative thereto, means carried by the printing mechanism for moving a compartment relative to the printing roller, a type selecting means, and means automatically brought into operation upon the operation of said type selecting means to first move said printing mechanism adjacent to the compartments containing the selected type and to then operate the said compartment moving mechanism to move the selected compartment relative to said printing mechanism.

5. In an apparatus for printing tickets or the like, a magazine having movable compartments, type blocks in said compartments, a printing mechanism mounted ad-

jacent to said magazine for movement relative thereto, means carried by the printing mechanism for moving a compartment relative to the printing mechanism, a type selecting means, means automatically brought into operation upon the operation of said type selecting means to first move said printing mechanism adjacent to the compartment containing the selected type, and to then operate said compartment moving mechanism to move the selected compartment relative to said printing mechanism and automatic means controlled by the movement of the compartment for moving the selected type into the printing mechanism.

[Claims 6 to 8 not printed in the Gazette.]

1,077,195. TRUNK-FASTENER. ROBERT B. FERGUSON, Los Angeles, Cal. Filed Sept. 23, 1912. Serial No. 721,997. (Cl. 24—19.)



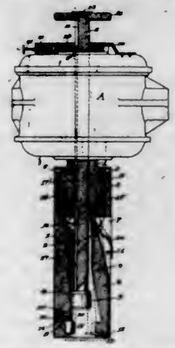
1. A trunk fastener comprising an L-shaped body member one end of the L being longer than the other; a locking clevis pivotally connected to the longer end of the body; a pin mounted in the body near the locking clevis and projecting therefrom on the same side as the shorter end of the body; a tensioning lever pivotally connected to the shorter end of the body of a length substantially the same as the longer end of the body; a stud mounted in the tensioning lever near its connection with the body and projecting toward the longer end of the body when positioned for use; a clevis surrounding said lever and pivotally connected to the stud mounted in the lever; and a chain mounted on the clevis surrounding the lever, said chain being adapted to be passed around a trunk and through the clevis at the longer end of the body and secured upon the pin therein and then tensioned by the lever.

2. A trunk fastener comprising an L-shaped body member, one end of the L being longer than the other; a locking clevis pivotally connected to the longer end of the body; a pin mounted in the body near the locking clevis and projecting therefrom on the same side as the shorter end of the body; a tensioning lever pivotally connected to the shorter end of the body of a length substantially the same as the longer end of the body; a stud mounted in the tensioning lever near its connection with the body and projecting toward the longer end of the body when positioned for use; a clevis surrounding said lever and pivotally connected to the stud mounted in the lever; a chain mounted on the clevis surrounding the lever, said chain being adapted to be passed around a trunk and through the clevis at the longer end of the body and secured upon the pin therein and then tensioned by the lever; in combination with a locking means to hold the locking clevis on the tensioning lever.

1,077,196. SELF-FEEDING STAY-BOLT CUTTER. ROBERT HALL, Jr., Springfield, Ill. Filed Dec. 26, 1912. Serial No. 738,608. (Cl. 81—189.)

1. The combination with an air motor, or similar actuating appliance, of a shaft member having a longitudinally extending key-way therein, said shaft having an enlarged head on the lower end thereof provided with a socket, a casing member, a feed-cone member, a cutter holder member, a cutter member, adjusting blocks, adjusting screws, a cutter holder spring, and a shaft adjusting device.

2. The combination with an air motor, or similar actuating appliance, of a shaft member, a casing member attached to the chuck of the air motor, said casing being provided with a longitudinally extending slot through its wall for the reception of a cutter, said casing carrying threads on its inner wall adapted to mesh with threads carried on a feed-cone, a feed-cone member, a cutter holder member, a cutter member, adjusting blocks, adjusting screws, a cutter holder spring, and a shaft adjusting device.



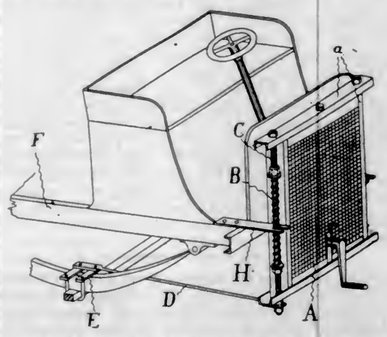
3. The combination with an air motor, or similar actuating appliance, of a shaft member, a casing member provided with a guide cylinder, said casing member being provided with adjusting blocks and adjusting means for said adjusting blocks, a feed-cone member, a cutter holder member, and a shaft adjusting device.

4. The combination with an air motor, or similar actuating appliance, of a shaft member, a casing member, a feed-cone member slidably mounted upon a shaft member and provided with a key adapted to slide in a key-way carried by a shaft member, a cutter holder, a cutter member, adjusting blocks, and a shaft adjusting device, substantially as described.

5. The combination with an air motor, or similar actuating appliance, of a shaft member, a casing member, a feed-cone member slidably mounted upon a shaft member, said feed-cone provided with threads adapted to mesh with threads carried by a casing member, a cutter holder member, a cutter member, adjusting blocks, adjusting screws, a cutter holder spring, and a shaft adjusting device.

[Claims 6 to 11 not printed in the Gazette.]

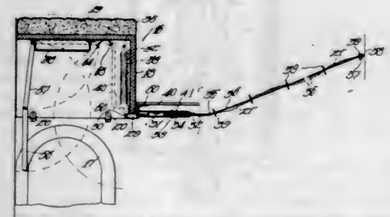
1,077,197. AUTOMOBILE. EDWARD R. HEWITT, Ringwood, N. J., assignor to Hewitt Motor Company, New York, N. Y., a Corporation of New York. Filed May 2, 1907. Serial No. 371,456. (Cl. 21—90.)



1. In an automobile, the combination with the chassis therefor, of a radiator, upper and lower frame members in which the radiator is removably secured, rods to fasten said frame members on the radiator, guide means carried by the chassis and engaging the rods loosely intermediate their ends, springs seated on said last named means and abutments for the free ends thereof adjustably carried by the rods.

2. In an automobile, the combination with the chassis therefor, of a radiator, flexible pipe connections between the radiator and the motor, upper and lower frame members in which the radiator is removably secured, means to fasten said frame members on the radiator, said means including threaded rods vertically disposed, guide members carried by the chassis and slotted at their free ends to receive loosely the vertical rods, cup washers carried loosely on the rods and bearing against the upper and lower faces of the guide members, springs seated on the washers, nuts threaded on said rods to form adjustable abutments for the free ends of the springs, and links connecting the lower ends of said rods and a relatively fixed part of the automobile.

1,077,198. HOUSEKEEPING STRUCTURE. WILLARD C. JAMES, Los Angeles, Cal. Filed Aug. 2, 1906. Serial No. 328,973. (Cl. 20—1.11.)



1. A structure provided at one end with a partition partly formed of a door, a rod connected to the partition at said door near the top thereof, and an open box-like cover hinged at one end of the inclosure to the floor and adapted when stood on end to form a portion of a partition, and a curtain vertically supported by the hollow cover when the cover is in its upright position, said curtain being connected with said cover and rod to form a partition having an opening closed by said door.

2. A structure provided at one end with a partition partly formed of a door, said door, when open, allowing passage through the partition, a rod connected with said partition at said door, and extending over the passage, a hollow cover hinged to the floor and adapted to stand in horizontal and upright positions, and adapted when stood on end, to form a part of said partition, a connection connected with the hollow cover and adapted to be connected with the rod, means for drawing the connection taut, and a curtain on said connection.

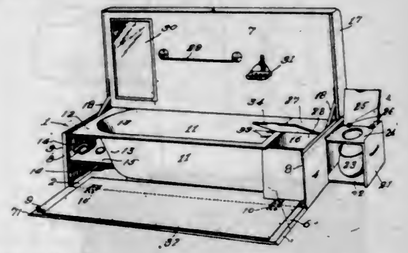
3. A structure, a hollow cover in said structure hinged to the floor thereof at one end and adapted to stand in horizontal and vertical positions and adapted when stood on end to form a part of a partition for the inclosure, a curtain vertically supported at one end by the hollow cover when the cover is in its upright position, and means for securing the other end of the curtain to a wall of the inclosure to form with the hollow cover a partition in said inclosure.

4. In a structure having swinging doors, a hollow cover hinged at one end to the floor and adapted to stand on end to form a portion of a partition for the apartment, and a curtain vertically supported at one end by the cover when in upright position and extendible to the edge of the swinging door to form a partition and having an opening controlled by the swinging door; and means for securing the other end of the curtain to a wall of the inclosure adjacent the door.

5. A structure comprising an inclosure and provided with a hollow box-like cover hinged to the floor of the inclosure so as to be stood on end, a curtain holder hingedly connected to fold into and out of the cover, and a curtain carried by the holder forming with said cover a partition from said wall to another portion of the apartment.

[Claims 6 to 9 not printed in the Gazette.]

1,077,199. COMBINED COUCH AND BATH-TUB. WILLARD C. JAMES, Los Angeles, Cal. Filed Aug. 2, 1906. Serial No. 328,974. (Cl. 4—27.)



1. A bath tub, a box inclosing the bath tub, the bottom of the box being adapted to rest flat upon the floor, the front side of said box being hinged to swing down flat upon the floor and form a protection for the floor, and the top of the box being hinged to swing upwardly and form a holder for toilet articles, the front face of the top when in its vertical position being in position to drain into the bath tub.

2. A bath tub, a box inclosing the bath tub, the bottom of the box being adapted to rest flat upon the floor, the front side of the box being hinged to the bottom of the box and adapted to fold flat upon the floor, and carpet covering the inner face of said front side and overlapping the edge of the bottom of the box to form a protection for the floor.

3. A bath tub having a sloping head, a box inclosing the bath tub and having a front side adapted to swing flat upon the floor, a shelf in the box under the sloping head, and a lid for the box for covering the bath tub, said hinged front giving access to the shelf and also forming a protection for the floor.

4. A bath tub provided with a sloping head, a box inclosing the bath tub, the front side of the box being hinged to swing flat upon the floor and to give access to the space beneath the sloping head, and a lid for covering the bath tub.

5. A bath-tub, a box inclosing said bath-tub, the end walls of said box extending forwardly beyond the edge of the floor of the box and being beveled at their front edges, the front wall of said box being hinged to said floor of said box and adapted to swing flat upon the floor of the apartment and beveled at its ends to fit the beveled ends of the end walls of the box, and means for holding the front wall of the box upright in closed position.

[Claims 6 to 8 not printed in the Gazette.]

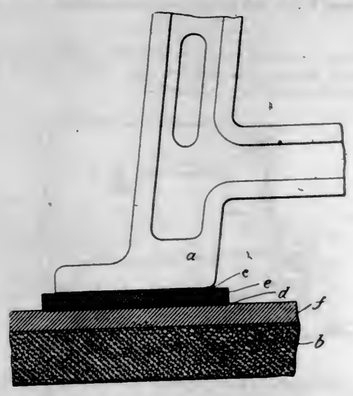
1,077,200. PROCESS FOR SECURING OR FIXING MACHINES AND OTHER OBJECTS TO FLOORS AND OTHER PLACES. ADOLF MAURER, Olten, Switzerland, assignor to Enboolithwerke A. G. M. Olten, Olten, Switzerland. Filed June 17, 1911. Serial No. 633,826. (Cl. 248—30.)

1. A binder for securing solid bodies together comprising, a sheet interposed between said bodies; a cementitious substance; and an etching element incorporated in said substance for the purpose set forth.

2. A binder for securing solid bodies together comprising, a porous sheet interposed between said bodies; a cementitious substance applied while in a molten state; and an etching element incorporated in said substance for the purpose set forth.

3. A binder for securing solid bodies together comprising, one or more sheets of elastic material interposed between said bodies; a cementitious substance applied while

in a molten state to the contacting surfaces of said bodies and interposed material; and an etching element incorporated in said substance for the purpose set forth.

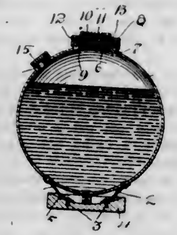


4. A binder for securing solid bodies together comprising, one or more sheets of elastic material interposed between said bodies; a cementitious substance coating the contacting surfaces of said material and said bodies; and an etching element comprising a chlorid of a metal incorporated in said cementitious substance for the purpose set forth.

5. A binder for securing solid bodies together comprising, one or more sheets of elastic material interposed between said bodies; a cementitious substance coating the contacting surfaces of said material and said bodies; and an etching element comprising a chlorid of iron incorporated in said cementitious substance for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,077,201. ENVELOP-MOISTENING DEVICE. TOMAS MOCYDLARZ, Strathcona, Alberta, Canada. Filed Apr. 15, 1913. Serial No. 761,334. (Cl. 120—75.)

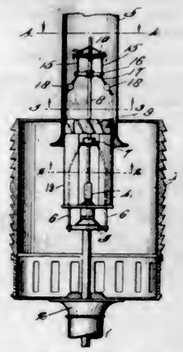


1. An envelop moistening device comprising a hollow spherical receptacle having an opening in the top thereof, an annular neck integral with the periphery of the receptacle at the top thereof and provided with an inwardly extending annular flange flush with the wall of said opening to provide a support, a casing supported by said flange and having an inset outer portion projecting above said neck, an absorbent body mounted in said casing and supported by said flange, a flanged cap secured to the neck and overlapping the casing for maintaining it in position, and a filling opening provided for said receptacle.

2. An envelop moistening device comprising a hollow spherical receptacle having an opening in the top thereof, an annular neck integral with the periphery of the receptacle at the top thereof and provided with an inwardly extending annular flange flush with the wall of said opening to provide a support, a casing supported by said flange and having an inset outer portion projecting above said neck, an absorbent body mounted in said casing and supported by said flange, a flange cap secured to the neck and overlapping the casing for maintaining it in position, a filling opening provided for said receptacle, and means for resiliently supporting said receptacle.

3. An envelop moistening device comprising means to provide a water reservoir, a moistening element connected with said means and adapted to receive the water therefrom, and means for resiliently supporting said receptacle whereby the same can be vertically moved to agitate the water to supply the latter to said element.

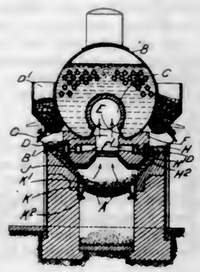
1,077,202. OCCULTING DEVICE FOR LIGHTS. WILLIAM A. MOFFETT and RAYMOND P. PERKINS, San Francisco, Cal. Filed Dec. 9, 1912. Serial No. 735,872. (Cl. 240—49.)



1. In combination with a lamp, a movable screen for occulting the light rays thereof, a draft chimney for said lamp, means actuated by the draft in said chimney for operating said movable screen, and shiftable means within said chimney for regulating the operation of said screen, said shiftable means being constructed to permit a free unimpeded draft through said chimney under all practical conditions.

2. In combination with a lamp, a movable screen for occulting the light rays thereof, a draft chimney for said lamp, a draft motor in said chimney for operating said movable screen, reversible blades extending across a relatively small portion of said chimney, a speed governor for controlling the position of said reversible blades, and connections between said blades and draft motor for regulating the operation of the latter.

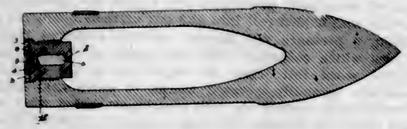
1,077,203. FURNACE FOR STEAM-GENERATORS. JACOB RAMACHER, Dellbrück, Bez. Cologne, Germany, assignor to Walter Gartner, Hamburg, Germany. Filed Apr. 29, 1912. Serial No. 693,852. (Cl. 110—29.)



In a furnace for steam generators, the combination of a fire grate, a combustion chamber, fuel supply passages

at opposite sides of the grate, a refractory partition forming one wall of each fuel passage and having therein two chambers, one situated close to the outer face of the partition and extending through the end wall of the furnace and the other situated between and communicating with both said air inlet chamber and the combustion chamber, whereby excessive heating of the wall of the fuel passage formed by said partition will be prevented by the cool air within the inlet chamber and heated air will be supplied to the combustion chamber, and additional air supply conduits arranged to supply air to the fuel on either side of the grate.

1,077,204. TRACER FOR PROJECTILES. JOHN BONNER SEMPLE, Sewickley, Pa. Filed Nov. 20, 1912. Serial No. 732,543. (Cl. 102—29.)



1. A projectile provided with a tracer chamber open-ended to the gases of explosion of the propelling charge, a body of tracer material within said chamber, and a percussion ignition device operable directly by the pressure of the propelling gases arranged in the mouth of the said chamber, a space being left between the body of tracer material within said chamber and the ignition device in the mouth thereof.

2. A projectile provided with a tracer chamber open-ended to the gases of explosion of the propelling charge, a body of tracer material within said chamber, an ignition device arranged in the mouth of the said chamber, a space being left between the body of tracer material within said chamber and the ignition device in the mouth thereof, and a shield covering all but a predetermined portion of the posterior face of the body of tracer material within said chamber.

3. A projectile provided with a tracer chamber open-ended to the gases of explosion of the propelling charge, a body of tracer material within said chamber, an ignition device arranged in the mouth of the said chamber, a space being left between the body of tracer material within said chamber and the ignition device in the mouth thereof, and a body of material combustible without generation of substantial quantities of gas filling said space.

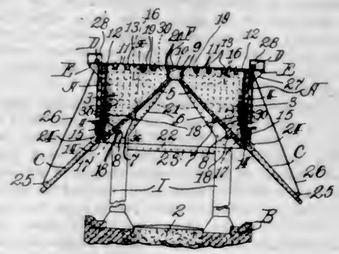
4. A projectile provided with a tracer chamber open-ended to the gases of explosion of the propelling charge, a body of tracer material within said chamber and occupying the anterior portion thereof, a percussion ignition device operable directly by the pressure of the propelling gases arranged in the mouth of said chamber, a space interval being left rearward of the said body of tracer material and between it and said ignition device, and a gas seal arranged rearward of said ignition device.

5. A projectile provided with a chamber open-ended to the gases of explosion of the propelling charge and containing a charge of tracer material occupying the anterior portion thereof, a perforate anvil-block provided with a dished posterior face and spaced at an interval rearward of the said body of tracer material, a hammer member arranged rearward of said anvil member, and a gas seal arranged rearward of said hammer member and filling the mouth of said tracer chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,077,205. ORE-DOCK. MAX TOLTZ, St. Paul, Minn. Original application filed Apr. 21, 1911, Serial No. 622,498. Divided and this application filed Dec. 28, 1912. Serial No. 739,005. (Cl. 189—3.)

1. A dock, comprising in combination, a supporting foundation, bin side walls supported on said foundation, front and back walls supported by said side walls and a floor supported by said side walls and forming with said side, front and back walls a bin adapted to the purposes set forth, said parts being constructed of armored concrete producing a monolithic structure.



2. In a dock, a bin comprising in combination, a foundation, a pair of girder like side walls supported thereon and adapted to transmit thereto vertical pressures, front walls coöperating with said side walls to confine material within said bin, said parts being constructed of armored concrete producing a monolithic structure, a floor within said bin and supported from the side walls thereof, and means for emptying said bin.

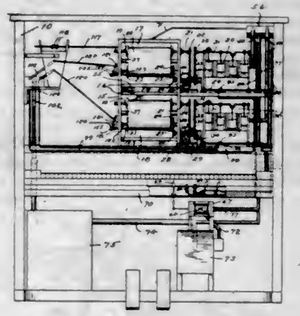
3. In a dock, a series of pairs of bins, said bins having concrete walls transverse to the dock structure formed by girders which are adapted to support the entire dock load.

4. In a dock, a series of bins adapted to contain ore or other material, each of said bins having side walls arranged transversely of said dock structure and formed by concrete girders fitted to support the weight of said bin load.

5. In a dock, a series of adjacent bins adapted to contain ore or other material, each pair of adjacent bins being separated by a concrete girder side wall adapted to carry the combined loadings of said bins.

[Claims 6 to 21 not printed in the Gazette.]

1,077,206. PIANO-PLAYING MECHANISM. BURT R. VAN VALKENBURG, Oakland, Cal. Filed Apr. 24, 1912. Serial No. 692,818. (Cl. 84—166.)



1. In a player piano, a plurality of tracker boards, a piano action controlled from said tracker boards, a winding mechanism for each tracker board, a plurality of driving engines, means for operatively connecting each engine to a winding mechanism, a selective valve mechanism for connecting each tracker board to the piano action, and means controlled by said first-mentioned means to simultaneously control the operation of said engines and selective valve mechanism.

2. In a player piano, a plurality of tracker boards, a piano action controlled from said tracker boards, a winding mechanism for each tracker board including rewinding means, a separate driving engine for each winding mechanism, means to connect each engine to its winding mechanism to wind or rewind a roll carried by the winding mechanism, a selective valve mechanism for controlling the operation of the piano action from either tracker board, elements to move either engine connecting means to winding and rewinding positions, and means controlled by said elements for throwing the valve mechanism into cut off position.

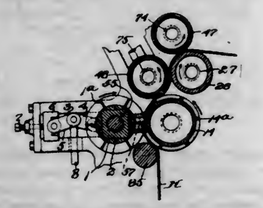
3. In a player piano, a plurality of tracker boards, a piano action controlled from said tracker boards, a winding mechanism for each tracker board including rewinding means, a separate driving engine for each winding mechanism, means to connect each engine to its winding mechanism to wind or rewind a roll carried by the winding mechanism, a selective valve mechanism for controlling the operation of the piano action from either tracker board, elements to move either engine connecting means to winding and rewinding positions, and means controlled by said elements for throwing the valve mechanism into cut off position and simultaneously controlling the roll speed of the winding mechanism.

4. In a player piano, a valve casing provided with a plurality of chambers and a valve way having ports communicating with said chambers, said valve way being also in communication with a vacuum tube, a D-valve in said valve way slidable to place either of said chambers in communication with said tube, a vacuum chamber common to both of the first-mentioned chambers and having ports communicating therewith, a cell below each of the first mentioned chambers, a flexible diaphragm separating each cell and the vacuum chamber, a valved air tube leading to each cell, and bleeders leading from said cells to said chamber.

5. In a player piano, a valve casing provided with a plurality of chambers and a valve way having ports communicating with said chambers, said valve way being also in communication with a vacuum tube, a D-valve in said valve way slidable to place either of said chambers in communication with said tube, a vacuum chamber common to both of the first-mentioned chambers and having ports communicating therewith, a cell below each of said first mentioned chambers, a flexible diaphragm separating each cell and the vacuum chamber, a valved air tube leading to each cell, and bleeders leading from said cells to said chamber; in combination with a piano action, a plurality of tracker boards, a selective valve controlling the operation of said action by either tracker board, and a single operating lever for simultaneously moving the D and selective valves, in combination with a plurality of roll actuating mechanisms, and pipes connecting said mechanisms with said chambers.

[Claims 6 to 8 not printed in the Gazette.]

1,077,207. LEATHER-WORKING MACHINE. FRANK WAYLAND, Salem, Mass. Filed Feb. 15, 1912. Serial No. 677,732. (Cl. 149—16.)



1. In a machine of the character described, in combination, a work roll having helically arranged substantially stiff blades provided with narrow edges, to engage one surface of the work, a movable carrier for said bladed work roll, a rotatable shaft connected with said carrier to effect movement of said bladed work roll into and out of its operative position, means for controlling rotation of said shaft, a bladed pressure roll having helically arranged flexible blades, coöperating with the first-mentioned bladed work-roll and toward and from which the latter roll is bodily moved by rotation of said shaft, said flexible blades engaging the opposite surface of the work, mechanism for bodily moving said bladed pressure roll toward and from the first-mentioned bladed work roll when the latter is in its operative position, and a lock for said mechanism to prevent the bodily movement of the bladed pressure roll toward the first-mentioned bladed work-roll until the latter has been brought into its operative position, substantially as described.

2. In a machine of the character described, in combination, a work roll having helically arranged substantially non-yielding blades having narrow edges, to engage one surface of the work, a movable carrier for said bladed work roll, power-operated means for moving said carrier and bladed roll into and out of their operative position, a pressure roll having helically arranged flexible blades which coöperate with the blades of the first-mentioned work roll when the latter is in its operative position, manually-operated means to move said bladed pressure roll toward the first-mentioned bladed work-roll, and means to prevent the said manually operated means being operated to move said pressure roll until the first-mentioned bladed work roll has been brought into its operative position, substantially as described.

3. In a machine of the character described, in combination, a work roll having helically arranged non-yielding blades provided with substantially narrow free edges, a pressure roll having helically arranged flexible blades which coöperate with the blades of the said work roll and overlap the same in their working position, a carrier for one of said rolls movable toward and from the other of said rolls, means to move said carrier, and feed rolls coöperating with said bladed rolls to draw the work between, substantially as described.

4. In a machine of the character described, in combination, a work roll having helically arranged non-yielding blades provided with substantially narrow free edges, a pressure roll having helically arranged flexible blades which coöperate with the blades of the said work roll and overlap the same in their working position, a carrier for one of said rolls movable toward and from the other of said rolls, means to move said carrier, and means for preventing the blades of the rolls striking edge on when the bladed roll on said carrier is moved into its working position, substantially as described.

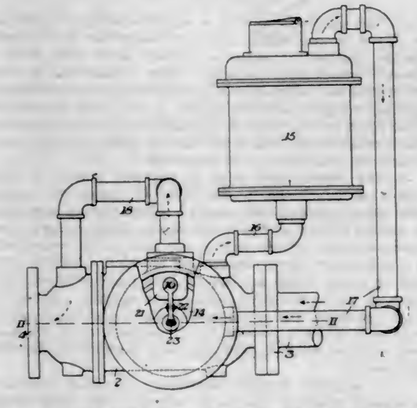
5. In a machine of the character described, in combination, a work roll having helically arranged blades coöperating with the blades of the said work roll and having one of its blades overlapping a blade on the work roll in the working position of said rolls, power-operated means for moving one of said bladed rolls into and out of its working position, and manually operated means for moving the other of said bladed rolls toward the first-mentioned bladed roll, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,077,208. PROPORTIONAL METER. THOMAS B. WYLIE, Pittsburgh, Pa., assignor to Equitable Meter Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 16, 1912. Serial No. 736,942. (Cl. 73—68.)

1. In a proportional meter, the combination with a direct inlet valve arranged to open in the direction of the current, and acting as a high pressure plate acted upon by the entering fluid, of a tally meter connected to the inlet end of the meter apparatus, there being a passage leading from the tally meter delivery to another chamber, a low pressure plate in said chamber, a connection between the low and high pressure plates, and a meter delivery valve within the diaphragm chamber and having an actuating connection with the said pressure plates; substantially as described.

2. In a proportional meter, the combination with a direct inlet valve arranged to open in the direction of the current, and acting as a high pressure plate acted upon by the entering fluid, a diaphragm chamber, a diaphragm therein acting as a low pressure plate and connected to the high pressure plate, a tally meter, there being a passage leading from the inlet side of the meter apparatus to the tally meter, there being also a passage leading from the delivery side of the tally meter to the diaphragm chamber, and another passage leading from the diaphragm chamber to the delivery chamber of the meter apparatus, the last named passage having therein a meter delivery valve for controlling the flow therethrough, and said valve being connected with the high and low pressure plates; substantially as described.



3. A proportional meter having oppositely acting pressure plates connected to each other, said plates controlling the valves for the measured and unmeasured currents of fluid, the valve for the measured current of fluid being situated in a chamber which is wholly external of and out of direct communication with the chamber for the unmeasured current of fluid; substantially as described.

4. In a proporitional meter, the combination with a direct inlet valve arranged to open in the direction of the current, said valve acting as a pressure plate acted upon by the entering fluid, a diaphragm chamber adjacent to the inlet end of the meter apparatus, a diaphragm in said chamber and forming a low pressure plate, and a connection between the high and low pressure plates, said connection including a pivoted lever arm; substantially as described.

5. In a proportional meter, the combination with a direct inlet valve arranged to open in the direction of current, said valve acting as a pressure plate acted upon by the entering fluid, a diaphragm chamber containing a diaphragm which acts as a low pressure plate, a connection between said plates, a tally meter connected to the inlet end of the meter apparatus and having its delivery connected with the diaphragm chamber, there being a passage leading from the diaphragm chamber to the delivery side of the proportional meter, and a pivoted valve within the diaphragm chamber and controlling the last named passage, said valve being connected to the high and low pressure plates; substantially as described.

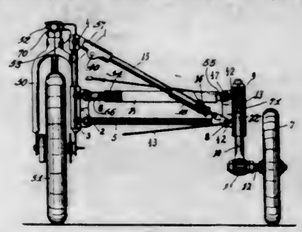
1,077,209. METALLIC TIE. JOHN ALBRIGHT, Green City, Mo. Filed May 20, 1912. Serial No. 698,538. (Cl. 238—5.)

A tie comprising a body having a base and upstanding sides, the said body at the lines of juncture of the sides with the base being outwardly bulged, and brace members each comprising spaced sides and a connecting top portion, the sides of the brace members being secured to the sides of the body and having their lower portions inwardly bulged and opposing the outwardly bulged portions of



the body, the lower edges of the bulged portions of the brace members resting upon the upper surface of the base of the tie.

1,077,210. BICYCLE AND MOTOR-CYCLE ATTACHMENT. ZENO ALESANI, Trieste, Austria-Hungary. Filed Nov. 14, 1910. Serial No. 592,356. (Cl. 208—27.)



1. A two wheel vehicle comprising in combination, a frame, wheels held in one plane by said frame, an additional detachable wheel, a resilient supporting structure for said additional wheel, arms for uniting said wheel with the frame and a longitudinally adjustable brace, extending from said supporting structure to a frame portion.

2. A two wheel vehicle comprising in combination, a frame, wheels held in one plane by said frame, an additional detachable wheel outside of said plane, a supporting structure for said additional wheel, and a telescoping brace adjustable in length, leading from said structure to a frame portion, the means for adjusting the length of the said brace comprising a rack bar on one section of the brace, a gear engaging with said rack bar, a pivot for the gear in the second section of the brace, and means for normally locking the said gear against rotation.

3. A two wheel vehicle comprising in combination, a frame, wheels held in one plane by said frame, an additional detachable wheel outside of said plane, a supporting structure for said additional wheel, a telescoping brace, adjustable in length, leading from said structure to a frame portion, means for adjusting the length of the said brace comprising a rack bar on one section of the brace, a gear engaging with said rack bar, a pivot for the gear on the second section of the brace, a toothed wheel integrally connected with the said gear, a casing inclosing the gear and the toothed wheel, means in the casing for normally engaging the toothed wheel to prevent rotation thereof, and means for releasing the toothed wheel from said engagement, and for actuating the said gear to operate the rack bar.

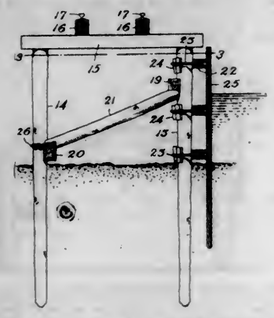
1,077,211. EMBROIDERY-FRAME. AIMEE HONNARD ALTFULDISCH, Cairo, Ill. Filed Dec. 2, 1912. Serial No. 734,568. (Cl. 45—24.)



An embroidery frame including spaced standards provided in their upper ends with sockets, heads having ex-

tensions seating in the sockets, and spaced ears with upwardly converging inner faces, a fabric stretching frame having downwardly depending ears engaging between the spaced ears of the heads, the outer faces of the frame ears converging upwardly to correspond to the inner faces of the first mentioned ears, bolts passed through the head ears and frame ears to pivot the frame on the heads, and clamping nuts threaded upon said bolts.

1,077,212. COFFER-DAM. NILS F. AMBURSEN, Brookline, Mass., assignor to Ambursen Hydraulic Construction Company, Boston, Mass., a Corporation of New Jersey. Filed May 29, 1912, Serial No. 700,391. Renewed Apr. 3, 1913. Serial No. 758,711. (Cl. 61—22.)



1. A coffer dam comprising piles driven in substantially parallel inner and outer rows extending lengthwise of the dam, transverse beams connecting the piles of said rows in pairs, and a continuous barrier attached to the outer row of piles, the piles first driven and the beams supported thereby constituting supports for a track on which a pile-driver may be mounted in position to drive succeeding piles.

2. A coffer dam comprising piles driven in substantially parallel inner and outer rows extending lengthwise of the dam, transverse beams connecting the piles of said rows in pairs, stringers attached to the outer row of piles, and sheet piling attached to said stringers to form a continuous barrier.

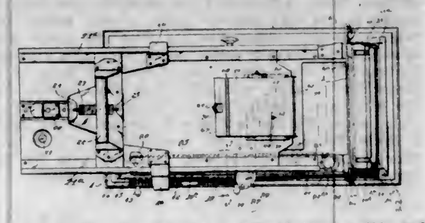
3. A coffer dam comprising piles driven in substantially parallel inner and outer rows extending lengthwise of the dam, transverse beams connecting the piles of said rows in pairs, a continuous barrier attached to the outer row of piles, and longitudinal track members supported by said transverse beams and adapted to support a pile-driver at different portions of the structure in position to drive additional piles.

4. A coffer dam comprising piles driven in substantially parallel inner and outer rows extending lengthwise of the dam, transverse beams connecting the piles of said rows in pairs, inclined struts interposed between the piles of the inner and outer rows, said piles being provided with means for separably engaging the ends of the struts, and a continuous barrier attached to the outer row of piles.

5. A coffer dam comprising piles driven in substantially parallel inner and outer rows extending lengthwise of the dam, transverse beams connecting the piles of said rows in pairs, inclined struts interposed between the piles of the inner and outer rows, said piles being provided with abutments separably engaging the upper and lower sides of the end portions of the struts, and a continuous barrier attached to the outer row of piles.

1,077,213. PHOTOGRAPHIC-PRINTING MACHINE. HALDOR A. ANDERSON, Ortley, S. D., assignor to H. H. Fromelt, Ortley, S. D. Filed Aug. 12, 1911. Serial No. 643,758. (Cl. 95—73.)

1. The combination with a negative holder, a slide and a platen hinged to said slide, of means for moving said platen against the negative holder, when said slide is moved toward said negative holder, comprising a lever pivoted to said carriage and provided with a supplemental section adapted to be moved into an inoperative position.



2. The combination with a negative holder, a slide and a platen hinged to said slide, of means for moving said platen against the negative holder, when said slide is moved toward said negative holder, comprising a lever pivoted to said carriage and provided with a supplemental pivoted section normally locked to the main portion of said lever, a relatively fixed abutment and an operating rod connected to said lever and to said relatively fixed abutment, substantially as described.

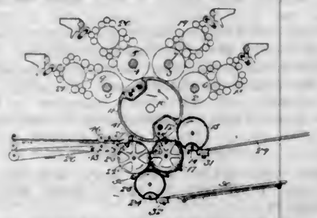
3. The combination with a negative holder, a slide and a platen hinged to said slide, of means for moving said platen against the negative holder, when said slide is moved toward said negative holder, comprising a lever intermediately pivoted to said carriage and provided with a supplemental upper end section therefor, a sliding pivot and an interlocking slot and pin joint connecting said carriage to said supplemental upper end section, a relatively fixed abutment, and a rod connected to the lower end of said lever working through said relatively fixed abutment and provided with an adjustable stop engageable with said abutment.

4. A negative holder comprising a holding lever and a support therefor, the latter having a slot with off-set notches, and the former having a pivot pin adjustably mounted in said slot and engageable with any of the several notches thereof, and a spring operating on said lever, substantially as described.

5. A negative holder comprising a holding lever and a support therefor, the latter having a slot with off-set notches, and the former having a pivot pin adjustably mounted in said slot and engageable with any of the several notches thereof, and a spring secured to the pivot pin of said lever and engageable with the said lever support and exerting a force which tends to hold said lever engaged with the negative, and the said pivot pin seated in the engaged notch.

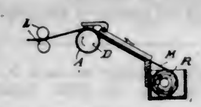
[Claims 6 to 14 not printed in the Gazette.]

1,077,214. PRINTING-PRESS. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Original application filed June 4, 1910, Serial No. 564,997. Divided and this application filed Feb. 3, 1911. Serial No. 606,383. (Cl. 101—112.)



A sheet delivery device arranged to deliver the sheets printed side up, a sheet printing mechanism including an impression cylinder arranged to receive and deliver one sheet at each revolution of the cylinder, a printed sheet transfer device comprising two reels, one arranged to receive the printed sheet directly from the impression cylinder and transfer it to the second reel and the other arranged to transfer the sheet to the delivery device, and a sheet feeding cylinder arranged to feed a sheet to the impression cylinder every second revolution of the sheet feeding cylinder.

1,077,215. METHOD OF PREPARING MATTING-STOCK. JOHN M. BARTEAUX, Waltham, Mass., assignor to Co-Operative Manufacturing Company, Waltham, Mass., a Corporation of Maine. Filed Feb. 19, 1913. Serial No. 749,326. (Cl. 154—2.)



The method of preparing backed straw matting stock consisting in removing the smooth skin of the straw from the exposed turns of the straw woof of the matting on one side thereof, in applying to the said face of the straw matting a coating of adhesive, and in applying under pressure a backing to said adhesive.

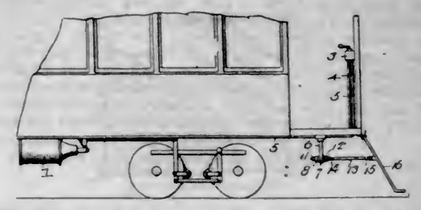
1,077,216. CRUTCH. JACOB BAUERLE, Witt, Ill. Filed June 10, 1913. Serial No. 772,847. (Cl. 3—4.)



In a crutch, the combination with a frame consisting of side bars, of a pad having the upper ends of the side bars connected thereto, the lower ends of the side bars being semi-circular in cross section to provide a tubular portion, a nut having threaded connection with the tubular portion and when screwed down thereon adapted to move the lower ends of the side bars together, a stem passing through the tubular portion and adapted to be clampingly engaged by the lower ends of the side bars when the nut is screwed down on the tubular portion, and horizontal ribs formed on the said stem and adapted to be received in grooves in the inner faces of the tubular portion to secure the stem rigidly relatively to the said frame.

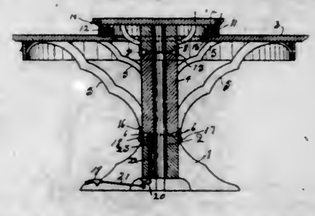
1,077,217. SAFETY APPLIANCE FOR VEHICLES. CHARLES BRUNSWICK, Canisteo, N. Y. Filed Dec. 24, 1912. Serial No. 738,432. (Cl. 105—249.)

In a vehicle embodying as part of its equipment a fluid controlled brake mechanism, a valve, a fender and two pipes leading from the valve, the one to a source of fluid supply and the other to the fluid controlled brake mechanism, a pipe connection bridging the valve and connecting the two pipes leading therefrom, a check valve in the length of the pipe connection, a second valve arranged in the length of the pipe connection and embodying a casing having an inner partition in which is formed a valve seat and provided with an internally threaded gland and a stuffing box in line with the valve seat, a valve disk closing upon the seat and having a stem projecting from opposite sides thereof, one part of the stem passing through the stuffing box and the other part extending into the gland, a



plug threaded into the gland, an expansible spring confined between such plug and the valve and mounted upon a portion of the valve disk stem, and a connection between the valve disk stem and fender.

1,077,218. ROTATABLE TABLE. JESSE M. BRYANT and JOHN LIND, Ganado, Tex. Filed Oct. 31, 1911. Serial No. 657,701. (Cl. 45—26.)



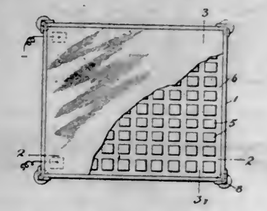
1. A device of the character described, including a suitable base and a shaft rigid therewith and projecting upwardly therefrom, a rotatable sleeve surrounding said shaft and resting upon said base, means for locking the sleeve against rotation relative to the base, a table rim supported by said sleeve and rigid therewith and having its central portion removed, a rotatable table arranged centrally with respect to the rim and having an annular groove around its under side, a flange surrounding the central opening of the rim and rigid with said rim, whose upper edge projects into the groove of said table, a socket member rigid with the table and depending from the central portion thereof and fitting over the upper end of the said shaft and rotatable thereon and resting upon the upper end of said rotatable sleeve.

2. A device of the character described including a suitable base and a shaft extending upwardly therefrom and rigid therewith, a rotatable sleeve loosely surrounding said shaft and resting upon said base, and means for locking the sleeve rigid with the base, an annular rib surrounding the upper portion of said base, a flexible hook secured to the lower end of said sleeve and engaging over said rib, a table rim supported by said sleeve and rigid therewith, a rotatable table centrally located with respect to the rim, a depending socket member rigidly secured to the central portion of said table and depending therefrom and fitting over the upper end of said shaft and rotatable thereon and resting upon the upper end of said rotatable sleeve.

1,077,219. THERMAL GENERATOR. WILLIAM W. COBLENTZ, Washington, D. C. Filed Aug. 8, 1913. Serial No. 783,841. (Dedicated to the public.) (Cl. 171—73.)

1. In a thermal generator, the combination of joined elements providing hot junctures and cold junctures, receivers for said hot junctures, a layer of heat-absorbing material surrounding said receivers, and a casing provided with a transparent cover inclosing said hot junctures.

2. In a thermal generator, in combination, a supporting member of cementitious material, thermal elements embedded in and extending through said supporting member, said elements being joined to one another on both sides



of said supporting member, a layer of heat absorbing material surrounding one set of junctures, a casing provided with a transparent cover inclosing said layer, said transparent cover permitting light to strike said layer.

1,077,220. CALCULATING AND PRINTING MACHINE. HARRY R. COWAN, Chicago, Ill. Filed July 27, 1908. Serial No. 445,475. (Cl. 235—62.)



1. In a calculating machine, the combination of a set of drivers having spur toothed portions, a totalizer having spur pinions for engaging the toothed portions of said drivers, a set of finger keys for variably shifting said drivers, a universal member for throwing said drivers and said spur pinions into and out of engagement, a second universal member for restoring said drivers and said finger keys, and means independent of said key mechanism for successively operating said universal members, substantially as described.

2. In a calculating machine, the combination with a totalizer having a set of spur pinions, a set of toothed driving racks normally meshing with said pinions, finger key mechanism directly connected to said racks to shift the same in opposite directions and set said totalizer, and means independent of said key mechanism for disengaging said racks and said pinions, for restoring said racks and key mechanism to initial position and for reëngaging said racks and pinions, substantially as described.

3. In a calculating machine, the combination with a totalizer having a set of spur pinions, of a set of spur toothed driving racks normally meshing with said pinions, finger key mechanism for variably shifting said racks to advance said totalizer, a universal bar for shifting said racks into and out of engagement with said spur pinions, and means independent of said key mechanism for operating said universal bar and for restoring said racks and key mechanism while said racks are disengaged from said pinions, substantially as described.

4. In a calculating machine, the combination with a totalizer having a set of spur pinions, of a set of spur toothed driving racks normally meshing with said pinions, a set of finger keys, one for each of said racks, for variably shifting the same to advance said totalizer, a universal member for shifting said racks into and out of engagement with said spur pinions, a universal member for restoring said racks and said keys, and means independent of said key mechanism for successively operating said universal members to disengage said racks, restore said racks and keys while said racks are disengaged from said pinions and reëngaging said racks with said pinions, substantially as described.

5. In a calculating machine, the combination with a totalizer comprising a number of counter wheels each having a spur-toothed pinion, a series of pivoted levers provided with finger keys, a series of segmental racks connected to said key levers to shift in opposite directions therewith normally geared to said pinions, and means independent of said key levers for engaging and disengaging said racks and totalizer and for restoring said racks and key levers to initial position while disconnected from said totalizer, substantially as described.

[Claims 6 to 109 not printed in the Gazette.]

1,077,221. WATER-CLOSET. JOSEPH P. COWAN, Pittsburgh, Pa. Filed Nov. 28, 1910. Serial No. 594,428. (Cl. 4—18.)



1. The combination of a closet bowl provided with bolt receiving openings, a seat, a hinge having one of the members thereof connected to the seat, and the opposite member adapted to be connected to the bowl, bolts engaging the said opposite hinge member and passing through the bolt receiving openings of the bowl, and means within each bolt opening for positioning the bolt therein, said means being adapted by rotative adjustment to change the position of the bolt with respect to said opening.

2. The combination of a closet bowl provided with a bolt receiving opening, a seat, a hinge having one of the members thereof connected to the seat, and the opposite member adapted to be connected to the bowl, a bolt engaging said opposite hinge member and passing through the bolt receiving opening, and an eccentric washer member seated in the bolt receiving opening, the said eccentric washer member permitting lateral adjustment of the bolt within the opening.

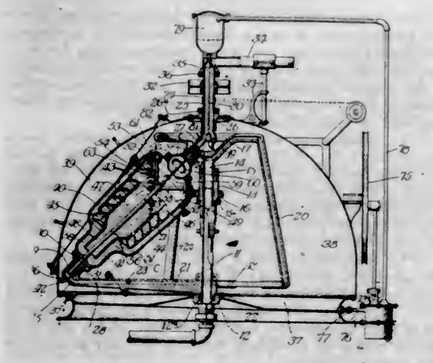
3. The combination of a closet bowl provided with a bolt receiving opening having a recess at each end thereof, a seat, a hinge having one of the members thereof connected to the seat, and the opposite member adapted to be connected to the bowl, a bolt engaging the opposite hinge member and passing through the bolt receiving opening of the bowl, and eccentric washer members seated in the recesses at each end of the bolt opening, the said eccentric washer members permitting of lateral adjustment of the bolt within the opening.

4. The combination of a closet bowl, a seat, a hinge having one of the members secured to the seat, the opposite hinge member being adapted to be secured to the bowl and being formed with elongated openings, and a bolt formed with a laterally projecting head adapted to fit within each elongated opening of the hinge member to hold the hinge member in position, the said laterally projecting head of the bolt being adapted to be reversed by turning the bolt so as to permit of adjustment of the hinge member upon the bowl.

5. The combination of a closet bowl provided with a bolt receiving opening, a seat, a hinge having one of the members thereof secured to the seat, the opposite hinge member being adapted to be secured to the bowl, and being formed with elongated openings, a bolt passing through each bolt receiving opening of the bowl and formed with a laterally projecting head adapted to engage the elongated opening of said opposite hinge member to secure the same in position and also adapted to be reversed within the elongated opening of and to permit of adjustment of the hinge member upon the bowl, and means within each bolt receiving opening of the bowl for holding the bolt in position when tightened and permitting lateral adjustment of the bolt within the opening when loosened.

[Claims 6 to 9 not printed in the Gazette.]

1,077,222. ROTARY ENGINE. ROBERT J. DAVIDSON, Chicago, Ill. Filed Feb. 28, 1911. Serial No. 611,414. (Cl. 121—59.)



1. In an engine or the like, a cylinder adapted to receive and contain a liquid, and provided in its interior portion with a fluid and liquid passageway, a passage suitably disposed to admit fluid to one end of said passageway, and a passage suitably disposed to carry off fluid from the other end of the fluid and liquid passageway, the cylinder and fluid passageway being so disposed as to permit of relative rotation between liquid in the cylinder and the fluid and liquid passageway, to submerge one end of said passageway alternately in the liquid and in the fluid, substantially as described.

2. In an engine or the like, a cylinder adapted to receive and contain a liquid, and provided in its interior portion with a spiral passageway, a passage suitably disposed to admit fluid to one end of the spiral passageway, and a fluid passage suitably disposed to carry off fluid from the other end of the spiral passageway, the cylinder and spiral passageway being so disposed as to permit of relative rotation between liquid in the cylinder and the spiral passageway, to submerge one end of said spiral passageway alternately in the liquid and in the fluid, substantially as described.

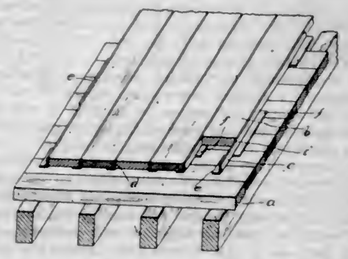
3. In an engine or the like, a cylinder adapted to receive and contain a liquid, and provided in its interior portion with a spiral passageway increasing in size from end to end, a fluid passage suitably disposed to admit fluid to the small end of the spiral passageway, and a fluid passage suitably disposed to carry off fluid from the large end of the spiral passageway, the cylinder and spiral passageway being so disposed as to permit of relative rotation between liquid in the cylinder and the spiral passageway, to submerge the small end of the same alternately in the liquid and in the fluid, substantially as described.

4. In an engine or the like, the combination, with a rotatable cylinder provided with a spiral passageway increasing in size from end to end, and means for admitting to either end of said passageway alternate portions of liquid and compressed fluid, of means for causing said portions of liquid and fluid to maintain a substantially fixed position with respect to the axis of cylinder rotation, and to move within the spiral passageway in a direction substantially parallel to said axis, substantially as described.

5. In an engine or the like, the combination, with a rotatable cylinder provided with a spiral passageway increasing in size from end to end, and means for admitting to either end of said passageway alternate portions of liquid and compressed fluid, of means for causing a centrifugal force in the liquid in said spiral passageway, whereby said portions of liquid within the same maintain a substantially fixed position with respect to the axis of cylinder rotation and to move in an axial direction within the spiral passageway, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,077,223. FLOOR STRUCTURE. RODERICK J. DIXON, New Britain, Conn. Filed Sept. 19, 1913. Serial No. 790,670. (Cl. 20—6.)



1. In a floor structure, the combination with a substructure of rough flooring, of parallel rows of supporting reinforces comprising upstanding body portions provided at their lower edge with oppositely extending lateral projections resting upon said sub-structure, and finish floor boards laid between said reinforces with their longitudinal edges supported on the lateral projections thereof, the surface of said boards being substantially flush with the top of said body portions.

2. In a floor structure, the combination with the rough flooring and superposed finish floor boards, of a supporting reinforce having its body interposed between the abutting longitudinal edges of the boards, with its top substantially flush with the surface of the floor, and lateral flanges extending from either side of the lower edge of said body portion and adapted to underlie and form a support for the edges of said boards to hold the central portion thereof out of contact with the sub-structure.

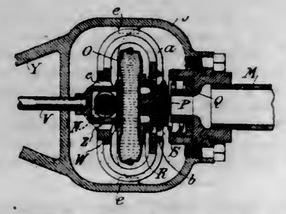
3. In a floor structure, the combination with the rough flooring and superposed finish floor boards, of a supporting reinforce having a body portion located between abutting longitudinal edges of said boards, with its top substantially flush with the surface of the floor, the lower edge of said body being slit and alternately bent at right angles to the body portion to form flanges projecting from both sides of the body portion, and adapted to underlie the edges of said boards and form a support therefor, to hold the central portion of the boards out of contact with the sub-structure.

1,077,224. THERMOSTATIC MECHANISM. EDWARD E. GOLD, New York, N. Y., assignor to Gold Car Heating & Lighting Company, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1909. Serial No. 532,369. (Cl. 236—6.)

1. A thermostatic mechanism including in combination a thermostat and a pair of devices adapted to be actuated thereby, said thermostat being arranged to act on one of said devices and to react against the other simultaneously, and means for alternately holding said devices in positions to form reaction abutments for said thermostat.

2. A thermostatic mechanism including in combination a thermostat, and mechanism for alternatively providing

different, substantially unyielding, reaction abutments for said thermostat, and for alternately utilizing the action of said thermostat in the directions opposite to the abutments.



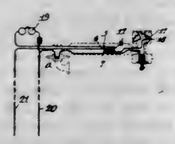
3. A thermostatic mechanism including in combination a thermostat, a pair of bodily movable devices, means for pressing said devices yieldingly against opposite sides of said thermostat, and means for holding one of said devices against the thermostat and preventing its bodily movement, and leaving the other free to receive the expansive movement of the thermostat.

4. A thermostatic mechanism including in combination a thermostat, a motion-transmitting device at each side of said thermostat, and means for holding at will either of said devices fixed and leaving the other free to transmit the movement of the thermostat.

5. A thermostatic mechanism including in combination a thermostat, a motion-transmitting device at each side of said thermostat, a ring passing about said thermostat and engaging one of said devices and a reversing means acting on said ring and the other of said devices to alternatively hold one of said devices fixed against the thermostat and leave the other free to transmit the movement of the thermostat.

[Claim 6 not printed in the Gazette.]

1,077,225. TELEPHONE-SYSTEM STATION INSTRUMENT. ALEXANDER E. KEITH, Hinsdale, Ill., assignor to Automatic Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 10, 1909. Serial No. 532,423. (Cl. 179—103.)

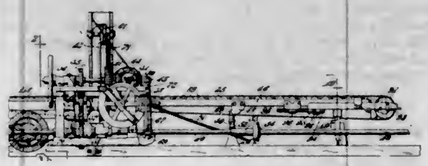


1. In a telephone system, a receiver, a calling mechanism back of said receiver structurally connected therewith, the said receiver and calling mechanism facing in opposite directions, a handle for one end thereof suitably connected between the receiver and calling mechanism, and a transmitter suitably mounted at the other end of said handle.

2. In a telephone system, a receiver, a calling mechanism back of said receiver structurally connected therewith, the said receiver and calling mechanism facing in opposite directions, a handle for one end thereof suitably connected between the receiver and calling mechanism, a transmitter suitably mounted at the other end of said handle, and a push button on said handle for controlling a circuit through the transmitter and calling mechanism.

1,077,226. CUT-OFF MECHANISM FOR BRICK-MACHINES. HOWARD K. KING, Philadelphia, Pa., assignor to Chambers Brothers Company, a Corporation of Pennsylvania. Filed Mar. 7, 1908. Serial No. 419,764. (Cl. 25—109.)

1. In combination with a brick machine, having means for moving a bar of clay, a cut-off wire and means for moving the same across the path of travel of the bar, bottom slit plates and side slit plates, the side slit plates pivotally supported and spring controlled, having their lower ends adapted to swing in the direction of travel of the wire.



2. In combination with a brick machine, having means for moving a bar of clay, a cut-off wire, means for moving the same through the bar, a reciprocating frame for moving the wire with the bar during the cutting operation, a carrying-off belt adjacent thereto, and a slit supporting plate on the reciprocating frame having extensions flanking said carrying-off belt.

3. In combination with a brick machine, having means for moving a bar of clay, a cut-off wire, means for moving the same through the bar, a reciprocating frame for moving the wire with the bar during the cutting operation, a carrying-off belt adjacent thereto, and a slit plate having extensions projecting on both sides of the carrying-off belt and at substantially the same level.

4. In combination with a brick machine, having means for moving a bar of clay, a cut-off wire for moving the same across the path of travel of the bar, a reciprocating frame supporting and moving the wire with the bar during its cutting operation, a carrying-off belt, and a slit plate having wings or extensions flanking the belt as and for the purpose specified.

5. The combination with a wire wheel and a cutting wire carried thereby, of a spring carried by the wheel, a stud carried by the spring and engaged by one end of the wire, and a spring clip between the stud and the spring.

[Claims 6 to 10 not printed in the Gazette.]

1,077,227. WOVEN FABRIC. HECTOR LE DOUX, Worcester, Mass., and JAMES KARMI DALKRANIAN, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company, a Corporation of New York, and said Le Doux assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 12, 1912. Serial No. 677,037. (Cl. 139—71.)



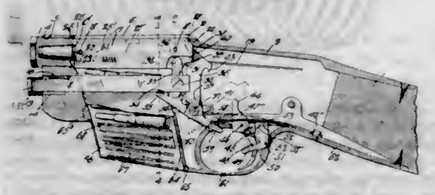
1. In tufted fabrics of the class referred to, warp threads, tuft yarns wrapped around the warp threads, and forming the pile, and filling threads binding the pile, comprising in ordinary filling, and a filling having one or more center non-stretchable threads, forming a substantial straight core or center, and threads wrapped or twisted around the center core, and adapted to stretch or extend lengthwise when the center threads break.

2. A tufted pile fabric, comprising warp threads, pile yarns inserted between and looped around one or more of the warp threads, filling threads, comprising an ordinary filling, and an extensible filling, said extensible filling comprising a broken thread or threads, and extended strands wrapped or twisted around said broken threads.

3. A tufted pile fabric, comprising warp threads, pile yarns inserted between and looped around one or more of the warp threads, filling threads substantially non-extensible, and other filling threads, comprising a substantially straight core or center adapted to be broken, and threads wrapped or twisted around the center core and adapted to stretch or extend lengthwise when the center breaks.

4. A woven fabric, comprising warp threads, and substantially non-extensible filling threads, and other filling threads comprising a substantially straight core or center adapted to be broken, and threads wrapped or twisted around the center core, and adapted to stretch or extend lesgthwise when the center breaks.

1,077,228. REPEATING FIREARM. FRANK M. OSBORNE, Anaconda, Mont. Filed Apr. 2, 1913. Serial No. 758,466. (Cl. 42—18.)



1. A repeating firearm, including a stock, a receiver, a barrel, a reciprocatory breech block mounted within the receiver, a forearm breech block actuator mounted for reciprocation below the barrel and operably connected to the breech block, a spring actuated means for locking the breech block actuator against rearward movement when the breech block is in breech closing position, a hammer, a trigger, means carried by the hammer for releasing the spring actuated locking means during the firing movement of the hammer, and coöperable means carried by the hammer and breech block for forming an auxiliary lock for the breech block during the explosion of a cartridge.

2. A repeating firearm, including a stock, a receiver, a barrel, a reciprocatory breech block mounted within the receiver, a forearm breech block actuator mounted for reciprocation below the barrel and operably connected to the breech block, a spring actuated means for locking the breech block actuator against rearward movement when the breech block is in breech closing position, a hammer, a trigger, means carried by the hammer for releasing the spring actuated locking means during the firing movement of the hammer, coöperable means carried by the hammer and breech block for forming an auxiliary lock for the breech block during the explosion of a cartridge, and manually controlled means for releasing the lock to permit the retraction of the breech block without the release of the hammer.

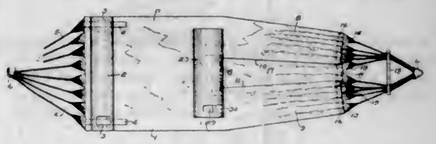
3. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the rear end of the breech block forming when the breech block is in breech closing position a brace locking means therefor, a hammer, and a trigger.

4. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the breech block forming when the breech block is in breech closing position, a brace and an operating connection therefor, said brace being connected to the rear of the breech block, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, and means carried by the hammer for releasing the lock during the release of the hammer.

5. A repeating firearm, including a stock, a receiver, a magazine mounted within the receiver, a barrel, a reciprocatory breech block mounted within the receiver, manually controlled means for retracting and projecting the breech block, a connection between said means and the breech block forming when the breech block is in breech closing position, a brace therefor, such connection being at the rear end of the breech block, a hammer, a trigger, a spring actuated lock for locking the breech block manually controlled means against retraction when the breech block is in breech closing position, means carried by the hammer for releasing the lock during the release of the hammer, and manually controlled means for releasing the lock to permit of the retraction of the breech block without releasing the hammer.

[Claims 6 to 12 not printed in the Gazette.]

1,077,229. BIFURCATED HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Company, Middletown, Conn., a Corporation of Connecticut. Filed May 3, 1913. Serial No. 765,213. (Cl. 5—61.)



1. A hammock having a body portion, two spaced foot portions constituting prolongations of said body portion, and an intermediate portion having a narrow inner end and a relatively wide outer end, said intermediate portion extending from the body portion beneath the foot portions to and secured by hammock supporting means having two relatively widely spaced points of support at the said outer end.

2. A hammock having an upper or body portion, two spaced lower or foot portions constituting prolongations of said body portion, an intermediate portion beneath said foot portions, and means between the ends of said intermediate portion to adjust the length of the latter.

3. A hammock having an upper or body portion, two spaced lower or foot portions constituting prolongations of said body portion, an intermediate portion beneath said foot portions, and lacing means to vary the effective length of the said intermediate portion.

4. A hammock body, a substantially central transverse pillow thereon, an adjustable pillow supporting slat or slats, and means for holding said slat or slats upon the hammock body.

5. A hammock body having a transverse pillow thereon, a pillow supporting slat or slats, and a series of transverse pockets removably receiving said slat or slats, the said slats and pockets having operative connections with said body and pillow.

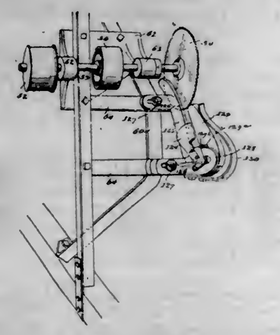
[Claims 6 and 7 not printed in the Gazette.]

1,077,230. CORN-HUSKER. JOSEPH H. PIERCE, Chicago, Ill. Filed Sept. 18, 1905. Serial No. 278,969. (Cl. 130—5.)

1. In a device for positioning and severing ears of corn, the combination of a knife, yielding means for moving the ear of corn longitudinally stock-end foremost against the edge of said knife with sufficient force to split the stock up to the butt of the ear only, the knife acting as an abutment to limit the movement of the ear, and means acting after the ear has been thus positioned to cut off said split stock at its junction with the cob, substantially as described.

2. In a device for positioning and severing ears of corn, the combination of a stationary knife, a movable conveyer for an ear of corn, yielding means for moving the ear of corn in said conveyer longitudinally stock-end foremost against the edge of said knife with sufficient force to split the stock up to the butt of the ear only, the knife acting as an abutment to limit the movement of the ear, and means acting after the ear has been thus positioned to cut off said split stock at its junction with the cob, substantially as described.

3. In a device for positioning and severing ears of corn, the combination of a knife, yielding means for moving the ear of corn longitudinally stock-end foremost against the edge of the knife with sufficient force to split the stock up to the butt of the ear only, said knife acting as an abutment to aid in limiting the movement of the ear, additional means to limit the movement of the ear, and means acting after the ear has been thus positioned to cut off the said split stock at its junction with the cob, substantially as described.



4. In a machine of the character described, the combination of a stationary arm, a pivoted arm adjacent to said stationary arm, a support for an ear of corn, and means to move said ear of corn against said arms to position the same, the butt of the ear striking said arms, substantially as described.

5. In a machine of the character described, the combination of a knife, a stationary arm and a pivoted arm in the plane of said stationary arm, adjacent to said knife, a support for an ear of corn, and means for moving said ear longitudinally against said knife and arms so that the knife splits the stock end of said ear and the same is positioned, substantially as described.

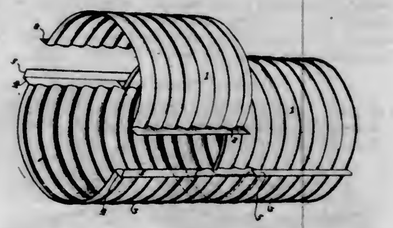
[Claims 6 to 21 not printed in the Gazette.]

1,077,231. COMBINATION-COCK. CLARENCE H. PITT, Essington, Pa. Filed Mar. 13, 1913. Serial No. 753,985. (Cl. 137—7.)



The combination with the casing having an inlet and outlet arranged in diametrically opposite sides and a central bore, a pair of cocks nested in the said bore and in each other, the outer cock having its upper end formed with a turning member, the upper faces of the cocks and the casing having correlating dials, the inner cock having oppositely disposed passages either one of which is adapted to be brought into register with the passages in the outer cock, the upper end of the inner cock having an extension formed with a single screw socket, and a turning member having a socket for fitting onto the said extension and a series of radially disposed passages any one of which is adapted to be brought into register with the screw socket on the aforesaid extension and a screw plug for fitting any of the said radial passages and the screw socket.

1,077,232. CULVERT. JULIUS H. SCHLAFLY, Canton, Ohio, assignor to The Canton Culvert Company, Canton, Ohio, a Corporation of Ohio. Filed Mar. 6, 1909. Serial No. 481,735. (Cl. 61—9.)



1. In a culvert of the class described, lower sections arranged in a longitudinal series, the meeting edges of longitudinally adjacent sections in the series over-lapping, upper complementary sections arranged in a longitudinal series, the meeting edges of longitudinally adjacent sections in the upper series over-lapping, said upper sections provided with integral, laterally extending flanges and said lower sections provided with integral, compound flanges including portions adapted to support the flanges on the upper sections, and other integral portions adapted to be folded over the flanges on said upper sections, for the purpose of connecting the complementary sections of the upper and lower series.

2. In a culvert of the class described, lower, circumferentially corrugated sections arranged in a longitudinal series, the end edges of longitudinally adjacent sections over-lapping, upper circumferentially corrugated complementary sections arranged in a longitudinal series, the end edges of longitudinally adjacent sections of the upper series over-lapping, said upper sections provided with integral, laterally extending flanges, said lower sections provided with integral, compound flanges including portions adapted to engage the flanges on the upper sections, and other integral portions adapted to be folded over the flanges on said upper scetions, for the purpose of connecting the sections of the upper and lower series to each other.

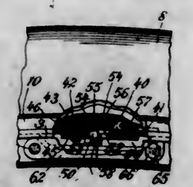
3. A sheet metal culvert composed of complementary, circumferentially corrugated sections arranged in upper and lower longitudinal series, the end edges of longitudinally adjacent sections in both series overlapping, the side edges of said sections forming a longitudinal seam, the side edges of said upper sections provided with laterally extending flanges, and the side edges of said lower sections provided with compound flanges, the first mentioned flanges resting upon portions of the compound flanges, and other portions of the compound flanges folded over the said first mentioned flanges.

4. A sheet metal culvert composed of corrugated sections arranged in upper and lower longitudinal series, the end edges of longitudinally adjacent sections in both series overlapping, the side edges of said sections adapted to form a longitudinal seam, the said side edges of said upper sections provided with laterally extending flanges, the side edges of said lower sections provided with compound flanges, the first mentioned flanges being adapted to rest upon portions of the compound flanges and other portions of the compound flanges adapted to be folded over the said first mentioned flanges, for the purpose of connecting the said edges to each other.

5. A sheet metal culvert composed of an upper and lower longitudinal series of circumferentially corrugated, endwise over-lapping sections, the sections of the upper series provided with lateral, simple flanges, the sections composing the lower series provided with compound, lateral flanges, and portions of said flanges adapted to be folded over said simple flanges, for the purpose of holding the complementary sections together.

[Claims 6 to 10 not printed in the Gazette.]

1,077,233. VEHICLE WHEEL-RIM. EDWIN C. SHAW, Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company, a Corporation of New York. Filed Jan. 8, 1910. Serial No. 536,971. (Cl. 152—21.)



1. In a vehicle wheel, in combination, a fixed member, a split rim detachably mounted thereon carrying tire retaining means, a latch on one end of said split rim, means on the other end of said split rim adapted to be engaged by said latch, said latch having mounted thereon an oscillating nut, and a screw passing through a slot in the last named end of said rim engaging a threaded opening in said nut.

2. In a vehicle wheel, in combination, a fixed member, a split rim detachably mounted thereon carrying tire retaining means, a latch on one end of said split rim, means on the other end of said split rim adapted to be engaged by said latch, the said latch being provided with a recess having a concave bearing surface, a nut bearing on said surface, and a screw passing through a slot in the last named end of said rim engaging a threaded opening in said nut.

3. A transversely split demountable tire carrying vehicle wheel rim having means for locking its ends together or in spaced relation, said means comprising a latch connected to one end of said rim, a lug attached to the other end of said rim by means of an integral tenon projecting through a slot in the latter, and means for holding said latch in engagement with said lug.

1,077,234. DOOR CLOSING AND CHECKING MECHANISM. PERCY ALLIOTT SMITHURST, London, England. Filed Dec. 23, 1912. Serial No. 738,355. (Cl. 16—87.)



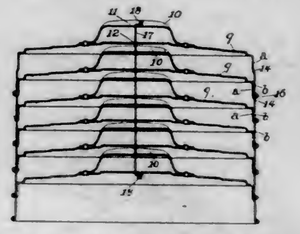
1. A door-closing and checking mechanism which consists of a tubular lever pivoted to a fixed bracket, an energized spring contained within said tubular lever, means for compressing said spring as the door is opened, an air-check plunger device in said tubular lever, and means for actuating said plunger separate from and independent of those for compressing said spring, substantially as described.

2. A door closing and checking mechanism which consists of a tubular lever pivoted to a fixed bracket, an energized spring contained within said lever, means for compressing said spring which consists of a fixed abutment on said bracket, a plug within said tubular lever and a bar engaging said abutment and extending within said tubular lever and engaging said plug, an air check plunger device in said tubular lever and means for actuating said plunger separate from and independent of those for compressing said spring, substantially as described.

3. A door closing and checking mechanism which consists of a tubular lever pivoted to a bracket, an energized spring contained within said tubular lever, a fixed abutment on said bracket, a plug within said tubular lever and operatively engaging said spring, a bar engaging said abutment and said plug, an air check plunger contained within said tubular lever and furnished with a loose end, said loose end having air passages extending therethrough, a washer interposed between said loose end and the end of said plunger, the inner end of said plunger having air passages extending therethrough and means for operating said air check plunger, substantially as described.

4. A door closing and checking mechanism which consists of a tubular lever pivoted to a bracket, an energized spring contained within said tubular lever, a fixed abutment on said bracket, a plug within said tubular lever and operatively engaging said spring, a bar engaging said abutment and said plug, an air check plunger contained within said tubular lever, a bar connecting said air check plunger with said bracket, an abutment within said lever between said spring and the inner end of said plunger and provided with an opening communicating with the atmosphere and with the space between said abutment and said plunger, a valve controlling said opening, means normally tending to hold said valve closed and means for moving said valve into its open position when the door approaches its closed position.

1,077,235. CYLINDRIC CAN-COVER. CHARLES L. WAGANDT, Baltimore, Md., assignor to National Enameling and Stamping Company, Baltimore, Md., a Corporation of New Jersey. Filed Mar. 15, 1913. Serial No. 754,451. (Cl. 220—22.)



1. A cylindric covered can, consisting of a can-body having at the upper edge of its wall a rim and the entire top of said can-body open diametrically across the said rim; and a cover that fully closes said open top and provided with a downward-extending flange forming two horizontal sections of different diameters—the upper section having the smaller diameter fitting snugly around the exterior of said upper rim edge of the can-body, and the lower section having the larger diameter and surrounding the can-body like a skirt and leaving an annular space between said lower section and the can-body.

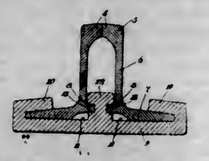
2. An improved cover for can-bodies having a hole through the center of its top and provided on its upper surface with a rigid handle, 10, which has a hole directly over the said center hole in the cover, and said cover provided with a circumferential downward-extending flange or skirt forming two horizontal sections, *a*, *b*, of different diameters, the lower horizontal section, *b*, having the larger diameter and being also longer in the vertical direction than the upper section, *a*, whereby when a number of such covers are nested together the said handle of any lower nested cover will not contact with the under surface of the cover that is next above, and also whereby the said holes of all the nested covers and handles will be in vertical alinement to admit a straight wire to fasten the nested covers together.

1,077,236. RAIL. CHRISTIAN F. WEEBER, Albany, N. Y. Filed Apr. 17, 1912. Serial No. 691,362. (Cl. 239—16.)

1. A composite rail comprising rail sections placed side by side and a strap binding the rail sections together, said sections having inwardly directed flanges extending into recesses in the strap and said strap extending over the outer edges of the rail bases.

2. A composite rail comprising rail sections placed side by side and a strap binding the rail sections together by having its ends turned over the edges of the rail bases, said sections having flanges extending into recesses in the strap.

3. A composite rail comprising rail sections placed side by side and a strap extending over the outer edges of the rail bases and binding the rail sections together, said sections having inwardly directed flanges extending into recesses in the strap.

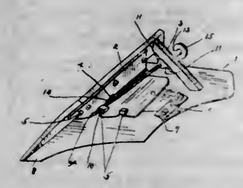


4. A composite rail comprising rail sections placed side by side and a strap binding the rail sections together by having its ends turned over the edges of the rail bases, said sections having inwardly directed flanges extending into recesses in the strap.

5. A composite rail comprising rail sections placed side by side and a strap binding the rail sections together, said sections having inwardly and outwardly directed flanges extending into recesses in the strap.

[Claims 6 to 14 not printed in the Gazette.]

1,077,237. PLOW. JOSEPH WOODS, Herbert, Saskatchewan, Canada. Filed Nov. 19, 1912. Serial No. 732,283. (Cl. 97—18.)

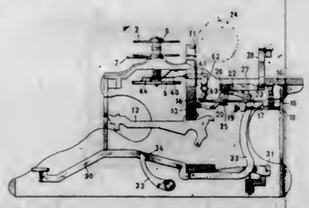


In a plow, the combination with the mold-board and land side having a brace-piece extending therebetween, of an angularly shaped frog secured between the inner sides of said mold-board and said land side and forming a reinforcing angle brace and having slots formed at intervals along the forward edge and extending parallel one to the other and toward said cross brace, a bracket-piece secured to said mold-board along said side frog and having a tapered slot in the end thereof paralleling the slots in said frog, a plow-share formed to fit against the forward edge of said mold-board and having headed studs projecting therefrom and passing into the slots in said frog and said bracket and a worm screw having a hand-grip formed at one end thereof inserted through a suitable orifice in said cross brace and having the threaded end thereof fitting a correspondingly threaded orifice in the head of one of said headed studs.

1,077,238. TYPE-WRITING-MACHINE RIBBON FEEDING AND OPERATING MECHANISM. JESSE ALEXANDER, New York, N. Y., assignor of one-half to Herbert W. Little, New York, N. Y. Filed Nov. 4, 1912. Serial No. 729,327. (Cl. 197—151.)

1. Ribbon feeding mechanism comprising vertical ribbon shafts, horizontal ratchets carried thereby, a type bar segment in rear thereof, a horizontal shaft in rear of said segment having upwardly extending arms, yielding feeding pawls hinged to said arms, a laterally shifting bar in rear of the type bar segment and having cam surfaces adapted by the shifting of the bar to be engaged directly with the feeding pawls to disengage said pawls from said ratchets and spring retaining pawls adapted to be retracted by said feeding pawls.

2. Ribbon feeding mechanism comprising a horizontal ratchet having teeth on its upper face, a horizontally reciprocatable feeding pawl coacting with the teeth of said ratchet, and a spring pressed retaining pawl pressing down on said feeding pawl and having a toothed end extending beyond said feeding pawl and into engagement with said ratchet.



3. Ribbon feeding mechanism comprising a horizontal ratchet having teeth on its upper face, a horizontally reciprocable feeding pawl coacting with the teeth of said ratchet, a spring pressed retaining pawl pressing down on said feeding pawl and having a toothed end extending beyond said feeding pawl and into engagement with said ratchet and a shifting bar for lifting said feeding pawl and thus causing said feeding pawl to retract said retaining pawl.

4. Ribbon feeding mechanism comprising horizontal ratchets having teeth on their upper faces, horizontally reciprocable feeding pawls adapted to rest upon the ratchets, means for reciprocating the feeding pawls, spring pressed retaining pawls bearing down upon the feeding pawls and having toothed ends adapted to extend into engagement with the ratchets, and a laterally shiftable bar having cam surfaces arranged upon the shifting of the bar, to be engaged with the feeding pawls to lift said feeding pawls and the retaining pawls which rest upon the feeding pawls from engagement with the ratchets.

1,077,239. ART OF MAKING PAINTS. FRANKLIN F. BRADLEY, Chicago, Ill., assignor to Bradley & Vrooman Co., Chicago, Ill., a Firm. Filed Feb. 26, 1913. Serial No. 750,809. (Cl. 134—39.)

1. In the compounding of a line of liquid paints, the method consisting in producing paint stocks each standardized in strength and color, and of consistency materially greater than that of the liquid paints to be produced and which paint stocks bear a substantially fixed complemental relationship to each other, enabling them to be conjointly used in unchanging proportions in the production of liquid paints of predetermined character; placing these stocks in different containers; agitating said stocks to render them uniform throughout their masses; and adding together predetermined quantities of predetermined paint stocks, and predetermined quantities of predetermined paint liquid, to meet the requirements of the liquid paints to be produced.

2. The method which consists in producing a series of separate standardized paint stocks in a thickly flowing or viscid condition, selecting and mixing according to determined formulæ, quantities of said paint stocks to produce a desired color base and thinning by a suitable paint vehicle.

3. The method which consists in producing a series of separate standardized paint stocks to a thickly flowing viscid condition and storing them each separately, then, according to formulæ predetermined for color effects, withdrawing predetermined definite quantities of such stocks selecting and mixing, and thinning with a suitable vehicle.

4. The method which consists in mixing or wetting each with oil and a thinner inert toward the pigment, to an extent which renders them readily miscible with paint vehicles, a series of pigmentary bases, to make a standardized series of paint stocks, effecting mixture predetermined according to formulæ, of such stocks, and effecting usable consistency by the adding of suitable paint vehicle.

5. The method which consists in producing a series of separate standardized paint stocks by grinding a series of

suitable pigments in menstrua having a large proportion of suitable inert liquid therein, mixing according to predetermined formulæ, quantities of said paint stocks, to produce a desired color base, and thinning substantially as described.

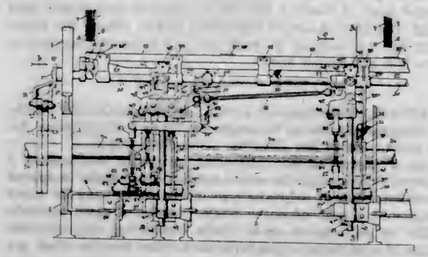
[Claims 6 to 17 not printed in the Gazette.]

1,077,240. CAR-COUPLING DEVICE. SAMUEL P. BUSH, Columbus, Ohio, assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Filed Feb. 29, 1908. Serial No. 418,598. (Cl. 213—42.)



The combination of two coupling heads, each of which is pivoted to its draw head so as to permit a wide range of horizontal movement, each coupling head consisting of a rigid guard arm, a knuckle jaw and provided with a pivoted knuckle, all of said parts having the M. C. B. contour lines, each coupling head also being provided with a lateral projection on its knuckle jaw side and at such distance from the forward end of the knuckle jaw as will cause the forward end of the guard arm of the opposing coupling head to engage therewith, when and only when the coupling heads are disposed at a sharp angle to one another and which results in the rotation of one of the coupling heads into position to insure the automatic coupling of the two coupling heads, substantially as set forth.

1,077,241. PILE OR TUFT FABRIC LOOM. JOHN A. CLARK, Worcester, Mass., and JAMES K. DALKRANIAN, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company, a Corporation of New York, and said Clark assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 24, 1912. Serial No. 679,621. (Cl. 139—66.)



1. In a loom for weaving textile fabrics, warp threads, a warp parting device, to engage the warp threads between the reed and the fell of the fabric, and means to operate said warp parting device, to cross some of the warp threads relative to the other warp threads, and form openings with parallel sides between the crossed warp threads, for the insertion of the tuft yarn tubes or needles.

2. In a loom for weaving textile fabrics, warp threads, means, including a comb having teeth, to engage the warp threads between the reed and the fell of the fabric, and means to operate said comb, to cross some of the warp threads relative to the other warp threads, and form openings with parallel sides between the crossed warp threads, for the insertion of the tuft yarn tubes or needles.

3. In a loom for weaving tufted fabrics, warp threads, means, including two combs, having teeth to engage the warp threads between the reed and the fell of the fabric, and movable relative to each other, and means for operating said combs, to cross some of the warp threads relative to the other warp threads, and form openings with parallel sides between the crossed warp threads, for the insertion of the tuft yarn tubes or needles.

4. In a loom for weaving tufted fabrics, the combination with the warp threads, of a warp parting device, to engage some of the warp threads between the reed and the fell of the fabric, and means for operating said warp parting device, to cross said warp threads relative to the other warp threads, and hold the crossed warp threads apart, to form openings with parallel sides between the warp threads, for the insertion of the tuft yarn tubes or needles.

5. In a loom for weaving tufted fabrics, warp threads, means, including two combs having teeth, to engage the warp threads between the reed and the fell of the fabric, said combs movable longitudinally and movable laterally, to cross some of the warp threads relative to the other warp threads, and form openings with parallel sides between the crossed warp threads, for the insertion of the tuft yarn tubes or needles, and means for operating said combs.

[Claims 6 to 9 not printed in the Gazette.]

1,077,242. PILE-CUTTING MECHANISM FOR TUFT-FABRIC LOOMS. JOSEPH T. CYR, Worcester, Mass., and JAMES K. DALKRANIAN, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company, a Corporation of New York, and said Cyr assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Feb. 12, 1912. Serial No. 677,270. (Cl. 139—50.)

1. In a loom for weaving tufted fabrics, an actuating carriage, mounted to have a reciprocating motion on a guide, a cutter mounted to have a reciprocating motion under the warps on a guide extending transversely of the fabric, connections intermediate said carriage and said cutter, and means to connect the cutter with, and disconnect it from said carriage, to cause it to operate to cut the pile yarns, and to remain inoperative, at predetermined times.

2. In a loom for weaving tufted fabrics, an actuating carriage, mounted to have a reciprocating motion on a guide, and said guide, a rotary cutter mounted to have a reciprocating motion on a guide, and said guide extending transversely of the fabric, and means to rotate said cutter, connections intermediate said carriage and said cutter, and means to connect said cutter with, and disconnect it from said carriage, to cause it to operate to cut the pile yarns, and to remain inoperative, at predetermined times.

3. In a loom for weaving tufted fabrics, an actuating carriage, mounted to have a reciprocating motion on a guide, and said guide, a rotary cutter mounted to have a reciprocating motion on a guide, and said guide extending

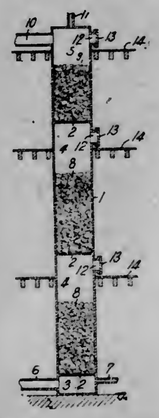
transversely of the fabric, constantly rotating means for rotating said cutter, automatic means to cause said rotating means to rotate the cutter at predetermined times, connections intermediate said carriage and said cutter, means to connect said cutter with, and disconnect it from said carriage, to cause it to operate to cut the pile yarns, and to remain inoperative, at predetermined times.

4. In a loom for weaving tufted fabrics, an actuating needle carriage, mounted to have a reciprocating motion on a guide, and said guide, a needle to insert the filling into the shed, automatic means for connecting the needle with and disconnecting it from said carriage, a cutter, mounted to have a reciprocating motion on a guide, and said guide extending transversely of the fabric, automatic means for connecting the cutter with, and disconnecting it from said carriage, to cause it to operate to cut the pile yarns, and to remain inoperative, at predetermined times.

5. In a loom for weaving tufted fabrics, an actuating needle carriage, mounted to have a reciprocating motion on a guide, and said guide, a needle to insert the filling into the shed, automatic means for connecting the needle with, and disconnecting it from the needle carriage, a rotary cutter mounted to have a reciprocating motion on a guide, and said guide extending transversely of the fabric, automatic means for connecting said cutter with, and disconnecting it from said needle carriage, to cause it to operate to cut the pile yarns, and to remain inoperative, at predetermined times.

[Claims 6 and 7 not printed in the Gazette.]

1,077,243. PROCESS OF RECOVERING ESCAPING ACID-GASES FROM SULFITE-TOWERS. JUDSON A. DE CEW, Montreal, Quebec, Canada. Filed Nov. 13, 1911. Serial No. 659,944. (Cl. 23—13.)

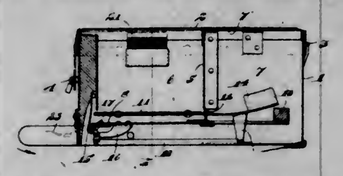


1. A process of recovering escaping acid gas in the manufacture of sulfite liquor which consists in passing the escaping gas through chambers containing moistened limestone and then through a chamber containing moistened calcined magnesite.

2. A process of recovering escaping gas in the manufacture of sulfite liquor which consists in passing the escaping gas successively through chambers containing moistened limestone and moistened calcined magnesite in lump form.

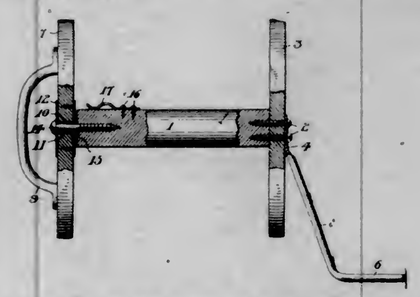
1,077,244. ANIMAL-TRAP. WILHELM NIEBUHR, Madison, Wis., assignor, by direct and mesne assignments, to The National Trap Works, Madison, Wis., a Corporation of Wisconsin. Filed Sept. 21, 1912. Serial No. 721,587. (Cl. 43—24.)

An animal trap comprising a body having a compartment accessible through an entrance opening provided at one end thereof; a hinged primary floor member for said compartment, a secondary floor member hingedly mounted upon said primary floor member, a spring detent adapted to normally engage the free edge of said primary floor member to releasably hold the same in horizontal position; means operable through downward swinging of said



secondary floor member for tripping said detent, said tripping means comprising a pivoted trigger mounted at the under side of said secondary floor member adapted, when rocked, to move said detent to releasing position; and a link connecting said trigger with the rearward end of said secondary floor member, substantially as described.

1,077,245. CLOTHES-LINE REEL. JOSEPH J. BUSER, Freedom, Pa. Filed Feb. 24, 1913. Serial No. 750,346. (Cl. 242—100.)



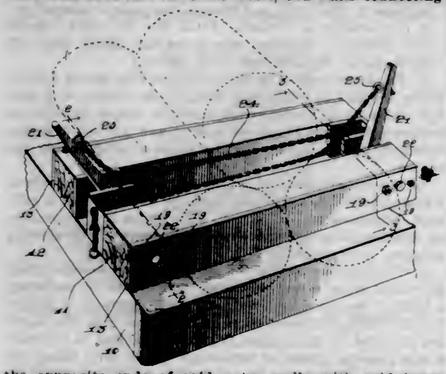
A clothes line reel comprising a cylindrical body, a head, a crank, means for fixedly securing the crank, head and one end of the body together, a headed screw secured to and projecting from the other end of said body, a circular head, a bushing carried by the last mentioned head and rotatably mounted upon said screw, means for maintaining the bushing in position, and a handle carried by the last mentioned head.

1,077,246. RELEASABLE STAKE FOR LOGGING-CARS. HERMAN HARDER, Bellingham, Wash. Filed June 14, 1913. Serial No. 774,170. (Cl. 105—173.)

1. A device of the character described comprising a pair of bunks, angle members holding said bunks in spaced relation, each of said angle members comprising an inner wall and a pair of outer walls positioned upon opposite sides of said inner wall, walls connecting the opposite ends of said outer walls with said inner wall, a pivot pin passing through said bunks and the inner and outer walls of said angle members, a stake pivotally mounted upon said pin, and a chain having one end connected with said stake and having its other end adapted to be passed through an opening formed in one of the end walls of the angle member at the opposite end of said bunks whereby said stake may be drawn inwardly and held in the adjusted position, and means for engaging said chain to hold the stake in an adjusted position.

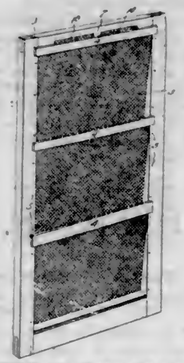
2. A log support comprising a base plate, a pair of railroad rails mounted upon said base plate, rods connecting said railroad rails intermediate their length to hold the same in spaced relation, angle members placed between the end portions of said rails, filler blocks placed between said angle members and the webs of said rails, a pivot pin passing through each of said angle members and through the end portions of said rails, and a stake pivotally mounted upon each of said pivot pins.

3. In a device of the character described, a bracing and spacing angle member comprising outer walls, an inner wall between said outer walls, end walls connecting



the oppposite ends of said outer walls with said inner wall, one of said end walls being of less height than said inner and outer walls, and the remaining end wall being provided with an opening.

1,077,247. FLY-SCREEN. NELSON LEWIS, Boulder, Colo. Filed Nov. 12, 1910. Serial No. 592,007. (Cl. 156—37.)
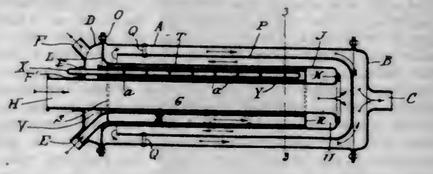


A screen comprising a frame having vertical stiles, bars attached to the stiles against the inner and outer surfaces thereof and arranged in pairs, the outer members of the pairs of bars being located at higher points along the stiles than the inner members of the pairs of bars, screen panels having their upper edges connected with the inner surfaces of the upper and outer bars and their lower portions connected with the inner surfaces of the next adjacent inner lower bars, the intermediate portions of the panels lying in planes which extend transversely across the stiles from the inner to the outer surfaces thereof and which extend from one set of bars to the next adjacent set of bars, the lower portions of the panels being curved inwardly forming pockets located between the inner surfaces of the members of the pairs of bars.

REISSUES.

13,635. VAPORIZING APPARATUS. GOGU CONSTANTINESCU, Bloomsbury, London, England. Filed June 25, 1913. Serial No. 775,804. Original No. 1,021,039, dated Mar. 26, 1912, Serial No. 645,250. (Cl. 48—107.)

1. A vaporizer comprising a central horizontal conduit for exhaust gases, an annular vaporizing chamber concentric with said conduit and having therein non-absorbent heat conducting bodies, a substantially horizontal liquid fuel feed pipe extending into the upper portion of said annular vaporizing chamber and embedded in said heat conducting bodies, said liquid fuel feed pipe having apertures spaced apart along its length, through which apertures the liquid is fed in minute separate streams and passes into the interstices in said heat conducting bodies, and means for withdrawing the gas from said vaporizing chamber.



2. A vaporizer comprising a central horizontal conduit for exhaust gases, an annular vaporizing chamber concentric with said conduit and having therein non-absorbent heat conducting bodies, a substantially horizontal liquid fuel feed pipe extending into the upper portion of said annular vaporizing chamber and embedded in said heat conducting bodies, said liquid fuel feed pipe having apertures spaced apart along its length, through which apertures the liquid is fed in minute separate streams and passes into the interstices in said heat conducting bodies, means for withdrawing the gas from said vaporizing chamber, and means for introducing a restricted amount of air into said vaporizing chamber.

3. A vaporizer comprising a central horizontal conduit for exhaust gases, an annular vaporizing chamber concentric with said conduit, and having therein non-absorbent heat conducting bodies, an outer casing surrounding said vaporizing chamber, means for returning the exhaust gases in the reverse direction between said outer casing and the walls of the vaporizing chamber, thus heating said chamber on all sides, a substantially horizontal liquid fuel feed pipe extending into the upper portion of said annular vaporizing chamber and embedded in the heat conducting bodies contained within said chamber, said liquid fuel feed pipe having apertures spaced apart along its length, through which apertures the liquid fuel is fed in minute separate streams and passes into the interstices in said heat conducting bodies, means for withdrawing the gas from said vaporizing chamber, and means for introducing a restricted amount of air into said vaporizing chamber.

4. A vaporizer comprising a conduit for exhaust gases, a vaporizing chamber heated by the exhaust gases and having therein non-absorbent heat conducting material, a substantially horizontal liquid fuel feed pipe embedded in said heat conducting material, said liquid fuel feed pipe having apertures spaced apart along its length, the bottom wall of said pipe being imperforate, the liquid being fed through the apertures in the sides of the pipe in minute separate streams, means for withdrawing the gas from said vaporizing chamber, and means for introducing air into said vaporizing chamber.

5. A vaporizer comprising a conduit for exhaust gases, a vaporizing chamber heated by exhaust gases and having therein non-absorbent heat conducting bodies, a substantially horizontal liquid feed pipe extending into said vaporizing chamber, and having apertures spaced apart along its length, and a perforated sleeve over said liquid fuel feed pipe and embedded in the non-absorbent bodies, whereby the fuel feed pipe may be inserted and withdrawn without disturbing said bodies, means for withdrawing the gas from said vaporizing chamber, and means for introducing air into said vaporizing chamber.

6. A vaporizer comprising a central conduit for exhaust gases, an annular vaporizing chamber concentric with said conduit and having an annular perforated partition across

the end farthest from the point at which gas is withdrawn, thereby dividing the vaporizing chamber into a main portion and an auxiliary portion, the main portion having therein non-absorbent heat conducting bodies, a substantially horizontal liquid fuel feed pipe extending into said main portion of the vaporizing chamber, said fuel feed pipe being provided with apertures, means for withdrawing the gas from the vaporizing chamber, and means for introducing air into the auxiliary chamber.

7. A vaporizer comprising a central horizontal conduit for exhaust gases, an annular vaporizing chamber concentric with said conduit and having an annular perforated partition at the end farthest from the point at which gas is withdrawn, thereby dividing the chamber into a main portion and an auxiliary portion, a partition at the gas educting end of the chamber forming an auxiliary reservoir chamber, the main portion of the vaporizing chamber having therein non-absorbent heat conducting bodies, a substantially horizontal fuel feed pipe extending into said main portion and having feed apertures, gas eduction means communicating with the auxiliary reservoir chamber and means for introducing air into the auxiliary chamber at the opposite end of the apparatus.

8. A vaporizer comprising a horizontal motor exhaust conduit, a vaporizing chamber contiguous to said conduit and extending along the same, non-absorbent heat conducting bodies disposed in said chamber in contact with said conduit, and having interstices adequate to give passage to the fuel to be vaporized in said chamber, a liquid fuel feed pipe having a horizontal perforated part extending into said chamber, and a fuel tank connected to said feed pipe below the level of said perforated horizontal part, said vaporizing chamber having inlet and outlet ports proportioned relatively to the chamber, so that suction therethrough from a motor cylinder is adapted to produce feed from said fuel feed pipe.

9. A vaporizer comprising a horizontal motor exhaust conduit, a vaporizing chamber contiguous to said conduit and extending along the same, an annular continuance of said exhaust conduit surrounding said vaporizing chamber, non-absorbent heat conducting bodies disposed in said vaporizing chamber in contact with said conduit and having interstices adequate to give passage to the fuel to be vaporized in said chamber, and means for delivering liquid fuel into said interstices in such manner that the delivery of the fuel is distributed uniformly along the length of said conduit.

10. A vaporizer comprising a horizontal motor exhaust conduit, a vaporizing chamber surrounding said conduit and closed at one end by junction of its wall to the wall of said conduit, non-absorbent heat conducting bodies disposed in said vaporizing chamber with interstices between them adequate for the passage of the liquid fuel to be vaporized, a horizontal perforated liquid fuel feed pipe extending into said chamber, so as to afford a series of fuel delivery orifices distributed along the length of the chamber, and an air pipe extending into said chamber and terminating with its delivery orifice near said closed end of the chamber, the inlets of air, fuel and exhaust gas being all at the end of the apparatus opposite to said closed end.

11. A vaporizer comprising a horizontal motor exhaust conduit, a vaporizing chamber surrounding said conduit, and closed at one end by junction of its wall to the wall of said conduit, non-absorbent heat conducting bodies disposed in said chamber with interstices between them adequate for the passage of the liquid fuel to be vaporized, a horizontal perforated liquid fuel feed pipe extending into said chamber, so as to afford a series of fuel delivery orifices distributed along the length of the chamber, an air pipe extending into said chamber and terminating with its delivery orifice near said closed end of the chamber, the inlets of air, fuel and exhaust gas being all at the end of the apparatus opposite said closed end, an external casing and a hollow cylinder closed at one end and open at the other interposed between said casing and said vaporizing chamber, so that the exhaust gases must take a zig-zag path from the exhaust conduit through the said cylinder and then through the casing.

13,636. ART OF TREATING MATCH-SPLINTS. WILLIAM A. FAIRBURN, Short Hills, N. J., and FREDERICK V. D. CRUSER and WILLIAM GREEN, Barberton, Ohio, assignors to The Diamond Match Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 22, 1912. Serial No. 733,017. Original No. 1,044,154, dated Nov. 12, 1912, Serial No. 676,896. (Cl. 52—5.)

1. The improvement in the art of treating match splints, which consists in subjecting them to the action of a mixture comprising an unctuous material which imparts an inflammable property to the splints and an impregnating substance which imparts a non-glowing property to the splints.

2. The improvement in the art of treating match splints, which consists in subjecting them to the action of a mixture comprising melted paraffin with which is incorporated an impregnating substance which imparts a non-glowing property to the splints.

3. The improvement in the art of treating match splints to render them non-glowing, which consists in providing a bath of unctuous material which will serve as a vehicle for the efficient transmission of the flame from the igniting material to the body of the splints, adding to the bath a non-glowing powdered substance which will effect impregnation of the splints, maintaining said substance in suspension, and dipping or immersing the splints in the bath.

4. The improvement in the art of treating match splints to render them non-glowing, which consists in providing a bath of paraffin, adding thereto a non-glowing powdered substance which will effect impregnation of the splints, maintaining said substance in suspension, and dipping or immersing the splints in the bath.

5. The improvement in the art of treating match splints to render them non-glowing, which consists in heating unctuous material to a temperature over 212° Fahr., dissolving therein a soap comprising the combination of a metallic oxid with a fatty anhydrid, adding to the solution a non-glowing powdered substance which will effect impregnation of the splints, agitating the solution to keep such substance in suspension, and dipping or immersing the splints in the bath.

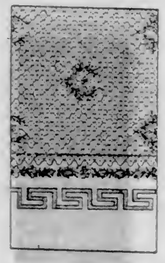
DESIGNS.

44,780. RUG. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 789,004. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,781. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 15, 1913. Serial No. 789,935. Term of patent 3½ years.



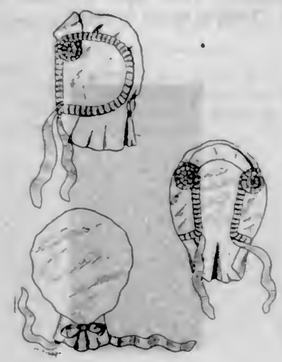
The ornamental design for a carpet, as shown.

44,782. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 15, 1913. Serial No. 789,936. Term of patent 7 years.



The ornamental design for a carpet, as shown.

44,783. BATHING-CAP. EDWIN A. GUINZBURG, New York, N. Y. Filed Aug. 2, 1913. Serial No. 782,725. Term of patent 3½ years.



The ornamental design for a bathing cap as shown.

44,784. CARPET. HENRY C. LACOUTURE, Arlington, N. J., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,975. Term of patent 7 years.



The ornamental design for a carpet, as shown.

44,785. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,995. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,786. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,996. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,787. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,997. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,788. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,998. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,789. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,999. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,790. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 789,000. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,791. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,956. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,792. CARPET. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,957. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,793. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,958. Term of patent 7 years.



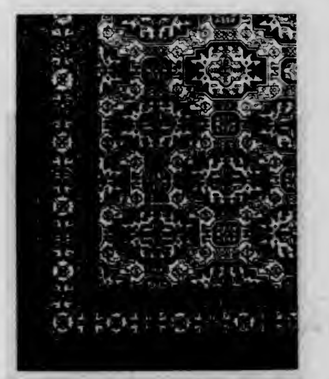
The ornamental design for a rug, as shown.

44,794. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,959. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,795. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,960. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,796. BASE FOR GEM-SETTINGS. THOMAS MOUNTFORD, Newark, N. J., assignor to Blancard & Company, a Firm composed of Rudolph C. Blancard, Frederick J. Blancard, and William Blancard, New York, N. Y. Filed July 9, 1913. Serial No. 778,225. Term of patent 14 years.



The ornamental design for a base for gem settings, as shown.

44,797. SETTING FOR GEMS. THOMAS MOUNTFORD, Newark, N. J., assignor to Blancard & Company, a Firm composed of Rudolph C. Blancard, Frederick J. Blancard, and William Blancard, New York, N. Y. Filed July 9, 1913. Serial No. 778,226. Term of patent 14 years.



The ornamental design for a setting for gems, as shown.

44,798. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 88,963. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,799. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,964. Term of patent 7 years.



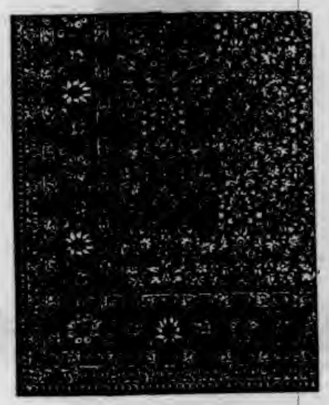
The ornamental design for a rug, as shown.

44,800. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,965. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,801. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,966. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,802. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,967. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,803. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,968. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,804. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,969. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,805. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,970. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,806. CARPET. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,971. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,807. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,953. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,808. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,978. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,809. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,979. Term of patent 3½ years.



The ornamental design for a rug as shown.

44,810. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,980. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,811. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,981. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,812. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,982. Term of patent 3½ years.



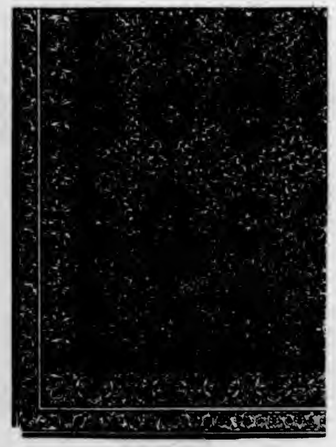
The ornamental design for a rug, as shown.

44,813. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,983. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,814. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,984. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,815. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,985. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,816. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,962. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,817. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,963. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,818. PENCIL-TIP. JOHN SCHARL, New York, N. Y. Filed Aug. 28, 1912. Serial No. 717,613. Term of patent 14 years.



The ornamental design for a pencil tip, as shown.

44,819. CARPET. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,986. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,820. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,987. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,821. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,964. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,822. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,992. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,823. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,993. Term of patent 7 years.



The ornamental design for a rug, as shown.

44,824. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,994. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,825. CARPET. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,949. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

44,826. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,988. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,827. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,989. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,828. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,990. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,829. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 9, 1913. Serial No. 788,991. Term of patent 3½ years.



The ornamental design for a rug, as shown.

44,830. RUG. IGNATIUS J. VETTER, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Sept. 20, 1913. Serial No. 790,965. Term of patent 3½ years.



The ornamental design for a rug, as shown.

TRADE-MARKS

PUBLISHED OCTOBER 28, 1913.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 61,083. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GARRETT & Co., Norfolk, Va. Filed Jan. 27, 1912.



Particular description of goods.—Blackberry Cordial.
Claims use since 1903.

Ser. No. 61,636. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NEW YORK HERALD COMPANY, New York, N. Y. Filed Feb. 20, 1912.

PERCY

Particular description of goods.—Pictures and Illustrations Published Serially.
Claims use since Oct. 1, 1911.

Ser. No. 61,637. (CLASS 38. PRINTS AND PUBLICATIONS.) THE NEW YORK HERALD COMPANY, New York, N. Y. Filed Feb. 20, 1912.

THE JUMP-UPS

Particular description of goods.—Pictures and Illustrations Published Serially.
Claims use since Jan. 28, 1912.

Ser. No. 61,887. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed Mar. 2, 1912.

NEPTUNE

Particular description of goods.—Articles Composed of India-Rubber, Gutta-Percha, Balata, and Similar Vegetable Substances — Namely, Molds, Rolls, Plugs, Cubes, and Buoys.
Claims use since 1870.

Ser. No. 63,297. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERNEST ALECK SPIERS, London, England. Filed May 4, 1912.

RENIPAS

Particular description of goods.—Rheumatic Powder, Liniment, and Constipation-Tablets.
Claims use since Apr. 20, 1912.

Ser. No. 63,965. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BIRDSEY L. MALTBIE, East Orange and Newark, N. J., assignor to Maltbie Chemical Company, Newark, N. J., a Corporation of New Jersey. Filed June 4, 1912.

Calcreose

Particular description of goods.—A Medicinal Powder or Substance Made by a Combination Between Beechwood Creosote and Calcium Hydrate for a Remedy for All Throat, Bronchial, and Lung Diseases.
Claims use since Dec. 1, 1911.

Ser. No. 64,780. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FELTEN & GUILLEAUME CARLSWERK ACTIEN-GESELLSCHAFT, Mülheim-on-the-Rhine, Germany. Filed July 17, 1912.



Particular description of goods.—Articles Composed of India-Rubber, Gutta-Percha, Balata, and Similar Vegetable Substances — Namely, Molds, Rolls, Plugs, Cubes, and Buoys.
Claims use since 1870.

Ser. No. 65,065. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ARNOLD OTTO MEYER, Alsterdamm and Hamburg, Germany. Filed Aug. 2, 1912.



Particular description of goods.—Oil-Paints and Water-Color Paints and Pigments Therefor.
Claims use since Dec. 22, 1908.

Ser. No. 65,212. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE MARINELLO COMPANY, Chicago, Ill. Filed Aug. 12, 1912.

MARINELLO

Particular description of goods.—Hair-Tonic for Dry Scalp, Gray-Hair Tonic, Astringent Hair-Tonic for Oily Scalps and Dandruff, Hair-Follicle Lotion, Scalp-Pomade, Acne-Cream, Whitening-Cream, Methine Ointment, Tissue-Builder, Massage-Cream, Lettuce-Brand Cream, Methine Liquid, Geranium Jelly, Rose-Geranium Cosmetic, Antiseptic and Bleaching Lotion, Tar Tonic for Obstinate Cases of Falling Hair, Antiseptic Oil, and Acacia Balm.
Claims use since 1901.

Ser. No. 65,843. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) ROTARY METER COMPANY, New York, N. Y. Filed Sept. 18, 1912.



Particular description of goods.—Gaseous-Fluid-Measuring Apparatus.
Claims use since May, 1906.

Ser. No. 66,630. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) VE H DE R. DE LA MORA, Guadalajara, Mexico. Filed Oct. 30, 1912.



The fascimile signature on the small label is that of Luis B. de la Mora, a partner of the firm, "Garantizan Su Calidady Pureza Tequila Especial Vda. é hyos de R. de la Mora Cosecherosy Fabricantes Hoas 'El Llano' Y Anexas XII Canton Guadalajara Mex. Marca Registrada" being disclaimed.
Particular description of goods.—Tequila, an Alcoholic Beverage Made from a Mexican Plant.
Claims use since May 31, 1912.

Ser. No. 66,760. (CLASS 37. PAPER AND STATIONERY.) EAGLE PENCIL COMPANY, New York, N. Y. Filed Nov. 8, 1912.

Economy

Particular description of goods.—Lead-Pencils and Pencil-Holders.
Claims use since September, 1887.

Ser. No. 67,503. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POSTUM CEREAL COMPANY, LIMITED, Battle Creek, Mich. Filed Dec. 19, 1912.

Postum

Particular description of goods.—Flavoring Material for Foods.
Claims use since Dec. 26, 1911.

Ser. No. 67,571. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) J. DE GROOT & CO., Zeeland, Mich. Filed Dec. 23, 1912.



Particular description of goods.—Abrasive Substances for Removing Stains, &c., from Clothing.
Claims use since about July 15, 1912.

Ser. No. 67,835. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ASPEGREN & CO., New York, N. Y. Filed Jan. 11, 1913.

STELLA

Particular description of goods.—Cotton-Seed Oil.
Claims use since Oct. 11, 1911.

Ser. No. 68,089. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) EMANUEL DETREY, Zurich, Switzerland. Filed Jan. 24, 1913.

TENACIT

Applicant disclaims the words "La Superiorite Est L'Essence Du Succes."
Particular description of goods.—Teeth-Filling Material for Dentists, Dental Cements, Translucent Porcelain-Cement, Crowns, Bridges, Inlays, Facings, and Dental Medicaments.
Claims use since Jan. 1, 1912.

Ser. No. 68,224. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE GEO. ZETT BREWERY, Syracuse, N. Y. Filed Jan. 30, 1913.



The words "Trade Mark" being disclaimed.
Particular description of goods.—Lager-Beer and Ale.
Claims use since Dec. 1, 1912.

Ser. No. 68,251. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) UNITED & GLOBE RUBBER MFG. COMPANIES, Trenton, N. J. Filed Jan. 31, 1913.



Particular description of goods.—Non-Metallic Tires.
Claims use since Sept. 1, 1912.

Ser. No. 68,608. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) TROY CHEMICAL CO., Binghamton, N. Y. Filed Feb. 18, 1913.



Particular description of goods.—Roup Cure for Poultry.
Claims use since Nov. 1, 1912.

Ser. No. 69,779. (CLASS 12. CONSTRUCTION MATERIALS.) JOHN R. OTT CONTRACTING COMPANY, Los Angeles, Cal. Filed Apr. 14, 1913.

ROADAMITE

Particular description of goods.—Asphalt-Cement Paving Material.
Claims use since May 30, 1912.

Ser. No. 70,172. (CLASS 39. CLOTHING.) M. ALSHULER COMPANY, Waukegan, Ill. Filed May 2, 1913.

"Utility"

Particular description of goods.—Ladies' Wash-Dresses and Negligées.
Claims use since Feb. 1, 1912.

Ser. No. 70,413. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) WARNER JENKINSON MANUFACTURING COMPANY, St. Louis, Mo. Filed May 13, 1913.



The representation of the seal being in red and the words "Red Seal" being in white.
Particular description of goods.—Ginger-Ale, Grape-Juice, Ginger-Ale Extract, Root-Beer, Birch-Beer, Cream Soda, Sherbet, Flavoring Extracts of Blackberry, Cherry, Lemon, Grape, Orange, Peach, Pineapple, Raspberry, Strawberry, Almond, Anise, Apple, Ambrosia, Apricot, Banana, Cinnamon, Cayenne, Celery, Chocolate, Cloves, Coffee, Crab-Apple, Honey, Lime, Maple, Mead, Nutmeg, Orris, Pear, Peppermint, Pistachio, Quince, Rose, Sarsaparilla, Sassafras, Wintergreen, and Vanilla; Crushed Strawberries, Crushed Pineapple, Crushed Peaches, Crushed Raspberries, Crushed Cherries, Nut Frappé, Ground Nuts, Chocolate Paste; and Syrups of Lemon, Vanilla, Orange, Coffee, Ginger, Chocolate, Pineapple, Strawberry, Raspberry, Banana, Sarsaparilla, Blackberry, Apple, Peach, Pear; and Iron Phosphate, Orange Phosphate, and Cherry Phosphate.
Claims use since Jan. 1, 1900.

Ser. No. 70,522. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MATTHEWS & LIVELY, Atlanta, Ga. Filed May 20, 1913.

BLUE STREAK

Particular description of goods.—Razors and Razor-Blades.
Claims use since about August, 1907.

Ser. No. 70,523. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) MATTHEWS & LIVELY, Atlanta, Ga. Filed May 20, 1913.

Koh-I-Noor

Particular description of goods.—Razors and Razor-Blades.
Claims use since about March, 1905.

Ser. No. 70,549. (CLASS 38. PRINTS AND PUBLICATIONS.) HARRY W. STEIN, Wilkes-Barre, Pa. Filed May 21, 1913.

GLAD-U-KUM
TRADE MARK
PHOTO STUDIO

No claim being made to the words "Photo Studio" and "Trade-Mark."

Particular description of goods.—Photographs and Postal-Card Photographs.

Claims use since Sept. 1, 1906.

Ser. No. 70,819. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) F. R. BENNETT, Newark Valley, N. Y. Filed June 2, 1913.

NuPros

Particular description of goods.—Flavoring Extracts for Foods.

Claims use since Feb. 1, 1912.

Ser. No. 70,826. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DRUGGISTS' CO-OPERATIVE ASSOCIATION (INCORPORATED), Jersey City, N. J., and Detroit, Mich. Filed June 2, 1913.



Particular description of goods.—Candy.

Claims use since Jan. 15, 1913.

Ser. No. 70,879. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HELLER & LONG, New York, N. Y. Filed June 5, 1913.

No 79

Particular description of goods.—Handkerchiefs.

Claims use since 1908.

Ser. No. 70,883. (CLASS 43. THREAD AND YARN.) SEA ISLAND THREAD CO., New York, N. Y. Filed June 5, 1913.

O. K.

Particular description of goods.—Mercerized Thread and Spool-Cotton.

Claims use since Jan. 1, 1901.

Ser. No. 70,961. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) STANDARD PIPE COVERING CO., Cleveland, Ohio. Filed June 7, 1913.

"GRAB-ON"

Particular description of goods.—Ceiling-Sleeves for Pipes.

Claims use since about May 1, 1912.

Ser. No. 70,981. (CLASS 39. CLOTHING.) NORTHERN SHOE CO., Duluth, Minn. Filed June 9, 1913.

FARMPRUF

Particular description of goods.—Boots and Shoes Made of Rubber and Leather.

Claims use since Mar. 15, 1913.

Ser. No. 71,064. (CLASS 39. CLOTHING.) THE EXCELSIOR SHOE COMPANY, Portsmouth, Ohio. Filed June 12, 1913.

"KICKING KID"

Particular description of goods.—Leather Boots and Shoes.

Claims use since May 1, 1913.

Ser. No. 71,104. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HAAS BROTHERS, New York, N. Y. Filed June 14, 1913.

CREPE GEORGETTE

No exclusive claim being made to the word "Crepe."

Particular description of goods.—Light-Weight Silk Crape.

Claims use since Jan. 1, 1913.

Ser. No. 71,274. (CLASS 39. CLOTHING.) SHAFT-PIERCE SHOE CO., Faribault, Minn. Filed June 21, 1913.

MINNEHAHA

Particular description of goods.—Shoes of Leather and Canvas.

Claims use prior to Feb. 20, 1895.

Ser. No. 71,279. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE ARISTOS COMPANY, Wilmington, Del., and New York, N. Y. Filed June 23, 1913.

MONDEX

Particular description of goods.—Shock-Preventers.

Claims use since Mar. 17, 1911.

Ser. No. 71,447. (CLASS 39. CLOTHING.) F. MAYER BOOT & SHOE CO., Milwaukee, Wis. Filed June 30, 1913.



Martha Washington

Particular description of goods.—Leather Boots and Shoes.

Claims use since 1896.

Ser. No. 71,486. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE PROTOCON COMPANY, INCORPORATED, New York, N. Y. Filed July 2, 1913.

PROTOCON

Particular description of goods.—Hat-Frames, Artificial Flowers, and Hat-Trimmings.

Claims use since the 10th of June, 1913.

Ser. No. 71,518. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ANTONIO MAGLIARO, Atlantic City, N. J. Filed July 3, 1913.

Delight

Particular description of goods.—Hair-Restorer.

Claims use since Oct. 15, 1912.

Ser. No. 71,546. (CLASS 47. WINES.) THE THEOBALD AND SON CO., Columbus, Ohio. Filed July 5, 1913.



Particular description of goods.—Wine.

Claims use since June 1, 1913.

Ser. No. 71,600. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ANGLO-AMERICAN PHARMACEUTICAL COMPANY LTD., Croyden, England, and New York, N. Y. Filed July 9, 1913.

HUX-SAL

No claim being made to the word "Sal."

Particular description of goods.—An Antiseptic Powder.

Claims use since about the year 1906.

Ser. No. 71,639. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CAROLINE MAYNE, New York, N. Y. Filed July 10, 1913. Under ten-year proviso.



Particular description of goods.—Pills for the Stomach and Liver.

Claims use since Dec. 15, 1882.

Ser. No. 71,817. (CLASS 17. TOBACCO PRODUCTS.) CHARLES CLARENCE SYMONETT, Live Oak, Fla. Filed July 17, 1913.



Particular description of goods.—Cigars, Cigarettes, and Smoking and Chewing Tobacco.

Claims use since May 1, 1913.

Ser. No. 71,830. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) MORRIS & YEOMANS, Redditch and London, England. Filed July 18, 1913.

"VENUS"

Particular description of goods.—Crochet-Needles.

Claims use since the year 1895.

Ser. No. 71,865. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) TIERNAN WALTON, Philadelphia, Pa. Filed July 19, 1913.



Particular description of goods.—Toys.

Claims use since July 7, 1913.

Ser. No. 71,966. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New New York. Filed July 25, 1913.

SPECTROCROM

Particular description of goods.—Moving-Picture Machines, Cameras, Kodaks, and Photographic Films.
Claims use since May 1, 1913.

Ser. No. 71,967. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) FREDERICK W. HOCHSTETTER, New York, N. Y., assignor to H. P. Patents and Processes Company, Inc., New York, N. Y., a Corporation of New York. Filed July 25, 1913.

SPECTRACRONE

Particular description of goods.—Moving-Picture Machines, Cameras, Kodaks, and Photographic Films.
Claims use since May 1, 1913.

Ser. No. 71,995. (CLASS 37. PAPER AND STATIONERY.) SAUQUOIT TOILET PAPER CO. INC., New Hartford, N. Y. Filed July 26, 1913.

VESTA

Particular description of goods.—Toilet-Paper.
Claims use since Jan. 10, 1911.

Ser. No. 72,008. (CLASS 39. CLOTHING.) LAWRENCE MANUFACTURING COMPANY, Lowell and Boston, Mass. Filed July 28, 1913.

KNITSOOK

Particular description of goods.—Underwear—Namely, Shirts, Drawers, and Union Suits Made of Knitted Fabric.
Claims use since Nov. 9, 1912.

Ser. No. 72,025. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIMON BRENTANO, Orange, N. J., and New York, N. Y. Filed July 29, 1913.

SILVAPEN

Particular description of goods.—A Bath-Powder.
Claims use since June 26, 1913.

Ser. No. 72,096. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK HELFENBERG A. G. VORM. EUGEN DIETERICH, Helfenberg, near Dresden, Germany. Filed Aug. 1, 1913.

Agasol

Particular description of goods.—Agar Preparations for Bacteriological Purposes.
Claims use since June 21, 1912.

Ser. No. 72,182. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ROSA ANNUZZI, San Francisco, Cal. Filed Aug. 6, 1913.

R SPECIAL SALVE N

No claim is made for the words "Salve" and "Special."
Particular description of goods.—A Salve.
Claims use since June 1, 1913.

Ser. No. 72,189. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) WM. H. JACOBSEN, Minneapolis, Minn. Filed Aug. 6, 1913.

DOLLAR BILLS

Particular description of goods.—Garters, Neckties, and Suspenders.
Claims use since about Nov. 1, 1912.

Ser. No. 72,193. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PHELPS MANUFACTURING COMPANY, Providence, R. I. Filed Aug. 6, 1913.



Particular description of goods.—Liquid Dressing for Use on Leather and Rubber.
Claims use since June 30, 1913.

Ser. No. 72,226. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) L. W. HAHN, Kansas City, Mo. Filed Aug. 8, 1913.

DŌRĀZ

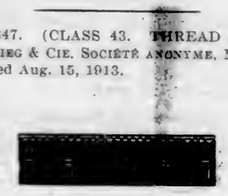
Particular description of goods.—Baking-Powder.
Claims use since Aug. 1, 1913.

Ser. No. 72,308. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE STANFORD SEED COMPANY, Binghamton, N. Y. Filed Aug. 12, 1913.
"Justice."

JUSTICE

Particular description of goods.—Seeds—Namely, Timothey, Clover, Alsike, Red Top, Blue Grass, All Kinds of Field-Seeds, Seed-Grains, and Seed-Grass.
Claims use since about Aug. 21, 1912.

Ser. No. 72,347. (CLASS 43. THREAD AND YARN.) DOLLFUS-MIEG & CIE. SOCIÉTÉ ANONYME, Mülhouse, Germany. Filed Aug. 15, 1913.



Particular description of goods.—Yarns, Threads, Cords, Braids, and Laces Made of Cotton, Wool, Silk, Linen, Jute, and Ramie.
Claims use since June 15, 1891.

Ser. No. 72,378. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JEFFERSON DISTILLING AND DENATURING COMPANY, New Orleans, La. Filed Aug. 16, 1913.

RADIO

Particular description of goods.—Denatured Alcohol.
Claims use since June 1, 1913.

Ser. No. 72,430. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) N. R. ALLEN'S SONS COMPANY, Kenosha, Wis. Filed Aug. 20, 1913.



Particular description of goods.—Leather Strips.
Claims use since June 15, 1913.

Ser. No. 72,503. (CLASS 12. CONSTRUCTION MATERIALS.) NORTHWESTERN COMPO BOARD CO., Minneapolis, Minn. Filed Aug. 23, 1913. Under ten-year proviso.

COMPO-BOARD

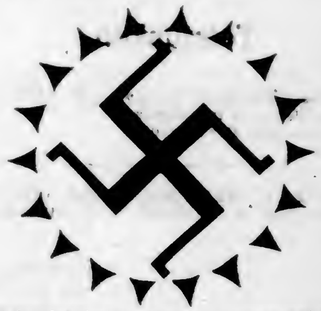
The word "Board" being disclaimed.
Particular description of goods.—Artificial Lumber in Strips, Sheets, and Boards.
Claims use since the year 1891.

Ser. No. 72,575. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DAVID ANGUS SMITH, Wonder, Nev. Filed Aug. 28, 1913.



The representation of an eye-cup in connection with the trade-mark is disclaimed, as it forms no part of the trade-mark.
Particular description of goods.—A Preparation for the Treatment of Sore Eyes.
Claims use since Aug. 1, 1913.

Ser. No. 72,589. (CLASS 15. OILS AND GREASES.) SCHLIEMANN'S OIL & CERESINE COMPANY, INC., New York, N. Y. Filed Aug. 29, 1913.



Particular description of goods.—Lubricating-Oils, Engine-Grease, Animal and Fatty Oils for Lubricating Purposes, Boring-Machine Oils, and Special Machine-Oils.
Claims use since Jan. 1, 1902.

Ser. No. 72,598. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) D. H. COPLON & CO., Buffalo, N. Y. Filed Aug. 30, 1913.

WALK-ON

Particular description of goods.—Textile Rugs, Carpets, and Mattings.
Claims use since Aug. 10, 1912.

Ser. No. 72,616. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) HENRY DISSTON & SONS INCORPORATED, Philadelphia, Pa. Filed Sept. 2, 1913. Under ten-year proviso.

"For Beauty, Finish, and Utility, this Saw cannot be Excelled"
Henry Disston

Particular description of goods.—Saws.
Claims use since 1874.

Ser. No. 72,673. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DANIEL W. FARNSWORTH, Montclair, N. J., and New York, N. Y. Filed Sept. 4, 1913. Under ten-year proviso.

LAMBSDOWN

Particular description of goods.—Flannel and Woolen Piece Goods.
Claims use for the last twenty years.

Ser. No. 72,743. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GESELLSCHAFT FUR DRAHTLOSE TELEGRAPHIE, M. B. H., Berlin, Germany. Filed Sept. 9, 1913.

Telefunken

Particular description of goods.—Wave-Meters and Electrical Measuring Instruments.
Claims use since May 27, 1903.

Ser. No. 72,779. (CLASS 43. THREAD AND YARN.) DEXTER YARN CO., Pawtucket, R. I. Filed Sept. 11, 1913.

Dycomett

Consisting of the word "Dyco."
Particular description of goods.—Yarns and Threads Made of Cotton, Silk, Jute, Flax, Linen, Wool, and Ramie.
Claims use since Apr. 1, 1913.

Ser. No. 72,789. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARIS MEDICINE COMPANY, St. Louis, Mo. Filed Sept. 11, 1913.



E. W. Grove

The signature shown being a facsimile of that of E. W. Grove, its president.
Particular description of goods.—An Antiseptic Cream for Toilet Purposes and as an Analgesic
Claims use since July 23, 1913.

Ser. No. 72,934. (CLASS 37. PAPER AND STATIONERY.) DENNISON MANUFACTURING COMPANY, Boston, Mass. Filed Sept. 18, 1913. Under ten-year proviso.

L

Particular description of goods.—Tags.
Claims use since 1880.

Ser. No. 72,983. (CLASS 48. MALT EXTRACTS AND LIQUORS.) SCHALK BREWERY, INCORPORATED, Newark, N. J. Filed Sept. 20, 1913.

Only

Particular description of goods.—Beer.
Claims use since about Sept. 1, 1913.

Ser. No. 73,013. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 23, 1913.

E. & O.

Particular description of goods.—Beer.
Claims use since Sept. 4, 1883.

Ser. No. 73,015. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 23, 1913.



Particular description of goods.—Beer.
Claims use since about July 28, 1913.

Ser. No. 73,051. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

UNIONTOWN

Particular description of goods.—Beer.
Claims use since 1894.

Ser. No. 73,052. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

McKEESPORT

Particular description of goods.—Beer.
Claims use since 1894.

Ser. No. 73,053. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

MT. PLEASANT

Particular description of goods.—Beer.
Claims use since Jan. 4, 1894.

Ser. No. 73,054. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

JEANNETTE

Particular description of goods.—Beer.
Claims use since 1894.

Ser. No. 73,055. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

CONNELLSVILLE

Particular description of goods.—Beer.
Claims use since about 1889.

Ser. No. 73,056. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

WAINWRIGHT

Particular description of goods.—Beer, Ale, and Porter.
Claims use since 1879.

Ser. No. 73,057. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

LATROBE

Particular description of goods.—Beer.
Claims use since 1894.

Ser. No. 73,058. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

BAEUERLEIN

Particular description of goods.—Beer.
Claims use since 1887.

Ser. No. 73,059. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

WINTER

Particular description of goods.—Beer.
Claims use since 1886.

Ser. No. 73,060. (CLASS 48. MALT EXTRACTS AND LIQUORS.) PITTSBURGH BREWING COMPANY, Pittsburgh, Pa. Filed Sept. 25, 1913. Under ten-year proviso.

STRAUB

Particular description of goods.—Beer.
Claims use since 1885.

Ser. No. 73,132. (CLASS 39. CLOTHING.) SHAPIRO BROS., New York, N. Y. Filed Sept. 30, 1913.

REVERSO

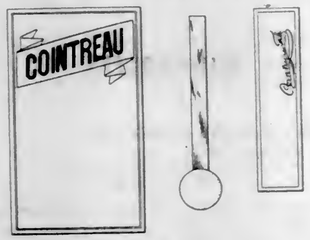
Particular description of goods.—Ladies', Misses', Juniors', and Children's Dresses.
Claims use since Sept. 12, 1913.

Ser. No. 73,191. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo. Filed Oct. 3, 1913.

Daisy

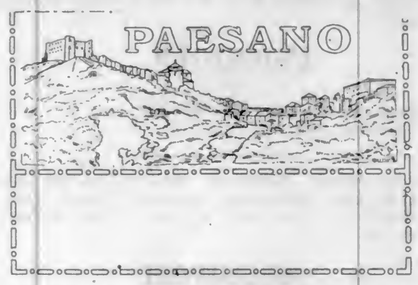
Particular description of goods.—Enameled Metal Ware.
Claims use since about Sept. 22, 1913.

Ser. No. 73,208. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) COINTREAU PERE ET FILS, Angers, France. Filed Oct. 4, 1913. Under ten-year proviso.



Particular description of goods.—A Liqueur.
Claims use since the 1st day of May, 1875.

Ser. No. 73,238. (CLASS 47. WINES.) JOSEPH PETROCELLI & COMPANY, New York, N. Y. Filed Oct. 6, 1913.



Particular description of goods.—Still Straight Red Table-Wine.
Claims use since Dec. 5, 1912.

Ser. No. 73,284. (CLASS 47. WINES.) THE SWEET VALLEY WINE CO., Sandusky, Ohio. Filed Oct. 8, 1913.

Southern Belle

Particular description of goods.—Wine.
Claims use since July 1, 1913.

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TRADE-MARKS

REGISTERED OCTOBER 28, 1913.

93,952. GIN. ADAMS, TAYLOR & CO., Boston, Mass.
Filed April 8, 1913. Serial No. 69,651. PUBLISHED AUGUST 26, 1913.

93,953. SAFETY-DEPOSIT BOXES. ART METAL CONSTRUCTION CO., Jamestown, N. Y.
Filed March 14, 1913. Serial No. 69,020. PUBLISHED AUGUST 26, 1913.

93,954. PIECE FABRICS OF SILK, LINEN, COTTON, WOOL, OR ADMIXTURES OF THESE FIBERS. ATUYER, BIANCHINI, FERIER, Lyon, France, and New York, N. Y.
Filed March 25, 1913. Serial No. 69,307. PUBLISHED AUGUST 26, 1913.

93,955. ANILIN DYES AND OTHER NAMED CHEMICALS. BADISCHE ANILIN- & SODA-FABRIK, Ludwigshafen-on-the-Rhine, Germany.
Filed May 1, 1913. Serial No. 70,145. PUBLISHED AUGUST 26, 1913.

93,956. CERTAIN NAMED ELECTRICAL APPARATUS. THE JAMES BAILEY COMPANY, Portland, Me.
Filed June 19, 1913. Serial No. 71,191. PUBLISHED AUGUST 26, 1913.

93,957. CHOCOLATE CREAMS. C. S. BALL, Dayton, Ohio.
Filed March 8, 1913. Serial No. 68,912. PUBLISHED AUGUST 26, 1913.

93,958. MEDICINAL BITTERS. HENRY BEIMER, Winona, Minn.
Filed March 14, 1913. Serial No. 69,024. PUBLISHED AUGUST 26, 1913.

93,959. CHILL-TONIC, A PILL, AND AN OINTMENT. WILLIAM E. BEVENS, Newport, Ark.
Filed April 26, 1913. Serial No. 70,075. PUBLISHED AUGUST 26, 1913.

93,960. CUSTARD-POWDER, EGG-POWDER, AND BLANC-MANGE POWDER. ALFRED BIRD AND SONS, LIMITED, Birmingham, England.
Filed April 21, 1913. Serial No. 69,938. PUBLISHED AUGUST 26, 1913.

93,961. INFANTS' TOILET REQUISITES: TOILET AND TOOTH POWDER, SKIN-LOTIONS, AND COLD-CREAM. GEO. BORGFELDT & CO., New York, N. Y.
Filed July 18, 1912. Serial No. 64,807. PUBLISHED AUGUST 26, 1913.

93,962. CABLES AND ROPES. BRODERICK & BASCOM ROPE COMPANY, St. Louis, Mo.
Filed June 9, 1913. Serial No. 70,967. PUBLISHED AUGUST 26, 1913.

93,963. HAND-TORPEDOES. BURMONT SPECIALTY COMPANY, Fernwood, Pa.
Filed February 19, 1912. Serial No. 61,602. PUBLISHED MAY 21, 1912.

93,964. TOILET POWDER. E. R. CABANSKI, Tacoma, Wash.
Filed August 29, 1912. Serial No. 65,478. PUBLISHED AUGUST 26, 1913.

93,965. WHEAT-FLOUR. CENTENNIAL MILL CO., Seattle and Spokane, Wash.
Filed May 3, 1912. Serial No. 63,285. PUBLISHED SEPTEMBER 3, 1912.

93,966. CAMERAS. CHICAGO FERROTYPE CO., Chicago, Ill.
Filed July 16, 1913. Serial No. 71,735. PUBLISHED AUGUST 26, 1913.

93,967. CAMERAS. CHICAGO FERROTYPE CO., Chicago, Ill.
Filed July 25, 1913. Serial No. 71,964. PUBLISHED AUGUST 26, 1913.

93,968. WHEAT-FLOUR. HYMAN COHEN, Boston, Mass.
Filed October 3, 1910. Serial No. 52,070. PUBLISHED AUGUST 26, 1913.

93,969. SELF-RISING FLOUR. H. C. COLE MILLING CO., Chester, Ill.
Filed May 28, 1913. Serial No. 70,712. PUBLISHED AUGUST 26, 1913.

93,970. PEROXID OF HYDROGEN. COMMERCIAL CHEMICAL COMPANY, Clearing, Ill.
Filed June 14, 1913. Serial No. 71,100. PUBLISHED AUGUST 26, 1913.

93,971. KINEMATOGRAPHIC AND PHOTOGRAPHIC FILMS AND PLATES. COMPAGNIE GÉNÉRALE DES ETABLISSEMENTS PATHÉ FRÈRES, PHONOGRAPHE ET CINEMATOGRAPHE, Paris, France.
Filed May 29, 1913. Serial No. 70,745. PUBLISHED AUGUST 26, 1913.

93,972. PHARMACEUTICAL PREPARATION USED IN TREATING CERTAIN DISEASES AND AILMENTS. PETER R. CRAIG, Lowell, Mass.
Filed February 8, 1913. Serial No. 68,401. PUBLISHED AUGUST 26, 1913.

93,973. FIGS, DRIED FRUITS, AND NUTS. EMILY D. DAY, New York, N. Y.
Filed May 29, 1913. Serial No. 70,755. PUBLISHED AUGUST 26, 1913.

93,974. FLUID ADAPTED FOR USE IN STENCILING. A. B. DICK COMPANY, Chicago, Ill.
Filed March 25, 1913. Serial No. 69,314. PUBLISHED AUGUST 26, 1913.

93,975. MOVING-PICTURE FILMS. DIRECTORS FILM CORPORATION, New York, N. Y.
Filed July 2, 1913. Serial No. 71,476. PUBLISHED AUGUST 26, 1913.

93,976. LAXATIVE. CASPER J. DOBROCINSKI, Schenectady, N. Y.
Filed June 19, 1913. Serial No. 71,104. PUBLISHED AUGUST 26, 1913.

93,977. PHOTOGRAPHIC PRINTING-OUT PAPER. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed August 2, 1913. Serial No. 72,128. PUBLISHED AUGUST 26, 1913.

93,978. PHOTOGRAPHIC PRINTING-OUT PAPER. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed August 2, 1913. Serial No. 72,129. PUBLISHED AUGUST 26, 1913.

93,979. PILE-OINTMENT. ALFRED N. EYSLEE, San Francisco, Cal.
Filed June 16, 1913. Serial No. 71,126. PUBLISHED AUGUST 26, 1913.

93,980. COFFEE. THE G. B. FARRINGTON COMPANY, New York, N. Y.
Filed July 25, 1911. Serial No. 57,816. PUBLISHED AUGUST 26, 1913.

93,981. TEA AND COFFEE. J. A. FOLGER & COMPANY, Kansas City, Mo.
Filed March 29, 1913. Serial No. 69,417. PUBLISHED AUGUST 26, 1913.

93,982. CANDY OF VARIOUS KINDS. GEO. H. FRITZ & SONS, Newark, N. J.
Filed September 19, 1912. Serial No. 65,852. PUBLISHED AUGUST 26, 1913.

93,983. TOILET POWDER, COLD-CREAM, AND REMEDY FOR OBESITY. ROBERT J. GATES, New York. N. Y.
Filed June 21, 1913. Serial No. 71,238. PUBLISHED AUGUST 26, 1913.

93,984. VETERINARY REMEDIES FOR LAMENESS, SORES, SCRATCHES, SCARS, AND WILD-GROWTH HAIR. ROBERT J. GATES, New York, N. Y.
Filed June 21, 1913. Serial No. 71,240. PUBLISHED AUGUST 26, 1913.

93,985. PROPRIETARY REMEDY FOR RELIEVING CONSTIPATION AND HEMORRHOIDS. GLYCERINE APPLICATOR CO., Spring Lake, Mich.
Filed June 27, 1913. Serial No. 71,404. PUBLISHED AUGUST 26, 1913.

93,986. COVERINGS FOR HAND-WHEELS. GOODYEAR RUBBER HOSE & PACKING COMPANY, Philadelphia, Pa.
Filed March 27, 1912. Serial No. 62,443. PUBLISHED MAY 7, 1912.

93,987. BABBITT AND ANTIFRICTION METALS. GREAT WESTERN SMELTING & REFINING CO., Chicago, Ill.
Filed May 6, 1912. Serial No. 63,363. PUBLISHED AUGUST 26, 1913.

93,988. PIECE GOODS OF WOOLEN, WORSTED, AND COTTON CLOTH FOR OUTER GARMENTS. BENJAMIN W. GREER, Germantown, Pa.
Filed June 23, 1913. Serial No. 71,297. PUBLISHED AUGUST 26, 1913.

93,989. SALVE. HAMILTON & HAILE, Winters, Cal.
Filed June 23, 1913. Serial No. 71,300. PUBLISHED AUGUST 26, 1913.

93,990. MEDICINAL PREPARATION IN TABLET FORM FOR THE DIGESTION. TRACY H. HARRIS, New York, N. Y.
Filed June 19, 1913. Serial No. 71,200. PUBLISHED AUGUST 26, 1913.

93,991. CHEESE. W. EWING HARVEY, Baltimore, Md., assignor to Corkran, Hill & Co., Baltimore, Md.
Filed April 1, 1913. Serial No. 69,508. PUBLISHED AUGUST 26, 1913.

93,992. CERTAIN NAMED MACHINERY AND TOOLS AND PARTS THEREOF. A/B B. A. HJORTH & Co., Stockholm, Sweden.
Filed April 2, 1913. Serial No. 69,534. PUBLISHED AUGUST 26, 1913.

93,993. ENVELOPS AND WRITING-PAPER. HOGAN ENVELOPE COMPANY, Chicago, Ill., assignor to Heco Paper Company, a Corporation of Illinois.
Filed August 17, 1912. Serial No. 65,324. PUBLISHED AUGUST 19, 1913.

93,994. ADHESIVE GUMS. J. L. HOPKINS & Co., New York, N. Y.
Filed July 15, 1913. Serial No. 71,711. PUBLISHED AUGUST 26, 1913.

93,995. CARBONIZING COMPOUNDS, DISINFECTANTS, COMPOUNDS FOR PREVENTING OXIDATION, AND SOLUBLE TALLOW COMPOUND. E. F. HOUGHTON & COMPANY, Philadelphia, Pa.
Filed June 14, 1913. Serial No. 71,106. PUBLISHED AUGUST 26, 1913.

93,996. COLD-CREAM. RICHARD HUDNUT, New York, N. Y.
Filed July 1, 1913. Serial No. 71,460. PUBLISHED AUGUST 26, 1913.

93,997. WATCHES AND CLOCKS. ROBT. H. INGERSOLL & BRO., New York, N. Y.
Filed July 1, 1912. Serial No. 64,504. PUBLISHED OCTOBER 8, 1912.

93,998. HYDROCARBON OILS. OTTO ISENSTEIN & COMPANY, New York, N. Y.
Filed July 24, 1913. Serial No. 71,948. PUBLISHED AUGUST 26, 1913.

93,999. CANDY. JOHNSON BISCUIT CO., Sioux City, Iowa.
Filed March 12, 1913. Serial No. 68,972. PUBLISHED AUGUST 26, 1913.

94,000. DEODORIZING COLD-CREAM. J. BAILEY JOHNSON, Edgewood, Pa.
Filed June 23, 1913. Serial No. 71,301. PUBLISHED AUGUST 26, 1913.

94,001. ALTERATIVE, DISINFECTANT, TONIC, BLOOD-PURIFIER, AND GERMICIDE. WILLIAM THOMAS KENDRICK, Montgomery, Ala.
Filed June 11, 1913. Serial No. 71,017. PUBLISHED AUGUST 26, 1913.

94,002. DENTAL POWDER. BERT H. KERSHAW, Chicago, Ill.
Filed May 26, 1913. Serial No. 70,667. PUBLISHED AUGUST 26, 1913.

94,003. COFFEE AND TEA, FLAVORING EXTRACTS FOR FOODS, SPICES, AND COCOA. FRANK C. KIP, Oklahoma, Okla.
Filed January 11, 1913. Serial No. 67,846. PUBLISHED AUGUST 26, 1913.

94,004. GELATIN. CHARLES B. KNOX COMPANY, Johnstown, N. Y.
Filed March 21, 1913. Serial No. 69,233. PUBLISHED AUGUST 26, 1913.

94,005. REMEDY FOR DYSENTERY AND ALL STOMACH TROUBLE. ALSINA M. LABAUVE, New Orleans, La.
Filed July 1, 1913. Serial No. 71,463. PUBLISHED AUGUST 26, 1913.

94,006. FLAVORING EXTRACTS FOR SYRUPS USED IN SODA-FOUNTAIN BEVERAGES. LAINFIESTA & Co., San Francisco, Cal.
Filed March 12, 1913. Serial No. 68,974. PUBLISHED AUGUST 26, 1913.

94,007. CERTAIN NAMED FOODS. JOHN F. LALLA COMPANY, Chicago, Ill.
Filed December 16, 1912. Serial No. 67,410. PUBLISHED AUGUST 26, 1913.

94,008. CANNED PEACHES, PLUMS, APRICOTS, PEARS, AND CHERRIES. LIBBY, MCNEILL & LIBBY, Chicago, Ill.
Filed April 14, 1913. Serial No. 69,771. PUBLISHED AUGUST 26, 1913.

94,009. STRINGS FOR MUSICAL INSTRUMENTS, DRUMHEADS, AND BANJO-HEADS. LYON & HEALY, Chicago, Ill.
Filed December 30, 1912. Serial No. 67,646. PUBLISHED AUGUST 26, 1913.

94,010. SALT. THE LYONS SALT CO., Kansas City, Mo.
Filed June 12, 1913. Serial No. 71,073. PUBLISHED AUGUST 26, 1913.

94,011. OINTMENT FOR CERTAIN NAMED DISEASES. MASENGILL BROS. COMPANY, Bristol, Tenn.
Filed May 8, 1913. Serial No. 70,300. PUBLISHED AUGUST 26, 1913.

94,012. FOOT-SALVE. HARRY H. MAYER, New York, N. Y.
Filed June 10, 1913. Serial No. 71,003. PUBLISHED AUGUST 26, 1913.

94,013. CARBONATED FLAVORED TONIC BEVERAGES. MAYSVILLE SYRUP COMPANY, Maysville, Ky.
Filed April 1, 1913. Serial No. 69,511. PUBLISHED AUGUST 26, 1913.

94,014. OLIVE-OIL. ANGELO MERLINO, Seattle, Wash.
Filed May 7, 1912. Serial No. 63,391. PUBLISHED OCTOBER 22, 1912.

94,015. METALLIC SHIPPING-CASES. THE METALLIC SHIPPING CASE CORPORATION, Cleveland, Ohio.
Filed March 10, 1913. Serial No. 68,944. PUBLISHED AUGUST 26, 1913.

94,016. WOOLEN PIECE GOODS. ALEXANDER I. MITCHELL, Stafford Springs, Conn.
Filed April 30, 1913. Serial No. 70,138. PUBLISHED AUGUST 26, 1913.

94,017. SILOS. MONOLITHIC SILO & CONSTRUCTION COMPANY, Wilmington, Del., and Chicago, Ill.
Filed May 6, 1913. Serial No. 70,265. PUBLISHED JULY 22, 1913.

94,018. LINIMENT. DOMENICO MOTTURA, Chisholm, Minn.
Filed July 22, 1913. Serial No. 71,887. PUBLISHED AUGUST 26, 1913.

94,019. CERTAIN NAMED FOODS. MULLER BROS., Oakland, Cal.
Filed October 28, 1912. Serial No. 66,635. PUBLISHED DECEMBER 31, 1912.

94,020. COMPOUND FOR DESTROYING INSECTS. MUSKEETOPUNK CO., Pekin, Ill.
Filed May 9, 1912. Serial No. 63,444. PUBLISHED AUGUST 6, 1912.

94,021. CERTAIN NAMED FOODS. NAVE MCCORD MERCANTILE CO., St. Joseph, Mo.
Filed May 9, 1913. Serial No. 70,324. PUBLISHED AUGUST 26, 1913.

94,022. FRESH FRUITS. HERBERT N. NICHOLS, Chicago, Ill.
Filed October 17, 1912. Serial No. 66,334. PUBLISHED AUGUST 26, 1913.

94,023. OLEOMARGARIN. THE OHIO BUTTERINE CO., Cincinnati, Ohio.
Filed June 5, 1913. Serial No. 70,881. PUBLISHED AUGUST 26, 1913.

94,024. SMOKERS' PIPES. A. OPPENHEIMER & Co., London, England.
Filed November 15, 1912. Serial No. 66,919. PUBLISHED AUGUST 26, 1913.

94,025. LINIMENT. THE O'SULLIVAN SPECIALTIES COMPANY, Lowell, Mass.
Filed May 28, 1913. Serial No. 70,729. PUBLISHED AUGUST 26, 1913.

94,026. TEA, COFFEE, AND COCOA. PERCY REGINALD PALETHORPE, Owensboro, Ky.
Filed April 18, 1913. Serial No. 69,900. PUBLISHED AUGUST 26, 1913.

94,027. ELECTRIC FAN-MOTORS, POWER-MOTORS, EXHAUST-FANS, ROTARY CONVERTERS, AND FORGE-BLOWERS. THE PEERLESS ELECTRIC COMPANY, Warren, Ohio.
Filed June 25, 1913. Serial No. 71,365. PUBLISHED AUGUST 26, 1913.

94,028. TOILET-PAPER. SAUQUOIT TOILET PAPER CO., INC., New Hartford, N. Y.
Filed July 7, 1913. Serial No. 71,581. PUBLISHED AUGUST 26, 1913.

94,029. LUBRICATING-OILS OF VARIOUS KINDS. SCHLIEMANN'S OIL & CERESINE COMPANY, INC., New York, N. Y.
Filed August 2, 1913. Serial No. 72,145. PUBLISHED AUGUST 26, 1913.

94,030. PIPES. RALPH A. SCHOENBERG, Boston, Mass.
Filed July 2, 1913. Serial No. 71,490. PUBLISHED AUGUST 26, 1913.

94,031. CORN-PLASTERS AND FOOT-POWDERS. THE SCHOLL MANUFACTURING COMPANY, Chicago, Ill.
Filed July 31, 1911. Serial No. 57,957. PUBLISHED AUGUST 26, 1913.

94,032. REMEDY FOR PILES. SELIP MANUFACTURING COMPANY, Los Angeles, Cal.
Filed June 12, 1913. Serial No. 71,078. PUBLISHED AUGUST 26, 1913.

94,033. WHEAT-FLOUR. ROSS T. SMYTH & Co., Liverpool, England.
Filed June 6, 1913. Serial No. 70,910. PUBLISHED AUGUST 26, 1913.

94,034. SYRUP FOR BEVERAGES. JOHN L. TYLER, Birmingham, Ala.
Filed January 9, 1912. Serial No. 60,700. PUBLISHED MARCH 25, 1913.

94,035. FOOT-POWDER. VOUPLE COMPANY, New York, N. Y.
Filed June 9, 1913. Serial No. 70,989. PUBLISHED AUGUST 26, 1913.

94,036. FIREWORKS. EDWARD H. WAGNER, New York, N. Y.
Filed June 28, 1913. Serial No. 71,430. PUBLISHED AUGUST 26, 1913.

94,037. SILK PIECE GOODS. WAHNETAH SILK COMPANY, Catasauqua, Pa.
Filed July 18, 1913. Serial No. 71,851. PUBLISHED AUGUST 26, 1913.

94,038. CANDIES. WALLACE & Co., New York and Brooklyn, N. Y.
Filed April 8, 1913. Serial No. 69,668. PUBLISHED AUGUST 26, 1913.

94,039. STENCIL ADDRESSING-MACHINES. WALLACE ADDRESSING MACHINE COMPANY INC., New York, N. Y.
Filed April 16, 1913. Serial No. 69,833. PUBLISHED AUGUST 26, 1913.

94,040. REMEDY FOR SYPHILIS, RHEUMATISM, ECZEMA, MALARIA, AND ALL BLOOD DISEASES. WAMPINE MEDICINE COMPANY, Little Rock, Ark.
Filed June 19, 1913. Serial No. 71,204. PUBLISHED AUGUST 26, 1913.

94,041. CHOCOLATES. WESTMORELAND CANDY COMPANY, Richmond, Va.
Filed April 29, 1913. Serial No. 70,119. PUBLISHED AUGUST 26, 1913.

94,042. REMEDY FOR HEADACHE AND NEURALGIA. THE YUM COMPANY, Durham, N. C.
Filed June 16, 1913. Serial No. 71,145. PUBLISHED AUGUST 26, 1913.

LABELS

REGISTERED OCTOBER 28, 1913.

17,300.—*Title:* "NATURAL FLAVOR." (For Cigars.) CENTRAL CIGAR BOX CO., St. Louis, Mo. Filed October 8, 1913.

17,301.—*Title:* "POPULAR ISSUE." (For Cigars.) CENTRAL CIGAR BOX CO., St. Louis, Mo. Filed October 8, 1913.

17,302.—*Title:* "BEL VOR." (For Cigars.) A. C. HENSCHEL & Co., Chicago, Ill. Filed October 7, 1913.

17,303.—*Title:* "KA-NU CORN CURE." (For Corn-Plasters.) FRED N. LANG, Bayfield, Wis. Filed January 22, 1913.

17,304.—*Title:* "MASTER RECORD." (For Music-Rolls.) NATIONAL MUSIC ROLL CO., St. Johnsville, N. Y. Filed August 21, 1913.

17,305.—*Title:* "HYGIENE TISSUE." (For Toilet-Paper.) THE PEERLESS MANUFACTURING COMPANY, Norristown, Pa. Filed October 9, 1913.

17,306.—*Title:* "RIEPERT'S BUTTER-MILK BRED." (For Bread.) CHARLES J. RIEPERT, Pittsfield, Mass. Filed October 4, 1913.

17,307.—*Title:* "ORADOR." (For Cigars, Cigarettes, and Cheroots.) SCHWARTZ & GATTLE, New York, N. Y. Filed September 19, 1913.

17,308.—*Title:* "FOR RAILROAD MEN AND MECHANICS." (For Overalls and Coats.) THE SOUTHERN OVERALL CO., Baltimore, Md. Filed October 8, 1913.

17,309.—*Title:* "ALPINE LAWN FINE STATIONERY." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 13, 1913.

17,310.—*Title:* "RIVERSIDE LINEN FINE STATIONERY." (For Stationery.) WHITE & WYCKOFF MFG. CO., Holyoke, Mass. Filed September 13, 1913.

17,311.—*Title:* "MA-LÆ-NA SHAMPOO SOAP." (For a Shampoo-Soap.) CHAUNCEY F. YORK, Detroit, Mich. Filed October 7, 1913.

PRINTS

REGISTERED OCTOBER 28, 1913.

3,393.—*Title:* "THE WORKING MAN'S FRIEND." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 6, 1913.

3,394.—*Title:* "EAT BREAD—MORE BREAD." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 6, 1913.

3,395.—*Title:* "YOUR BREAD BASKET." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 6, 1913.

3,396.—*Title:* "HEALTHY CHILDREN." (For Bread and Yeast.) THE FLEISCHMANN COMPANY, Cincinnati, Ohio, and New York, N. Y. Filed October 6, 1913.

3,397.—*Title:* "ICY-HOT BOTTLES AND CARAFES." (For Heat-Insulated Bottles and Carafes.) THE ICY HOT BOTTLE COMPANY, Cincinnati, Ohio. Filed September 18, 1913.

3,398.—*Title:* "KA-NU CORN CURE." (For Corn-Plasters.) FRED N. LANG, Bayfield, Wis. Filed January 22, 1913.

3,399.—*Title:* "VOLCANIC OIL LINIMENT OF DR. J. H. McLEAN." (For a Liniment.) THE DR. J. H. McLEAN MEDICINE COMPANY, St. Louis, Mo. Filed August 15, 1913.

3,400.—*Title:* "THE RIBBON BRAND." (For Cigars.) W. B. SAUER COMPANY, Chicago, Ill. Filed October 10, 1913.

3,401.—*Title:* "RIEPERT'S BUTTER-MILK BRED." (For Bread.) CHARLES J. RIEPERT, Pittsfield, Mass. Filed October 4, 1913.

3,402.—*Title:* "EGG TESTER DR." (For an Egg-Tester.) WILLIAM RIGLING, Hamilton, Ohio. Filed September 12, 1913.

3,403.—*Title:* "THE GROCERS' & CUSTOMERS' DETECTIVE." (For an Egg-Tester.) WILLIAM RIGLING, Hamilton, Ohio. Filed September 12, 1913.

3,404.—*Title:* "I DON'T WANT THE BALANCE." (For an Egg-Tester.) WILLIAM RIGLING, Hamilton, Ohio. Filed September 12, 1913.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE OWEN.

Decided September 17, 1913.

1. DESIGNS—WORDS REGARDED AS MERE SURPLUSAGE INCLUDED IN THE CLAIM—OBJECTION THERETO—REVIEWABLE ON PETITION.

Where the Examiner objected to a claim because of the inclusion therein of the word "substantially" or of the words "or any colorable variations thereof," *Held* that his action is reviewable on petition, since the real question is whether an applicant may be permitted to introduce into his claims words which are mere surplusage.

2. SAME—USE OF WORD "SUBSTANTIALLY" IN CLAIM—UNOBJECTIONABLE.

A claim for a design "substantially as shown" *Held* unobjectionable. The use of the word "substantially" cannot be construed as an attempt to cover modifications.

ON PETITION.

DESIGN FOR LEATHER OR LIKE MATERIAL.

Messrs. Flanders, Bottum, Fawcett & Bottum for the applicant.

FRAZIER, *First Assistant Commissioner:*

This is a petition from the action of the Examiner of Trade-Marks and Designs refusing a patent for a design because the claim contains the alternative expression "or any colorable imitation thereof."

The claim reads:

The ornamental design for leather or like material as shown, or any colorable imitation thereof.

The Examiner states that the petition involves a question of merits. Therefore the petitioner has mistaken his remedy, which is an appeal to the Examiners-in-Chief from the Examiner's refusal or rejection of the claim instead of petition, citing in support *ex parte Myers* (64 O. G., 859) and *in re Mygatt*, (121 O. G., 1676.)

From the latter decision the Examiner quotes the following:

We consider that the Examiners-in-Chief erred in not entertaining the appeal. When an applicant for a design patent presents a claim and the Patent Office says you cannot have that claim, and you can have no claim but the one we suggest, such ruling is in effect a rejection of the claim presented, and if the applicant persists in his demand for the claim as presented by him he is, if the Patent Office persists in refusing the claim, entitled to an appeal to the Examiners-in-Chief under section 4909 of the Revised Statutes. It is of no moment what the actions are called.

The court in the concluding sentence of this quotation holds that it is of no moment what the actions are called. In other words, it is the substance of the action and not the words descriptive thereof that determines whether an action is a rejection or objection.

The right claimed here is the right to use certain words of the statute defining the measure of protection afforded thereby. It does not raise the question whether the design is patentable as such, but whether the form of the claim is allowable.

In the earlier actions of the Examiner the claim was "objected" to for the reason that the word "substantially" was held to be an attempt to cover two or more modifications, the latter of which do not obtain in design patents. Subject to correction of this "informality" the claim was deemed allowable.

Upon repetition of this objection the applicant substituted for this word the phrase "or any colorable imitation thereof." This amendment obviously was intended to avoid the objection to the use of the word "substantially" and at the same time secure the effect applicant desired to obtain by the use of that word. It is to be observed that neither applicant's drawing nor description discloses any modification. It therefore appears that his use of the word "substantially" was not intended to cover modifications, but rather any slight variation that could be construed to come within the terms of the claim, and the substitution of the statutory phrase, which obviously does not cover a modification, as the equivalent of the canceled word "substantially" gives emphasis to this view.

Like objection was made to the use of the substituted phrase, the Examiner stating that such objection was for the same reason as that urged against the original claim, the official letter of July 5, 1912, stating that—

except for the above-mentioned *informality* this case seems to be in condition for allowance.

In response to this objection applicant, in asking reconsideration, said:

It is believed that the claim is in proper statutory form and this request for reconsideration is made for the purpose of having the Examiner's action passed upon by the Commissioner in person if the Examiner insists upon his *objection*.

This was followed by a repetition of the objection, the Examiner's letter concluding, however, with a rejection of the claim.

While it is true, as the Examiner states, that the question presented here may be viewed as one of merits, it is thought that the real question is

whether applicant may be permitted to introduce into his claim words which are mere surplusage.

The phrase objected to is taken from the act of February 4, 1887, which provides—

that hereafter, during the term of Letters Patent for a design, it shall be unlawful for any person other than the owner of said Letters Patent, without the license of such owner, to apply the design secured by such Letters Patent, *or any colorable imitation thereof*, to any article of manufacture, etc.

It is obvious that even in the absence of the phrase from the claim the scope intended to be secured thereby would be conferred upon the claim by this direct provision of the law. Properly speaking, its presence in the claim is unnecessary. The question, then, whether it shall be permitted, since present or absent it cannot affect the scope of the claim, is one of form and not merits. Applicant points out that in recent decisions in cases arising under the design statutes the courts in several cases have limited—

the protection of design patents to the exact picture or reproduction of the drawing of the patent in cases where the specification and claim of the patent are in the forms prescribed by the Patent Office and it was to avoid such limitation that applicant's claim is drawn in the words of the statute.

In support of this statement applicant cites as examples the following cases: *Phoenix Knitting Works* v. *Rich et al.*, (C. C. N. D. Ohio, E. D.; 194 Fed. Rep., 708, p. 710; *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C. E. D. Penna.; 194 Fed. Rep., 703, pp. 704, 705;) *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C. A., 3d C.; 194 Fed. Rep., 696, pp. 697, 698;) *Ashley* v. *Samuel C. Tatum Co.*, (C. C. A., 2d C.; 186 Fed. Rep., 339, pp. 341–343.) These cases tend to support applicant's contention. While claims should be free from surplusage as far as possible, it is not believed that this requirement should extend so far as to prohibit the use therein of a statutory expression or phrase if there is no other way of defining the invention in a design patent to insure the measure of protection intended to be secured by such statutory phrase or expression; but in this case there is a way in which the invention may be properly defined and such protection insured as applicant seeks and is entitled to without resorting to the use of the phrase in question—namely, by restoring the word "substantially" to the claim. No reason is seen for requiring the cancelation of this word "substantially" from a claim in a design case. It cannot be construed to be an attempt to cover a modification, especially in such a case as this, where no modification is either shown or described.

No court, in my judgment, would declare such a claim void, and were an attempt made to impress upon the claim a broad enough construction to include modifications it is believed the court would decline to so construe such a claim. It would, on the other hand, restrict the meaning to its plain intent of preventing any undue limitation of the claim to an exact copy of the design shown. In short, it would insure the measure of protection defined by the statutory phrase "or any colorable imitation thereof," which is all that applicant seeks.

No decision of the courts or the Commissioner has been found authorizing the elimination of this word "substantially" from the claim in design cases and no good reason can be found for such a requirement. The Examiner is therefore instructed to permit the restoration of the word "substantially" to the claim in lieu of the phrase "or any colorable imitation thereof."

To the extent indicated the petition is granted.

DECISIONS OF THE U. S. COURTS.

U. S. Circuit Court of Appeals—Ninth Circuit.

STEBLER *v.* RIVERSIDE HEIGHTS ORANGE GROWERS' ASS'N *et al.*

Decided June 18, 1913.

205 FED. REP., 735.

1. PATENTS—ANTICIPATION—COMBINATION.
   It is not sufficient to constitute an anticipation that the devices relied upon might by a process of modification, reorganization, or combination be made to accomplish the function performed by the device of the patent.
2. SAME—SAME—EVIDENCE.
   On the question of anticipation the fact that the patented device is so far different from those of the prior art that it has superseded them in general use is entitled to great weight.
3. SAME—VALIDITY AND INFRINGEMENT—FRUIT-GRADER.
   The Strain reissue patent, No. 12,297, (original No. 730,412,) for a fruit-grader for assorting fruit with reference to size, was not anticipated and discloses invention, also *Held* infringed by the machine of the Parker patent, No. 997,468.
4. SAME—INFRINGEMENT—ADDING IMPROVEMENTS TO PATENTED DEVICE—"INFRINGER."
   One who appropriates another's patented invention, though he may add thereto another element to perform an additional function, is an "infringer."
5. SAME—SAME—LIMITATION OF CLAIMS—"END TO END."
   The expression "end to end," used in a patent claim in describing the relative position of rollers, does not necessarily require that there shall be no longitudinal space between the ends of the rollers nor impose a limitation which will enable another to avoid infringement by leaving a space between them where it does not change their function or mode of operation.

Mr. Frederick S. Lyon for the appellant.

Mr. N. A. Acker, *Mr. Wm. M. Hiatt*, and *Mr. H. L. Carnahan* for the appellees.

Before GILBERT, Circuit Judge, and WOLVERTON and DIETRICH, District Judges.

DIETRICH, *Dis. J.*:

The appellant, as the owner of Reissue Letters Patent No. 12,297, granted to Robert Strain December 27, 1904, brought this suit to enjoin alleged infringement. The invention is a machine for grading or assorting fruit with reference to size, and is presently useful chiefly in the orange industry, where, in order to secure a uniform pack, it is necessary that all oranges in a box be practically of the same size. Assortment by hand is too slow and inaccurate, and hence the need of a mechanical device.

The claims alleged to have been infringed are 1 and 10, which are as follows:

Claim 1:

In a fruit grader, in combination a plurality of independent transversely adjustable rotating rollers, a nonmovable grooved guide lying parallel with the plane which passes vertically and longitudinally through the center of said

rollers, said rollers and guide forming a fruit runway, a rope in the groove in said guide, and means to move said rope.

Claim 10:

In a fruit-grading machine, a runway formed of two parallel members, one of said members consisting of a series of end to end rolls, brackets carrying the rolls, guides for the brackets, and means for adjusting the brackets upon the guides, substantially as set forth.

The defenses are invalidity of the claim, through anticipation of the combination thereby called for, and non-infringement.

The issue can be more clearly and concisely explained by a reference to the state of the art when the patent was issued. There was at that time in practical use what was commonly known as the California grader, based upon a patent (No. 458,422) granted to J. T. Ish, August 25, 1891. The essential members of this device were (1) a long horizontal roller, with graduated sections or steps, turned down from a large diameter to a smaller one, resembling an inverted telescope; and (2) a flat endless belt, so adjusted that it was longitudinally parallel with the axis of, but a little lower than, and with a slight lateral inclination from the horizontal toward, the roller. The oranges were fed or delivered at a point near the large end of the roller, and by the moving belt were carried along, with one side resting upon the belt and the other upon the roller, until a point was reached where the space between the edge of the belt and the roller-section was large enough to permit them to fall through into bins or receptacles provided for that purpose. It will be seen that thus the oranges of the smallest size were first eliminated, and then those a little larger, and so on; the largest being carried to the largest opening, which, of course, was opposite the smallest and last step. Inasmuch as the roller rotated upward and outward, the oranges could not be caught and squeezed, but were constantly turning different sides to the opening between the roller and the belt, through which there was a tendency to escape as soon as a point was reached where the aperture was larger than the smallest diameter of the orange. Means were employed to give the belt rigidity, and not uncommonly a round belt or "rope" resting in a groove was used; but these were doubtless mechanical equivalents, and the variations in this respect are not thought to be of importance.

While efficient beyond any device theretofore invented and of great practical value, in actual use the Ish machine disclosed certain weaknesses or defects. It was wanting both in adaptability to fluctuating grade-sizes and adjustability in relation to bin-space for the assorted fruit. It is obvious that, if sorting is dependent upon and controlled by the several steps of a single roller, the grade-spaces must sustain fixed and unalterable relations to each other. While possibly the operator might increase or diminish the size of all the spaces alike by increasing or diminishing the distance between the belt and the roller, he could not alter the width at one step without in like manner altering it at all other steps. And necessarily the precise difference in size between the several grades could not be left to the option or discretion of the packer, but must be predetermined by the manufacturer of the machine, for if the step down in the roller is one-half inch or one-fourth of an inch, the difference between the sizes of two successive grades must likewise be one-half or one-quarter of an inch. One lot may run largely to one size, and another lot to a different size. It follows that if the roller in the Ish machine was graduated for nine sizes, and if of a given lot of oranges one half were of one such size and one of another, the corresponding bins would be congested, while other bins would receive little, if any, of the fruit. In the operation of packing it is necessary that the oranges be assorted, not only according to size, but also according to quality, and this latter process must be performed by hand. They must also be wrapped in paper and placed in boxes. Each size being handled separately, one of the problems is to provide adequate bin-space to give access for the requisite number employed in these several operations. If the bins were of equal capacity, and the run happened to be confined to two or three sizes, the number of attendants having access to such bins might be too small to handle and pack the fruit and keep the machine from clogging, while those attending other bins would have little, if anything, to do. If under such conditions a part of the dominant grade could be carried forward and delivered into other bins, the difficulty might be obviated. Some relief was secured by elongating the runway, through the use of two or more graduated rollers, instead of one; but the expedient was not wholly satisfactory, even in solving the problem of bin-space, and in no wise affected the objectionable fixity of grade relations.

In this state of the art Strain conceived the invention covered by the claims in suit. In effect it may be described as a modification of or addition to the Ish machine, by cutting the roller into as many pieces as there are steps, and separately mounting them, all in line longitudinally, each being independent and transversely adjustable. More accurately, several short rollers of uniform diameter are arranged in line, to take the place of the one long graduated roller of the Ish machine, and the required grading-space in the case of each roller is secured by adjusting the roller toward or from the traveling belt. It is apparent that with such a construction the rollers may be so arranged as to form a true alinement, and the grading-aperture thus be made of uniform width throughout the entire length of the runway, or they may be so adjusted that the opening has as many widths as there are rollers, or for half the distance it may be of one width and the other half another width, and so on. As a consequence, the operator may at will adopt such grade-sizes as he sees fit, and, subject, to certain limitations, may deliver any size into any bin.

[1] The invention, we think, was an important and distinct advance in the art, and is not anticipated by former patents. Those chiefly relied upon for this defense are the Ish patent, already referred to, the patent to Bailey, granted April 9, 1901 (No. 671,646), and one to Hutchins, granted

July 14, 1891 (No. 456,092). Enough has already been said of the Ish machine to make it apparent that as to it plaintiff's invention was a substantial improvement and not without patentable novelty. It is not deemed necessary to describe in detail the Bailey and Hutchins devices. They are not infringed by the plaintiff's claims. True, we may pick out one similarity in one of these devices, and one in another, and still one in another, and, by combining them all, anticipate the inventive idea expressed in the Strain patent, but the combination constituting the invention is not found in any one of them. As we had occasion to say in *Los Alamitos Sugar Co.* v. *Carroll*, (173 Fed., 280; 97 C. C. A., 446:)

It is not sufficient, to constitute an anticipation, that the devices relied upon might, by a process of modification, reorganization, or combination, be made to accomplish the function performed by the device of the patent. (*Western Elec. Co.* v. *Home Tel. Co.*, C. C., 85 Fed., 649; *Topliff* v. *Topliff*, 145 U. S., 156; 12 Sup. Ct., 825; 36 L. Ed., 658; *Gunn* v. *Bridgeport Brass Co.*, C. C., 148 Fed., 239; *Ryan* v. *Newark Co.*, C. C., 96 Fed., 100; *Simonds R. M. Co.* v. *Hathorn Mfg. Co.*, C. C., 90 Fed., 201–208; *Gormully & J. Co.* v. *Stanley Cycle Co.*, C. C., 90 Fed., 279; *Merrow* v. *Shoemaker*, C. C., 59 Fed., 120.)

[2] Neither the Bailey nor the Hutchins invention seems ever to have gone into practical use; and the Ish grader has been wholly or almost wholly, superseded by the plaintiff's machine—a fact to which great weight is to be given. (*Morton* v. *Llewellyn*, 164 Fed., 693; 90 C. C. A., 514; *Wilkins Shoe B. Co.* v. *Webb*, C. C., 89 Fed., 982; *Krementz* v. *Cottle Co.*, 148 U. S., 556; 13 Sup. Ct., 719; 37 L. Ed., 588; *Western Elec. Co.* v. *Chicago Co.*, C. C., 14 Fed., 691; *Star Brass Co.* v. *Gen. Elec. Co.*, 111 Fed., 398; 49 C. C. A., 409; *Union Biscuit Co.* v. *Peters*, 125 Fed., 601; 60 C. C. A., 337; *St. Louis Flushing M. Co.* v. *American Co.*, 156 Fed., 574, 577; 84 C. C. A., 340; *Robbins* v. *Ducber Watch Case Co.*, C. C., 71 Fed., 186.) It is accordingly held that the defense of anticipation is not sustained.

[3] It remains to consider whether or not the claims in suit are infringed by the defendants' machine. Apart from the roller side or member of the runway, admittedly their machine (the Parker patent, No. 997,468) is in all material respects like the Ish and Strain patents. It has the same oblique or inclined moving belt for the carriage of fruit, and is operated in substantially the same manner. As in the Strain invention, the other wall or side of the grading space or aperture is made up of a short independent roller rotating upward and outward to avoid pinching the oranges; also, like the Strain machine, this roller is mounted upon brackets of its own, and is transversely and independently adjustable at the will of the operator; but, unlike the Strain machine—and here is the one and the only substantial distinction—these rollers are also longitudinally adjustable, and are accompanied with extensible guide-arms to fill in the spaces between the roller units when they are set at a distance from each other, the guide-arms and the rollers thus constituting one continuous side or wall of the runway. There may be other differences in respect to mechanical equivalents and details of construction, but nothing that serves substantially to differentiate the two devices. If the charge of infringement is not sustained, therefore, it must be because of the longitudinal adjustability of the roller units in the defendants' machine, taken together with the overlapping or extensible guide-arms used therewith.

That this is a novel and patentable improvement is conceded by the plaintiff, but he contends that it is only an added element for an additional function, and that therefore it cannot operate as a warrant for the appropriation by the defendants of his patented invention; and this contention we think must be sustained. That every essential element of the Strain invention is found in defendants' machine cannot be questioned. So far as the sorting or separating of the fruit into desired sizes is concerned, precisely the same result is reached by the use of the same means operating in the same manner. The truth of this proposition is strikingly illustrated in appellant's brief by a cut of defendants' machine as it appears with the guide-arms eliminated and the several roller units brought into close proximity. In this form there is perfect equivalence, if not absolute identity. It exhibits the complete combination called for by the claims in suit without modification or addition, and the infringement is clear.

[4] The only question, therefore, is whether the longitudinal extensibility of the defendants' device operates to avoid the charge of infringement, and this question must be answered in the negative. The defendants have appropriated the plaintiff's invention, the essence of which is the combination with a traveling belt (common to the Ish, Strain, and Parker machines) of a series of independent rotating units arranged in longitudinal succession parallel with the belt, each transversely adjustable. One who appropriates another's patented invention, even though he may add thereto another element to perform an additional function, is guilty of infringement. (*Powell* v. *Leicester Mills Co.*, 108 Fed., 386; 47 C. C. A., 416; *Letson* v. *Alaska Packers' Ass'n*, 130 Fed., 129; 64 C. C. A., 463; *American Can Co.* v. *Hickmott Co.*, 142 Fed., 141, 146; 73 C. C. A., 359; *Columbia Wire Co.* v. *Kokomo Co.*, 143 Fed., 116; 74 C. C. A., 310; *Comptograph Co.* v. *Mechanical Acct. Co.*, 145 Fed., 331, 337; 76 C. C. A., 205; *Corrington* v. *Westinghouse Co.*, C. C., 173 Fed., 69, 81; *Weston Elec. Inst. Co.* v. *Whitney Co.*, C. C., 131 Fed., 280; *Diamond Match Co.* v. *Ruby Match Co.*, C. C., 127 Fed., 341; *Benjamin Elec. Co.* v. *Dale Co.*, 158 Fed., 617; 85 C. C. A., 439; *O'Leary* v. *Utica & Mohawk Co.*, C. C., 139 Fed., 330; *L. J. Mueller Co.* v. *Groeschel*, C. C., 166 Fed., 917; *Long* v. *Noye Mfg. Co.*, C. C., 192 Fed., 570.) In *Cimiotti Unhairing Co.* v. *American Unhairing Mach. Co.* (115 Fed., 498, 504; 53 C. C. A., 230, 236) the Circuit Court of Appeals of the Second Circuit uses the following language:

The mere fact that there is an addition, or the mere fact that there is an omission, does not enable you to take the substance of the plaintiff's patent. The question is, not whether the addition is material, or whether the omission is material, but whether what has been taken is the substance of the invention.

True, the plaintiff's rights do not extend beyond the claims in suit, and are subject to the limitations thereof; but the language of these claims is not, as argued by the defendants, to receive a narrow, literal construction. While the invention is not basic or primary, it is substantial and important, and is therefore entitled to a fair range of equivalents. (*Continental Paper Bag Co.* v. *Eastern Paper Bag Co.*, 210 U. S., 405; 28 Sup. Ct., 748; 52 L. Ed., 1122.)

[5] Defendants appear to attach great importance to the phrase "end to end," as used in claim 10, as a limitation upon the grant expressed in plaintiff's Letters Patent; but we are unable to yield to the construction contended for, which seems to us to be strained and unnecessarily strict. Surely by "end to end" the patentee could not have intended unbroken continuity of roller axes, or perfect contiguity of roller ends. Such a structure would in one aspect be wholly incompatible with the idea of independent, transverse adjustability, and, in another, mechanically impossible. The necessary adjustment of the rollers for any practical work unavoidably breaks the axis continuity of the series, and there must be some degree of longitudinal end separation to give room for the mounting or bearing brackets. Who shall say, then, to what extent the rollers may be out of line or longitudinally separated, and still be "end to end?" Or who shall say how close together the rollers in defendants' device may be, and not be "end to end?" May the latter be separated by a guide two or four inches in length, and still escape this characterization? The questions serve to emphasize the reasonableness, if not the necessity, of construing the phrase as the expression only of an intention to include and claim the longitudinal arrangement of a series of rollers, and to differentiate and disclaim other combinations, such as, for instance, that in the Hutchins invention, where the rollers are arranged parallel to each other and one above the other. This we believe to be a fair construction of the language, and it is therefore adopted.

For the reasons stated, the decree of the lower court is reversed, and the cause remanded, with instructions to grant the relief prayed for.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Weinschenk patent, No. 925,146, for a sweater, *Held* valid and infringed. *David* v. *Harris*, 206 Fed. Rep., 902.

Trade-Mark Procedure in Venezuela.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 21, 1913.

The following translation of a resolution governing trade-mark procedure in Venezuela, which has been received through the Department of State from the American consul at La Guayra, is published for the information of those concerned.

THOMAS EWING,
Commissioner.

[Copy.]

VENEZUELA.

Rules for the enforcement of the Law of Trade-Marks.

[Translation.]

UNITED STATES OF VENEZUELA. MINISTRY OF INDUSTRY. DIRECTION OF COMMERCE AND COMMUNICATIONS. CARACAS, AUGUST 20, 1913. 104TH AND 55TH.

Resolved: Whereas, the law relating to trade-marks provides in article 15 thereof that the Federal Executive shall dictate the methods and rules which may be requisite for the enforcement of the said law, the President of the Council of Government and Acting President of the Republic has decreed:

1. That, upon filing in this Ministry of a petition for protection of a trade-mark, the Director of Commerce and Communications shall indorse at the foot thereof the day and hour in which the same shall be received.

2. That with the petition, the party interested shall present the stereotype-plate of the mark, or in default of this, its photogravure, the dimensions of which shall not exceed fourteen centimeters in length, by eight in width.

3. That if the petition is in conformity with the law, the description of the mark shall be published in the *Official Gazette*.

4. That if, after the publication for thirty days, as specified in the preceding section, there shall have arisen no opposition of the kind indicated in article 6 of the said law, an order shall be issued directing the grant of the proper certificate, the mark having been first duly recorded.

5. That whenever opposition shall be interposed, notice shall be given to the person or association who shall have filed the petition, in order that they may take such action as they deem proper for the securing of their rights.

6. That in any case where opposition interposed shall be terminated by agreement, the same shall be certified to the Ministry of Industry, by means of a document which shall be attached to the file in the case.

7. That in any case where agreement shall not be reached, and the said Ministry shall find the reasons upon which the opposition is based to be founded in justice, it shall issue an order refusing registry of the said mark.

8. That the supplicant for official protection of a trade-mark, shall, at the date of expiration of the term specified in clause 4 hereof, for the grant of a certificate, furnish the national sealed paper and the stamps required under article 6 of the law mentioned.

9. That whenever petitions shall not be accompanied with the power, by reason of such having been already submitted with another petition, a certified copy thereof shall be made, at the expense of the petitioner, and attached to the file of the mark for which protection is sought.

10. That if within thirty days after the expiration of the said period the sealed paper and requisite stamps shall not have been supplied, the resolution which may have issued upon the petition shall be declared insubsistent, and the registry which may have been made shall be annulled.

11. That in the registry of protected marks there shall be set forth, in accordance with article 7 of the law, the time for which the protection is granted.

12. That upon the certificate which is issued, shall be affixed one of the facsimiles submitted, or one of those made from the plate or the photogravure, upon which shall be impressed the seal of the Ministry, in proof of the authenticity of the mark.

13. That the party interested shall receipt for the certificate, the same being published in the *Official Gazette*. There shall also be published the lithographed plate, or the photogravure, as the Minister shall determine.

14. That there shall be published in the annual report of the Ministry, or in a bulletin, the plates and photogravures of protected trade-marks, with the appropriate descriptions; and

15. That all persons and associations which may have heretofore obtained official protection of trade-marks, and may desire to have the facsimiles and descriptions published, may make the proper petition to this Ministry therefor, accompanying the same with the lithographed plates or photogravures.

Ordered to be noted and made public.

By the Federal Executive,

PEDRO-EMILIO COLL.

Union of Industrial Property—International Expositions.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 21, 1913.

The following translation of a communication from the Director of the International Bureau of the

Union for the Protection of Industrial Property is published for the information of those concerned.

THOMAS EWING,
Commissioner.

[Copy.]

[Translation.]

BUREAU INTERNATIONAL, ETC. CIRCULAR No. 141/888. INCLOSURE: 1 LIST. SUBJECT: EXPOSITIONS OFFICIALLY RECOGNIZED BY THE DUTCH GOVERNMENT.

BERNE, *Oct. 6, 1913.*

To the "Offices of Industrial Property" of the Countries of the Union.

GENTLEMEN: Article 8 of the Dutch law on patents insures a right of priority to persons who, at an officially-recognized exposition in Holland or at an officially-recognized international exposition in any of the countries of the Union of Industrial Property, exhibit an article or demonstrate a process for which they apply for a patent within six months from the opening of the exposition.

On the basis of this article, the Dutch Government has compiled a list of international expositions which it has recognized during the year 1913, and, by notes of July 2 and October 2, 1913, the Dutch Legation at Berne has asked the undersigned International Bureau to bring said list to the knowledge of the countries which are members of the Union of Industrial Property.

The Dutch Government adds that it is desirous, in its turn, of receiving regularly from the governments of the contracting parties notices of officially-recognized international expositions which are to take place within their respective territories.

In compliance with the wishes of the Dutch Government we have the honor to transmit herewith two copies of the list which we are requested to communicate to you, and we are at your service to notify all the contracting parties of similar lists, which you may be kind enough to transmit to us, of officially-recognized expositions in your country.

We will add that, in order to give such lists the necessary publicity, we intend to publish them in our organ *La Propriété Industrielle.*

With the request that you will kindly acknowledge the receipt of this circular, we remain, etc.

BUREAU INTERNATIONAL DE L'UNION DE LA PROPRIÉTÉ INDUSTRIELLE.
COMTEESE,
Director.

[Translation of inclosure.]

LIST OF INTERNATIONAL EXPOSITIONS HELD IN HOLLAND IN THE COURSE OF THE YEAR 1913.

1. First Dutch Nautical Exposition at Amsterdam, opened Thursday, June 5, 1913.
2. National and International Exposition of Agriculture at The Hague, opened Friday, August 29, 1913.
3. National and International Exposition of Sport and Tourism at The Hague, opened Saturday, July 5, 1913.
4. International Graphic Exposition at Amsterdam, opened Tuesday, July 15, 1913.
5. Tilbourg Exposition of 1913, opened Wednesday, June 18, 1913, which had an international section comprising machines and tools used by the large and small industries.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 13, 1913.

Pacific Soap & Chemical Co., its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Lautz Bros. & Co., corner of Hanover, Lake, and Lloyd streets, Buffalo, N. Y., for registration of a trade-mark and trade-marks Nos. 20,685 and 20,234, registered February 9, 1892, and October 20, 1891, respectively, to the Pacific Soap & Chemical Co., of Tacoma, Wash., and a notice of such declaration sent by registered mail to the Pacific Soap & Chemical Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Pacific Soap & Chemical Co., its assigns or legal representatives, shall within thirty days from the first date of publication of this order enter an appearance the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

THOMAS EWING, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Pyramid Drug Co., of 227 East State street, Marshall, Mich., for registration of a trade-mark and registration No. 10,165, registered April 10, 1883, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned undeliverable, notice is hereby given that unless the said William H. Brearley, his assigns or legal representatives, shall within thirty days from the first date of publication of this notice enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

William H. Brearley, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Wick Chemical Co., of Greensboro, N. C., for registration of a trade-mark and trade-mark registrations of The Ozark Medicine Company, of Batesville, Ark., The L. Richardson Drug Co., of Greensboro, N. C., Columbia Drug Company, of Savannah, Ga., and trade-mark registered April 10, 1883, No. 10,165, to William H. Brearley, of Detroit, Mich., and a notice of such declaration sent by registered mail to said William H. Brearley at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said William H. Brearley, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., October 4, 1913.

Sarah H. Cockrell & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of the Scott Logan Milling Co., of Sheldon, Iowa, for registration of a trade-mark and trade-mark registration No. 13,560, registered August 10, 1886, to Sarah H. Cockrell & Co., of Dallas city, Tex., and a notice of such declaration sent by registered mail to said Sarah H. Cockrell & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless the said Sarah H. Cockrell & Co., their assigns or legal representatives, shall within thirty days from the first publication of this order enter an appearance therein the interference will proceed as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

R. T. FRAZIER, *Acting Commissioner.*

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

OCTOBER, 1913.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*) and of the United States Circuit Court of Appeals by the letter [d].]

ABANDONMENT OF APPLICATIONS.

PROSECUTION.

Where the Examiner in response to a request that he suggest the form of claim which he would consider proper stated that the case stood under a previous rejection, that he could not suggest claims, and called attention to Rules 77 and 171, *Held* that the year in which action should be taken ran from the previous Office action, and the attorney's statement that he noted the date of the last Office letter on his list, but did not understand what the Examiner's reference to the rules meant, is insufficient to show that the delay in the prosecution of the application was unavoidable, and the application *Held* abandoned. [*Ex parte* Vesey, 273.

ACTION BY THE EXAMINER.

See Abandonment of Applications; Construction of Claims, 1; Prosecution of Applications.

AFFIDAVITS.

See Motion to Dissolve Interference; Prosecution of Applications.

ANTICIPATION.

See Particular Patents.

1. PATENTS—COMBINATION.

It is not sufficient to constitute an anticipation that the devices relied upon might by a process of modification, reorganization, or combination be made to accomplish the function performed by the device of the patent. [*Ex parte* Owen, 1049.

2. SAME—EVIDENCE.

On the question of anticipation the fact that the patented device is so far different from those of the prior art that it has superseded them in general use is entitled to great weight. [Id.

ARGUMENT.

See Infringement, 1.

ATTORNEYS.

See Abandonment of Applications.

COMBINATIONS.

See Anticipation, 1.

COMMERCIAL SUCCESS.

See Anticipation, 2; Invention, 2.

CONSTRUCTION OF CLAIMS.

See Abandonment of Applications; Infringement, 1.

1. DESIGNS—WORDS REGARDED AS MERE SURPLUSAGE INCLUDED IN THE CLAIM—OBJECTION THERETO—REVIEWABLE ON PETITION.

Where the Examiner objected to a claim because of the inclusion therein of the word "substantially" or of the words "or any colorable variations thereof," *Held* that his action is reviewable on petition, since the real question is whether an applicant may be permitted to introduce into his claims words which are mere surplusage. [*Ex parte* Owen, 1049.

2. SAME—USE OF WORD "SUBSTANTIALLY" IN CLAIM—UNOBJECTIONABLE.

A claim for a design "substantially as shown" *Held* unobjectionable. The use of the word "substantially" cannot be construed as an attempt to cover modifications. [Id.

3. LIMITATION OF CLAIMS—"END TO END."

The expression "end to end," used in a patent claim in describing the relative position of rollers, does not necessarily require that there shall be no longitudinal space between the ends of the rollers nor impose a limitation which will enable another to avoid infringement by leaving a space between them where it does not change their function or mode of operation.

[d Stebler v. Riverside Heights Orange Growers' Ass'n *et al.*, 1050.

CONSTRUCTION OF RULES.

See Abandoned Applications.

CONSTRUCTION OF SPECIFICATIONS AND PATENTS.

See Particular Patents.

DECEPTION.

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DELAY IN PROSECUTION OF APPLICATIONS.

See Abandonment of Applications.

DESIGNS.

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DILIGENCE.

INTERFERENCE—PRIORITY.

Where B. was the first to conceive the invention and the first to reduce the same to practice, *Held* that the question of his diligence or whether he was spurred into activity by knowledge of the entry of his opponent into the field is immaterial.

[*Hubbard v. Berg, 818.

DISCLOSURE OF INVENTION.

See Particular Patents, 2.

ELEMENTS.

See Infringement, 2.

EVIDENCE.

See Anticipation, 2.

FORMER DECISIONS AFFIRMED.

See Priority of Invention.

FUNCTION.

See Anticipation, 1; Construction of Claims, 3; Infringement, 2.

INFRINGEMENT.

See Construction of Claims, 3; Particular Patents.

1. CONSTRUCTION OF CLAIMS.
Where a patent was granted on the contention and argument of the applicant that his device was distinguished from a prior reference in a certain particular, he cannot insist that such feature is immaterial to establish infringement.
[d Grever *v.* United States Hoffman Co. *et al.* United States Hoffman Co. *et al. v.* Lasance, 539.

2. ADDING IMPROVEMENTS TO PATENTED DEVICE—"INFRINGER."
One who appropriates another's patented invention, though he may add thereto another element to perform an additional function, is an "infringer."
[d Stebler *v.* Riverside Heights Orange Growers' Ass'n *et al.*, 1050.

INOPERATIVE DEVICE.

See Prosecution of Applications.

INVENTION.

See Particular Patents, 1.

1. PATENTS—NEW RESULT.
Where a transposition of parts, accompanied by some adaptation, gets a new coaction and a new result, it may be invention.
[d Grever *v.* United States Hoffman Co. *et al.* United States Hoffman Co. *et al. v.* Lasance, 539.

2. SAME—EXTENT OF USE.
Where there has been extensive use and defendant has copied, patentee is entitled to the benefit of the doubt on question of utility of his change. [d Id.

LABELS.

1. FALSE AND DECEPTIVE STATEMENTS THEREON—REGISTRATION REFUSED.
Where a label contains a statement which is *prima facie* false and deceptive, the Examiner should refuse to register the same on that ground unless the applicant can show that, in fact, the statement is not deceptive.
[*Ex parte* American Talc Company, 274.

2. SAME—"CURE"—NOT NECESSARILY MISLEADING.
A statement on a label that the article upon which the label is used is a "cure" for certain specified ailments does not necessarily render the label deceptive. [Id.

3. SAME—SAME.
The fact that a label for talcum powder contains a statement that such powder is for the relief and cure of all irritation of the skin, sunburn, perspiration, etc., *Held* to afford no ground for refusing to register the same. [Id.

LIMIT OF TIME.

See Abandonment of Applications.

LIMITATION OF CLAIMS.

See Construction of Claims, 3.

MOTION TO DISSOLVE INTERFERENCE.

PATENTABILITY—AFFIDAVITS.
Affidavits filed in support of a motion to dissolve the interference on the ground that the issue is not patentable *Held* properly refused consideration. [Ellis *v.* Boyce *v.* Burchenal, 273.

NEW RESULTS.

See Invention, 1.

PARTICULAR PATENTS.

1. HOFFMAN—No. 928,199—CLOTHES-PRESSING MACHINE—VALIDITY AND INFRINGEMENT.
The Hoffman patent, No. 928,199, for a clothes-pressing apparatus, was not anticipated and discloses invention, also *Held* infringed by one machine and not infringed by another.
[d Grever *v.* United States Hoffman Co *et al.* United States Hoffman Co. *et al. v.* Lasance, 539.

2. STRAIN—REISSUE No. 12,297—FRUIT-GRADER—SAME.
The Strain reissue patent, No. 12,297, (original No. 730,412,) for a fruit-grader for assorting fruit with reference to size, was not anticipated and discloses invention, also *Held* infringed by the machine of the Parker patent, No. 997,468.
[d Stebler *v.* Riverside Heights Orange Growers' Ass'n *et al.*, 1050.

PATENTABILITY.

See Motion to Dissolve Interference.

PETITION TO THE COMMISSIONER.

See Construction of Claims, 1.

PRIORITY OF INVENTION.

See Diligence.

DILIGENCE.
The decision of the Commissioner awarding priority of invention to B. affirmed. [*Hubbard *v.* Berg, 818.

PROSECUTION OF APPLICATIONS.

See Abandonment of Applications.

REJECTION FOR INOPERATIVENESS—AFFIDAVITS HELD INSUFFICIENT—REJECTION SHOULD NOT BE MADE FINAL.
Where in response to a rejection on the ground that the device was inoperative applicant filed affidavits as to certain tests, which affidavits the Examiner held insufficient to overcome the rejection, because many vital details regarding the tests described had been omitted from the affidavits, *Held* that the rejection should not have been made final, but that the Examiner should have informed the applicant specifically wherein the affidavits were insufficient and have given him an opportunity to supply the deficiency by similar affidavits.
[*Ex parte* McGill, 817.

REDUCTION TO PRACTICE.

See Diligence.

REGISTRATION OF LABELS.

See Labels.

REISSUES.

See Particular Patents, 2.

REJECTION OF CLAIMS.

See Prosecution of Applications.

STATE OF THE ART.

See Anticipation, 2.

SUFFICIENCY OF AFFIDAVITS.

See Prosecution of Applications.

SUGGESTED CLAIMS.

See Abandonment of Applications.

TERMINOLOGY.

See Construction of Claims; Labels.

TESTS.

See Prosecution of Applications.

UTILITY.

See Invention, 2.

VALID PATENT.

See Particular Patents, 2.

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1913.

[Abbreviations: "Gaz."=Official Gazette.]

A. Schrader's Son. (See Schweinert and Kraft, assignors.)
A. G. Eyles Chair Company. (See Eyles, Anton G., assignor.)
A. G. Perry Plow Company. (See Poe, Albert S., assignor.)
A. J. Lindemann & Hoverson Co. (See Caven, Trevor M., assignor.)
Abbe Engineering Company. (See Russ, Beach, and Kleinfeldt, assignors.)
Abbott, Ransloe B., Harrisburg, Pa. Insulated rail-joint. No. 1,075,278; Oct. 7; Gaz. vol. 195; p. 240.
Abbott, Reuben, Lawrence, Mass. Tie-plate and rail-supporter. No. 1,075,619; Oct. 14; Gaz. vol. 195; p. 383.
Aberegg, Otto, assignor to Hasler A. G. vormals Telegraphen-Werkstätte von G. Hasler, Berne, Switzerland. Tachometer. No. 1,075,998; Oct. 14; Gaz. vol. 195; p. 512.
Abram, Ira M. (See Runner and Abram.)
Abramovitz, Louis, New York, N. Y. Faucet. No. 1,075,999; Oct. 14; Gaz. vol. 195; p. 512.
Ach, Lorenz, Mannheim, and A. Rothmann, Heidelberg, assignors to C. F. Boehringer & Soehne, Mannheim-Waldhof, Germany. Arsinic acids and making the same. No. 1,075,279; Oct. 7; Gaz. vol. 195; p. 240.
Ackerman, Edward L. (See Streberger, John F., assignor.)
Ackley, John L., Penn Yan, N. Y. Extension-tower. No. 1,076,539; Oct. 21; Gaz. vol. 195; p. 728.
Acuff, Rosal K. (See McGhee and Acuff.)
Adams, James L., Jr., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical distributer. No. 1,075,457; Oct. 14; Gaz. vol. 195; p. 328.
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Car-truck. No. 1,076,009; Oct. 14; Gaz. vol. 195; p. 516.
Adams, Walter S., assignor to The J. G. Brill Company, Philadelphia, Pa. Car-truck. No. 1,077,026; Oct. 28; Gaz. vol. 195; p. 954.
Adams, Walter S., assignor to The J. G. Brill Co., Philadelphia, Pa. Car-truck. No. 1,077,184; Oct. 28; Gaz. vol. 195; p. 1002.
Adder Machine Company. (See Hunter and Küntzler, assignors.)
Adreon, Robert E., assignor to Westinghouse Automatic Air and Steam Coupler Company, St. Louis, Mo. Device for operating cut-out cocks. No. 1,075,803; Oct. 14; Gaz. vol. 195; p. 445.
Aeolian Company. (See Votey, Edwin S., assignor.)
Ahlborn, Theodore, assignor to The Waterloo Cement Machinery Corporation, Waterloo, Iowa. Concrete-mixer. No. 1,075,000; Oct. 7; Gaz. vol. 195; p. 140.
Albricht, Chester W., Danville, assignor to F. A. Daley, Chicago, Ill. Revolving-leaf treating-table. No. 1,076,475; Oct. 21; Gaz. vol. 195; p. 705.
Albright, John, Green City, Mo. Metallic tie. No. 1,077,209; Oct. 28; Gaz. vol. 195; p. 1011.
Alco Deo Company. (See Crockett, Cyrenius W., assignor.)
Aldendorff, Fritz, Antwerp, Belgium, assignor to Western Electric Company, New York, N. Y. Party-line system for automatic telephone-exchanges. No. 1,077,185; Oct. 28; Gaz. vol. 195; p. 1002.
Alesani, Zeno, Trieste, Austria-Hungary. Bicycle and motor-cycle attachment. No. 1,077,210; Oct. 28; Gaz. vol. 195; p. 1011.
Alexander, Alexander M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Knife for leather-skiving machines. No. 1,076,934; Oct. 28; Gaz. vol. 195; p. 921.
Alexander, Jesse, New York, assignor of one-half to R. F. Cochrane, Mount Vernon, and one-half to H. W. Little, New York, N. Y. Type-writing-machine action. No. 1,077,112; Oct. 28; Gaz. vol. 195; p. 980.
Alexander, Jesse, assignor of one-half to H. W. Little, New York, N. Y. Type-writing-machine ribbon feeding and operating mechanism. No. 1,077,238; Oct. 28; Gaz. vol. 195; p. 1020.
Alkemade, Jacob v. Rijn v., Balik Papan, Borneo, Dutch East India. Production of translucent uniformly-colored paraffin. No. 1,076,000; Oct. 14; Gaz. vol. 195; p. 513.
Allemang, Antony M., Grafton, Ill. Combined end-gate and scoop-board. No. 1,075,804; Oct. 14; Gaz. vol. 195; p. 445.
Allen, Anson W., Birmingham, Ala. Furnace-port. No. 1,076,540; Oct. 21; Gaz. vol. 195; p. 729.
Allen, Charles D., New York, N. Y. Flash-light photographic apparatus. No. 1,076,091; Oct. 21; Gaz. vol. 195; p. 572.
Allen, Frederick J. (See Heyl and Allen.)
Allen, Harding, Barre, Mass. Gearing. No. 1,075,280; Oct. 7; Gaz. vol. 195; p. 241.
Allen, John A. (See O'Brien and Allen.)
Allen, John A., assignor to A. P. O'Brien, New York, N. Y. Defibrating-machine. No. 1,076,092; Oct. 21; Gaz. vol. 195; p. 572.
Allen, Robert L., assignor to Archbold-Brady Company, Syracuse, N. Y. Steel tower. No. 1,076,856; Oct. 28; Gaz. vol. 195; p. 893.
Allen, Robert N., Methuen, Mass., assignor to U. S. Bobbin & Shuttle Co., Providence, R. I. Hand-threading shuttle. No. 1,076,935; Oct. 28; Gaz. vol. 195; p. 922.
Allen, William H., Detroit, Mich. Drying hides. No. 1,075,319; Oct. 14; Gaz. vol. 195; p. 279.
Allgemeine Elektrizitäts-Gesellschaft. (See Eller, Friedrich, assignor.)
Allis-Chalmers Company. (See Capen, Thomas W., assignor.)
Allsopp, Joseph, Charleroi, assignor to The Macbeth-Evans Glass Company, Pittsburgh, Pa. Glass-grinding apparatus. No. 1,076,012; Oct. 21; Gaz. vol. 195; p. 545.
Alphin, Gilbert E., Mount Olive, N. C. Combined shade-roller and curtain-pole support. No. 1,075,182; Oct. 7; Gaz. vol. 195; p. 204.
Alsenz, Julius, Palisades Park, N. J., assignor to Cushman & Denison Manufacturing Company, New York, N. Y. Time-stamp. No. 1,076,258; Oct. 21; Gaz. vol. 195; p. 627.
Altfuldisch, Aimee H., Cairo, Ill. Embroidery-frame. No. 1,077,211; Oct. 28; Gaz. vol. 195; p. 1011.
Alton, Charles G., Hartwell, Ohio. Composition of matter for making briquets of fragments of metal. No. 1,075,135; Oct. 7; Gaz. vol. 195; p. 188.
Ambursen Hydraulic Construction Company. (See Ambursen, Nils F., assignor.)
Ambursen, Nils F., Brookline, assignor to Ambursen Hydraulic Construction Company, Boston, Mass. Cofferdam. No. 1,077,212; Oct. 28; Gaz. vol. 195; p. 1012.
American Car and Foundry Company. (See Rohlfing, John M., assignor.)
American Carbon & Battery Company. (See Fenoughty, William H., assignor.)
American Cyanamid Company. (See Frank, Albert R., assignor.)
American District Telegraph Company, The. (See Hopkins, Richard M., assignor.)
American Hardware Corporation, The. (See Stone, Elmer B., assignor.)
American Laundry Machinery Company. (See Binder, Gottlob, assignor.)
American Laundry Machinery Company, The. (See Roost, Richard, assignor.)
American Machine & Foundry Company. (See Smith, Elberon D., assignor.)
American Machine & Manufacturing Company. (See Davidson, Joseph, assignor.)
American Machine and Manufacturing Company. (See Kennedy, Alfred D., assignor.)
American Multigraph Company, The. (See Gammeter, Harry C., assignor.)
American Multigraph Company, The. (See Osborn, Henry C., assignor.)
American Paper Goods Company, The. (See Cooley, Henry B., assignor.)
American Piston Ring Company. (See Wenzel, Albert W., assignor.)

American Sanitary Works. (See Tilden, Bert O., assignor.)

American Slicing Machine Company. (See Wolff, Wallace B., assignor.)

American Steel Foundries. (See Janney, Robert E. L., assignor.)

American Steel and Wire Company of New Jersey, The. (See Kilmer, William A., assignor.)

American Stove Company. (See Blackford, Atwell J., assignor.)

American Stove Company. (See Boekenkamp, Edward, assignor.)

American Warp Drawing Machine Company. (See Hathaway and Lea, assignors.)

Ames, Butler, Lowell, Mass. Generator for ignition purposes. No. 1,076,806; Oct. 28; Gaz. vol. 195; p. 875.

Ames, Butler, Lowell, and A. Harrison, Dracut, Mass. Stop-motion for cotton roving and spinning frames. No. 1,075,136; Oct. 7; Gaz. vol. 195; p. 188.

Amphion Piano Player Company. (See Doman, Lewis B., assignor.)

Amsden, George A., Littleton, Mass., assignor to The Lamson Company, Newark, N. J. Cable-carrier apparatus. No. 1,076,936; Oct. 28; Gaz. vol. 195; p. 922.

Amsden, George A., Littleton, Mass., assignor to The Lamson Company, Newark, N. J. Cable-carrier apparatus. No. 1,076,937; Oct. 28; Gaz. vol. 195; p. 923.

Andersen, Christian, Chicago, Ill. Wrench. No. 1,074,594; Oct. 7; Gaz. vol. 195; p. 3.

Anderson, Charles A., Chicago, Ill. Gas-pump. No. 1,075,183; Oct. 7; Gaz. vol. 195; p. 205.

Anderson, David G., assignor of one-half to G. R. Kittle, Columbus, Ohio. Pipe-fitting. No. 1,075,281; Oct. 7; Gaz. vol. 195; p. 241.

Anderson, Emil, New York, N. Y., assignor to The Universal Turbine Company, Jersey City, N. J. Turbine. No. 1,076,733; Oct. 28; Gaz. vol. 195; p. 849.

Anderson, Floyd. (See Hickerson, Elmer E., assignor.)

Anderson, Haldor A., assignor to H. H. Fromelt, Ortley, S. D. Photographic-printing machine. No. 1,077,213; Oct. 28; Gaz. vol. 195; p. 1012.

Anderson, James B., Shaler township, Allegheny county, Pa. Gas-burner. No. 1,076,857; Oct. 28; Gaz. vol. 195; p. 894.

Anderson, John N., Chicago, Ill. Photographic-printing machine. No. 1,075,680; Oct. 14; Gaz. vol. 195; p. 403.

Anderson, Olof A., Boston, Mass. Internal-combustion engine. No. 1,076,807; Oct. 28; Gaz. vol. 195; p. 876.

Anderson, William E. J., Trinidad, Colo. Hand-lever. No. 1,076,341; Oct. 21; Gaz. vol. 195; p. 658.

Andrews, William S., Schenectady, N. Y., assignor to General Electric Company. Electric heater. No. 1,076,858; Oct. 28; Gaz. vol. 195; p. 894.

Anfinson, Lars A., Clermont, Iowa. Corn-planter. No. 1,076,938; Oct. 28; Gaz. vol. 195; p. 923.

Angell, Edmund R., Derry, N. H. Acetylene-generator. No. 1,074,921; Oct. 7; Gaz. vol. 195; p. 113.

Angelovich Improved Hinge Company. (See Angelovich, Joseph R., assignor.)

Angelovich, Joseph R., assignor to Angelovich Improved Hinge Company, San Francisco, Cal. Non-projecting hinge. No. 1,076,259; Oct. 21; Gaz. vol. 195; p. 628.

Anguish Manufacturing Company. (See Farlinger, George E., assignor.)

Anken, Isaac. (See Rochaix and Anken.)

Appleby, Edward H., Claridge, Pa. Mail-bag-delivering device. No. 1,076,859; Oct. 28; Gaz. vol. 195; p. 895.

Appleby, John F., assignor to Western Implement & Motor Company, Davenport, Iowa. Cotton-cleaner. No. 1,076,939; Oct. 28; Gaz. vol. 195; p. 923.

Arburg, George F., Revere, Mass. Bath-room fixture. No. 1,076,808; Oct. 28; Gaz. vol. 195; p. 876.

Archbold-Brady Company. (See Allen, Robert L., assignor.)

Arenson, Joseph, Chicago, Ill. Inside coat-pocket. No. 1,076,260; Oct. 21; Gaz. vol. 195; p. 628.

Arents, George, Jr., *et al.* (See Tyberg, Oluf, assignor.)

Argylis Limited. (See Perrot, Henri, assignor.)

Armstrong, Morgan K., Minneapolis, Minn., assignor to Bestwall Manufacturing Company, Chicago, Ill. Compo-board. No. 1,076,261; Oct. 21; Gaz. vol. 195; p. 628.

Armstrong, Samuel A., Niles, and P. T. Aumend, Warren, Ohio. Coupling for cable-sections. No. 1,075,079; Oct. 7; Gaz. vol. 195; p. 169.

Armstrong, Thomas H., assignor to Dearborn Novelty Company, Chicago, Ill. Gas-generator. No. 1,076,401; Oct. 21; Gaz. vol. 195; p. 679.

Arndt, Max, Aix-la-Chapelle, Germany. Measuring apparatus. No. 1,075,620; Oct. 14; Gaz. vol. 195; p. 383.

Arnold, Charles E., Hartford, Conn. Account-book. No. 1,074,922; Oct. 7; Gaz. vol. 195; p. 114.

Arnold, William B., Abington, Mass. Shoe-stiffener blank. No. 1,076,541; Oct. 21; Gaz. vol. 195; p. 729.

Arnott, Robert F. (See Stutz and Arnott.)

Art Metal Construction Company. (See Bullock, Raymond G., assignor.)

Art Metal Construction Company. (See Stuck, Everett, assignor.)

Ash, George. (See Welch, William H., assignor.)

Ash, Marsellus T., Brooklyn, assignor to W. H. Owen, New York, N. Y. Carton-filler. No. 1,075,534; Oct. 14; Gaz. vol. 195; p. 353.

Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Assembling parts of boots and shoes. No. 1,076,620; Oct. 21; Gaz. vol. 195; p. 757.

Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,076,940; Oct. 28; Gaz. vol. 195; p. 924.

Asper, Haifdan, Pittsburgh, Pa. Door arrangement for dump-cars. No. 1,076,860; Oct. 28; Gaz. vol. 195; p. 895.

Aspinwall, John, Newburgh, N. Y., assignor to E. I. du Pont de Nemours Powder Co. Treating apparatus. No. 1,075,805; Oct. 14; Gaz. vol. 195; p. 445.

Ateliers H. Cuénod Société Anonyme. (See Werner and Juillard, assignors.)

Atkinson, Asher, *et al.* (See Vought, Henry H., Jr., assignor.)

Atlantic National Bank. (See Mitchell, Frank, assignor.)

Aubeuf, Frank H., assignor of one-half to F. J. Aubeuf, Oneida, N. Y. Dirigible headlight. No. 1,076,402; Oct. 21; Gaz. vol. 195; p. 679.

Aubeuf, Frank J. (See Aubeuf, Frank H., assignor.)

Auchu, Henry, Emporium, Pa. Machine for packing dynamites and other high explosives into shells. No. 1,074,923; Oct. 7; Gaz. vol. 195; p. 114.

Audet, Arthur, Los Angeles, Cal. Dry concentrating apparatus. No. 1,075,959; Oct. 14; Gaz. vol. 195; p. 498.

Aug. Goertz & Co. (See Goertz, Frederick, assignor.)

Auger, Joseph T., Minneapolis, Minn. Buttonhole guide-clamp. No. 1,076,183; Oct. 21; Gaz. vol. 195; p. 602.

Ault, Edwin. (See Travis and Ault.)

Aumend, Pyrl T. (See Armstrong and Aumend.)

Aumont, Albert, Montreal, Quebec, Canada. Bathing-shoe. No. 1,074,595; Oct. 7; Gaz. vol. 195; p. 3.

Aurora Automatic Machinery Company. (See Norling, Reinhold A., assignor.)

Austin, De Roy, Omaha, Nebr. Shoe. No. 1,075,806; Oct. 14; Gaz. vol. 195; p. 446.

Austin, Herbert, Bromsgrove, England. Cross-slide of lathes of the turret type. No. 1,074,924; Oct. 7; Gaz. vol. 195; p. 114.

Austin, Herbert, Bromsgrove, England. Machine of the turret type for turning and like operations. No. 1,076,734; Oct. 28; Gaz. vol. 195; p. 850.

Austin, William E., Fort Worth, Tex. Attachment for cabinets. No. 1,077,027; Oct. 28; Gaz. vol. 195; p. 954.

Auto Machine Company. (See Vanskiver, William H., assignor.)

Autokal Syndicate Limited, The. (See Barr and Clarke, assignors.)

Automatic Bookkeeping Register Company. (See Fogg, Charles F., assignor.) (Reissue).

Automatic Electric Company. (See Blessing, John G., assignor.)

Automatic Electric Company. (See Keith, Alexander E., assignor.)

Automatic Furnace Company. (See Sheehan, Thomas C., assignor.)

Autoplate Company of America, The. (See Wood, Henry A. W., assignor.) (Reissue.)

Autosales Gum and Chocolate Company. (See Kelly and Webster, assignors.)

Auty, Frank, New York, N. Y. Plumber's kit. No. 1,076,239; Oct. 7; Gaz. vol. 195; p. 224.

Auvil, Troy E., Fairmont, W. Va. Artificial limb. No. 1,076,861; Oct. 28; Gaz. vol. 195; p. 895.

Avery, Irving L., *et al.* (See Harrison, Henry, assignor.)

Ayars, Charles H., assignor to Ayars Machine Company, Salem, N. J. Can feed and transfer mechanism. No. 1,075,891; Oct. 14; Gaz. vol. 195; p. 474.

Ayars Machine Company. (See Ayars, Charles H., assignor.)

Aylsworth, Jonas W., East Orange, assignor to New Jersey Patent Company, West Orange, N. J. Molding phonograph-records. No. 1,075,807; Oct. 14; Gaz. vol. 195; p. 446.

Aylsworth, Jonas W., assignor to Condensite Company of America, East Orange, N. J. Material for roofing, &c., and preparing the same. No. 1,077,113; Oct. 28; Gaz. vol. 195; p. 981.

Ayres, Gustav, Washington, D. C., assignor to J. C. Calhoun, New York, N. Y. Liquid-fuel furnace. No. 1,076,342; Oct. 21; Gaz. vol. 195; p. 658.

B. F. Goodrich Company, The. (See Shaw, Edwin C., assignor.)

B. F. Perkins and Son. (See Beck, John L., assignor.)

B. F. Sturtevant Company. (See Freeman, Ernest B., assignor.)

Babbitt, Walker E., Worcester, Mass. Wheel. No. 1,076,735; Oct. 28; Gaz. vol. 195; p. 850.

Babcock & Wilcox Company, The. (See Bell, John E., assignor.)

Babson, Henry B., Chicago, Ill., and A. Haug, Caldwell, N. J., assignors, by mesne assignments, to Victor Talking Machine Company. Talking-machine. No. 1,076,621; Oct. 21; Gaz. vol. 195; p. 758.

Bache, Leigh S., assignor to Graphite Lubricating Company, Boundbrook, N. J. Self-lubricating wood bearing and surface. No. 1,076,941; Oct. 28; Gaz. vol. 195; p. 924.

Bachmann, Paul G., and A. F. Henke, Chicago, Ill. Metallic lace. No. 1,075,320; Oct. 14; Gaz. vol. 195; p. 279.

Backmire, George H., Philadelphia, Pa. Vapor-absorber, smoke and soot preventer, and heat-retainer. No. 1,076,942; Oct. 28; Gaz. vol. 195; p. 924.

Bacon, Charles, Fresno, Cal. Brace for use in packing boxes and crates in railway-cars. No. 1,075,001; Oct. 7; Gaz. vol. 195; p. 140.

Bacon, Frank W., Los Angeles, Cal. Tariff-book. No. 1,074,684; Oct. 7; Gaz. vol. 195; p. 85.

Bacon, Henry D., Bath, Me. Stuffing-box and bearing for shafts of marine propellers. No. 1,075,080; Oct. 7; Gaz. vol. 195; p. 170.

Badeau, Charles C., Bethlehem, Pa., assignor to Roller-Smith Company. Circuit-breaker. No. 1,075,749; Oct. 14; Gaz. vol. 195; p. 426.

Badische Anilin & Soda Fabrik. (See Bally, Oscar, assignor.)

Badische Anilin & Soda Fabrik. (See Bosch, Carl, assignor.)

Badische Anilin & Soda Fabrik. (See Bosch and Lappe, assignors.)

Badische Anilin & Soda Fabrik. (See Fussenegger, Ernst, assignor.)

Badische Anilin & Soda Fabrik. (See Schmidt, Otto, assignor.)

Baerlocher, Robert F., Manchester, England, assignor to Westinghouse Electric and Manufacturing Company. Controller for electric motors. No. 1,074,925; Oct. 7; Gaz. vol. 195; p. 115.

Bager, Svante R. W. M., Milwaukee, Wis. Equalizing system for steam-shovels and the like. No. 1,075,081; Oct. 7; Gaz. vol. 195; p. 170.

Bailey, Charles A., Cromwell, Conn. Toy pistol. No. 1,075,392; Oct. 14; Gaz. vol. 195; p. 306.

Bailey, Charles A., Cromwell, Conn. Toy pistol. No. 1,075,393; Oct. 14; Gaz. vol. 195; p. 306.

Bailey, Percy T., Newport, R. I. Post-anchor. No. 1,077,028; Oct. 28; Gaz. vol. 195; p. 954.

Balnum, Grace I., *et al.* (See Davies, William P., assignor.)

Baker, Charles E., Hamilton, Ohio. Flying-machine. No. 1,077,114; Oct. 28; Gaz. vol. 195; p. 981.

Baker, Charles W., Montclair, N. J. Cooling system for internal-combustion engines. No. 1,076,736; Oct. 28; Gaz. vol. 195; p. 851.

Baker, Commadore P., St. Catherine, Mo. Device for binding fodder. No. 1,076,403; Oct. 21; Gaz. vol. 195; p. 680.

Baker, Harvey C., Chicago, Ill. Feeding mechanism. No. 1,075,535; Oct. 14; Gaz. vol. 195; p. 354.

Balch, Augustus W., Jr., Matamoras, Pa. Bait-holder. No. 1,076,542; Oct. 21; Gaz. vol. 195; p. 729.

Baldwin, Frederic E., New York, N. Y. Non-clogging burner-tip. No. 1,075,960; Oct. 14; Gaz. vol. 195; p. 498.

Baldwin Locomotive Works, The. (See Vauclain, Samuel W., assignor.)

Baldwin, Melvin D., Grand Rapids, Mich. Machine element. No. 1,075,321; Oct. 14; Gaz. vol. 195; p. 279.

Bales, James E., Montgomery, assignor to Lyon Metallic Manufacturing Company, Aurora, Ill. Gear-case. No. 1,075,808; Oct. 14; Gaz. vol. 195; p. 446.

Ball, Albert, and T. Officer, assignors to Sullivan Machinery Company, Claremont, N. H. Direct-acting engine. No. 1,075,750; Oct. 14; Gaz. vol. 195; p. 427.

Ball, Augustus A. Jr., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical casting-machine. No. 1,076,343; Oct. 21; Gaz. vol. 195; p. 659.

Ball, Henry P. (See Wright and Ball.)

Ballard, Harrie A., assignor to The Boylston Manufacturing Company, Boston, Mass. Looper mechanism for sewing-machines. No. 1,075,082; Oct. 7; Gaz. vol. 195; p. 170.

Ballenberg, Adolph, assignor to Universal Caster & Foundry Company, New York, N. Y. Caster. No. 1,075,536; Oct. 14; Gaz. vol. 195; p. 354.

Bally, Oscar, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Green anthraquinone dyes and making them. No. 1,077,115; Oct. 28; Gaz. vol. 195; p. 981.

Bamford, Frank W., Trenton, N. J., assignor to John Maddock & Sons. Valve-operating apparatus for flushing-tanks. No. 1,075,681; Oct. 14; Gaz. vol. 195; p. 404.

Band, Charles P., Toronto, Ontario, Canada. Detachable tab for collars. No. 1,075,394; Oct. 14; Gaz. vol. 195; p. 307.

Bänder, Theodor, Frankfort-on-the-Main, Germany. Apparatus for treating photographic plates. No. 1,077,186; Oct. 28; Gaz. vol. 195; p. 1002.

Bandieri, Joseph, Cincinnati, Ohio. Surgical instrument. No. 1,075,002; Oct. 7; Gaz. vol. 195; p. 141.

Banks, Charles S. (See Searcy, Oscar W., assignor.)

Bannatyne, Archibald, assignor to The Bannatyne Watch Company, Waterbury, Conn. Support for watches. No. 1,074,767; Oct. 7; Gaz. vol. 195; p. 62.

Bannatyne Watch Company, The. (See Bannatyne, Archibald, assignor.)

Barbee, William F., Des Moines, Iowa. Churn. No. 1,075,892; Oct. 14; Gaz. vol. 195; p. 475.

Barber-Colman Company. (See Peterson, Burt A., assignor.)

Barber, Eugene R., Valdosta, Ga. Conveyer for bottled soda-water. No. 1,075,893; Oct. 14; Gaz. vol. 195; p. 475.

Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Slip-sheet-feeding device for printing-presses. No. 1,077,029; Oct. 28; Gaz. vol. 195; p. 955.

Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Printing-press. No. 1,077,214; Oct. 28; Gaz. vol. 195; p. 1012.

Barberie, John, Upper Montclair, N. J. Means for converting an ordinary roll-film camera into a focal-plane-shutter camera. No. 1,075,751; Oct. 14; Gaz. vol. 195; p. 427.

Bargamin, Clifford, Newport News, Va., assignor to The Sentinel Automatic Gas Appliance Co., New Haven, Conn. Automatic cut-off for gas-ranges. No. 1,075,322; Oct. 14; Gaz. vol. 195; p. 279.

Barker, England J., Chicago, Ill. Type-writer attachment. No. 1,075,458; Oct. 14; Gaz. vol. 195; p. 328.

Barnard, Sidney N. (See Bolam and Barnard.)

Barnum, Robert L., Oakman, Ala. Drill. No. 1,076,093; Oct. 21; Gaz. vol. 195; p. 573.

Barr, Mark, and E. R. Clarke, assignors to The Autokal Syndicate Limited, London, England. Calculating-machine. No. 1,075,003; Oct. 7; Gaz. vol. 195; p. 141.

Barrett, Harvey N. (See Newberry and Barrett.)

Barrett, John, Montreal, Quebec, Canada. Safety-pocket for trousers. No. 1,075,240; Oct. 7; Gaz. vol. 195; p. 225.

Barrett, Richmond H., and C. Ray, Noxapater, Miss. Combination fertilizer-distributer and cotton-seed planter. No. 1,075,621; Oct. 14; Gaz. vol. 195; p. 383.

Barrows, Robert Y., Rutherford, assignor of one-half to G. H. Harman, Glen Ridge, N. J. Organ-pipe. No. 1,074,768; Oct. 7; Gaz. vol. 195; p. 63.

Barrows, Robert Y., Rutherford, assignor of one-half to G. H. Harman, Glen Ridge, N. J. Organ-pipe. No. 1,075,682; Oct. 14; Gaz. vol. 195; p. 404.

Barteaux, John M., assignor to Co-operative Manufacturing Company, Waltham, Mass. Matting-roughing machine. No. 1,076,862; Oct. 28; Gaz. vol. 195; p. 896.

Barteaux, John M., assignor to Co-Operative Manufacturing Company, Waltham, Mass. Preparing matting-stock. No. 1,077,215; Oct. 28; Gaz. vol. 195; p. 1013.

Bartholme, Joseph A., Baltimore, Md. Invalid-bed. No. 1,075,752; Oct. 14; Gaz. vol. 195; p. 428.

Baruch, Samuel, New York, N. Y. Seal and knot protector. No. 1,074,769; Oct. 7; Gaz. vol. 195; p. 63.

Bassett, George B., Buffalo, N. Y. Water-meter. No. 1,077,116; Oct. 28; Gaz. vol. 195; p. 981.

Bastian, Joseph H., and A. W. Nordgreen, Moorhead, Minn. Expanding tool-holder. No. 1,075,753; Oct. 14; Gaz. vol. 195; p. 428.

Batchelder, Charles C., Schenectady, N. Y., assignor to General Electric Company. Electric-motor drive. No. 1,075,683; Oct. 14; Gaz. vol. 195; p. 404.

Batchelder, Frank R., Worcester, Mass. Fabric pocket. No. 1,074,685; Oct. 7; Gaz. vol. 195; p. 35.

Batcheller, Birney C., New York, N. Y. Pneumatic-despatch-tube system. No. 1,076,737; Oct. 28; Gaz. vol. 195; p. 851.

Bates, Benjamin W., H. W. Kelly, and D. H. Corbin, Birmingham, assignors to Life Targets Limited, London, England. Target apparatus for use with kinematographs. No. 1,075,894; Oct. 14; Gaz. vol. 195; p. 475.

Bauer, Charles. (See Treadwell, Claude M., assignor.)

Bauerle, Jacob, Witt, Ill. Crutch. No. 1,077,216; Oct. 28; Gaz. vol. 195; p. 1013.

Baur, Philip J., Pittsburgh, Pa. Wrapping-machine. No. 1,075,684; Oct. 14; Gaz. vol. 195; p. 405.

Beach, Arthur T. (See Russ, Beach, and Kleinfeldt.)

Bean, Theodore C., Glen Ullin, N. D. Attachment for automobiles. No. 1,077,030; Oct. 28; Gaz. vol. 195; p. 955.

Beans, Hal T., New York, N. Y. Treatment of plaster of Paris. No. 1,076,863; Oct. 28; Gaz. vol. 195; p. 896.

Beardslee, Robert W. (See Porter, Thomas, assignor.)

Beardsley, Claude W., Tacoma, Wash. Electric rat-trap. No. 1,074,770; Oct. 7; Gaz. vol. 195; p. 63.

Beauchaine, Alfred L. (See Montfort and Beauchaine.)

Beaudry, Severe J., Bridgeport, Conn., assignor by mesne assignments, to Remington Typewriter Company, Ilion, N. Y. Type-writing machine. No. 1,076,013; Oct. 21; Gaz. vol. 195; p. 545.

Beaver Dam Mfg. Co. (See Broman and Offerman, assignors.)

Bechdoldt, Claud, Bonanza, Oreg. Gun-sight. No. 1,076,658; Oct. 28; Gaz. vol. 195; p. 823.

Béché, Jean, Hückeswagen, Germany. File. No. 1,076,262; Oct. 21; Gaz. vol. 195; p. 629.

Becher, James A., Chicago, Ill. Vehicle. No. 1,074,596; Oct. 7; Gaz. vol. 195; p. 3.

Beck, John L., Springfield, assignor to B. F. Perkins and Son, Incorporated, Holyoke, Mass. Pawl-and-ratchet mechanism. No. 1,075,311; Oct. 7; Gaz. vol. 195; p. 252.

Becker, Amelia M., *et al.*, executors. (See Hoffmann, Ernst G.)
Becker, Charles J., Los Angeles, Cal. Hydrocarbon-burner. No. 1,075,316; Oct. 7; Gaz. vol. 195; p. 254.
Beckman, Albert W. (See Stadler, Andrew, assignor.)
Bedell, Richard M., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, Typographic machine. No. 1,076,184; Oct. 21; Gaz. vol. 195; p. 603.
Bedford, Harry W. (See Quinlin, William T., assignor.)
Beech-Nut Packing Company *et al.* (See Merritt, Joseph, assignor.)
Beede, Herbert G., Pawtucket, R. I. Ring spinning or twisting apparatus. No. 1,075,004; Oct. 7; Gaz. vol. 195; p. 142.
Beede, Herbert G., Pawtucket, R. I. Thread-guide for thread-boards of twisting or spinning machines. No. 1,075,184; Oct. 7; Gaz. vol. 195; p. 205.
Beede, Herbert G., Pawtucket, R. I. Ring spinning or twisting apparatus. No. 1,075,185; Oct. 7; Gaz. vol. 195; p. 208.
Beede, Herman E. (See Smith, John R., assignor.)
Beegle, Norman C., Pen Argyle, Pa. Rack. No. 1,075,395; Oct. 14; Gaz. vol. 195; p. 307.
Beers, Harry F., assignor of one-half to J. E. Nicholson, New York, N. Y. Air-tight door for cabinets. No. 1,075,622; Oct. 14; Gaz. vol. 195; p. 384.
Behrendt, Barnim L., Newark, N. J. Knockdown box. No. 1,076,864; Oct. 28; Gaz. vol. 195; p. 896.
Belcher & Taylor Agricultural Tool Company. (See Butterfield, Lewis A., assignor.)
Bell, John E., assignor to The Babcock & Wilcox Company, New York, N. Y. Gas-burning furnace. No. 1,076,344; Oct. 21; Gaz. vol. 195; p. 659.
Bell, John E., assignor to The Babcock & Wilcox Company, New York, N. Y. Superheater-boiler. No. 1,077,117; Oct. 28; Gaz. vol. 195; p. 982.
Bem, Joseph P. (See Fox, Bem, and Spongle.)
Benda, Ludwig, Frankfort-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Nitroaminophenylarsinic acid. No. 1,075,537; Oct. 14; Gaz. vol. 195; p. 355.
Benda, Ludwig, Frankfort-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Dinitrophenylarsinic acid. No. 1,075,538; Oct. 14; Gaz. vol. 195; p. 355.
Benedict, Charles W. (See Clark and Larkin, assignors.)
Benefield, Chauncey R., Memphis, Tenn. Cultivator. No. 1,076,476; Oct. 21; Gaz. vol. 195; p. 706.
Benjamin, Charles L., and H. J. Wiegand, Milwaukee, Wis. Loose-leaf binder. No. 1,075,623; Oct. 14; Gaz. vol. 195; p. 384.
Benjamins, Israel, Brooklyn, N. Y. Adjustable stand. No. 1,075,323; Oct. 14; Gaz. vol. 195; p. 280.
Bennett, Silas W., Somerville, Mass. Ball-caster. No. 1,075,685; Oct. 14; Gaz. vol. 195; p. 405.
Bennett, Thomas J. (See Veaco and Bennett.)
Benovsky, Michael, Chicago, Ill. Calipers. No. 1,075,083; Oct. 7; Gaz. vol. 195; p. 171.
Benson, Arthur B., Woodhaven, N. Y. Drying-machine. No. 1,075,809; Oct. 14; Gaz. vol. 195; p. 447.
Berg, John, assignor to Metal Specialties Manufacturing Company, Chicago, Ill. Lighting and ignition device. No. 1,076,943; Oct. 28; Gaz. vol. 195; p. 925.
Berger, Victor B., Highland, Cal. Corset-fastener. No. 1,075,895; Oct. 14; Gaz. vol. 195; p. 476.
Bergmann, Frederich H. D. (See Macomber and Bergmann.)
Bergren, Charles, Duluth, Minn. Music-leaf turner. No. 1,075,084; Oct. 7; Gaz. vol. 195; p. 171.
Berkshire, Albert M., Uhrichsville, Ohio. Die-stock. No. 1,077,031; Oct. 28; Gaz. vol. 195; p. 955.
Bernard, Peter J., and J. Boyle, Chicago, Ill. Wind-shield. No. 1,075,754; Oct. 14; Gaz. vol. 195; p. 428.
Bernstein, Abraham, Cincinnati, and N. Bernstein, assignors to The Bernstein Brothers Manufacturing Company, Lebanon, Ohio. Supplemental horseshoe. No. 1,076,185; Oct. 21; Gaz. vol. 195; p. 603.
Bernstein Brothers Manufacturing Company, The. (See Bernstein, Abraham and N., assignors.)
Bernstein, Nathan. (See Bernstien, Abraham and N.)
Berry, Edward F., New Orleans, La. Dredging device, (coupling.) No. 1,076,738; Oct. 28; Gaz. vol. 195; p. 851.
Berthier, Michel, assignor to La Société Nouvelle de la Buire Automobiles, Lyon, France. Differential mechanism of automobile vehicles. No. 1,075,686; Oct. 14; Gaz. vol. 195; p. 406.
Bertolino, Dominick. (See Dailey and Bertolino.)
Bestwall Manufacturing Company. (See Armstrong, Morgan K., assignor.)
Betts, G. H., *et al.* (See Shirley, Frederick M., assignor.)
Betts, L. J., *et al.* (See Shirley, Frederick M., assignor.)
Beusse, Oscar R., Atlanta, Ga. Press-cloth stripper. No. 1,076,263; Oct. 21; Gaz. vol. 195; p. 629.
Biard, Robert M., *et al.* (See Strow and McMillan, assignors.)
Bickel, Henry F., Plainfield, N. J., assignor to New York Air Brake Company Air-brake apparatus. No. 1,076,543; Oct. 21; Gaz. vol. 195; p. 729.
Biel, Edward H., Randolph, Wis. Combined hook and fork. No. 1,075,005; Oct. 7; Gaz. vol. 195; p. 142.
Bigelow, Charles A., Lakewood, N. Mex. Plant-protector. No. 1,074,828; Oct. 7; Gaz. vol. 195; p. 81.
Bihler, Carl W., Chicago, Ill. Fastening device for electric fixtures. No. 1,076,186; Oct. 21; Gaz. vol. 195; p. 603.
Bille, Harald, Copenhagen, Denmark. Telegraphic perforating-receiver. No. 1,076,944; Oct. 28; Gaz. vol. 195; p. 925.
Binder, Gottlob, Philadelphia, Pa., assignor, by mesne assignments, to American Laundry Machinery Company, Cincinnati, Ohio. Dampening-machine. No. 1,076,648; Oct. 21; Gaz. vol. 195; p. 768.
Binkley, Robah J., assignor of three-tenths to E. W. Page, Chino, and three-tenths to R. A. Steps, Los Angeles, Cal. Beet-cutting machine. No. 1,075,624; Oct. 14; Gaz. vol. 195; p. 384.
Binswanger, Samuel, assignor to New Columbia Shirt Company, New York, N. Y. Reversible cuff. No. 1,077,032; Oct. 28; Gaz. vol. 195; p. 956.
Bippus, Alfred F., H. Kempthorn, and G. J. Pascoe, Toledo, Ohio. Display device. No. 1,075,006; Oct. 7; Gaz. vol. 195; p. 142.
Birch, Gustaf B. (See Cameron and Birch.)
Bird, Charles S., Walpole, Mass. Paper tube and making the same. No. 1,074,926; Oct. 7; Gaz. vol. 195; p. 115.
Bird, Charles S., and G. R. Wyman, Walpole, Mass.; said Wyman assignor to said Bird. Paper-board. No. 1,074,829; Oct. 7; Gaz. vol. 195; p. 82.
Bird, George Y. (See Smith, Rollyn R., assignor.)
Birdsall, William, East Orange, N. J. Combined collar-fastener and necktie-guiding device. No. 1,076,622; Oct. 21; Gaz. vol. 195; p. 758.
Bíró, Vilmos, Budapest, Austria-Hungary. Steam-heating hose-coupling with automatic draining-valve principally for railway-trains. No. 1,076,739; Oct. 28; Gaz. vol. 195; p. 852.
Bisbee, George W., *et al.* (See Boller and Clement, assignors.)
Bishop-Babcock-Becker Company, The. (See Champ and Schutt, assignors.)
Bishop-Babcock-Becker Company, The. (See Schutt, Theodore H., assignor.)
Bissell, Carl H., assignor to Crouse-Hinds Company, Syracuse, N. Y. Casing for incandescent-electric-lamp sockets. No. 1,075,539; Oct. 14; Gaz. vol. 195; p. 355.
Bissell, Carl H., assignor to Crouse-Hinds Company, Syracuse, N. Y. Cluster lamp-socket. No. 1,076,477; Oct. 21; Gaz. vol. 195; p. 706.
Bissell, Joseph E., Pittsburgh, Pa. Power-transmitting mechanism. No. 1,077,118; Oct. 28; Gaz. vol. 195; p. 982.
Bissell, Joseph E., Pittsburgh, Pa. Propeller. No. 1,077,187; Oct. 28; Gaz. vol. 195; p. 1003.
Bithell, John, Newtown, England. Lock or fastening for railway and other carriage doors and the like. No. 1,076,544; Oct. 21; Gaz. vol. 195; p. 730.
Bituminized Road Company. (See Popkess, Michael A., assignor.)
Bixby, Robert, North Andover, Mass. Nut-lock. No. 1,077,119; Oct. 28; Gaz. vol. 195; p. 983.
Bjurlund, Johan F., Richmond Hill, assignor of one-half to H. M. Lasauce, Brooklyn, N. Y. Package-fastener. No. 1,076,740; Oct. 28; Gaz. vol. 195; p. 852.
Blackford, Atwell J., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Blue-flame oil-stove. No. 1,074,686; Oct. 7; Gaz. vol. 195; p. 35.
Blackford, Atwell J., Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo. Wick blue-flame oil-burner. No. 1,074,687; Oct. 7; Gaz. vol. 195; p. 36.
Blair, David E., Montreal, Quebec, Canada. Dump-car. No. 1,075,687; Oct. 14; Gaz. vol. 195; p. 406.
Blakeslee, George S., Chicago, Ill. Driving mechanism. No. 1,076,659; Oct. 28; Gaz. vol. 195; p. 823.
Blaxter, George H., Beaver Falls, Pa. Making seamless tubes. No. 1,076,545; Oct. 21; Gaz. vol. 195; p. 730.
Blemer, Charles H., *et al.* (See Boller and Clement, assignors.)
Blessing, John G., assignor to Automatic Electric Company, Chicago, Ill. Telephone system. No. 1,075,007; Oct. 7; Gaz. vol. 195; p. 143.
Bliss, Donald M., Orange, N. J. Vibrating-record phonograph. No. 1,076,741; Oct. 28; Gaz. vol. 195; p. 853.
Blochmann, Ernst, Bitterfeld, assignor to Luft-Fahrzeug-Gesellschaft m. b. H., Berlin, Germany. Suspension of the cars of airships. No. 1,074,830; Oct. 7; Gaz. vol. 195; p. 82.
Bloom, John. (See Engstrom and Bloom.)
Boardman, Henry, Des Moines, Iowa. Spring-wheel. No. 1,075,688; Oct. 14; Gaz. vol. 195; p. 406.
Boardman, Robert O., Grand Rapids, Mich., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,075,137; Oct. 7; Gaz. vol. 195; p. 189.
Boardman, Robert O., Grand Rapids, Mich., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,075,138; Oct. 7; Gaz. vol. 195; p. 189.
Boardman, Robert O., Grand Rapids, Mich., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,076,187; Oct. 21; Gaz. vol. 195; p. 604.
Boardman, Robert O., Grand Rapids, Mich., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,076,478; Oct. 21; Gaz. vol. 195; p. 707.
Boatwright, Louis, Paducah, Ky. Oil-burner. No. 1,075,396; Oct. 14; Gaz. vol. 195; p. 307.

Bock, Alfred C. O., Brooklyn, N. Y., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Automatic-locking dead-lock. No. 1,074,597; Oct. 7; Gaz. vol. 195; p. 3.
Boden, Edmund P., Santa Clara, Cal. Stump-extractor. No. 1,075,008; Oct. 7; Gaz. vol. 195; p. 143.
Boehringer & Soehne, C. F. (See Ach and Rothmann, assignors.)
Boekenkamp, Edward, assignor to American Stove Company, St. Louis, Mo. Blue-flame wick-stove. No. 1,074,688; Oct. 7; Gaz. vol. 195; p. 36.
Bogdanffy, Alexander, New York, assignor to The International Cork Company, Brooklyn, N. Y. Manufacturing bottle-closures. No. 1,075,186; Oct. 7; Gaz. vol. 195; p. 205.
Bogusch, Emil G., assignor of one-half to M. D. Slator, Llano, Tex. Internal-combustion engine. No. 1,077,033; Oct. 28; Gaz. vol. 195; p. 956.
Boher, Annie L., Chicago, Ill. Stormproof veil. No. 1,076,809; Oct. 28; Gaz. vol. 195; p. 877.
Bolam, Thomas H., West Ealing, and S. N. Barnard, Puckeridge, Ware, England. Kinematographic apparatus. No. 1,076,404; Oct. 21; Gaz. vol. 195; p. 680.
Boland, John, Culebra, Canal Zone. Hat-pin retainer. No. 1,075,689; Oct. 14; Gaz. vol. 195; p. 406.
Boldizs, Mike, Sterling, Ill. Lock. No. 1,077,120; Oct. 28; Gaz. vol. 195; p. 983.
Bollensen, George S., assignor to Felt & Tarrant Manufacturing Company, Chicago, Ill. Adding-machine. No. 1,074,689; Oct. 7; Gaz. vol. 195; p. 37.
Bolier, George C., and S. K. Clement, assignors of one-fourth to C. H. Blemer and one-fourth to G. W. Blsbee, Loomis, Cal. Bulkhead for cars. No. 1,075,961; Oct. 14; Gaz. vol. 195; p. 498.
Bolls, Virginia V., and E. R. Crooker, Los Angeles, Cal. Oven. No. 1,075,810; Oct. 14; Gaz. vol. 195; p. 447.
Bolton, Florence, Berkeley, assignor to W. Ellery, San Francisco, Cal. Woman's outing-suit. No. 1,076,264; Oct. 21; Gaz. vol. 195; p. 629.
Bolz, Frank R., Somerville, Mass. Wardrobe-trunk. No. 1,076,479; Oct. 21; Gaz. vol. 195; p. 707.
Bond, Edgar T., Chicago, Ill. Foldable crate. No. 1,076,623; Oct. 21; Gaz. vol. 195; p. 759.
Bonom, Alfred, Paterson, N. J. Steam-turbine. No. 1,076,810; Oct. 28; Gaz. vol. 195; p. 877.
Bonom, Alfred, Paterson, N. J. Reversible steam-turbine. No. 1,076,865; Oct. 28; Gaz. vol. 195; p. 896.
Borden, Bradford, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio. Thread-cutting tool. No. 1,076,188; Oct. 21; Gaz. vol. 195; p. 604.
Borden Company, The. (See Borden, Bradford, assignor.)
Borden Company, The. (See Nonneman, Ira W., assignor.)
Bordier, Claude, Kilbourn Siding, Quebec, Canada. Jolter for sacking-machines. No. 1,076,480; Oct. 21; Gaz. vol. 195; p. 707.
Borland, Bruce, Chicago, Ill. Lock. No. 1,075,139; Oct 7; Gaz. vol. 195; p. 190.
Bosch, Carl, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Working with hydrogen under pressure. No. 1,077,034; Oct. 28; Gaz. vol. 195; p. 956.
Bosch, Carl, and F. Lappe, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Working with hydrogen under pressure. No. 1,075,085; Oct. 7; Gaz. vol. 195; p. 171.
Bosch, Firm of Robert. (See Diemer, Anton, assignor.)
Boss, William, St. Paul, Minn. Grass-catcher. No. 1,076,014; Oct. 21; Gaz. vol. 195; p. 545.
Boston Machine Works Company. (See Jennings, Frank S., assignor.) (Reissue.)
Bosworth, Wendell P., assignor to Brockton Heel Company, Brockton, Mass. Machine for making heel-logs. No. 1,076,742; Oct. 28; Gaz. vol. 195; p. 853.
Bonghner, John D., Yorba Linda, Cal. Drill-rod connection. No. 1,075,896; Oct. 14; Gaz. vol. 195; p. 476.
Boughton, John W., Philadelphia, Pa. Airship. No. 1,075,540; Oct. 14; Gaz. vol. 195; p. 355.
Bouldin, W. Claughton, Oakland, Tex. Automobile-jack. No. 1,074,699; Oct. 7; Gaz. vol. 195; p. 37.
Boulter, Royal L., Los Angeles, Cal. Telegraph-key. No. 1,074,831; Oct. 7; Gaz. vol. 195; p. 82.
Bouracier, Louis C. J., Balham, London, England. Amusement apparatus. No. 1,075,397; Oct. 14; Gaz. vol. 195; p. 307.
Bow, Lafayette T., and D. B. Vernon, Ardmore, Okla. Burial-casket. No. 1,075,086; Oct. 7; Gaz. vol. 195; p. 171.
Bowman, Benjamin, Springfield, Mo. Ditching-machine. (Reissue.) No. 13,623; Oct. 7; Gaz. vol. 195; p. 255.
Bowman, Charles M., Lebanon, Pa. Shovel. No. 1,075,459; Oct. 14; Gaz. vol. 195; p. 328.
Bowman, Reginald M., Baltimore, Md. Locomotive blower and stack. No. 1,075,140; Oct. 7; Gaz. vol. 195; p. 190.
Bowmaster, John O., Rockhill Furnace, Pa. Frogless switch. No. 1,075,087; Oct. 7; Gaz. vol. 195; p. 172.
Boyden, George A., Mount Washington, Md., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Combined automatic and straight-air brake. No. 1,075,811; Oct. 14; Gaz. vol. 195; p. 447.
Boye, James H., assignor to The Boye Needle Company, Chicago, Ill. Holder for pencils, pens, &c. No. 1,074,927; Oct. 7; Gaz. vol. 195; p. 115.
Boye Needle Company, The. (See Boye, James H., assignor.)
Boyer, Ray C., Lincoln, Nebr. Electric water-heater. No. 1,077,035; Oct. 28; Gaz. vol. 195; p. 956.
Boyle, Joseph. (See Bernard and Boyle.)
Boyler, Emanuel J. (See Greist and Boyler.)
Boylston Manufacturing Company, The. (See Ballard, Harrie A., assignor.)
Bradley, Charles S., New York, N. Y. Chemical filter. No. 1,077,037; Oct. 28; Gaz. vol. 195; p. 957.
Bradley, Charles S., New York, N. Y., assignor to Bradley Copper Process Company, Jersey City, N. J. Apparatus for amphidizing. No. 1,077,036; Oct. 28; Gaz. vol. 195; p. 957.
Bradley Copper Process Company. (See Bradley, Charles S., assignor.)
Bradley, Franklin F., assignor to Bradley & Vrooman Co., Chicago, Ill. Making paints. No. 1,077,239; Oct. 28; Gaz. vol. 195; p. 1020.
Bradley, Ivan H., assignor to The Burns and Bassick Company, Bridgeport, Conn. Lock-mortising machine. No. 1,074,598; Oct. 7; Gaz. vol. 195; p. 4.
Bradley, Ralph W., Fort Collins, Colo. Electric system for operating speed-varying power transmission. No. 1,074,599; Oct. 7; Gaz. vol. 195; p. 4.
Bradley & Vrooman Co. (See Bradley, Franklin F., assignor.)
Braine, Daniel L., assignor to Composite Tie-Plate Corporation, New York, N. Y. Tie-plate. No. 1,076,811; Oct. 28; Gaz. vol. 195; p. 878.
Braine, Daniel L., assignor to Composite Tie-Plate Corporation, New York, N. Y. Tie-plate. No. 1,076,812; Oct. 28; Gaz. vol. 195; p. 878.
Braine, Daniel L., assignor to Composite Tie-Plate Corporation, New York, N. Y. Rail-supporting device. No. 1,076,813; Oct. 28; Gaz. vol. 195; p. 878.
Braine, Daniel L., assignor to Composite Tie-Plate Corporation, New York, N. Y. Tie-plate. No. 1,076,814; Oct. 28; Gaz. vol. 195; p. 879.
Brashear, Peter C., assignor of one-half to E. Bryant, Castleton, N. Y. Paper box. No. 1,075,812; Oct. 14; Gaz. vol. 195; p. 448.
Brawner, Budd W., Augusta, Ga. Automatic controlling device for electrically-heated apparatus. No. 1,077,038; Oct. 28; Gaz. vol. 195; p. 958.
Brazier, Alexander, Oakland, Cal. Saw. No. 1,076,815; Oct. 28; Gaz. vol. 195; p. 879.
Breed, Charles W., assignor to The P. & M. Co., Chicago, Ill. Anticreeper for rails. No. 1,075,187; Oct. 7; Gaz. vol. 195; p. 206.
Bremer Linoleumwerke Delmenhorst. (See Werner, Carl G. E., assignor.)
Brenner, Charles M., Shreveport, La. Valve-float for closet-tanks. No. 1,076,546; Oct. 21; Gaz. vol. 195; p. 730.
Brewitt, Walter, assignor to Th. Goldschmidt, a Firm, Essen-on-the-Ruhr, Germany. Means for forming parallel faces on the ends of rails, &c. No. 1,075,755; Oct. 14; Gaz. vol. 195; p. 429.
Breyer, Theodor E., Willmette, assignor to Corn Products Refining Company, Chicago, Ill. Mold for confectionery. No. 1,074,600; Oct. 7; Gaz. vol. 195; p. 5.
Brickell, Richard W. (See Prior and Brickell.)
Brickenstein, John H., *et al.* (See Friedberger, Otto, assignor.)
Bright, Fred E., Philadelphia, Pa. Mechanical movement. No. 1,074,832; Oct. 7; Gaz. vol. 195; p. 82.
Briones, Paul, Bolinas, Cal. Ship construction. No. 1,076,624; Oct. 21; Gaz. vol. 195; p. 759.
Bristol Company, The. (See Codling, Robert B., assignor.)
Bristow, George O., Cuero, Tex. Railway-crossing. No. 1,076,405; Oct. 21; Gaz. vol. 195; p. 681.
Brockton Heel Company. (See Bosworth, Wendell P., assignor.)
Brockton Rand Company. (See Lyon, Harry, assignor.)
Broman, Peter, and J. Offerman, assignors to Beaver Dam Mfg. Co., Beaver Dam, Wis. Feed mechanism for grain-drills. No. 1,075,813; Oct. 14; Gaz. vol. 195; p. 448.
Bromley, Joseph H. (See Scott, Walter R., assignor.)
Brothers, Sanford W., Denver, Colo. Valved connection for rock-drills. No. 1,075,324; Oct. 14; Gaz. vol. 195; p. 280.
Brothers, Sanford W., Denver, Colo. Locking-chuck for rock-drills, &c. No. 1,075,325; Oct. 14; Gaz. vol. 195; p. 280.
Brown, Edward C., Chicago, Ill. Catch-basin. No. 1,076,945; Oct. 28; Gaz. vol. 195; p. 925.
Brown, Edward N., assignor to The D. T. Owen Company, East Cleveland, Ohio. Combined bed and sofa. No. 1,076,094; Oct. 21; Gaz. vol. 195; p. 573.
Brown, Henry W., Birmingham, Ala. Bridle-bit. No. 1,076,946; Oct. 28; Gaz. vol. 195; p. 926.
Brown, James M., Roseburg, Oreg. Square. No. 1,076,095; Oct. 21; Gaz. vol. 195; p. 574.
Brown, Minnie A., assignor of one-half to J. W. Jones, Saltillo, Miss. Cuspidor. No. 1,075,398; Oct. 14; Gaz. vol. 195; p. 308.
Brown, Reuben H., New Haven, Conn. Carton folding and stitching machine. No. 1,076,015; Oct. 21; Gaz. vol. 195; p. 546.
Brown, William S., Knoxville, Tenn. Steam-engine valve-gear. No. 1,076,406; Oct. 21; Gaz. vol. 195; p. 681.

Browne, Arthur W., Prince Bay, N. Y., assignor to The S. S. White Dental Manufacturing Company, Philadelphia, Pa. Bracket. No. 1,075,541; Oct. 14; Gaz. vol. 195; p. 356.

Browne, Edwin S., Riverton, N. J. Book. No. 1,074,833; Oct. 7; Gaz. vol. 195; p. 83.

Brownell, George L., Worcester, Mass. Twisting-machine. No. 1,076,096; Oct. 21; Gaz. vol. 195; p. 574.

Browning, George M., New York, N. Y. Seal. No. 1,075,327; Oct. 14; Gaz. vol. 195; p. 281.

Brownlie, Thomas A. M., Amritsar, India. Tube-well. No. 1,075,326; Oct. 14; Gaz. vol. 195; p. 281.

Bruce, James W., Ozark, Ohio. Motor-vehicle. No. 1,075,088; Oct. 7; Gaz. vol. 195; p. 172.

Bruckman, Frederick A., Portland, Oreg. Ice-cream-cone machine. No. 1,075,625; Oct. 14; Gaz. vol. 195; p. 385.

Bruckner, Hugo. (See Vacek, Johanna, assignor.)

Bruger, Theodor, assignor to Hartman & Braun A. G., Frankfort-on-the-Main, Germany. Gyroscope-compass. No. 1,074,771; Oct. 7; Gaz. vol. 195; p. 64.

Bruman, Otto F., Berlin, Germany, assignor to R. S. Hotz, Chicago, Ill. Turbine-wheel. No. 1,074,691; Oct. 7; Gaz. vol. 195; p. 38.

Brunhoff, Edward, Cincinnati, Ohio, assignor to H. Traiser & Co. Inc., Boston, Mass. Cigar-display holder. No. 1,076,097; Oct. 21; Gaz. vol. 195; p. 574.

Brunswick, Charles, Canisteo, N. Y. Safety appliance for vehicles. No. 1,077,217; Oct. 28; Gaz. vol. 195; p. 1013.

Bryant Electric Company, The. (See Burton, Frank V., assignor.)

Bryant, Emmons. (See Brashear, Peter C., assignor.)

Bryant, Jesse M., and J. Lind, Ganado, Tex. Rotatable table. No. 1,077,218; Oct. 28; Gaz. vol. 195; p. 1013.

Bryant, Joshua A., assignor of two-thirds to H. Quint, Princeton, Cal. Nut-lock. No. 1,076,098; Oct. 21; Gaz. vol. 195; p. 575.

Bryant, Stanley C., assignor to Bryant Zinc Company, Chicago, Ill. Train-annunciator. No. 1,075,542; Oct. 14; Gaz. vol. 195; p. 356.

Bryant, Stanley C., assignor to Bryant Zinc Company, Chicago, Ill. Electromagnetic device. No. 1,076,481; Oct. 21; Gaz. vol. 195; p. 708.

Bryant, William L., Springfield, Vt. Chuck. No. 1,075,756; Oct. 14; Gaz. vol. 195; p. 429.

Bryant Zinc Company. (See Bryant, Stanley C., assignor.)

Bryce, James W., Brooklyn, N. Y. Time-recorder. No. 1,075,543; Oct. 14; Gaz. vol. 195; p. 357.

Bryce, James W., Brooklyn, N. Y. Time-recorder. No. 1,075,544; Oct. 14; Gaz. vol. 195; p. 357.

Bryce, James W., Brooklyn, N. Y. Synchronizing device. No. 1,075,626; Oct. 14; Gaz. vol. 195; p. 385.

Bryce, James W., Brooklyn, N. Y. Time-recorder. No. 1,075,627; Oct. 14; Gaz. vol. 195; p. 386.

Buck, Thomas F., Newark, N. J. Scissors-sharpener. No. 1,075,690; Oct. 14; Gaz. vol. 195; p. 407.

Buckeye Steel Castings Company, The. (See Bush, Samuel P., assignor.)

Buckham, George T. (See Dawson and Buckham.)

Buckley, John, Lynn, Mass. Insole. No. 1,075,188; Oct. 7; Gaz. vol. 195; p. 207.

Buda, Pasquale, New York, N. Y. Brake. No. 1,075,814; Oct. 14; Gaz. vol. 195; p. 448.

Buffalo Foundry & Machine Company, The. (See Sleeper, Oliver S., assignor.)

Buhr, Joseph F., assignor, by mesne assignments, to H. B. Strate and J. F. Buhr, Detroit, Mich. Explosive-engine. No. 1,075,545; Oct. 14; Gaz. vol. 195; p. 358.

Bullard, Edward P., Jr., Bridgeport, Conn. Cutting-lubricant attachment for machine-tools. No. 1,076,947; Oct. 28; Gaz. vol. 195; p. 926.

Bullard, Edward P., Jr., Bridgeport, Conn. Cutting-lubricant device for machine-tools. No. 1,076,948; Oct. 28; Gaz. vol. 195; p. 926.

Bulley, George W., assignor to The Mercury Manufacturing Company, Chicago, Ill. Transmission-gearing. No. 1,075,328; Oct. 14; Gaz. vol. 195; p. 281.

Bullock, Arthur S., Aitkin, Minn. Tire-shoe. No. 1,076,345; Oct. 21; Gaz. vol. 195; p. 660.

Bullock, Henry E., *et al.* (See Houghton, Orley C., assignor.)

Bullock, James E., *et al.* (See Houghton, Orley C., assignor.)

Bullock, Raymond G., assignor to Art Metal Construction Company, Jamestown, N. Y. Show-case. No. 1,076,547; Oct. 21; Gaz. vol. 195; p. 731.

Burchardt, Bernhard T., New York, N. Y., V. E. Hansen, Elizabeth, N. J., and H. S. Marsh, assignors to International Cigar Machinery Company, New York, N. Y. Cigar-machine. No. 1,075,189; Oct. 7; Gaz. vol. 195; p. 207.

Burchett, Louis H., Cashion, Okla. Oil-can attachment. No. 1,075,691; Oct. 14; Gaz. vol. 195; p. 407.

Burgess, Edward T., Columbus, Ohio. Soldering-furnace. No. 1,075,757; Oct. 14; Gaz. vol. 195; p. 429.

Burkhardt, George J., Burlingame, Cal. Engine-starting device. No. 1,076,660; Oct. 28; Gaz. vol. 195; p. 823.

Burnham, George A., Cliftondale, Mass., assignor of one-half to T. Howe, New York, N. Y. Feed-bag for animals. No. 1,075,758; Oct. 14; Gaz. vol. 195; p. 430.

Burns and Bassick Company, The. (See Bradley, Ivan H., assignor.)

Burpee, Frank W., Bellingham, Wash. Paper-receptacle-making apparatus. No. 1,075,329; Oct. 14; Gaz. vol. 195; p. 282.

Burpee, Frank W., Bellingham, Wash. Conveyer. No. 1,075,546; Oct. 14; Gaz. vol. 195; p. 358.

Burr, Charles A., Norwich, N. Y., assignor, by mesne assignments, to J. Stevens Arms & Tool Company, Chicopee Falls, Mass. Machine for sealing envelops. No. 1,074,772; Oct. 7; Gaz. vol. 195; p. 64.

Burridge, Albert E., Hummelstown, Pa. Headless bolt. No. 1,075,759; Oct. 14; Gaz. vol. 195; p. 430.

Burton, Charles S., Oak Park, Ill., assignor to E. Tyden, Hastings, Mich. Pedal-operated lock for pedestal-tables. No. 1,076,661; Oct. 28; Gaz. vol. 195; p. 823.

Burton, Charles S., Oak Park, Ill., assignor to E. Tyden, Hastings, Mich. Foot-operated lock for pedestal-tables. No. 1,076,662; Oct. 28; Gaz. vol. 195; p. 824.

Burton, Frank V., assignor to The Bryant Electric Company, Bridgeport, Conn. Advertising device. No. 1,075,009; Oct. 7; Gaz. vol. 195; p. 143.

Busch-Sulzer Bros.-Diesel Engine Company. (See Schmidt, Arnold F. von, assignor.)

Buser, Joseph J., Freedom, Pa. Clothes-line reel. No. 1,077,245; Oct. 28; Gaz. vol. 195; p. 1022.

Bush, Samuel P., assignor to The Buckeye Steel Castings Company, Columbus, Ohio. Car-coupling device. No. 1,077,240; Oct. 28; Gaz. vol. 195; p. 1021.

Buswell, Robert D., Wellington, Kans. Air-brake. No. 1,074,601; Oct. 7; Gaz. vol. 195; p. 5.

Butler, Cooley, New York, N. Y. Dipper for steam shovels and dredges. No. 1,076,548; Oct. 21; Gaz. vol. 195; p. 731.

Butler, Joseph F., Gordon, assignor of one-half to J. L. Cunningham, Palo Pinto, Tex. Washer. No. 1,075,760; Oct. 14; Gaz. vol. 195; p. 430.

Butler, Walter, St. Paul, Minn. Subaqueous foundation and structure. No. 1,076,743; Oct. 28; Gaz. vol. 195; p. 854.

Butterfield, Lewis A., assignor to Belcher & Taylor Agricultural Tool Company, Chicopee Falls, Mass. Sulky-plow. No. 1,076,001; Oct. 14; Gaz. vol. 195; p. 513.

Button, Charlotte. (See Shier and Wright, assignors.)

Buyer, Samuel, Yonkers, N. Y. Loop for hose-supporters. No. 1,076,265; Oct. 21; Gaz. vol. 195; p. 629.

Buzby, Augustus C. (See Smith, Luther K., assignor.)

Byrd, Merritt S. (See Riley and Byrd.)

Byrnes, Daniel F., assignor of one-half to W. B. Tyrrell, Delavan, Wis. Tag-holder. No. 1,075,190; Oct. 7; Gaz. vol. 195; p. 207.

Byrnes, Eugene A., *et al.* (See Friedberger, Otto, assignor.)

Byther, Alfred L., Bangor, Me. Pressure-roll for planers. No. 1,075,191; Oct. 7; Gaz. vol. 195; p. 208.

C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)

C. G. Sargent's Sons Corporation. (See Cilley, Osborn H., assignor.)

Cain, Frank E., Detroit, Mich. Engine. No. 1,075,962; Oct. 14; Gaz. vol. 195; p. 499.

Cais, Frank. (See Tran and Cais.)

Calder, James R., Hamilton, Ontario, Canada. Railway-rail. No. 1,076,016; Oct. 21; Gaz. vol. 195; p. 546.

Caldwell, Eugene W., New York, N. Y. Valve-tube. No. 1,076,949; Oct. 28; Gaz. vol. 195; p. 927.

Caldwell, Jerome, Los Angeles, Cal. Fruit-pitting machine. No. 1,075,547; Oct. 14; Gaz. vol. 195; p. 358.

Calhoun, John C. (See Ayres, Gustav, assignor.)

California Fruit Canners Association. (See Keast, Alfred J. and H., assignors.)

Calkins, Charles E. (See Walraven and Calkins.)

Cambridge Novelty Company. (See Haskell, Frederick F., assignor.)

Camden, Bernard H., Washington, D. C. Tank-gage. No. 1,074,692; Oct. 7; Gaz. vol. 195; p. 38.

Camel Company. (See Comee, Joseph F., assignor.)

Cameron, James A., and G. B. Birch, New York, assignors to Cameron Machine Company, Brooklyn, N. Y. Slitting and rewinding machine. No. 1,076,189; Oct. 21; Gaz. vol. 195; p. 605.

Cameron, John S., McKeesport, Pa. Pocket implement. No. 1,076,010; Oct. 14; Gaz. vol. 195; p. 516.

Cameron Machine Company. (See Cameron and Birch, assignors.)

Campbell, Argyle, assignor to Enterprise Railway Equipment Company, Chicago, Ill. Dump-car. No. 1,076,011; Oct. 14; Gaz. vol. 195; p. 516.

Campbell, Charles E., Des Moines, Iowa. Card-index holder. No. 1,076,625; Oct. 21; Gaz. vol. 195; p. 759.

Canadian Gold Car-Heating & Lighting Company. (See Ord, Lewis C., assignor.)

Canfield, Harry R., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Overload device. No. 1,074,602; Oct. 7; Gaz. vol. 195; p. 5.

Cannock, Francis B., New York, N. Y. Kinetoscope-projector. No. 1,075,692; Oct. 14; Gaz. vol. 195; p. 407.

Cannova, Calogero, Sioux City, Iowa. Railway-gate. No. 1,076,266; Oct. 21; Gaz. vol. 195; p. 630.

Canton Culvert Company, The. (See Klotz, William N., assignor.)

Canton Culvert Company, The. (See Schlafly, Julius H., assignor.)

Cantrell, Coy R., St. Louis, Mo. Demountable rim for pneumatic tires. No. 1,076,744; Oct. 28; Gaz. vol. 195; p. 854.

Capen, Thomas W., assignor to Allis-Chalmers Company, Milwaukee, Wis. Disk pulverizer. No. 1,075,192; Oct. 7; Gaz. vol. 195; p. 208.

Cardwell, Christopher A., Concord Depot, Va. Spark-arrester. No. 1,074,603; Oct. 7; Gaz. vol. 195; p. 6.

Carlisle, Fred B., Malden, Mass., assignor to Standard Auto Valve Company. Tire-valve. No. 1,076,267; Oct. 21; Gaz. vol. 195; p. 630.

Carlisle, George J., Muskogee, Okla., assignor to I X L Insu-Metallic Products Company of Missouri, St. Louis, Mo. Fly-trap. No. 1,074,604; Oct. 7; Gaz. vol. 195; p. 6.

Carlson, Carl A., Jamestown, N. Y., assignor of one-fifth to A. F. Nelson, one-fifth to E. R. Nelson, one-fifth to M. Dolan, and one-fifth to J. Dolan. Detachable runner for wheeled vehicles. No. 1,076,816; Oct. 28; Gaz. vol. 195; p. 879.

Carlson, Gunnard, Rockford, Ill. Attachment for hoes. No. 1,075,330; Oct. 14; Gaz. vol. 195; p. 282.

Carmichael, Alexander W. (See Nicholls and Carmichael.)

Carney, Edward, assignor to Eastern Sales Book Company, Glendale, N. Y. Manifolding device. No. 1,075,460; Oct. 14; Gaz. vol. 195; p. 329.

Caron, Jacob, Nampa, Idaho. Journal-box for railway-cars. No. 1,075,761; Oct. 14; Gaz. vol. 195; p. 430.

Carpenter, John C., Houston Heights, Tex. Carburetor-regulating mechanism. No. 1,076,268; Oct. 21; Gaz. vol. 195; p. 630.

Carpenter, John H., assignor of three-fourths to J. H. Noon, Columbus, Ohio. Continuous ice-cream freezer. No. 1,076,950; Oct. 28; Gaz. vol. 195; p. 927.

Carscadin, Charles A., and G. A. Woodman, Chicago, Ill. Yoke for draft-gear. No. 1,076,663; Oct. 28; Gaz. vol. 195; p. 824.

Carscadin, Charles A., and G. A. Woodman, Chicago, Ill. Yoke for draft-gear. No. 1,076,866; Oct. 28; Gaz. vol. 195; p. 897.

Carter, Albert, and A. E. Comber, Galesburg, Ill. Gate. No. 1,074,693; Oct. 7; Gaz. vol. 195; p. 38.

Carter, John R., Toronto, Ontario, Canada. Heating device for baths and the like. No. 1,074,694; Oct. 7; Gaz. vol. 195; p. 38.

Carter, Redden O., Sanderson, Fla. Barrel-head. No. 1,075,399; Oct. 14; Gaz. vol. 195; p. 308.

Carter, Robert S., Chicago, Ill. Garment-supporter. No. 1,074,605; Oct. 7; Gaz. vol. 195; p. 6.

Carter, Russell B., *et al.* (See Pendleton, William H. E., assignor.)

Carter Ticket Company. (See Martin, Calvin, assignor.)

Cartlidge, Frank, Terre Haute, Ind. Cutter-head. No. 1,074,834; Oct. 7; Gaz. vol. 195; p. 83.

Cartwright, Martha, executrix. (See Cartwright, William P.)

Cartwright, William P., deceased, Schenectady, N. Y.; M. Cartwright, executrix, assignor to General Electric Company. Holder for heavy shades. No. 1,076,626; Oct. 21; Gaz. vol. 195; p. 760.

Carty, Alton B., Washington, D. C. Ink-fountain. No. 1,076,482; Oct. 21; Gaz. vol. 195; p. 708.

Cary-Elwes, Charles. (See Garrett, Theodore F., assignor.)

Case, Frank E., Schenectady, N. Y., assignor to General Electric Company. Pantograph-trolley. No. 1,075,331; Oct. 14; Gaz. vol. 195; p. 283.

Case, Willis W., Jr., Denver, Colo. Furnace. No. 1,076,346; Oct. 21; Gaz. vol. 195; p. 660.

Casebolt, Charles H., St. Louis, Mo. Shirt. No. 1,075,010; Oct. 7; Gaz. vol. 195; p. 144.

Cason, Frederick Q. (See Moore, Henry E., assignor.)

Cassidy, Hugh, Brooklyn, N. Y. Swivel-tube coupling. No. 1,075,693; Oct. 14; Gaz. vol. 195; p. 407.

Cathcart, Benjamin F., Fresno, Cal. Rotary pump. No. 1,076,627; Oct. 21; Gaz. vol. 195; p. 760.

Catlin, Ephron, Jr., assignor of one-half to H. Smith, Jr., St. Louis, Mo. Liquid-container. No. 1,075,762; Oct. 14; Gaz. vol. 195; p. 431.

Catuogno, Frank, New York, N. Y. Necktie-holder. No. 1,075,400; Oct. 14; Gaz. vol. 195; p. 308.

Caven, Trevor M., assignor to A. J. Lindemann & Hoverson Co., Milwaukee, Wis. Electric heating element. No. 1,074,928; Oct. 7; Gaz. vol. 195; p. 116.

Celluloid Company, The. (See Lindsay, William G., assignor.)

Chaffee, Edward F., Albany, assignor to O. M. Edwards, Syracuse, N. Y. Window. No. 1,077,039; Oct. 28; Gaz. vol. 195; p. 958.

Chaimovitsch, Isaac, Chicago, Ill. Pneumatic brush. No. 1,076,549; Oct. 21; Gaz. vol. 195; p. 731.

Chamberlain, Rufus N., Chicago, and S. J. Hall, Hinsdale, Ill., assignors to Gould Storage Battery Company. Electrode. No. 1,075,897; Oct. 14; Gaz. vol. 195; p. 476.

Chamberlin, Charles P., and F. Miller, Calgary, Alberta, Canada. Door-hanger. No. 1,075,089; Oct. 7; Gaz. vol. 195; p. 172.

Chambers Brothers Company. (See King, Howard K., assignor.)

Chambers, James M., assignor of two-thirds to J. M. Maxwell and C. O. Longley, Twin Falls, Idaho. Air-valve. No. 1,075,332; Oct. 14; Gaz. vol. 195; p. 283.

Champ, Joseph H., and T. H. Schutt, assignors to The Bishop-Babcock-Becker Company, Cleveland, Ohio. Liquid-dispensing device. No. 1,075,898; Oct. 14; Gaz. vol. 195; p. 477.

Champion Ignition Co. (See Schmidt, Albert, assignor.)

Chapeaurouge, Paul de. (See Unverricht, Eduard, assignor.)

Chapin, Henry S., Rockville Center, N. Y. Apparatus for treating pipe-bowls. No. 1,076,867; Oct. 28; Gaz. vol. 195; p. 897.

Chapman, Charles H., assignor to Chapman Gravity Spindle Company, Winchester, Mass. Spinning-spindle. No. 1,075,461; Oct. 14; Gaz. vol. 195; p. 329.

Chapman Gravity Spindle Company. (See Chapman, Charles H., assignor.)

Chapman, William L., Brooklyn, assignor to Modern Pen Company, New York, N. Y. Pocket-clip. No. 1,075,815; Oct. 14; Gaz. vol. 195; p. 449.

Chase, Augustus C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lock-stitch sewing-machine. No. 1,076,951; Oct. 28; Gaz. vol. 195; p. 927.

Chase, Frank H., assignor to Standard Earth Auger Co., Chicago, Ill. Expansion earth-auger. No. 1,076,817; Oct. 28; Gaz. vol. 195; p. 879.

Chase, Rodney G., West Medford, Mass. Metal tread. No. 1,076,017; Oct. 21; Gaz. vol. 195; p. 546.

Chaswill Manufacturing Company. (See Wende, Charles and W., assignors.)

Chatain, Henri G., Erie, Pa., assignor to General Electric Company, Locomotive. No. 1,076,407; Oct. 21; Gaz. vol. 195; p. 682.

Cheeseman, Lewis, Glenburn, Pa., assignor to Witherbee, Sherman & Co., Port Henry, N. Y. Sweetening and fertilizing the soil. No. 1,076,818; Oct. 28; Gaz. vol. 195; p. 880.

Chemische Fabrik auf Actien (vorm. E. Schering). (See Thiele and Wichmann, assignors.)

Chemische Fabrik Griesheim-Elektron. (See Gottschalck, Werner, and Gast, assignors.)

Chester, Frank E., Providence, R. I. Forming cork balls. No. 1,074,835; Oct. 7; Gaz. vol. 195; p. 84.

Childs, Oliver W., Nash, Okla. Wire cloth or screen machine. No. 1,077,040; Oct. 28; Gaz. vol. 195; p. 958.

Chilton, Henry J., Chicago, Ill. Bottle-washing apparatus. No. 1,074,836; Oct. 7; Gaz. vol. 195; p. 84.

Christensen, Niels C., Jr., Salt Lake City, Utah. Treating ores and the like. No. 1,075,011; Oct. 7; Gaz. vol. 195; p. 144.

Christenson, George, Jamaica, N. Y., assignor to H. W. Johns-Manville Company. Piston-packing. No. 1,076,269; Oct. 21; Gaz. vol. 195; p. 631.

Christoph, George W., assignor to Sterling Blower Company, Hartford, Conn. Fan-blower. No. 1,074,606; Oct. 7; Gaz. vol. 195; p. 6.

Christopher, William M., Tonawanda, N. Y. Broom-head holder. No. 1,076,347; Oct. 21; Gaz. vol. 195; p. 661.

Christophersen, Henry C. L., Oconto, Wis. Milking-pail. No. 1,076,348; Oct. 21; Gaz. vol. 195; p. 661.

Church, Benjamin S., New York, and A. B. Cox, Cherry Valley, N. Y. Expansible fluid-turbine. No. 1,076,952; Oct. 28; Gaz. vol. 195; p. 928.

Church, Edmund S., Chicago, Ill., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Mechanical cashier. (Reissue.) No. 13,629; Oct. 21; Gaz. vol. 195; p. 771.

Churchill, William, assignor to Corning Glass Works, Corning, N. Y. Fresnel lens. No. 1,076,628; Oct. 21; Gaz. vol. 195; p. 760.

Ciccolini, Clément, Paris, France. Machine for mechanically tilling the soil. No. 1,076,745; Oct. 28; Gaz. vol. 195; p. 855.

Cigol, Frank A., Paterson, N. J. Resilient ball. No. 1,077,121; Oct. 28; Gaz. vol. 195; p. 983.

Cilley, Osborn H., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Conveyer. No. 1,075,548; Oct. 14; Gaz. vol. 195; p. 359.

Cincinnati Milling Machine Company, The. (See De Leeuw, Adolph L., assignor.)

Cincinnati Planer Company, The. (See Reston, Henry P., assignor.)

Citizens Savings and Trust Company, The. (See Hughes, Dow B., assignor.)

Clark, Charles M., Chicago, Ill. Boiler-feed regulator. No. 1,075,963; Oct. 14; Gaz. vol. 195; p. 499.

Clark, Edgar M., Dayton, Ohio. Scaffolding-bracket. No. 1,076,270; Oct. 21; Gaz. vol. 195; p. 631.

Clark, Francis R., Bedford, Iowa. Wire-splicer. No. 1,075,333; Oct. 14; Gaz. vol. 195; p. 283.

Clark, Guy K., Canon City, Colo. Motor attachment. No. 1,074,695; Oct. 7; Gaz. vol. 195; p. 39.

Clark, H. E. (See Stine, Frank D., assignor.)

Clark, Harry A., and E. J. Larkin, New Orleans, La., assignors, by mesne assignments, to C. W. Benedict, St. Louis, Mo. Rubber-like substance and making same. No. 1,076,349; Oct. 21; Gaz. vol. 195; p. 661.

Clark, Hugh D., Columbus, Ohio. Demonstrating device. No. 1,075,401; Oct. 14; Gaz. vol. 195; p. 308.

Clark, Hugh D., Columbus, Ohio. Metallic fence-post. No. 1,075,899; Oct. 14; Gaz. vol. 195; p. 477.

Clark, John A., Worcester, Mass., and J. K. Dalkranian, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company and said Clark assignor to Crompton & Knowles Loom Works. Pile or tuft fabric loom. No. 1,077,241; Oct. 28; Gaz. vol. 195; p. 1021.

Clark, Loren E., Meadville, Pa. Ignition and starting mechanism for internal-combustion engines. No. 1,075,763; Oct. 14; Gaz. vol. 195; p. 432.

Clark, Peter T., Roxbury, Mass. Bottle-wrapper. No. 1,076,018; Oct. 21; Gaz. vol. 195; p. 547.
Clark, Ulysses G. (See Curry, Joseph F., assignor.)
Clarke, Charles W., Charleston, W. Va. Rail and road-bed construction. No. 1,076,190; Oct. 21; Gaz. vol. 195; p. 605.
Clarke, Edward R. (See Barr and Clarke.)
Clarke, Henry B., Highland Park, Ill. Electrocuting insect-trap. No. 1,076,019; Oct. 21; Gaz. vol. 195; p. 547.
Clarke, James U., Philadelphia, Pa. Revolving target. No. 1,076,002; Oct. 14; Gaz. vol. 195; p. 513.
Clarke, William H., New York, N. Y., and O. A. Ross, Chicago, Ill., assignors to General Electric Company. Electric regulator. No. 1,074,773; Oct. 7; Gaz. vol. 195; p. 65.
Claus, Philip S., Detroit, Mich. Internal-combustion engine. No. 1,076,953; Oct. 28; Gaz. vol. 195; p. 928.
Clement, Edward E., Washington, D. C., assignor to The Clement International Engineering Corporation, Camden, N. J. Automatic switch for telephone-exchange systems. No. 1,076,020; Oct. 21; Gaz. vol. 195; p. 547.
Clement International Engineering Corporation, The. (See Clement, Edward E., assignor.)
Clement, Styles K. (See Boller and Clement.)
Clerke, Augustus B. H. (See Hadfield, Jack, and Clerke.)
Climer, Laura A., Chicago, Ill. Furniture-caster. No. 1,076,954; Oct. 28; Gaz. vol. 195; p. 929.
Clinchard, Edward W., Sedro Woolley, Wash. Dental-appliance holder. No. 1,076,550; Oct. 21; Gaz. vol. 195; p. 732.
Clingestein, Heinrich, Mülheim, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo colors suitable for use as pigments. No. 1,076,819; Oct. 28; Gaz. vol. 195; p. 880.
Clothmeter Manufacturing Company. (See Heckel, Kachel, Goessling, and Pauk, assignors.)
Cloud, John W., London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Combined automatic and straight-air brake. No. 1,075,549; Oct. 14; Gaz. vol. 195; p. 359.
Cloud, John W., London, England, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,076,664; Oct. 28; Gaz. vol. 195; p. 825.
Clough, Harry. (See Snow, Isaac, assignor.)
Co-operative Manufacturing Company. (See Barteaux, John M., assignor.)
Coates, Emma F., Chattanooga, Tenn. Manifolding check-holder. No. 1,075,090; Oct. 7; Gaz. vol. 195; p. 173.
Cobb, William H., Sharon Hill, Pa. Show-case. No. 1,075,334; Oct. 14; Gaz. vol. 195; p. 284.
Coblentz, William W., Washington, D. C. Thermal generator. No. 1,077,219; Oct. 28; Gaz. vol. 195; p. 1013.
Cocanari, Silvio, Vieux-Dieu, Belgium. Magazine film-holder. No. 1,076,191; Oct. 21; Gaz. vol. 195; p. 605.
Cochran, Joseph E., *et al.* (See Kell, Peter, assignor.)
Cochrane, R. F., *et al.* (See Alexander, Jesse, assignor.)
Codling, Robert B., Bristol, assignor to The Bristol Company, Waterbury, Conn. Belt-coupling device. No. 1,076,868; Oct. 28; Gaz. vol. 195; p. 898.
Coe, Sara L. W., H. T. and E. W. Werden, New York, N. Y. Vending-machine. No. 1,074,607; Oct. 7; Gaz. vol. 195; p. 6.
Coffin, Francis P., Schenectady, N. Y., assignor to General Electric Company. Vapor electric device. No. 1,075,402; Oct. 14; Gaz. vol. 195; p. 308.
Coffin, Vestal P., Boise, Idaho. Valve mechanism for internal-combustion engines. No. 1,076,551; Oct. 21; Gaz. vol. 195; p. 732.
Coffman, Clinton J., East Stroudsburg, Pa. Faucet. No. 1,077,122; Oct. 28; Gaz. vol. 195; p. 983.
Coin Controlled Lock Co. (See Farnsworth, Willis S., assignor.)
Colborne, Robert F., Strathfield, near Sydney, New South Wales, Australia. Mechanism for operating wheel-brakes by hand for railway purposes. No. 1,075,012; Oct. 7; Gaz. vol. 195; p. 144.
Coldman, Henry C., Lewisham, and C. F. Webb, Lee, England. Apparatus for mechanically operating musical instruments. No. 1,075,013; Oct. 7; Gaz. vol. 195; p. 145.
Cole, Eben W. (See Turner, Darwin H., assignor.)
Cole, Eugene M., Charlotte, N. C. Fertilizer-distributer. No. 1,074,929; Oct. 7; Gaz. vol. 195; p. 116.
Cole, Eugene M., Charlotte, N. C. Stalk-cutter. No. 1,074,930; Oct. 7; Gaz. vol. 195; p. 116.
Cole, Eugene M., Charlotte, N. C. Fertilizer-distributer. No. 1,075,193; Oct. 7; Gaz. vol. 195; p. 208.
Cole, Francis J., Schenectady, N. Y. Valve-gear. No. 1,076,099; Oct. 21; Gaz. vol. 195; p. 575.
Cole, Frederick B., Longbeach, Cal. Concrete-shingle mold. No. 1,075,403; Oct. 14; Gaz. vol. 195; p. 309.
Colegate, Ernest, Gillingham, England. Fastening or sealing boxes, packets, wrappers, and the like. No. 1,076,955; Oct. 28; Gaz. vol. 195; p. 929.
Coleman, James M., Montreal, Quebec, Canada. Convertible car. No. 1,076,746; Oct. 28; Gaz. vol. 195; p. 855.
Coleman, John A. (See Hoover and Coleman.)
Collar, Adoniram J., Yreka, Cal. Fish-screen. No. 1,076,483; Oct. 21; Gaz. vol. 195; p. 708.
Collett, Emil, Christiania, Norway. Oxidizing sulfite by means of air or other oxidizing gas. No. 1,076,747; Oct. 28; Gaz. vol. 195; p. 855.
Collier, Guy B., Kinderhook, N. Y. Automobile wind-shield. No. 1,074,774; Oct. 7; Gaz. vol. 195; p. 65.
Collier, Guy B., Kinderhook, N. Y. Heating apparatus. No. 1,077,041; Oct. 28; Gaz. vol. 195; p. 959.
Collin, George W., assignor to The Collin Valve Co., Bridgeport, Conn. Regulating-valve. No. 1,076,665; Oct. 28; Gaz. vol. 195; p. 825.
Collin Valve Co., The. (See Collin, George W., assignor.)
Colling, Charles J., Sr., assignor of one-half to J. Elsoffer, Cleveland, Ohio. Stool. No. 1,075,964; Oct. 14; Gaz. vol. 195; p. 500.
Colón, Jose B., Greenville, Tenn. Bottle. No. 1,075,900; Oct. 14; Gaz. vol. 195; p. 477.
Comber, Albert E. (See Carter and Comber.)
Comee, Joseph F., assignor to Camel Company, Chicago, Ill. Car-door. No. 1,076,484; Oct. 21; Gaz. vol. 195; p. 708.
Commonwealth Steel Company. (See Howard, Clarence H., assignor.)
Composite Tie-Plate Corporation. (See Braine, David L., assignor.)
Comstock, Elmer E., assignor of one-half to J. M. Hambleton, Fresno, Cal. Crude-oil burner. No. 1,077,123; Oct. 28; Gaz. vol. 195; p. 983.
Condell, Henry and P. E., Troy, Idaho. Gate-operating mechanism. No. 1,075,694; Oct. 14; Gaz. vol. 195; p. 408.
Condell, Paul E. (See Condell, Henry and P. E.)
Condensite Company of America. (See Aylsworth, Jonas W., assignor.)
Condit, Harry H., Indianapolis, Ind., assignor of one-half to W. W. Moyer, Ephrata, Pa. Undershirt and similar garment. No. 1,077,188; Oct. 28; Gaz. vol. 195; p. 1003.
Conkling, Cloud C., Buffalo, assignor to Lackawanna Steel Company, Lackawanna, N. Y. Integral sheet-piling. No. 1,076,021; Oct. 21; Gaz. vol. 195; p. 548.
Conlon, John J., Derby, Conn. Rotary wire-straightener. No. 1,075,282; Oct. 7; Gaz. vol. 195; p. 241.
Conner, Clyde, Marietta, Ohio. Attachment for buffing-lathes. No. 1,076,022; Oct. 21; Gaz. vol. 195; p. 548.
Conner, Theodore M. (See Pearson and Conner.)
Conover, Edwin K., assignor to Conover Motor Car Company, Paterson, N. J. Brake-operating apparatus. No. 1,076,100; Oct. 21; Gaz. vol. 195; p. 575.
Conover Motor Car Company. (See Conover, Edwin K., assignor.)
Conrad, Frank, Swissvale, and Y. Sakai, East Pittsburgh, Pa., assignors to Westinghouse Electric and Manufacturing Company. Impedance device for use with current-rectifiers. No. 1,075,404; Oct. 14; Gaz. vol. 195; p. 309.
Conradi, Joseph, St. Louis, Mo. Feed-bag. No. 1,075,764; Oct. 14; Gaz. vol. 195; p. 432.
Consolidated Car Heating Company. (See Farmer, Thomas, Jr., assignor.)
Consolidated Car Heating Company. (See McElroy, James F., assignor.)
Constantinescu, Gogu, Bloomsbury, London, England. Vaporizing apparatus. (Reissue.) No. 13,635; Oct. 28; Gaz. vol. 195; p. 1023.
Contant, William C., *et al.* (See Robrdantz, Henry, assignor.)
Conway, William A. (See Kaylor, William, assignor.)
Cook, Bert J., Amsterdam, N. Y. Combination-tool. No. 1,076,350; Oct. 21; Gaz. vol. 195; p. 661.
Cook, Katherine B., Hubbard, Tex. Insect-trap. No. 1,074,837; Oct. 7; Gaz. vol. 195; p. 84.
Cook, Marcy A., deceased, Peoria, Ill.; M. A. Cook, executrix. Sectional boiler. No. 1,075,194; Oct. 7; Gaz. vol. 195; p. 209.
Cook, Mary A., executrix. (See Cook, Marcy A.)
Cook, Pardon. (See Cook, Wesson J. and P.)
Cook, Samuel J., Kansas City, Mo. Music-leaf turner. No. 1,075,765; Oct. 14; Gaz. vol. 195; p. 432.
Cook, Thomas L., Logan, Okla. Wheel. No. 1,075,241; Oct. 7; Gaz. vol. 195; p. 225.
Cook, Wesson J. and P., Albany, N. Y. Spring-wheel. No. 1,076,003; Oct. 14; Gaz. vol. 195; p. 514.
Cooley, Henry B., New Britain, assignor to The American Paper Goods Company, Kensington, Conn. Vending-machine. No. 1,074,696; Oct. 7; Gaz. vol. 195; p. 39.
Cooley, Henry B., New Britain, assignor to The American Paper Goods Company, Kensington, Conn. Flat-bed rotary printing-press. No. 1,076,004; Oct. 14; Gaz. vol. 195; p. 514.
Cooley, Proctor P., assignor to Culter & Proctor Stove Co., Peoria, Ill. Soft-coal burner. No. 1,075,335; Oct. 14; Gaz. vol. 195; p. 284.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,014; Oct. 7; Gaz. vol. 195; p. 145.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,015; Oct. 7; Gaz. vol. 195; p. 146.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,016; Oct. 7; Gaz. vol. 195; p. 146.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,017; Oct. 7; Gaz. vol. 195; p. 146.
Cooney, Robert L., Atlanta, Ga. Chemical-mixing fire-extinguisher system. No. 1,075,018; Oct. 7; Gaz. vol. 195; p. 147.

Cooney, Robert L., Atlanta, Ga. Dry-pipe water-service fire-extinguisher system. No. 1,075,019; Oct. 7; Gaz. vol. 195; p. 147.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,020; Oct. 7; Gaz. vol. 195; p. 148.
Cooney, Robert L., Atlanta, Ga. Dry-pipe water-service fire-extinguisher system. No. 1,075,021; Oct. 7; Gaz. vol. 195; p. 148.
Cooney, Robert L., Atlanta, Ga. Stationary fire-extinguisher system. No. 1,075,091; Oct. 7; Gaz. vol. 195; p. 173.
Cooney, Robert L., Atlanta, Ga. Chemical-mixing fire-extinguisher system. No. 1,075,195; Oct. 7; Gaz. vol. 195; p. 209.
Cooney, Robert L., Atlanta, Ga. Pressure-controlled fire-extinguisher system. No. 1,075,283; Oct. 7; Gaz. vol. 195; p. 242.
Cooper, Joseph E., Chicago, Ill. Breath deflector or guard. No. 1,077,042; Oct. 28; Gaz. vol. 195; p. 959.
Cooper, Joseph H., Paola, Kans., assignor to Dearborn Drug & Chemical Works, Chicago, Ill. Chemical-feeder. No. 1,075,022; Oct. 7; Gaz. vol. 195; p. 149.
Coppock, Lambert W., Decatur, Ind. Automobile. No. 1,075,816; Oct. 14; Gaz. vol. 195; p. 449.
Corbin, Douglas H. (See Bates, Kelly, and Corbin.)
Corey, Daniel W., St. Louis, Mo., assignor to Union Special Sewing Machine Company, Chicago, Ill. Thread-controlling mechanism for sewing-machines. No. 1,075,695; Oct. 14; Gaz. vol. 195; p. 408.
Corn Products Refining Company. (See Breyer, Theodor E., assignor.)
Corning Glass Works. (See Churchill, William, assignor.)
Cornwall, George R., Rye, N. Y. Offset-blanket. No. 1,074,775; Oct. 7; Gaz. vol. 195; p. 65.
Cort-Kitsee Co. (See Kitsee, Isidor, assignor.)
Corwin Telephone Manufacturing Company. (See Johnson, Morton L., assignor.)
Coryell, John, Coryell, Mich. Lifting-jack. No. 1,075,766; Oct. 14; Gaz. vol. 195; p. 432.
Coryell, William C., Youngstown, Ohio. Reinforcing-bar for concrete and similar structures. No. 1,076,192; Oct. 21; Gaz. vol. 195; p. 606.
Cote, Edmund. (See Phtiblade, Eric R., assignor.)
Cotter, George L., Rock Island, assignor to Deere & Company, Moline, Ill. Headboard for harvesters. No. 1,075,696; Oct. 14; Gaz. vol. 195; p. 408.
Cottew, Charles W., Sheridan, Ill. Combination portable elevator and wagon-dump. No. 1,075,196; Oct. 7; Gaz. vol. 194; p. 210.
Coulter, Howard M., Rifle, Colo. Railway-track structure. No. 1,076,748; Oct. 28; Gaz. vol. 195; p. 855.
Courson, John F., Pitcairn, Pa. Draft-gear. No. 1,076,749; Oct. 28; Gaz. vol. 195; p. 856.
Cowan, Harry R., Chicago, Ill. Calculating and printing machine. No. 1,077,220; Oct. 28; Gaz. vol. 195; p. 1014.
Cowan, Joseph P., Pittsburgh, Pa. Water-closet. No. 1,077,221; Oct. 28; Gaz. vol. 195; p. 1014.
Cowdrey, Charles F., *et al.* (See Farnum, William C., assignor.)
Cowdrey, Henry E., *et al.* (See Farnum, William C., assignor.)
Cox, Abraham B. (See Church and Cox.)
Cox, David H., Roselle, N. J. Automobile marker-bracket. No. 1,074,838; Oct. 7; Gaz. vol. 195; p. 84.
Cox, Edward, Rugby, England, assignor to General Electric Company. Governing mechanism for prime movers. No. 1,076,101; Oct. 21; Gaz. vol. 195; p. 575.
Cox, Edwin A., Newark, N. J. Apparatus for separating, feeding, and delivering sheets. No. 1,075,697; Oct. 14; Gaz. vol. 195; p. 409.
Cox, Edwin R., Jr. (See Lyon and Cox.)
Cox, James J., Oskaloosa, Iowa. Oil-can and funnel. No. 1,074,697; Oct. 7; Gaz. vol. 195; p. 39.
Cox Multi-Mailer Company. (See Cox, Sandford C., assignor.)
Cox, Sandford C., Brookline, Mass., assignor to Cox Multi-Mailer Company, Augusta, Me. Printing or addressing machine. No. 1,075,965; Oct. 14; Gaz. vol. 195; p. 500.
Cox, Sandford C., Chicago, Ill., assignor to Cox Multi-Mailer Company, Augusta, Me. Type or slug feed for printing or addressing machines. No. 1,075,966; Oct. 14; Gaz. vol. 195; p. 501.
Crago, Felix H., Trident, Mont. Current-motor. No. 1,076,102; Oct. 21; Gaz. vol. 195; p. 576.
Cramer, Stuart W., and W. B. Hodge, Charlotte, N. C.; said Hodge assignor to said Cramer. Air-conditioning apparatus. No. 1,075,197; Oct. 7; Gaz. vol. 195; p. 210.
Crane, Augustus W., Kalamazoo, Mich. Automobile. No. 1,075,628; Oct. 14; Gaz. vol. 195; p. 386.
Crane Company. (See Manning, John H., assignor.)
Crane Electric Specialty Company. (See Crane, Frank R., Jr., assignor.)
Crane, Elmer E. (See Klugel, Oscar G., assignor.)
Crane, Frank R., Jr., Chicago, Ill., assignor to Crane Electric Specialty Company. Electric sign. No. 1,075,767; Oct. 14; Gaz. vol. 195; p. 433.
Crane, Frank R., Jr., assignor of one-third to H. Jampolis and one-third to G. N. Nelson, Chicago, Ill. Arc-lamp electrode. No. 1,075,768; Oct. 14; Gaz. vol. 195; p. 433.
Crane & Theurer. (See Toblasson, Tobias A., assignor.)
Craven, John P., Elizabeth, N. J. Miner's pick. No. 1,076,103; Oct. 21; Gaz. vol. 195; p. 576.
Crawford, Cary W., Los Angeles, Cal. Shock-absorber. No. 1,075,901; Oct. 14; Gaz. vol. 195; p. 477.
Crecelius, Theodore E., assignor to Multiplex Display Fixture Company, St. Louis, Mo. Welding-machine. No. 1,076,271; Oct. 21; Gaz. vol. 195; p. 631.
Creech, Virgil W., Mason City, Iowa. Spring-motor. No. 1,075,023; Oct. 7; Gaz. vol. 195; p. 150.
Creek, Walter O., Arcadia, Ind. Attachment for riding-cultivators. No. 1,075,092; Oct. 7; Gaz. vol. 195; p. 173.
Crepaux, Claude. (See Pagerie, Joanny, assignor.)
Cresswell, Milton B., Des Moines, Iowa. Defecator. No. 1,075,629; Oct. 14; Gaz. vol. 195; p. 387.
Cresswell, Milton B., Des Moines, Iowa. Finishing-evaporator. No. 1,075,630; Oct. 14; Gaz. vol. 195; p. 388.
Cretors, Charles, Chicago, Ill. Corn-popper. No. 1,075,550; Oct. 14; Gaz. vol. 195; p. 359.
Crisp, William N. (See Merritt, George E., assignor.)
Crist, Charles V. (See Glesseman and Crist.)
Crockatt, William, Glasgow, Scotland. Machine for facing or refacing valve-seats and for like purposes. No. 1,075,198; Oct. 7; Gaz. vol. 195; p. 210.
Crockett, Cyrenius W., Passaic, assignor to Alco Deo Company, Wallington, N. J. Apparatus for making diacetone alcohol. No. 1,075,284; Oct. 7; Gaz. vol. 195; p. 242.
Crockett, Joseph, and L. Lockwood, Bandon, Oreg. Protecting device for piling. No. 1,074,698; Oct. 7; Gaz. vol. 195; p. 39.
Crompton & Knowles Loom Works *et al.* (See Clark and Dalkranian, assignors.)
Crompton & Knowles Loom Works *et al.* (See Cyr and Dalkranian, assignors.)
Crompton & Knowles Loom Works *et al.* (See Le Doux and Dalkranian, assignors.)
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Crone, Seth A., East Orange, N. J. Brake-beam for railway-cars. No. 1,076,956; Oct. 28; Gaz. vol. 195; p. 929.
Crooker, Edwin R. (See Bolls and Crooker.)
Croom, Robert F. (See Lundy, Joseph G., assignor.)
Cross, Charles H., 2nd, Brookline, Mass., assignor to Regal Shoe Company, Portland, Me. Advertising device. No. 1,076,629; Oct. 21; Gaz. vol. 195; p. 760.
Crossley, Albert D., Hartford, Conn., assignor of one-fourth to J. J. Harty, Kingston, Ontario, and one-fourth to W. P. O'Brien, Montreal, Quebec, Canada. Fire-ladder truck. No. 1,076,104; Oct. 21; Gaz. vol. 195; p. 577.
Crouse-Hinds Company. (See Bissell, Carl H., assignor.)
Crouse-Hinds Company. (See Van Ranst, Samuel B., assignor.)
Crouse, John L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. System of train control. No. 1,075,462; Oct. 14; Gaz. vol. 195; p. 330.
Crowdus, Walter A., assignor of one-half to A. R. Porter, Chicago, Ill. Storage battery. No. 1,076,485; Oct. 21; Gaz. vol. 195; p. 709.
Crowell, John H., Vineyard Haven, Mass. Press. No. 1,076,023; Oct. 21; Gaz. vol. 195; p. 548.
Crowell, John H., Vineyard Haven, Mass. Poultry automatic water-feeder. No. 1,076,351; Oct. 21; Gaz. vol. 195; p. 661.
Crulce, Daniel, assignor to J. M. Ehrlich, New York, N. Y. Horseshoe-pad. No. 1,075,199; Oct. 7; Gaz. vol. 195; p. 211.
Cruser, Frederick V. D. (See Fairburn, Cruser, and Green.) (Reissue.)
Crutchfield, George P., Greensboro, N. C. Windlass attachment for vehicle-brakes. No. 1,075,902; Oct. 14; Gaz. vol. 195; p. 478.
Cruttenden, Henry L., Northfield, Minn. Die for forming tooth-backings. No. 1,076,957; Oct. 28; Gaz. vol. 195; p. 930.
Cullon, John P., Toronto, Ontario, Canada. Flue-cleaner. No. 1,076,869; Oct. 28; Gaz. vol. 195; p. 898.
Culp, Charles M., South Bend, Ind. Cushion-tire. No. 1,076,024; Oct. 21; Gaz. vol. 195; p. 549.
Culter & Proctor Stove Co. (See Cooley, Proctor P., assignor.)
Culver, Carl C. (See Lemon and Culver.)
Cummer, Harry, Buffalo, N. Y. Weighing-scale. No. 1,076,486; Oct. 21; Gaz. vol. 195; p. 709.
Cummings, Benjamin F., Dryden, Okla. Whiffletree. No. 1,076,352; Oct. 21; Gaz. vol. 195; p. 662.
Cunningham, John L. (See Butler, Joseph F., assignor.)
Cureau, Armand H., Tarrytown, N. Y. Canister-support. No. 1,075,242; Oct. 7; Gaz. vol. 195; p. 225.
Curry, Joseph F., Newark, N. J., assignor to U. G. Clark, New York, N. Y. Lock-joint for wind-shields. No. 1,074,839; Oct. 7; Gaz. vol. 195; p. 85.
Curtain Supply Company, The. (See Whitmore, Edward E., assignor.)
Curtice, William H., Louisville, Ky. Convertible furniture. No. 1,077,189; Oct. 28; Gaz. vol. 195; p. 1003.
Curtis, Harry H., Paris, Ill. Machine for evening broom-corn. No. 1,076,025; Oct. 21; Gaz. vol. 195; p. 549.
Cushman & Denison Manufacturing Company. (See Alsens, Julius, assignor.)
Custer, George M., Mattoon, Ill. Convertible vehicle. No. 1,075,336; Oct. 14; Gaz. vol. 195; p. 285.
Cutler, David, Baltimore, Md. Hat-pin. No. 1,076,353; Oct. 21; Gaz. vol. 195; p. 662.
Cutler Hammer Mfg. Co., The. (See Simon, Arthur, assignor.)

Cutting, Philip F., San Francisco, Cal. Means of identifying railway-tickets. No. 1,076,750; Oct. 28; Gaz. vol. 195; p. 856.

Cyr, Joseph T., Worcester, Mass., and J. K. Dalkranian, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company and said Cyr assignor to Crompton & Knowles Loom Works. Pile-cutting mechanism for tuft-fabric looms. No. 1,077,242; Oct. 28; Gaz. vol. 195; p. 1021.

D. T. Owen Company, The. (See Brown, Edward N., assignor.)

D'Amours, Léon, Trois Pistoles, Quebec, Canada. Lubricator for vehicle-wheels. No. 1,075,551; Oct. 14; Gaz. vol. 195; p. 360.

Dahl, Benjamin, Minneapolis, Minn. Conduit fish-wire machine. No. 1,076,870; Oct. 28; Gaz. vol. 195; p. 898.

Dahl, Ole M. (See Uchtmann, Weet R., assignor.)

Dailey, John, and D. Bertolino, Hepzibah, W. Va. Cable-saving device. No. 1,075,405; Oct. 14; Gaz. vol. 195; p. 309.

Dale, David, Chicago, Ill. Railway signal system. No. 1,076,552; Oct. 21; Gaz. vol. 195; p. 732.

Daley, Fred A. (See Albright, Chester W., assignor.)

Dalkranian, James K. (See Clark and Dalkranian.)

Dalkranian, James K. (See Cyr and Dalkranian.)

Dalkranian, James K. (See Le Doux and Dalkranian.)

Dall, William, Dunedin, New Zealand. Fence-dropper. No. 1,075,769; Oct. 14; Gaz. vol. 195; p. 433.

Daminaitis, Charles, Cleveland, Ohio. Time-controlled stock-feeder. No. 1,076,193; Oct. 21; Gaz. vol. 195; p. 606.

Dangleman, George H., Philadelphia, Pa. Shock-absorber. No. 1,077,124; Oct. 28; Gaz. vol. 195; p. 984.

Daniel, Bessie E., Kurtz, Ind. Buzz-ball. No. 1,076,354; Oct. 21; Gaz. vol. 195; p. 663.

Dankmyer, Frederick C. (See Miller and Dankmyer.)

Darby, John, Summit, N. J. Lamp-socket. No. 1,075,463; Oct. 14; Gaz. vol. 195; p. 330.

Darby, John, Summit, and C. D. Meeker, Orange, N. J. Lamp-socket. No. 1,076,026; Oct. 21; Gaz. vol. 195; p. 549.

Darrow, Edward N., Homer, Mich. Gyroscope. No. 1,075,770; Oct. 14; Gaz. vol. 195; p. 433.

Darrow, Henry W., Chicago, Ill., assignor, by mesne assignments, to F. Muser, New York, N. Y. Cylinder washing-machine. No. 1,077,043; Oct. 28; Gaz. vol. 195; p. 960.

Darssin, Charles F., Brockton, Mass. Diving apparatus. No. 1,076,820; Oct. 28; Gaz. vol. 195; p. 880.

Daudelin, Narcisse N. S., Fall River, Mass. Separating device. No. 1,074,931; Oct. 7; Gaz. vol. 195; p. 117.

Daughtrey, George H., Arcanum, Ohio. Locking device. No. 1,076,105; Oct. 21; Gaz. vol. 195; p. 577.

Dautreppe, Louis, Brussels, Belgium. Impregnating wood. No. 1,076,553; Oct. 21; Gaz. vol. 195; p. 733.

Davenport, George M., Keo, Ark. Automobile wheel and tire. No. 1,077,044; Oct. 28; Gaz. vol. 195; p. 960.

Davenport, Harrison H., Tropico, Cal. Protector for pilot-lights. No. 1,074,840; Oct. 7; Gaz. vol. 195; p. 85.

David, Albert, Brooklyn, assignor to Midland Ores and Patents Co., New York, N. Y. Cyclic process of extracting metals from cupriferous materials. No. 1,075,093; Oct. 7; Gaz. vol. 195; p. 174.

Davidson, James C., Des Moines, Iowa. Confection and making same. No. 1,076,751; Oct. 28; Gaz. vol. 195; p. 856.

Davidson, Joseph, East Point, Ga., assignor of one-half to American Machine & Manufacturing Company. Pumping device. No. 1,075,406; Oct. 14; Gaz. vol. 195; p. 310.

Davidson, Marshall T. (See Simpson, Napoleon B., assignor.)

Davidson, Robert J., Chicago, Ill. Rotary engine. No. 1,077,222; Oct. 28; Gaz. vol. 195; p. 1015.

Davies, Alfred H., Akron, assignor to B. F. Johnson and W. Ward, Cleveland, Ohio. Gas-heated sad-iron. No. 1,076,958; Oct. 28; Gaz. vol. 195; p. 930.

Davies, Charles W. T., New York, N. Y. Necktie. No. 1,075,464; Oct. 14; Gaz. vol. 195; p. 330.

Davies, Edna B., *et al.* (See Davies, William P., assignor.)

Davies, William P., assignor to E. B. Davies, Bellevue, Ky., and G. I. Balnum, Carthage, Ohio. Mounting for railway-rails. No. 1,075,200; Oct. 7; Gaz. vol. 195; p. 211.

Davis, Calvin R., Chicago Heights, assignor to Emerson-Brantingham Company, Rockford, Ill. Hay-loader. No. 1,076,194; Oct. 21; Gaz. vol. 195; p. 606.

Davis, Frank E., assignor of one-half to La Crosse Plow Company, La Crosse, Wis. Plow. No. 1,076,871; Oct. 28; Gaz. vol. 195; p. 898.

Davis, George H., West Orange, N. J. Combined marking and spooling machine for music-rolls. No. 1,074,776; Oct. 7; Gaz. vol. 195; p. 66.

Davis, Harry P., and T. Varney, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company. Supporting structure for trolley-conductors. No. 1,076,630; Oct. 21; Gaz. vol. 195; p. 761.

Davis, Jasper N., Denver, Colo. Storage-battery grid. No. 1,076,027; Oct. 21; Gaz. vol. 195; p. 550.

Davis, Joseph L., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric locomotive. No. 1,074,841; Oct. 7; Gaz. vol. 195; p. 85.

Davis, Oliver P. M., Bedford, Ind. Moving-picture machine. No. 1,075,407; Oct. 14; Gaz. vol. 195; p. 310.

Davis, William A. (See Robinson and Davis.)

Dawson, Arthur T., and S. T. Buckham, Westminster, London, assignors to Vickers Limited, Westminster, England. Breech-block-actuating gear for ordnance. No. 1,074,842; Oct. 7; Gaz. vol. 195; p. 86.

Day, William, Hornby Island, British Columbia, Canada. Seed-planter. No. 1,075,817; Oct. 14; Gaz. vol. 195; p. 449.

Dayton Paper Bottle Company, The. (See Glesseman and Crist, assignors.)

De Cew, Judson A., Montreal, Quebec, Canada. Wood product. No. 1,075,552; Oct. 14; Gaz. vol. 195; p. 360.

De Cew, Judson A., Montreal, Quebec, Canada. Recovering escaping acid-gases from sulfite-towers. No. 1,077,243; Oct. 28; Gaz. vol. 195; p. 1022.

De Force, George I., assignor of one-third to A. H. Smith, one-third to L. E. Stancliff, and one-third to E. D. Smith, Erie, Pa. Plow. No. 1,076,872; Oct. 28; Gaz. vol. 195; p. 899.

De Grasse, George F., New York, N. Y. Blackboard illusion device. No. 1,076,649; Oct. 21; Gaz. vol. 195; p. 769.

De Hymel, Franklin O., San Antonio, Tex. Air suction and force pump. No. 1,074,608; Oct. 7; Gaz. vol. 194; p. 7.

De Laval Steam Turbine Company. (See Kennedy, Frank W., assignor.)

De Leeuw, Adolph L., assignor to The Cincinnati Milling Machine Company, Cincinnati, Ohio. Cutter-setting dial. No. 1,075,285; Oct. 7; Gaz. vol. 195; p. 242.

De Remer, William L., Chicago, Ill. Tie-plate. No. 1,075,312; Oct. 7; Gaz. vol. 195; p. 252.

De Voe, Albert H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Ruffling and stitching machine. No. 1,074,845; Oct. 7; Gaz. vol. 195; p. 87.

Dean, Philip C., Roscoe, Mont. Wire-stretcher. No. 1,075,337; Oct. 14; Gaz. vol. 195; p. 285.

Dearborn Drug & Chemical Works. (See Cooper, Joseph H., assignor.)

Dearborn Novelty Company. (See Armstrong, Thomas H., assignor.)

Debacher, Robert R., Hoboken, N. J. Combined framing and handle for toilet articles. No. 1,075,698; Oct. 14; Gaz. vol. 195; p. 409.

Dechnik, Thomas, South Chicago, Ill. Drill-chuck. No. 1,075,699; Oct. 14; Gaz. vol. 195; p. 409.

Deckebach, Henry E., Cincinnati, Ohio. Combined cooler and carbonator for liquids. No. 1,075,408; Oct. 14; Gaz. vol. 195; p. 311.

Deere & Company. (See Cotter, George L., assignor.)

Deere & Company. (See Poole, Staley D., assignor.)

Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Matrix-setting and type-line-casting machine. No. 1,074,843; Oct. 7; Gaz. vol. 195; p. 86.

Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Line setting and casting machine. No. 1,075,024; Oct. 7; Gaz. vol. 195; p. 150.

Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Mold-carrier of machines for casting printing-bars. No. 1,075,141; Oct. 7; Gaz. vol. 195; p. 190.

Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Matrix-setting and line-casting machine. No. 1,076,408; Oct. 21; Gaz. vol. 195; p. 682.

Degener, Heinrich, Berlin, Germany, assignor to Mergenthaler Linotype Company. Typographical line-casting machine. No. 1,076,487; Oct. 21; Gaz. vol. 195; p. 709.

Degenfelder, Alois J., Buffalo, N. Y. Device for supporting containers. No. 1,077,190; Oct. 28; Gaz. vol. 195; p. 1004.

Dekker, Nicolas H. M., Paris, France. Treatment of ores. No. 1,075,409; Oct. 14; Gaz. vol. 195; p. 311.

Delbrück, Konrad. (See Hofmann, Delbrück, and Meisenburg.)

Delbrück, Konrad, and K. Meisenburg, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Manufacture and production of a caoutchouc-like material. No. 1,076,195; Oct. 21; Gaz. vol. 195; p. 607.

Delbrück, Konrad, and K. Meisenburg, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Substance similar to caoutchouc and making same. No. 1,076,196; Oct. 21; Gaz. vol. 195; p. 607.

Dellinger, Abraham M., Lancaster, Pa. Grinding and crushing mill. No. 1,074,844; Oct. 7; Gaz. vol. 195; p. 86.

Demel, Fritz, London, England. Substitute for gold-leaf. No. 1,076,197; Oct. 21; Gaz. vol. 195; p. 607.

Deming Company, The. (See Deming, William L., assignor.)

Deming, Joseph H., assignor of one-half to O. Nelson, Middletown, Conn. Differential coupling device. No. 1,075,142; Oct. 7; Gaz. vol. 195; p. 191.

Deming, William L., assignor to The Deming Company, Salem, Ohio. Pump-holder. No. 1,076,488; Oct. 21; Gaz. vol. 195; p. 710.

Demore, George H., assignor to O. M. Edwards, Syracuse, N. Y. Winding-roller construction. No. 1,076,959; Oct. 28; Gaz. vol. 195; p. 930.

Denham, John B., and G. Vance, Sandford, Ind. Cultivator. No. 1,075,243; Oct. 7; Gaz. vol. 195; p. 225.

Denney, Andrew J., Cambridge, Idaho. Self-propelled sleigh. No. 1,075,465; Oct. 14; Gaz. vol. 195; p. 331.

Denton, John, Paterson, N. J. Furnace-controlling apparatus. No. 1,074,609; Oct. 7; Gaz. vol. 195; p. 7.

Depew, James L., Loup City, Nebr. Power-hammer. No. 1,076,554; Oct. 21; Gaz. vol. 195; p. 733.

Detroit Sanitary Supply Company. (See Hay, Peter D., assignor.)

Detroit Utensil Company. (See Winter, John R., assignor.)

Deutsch, Hermann, Szabadka, Austria-Hungary. Manufacture of sausage-skins and the like. No. 1,076,005; Oct. 14; Gaz. vol. 195; p. 515.

Deutsche Kopit-Gesellschaft m. b. H. (See Sborowitz, Siegmund, assignor.)

Dewey, Charles F. (See Krieger and Dewey.)

Dewey, Haywood G., East Orange, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Automatic filling-machine. No. 1,075,903; Oct. 14; Gaz. vol. 195; p. 478.

Diamond Match Company. (See Fairburn, Cruser, and Green, assignors.) (Reissue.)

Diamond Point Pen Company. (See Dods, Harry B., assignor.)

Dickenson, Richardson W., Sioux Falls, S. D. Appliance to facilitate the washing and drying of dishes. No. 1,074,932; Oct. 7; Gaz. vol. 195; p. 117.

Dickerson, Simeon K., Cleveland, Ohio. Coupling-rod extension. No. 1,076,272; Oct. 21; Gaz. vol. 195; p. 632.

Dickinson, Clinton W., La Crosse, Wis. Plow. No. 1,076,752; Oct. 28; Gaz. vol. 195; p. 857.

Dickman, Charles F. and J. P., Dayton, Ohio. Device for promoting deep breathing. No. 1,074,846; Oct. 7; Gaz. vol. 195; p. 88.

Dickman, John P. (See Dickman, Charles F. and J. P.)

Dickson, James T., Los Angeles, Cal. Vacuum-brake. No. 1,076,198; Oct. 21; Gaz. vol. 195; p. 607.

Diemer, Anton, assignor to The Firm of R. Bosch, Stuttgart, Germany. Distributer for electrical ignition systems. No. 1,074,777; Oct. 7; Gaz. vol. 195; p. 66.

Dietz, Carl, and E. Gofferje, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Crushing or pulverizing materials. No. 1,074,847; Oct. 7; Gaz. vol. 195; p. 88.

Dight, W. M. (See Moon, Herman, assignor.)

Dikeman, Joseph S., Norwalk, Conn. Saw-clamp. No. 1,077,191; Oct. 28; Gaz. vol. 195; p. 1004.

Dillon, James T., Greenwich, Conn. Automobile-jack. No. 1,076,555; Oct. 21; Gaz. vol. 195; p. 733.

Dilorenzo, Michael, Irondale, Wash. Farm-gate. No. 1,076,960; Oct. 28; Gaz. vol. 195; p. 930.

Display Vending Co. (See Whitmore, Frederick C., assignor.)

Dixon, Amos F. (See Reynolds and Dixon.)

Dixon, Roderick J., New Britain, Conn. Floor structure. No. 1,077,223; Oct. 28; Gaz. vol. 195; p. 1015.

Dixon, William J., Kansas City, Mo. Window-ventilator. No. 1,075,967; Oct. 14; Gaz. vol. 195; p. 501.

Dobkevitch, Gaëtan, assignor to Société Internationale de la Lampe Electrique O. R., Paris, France. Manufacture of incandescent filaments. No. 1,076,873; Oct. 28; Gaz. vol. 195; p. 899.

Doble, Mary E. (See Doble, William A., assignor.)

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Spring. No. 1,076,961; Oct. 28; Gaz. vol. 195; p. 931.

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Nozzle for hydraulic motors. No. 1,076,962; Oct. 28; Gaz. vol. 195; p. 931.

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Hydraulic regulating-nozzle. No. 1,076,963; Oct. 28; Gaz. vol. 195; p. 931.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,045; Oct. 28; Gaz. vol. 195; p. 960.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,046; Oct. 28; Gaz. vol. 195; p. 961.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,047; Oct. 28; Gaz. vol. 195; p. 961.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,048; Oct. 28; Gaz. vol. 195; p. 961.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,049; Oct. 28; Gaz. vol. 195; p. 961.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,050; Oct. 28; Gaz. vol. 195; p. 962.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,051; Oct. 28; Gaz. vol. 195; p. 962.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,052; Oct. 28; Gaz. vol. 195; p. 962.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,053; Oct. 28; Gaz. vol. 195; p. 962.

Dodds, Ethan I., Central Valley, N. Y., assignor, by mesne assignments, to Flannery Bolt Company, Pittsburgh, Pa. Stay-bolt. No. 1,077,054; Oct. 28; Gaz. vol. 195; p. 963.

Dodge, Philip T., New York, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,074,848; Oct. 7; Gaz. vol. 195; p. 88.

Dodge, Philip T., Washington, D. C., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,074,933; Oct. 7; Gaz. vol. 195; p. 117.

Dodge, Philip T., Washington, D. C., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,076,409; Oct. 21; Gaz. vol. 195; p. 682.

Dodgson, Frank L., Rochester, assignor, by mesne assignments, to General Railway Signal Company, Gates, N. Y. Railway-traffic-controlling system. No. 1,076,631; Oct. 21; Gaz. vol. 195; p. 761.

Dods, Harry B., Brooklyn, assignor to Diamond Point Pen Company, New York, N. Y. Non-leaking fountain-pen. No. 1,075,631; Oct. 14; Gaz. vol. 195; p. 388.

Dohm, Charles W., Chicago Heights, Ill., assignor to Paraffine Paint Company, San Francisco, Cal. Package-forming means. No. 1,076,199; Oct. 21; Gaz. vol. 195; p. 608.

Doldge, John J., assignor, by mesne assignments, to The R. H. Long Machinery Company, South Framingham, Mass. Feeding device. No. 1,077,055; Oct. 28; Gaz. vol. 195; p. 963.

Dolan, John, *et al.* (See Carlson, Carl A., assignor.)

Dolan, Martin, *et al.* (See Carlson, Carl A., assignor.)

Doll, Benjamin G., Lancaster, Pa. Hot-water heater. No. 1,075,700; Oct. 14; Gaz. vol. 195; p. 410.

Doll, Clarence W., Indianapolis, Ind. Combination and arrangement of rotary web-printing machines. No. 1,074,699; Oct. 7; Gaz. vol. 195; p. 39.

Doman, Lewis B., assignor to Amphion Piano Player Company, Elbridge, N. Y. Self-playing musical instrument. No. 1,075,313; Oct. 7; Gaz. vol. 195; p. 252.

Donald, Robert V., Skipton, Victoria, Australia. Anti-fraud bottle device. No. 1,076,489; Oct. 21; Gaz. vol. 195; p. 710.

Donges, George, Philadelphia, Pa. Ironing-table. No. 1,074,778; Oct. 7; Gaz. vol. 195; p. 67.

Donovan, Lee R., Marysville, Pa. Shade-bracket. No. 1,075,466; Oct. 14; Gaz. vol. 195; p. 331.

Doorenbos, Jacob, Kalamazoo, Mich. Incandescent oil-lamp. No. 1,076,821; Oct. 28; Gaz. vol. 195; p. 881.

Dorment, Frank C., assignor to Wireless Vibrator Company, Detroit, Mich. Atomizer. No. 1,075,467; Oct. 14; Gaz. vol. 195; p. 331.

Dornan Brothers. (See Shinn, Nathaniel M., assignor.)

Dorr, John V., Denver, Colo. Apparatus for thickening and agitating pulp. No. 1,076,666; Oct. 28; Gaz. vol. 195; p. 826.

Dorsey, Farnum F., New York, N. Y., assignor to B. Phillips, Lynn, Mass. Shuttle-thread-replenishing mechanism. No. 1,077,056; Oct. 28; Gaz. vol. 195; p. 963.

Double Body Bolster Company. (See Shallenberger, Charles S., assignor.)

Dougan, John B. (See Pearson and Conner, assignors.)

Doughty, Henry J., Edgewood, R. I. Fabric for tire-casing. No. 1,077,125; Oct. 28; Gaz. vol. 195; p. 984.

Doughty, Henry J., Edgewood, R. I. Friction-calender for tire fabric. No. 1,077,126; Oct. 28; Gaz. vol. 195; p. 984.

Doughty, Henry J., Edgewood, R. I. Forming a tire-casing. No. 1,077,127; Oct. 28; Gaz. vol. 195; p. 984.

Doughty, Henry J., Edgewood, R. I. Vehicle-tire. No. 1,077,128; Oct. 28; Gaz. vol. 195; p. 985.

Douglas, Theodore, New York, N. Y. Endless tread for automobile-wheels. No. 1,077,129; Oct. 28; Gaz. vol. 195; p. 985.

Dowdell, Dock B., Redbird, Okla. Cotton cultivator and chopper. No. 1,075,553; Oct. 14; Gaz. vol. 195; p. 360.

Downer, Harry B., Bridgeport, Conn. Wire corset-stay. No. 1,075,338; Oct. 14; Gaz. vol. 195; p. 285.

Downer, Moses M., Bridgeport, Conn. Wire corset-stay. No. 1,075,339; Oct. 14; Gaz. vol. 195; p. 286.

Downingtown Manufacturing Company. (See Miller, Guyon, assignor.)

Doyle, James S. (See Hedley and Doyle.)

Doyle, James S., New York, N. Y. Counterbalanced window. No. 1,076,753; Oct. 28; Gaz. vol. 195; p. 857.

Drago, Louis A., Seattle, Wash. Fuel-controlling device. No. 1,075,701; Oct. 14; Gaz. vol. 195; p. 410.

Drake, Charles W., Wellington, Tex. Railway-brake. No. 1,074,700; Oct. 7; Gaz. vol. 195; p. 40.

Drake, Edwin R., De Land, Fla. Plant-protector. No. 1,077,057; Oct. 28; Gaz. vol. 195; p. 964.

Draper Company. (See Koechlin, Albert G., assignor.)

Draper Company. (See Rhoades, Alonzo E., assignor.)

Draper Company. (See Smith, John, assignor.)

Draper Company. (See Stimpson, Edward S., assignor.)

Drautzburg, Peter, Cincinnati, Ohio. Liquid-gage. No. 1,075,025; Oct. 7; Gaz. vol. 195; p. 150.

Drayton, William, Shawnee, Ohio. Kiln. No. 1,075,904; Oct. 14; Gaz. vol. 195; p. 479.

Dreber, Gustave F., Schenectady, N. Y., assignor to General Electric Company. Making insulating fabric. No. 1,076,874; Oct. 28; Gaz. vol. 195; p. 900.

Dreuw, Heinrich, Berlin, Germany. Massage instrument. No. 1,076,490; Oct. 21; Gaz. vol. 195; p. 710.

Drew, John E. (See Sheehan and Drew.)

Driggs, Mary E., administratrix. (See Driggs, William H.)

Driggs, William H., deceased, Washington, D. C.; M. E. Driggs, administratrix. Semi-automatic gun. No. 1,076,875; Oct. 28; Gaz. vol. 195; p. 900.

Driscoll, Con. (See Prevost, Frank, assignor.)

Driver, Theodore P., Melrose, Mass. Automobile-lamp. No. 1,077,192; Oct. 28; Gaz. vol. 195; p. 1004.
Droitcour, Michael A., Oak Park, assignor to The Miehle Printing Press & Manufacturing Company, Chicago, Ill. Plate registering and clamping device. No. 1,075,632; Oct. 14; Gaz. vol. 195; p. 388.
Drosser, Joseph H., Douglas, Ariz. Developing-tank. No. 1,075,905; Oct. 14; Gaz. vol. 195; p. 480.
Drum, Alphonsus L., Highland Park, Ill. Railway system and handling traffic. No. 1,076,355; Oct. 21; Gaz. vol. 195; p. 663.
Drummond, Lewis A., Preston, Minn. Disk cultivator. No. 1,075,410; Oct. 14; Gaz. vol. 195; p. 311.
Druse, Otis M., Omaha, Nebr. Protecting-plate. No. 1,076,556; Oct. 21; Gaz. vol. 195; p. 734.
Du Bois, Howard M., Detroit, Mich. Electrolysis. No. 1,075,026; Oct. 7; Gaz. vol. 195; p. 151.
Du Brock, Hugo. (See Voss, Antoinette, assignor.)
Duche & Sons, T. M. (See White, Henry J., assignor.)
Duffy, Thomas I., Chicago, Ill. Brake mechanism. No. 1,076,564; Oct. 21; Gaz. vol. 195; p. 737.
Duffy, Thomas I., assignor to Ellsworth & Cross, Chicago, Ill. Demountable wheel. No. 1,076,557; Oct. 21; Gaz. vol. 195; p. 734.
Duffy, Thomas I., assignor to Ellsworth & Cross, Chicago, Ill. Hub for demountable wheels. No. 1,076,558; Oct. 21; Gaz. vol. 195; p. 734.
Duffy, Thomas I., assignor to Ellsworth & Cross, Chicago, Ill. Axle for motor-vehicles. No. 1,076,559; Oct. 21; Gaz. vol. 195; p. 735.
Duffy, Thomas I., assignor to Ellsworth & Cross, Chicago, Ill. Gearing. No. 1,076,560; Oct. 21; Gaz. vol. 195; p. 735.
Duffy, Thomas I., assignor to Ellsworth & Cross, Chicago, Ill. Brake mechanism for motor-vehicles. No. 1,076,561; Oct. 21; Gaz. vol. 195; p. 735.
Duffy, Thomas I., assignor to E. C. Sales Co., Chicago, Ill. Brake mechanism. No. 1,076,562; Oct. 21; Gaz. vol. 195; p. 736.
Duffy, Thomas I., assignor to E. C. Sales Co., Chicago, Ill. Brake mechanism. No. 1,076,563; Oct. 21; Gaz. vol. 195; p. 737.
Duffy, Thomas I., assignor to E. C. Sales Co., Chicago, Ill. Spanner-wrench. No. 1,076,565; Oct. 21; Gaz. vol. 195; p. 737.
Duhsel, Ferdinand, Denver, Colo. Beet-harvester. No. 1,074,610; Oct. 7; Gaz. vol. 195; p. 7.
Duluth Corrugating & Roofing Company. (See McMartin, Malcolm J., assignor.)
Duncan, Joseph S., Chicago, Ill. Addressing-machine. No. 1,075,340; Oct. 14; Gaz. vol. 195; p. 286.
Duncan, William, and J. A. Spangler, Attica, Ind. Sanitary sand-blast helmet. No. 1,075,906; Oct. 14; Gaz. vol. 195; p. 480.
Dundon, Patrick F., San Francisco, Cal. Dumping-car. No. 1,075,094; Oct. 7; Gaz. vol. 195; p. 174.
Dunham Company, The. (See Dunham, Wiley J., assignor.)
Dunham, Henry V., Bainbridge, N. Y., assignor to Nacirema Chemical Company. Converting phosphorites. No. 1,074,779; Oct. 7; Gaz. vol. 195; p. 67.
Dunham, Henry V., Bainbridge, N. Y., assignor to Nacirema Chemical Company. Converting phosphorites. No. 1,076,200; Oct. 21; Gaz. vol. 195; p. 608.
Dunham, Melbourne K., Boston, Mass. Blowpipe and using gases therein. No. 1,075,818; Oct. 14; Gaz. vol. 195; p. 450.
Dunham, Wiley J., assignor to The Dunham Company, Berea, Ohio. Implement attachment. No. 1,075,633; Oct. 14; Gaz. vol. 195; p. 389.
Dunham, William A. (See Shaut and Dunham.)
Dunlap, Garland, New York, N. Y., assignor of one-half to M. O. Jentons, Closter, N. J. Shoe for elevator-guides. No. 1,076,273; Oct. 21; Gaz. vol. 195; p. 632.
Dunlap, William A., Pittsburgh, Pa. Basin. No. 1,075,341; Oct. 14; Gaz. vol. 195; p. 286.
Dunn, Ed F. (See Mellck and Dunn.)
Dunn, George B., *et al.* (See Ulrich, Melchior C., assignor.)
Dunnam, Martin L., Meridian, Miss. Combined condenser and feed-water heater. No. 1,076,410; Oct. 21; Gaz. vol. 195; p. 683.
Dunner, Max, assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y. Metal bedstead. No. 1,076,964; Oct. 28; Gaz. vol. 195; p. 932.
Dunton, John C., Grand Rapids, Mich. Cutter-head for planers. No. 1,075,907; Oct. 14; Gaz. vol. 195; p. 481.
Durbin Automatic Train Pipe Connector Company. (See Durbin, Votaw S., assignor.)
Durbin, Votaw S., assignor to Durbin Automatic Train Pipe Connector Company, St. Louis, Mo. Automatic train-pipe connector. No. 1,074,849; Oct. 7; Gaz. vol. 195; p. 88.
Duren, Charles A., *et al.* (See Smith, John W., assignor.)
Durham Duplex Razor Company. (See Sheehan, Thomas C., assignor.)
Durham Duplex Razor Company. (See Sheehan and Drew, assignors.)
Duval, John, Grand Junction, Colo. Beet-harvester. No. 1,076,411; Oct. 21; Gaz. vol. 195; p. 683.
Duvall, James, Camas, Wash. Pneumatic press-feeding means. No. 1,076,491; Oct. 21; Gaz. vol. 195; p. 711.
Dwiggins Wire Fence Company. (See Van Deventer and Swank, assignors.)
Dye, Glen M., assignor, by mesne assignments, to C. E. Van Duzee, Minneapolis, Minn. Automatic photo printing-machine. No. 1,076,876; Oct. 28; Gaz. vol. 195; p. 900.
Dye Works, formerly L. Durand, Huguenin & Co. (See Zehntner, Ernst, assignor.)
Dyer, Frank L., Montclair, assignor to New Jersey Patent Company, West Orange, N. J. Phonograph. No. 1,075,771; Oct. 14; Gaz. vol. 195; p. 434.
Dyer, Frank P., St. Louis, Mo. Hair-cutting machine. No. 1,075,908; Oct. 14; Gaz. vol. 195; p. 481.
E. C. Sales Co. (See Duffy, Thomas I., assignor.)
E. I. du Pont de Nemours Powder Co. (See Aspinwall, John, assignor.)
E. M. Hulse Company, The. (See Sharp, Alonzo G., assignor.)
E. W. Bliss Company. (See Kruse, Peter, assignor.)
E. W. Bliss Company. (See Leavitt, Frank M., assignor.)
Eadie, James L., Jr., executor. (See Young, Walter H.)
Eager, James H. L., Brooklyn, N. Y. Syringe. No. 1,074,780; Oct. 7; Gaz. vol. 195; p. 67.
Eagle Manufacturing Company, The. (See Goodrich, Ralph B., assignor.)
Earl, William H. (See Oliphant, Clarence C., assignor.)
Eastburn, Samuel L., Sloatsburg, N. Y. Closet-seat. No. 1,074,701; Oct. 7; Gaz. vol. 195; p. 40.
Eastern Sales Book Company. (See Carney, Edward, assignor.)
Eastman Kodak Company. (See Folmer, William F., assignor.)
Ebbley, Norman, Wallace, Idaho. Tunneling-machine. No. 1,075,027; Oct. 7; Gaz. vol. 195; p. 151.
Ebeling, Lydia, Jr., Barmen, Germany. Device for arresting the plaiting-bobbins of plaiting-machines. No. 1,075,819; Oct. 14; Gaz. vol. 195; p. 450.
Eckberg, Arvid W., and C. Stohlberg, Jamestown, N. Y. Sheet-metal window. No. 1,074,702; Oct. 7; Gaz. vol. 195; p. 41.
Eckert, Samuel B., Devon, Pa. Device for welding barrels. No. 1,076,106; Oct. 21; Gaz. vol. 195; p. 577.
Eclipse Gas Stove Company. (See Green, Michael J., assignor.)
Eclipse Wheel Company. (See Krespach and Hazeley, assignors.)
Eddy, Lawrence R., Elizabeth, N. J. Sash-lock. No. 1,076,650; Oct. 21; Gaz. vol. 195; p. 769.
Eddy, Ray L. (See Van Osdel, William J., assignor.)
Edgecomb, Henry R., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Piston-packing. No. 1,075,408; Oct. 14; Gaz. vol. 195; p. 331.
Edison, William. (See Grout and Edison.)
Edmunds and Jones Manufacturing Company. (See Godley, Charles E., assignor.)
Edson, John W. (See Glaser and Edson.)
Edtbauer, Petronella, Chicago, Ill. Automatic weighing apparatus. No. 1,074,611; Oct. 7; Gaz. vol. 195; p. 8.
Edward Miller & Company. (See Homan, William C., assignor.)
Edward Miller & Company. (See Van Sickel, George B., assignor.)
Edwards, Alonzo L., assignor to Wheeling Stamping Company, Wheeling, W. Va. Tubular lantern. No. 1,076,356; Oct. 21; Gaz. vol. 195; p. 663.
Edwards, Ara B. (See Turner and Edwards.)
Edwards, Elmer O., assignor of one-half to A. Noren, St. Paul, Minn. Sanitary closet-seat. No. 1,076,107; Oct. 21; Gaz. vol. 195; p. 578.
Edwards, Oliver M. (See Chaffee, Edward F., assignor.)
Edwards, Oliver M. (See Demore, George H., assignor.)
Edwards, Oliver M. (See Mallery, Stanton E., assignor.)
Edwards, Oliver M., Syracuse, N. Y. Window-sash holder. No. 1,077,193; Oct. 28; Gaz. vol. 195; p. 1004.
Edwards, Victor E., assignor to Morgan Construction Company, Worcester, Mass. Apparatus for coiling, coating, and cooling wire rods. No. 1,075,702; Oct. 14; Gaz. vol. 195; p. 410.
Egly, Georg, Treptow, assignor to Gebrueder Siemens & Co., Lichtenberg, near Berlin, Germany. Production of refractory, electrically-conducting molded bodies. No. 1,075,634; Oct. 14; Gaz. vol. 195; p. 389.
Ehrlich, Jacob M. (See Cruice, Daniel, assignor.)
Eichler, Carl P., Lakewood, Ohio. Sad-iron handle. No. 1,076,108; Oct. 21; Gaz. vol. 195; p. 578.
Eicken, Hermann von, Friedenau, Germany. System of storing and conveying inflammable and other liquids. No. 1,074,934; Oct. 7; Gaz. vol. 195; p. 118.
Eighmie, George D., New York, N. Y. Gas-engine. No. 1,076,877; Oct. 28; Gaz. vol. 195; p. 901.
Electric Controller and Manufacturing Company, The. (See Canfield, Harry R., assignor.)
Electric Wheel Co., (Associates.) (See Knudsen, Karsten, assignor.)
Electro Weld Company. (See Fontaine, John B., assignor.)
Electrolytic Products Co. (See Feldkamp, Frederick A., assignor.)
Eli Lilly & Company. (See Scott, Burton W., assignor.)
Elkin, Warren, Winchester, Ky. Carbureter. No. 1,075,635; Oct. 14; Gaz. vol. 195; p. 389.
Ell, Bernhard S. F., Engelholm, Sweden. Braiding-machine. No. 1,075,342; Oct. 14; Gaz. vol. 195; p. 286.

Eller, Friedrich, Frankfort-on-the-Main, assignor to Allgemeine Elektrizitäts-Gesellschaft, Berlin, Germany. Ticket-printing apparatus. No. 1,077,194; Oct. 28; Gaz. vol. 195; p. 1005.
Ellery, Arthur B., Akron, Ohio. Tripping mechanism for printing-presses. No. 1,076,965; Oct. 28; Gaz. vol. 195; p. 932.
Ellery, William. (See Bolton, Florence, assignor.)
Ellis, Carleton, Montclair, N. J., assignor to New Jersey Testing Laboratories. Water-resistant cement and making same. No. 1,076,028; Oct. 21; Gaz. vol. 195; p. 550.
Ellis, Stuart, Washington, D. C. Water-heater. No. 1,076,274; Oct. 21; Gaz. vol. 195; p. 633.
Ellison, William C., *et al.* (See Rohrdantz, Henry, assignor.)
Ellsworth & Cross. (See Duffy, Thomas I., assignor.)
Elmer, William H., New Hartford, N. Y. Belt-fastener. No. 1,074,612; Oct. 7; Gaz. vol. 194; p. 8.
Elsoffer, Joshua. (See Colling, Charles J., Sr., assignor.)
Elvert, Heinrich. (See Schirmacher and Elvert.)
Ely, Lewellen A., Dayton, Ohio. Playing-cards. No. 1,076,492; Oct. 21; Gaz. vol. 195; p. 711.
Ely, William. (See Hutchins, Arthur W., assignor.)
Emeis, Henry T., San Diego, Cal. Pneumatic attachment for ink-receptacles. No. 1,075,469; Oct. 14; Gaz. vol. 195; p. 332.
Emerson-Brantingham Company. (See Davis, Calvin R., assignor.)
Emerson-Brantingham Company. (See McConville and Farnam, assignors.)
Emerson-Brantingham Company. (See Murphey, Frank P., assignor.)
Emerson, James S. (See Pooler, Earl, assignor.)
Empire Duplex Gin Company. (See Meurling, Ivar, assignor.)
Enboolithwerke A. G. M. Olten. (See Maurer, Adolf, assignor.)
Engelmann, Max, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Organic mercury compounds. No. 1,074,781; Oct. 7; Gaz. vol. 195; p. 67.
Enger, Carl, assignor to Felten and Guilleaume-Lahmeyerwerke Actien Gesellschaft, Mülheim-on-the-Rhine, Germany. Heddle. No. 1,075,411; Oct. 14; Gaz. vol. 195; p. 311.
Engi, Gadient, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Vat dyestuffs of the indigo series and making same. No. 1,074,850; Oct. 7; Gaz. vol. 195; p. 89.
England, Clyde N., Fort Flagler, Wash. Envelop. No. 1,074,613; Oct. 7; Gaz. vol. 195; p. 8.
England, Isaac W., assignor to Passaic Metal Ware Company, Passaic, N. J. Frame or easel. No. 1,077,130; Oct. 28; Gaz. vol. 195; p. 985.
English, Hilbert W., Buffalo, N. Y. Floor-smoothing composition. No. 1,077,131; Oct. 28; Gaz. vol. 195; p. 986.
English, John C. (See Johnson and English.)
English and Mersick Co., The. (See Krah, Alexis, assignor.)
Engstrom, Ivan, and J. Bloom, Chicago, Ill. Horseshoe. No. 1,075,343; Oct. 14; Gaz. vol. 195; p. 287.
Ennis, John L., Reading, Pa. Silver-cleaner. No. 1,074,782; Oct. 7; Gaz. vol. 195; p. 68.
Eno, George W. (See Jackson and Sherbondy, assignors.)
Enterprise Railway Equipment Company. (See Campbell, Argyle, assignor.)
Entz, Justus B., Philadelphia, Pa. Clutch. No. 1,075,412; Oct. 14; Gaz. vol. 195; p. 312.
Eppenstein, Otto, assignor to Firm of C. Zeiss, Jena, Germany. Coincidence-telemeter. No. 1,074,935; Oct. 7; Gaz. vol. 195; p. 118.
Eppler, Andrew, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-guide mechanism for welt-shoe-sewing machines. No. 1,076,201; Oct. 21; Gaz. vol. 195; p. 608.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,076,878; Oct. 28; Gaz. vol. 195; p. 901.
Epstein, George, New York, N. Y. Convertible fur piece. No. 1,075,244; Oct. 7; Gaz. vol. 195; p. 226.
Equitable Meter Company. (See Wylie, Thomas B., assignor.)
Erickson, Paul E., Courtland, Kans. Irrigating system. No. 1,077,132; Oct. 28; Gaz. vol. 195; p. 986.
Erickson, Peter, Chicago, Ill. Cutter-guard. No. 1,074,614; Oct. 7; Gaz. vol. 194; p. 9
Ernest, Albert C., Hubbard, assignor of one-third to D. M. Roberts, Cooledge, and one-third to B. H. McDaniel, Hubbard, Tex. Rail-joint. No. 1,075,554; Oct. 14; Gaz. vol. 195; p. 361.
Errett, Joseph, Cleveland, Ohio. Platform-gear for vehicles. No. 1,076,202; Oct. 21; Gaz. vol. 195; p. 608.
Esch, Peter, Dusseldorf, assignor to Schmidt'sche Heissdampf-Gesellschaft mit beschränkter Haftung, Cassel, Germany. Making U-shaped pipe-bends. No. 1,074,783; Oct. 7; Gaz. vol. 195; p. 68.
Esch, Peter, Dusseldorf, assignor to Schmidt'sche Heissdampf Gesellschaft, m. b. H., Cassel, Germany. Making U-shaped pipe-bends. No. 1,075,201; Oct. 7; Gaz. vol. 195; p. 211.
Estes, Elmer F., Lincoln, Nebr. Pencil-sharpener. No. 1,077,133; Oct. 28; Gaz. vol. 195; p. 986.
Eubank, William S., Richmond, Va. Coupling. No. 1,075,703; Oct. 14; Gaz. vol. 195; p. 411.
Euchenhofner, Albert J. (See Rieske, Otto G., assignor.)
Eustice, Alfred L. (See Morgan, William J., assignor.)
Euston, Edwin, St. Louis, Mo. Producing white lead. No. 1,075,143; Oct. 7; Gaz. vol. 195; p. 191.
Euwer, Rankin E., Natrona, Pa. Combined letter-sheet and envelop. No. 1,076,357; Oct. 21; Gaz. vol. 195; p. 664.
Evans, William R., Smiths Basin, N. Y. Pipe-wrench. No. 1,074,936; Oct. 7; Gaz. vol. 195; p. 118.
Ewbank, James H., Lawrenceburg, Ind. Drafting instrument. No. 1,074,851; Oct. 7; Gaz. vol. 195; p. 89.
Extensive Manufacturing Company, The. (See Fancher, Charles J., assignor.)
Eyles, Anton G., Cedar Rapids, Iowa. Chair. No. 1,075,636; Oct. 14; Gaz. vol. 195; p. 390.
Eyles, Anton G., assignor to A. G. Eyles Chair Company, Cedar Rapids, Iowa. Combination couch and bed, &c. No. 1,074,937; Oct. 7; Gaz. vol. 195; p. 119.
F. Wesel Manufacturing Company. (See Weston, Folke W., assignor.)
F. W. Klinger & Langbein Co. (See Langbein, Gustave, assignor.)
Fabrin, Thomas A., Aurora, Ill. Door-operating device. No. 1,075,095; Oct. 7; Gaz. vol. 195; p. 174.
Fabrney, William H., Chicago, Ill. Spring vehicle-wheel. No. 1,075,637; Oct. 14; Gaz. vol. 195; p. 390.
Fairburn, William A., Short Hills, N. J., F. V. D. Cruser and W. Green, Barberton, Ohio, assignors to The Diamond Match Company, Chicago, Ill. Treating match-splints. (Reissue.) No. 13,636; Oct. 28; Gaz. vol. 195; p. 1024.
Fairfield, Jerome C., Cambridge, Mass. Folding bolster. No. 1,076,651; Oct. 21; Gaz. vol. 195; p. 769.
Fales & Jenks Machine Co. (See Foster, Charles S., assignor.)
Falls, Edward H. (See Greggs and Falls.)
Fancher, Charles J., Thompsonville, Conn., assignor to The Extensive Manufacturing Company, New York, N. Y. Feeding mechanism. No. 1,074,703; Oct. 7; Gaz. vol. 195; p. 41.
Fanfani, Joseph, New York, N. Y. Envelop. No. 1,076,966; Oct. 28; Gaz. vol. 195; p. 933.
Fanslow, Benjamin O., Los Angeles, Cal., assignor, by mesne assignments, to Polygraph Duplicating Typewriter Company. Machine for setting and distributing printing-type. No. 1,076,029; Oct. 21; Gaz. vol. 195; p. 551.
Farbenfabriken vorm. Friedr. Bayer & Co. (See Clingestein, Heinrich, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Delbrück and Meisenburg, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Dietz and Gofferje, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Engelmann, Max, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hauptmann, Peter, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann, Delbrück, and Meisenburg, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Merling and Köhler, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Schoeller and Schrauth, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Thomaschewski, Paul, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Benda, Ludwig, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schirmacher and Elvert, assignors.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schwabe, Rudolf, assignor.)
Farlinger, George E., assignor to Anguish Manufacturing Company, Detroit, Mich. Radiator. No. 1,076,203; Oct. 21; Gaz. vol. 195; p. 609.
Farmer, Thomas, Jr., assignor to Consolidated Car Heating Company, Albany, N. Y. Electromagnetic control of pneumatic door-motors. No. 1,075,704; Oct. 14; Gaz. vol. 195; p. 411.
Farnam, Julian P. (See McConville and Farnam.)
Farnsworth, Willis S., assignor to Coin Controlled Lock Co., San Francisco, Cal. Coin-controlled lock. No. 1,076,822; Oct. 28; Gaz. vol. 195; p. 881.
Farnum, William C., assignor of one-half to H. E. and C. F. Cowdrey, Fitchburg, Mass. Handle-turning machine. No. 1,075,245; Oct. 7; Gaz. vol. 195; p. 226.
Farquhar, Milton J., Wilmington, Ohio. Fireplace-furnace. No. 1,075,909; Oct. 14; Gaz. vol. 195; p. 481.
Farrington, Joel, assignor to M. E. Sheldon, Springboro, Pa. Shears. No. 1,076,667; Oct. 28; Gaz. vol. 195; p. 826.
Felge, Josef, Ludwigsdorf, Germany. Lathe. No. 1,075,246; Oct. 7; Gaz. vol. 195; p. 227.
Felghtner, Lewis E., assignor to Lima Locomotive Corporation, Lima, Ohio. Steam-engine mounting for geared locomotives. No. 1,075,705; Oct. 14; Gaz. vol. 195; p. 411.
Felghtner, Lewis E., assignor to Lima Locomotive Corporation, Lima, Ohio. Multiple-wheeled truck for geared locomotives. No. 1,075,772; Oct. 14; Gaz. vol. 195; p. 434.
Felker, Fredrick C., Racine, Wis. Pneumatic tire. No. 1,075,345; Oct. 14; Gaz. vol. 195; p. 287.
Feldkamp, Frederick A., Newark, N. J., assignor to Electrolytic Products Co. Assembling radiator-sections. No. 1,077,058; Oct. 28; Gaz. vol. 195; p. 964.
Felix, Mildred, New York, N. Y. Indicating device for vehicles. No. 1,075,555; Oct. 14; Gaz. vol. 195; p. 361.

Fellows, Frank C. (See Jones, Harley H., assignor.)
Felt, Dorr E., Chicago, Ill. Calculating-machine. No. 1,074,704; Oct. 7; Gaz. vol. 195; p. 41.
Felt, Dorr E., Chicago, Ill. Calculating-machine. No. 1,074,705; Oct. 7; Gaz. vol. 195; p. 42.
Felt & Tarrant Manufacturing Company. (See Bollensen, George S., assignor.)
Felten and Guilleaume-Lahmeyerwerke Actien Gesellschaft. (See Enger, Carl, assignor.)
Fenoughty, William H., Belleville, Ill., assignor to American Carbon & Battery Company. Battery. No. 1,075,556; Oct. 14; Gaz. vol. 195; p. 361.
Ferguson, Edward J., Santa Rosa, Cal. Rail-anchor. No. 1,076,493; Oct. 21; Gaz. vol. 195; p. 712.
Ferguson, Gilbert J., Lost Creek, Pa. Pipe-coupling. No. 1,074,706; Oct. 7; Gaz. vol. 195; p. 42.
Ferguson, Gurnett E., Institute, W. Va. Music-leaf turner. No. 1,077,134; Oct. 28; Gaz. vol. 195; p. 986.
Ferguson, Peter L., and J. W. Wheelwright, Ogden, Utah. Illuminated sign. No. 1,076,566; Oct. 21; Gaz. vol. 195; p. 738.
Ferguson, Robert B., Los Angeles, Cal. Trunk-fastener. No. 1,077,195; Oct. 28; Gaz. vol. 195; p. 1006.
Ferra, Pierre, Caluire-et-Cuire, near Lyon, France. Composition for heat-insulating and thermo-electric purposes. No. 1,075,773; Oct. 14; Gaz. vol. 195; p. 435.
Ferra, Pierre, Caluire-et-Cuire, near Lyon, France. Making a composition of matter. No. 1,075,820; Oct. 14; Gaz. vol. 195; p. 450.
Ferris, Harry H., Huntington Beach, Cal. Rail-joint. No. 1,075,968; Oct. 14; Gaz. vol. 195; p. 501.
Ferris, Walter, Milwaukee, Wis. Compensating-truck. No. 1,075,096; Oct. 7; Gaz. vol. 195; p. 175.
Fiber Barrel Machinery & Manufacturing Company. (See Herr, Henry C., assignor.)
Fidjeland, Terje A., Fostvedt, Iveland, near Christiansand, Norway. Projectile. No. 1,075,202; Oct. 7; Gaz. vol. 195; p. 212.
Fidler, James O., *et al.* (See Speck, Nicholas, assignor.)
Finkelstein, Heinrich, *et al.* (See Müller, Philipp, assignor.)
Fiori, Frank P., New York, N. Y. Hood and neck-protector. No. 1,075,247; Oct. 7; Gaz. vol. 195; p. 227.
Fire-Proof Furniture and Construction Company. (See Millice, Paul S., assignor.)
Firth, William. (See Hall, Frank H., assignor.)
Fischer, Ernst, Dietrichsdorf, near Kiel, Germany. Manufacture of armor-plating. No. 1,075,638; Oct. 14; Gaz. vol. 195; p. 391.
Fisher, Edwin M. S. (See Fisher, Harry L. and E. M. S.)
Fisher, Harry L. and E. M. S., Muscatine, Iowa. Heater for drinking-fountains. No. 1,075,344; Oct. 14; Gaz. vol. 195; p. 287.
Fisher, Henry L., assignor to Landis Machine Company, Waynesboro, Pa. Screw-cutting die-head. No. 1,075,203; Oct. 7; Gaz. vol. 195; p. 212.
Fisher, Milan H., assignor to F. L. Tarbell, Chicago, Ill. Ice-cream-cone dispenser. No. 1,076,967; Oct. 28; Gaz. vol. 195; p. 933.
Fitzsimons, Oscar S. (See Goodwin, Dwight S., assignor.)
Flagg, John L., Hackensack, and F. A. Towers, Hawthorne, assignors to Watson-Electric Co., Paterson, N. J. Electric fire-alarm system. No. 1,075,314; Oct. 7; Gaz. vol. 195; p. 253.
Flannery Bolt Company. (See Dodds, Ethan I., assignor.)
Fleischer, Herman, assignor to The Stanley Works, New Britain, Conn. Butt, hinge, and the like. No. 1,076,968; Oct. 28; Gaz. vol. 195; p. 933.
Fleitz, Leo A. (See Sample and Fleitz.)
Fleming, Clifford A., Huntsville, Mo. Radius-jack. No. 1,075,639; Oct. 14; Gaz. vol. 195; p. 391.
Fleming, James R., Scranton, Pa. Journal-bearing. No. 1,075,204; Oct. 7; Gaz. vol. 195; p. 212.
Flick, Berthold, and P. Reinig, Berlin-Marlendorf, Germany. Flying device. No. 1,076,879; Oct. 28; Gaz. vol. 195; p. 902.
Flick, George T., assignor to O. Schwegler, Philadelphia, Pa. Hosiery-finishing board. No. 1,075,346; Oct. 14; Gaz. vol. 195; p. 287.
Flower, Frank. (See Schwery, Joseph F., assignor.)
Fodor, Otto. (See Kopetschni, Karczag, and Fodor.)
Foersterling, Hans, Perth Amboy, N. J., assignor to The Roessler & Hasslacher Chemical Co., New York, N. Y. Preparing a precious-metal-dissolving means. No. 1,076,006; Oct. 14; Gaz. vol. 195; p. 515.
Fogg, Charles F., New York, N. Y., assignor, by mesne assignments, to Automatic Bookkeeping Register Company. Register. (Reissue.) No. 13,624; Oct. 7; Gaz. vol. 195; p. 255.
Foley, Charles H., Sherman, Tex. Grading-machine. No. 1,075,774; Oct. 14; Gaz. vol. 195; p. 435.
Folgert, Joseph W., Worcester, assignor of one-half to J. M. Frysinger, Phillips, Wis. Pivot for shears. No. 1,074,852; Oct. 7; Gaz. vol. 195; p. 89.
Folmer, William F., assignor to Eastman Kodak Company, Rochester, N. Y. Studio-chair. No. 1,074,615; Oct. 7; Gaz. vol. 195; p. 9.
Fontaine, John B., assignor to Electro Weld Company, Marlboro, Mass. Heel-blacking machine. No. 1,074,707; Oct. 7; Gaz. vol. 195; p. 42.
Foote, Leslie M. (See Hanson and Foote.)
Forbess, W. C. (See Slate, William L., assignor.)
Force, William F., Flatbush, assignor of one-half to E. B. Latham, Brooklyn, N. Y. Safety appliance for electrical installations. No. 1,076,754; Oct. 28; Gaz. vol. 195; p. 857.
Ford, Eugene A., Uxbridge, Mass. Friction-clutch. No. 1,076,030; Oct. 21; Gaz. vol. 195; p. 551.
Ford, Henry, Detroit, Mich. Automobile construction. No. 1,075,557; Oct. 14; Gaz. vol. 195; p. 362.
Fordon, Alexander A., Detroit, and G. L. Morrison, Hudson, Mich. Collapsible box. No. 1,075,706; Oct. 14; Gaz. vol. 195; p. 412.
Fordyce, Edmond A., Boston, Mass., assignor to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,076,969; Oct. 28; Gaz. vol. 195; p. 934.
Foreman, Roy I., Watseka, Ill. Check-row planter. No. 1,076,358; Oct. 21; Gaz. vol. 195; p. 664.
Forgrove Machinery Company Limited, The. (See Grover, Frederick, assignor.)
Fornaca, Guido, Turin, Italy. Valve. No. 1,076,412; Oct. 21; Gaz. vol. 195; p. 683.
Forner, Georg, Berlin, Germany, assignor to General Electric Company. Regulating device for tapped turbines. No. 1,076,413; Oct. 21; Gaz. vol. 195; p. 684.
Forni, Natale, Santa Rosa, Cal. Waterproof composition. No. 1,075,097; Oct. 7; Gaz. vol. 195; p. 175.
Forrer, Joseph D., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Railway-motor ventilation. No. 1,075,470; Oct. 14; Gaz. vol. 195; p. 332.
Forsyth, William R., Swampscott, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Die-block. No. 1,076,359; Oct. 21; Gaz. vol. 195; p. 665.
Foster Brothers Manufacturing Company. (See Foster, William S., assignor.)
Foster, Charles S., Central Falls, R. I., assignor to Fales & Jenks Machine Co. Spindle. No. 1,075,205; Oct. 7; Gaz. vol. 195; p. 213.
Foster Engineering Company. (See Krichbaum, William F., assignor.)
Foster, George W., Lowell, Mass. Traverse mechanism for winding-machines, &c. No. 1,075,286; Oct. 7; Gaz. vol. 195; p. 243.
Foster, John H., Colorado, Tex. Sanitary closet. No. 1,075,471; Oct. 14; Gaz. vol. 195; p. 333.
Foster, Richard S., New York, N. Y. Window-screen. No. 1,074,938; Oct. 7; Gaz. vol. 195; p. 119.
Foster, William S., assignor to Foster Brothers Manufacturing Company, Utica, N. Y. Spring-heeling machine. No. 1,076,109; Oct. 21; Gaz. vol. 195; p. 579.
Foster, William W., San Diego, Cal. Egg-candler. No. 1,075,640; Oct. 14; Gaz. vol. 195; p. 391.
Fouke, George W., Sacramento, Cal. Clothes-hanger. No. 1,075,558; Oct. 14; Gaz. vol. 195; p. 362.
Fournier, Macaire, and G. H. Jackson, La Rochelle, France. Wax melting and sealing device. No. 1,075,775; Oct. 14; Gaz. vol. 195; p. 435.
Fourt, Frank, Fairfield, Iowa. Blow-out holder. No. 1,074,347; Oct. 14; Gaz. vol. 195; p. 288.
Fousek, Karl, Austin, Tex. Sanitary cuspidor. No. 1,076,204; Oct. 21; Gaz. vol. 195; p. 609.
Fowle, Charles L., Dowagiac, Mich. Grain-drill. No. 1,074,784; Oct. 7; Gaz. vol. 195; p. 68.
Fowler, Amelia, Boston, Mass. Preserved-fabric display. No. 1,074,853; Oct. 7; Gaz. vol. 195; p. 90.
Fowler, Amelia, Boston, Mass. Preserving textile articles. No. 1,075,206; Oct. 7; Gaz. vol. 195; p. 213.
Fox, Harvey, Chicago, Ill. Bed. No. 1,074,854; Oct. 7; Gaz. vol. 195; p. 90.
Fox, Lewis J., administrator. (See Fox, Bem, and Sponogle.)
Fox, William C., deceased, San Francisco, (L. J. Fox, administrator,) J. P. Bem, Berkeley, and F. M. Sponogle, Oakland, Cal. Pulverizing-mill. No. 1,075,707; Oct. 14; Gaz. vol. 195; p. 412.
Frame, Oliver C., Pasadena, Cal. Handsaw. No. 1,076,755; Oct. 28; Gaz. vol. 195; p. 858.
Francis, Raymond J., Gibbon, Nebr. Self-cleaning horse-lift hay-buck. No. 1,077,059; Oct. 28; Gaz. vol. 195; p. 965.
Frank, Albert R., Spandau, Germany, assignor to American Cyanamid Company, Nashville, Tenn. Fertilizer. No. 1,074,785; Oct. 7; Gaz. vol. 195; p. 68.
Frank Holton & Co. (See Holton, Frank, assignor.)
Franklin, Richard. (See Pollock and Rosenberg, assignors.)
Fraser, Alexander S. (See Le Grue, Angus R., assignor.)
Fraser, James E., St. John, New Brunswick, Canada. Aerial vehicle. No. 1,075,969; Oct. 14; Gaz. vol. 195; p. 502.
Fred Medart Manufacturing Company. (See Medart, Philip S., assignor.)
Frederick, Edwin E., Bridgeville, Pa. Multiple gas-burner. No. 1,076,970; Oct. 28; Gaz. vol. 195; p. 934.
Fredrikson, Carl F., Chicago, Ill. Attachment for violin-players. No. 1,074,939; Oct. 7; Gaz. vol. 195; p. 119.
Freeman, Arthur C., Jr., Norfolk, Va. Area-finder apparatus. No. 1,076,275; Oct. 21; Gaz. vol. 195; p. 633.
Freeman, Ernest B., Dedham, assignor to B. F. Sturtevant Company, Boston, Mass. Fuel-economizer. No. 1,074,855; Oct. 7; Gaz. vol. 195; p. 90.
Freer, Stephen A., El Monte, Cal. Nut-cleaning machine. No. 1,074,940; Oct. 7; Gaz. vol. 195; p. 120.

Frestadius, Victor, E. Norlin, and E. Oman, Stockholm, Sweden. Preserving aliments. No. 1,074,856; Oct. 7; Gaz. vol. 195; p. 90.
Fricks, William D., Jacksonville, Fla. Releasing mechanism for type-writer type-bars. No. 1,076,276; Oct. 21; Gaz. vol. 195; p. 634.
Fried. Krupp Aktiengesellschaft. (See Thiel, Heinrich, assignor.)
Fried. Krupp Aktiengesellschaft. (See Wieser, Karl, assignor.)
Friedberger, Otto, Giessen, Germany, assignor of one-third to E. A. Byrnes, C. P. Townsend, and J. H. Brickenstein. Making lactic acid. No. 1,074,708; Oct. 7; Gaz. vol. 195; p. 43.
Friedman, Louis, New York, N. Y. Gas-producer. No. 1,076,823; Oct. 28; Gaz. vol. 195; p. 882.
Friedman, Louis H., Norfolk, Va. Time-register. No. 1,076,668; Oct. 28; Gaz. vol. 195; p. 827.
Friend, Howard, assignor of one-half to E. J. Keller, Lexington, Okla. Bridge construction. No. 1,074,941; Oct. 7; Gaz. vol. 195; p. 120.
Frisbee, Frank E., Des Moines, Iowa. Window-frame. No. 1,076,567; Oct. 21; Gaz. vol. 195; p. 738.
Fritsch, Lewis A., Cincinnati, Ohio. Self-locking body-brace. No. 1,075,348; Oct. 14; Gaz. vol. 195; p. 288.
Fromelt, H. H. (See Anderson, Haldor A., assignor.)
Fromholz, Reinhold, Boxhagen, Germany. Talking-machine. No. 1,075,708; Oct. 14; Gaz. vol. 195; p. 412.
Frosig, Jeff, and L. W. Walstrom, Reno, Nev. Vehicle-spring. No. 1,076,414; Oct. 21; Gaz. vol. 195; p. 684.
Frost, Charles L., Grand Rapids, Mich. Spring-latch. No. 1,075,028; Oct. 7; Gaz. vol. 195; p. 151.
Frost, William H., Erie, Pa., assignor to General Electric Company. Mounting of engines in motor-cars. No. 1,076,415; Oct. 21; Gaz. vol. 195; p. 684.
Frysinger, James M. (See Folgert, Joseph W., assignor.)
Fulmer, Albert P., and F. M. Nebinger, Wilmington, Del. Hook and eye. No. 1,076,360; Oct. 21; Gaz. vol. 195; p. 665.
Fulton Iron Works. (See Setz, Hans R., assignor.)
Funk, Charley F. (See Funk, William R. and C. F.)
Funk, William R. and C. F., Archer City, Tex. Roller for railway-track jacks. No. 1,075,559; Oct. 14; Gaz. vol. 195; p. 362.
Furuya, Motoichi, New York, N. Y. Spring-hinge. No. 1,076,568; Oct. 21; Gaz. vol. 195; p. 738.
Fussenegger, Ernst, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Azo dye. No. 1,076,756; Oct. 28; Gaz. vol. 195; p. 858.
G. M. System Co. (See Graham, George M., assignor.)
Gabrielson, John, and K. Karlstrom, Buffalo, N. Y. Anti-refillable bottle. No. 1,077,060; Oct. 28; Gaz. vol. 195; p. 965.
Gaines, Frederick F., Savannah, Ga. Combination buffer draft-arm and sill-reinforcement. No. 1,074,709; Oct. 7; Gaz. vol. 195; p. 43.
Galaine, Constant F. M., Rennes, France. Open-exhaust silencer. No. 1,076,494; Oct. 21; Gaz. vol. 195; p. 712.
Galleazzi, Joseph, San Francisco, Cal. Octave-coupler for accordions. No. 1,075,207; Oct. 7; Gaz. vol. 195; p. 213.
Galloway, Hope L., Kilmalcolm, assignor to Galloway, Weir & Gibson, Ltd., Glasgow, Scotland. Machine for barking railway-ties and the like. No. 1,075,776; Oct. 14; Gaz. vol. 195; p. 435.
Galloway, Weir & Gibson. (See Galloway, Hope L., assignor.)
Gallup, Rockwell L., Chicago, Ill., assignor to National Bottlers Equipment Company. Bottle-washing machine. No. 1,076,277; Oct. 21; Gaz. vol. 195; p. 634.
Gamble, Dorothy, New York, N. Y. Contracting-band for knickerbockers. No. 1,076,031; Oct. 21; Gaz. vol. 195; p. 552.
Gamble, John, assignor to G. A. Reach, Philadelphia, Pa. Base-ball glove. No. 1,077,061; Oct. 28; Gaz. vol. 195; p. 965.
Gamble, Joseph W., Carpentersville, Ill. Lever adjustment for wheel-plows. No. 1,075,777; Oct. 14; Gaz. vol. 195; p. 435.
Gamblee, Jeuleos, Tenafly, N. J. Plumb-bob. No. 1,076,569; Oct. 21; Gaz. vol. 195; p. 739.
Gammeter, Harry C., Bratenahl, assignor to The American Multigraph Company, Cleveland, Ohio. Machine for feeding type. No. 1,075,029; Oct. 7; Gaz. vol. 195; p. 152.
Gammeter, John R., Akron, Ohio. Driving mechanism. No. 1,076,416; Oct. 21; Gaz. vol. 195; p. 685.
Gammeter, John R., Akron, Ohio. Driving mechanism. No. 1,076,632; Oct. 21; Gaz. vol. 195; p. 762.
Gancher, Abraham I., New York, N. Y. Appliance for educational, amusement, and advertising purposes. No. 1,075,248; Oct. 7; Gaz. vol. 195; p. 227.
Garnett, James L., St. Louis, Mo., assignor to E. A. Peterson, Appleton, Wis. Hydraulic latch. No. 1,077,062; Oct. 28; Gaz. vol. 195; p. 966.
Garrett, Theodore F., London, assignor to C. Cary-Elwes, Eltham, England. Valved stopper for siphon and other bottles. No. 1,074,616; Oct. 7; Gaz. vol. 195; p. 10.
Garretty, John F., Seattle, Wash. Apparatus for mixing and distributing concrete, &c. No. 1,075,350; Oct. 14; Gaz. vol. 195; p. 289.
Gartner, Walter. (See Ramacher, Jacob, assignor.)
Garver, James L., Wichita, Kans. Shaft-detacher for vehicles. No. 1,075,821; Oct. 14; Gaz. vol. 195; p. 450.
Gary, Jacob S. (See Sipes, Victor W., assignor.)
Gast, August. (See Gottschalck, Werner, and Gast.)
Gates, Edward W., Roanoke, Va. Railway-tie and rail-fastener. No. 1,074,842; Oct. 7; Gaz. vol. 195; p. 120.
Gaumont, Léon, assignor to Société des Etablissements Gaumont, Paris, France. Automatic clutch running kinematographs and phonographs synchronously. No. 1,074,943; Oct. 7; Gaz. vol. 195; p. 120.
Gay, John, Jordanville, N. Y. Trolley. No. 1,075,349; Oct. 14; Gaz. vol. 195; p. 288.
Gaynor, James C., Paterson, N. J. Woven tubular tie. No. 1,075,249; Oct. 7; Gaz. vol. 195; p. 228.
Gazagnaire, Adolphe, Cannes, France. Gearing. No. 1,074,710; Oct. 7; Gaz. vol. 195; p. 43.
Geer, Maurice F., and R. C. Leake, Rochester, assignors to General Railway Signal Company, Gates, N. Y. Selective calling-key. No. 1,076,278; Oct. 21; Gaz. vol. 195; p. 634.
Gees, John J. (See Harpster and Gees.)
Geesey, William R., Altoona, Pa. Vestibule-curtain fastener. No. 1,074,944; Oct. 7; Gaz. vol. 195; p. 121.
Gefter, Israel, Meriden, Conn. Percolator. No. 1,077,063; Oct. 28; Gaz. vol. 195; p. 966.
Gelger, Charles, St. Joseph, Mo. Tool-holder. No. 1,076,971; Oct. 28; Gaz. vol. 195; p. 935.
Gell, John, assignor to The Gell Telegraphic Appliances Syndicate, Ltd., London, England. Automatic transmitter for telegraphic systems. No. 1,075,315; Oct. 7; Gaz. vol. 195; p. 253.
Gell Telegraphic Appliances Syndicate, The. (See Gell, John, assignor.)
General Electric Company. (See Andrews, William S., assignor.)
General Electric Company. (See Batchelder, Charles C., assignor.)
General Electric Company. (See Cartwright, William P., assignor.)
General Electric Company. (See Case, Frank E., assignor.)
General Electric Company. (See Chatain, Henri G., assignor.)
General Electric Company. (See Clarke and Ross, assignors.)
General Electric Company. (See Coffin, Francis P., assignor.)
General Electric Company. (See Cox, Edward, assignor.)
General Electric Company. (See Dreher, Gustave F., assignor.)
General Electric Company. (See Forner, Georg, assignor.)
General Electric Company. (See Frost, William H., assignor.)
General Electric Company. (See Hansen, Charles A., assignor.)
General Electric Company. (See Hayden, Joseph L. R., assignor.)
General Electric Company. (See Jackson, Corwell, assignor.)
General Electric Company. (See Johannesen, Svend E., assignor.)
General Electric Company. (See Knight, Charles D., assignor.)
General Electric Company. (See Krub, Osias O., assignor.)
General Electric Company. (See Lemp, Hermann, assignor.)
General Electric Company. (See Mapelsden, Harold H., assignor.)
General Electric Company. (See Moss, Sanford A., assignor.)
General Electric Company. (See Orr, John, assignor.)
General Electric Company. (See Pape, Wilhelm, assignor.)
General Electric Company. (See Pratt, William H., assignor.)
General Electric Company. (See Samuelson, Frederick, assignor.)
General Electric Company. (See Schultheiss, Franz, assignor.)
General Electric Company. (See Sheldon, Lucian A., assignor.)
General Electric Company. (See Steinbecker, Karl, assignor.)
General Electric Company. (See Tröger, Richard, assignor.)
General Electric Company. (See Uberlée, Erich, assignor.)
General Electric Company. (See Wagner, Paul, assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. (See Wilkinson, James, assignor.)
General Electric Company. (See Wood, James J., assignor.)
General Electric Company. (See Wright and Ball, assignors.)
General Fireproofing Company. (See Schaffert, Adolph H., assignor.)
General Fireproofing Company, The. (See White, Herbert E., assignor.)
General Railway Signal Company. (See Dodgson, Frank L., assignor.)
General Railway Signal Company. (See Geer and Leake, assignors.)
General Railway Signal Company. (See Hall, Frederick N., assignor.)

General Railway Signal Company. (See Rekers, Gerret, assignor.)
Gentry, John H., Greentown, Ind. Valve-gear. No. 1,075,778; Oct. 14; Gaz. vol. 195; p. 436.
George Oldham & Son Company. (See Oldham, Samuel, assignor.)
Geraerdts, Gerard H., New York, N. Y. Fireproof partition. No. 1,075,910; Oct. 14; Gaz. vol. 195; p. 482.
Gérard, John, New Britain, Conn. Door check and closer. No. 1,076,205; Oct. 21; Gaz. vol. 195; p. 609.
Gerber, Dwight, Bellevue, assignor of one-half to W. W. Keefer, Pittsburgh, Pa. Automobile-truck. No. 1,075,779; Oct. 14; Gaz. vol. 195; p. 436.
Gerhart, Charles W., Mount Holly Springs, Pa. Lever mechanism for gear-shifting. No. 1,076,206; Oct. 21; Gaz. vol. 195; p. 610.
German, Andrew, Sumner, Wash. Non-refillable bottle. No. 1,075,030; Oct. 7; Gaz. vol. 195; p. 152.
Gewerkschaft Messel. (See Spiegel, Adolf, assignor.)
Gibbons, Earl E., Hoopeston, Ill. Valve for radiators. No. 1,075,780; Oct. 14; Gaz. vol. 195; p. 437.
Gibson, George A., trustee. (See Thomas, Lorenzo S., assignor.)
Gieucke, Frederick A., assignor of one-half to G. Reinders, Brookfield, Wis. Distributing apparatus for liquids. No. 1,076,880; Oct. 28; Gaz. vol. 195; p. 902.
Giesseman, William, and C. V. Crist, assignors to The Dayton Paper Bottle Company, Dayton, Ohio. Paper bottle. No. 1,076,669; Oct. 28; Gaz. vol. 195; p. 827.
Gilbert, Albert M., Detroit, Mich. Valve for engines. No. 1,076,972; Oct. 28; Gaz. vol. 195; p. 935.
Giles, Lloyd. (See Kent, Giles, and Lyster.)
Gilfillan, Essington N., deceased, (E. G. Hanson, administrator,) Syracuse, assignor of fifty-one one-hundredths to J. Hunter, Fulton, N. Y. Cigar-wrapper. No. 1,076,007; Oct. 14; Gaz. vol. 195; p. 515.
Gilfillan, Essington N., deceased, (E. G. Hanson, administrator,) Syracuse, assignor of fifty-one one-hundredths to J. Hunter, Fulton, N. Y. Cigar-wrapper. No. 1,076,008; Oct. 14; Gaz. vol. 195; p. 515.
Gilliam, Archibald L., *et al.* (See Jury, Ruben, assignor.)
Gillette Safety Razor Company. (See Nickerson, William E., assignor.)
Gilliam, Wilfrid G., Washington, D. C. Game-carrier. No. 1,075,970; Oct. 14; Gaz. vol. 195; p. 502.
Gilliland, Orra L., Ortley, S. D. Shock-loader. No. 1,076,670; Oct. 28; Gaz. vol. 195; p. 827.
Gilling, Preston E., East Orange, N. J. Electrical connection. No. 1,076,032; Oct. 21; Gaz. vol. 195; p. 552.
Gilson, Albert F. F. (See Ireland and Gilson.)
Ginaca, Henry G., assignor to Hawaiian Pineapple Company, Ltd., Honolulu, Hawaii. Pineapple-centering attachment. No. 1,075,031; Oct. 7; Gaz. vol. 195; p. 152.
Gingold, David, New York, N. Y. Coasting device. No. 1,075,250; Oct. 7; Gaz. vol. 195; p. 228.
Giroux, Joseph, Cowans, Quebec, Canada. Automatic car-coupling. No. 1,075,641; Oct. 14; Gaz. vol. 195; p. 392.
Gish, John L., South Bend, Ind. Sanitary flushing-tank. No. 1,074,711; Oct. 7; Gaz. vol. 195; p. 44.
Glaser, Alois, Dedham, and J. W. Edson, Hingham, assignors to L. E. Vose, Walpole, Mass. Spool. No. 1,074,786; Oct. 7; Gaz. vol. 195; p. 68.
Glaser, William H. (See Johnson, Glaser, and Lloyd.)
Gleason, Edward D., New York, assignor to F. J. Roesler, Brooklyn, N. Y. Sterling silver. No. 1,075,642; Oct. 14; Gaz. vol. 195; p. 392.
Gleason, Edward D., New York, assignor to F. J. Roesler, Brooklyn, N. Y. Copper-aluminum alloy. No. 1,076,973; Oct. 28; Gaz. vol. 195; p. 935.
Glenn, Frank L., Mint Spring, Va. Drill-boot. No. 1,074,857; Oct. 7; Gaz. vol. 195; p. 91.
Globe Telephone Company. (See McGonigle, Charles W., assignor.)
Gobin, André F., New York, N. Y. Railway-spike. No. 1,075,911; Oct. 14; Gaz. vol. 195; p. 482.
Goddu, George, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,076,279; Oct. 21; Gaz. vol. 195; p. 635.
Goddu, George, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Fastener supplying and delivering mechanism. No. 1,076,280; Oct. 21; Gaz. vol. 195; p. 635.
Godefroy, Jules F. (See Kugler and Godefroy.)
Godley, Charles E., assignor to Edmunds and Jones Manufacturing Company, Detroit, Mich. Lamp. No. 1,074,712; Oct. 7; Gaz. vol. 195; p. 44.
Godley, George F., Philadelphia, Pa. Vehicle and like wheel. No. 1,074,787; Oct. 7; Gaz. vol. 195; p. 69.
Goertz, Frederick, Newark, N. J., assignor to Aug. Goertz & Co. Bag-frame. No. 1,075,560; Oct. 14; Gaz. vol. 195; p. 363.
Goessling, William F. (See Heckel, Kachel, Goessling, and Pauk.)
Goff, Frank, assignor of one-half to C. F. Shrader, Camden, N. J. Boller. No. 1,076,881; Oct. 28; Gaz. vol. 195; p. 902.
Gofferje, Emil. (See Dietz and Gofferje.)
Gogarty, Michael J., Brooklyn, N. Y. Scoop. No. 1,075,561; Oct. 14; Gaz. vol. 195; p. 363.
Gold Car Heating & Lighting Company. (See Gold, Edward E., assignor)
Gold, Edward E., assignor to Gold Car Heating & Lighting Company, New York, N. Y. Thermostatic mechanism. No. 1,077,224; Oct. 28; Gaz. vol. 195; p. 1015.
Goldberg Calculating Machine Co. (See Goldberg, Hyman E., assignor.)
Goldberg, Hyman E., assignor to Goldberg Calculating Machine Co., Chicago, Ill. Calculating-machine. No. 1,076,110; Oct. 21; Gaz. vol. 195; p. 579.
Golden, Asher, New York, N. Y. Bread-board. No. 1,076,882; Oct. 28; Gaz. vol. 195; p. 903.
Golden, James W., Sweetbriar, N. D. Automobile attachment. No. 1,076,974; Oct. 28; Gaz. vol. 195; p. 935.
Goldman, Samuel S., St. Louis, Mo. Trolley-wire crossing, switch, and the like. No. 1,075,032; Oct. 7; Gaz. vol. 195; p. 153.
Goldschmidt Detinning Company. (See Goldschmidt, Hans, assignor.)
Goldschmidt, Firm of Th. (See Brewitt, Walter, assignor.)
Goldschmidt, Firm of Th. (See Goldschmidt and Well, assignors.)
Goldschmidt, Hans, Essen-on-the-Ruhr, Germany. Manufacture and use of ferrosoferric oxid. No. 1,075,709; Oct. 14; Gaz. vol. 195; p. 413.
Goldschmidt, Hans, Essen-on-the-Ruhr, Germany, assignor, by mesne assignments, to Goldschmidt Detinning Company, Jersey City, N. J. Apparatus for preparing tinned sheet-iron boxes, &c., for detinning. No. 1,075,781; Oct. 14; Gaz. vol. 195; p. 437.
Goldschmidt, Hans, and O. Well, assignors to Firm of Th. Goldschmidt, Essen-on-the-Ruhr, Germany. Raising the alloying qualification of titanium. No. 1,075,782; Oct. 14; Gaz. vol. 195; p. 437.
Goldsmith, Byron B., New York, N. Y. Composition of matter and making the same. No. 1,076,417; Oct. 21; Gaz. vol. 195; p. 685.
Goldsmith, Nathan, Newark, N. J. Trunk. No. 1,075,783; Oct. 14; Gaz. vol. 195; p. 437.
Goldstein, Louis. (See Goldstein, William and L.)
Goldstein, William and L., Philadelphia, Pa. Garment. No. 1,076,757; Oct. 28; Gaz. vol. 195; p. 858.
Good, John, New York, N. Y. Combing-machine. No. 1,074,788; Oct. 7; Gaz. vol. 195; p. 69.
Goodhue, Mead E., Chicago, Ill. Floor-polisher. No. 1,075,208; Oct. 7; Gaz. vol. 195; p. 214.
Goodman, John C., Oklahoma, Okla. Combination swing and bed. No. 1,076,361; Oct. 21; Gaz. vol. 195; p. 665.
Goodrich, Ralph B., assignor to The Eagle Manufacturing Company, Cincinnati, Ohio. Operating mechanism for washing and wringing machines. No. 1,075,413; Oct. 14; Gaz. vol. 195; p. 312.
Goodrow, William, Chicago, Ill. Molding. No. 1,076,975; Oct. 28; Gaz. vol. 195; p. 936.
Goodwin Car Company. (See Van Scoy, Howard, assignor.)
Goodwin, Dwight S., assignor to O. S. Fitzsimons, Waterbury, Conn. Set-screw or the like. No. 1,075,710; Oct. 14; Gaz. vol. 195; p. 413.
Goodyear Tire and Rubber Company, The. (See Preston, Ralph A. D., assignor.)
Gorbey, Robert C., Chester, Pa. Protractor. No. 1,076,758; Oct. 28; Gaz. vol. 195; p. 859.
Gore, Thomas, Brooklyn, N. Y. Cable. No. 1,076,759; Oct. 28; Gaz. vol. 195; p. 859.
Gore, Warren W. (See Schmidt and Gore.)
Gottesleben, Emil. (See Steingasser and Gottesleben.)
Gottschalck, Emil, Treptow, near Berlin, L. Werner, Berlin, and A. Gast, Steglitz, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Electric safety-lamp. No. 1,076,495; Oct. 21; Gaz. vol. 195; p. 712.
Gould Coupler Company. (See Richards, Willard F., assignor.)
Gould Storage Battery Company. (See Chamberlain and Hall, assignors.)
Gowen, John K., Somerville, Mass. Receptacle-closure. No. 1,075,643; Oct. 14; Gaz. vol. 195; p. 392.
Graaff, Wilhelm, Berlin, Germany. Cooling attachment for ice-making machines. No. 1,076,760; Oct. 28; Gaz. vol. 195; p. 859.
Graham, Frank B., Kansas City, Mo. Spraying device. No. 1,075,502; Oct. 14; Gaz. vol. 195; p. 363.
Graham, George M., assignor to G. M. System Co., Chicago, Ill. Reinforced-concrete floor. No. 1,075,251; Oct. 7; Gaz. vol. 195; p. 228.
Graham, George M., assignor to G. M. System Co., Chicago, Ill. Reinforced-concrete floor. No. 1,075,252; Oct. 7; Gaz. vol. 195; p. 229.
Grant, Frank H., Detroit, Mich. Shingle. No. 1,076,111; Oct. 21; Gaz. vol. 195; p. 579.
Grant, George L. (See Mullally and Grant.)
Grant, Joseph A., *et al.* (See Turner, William P., assignor.)
Grantzow, Emil, Dresden, Germany. Automatic pencil-sharpener. No. 1,075,971; Oct. 14; Gaz. vol. 195; p. 502.
Graphite Lubricating Company. (See Bache, Leigh S., assignor.)
Graphite Lubricating Company, The. (See Romano, Nicholas, assignor.)

Gravell, James H., assignor to Hale and Kilburn Company, Philadelphia, Pa. Welding-machine. No. 1,075,209; Oct. 7; Gaz. vol. 195; p. 214.
Gray, Alfred, New York, N. Y. Cigar lighter and cutter. No. 1,075,098; Oct. 7; Gaz. vol. 195; p. 175.
Gray, Lawrence B., Boston, Mass., assignor to Hydraulic Vacuum Dredging Company, Wilmington, Del. Valve. No. 1,076,281; Oct. 21; Gaz. vol. 195; p. 636.
Gray Telephone Pay Station Company, The. (See Long, George A., assignor.)
Grearson, Frederick A., Barre, Vt. Toaster. No. 1,075,144; Oct. 7; Gaz. vol. 195; p. 191.
Green, Charles W. (See Werner and Green.)
Green, Michael J., assignor to Eclipse Gas Stove Company, Rockford, Ill. Gas heating appliance. No. 1,074,789; Oct. 7; Gaz. vol. 195; p. 69.
Green, Sven E., Bristol, Conn. Tool-holder. No. 1,075,253; Oct. 7; Gaz. vol. 195; p. 229.
Green, William. (See Fairburn, Cruser, and Green.) (Reissue.)
Greene, George, *et al.* (See Roberts, Henry P., assignor.)
Greenpoint Metallic Bed Company. (See Dunner, Max, assignor.)
Greenpoint Metallic Bed Company. (See Silver, Herman, assignor.)
Greer, James A., assignor to The Rail Joint Company, New York, N. Y. Rail-joint. No. 1,075,644; Oct. 14; Gaz. vol. 195; p. 392.
Greggs, Uriah C., and E. H. Falls, Terre Haute, Ind. Mail-box. No. 1,074,713; Oct. 7; Gaz. vol. 195; p. 44.
Gregory, Eli E., Central City, Ky. Dating-machine. No. 1,075,822; Oct. 14; Gaz. vol. 195; p. 451.
Greist, Hubert M., and E. J. Boyler, New Haven, Conn., assignors to The Greist Manufacturing Company. Sewing-machine braider or corder. No. 1,075,414; Oct. 14; Gaz. vol. 195; p. 312.
Greist Manufacturing Company, The. (See Griest and Boyler, assignors.)
Griesman, Frederic V., Albany, N. Y. Corner-block for iron and brass beds. No. 1,075,645; Oct. 14; Gaz. vol. 195; p. 393.
Griesman, Frederic V., Albany, N. Y. Corner-block for iron and brass beds. No. 1,075,646; Oct. 14; Gaz. vol. 195; p. 393.
Griggs, George B., Douglas, Kans. Agricultural implement. No. 1,076,761; Oct. 28; Gaz. vol. 195; p. 859.
Grossich, Attilio, Chicago, Ill., assignor of one-half to S. D. Ratkovich. Signaling and passenger-carrying device for vessels. No. 1,076,496; Oct. 21; Gaz. vol. 195; p. 712.
Grosvenor, William M. (See May and Grosvenor.)
Grosvenor, William M., Grantwood, N. J. Drying and treating fabrics and other materials. No. 1,076,976; Oct. 28; Gaz. vol. 195; p. 936.
Grout, Martin B., and W. Edison, Chicago, Ill. Garment-fastener. No. 1,076,977; Oct. 28; Gaz. vol. 195; p. 936.
Grove, Ralph M., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Matrix-distributing mechanism. No. 1,074,945; Oct. 7; Gaz. vol. 195; p. 121.
Grover, Frederick, assignor to The Forgrove Machinery Company Limited, Leeds, England. Machine for folding wrappers around rectangular tablets. No. 1,075,033; Oct. 7; Gaz. vol. 195; p. 153.
Groyen, Ferdinand, assignor to Groyen and Richtmann, Cologne, Germany. Type-writing machine for printing notes. No. 1,074,858; Oct. 7; Gaz. vol. 195; p. 91.
Groyen and Richtmann. (See Groyen, Ferdinand, assignor.)
Gruettner, Henry W. J., Vallejo, Cal. Dispensing-can. No. 1,075,099; Oct. 7; Gaz. vol. 195; p. 175.
Guenther, Herman F., and W. C. Schulz, Milwaukee, Wis. Humidor. No. 1,074,714; Oct. 7; Gaz. vol. 195; p. 45.
Guerrero, Edmundo, Antigua, Guatemala. Pulper-breast. No. 1,076,978; Oct. 28; Gaz. vol. 195; p. 937.
Guerrero, Edmundo, Antigua, Guatemala. Mechanism for rotating and locking the cylinders of revolvers. No. 1,077,135; Oct. 28; Gaz. vol. 195; p. 987.
Guillery, René, assignor to Société des Etablissements Malicet et Blin, Aubervilliers, France. Compensation device for vehicle suspension. No. 1,075,415; Oct. 14; Gaz. vol. 195; p. 313.
Guin, George W. and L. W., South Bend, Ind. Saw-filing machine. No. 1,076,112; Oct. 21; Gaz. vol. 195; p. 580.
Guin, Lester W. (See Guin, George W. and L. W.)
Gunn, Joseph H., Cortland, N. Y. Electric signal for railways. No. 1,074,859; Oct. 7; Gaz. vol. 195; p. 91.
Gunton, Frank W. (See Smith and Gunton.)
Guth, Edwin P., St. Louis, Mo. Lighting-fixture. No. 1,076,418; Oct. 21; Gaz. vol. 195; p. 685.
Guthrie, Edwin, Washington, D. C. Controller-crank fender-operator. No. 1,075,647; Oct. 14; Gaz. vol. 195; p. 393.
H. Traiser & Co. (See Brunhoff, Edward, assignor.)
H. & B. American Machine Company. (See Jackson, John, assignor.)
H. W. Johns-Manville Company. (See Christenson, George, assignor.)
Haas, Charles, assignor to Herrenschmidt & Co., Strassburg, Germany. Electric reversing-switch and circuit-closer. No. 1,074,860; Oct. 7; Gaz. vol. 195; p. 92.
Habel, Richard P., Sturgis, S. D. Wrench. No. 1,075,100; Oct. 7; Gaz. vol. 195; p. 176.
Hackett, Alfred, Toronto, Ontario, Canada. Steam-generator. No. 1,076,824; Oct. 28; Gaz. vol. 195; p. 882.
Hackney, Leslie S., St. Paul, Minn. Cooling system for internal-combustion engines. No. 1,075,351; Oct. 14; Gaz. vol. 195; p. 290.
Hadaway, William S., Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company. Electrically-heated stove unit. No. 1,075,472; Oct. 14; Gaz. vol. 195; p. 333.
Hadaway, William S., Jr., East Orange, N. J., assignor to Westinghouse Electric and Manufacturing Company. Electric soldering-iron. No. 1,075,473; Oct. 14; Gaz. vol. 195; p. 333.
Haddock, William F., Shreveport, La. Centering-tool. No. 1,076,979; Oct. 28; Gaz. vol. 195; p. 937.
Hadfield, Robert A., Westminster, A. M. Jack and A. B. H. Clerke, Sheffield, England. Cap for armor-piercing projectiles. No. 1,076,419; Oct. 21; Gaz. vol. 195; p. 686.
Haeusler, Charles D., Kressbronn, Bodensee, Germany. Suction and compression apparatus. No. 1,075,711; Oct. 14; Gaz. vol. 195; p. 413.
Haff, Maximilian M., assignor to T. L. Willson, Ottawa, Ontario, Canada. Separating phosphoric acid from natural phosphates. No. 1,076,497; Oct. 21; Gaz. vol. 195; p. 713.
Haff, Maximilian M., and T. L. Willson, Ottawa, Ontario, Canada; said Haff assignor to said Willson. Separating phosphoric acid from natural phosphates. No. 1,076,499; Oct. 21; Gaz. vol. 195; p. 714.
Hagan, Francis D., McKinney, Tex. Cattle-guard. No. 1,076,420; Oct. 21; Gaz. vol. 195; p. 686.
Haggart, William R., Philadelphia, Pa. Packing and making same. No. 1,076,282; Oct. 21; Gaz. vol. 195; p. 636.
Halbleib, Edward A., assignor to Northeast Electric Company, Rochester, N. Y. Engine-starting apparatus. No. 1,074,790; Oct. 7; Gaz. vol. 195; p. 70.
Haldeman, Hattie E., executrix. (See Haldeman, John R.)
Haldeman, John R., deceased, Kansas City, Mo.; H. E. Haldeman, executrix. Loose-leaf holder. No. 1,076,570; Oct. 21; Gaz. vol. 195; p. 739.
Hale, Harold, Harrow, England. Cooling device. No. 1,076,421; Oct. 21; Gaz. vol. 195; p. 686.
Hale and Kilburn Company. (See Gravell, James H., assignor.)
Hale and Kilburn Company. (See Lambert, Albert L., assignor.)
Hale, Perley, San Diego, Cal. Tide-motor. No. 1,076,498; Oct. 21; Gaz. vol. 195; p. 713.
Haley, Isaac N., Philadelphia, Pa. Nail-puller. No. 1,074,617; Oct. 7; Gaz. vol. 195; p. 10.
Hall, Francis G., Jr., Dansville, N. Y. Exhaust-silencer. No. 1,076,571; Oct. 21; Gaz. vol. 195; p. 739.
Hall, Frank H., Boston, assignor to W. Firth, Chestnut Hill, Mass. Stop-motion. No. 1,076,980; Oct. 28; Gaz. vol. 195; p. 937.
Hall, Frederick N., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Retaining mechanism. No. 1,077,136; Oct. 28; Gaz. vol. 195; p. 987.
Hall, Harry A., assignor to The Hoosier Manufacturing Company, Newcastle, Ind. Sifter for flour-bins. No. 1,075,474; Oct. 14; Gaz. vol. 195; p. 333.
Hall, Robert, Jr., Springfield, Ill. Self-feeding stay-bolt cutter. No. 1,077,196; Oct. 28; Gaz. vol. 195; p. 1006.
Hall, Sidney J. (See Chamberlain and Hall.)
Hall, William A., New York, N. Y. Furnace. No. 1,076,763; Oct. 28; Gaz. vol. 195; p. 859.
Hall, William A., New York, N. Y., assignor to William A. Hall Lumber & Fibre Company. Fireproofing wood. No. 1,076,762; Oct. 28; Gaz. vol. 195; p. 859.
Hall, William H., Cicero, assignor, by mesne assignments, to North American Novelty Company, Chicago, Ill. Coin-registering mechanism. No. 1,075,972; Oct. 14; Gaz. vol. 195; p. 503.
Hallett, Horace H., Easton, Pa. Spring wheel-hub. No. 1,076,883; Oct. 28; Gaz. vol. 195; p. 903.
Hallstrom, Albert, Fairmont, Minn. Four-horse evener. No. 1,076,572; Oct. 21; Gaz. vol. 195; p. 740.
Hamann, William F., Florence, Nebr. Trap. No. 1,077,064; Oct. 28; Gaz. vol. 195; p. 966.
Hambleton, John M. (See Comstock, Elmer E., assignor.)
Hamel Shoe Machinery Company. (See Valois, Felix E., assignor.)
Hamilton, Alexander, Chicago, Ill. Food compound. No. 1,076,825; Oct. 28; Gaz. vol. 195; p. 883.
Hamilton, Charles W., Bakersfield, Cal. Flue-cleaner for steam-boilers. No. 1,076,362; Oct. 21; Gaz. vol. 195; p. 666.
Hamilton, James L., Grand Junction, Colo., assignor to The Hamilton Orchard Heater Company. Orchard-heater. No. 1,074,791; Oct. 7; Gaz. vol. 195; p. 70.
Hamilton Orchard Heater Company, The. (See Hamilton, James L., assignor.)
Hamm, John W., Higginsville, Mo. Motor-vehicle. No. 1,076,033; Oct. 21; Gaz. vol. 195; p. 552.
Hammett, James W., Salama, W. Va. Water purification. No. 1,077,065; Oct. 28; Gaz. vol. 195; p. 967.
Hanabusa, Masahide, Tokyo, Japan. Manufacturing light fire-brick. No. 1,074,618; Oct. 7; Gaz. vol. 195; p. 10.
Hanes, John H., Cabool, Mo. Fly-trap. No. 1,077,066; Oct. 28; Gaz. vol. 195; p. 967.
Hanke, Carl, Hancock, Mich. Sausage-stuffer. No. 1,075,823; Oct. 14; Gaz. vol. 195; p. 451.
Hanlon, John J., *et al.* (See Merkel, Lewis W., assignor.)
Hanna, Benjamin M. (See Rush, Charles, assignor.)

Hanna, Samuel C., Shelby, assignor to F. B. Zieg, Fredericktown, Ohio. Reversible irrigating and ditching machine. No. 1,076,633; Oct. 21; Gaz. vol. 195; p. 783.

Hanning, William, and M. Nicholas, Gorham, Colo. Ratchet-wrench. No. 1,077,137; Oct. 28; Gaz. vol. 195; p. 987.

Hansen, Augie L., assignor to The Justrite Mfg. Co., Chicago, Ill. Portable acetylene-lamp. No. 1,076,826; Oct. 28; Gaz. vol. 195; p. 883.

Hansen, Charles A., Schenectady, N. Y., assignor to General Electric Company. Metal filaments. No. 1,075,563; Oct. 14; Gaz. vol. 195; p. 364.

Hansen, Jorgen, Kolding, Denmark. Machine for cleaning separator-disks. No. 1,077,067; Oct. 28; Gaz. vol. 195; p. 967.

Hansen, Victor E. (See Burchardi, Hansen, and Marsh.)

Hanson, Axel B., Traverse City, Mich. Fruit-gatherer. No. 1,074,715; Oct. 7; Gaz. vol. 195; p. 45.

Hanson, Edith G., administratrix. (See Gilfillan, Essington N.)

Hanson, Joseph, and L. M. Foote, Inwood, Iowa. Device for tightening silo-hoops. No. 1,075,564; Oct. 14; Gaz. vol. 195; p. 364.

Hanson, Louis, Cottonwood, Idaho. Milking-stool. No. 1,075,145; Oct. 7; Gaz. vol. 195; p. 191.

Hard, Jacob H., Osmond, Nebr. Tire-deflating cap. No. 1,076,981; Oct. 28; Gaz. vol. 195; p. 938.

Harder, Herman, Bellingham, Wash. Releasable stake for logging-cars. No. 1,077,246; Oct. 28; Gaz. vol. 195; p. 1022.

Hardie, James B. (See Lyons and Hardie.)

Haring, Peter P., Goliad, Tex. Cotton-picking machine. No. 1,076,573; Oct. 21; Gaz. vol. 195; p. 740.

Harman, George H. (See Barrows, Robert Y., assignor.)

Harmon, Frank L., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Buttonhole-piece. No. 1,076,764; Oct. 28; Gaz. vol. 195; p. 860.

Harmon, John S., Ashtabula, Ohio. Collapsible barrel. No. 1,077,138; Oct. 28; Gaz. vol. 195; p. 988.

Harmony, William P., Sidney, Ohio. Feed-guide for printing-presses. No. 1,074,861; Oct. 7; Gaz. vol. 195; p. 92.

Harned, John M., Madisonville, Ky. Tobacco-cultivator. No. 1,074,619; Oct. 7; Gaz. vol. 195; p. 10.

Harp, Thad S., *et al.* (See Harrison, Henry, assignor.)

Harpster, Raymond B., Hepler, and J. J. Gees, Walnut, Kans. Wall-paper-measuring device. No. 1,076,034; Oct. 21; Gaz. vol. 195; p. 552.

Harralson, Edward, Memphis, Tenn. Coin-assorter. No. 1,076,113; Oct. 21; Gaz. vol. 195; p. 580.

Harrington, Joseph, Riverside, Ill. Feeding device for furnaces. No. 1,075,352; Oct. 14; Gaz. vol. 195; p. 290.

Harris, Hiram, Minneapolis, Minn. Adjustable school-desk. No. 1,076,114; Oct. 21; Gaz. vol. 195; p. 581.

Harrison, Arthur. (See Ames and Harrison.)

Harrison, George E., Sacramento, Cal. Plow. No. 1,076,671; Oct. 28; Gaz. vol. 195; p. 828.

Harrison, Henry, assignor of one-fourth to T. S. Harp and one-half to I. L. Avery, Rifle, Colo. Beet-topper. No. 1,076,363; Oct. 21; Gaz. vol. 195; p. 666.

Harrison, Herbert C., assignor to Harrison Manufacturing Company Inc., Lockport, N. Y. Radiator-cell structure. No. 1,076,115; Oct. 21; Gaz. vol. 195; p. 581.

Harrison, Herbert C., assignor to Harrison Manufacturing Company Inc., Lockport, N. Y. Hexagonal construction of radiator-cells. No. 1,076,364; Oct. 21; Gaz. vol. 195; p. 666.

Harrison, Herbert C., assignor, by mesne assignments, to Harrison Manufacturing Company Inc., Lockport, N. Y. Radiator. No. 1,076,422; Oct. 21; Gaz. vol. 195; p. 686.

Harrison, Joseph R., and G. W. Hooper, Nashville, Ark. Combined plow and subsoiler. No. 1,074,620; Oct. 7; Gaz. vol. 195; p. 11.

Harrison Manufacturing Company Inc. (See Harrison, Herbert C., assignor.)

Harry, Aubrey C., Portsmouth, Ohio. Portable wall-paper hanger. No. 1,075,824; Oct. 14; Gaz. vol. 195; p. 452.

Hart, Charles A., Findlay, Ohio. Automobile-jack. No. 1,076,365; Oct. 21; Gaz. vol. 195; p. 667.

Hart, George D., Chicago, Ill. Book-signature, pamphlet, &c. No. 1,075,417; Oct. 14; Gaz. vol. 195; p. 313.

Harter, Gustav A., Chicago, and J. C. Smith, Oak Park, Ill.; said Harter assignor to R. H. Rice. Combined illuminating and advertising device. No. 1,075,565; Oct. 14; Gaz. vol. 195; p. 364.

Hartlieb, Julius W. (See Hirschberg and Hartlieb.)

Hartman & Braun, A. G. (See Bruger, Theodor, assignor.)

Hartman, Oscar H. (See Ziegel, Fred, assignor.)

Harty, John J., *et al.* (See Crossley, Albert D., assignor.)

Harvey, Arthur I., and C. Ryden, Providence, R. I., assignors to Universal Winding Company, Portland, Me. Winding-machine. No. 1,076,574; Oct. 21; Gaz. vol. 195; p. 741.

Haskell, Frederick F., Medford, assignor to Cambridge Novelty Company, Cambridge, Mass. Bow-holder. No. 1,076,423; Oct. 21; Gaz. vol. 195; p. 687.

Hasler A. G. vormals Telegraphen-Werkstätte von G. Hasler. (See Aberegg, Otto, assignor.)

Hatfield, John, Brooklyn, N. Y. Unit filing-cabinet. No. 1,076,116; Oct. 21; Gaz. vol. 195; p. 581.

Hathaway, Edgar F., and C. Lea, Boston, Mass., assignors to American Warp Drawing Machine Company, Warp-replenishing machine. No. 1,075,712; Oct. 14; Gaz. vol. 195; p. 413.

Haug, Andrew. (See Babson and Haug.)

Hauptmann, Peter, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dye. No. 1,074,946; Oct. 7; Gaz. vol. 195; p. 121.

Havens, Emily A., White Plains, N. Y. Skirt-marker. No. 1,077,008; Oct. 28; Gaz. vol. 195; p. 968.

Hawaiian Pineapple Company. (See Ginaca, Henry G., assignor.)

Hawk, Ell A., Minneapolis, Minn. Waiter's check. No. 1,075,648; Oct. 14; Gaz. vol. 195; p. 393.

Hawthorne, Ellsworth A., Bridgeport, Conn. Lighting apparatus. No. 1,074,716; Oct. 7; Gaz. vol. 195; p. 45.

Hay, Peter D., assignor to Detroit Sanitary Supply Company, Detroit, Mich. Liquid-trap. No. 1,075,254; Oct. 7; Gaz. vol. 195; p. 230.

Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Electrode. No. 1,075,713; Oct. 14; Gaz. vol. 195; p. 414.

Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Vapor-rectifier for high-potential circuits. No. 1,076,672; Oct. 28; Gaz. vol. 195; p. 828.

Hayden, Joseph L. R., Schenectady, N. Y., assignor to General Electric Company. Vapor-rectifier for high-potential circuits. No. 1,076,884; Oct. 28; Gaz. vol. 195; p. 903.

Haydenville Company, The. (See Page, George M., assignor.)

Hayes, Floyd E. (See Pelke and Hayes.)

Hayes, John W., Bayle City, Ill. Hinge. No. 1,075,146; Oct. 7; Gaz. vol. 195; p. 192.

Haynes, Arthur L., Clyde, Kans. Carbureter. No. 1,076,827; Oct. 28; Gaz. vol. 195; p. 883.

Hayworth, David M., and E. V. Putnam, Chicago, Ill. Cuspidor. No. 1,075,287; Oct. 7; Gaz. vol. 195; p. 243.

Hazeley, James R. (See Krespach and Hazeley.)

Heald, George N. (See O'Brien and Heald.)

Heany, John A., Washington, D. C. Internal-combustion-engine tool. No. 1,076,283; Oct. 21; Gaz. vol. 195; p. 637.

Heath, Forrest A., Jersey City, N. J., assignor, by mesne assignments, to Homo Company of America, Philadelphia, Pa. Mixing device for gases. No. 1,076,634; Oct. 21; Gaz. vol. 195; p. 763.

Heath, Harry C., San Francisco, Cal. Chain-casing for automobiles. No. 1,074,947; Oct. 7; Gaz. vol. 195; p. 122.

Heberling, John, Rochester, N. Y. Animal-trap. No. 1,075,034; Oct. 7; Gaz. vol. 195; p. 153.

Heckel, Otto A., St. Louis, Mo. Paving-block. No. 1,074,717; Oct. 7; Gaz. vol. 195; p. 45.

Heckel, Otto A., C. M. Kachel, W. F. Goessling, and H. E. Pauk, St. Louis, Mo., assignors to Clothmeter Manufacturing Company. Cloth measuring and rewinding machine. No. 1,074,621; Oct. 7; Gaz. vol. 195; p. 11.

Hedley, Frank, Yonkers, and J. S. Doyle, New York, N. Y. Car seat and door arrangement. No. 1,074,862; Oct. 7; Gaz. vol. 195; p. 92.

Heerwagen Company. (See Schwertner, Joseph, assignor.)

Heidecke, Reinhold, assignor to Voigtlaender & Sohn, Aktiengesellschaft, Brunswick, Germany, Brunswick, Germany. Shutter-operating mechanism for photographic cameras. No. 1,075,101; Oct. 7; Gaz. vol. 195; p. 176.

Heinrich, Georg O., Little Rock, Ark. Supplemental step for cars. No. 1,077,139; Oct. 28; Gaz. vol. 195; p. 988.

Heinzmann, Clarence C., Indianapolis, Ind. Control system. No. 1,076,207; Oct. 21; Gaz. vol. 195; p. 610.

Heid, Hans, Nuremberg, Germany. Treating large fermentation vessels. No. 1,076,424; Oct. 21; Gaz. vol. 195; p. 687.

Heller, August H. R., Pittsburgh, Pa. Shoe-polishing machine. No. 1,076,035; Oct. 21; Gaz. vol. 195; p. 553.

Helli, Istvan, Elyria, Ohio. Collapsible bath-tub. No. 1,075,912; Oct. 14; Gaz. vol. 195; p. 482.

Helm, Charles I., Phoenix, Ariz. Tree-protector. No. 1,075,255; Oct. 7; Gaz. vol. 195; p. 230.

Helman, Cahm C., Cleveland, and G. W. Nixon, Canton, Ohio. Cord holder and dispenser device. No. 1,076,885; Oct. 28; Gaz. vol. 195; p. 904.

Helms, Harry E., Kenosha, Wis. Chuck. No. 1,075,353; Oct. 14; Gaz. vol. 195; p. 291.

Henderson, Clarence E. (See Hubler and Henderson.)

Henderson, George M., Chicago, Ill. Tool-holder. No. 1,076,117; Oct. 21; Gaz. vol. 195; p. 582.

Henderson, Robert H., East Orange, N. J., assignor to Westinghouse Lamp Company. Incandescent lamp. No. 1,075,475; Oct. 14; Gaz. vol. 195; p. 334.

Henehan, Martin J., Seattle, Wash. Track-switch. No. 1,076,982; Oct. 28; Gaz. vol. 195; p. 938.

Henke, Arthur F. (See Bachmann and Henke.)

Hennefer Maschinenfabrik C. Reuther & Reisert mit beschrankter Haftung. (See Reisert, Michael E., assignor.)

Hennessee, Claude, Macon, Ga. Distributing apparatus. No. 1,076,673; Oct. 28; Gaz. vol. 195; p. 828.

Henry, George D., Kansas City, Mo. Fly-swatter. No. 1,075,784; Oct. 14; Gaz. vol. 195; p. 438.

Henry, Guilford W., St. Louis, Mo. Folding davenport. No. 1,075,147; Oct. 7; Gaz. vol. 195; p. 192.

Henry, William A., Galesburg, Ill. Toaster. No. 1,076,366; Oct. 21; Gaz. vol. 195; p. 667.

Henson, Charles W., Chicago, Ill. Gas-regulator. No. 1,075,354; Oct. 14; Gaz. vol. 195; p. 291.

Hepner, Walter R., and E. M. Van Dyke, Kalispell, Mont. Spear. No. 1,076,036; Oct. 21; Gaz. vol. 195; p. 553.

Heppenstall, Samuel B., assignor to United Engineering & Foundry Co., Pittsburgh, Pa. Turning device for forging-machines. No. 1,074,863; Oct. 7; Gaz. vol. 195; p. 93.

Herbsleb, August F. (See Sosa, Augustus M., assignor.)

Herd, William. (See Marcotte, Louis, assignor.)

Herpel, Carl R., Newburg, Ind. Wheel-setting mechanism for harvesters. No. 1,075,148; Oct. 7; Gaz. vol. 195; p. 193.

Herr, Henry C., Detroit, Mich., assignor, by mesne assignments, to Fiber Barrel Machinery & Manufacturing Company, Pittsburgh, Pa. Reinforced package. No. 1,075,418; Oct. 14; Gaz. vol. 195; p. 314.

Herrenschmidt & Co. (See Haas, Charles, assignor.)

Herrick, James A., New York, N. Y. Gas-producer. No. 1,075,566; Oct. 14; Gaz. vol. 195; p. 364.

Hewitt, Edward R., Ringwood, N. J., assignor to Hewitt Motor Company, New York, N. Y. Automobile. No. 1,077,197; Oct. 28; Gaz. vol. 195; p. 1006.

Hewitt Motor Company. (See Hewitt, Edward R., assignor.)

Heyl, George E., London, and F. J. Allen, Wanstead, England. Liquid-impregnating device. No. 1,075,210; Oct. 7; Gaz. vol. 195; p. 214.

Hibbs, R. Bazell, Lewiston, Idaho. Culvert. No. 1,074,718; Oct. 7; Gaz. vol. 195; p. 46.

Hickerson, Elmer E., assignor of one-half to F. Anderson, McComb, Ohio. Nut-lock. No. 1,075,419; Oct. 14; Gaz. vol. 195; p. 314.

Hill, Alfred, Cathlamet, Wash. Combination wrench and pipe-cutter. No. 1,075,649; Oct. 14; Gaz. vol. 195; p. 394.

Hill, Elmer W., Portland, Oreg. Compound. No. 1,076,118; Oct. 21; Gaz. vol. 195; p. 582.

Hill, George R., Portland, Oreg. Rope-grip device. No. 1,075,567; Oct. 14; Gaz. vol. 195; p. 365.

Hiller, Edwin J., Taylorville, Ill. Gutter-hanger. No. 1,076,367; Oct. 21; Gaz. vol. 195; p. 667.

Himmel, Solomon, Baltimore, Md. Display-rack. No. 1,075,035; Oct. 7; Gaz. vol. 195; p. 154.

Hines, James P. (See Neuberger and Hines.)

Hinkle, Horace H., Grandfield, Okla. Combination mop-holder and rake. No. 1,075,568; Oct. 14; Gaz. vol. 195; p. 365.

Hirsch, Hiram H., Philadelphia, Pa. Portable electric-lighting apparatus. No. 1,075,973; Oct. 14; Gaz. vol. 195; p. 503.

Hirschberg, John A., and J. W. Hartlieb, New York, N. Y. Blue-print frame. No. 1,075,913; Oct. 14; Gaz. vol. 195; p. 483.

Hirschfeld, Frederick S., New York, N. Y. Packing for stuffing-boxes. No. 1,076,119; Oct. 21; Gaz. vol. 195; p. 582.

Hiscock, Ernest J., Hythe, England. Magazine for miniature ammunition for rifles. No. 1,074,948; Oct. 7; Gaz. vol. 195; p. 122.

Hoagland, Peter J. W., *et al.* (See Smay, Joseph B., Jr., assignor.)

Hoban, Albert G., and R. L. Marquis, Dayton, Ohio. Electric lamp. No. 1,074,949; Oct. 7; Gaz. vol. 195; p. 122.

Hobbs, John O., Chicago, Ill. Starting device for explosive-engines. No. 1,076,120; Oct. 21; Gaz. vol. 195; p. 582.

Hodge, William B. (See Cramer and Hodge.)

Hodges, John W., Westpoint, Nebr. Fly-trap. No. 1,075,102; Oct. 7; Gaz. vol. 195; p. 176.

Hodgkinson, Thomas G., county of Chester, England, and W. Hodgkinson, Calcutta, India. Apparatus for indicating the direction whence sound travels. No. 1,075,103; Oct. 7; Gaz. vol. 195; p. 177.

Hodgkinson, William. (See Hodgkinson, Thomas G. and W.)

Hoenisch, Ernst, Edgar, Wis. Dirigible headlight. No. 1,075,825; Oct. 14; Gaz. vol. 195; p. 452.

Hoes, Albertes M., Grand Island, Nebr. Lock. No. 1,075,914; Oct. 14; Gaz. vol. 195; p. 483.

Hoff, Mary A., Vinton, Iowa. Swinging car-step. No. 1,075,785; Oct. 14; Gaz. vol. 195; p. 438.

Hoffman, Augustus K., Benton, Wis. Dental tool. No. 1,075,826; Oct. 14; Gaz. vol. 195; p. 453.

Hoffman, John D., Stratford, Ontario, Canada. Cement-shingle machine. No. 1,076,765; Oct. 28; Gaz. vol. 195; p. 860.

Hoffmann, Ernst G., deceased, New Rochelle, N. Y.; A. W. Kiddle and A. M. Becker, executors. Driving mechanism for vehicles. No. 1,076,652; Oct. 21; Gaz. vol. 195; p. 769.

Hofheimer, Nathan. (See Liebmann, Alfred J., assignor.)

Hofmann, Fritz, West Hoboken, N. J. Music-leaf turner. No. 1,077,060; Oct. 28; Gaz. vol. 195; p. 968.

Hofmann, Fritz, K. Delbrück, and K. Meisenburg, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing beta-gamma-dimethylerythrene. No. 1,076,575; Oct. 21; Gaz. vol. 195; p. 741.

Hohoff, Henry, Deer Lodge, Mont. Heating system for sectionalized brooders and incubators. No. 1,076,576; Oct. 21; Gaz. vol. 195; p. 741.

Holland, James J., Philadelphia, Pa. Syringe. No. 1,076,425; Oct. 21; Gaz. vol. 195; p. 687.

Holle, Theodor L., St. Louis, Mo. Regenerator for metallurgical furnaces. No. 1,076,426; Oct. 21; Gaz. vol. 195; p. 688.

Hollis, Henry L., Chicago, Ill. Railway-tie. No. 1,076,577; Oct. 21; Gaz. vol. 195; p. 742.

Holmes, Samuel, Elizabeth, N. J. System of construction for steel ships. No. 1,076,208; Oct. 21; Gaz. vol. 195; p. 611.

Holmes, William T., Baltimore, and G. H. Whittingham, Pikesville, assignors to Monitor Manufacturing Company, Baltimore, Md. Speed-controller for spinning-frames. No. 1,075,036; Oct. 7; Gaz. vol. 195; p. 154.

Holmested, Francis K., Quinnimont, W. Va. Railway-track. No. 1,075,104; Oct. 7; Gaz. vol. 195; p. 177.

Holmested, Francis K., Quinnimont, W. Va. Railway-track. No. 1,075,105; Oct. 7; Gaz. vol. 195; p. 178.

Holmested, Francis K., Quinnimont, W. Va. Railway-track. No. 1,077,070; Oct. 28; Gaz. vol. 195; p. 968.

Holt, Benjamin, Stockton, Cal. Traction-engine. No. 1,076,578; Oct. 21; Gaz. vol. 195; p. 742.

Holt, John, assignor to J. B. Brooks and Company Limited, Birmingham, England. Spring supporting system. No. 1,075,106; Oct. 7; Gaz. vol. 195; p. 178.

Holton, Frank, assignor to Frank Holton & Co., Chicago, Ill. Machine for grinding trombone-slides. No. 1,076,284; Oct. 21; Gaz. vol. 195; p. 637.

Holtzhouser, Jacob P., assignor to The Stanley Works, New Britain, Conn. Hinge. No. 1,075,569; Oct. 14; Gaz. vol. 195; p. 366.

Holtzman, Abraham L., East Orange, N. J. Brush. No. 1,077,071; Oct. 28; Gaz. vol. 195; p. 969.

Homan, William C., assignor to Edward Miller & Company, Meriden, Conn. Globe and shade holder. No. 1,074,719; Oct. 7; Gaz. vol. 195; p. 46.

Homo Company of America. (See Heath, Forrest A., assignor.)

Honigmann, Hans, Duluth, Minn. Automatic feeding device for printing-presses. No. 1,074,720; Oct. 7; Gaz. vol. 195; p. 46.

Honiss, William H., *et al.* (See Merritt, Joseph, assignor.)

Honold, Gottlob, Stuttgart, Germany. Testing installation for electromagnetically-operated sparkling plugs. No. 1,076,427; Oct. 21; Gaz. vol. 195; p. 688.

Hood, Edwin A., Pierre, S. D. Towel-holder. No. 1,077,072; Oct. 28; Gaz. vol. 195; p. 969.

Hood, Irwin L., Constance, Ky., assignor of one-half to W. Winkelman, Cincinnati, Ohio. Mail-bag fastener. No. 1,076,037; Oct. 21; Gaz. vol. 195; p. 553.

Hook, Charles H., Pittsburgh, Pa. Gas-burner. No. 1,077,073; Oct. 28; Gaz. vol. 195; p. 969.

Hooker, Albert H., Niagara Falls, assignor to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,570; Oct. 14; Gaz. vol. 195; p. 366.

Hooker Electrochemical Company. (See Hooker, Albert H., assignor.)

Hooker Electrochemical Company. (See Marsh, Clarence W., assignor.)

Hooker Electrochemical Company. (See Stone, George W., assignor.)

Hooper, Charles S., and R. C. Stevens, Erie, Pa. Steam-superheater. No. 1,074,792; Oct. 7; Gaz. vol. 195; p. 71.

Hooper, George W. (See Harrison and Hooper.)

Hoosier Manufacturing Company, The. (See Hall, Harry A., assignor.)

Hoover, Edgar W., and J. A. Coleman, Danville, Ky. Railway track-motor. No. 1,075,420; Oct. 14; Gaz. vol. 195; p. 314.

Hope, Henry D., Birmingham, England. Glazing windows and the like and device therefor. No. 1,077,074; Oct. 28; Gaz. vol. 195; p. 969.

Hope-Jones, Robert, North Tonawanda, N. Y. Organ-stop mechanism. No. 1,077,075; Oct. 28; Gaz. vol. 195; p. 969.

Hopkins, Richard M., New York, N. Y., assignor to The American District Telegraph Company. Electric signaling system. No. 1,075,421; Oct. 14; Gaz. vol. 195; p. 314.

Horinko, Leonard. (See Roycourt and Horinko.)

Hornig, August W., Chicago, Ill. Glass-grinding machine. No. 1,075,714; Oct. 14; Gaz. vol. 195; p. 414.

Horr, Myron E., Vancouver, British Columbia, Canada. Chamber attachment. No. 1,076,886; Oct. 28; Gaz. vol. 195; p. 904.

Horton, Marcus H. (See Pembroke, George H., assignor.)

Horvitz, David. (See Smith and Horvitz.)

Hosford, William F., West Chicago, Ill., assignor to Western Electric Company, New York, N. Y. Coin-collector. No. 1,076,285; Oct. 21; Gaz. vol. 195; p. 637.

Hoskins Manufacturing Company. (See Marsh, Albert L., assignor.)

Hotz, Robert S. (See Bruman, Otto F., assignor.)

Houck, John D., Chicago, Ill. Necktie-holder. No. 1,076,121; Oct. 21; Gaz. vol. 195; p. 583.

Houghton, Orley C., assignor to H. E. and J. E. Bullock, Chicago, Ill. Cotton-picker. No. 1,074,622; Oct. 7; Gaz. vol. 195; p. 11.
Houghton, Vernon T., Washington, D. C. Window-cleaning attachment for automobile wind-shields and the like. No. 1,075,915; Oct. 14; Gaz. vol. 195; p. 484.
Howard, Albert S., Providence, assignor to Smith Webbing Company, Pawtucket, R. I. Holder for webbing. No. 1,076,635; Oct. 21; Gaz. vol. 195; p. 763.
Howard, Clarence H., assignor to Commonwealth Steel Company, St. Louis, Mo. Car side-door-frame bottom member. No. 1,074,793; Oct. 7; Gaz. vol. 195; p. 71.
Howard, Leslie E., La Grange, Ill., assignor to Simonds Manufacturing Company, Fitchburg, Mass. Electric melting-furnace. No. 1,076,887; Oct. 28; Gaz. vol. 195; p. 904.
Howden, Andrew F., Skidmore, Mo. Seed-corn and grain crate. No. 1,076,038; Oct. 21; Gaz. vol. 195; p. 554.
Howe, Harry C., assignor to Owatonna Manufacturing Company, Owatonna, Minn. Combined disk drill and harrow. No. 1,075,211; Oct. 7; Gaz. vol. 195; p. 215.
Howe, Thomas. (See Burnham, George A., assignor.)
Howell, Henry C., Speermore, Okla. Cultivator. No. 1,074,950; Oct. 7; Gaz. vol. 195; p. 123.
Howell, Thomas H., Barnesville, Ohio. Twine-cutter. No. 1,074,864; Oct. 7; Gaz. vol. 195; p. 93.
Hradisky, John. (See Krompigel and Hradisky.)
Hubert, Conrad, New York, N. Y. Portable electric light. No. 1,075,827; Oct. 14; Gaz. vol. 195; p. 453.
Hubler, John H., and C. E. Henderson, Fremont, Nebr. Expansion-bolt. No. 1,076,368; Oct. 21; Gaz. vol. 195; p. 667.
Hübner, Gustav, Plauen, Germany. Tambour-frame-operating mechanism for embroidery-machines. No. 1,076,369; Oct. 21; Gaz. vol. 195; p. 668.
Hudson, Clifford C. (See Wilson, Alvin I. V., assignor.)
Hudson, Edwin P. (See Mally and Hudson.)
Hudson, G. A., *et al.* (See Miller, Benjamin D., assignor.)
Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Transmission-gearing. No. 1,075,650; Oct. 14; Gaz. vol. 195; p. 394.
Huffman, Alonzo, Mutual, Okla. Traction-wheel. No. 1,077,076; Oct. 28; Gaz. vol. 195; p. 970.
Hughes, Dow B., assignor to The Citizens Savings and Trust Company, trustee, Cleveland, Ohio. Double ignition system for internal-combustion engines. No. 1,075,974; Oct. 14; Gaz. vol. 195; p. 504.
Hughes, Robert R., Jr., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Triple-seam-sewing machine. No. 1,075,422; Oct. 14; Gaz. vol. 195; p. 315.
Huhn, Henry R. (See Huhn, Hermann and H. R.)
Huhn, Hermann and H. R., Macon, Ga., assignors to The Yale & Towne Manufacturing Company, Stamford, Conn. Electric protective device for safe and vault doors. No. 1,077,077; Oct. 28; Gaz. vol. 195; p. 970.
Hull, John B., *et al.* (See Kadow, Otto F., assignor.)
Hultgren, Gustaf. (See Thorn, Oskar F., assignor.)
Hume, James H., Glasgow, Scotland. Furnace-front. No. 1,076,428; Oct. 21; Gaz. vol. 195; p. 689.
Hume, John, Houston, Tex. Engine-starter. No. 1,075,975; Oct. 14; Gaz. vol. 195; p. 504.
Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Safety-razor. No. 1,075,976; Oct. 14; Gaz. vol. 195; p. 505.
Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Safety-razor. No. 1,076,286; Oct. 21; Gaz. vol. 195; p. 638.
Humphrey, Ernest N., assignor to The Traut & Hine Manufacturing Company, New Britain, Conn. Safety-razor. No. 1,076,429; Oct. 21; Gaz. vol. 195; p. 689.
Humphrey, Ernest N., assignor to The Traut and Hine Manufacturing Company, New Britain, Conn. Safety-razor. No. 1,076,579; Oct. 21; Gaz. vol. 195; p. 742.
Humphrey, Ernest N., assignor to Traut & Hine Manufacturing Company, New Britain, Conn. Garment-supporter trimming. No. 1,076,580; Oct. 21; Gaz. vol. 195; p. 742.
Hunciker, John, Evanston, Ill. Sash-lock. No. 1,075,828; Oct. 14; Gaz. vol. 195; p. 454.
Hunt, Ben, assignor to Valley Foundry and Machine Works, Fresno, Cal. Centrifugal pump. No. 1,074,794; Oct. 7; Gaz. vol. 195; p. 71.
Hunt, John D., Jr., Alexandria Bay, N. Y. Side plane for boats. No. 1,074,951; Oct. 7; Gaz. vol. 195; p. 123.
Hunter, Henry B., Norfolk, Va. Treating cocoa. No. 1,076,122; Oct. 21; Gaz. vol. 95; p. 583.
Hunter, John. (See Gilfillan, Essington N., assignor.)
Hunter, John P., and H. Küntzler, Wilkes-Barre, Pa., assignors to Adder Machine Company. Keyboard-locking mechanism for adding-machines. No. 1,074,721; Oct. 7; Gaz. vol. 195; p. 46.
Huntley Manufacturing Company. (See Morse, Theodore F., assignor.)
Hurst, Albert K., Dallas, Tex. Garment-waist adjuster. No. 1,076,370; Oct. 21; Gaz. vol. 195; p. 668.
Hurt, Henry H., Covington, Va., assignor to J. S. Robeson, Au Sable Forks, N. Y. Treating waste sulfite liquor and compound obtained therefrom. No. 1,075,916; Oct. 14; Gaz. vol. 195; p. 484.
Hurwitz, Martin, Jacksonville, Ill. Attachment for trousers. No. 1,076,581; Oct. 21; Gaz. vol. 195; p. 743.
Husar, Frank Z., Chicago, Ill. Abdominal supporter. No. 1,076,287; Oct. 21; Gaz. vol. 195; p. 638.
Hutchins, Arthur W., Cranston, assignor of one-half to W. Ely, Providence, R. I. Means for drying articles of jewelry. No. 1,075,476; Oct. 14; Gaz. vol. 195; p. 334.
Hutchinson, John B., Grand Rapids, Mich. Moving sign. No. 1,075,149; Oct. 7; Gaz. vol. 195; p. 103.
Hutchinson, William H., Rochester, N. Y. Hydrometric egg-detector. No. 1,075,477; Oct. 14; Gaz. vol. 195; p. 334.
Hutchison, Benjamin O., Upper Alton, Ill. Meter-reading-chart. No. 1,075,256; Oct. 7; Gaz. vol. 195; p. 230.
Hutchison, Earl R., Amiot, Kans. Barrel-support. No. 1,076,371; Oct. 21; Gaz. vol. 195; p. 668.
Huth, Karl H. F., Hamburg, Germany. Apparatus for producing ornamental sash-bars. No. 1,074,722; Oct. 7; Gaz. vol. 195; p. 47.
Hydraulic Vacuum Dredging Company. (See Gray, Lawrence B., assignor.)
Hynes, Lee P., Chicago, Ill. Ventilator. No. 1,077,078; Oct. 28; Gaz. vol. 195; p. 971.
I. E. Palmer Company, The. (See Palmer, Isaac E., assignor.)
I X L Insu-Metallic Products Company. (See Carlisle, George J., assignor.)
Iles, Paul, Cleveland, Ohio. Window-screen. No. 1,074,952; Oct. 7; Gaz. vol. 195; p. 123.
Imperial Sewing Machine Company, The. (See Scranton, Robert A., assignor.)
Imperial Typewriter Company Limited. (See Moya, Hidalgo, assignor.)
Inco, Francis S., Los Angeles, Cal. Spring-bed. No. 1,075,977; Oct. 14; Gaz. vol. 195; p. 505.
Ingram, Harry I. (See Ingram, Hillory P. and H. I.)
Ingram, Hillory P. and H. I., De Ridder, La. Oil-burner. No. 1,076,828; Oct. 28; Gaz. vol. 195; p. 883.
International Bleachers' Corporation, The. (See Sumner, Orlando, assignor.)
International Cigar Machinery Company. (See Burchardi, Hansen, and Marsh, assignors.)
International Cigar Machinery Company. (See Luckett, William S., assignor.)
International Cigar Machinery Company. (See Prescott, Sydney I., assignor.)
International Cork Company, The. (See Bogdánffy, Alexander, assignor.)
International Locking Device Company. (See Lyons, John S., assignor.)
Internationale Präzisions-Schmierapparate Aktiengesellschaft. (See Stabe, Feodor, assignor.)
Ireland, Roy R., East Orange, and A. F. F. Gilson, Closter, N. J., assignor to Western Electric Company, New York, N. Y. Telephone hand set. No. 1,075,423; Oct. 14; Gaz. vol. 195; p. 315.
Irvine, John, Philadelphia, Pa. Hanger. No. 1,074,623; Oct. 7; Gaz. vol. 195; p. 12.
Irwin, Frank L., and J. E. Tesseyman, assignors to The Ralston Steel Car Company, Columbus, Ohio. Hopper-car. No. 1,075,571; Oct. 14; Gaz. vol. 195; p. 366.
Irwin, Frank L., and J. E. Tesseyman, assignors to The Ralston Steel Car Company, Columbus, Ohio. Hopper-car. No. 1,075,572; Oct. 14; Gaz. vol. 195; p. 366.
Isles, Edwin A., New York, N. Y. Mold for making concrete walls. No. 1,077,079; Oct. 28; Gaz. vol. 195; p. 971.
J. Stevens Arms & Tool Company. (See Burr, Charles A., assignor.)
J. A. Fay & Egan Company. (See Solem, Peter A., assignor.)
J. B. Brooks and Company Limited. (See Holt, John, assignor.)
J. G. Brill Co., The. (See Adams, Walter S., assignor.)
J. G. Brill Company, The. (See Kohler, George B., assignor.)
Jack, Alexander M. (See Hadfield, Jack, and Clerke.)
Jackson, Andrew, Chicago, Ill. Radiator vent-valve. No. 1,074,624; Oct. 7; Gaz. vol. 195; p. 13.
Jackson, Corwill, Madison, Wis., assignor to General Electric Company. Rock-drill. No. 1,075,424; Oct. 14; Gaz. vol. 195; p. 316.
Jackson Cushion Spring Company. (See Shoemaker, George C., assignor.)
Jackson, George E., Newton, Iowa. Baling-press. No. 1,076,288; Oct. 21; Gaz. vol. 195; p. 638.
Jackson, George H. (See Fournier and Jackson.)
Jackson, John, assignor to H. & B. American Machine Company, Pawtucket, R. I. Belt-shipper for speeder-cones. No. 1,075,037; Oct. 7; Gaz. vol. 195; p. 155.
Jackson, Malcolm B., Victoria, British Columbia, Canada. Vertical file-folder. No. 1,076,582; Oct. 21; Gaz. vol. 195; p. 743.
Jackson, P. T., Jr. (See Warner, George B., assignor.)
Jackson, Walter A., and E. L. Sherbondy, assignors of one-third to G. W. Eno, Los Angeles, Cal. Adjustable shoe for auto-tires. No. 1,075,917; Oct. 14; Gaz. vol. 195; p. 484.
Jacob, Francis, Westcombe Park, England, assignor to Siemens & Halske A-G, Berlin, Germany. Submarine cable. No. 1,077,140; Oct. 28; Gaz. vol. 195; p. 988.

Jacobs, Charles B., Portchester, N. Y. Compound for making peroxid of hydrogen. No. 1,076,039; Oct. 21; Gaz. vol. 195; p. 554.
Jacobs, George, assignor to S. S. Kurtz, Canton, Ohio. Transmission mechanism. No. 1,076,829; Oct. 28; Gaz. vol. 195; p. 883.
Jacobs, Morris, New York, N. Y. Self-locking nut. No. 1,076,674; Oct. 28; Gaz. vol. 195; p. 829.
Jacobson, Oscar F., Garfield township, Clay county, Kans. Metal shingle. No. 1,076,123; Oct. 21; Gaz. vol. 195; p. 583.
Jager, Frank, Chicago, Ill. Railway metal tie and rail-fastening. No. 1,075,425; Oct. 14; Gaz. vol. 195; p. 316.
James, Charles. (See Roberts, Young, and James.)
James, D. Reed. (See Stephen and James.)
James, Willard C., Los Angeles, Cal. Housekeeping structure. No. 1,077,198; Oct. 28; Gaz. vol. 195; p. 1007.
James, Willard C., Los Angeles, Cal. Combined couch and bath-tub. No. 1,077,199; Oct. 28; Gaz. vol. 195; p. 1007.
Jampolis, Henry, *et al.* (See Crane, Frank R., Jr., assignor.)
Janney, Robert E. L., assignor to American Steel Foundries, Chicago, Ill. Car-coupling and pivot-pin therefor. No. 1,075,426; Oct. 14; Gaz. vol. 195; p. 316.
Jasper, Max, Berlin, Germany. Safety-closure for containers of inflammable liquids. No. 1,076,830; Oct. 28; Gaz. vol. 195; p. 884.
Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)
Jenkins, Henry, Gillette, Wyo. Rail-anchor. No. 1,076,372; Oct. 21; Gaz. vol. 195; p. 668.
Jenkins, Wilton F., Richmond, Va. Demountable rim. No. 1,076,430; Oct. 21; Gaz. vol. 195; p. 689.
Jennings, Elmire, New York, N. Y. Hose-supporter. No. 1,076,675; Oct. 28; Gaz. vol. 195; p. 829.
Jennings, Frank S., Cincinnati, Ohio, assignor to Boston Machine Works Company, Boston, Mass. Sewing-machine cut-off attachment for tapes. (Reissue.) No. 13,627; Oct. 14; Gaz. vol. 195; p. 517.
Jensen, John F., assignor to M. Jensen, Union Hill, N. J. Burglar-alarm. No. 1,076,373; Oct. 21; Gaz. vol. 195; p. 669.
Jensen, Martha. (See Jensen, John F., assignor.)
Jentons, Margaret O. (See Dunlap, Garland, assignor.)
Jerrim, James H., Finstall, Bromsgrove, England. Fastener. No. 1,076,983; Oct. 28; Gaz. vol. 195; p. 938.
Jester, Marvin H., Denver, Colo., assignor to The M. H. Jester Investment Company. Supporting device for plaster-boards used in partition construction. No. 1,076,766; Oct. 28; Gaz. vol. 195; p. 860.
Jett, George C., Gary, Ind. Tractor. (Reissue.) No. 13,634; Oct. 21; Gaz. vol. 195; p. 789.
Joerin, Albert E. (See Joerin, Charles, Jr., and A. E.)
Joerin, Charles, Jr., and A. E., Detroit, Mich. Dental water filter and heater. No. 1,075,978; Oct. 14; Gaz. vol. 195; p. 505.
Johannesen, Svend E., Pittsfield, Mass., assignor to General Electric Company. Transformer bushing and terminal board. No. 1,075,573; Oct. 14; Gaz. vol. 195; p. 367.
Johannet, Henry, *et al.* (See Speck, Nicholas, assignor.)
John A. Hurley, Incorporated. (See Stendahl, Knut L., assignor.)
John, Aktien-Gesellschaft, J. A. (See Klein, Albin, assignor.)
John Maddock & Sons. (See Bamford, Frank W., assignor.)
John Praetz, Inc. (See Praetz, John, assignor.)
Johns, H. W. (See Le Pontois, Leon J., assignor.)
Johnsen, Jonas A., Copenhagen, Denmark. Apparatus for producing and utilizing micro movements in weak-current technics. No. 1,075,786; Oct. 14; Gaz. vol. 195; p. 438.
Johnson, Andy, Springfield, Ill. Convertible furniture. No. 1,074,865; Oct. 7; Gaz. vol. 195; p. 93.
Johnson, Benj. F., *et al.* (See Davies, Alfred H., assignor.)
Johnson, Carl A., Jamestown, N. Y. Gas-burner. No. 1,074,866; Oct. 7; Gaz. vol. 195; p. 94.
Johnson, Carl A., Stockholm, Sweden. Apparatus for regulating the pressure on a grinding-stone. No. 1,075,355; Oct. 14; Gaz. vol. 195; p. 291.
Johnson, Conrad A., Jamestown, N. Y. Window. No. 1,076,767; Oct. 28; Gaz. vol. 195; p. 861.
Johnson, Elner, Minneapolis, Minn. Gas-testing apparatus. No. 1,074,795; Oct. 7; Gaz. vol. 195; p. 72.
Johnson, Eldridge R., Merion, Pa., and J. C. English, Camden, N. J., assignors to Victor Talking Machine Company. Talking-machine. No. 1,075,288; Oct. 7; Gaz. vol. 195; p. 244.
Johnson, Elijah F., Union Mills, N. C. Connecting-rod for switches. No. 1,077,141; Oct. 28; Gaz. vol. 195; p. 988.
Johnson, Elton N., Harrison Valley, Pa. Knockdown wardrobe. No. 1,075,478; Oct. 14; Gaz. vol. 195; p. 335.
Johnson, Eric T., Timperley, W. H. Glaser and H. R. Lloyd, Cheadle Hulme, England. Carbureter. No. 1,074,625; Oct. 7; Gaz. vol. 195; p. 13.
Johnson, Ernest V., Chicago, Ill. Fireproof floor construction. No. 1,076,040; Oct. 21; Gaz. vol. 195; p. 554.
Johnson, Morton L., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephony. No. 1,075,257; Oct. 7; Gaz. vol. 195; p. 231.
Johnson, Morton L., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephony. No. 1,075,258; Oct. 7; Gaz. vol. 195; p. 231.
Johnson, Morton L., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephony. No. 1,075,259; Oct. 7; Gaz. vol. 195; p. 232.
Johnson, Morton L., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephony. No. 1,075,260; Oct. 7; Gaz. vol. 195; p. 233.
Johnson, William A., Chicago, Ill. Pump. No. 1,075,574; Oct. 14; Gaz. vol. 195; p. 367.
Johnston, Robert T., Scotch Plains, N. J. Planographic-printing press. No. 1,075,575; Oct. 14; Gaz. vol. 195; p. 367.
Johnstone, Hampden L. (See Nesdall, John T., assignor.)
Jones, Brinker R., Somerset, Pa. Combination lock-nut washer and bolt. No. 1,077,080; Oct. 28; Gaz. vol. 195; p. 971.
Jones, George H., London, England. Stopper for bottles, jars, and the like. No. 1,076,374; Oct. 21; Gaz. vol. 195; p. 669.
Jones, Harley H., assignor to F. C. Fellows, Medford, Mass. Hammock-support. No. 1,075,150; Oct. 7; Gaz. vol. 195; p. 193.
Jones, J. W. (See Brown, Minnie A., assignor.)
Jones, James E., Richmond, Ind. Pipe or shaft hanger. No. 1,075,356; Oct. 14; Gaz. vol. 195; p. 292.
Jones, Joshua J., Schenectady, N. Y. Joint for locomotive exhaust-pipes. No. 1,076,289; Oct. 21; Gaz. vol. 195; p. 639.
Jones, Laurence E., Bridgeport, Tex. Lace-rack. No. 1,074,796; Oct. 7; Gaz. vol. 195; p. 72.
Jones, Oscar S., Utica, N. Y. Indicator. No. 1,075,038; Oct. 7; Gaz. vol. 195; p. 155.
Jones, Starky D., Georgetown, Colo. Lubricator. No. 1,074,867; Oct. 7; Gaz. vol. 195; p. 94.
Jones, William H., Manhattan Beach, assignor to Universal Mail Dispatcher Company, Los Angeles, Cal. Mail-bag ring. No. 1,075,212; Oct. 7; Gaz. vol. 195; p. 215.
Jones, William H., Munhall, and A. F. Mitchell, Homestead, Pa. Treating steel and steel alloys. No. 1,076,768; Oct. 28; Gaz. vol. 195; p. 861.
Jorgenson, Peter, Chicago, Ill. Superheating steam-generator. No. 1,075,151; Oct. 7; Gaz. vol. 195; p. 194.
Jorgenson, Peter, Chicago, Ill. Rotary engine. No. 1,075,152; Oct. 7; Gaz. vol. 195; p. 194.
Juda, Simon F., New York, N. Y. Reversible skirt. No. 1,076,124; Oct. 21; Gaz. vol. 195; p. 583.
Judin, George H., assignor of one-fourth to W. P. Pulley, Cisco, Tex. Freight-car door. No. 1,076,984; Oct. 28; Gaz. vol. 195; p. 938.
Juillard, Ernest. (See Werner and Juillard.)
Jungjohann, Henry, Davenport, Iowa. Wick raising and lowering device. No. 1,074,808; Oct. 7; Gaz. vol. 195; p. 95.
Jury, Ruben, assignor of one-third to W. Wakefield and one-third to A. L. Gillam, Sandusky, Mich. Dipper-excavator. No. 1,076,676; Oct. 28; Gaz. vol. 195; p. 829.
Justrite Mfg. Co., The. (See Hansen, Augie L., assignor.)
K-P-F-Electric Co. (See Pahl, August J., assignor.)
Kachel, Charles M. (See Heckel, Kachel, Goessling, and Pauk.)
Kadow, Otto F., assignor of one-third to J. B. Hull and one-third to H. E. Smith, Cleveland, Ohio. Combined filter and sediment-trap. No. 1,075,576; Oct. 14; Gaz. vol. 195; p. 368.
Kaehr, Arthur M., assignor of one-half to F. Mindorfer, Dubuque, Iowa. Tooth. No. 1,075,979; Oct. 14; Gaz. vol. 195; p. 505.
Kaempf, Frederich O., Toronto, Ontario, Canada. Treating bitumen or bituithic materials. No. 1,077,081; Oct. 28; Gaz. vol. 195; p. 971.
Kahn, Julius, assignor to Trussed Concrete Steel Company, Detroit, Mich. Concrete floor construction. No. 1,074,953; Oct. 7; Gaz. vol. 195; p. 124.
Kaiser, Paul G., Chicago, Ill. Pressure-operated deep-well pump. No. 1,074,797; Oct. 7; Gaz. vol. 195; p. 72.
Kaisling, William, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard & Supply Company. Telephone-transmitter. No. 1,076,041; Oct. 21; Gaz. vol. 195; p. 554.
Kalle & Company, Aktiengesellschaft. (See Reinhardt, Heinrich, assignor.)
Kann, William L., Pittsburgh, Pa. Grinding and smoothing glass. No. 1,075,107; Oct. 7; Gaz. vol. 195; p. 178.
Kaplan, Morduch L., Brooklyn, N. Y. Galvanic cell. No. 1,075,479; Oct. 14; Gaz. vol. 195; p. 335.
Karczag, Ladislaus. (See Kopetschni, Karczag, and Fodor.)
Karczag, Paul. (See Kopetschni, Karczag, and Fodor, assignors.)
Karlstrom, Knut. (See Gabrielson and Karlstrom.)
Karpen, Martin S., Chicago, Ill. Folding cot. No. 1,074,954; Oct. 7; Gaz. vol. 195; p. 124.
Kaufmann, Isadore, Hoboken, N. J., assignor to W. Lutter, New York, N. Y. Safety-razor. No. 1,076,375; Oct. 21; Gaz. vol. 195; p. 669.
Kavanagh, Dan J., New Martinsville, W. Va. Signal-lock. No. 1,074,955; Oct. 7; Gaz. vol. 195; p. 124.

Kaylor, William, assignor to W. A. Conway, Muskogee, Okla. Portable circular-sawing machine. No. 1,075,918; Oct. 14; Gaz. vol. 195; p. 484.
Keast, Alfred J. and H., San Jose, assignors to California Fruit Canners Association, San Francisco, Cal. Exhaust-box for cans. No. 1,074,869; Oct. 7; Gaz. vol. 195; p. 95.
Keast, Harold. (See Keast, Alfred J. and H.)
Keefer, William W. (See Gerber, Dwight, assignor.)
Keenan, Vernon. (See Miller and Keenan.)
Keil, Peter, assignor of one-third to J. E. Cochran and one-third to E. A. Stephens, Elkhart, Ind. Machine for lapping bearings. No. 1,076,636; Oct. 21; Gaz. vol. 195; p. 764.
Keith, Alexander E., Hinsdale, assignor to Automatic Electric Company, Chicago, Ill. Telephone-system station instrument. No. 1,077,225; Oct. 28; Gaz. vol. 195; p. 1016.
Keith, Irving L., Haverhill, Mass. Squeak-preventer for shoes. No. 1,075,039; Oct. 7; Gaz. vol. 195; p. 155.
Keller, Charles B., assignor of one-half to W. F. Quigley, Tipton, Mo. Tool-handle. No. 1,075,108; Oct. 7; Gaz. vol. 195; p. 179.
Keller, Edgar J. (See Friend, Howard, assignor.)
Keller, Karl, assignor to Firm of A. Saurer, Arbon, Switzerland. Fabric-frame of embroidering-machines. No. 1,074,870; Oct. 7; Gaz. vol. 195; p. 95.
Kelley, Isaac G., Minneapolis, Minn. Holder for cleaners. No. 1,076,888; Oct. 28; Gaz. vol. 195; p. 905.
Kellogg Switchboard & Supply Company. (See Kaisling, William, assignor.)
Kelly, David L., New York, N. Y. Signal. No. 1,075,109; Oct. 7; Gaz. vol. 195; p. 179.
Kelly, Henry W. (See Bates, Kelly, and Corbin.)
Kelly, J. A., *et al.* (See Watkins, Orla H., assignor.)
Kelly, Samuel J., White Plains, N. Y., and J. A. Webster, Rutherford, N. J., assignors to Autosales Gum and Chocolate Company, New York, N. Y. Two-compartment coin-controlled vending-machine. No. 1,076,769; Oct. 28; Gaz. vol. 195; p. 861.
Kelly, Thomas J., Fosston, Minn. Potato-planter hopper. No. 1,075,040; Oct. 7; Gaz. vol. 195; p. 155.
Kelly, W. J., *et al.* (See Watkins, Orla H., assignor.)
Kelsea, Clarence H., Lynn, Mass. Humidor. No. 1,074,871; Oct. 7; Gaz. vol. 195; p. 96.
Kemp, William W., and W. H. Van Horn, Baltimore, Md. Burner. No. 1,074,626; Oct. 7; Gaz. vol. 195; p. 13.
Kempe, Paul, Milwaukee, Wis. Bottle-washer. No. 1,076,889; Oct. 28; Gaz. vol. 195; p. 905.
Kempthorn, Herbert. (See Bippus, Kempthorn, and Pascoe.)
Kendall, Hubert A., Kansas City, Mo. Door-check. No. 1,074,798; Oct. 7; Gaz. vol. 195; p. 73.
Kennedy, Alfred D., Greenville, S. C., assignor of one-half to American Machine & Manufacturing Company, Seed-cleaning machine. No. 1,075,480; Oct. 14; Gaz. vol. 195; p. 335.
Kennedy, David S., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,074,956; Oct. 7; Gaz. vol. 195; p. 124.
Kennedy, Frank W., Trenton, N. J., assignor to De Laval Steam Turbine Company, New York, N. Y. Rotor construction. No. 1,075,577; Oct. 14; Gaz. vol. 195; p. 368.
Kennedy, George C., Waterloo, Iowa. Marble-gun. No. 1,077,142; Oct. 28; Gaz. vol. 195; p. 989.
Kenney, Charles H., New London, Conn. Muffler or silencer for gas-engines. No. 1,074,627; Oct. 7; Gaz. vol. 195; p. 14.
Kent, Edward C., Pasadena, L. Giles, Venice, and G. A. Lyster, assignors, by mesne assignments, to Pacific Heating & Manufacturing Co., Los Angeles, Cal. Hot-air furnace. No. 1,076,209; Oct. 21; Gaz. vol. 195; p. 611.
Keppel, John J., Dunedin, assignor of one-half to S. A. Lyttle, Outram Otago, New Zealand. Wire-strainer. No. 1,074,872; Oct. 7; Gaz. vol. 195; p. 96.
Kerr, David E., and H. Wilson, Conneaut, Ohio. Cataphoric electrode. No. 1,076,210; Oct. 21; Gaz. vol. 195; p. 612.
Kerr, James W. L., West View, and C. V. Neeson, assignors to Lawrenceville Bronze Co., Pittsburgh, Pa. Core-box. No. 1,075,289; Oct. 7; Gaz. vol. 195; p. 244.
Kerr, James W. L., West View, and C. V. Neeson, assignors to Lawrenceville Bronze Co., Pittsburgh, Pa. Mold for hollow articles. No. 1,075,290; Oct. 7; Gaz. vol. 195; p. 244.
Kertesz, Istvan, New York, N. Y. Bed. No. 1,075,291; Oct. 7; Gaz. vol. 195; p. 245.
Ketchum, Everett H., Jamestown, N. Y. Writing-pen. No. 1,074,957; Oct. 7; Gaz. vol. 195; p. 125.
Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Trimming-machine. No. 1,076,431; Oct. 21; Gaz. vol. 195; p. 690.
Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Trimming insoles. No. 1,076,432; Oct. 21; Gaz. vol. 195; p. 690.
Keys, John H., Dayton, Ohio. Sprinkler. No. 1,076,890; Oct. 28; Gaz. vol. 195; p. 905.
Keyte, Sarah M., Oakland, Cal. Theater-stage. No. 1,076,653; Oct. 21; Gaz. vol. 195; p. 770.
Kiddle, Alfred W., *et al.*, executors. (See Hoffmann, Ernst G.)
Kielisinski, Mikolaj. (See Lasocki, Wladyslaw, assignor.)
Kilburn, John F., assignor of one-half to G. E. Wallace, El Paso, Tex. Well-cleaning device. No. 1,075,261; Oct. 7; Gaz. vol. 195; p. 234.
Kilduff, John, Johnstown, Pa. Combination forge and press. No. 1,075,651; Oct. 14; Gaz. vol. 195; p. 304.
Kilgore, Frederick O., Somerville, Mass. Internal-combustion engine. No. 1,075,578; Oct. 14; Gaz. vol. 195; p. 369.
Kilgore, Frederick O., Somerville, Mass. Cushioning device for automobiles and like vehicles. No. 1,076,042; Oct. 21; Gaz. vol. 195; p. 555.
Kilgore, Joseph D., Homestead, Pa. Toy cannon. No. 1,076,125; Oct. 21; Gaz. vol. 195; p. 584.
Kilmer, William A., De Kalb, Ill., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J. Machine for making wire fabric. No. 1,076,831; Oct. 28; Gaz. vol. 195; p. 884.
Kindel, Charles J., Wilmette, Ill. Divanette. No. 1,074,799; Oct. 7; Gaz. vol. 195; p. 73.
King, Alfred S., Norwich, England. Box-lid-nailing machine. No. 1,074,800; Oct. 7; Gaz. vol. 195; p. 73.
King, Homer A., Colton, Cal. Rotary engine. No. 1,076,891; Oct. 28; Gaz. vol. 195; p. 906.
King, Howard K., Philadelphia, Pa., assignor to Chambers Brothers Company. Cut-off mechanism for brick-machines. No. 1,077,226; Oct. 28; Gaz. vol. 195; p. 1016.
King, Otto C., Medford, Oreg. Can-labeling machine. No. 1,076,043; Oct. 21; Gaz. vol. 195; p. 555.
King, Robert O., Buffalo, N. Y. Building. No. 1,076,290; Oct. 21; Gaz. vol. 195; p. 639.
Kingsbury, Albert, Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Collectoring for dynamo-electric machines. No. 1,075,292; Oct. 7; Gaz. vol. 195; p. 245.
Kingsbury, George P., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,076,433; Oct. 21; Gaz. vol. 195; p. 690.
Kinnear Manufacturing Company, The. (See McCloud, Edward H., assignor.)
Kinney, Joseph W., Goldcreek, Mont. Moistening device. No. 1,076,376; Oct. 21; Gaz. vol. 195; p. 670.
Kinney-Rome Company. (See Larson, Evan, assignor.)
Kintner, Alcuin E., Cleveland, Ohio. Portable and adjustable track. No. 1,076,044; Oct. 21; Gaz. vol. 195; p. 556.
Kirby Equipment Company. (See Woodman, George A., assignor.)
Kirkbride, William H., Cleveland, Ohio. Clamping device. No. 1,074,628; Oct. 7; Gaz. vol. 195; p. 14.
Kirkley, Arther E., North Augusta, S. C. Brake-valve. No. 1,075,357; Oct. 14; Gaz. vol. 195; p. 292.
Kirkness, Frederick B., Newark, Del. Ball-slinger. No. 1,075,041; Oct. 7; Gaz. vol. 195; p. 156.
Kitchen, John G. A., Scotforth, England. Flying-machine. No. 1,076,377; Oct. 21; Gaz. vol. 195; p. 670.
Kithil, Karl L., Morgantown, W. Va. Bottle-sealing process. No. 1,076,770; Oct. 28; Gaz. vol. 195; p. 862.
Kitsee, Isidor, Philadelphia, Pa., assignor to The Cort-Kitsee Co. Phonographic record. No. 1,074,873; Oct. 7; Gaz. vol. 195; p. 96.
Kittle, Gilbert R. (See Anderson, David G., assignor.)
Kleber, Henry, Jr., Pittsburgh, Pa. Locking device for shelves. No. 1,075,652; Oct. 14; Gaz. vol. 195; p. 395.
Klein, Albin, Erfurt, assignor to J. A. John Aktien-Gesellschaft, Erfurt-Nord, Germany. Roof-light. No. 1,076,500; Oct. 21; Gaz. vol. 195; p. 714.
Klein, Joseph, Jr., *et al.* (See Maxwell, William B. and G. C., assignors.)
Kleinfeldt, Henry F. (See Russ, Beach, and Kleinfeldt.)
Kliment, August, Noria, N. Mex. Sled. No. 1,077,082; Oct. 28; Gaz. vol. 195; p. 972.
Klinck, John H., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Control system for electric motors. No. 1,074,874; Oct. 7; Gaz. vol. 195; p. 97.
Kling, Peter M., Elizabeth, N. J. Bolt. No. 1,075,919; Oct. 14; Gaz. vol. 195; p. 485.
Kling, Peter M., Elizabeth, N. J. Bolt. No. 1,075,980; Oct. 14; Gaz. vol. 195; p. 506.
Klister, Barney H., and P. Vandehey, Wrightstown, Wis. Door-latch. No. 1,075,653; Oct. 14; Gaz. vol. 195; p. 395.
Kloeb, William M., Girard, Kans. Fire-lighter. No. 1,075,213; Oct. 7; Gaz. vol. 195; p. 215.
Klotz, William N., assignor to The Canton Culvert Company, Canton, Ohio. Sheet-metal drain-pipe. No. 1,075,153; Oct. 7; Gaz. vol. 195; p. 194.
Klugel, Oscar G., assignor of one-half to E. E. Crane, Indianapolis, Ind. Cigar-lighter. No. 1,076,583; Oct. 21; Gaz. vol. 195; p. 743.
Klusewitz, Thomas M., Baltimore, Md. Cutlery-sharpener. No. 1,075,110; Oct. 7; Gaz. vol. 195; p. 179.
Knaak, Louis, McDonald, Pa. Rail-joint. No. 1,075,654; Oct. 14; Gaz. vol. 195; p. 395.
Knight, Charles D., Schenectady, N. Y., assignor to General Electric Company. Motor-starter. No. 1,075,579; Oct. 14; Gaz. vol. 195; p. 369.
Knipe, Oliver C., Palo Alto, Cal. Ball-bearing. No. 1,075,829; Oct. 14; Gaz. vol. 195; p. 454.
Knobel, Frederic X., River Falls, Wis. Alternating ink-pad. No. 1,075,830; Oct. 14; Gaz. vol. 195; p. 454.
Knöfter & Co., O. (See Meitner, Lise, assignor.)
Knoke, George, Richmond, Va. Bottle-cleaning brush. No. 1,074,875; Oct. 7; Gaz. vol. 195; p. 97.

Knox, Harry A., Springfield, Mass. Internal-combustion engine. No. 1,075,580; Oct. 14; Gaz. vol. 195; p. 370.
Knudsen, Emil, Mühlbach, Austria-Hungary. Tilting furnace for smelting pyrites and sulfur ores. No. 1,075,214; Oct. 7; Gaz. vol. 195; p. 216.
Knudsen, Karsten, Grand Rapids, Mich., assignor to Electric Wheel Co., (Associates,) Springfield, Mass. Wheel. No. 1,075,655; Oct. 14; Gaz. vol. 195; p. 395.
Knupfer, Frank, Detroit, Mich. Collapsible-tube-finishing machine. No. 1,076,985; Oct. 28; Gaz. vol. 195; p. 939.
Koch, Otto J. (See Nydegger, Adolph, assignor.)
Koechlin, Albert G., Basel, Switzerland, assignor, by mesne assignments, to Draper Company, Hopedale, Mass. Automatic weft-bobbin-exchanging device for looms. No. 1,074,629; Oct. 7; Gaz. vol. 195; p. 14.
Koehler, Frank G., St. Louis, Mo. Self-lubricating wheel. No. 1,074,876; Oct. 7; Gaz. vol. 195; p. 97.
Koehler, Theodore E., Mount Angel, Oreg. Fruit-evaporator. No. 1,075,981; Oct. 14; Gaz. vol. 195; p. 506.
Koelkebeck, Carl W. A., Cleveland, Ohio. Steel-foundry plant. No. 1,075,656; Oct. 14; Gaz. vol. 195; p. 396.
Koenig, Harry A., Philadelphia, Pa. Gas-heated sad-iron. No. 1,076,677; Oct. 28; Gaz. vol. 195; p. 830.
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Fare-box. No. 1,076,584; Oct. 21; Gaz. vol. 195; p. 744.
Köhler, Hugo. (See Merling and Köhler.)
Kohlsdorf, Max, Brooklyn, N. Y. Knitting-machine. No. 1,075,262; Oct. 7; Gaz. vol. 195; p. 234.
Kolanko, Antoni J., Chicago, Ill. Collapsible life-boat. No. 1,076,291; Oct. 21; Gaz. vol. 195; p. 640.
Kopetschni, Eduard, Mannheim, Germany, L. Karczag, Szolnok, Austria-Hungary, and O. Fodor, Berlin, Germany; said Fodor assignor to P. Karczag, Szolnok, Austria-Hungary. Anhydrid of salicylic acid and preparing the same. No. 1,075,581; Oct. 14; Gaz. vol. 195; p. 370.
Kops Bros. (See Kops, Samuel, assignor.)
Kops, Samuel, assignor to Kops Bros., New York, N. Y. Elastic webbing. No. 1,075,831; Oct. 14; Gaz. vol. 195; p. 454.
Korns, Clarence C., Johnstown, Pa. Hanger-bracket. No. 1,076,211; Oct. 21; Gaz. vol. 195; p. 612.
Korte, George W., *et al.* (See Ulrich, Melchior C., assignor.)
Kosminski, Charles M., Marylebone, London, England. Beating apparatus for carpets, furs, and the like. No. 1,075,042; Oct. 7; Gaz. vol. 195; p. 156.
Koss, Richard, Münster, Westphalia, assignor to Siemens-Schuckert Werke G. m. b. H., Berlin, Germany. Towing device for ships. No. 1,075,111; Oct. 7; Gaz. vol. 195; p. 179.
Kraft, Henry P. (See Schweinert and Kraft.)
Krah, Alexis, assignor to The English and Mersick Co., New Haven, Conn. Lock-joint for wind-shields. No. 1,074,958; Oct. 7; Gaz. vol. 195; p. 125.
Krancher, Edward, New York, N. Y. Game apparatus. No. 1,076,771; Oct. 28; Gaz. vol. 195; p. 862.
Kraus, Charles A., Newton Highlands, and R. D. Malley, Lynn, Mass. Electrode-lead. No. 1,076,292; Oct. 21; Gaz. vol. 195; p. 640.
Krebs, Philipp, Frankfort-on-the-Main, Germany. Layers of reed. No. 1,074,801; Oct. 7; Gaz. vol. 195; p. 74.
Krelling, Julius W., Chicago, Ill., assignor to Mergenthaler Linotype Company. Clutch mechanism. No. 1,074,959; Oct. 7; Gaz. vol. 195; p. 125.
Krespach, Martin D., and J. R. Hazeley, Philadelphia, Pa., assignors to Eclipse Wheel Company. Vehicle-wheel. No. 1,076,678; Oct. 28; Gaz. vol. 195; p. 830.
Kress, Claude W., New York, N. Y. Display-case. No. 1,076,501; Oct. 21; Gaz. vol. 195; p. 714.
Kriebbaum, William F., Newark, N. J., assignor to Foster Engineering Company. Automatic boiler feed-regulator. No. 1,075,043; Oct. 7; Gaz. vol. 195; p. 156.
Krieger, Arthur H., Los Angeles, Cal. Molded article and making the same. No. 1,076,126; Oct. 21; Gaz. vol. 195; p. 584.
Krieger, Hugo, and C. F. Dewey, New York, N. Y.; said Dewey assignor to said Krieger. Projecting apparatus. No. 1,075,920; Oct. 14; Gaz. vol. 195; p. 485.
Krikava, Charles, Burchard, Nebr. Automobile-tire. No. 1,076,127; Oct. 21; Gaz. vol. 195; p. 584.
Kroder, John, New York, N. Y. Curtain-rod support. No. 1,077,083; Oct. 28; Gaz. vol. 195; p. 972.
Krompigel, Mathias, and J. Hradisky, Brier Hill, Pa. Detection device for bottles. No. 1,075,657; Oct. 14; Gaz. vol. 195; p. 396.
Krug, Carl, Frankfort-on-the-Main, Germany. Abrading-disk. No. 1,077,143; Oct. 28; Gaz. vol. 195; p. 989.
Krugh, Charles F., Dormont, Pa. Gas-burner. No. 1,076,892; Oct. 28; Gaz. vol. 195; p. 907.
Kruh, Ostas O., Schenectady, N. Y., assignor to General Electric Company. Protecting mercury-vapor apparatus. No. 1,076,212; Oct. 21; Gaz. vol. 195; p. 612.
Kruse, Peter, New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Can-gripping device. No. 1,074,630; Oct. 7; Gaz. vol. 195; p. 15.
Kuenzel, Charles A., Buena Vista, Colo., assignor to The Kuenzel Gas Producer & Smelter Construction Co. Steamship-furnace. No. 1,076,893; Oct. 28; Gaz. vol. 195; p. 907.
Kuenzel Gas Producer & Smelter Construction Co., The. (See Kuenzel, Charles A., assignor.)
Kugler, Albert J., and J. F. Godefroy, New York, N. Y. Hinge. No. 1,077,084; Oct. 28; Gaz. vol. 195; p. 972.
Kuhlmann, Henry F., Indianapolis, Ind. Detachable creeper for horseshoes. No. 1,076,654; Oct. 21; Gaz. vol. 195; p. 770.
Küntzler, Henry. (See Hunter and Küntzler.)
Kupferle, Edward, St. Louis, Mo. Hose-nozzle. No. 1,076,128; Oct. 21; Gaz. vol. 195; p. 584.
Kurtz, Stewart S. (See Jacobs, George, assignor.)
Kuster, Edward G., *et al.* (See Pendleton, William H. E., assignor.)
Kyle, Samuel L., Ottawa, Ontario, Canada. Nut-lock. No. 1,076,679; Oct. 28; Gaz. vol. 195; p. 830.
Kyllonen, Andrew E., Monessen, Pa. Curtain-bracket. No. 1,077,144; Oct. 28; Gaz. vol. 195; p. 989.
L. A. Myers, Jr., Inc. (See O'Brien, Terrence, assignor.)
La Bounty, Charles B. H., Tacoma, Wash. Non-refillable bottle. No. 1,076,129; Oct. 21; Gaz. vol. 195; p. 585.
La Crosse Plow Company. (See Davis, Frank E., assignor.)
Lackawanna Steel Company. (See Conkling, Cloud C., assignor.)
Lackey, James A., Ontario, Oreg. Rivetless sickle for mowers, &c. No. 1,076,832; Oct. 28; Gaz. vol. 195; p. 884.
Lackie, John B., Winnipeg, Manitoba, Canada. Clothespin. No. 1,075,112; Oct. 7; Gaz. vol. 195; p. 180.
Laist, Frederick, Anaconda, Mont. Extracting copper from ore. No. 1,076,833; Oct. 28; Gaz. vol. 195; p. 885.
Lamar, Alexis L., assignor to L. J. Stukey, Pittsburg, Kans. Wiring mechanism for hay-balers. No. 1,076,834; Oct. 28; Gaz. vol. 195; p. 885.
Lamb, Franklin M., North Stonington, Conn. Power-gage device for picker-sticks of looms. No. 1,076,585; Oct. 21; Gaz. vol. 195; p. 745.
Lambert, Albert L., assignor to Hale and Kilburn Company, Philadelphia, Pa. Metallic window and door. No. 1,074,631; Oct. 7; Gaz. vol. 195; p. 15.
Lamson Company, The. (See Amsden, George A., assignor.)
Lamson Company, The. (See Fordyce, Edmond A., assignor.)
Lamson Company, The. (See Maclaren, James G., assignor.)
Lamson Company, The. (See Pearsall, Albert W., assignor.)
Landis Machine Company. (See Fisher, Henry L., assignor.)
Lane, Ernest R., Amarilla, Tex. Automatic mail-crane. No. 1,075,921; Oct. 14; Gaz. vol. 195; p. 486.
Lanford, Earl W., Spartanburg, S. C. Sheet operating and display mechanism. No. 1,075,293; Oct. 7; Gaz. vol. 195; p. 245.
Lang, Mark, Taft, Cal. Pump. No. 1,075,658; Oct. 14; Gaz. vol. 195; p. 396.
Langbein, Gustave, assignor to F. W. Klinger & Langbein Co., Philadelphia, Pa. Leaf or pocket for fly-books. No. 1,076,894; Oct. 28; Gaz. vol. 195; p. 907.
Langguth, Erich, Neerpelt, Belgium. Electromagnetic separator. No. 1,076,213; Oct. 21; Gaz. vol. 195; p. 613.
Langman, Max, New York, N. Y. Garment. No. 1,076,586; Oct. 21; Gaz. vol. 195; p. 745.
Lanham, Paul, Lanham, Md. Recording-meter. No. 1,075,427; Oct. 14; Gaz. vol. 195; p. 317.
Lapidus, Isaac, Brooklyn, N. Y. Lock. No. 1,076,587; Oct. 21; Gaz. vol. 195; p. 745.
Lappe, Franz. (See Bosch and Lappe.)
Larkin, Edwin J. (See Clark and Larkin.)
Larson, Evan, assignor to Kinney-Rome Company, Chicago, Ill. Bed-frame corner construction. No. 1,075,922; Oct. 14; Gaz. vol. 195; p. 486.
Larson, Gustave, Buenos Aires, Argentina. Cross-hung self-balancing sluice or valve gate. No. 1,075,428; Oct. 14; Gaz. vol. 195; p. 317.
Larson, Louis A., Osakis, Minn. Wagon-seat. No. 1,074,960; Oct. 7; Gaz. vol. 195; p. 126.
Lasauce, Henry M. (See Bjurlund, Johan F., assignor.)
Lashar, Walter B., Bridgeport, Conn. Chain. No. 1,074,632; Oct. 7; Gaz. vol. 195; p. 16.
Lasher, David F., Orange, Tex. Refining and purifying oils. No. 1,075,481; Oct. 14; Gaz. vol. 195; p. 336.
Lasocki, Wladyslaw, assignor to M. Kielisinski, Warsaw, Russia. Mangle. No. 1,075,982; Oct. 14; Gaz. vol. 195; p. 507.
Latham, Ernest B. (See Force, William F., assignor.)
Lations, Charles A., assignor to Worcester Metal Goods Company, Worcester, Mass. Garment-supporter. No. 1,075,358; Oct. 14; Gaz. vol. 195; p. 292.
Lauer, Victor, Stillwater, Okla. Cultivator. No. 1,075,832; Oct. 14; Gaz. vol. 195; p. 455.
Langhinghouse, Samuel V., Grifton, N. C. Car-coupling. No. 1,075,582; Oct. 14; Gaz. vol. 195; p. 370.
Lawler, James J., Pelham, N. Y. Equalizing-valve for water. No. 1,076,293; Oct. 21; Gaz. vol. 195; p. 640.
Lawrence, Edward J., and H. White, Flushing, N. Y. Locker. No. 1,076,378; Oct. 21; Gaz. vol. 195; p. 671.
Lawrenceville Bronze Co. (See Kerr and Neeson, assignors.)
Lawrenz, Paul R. C., Cologne, Germany. Valve-gear for combustion-engines. No. 1,076,294; Oct. 21; Gaz. vol. 195; p. 641.
Lawson Manufacturing Company. (See Parisen, Robert T., assignor.)

Lawson, William L., Mount Carmel, Ill. Mixing or blending machine. No. 1,077,145; Oct. 28; Gaz. vol. 195; p. 989.
Le Blanc, Joseph, Gladstone, Mich. Life-saving apparatus. No. 1,075,359; Oct. 14; Gaz. vol. 195; p. 292.
Le Doux, Hector, Worcester, Mass., and J. K. Dalkranian, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company and said Le Doux assignor to Crompton & Knowles Loom Works. Woven fabric. No. 1,077,227; Oct. 28; Gaz. vol. 195; p. 1016.
Le Grue, Angus R., assignor of one-half to A. S. Fraser, Buffalo, N. Y. Window. No. 1,075,833; Oct. 14; Gaz. vol. 195; p. 456.
Le Pontois, Leon J., New Rochelle, N. Y., assignor, by mesne assignments, to H. W. Johns. System of ignition for explosive-engines. No. 1,074,724; Oct. 7; Gaz. vol. 195; p. 47.
Le Roy, Jean A., New York, N. Y. Kinetoscope. No. 1,075,215; Oct. 7; Gaz. vol. 195; p. 216.
Le Sieur, Saint Vrain, assignor to The Le Sieur Vacuum Can Manufacturing Company, East St. Louis, Ill. Milk-can. No. 1,075,834; Oct. 14; Gaz. vol. 195; p. 456.
Le Sieur Vacuum Can Manufacturing Company, The. (See Le Sieur, Saint Vrain, assignor.)
Lea, Charles. (See Hathaway and Lea.)
Leach, Richard L., Honolulu, Hawaii. Vehicle-tire. No. 1,077,085; Oct. 28; Gaz. vol. 195; p. 972.
Leadbeater, Frederick, Detroit, Mich. Valve. No. 1,076,895; Oct. 28; Gaz. vol. 195; p. 908.
Leake, Richard. (See Geer and Leake.)
Leavitt, Frank M., Smithtown, assignor to E. W. Bliss Company, Brooklyn, N. Y. Sinking device for automobile torpedoes. No. 1,076,295; Oct. 21; Gaz. vol. 195; p. 641.
Leavitt, George J., Berlin, N. H. Packing-box. No. 1,075,434; Oct. 21; Gaz. vol. 195; p. 691.
Lebenhart, Richard, Wrschowitz, near Prague, Austria-Hungary. Card for holding articles having an angular profile. No. 1,075,983; Oct. 14; Gaz. vol. 195; p. 507.
Lebus, George F., Electra, Tex. Wrench for rotary well-drills. No. 1,076,379; Oct. 21; Gaz. vol. 195; p. 671.
Lecuyer, George, Bartlesville, Okla. Animal-forceps. No. 1,077,086; Oct. 28; Gaz. vol. 195; p. 973.
Ledward, Frederick A., Flint, Mich. Concealed door-hinge. No. 1,076,435; Oct. 21; Gaz. vol. 195; p. 691.
Lee, Charles E., assignor of one-half to B. C. Sammons, Chicago, Ill. Electric signaling system. No. 1,076,896; Oct. 28; Gaz. vol. 195; p. 908.
Lee, Ella D., Chicago, Ill. Doll. No. 1,075,482; Oct. 14; Gaz. vol. 195; p. 336.
Legge, Alfred G., Brockton, Mass. Shoe-form. No. 1,074,723; Oct. 7; Gaz. vol. 195; p. 47.
Leighty, William J., Topeka, Kans. Boiler for articulated locomotives. No. 1,074,877; Oct. 7; Gaz. vol. 195; p. 98.
Lembke, Charles F., Valparaiso, Ind. Internal-combustion engine. No. 1,076,380; Oct. 21; Gaz. vol. 195; p. 671.
Lemirand, Theodore, Vans Harbor, Mich. Wall-support for bracket-lamps. No. 1,076,588; Oct. 21; Gaz. vol. 195; p. 746.
Lemon, Alvy B., and C. C. Culver, Alluwe, Okla. Hose-coupling. No. 1,076,045; Oct. 21; Gaz. vol. 195; p. 550.
Lemon, Don M., Boston, assignor of one-half to E. V. Page, Roslindale, Mass. Erasing-machine. No. 1,077,146; Oct. 28; Gaz. vol. 195; p. 990.
Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Fuel-pump for internal-combustion engines. No. 1,076,436; Oct. 21; Gaz. vol. 195; p. 691.
Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Pump for supplying fuel to internal-combustion engines. No. 1,076,502; Oct. 21; Gaz. vol. 195; p. 714.
Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Internal-combustion engine. No. 1,076,589; Oct. 21; Gaz. vol. 195; p. 746.
Leonard, George E., Garden City, N. Y. Computing device. No. 1,076,680; Oct. 28; Gaz. vol. 195; p. 830.
Leonard, Harry W., Bronxville, N. Y. Electric-current controller. No. 1,074,878; Oct. 7; Gaz. vol. 195; p. 98.
Leonard, Harry W., Bronxville, N. Y. Motor-controlling means. No. 1,074,961; Oct. 7; Gaz. vol. 195; p. 126.
Leonard, Harry W., Bronxville, N. Y. Electric railway and electric-motor control. No. 1,076,214; Oct. 21; Gaz. vol. 195; p. 613.
Lesh, William H., Des Moines, Iowa. Rail joint and chair. No. 1,075,044; Oct. 7; Gaz. vol. 195; p. 157.
Leslie, A. H. (See Morgan, Daniel, assignor.)
Lettré, Philip H., Attleboro Falls, Mass. Box-fastener. No. 1,076,897; Oct. 28; Gaz. vol. 195; p. 908.
Letz, Charles M., Chicago, Ill. Reinforcement for printing-plates. No. 1,076,046; Oct. 21; Gaz. vol. 195; p. 556.
Leuthesser, Fred W., Chicago, Ill. Air-valve for radiators. No. 1,075,294; Oct. 7; Gaz. vol. 195; p. 245.
Lever, Sims, Sydney, New South Wales, Australia. Neck-band of shirts, blouses, and the like. No. 1,076,381; Oct. 21; Gaz. vol. 195; p. 672.
Levine, Louis, assignor of one-half to J. S. Snyder, Northport, N. Y. Mold. No. 1,076,691; Oct. 28; Gaz. vol. 195; p. 831.
Lewis, Joseph E., Baltimore, Md. Tube-coiling machine. No. 1,075,045; Oct. 7; Gaz. vol. 195; p. 157.
Lewis, Nelson, Boulder, Colo. Fly-screen. No. 1,077,247; Oct. 28; Gaz. vol. 195; p. 1023.
Lewis, William M., New Hartford, Iowa. Metal fence-post. No. 1,075,984; Oct. 14; Gaz. vol. 195; p. 507.
Liebmann, Alfred. (See Spengler, Henry, assignor.)
Liebmann, Alfred J., assignor to N. Hofheimer, New York, N. Y. Drawing refractory wires. No. 1,076,590; Oct. 21; Gaz. vol. 195; p. 746.
Life Targets Limited. (See Bates, Kelly, and Corbin, assignors.)
Lilienfeld, Leon, Vienna, Austria-Hungary. Manufacture of diethyl sulfate. No. 1,074,633; Oct. 7; Gaz. vol. 195; p. 16.
Lilleberg, Charles L., Chicago, Ill. Perforating-machine. No. 1,076,772; Oct. 28; Gaz. vol. 195; p. 863.
Lima Locomotive Corporation. (See Feightner, Lewis E., assignor.)
Lind, John. (See Bryant and Lind.)
Lindgren, Peter J., Denver, Colo. Faucet. No. 1,075,483; Oct. 14; Gaz. vol. 195; p. 336.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic masses. No. 1,076,215; Oct. 21; Gaz. vol. 195; p. 613.
Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic masses. No. 1,076,216; Oct. 21; Gaz. vol. 195; p. 613.
Lindstrom, Nils O., Nutley, N. J., assignor to A. B. See, New York, N. Y. Automatic circuit-controlling system for electric elevators and the like. No. 1,074,962; Oct. 7; Gaz. vol. 195; p. 126.
Lineberg, Albert E., Wilkes-Barre, Pa. Trolley wheel or sheave. No. 1,077,147; Oct. 28; Gaz. vol. 195; p. 990.
Litchfield, James, Kansas City, Mo. Cigar-moistening apparatus. No. 1,075,835; Oct. 14; Gaz. vol. 195; p. 456.
Littauer, Lucius N. (See Hughes, Robert R., Jr., assignor.)
Little, George M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Arc-lamp electrode. No. 1,075,484; Oct. 14; Gaz. vol. 195; p. 336.
Little, Herbert W. (See Alexander, Jesse, assignor.)
Little, Herbert W., *et al.* (See Alexander, Jesse, assignor.)
Littlejohn, David, and W. M. Mitchell, St. Joseph, Mo. Safe. No. 1,075,113; Oct. 7; Gaz. vol. 195; p. 180.
Litzenberg, William R., Portland, Oreg. Excavating and dredging machine. No. 1,075,923; Oct. 14; Gaz. vol. 195; p. 486.
Litzenberg, William R., Portland, Oreg. Incandescent lamp and reflector. No. 1,075,924; Oct. 14; Gaz. vol. 195; p. 487.
Lloyd, Harold R. (See Johnson, Glaser, and Lloyd.)
Lock, John E., Sherbrooke, Quebec, Canada. Apparatus for painting spools. No. 1,076,773; Oct. 28; Gaz. vol. 195; p. 863.
Lockhart, John, Tarrytown, N. Y. Window-shutter. No. 1,076,637; Oct. 21; Gaz. vol. 195; p. 764.
Lockwood, Linnie. (See Crockett and Lockwood.)
Locomotive Superheater Company. (See Oatley, Henry B., assignor.)
Lodge, Albert, assignor of one-third to J. E. Smith, Philadelphia, Pa. Fish-plate. No. 1,076,296; Oct. 21; Gaz. vol. 195; p. 642.
Lohmann Company, The. (See Lohmann, Herman J., assignor.)
Lohmann, Herman J., Jersey City, N. J., assignor to The Lohmann Company. Molten bath and means for coating iron articles therewith. No. 1,075,583; Oct. 14; Gaz. vol. 195; p. 370.
Lombardi, Thomas, McKeesport, Pa. Noodle-cutter. No. 1,076,130; Oct. 21; Gaz. vol. 195; p. 585.
London, William J. A., assignor to The Terry Steam Turbine Company, Hartford, Conn. Speed-governor. No. 1,074,879; Oct. 7; Gaz. vol. 195; p. 98.
Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Telephone pay-station. No. 1,075,485; Oct. 14; Gaz. vol. 195; p. 337.
Long, Herbert J., New Brunswick, N. J. Safety gas appliance. No. 1,076,774; Oct. 28; Gaz. vol. 195; p. 864.
Long, Samuel F., *et al.* (See McKibbin, John B., assignor.)
Longley, Charles O., *et al.* (See Chambers, James M., assignor.)
Lord, Hugh C., Erie, Pa. Target-trap. No. 1,074,725; Oct. 7; Gaz. vol. 195; p. 48.
Lord, Richard, Cedar Rapids, Iowa. Loose-leaf book. No. 1,076,131; Oct. 21; Gaz. vol. 195; p. 585.
Lorenz, William A., *et al.* (See Merritt, Joseph, assignor.)
Lorenz, William A., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Tube-cutting mechanism. No. 1,075,836; Oct. 14; Gaz. vol. 195; p. 456.
Loring, Helene V. A., Chicago, Ill. Dressing-case. No. 1,074,634; Oct. 7; Gaz. vol. 195; p. 16.
Loton, August, Buffalo, N. Y. Curtain-supporting device No. 1,076,775; Oct. 28; Gaz. vol. 195; p. 865.
Lotte, Henry, St. Jean d'Angély, France. Wheel with multiple and balanced rims. No. 1,076,591; Oct. 21; Gaz. vol. 195; p. 747.
Lowenthal, Albert E., Moseley, England. Saddle for motor-cycles and the like. No. 1,076,655; Oct. 21; Gaz. vol. 195; p. 770.

Lowrie, Harvey C., deceased; J. M. Lowrie, New York, N. Y., administrator. Wall-safe. (Reissue.) No. 13,625; Oct. 7; Gaz. vol. 195; p. 259.
Lowrie, John M., administrator. (See Lowrie, Harvey C.) (Reissue.)
Lucas, Charles H., Waltham, Mass. Paper-gage. No. 1,076,682; Oct. 28; Gaz. vol. 195; p. 882.
Luckett, William S., East Orange, N. J., assignor to International Cigar Machinery Company, New York, N. Y. Cigar-wrapping mechanism. No. 1,075,216; Oct. 7; Gaz. vol. 195; p. 216.
Ludwick, Harlan M., Parkesburg, Pa. Fluid-actuated lathe-chuck. No. 1,075,715; Oct. 14; Gaz. vol. 195; p. 414.
Ludwig, Frank G., Lockport, Ill. Commutator-truing device. No. 1,076,217; Oct. 21; Gaz. vol. 195; p. 614.
Ludwig, William H., Vesper, Wis. Silo. No. 1,075,360; Oct. 14; Gaz. vol. 195; p. 293.
Luft-Fahrzeug-Gesellschaft m. b. H. (See Blochmann, Ernst, assignor.)
Lummen, Maurice Van M. de, Cologne, Germany. Agitating device for roasting-furnaces or the like. No. 1,076,297; Oct. 21; Gaz. vol. 195; p. 642.
Lundy, Joseph G., assignor of one-half to R. F. Croom, Evergreen, Ala. Store-fixture. No. 1,074,802; Oct. 7; Gaz. vol. 195; p. 74.
Lurtz, John, West Pullman, Ill. Clothes-pounder. No. 1,075,584; Oct. 14; Gaz. vol. 195; p. 370.
Lutter, William. (See Kaufmann, Isadore, assignor.)
Lutwyche, Edgar J., assignor to C. H. Reynolds, Chicago, Ill. Lamp. (Reissue.) No. 13,630; Oct. 21; Gaz. vol. 195; p. 783.
Lyman, George F. (See Smith, John L., assignor.)
Lynch, Patrick H., New York, N. Y. Golf-practice machine. No. 1,074,880; Oct. 7; Gaz. vol. 195; p. 99.
Lynchburg Foundry Company. (See McWane, Charles W., assignor.)
Lyncke, Hans, deceased, Berlin, Germany; S. Lyncke, heiress. Dry viscose in a granular, soluble, and stable condition and preparing the same. No. 1,074,881; Oct. 7; Gaz. vol. 195; p. 99.
Lyncke, Sophie, heiress. (See Lyncke, Hans.)
Lyon, Dorsey, Palo Alto, and E. R. Cox, Jr., Heroult, Cal. Electrometallurgical process of reducing metallic oxids. No. 1,075,295; Oct. 7; Gaz. vol. 195; p. 246.
Lyon, Harry, assignor to Brockton Rand Company, Brockton, Mass. Welt grooving and beveling machine. No. 1,074,726; Oct. 7; Gaz. vol. 195; p. 48.
Lyon Metallic Manufacturing Company. (See Bales, James E., assignor.)
Lyon Metallic Manufacturing Company. (See Waters, Beverly L., assignor.)
Lyons, James K., Pittsburgh, and J. B. Hardie, Crafton, Pa. Gas-producer. No. 1,075,716; Oct. 14; Gaz. vol. 195; p. 415.
Lyons, John S., Wilkes-Barre, Pa., assignor to International Locking Device Company. Locking device. No. 1,076,835; Oct. 28; Gaz. vol. 195; p. 885.
Lyster, George A. (See Kent, Giles, and Lyster.)
Lyttle, Samuel A. (See Keppel, John J., assignor.)
M. H. Jester Investment Company, The. (See Jester, Marvin H., assignor.)
MacIsaac, Frederic J., New York, N. Y. Coffer-dam. No. 1,075,361; Oct. 14; Gaz. vol. 195; p. 293.
Macbeth-Evans Glass Company, The. (See Allsopp, Joseph, assignor.)
Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Reversing mechanism for roll-ramming apparatus. No. 1,074,882; Oct. 7; Gaz. vol. 195; p. 100.
Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Roll ramming apparatus. No. 1,076,683; Oct. 28; Gaz. vol. 195; p. 832.
Mack, Thomas H., New York, N. Y. Equipment of cone-centers. No. 1,076,986; Oct. 28; Gaz. vol. 195; p. 939.
Maciaren, James G., Harrison, N. Y., assignor to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,076,987; Oct. 28; Gaz. vol. 195; p. 939.
Macleod, Thomas. (See Wiles, Macleod, and Wiles.)
Macomber, Harry W., and F. H. D. Bergmann, St. Louis, Mo. Aeroplane. No. 1,076,218; Oct. 21; Gaz. vol. 195; p. 614.
Macrae, Roderick, Chicago, Ill. Wheel structure. No. 1,075,717; Oct. 14; Gaz. vol. 195; p. 415.
Madigan, Patrick J., Chicago, Ill. Drinking-fountain. No. 1,076,988; Oct. 28; Gaz. vol. 195; p. 940.
Madsen, Nils, Westville, N. J. Skein or thread holder. No. 1,076,898; Oct. 28; Gaz. vol. 195; p. 909.
Maher, James M., Fremont, Nebr. Rail-joint for railways. No. 1,075,114; Oct. 7; Gaz. vol. 195; p. 180.
Mahoney, Joseph N., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electric brake. No. 1,076,298; Oct. 21; Gaz. vol. 195; p. 642.
Maidens, William, Columbus, Ohio. Game apparatus. No. 1,076,503; Oct. 21; Gaz. vol. 195; p. 715.
Maier, John D., Charlestown, Md. Smoking-pipe. No. 1,077,148; Oct. 28; Gaz. vol. 195; p. 990.
Maier, Otto, and G. J. Metz, Philadelphia, Pa. Collapsible support for work-tables. No. 1,075,115; Oct. 7; Gaz. vol. 195; p. 180.
Malley, Roy D. (See Kraus and Malley.)
Maline Mills Company, The. (See Siewers, Walter L., assignor.)
Mallery, Stanton E., assignor to O. M. Edwards, Syracuse, N. Y. Extension spring-roller. No. 1,077,149; Oct. 28; Gaz. vol. 195; p. 991.
Mally, Frederick W., Austin, Tex., and E. P. Hudson, Des Moines, Iowa; said Mally assignor to said Hudson. Suspenders. No. 1,076,504; Oct. 21; Gaz. vol. 195; p. 715.
Mally, Frederick W., Austin, Tex., and E. P. Hudson, Des Moines, Iowa; said Mally assignor to said Hudson. Suspenders. No. 1,076,505; Oct. 21; Gaz. vol. 195; p. 715.
Malo, Oray A., and F. H. Melat, Michigan City, Ind. Pipe-bending tool. No. 1,075,837; Oct. 14; Gaz. vol. 195; p. 457.
Maloney, Owen W., assignor to Maloney Tank Manufacturing Company, Tulsa, Okla. Knockdown oil-tank. No. 1,076,382; Oct. 21; Gaz. vol. 195; p. 672.
Maloney Tank Manufacturing Company. (See Maloney, Owen W., assignor.)
Mandt, Gunder G., Moline, Ill., and M. Vingum, Stoughton, Wis., assignors to Moline Plow Company. Manure-spreader. No. 1,077,087; Oct. 28; Gaz. vol. 195; p. 973.
Mangum, Robert C., Washington, D. C. Driving mechanism for vehicles. No. 1,076,132; Oct. 21; Gaz. vol. 195; p. 585.
Manier, Felix, Piqua, Ohio. Combined nut and pipe wrench. No. 1,076,133; Oct. 21; Gaz. vol. 195; p. 586.
Manivet, Denis, Marseille, and E. Ressegaire, Avignon, France. Artificial skin or gut envelop for sausage-meat or the like. No. 1,076,899; Oct. 28; Gaz. vol. 195; p. 909.
Mankau, Charles A., St. Petersburg, Russia. Spinel fire-brick. No. 1,075,659; Oct. 14; Gaz. vol. 195; p. 397.
Manly, Charles M., Freeport, N. Y. Pump or motor cylinder and making the same. No. 1,075,486; Oct. 14; Gaz. vol. 195; p. 337.
Mann, William L., St. Joseph, Mo. Spring-wheel. No. 1,075,838; Oct. 14; Gaz. vol. 195; p. 457.
Manning, John H., New York, N. Y., assignor to Crane Company, Chicago, Ill. Pipe-flanging machine. No. 1,076,134; Oct. 21; Gaz. vol. 195; p. 586.
Manning, John H., New York, N. Y., assignor to Crane Company, Chicago, Ill. Pipe-flanging. No. 1,076,592; Oct. 21; Gaz. vol. 195; p. 747.
Manon, Joseph W., Charleroi, Pa. Drinking-fountain. No. 1,074,803; Oct. 7; Gaz. vol. 195; p. 74.
Mansell, Hunt, Catty & Company Limited. (See Stratton, Egbert A., assignor.)
Mansfield, George H., Canton, Ohio. Snow-remover. No. 1,075,154; Oct. 7; Gaz. vol. 195; p. 195.
Mapelsden, Harold H., Schenectady, N. Y., assignor to General Electric Company. Fluid-flow meter. No. 1,076,437; Oct. 21; Gaz. vol. 195; p. 692.
Mapelsden, Harold H., Schenectady, N. Y., assignor to General Electric Company. Fluid-flow meter. No. 1,076,656; Oct. 21; Gaz. vol. 195; p. 770.
March, John C. R., Perth Amboy, N. J. Fly-wheel. No. 1,076,219; Oct. 21; Gaz. vol. 195; p. 614.
Marcotte, Louis A., assignor of one-half to W. Herd, Beverly Cove, Mass. Internal-combustion engine. No. 1,074,635; Oct. 7; Gaz. vol. 195; p. 16.
Maritz, Edward F. (See Sokolowski, Teofil, assignor.)
Markwell, Charles A. (See Mowry, Roy M., assignor.)
Marquette, Jerome N., Binghamton, N. Y. Locker and snow-guard for removable car-steps. No. 1,075,046; Oct. 7; Gaz. vol. 195; p. 158.
Marquis, Ralph L. (See Hoban and Marquis.)
Marsh, Albert L., assignor to Hoskins Manufacturing Company, Detroit, Mich. Thermo-electric element. No. 1,076,438; Oct. 21; Gaz. vol. 195; p. 692.
Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,362; Oct. 14; Gaz. vol. 195; p. 293.
Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,363; Oct. 14; Gaz. vol. 195; p. 294.
Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,364; Oct. 14; Gaz. vol. 195; p. 294.
Marsh, Clarence W., Greenwich, Conn., assignor to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,660; Oct. 14; Gaz. vol. 195; p. 397.
Marsh, Harry S. (See Burchardi, Hansen, and Marsh.)
Marshall, Dale, Cheltenham, England. Portable rest for carrying books, papers, and the like. No. 1,074,963; Oct. 7; Gaz. vol. 195; p. 127.
Marshall, Dale, Cheltenham, England. Means for the opening of doors, gates, and the like. No. 1,076,506; Oct. 21; Gaz. vol. 195; p. 716.
Marshall, Martin. (See Marshall, William E. and M.)
Marshall, William E. and M., Maspeth, N. Y. Fluid-motor. No. 1,076,299; Oct. 21; Gaz. vol. 195; p. 643.
Martin, Calvin, Peabody, assignor to Carter Ticket Company, Boston, Mass. Adjustable inking-gear. No. 1,074,883; Oct. 7; Gaz. vol. 195; p. 100.
Martin, Enoch, Snyder, Tex. Wire-splicer. No. 1,074,884; Oct. 7; Gaz. vol. 195; p. 100.
Martin, Frank P., Williamsburg, Kans. Mold. No. 1,074,885; Oct. 7; Gaz. vol. 195; p. 100.

Lawson, William L., Mount Carmel, Ill. Mixing or blending machine. No. 1,077,145; Oct. 28; Gaz. vol. 195; p. 989.

Le Blanc, Joseph, Gladstone, Mich. Life-saving apparatus. No. 1,075,359; Oct. 14; Gaz. vol. 195; p. 292.

Le Doux, Hector, Worcester, Mass., and J. K. Dalkranian, Weehawken Heights, N. J.; said Dalkranian assignor to United States Persian Carpet Company and said Le Doux assignor to Crompton & Knowles Loom Works. Woven fabric. No. 1,077,227; Oct. 28; Gaz. vol. 195; p. 1016.

Le Grue, Angus R., assignor of one-half to A. S. Fraser, Buffalo, N. Y. Window. No. 1,075,833; Oct. 14; Gaz. vol. 195; p. 456.

Le Pontois, Leon J., New Rochelle, N. Y., assignor, by mesne assignments, to H. W. Johns. System of ignition for explosive-engines. No. 1,074,724; Oct. 7; Gaz. vol. 195; p. 47.

Le Roy, Joan A., New York, N. Y. Kinetoscope. No. 1,075,215; Oct. 7; Gaz. vol. 195; p. 216.

Le Sieur, Saint Vrain, assignor to The Le Sieur Vacuum Can Manufacturing Company, East St. Louis, Ill. Milk-can. No. 1,075,834; Oct. 14; Gaz. vol. 195; p. 456.

Le Sieur Vacuum Can Manufacturing Company, The. (See Le Sieur, Saint Vrain, assignor.)

Lea, Charles. (See Hathaway and Lea.)

Leach, Richard L., Honolulu, Hawaii. Vehicle-tire. No. 1,077,085; Oct. 28; Gaz. vol. 195; p. 972.

Leadbeater, Frederick, Detroit, Mich. Valve. No. 1,076,895; Oct. 28; Gaz. vol. 195; p. 908.

Leake, Richard. (See Geer and Leake.)

Leavitt, Frank M., Smithtown, assignor to E. W. Bliss Company, Brooklyn, N. Y. Sinking device for automobile torpedoes. No. 1,076,295; Oct. 21; Gaz. vol. 195; p. 641.

Leavitt, George J., Berlin, N. H. Packing-box. No. 1,075,434; Oct. 21; Gaz. vol. 195; p. 691.

Lebenhart, Richard, Wrschowitz, near Prague, Austria-Hungary. Card for holding articles having an angular profile. No. 1,075,983; Oct. 14; Gaz. vol. 195; p. 507.

Lebus, George F., Electra, Tex. Wrench for rotary well-drills. No. 1,076,379; Oct. 21; Gaz. vol. 195; p. 671.

Lecuyer, George, Bartlesville, Okla. Animal-forceps. No. 1,077,086; Oct. 28; Gaz. vol. 195; p. 973.

Ledward, Frederick A., Flint, Mich. Concealed door-hinge. No. 1,076,435; Oct. 21; Gaz. vol. 195; p. 691.

Lee, Charles E., assignor of one-half to B. C. Sammons, Chicago, Ill. Electric signaling system. No. 1,076,896; Oct. 28; Gaz. vol. 195; p. 908.

Lee, Ella D., Chicago, Ill. Doll. No. 1,075,482; Oct. 14; Gaz. vol. 195; p. 336.

Legge, Alfred G., Brockton, Mass. Shoe-form. No. 1,074,723; Oct. 7; Gaz. vol. 195; p. 47.

Leighty, William J., Topeka, Kans. Boiler for articulated locomotives. No. 1,074,877; Oct. 7; Gaz. vol. 195; p. 98.

Lembke, Charles F., Valparaiso, Ind. Internal-combustion engine. No. 1,076,380; Oct. 21; Gaz. vol. 195; p. 671.

Lemirand, Theodore, Vans Harbor, Mich. Wall-support for bracket-lamps. No. 1,076,588; Oct. 21; Gaz. vol. 195; p. 746.

Lemon, Alvy B., and C. C. Culver, Alluwe, Okla. Hose-coupling. No. 1,076,045; Oct. 21; Gaz. vol. 195; p. 556.

Lemon, Don M., Boston, assignor of one-half to E. V. Page, Roslindale, Mass. Erasing-machine. No. 1,077,146; Oct. 28; Gaz. vol. 195; p. 990.

Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Fuel-pump for internal-combustion engines. No. 1,076,436; Oct. 21; Gaz. vol. 195; p. 691.

Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Pump for supplying fuel to internal-combustion engines. No. 1,076,502; Oct. 21; Gaz. vol. 195; p. 714.

Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Internal-combustion engine. No. 1,076,589; Oct. 21; Gaz. vol. 195; p. 746.

Leonard, George E., Garden City, N. Y. Computing device. No. 1,076,680; Oct. 28; Gaz. vol. 195; p. 830.

Leonard, Harry W., Bronxville, N. Y. Electric-current controller. No. 1,074,878; Oct. 7; Gaz. vol. 195; p. 98.

Leonard, Harry W., Bronxville, N. Y. Motor-controlling means. No. 1,074,961; Oct. 7; Gaz. vol. 195; p. 126.

Leonard, Harry W., Bronxville, N. Y. Electric railway and electric-motor control. No. 1,076,214; Oct. 21; Gaz. vol. 195; p. 613.

Lesh, William H., Des Moines, Iowa. Rail joint and chair. No. 1,075,044; Oct. 7; Gaz. vol. 195; p. 157.

Leslie, A. H. (See Morgan, Daniel, assignor.)

Lettré, Philip H., Attleboro Falls, Mass. Box-fastener. No. 1,076,897; Oct. 28; Gaz. vol. 195; p. 908.

Letz, Charles M., Chicago, Ill. Reinforcement for printing-plates. No. 1,076,046; Oct. 21; Gaz. vol. 195; p. 556.

Leuthesser, Fred W., Chicago, Ill. Air-valve for radiators. No. 1,075,294; Oct. 7; Gaz. vol. 195; p. 245.

Lever, Sims, Sydney, New South Wales, Australia. Neck-band of shirts, blouses, and the like. No. 1,076,381; Oct. 21; Gaz. vol. 195; p. 672.

Levine, Louis, assignor of one-half to J. S. Snyder, Northport, N. Y. Mold. No. 1,076,681; Oct. 28; Gaz. vol. 195; p. 831.

Lewis, Joseph E., Baltimore, Md. Tube-coiling machine. No. 1,075,045; Oct. 7; Gaz. vol. 195; p. 157.

Lewis, Nelson, Boulder, Colo. Fly-screen. No. 1,077,247; Oct. 28; Gaz. vol. 195; p. 1023.

Lewis, William M., New Hartford, Iowa. Metal fence-post. No. 1,075,984; Oct. 14; Gaz. vol. 195; p. 507.

Liebmann, Alfred. (See Spengler, Henry, assignor.)

Liebmann, Alfred J., assignor to N. Hofheimer, New York, N. Y. Drawing refractory wires. No. 1,076,590; Oct. 21; Gaz. vol. 195; p. 746.

Life Targets Limited. (See Bates, Kelly, and Corbin, assignors.)

Lilienfeld, Leon, Vienna, Austria-Hungary. Manufacture of diethyl sulfate. No. 1,074,633; Oct. 7; Gaz. vol. 195; p. 16.

Lilleberg, Charles L., Chicago, Ill. Perforating-machine. No. 1,076,772; Oct. 28; Gaz. vol. 195; p. 863.

Lima Locomotive Corporation. (See Feightner, Lewis E., assignor.)

Lind, John. (See Bryant and Lind.)

Lindgren, Peter J., Denver, Colo. Faucet. No. 1,075,483; Oct. 14; Gaz. vol. 195; p. 336.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic masses. No. 1,076,215; Oct. 21; Gaz. vol. 195; p. 613.

Lindsay, William G., Caldwell, N. J., assignor to The Celluloid Company, New York, N. Y. Making acetyl-cellulose plastic masses. No. 1,076,216; Oct. 21; Gaz. vol. 195; p. 613.

Lindstrom, Nils O., Nutley, N. J., assignor to A. B. See, New York, N. Y. Automatic circuit-controlling system for electric elevators and the like. No. 1,074,962; Oct. 7; Gaz. vol. 195; p. 126.

Lineberg, Albert E., Wilkes-Barre, Pa. Trolley wheel or sheave. No. 1,077,147; Oct. 28; Gaz. vol. 195; p. 990.

Litchfield, James, Kansas City, Mo. Cigar-moistening apparatus. No. 1,075,835; Oct. 14; Gaz. vol. 195; p. 456.

Littauer, Lucius N. (See Hughes, Robert R., Jr., assignor.)

Little, George M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Arc-lamp electrode. No. 1,075,484; Oct. 14; Gaz. vol. 195; p. 336.

Little, Herbert W. (See Alexander, Jesse, assignor.)

Little, Herbert W., *et al.* (See Alexander, Jesse, assignor.)

Littlejohn, David, and W. M. Mitchell, St. Joseph, Mo. Safe. No. 1,075,113; Oct. 7; Gaz. vol. 195; p. 180.

Litzenberg, William R., Portland, Oreg. Excavating and dredging machine. No. 1,075,923; Oct. 14; Gaz. vol. 195; p. 486.

Litzenberg, William R., Portland, Oreg. Incandescent lamp and reflector. No. 1,075,924; Oct. 14; Gaz. vol. 195; p. 487.

Lloyd, Harold R. (See Johnson, Glaser, and Lloyd.)

Lock, John E., Sherbrooke, Quebec, Canada. Apparatus for painting spools. No. 1,076,773; Oct. 28; Gaz. vol. 195; p. 863.

Lockhart, John, Tarrytown, N. Y. Window-shutter. No. 1,076,637; Oct. 21; Gaz. vol. 195; p. 764.

Lockwood, Linnie. (See Crockett and Lockwood.)

Locomotive Superheater Company. (See Oatley, Henry B., assignor.)

Lodge, Albert, assignor of one-third to J. E. Smith, Philadelphia, Pa. Fish-plate. No. 1,076,296; Oct. 21; Gaz. vol. 195; p. 642.

Lohmann Company, The. (See Lohmann, Herman J., assignor.)

Lohmann, Herman J., Jersey City, N. J., assignor to The Lohmann Company. Molten bath and means for coating iron articles therewith. No. 1,075,583; Oct. 14; Gaz. vol. 195; p. 370.

Lombardi, Thomas, McKeesport, Pa. Noodle-cutter. No. 1,076,130; Oct. 21; Gaz. vol. 195; p. 585.

London, William J. A., assignor to The Terry Steam Turbine Company, Hartford, Conn. Speed-governor. No. 1,074,879; Oct. 7; Gaz. vol. 195; p. 98.

Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Telephone pay-station. No. 1,075,485; Oct. 14; Gaz. vol. 195; p. 337.

Long, Herbert J., New Brunswick, N. J. Safety gas appliance. No. 1,076,774; Oct. 28; Gaz. vol. 195; p. 864.

Long, Samuel F., *et al.* (See McKibbin, John B., assignor.)

Longley, Charles O., *et al.* (See Chambers, James M., assignor.)

Lord, Hugh C., Erie, Pa. Target-trap. No. 1,074,725; Oct. 7; Gaz. vol. 195; p. 48.

Lord, Richard, Cedar Rapids, Iowa. Loose-leaf book. No. 1,076,131; Oct. 21; Gaz. vol. 195; p. 585.

Lorenz, William A., *et al.* (See Merritt, Joseph, assignor.)

Lorenz, William A., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Tube-cutting mechanism. No. 1,075,836; Oct. 14; Gaz. vol. 195; p. 456.

Loring, Helene V. A., Chicago, Ill. Dressing-case. No. 1,074,634; Oct. 7; Gaz. vol. 195; p. 16.

Loton, August, Buffalo, N. Y. Curtain-supporting device No. 1,076,775; Oct. 28; Gaz. vol. 195; p. 865.

Lotte, Henry, St. Jean d'Angély, France. Wheel with multiple and balanced rims. No. 1,076,591; Oct. 21; Gaz. vol. 195; p. 747.

Lowenthal, Albert E., Moseley, England. Saddle for motor-cycles and the like. No. 1,076,655; Oct. 21; Gaz. vol. 195; p. 770.

Lowrie, Harvey C., deceased; J. M. Lowrie, New York, N. Y., administrator. Wall-safe. (Reissue.) No. 13,625; Oct. 7; Gaz. vol. 195; p. 259.

Lowrie, John M., administrator. (See Lowrie, Harvey C.) (Reissue.)

Lucas, Charles H., Waltham, Mass. Paper-gage. No. 1,076,682; Oct. 28; Gaz. vol. 195; p. 832.

Luckett, William S., East Orange, N. J., assignor to International Cigar Machinery Company, New York, N. Y. Cigar-wrapping mechanism. No. 1,075,216; Oct. 7; Gaz. vol. 195; p. 216.

Ludwick, Harlan M., Parkesburg, Pa. Fluid-actuated lathe-chuck. No. 1,075,715; Oct. 14; Gaz. vol. 195; p. 414.

Ludwig, Frank G., Lockport, Ill. Commutator-truing device. No. 1,076,217; Oct. 21; Gaz. vol. 195; p. 614.

Ludwig, William H., Yesper, Wis. Silo. No. 1,075,360; Oct. 14; Gaz. vol. 195; p. 293.

Luft-Fahrzeug-Gesellschaft m. b. H. (See Blochmann, Ernst, assignor.)

Lummen, Maurice Van M. de, Cologne, Germany. Agitating device for roasting-furnaces or the like. No. 1,076,267; Oct. 21; Gaz. vol. 195; p. 642.

Lundy, Joseph G., assignor of one-half to R. F. Croom, Evergreen, Ala. Store-fixture. No. 1,074,802; Oct. 7; Gaz. vol. 195; p. 74.

Lurtz, John, West Pullman, Ill. Clothes-pounder. No. 1,075,584; Oct. 14; Gaz. vol. 195; p. 370.

Lutter, William. (See Kaufmann, Isadore, assignor.)

Lutwyche, Edgar J., assignor to C. H. Reynolds, Chicago, Ill. Lamp. (Reissue.) No. 13,630; Oct. 21; Gaz. vol. 195; p. 783.

Lyman, George F. (See Smith, John L., assignor.)

Lynch, Patrick H., New York, N. Y. Golf-practice machine. No. 1,074,880; Oct. 7; Gaz. vol. 195; p. 99.

Lynchburg Foundry Company. (See McWane, Charles W., assignor.)

Lyncke, Hans, deceased, Berlin, Germany; S. Lyncke, heiress. Dry viscose in a granular, soluble, and stable condition and preparing the same. No. 1,074,881; Oct. 7; Gaz. vol. 195; p. 99.

Lyncke, Sophie, heiress. (See Lyncke, Hans.)

Lyon, Dorsey, Palo Alto, and E. R. Cox, Jr., Heroult, Cal. Electrometallurgical process of reducing metallic oxids. No. 1,075,295; Oct. 7; Gaz. vol. 195; p. 246.

Lyon, Harry, assignor to Brockton Rand Company, Brockton, Mass. Welt grooving and beveling machine. No. 1,074,726; Oct. 7; Gaz. vol. 195; p. 48.

Lyon Metallic Manufacturing Company. (See Bales, James E., assignor.)

Lyon Metallic Manufacturing Company. (See Waters, Beverly L., assignor.)

Lyons, James K., Pittsburgh, and J. B. Hardie, Crafton, Pa. Gas-producer. No. 1,075,716; Oct. 14; Gaz. vol. 195; p. 415.

Lyons, John S., Wilkes-Barre, Pa., assignor to International Locking Device Company. Locking device. No. 1,076,835; Oct. 28; Gaz. vol. 195; p. 885.

Lyster, George A. (See Kent, Giles, and Lyster.)

Lyttle, Samuel A. (See Keppel, John J., assignor.)

M. H. Jester Investment Company, The. (See Jester, Marvin H., assignor.)

MacIsaac, Frederic J., New York, N. Y., Coffer-dam. No. 1,075,361; Oct. 14; Gaz. vol. 195; p. 293.

Macbeth-Evans Glass Company, The. (See Allsopp, Joseph, assignor.)

Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Reversing mechanism for roll-ramming apparatus. No. 1,074,882; Oct. 7; Gaz. vol. 195; p. 100.

Macdonald, Harry P., Montclair, assignor to The Snead & Co. Iron Works, Jersey City, N. J. Roll ramming apparatus. No. 1,076,683; Oct. 28; Gaz. vol. 195; p. 832.

Mack, Thomas H., New York, N. Y. Equipment of cone-centers. No. 1,076,986; Oct. 28; Gaz. vol. 195; p. 939.

Maclaren, James G., Harrison, N. Y., assignor to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,076,987; Oct. 28; Gaz. vol. 195; p. 939.

Macleod, Thomas. (See Wiles, Macleod, and Wiles.)

Macomber, Harry W., and F. H. D. Bergmann, St. Louis, Mo. Aeroplane. No. 1,076,218; Oct. 21; Gaz. vol. 195; p. 614.

Macrae, Roderick, Chicago, Ill. Wheel structure. No. 1,075,717; Oct. 14; Gaz. vol. 195; p. 415.

Madigan, Patrick J., Chicago, Ill. Drinking-fountain. No. 1,076,988; Oct. 28; Gaz. vol. 195; p. 940.

Madsen, Nils, Westville, N. J. Skein or thread holder. No. 1,076,898; Oct. 28; Gaz. vol. 195; p. 909.

Maher, James M., Fremont, Nebr. Rail-joint for railways. No. 1,075,114; Oct. 7; Gaz. vol. 195; p. 180.

Mahoney, Joseph N., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Electric brake. No. 1,076,298; Oct. 21; Gaz. vol. 195; p. 642.

Maidens, William, Columbus, Ohio. Game apparatus. No. 1,076,503; Oct. 21; Gaz. vol. 195; p. 715.

Maier, John D., Charlestown, Md. Smoking-pipe. No. 1,077,148; Oct. 28; Gaz. vol. 195; p. 990.

Maier, Otto, and G. J. Metz, Philadelphia, Pa. Collapsible support for work-tables. No. 1,075,115; Oct. 7; Gaz. vol. 195; p. 180.

Malley, Roy D. (See Kraus and Malley.)

Maline Mills Company, The. (See Siewers, Walter L., assignor.)

Mallery, Stanton E., assignor to O. M. Edwards, Syracuse, N. Y. Extension spring-roller. No. 1,077,149; Oct. 28; Gaz. vol. 195; p. 991.

Mally, Frederick W., Austin, Tex., and E. P. Hudson, Des Moines, Iowa; said Mally assignor to said Hudson. Suspenders. No. 1,076,504; Oct. 21; Gaz. vol. 195; p. 715.

Mally, Frederick W., Austin, Tex., and E. P. Hudson, Des Moines, Iowa; said Mally assignor to said Hudson. Suspenders. No. 1,076,505; Oct. 21; Gaz. vol. 195; p. 715.

Malo, Oray A., and F. H. Melat, Michigan City, Ind. Pipe-bending tool. No. 1,075,837; Oct. 14; Gaz. vol. 195; p. 457.

Maloney, Owen W., assignor to Maloney Tank Manufacturing Company, Tulsa, Okla. Knockdown oil-tank. No. 1,076,382; Oct. 21; Gaz. vol. 195; p. 672.

Maloney Tank Manufacturing Company. (See Maloney, Owen W., assignor.)

Mandt, Gunder G., Moline, Ill., and M. Vingum, Stoughton, Wis., assignors to Moline Plow Company. Manure-spreader. No. 1,077,087; Oct. 28; Gaz. vol. 195; p. 973.

Mangum, Robert C., Washington, D. C. Driving mechanism for vehicles. No. 1,076,132; Oct. 21; Gaz. vol. 195; p. 585.

Manier, Felix, Piqua, Ohio. Combined nut and pipe wrench. No. 1,076,133; Oct. 21; Gaz. vol. 195; p. 586.

Manivet, Denis, Marseille, and E. Rossegaire, Avignon, France. Artificial skin or gut envelop for sausage-meat or the like. No. 1,076,899; Oct. 28; Gaz. vol. 195; p. 909.

Mankau, Charles A., St. Petersburg, Russia. Spinel fire-brick. No. 1,075,650; Oct. 14; Gaz. vol. 195; p. 397.

Manly, Charles M., Freeport, N. Y. Pump or motor cylinder and making the same. No. 1,075,486; Oct. 14; Gaz. vol. 195; p. 337.

Mann, William L., St. Joseph, Mo. Spring-wheel. No. 1,075,838; Oct. 14; Gaz. vol. 195; p. 457.

Manning, John H., New York, N. Y., assignor to Crane Company, Chicago, Ill. Pipe-flanging machine. No. 1,076,134; Oct. 21; Gaz. vol. 195; p. 586.

Manning, John H., New York, N. Y., assignor to Crane Company, Chicago, Ill. Pipe-flanging. No. 1,076,592; Oct. 21; Gaz. vol. 195; p. 747.

Manon, Joseph W., Charleroi, Pa. Drinking-fountain. No. 1,074,803; Oct. 7; Gaz. vol. 195; p. 74.

Mansell, Hunt, Catty & Company Limited. (See Stratton, Egbert A., assignor.)

Mansfield, George H., Canton, Ohio. Snow-remover. No. 1,075,154; Oct. 7; Gaz. vol. 195; p. 195.

Mapelsden, Harold H., Schenectady, N. Y., assignor to General Electric Company. Fluid-flow meter. No. 1,076,437; Oct. 21; Gaz. vol. 195; p. 692.

Mapelsden, Harold H., Schenectady, N. Y., assignor to General Electric Company. Fluid-flow meter. No. 1,076,556; Oct. 21; Gaz. vol. 195; p. 770.

March, John C. R., Perth Amboy, N. J. Fly-wheel. No. 1,076,219; Oct. 21; Gaz. vol. 195; p. 614.

Marcotte, Louis A., assignor of one-half to W. Herd, Beverly Cove, Mass. Internal-combustion engine. No. 1,074,635; Oct. 7; Gaz. vol. 195; p. 16.

Maritz, Edward F. (See Sokolowski, Teofil, assignor.)

Markwell, Charles A. (See Mowry, Roy M., assignor.)

Marquette, Jerome N., Binghamton, N. Y. Locker and snow-guard for removable car-steps. No. 1,075,046; Oct. 7; Gaz. vol. 195; p. 158.

Marquis, Ralph L. (See Hoban and Marquis.)

Marsh, Albert L., assignor to Hoskins Manufacturing Company, Detroit, Mich. Thermo-electric element. No. 1,076,438; Oct. 21; Gaz. vol. 195; p. 692.

Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,362; Oct. 14; Gaz. vol. 195; p. 293.

Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,363; Oct. 14; Gaz. vol. 195; p. 294.

Marsh, Clarence W., Greenwich, Conn., assignor, by mesne assignments, to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,364; Oct. 14; Gaz. vol. 195; p. 294.

Marsh, Clarence W., Greenwich, Conn., assignor to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,660; Oct. 14; Gaz. vol. 195; p. 397.

Marsh, Harry S. (See Burchardi, Hansen, and Marsh.)

Marshall, Dale, Cheltenham, England. Portable rest for carrying books, papers, and the like. No. 1,074,963; Oct. 7; Gaz. vol. 195; p. 127.

Marshall, Dale, Cheltenham, England. Means for the opening of doors, gates, and the like. No. 1,076,506; Oct. 21; Gaz. vol. 195; p. 716.

Marshall, Martin. (See Marshall, William E. and M.)

Marshall, William E. and M., Maspeth, N. Y. Fluid-motor. No. 1,076,299; Oct. 21; Gaz. vol. 195; p. 643.

Martin, Calvin, Peabody, assignor to Carter Ticket Company, Boston, Mass. Adjustable inking-gear. No. 1,074,883; Oct. 7; Gaz. vol. 195; p. 100.

Martin, Enoch, Snyder, Tex. Wire-splicer. No. 1,074,884; Oct. 7; Gaz. vol. 195; p. 100.

Martin, Frank P., Williamsburg, Kans. Mold. No. 1,074,885; Oct. 7; Gaz. vol. 195; p. 100.

Martin, Frederick E., Bonami, La., assignor to Security Equipment Company. Retaining-valve. No. 1,076,135; Oct. 21; Gaz. vol. 195; p. 587.
Martin, Henry G. (See Womble, Cornelious E., assignor.)
Martin, Richard P., Hunter, Okla. Skid. No. 1,076,593; Oct. 21; Gaz. vol. 195; p. 747.
Maskrey, George W., Willow River, Minn. Railway-tie. No. 1,074,636; Oct. 7; Gaz. No. 195; p. 17.
Massey, Homer E., Springfield, Mo. Credit-accounting appliance. No. 1,074,886; Oct. 7; Gaz. vol. 195; p. 101.
Massey, Sanford W., South Bellingham, Wash. Cutter and slicer. No. 1,074,637; Oct. 7; Gaz. vol. 195; p. 17.
Matey, Frank J., Galesburg, Ill. Gate. No. 1,076,300; Oct. 21; Gaz. vol. 195; p. 643.
Mathis Brothers Company, The. (See Rogers, Charles W., assignor.)
Mathis, Ellis, Farmington, Ill. Horse-collar. No. 1,074,887; Oct. 7; Gaz. vol. 195; p. 101.
Mathis Subsoiler Attachment Company. (See Mathis, William R., assignor.)
Mathis, William R., assignor to Mathis Subsoiler Attachment Company, New Boston, Tex. Subsoil attachment for plows. No. 1,075,585; Oct. 14; Gaz. vol. 195; p. 371.
Matthes, Clara E., Joliet, Ill. Hose-supporter. No. 1,076,136; Oct. 21; Gaz. vol. 195; p. 587.
Matthews, Charles J., and J. C. Potter, Eastbourne, England; said Matthews assignor to said Potter. Apparatus for filling bottles and other receptacles with liquids. No. 1,076,776; Oct. 28; Gaz. vol. 195; p. 865.
Matthews, William A., Baltimore, Md. Confectionery-box. No. 1,075,839; Oct. 14; Gaz. vol. 195; p. 458.
Maurer, Adolf, assignor to Enbosilthwerke A. G. M. Olten, Olten, Switzerland. Securing or fixing machines and other objects to floors and other places. No. 1,077,200; Oct. 28; Gaz. vol. 195; p. 1007.
Maxwell, Bert C., Canton, Ohio. Account-cabinet. No. 1,074,964; Oct. 7; Gaz. vol. 195; p. 127.
Maxwell, Grover C. (See Maxwell, William B. and G. C.)
Maxwell, John M., *et al.* (See Chambers, James M., assignor.)
Maxwell, Marshall P., Brooklyn, N. Y. High-voltage insulator. No. 1,075,217; Oct. 7; Gaz. vol. 195; p. 217.
Maxwell, William B. and G. C., assignors of one-third to J. Silvestro; said G. C. Maxwell assignor of one-third to J. Klein, Jr., New York, N. Y. Nut-lock. No. 1,075,925; Oct. 14; Gaz. vol. 195; p. 487.
May, George H., Newburgh, N. Y., and W. M. Grosvenor, Grantwood, N. J. Process of drying. No. 1,075,586; Oct. 14; Gaz. vol. 195; p. 371.
Maytag Company, The. (See Snyder, Howard F., assignor.)
Mazuel, Jean, Paris, France. Stop-cock for motor-vehicles. No. 1,075,429; Oct. 14; Gaz. vol. 195; p. 317.
Mazur, Antony, and P. Mudrak, Natalie, Pa. Nut-lock. No. 1,075,218; Oct. 7; Gaz. vol. 195; p. 217.
McAdams, William A., Bay Shore, N. Y. Aluminum alloy and producing the same. No. 1,076,137; Oct. 21; Gaz. vol. 195; p. 587.
McAllister, Abel J., Lawrence, Kans. Loose-leaf binder. No. 1,075,840; Oct. 14; Gaz. vol. 195; p. 458.
McBerty, Frank R., New Rochelle, assignor to Western Electric Company, New York, N. Y. Telephone-exchange system. No. 1,075,430; Oct. 14; Gaz. vol. 195; p. 318.
McCall, Arthur B., Springfield, Ill. Trousers-shield. No. 1,075,296; Oct. 7; Gaz. vol. 195; p. 246.
McCall, Charles S., *et al.* (See Roberts, Henry P., assignor.)
McCall, Duncan D., Houston, Tex. Apparatus for hoisting liquids from wells. No. 1,077,088; Oct. 28; Gaz. vol. 195; p. 973.
McCallum, John S., Goldfield, Iowa. Threshing-machine. No. 1,075,985; Oct. 14; Gaz. vol. 195; p. 508.
McCan, David C., Los Angeles, Cal. Automatic clutch-release. No. 1,075,297; Oct. 7; Gaz. vol. 195; p. 247.
McCarthy, Michael, Stewartaville, N. J. Drill-bit lifter. No. 1,077,089; Oct. 28; Gaz. vol. 195; p. 974.
McCaskey Register Company, The. (See Silvius, Ellis T., assignor.)
McClave-Brooks Company. (See McClave, William, assignor.)
McClave, William, assignor to McClave-Brooks Company, Scranton, Pa. Pneumatic conveyer system. No. 1,076,989; Oct. 28; Gaz. vol. 195; p. 940.
McClellan, John L., Rockford, Wash. Extractor and capsule syringe. No. 1,074,965; Oct. 7; Gaz. vol. 195; p. 128.
McCloud, Edward H., assignor to The Kinnear Manufacturing Company, Columbus, Ohio. Fire-resisting curtain. No. 1,076,684; Oct. 28; Gaz. vol. 195; p. 832.
McClure, Adolphus C., Keithville, La. Automatic repeating firearm. No. 1,075,431; Oct. 14; Gaz. vol. 195; p. 318.
McCombs, Marshall M., El Paso, Tex. Switch-operating device. No. 1,075,841; Oct. 14; Gaz. vol. 195; p. 458.
McConnell, Charles P., assignor to Western Electric Company, New York, N. Y. Lead alloy. No. 1,075,661; Oct. 14; Gaz. vol. 195; p. 397.
McConville, Curran C., and J. P. Farnam, Minneapolis, Minn., assignors, by mesne assignments, to Emerson-Brantingham Company, Rockford, Ill. Gearing. No. 1,076,685; Oct. 28; Gaz. vol. 195; p. 833.
McCord and Company. (See Randel, Ivar A., assignor.)
McCormick, John H., Columbus, Ohio. Draw-gear and buffing apparatus. No. 1,076,686; Oct. 28; Gaz. vol. 195; p. 833.
McCormack, Herbert, West Chester, Pa. Internal-combustion engine. No. 1,077,150; Oct. 28; Gaz. vol. 195; p. 991.
McCracken, Joseph A., Altoona, Pa. Railway metallic tie. No. 1,076,687; Oct. 28; Gaz. vol. 195; p. 834.
McCunningham, Daniel L., and E. M. Wilson, Sedan, Kans. Poultry-fountain. No. 1,076,777; Oct. 28; Gaz. vol. 195; p. 865.
McCutchen, George W., Maricopa, Cal. Pipe-plug. No. 1,075,842; Oct. 14; Gaz. vol. 195; p. 458.
McCutcheon, Stewart, Superior, Wis. Street-sprinkling device. No. 1,076,594; Oct. 21; Gaz. vol. 195; p. 748.
McDaniel, B. H., *et al.* (See Ernest, Albert C., assignor.)
McDermett, William. (See Woodrow, Charles O., assignor.)
McDonald, Howard C., Buffalo, N. Y. Towel-holder. No. 1,075,047; Oct. 7; Gaz. vol. 195; p. 158.
McDonald, Hugh L., Bridgeport, Cape Breton, Nova Scotia, Canada. Slide-valve-operating mechanism. No. 1,076,047; Oct. 21; Gaz. vol. 195; p. 556.
McElroy, James F., Albany, N. Y., assignor to Consolidated Car Heating Company. Electric switch. No. 1,075,986; Oct. 14; Gaz. vol. 195; p. 508.
McElroy, James H., Toronto, Ontario, Canada. Automatic-release car-coupling. No. 1,076,301; Oct. 21; Gaz. vol. 195; p. 643.
McElroy, John H. (See Welling, Matthew J., assignor.)
McElroy, John H., Chicago, Ill. Voting-machine. No. 1,075,718; Oct. 14; Gaz. vol. 195; p. 416.
McElroy, Joseph A., New York, N. Y. Valve. No. 1,076,302; Oct. 21; Gaz. vol. 195; p. 643.
McEwan, Cassius W. (See Sturdy, Robert W., assignor.)
McFell, Judson, Chicago, Ill. Selective signaling system. No. 1,076,303; Oct. 21; Gaz. vol. 195; p. 644.
McFell, Judson, Chicago, Ill. Fire-alarm and watch-service signaling means. No. 1,076,304; Oct. 21; Gaz. vol. 195; p. 644.
McGhee, Nicholas B., and R. K. Acuff, Tempe, Ariz. Duplex dirt-wagon. No. 1,075,926; Oct. 14; Gaz. vol. 195; p. 487.
McGonigle, Charles W., Algona, assignor to Globe Telephone Company, Seattle, Wash. Telephone system. No. 1,076,990; Oct. 28; Gaz. vol. 195; p. 941.
McGowan, Robert B., Cincinnati, Ohio. Pump-governor. No. 1,077,090; Oct. 28; Gaz. vol. 195; p. 974.
McGuire, Frederic F., Saginaw, Mich. Portable wardrobe. No. 1,075,298; Oct. 7; Gaz. vol. 195; p. 247.
McIntosh, Thomas J., South Lynchburg, S. C. Reversible fork and rake. No. 1,076,048; Oct. 21; Gaz. vol. 195; p. 557.
McIntyre, John C., Hoopeston, assignor to Sprague Canning Machinery Company, Chicago, Ill. Corn-silking machine. No. 1,076,688; Oct. 28; Gaz. vol. 195; p. 834.
McIver, James W., Houston, Tex. Shoe-drier. No. 1,074,888; Oct. 7; Gaz. vol. 195; p. 101.
McKeage, William, Philadelphia, Pa. Horseshoe. No. 1,076,138; Oct. 21; Gaz. vol. 195; p. 587.
McKee, David, Wichita, Kans. Liquid-hydrocarbon burner. No. 1,074,804; Oct. 7; Gaz. vol. 195; p. 74.
McKee, Mierley T., Belle Valley, Ohio. Well-boring drill. No. 1,075,843; Oct. 14; Gaz. vol. 195; p. 459.
McKeen, William H., Goldfield, Nev. Nail-set holder. No. 1,075,587; Oct. 14; Gaz. vol. 195; p. 371.
McKibbin, John B., Crafton, assignor of five-sixteenths to G. Wright, Jr., two-sixteenths to S. F. Long, and four-sixteenths to J. U. Wragg, Pittsburgh, Pa. Apparatus for the manufacture of metallic bands. No. 1,076,439; Oct. 21; Gaz. vol. 195; p. 692.
McKiernan, Thomas W., Pottsville, Pa. Street-car fender. No. 1,075,155; Oct. 7; Gaz. vol. 195; p. 195.
McKinley, Edward K., assignor of one-half to L. E. Pippenger, Jefferson City, Mo. Automatic controlling-valve. No. 1,075,662; Oct. 14; Gaz. vol. 195; p. 397.
McKinney, James P., Pittsburgh, Pa. Hinge. No. 1,076,689; Oct. 28; Gaz. vol. 195; p. 835.
McKinney Traction Cultivator Company. (See McKinney, William A., assignor.)
McKinney, William A., St. Louis, Mo., assignor to McKinney Traction Cultivator Company. Traction-cultivator frame. No. 1,076,049; Oct. 21; Gaz. vol. 195; p. 557.
McLean, William J., Everett, Mass. Corset-fastener. No. 1,075,048; Oct. 7; Gaz. vol. 195; p. 158.
McLellan, John, Providence, R. I. Multiple-drill machine. No. 1,075,588; Oct. 14; Gaz. vol. 195; p. 372.
McMahon, Frank, assignor of one-half to F. W. Schmidt, Union City, Ind. Automatic contacting device. No. 1,075,987; Oct. 14; Gaz. vol. 195; p. 508.
McMartin, Malcolm J., assignor to Duluth Corrugating & Roofing Company, Duluth, Minn. Corrugated-pipe construction. No. 1,076,595; Oct. 21; Gaz. vol. 195; p. 748.
McMillan, John, Clinton, British Columbia, Canada. Automatic gate-opening mechanism. No. 1,076,139; Oct. 21; Gaz. vol. 195; p. 588.
McMillan, Thomas E. (See Strow and McMillan.)
McNamara, James, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical machine. No. 1,076,140; Oct. 21; Gaz. vol. 195; p. 588.
McNamara, John. (See Sutton, Harry F., assignor.)

McNeal, Luther C., Rochester, N. Y. Mop-wringer. No. 1,076,306; Oct. 21; Gaz. vol. 195; p. 645.
McNeel, William P., San Antonio, Tex. Electric-lamp attachment. No. 1,075,365; Oct. 14; Gaz. vol. 195; p. 294.
McNeil, Donald, Halifax, Nova Scotia, Canada. Chisel-gage. No. 1,076,900; Oct. 28; Gaz. vol. 195; p. 909.
McTammany, John, Stamford, Conn. Machine for printing master-sheets for type-writer operators, &c. No. 1,075,366; Oct. 14; Gaz. vol. 195; p. 295.
McWane, Charles W., assignor to Lynchburg Foundry Company, Lynchburg, Va. Boltless plow-point. No. 1,076,440; Oct. 21; Gaz. vol. 195; p. 693.
McWane, Charles W., assignor to Lynchburg Foundry Company, Lynchburg, Va. Boltless moldboard and land-side plow. No. 1,076,507; Oct. 21; Gaz. vol. 195; p. 716.
Mead, Cyrus E., assignor to The Mead Engine Company, Dayton, Ohio. Rotary valve for explosive-engines. No. 1,075,432; Oct. 14; Gaz. vol. 195; p. 318.
Mead Engine Company, The. (See Mead, Cyrus E., assignor.)
Mead, Harry, Coalinga, Cal. Pump. No. 1,076,596; Oct. 21; Gaz. vol. 195; p. 748.
Meckel, Aurel, Elberfeld, Germany. File for letters, invoices, and the like. No. 1,074,805; Oct. 7; Gaz. vol. 195; p. 74.
Medart, Philip S., assignor to Fred Medart Manufacturing Company, St. Louis, Mo. Caster mechanism for vaulting-horses. No. 1,076,778; Oct. 28; Gaz. vol. 195; p. 866.
Meeker, Clifford D. (See Darby and Meeker.)
Meerbott, Percy B., Secaucus, N. J., assignor to J. T. Stanley, New York, N. Y. Composition of matter. No. 1,075,663; Oct. 14; Gaz. vol. 195; p. 397.
Mehlhope, Clarence E. (See Wolf and Southworth, assignors.)
Meisenburg, Kurt. (See Delbrück and Meisenburg.)
Meisenburg, Kurt. (See Hofmann, Delbrück, and Meisenburg.)
Meitner, Lise, Berlin, assignor to Dr. O. Knöfler & Co., Berlin-Plötzensee, Germany. Preparation of radiothorium. No. 1,076,141; Oct. 21; Gaz. vol. 195; p. 588.
Melat, Frank H. (See Malo and Melat.)
Melchert, Charles A., and W. D. Snyder, Kansas City, Mo. Concrete post. No. 1,075,988; Oct. 14; Gaz. vol. 195; p. 509.
Melick, Zenas L., Pueblo, Colo., and E. F. Dunn, Oklahoma, Okla. Hydrocarbon-oil burner. No. 1,075,299; Oct. 7; Gaz. vol. 195; p. 247.
Mellin, Carl J., Schenectady, N. Y. Draft appliance for locomotives. No. 1,076,142; Oct. 21; Gaz. vol. 195; p. 589.
Mendez, Louis, Yonkers, N. Y. Cooking device. No. 1,076,383; Oct. 21; Gaz. vol. 195; p. 672.
Merchant, Isaac T., Morven, Ga. Track-cleaner. No. 1,075,927; Oct. 14; Gaz. vol. 195; p. 488.
Mercury Manufacturing Company, The. (See Bulley, George W., assignor.)
Mergenthaler Linotype Company. (See Ball, Augustus A., Jr., assignor.)
Mergenthaler Linotype Company. (See Bedell, Richard M., assignor.)
Mergenthaler Linotype Company. (See Boardman, Robert O., assignor.)
Mergenthaler Linotype Company. (See Degener, Heinrich, assignor.)
Mergenthaler Linotype Company. (See Dodge, Philip T., assignor.)
Mergenthaler Linotype Company. (See Grove, Ralph M., assignor.)
Mergenthaler Linotype Company. (See Kennedy, David S., assignor.)
Mergenthaler Linotype Company. (See Kingsbury, George P., assignor.)
Mergenthaler Linotype Company. (See Krelling, Julius W., assignor.)
Mergenthaler Linotype Company. (See McNamara, James, assignor.)
Mergenthaler Linotype Company. (See Rogers, John R., assignor.)
Merkel, Lewis W., assignor of one-fourth to J. J. Hanlon and one-fourth to H. G. Scheldon, Allentown, Pa. Moving-picture machine. No. 1,075,487; Oct. 14; Gaz. vol. 195; p. 337.
Merley, John, Canton, Ohio, assignor, by mesne assignments, to The Union Trust Company of Pittsburgh, trustee. Silo and building-tile therefor. No. 1,076,597; Oct. 21; Gaz. vol. 195; p. 748.
Merling, Georg, Elberfeld, and H. Köhler, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Esters of dialkylaminoformic acid. No. 1,074,966; Oct. 7; Gaz. vol. 195; p. 128.
Merling, Georg, Elberfeld, and H. Köhler, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing beta-methyl-gamma-oxybutyldimethylamin. No. 1,074,967; Oct. 7; Gaz. vol. 195; p. 128.
Merrill, Arthur H., Hartford, Conn. Article of adornment. No. 1,074,727; Oct. 7; Gaz. vol. 195; p. 49.
Merritt, George E., assignor of one-half to W. N. Crisp, Baltimore, Md. Door-locking mechanism. No. 1,077,091; Oct. 28; Gaz. vol. 195; p. 974.
Merritt, George E., assignor of one-half to W. N. Crisp, Baltimore, Md. Car-door hanger. No. 1,077,151; Oct. 28; Gaz. vol. 195; p. 991.
Merritt, George W., San Antonio, Tex. Sliding-door latch. No. 1,075,367; Oct. 14; Gaz. vol. 195; p. 295.
Merritt, Joseph, assignor of one-half to E. W. Smith, Hartford, Conn. Means for stringing tobacco-leaves. No. 1,076,901; Oct. 28; Gaz. vol. 195; p. 910.
Merritt, Joseph, assignor of one-half to E. W. Smith, Hartford, Conn. Machine for stringing tobacco-leaves. No. 1,076,902; Oct. 28; Gaz. vol. 195; p. 910.
Merritt, Joseph, Hartford, Conn., assignor of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., one-fourth to W. A. Lorenz, and one-fourth to W. H. Honiss, Hartford, Conn. Gasket-cutting apparatus. No. 1,075,488; Oct. 14; Gaz. vol. 195; p. 338.
Merrow, Joseph M., Hartford, Conn. Feeding mechanism for sewing-machines. No. 1,074,968; Oct. 7; Gaz. vol. 195; p. 128.
Merwin, Orange F., Erie, Pa. Wall-tie. No. 1,076,836; Oct. 28; Gaz. vol. 195; p. 886.
Messerschmitt, Anton, Stolberg, Germany. Extracting alkali metals in the form of nitrates from minerals. No. 1,076,508; Oct. 21; Gaz. vol. 195; p. 717.
Metal Specialties Manufacturing Company. (See Berg, John, assignor.)
Metcalfe, James C. (See Metcalfe, Richard D. and J. C.)
Metcalfe, Richard D. and J. C., Romiley, England. Injector. No. 1,076,220; Oct. 21; Gaz. vol. 195; p. 615.
Metz, George J. (See Maier and Metz.)
Meurling, Ivar, Brooklyn, assignor to Empire Duplex Gin Company, New York, N. Y. Cotton-gin. No. 1,076,837; Oct. 28; Gaz. vol. 195; p. 886.
Meyenburg, Otto von, Zurich, Switzerland. Device for the purpose of threading the warp-threads into the heddles. No. 1,076,598; Oct. 21; Gaz. vol. 195; p. 749.
Meyer, George L., Milwaukee, Wis. Vessel-labeling machine. No. 1,075,719; Oct. 14; Gaz. vol. 195; p. 416.
Meyer, Henry, New York, N. Y. Automatic gas-lighter. No. 1,074,728; Oct. 7; Gaz. vol. 195; p. 49.
Meyer, Ludwig F., *et al.* (See Müller, Philipp, assignor.)
Meyer, Martin, Omaha, Nebr. Combination doorway and step closure for street-cars. No. 1,075,049; Oct. 7; Gaz. vol. 195; p. 159.
Middleton, Enrique. (See Serramoglia and Middleton.)
Midland Ores and Patents Co. (See David, Albert, assignor.)
Miehle Printing Press & Manufacturing Company, The. (See Droitcour, Michael A., assignor.)
Mighirian, Mardiros, New York, N. Y. Altar-bread cutter. No. 1,076,384; Oct. 21; Gaz. vol. 195; p. 672.
Mihills, Merrick A., Highland Park, Ill. Letter-opening machine. No. 1,075,050; Oct. 7; Gaz. vol. 195; p. 159.
Milam, Marcus A., *et al.* (See Wells, Elisha F., assignor.)
Milbank, William E. (See Shiverick, Myron D., assignor.)
Miller, Adolph, assignor to The Miller Manufacturing Company, St. Louis, Mo. Portable building structure. No. 1,075,368; Oct. 14; Gaz. vol. 195; p. 295.
Miller, Axel H., Chicago, Ill. Vehicle-wheel. No. 1,075,664; Oct. 14; Gaz. vol. 195; p. 397.
Miller, Benjamin D., Wooster, Ohio, assignor to E. Paumier and G. A. Hudson. Box-lid holder. No. 1,075,844; Oct. 14; Gaz. vol. 195; p. 459.
Miller, Charles M., Tyrone, Pa. Railway-splice. No. 1,076,638; Oct. 21; Gaz. vol. 195; p. 765.
Miller & Co., Clifford L. (See Slosson, James S., assignor.)
Miller Electric Switch Company, The. (See Miller, Royal R., assignor.)
Miller Electric Switch Company, The. (See Walker, Cassius M., assignor.)
Miller, Frederick. (See Chamberlin and Miller.)
Miller, Guyon, assignor to Downingtown Manufacturing Company, Downingtown, Pa. Reel for winding paper No. 1,075,051; Oct. 7; Gaz. vol. 195; p. 159.
Miller, Henry C., Waterford, N. Y. Automatic stopping device for sound-reproducing machines. No. 1,076,385; Oct. 21; Gaz. vol. 195; p. 673.
Miller, Henry C., Waterford, N. Y. Controlling mechanism. No. 1,077,152; Oct. 28; Gaz. vol. 195; p. 992.
Miller, Isaac W., assignor to Miller Store Fixture Company, St. Louis, Mo. Show-case construction. No. 1,076,143; Oct. 21; Gaz. vol. 195; p. 589.
Miller, Jesse W. (See Miller, William I. and J. W.)
Miller, John A., Homewood, Ill., and V. Keenan, Cincinnati, Ohio. Aquatic pleasure structure. No. 1,076,779; Oct. 28; Gaz. vol. 195; p. 866.
Miller, John J., San Diego, Cal. Tape-line protector. No. 1,075,052; Oct. 7; Gaz. vol. 195; p. 160.
Miller, Louis G., and F. C. Dankmyer, Westmont borough, Pa. Car-coupling. No. 1,076,050; Oct. 21; Gaz. vol. 195; p. 557.
Miller Manufacturing Company, The. (See Miller, Adolph, assignor.)
Miller Pasteurizing Machine Company, The. (See Pfouts, Leroy S., assignor.)
Miller, Royal R., Pueblo, Colo., assignor to The Miller Electric Switch Company. Construction of trolley insulated sections. No. 1,075,787; Oct. 14; Gaz. vol. 195; p. 439.
Miller Store Fixture Company. (See Miller, Isaac W., assignor.)

Miller, Thomas S., South Orange, N. J. Marine cableway. No. 1,076,599; Oct. 21; Gaz. vol. 195; p. 749.
Miller, William I. and J. W., Red Wing, Minn. Horse-shoe-calk. No. 1,075,263; Oct. 7; Gaz. vol. 195; p. 235.
Miller, William M., and S. A. Shipp, Los Angeles, Cal. Regulator. No. 1,075,219; Oct. 7; Gaz. vol. 195; p. 217.
Millice, Paul S., Hamilton, Ohio, assignor to Fire-Proof Furniture and Construction Company, New York, N. Y. Filing-case. No. 1,075,369; Oct. 14; Gaz. vol. 195; p. 296.
Milliren, John E., Falls Creek, Pa. Glass-drawing bait. No. 1,075,220; Oct. 7; Gaz. vol. 195; p. 217.
Millis, Linn W., Kansas City, Mo. Heating apparatus. No. 1,075,116; Oct. 7; Gaz. vol. 195; p. 181.
Mills, George F., Cottagehill, Fla. Concrete construction. No. 1,075,928; Oct. 14; Gaz. vol. 195; p. 488.
Mills, Joseph H., Richmond, Ind. Structural material. No. 1,075,845; Oct. 14; Gaz. vol. 195; p. 459.
Milner, Henry J., Chicopee, Mass., assignor to Milner Manufacturing Company. Sanitary drinking-fountain. No. 1,075,433; Oct. 14; Gaz. vol. 195; p. 319.
Milner Manufacturing Company. (See Milner, Henry J., assignor.)
Mindorfer, Frank. (See Kaehr, Arthur M., assignor.)
Miner, Albert L. Bellows Falls, Vt. Dilating-syringe. No. 1,076,221; Oct. 21; Gaz. vol. 195; p. 616.
Minish, John C., Ridgway, Pa. Flexible sled. No. 1,075,846; Oct. 14; Gaz. vol. 195; p. 459.
Mitchel, Charles C., Lyndhurst, N. J. Fastener for railway-rails. No. 1,076,144; Oct. 21; Gaz. vol. 195; p. 589.
Mitchell, Andrew F. (See Jones and Mitchell.)
Mitchell, Frank, London, England, assignor, by mesne assignments, to Atlantic National Bank, Providence, R. I. Apparatus for rifle, gunnery, and like practice. No. 1,075,589; Oct. 14; Gaz. vol. 195; p. 372.
Mitchell, Raymond C., and H. M. Neer, assignors to H. Voges, Jr., Springfield, Ohio. Explosive-engine. No. 1,076,903; Oct. 28; Gaz. vol. 195; p. 910.
Mitchell, Walter M. (See Littlejohn and Mitchell.)
Mitschler, Eugene, New York, N. Y. Dough-shaping implement. No. 1,076,509; Oct. 21; Gaz. vol. 195; p. 717.
Mocydlarz, Tomas, Strathcona, Alberta, Canada. Envelop-moistening device. No. 1,077,201; Oct. 28; Gaz. vol. 195; p. 1008.
Modern Manufacturing Company, The. (See Sweet, Homer E., assignor.) (Reissue.)
Modern Pen Company. (See Chapman, William L., assignor.)
Moeller, Albert L., Mishicott, Wis. Spark-controller for explosive-engines. No. 1,075,847; Oct. 14; Gaz. vol. 195; p. 460.
Moffatt, James R., assignor to Union Special Machine Company, Chicago, Ill. Sewing-machine. No. 1,076,991; Oct. 28; Gaz. vol. 195; p. 941.
Moffett, William A., and R. P. Perkins, San Francisco, Cal. Occulting device for lights. No. 1,077,202; Oct. 28; Gaz. vol. 195; p. 1008.
Mohr, Otto H., Kentfield, Cal., assignor to Mohrlite Company. Lighting-fixture. No. 1,075,370; Oct. 14; Gaz. vol. 195; p. 297.
Mohrlite Company. (See Mohr, Otto H., assignor.)
Mokeler, Nellie J. (See Williamson, John, assignor.)
Moline Plow Company. (See Mandt and Vingum, assignors.)
Moltz, John W., Watsontown, Pa. Brick-machine. No. 1,074,638; Oct. 7; Gaz. vol. 195; p. 18.
Monitor Manufacturing Company. (See Holmes and Whittingham, assignors.)
Montfort, Glenn H., and A. L. Beauchaine, Chattanooga, Tenn. Non-refillable bottle. No. 1,076,510; Oct. 21; Gaz. vol. 195; p. 717.
Montgomery, Walter L., Chicago, Ill. Automatic device for receiving and discharging cartons. No. 1,077,092; Oct. 28; Gaz. vol. 195; p. 975.
Moody, Joseph E., Stamford, Tex. Cultivator attachment. No. 1,074,729; Oct. 7; Gaz. vol. 195; p. 49.
Moon, Herman, assignor of one-half to W. M. Dight, Grove City, Pa. Wrench. No. 1,075,434; Oct. 14; Gaz. vol. 195; p. 319.
Mooney, Lawrence C., Montgomery, Ala. Cross-tie for railways. No. 1,076,690; Oct. 28; Gaz. vol. 195; p. 835.
Moore, Clarence M., Mittinengue, Mass. Stropper. No. 1,075,665; Oct. 14; Gaz. vol. 195; p. 398.
Moore, Edward B., Newark, Ohio. Auxiliary handle for shovels. No. 1,074,889; Oct. 7; Gaz. vol. 195; p. 102.
Moore, Henry E., assignor of one-half to F. Q. Cason, Atlanta, Ga. Door-building device. No. 1,074,639; Oct. 7; Gaz. vol. 195; p. 18.
Moore, Isham S., Runge, Tex. Sanitary drinking-fountain. No. 1,075,053; Oct. 7; Gaz. vol. 195; p. 160.
Moore, Lewis P., Weldon, Ill. Lamp-burner. No. 1,076,511; Oct. 21; Gaz. vol. 195; p. 717.
Moore, William, Irondale, Wash. Combined bevel and square. No. 1,074,969; Oct. 7; Gaz. vol. 195; p. 129.
Moors, George F., Cincinnati, Ohio. Rotary engine. No. 1,075,590; Oct. 14; Gaz. vol. 195; p. 372.
Morgan Construction Company. (See Edwards, Victor E., assignor.)
Morgan, Daniel, Aspinwall, assignor of one-half to A. H. Leslie, Hoboken, Pa. Door-operating mechanism. No. 1,076,051; Oct. 21; Gaz. vol. 195; p. 558.
Morgan, George C. (See White, Tilman, assignor.)
Morgan, Reuben D., Cleveland, Ohio. Folding stool. No. 1,075,591; Oct. 14; Gaz. vol. 195; p. 373.
Morgan, William J., St. Louis, Mo., assignor to A. L. Eustice, Chicago, Ill. Inclosed electric fuse. No. 1,074,806; Oct. 7; Gaz. vol. 195; p. 75.
Morison, Donald B., Hartlepool, England. Water-jet ejector. No. 1,076,609; Oct. 21; Gaz. vol. 195; p. 750.
Morley, Edward G., Malvern, Melbourne, Victoria, Australia. Golf-club attachment. No. 1,075,054; Oct. 7; Gaz. vol. 195; p. 161.
Morrell, Thomas W., Bloomfield, N. J. Melting-furnace. No. 1,075,592; Oct. 14; Gaz. vol. 195; p. 373.
Morris, Edmund, assignor to Wilmarth Show Case Co., Grand Rapids, Mich. Glass show-case. No. 1,074,640; Oct. 7; Gaz. vol. 195; p. 18.
Morris, Leroy R., Longbeach, Cal. Automatic chimney-sweep. No. 1,075,593; Oct. 14; Gaz. vol. 195; p. 373.
Morris, William L., Cleveland, Ohio, assignor to S. F. Bowser & Company, Fort Wayne, Ind. Lubricating apparatus. No. 1,074,730; Oct. 7; Gaz. vol. 195; p. 50.
Morris, William M., Bordentown, N. J. Dyeing-machine. No. 1,076,305; Oct. 21; Gaz. vol. 195; p. 645.
Morrison, George L. (See Fordon and Morrison.)
Morrison, John, Jr., Glens Falls, N. Y. Table-archery. No. 1,075,264; Oct. 7; Gaz. vol. 195; p. 235.
Morse, John J., St. Louis, Mo. Reinforced brake-shoe. No. 1,075,848; Oct. 14; Gaz. vol. 195; p. 460.
Morse, Leo, New York, N. Y. Vanity-box. No. 1,077,093; Oct. 28; Gaz. vol. 195; p. 975.
Morse, Theodore F., assignor to Huntley Manufacturing Company, Silver Creek, N. Y. Cleaner for separator-screens. No. 1,074,970; Oct. 7; Gaz. vol. 195; p. 129.
Morton, James E., Dallas, Tex. Street-indicator for electric cars. No. 1,075,055; Oct. 7; Gaz. vol. 195; p. 161.
Morton, Walter S., Harrisburg, Pa. Worm-drive for motor-vehicles. No. 1,076,052; Oct. 21; Gaz. vol. 195; p. 558.
Moscovitz, Samuel B., New York, N. Y., assignor, by mesne assignments, to National Automatic Roll Advertising Company. Electrical indicator. No. 1,076,222; Oct. 21; Gaz. vol. 195; p. 616.
Moser, George W., Perrysburg, Ohio. Combined intake and exhaust valve for internal-combustion engines. No. 1,075,594; Oct. 14; Gaz. vol. 195; p. 374.
Moss, Sanford A., Lynn, Mass., assignor to General Electric Company. Centrifugal compressor. No. 1,075,300; Oct. 7; Gaz. vol. 195; p. 248.
Moulié, Eugène, Jacksonville, Fla. Apparatus for receiving, separating, and filtering oils. No. 1,075,265; Oct. 7; Gaz. vol. 195; p. 235.
Mowe, Lester M., Deep River, Wash. Starting device for explosive-engines. No. 1,077,094; Oct. 28; Gaz. vol. 195; p. 975.
Mowry, Roy M., assignor of one-half to C. A. Markwell, Los Angeles, Cal. Baling-machine. No. 1,076,601; Oct. 21; Gaz. vol. 195; p. 750.
Mora, Hidalgo, assignor to Imperial Typewriter Company Limited, North Evington, England. Type-bar mechanism for type-writers. No. 1,076,602; Oct. 21; Gaz. vol. 195; p. 750.
Morer, Walter W. (See Condit, Harry H., assignor.)
Mudrak, Paul. (See Mazur and Mudrak.)
Muhlfeld, John E., Kansas City, Mo. Vestibule-diaphragm and support therefor. No. 1,074,731; Oct. 7; Gaz. vol. 195; p. 50.
Mullally, John B., and G. L. Grant, Seattle, Wash. Clip-attaching device. No. 1,077,154; Oct. 28; Gaz. vol. 195; p. 992.
Müller, Emil. (See Völler and Müller.)
Müller, Herman, New York, N. Y. Button-making machine. No. 1,074,641; Oct. 7; Gaz. vol. 195; p. 19.
Müller, Hermann, Leipzig-Gohlis, Germany. Electrical suspension-railway. No. 1,074,807; Oct. 7; Gaz. vol. 195; p. 75.
Müller, Joseph H., Oakland, Cal. Micrometer-calipers. No. 1,075,929; Oct. 14; Gaz. vol. 195; p. 488.
Müller, Philipp, Villeï, assignor to H. Finkelstein and L. P. Meyer, Berlin, Germany. Manufacture of alimentary products. No. 1,075,720; Oct. 14; Gaz. vol. 195; p. 417.
Müller, Wilhelm A. T., Berlin-Steglitz, Germany. Electrically-driven railless trains. No. 1,075,595; Oct. 14; Gaz. vol. 195; p. 374.
Multiplex Display Fixture Company. (See Crecelius, Theodore E., assignor.)
Mumford, Edgar H., Philadelphia, Pa. Mechanism for drawing patterns. No. 1,075,117; Oct. 7; Gaz. vol. 195; p. 181.
Murphey, Frank P., Decatur, assignor to Emerson-Brantingham Company, Rockford, Ill. Corn-planter. No. 1,076,145; Oct. 21; Gaz. vol. 195; p. 590.
Murphy, John B., Cork, Ireland. Apparatus for supporting window-sashes and the like. No. 1,076,053; Oct. 21; Gaz. vol. 195; p. 559.
Murphy, Ralph O., Millvale, Pa. Relief-valve. No. 1,076,512; Oct. 21; Gaz. vol. 195; p. 718.
Murray, Frank M., Cadyville, N. Y. Driving device for vehicle-speedometers. No. 1,074,732; Oct. 7; Gaz. vol. 195; p. 51.
Murray, James P. (See Murray and Neilan.)
Murray, Margarete W., St. Joseph, Mo. Protective overboot. No. 1,075,930; Oct. 14; Gaz. vol. 195; p. 489.
Murray, Stephen D., Dallas, Tex. Baling-press. No. 1,074,642; Oct. 7; Gaz. vol. 195; p. 19.

Murray, Thomas R. and J. P., and R. S. Neilan, New London, Conn. Street-cleaner. No. 1,075,489; Oct. 14; Gaz. vol. 195; p. 338.
Murray, Willis G., San Francisco, Cal. Non-skidding device. No. 1,076,904; Oct. 28; Gaz. vol. 195; p. 910.
Muser, Fritz. (See Darrow, Henry W., assignor.)
Myers, Charles G., Cleveland, Ohio. Lamp. No. 1,077,153; Oct. 28; Gaz. vol. 195; p. 992.
Myers, Charles H., Buffalo, N. Y. Carbureter for motorcycles and other purposes. No. 1,075,596; Oct. 14; Gaz. vol. 195; p. 375.
Myers, Charles H., Buffalo, N. Y. Mixer for gaseous fluids. No. 1,075,597; Oct. 14; Gaz. vol. 195; p. 375.
Myers, Charles H., Buffalo, N. Y. Carbureter for household and other uses. No. 1,075,598; Oct. 14; Gaz. vol. 195; p. 376.
Myers, Charles H., Buffalo, N. Y. Mixer. No. 1,075,599; Oct. 14; Gaz. vol. 195; p. 376.
Myers, Charles R., Cleveland, Ohio. Tree surgery. No. 1,076,441; Oct. 21; Gaz. vol. 195; p. 693.
Myers, George W., Philadelphia, Pa. Wagon. No. 1,074,971; Oct. 7; Gaz. vol. 195; p. 129.
Myers, Isadore L. (See Stutz and Arnott, assignors.)
Myers, Lulu, Bailey, Colo. Safety hat-pin. No. 1,075,931; Oct. 14; Gaz. vol. 195; p. 489.
Nacirema Chemical Company. (See Dunham, Henry V., assignor.)
Nash, Charles J., Chicago, Ill., assignor to Universal Draft Gear Attachment Co. Draft-gear yoke. No. 1,074,733; Oct. 7; Gaz. vol. 195; p. 51.
National Automatic Roll Advertising Company. (See Moscovitz, Samuel B., assignor.)
National Bottlers Equipment Company. (See Gallup, Rockwell A., assignor.)
National Cash Register Co., The. (See Piscicelli, Roberto T., assignor.) (Reissue.)
National Cash Register Company, The. (See Church, Edmund S., assignor.) (Reissue.)
National Cash Register Company, The. (See Werner and Green, assignors.)
National Enameling and Stamping Company. (See Wagandt, Charles L., assignor.)
National Trap Works, The. (See Niebuhr, Wilhelm, assignor.)
Neafie, Andrew J., Boonton, N. J. Rail-joint. No. 1,074,972; Oct. 7; Gaz. vol. 195; p. 130.
Neblinger, Frank M. (See Fulmer and Neblinger.)
Neeley, Jessey B. and R. E., Bighill, Ky. Rotary engine. No. 1,075,435; Oct. 14; Gaz. vol. 195; p. 320.
Neeley, Roy E. (See Neeley, Jessey B. and R. E.)
Neer, Harry M. (See Mitchell and Neer.)
Neeson, Charles V. (See Kerr and Neeson.)
Neilan, Alfred L., Saginaw, Mich. Connecting device for water-tank-valve levers. No. 1,074,734; Oct. 7; Gaz. vol. 195; p. 51.
Neilan, Edward S. (See Murray and Neilan.)
Nelson, A. Frank, *et al.* (See Carlson, Carl A., assignor.)
Nelson, Al. Ripley, Tenn. Oiling attachment for the axles of resilient wheels. No. 1,076,513; Oct. 21; Gaz. vol. 195; p. 718.
Nelson, Edward A., *et al.* (See Carlson, Carl A., assignor.)
Nelson, Frank W., Chicago, Ill. Pneumatic-carrier system. No. 1,074,890; Oct. 7; Gaz. vol. 195; p. 102.
Nelson, George N., *et al.* (See Crane, Frank R., Jr., assignor.)
Nelson, Oscar. (See Deming, Joseph H., assignor.)
Nelson, William L., Boss, Mo. Automatic parcel-carrier. No. 1,075,371; Oct. 14; Gaz. vol. 195; p. 297.
Nelson, William L., Boss, Mo. Derailment-guard. No. 1,075,600; Oct. 14; Gaz. vol. 195; p. 377.
Nemeth, Joseph, St. Louis, Mo. Hat-pin guard. No. 1,074,735; Oct. 7; Gaz. vol. 195; p. 51.
Nesdall, John T., New York, N. Y., assignor to H. L. Johnstone, Glen Ridge, N. J. Metallic stair structure. No. 1,075,156; Oct. 7; Gaz. vol. 195; p. 195.
Neuberger, John, and J. F. Hines, Cleveland, Ohio. Shade and curtain-pole support. No. 1,074,973; Oct. 7; Gaz. vol. 195; p. 130.
New Columbia Shirt Company. (See Binswanger, Samuel, assignor.)
New Haven Clock Co. (See Porter, Wilson E., assignor.)
New Jersey Patent Company. (See Aylsworth, Jonas W., assignor.)
New Jersey Patent Company. (See Dyer, Frank L., assignor.)
New Jersey Patent Company. (See Oliver, Henry T., assignor.)
New Jersey Patent Company. (See Saltzman, Auguste L., assignor.)
New Jersey Testing Laboratories. (See Ellis, Carleton, assignor.)
New York Air Brake Company. (See Bickel, Henry F., assignor.)
Newberry, Spencer B., and H. N. Barrett, Baybridge, Ohio. Making fertilizer. No. 1,074,808; Oct. 7; Gaz. vol. 195; p. 75.
Newton, Charles, Buffalo, N. Y. Powder and propellant for use in firearms. No. 1,074,809; Oct. 7; Gaz. vol. 195; p. 75.
Nicholas, Joseph W., Freestone, Tex. Baling-press. No 1,075,056; Oct. 7; Gaz. vol. 195; p. 162.
Nicholas, Matthew. (See Hanning and Nicholas.)
Nicholls, Walter N., and A. W. Carmichael, Toronto, Ontario, Canada. Fastener for sheet roofing material. No. 1,076,639; Oct. 21; Gaz. vol. 195; p. 705.
Nicholson, Charles M., Buffalo, N. Y. Card game. No. 1,076,307; Oct. 21; Gaz. vol. 195; p. 646.
Nicholson, John E. (See Beers, Harry F., assignor.)
Nickerson, William E., Cambridge, assignor to Gillette Safety Razor Company, Boston, Mass. Machine for printing and for other purposes. No. 1,075,989; Oct. 14; Gaz. vol. 195; p. 509.
Nicolet, Roger, Plainfield, N. J. Machine for detecting defects in motion-picture films. No. 1,076,691; Oct. 28; Gaz. vol. 195; p. 835.
Niebuhr, Wilhelm, assignor to The National Trap Works, Madison, Wis. Animal-trap. No. 1,077,244; Oct. 28; Gaz. vol. 195; p. 1022.
Niemann, William H., Litchfield, Ill. Bridle-bit. No. 1,076,442; Oct. 21; Gaz. vol. 195; p. 694.
Nikodem, Hermann, Hamburg, Germany. Folding rest for firearms. No. 1,076,692; Oct. 28; Gaz. vol. 195; p. 836.
Nilsson, John W., Balfour, N. D. Oil-can. No. 1,074,810; Oct. 7; Gaz. vol. 195; p. 76.
Nixon, George W. (See Helman and Nixon.)
Noble, Harvey P., assignor of one-half to E. G. Ott, Philadelphia, Pa. Signaling device for automobiles. No. 1,076,443; Oct. 21; Gaz. vol. 195; p. 694.
Noll, George H., New York, N. Y. Clothes-line clamp. No. 1,074,736; Oct. 7; Gaz. vol. 195; p. 52.
Nonneman, Ira W., assignor to The Borden Company, Warren, Ohio. Pipe-cutter. No. 1,076,223; Oct. 21; Gaz. vol. 195; p. 617.
Noon, James H. (See Carpenter, John H., assignor.)
Norden, Joseph, *et al.* (See Schloss, Newton L., assignor.)
Norden, Mortimer, *et al.* (See Schloss, Newton L., assignor.)
Nordgreen, Axel W. (See Bastian and Nordgreen.)
Noren, Andrew. (See Edwards, Elmer O., assignor.)
Norlin, Evert. (See Frestadius, Norlin, and Oman.)
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Roller-bearing. No. 1,074,643; Oct. 7; Gaz. vol. 195; p. 19.
North American Novelty Company. (See Hall, William H., assignor.)
Northeast Electric Company. (See Halbleib, Edward A., assignor.)
Northern Iron Company. (See Ross, Lewis P., assignor.)
Norton, George W., Flushing, N. Y. Window-screen. No. 1,076,693; Oct. 28; Gaz. vol. 195; p. 836.
Norwood, Jay M., assignor of one-half to A. Quinet, Phoenix, Ariz. Lady's hat-pin shield. No. 1,077,155; Oct. 28; Gaz. vol. 195; p. 993.
Noyes, Edward P., Winchester, Mass. Vacuum-controlled differential liquid-level apparatus. No. 1,076,146; Oct. 21; Gaz. vol. 195; p. 590.
Nunamacher, William H., Newark, N. J. Car-truck. No. 1,074,811; Oct. 7; Gaz. vol. 195; p. 76.
Nydegger, Adolph, assignor to O. J. Koch, Milwaukee, Wis. Marine propulsion apparatus. No. 1,076,308; Oct. 21; Gaz. vol. 195; p. 646.
O'Brien, Arthur P. (See Allen, John A., assignor.)
O'Brien, Arthur P. (See Richardson, James P., assignor.)
O'Brien, Arthur P., Mount Vernon, and J. A. Allen, New York, N. Y.; said Allen assignor to said O'Brien. Defibrating-machine. No. 1,075,266; Oct. 7; Gaz. vol. 195; p. 236.
O'Brien, James A., and G. N. Heald, Lewiston, Me. Proscenium-closure and projector-screen. No. 1,075,118; Oct. 7; Gaz. vol. 195; p. 182.
O'Brien, Terrence, Newark, N. J., assignor to L. A. Myers, Jr., Inc. Buckle. No. 1,075,601; Oct. 14; Gaz. vol. 195; p. 377.
O'Brien, William P., *et al.* (See Crossley, Albert D., assignor.)
O'Connell, Thomas, St. Paul, Minn. Boiler-stand. No. 1,075,990; Oct. 14; Gaz. vol. 195; p. 509.
O'Connor, John J., Pawtucket, R. I. Spinning machinery. No. 1,074,737; Oct. 7; Gaz. vol. 195; p. 52.
O'Day, Thomas F., Somerville, Mass. Manhole structure. No. 1,076,386; Oct. 21; Gaz. vol. 195; p. 673.
O'Donnell, Dominick, New York, N. Y. Hosiery. No. 1,076,603; Oct. 21; Gaz. vol. 195; p. 751.
O'Toole, John, Los Angeles, Cal. Windmill. No. 1,075,060; Oct. 7; Gaz. vol. 195; p. 163.
Oatley, Henry B., Flushing, assignor to Locomotive Superheater Company, New York, N. Y. Automatic combined damper and drifting-valve. No. 1,075,157; Oct. 7; Gaz. vol. 195; p. 195.
Obstler, Joseph, New York, N. Y. Derrick. No. 1,076,992; Oct. 28; Gaz. vol. 195; p. 942.
Oddey, William L., Eltham, England. Vaporizer for fumigating, perfuming, and the like. No. 1,075,267; Oct. 7; Gaz. vol. 195; p. 236.
Offerman, Joseph. (See Broman and Offerman.)
Officer, Thomas. (See Ball and Officer.)
Oglesby, Harry, Chester, Pa. Window-shade adjuster. No. 1,076,905; Oct. 28; Gaz. vol. 195; p. 911.
Okun, Morris B., Chicago, Ill. Bed-rail attachment. No. 1,076,838; Oct. 28; Gaz. vol. 195; p. 886.
Oldham, Samuel, assignor to George Oldham & Son Company, Philadelphia, Pa. Pneumatic sand-rammer. No. 1,075,057; Oct. 7; Gaz. vol. 195; p. 162.
Oliphant, Clarence C., assignor to W. H. Earl, Lockport, N. Y. Discharger for bottles. No. 1,075,268; Oct. 7; Gaz. vol. 195; p. 236.

Oliver, Henry T., Newark, assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Camera focusing device. No. 1,076,694; Oct. 28; Gaz. vol. 195; p. 836.
Olmsted, David R., Council Bluffs, Iowa. Wave-motor. No. 1,077,156; Oct. 28; Gaz. vol. 195; p. 993.
Olson, Elias, Jewell, Iowa. Post-puller. No. 1,074,974; Oct. 7; Gaz. vol. 195; p. 130.
Olson, Paul B., Chicago, Ill. Automatic tempo-regulator. No. 1,076,695; Oct. 28; Gaz. vol. 195; p. 836.
Olsson, Albin, Renton, Wash. Log-car. No. 1,074,812; Oct. 7; Gaz. vol. 195; p. 76.
Oman, Erik. (See Frestadius, Norlin, and Oman.)
Ord, Lewis C., assignor to Canadian Gold Car Heating & Lighting Company, Limited, Montreal, Quebec, Canada. Means for regulating steam-heating systems. No. 1,076,444; Oct. 21; Gaz. vol. 195; p. 694.
Orling, Axel, assignor to Orling's Telegraph Instruments Syndicate, Limited, London, England. Electrocapillary contrivance. No. 1,076,445; Oct. 21; Gaz. vol. 195; p. 695.
Orling's Telegraph Instruments Syndicate. (See Orling, Axel, assignor.)
Ormsbee, Albert A., *et al.* (See Roberts, Henry P., assignor.)
Oros, Nicholas, Chicago, Ill. Ironing device. No. 1,075,788; Oct. 14; Gaz. vol. 195; p. 439.
Orr, John, Schenectady, N. Y., assignor to General Electric Company. Electrode-holder. No. 1,076,054; Oct. 21; Gaz. vol. 195; p. 559.
Orth, Charles P., Kewanee, Ill. Window rain-shield. No. 1,075,058; Oct. 7; Gaz. vol. 195; p. 163.
Orth, William S., Dunkirk, Ohio. Shingle. No. 1,077,095; Oct. 28; Gaz. vol. 195; p. 975.
Osborn, Henry C., assignor to The American Multigraph Company, Cleveland, Ohio. Type setting and distributing machine. No. 1,076,640; Oct. 21; Gaz. vol. 195; p. 765.
Osborn, Henry C., assignor to The American Multigraph Company, Cleveland, Ohio. Mechanism for storing, assembling, and distributing type. No. 1,076,906; Oct. 28; Gaz. vol. 195; p. 911.
Osborn, Richard F., and J. Roach, Ainsworth, Nebr., assignors of one-third to A. A. Radtke, Chicago, Ill. Artificial stoneware. No. 1,075,932; Oct. 14; Gaz. vol. 195; p. 489.
Osborn, Victor M., La Fayette, Ind. Flying-machine. No. 1,076,514; Oct. 21; Gaz. vol. 195; p. 718.
Osborne, Frank M., Anaconda, Mont. Repeating firearm. No. 1,077,228; Oct. 28; Gaz. vol. 195; p. 1017.
Osborne, Reginald J. (See Porter and Osborne.)
Osbourn, Millard P., Merchantville, N. J., assignor to Warren Webster & Company. Vacuum steam-heating system. No. 1,075,490; Oct. 14; Gaz. vol. 195; p. 338.
Osgood, John L., Buffalo, N. Y. Tool-handle. No. 1,074,891; Oct. 7; Gaz. vol. 195; p. 103.
Oster, Herman W., assignor to The Oster Manufacturing Company, Cleveland, Ohio. Geared die-stock. No. 1,075,059; Oct. 7; Gaz. vol. 195; p. 163.
Oster Manufacturing Company, The. (See Oster, Herman W., assignor.)
Ostermann, Gustav, Cologne-Riehl, Germany. Machine for welding tubes. No. 1,076,641; Oct. 21; Gaz. vol. 195; p. 766.
Oswald, Kolmen, New York, N. Y. Keyhole-guard. No. 1,076,696; Oct. 28; Gaz. vol. 195; p. 837.
Ott, Edwin G. (See Noble, Harvey P., assignor.)
Overman, Max C., New York, N. Y. Vehicle-tire. (Reissue.) No. 13,626; Oct. 7; Gaz. vol. 195; p. 259.
Overshiner, Ellsworth B., Chicago, Ill. Go-cart. No. 1,075,372; Oct. 14; Gaz. vol. 195; p. 297.
Oveson, John N., Chicago, Ill. Broom-hanger. No. 1,075,933; Oct. 14; Gaz. vol. 195; p. 489.
Owatonna Manufacturing Company. (See Howe, Harry C., assignor.)
Owen, Herbert W., Dover, N. H. Creel-board. No. 1,076,697; Oct. 28; Gaz. vol. 195; p. 838.
Owen, William H. (See Ash, Marsellus T., assignor.)
Owens, Charles T., Baltimore, Md. Turbine. No. 1,074,738; Oct. 7; Gaz. vol. 195; p. 52.
Owens, Luther A., Fellows, Cal. Rotary drill. No. 1,076,515; Oct. 21; Gaz. vol. 195; p. 719.
P. & M. Co., The. (See Breed, Charles W., assignor.)
P. R. Manufacturing Company. (See Reichhelm, George L., assignor.)
Pache, Auguste, New York, N. Y. Time-control apparatus. No. 1,076,055; Oct. 21; Gaz. vol. 195; p. 559.
Pacific Heating & Manufacturing Co. (See Kent, Giles, and Lyster, assignors.)
Pacific Wave Power Company. (See Shipman, Bennet C., assignor.)
Packard Motor Car Company. (See Huff, Russell, assignor.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Take-down square. No. 1,074,892; Oct. 7; Gaz. vol. 195; p. 103.
Page, Edward W., *et al.* (See Binkley, Robah J., assignor.)
Page, Ernest V. (See Lemon, Don M., assignor.)
Page, George M., assignor to The Haydenville Company, Haydenville, Mass. Drinking-fountain. No. 1,075,373; Oct. 14; Gaz. vol. 195; p. 298.
Page, J. Wallace. (See Waterman, Ira, assignor.)
Pagerie, Joanny, assignor to C. Crepaux, Paterson, N. J. Doubling and winding machine. No. 1,076,516; Oct. 21; Gaz. vol. 195; p. 719.
Pahl, August J., San Francisco, Cal., assignor to K-P-F-Electric Co. Disconnecting-switch. No. 1,076,387; Oct. 21; Gaz. vol. 195; p. 673.
Palmer, Frederick A., Middletown, Conn. Collapsible bed. No. 1,076,224; Oct. 21; Gaz. vol. 195; p. 617.
Palmer, Isaac E., assignor to The I. E. Palmer Company, Middletown, Conn. Bifurcated hammock. No. 1,077,229; Oct. 28; Gaz. vol. 195; p. 1017.
Palmgren, Carl A., Chicago, Ill. Time-controlled circuit-closing device. No. 1,074,813; Oct. 7; Gaz. vol. 195; p. 77.
Pape, Wilhelm, Charlottenburg, Germany, assignor to General Electric Company. Steam-regulator for turbines. No. 1,076,446; Oct. 21; Gaz. vol. 195; p. 695.
Paraffine Paint Company. (See Dohm, Charles W., assignor.)
Parisen, Robert T., Knoxville, assignor to Lawson Manufacturing Company, Homestead, Pa. Thermostatic valve. No. 1,075,934; Oct. 14; Gaz. vol. 195; p. 490.
Park, William R., Taunton, Mass., assignor to The United Injector Company, New York, N. Y. Gas-regulator. (Reissue.) No. 13,631; Oct. 21; Gaz. vol. 195; p. 784.
Parker, Joseph N., Bedford City, Va. Motor-plow. No. 1,075,061; Oct. 7; Gaz. vol. 195; p. 164.
Parrish, Joseph W., Nashville, Tenn. Grease-cup plug. No. 1,076,388; Oct. 21; Gaz. vol. 195; p. 674.
Parrish, William N., Richmond, Ind. Wire-fence machine. No. 1,075,374; Oct. 14; Gaz. vol. 195; p. 298.
Parrish, William N., Richmond, Ind. Wire-fence machine. No. 1,075,375; Oct. 14; Gaz. vol. 195; p. 299.
Partridge, Charles E., Keene, N. H., assignor of one-third to J. J. Waltz, Easthampton, Mass. Hub attachment. No. 1,075,849; Oct. 14; Gaz. vol. 195; p. 461.
Pascoe, George J. (See Bippus, Kempthorn, and Pascoe.)
Passaic Metal Ware Company. (See England, Isaac W., assignor.)
Pate, David B., and J. L. Spears, Hornbeck, La. Combined convertible vehicle pole and shafts. No. 1,075,721; Oct. 14; Gaz. vol. 195; p. 417.
Patterson, Chester J., Philadelphia, Pa. Hay-loader. No. 1,075,935; Oct. 14; Gaz. vol. 195; p. 490.
Patterson, Rufus L., *et al.* (See Tyberg, Olaf, assignor.)
Patterson, William, and F. N. Percival, Chicago, Ill. Carbureter. No. 1,076,309; Oct. 21; Gaz. vol. 195; p. 646.
Patton, Herbert F., Cleveland, Ohio. Projecting apparatus. No. 1,075,789; Oct. 14; Gaz. vol. 195; p. 439.
Pauk, Henry E. (See Heckel, Kachel, Goessling, and Pauk.)
Pauling, Harry, Cologne, Germany, assignor, by mesne assignments, to Southern Electro-Chemical Company. Apparatus for comminuting calcareous saltpeter, potassium or magnesium chlorid, and the like. No. 1,075,722; Oct. 14; Gaz. vol. 195; p. 417.
Paumier, Emil, *et al.* (See Miller, Benjamin D., assignor.)
Payne, Theodore P., Newark, N. J. Metal-working machine. No. 1,075,491; Oct. 14; Gaz. vol. 195; p. 339.
Payne, Theodore P., Newark, N. J. Metal-working machine. No. 1,075,492; Oct. 14; Gaz. vol. 195; p. 339.
Payson Manufacturing Company, The. (See Whitehead, John, assignor.)
Peacock, Robert H., Winterhaven, Fla. Fruit-grading apparatus. No. 1,076,642; Oct. 21; Gaz. vol. 195; p. 766.
Peale, Walter O., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric heater. No. 1,075,436; Oct. 14; Gaz. vol. 195; p. 320.
Pearce, Freeman, Niagara Falls, Ontario, Canada. Comb. No. 1,074,893; Oct. 7; Gaz. vol. 195; p. 108.
Pearsall, Albert W., Lowell, Mass., assignor to The Lamson Company, Newark, N. J. Pneumatic-despatch-tube apparatus. No. 1,075,790; Oct. 14; Gaz. vol. 195; p. 440.
Pearson, Thomas S., and T. M. Conner, Kokomo, assignors of one-third to J. B. Dougan, Richmond, Ind. Automatic baling-machine. No. 1,075,376; Oct. 14; Gaz. vol. 195; p. 299.
Peddy, Thomas T., Bienville, La. Deflector. No. 1,075,062; Oct. 7; Gaz. vol. 195; p. 164.
Peerless Motor Car Company, The. (See Strickland, William R., assignor.)
Pelke, Arthur, and F. E. Hayes, Mexico, Mexico. Apparatus for making concrete blocks. No. 1,075,936; Oct. 14; Gaz. vol. 195; p. 490.
Peltason, Leo H., St. Louis, Mo. Combined can container and perforator. No. 1,075,723; Oct. 14; Gaz. vol. 195; p. 417.
Pembroke, George H., New Brunswick, N. J., assignor to M. H. Horton, Brooklyn, N. Y. Check-protector. No. 1,075,221; Oct. 7; Gaz. vol. 195; p. 218.
Pendleton, William H. E., Venice, assignor of one-third to E. G. Kuster and one-third to R. B. Carter, Los Angeles, Cal. Locking device for gear-shift levers of automobiles. No. 1,075,666; Oct. 14; Gaz. vol. 195; p. 398.
Pennington, Frank C., Detroit, Mich. Awning. No. 1,076,310; Oct. 21; Gaz. vol. 195; p. 647.
Percival, Frank N. (See Patterson and Percival.)
Percy, Earl N. (See Smith and Percy.)
Perkins, George B., Elvins, Mo. Wrench. No. 1,075,850; Oct. 14; Gaz. vol. 195; p. 461.
Perkins, Raymond P. (See Moffett and Perkins.)

Perrot, Henri, assignor to Argylls Limited, Alexandria, Scotland. Brake. No. 1,076,311; Oct. 21; Gaz. vol. 195; p. 647.
Perry, Clyde B. (See Urquhart, William E., assignor.)
Perry, Fred T., *et al.* (See Turner, William P., assignor.)
Pestalozza, Paolo, Turin, Italy. Point-changing mechanism. No. 1,075,851; Oct. 14; Gaz. vol. 195; p. 461.
Peter, Julius F., St. Paul, Minn. Combined measure and stopper. No. 1,076,780; Oct. 28; Gaz. vol. 195; p. 866.
Peter, Wilhelm, Degraff, Ohio. Tongs. No. 1,076,839; Oct. 28; Gaz. vol. 195; p. 887.
Peterson, Arvid J., Greenfield, Mass. Attachment for screw-cutting lathes. No. 1,075,301; Oct. 7; Gaz. vol. 195; p. 248.
Peterson, Burt A., assignor to Barber-Colman Company, Rockford, Ill. Doffer. No. 1,075,852; Oct. 14; Gaz. vol. 195; p. 462.
Peterson, Emil A. (See Garnett, James L., assignor.)
Petry, Nicholas A., Philadelphia, Pa. Sectional sash-weight. No. 1,076,608; Oct. 28; Gaz. vol. 195; p. 838.
Pfahler, William Q., Toledo, Ohio. Automobile lamp attachment. No. 1,076,699; Oct. 28; Gaz. vol. 195; p. 838.
Pfouts, Leroy S., assignor to The Miller Pasteurizing Machine Company, Canton, Ohio. Pasteurizing apparatus. No. 1,076,604; Oct. 21; Gaz. vol. 195; p. 751.
Pfund, Richard, New York, N. Y. Wireless duplex system. No. 1,076,312; Oct. 21; Gaz. vol. 195; p. 648.
Phalen, Daniel J., Mason City, Iowa. Emergency drawbar. No. 1,075,437; Oct. 14; Gaz. vol. 195; p. 320.
Philbiade, Eric R., assignor to E. Cote, Fall River, Mass. Player-piano. No. 1,075,853; Oct. 14; Gaz. vol. 195; p. 462.
Phillips, Benjamin. (See Dorsey, Farnum F., assignor.)
Phillips, Carroll, Tahoka, Tex. Railway-switch-operating means. No. 1,076,313; Oct. 21; Gaz. vol. 195; p. 648.
Phillips, Darius T., Chicago, Ill. Agricultural pulverizer. No. 1,075,493; Oct. 14; Gaz. vol. 195; p. 340.
Phillips, Francis V., Orlando, Fla. Automobile wheel help. No. 1,075,377; Oct. 14; Gaz. vol. 195; p. 300.
Phillips, Francis V., Orlando, Fla. Machine for cutting grooves in door and window stiles. No. 1,076,781; Oct. 28; Gaz. vol. 195; p. 867.
Phillips, Horace B., Fairmont, N. C. Still. No. 1,076,389; Oct. 21; Gaz. vol. 195; p. 674.
Phinney Engineering Company, The. (See Phinney, William B., assignor.)
Phinney, William B., assignor to The Phinney Engineering Company, Chillicothe, Ohio. Bean-snipper. No. 1,076,225; Oct. 21; Gaz. vol. 195; p. 617.
Pickard, Arthur G., Altrincham, England. Shutter for photographic cameras. No. 1,077,157; Oct. 28; Gaz. vol. 195; p. 993.
Pickert, Gustav. (See Siesnzeck, Paul, assignor.)
Picone, Frank, Tombstone, Ariz. Ore-concentrator. No. 1,076,700; Oct. 28; Gaz. vol. 195; p. 839.
Pierce, Joseph H., Chicago, Ill. Corn-husker. No. 1,077,230; Oct. 28; Gaz. vol. 195; p. 1017.
Pilain, François, Lyon, France. Two-stroke cycle explosion-motor. No. 1,074,894; Oct. 7; Gaz. vol. 195; p. 104.
Pindstofte, Anders A., Copenhagen, Denmark. Apparatus for steaming bottles. No. 1,076,447; Oct. 21; Gaz. vol. 195; p. 696.
Pippenger, Lucien E. (See McKinley, Edward K., assignor.)
Pirie, Alexander G. (See Pirie, Charles B., assignor.)
Pirie, Charles B., McCook, assignor of one-half to A. G. Pirie, Wymore, Nebr. Valve-gear. No. 1,075,269; Oct. 7; Gaz. vol. 195; p. 236.
Piscicelli, Roberto T., Paris, France, assignor to The National Cash Register Co., Dayton, Ohio. Cash-register. (Reissue.) No. 13,632; Oct. 21; Gaz. vol. 195; p. 786.
Pitman, Henry L., Pineville, Ky. Spring-motor. No. 1,076,314; Oct. 21; Gaz. vol. 195; p. 649.
Pitt, Clarence H., Essington, Pa. Combination-cock. No. 1,077,231; Oct. 28; Gaz. vol. 195; p. 1018.
Pitts, Arthur W., Bonham, Tex. Separator-guard. No. 1,075,063; Oct. 7; Gaz. vol. 195; p. 164.
Pitts, Clara M., *et al.* (See Pitts, William W., assignor.)
Pitts, Jennie M., *et al.* (See Pitts, William W., assignor.)
Pitts, William W., assignor of one-fourth to C. M. Pitts and one-fourth to J. M. Pitts, Austin, Tex. Spring equalizer system. No. 1,076,056; Oct. 21; Gaz. vol. 195; p. 559.
Pixley, Henry L., Cleveland, Ohio. Grinding device for machine-tools. No. 1,074,739; Oct. 7; Gaz. vol. 195; p. 53.
Plastic Products Company. (See Weakley, Raymond D., assignor.)
Plastino, Rubino, New York, N. Y. Flying-machine. No. 1,075,802; Oct. 7; Gaz. vol. 195; p. 249.
Platt, Clarence D., Bridgeport, Conn. Lock attachment for snap-switches. No. 1,076,907; Oct. 28; Gaz. vol. 195; p. 911.
Plummer, John W., Morrill, Nebr. Feeding attachment for pneumatic stackers. No. 1,076,057; Oct. 21; Gaz. vol. 195; p. 560.
Pobuta, Johann, Elizabeth, N. J. Air-craft. No. 1,075,791; Oct. 14; Gaz. vol. 195; p. 440.
Podszus, Emil, Rixdorf, near Berlin, Germany. Electric vapor apparatus. No. 1,076,058; Oct. 21; Gaz. vol. 195; p. 560.
Poe, Albert S., assignor to A. G. Perry Plow Company, Coldwater, Miss. Plow. No. 1,077,158; Oct. 28; Gaz. vol. 195; p. 994.
Pohl, Eduard, Rhöndorf, Germany. Promoting fermentation. No. 1,074,814; Oct. 7; Gaz. vol. 195; p. 77.
Pollock, Adolph E., and L. Rosenberg, assignors of one-third to R. Franklin, New York, N. Y. Automatic fastener. No. 1,075,438; Oct. 14; Gaz. vol. 195; p. 320.
Polygraph Duplicating Typewriter Company. (See Fanslow, Benjamin O., assignor.)
Poole, Staley D., assignor to Deere & Company, Moline, Ill. Wheeled cultivator. No. 1,075,937; Oct. 14; Gaz. vol. 195; p. 491.
Poole, William J., Los Angeles, Cal. Distributing-machine. No. 1,075,724; Oct. 14; Gaz. vol. 195; p. 418.
Pooler, Earl, Seattle, Wash., assignor of one-half to J. S. Emerson, Vancouver, British Columbia, Canada. Record-filing case. No. 1,076,993; Oct. 28; Gaz. vol. 195; p. 942.
Popkess, Michael A., Kansas City, Mo., assignor to Bituminized Road Company, Phoenix, Ariz. Making roadways, railway-beds, sidewalks, and the like. No. 1,076,782; Oct. 28; Gaz. vol. 195; p. 867.
Porter, Alfred R. (See Crowdus, Walter A., assignor.)
Porter, Charles T., and R. J. Osborne, San Francisco, Cal. Antiseptic protector for mouthpieces. No. 1,076,908; Oct. 28; Gaz. vol. 195; p. 912.
Porter, Thomas, assignor of one-half to R. W. Beardslee, New York, N. Y. Elevator signaling apparatus. No. 1,075,270; Oct. 7; Gaz. vol. 195; p. 237.
Porter, Wilson E., assignor to The New Haven Clock Co., New Haven, Conn. Keyless automobile-clock. No. 1,074,975; Oct. 7; Gaz. vol. 195; p. 131.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Watch. No. 1,074,976; Oct. 7; Gaz. vol. 195; p. 131.
Porter, Wilson E., assignor to New Haven Clock Co., New Haven, Conn. Dash-lock for automobile-clocks. No. 1,076,226; Oct. 21; Gaz. vol. 195; p. 618.
Postans, Arthur J., Brentford, England. Stropping and like machine. No. 1,075,938; Oct. 14; Gaz. vol. 195; p. 491.
Potter, James C., Pawtucket, R. I. Device for feeding cotton, &c. No. 1,076,059; Oct. 21; Gaz. vol. 195; p. 561.
Potter, John C. (See Matthews and Potter.)
Potter, William R., Buckholts, Tex. Baling-press. No. 1,075,494; Oct. 14; Gaz. vol. 195; p. 340.
Potterf, Orlystis M., Larned, Kans. Combination-garment. No. 1,076,390; Oct. 21; Gaz. vol. 195; p. 675.
Powell, Robert, Cincinnati, Ohio. Peeler. No. 1,075,222; Oct. 7; Gaz. vol. 195; p. 218.
Powers, Annie E., Bishop, Cal. Corset-stay-tip protector. No. 1,074,644; Oct. 7; Gaz. vol. 195; p. 20.
Powers, Thomas J., Steubenville, Ohio. Face-shield. No. 1,075,667; Oct. 14; Gaz. vol. 195; p. 399.
Powlison, Cornelius, Durand, Mich. Beet-harvester. No. 1,075,939; Oct. 14; Gaz. vol. 195; p. 491.
Praetz, John, deceased, Brooklyn; J. J. Praetz, New York, and J. A. Praetz, Brooklyn, N. Y., executors, assignors to John Praetz, Inc. Buckle. No. 1,075,223; Oct. 7; Gaz. vol. 195; p. 219.
Praetz, John A., *et al.*, executors. (See Praetz, John.)
Praetz, Joseph J., *et al.*, executors. (See Praetz, John.)
Pratt & Whitney Company. (See Sears, Willard T., assignor.)
Pratt, William H., West Lynn, Mass., assignor to General Electric Company. Frequency-indicator. No. 1,076,448; Oct. 21; Gaz. vol. 195; p. 696.
Prentice, George E., New Britain, Conn. Garment-clasp. No. 1,075,725; Oct. 14; Gaz. vol. 195; p. 418.
Prescott, Sydney I., assignor to International Cigar Machinery Company, New York, N. Y. Wrapping-machine. No. 1,075,224; Oct. 7; Gaz. vol. 195; p. 219.
Presley, William J., Grand Haven, Mich. Primer for internal-combustion engines. No. 1,076,783; Oct. 28; Gaz. vol. 195; p. 868.
Pressed Prism Plate Glass Company. (See Ross, Myron A., assignor.)
Preston, Ralph A. D., assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Ballast device. No. 1,076,060; Oct. 21; Gaz. vol. 195; p. 561.
Preszter, Rezsö, Budapest, Austria-Hungary. Disk talking-machine. No. 1,076,643; Oct. 21; Gaz. vol. 195; p. 766.
Prevost, Frank, Oakland, Cal. Preparing a food product. No. 1,076,147; Oct. 21; Gaz. vol. 195; p. 591.
Prevost, Frank, assignor of one-half to C. Driscoll, Oakland, Cal. Making a food product. No. 1,076,227; Oct. 21; Gaz. vol. 195; p. 618.
Price, Nathan W., Columbus, Miss. Currycomb. No. 1,076,228; Oct. 21; Gaz. vol. 195; p. 618.
Priest, George W., Newton, Mass. Core for the manufacture of cement and cement-lined pipes. No. 1,076,229; Oct. 21; Gaz. vol. 195; p. 618.
Prime, Daniel N., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting apparatus. No. 1,075,064; Oct. 7; Gaz. vol. 195; p. 165.
Primrose, John, New York, N. Y. Superheater. No. 1,076,315; Oct. 21; Gaz. vol. 195; p. 649.
Prior, Alfred, and R. W. Brickell, Dunedin, New Zealand. Box. No. 1,074,815; Oct. 7; Gaz. vol. 195; p. 77.
Prosser, Henry B., Chicago, Ill. Boat. No. 1,075,726; Oct. 14; Gaz. vol. 195; p. 418.

Provost, Peter, Milwaukee, Wis. Grain-drier. No. 1,074,977; Oct. 7; Gaz. vol. 195; p. 131.
Pryor, Joseph F., Eugene, Oreg. Bed-spring tightener. No. 1,075,065; Oct. 7; Gaz. vol. 195; p. 165.
Pue, William A., Carlsbad, N. Mex. Apparel-securing device. No. 1,076,316; Oct. 21; Gaz. vol. 195; p. 649.
Pullen-Burry, Arthur, Sompting, Worthing, England. Movable hothouse. No. 1,076,230; Oct. 21; Gaz. vol. 195; p. 619.
Pulley, W. P. (See Judia, George H., assignor.)
Puppe, Johann, Breslau, Germany. Rolling bars or girders of I, H, U, or like section. No. 1,076,784; Oct. 28; Gaz. vol. 195; p. 868.
Purdy, James M., New York, assignor to F. E. Teves, Glen Cove, N. Y. Can-opener. No. 1,076,231; Oct. 21; Gaz. vol. 195; p. 619.
Pure Food Process Company. (See Schmitt, Edward D., assignor.)
Putnam, Elbert V. (See Hayworth and Putnam.)
Putnam, Oliver K., Worcester, Mass. Automatic trainpipe connector. No. 1,075,854; Oct. 14; Gaz. vol. 195; p. 462.
Quenner Dry Crusher Company. (See Quenner, Mitts, assignor.)
Quenner, Mitts, Santa Ana, Sonora, Mexico, assignor, by mesne assignments, to Quenner Dry Crusher Company, Douglas, Ariz. Ore-treating machine. No. 1,076,061; Oct. 21; Gaz. vol. 195; p. 561.
Quenner, Mitts, Nogales, assignor to Quenner Dry Crusher Company, Douglas, Ariz. Rock-breaker. No. 1,076,062; Oct. 21; Gaz. vol. 195; p. 562.
Quenner, Mitts, Nogales, assignor to Quenner Dry Crusher Company, Douglas, Ariz. Projectile for rock-breakers. No. 1,076,148; Oct. 21; Gaz. vol. 195; p. 591.
Quick, William L., New Market, Ala. Flying-machine. No. 1,076,644; Oct. 21; Gaz. vol. 195; p. 767.
Quigley, W. F. (See Keller, Charles B., assignor.)
Quigley, William D., East Boston, Mass. Leather-splitting machine. No. 1,075,792; Oct. 14; Gaz. vol. 195; p. 441.
Quincy, Frederick J. (See Quincy, Henry J., assignor.)
Quincy, Henry J., assignor of one-half to F. J. Quincy, Brooklyn, N. Y. Bedstead. No. 1,075,158; Oct. 7; Gaz. vol. 195; p. 196.
Quinet, Alexander. (See Norwood, Jay M., assignor.)
Quinlin, William T., assignor of one-half to H. W. Bedford, Coalinga, Cal. Cable-cutting device. No. 1,075,439; Oct. 14; Gaz. vol. 195; p. 321.
Quint, Henry. (See Bryant, Joshua A., assignor.)
R. Hoe and Co. (See Schmidt, Louis A., assignor.)
R. H. Long Machinery Company, The. (See Doidge, John J., assignor.)
Radoušek, Wenzel A., Prague, Austria-Hungary. Hand embroidering-machine. No. 1,076,909; Oct. 28; Gaz. vol. 195; p. 912.
Radtke, Albert A. (See Osborn and Roach, assignors.)
Raible, John E., Chicago, Ill. Inking-fountain for printing-presses. No. 1,076,785; Oct. 28; Gaz. vol. 195; p. 868.
Rail Joint Company, The. (See Greer, James A., assignor.)
Ralston Steel Car Company, The. (See Irwin and Tesseyman, assignors.)
Ramacher, Jacob, Dellbrück, Bez., Cologne, assignor to W. Gartner, Hamburg, Germany. Furnace for steam-generators. No. 1,077,203; Oct. 28; Gaz. vol. 195; p. 1008.
Ramsey, Edward S., Chance, Mont. Beet-harvester. No. 1,075,440; Oct. 14; Gaz. vol. 195; p. 322.
Randall, Harold G., Felchville, Vt. Puzzle. No. 1,074,816; Oct. 7; Gaz. vol. 195; p. 78.
Randel, Ivar A., Chicago, Ill., assignor to McCord and Company. Producing truck-frames. No. 1,076,645; Oct. 21; Gaz. vol. 195; p. 767.
Randel, Ivar A., assignor to McCord and Company, Chicago, Ill. Journal-box. No. 1,077,159; Oct. 28; Gaz. vol. 195; p. 994.
Rapp, Roy L., Bloomfield, N. J. Greenhouse construction. No. 1,074,895; Oct. 7; Gaz. vol. 195; p. 104.
Rasche, Albert H., Charlottenburg, Germany. Restoring coagulated albumins to the original state. No. 1,076,232; Oct. 21; Gaz. vol. 195; p. 619.
Ratcliff, William A., Bellingham, Wash. Lock. No. 1,076,994; Oct. 28; Gaz. vol. 195; p. 942.
Rath, William C., Cincinnati, Ohio. Fish-plate for rails. No. 1,076,233; Oct. 21; Gaz. vol. 195; p. 619.
Ratkovich, Stephen D. (See Grossich, Attilio, assignor.)
Raum, John C. and J. J., Baltimore, Md. Wagon. No. 1,075,378; Oct. 14; Gaz. vol. 195; p. 300.
Raum, John J. (See Raum, John C. and J. J.)
Ray, Claude. (See Barrett and Ray.)
Reach, George A. (See Gamble, John, assignor.)
Reamy, Christopher S., Los Angeles, Cal. Screw gripper and driver. No. 1,075,225; Oct. 7; Gaz. vol. 195; p. 219.
Redding, Robert E., Terre Haute, Ind. Bottle-closure. No. 1,075,940; Oct. 14; Gaz. vol. 195; p. 492.
Reed, Elmer E., Chillicothe, Mo. Inside brace for silos and tanks. No. 1,074,645; Oct. 7; Gaz. vol. 195; p. 20.
Reed, John M., Atlanta, Ga. Belt-dressing applier. No. 1,075,941; Oct. 14; Gaz. vol. 195; p. 492.
Reeder, John F., Loraine, Tex. Planter. No. 1,075,668; Oct. 14; Gaz. vol. 195; p. 399.
Reeder, Nathaniel S., Chicago, Ill. Car-dumping mechanism. No. 1,075,495; Oct. 14; Gaz. vol. 195; p. 340.
Reese, Frederick W., East Palestine, Ohio. Water-heater. No. 1,077,160; Oct. 28; Gaz. vol. 195; p. 994.
Regal Shoe Company. (See Cross, Charles H., 2nd, assignor.)
Regeczi, Josef, Gary, Ind. Electric rat-trap. No. 1,075,669; Oct. 14; Gaz. vol. 195; p. 399.
Reichardt, Peter. (See Tannenbaum and Reichardt.)
Reichert, Auguste, Geneva, Switzerland. Apparatus for making coffee. No. 1,075,727; Oct. 14; Gaz. vol. 195; p. 419.
Reichheim, George L., Jersey City, N. J., assignor, by mesne assignments, to P. R. Manufacturing Company, Detroit, Mich. Rotary blower. No. 1,076,391; Oct. 21; Gaz. vol. 195; p. 675.
Reichheim, George L., assignor, by mesne assignments, to P. R. Manufacturing Company, Detroit, Mich. Stamp vending and affixing machine. No. 1,076,517; Oct. 21; Gaz. vol. 195; p. 720.
Reichner, Louis I., Atlantic City, N. J. Liquid mixer, shaker, and juice-extractor. No. 1,075,119; Oct. 7; Gaz. vol. 195; p. 182.
Reid, Bynum J., Milan, Ga. Washing-machine. No. 1,074,740; Oct. 7; Gaz. vol. 195; p. 53.
Reid, John A., Duenweg, Mo. Doubletree. No. 1,076,317; Oct. 21; Gaz. vol. 195; p. 650.
Reid, Marcellus, Cleveland, Ohio. Bearing. No. 1,076,701; Oct. 28; Gaz. vol. 195; p. 839.
Reinders, George. (See Gloecke, Frederick A., assignor.)
Reinhardt, Heinrich, assignor to Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Manufacture of diacidyl and higher acidylated compounds from aminoazo bases. No. 1,076,840; Oct. 28; Gaz. vol. 195; p. 887.
Reinherz, Therese, Munich, Germany. Preserving plant-leaves, flowers, butterflies, and the like. No. 1,076,786; Oct. 28; Gaz. vol. 195; p. 868.
Reinig, Paul. (See Flick and Reinig.)
Reisert, Michael E., assignor to Hennefer Maschinen-Fabrik C. Reuther & Reisert mit beschrankter Haftung, Hennef-on-the-Sieg, Germany. Counting device of automatic weighing apparatus for granular irregularly-running material. No. 1,075,379; Oct. 14; Gaz. vol. 195; p. 301.
Reissling, John C., Chicago, Ill. Water-heating device. No. 1,074,741; Oct. 7; Gaz. vol. 195; p. 53.
Reitmeister, Wilhelm, Siegburg, Germany. Gas-controlling means for regenerative furnaces. No. 1,075,159; Oct. 7; Gaz. vol. 195; p. 196.
Rekers, Gerret, Rochester, assignor to General Railway Signal Company, Gates, N. Y. Electromagnetic retaining device. No. 1,075,441; Oct. 14; Gaz. vol. 195; p. 322.
Relyea, Eva, Poughkeepsie, N. Y. Pot-lid. No. 1,074,978; Oct. 7; Gaz. vol. 195; p. 132.
Remington Typewriter Company. (See Beaudry, Severe J., assignor.)
Renneburg, Frederick P., Baltimore, Md. Screw-press. No. 1,076,995; Oct. 28; Gaz. vol. 195; p. 943.
Rennerfelt, Ivar, Halmstad, Sweden. Electric furnace. No. 1,076,518; Oct. 21; Gaz. vol. 195; p. 720.
Ressegaire, Emile. (See Manivet and Ressegaire.)
Reston, Henry P., assignor to The Cincinnati Planer Company, Oakley, Ohio. Pulley. No. 1,076,605; Oct. 21; Gaz. vol. 195; p. 752.
Reynders, John V. (See Sears, Willard T., assignor.)
Reynolds, Charles H. (See Lutwyche, Edgar J., assignor.)
(Reissue.)
Reynolds, Ernest L., Ardmore, Okla. Fluid-hydrocarbon burner. No. 1,076,449; Oct. 21; Gaz. vol. 195; p. 696.
Reynolds, John N., Greenwich, Conn., and A. F. Dixon, Newark, N. J., assignors to Western Electric Company, New York, N. Y. Automatic electromagnetic switch. No. 1,076,149; Oct. 21; Gaz. vol. 195; p. 591.
Reynolds, Samuel W., West Toledo, Ohio. Lock-spring safety-snap. No. 1,076,318; Oct. 21; Gaz. vol. 195; p. 650.
Rheinische Metallwaaren- und Maschinenfabrik. (See Völler and Müller, assignors.)
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Traverse-motion for yarn-spinning apparatus. No. 1,076,910; Oct. 28; Gaz. vol. 195; p. 912.
Rice, John, Fort Payne, Ala. Gin-saw sharpener. No. 1,076,996; Oct. 28; Gaz. vol. 195; p. 943.
Rice, Robert H. (See Harter and Smith, assignors.)
Rice, Samuel J., Escanaba, Mich. Grain-separator. No. 1,075,942; Oct. 14; Gaz. vol. 195; p. 492.
Rice, William H., Rochester, N. Y. Potato-digger. No. 1,076,150; Oct. 21; Gaz. vol. 195; p. 592.
Rich, Charles H., Woolrich, Pa. Sanitary attachment for lip-contacts of drinking vessels. No. 1,076,702; Oct. 28; Gaz. vol. 195; p. 839.
Rich, George R., Oak Park, Ill. Internal-combustion engine. No. 1,076,911; Oct. 28; Gaz. vol. 195; p. 913.
Richards, Willard F., Depew, assignor to Gould Coupler Company, New York, N. Y. Draft-gear for railway-cars. No. 1,076,912; Oct. 28; Gaz. vol. 195; p. 913.
Richardson, Dwight S., New York, N. Y. Pressure-governed regulator. No. 1,075,380; Oct. 14; Gaz. vol. 195; p. 301.
Richardson, Isaac T., assignor of one-half to A. W. Ruff, Toronto, Ontario, Canada. Clothes-rack. No. 1,076,392; Oct. 21; Gaz. vol. 195; p. 676.

Richardson, James P., Manila, Philippine Islands, assignor to A. P. O'Brien, New York, N. Y. Defibrating-machine. No. 1,076,151; Oct. 21; Gaz. vol. 195; p. 592.
Richter, Edward, Plauen, Germany. Preparing an oil. No. 1,076,703; Oct. 28; Gaz. vol. 195; p. 840.
Ridderhof, Cornell, Los Angeles, Cal. Holder or support for fountain-pens. No. 1,076,841; Oct. 28; Gaz. vol. 195; p. 887.
Riddle, Robert N., Rahway, N. J. Extracting oils and fats from oil-seeds and other vegetable raw materials containing oils and fats. No. 1,076,997; Oct. 28; Gaz. vol. 195; p. 943.
Rieske, Otto G., Beaver Dam, Wis., assignor to A. J. Euchenhofner, Indianapolis, Ind. Milking apparatus. No. 1,074,979; Oct. 7; Gaz. vol. 195; p. 132.
Rieske, Otto G., Beaver Dam, Wis., assignor to A. J. Euchenhofner, Indianapolis, Ind. Double-disk attachment for seed-drills. No. 1,076,998; Oct. 28; Gaz. vol. 195; p. 944.
Riley, James L., and M. S. Byrd, Xenia, Ill. Automatic poultry-disinfector. No. 1,075,855; Oct. 14; Gaz. vol. 195; p. 463.
Rindsberg, Joseph, Richmond, Va. Stationery. No. 1,076,450; Oct. 21; Gaz. vol. 195; p. 697.
Ritter, Constanze, New York, N. Y. Hand-rubber. No. 1,074,742; Oct. 7; Gaz. vol. 195; p. 54.
Roach, John. (See Osborn and Roach.)
Roberts, D. M., *et al.* (See Ernest, Albert C., assignor.)
Roberts, David J. W. Young, and C. James, Grantham, England. Internal-combustion engine. No. 1,077,161; Oct. 28; Gaz. vol. 195; p. 995.
Roberts, Henry P., Boston, assignor, by mesne assignments, to A. A. Ormsbee, C. S. McCall, and G. Greene, Taunton, Mass. Interchangeable resilient heel. No. 1,075,303; Oct. 7; Gaz. vol. 195; p. 249.
Roberts, Sherman C., Denver, Colo. Device for retarding the discharge from suction-fans and the like. No. 1,074,743; Oct. 7; Gaz. vol. 195; p. 54.
Roberts, William M., Ink, Ark. Cotton-chopping machine. No. 1,076,063; Oct. 21; Gaz. vol. 195; p. 562.
Robertson, James G., St. Louis, Mo. Attachment for printing-presses. No. 1,075,670; Oct. 14; Gaz. vol. 195; p. 400.
Robertson, John H., Granby, Mo. Lock. No. 1,075,381; Oct. 14; Gaz. vol. 195; p. 302.
Robeson, Jacob S. (See Hurt, Henry H., assignor.)
Robeson, Jacob S., Au Sable Forks, N. Y. Making roads. No. 1,075,856; Oct. 14; Gaz. vol. 195; p. 463.
Robeson, Jacob S., Au Sable Forks, N. Y. Making roads. No. 1,075,857; Oct. 14; Gaz. vol. 195; p. 463.
Robinson, Frank A., assignor to Underwood Typewriter Company, New York, N. Y. Type-writing machine. No. 1,076,496; Oct. 14; Gaz. vol. 195; p. 341.
Robinson, James K., Little Rock, Ark. Ventilator. No. 1,076,451; Oct. 21; Gaz. vol. 195; p. 697.
Robinson, Marcus and S., and W. A. Davis, Chico, Tex. Corn and cotton planter. No. 1,076,234; Oct. 21; Gaz. vol. 195; p. 620.
Robinson, Samuel. (See Robinson and Davis.)
Rochaix, John, Petit-Saconnex, near Geneva, and I. Anken, Anières, near Geneva, Switzerland. Machine for raking and loading material such as hay and the like. No. 1,076,452; Oct. 21; Gaz. vol. 195; p. 697.
Rodakowski, Zygmunt, Lemberg, Austria-Hungary. Conveying apparatus. No. 1,077,162; Oct. 28; Gaz. vol. 195; p. 995.
Rodden, Herbert T., assignor of one-third to P. M. Schraut, Chicago, Ill. Vacuum-cleaner. No. 1,074,744; Oct. 7; Gaz. vol. 195; p. 55.
Rode, Frank, Jeannette borough, Pa. Vehicle-chock. No. 1,076,152; Oct. 21; Gaz. vol. 195; p. 592.
Rodgers, James H., and W. J. Spence, Hamilton, Ontario, Canada. Tripping device for power-presses. No. 1,075,671; Oct. 14; Gaz. vol. 195; p. 400.
Rodman Chemical Company. (See Rodman, Hugh, assignor.)
Rodman, George E., Sunnyside, Wash. Fastener for ledger-plates. No. 1,075,271; Oct. 7; Gaz. vol. 195; p. 237.
Rodman, Hugh, Edgewood, Pa., assignor to Rodman Chemical Company. Case-hardening material. No. 1,076,235; Oct. 21; Gaz. vol. 195; p. 620.
Rodman, Hugh, Edgewood, Pa., assignor to Rodman Chemical Company. Making case-hardening material. No. 1,076,453; Oct. 21; Gaz. vol. 195; p. 698.
Rodwell, George J. B., assignor to Rodwell Sign Company, Buffalo, N. Y. Sign. No. 1,076,519; Oct. 21; Gaz. vol. 195; p. 720.
Rodwell Sign Company. (See Rodwell, George J. B., assignor.)
Roesler, Frank J. (See Gleason, Edward D., assignor.)
Roessler & Hasslacher Chemical Co., The. (See Foerstering, Hans, assignor.)
Roever, Julius, New York, N. Y. Boat-davit. No. 1,076,454; Oct. 21; Gaz. vol. 195; p. 698.
Rogers, Charles W., assignor to The Mathis Brothers Company, Chicago, Ill. Impulse-fan. No. 1,075,120; Oct. 7; Gaz. vol. 195; p. 183.
Rogers, John E., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,074,980; Oct. 7; Gaz. vol. 195; p. 132.
Rogers, John E., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Typographical composing-machine. No. 1,076,064; Oct. 21; Gaz. vol. 195; p. 562.
Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Draw-bar carry-iron. No. 1,074,745; Oct. 7; Gaz. vol. 195; p. 55.
Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Railway-car end construction. No. 1,074,746; Oct. 7; Gaz. vol. 195; p. 55.
Rohrdantz, Henry, assignor to W. C. Contant and W. C. Ellison, Buffalo, N. Y. Bottle-cover. No. 1,076,999; Oct. 28; Gaz. vol. 195; p. 944.
Rohrer, Darius B., Fairbanks, Tex. Combined plow and harrow. No. 1,076,520; Oct. 21; Gaz. vol. 195; p. 721.
Roller-Smith Company. (See Badeau, Charles C., assignor.)
Romano, Nicholas, assignor, by mesne assignments, to The Graphite Lubricating Company, Boundbrook, N. J. Oilless spindle. No. 1,075,858; Oct. 14; Gaz. vol. 195; p. 463.
Rooney, Luke H., New Bedford, assignor to The Whitin Machine Works, Whitinsville, Mass. Spinning-frame tool. No. 1,075,802; Oct. 14; Gaz. vol. 195; p. 378.
Roost, Richard, Chicago, Ill., assignor to The American Laundry Machinery Company, Cincinnati, Ohio. Drying-tumbler. No. 1,075,882; Oct. 14; Gaz. vol. 195; p. 302.
Root, Albert F., Red Fork, Okla. Cotton-chopper. No. 1,075,672; Oct. 14; Gaz. vol. 195; p. 400.
Root, Peter, Eureka, Cal. Steam-generator for oil-burners. No. 1,075,728; Oct. 14; Gaz. vol. 195; p. 419.
Rosada, Roger, Guatemala, Guatemala. Non-refillable bottle. No. 1,075,066; Oct. 7; Gaz. vol. 195; p. 165.
Rose, Edward E., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electric soldering-iron. No. 1,075,497; Oct. 14; Gaz. vol. 195; p. 341.
Rose, Richard C., Osceola, Ark. Internal-combustion engine. No. 1,075,883; Oct. 14; Gaz. vol. 195; p. 303.
Rosen, August F., Madison, Wis. Radiator. No. 1,076,704; Oct. 28; Gaz. vol. 195; p. 840.
Rosenberg, Augustus, London, England. Apparatus for use in the treatment of deafness. No. 1,077,096; Oct. 28; Gaz. vol. 195; p. 976.
Rosenberg, Louis. (See Pollock and Rosenberg.)
Rosenfelder, Bertin, Schwenningen, Germany. Rotary game appliance. No. 1,074,896; Oct. 7; Gaz. vol. 195; p. 104.
Rosenstein, Jacob B., Cleveland, Ohio. Cloth-piling machine. No. 1,075,729; Oct. 14; Gaz. vol. 195; p. 420.
Rosewater, Frank, New York, N. Y. Indicating device. No. 1,075,859; Oct. 14; Gaz. vol. 195; p. 464.
Ross, Charles P., Seattle, Wash. Liquid-measuring device. No. 1,077,000; Oct. 28; Gaz. vol. 195; p. 944.
Ross, John T., Blanca, assignor of one-half to J. S. Rouse, Canon City, Colo. Miter-box. No. 1,075,730; Oct. 14; Gaz. vol. 195; p. 420.
Ross, Lewis P., Standish, N. Y., assignor of one-half to Northern Iron Company. Nodulating materials. No. 1,076,705; Oct. 28; Gaz. vol. 195; p. 840.
Ross, Mable A., Calexico, Cal. Sewing-machine shuttle. No. 1,075,860; Oct. 14; Gaz. vol. 195; p. 464.
Ross, Myron A., assignor to Pressed Prism Plate Glass Company, Morgantown, W. Va. Plate-glass device. No. 1,075,793; Oct. 14; Gaz. vol. 195; p. 441.
Ross, Myron A., assignor to Pressed Prism Plate Glass Company, Morgantown, W. Va. Manufacturing plate-glass devices. No. 1,075,794; Oct. 14; Gaz. vol. 195; p. 442.
Ross, Oscar A. (See Clarke and Ross.)
Roth, Karl, Terre Haute, Ind. Leak-proof strip for metal roofing. No. 1,076,065; Oct. 21; Gaz. vol. 195; p. 563.
Rothmann, Albert. (See Ach and Rothmann.)
Rotramel, Elisha, Grayville, Ill. Fertilizer-distributer. No. 1,075,121; Oct. 7; Gaz. vol. 195; p. 183.
Rouse, John S. (See Ross, John T., assignor.)
Rowe, Arthur C., assignor to A. C. Rowe & Son, New York, N. Y. Process and apparatus for sealing carbon tetrachlorid. No. 1,074,747; Oct. 7; Gaz. vol. 195; p. 56.
Rowe, Arthur C., assignor to A. C. Rowe & Son, New York, N. Y. Fire-extinguisher. No. 1,076,787; Oct. 28; Gaz. vol. 195; p. 869.
Rowe, Harry J., New Kensington, Pa. Charging apparatus. No. 1,076,706; Oct. 28; Gaz. vol. 195; p. 840.
Rowe & Son, A. C. (See Rowe, Arthur C., assignor.)
Rowley, Ernest F., Birmingham, Ala. Hoe. No. 1,075,442; Oct. 14; Gaz. vol. 195; p. 323.
Rowley, James F., Chicago, Ill. Suspender for artificial arms. No. 1,075,861; Oct. 14; Gaz. vol. 195; p. 464.
Roycourt, James L., and L. Horinko, New York, N. Y. Bell. No. 1,076,606; Oct. 21; Gaz. vol. 195; p. 752.
Rubel Bronze Limited. (See Rübel, Walter, assignor.)
Rübel, Walter, Berlin, Germany, assignor to Rubel Bronze Limited, London, England. Alloy. No. 1,076,455; Oct. 21; Gaz. vol. 195; p. 698.
Rubie, William P., Esmond, N. D. Steam-engine. No. 1,077,097; Oct. 28; Gaz. vol. 195; p. 976.
Rubovits, Toby. (See Schwartz, Louis S., assignor.)
Rubovits, Toby. (See Wiltz, Clark G., assignor.)
Rucker, Benjamin P., Charlotte, N. C. Vending-machine for liquids. No. 1,075,943; Oct. 14; Gaz. vol. 195; p. 493.

Rüdenberg, Reinhold, Charlottenburg, assignor to Siemens-Schuckertwerke G. m. b. H., Berlin, Germany. Means for protecting electric circuits from excessive rises in pressure and similar disturbances. No. 1,077,163; Oct. 28; Gaz. vol. 195; p. 995.

Ruff, Alfred W. (See Richardson, Isaac T., assignor.)

Runkel, Peter, Neuwied, Germany. Feed-regulator for coffee, spice mills, and the like. No. 1,076,153; Oct. 21; Gaz. vol. 195; p. 592.

Runnels, David S., Appleton, Wis. Vessel-cleaning machine. No. 1,076,066; Oct. 21; Gaz. vol. 195; p. 563.

Runner, Joseph E., and I. M. Abram, assignors to I. M. Abram, Dugger, Ind. Trowel. No. 1,074,646; Oct. 7; Gaz. vol. 195; p. 20.

Rush, Charles, assignor of one-half to B. M. Hanna, Pittsburgh, Pa. Wrench. No. 1,076,319; Oct. 21; Gaz. vol. 195; p. 650.

Russ, Howard C., New York, A. T. Beach, Brooklyn, N. Y., and H. F. Kleinfeldt, Newark, N. J., assignors to Abbe Engineering Company. Manufacture of mustard. No. 1,077,164; Oct. 28; Gaz. vol. 195; p. 995.

Russell, Ernestine, Enid, Okla. Life-preserver. No. 1,074,817; Oct. 7; Gaz. vol. 195; p. 78.

Rust, Orton G., Springfield, Ohio. Suspender-end. No. 1,076,154; Oct. 21; Gaz. vol. 195; p. 593.

Ruud, Edwin, Pittsburgh, Pa. Automatic temperature control for self-heating flat-irons. No. 1,075,991; Oct. 14; Gaz. vol. 195; p. 510.

Ryan, L. D, Cortland, N. Y. Friction transmission mechanism. No. 1,076,155; Oct. 21; Gaz. vol. 195; p. 593.

Ryden, Claes. (See Harvey and Ryden.)

Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Head-motion for looms. No. 1,075,862; Oct. 14; Gaz. vol. 195; p. 465.

Rytedt, Ingemar, and M. Steele, Dayton, Ohio. Flying-machine. No. 1,075,863; Oct. 14; Gaz. vol. 195; p. 465.

S. F. Bowser & Company. (See Morris, William L., assignor.)

S. S. White Dental Manufacturing Company, The. (See Browne, Arthur W., assignor.)

Sabo, John J., Pittsburgh, Pa. Trolley. No. 1,076,788; Oct. 28; Gaz. vol. 195; p. 869.

Sachs, Joseph, assignor to The Sachs Laboratories, Incorporated, Hartford, Conn. Support for electrical taps or outlets. No. 1,076,236; Oct. 21; Gaz. vol. 195; p. 620.

Sachs Laboratories, The. (See Sachs, Joseph, assignor.)

Saco-Lowell Shops. (See Thompson, Albert W., assignor.)

Sage, Ralph V., Westmont, Pa. Car construction and arrangement of drop-doors and operating mechanism. No. 1,074,981; Oct. 7; Gaz. vol. 195; p. 133.

Sahm, Christian A., Indianapolis, Ind. Belt-skiver. No. 1,076,913; Oct. 28; Gaz. vol. 195; p. 914.

Saint-Martin, Jacques M. de, Paris, France. Connecting means for springs in vehicles and the like. No. 1,075,498; Oct. 14; Gaz. vol. 195; p. 341.

Sakai, Yasudiro. (See Conrad and Sakai.)

Salaberry, Georges E. M. G.-B. de, Fossé, France. Threshing-machine. No. 1,075,416; Oct. 14; Gaz. vol. 195; p. 313.

Saltzman, Auguste L., East Orange, assignor, by mesne assignments, to New Jersey Patent Company, West Orange, N. J. Primary battery. No. 1,076,789; Oct. 28; Gaz. vol. 195; p. 869.

Sammons, Benjamin C. (See Lee, Charles E., assignor.)

Sample, Robert, San Francisco, and L. A. Fleitz, Oakland, Cal. Rod-bender. No. 1,076,521; Oct. 21; Gaz. vol. 195; p. 721.

Samuelson, Frederick, Rugby, England, assignor to General Electric Company. Steam-condenser. No. 1,076,522; Oct. 21; Gaz. vol. 195; p. 721.

Sandurskyj, Sozont, Vienna, Austria-Hungary. Self-guiding arrangement for parallel rulers and the like. No. 1,075,067; Oct. 7; Gaz. vol. 195; p. 165.

Sapp, William T., Hinson, Fla. Rail-joint. No. 1,076,320; Oct. 21; Gaz. vol. 195; p. 650.

Sargent & Company. (See Page, Albert A., assignor.)

Sartori, Joseph, Revere, Mass. Holder for mirrors and the like. No. 1,076,237; Oct. 21; Gaz. vol. 195; p. 621.

Satterlee, Marcus D., Andover, and N. C. Satterlee, Williamsfield, Ohio. Steering-gear. No. 1,074,748; Oct. 7; Gaz. vol. 195; p. 56.

Satterlee, Nellis C. (See Satterlee, Marcus D. and N. C.)

Saunders, Cecil L., Hot Springs, Ark. Pneumatic cleaning device. No. 1,075,304; Oct. 7; Gaz. vol. 195; p. 249.

Saupe, Philip J. J., Peoria, Ill. Hull for vessels. No. 1,074,897; Oct. 7; Gaz. vol. 195; p. 105.

Saurer, Firm of Adolph. (See Keller, Karl, assignor.)

Sauter, Jakob, Neuhausen, Switzerland. Hat attachment. No. 1,074,982; Oct. 7; Gaz. vol. 195; p. 133.

Savage, Arthur W., Duarte, Cal. Vehicle-tire. No. 1,075,992; Oct. 14; Gaz. vol. 195; p. 510.

Savage, Arthur W., Duarte, Cal. Vehicle-tire. No. 1,075,993; Oct. 14; Gaz. vol. 195; p. 510.

Sawyer, Carleton, Foxboro, Mass. Rectal irrigator. No. 1,074,818; Oct. 7; Gaz. vol. 195; p. 78.

Sawyer, Orren A., Lowell, Mass., assignor, by mesne assignments, to Thissell Company, Portland, Me. Shuttle or filling-carrier for looms. No. 1,076,393; Oct. 21; Gaz. vol. 195; p. 676.

Sawyer, Willard N., assignor to W. M. Whitney, Winchendon, Mass. Clamping device. No. 1,077,001; Oct. 28; Gaz. vol. 195; p. 945.

Sayles, Frank A. (See Schultz, George E., assignor.)

Sborowitz, Siegmund, Berlin, assignor to Deutsche Konit-Gesellschaft m. b. H., Stralau, near Berlin, Germany. Making artificial stone and product obtained thereby. No. 1,074,983; Oct. 7; Gaz. vol. 195; p. 133.

Scarlett, James, Seattle, Wash. Life-saving device. No. 1,075,122; Oct. 7; Gaz. vol. 195; p. 183.

Schaaff, John T., Washington, D. C. Type-writing and other key-actuated machine. No. 1,075,944; Oct. 14; Gaz. vol. 195; p. 493.

Schaffert, Adolph H., assignor to The General Fireproofing Company, Youngstown, Ohio. Body construction for metal filing-cabinets. No. 1,076,067; Oct. 21; Gaz. vol. 195; p. 563.

Scheas, John, Louisville, Ky. Fireproof partition. No. 1,075,123; Oct. 7; Gaz. vol. 195; p. 184.

Scheibe, Harold M., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Spark-timer. No. 1,074,984; Oct. 7; Gaz. vol. 195; p. 134.

Scheibli, John A., West New York, N. J. Slide-disk calculator. No. 1,075,124; Oct. 7; Gaz. vol. 195; p. 184.

Scheiden, Charles, Denver, Colo. Fire-escape. No. 1,076,646; Oct. 21; Gaz. vol. 195; p. 768.

Scheidon, Harry G., *et al.* (See Merkel, Lewis W., assignor.)

Schell, Perry B., Blue Canyon, Cal. Bin. No. 1,076,456; Oct. 21; Gaz. vol. 195; p. 698.

Schellenbach, Charles O., Cincinnati, Ohio. Expansion-reamer. No. 1,074,820; Oct. 7; Gaz. vol. 195; p. 79.

Schellenbach, William, Hartwell, Ohio. Gearing. No. 1,074,819; Oct. 7; Gaz. vol. 195; p. 78.

Scheuer, Joseph F., Two Rivers, Wis. Thermal circuit-closer. No. 1,076,394; Oct. 21; Gaz. vol. 195; p. 676.

Scheuer, Joseph F., Two Rivers, Wis. Thermal circuit-closer. No. 1,076,607; Oct. 21; Gaz. vol. 195; p. 752.

Schick, Adolph, Wheeling, W. Va., assignor to Schick Wheel and Tire Co. Detachable rim for vehicle-wheels. No. 1,076,238; Oct. 21; Gaz. vol. 195; p. 621.

Schick, Adolph, Wheeling, W. Va., assignor to Schick Wheel and Tire Co. Vehicle-wheel. No. 1,076,239; Oct. 21; Gaz. vol. 195; p. 621.

Schick Wheel and Tire Co. (See Schick, Adolph, assignor.)

Schierse, Emil, Brooklyn, N. Y. Container. No. 1,076,156; Oct. 21; Gaz. vol. 195; p. 593.

Schiller, Maurice H., assignor to Sturm, Mayer & Company, Chicago, Ill. Combination-coat. No. 1,076,707; Oct. 28; Gaz. vol. 195; p. 841.

Schirmacher, Karl, and H. Elvert, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Brown azo dyestuff. No. 1,076,321; Oct. 21; Gaz. vol. 195; p. 651.

Schlafly, Julius H., assignor to The Canton Culvert Company, Canton, Ohio. Culvert. No. 1,077,232; Oct. 28; Gaz. vol. 195; p. 1018.

Schlairet, Edward A., Mount Vernon, Ohio. Resilient wheel. No. 1,076,914; Oct. 28; Gaz. vol. 195; p. 914.

Schlehr, Joseph A., Chicago, Ill. Wrench. No. 1,095,945; Oct. 14; Gaz. vol. 195; p. 493.

Schleicher, John C., Mount Vernon, N. Y. Ship. No. 1,076,068; Oct. 21; Gaz. vol. 195; p. 564.

Schloss, Newton L., assignor of one-fourth to J. Norden and one-fourth to M. Norden, New York, N. Y. Elevator signal system. No. 1,076,395; Oct. 21; Gaz. vol. 195; p. 676.

Schlüchtner, Joseph G., Brooklyn, N. Y. Automatic heat-alarm. No. 1,076,157; Oct. 21; Gaz. vol. 195; p. 593.

Schmid, Emil, Twining City, D. C. Cooking utensil. No. 1,074,647; Oct. 7; Gaz. vol. 195; p. 21.

Schmidt, Albert, assignor to Champion Ignition Co., Flint, Mich. Spark-plug. No. 1,077,002; Oct. 28; Gaz. vol. 195; p. 945.

Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Spark-plug. No. 1,077,003; Oct. 28; Gaz. vol. 195; p. 946.

Schmidt, Arnold F. von, Munich, Germany, assignor to Busch-Sulzer Bros.-Diesel Engine Company, St. Louis, Mo. Internal-combustion engine. No. 1,075,803; Oct. 14; Gaz. vol. 195; p. 378.

Schmidt, Fred W. (See McMahon, Frank, assignor.)

Schmidt, Louis A., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y. Printing-machine. No. 1,075,499; Oct. 14; Gaz. vol. 195; p. 342.

Schmidt, Otto, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludswigshafen-on-the-Rhine, Germany. Azo dyes and making the same. No. 1,075,305; Oct. 7; Gaz. vol. 195; p. 250.

Schmidt, Peter G., and W. W. Gore, Olympia, Wash. Washer for producer-gas generators. No. 1,076,158; Oct. 21; Gaz. vol. 195; p. 594.

Schmidt'sche Heissdampf Gesellschaft m. b. H. (See Esch, Peter, assignor.)

Schmidt'sche Heissdampf-Gesellschaft mit beschränkter Haftung. (See Esch, Peter, assignor.)

Schmits, Walter D., New York, N. Y. Chair-seat. No. 1,075,500; Oct. 14; Gaz. vol. 195; p. 342.

Schmitt, Edward D., assignor to Pure Food Process Company, Baltimore, Md. Jar-cap. No. 1,075,125; Oct. 7; Gaz. vol. 195; p. 184.

Schneider, Engène, Le Creuzot, France. Breech mechanism of guns. No. 1,076,842; Oct. 28; Gaz. vol. 195; p. 887.

Schock, Margaret C., Waukesha, Wis. Rapid flour-sifter. No. 1,075,946; Oct. 14; Gaz. vol. 195; p. 494.

Schoeller, Walter, and W. Schrauth, Berlin, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Preserving wood. No. 1,076,322; Oct. 21; Gaz. vol. 195; p. 651.

Schoening, William L., New Milliport, Pa. Combined planter and fertilizer-distributer. No. 1,074,749; Oct. 7; Gaz. vol. 195; p. 56.

Scholl, Carl H., Allendorf, Germany. Manufacturing slag products. No. 1,076,557; Oct. 21; Gaz. vol. 195; p. 771.

Schorr, Robert, San Francisco, Cal. Adjustable impact-atomizer. No. 1,076,708; Oct. 28; Gaz. vol. 195; p. 841.

Schotsch, Mike, Youngstown, Ohio. Nut-lock. No. 1,075,226; Oct. 7; Gaz. vol. 195; p. 220.

Schrade, John J., Waco, Tex. Refrigerating-machine. No. 1,075,126; Oct. 7; Gaz. vol. 195; p. 185.

Schraut, Paul M. (See Rodden, Herbert T., assignor.)

Schrauth, Walther. (See Schoeller and Schrauth.)

Schrepler, Joseph, Washington, D. C. Means for conveying products, especially dry fish. No. 1,076,709; Oct. 28; Gaz. vol. 195; p. 842.

Schroeder, Peter, Mishicot, Wis. Lock-nut. No. 1,076,306; Oct. 21; Gaz. vol. 195; p. 677.

Schuffenhauer, Arthur E., South Chicago, Ill. Apparatus for constructing arches. No. 1,076,240; Oct. 21; Gaz. vol. 195; p. 621.

Schuler, David, Kerrtown, assignor to The Spirella Company, Meadville, Pa. Tip for garment-stays. No. 1,075,731; Oct. 14; Gaz. vol. 195; p. 421.

Schulte, Karl, Woodwardville, Md. Plow attachment. No. 1,074,898; Oct. 7; Gaz. vol. 195; p. 105.

Schultheiss, Franz, Charlottenburg, Germany, assignor to General Electric Company. Leakage-reducing device. No. 1,076,457; Oct. 21; Gaz. vol. 195; p. 699.

Schultis, Charles F., Cleveland, Ohio. Collet for lathes and other machines. No. 1,076,710; Oct. 28; Gaz. vol. 195; p. 842.

Schultz, George E., assignor to F. A. Sayles, Providence, R. I. Craping fabrics. No. 1,076,608; Oct. 21; Gaz. vol. 195; p. 753.

Schultz, William P., *et al.* (See Smay, Joseph B., Jr., assignor.)

Schultze, Gustav F. W., Oakland, Cal. Annunicating means for cash-registers. No. 1,075,443; Oct. 14; Gaz. vol. 195; p. 323.

Schulz, William C. (See Guenther and Schulz.)

Schuman Company, The. (See Sharpe, Joseph K., Jr., assignor.)

Schurs, John, Los Angeles, Cal. Oil-burner. No. 1,075,947; Oct. 14; Gaz. vol. 195; p. 494.

Schutt, Theodore H. (See Champ and Schutt.)

Schutt, Theodore H., assignor to The Bishop-Babcock-Becker Company, Cleveland, Ohio. Radiator-valve. No. 1,076,159; Oct. 21; Gaz. vol. 195; p. 594.

Schwab, William J., Chicago, Ill. Rail-fastening. No. 1,076,790; Oct. 28; Gaz. vol. 195; p. 870.

Schwabe, Georg, Bielitz, Austria-Hungary. Change box-motion for power-looms. No. 1,076,791; Oct. 28; Gaz. vol. 195; p. 870.

Schwabe, Rudolf, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Hexamethylenetetramin salts of the α-phenylquinolin-γ-carboxylic acids. No. 1,076,160; Oct. 21; Gaz. vol. 195; p. 595.

Schwahn, Heinrich F. D., Belleville, Ill., assignor to W. Somerville, St. Louis, Mo. Motor-driven rotary earth-working-tool. No. 1,076,241; Oct. 21; Gaz. vol. 195; p. 622.

Schwartz, Louis S., assignor to T. Rubovits, Chicago, Ill. Toy bank. No. 1,077,165; Oct. 28; Gaz. vol. 195; p. 995.

Schwartzberg, Morris, Chicago, Ill. Telephone-receiver stand. No. 1,074,648; Oct. 7; Gaz. vol. 195; p. 21.

Schwarz, Charles L., Philadelphia, Pa. Wheel-tire. No. 1,074,899; Oct. 7; Gaz. vol. 195; p. 106.

Schwarz, Otto C., Chicago, Ill. Card frame or mount. No. 1,076,161; Oct. 21; Gaz. vol. 195; p. 595.

Schwarz, Walter, Dortmund, Germany. Gas-purifying apparatus. No. 1,076,458; Oct. 21; Gaz. vol. 195; p. 699.

Schwarzlose, Andreas W., Charlottenburg, Germany. Breech mechanism. No. 1,077,166; Oct. 28; Gaz. vol. 195; p. 996.

Schwegler, Otto. (See Flick, George T., assignor.)

Schweinert, Maximilian C., West Hoboken, N. J., and H. P. Kraft, assignors, by mesne assignments, to A. Schrader's Son, Incorporated, New York, N. Y. Water-bottle stopper. No. 1,076,162; Oct. 21; Gaz. vol. 195; p. 595.

Schwertner, Joseph, New York, N. Y., assignor to Heerwagen Company. Automatic piano-player. No. 1,077,167; Oct. 28; Gaz. vol. 195; p. 996.

Schwery, Joseph P., assignor of forty-nine one-hundredths to F. Flower, Waukegan, Ill. Unbuttoning device. No. 1,074,649; Oct. 7; Gaz. vol. 195; p. 22.

Scott, Burton W., Detroit, Mich., assignor, by mesne assignments, to Eli Lilly & Company, Indianapolis, Ind. Apparatus for the manufacture of capsules. No. 1,076,459; Oct. 21; Gaz. vol. 195; p. 699.

Scott, Don J., New Britain, Conn. Tool-handle. No. 1,075,732; Oct. 14; Gaz. vol. 195; p. 421.

Scott, Erskine L., Grandview, W. Va. Latch. No. 1,074,750; Oct. 7; Gaz. vol. 195; p. 57.

Scott, Robert P., Cadiz, Ohio. Demountable rim for pneumatic tires. No. 1,075,501; Oct. 14; Gaz. vol. 195; p. 342.

Scott, Robert W., Leeds Point, assignor to Scott & Williams, Incorporated, Camden, N. J. Hosiery. No. 1,075,864; Oct. 14; Gaz. vol. 195; p. 465.

Scott, Thomas S., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Commutator for dynamo-electric machines. No. 1,075,502; Oct. 14; Gaz. vol. 195; p. 343.

Scott, Walter R., assignor to J. H. Bromley, Philadelphia, Pa. Jacquard connection for weaving mechanisms. No. 1,076,523; Oct. 21; Gaz. vol. 195; p. 722.

Scott, Walter R., assignor to J. H. Bromley, Philadelphia, Pa. Jacquard connection. No. 1,076,524; Oct. 21; Gaz. vol. 195; p. 722.

Scott & Williams. (See Scott, Robert W., assignor.)

Scranton, Robert A., New York, N. Y., assignor, by mesne assignments, to The Imperial Sewing Machine Company. Clutch mechanism for sewing-machines. No. 1,074,650; Oct. 7; Gaz. vol. 195; p. 22.

Scribner, Charles E., Jericho, Vt., assignor to Western Electric Company, New York, N. Y. Telegraph-transmitter. No. 1,075,503; Oct. 14; Gaz. vol. 195; p. 343.

Scribner, Charles E., Jericho, Vt., assignor to Western Electric Company, New York, N. Y. Telegraph-transmitter. No. 1,075,504; Oct. 14; Gaz. vol. 195; p. 343.

Seaquist, Carl R., Sister Bay, Wis. Vessel. No. 1,075,160; Oct. 7; Gaz. vol. 195; p. 196.

Searcy, Oscar W., assignor of one-half to C. S. Banks, Manila, Philippine Islands. Revolving ventilator. No. 1,076,609; Oct. 21; Gaz. vol. 195; p. 753.

Sears, Willard T., Hartford, Conn., assignor of one-half to J. V. W. Reynders, Steelton, Pa. Means for operating punch-gags. No. 1,074,900; Oct. 7; Gaz. vol. 195; p. 106.

Sears, Willard T., Hamilton, Ohio, assignor to Pratt & Whitney Company, Hartford, Conn. Radial drill. No. 1,076,242; Oct. 21; Gaz. vol. 195; p. 622.

Sebesta, Edward F., Erin township, Rice county, Minn. Mouse or rat trap. No. 1,077,098; Oct. 28; Gaz. vol. 195; p. 976.

Security Equipment Company. (See Martin, Frederick E., assignor.)

Sedam, William H., Moores Hill, Ind. Bundle-tie. No. 1,076,792; Oct. 28; Gaz. vol. 195; p. 870.

See, Alonzo B. (See Lindstrom, Nils O., assignor.)

Segman, Alexander, New York, N. Y. Jewelry. No. 1,075,673; Oct. 14; Gaz. vol. 195; p. 401.

Seidel, Emil K. F., El Paso, Tex. Woodworking-clamp. No. 1,075,384; Oct. 14; Gaz. vol. 195; p. 303.

Seipel, Oscar W., Columbus, Ohio. Wrench. No. 1,076,793; Oct. 28; Gaz. vol. 195; p. 871.

Selter & Kappes Lithographing Co., The. (See Stranders, Julien, assignor.)

Sellers, William F., Gallitzin, Pa. Rail-joint. No. 1,077,168; Oct. 28; Gaz. vol. 195; p. 997.

Semple, John B., Sewickley, Pa. Tracer for projectiles. No. 1,077,204; Oct. 28; Gaz. vol. 195; p. 1009.

Sentinel Automatic Gas Appliance Co., The. (See Bargamin, Clifford, assignor.)

Serramoglia, José, and E. Middleton, Rosario de Santa Fé, Argentina. Windmill. No. 1,075,994; Oct. 14; Gaz. vol. 195; p. 511.

Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Car-axle box. No. 1,074,651; Oct. 7; Gaz. vol. 195; p. 22.

Sette, Gilbert. (See Shreve, Alexander F., assignor.)

Setz, Hans R., assignor to Fulton Iron Works, St. Louis, Mo. Fuel-pump for internal-combustion engines. No. 1,076,915; Oct 28; Gaz. vol. 195; p. 914.

Severin, Frank W., assignor to Venn-Severin Machine Co., Chicago, Ill. Governor mechanism. No. 1,074,652; Oct. 7; Gaz. vol. 195; p. 23.

Shafer, James A., Mathews, Va. Garment-supporter. No. 1,077,099; Oct. 28; Gaz. vol. 195; p. 977.

Shallenberger, Charles S., St. Louis, Mo., assignor to Double Body Bolster Company. Car end underframe. No. 1,076,243; Oct. 21; Gaz. vol. 195; p. 622.

Sharp, Alonzo G., assignor to The E. M. Huise Company, Columbus, Ohio. Sofa or davenport bed. No. 1,076,843; Oct. 28; Gaz. vol. 195; p. 888.

Sharp, Josiah C., San Diego, Cal. Toy. No. 1,075,865; Oct. 14; Gaz. vol. 195; p. 465.

Sharp Spark Plug Company, The. (See Walsh, Frank C., assignor.)

Sharpe, Joseph K., Jr., assignor to The Schuman Company, Indianapolis, Ind. Shock receiving and delivering means for shredding-machines. No. 1,074,653; Oct. 7; Gaz. vol. 195; p. 23.

Shaut, Edwin J., and W. A. Dunham, Jackson, Mich. Tire. No. 1,076,916; Oct. 28; Gaz. vol. 195; p. 915.

Shaw, Edwin C., Akron, Ohio, assignor, by mesne assignments, to The B. F. Goodrich Company. Vehicle wheel-rim. No. 1,077,233; Oct. 28; Gaz. vol. 195; p. 1019.

Shaw, Moses M., Braddock, Pa. Rail-joint. No. 1,076,917; Oct. 28; Gaz. vol. 195; p. 915.

Sheehan, Thomas C., Jersey City, N. J., assignor, by mesne assignments, to Automatic Furnace Company, New York, N. Y. Melting and casting pot. No. 1,074,901; Oct. 7; Gaz. vol. 195; p. 106.

Sheehan, Thomas C., Jersey City, N. J., assignor to Durham Duplex Razor Company, New York, N. Y. Machine for truing honing-wheels. No. 1,075,227; Oct. 7; Gaz. vol. 195; p. 220.

Sheehan, Thomas C., and J. E. Drew, Jersey City, N. J., assignors to Durham Duplex Razor Company, New York, N. Y. Grinding-machine for razor-blades. No. 1,075,228; Oct. 7; Gaz. vol. 195; p. 220.

Sheldon, Lucian A., Schenectady, N. Y., assignor to General Electric Company. Planimeter. No. 1,076,525; Oct. 21; Gaz. vol. 195; p. 723.

Sheldon, Minnie E. (See Farrington, Joel, assignor.)

Sheline, Frank, New Kensington, Pa. Artificial butterfly. No. 1,077,100; Oct. 28; Gaz. vol. 195; p. 977.

Shell, Frank L., Deadwood, S. D. Radiator-valve. No. 1,075,068; Oct. 7; Gaz. vol. 195; p. 166.

Shepherd, Ensley C., Mineral Point, Wis. Window-sash. No. 1,075,306; Oct. 7; Gaz. vol. 195; p. 250.

Sherbondy, Edward L. (See Jackson and Sherbondy.)

Sherwood, Lincoln B., Indianapolis, Ind. Air-pump. No. 1,076,610; Oct. 21; Gaz. vol. 195; p. 753.

Shideed, Abraham G., Lawrence, Mass. Device for handling broken ends. No. 1,075,161; Oct. 7; Gaz. vol. 195; p. 197.

Shier, John, assignor of one-third to C. S. Wright, Detroit, Mich., and one-third to C. Button, Mansfield, Ohio. Sausage-linking machine. No. 1,075,604; Oct. 14; Gaz. vol. 195; p. 378.

Shinn, Nathaniel M., assignor to Dornan Brothers, Philadelphia, Pa. Pile-fabric loom. No. 1,075,127; Oct. 7; Gaz. vol. 195; p. 185.

Shipman, Bennet C., assignor to Pacific Wave Power Company, San Francisco, Cal. Wave-motor. No. 1,076,844; Oct. 28; Gaz. vol. 195; p. 888.

Shipman, Ralph, Sunbury, Pa. Carbureter for internal-combustion engines. No. 1,076,244; Oct. 21; Gaz. vol. 195; p. 623.

Shipp, Swan A. (See Miller and Shipp.)

Shirley, Frederick M., assignor to L. J. and G. H. Betts, Warren, Pa. Device for pressing cigar-molds. No. 1,076,163; Oct. 21; Gaz. vol. 195; p. 596.

Shively, John J., Washington, D. C. Explosive-engine. No. 1,075,307; Oct. 7; Gaz. vol. 195; p. 250.

Shiverick, Myron D., assignor to W. E. Milbank, Albany, N. Y. Wire coating and spooling machine. No. 1,076,526; Oct. 21; Gaz. vol. 195; p. 723.

Shiverick, Nathan C., Omaha, Nebr. Riding boot and legging. No. 1,076,845; Oct. 28; Gaz. vol. 195; p. 889.

Shoemaker, George C., Washington, D. C., assignor to Jackson Cushion Spring Company, Jackson, Mich. Spring structure. No. 1,076,164; Oct. 21; Gaz. vol. 195; p. 596.

Shrader, Clinton F. (See Goff, Frank, assignor.)

Shreve, Alexander F., assignor of one-half to G. Sette, Hoisington, Kans. Automatic mud-drum for boilers. No. 1,075,162; Oct. 7; Gaz. vol. 195; p. 197.

Shroat, Melville L. (See Warner and Shroat.)

Shults, William J., Osage township, Labette county, Kans. Oil-stove. No. 1,075,948; Oct. 14; Gaz. vol. 195; p. 494.

Shuman, Frank G., Chicago, Ill. Tag-fastener. No. 1,077,169; Oct. 28; Gaz. vol. 195; p. 997.

Siegwart, Hans, Lucerne, Switzerland. Tubular body such as pipes, hollow masts, or the like. No. 1,076,611; Oct. 21; Gaz. vol. 195; p. 754.

Siemens & Co., Gebrueder. (See Egly, Georg, assignor.)

Siemens & Halske A-G. (See Jacob, Francis, assignor.)

Siemens-Schuckert Werke G. m. b. H. (See Koss, Richard, assignor.)

Siemens-Schuckertwerke G. m. b. H. (See Rüdenberg, Reinhold, assignor.)

Siewers, Walter L., assignor to The Maline Mills Company, Winston-Salem, N. C. Garment. No. 1,077,170; Oct. 28; Gaz. vol. 195; p. 997.

Sifferman, Frederick, South Bethlehem, Pa. Airship. No. 1,077,004; Oct. 28; Gaz. vol. 195; p. 946.

Sikes, Simeon R., Ocilla, Ga. Fertilizer-distributer. No. 1,074,902; Oct. 7; Gaz. vol. 195; p. 107.

Silver, Herman, assignor to Greenpoint Metallic Bed Company, Brooklyn, N. Y. Metal bedstead. No. 1,076,918; Oct. 28; Gaz. vol. 195; p. 915.

Silvestro, John, *et al.* (See Maxwell, William B. and G. C., assignors.)

Silvius, Ellis T., Indianapolis, Ind., assignor to The McCaskey Register Company, Alliance, Ohio. Filing appliance. No. 1,075,866; Oct. 14; Gaz. vol. 195; p. 466.

Simmons, William M., Burlington, Iowa. Means for operating doors of vehicles. No. 1,076,165; Oct. 21; Gaz. vol. 195; p. 596.

Simmons, William M., Burlington, Iowa. Door-operating mechanism. No. 1,076,460; Oct. 21; Gaz. vol. 195; p. 700.

Simon, Arthur, assignor to The Cutler Hammer Mfg. Co., Milwaukee, Wis. Pressure-operating device. No. 1,075,733; Oct. 14; Gaz. vol. 195; p. 421.

Simon, Morecz, East Chicago, Ind. Nut-lock. No. 1,075,605; Oct. 14; Gaz. vol. 195; p. 379.

Simonds Manufacturing Company. (See Howard, Leslie E., assignor.)

Simons, William H., Columbus, Ohio. Car-coupling. No. 1,074,751; Oct. 7; Gaz. vol. 195; p. 57.

Simpson, George S., Morgantown, W. Va. Thermostatic heat or fire alarm. No. 1,074,654; Oct. 7; Gaz. vol. 195; p. 24.

Simpson, John A., assignor of one-half to R. R. Simpson and one-half to O. I. Simpson, Chicago, Ill. Cigar-box humidor. No. 1,075,867; Oct. 14; Gaz. vol. 195; p. 466.

Simpson, Napoleon B., Foxboro, Mass., assignor of forty-nine one-hundredths to M. T. Davidson, Brooklyn, N. Y. Internal-combustion engine. No. 1,075,163; Oct. 7; Gaz. vol. 195; p. 197.

Simpson, Orville I., *et al.* (See Simpson, John A., assignor.)

Simpson, Ray R., *et al.* (See Simpson, John A., assignor.)

Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)

Single Service Package Corporation of America. (See Dewey, Haywood G., assignor.)

Singleton, Granville J., Westville, Okla. Excess-baggage check. No. 1,075,505; Oct. 14; Gaz. vol. 195; p. 344.

Sipes, Victor W., Pittsburgh, Pa., assignor to J. S. Gary, Dayton, Ohio. Safety-razor. No. 1,075,606; Oct. 14; Gaz. vol. 195; p. 379.

Sjoman, John E., Osage City, Kans. Danger-signal for railway-bridges. No. 1,075,868; Oct. 14; Gaz. vol. 195; p. 467.

Skinner, Clarence F., Newark, assignor to United Shoe Machinery Company, Paterson, N. J. Mechanical movement. No. 1,075,308; Oct. 7; Gaz. vol. 195; p. 251.

Skinner, Ernest M., Boston, Mass. Electropneumatic swell-pedal action for pipe-organs. No. 1,076,069; Oct. 21; Gaz. vol. 195; p. 564.

Skinner, Theodore H., Oneida, N. Y. Dam. No. 1,075,128; Oct. 7; Gaz. vol. 195; p. 186.

Slate, William L., assignor of one-half to W. C. Forbess, Fort Worth, Tex. Switch-throwing mechanism for railway-cars. No. 1,075,869; Oct. 14; Gaz. vol. 195; p. 467.

Slator, M. D. (See Bogusch, Emil G., assignor.)

Sleeper, Oliver S., assignor to The Buffalo Foundry & Machine Company, Buffalo, N. Y. Vacuum-drier. No. 1,074,903; Oct. 7; Gaz. vol. 195; p. 107.

Slesazeck, Paul, Berlin, assignor to G. Pickert, Stralsund, Germany. Rotary pump. No. 1,076,711; Oct. 28; Gaz. vol. 195; p. 842.

Slick, Edwin E., Westmont, Pa. Cooling-bed. No. 1,076,166; Oct. 21; Gaz. vol. 195; p. 596.

Slick, Edwin E., Pittsburgh, Pa. Gas-engine. No. 1,076,846; Oct. 28; Gaz. vol. 195; p. 889.

Slosson, James S., New Brighton, assignor to C. L. Miller & Co., New York, N. Y. Wire tie for bags, bales, bundles, and packages. No. 1,076,246; Oct. 21; Gaz. vol. 195; p. 623.

Slusher, Joseph T., Sabetha, Kans. Veterinary medicine. No. 1,074,655; Oct. 7; Gaz. vol. 195; p. 24.

Small, Howard, *et al.* (See Smith, John W., assignor.)

Smathers, James F., Kansas City, Mo. Type-writing machine. No. 1,077,005; Oct. 28; Gaz. vol. 195; p. 946.

Smay, Joseph B., Jr., assignor of one-third to W. P. Schultz and one-third to P. J. W. Hoagland, Pittsburgh, Pa. Tractable means for motor-driven vehicles. No. 1,077,101; Oct. 28; Gaz. vol. 195; p. 977.

Smith, Alexander, Goliad, Tex. Harrow attachment. No. 1,076,070; Oct. 21; Gaz. vol. 195; p. 564.

Smith, Allen H., *et al.* (See De Force, George I., assignor.)

Smith, Beldin C., Detroit, Mich. Bolt-fastening. No. 1,077,006; Oct. 28; Gaz. vol. 195; p. 947.

Smith, Beldin C., and D. Horvitz, Detroit, Mich. Vehicle top-support. No. 1,077,007; Oct. 28; Gaz. vol. 195; p. 947.

Smith, Charles W., Grove City, Pa. Frying-pan. No. 1,076,167; Oct. 21; Gaz. vol. 195; p. 597.

Smith, Clarence F., Racine, Wis. Hose-supporter. No. 1,074,985; Oct. 7; Gaz. vol. 195; p. 134.

Smith, Cyril A., Attleboro, Mass. Mesh-bag and making the same. No. 1,074,904; Oct. 7; Gaz. vol. 195; p. 107.

Smith, Elberon D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Pasting mechanism for cigarette-machines. No. 1,075,272; Oct. 7; Gaz. vol. 195; p. 237.

Smith, Elberon D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Cigarette-rod-forming mechanism. No. 1,075,273; Oct. 7; Gaz. vol. 195; p. 238.

Smith, Elberon D., Brooklyn, assignor to American Machine & Foundry Company, New York, N. Y. Cut-off mechanism for cigarette-machines. No. 1,075,274; Oct. 7; Gaz. vol. 195; p. 238.

Smith, Eli D., *et al.* (See De Force, George I., assignor.)

Smith, Ernest W. (See Merritt, Joseph, assignor.)

Smith, Ezra B., Chicago, Ill. Lever-button. No. 1,074,905; Oct. 7; Gaz. vol. 195; p. 108.

Smith, Felix J., Findlay, Ohio. Disinfecting apparatus. No. 1,075,164; Oct. 7; Gaz. vol. 195; p. 198.

Smith, Frank R., Toronto, Ontario, Canada. Machine for stemming cherries. No. 1,076,794; Oct. 28; Gaz. vol. 195; p. 871.

Smith, George H. (See Walter, Bruce, assignor.)

Smith, George W., Cloverdale, Ind. Vise. No. 1,075,506; Oct. 14; Gaz. vol. 195; p. 344.

Smith, Grant W., Chattanooga, Tenn. Rock-drill. No. 1,076,246; Oct. 21; Gaz. vol. 195; p. 623.

Smith, Harold E., *et al.* (See Kadow, Otto F., assignor.)

Smith, Harry C., Manila, Philippine Islands. Winged-pier quay-wall. No. 1,075,229; Oct. 7; Gaz. vol. 195; p. 221.

Smith, Henry, Chicago, Ill. Awning. No. 1,075,385; Oct. 14; Gaz. vol. 195; p. 304.

Smith, Henry D., Mansfield, Mass. Coffee and tea strainer. No. 1,076,795; Oct. 28; Gaz. vol. 195; p. 871.

Smith, Huntington, Dedham, Mass. Device for electrocuting animals. No. 1,075,386; Oct. 14; Gaz. vol. 195; p. 304.

Smith, Huntington, Boston, Mass. Apparatus for electrocuting animals. No. 1,075,995; Oct. 14; Gaz. vol. 195; p. 511.

Smith, Huntington, Jr. (See Catlin, Ephron, Jr., assignor.)

Smith, James U., Berkeley, Cal. Signaling device for estimating distances. No. 1,075,949; Oct. 14; Gaz. vol. 195; p. 494.

Smith, John, assignor to Draper Company, Hopedale, Mass. Automatically-threading shuttle. No. 1,074,656; Oct. 7; Gaz. vol. 195; p. 24.

Smith, John C. (See Harter and Smith.)

Smith, John E. (See Lodge, Albert, assignor.)

Smith, John L., Wartburg, assignor to G. F. Lyman, Harriman, Tenn. Turn-table. No. 1,075,230; Oct. 7; Gaz. vol. 195; p. 221.

Smith, John R., Bradford, assignor of one-half to H. E. Beede, Hyde Park, Mass. Washing apparatus. No. 1,075,734; Oct. 14; Gaz. vol. 195; p. 422.

Smith, John W., Chicago, Ill., assignor to H. Small and C. A. Duren, Philadelphia, Pa. Vacuum-cleaner. No. 1,077,008; Oct. 28; Gaz. vol. 195; p. 947.

Smith, John W., Chicago, Ill., assignor to H. Small and C. A. Duren, Philadelphia, Pa. Vacuum-cleaner. No. 1,077,102; Oct. 28; Gaz. vol. 195; p. 977.

Smith, Louis T. (See Smith, Theron A. and L. T.)

Smith, Luther K., Moberly, Mo., assignor to A. C. Buzby, Philadelphia, Pa. Hub-liner for locomotive-journals. No. 1,074,752; Oct. 7; Gaz. vol. 195; p. 57.

Smith, Morris F., Philadelphia, Pa. Firearm. No. 1,077,103; Oct. 28; Gaz. vol. 195; p. 978.

Smith, Perry W., Paris, Mo. Agricultural implement. No. 1,076,461; Oct. 21; Gaz. vol. 195; p. 700.

Smith, Reginald G., and E. N. Percy, Oakland, Cal. Orchard-heater. No. 1,077,009; Oct. 28; Gaz. vol. 195; p. 948.

Smith, Robert C., Oak Park, Ill. Liquid-level indicator. No. 1,075,510; Oct. 14; Gaz. vol. 195; p. 345.

Smith, Rollyn R., Oklahoma, assignor to G. Y. Bird, Pawhuska, Okla. Spring-hammer. No. 1,075,950; Oct. 14; Gaz. vol. 195; p. 495.

Smith, Samuel P., St. Paris, Ohio. Ice-creeper attachment for horseshoes. No. 1,075,870; Oct. 14; Gaz. vol. 195; p. 467.

Smith, Theron A. and L. T., San Jose, Cal. Shoe-polishing device. No. 1,076,071; Oct. 21; Gaz. vol. 195; p. 564.

Smith, Thomas L., Milwaukee, Wis. Rock-crusher. No. 1,075,507; Oct. 14; Gaz. vol. 195; p. 344.

Smith, Watson R., Jackson, Mich. Seat-cushion retainer. No. 1,074,986; Oct. 7; Gaz. vol. 195; p. 134.

Smith, Watson R., Jackson, Mich. Seat-cushion retainer. No. 1,075,165; Oct. 7; Gaz. vol. 195; p. 198.

Smith Webbing Company. (See Howard, Albert S., assignor.)

Smith, Willard A., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for lacing shoe-uppers. No. 1,075,508; Oct. 14; Gaz. vol. 195; p. 344.

Smith, Willard A., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for lacing shoe-uppers. No. 1,075,511; Oct. 14; Gaz. vol. 195; p. 346.

Smith, William H. (See Thompson, Thomas, assignor.)

Smith, William H., and F. W. Gunton, London, England. Automatic musical instrument. No. 1,075,509; Oct. 14; Gaz. vol. 195; p. 345.

Smithurst, Percy A., London, England. Door closing and checking mechanism. No. 1,077,234; Oct. 28; Gaz. vol. 195; p. 1019.

Smouse, George E., Washington, D. C. Truck. No. 1,074,753; Oct. 7; Gaz. vol. 195; p. 58.

Smyth, William O., Brilliant, Ohio. Bricklayer's gage-line. No. 1,075,166; Oct. 7; Gaz. vol. 195; p. 198.

Smythe, William F., New York, N. Y. Antislipping device for horseshoes. No. 1,074,657; Oct. 7; Gaz. vol. 195; p. 24.

Snead & Co. Iron Works, The. (See Macdonald, Harry P., assignor.)

Snow, Isaac, assignor of one-half to H. Clough, Lawrence, Mass. Threading device for shuttles. No. 1,074,987; Oct. 7; Gaz. vol. 195; p. 135.

Snyder, Howard F., Newton, Iowa, assignor to The Maytag Company. Gearing. No. 1,076,712; Oct. 28; Gaz. vol. 195; p. 842.

Snyder, John E., Swissvale, Pa., assignor to The Westinghouse Machine Company. Blading. No. 1,075,607; Oct. 14; Gaz. vol. 195; p. 379.

Snyder, Judson S. (See Levine, Louis, assignor.)

Snyder, William D. (See Melchert and Snyder.)

Sobilk, Max, Dresden-Klotzsche, assignor to Sobilk Schreibmaschinen Gesellschaft mit beschraenkter Haftung, Dusseldorf, Germany. Pneumatic type-writer. No. 1,075,512; Oct. 14; Gaz. vol. 195; p. 346.

Soblik Schreibmaschinen Gesellschaft mit beschraenkter Haftung. (See Soblik, Max, assignor.)

Société des Etablissements Gaumont. (See Gaumont, Léon, assignor.)

Société des Etablissements Malicet et Blin. (See Guillery, René, assignor.)

Société Internationale de la Lampe Electrique O. R. (See Dobkevitch, Gaëtan, assignor.)

Société Nouvelle de la Buire Automobiles. (See Berthier, Michel, assignor.)

Society of Chemical Industry in Basle. (See Engi, Gadient, assignor.)

Society of Chemical Industry in Basle. (See Steinbuch, Ewald, assignor.)

Sohm, Alfred L., Los Angeles, Cal., assignor to The Sohm Electric Signal & Recording Company, Spokane, Wash. Electric recording instrument. No. 1,075,513; Oct. 14; Gaz. vol. 195; p. 346.

Sohm, Alfred L., Los Angeles, Cal., assignor to Sohm Electric Signal & Recording Company, Chicago, Ill. Recording system and apparatus. No. 1,075,608; Oct. 14; Gaz. vol. 195; p. 379.

Sohm Electric Signal & Recording Company. (See Sohm, Alfred L., assignor.)

Sokolov, Jacob, assignor to Underwood Typewriter Company, New York, N. Y. Stencilling-machine. No. 1,075,735; Oct. 14; Gaz. vol. 195; p. 422.

Sokolowski, Teofil, assignor of one-half to E. F. Maritz, St. Louis, Mo. Balance-staff for watches. No. 1,075,387; Oct. 14; Gaz. vol. 195; p. 304.

Solem, Peter A., assignor to J. A. Fay & Egan Company, Cincinnati, Ohio. Chip-breaker for planing-machines. No. 1,076,231; Oct. 7; Gaz. vol. 195; p. 221.

Somerville, William. (See Schwahn, Heinrich F. D., assignors.)

Sonnenburg, Edward J., Riverside, Cal. Temporary binder. No. 1,075,167; Oct. 7; Gaz. vol. 195; p. 199.

Sorensen, Rasmus B., assignor of one-half to M. L. Strother, Tonopah, Nev. Car replacer and derailer. No. 1,074,754; Oct. 7; Gaz. vol. 195; p. 58.

Sosa, Augustus M., assignor of one-half to A. F. Herbsleb, Cincinnati, Ohio. Driving and feeding mechanism in metal-working machinery. No. 1,074,906; Oct. 7; Gaz. vol. 195; p. 108.

Southern Electro-Chemical Company. (See Pauling, Harry, assignor.)

Southwick, William H., Leeds, England. Air or water motor. No. 1,076,713; Oct. 28; Gaz. vol. 195; p. 843.

Southworth, Harrison H. (See Wolf and Southworth.)

Sowar, Joseph S. C., Brazil, Ind. Animal-trap. No. 1,077,104; Oct. 28; Gaz. vol. 195; p. 978.

Sowden, Charles N., Guantánamo, Cuba. Shock-absorber. No. 1,074,658; Oct. 7; Gaz. vol. 195; p. 25.

Sowden, Charles N., Guantánamo, Cuba. Swivel lamp-holder. No. 1,075,951; Oct. 14; Gaz. vol. 195; p. 495.

Sowden, Charles N., Guantánamo, Cuba. Swivel lamp-holder. No. 1,075,952; Oct. 14; Gaz. vol. 195; p. 496.

Spangler, John A. (See Duncan and Spangler.)

Spears, Jack L. (See Pate and Spears.)

Speck, Nicholas, assignor of one-third to H. Johannet and one-third to J. O. Fidler, Monroe, Wis. Sharpener for lawn-mowers. No. 1,076,919; Oct. 28; Gaz. vol. 195; p. 916.

Spence, William J. (See Rodgers and Spence.)

Spengler, Henry, New York, assignor to A. Liebmann, Brooklyn, N. Y. Closure. No. 1,074,907; Oct. 7; Gaz. vol. 195; p. 108.

Spiegel, Adolf, assignor to Gewerkschaft Messel, Grube Messel, near Darmstadt, Germany. Apparatus for separating liquid particles from gases. No. 1,075,736; Oct. 14; Gaz. vol. 195; p. 423.

Spira, Markus L., Cleveland, Ohio. Paint-removing device. No. 1,074,755; Oct. 7; Gaz. vol. 195; p. 58.

Spirella Company, The. (See Schuler, David, assignor.)

Spirlet, Xavier de, Brussels, Belgium. Mechanical system for roasting sulfurous ores by a continuous process. No. 1,077,010; Oct. 28; Gaz. vol. 195; p. 948.

Spiro, Leon, Everett, Wash. Automatic balance for aeroplanes. No. 1,074,659; Oct. 7; Gaz. vol. 195; p. 25.

Sponogle, Francis M. (See Fox, Bem, and Sponogle.)

Sporleder, Michael, Colorado City, Colo. Watch. No. 1,076,072; Oct. 21; Gaz. vol. 195; p. 564.

Sprado, Ralph, Alameda, Cal. Pump. No. 1,076,323; Oct. 21; Gaz. vol. 195; p. 652.

Sprague Canning Machinery Company. (See McIntyre, John C., assignor.)

Sprecher, Harry M., Ephrata, Pa. Winding-machine. No. 1,076,920; Oct. 28; Gaz. vol. 195; p. 916.

Sprick, William F., Stickney, S. D. Deflating device. No. 1,077,011; Oct. 28; Gaz. vol. 195; p. 948.

Spyker, Jacobus, Amsterdam, Netherlands. Elastic road-wheel. No. 1,075,168; Oct. 7; Gaz. vol. 195; p. 199.

Squire, Willis C., Chicago, Ill. Thermostatic pressure-regulator. No. 1,074,660; Oct. 7; Gaz. vol. 195; p. 26.

Squires, Frederick, *et al.* (See Vought, Henry H., Jr., assignor.)

St. Amont, Alph. (See Willis, Elmer E., assignor.)

St. Onge, Amasa, Providence, R. I. Cotton-picking machine. No. 1,076,715; Oct. 28; Gaz. vol. 195; p. 843.

Staaf, Werner I., assignor of one-half to E. B. Tyler, Pittsburgh, Pa. Water-trap. No. 1,076,324; Oct. 21; Gaz. vol. 195; p. 652.

Stabe, Feodor, Lankwitz, near Berlin, assignor to Internationale Präzisions-Schmierapparate Aktiengesellschaft, Berlin, Germany. Oil-drop lubricator. No. 1,075,871; Oct. 14; Gaz. vol. 195; p. 468.

Stadler, Andrew, assignor of one-half to A. W. Beckman, Altoona, Pa. Railway signaling device. No. 1,075,169; Oct. 7; Gaz. vol. 195; p. 199.

Stafford, Wayne, Blue Ball, Pa. Ball-and-socket pipe-union. No. 1,076,921; Oct. 28; Gaz. vol. 195; p. 916.

Stage, Joseph B., Wabeno, Wis. Artificial limb. No. 1,077,012; Oct. 28; Gaz. vol. 195; p. 949.
Stahl, William H., New Berlinville, Pa. Washing-machine. No. 1,076,247; Oct. 21; Gaz. vol. 195; p. 624.
Stamm, Benjamin F., Hunt, Ill. Safety-razor-blade holder. No. 1,077,171; Oct. 28; Gaz. vol. 195; p. 997.
Stanat, William, Clear Lake, Wis. Knife-cylinder. No. 1,076,714; Oct. 28; Gaz. vol. 195; p. 843.
Stanbon, Charles P., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Box for holding rolls of welt. No. 1,076,073; Oct. 21; Gaz. vol. 195; p. 565.
Stancliff, Lynn E., *et al.* (See De Force, George I., assignor.)
Standard Auto Valve Company. (See Carlisle, Fred B., assignor.)
Standard Earth Auger Co. (See Chase, Frank H., assignor.)
Stanford, Frank H., assignor, by mesne assignments, to Stanford Metal Railroad Tie Company, Elizabeth, N. J. Rail tie and anchor. No. 1,076,612; Oct. 21; Gaz. vol. 195; p. 754.
Stanford Metal Railroad Tie Company. (See Stanford, Frank H., assignor.)
Stankovitch, Petar N., Everett, Wash. Teredoproof pile. No. 1,076,248; Oct. 21; Gaz. vol. 195; p. 624.
Stanley, Franklin H., Cleveland, Ohio, assignor to Stanley Patents Company. Treating cream and similar substances. No. 1,075,514; Oct. 14; Gaz. vol. 195; p. 347.
Stanley, John C. W., Santa Cruz, assignor to Stanley Paper Fibre Company, San Francisco, Cal. Method and apparatus for digesting wood and other fibrous materials. No. 1,075,795; Oct. 14; Gaz. vol. 195; p. 442.
Stanley, John T. (See Meerbott, Percy B., assignor.)
Stanley Paper Fibre Company. (See Stanley, John C. W., assignor.)
Stanley Patents Company. (See Stanley, Franklin H., assignor.)
Stanley Works, The. (See Fleischer, Herman, assignor.)
Stanley Works, The. (See Holtzhouser, Jacob P., assignor.)
Starke, Carl, Hoboken, N. J. Garment-stretcher. No. 1,074,661; Oct. 7; Gaz. vol. 195; p. 26.
Starkey, Thomas J., Cozad, Nebr. Sash-holder. No. 1,075,444; Oct. 14; Gaz. vol. 195; p. 324.
Stedman, Charles R., Cleveland, Ohio. Sound insulation. No. 1,076,074; Oct. 21; Gaz. vol. 195; p. 565.
Steedman, George F., St. Louis, Mo. Pressure-controlling device. No. 1,075,170; Oct. 7; Gaz. vol. 195; p. 200.
Steele, Edwin C., Oxford, Ind. Water-filter. No. 1,076,075; Oct. 21; Gaz. vol. 195; p. 565.
Steele, Melvin. (See Rysteda and Steele.)
Steen, Halfdan A., Pittsburgh, Pa., assignor to Westinghouse Electric and Manufacturing Company. Controller for electric motors. No. 1,075,445; Oct. 14; Gaz. vol. 195; p. 324.
Stein, Jacob A., New York, N. Y. Box for plumes and similar articles. No. 1,075,446; Oct. 14; Gaz. vol. 195; p. 324.
Steinbecker, Karl, Charlottenburg, Germany, assignor to General Electric Company. Pump for elastic fluids. No. 1,076,462; Oct. 21; Gaz. vol. 195; p. 700.
Steinbuch, Ewald, Monthey, assignor to Society of Chemical Industry in Basle, Basel, Switzerland. Apparatus for electrolysis of fused alkali chlorids. No. 1,074,988; Oct. 7; Gaz. vol. 195; p. 135.
Steiner, Isidor, Munich, Germany, assignor of one-half to C. Zoller, New York, N. Y. Automatic apparatus for weighing determined adjustable quantities of materials. No. 1,075,872; Oct. 14; Gaz. vol. 195; p. 468.
Steinglisser, Josef, and E. Gottesleben, Mayence, Germany. Wood grinding and polishing machine. No. 1,075,515; Oct. 14; Gaz. vol. 195; p. 347.
Stendahl, Knut L., assignor to John A. Hurley, Incorporated, Bridgeport, Conn. Attachment for extinguishing oil-stoves when overturned. No. 1,076,168; Oct. 21; Gaz. vol. 195; p. 597.
Stephen, Benjamin, and D. R. James, Ambia, Ind. Automobile-lamp control. No. 1,077,172; Oct. 28; Gaz. vol. 195; p. 997.
Stephens, E. A., *et al.* (See Keil, Peter, assignor.)
Stephenson, William H., Marion, Ind. Stovepipe-joint. No. 1,075,737; Oct. 14; Gaz. vol. 195; p. 423.
Steps, Robert A., *et al.* (See Binkley, Robah J., assignor.)
Sterilization Company. (See Travis and Ault, assignors.)
Sterling Blower Company. (See Christoph, George W., assignor.)
Stevens, Merton P., East Orange, N. J. Holder for shades, reflectors, and the like. No. 1,076,463; Oct. 21; Gaz. vol. 195; p. 701.
Stevens, Robert C. (See Hooper and Stevens.)
Stevenson, Edwin D., Wadsworth, Ohio. Equilibrator for flying-machines. No. 1,075,447; Oct. 14; Gaz. vol. 195; p. 324.
Stewart, Archibald H., Clinton, Iowa. Bicycle-wheel suspension. No. 1,077,105; Oct. 28; Gaz. vol. 195; p. 978.
Stewart, Hiram J., and J. S. Tucker, Canton, Okla. Ore-separator. No. 1,076,397; Oct. 21; Gaz. vol. 195; p. 677.
Stickley, Marcus A., Strasburg, Va. Gate. No. 1,075,129; Oct. 7; Gaz. vol. 195; p. 186.
Stickney, Burnham C., Elizabeth, N. J., assignor to Underwood Typewriter Company, New York, N. Y. Ribbon mechanism for type-writers. No. 1,075,996; Oct. 14; Gaz. vol. 195; p. 511.
Stiefel, Ralph C., Ellwood City, Pa. Process and apparatus for cross-rolling and expanding tubes. No. 1,077,013; Oct. 28; Gaz. vol. 195; p. 949.
Stiefel, Ralph C., Ellwood City, Pa. Process and apparatus for piercing and rolling tubes. No. 1,077,014; Oct. 28; Gaz. vol. 195; p. 949.
Stier, Claude W., American Falls, Idaho. Stirrup. No. 1,077,106; Oct. 28; Gaz. vol. 195; p. 978.
Still, Frank, Mortonville, Pa. Shoe for railway-ties. No. 1,077,173; Oct. 28; Gaz. vol. 195; p. 998.
Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Shuttle for weft-replenishing looms. No. 1,074,662; Oct. 7; Gaz. vol. 195; p. 26.
Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Picker-check for looms. No. 1,074,756; Oct. 7; Gaz. vol. 195; p. 59.
Stimpson, Edward S., assignor to Draper Company, Hopedale, Mass. Shuttle for weft-replenishing looms. No. 1,074,908; Oct. 7; Gaz. vol. 195; p. 109.
Stine, Frank D., assignor of one-half to H. E. Clark, Kansas City, Mo. Plane. No. 1,074,821; Oct. 7; Gaz. vol. 195; p. 79.
Stinebaugh, Connord O., Seattle, Wash. Material for automobile brake-shoes. No. 1,076,325; Oct. 21; Gaz. vol. 195; p. 652.
Stiriz, Charles, New York, N. Y. Treating dough or bake-shop products. No. 1,076,464; Oct. 21; Gaz. vol. 195; p. 701.
Stohlberg, Carl. (See Eckberg and Stohlberg.)
Stoll, Frank H. C., Atwater, Minn. Litter-carrier. No. 1,076,169; Oct. 21; Gaz. vol. 195; p. 597.
Stone, Elmer B., assignor to The American Hardware Corporation, New Britain, Conn. Suitcase-lock. No. 1,074,909; Oct. 7; Gaz. vol. 195; p. 109.
Stone, George W., Niagara Falls, assignor to Hooker Electrochemical Company, New York, N. Y. Electrolytic cell. No. 1,075,609; Oct. 14; Gaz. vol. 195; p. 380.
Story, Edwin B., North Grafton, Mass. Folding case. No. 1,076,076; Oct. 21; Gaz. vol. 195; p. 566.
Stout, Harry S., Ceredo, W. Va. Reinforced-concrete pole. No. 1,075,232; Oct. 7; Gaz. vol. 195; p. 222.
Stow, James D., Springfield, Mass. Lamp supporting and operating means. No. 1,076,170; Oct. 21; Gaz. vol. 195; p. 598.
Strahlem, William L., Middle Point, Ohio. Turning device for steam-shovels. No. 1,077,174; Oct. 28; Gaz. vol. 195; p. 998.
Stranders, Julien, assignor to The Seiter & Kappes Lithographing Co., New York, N. Y. Display device. No. 1,075,069; Oct. 7; Gaz. vol. 195; p. 166.
Strate, Herman B., *et al.* (See Buhr, Joseph F., assignor.)
Stratton, Egbert A., assignor to Mansell, Hunt, Catty & Company Limited, London, England. Machine for making paper and like cups. No. 1,074,989; Oct. 7; Gaz. vol. 195; p. 136.
Strawn, Ervin E., Storm Lake, Iowa. Printing-machine. No. 1,076,613; Oct. 21; Gaz. vol. 195; p. 754.
Streberger, John F., assignor of one-half to E. L. Ackerman, Detroit, Mich. Concealed hinge. No. 1,075,130; Oct. 7; Gaz. vol. 195; p. 186.
Streeter, Alfred L., Chicago, Ill. Brake-shoe. No. 1,076,922; Oct. 28; Gaz. vol. 195; p. 917.
Streichert, Emil C. F., Lockport, N. Y. Radiator-section. No. 1,076,527; Oct. 21; Gaz. vol. 195; p. 724.
Strickland, Theodore G., Cordell, Okla. Cotton-stalk knocker. No. 1,075,610; Oct. 14; Gaz. vol. 195; p. 380.
Strickland, William R., assignor to The Peerless Motor Car Company, Cleveland, Ohio. Starter for internal-combustion engines. No. 1,074,990; Oct. 7; Gaz. vol. 195; p. 136.
Strite, George T., Minneapolis, Minn. Piston for engines. No. 1,076,326; Oct. 21; Gaz. vol. 195; p. 652.
Stromberg Motor Devices Company. (See Wixon, Howard H., assignor.)
Strother, Martin L. (See Sorensen, Rasmus B., assignor.)
Strow, L. B., and T. E. McMillan, assignors of one-fourth to R. M. Biard and one-fourth to S. E. Yates, San Antonio, Tex. Oil-burner. No. 1,076,327; Oct. 21; Gaz. vol. 195; p. 653.
Stuck, Everett, assignor to Art Metal Construction Company, Jamestown, N. Y. Locking device for drawers of cabinets. No. 1,076,528; Oct. 21; Gaz. vol. 195; p. 724.
Stukey, Lawson J. (See Lamar, Alexis L., assignor.)
Sturdy, Robert W., Stephenson, Mich., assignor of one-half to C. W. McEwan, Omaha, Nebr. Wrench. No. 1,075,516; Oct. 14; Gaz. vol. 195; p. 348.
Sturm, Mayer & Company. (See Schiller, Maurice H., assignor.)
Stutz, Charles C., Norwood, Ohio, and R. F. Arnott, Upper Montclair, assignors to I. L. Myers, Plainfield, N. J. Cap forming and applying machine. No. 1,075,796; Oct. 14; Gaz. vol. 195; p. 442.
Sudekum, William, Nashville, Tenn. Metallic packing. No. 1,074,663; Oct. 7; Gaz. vol. 195; p. 27.
Sullivan Machinery Company. (See Ball and Officer, assignors.)
Sullivan, Mark J., Chicago, Ill. Exercising apparatus. No. 1,075,309; Oct. 7; Gaz. vol. 195; p. 251.

Sumbullian, Hampartzum, Boston, Mass. Photographic retouching-frame. No. 1,074,664; Oct. 7; Gaz. vol. 195; p. 27.
Sumner, Orlando, St. Margarets-on-Thames, assignor to The International Bleachers' Corporation, Limited, London, England. Apparatus for bleaching and for preparing bleaching, deodorizing, and disinfecting solutions. No. 1,075,873; Oct. 14; Gaz. vol. 195; p. 469.
Sundberg, Fredolph N., Galva, Ill. Harrow-truck wagon. No. 1,074,991; Oct. 7; Gaz. vol. 195; p. 137.
Sundgaard, Olaf J., St. Paul, Minn. Catch-lock. No. 1,076,796; Oct. 28; Gaz. vol. 195; p. 872.
Sutton, Harry F., Wyoming, assignor of one-half to J. McNamara, Scranton, Pa. Track-gage and level-board. No. 1,076,797; Oct. 28; Gaz. vol. 195; p. 872.
Swales, Elizabeth. (See Swales, Frank and E.)
Swales, Frank and E., Islington, London, England. Horse-bit. No. 1,076,716; Oct. 28; Gaz. vol. 195; p. 844.
Swank, Lafe. (See Van Deventer and Swank.)
Sweet, Homer E., Portland, Oreg., assignor to The Modern Manufacturing Company. Cutlery-grinder. (Reissue.) No. 13,628; Oct. 14; Gaz. vol. 195; p. 517.
Swift, Frederick W., Wappingers Falls, N. Y. Carrier. No. 1,074,992; Oct. 7; Gaz. vol. 195; p. 137.
Swim, William A., Almena, Kans. Fence-post. No. 1,076,328; Oct. 21; Gaz. vol. 195; p. 653.
Syverson, Ole, Minot, N. D. Auxiliary car-step. No. 1,075,070; Oct. 7; Gaz. vol. 195; p. 167.
Taft, James M., Halfway, Mo. Hand-car. No. 1,076,717; Oct. 28; Gaz. vol. 195; p. 844.
Taitt, George R. (See Vogel and Taitt.)
Tamagno, Daniel B., assignor to L. Tamagno, New York, N. Y. Faucet-closure for cans. No. 1,075,611; Oct. 14; Gaz. vol. 195; p. 380.
Tamagno, Lydie. (See Tamagno, Daniel B., assignor.)
Tamburini, Matteo, Paterson, N. J. Combination-lock. No. 1,076,171; Oct. 21; Gaz. vol. 195; p. 598.
Tannenbaum, Robert, and P. Reichardt, Cincinnati, Ohio. Pressing-machine. No. 1,076,529; Oct. 21; Gaz. vol. 195; p. 724.
Tarbell, Frank L. (See Fisher, Milan H., assignor.)
Tatum, Smiley M., *et al.* (See Wells, Elisha F., assignor.)
Taylor, Charles J., Cicero, Ill. Type-proofing gage. No. 1,076,847; Oct. 28; Gaz. vol. 195; p. 889.
Taylor, Harold B., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Electrical heater element and making the same. No. 1,075,517; Oct. 14; Gaz. vol. 195; p. 348.
Teegarden, Levi, Knapp, Wis. Stake-holder. No. 1,075,448; Oct. 14; Gaz. vol. 195; p. 325.
Tellier, Charles, Paris, France. Desiccating. No. 1,076,923; Oct. 28; Gaz. vol. 195; p. 917.
Ten Eyck, Frank E., Boston, Mass. Air-pump. No. 1,075,674; Oct. 14; Gaz. vol. 195; p. 401.
Tépins, Alexandre, Paris, France. Electric firearm. No. 1,076,530; Oct. 21; Gaz. vol. 195; p. 725.
Terry Steam Turbine Company, The. (See London, William J. A., assignor.)
Tesh, Harry B., Pittsburgh, Pa. Valve-protecting device. No. 1,076,465; Oct. 21; Gaz. vol. 195; p. 702.
Tesseyman, John E. (See Irwin and Tesseyman.)
Teves, Frederick E. (See Purdy, James M., assignor.)
Thiel, Heinrich, Ruhla, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Mechanical time-fuse. No. 1,077,107; Oct. 28; Gaz. vol. 195; p. 979.
Thiele, Albrecht, and G. Wichmann, assignors to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Manufacture of 2-phenylquinolin-4-carboxylic acid. No. 1,075,171; Oct. 7; Gaz. vol. 195; p. 200.
Thissell Company. (See Sawyer, Orren A., assignor.)
Thomas, Charles W., Lindenwold, N. J. Apparatus for mixing materials. No. 1,075,071; Oct. 7; Gaz. vol. 195; p. 167.
Thomas, Edward L., Valdosta, Ga. Grate-bar. No. 1,075,874; Oct. 14; Gaz. vol. 195; p. 469.
Thomas, Herbert S., New York, N. Y. Bundle or package carrier. No. 1,075,997; Oct. 14; Gaz. vol. 195; p. 512.
Thomas, John G. P., Holywell Vicarage, Wales. Winding apparatus. No. 1,076,614; Oct. 21; Gaz. vol. 195; p. 755.
Thomas, Lorenzo S., Carthage, Mo., assignor to G. A. Gibson, trustee. Oil-burner. No. 1,075,875; Oct. 14; Gaz. vol. 195; p. 469.
Thomas, Robert N., Shenandoah, Iowa. Thumb-stall. No. 1,074,757; Oct. 7; Gaz. vol. 195; p. 59.
Thomas, Wilber B., Salem, Ohio. Automatic brake mechanism. No. 1,076,466; Oct. 21; Gaz. vol. 195; p. 702.
Thomaschewski, Paul, Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Yellow wool-dye of the anthraquinone series. No. 1,076,249; Oct. 21; Gaz. vol. 195; p. 624.
Thomaschewski, Paul, Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat dye. No. 1,076,329; Oct. 21; Gaz. vol. 195; p. 653.
Thompson, Albert T., Brookline, Mass. Optical projection apparatus. No. 1,076,077; Oct. 21; Gaz. vol. 195; p. 566.
Thompson, Albert W., Lowell, assignor to Saco-Lowell Shops, Boston, Mass. Insulation of slasher-cylinders. No. 1,076,330; Oct. 21; Gaz. vol. 195; p. 653.
Thompson, Jefferson D., Washington, D. C. Skylight construction. No. 1,075,388; Oct. 14; Gaz. vol. 195; p. 305.
Thompson, Samuel O., assignor of forty one-hundredths to R. M. Williams, Maxton, N. C. Automatic water cut-off. No. 1,075,675; Oct. 14; Gaz. vol. 195; p. 402.
Thompson, Thomas, assignor of one-half to W. H. Smith, Pawtucket, R. I. Automatic stopping device for lace-looms. No. 1,076,798; Oct. 28; Gaz. vol. 195; p. 872.
Thomson Electric Welding Company. (See Thomson, Elihu, assignor.)
Thomson, Elihu, Swampscott, Mass. Repairing railway-rails. No. 1,075,738; Oct. 14; Gaz. vol. 195; p. 423.
Thomson, Elihu, Swampscott, assignor to Thomson Electric Welding Company, Lynn, Mass. Welding. No. 1,076,467; Oct. 21; Gaz. vol. 195; p. 702.
Thordarson, Chester H., Chicago, Ill. Storage-battery power and charging equipment. No. 1,077,175; Oct. 28; Gaz. vol. 195; p. 998.
Thorn, Jasper B., Gillingham, England. Apparatus for checking and recording receipts and the like. No. 1,076,531; Oct. 21; Gaz. vol. 195; p. 725.
Thorn, Oskar F., assignor of one-third to G. Hullgren, Chicago, Ill. Planing-machine. No. 1,075,739; Oct. 14; Gaz. vol. 195; p. 423.
Thorne, Carl B., Hawkesbury, Ontario, Canada. Reclaiming system in a sulfite pulp process. No. 1,076,078; Oct. 21; Gaz. vol. 195; p. 567.
Thornton, Harold S., Longueuil, Quebec, Canada. Vaporburner. No. 1,076,718; Oct. 28; Gaz. vol. 195; p. 845.
Thos. H. Dallett Co. (See Van Sickel, Wilber H., assignor.)
Thresher, Edward E., Aurora, Ohio. Artificial bird-target. No. 1,075,518; Oct. 14; Gaz. vol. 195; p. 348.
Thurmann, Otto, Berlin, Germany. Apparatus for manufacturing chocolate. No. 1,076,924; Oct. 28; Gaz. vol. 195; p. 917.
Thurston, Fredrick A., Lynn, Mass. Buffing-machine. No. 1,076,468; Oct. 21; Gaz. vol. 195; p. 703.
Tichenor, Luther M., Owensville, Ind. Emergency automobile-tire. No. 1,076,719; Oct. 28; Gaz. vol. 195; p. 845.
Tichota, Vencel J., Dodge, Nebr. Draft-equalizer. No. 1,076,331; Oct. 21; Gaz. vol. 195; p. 654.
Tideman, Frank L., Brooklyn, N. Y. Making hexagonal nuts. No. 1,076,079; Oct. 21; Gaz. vol. 195; p. 567.
Tiefel, Charles G. (See Todd and Tiefel.)
Tighe, Thomas, Claremorris, Ireland. Fastener for purses and bags. No. 1,074,910; Oct. 7; Gaz. vol. 195; p. 110.
Tilden, Bert O., assignor to American Sanitary Works, New York, N. Y. Flush-tank-operating device. No. 1,076,925; Oct. 28; Gaz. vol. 195; p. 918.
Tilghman, Walter W., Palatka, Fla. Dispensing-spout. No. 1,076,080; Oct. 21; Gaz. vol. 195; p. 567.
Tillmanne, Carl W., assignor to Utica Cutlery Company, Utica, N. Y. Knife. No. 1,075,519; Oct. 14; Gaz. vol. 195; p. 348.
Tobiasson, Tobias A., Irvington, N. J., assignor to Crane & Theurer. Chatelaine-brooch or the like. No. 1,075,131; Oct. 7; Gaz. vol. 195; p. 187.
Todd, Anna E., Orange, N. J. Hat-pin protector. No. 1,076,720; Oct. 28; Gaz. vol. 195; p. 845.
Todd & Company, G. W. (See Todd and Tiefel, assignors.)
Todd, James, Sewickley, Pa. Explosive-engine. No. 1,076,172; Oct. 21; Gaz. vol. 195; p. 598.
Todd, John C., Lawrenceburg, Tenn. Belt-tightener. No. 1,075,072; Oct. 7; Gaz. vol. 195; p. 167.
Todd, Libanus M., and C. G. Tiefel, assignors to G. W. Todd & Company, Rochester, N. Y. Check-protector. No. 1,076,173; Oct. 21; Gaz. vol. 195; p. 599.
Toltz, Max, St. Paul, Minn. Ore-dock. No. 1,077,205; Oct. 28; Gaz. vol. 195; p. 1009.
Tout, Edwin J. (See Tout, Sidney E., assignor.)
Tout, Sidney E., assignor of one-half to E. J. Tout, Toronto, Ontario, Canada. Connecting means for locomotive pilots and footboards. No. 1,076,081; Oct. 21; Gaz. vol. 195; p. 568.
Towers, Ford T. (See Flagg and Towers.)
Towner, Henry C., Bellaire, Ohio. Music-leaf turner. No. 1,077,108; Oct. 28; Gaz. vol. 195; p. 979.
Townsend, Clinton P., *et al.* (See Friedberger, Otto, assignor.)
Trainer, Frank M., Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channel-opening machine. No. 1,075,876; Oct. 14; Gaz. vol. 195; p. 470.
Tran, Frank J., Cleveland, Ohio, and F. Cais, Denver, Colo. Workman's time-recorder. No. 1,074,822; Oct. 7; Gaz. vol. 195; p. 80.
Traus, Johannes A. M., Rotterdam, Netherlands. Electric-lamp switch. No. 1,075,953; Oct. 14; Gaz. vol. 195; p. 496.
Traut & Hine Manufacturing Company, The. (See Humphrey, Ernest N., assignor.)
Travers, William J., Olinda, Cal. Well-drilling apparatus. No. 1,076,469; Oct. 21; Gaz. vol. 195; p. 703.
Travis, William O., Hampton, and E. Ault, Bromley, England, assignors to Sterilization Company. Purifying sewage or the like. No. 1,076,721; Oct. 28; Gaz. vol. 195; p. 846.
Trendwell, Claude M., assignor of one-half to C. Bauer, London, England. Device for practising golf-putting. No. 1,076,722; Oct. 28; Gaz. vol. 195; p. 846.
Tregoning Electric Manufacturing Company, The. (See Tregoning, William C., assignor.)

Tregoning, William C., assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio. Means for fastening electric-lamp sockets. No. 1,075,612; Oct. 14; Gaz. vol. 195; p. 381.

Tregoning, William C., assignor to The Tregoning Electric Manufacturing Company, Cleveland, Ohio. Socket and terminal connection for electric lamps. No. 1,075,613; Oct. 14; Gaz. vol. 195; p. 381.

Trenzen, Carl, Cologne-Braunsfeld, Germany. Rendering insufficiently-ductile metals ductile. No. 1,074,993; Oct. 7; Gaz. vol. 195; p. 137.

Trimborn, Conrad, Milwaukee, Wis. Metal piling structure. No. 1,074,665; Oct. 7; Gaz. vol. 195; p. 27.

Trinks, Franz, Brunswick, Germany. Calculating-machine. No. 1,075,073; Oct. 7; Gaz. vol. 195; p. 168.

Triolo, Joseph, Brooklyn, N. Y. Non-refillable bottle. No. 1,076,532; Oct. 21; Gaz. vol. 195; p. 726.

Tripp, William E., New Bedford, Mass. Timber pocket and plate. No. 1,074,823; Oct. 7; Gaz. vol. 195; p. 80.

Tröger, Richard, Charlottenburg, Germany, assignor to General Electric Company. Governing mechanism for centrifugal compressors. No. 1,076,332; Oct. 21; Gaz. vol. 195; p. 654.

Trompeter, George, Clearwater, Kans. Land-roller. No. 1,075,678; Oct. 14; Gaz. vol. 195; p. 402.

Trussed Concrete Steel Company. (See Kahn, Julius, assignor.)

Tschörner, Ludwig, Vienna, Austria-Hungary. Image-transmitting telegraph. No. 1,075,614; Oct. 14; Gaz. vol. 195; p. 381.

Tucker, Charles H., Toledo, Ohio. Crane or the like. No. 1,076,333; Oct. 21; Gaz. vol. 195; p. 655.

Tucker, James H., Petersburg, Va. Vehicle-tire. No. 1,077,176; Oct. 28; Gaz. vol. 195; p. 999.

Tucker, James S. (See Stewart and Tucker.)

Turek, Ferdinand, Cleveland, Ohio. Beer-cooler. No. 1,077,015; Oct. 28; Gaz. vol. 195; p. 950.

Turek, Ferdinand, Cleveland, Ohio. Beer-cooler. No. 1,077,016; Oct. 28; Gaz. vol. 195; p. 950.

Turner, Charles A., and A. B. Edwards, Hamlet, N. C. Railway-switch. No. 1,077,017; Oct. 28; Gaz. vol. 195; p. 950.

Turner, Darwin H., Gloucester, assignor to E. W. Cole, Somerville, Mass. Laundry-iron. No. 1,076,926; Oct. 28; Gaz. vol. 195; p. 918.

Turner, Edwin B., Bird City, Kans. Cement-tile-making machine. No. 1,075,877; Oct. 14; Gaz. vol. 195; p. 470.

Turner, George C., administrator. (See Turner, William P.)

Turner, George F., *et al.* (See Turner, William P., assignor.)

Turner, Walter V., Wilkinsburg, assignor to The Westinghouse Air Brake Company, Wilmerding, Pa. Load-brake apparatus. No. 1,075,275; Oct. 7; Gaz. vol. 195; p. 239.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Empty and load brake. No. 1,075,389; Oct. 14; Gaz. vol. 195; p. 305.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Retaining-valve device. No. 1,075,797; Oct. 14; Gaz. vol. 195; p. 443.

Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,076,723; Oct. 28; Gaz. vol. 195; p. 846.

Turner, William P., deceased, Stickney; G. C. Turner, Florenceville, administrator, assignor to J. A. Grant, G. F. Turner, Stickney, New Brunswick, Canada, and F. T. Perry. Combination grab and tie-spacer. No. 1,076,615; Oct. 21; Gaz. vol. 195; p. 755.

Tyberg, Oluf, assignor to R. L. Patterson and G. Arents, Jr., New York, N. Y. Cigar-machine. No. 1,075,172; Oct. 7; Gaz. vol. 195; p. 200.

Tyden, Emil. (See Burton, Charles S., assignor.)

Tyden, Emil, Hastings, Mich. Extension-table lock. No. 1,076,174; Oct. 21; Gaz. vol. 195; p. 599.

Tyden, Emil, Hastings, Mich. Seal-locked can. No. 1,076,334; Oct. 21; Gaz. vol. 195; p. 655.

Tyden, Emil, Hastings, Mich. Seal-locked can. No. 1,076,616; Oct. 21; Gaz. vol. 195; p. 756.

Tyler, Edward B. (See Staaf, Werner L., assignor.)

Tyrrell, Wallace B. (See Byrnes, Daniel F., assignor.)

U. S. Bobbin & Shuttle Co. (See Allen, Robert N., assignor.)

Überlée, Erich, Grunewald, near Berlin, Germany, assignor to General Electric Company. Regulating device for tapped turbines. No. 1,076,335; Oct. 21; Gaz. vol. 195; p. 656.

Uchtmann, Weet R., assignor of one-half to O. M. Dahl, Boston, Mass. Float. No. 1,075,074; Oct. 7; Gaz. vol. 195; p. 168.

Ulrich, Charles B., Wausau, Wis. Advertising-sign. No. 1,076,250; Oct. 21; Gaz. vol. 195; p. 625.

Ulrich, Melchior C., assignor of sixteen one-hundredths to G. B. Dunn and thirty-three one-hundredths to G. W. Korte, Seattle, Wash. Nut-lock. No. 1,075,310; Oct. 7; Gaz. vol. 195; p. 251.

Underwood Typewriter Company. (See Robinson, Frank A., assignor.)

Underwood Typewriter Company. (See Sokolov, Jacob, assignor.)

Underwood Typewriter Company. (See Stickney, Burnham C., assignor.)

Union Bag & Paper Company, The. (See Witham, George S., Sr., assignor.)

Union Paper Bag Machine Company. (See Lorenz, William A., assignor.)

Union Special Machine Company. (See Moffatt, James R., assignor.)

Union Special Machine Company. (See Woodward, Russel G., assignor.)

Union Special Sewing Machine Company. (See Corey, Daniel W., assignor.)

Union Switch & Signal Company, The. (See Vencill, Albert L., assignor.)

Union Trust Company of Pittsburgh, The, trustee. (See Merley, John, assignor.)

United Engineering & Foundry Co. (See Heppenstall, Samuel B., assignor.)

United Injector Company, The. (See Park, William R., assignor.) (Reissue.)

United Shoe Machinery Company. (See Alexander, Alexander M., assignor.)

United Shoe Machinery Company. (See Ashton, Orrell, assignor.)

United Shoe Machinery Company. (See Chase, Augustus C., assignor.)

United Shoe Machinery Company. (See Eppler, Andrew, assignor.)

United Shoe Machinery Company. (See Forsyth, William R., assignor.)

United Shoe Machinery Company. (See Goddu, George, assignor.)

United Shoe Machinery Company. (See Harmon, Frank L., assignor.)

United Shoe Machinery Company. (See Keyes, Eugene L., assignor.)

United Shoe Machinery Company. (See Prime, Daniel N., assignor.)

United Shoe Machinery Company. (See Skinner, Clarence F., assignor.)

United Shoe Machinery Company. (See Smith, Willard A., assignor.)

United Shoe Machinery Company. (See Stanbon, Charles P., assignor.)

United Shoe Machinery Company. (See Trainer, Frank M., assignor.)

United Shoe Machinery Company. (See Woodward, Erastus, assignor.)

United States Persian Carpet Company *et al.* (See Clark and Dalkranian, assignors.)

United States Persian Carpet Company *et al.* (See Cyr and Dalkranian, assignors.)

United States Persian Carpet Company *et al.* (See Ledoux and Dalkranian, assignors.)

Universal Caster & Foundry Company. (See Ballenberg, Adolph, assignor.)

Universal Draft Gear Attachment Co. (See Nash, Charles J., assignor.)

Universal Mail Dispatcher Company. (See Jones, William H., assignor.)

Universal Turbine Company, The. (See Anderson, Emil, assignor.)

Universal Winding Company. (See Harvey and Ryden, assignors.)

Unverricht, Eduard, assignor to P. de Chapeaurouge, Hamburg, Germany. Circuit-changer. No. 1,074,911; Oct. 7; Gaz. vol. 195; p. 110.

Upton, Charles H., La Grande, Oreg. Pin-guard. No. 1,075,520; Oct. 14; Gaz. vol. 195; p. 349.

Urquhart, Benjamin, Plainfield, N. J. Draft attachment for automobiles. No. 1,076,799; Oct. 28; Gaz. vol. 195; p. 873.

Urquhart, William E., assignor of one-fifth to C. B. Perry, Elk River, Idaho. Pipe-wrench. No. 1,075,878; Oct. 15; Gaz. vol. 195; p. 470.

Utica Cutlery Company. (See Tillmanns, Carl W., assignor.)

Vacek, Johanna, Vienna, Austria-Hungary, assignor to H. Bruckner, Berlin-Schöneberg, Germany. Breast-holder. No. 1,075,449; Oct. 14; Gaz. vol. 195; p. 325.

Vagas, Andrew J. and M. F., Youngstown, Ohio. Storm-coat. No. 1,077,177; Oct. 28; Gaz. vol. 195; p. 999.

Vagas, Michael F. (See Vagas, Andrew J. and M. F.)

Vail, Joseph M., Bryan, Ohio. Rail-stay. No. 1,074,666; Oct. 7; Gaz. vol. 195; p. 28.

Vail, Joseph M., Bryan, Ohio. Rail-stay. No. 1,074,667; Oct. 7; Gaz. vol. 195; p. 28.

Valentine, Elmer, Byesville, Ohio. Nut-lock. No. 1,075,521; Oct. 14; Gaz. vol. 195; p. 349.

Valles, Segismundo G., Habana, Cuba. Trolley. No. 1,077,018; Oct. 28; Gaz. vol. 195; p. 951.

Valley Foundry and Machine Works. (See Hunt, Ben, assignor.)

Valois, Felix E., Haverhill, assignor to Hamel Shoe Machinery Company, Lynn, Mass. Shuttle. No. 1,074,758; Oct. 7; Gaz. vol. 195; p. 59.

Van Antwerp, Clarence B., Chicago, Ill. Expansion-bolt. No. 1,076,175; Oct. 21; Gaz. vol. 195; p. 600.

Van Auken, Benjamin H., Syracuse, N. Y. Water-front for fire-pots of furnaces. No. 1,076,082; Oct. 21; Gaz. vol. 195; p. 568.

Van Deventer, James E., and L. Swank, assignors to Dwiggins Wire Fence Company, Anderson, Ind. Adjustable gate. No. 1,075,233; Oct. 7; Gaz. vol. 195; p. 222.

Van Duzee, Charles E. (See Dye, Glen M., assignor.)

Van Dyke, Charles B., Muskegon, Mich. Index. No. 1,075,522; Oct. 14; Gaz. vol. 195; p. 349.

Van Dyke, Elbert M. (See Hepner and Van Dyke.)

Van Fleet, Bruce N., Portland, Me. Ticket-holder. No. 1,076,470; Oct. 21; Gaz. vol. 195; p. 703.

Van Horn, William H. (See Kemp and Van Horn.)

Van Houweling, Arthur C., Pella, Iowa. Side conveyer for band-cutters and feeders. No. 1,076,533; Oct. 21; Gaz. vol. 195; p. 726.

Van Osdel, William J., assignor of one-half to R. L. Eddy, Chicago, Ill. Cutting-tool. No. 1,075,450; Oct. 14; Gaz. vol. 195; p. 325.

Van Ranst, Samuel B., assignor to Crouse-Hinds Company, Syracuse, N. Y. Lamp-shade holder. No. 1,076,848; Oct. 28; Gaz. vol. 195; p. 890.

Van Scoy, Howard, assignor to Goodwin Car Company, Chicago, Ill. Dump-car attachment. No. 1,074,994; Oct. 7; Gaz. vol. 195; p. 138.

Van Sickel, George B., Garden City, N. Y., assignor to Edward Miller & Company, Meriden, Conn. Trapping device for gas-burners. No. 1,074,759; Oct. 7; Gaz. vol. 195; p. 60.

Van Sickel, Wilber H., Philadelphia, Pa., assignor to Thos. H. Dallett Co. Tool-carrier for stone-dressing machines. No. 1,074,912; Oct. 7; Gaz. vol. 195; p. 110.

Van Valkenburg, Burt R. Oakland, Cal. Piano-playing mechanism. No. 1,077,206; Oct. 28; Gaz. vol. 195; p. 1009.

Vance, Grover. (See Denham and Vance.)

Vance, William L., Cleveland, Ohio. Safety card-record. No. 1,076,083; Oct. 21; Gaz. vol. 195; p. 568.

Vandehey, Peter. (See Klister and Vandehey.)

Vandercook, Robert O., Chicago, Ill. Proof printing-press. No. 1,076,084; Oct. 21; Gaz. vol. 195; p. 569.

Vandonk, Cornelius H., Wells, Mich. Car-stake and pocket. No. 1,074,668; Oct. 7; Gaz. vol. 195; p. 28.

Vanskiver, William H., assignor to Auto Machine Company, Leetonia, Ohio. Emergency-spindle for automobiles. No. 1,076,471; Oct. 21; Gaz. vol. 195; p. 704.

Varney, Theodore. (See Davis and Varney.)

Vaterhaus, Henry, Cooks, Mich. Nut-lock. No. 1,075,523; Oct. 14; Gaz. vol. 195; p. 349.

Vauclain, Samuel M., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Locomotive-frame. No. 1,076,336; Oct. 21; Gaz. vol. 195; p. 656.

Vaught, Silas W., Gorman, Tex. Windmill attachment. No. 1,076,251; Oct. 21; Gaz. vol. 195; p. 625.

Veaco, William S., Berkeley, and T. J. Bennett, San Francisco, Cal. Mixing apparatus. No. 1,075,524; Oct. 14; Gaz. vol. 195; p. 350.

Vencill, Albert L., Wilkinsburg, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling system. No. 1,076,176; Oct. 21; Gaz. vol. 195; p. 600.

Venn-Severin Machine Co. (See Severin, Frank W., assignor.)

Verner, Samuel P., Bas Obispo, Canal Zone. Animal-trap. No. 1,075,954; Oct. 14; Gaz. vol. 195; p. 496.

Vernon, Doctor B. (See Bow and Vernon.)

Vertrees, William J., Bushnell, Ill. Trough. No. 1,076,724; Oct. 28; Gaz. vol. 195; p. 847.

Vickers Limited. (See Dawson and Buckham, assignors.)

Victor Talking Machine Company. (See Babson and Haug, assignors.)

Victor Talking Machine Company. (See Johnson and English, assignors.)

Vidinghoff, Charles A., Buffalo, N. Y. Card-delivering device. No. 1,075,173; Oct. 7; Gaz. vol. 195; p. 201.

Vingum, Martin. (See Mandt and Vingum.)

Vogel, Charles H., and G. R. Taitt, Vancouver, British Columbia, Canada. Suspended-cable tramway. No. 1,076,337; Oct. 21; Gaz. vol. 195; p. 657.

Voges, Herman, Jr. (See Mitchell and Neer, assignors.)

Voigtlaender & Sohn, Aktiengesellschaft, Brunswick, Germany. (See Heidecke, Reinhold, assignor.)

Völler, Karl, and E. Müller, Dusseldorf, assignors to Rheinische Metallwaaren- und Maschinenfabric, Dusseldorf-Derendorf, Germany. Means for altering the charges in cartridges for guns. No. 1,074,995; Oct. 7; Gaz. vol. 195; p. 138.

Voiz, Otto, Omaha, Nebr. Safety device for elevators. No. 1,076,085; Oct. 21; Gaz. vol. 195; p. 569.

Vosburgh, Charles C., Norwood, Ohio. Window-furnishing. No. 1,076,086; Oct. 21; Gaz. vol. 195; p. 570.

Vose, Louis E. (See Glaser and Edson, assignors.)

Voss, Antoinette, assignor to H. Du Brock, Chicago, Ill. Sanitary garment-shield. No. 1,076,252; Oct. 21; Gaz. vol. 195; p. 625.

Votey, Edwin S., Summit, N. J., assignor to Aeolian Company, New York, N. Y. Recording device. No. 1,076,338; Oct. 21; Gaz. vol. 195; p. 657.

Vought, Henry H., Jr., Williams Bridge, N. Y., assignor of one-third to F. Squires, Plainfield, and one-third to A. Atkinson, New Brunswick, N. J. Floor construction. No. 1,074,760; Oct. 7; Gaz. vol. 195; p. 60.

Vrooman, Arba E. and H. F., Painesville, Ohio. Rotary weeder and cultivator. No. 1,076,398; Oct. 21; Gaz. vol. 195; p. 678.

Vrooman, Howard F. (See Vrooman, Arba E. and H. F.)

Wadsworth, Frank L. O., Sewickley, Pa. Means for densifying metallic surfaces. No. 1,074,824; Oct. 7; Gaz. vol. 195; p. 80.

Wagandt, Charles L., assignor to National Enameling and Stamping Company, Baltimore, Md. Cylindric can-cover. No. 1,077,235; Oct. 28; Gaz. vol. 195; p. 1019.

Wagner Electric Manufacturing Company. (See Weichsel and Webster, assignors.)

Wagner, John S., Red Wing, Minn. Rail-straightening device. No. 1,077,019; Oct. 28; Gaz. vol. 195; p. 951.

Wagner, Paul, Charlottenburg, Germany, assignor to General Electric Company. Thrust-bearing. No. 1,076,399; Oct. 21; Gaz. vol. 195; p. 678.

Wahlstrom Tool Company. (See Wahlstrom, Verner J., assignor.)

Wahlstrom, Verner J., Brooklyn, assignor, to Wahlstrom Tool Company, New York, N. Y. Chuck. No. 1,075,174; Oct. 7; Gaz. vol. 195; p. 201.

Waidlich, Walter, Detroit, Mich. Rail-joint. No. 1,075,879; Oct. 14; Gaz. vol. 195; p. 471.

Wait, Alfred, Hamilton, Ontario, Canada. Needle-valve. No. 1,075,798; Oct. 14; Gaz. vol. 195; p. 443.

Wakefield, William, *et al.* (See Jury, Ruben, assignor.)

Walcher, Louis P., Pittsburgh, Pa. Scarf-pin. No. 1,077,109; Oct. 28; Gaz. vol. 195; p. 979.

Walden, Albert E., Baltimore, Md. Sterilizer. No. 1,077,020; Oct. 28; Gaz. vol. 195; p. 951.

Wales, Nathaniel B., Boston, Mass. Gas-turbine. No. 1,075,677; Oct. 14; Gaz. vol. 195; p. 402.

Walker, Cassius M., Pueblo, Colo., assignor to The Miller Electric Switch Company. Controlling-cam. No. 1,075,799; Oct. 14; Gaz. vol. 195; p. 444.

Walker, Jackson L., Crafton, Tex. Steam cotton-baling tamper. No. 1,075,234; Oct. 7; Gaz. vol. 195; p. 223.

Wall, William T., Houston, Tex. Hydrocarbon-burner. No. 1,075,678; Oct. 14; Gaz. vol. 195; p. 403.

Wallace, George E. (See Kilburn, John F., assignor.)

Wallen, Firman T., Bismarck, Mo. Dental instrument. No. 1,076,534; Oct. 21; Gaz. vol. 195; p. 726.

Walls, John A., Mount Washington, Md. Pencil. No. 1,075,880; Oct. 14; Gaz. vol. 195; p. 471.

Walraven, Francis W., and C. E. Calkins, Las Cascadas, Canal Zone. Water-gage. No. 1,075,881; Oct. 14; Gaz. vol. 195; p. 471.

Walsh, Frank C., assignor to The Sharp Spark Plug Company, Cleveland, Ohio. Spark-plug for explosion-engines. No. 1,076,535; Oct. 21; Gaz. vol. 195; p. 727.

Walsh, James D., Brooklyn, N. Y. Display-stand. No. 1,074,669; Oct. 7; Gaz. vol. 195; p. 29.

Walsh, Walter W., Pittsburgh, Pa. Curtain-rod holder. No. 1,074,825; Oct. 7; Gaz. vol. 195; p. 80.

Walstrom, Lee W. (See Frosig and Walstrom.)

Walter, Bruce, Pittsburgh, assignor of one-half to G. H. Smith, Aspinwall, Pa. Gas-cleaner. No. 1,074,913; Oct. 7; Gaz. vol. 195; p. 110.

Walters, Mary E. (See Walters, Warren E. and M. E.)

Walters, Warren E. and M. E., Los Angeles, Cal. Indicator and power device therefor. No. 1,075,882; Oct. 14; Gaz. vol. 195; p. 471.

Waltz, John J. (See Partridge, Charles E., assignor.)

Wannenwetsch, Andrew T., Buffalo, N. Y. Folding child's carriage. No. 1,076,087; Oct. 21; Gaz. vol. 195; p. 570.

Wappler Electric Manufacturing Company. (See Wappler, Reinhold H., assignor.)

Wappler, Reinhold H., assignor to Wappler Electric Manufacturing Company, New York, N. Y. Electric spark-gap. No. 1,075,075; Oct. 7; Gaz. vol. 195; p. 168.

Warcup, Frank, Westernville, N. Y. Door-lock. No. 1,077,021; Oct. 28; Gaz. vol. 195; p. 952.

Ward, Alfred, Port Huron, Mich. Blacking-box case. No. 1,074,914; Oct. 7; Gaz. vol. 195; p. 111.

Ward, Daniel O., deceased, Oak Park, Ill.; N. L. Ward, administratrix. Self-locking nut and making the same. No. 1,077,022; Oct. 28; Gaz. vol. 195; p. 952.

Ward, Daniel O., deceased, Oak Park, Ill.; N. L. Ward, administratrix. Self-locking nut. No. 1,077,023; Oct. 28; Gaz. vol. 195; p. 953.

Ward, Nellie L., administratrix. (See Ward, Daniel O.)

Ward, William, *et al.* (See Davies, Alfred H., assignor.)

Wardwell, Simon W., Providence, R. I. Speed-changing device. No. 1,075,800; Oct. 14; Gaz. vol. 195; p. 444.

Ware, Stephen, Hornsby, New South Wales, Australia. Machine for teasing and cleaning fibrous materials. No. 1,075,076; Oct. 7; Gaz. vol. 195; p. 168.

Warner Brothers Company, The. (See Wilson, Clarence C., assignor.)

Warner, George B., Fitchburg, assignor to P. T. Jackson, Jr., Boston, Mass. Mandrel for paper-winding machines. No. 1,076,536; Oct. 21; Gaz. vol. 195; p. 727.

Warner, Ralph B., and M. L. Shroat, Marion, Ind. Oil-burner. No. 1,077,178; Oct. 28; Gaz. vol. 195; p. 999.

Warren, Albert J., Corridon, Mo. Stump-puller. No. 1,075,883; Oct. 14; Gaz. vol. 195; p. 472.

Warren Webster & Company. (See Osborn, Millard P., assignor.)

Wartman, George H., Montesano, Wash. Dust-pan attachment. No. 1,076,177; Oct. 21; Gaz. vol. 195; p. 600.

Watchorn, Robert F., Millbury, Mass. Dobby. No. 1,074,670; Oct. 7; Gaz. vol. 195; p. 29.

Waterbury, George N., Jr., Washington, D. C. Battery-holder. No. 1,076,927; Oct. 28; Gaz. vol. 195; p. 918.

Waterloo Cement Machinery Corporation, The. (See Ahlborn, Theodore, assignor.)

Waterman, Helen M., Orange, N. J. Polisher for eyeglasses. No. 1,074,671; Oct. 7; Gaz. vol. 195; p. 30.

Waterman, Ira, assignor, by mesne assignments, to J. W. Page, Adrian, Mich. Voting-machine. No. 1,076,088; Oct. 21; Gaz. vol. 195; p. 570.

Waters, Beverly L., assignor to Lyon Metallic Manufacturing Company, Aurora, Ill. Tire-rack. No. 1,075,801; Oct. 14; Gaz. vol. 195; p. 444.

Watkins, Edward F., Covington, La. Catafalque. No. 1,075,077; Oct. 7; Gaz. vol. 195; p. 169.

Watkins, Orla H., assignor to himself, J. A. and W. J. Kelly, Clinton, Iowa. Driving mechanism for washing-machines. No. 1,075,175; Oct. 7; Gaz. vol. 195; p. 202.

Watson-Electric Co. (See Flagg and Towers, assignors.)

Watson, Richard M., Detroit, Mich. Loose-leaf binder. No. 1,075,740; Oct. 14; Gaz. vol. 195; p. 424.

Watson-Stillman Company, The. (See Wigtel, Carl, assignor.)

Waugh, James M., Chicago, Ill. Draft-rigging. No. 1,075,741; Oct. 14; Gaz. vol. 195; p. 424.

Wayland, Frank, Salem, Mass. Leather-working machine. No. 1,077,207; Oct. 28; Gaz. vol. 195; p. 1010.

Waymire, Austin, Dayton, Ohio. Mop-holder. No. 1,076,800; Oct. 28; Gaz. vol. 195; p. 873.

Weakley, Raymond D., assignor to Plastic Products Company, St. Louis, Mo. Key-base for side walls and ceilings. No. 1,076,725; Oct. 28; Gaz. vol. 195; p. 847.

Weaver, James A., Miles City, Mont. Fire-escape. No. 1,075,176; Oct. 7; Gaz. vol. 195; p. 202.

Weaver, John A., Greeley, Colo. Beet-topper. No. 1,075,884; Oct. 14; Gaz. vol. 195; p. 472.

Weaver, Marvin S., Johnson City, Tenn. Machine for sharpening cutting instruments. No. 1,076,801; Oct. 28; Gaz. vol. 195; p. 873.

Weaver, Willis, near Sealy, Tex. Seed-tester. No. 1,074,826; Oct. 7; Gaz. vol. 195; p. 81.

Webb, Christopher F. (See Coldman and Webb.)

Weber, Carl, Berlin-Wilmersdorf, Germany. Driving and braking device or releasing device for photographic shutters. No. 1,076,253; Oct. 21; Gaz. vol. 195; p. 625.

Weber, Frank J., Fond du Lac, Wis. Illuminable advertising device. No. 1,075,177; Oct. 7; Gaz. vol. 195; p. 203.

Weber, Fridolin, Wagenhausen, Switzerland. Hinge. No. 1,075,451; Oct. 14; Gaz. vol. 195; p. 325.

Weber, George J., Kansas City, Mo. Making gas. No. 1,076,849; Oct. 28; Gaz. vol. 195; p. 890.

Webster, John A. (See Kelly and Webster.)

Webster, Samuel T. (See Welchsel and Webster.)

Wedderburn, Gertrude F., Chevy Chase, Md. Card-support for dummy hands. No. 1,076,850; Oct. 28; Gaz. vol. 195; p. 891.

Weeber, Christian F., Albany, N. Y. Rail. No. 1,077,236; Oct. 28; Gaz. vol. 195; p. 1019.

Wehner, Lewis, Madison, Wis. Equalizing system for steam-shovels and the like. No. 1,075,178; Oct. 7; Gaz. vol. 195; p. 203.

Welchsel, Hans, and S. T. Webster, assignors to Wagner Electric Manufacturing Company, St. Louis, Mo. Dynamo-electric machine. No. 1,075,452; Oct. 14; Gaz. vol. 195; p. 326.

Well, Otto. (See Goldschmidt and Well.)

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Metalloidal material. No. 1,074,672; Oct. 7; Gaz. vol. 195; p. 30.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Vapor electric device. No. 1,075,615; Oct. 14; Gaz. vol. 195; p. 382.

Weintz, Jacob, Cleveland, Ohio. Burner. No. 1,075,742; Oct. 14; Gaz. vol. 195; p. 424.

Weiss, David, Cleveland, Ohio. Tooth-brush. No. 1,074,761; Oct. 7; Gaz. vol. 195; p. 60.

Weiss, Frederick B., Newark, N. J. Jewelry. No. 1,074,673; Oct. 7; Gaz. vol. 195; p. 30.

Welch Automatic Trimmer Co. (See Welch, Thomas C., assignor.)

Welch, Charles K., Coventry, England. Wheel of road-vehicles. No. 1,076,178; Oct. 21; Gaz. vol. 195; p. 601.

Welch, Thomas C., Chicago, Ill., assignor to Welch Automatic Trimmer Co. Automatic continuous book-trimming machine. No. 1,076,726; Oct. 28; Gaz. vol. 195; p. 848.

Welch, William H., Berkeley, assignor of one-half to G. Ash, Williams, Cal. Single hitch for orchard and vineyard harness. No. 1,075,885; Oct. 14; Gaz. vol. 195; p. 472.

Welfle, Joseph, Hamler, Ohio. Fence-post. No. 1,075,390; Oct. 14; Gaz. vol. 195; p. 306.

Welfley, Lawrence P., Hinton, W. Va. Gage-cock. No. 1,076,727; Oct. 28; Gaz. vol. 195; p. 848.

Welling, Matthew J., assignor of one-half to J. H. McElroy, Chicago, Ill. Feeding mechanism. No. 1,075,276; Oct. 7; Gaz. vol. 195; p. 239.

Wells, Elisha F., assignor of one-third to S. M. Tatum and one-third to M. A. Milam, Miami, Fla. Engine-starter. No. 1,075,525; Oct. 14; Gaz. vol. 195; p. 350.

Welman, Charles W., Cleveland, Ohio. Autovalve. No. 1,076,647; Oct. 21; Gaz. vol. 195; p. 768.

Welshans, Henry M., Sparta, Ill. Hose-clamp. No. 1,076,851; Oct. 28; Gaz. vol. 195; p. 891.

Wende, Charles and W., assignors to Chaswill Manufacturing Company, St. Louis, Mo. Bottle-cleaning machine. No. 1,074,674; Oct. 7; Gaz. vol. 195; p. 30.

Wende, William. (See Wende, Charles and W.)

Wenzel, Albert W., Newark, N. J., assignor to American Piston Ring Company. Packing-ring. No. 1,074,675; Oct. 7; Gaz. vol. 195; p. 31.

Werden, Edward W. (See Coe and Werden.)

Werden, Henrietta T. (See Coe and Werden.)

Werner, Carl G. E., Bremen, assignor to Bremer Linoleumwerke Delmenhorst, Delmenhorst, Germany. Producing linerusta, linoleum, or like diapered-like cloth. No. 1,074,915; Oct. 7; Gaz. vol. 195; p. 111.

Werner, John A., and C. W. Green, assignors to The National Cash Register Company, Dayton, Ohio. Multiple cash-register. No. 1,074,676; Oct. 7; Gaz. vol. 195; p. 31.

Werner, Lothar. (See Gottschalck, Werner, and Gast.)

Werner, Philippe, and E. Juillard, assignors to Ateliers H. Cuénod Société Anonyme, Châtelaine, near Geneva, Switzerland. Automatic electric regulator. No. 1,077,024; Oct. 28; Gaz. vol. 195; p. 953.

Wescott, Edmund L., Toronto, Ontario, Canada. Combined rack and seal for submerged milk-containers. No. 1,076,852; Oct. 28; Gaz. vol. 195; p. 891.

Wesley, Harold G., Adrian, Mich. Lace measuring and reeeling mechanism. No. 1,075,453; Oct. 14; Gaz. vol. 195; p. 326.

West Virginia Malleable Iron Co. (See Woelffel, Ernest H., assignor.)

Westberg, Andrew E., Five Creeks township, Clay county, Kans. Lariat-noose clip. No. 1,075,179; Oct. 7; Gaz. vol. 195; p. 203.

Westensee, Adolph, Galva, Iowa. Car-ticket holder. No. 1,075,132; Oct. 7; Gaz. vol. 195; p. 187.

Western Electric Company. (See Aldendorff, Fritz, assignor.)

Western Electric Company. (See Hosford, William F., assignor.)

Western Electric Company. (See Ireland and Gilson, assignors.)

Western Electric Company. (See McBerty, Frank R., assignor.)

Western Electric Company. (See McConnell, Charles P., assignor.)

Western Electric Company. (See Reynolds and Dixon, assignors.)

Western Electric Company. (See Scribner, Charles E., assignor.)

Western Implement & Motor Company. (See Appleby, John F., assignor.)

Westinghouse Air Brake Company, The. (See Boyden, George A., assignor.)

Westinghouse Air Brake Company, The. (See Cloud, John W., assignor.)

Westinghouse Air Brake Company, The. (See Mahoney, Joseph N., assignor.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Automatic Air and Steam Coupler Company. (See Adreon, Robert E., assignor.)

Westinghouse Electric and Manufacturing Company. (See Adams, James L., Jr., assignor.)

Westinghouse Electric and Manufacturing Company. (See Baerlocher, Robert F., assignor.)

Westinghouse Electric and Manufacturing Company. (See Conrad and Sakal, assignors.)

Westinghouse Electric and Manufacturing Company. (See Crouse, John L., assignor.)

Westinghouse Electric and Manufacturing Company. (See Davis, Joseph L., assignor.)

Westinghouse Electric & Manufacturing Company. (See Davis and Varney, assignors.)

Westinghouse Electric and Manufacturing Company. (See Edgecomb, Henry R., assignor.)

Westinghouse Electric and Manufacturing Company. (See Forrer, Joseph D., assignor.)

Westinghouse Electric and Manufacturing Company. (See Hadaway, William S., Jr., assignor.)

Westinghouse Electric and Manufacturing Company. (See Kingsbury, Albert, assignor.)

Westinghouse Electric and Manufacturing Company. (See Klinck, John H., assignor.)

Westinghouse Electric & Manufacturing Company. (See Little, George M., assignor.)

Westinghouse Electric and Manufacturing Company. (See Peale, Walter O., assignor.)

Westinghouse Electric and Manufacturing Company. (See Rose, Edward E., assignor.)

Westinghouse Electric and Manufacturing Company. (See Scheibe, Harold M., assignor.)

Westinghouse Electric & Manufacturing Company. (See Scott, Thomas S., assignor.)

Westinghouse Electric and Manufacturing Company. (See Steen, Halfdan A., assignor.)

Westinghouse Electric and Manufacturing Company. (See Taylor, Harold B., assignor.)

Westinghouse Lamp Company. (See Henderson, Robert H., assignor.)

Westinghouse Machine Company, The. (See Snyder, John E., assignor.)

Weston, Folke W., New York, assignor to F. Wesel Manufacturing Company, Brooklyn, N. Y. Plate-holding device. No. 1,076,928; Oct. 28; Gaz. vol. 195; p. 919.

Wetzer, Oskar E., Hershruck, Germany. Railway-sleeper. No. 1,075,616; Oct. 14; Gaz. vol. 195; p. 382.

Weyenberg, Albert, West De Pere, Wis. Combined bench and wringer-support. No. 1,075,526; Oct. 14; Gaz. vol. 195; p. 351.

Wheeler, Walter, Des Moines, Iowa. Resilient wheel. No. 1,076,254; Oct. 21; Gaz. vol. 195; p. 626.

Wheeling Stamping Company. (See Edwards, Alonzo L., assignor.)

Wheelwright, Joseph W. (See Ferguson and Wheelwright.)

Whipple, Allen D., Milwaukee, Wis. Means for constructing concrete walls. No. 1,075,454; Oct. 14; Gaz. vol. 195; p. 326.

Whipple, Raymond T., San Jose, Cal. Automobile cut-out. No. 1,074,762; Oct. 7; Gaz. vol. 195; p. 61.

White, Edward Y., San Antonio, Tex. Frame for motor-bicycles. No. 1,075,886; Oct. 14; Gaz. vol. 195; p. 472.

White, Henry. (See Lawrence and White.)

White, Henry J., Morristown, N. J., assignor to T. M. Duche & Sons, New York, N. Y. Machine for slitting and winding sheet metal. No. 1,075,679; Oct. 14; Gaz. vol. 195; p. 403.

White, Henry J., Morristown, N. J., assignor to T. M. Duche & Sons, New York, N. Y. Expansible mandrel. No. 1,077,110; Oct. 28; Gaz. vol. 195; p. 980.

White, Herbert E., assignor to The General Fireproofing Company, Youngstown, Ohio. Clip for fastening certain forms of metallic lathing to beams, girders, and the like in building constructions. No. 1,075,802; Oct. 14; Gaz. vol. 195; p. 445.

White, Tilman, Berkeley, assignor of two-thirds to G. C. Morgan, Oakland, Cal. Valve. No. 1,076,802; Oct. 28; Gaz. vol. 195; p. 874.

White, William M., Milwaukee, Wis. Spiral casing. No. 1,076,617; Oct. 21; Gaz. vol. 195; p. 756.

Whitehead, Charles E., Bellevue borough, Pa. Nut-lock structure. No. 1,075,617; Oct. 14; Gaz. vol. 195; p. 382.

Whitehead & Hoag Company, The. (See Whitehead, Raymond B., assignor.)

Whitehead, Hugh H., Anna Maria, Fla. Mechanical movement. No. 1,076,179; Oct. 21; Gaz. vol. 195; p. 601.

Whitehead, John, assignor to The Payson Manufacturing Company, Chicago, Ill. Mechanism for operating windows in series. No. 1,075,618; Oct. 14; Gaz. vol. 195; p. 382.

Whitehead, Raymond B., assignor to The Whitehead & Hoag Company, Newark, N. J. Watch-fob. No. 1,077,025; Oct. 28; Gaz. vol. 195; p. 954.

Whitin, George M., assignor to The Whitin Machine Works, Whitinsville, Mass. Spindle. No. 1,074,996; Oct. 7; Gaz. vol. 195; p. 138.

Whitin Machine Works, The. (See Rooney, Luke H., assignor.)

Whitin Machine Works, The. (See Whitin, George M., assignor.)

Whiting, Edmund H., Providence, R. I. Vehicle-wheel. No. 1,076,255; Oct. 21; Gaz. vol. 195; p. 626.

Whitmore, Edward E., Chicago, Ill., assignor to The Curtain Supply Company, Newark, N. J. Curtain-roller. No. 1,076,728; Oct. 28; Gaz. vol. 195; p. 848.

Whitmore, Frederick C., New York, N. Y., assignor to Display Vending Co. Vending-machine. No. 1,075,527; Oct. 14; Gaz. vol. 195; p. 351.

Whitney, Robert F., Winchester, Mass. Hide-working machine. No. 1,075,887; Oct. 14; Gaz. vol. 195; p. 473.

Whitney, William M. (See Sawyer, Willard N., assignor.)

Whittingham, George H. (See Holmes and Whittingham.)

Wichmann, Georg. (See Thiele and Wichmann.)

Wicklund, John, Seattle, Wash. Indicator. No. 1,076,180; Oct. 21; Gaz. vol. 195; p. 601.

Wiegand, Henry J. (See Benjamin and Wiegand.)

Wiehl, Samuel, Sisters, Oreg. Dead-fall trap. No. 1,075,235; Oct. 7; Gaz. vol. 195; p. 223.

Wiehl, Samuel, Sisters, Oreg. Animal-trap. No. 1,075,236; Oct. 7; Gaz. vol. 195; p. 223.

Wiehl, Samuel, Sisters, Oreg. Preventive intercourse-apron. No. 1,075,237; Oct. 7; Gaz. vol. 195, p. 224.

Wiesen, John G., Milwaukee, Wis. Mouse-trap. No. 1,074,916; Oct. 7; Gaz. vol. 195; p. 111.

Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Projectile with visible trajectory. No. 1,075,391; Oct. 14; Gaz. vol. 195; p. 306.

Wigtel, Carl, assignor to The Watson-Stillman Company, New York, N. Y. Hydraulic apparatus. No. 1,075,317; Oct. 7; Gaz. vol. 195; p. 254.

Wiles, Frederick W. (See Wiles, Macleod, and Wiles.)

Wiles, William F., T. Macleod, and F. W. Wiles, Brisbane, Queensland, Australia. Aeroplane. No. 1,076,339; Oct. 21; Gaz. vol. 195; p. 657.

Wilke, Frank J., Little Rock, Ark. Elastic-fluid turbine. No. 1,075,528; Oct. 14; Gaz. vol. 195; p. 351.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Emergency-governor. No. 1,076,472; Oct. 21; Gaz. vol. 195; p. 704.

Wilkinson, James, Boston, Mass., assignor to General Electric Company. Combined electric indicator and steam-flow meter. No. 1,076,473; Oct. 21; Gaz. vol. 195; p. 705.

Wilkinson, William S., Aurora, S. D. Belt-coupling. No. 1,075,078; Oct. 7; Gaz. vol. 195; p. 169.

Willemin, Paul A., Providence, R. I. Locket. No. 1,075,529; Oct. 14; Gaz. vol. 195; p. 351.

William A. Hall Lumber & Fibre Company. (See Hall, William A., assignor.)

Williams, Edwin F., Erie, Pa. Steam-engine valve. No. 1,076,256; Oct. 21; Gaz. vol. 195; p. 627.

Williams, James E. and W. L., Willimantic, Conn. Train control. No. 1,075,133; Oct. 7; Gaz. vol. 195; p. 188.

Williams, John N., Derby, Conn. Flying-machine. No. 1,076,803; Oct. 28; Gaz. vol. 195; p. 874.

Williams, John W., Dixon, Tex. Fly-fan. No. 1,074,917; Oct. 7; Gaz. vol. 195; p. 112.

Williams, Rufus M. (See Thompson, Samuel O., assignor.)

Williams, Samuel D., Newport, Wales. Enumeration of telephone-calls. No. 1,074,677; Oct. 7; Gaz. vol. 195; p. 32.

Williams, Wilbur S., Minneapolis, Minn. Steering device for traction-engines. No. 1,076,340; Oct. 21; Gaz. vol. 195; p. 658.

Williams, William L. (See Williams, James E. and W. L.)

Williamson, John, New York, assignor of one-half to N. J. Mokéler, Brooklyn, N. Y. Computing device. No. 1,076,929; Oct. 28; Gaz. vol. 195; p. 919.

Williamson, John W., New York, N. Y. Safety hair cutter. No. 1,074,678; Oct. 7; Gaz. vol. 195; p. 32.

Willis, Elmer E., assignor of one-half to A. St. Amont, Minetto, N. Y. Concrete-mixer. No. 1,074,918; Oct. 7; Gaz. vol. 195; p. 112.

Willis, George M., Chicago, Ill. Electric horn. No. 1,076,181; Oct. 21; Gaz. vol. 195; p. 602.

Willis, Edgar B., Mendota, Ill. Furrow-gage. No. 1,074,763; Oct. 7; Gaz. vol. 195; p. 61.

Willson, Thomas L. (See Haff, Maximilian M., assignor.)

Willson, Thomas L. (See Haff and Willson.)

Willwerscheid, Theodor R., St. Paul, Minn. Lamp-socket. No. 1,075,318; Oct. 7; Gaz. vol. 195; p. 255.

Wilmarth Show Case Co. (See Morris, Edmund, assignor.)

Wilmer, Richard H., Shandon, Ohio. Stamp-moistener. No. 1,076,930; Oct. 28; Gaz. vol. 195; p. 920.

Wilson, Alvin I. V., Atlanta, assignor of one-third to C. C. Hudson, East Point, Ga. Electromagnetic motor. No. 1,077,179; Oct. 28; Gaz. vol. 195; p. 1000.

Wilson, Benjamin F., Hastings, Nebr. Portable automobile-elevator. No. 1,077,180; Oct. 28; Gaz. vol. 195; p. 1000.

Wilson, Clarence C., assignor to The Warner Brothers Company, Bridgeport, Conn. Non-heat-conducting receptacle. No. 1,076,804; Oct. 28; Gaz. vol. 195; p. 875.

Wilson, Earl M. (See McCunningham and Wilson.)

Wilson, Harold. (See Kerr and Wilson.)

Wilton, Ralph P. (See Young and Wilton.)

Wilton, Ralph P., Wrightsville, Pa. Coin-package. No. 1,076,400; Oct. 21; Gaz. vol. 195; p. 678.

Wiltz, Clark G., assignor to T. Rubovits, Chicago, Ill. Amusement device. No. 1,076,257; Oct. 21; Gaz. vol. 195; p. 627.

Winborn, Arthur T., Crumlin, Wales. Apparatus for use by persons working in irrespirable atmospheres or under water. No. 1,077,181; Oct. 28; Gaz. vol. 195; p. 1001.

Winchester, Ellis C., Billings, Mont. Machine for topping beets. No. 1,074,827; Oct. 7; Gaz. vol. 195; p. 81.

Wine Railway Appliance Company, The. (See Wine, William E., assignor.)

Wine, William E., Wilmington, N. C., assignor to The Wine Railway Appliance Company. Ladder and hand-hold for railway-cars. No. 1,075,455; Oct. 14; Gaz. vol. 195; p. 327.

Winkelman, William. (See Hood, Irwin L., assignor.)

Winkley, Erastus E., Lynn, Mass. Machine for lacing shoe-uppers. No. 1,075,530; Oct. 14; Gaz. vol. 195; p. 352.

Winsall, George P., Burlington, Wis. Silo. No. 1,076,729; Oct. 28; Gaz. vol. 195; p. 848.

Winship, Clarence H., Sunrise, Wyo. Folding ax. No. 1,074,764; Oct. 7; Gaz. vol. 195; p. 61.

Winter, John R., assignor to Detroit Utensil Company, Detroit, Mich. Box. No. 1,075,456; Oct. 14; Gaz. vol. 195; p. 327.

Wireless Vibrator Company. (See Dorment, Frank C., assignor.)

Wirth, William M., St. Louis, Mo. Separable rim for automobile-wheels. No. 1,076,730; Oct. 28; Gaz. vol. 195; p. 849.

Wise, John F., Onawa, Iowa. Filter. No. 1,074,679; Oct. 7; Gaz. vol. 195; p. 33.

Wiswell, Ozro N., Snoqualmie, Wash. Electrical switch. No. 1,075,238; Oct. 7; Gaz. vol. 195; p. 224.

Witham, George S., Sr., Hudson Falls, N. Y., assignor to The Union Bag & Paper Company. Machine for making paper or fiber tubes or cores. No. 1,074,680; Oct. 7; Gaz. vol. 195; p. 33.

Witherbee Sherman & Co. (See Cheeseman, Lewis, assignor.)

Witt, Anthony, Danville, Va. Locking device for tack-raceways. No. 1,074,997; Oct. 7; Gaz. vol. 195; p. 139.

Wittemann, Adolph D. (See Wittemann, Charles R. and A. D.)

Wittemann, Charles R. and A. D., New York, N. Y. Flying-machine. No. 1,077,111; Oct. 28; Gaz. vol. 195; p. 980.

Wixon, Howard H., assignor to Stromberg Motor Devices Company, Chicago, Ill. Magneto ignition device. No. 1,075,531; Oct. 14; Gaz. vol. 195; p. 352.

Woelffel, Ernest H., assignor to West Virginia Malleable Iron Co., Point Pleasant, W. Va. Corner-post fastener. No. 1,074,919; Oct. 7; Gaz. vol. 195; p. 112.

Wolf, Fred W., Jr., and H. H. Southworth, Cleveland, Ohio, assignors, by mesne assignments, to C. E. Mehlhope, Chicago, Ill. Refrigerating apparatus. No. 1,076,537; Oct. 21; Gaz. vol. 195; p. 727.

Wolfe, William W., Brookaville, Fla. Coupling or clasp for suspenders. No. 1,076,182; Oct. 21; Gaz. vol. 195; p. 602.

Wolff, Wallace B., assignor to American Slicing Machine Company, Chicago, Ill. Gearing. No. 1,075,888; Oct. 14; Gaz. vol. 195; p. 473.

Womble, Cornelious E., Cedar Hill, assignor of one-half to H. G. Martin, Arlington, Tex. Combined plow and cultivator. No. 1,074,681; Oct. 7; Gaz. vol. 195; p. 33.

Wood, Henry A. W., assignor, by mesne assignments, to Wood & Nathan Company, New York, N. Y. Machine for printing from intaglio printing-plates. No. 1,074,765; Oct. 7; Gaz. vol. 195; p. 62.

Wood, Henry A. W., assignor to Wood & Nathan Company, New York, N. Y. Slug-delivery for slug-casting machines. No. 1,075,180; Oct. 7; Gaz. vol. 195; p. 204.

Wood, Henry A. W., New York, N. Y., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J. Stereotype-printing-plate-finishing mechanism. (Reissue.) No. 13,633; Oct. 21; Gaz. vol. 195; p. 788.

Wood, James J., Fort Wayne, Ind., assignor to General Electric Company. Arc-lamp. No. 1,075,532; Oct. 14; Gaz. vol. 195; p. 353.

Wood & Nathan Company. (See Wood, Henry A. W., assignor.)

Woodhull, Charles R. (See Woodhull, Walter A. and C. R.)

Woodhull, Walter A., Monroe, and C. R. Woodhull, Newburgh, N. Y. Non-refillable bottle. No. 1,076,538; Oct. 21; Gaz. vol. 195; p. 728.

Woodman, George A. (See Carscadin and Woodman.)

Woodman, George A., assignor to Kirby Equipment Company, Chicago, Ill. Journal-box lid. No. 1,076,853; Oct. 28; Gaz. vol. 195; p. 891.

Woodrow, Charles O., assignor of one-fourth to W. McDerment, Nelson, British Columbia, Canada. Portable oven. No. 1,076,731; Oct. 28; Gaz. vol. 195; p. 849.

Woodruff, John I., Selinsgrove, Pa. Gearing for washing-machines. No. 1,076,089; Oct. 21; Gaz. vol. 195; p. 571.

Woods, Joseph, Herbert, Saskatchewan, Canada. Plow. No. 1,077,237; Oct. 28; Gaz. vol. 195; p. 1020.

Woods, Walter A., Wilmington, N. C. Attachment for looms. No. 1,074,682; Oct. 7; Gaz. vol. 195; p. 34.

Woodward, Erastus, Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leveling-machine jack. No. 1,076,618; Oct. 21; Gaz. vol. 195; p. 756.

Woodward, John. (See Young, Walter H., assignor.)

Woodward, Russel G., Waukegan, assignor to Union Special Machine Company, Chicago, Ill. Needle-clamp. No. 1,075,743; Oct. 14; Gaz. vol. 195; p. 425.

Woolf, Ellis J., assignor to The Woolf Valve Gear Company, Minneapolis, Minn. Two-cycle explosive-engine. No. 1,075,889; Oct. 14; Gaz. vol. 195; p. 474.

Woolf Valve Gear Company, The. (See Woolf, Ellis J., assignor.)

Worcester Metal Goods Company. (See Lations, Charles A., assignor.)

Work, Robert G., Homer City, Pa. Dumping-car. No. 1,075,744; Oct. 14; Gaz. vol. 195; p. 425.

Wragg, John U., *et al.* (See McKibbin, John B., assignor.)

Wright Company, The. (See Wright, Orville and W., assignors.)

Wright, Crystal S. (See Shier and Wright.)

Wright Engine Company. (See Wright, William J., assignor.)

Wright, George, Jr., *et al.* (See McKibbin, John B., assignor.)

Wright, Gilbert, Schenectady, and H. P. Ball, New York, N. Y., assignors, by mesne assignments, to General Electric Company. Door-lock switch. No. 1,075,955; Oct. 14; Gaz. vol. 195; p. 497.

Wright, Orville and W., Dayton, Ohio, assignors to The Wright Company. Flying-machine. No. 1,075,533; Oct. 14; Gaz. vol. 195; p. 353.

Wright, Stephen G., Oak Park, Ill. Roofing material. No. 1,075,745; Oct. 14; Gaz. vol. 195; p. 425.

Wright, Wilbur. (See Wright, Orville and W.)

Wright, William J., Franklin, assignor to Wright Engine Company, Pittsburgh, Pa. Internal-combustion engine. No. 1,076,090; Oct. 21; Gaz. vol. 195; p. 571.

Wright, William J., Franklin, assignor to Wright Engine Company, Pittsburgh, Pa. Internal-combustion engine. No. 1,076,854; Oct. 28; Gaz. vol. 195; p. 892.

Wygodsky Engine Company. (See Wygodsky, Leon, assignor.)

Wygodsky, Leon, assignor to Wygodsky Engine Company, New York, N. Y. Internal-combustion engine. No. 1,076,619; Oct. 21; Gaz. vol. 195; p. 757.

Wylie, Thomas B., assignor to Equitable Meter Company, Pittsburgh, Pa. Proportional meter. No. 1,076,855; Oct. 28; Gaz. vol. 195; p. 893.

Wylie, Thomas B., assignor to Equitable Meter Company, Pittsburgh, Pa. Proportional meter. No. 1,077,208; Oct. 28; Gaz. vol. 195; p. 1010.

Wylie, Thomas E., Seattle, Wash. Pruning-shears. No. 1,074,766; Oct. 7; Gaz. vol. 195; p. 62.

Wyman, George R. (See Bird and Wyman.)

Yale & Towne Manufacturing Company, The. (See Bock, Alfred C. O., assignor.)

Yale & Towne Manufacturing Company, The. (See Huhn, Hermann and H. R., assignors.)

Yank, Fred, Seattle, Wash. Lawn-mower. No. 1,077,182; Oct. 27; Gaz. vol. 195; p. 1001.

Yates, S. E., *et al.* (See Strow and McMillan, assignors.)

Yaxley, Ernest E., Chicago, Ill. Pneumatic cleaner. No. 1,074,920; Oct. 7; Gaz. vol. 195; p. 112.

York, John B., Spanish Fort, Tex. Pumping attachment. No. 1,075,956; Oct. 14; Gaz. vol. 195; p. 497.

Young, John, Chillicothe, Ohio. Power-transmission mechanism. No. 1,075,746; Oct. 14; Gaz. vol. 195; p. 425.

Young, John B., North Crystal Lake, Ill. Vacuum-cleaner. No. 1,075,957; Oct. 14; Gaz. vol. 195; p. 497.

Young, John W. (See Roberts, Young, and James.)

Young, Walter H., deceased. (J. L. Eadie, Jr., executor,) assignor of one-half to J. Woodward, Pittsfield, Mass. Spinning-machine. No. 1,076,805; Oct. 28; Gaz. vol. 195; p. 875.

Young, William H., and R. P. Wilton, Wrightsville, Pa.; said Young assignor to said Wilton. Coin-package. No. 1,076,474; Oct. 21; Gaz. vol. 195; p. 705.

Young, William J. G., Baltimore, Md. Rat-trap. No. 1,074,998; Oct. 7; Gaz. vol. 195; p. 139.

Zander, Oscar A., Stockholm, Sweden. Method and apparatus for magnetic separation. No. 1,074,999; Oct. 7; Gaz. vol. 195; p. 140.

Zeh, Edmund W., Newark, N. J. Power-press. No. 1,076,931; Oct. 28; Gaz. vol. 195; p. 920.

Zeh, Edmund W., Newark, N. J. Power-press. No. 1,076,932; Oct. 28; Gaz. vol. 195; p. 921.

Zehntner, Ernst, assignor to Dye Works, formerly L. Durand, Huguenin & Co., Basel, Switzerland. Disazo dyestuffs and making same. No. 1,075,134; Oct. 7; Gaz. vol. 195; p. 188.

Zeiss, Firm of Carl. (See Eppenstein, Otto, assignor.)

Zetschok, Max, San Francisco, Cal. Velocipede-support. No. 1,077,183; Oct. 28; Gaz. vol. 195; p. 1002.

Zick, Grace S., New York, N. Y. Head-scarf. No. 1,075,181; Oct. 7; Gaz. vol. 195; p. 204.

Zier, Frank B. (See Hanna, Samuel C., assignor.)

Ziegel, Fred, assignor of one-half to O. H. Hartman, Brookhaven, Miss. Metallic well-bucket. No. 1,075,277; Oct. 7; Gaz. vol. 195; p. 240.

Zietlow, William J., Cedarburg, Wis. Curtain pole and hanger. No. 1,074,683; Oct. 7; Gaz. vol. 195; p. 34.

Zimmer, Cyrus W., New York, N. Y. Semifireless incubator. No. 1,075,747; Oct. 14; Gaz. vol. 195; p. 426.

Zimmerman, Harry, St. Paul, Minn. Shock-gatherer. No. 1,075,748; Oct. 14; Gaz. vol. 195; p. 426.

Zimmerman, Samuel, Seneca, Kans. Tool. No. 1,076,732; Oct. 28; Gaz. vol. 195; p. 849.

Zindel, William, Bigelow, Ark. Door-check. No. 1,076,933; Oct. 28; Gaz. vol. 195; p. 921.

Zoll, John C., Northstar, Mich. Gate. No. 1,075,890; Oct. 14; Gaz. vol. 195; p. 474.

Zoller, Charles. (See Steiner, Isidor, assignor.)

Zyttkowski, Bruno, Tempelhof, near Berlin, Germany. Making accumulator-plates. No. 1,075,958; Oct. 14; Gaz. vol. 195; p. 498.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Alexander, Jesse, New York, N. Y. Type-writing-machine frame. No. 44,743; Oct. 21; Gaz. vol. 195; p. 791.

Anfiero, Emanuel, Brooklyn, N. Y. Casing for signal devices. No. 44,744; Oct. 21; Gaz. vol. 195; p. 791.

Ayer, James I., assignor to Simplex Electric Heating Company, Cambridge, Mass. Electric range. No. 44,719; Oct. 14; Gaz. vol. 195; p. 518.

Bigelow Carpet Company. (See Elliot, William A., assignor.)

Bigelow Carpet Company. (See Lacouture, Henry C., assignor.)

Bigelow Carpet Company. (See Merry, John, assignor.)

Bigelow Carpet Company. (See Riddell, Robert F., assignor.)

Bigelow Carpet Company. (See Sauer, Emil, assignor.)

Bigelow Carpet Company. (See Schindler, Francis, assignor.)

Bigelow Carpet Company. (See Spring, John, assignor.)

Bigelow Carpet Company. (See Spring, William A., assignor.)

Bigelow Carpet Company. (See Vetter, Ignatius J., assignor.)

Biancard & Company. (See Mountford, Thomas, assignor.)

Booth, Kraft, Philadelphia, Pa., assignor to Gillinder & Sons, Inc. Glass shade for lights. Nos. 44,720–2; Oct. 14; Gaz. vol. 195; pp. 518–19.

Bound, Silas L., Cravens, La. Dresser, chiffonnier, or similar article. No. 44,745; Oct. 21; Gaz. vol. 195; p. 792.

Brockman, Harry T., Cleveland, Ohio. Grave-marker. No. 44,746; Oct. 21; Gaz. vol. 195; p. 792.

Carlson, Carl M. (See Disbrow and Carlson.)

Chester, Bessie M., Longbeach, Cal. Woven palm-leaf basket. No. 44,747; Oct. 21; Gaz. vol. 195; p. 792.

Dando, Joseph C., Philadelphia, Pa., assignor to The Dando Printing and Publishing Company. Filing-cabinet. No. 44,748; Oct. 21; Gaz. vol. 195; p. 792.

Dando Printing and Publishing Company, The. (See Dando, Joseph C., assignor.)

Daving, Matthew, Pittsburgh, Pa. Lamp-standard. No. 44,749; Oct. 21; Gaz. vol. 195; p. 793.

Deming Company, The. (See Garber, Jesse B., assignor.)

Disbrow, Reuben B., and C. M. Carlson, Owatonna, Minn.; said Carlson assignor to said Disbrow. Churn-frame. No. 44,750; Oct. 21; Gaz. vol. 195; p. 793.

Discher, Grant F., assignor to Garage Equipment Manufacturing Company, Milwaukee, Wis. Automobile tire-support. No. 44,751; Oct. 21; Gaz. vol. 195; p. 793.

Duncan, William W., Watertown, Mass., assignor to Hood Rubber Company. Vehicle-tire. No. 44,723; Oct. 14; Gaz. vol. 195; p. 519.

Eckerson, Homer, Mechanicsville, N. Y. Chair. No. 44,752; Oct. 21; Gaz. vol. 195; p. 793.

Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,780; Oct. 28; Gaz. vol. 195; p. 1024.

Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,781–2; Oct. 28; Gaz. vol. 195; p. 1025.

Feeney, William P., Valparaiso, assignor to Pitkin & Brooks, Chicago, Ill. Cut-glass dish or similar article. Nos. 44,753–4; Oct. 21; Gaz. vol. 195; pp. 793–4.

Flauder, Alfred J., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn. Jewel-case. No. 44,715; Oct. 7; Gaz. vol. 195; p. 260.

Flauder, Alfred J., assignor to The Weidlich Brothers Manufacturing Co., Bridgeport, Conn. Jewel-case. No. 44,755; Oct. 21; Gaz. vol. 195; p. 794.

Foster, Mortimer C., assignor to Goldsmith, Stern & Co., New York, N. Y. Lorgnette. Nos. 44,756–9; Oct. 21; Gaz. vol. 195; pp. 794–5.

French, Lawrence E., Los Angeles, Cal. Automobile-body. No. 44,760; Oct. 21; Gaz. vol. 195; p. 795.

Garage Equipment Manufacturing Company. (See Discher, Grant F., assignor.)

Garber, Jesse B., assignor to The Deming Company, Salem, Ohio. Pump-body. No. 44,724; Oct. 14; Gaz. vol. 195; p. 519.

Gem City Stove Manufacturing Company. (See Specht, Adolph A., assignor.)

Gillinder & Sons. (See Booth, Kraft, assignor.)

Goldsmith, Stern & Co. (See Foster, Mortimer C., assignor.)

Gross, Rose, New York, N. Y. One-piece stamped cape and hood for dolls. No. 44,761; Oct. 21; Gaz. vol. 195; p. 795.

Guinzburg, Edwin A., New York, N. Y. Bathing-cap. No. 44,783; Oct. 28; Gaz. vol. 195; p. 1025.

Haley, Reuben, Beaver, assignor to United States Glass Company, Pittsburgh, Pa. Glass jar. Nos. 44,762–5; Oct. 21; Gaz. vol. 195; p. 795–6.

Hood Rubber Company. (See Duncan, William W., assignor.)

Jacobs, Adolph R., Portland, Oreg. Blanket or couch-cover. No. 44,725; Oct. 14; Gaz. vol. 195; p. 519.

Kelly, William, assignor to Maxwell Motor Company, Incorporated, Detroit, Mich. Multicylinder-engine casting. No. 44,726; Oct. 14; Gaz. vol. 195; p. 519.

Keyrouse, Anthony V., New York, N. Y. Window-ventilator. No. 44,766; Oct. 21; Gaz. vol. 195; p. 796.

Kruse, John F., Denver, Colo. Vapor-bath cabinet. No. 44,767; Oct. 21; Gaz. vol. 195; p. 796.

Lacouture, Henry C., Arlington, N. J., assignor to Bigelow Carpet Company. Carpet. No. 44,784; Oct. 28; Gaz. vol. 195; p. 1025.

Lüchinger, Albert, New York, N. Y. Embroidery-alphabet. No. 44,727; Oct. 14; Gaz. vol. 195; p. 519.

Manson, Ray H., Elyria, Ohio. Speedometer or odometer casing. No. 44,768; Oct. 21; Gaz. vol. 195; p. 796.

Martincsak, John, New York, N. Y. Burial-casket. No. 44,769; Oct. 21; Gaz. vol. 195; p. 796.

Martino, Pietro V., New York, N. Y. Reclining-chair. No. 44,728; Oct. 14; Gaz. vol. 195; p. 520.

Maxwell Motor Company. (See Kelly, William, assignor.)

McRae, Arthur A., Attleboro, Mass. Metallic fabric. No. 44,729; Oct. 14; Gaz. vol. 195; p. 520.

Merle, Henry J., Chicago, Ill. Desk. No. 44,770; Oct. 21; Gaz. vol. 195; p. 797.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,785–90; Oct. 28; Gaz. vol. 195; pp. 1025–6.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,791–2; Oct. 28; Gaz. vol. 195; pp. 1026–7.

Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,793–5; Oct. 28; Gaz. vol. 195; p. 1027.

Mississippi Glass Company. (See Walsh, Julius S., assignor.)

Monier, Frederick C., assignor to North & Judd Manufacturing Company, New Britain, Conn. Bridle-cheek. No. 44,771; Oct. 21; Gaz. vol. 195; p. 797.

Moore, Roswell A., Waterbury, Conn., assignor to Waterbury Buckle Company. Armband. No. 44,716; Oct. 7; Gaz. vol. 195; p. 260.

Mountford, Thomas, Newark, N. J., assignor to Biancard & Company, New York, N. Y. Base for gem-settings. No. 44,796; Oct. 28; Gaz. vol. 195; p. 1027.

Mountford, Thomas, Newark, N. J., assignor to Biancard & Company, New York, N. Y. Setting for gems. No. 44,797; Oct. 28; Gaz. vol. 195; p. 1027.

Murphy, Joseph, New York, N. Y. Clothes-line fastener. No. 44,730; Oct. 14; Gaz. vol. 195; p. 520.

Nash, Leslie H., New York, N. Y. Lamp-shade. No. 44,731; Oct. 14; Gaz. vol. 195; p. 520.

North & Judd Manufacturing Company. (See Monier, Frederick C., assignor.)

Owen, Richard W., Milwaukee, Wis. Leather or like material. No. 44,772; Oct. 21; Gaz. vol. 195; p. 797.

Pitkin & Brooks. (See Feeney, William P., assignor.)

Quade, Frank H., Jr., Fresno, Cal. Stand for printing-presses. No. 44,773; Oct. 21; Gaz. vol. 195; p. 797.

Redington, William H., Evanston, Ill. Jug or similar article. No. 44,732; Oct. 14; Gaz. vol. 195; p. 520.

Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,798–805; Oct. 28; Gaz. vol. 195; pp. 1028–9.

Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,806; Oct. 28; Gaz. vol. 195; p. 1029.

Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,807; Oct. 28; Gaz. vol. 195; p. 1030.

Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,808–17; Oct. 28; Gaz. vol. 195; pp. 1030–1.

Scharl, John, New York, N. Y. Pencil-tip. No. 44,818; Oct. 28; Gaz. vol. 195; p. 1032.

Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 44,819; Oct. 28; Gaz. vol. 195; p. 1032.

Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,820; Oct. 28; Gaz. vol. 195; p. 1032.

Seneca Glass Company. (See Truog, George, Jr., assignor.)

Simplex Electric Heating Company. (See Ayer, James I., assignor.)

Sinclaire, Henry P., Corning, N. Y. Cut and engraved transparent plate. No. 44,774; Oct. 21; Gaz. vol. 195; p. 797.
Specht, Adolph A., assignor to Gem City Stove Manufacturing Company, Quincy, Ill. Stove fire-pot section and base. No. 44,733; Oct. 14; Gaz. vol. 195; p. 520.
Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 44,821; Oct. 28; Gaz. vol. 195; p. 1032.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,822–3; Oct. 28; Gaz. vol. 195; pp. 1032–3.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 44,824–5; Oct. 28; Gaz. vol. 195; p. 1033.
Starr, George E., San Francisco, Cal. Tire. Nos. 44,734–6; Oct. 14; Gaz. vol. 195; p. 521.
Steiner, Joseph C., St. Louis, Mo. Combined motor-housing and gear-case. No. 44,775; Oct. 21; Gaz. vol. 195; p. 797.
Stickley, Leopold, Fayetteville, N. Y. Bottom for chairs or similar articles. No. 44,776; Oct. 21; Gaz. vol. 195; p. 798.
Stubbs, Ellen M., Philadelphia, Pa. Fruit spoon-knife. No. 44,737; Oct. 14; Gaz. vol. 195; p. 521.
Taylor, William W., Montclair, N. J. Portable structure. No. 44,738; Oct. 14; Gaz. vol. 195; p. 521.
Truog, George, Jr., Cumberland, Md., assignor to Seneca Glass Company, Morgantown, W. Va. Glass vessel. No. 44,717; Oct. 7; Gaz. vol. 195; p. 260.
United States Glass Company. (See Haley, Reuben, assignor.)
Vetter, Ignatius J., New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 44,826–30; Oct. 28; Gaz. vol. 195; pp. 1033–4.
Walsh, Julius S., assignor to Mississippi Glass Company, St. Louis, Mo. Sheet-glass. Nos. 44,739–40; Oct. 14; Gaz. vol. 195; p. 522.
Waterbury Buckle Company. (See Moore, Roswell A., assignor.)
Weidlich Bros. Mfg. Co., The. (See Weidlich, Louis, assignor.)
Weidlich Brothers Manufacturing Co., The. (See Flauder, Alfred J., assignor.)
Weidlich, Louis, assignor to The Weidlich Bros. Mfg. Co., Bridgeport, Conn. Jewel-case. Nos. 44,777–9; Oct. 21; Gaz. vol. 195; p. 798.
West, George R., Pittsburgh, Pa. Toy receptacle for confections. No. 44,741; Oct. 14; Gaz. vol. 195; p. 522.
Whitcomb, Roscoe H., Yonkers, N. Y. Toy figure. No. 44,742; Oct. 14; Gaz. vol. 195; p. 522.
Zell, Lucyle D., Baltimore, Md. Child's blouse. No. 44,718; Oct. 7; Gaz. vol. 195; p. 260.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. B. Dick Company, Chicago, Ill. Fluid adapted for use in stencilling. No. 93,974; Oct. 28; Gaz. vol. 195; p. 1045.
A/B B. A. Hjorth & Co., Stockholm, Sweden. Cutlery, machinery, tools, and parts thereof, &c. No. 93,992; Oct. 28; Gaz. vol. 195; p. 1046.
Actien-Gesellschaft für Anilin-Fabrikation, Berlin, Germany. Insect-destroying preparations. No. 93,794; Oct. 21; Gaz. vol. 195; p. 811.
Adams, Taylor & Co., Boston, Mass. Gin. No. 93,952; Oct. 28; Gaz. vol. 195; p. 1045.
Adirondack Tissue Paper Co., New Hartford, N. Y. Toilet-paper. Nos. 93,795–6; Oct. 21; Gaz. vol. 195; p. 811.
Aetna Mills, Watertown and Boston, Mass. Woolen and worsted piece goods. No. 93,654; Oct. 14; Gaz. vol. 195; p. 533.
Albany Perforated Wrapping Paper Company, Albany, N. Y. Toilet-paper. Nos. 93,797–8; Oct. 21; Gaz. vol. 195; p. 811.
Alden Speare's Sons Co., Cambridge, Mass. Laundry starch, wax, sizing, and bleaches. No. 93,934; Oct. 21; Gaz. vol. 195; p. 815.
Alfred Bird and Sons, Limited, Birmingham, England. Custard, egg, and blanc-mange powders. No. 93,960; Oct. 28; Gaz. vol. 195; p. 1045.
Allegretti, B., Chicago, Ill. Candies. No. 93,799; Oct. 21; Gaz. vol. 195; p. 811.
Altorfer Bros. Company, Roanoke, Ill. Laundry-washing machines. Nos. 93,655–6; Oct. 14; Gaz. vol. 195; p. 533.
American Caramel Co., York, Pa. Caramels and kisses. No. 93,800; Oct. 21; Gaz. vol. 195; p. 811.
American Lady Corset Company, Detroit, Mich. Cotton cloth. No. 93,657; Oct. 14; Gaz. vol. 195; p. 533.
American Milk Company, Chicago, Ill. Condensed milk. No. 93,624; Oct. 7; Gaz. vol. 195; p. 271.
American Type Founders Company, Jersey City, N. J. Type, spaces, and quads. No. 93,801; Oct. 21; Gaz. vol. 195; p. 811.
American Wire Fabrics Company, Chicago, Ill., and Clinton, Iowa. Screen wire-cloth. No. 93,658; Oct. 14; Gaz. vol. 195; p. 533.
Amieux & Cie., M., Nantes, France. Canned sardines and tunny-fish. No. 93,802; Oct. 21; Gaz. vol. 195; p. 811.
Angus Company, New York, N. Y. Monthly magazine. No. 93,659; Oct. 14; Gaz. vol. 195; p. 533.
Anthracite Overall Mfg. Co., Scranton, Pa. Overalls and overjackets. No. 93,803; Oct. 21; Gaz. vol. 195; p. 811.
Arkadelphia Milling Co., Arkadelphia, Ark. Wheat-flour. No. 93,804; Oct. 21; Gaz. vol. 195; p. 811.
Army & Navy Co-Operative Company, Newburgh and New York, N. Y.; Philadelphia, Pa., and Washington, D. C. Certain named clothing. No. 93,805; Oct. 21; Gaz. vol. 195; p. 811.
Art Metal Construction Co., Jamestown, N. Y. Railings, gates, and office-partitions. No. 93,660; Oct. 14; Gaz. vol. 195; p. 533.
Art Metal Construction Co., Jamestown, N. Y. Safety-deposit boxes. No. 93,953; Oct. 28; Gaz. vol. 195; p. 1045.
Associated Farm Papers, Chicago, Ill.; Pittsburgh, Pa., and New York, N. Y. Papers and magazines. No. 93,661; Oct. 14; Gaz. vol. 195; p. 533.
Astruck, John H., New York, N. Y. Ash-receivers and match-holders. No. 93,807; Oct. 21; Gaz. vol. 195; p. 811.
Atuyer, Bianchini, Ferier, Lyon, France, and New York, N. Y. Piece fabrics of silk, linen, cotton, &c. No. 93,954; Oct. 28; Gaz. vol. 195; p. 1045.
Austro-Hungarian Art Co., Inc., New York, N. Y. Artificial flowers. No. 93,662; Oct. 14; Gaz. vol. 195; p. 533.
Automatic Enunciator Co., Chicago, Ill. Phonograph and reproducing devices connected therewith. No. 93,663; Oct. 14; Gaz. vol. 195; p. 533.
Avery Scale Company, The, North Milwaukee, Wis. Scales. No. 93,808; Oct. 21; Gaz. vol. 195; p. 811.
Badische Anilin- & Soda-Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anilin dyes and other named chemicals. No. 93,955; Oct. 28; Gaz. vol. 195; p. 1045.
Baker & Bennett Co., New York, N. Y. Children's letter-blocks. No. 93,668; Oct. 14; Gaz. vol. 195; p. 533.
Ball, C. S., Dayton, Ohio. Chocolate creams. No. 93,957; Oct. 28; Gaz. vol. 195; p. 1045.
Barclay & Barclay, New York, N. Y. Preparation for improving and dyeing hair, dentifrice, &c. No. 93,625; Oct. 7; Gaz. vol. 195; p. 271.
Barrow, Morris, New York, N. Y. Dress-shields. No. 93,669; Oct. 14; Gaz. vol. 195; p. 533.
Barse & Hopkins, New York, N. Y. Calendar and collection of mottos. No. 93,626; Oct. 7; Gaz. vol. 195; p. 271.
Beckman Company, Cleveland, Ohio. Blankets. No. 93,671; Oct. 14; Gaz. vol. 195; p. 533.
Beehler, William H., Baltimore, Md. Umbrellas, parasols, and canes. No. 93,672; Oct. 14; Gaz. vol. 195; p. 533.
Beiersdorf & Co., P., Hamburg, Germany. Cosmetic powder and pastes and preparations for the hair. No. 93,627; Oct. 7; Gaz. vol. 195; p. 271.
Beimer, Henry, Winona, Minn. Medicinal bitters. No. 93,958; Oct. 28; Gaz. vol. 195; p. 1045.
Bellville Promoting Co., Bellville, Tex. Butter. No. 93,809; Oct. 21; Gaz. vol. 195; p. 811.
Berg Bros., New York, N. Y. Hair-nets. Nos. 93,810–11; Oct. 21; Gaz. vol. 195; p. 811.
Berry Brothers, Detroit, Mich. Wood-alcohol. No. 93,628; Oct. 7; Gaz. vol. 195; p. 271.
Bevens, William E., Newport, Ark. Chill-tonic, pill, and ointment. No. 93,959; Oct. 28; Gaz. vol. 195; p. 1045.
Birdsey-Somers Co., New York, N. Y. Corsets and corset-waists. No. 93,812; Oct. 21; Gaz. vol. 195; p. 811.
Birkin & Co., Nottingham, England. Linen laces. No. 93,673; Oct. 14; Gaz. vol. 195; p. 533.
Bonner, Charles G., Fresno, Cal. Dried fruits and raisins. No. 93,629; Oct. 7; Gaz. vol. 195; p. 271.
Boston Rubber Company, Boston, Mass. Rubber coats. No. 93,815; Oct. 21; Gaz. vol. 195; p. 811.
Boyden Shoe Manufacturing Company, Newark, N. J. Boots, shoes, pumps, and slippers. No. 93,816; Oct. 21; Gaz. vol. 195; p. 811.
Brewer, Clyde L., Trinidad, Colo. Liniment. No. 93,680; Oct. 14; Gaz. vol. 195; p. 533.
Brickman, Walter E., Chicago, Ill. Varnish-remover. No. 93,681; Oct. 14; Gaz. vol. 195; p. 533.
Broderick & Bascom Rope Company, St. Louis, Mo. Cables and ropes. No. 93,682; Oct. 14; Gaz. vol. 195; p. 533.
Broderick & Bascom Rope Company, St. Louis, Mo. Cables and ropes. No. 93,962; Oct. 28; Gaz. vol. 195; p. 1045.
Brown, Albert C., Chicago, Ill. Compression-cocks, faucets, and metallic valves. No. 93,683; Oct. 14; Gaz. vol. 195; p. 534.
Brown Shoe Co., The, St. Louis, Mo., assignor to Brown Shoe Company, Inc., Millbrook, N. Y. Leather shoes. No. 93,817; Oct. 21; Gaz. vol. 195; p. 811.
Burberrys, London, England. Suits, overcoats, shirts, and gaiters. No. 93,819; Oct. 21; Gaz. vol. 195; p. 811.
Burmont Specialty Company, Fernwood, Pa. Hand-torpedoes. No. 93,963; Oct. 28; Gaz. vol. 195; p. 1045.
Cabanski, E. R., Tacoma, Wash. Toilet powder. No. 93,964; Oct. 28; Gaz. vol. 195; p. 1045.
Carson Glove Co., San Francisco, Cal. Leather gloves. No. 93,820; Oct. 21; Gaz. vol. 195; p. 811.
Carson, Pirie, Scott & Co., Chicago, Ill. Bleached cotton piece goods. No. 93,685; Oct. 14; Gaz. vol. 195; p. 534.
Carson, Pirie, Scott & Co., Chicago, Ill. Children's petticoats, rompers, and dresses. No. 93,821; Oct. 21; Gaz. vol. 195; p. 811.
Carson, Pirie, Scott & Co., Chicago, Ill. Unbleached bunting. No. 93,822; Oct. 21; Gaz. vol. 195; p. 811.
Casey, Wiley C., Bloomington, Ill. Cleaning-soap for kid gloves, plumes, silks, &c. No. 93,823; Oct. 21; Gaz. vol. 195; p. 812.
Castle Kid Co., Camden, N. J. Suede leather. No. 93,686; Oct. 14; Gaz. vol. 195; p. 534.
Centennial Mill Co., Seattle and Spokane, Wash. Wheat-flour. No. 93,965; Oct. 28; Gaz. vol. 195; p. 1045.
Chained Lightning Publishing Co., Louisville, Ky. Magazine. No. 93,687; Oct. 14; Gaz. vol. 195; p. 534.
Chappell Oil & Grease Co., St. Louis, Mo. Lubricating oils and greases. No. 93,688; Oct. 14; Gaz. vol. 195; p. 534.
Cheshire Chemical Co., Winchester, N. H. Sweeping compound. No. 93,824; Oct. 21; Gaz. vol. 195; p. 812.
Chicago Ferrotype Co., Chicago, Ill. Cameras. Nos. 93,966–7; Oct. 28; Gaz. vol. 195; p. 1045.
Chipman Limited, New York, N. Y. Automobiles, motor cycles, trucks, and wagons, and bicycles. No. 93,689; Oct. 14; Gaz. vol. 195; p. 534.
Clear Creek Coal Company, Huntington, W. Va. Coal. No. 93,825; Oct. 21; Gaz. vol. 195; p. 812.
Cohen, Hyman, Boston, Mass. Wheat-flour. No. 93,968; Oct. 28; Gaz. vol. 195; p. 1045.
Colgate, Richard M., Jersey City, N. J. Traveling-bags. No. 93,690; Oct. 14; Gaz. vol. 195; p. 534.
Collin Street Bakery, Corsicana, Tex. Fruit-cake. No. 93,826; Oct. 21; Gaz. vol. 195; p. 812.
Columbian Rope Co., Auburn, N. Y. Clothes-lines. No. 93,691; Oct. 14; Gaz. vol. 195; p. 534.
Commercial Chemical Company, Clearing, Ill. Peroxid of hydrogen. No. 93,970; Oct. 28; Gaz. vol. 195; p. 1045.
Compagnie Générale des Etablissements Pathé Frères, Phonographe et Cinematographe, Paris, France. Kinematographic and photographic films and plates. No. 93,971; Oct. 28; Gaz. vol. 195; p. 1045.

Concrete Flooring Company, Cleveland, Ohio. Hollow floors of reinforced concrete. No. 93,692; Oct. 14; Gaz. vol. 195; p. 534.
Conradty, C., Nuremberg, Germany. Certain named electrical apparatus and supplies. No. 93,694; Oct. 14; Gaz. vol. 195; p. 534.
Conradty, C., Nuremberg, Germany. Electric-light and galvanic carbons. No. 93,695; Oct. 14; Gaz. vol. 195; p. 534.
Consolidated Grocery Company, Tampa, Jacksonville, and Pensacola, Fla. Canned goods, coffee, and tomato catsup. No. 93,827; Oct. 21; Gaz. vol. 195; p. 812.
Corkran, Hill & Co. (See Harvey, W. Ewing, assignor.)
Craig, Peter R., Lowell, Mass. Pharmaceutical preparation. No. 93,972; Oct. 28; Gaz. vol. 195; p. 1045.
Curtis, Will E., Chicago, Ill. Egg-cooking apparatus and parts thereof. No. 93,696; Oct. 14; Gaz. vol. 195; p. 534.
Daimler-Motoren-Gesellschaft, Untertürkheim, near Stuttgart, Germany. Certain named vehicles and parts thereof. Nos. 93,697–8; Oct. 14; Gaz. vol. 195; p. 534.
Davies & Meacham, Cleveland, Ohio. Certain named paints, lacs, stains, enamels, varnishes, and fillers. Nos. 93,699–702; Oct. 14; Gaz. vol. 195; p. 534.
Day, Emily D., New York, N. Y. Figs, dried fruits, and nuts. No. 93,973; Oct. 28; Gaz. vol. 195; p. 1045.
Déclat Manufacturing Co., New York, N. Y. Medical and chemical preparations. No. 93,828; Oct. 21; Gaz. vol. 195; p. 812.
Dempster & Place Company, Gloversville, N. Y. Gloves and mittens. No. 93,829; Oct. 21; Gaz. vol. 195; p. 812.
Dessauer & Engel, Chicago, Ill. Knitted underwear. No. 93,830; Oct. 21; Gaz. vol. 195; p. 812.
Directors Film Corporation, New York, N. Y. Moving-picture films. No. 93,975; Oct. 28; Gaz. vol. 195; p. 1045.
Dobrocinski, Casper J., New York, N. Y. Laxative. No. 93,976; Oct. 28; Gaz. vol. 195; p. 1045.
Dormer Brothers Co., Cincinnati, Ohio. Hosiery. No. 93,831; Oct. 21; Gaz. vol. 195; p. 812.
Dr. A. Wander, A-G., Berne, Switzerland. Food drink. No. 93,850; Oct. 7; Gaz. vol. 195; p. 271.
Dr. Bayer és társa, Budapest, Austria-Hungary. Certain remedies for treatment of certain diseases. No. 93,670; Oct. 14; Gaz. vol. 195; p. 533.
Dr. Kereszty, Dr. Wolf és Tsa. Vegyészeti gyár R. T., Budapest, Austria-Hungary. Tar colloids. No. 93,730; Oct. 14; Gaz. vol. 195; p. 535.
Druggists' Co-operative Association Inc., Jersey City, N. J., and Detroit, Mich. Soap. No. 93,832; Oct. 21; Gaz. vol. 195; p. 812.
Dwight Edwards Company, Portland, Oreg. Coffee, tea, spices, and flavoring extracts. No. 93,834; Oct. 21; Gaz. vol. 195; p. 812.
E. F. Houghton & Company, Philadelphia, Pa. Preparation for treating textile fabrics. No. 93,724; Oct. 14; Gaz. vol. 195; p. 535.
E. F. Houghton & Company, Philadelphia, Pa. Carbonizing compounds, disinfectants, &c. No. 93,995; Oct. 28; Gaz. vol. 195; p. 1046.
E. T. Burrowes Company, Portland, Me. Billiard and pool tables, combinations of, and accessories for same. No. 93,684; Oct. 14; Gaz. vol. 195; p. 534.
E. W. Conklin & Son Inc., Binghamton, N. Y. Seed oats and grain, grass and field seeds. No. 93,693; Oct. 14; Gaz. vol. 195; p. 534.
Earle, Allen L., Chester Depot, Vt. Remedy for asthma and hay-fever. No. 93,704; Oct. 14; Gaz. vol. 195; p. 534.
Eastman Kodak Company, Rochester, N. Y. Photographic printing-out paper. Nos. 93,977–8; Oct. 28; Gaz. vol. 195; p. 1045.
Eckstein, Samuel, New York, N. Y. Handkerchiefs. No. 93,833; Oct. 21; Gaz. vol. 195; p. 812.
Edwards, R. G., London, England. Preparation for restoring the natural color to the hair. No. 93,630; Oct. 7; Gaz. vol. 195; p. 271.
Ellison & Sons, John B., Philadelphia, Pa. Cotton and wool piece goods. No. 93,835; Oct. 21; Gaz. vol. 195; p. 812.
Empire Soap Company, New York, N. Y. Toilet soap. No. 93,836; Oct. 21; Gaz. vol. 195; p. 812.
Eysiee, Alfred N., San Francisco, Cal. Pile-ointment. No. 93,979; Oct. 28; Gaz. vol. 195; p. 1045.
F. Mayer Boot & Shoe Co., Milwaukee, Wis. Leather boots and shoes. No. 93,882; Oct. 21; Gaz. vol. 195; p. 813.
F. A. Koch & Co., New York, N. Y. Razors. No. 93,869; Oct. 21; Gaz. vol. 195; p. 813.
Federal Motor Truck Co., Detroit, Mich. Automobile-trucks. No. 93,837; Oct. 21; Gaz. vol. 195; p. 812.
Felten & Guilleaume Carlswerk Actien-Gesellschaft, Mülheim-on-the-Rhine, Germany. Steel wire and wire strings for pianofortes, &c. No. 93,705; Oct. 14; Gaz. vol. 195; p. 534.
Felten & Guilleaume Carlswerk Actien-Gesellschaft, Mülheim-on-the-Rhine, Germany. Wire. No. 93,706; Oct. 14; Gaz. vol. 195; p. 534.
Fetterman, Mary G., Philadelphia, Pa. Bedroom-slippers. No. 93,838; Oct. 21; Gaz. vol. 195; p. 812.
Fleishhacker & Co., A., San Francisco, Cal. Paper boxes. No. 93,707; Oct. 14; Gaz. vol. 195; p. 534.
Fleming & Christian Co., Richmond, Va. Certain named foods. No. 93,839; Oct. 21; Gaz. vol. 195; p. 812.
Fluhrer Bros. Tobacco Company, Boonville, Ind. Twist and smoking tobacco. No 93,708; Oct. 14; Gaz. vol. 195; p. 534.
Foss, William D., Centralia, Wash. Liquid chemical wood-preserver. No. 93,709; Oct. 14; Gaz. vol. 195; p. 534.
Fox, Harry B., New York, N. Y. Medicinal lotion. No. 93,840; Oct. 21; Gaz. vol. 195; p. 812.
Furst Salve Co., Beech Creek, Pa. Salves. No. 93,632; Oct. 7; Gaz. vol. 195; p. 271.
G. B. Farrington Company, The, New York, N. Y. Coffee. No. 93,980; Oct. 28; Gaz. vol. 195; p. 1045.
Gates, Robert J., New York, N. Y. Toilet soap. No. 93,842; Oct. 21; Gaz. vol. 195; p. 812.
Gates, Robert J., New York, N. Y. Toilet powder, cold-cream, and remedy for obesity. No. 93,983; Oct. 28; Gaz. vol. 195; p. 1046.
Gates, Robert J., New York, N. Y. Veterinary remedies. No. 93,984; Oct. 28; Gaz. vol. 195; p. 1046.
Gautier Frères, Algre, France. Brandy. No. 93,841; Oct. 21; Gaz. vol. 195; p. 812.
Geo. Borgfeldt & Co., New York, N. Y. Aluminum ware. Nos. 93,674–5; Oct. 14; Gaz. vol. 195; p. 533.
Geo. Borgfeldt & Co., New York, N. Y. Hair-nets. Nos. 93,676–9; Oct. 14; Gaz. vol. 195; p. 533.
Geo. Borgfeldt & Co., New York, N. Y. Hair-nets. Nos. 93,813–14; Oct. 21; Gaz. vol. 195; p. 811.
Geo. Borgfeldt & Co., New York, N. Y. Infants' toilet requisites, toilet and tooth powder, &c. No. 93,961; Oct. 28; Gaz. vol. 195; p. 1045.
Geo. H. Fritz & Sons, Newark, N. J. Candy. No. 93,982; Oct. 28; Gaz. vol. 195; p. 1045.
Gesellschaft für drahtlose Telegraphie m. b. H., Berlin, Germany. Certain named electrical supplies and apparatus. No. 93,710; Oct. 14; Gaz. vol. 195; p. 534.
Gibson's Limited, Vancouver, British Columbia, Canada. Chains made of base metal. No. 93,711; Oct. 14; Gaz. vol. 195; p. 534.
Gifford, Arthur E., Worcester, Mass. Corsets. No. 93,843; Oct. 21; Gaz. vol. 195; p. 812.
Glycerine Applicator Co., Spring Lake, Mich. Remedy for constipation and hemorrhoids. No. 93,985; Oct. 28; Gaz. vol. 195; p. 1046.
Godfrey, Willard A., Watervliet, Mich. Canned fruits and vegetables. No. 93,844; Oct. 21; Gaz. vol. 195; p. 812.
Goodyear Rubber Hose & Packing Company, Philadelphia, Pa. Coverings for hand-wheels. No. 93,986; Oct. 28; Gaz. vol. 195; p. 1046.
Graham, John H., New York, N. Y. Springs for automobiles and horse-drawn vehicles adapted to carry passengers. No. 93,712; Oct. 14; Gaz. vol. 195; p. 534.
Graphites-Moskar Société Anonyme, Paris, France. Crucibles and cupels. No. 93,713; Oct. 14; Gaz. vol. 195; p. 534.
Great Western Smelting & Refining Co., Chicago, Ill. Babbitt and antifriction metals. No. 93,987; Oct. 28; Gaz. vol. 195; p. 1046.
Greer, Benjamin W., Germantown, Pa. Piece goods of woolen, worsted, and cotton. No. 93,988; Oct. 28; Gaz. vol. 195; p. 1046.
Gross & Company, New York, N. Y. Cornmeal. No. 93,845; Oct. 21; Gaz. vol. 195; p. 812.
Gunpert & Co., S., Brooklyn, N. Y. Flavoring for cakelings. No. 93,846; Oct. 21; Gaz. vol. 195; p. 812.
Gurney Refrigerator Company, Limited, Fond du Lac, Wis. Refrigerators. No. 93,715; Oct. 14; Gaz. vol. 195; p. 535.
H. A. Weymann & Son, Philadelphia, Pa. Mandolins. No. 93,788; Oct. 14; Gaz. vol. 195; p. 537.
H. C. Cole Milling Co., Chester, Ill. Self-rising flour. No. 93,969; Oct. 28; Gaz. vol. 195; p. 1045.
Haefner, Carl, Washington, Pa. Remedy for gall-stones. No. 93,633; Oct. 7; Gaz. vol. 195; p. 271.
Haefner, Carl, Washington, Pa. Remedy for the treatment of Bright's disease and diabetes. No. 93,716; Oct. 14; Gaz. vol. 195; p. 535.
Halcomb Steel Company, Syracuse, N. Y. Tool-steel. No. 93,847; Oct. 21; Gaz. vol. 195; p. 812.
Hamilton & Haile, Winters, Cal. Salve. No. 93,989; Oct. 28; Gaz. vol. 195; p. 1046.
Harris, Tracy H., New York, N. Y. Medicinal preparation for the digestion. No. 93,990; Oct. 28; Gaz. vol. 195; p. 1046.
Harvey, W. Ewing, assignor to Corkran, Hill & Co., Baltimore, Md. Cheese. No. 93,991; Oct. 28; Gaz. vol. 195; p. 1046.
Hassinger, Egon, Paris, France. Tracing-paper and tracing-cloth. No. 93,717; Oct. 14; Gaz. vol. 195; p. 535.
Hayns, Arthur E., Chicago, Ill. Oats and corn for seeding purposes. No. 93,718; Oct. 14; Gaz. vol. 195; p. 535.
Hecht, Mendes H., Baltimore, Md. Preparation for increasing the wearing properties of fabrics. No. 93,634; Oct. 7; Gaz. vol. 195; p. 271.
Heller & Son, L., New York, N. Y. Synthetic sapphires. No. 93,720; Oct. 14; Gaz. vol. 195; p. 535.
Highland Cigar Company, Columbus, Ohio. Cigars and stogies. No. 93,721; Oct. 14; Gaz. vol. 195; p. 535.
Hoffmann, Charles, New Britain, Conn. Bread. No. 93,848; Oct. 21; Gaz. vol. 195; p. 812.
Hogan Envelope Company, Chicago, Ill., assignor to Heco Paper Company. Envelops and writing-paper. No. 93,993; Oct. 28; Gaz. vol. 195; p. 1046.
Holland Rusk Co., Holland, Mich. Zwieback and cookies. Nos. 93,849–50; Oct. 21; Gaz. vol. 195; p. 812.

Hood Rubber Co., Watertown, Mass. Rubber boots, shoes, overshoes, &c. No. 93,853; Oct. 21; Gaz. vol. 195; p. 812.
Hoonah Packing Company, Port Townsend, Wash. Canned salmon. No. 93,854; Oct. 21; Gaz. vol. 195; p. 812.
Hughes Manfg. Co., Philadelphia, Pa. Cotton thread. No. 93,725; Oct. 14; Gaz. vol. 195; p. 535.
Hydrox Chemical Company, New York, N. Y. Soap. No. 93,855; Oct. 21; Gaz. vol. 195; p. 812.
I. B. Kleinert Rubber Company, New York, N. Y. Dress-shields. No. 93,732; Oct. 14; Gaz. vol. 195; p. 535.
Imbs Milling Company, J. F., St. Louis, Mo., and Belleville, Ill. Wheat-flour. No. 93,856; Oct. 21; Gaz. vol. 195; p. 812.
Imperial Merchandise Co., The, Perry, Ohio. Toilet-paper, writing-paper, and envelops. No. 93,857; Oct. 21; Gaz. vol. 195; p. 812.
Inter-Lube Chemical Company, Cleveland, Ohio. Fuel compound for explosive-engines. No. 93,726; Oct. 14; Gaz. vol. 195; p. 535.
J. A. Folger & Company, Kansas City, Mo. Coffee. No. 93,631; Oct. 7; Gaz. vol. 195; p. 271.
J. A. Folger & Company, Kansas City, Mo. Tea and coffee. No. 93,981; Oct. 28; Gaz. vol. 195; p. 1045.
J. F. Hillerich & Son Company, Incorporated, Louisville, Ky. Base-ball bats. No. 93,722; Oct. 14; Gaz. vol. 195; p. 535.
J. K. Armsby Co., The, Chicago, Ill., and San Francisco, Cal. Canned fruits. No. 93,806; Oct. 21; Gaz. vol. 195; p. 811.
J. L. Hopkins & Co., New York, N. Y. Adhesive gums. No. 93,994; Oct. 28; Gaz. vol. 195; p. 1046.
J. M. Pitkin & Co., Newark, N. Y. Hair-tonic, shampoo-powder, dental cream, &c. No. 93,905; Oct. 21; Gaz. vol. 195; p. 814.
J. W. Buckley Rubber Co., New York, N. Y. Rubber tubing, hose, belting, and machinery packing. No. 93,818; Oct. 21; Gaz. vol. 195; p. 811.
James Bailey Company, The, Portland, Me. Certain named electrical apparatus. No. 93,956; Oct. 28; Gaz. vol. 195; p. 1045.
James Heekin Company, Cincinnati, Ohio. Coffee and tea pots. No. 93,719; Oct. 14; Gaz. vol. 195; p. 535.
Jaynes Drug Company, Boston, Mass. Cigars. Nos. 93,727–8; Oct. 14; Gaz. vol. 195; p. 535.
John F. Lalla Company, Chicago, Ill. Certain named foods. No. 94,007; Oct. 28; Gaz. vol. 195; p. 1046.
Johnson Biscuit Company, Sioux City, Iowa. Crackers and biscuits. No. 93,635; Oct. 7; Gaz. vol. 195; p. 271.
Johnson Biscuit Co., Sioux City, Iowa. Candy. No. 93,999; Oct. 28; Gaz. vol. 195; p. 1046.
Johnson & Co., Oliver, Providence, R. I. Ready-mixed paints. No. 93,729; Oct. 14; Gaz. vol. 195; p. 535.
Johnson Educator Food Company, Boston, Mass. Biscuit. No. 93,858; Oct. 21; Gaz. vol. 195; p. 813.
Johnson, J. Bailey, Edgewood, Pa. Deodorizing cold-cream. No. 94,000; Oct. 28; Gaz. vol. 195; p. 1046.
Jones, James W., Denison, Tex. Stock ointment or salve. No. 93,859; Oct. 21; Gaz. vol. 195; p. 813.
Jordan, Wladyslaw, Chicago, Ill. Salve, face-cream, laxative tablets, bitter tonic, &c. No. 93,636; Oct. 7; Gaz. vol. 195; p. 271.
Jörn, Paul, Hamburg, Germany. Canned ham. No. 93,860; Oct. 21; Gaz. vol. 195; p. 813.
Joseph W. Schloss Co., New York, N. Y. Ruche-supporters. No. 93,759; Oct. 14; Gaz. vol. 195; p. 536.
Kalle & Co., Aktiengesellschaft, Biebrich-on-the-Rhine, Germany. Ointment. No. 93,861; Oct. 21; Gaz. vol. 195; p. 813.
Kavanaugh, Frederick W., Waterford, N. Y. Underwear. No. 93,862; Oct. 21; Gaz. vol. 195; p. 813.
Kayser, Ellison & Co. Limited, Sheffield, England. Steel and steel wire. No. 93,863; Oct. 21; Gaz. vol. 195; p. 813.
Kendrick, William T., Montgomery, Ala. Alterative, disinfectant, tonic, &c. No. 94,001; Oct. 28; Gaz. vol. 195; p. 1046.
Kershaw, Bert H., Chicago, Ill. Dental powder. No. 94,002; Oct. 28; Gaz. vol. 195; p. 1046.
Kimball, Joseph A., New York, N. Y. Liniment. No. 93,637; Oct. 7; Gaz. vol. 195; p. 271.
Kip, Frank C., Oklahoma, Okla. Coffee and tea, flavoring extracts for foods, and spices and cocoa. No. 94,003; Oct. 28; Gaz. vol. 195; p. 1046.
Klauber Wangenheim Co., San Diego, Cal. Certain named foods. No. 93,731; Oct. 14; Gaz. vol. 195; p. 535.
Klauber Wangenheim Co., San Diego, Cal. Toilet-paper. No. 93,864; Oct. 21; Gaz. vol. 195; p. 813.
Knothe Brothers, Inc., New York, N. Y., and Baltimore, Md. Pajamas, shirts, and night-shirts. No. 93,865; Oct. 21; Gaz. vol. 195; p. 813.
Knothe Brothers, Inc., New York, N. Y., and Baltimore, Md. Pajamas and negligée shirts. No. 93,866; Oct. 21; Gaz. vol. 195; p. 813.
Knothe Brothers, Inc., New York, N. Y., and Baltimore, Md. Pajamas, shirts, and night-shirts. No. 93,867; Oct. 21; Gaz. vol. 195; p. 813.
Knox Company, Charles B., Johnstown, N. Y. Gelatin. No. 93,868; Oct. 21; Gaz. vol. 195; p. 813.
Knox Company, Charles B., Johnstown, N. Y. Gelatin. No. 94,004; Oct. 28; Gaz. vol. 195; p. 1046.
Kohn & Baer, Inc., New York, N. Y. Fur wearing-apparel. No. 93,870; Oct. 21; Gaz. vol. 195; p. 813.
Kokomo Canning Company, Kokomo, Ind. Canned vegetables. No. 93,871; Oct. 21; Gaz. vol. 195; p. 813.
L. E. Waterman Co., New York, N. Y. Ink. No. 93,785; Oct. 14; Gaz. vol. 195; p. 537.
L. S. Ayres and Company, Indianapolis, Ind. Trunks, traveling-bags, and suitcases. No. 93,664; Oct. 14; Gaz. vol. 195; p. 533.
L. S. Ayres and Company, Indianapolis, Ind. Umbrellas. No. 93,665; Oct. 14; Gaz. vol. 195; p. 533.
L. S. Ayres and Company, Indianapolis, Ind. Ribbon. No. 93,666; Oct. 14; Gaz. vol. 195; p. 533.
L. S. Ayres and Company, Indianapolis, Ind. Comforts, blankets, nainsook, and long-cloth. No. 93,667; Oct. 14; Gaz. vol. 195; p. 533.
Labauve, Alsina M., New Orleans, La. Remedy for dysentery and stomach trouble. No. 94,005; Oct. 28; Gaz. vol. 195; p. 1046.
Laffray & Herrman Co., Paterson, N. J. Macaroni, rice, and kippered herring. No. 93,872; Oct. 21; Gaz. vol. 195; p. 813.
Lainfiesta & Co., San Francisco, Cal. Flavoring extracts for syrups. No. 94,006; Oct. 28; Gaz. vol. 195; p. 1046.
Lederer, Henry C., Stockton, Cal. Fat-reducing preparation. No. 93,873; Oct. 21; Gaz. vol. 195; p. 813.
Lee Tire & Rubber Co., Whitemarsh township, Montgomery county, Pa. Motor-vehicle horns. No. 93,733; Oct. 14; Gaz. vol. 195; p. 535.
Letts, Arthur, Los Angeles, Cal. Soap. No. 93,874; Oct. 21; Gaz. vol. 195; p. 813.
Libby, McNeill & Libby, Chicago, Ill. Canned peaches, plums, apricots, pears, and cherries. No. 94,008; Oct. 28; Gaz. vol. 195; p. 1046.
Lignum Chemical Works, Brooklyn, N. Y. Granular sweeping compound. No. 93,734; Oct. 14; Gaz. vol. 195; p. 535.
Locke Regulator Company, Salem, Me. Certain named plumbing and steam-fitting supplies. No. 93,735; Oct. 14; Gaz. vol. 195; p. 535.
Lomelino, Emanuel F., Springfield, Ill. Baking-powder. No. 93,875; Oct. 21; Gaz. vol. 195; p. 813.
London & Hyman, New York, N. Y. Work-shirts. No. 93,876; Oct. 21; Gaz. vol. 195; p. 813.
Luchs, Morton G., New York, N. Y. Gloves. Nos. 93,877–8; Oct. 21; Gaz. vol. 195; p. 813.
Lumaghi Coal Company, St. Louis, Mo. Coal. No. 93,879; Oct. 21; Gaz. vol. 195; p. 813.
Lyon & Healy, Chicago, Ill. Strings for musical instruments, drum and banjo heads. No. 94,009; Oct. 28; Gaz. vol. 195; p. 1046.
Lyons Salt Co., Kansas City, Mo. Salt. No. 94,010; Oct. 28; Gaz. vol. 195; p. 1046.
M. M. Graves Company, Houston, Tex. Cotton and jute bagging. No. 93,714; Oct. 14; Gaz. vol. 195; p. 534.
Mackie, Oswald M., Brantford, Ontario, Canada. Tire-fillers. No. 93,638; Oct. 7; Gaz. vol. 195; p. 271.
Malt Food Products Company of Oswego, N. Y., Oswego, N. Y. Table-syrup. No. 93,880; Oct. 21; Gaz. vol. 195; p. 813.
Marshall Field & Company, Chicago, Ill. Gloves. No. 93,881; Oct. 21; Gaz. vol. 195; p. 813.
Masengill Bros. Company, Bristol, Tenn. Ointment. No. 94,011; Oct. 28; Gaz. vol. 195; p. 1046.
Matthews & Lively, Atlanta, Ga. Razors, razor-blades, and shears. No. 93,736; Oct. 14; Gaz. vol. 195; p. 535.
Mayer, Harry H., New York, N. Y. Foot-salve. No. 94,012; Oct. 28; Gaz. vol. 195; p. 1046.
Maysville Syrup Company, Maysville, Ky. Tonic beverages. No. 94,013; Oct. 28; Gaz. vol. 195; p. 1046.
McDonald, Charles C., Elyria, Ohio. Canned pork and beans in tomato sauce. No. 93,737; Oct. 14; Gaz. vol. 195; p. 535.
McDonagh, A. J., Toronto, Ontario, Canada. Tooth-brushes. No. 93,883; Oct. 21; Gaz. vol. 195; p. 813.
McGraw, Carl O., Gadsden, Ala. Non-intoxicating tonic beverages. No. 93,738; Oct. 14; Gaz. vol. 195; p. 535.
McLaren, Walter, Dayton, Ohio. Ice-cream cones. No. 93,639; Oct. 7; Gaz. vol. 195; p. 271.
Meadows Mfg. Co., Pontiac, Ill. Wagon-dumps. No. 93,884; Oct. 21; Gaz. vol. 195; p. 813.
Merlino, Angelo, Seattle, Wash. Olive-oil. No. 94,014; Oct. 28; Gaz. vol. 195; p. 1046.
Metallic Shipping Case Corporation, Cleveland, Ohio. Metallic shipping-cases. No. 94,015; Oct. 28; Gaz. vol. 195; p. 1046.
Meyer & Lange, New York, N. Y. Certain named foods. No. 93,739; Oct. 14; Gaz. vol. 195; p. 535.
Meyer & Lange, New York, N. Y. Certain named foods. No. 93,885; Oct. 21; Gaz. vol. 195; p. 813.
Mitchell, Alexander I., Stafford Springs, Conn. Woolen piece goods. No. 94,016; Oct. 28; Gaz. vol. 195; p. 1046.
Modern Exterminator Co., Boston, Mass. Rat and mice exterminator. No. 93,886; Oct. 21; Gaz. vol. 195; p. 813.
Mohawk Electrical Supply Company, Syracuse, N. Y. Certain named electrical apparatus and supplies. No. 93,740; Oct. 14; Gaz. vol. 195; p. 535.
Monkhouse and Glasscock Limited, Bermondsey, London, England. Food jellies, blanc-mange, custard and fruit powders. No. 93,887; Oct. 21; Gaz. vol. 195; p. 813.
Monolithic Silo & Construction Company, Wilmington, Del., and Chicago, Ill. Silos. No. 94,017; Oct. 28; Gaz. vol. 195; p. 1047.
Monument Mills, Housatonic, Mass., and New York, N. Y. Bedspreads and counterpanes. Nos. 93,741–2; Oct. 14; Gaz. vol. 195; p. 535.
Morse, Asahel U., Kansas City, Mo. Toilet-paper. Nos. 93,888–9; Oct. 21; Gaz. vol. 195; p. 813.

Mottura, Domenico, Chisholm, Minn. Liniment. No. 94,018; Oct. 28; Gaz. vol. 195; p. 1047.
Mount Kisco Bottling Co., Inc., Mount Kisco, N. Y. Sparkling table-waters. No. 93,743; Oct. 14; Gaz. vol. 195; p. 535.
Mt. Dora Citrus Growers Association, Mount Dora, Fla. Certain named citrus fruits. No. 93,744; Oct. 14; Gaz. vol. 195; p. 535.
Mueller-Carter Neckwear Company, St. Louis, Mo. Cravats. No. 93,745; Oct. 14; Gaz. vol. 195; p. 535.
Muller Bros., Oakland, Cal. Certain named foods. No. 94,019; Oct. 28; Gaz. vol. 195; p. 1047.
Muskeetopunk Co., Pekin, Ill. Compound for destroying insects. No. 94,020; Oct. 28; Gaz. vol. 195; p. 1047.
Myles Standish Company, Providence, R. I. Coffee, tea, macaroni, and noodles. No. 93,890; Oct. 21; Gaz. vol. 195; p. 813.
Nashville Roller Mills, Nashville, Tenn. Graham flour. No. 93,640; Oct. 7; Gaz. vol. 195; p. 271.
National Onion Salt Company, Chicago, Ill. Onion salt in powdered form. Nos. 93,891–2; Oct. 21; Gaz. vol. 195; p. 813.
Nave McCord Mercantile Co., St. Joseph, Mo. Certain named foods. No. 94,021; Oct. 28; Gaz. vol. 195; p. 1047.
Neatherland, James W. M., Monticello, Miss. Hay-presses. No. 93,746; Oct. 14; Gaz. vol. 195; p. 535.
Neill & Co., James, Sheffield, England. Steel for tool manufacture. No. 93,893; Oct. 21; Gaz. vol. 195; p. 814.
New Castle Leather Co., New York, N. Y. Patent side leather. No. 93,747; Oct. 14; Gaz. vol. 195; p. 535.
Niagara Overall & Pants Co., Buffalo, N. Y. Overalls, trousers, and shirts. No. 93,894; Oct. 21; Gaz. vol. 195; p. 814.
Nichols, Herbert N., Chicago, Ill. Fresh fruits. No. 94,022; Oct. 28; Gaz. vol. 195; p. 1047.
O-Shu-Co Soap Company, Los Angeles, Cal. Soap. No. 93,899; Oct. 21; Gaz. vol. 195; p. 814.
O'Sullivan Specialties Company, Lowell, Mass. Liniment. No. 94,025; Oct. 28; Gaz. vol. 195; p. 1047.
Ohio Butterine Co., Cincinnati, Ohio. Oleomargarin. No. 94,023; Oct. 28; Gaz. vol. 195; p. 1047.
Oklahoma Supply Co., Oklahoma, Okla. Flavoring extracts, rice, wheat-flour, &c. No. 93,895; Oct. 21; Gaz. vol. 195; p. 814.
Oliver-Finnie Co., Memphis, Tenn. Candy. No. 93,896; Oct. 21; Gaz. vol. 195; p. 814.
One-Profit Hat Company, Danbury, Conn. Hats. No. 93,897; Oct. 21; Gaz. vol. 195; p. 814.
Oppenheim, Oberndorf & Co., Baltimore, Md. Shirts. No. 93,898; Oct. 21; Gaz. vol. 195; p. 814.
Oppenheimer & Co., A., London, England. Smokers' pipes. No. 94,024; Oct. 28; Gaz. vol. 195; p. 1047.
Oswald, James, Buffalo, N. Y. Pillow-sham holders. No. 93,748; Oct. 14; Gaz. vol. 195; p. 535.
Otto Isenstein & Company, New York, N. Y. Hydrocarbon oils. No. 93,998; Oct. 28; Gaz. vol. 195; p. 1046.
Palethorpe, Percy R., Owensboro, Ky. Tea, coffee, and cocoa. No. 94,026; Oct. 28; Gaz. vol. 195; p. 1047.
Palruba Manufacturing Co., Orange, N. J.; Philadelphia, Pa., and New York, N. Y. Oiled cloth and linoleum. No. 93,749; Oct. 14; Gaz. vol. 195; p. 535.
Parent Seven Grain Food Company, Los Angeles, Cal. Meal, coffee substitute, and breakfast food. No. 93,900; Oct. 21; Gaz. vol. 195; p. 814.
Park & Tilford, New York, N. Y. Candies. No. 93,641; Oct. 7; Gaz. vol. 195; p. 271.
Parks Bros. & Rogers, Providence, R. I. Precious-metal collar-buttons. Nos. 93,750–1; Oct. 14; Gaz. vol. 195; p. 536.
Parlin & Orendorff Co., Canton, Ill. Cultivators. No. 93,901; Oct. 21; Gaz. vol. 195; p. 814.
Peerless Electric Company, Warren, Ohio. Electric fan and power motors, exhaust-fans, &c. No. 94,027; Oct. 28; Gaz. vol. 195; p. 1047.
Peerless Overall Co., Huntington, W. Va. Overalls. No. 93,902; Oct. 21; Gaz. vol. 195; p. 814.
Peet Bros., Philadelphia, Pa. Hooks and eyes. No. 93,752; Oct. 14; Gaz. vol. 195; p. 536.
Perfection Biscuit Company, Fort Wayne, Ind. Cakes and cookies. No. 93,903; Oct. 21; Gaz. vol. 195; p. 814.
Philo-Hay Specialties Co., Newark, N. J. Water-softener. No. 93,753; Oct. 14; Gaz. vol. 195; p. 536.
Pillsbury Flour Mills Company, Minneapolis, Minn. Wheat-flour. No. 93,904; Oct. 21; Gaz. vol. 195; p. 814.
Potomac Fruit Growers Club, Cumberland, Md. Fresh apples and peaches. No. 93,906; Oct. 21; Gaz. vol. 195; p. 814.
Potter & Roziene, Phoenix, Ariz. Preparation for driving away mosquitos. No. 93,642; Oct. 7; Gaz. vol. 195; p. 271.
Pratt Bread Company, Boston, Mass. Bread. No. 93,907; Oct. 21; Gaz. vol. 195; p. 814.
Regesan Ltd., London, England. Soap. No. 93,908; Oct. 21; Gaz. vol. 195; p. 814.
Reyes y Velasco, Zacatecas, Mexico. Tuna molasses. No. 93,643; Oct. 7; Gaz. vol. 195; p. 271.
Richard Hudnut, New York, N. Y. Cold-cream. No. 93,996; Oct. 28; Gaz. vol. 195; p. 1046.
Robinson & Company, J., New York, N. Y. Kerchiefs and handkerchiefs. No. 93,754; Oct. 14; Gaz. vol. 195; p. 536.
Roblee-Wass Shoe Company, St. Louis, Mo. Boots, shoes, and slippers. No. 93,909; Oct. 21; Gaz. vol. 195; p. 814.
Robt. H. Ingersoll & Bro., New York, N. Y. Watches and clocks. No. 93,997; Oct. 28; Gaz. vol. 195; p. 1046.
Roehlen-Pittenger Silk Co., Easton, Pa. Silk piece goods. No. 93,755; Oct. 14; Gaz. vol. 195; p. 536.
Rossano, Antonio, New York, N. Y. Olive-oil. No. 93,910; Oct. 21; Gaz. vol. 195; p. 814.
Rowfant Bindery Company, Cleveland, Ohio. Printed books, prints, and pamphlets. No. 93,756; Oct. 14; Gaz. vol. 195; p. 536.
Rowntree and Company, Limited, York, England. Certain named foods. No. 93,644; Oct. 7; Gaz. vol. 195; p. 271.
S. C. Toof & Co., Memphis, Tenn. Stationery, paper, books, binders, and holders. No. 93,778; Oct. 14; Gaz. vol. 195; p. 536.
San Antonio Drug Co., San Antonio, Tex. Chocolate and olive-oil. No. 93,911; Oct. 21; Gaz. vol. 195; p. 814.
Saperston, Marcus J., St. Joseph, Mo. Preparation for cleaning leather. No. 93,757; Oct. 14; Gaz. vol. 195; p. 536.
Sasso e Figli, P., Oneglia, Italy. Olive-oil. No. 93,645; Oct. 7; Gaz. vol. 195; p. 271.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. Nos. 93,912–26; Oct. 21; Gaz. vol. 195; p. 814.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y. Toilet-paper. No. 94,028; Oct. 28; Gaz. vol. 195; p. 1047.
Schaefer & Company, Reading, Pa. Laces. No. 93,758; Oct. 14; Gaz. vol. 195; p. 536.
Schliemann's Oil & Ceresine Company, Inc., New York, N. Y. Lubricating-oils. No. 94,029; Oct. 28; Gaz. vol. 195; p. 1047.
Schoenberg, Ralph A., Boston, Mass. Pipes. No. 94,030; Oct. 28; Gaz. vol. 195; p. 1047.
Scholl Manufacturing Company, Chicago, Ill. Corn-plasters and foot-powders. No. 94,031; Oct. 28; Gaz. vol. 195; p. 1047.
Schwartz, William, Norristown, Pa. Bread. No. 93,927; Oct. 21; Gaz. vol. 195; p. 814.
Schwerz, Franz, Charlottenburg, Germany. Antiseptic. No. 93,646; Oct. 7; Gaz. vol. 195; p. 271.
Scotch-Tone Remedy Co., Oklahoma, Okla. Liniment, tooth-paste, laxative, pills, &c. No. 93,928; Oct. 21; Gaz. vol. 195; p. 814.
Scott, Harry L., Baltimore, Md. Ice-cream. No. 93,647; Oct. 7; Gaz. vol. 195; p. 271.
Sea Island Thread Co., New York, N. Y. Mercerized thread and spool-cotton. Nos. 93,760–2; Oct. 14; Gaz. vol. 195; p. 536.
Selip Manufacturing Company, Los Angeles, Cal. Remedy for piles. No. 94,032; Oct. 28; Gaz. vol. 195; p. 1047.
Seyfarth, Henry G., Chicago, Ill. Corn-plasters. No. 93,763; Oct. 14; Gaz. vol. 195; p. 536.
Sherman Overall Manufacturing Co., Sherman, Tex. Overalls, jumpers, and trousers. No. 93,920; Oct. 21; Gaz. vol. 195; p. 815.
Shultz, Arthur E., Olney, Ill. Seeds. No. 93,930; Oct. 21; Gaz. vol. 195; p. 815.
Sibley, Nettie E., Springfield, Mass. Corn-files. No. 93,931; Oct. 21; Gaz. vol. 195; p. 815.
Silverberg Import Co., Inc., New York, N. Y. Hair-nets. No. 93,932; Oct. 21; Gaz. vol. 195; p. 815.
Simplex Window Co., San Francisco, Cal. Windows, sashes, frames, and fixtures. No. 93,764; Oct. 14; Gaz. vol. 195; p. 536.
Simpson Spring Company, Easton, Pa. Non-alcoholic drinks. No. 93,765; Oct. 14; Gaz. vol. 195; p. 536.
Smith & Wesson, Springfield, Mass. Revolvers, pistols, automatic pistols, rifles, guns, and ammunition. Nos. 93,766–7; Oct. 14; Gaz. vol. 195; p. 536.
Smyth & Co., Ross T., Liverpool, England. Wheat-flour. No. 94,033; Oct. 28; Gaz. vol. 195; p. 1047.
Societe La Mondaine, Paris, France. Incandescent electric lamps. No. 93,933; Oct. 21; Gaz. vol. 195; p. 815.
South Florida Grapefruit Co., Piney Point, Fla. Oranges, grape-fruit, and tangerines. No. 93,648; Oct. 7; Gaz. vol. 195; p. 271.
Standard Company, Torrington, Conn. Pedals for bicycles, tricycles, motor-cycles, and motor-tricycles. Nos. 93,768–9; Oct. 14; Gaz. vol. 195; p. 536.
Standard Oil Company, Whiting, Ind. Petroleum pitch. No. 93,770; Oct. 14; Gaz. vol. 195; p. 536.
Standard Oil Company, Richmond, Cal. Petroleum asphalt. No. 93,771; Oct. 14; Gaz. vol. 195; p. 536.
Standard Oil Company of New York, New York, N. Y. Refined petroleum for heating, lighting, and power purposes. No. 93,772; Oct. 14; Gaz. vol. 195; p. 536.
Standard Optical Co., Spokane, Wash. Artificial eyes. No. 93,773; Oct. 14; Gaz. vol. 195; p. 536.
Standard Varnish Works, New York, N. Y. Paints, enamels, japans, varnishes, and varnish-removers. No. 93,774; Oct. 14; Gaz. vol. 195; p. 536.
Streett & Company, J. D., St. Louis, Mo. Babbitt metal. No. 93,935; Oct. 21; Gaz. vol. 195; p. 815.
Stroud, Harrison E., Los Angeles, Cal. Ointment. No. 93,649; Oct. 7; Gaz. vol. 195; p. 271.
Studd & Millington, London, England. Woolen cloth in the piece. No. 93,775; Oct. 14; Gaz. vol. 195; p. 536.
Studd & Millington, London, England. Coats, trousers, vests, hats, and caps. No. 93,936; Oct. 21; Gaz. vol. 195; p. 815.

Taliaferro & Sherwood, New York, N. Y. Hosiery. No. 93,937; Oct. 21; Gaz. vol. 195; p. 815.
Tiedemann & Sons, Theo., New York, N. Y. Veilings and nettings. No. 93,776; Oct. 14; Gaz. vol. 195; p. 536.
To-Kalon Manufacturing Company, Syracuse, N. Y. Medicated cotton-batting. No. 93,777; Oct. 14; Gaz. vol. 195; p. 536.
Townsend & Co., E. M., New York, N. Y. Hosiery and knitted underwear. No. 93,938; Oct. 21; Gaz. vol. 195; p. 815.
Tremont & Suffolk Mills, Lowell, Mass. Cotton piece goods. No. 93,779; Oct. 14; Gaz. vol. 195; p. 536.
Troegerlith Tile Company, New York, N. Y. Polishing-oil for cleaning and brightening wooden surfaces. No. 93,780; Oct. 14; Gaz. vol. 195; p. 536.
Tyler, John L., Birmingham, Ala. Syrup for beverages. No. 94,034; Oct. 28; Gaz. vol. 195; p. 1047.
Ulmann & Co., Bernhard, New York, N. Y. Yarns. Nos. 93,781–2; Oct. 15; Gaz. vol. 195; p. 536.
United Refrigerator & Ice Machine Co., Kenosha, Wis. Refrigerators and refrigerating machinery. No. 93,783; Oct. 14; Gaz. vol. 195; p. 536.
United States Chicle Refining Company, Newark, N. J. Substitute for chicle. No. 93,939; Oct. 21; Gaz. vol. 195; p. 815.
Valier & Spies Milling Co., St. Louis, Mo. Wheat-flour. No. 93,940; Oct. 21; Gaz. vol. 195; p. 815.
Vereinigte Chemische Fabriken, Landau, Kreidl, Heller & Co., Vienna, Austria-Hungary. Coloring materials for painters' use. No. 93,784; Oct. 14; Gaz. vol. 195; p. 537.
Victor Sporting Goods Company, Springfield, Mass. Certain named accessories used in athletic games and sports. No. 93,941; Oct. 21; Gaz. vol. 195; p. 815.
Vlahov, Roberto, Zara, Austria-Hungary. Liqueur. No. 93,942; Oct. 21; Gaz. vol. 195; p. 815.
Vouplé Company, New York, N. Y. Foot-powder. No. 94,035; Oct. 28; Gaz. vol. 195; p. 1047.
W. J. White Chicle Co., Niagara Falls, N. Y. Chewing-gum. No. 93,946; Oct. 21; Gaz. vol. 195; p. 815.
Wadsworth, Howland & Co., Incorporated, Boston, Mass. Paint, varnish, and calcimine brushes. No. 93,943; Oct. 21; Gaz. vol. 195; p. 815.
Wagner, Edward H., New York, N. Y. Fireworks. No. 94,036; Oct. 28; Gaz. vol. 195; p. 1047.
Wahnetah Silk Company, Catsaauqua, Pa. Silk piece goods. No. 94,037; Oct. 28; Gaz. vol. 195; p. 1047.
Wallace Addressing Machine Company Inc., New York, N. Y. Stencil addressing-machines. No. 94,039; Oct. 28; Gaz. vol. 195; p. 1047.
Wallace & Co., Brooklyn and New York, N. Y. Candies. No. 94,038; Oct. 28; Gaz. vol. 195; p. 1047.
Waller, Joseph, London, England. Stencil printing and duplicating apparatus. No. 93,944; Oct. 21; Gaz. vol. 195; p. 815.
Wampine Medicine Company, Little Rock, Ark. Remedy for syphilis, rheumatism, eczema, &c. No. 94,040; Oct. 28; Gaz. vol. 195; p. 1047.
Werner & Pfleiderer Co., Saginaw, Mich. Bake-ovens. No. 93,786; Oct. 14; Gaz. vol. 195; p. 537.
Western Dry Goods Co., Seattle, Wash. Hosiery. No. 93,945; Oct. 21; Gaz. vol. 195; p. 815.
Western Implement & Motor Company, Davenport, Iowa. Traction-engines. No. 93,787; Oct. 14; Gaz. vol. 195; p. 537.
Westmoreland Candy Company, Richmond, Va. Chocolates. No. 94,041; Oct. 28; Gaz. vol. 195; p. 1047.
Wilkinson, Gaddis & Company, Newark, N. J. Oleomargarin. No. 93,651; Oct. 7; Gaz. vol. 195; p. 271.
William Demuth & Company, New York, N. Y. Cigarette-paper. No. 93,703; Oct. 14; Gaz. vol. 195; p. 534.
William Hollins & Company, Limited, London, England. Sheets, pillow-cases, rugs, blankets, &c. No. 93,723; Oct. 14; Gaz. vol. 195; p. 535.
William Hollins & Company, Limited, London, England. Garments for women, men, and boys. Nos. 93,851–2; Oct. 21; Gaz. vol. 195; p. 812.
Williams, Charles D., Cleveland, Ohio. Compound for cleaning paint, metal, and glass. No. 93,947; Oct. 21; Gaz. vol. 195; p. 815.
Wilson, Raleigh C., Portland, Oreg. Remedy for certain named diseases and ailments. No. 93,948; Oct. 21; Gaz. vol. 195; p. 815.
Wiseman, Agnes M., Des Moines, Iowa. Dry shampoo preparation. No. 93,789; Oct. 14; Gaz. vol. 195; p. 537.
Witt, James P., Kansas City, Mo. Medicinal preparations. No. 93,949; Oct. 21; Gaz. vol. 195; p. 815.
Wonder Clothes Shop Co., New York, N. Y. Men's suits and overcoats. No. 93,950; Oct. 21; Gaz. vol. 195; p. 815.
Wüfing, Johann A., Berlin, Germany. Remedy for certain named diseases. No. 93,652; Oct. 7; Gaz. vol. 195; p. 271.
Yankee Wizard Clock Company, New York, N. Y. Clocks. No. 93,790; Oct. 14; Gaz. vol. 195; p. 537.
Ye Lady's Outfitterie, New York, N. Y. Undergarments. No. 93,951; Oct. 21; Gaz. vol. 195; p. 815.
Yorke Shirt Co., Glens Falls and New York, N. Y. Neckties, neckscarfs, and jabots. No. 93,791; Oct. 14; Gaz. vol. 195; p. 537.
Young & Swain Baking Co., San Francisco, Cal. Bread. No. 93,653; Oct. 7; Gaz. vol. 195; p. 271.
Yum Company, Durham, N. C. Remedy for headache and neuralgia. No. 94,042; Oct. 28; Gaz. vol. 195; p. 1047.
Yvette Co., New York, N. Y. Hair-tonics. No. 93,792; Oct. 14; Gaz. vol. 195; p. 537.
Zenite Metal Company, Indianapolis, Ind. Metal sheets and strips. No. 93,793; Oct. 14; Gaz. vol. 195; p. 537.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Alma, William D. P., Jr., Philadelphia, Pa. "Antiseptic French Lilac Toilet Water." (For Toilet Water.) No. 17,265; Oct. 7; Gaz. vol. 195; p. 272.

American Lithographic Company, New York, N. Y. "Superiores." (For Cigars.) No. 17,275; Oct. 21; Gaz. vol. 195; p. 816.

American Lithographic Company, New York, N. Y. "Smoke Cigars." (For Cigars.) Nos. 17,276–8; Oct. 21; Gaz. vol. 195; p. 816.

American Lithographic Company, New York, N. Y. "Esquisitos." (For Cigars.) No. 17,279; Oct. 21; Gaz. vol. 195; p. 816.

Barnes, Henry, Brooklyn, N. Y. "Sliced Bacon." (For Bacon.) No. 17,281; Oct. 21; Gaz. vol. 195; p. 816.

Block & Son, S., Philadelphia, Pa. "Apollo Hosiery." (For Hosiery.) No. 17,282; Oct. 21; Gaz. vol. 195; p. 816.

Borkheim, Louis, San Francisco, Cal. "Home Diamond." (For Base-Ball Games.) No. 17,274; Oct. 14; Gaz. vol. 195; p. 538.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "San Rey." (For Cigars.) No. 17,286; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Havana Token." (For Cigars.) No. 17,287; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Wimo." (For Cigars.) No. 17,288; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Havana Club." (For Cigars.) No. 17,289; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Pass-Time." (For Cigars.) No. 17,290; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Don Fernando." (For Cigars.) No. 17,291; Oct. 21; Gaz. vol. 195; p. 816.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Romola." (For Cigars.) No. 17,292; Oct. 21; Gaz. vol. 195; p. 816.

Central Cigar Box Co., St. Louis, Mo. "Natural Flavor." (For Cigars.) No. 17,300; Oct. 28; Gaz. vol. 195; p. 1048.

Central Cigar Box Co., St. Louis, Mo. "Popular Issue." (For Cigars.) No. 17,301; Oct. 28; Gaz. vol. 195; p. 1048.

Cox Blodgett Dry Goods Company, The, Wichita, Kans. "Justrite Overalls." (For Overalls and Work-Clothes.) No. 17,256; Oct. 7; Gaz. vol. 195; p. 272.

Earth Products Co., The, Baltimore, Md. "Spar Eg-Get Grit." (For Spar Grit.) No. 17,283; Oct. 21; Gaz. vol. 195; p. 816.

F. C. Henderson Company, Boston, Mass. "Royal Blue Certified." (For Talking-Machine Needles.) No. 17,260; Oct. 7; Gaz. vol. 195; p. 272.

Gertenrich, Louis W., Chicago, Ill. "Ball Tosser." (For a Corn Confection.) No. 17,257; Oct. 7; Gaz. vol. 195; p. 272.

Grace Company, Cleveland, Ohio. "Hand Lotion." (For a Hand-Lotion.) No. 17,258; Oct. 7; Gaz. vol. 195; p. 272.

Haas & Sons, Geo., San Francisco, Cal. "Variety Mints." (For Candy.) No. 17,259; Oct. 7; Gaz. vol. 195; p. 272.

Henry, Thos. F., Sapulpa, Okla. "Butter Scotch Chips." (For Candy.) No. 17,261; Oct. 7; Gaz. vol. 195; p. 272.

Henschel & Co., A. C., Chicago, Ill. "Country Club." (For Cigars.) No. 17,284; Oct. 21; Gaz. vol. 195; p. 816.

Henschel & Co., A. C., Chicago, Ill. "Clean Bill." (For Cigars.) No. 17,285; Oct. 21; Gaz. vol. 195; p. 816.

Henschel & Co., A. C., Chicago, Ill. "Bel Vor." (For Cigars.) No. 17,302; Oct. 28; Gaz. vol. 195; p. 1048.

Higbie Salt Company, Chicago, Ill. "The Star Border Salt." (For Salt.) No. 17,293; Oct. 21; Gaz. vol. 195; p. 816.

Hills Bros., San Francisco, Cal. "Hills Bros.' Blue Label Japan Tea." (For Tea.) No. 17,294; Oct. 21; Gaz. vol. 195; p. 816.

Holland Baking Co., The, Holland, Mich. "Butter Top Bread." (For Bread.) No. 17,295; Oct. 21; Gaz. vol. 195; p. 816.

Independence Biscuit Company, Independence, Kans. "Korn-Kake." (For Corn-Cake.) No. 17,262; Oct. 7; Gaz. vol. 195; p. 272.

John Lucas & Co., Inc., Philadelphia, Pa. "Lucas Silo Paint." (For Paint.) No. 17,266; Oct. 7; Gaz. vol. 195; p. 272.

Lang, Fred N., Bayfield, Wis. "Ka-Nu Corn Cure." (For Corn-Plasters.) No. 17,303; Oct. 28; Gaz. vol. 195; p. 1048.

Lautz Bros & Co., Buffalo, N. Y. "Lautz Naphtha Soap Powder." (For a Soap Powder.) Nos. 17,263–4; Oct. 7; Gaz. vol. 195; p. 272.

Leder & Wechsler, Brooklyn, N. Y. "The Messenger Bread." (For Bread.) No. 17,296; Oct. 21; Gaz. vol. 195; p. 816.

Londoner, Charles, New York, N. Y. "La Marquet Poudre De Riz." (For a Toilet Powder.) No. 17,265; Oct. 7; Gaz. vol. 195; p. 272.

National Music Roll Co., St. Johnsville, N. Y. "Auto-Inscribed." (For Music-Rolls.) No. 17,267; Oct. 7; Gaz. vol. 195; p. 272.

National Music Roll Co., St. Johnsville, N. Y. "Master Record." (For Music-Rolls.) No. 17,304; Oct. 28; Gaz. vol. 195; p. 1048.

Pacific Preserve Co., San Francisco, Cal. "R K P Brand." (For Pickles.) No. 17,268; Oct. 7; Gaz. vol. 195; p. 272.

Peck & Co., Samuel W., New York, N. Y. "Balmacaan." (For Men's and Young Men's Overcoats and Rain-Coats.) No. 17,269; Oct. 7; Gaz. vol. 195; p. 272.

Peerless Manufacturing Company, The, Norristown, Pa. "Hygiene Tissue." (For Toilet-Paper.) No. 17,305; Oct. 28; Gaz. vol. 195; p. 1048.

Pittsburgh Brewing Company, Pittsburgh, Pa. "Iron City." (For Beer.) No. 17,270; Oct. 7; Gaz. vol. 195; p. 272.

Reilly, Edward J., Baltimore, Md. "Eddie's Everlasting Black Dye." (For a Liquid Dye.) No. 17,271; Oct. 7; Gaz. vol. 195; p. 272.

Riepert, Charles J., Pittsfield, Mass. "Riepert's Butter-Milk Bred." (For Bread.) No. 17,306; Oct. 28; Gaz. vol. 195; p. 1048.

Rogers, W. G., Madison, Ind. Rogers' Witch Hazel Cream." (For Toilet Cream.) No. 17,297; Oct. 21; Gaz. vol. 195; p. 816.

Schwartz & Gattle, New York, N. Y. "Orador." (For Cigars, Cigarettes, and Cheroots.) No. 17,307; Oct. 28; Gaz. vol. 195; p. 1048.

Shelby Cigar Co., The, Shelby, Ohio. "El Cetus." (For Cigars.) No. 17,272; Oct. 7; Gaz. vol. 195; p. 272.

Shepard, Jos. C., Wilmington, N. C. "Shepard's House Fly Driver." (For a Preparation for the Extermination of Insects.) No. 17,298; Oct. 21; Gaz. vol. 195; p. 816.

Southern Overall Co., The, Baltimore, Md. "For Railroad Men and Mechanics." (For Overalls and Coats.) No. 17,308; Oct. 28; Gaz. vol. 195; p. 1048.

Turner, Edward L. D., Mansfield, Mass. "To the Lady of the House: This is a Free Sample of 'Seven Herbs.'" (For a Medicinal Compound.) No. 17,273; Oct. 7; Gaz. vol. 195; p. 272.)

W. J. Armstrong Company, Waseca, Minn. "Trust Fund." (For Cigars.) No. 17,280; Oct. 21; Gaz. vol. 195; p. 816.

Waisdorf, Edward H., New Orleans, La. "Campho-Mentho." (For a Remedy for Skin Diseases.) No. 17,299; Oct. 21; Gaz. vol. 195; p. 816.

White & Wyckoff Mfg. Co., Holyoke, Mass. "Alpine Lawn Fine Stationery." (For Stationery.) No. 17,309; Oct. 28; Gaz. vol. 195; p. 1048.

White & Wyckoff Mfg. Co., Holyoke, Mass. "Riverside Linen Fine Stationery." (For Stationery.) No. 17,310; Oct. 28; Gaz. vol. 195; p. 1048.

York, Chauncey F., Detroit, Mich. "Ma-Le-Na Shampoo Soap." (For a Shampoo-Soap.) No. 17,311; Oct. 28; Gaz. vol. 195; p. 1048.

PRINTS.

Corset H Company, Worcester, Mass. "'Ivy' Corset." (For Corsets.) No. 3,381; Oct. 7; Gaz. vol. 195; p. 272.
Cream of Wheat Co., Minneapolis, Minn. "Our Platform." (For Wheat Breakfast Food.) No. 3,387; Oct. 21; Gaz. vol. 195; p. 816.
De Schaum, William A., Detroit, Mich. "Tiger." (For Cycle-Cars.) No. 3,382; Oct. 7; Gaz. vol. 195; p. 272.
Dr. J. H. McLean Medicine Company, The, St. Louis, Mo. "Volcanic Oil Liniment of Dr. J. H. McLean." (For a Liniment.) No. 3,399; Oct. 28; Gaz. vol. 195; p. 1048.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "The Working Man's Friend." (For Bread and Yeast.) No. 3,393; Oct. 28; Gaz. vol. 195; p. 1048.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "Eat Bread—more Bread." (For Bread and Yeast.) No. 3,394; Oct. 28; Gaz. vol. 195; p. 1048.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "Your Bread Basket." (For Bread and Yeast.) No. 3,395; Oct. 28; Gaz. vol. 195; p. 1048.
Fleischmann Company, The, Cincinnati, Ohio, and New York, N. Y. "Healthy Children." (For Bread and Yeast.) No. 3,396; Oct. 28; Gaz. vol. 195; p. 1048.
General Electric Company, Schenectady, N. Y. "Mother Earth's Adopted 'Sun.'" (For Incandescent Lamps.) No. 3,388; Oct. 21; Gaz. vol. 195; p. 816.
Hocking Valley Products Company, Columbus, Ohio. "Greendale 'Red-Rug.'" (For Bricks.) No. 3,389; Oct. 21; Gaz. vol. 195; p. 816.
Hocking Valley Products Company, Columbus, Ohio. "Greendale 'Rug.'" (For Bricks.) No. 3,390; Oct. 21; Gaz. vol. 195; p. 816.
Icy Hot Bottle Company, The, Cincinnati, Ohio. "Icy-Hot Bottles and Carafes." (For Heat-Insulated Bottles and Carafes.) No. 3,397; Oct. 28; Gaz. vol. 195; p. 1048.
Julius Kayser & Co., New York, N. Y. "'Kayser' Leatherette Gloves." (For Gloves.) Nos. 3,383–4; Oct. 7; Gaz. vol. 195; p. 272.
Lang, Fred N., Bayfield, Wis. "Ka-Nu Corn Cure." (For Corn-Plasters.) No. 3,398; Oct. 28; Gaz. vol. 195; p. 1048.
President Shirt Co., Baltimore, Md. "The President Union Shirt Suit." (For Union Suits.) No. 3,385; Oct. 7; Gaz. vol. 195; p. 272.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Tobacco that answers every question." (For Smoking-Tobacco.) No. 3,386; Oct. 7; Gaz. vol. 195; p. 272.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Soft and Sweet." (For Chewing-Tobacco.) No. 3,391; Oct. 21; Gaz. vol. 195; p. 816.
R. J. Reynolds Tobacco Company, Winston-Salem, N. C. "Brown's Mule Chewing Tobacco—Big Cut 5¢." (For Chewing-Tobacco.) No. 3,392; Oct. 21; Gaz. vol. 195; p. 816.
Riepert, Charles J., Pittsfield, Mass. "Riepert's Butter-Milk Bred." (For Bread.) No. 3,401; Oct. 28; Gaz. vol. 195; p. 1048.
Rigling, William, Hamilton, Ohio. "Egg Tester Dr." (For an Egg-Tester.) No. 3,402; Oct. 28; Gaz. vol. 195; p. 1048.
Rigling, William, Hamilton, Ohio. "The Grocers' & Customers' Detective." (For an Egg-Tester.) No. 3,403; Oct. 28; Gaz. vol. 195; p. 1048.
Rigling, William, Hamilton, Ohio. "I don't want the Balance." (For an Egg-Tester.) No. 3,404; Oct. 28; Gaz. vol. 195; p. 1048.
W. B. Sauer Company, Chicago, Ill. "The Ribbon Brand." (For Cigars.) No. 3,400; Oct. 28; Gaz. vol. 195; p. 1048.

DISCLAIMERS.

Bastian, Charles O., and Albert E. Salisbury, London, England; disclaimer filed by assignee, Cooper Hewitt Electric Company. Vapor electric apparatus. No. 954,407; disclaimer filed Oct. 17, 1913; Gaz. vol. 195; p. 821.

Borst, Frank A., South Bend, and John Groscop, Auburn, Ind.; disclaimer filed by assignee, Ideal Concrete Machinery Company. Machine for manufacturing hollow concrete building-blocks. No. 12,578, (reissue;) disclaimer filed Oct. 10, 1913; Gaz. vol. 195; p. 820.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF OCTOBER, 1913.

[Abbreviations: "Gaz."=Official Gazette.]

Abdominal supporter. F. Z. Husar. No. 1,076,287; Oct. 21; Gaz. vol. 195; p. 638.
Abrading-disk. C. Krug. No. 1,077,143; Oct. 28; Gaz. vol. 195; p. 989.
Accordions, Octave-coupler for. J. Galleazzi. No. 1,075,207; Oct. 7; Gaz. vol. 195; p. 213.
Accounting appliance, Credit-. H. E. Massey. No. 1,074,886; Oct. 7; Gaz. vol. 195; p. 101.
Accumulator-plates, Making. B. Zyttkowski. No. 1,075,968; Oct. 14; Gaz. vol. 195; p. 498.
Acetyl-cellulose plastic masses, Making. W. G. Lindsay. No. 1,076,215; Oct. 21; Gaz. vol. 195; p. 613.
Acetyl-cellulose plastic masses, Making. W. G. Lindsay. No. 1,076,216; Oct. 21; Gaz. vol. 195; p. 613.
Acetylene-generator. E. R. Angell. No. 1,074,921; Oct. 7; Gaz. vol. 195; p. 113.
Acid and preparing the same, Anhydrid of salicylic. E. Kopetschni, L. Karczag, and O. Fodor. No. 1,075,581; Oct. 14; Gaz. vol. 195; p. 370.
Acid, Dinitrophenylarsinic. L. Benda. No. 1,075,538; Oct. 14; Gaz. vol. 195; p. 355.
Acid, Esters of dialkylaminoformic. G. Merling and H. Köhler. No. 1,074,966; Oct. 7; Gaz. vol. 195; p. 128.
Acid from natural phosphates, Separating phosphoric. M. M. Haff. No. 1,076,497; Oct. 21; Gaz. vol. 195; p. 713.
Acid from natural phosphates, Separating phosphoric. M. M. Haff and T. L. Willson. No. 1,076,499; Oct. 21; Gaz. vol. 195; p. 714.
Acid, Making lactic. O. Friedberger. No. 1,074,708; Oct. 7; Gaz. vol. 195; p. 43.
Acid, Manufacture of 2-phenylquinolin-4-carboxylic. A. Thiele and G. Wichmann. No. 1,075,171; Oct. 7; Gaz. vol. 195; p. 200.
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Aeroplane. H. W. Macomber and F. H. D. Bergmann. No. 1,076,218; Oct. 21; Gaz. vol. 195; p. 614.
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Airships, Suspension of the cars of. E. Blochmann. No. 1,074,830; Oct. 7; Gaz. vol. 195; p. 82.
Alarm: *See* Burglar-alarm; Fire-alarm; Heat-alarm; Heat or fire alarm.
Albumins to the original state, Restoring coagulated. A. H. Rasche. No. 1,076,232; Oct. 21; Gaz. vol. 195; p. 619.
Alcohol, Apparatus for making diacetone. C. W. Crockett. No. 1,075,284; Oct. 7; Gaz. vol. 195; p. 242.
Alimentary products, Manufacture of. P. Müller. No. 1,075,726; Oct. 14; Gaz. vol. 195; p. 417.
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Alkali metals in the form of nitrates from minerals, Extracting. A. Messerschmidt. No. 1,076,508; Oct. 21; Gaz. vol. 195; p. 717.
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Alloy and producing the same, Aluminum. W. A. McAdams. No. 1,076,137; Oct. 21; Gaz. vol. 195; p. 587.
Alloy, Copper-aluminum. E. D. Gleason. No. 1,076,973; Oct. 28; Gaz. vol. 195; p. 935.
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Amphidizing apparatus. C. S. Bradley. No. 1,077,036; Oct. 28; Gaz. vol. 195; p. 957.
Ammunition for rifles, Magazine for miniature. E. J. Hiscock. No. 1,074,948; Oct. 7; Gaz. vol. 195; p. 122.
Amusement apparatus. L. C. J. Bouracler. No. 1,075,397; Oct. 14; Gaz. vol. 195; p. 307.
Amusement device. C. G. Wiltz. No. 1,076,257; Oct. 21; Gaz. vol. 195; p. 627.
Animal-trap. J. Heberling. No. 1,075,034; Oct. 7; Gaz. vol. 195; p. 153.
Animal-trap. S. Wiehl. No. 1,075,236; Oct. 7; Gaz. vol. 195; p. 223.
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Archery, Table-. J. Morrison, Jr. No. 1,075,264; Oct. 7; Gaz. vol. 195; p. 235.
Arches, Apparatus for constructing. A. E. Schuffenhauer. No. 1,076,240; Oct. 21; Gaz. vol. 195; p. 621.
Area-finder apparatus. A. C. Freeman, Jr. No. 1,076,275; Oct. 21; Gaz. vol. 195; p. 633.
Armor-plating, Manufacture of. E. Fischer. No. 1,075,638; Oct. 14; Gaz. vol. 195; p. 391.
Atomizer. F. C. Dorment. No. 1,075,467; Oct. 14; Gaz. vol. 195; p. 331.
Atomizer, Adjustable impact-. R. Schorr. No. 1,076,705; Oct. 28; Gaz. vol. 195; p. 841.
Auger, Expansion earth-. F. H. Chase. No. 1,076,817; Oct. 28; Gaz. vol. 195; p. 879.
Automobile. A. W. Crane. No. 1,075,628; Oct. 14; Gaz. vol. 195; p. 386.
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Automobile attachment. J. W. Golden. No. 1,076,974; Oct. 28; Gaz. vol. 195; p. 935.
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Automobile brake-shoes, Material for. C. O. Stinebaugh. No. 1,076,325; Oct. 21; Gaz. vol. 195; p. 652.
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Automobile signaling device. H. P. Noble. No. 1,076,443; Oct. 21; Gaz. vol. 195; p. 694.
Automobile vehicles, Differential mechanism of. M. Berthier. No. 1,075,686; Oct. 14; Gaz. vol. 195; p. 406.
Automobile wheel and tire. G. M. Davenport. No. 1,077,044; Oct. 28; Gaz. vol. 195; p. 960.
Automobile wheel help. F. V. Phillips. No. 1,075,377; Oct. 14; Gaz. vol. 195; p. 300.
Automobile-wheels, Endless tread for. T. Douglas. No. 1,077,129; Oct. 28; Gaz. vol. 195; p. 985.
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Automobiles and like vehicles, Cushioning device for. F. O. Kilgore. No. 1,076,042; Oct. 21; Gaz. vol. 195; p. 555.
Automobiles, Chain-casing for. H. C. Heath. No. 1,074,947; Oct. 7; Gaz. vol. 195; p. 122.
Automobiles, Emergency-spindle for. W. H. Vanskiver. No. 1,076,471; Oct. 21; Gaz. vol. 195; p. 704.
Automobiles, Locking device for gear-shift levers of. W. H. E. Pendleton. No. 1,075,666; Oct. 14; Gaz. vol. 195; p. 398.
Autovalve. C. W. Welman. No. 1,076,647; Oct. 21; Gaz. vol. 195; p. 708.
Awning. H. Smith. No. 1,075,385; Oct. 14; Gaz. vol. 195; p. 304.
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Bag-frame. F. Goertz. No. 1,075,560; Oct. 14; Gaz. vol. 195; p. 363.
Bait-holder. A. W. Balch, Jr. No. 1,076,542; Oct. 21; Gaz. vol. 195; p. 729.
Balers, Wiring mechanism for hay-. A. L. Lamar. No. 1,076,834; Oct. 28; Gaz. vol. 195; p. 885.
Baling-machine. R. M. Mowry. No. 1,076,601; Oct. 21; Gaz. vol. 195; p. 750.
Baling-machine, Automatic. T. S. Pearson and T. M. Conner. No. 1,075,376; Oct. 14; Gaz. vol. 195; p. 299.
Baling-press. S. D. Murray. No. 1,074,642; Oct. 7; Gaz. vol. 195; p. 19.
Baling-press. J. W. Nicholas. No. 1,075,056; Oct. 7; Gaz. vol. 195; p. 162.
Baling-press. W. R. Potter. No. 1,075,494; Oct. 14; Gaz. vol. 195; p. 340.
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Baling tamper, Steam cotton-. J. L. Walker. No. 1,075,234; Oct. 7; Gaz. vol. 195; p. 223.
Ball: *See* Buzz-ball; Resilient ball.
Ball-slinger. F. B. Kirkness. No. 1,075,041; Oct. 7; Gaz. vol. 195; p. 156.
Balls, Forming cork. F. E. Chester. No. 1,074,835; Oct. 7; Gaz. vol. 195; p. 84.
Ballast device. R. A. D. Preston. No. 1,076,060; Oct. 21; Gaz. vol. 195; p. 561.
Band-cutters and feeders, Side conveyer for. A. C. Van Houweling. No. 1,076,533; Oct. 21; Gaz. vol. 195; p. 726.
Bar: *See* Draw-bar; Grate-bar.
Barrel, Collapsible. J. S. Harmon. No. 1,077,138; Oct. 28; Gaz. vol. 195; p. 988.
Barrel-head. R. O. Carter. No. 1,075,399; Oct. 14; Gaz. vol. 195; p. 308.
Barrel-support. E. R. Hutchison. No. 1,076,371; Oct. 21; Gaz. vol. 195; p. 668.
Basin. W. A. Dunlap. No. 1,075,341; Oct. 14; Gaz. vol. 195; p. 286.
Basin, Catch-. E. C. Brown. No. 1,076,945; Oct. 28; Gaz. vol. 195; p. 925.
Bath: *See* Molten bath.
Bath-room fixture. G. F. Arburg. No. 1,076,808; Oct. 28; Gaz. vol. 195; p. 876.
Bath-tub, Collapsible. I. Helll. No. 1,075,912; Oct. 14; Gaz. vol. 195; p. 482.
Battery: *See* Primary battery; Storage battery.
Battery. W. H. Fenoughty. No. 1,075,556; Oct. 14; Gaz. vol. 195; p. 361.
Battery grid, Storage-. J. N. Davis. No. 1,076,027; Oct. 21; Gaz. vol. 195; p. 550.
Battery-holder. G. N. Waterbury, Jr. No. 1,076,927; Oct. 28; Gaz. vol. 195; p. 918.
Battery power and charging equipment, Storage-. C. H. Thordarson. No. 1,077,175; Oct. 28; Gaz. vol. 195; p. 998.
Bean-snipper. W. B. Phinney. No. 1,076,225; Oct. 21; Gaz. vol. 195; p. 617.
Bearing. M. Reid. No. 1,076,701; Oct. 28; Gaz. vol. 195; p. 839.
Bearing and surface, Self-lubricating wood. L. S. Bache. No. 1,076,941; Oct. 28; Gaz. vol. 195; p. 924.
Bearing, Ball-. O. C. Knipe. No. 1,075,829; Oct. 14; Gaz. vol. 195; p. 454.
Bearing, Roller-. R. A. Norling. No. 1,074,643; Oct. 7; Gaz. vol. 195; p. 19.
Bearing, Thrust-. P. Wagner. No. 1,076,399; Oct. 21; Gaz. vol. 195; p. 678.
Bearings, Machine for lapping. P. Kell. No. 1,076,636; Oct. 21; Gaz. vol. 195; p. 764.
Bed. H. Fox. No. 1,074,854; Oct. 7; Gaz. vol. 195; p. 90.
Bed. I. Kertesz. No. 1,075,291; Oct. 7; Gaz. vol. 195; p. 245.
Bed and sofa, Combined. E. N. Brown. No. 1,076,094; Oct. 21; Gaz. vol. 195; p. 578.
Bed, Collapsible. F. A. Palmer. No. 1,076,224; Oct. 21; Gaz. vol. 195; p. 617.
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Bed-frame corner construction. E. Larson. No. 1,075,922; Oct. 14; Gaz. vol. 195; p. 486.
Bed, Invalid-. J. A. Bartholme. No. 1,075,752; Oct. 14; Gaz. vol. 195; p. 428.
Bed-rail attachment. M. B. Okun. No. 1,076,838; Oct. 28; Gaz. vol. 195; p. 886.
Bed, Sofa or davenport. A. G. Sharp. No. 1,076,843; Oct. 28; Gaz. vol. 195; p. 888.
Bed, Spring-. F. S. Inco. No. 1,075,977; Oct. 14; Gaz. vol. 195; p. 505.
Bed-spring tightener. J. F. Pryor. No. 1,075,065; Oct. 7; Gaz. vol. 195; p. 165.
Beds, Corner-block for iron and brass. F. V. Griesman. No. 1,075,645; Oct. 14; Gaz. vol. 195; p. 393.
Beds, Corner-block for iron and brass. F. V. Griesman. No. 1,075,646; Oct. 14; Gaz. vol. 195; p. 393.
Bedstead. H. J. Quincy. No. 1,075,158; Oct. 7; Gaz. vol. 195; p. 109.
Bedstead, Metal. H. Silver. No. 1,076,918; Oct. 28; Gaz. vol. 195; p. 915.
Bedstead, Metal. M. Dunner. No. 1,076,964; Oct. 28; Gaz. vol. 195; p. 932.
Beer-cooler. F. Turek. No. 1,077,015; Oct. 28; Gaz. vol. 195; p. 950.
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Beet-cutting machine. R. J. Binkley. No. 1,075,624; Oct. 14; Gaz. vol. 195; p. 384.
Beet-topper. J. A. Weaver. No. 1,075,884; Oct. 14; Gaz. vol. 195; p. 472.
Beet-topper. H. Harrison. No. 1,076,363; Oct. 21; Gaz. vol. 195; p. 666.
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Bell. J. L. Roycourt and L. Horinko. No. 1,076,606; Oct. 21; Gaz. vol. 195; p. 752.
Belt-coupling. W. S. Wilkinson. No. 1,075,078; Oct. 7; Gaz. vol. 195; p. 169.
Belt-coupling device. R. B. Codling. No. 1,076,868; Oct. 28; Gaz. vol. 195; p. 898.
Belt-dressing applier. J. M. Reed. No. 1,075,941; Oct. 14; Gaz. vol. 195; p. 492.
Belt-fastener. W. H. Elmer. No. 1,074,612; Oct. 7; Gaz. vol. 195; p. 8.
Belt-shipper for speeder-cones. J. Jackson. No. 1,075,037; Oct. 7; Gaz. vol. 195; p. 155.
Belt-skiver. C. A. Sahm. No. 1,076,913; Oct. 28; Gaz. vol. 195; p. 914.
Belt-tightener. J. C. Todd. No. 1,075,072; Oct. 7; Gaz. vol. 195; p. 167.
Bench and wringer-support, Combined. A. Weyenberg. No. 1,075,526; Oct. 14; Gaz. vol. 195; p. 351.
Beta-gamma-dimethylerythrene, Producing. F. Hofmann, K. Delbrück, and K. Meisenburg. No. 1,076,575; Oct. 21; Gaz. vol. 195; p. 741.
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Bevel and square, Combined. W. Moore. No. 1,074,969; Oct. 7; Gaz. vol. 195; p. 129.
Bicycle and motor-cycle attachment. Z. Alessani. No 1,077,210; Oct. 28; Gaz. vol. 195; p. 1011.
Bicycle frame, Motor-. E. Y. White. No. 1,075,886; Oct. 14; Gaz. vol. 195; p. 472.
Bicycle wheel suspension. A. H. Stewart. No. 1,077,105; Oct. 28; Gaz. vol. 195; p. 978.
Bin. P. B. Schell. No. 1,076,456; Oct. 21; Gaz. vol. 195; p. 698.
Binder, Loose-leaf. C. L. Benjamin and H. J. Wiegand. No. 1,075,623; Oct. 14; Gaz. vol. 195; p. 384.
Binder, Loose-leaf. R. M. Watson. No. 1,075,740; Oct. 14; Gaz. vol. 195; p. 424.

Binder, Loose-leaf. A. J. McAllister. No. 1,075,840; Oct. 14; Gaz. vol. 195; p. 458.
Binder, Temporary. E. J. Sonnenburg. No. 1,075,167; Oct. 7; Gaz. vol. 195; p. 199.
Bit: *See* Bridle-bit; Horse-bit.
Bitumen or bitulithic materials, Treating. F. O. Kaempf. No. 1,077,081; Oct. 28; Gaz. vol. 195; p. 971.
Blackboard illusion device. G. F. De Grasse. No. 1,076,649; Oct. 21; Gaz. vol. 195; p. 709.
Blacking-box case. A. Ward. No. 1,074,914; Oct. 7; Gaz. vol. 195; p. 111.
Blacking machine, Heel-. J. B. Fontaine. No. 1,074,707; Oct. 7; Gaz. vol. 195; p. 42.
Blading. J. E. Snyder. No. 1,075,607; Oct. 14; Gaz. vol. 195; p. 379.
Blanket, Offset-. G. R. Cornwall. No. 1,074,775; Oct. 7; Gaz. vol. 195; p. 65.
Bleaching and for preparing bleaching, deodorizing, and disinfecting solutions, Apparatus for. O. Sumner. No. 1,075,873; Oct. 14; Gaz. vol. 195; p. 469.
Block: *See* Die-block; Paving-block.
Blow-out holder. F. Fourt. No. 1,075,347; Oct. 14; Gaz. vol. 195; p. 288.
Blower and stack, Locomotive. R. M. Bowman. No. 1,075,140; Oct. 7; Gaz. vol. 195; p. 190.
Blower, Fan-. G. W. Christoph. No. 1,074,606; Oct. 7; Gaz. vol. 195; p. 6.
Blower, Rotary. G. L. Reichhelm. No. 1,076,391; Oct. 21; Gaz. vol. 195; p. 675.
Blowpipe and using gases therein. M. K. Dunham. No. 1,075,818; Oct. 14; Gaz. vol. 195; p. 450.
Board: *See* Bread-board; Compo-board; Creel-board; Hosiery-finishing board; Paper-board.
Boat. H. B. Prosser. No. 1,075,726; Oct. 14; Gaz. vol. 195; p. 418.
Boat, Collapsible. A. J. Kolanko. No. 1,076,291; Oct. 21; Gaz. vol. 195; p. 640.
Body-brace, Self-locking. L. A. Fritsch. No. 1,075,348; Oct. 14; Gaz. vol. 195; p. 288.
Boiler: *See* Locomotive-boiler; Sectional boiler; Superheater-boiler.
Boiler. F. Goff. No. 1,076,881; Oct. 28; Gaz. vol. 195; p. 902.
Boiler feed-regulator. C. M. Clark. No. 1,075,963; Oct. 14; Gaz. vol. 195; p. 490.
Boiler-feed regulator, Automatic. W. F. Krichbaum. No. 1,075,043; Oct. 7; Gaz. vol. 195; p. 156.
Boiler-flue cleaner, Steam-. C. W. Hamilton. No. 1,076,362; Oct. 21; Gaz. vol. 195; p. 666.
Boiler-stand. T. O'Connell. No. 1,075,990; Oct. 14; Gaz. vol. 195; p. 509.
Boilers, Automatic mud-drum for. A. F. Shreve. No. 1,075,162; Oct. 7; Gaz. vol. 195; p. 197.
Bolster, Folding. J. C. Fairfield. No. 1,076,651; Oct. 21; Gaz. vol. 195; p. 709.
Bolt: *See* Expansion-bolt; Headless bolt; Stay-bolt.
Bolt. P. M. Kling. No. 1,075,919; Oct. 14; Gaz. vol. 195; p. 485.
Bolt. P. M. Kling. No. 1,075,980; Oct. 14; Gaz. vol. 195; p. 506.
Bolt-fastening. B. C. Smith. No. 1,077,006; Oct. 28; Gaz. vol. 195; p. 947.
Book. E. S. Browne. No. 1,074,883; Oct. 7; Gaz. vol. 195; p. 83.
Book, Account-. C. E. Arnold. No. 1,074,922; Oct. 7; Gaz. vol. 195; p. 114.
Book, Loose-leaf. R. Lord. No. 1,076,131; Oct. 21; Gaz. vol. 195; p. 585.
Book-signature, pamphlet, &c. G. D. Hart. No. 1,075,417; Oct. 14; Gaz. vol. 195; p. 313.
Book, Tariff-. F. W. Bacon. No. 1,074,684; Oct. 7; Gaz. vol. 195; p. 35.
Book-trimming machine, Automatic continuous. T. C. Welch. No. 1,076,726; Oct. 28; Gaz. vol. 195; p. 848.
Books, Leaf or pocket for fly-. G. Langbein. No. 1,076,894; Oct. 28; Gaz. vol. 195; p. 907.
Books, papers, and the like, Portable rest for carrying. D. Marshall. No. 1,074,663; Oct. 7; Gaz. vol. 195; p. 127.
Boot and legging, Riding. N. C. Shiverick. No. 1,076,845; Oct. 28; Gaz. vol. 195; p. 889.
Boots and shoes, Assembling parts of. O. Ashton. No. 1,076,620; Oct. 21; Gaz. vol. 195; p. 757.
Boots and shoes, Machine for the manufacture of. O. Ashton. No. 1,076,940; Oct. 28; Gaz. vol. 195; p. 924.
Bottle. J. B. Colon. No. 1,075,900; Oct. 14; Gaz. vol. 195; p. 477.
Bottle-cleaning machine. C. and W. Wende. No. 1,074,074; Oct. 7; Gaz. vol. 195; p. 30.
Bottle-closure. R. E. Redding. No. 1,075,940; Oct. 14; Gaz. vol. 195; p. 492.
Bottle-closures, Manufacturing. A. Rogdánffy. No. 1,075,186; Oct. 7; Gaz. vol. 195; p. 206.
Bottle-cover. H. Rohrdantz. No. 1,076,999; Oct. 28; Gaz. vol. 195; p. 944.
Bottle device, Antifraud. R. V. Donald. No. 1,076,489; Oct. 21; Gaz. vol. 195; p. 710.
Bottle-discharger. C. C. Oliphant. No. 1,075,268; Oct. 7; Gaz. vol. 195; p. 236.
Bottle, Non-refillable. A. German. No. 1,075,030; Oct. 7; Gaz. vol. 195; p. 152.
Bottle, Non-refillable. R. Rosada. No. 1,075,066; Oct. 7; Gaz. vol. 195; p. 165.
Bottle, Non-refillable. C. B. H. La Bounty. No. 1,076,129; Oct. 21; Gaz. vol. 195; p. 585.
Bottle, Non-refillable. G. H. Montfort and A. L. Beauchaine. No. 1,076,510; Oct. 21; Gaz. vol. 195; p. 717.
Bottle, Non-refillable. J. Triolo. No. 1,076,532; Oct. 21; Gaz. vol. 195; p. 726.
Bottle, Non-refillable. W. A. and C. R. Woodhull. No. 1,076,538; Oct. 21; Gaz. vol. 195; p. 728.
Bottle, Non-refillable. J. Gabrielson and K. Karlstrom. No. 1,077,060; Oct. 28; Gaz. vol. 195; p. 965.
Bottle-steaming apparatus. A. A. Pindstofte. No. 1,076,447; Oct. 21; Gaz. vol. 195; p. 696.
Bottle stopper, Water-. M. C. Schweinert and H. P. Kraft. No. 1,076,162; Oct. 21; Gaz. vol. 195; p. 595.
Bottle-washer. P. Kempe. No. 1,076,889; Oct. 28; Gaz. vol. 195; p. 905.
Bottle-washing apparatus. H. J. Chilton. No. 1,074,836; Oct. 7; Gaz. vol. 195; p. 84.
Bottle-washing machine. R. L. Gallup. No. 1,076,277; Oct. 21; Gaz. vol. 195; p. 634.
Bottle-wrapper. P. T. Clark. No. 1,076,018; Oct. 21; Gaz. vol. 195; p. 547.
Bottles and other receptacles with liquids, Apparatus for filling. C. J. Matthews and J. C. Potter. No. 1,076,776; Oct. 28; Gaz. vol. 195; p. 865.
Bottles, Detection device for. M. Krompigel and J. Hradisky. No. 1,075,657; Oct. 14; Gaz. vol. 195; p. 396.
Bow-holder. F. F. Haskell. No. 1,076,423; Oct. 21; Gaz. vol. 195; p. 687.
Box: *See* Axle-box; Collapsible box; Confectionery-box; Core-box; Pare-box; Journal-box; Knockdown box; Mail-box; Miter-box; Packing-box; Paper box; Stuffing-box; Vanity-box.
Box. A. Prior and R. W. Brickell. No. 1,074,815; Oct. 7; Gaz. vol. 195; p. 77.
Box. J. R. Winter. No. 1,075,456; Oct. 14; Gaz. vol. 195; p. 327.
Box-fastener. P. H. Lettré. No. 1,076,897; Oct. 28; Gaz vol. 195; p. 908.
Box for plumes and similar articles. J. A. Stein. No 1,075,446; Oct. 14; Gaz. vol. 195; p. 324.
Box-lid holder. B. D. Miller. No. 1,075,844; Oct. 14; Gaz. vol. 195; p. 459.
Box-lid-nailing machine. A. S. King. No. 1,074,800; Oct. 7; Gaz. vol. 195; p. 73.
Boxes, &c., for declining, Apparatus for preparing tinned sheet-iron. H. Goldschmidt. No. 1,075,781; Oct. 14; Gaz. vol. 195; p. 437.
Boxes, packets, wrappers, and the like, Fastening or sealing. E. Colegate. No. 1,076,955; Oct. 28; Gaz. vol. 195; p. 929.
Brace: *See* Body-brace.
Bracket: *See* Automobile marker-bracket; Curtain-bracket; Hanger-bracket; Scaffolding-bracket; Shade-bracket.
Bracket. A. W. Browne. No. 1,075,541; Oct. 14; Gaz. vol. 195; p. 356.
Braiding-machine. B. S. F. Ell. No. 1,075,342; Oct. 14; Gaz. vol. 195; p. 286.
Brake: *See* Air-brake; Electric brake; Empty and load brake; Fluid-pressure brake; Railway-brake; Vacuum-brake.
Brake. P. Buda. No. 1,075,814; Oct. 14; Gaz. vol. 195; p. 448.
Brake. H. Perrot. No. 1,076,311; Oct. 21; Gaz. vol. 195; p. 647.
Brake apparatus, Load-. W. V. Turner. No. 1,075,275; Oct. 7; Gaz. vol. 195; p. 239.
Brake mechanism. T. I. Duffy. No. 1,076,562; Oct. 21; Gaz. vol. 195; p. 736.
Brake mechanism. T. I. Duffy. No. 1,076,563; Oct. 21; Gaz. vol. 195; p. 737.
Brake mechanism. T. I. Duffy. No. 1,076,564; Oct. 21; Gaz. vol. 195; p. 737.
Brake mechanism, Automatic. W. B. Thomas. No. 1,076,466; Oct. 21; Gaz. vol. 195; p. 702.
Brake mechanism for motor-vehicles. T. I. Duffy. No. 1,076,561; Oct. 21; Gaz. vol. 195; p. 735.
Brake-operating apparatus. E. K. Conover. No. 1,076,100; Oct. 21; Gaz. vol. 195; p. 575.
Brake-shoe. A. L. Streeter. No. 1,076,922; Oct. 28; Gaz. vol. 195; p. 917.
Brake-shoe, Reinforced. J. J. Morse. No. 1,075,848; Oct. 14; Gaz. vol. 195; p. 460.
Brakes by hand for railway purposes, Mechanism for operating wheel-. R. F. Colborne. No. 1,075,012; Oct. 7; Gaz. vol. 195; p. 144.
Bread-board. A. Golden. No. 1,076,882; Oct. 28; Gaz. vol. 195; p. 903.
Bread cutter, Altar-. M. Mighirian. No. 1,076,384; Oct. 21; Gaz. vol. 195; p. 672.
Breast-holder. J. Vacek. No. 1,075,449; Oct. 14; Gaz. vol. 195; p. 325.
Breath deflector or guard. J. E. Cooper. No. 1,077,042; Oct. 28; Gaz. vol. 195; p. 959.
Breathing, Device for promoting deep. C. F. and J. P. Dickman. No. 1,074,846; Oct. 7; Gaz. vol. 195; p. 88.
Breech mechanism. A. W. Schwarzlose. No. 1,077,166; Oct. 28; Gaz. vol. 195; p. 996.
Brick-machine. J. W. Moltz. No. 1,074,638; Oct. 7; Gaz. vol. 195; p. 18.
Brick-machines, Cut-off mechanism for. H. K. King. No. 1,077,226; Oct. 28; Gaz. vol. 195; p. 1016.
Brick, Manufacturing light fire-. M. Hanabusa. No. 1,074,618; Oct. 7; Gaz. vol. 195; p. 10.
Brick, Spinel fire-. C. A. Mankau. No. 1,075,650; Oct. 14; Gaz. vol. 195; p. 397.

Bricklayer's gage-line. W. O. Smyth. No. 1,075,166; Oct. 7; Gaz. vol. 195; p. 198.
Bridge construction. H. Friend. No. 1,074,941; Oct. 7; Gaz. vol 195; p. 120.
Bridle-bit. W. H. Niemann. No. 1,076,442; Oct. 21; Gaz. vol. 195; p. 694.
Bridle-bit. H. W. Brown. No. 1,076,946; Oct. 28; Gaz. vol. 195; p. 926.
Briquets of fragments of metal, Composition of matter for making. C. G. Alton. No. 1,075,135; Oct. 7; Gaz. vol. 195; p. 188.
Brooders and incubators, Heating system for sectionalized. H. Hohoff. No. 1,076,576; Oct. 21; Gaz. vol. 195; p. 741.
Broom-corn-evening machine. H. H. Curtis. No. 1,076,025; Oct. 21; Gaz. vol. 195; p. 549.
Broom-hanger. J. N. Oveson. No. 1,075,933; Oct. 14; Gaz. vol. 195; p. 489.
Broom-head holder. W. M. Christopher. No. 1,076,347; Oct. 21; Gaz. vol. 195; p. 660.
Brush. A. L. Holtzman. No. 1,077,071; Oct. 28; Gaz. vol. 195; p. 969.
Brush, Bottle-cleaning. G. Knoke. No. 1,074,875; Oct. 7; Gaz. vol. 195; p. 97.
Brush, Pneumatic. I. Chalmovitsch. No. 1,076,549; Oct. 21; Gaz. vol. 195; p. 731.
Brush, Tooth-. D. Weiss. No. 1,074,761; Oct. 7; Gaz. vol. 195; p. 60.
Bucket, Metallic well-. F. Ziegel. No. 1,075,277; Oct. 7; Gaz. vol. 195; p. 240.
Buckle. J. Praetz. No. 1,075,223; Oct. 7; Gaz. vol. 195; p. 219.
Buckle. T. O'Brien. No. 1,075,601; Oct. 14; Gaz. vol. 195; p. 377.
Buffer draft-arm and sill-reinforcement, Combination. F. F. Gaines. No. 1,074,709; Oct. 7; Gaz. vol. 195; p. 43.
Buffing-machine. F. A. Thurston. No. 1,076,468; Oct. 21; Gaz. vol. 195; p. 703.
Building. R. O. King. No. 1,076,290; Oct. 21; Gaz. vol. 195; p. 639.
Building structure, Portable. A. Miller. No. 1,075,368; Oct. 14; Gaz. vol. 195; p. 295.
Bundle or package carrier. H. S. Thomas. No. 1,075,997; Oct. 14; Gaz. vol. 195; p. 512.
Bundle-tie. W. H. Sedam. No. 1,076,792; Oct. 28; Gaz. vol. 195; p. 870.
Burglar-alarm. J. F. Jensen. No. 1,076,373; Oct. 21; Gaz. vol. 195; p. 669.
Burner: *See* Coal-burner; Gas-burner; Hydrocarbon-burner; Lamp-burner; Oil-burner; Vapor-burner.
Burner. W. W. Kemp and W. H. Van Horn. No. 1,074,626; Oct. 7; Gaz. vol. 195; p. 13.
Burner. J. Weintz. No. 1,075,742; Oct. 14; Gaz. vol. 195; p. 424.
Burner-tip, Non-clogging. F. E. Baldwin. No. 1,075,960; Oct. 14; Gaz. vol. 195; p. 498.
Bushing and terminal board, Transformer. S. E. Johannesen. No. 1,075,573; Oct. 14; Gaz. vol. 195; p. 367.
Butt, hinge, and the like. H. Fleischer. No. 1,076,968; Oct. 28; Gaz. vol. 195; p. 933.
Butterfly, Artificial. F. Sheline. No. 1,077,100; Oct. 28; Gaz. vol. 195; p. 977.
Button, Lever-. E. B. Smith. No. 1,074,905; Oct. 7; Gaz. vol. 195; p. 108.
Button-making machine. H. Müller. No. 1,074,641; Oct. 7; Gaz. vol. 195; p. 19.
Buttonhole guide-clamp. J. T. Auger. No. 1,076,183; Oct. 21; Gaz. vol. 195; p. 602.
Buttonhole-piece. F. L. Harmon. No. 1,076,764; Oct. 28; Gaz. vol. 195; p. 860.
Buzz-ball. B. E. Daniel. No. 1,076,354; Oct. 21; Gaz. vol. 195; p. 663.
Cabinet, Account-. B. C. Maxwell. No. 1,074,964; Oct. 7; Gaz. vol. 195; p. 127.
Cabinets, Attachment for. W. E. Austin. No. 1,077,027; Oct. 28; Gaz. vol. 195; p. 954.
Cable. T. Gore. No. 1,076,759; Oct. 28; Gaz. vol. 195; p. 859.
Cable-carrier apparatus. G. A. Amsden. No. 1,076,936; Oct. 28; Gaz. vol. 195; p. 922.
Cable-carrier apparatus. G. A. Amsden. No. 1,076,937; Oct. 28; Gaz. vol. 195; p. 923.
Cable-cutting device. W. T. Quimlin. No. 1,075,439; Oct. 14; Gaz. vol. 195; p. 321.
Cable-saving device. J. Dailey and D. Bertolino. No. 1,075,405; Oct. 14; Gaz. vol. 195; p. 309.
Cable-section coupling. S. A. Armstrong and P. T. Aumend. No. 1,075,079; Oct. 7; Gaz. vol. 195; p. 169.
Cable, Submarine. F. Jacob. No. 1,077,140; Oct. 28; Gaz. vol. 195; p. 988.
Cableway, Marine. T. S. Miller. No. 1,076,599; Oct. 21; Gaz. vol. 195; p. 749.
Calculating and printing machine. H. R. Cowan. No. 1,077,220; Oct. 28; Gaz. vol. 195; p. 1014.
Calculating-machine. D. E. Felt. No. 1,074,704; Oct. 7; Gaz. vol. 195; p. 41.
Calculating-machine. D. E. Felt. No. 1,074,705; Oct. 7; Gaz. vol. 195; p. 42.
Calculating-machine. M. Barr and E. R. Clarke. No. 1,075,003; Oct. 7; Gaz. vol. 195; p. 141.
Calculating-machine. F. Trinks. No. 1,075,073; Oct. 7; Gaz. vol. 195; p. 168.
Calculating-machine. H. E. Goldberg. No. 1,076,110; Oct. 21; Gaz. vol. 195; p. 579.
Calculator, Slide-disk. J. A. Scheibli. No. 1,075,124; Oct. 7; Gaz. vol. 195; p. 184.
Calipers. M. Benovsky. No. 1,075,083; Oct. 7; Gaz. vol. 195; p. 171.
Calipers, Micrometer-. J. H. Müller. No. 1,075,929; Oct. 14; Gaz. vol. 195; p. 488.
Calling-key, Selective. M. F. Geer and R. C. Leake. No. 1,076,278; Oct. 21; Gaz. vol. 195; p. 634.
Cam, Controlling-. C. M. Walker. No. 1,075,799; Oct. 14; Gaz. vol. 195; p. 444.
Camera focusing device. H. T. Oliver. No. 1,076,694; Oct. 28; Gaz. vol. 195; p. 836.
Camera into a focal-plane-shutter camera, Means for converting an ordinary roll-film. J. Barberie. No. 1,075,751; Oct. 14; Gaz. vol. 195; p. 427.
Camera shutter, Photographic-. A. G. Pickard. No. 1,077,157; Oct. 28; Gaz. vol. 195; p. 993.
Cameras, Shutter-operating mechanism for photographic. R. Heidecke. No. 1,075,101; Oct. 7; Gaz. vol. 195; p. 176.
Can: *See* Dispensing-can; Milk-can; Oil-can; Seal-locked can.
Can attachment, Oil-. L. H. Burchett. No. 1,075,691; Oct. 14; Gaz. vol. 195; p. 407.
Can container and perforator, Combined. L. H. Peltason. No. 1,075,723; Oct. 14; Gaz. vol. 195; p. 417.
Can-cover, Cylindric. C. L. Wagandt. No. 1,077,235; Oct. 28; Gaz. vol. 195; p. 1019.
Can feed and transfer mechanism. C. H. Ayars. No. 1,075,891; Oct. 14; Gaz. vol. 195; p. 474.
Can-gripping device. P. Kruse. No. 1,074,630; Oct. 7; Gaz. vol. 195; p. 15.
Can-opener. J. M. Purdy. No. 1,076,231; Oct. 21; Gaz. vol. 195; p. 619.
Cans, Exhaust-box for. A. J. and H. Keast. No. 1,074,869; Oct. 7; Gaz. vol. 195; p. 95.
Canister-support. A. H. Cureau. No. 1,075,242; Oct. 7; Gaz. vol. 195; p. 225.
Caoutchouc and making same, Substance similar to. K. Delbrück and K. Meisenburg. No. 1,076,196; Oct. 21; Gaz. vol. 195; p. 607.
Caoutchouc-like material. Manufacture and production of a. K. Delbrück and K. Meisenburg. No. 1,076,195; Oct. 21; Gaz. vol. 195; p. 607.
Cap forming and applying machine. C. C. Stutz and R. F. Arnott. No. 1,075,796; Oct. 14; Gaz. vol. 195; p. 442.
Capsules, Apparatus for the manufacture of. B. W. Scott. No. 1,076,459; Oct. 21; Gaz. vol. 195; p. 699.
Car attachment, Dump-. H. Van Scoy. No. 1,074,994; Oct. 7; Gaz. vol. 195; p. 138.
Car brake-beam, Railway-. S. A. Crone. No. 1,076,956; Oct. 28; Gaz. vol. 195; p. 929.
Car construction and arrangement of drop-doors and operating mechanism. R. V. Sage. No. 1,074,981; Oct. 7; Gaz. vol. 195; p. 133.
Car, Convertible. J. M. Coleman. No. 1,076,746; Oct. 28; Gaz. vol. 195; p. 855.
Car-coupling. W. H. Simons. No. 1,074,751; Oct. 7; Gaz. vol. 195; p. 57.
Car-coupling. S. V. Laughinghouse. No. 1,075,582; Oct. 14; Gaz. vol. 195; p. 370.
Car-coupling. L. G. Miller and F. C. Dankmyer. No. 1,076,050; Oct. 21; Gaz. vol. 195; p. 557.
Car-coupling and pivot-pin therefor. R. E. L. Janney. No. 1,075,426; Oct. 14; Gaz. vol. 195; p. 316.
Car-coupling, Automatic. J. Giroux. No. 1,075,641; Oct. 14; Gaz. vol. 195; p. 392.
Car-coupling, Automatic-release. J. H. McElroy. No. 1,076,301; Oct. 21; Gaz. vol. 195; p. 643.
Car-coupling device. S. P. Bush. No. 1,077,240; Oct. 28; Gaz. vol. 195; p. 1021.
Car-door. J. F. Comee. No. 1,076,484; Oct. 21; Gaz. vol. 195; p. 708.
Car-door arrangement, Dump-. H. Asper. No. 1,076,860; Oct. 28; Gaz. vol. 195; p. 895.
Car door, Freight-. G. H. Judia. No. 1,076,984; Oct. 28; Gaz. vol. 195; p. 938.
Car-door hanger. G. E. Merritt. No. 1,077,151; Oct. 28; Gaz. vol. 195; p. 991.
Car draft-gear, Railway-. W. F. Richards. No. 1,076,912; Oct. 28; Gaz. vol. 195; p. 913.
Car, Dump-. D. E. Blair. No. 1,075,687; Oct. 14; Gaz. vol. 195; p. 406.
Car, Dump-. A. Campbell. No. 1,076,011; Oct. 14; Gaz. vol. 195; p. 516.
Car, Dumping-. P. F. Dundon. No. 1,075,094; Oct. 7; Gaz. vol. 195; p. 174.
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Car-dumping mechanism. N. S. Reeder. No. 1,075,495; Oct. 14; Gaz. vol. 195; p. 340.
Car end construction, Railway-. J. M. Rohlfing. No. 1,074,746; Oct. 7; Gaz. vol. 195; p. 55.
Car end underframe. C. S. Shallenberger. No. 1,076,243; Oct. 21; Gaz. vol. 195; p. 622.
Car fender, Street-. T. W. McKiernan. No. 1,075,155; Oct. 7; Gaz. vol. 195; p. 195.
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Car, Hopper-. F. L. Irwin and J. E. Tesseyman. No. 1,075,571; Oct. 14; Gaz. vol. 195; p. 366.
Car, Hopper-. F. L. Irwin and J. E. Tesseyman. No. 1,075,572; Oct. 14; Gaz. vol. 195; p. 366.
Car replacer and derailer. R. B. Sorensen. No. 1,074,754; Oct. 7; Gaz. vol. 195; p. 58.

Car seat and door arrangement. F. Hedley and J. S. Doyle. No. 1,074,862; Oct. 7; Gaz. vol. 195; p. 92.
Car side-door-frame bottom member. C. H. Howard. No. 1,074,793; Oct. 7; Gaz. vol. 195; p. 71.
Car-stake and pocket. C. H. Vandonk. No. 1,074,668; Oct. 7; Gaz. vol. 195; p. 28.
Car-step, Auxiliary. O. Syverson. No. 1,075,070; Oct. 7; Gaz. vol. 195; p. 167.
Car-step, Supplemental. G. O. Heinrich. No. 1,077,139; Oct. 28; Gaz. vol. 195; p. 988.
Car-step, Swinging. M. A. Hoff. No. 1,075,785; Oct. 14; Gaz. vol. 195; p. 438.
Car-steps, Locker and snow-guard for removable. J. N. Marquette. No. 1,075,046; Oct. 7; Gaz. vol. 195; p. 158.
Cars, Brace for use in packing boxes and crates in railway-. C. Bacon. No. 1,075,001; Oct. 7; Gaz. vol. 195; p. 140.
Cars, Bulkhead for. G. C. Boller and S. K. Clement. No. 1,075,961; Oct. 14; Gaz. vol. 195; p. 498.
Cars, Combination doorway and step closure for street-. M. Meyer. No. 1,075,049; Oct. 7; Gaz. vol. 195; p. 159.
Cars, Ladder and handhold for railway-. W. E. Wine. No. 1,075,455; Oct. 14; Gaz. vol. 195; p. 327.
Cars, Mounting of engines in motor-. W. H. Frost. No. 1,076,415; Oct. 21; Gaz. vol. 195; p. 684.
Cars, Switch-throwing mechanism for railway-. W. L. Slate. No. 1,075,869; Oct. 14; Gaz. vol. 195; p. 407.
Carbureter. E. T. Johnson, W. H. Glaser, and H. R. Lloyd. No. 1,074,625; Oct. 7; Gaz. vol. 195; p. 13.
Carbureter. W. Elkin. No. 1,075,635; Oct. 14; Gaz. vol. 195; p. 389.
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Carbureter. A. L. Haynes. No. 1,076,827; Oct. 28; Gaz. vol. 195; p. 883.
Carbureter for household and other uses. C. H. Myers. No. 1,075,598; Oct. 14; Gaz. vol. 195; p. 376.
Carbureter for internal-combustion engines. R. Shipman. No. 1,076,244; Oct. 21; Gaz. vol. 195; p. 623.
Carbureter for motor-cycles and other purposes. C. H. Myers. No. 1,075,596; Oct. 14; Gaz. vol. 195; p. 375.
Carbureter-regulating mechanism. J. C. Carpenter. No 1,076,268; Oct. 21; Gaz. vol. 195; p. 630.
Card-delivering device. C. A. Vidinghoff. No. 1,075,173; Oct. 7; Gaz. vol. 195; p. 201.
Card for holding articles having an angular profile. R. Lebenhart. No. 1,075,083; Oct. 14; Gaz. vol. 195; p. 507.
Card frame or mount. O. C. Schwarz. No. 1,076,161; Oct. 21; Gaz. vol. 195; p. 595.
Card-record, Safety. W. L. Vance. No. 1,076,083; Oct. 21; Gaz. vol. 195; p. 568.
Card-support for dummy hands. G. F. Wedderburn. No. 1,076,850; Oct. 28; Gaz. vol. 195; p. 891.
Cards, Playing-. L. A. Ely. No. 1,076,492; Oct. 21; Gaz. vol. 195; p. 711.
Carpets, furs, and the like, Beating apparatus for. C. M. Kosminski. No. 1,075,042; Oct. 7; Gaz. vol. 195; p. 156.
Carriage, Folding child's. A. T. Wannenwetsch. No. 1,076,087; Oct. 21; Gaz. vol. 195; p. 570.
Carrier: *See* Bundle or package carrier; Game-carrier; Litter-carrier; Parcel-carrier; Stone-dressing-machine carrier.
Carrier. F. W. Swift. No. 1,074,992; Oct. 7; Gaz. vol. 195; p. 137.
Carton-filler. M. T. Ash. No. 1,075,534; Oct. 14; Gaz. vol. 195; p. 353.
Carton folding and stitching machine. R. H. Brown. No. 1,076,015; Oct. 21; Gaz. vol. 195; p. 546.
Cartons, Automatic device for receiving and discharging. W. L. Montgomery. No. 1,077,092; Oct. 28; Gaz. vol. 195; p. 975.
Cartridges for guns, Means for altering the charges in. K. Veller and E. Müller. No. 1,074,095; Oct. 7; Gaz. vol. 195; p. 138.
Case: *See* Display-case; Dressing-case; Filing-case; Folding case; Gear-case; Packing-box case; Show-case.
Case-hardening material. H. Rodman. No. 1,076,235; Oct. 21; Gaz. vol. 195; p. 620.
Case-hardening material, Making. H. Rodman. No. 1,076,453; Oct. 21; Gaz. vol. 195; p. 698.
Cash-register. R. T. Piscicelli. (Reissue.) No. 13,632; Oct. 21; Gaz. vol. 195; p. 786.
Cash-register, Multiple. J. A. Werner and C. W. Green. No. 1,074,676; Oct. 7; Gaz. vol. 195; p. 31.
Cash-registers, Annunciating means for. G. F. W. Schnitze. No. 1,075,443; Oct. 14; Gaz. vol. 195; p. 323.
Cashier, Mechanical. E. S. Church. (Reissue.) No. 13,629; Oct. 21; Gaz. vol. 195; p. 771.
Casket, Burial-. L. T. Bow and D. B. Vernon. No. 1,075,086; Oct. 7; Gaz. vol. 195; p. 171.
Caster. A. Ballenberg. No. 1,075,536; Oct. 14; Gaz. vol. 195; p. 354.
Caster, Ball-. S. W. Bennett. No. 1,075,685; Oct. 14; Gaz. vol. 195; p. 405.
Caster, Furniture-. L. A. Climer. No. 1,076,954; Oct. 28; Gaz. vol. 195; p. 929.
Casting printing-bars, Mold-carrier of machines for. H. Degener. No. 1,075,141; Oct. 7; Gaz. vol. 195; p. 190.
Catafalque. E. F. Watkins. No. 1,075,077; Oct. 7; Gaz. vol. 195; p. 169.
Catch-lock. O. J. Sundgaard. No. 1,076,796; Oct. 28; Gaz. vol. 195; p. 872.
Cattle-guard. F. D. Hagan. No. 1,076,420; Oct. 21; Gaz. vol. 195; p. 686.
Cement and making same, Water-resistant. C. Ellis. No. 1,076,028; Oct. 21; Gaz. vol. 195; p. 550.
Cement-shingle machine. J. D. Hoffman. No. 1,076,765; Oct. 28; Gaz. vol. 195; p. 860.
Centering-tool. W. F. Haddock. No. 1,076,979; Oct. 28; Gaz. vol. 195; p. 937.
Chain. W. B. Lashar. No. 1,074,632; Oct. 7; Gaz. vol. 195; p. 16.
Chair: *See* Studio-chair.
Chair. A. G. Eyles. No. 1,075,636; Oct. 14; Gaz. vol. 195; p. 390.
Chair-seat. W. D. Schmits. No. 1,075,500; Oct. 14; Gaz. vol. 195; p. 342.
Chamber attachment. M. E. Horr. No. 1,076,886; Oct. 28; Gaz. vol. 195; p. 904.
Channel-opening machine. F. M. Trainer. No. 1,075,876; Oct. 14; Gaz. vol. 195; p. 470.
Charging apparatus. H. J. Rowe. No. 1,076,706; Oct. 28; Gaz. vol. 195; p. 840.
Chart, Meter-reading. B. O. Hutchison. No. 1,075,256; Oct. 7; Gaz. vol. 195; p. 230.
Chatelaine-brooch or the like. T. A. Tobiasson. No. 1,075,131; Oct. 7; Gaz. vol. 195; p. 187.
Check, Excess-baggage. G. J. Singleton. No. 1,075,505; Oct. 14; Gaz. vol. 195; p. 344.
Check-holder, Manifolding. E. F. Coates. No. 1,075,090; Oct. 7; Gaz. vol. 195; p. 173.
Check-protector. G. H. Pembroke. No. 1,075,221; Oct. 7; Gaz. vol. 195; p. 218.
Check-protector. L. M. Todd and C. G. Tiefel. No. 1,076,173; Oct. 21; Gaz. vol. 195; p. 599.
Check, Waiter's. E. A. Hawk. No. 1,075,648; Oct. 14; Gaz. vol. 195; p. 393.
Checking and recording receipts and the like, Apparatus for. J. B. Thorn. No. 1,076,531; Oct. 21; Gaz. vol. 195; p. 725.
Chemical-feeder. J. H. Cooper. No. 1,075,022; Oct. 7; Gaz. vol. 195; p. 149.
Cherry-stemming machine. F. R. Smith. No. 1,076,794; Oct. 28; Gaz. vol. 195; p. 871.
Chimney-sweep, Automatic. L. R. Morris. No. 1,075,593; Oct. 14; Gaz. vol. 195; p. 373.
Chisel-gage. D. McNeil. No. 1,076,900; Oct. 28; Gaz. vol. 195; p. 909.
Chocolate-manufacturing apparatus. O. Thurmann. No. 1,076,924; Oct. 28; Gaz. vol. 195; p. 917.
Chopper: *See* Cotton-chopper.
Chuck. V. J. Wahlstrom. No. 1,075,174; Oct. 7; Gaz. vol. 195; p. 201.
Chuck. H. E. Helms. No. 1,075,353; Oct. 14; Gaz. vol. 195; p. 291.
Chuck. W. L. Bryant. No. 1,075,756; Oct. 14; Gaz. vol. 195; p. 429.
Chuck, Drill-. T. Dechnik. No. 1,075,699; Oct. 14; Gaz. vol. 195; p. 409.
Chuck, Fluid-actuated lathe-. H. M. Ludwick. No. 1,075,715; Oct. 14; Gaz. vol. 195; p. 414.
Churn. W. F. Barbee. No. 1,075,892; Oct. 14; Gaz. vol. 195; p. 475.
Cigar-box humidor. J. A. Simpson. No. 1,075,867; Oct. 14; Gaz. vol. 195; p. 466.
Cigar-display holder. E. Brunhoff. No. 1,076,097; Oct. 21; Gaz. vol. 195; p. 574.
Cigar-lighter. O. G. Klugel. No. 1,076,583; Oct. 21; Gaz. vol. 195; p. 743.
Cigar lighter and cutter. A. Gray. No. 1,075,098; Oct. 7; Gaz. vol. 195; p. 175.
Cigar-machine. O. Tyberg. No. 1,075,172; Oct. 7; Gaz. vol. 195; p. 200.
Cigar-machine. B. T. Burchardi, V. E. Hansen, and H. S. Marsh. No. 1,075,189; Oct. 7; Gaz. vol. 195; p. 207.
Cigar-moistening apparatus. J. Litchfield. No. 1,075,835; Oct. 14; Gaz. vol. 195; p. 456.
Cigar-mold-pressing device. F. M. Shirley. No. 1,076,163; Oct. 21; Gaz. vol. 195; p. 596.
Cigar-wrapper. E. N. Gilfillan. No. 1,076,007; Oct. 14; Gaz. vol. 195; p. 515.
Cigar-wrapper. E. N. Gilfillan. No. 1,076,008; Oct. 14; Gaz. vol. 195; p. 515.
Cigar-wrapping mechanism. W. S. Luckett. No. 1,075,216; Oct. 7; Gaz. vol. 195; p. 216.
Cigarette-machines, Cut-off mechanism for. E. D. Smith. No. 1,075,274; Oct. 7; Gaz. vol. 195; p. 238.
Cigarette-machines, Pasting mechanism for. E. D. Smith. No. 1,075,272; Oct. 7; Gaz. vol. 195; p. 237.
Cigarette-rod-forming mechanism. E. D. Smith. No. 1,075,273; Oct. 7; Gaz. vol. 195; p. 238.
Circuit-breaker. C. C. Badeau. No. 1,075,749; Oct. 14; Gaz. vol. 195; p. 426.
Circuit-changer. E. Unverricht. No. 1,074,911; Oct. 7; Gaz. vol. 195; p. 110.
Circuit-closer, Thermal. J. F. Scheuer. No. 1,076,394; Oct. 21; Gaz. vol. 195; p. 676.
Circuit-closer, Thermal. J. F. Scheuer. No. 1,076,607; Oct. 21; Gaz. vol. 195; p. 752.
Circuit-closing device, Time-controlled. C. A. Palmgren. No. 1,074,813; Oct. 7; Gaz. vol. 195; p. 77.
Circuit-controlling system for electric elevators and the like, Automatic. N. O. Lindstrom. No. 1,074,962; Oct. 7; Gaz. vol. 195; p. 126.

Circuits, Vapor-rectifier for high-potential. J. L. R. Hayden. No. 1,076,672; Oct. 28; Gaz. vol. 195; p. 828.
Circuits, Vapor-rectifier for high-potential. J. L. R. Hayden. No. 1,076,884; Oct. 28; Gaz. vol. 195; p. 903.
Clamp: *See* Buttonhole guide-clamp; Clothes-line clamp; Hose-clamp; Needle-clamp; Saw-clamp; Woodworking-clamp.
Clamping device. W. H. Kirkbride. No. 1,074,628; Oct. 7; Gaz. vol. 195; p. 14.
Clamping device. W. N. Sawyer. No. 1,077,001; Oct. 28; Gaz. vol. 195; p. 945.
Clasp: *See* Garment-clasp.
Cleaner: *See* Boiler-flue cleaner; Cotton-cleaner; Flue-cleaner; Gas-cleaner; Pneumatic cleaner; Separator-screen cleaner; Sliver-cleaner; Street-cleaner; Track-cleaner; Vacuum-cleaner.
Cleaner-holder. I. G. Kelley. No. 1,076,888; Oct. 28; Gaz. vol. 195; p. 905.
Clip: *See* Lariat-noose clip; Pocket-clip.
Clip-attaching device. J. B. Mullally and G. L. Grant. No. 1,077,154; Oct. 28; Gaz. vol. 195; p. 992.
Clock, Keyless automobile-. W. E. Porter. No. 1,074,975; Oct. 7; Gaz. vol. 195; p. 131.
Clocks, Dash-lock for automobile-. W. E. Porter. No. 1,076,226; Oct. 21; Gaz. vol. 195; p. 618.
Closet: *See* Sanitary closet; Water-closet.
Closet-seat. S. L. Eastburn. No. 1,074,701; Oct. 7; Gaz. vol. 195; p. 40.
Closet-seat, Sanitary. E. O. Edwards. No. 1,076,107; Oct. 21; Gaz. vol. 195; p. 578.
Closure. H. Spengler. No. 1,074,907; Oct. 7; Gaz. vol. 195; p. 108.
Cloth-piling machine. J. B. Rosenstein. No. 1,075,729; Oct. 14; Gaz. vol. 195; p. 420.
Clothes-hanger. G. W. Fouke. No. 1,075,558; Oct. 14; Gaz. vol. 195; p. 362.
Clothes-line clamp. G. H. Noll. No. 1,074,736; Oct. 7; Gaz. vol. 195; p. 52.
Clothes-line reel. J. J. Buser. No. 1,077,245; Oct. 28; Gaz. vol. 195; p. 1022.
Clothes-pin. J. B. Lackie. No. 1,075,112; Oct. 7; Gaz. vol. 195; p. 180.
Clothes-pounder. J. Lurtz. No. 1,075,584; Oct. 14; Gaz. vol. 195; p. 370.
Clothes-rack. I. T. Richardson. No. 1,076,392; Oct. 21; Gaz. vol. 195; p. 676.
Clutch. J. B. Entz. No. 1,075,412; Oct. 14; Gaz. vol. 195; p. 312.
Clutch, Friction-. E. A. Ford. No. 1,076,030; Oct. 21; Gaz. vol. 195; p. 551.
Clutch mechanism. J. W. Kreiling. No. 1,074,959; Oct. 7; Gaz. vol. 195; p. 125.
Clutch-release, Automatic. D. C. McCan. No. 1,075,297; Oct. 7; Gaz. vol. 195; p. 247.
Coal burner, Soft-. P. P. Cooley. No. 1,075,335; Oct. 14; Gaz. vol. 195; p. 284.
Coasting device. D. Gingold. No. 1,075,250; Oct. 7; Gaz. vol. 195; p. 228.
Coat, Combination-. M. H. Schiller. No. 1,076,707; Oct. 28; Gaz. vol. 195; p. 841.
Coat, Storm-. A. J. and M. F. Vagas. No. 1,077,177; Oct. 28; Gaz. vol. 195; p. 999.
Cock, Combination-. C. H. Pitt. No. 1,077,231; Oct. 28; Gaz. vol. 195; p. 1018.
Cock for motor-vehicles, Stop-. J. Mazuel. No. 1,075,429; Oct. 14; Gaz. vol. 195; p. 317.
Cock, Gage-. L. P. Welfley. No. 1,076,727; Oct. 28; Gaz. vol. 195; p. 848.
Cocks, Device for operating cut-out. R. E. Adreon. No. 1,075,803; Oct. 14; Gaz. vol. 195; p. 445.
Cocoa, Treating. H. B. Hunter. No. 1,076,122; Oct. 21; Gaz. vol. 195; p. 583.
Coffee-making apparatus. A. Reichert. No. 1,075,727; Oct. 14; Gaz. vol. 195; p. 419.
Coffee spice mills, and the like, Feed-regulator for. P. Brakel. No. 1,076,153; Oct. 21; Gaz. vol. 195; p. 592.
Coffer-dam. F. J. MacIsaac. No. 1,075,361; Oct. 14; Gaz. vol. 195; p. 293.
Coffer-dam. N. F. Amburaen. No. 1,077,212; Oct. 28; Gaz. vol. 195; p. 1012.
Coin-assorter. E. Harralson. No. 1,076,113; Oct. 21; Gaz. vol. 195; p. 580.
Coin-collector. W. F. Hosford. No. 1,076,285; Oct. 21; Gaz. vol. 195; p. 637.
Coin-controlled lock. W. S. Farnsworth. No. 1,076,822; Oct. 28; Gaz. vol. 195; p. 881.
Coin-package. R. P. Wilton. No. 1,076,400; Oct. 21; Gaz. vol. 195; p. 678.
Coin-package. W. H. Young and R. P. Wilton. No. 1,076,474; Oct. 21; Gaz. vol. 195; p. 705.
Coin-registering mechanism. W. H. Hall. No. 1,075,972; Oct. 14; Gaz. vol. 195; p. 503.
Collapsible box. A. A. Fordon and G. L. Morrison. No. 1,075,706; Oct. 14; Gaz. vol. 195; p. 412.
Collar-fastener and necktie-guiding device, Combined. W. Birdsall. No. 1,076,622; Oct. 21; Gaz. vol. 195; p. 758.
Collar, Horse-. E. Mathis. No. 1,074,887; Oct. 7; Gaz. vol. 195; p. 101.
Collar-tab, Detachable. C. P. Band. No. 1,075,894; Oct. 14; Gaz. vol. 195; p. 307.
Colors suitable for use as pigments, Azo. H. Clingesteln. No. 1,076,819; Oct. 28; Gaz. vol. 195; p. 880.
Comb: *See* Currycomb.
Comb. F. Pearce. No. 1,074,893; Oct. 7; Gaz. vol. 195; p. 103.
Combing-machine. J. Good. No. 1,074,788; Oct. 7; Gaz. vol. 195; p. 69.
Combination-lock. M. Tamburini. No. 1,076,171; Oct. 21; Gaz. vol. 195; p. 598.
Commutator for dynamo-electric machines. T. S. Scott. No. 1,075,502; Oct. 14; Gaz. vol. 195; p. 343.
Commutator-truing device. F. G. Ludwig. No. 1,076,217; Oct. 21; Gaz. vol. 195; p. 614.
Compass, Gyroscope-. T. Bruger. No. 1,074,771; Oct. 7; Gaz. vol. 195; p. 64.
Compo-board. M. K. Armstrong. No. 1,076,261; Oct. 21; Gaz. vol. 195; p. 628.
Composing-machine, Typographical. P. T. Dodge. No. 1,074,933; Oct. 7; Gaz. vol. 195; p. 117.
Composing-machine, Typographical. J. R. Rogers. No. 1,074,980; Oct. 7; Gaz. vol. 195; p. 132.
Composing-machine, Typographical. R. O. Boardman. No. 1,075,137; Oct. 7; Gaz. vol. 195; p. 189.
Composing-machine, Typographical. J. R. Rogers. No. 1,076,064; Oct. 21; Gaz. vol. 195; p. 562.
Composition of matter. P. B. Meerbott. No. 1,075,663; Oct. 14; Gaz. vol. 195; p. 397.
Composition of matter and making the same. B. B. Goldsmith. No. 1,076,417; Oct. 21; Gaz. vol. 195; p. 685.
Composition of matter, Making a. P. Ferra. No. 1,075,820; Oct. 14; Gaz. vol. 195; p. 450.
Compound. E. W. Hill. No. 1,076,118; Oct. 21; Gaz. vol. 195; p. 582.
Compressor, Centrifugal. S. A. Moss. No. 1,075,300; Oct. 7; Gaz. vol. 195; p. 248.
Compressors, Governing mechanism for centrifugal. R. Tröger. No. 1,076,332; Oct. 21; Gaz. vol. 195; p. 654.
Computing device. G. E. Leonard. No. 1,076,690; Oct. 28; Gaz. vol. 195; p. 830.
Computing device. J. Williamson. No. 1,076,929; Oct. 28; Gaz. vol. 195; p. 919.
Concentrating apparatus, Dry. A. Audet. No. 1,075,959; Oct. 14; Gaz. vol. 195; p. 498.
Concrete and similar structures, Reinforcing-bar for. W. C. Coryell. No. 1,076,192; Oct. 21; Gaz. vol. 195; p. 606.
Concrete, &c., Apparatus for mixing and distributing. J. F. Garretty. No. 1,075,350; Oct. 14; Gaz. vol. 195; p. 289.
Concrete-block-making apparatus. A. Pelke and F. E. Hayes. No. 1,075,936; Oct. 14; Gaz. vol. 195; p. 490.
Concrete construction. G. F. Mills. No. 1,075,928; Oct. 14; Gaz. vol. 195; p. 488.
Concrete floor construction. J. Kahn. No. 1,074,953; Oct. 7; Gaz. vol. 195; p. 124.
Concrete floor, Reinforced-. G. M. Graham. No. 1,075,251; Oct. 7; Gaz. vol. 195; p. 228.
Concrete floor, Reinforced-. G. M. Graham. No. 1,075,252; Oct. 7; Gaz. vol. 195; p. 229.
Concrete-mixer. E. E. Willis. No. 1,074,918; Oct. 7; Gaz. vol. 195; p. 112.
Concrete-mixer. T. Ahlborn. No. 1,075,000; Oct. 7; Gaz. vol. 195; p. 140.
Concrete pole, Reinforced-. H. S. Stout. No. 1,075,232; Oct. 7; Gaz. vol. 195; p. 222.
Concrete post. C. A. Meichert and W. D. Snyder. No. 1,075,988; Oct. 14; Gaz. vol. 195; p. 509.
Concrete-shingle mold. F. B. Cole. No. 1,075,403; Oct. 14; Gaz. vol. 195; p. 309.
Concrete-wall mold. E. A. Isles. No. 1,077,079; Oct. 28; Gaz. vol. 195; p. 971.
Concrete walls, Means for constructing. A. D. Whipple. No. 1,075,454; Oct. 14; Gaz. vol. 195; p. 326.
Condenser and feed-water heater, Combined. M. L. Dunnam. No. 1,076,410; Oct. 21; Gaz. vol. 195; p. 682.
Condenser, Steam-. F. Samuelson. No. 1,076,522; Oct. 21; Gaz. vol. 195; p. 721.
Conduit fish-wire machine. B. Dahl. No. 1,076,870; Oct. 28; Gaz. vol. 195; p. 898.
Cone-centers, Equipment of. T. H. Mack. No. 1,076,986; Oct. 28; Gaz. vol. 195; p. 939.
Confection and making same. J. C. Davidson. No. 1,076,751; Oct. 28; Gaz. vol. 195; p. 856.
Confectionery-box. W. A. Matthews. No. 1,075,889; Oct. 14; Gaz. vol. 195; p. 458.
Confectionery-mold. T. E. Breyer. No. 1,074,600; Oct. 7; Gaz. vol. 195; p. 5.
Contacting device, Automatic. F. McMahon. No. 1,075,987; Oct. 14; Gaz. vol. 195; p. 508.
Container. E. Schlerse. No. 1,076,150; Oct. 21; Gaz. vol. 195; p. 593.
Container-supporting device. A. J. Degenfelder. No. 1,077,190; Oct. 28; Gaz. vol. 195; p. 1004.
Control system. C. C. Heinzmann. No. 1,076,207; Oct. 21; Gaz. vol. 195; p. 610.
Controlling mechanism. H. C. Miller. No. 1,077,152; Oct. 28; Gaz. vol. 195; p. 992.
Conveyer. F. W. Burpee. No. 1,075,546; Oct. 14; Gaz. vol. 195; p. 358.
Conveyer. O. H. Cilley. No. 1,075,548; Oct. 14; Gaz. vol. 195; p. 359.
Conveying apparatus. Z. Rodakowski. No. 1,077,162; Oct. 28; Gaz. vol. 195; p. 995.
Conveying products, especially dry fish, Means for. J. Schrepler. No. 1,076,709; Oct. 28; Gaz. vol. 195; p. 842.

Cooking device. L. Mendez. No. 1,076,383; Oct. 21; Gaz. vol. 195; p. 672.
Cooking utensil. E. Schmid. No. 1,074,647; Oct. 7; Gaz. vol. 195; p. 21.
Cooler: *See* Beer-cooler; Liquid-cooler.
Cooling device. H. Hale. No. 1,076,421; Oct. 21; Gaz. vol. 195; p. 686.
Copper from ore, Extracting. F. Laist. No. 1,076,833; Oct. 28; Gaz. vol. 195; p. 885.
Cord holder and dispenser device. C. C. Helman and G. W. Nixon. No. 1,076,885; Oct. 28; Gaz. vol. 195; p. 904.
Core-box. J. W. L. Kerr and C. V. Neeson. No. 1,075,289; Oct. 7; Gaz. vol. 195; p. 244.
Core for the manufacture of cement and cement-lined pipes. G. W. Priest. No. 1,076,229; Oct. 21; Gaz. vol. 195; p. 618.
Corn-husker. J. H. Pierce. No. 1,077,230; Oct. 28; Gaz. vol. 195; p. 1017.
Corn-popper. C. Cretors. No. 1,075,550; Oct. 14; Gaz. vol. 195; p. 359.
Corn-silking machine. J. C. McIntyre. No. 1,076,688; Oct. 28; Gaz. vol. 195; p. 834.
Corner-post fastener. E. H. Woelffel. No. 1,074,919; Oct. 7; Gaz. vol. 195; p. 112.
Corset-fastener. W. J. McLean. No. 1,075,048; Oct. 7; Gaz. vol. 195; p. 158.
Corset-fastener. V. B. Berger. No. 1,075,895; Oct. 14; Gaz. vol. 195; p. 476.
Corset-stay-tip protector. A. E. Powers. No. 1,074,644; Oct. 7; Gaz. vol. 195; p. 20.
Corset-stay, Wire. H. B. Downer. No. 1,075,338; Oct. 14; Gaz. vol. 195; p. 285.
Corset-stay, Wire. M. M. Downer. No. 1,075,339; Oct. 14; Gaz. vol. 195; p. 286.
Cot, Folding. M. S. Karpen. No. 1,074,954; Oct. 7; Gaz. vol. 195; p. 124.
Cotton-chopper. A. F. Root. No. 1,075,672; Oct. 14; Gaz. vol. 195; p. 400.
Cotton-chopping machine. W. M. Roberts. No. 1,076,063; Oct. 21; Gaz. vol. 195; p. 562.
Cotton-cleaner. J. F. Appleby. No. 1,076,939; Oct. 28; Gaz. vol. 195; p. 923.
Cotton, &c., Device for feeding. J. C. Potter. No. 1,076,059; Oct. 21; Gaz. vol. 195; p. 561.
Cotton-gin. I. Meurling. No. 1,076,837; Oct. 28; Gaz. vol. 195; p. 886.
Cotton-picker. O. C. Houghton. No. 1,074,622; Oct. 7; Gaz. vol. 195; p. 11.
Cotton-picking machine. P. P. Haring. No. 1,076,573; Oct. 21; Gaz. vol. 195; p. 740.
Cotton-picking machine. A. St. Onge. No. 1,076,715; Oct. 28; Gaz. vol. 195; p. 843.
Cotton-stalk knocker. T. G. Strickland. No. 1,075,610; Oct. 14; Gaz. vol. 195; p. 380.
Couch and bath-tub, Combined. W. C. James. No. 1,077,199; Oct. 28; Gaz. vol. 195; p. 1007.
Couch, bed, &c., Combination. A. G. Eyles. No. 1,074,937; Oct. 7; Gaz. vol. 195; p. 119.
Coupling: *See* Belt-coupling; Cable-section coupling; Car-coupling; Hose-coupling; Pipe-coupling; Suspender-coupling; Tube-coupling.
Coupling. W. S. Eubank. No. 1,075,703; Oct. 14; Gaz. vol. 195; p. 411.
Coupling device, Differential. J. H. Deming. No. 1,075,142; Oct. 7; Gaz. vol. 195; p. 191.
Coupling-rod extension. S. K. Dickerson. No. 1,076,272; Oct. 21; Gaz. vol. 195; p. 632.
Crane or the like. C. H. Tucker. No. 1,076,333; Oct. 21; Gaz. vol. 195; p. 655.
Crank fender-operator, Controller-. E. Guthrie. No. 1,075,647; Oct. 14; Gaz. vol. 195; p. 393.
Crate, Foldable. E. T. Bond. No. 1,076,623; Oct. 21; Gaz. vol. 195; p. 759.
Crate, Seed-corn and grain. A. F. Howden. No. 1,076,038; Oct. 21; Gaz. vol. 195; p. 554.
Cream and similar substances, Treating. F. H. Stanley. No. 1,075,514; Oct. 14; Gaz. vol. 195; p. 347.
Creel-board. H. W. Owen. No. 1,076,697; Oct. 28; Gaz. vol. 195; p. 838.
Crusher: *See* Rock-crusher.
Crushing or pulverizing materials. C. Dietz and E. Gofferje. No. 1,074,847; Oct. 7; Gaz. vol. 195; p. 88.
Crutch. J. Bauerle. No. 1,077,216; Oct. 28; Gaz. vol. 195; p. 1013.
Cuff, Reversible. S. Binswanger. No. 1,077,032; Oct. 28; Gaz. vol. 195; p. 956.
Cultivator. H. C. Howell. No. 1,074,950; Oct. 7; Gaz. vol. 195; p. 123.
Cultivator. J. B. Denham and G. Vance. No. 1,075,248; Oct. 7; Gaz. vol. 195; p. 225.
Cultivator. V. Lauer. No. 1,075,832; Oct. 14; Gaz. vol. 195; p. 455.
Cultivator. C. R. Benefield. No. 1,076,476; Oct. 21; Gaz. vol. 195; p. 706.
Cultivator and chopper, Cotton. D. B. Dowdell. No. 1,075,558; Oct. 14; Gaz. vol. 195; p. 360.
Cultivator attachment. J. E. Moody. No. 1,074,729; Oct. 7; Gaz. vol. 195; p. 49.
Cultivator attachment, Riding-. W. O. Creek. No. 1,075,092; Oct. 7; Gaz. vol. 195; p. 173.
Cultivator, Disk. L. A. Drummond. No. 1,075,410; Oct. 14; Gaz. vol. 195; p. 311.
Cultivator frame, Traction-. W. A. McKinney. No. 1,076,049; Oct. 21; Gaz. vol. 195; p. 557.
Cultivator, Tobacco-. J. M. Harned. No. 1,074,619; Oct. 7; Gaz. vol. 195; p. 10.
Cultivator, Wheeled. S. D. Poole. No. 1,075,937; Oct. 14; Gaz. vol. 195; p. 491.
Culvert. R. B. Hibbs. No. 1,074,718; Oct. 7; Gaz. vol. 195; p. 46.
Culvert. J. H. Schlafly. No. 1,077,232; Oct. 28; Gaz. vol. 195; p. 1018.
Current-motor. F. H. Crago. No. 1,076,102; Oct. 21; Gaz. vol. 195; p. 576.
Current-rectifiers, Impedance device for use with. F. Conrad and Y. Sakai. No. 1,075,404; Oct. 14; Gaz. vol. 195; p. 309.
Currycomb. N. W. Price. No. 1,076,228; Oct. 21; Gaz. vol. 195; p. 618.
Curtain-bracket. A. E. Kyllonen. No. 1,077,144; Oct. 28; Gaz. vol. 195; p. 989.
Curtain fastener, Vestibule-. W. R. Geesey. No. 1,074,944; Oct. 7; Gaz. vol. 195; p. 121.
Curtain pole and hanger. W. J. Zietlow. No. 1,074,688; Oct. 7; Gaz. vol. 195; p. 84.
Curtain-rod holder. W. W. Walsh. No. 1,074,825; Oct. 7; Gaz. vol. 195; p. 80.
Curtain-rod support. J. Kroder. No. 1,077,083; Oct. 28; Gaz. vol. 195; p. 972.
Curtain-roller. E. E. Whitmore. No. 1,076,728; Oct. 28; Gaz. vol. 195; p. 848.
Curtain-supporting device. A. Loton. No. 1,076,775; Oct. 28; Gaz. vol. 195; p. 865.
Cushion retainer, Seat-. W. R. Smith. No. 1,074,986; Oct. 7; Gaz. vol. 195; p. 134.
Cushion retainer, Seat-. W. R. Smith. No. 1,075,165; Oct. 7; Gaz. vol. 195; p. 198.
Cuspidor. D. M. Hayworth and E. V. Putnam. No. 1,075,287; Oct. 7; Gaz. vol. 195; p. 243.
Cuspidor. M. A. Brown. No. 1,075,398; Oct. 14; Gaz. vol. 195; p. 308.
Cuspidor, Sanitary. K. Fousek. No. 1,076,204; Oct. 21; Gaz. vol. 195; p. 609.
Cutter: *See* Bread-cutter; Hair-cutter; Noodle-cutter; Pipe-cutter; Stalk-cutter; Stay-bolt cutter; Twine-cutter.
Cutter and slicer. S. W. Massey. No. 1,074,637; Oct. 7; Gaz. vol. 195; p. 17.
Cutter-guard. P. Erickson. No. 1,074,614; Oct. 7; Gaz. vol. 195; p. 9.
Cutter-head. F. Cartlidge. No. 1,074,834; Oct. 7; Gaz. vol. 195; p. 83.
Cutter-setting dial. A. L. De Leeuw. No. 1,075,285; Oct. 7; Gaz. vol. 195; p. 242.
Cutting apparatus. D. N. Prime. No. 1,075,064; Oct. 7; Gaz. vol. 195; p. 165.
Cutting-tool. W. J. Van Osdel. No. 1,075,450; Oct. 14; Gaz. vol. 195; p. 325.
Cycle explosion-motor, Two-stroke. F. Pilain. No. 1,074,894; Oct. 7; Gaz. vol. 195; p. 104.
Cycles and the like, Saddle for motor-. A. E. Lowenthal. No. 1,076,655; Oct. 21; Gaz. vol. 195; p. 770.
Dam. T. H. Skinner. No. 1,075,128; Oct. 7; Gaz. vol. 195; p. 186.
Dampening-machine. G. Binder. No. 1,076,648; Oct. 21; Gaz. vol. 195; p. 768.
Damper and drifting-valve, Automatic combined. H. B. Oatley. No. 1,075,157; Oct. 7; Gaz. vol. 195; p. 195.
Dating-machine. E. E Gregory. No. 1,075,822; Oct. 14; Gaz. vol. 195; p. 451.
Davenport, Folding. G. W. Henry. No. 1,075,147; Oct. 7; Gaz. vol. 195; p. 192.
Davit, Boat-. J. Roever. No. 1,076,454; Oct. 21; Gaz. vol. 195; p. 698.
Dead-fall trap. S. Wiehl. No. 1,075,235; Oct. 7; Gaz. vol. 195; p. 223.
Dead-lock, Automatic-locking. A. C. O. Bock. No. 1,074,597; Oct. 7; Gaz. vol. 195; p. 8.
Deafness, Apparatus for use in the treatment of. A. Rosenberg. No. 1,077,096; Oct. 28; Gaz. vol. 195; p. 976.
Defecator. M. H. Cresswell. No. 1,075,629; Oct. 14; Gaz. vol. 195; p. 387.
Defibrating-machine. A. P. O'Brien and J. A. Allen. No. 1,075,266; Oct. 7; Gaz. vol. 195; p. 236.
Defibrating-machine. J. A. Allen. No. 1,076,092; Oct. 21; Gaz. vol. 195; p. 572.
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Deflating device. W. F. Sprick. No. 1,077,011; Oct. 28; Gaz. vol. 195; p. 948.
Deflector. T. T. Peddy. No. 1,075,062; Oct. 7; Gaz. vol. 195; p. 164.
Demonstrating device. H. D. Clark. No. 1,075,401; Oct. 14; Gaz. vol. 195; p. 308.
Demountable wheel. T. I. Duffy. No. 1,076,557; Oct. 21; Gaz. vol. 195; p. 734.
Dental-appliance holder. E. W. Clinchard. No. 1,076,550; Oct. 21; Gaz. vol. 195; p. 732.
Dental instrument. E. T. Wallen. No. 1,076,534; Oct. 21; Gaz. vol. 195; p. 726.
Dental tool. A. K. Hoffman. No. 1,075,826; Oct. 14; Gaz. vol. 195; p. 453.
Derailment-guard. W. L. Nelson. No. 1,075,600; Oct. 14; Gaz. vol. 195; p. 377.
Derrick. J. Obstler. No. 1,076,992; Oct. 28; Gaz. vol. 195; p. 942.

Desiccating. C. Tellier. No. 1,076,923; Oct. 28; Gaz. vol. 195; p. 917.
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Developing-tank. J. H. Drosser. No. 1,075,905; Oct. 14; Gaz. vol. 195; p. 480.
Diacidyl and higher acidylated compounds from amino-azo bases, Manufacture of. H. Reinhardt. No. 1,076,840; Oct. 28; Gaz. vol. 195; p. 887.
Die-block. W. R. Forsyth. No. 1,076,359; Oct. 21; Gaz. vol. 195; p. 665.
Die-head, Screw-cutting. H. L. Fisher. No. 1,075,203; Oct. 7; Gaz. vol. 195; p. 212.
Die-stock. A. M. Berkshire. No. 1,077,031; Oct. 28; Gaz. vol. 195; p. 955.
Die-stock, Geared. H. W. Oster. No. 1,075,059; Oct. 7; Gaz. vol, 195; p. 163.
Diethyl sulfate, Manufacture of. L. Lilienfeld. No. 1,074,633; Oct. 7; Gaz. vol. 195; p. 16.
Digger: *See* Potato-digger.
Dipper for steam shovels and dredges. C. Butler. No. 1,076,548; Oct. 21; Gaz. vol. 195; p. 731.
Direct-acting engine. A. Ball and T. Officer. No. 1,075,750; Oct. 14; Gaz. vol. 195; p. 427.
Disconnecting-switch. A. J. Pahl. No. 1,076,387; Oct. 21; Gaz. vol. 195; p. 673.
Dishes, Appliance to facilitate the washing and drying of. R. W. Dickenson. No. 1,074,932; Oct. 7; Gaz. vol. 195; p. 117.
Disinfecting apparatus. F. J. Smith. No. 1,075,164; Oct. 7; Gaz. vol. 195; p. 198.
Disinfector, Automatic poultry-. J. L. Riley and M. S. Byrd. No. 1,075,855; Oct. 14; Gaz. vol. 195; p. 463.
Disk drill and harrow, Combined. H. C. Howe. No. 1,075,211; Oct. 7; Gaz. vol. 195; p. 215.
Dispensing-can. H. W. J. Gruettner. No. 1,075,099; Oct. 7; Gaz. vol. 195; p. 175.
Display-case. C. W. Kress. No. 1,076,501; Oct. 21; Gaz. vol. 195; p. 714.
Display device. A. F. Bippus, H. Kempthorn, and G. J. Pascoe. No. 1,075,006; Oct. 7; Gaz. vol. 195; p. 142.
Display device. J. Stranders. No. 1,075,069; Oct. 7; Gaz. vol. 195; p. 166.
Display, Preserved-fabric. A. Fowler. No. 1,074,853; Oct. 7; Gaz. vol. 195; p. 90.
Display-rack. S. Himmel. No. 1,075,035; Oct. 7; Gaz. vol. 195; p. 154.
Display-stand. J. D. Walsh. No. 1,074,669; Oct. 7; Gaz. vol. 195; p. 29.
Distributing apparatus. C. Hennessee. No. 1,076,673; Oct. 28; Gaz. vol. 195; p. 828.
Distributing-machine. W. J. Poole. No. 1,075,724; Oct. 14; Gaz. vol. 195; p. 418.
Ditching-machine. B. Bowman. (Reissue.) No. 13,623; Oct. 7; Gaz. vol. 195; p. 255.
Divanette. C. J. Kindel. No. 1,074,799; Oct. 7; Gaz. vol. 195; p. 73.
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Dobby. R. F. Watchorn. No. 1,074,670; Oct. 7; Gaz. vol. 195; p. 29.
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Doffer. B. A. Peterson. No. 1,075,852; Oct. 14; Gaz. vol. 195; p. 462.
Doll. E. D. Lee. No. 1,075,482; Oct. 14; Gaz. vol. 195; p. 336.
Door and window stiles, Machine for cutting grooves in. F. V. Phillips. No. 1,076,781; Oct. 28; Gaz. vol. 195; p. 867.
Door-building device. H. E. Moore. No. 1,074,639; Oct. 7; Gaz. vol. 195; p. 18.
Door-check. H. A. Kendall. No. 1,074,798; Oct. 7; Gaz. vol. 195; p. 73.
Door-check. W. Zindel. No. 1,076,933; Oct. 28; Gaz. vol. 195; p. 921.
Door check and closer. J. Gérard. No. 1,076,205; Oct. 21; Gaz. vol. 195; p. 609.
Door closing and checking mechanism. P. A. Smithurst. No. 1,077,234; Oct. 28; Gaz. vol. 195; p. 1019.
Door for cabinets, Air-tight. H. F. Beers. No. 1,075,622; Oct. 14; Gaz. vol. 195; p. 384.
Door-hanger. C. P. Chamberlin and F. Miller. No. 1,075,080; Oct. 7; Gaz. vol. 195; p. 172.
Door-lock. F. Warcup. No. 1,077,021; Oct. 28; Gaz. vol. 195; p. 952.
Door-locking mechanism. G. E. Merritt. No. 1,077,091; Oct. 28; Gaz. vol. 195; p. 974.
Door-motors, Electromagnetic control of pneumatic. T. Farmer, Jr. No. 1,075,704; Oct. 14; Gaz. vol. 195; p. 411.
Door-operating device. T. A. Fabrin. No. 1,075,095; Oct. 7; Gaz. vol. 195; p. 174.
Door-operating mechanism. D. Morgan. No. 1,076,051; Oct. 21; Gaz. vol. 195; p. 558.
Door-operating mechanism. W. M. Simmons. No. 1,076,460; Oct. 21; Gaz. vol. 195; p. 700.
Doors, gates, and the like, Means for opening. D. Marshall. No. 1,076,506; Oct. 21; Gaz. vol. 195; p. 716.
Doubletree. J. A. Reid. No. 1,076,317; Oct. 21; Gaz. vol. 195; p. 650.
Doubling and winding machine. J. Pagerie. No. 1,076,516; Oct. 21; Gaz. vol. 195; p. 719.
Dough or bake-shop products, Treating. C. Stirlz. No. 1,076,464; Oct. 21; Gaz. vol. 195; p. 701.
Dough-shaping implement. E. Mitschler. No. 1,076,509; Oct. 21; Gaz. vol. 195; p. 717.
Draft-equalizer. V. J. Tichota. No. 1,076,331; Oct. 21; Gaz. vol. 195; p. 654.
Draft-gear. J. F. Courson. No. 1,076,749; Oct. 28; Gaz. vol. 195; p. 856.
Draft-rigging. J. M. Waugh. No. 1,075,741; Oct. 14; Gaz. vol. 195; p. 424.
Drafting instrument. J. H. Ewbank. No. 1,074,851; Oct. 7; Gaz. vol. 195; p. 89.
Drain-pipe, Sheet-metal. W. N. Klotz. No. 1,075,153; Oct. 7; Gaz. vol. 195; p. 194.
Draw-bar carry-iron. J. M. Robling. No. 1,074,745; Oct. 7; Gaz. vol. 195; p. 55.
Draw-bar, Emergency. D. J. Phalen. No. 1,075,437; Oct. 14; Gaz. vol. 195; p. 320.
Draw-gear and buffing apparatus. J. H. McCormick. No. 1,076,686; Oct. 28; Gaz. vol. 195; p. 833.
Drawing patterns, Mechanism for. E. H. Mumford. No. 1,075,117; Oct. 7; Gaz. vol. 195; p. 181.
Dredging device, (coupling.) E. F. Berry. No. 1,076,738; Oct. 28; Gaz. vol. 195; p. 851.
Dressing-case. H. V. A. Loring. No. 1,074,634; Oct. 7; Gaz. vol. 195; p. 16.
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Drying and treating fabrics and other materials. W. M. Grosvenor. No. 1,076,976; Oct. 28; Gaz. vol. 195; p. 936.
Drying-machine. A. B. Benson. No. 1,075,809; Oct. 14; Gaz. vol. 195; p. 447.
Drying process. G. H. May and W. M. Grosvenor. No. 1,075,586; Oct. 14; Gaz. vol. 195; p. 371.
Drying-tumbler. R. Roost. No. 1,075,382; Oct. 14; Gaz. vol. 195; p. 302.
Drill: *See* Disk drill; Pipe-drill; Radial drill; Rock-drill; Rotary drill; Well-boring drill.
Drill. R. L. Barnum. No. 1,076,093; Oct. 21; Gaz. vol. 195; p. 573.
Drill-bit lifter. M. McCarthy. No. 1,077,089; Oct. 28; Gaz. vol. 195; p. 974.
Drill-boot. F. L. Glenn. No. 1,074,857; Oct. 7; Gaz. vol. 195; p. 91.
Drill machine, Multiple-. J. McLellan. No. 1,075,588; Oct. 14; Gaz. vol. 195; p. 372.
Drill-rod connection. J. D. Boughner. No. 1,075,896; Oct. 14; Gaz. vol. 195; p. 476.
Drinking-fountain. J. W. Manon. No. 1,074,803; Oct. 7; Gaz. vol. 195; p. 74.
Drinking-fountain. G. M. Page. No. 1,075,373; Oct. 14; Gaz. vol. 195; p. 298.
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Drinking-fountain, Sanitary. I. S. Moore. No. 1,075,053; Oct. 7; Gaz. vol. 195; p. 160.
Drinking-fountain, Sanitary. H. J. Milner. No. 1,075,433; Oct. 14; Gaz. vol. 195; p. 319.
Drinking vessels, Sanitary attachment for lip-contacts of. C. H. Rich. No. 1,076,702; Oct. 28; Gaz. vol. 195; p. 839.
Driving mechanism. J. R. Gammeter. No. 1,076,416; Oct. 21; Gaz. vol. 195; p. 685.
Driving mechanism. J. R. Gammeter. No. 1,076,632; Oct. 21; Gaz. vol. 195; p. 762.
Driving mechanism. G. S. Blakeslee. No. 1,076,659; Oct. 28; Gaz. vol. 195; p. 823.
Dropper: *See* Fence-dropper.
Dust-pan attachment. G. H. Wartman. No. 1,076,177; Oct. 21; Gaz. vol. 195; p. 600.
Dye, Azo. P. Hauptmann. No. 1,074,946; Oct. 7; Gaz. vol. 195; p. 121.
Dye, Azo. E. Fussenegger. No. 1,076,756; Oct. 28; Gaz. vol. 195; p. 858.
Dye of the anthraquinone series, Yellow wool-. P. Thomaschewski. No. 1,076,249; Oct. 21; Gaz. vol. 195; p. 624.
Dye, Vat. P. Thomaschewski. No. 1,076,329; Oct. 21; Gaz. vol. 195; p. 653.
Dyes and making the same, Azo. O. Schmidt. No. 1,075,305; Oct. 7; Gaz. vol. 195; p. 250.
Dyes and making them, Green anthraquinone. O. Bally. No. 1,077,115; Oct. 28; Gaz. vol. 195; p. 981.
Dyeing-machine. W. M. Morris. No. 1,076,305; Oct. 21; Gaz. vol. 195; p. 645.
Dyestuff, Brown azo. K. Schirmacher and H. Elvert. No. 1,076,321; Oct. 21; Gaz. vol. 195; p. 651.
Dyestuffs and making same, Disazo. E. Zehntner. No. 1,075,134; Oct. 7; Gaz. vol. 195; p. 188.
Dyestuffs of the indigo series and making same, Vat. G. Engi. No. 1,074,850; Oct. 7; Gaz. vol. 195; p. 89.
Dynamites and other high explosives into shells, Machine for packing. H. Auchu. No. 1,074,923; Oct. 7; Gaz. vol. 195; p. 114.
Earthworking-tool, Motor-driven rotary. H. F. D. Schwahn. No. 1,076,241; Oct. 21; Gaz. vol. 195; p. 622.
Educational, amusement, and advertising purposes, Appliance for. A. I. Gancher. No. 1,075,248; Oct. 7; Gaz. vol. 195; p. 227.
Egg-candler. W. W. Foster. No. 1,075,640; Oct. 14; Gaz. vol. 195; p. 391.
Egg-detector, Hydrometric. W. H. Hutchinson. No. 1,075,477; Oct. 14; Gaz. vol. 195; p. 384.

Elastic webbing. S. Kops. No. 1,075,831; Oct. 14; Gaz. vol. 195; p. 454.
Electric brake. J. N. Mahoney. No. 1,076,298; Oct. 21; Gaz. vol. 195; p. 642.
Electric circuits from excessive rises in pressure and similar disturbances, Means for protecting. R. Rüdenberg. No. 1,077,163; Oct. 28; Gaz. vol. 195; p. 995.
Electric-current controller. H. W. Leonard. No. 1,074,878; Oct. 7; Gaz. vol. 195; p. 98.
Electric device, Vapor. F. P. Coffin. No. 1,075,402; Oct. 14; Gaz. vol. 195; p. 308.
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Electric element, Thermo-. A. L. Marsh. No. 1,076,438; Oct. 21; Gaz. vol. 195; p. 692.
Electric fixtures, Fastening device for. C. W. Bibler. No. 1,076,186; Oct. 21; Gaz. vol. 195; p. 603.
Electric furnace. J. Rennerfelt. No. 1,076,518; Oct. 21; Gaz. vol. 195; p. 720.
Electric heater. W. O. Peale. No. 1,075,436; Oct. 14; Gaz. vol. 195; p. 320.
Electric heater. W. S. Andrews. No. 1,076,858; Oct. 28; Gaz. vol. 195; p. 894.
Electric indicator and steam-flow meter, Combined. J. Wilkinson. No. 1,076,473; Oct. 21; Gaz. vol. 195; p. 705.
Electric light, Portable. C. Hubert. No. 1,075,827; Oct. 14; Gaz. vol. 195; p. 453.
Electric-lighting apparatus, Portable. H. H. Hirsch. No. 1,075,973; Oct. 14; Gaz. vol. 195; p. 503.
Electric machine, Dynamo-. H. Weichel and S. T. Webster. No. 1,075,452; Oct. 14; Gaz. vol. 195; p. 326.
Electric machines, Collector-ring for dynamo-. A. Kingsbury. No. 1,075,292; Oct. 7; Gaz. vol. 195; p. 245.
Electric regulator. W. H. Clarke and O. A. Ross. No. 1,074,773; Oct. 7; Gaz. vol. 195; p. 65.
Electric regulator, Automatic. P. Werner and E. Juillard. No. 1,077,024; Oct. 28; Gaz. vol. 195; p. 953.
Electric reversing-switch and circuit-closer. C. Haas. No. 1,074,860; Oct. 7; Gaz. vol. 195; p. 92.
Electric switch. J. F. McElroy. No. 1,075,986; Oct. 14; Gaz. vol. 195; p. 508.
Electric vapor apparatus. E. Podszus. No. 1,076,058; Oct. 21; Gaz. vol. 195; p. 560.
Electrical connection. P. E. Gilling. No. 1,076,032; Oct. 21; Gaz. vol. 195; p. 552.
Electrical distributer. J. L. Adams, Jr. No. 1,075,457; Oct. 14; Gaz. vol. 195; p. 328.
Electrical heater element and making the same. H. B. Taylor. No. 1,075,517; Oct. 14; Gaz. vol. 195; p. 348.
Electrical ignition systems, Distributer for. A. Diemer. No. 1,074,777; Oct. 7; Gaz. vol. 195; p. 66.
Electrical indicator. S. B. Moscovitz. No. 1,076,222; Oct. 21; Gaz. vol. 195; p. 616.
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Electrical switch. O. N. Wiswell. No. 1,075,238; Oct. 7; Gaz. vol. 195; p. 224.
Electrical taps or outlets, Support for. J. Sachs. No. 1,076,236; Oct. 21; Gaz. vol. 195; p. 620.
Electrically-heated apparatus, Automatic controlling device for. B. W. Brawner. No. 1,077,038; Oct. 28; Gaz. vol. 195; p. 958.
Electrocapillary contrivance. A. Orling. No. 1,076,445; Oct. 21; Gaz. vol. 195; p. 695.
Electrocuting apparatus, Animal-. H. Smith. No. 1,075,995; Oct. 14; Gaz. vol. 195; p. 511.
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Electrode. J. L. R. Hayden. No. 1,075,713; Oct. 14; Gaz. vol. 195; p. 414.
Electrode. R. N. Chamberlin and S. J. Hall. No. 1,075,897; Oct. 14; Gaz. vol. 195; p. 476.
Electrode, Arc-lamp. G. M. Little. No. 1,075,484; Oct. 14; Gaz. vol. 195; p. 336.
Electrode, Arc-lamp. F. R. Crane, Jr. No. 1,075,768; Oct. 14; Gaz. vol. 195; p. 433.
Electrode, Cataphoric. D. E. Kerr and H. Wilson. No. 1,076,210; Oct. 21; Gaz. vol. 195; p. 612.
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Electrolytic cell. C. W. Marsh. No. 1,075,362; Oct. 14; Gaz. vol. 195; p. 293.
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Electromagnetic device. S. C. Bryant. No. 1,076,481; Oct. 21; Gaz. vol. 195; p. 708.
Electromagnetic motor. A. I. V. Wilson. No. 1,077,179; Oct. 28; Gaz. vol. 195; p. 1000.
Electromagnetic retaining device. G. Rekers. No. 1,075,441; Oct. 14; Gaz. vol. 195; p. 322.
Electromagnetic separator. E. Langguth. No. 1,076,213; Oct. 21; Gaz. vol. 195; p. 613.
Electromagnetic switch, Automatic. J. N. Reynolds and A. F. Dixon. No. 1,076,149; Oct. 21; Gaz. vol. 195; p. 591.
Electrometallurgical process of reducing metallic oxids. D. A. Lyon and E. R. Cox, Jr. No. 1,075,295; Oct. 7; Gaz. vol. 195; p. 246.
Elevator: *See* Automobile-elevator; Portable elevator.
Elevator-guide shoe. G. Dunlap. No. 1,076,273; Oct. 21; Gaz. vol. 195; p. 632.
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Embroidering-machine, Hand. W. A. Radouš. No. 1,076,909; Oct. 28; Gaz. vol. 195; p. 912.
Embroidering-machines, Fabric-frame of. K. Keller. No. 1,074,870; Oct. 7; Gaz. vol. 195; p. 95.
Embroidery-frame. A. H. Altfuldisch. No. 1,077,211; Oct. 28; Gaz. vol. 195; p. 1011.
Embroidery-machines, Tambour-frame-operating mechanism for. G. Hübner. No. 1,076,369; Oct. 21; Gaz. vol. 195; p. 668.
Empty and load brake. W. V. Turner. No. 1,075,389; Oct. 14; Gaz. vol. 195; p. 305.
End-gate and scoop-board, Combined. A. M. Allemang. No. 1,075,804; Oct. 14; Gaz. vol. 195; p. 445.
Engine: *See* Direct-acting engine; Explosive-engine; Gas-engine; Internal-combustion engine; Rotary engine; Steam-engine; Traction-engine.
Engine. F. E. Cain. No. 1,075,962; Oct. 14; Gaz. vol. 195; p. 499.
Engine-cooling system, Internal-combustion-. L. S. Hackney. No. 1,075,351; Oct. 14; Gaz. vol. 195; p. 290.
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Engine-starting apparatus. E. A. Halbleib. No. 1,074,790; Oct. 7; Gaz. vol. 195; p. 70.
Engine-starting device. G. J. Burkhardt. No. 1,076,660; Oct. 28; Gaz. vol. 195; p. 823.
Engine-starting device, Explosive-. J. O. Hobbs. No. 1,076,120; Oct. 21; Gaz. vol. 195; p. 582.
Engine-starting device, Explosive-. L. M. Mowe. No. 1,077,094; Oct. 28; Gaz. vol. 195; p. 975.
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Engines, Double ignition system for internal-combustion. D. B. Hughes. No. 1,075,974; Oct. 14; Gaz. vol. 195; p. 504.
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Evener, Four-horse. A. Hallstrom. No. 1,076,572; Oct. 21; Gaz. vol. 195; p. 740.
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Explosive-engine, Two-cycle. E. J. Woolf. No. 1,075,889; Oct. 14; Gaz. vol. 195; p. 474.
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Eyeglass-polisher. H. M. Waterman. No. 1,074,671; Oct. 7; Gaz. vol. 195; p. 30.
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Fabrics, Craping. G. E. Schultz. No. 1,076,608; Oct. 21; Gaz. vol. 195; p. 753.
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Faucet-closure for cans. D. B. Tamagno. No. 1,075,611; Oct. 14; Gaz. vol. 195; p. 380.
Feed-bag. J. Conradi. No. 1,075,764; Oct. 14; Gaz. vol. 195; p. 432.
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Feeder, Time-controlled stock-. C. Daminaitis. No. 1,076,195; Oct. 21; Gaz. vol. 195; p. 606.
Feeding device. J. J. Doidge. No. 1,077,055; Oct. 28; Gaz. vol. 195; p. 963.
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Fermentation, Promoting. E. Pohl. No. 1,074,814; Oct. 7; Gaz. vol. 195; p. 77.
Fermentation vessels, Treating large. H. Held. No. 1,076,424; Oct. 21; Gaz. vol. 195; p. 687.
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Fertilizer-distributer. S. R. Sikes. No. 1,074,902; Oct. 7; Gaz. vol. 195; p. 107.
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Fertilizer-distributer. E. Rotramel. No. 1,075,121; Oct. 7; Gaz. vol. 195; p. 183.
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Fertilizer, Making. S. B. Newberry and H. N. Barrett. No. 1,074,808; Oct. 7; Gaz. vol. 195; p. 75.
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Filaments, Manufacture of incandescent. G. Dobkevitch. No. 1,076,873; Oct. 28; Gaz. vol. 195; p. 899.
File. J. Béché. No. 1,076,262; Oct. 21; Gaz. vol. 195; p. 629.
File-folder, Vertical. M. B. Jackson. No. 1,076,582; Oct. 21; Gaz. vol. 195; p. 743.
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Filing-cabinet, Unit. J. Hatfield. No. 1,076,116; Oct. 21; Gaz. vol. 195; p. 581.
Filing-cabinets, Body construction for metal. A. H. Schaffert. No. 1,076,067; Oct. 21; Gaz. vol. 195; p. 563.
Filing-case. I. S. Millice. No. 1,075,369; Oct. 14; Gaz. vol. 195; p. 296.
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Film-holder, Magazine. S. Cocanari. No. 1,076,191; Oct. 21; Gaz. vol. 195; p. 605.
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Fire-extinguisher system, Chemical-mixing. R. L. Cooney. No. 1,075,018; Oct. 7; Gaz. vol. 195; p. 147.
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Fire-lighter. W. M. Kloeb. No. 1,075,213; Oct. 7; Gaz. vol. 195; p. 215.
Fire-resisting curtain. E. H. McCloud. No. 1,076,684; Oct. 28; Gaz. vol. 195; p. 832.
Firearm. M. F. Smith. No. 1,077,103; Oct. 28; Gaz. vol. 195; p. 978.
Firearm, Automatic repeating. A. C. McClure. No. 1,075,431; Oct. 14; Gaz. vol. 195; p. 318.
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Firearms, Folding rest for. H. Nikodem. No. 1,076,692; Oct. 28; Gaz. vol. 195; p. 836.
Firearms, Powder and repellant for use in. C. Newton. No. 1,075,809; Oct. 7; Gaz. vol. 195; p. 75.
Fireplace-furnace. M. J. Farquhar. No. 1,075,909; Oct. 14; Gaz. vol. 195; p. 481.
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Fish-plate. A. Lodge. No. 1,076,296; Oct. 21; Gaz. vol. 195; p. 642.
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Float. W. R. Uchtmann. No. 1,075,074; Oct. 7; Gaz. vol. 195; p. 168.
Floor and other places, Securing or fixing machines and other objects to. A. Maurer. No. 1,077,200; Oct. 28; Gaz. vol. 195; p. 1007.
Floor construction. H. H. Vought, Jr. No. 1,074,760; Oct. 7; Gaz. vol. 195; p. 60.
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Floor structure. R. J. Dixon. No. 1,077,223; Oct. 28; Gaz. vol. 195; p. 1015.
Flue-cleaner. J. P. Cullon. No. 1,076,869; Oct. 28; Gaz. vol. 195; p. 898.
Fluid-flow meter. H. H. Mapelsden. No. 1,076,437; Oct. 21; Gaz. vol. 195; p. 692.

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Fluid-motor. W. E. and M. Marshall. No. 1,076,299; Oct. 21; Gaz. vol. 195; p. 643.
Fluid-pressure brake. J. W. Cloud. No. 1,076,664; Oct. 28; Gaz. vol. 195; p. 825.
Fluid-pressure brake. W. V. Turner. No. 1,076,723; Oct. 28; Gaz. vol. 195; p. 846.
Flush-tank-operating device. B. O. Tilden. No. 1,076,925; Oct. 28; Gaz. vol. 195; p. 918.
Flushing-tank, Sanitary. J. L. Gish. No. 1,074,711; Oct. 7; Gaz. vol. 195; p. 44.
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Fly-swatter. G. D. Henry. No. 1,075,784; Oct. 14; Gaz. vol. 195; p. 438.
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Flying device. B. Flick and P. Rönig. No. 1,076,879; Oct. 28; Gaz. vol. 195; p. 902.
Flying-machine. R. Plastino. No. 1,075,302; Oct. 7; Gaz. vol. 195; p. 249.
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Flying-machine equilibrator. E. D. Stevenson. No. 1,075,447; Oct. 14; Gaz. vol. 195; p. 324.
Fodder-binding device. C. P. Baker. No. 1,076,403; Oct. 21; Gaz. vol. 195; p. 680.
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Food product, Making a. F. Prevost. No. 1,076,227; Oct. 21; Gaz. vol. 195; p. 618.
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Forceps, Animal-. G. Lecuyer. No. 1,077,086; Oct. 28; Gaz. vol. 195; p. 973.
Forge and press, Combination. J. Kilduff. No. 1,075,651; Oct. 14; Gaz. vol. 195; p. 394.
Forging-machines, Turning device for. S. B. Heppenstall. No. 1,074,863; Oct. 7; Gaz. vol. 195; p. 93.
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Foundation and structure, Subaqueous. W. Butler. No. 1,076,743; Oct. 28; Gaz. vol. 195; p. 854.
Foundry plant, Steel-. C. W. A. Koelkebeck. No. 1,075,656; Oct. 14; Gaz. vol. 195; p. 396.
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Fountain heater, Drinking-. H. L. and E. M. S. Fisher. No. 1,075,344; Oct. 14; Gaz. vol. 195; p. 287.
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Frame or easel. I. W. England. No. 1,077,130; Oct. 28; Gaz. vol. 195; p. 985.
Frequency-indicator. W. H. Pratt. No. 1,076,448; Oct. 21; Gaz. vol. 195; p. 696.
Friction transmission mechanism. L. D. Ryan. No. 1,076,155; Oct. 21; Gaz. vol. 195; p. 593.
Frogless switch. J. O. Bowmaster. No. 1,075,087; Oct. 7; Gaz. vol. 195; p. 172.
Fruit-gatherer. A. B. Hanson. No. 1,074,715; Oct. 7; Gaz. vol. 195; p. 45.
Fruit-grading apparatus. R. H. Peacock. No. 1,076,642; Oct. 21; Gaz. vol. 195; p. 766.
Fruit-pitting machine. J. Caldwell. No. 1,075,547; Oct. 14; Gaz. vol. 195; p. 358.
Frying-pan. C. W. Smith. No. 1,076,167; Oct. 21; Gaz. vol. 195; p. 597.
Fuel-controlling device. L. A. Drago. No. 1,075,701; Oct. 14; Gaz. vol. 195; p. 410.
Fuel-economizer. E. B. Freeman. No. 1,074,855; Oct. 7; Gaz. vol. 195; p. 90.
Fur piece, Convertible. G. Epstein. No. 1,075,244; Oct. 7; Gaz. vol. 195; p. 226.
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Furnace. W. W. Case, Jr. No. 1,076,346; Oct. 21; Gaz. vol. 195; p. 660.
Furnace. W. A. Hall. No. 1,076,763; Oct. 28; Gaz. vol 195; p. 859.
Furnace-controlling apparatus. J. Denton. No. 1,074,609; Oct. 7; Gaz. vol. 195; p. 7.
Furnace-feeding device. J. Harrington. No. 1,075,352; Oct. 14; Gaz. vol. 195; p. 290.
Furnace-front. J. H. Hume. No. 1,076,428; Oct. 21; Gaz. vol. 195; p. 689.
Furnace-port. A. W. Allen. No. 1,076,540; Oct. 21; Gaz. vol. 195; p. 729.
Furnaces, Gas-controlling means for regenerative. W. Reitmeister. No. 1,075,159; Oct. 7; Gaz. vol. 195; p. 196.
Furnaces or the like, Agitating device for roasting-. M. V. M. de Lumen. No. 1,076,297; Oct. 21; Gaz. vol. 195; p. 642.
Furnaces, Regenerator for metallurgical. T. L. Holle. No. 1,076,426; Oct. 21; Gaz. vol. 195; p. 688.
Furnaces, Water-front for fire-pots of. B. H. Van Auken. No. 1,076,082; Oct. 21; Gaz. vol. 195; p. 568.
Furniture, Convertible. A. Johnson. No. 1,074,865; Oct. 7; Gaz. vol. 195; p. 93.
Furniture, Convertible. W. H. Curtice. No. 1,077,189; Oct. 28; Gaz. vol. 195; p. 1003.
Furrow-gage. E. B. Wills. No. 1,074,763; Oct. 7; Gaz. vol. 195; p. 61.
Fuse, Inclosed electric. W. J. Morgan. No. 1,074,806; Oct. 7; Gaz. vol. 195; p. 75.
Fuse, Mechanical time-. H. Thiel. No. 1,077,107; Oct. 28; Gaz. vol. 195; p. 979.
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Galvanic cell. M. L. Kaplan. No. 1,075,479; Oct. 14; Gaz. vol. 195; p. 335.
Game apparatus. W. Maldens. No. 1,076,503; Oct. 21; Gaz. vol. 195; p. 715.
Game apparatus. E. Krancher. No. 1,076,771; Oct. 28; Gaz. vol. 195; p. 862.
Game appliance, Rotary. B. Rosenfelder. No. 1,074,896; Oct. 7; Gaz. vol. 195; p. 104.
Game, Card. C. M. Nicholson. No. 1,076,307; Oct. 21; Gaz. vol. 195; p. 646.
Game-carrier. W. G. Gilliam. No. 1,075,970; Oct. 14; Gaz. vol. 195; p. 502.
Garment. M. Langman. No. 1,076,586; Oct. 21; Gaz. vol. 195; p. 745.
Garment. W. and L. Goldstein. No. 1,076,757; Oct. 28; Gaz. vol. 195; p. 858.
Garment. W. L. Siewers. No. 1,077,170; Oct. 28; Gaz. vol. 195; p. 997.
Garment-clasp. G. E. Prentice. No. 1,075,725; Oct. 14; Gaz. vol. 195; p. 418.
Garment, Combination-. O. M. Potterf. No. 1,076,380; Oct. 21; Gaz. vol. 195; p. 675.
Garment-fastener. M. B. Grout and W. Edison. No. 1,076,977; Oct. 28; Gaz. vol. 195; p. 936.
Garment-shield, Sanitary. A. Voss. No. 1,076,252; Oct. 21; Gaz. vol. 195; p. 625.
Garment-stretcher. C. Starke. No. 1,074,661; Oct. 7; Gaz. vol. 195; p. 26.
Garment-supporter. R. S. Carter. No. 1,074,805; Oct. 7; Gaz. vol. 195; p. 6.
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Garment-supporter trimming. E. N. Humphrey. No. 1,076,580; Oct. 21; Gaz. vol. 195; p. 742.
Gas appliance, Safety. H. J. Long. No. 1,076,774; Oct. 28; Gaz. vol. 195; p. 864.
Gas-burner. C. A. Johnson. No. 1,074,866; Oct. 7; Gaz. vol. 195; p. 94.
Gas-burner. J. B. Anderson. No. 1,076,857; Oct. 28; Gaz. vol. 195; p. 894.
Gas-burner. C. F. Krugh. No. 1,076,892; Oct. 28; Gaz. vol. 195; p. 907.
Gas-burner. C. H. Hook. No. 1,077,073; Oct. 28; Gaz. vol. 195; p. 969.
Gas-burner, Multiple. E. E. Frederick. No. 1,076,970; Oct. 28; Gaz. vol. 195; p. 934.
Gas-burners, Trapping device for. G. B. Van Sickel. No. 1,074,759; Oct. 7; Gaz. vol. 195; p. 60.
Gas-burning furnace. J. E. Bell. No. 1,076,344; Oct. 21; Gaz. vol. 195; p. 659.
Gas-cleaner. B. Walter. No. 1,074,913; Oct. 7; Gaz. vol. 195; p. 110.
Gas-engine. E. E. Slick. No. 1,076,846; Oct. 28; Gaz. vol. 195; p. 889.
Gas-engine. G. D. Elghmie. No. 1,076,877; Oct. 28; Gaz. vol. 195; p. 901.
Gas-generator. T. H. Armstrong. No. 1,076,401; Oct. 21; Gaz. vol. 195; p. 679.
Gas-generator washer, Producer-. P. G. Schmidt and W. W. Gore. No. 1,076,158; Oct. 21; Gaz. vol. 195; p. 594.
Gas heating appliance. M. J. Green. No. 1,074,789; Oct. 7; Gaz. vol. 195; p. 69.
Gas-lighter, Automatic. H. Meyer. No. 1,074,728; Oct. 7; Gaz. vol. 195; p. 49.
Gas, Making. G. J. Weber. No. 1,076,849; Oct. 28; Gaz. vol. 195; p. 890.
Gas-mixing device. F. A. Heath. No. 1,076,634; Oct. 21; Gaz. vol. 195; p. 763.
Gas-producer. J. A. Herrick. No. 1,075,566; Oct. 14; Gaz. vol. 195; p. 364.
Gas-producer. J. K. Lyons and J. B. Hardie. No. 1,075,716; Oct. 14; Gaz. vol. 195; p. 415.

Gas-producer. L. Friedman. No. 1,076,823; Oct. 28; Gaz. vol. 195; p. 882.
Gas-purifying apparatus. W. Schwarz. No. 1,076,458; Oct. 21; Gaz. vol. 195; p. 699.
Gas-regulator. C. W. Henson. No. 1,075,354; Oct. 14; Gaz. vol. 195; p. 291.
Gas-regulator. W. R. Park. (Reissue.) No. 13,631; Oct. 21; Gaz. vol. 195; p. 784.
Gas-testing apparatus. E. Johnson. No. 1,074,795; Oct. 7; Gaz. vol. 195; p. 72.
Gases, Apparatus for separating liquid particles from. A. Spiegel. No. 1,075,736; Oct. 14; Gaz. vol. 195; p. 423.
Gases from sulfite-towers, Recovering escaping acid-. J. A. De Cew. No. 1,077,243; Oct. 28; Gaz. vol. 195; p. 1022.
Gaseous-fluid mixer. C. H. Myers. No. 1,075,597; Oct. 14; Gaz. vol. 195; p. 375.
Gasket-cutting apparatus. J. Merritt. No. 1,075,488; Oct. 14; Gaz. vol. 195; p. 338.
Gate: *See* Adjustable gate; End-gate; Farm-gate; Railway-gate.
Gate. A. Carter and A. E. Comber. No. 1,074,693; Oct. 7; Gaz. vol. 195; p. 38.
Gate. M. A. Stickley. No. 1,075,129; Oct. 7; Gaz. vol. 195; p. 186.
Gate. J. C. Zoll. No. 1,075,890; Oct. 14; Gaz. vol. 195; p. 474.
Gate. F. J. Matey. No. 1,076,300; Oct. 21; Gaz. vol. 195; p. 643.
Gate-opening mechanism, Automatic. J. McMillan. No. 1,076,139; Oct. 21; Gaz. vol. 195; p. 588.
Gate-operating mechanism. H. and P. E. Condell. No. 1,075,694; Oct. 14; Gaz. vol. 195; p. 408.
Gear-case. J. E. Bales. No. 1,075,809; Oct. 14; Gaz. vol. 195; p. 446.
Gear-shifting, Lever mechanism for. C. W. Gerhart. No. 1,076,206; Oct. 21; Gaz. vol. 195; p. 610.
Gearing. A. Gazagnaire. No. 1,074,710; Oct. 7; Gaz. vol. 195; p. 43.
Gearing. W. Schellenbach. No. 1,074,819; Oct. 7; Gaz. vol. 195; p. 78.
Gearing. H. Allen. No. 1,075,280; Oct. 7; Gaz. vol. 195; p. 241.
Gearing. W. B. Wolff. No. 1,075,888; Oct. 14; Gaz. vol. 195; p. 473.
Gearing. T. J. Duffy. No. 1,076,560; Oct. 21; Gaz. vol. 195; p. 735.
Gearing. C. G. McConville and J. P. Farnam. No. 1,076,685; Oct. 28; Gaz. vol. 195; p. 833.
Gearing. H. F. Snyder. No. 1,076,712; Oct. 28; Gaz. vol. 195; p. 842.
Gearing, Transmission-. G. W. Bulley. No. 1,075,328; Oct. 14; Gaz. vol. 195; p. 281.
Gearing, Transmission-. R. Huff. No. 1,075,650; Oct. 14; Gaz. vol. 195; p. 394.
Generator: *See* Acetylene-generator; Gas-generator; Ignition-generator; Steam-generator; Thermal generator.
Glass device, Plate-. M. A. Ross. No. 1,075,793; Oct. 14; Gaz. vol. 195; p. 441.
Glass devices, Manufacturing plate-. M. A. Ross. No. 1,075,794; Oct. 14; Gaz. vol. 195; p. 442.
Glass-drawing bait. J. E. Milliren. No. 1,075,220; Oct. 7; Gaz. vol. 195; p. 217.
Glass, Grinding and smoothing. W. L. Kann. No. 1,075,107; Oct. 7; Gaz. vol. 195; p. 178.
Glass-grinding apparatus. J. Allsopp. No. 1,076,012; Oct. 21; Gaz. vol. 195; p. 545.
Glass-grinding machine. A. W. Hornig. No. 1,075,714; Oct. 14; Gaz. vol. 195; p. 414.
Glazing windows and the like and device therefor. H. D. Hope. No. 1,077,074; Oct. 28; Gaz. vol. 195; p. 969.
Globe and shade holder. W. C. Homan. No. 1,074,719; Oct. 7; Gaz. vol. 195; p. 46.
Glove, Base-ball. J. Gamble. No. 1,077,061; Oct. 28; Gaz. vol. 195; p. 965.
Go-cart. E. B. Oversbiner. No. 1,075,372; Oct. 14; Gaz. vol. 195; p. 297.
Gold-leaf substitute. F. Demel. No. 1,076,197; Oct. 21; Gaz. vol. 195; p. 607.
Golf-club attachment. E. G. Morley. No. 1,075,054; Oct. 7; Gaz. vol. 195; p. 161.
Golf-practice machine. P. H. Lynch. No. 1,074,880; Oct. 7; Gaz. vol. 195; p. 99.
Golf-putting, Device for practising. C. M. Treadwell. No. 1,076,722; Oct. 28; Gaz. vol. 195; p. 846.
Governing mechanism for prime movers. E. Cox. No. 1,076,101; Oct. 21; Gaz. vol. 195; p. 575.
Governor, Emergency-. J. Wilkinson. No. 1,076,472; Oct. 21; Gaz. vol. 195; p. 704.
Governor mechanism. F. W. Severin. No. 1,074,652; Oct. 7; Gaz. vol. 195; p. 23.
Grab and tie-spacer, Combination. W. P. Turner. No. 1,076,615; Oct. 21; Gaz. vol. 195; p. 755.
Grading-machine. C. H. Foley. No. 1,075,774; Oct. 14; Gaz. vol. 195; p. 435.
Grain-drier. P. Provost. No. 1,074,977; Oct. 7; Gaz. vol. 195; p. 131.
Grain-drill. C. L. Fowle. No. 1,074,784; Oct. 7; Gaz. vol. 195; p. 68.
Grain-drill feed mechanism. P. Broman and J. Offerman. No. 1,075,813; Oct. 14; Gaz. vol. 195; p. 448.
Grain-separator. S. J. Rice. No. 1,075,942; Oct. 14; Gaz. vol. 195; p. 492.
Grass-catcher. W. Boss. No. 1,076,014; Oct. 21; Gaz. vol. 195; p. 545.
Grate-bar. E. L. Thomas. No. 1,075,874; Oct. 14; Gaz. vol. 195; p. 469.
Grease-cup plug. J. W. Parrish. No. 1,076,388; Oct. 21; Gaz. vol. 195; p. 674.
Greenhouse construction. R. I. Rapp. No. 1,074,895; Oct. 7; Gaz. vol. 195; p. 104.
Grinder, Cutlery-. H. E. Sweet. (Reissue.) No. 13,628; Oct. 14; Gaz. vol. 195; p. 517.
Grinding and crushing mill. A. M. Dellinger. No. 1,074,844; Oct. 7; Gaz. vol. 195; p. 86.
Grinding and polishing machine, Wood. J. Steingässer and E. Gottesleben. No. 1,075,515; Oct. 14; Gaz. vol. 195; p. 347.
Grinding device for machine-tools. H. L. Pixley. No. 1,074,739; Oct. 7; Gaz. vol. 195; p. 53.
Grinding-machine for razor-blades. T. C. Sheehan and J. E. Drew. No. 1,075,228; Oct. 7; Gaz. vol. 195; p. 220.
Grinding-stone, Apparatus for regulating the pressure on a. C. A. Johnson. No. 1,075,355; Oct. 14; Gaz. vol. 195; p. 291.
Grinding trombone-slides, Machine for. F. Holton. No. 1,076,284; Oct. 21; Gaz. vol. 195; p. 637.
Gun, Marble-. G. C. Kennedy. No. 1,077,142; Oct. 28; Gaz. vol. 195; p. 989.
Gun, Semi-automatic. W. H. Driggs. No. 1,076,875; Oct. 28; Gaz. vol. 195; p. 900.
Gun-sight. C. Bechdoldt. No. 1,076,658; Oct. 28; Gaz. vol. 195; p. 823.
Guns, Breech mechanism for. E. Schneider. No. 1,076,842; Oct. 28; Gaz. vol. 195; p. 887.
Gutter-hanger. E. J. Hiller. No. 1,076,367; Oct. 21; Gaz. vol. 195; p. 668.
Gyroscope. E. N. Darrow. No. 1,075,770; Oct. 14; Gaz. vol. 195; p. 433.
Hair-cutter, Safety. J. W. Williamson. No. 1,074,678; Oct. 7; Gaz. vol. 195; p. 32.
Hair-cutting machine. F. P. Dyer. No. 1,075,908; Oct. 14; Gaz. vol. 195; p. 481.
Hammer, Power-. J. I. Depew. No. 1,076,554; Oct. 21; Gaz. vol. 195; p. 733.
Hammer, Spring-. R. R. Smith. No. 1,075,950; Oct. 14; Gaz. vol. 195; p. 495.
Hammock, Bifurcated. I. E. Palmer. No. 1,077,229; Oct. 28; Gaz. vol. 195; p. 1017.
Hammock-support. H. H. Jones. No. 1,075,150; Oct. 7; Gaz. vol. 195; p. 193.
Handle: *See* Sad-iron handle; Shovel-handle; Tool-handle.
Handle-turning machine. W. C. Farnum. No. 1,075,245; Oct. 7; Gaz. vol. 195; p. 226.
Handling broken ends, Device for. A. G. Shideed. No. 1,075,161; Oct. 7; Gaz. vol. 195; p. 197.
Handsaw. O. C. Frame. No. 1,076,755; Oct. 28; Gaz. vol. 195; p. 858.
Hanger: *See* Broom-hanger; Car-door hanger; Clothes-hanger; Door-hanger; Gutter-hanger; Paper-hanger; Pipe or shaft hanger.
Hanger. J. Irvine. No. 1,074,623; Oct. 7; Gaz. vol. 195; p. 12.
Hanger-bracket. C. C. Korns. No. 1,076,211; Oct. 21; Gaz. vol. 195; p. 612.
Harness, Single hitch for orchard and vineyard. W. H. Welch. No. 1,075,885; Oct. 14; Gaz. vol. 195; p. 472.
Harrow attachment. A. Smith. No. 1,076,070; Oct. 21; Gaz. vol. 195; p. 564.
Harvester, Beet-. F. Duhsel. No. 1,074,610; Oct. 7; Gaz. vol. 195; p. 7.
Harvester, Beet-. E. S. Ramsey. No. 1,075,440; Oct. 14; Gaz. vol. 195; p. 322.
Harvester, Beet-. C. Powlison. No. 1,075,939; Oct. 14; Gaz. vol. 195; p. 491.
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Harvester-headboard. G. L. Cotter. No. 1,075,696; Oct. 14; Gaz. vol. 195; p. 408.
Harvesters, Wheel-setting mechanism for. C. R. Herpel. No. 1,075,148; Oct. 7; Gaz. vol. 195; p. 193.
Hat attachment. J. Sauter. No. 1,074,982; Oct. 7; Gaz. vol. 195; p. 133.
Hat-pin. D. Cutler. No. 1,076,353; Oct. 21; Gaz. vol. 195; p. 662.
Hat-pin guard. J. Nemeth. No. 1,074,735; Oct. 7; Gaz. vol. 195; p. 51.
Hat-pin protector. A. E. Todd. No. 1,076,720; Oct. 28; Gaz. vol. 195; p. 845.
Hat-pin retainer. J. Boland. No. 1,075,689; Oct. 14; Gaz. vol. 195; p. 406.
Hat-pin, Safety. L. Myers. No. 1,075,931; Oct. 14; Gaz. vol. 195; p. 489.
Hat-pin shield, Lady's. J. M. Norwood. No. 1,077,155; Oct. 28; Gaz. vol. 195; p. 993.
Hay-buck, Self-cleaning horse-lift. R. J. Francis. No. 1,077,059; Oct. 28; Gaz. vol. 195; p. 965.
Hay-loader. C. J. Patterson. No. 1,075,935; Oct. 14; Gaz. vol. 195; p. 490.
Hay-loader. C. R. Davis. No. 1,076,194; Oct. 21; Gaz. vol. 195; p. 606.
Headless bolt. A. E. Burridge. No. 1,075,759; Oct. 14; Gaz. vol. 195; p. 430.
Headlight, Dirigible. E. Hoenisch. No. 1,075,825; Oct. 14; Gaz. vol. 195; p. 452.
Headlight, Dirigible. F. H. Aubeuf. No. 1,076,402; Oct. 21; Gaz. vol. 195; p. 679.
Heat-alarm, Automatic. J. G. Schlichtner. No. 1,076,157; Oct. 21; Gaz. vol. 195; p. 593.

Heat-insulating and thermo-electric purposes, Composition for. P. Ferra. No. 1,075,773; Oct. 14; Gaz. vol. 195; p. 435.
Heat or fire alarm, Thermostatic. G. S. Simpson. No. 1,074,554; Oct. 7; Gaz. vol. 195; p. 24.
Heater: *See* Electric heater; Fountain-heater; Hot-water heater; Orchard-heater; Water-heater.
Heating apparatus. L. W. Millis. No. 1,075,116; Oct. 7; Gaz. vol. 195; p. 151.
Heating apparatus. G. B. Collier. No. 1,077,041; Oct. 28; Gaz. vol. 195; p. 959.
Heating device for baths and the like. J. R. Carter. No. 1,074,694; Oct. 7; Gaz. vol. 195; p. 38.
Heating element, Electric. T. M. Caven. No. 1,074,928; Oct. 7; Gaz. vol. 195; p. 116.
Heating system, Vacuum steam-. M. P. Osbourn. No. 1,075,490; Oct. 14; Gaz. vol. 195; p. 338.
Heating systems, Means for regulating steam-. L. C. Ord. No. 1,076,444; Oct. 21; Gaz. vol. 195; p. 604.
Heddle. C. Enger. No. 1,075,411; Oct. 14; Gaz. vol. 195; p. 311.
Heel, Interchangeable resilient. H. P. Roberts. No. 1,075,303; Oct. 7; Gaz. vol. 195; p. 249.
Heel-logs, Machine for making. W. P. Bosworth. No. 1,076,742; Oct. 28; Gaz. vol. 195; p. 853.
Heeling machine, Spring-. V. S. Foster. No. 1,076,109; Oct. 21; Gaz. vol. 195; p. 579.
Helmet, Sanitary sand-blast. W. Duncan and J. A. Spangler. No. 1,075,906; Oct. 14; Gaz. vol. 195; p. 480.
Hide-working machine. R. F. Whitney. No. 1,075,887; Oct. 14; Gaz. vol. 195; p. 473.
Hides, Drying. W. H. Allen. No. 1,075,319; Oct. 14; Gaz. vol. 195; p. 279.
Hinge. J. W. Hayes. No. 1,075,146; Oct. 7; Gaz. vol. 195; p. 192.
Hinge. F. Weber. No. 1,075,451; Oct. 14; Gaz. vol. 195; p. 325.
Hinge. J. P. Holtzhouser. No. 1,075,569; Oct. 14; Gaz. vol. 195; p. 366.
Hinge. J. P. McKinney. No. 1,076,689; Oct. 28; Gaz. vol. 195; p. 835.
Hinge. A. J. Kugler and J. F. Godefroy. No. 1,077,084; Oct. 28; Gaz. vol. 195; p. 972.
Hinge, Concealed. J. F. Streberger. No. 1,075,130; Oct. 7; Gaz. vol. 195; p. 186.
Hinge, Concealed door-. F. A. Ledward. No. 1,076,435; Oct. 21; Gaz. vol. 195; p. 691.
Hinge, Non-projecting. J. R. Angelovich. No. 1,076,257; Oct. 21; Gaz. vol. 195; p. 628.
Hinge, Spring-. M. Furuya. No. 1,076,568; Oct. 21; Gaz. vol. 195; p. 738.
Hoe. E. F. Rowley. No. 1,075,442; Oct. 14; Gaz. vol. 195; p. 323.
Hoe attachment. G. Carlson. No. 1,075,330; Oct. 14; Gaz. vol. 195; p. 282.
Honing-wheels, Machine for truing. T. C. Sheehan. No. 1,075,227; Oct. 7; Gaz. vol. 195; p. 220.
Hood and neck-protector. F. P. Florl. No. 1,075,247; Oct. 7; Gaz. vol. 195; p. 227.
Hook and eye. A. P. Fulmer and F. M. Nebinger. No. 1,076,380; Oct. 21; Gaz. vol. 195; p. 665.
Hook and fork, Combined. E. H. Biel. No. 1,075,005; Oct. 7; Gaz. vol. 195; p. 142.
Hoop-tightening device, Silo-. J. Hanson and L. M. Foote. No. 1,075,564; Oct. 14; Gaz. vol. 195; p. 364.
Horn, Electric. G. M. Willis. No. 1,076,181; Oct. 21; Gaz. vol. 195; p. 602.
Horse-bit. F. and E. Swales. No. 1,076,710; Oct. 28; Gaz. vol. 195; p. 844.
Horseshoe. I. Engstrom and J. Bloom. No. 1,075,343; Oct. 14; Gaz. vol. 195; p. 287.
Horseshoe. W. McKeage. No. 1,076,138; Oct. 21; Gaz. vol. 195; p. 587.
Horseshoe-calk. W. I. and J. W. Miller. No. 1,075,263; Oct. 7; Gaz. vol. 195; p. 235.
Horseshoe-pad. D. Cruice. No. 1,075,190; Oct. 7; Gaz. vol. 195; p. 211.
Horseshoe, Supplemental. A. and N. Bernstein. No. 1,076,185; Oct. 21; Gaz. vol. 195; p. 603.
Horseshoes, Antislipping device for. W. F. Smythe. No. 1,074,657; Oct. 7; Gaz. vol. 195; p. 24.
Horseshoes, Detachable creeper for. H. F. Kuhlmann. No. 1,076,654; Oct. 21; Gaz. vol. 195; p. 770.
Horseshoes, Ice-creeper attachment for. S. P. Smith. No. 1,075,870; Oct. 14; Gaz. vol. 195; p. 467.
Hose-clamp. H. M. Welshans. No. 1,076,851; Oct. 28; Gaz. vol. 195; p. 891.
Hose-coupling. A. B. Lemon and C. C. Culver. No. 1,076,045; Oct. 21; Gaz. vol. 195; p. 556.
Hose-coupling with automatic draining-valve principally for railway-trains, Steam-heating. V. Biro. No. 1,076,739; Oct. 28; Gaz. vol. 195; p. 852.
Hose-nozzle. E. Kupferle. No. 1,076,128; Oct. 21; Gaz. vol. 195; p. 584.
Hose-supporter. C. F. Smith. No. 1,074,985; Oct. 7; Gaz. vol. 195; p. 134.
Hose-supporter. C. E. Matthes. No. 1,076,136; Oct. 21; Gaz. vol. 195; p. 587.
Hose-supporter. E. Jennings. No. 1,076,675; Oct. 28; Gaz. vol. 195; p. 829.
Hose-supporter loop. S. Buyer. No. 1,076,265; Oct. 21; Gaz. vol. 195; p. 629.
Hosiery. R. W. Scott. No. 1,075,864; Oct. 14; Gaz. vol. 195; p. 465.
Hosiery. D. O'Donnell. No. 1,076,603; Oct. 21; Gaz. vol. 195; p. 751.
Hosiery-finishing board. G. T. Flick. No. 1,075,346; Oct. 14; Gaz. vol. 195; p. 287.
Hot-air furnace. E. C. Kent, L. Giles, and G. A. Lyster. No. 1,076,209; Oct. 21; Gaz. vol. 195; p. 611.
Hot-water heater. B. G. Doll. No. 1,075,700; Oct. 14; Gaz. vol. 195; p. 410.
Hothouse, Movable. A. Pullen-Burry. No. 1,076,230; Oct. 21; Gaz. vol. 195; p. 619.
Housekeeping structure. W. C. James. No. 1,077,198; Oct. 28; Gaz. vol. 195; p. 1007.
Hub attachment. C. E. Partridge. No. 1,075,849; Oct. 14; Gaz. vol. 195; p. 461.
Hub for demountable wheels. T. I. Duffy. No. 1,076,558; Oct. 21; Gaz. vol. 195; p. 734.
Hub, Spring wheel-. H. H. Hallett. No. 1,076,883; Oct. 28; Gaz. vol. 195; p. 903.
Humidor. H. F. Guenther and W. C. Schulz. No. 1,074,714; Oct. 7; Gaz. vol. 195; p. 45.
Humidor. C. H. Kelsea. No. 1,074,871; Oct. 7; Gaz. vol. 195; p. 96.
Hydraulic apparatus. C. Wigtel. No. 1,075,317; Oct. 7; Gaz. vol. 195; p. 254.
Hydrocarbon-burner. C. J. Becker. No. 1,075,316; Oct. 7; Gaz. vol. 195; p. 254.
Hydrocarbon-burner. W. T. Wall. No. 1,075,678; Oct. 14; Gaz. vol. 195; p. 403.
Hydrocarbon burner, Fluid-. E. L. Reynolds. No. 1,076,449; Oct. 21; Gaz. vol. 195; p. 696.
Hydrocarbon burner, Liquid-. D. McKee. No. 1,074,804; Oct. 7; Gaz. vol. 195; p. 74.
Hydrogen under pressure, Working with. C. Bosch and F. Lappe. No. 1,075,085; Oct. 7; Gaz. vol. 195; p. 171.
Hydrogen under pressure, Working with. C. Bosch. No. 1,077,034; Oct. 28; Gaz. vol. 195; p. 956.
Ice-cream-cone dispenser. M. H. Fisher. No. 1,076,967; Oct. 28; Gaz. vol. 195; p. 933.
Ice-cream-cone machine. F. A. Bruckman. No. 1,075,625; Oct. 14; Gaz. vol. 195; p. 385.
Ice-cream freezer, Continuous. J. H. Carpenter. No. 1,076,950; Oct. 28; Gaz. vol. 195; p. 927.
Ice-making-machine cooling attachment. W. Graaff. No. 1,076,760; Oct. 28; Gaz. vol. 195; p. 859.
Ignition device, Magneto. H. H. Wixon. No. 1,075,531; Oct. 14; Gaz. vol. 195; p. 352.
Ignition-generator. B. Ames. No. 1,076,806; Oct. 28; Gaz. vol. 195; p. 875.
Illuminating and advertising device, Combined. G. A. Harter and J. C. Smith. No. 1,075,565; Oct. 14; Gaz. vol. 195; p. 364.
Implement attachment. W. J. Dunham. No. 1,075,633; Oct. 14; Gaz. vol. 195; p. 389.
Implement, Pocket. J. S. Cameron. No. 1,076,010; Oct. 14; Gaz. vol. 195; p. 516.
Incubator, Semifireless. C. W. Zimmer. No. 1,075,747; Oct. 14; Gaz. vol. 195; p. 426.
Index. C. B. Van Dyke. No. 1,075,522; Oct. 14; Gaz. vol. 195; p. 349.
Index holder, Card-. C. E. Campbell. No. 1,076,625; Oct. 21; Gaz. vol. 195; p. 759.
Indicating device. F. Rosewater. No. 1,075,859; Oct. 14; Gaz. vol. 195; p. 464.
Indicator: *See* Electric indicator; Electrical indicator; Frequency-indicator; Liquid-level indicator; Street-indicator.
Indicator. O. S. Jones. No. 1,075,038; Oct. 7; Gaz. vol. 195; p. 155.
Indicator. J. Wicklund. No. 1,076,180; Oct. 21; Gaz. vol. 195; p. 601.
Indicator and power device therefor. W. E. and M. E. Walters. No. 1,075,882; Oct. 14; Gaz. vol. 195; p. 471.
Injector. R. D. and J. C. Metcalfe. No. 1,076,220; Oct. 21; Gaz. vol. 195; p. 615.
Ink-fountain. A. B. Carty. No. 1,076,482; Oct. 21; Gaz. vol. 195; p. 708.
Ink-pad, Alternating. F. X. Knobel. No. 1,075,830; Oct. 14; Gaz. vol. 195; p. 454.
Ink-receptacles, Pneumatic attachment for. H. T. Emeis. No. 1,075,469; Oct. 14; Gaz. vol. 195; p. 332.
Inking-gear, Adjustable. C. Martin. No. 1,074,883; Oct. 7; Gaz. vol. 195; p. 100.
Insect-trap. K. B. Cook. No. 1,074,837; Oct. 7; Gaz. vol. 195; p. 84.
Insect-trap, Electrocuting. H. B. Clarke. No. 1,076,019; Oct. 21; Gaz. vol. 195; p. 547.
Insole. J. Buckley. No. 1,075,188; Oct. 7; Gaz. vol. 195; p. 207.
Insoles, Trimming. E. L. Keyes. No. 1,076,432; Oct. 21; Gaz. vol. 195; p. 690.
Insulating fabric, Making. G. F. Dreher. No. 1,076,874; Oct. 28; Gaz. vol. 195; p. 900.
Insulation of slasher-cylinders. A. W. Thompson. No. 1,076,330; Oct. 21; Gaz. vol. 195; p. 653.
Insulator, High-voltage. M. P. Maxwell. No. 1,075,217; Oct. 7; Gaz. vol. 195; p. 217.
Internal-combustion engine. L. A. Marcotte. No. 1,074,635; Oct. 7; Gaz. vol. 195; p. 16.
Internal-combustion engine. N. B. Simpson. No. 1,075,163; Oct. 7; Gaz. vol. 195; p. 197.

Internal-combustion engine. R. C. Rose. No. 1,075,383; Oct. 14; Gaz. vol. 195; p. 303.
Internal-combustion engine. F. O. Kilgore. No. 1,075,578; Oct. 14; Gaz. vol. 195; p. 369.
Internal-combustion engine. H. A. Knox. No. 1,075,580; Oct. 14; Gaz. vol. 195; p. 370.
Internal-combustion engine. A. F. von Schmidt. No. 1,075,603; Oct. 14; Gaz. vol. 195; p. 378.
Internal-combustion engine. W. J. Wright. No. 1,076,090; Oct. 21; Gaz. vol. 195; p. 571.
Internal-combustion engine. C. F. Lembke. No. 1,076,380; Oct. 21; Gaz. vol. 195; p. 671.
Internal-combustion engine. H. Lemp. No. 1,076,589; Oct. 21; Gaz. vol. 195; p. 749.
Internal-combustion engine. L. Wygodsky. No. 1,076,619; Oct. 21; Gaz. vol. 195; p. 757.
Internal-combustion engine. O. A. Anderson. No. 1,076,807; Oct. 28; Gaz. vol. 195; p. 876.
Internal-combustion engine. W. J. Wright. No. 1,076,854; Oct. 28; Gaz. vol. 195; p. 892.
Internal-combustion engine. G. R. Rich. No. 1,076,911; Oct. 28; Gaz. vol. 195; p. 913.
Internal-combustion engine. P. S. Claus. No. 1,076,953; Oct. 28; Gaz. vol. 195; p. 928.
Internal-combustion engine. E. G. Bogusch. No. 1,077,033; Oct. 28; Gaz. vol. 195; p. 956.
Internal-combustion engine. H. McCornack. No. 1,077,150; Oct. 28; Gaz. vol. 195; p. 991.
Internal-combustion engine. D. Roberts, J. W. Young, and C. James. No. 1,077,161; Oct. 28; Gaz. vol. 195; p. 995.
Internal-combustion-engine tool. J. A. Heany. No. 1,076,283; Oct. 21; Gaz. vol. 195; p. 637.
Iron: *See* Draw-bar carry-iron; Laundry-iron; Sad-iron; Soldering-iron.
Ironing device. N. Oros. No. 1,075,788; Oct. 14; Gaz. vol. 195; p. 439.
Ironing-table. G. Donges. No. 1,074,778. Oct. 7; Gaz. vol. 195; p. 67.
Irrespirable atmospheres or under water, Apparatus for use by persons working in. A. T. Winborn. No. 1,077,181; Oct. 28; Gaz. vol. 195; p. 1001.
Irrigating and ditching machine, Reversible. S. C. Hanna. No. 1,076,633; Oct. 21; Gaz. vol. 195; p. 763.
Irrigating system. P. E. Erickson. No. 1,077,132; Oct. 28; Gaz. vol. 195; p. 986.
Jack: *See* Automobile-jack; Leveling-machine jack; Lifting-jack; Radius-jack.
Jacquard connection. W. R. Scott. No. 1,076,524; Oct. 21; Gaz. vol. 195; p. 722.
Jacquard connection for weaving mechanisms. W. R. Scott. No. 1,076,523; Oct. 21; Gaz. vol. 195; p. 722.
Jar-cap. E. D. Schmitt. No. 1,075,125; Oct. 7; Gaz. vol. 195; p. 184.
Jewelry. F. B. Weiss. No. 1,074,673; Oct. 7; Gaz. vol. 195; p. 30.
Jewelry. A. Segman. No. 1,075,673; Oct. 14; Gaz. vol. 195; p. 401.
Jewelry, Means for drying articles of. A. W. Hutchins. No. 1,075,476; Oct. 14; Gaz. vol. 195; p. 334.
Joint: *See* Pipe-joint; Rail-joint; Stovepipe-joint; Windshield lock-joint.
Journal-bearing. J. R. Fleming. No. 1,075,204; Oct. 7; Gaz. vol. 195; p. 212.
Journal-box. I. A. Randel. No. 1,077,159; Oct. 28; Gaz. vol. 195; p. 994.
Journal-box for railway-cars. J. Caron. No. 1,075,761; Oct. 14; Gaz. vol. 195; p. 430.
Journal-box lid. G. A. Woodman. No. 1,076,853; Oct. 28; Gaz. vol. 195; p. 891.
Key: *See* Calling-key; Telegraph-key.
Keyhole-guard. K. Oswald. No. 1,076,696; Oct. 28; Gaz. vol. 195; p. 837.
Kiln. W. Drayton. No. 1,075,904; Oct. 14; Gaz. vol. 195; p. 479.
Kinematographic apparatus. T. H. Bolam and S. N. Barnard. No. 1,076,404; Oct. 21; Gaz. vol. 195; p. 680.
Kinematographs and phonographs synchronously, Automatic clutch running. L. Gaumont. No. 1,074,943; Oct. 7; Gaz. vol. 195; p. 120.
Kinematographs, Target apparatus for use with. B. W. Bates, H. W. Kelly, and D. H. Corbin. No. 1,075,894; Oct. 14; Gaz. vol. 195; p. 475.
Kinetoscope. J. A. Le Roy. No. 1,075,215; Oct. 7; Gaz. vol. 195; p. 216.
Kinetoscope-projector. F. B. Cannock. No. 1,075,692; Oct. 14; Gaz. vol. 195; p. 407.
Knickerbockers, Contracting band for. D. Gamble. No. 1,076,031; Oct. 21; Gaz. vol. 195; p. 552.
Knife. C. W. Tillmanns. No. 1,075,519; Oct. 14; Gaz. vol. 195; p. 348.
Knife-cylinder. W. Stanat. No. 1,076,714; Oct. 28; Gaz. vol. 195; p. 843.
Knitting-machine. M. Kohlsdorf. No. 1,075,262; Oct. 7; Gaz. vol. 195; p. 234.
Knockdown box. B. L. Behrendt. No. 1,076,864; Oct. 28; Gaz. vol. 195; p. 896.
Labeling machine, Can-. O. C. King. No. 1,076,043; Oct. 21; Gaz. vol. 195; p. 555.
Labeling machine, Vessel-. G. L. Meyer. No. 1,075,719; Oct. 14; Gaz. vol. 195; p. 416.
Lace measuring and rereeling mechanism. H. G. Wesley. No. 1,075,453; Oct. 14; Gaz. vol. 195; p. 326.
Lace, Metallic. P. G. Bachmann and A. F. Henke. No. 1,075,520; Oct. 14; Gaz. vol. 195; p. 279.
Lace-rack. L. E. Jones. No. 1,074,796; Oct. 7; Gaz. vol. 195; p. 72.
Lacing shoe-uppers, Machine for. W. A. Smith. No. 1,075,506; Oct. 14; Gaz. vol. 195; p. 344.
Lacing shoe-uppers, Machine for. W. A. Smith. No. 1,075,511; Oct. 14; Gaz. vol. 195; p. 346.
Lacing shoe-uppers, Machine for. E. E. Winkley. No. 1,075,530; Oct. 14; Gaz. vol. 195; p. 352.
Lamp. C. E. Godley. No. 1,074,712; Oct. 7; Gaz. vol. 195; p. 44.
Lamp. E. J. Lutwyche. (Reissue.) No. 13,630; Oct. 21; Gaz. vol. 195; p. 783.
Lamp. C. G. Myers. No. 1,077,153; Oct. 28; Gaz. vol. 195; p. 992.
Lamp and reflector, Incandescent. W. R. Litzenberg. No. 1,075,924; Oct. 14; Gaz. vol. 195; p. 487.
Lamp, Arc-. J. J. Wood. No. 1,075,532; Oct. 14; Gaz. vol. 195; p. 353.
Lamp attachment, Automobile. W. O. Pfahler. No. 1,076,699; Oct. 28; Gaz. vol. 195; p. 838.
Lamp attachment, Electric-. W. P. McNeel. No. 1,075,365; Oct. 14; Gaz. vol. 195; p. 294.
Lamp, Automobile-. T. P. Driver. No. 1,077,192; Oct. 28; Gaz. vol. 195; p. 1004.
Lamp-burner. L. P. Moore. No. 1,076,511; Oct. 21; Gaz. vol. 195; p. 717.
Lamp control, Automobile. B. Stephen and D. R. James. No. 1,077,172; Oct. 28; Gaz. vol. 195; p. 997.
Lamp, Electric. A. G. Hoban and R. L. Marquis. No. 1,074,949; Oct. 7; Gaz. vol. 195; p. 122.
Lamp, Electric safety-. E. Gottschalck, L. Werner, and A. Gast. No. 1,076,495; Oct. 21; Gaz. vol. 195; p. 712.
Lamp-holder, Swivel. C. N. Lowden. No. 1,075,951; Oct. 14; Gaz. vol. 195; p. 495.
Lamp-holder, Swivel. C. N. Lowden. No. 1,075,952; Oct. 14; Gaz. vol. 195; p. 496.
Lamp, Incandescent. R. H. Henderson. No. 1,075,475; Oct. 14; Gaz. vol. 195; p. 334.
Lamp, Incandescent oil-. J. Doorenbos. No. 1,076,821; Oct. 28; Gaz. vol. 195; p. 881.
Lamp, Portable acetylene-. A. L. Hansen. No. 1,076,826; Oct. 28; Gaz. vol. 195; p. 883.
Lamp-shade holder. S. B. Van Ranst. No. 1,076,848; Oct. 28; Gaz. vol. 195; p. 890.
Lamp-socket. T. R. Willwerscheid. No. 1,075,318; Oct. 7; Gaz. vol. 195; p. 255.
Lamp-socket. J. Darby. No. 1,075,463; Oct. 14; Gaz. vol. 195; p. 330.
Lamp-socket. J. Darby and C. D. Meeker. No. 1,076,026; Oct. 21; Gaz. vol. 195; p. 549.
Lamp-socket, Cluster. C. H. Bissell. No. 1,076,477; Oct. 21; Gaz. vol. 195; p. 706.
Lamp sockets, Casing for incandescent-electric-. C. H. Bissell. No. 1,075,539; Oct. 14; Gaz. vol. 195; p. 355.
Lamp-sockets, Means for fastening. W. C. Tregoning. No. 1,075,612; Oct. 14; Gaz. vol. 195; p. 381.
Lamp supporting and operating means. J. D. Stow. No. 1,076,170; Oct. 21; Gaz. vol. 195; p. 598.
Lamp switch, Electric-. J. A. M. Traus. No. 1,075,953; Oct. 14; Gaz. vol. 195; p. 496.
Lamps, Socket and terminal connection for electric. W. C. Tregoning. No. 1,075,613; Oct. 14; Gaz. vol. 195; p. 381.
Lamps, Wall-support for bracket-. T. Lemirand. No. 1,076,588; Oct. 21; Gaz. vol. 195; p. 746.
Land-roller. G. Trompeter. No. 1,075,676; Oct. 14; Gaz. vol. 195; p. 402.
Lantern, Tubular. A. L. Edwards. No. 1,076,356; Oct. 21; Gaz. vol. 195; p. 663.
Lariat-noose clip. A. E. Westberg. No. 1,075,179; Oct. 7; Gaz. vol. 195; p. 203.
Latch. E. L. Scott. No. 1,074,750; Oct. 7; Gaz. vol. 195; p. 57.
Latch, Door-. B. H. Klister and P. Vandehey. No. 1,075,858; Oct. 14; Gaz. vol. 195; p. 395.
Latch, Hydraulic. J. L. Garnett. No. 1,077,062; Oct. 28; Gaz. vol. 195; p. 966.
Latch, Sliding-door. G. W. Merritt. No. 1,075,367; Oct. 14; Gaz. vol. 195; p. 295.
Latch, Spring-. C. L. Frost. No. 1,075,028; Oct. 7; Gaz. vol. 195; p. 151.
Lathe. J. Feige. No. 1,075,246; Oct. 7; Gaz. vol. 195; p. 227.
Lathe attachment, Buffing-. C. Conner. No. 1,076,022; Oct. 21; Gaz. vol. 195; p. 548.
Lathe attachment, Screw-cutting-. A. J. Peterson. No. 1,075,301; Oct. 7; Gaz. vol. 195; p. 248.
Lathes and other machines, Collet for. C. F. Schultis. No. 1,076,710; Oct. 28; Gaz. vol. 195; p. 842.
Lathes of the turret type, Cross-slide of. H. Austin. No. 1,074,924; Oct. 7; Gaz. vol. 195; p. 114.
Lathing to beams, girders, and the like in building construction, Clip for fastening certain forms of metallic. H. E. White. No. 1,075,802; Oct. 14; Gaz. vol. 195; p. 445.
Laundry-iron. D. H. Turner. No. 1,076,926; Oct. 28; Gaz. vol. 195; p. 918.
Lead, Producing white. E. Euston. No. 1,075,148; Oct. 7; Gaz. vol. 195; p. 191.
Leaf holder, Loose-. J. R. Haideman. No. 1,076,570; Oct. 21; Gaz. vol. 195; p. 739.

Leakage-reducing device. F. Schultheiss. No. 1,076,457; Oct. 21; Gaz. vol. 195; p. 699.
Leather-skiving-machine knife. A. M. Alexander. No. 1,076,934; Oct. 28; Gaz. vol. 195; p. 921.
Leather-splitting machine. W. D. Quigley. No. 1,075,792; Oct. 14; Gaz. vol. 195; p. 441.
Leather-working machine. F. Wayland. No. 1,077,207; Oct. 28; Gaz. vol. 195; p. 1010.
Ledger-plates, Fastener for. G. E. Rodman. No. 1,075,271; Oct. 7; Gaz. vol. 195; p. 237.
Lens, Fresnel. W. Churchill. No. 1,076,628; Oct. 21; Gaz. vol. 195; p. 760.
Letter-opening machine. M. A. Mihilis. No. 1,075,050; Oct. 7; Gaz. vol. 195; p. 159.
Letter-sheet and envelop, Combined. R. E. Euwer. No. 1,076,357; Oct. 21; Gaz. vol. 195; p. 664.
Leveling-machine jack. E. Woodward. No. 1,076,618; Oct. 21; Gaz. vol. 195; p. 756.
Lever, Hand-. W. E. J. Anderson. No. 1,076,841; Oct. 21; Gaz. vol. 195; p. 658.
Life-preserver. E. Russell. No. 1,074,817; Oct. 7; Gaz. vol. 195; p. 78.
Life-saving apparatus. J. Le Blanc. No. 1,075,359; Oct. 14; Gaz. vol. 195; p. 292.
Life-saving device. J. Scarlett. No. 1,075,122; Oct. 7; Gaz. vol. 195; p. 183.
Lifter: *See* Drill-bit lifter.
Lifting-jack. J. Coryell. No. 1,075,766; Oct. 14; Gaz. vol. 195; p. 432.
Light: *See* Electric light; Roof-light.
Lights, Occulting device for. W. A. Moffett and R. P. Perkins. No. 1,077,202; Oct. 28; Gaz. vol. 195; p. 1008.
Lighting and ignition device. J. Berg. No. 1,076,943; Oct. 28; Gaz. vol. 195; p. 925.
Lighting apparatus. E. A. Hawthorne. No. 1,074,710; Oct. 7; Gaz. vol. 195; p. 45.
Lighting-fixture. O. H. Mohr. No. 1,075,370; Oct. 14; Gaz. vol. 195; p. 297.
Lighting-fixture. E. F. Guth. No. 1,076,418; Oct. 21; Gaz. vol. 195; p. 685.
Limb, Artificial. T. E. Auvil. No. 1,076,861; Oct. 28; Gaz. vol. 195; p. 895.
Limb, Artificial. J. B. Stage. No. 1,077,012; Oct. 28; vol. 195; p. 949.
Linerusta, linoleum, or like diapered-like cloth, Producing. C. G. E. Werner. No. 1,074,915; Oct. 7; Gaz. vol. 195; p. 111.
Line-casting machine. G. P. Kingsbury. No. 1,076,433; Oct. 21; Gaz. vol. 195; p. 600.
Line-casting machine. R. O. Boardman. No. 1,076,478; Oct. 21; Gaz. vol. 195; p. 707.
Line setting and casting machine. H. Degener. No. 1,075,024; Oct. 7; Gaz. vol. 195; p. 150.
Liquid-container. E. Catlin, Jr. No. 1,075,762; Oct. 14; Gaz. vol. 195; p. 431.
Liquid cooler and carbonator, Combined. H. E. Deckebach. No. 1,075,408; Oct. 14; Gaz. vol. 195; p. 311.
Liquid-dispensing device. J. H. Champ and T. H. Schutt. No. 1,075,898; Oct. 14; Gaz. vol. 195; p. 477.
Liquid-distributing apparatus. F. A. Glencke. No. 1,076,880; Oct. 28; Gaz. vol. 195; p. 902.
Liquid-fuel furnace. G. Ayres. No. 1,076,342; Oct. 21; Gaz. vol. 195; p. 658.
Liquid-gage. F. Drautzburg. No. 1,075,025; Oct. 7; Gaz. vol. 195; p. 150.
Liquid-impregnating device. G. E. Heyl and F. J. Allen. No. 1,075,210; Oct. 7; Gaz. vol. 195; p. 214.
Liquid-level apparatus, Vacuum-controlled differential-. E. P. Noyes. No. 1,076,146; Oct. 21; Gaz. vol. 195; p. 590.
Liquid-level indicator. R. C. Smith. No. 1,075,510; Oct. 14; Gaz. vol. 195; p. 345.
Liquid mixer, shaker, and juice-extractor. L. I. Reichner. No. 1,075,119; Oct. 7; Gaz. vol. 195; p. 182.
Liquid-trap. P. D. Hay. No. 1,075,254; Oct. 7; Gaz. vol. 195; p. 230.
Liquids, Safety-closure for containers of inflammable. M. Jasper. No. 1,076,830; Oct. 28; Gaz. vol. 195; p. 884.
Liquids, System of storing and conveying inflammable and other. H. von Elcken. No. 1,074,934; Oct. 7; Gaz. vol. 195; p. 118.
Litter-carrier. F. H. C. Stoll. No. 1,076,169; Oct. 21; Gaz. vol. 195; p. 597.
Lock: *See* Catch-lock; Coin-controlled lock; Combination-lock; Dead-lock; Door-lock; Nut-lock; Sash-lock; Signal-lock; Suitcase-lock; Table-lock.
Lock. B. Borland. No. 1,075,139; Oct. 7; Gaz. vol. 195; p. 190.
Lock. J. H. Robertson. No. 1,075,381; Oct. 14; Gaz. vol. 195; p. 302.
Lock. A. M. Hoes. No. 1,075,914; Oct. 14; Gaz. vol. 195; p. 483.
Lock. I. Lapidus. No. 1,076,587; Oct. 21; Gaz. vol. 195; p. 745.
Lock. W. A. Ratcliff. No. 1,076,994; Oct. 28; Gaz. vol. 195; p. 942.
Lock. M. Boldiza. No. 1,077,120; Oct. 28; Gaz. vol. 195; p. 983.
Lock-mortising machine. I. H. Bradley. No. 1,074,598; Oct. 7; Gaz. vol. 195; p. 4.
Lock or fastening for railway and other carriage doors and the like. J. Bithell. No. 1,076,544; Oct. 21; Gaz. vol. 195; p. 730.
Lock switch, Door-. G. Wright and H. P. Ball. No. 1,075,955; Oct. 14; Gaz. vol. 195; p. 497.
Locker. E. J. Lawrence and H. White. No. 1,076,878; Oct. 21; Gaz. vol. 195; p. 671.
Locking device. G. H. Daughtrey. No. 1,076,105; Oct. 21; Gaz. vol. 195; p. 577.
Locking device. J. S. Lyons. No. 1,076,835; Oct. 28; Gaz. vol. 195; p. 885.
Locking device for drawers of cabinets. E. Stuck. No. 1,076,528; Oct. 21; Gaz. vol. 195; p. 724.
Locket. P. A. Willemin. No. 1,075,529; Oct. 14; Gaz. vol. 195; p. 351.
Locomotive. H. G. Chatain. No. 1,076,407; Oct. 21; Gaz. vol. 195; p. 682.
Locomotive boiler, Articulated-. W. J. Leighty. No. 1,074,877; Oct. 7; Gaz. vol. 195; p. 98.
Locomotive draft appliance. C. J. Mellin. No. 1,076,142; Oct. 21; Gaz. vol. 195; p. 589.
Locomotive, Electric. J. L. Davis. No. 1,074,841; Oct. 7; Gaz. vol. 195; p. 85.
Locomotive-frame. S. M. Vauclain. No. 1,076,336; Oct. 21; Gaz. vol. 195; p. 656.
Locomotive-journals, Hub-liner for. L. K. Smith. No. 1,074,752; Oct. 7; Gaz. vol. 195; p. 57.
Locomotive pilots and footboards, Connecting means for. S. E. Tout. No. 1,076,681; Oct. 21; Gaz. vol. 195; p. 568.
Log-car. A. Olsson. No. 1,074,812; Oct. 7; Gaz. vol. 195; p. 76.
Logging-cars, Releasable stake for. H. Harder. No. 1,077,246; Oct. 28; Gaz. vol. 195; p. 1022.
Loom attachment. W. A. Woods. No. 1,074,682; Oct. 7; Gaz. vol. 195; p. 34.
Loom picker-check. E. S. Stimpson. No. 1,074,756; Oct. 7; Gaz. vol. 195; p. 59.
Loom, Pile-fabric. N. M. Shinn. No. 1,075,127; Oct. 7; Gaz. vol. 195; p. 185.
Loom, Pile or tuft fabric. J. A. Clark and J. K. Dalkranian. No. 1,077,241; Oct. 28; Gaz. vol. 195; p. 1021.
Loom shuttle or filling-carrier. O. A. Sawyer. No. 1,076,393; Oct. 21; Gaz. vol. 195; p. 676.
Loom shuttle, Weft-replenishing-. E. S. Stimpson. No. 1,074,662; Oct. 7; Gaz. vol. 195; p. 26.
Loom shuttle, Weft-replenishing-. E. S. Stimpson. No. 1,074,908; Oct. 7; Gaz. vol. 195; p. 109.
Looms, Automatic stopping device for lace-. T. Thompson. No. 1,076,798; Oct. 28; Gaz. vol. 195; p. 872.
Looms, Automatic weft-bobbin-exchanging device for. A. G. Koechlin. No. 1,074,629; Oct. 7; Gaz. vol. 195; p. 14.
Looms, Change box-motion for power-. G. Schwabe. No. 1,076,791; Oct. 28; Gaz. vol. 195; p. 870.
Looms, Head-motion for. E. H. Ryon. No. 1,075,862; Oct. 14; Gaz. vol. 195; p. 465.
Looms, Pile-cutting mechanism for tuft-fabric. J. T. Cyr and J. K. Dalkranian. No. 1,077,242; Oct. 28; Gaz. vol. 195; p. 1021.
Looms, Power-gage device for picker-sticks of. F. M. Lamb. No. 1,076,585; Oct. 21; Gaz. vol. 195; p. 745.
Lubricating apparatus. W. L. Morris. No. 1,074,780; Oct. 7; Gaz. vol. 195; p. 50.
Lubricator: *See* Oil-drop lubricator; Vehicle-lubricator.
Lubricator. S. D. Jones. No. 1,074,867; Oct. 7; Gaz. vol. 195; p. 94.
Machine element. M. D. Baldwin. No. 1,075,321; Oct. 14; Gaz. vol. 195; p. 279.
Machine of the turret type for turning and like operations. H. Austin. No. 1,076,734; Oct. 28; Gaz. vol. 195; p. 850.
Machine-tools, Cutting-lubricant attachment for. E. P. Bullard, Jr. No. 1,076,947; Oct. 28; Gaz. vol. 195; p. 926.
Machine-tools, Cutting-lubricant device for. E. P. Bullard, Jr. No. 1,076,948; Oct. 28; Gaz. vol. 195; p. 926.
Magnetic separation, Method and apparatus for. O. A. Zander. No. 1,074,999; Oct. 7; Gaz. vol. 195; p. 140.
Mail-bag-delivering device. E. H. Appleby. No. 1,076,859; Oct. 28; Gaz. vol. 195; p. 895.
Mail-bag fastener. I. L. Hood. No. 1,076,037; Oct. 21; Gaz. vol. 195; p. 553.
Mail-bag ring. W. H. Jones. No. 1,075,212; Oct. 7; Gaz. vol. 195; p. 215.
Mail-box. U. C. Greggs and E. H. Falls. No. 1,074,713; Oct. 7; Gaz. vol. 195; p. 44.
Mail-crane, Automatic. E. R. Lane. No. 1,075,921; Oct. 14; Gaz. vol. 195; p. 486.
Mandrel, Expansible. H. J. White. No. 1,077,110; Oct. 28; Gaz. vol. 195; p. 980.
Mangle. W. Lasocki. No. 1,075,982; Oct. 14; Gaz. vol. 195; p. 507.
Manhole structure. T. F. O'Day. No. 1,076,386; Oct. 21; Gaz. vol. 195; p. 673.
Manifolding device. E. Carney. No. 1,075,460; Oct. 14; Gaz. vol. 195; p. 329.
Manure-spreader. G. G. Mandt and M. Vingum. No. 1,077,087; Oct. 28; Gaz. vol. 195; p. 973.
Marine propulsion apparatus. A. Nydegger. No. 1,076,308; Oct. 21; Gaz. vol. 195; p. 646.
Massage instrument. H. Dreuw. No. 1,076,490; Oct. 21; Gaz. vol. 195; p. 710.
Match-splints, Treating. W. A. Fairburn, F. V. D. Cruser, and W. Green. (Reissue.) No. 13,636; Oct. 28; Gaz. vol. 195; p. 1024.

Matrix-distributing mechanism. R. M. Grove. No. 1,074,945; Oct. 7; Gaz. vol. 195; p. 121.
Matrix-setting and line-casting machine. H. Degener. No. 1,076,408; Oct. 21; Gaz. vol. 195; p. 682.
Matrix-setting and type-line-casting machine. H. Degener. No. 1,074,843; Oct. 7; Gaz. vol. 195; p. 86.
Matting-roughing machine. J. M. Barteaux. No. 1,076,862; Oct. 28; Gaz. vol. 195; p. 896.
Matting-stock, Preparing. J. M. Barteaux. No. 1,077,215; Oct. 28; Gaz. vol. 195; p. 1013.
Measure and stopper, Combined. J. F. Peter. No. 1,076,780; Oct. 28; Gaz. vol. 195; p. 866.
Measuring and rewinding machine, Cloth. O. A. Heckel, C. M. Kachel, W. F. Goessling, and H. E. Pauk. No. 1,074,621; Oct. 7; Gaz. vol. 195; p. 11.
Measuring apparatus. M. Arndt. No. 1,075,620; Oct. 14; Gaz. vol. 195; p. 383.
Measuring device, Liquid-. C. P. Ross. No. 1,077,000; Oct. 28; Gaz. vol. 195; p. 944.
Measuring device, Wall-paper-. R. B. Harpster and J. J. Gees. No. 1,076,034; Oct. 21; Gaz. vol. 195; p. 552.
Mechanical movement. F. E. Bright. No. 1,074,832; Oct. 7; Gaz. vol. 195; p. 82.
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Metal piling structure. C. Trimborn. No. 1,074,665; Oct. 7; Gaz. vol. 195; p. 27.
Metal-working machine. T. P. Payne. No. 1,075,491; Oct. 14; Gaz. vol. 195; p. 339.
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Metals ductile, Rendering insufficiently-ductile. C. Trenzen. No. 1,074,993; Oct. 7; Gaz. vol. 195; p. 137.
Metals from cupriferous materials, Cyclic process of extracting. A. David. No. 1,075,093; Oct. 7; Gaz. vol. 195; p. 174.
Metallic bands, Apparatus for the manufacture of. J. B. McKibbin. No. 1,076,439; Oct. 21; Gaz. vol. 195; p. 692.
Metallic surfaces, Means for densifying. F. L. O. Wadsworth. No. 1,074,824; Oct. 7; Gaz. vol. 195; p. 80.
Metallic tie. J. Albright. No. 1,077,209; Oct. 28; Gaz. vol. 195; p. 1011.
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Meter: *See* Fluid-flow meter; Proportional meter; Recording-meter; Water-meter.
Micro movements in weak-current technics, Apparatus for producing and utilizing. J. A. Johnsen. No. 1,075,786; Oct. 14; Gaz. vol. 195; p. 438.
Milk-can. S. V. Le Sieur. No. 1,075,834; Oct. 14; Gaz. vol. 195; p. 456.
Milk-containers, Combined rack and seal for submerged. E. L. Wescott. No. 1,076,852; Oct. 28; Gaz. vol. 195; p. 891.
Milking apparatus. O. G. Rieske. No. 1,074,979; Oct. 7; Gaz. vol. 195; p. 132.
Mill: *See* Grinding and crushing mill; Pulverizing-mill; Windmill.
Mirrors and the like, Holder for. J. Sartori. No. 1,076,237; Oct. 21; Gaz. vol. 195; p. 621.
Miter-box. J. T. Ross. No. 1,075,730; Oct. 14; Gaz. vol. 195; p. 420.
Mixer: *See* Concrete-mixer; Liquid-mixer.
Mixer. C. H. Myers. No. 1,075,599; Oct. 14; Gaz. vol. 195; p. 376.
Mixing apparatus. W. S. Veaco and T. J. Bennett. No. 1,075,524; Oct. 14; Gaz. vol. 195; p. 350.
Mixing materials, Apparatus for. C. W. Thomas. No. 1,075,071; Oct. 7; Gaz. vol. 195; p. 167.
Mixing or blending machine. W. L. Lawson. No. 1,077,145; Oct. 28; Gaz. vol. 195; p. 989.
Moistener, Stamp-. R. H. Wilmer. No. 1,076,930; Oct. 28; Gaz. vol. 195; p. 920.
Moistening device. J. W. Kinney. No. 1,076,376; Oct. 21; Gaz. vol. 195; p. 670.
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Mold: *See* Concrete-shingle mold; Concrete-wall mold; Confectionery-mold.
Mold. F. P. Martin. No. 1,074,885; Oct. 7; Gaz. vol. 195; p. 100.
Mold. L. Levine. No. 1,076,681; Oct. 28; Gaz. vol. 195; p. 831.
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Molded article and making the same. A. H. Krieger. No. 1,076,126; Oct. 21; Gaz. vol. 195; p. 584.
Molding. W. Goodrow. No. 1,076,975; Oct. 28; Gaz. vol. 195; p. 936.
Molten bath and means for coating iron articles therewith. H. J. Lohmann. No. 1,075,583; Oct. 14; Gaz. vol. 195; p. 370.
Mop-holder. A. Waymire. No. 1,076,800; Oct. 28; Gaz. vol. 195; p. 873.
Mop-holder and rake, Combination. H. H. Hinkle. No. 1,075,568; Oct. 14; Gaz. vol. 195; p. 365.
Mop-wringer. L. C. McNeal. No. 1,076,306; Oct. 21; Gaz. vol. 195; p. 645.
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Motor attachment. G. K. Clark. No. 1,074,695; Oct. 7; Gaz. vol. 195; p. 39.
Motor-control system, Electric-. J. H. Klinck. No. 1,074,874; Oct. 7; Gaz. vol. 195; p. 97.
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Motor drive, Electric-. C. C. Batcheider. No. 1,075,683; Oct. 14; Gaz. vol. 195; p. 404.
Motor-starter. C. D. Knight. No. 1,075,579; Oct. 14; Gaz. vol. 195; p. 369.
Mouse or rat trap. E. F. Sebesta. No. 1,077,098; Oct. 28; Gaz. vol. 195; p. 976.
Mouse trap. J. G. Wiesen. No. 1,074,916; Oct. 7; Gaz. vol. 195; p. 111.
Mouthpieces, Antiseptic protector for. C. T. Porter and R. J. Osborne. No. 1,076,908; Oct. 28; Gaz. vol. 195; p. 912.
Mower, Lawn-. F. Yank. No. 1,077,182; Oct. 28; Gaz. vol. 195; p. 1001.
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Music-rolls, Combined marking and spooling machine for. G. H. Davis. No. 1,074,776; Oct. 7; Gaz. vol. 195; p. 66.
Musical instrument, Automatic. W. H. Smith and F. W. Gunton. No. 1,075,509; Oct. 14; Gaz. vol. 195; p. 345.
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Musical instruments, Apparatus for mechanically operating. H. C. Coldman and C. F. Webb. No. 1,075,013; Oct. 7; Gaz. vol. 195; p. 145.
Mustard, Manufacture of. H. C. Russ, A. T. Beach, and H. F. Kleinfeldt. No. 1,077,164; Oct. 28; Gaz. vol. 195; p. 995.
Nail-puller. I. N. Haley. No. 1,074,617; Oct. 7; Gaz. vol. 195; p. 10.
Nail-set holder. W. H. McKeen. No. 1,075,587; Oct. 14; Gaz. vol. 195; p. 371.
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Necktie-holder. F. Catuogno. No. 1,075,400; Oct. 14; Gaz. vol. 195; p. 308.
Necktie-holder. J. D. Houck. No. 1,076,121; Oct. 21; Gaz. vol. 195; p. 583.
Needle-clamp. R. G. Woodward. No. 1,075,743; Oct. 14; Gaz. vol. 195; p. 425.
Nodulating materials. L. P. Ross. No. 1,076,705; Oct. 28; Gaz. vol. 195; p. 840.
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Noodle-cutter. T. Lombardi. No. 1,076,130; Oct. 21; Gaz. vol. 195; p. 585.
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Nozzle, Hydraulic regulating-. W. A. Doble. No. 1,076,963; Oct. 28; Gaz. vol. 195; p. 931.
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Nut-cleaning machine. S. A. Freer. No. 1,074,940; Oct. 7; Gaz. vol. 195; p. 120.
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Nut-lock. M. Schotsch. No. 1,075,226; Oct. 7; Gaz. vol. 195; p. 220.
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Oil, Apparatus for receiving, separating, and filtering. E. Moullé. No. 1,075,265; Oct. 7; Gaz. vol. 195; p. 235.
Oil-burner. L. Boatwright. No. 1,075,396; Oct. 14; Gaz. vol. 195; p. 307.
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Oil-burner, Wick blue-flame. A. J. Blackford. No. 1,074,687; Oct. 7; Gaz. vol. 195; p. 36.
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Oil, Preparing an. E. Richter. No. 1,076,703; Oct. 28; Gaz. vol. 195; p. 840.
Oil-tank, Knockdown. O. W. Maloney. No. 1,076,382; Oct. 21; Gaz. vol. 195; p. 672.
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Ordnance, Breech-block-actuating gear for. A. T. Dawson and G. K. Buckham. No. 1,074,842; Oct. 7; Gaz. vol. 195; p. 86.
Ore-concentrator. F. Picone. No. 1,076,700; Oct. 28; Gaz. vol. 195; p. 839.
Ore-separator. H. J. Stewart and J. S. Tucker. No. 1,076,397; Oct. 21; Gaz. vol. 195; p. 677.
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Ores and the like, Treating. N. C. Christensen, Jr. No. 1,075,011; Oct. 7; Gaz. vol. 195; p. 144.
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Ores, Treatment of. N. H. M. Dekker. No. 1,075,409; Oct. 14; Gaz. vol. 195; p. 311.
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Organs, Electropneumatic swell-pedal action for pipe-. E. M. Skinner. No. 1,076,069; Oct. 21; Gaz. vol. 195; p. 564.
Outing-suit, Woman's. F. Bolton. No. 1,076,264; Oct. 21; Gaz. vol. 195; p. 629.
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Package-fastener. J. F. Bjurlund. No. 1,076,740; Oct. 28; Gaz. vol. 195; p. 852.
Package-forming means. C. W. Dohm. No. 1,076,199; Oct. 21; Gaz. vol. 195; p. 608.
Package, Reinforced. H. C. Herr. No. 1,075,418; Oct. 14; Gaz. vol. 195; p. 314.
Packing and making same. W. R. Haggart. No. 1,076,282; Oct. 21; Gaz. vol. 195; p. 636.
Packing-box. G. J. Leavitt. No. 1,076,434; Oct. 21; Gaz. vol. 195; p. 691.
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Packing, Metallic. W. Sudekum. No. 1,074,662; Oct. 7; Gaz. vol. 195; p. 27.
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Pad: *See* Horseshoe-pad; Ink-pad.
Pail, Milking-. H. C. L. Christophersen. No. 1,076,348; Oct. 21; Gaz. vol. 195; p. 661.
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Pan: *See* Frying-pan.
Paper and like cups, Machine for making. E. A. Stratton. No. 1,074,989; Oct. 7; Gaz. vol. 195; p. 136.
Paper-board. C. S. Bird and G. R. Wyman. No. 1,074,829; Oct. 7; Gaz. vol. 195; p. 82.
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Paper hanger, Portable wall-. A. C. Harry. No. 1,075,824; Oct. 14; Gaz. vol. 195; p. 452.
Paper or fiber tubes or cores, Machine for making. G. S. Witham, Sr. No. 1,074,680; Oct. 7; Gaz. vol. 195; p. 33.
Paper-receptacle-making apparatus. F. W. Burpee. No. 1,075,329; Oct. 14; Gaz. vol. 195; p. 282.
Paper tube and making the same. C. S. Bird. No. 1,074,926; Oct. 7; Gaz. vol. 195; p. 115.
Paper-winding machines, Mandrel for. G. B. Warner. No. 1,076,536; Oct. 21; Gaz. vol. 195; p. 727.
Paper-winding reel. G. Miller. No. 1,075,051; Oct. 7; Gaz. vol. 195; p. 159.
Paraffin, Production of translucent, uniformly-colored J. v. R. v. Alkemade. No. 1,076,000; Oct. 14; Gaz. vol. 195; p. 513.
Parcel-carrier, Automatic. W. L. Nelson. No. 1,075,371; Oct. 14; Gaz. vol. 195; p. 297.
Pasteurizing apparatus. L. S. Pfouts. No. 1,076,604; Oct. 21; Gaz. vol. 195; p. 751.
Paving-block. O. A. Heckel. No. 1,074,717; Oct. 7; Gaz. vol. 195; p. 45.
Pawl-and-ratchet mechanism. J. L. Beck. No. 1,075,311; Oct. 7; Gaz. vol. 195; p. 252.
Peeler. R. Powell. No. 1,075,222; Oct. 7; Gaz. vol. 195; p. 218.
Pen holder or support, Fountain-. C. Ridderhof. No. 1,076,841; Oct. 28; Gaz. vol. 195; p. 887.
Pen, Non-leaking fountain-. H. B. Dods. No. 1,075,631; Oct. 14; Gaz. vol. 195; p. 388.
Pen, Writing-. E. H. Ketchum. No. 1,074,957; Oct. 7; Gaz. vol. 195; p. 125.
Pencil. J. A. Walls. No. 1,075,880; Oct. 14; Gaz. vol. 195; p. 471.
Pencil-sharpener. E. F. Estes. No. 1,077,133; Oct. 28; Gaz. vol. 195; p. 986.
Pencil-sharpener, Automatic. E. Grantzow. No. 1,075,971; Oct. 14; Gaz. vol. 195; p. 502.
Pencils, pens, &c., Holder for. J. H. Boye. No. 1,074,927; Oct. 7; Gaz. vol. 195; p. 115.
Percolator. I. Gefter. No. 1,077,063; Oct. 28; Gaz. vol. 195; p. 966.
Perforating-machine. C. L. Lilleberg. No. 1,076,772; Oct. 28; Gaz. vol. 195; p. 863.
Peroxid of hydrogen, Compound for making. C. B. Jacobs. No. 1,076,039; Oct. 21; Gaz. vol. 195; p. 554.
Phonograph. F. L. Dyer. No. 1,075,771; Oct. 14; Gaz. vol. 195; p. 434.
Phonograph-records, Molding. J. W. Aylesworth. No. 1,075,807; Oct. 14; Gaz. vol. 195; p. 446.
Phonograph, Vibrating-record. D. M. Bliss. No. 1,076,741; Oct. 28; Gaz. vol. 195; p. 853.
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Phosphorites, Converting. H. V. Dunham. No. 1,074,779; Oct. 7; Gaz. vol. 195; p. 67.
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Photo printing-machine, Automatic. G. M. Dye. No. 1,076,876; Oct. 28; Gaz. vol. 195; p. 900.
Photographic apparatus, Flash-light. C. D. Allen. No. 1,076,091; Oct. 21; Gaz. vol. 195; p. 572.
Photographic plates, Apparatus for treating. T. Bänder. No. 1,077,186; Oct. 28; Gaz. vol. 195; p. 1002.
Photographic-printing machine. J. N. Anderson. No. 1,075,680; Oct. 14; Gaz. vol. 195; p. 403.

Photographic-printing machine. H. A. Anderson. No. 1,077,213; Oct. 28; Gaz. vol. 195; p. 1012.
Photographic retouching-frame. H. Sumbulian. No. 1,074,684; Oct. 7; Gaz. vol. 195; p. 27.
Photographic shutters, Driving and braking device, or releasing device, for. C. Weber. No. 1,076,253; Oct. 21; Gaz. vol. 195; p. 625.
Piano, Player-. E. R. Philblade. No. 1,075,853; Oct. 14; Gaz. vol. 195; p. 462.
Piano-player, Automatic. J. Schwertner. No. 1,077,167; Oct. 28; Gaz. vol. 195; p. 996.
Piano-playing mechanism. B. R. Van Valkenburg. No. 1,077,206; Oct. 28; Gaz. vol. 196; p. 1009.
Pick, Miner's. J. P. Craven. No. 1,076,103; Oct. 21; Gaz. vol. 195; p. 576.
Picker: *See* Cotton-picker.
Picture films, Machine for detecting defects in motion-. R. Nicolet. No. 1,076,691; Oct. 28; Gaz. vol. 195; p. 835.
Picture machine, Moving-. O. P. M. Davis. No. 1,075,407; Oct. 14; Gaz. vol. 195; p. 310.
Picture machine, Moving-. L. W. Merkel. No. 1,075,487; Oct. 14; Gaz. vol. 195; p. 337.
Pier quay-wall, Winged-. H. C. Smith. No. 1,075,229; Oct. 7; Gaz. vol. 195; p. 221.
Pile, Teredoproof. P. N. Stankovitch. No. 1,076,248; Oct. 21; Gaz. vol. 195; p. 624.
Piling, Integral sheet-. C. C. Conkling. No. 1,076,021; Oct. 21; Gaz. vol. 195; p. 548.
Piling-protecting device. J. Crockett and L. Lockwood. No. 1,074,698; Oct. 7; Gaz. vol. 195; p. 39.
Pilot-light protector. H. H. Davenport. No. 1,074,840; Oct. 7; Gaz. vol. 195; p. 85.
Pin: *See* Clothes-pin; Hat-pin; Scarf-pin.
Pin-guard. C. H. Upton. No. 1,075,520; Oct. 14; Gaz. vol. 195; p. 349.
Pineapple-centering attachment. H. G. Ginaca. No. 1,075,031; Oct. 7; Gaz. vol. 195; p. 152.
Pipe: *See* Blowpipe; Drain-pipe; Organ-pipe; Smoking-pipe.
Pipe-bending tool. O. A. Malo and F. H. Melat. No. 1,075,837; Oct. 14; Gaz. vol. 195; p. 457.
Pipe-bends, Making U-shaped. P. Esch. No. 1,074,783; Oct. 7; Gaz. vol. 195; p. 68.
Pipe-bends, Making U-shaped. P. Esch. No. 1,075,201; Oct. 7; Gaz. vol. 195; p. 211.
Pipe-bowls, Apparatus for treating. H. S. Chapin. No. 1,076,867; Oct. 28; Gaz. vol. 195; p. 897.
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Pipe-union, Ball-and-socket. W. Stafford. No. 1,076,921; Oct. 28; Gaz. vol. 195; p. 916.
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Post-anchor. P. T. Bailey. No. 1,077,028; Oct. 28; Gaz. vol. 195; p. 954.
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Pot-lid. E. Relyea. No. 1,074,978; Oct. 7; Gaz. vol. 195; p. 132.
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Precious-metal-dissolving means, Preparing a. H. Foersterling. No. 1,076,006; Oct. 14; Gaz. vol. 195; p. 515.
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Press. J. H. Crowell. No. 1,076,023; Oct. 21; Gaz. vol. 195; p. 548.
Press-cloth stripper. O. R. Beusse. No. 1,076,263; Oct. 21; Gaz. vol. 195; p. 629.
Press-feeding means, Pneumatic. J. Duvall. No. 1,076,491; Oct. 21; Gaz. vol. 195; p. 711.
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Projectile. T. A. Fidjeland. No. 1,075,202; Oct. 7; Gaz. vol. 195; p. 212.
Projectile for rock-breakers. M. Quenner. No. 1,076,148; Oct. 21; Gaz. vol. 195; p. 591.
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Pulley. H. P. Reston. No. 1,076,605; Oct. 21; Gaz. vol. 195; p. 752.
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Pulverizing-mill. W. C. Fox, J. P. Bem, and F. M. Sponogle. No. 1,075,707; Oct. 14; Gaz. vol. 195; p. 412.
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Pump, Rotary. B. F. Cathcart. No. 1,076,627; Oct. 21; Gaz. vol. 195; p. 760.
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Pumping device. J. Davidson. No. 1,075,406; Oct. 14; Gaz. vol. 195; p. 310.
Punch-gage, Means for operating. W. T. Sears. No. 1,074,900; Oct. 7; Gaz. vol. 195; p. 106.
Purse and bag fastener. T. Tighe. No. 1,074,910; Oct. 7; Gaz. vol. 195; p. 110.
Puzzle. H. G. Randall. No. 1,074,816; Oct. 7; Gaz. vol. 195; p. 78.
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Rack. N. C. Beegle. No. 1,075,395; Oct. 14; Gaz. vol. 195; p. 307.
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Rail-joint, Insulated. R. B. Abbott. No. 1,075,278; Oct. 7; Gaz. vol. 195; p. 240.
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Railway-rails, Mounting for. W. P. Davies. No. 1,075,200; Oct. 7; Gaz. vol. 195; p. 211.
Railway-rails, Repairing. E. Thomson. No. 1,075,738; Oct. 14; Gaz. vol. 195; p. 423.
Railway signal system. D. Dale. No. 1,076,552; Oct. 21; Gaz. vol. 195; p. 732.
Railway signaling device. A. Stadler. No. 1,075,169; Oct. 7; Gaz. vol. 195; p. 199.
Railway signaling system. A. L. Vencill. No. 1,076,176; Oct. 21; Gaz. vol. 195; p. 600.
Railway-sleeper. O. E. Wetzer. No. 1,075,616; Oct. 14; Gaz. vol. 195; p. 382.
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Railway-switch. C. A. Turner and A. B. Edwards. No. 1,077,017; Oct. 28; Gaz. vol. 195; p. 950.
Railway-switch-operating means. C. Phillips. No. 1,076,313; Oct. 21; Gaz. vol. 195; p. 648.
Railway system and handling traffic. A. L. Drum. No. 1,076,355; Oct. 21; Gaz. vol. 195; p. 663.
Railway-tie. G. W. Maakrey. No. 1,074,636; Oct. 7; Gaz. vol. 195; p. 17.
Railway-tie. H. L. Hollis. No. 1,076,577; Oct. 21; Gaz. vol. 195; p. 742.
Railway-tie and rail-fastener. E. W. Gates. No. 1,074,942; Oct. 7; Gaz. vol. 195; p. 120.
Railway-ties, &c., Machine for barking. H. L. Galloway. No. 1,075,776; Oct. 14; Gaz. vol. 195; p. 435.
Railway-ties, Shoe for. F. Still. No. 1,077,173; Oct. 28; Gaz. vol. 195; p. 998.
Railway-track. F. K. Holmested. No. 1,075,104; Oct. 7; Gaz. vol. 195; p. 177.
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Railway-track. F. K. Holmested. No. 1,077,070; Oct. 28; Gaz. vol. 195; p. 968.
Railway-track jacks, Roller for. W. R. and C. F. Funk. No. 1,075,559; Oct. 14; Gaz. vol. 195; p. 362.
Railway track-motor. E. W. Hoover and J. A. Coleman. No. 1,075,420; Oct. 14; Gaz. vol. 195; p. 314.
Railway-track structure. H. M. Coulter. No. 1,076,748; Oct. 28; Gaz. vol. 195; p. 855.
Railway-traffic-controlling system. F. L. Dodgson. No. 1,076,631; Oct. 21; Gaz. vol. 196; p. 761.
Raking and loading material such as hay and the like, Machine for. J. Rochaix. No. 1,076,452; Oct. 21; Gaz. vol. 195; p. 697.
Ramming apparatus, Reversing mechanism for roll-. H. P. Macdonald. No. 1,074,882; Oct. 7; Gaz. vol. 195; p. 100.
Ramming apparatus, Roll. H. P. Macdonald. No. 1,076,683; Oct. 28; Gaz. vol. 195; p. 832.
Ranges, Automatic cut-off for gas-. C. Bargamin. No. 1,075,322; Oct. 14; Gaz. vol. 195; p. 279.
Rat-trap. W. J. G. Young. No. 1,074,998; Oct. 7; Gaz. vol. 195; p. 139.
Rat-trap, Electric. C. W. Beardsley. No. 1,074,770; Oct. 7; Gaz. vol. 195; p. 63.
Rat-trap, Electric. J. Regeczi. No. 1,075,669; Oct. 14; Gaz. vol. 195; p. 399.
Ratchet-wrench. W. Hanning and M. Nicholas. No. 1,077,137; Oct. 28; Gaz. vol. 195; p. 987.
Razor-blade holder, Safety-. B. F. Stamm. No. 1,077,171; Oct. 28; Gaz. vol. 195; p. 997.
Razor, Safety-. V. W. Sipes. No. 1,075,606; Oct. 14; Gaz. vol. 195; p. 379.
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Reamer, Expansion-. C. O. Schellenbach. No. 1,074,820; Oct. 7; Gaz. vol. 195; p. 79.
Receptacle-closure. J. K. Gowen. No. 1,075,643; Oct. 14; Gaz. vol. 195; p. 392.
Receptacle, Non-heat-conducting. C. C. Wilson. No. 1,076,804; Oct. 28; Gaz. vol. 195; p. 875.
Recorder: *See* Time-recorder.
Recording device. E. S. Votey. No. 1,076,338; Oct. 21; Gaz. vol. 195; p. 657.
Recording instrument, Electric. A. L. Sohm. No. 1,075,513; Oct. 14; Gaz. vol. 195; p. 346.
Recording-meter. P. Lanham. No. 1,075,427; Oct. 14; Gaz. vol. 195; p. 317.
Recording system and apparatus. A. L. Sohm. No. 1,075,608; Oct. 14; Gaz. vol. 195; p. 379.
Rectal irrigator. C. Sawyer. No. 1,074,818; Oct. 7; Gaz. vol. 195; p. 78.
Reed, Layers of. P. Krebs. No. 1,074,801; Oct. 7; Gaz. vol. 195; p. 74.
Reel: *See* Clothes-line reel; Paper-winding reel.
Refractory, electrically-conducting molded bodies, Production of. G. Egly. No. 1,075,634; Oct. 14; Gaz. vol. 195; p. 380.
Refrigerating apparatus. F. W. Wolf, Jr., and H. H. Southworth. No. 1,076,537; Oct. 21; Gaz. vol. 195; p. 727.
Refrigerating-machine. J. J. Schrade. No. 1,075,126; Oct. 7; Gaz. vol. 195; p. 185.
Register: *See* Time-register.
Register. C. F. Fogg. (Reissue.) No. 13,624; Oct. 7; Gaz. vol. 195; p. 255.
Regulator: *See* Boiler-feed regulator; Electric regulator; Gas-regulator; Pressure-regulator; Pressure-governed regulator; Tempo-regulator.
Regulator. W. M. Miller and S. A. Shipp. No. 1,075,219; Oct. 7; Gaz. vol. 195; p. 217.
Resilient ball. F. A. Cigol. No. 1,077,121; Oct. 28; Gaz. vol. 195; p. 983.
Resilient wheel. W. Wheeler. No. 1,076,254; Oct. 21; Gaz. vol. 195; p. 626.
Resilient wheel. E. A. Schlairet. No. 1,076,914; Oct. 28; Gaz. vol. 195; p. 914.
Retaining mechanism. F. N. Hall. No. 1,077,136; Oct. 28; Gaz. vol. 195; p. 987.
Reversible fork and rake. T. J. McIntosh. No. 1,076,048; Oct. 21; Gaz. vol. 195; p. 557.
Revolvers, Mechanism for rotating and locking the cylinders of. E. Guerrero. No. 1,077,135; Oct. 28; Gaz. vol. 195; p. 987.
Revolving ventilator. O. W. Searcy. No. 1,076,609; Oct. 21; Gaz. vol. 195; p. 753.
Rifle, gunnery, and like practice, Apparatus for. F. Mitchell. No. 1,075,589; Oct. 14; Gaz. vol. 195; p. 372.
Rim, Demountable. W. F. Jenkins. No. 1,076,430; Oct. 21; Gaz. vol. 195; p. 689.
Ring: *See* Mail-bag ring; Packing-ring.
Road-wheel, Elastic. J. Spyker. No. 1,075,168; Oct. 7; Gaz. vol. 195; p. 199.
Roads, Making. J. S. Robeson. No. 1,075,856; Oct. 14; Gaz. vol. 195; p. 463.
Roads, Making. J. S. Robeson. No. 1,075,857; Oct. 14; Gaz. vol. 195; p. 463.

Roadways, railway-beds, sidewalks, and the like, Making. M. A. Popkess. No. 1,076,782; Oct. 28; Gaz. vol. 195; p. 867.
Rock-breaker. M. Quenner. No. 1,076,062; Oct. 21; Gaz. vol. 195; p. 562.
Rock-crusher. T. L. Smith. No. 1,075,507; Oct. 14; Gaz. vol. 195; p. 344.
Rock-drill. C. Jackson. No. 1,075,424; Oct. 14; Gaz. vol. 195; p. 316.
Rock-drill. G. W. Smith. No. 1,076,246; Oct. 21; Gaz. vol. 195; p. 623.
Rock-drills, &c., Locking-chuck for. S. W. Brothers. No. 1,075,325; Oct. 14; Gaz. vol. 195; p. 280.
Rock-drills, Valved connection for. S. W. Brothers. No 1,075,324; Oct. 14; Gaz. vol. 195; p. 280.
Rod-bender. R. Sample and L. A. Fleitz. No. 1,076,521; Oct. 21; Gaz. vol. 195; p. 721.
Roller: *See* Curtain-roller; Land-roller; Shade-roller; Spring-roller.
Roller construction, Winding-. G. H. Demore. No. 1,076,959; Oct. 28; Gaz. vol. 195; p. 930.
Rolling bars or girders of I, H, U, or like section. J. Puppe. No. 1,076,784; Oct. 28; Gaz. vol. 195; p. 868.
Roof-light. A. Klein. No. 1,076,500; Oct. 21; Gaz. vol. 195; p. 714.
Roofing, &c., and preparing the same, Material for. J. W. Aylsworth. No. 1,077,113; Oct. 28; Gaz. vol. 195; p. 981.
Roofing, Leak-proof strip for metal. K. Roth. No. 1,076,065; Oct. 21; Gaz. vol. 195; p. 563.
Roofing material. S. G. Wright. No. 1,075,745; Oct. 14; Gaz. vol. 195; p. 425.
Roofing material, Fastener for sheet. W. N. Nicholls and A. W. Carmichael. No. 1,076,639; Oct. 21; Gaz. vol. 195; p. 765.
Rope-grip device. G. R. Hill. No. 1,075,567; Oct. 14; Gaz. vol. 195; p. 365.
Rotary drill. L. A. Owens. No. 1,076,515; Oct. 21; Gaz. vol. 195; p. 719.
Rotary engine. P. Jorgenson. No. 1,075,152; Oct. 7; Gaz. vol. 195; p. 194.
Rotary engine. J. B. and R. E. Neeley. No. 1,075,435; Oct. 14; Gaz. vol. 195; p. 320.
Rotary engine. G. F. Moors. No. 1,075,590; Oct. 14; Gaz. vol. 195; p. 372.
Rotary engine. H. A. King. No. 1,076,891; Oct. 28; Gaz. vol. 195; p. 906.
Rotary engine. R. J. Davidson. No. 1,077,222; Oct. 28; Gaz. vol. 195; p. 1015.
Rotatable table. J. M. Bryant and J. Lind. No. 1,077,218; Oct. 28; Gaz. vol. 195; p. 1013.
Rotor construction. F. W. Kennedy. No. 1,075,577; Oct. 14; Gaz. vol. 195; p. 368.
Roving and spinning frames, Stop-motion for cotton. B. Ames and A. Harrison. No. 1,075,136; Oct. 7; Gaz. vol. 195; p. 188.
Rubber, Hand-. C. Ritter. No. 1,074,742; Oct. 7; Gaz. vol. 195; p. 54.
Rubber-like substance and making same. H. A. Clark and E. J. Larkin. No. 1,076,349; Oct. 21; Gaz. vol. 195; p. 661.
Ruffling and stitching machine. A. H. De Voe. No. 1,074,845; Oct. 7; Gaz. vol. 195; p. 87.
Rulers and the like, Self-guiding arrangement for parallel. S. Sandurskyj. No. 1,075,067; Oct. 7; Gaz. vol. 195; p. 165.
Runner for wheeled vehicles, Detachable. C. A. Carlson. No. 1,076,816; Oct. 28; Gaz. vol. 195; p. 879.
Sacking-machine jolter. C. Bordier. No. 1,076,480; Oct. 21; Gaz. vol. 195; p. 707.
Sad-iron, Gas-heated. H. A. Koenig. No. 1,076,677; Oct. 28; Gaz. vol. 195; p. 830.
Sad-iron, Gas-heated. A. H. Davies. No. 1,076,958; Oct. 28; Gaz. vol. 195; p. 930.
Sad-iron handle. C. P. Eichler. No. 1,076,108; Oct. 21; Gaz. vol. 195; p. 578.
Safe. D. Littlejohn and W. M. Mitchell. No. 1,075,113; Oct. 7; Gaz. vol. 195; p. 180.
Safe and vault doors, Electric protective device for. H. and H. R. Huhn. No. 1,077,077; Oct. 28; Gaz. vol. 195; p. 970.
Safe, Wall-. H. C. Lowrie. (Reissue.) No. 13,625; Oct. 7; Gaz. vol. 195; p. 259.
Saltpeter, potassium, or magnesium chlorid and the like, Apparatus for comminuting calcareous. H. Pauling. No. 1,075,722; Oct. 14; Gaz. vol. 195; p. 417.
Sand-rammer, Pneumatic. S. Oldham. No. 1,075,057; Oct. 7; Gaz. vol. 195; p. 162.
Sanitary closet. J. H. Foster. No. 1,075,471; Oct. 14; Gaz. vol. 195; p. 333.
Sash-bars, Apparatus for producing ornamental. K. H. F. Huth. No. 1,074,722; Oct. 7; Gaz. vol. 195; p. 47.
Sash-holder. T. J. Starkey. No. 1,075,444; Oct. 14; Gaz. vol. 195; p. 324.
Sash holder, Window-. O. M. Edwards. No. 1,077,193; Oct. 28; Gaz. vol. 195; p. 1004.
Sash-lock. J. Hunciker. No. 1,075,828; Oct. 14; Gaz. vol. 195; p. 454.
Sash-lock. L. R. Eddy. No. 1,076,650; Oct. 21; Gaz. vol. 195; p. 769.
Sash-weight, Sectional. N. A. Petry. No. 1,076,698; Oct. 28; Gaz. vol. 195; p. 838.
Sash, Window-. E. C. Shepherd. No. 1,075,306; Oct. 7; Gaz. vol. 195; p. 250.
Sashes and the like, Apparatus for supporting window-. J. B. Murphy. No. 1,076,053; Oct. 21; Gaz. vol. 195; p. 559.
Sausage-linking machine. J. Shier. No. 1,075,604; Oct. 14; Gaz. vol. 195; p. 378.
Sausage-meat or the like, Artificial skin or gut envelop for. D. Manivet and E. Ressegaire. No. 1,076,899; Oct. 28; Gaz. vol. 195; p. 909.
Sausage-skins and the like, Manufacture of. H. Deutsch. No. 1,076,005; Oct. 14; Gaz. vol. 195; p. 515.
Sausage-stuffer. C. Hanke. No. 1,075,823; Oct. 14; Gaz. vol. 195; p. 451.
Saw. A. Brazier. No. 1,076,815; Oct. 28; Gaz. vol. 195; p. 879.
Saw-clamp. J. S. Dikeman. No. 1,077,191; Oct. 28; Gaz. vol. 195; p. 1004.
Saw-filing machine. G. W. and L. W. Guin. No. 1,076,112; Oct. 21; Gaz. vol. 195; p. 580.
Sawing machine, Portable circular-. W. Kaylor. No. 1,075,918; Oct. 14; Gaz. vol. 195; p. 484.
Scaffolding-bracket. E. M. Clark. No. 1,076,270; Oct. 21; Gaz. vol. 195; p. 631.
Scale, Weighing-. H. Cummer. No. 1,076,486; Oct. 21; Gaz. vol. 195; p. 709.
Scarf, Head-. G. S. Zick. No. 1,075,181; Oct. 7; Gaz. vol. 195; p. 204.
Scarf-pin. L. P. Walcher. No. 1,077,109; Oct. 28; Gaz. vol. 195; p. 979.
Scoop. M. J. Gogarty. No. 1,075,561; Oct. 14; Gaz. vol. 195; p. 363.
Screen: *See* Fish-screen; Fly-screen; Window-screen.
Screw gripper and driver. C. S. Reamy. No. 1,075,225; Oct. 7; Gaz. vol. 195; p. 219.
Screw or the like, Set-. D. S. Goodwin. No. 1,075,710; Oct. 14; Gaz. vol. 195; p. 413.
Screw-press. F. P. Renneburg. No. 1,076,995; Oct. 28; Gaz. vol. 195; p. 943.
Seal. G. M. Browning. No. 1,075,327; Oct. 14; Gaz. vol. 195; p. 281.
Seal and knot protector. S. Baruch. No. 1,074,769; Oct. 7; Gaz. vol. 195; p. 63.
Seal-locked can. E. Tyden. No. 1,076,334; Oct. 21; Gaz. vol. 195; p. 655.
Seal-locked can. E. Tyden. No. 1,076,616; Oct. 21; Gaz. vol. 195; p. 756.
Sealing bottles. K. L. Kithil. No. 1,076,770; Oct. 28; Gaz. vol. 195; p. 862.
Sealing carbon tetrachlorid, Process and apparatus for. A. C. Rowe. No. 1,074,747; Oct. 7; Gaz. vol. 195; p. 56.
Sealing machine, Envelop-. C. A. Burr. No. 1,074,772; Oct. 7; Gaz. vol. 195; p. 64.
Seat: *See* Car-seat; Chair-seat; Closet-seat; Wagon-seat.
Sectional boiler. M. A. Cook. No. 1,075,194; Oct. 7; Gaz. vol. 195; p. 209.
Seed-cleaning machine. A. D. Kennedy. No. 1,075,480; Oct. 14; Gaz. vol. 195; p. 335.
Seed-drills, Double-disk attachment for. O. G. Rieake. No. 1,076,998; Oct. 28; Gaz. vol. 195; p. 944.
Seed-tester. W. Weaver. No. 1,074,826; Oct. 7; Gaz. vol. 195; p. 81.
Self-lubricating wheel. F. G. Koehler. No. 1,074,876; Oct. 7; Gaz. vol. 195; p. 97.
Separating device. N. N. S. Daudelin. No. 1,074,931; Oct. 7; Gaz. vol. 195; p. 117.
Separator: *See* Electromagnetic separator; Grain-separator; Ore-separator.
Separator-disks, Machine for cleaning. J. Hansen. No. 1,077,067; Oct. 28; Gaz. vol. 195; p. 967.
Separator-guard. A. W. Pitts. No. 1,075,063; Oct. 7; Gaz. vol. 195; p. 164.
Separator-screen cleaner. T. F. Morse. No. 1,074,970; Oct. 7; Gaz. vol. 195; p. 129.
Sewage or the like, Purifying. W. O. Travis and E. Ault. No. 1,076,721; Oct. 28; Gaz. vol. 195; p. 846.
Sewing-machine. A. Eppler. No. 1,076,878; Oct. 28; Gaz. vol. 195; p. 901.
Sewing-machine. J. R. Moffatt. No. 1,076,991; Oct. 28; Gaz. vol. 195; p. 941.
Sewing-machine braider or corder. H. M. Greist and E. J. Boyler. No. 1,075,414; Oct. 14; Gaz. vol. 195; p. 312.
Sewing-machine clutch mechanism. R. A. Scranton. No. 1,074,650; Oct. 7; Gaz. vol. 195; p. 22.
Sewing-machine cut-off attachment for tapes. F. S. Jennings. (Reissue.) No. 13,627; Oct. 14; Gaz. vol. 195; p. 517.
Sewing-machine feeding mechanism. J. M. Merrow. No. 1,074,968; Oct. 7; Gaz. vol. 195; p. 128.
Sewing-machine, Lock-stitch. A. C. Chase. No. 1,076,951; Oct. 28; Gaz. vol. 195; p. 927.
Sewing-machine looper mechanism. H. A. Ballard. No. 1,076,082; Oct. 7; Gaz. vol. 195; p. 170.
Sewing-machine shuttle. M. A. Ross. No. 1,075,860; Oct. 14; Gaz. vol. 195; p. 464.
Sewing-machine thread-controlling mechanism. D. W. Corey. No. 1,075,695; Oct. 14; Gaz. vol. 195; p. 408.
Sewing-machine, Triple-seam. R. R. Hughes, Jr. No. 1,075,422; Oct. 14; Gaz. vol. 195; p. 315.
Sewing machines, Welt-guide mechanism for welt-shoe-. A. Eppler. No. 1,076,201; Oct. 21; Gaz. vol. 195; p. 608.

Shade adjuster, Window-. H. Oglesby. No. 1,076,905; Oct. 28; Gaz. vol. 195; p. 911.

Shade and curtain-pole support. J. Neuberger and J. F. Hines. No. 1,074,973; Oct. 7; Gaz. vol. 195; p. 130.

Shade-bracket. L. R. Donovan. No. 1,075,466; Oct. 14; Gaz. vol. 195; p. 331.

Shade holder, Heavy-. W. P. Cartwright. No. 1,076,626; Oct. 21; Gaz. vol. 195; p. 760.

Shade-roller and curtain-pole support, Combined. G. E. Alphin. No. 1,075,182; Oct. 7; Gaz. vol. 195; p. 204.

Shades, reflectors, and the like, Holder for. M. P. Stevens. No. 1,076,463; Oct. 21; Gaz. vol. 195; p. 701.

Shaft-detacher, Vehicle. J. L. Garver. No. 1,075,821; Oct. 14; Gaz. vol. 195; p. 450.

Sharpener, Cutlery-. T. M. Klusewitz. No. 1,075,110; Oct. 7; Gaz. vol. 195; p. 179.

Sharpener for lawn-mowers. N. Speck. No. 1,076,919; Oct. 28; Gaz. vol. 195; p. 916.

Sharpener, Gin-saw. J. Rice. No. 1,076,996; Oct. 28; Gaz. vol. 195; p. 943.

Sharpener, Scissors-. T. F. Buck. No. 1,075,690; Oct. 14; Gaz. vol. 195; p. 407.

Sharpening cutting instruments, Machine for. M. S. Weaver. No. 1,076,801; Oct. 28; Gaz. vol. 195; p. 873.

Shears: *See* Pruning-shears.

Shears. J. Farrington. No. 1,076,667; Oct. 28; Gaz. vol. 195; p. 826.

Shears, Pivot for. J. W. Folgert. No. 1,074,852; Oct. 7; Gaz. vol. 195; p. 89.

Sheet-metal slitting and winding machine. H. J. White. No. 1,075,679; Oct. 14; Gaz. vol. 195; p. 403.

Sheet operating and display mechanism. E. W. Lanford. No. 1,075,293; Oct. 7; Gaz. vol. 195; p. 245.

Sheet separating, feeding, and delivering apparatus. E. A. Cox. No. 1,075,697; Oct. 14; Gaz. vol. 195; p. 409.

Shelves, Locking device for. H. Kleber, Jr. No. 1,075,652; Oct. 14; Gaz. vol. 195; p. 395.

Shingle. F. H. Grant. No. 1,076,111; Oct. 21; Gaz. vol. 195; p. 579.

Shingle. W. S. Orth. No. 1,077,095; Oct. 28; Gaz. vol. 195; p. 975.

Shingle, Metal. O. F. Jacobson. No. 1,076,123; Oct. 21; Gaz. vol. 195; p. 583.

Ship. J. C. Schleicher. No. 1,076,068; Oct. 21; Gaz. vol. 195; p. 564.

Ship construction. P. Briones. No. 1,076,624; Oct. 21; Gaz. vol. 195; p. 759.

Ships, System of construction for steel. S. Holmes. No. 1,076,208; Oct. 21; Gaz. vol. 195; p. 611.

Ships, Towing device for. R. Koss. No. 1,075,111; Oct. 7; Gaz. vol. 195; p. 179.

Shirt. C. H. Casebolt. No. 1,075,010; Oct. 7; Gaz. vol. 195; p. 144.

Shirts, blouses, and the like, Neckband of. S. Lever. No. 1,076,381; Oct. 21; Gaz. vol. 195; p. 672.

Shock-absorber. C. N. Sowden. No. 1,074,658; Oct. 7; Gaz. vol. 195; p. 25.

Shock-absorber. C. W. Crawford. No. 1,075,901; Oct. 14; Gaz. vol. 195; p. 477.

Shock-absorber. G. H. Dangleman. No. 1,077,124; Oct. 28; Gaz. vol. 195; p. 984.

Shock-gatherer. H. Zimmerman. No. 1,075,748; Oct. 14; Gaz. vol. 195; p. 426.

Shock-loader. O. L. Gilliland. No. 1,076,670; Oct. 28; Gaz. vol. 195; p. 827.

Shoe. D. Austin. No. 1,075,806; Oct. 14; Gaz. vol. 195; p. 446.

Shoe, Bathing-. A. Aumont. No. 1,074,595; Oct. 7; Gaz. vol. 195; p. 3.

Shoe-drier. J. W. McIver. No. 1,074,888; Oct. 7; Gaz. vol. 195; p. 101.

Shoe-form. A. G. Legge. No. 1,074,723; Oct. 7; Gaz. vol. 195; p. 47.

Shoe-polishing device. T. A. and L. T. Smith. No. 1,076,071; Oct. 21; Gaz. vol. 195; p. 564.

Shoe-polishing machine. A. H. R. Heller. No. 1,076,035; Oct. 21; Gaz. vol. 195; p. 553.

Shoe-stiffener blank. W. B. Arnold. No. 1,076,541; Oct. 21; Gaz. vol. 195; p. 729.

Shoes, Squeak-preventer for. I. L. Keith. No. 1,075,039; Oct. 7; Gaz. vol. 195; p. 155.

Shovel. C. M. Bowman. No. 1,075,459; Oct. 14; Gaz. vol. 195; p. 328.

Shovel-handle, Auxiliary. E. B. Moore. No. 1,074,889; Oct. 7; Gaz. vol. 195; p. 102.

Shovels and the like, Equalizing system for steam-. S. R. W. M. Bager. No. 1,075,081; Oct. 7; Gaz. vol. 195; p. 170.

Shovels and the like, Equalizing system for steam-. L. Wehner. No. 1,075,178; Oct. 7; Gaz. vol. 195; p. 203.

Shovels, Turning device for steam-. W. L. Strahlem. No. 1,077,174; Oct. 28; Gaz. vol. 195; p. 998.

Show-case. W. H. Cobb. No. 1,076,834; Oct. 14; Gaz. vol. 195; p. 284.

Show-case. R. G. Bullock. No. 1,076,547; Oct. 21; Gaz. vol. 195; p. 731.

Show-case construction. I. W. Miller. No. 1,076,143; Oct. 21; Gaz. vol. 195; p. 589.

Show-case, Glass. E. Morris. No. 1,074,640; Oct. 7; Gaz. vol. 195; p. 18.

Shredding-machines, Shock receiving and delivering means for. J. K. Sharpe, Jr. No. 1,074,653; Oct. 7; Gaz. vol. 195; p. 23.

Shutter, Window-. J. Lockhart. No. 1,076,637; Oct. 21; Gaz. vol. 195; p. 764.

Shuttle. F. E. Valois. No. 1,074,758; Oct. 7; Gaz. vol. 195; p. 59.

Shuttle, Automatically-threading. J. Smith. No. 1,074,656; Oct. 7; Gaz. vol. 195; p. 24.

Shuttle, Hand-threading. R. N. Allen. No. 1,076,935; Oct. 28; Gaz. vol. 195; p. 922.

Shuttle-thread-replenishing mechanism. F. F. Dorsey. No. 1,077,056; Oct. 28; Gaz. vol. 195; p. 963.

Shuttle-threading device. I. Snow. No. 1,074,987; Oct. 7; Gaz. vol. 195; p. 135.

Sickle for mowers, &c., Rivetless. J. A. Lackey. No. 1,076,832; Oct. 28; Gaz. vol. 195; p. 884.

Sifter for flour-bins. H. A. Hall. No. 1,075,474; Oct. 14; Gaz. vol. 195; p. 333.

Sifter, Rapid flour-. M. C. Schock. No. 1,075,946; Oct. 14; Gaz. vol. 195; p. 494.

Sign. G. J. B. Rodwell. No. 1,076,519; Oct. 21; Gaz. vol. 195; p. 720.

Sign, Advertising-. C. B. Ulrich. No. 1,076,250; Oct. 21; Gaz. vol. 195; p. 625.

Sign, Electric. F. R. Crane, Jr. No. 1,075,767; Oct. 14; Gaz. vol. 195; p. 433.

Sign, Illuminated. P. L. Ferguson and J. W. Wheelwright. No. 1,076,566; Oct. 21; Gaz. vol. 195; p. 738.

Sign, Moving. J. B. Hutchinson. No. 1,075,149; Oct. 7; Gaz. vol. 195; p. 193.

Signal: *See* Railway electric signal.

Signal. D. I. Kelly. No. 1,075,109; Oct. 7; Gaz. vol. 195; p. 179.

Signal-lock. D. J. Kavanagh No. 1,074,955; Oct. 7; Gaz. vol. 195; p. 124.

Signal system, Elevator. N. L. Schloss. No. 1,076,395; Oct. 21; Gaz. vol. 195; p. 676.

Signaling apparatus, Elevator. T. Porter. No. 1,075,270; Oct. 7; Gaz. vol. 195; p. 237.

Signaling device for estimating distances. J. U. Smith. No. 1,075,949; Oct. 14; Gaz. vol. 195; p. 494.

Signaling system, Electric. R. M. Hopkins. No. 1,075,421; Oct. 14; Gaz. vol. 195; p. 314.

Signaling system, Electric. C. E. Lee. No. 1,076,896; Oct. 28; Gaz. vol. 195; p. 908.

Signaling system, Selective. J. McFell. No. 1,076,303; Oct. 21; Gaz. vol. 195; p. 644.

Silo. W. H. Ludwig. No. 1,075,360; Oct. 14; Gaz. vol. 195; p. 293.

Silo. G. P. Winsall. No. 1,076,729; Oct. 28; Gaz. vol. 195; p. 848.

Silo and building-tile therefor. J. Merley. No. 1,076,597; Oct. 21; Gaz. vol. 195; p. 748.

Silos and tanks, Inside brace for. E. E. Reed. No. 1,074,645; Oct. 7; Gaz. vol. 195; p. 20.

Silver-cleaner. J. L. Ennis. No. 1,074,782; Oct. 7; Gaz. vol. 195; p. 68.

Silver, Sterling. E. D. Gleason. No. 1,075,642; Oct. 14; Gaz. vol. 195; p. 392.

Skein or thread holder. N. Madsen. No. 1,076,898; Oct. 28; Gaz. vol. 195; p. 909.

Skid. R. P. Martin. No. 1,076,593; Oct. 21; Gaz. vol. 195; p. 747.

Skirt-marker. E. A. Havens. No. 1,077,068; Oct. 28; Gaz. vol. 195; p. 968.

Skirt, Reversible. S. F. Juda. No. 1,076,124; Oct. 21; Gaz. vol. 195; p. 583.

Skylight construction. J. D. Thompson. No. 1,075,388; Oct. 14; Gaz. vol. 195; p. 305.

Slag products, Manufacturing. C. H. Schol. No. 1,076,657; Oct. 21; Gaz. vol. 195; p. 771.

Sled. A. Kliment. No. 1,077,082; Oct. 28; Gaz. vol. 195; p. 972.

Sled, Flexible. J. C. Minish. No. 1,075,846; Oct. 14; Gaz. vol. 195; p. 459.

Sleigh, Self-propelled. A. J. Danney. No. 1,075,465; Oct. 14; Gaz. vol. 195; p. 331.

Slitting and rewinding machine. J. A. Cameron and G. B. Birch. No. 1,076,189; Oct. 21; Gaz. vol. 195; p. 605.

Slug-casting machines, Slug-delivery for. H. A. W. Wood. No. 1,075,180; Oct. 7; Gaz. vol. 195; p. 204.

Sluice or valve gate, Cross-hung self-balancing. G. Larson. No. 1,075,428; Oct. 14; Gaz. vol. 195; p. 317.

Smoking-pipe. J. D. Maier. No. 1,077,148; Oct. 28; Gaz. vol. 195; p. 999.

Snap, Lock-spring safety-. S. W. Reynolds. No. 1,076,318; Oct. 21; Gaz. vol. 195; p. 650.

Snap-switch lock attachment. C. D. Platt. No. 1,076,907; Oct. 28; Gaz. vol. 195; p. 911.

Snow-remover. G. H. Mansfield. No. 1,075,154; Oct. 7; Gaz. vol. 195; p. 195.

Soda-water, Conveyer for bottled. E. R. Barber. No. 1,075,893; Oct. 14; Gaz. vol. 195; p. 475.

Soil, Sweetening and fertilizing the. L. Cheeseman. No. 1,076,818; Oct. 28; Gaz. vol. 195; p. 880.

Soldering-furnace. E. T. Burgess. No. 1,075,757; Oct. 14; Gaz. vol. 195; p. 429.

Soldering-iron, Electric. W. S. Hadaway, Jr. No. 1,075,473; Oct. 14; Gaz. vol. 195; p. 333.

Soldering-iron, Electric. E. E. Rose. No. 1,075,497; Oct. 14; Gaz. vol. 195; p. 341.

Sound insulation. C. R. Stedman. No. 1,076,074; Oct. 21; Gaz. vol. 195; p. 565.

Sound-reproducing machines, Automatic stopping device for. H. C. Miller. No. 1,076,385; Oct. 21; Gaz. vol. 195; p. 673.

Sound travels, Apparatus for indicating the direction whence. T. G. and W. Hodgkinson. No. 1,075,103; Oct. 7; Gaz. vol. 195; p. 177.

Spanner-wrench. T. I. Duffy. No. 1,076,565; Oct. 21; Gaz. vol. 195; p. 737.

Spark-arrester. C. A. Cardwell. No. 1,074,603; Oct. 7; Gaz. vol. 195; p. 6.

Spark-gap, Electric. R. H. Wappler. No. 1,075,075; Oct. 7; Gaz. vol. 195; p. 168.

Spark-plug. A. Schmidt. No. 1,077,002; Oct. 28; Gaz. vol. 195; p. 945.

Spark-plug. A. Schmidt. No. 1,077,003; Oct. 28; Gaz. vol. 195; p. 946.

Spark-timer. H. M. Schelbe. No. 1,074,984; Oct. 7; Gaz. vol. 195; p. 134.

Sparking plugs, Testing installation for electromagnetically-operated. G. Honold. No. 1,076,427; Oct. 21; Gaz. vol. 195; p. 688.

Spear. W. R. Hopner and E. M. Van Dyke. No. 1,076,036; Oct. 21; Gaz. vol. 195; p. 553.

Speed-changing device. S. W. Wardwell. No. 1,075,800; Oct. 14; Gaz. vol. 195; p. 444.

Speed-governor. W. J. A. London. No. 1,074,879; Oct. 7; Gaz. vol. 195; p. 98.

Speedometers, Driving device for vehicle-. F. M. Murray. No. 1,074,732; Oct. 7; Gaz. vol. 195; p. 51.

Spindle: *See* Oilless spindle; Spinning-spindle.

Spindle. G. M. Whitin. No. 1,074,996; Oct. 7; Gaz. vol. 195; p. 138.

Spindle. C. S. Foster. No. 1,075,205; Oct. 7; Gaz. vol. 195; p. 213.

Spinning apparatus, Traverse-motion for yarn-. A. E. Rhoades. No. 1,076,910; Oct. 28; Gaz. vol. 195; p. 912.

Spinning-frame speed-controller. W. T. Holmes and G. H. Whittingham. No. 1,075,036; Oct. 7; Gaz. vol. 195; p. 154.

Spinning-frame tool. L. H. Rooney. No. 1,075,602; Oct. 14; Gaz. vol. 195; p. 378.

Spinning-machine. W. H. Young. No. 1,076,805; Oct. 28; Gaz. vol. 195; p. 875.

Spinning machinery. J. J. O'Connor. No. 1,074,737; Oct. 7; Gaz. vol. 195; p. 52.

Spinning or twisting apparatus, Ring. H. G. Beede. No. 1,075,004; Oct. 7; Gaz. vol. 195; p. 142.

Spinning or twisting apparatus, Ring. H. G. Beede. No. 1,075,185; Oct. 7; Gaz. vol. 195; p. 206.

Spinning-spindle. C. H. Chapman. No. 1,075,461; Oct. 14; Gaz. vol. 195; p. 329.

Spiral casing. W. M. White. No. 1,076,617; Oct. 21; Gaz. vol. 195; p. 756.

Spool. A. Glaser and J. W. Edson. No. 1,074,786; Oct. 7; Gaz. vol. 195; p. 68.

Spout, Dispensing-. W. W. Tilghman. No. 1,076,080; Oct. 21; Gaz. vol. 195; p. 567.

Spraying device. F. B. Graham. No. 1,075,562; Oct. 14; Gaz. vol. 195; p. 363.

Spring: *See* Vehicle-spring.

Spring. W. A. Doble. No. 1,076,961; Oct. 28; Gaz. vol. 195; p. 931.

Spring equalizer system. W. W. Pitts. No. 1,076,056; Oct. 21; Gaz. vol. 195; p. 559.

Spring-motor. V. W. Creech. No. 1,075,023; Oct. 7; Gaz. vol. 195; p. 150.

Spring-motor. H. L. Pitman. No. 1,076,314; Oct. 21; Gaz. vol. 195; p. 649.

Spring-roller, Extension. S. E. Mallery. No. 1,077,149; Oct. 28; Gaz. vol. 195; p. 991.

Spring structure. G. C. Shoemaker. No. 1,076,164; Oct. 21; Gaz. vol. 195; p. 596.

Spring supporting system. J. Holt. No. 1,075,106; Oct. 7; Gaz. vol. 195; p. 178.

Spring-wheel. H. Boardman. No. 1,075,688; Oct. 14; Gaz. vol. 195; p. 406.

Spring-wheel. W. L. Mann. No. 1,075,838; Oct. 14; Gaz. vol. 195; p. 457.

Spring-wheel. W. J. and P. Cook. No. 1,076,003; Oct. 14; Gaz. vol. 195; p. 514.

Sprinkler. J. H. Keys. No. 1,076,890; Oct. 28; Gaz. vol. 195; p. 905.

Square. J. M. Brown. No. 1,076,095; Oct. 21; Gaz. vol. 195; p. 574.

Square, Take-down. A. A. Page. No. 1,074,892; Oct. 7; Gaz. vol. 195; p. 103.

Stackers, Feeding attachment for pneumatic. J. W. Plummer. No. 1,076,057; Oct. 21; Gaz. vol. 195; p. 560.

Stair structure, Metallic. J. T. Nesdall. No. 1,075,156; Oct. 7; Gaz. vol. 195; p. 195.

Stake-holder. L. Teegarden. No. 1,075,448; Oct. 14; Gaz. vol. 195; p. 325.

Stalk-cutter. E. M. Cole. No. 1,074,930; Oct. 7; Gaz. vol. 195; p. 116.

Stamp, Time-. J. Alsenz. No. 1,076,258; Oct. 21; Gaz. vol. 195; p. 627.

Stand: *See* Adjustable stand; Boiler-stand; Display-stand; Telephone-receiver stand.

Stationery. J. Rindsberg. No. 1,076,450; Oct. 21; Gaz. vol. 195; p. 697.

Stay-bolt. E. I. Dodds. No. 1,077,045; Oct. 28; Gaz. vol. 195; p. 960.

Stay-bolt. E. I. Dodds. No. 1,077,046; Oct. 28; Gaz. vol. 195; p. 961.

Stay-bolt. E. I. Dodds. No. 1,077,047; Oct. 28; Gaz. vol. 195; p. 961.

Stay-bolt. E. I. Dodds. No. 1,077,048; Oct. 28; Gaz. vol. 195; p. 961.

Stay-bolt. E. I. Dodds. No. 1,077,049; Oct. 28; Gaz. vol. 195; p. 961.

Stay-bolt. E. I. Dodds. No. 1,077,050; Oct. 28; Gaz. vol. 195; p. 962.

Stay-bolt. E. I. Dodds. No. 1,077,051; Oct. 28; Gaz. vol. 195; p. 962.

Stay-bolt. E. I. Dodds. No. 1,077,052; Oct. 28; Gaz. vol. 195; p. 962.

Stay-bolt. E. I. Dodds. No. 1,077,053; Oct. 28; Gaz. vol. 195; p. 962.

Stay-bolt. E. I. Dodds. No. 1,077,054; Oct. 28; Gaz. vol. 195; p. 963.

Stay-bolt cutter, Self-feeding. R. Hall, Jr. No. 1,077,196; Oct. 28; Gaz. vol. 195; p. 1006.

Stays, Tip for garment-. D. Schuler. No. 1,075,731; Oct. 14; Gaz. vol. 195; p. 421.

Steam-engine. W. P. Ruble. No. 1,077,097; Oct. 28; Gaz. vol. 195; p. 976.

Steam-generator. A. Hackett. No. 1,076,824; Oct. 28; Gaz. vol. 195; p. 882.

Steam-generator for oil-burners. P. Root. No. 1,075,728; Oct. 14; Gaz. vol. 195; p. 419.

Steam-generator furnace. J. Ramacher. No. 1,077,208; Oct. 28; Gaz. vol. 195; p. 1008.

Steam-generator, Superheating. P. Jorgenson. No. 1,075,151; Oct. 7; Gaz. vol. 195; p. 194.

Steamship-furnace. C. A. Kuenzel. No. 1,076,893; Oct. 28; Gaz. vol. 195; p. 907.

Steel and steel alloys, Treating. W. H. Jones and A. F. Mitchell. No. 1,076,768; Oct. 28; Gaz. vol. 195; p. 861.

Steering-gear. M. D. and N. C. Satterlee. No. 1,074,748; Oct. 7; Gaz. vol. 195; p. 56.

Stencilling-machine. J. Sokolov. No. 1,075,735; Oct. 14; Gaz. vol. 195; p. 422.

Sterilizer. A. E. Walden. No. 1,077,020; Oct. 28; Gaz. vol. 195; p. 951.

Still. H. B. Phillips. No. 1,076,389; Oct. 21; Gaz. vol. 195; p. 674.

Stirrup. C. W. Stier. No. 1,077,106; Oct. 28; Gaz. vol. 195; p. 978.

Stone and product obtained thereby, Making artificial. S. Sborowitz. No. 1,074,983; Oct. 7; Gaz. vol. 195; p. 133.

Stone-dressing-machine tool-carrier. W. H. Van Sickel. No. 1,074,919; Oct. 7; Gaz. vol. 195; p. 110.

Stoneware, Artificial. R. P. Osborn and J. Roach. No. 1,075,932; Oct. 14; Gaz. vol. 195; p. 489.

Stool. C. J. Colling, Sr. No. 1,075,964; Oct. 14; Gaz. vol. 195; p. 500.

Stool, Folding. R. D. Morgan. No. 1,075,591; Oct. 14; Gaz. vol. 195; p. 373.

Stool, Milking-. L. Hanson. No. 1,075,145; Oct. 7; Gaz. vol. 195; p. 191.

Stop-motion. F. H. Hall. No. 1,076,980; Oct. 28; Gaz. vol. 195; p. 937.

Stopper: *See* Bottle-stopper; Valved stopper.

Stopper for bottles, jars, and the like. G. H. Jones. No. 1,076,374; Oct. 21; Gaz. vol. 195; p. 669.

Storage battery. W. A. Crowdus. No. 1,076,485; Oct. 21; Gaz. vol. 195; p. 709.

Store-fixture. J. G. Lundy. No. 1,074,802; Oct. 7; Gaz. vol. 195; p. 74.

Stove, Blue-flame oil-. A. J. Blackford. No. 1,076,686; Oct. 7; Gaz. vol. 195; p. 35.

Stove, Blue-flame wick-. E. Boekenkamp. No. 1,074,688; Oct. 7; Gaz. vol. 195; p. 36.

Stove, Oil-. W. J. Shults. No. 1,075,948; Oct. 14; Gaz. vol. 195; p. 494.

Stove unit, Electrically-heated. W. S. Hadaway, Jr. No. 1,075,472; Oct. 14; Gaz. vol. 195; p. 333.

Stoves when overturned, Attachment for extinguishing oil-. K. L. Stendahl. No. 1,076,168; Oct. 21; Gaz. vol. 195; p. 597.

Stovepipe-joint. W. H. Stephenson. No. 1,075,737; Oct. 14; Gaz. vol. 195; p. 423.

Strainer, Coffee and tea. H. D. Smith. No. 1,076,795; Oct. 28; Gaz. vol. 195; p. 871.

Strainer, Wire-. J. J. Keppel. No. 1,074,872; Oct. 7; Gaz. vol. 195; p. 96.

Street-cleaner. T. R. and J. P. Murray and E. S. Neilan. No. 1,075,489; Oct. 14; Gaz. vol. 195; p. 338.

Street-indicator for electric cars. J. E. Morton. No. 1,075,055; Oct. 7; Gaz. vol. 195; p. 161.

Street-sprinkling device. S. McCutcheon. No. 1,076,594; Oct. 21; Gaz. vol. 195; p. 748.

Stropper. C. M. Moore. No. 1,075,665; Oct. 14; Gaz. vol. 195; p. 398.

Stropping and like machine. A. J. Postans. No. 1,075,938; Oct. 14; Gaz. vol. 195; p. 491.

Structural material. J. H. Mills. No. 1,075,845; Oct. 14; Gaz. vol. 195; p. 459.

Studio-chair. W. F. Folmer. No. 1,074,615; Oct. 7; Gaz. vol. 195; p. 9.

Stuffing-box and bearing for shafts of marine propellers. H. D. Bacon. No. 1,075,080; Oct. 7; Gaz. vol. 195; p. 170.

Stump-extractor. E. P. Boden. No. 1,075,008; Oct. 7; Gaz. vol. 195; p. 143.

Stump-puller. A. J. Warren. No. 1,075,883; Oct. 14; Gaz. vol. 195; p. 472.

Suction and compression apparatus. C. D. Haeusler. No. 1,075,711; Oct. 14; Gaz. vol. 195; p. 413.
Suitcase-lock. E. B. Stone. No. 1,074,909; Oct. 7; Gaz. vol. 195; p. 109.
Sulfite liquor and compound obtained therefrom, Treating waste. H. H. Hurt. No. 1,075,916; Oct. 14; Gaz. vol. 195; p. 484.
Sulfite-pulp process, Reclaiming system in a. C. B. Thorne. No. 1,076,078; Oct. 21; Gaz. vol. 195; p. 567.
Superheater. J. Primrose. No. 1,076,315; Oct. 21; Gaz. vol. 195; p. 649.
Superheater-boiler. J. E. Bell. No. 1,077,117; Oct. 28; Gaz. vol. 195; p. 982.
Superheater, Steam-. C. S. Hooper and R. C. Stevens. No. 1,074,792; Oct. 7; Gaz. vol. 195; p. 71.
Surgical instrument. J. Bandieri. No. 1,075,002; Oct. 7; Gaz. vol. 195; p. 141.
Suspender coupling or clasp. W. W. Wolfe. No. 1,076,182; Oct. 21; Gaz. vol. 195; p. 602.
Suspender-end. O. G. Rust. No. 1,076,154; Oct. 21; Gaz. vol. 195; p. 593.
Suspender for artificial arms. J. F. Rowley. No. 1,075,861; Oct. 14; Gaz. vol. 195; p. 464.
Suspenders. F. W. Mally and E. P. Hudson. No. 1,076,504; Oct. 21; Gaz. vol. 195; p. 715.
Suspenders. F. W. Mally and E. P. Hudson. No. 1,076,505; Oct. 21; Gaz. vol. 195; p. 715.
Swing and bed, Combination. J. C. Goodman. No. 1,076,361; Oct. 21; Gaz. vol. 195; p. 665.
Switch: *See* Disconnecting-switch; Electric reversing-switch; Electrical switch; Frogless switch; Lamp-switch; Lock-switch; Railway-switch; Track-switch.
Switch-operating device. M. M. McCombs. No. 1,075,841; Oct. 14; Gaz. vol. 195; p. 458.
Switches, Connecting-rod for. E. F. Johnson. No. 1,077,141; Oct. 28; Gaz. vol. 195; p. 988.
Synchronizing device. J. W. Bryce. No. 1,075,620; Oct. 14; Gaz. vol. 195; p. 385.
Syringe. J. H. L. Eager. No. 1,074,780; Oct. 7; Gaz. vol. 195; p. 67.
Syringe. J. J. Holland. No. 1,076,425; Oct. 21; Gaz. vol. 195; p. 687.
Syringe, Dilating-. A. L. Miner. No. 1,076,221; Oct. 21; Gaz. vol. 195; p. 616.
Syringe, Extractor and capsule. J. L. McClellan. No. 1,074,965; Oct. 7; Gaz. vol. 195; p. 128.
Table: *See* Ironing-table; Rotatable table; Treating-table; Turn-table.
Table lock, Extension-. E. Tyden. No. 1,076,174; Oct. 21; Gaz. vol. 195; p. 599.
Tables, Foot-operated lock for pedestal-. C. S. Burton. No. 1,076,662; Oct. 28; Gaz. vol. 195; p. 824.
Tables, Pedal-operated lock for pedestal-. C. S. Burton. No. 1,076,661; Oct. 28; Gaz. vol. 195; p. 823.
Tachometer. O. Aberegg. No. 1,075,998; Oct. 14; Gaz. vol. 195; p. 512.
Tack-raceways, Locking device for. A. Witt. No. 1,074,997; Oct. 7; Gaz. vol. 195; p. 139.
Tag-fastener. F. G. Shuman. No. 1,077,169; Oct. 28; Gaz. vol. 195; p. 997.
Tag-holder. D. F. Byrnes. No. 1,075,190; Oct. 7; Gaz. vol. 195; p. 207.
Talking-machine. E. R. Johnson and J. C. English. No. 1,075,288; Oct. 7; Gaz. vol. 195; p. 244.
Talking-machine. R. Fromholz. No. 1,075,708; Oct. 14; Gaz. vol. 195; p. 412.
Talking-machine. H. B. Babson and A. Haug. No. 1,076,621; Oct. 21; Gaz. vol. 195; p. 758.
Talking-machine, Disk. R. Pressler. No. 1,076,643; Oct. 21; Gaz. vol. 195; p. 766.
Tank: *See* Developing-tank; Flushing-tank; Oil-tank.
Tank-gage. B. H. Camden. No. 1,074,692; Oct. 7; Gaz. vol. 195; p. 38.
Tank valve-levers, Connecting device for water-. A. L. Neilan. No. 1,074,734; Oct. 7; Gaz. vol. 195; p. 51.
Tape-line protector. J. J. Miller. No. 1,075,052; Oct. 7; Gaz. vol. 195; p. 160.
Target, Artificial bird-. E. E. Thresher. No. 1,075,518; Oct. 14; Gaz. vol. 195; p. 348.
Target, Revolving. J. U. Clarke. No. 1,076,002; Oct. 14; Gaz. vol. 195; p. 513.
Target-trap. H. C. Lord. No. 1,074,725; Oct. 7; Gaz. vol. 195; p. 48.
Telegraph, Image-transmitting. L. Tschörner. No. 1,075,614; Oct. 14; Gaz. vol. 195; p. 381.
Telegraph-key. R. L. Boulter. No. 1,074,831; Oct. 7; Gaz. vol. 195; p. 82.
Telegraph-transmitter. C. E. Scribner. No. 1,075,503; Oct. 14; Gaz. vol. 195; p. 343.
Telegraph-transmitter. C. E. Scribner. No. 1,075,504; Oct. 14; Gaz. vol. 195; p. 343.
Telegraphic perforating-receiver. H. Bille. No. 1,076,944; Oct. 28; Gaz. vol. 195; p. 925.
Telegraphic systems, Automatic transmitter for. J. Gell. No. 1,075,315; Oct. 7; Gaz. vol. 195; p. 253.
Telemeter, Coincidence-. O. Eppenstein. No. 1,074,935; Oct. 7; Gaz. vol. 195; p. 118.
Telephone-calls, Enumeration of. S. D. Williams. No. 1,074,677; Oct. 7; Gaz. vol. 195; p. 32.
Telephone-exchange system. F. R. McBerty. No. 1,075,430; Oct. 14; Gaz. vol. 195; p. 318.
Telephone-exchange systems, Automatic switch for. E. E. Clement. No. 1,076,020; Oct. 21; Gaz. vol. 195; p. 547.
Telephone-exchanges, Party-line system for automatic. F. Aldendorff. No. 1,077,185; Oct. 28; Gaz. vol. 195; p. 1002.
Telephone hand set. R. R. Ireland and A. F. F. Gilson. No. 1,075,423; Oct. 14; Gaz. vol. 195; p. 315.
Telephone pay-station. G. A. Long. No. 1,075,485; Oct. 14; Gaz. vol. 195; p. 337.
Telephone-receiver stand. M. Schwartzberg. No. 1,074,648; Oct. 7; Gaz. vol. 195; p. 21.
Telephone system. J. G. Blessing. No. 1,075,007; Oct. 7; Gaz. vol. 195; p. 143.
Telephone system. C. W. McGonigle. No. 1,076,990; Oct. 28; Gaz. vol. 195; p. 941.
Telephone-system station instrument. A. E. Keith. No. 1,077,225; Oct. 28; Gaz. vol. 195; p. 1016.
Telephone-transmitter. W. Kaisling. No. 1,076,041; Oct. 21; Gaz. vol. 195; p. 554.
Telephony. M. L. Johnson. No. 1,075,257; Oct. 7; Gaz. vol. 195; p. 231.
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Tire, Pneumatic. F. C. Felker. No. 1,075,345; Oct. 14; Gaz. vol. 195; p. 287.
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Tire-shoe. A. S. Bullock. No. 1,076,345; Oct. 21; Gaz. vol. 195; p. 660.
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Trains, Electrically-driven railless. W. A. T. Müller. No 1,075,595; Oct. 14; Gaz. vol. 195; p. 374.
Tramway, Suspended-cable. C. H. Vogel and G. R. Taitt. No. 1,076,337; Oct. 21; Gaz. vol. 195; p. 657.
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Tree-protector. C. I. Helm. No. 1,075,255; Oct. 7; Gaz. vol. 195; p. 230.
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Tube: *See* Paper tube; Valve-tube.
Tube-coiling machine. J. E. Lewis. No. 1,075,045; Oct. 7; Gaz. vol. 195; p. 157.
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Turbines, Regulating device for tapped. E. Überlée. No. 1,076,335; Oct. 21; Gaz. vol. 195; p. 656.
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Twine-cutter. T. H. Howell. No. 1,074,864; Oct. 7; Gaz. vol. 195; p. 93.
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Type, Machine for feeding. H. C. Gammeter. No. 1,075,029; Oct. 7; Gaz. vol. 195; p. 152.
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Type storing, assembling, and distributing mechanism. H. C. Osborn. No. 1,076,906; Oct. 28; Gaz. vol. 195; p. 911.
Type-writer attachment. E. J. Barker. No. 1,075,458; Oct. 14; Gaz. vol. 195; p. 328.
Type-writer, Pneumatic. M. Sobilk. No. 1,075,512; Oct. 14; Gaz. vol. 195; p. 346.
Type-writer ribbon mechanism. B. C. Stickney. No. 1,075,996; Oct. 14; Gaz. vol. 195; p. 511.
Type-writer type-bars, Releasing mechanism for. W. D. Fricks. No. 1,076,276; Oct. 21; Gaz. vol. 195; p. 634.
Type-writers, Type-bar mechanism for. H. Moya. No. 1,076,602; Oct. 21; Gaz. vol. 195; p. 750.
Type-writing and other key-actuated machines. J. T. Schaaff. No. 1,075,944; Oct. 14; Gaz. vol. 195; p. 493.
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Typographic machine. R. M. Bedell. No. 1,076,184; Oct. 21; Gaz. vol. 195; p. 603.
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Vacuum-cleaner. H. T. Rodden. No. 1,074,744; Oct. 7; Gaz. vol. 195; p. 55.
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Valve. L. B. Gray. No. 1,076,281; Oct. 21; Gaz. vol. 195; p. 636.
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Valve, Air-. J. M. Chambers. No. 1,075,332; Oct. 14; Gaz. vol. 195; p. 283.
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Valve-float for closet-tanks. C. M. Brenner. No. 1,076,546; Oct. 21; Gaz. vol. 195; p. 730.
Valve for explosive-engines, Rotary. C. E. Mead. No. 1,075,432; Oct. 14; Gaz. vol. 195; p. 318.
Valve for internal-combustion engines, Combined intake and exhaust. G. W. Moser. No. 1,075,594; Oct. 14; Gaz. vol. 195; p. 374.
Valve for radiators, Air-. F. W. Leuthesser. No. 1,075,294; Oct. 7; Gaz. vol. 195; p. 245.
Valve for water, Equalizing-. J. J. Lawler. No. 1,076,293; Oct. 21; Gaz. vol. 195; p. 640.
Valve-gear. C. B. Pirie. No. 1,075,269; Oct. 7; Gaz. vol. 195; p. 236.
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Valve-gear, Combustion-engine. P. R. C. Lawrenz. No. 1,076,294; Oct. 21; Gaz. vol. 195; p. 641.
Valve-gear, Steam-engine. W. S. Brown. No. 1,076,406; Oct. 21; Gaz. vol. 195; p. 681.
Valve mechanism for internal-combustion engines. V. P. Coffin. No. 1,076,551; Oct. 21; Gaz. vol. 195; p. 732.
Valve, Needle-. A. Walt. No. 1,075,798; Oct. 14; Gaz. vol. 195; p. 443.
Valve-operating apparatus for flushing-tanks. F. W. Bamford. No. 1,075,681; Oct. 14; Gaz. vol. 195; p. 404.
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Valve, Radiator-. F. L. Shell. No. 1,075,068; Oct. 7; Gaz. vol. 195; p. 166.
Valve, Radiator-. E. E. Gibbons. No. 1,075,780; Oct. 14; Gaz. vol. 195; p. 437.
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Valve-seats and for like purposes, Machine for facing and refacing. W. Crockatt. No. 1,075,198; Oct. 7; Gaz. vol. 195; p. 210.
Valve, Steam-engine. E. F. Williams. No. 1,076,256. Oct. 21; Gaz. vol. 195; p. 627.
Valve, Thermostatic. R. T. Parisen. No. 1,075,934; Oct. 14; Gaz. vol. 195; p. 490.
Valve-tube. E. W. Caldwell. No. 1,076,949; Oct. 28; Gaz. vol. 195; p. 927.
Valved stopper for siphon and other bottles. T. F. Garrett. No. 1,074,616; Oct. 7; Gaz. vol. 195; p. 10.
Vanity-box. L. Morse. No. 1,077,093; Oct. 28; Gaz. vol. 195; p. 975.
Vapor-absorber, smoke and soot preventer, and heat-retainer. G. H. Backmire. No. 1,076,942; Oct. 28; Gaz. vol. 195; p. 924.
Vapor apparatus, Protecting mercury-. O. O. Kruh. No. 1,076,212; Oct. 21; Gaz. vol. 195; p. 612.
Vapor-burner. H. S. Thornton. No. 1,076,718; Oct. 28; Gaz. vol. 195; p. 845.
Vaporizer for fumigating, perfuming, and the like. W. L. Oddey. No. 1,075,267; Oct. 7; Gaz. vol. 195; p. 236.
Vaporizing apparatus. G. Constantinescu. (Reissue.) No. 13,635; Oct. 28; Gaz. vol. 195; p. 1023.
Vaulting-horses, Caster mechanism for. P. S. Medart. No. 1,076,778; Oct. 28; Gaz. vol. 195; p. 866.
Vehicle. J. A. Becher. No. 1,074,596; Oct. 7; Gaz. vol. 195; p. 3.
Vehicle and like wheel. G. F. Godley. No. 1,074,187; Oct. 7; Gaz. vol. 195; p. 69.
Vehicle-brakes, Windlass attachment for. G. P. Crutchfield. No. 1,075,902; Oct. 14; Gaz. vol. 195; p. 478.
Vehicle-chock. F. Rode. No. 1,076,152; Oct. 21; Gaz. vol. 195; p. 593.
Vehicle, Convertible. G. M. Custer. No. 1,075,330; Oct. 14; Gaz. vol. 195; p. 285.
Vehicle-doors, Means for operating. W. M. Simmons. No. 1,076,165; Oct. 21; Gaz. vol. 195; p. 596.
Vehicle driving mechanism. R. C. Mangum. No. 1,076,132; Oct. 21; Gaz. vol. 195; p. 585.
Vehicle driving mechanism. E. G. Hoffmann. No. 1,076,652; Oct. 21; Gaz. vol. 195; p. 760.
Vehicle indicating device. M. Felix. No. 1,075,555; Oct. 14; Gaz. vol. 195; p. 361.
Vehicle, Motor-. J. W. Bruce. No. 1,075,088; Oct. 7; Gaz. vol. 195; p. 172.

Vehicle, Motor-. J. W. Hamm. No. 1,076,033; Oct. 21; Gaz. vol. 195; p. 552.
Vehicle platform-gear. J. Errett. No. 1,076,202; Oct. 21; Gaz. vol. 195; p. 608.
Vehicle safety appliance. C. Brunswick. No. 1,077,217; Oct. 28; Gaz. vol. 195; p. 1013.
Vehicle-spring. J. Frosig and L. W. Walstrom. No. 1,076,414; Oct. 21; Gaz. vol. 195; p. 684.
Vehicle-springs and the like, Connecting means for. J. M. de Saint-Martin. No. 1,075,498; Oct. 14; Gaz. vol. 195; p. 341.
Vehicle suspension, Compensation device for. R. Guillery. No. 1,075,415; Oct. 14; Gaz. vol. 195; p. 313.
Vehicle top-support. B. C. Smith and D. Horvitz. No. 1,077,007; Oct. 28; Gaz. vol. 195; p. 947.
Vehicle-wheel. A. H. Miller. No. 1,075,664; Oct. 14; Gaz. vol. 195; p. 397.
Vehicle-wheel. A. Schick. No. 1,076,239; Oct. 21; Gaz. vol. 195; p. 621.
Vehicle-wheel. E. H. Whiting. No. 1,076,255; Oct. 21; Gaz. vol. 195; p. 626.
Vehicle-wheel. M. D. Krespach and J. R. Hazeley. No. 1,076,678; Oct. 28; Gaz. vol. 195; p. 830.
Vehicle wheel, Road-. C. K. Welch. No. 1,076,178; Oct. 21; Gaz. vol. 195; p. 601.
Vehicle-wheel, Spring. W. H. Fahrney. No. 1,075,637; Oct. 14; Gaz. vol. 195; p. 390.
Vehicles, Tractable means for motor-driven. J. B. Smay, Jr. No. 1,077,101; Oct. 28; Gaz. vol. 195; p. 977.
Vehicles, Worm-drive for motor-. W. S. Morton. No. 1,076,052; Oct. 21; Gaz. vol. 195; p. 558.
Veil, Stormproof. A. L. Boher. No. 1,076,809; Oct. 28; Gaz. vol. 195; p. 877.
Velocipede-support. M. Zetschok. No. 1,077,183; Oct. 28; Gaz. vol. 195; p. 1002.
Vending and affixing machine, Stamp. G. L. Reichhelm. No. 1,076,517; Oct. 21; Gaz. vol. 195; p. 720.
Vending-machine. S. L. W. Coe, H. T. and E. W. Werden. No. 1,074,607; Oct. 7; Gaz. vol. 195; p. 6.
Vending-machine. H. B. Cooley. No. 1,074,696; Oct. 7; Gaz. vol. 195; p. 39.
Vending-machine. F. C. Whitmore. No. 1,075,527; Oct. 14; Gaz. vol. 195; p. 351.
Vending machine, Liquid-. B. P. Rucker. No. 1,075,943; Oct. 14; Gaz. vol. 195; p. 493.
Vending-machine, Two-compartment coin-controlled. S. J. Kelly and J. A. Webster. No. 1,076,769; Oct. 28; Gaz. vol. 195; p. 861.
Ventilator: *See* Revolving ventilator.
Ventilator. J. K. Robinson. No. 1,076,451; Oct. 21; Gaz. vol. 195; p. 607.
Ventilator. L. P. Hynes. No. 1,077,078; Oct. 28; Gaz. vol. 195; p. 971.
Vessel. C. R. Seaquist. No. 1,075,160; Oct. 7; Gaz. vol. 195; p. 196.
Vessel-cleaning machine. D. S. Runnels. No. 1,076,066; Oct. 21; Gaz. vol. 195; p. 563.
Vessel-hull. P. J. J. Saupe. No. 1,074,897; Oct. 7; Gaz. vol. 195; p. 105.
Vessels, Signaling and passenger-carrying device for. A. Grossich. No. 1,076,496; Oct. 21; Gaz. vol. 195; p. 712.
Vestibule-diaphragm and support therefor. J. E. Muhlfeld. No. 1,074,731; Oct. 7; Gaz. vol. 195; p. 50.
Veterinary medicine. J. T. Slusher. No. 1,074,655; Oct. 7; Gaz. vol. 195; p. 24.
Violin-players, Attachment for. C. F. Fredrikson. No. 1,074,939; Oct. 7; Gaz. vol. 195; p. 119.
Viscose in a granular, soluble, and stable condition and preparing the same, Dry. H. Lyncke. No. 1,074,881; Oct. 7; Gaz. vol. 195; p. 99.
Vise. G. W. Smith. No. 1,075,506; Oct. 14; Gaz. vol. 195; p. 344.
Voting-machine. J. H. McElroy. No. 1,075,718; Oct. 14; Gaz. vol. 195; p. 416.
Voting-machine. I. Waterman. No. 1,076,088; Oct. 21; Gaz. vol. 195; p. 570.
Wagon. G. W. Myers. No. 1,074,971; Oct. 7; Gaz. vol. 195; p. 129.
Wagon. J. C. and J. J. Raum. No. 1,075,378; Oct. 14; Gaz. vol. 195; p. 300.
Wagon, Duplex dirt-. N. B. McGhee and R. K. Acuff. No. 1,075,926; Oct. 14; Gaz. vol. 195; p. 487.
Wagon, Harrow-truck. F. N. Sundberg. No. 1,074,991; Oct. 7; Gaz. vol. 195; p. 137.
Wagon-seat. L. A. Larson. No. 1,074,960; Oct. 7; Gaz vol. 195; p. 126.
Waist adjuster, Garment-. A. K. Hurst. No. 1,076,370; Oct. 21; Gaz. vol. 195; p. 668.
Wallet. O. F. Merwin. No. 1,076,836; Oct. 28; Gaz. vol. 195; p. 886.
Walls and ceilings, Key-base for side. R. D. Weakley. No. 1,076,725; Oct. 28; Gaz. vol. 195; p. 847.
Wardrobe, Knockdown. E. N. Johnson. No. 1,075,478; Oct. 14; Gaz. vol. 195; p. 335.
Wardrobe, Portable. F. F. McGuire. No. 1,075,298; Oct. 7; Gaz. vol. 195; p. 247.
Warp-threads into the heddles, Device for the purpose of threading the. O. von Meyenburg. No. 1,076,598; Oct. 21; Gaz. vol. 195; p. 749.
Washer: *See* Bottle-washer; Gas-generator washer; Nut-washer.
Washer. J. F. Butler. No. 1,075,760; Oct. 14; Gaz. vol. 195; p. 430.
Washing and wringing machines, Operating mechanism for. R. B. Goodrich. No. 1,076,413; Oct. 14; Gaz. vol. 195; p. 312.
Washing apparatus. J. R. Smith. No. 1,075,734; Oct. 14; Gaz. vol. 195; p. 422.
Washing-machine. B. J. Reid. No. 1,074,740; Oct. 7; Gaz. vol. 195; p. 53.
Washing-machine. W. H. Stahl. No. 1,076,247; Oct. 21; Gaz. vol. 195; p. 624.
Washing-machine, Cylinder. H. W. Darrow. No. 1,077,043; Oct. 28; Gaz. vol. 195; p. 960.
Washing-machine driving mechanism. O. H. Watkins. No. 1,075,175; Oct. 7; Gaz. vol. 195; p. 202.
Washing-machine gearing. J. I. Woodruff. No. 1,076,089; Oct. 21; Gaz. vol. 195; p. 571.
Watch. W. E. Porter. No. 1,074,976; Oct. 7; Gaz. vol. 195; p. 131.
Watch. M. Sporleder. No. 1,076,072; Oct. 21; Gaz. vol. 195; p. 564.
Watch-fob. R. B. Whitehead. No. 1,077,025; Oct. 28; Gaz. vol. 195; p. 954.
Watch-support. A. Bannatyne. No. 1,074,767; Oct. 7; Gaz. vol. 195; p. 62.
Watches, Balance-staff for. T. Sokolowski. No. 1,075,887; Oct. 14; Gaz. vol. 195; p. 304.
Water-closet. J. P. Cowan. No. 1,077,221; Oct. 28; Gaz. vol. 195; p. 1014.
Water cut-off, Automatic. S. O. Thompson. No. 1,075,675; Oct. 14; Gaz. vol. 195; p. 402.
Water-gage. F. W. Walraven and C. E. Cahlins. No. 1,075,881; Oct. 14; Gaz. vol. 195; p. 471.
Water-heater. S. Ellis. No. 1,076,274; Oct. 21; Gaz. vol. 195; p. 633.
Water-heater. F. W. Reese. No. 1,077,160; Oct. 28; Gaz. vol. 195; p. 994.
Water-heater, Electric. R. C. Boyer. No. 1,077,085; Oct. 28; Gaz. vol. 195; p. 956.
Water-heating device. J. C. Reissling. No. 1,074,741; Oct. 7; Gaz. vol. 195; p. 53.
Water-jet ejector. D. B. Morison. No. 1,076,600; Oct. 21; Gaz. vol. 195; p. 750.
Water-meter. G. B. Bassett. No. 1,077,116; Oct. 28; Gaz. vol. 195; p. 981.
Water purification. J. W. Hammett. No. 1,077,065; Oct. 28; Gaz. vol. 195; p. 967.
Water-trap. W. I. Staaf. No. 1,076,324; Oct. 21; Gaz. vol. 195; p. 652.
Waterproof composition. N. Forni. No. 1,075,697; Oct. 7; Gaz. vol. 195; p. 175.
Wave-motor. B. C. Shipman. No. 1,076,844; Oct. 28; Gaz. vol. 195; p. 888.
Wave-motor. D. R. Olmsted. No. 1,077,156; Oct. 28; Gaz. vol. 195; p. 993.
Wax melting and sealing device. M. Fournier and G. H. Jackson. No. 1,075,775; Oct. 14; Gaz. vol. 195; p. 425.
Web-replenishing machine. E. F. Hathaway and C. Lea. No. 1,075,712; Oct. 14; Gaz. vol. 195; p. 413.
Webbing-holder. A. S. Howard. No. 1,076,635; Oct. 21; Gaz. vol. 195; p. 763.
Weeder and cultivator, Rotary. A. E. and H. F. Vrooman. No. 1,076,398; Oct. 21; Gaz. vol. 195; p. 678.
Weft grooving and beveling machine. H. Lyon. No. 1,074,726; Oct. 7; Gaz. vol. 195; p. 48.
Weighing apparatus, Automatic. P. Edtbauer. No. 1,074,611; Oct. 7; Gaz. vol. 195; p. 8.
Weighing apparatus for granular irregularly-running material, Counting device of automatic. M. E. Beisert. No. 1,075,379; Oct. 14; Gaz. vol. 195; p. 301.
Weighing determined adjustable quantities of materials, Automatic apparatus for. I. Steiner. No. 1,075,872; Oct. 14; Gaz. vol. 195; p. 468.
Welding. E. Thomson. No. 1,076,467; Oct. 21; Gaz. vol. 195; p. 702.
Welding barrels, Device for. S. B. Eckert. No. 1,076,106; Oct. 21; Gaz. vol. 195; p. 577.
Welding-machine. J. H. Gravell. No. 1,075,209; Oct. 7; Gaz. vol. 195; p. 214.
Welding-machine. T. E. Crecelius. No. 1,076,271; Oct. 21; Gaz. vol. 195; p. 631.
Well-boring drill. M. T. McKee. No. 1,075,843; Oct. 14; Gaz. vol. 195; p. 459.
Well-cleaning device. J. F. Kilburn. No. 1,075,261; Oct. 7; Gaz. vol. 195; p. 234.
Well-drill wrench. G. F. Lebus. No. 1,076,379; Oct. 21; Gaz. vol. 195; p. 671.
Well-drilling apparatus. W. J. Travers. No. 1,076,469; Oct. 21; Gaz. vol. 195; p. 703.
Well, Tube-. T. A. M. Brownlie. No. 1,075,326; Oct. 14; Gaz. vol. 195; p. 281.
Wells, Apparatus for hoisting liquids from. D. D. McCall. No. 1,077,088; Oct. 28; Gaz. vol. 195; p. 978.
Welt, Box for holding rolls of. C. P. Stanbon. No. 1,076,073; Oct. 21; Gaz. vol. 195; p. 565.
Wheel: *See* Automobile-wheel; Demountable wheel; Fly-wheel; Resilient wheel; Road-wheel; Self-lubricating wheel; Spring-wheel; Traction-wheel; Trolley-wheel; Turbine wheel; Vehicle-wheel; Vehicle and like wheel.
Wheel. T. L. Cook. No. 1,075,241; Oct. 7; Gaz. vol. 195; p. 225.
Wheel. K. Knudsen. No. 1,075,655; Oct. 14; Gaz. vol. 195; p. 395.
Wheel. W. E. Babbitt. No. 1,076,735; Oct. 28; Gaz. vol. 195; p. 850.
Wheel-lubricator, Vehicle. L. D'amours. No. 1,075,551; Oct. 14; Gaz. vol. 195; p. 360.

Wheel-rim, Detachable vehicle. A. Schick. No. 1,076,238; Oct. 21; Gaz. vol. 195; p. 621.
Wheel-rim, Vehicle. E. C. Shaw. No. 1,077,233; Oct. 28; Gaz. vol. 195; p. 1019.
Wheel structure. R. Macrae. No. 1,075,717; Oct. 14; Gaz. vol. 195; p. 415.
Wheel with multiple and balanced rims. H. Lotte. No. 1,076,591; Oct. 21; Gaz. vol. 195; p. 747.
Wheels, Separable rim for automobile-. W. M. Wirth. No. 1,076,730; Oct. 28; Gaz. vol. 195; p. 849.
Whiffletree. B. F. Cummings. No. 1,076,352; Oct. 21; Gaz. vol. 195; p. 662.
Wick raising and lowering device. H. Jungjohann. No. 1,074,868; Oct. 7; Gaz. vol. 195; p. 95.
Wind-shield. P. J. Bernard and J. Boyle. No. 1,075,754; Oct. 14; Gaz. vol. 195; p. 428.
Wind-shield lock-joint. J. F. Curry. No. 1,074,839; Oct. 7; Gaz. vol. 195; p. 85.
Wind-shield lock-joint. A. Krah. No. 1,074,958; Oct. 7; Gaz. vol. 195; p. 125.
Windmill. J. O'Toole. No. 1,075,060; Oct. 7; Gaz. vol. 195; p. 163.
Windmill. J. Serramoglia and E. Middleton. No. 1,075,994; Oct. 14; Gaz. vol. 195; p. 511.
Windmill attachment. S. W. Vaught. No. 1,076,251; Oct. 21; Gaz. vol. 195; p. 625.
Winding apparatus. J. G. P. Thomas. No. 1,076,614; Oct. 21; Gaz. vol. 195; p. 755.
Winding-machine. A. I. Harvey and C. Ryden. No. 1,076,574; Oct. 21; Gaz. vol. 195; p. 741.
Winding-machine. H. M. Sprecher. No. 1,076,920; Oct. 28; Gaz. vol. 195; p. 916.
Winding-machines, &c., Traverse mechanism for. G. W. Foster. No. 1,075,286; Oct. 7; Gaz. vol. 195; p. 243.
Window. A. R. Le Grue. No. 1,075,833; Oct. 14; Gaz. vol. 195; p. 456.
Window. C. A. Johnson. No. 1,076,767; Oct. 28; Gaz. vol. 195; p. 861.
Window. E. F. Chaffee. No. 1,077,039; Oct. 28; Gaz. vol. 195; p. 958.
Window and door, Metallic. A. L. Lambert. No. 1,074,631; Oct. 7; Gaz. vol. 195; p. 15.
Window-cleaning attachment for automobile wind-shields and the like. V. T. Houghton. No. 1,075,915; Oct. 14; Gaz. vol. 195; p. 484.
Window, Counterbalanced. J. S. Doyle. No. 1,076,753; Oct. 28; Gaz. vol. 195; p. 857.
Window-frame. F. E. Frisbee. No. 1,076,567; Oct. 21; Gaz. vol. 195; p. 738.
Window-furnishing. C. C. Vosburgh. No. 1,076,086; Oct. 21; Gaz. vol. 195; p. 570.
Window rain-shield. C. P. Orth. No. 1,075,058; Oct. 7; Gaz. vol. 195; p. 163.
Window-screen. R. S. Foster. No. 1,074,938; Oct. 7; Gaz. vol. 195; p. 119.
Window-screen. P. Illes. No. 1,074,952; Oct. 7; Gaz. vol. 195; p. 123.
Window-screen. G. W. Norton. No. 1,076,693; Oct. 28; Gaz. vol. 195; p. 836.
Window, Sheet-metal. A. W. Eckberg and C. Stohlberg. No. 1,074,702; Oct. 7; Gaz. vol. 195; p. 41.
Window-ventilator. W. J. Dixon. No. 1,075,967; Oct. 14; Gaz. vol. 195; p. 501.
Windows in series, Mechanism for operating. J. Whitehead. No. 1,075,618; Oct. 14; Gaz. vol. 195; p. 382.
Wire cloth or screen machine. O. W. Childs. No. 1,077,040; Oct. 28; Gaz. vol. 195; p. 958.
Wire coating and spooling machine. M. D. Shiverick. No. 1,076,526; Oct. 21; Gaz. vol. 195; p. 723.
Wire-fabric-making machine. W. A. Kilmer. No. 1,076,831; Oct. 28; Gaz. vol. 195; p. 884.
Wire rods, Apparatus for coiling, coating, and cooling. V. E. Edwards. No. 1,075,702; Oct. 14; Gaz. vol. 195; p. 410.
Wire-splicer. E. Martin. No. 1,074,884; Oct. 7; Gaz. vol. 195; p. 100.
Wire-splicer. F. R. Clark. No. 1,075,333; Oct. 14; Gaz. vol. 195; p. 283.
Wire-straightener, Rotary. J. J. Conlon. No. 1,075,282; Oct. 7; Gaz. vol. 195; p. 241.
Wire-stretcher. P. C. Dean. No. 1,075,337; Oct. 14; Gaz. vol. 195; p. 285.
Wire tie for bags, bales, bundles, and packages. J. S. Slosson. No. 1,076,245; Oct. 21; Gaz. vol. 195; p. 623.
Wires, Drawing refractory. A. J. Liebmann. No. 1,076,590; Oct. 21; Gaz. vol. 195; p. 746.
Wireless duplex system. R. Pfund. No. 1,076,312; Oct. 21; Gaz. vol. 195; p. 648.
Wood and other fibrous materials, Method and apparatus for digesting. J. C. W. Stanley. No. 1,075,795; Oct. 14; Gaz. vol. 195; p. 442.
Wood, Impregnating. L. Dautreppe. No. 1,076,553; Oct. 21; Gaz. vol. 195; p. 733.
Wood, Preserving. W. Schoeller and W. Schrauth. No. 1,076,322; Oct. 21; Gaz. vol. 195; p. 651.
Wood product. J. A. De Cew. No. 1,075,552; Oct. 14; Gaz. vol. 195; p. 360.
Woodworking-clamp. E. K. F. Seidel. No. 1,075,384; Oct. 14; Gaz. vol. 195; p. 303.
Work-tables, Collapsible support for. O. Maier and G. J. Metz. No. 1,075,115; Oct. 7; Gaz. vol. 195; p. 180.
Woven fabric. H. Le Doux and J. K. Dalkranian. No. 1,077,227; Oct. 28; Gaz. vol. 195; p. 1016.
Woven tubular tie. J. C. Gaynor. No. 1,075,249; Oct. 7; Gaz. vol. 195; p. 228.
Wrappers around rectangular tablets, Machine for folding. F. Grover. No. 1,075,033; Oct. 7; Gaz. vol. 195; p. 153.
Wrapping-machine. S. I. Prescott. No. 1,075,224; Oct. 7; Gaz. vol. 195; p. 219.
Wrapping-machine. P. J. Baur. No. 1,075,684; Oct. 14; Gaz. vol. 195; p. 405.
Wrench: *See* Nut and pipe wrench; Pipe-wrench; Ratchet-wrench; Spanner-wrench; Well-drill wrench.
Wrench. C. Andersen. No. 1,074,594; Oct. 7; Gaz. vol. 195; p. 3.
Wrench. R. P. Habel. No. 1,075,100; Oct. 7; Gaz. vol. 195; p. 176.
Wrench. H. Moon. No. 1,075,434; Oct. 14; Gaz. vol. 195; p. 319.
Wrench. R. W. Sturdy. No. 1,075,516; Oct. 14; Gaz. vol. 195; p. 348.
Wrench. G. B. Perkins. No. 1,075,850; Oct. 14; Gaz. vol. 195; p. 461.
Wrench. J. A. Schiehr. No. 1,075,945; Oct. 14; Gaz. vol. 195; p. 493.
Wrench. C. Rush. No. 1,076,319; Oct. 21; Gaz. vol. 195; p. 650.
Wrench. O. W. Seipel. No. 1,076,793; Oct. 28; Gaz. vol. 195; p. 871.
Wrench and pipe-cutter, Combination. A Hill. No. 1,075,649; Oct. 14; Gaz. vol. 195; p. 394.
Wringer: *See* Mop-wringer.
Yoke, Draft-gear. C. J. Nash. No. 1,074,733; Oct. 7; Gaz. vol. 195; p. 51.
Yoke for draft-gear. C. A. Carscadin and G. A. Woodman. No. 1,076,663; Oct. 28; Gaz. vol. 195; p. 824.
Yoke for draft-gear. C. A. Carscadin and G. A. Woodman. No. 1,076,866; Oct. 28; Gaz. vol. 195; p. 897.

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Armband. R. A. Moore. No. 44,716; Oct. 7; Gaz. vol. 195; p. 260.
Automobile-body. L. E. French. No. 44,760; Oct. 21; Gaz. vol. 195; p. 795.
Basket, Woven palm-leaf. B. M. Chester. No. 44,747; Oct. 21; Gaz. vol. 195; p. 792.
Bath cabinet, Vapor-. J. F. Kruse. No. 44,767; Oct. 21; Gaz. vol. 195; p. 796.
Bathing-cap. E. A. Guinzburg. No. 44,783; Oct. 28; Gaz. vol. 195; p. 1025.
Blanket or couch-cover. A. R. Jacobs. No. 44,725; Oct. 14; Gaz. vol. 195; p. 519.
Blouse, Child's. L. D. Zell. No. 44,718; Oct. 7; Gaz. vol. 195; p. 260.
Bridle-cheek. F. C. Monier. No. 44,771; Oct. 21; Gaz. vol. 195; p. 797.
Carpet. W. A. Elliot. Nos. 44,781–2; Oct. 28; Gaz. vol. 195; p. 1025.
Carpet. H. C. Lacouture. No. 44,784; Oct. 28; Gaz. vol. 195; p. 1025.
Carpet. J. Merry. Nos. 44,791–2; Oct. 28; Gaz. vol. 195; pp. 1026–7.
Carpet. R. F. Riddell. No. 44,806; Oct. 28; Gaz. vol. 195; p. 1029.
Carpet. F. Schindler. No. 44,819; Oct. 28; Gaz. vol. 195; p. 1032.
Carpet. W. A. Spring. Nos. 44,824–5; Oct. 28; Gaz. vol. 195; p. 1033.
Casket, Burial-. J. Martincsak. No. 44,769; Oct. 21; Gaz. vol. 195; p. 796.
Chair. H. Eckerson. No. 44,752; Oct. 21; Gaz. vol. 195; p. 793.
Chair, Reclining-. P. V. Martino. No. 44,728; Oct. 14; Gaz. vol. 195; p. 520.
Chairs or similar articles, Bottom for. L. Stickley. No. 44,776; Oct. 21; Gaz. vol. 195; p. 798.
Churn-frame. R. B. Disbrow and C. M. Carlson. No. 44,750; Oct. 21; Gaz. vol. 195; p. 793.
Clothes-line fastener. J. Murphy. No. 44,730; Oct. 14; Gaz. vol. 195; p. 520.
Desk. H. J. Merle. No. 44,770; Oct. 21; Gaz. vol. 195; p. 797.
Dolls, One-piece stamped cape and hood for. R. Gross. No. 44,761; Oct. 21; Gaz. vol. 195; p. 795.
Dresser, chiffonnier, or similar article. S. L. Bond. No. 44,745; Oct. 21; Gaz. vol. 195; p. 792.
Embroidery-alphabet. A. Lichinger. No. 44,727; Oct. 14; Gaz. vol. 195; p. 519.
Engine casting, Multicylinder-. W. Kelly. No. 44,726; Oct. 14; Gaz. vol. 195; p. 519.
Fabric, Metallic. A. A. McRae. No. 44,729; Oct. 14; Gaz. vol. 195; p. 520.
Filing-cabinet. J. C. Dando. No. 44,748; Oct. 21; Gaz. vol. 195; p. 792.
Gem-settings, Base for. T. Mountford. No. 44,796; Oct. 28; Gaz. vol. 195; p. 1027.
Gems, Setting for. T. Mountford. No. 44,797; Oct. 28; Gaz. vol. 195; p. 1027.
Glass dish or similar article, Cut-. W. P. Feeney. Nos. 44,753–4; Oct. 21; Gaz. vol. 195; pp. 793–4.
Glass jar. R. Haley. Nos. 44,762–5; Oct. 21; Gaz. vol. 195; pp. 795–6.
Glass shade for lights. K. Booth. Nos. 44,720–2; Oct. 14; Gaz. vol. 195; pp. 518–19.
Glass, Sheet-. J. S. Walsh. Nos. 44,739–40; Oct. 14; Gaz. vol. 195; p. 522.
Glass vessel. G. Truog, Jr. No. 44,717; Oct. 7; Gaz. vol. 195; p. 260.
Grave-marker. H. T. Brockman. No. 44,746; Oct. 21; Gaz. vol. 195; p. 792.
Jewel-case. A. J. Flauder. No. 44,715; Oct. 7; Gaz. vol. 195; p. 260.
Jewel-case. A. J. Flauder. No. 44,755; Oct. 21; Gaz. vol. 195; p. 794.
Jewel-case. L. Weidlich. Nos. 44,777–9; Oct. 21; Gaz. vol. 195; p. 798.
Jug or similar article. W. H. Redington. No. 44,732; Oct. 14; Gaz. vol. 195; p. 520.
Lamp-shade. L. H. Nash. No. 44,731; Oct. 14; Gaz. vol. 195; p. 520.
Lamp-standard. M. Daving. No. 44,749; Oct. 21; Gaz. vol. 195; p. 793.
Leather or like material. R. W. Owen. No. 44,772; Oct. 21; Gaz. vol. 195; p. 797.
Lorgnette. M. C. Foster. Nos. 44,756–9; Oct. 21; Gaz. vol. 195; pp. 794–5.
Motor-housing and gear-case, Combined. J. C. Steiner. No. 44,775; Oct. 21; Gaz. vol. 195; p. 797.
Pencil-tip. J. Scharl. No. 44,818; Oct. 28; Gaz. vol. 195; p. 1032.
Plate, Cut and engraved transparent. H. P. Sinclaire. No. 44,774; Oct. 21; Gaz. vol. 195; p. 797.
Printing-press stand. F. H. Quade, Jr. No. 44,773; Oct. 21; Gaz. vol. 195; p. 797.
Pump-body. J. B. Garber. No. 44,724; Oct. 14; Gaz. vol. 195; p. 519.
Range, Electric. J. I. Ayer. No. 44,719; Oct. 14; Gaz. vol. 195; p. 518.
Rug. W. A. Elliot. No. 44,780; Oct. 28; Gaz. vol. 195; p. 1024.
Rug. J. Merry. Nos. 44,785–90; Oct. 28; Gaz. vol. 195; pp. 1025–6.
Rug. J. Merry. Nos. 44,793–5; Oct. 28; Gaz. vol. 195; p. 1027.
Rug. R. F. Riddell. Nos. 44,798–805; Oct. 28; Gaz. vol. 195; pp. 1028–9.
Rug. R. F. Riddell. No. 44,807; Oct. 28; Gaz. vol. 195; p. 1030.
Rug. E. G. Sauer. Nos. 44,808–17; Oct. 28; Gaz. vol. 195; pp. 1030–1.
Rug. F. Schindler. No. 44,820; Oct. 28; Gaz. vol. 195; p. 1032.
Rug. J. Spring. No. 44,821; Oct. 28; Gaz. vol. 195; p. 1032.
Rug. W. Spring. Nos. 44,822–3; Oct. 28; Gaz. vol. 195; pp. 1032–3.
Rug. I. J. Vetter. Nos. 44,826–30; Oct. 28; Gaz. vol. 195; pp. 1033–4.
Signal-device casing. E. Auflero. No. 44,744; Oct. 21; Gaz. vol. 195; p. 791.
Speedometer or odometer casing. R. H. Manson. No. 44,768; Oct. 21; Gaz. vol. 195; p. 796.
Spoon-knife, Fruit. E. M. Stubbs. No. 44,737; Oct. 14; Gaz. vol. 195; p. 521.
Stove fire-pot section and base. A. A. Specht. No. 44,733; Oct. 14; Gaz. vol. 195; p. 520.
Structure, Portable. W. W. Taylor. No. 44,738; Oct. 14; Gaz. vol. 195; p. 521.
Tire. G. E. Starr. Nos. 44,734–6; Oct. 14; Gaz. vol. 195; p. 521.
Tire-support, Automobile. G. F. Discher. No. 44,751; Oct. 21; Gaz. vol. 195; p. 793.
Tire, Vehicle-. W. W. Duncan. No. 44,723; Oct. 14; Gaz. vol. 195; p. 519.
Toy figure. R. H. Whitcomb. No. 44,742; Oct. 14; Gaz. vol. 195; p. 522.
Toy receptacle for confections. G. R. West. No. 44,741; Oct. 14; Gaz. vol. 195; p. 522.
Type-writing-machine frame. J. Alexander. No. 44,743; Oct. 21; Gaz. vol. 195; p. 791.
Window-ventilator. A. V. Keyrouse. No. 44,766; Oct. 21; Gaz. vol. 195; p. 796.

ALPHABETICAL LIST OF TRADE-MARKS.

Addressing-machines, Stencil. Wallace Addressing Machine Company. No. 94,039; Oct. 28; Gaz. vol. 195; p. 1047.
Aerials and aerial structures, transformers, &c. Gesellschaft für drahtlose Telegraphie m. b. H. No. 93,710; Oct. 14; Gaz. vol. 195; p. 534.
Alcohol, Wood-. Berry Brothers. No. 93,628; Oct. 7; Gaz. vol. 195; p. 271.
Alterative, disinfectant, tonic, &c. W. T. Kendrick. No. 94,001; Oct. 28; Gaz. vol. 195; p. 1046.
Aluminum ware. Geo. Borgfeldt & Co. Nos. 93,674–5; Oct. 14; Gaz. vol. 195; p. 533.
Antiseptic. F. Schwerz. No. 93,646; Oct. 7; Gaz. vol. 195; p. 271.
Apparel, Certain named wearing-. Burberrys. No. 93,819; Oct. 21; Gaz. vol. 195; p. 811.
Apples and peaches, Fresh. Potomac Fruit Growers Club. No. 93,906; Oct. 21; Gaz. vol. 195; p. 814.
Ash-receivers and match-holders. J. H. Astruck. No. 93,807; Oct. 21; Gaz. vol. 195; p. 811.
Automobile and horse-drawn-vehicle springs. J. H. Graham. No. 93,712; Oct. 14; Gaz. vol. 195; p. 534.
Automobile-trucks. Federal Motor Truck Co. No. 93,837; Oct. 21; Gaz. vol. 195; p. 812.
Automobiles, motor cycles, trucks, and wagons, and bicycles. Chipman Limited. No. 93,689; Oct. 14; Gaz. vol. 195; p. 534.
Bags, Traveling-. R. M. Colgate. No. 93,690; Oct. 14; Gaz. vol. 195; p. 534.
Baking-powder. E. F. Lomelino. No. 93,875; Oct. 21; Gaz. vol. 195; p. 813.
Ball bats, Base-. J. F. Hillerich & Son Company. No. 93,722; Oct. 14; Gaz. vol. 195; p. 535.
Bedspreads and counterpanes. Monument Mills. Nos. 93,741–2; Oct. 14; Gaz. vol. 195; p. 535.
Beverages, Non-intoxicating carbonated tonic. C. O. McGraw. No. 93,738; Oct. 14; Gaz. vol. 195; p. 535.
Beverages, Syrup for. J. L. Tyler. No. 94,034; Oct. 28; Gaz. vol. 195; p. 1047.
Bicycle, tricycle, &c., pedals. The Standard Company. Nos. 93,768–9; Oct. 14; Gaz. vol. 195; p. 536.
Billiard and pool tables, combinations of, and accessories for same. The E. T. Burrowes Company. No. 93,684; Oct. 14; Gaz. vol. 195; p. 534.
Biscuit. Johnson Educator Food Company. No. 93,858; Oct. 21; Gaz. vol. 195; p. 813.
Blankets. The Beckman Company. No. 93,671; Oct. 14; Gaz. vol. 195; p. 533.
Blocks, Children's letter-. Baker & Bennett Co. No. 93,668; Oct. 14; Gaz. vol. 195; p. 533.
Books, prints, and pamphlets, Printed. The Rawfant Bindery Company. No. 93,756; Oct. 14; Gaz. vol. 195; p. 536.
Boots and shoes, Leather. F. Mayer Boot & Shoe Co. No. 93,882; Oct. 21; Gaz. vol. 195; p. 813.
Boots, shoes, and slippers. Roblee-Wass Shoe Company. No. 93,909; Oct. 21; Gaz. vol. 195; p. 814.
Boots, shoes, pumps, and slippers. Boyden Shoe Manufacturing Company. No. 93,816; Oct. 21; Gaz. vol. 195; p. 811.
Brandy. Gautier Frères. No. 93,841; Oct. 21; Gaz. vol. 195; p. 812.
Bread. Young & Swain Baking Co. No. 93,653; Oct. 7; Gaz. vol. 195; p. 271.
Bread. C. Hoffmann. No. 93,848; Oct. 21; Gaz. vol. 195; p. 812.
Bread. Pratt Bread Company. No. 93,907; Oct. 21; Gaz. vol. 195; p. 814.
Bread. W. Schwartz. No. 93,927; Oct. 21; Gaz. vol. 195; p. 814.
Brushes. Wadsworth, Howland & Co. No. 93,943; Oct. 21; Gaz. vol. 195; p. 815.
Brushes, Tooth-. A. J. McDonagh. No. 93,883; Oct. 21; Gaz. vol. 195; p. 813.
Bunting, Unbleached. Carson, Pirie, Scott & Co. No. 93,822; Oct. 21; Gaz. vol. 195; p. 811.
Butter. Bellville Promoting Co. No. 93,809; Oct. 21; Gaz. vol. 195; p. 811.
Buttons, Collar-. Parks Bros. & Rogers. Nos. 93,750–1; Oct. 14; Gaz. vol. 195; p. 536.
Cables and ropes. Broderick & Bascom Rope Company. No. 93,682; Oct. 14; Gaz. vol. 195; p. 533.
Cables and ropes. Broderick & Bascom Rope Company. No. 93,962; Oct. 28; Gaz. vol. 195; p. 1045.
Cake, Fruit-. Collin Street Bakery. No. 93,826; Oct. 21; Gaz. vol. 195; p. 812.
Cakes and cookies. Perfection Biscuit Company. No. 93,903; Oct. 21; Gaz. vol. 195; p. 814.
Calendar and collection of mottos. Barse and Hopkins. No. 93,626; Oct. 7; Gaz. vol. 195; p. 271.
Cameras. Chicago Ferrotype Co. Nos. 93,966–7; Oct. 28; Gaz. vol. 195; p. 1045.
Candies. Park & Tilford. No. 93,641; Oct. 7; Gaz. vol. 195; p. 271.
Candies. B. Allegretti. No. 93,799; Oct. 21; Gaz. vol. 195; p. 811.
Candies. Wallace & Co. No. 94,038; Oct. 28; Gaz. vol. 195; p. 1047.
Candy. Oliver-Finnie Co. No. 93,896; Oct. 21; Gaz. vol. 195; p. 814.
Candy. Geo. H. Fritz & Sons. No. 93,982; Oct. 28; Gaz. vol. 195; p. 1045.
Candy. Johnson Biscuit Co. No. 93,999; Oct. 28; Gaz. vol. 195; p. 1046.
Canned fruits. The J. K. Armsby Co. No. 93,806; Oct. 21; Gaz. vol. 195; p. 811.
Canned fruits and vegetables. W. A. Godfrey. No. 93,844; Oct. 21; Gaz. vol. 195; p. 812.
Canned goods, coffee, and tomato catsup. Consolidated Grocery Company. No. 93,827; Oct. 21; Gaz. vol. 195; p. 812.
Canned ham. P. Jörn. No. 93,860; Oct. 21; Gaz. vol. 195; p. 813.
Canned peaches, plums, apricots, pears, and cherries. Libby, McNeill & Libby. No. 94,008; Oct. 28; Gaz. vol. 195; p. 1046.
Canned pork and beans in tomato sauce. C. C. McDonald. No. 93,737; Oct. 14; Gaz. vol. 195; p. 535.
Canned salmon. Hoonah Packing Company. No. 93,854; Oct. 21; Gaz. vol. 195; p. 812.
Canned sardines and tunny-fish. M. Amieux & Cie. No. 93,802; Oct. 21; Gaz. vol. 195; p. 811.
Canned vegetables. Kokomo Canning Company. No. 93,871; Oct. 21; Gaz. vol. 195; p. 813.
Caramels and kisses. American Caramel Co. No. 93,800; Oct. 21; Gaz. vol. 195; p. 811.
Carbonizing compounds, disinfectants, &c. E. F. Houghton & Company. No. 93,995; Oct. 28; Gaz. vol. 195; p. 1046.
Chains, Metal. Gibson's Limited. No. 93,711; Oct. 14; Gaz. vol. 195; p. 534.
Cheese. W. E. Harvey. No. 93,991; Oct. 28; Gaz. vol. 195; p. 1046.
Chicle substitute. United States Chicle Refining Company. No. 93,939; Oct. 21; Gaz. vol. 195; p. 815.
Chocolate and olive-oil. San Antonio Drug Co. No. 93,911; Oct. 21; Gaz. vol. 195; p. 814.
Chocolate creams. C. S. Ball. No. 93,957; Oct. 28; Gaz. vol. 195; p. 1045.
Chocolates. Westmoreland Candy Company. No. 94,041; Oct. 28; Gaz. vol. 195; p. 1047.
Cigarette-paper. William Demuth & Company. No. 93,703; Oct. 14; Gaz. vol. 195; p. 534.
Cigars. Jaynes Drug Company. Nos. 93,727–8; Oct. 14; Gaz. vol. 195; p. 535.
Cigars and stogies. The Highland Cigar Company. No. 93,721; Oct. 14; Gaz. vol. 195; p. 535.
Cleaning compound. C. D. Williams. No. 93,947; Oct. 21; Gaz. vol. 195; p. 815.
Clocks. Yankee Wizard Clock Company. No. 93,790; Oct. 14; Gaz. vol. 195; p. 537.
Clothes-lines. Columbian Rope Co. No. 93,691; Oct. 14; Gaz. vol. 195; p. 534.
Clothing, Certain named. Army & Navy Co-Operative Company. No. 93,805; Oct. 21; Gaz. vol. 195; p. 811.
Coal. Clear Creek Coal Company. No. 93,825; Oct. 21; Gaz. vol. 195; p. 812.
Coal. Lumaghi Coal Company. No. 93,879; Oct. 21; Gaz. vol. 195; p. 813.
Coats, trousers, vests, hats, and caps. Studd & Millington. No. 93,936; Oct. 21; Gaz. vol. 195; p. 815.
Cocks, faucets, and valves, Compression-. A. C. Brown. No. 93,683; Oct. 14; Gaz. vol. 195; p. 534.
Coffee. J. A. Folger & Company. No. 93,631; Oct. 7; Gaz. vol. 195; p. 271.
Coffee. The G. B. Farrington Company. No. 93,980; Oct. 28; Gaz. vol. 195; p. 1045.
Coffee and tea pots. The James Heekin Company. No. 93,719; Oct. 14; Gaz. vol. 195; p. 535.
Coffee, tea, flavoring extracts, spices, and cocoa. F. C. Kip. No. 94,003; Oct. 28; Gaz. vol. 195; p. 1046.
Coffee, tea, macaroni, and noodles. Myles Standish Company. No. 93,890; Oct. 21; Gaz. vol. 195; p. 813.
Coffee, tea, spices, and flavoring extracts. Dwight Edwards Company. No. 93,834; Oct. 21; Gaz. vol. 195; p. 812.
Coloring materials for painters' use. Vereinigte Chemische Fabriken, Landau, Kreidl, Heller & Co. No. 93,784; Oct. 14; Gaz. vol. 195; p. 537.
Comforts, blankets, nainsook, and long-cloth. L. S. Ayres and Company. No. 93,667; Oct. 14; Gaz. vol. 195; p. 533.

Cooking apparatus and parts thereof, Egg-. W. E. Curtis. No. 93,696; Oct. 14; Gaz. vol. 195; p. 534.
Corn-flies. N. E. Sibley. No. 93,931; Oct. 21; Gaz. vol. 195; p. 815.
Corn-plasters. H. G. Seyfarth. No. 93,763; Oct. 14; Gaz. vol. 195; p. 536.
Corn-plasters and foot-powders. The Scholl Manufacturing Company. No. 94,031; Oct. 28; Gaz. vol. 195; p. 1047.
Cornmeal. Gross & Company. No. 93,845; Oct. 21; Gaz. vol. 195; p. 812.
Corsets. A. E. Gifford. No. 93,843; Oct. 21; Gaz. vol. 195; p. 812.
Corsets and corset-waists. Birdsey-Somers Co. No. 93,812; Oct. 21; Gaz. vol. 195; p. 811.
Cotton and jute bagging. M. M. Graves Company. No. 93,714; Oct. 14; Gaz. vol. 195; p. 534.
Cotton and wool piece goods. J. B. Ellison & Sons. No. 93,835; Oct. 21; Gaz. vol. 195; p. 812.
Cotton cloth. American Lady Corset Company. No. 93,657; Oct. 14; Gaz. vol. 195; p. 533.
Cotton piece goods. Tremont & Suffolk Mills. No. 93,779; Oct. 14; Gaz. vol. 195; p. 536.
Cotton piece goods, Bleached. Carson, Pirie, Scott & Co. No. 93,685; Oct. 14; Gaz. vol. 195; p. 534.
Crackers and biscuits. Johnson Biscuit Company. No. 93,635; Oct. 7; Gaz. vol. 195; p. 271.
Cravats. Mueller-Carter Neckwear Company. No. 93,745; Oct. 14; Gaz. vol. 195; p. 535.
Cream, Cold-. Richard Hudnut. No. 93,996; Oct. 28; Gaz. vol. 195; p. 1046.
Cream, Deodorizing cold-. J. B. Johnson. No. 94,000; Oct. 28; Gaz. vol. 195; p. 1046.
Crucibles and cupels. Graphites-Maskar Société Anonyme. No. 93,713; Oct. 14; Gaz. vol. 195; p. 534.
Cultivators. Parlin & Orendorff Co. No. 93,901; Oct. 21; Gaz. vol. 195; p. 814.
Dental powder. B. H. Kershaw. No. 94,002; Oct. 28; Gaz. vol. 195; p. 1046.
Dress-shields. M. Barrow. No. 93,669; Oct. 14; Gaz. vol. 195; p. 533.
Dress-shields. I. B. Kleinert Rubber Company. No. 93,732; Oct. 14; Gaz. vol. 195; p. 535.
Drinks, Non-alcoholic. Simpson Spring Company. No. 93,765; Oct. 14; Gaz. vol. 195; p. 536.
Dyes and other named chemicals, Anilin. Badische Anilin- & Soda-Fabrik. No. 93,955; Oct. 28; Gaz. vol. 195; p. 1045.
Electric fan and power motors, exhaust-fans, &c. The Peerless Electric Company. No. 94,027; Oct. 28; Gaz. vol. 195; p. 1047.
Electrical apparatus and supplies, Certain named. C. Conradty. Nos. 93,694–5; Oct. 14; Gaz. vol. 195; p. 534.
Electrical apparatus and supplies, Certain named. Mohawk Electrical Supply Company. No. 93,740; Oct. 14; Gaz. vol. 195; p. 535.
Electrical apparatus, Certain named. The James Bailey Company. No. 93,956; Oct. 28; Gaz. vol. 195; p. 1045.
Envelops and writing-paper. Hogan Envelope Company. No. 93,993; Oct. 28; Gaz. vol. 195; p. 1046.
Eyes, Artificial. Standard Optical Co. No. 93,773; Oct. 14; Gaz. vol. 195; p. 536.
Fat-reducing preparation. H. C. Lederer. No. 93,873; Oct. 21; Gaz. vol. 195; p. 813.
Figs, dried fruits, and nuts. E. D. Day. No. 93,973; Oct. 28; Gaz. vol. 195; p. 1045.
Fireworks. E. H. Wagner. No. 94,036; Oct. 28; Gaz. vol. 195; p. 1047.
Flavoring extracts for syrups. Lainfiesta & Co. No. 94,006; Oct. 28; Gaz. vol. 195; p. 1046.
Flavoring extracts, rice, wheat-flour, &c. Oklahoma Supply Co. No. 93,895; Oct. 21; Gaz. vol. 195; p. 814.
Flavoring for cake-icings, Combination of. S. Gumpert & Co. No. 93,846; Oct. 21; Gaz. vol. 195; p. 812.
Floors of reinforced concrete, Hollow. The Concrete Flooring Company. No. 93,692; Oct. 14; Gaz. vol. 195; p. 534.
Flour, Graham. Nashville Roller Mills. No. 93,640; Oct. 7; Gaz. vol. 195; p. 271.
Flour, Self-rising. H. C. Cole Milling Co. No. 93,969; Oct. 28; Gaz. vol. 195; p. 1045.
Flour, Wheat-. Arkadelphia Milling Co. No. 93,804; Oct. 21; Gaz. vol. 195; p. 811.
Flour, Wheat-. J. F. Imbs Milling Company. No. 93,856; Oct. 21; Gaz. vol. 195; p. 812.
Flour, Wheat-. Pillsbury Flour Mills Company. No. 93,904; Oct. 21; Gaz. vol. 195; p. 814.
Flour, Wheat-. Valier & Spies Milling Co. No. 93,940; Oct. 21; Gaz. vol. 195; p. 815.
Flour, Wheat-. Centennial Mill Co. No. 93,965; Oct. 28; Gaz. vol. 195; p. 1045.
Flour, Wheat-. H. Cohen. No. 93,968; Oct. 28; Gaz. vol. 195; p. 1045.
Flour, Wheat-. R. T. Smyth & Co. No. 94,033; Oct. 28; Gaz. vol. 195; p. 1047.
Flowers, Artificial. Austro-Hungarian Art Co. No. 93,662; Oct. 14; Gaz. vol. 195; p. 533.
Food drink. Dr. A. Wander, A-G. No. 93,650; Oct. 7; Gaz. vol. 195; p. 271.
Foods, Certain. Meyer & Lange. No. 93,885; Oct. 21; Gaz. vol. 195; p. 813.
Foods, Certain named. Rowntree and Company. No. 93,644; Oct. 7; Gaz. vol. 195; p. 271.
Foods, Certain named. Klauber Wangenheim Co. No. 93,731; Oct. 14; Gaz. vol. 195; p. 535.
Foods, Certain named. Meyer & Lange. No. 93,739; Oct. 14; Gaz. vol. 195; p. 535.
Foods, Certain named. Fleming & Christian Co. No. 93,839; Oct. 21; Gaz. vol. 195; p. 812.
Foods, Certain named. John F. Latta Company. No. 94,007; Oct. 28; Gaz. vol. 195; p. 1046.
Foods, Certain named. Muller Bros. No. 94,019; Oct. 28; Gaz. vol. 195; p. 1047.
Foods, Certain named. Nave McCord Mercantile Co. No. 94,021; Oct. 28; Gaz. vol. 195; p. 1047.
Fruits and raisins, Dried. C. G. Bonner. No. 93,629; Oct. 7; Gaz. vol. 195; p. 271.
Fruits, Citrus. Mt. Dora Citrus Growers Association. No. 93,744; Oct. 14; Gaz. vol. 195; p. 535.
Fruits, Fresh. H. N. Nichols. No. 94,022; Oct. 28; Gaz. vol. 195; p. 1047.
Fuel compound for explosive-engines. The Inter-Lube Chemical Company. No. 93,726; Oct. 14; Gaz. vol. 195; p. 535.
Fur wearing-apparel. Kohn & Baer. No. 93,870; Oct. 21; Gaz. vol. 195; p. 813.
Games and sports, Certain accessories used in athletic. Victor Sporting Goods Company. No. 93,941; Oct. 21; Gaz. vol. 195; p. 815.
Garments, Certain named. William Hollins & Company. Nos. 93,851–2; Oct. 21; Gaz. vol. 195; p. 812.
Gelatin. Charles B. Knox Company. No. 93,868; Oct. 21; Gaz. vol. 195; p. 813.
Gelatin. C. B. Knox Company. No. 94,004; Oct. 28; Gaz. vol. 195; p. 1046.
Gin. Adams, Taylor & Co. No. 93,952; Oct. 28; Gaz. vol. 195; p. 1045.
Gloves. M. G. Luchs. Nos. 93,877–8; Oct. 21; Gaz. vol. 195; p. 813.
Gloves. Marshall Field & Company. No. 93,881; Oct. 21; Gaz. vol. 195; p. 813.
Gloves and mittens. The Dempster & Place Company. No. 93,829; Oct. 21; Gaz. vol. 195; p. 812.
Gloves, Leather. Carson Glove Co. No. 93,820; Oct. 21; Gaz. vol. 195; p. 811.
Gum, Chewing-. W. J. White Chicle Co. No. 93,946; Oct. 21; Gaz. vol. 195; p. 815.
Gums, Adhesive. J. L. Hopkins & Co. No. 93,994; Oct. 28; Gaz. vol. 195; p. 1046.
Hair, dentifrice, &c., Preparations for improving and dyeing. Barclay & Barclay. No. 93,625; Oct. 7; Gaz. vol. 195; p. 271.
Hair-nets. Geo. Borgfeldt & Co. Nos. 93,676–9; Oct. 14; Gaz. vol. 195; p. 533.
Hair-nets. Berg Bros. Nos. 93,810–11; Oct. 21; Gaz. vol. 195; p. 811.
Hair-nets. Geo. Borgfeldt & Co. Nos. 93,813–14; Oct. 21; Gaz. vol. 195; p. 811.
Hair-nets. Silverberg Import Co. No. 93,932; Oct. 21; Gaz. vol. 195; p. 815.
Hair, Preparation for restoring the natural color to the. R. G. Edwards. No. 93,630; Oct. 7; Gaz. vol. 195; p. 271.
Hair-tonic, shampoo-powder, dental cream, &c. J. M. Pitkin & Co. No. 93,905; Oct. 21; Gaz. vol. 195; p. 814.
Hair-tonics. The Yvette Co. No. 93,792; Oct. 14; Gaz. vol. 195; p. 537.
Handkerchiefs. S. Eckstein. No. 93,833; Oct. 21; Gaz. vol. 195; p. 812.
Hats. The One-Profit Hat Company. No. 93,897; Oct. 21; Gaz. vol. 195; p. 814.
Hay-presses. J. W. M. Neatherland. No. 93,746; Oct. 14; Gaz. vol. 195; p. 535.
Hooks and eyes. Peet Bros. No. 93,752; Oct. 14; Gaz. vol. 195; p. 536.
Horns, Motor-vehicle. Lee Tire & Rubber Co. No. 93,733; Oct. 14; Gaz. vol. 195; p. 535.
Hosiery. The Dormer Brothers Co. No. 93,831; Oct. 21; Gaz. vol. 195; p. 812.
Hosiery. Taliaferro & Sherwood. No. 93,937; Oct. 21; Gaz. vol. 195; p. 815.
Hosiery. Western Dry Goods Co. No. 93,945; Oct. 21; Gaz. vol. 195; p. 815.
Hosiery and knitted underwear. E. M. Townsend & Co. No. 93,938; Oct. 21; Gaz. vol. 195; p. 815.
Ice-cream. H. L. Scott. No. 93,647; Oct. 7; Gaz. vol. 195; p. 271.
Ice-cream cones. W. McLaren. No. 93,639; Oct. 7; Gaz. vol. 195, p. 271.
Ink. L. E. Waterman Co. No. 93,785; Oct. 14; Gaz. vol. 195; p. 537.
Insect-destroying compound. Muskeetopunk Co. No. 94,020; Oct. 28; Gaz. vol. 195; p. 1047.
Insect-destroying preparations. Actien-Gesellschaft für Anilin-Fabrikation. No. 93,794; Oct. 21; Gaz. vol. 195; p. 811.
Jellies, fruit powders, &c., Food. Monkhouse and Glasscock. No. 93,887; Oct. 21; Gaz. vol. 195; p. 813.
Kerchiefs and handkerchiefs. J. Robinson & Company. No. 93,754; Oct. 14; Gaz. vol. 195; p. 536.
Kinematographic and photographic films and plates. Compagnie Générale des Etablissements Pathé Frères, Phonographe et Cinematographe. No. 93,971; Oct. 28; Gaz. vol. 195; p. 1045.
Knitted underwear. Dessauer & Engel. No. 93,830; Oct. 21; Gaz. vol. 195; p. 812.

Laces. Schaeffer & Company. No. 93,758; Oct. 14; Gaz. vol. 195; p. 536.
Laces, Machine-made linen. Birkin & Co. No. 93,673; Oct. 14; Gaz. vol. 195; p. 533.
Lamps, Incandescent electric. Societe La Mondaine. No. 93,933; Oct. 21; Gaz. vol. 195; p. 815.
Laxative. C. J. Dobrocinski. No. 93,976; Oct. 28; Gaz. vol. 195; p. 1045.
Leather-cleaning preparation. M. J. Saperston. No. 93,757; Oct. 14; Gaz. vol. 195; p. 536.
Leather, Patent side. New Castle Leather Co. No. 93,747; Oct. 14; Gaz. vol. 195; p. 535.
Leather, Suede. Castle Kid Co. No. 93,686; Oct. 14; Gaz. vol. 195; p. 534.
Liniment. J. A. Kimball. No. 93,637; Oct. 7; Gaz. vol. 195; p. 271.
Liniment. C. L. Brewer. No. 93,680; Oct. 14; Gaz. vol. 195; p. 533.
Liniment. D. Mottura. No. 94,018; Oct. 28; Gaz. vol. 195; p. 1047.
Liniment. The O'Sullivan Specialties Company. No. 94,025; Oct. 28; Gaz. vol. 195; p. 1047.
Liniment, tooth-paste, laxative, pills, &c. Scotch-Tone Remedy Co. No. 93,928; Oct. 21; Gaz. vol. 195; p. 814.
Liqueur. R. Vlahov. No. 93,942; Oct. 21; Gaz. vol. 195; p. 815.
Macaroni, rice, and kippered herring. The Laffray & Herrman Co. No. 93,872; Oct. 21; Gaz. vol. 195; p. 813.
Machinery and tools and parts thereof, Certain named. A/B B. A. Hjorth & Co. No. 93,992; Oct. 28; Gaz. vol. 195; p. 1046.
Magazine. Chained Lightning Publishing Co. No. 93,687; Oct. 14; Gaz. vol. 195; p. 534.
Magazine, Monthly. The Angus Company. No. 93,659; Oct. 14; Gaz. vol. 195; p. 533.
Mandolins. H. A. Weymann & Son. No. 93,788; Oct. 14; Gaz. vol. 195; p. 537.
Meal, coffee substitute, and breakfast food. Parent Seven Grain Food Company. No. 93,900; Oct. 21; Gaz. vol. 195; p. 814.
Medicated cotton-batting. The To-Kalon Manufacturing Company. No. 93,777; Oct. 14; Gaz. vol. 195; p. 536.
Medicinal bitters. H. Beimer. No. 93,958; Oct. 28; Gaz. vol. 195; p. 1045.
Medicinal lotion. H. B. Fox. No. 93,840; Oct. 21; Gaz. vol. 195; p. 812.
Medicinal preparation for the digestion. T. H. Harris. No. 93,990; Oct. 28; Gaz. vol. 195; p. 1046.
Medicinal preparations. J. P. Witt. No. 93,949; Oct. 21; Gaz. vol. 195; p. 815.
Metal, Babbitt. J. D. Streett & Company. No. 93,935; Oct. 21; Gaz. vol. 195; p. 815.
Metal sheets and strips. Zenite Metal Company. No. 93,793; Oct. 14; Gaz. vol. 195; p. 537.
Metals, Babbitt and antifriction. Great Western Smelting & Refining Co. No. 93,987; Oct. 28; Gaz. vol. 195; p. 1046.
Milk, Condensed. American Milk Company. No. 93,624; Oct. 7; Gaz. vol. 195; p. 271.
Molasses, Tuna. Reyes y Velasco. No. 93,643; Oct. 7; Gaz. vol. 195; p. 271.
Musical-instrument strings, drum and banjo heads. Lyon & Healy. No. 94,009; Oct. 28; Gaz. vol. 195; p. 1046.
Neckties, neckscarfs, and jabots. The Yorke Shirt Co. No. 93,791; Oct. 14; Gaz. vol. 195; p. 537.
Oats and corn for seeding purposes. A. E. Havens. No. 93,718; Oct. 14; Gaz. vol. 195; p. 535.
Oats and grain, grass and field seeds, Seed-. E. W. Conklin & Son. No. 93,693; Oct. 14; Gaz. vol. 195; p. 534.
Oil, Olive-. P. Sasso e Figli. No. 93,645; Oct. 7; Gaz. vol. 195; p. 271.
Oil, Olive-. A. Rossano. No. 93,910; Oct. 21; Gaz. vol. 195; p. 814.
Oil, Olive-. A. Merling. No. 94,014; Oct. 28; Gaz. vol. 195; p. 1046.
Oil, Polishing-. Troegerlith Tile Company. No. 93,780; Oct. 14; Gaz. vol. 195; p. 536.
Oils and greases, Lubricating. Chappell Oil & Grease Co. No. 93,888; Oct. 14; Gaz. vol. 195; p. 534.
Oils, Hydrocarbon. Otto Isenstein & Company. No. 93,998; Oct. 28; Gaz. vol. 195; p. 1046.
Oils, Lubricating-. Schilemann's Oil & Ceresine Company. No. 94,029; Oct. 28; Gaz. vol. 195; p. 1047.
Oiled cloth and linoleum. Pairuba Manufacturing Co. No. 93,749; Oct. 14; Gaz. vol. 195; p. 535.
Ointment. H. E. Stroud. No. 93,649; Oct. 7; Gaz. vol. 195; p. 271.
Ointment. Kalle & Co., Aktiengesellschaft. No. 93,861; Oct. 21; Gaz. vol. 195; p. 813.
Ointment. Masengill Bros. Company. No. 94,011; Oct. 28; Gaz. vol. 195; p. 1046.
Ointment or salve, Stock. J. W. Jones. No. 93,859; Oct. 21; Gaz. vol. 195; p. 813.
Ointment, Pile-. A. N. Eyslee. No. 93,979; Oct. 28; Gaz. vol. 195; p. 1045.
Oleomargarin. Wilkinson, Gaddis & Company. No. 93,651; Oct. 7; Gaz. vol. 195; p. 271.
Oleomargarin. The Ohio Butterine Co. No. 94,023; Oct. 28; Gaz. vol. 195; p. 1047.
Oranges, grape-fruit, and tangerines. South Florida Grapefruit Co. No. 93,648; Oct. 7; Gaz. vol. 195; p. 271.
Ovens, Bake-. Werner & Pfleiderer Co. No. 93,786; Oct. 14; Gaz. vol. 195; p. 537.
Overalls. Peerless Overall Co. No. 93,902; Oct. 21; Gaz. vol. 195; p. 814.
Overalls and overjackets. Anthracite Overall Mfg. Co. No. 93,803; Oct. 21; Gaz. vol. 195; p. 811.
Overalls, jumpers, and trousers. Sherman Overall Manufacturing Co. No. 93,929; Oct. 21; Gaz. vol. 195; p. 815.
Overalls, trousers, and shirts. Niagara Overall & Pants Co. No. 93,894; Oct. 21; Gaz. vol. 195; p. 814.
Paints. O. Johnson & Co. No. 93,729; Oct. 14; Gaz. vol. 195; p. 535.
Paints, enamels, japans, varnishes, and varnish-removers. Standard Varnish Works. No. 93,774; Oct. 14; Gaz. vol. 195; p. 536.
Paints, lacs, stains, enamels, varnishes, and fillers. Davies & Meacham. Nos. 93,699–702; Oct. 14; Gaz. vol. 195; p. 534.
Pajamas and negligée shirts. Knothe Brothers. No. 93,866; Oct. 21; Gaz. vol. 195; p. 813.
Pajamas, shirts, and night-shirts. Knothe Brothers. No. 93,865; Oct. 21; Gaz. vol. 195; p. 813.
Pajamas, shirts, and night-shirts. Knothe Brothers. No. 93,867; Oct. 21; Gaz. vol. 195; p. 813.
Paper boxes. A. Fleishhacker & Co. No. 93,707; Oct. 14; Gaz. vol. 195; p. 534.
Paper, Photographic printing-out. Eastman Kodak Company. Nos. 93,977–8; Oct. 28; Gaz. vol. 195; p. 1045.
Paper, Toilet-. Adirondack Tissue Paper Co. Nos. 93,795–6; Oct. 21; Gaz. vol. 195; p. 811.
Paper, Toilet-. Albany Perforated Wrapping Paper Company. Nos. 93,797–8; Oct. 21; Gaz. vol. 195; p. 811.
Paper, Toilet-. Klauber Wangenheim Co. No. 93,864; Oct. 21; Gaz. vol. 195; p. 813.
Paper, Toilet-. A. U. Morse. Nos. 93,888–9; Oct. 21; Gaz. vol. 195; p. 813.
Paper, Toilet-. Sauquoit Toilet Paper Co. Nos. 93,912–26; Oct. 21; Gaz. vol. 195; p. 814.
Paper, Toilet-. Sauquoit Toilet Paper Co. No. 94,028; Oct. 28; Gaz. vol. 195; p. 1047.
Paper, writing-paper, and envelops, Toilet-. The Imperial Merchandise Co. No. 93,857; Oct. 21; Gaz. vol. 195; p. 812.
Papers and magazines. Associated Farm Papers. No. 93,661; Oct. 14; Gaz. vol. 195; p. 533.
Peroxid of hydrogen. Commercial Chemical Company. No. 93,970; Oct. 28; Gaz. vol. 195; p. 1045.
Petroleum asphalt. Standard Oil Company. No. 93,771; Oct. 14; Gaz. vol. 195; p. 536.
Petroleum pitch. Standard Oil Company. No. 93,770; Oct. 14; Gaz. vol. 195; p. 536.
Petroleum, Refined. Standard Oil Company of New York. No. 93,772; Oct. 14; Gaz. vol. 195; p. 536.
Petticoats, rompers, and dresses, Children's. Carson, Pirie, Scott & Co. No. 93,821; Oct. 21; Gaz. vol. 195; p. 811.
Pharmaceutical preparation. P. R. Craig. No. 93,972; Oct. 28; Gaz. vol. 195; p. 1045.
Phonographs and reproducing devices connected therewith. Automatic Enunciator Co. No. 93,663; Oct. 14; Gaz. vol. 195; p. 533.
Picture films, Moving-. Directors Film Corporation. No. 93,975; Oct. 28; Gaz. vol. 195; p. 1045.
Pillow-sham holders. J. Oswald. No. 93,748; Oct. 14; Gaz. vol. 195; p. 535.
Pipes. R. A. Schoenberg. No. 94,090; Oct. 28; Gaz. vol. 195; p. 1047.
Pipes, Smokers'. A. Oppenheim & Co. No. 94,024; Oct. 28; Gaz. vol. 195; p. 1047.
Plumbing and steam-fitting supplies, Certain named. Locke Regulator Company. No. 93,735; Oct. 14; Gaz. vol. 195; p. 535.
Powder, cold-cream, and remedy for obesity, Toilet. R. J. Gates. No. 93,983; Oct. 28; Gaz. vol. 195; p. 1046.
Powder, Foot-. Vouplé Company. No. 94,035; Oct. 28; Gaz. vol. 195; p. 1047.
Powder, pastes, and hair preparations. Cosmetic. P. Beiersdorf & Co. No. 93,627; Oct. 7; Gaz. vol. 195; p. 271.
Powder, Toilet. E. R. Cabanski. No. 93,964; Oct. 28; Gaz. vol. 195; p. 1045.
Powders, Custard, egg, and blanc-mange. Alfred Bird and Sons. No. 93,906; Oct. 28; Gaz. vol. 195; p. 1045.
Preparation for driving away mosquitos. Potter & Rozlene. No. 93,642; Oct. 7; Gaz. vol. 195; p. 271.
Preparation for increasing the wearing properties of fabrics. M. H. Hecht. No. 93,634; Oct. 7; Gaz. vol. 195; p. 271.
Preparation for treating textile fabrics. E. F. Houghton & Company. No. 93,724; Oct. 14; Gaz. vol. 195; p. 535.
Preparations for the treatment of certain ailments and diseases. The Déclat Manufacturing Co. No. 93,828; Oct. 21; Gaz. vol. 195; p. 812.
Printing and duplicating apparatus, Stencil. J. Waller. No. 93,944; Oct. 21; Gaz. vol. 195; p. 815.
Railings, gates, and office-partitions. Art Metal Construction Co. No. 93,690; Oct. 14 Gaz. vol. 195; p. 535.
Rat and mice exterminator. The Modern Exterminator Co. No. 93,886; Oct. 21; Gaz. vol. 195; p. 813.
Razors. F. A. Koch & Co. No. 93,860; Oct. 21; Gaz. vol. 195; p. 813.
Razors, razor-blades, and shears. Matthews & Lively. No. 93,736; Oct. 14; Gaz. vol. 195; p. 535.

Refrigerators. Gurney Refrigerator Company. No. 93,715; Oct. 14; Gaz. vol. 195; p. 535.

Refrigerators and refrigerating machinery. United Refrigerator & Ice Machine Co. No. 93,783; Oct. 14; Gaz. vol. 195; p. 536.

Remedies for treatment of certain diseases, Certain. Dr. Bayer és társa. No. 93,670; Oct. 14; Gaz. vol. 195; p. 533.

Remedy for asthma and hay-fever. A. L. Earle. No. 93,704; Oct. 14; Gaz. vol. 195; p. 534.

Remedy for certain named diseases. J. A. Wülfing. No. 93,652; Oct. 7; Gaz. vol. 195; p. 271.

Remedy for certain named diseases and ailments. R. C. Wilson. No. 93,948; Oct. 21; Gaz. vol. 195; p. 815.

Remedy for constipation and hemorrholds. Glycerine Applicator Co. No. 93,985; Oct. 28; Gaz. vol. 195; p. 1046.

Remedy for dysentery and all stomach trouble. A. M. Labauve. No. 94,005; Oct. 28; Gaz. vol. 195; p. 1046.

Remedy for gall-stones. C. Haefner. No. 93,633; Oct. 7; Gaz. vol. 195; p. 271.

Remedy for headache and neuralgia. The Yum Company. No. 94,042; Oct. 28; Gaz. vol. 195; p. 1047.

Remedy for piles. Selip Manufacturing Company. No. 94,032; Oct. 28; Gaz. vol. 195; p. 1047.

Remedy for syphilis, rheumatism, eczema, &c. Wampine Medicine Company. No. 94,040; Oct. 28; Gaz. vol. 195; p. 1047.

Remedy for the treatment of Bright's disease and diabetes. C. Haefner. No. 93,716; Oct. 14; Gaz. vol. 195; p. 535.

Revolvers, pistols, rifles, guns, and ammunition. Smith & Wesson. Nos. 93,766–7; Oct. 14; Gaz. vol. 195; p. 536.

Ribbon. L. S. Ayres and Company. No. 93,666; Oct. 14; Gaz. vol. 195; p. 533.

Rubber boots, shoes, overshoes, &c. Hood Rubber Co. No. 93,853; Oct. 21; Gaz. vol. 195; p. 812.

Rubber coats. Boston Rubber Company. No. 93,815; Oct. 21; Gaz. vol. 195; p. 811.

Rubber tubing, hose, belting, and machinery packing. J. W. Buckley Rubber Co. No. 93,818; Oct. 21; Gaz. vol. 195; p. 811.

Ruche-supporters. Joseph W. Schloss Co. No. 93,759; Oct. 14; Gaz. vol. 195; p. 536.

Safety-deposit boxes. Art Metal Construction Co. No. 93,953; Oct. 28; Gaz. vol. 195; p. 1045.

Salt. The Lyons Salt Co. No. 94,010; Oct. 28; Gaz. vol. 195; p. 1046.

Salt in powdered form, Onion. The National Onion Salt Company. Nos. 93,891–2; Oct. 21; Gaz. vol. 195; p. 813.

Salve. Hamilton & Haile. No. 93,989; Oct. 28; Gaz. vol. 195; p. 1046.

Salve, face-cream, laxative tablets, bitter tonic, &c. W. Jordan. No. 93,636; Oct. 7; Gaz. vol. 195; p. 271.

Salve, Foot-. H. H. Mayer. No. 94,012; Oct. 28; Gaz. vol. 195; p. 1046.

Salves. Furst Salve Co. No. 93,632; Oct. 7; Gaz. vol. 195; p. 271.

Scales. The Avery Scale Company. No. 93,808; Oct. 21; Gaz. vol. 195; p. 811.

Screen wire-cloth. American Wire Fabrics Company. No. 93,658; Oct. 14; Gaz. vol. 195; p. 533.

Seeds. A. E. Shultz. No. 93,930; Oct. 21; Gaz. vol. 195; p. 815.

Shampoo preparation, Dry-. A. M. Wiseman. No. 93,789; Oct. 14; Gaz. vol. 195; p. 537.

Sheets, pillow-cases, rugs, &c. William Hollins & Company. No. 93,723; Oct. 14; Gaz. vol. 195; p. 535.

Shipping-cases, Metallic. The Metallic Shipping Case Corporation. No. 94,015; Oct. 28; Gaz. vol. 195; p. 1046.

Shirts. Oppenheim, Oberndorf & Co. No. 93,898; Oct. 21; Gaz. vol. 195; p. 814.

Shirts, Work-. London & Hyman. No. 93,876; Oct. 21; Gaz. vol. 195; p. 813.

Shoes, Leather. The Brown Shoe Co. No. 93,817; Oct. 21; Gaz. vol. 195; p. 811.

Silk, linen, &c., piece fabrics. Atuyer, Blanchini, Ferier. No. 93,954; Oct. 28; Gaz. vol. 195; p. 1045.

Silk piece goods. Roehlen-Pittenger Silk Co. No. 93,755; Oct. 14; Gaz. vol. 195; p. 536.

Silk piece goods. Wahnetah Silk Company. No. 94,037; Oct. 28; Gaz. vol. 195; p. 1047.

Silos. Monolithic Silo & Construction Company. No. 94,017; Oct. 28; Gaz. vol. 195; p. 1047.

Slippers, Bedroom-. M. G. Fetterman. No. 93,838; Oct. 21; Gaz. vol. 195; p. 812.

Soap. Druggists' Co-operative Association. No. 93,832; Oct. 21; Gaz. vol. 195; p. 812.

Soap. Hydrox Chemical Company. No. 93,855; Oct. 21; Gaz. vol. 195; p. 812.

Soap. A. Letts. No. 93,874; Oct. 21; Gaz. vol. 195; p. 813.

Soap. O-Shu-Co Soap Company. No. 93,899; Oct. 21; Gaz. vol. 195; p. 814.

Soap. Regesan Ltd. No. 93,908; Oct. 21; Gaz. vol. 195; p. 814.

Soap, Cleaning-. W. C. Casey. No. 93,823; Oct. 21; Gaz. vol. 195; p. 812.

Soap, Toilet. Empire Soap Company. No. 93,836; Oct. 21; Gaz. vol. 195; p. 812.

Soap, Toilet. R. J. Gates. No. 93,842; Oct. 21; Gaz. vol. 195; p. 812.

Starch, wax, sizing, and bleaches, Laundry. The Alden Speare's Sons Co. No. 93,934; Oct. 21; Gaz. vol. 195; p. 815.

Stationery, paper, books, binders, and holders. S. C. Toof & Co. No. 93,778; Oct. 14; Gaz. vol. 195; p. 536.

Steel and steel wire. Kayser, Ellison & Co. No. 93,863; Oct. 21; Gaz. vol. 195; p. 813.

Steel in bar and rod for tool manufacture. J. Neill & Co. No. 93,893; Oct. 21; Gaz. vol. 195; p. 814.

Steel, Tool-. Halcomb Steel Company. No. 93,847; Oct. 21; Gaz. vol. 195; p. 812.

Stenciling fluid. A. B. Dick Company. No. 93,974; Oct. 28; Gaz. vol. 195; p. 1045.

Suits and overcoats, Men's. The Wonder Clothing Shop Co. No. 93,950; Oct. 21; Gaz. vol. 195; p. 815.

Sweeping compound. Cheshire Chemical Co. No. 93,824; Oct. 21; Gaz. vol. 195; p. 812.

Sweeping compound, Granular. The Lignum Chemical Works. No. 93,734; Oct. 14; Gaz. vol. 195; p. 535.

Synthetic sapphires. L. Heller & Son. No. 93,720; Oct. 14; Gaz. vol. 195; p. 535.

Syrup, Table-. Malt Food Products Company of Oswego, N. Y. No. 93,880; Oct. 21; Gaz. vol. 195; p. 813.

Tar colloids. Dr. Kereszty, Dr. Wolf és Tsa. Vegyészeti gyár R. T. No. 93,730; Oct. 14; Gaz. vol. 195; p. 535.

Tea and coffee. J. A. Folger & Company. No. 93,981; Oct. 28; Gaz. vol. 195; p. 1045.

Tea, coffee, and cocoa. P. R. Palethorpe. No. 94,026; Oct. 28; Gaz. vol. 195; p. 1047.

Thread and spool-cotton, Mercerized. Sea Island Thread Co. Nos. 93,760–2; Oct. 14; Gaz. vol. 195; p. 536.

Thread, Cotton. The Hughes Manfg. Co. No. 93,725; Oct. 14; Gaz. vol. 195; p. 535.

Tire-fillers. O. M. Mackie. No. 93,638; Oct. 7; Gaz. vol. 195; p. 271.

Tobacco, Twist and smoking. The Fluhrer Bros. Tobacco Company. No. 93,708; Oct. 14; Gaz. vol. 195; p. 534.

Toilet requisites, toilet and tooth powder, &c., Infants'. Geo. Borgfeldt & Co. No. 93,961; Oct. 28; Gaz. vol. 195; p. 1045.

Tonic beverages. Maysville Syrup Company. No. 94,013; Oct. 28; Gaz. vol. 195; p. 1046.

Tonic, pill, and ointment, Chill-. W. E. Bevens. No. 93,959; Oct. 28; Gaz. vol. 195; p. 1045.

Torpedoes, Hand-. Burmont Specialty Company. No. 93,963; Oct. 28; Gaz. vol. 195; p. 1045.

Tracing paper and cloth. E. Hassinger. No. 93,717; Oct. 14; Gaz. vol. 195; p. 535.

Traction-engine. Western Implement & Motor Company. No. 93,787; Oct. 14; Gaz. vol. 195; p. 537.

Trunks, traveling-bags, and suitcases. L. S. Ayres and Company. No. 93,664; Oct. 14; Gaz. vol. 195; p. 533.

Type, spaces, and quads. American Type Founders Company. No. 93,801; Oct. 21; Gaz. vol. 195; p. 811.

Umbrellas. L. S. Ayres and Company. No. 93,665; Oct. 14; Gaz. vol. 195; p. 533.

Umbrellas, parasols, and canes. W. H. Bechler. No. 93,672; Oct. 14; Gaz. vol. 195; p. 533.

Undergarments. Ye Lady's Outfitterie. No. 93,951; Oct. 21; Gaz. vol. 195; p. 815.

Underwear. F. W. Kavanaugh. No. 93,862; Oct. 21; Gaz. vol. 195; p. 813.

Varnish-remover. W. E. Brickman. No. 93,681; Oct. 14; Gaz. vol. 195; p. 533.

Vehicles and parts thereof, Certain named. Daimler-Motoren-Gesellschaft. Nos. 93,697–8; Oct. 14; Gaz. vol. 195; p. 534.

Veilings and nettings. T. Tiedemann & Sons. No. 93,776; Oct. 14; Gaz. vol. 195; p. 536.

Veterinary remedies. R. J. Gates. No. 93,984; Oct. 28; Gaz. vol. 195; p. 1046.

Wagon-dumps. The Meadows Mfg. Co. No. 93,884; Oct. 21; Gaz. vol. 195; p. 813.

Washing machines, Laundry-. Altorfer Bros. Company. Nos. 93,655–6; Oct. 14; Gaz. vol. 195; p. 533.

Watches and clocks. R. H. Ingersoll & Bro. No. 93,997; Oct. 28; Gaz. vol. 195; p. 1046.

Water-softener. Philo-Hay Specialties Co. No. 93,753; Oct. 14; Gaz. vol. 195; p. 536.

Waters, Sparkling table-. Mount Kisco Bottling Co. No. 93,743; Oct. 14; Gaz. vol. 195; p. 535.

Wheel coverings, Hand-. Goodyear Rubber Hose Company. No. 93,986; Oct. 28; Gaz. vol. 195; p. 1046.

Windows, sashes, frames, and fixtures. Simplex Window Co. No. 93,764; Oct. 14; Gaz. vol. 195; p. 536.

Wire. Felten & Guilleaume Carlswerk Actien-Gesellschaft. No. 93,706; Oct. 14; Gaz. vol. 195; p. 534.

Wire and wire strings for pianofortes, &c., Steel. Felten & Guilleaume Carlswerk Actien-Gesellschaft. No. 93,705; Oct. 14; Gaz. vol. 195; p. 534.

Wood-preserver, Liquid chemical. W. D. Foss. No. 93,709; Oct. 14; Gaz. vol. 195; p. 534.

Woolen cloth in the piece. Studd & Millington. No. 93,775; Oct. 14; Gaz. vol. 195; p. 536.

Woolen piece goods. A. I. Mitchell. No. 94,016; Oct. 28; Gaz. vol. 195; p. 1046.

Woolen, worsted, and cotton piece goods. R. W. Greer. No. 93,988; Oct. 28; Gaz. vol. 195; p. 1046.

Woolen, worsted, &c., piece goods. Aetna Mills. No. 93,654; Oct. 14; Gaz. vol. 195; p. 533.

Yarns. B. Ulmann & Co. Nos. 93,781–2; Oct. 14; Gaz. vol. 195; p. 536.

Zwieback and cookies. Holland Rusk Co. Nos. 93,849–50; Oct. 21; Gaz. vol. 195; p. 812.

ALPHABETICAL LIST OF LABELS.

"Alpine Lawn Fine Stationery." (For Stationery.) White & Wyckoff Mfg. Co. No. 17,309; Oct. 28; Gaz. vol. 195; p. 1048.

"Antiseptic French Lilac Toilet Water." (For Toilet Water.) W. D. P. Alms, Jr. No. 17,255; Oct. 7; Gaz. vol. 195; p. 272.

"Apollo Hosiery." (For Hosiery.) S. Block & Son. No. 17,282; Oct. 21; Gaz. vol. 195; p. 816.

"Auto-Inscribed." (For Music-Rolls.) National Music Roll Co. No. 17,267; Oct. 7; Gaz. vol. 195; p. 272.

"Ball Tosser." (For a Corn Confection.) L. W. Gertenrich. No. 17,257; Oct. 7; Gaz. vol. 195; p. 272.

"Balmacaan." (For Men's and Young Men's Overcoats and Rain-Coats.) S. W. Peck & Co. No. 17,269; Oct. 7; Gaz. vol. 195; p. 272.

"Bel Vor." (For Cigars.) A. C. Henschel & Co. No. 17,302; Oct. 28; Gaz. vol. 195; p. 1048.

"Butter Scotch Chips." (For Candy.) T. F. Henry. No. 17,261; Oct. 7; Gaz. vol. 195; p. 272.

"Butter Top Bread." (For Bread.) The Holland Baking Co. No. 17,295; Oct. 21; Gaz. vol. 195; p. 816.

"Campho-Mentho." (For a Remedy for Skin Diseases.) E. H. Waisdorf. No. 17,299; Oct. 21; Gaz. vol. 195; p. 816.

"Clean Bill." (For Cigars.) A. C. Henschel & Co. No. 17,285; Oct. 21; Gaz. vol. 195; p. 816.

"Country Club." (For Cigars.) A. C. Henschel & Co. No. 17,284; Oct. 21; Gaz. vol. 195; p. 816.

"Don Fernando." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,291; Oct. 21; Gaz. vol. 195; p. 816.

"Eddie's Everlasting Black Dye." (For a Liquid Dye.) E. J. Reilly. No. 17,271; Oct. 7; Gaz. vol. 195; p. 272.

"El Cetus." (For Cigars.) The Shelby Cigar Co. No. 17,272; Oct. 7; Gaz. vol. 195; p. 272.

"Esquisitos." (For Cigars.) American Lithographic Company. No. 17,279; Oct. 21; Gaz. vol. 195; p. 816.

"For Railroad Men and Mechanics." (For Overalls and Coats.) The Southern Overall Co. No. 17,308; Oct. 28; Gaz. vol. 195; p. 1048.

"Hand Lotion." (For a Hand-Lotion.) Grace Company. No. 17,258; Oct. 7; Gaz. vol. 195; p. 272.

"Havana Club." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,280; Oct. 21; Gaz. vol. 195; p. 816.

"Havana Token." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,287; Oct. 21; Gaz. vol. 195; p. 816.

"Hills Bros.' Blue Label Japan Tea." (For Tea.) Hills Bros. No. 17,294; Oct. 21; Gaz. vol. 195; p. 816.

"Home Diamond." (For Base-Ball Games.) L. Borkheim. No. 17,274; Oct. 14; Gaz. vol. 195; p. 538.

"Hygiene Tissue." (For Toilet-Paper.) The Peerless Manufacturing Company. No. 17,305; Oct. 28; Gaz. vol. 195; p. 1048.

"Iron City." (For Beer.) Pittsburgh Brewing Company. No. 17,270; Oct. 7; Gaz. vol. 195; p. 272.

"Justrite Overalls." (For Overalls and Work-Clothes.) The Cox Blodgett Dry Goods Company. No. 17,256; Oct. 7; Gaz. vol. 195; p. 272.

"Ka-Nu Corn Cure." (For Corn-Plasters.) F. M. Lang. No. 17,303; Oct. 28; Gaz. vol. 195; p. 1048.

"Korn-Kake." (For Corn-Cake.) Independent Biscuit Company. No. 17,262; Oct. 7; Gaz. vol. 195; p. 272.

"La Marquet Poudre De Riz." (For a Toilet Powder.) C. Londoner. No. 17,265; Oct. 7; Gaz. vol. 195; p. 272.

"Lautz Naphtha Soap Powder." (For a Soap Powder.) Lautz Bros. & Co. Nos. 17,263–4; Oct. 7; Gaz. vol. 195; p. 272.

"Lucas Silo Paint." (For Paint.) John Lucas & Co. No. 17,266; Oct. 7; Gaz. vol. 195; p. 272.

"Ma-Le-Na Shampoo Soap." (For a Shampoo-Soap.) C. F. York. No. 17,311; Oct. 28; Gaz. vol. 195; p. 1048.

"Master Record." (For Music-Rolls.) National Music Roll Co. No. 17,304; Oct. 28; Gaz. vol. 195; p. 1048.

"Natural Flavor." (For Cigars.) Central Cigar Box Co. No. 17,300; Oct. 28; Gaz. vol. 195; p. 1048.

"Orador." (For Cigars, Cigarettes, and Cheroots.) Schwartz & Gattle. No. 17,307; Oct. 28; Gaz. vol. 195; p. 1048.

"Pass-Time." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,290; Oct. 21; Gaz. vol. 195; p. 816.

"Popular Issue." (For Cigars.) Central Cigar Box Co. No. 17,301; Oct. 28; Gaz. vol. 195; p. 1048.

"R K P Brand." (For Pickles.) Pacific Preserve Co. No. 17,268; Oct. 7; Gaz. vol. 195; p. 272.

"Riepert's Butter-Milk Bred." (For Bread.) C. J. Riepert. No. 17,306; Oct. 28; Gaz. vol. 195; p. 1048.

"Riverside Linen Fine Stationery." (For Stationery.) White & Wyckoff Mfg. Co. No. 17,310; Oct. 28; Gaz. vol. 195; p. 1048.

"Rogers' Witch Hazel Cream." (For Toilet Cream.) W. G. Rogers. No. 17,297; Oct. 21; Gaz. vol. 195; p. 816.

"Romola." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,292; Oct. 21; Gaz. vol. 195; p. 816.

"Royal Blue Certified." (For Talking-Machine Needles.) F. C. Henderson Company. No. 17,260; Oct. 7; Gaz. vol. 195; p. 272.

"San Rey." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,286; Oct. 21; Gaz. vol. 195; p. 816.

"Shepard's House Fly Driver." (For a Preparation for the Extermination of Insects.) J. C. Shepard. No. 17,298; Oct. 21; Gaz. vol. 195; p. 816.

"Sliced Bacon." (For Bacon.) H. Barnes. No. 17,281; Oct. 21; Gaz. vol. 195; p. 816.

"Smoke Cigars." (For Cigars.) American Lithographic Company. Nos. 17,276–8; Oct. 21; Gaz. vol. 195; p. 816.

"Spar Eg-Get Grit." (For Spar Grit.) The Earth Products Co. No. 17,283; Oct. 21; Gaz. vol. 195; p. 816.

"Superiores." (For Cigars.) American Lithographic Company. No. 17,275; Oct. 21; Gaz. vol. 195; p. 816.

"The Messenger Bread." (For Bread.) Leder & Wechsler. No. 17,296; Oct. 21; Gaz. vol. 195; p. 816.

"The Star Border Salt." (For Salt.) Higbie Salt Company. No. 17,293; Oct. 21; Gaz. vol. 195; p. 816.

"To the Lady of the House: This is a Free Sample o. 'Seven Herbs.'" (For a Medicinal Compound.) E. L. D. Turner. No. 17,273; Oct. 7; Gaz. vol. 195; p. 272.

"Trust Fund." (For Cigars.) W. J. Armstrong Company. No. 17,280; Oct. 21; Gaz. vol. 195; p. 816.

"Variety Mints." (For Candy.) G. Haas & Sons. No. 17,259; Oct. 7; Gaz. vol. 195; p. 272.

"Wimo." (For Cigars.) C. B. Henschel Mfg. Co. No. 17,288; Oct. 21; Gaz. vol. 195; p. 816.

PRINTS.

"Brown's Mule Chewing Tobacco—Big Cut 5¢." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,392; Oct. 21; Gaz. vol. 195; p. 816.

"Eat Bread—more Bread." (For Bread and Yeast.) The Fleischmann Company. No. 3,394; Oct. 28; Gaz. vol. 195; p. 1048.

"Egg Tester Dr." (For an Egg-Tester.) W. Rigling. No. 3,402; Oct. 28; Gaz. vol. 195; p. 1048.

"Greendale 'Red-Rug.'" (For Bricks.) Hocking Valley Products Company. No. 3,389; Oct. 21; Gaz. vol. 195; p. 816.

"Greendale 'Rug.'" (For Bricks.) Hocking Valley Products Company. No. 3,390; Oct. 21; Gaz. vol. 195; p. 816.

"Healthy Children." (For Bread and Yeast.) The Fleischmann Company. No. 3,396; Oct. 28; Gaz. vol. 195; p. 1048.

"I don't want the Balance." (For an Egg-Tester.) W. Rigling. No. 3,404; Oct. 28; Gaz. vol. 195; p. 1048.

"Icy-Hot Bottles and Carafes." (For Heat-Insulated Bottles and Carafes.) The Icy Hot Bottle Company. No. 3,397; Oct. 28; Gaz. vol. 195; p. 1048.

"'Ivy' Corset." (For Corsets.) Corset H Company. No. 3,381; Oct. 7; Gaz. vol. 195; p. 272.

"Ka-Nu Corn Cure." (For Corn-Plasters.) F. N. Lang. No. 3,398; Oct. 28; Gaz. vol. 195; p. 1048.

"'Kayser' Leatherette Gloves." (For Gloves.) Julius Kayser & Co. Nos. 3,383–4; Oct. 7; Gaz. vol. 195; p. 272.

"Mother Earth's Adopted 'Sun.'" (For Incandescent Lamps.) General Electric Company. No. 3,388; Oct. 21; Gaz. vol. 195; p. 816.

"Our Platform." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,387; Oct. 21; Gaz. vol. 195; p. 816.

"Riepert's Butter-Milk Bred." (For Bread.) C. J. Riepert. No. 3,401; Oct. 28; Gaz. vol. 195; p. 1048.

"Soft and Sweet." (For Chewing-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,391; Oct. 21; Gaz. vol. 195; p. 816.

"The Grocers' & Customers' Detective." (For an Egg-Tester.) W. Rigling. No. 3,403; Oct. 28; Gaz. vol. 195; p. 1048.

"The President Union Shirt Suit." (For Union Suits.) President Shirt Co. No. 3,385; Oct. 7; Gaz. vol. 195; p. 272.

"The Ribbon Brand." (For Cigars.) W. B. Sauer Company. No. 3,400; Oct. 28; Gaz. vol. 195; p. 1048.

"The Working Man's Friend." (For Bread and Yeast.) The Fleischmann Company. No. 3,393; Oct. 28; Gaz. vol. 195; p. 1048.

"Tiger." (For Cycle-Cars.) W. A. De Schaum. No. 3,382; Oct. 7; Gaz. vol. 195; p. 272.

"Tobacco that answers every question." (For Smoking-Tobacco.) R. J. Reynolds Tobacco Company. No. 3,386; Oct. 7; Gaz. vol. 195; p. 272.

"Volcanic Oil Liniment of Dr. J. H. McLean." (For a Liniment.) The Dr. J. H. McLean Medicine Company. No. 3,399; Oct. 28; Gaz. vol. 195; p. 1048.

"Your Bread Basket." (For Bread and Yeast.) The Fleischmann Company. No. 3,395; Oct. 28; Gaz. vol. 195; p. 1048.

DISCLAIMERS.

Building-blocks, Machine for manufacturing hollow concrete. F. A. Borst and J. Groscop. No. 12,578, (reissue;) date of patent Dec. 18, 1906; disclaimer filed Oct. 10, 1913; Gaz. vol. 195; p. 820.

Electric apparatus, Vapor. C. O. Bastian and A. E. Salisbury. No. 954,407; date of patent Apr. 5, 1910; disclaimer filed Oct. 17, 1913; Gaz. vol. 195; p. 821.

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